June 2010

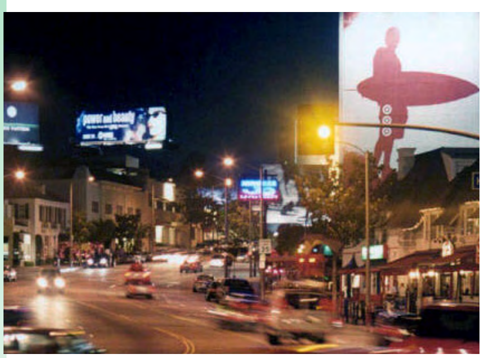
Public Review Draft
Program Environmental Impact Report
City of West Hollywood
General Plan and Climate Action Plan

Volume 2 - Appendices

State Clearinghouse # 2009091124

Lead Agency:
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Contact: Bianca Siegl
Associate Planner
310.848.6475
BSiegl@weho.org



Consultants to the City:
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Public Review Draft
Program Environmental Impact Report

City of West Hollywood General Plan

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APPENDIX A
NOTICE OF PREPARATION (NOP) AND
NOP COMMENT LETTERS

NOTICE OF PREPARATION

To: Interested Parties

From: City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Date: **September 30, 2009**

Subject: **Notice of Preparation of Draft Program Environmental Impact Report**

Project: **City of West Hollywood General Plan Update**

The City of West Hollywood, as the lead agency, is preparing an Environmental Impact Report (EIR) for the City of West Hollywood General Plan update. The purpose of this Notice of Preparation (NOP) is to inform agencies and the public that an EIR is being prepared for this project and to invite specific comments on the scope and content of the information to be included and analyzed in the EIR. Agencies should comment on the elements of the environmental information that are relevant to their statutory responsibilities in connection with the proposed project.

Due to the time limits mandated by state law, your response to this NOP should be received at the earliest possible date, **but not later than 30 days** after issuance of this notice, by 5:00 p.m. on October 29, 2009.

Please send your response to Bianca Siegl, Associate Planner, at the address shown below. The City will need the name of a contact person in your agency.

Bianca Siegl, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069
(323) 848-6475

Scoping Meeting: A scoping meeting will be held as part of the regularly scheduled Planning Commission meeting at West Hollywood Park Auditorium (647 North San Vicente Blvd.) on October 15, 2009 at 6:30 p.m. The scoping meeting will provide an opportunity for members of the public to learn about the project and provide their input to staff, the Planning Commission, and consultants regarding the scope and contents of the Draft EIR.

Project Location: Figure 1 depicts the regional location and Figure 2 depicts the planning area.

Project Description: The proposed project is the comprehensive update and implementation of the City of West Hollywood General Plan. West Hollywood is a built out city with limited room for new development or physical changes. The focus of the General Plan update is on preserving and enhancing the quality of life for residents while also allowing new development that supports the community's vision for the future.

The General Plan establishes a comprehensive community vision for West Hollywood with regard to land use, housing, circulation, open space/conservation, noise, economic development, public safety, community services and governance. As a blueprint for the future, the plan must contain policies and programs designed to provide decision-makers with a solid basis for decisions related to land use and development. The General Plan is founded upon the community's vision for West Hollywood and expresses the community's long-term goals.

To achieve the vision of the community, the General Plan defines long-term community goals and decision-making policies through text and maps in each of the elements. The General Plan update will also include implementation programs describing actions or strategies to help achieve the community's vision. The recommended implementation programs serve as the basis for future programming decisions related to the assignment of staff and expenditure of City funds.

The General Plan update is currently under development. Based on the preliminary work on the General Plan update, the document will address three basic questions. Each is discussed below.

The first question is: How do we preserve and enhance the neighborhoods and residential areas in West Hollywood? From the initial public outreach effort, the community has clearly expressed its desire to protect the existing quality and uniqueness of individual neighborhoods, to maintain and if possible increase the amount of affordable housing in the City, to provide for the continued diversity of the housing stock, and to renovate the aging housing stock. The above values must be accomplished while also allowing for sensitive infill development in existing residential areas. In addition, the General Plan update will develop policies for neighborhood preservation and enhancement.

The second question is: How does the City enhance West Hollywood's boulevards and districts in a way that improves the quality of life in the City, relieves development pressure on residential neighborhoods, maintains economic development, improves mobility, encourages transit-oriented development, and enhances the City? The areas that will be examined for potential land use or urban design changes are Sunset Blvd., La Brea Ave., Santa Monica Blvd., Beverly Blvd., Melrose Ave., La Cienega Blvd., Fairfax Ave., Fountain Avenue, and the Melrose Triangle area. Outside forces that will impact development in the community include the overall growth of the Los Angeles region, including the neighboring Cities of Los Angeles and Beverly Hills, population and demographic changes in the community, the potential development of a subway system through the City, and the City's ability to contribute to strategies that address global climate change. Each area may experience some limited development of a quality and character that is compatible with the surrounding commercial area and sensitive to the adjacent neighborhoods. The level of growth and change, the proposed land use designations, and the form of the built environment will be discussed and determined during the General Plan update process.

The third question is: How do we improve and enhance the quality of life and the identity of the City through General Plan programs and policies? The City of West Hollywood is widely recognized as a leader in social equity, sustainable development, housing and rent stabilization, and human services. A desired outcome of the General Plan is to develop the policy framework and identify specific programs that will continue and expand West Hollywood's leadership, innovation and quality of public service.

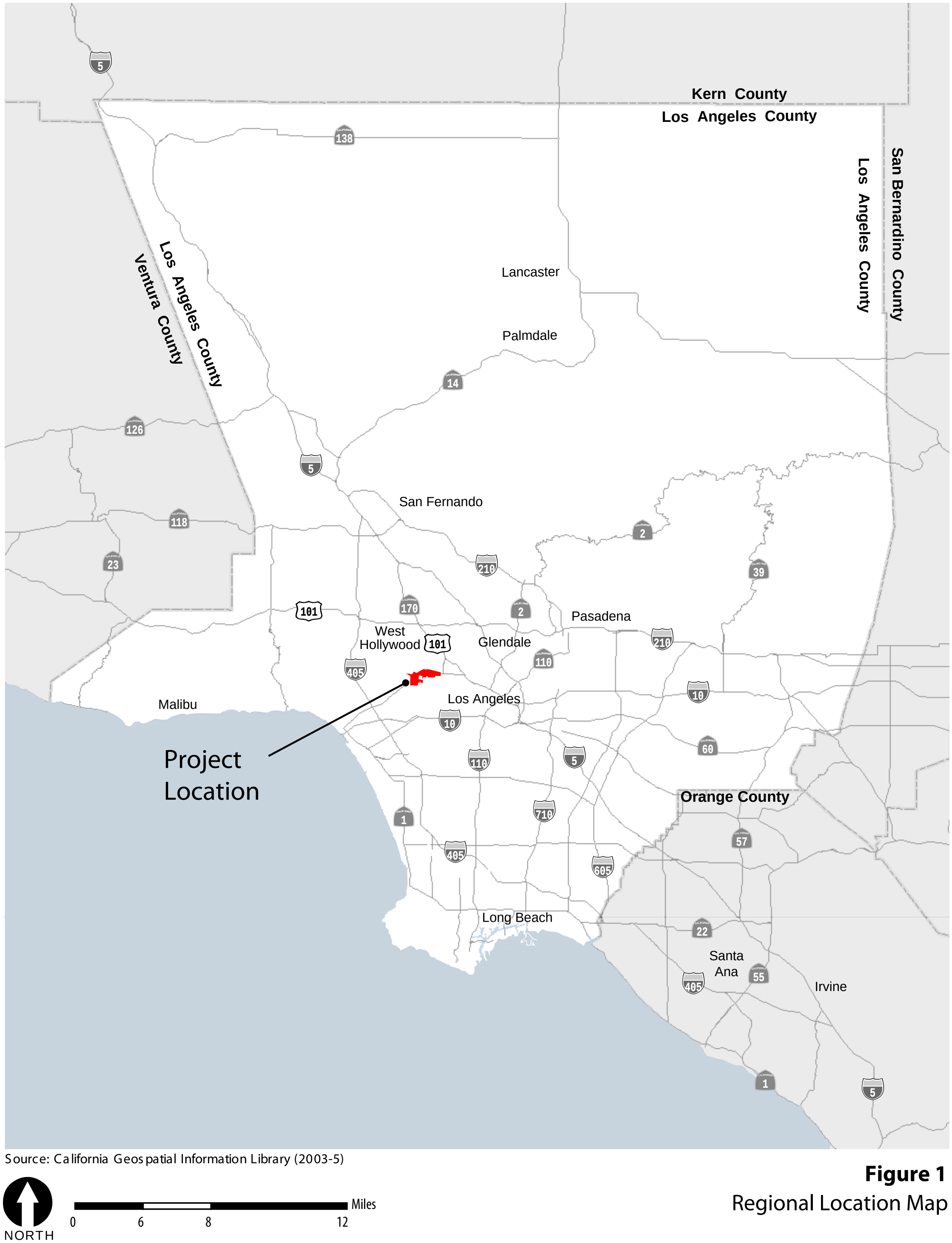
Topics that will be addressed in the General Plan update include the following:

- **Land Use** – The General Plan will set goals and policies for land use that address the above questions with a focus on maintaining neighborhood livability, enhancing commercial boulevards, and supporting sensitive infill development in our dense urban environment.

- **Transportation** – The General Plan will address multi-modal transportation facilities in the community including accommodating a future subway extension through the City, modifications to existing street network classifications, pass-through traffic through the City, parking, transit, and bicycle and pedestrian enhancements.
- **Housing** – The General Plan Update includes a comprehensive update of the Housing Element.
- **Historic preservation** – Program and policies will address existing and potential new historic structures and districts.
- **Sustainability** – The General Plan will focus on climate change, green buildings, energy use, alternative energy production, water use and solid waste. A Climate Action Plan will be prepared as an immediate implementation measure for the General Plan.
- **Human services and education** – Program and policies will be developed to maintain and enhance the wide diversity of social programs and services provided by the City for its residents.
- **Arts and culture** – Programs and policies for arts and culture will be included in the General Plan.
- **Parks and recreation** – The City is currently renovating it two largest parks – West Hollywood Park and Plummer Park. The General Plan will identify opportunities to increase parks and recreation facilities.
- **Health and active living** – Improving the physical environment in the City to improve opportunities for healthy, active lifestyles will be a focus of the General Plan. Topics that may be included in the plan are physical activity, respiratory health, and access to healthy foods.
- **Governance** – The General Plan will include policies and programs to improve the delivery of public facilities and services in the community.
- **Public Safety –** The General Plan will identify policies to ensure the continued high level of public safety and emergency preparedness in the City.

Potential Environmental Effects of the Project: These issues areas will be addressed in the Program EIR:

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources
- Climate Change
- Cultural Resources
- Geology/Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Services Systems



Source: California Geospatial Information Library (2003-5)

Figure 1
Regional Location Map

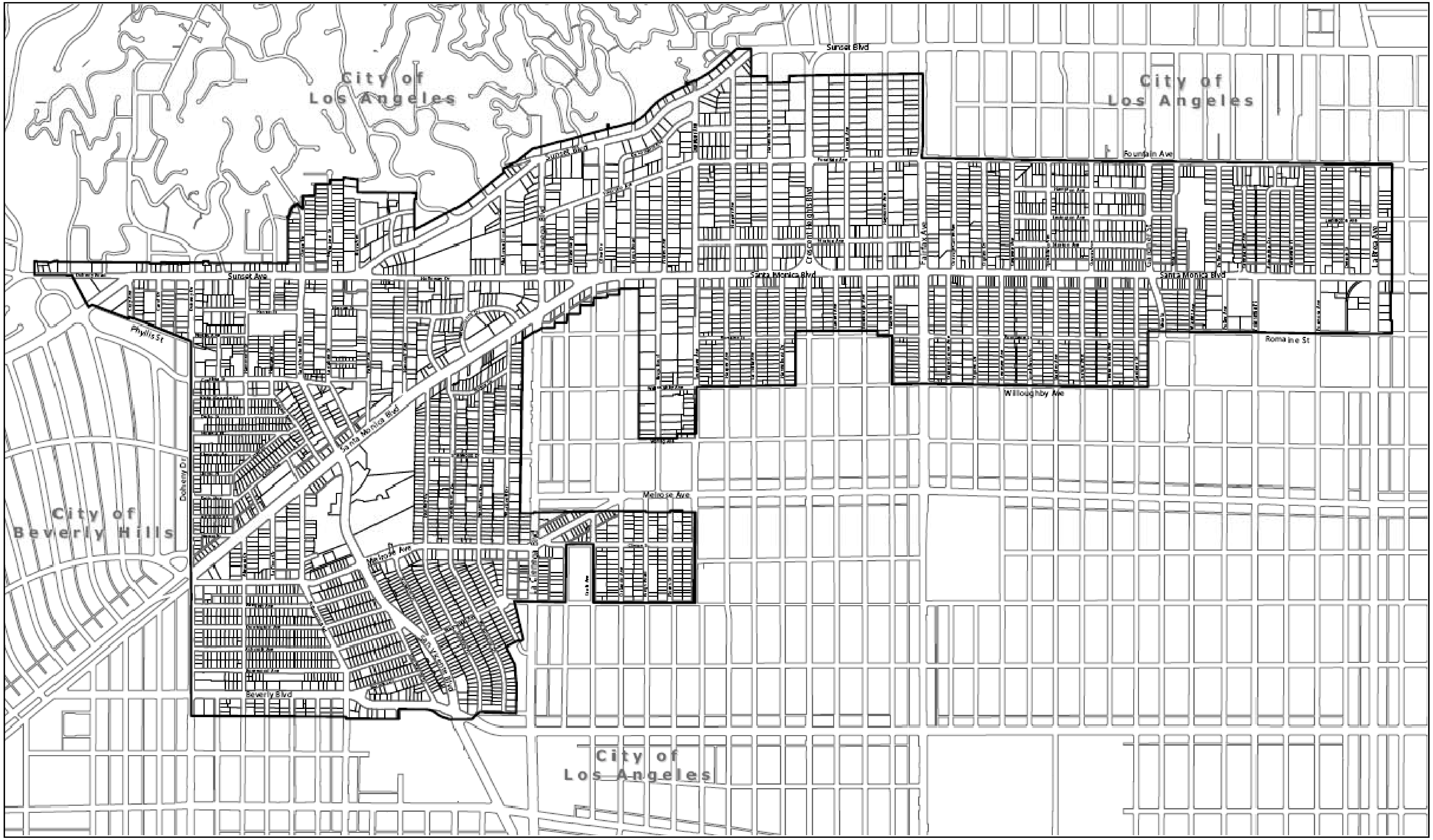


Figure 2
Planning Area

DEPARTMENT OF CONSERVATION

OIL, GAS & GEOTHERMAL

DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

5816 Corporate Avenue • Suite 200 • CYPRESS, CALIFORNIA, 90630-4731

PHONE 714 / 816-6847 • FAX 714 / 816-6853 • WEBSITE conservation.ca.gov

October 29, 2009

CITY OF WEST HOLLYWOOD NOV -2 2009 COMMUNITY DEV. DEPT.

Ms. Bianca Siegl
City of West Hollywood
8300 Santa Monica Blvd
West Hollywood, CA 90069

Subject: Notice of Preparation of City of West Hollywood General Plan Update

Dear Ms. Siegl:

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced Notice of Preparation for the City of West Hollywood General Plan Update.

The Division is mandated by Section 3106 of the Public Resources Code (PRC) to supervise the drilling, operation, maintenance, and plugging and abandonment of wells for the purpose of preventing: (1) damage to life, health, property, and natural resources; (2) damage to underground and surface waters suitable for irrigation or domestic use; (3) loss of oil, gas, or reservoir energy; and (4) damage to oil and gas deposits by infiltrating water and other causes. Furthermore, the PRC vests in the State Oil and Gas Supervisor (Supervisor) the authority to regulate the manner of drilling, operation, maintenance, and abandonment of oil and gas wells so as to conserve, protect, and prevent waste of these resources, while at the same time encouraging operators to apply viable methods for the purpose of increasing the ultimate recovery of oil and gas.

The scope and content of information that is germane to the Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code (PRC), and administrative regulations under Title 14, Division 2, Chapter 4, of the California Code of Regulations.

The proposed project is located within the administrative boundaries of the Salt Lake and Sherman oil fields. There are numerous idle, plugged and abandoned wells within or in proximity to the project boundaries. The wells are identified on Division maps 117, 118 and in Division records. The Division recommends that all wells within or in close proximity to project boundaries be accurately plotted on future project maps.

Building over or in the proximity of idle or plugged and abandoned wells should be avoided if at all possible. If this is not possible, it may be necessary to plug or re-plug wells to current Division specifications. Also, the State Oil and Gas Supervisor is authorized to order the reabandonment of previously plugged and abandoned wells when construction over or in the proximity of wells could result in a hazard (Section 3208.1 of the Public Resources Code). If abandonment or reabandonment is necessary, the cost of operations is the responsibility of the owner of the property upon which the structure will be located. Finally, if construction over an abandoned well is unavoidable an adequate gas venting system should be placed over the well.

Furthermore, if any plugged and abandoned or unrecorded wells are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements for and approval to perform remedial operations.

To ensure proper review of building projects, the Division has published an informational packet entitled, "Construction Project Site Review and Well Abandonment Procedure" that outlines the information a project developer must submit to the Division for review. Developers should contact the Division Cypress district office for a copy of the site-review packet. The local planning department should verify that final building plans have undergone Division review prior to the start of construction.

Thank you for the opportunity to comment on the Notice of Preparation. If you have questions on our comments, or require technical assistance or information, please call me at the Cypress district office: 5816 Corporate Avenue, Suite 200, Cypress, CA 90630-4731; phone (714) 816-6847.

Sincerely,

Paul Frost

Paul Frost
Associate Oil & Gas Engineer
Division of Oil, Gas and Geothermal Resources
District 1 - Cypress

cc: State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Adele Lagomarsino – Division Headquarters
Sacramento

CALIFORNIA EMERGENCY MANAGEMENT AGENCY
DISASTER ASSISTANCE PROGRAMS BRANCH
3650 SCHRIEVER AVENUE
MATHER, CALIFORNIA 95655
PHONE: (916) 845-8200 FAX: (916) 845-8387

Cal EMA
CALIFORNIA EMERGENCY MANAGEMENT AGENCY

October 14, 2009

Bianca Siegl
City of West Hollywood
8300 Santa Monica Boulevard
West Hollywood, CA 90069

RE: Notice of Preparation for a Draft Environmental Impact Report for the City of West Hollywood's General Plan Update, SCH# 2009091124

Dear Ms. Siegl:

Thank you for the opportunity to comment on your Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the city's general plan update. In preparing the general plan and accompanying DEIR, the city should examine the sections of state planning law that involve potential hazards the city may face. For your information, I have underlined specific sections of state planning law where identification and analysis of hazards are discussed (see Attachment A).

Prior to the release of the draft general plan or within the DEIR, city staff or your consultants should examine each of the requirements in state planning law and determine if there are hazard issues within the community which the general plan should address. A table in the DEIR (or general plan) which identifies these specific issues and where they are addressed in the general plan would be helpful in demonstrating the city has complied with these requirements. If the DEIR determines that state planning law requirements have not been met, it should recommend that these issues be addressed in the general plan as a mitigation measure.

We note that state planning law includes a requirement for consultations with state agencies in regard to information related to hazards. CalEMA would be happy to share all available information at our disposal to facilitate the city's ability to comply with state planning and environmental laws.

If you have any questions about these comments, please contact Andrew Rush at (916) 845-8269 or andrew.rush@calema.ca.gov.

Sincerely,

Dennis Castrillo

Dennis Castrillo
Environmental Officer

cc: State Clearinghouse

Attachment A
Hazards and State Planning Law Requirements

General Plan Consistency

65300.5. In construing the provisions of this article, the Legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.

Seven Mandated Elements

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5.

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Care Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(4) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, and the board required by this subdivision.

(6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Consistency with Airport Land Use Plans

65302.3. (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

Review of Safety Element

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.

(1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:

(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.

(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177.

(2) A county that contains state responsibility areas and a city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177, shall submit for review the safety element of its general plan to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county in accordance with the following dates as specified, unless the local government submitted the element within five years prior to that date:

(A) Local governments within the regional jurisdiction of the San Diego Association of Governments: December 31, 2010.

(B) Local governments within the regional jurisdiction of the Southern California Association of Governments: December 31, 2011.

(C) Local governments within the regional jurisdiction of the Association of Bay Area Governments: December 31, 2012.

(D) Local governments within the regional jurisdiction of the Council of Fresno County Governments, the Kern County Council of Governments, and the Sacramento Area Council of Governments: June 30, 2013.

(E) Local governments within the regional jurisdiction of the Association of Monterey Bay Area Governments: December 31, 2014.

(F) All other local governments: December 31, 2015.

(3) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element. The State Board of Forestry and Fire Protection and local agency shall review the draft or existing safety element and may offer written recommendations for changes to the draft or existing safety element regarding both of the following:

(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires.
(B) Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.
(b) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or to the local agency, its reasons for not accepting the recommendations.

Open Space Plans

65560. (a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.
(b) "Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:
(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF REGIONAL PLANNING
AND PUBLIC TRANSPORTATION
IGR/CEQA BRANCH
100 SOUTH MAIN STREET
LOS ANGELES, CA 90012
PHONE (213) 897-3747
FAX (213) 897-1337

CITY OF WEST HOLLYWOOD
NOV 12 2009
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November 05, 2009

Ms. Bianca Siegl
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Re: ***General Plan Update***
IGR/CEQA No. 091004/ZJ
SCH#2009091124
Vic. LA-2-PM 10.58

Dear Ms. Siegl:

Thank you for including the California Department of Transportation in the environmental review process for the proposed General Plan update for the City of West Hollywood. The West Hollywood General Plan will provide a "road map" for growth and development in the city over the next 40 years, and it includes an update of the City's traffic/circulation element.

We acknowledge that West Hollywood is a built out city with limited room for new development or physical changes. We concur the focus of the General Plan is to preserve and enhance the quality of life for residents and allow new development that supports the community's vision for the future.

Based on a review of information contained in the Notice of Preparation of a PEIR, we have the following comments:

Although SR-2 within West Hollywood has been relinquished, impact to it outside the City should still be evaluated as it provides regional access to the City. We are concerned with cumulative impacts to State Route 2 which is also Santa Monica Boulevard ~~and is~~ east of West Hollywood. We request that a traffic impact study be prepared to include:

- Presentations of assumptions and methods used to develop trip generation, trip distribution, trip assignments, and choice of travel mode. Travel modeling should be consistent with other regional and local modeling forecasts and with travel data.

- Inclusion of all appropriate traffic volumes. Analysis should include a) existing traffic b) cumulative traffic from all specific approved developments in the area, c) cumulative traffic from likely not-yet-approved developments in the area, and d) traffic growth other than from developments. Scenarios involving different assumptions on development and growth might be considered.

- Analysis of AM, and PM peak-hour volumes for both existing and future. Future conditions would include build-out of all projects and any plan-horizon years. Existing and buildout Level of Service should be specified (HCM2000 methodology is requested).

- Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. This discussion should include, but not be limited to, the following:
  - description of transportation infrastructure improvements
  - financial costs, funding sources and financing
  - sequence and scheduling considerations
  - implementation responsibilities, controls and monitoring

For additional information, please refer to State Guide for the Preparation of Traffic Impacts Studies at:

http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

We acknowledge West Hollywood will address multi-modal transportation facilities including accommodating a future subway extension through the City. Caltrans provides a variety transportation planning grants for a wide range of transportation planning projects that are intended to promote a balanced comprehensive multi-model transportation system. These grants include Community Base Transportation Planning studies and Transit Planning studies. Each grant has program-specific purposes and is intended to address local needs.

If you have any questions regarding our comments, please call Zeron Jefferson at (213) 897-1333 or me at (213) 897 – 6696 and please refer to our record number 091004/EA.

Sincerely,

Elmer Alvarez

Elmer Alvarez
IGR/CEQA Program Manager
Caltrans, District 7

cc: Scott Morgan, State Clearinghouse

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AND
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CITY OF LOS ANGELES

CALIFORNIA

ANTONIO R. VILLARAIGOSA
MAYOR

CITY OF WEST HOLLYWOOD
OCT 29 2009
COMMUNITY DEV. DEPT.

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October 27, 2009

Bianca Siegl, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Dear Ms. Siegl,

This letter is to inform you that the Community Planning division within the Los Angeles Department of City Planning has received the Notice of Preparation for the City of West Hollywood General Plan Environmental Impact Report (EIR).

We are particularly interested in how the EIR is going to handle regional issues such as air quality, traffic, and water issues. While we do not have other specific comments regarding the scope and content to be included in the EIR, we appreciate being kept up to speed. We look forward to working with you and participating more in the future.

Regards,

Courtney Schoenwald
Planning Assistant
213.978.1304
Courtney.Schoenwald@lacity.org

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(323) 890-4330

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

January 28, 2010

Bianca Siegel, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Dear Ms. Siegel:

NOTICE OF PREPARATION OF DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT, PROJECT: CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE, WEST HOLLYWOOD (FFER #200900201)

The Notice of Preparation has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. Fire protection and emergency medicals services for the City of West Hollywood are provided by the Los Angeles County Fire Department (LACoFD). The LACoFD operates two Fire Stations within the City boundaries.

   a. Fire Station 7 is located at 864 N. San Vicente Blvd., West Hollywood, CA 90069-4007. It is staffed with a four-person paramedic engine and a two-person paramedic squad.

   b. Fire Station 8 is located at 7643 W. Santa Monica Blvd, West Hollywood, CA 90046-6408. It is staffed with a three-person engine company and a four-person truck company that respond together as a light force, a four-person engine company and a two-person paramedic squad.

LAND DEVELOPMENT UNIT:

1. We have no comments at this time.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed in the final Environmental Impact Report.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. Health Hazardous Materials Division has no objection with the proposed project.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

JOHN R. TODD, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

JRT:lj

From: WHWRA [mailto:president@whwra.org]
Sent: Thursday, October 15, 2009 2:55 PM
To: Bianca Siegl
Cc: Anne McIntosh; John Keho; Dan Siegel; Eric d'Arbeloff; Patrick Shandrick
Subject: Item 9A

Dear Bianca,

I have a work conflict and am unlikely to attend tonight's Scoping Meeting regarding the General Plan, but I would like my comments to be part of the record:

We keep hearing that one of the City's goals in updating the General Plan is to "make enhancements," yet recent documents (GPAC #2) from the last General Plan Advisory Committee meeting lead me to believe that the City wants to make major changes to the City's zoning ordinance — not just "enhancements" — by increasing building height and density and intensifying use. This concerns me.

The City also seems to be putting a lot of hope into future transit-related improvements, such as subway stops in West Hollywood. However, there are no guarantees that those future transit improvements will occur.

I'd like to see the City study the impacts of proposed General Plan changes on transportation (specifically traffic and parking) *assuming those transit-related improvements do <u>not</u> occur*. I'd also like to see the City study the potential impacts of <u>any</u> proposed changes to zoning or land use in terms of: utilities (particularly water consumption), hydrology and geology, aesthetics and air quality.

I'd like to see the City study potential impacts if it were to consider down-zoning certain commercial streets, rather than increasing the density and height of all its commercial streets as is suggested in the GPAC #2 document. For example, Melrose Avenue, particularly west of La Cienega, has a certain character and uniqueness that could be severely hurt by higher intensity projects. In addition, Melrose Avenue is a narrow commercial street that is already busting at the seams in terms of traffic and parking issues. Perhaps this area should *not* be allowed to have three-story buildings.

For West Hollywood West, we would specifically like to request:

(1) Putting back "height-averaging" particularly on Doheny. When height-averaging was originally removed from Doheny, Planning staff said it was an "unintentional mistake" that would be corrected during the Zoning Ordinance "clean-up." That was back in 2002 and it was not changed. City Council then said it would be taken care of during the General Plan update process. So, we are requesting again to please reinstate height-averaging on Doheny.

(2) Looking at down-zoning the east side of the 500 block of West Knoll to a zoning that is more compatible with the surrounding neighborhood (i.e., R1b). FYI - the City has done this in the past (e.g., north side of Rangely Ave.), and would not be setting any negative precedent by doing so.

I appreciate your consideration. Also, if you could please reply to confirm receipt.

Thank you,
Lauren Meister

--

Lauren Meister
President, WHWRA

Phone: 310-659-3379
Fax: 310-659-3380
Email: president@whwra.org

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LOS ANGELES
CONSERVANCY

October 29, 2009

Submitted electronically
Ms. Bianca Siegl, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069
Email: bsiegl@weho.org

Re: City of West Hollywood General Plan Update—Notice of Preparation

Dear Ms. Siegl:

On behalf of the Los Angeles Conservancy, thank you for the opportunity to comment on the Notice of Preparation for the City of West Hollywood General Plan update. The Los Angeles Conservancy is the largest local preservation organization in the United States, with 7,000 members throughout the Los Angeles area. Established in 1978, the Conservancy works to preserve and revitalize the significant architectural heritage of Los Angeles County through advocacy and education.

West Hollywood has long been praised for the community's commitment and dedication to historic preservation. In 2007, the National Trust named West Hollywood one of America's "Dozen Distinctive Destinations" in recognition of the city's preservation efforts and historic sites. In 2008, the Los Angeles Conservancy awarded West Hollywood the grade of "A" on its Preservation Report Card, which grades jurisdictions on their ability to protect privately owned historic resources.[1] West Hollywood was one of only seven cities countywide to receive an "A."

The Conservancy sees the General Plan Update, which will guide the city's growth and development for the next twenty years, as an opportunity to strengthen West Hollywood's already notable Historic Preservation program. In addition to comments directed at the Historic Preservation Element, the Conservancy urges the city to integrate historic preservation-related goals and policies into the Land Use and Sustainability Elements that will serve to enhance West Hollywood's commitment to maintaining neighborhood character and encouraging alternative methods of attaining sustainability.

The Conservancy provides the following comments on the Notice of Preparation for the city's General Plan Update:

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[1] Los Angeles Conservancy. 2008 Los Angeles County Preservation Report Card. http://www.laconservancy.org/issues/LAC_ReportCard08_corrected.pdf

Historic Preservation Element

*** Establish goal for regularly occurring updates of the city's Historic Resonrce Survey.** The Conservancy applauds the City of West Hollywood for its ongoing efforts to update the city's comprehensive Historic Resource Survey, which was first completed in 1986-87. Future Historic Resource Survey updates should include single-family and commercial properties, which have not been surveyed in over twenty years. This will be critical to provide accurate and complete information about the city's diverse historic resources.

Fortunately, West Hollywood's small size of 1.9 square miles enables more frequent updates to the city's Historic Resource Survey. The Historic Preservation Element should set a clear goal for regularly occurring updates of the Historic Resource Survey.

*** Adopt policy to establish review by the Historic Preservation Commission of all structures at least 50 years of age or older for which applications for demolition permits have been made.** This forward thinking policy affords the City the opportunity to review and potentially protect significant local resources that have not received landmark designation and may not yet appear on the city's Historic Resource Survey, including those that have attained significance since the last survey was completed. (The City of Santa Monica has adopted this policy.)

*** Adopt policy that enables local design review by the Historic Preservation Commission for local properties listed solely in the California Register of Historical Resources or the National Register of Historic Places.** Unless already protected through local landmark designation, historic resources listed in either the California Register or National Register do not ordinarily receive local design review and can be susceptible to inappropriate alterations or demolition. Because of the higher threshold of significance required for designation in these registration programs, the city should adopt a policy to ensure comparable protections alongside resources designated as local West Hollywood landmarks. (The City of Pasadena has adopted this policy.)

Land Use Element

The Historic Resource Inventory and the city's 1998 Historic Preservation Element should be recognized as important underlying policy documents in the Land Use Element. The Land Use Element should guide property owners as stewards of the past as well as the future, and, as appropriate, refer directly to the Historic Preservation Element.

The Notice of Preparation states that "the General Plan update will develop policies for neighborhood preservation and enhancement."[2] The role of historic preservation in preserving neighborhoods, defining urban form and character, achieving a sustainable community, and encouraging small, local, community serving businesses should be a

[2] Notice of Preparation. City of West Hollywood General Plan Update. Sept. 30, 2009.

fundamental strategy in realizing the goals of the Land Use Element and be clearly endorsed in that document.

Sustainability Element

Likewise, a clear connection should be established between historic preservation and sustainability in the Sustainability Element. As stated by the National Trust for Historic Preservation:

> Historic preservation is an effective tool for valuing and protecting our environmental resources, including those that have already been expended as well as those not yet used. Because it encourages us to reuse sound older buildings instead of abandoning or demolishing them.... preservation is "recycling" on a grand scale.[3]

As such, the Sustainability Element should include specific language that both highlights and promotes historic preservation and the reuse of the city's older building stock as ways of attaining the goals that are set forth in this document.

Thank you for the opportunity to comment on West Hollywood's General Plan Update. Should you have any questions, please contact me at 213-430-4203 or mbuhler@laconservancy.org.

Sincerely,

Mike Buhler
Director of Advocacy

---

[3] National Trust for Historic Preservation, Smart Growth Network. "Historic Preservation and Sustainability." http://www.smartgrowth.org/library/articles.asp?art=3468&res=1024

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

October 7, 2009

File No: 04-00.04-00

Ms. Bianca Siegl, Associate Planner
Community Development Department
City of West Hollywood
8300 Santa Monica Boulevard
West Hollywood, CA 90069-6216

Dear Ms. Siegl:

City of West Hollywood General Plan Update

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on October 5, 2009. The City of West Hollywood (City) is located within the jurisdictional boundaries of District No. 4. We offer the following comments regarding sewerage service:

1. The Districts own, operate, and maintain only the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City except to state that presently no deficiencies exist in Districts' facilities that serve the City.

2. Wastewater flow from some areas of the City is conveyed through local sewer lines, Districts' trunk sewers, and City of Los Angeles (CLA) sewers, while wastewater flow from other areas is conveyed through local sewer lines and CLA sewers only. All wastewater flow from the City is treated by the CLA Hyperion Treatment System. Information regarding sewerage service for the City should also be directed to the City of Los Angeles' Department of Public Works.

3. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate proposed projects. Payment of a connection fee is required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

4. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Ruth I. Frazen

Ruth I. Frazen
Customer Service Specialist
Facilities Planning Department

RIF:rf

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October 27, 2009

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Associate Planner
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8300 Santa Monica Boulevard
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bsiegl@weho.org

RE: SCAG Comments on the Notice of Preparation of a Draft Program Environmental Impact Report for the City of West Hollywood General Plan Update [I20090599]

Dear Ms. Siegl,

Thank you for submitting the **Notice of Preparation of a Draft Program Environmental Impact Report (DPEIR) for the City of West Hollywood General Plan Update [I20090599]** to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372 (replacing A-95 Review). Additionally, pursuant to Public Resources Code Section 21083(d) SCAG reviews Environmental Impact Reports of projects of regional significance for consistency with regional plans per the California Environmental Quality Act Guidelines, Sections 15125(d) and 15206(a)(1). SCAG is also the designated Regional Transportation Planning Agency and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080 and 65082.

SCAG staff has reviewed this project and determined that the proposed project is regionally significant per California Environmental Quality Act (CEQA) Guidelines, Sections 15125 and/or 15206. The proposed project is the comprehensive update and implementation of the City of West Hollywood General Plan.

Policies of SCAG's Regional Transportation Plan (RTP) and Compass Growth Visioning (CGV) that may be applicable to your project are outlined in the attachment. The RTP, CGV, and table of policies can be found on the SCAG web site at: http://scag.ca.gov/igr. For ease of review, we would encourage you to use a side-by-side comparison of all SCAG policies with a discussion of the consistency, non-consistency or non-applicability of the policy and supportive analysis in a table format (example attached).

The attached policies are meant to provide guidance for considering the proposed project within the context of our regional goals and policies. We also encourage the use of the SCAG List of Mitigation Measures extracted from the RTP to aid with demonstrating consistency with regional plans and policies. **Please provide a minimum of 45 days for SCAG to review the DPEIR and associated plans when these documents are available.** If you have any questions regarding the attached comments, please contact Bernard Lee at (213) 236-1800 or leeb@scag.ca.gov. Thank you.

Sincerely,

Jacob Lieb, Manager
Assessment, Housing & EIR

DOCS# 154335

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE [SCAG NO. I20090599]

PROJECT LOCATION

The project covers the entire City of West Hollywood, which is located in Los Angeles County, California.

PROJECT DESCRIPTION

The proposed project is the comprehensive update and implementation of the City of West Hollywood General Plan. West Hollywood is a built out city with limited room for new development or physical changes. The focus of the General Plan update is on preserving and enhancing the quality of life for residents while also allowing new development that supports the community's vision for the future.

The General Plan establishes a comprehensive community vision for West Hollywood with regard to land use, housing, circulation, open space/conservation, noise, economic development, public safety, community services and governance. As a blueprint for the future, the plan must contain policies and programs designed to provide decision-makers with a solid basis for decisions related to land use and development. The General Plan is founded upon the community's vision for West Hollywood and expresses the community's long-term goals.

To achieve the vision of the community, the General Plan defines long-term community goals and decision-making policies through text and maps in each of the elements. The General Plan update will also include implementation programs describing actions or strategies to help achieve the community's vision. The recommended implementation programs serve as the basis for future programming decisions related to the assignment of staff and expenditure of City funds.

The General Plan update is currently under development. Based on the preliminary work on the General Plan update, the document will address three basic questions.

1) How do we preserve and enhance the neighborhoods and residential areas in West Hollywood?

2) How does the City enhance West Hollywood's boulevards and districts in a way that improves the quality of life in the City, relieves development pressure on residential neighborhoods, maintains economic development, improves mobility, encourages transit-oriented development, and enhances the City?

3) How do we improve and enhance the quality of life and the identity of the City through General Plan programs and policies?

Topics that will be addressed in the General Plan update include the following:
- Land Use
- Transportation
- Housing
- Historic Preservation
- Sustainability
- Human Services and Education
- Arts and Culture
- Parks and Recreation
- Health and Active Living
- Governance

- Public Safety

CONSISTENCY WITH REGIONAL TRANSPORTATION PLAN

Regional Growth Forecasts

The DPEIR should reflect the most current SCAG forecasts, which are the 2008 RTP (May 2008) Population, Household and Employment forecasts. The forecasts for your region, subregion, and city are as follows:

Adopted SCAG Regionwide Forecasts[1]

	2010	2015	2020	2025	2030	2035
Population	19,418,344	20,465,830	21,468,948	22,395,121	23,255,377	24,057,286
Households	6,086,986	6,474,074	6,840,328	7,156,645	7,449,484	7,710,722
Employment	8,349,453	8,811,406	9,183,029	9,546,773	9,913,376	10,287,125

Adopted WCCOG Subregion Forecasts[1]

	2010	2015	2020	2025	2030	2035
Population	238,853	241,697	244,876	247,938	250,890	253,719
Households	116,180	117,655	119,209	120,423	121,595	122,561
Employment	255,625	260,054	262,882	266,208	269,760	273,161

Adopted City of West Hollywood Forecasts[1]

	2010	2015	2020	2025	2030	2035
Population	38,223	38,515	38,863	39,196	39,515	39,821
Households	23,718	24,001	24,298	24,531	24,755	24,940
Employment	32,185	32,825	33,233	33,714	34,227	34,719

1. The 2008 RTP growth forecast at the regional, subregional, and city level was adopted by the Regional Council in May 2008. City totals are the sum of small area data and should be used for advisory purposes only.

The **2008 Regional Transportation Plan (RTP)** also has goals and policies that are pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The RTP continues to support all applicable federal and state laws in implementing the proposed project. Among the relevant goals and policies of the RTP are the following:

Regional Transportation Plan 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.*

GROWTH VISIONING

The fundamental goal of the **Compass Growth Visioning** effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. Thus, decisions regarding growth, transportation, land use, and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity. The following "Regional Growth Principles" are proposed to provide a framework for local and regional decision making that improves the quality of life for all SCAG residents. Each principle is followed by a specific set of strategies intended to achieve this goal.

Principle 1: Improve mobility for all residents.

GV P1.1 *Encourage transportation investments and land use decisions that are mutually supportive.*
GV P1.2 *Locate new housing near existing jobs and new jobs near existing housing.*
GV P1.3 *Encourage transit-oriented development.*
GV P1.4 *Promote a variety of travel choices*

Principle 2: Foster livability in all communities.

GV P2.1 *Promote infill development and redevelopment to revitalize existing communities.*
GV P2.2 *Promote developments, which provide a mix of uses.*
GV P2.3 *Promote "people scaled," walkable communities.*
GV P2.4 *Support the preservation of stable, single-family neighborhoods.*

Principle 3: Enable prosperity for all people.

GV P3.1 *Provide, in each community, a variety of housing types to meet the housing needs of all income levels.*
GV P3.2 *Support educational opportunities that promote balanced growth.*
GV P3.3 *Ensure environmental justice regardless of race, ethnicity or income class.*
GV P3.4 *Support local and state fiscal policies that encourage balanced growth*
GV P3.5 *Encourage civic engagement.*

Principle 4: Promote sustainability for future generations.

GV P4.1 *Preserve rural, agricultural, recreational, and environmentally sensitive areas*
GV P4.2 *Focus development in urban centers and existing cities.*
GV P4.3 *Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.*
GV P4.4 *Utilize "green" development techniques*

CONCLUSION

As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA. We recommend that you review the SCAG List of Mitigation Measures for additional guidance, and encourage you to follow them, where applicable to your project. The SCAG List of Mitigation Measures may be found here: http://www.scag.ca.gov/igr/documents/SCAG_IGRMMRP_2008.pdf

SUGGESTED SIDE BY SIDE FORMAT - COMPARISON TABLE OF SCAG POLICIES

For ease of review, we would encourage the use of a side-by-side comparison of all SCAG policies with a discussion of the consistency, non-consistency or not applicable of the policy and supportive analysis in a table format. All policies and goals must be evaluated as to impacts. Suggested format is as follows:

The complete table can be found at: http://www.scag.ca.gov/igr/

- Click on ***"Demonstrating Your Project's Consistency With SCAG Policies"***
- Scroll down to ***"Table of SCAG Policies for IGR"***

SCAG Regional Transportation Plan Goals and Compass Growth Visioning Principles		
Regional Transportation Plan Goals		
Goal/ Principle Number	**Policy Text**	**Statement of Consistency, Non-Consistency, or Not Applicable**
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
RTP G3	Preserve and ensure a sustainable regional transportation system.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
Etc.	Etc.	Etc.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

October 9, 2009

Ms. Bianca Siegl, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Dear Ms. Siegl:

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the
<u>City of West Hollywood General Plan Update</u>

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does <u>not</u> mean Adobe PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation <u>will require</u> additional time for review beyond the end of the comment period.**

<u>Air Quality Analysis</u>
The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Daniel Garcia, Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Susan Nakamura
Planning Manager
Planning, Rule Development and Area Sources

SN:DG:AK
LAC091001-11AK
Control Number

LAW OFFICES OF
SONGSTAD & RANDALL LLP
2201 DUPONT DRIVE, SUITE 100
IRVINE, CALIFORNIA 92612
TELEPHONE (949) 757-1600
FACSIMILE (949) 757-1613

October 28, 2009

BY FEDERAL EXPRESS

Bianca Siegl, Associate Planner
City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Re: Response to Notice of Preparation
City of West Hollywood ("City"); General Plan Update EIR

Dear Ms. Siegl:

The following comments, relative to the scope and content of information to be included and analyzed in the Environmental Impact Report for the City of West Hollywood's General Plan Update, are submitted on behalf of Fritz B. Hoelscher, Trustee, the owner of 1045 and 1047 N. Crescent Heights Blvd. and the La Ventana Apartments, located at 1031 N. Crescent Heights Blvd., West Hollywood, California.

The comments are as follows:

Chapter I: Community Development Element

Land Use Compatibility Policy Suggestions

Goal 1: Ensure that the distinct character of West Hollywood's neighborhoods especially along major streets and commercial corridors are respected and reflected in all new development, redevelopment, and infill development.

Policy 1a: Protect sensitive receptors, such as residential areas, hotels, hospitals, schools, places of worship, etc. from the effects of potentially incompatible uses. Where new commercial or industrial development is allowed adjacent to residential areas, maintain standards for circulation, noise, setbacks, buffer areas, landscaping and architecture, which ensure compatibility between the uses.

Policy 1b: Assure that the type and intensity of land use, as well as improvements for the proposed project, are compatible and consistent with that of the immediate neighborhood, so as not to cause a disturbance or a nuisance to existing development.

Chapter II: Infrastructure and Community Services Element

Circulation Policy Suggestions

Policy 1: Consider use of roundabouts at high-collision intersections and/or locations considered for signalization.

Policy 2: Prepare citywide site access management plan to guide development and encourage consolidation of site access driveways on roadways throughout the City.

Policy 3: Prepare cost/benefit review of potential street widenings when balancing air quality, noise, transportation, life-cycle costs, transit, livability, pedestrian environment, sensitive receptors, and need for right-of-way acquisition.

Policy 4: Consider shared parking opportunities between existing or proposed compatible land uses.

Policy 5: Consider reduced parking code requirement for highly urbanized areas or transit-oriented development areas.

Goal 1: Amend City Circulation Element to encourage dynamic and flexible mobility system that supports use of vehicles providing immediate reductions in Greenhouse Gas emissions, air pollutants, and fossil-fuel use. Examples of low/non-polluting vehicles include electric cycles, personal transporters, neighborhood electric vehicles, medium speed electric vehicles, commuter electrics, and touring vehicles.

Policy 1a: Consider modified parking space size for local use vehicles.

Chapter III: Environmental Resources Element

Air Quality Policy Suggestions

Policy 1a: Ensure that projects that generate an increase in vehicular trips do not exceed state thresholds for increased particulate matter in localized areas.

Chapter IV: Hazards Element

Hazardous Materials/Cleanup Policy Suggestions

Goal 1: Encourage and enable transportation behavior that improves air quality and respiratory health.

Policy 1a: The City will collaborate with transportation agencies, utilities, and developers to minimize fugitive dust and emissions from construction and maintenance activities.

Goal 2: Promote measures that will be effective in reducing emissions during construction activities.

Goal 3: Minimize risks to life, property, and environment associate with producing, using, storing, or transporting hazardous materials.

Policy 3a: The City will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations.

Policy 3b: All construction equipment for public and private projects will also comply with CARB's vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD.

Policy 3c: For projects which may have an adverse impact on adjacent land uses containing sensitive receptors, project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded. Such control measures may include the following, among others:

- Minimizing simultaneous operation of multiple construction equipment units.
- Implementation of SCAQMD Rule 403, *Fugitive Dust Control Measures*.
- Watering the construction area to minimize fugitive dust.
- Require that off-road diesel powered vehicles used for construction shall be new low emission vehicles, or use retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters verified by the California Air Resources Board.
- Minimizing idling time by construction vehicles.

Policy 3d: The City shall minimize stationary source pollution through the following:

- Ensure that industrial and commercial land uses are meeting existing South Coast Air Quality Management District air quality thresholds by adhering to established rules and regulations.

- Encourage the use of new technology to neutralize harmful criteria pollutants from stationary sources.

- Reduce exposure of the City's sensitive receptors to poor air quality nodes through smart land use decisions.

Goal 4: Minimize the threat to public health and safety and to the environment posed by a release of hazardous materials.

Policy 4a: Identify hazardous materials sites, and ensure that the sites are cleaned in conformance with applicable federal and state laws prior to the establishment of new land uses.

Policy 4b: Strictly enforce Federal, State, and local laws and regulations when remediating a site known to contain hazardous materials, especially if the site is to be used for future rcsidential, commercial, or retail uses.

Policy 4c: Ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.

Policy 4d: Prior to new construction, rigorously monitor hazardous site conditions to ensure that hazardous sites have been remediated in accordance with Federal, State, and local laws and regulations.

Policy 4e: Continue to monitor the operations of businesses and individuals that handle hazardous materials through the planning and business permit processes.

Policy 4f: Create and periodically review appropriate ordinances or emergency plans which regulate the storage and handling or hazardous materials to conform to the standards and definitions of the State and other regulatory agencies.

Policy 4g: Inform future residents and businesses about former hazardous sites and the dangers of hazardous materials.

Policy 4h: Maintain cooperative relationships with the chemical handlers, response agencies, and community representatives to ensure an informed and coordinated response to chemical emergencies.

Policy 4i: Provide information on available non-hazardous product alternatives, proper storage, management, and disposal of hazardous wastes on the City's website, and at City Hall and other public facilities, as necessary.

Noise Policy Suggestions

Policy 1a: Require that development projects, when constructed, do not result in noise levels that exceed an interior threshold of 45 decibels or an exterior threshold of 65 decibels if they are located adjacent to residential uses.

Policy 2: Require that development projects, when constructed, do not result in noise levels that exceed an interior threshold of 50 decibels or an exterior threshold of 70 decibels if they are located adjacent to commercial or retail uses.

Policy 3: Require appropriate noise mitigation for projects which may exceed interior and exterior thresholds for residential and commercial uses.

Chapter V: Historic Preservation

No suggested policies.

Chapter VI: Safety Element

Safety Policy Suggestions

No suggested policies.

We thank you for the opportunity to provide these comments relative to the City's preparation of an EIR. Should you have any questions in connection with this submission I can be reached by telephone at 949-757-1600 extension 115 or by e-mail at tcarlyle@sr-firm.com should you have any questions.

Very truly yours,

Timothy D. Carlyle

Timothy D. Carlyle
of SONGSTAD & RANDALL LLP

APPENDIX B
AIR QUALITY TECHNICAL DATA

4/20/2010 10:37:20 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Area Sources.urb924

Project Name: WeHo Area Sources

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	250.94	74.64	54.44	0.00	0.17	0.17	92,664.87

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	250.94	74.64	54.44	0.00	0.17	0.17	92,664.87

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	5.61	74.52	45.17	0.00	0.14	0.14	92,648.02
Hearth - No Summer Emissions							
Landscape	0.74	0.12	9.27	0.00	0.03	0.03	16.85
Consumer Products	220.08						
Architectural Coatings	24.51						
TOTALS (lbs/day, unmitigated)	250.94	74.64	54.44	0.00	0.17	0.17	92,664.87

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

4/20/2010 10:47:38 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Mobile.urb924

Project Name: Weho Mobile Source

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	136.45	134.84	1,640.00	5.54	904.70	174.81	545,661.88

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	136.45	134.84	1,640.00	5.54	904.70	174.81	545,661.88

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General office building	136.45	134.84	1,640.00	5.54	904.70	174.81	545,661.88
TOTALS (lbs/day, unmitigated)	136.45	134.84	1,640.00	5.54	904.70	174.81	545,661.88

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		51.56	1000 sq ft	1,000.00	51,560.00	524,751.91
					51,560.00	524,751.91

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.2	0.0	100.0	0.0
Light Truck < 3750 lbs	6.8	0.0	100.0	0.0
Light Truck 3751-5750 lbs	24.0	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.9	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.8	0.0	83.3	16.7
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.6	34.6	65.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Area Sources.urb924

Project Name: WeHo Area Sources

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	251.59	98.24	55.26	0.15	2.06	2.04	122,930.37

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	251.59	98.24	55.26	0.15	2.06	2.04	122,930.37

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	5.61	74.52	45.17	0.00	0.14	0.14	92,648.02
Hearth	1.39	23.72	10.09	0.15	1.92	1.90	30,282.35
Landscaping - No Winter Emissions							
Consumer Products	220.08						
Architectural Coatings	24.51						
TOTALS (lbs/day, unmitigated)	251.59	98.24	55.26	0.15	2.06	2.04	122,930.37

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

4/20/2010 10:47:52 PM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Mobile.urb924

Project Name: Weho Mobile Source

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	154.88	162.63	1,534.61	4.61	904.70	174.81	493,283.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	154.88	162.63	1,534.61	4.61	904.70	174.81	493,283.06

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General office building	154.88	162.63	1,534.61	4.61	904.70	174.81	493,283.06
TOTALS (lbs/day, unmitigated)	154.88	162.63	1,534.61	4.61	904.70	174.81	493,283.06

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		51.56	1000 sq ft	1,000.00	51,560.00	524,751.91
					51,560.00	524,751.91

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.2	0.0	100.0	0.0
Light Truck < 3750 lbs	6.8	0.0	100.0	0.0
Light Truck 3751-5750 lbs	24.0	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.9	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.8	0.0	83.3	16.7
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.6	34.6	65.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

4/20/2010 10:37:43 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Area Sources.urb924

Project Name: WeHo Area Sources

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	45.79	13.63	9.94	0.00	0.04	0.04	16,926.48

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	45.79	13.63	9.94	0.00	0.04	0.04	16,926.48

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	1.02	13.60	8.24	0.00	0.03	0.03	16,908.26
Hearth	0.01	0.01	0.01	0.00	0.00	0.00	15.14
Landscape	0.13	0.02	1.69	0.00	0.01	0.01	3.08
Consumer Products	40.16						
Architectural Coatings	4.47						
TOTALS (tons/year, unmitigated)	45.79	13.63	9.94	0.00	0.04	0.04	16,926.48

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

4/20/2010 10:48:02 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Mobile.urb924

Project Name: Weho Mobile Source

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	26.02	26.30	292.89	0.95	165.11	31.90	96,396.91

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	26.02	26.30	292.89	0.95	165.11	31.90	96,396.91

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General office building	26.02	26.30	292.89	0.95	165.11	31.90	96,396.91
TOTALS (tons/year, unmitigated)	26.02	26.30	292.89	0.95	165.11	31.90	96,396.91

4/20/2010 10:48:02 PM

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		51.56	1000 sq ft	1,000.00	51,560.00	524,751.91
					51,560.00	524,751.91

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.2	0.0	100.0	0.0
Light Truck < 3750 lbs	6.8	0.0	100.0	0.0
Light Truck 3751-5750 lbs	24.0	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.9	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.8	0.0	83.3	16.7
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.6	34.6	65.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Work\Projects\West Hollywood\EIR\WeHo Construction.urb924

Project Name: WeHo Construction

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	2.52	3.46	4.62	0.00	1.71	0.23	1.93	0.36	0.21	0.57	682.10

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	2.52	3.46	4.62	0.00	1.71	0.23	1.93	0.36	0.21	0.57	682.10
Demolition 01/01/2011-02/28/2011	0.02	0.15	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	16.90
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.02	0.15	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	14.36
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55
Mass Grading 01/01/2011-02/28/2011	0.06	0.48	0.27	0.00	1.69	0.02	1.71	0.35	0.02	0.37	48.62
Mass Grading Dust	0.00	0.00	0.00	0.00	1.69	0.00	1.69	0.35	0.00	0.35	0.00
Mass Grading Off Road Diesel	0.06	0.48	0.25	0.00	0.00	0.02	0.02	0.00	0.02	0.02	46.07
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55
Building 03/01/2011-12/31/2011	0.50	2.43	3.92	0.00	0.02	0.16	0.17	0.01	0.14	0.15	571.08
Building Off Road Diesel	0.37	1.72	1.19	0.00	0.00	0.12	0.12	0.00	0.11	0.11	177.52

Building Vendor Trips	0.05	0.58	0.47	0.00	0.00	0.02	0.03	0.00	0.02	0.02	116.48
Building Worker Trips	0.07	0.13	2.26	0.00	0.01	0.01	0.02	0.00	0.01	0.01	277.08
Asphalt 11/01/2011-12/31/2011	0.07	0.40	0.28	0.00	0.00	0.03	0.03	0.00	0.03	0.03	40.49
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.06	0.38	0.22	0.00	0.00	0.03	0.03	0.00	0.03	0.03	31.21
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.13
Paving Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.15
Coating 11/01/2011-12/31/2011	1.87	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00
Architectural Coating	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00

Phase Assumptions

Phase: Demolition 1/1/2011 - 2/28/2011 - Type Your Description Here

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 0

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Mass Grading 1/1/2011 - 2/28/2011 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 16.47

Maximum Daily Acreage Disturbed: 4.12

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 11/1/2011 - 12/31/2011 - Default Paving Description

Acres to be Paved: 4.12

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 3/1/2011 - 12/31/2011 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/1/2011 - 12/31/2011 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

APPENDIX C
CULTURAL RESOURCES ASSESSMENT

CULTURAL RESOURCES ASSESSMENT FOR THE PROPOSED WEST HOLLYWOOD GENERAL PLAN PROJECT, WEST HOLLYWOOD LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

City of West Hollywood
Community Development Department
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Prepared by:

AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

Authors:

M. K. Meiser, M.A.
James Wallace, M.A., R.P.A
Sara Dietler, B.A.

June 2010

USGS 7.5-minute quadrangle: Hollywood, CA
Acreage: Approx. 3.02 acres

Keywords: West Hollywood, Los Angeles County

TABLE OF CONTENTS

ATTACHMENTS

A Resumes of Key Personnel

B California State Historic Resources Inventory Listings for City of Hollywood; City of West Hollywood Designated Historical Resources

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MANAGEMENT SUMMARY

AECOM conducted this cultural resources assessment for the City of West Hollywood (City) in support of the General Plan Update Environmental Impact Report. The assessment consists of a description of the project, the environmental and regulatory setting of the planning area, and cultural resources found within the planning area. It contains a brief discussion of cultural resources management in relation to the appropriate treatment of the City's cultural resources.

A records search was conducted at the South Central Coastal Information Center (SCCIC) in Fullerton, California, on February 4, 2010. The records search revealed 28 cultural resource investigations previously conducted within or intersecting West Hollywood. These investigations included 12 SCCIC records search studies and 16 cultural resources surveys.

The records search provided site records for 17 properties and districts. The California State Historic Resources Inventory listed 257 historic resources documented in either historic surveys or project reviews, of which 121 were evaluated as having potential local, state, or national significance. The City has 77 locally designated historical resources on file, with 17 of these listed in the National Register of Historic Places (NRHP).

No archaeological resources were identified within the planning area. However, the planning area is located within the Los Angeles basin, part of the Los Angeles–Santa Ana prairies, a sensitive setting that was seasonally exploited by indigenous peoples prehistorically. While the area has undergone extensive development in the 20th century, the planning area possesses a high potential to contain buried cultural resources, including historic and prehistoric artifacts and features and human remains.

The Native American Heritage Commission (NAHC) conducted a check of its Sacred Lands File for the affected planning area on February 11, 2010. The search failed to indicate "the presence of Native American cultural resources in the immediate project area." However, the absence of specific site information in the Sacred Lands File does not preclude the possibility of cultural resources within the planning area. Contact letters were sent to individuals listed by the NAHC as potentially having an interest in the project. No comments have been received to date.

In 2007, West Hollywood was designated as one of the National Trust for Historic Preservation's Dozen Distinctive Destinations, an annual list of unique and preserved communities in the United States. West Hollywood's designated resources include several residential, hotel, and other commercial buildings, and historic districts. The R.M. Schindler House, the Lloyd Wright Home and Studio, the Savoy Plaza, the North Harper Historic District, and Sunset Tower are all listed in the NRHP for their distinctive architectural features. Other historic landmarks include the Sunset Strip, the Pacific Design Center, the Pickford Fairbanks Studio, the United Artists Studio, the Cristofelles Lace Factory, and several large apartment buildings. These landmarks reflect the significant historical development of West Hollywood, particularly from the 1900s through the 1920s.

INTRODUCTION

AECOM conducted this cultural resources assessment for the City of West Hollywood (City) in support of the General Plan Update Environmental Impact Report. The assessment consists of a description of the project, the environmental and regulatory setting of the planning area, and cultural resources found within the planning area. It contains a brief discussion of cultural resources management in relation to the appropriate treatment of the City's cultural resources.

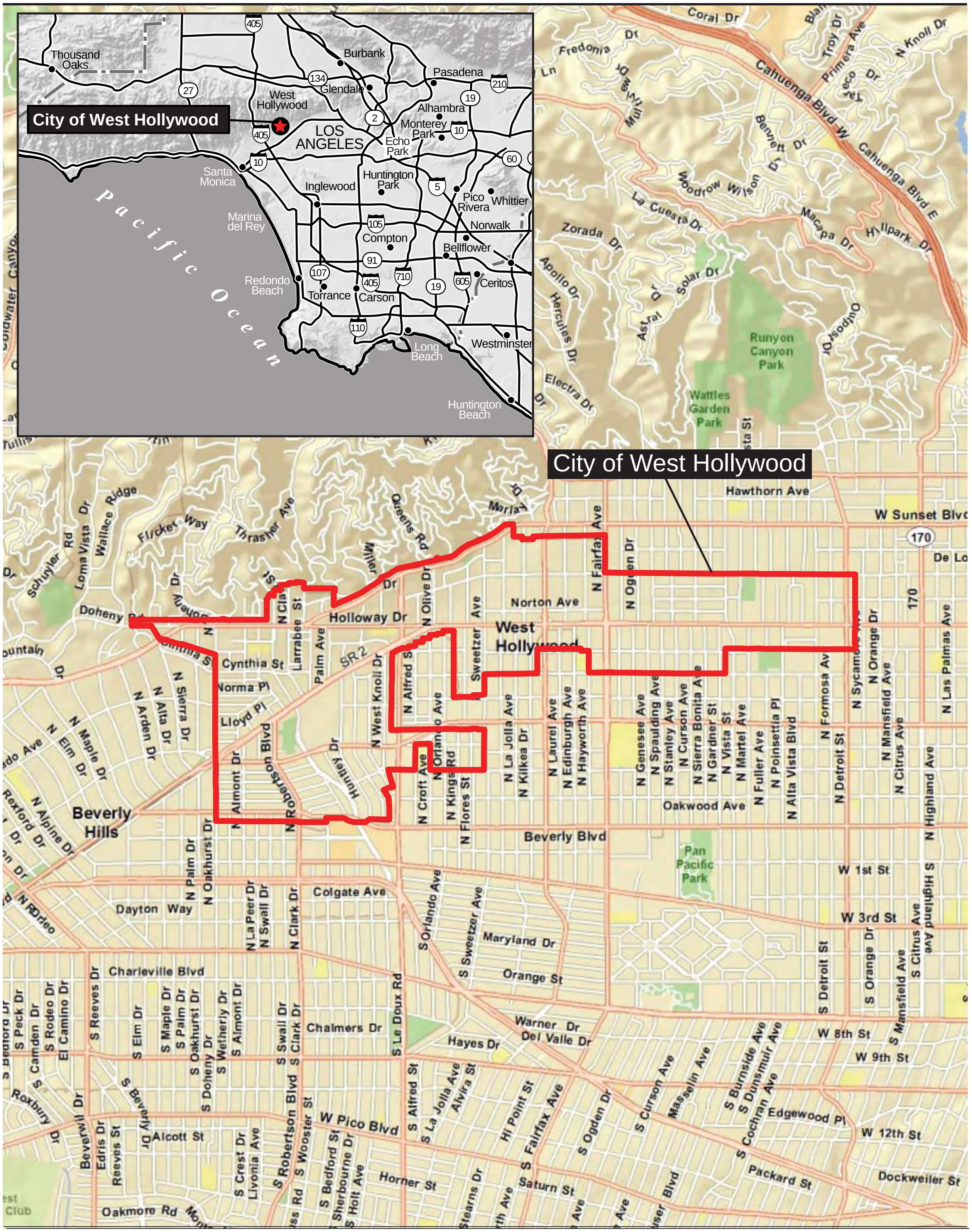
PROJECT DESCRIPTION

California state law requires each city to adopt a comprehensive, long-term general plan to guide the physical development of the city and any land outside of the city boundaries that bears a relationship to its planning activities. General plans should be updated approximately every 20 years to reflect current conditions, legislation, and community desires. In August 2007, the City initiated a collaborative program to comprehensively update its General Plan for the first time since adoption in 1988. The update program built on the vision established in the City's first General Plan and responded to evolving community needs and objectives. The current proposed project is the adoption and implementation of the General Plan and associated Climate Action Plan.

PROJECT LOCATION

West Hollywood is located in western Los Angeles County (County), about 8 miles northwest of downtown Los Angeles, within a highly urbanized area of the greater Los Angeles region. Densely developed, West Hollywood lies at the base of the Hollywood Hills. Major east-west roadways are Santa Monica Boulevard, Sunset Boulevard, and, to a lesser extent, Melrose Avenue and Beverly Boulevard. No freeways directly access the City, with the nearest freeway, State Route 101, located more than 2 miles to the east and accessed via either Santa Monica Boulevard in Los Angeles or Highland Avenue near the Hollywood Bowl. The City is served by major bus lines operated by the Metropolitan Transit Authority of Los Angeles County (Metro). Metro operates buses through West Hollywood that provide connections throughout the Los Angeles basin. West Hollywood also operates its own bus system, the Cityline bus system.

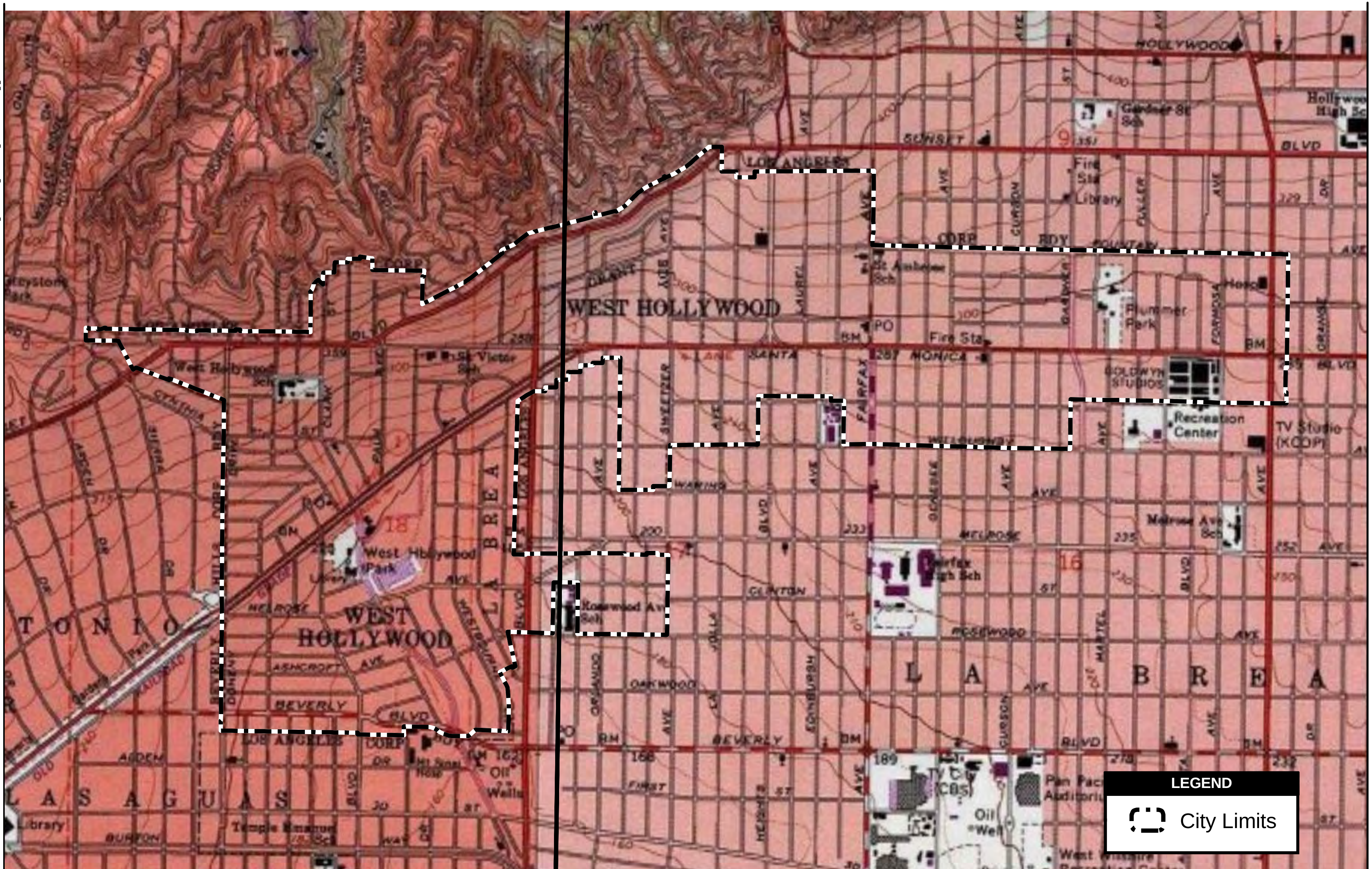
The City is 1.9 square miles and approximately 1,216 acres, and supported a population of approximately 37,348 people as of 2008 (Department of Finance 2009). The planning area for West Hollywood consists solely of areas within the City limits and is identical to the City's jurisdictional boundary (Figures 1 and 2). Since all land surrounding the City is under the jurisdiction of other cities, West Hollywood does not have a sphere of influence or any planning authority outside of its jurisdictional boundaries.



NTS

Figure 1
Regional and Vicinity Map

Path: P:\2009\09120175_WehoGPEIR\6.0 GIS\6.3 Layout\Cultural_Assessment\fig2_topo.mxd, 04/22/10, ShahS2



Source: City of West Hollywood 2010; USGS 7.5' Quadrangle Beverly Hills, Calif. 1981, Hollywood, Calif. 1981

2,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 2
Planning Area Location Map

PROJECT PERSONNEL

M. K. Meiser, M.A., conducted archival research and is the primary author of this report. James Wallace, M.A., R.P.A., conducted the records search at the South Central Coastal Information Center (SCCIC) on February 4, 2010, and contributed research and content to this report. Further research and content were contributed by Sara Dietler. Rebecca Apple, M.A., R.P.A., provided senior review for this report. Resumes of key personnel are provided in Attachment A.

EXISTING CONDITIONS

ENVIRONMENTAL SETTING

The planning area is located within the Los Angeles basin, just south of the Santa Monica Mountains. It is approximately 10 miles east of the Pacific Ocean (Maki 1995). The Mediterranean climate consists of warm, dry summers and cool, wet winters.

Before the Los Angeles River was paved, its course took it west of Los Angeles, flowing through the Hollywood area, emptying at Santa Monica Bay. The river's overflow created a marshland that covered large parts of present-day Hollywood and Beverly Hills (Gumprecht 1999). The region, part of the Los Angeles–Santa Ana prairies, once supported food resources such as acorns; sage; yucca; deer; small rodents; cactus fruit; and other plants, animals, and birds associated with freshwater marshes, which were seasonally exploited by indigenous peoples (McCawley 1996).

In the early 19th century, the location of present-day West Hollywood was part of the Rancho La Brea land grant and was used for cattle and sheep grazing. During the latter part of the 19th century, the land was developed for agricultural use. Sections of present-day West Hollywood were subdivided and farmed. Local farmers grew peas, beans, chilies, fruits, and vegetables to serve the growing Los Angeles market (City 2007a).

Currently, West Hollywood is one of the most densely populated and developed areas in the Greater Los Angeles Region. No significant original native chaparral or grassland vegetation, or associated native wildlife, exists within the City (City 1988).

Prehistoric Overview

While people are known to have inhabited Southern California beginning at least 13,000 years Before Present (B.P.) (Arnold et al. 2004), the first evidence of human occupation in the Los Angeles area dates to at least 9000 B.P. and is associated with a period known as the Millingstone horizon (Wallace 1955; Warren 1968). Departing from the subsistence strategies of their nomadic big-game hunting predecessors, Millingstone populations established more permanent settlements. Settlements were located primarily on the coast and in the vicinity of estuaries, lagoons, lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds, were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than 5000 B.P. contain a mortar and pestle complex as well, signifying the exploitation of acorns in the region.

Although many aspects of Millingstone culture persisted, by 3500 B.P., a number of socioeconomic changes occurred (Erlandson 1994; Wallace 1955; Warren 1968). These changes are associated with the period known as the Intermediate horizon (Wallace 1955). Increasing population size necessitated the intensification of existing terrestrial and marine resources

(Erlandson 1994). This was accomplished in part through use of the circular shell fishhook on the coast and more abundant and diverse hunting equipment. Evidence for shifts in settlement patterns has been noted at a variety of locations at this time and is seen by many researchers as reflecting increasingly territorial and sedentary populations. The Intermediate horizon marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and nonutilitarian materials were acquired, and travel routes were extended. Archaeological evidence suggests that the margins of numerous rivers, marshes, and swamps within the Los Angeles River Drainage served as ideal locations for prehistoric settlement during this period. These well-watered areas contained a rich collection of resources and are likely to have been among the more heavily trafficked travel routes.

The Late Prehistoric period, spanning from approximately 1500 B.P. to the Spanish mission era, is the period associated with the florescence of the contemporary Native American group who the Spanish referred to as the Gabrielino (Wallace 1955). Occupying the southern Channel Islands and adjacent mainland areas of Los Angeles and Orange counties, the Gabrielino are reported to have been second only to their Chumash neighbors in terms of population size, regional influence, and degree of sedentism (Bean and Smith 1978). The Gabrielino are estimated to have numbered around 5,000 in the pre-contact period (Kroeber 1925), and maps produced by early explorers indicate that at least 26 Gabrielino villages were within proximity to known Los Angeles River courses, while an additional 18 villages were reasonably close to the river (Gumprecht 1999). Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith 1978; Reid 1939 [1852]). The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly leafed-cherry (Reid 1939 [1852]).

Ethnographic Overview

Native Americans prehistorically inhabited the region and occupied a vast area of territory, including the entire Los Angeles basin and the Pacific Coast from Aliso Creek to Topanga Creek. As the population was distributed over diverse environmental habitats, strategies for food collection were varied. They maintained a sophisticated level of social organization in their chiefdoms. Relatively wealthy and populous thanks to an accessible variety of natural resources, their trade network extended as far as the San Joaquin Valley, the Colorado River, and Baja California. Their decorative arts and ritual ornaments using shell inlay in asphaltum, rare minerals, and soapstone were cultural trademarks of this group.

After the establishment of the Spanish Mission San Gabriel in 1771, the Native Americans were forcibly baptized and became known as the Gabrielino. Native villages and activities were disrupted with the introduction of mission life and agricultural practices that altered the landscape and the distribution of natural resources. By the time mission lands were secularized in 1834, there were approximately 1,000 neophytes living at Mission San Gabriel, and the native population had been decimated by European diseases. With secularization and Mexican control of the missions, the missions and their holdings were liquidated. By the time the United States annexed California in 1848, most of the Gabrielino population had fled the region. Few Gabrielino survived against smallpox, starvation, and violence into the 20th century.

Historic Overview

Spanish explorers made brief visits to Gabrielino territory in both 1542 and 1602; on both occasions, the two groups exchanged trade items (McCawley 1996). Sustained contact with Europeans did not commence until the onset of the Spanish period, which began in 1769 when Gaspar de Portola and a small Spanish contingent began their exploratory journey along the California coast from San Diego to Monterey. Passing through the Los Angeles area, they reached the San Gabriel Valley on August 2 and traveled west through a pass between two hills where they encountered the Los Angeles River and camped on its east bank near the present-day North Broadway Bridge. Father Juan Crespi's diaries indicate that on that day they "entered a spacious valley, well grown with cottonwoods and alders, among which ran a beautiful river. This plain where the river runs is very extensive and…is the most suitable site for a large settlement" (The River Project 2001). He goes on to describe this "green, lush valley"; its "very full flowing, wide river"; the "riot of color" in the hills; and the abundance of native grapevines, wild roses, grizzly, antelope, quail, and steelhead trout. Crespi observed that the soil was rich and "capable of supporting every kind of grain and fruit which may be planted." The river was named El Rio y Valle de Nuestra Senora la Reina de los Angeles de la Porciuncula.

A string of 21 missions was established in the years that followed the Portola expedition. By the early 1800s, the majority of the surviving Gabrielino population had entered the mission system, under the jurisdiction of Mission San Gabriel or Mission San Fernando. Mission life offered the Indians security in a time when their traditional trade and political alliances were failing and epidemics and subsistence instabilities were increasing (Jackson 1999). This lifestyle change also brought with it significant negative consequences for Gabrielino health and cultural integrity, however.

On September 4, 1781, 12 years after Crespi's initial visit, the El Pueblo de la Reina de los Angeles was established not far from the site where Portola and his men camped. Watered by the river's ample flow and the area's rich soils, the original pueblo occupied 28 square miles and consisted of a central square surrounded by 12 houses and a series of 36 agricultural fields occupying 250 acres plotted to the east between the town and the river. By 1786, the flourishing pueblo attained self-sufficiency and funding by the Spanish government ceased. Fed by a steady supply of water and an expanding irrigation system, agriculture and ranching grew, and by the early 1800s, the pueblo produced 47 cultigens (Gumprecht 1999).

Alta California became a state when Mexico won its independence from Spain in 1821, and Los Angeles selected its first city council the following year. The authority of the California missions gradually declined, culminating with their secularization in 1834. Native Americans who had become dependent on the missions were disenfranchised, and most Gabrielino neophytes either fled to the north or sought work as laborers for nearby private land owners. Former mission lands were quickly divided and granted to private citizens for use as agricultural and pastoral land (Reid 1939 [1852]).

As the possibility of a takeover of California by the United States loomed large in the 1840s, the Mexican government increased the number of land grants in an effort to keep the land in Mexican hands. More than 600 rancho grants were made between 1833 and 1846. The planning area falls within the 4,439-acre Rancho La Brea, granted to Antonio Jose Rocha and Nemisio Dominquez on January 6, 1828 (Kielbasa 1997).

The United States took control of California after the Mexican-American War of 1846, seizing Monterey, San Francisco, San Diego, and Los Angeles with little resistance. Los Angeles soon slipped from American control, and was retaken in 1847. Approximately 600 U.S. sailors, marines, Army dragoons, and mountain men converged under the leadership of Colonel Stephen W. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the California resistance, which was led by General Jose Maria Flores. The American party crossed the San Gabriel River and scored a decisive victory over the Californians, effectively ending the war and opening the door for increased American immigration (Takahashi 1980).

The population of California continued to grow with the expansion of the railroads. The Southern Pacific Railroad extended its line from San Francisco to Los Angeles in 1876. Newcomers continued to pour into Los Angeles and the population nearly doubled between 1870 and 1880. The completion of the second transcontinental line, the Santa Fe, took place in 1886, causing a fare war that drove fares to an unprecedented low. More settlers continued to head west and the demand for real estate skyrocketed. The Los Angeles population rose from 11,000 in 1880 to 50,000 by 1890 (Meyer 1981:45). The San Pedro, Los Angeles, and Salt Lake Railroad (later incorporated into the Union Pacific system) was built in 1905. During the first three decades of the 20th century, more than 2 million people moved to Los Angeles County, transforming it from a largely agricultural region into a major metropolitan area (Gumprecht 1999).

Site-Specific Historic Setting

The planning area was very likely host to the Gabrielino prior to the 18th century. They would have exploited locally available resources such as acorns; sage; yucca; deer; small rodents; cactus fruit; and other plants, animals, and birds associated with freshwater marshes (McCawley 1996). The area was granted to Senor Moreno in 1775 and was most likely used by Spanish settlers for cattle and sheep grazing (CPPOA 2007). During the latter half of the 19th century, the area was primarily used for farming. The land was subdivided into large lots, allowing residents to grow crops such as peas, beans, chilies, fruits, and vegetables for the growing Los Angeles market (City 2007a).

West Hollywood was once part of the 4,439-acre Rancho La Brea, granted to Antonio Jose Rocha and Nemisio Dominquez on January 6, 1828. The former area of Rancho La Brea would currently be bounded (roughly) by Wilshire Boulevard in the south, Cynthia Street to the west, Sunset Boulevard to the north, and Gower Street in the east (Kielbasa 1997). After receiving title to part of Rancho La Brea as payment for legal services, Henry Hancock and his brother purchased the rest of Rancho La Brea from the son of Antonio Jose Rocha in 1860. By the 1870s, Hancock was exploiting the vast petroleum reserves present in the area. In the early 1860s, Hancock devised a scheme to use camels to deliver mail cross-country. Camels and camel handlers were brought in from Turkey and Egypt (Kielbasa 1997).

George Caralambo (also known as Greek George and, later, George Allen), who had come to America in 1855 to serve as a camel driver for the military, was hired by Hancock as a camel driver. Hancock gave Caralambo permission to build a farmhouse and camel stables in the northwest part of Rancho La Brea, located within present-day West Hollywood. When the cross-country mail service plan failed, Caralambo released the camels into the local area. The camels continued to roam freely for nearly 30 years (Kielbasa 1997). Caralambo built an adobe in the vicinity of Santa Monica Boulevard and Kings Road, and continued to work for Hancock as a ranch hand into the 1870s. In 1874, Caralambo alerted the local sheriff that the infamous bandit Tiburcio Vasquez was hiding out on his farm and claimed a $15,000 reward (Kielbasa 1997).

In 1894, Moses Sherman purchased land at the corner of San Vicente Boulevard and Santa Monica Boulevard. This became the location of the Los Angeles Railway Company powerhouse and maintenance shop buildings (currently the site of the Pacific Design Center). Many workers and their families moved to the area and, by 1912, the town of Sherman was a burgeoning community (City 2007a, 2007b; West Hollywood Marketing and Visitors Bureau 2007).

In the 1910s, the movie industry moved into the area, and several silent-era movie studios were established in Sherman. One of Hollywood's first movie studios opened on a lot on the southwest corner of Santa Monica Boulevard and Formosa Avenue. By 1922, the studio was owned by Mary Pickford and Douglas Fairbanks. The studio later became known as Samuel Goldwyn Studio and is currently called The Lot Studios (Terry A. Hayes Associates LLC 2006).

Sherman continued to grow, spreading north. Although the neighboring community of Hollywood was annexed to the City of Los Angeles in 1910, Sherman residents voted against annexation in 1924. The following year, the town changed its name to West Hollywood, a move that recognized their ties to the neighboring community but reiterated their separate identity (ARG 2008). Since the area was not part of the City of Los Angeles, and therefore not subject to Los Angeles city laws, the area became a haven for bootleggers and gamblers in the 1920s. Unincorporated West Hollywood, with its loose county regulations, was viewed as the perfect venue for the development of entertainment-related nightlife. Many nightclubs and casinos flourished along the Sunset Strip at this time (ARG 2008). On a broader scale, the repeal of Prohibition precipitated later closing times for bars, as well as new laws permitting the mixing of drinks and dancing (Federal Writers Project 1941).

Zoning changes in the 1930s allowed for new development along the major thoroughfare of Sunset Boulevard, including new retail areas, such as Sunset Plaza, and additional nightclubs (West Hollywood Marketing and Visitors Bureau 2007). Throughout the 1930s and 1940s, nightclubs such as the Trocadero, the Mocambo, and Ciro's were popular entertainment spots for Hollywood film stars. These clubs were viewed as places to see and be seen. The thoroughfare itself, Sunset Boulevard, known as the "Sunset Strip," became famous for its film industry patronage (Hancock 1949; ARG 2008).

Several factors led to a decline in the Sunset Strip's nightlife during the 1950s. Changing expectations allowed celebrities, no longer under stringent studio contracts, to socialize more privately (West Hollywood Marketing and Visitors Bureau 2007). The introduction of television provided in-home entertainment, and popular headline acts like Dean Martin and Frank Sinatra began to vacate the Sunset Strip in favor of more lucrative Las Vegas casino contracts. With the departure of popular headline acts, nightclubs became infused with the progressive jazz and folk music scene during this period of decline.

Meanwhile, the rock 'n' roll music phenomenon was emerging. At its onset, New York City maintained its traditional role as the epicenter of American music. By the early 1960s, however, that role was shifting west to the greater Los Angeles area. The music industry received a tremendous jolt from the emergence of the Beatles in 1964, who signed with the American music company Capitol Records, based in Hollywood. New ideas also emerged in the local record-making industry when both Phil Spector (with his label Philles Records) and Brian Wilson (of the Beach Boys) began to use movie industry recording studios to make popular music by the early 1960s. Rock music inspired a brief renaissance of nightlife on Sunset Strip but, by the late 1960s, hippie culture dominated the Strip and eventually the nightclub scene waned again. This was due in part to a failed business coup by the Los Angeles County Supervisor to redevelop the Sunset Strip into a financial district. Despite this, the Strip remained a viable draw for the record business, largely because of its billboard landscape that helped to publicize and promote records (Priore 2007).

In addition to the music industry, the design industry took root locally from the 1920s. Architects designed iconic buildings in the popular Spanish Colonial Revival and Art Deco styles. Most notably, the radical Modern style, pioneered by Rudolph Schindler, arguably began in West Hollywood. The Schindler House, built in 1922, was constructed of tilt up concrete panels and consisted of glass and open space. Located on Kings Road, the Schindler House began a trend of progressive architectural design in West Hollywood and influenced California architecture for the rest of the century. This local trend of progressive architecture continued through the popularity of the mid-century Modern style and culminated in the Pacific Design Center (PDC), designed by Argentine architect Cesar Pelli in 1975. The PDC blue building was completed in 1975, the green building in 1988, and the recent red building in 2009.

Socially, West Hollywood continued to attract residents interested in a tolerant environment removed from restrictive laws of both the City and County of Los Angeles. From the late 1960s, the gay community developed a strong and influential base as West Hollywood progressively reversed anti-gay laws and supported equal rights. As the gay movement gained momentum after the Stonewall riots in New York on June 28, 1969, West Hollywood became a center for gay culture and activism. The gay population grew significantly, influencing local policies, particularly after the City was incorporated in 1984. The establishment of domestic partnerships offered a local alternative to marriage that recognized both same-sex and opposite-sex unions.

Incorporation of the City was spurred by resistance to the County's plan to remove rent control restrictions. Fearing rapid rent inflation, residents and the Community for Economic Survival banded together to vote for incorporation. West Hollywood adopted one of the strongest rent control laws in the nation and continued to pass local ordinances in support of equal rights, environmental sustainability, and social responsibility.

Historically, physical development of West Hollywood has been a mix of residential, commercial, and light industrial buildings, including movie studios, modest homes, and iconic architectural masterworks. Prior to the 1920s, the area was largely undeveloped (Los Angeles Public Library [LAPL] 1906–1950, Vol. 10, 1919, Sheet 0c). U.S. Geological Survey (USGS) topographic maps from 1906 and 1921 reveal that very little development took place within the planning area during that 15-year period. The Pasadena and Pacific Railroad had been converted to the Pacific Electric line and extended through present-day West Hollywood. Numerous oil wells dotted the area directly south of West Hollywood (USGS 1906 Santa Monica 30' Quadrangle; USGS 1921 Santa Monica 30' Quadrangle). By the 1950s, the area had been subdivided and more heavily developed, though some surrounding parcels remained undeveloped (LAPL 1906–1951, Vol. 20, 1926–1950, Sheet 2017). The City is currently one of the most densely populated and developed areas in Los Angeles.

REGULATORY SETTING

This section discusses the regulatory setting for cultural resources within the City. A summary of federal, state, and local laws and designation criteria is provided.

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 created the framework for preservation activity in the United States. The NHPA redefined and expanded the National Register of Historic Places (NRHP) (established by the Historic Sites Act of 1935), created the position of State Historic Preservation Officer (SHPO), and set up the Historic Preservation Fund to fund the provisions of the NHPA. Section 106 of the NHPA requires that the effects of all federal undertakings on properties eligible or listed in the NRHP be taken into account.

Amendments to the NHPA in 1980 provided for the establishment of a Certified Local Government (CLG) program. The CLG program allows for direct local government participation and integration in the statewide historic preservation planning process. Cities can apply for CLG status and, to qualify, must adopt a historic preservation ordinance, establish a qualified preservation commission, provide for adequate public participation, and conduct a comprehensive historic resource survey. An advantage to becoming a CLG includes the ability to compete for preservation grants. CLGs directly participate in the nomination of historic properties to the NRHP and perform other preservation functions as delegated by SHPO under the NHPA.

National Register of Historic Places

The NRHP is an authoritative guide used by federal, state, and municipal governments; private groups; and citizens to identify the nation's cultural resources. The NRHP is administered by the National Park Service. Nominations within the state are made to the California State Office of Historic Preservation and reviewed by the State Historical Resources commission. If approved, nominations are forwarded by the SHPO to the National Park Service. The Keeper of the NRHP makes the final determination regarding the listing of properties in the NRHP. Buildings, structures, objects, sites, and districts may be listed in the NRHP. To be listed, the resource has to meet one or more of the criteria presented in 36 Code of Federal Regulations 60. This includes buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that are the following:

A. Associated with events that have made a significant contribution to the broad patterns of our history; or

B. Associated with the lives of persons significant in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

National Historic Landmarks

The National Historic Landmark (NHL) program is conducted by the National Park Service to identify, designate, and protect cultural resources of national significance. NHLs are identified by theme studies conducted by the National Park Service. These theme studies provide an additional level of documentation in the NRHP designation process. Information on the history, significance, and integrity of a property, along with a statement on the relationship of the property to NRHP criteria, is prepared. Nominations are reviewed by the National Park Service Advisory Board, which forwards recommendations for designation to the Secretary of the Interior for a final determination.

State

California Environmental Quality Act

Historical resources are recognized as part of the environment under the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Sections 21002(b), 21083.2, and 21084.1). Under CEQA, the lead agency is responsible for determining whether a project may have a significant effect on historical or archaeological resources. If it can be demonstrated that a project will cause damage to a historical resource or a unique archaeological resource, the lead agency may require that reasonable efforts be taken to preserve these resources in place or provide mitigation measures.

CEQA Guidelines, California Code of Regulations Title 14, Section 15064.5

CEQA Guidelines provide definitions that qualify a "historical resource" if it is the following:

1) Listed in the California Register for Historical Resources (CRHR).

   The CRHR was created by the state legislature in 1992 and is intended to serve as an authoritative listing of historical and archaeological resources in California. There are several ways in which a resource can be listed in the CRHR, which are codified under Title 14 California Code of Regulations (CCR), Section 4851 as follows:

   a. A resource can be listed in the CRHR by the State Historical Resources Commission.

   b. If a resource is listed in or determined eligible for listing in the NRHP, it is automatically listed in the CRHR.

   c. If a resource is a California State Historical Landmark, from No. 770 onward, it is automatically listed in the CRHR.

   Additionally, the eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of historical resources for purposes of CEQA, in this way establishing a consistent evaluation process for all public agencies statewide. A resource may be eligible for inclusion in the CRHR if it does the following:

   1. Is associated with events that have made a significant contribution to the broad patterns of California's history or cultural heritage;

   2. Is associated with the lives of persons important in our past;

   3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   4. Has yielded, or may be likely to yield, information important in prehistory or history.

   A resource must also retain the integrity of its physical identity that existed during its period of significance. Integrity is evaluated with regard to retention of location, design, setting, materials, workmanship, feeling, and association.

   In addition to the above criteria, a resource younger than 45 years may be listed in the CRHR if it falls under the category of Special Considerations (PRC Section 5024.1, Title 14 CCR, Section 4852[d][2]). If it can be demonstrated that sufficient time has passed to evaluate the historical importance of a resource, it may be found eligible for the CRHR.

2) Determined eligible for the CRHR by the State Historical Resources Commission.

3) Included in a local register of historical resources.

Per PRC Section 5020.1(k): “Local register of historic resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

4) Identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g).

   A resource identified as significant in a historical resource survey may be listed in the CRHR if the survey meets all of the following criteria:

   1. The survey has been or will be included in the State Historic Resources Inventory.

   2. The survey and the survey documentation were prepared in accordance with Office [of Historic Preservation] procedures and requirements.

   3. The resource is evaluated and determined by the Office [of Historic Preservation] to have a significance rating of Category 1 to 5 on Department of Parks and Recreation (DPR) Form 523.

   4. If the survey is 5 or more years old at the time of its nomination for inclusion in the CRHR, the survey is updated to identify historical resources that have become eligible or ineligible due to changed circumstances or further documentation and those that have been demolished or altered in a manner that substantially diminishes the significance of the resource.

5) Determined by a lead agency to be historically significant.

According to CEQA Guidelines Section 15064.5(a)(3), “Any object, building, structure, site, area, place, record, or manuscript which 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 an 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 the criteria for listing on the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852)” and it retains sufficient integrity.

California Historical Landmarks
California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have been determined to have statewide historical significance. Typically, CHLs reflect well-known places or events in California history such as missions, battlegrounds, or gold rush sites. All CHLs are of statewide significance and meet one of the following criteria:

- Be the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).

- Be associated with an individual or group having a profound influence on the history of California.

- Be a prototype of, or an outstanding example of, a period, style, architectural movement, or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest
California Points of Historical Interest are buildings, structures, sites, or features of local (city and county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. The criteria for designation of Points of Historical Interest are the same as those that govern the CHL program.

Public Resources Code 5097.5

Section 5097.5 of the California PRC prohibits excavation or removal of any "vertebrate paleontological site or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Section 30244 requires reasonable mitigation of adverse impacts to paleontological resources from development on public land. Penal Code Section 623 spells out regulations for the protection of caves, including their natural, cultural, and paleontological contents. It specifies that no "material" (including all or any part of any paleontological item) will be removed from any natural geologically formed cavity or cave.

Public Resources Code 5097.98

This section discusses the procedures that need to be followed upon the discovery of Native American human remains. The Native American Heritage Commission (NAHC), upon notification of the discovery of human remains by the coroner, is required to notify those persons it believes to be most likely descended from the deceased Native American. It enables the descendant to inspect the site of the discovery of the Native American human remains and to recommend to the land owner (or person responsible for the excavation) means of treating, with dignity, the human remains and any associated grave goods.

Health and Safety Code 7050.5

This code establishes that any person who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location without authority of the law is guilty of a misdemeanor. It further defines procedures for the discovery and treatment of Native American remains.

Health and Safety Code 8010-8011

This code is intended to provide consistent state policy to ensure that all California Indian human remains and cultural materials are treated with dignity and respect. The code extends policy coverage to nonfederally recognized tribes and federally recognized groups.

Assembly Bill 2641

This section provides procedures for private land owners to follow upon discovering Native American human remains. Land owners are encouraged to consider culturally appropriate measures if they discover Native American human remains as set forth in California PRC Section 5097.98. Assembly Bill 2641 further clarifies how the land owner should protect the site both immediately after discovery and into the future.

Senate Bill 18

Because the proposed project would result in an update to the West Hollywood General Plan, it is required to comply with Senate Bill 18 (Government Code sections 65352.3, 65352.4), which requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction. Accordingly, the City Community Development Department initiated tribal consultation in accordance with the State of California Tribal Consultation Guidelines. With the information currently available, no known Native American cultural places would be affected by the proposed project.

Local

City of West Hollywood Historic Preservation Ordinance

The City adopted the Historic Preservation Ordinance in 1989 as part of the Municipal Code (Title 19, Article 19-4, Chapter 19.58). The ordinance outlines goals to preserve cultural resources in the City, including the designation criteria and the establishment of a governing commission.

Historic Preservation Commission

The Historic Preservation Commission (HPC) updates the City's Historic Resources Survey and recommends to the Planning Commission and City Council the designation of cultural resources. The Historic Preservation Commission (formerly Cultural Heritage Commission) was created on November 6, 1989, and consists of five members appointed directly by a Council member and two members appointed by the Council as a whole (at-large). All members appointed serve a 2-year term, commencing on June 1 following a general election. Members must have a significant interest in the City such as residency, business or residential ownership, economic involvement, or some other valid link as determined by the City Council. All members of the HPC have a demonstrated interest or competence in, or knowledge of, historic preservation and the cultural resources of the City. HPC members are not officers or employees of the City.

The powers and duties of the HPC are outlined in West Hollywood Municipal Code Section 2.40.100 et seq. and include periodically updating the City's Historic Resources Survey and recommending to the City Council the designation of cultural resources including structures, portions of structures, improvements, natural features, landmarks, sites, objects, historic districts, multiple resources, or thematic groupings of structures sharing common characteristics or uses and recommending certificates of appropriateness to the Planning Commission.

Criteria for Designation of Cultural Resources

The HPC may approve the nomination and recommend to the City Council the designation of a cultural resource or historic district if it finds that the cultural resource meets one or more of the following criteria:

A. *Exemplifies Special Elements of the City*. It exemplifies or reflects special elements of the City's aesthetic, architectural, cultural, economic, engineering, political, natural, or social history and possesses integrity of design, location, materials, setting, workmanship feeling, and association in the following manner:

    1. It embodies distinctive characteristics of a period, method, style, or type of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or

    2. It contributes to the significance of a historic area by being:

        a. A geographically definable area possessing a concentration of historic or scenic properties; or

        b. A thematically related grouping of properties that contribute to each other and are unified aesthetically by plan or physical development; or

    3. It reflects significant geographical patterns, including those associated with different eras of growth and settlement, particular transportation modes, or distinctive examples of community or park planning; or

    4. It embodies elements of architectural design, craftsmanship, detail, or materials that represent a significant structural or architectural achievement or innovation; or

    5. It has a unique location or singular physical characteristic or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city; or

B. *Example of Distinguishing Characteristics.* It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen; or

C. *Identified with Persons or Events.* It is identified with persons or events significant in local, state, or national history; or

D. *Notable Work.* It is representative of the work of a notable architect, builder, or designer.

Except as outlined below, the criteria and procedure for designating a historic district are the same as for designating individual cultural resources as above.

A. *Historic Resources Survey.* As part of the nomination for designating a historic district, a historic resources survey shall be prepared identifying all contributing resources and non-contributing resources. If not otherwise designated, all cultural resources listed in a designated historical district will be considered "contributing." The survey may also identify contributing landscaping, natural features, or sites. The survey shall be reviewed in accordance to the designation procedures listed below. The survey shall identify the manner in which the proposed district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development within the period of significance and within the context of the district.

B. *Finding of Contribution.* Each cultural resource within a proposed historic district must be identified as a contributing resource. If a resource is individually designated, it is then automatically considered a contributing resource within the district that includes it.

RESEARCH METHODS

The investigation for this project involved archival research, including an archival records search, a sacred land files check, and other background research to evaluate cultural and historical resources. The study area encompassed the entire City.

RECORDS SEARCH

Archival research for this project was conducted by James Wallace, M.A., on February 4, 2010, at the SCCIC housed at California State University, Fullerton. The research focused on the identification of previously recorded cultural resources within or intersecting the City. The archival research included review of previous cultural resources investigation reports, cultural resources site records, historic maps, and historic property inventories. Historic maps included Sanborn Fire Insurance Maps and historic USGS topographic maps. Inventories of the NRHP, the CRHR, the California State Historic Resources Inventory (HRI), and California Historical Landmarks and Points of Interest were reviewed to identify cultural resources within the study area. Additionally, on April 14, 2010, Trina Meiser, M.A., contacted John Chase at the City and was provided with a list of designated historical resources within West Hollywood.

Previous Cultural Resources Investigation Reports

The records search revealed that 28 cultural resources investigations were previously conducted within the City (Table 1).

Table 1. Previous Cultural Resources Investigation Reports

Author	Report# (LA-)	Title	Date
Anonymous	LA 1578	Technical Report Archaeological Resources Los Angeles Rapid Rail Transit Project Draft Report	1983
Bissell, Ronald M.	LA 1968	Cultural Resources Literature Review of the Metro Rail Red Line Western Extension Alternatives	1989
Casen, George	LA 3765	Historic Property Survey	NA
Duke, Curt	LA 4401	Cultural Resource Assessment at 8721 Sunset Boulevard	1999
Duke, Curt	LA 4402	Cultural Resource Assessment at 9145 Sunset Boulevard	1999
Duke, Curt	LA 4411	Cultural Resource Assessment at 8300 West Sunset Boulevard	1999
Duke, Curt	LA 4551	Cultural Resource Assessment for Pacific Bell Services Facility LA 618-05	1999
Duke, Curt	LA 4574	Cultural Resource Assessment for Pacific Bell Services Facility LA 454-01	1999
Duke, Curt	LA 5028	Cultural Resource Assessment for AT&T Wireless Services Facility C632.1	2000

Author	Report# (LA-)	Title	Date
Gray, Deborah	LA 5090	Cultural Resource Assessment for Pacific Bell Mobile Services Facility LA 454-01	1999
Duke, Curt	LA 5343	Cultural Resource Assessment Cingular Wireless Facility No. SM 096-01	2001
Maki, Mary K.	LA 5355	Negative Phase I Survey of 0.35 acres for Havenhurst Senior Housing Project	2001
Duke, Curt	LA 6123	Cultural Resource Assessment Cingular Wireless Facility No. SM 015-02	2002
Duke, Curt	LA 6128	Cultural Resource Assessment Cingular Wireless Facility No. SM 014-01	2001
Wlodarski, Robert J.	LA 7375	Phase I Archaeological Study Linick-Weisman House	2004
Duke, Curt, and Judith Marvin	LA 7772	Cultural Resource Assessment Cingular Wireless Facility No. SM 182-02	2003
Carmack, Shannon, and Judith Marvin	LA 8095	Cultural Resource Assessment the Melrose Triangle Project	2004
McKenna, Jeanette	LA 8244	Phase I Cultural and Paleontological Investigation for Sunset Millennium Project	1999
Maki, Mary K.	LA 8269	0.3-acre Archaeological Survey for the Sierra Bonita Construction Project	2007
Bonner, Wayne H.	LA 9538	Cultural Resources Records Search for AT&T Mobility, LLC Candidate EL0130-01	2008
Bonner, Wayne H., and Kathleen Crawford	LA 9555	Cultural Resources Record Search for T-Mobile USA Candidate SV11745B	2009
Bonner, Wayne H., and Kathleen Crawford	LA 9556	Direct APE Historic Architectural Assessment for T-Mobile USA Candidate SV11745B	2009
Ehringer, Candace, and Angel Tomes	LA 9799	Cultural Resources Assessment for the Proposed Movietown Specific Plan Project	2008
Ehringer, Candace, and Angel Tomes	LA 9801	Cultural Resources Assessment for the Proposed Sunset Time Specific Plan	2008
Botkin, Steven G.	LA 847	1/4-acre Lot Survey of the Corner of San Vicente Blvd and Beverly Boulevard	1973
Salls, Roy A.	LA 236	Archaeological Recon. Survey of West Hollywood Civic Center Esa Project	1988
White, Robert S.	LA 2271	Archaeological Assessment of the Cedars-Sinai Medical Center	1991
Ehringer, Candace, and Angel Tomes	LA 9304	Cultural Resources Assessment for the Proposed Formosa Specific Plan at Santa Monica Boulevard	2007

Previously Recorded Cultural Resources Site Records

Seventeen properties and structures were identified during the site records search. All of the identified site records pertained to historic buildings constructed between the early and middle 20th century (Table 2).

Table 2. Previously Recorded Cultural Resources Site Records

Primary Number	Resource Name	Date	Significance
19-3173	Linick/Weisman House	c. 1928	NRHP-eligible
19-176757	Pacific Design Center Blue and Green Buildings	1975/1987	
19-176772	8720 Sunset Boulevard Classical Revival Temple	1934	
19-176773	Sunset Plaza Commercial District	1934–1936	NRHP-eligible
19-176871	Craftsman District (Hancock and Palm Avenues)	1911–1931	
19-176909	Sunset Strip District	1935–1939	
19-176911	7155 Santa Monica Boulevard Commercial Building	1928	
19-187323	633 North Almont Drive	1950s	
19-187324	9080 Santa Monica Boulevard	1928	CRHR-eligible
19-187439	7400-7408 Santa Monica Boulevard Vanetta Building (Property # 083531)	1920s–1950s	
19-188224	7141 Santa Monica Boulevard/1107-1117 Detroit Street		
19-188277	1310 Olive Drive Historic Apartment Complex	1951	
19-188278	8414 Sunset Boulevard Historic Architectural Evaluation	1919	
19-188279	8426/8430 Sunset Boulevard House of Blues	1919, 1992 remodel	
19-188280	8432 Sunset Boulevard		
19-188460	8375 Fountain Avenue Apartments	c. 1957	
19-188508	8730 Sunset Boulevard, Sunset Towers		

National Register of Historic Places

Eight historic properties in West Hollywood were identified as listed in the NRHP (Table 3). These resources include the works of famed architects and distinctive examples of architectural styles that create West Hollywood’s unique character and are primarily listed under NRHP Criterion C. This list does not appear to be comprehensive.

Table 3. Historic Properties listed in the NRHP

Primary Number	Resource Name	Address	Year Listed
19-176742	Lloyd Wright Home and Studio	858 North Doheny Drive	1987
19-167269	Colonial House	1416 N. Havenhurst Drive	1982
19-176750	Hacienda Arms Apartments	8439 Sunset Boulevard	1983
19-176748	Sunset Towers	8358 Sunset Boulevard	1980
19-180739	N. Harper Ave. Historic District	North Harper Avenue between Fountain and De Longpre Avenues	1996
19-176743	Patio del Moro	8225–8237 Fountain Avenue	1986
19-176746	Ronda	1400–1414 Havenhurst Drive	1985
19-176744	R.M. Schindler House	833 North Kings Road	1971

California State Historic Resources Inventory

A search of the HRI produced a list of 257 historic resources previously recorded in West Hollywood (Attachment B). Of these, 121 were evaluated as having potential local, state, or national significance.

City of West Hollywood Designated Historical Resources

The City provided a comprehensive list of 77 resources within the City that are listed in the NRHP or CRHR, or are designated as locally significant (Table 4; Attachment B). Of these, 17 are indicated as listed in the NRHP. Figure 3 indicates designated historical resources in the City.

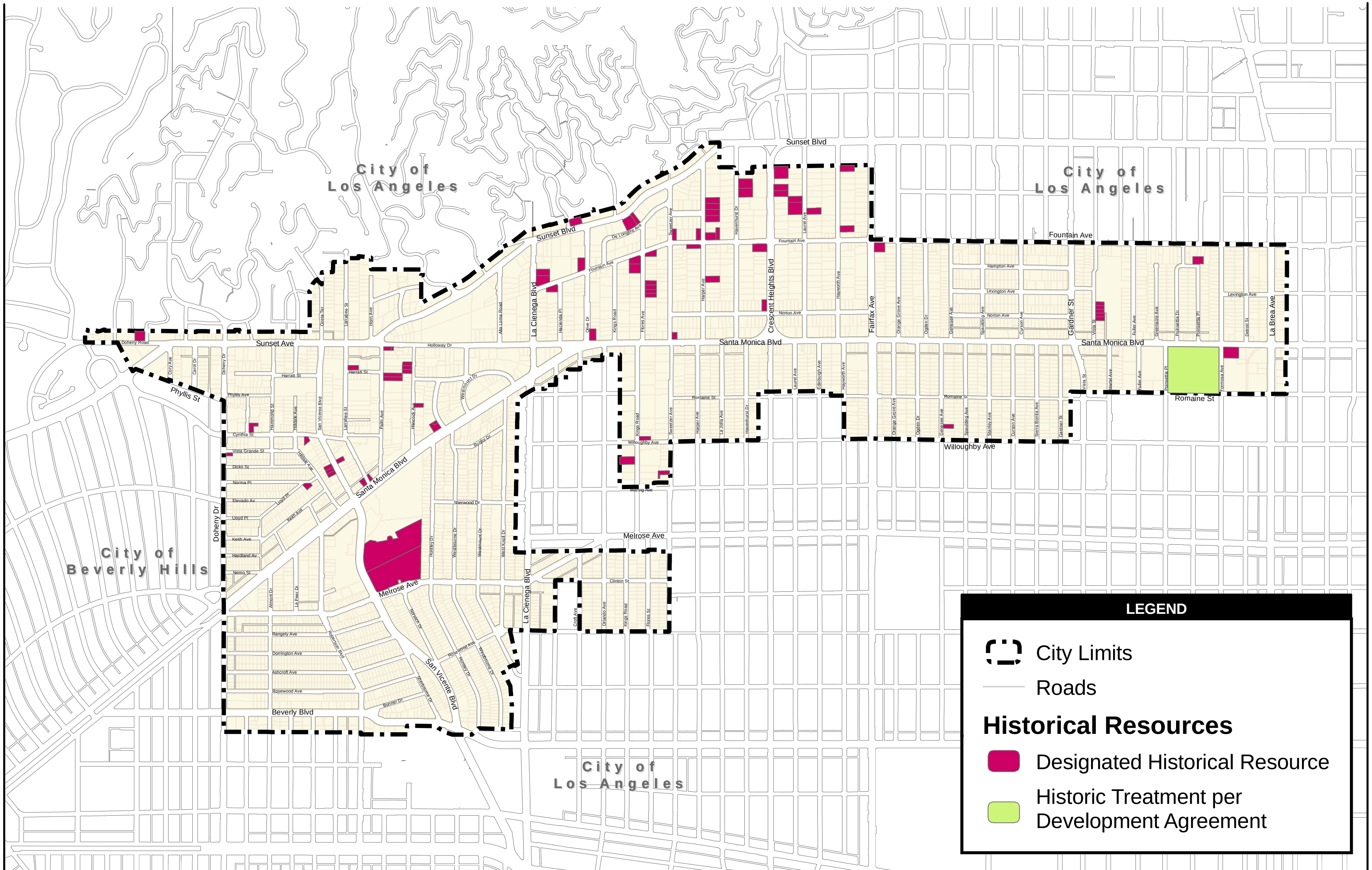
Table 4. Historical Resources Designated by the City of West Hollywood

Resource Name	Address	Year Built	Significance
Villa Italia	1201 Crescent Heights Boulevard	1931	Designated
Savoy Plaza	1360 Crescent Heights Boulevard	1929	Designated
The Tuscany	1400 Crescent Heights Boulevard	1925	Designated
The Granville	1424 Crescent Heights Boulevard	1929	Designated
La Fontaine	1285–1289 Crescent Heights Boulevard	1928	Designated
Old Sherman	8914 Cynthia Street	1905	Designated
First Baptist Church	9025 Cynthia Street	1920	Designated
Hart House	8341 Delongpre Avenue	1919	Designated
Lloyd Wright Home and Studio	858 Doheny Drive	1927	NRHP
	9231–1945-1/2 Doheny Road	1936–1938	Designated
Crescent Heights Methodist Church	1296/7870 Fairfax Avenue/Fountain Avenue	1924	Designated
Craftsman	1228 Flores Street	1918	Designated
Art Deco Apartment Building	1236 Flores Street	1931	Designated
	1224–1226 Flores Street	1928	Designated
	1230–1232 Flores Street	1928	Designated
The Royal Gardens	1255–1263 Flores Street	1927	Designated
Patio del Moro; Arthur & Nina Zwebell (Harper Ave. Historic District; Courtyard Thematic District)	8225–8237 Fountain Avenue	1926	NRHP
Four Gables; Leland Bryant	8250–8262 Fountain Avenue	1927	NRHP
Beau Sejour	8320–8328 Fountain Avenue	1928	Designated
Fountain Corridor Group	8352–8356 Fountain Avenue	1926	Designated
	8415–8423 Fountain Avenue	1941	Designated
The Villas	8468–8480 Fountain Avenue	1939	Designated
El Palacio	8491–8499 Fountain Avenue	1931	Designated

Resource Name	Address	Year Built	Significance
Adobe House	916 Genesee Avenue	1922	Designated
Normandie Towers	7219 Hampton Avenue	1925	Designated
Fire Station 7	958 Hancock Avenue	1929	Designated
	1013 Hancock Avenue	1915	Designated
	1017 Hancock Avenue	1913	Designated
	1009–1011 Hancock Avenue	1931	Designated
El Pasadero (Harper Ave. Historic District; Courtyard Thematic District)	1330 Harper Avenue	1931	NRHP
Casa Real	1354 Harper Avenue	1931	NRHP
The Ramona	1236–1246 Harper Avenue	1923	NRHP
Villa Primavera; Arthur & Nina Zwebell (Harper Ave. Historic District; Courtyard Thematic District)	1300–1308 Harper Avenue	1923	NRHP
Romanesque Villas (Architect: Leland Bryant)	1301–1309 Harper Avenue	1926	NRHP
Harper House (Architect: Leland Bryant)	1334–1336 Harper Avenue	1929	NRHP
Villa Sevilla (Harper Ave. Historic District; Courtyard Thematic District)	1338–1352 Harper Avenue	1931	NRHP
Colonial House (Architect: Leland Bryant)	1416 Havenhurst Drive	1930	NRHP
La Ronda	1400–1414 Havenhurst Drive	1928	NRHP
Hayworth Tower; Leland Bryant	1314 Hayworth Avenue	1930	NRHP
Spanish Colonial Revival	1440 Hayworth Avenue	1933	Designated
	1440–1450 Hayworth Avenue	1933	Designated
	8756 Holloway	1946	Designated
	8766 Holloway	1937	Designated
Schindler Buildings	8758 –8760 Holloway	1937	Designated
	8762–8764 Holloway	1946	Designated
Schindler House	835 Kings Road	1922	NRHP
Rootenberg-Markham House	902 Kings Road	1952	Designated
Lotus Apartments	1216–1224 La Cienega Boulevard	1928	Designated
English Village	1000–1012-1/2 Larrabee Street	1924	Designated
	1343 Laurel Avenue	1923	Designated
Villa D'Este	1355 Laurel Avenue	1928	Designated
	1334–1342 Laurel Avenue	1927	Designated
Pacific Design Center Blue and Green Buildings	8687 Melrose Avenue	1975/1987	Designated
	8954–8956 Norma Place	1921	Designated
Craftsman District	976 Palm Avenue	1924	Designated

Resource Name	Address	Year Built	Significance
Craftsman District	986–988 Palm Avenue	1922	Designated
Old Sherman	850 San Vicente Blvd (Building at 873 San Vicente was moved to 850 San Vicente in 1999)	1899	Designated
Old Sherman	837–841 San Vicente Boulevard	1902	Designated
Old Sherman	843–845 San Vicente Boulevard	1900	Designated
Old Sherman	847–849 San Vicente Boulevard	1900	Designated
Irv's Burgers	8289 Santa Monica Boulevard	1946	Designated
Emser Building	8431 Santa Monica Boulevard	1926	Designated
First National Bank of Sherman	8811 Santa Monica Boulevard	1922	Designated
Gable & Wyant Commercial Building	8851 Santa Monica Boulevard	1926	Designated
	8701–8713 Santa Monica Boulevard	1928	Designated
Sunset Tower	8358 Sunset Boulevard	1930	NRHP
Piazza del Sol	8439 Sunset Boulevard	1927	NRHP
El Mirador	1302–1310 Sweetzer Avenue	1929	Designated
Courtyard Thematic District	819–825-1/2 Sweetzer Avenue	1928?	Designated
Plummer Park Apartment Grouping	1132 Vista Street	1929	Designated
Plummer Park Apartment Grouping	1140 Vista Street	1933	Designated
Plummer Park Apartment Grouping	1124–1126 Vista Street	1929	Designated
Plummer Park Apartment Grouping	1128–1130 Vista Street	1929	Designated
Plummer Park Apartment Grouping	1144–1146 Vista Street	1933	Designated
County Library	903 Westbourne Drive	1922	NRHP
Movie Studio	1041 Formosa Avenue and 7136–7156 Santa Monica Boulevard	1919	Designated
The Formosa Café	7156 Santa Monica Boulevard	1934	Designated

Path: P:\2009\09120175_WehoGPEIR\6.0 GIS\6.3 Layout\Cultural_Assessment\fig3_HistrRes.mxd, 05/19/10, ShahS2



Source: City of West Hollywood 2010; USGS 7.5' Quadrangle Beverly Hills, Calif. 1981, Hollywood, Calif. 1981

2,000 0 2,000 Feet

Scale: 1 = 24,000; 1 inch = 2,000 feet

Figure 3
Designated Historical Resources in the City of West Hollywood

NATIVE AMERICAN CONTACT PROGRAM

The NAHC conducted a check of its Sacred Lands File for the affected project area on February 11, 2010. The search failed to indicate "the presence of Native American cultural resources in the immediate project area." However, the absence of specific site information in the Sacred Lands File does not preclude the possibility of cultural resources within the project area. Contact letters were sent to individuals listed by the NAHC as potentially having an interest in the project (see below). No comments have been received to date.

Shoshonean Gabrielino Band of Mission Indians
Andy Salas, Chairperson
P.O. Box 393
Covina, CA 91723

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
1875 Century Park East, Suite 1500
Los Angeles, CA 90067

Gabrielino/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural
P.O. Box 490
Bellflower, CA 90707

Gabrielino-Tongva Tribe
Bernie Acuna
501 Santa Monica Blvd.
Santa Monica, CA 90401

Los Angeles City and County Native American Indian Community
Ron Andrade, Director
3175 West 6th Street, Room 403
Los Angeles, CA 90020

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C
Long Beach, CA 90803

Gabrielino Tongva Nation
Sam Dunlap, Chairperson
P.O. Box 86908
Los Angeles, CA 90086

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
tattnlaw@gmail.com

Senate Bill 18 Consultation

Senate Bill 18 consultation was conducted separately by the City.

RESULTS AND RECOMMENDATIONS

RESULTS

No prehistoric or historic archaeological resources were identified within the planning area. However, the planning area is located within the Los Angeles basin, part of the Los Angeles–Santa Ana prairies, a sensitive setting that was seasonally exploited by indigenous peoples prehistorically. While the area has undergone extensive development in the 20th century, the planning area possesses a high potential to contain buried cultural resources, including historic and prehistoric artifacts and features and human remains.

The NAHC conducted a check of its Sacred Lands File for the affected planning area on February 11, 2010. The search failed to indicate "the presence of Native American cultural resources in the immediate project area." However, the absence of specific site information in the Sacred Lands File does not preclude the possibility of cultural resources within the planning area. Contact letters were sent to individuals listed by the NAHC as potentially having an interest in the project. No comments have been received to date.

West Hollywood has a rich developmental history reflected in its array of historical resources. Seventy-seven designated historical resources are located within the City, and many more historic resources older than 45 years have been identified in the planning area. In 2007, West Hollywood was designated as one of the National Trust for Historic Preservation's Dozen Distinctive Destinations, an annual list of unique and preserved communities in the United States. West Hollywood's designated resources include several residential, hotel, and other commercial buildings, and historic districts. The R.M. Schindler House, the Lloyd Wright Home and Studio, the Savoy Plaza, the North Harper Historic District, and Sunset Tower are all listed in the NRHP for their distinctive architectural features. Other historic landmarks include the Sunset Strip, the Pacific Design Center, the Pickford Fairbanks Studio, the United Artists Studio, the Cristofelles Lace Factory, and several large apartment buildings. These landmarks reflect the significant historical development of West Hollywood, particularly from the 1900s through the 1920s.

RECOMMENDATIONS FOR FURTHER WORK

The lack of surface evidence of archaeological materials does not preclude the possibility that subsurface archaeological materials may exist. In the event that any archaeological materials are encountered during earth-moving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified cultural resources specialist (archaeologist) in accordance with the provisions of CEQA Section 15064.5.

In accordance with the City's Historic Preservation Ordinance and General Plan policies, inventory and evaluation of the City's historical resources should be performed periodically to further identify West Hollywood's significant historical resources for proper stewardship and perpetuity.

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ATTACHMENT A

RESUMES OF KEY PERSONNEL

Trina Meiser
Architectural Historian

Education
MA, Historic Preservation Planning, Cornell University, 2003
BA, History, Kenyon College, 1998

Professional Affiliations
Member, National Trust for Historic Preservation
Member, Society of Architectural Historians
Member, California Preservation Foundation

Trina Meiser is a historic preservation specialist and an architectural historian with 6 years of experience in surveying, documenting, evaluating, and planning for historic structures, districts, sites, and cultural resources. Her background is based on a solid knowledge of architectural history, architectural styles and terminology, building materials conservation, and historic preservation theory. She has led seminars on architectural styles and the history of historic preservation, charrettes for the design treatments of historic districts, as well as workshops in materials conservation. She has completed cultural resource technical reports, National Register of Historic Places nominations, historic structures reports, and Federal Rehabilitation Tax Credit applications. She has consulted on a variety of historic structure rehabilitation plans with clients, architects, engineers, and agency representatives for regulatory review. Her experience in historic preservation planning provides a strong understanding of federal, state, and local historic preservation laws. She has a thorough knowledge of the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and their functions in historic preservation planning.

Ms. Meiser's areas of interest include urban and landscape preservation planning and design, building restoration, archaeology, international heritage sites, and historic district and neighborhood revitalization projects. She is a member of the Society of Architectural Historians, the California Preservation Foundation, the National Trust for Historic Preservation, and several regional historical societies and preservation organizations.

Project Experience

Historic Preservation Projects

NAVFAC Southwest National Register Eligibility Assessment for Naval Base Ventura County, Port Hueneme, CA
As Architectural Historian, recorded and evaluated 18 buildings at the Naval Construction Training Center at Port Hueneme for eligibility to the National Register. Conducted research on the Disaster Recovery Training School for incorporation into the historical context. Completed DPR forms and incorporated findings in a Historic Resources Evaluation Report.

TCR Properties Ramona Air Center Environmental Impact Report, Ramona, CA
As Architectural Historian, conducted a survey and historical research of structures more than 50 years old to evaluate and document historic resources. Results were recorded on DPR forms and summarized for inclusion in the project Environmental Impact Report.

Exposition Light Rail Authority Transit Phase 2, Los Angeles County, CA
As Architectural Historian, conducted fieldwork to record and evaluate historic resources along the Exposition Corridor ROW. Completed a Historical Resources Evaluation Report for the evaluation of historical resources for eligibility to the National Register of Historic Places and the California Register of Historical Resources. Provided cultural resources portion of Environmental Impact Statement, including mitigation measures for the treatment of evaluated historical resources.

San Diego Association of Governments (SANDAG)/Caltrans SR-76 Mission to I-15 Historical Resources Evaluation Report, San Diego, CA
As Architectural Historian, conducted fieldwork to record and evaluate ranching buildings and residences. Completed a Historical Resources Evaluation Report per Caltrans standards for the evaluation of historical resources for eligibility to the National Register of Historic Places and the California Register of Historical Resources.

City of Temecula Main Street Bridge Replacement Project, Temecula, CA
As Architectural Historian, conducted a survey and historical research of historic resources in Old Town Temecula adjacent to the Main Street Bridge. Results were recorded on DPR forms and in a Historical Resources Survey Report per Caltrans guidelines.

Allen, Matkins, Leck, Gamble, Mallory & Matsis, LLP 301 University Avenue Historical Evaluation and Technical Report, San Diego, CA
As Architectural Historian, evaluated the condition and integrity of the former supermarket building dating from 1942. Prepared Historic Resources Evaluation Report and survey forms. Summarized findings for inclusion in the 301 University Uptown Environmental Impact Report.

Department of Veterans Affairs Environmental Assessment of Seismic Upgrades, San Francisco, CA
As Architectural Historian, consulted with architects and designers for the rehabilitation and seismic retrofit of the 1930s-era Art Deco San Francisco Veterans Affairs Medical Center buildings. Reviewed plans and rehabilitation standards to evaluate design of new additions and alterations. Engaged in consultation with the State Historic Preservation Office.

City of Del Mar North Torrey Pines Bridge "Sorrento Overpass" Restoration, Del Mar, CA
As Historic Preservation Specialist, consulted with engineers for the restoration of the 1933 North Torrey Pines Bridge to resolve significant impacts to the National Register-eligible resource. Assessed the deterioration of the bridge and established the historic character-defining features to be preserved. Evaluated restoration plans to suggest mitigation measures for its treatment in compliance with the Secretary of Interior Standards for Restoration.

National Park Service Jefferson National Expansion Memorial, St. Louis, MO
As Architectural Historian, contributed to the cultural resources section of the GMP/EIS. Provided historical context for the Native American occupation, the French colonial establishment, and the 19th century development of the built environment in St. Louis, Missouri.

New York City Department of Parks and Recreation Fort Totten Conservation Work Weekend, New York, NY
As Historic Preservation Specialist, organized a historic preservation event to perform restoration work on Officers' Quarters at retired military site along New York's East River. Oversaw the conservation of historic exterior woodwork elements. This conservation project was completed prior to joining this firm.

Federal Emergency Management Agency (FEMA) Hurricane Katrina Recovery, Disaster 1604-DR-MS, Biloxi, MS
As Architectural Historian, recorded the condition and integrity of multiple properties affected by Hurricane Katrina and performed photo documentation. Determined if structures were eligible for National Register designation. Results were summarized in a report and through a series of maps generated in GIS. This conservation work was performed prior to joining this firm.

FEMA Hurricane Katrina Recovery, Disaster 1604-DR-MS, Biloxi, MI
As Historic Preservation Specialist, completed Section 106 review and coordinated with the State Historic Preservation Office to ensure that all projects funded by FEMA complied with federal regulations and the National Historic Preservation Act. Evaluated restoration projects for National Register eligibility in compliance with Secretary of Interior's Standards for Restoration and Rehabilitation under Programmatic Agreement. This historic preservation work was performed prior to joining EDAW.

City of Ithaca Downtown Commercial Historic District National Register Eligibility Nomination, Ithaca, NY
As Historic Preservation Planner, completed research and documentation of downtown commercial buildings dating from the 1830s to the 1930s. Document included architectural descriptions of each building. Successful nomination to the National Register. This historic preservation planning project was completed prior to joining this firm.

City of Ithaca University Avenue Historic District National Register Eligibility Assessment, Ithaca, NY
As Historic Preservation Planner, completed documentation included in the survey and nomination of this residential historic district with resources dating from the 1860s to the 1950s. This historic preservation planning project was completed prior to joining this firm.

Historic Ithaca's State Theatre Restoration Project, Ithaca, NY
As Historic Preservation Specialist, evaluated restoration designs for compatibility with the historic character of the resource and for compatibility with the *Secretary of the Interior's Standards for Rehabilitation*. Performed conservation of textiles, decorative fixtures, plaster, and windows. Managed construction projects relating to aesthetic and ADA accessibility modifications. This restoration work was completed prior to joining this firm.

Historic Ithaca, Inc. The Clinton House, Ithaca, NY
As Historic Preservation Planner/Specialist, evaluated designs for compatibility with the historic character of the resource and for compatibility with the *Secretary of the Interior's Standards for Rehabilitation*. Compiled and prepared Part 1 of the Federal Rehabilitation Tax Credit Application. Oversaw construction management for aesthetic modifications to historic elements. This planning and conservation project was completed prior to joining this firm.

City of Ithaca The Delaware, Lackawanna and Western Train Station National Register Eligibility Nomination, Ithaca, NY
As Historic Preservation Specialist, composed historic context statement and architectural description for historic train station. Photodocumented building and submitted the application to the State Office of Historic Preservation. This historic preservation planning project was completed prior to joining this firm.

Athens Exchange Hotel Stagecoach Livery Historic Structures Report, Athens, PA
As Preservation Planner, conducted comprehensive assessment of exterior and interior spaces of 1860s livery structure. Identified character-defining features and compiled historic context statement. Photodocumented building and developed recommendations for treatment and maintenance of deteriorated historic features. This conservation project was completed prior to joining this firm.

Sara Dietler
Project Archaeologist

Education
BA, Anthropology, San Diego State University, 1998
Minor, American Indian Studies, San Diego State University, 1998

Affiliations
Society for American Archaeology
Society for California Archaeology

Publications and Professional Papers
Dietler, S. 2000. Protohistoric Burial Practices of the Gabrielino as Evidenced by the Comparison of Funerary Objects from Three Southern California Sites. In Proceedings of the Society for California Archaeology, Volume 13. Judyth Reed, Greg Greenway, and Kevin McCormick eds. Society for California Archaeology. Fresno.

Strauss, M. and S. Dietler 2006. Bones, Beads and Bowls: Variation In Habitation And Ritual Contexts At Landing Hill. Oral Presentation at the Society for California Archaeology Meeting, Ventura, California, April.
Dietler, S. 2008. Digging Deep: Archival Research into the History of Los Angeles' City Cemetery. Oral Presentation at the Society for American Archaeology (SAA) Meeting, Vancouver, B.C., Canada, March.

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Strauss, M., S. Dietler, and C. Ehringer. 2008. Death Lends a Hand: Archaeological Excavations of Los Angeles's City Cemetery. Oral paper presentation at the Society for Historical Archaeology Annual Meeting, Albuquerque, NM.

Ehringer, C., L. Kry, S. Dietler, and M. Strauss, 2008. After the Bones Have Gone: The Role of Personal Effects in Identifying Unmarked Historic Burials. Poster presentation at the Society for Historical Archaeology Annual Meeting, Albuquerque, NM.

Presentations and Lectures
2005. Guest lecturer at Santa Monica Community College regarding career opportunities in cultural resources management, Santa Monica, CA.

2006. Guest lecturer at Santa Monica Community College regarding early Los Angeles history and cemetery research and excavation, Santa Monica, CA.

Sara Dietler is a project archaeologist with eleven years of experience in cultural resource management and is also a cross-trained paleontological monitor. She has worked for more than six years in the Los Angeles area and participated in both historic and prehistoric research throughout the county. Since joining AECOM's Los Angeles office, she has specialized in the development history of downtown Los Angeles and co-authored technical reports on numerous projects relating to this subject.

Sara manages project tasks for a full range of projects for the cultural resources group, covering all phases of work. She coordinates with clients, schedules and coordinates with monitors, responds to findings on monitoring jobs, leads surveys, manages lab work, and contributes to, and completes reports. Sara also specializes in shell bead manufacture and exchange among the Native American groups in Southern California.

Project Experience

Central Los Angeles High School #9
Los Angeles, CA
Conducted on-site monitoring and investigation of archaeological sites exposed as a result of construction activities. During data recovery phase in connection with a 19th century cemetery located on-site, participated in locating of features, feature excavation, mapping and client coordination. Organized background research on cemetery including; genealogical, local libraries, city and county archives, other local cemetery records, internet and local fraternal organizations. Advised in lab methodology and set up, as well as contributing sections for the in-progress technical report.

Main Street Archaeological/Paleontological Monitoring and Assessment
Los Angeles, CA

Directed the archaeological and paleontological monitoring of a police parking facility in downtown Los Angeles. Coordinated with the client and construction personnel throughout the project. Archaeological monitoring resulted in the identification of nineteen archaeological features. Completed the analysis of artifacts recovered and is currently producing a technical report.

Metro Universal
North Hollywood, CA
Assisted in compiling a compendium of over seventy years of archaeological excavation and construction monitoring in and around the Campo historic site. Drafted appropriate mitigation for the archaeological resources within the scope of the proposed development. At the request of the client a Vision Plan for the Universal City property to the east of the project area was peer reviewed for consistency and appropriate mitigation to historical resources on that property and affects to the historical resources on the Metro Universal Project location.

Glassell Park Early Education Center and Affordable Housing Project
Los Angeles, CA
Conducted a Phase I study for the Glassell Park Early Education Center (EEC) and Affordable Housing Project adjacent to the existing Glassell Park Elementary School. Prepared a cultural resources study with findings and recommendations for further work, pursuant to CEQA requirements.

Belmont Primary Care #11
Los Angeles, CA
Conducted on-site monitoring and investigation of a historic trash deposit exposed during grading. Assisted in completing and presenting background research on the property in order to contextualize the artifact findings. Conducted historic map research, as well as visiting local libraries, and city and county archives.

Olive View Medical Center Emergency Services Expansion
Los Angeles, CA
Participated in a Phase I cultural resources evaluation of a portion of the Olive View Medical Center campus in Sylmar. Assisted in research to support a California Register eligibility assessment of the MacClay Highline, an underground spur of the Los Angeles Aqueduct.

Olive View Medical Center Building 403 Cultural Evaluation
Los Angeles, CA
Completed the historic architectural survey and assisted the architectural historian in evaluating a historic ward building on the property of the Olive View Medical Center campus in Sylmar that was slated for demolition.

Chevron Station 31 Connection Project
Fellows, CA
Directed a Phase I cultural resources evaluation of an undeveloped property in Kern County. Conducted an assessment of resources discovered during survey and prepared a Cultural Resources Technical Report with findings and recommendations for further work, pursuant to CEQA requirements.

Lang Ranch
El Monte, CA
Participated in the Phase I archaeological survey of the 46-acre project area. Project work involved the archaeological testing at two artifact isolate locations to determine presence of sub-surface deposits. Assisted in the preparation of an Archaeological Resources Technical Report and EIR section with findings and recommendations for further work, pursuant to CEQA requirements.

Woodland Duck Farm Project
El Monte, CA
Completed the Phase I investigation, including a historic structure and archaeological survey of the site of the former historic Woodland Duck Farm. Researched the history and background of the farm itself, assisted the Architectural Historian in the analysis of structures related to the duck farm and co-authored the technical report.

Santa Anita Reservoir
Los Angeles County, CA
Completed the Phase I investigation, including a historic structure and archaeological survey of the site of the Santa Anita Dam, Reservoir and Complex. Researched the history and background of the farm itself, assisted the Architectural Historian in the analysis of structures related to the dam complex and co-authored the technical report.

Western Bypass Bridge
Temecula, CA
Oversaw Phase I investigation including a record search and survey of the project area. Completed all documentation required for MND document.

Hellman Ranch Monitoring
Orange County, CA

Served as Lab Director for the final monitoring phase of the project, cataloging and analyzing artifacts recovered from salvage monitoring and test units placed in relation to recovered intact burials. Conducted microscopic analysis of small items such as bone tools and shell and stone beads. Directed lab assistants and oversaw special studies including the photo-documentation of the entire collection. Completed a section reporting on the results of the bead and ornament analysis in the final report, which was published as part of the EDAW technical series.

Home Depot Monitoring – Lake Elsinore
Riverside County, CA
Participated in archaeological monitoring of Caltrans road-widening in vicinity of historic cemetery. Assisted in preparing negative report of findings. Coordinated with Caltrans.

Public Safety Facilities Master Plan
Los Angeles County, CA
Assisted in research and survey of a Phase I archaeological resources evaluation of an approximately five-square block area in downtown Los Angeles. Completed a record search at the South Central Coastal Information Center in addition to research on specific historic attributes present on the properties and general site history within the APE.

The Grove at Farmers Market Monitoring Project
Los Angeles, CA
Served as Lab Director for the analysis of a historic collection recovered from the area surrounding the historic Farmers Market and the nearby Gilmore Adobe. The project included cataloging and analysis of all recovered artifacts, reconstruction of items, photo-documentation and preparation for display and curation of the entire collection. Co-authored the resulting technical report for the project, which detailed the results of monitoring. The report included an analysis of features and artifacts recovered and a detailed history of the property.

San Diego Ballpark Project
Served as archaeological monitor for the construction of underground utility line installation for San Diego, California's downtown ballpark. Recovered historic artifacts and kept detailed records. Handled public relations and dealt with a variety of public officials and construction crews effectively, despite the controversial and complicated nature of this multimillion dollar project.

SANDAG Regional Beach Restoration Project

Acted as lead archaeological monitor in the inspection and analysis of offshore sediments along a large portion of coastal of San Diego County. The monitoring represented an effort to identify inundated archaeological sites in sediments representing former coastline. Collected samples of sediment, shellfish, and marine mammal remains from dredging spoils, and identified and described samples. Served as a vital member of a multidisciplinary team in materials evaluation. Job required familiarity with construction methods, and an ability to deal with a high level of media and public interest.

Hellman Ranch Monitoring
Orange County, CA
Catalogued a portion of the materials from the archaeological excavation of over forty test excavation units at six Gabrielino sites in Seal Beach, California. Processed and analyzed in detail all invertebrate material recovered from the unit column samples.

Barona Reservation Cultural Center Project
San Diego County, CA
Completed an inventory of the recently purchased core collection for a new archaeological museum. Identified, inventoried, cleaned, and restored the artifacts, including extensive lithic and ceramic assemblages. Transformed the old and poorly packaged collection into one professionally sorted, documented, and labeled, and curated to Federal standards.

All American Pipeline Conversion Survey
Led a field crew as a part of a 170-mile long archaeological survey for the conversion of a high-pressure gas pipeline in the Mojave Desert between the towns of Daggett and Blythe, California. The survey located and updated previously unrecorded resources, including 93 archaeological sites and 22 isolated artifacts.

Level Three Long Haul Construction Monitoring.
Coauthored a technical report concerning the salvage excavation of a Chumash multiple human burial exposed during the project, researching and analyzing the unique assemblage of stone beads associated with the human remains. Monitored the directional drilling, trenching, and clean-up relating to the installation of fiber optic cable along the coast of Santa Barbara and Ventura Counties, California. Worked closely with Chumash monitors in the identification, boundary and significance testing, and protection of prehistoric archaeological sites.

Model Marsh Data Recovery.

Excavated and water screened as part of a archaeological data recovery project for a buried Late Prehistoric period shell midden site (CA-SDI-15,598) in southern coastal San Diego, California. Following the excavation of 41 archaeological test units and 23 shovel test pits, sorted, catalogued, and speciated over 77,000 grams of shellfish and other cultural materials. Wrote the Invertebrate Faunal Analysis chapter of the resulting technical report.

MILCON Monitoring and Data Recovery.
Served as field crew for the emergency salvage treatment of eleven flexed human burials on northern MCAS Camp Pendleton, San Diego County, California. Data recovery included the identification of burial features during monitoring, exposing, documenting, and identifying visible remains, and then pedestalling and removing them in blocks.

ARCO Burial Ground Salvage Excavation.
Assisted in cataloguing and analyzing artifacts following the salvage excavation of site CA-LAN-2682, a Protohistoric period Gabrielino habitation site and burial ground. Identified, sorted, and catalogued archaeological material including artifacts, large numbers of invertebrate and vertebrate faunal remains, as well as human remains. Conducted extensive research on several similar sites, culminating in an analytical paper presented at the 1999 Society for California Archaeology Meetings and published the following year in the group's proceedings.

ATTACHMENT B

CALIFORNIA STATE HISTORIC RESOURCES INVENTORY LISTINGS FOR CITY OF HOLLYWOOD

CITY OF WEST HOLLYWOOD DESIGNATED HISTORICAL RESOURCES

California State Historic Resources Inventory

Listings for West Hollywood

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRI
168397		3548 E MIRIAM DR		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168399		3552 E MIRIAM DR		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168401		3560 E MIRIAM DR		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168402		3564 E MIRIAM DR		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168405		3568 E MIRIAM DR		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168251		2212 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168250		2218 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168249		2224 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168248		2230 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168247		2236 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168246		2242 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168245		2248 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168244		2302 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168243		2306 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168242		2310 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168241		2314 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168240		2318 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168239		2320 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168238		2322 HAVENBROOK ST		WEST COVINA	P	1950	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168188		117 N ELLEN DR		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168190		118 N MAPLEWOOD AVE		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168253		112 N TOLAND AVE		WEST COVINA	P	1951	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168189		118 N. MORADA AVE		WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168200		106 S ASTELL AVE		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
150936		718 S AZUSA AVE	FIRST UNITED METHODIST CHURCH OF W	WEST COVINA	P	1956	HIST.RES.	DOE-19-04-0359-0000	04/16/04	6Y	
							PROJ.REVW.	FCC040408A	04/16/04	6Y	
168210		106 S BAYMAR ST		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168375		115 S CALVADOS AVE		WEST COVINA	P	1954	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168204		102 S CHERRYWOOD ST		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168205		101 S FERNWOOD ST		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168206		102 S FERNWOOD ST		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168213		101 S FIRCROFT ST		WEST COVINA	P	1954	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168198		105 S GARDENGLEN ST		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168199		106 S GARDENGLEN ST		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168197		104 S GLENDORA AVE		WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168196		126 S GLENDORA AVE		WEST COVINA	P	1954	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
065867		240 S GLENDORA AVE	MORRIS PL BR	WEST COVINA	U		HIST.RES.	DOE-19-89-0033-0000	05/31/89	6Y	
							PROJ.REVW.	FDIC890511g	05/31/89	6Y	
168207		107 S HOMEREST AVE		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168208		118 S HOMEREST AVE		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168203		103 S ROBIN RD		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168202		104 S TURNER AVE		WEST COVINA	P	1952	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168187		1415 W GARVEY AVE		WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168185		1609 W GARVEY AVE	CATHOLIC RESOURCE CENTER	WEST COVINA	P	1953	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168182		1627 W GARVEY AVE	TROPHY CENTER	WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168180		1647 W GARVEY AVE		WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168178		2145 W GARVEY AVE	WEST COVINA DENTAL	WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168179		2101 W GARVEY AVE. N		WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168183		1618 W HARBERT ST		WEST COVINA	P	1955	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
168177		2231 W MOSSBERG AVE		WEST COVINA	P	1957	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
027450	19-176774	8806 BEVERLY BLVD	HERMAN MILLER SHOWROOM, SQUARE ONE	WEST HOLLYWOOD	P	1949	HIST.SURV.	0069-0021-0000		7N	
027451	19-176775	9023 BEVERLY BLVD	CHASENS	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0022-0000		3S	
082791		1201 CRESCENT HEIGHTS BLVD		WEST HOLLYWOOD	P	1931	PROJ.REVW.	HUD930406Z	07/19/93	6Y	
027421	19-176745	8341 DELONGPRE AVE	WILLIAM S. HART HOUSE	WEST HOLLYWOOD	M	1919	HIST.RES.	DOE-19-94-0346-0000	03/18/94	2S4	
							PROJ.REVW.	HRG940202Z	03/18/94	2S4	

OFFICE OF HISTORIC PRESERVATION * * * Directory of Properties in the Historic Pr[...]ty Data File for LOS ANGELES County. Page 985 05-27-09

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	S DAT	NRS	CRI
							ST.FND.PRG	619.0-HP-88-19-053	12/22/88	3	
							HIST.SURV.	0069-0004-0000		3S	
027434	19-176758	1041 FORMOSA AVE	PICKFORD FAIRBANKS STUDIO/GOLDWYN	WEST HOLLYWOOD	P	1920	HIST.SURV.	0069-0017-0000		3S	
027532	19-176856	FOUNTAIN AVE	FOUNTAIN CORRIDOR APARTMENT THEME	WEST HOLLYWOOD	P	1921	HIST.SURV.	0069-0050-9999		7R	
077944		7612 FOUNTAIN AVE		WEST HOLLYWOOD	U	1921	PROJ.REVW.	HUD921002E	01/13/93	6Y	
081474		7612 FOUNTAIN AVE		WEST HOLLYWOOD	U	1921	PROJ.REVW.	HUD871027C	01/13/93	6Y	
027419	19-176743	8225 FOUNTAIN AVE	PATIO DEL MORO	WEST HOLLYWOOD	P	1925	HIST.RES.	NPS-96000649-0001	06/28/96	1D	C
							HIST.SURV.	0069-0002-0000	12/01/87	7K	
							HIST.RES.	NPS-86002418-0000	09/11/86	1S	
103103		8250 FOUNTAIN AVE	LES MAISONETTES	WEST HOLLYWOOD	P	1927	HIST.RES.	NPS-96000694-0002	06/28/96	1D	C
103105		8264 FOUNTAIN AVE	AUTOMOTIVE GARAGE	WEST HOLLYWOOD	P	1927	HIST.RES.	NPS-96000694-0003	06/28/96	1D	C
027457	19-176781	7219 HAMPTON AVE	NORMANDIE TOWERS	WEST HOLLYWOOD	P	1924	PROJ.REVW.	HUD910331V	08/20/93	6Y	
							PROJ.REVW.	HUD9006136	07/17/90	2D2	C
							HIST.SURV.	0069-0023-9999		7N	
125530		947 HAVENHURST DR		WEST HOLLYWOOD	U	1924	HIST.RES.	DOE-19-97-0250-0000	10/06/97	6Y	
							PROJ.REVW.	HUD971006G	10/06/97	6Y	
027422	19-176746	1400 HAVENHURST DR	RONDA/MI CASA	WEST HOLLYWOOD	P	1927	HIST.RES.	NPS-85000356-0000	02/28/85	1S	
							HIST.SURV.	0069-0005-0000	02/28/85	1S	
							HIST.SURV.	0053-0356-0000	01/01/85	1S	
129112		1433 HAVENHURST DR		WEST HOLLYWOOD	P	1923	PROJ.REVW.	HUD021009N	10/09/02	7K	
							HIST.RES.	DOE-19-01-0234-0000	12/06/01	6Y	
							PROJ.REVW.	HUD010720A	12/06/01	6Y	
129111		1471 HAVENHURST DR		WEST HOLLYWOOD	P	1926	HIST.RES.	DOE-19-01-0233-0000	12/06/01	2S2	C
							PROJ.REVW.	HUD010720A	12/06/01	2S2	C
027548	19-176872	8752 HOLLOWAY DR		WEST HOLLYWOOD	P	1946	HIST.SURV.	0069-0052-0001		5D2	
027550	19-176874	8756 HOLLOWAY DR	LINGENBRINK COMMERCIAL GROUP	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0052-9999		5S2	
027549	19-176873	8758 HOLLOWAY DR		WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0052-0002		5D2	
027458	19-176782	1216 LA CIENEGA BLVD	LOTUS APARTMENTS	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0024-0000		7N	
027432	19-176756	1355 LAUREL AVE	VILLA D'ESTE	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0015-0000		3S	
027433	19-176757	8687 MELROSE AVE	PACIFIC DESIGN CENTER	WEST HOLLYWOOD	P	1975	HIST.SURV.	0069-0016-0000		7N	
027510	19-176834	1201 N CRESCENT HEIGHTS BL	CRESCENT VILLA	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0050-0001		5S2	
027425	19-176749	1285 N CRESCENT HEIGHTS BL	LA FONTAINE	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0008-0000		3S	
152696		1330 N CRESCENT HEIGHTS BL		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0030-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
152694		1340 N CRESCENT HEIGHTS BL		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0028-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
152693		1344 N CRESCENT HEIGHTS BL		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0027-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
152695		1350 N CRESCENT HEIGHTS BL		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0029-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
027511	19-176835	1360 N CRESCENT HEIGHTS BL	THE SAVOY PLAZA	WEST HOLLYWOOD	P	1929	HIST.RES.	CR	05/17/01	1CS	BC
							CAL.REG.	19-0369	04/29/01	3CS	BC
							HIST.SURV.	0069-0050-0002		7N	
027512	19-176836	1400 N CRESCENT HEIGHTS BL	THE TUSCANY	WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0050-0003		7N	
027513	19-176837	1424 N CRESCENT HEIGHTS BL	THE GRANVILLE	WEST HOLLYWOOD	P	1930	HIST.SURV.	0069-0050-0004		7N	
125708		1247 N DETROIT ST		WEST HOLLYWOOD	U	1910	HIST.RES.	DOE-19-99-0351-0000	07/29/99	6Y	
							PROJ.REVW.	HUD990729D	07/29/99	6Y	
027418	19-176742	858 N DOHENY DR	LLOYD WRIGHT HOME AND STUDIO	WEST HOLLYWOOD	P	1927	HIST.RES.	NPS-87000562-0000	04/06/87	1S	
							HIST.SURV.	0069-0001-0000	01/01/87	1S	
027565	19-176889	9231 N DOHENY DR		WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0000		5D2	
027488	19-176812	945 N FAIRFAX AVE	HOLLYWOOD DINER	WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0028-0000		7N	
083146		1230 N FAIRFAX AVE		WEST HOLLYWOOD	P	1914	PROJ.REVW.	HUD930325B	07/29/93	6Y	
027514	19-176838	1224 N FLORES ST		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0050-0005		7N	
027515	19-176839	1230 N FLORES ST		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0050-0006		5D2	
027516	19-176840	1236 N FLORES ST	THE 1236	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0050-0007		3S	
027517	19-176841	1255 N FLORES ST	THE ROYAL GARDENS	WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0050-0008		3S	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CR
027489	19-176813	1134 N FORMOSA AVE		WEST HOLLYWOOD	P	1910	HIST.SURV.	0069-0029-0000		7N	
094118		1221 N FORMOSA AVE		WEST HOLLYWOOD	P	1932	PROJ.REVW.	HUD940328AE	01/05/95	6Y	
125478		1252 N FULLER AVE		WEST HOLLYWOOD	P	1923	HIST.RES.	DOE-19-00-0154-0000	02/16/00	6Y	
							PROJ.REVW.	HUD000216G	02/16/00	6Y	
027493	19-176817	916 N GENESEE AVE	ADOBE	WEST HOLLYWOOD	P	1922	HIST.SURV.	0069-0033-0000		3S	
027547	19-176871	N HANCOCK AVE	CRAFTSMAN GROUPING	WEST HOLLYWOOD	P	1911	PROJ.REVW.	HUD950501D	06/22/95	6Y	
							HIST.SURV.	0069-0051-9999		5S2	
027494	19-176818	954 N HANCOCK AVE	COUNTY FIRE STATION #7	WEST HOLLYWOOD	M	1926	HIST.SURV.	0069-0034-0000		3S	
027533	19-176857	959 N HANCOCK AVE		WEST HOLLYWOOD	P	1912	HIST.SURV.	0069-0051-0001		5D2	
027461	19-176785	985 N HANCOCK AVE		WEST HOLLYWOOD	P	1910	HIST.SURV.	0069-0025-0003		5S2	
027462	19-176786	987 N HANCOCK AVE		WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0025-0004		6L	
027534	19-176858	991 N HANCOCK AVE		WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0051-0002		5D2	
027535	19-176859	995 N HANCOCK AVE		WEST HOLLYWOOD	P	1912	HIST.SURV.	0069-0051-0003		5D2	
027536	19-176860	1003 N HANCOCK AVE		WEST HOLLYWOOD	P	1912	HIST.SURV.	0069-0051-0004		5D2	
027537	19-176861	1010 N HANCOCK AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0005		5D2	
027538	19-176862	1011 N HANCOCK AVE		WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0051-0006		5D2	
027539	19-176863	1013 N HANCOCK AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0007		5D2	
027540	19-176864	1017 N HANCOCK AVE		WEST HOLLYWOOD	P	1911	HIST.SURV.	0069-0051-0008		5D2	
097482		N HARPER AVE	NORTH HARPER AVENUE HISTORIC DISTR	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-96000694-9999	06/28/96	1S	C
							NAT.REG.	19-0218	10/05/95	7J	
155047		N HARPER AVE	THE RAMONA LOW WALL	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-05000274-0003	04/13/05	1D	C
155046		N HARPER AVE	THE RAMONA EAST BUILDING	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-05000274-0003	04/13/05	1D	C
155045		N HARPER AVE	THE RAMONA SOUTH BUILDING	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-05000274-0002	04/13/05	1D	C
155044		N HARPER AVE	THE ROMONA NORTH BUILDING	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-05000274-0001	04/13/05	1D	C
148826		1236 N HARPER AVE	THE RAMONA	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-05000274-9999	04/13/05	1S	C
							NAT.REG.	19-0462	09/17/04	3S	C
027428	19-176752	1300 N HARPER AVE	MEXICAN VILLAGE/VILLA PRIMAVERA	WEST HOLLYWOOD	P	1923	HIST.RES.	NPS-96000694-0004	06/28/96	1D	C
							HIST.SURV.	0069-0011-0000		3S	
027429	19-176753	1301 N HARPER AVE	ROMANESQUE VILLA APARTMENTS	WEST HOLLYWOOD	P	1928	HIST.RES.	NPS-96000694-0005	06/28/96	1D	C
							HIST.SURV.	0069-0012-0000		3S	
103107		1312 N HARPER AVE		WEST HOLLYWOOD	P	1956	HIST.RES.	NPS-96000694-0006	06/28/96	6X	
027522	19-176846	1320 N HARPER AVE		WEST HOLLYWOOD	P	1992	HIST.RES.	NPS-96000694-0007	06/28/96	6X	
027523	19-176847	1322 N HARPER AVE		WEST HOLLYWOOD	P	1923	HIST.SURV.	0069-0050-0014		7N	
027524	19-176848	1324 N HARPER AVE		WEST HOLLYWOOD	P	1923	HIST.SURV.	0069-0050-0015		7N	
027525	19-176849	1330 N HARPER AVE	EL PASADERO	WEST HOLLYWOOD	P	1931	HIST.RES.	NPS-96000694-0008	06/28/96	1D	C
							HIST.SURV.	0069-0050-0016		7N	
027430	19-176754	1334 N HARPER AVE	CASA GRANDA APARTMENTS, HARPER HOU	WEST HOLLYWOOD	P	1929	HIST.RES.	NPS-96000694-0009	06/28/96	1D	C
							FED.FND.PR	629.0-94-HPP-01-01	06/07/95	7K	
							HIST.SURV.	0069-0013-0000		3S	
027431	19-176755	1338 N HARPER AVE	VILLA SEVILLA	WEST HOLLYWOOD	P	1931	HIST.RES.	NPS-96000694-0010	06/28/96	1D	C
							HIST.SURV.	0069-0014-0000		3S	
103108		1354 N HARPER AVE	CASA REAL	WEST HOLLYWOOD	P	1931	HIST.RES.	NPS-96000694-0011	06/28/96	1D	C
027526	19-176850	1238 N HAVENHURST DR		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0050-0017		7N	
027423	19-176747	1416 N HAVENHURST DR	COLONIAL HOUSE	WEST HOLLYWOOD	P	1930	HIST.RES.	NPS-82002190-0000	04/15/82	1S	C
							HIST.SURV.	0053-0327-0000	04/15/82	1S	C
							HIST.SURV.	0069-0006-0000	04/15/82	1S	C
027527	19-176851	1275 N HAYWORTH AVE		WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0050-0018		5S2	
027528	19-176852	1314 N HAYWORTH AVE	HAYWORTH TOWER	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0050-0019		3S	
167793		1342 N HAYWORTH AVE	VALENTINO COURT	WEST HOLLYWOOD	P	1924	NAT.REG.	19-0508	10/18/07	7J	
027529	19-176853	1414 N HAYWORTH AVE	CORTE LINDA VISTA	WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0050-0020		7N	
027567	19-176891	1114 N HORN AVE	CAFE GALA, SPAGOS	WEST HOLLYWOOD	P	1922	HIST.SURV.	0069-0058-0002		7N	
000007	19-176485	833 N KINGS RD	SCHINDLER, R. M. HOUSE	WEST HOLLYWOOD	P	1921	ST.FND.PRG	619.0-84-HP-19-082	10/01/86	3	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.SURV.	NPS-71000150-0000	07/14/71	1S	C
027495	19-176819	652 N LA PEER AVE	MITCHELL CAMERA MANUFACTURING CO,	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0035-0000		3S	
027463	19-176787	825 N LARRABEE ST		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0005		7N	
027464	19-176788	829 N LARRABEE ST		WEST HOLLYWOOD	P	1908	HIST.SURV.	0069-0025-0006		7N	
027465	19-176789	858 N LARRABEE ST		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0007		7N	
027562	19-176886	1000 N LARRABEE ST	ENGLISH VILLAGE	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0055-9999		5S2	
152697		1327 N LAUREL AVE		WEST HOLLYWOOD	U		HIST.RES.	DOE-19-05-0031-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
027530	19-176854	1334 N LAUREL AVE		WEST HOLLYWOOD	P	1927	HIST.RES.	DOE-19-05-0026-0000	02/28/05	2S2	C
							PROJ.REVW.	HUD040809B	02/28/05	2S2	C
							HIST.SURV.	0069-0050-0021		7N	
027496	19-176820	1343 N LAUREL AVE		WEST HOLLYWOOD	P	1924	TAX.CERT.	537.9-19-0384	04/04/08	2S3	A
							HIST.RES.	DOE-19-05-0024-0000	02/28/05	2S2	A
							PROJ.REVW.	HUD040809B	02/28/05	2S2	A
							HIST.SURV.	0069-0036-0000		5S2	
152698	+	1346 N LAUREL AVE		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0031-0000	02/28/05	6Y	
							PROJ.REVW.	HUD040809B	02/28/05	6Y	
152691		1355 N LAUREL AVE		WEST HOLLYWOOD			HIST.RES.	DOE-19-05-0025-0000	02/28/05	2S2	
							PROJ.REVW.	HUD040809B	02/28/05	2S	
027486	19-176810	1326 N OLIVE DR		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0027-0002		5D2	
027499	19-176823	1035 N ORANGE GROVE AVE	WEST HOLLYWOOD SOUTHERN CALIFORNIA	WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0039-0000		5S2	
125514		1206 N ORANGE GROVE AVE		WEST HOLLYWOOD	U	1921	HIST.RES.	DOE-19-97-0233-0000	10/06/97	6Y	
							PROJ.REVW.	HUD971006G	10/06/97	6Y	
027466	19-176790	927 N PALM AVE		WEST HOLLYWOOD	P	1902	HIST.SURV.	0069-0025-0008		3S	
027467	19-176791	931 N PALM AVE		WEST HOLLYWOOD	P	1902	HIST.SURV.	0069-0025-0009		3S	
027468	19-176792	950 N PALM AVE		WEST HOLLYWOOD	P	1909	HIST.SURV.	0069-0025-0010		7N	
027541	19-176865	976 N PALM AVE		WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0051-0009		5D2	
027543	19-176867	978 N PALM AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0011		5D2	
027544	19-176868	980 N PALM AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0012		5D2	
027545	19-176869	982 N PALM AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0013		5D2	
027546	19-176870	984 N PALM AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0014		5D2	
027542	19-176866	986 N PALM AVE		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0051-0010		5D2	
027500	19-176824	623 N ROBERTSON BLVD	BOY SCOUTS OF AMERICA CLUBHOUSE, L	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0040-0000		3S	
027501	19-176825	824 N ROBERTSON BLVD	CRISTOEFELLES LACE FACTORY, TONY D	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0041-0000		5S2	
027502	19-176826	343 N SAN VICENTE BLVD	TAIL O' THE PUP	WEST HOLLYWOOD	P	1938	HIST.SURV.	0069-0042-0000		7N	
027469	19-176793	837 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0011		7N	
027470	19-176794	838 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0012		7N	
027471	19-176795	840 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0013		7N	
027472	19-176796	843 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1907	HIST.SURV.	0069-0025-0014		7N	
027473	19-176797	847 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1915	HIST.SURV.	0069-0025-0015		7N	
027474	19-176798	849 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0016		7N	
027475	19-176799	850 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1898	HIST.SURV.	0069-0025-0017		7N	
027476	19-176800	853 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0018		7N	
027477	19-176801	863 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1902	HIST.SURV.	0069-0025-0019		7N	
027478	19-176802	864 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0020		7N	
027479	19-176803	873 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1899	HIST.SURV.	0069-0025-0021		3S	
027480	19-176804	883 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1901	HIST.SURV.	0069-0025-0022		7N	
027481	19-176805	889 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1900	HIST.SURV.	0069-0025-0023		7N	
027482	19-176806	935 N SAN VICENTE BLVD		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0024		7N	
027506	19-176830	900 N SIERRA BONITA AVE		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0046-0000		7N	
027508	19-176832	819 N SWEETZER AVE		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0048-0000		7N	
027509	19-176833	827 N SWEETZER AVE		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0049-0000		7N	
027531	19-176855	1233 N SWEETZER AVE	CORAL GABLES	WEST HOLLYWOOD	P	1932	HIST.SURV.	0069-0050-0022		5S2	
027436	19-176760	1302 N SWEETZER AVE	EL MIRADOR	WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0019-0000		3S	
027561	19-176885	N VISTA DR	PLUMMER PARK APARTMENTS GROUP	WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-9999		7N	
027556	19-176880	1124 N VISTA DR		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-0001		7N	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES.............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CR
027557	19-176881	1128 N VISTA DR		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-0002		7N	
027558	19-176882	1132 N VISTA DR		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-0003		7N	
027559	19-176883	1140 N VISTA DR		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-0004		7N	
027560	19-176884	1144 N VISTA DR		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0054-0005		7N	
082802		355 N WESTBORNE PL		WEST HOLLYWOOD	P	1925	PROJ.REVW.	HUD930517N	07/19/93	6Y	
027564	19-176888	903 N WESTHOURNE AVE	COUNTY LIBRARY	WEST HOLLYWOOD	P	1922	HIST.SURV.	0069-0057-0000		3S	
083764		8991 NORMA PL		WEST HOLLYWOOD	U	1923	PROJ.REVW.	HUD9103310	08/20/93	6Y	
125569		537 NORWICH DR		WEST HOLLYWOOD	U	1916	HIST.RES.	DOE-19-97-0271-0000	10/06/97	6Y	
							PROJ.REVW.	HUD971006F	10/06/97	6Y	
027456	19-176780	1234 POINSETTIA PL		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0023-0005		7N	
027452	19-176776	1236 POINSETTIA PL		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0023-0001		7N	
027454	19-176778	1238 POINSETTIA PL		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0023-0003		7N	
027453	19-176777	1240 POINSETTIA PL		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0023-0002		7N	
027455	19-176779	1242 POINSETTIA PL		WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0023-0004		7N	
094117		8724 RANGELY AVE		WEST HOLLYWOOD	P	1926	PROJ.REVW.	HUD940328AD	01/05/95	6Y	
027483	19-176807	SAN VICENTE BLVD	SHERMAN, OLD SHERMAN THEMATIC GROU	WEST HOLLYWOOD	P	1898	HIST.SURV.	0069-0025-9999		7R	
079367		0 SANTA MONICA BLVD	SANTA MONICA BOULEVARD HISTORIC DI	WEST HOLLYWOOD	U	0	HIST.RES.	DOE-19-92-0052-9999	11/16/92	2S2	A
							PROJ.REVW.	HUD921013D	11/16/92	2S2	A
027587	19-176911	7155 SANTA MONICA BLVD	COMMERCIAL REHABILITATION	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0060-0000	02/08/88	7R	
							PROJ.REVW.	HUD880119G	02/08/88	6Y	
079362		7200 SANTA MONICA BLVD	UNITED ARTISTS/SAMUEL GOLDWYN STUD	WEST HOLLYWOOD	U	1919	HIST.RES.	DOE-19-92-0051-0000	11/16/92	2S2	A
							PROJ.REVW.	HUD921013D	11/16/92	2S2	A
081594		7235 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1922	PROJ.REVW.	HUD871027C	08/29/89	6Y	
065121		7362 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312E	04/07/87	6Y	
098374		7377 SANTA MONICA BLVD	WEST HOLLYWOOD COMMUNITY CENTER	WEST HOLLYWOOD	M	1937	HIST.RES.	DOE-19-94-0270-0000	07/31/94	6Y	
							PROJ.REVW.	HRG940202Z	07/31/94	6Y	
083531		7400 SANTA MONICA BLVD	VANETTA BLDG	WEST HOLLYWOOD	P	1928	HIST.RES.	DOE-19-03-0086-0000	03/20/03	6Y	
							PROJ.REVW.	FCC030214A	03/20/03	6Y	
							PROJ.REVW.	HUD900331n	08/16/93	6Y	
065124		7414 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312H	04/07/87	6Y	
065126		7415 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1930	PROJ.REVW.	HUD871027C	08/29/89	6Y	
							PROJ.REVW.	HUD870312J	04/07/87	6Y	
081596		7512 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1924	PROJ.REVW.	HUD911015b	08/26/93	6Y	
							PROJ.REVW.	HUD871027C	08/29/89	6Y	
081595		7541 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1926	PROJ.REVW.	HUD871027C	08/29/89	6Y	
083897		7544 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1923	PROJ.REVW.	HUD911015f	08/26/93	6Y	
081676		7545 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1911	PROJ.REVW.	HUD871027C	10/30/89	6Y	
083891		7626 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1930	PROJ.REVW.	HUD911015W	08/26/93	6Y	
065132		7630 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312P	04/07/87	6Y	
066738		7643 SANTA MONICA BLVD	LOS ANGELES COUNTY FIRE STATION #8	WEST HOLLYWOOD	C	1949	HIST.RES.	DOE-19-92-0053-0000	11/16/92	7K	
							PROJ.REVW.	HUD921013D	11/16/92	7K	
							HIST.RES.	DOE-19-88-0006-0000	07/18/88	2S2	C
							PROJ.REVW.	HUD880419A	07/18/88	2S2	C
065128		7702 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312L	04/07/87	6Y	
027588	19-176912	7706 SANTA MONICA BLVD	LELYAS CLOTHES	WEST HOLLYWOOD	P	1923	PROJ.REVW.	HUD900331p	08/16/93	6Y	
							HIST.SURV.	0069-0061-0000		7R	
027589	19-176913	7708 SANTA MONICA BLVD	POLLY'S PLUMBING	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0062-0000		7R	
							PROJ.REVW.	HUD871221V	01/21/88	6Y	
065127		7722 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312K	04/07/87	6Y	
083892		7739 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1928	PROJ.REVW.	HUD911015Z	08/26/93	6Y	
065122		7740 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312F	04/07/87	6Y	
065123		7744 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312G	04/07/87	6Y	
065130		7746 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312N	04/07/87	6Y	
065131		7748 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312O	04/07/87	6Y	
083893		7748 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1928	PROJ.REVW.	HUD911015a	08/26/93	6Y	
065129		7750 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312M	04/07/87	6Y	

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083899		7754 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1923	PROJ.REVW.	HUD911106A	08/26/93	6Y	
083532		7763 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1926	PROJ.REVW.	HUD900331o	08/16/93	6Y	
065125		7807 SANTA MONICA BLVD		WEST HOLLYWOOD	U		PROJ.REVW.	HUD870312I	04/07/87	6Y	
066421		7814 SANTA MONICA BLVD	COMMERCIAL REHABILITATION	WEST HOLLYWOOD	U		PROJ.REVW.	HUD871221Y	01/21/88	6Y	
027590	19-176914	7814 SANTA MONICA BLVD	GITSIS FARMERS MARKET	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0063-0000		7R	
027591	19-176915	7819 SANTA MONICA BLVD	FURNITURE DESIGN CENTER	WEST HOLLYWOOD	P	1918	HIST.SURV.	0069-0064-0000		7R	
066422		7819 SANTA MONICA BLVD	COMMERCIAL REHABILITATION	WEST HOLLYWOOD	U		PROJ.REVW.	HUD871221Z	01/21/88	6Y	
081593		7823 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1926	PROJ.REVW.	HUD871027C	08/29/89	6Y	
081592		7854 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1922	PROJ.REVW.	HUD871027C	08/29/89	6Y	
027592	19-176916	7858 SANTA MONICA BLVD	COMMERICAL REHABILITATION	WEST HOLLYWOOD	P	1921	PROJ.REVW.	HUD871221X	01/21/88	6Y	
							HIST.SURV.	0069-0065-0000		7R	
079366		7900 SANTA MONICA BLVD		WEST HOLLYWOOD	U		HIST.RES.	DOE-19-92-0052-0004	11/16/92	2D2	A
							PROJ.REVW.	HUD921013D	11/16/92	2D2	A
079365		7908 SANTA MONICA BLVD		WEST HOLLYWOOD	U	0	HIST.RES.	DOE-19-92-0052-0003	11/16/92	6Y	
							PROJ.REVW.	HUD921013D	11/16/92	6Y	
079364		7916 SANTA MONICA BLVD		WEST HOLLYWOOD	U	0	HIST.RES.	DOE-19-92-0052-0002	11/16/92	2D2	A
							PROJ.REVW.	HUD921013D	11/16/92	2D2	A
079363		7924 SANTA MONICA BLVD		WEST HOLLYWOOD	U	0	HIST.RES.	DOE-19-92-0052-0001	11/16/92	2D2	A
							PROJ.REVW.	HUD921013D	11/16/92	2D2	A
083306		7929 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1912	PROJ.REVW.	HUD891231Z	08/05/93	6Y	
081591		7994 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1925	PROJ.REVW.	HUD871027C	08/29/89	6Y	
081598		8001 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1922	PROJ.REVW.	HUD871027C	08/29/89	6Y	
081590		8042 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1923	PROJ.REVW.	HUD871027C	08/29/89	6Y	
083288		8220 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1924	PROJ.REVW.	HUD891231I	08/04/93	6Y	
081597		8228 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1920	PROJ.REVW.	HUD871027C	08/29/89	6Y	
083307		8236 SANTA MONICA BLVD	8236-8240 SANTA MONICA BOULEVARD	WEST HOLLYWOOD	U	1920	PROJ.REVW.	HUD891231a	08/05/93	6Y	
083556		8246 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1926	PROJ.REVW.	HUD900331mm	08/16/93	6Y	
083877		8248 SANTA MONICA BLVD		WEST HOLLYWOOD	U	1926	PROJ.REVW.	HUD911015I	08/26/93	6Y	
083557		8250 SANTA MONICA BLVD	8250-50 1/2 SANTA MONICA BOULEVARD	WEST HOLLYWOOD	U	1925	PROJ.REVW.	HUD900331nn	08/16/93	6Y	
027503	19-176827	8431 SANTA MONICA BLVD	BEKINS STORAGE WAREHOUSE, EMSER TI	WEST HOLLYWOOD	P	1926	HIST.SURV.	0069-0043-0000		7N	
027563	19-176887	8811 SANTA MONICA BLVD	FIRST NATIONAL BANK OF SHERMAN	WEST HOLLYWOOD	P	1922	HIST.SURV.	0069-0056-0000		7N	
083727		1240 SPAULDING AVE		WEST HOLLYWOOD	U	1922	PROJ.REVW.	HUD901231E	08/18/93	6Y	
027585	19-176909	SUNSET BLVD	SUNSET STRIP, SUNSET STRIP DISTRIC	WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-9999		5S2	
027449	19-176773	SUNSET BLVD	SUNSET PLAZA, SUNSET PLAZA DISTRIC	WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-9999		3S	
158644		8272 SUNSET BLVD	CALDWELL BANKER	WEST HOLLYWOOD	P	1939	PROJ.REVW.	FCC051213J	01/09/06	6Y	
027424	19-176748	8358 SUNSET BLVD	SUNSET TOWER	WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0007-0000	12/01/87	1S	
							TAX.CERT.	537.9-19-0158	11/22/85	7K	
							HIST.RES.	NPS-80000812-0000	05/30/80	1S	
027426	19-176750	8439 SUNSET BLVD	CORONET APARTMENTS HACIENDA ARMS,	WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0009-0000	01/01/86	1S	
							TAX.CERT.	537.9-19-0125	10/09/85	7K	
076950		8439 SUNSET BLVD	HACIENDA ARMS APARTMENTS	WEST HOLLYWOOD	P	1927	HIST.RES.	NPS-83003531-0000	12/15/83	1S	C
							HIST.SURV.	0053-4687-0000	12/15/83	1S	C
027507	19-176831	8585 SUNSET BLVD	BEN FRANKS COFFEE HOUSE	WEST HOLLYWOOD	P	1959	HIST.SURV.	0069-0047-0000		7N	
027439	19-176763	8589 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0003		3D	
027438	19-176762	8600 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0002		3D	
027437	19-176761	8601 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0000		3D	
027440	19-176764	8610 SUNSET BLVD	TROCADERO STEPS	WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0004		3D	
027441	19-176765	8616 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0005		5S2	
027442	19-176766	8619 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0006		3D	
027443	19-176767	8623 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0007		3D	
027444	19-176768	8625 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0008		3D	
027445	19-176769	8630 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0009		3D	
027446	19-176770	8641 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0010		3D	
027447	19-176771	8657 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0011		3D	
027448	19-176772	8720 SUNSET BLVD		WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0020-0012		3D	
027584	19-176908	8735 SUNSET BLVD		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0058-0019		5D2	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRI
027583	19-176907	8776 SUNSET BLVD		WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-0018		5D2	
027582	19-176906	8782 SUNSET BLVD	OLD WORLD RESTAURANT	WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0058-0017		5D2	
027581	19-176905	8866 SUNSET BLVD		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0058-0016		5D2	
027580	19-176904	8901 SUNSET BLVD	WHISKEY A GO-GO	WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0058-0015		7N	
027579	19-176903	8949 SUNSET BLVD	GABE BURNETT BUILDING	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0014		7N	
027578	19-176902	9009 SUNSET BLVD	WESTSIDE MARKET, THE ROXY	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0013		5D2	
027577	19-176901	9015 SUNSET BLVD	VILLA NOVA, RAINBOW GRILL	WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-0012		5D2	
027576	19-176900	9016 SUNSET BLVD	STOP BAR	WEST HOLLYWOOD	P	1934	HIST.SURV.	0069-0058-0011		5D2	
027575	19-176899	9028 SUNSET BLVD	CROSBY BUILDING	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0010		7N	
027574	19-176898	9101 SUNSET BLVD	MAXIMES	WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0058-0009		5D2	
027573	19-176897	9111 SUNSET BLVD		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0058-0008		5D2	
027572	19-176896	9118 SUNSET BLVD	DAVID GEFFEN BUILDINGS	WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-0007		7N	
027570	19-176894	9121 SUNSET BLVD		WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-0005		5D2	
027571	19-176895	9131 SUNSET BLVD	SKOL SCANDIA LA TAVERNA, VERITAS	WEST HOLLYWOOD	P	1935	HIST.SURV.	0069-0058-0006		5D2	
027569	19-176893	9159 SUNSET BLVD	BERMAN BUILDING	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0004		7N	
027568	19-176892	9165 SUNSET BLVD	PAUL KOHNER BUILDING	WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0003		7N	
027459	19-176783	8914 W CYNTHIA ST		WEST HOLLYWOOD	P	1905	HIST.SURV.	0069-0025-0001		7N	
027460	19-176784	8924 W CYNTHIA ST		WEST HOLLYWOOD	P	0	HIST.SURV.	0069-0025-0002		3S	
027484	19-176808	9025 W CYNTHIA ST	DUTCH REFORMED CHURCH, FIRST BAPTI	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0026-0000		3S	
027487	19-176811	W DELONGPRE AVE		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0027-9999		5S2	
027485	19-176809	8477 W DELONGPRE AVE		WEST HOLLYWOOD	P	1936	HIST.SURV.	0069-0027-0001		5D2	
027566	19-176890	9231 W DOHENY RD		WEST HOLLYWOOD	P	1937	HIST.SURV.	0069-0058-0001		5D2	
027490	19-176814	7870 W FOUNTAIN AVE	CRESCENT HEIGHTS METHODIST CHURCH,	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0030-0000		5S2	
027491	19-176815	7950 W FOUNTAIN AVE		WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0031-0000		3S	
027492	19-176816	7960 W FOUNTAIN AVE		WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0032-0000		5S2	
027586	19-176910	8228 W FOUNTAIN AVE	FRANK LLOYD WRIGHT STUDIO SITE	WEST HOLLYWOOD	P	1922	HIST.SURV.	0069-0059-0000		7R	
027518	19-176842	8250 W FOUNTAIN AVE	FOUR GABLES	WEST HOLLYWOOD	P	1927	HIST.SURV.	0069-0050-0009		7N	
027519	19-176843	8320 W FOUNTAIN AVE		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0050-0010		3S	
027520	19-176844	8352 W FOUNTAIN AVE		WEST HOLLYWOOD	P	1926	HIST.SURV.	0069-0050-0011		7N	
027521	19-176845	8468 W FOUNTAIN AVE		WEST HOLLYWOOD	P	1939	HIST.SURV.	0069-0050-0012		5S2	
027427	19-176751	8491 W FOUNTAIN AVE	EL PALACIO	WEST HOLLYWOOD	P	1931	HIST.SURV.	0069-0010-0000		3S	
027497	19-176821	8952 W NORMA PL		WEST HOLLYWOOD	P	1921	HIST.SURV.	0069-0037-0000		5S2	
027498	19-176822	8121 W NORTON AVE		WEST HOLLYWOOD	P	1914	HIST.SURV.	0069-0038-0000		7N	
027551	19-176875	7900 W SANTA MONICA BLVD		WEST HOLLYWOOD	P	1926	HIST.SURV.	0069-0053-0001		7N	
027555	19-176879	7900 W SANTA MONICA BLVD	SANTA MONICA COMMERCIAL GROUP	WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0053-9999		5S2	
027552	19-176876	7908 W SANTA MONICA BLVD		WEST HOLLYWOOD	P	1929	HIST.SURV.	0069-0053-0002		7N	
027553	19-176877	7916 W SANTA MONICA BLVD	FACADE IMPROVEMENTS	WEST HOLLYWOOD	P	1925	PROJ.REVW.	HUD890525E	06/22/89	2	AC
							HIST.SURV.	0069-0053-0003		5D2	
027554	19-176878	7924 W SANTA MONICA BLVD		WEST HOLLYWOOD	P	1925	HIST.SURV.	0069-0053-0004		5D2	
027504	19-176828	8447 W SANTA MONICA BLVD	BARNEY'S BEANERY	WEST HOLLYWOOD	P	1924	HIST.SURV.	0069-0044-0000		5S2	
027435	19-176759	8701 W SANTA MONICA BLVD		WEST HOLLYWOOD	P	1928	HIST.SURV.	0069-0018-0000		3S	
027505	19-176829	8851 W SANTA MONICA BLVD	WEST HOLLYWOOD PROFESSIONAL BLDG	WEST HOLLYWOOD	P	1926	HIST.SURV.	0069-0045-0000		5S2	
170437		9145 W SUNSET BLVD		WEST HOLLYWOOD	P	1956	PROJ.REVW.	FCC080116A	02/29/08	6Y	
020712	19-176728	1160 W 102ND ST		WESTMONT	P	1932	HIST.SURV.	0044-0002-0000		7R	
020713	19-176729	1216 W 103RD ST		WESTMONT	P	1923	HIST.SURV.	0044-0003-0000		7R	
020715	19-176731	1532 W 104TH ST		WESTMONT	P	1927	HIST.SURV.	0044-0005-0000		7R	
020716	19-176732	1649 W 107TH ST		WESTMONT	P	1939	HIST.SURV.	0044-0006-0000		7R	
020711	19-176727	1254 W 87TH ST		WESTMONT	P	1910	HIST.SURV.	0044-0001-0000		7R	
020714	19-176730	1344 W 90TH PL		WESTMONT	P	1922	HIST.SURV.	0044-0004-0000		7R	
083733			JIMTOWN AREA	WHITTIER	U		PROJ.REVW.	HUD901107C	08/18/93	6Y	
097424		10812 1ST ST		WHITTIER	P	1923	PROJ.REVW.	HUD950720A	09/20/95	6Y	
085013		11427 ALLERTON ST		WHITTIER	P	1947	PROJ.REVW.	HUD931105E	12/15/93	6Y	
153922		9479 AMSDELL AVE		WHITTIER		1951	PROJ.REVW.	HUD031101B	12/01/03	6U	
153873		15201 ANACONDA ST		WHITTIER	P	1953	PROJ.REVW.	HUD050428H	04/29/05	6Y	

City of West Hollywood Designated Historical Resources

APN	Address	Street	Status	National Register	Year Built	Zone	Notes	Date Action Taken	Reso. No.	District/Group	Survey	2008 DPR	Status Code
5554009010	1201	CRESCENT HEIGHTS BLVD	Designated		1931		Villa Italia	2/7/1994	1254				
5554006014	1360	CRESCENT HEIGHTS BLVD	Designated		1929		Savoy Plaza	4/3/2000	00 2266				
5554005008	1400	CRESCENT HEIGHTS BLVD	Designated		1925		The Tuscany	2/3/1992	940	Courtyard Thematic District			
5554005026	1424	CRESCENT HEIGHTS BLVD	Designated		1929		The Granville	10/5/1992	1040				
5554-009-001	1285 - 89	CRESCENT HEIGHTS BLVD	Designated		1928		La Fontaine	10/21/1991	902				
4340006025	8914	CYNTHIA ST	Designated		1905		Old Sherman	11/1/1999	2191				
4340023026	9025	CYNTHIA ST	Designated		1920		First Baptist Church	11/15/1993	1226				
5554024270	8341	DELONGPRE AVE	Designated		1919		Hart House	12/6/1993	1231				
4340022024	858	DOHENY DR	Designated	Yes	1927		Lloyd Wright Home and Studio	10/19/1992	1049				
4392014029	9231 - 45 1/2	DOHENY ROAD	Designated		1936-38			7/23/2001	2585				
5530-001-001	1296/7870	FAIRFAX AVE/FOUNTAIN AVE	Designated		1924		Crescent Heights Methodist Church	11/15/1993	1224				
5554022010	1228	FLORES ST	Designated		1918	R4	Craftsman	6/1/2009	09-3832		2008	Pre-1920	5
5554022008	1236	FLORES ST	Designated		1931		Art Deco Apartment Building	10/5/1992	1037				
5554022011	1224 - 26	FLORES ST	Designated		1928			2/3/1992	940	Courtyard Thematic District			
5554022009	1230 - 32	FLORES ST	Designated		1928			2/3/1992	940	Courtyard Thematic District			
5554025020	1255 - 63	FLORES ST	Designated		1927		The Royal Gardens	2/3/1992	940	Courtyard Thematic District			
5554017008	8225 - 37	FOUNTAIN AVE	Designated	Yes	1926		Patio del Moro; Arthur & Nina Zwebell (Harper Ave. Historic District on 1/6/1992; Courtyard Thematic District on 2/12/1992)	1/6/1992 and 2/3/1992	924 and 940	Harper Ave. Historic District and Courtyard Thematic District			
5554020001	8250 - 62	FOUNTAIN AVE	Designated	Yes	1927		Four Gables; Leland Bryant	1/6/1992	924	Harper Ave. Historic District			
5554022001	8320 - 28	FOUNTAIN AVE	Designated		1928		Beau Sejour	2/7/1994	1256				
5554025019	8352 - 56	FOUNTAIN AVE	Designated		1926		Fountain Corridor Group	2/16/1993	1092				
5555002016	8415 - 23	FOUNTAIN AVE	Designated		1941			1/8/2001	01 2436				
5555004013	8468 - 80	FOUNTAIN AVE	Designated		1939		The Villas	2/3/1992	940	Courtyard Thematic District			
5555002014	8491 - 99	FOUNTAIN AVE	Designated		1931		El Palacio	2/3/1992	940	Courtyard Thematic District			
5530024008	916	GENESEE AVE	Designated		1922		Adobe House	3/6/1991	817				
5531007048	7219	HAMPTON AVE	Designated		1925		Normandie Towers	10/19/1992	1050				
4339-007-090	958	HANCOCK AVE	Designated		1929		Fire Station 7	11/17/2004	03 2984				
4339009006	1013	HANCOCK AVE	Designated		1915			3/1/1993	1105	Craftsman District			
4339009005	1017	HANCOCK AVE	Designated		1913			3/1/1993	1105	Craftsman District			
4339-009-007	1009 - 11	HANCOCK AVE	Designated		1931			3/1/1993	1105	Craftsman District			
5554017012	1330	HARPER AVE	Designated	Yes	1931		El Pasadero (Harper Ave. Historic District on 1/6/1992; Courtyard Thematic District on 2/12/1992)	1/6/1992 and 2/3/1992	924 and 940	Harper Ave. Historic District and Courtyard Thematic District			
5554017015	1354	HARPER AVE	Designated	Yes	1931		Casa Real	1/6/1992	924	Harper Ave. Historic District			
5554016023	1236 - 46	HARPER AVE	Designated	Yes	1923		The Ramona	5/2/2005	05 3215				
5554017009	1300 - 08	HARPER AVE	Designated	Yes	1923		Villa Primavera; Arthur & Nina Zwebell (Harper Ave. Historic District on 1/6/1992; Courtyard Thematic District on 2/12/1992)	1/6/1992 and 2/3/1992	924 and 940	Harper Ave. Historic District and Courtyard Thematic District			
5554019007	1301 - 09	HARPER AVE	Designated	Yes	1926		Romanesque Villas; Leland Bryant	1/6/1992	924	Harper Ave. Historic District			
5554017013	1334 - 36	HARPER AVE	Designated	Yes	1929		Harper House; Leland Bryant	1/6/1992	924	Harper Ave. Historic District			
5554017014	1338 - 52	HARPER AVE	Designated	Yes	1931		Villa Sevilla (Harper Ave. Historic District on 1/6/1992; Courtyard Thematic District on 2/12/1992)	1/6/1992 and 2/3/1992	924 and 940	Harper Ave. Historic District and Courtyard Thematic District			
5554007040	1416	HAVENHURST DR	Designated	Yes	1930		Colonial House; Leland Bryant	9/12/1991	880				
5554007006	1400 - 14	HAVENHURST DR	Designated	Yes	1928		La Ronda	2/3/1992	940	Courtyard Thematic District			
5554002014	1314	HAYWORTH AVE	Designated	Yes	1930		Hayworth Tower; Leland Bryant	10/19/1992	1047				
5554001009	1440	HAYWORTH AVE	Designated		1933	R4	Spanish Colonial Revival -- Designated	3/15/1999	99-2036	Courtyard Thematic District			
5554001009	1440 - 50	HAYWORTH AVE	Designated		1933			2/3/1992	940	Courtyard Thematic District			
4339009038	8756	HOLLOWAY	Designated		1946			2/6/1995	1406	Lingenbrink Commercial District			
4339-009-039	8766	HOLLOWAY	Designated		1937			2/6/1995	1406	Lingenbrink Commercial District			
4339009039	8758 - 60	HOLLOWAY	Designated		1937		Schindler Buildings	2/6/1995	1406	Lingenbrink Commercial District			
4339-009-039	8762 - 64	HOLLOWAY	Designated		1946		(NON-CONTRIBUTING)	2/6/1995	1406	Lingenbrink Commercial District			
5529004002	835	KINGS RD	Designated	Yes	1922		Schindler House	12/7/1992	1066				
5529008009	902	KINGS RD	Designated		1952		Rootenberg-Markham House	4/19/2004	04 3043				
5555002013	1216 - 24	LA CIENEGA BLVD	Designated		1928		Lotus Apartments	2/3/1992	940	Courtyard Thematic District			
4339016012	1000 - 12 1/2	LARRABEE ST	Designated		1924		English Village	12/6/1993	1230				
5554006003	1343	LAUREL AVE	Designated		1923			3/21/1994	1275				
5554006002	1355	LAUREL AVE	Designated		1928		Villa D'Este	2/3/1992	940	Courtyard Thematic District			
5554004021	1334 - 42	LAUREL AVE	Designated		1927			2/3/1992	940	Courtyard Thematic District			
4337017041	8687	MELROSE AVE	Designated		1975/1987		PDC Blue and Green	11/3/2003	03 2982				
4340-016-015	8954 - 56	NORMA PL.	Designated		1921			10/3/1994	1355				
4339-009-116	976	PALM AVE	Designated		1924			3/1/1993	1105	Craftsman District			
4339-009-173	986 - 88	PALM AVE	Designated		1922			3/1/1993	1105	Craftsman District			

APN	Address	Street	Status	National Register	Year Built	Zone	Notes	Date Action Taken	Reso. No.	District/Group	Survey	2008 DPR	Status Code
4339019022	850	SAN VICENTE BLVD	Designated		1899		Old Sherman -- Building at 873 San Vicente was moved to 850 San Vicente in 1999.	11/1/1999	2191	Old Sherman Thematic Grouping			
4340007019	837 - 41	SAN VICENTE BLVD	Designated		1902		Old Sherman	11/1/1999	2191	Old Sherman Thematic Grouping			
4340006001	843 - 45	SAN VICENTE BLVD	Designated		1900		Old Sherman	11/1/1999	2191	Old Sherman Thematic Grouping			
4340006002	847 - 49	SAN VICENTE BLVD	Designated		1900		Old Sherman	11/1/1999	2191	Old Sherman Thematic Grouping			
5554-015-031	8289	SANTA MONICA BLVD	Designated		1946		Irv's Burgers	9/19/2005	3302				
5554026038	8431	SANTA MONICA BLVD	Designated		1926		Emser Building	3/21/1994	1274				
4339012020	8811	SANTA MONICA BLVD	Designated		1922		First National Bank of Sherman	3/6/1991	818				
4339019005	8851	SANTA MONICA BLVD	Designated		1926		Gable & Wyant Commercial Building	3/4/1991	819				
4339007012	8701 - 13	SANTA MONICA BLVD	Designated		1928			2/7/1994	94-1255				
5554024053	8358	SUNSET BLVD	Designated	Yes	1930		Sunset Tower	10/19/1992	1048				
5555011038	8439	SUNSET BLVD	Designated	Yes	1927		Piazza del Sol	12/6/1993	1232				
5554019001	1302 - 10	SWEETZER AVE	Designated		1929		El Mirador	10/5/1992	1039				
5529004025	819 - 25 1/2	SWEETZER AVE	Designated		1928?			2/3/1992	940	Courtyard Thematic District			
5531003028	1132	VISTA ST	Designated		1929			9/3/1991	881	Plummer Park Apartment Grouping			
5531003027	1140	VISTA ST	Designated		1933			9/3/1991	881	Plummer Park Apartment Grouping			
5531003030	1124 - 26	VISTA ST	Designated		1929			9/3/1991	881	Plummer Park Apartment Grouping			
5531003029	1128 - 30	VISTA ST	Designated		1929			9/3/1991	881	Plummer Park Apartment Grouping			
5531003026	1144 - 46	VISTA ST	Designated		1933			9/3/1991	881	Plummer Park Apartment Grouping			
4339-007-011	903	WESTBOURNE DR	Designated	Yes	1922		County Library	12/1/1997	97-1822				

APN	Address	Street	Status	National Register	Year Built	Zone	Notes	Date Action Taken	Reso. No.	District/Group	Survey	2008 DPR	Status Code
5531018001	1041	FORMOSA AVE	Development Agreement		1919		Movie Studio -- (and 7136-7156 SANTA MONICA BLVD)						
5531-017-020	7156	SANTA MONICA BLVD	Development Agreement		N/A		The Formosa Café						

APPENDIX D
GEOLOGIC AND SEISMIC TECHNICAL BACKGROUND REPORT

KFM GEOSCIENCE

Geotechnical Engineering ● Engineering Geology

Geologic and Seismic Technical Background Report
City of West Hollywood General Plan Update
West Hollywood, Los Angeles County, California

Prepared for:

City of West Hollywood
8300 Santa Monica Boulevard
West Hollywood, CA 90069

Prepared by:

KFM GeoScience
1360 Valley Vista Drive
Diamond Bar, California 91765

March 15, 2010
Project No. cWH 08-14E

ITEM 2.RR. EXHIBIT A

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1. INTRODUCTION

1.1. Overview

In order to comply with State Guidelines for General Plan Documents and for Environmental Impact Reports (EIRs) and to provide a sound and consistent understanding of the geotechnical issues effecting land use planning decisions in the City of West Hollywood (the City), it is necessary to look at a broad range of potential geologic, soils, and seismic related hazards. This document is a technical background report designed to support the City planning staff with the preparation of the Safety Element of the City of West Hollywood General Plan. As such, it contains current information on the geologic and seismic conditions within and around the City, which could potentially affect the City and its residents in the event of a major earthquake in Southern California. The potential seismically-induced effects include:

- Ground shaking (strong earthquake ground motions)
- Surface fault rupture (both primary and subsidiary)
- Liquefaction and dynamic settlement
- Co-seismic uplift and folding
- Earthquake-induced landslides
- Ground lurching and cracking

The potential geologic and soils hazards to the City include:

- Compressible, collapsible, or expansive soils
- Landslides and slope instability
- Groundwater conditions
- Subsidence
- Flooding from dam failure
- Flooding from tsunami and seiche

Within the City of West Hollywood, the seismic hazards which present the greatest threat to property and public safety are surface fault rupture, ground shaking, and liquefaction and related ground failure phenomena.

The technical issues outlined above should be taken into account as the City fills in and re-develops. Existing building codes and land use requirements generally can address most of the hazards present in the geologic setting of the City. As additional, more accurate, geology, soils, and seismic information have been developed since the previous Geologic-Seismic Report was prepared for the City (dated January, 2002) for inclusion in the General Plan, it is possible to better define the various hazard areas and to consider them in future development. Sources of the information used to compile this technical report include regional geologic reports and maps (including the Seismic Hazard Reports prepared by the California Geological Survey) and site-specific fault rupture hazard studies (summarized herein in Table 1) and geotechnical and engineering geology reports that have been submitted to the City for new developments.

1.2. Geologic and Seismic Hazard Planning Considerations

For planning purposes, geologic and seismic hazards are significant considerations in the selection of development locations, affect the process through which a safe project is developed, and define the various studies necessary to design a project to mitigate these two broad types of natural hazards. The Safety Element of the General Plan provides guidance to accomplish these steps and information useful to initiate the development planning process.

Geologic hazards can typically be evaluated by careful direct observation and testing to determine the extent of the hazard(s) and by subsequent development of remediation or avoidance strategies. Geologic hazards typically include potentially unstable slopes, landslides, mudflows, erodible soils, expansive and compressible soils, and shallow groundwater. Seismic hazards result from the primary effects of an earthquake (strong ground shaking and surface fault rupture) and the secondary effects caused by the earthquake shaking (liquefaction, seismically-induced settlement, landslides, ground fissures, etc.)

Laws, regulations, and codes are established by the State and local agencies to help ensure that proper precautions are taken during project planning and in advance of development to minimize unreasonable levels of property damage, injuries, or fatalities. The primary applicable regulatory measures include:

- The 1972 Alquist–Priolo Special Studies Zones Act
- The 1970 California Environmental Quality Act
- The 1990 Seismic Hazards Mapping Act
- The 1999 Natural Hazards Disclosure Act
- The 2007 California Building Code

In addition to these broad regulatory guidelines, there are also technical guidelines developed by the State (California Geological Survey, CGS) and the County of Los Angeles to assist technical professionals in preparation of geotechnical and geologic reports. Examples of such guideline documents include:

- CGS Note 44 – Recommended Guidelines for Preparing Engineering Geologic Reports, 1986 [currently under revision];
- CGS Note 49 – Guidelines for Evaluating the Hazard of Surface Fault Rupture, 1998
- CGS Special Publication 117 – Guidelines for Evaluating and Mitigating Seismic Hazards in California, 2008;
- County of Los Angeles, Department of Public Works – Manual for Preparation of Geotechnical Reports.

In addition, the Southern California Earthquake Center at the University of Southern California has prepared recommended procedures for analyzing and mitigating both liquefaction and landslides to complement Special Publication 117. These recommended procedure documents include:

- Recommended Procedures for Implementation of DMG Special Publication 117 - Guidelines For Analyzing and Mitigating Liquefaction Hazards in California, dated March 1999;
- Recommended Procedures for Implementation of DMG Special Publication 117 - Guidelines for Analyzing and Mitigating Landslide Hazards in California, dated February 2002.

In summary, the potential for geologic and seismic hazards must be considered in all phases of the development process. Building codes and general plan documents provide regulations, specifications, and strategies to address most hazard conditions, provided the studies are performed to recognize the hazards and to define the potential severity and mechanisms.

2. SETTING

Taken together, geologic and seismic hazard conditions in the City of West Hollywood are similar to most cities in southern California. The following sections provide descriptions of the key geologic and seismic conditions which may impact the City.

2.1. Physiographic Setting

The City is located along the northern boundary of the Los Angeles Basin, at the base of the Hollywood Hills, which are part of the broader reaching Santa Monica Mountains. The City is situated on an alluvial fan complex shed from the southern flank of the Santa Monica Mountains. The northern portion of the City spans the southern base of the Santa Monica Mountains, which are composed of igneous and meta-sedimentary rock materials. The Santa Monica Mountains are located along the southern boundary of the Transverse Ranges Geomorphic Province which is dominated by east-west trending north over south thrust faults. The Santa Monica-Hollywood-Raymond Fault Zone represents the northern structural boundary between the Santa Monica Mountains and the Los Angeles Basin to the south. The southern portions of the City are within the northern portions of the Hollywood Basin, a small sedimentary depression (<1 km thick) that abuts the Santa Monica–Hollywood Fault Zone on the north (Hildenbrand et. al., 2001). The geometry of the Hollywood Basin is poorly known.

The City is approximately 3 miles long in a west-east direction and 0.5 to 1.3 miles wide in a north-south direction. The topography within the City is relatively flat and subdued, and slopes gently towards the south except at the extreme northern margin of the City, which is at the base of the mountains. The maximum elevation is about 550 feet near Larabee Street in the north part of the City and the minimum elevation is about 170 feet near San Vicente Boulevard in the south part. The average downslope gradient from north to south, not including the base of the mountains, is about 6 percent in the northern third of the City and about 2 percent in the remaining southern portion of the City.

2.2. Geologic Setting

Key aspects of the geologic conditions that contribute to geologic hazards in the City include: the general physiography of the landforms, the geologic materials underlying the City, the geologic structure of the bedrock, and groundwater conditions. In developing the geologic characterization of the City, original geologic mapping by Dibblee (1991a and 1991b) was reviewed to help understand the distribution of geologic materials underlying the City. The Geology Map, Figure 1, is based on the Quaternary Geologic Map of the Hollywood and Beverly Hills Quadrangles presented in the Seismic Hazard Evaluation of the Hollywood Quadrangle (CDMG, 1998a) and the Beverly Hills Quadrangle (CDMG, 1998b). The principal geologic materials exposed within the City include limited areas of undocumented fills, alluvial sediments, and granitic and metamorphic bedrock, as described by Dibblee (1991a and 1991b).

Minor accumulations of undocumented fill, ranging in thickness from a few feet to up to about 20 feet, are common at sites along the Sunset Boulevard corridor. The undocumented fills generally consist of mixtures of sand, silt, and clay typically derived from local sources. Identification and mitigation of areas of undocumented fills during site investigations and construction is critical for satisfactory performance of structures to be built over the fill.

A majority of the City is located on alluvial soils derived from materials shed from the adjacent Santa Monica Mountain range. The alluvial sediments occur in deposits that are vertically and horizontally cut into each other as a result of periods of stream erosion and subsequent alluvial deposition. The alluvial soils consist of a mixture of sand, silt, clay, and gravels that are punctuated with a series of buried and stacked relic soils. The buried soils are generally conspicuous as reddish brown in color and typically are clay-enriched due to extended exposure at the ground surface. The alluvium and sequences of stacked and buried soils are thickest along southern City boundary and gradually thin toward the north. The alluvial soils are typically coarser-grained (sandier) near the base of the hills and become finer-grained (silty and clayey) in the southern portion of the City.

A finding from several of the fault rupture hazard investigations performed in the City, as summarized in Table 1, is the presence of a relatively thin veneer of beach sand and smooth rounded gravel and cobbles overlying a gently sloping bedrock surface near the north side of the City, and close to Sunset Boulevard. The presence of marine deposits over the smooth bedrock surface was recognized in studies by William Lettis & Associates (WLA, 1998: Map reference 7) and by Law/Crandall (2001; Map reference 13). The Consultants interpreted these findings to represent evidence of an old marine shoreline and buried wave-cut platform abraded into the underlying bedrock. Further, WLA (1998) interprets the marine wave-cut platform as the cause of the aligned base of the Hollywood Hills rather than the trace of the Hollywood Fault.

As shown on Figure 1, the northernmost portions of the City are underlain by bedrock consisting of intrusive igneous rocks (typically quartz diorite) and meta-sedimentary rocks (typically slate). The quartz diorite is generally weathered and weak in the upper few feet of exposures and becomes very hard with depth. Planes of weakness within the quartz diorite are typically oriented to the north-northwest and dip towards northeast which is generally favorable in terms of slope stability. No significant landslides have been mapped in the slopes along the north side of the City (Los Angeles County Seismic Safety Element, 1990, Plate 5).

Prior to development, a marsh existed within the alluvial plain currently incorporated as part of the City. The withdrawal of groundwater via pumping in the 1920's from this area contributed to the drying of the marsh. Organic rich sediments containing soft clays were likely deposited in this area while the marsh was present. The approximate historical extent of the marsh is shown on Figure 1 and Figure 3.

2.3. Geo-Tectonic Setting

The City is located in a highly active seismic region of southern California. Earthquakes occur when zones of weakness, or faults, in the Earth’s crust move past one another in an abrupt sudden way. Figure 2 shows the City relative to the mapped active and potentially active faults in southern California. The earthquake activity in the region stems from the relative movement of two major crustal plates: the Pacific and the North American Plates. The Pacific Plate, which includes the southwestern portion of California, including the Los Angeles Basin, is moving to the northwest relative to the North American Plate, which consists of the vast majority of the North American Continent. The San Andreas Fault, which lies about 35 miles northeast of the City, forms the boundary between the two plates.

While the San Andreas Fault accommodates much of the relative motion between the two plates, a significant amount of strain is accumulating along other faults in Southern California. For example, the Transverse Ranges, which include the Santa Monica Mountains, the Verdugo Hills, and the San Gabriel Mountains, formed as a result of localized tectonic compression centered north of Los Angeles. These mountains are currently experiencing uplift, primarily due to the release of strain during earthquakes.

The most significant geo-tectonic structures in the City are the Hollywood and Santa Monica Faults which trend generally east-west. Episodic tectonic activity began on these structures in middle Miocene time and has continued into the Quaternary period. The most hazardous fault to the City is the Hollywood Fault, a reverse fault that is deeply buried, concealed by dense urbanization, and directly underlies portions of the City. The approximately 15-km-long Hollywood Fault is the eastern segment of the larger Santa Monica-Hollywood Fault System that represents the boundary between the northern Los Angeles Basin and the Santa Monica Mountains (Dolan and others, 1997; Figure 2). An apparent left en echelon offset of the Hollywood and Santa Monica Faults west of the City suggests that the northwest-trending Newport-Inglewood Fault segments the Santa Monica-Hollywood Fault System west of the City (Crook and others, 1983; Wright, 1991; Dolan and Sieh, 1992).

The Hollywood Fault, which traverses the cities of Beverly Hills, West Hollywood and Hollywood, is responsible for uplift of the Hollywood Hills. For this reason, most geologists prior to the 1990’s characterized the Hollywood Fault as predominantly a northward-dipping reverse fault. In the City of West Hollywood, active deposition of numerous small alluvial fans at the mountain front and a lack of fan incision has been interpreted to be the result of late Quaternary uplift of the Santa Monica Mountains along the Hollywood Fault (Dolan and others, 1997; Dolan and Sieh, 1992; Crook and others, 1983). The fault dips steeply to the north and has juxtaposed pre-Tertiary granitic and metamorphic, and Tertiary sedimentary rocks over younger sedimentary deposits of the northern Los Angeles basin. A state-sponsored fault evaluation has not been conducted to define an Earthquake Fault Zone (formerly known as Alquist-Priolo special studies zone) along this fault due to the dense urbanization.

2.4. Groundwater Conditions

The depth to groundwater varies considerably across the City, and historically has changed significantly because of groundwater pumping and urbanization impacts. The historic high groundwater level in the City is generally represented in a study by Mendenhall (1905). In the 20th century, groundwater levels in the City dropped significantly although groundwater levels appear to have been rising more recently. The most recent comprehensive evaluation of shallow groundwater elevations in the City was performed by California Division of Mines and Geology (CDMG, which has been renamed the California Geological Survey [CGS]) as part of the Seismic Hazards Mapping Act for the Hollywood and Beverly Hills Quadrangles. The historic high depth to groundwater contours from the CDMG Seismic Hazard Evaluation of the Hollywood and Beverly Hills Quadrangles (CDMG, 1998a and 1998b) are shown on Figure 3.

As summarized in Table 1- Summary of Fault Rupture Hazard Studies, groundwater is generally encountered in borings at depths ranging from 10 to 20 feet to deeper than 245 feet. Groundwater is commonly found to be higher on the north side of the Hollywood Fault than on the south side of the fault because the fault acts as a barrier within the alluvial sediments to groundwater flow towards the south. Examples of this condition were found in fault studies performed at 1414 Harper Ave. (Schell, 1998; Map reference 11) and at 8430 Sunset Blvd. (Law/Crandall, 2001; Map reference 13) where groundwater was encountered at 20 to 26 feet on the north side of the fault and was not encountered to significant depths on the south side of the fault. In addition, a confined water bearing zone was encountered at 8703 West Knoll Drive (Earth Consultants International, 2003; Map reference 18) where groundwater was initially encountered at depths of about 7 to 10 feet at the time of drilling but eventually rose to within 1 foot of the ground surface.

3. SEISMIC CONDITIONS

The seismic conditions of the City are controlled by the active tectonics of the southern California area and by the presence of nearby active faults. Fault-generated earthquake ground shaking from nearby significant faults is a critical consideration due to its widespread effects and to the potential for severe damage resulting in economic losses and the possible injury or even death to persons in the City.

The City is located in a highly active seismic region of southern California. Earthquakes can cause damage to property directly by ground displacement from fault rupture and strong ground shaking or indirectly as strong ground shaking causes ground failures such as landslides, liquefaction, or lateral spread*)*. Figure 2 shows the City relative to the mapped active and potentially active faults in southern California.

Our understanding of the potential earthquake related risks to the City have improved greatly in the past two decades. Previously, the San Andreas Fault was thought to present the largest earthquake hazard to the City because of its' relatively short recurrence interval and potential for large magnitude earthquakes. A greater risk is posed to the City from the smaller and more proximal faults such as the Hollywood Fault zone. The Hollywood Fault zone is characterized as being active, but a state sponsored fault evaluation report has not been conducted to define an Alquist-Priolo (fault rupture) special studies zone along this fault.

3.1. Faults

Faults are characterized as generally planar discontinuities or fractures along which there has been displacement of the sides relative to one another and parallel to the fracture. Numerous regional and several local faults with long histories and many episodes of displacement are capable of producing severe earthquakes, i.e., greater than magnitude 6.0, that could affect the City. “Active” faults and “potentially active” faults, as defined by the California Geological Survey (CGS), must be considered as geologic structures capable of producing surface fault rupture. Active faults are defined as demonstrating displacement of Holocene-age materials (i.e. less than 11,000 years old) and/or documented historic seismicity. Potentially active faults are defined as demonstrating displacement of Pleistocene-age materials (i.e. 11,000 to 1.6 million years ago.)

The Hollywood Fault has not produced any damaging earthquakes during the historical period and has had relatively minor microseismic activity. If the entire 15 km long Hollywood Fault ruptured by itself, it could produce a moment magnitude Mw ~6.6 earthquake (Dolan and others, 1997). However, if the fault ruptured together with other faults to the west (Santa Monica, Malibu Coast) or to the east (Raymond), then earthquakes much larger than Mw ~6.6 could result. Assuming a minimum slip rate of 0.35 mm/yr for the Hollywood Fault, Dolan and others (1997) estimate a recurrence interval of approximately 4,000 years for a Mw6.6 event. Although the timing of the most recent rupture of the Hollywood Fault is currently poorly constrained, trench and borehole data suggest that the last rupture occurred approximately 7,000 years ago (Dolan and others, 1997).

Since adoption of a fault precaution zone around the Hollywood Fault by the City, 28 site-specific fault studies have been performed for proposed projects in the City. These reports are summarized in Table 1 and the locations shown on Figure 4. Several of the studies have identified faults within the Hollywood Fault system that offset Holocene-aged sediments, and are therefore considered active. Figure 4 also shows the interpreted locations of the main Hollywood Fault as well as the subsidiary faults that have been shown to be active. Based on fault studies performed in the City, the Hollywood Fault has been interpreted to have a strong lateral component of displacement. The linear trace of the Hollywood Fault and steep dips found in exposures and borings (65 to 90 degrees) suggest that motion along the fault may be largely strike-slip (Dolan and others, 1997 and Law/Crandall, 2001). Other westerly trending faults in the Transverse Ranges exhibit a left-lateral component of slip such as the San Fernando, Raymond, and Malibu Coast Faults. Thus, the orientation of the Hollywood Fault suggests that the horizontal component of slip also should be left-lateral. Based on a comparison between geodetic and geologic data, Walls and others (1998) suggested that this fault is one of several faults that accommodate left-lateral slip along the northern margin of the Los Angeles basin, allowing for the relative westward translation of the Santa Monica Mountains.

The Hollywood Fault and other significant nearby and regional faults are shown on Figure 2 and listed in Table 2, along with pertinent geo-seismic characteristic. The faults that are considered to most influence the seismic exposure of the City include the Hollywood Fault, Santa Monica Fault, Newport-Inglewood Fault , and the Upper Elysian Blind Thrust faults. The earthquake ground shaking hazards are discussed below.

3.2. Earthquakes and Historic Seismicity

Earthquakes generally occur on known, mapped faults such as those described above and summarized in Table 2 – Characteristics of Major Faults within 60-Kilometers of City of West Hollywood. Numerous regional and several local faults with long histories and many episodes of displacement are capable of producing severe earthquakes, greater than magnitude 6.0, that could affect the City. Reliable instrumental seismic records suitable for accurately locating the sources of earthquakes have only been available since 1932. Earthquakes that occurred during the previous 150 years of habitation of the greater Los Angeles area are documented only by subjective personal accounts and some limited experimental instrumental data. Therefore, the location of earthquakes prior to 1932 is very subjective and poorly constrained. Figure 2 – Regional Fault and Seismicity Map, shows the location of significant faults along with the locations of historic earthquakes with magnitudes of 5 or greater.

No historic large earthquakes have occurred in or very near the City. Overall the instrumental recorded seismicity of the northern Los Angeles Basin is relatively low. However, the City has experienced significant ground shaking from 6 earthquake events since 1933. These include:

- 1933 Long Beach earthquake (M6.4) attributed to the Newport-Inglewood Fault,
- 1971 San Fernando earthquake (M6.6) attributed to the San Fernando fault zone,
- 1987 Whittier Narrows earthquake (M5.9) attributed to the east-striking Puente Hills blind thrust fault (Hauksson and Jones, 1989; Shaw and Shearer, 1999),
- 1988 Pasadena earthquake (M5.0) on the Raymond fault (Jones et al, 1990),
- 1994 Northridge earthquake (M6.7) on the Northridge Hill blind thrust,
- 2001 West Hollywood earthquake (M4.2) attributed to the Newport-Inglewood fault near Beverly Hills (Hauksson et al, 2001).

Historic earthquakes that have occurred within a 100 kilometer radius of the City are also listed in Table 3. It is notable that most of the historic earthquakes listed on Table 2 and Table 3 represent relatively small events when compared to the "upper bound" earthquakes attributed to a given fault in the literature.

4. SEISMIC HAZARDS

4.1. Overview

For the seismic component of the Safety Element of the General Plan, the minimum list of potential seismic hazards that must be considered is:

- Primary
    - Surface fault rupture
    - Ground shaking (strong earthquake ground motions)

- Secondary
    - Liquefaction
    - Lateral spread
    - Seismically induced settlement
    - Seismically induced landslides

Flooding from earthquake-induced dam failure dam failure is not expected in the City because there are no significant surface impoundments upstream of the City. Tsunami hazards from seismically induced sea waves are not expected in the City due to its elevation and distance from the Pacific Ocean. Similarly, there are no significant impounded water bodies within or adjacent to the City that are subject to seiche hazards. The following subsections discuss the potential seismic hazards that could affect the City.

4.2. Primary Seismic Hazards

4.2.1. Surface Fault Rupture

Ground surface rupture is a serious threat to structures and infrastructure that span active faults. Ground surface rupture has historically occurred in southern California and topographic relief and paleo-earthquake studies in the City suggests that the Hollywood fault has produced ground surface rupture in the past. Within the City, the Hollywood Fault is considered capable of producing surface fault rupture during future earthquake events.

Rupture of the Hollywood Fault could result in as much as about 1.5 feet of lateral offset and 3 feet of thrust offset near the point of nucleation. It is, however, believed that an earthquake on the Hollywood Fault would nucleate a few miles underground, and that the rupture would have to propagate to the surface through varying thicknesses of overlying poorly consolidated alluvial sediments (overburden). The actual surface rupture that would accompany offset of the Hollywood Fault may be substantially less and vary considerably at different locations in the City; some areas may exhibit no offset, whereas other areas may experience offset that approaches the above listed values. Surface rupture of the Hollywood Fault would not be anticipated in areas where the fault is overlain by more than about 200 feet of previously unfaulted overburden deposits.

Figure 4 shows the approximate trace of the Hollywood Fault projecting south of Sunset Boulevard through the City. The location of the fault is based on information from a variety of sources, including: site specific fault studies performed in the City (refer to Table 1 and Figure 4), subsurface borings, groundwater barriers, and abrupt breaks in surface topography. Given that the most recent rupture of the Hollywood fault in the West Hollywood area probably occurred about 7,000 years ago, surface evidence in the form of scarps that may have formed at that time have been degraded or buried by more recent sedimentation, and paved or built over by development.

The City has defined two fault precaution zones for future development as shown on Figure 4. The first precaution zone, FP-1, comprises a region approximately 200 feet north and 500 feet south of the interpreted main Hollywood Fault location. A wider precaution zone is prescribed to the south of the fault because of the greater uncertainty in the location and width of the fault zone due to the thick cover of alluvial sediments. **New development in the FP-1 zone is required to conduct a fault location investigation, to verify that the main trace or a recently active splay of the fault does not project through critical site structures or facilities.**

The second zone, FP-2, comprises a region approximately 200 feet south of the FP-1 zone. For properties in this zone, the fault rupture hazard is considered to be significant, but considerably less than for properties in the FP-1 zone. Furthermore, geologic study of the potential for fault rupture may not be practical for properties within zone FP-2 because of the significant thickness of alluvium overlying rock. **New development in the FP-2 zone will require either a fault location investigation, to verify that the main trace or a recently active splay of the fault does not project through critical site structures or facilities, or default provisions for a strengthened foundation system.**

Structures or habitable buildings must be a minimum of 50 feet from the fault, measured between the closest portion of the fault to the closest edge of the structure or building foundation.

Figure 4 also shows the approximate surface trace of the Santa Monica Fault, located near the southwest portion of the City. The fault trace indicated on Figure 4 represents the surface projection of the fault, which is believed buried beneath at least 1,000 feet of overburden in this area. The Santa Monica fault is not considered a significant ground surface rupture hazard east of Beverly Hills (Dolan, 2000). As a result of the thickness of sediments and lack of surface expression of the fault, no fault precaution zone within the City is recommended at this time for the Santa Monica Fault.

4.2.2. Ground Shaking

The Hollywood Fault and a number of the regional faults, as shown on Figure 2 and described in Table 2, are the main contributors to the seismic exposure of the City and the surrounding region. Updated maximum magnitude estimates and other parameters for these faults are available from the California Geological Survey (e.g., Wills et al, 2008). The effect of an earthquake originating on any given source fault will depend primarily on the earthquake magnitude (amount of energy released) and upon the hypocentral distance from the City. In general, the more distant the source fault is from the effected area and the smaller the magnitude of the potential earthquake, the smaller the expected ground shaking effect. The effects of an earthquake and the severity of ground shaking are often quantified as a fraction of gravitational acceleration (g). Therefore, ground motion expressed as 0.5g is equivalent to 50 percent of the force of gravity.

Based on Table 2, the faults considered to present the most adverse ground shaking affects to the City for their estimated maximum earthquakes would be:

- The Hollywood Fault,
- Santa Monica Fault,
- Elysian Park Fault,

- Newport Inglewood fault.

4.2.3. Peak Ground Acceleration

The peak ground acceleration (PGA) is a quantitative measure of the severity of ground shaking. During an earthquake, the PGA is typically measured in three orthogonal directions, two horizontal (PHGA) and one vertical (PVGA) by a seismometer. The maximum of the two horizontal components is noted as the Maximum Horizontal Acceleration (MHA). PGA is expressed in units of "g," (a fraction or percentage of gravitational acceleration)

Ground accelerations can be evaluated for a given location using information about nearby seismic source faults, the distance to a source fault, and an attenuation relationship. An attenuation relationship provides an estimate of the propagation of the ground shaking as a function of the seismic event, seismic source type, i.e., fault, the distance from the seismic event, and the soil conditions at the investigated site. A seismic event can be characterized deterministically or probabilistically. In probabilistic formulation, the event affecting a site is derived from contributions from multiple seismic sources and is characterized by related statistical probability of occurrence within a given time period or by a recurrence interval. In deterministic formulation, the event is defined by a sole seismic source. In geotechnical engineering a probabilistic seismic event with a 10 percent probability of occurrence in 50 years, e.g., 475-year recurrence period is often considered for evaluation of slope stability, seismically induced settlement, lateral earth forces, and liquefaction susceptibility. Both deterministic and probabilistic estimates of future ground motion parameters may be considered for proposed projects in the City, however the recent trend in geotechnical applications leans more towards the probabilistic approach.

The recommended PHGA with 10 percent probability of exceedance in 50 years (i.e. 475 year return period) for key locations along and within the City perimeter are shown on Figure 5. The PHGA were herein determined using the USGS deaggregation website *http://eqint.cr.usgs.gov/deaggint/2008/* utilizing the new generation attenuation models (NGA) and 2008 USGS/CGS California Fault Model as described by Petersen et al. (2008). The presented PHGA are based on generalized soil profiles within the City limits. For the shallow bedrock near the base of the mountains along the northern edge of the City the soil profile within the upper 100 feet was characterized by shear wave velocity of 500 m/sec; for the regions with the deepening alluvium adjacent to the mountains the shear wave velocity of 375 m/sec was utilized, and for the deep alluvium in the majority of the City the shear wave velocity of 250 m/sec was selected. As shown on Figure 5, the estimated peak ground accelerations range from 0.55g for sites along the north side of the City to 0.50g for sites situated in the alluvial basin along the south side of the City. For sites located in between the shown locations, the design values may be linearly interpolated.

4.2.4. Modified Mercalli Intensity Scale

The Modified Mercalli Intensity (MMI) scale, provided in Table 4, is based on actual observations of earthquake effects at specific points. While an earthquake can have only one magnitude, it can have numerous intensities depending on the distance from the earthquake and specific site conditions and topography. The intensity is highest near the epicenter, and it gradually decreases with increasing distance from the epicenter. However, because intensity is so dependent on the ground and structural conditions of a particular area, it may vary considerably at two points that are equidistant from an epicenter. The MMI scale characterizes observations and damage in 12 levels. As indicated on Table 4, the higher the number, the greater the damage. Modified Mercalli Intensity (MMI) corresponding to the PGA values presented on Figure 5 will generally be VIII. For comparison, the estimated MMI experienced in the City from the ground shaking associated with the 1994 Northridge earthquake was IX.

4.2.5. CBC Design Spectra

Section 1613 of the 2007 California Building Code (2007 CBC), as amended by Los Angeles County, provides guidelines for the development of a standardized horizontal response spectrum for seismic design of structures and building. For hospitals, other critical facilities, and state-owned or leased property, Section 1613A of the 2007 CBC applies. This spectrum is considered to be a minimum design basis. The hazard level associated with a CBC design corresponds to a Maximum Considered Earthquake (MCE) ground motion. MCE is defined in high seismicity regions near known faults, i.e., California, as a maximum seismic event on nearby source (deterministic earthquake) attenuated by the median ground motion attenuation relations increased by 50 percent In moderate and high seismicity regions, MCE is defined as an event having a 2 percent probability of exceedance within a 50 year period. (return period 2500 years) (FEMA 450 - NEHRP Recommended Provisions, 2003).

Selection of a CBC design response spectrum involves identifying the following:

- Locating the site on spectral accelerations maps for short periods (S_s) and 1-second period (S_1) published in the 2007 CBC, Figures 1613.5 (3) and (4).

  Given that the Hollywood and Santa Monica Faults are within 2 km of any site in the City, the design response spectra is dominated by these two faults and only relative minor variations in the governing spectral acceleration values exist.

- Site classification (site class) according the site soil profile as per Section 1613.5.

  The spectral values obtained in the previous step are developed for Site Class D. Consequently, the values must be modified depending on the actual site conditions. The site profile types within the City include soft rock, i.e., Site Class C, at the base of the mountains and deep stiff soil, Site Class D, in the majority of the City. Some sites on granitic rock may be classified as rock or hard rock, i.e., Site Class B or C, respectively. The designers must carefully evaluate the soil profile type based on the average blowcounts (SPT N-value), undrained strength of the soil, or shear wave velocity in the upper 100 ft. to designate the appropriate CBC site Class.

Based on the above, for structures for which the 2007 CBC seismic design response spectrum is applicable, and site-specific ground motion procedure is not used. Figure 6 provides guidelines for the selection of appropriate governing spectral accelerations for various portions of the City.

4.3. Secondary Seismic Hazards

4.3.1. Liquefaction

Liquefaction and liquefaction-induced settlement of saturated soils can be caused by moderate to strong ground shaking during earthquakes. Research and historical data indicate that saturated or near saturated loose, relatively clean granular soils are susceptible to liquefaction, whereas the stability of most cohesive soils consisting of clayey silt, silty clay and clay is not adversely affected by ground shaking. When liquefaction occurs, the materials experience a substantial loss of shear strength and behave like a viscous liquid. Liquefaction can cause structural distress or failure due to excessive settlement, a loss of bearing capacity in the foundation soils, and the potential buoyancy effects on buried structures, such as pipelines or vaults.

There are 3 conditions that need to be present for liquefaction to occur and they are all present within the City limits. First, strong ground shaking of relatively long duration, as from a magnitude M6 or greater earthquake is typically required. Such an earthquake can be expected to affect the City as a result of an earthquake on any of the nearby active faults in the area. The second condition, loose or poorly consolidated youthful sediments consisting primarily of silty sand and sand, occurs in much of the alluvial plain emanating from Laurel Canyon as shown on Figure 3. The third condition, water-saturated sediments within about 50 feet of the ground surface, is also known to exist under the alluvial plain within the City.

The areas within the City considered to be susceptible to liquefaction during strong earthquake ground shaking are delineated on Figure 3 – Seismic Hazard Zone Map. The liquefaction zones indicated on Figure 3 were derived from the CGS Seismic Hazard Zone maps for the Hollywood and Beverly Hills Quadrangles.

Details of the required investigation, analysis and reporting requirements to evaluate the potential for liquefaction and potential mitigation are provided in SP-117 and Recommended Procedures.

4.3.2. Seismically Induced Settlement

Loose sands tend to densify when subjected to earthquake shaking. Subsurface densification is manifested at the ground surface in the form of settlement. Both dry and saturated sands can experience seismically-induced settlement. Dry sand densifies rapidly, usually by the end of an earthquake. Saturated sands require minutes or hours to densify after an earthquake. Earthquake-induced settlement can cause distress to structures supported on shallow foundations and/or create downdrag on pile foundations.

Seismically-induced settlements are a potential hazard for most sites within the City. Therefore, this hazard should be evaluated for all properties, for saturated and unsaturated soil profiles, in the City.

4.3.3. Lateral Spread

Lateral spread refers to lateral displacement of surficial blocks of sediment as a result of liquefaction in the underlying layer. If the underlying layer liquefies, gravitational forces plus inertial forces from an earthquake may cause a mass of material to move downslope or toward a free face slope. Given the presence of sloping ground conditions throughout much of the City, lateral spread may prove to be a significant hazard for sites in the northern portion of the City.

Lateral spread should be evaluated in cases where the potential for liquefaction is considered to be moderate or higher (Youd et. al., 2002).

4.3.4. Earthquake Induced Landslides

According to the CGS, landslides triggered by strong earthquake ground shaking have historically been a cause of significant earthquake-induced damage. The State of California Seismic Hazard Mapping Program delineates the approximate areas considered susceptible to earthquake-induced landslides and other modes of slope failure (e.g., rockfalls in the northeast portion of the City). The areas considered most susceptible to earthquake-induced landslide are on moderately to steeply inclined slopes and on or adjacent to existing landslide deposits, especially if the underlying materials consist of loose soil or weak, fractured bedrock. Figure 3 - Seismic Hazard Zone Map highlights areas identified by the CGS as exhibiting a potential for earthquake-induced landsliding in light blue. Such areas in the City are limited to the northwest portion of the City near Larrabee Street and Horn Avenue.

The methodology used by the CGS to produce the mapping shown on Figure 3 considered the estimated level of earthquake ground-shaking, generalized geologic material strength characteristics, and the slope gradient. For the evaluation of the Hollywood Quadrangle, the CGS selected a design earthquake strong-motion record with a modal magnitude of M6.4 to M6.9, modal distance of 2.5 to 6.4 kilometers, and a peak ground acceleration of 0.43 to 0.59g. The delineated areas aren’t necessarily inherently unstable, but the maps provide a basis for the requirement to further investigate these hillside areas when planning for new development. There is no available data to suggest that any landslides in the City have been triggered by past earthquakes, therefore the basis for the mapping of potential earthquake-induced landslide areas is the slope gradient and material underlying the slope.

5. GEOLOGIC AND SOILS HAZARDS

5.1. Overview

For the geologic component of the Safety Element the minimum list of potential hazards that should be considered include:

- Slope Instability (landslides and mudslides)
- Expansive Soils
- Collapsible Soils
- Ground Subsidence

Subsidence due to groundwater withdrawal is possible due substantial pumping; however, there are no major aquifers within the City of West Hollywood that are used for potable water, nor are any production wells reported in the City by the Metropolitan Water District (2007).

5.2. Slope Instability

Slope instability or landsliding can occur under static (non-earthquake) conditions due to moisture influx, erosion or loss of toe support, and other factors. The potential for landslides and shallow mudslides is a potential geologic hazard in the hilly portions of the City, north of Sunset Boulevard. No pre-existing landslides have been mapped in the City by the CGS or by Los Angeles County in the Seismic Safety Element (Leighton and Assoc. 1990). The available data suggests that the slopes at, or potentially affecting, the northern margin of the City are relatively stable.

One of the most common forms of slope instability in southern California are debris flows or mudslides, which are shallow landslides of water-saturated soil and rock fragments that travel downslope as a muddy slurry. Debris flows commonly form after heavy rainfall onto relatively steep slopes underlain by colluvial soils and weak weathered bedrock. Damaging debris flows can occur during intense rainfall, and particularly when runoff is concentrated by misdirected drainage from road, large paved areas, or blocked or damaged drainage swales. Hillsides left denuded by brushfires are very susceptible to debris flows during heavy rainstorms. According to the USGS Landslide Fact Sheet (2005), hillsides in southern California generally become susceptible to debris flows after 10 inches of seasonal rainfall has accumulated. Subsequent intense rainfall totaling more than 2 inches in 4 to 6 hours can typically trigger debris flows. Although the likelihood of debris flows begins to decline after several days of dry weather, deeper-seated bedrock landslides can be initiated weeks or months following a period of prolonged rainfall as the precipitation percolates into the rockmass.

Mudslides are considered to be a significant hazard to properties at the base of undeveloped or unimproved slopes in the Santa Monica Mountains. Within the City, this hazard, then, is confined to only a few properties, all located north of Sunset Boulevard.

5.3. Expansive Soils

Fine-grained native soils, bedrock, and man-placed fill soils, consisting predominantly of silt and clay, may contain clay minerals that are susceptible to expansion upon addition of water and contraction under drying conditions. Certain clay minerals with high plasticity have higher potential for expansion. These materials can affect performance of foundations, slabs, and exterior improvements to properties.

Expansive materials may exist in various areas of the City. Clay-rich soils are more prevalent in the southern part of the City, south of Santa Monica Boulevard. Current provisions in building codes are considered to be suitable for design at sites with expansive soils. Therefore, designs should include proper characterization of the hazard through soils investigations and follow building codes and local experience. In some cases, the expansive soil may need to be overexcavated and recompacted wet of optimum moisture content to mitigate the expansive potential.

5.4. Collapsible Soils

Collapsible soils are characterized as typically young, loose deposits that have the potential for significant abrupt volumetric change when wetted. An increase in surface water infiltration such as from heavy irrigation or prolonged rainfall or from a rise in the groundwater, combined with the weight of a structure, can initiate settlement. These materials typically affect foundations, slabs, and exterior improvements to properties.

Collapsible soils are known to exist within the City. However, the severity of this hazard in the City is only considered to be low to moderate. Current provisions in building codes are considered to be suitable for design at sites with collapsible expansive soils. Therefore, designs should include proper characterization of the hazard through soils investigations and follow building codes and local experience. In some cases, the collapsible soil may need to be overexcavated and recompacted to mitigate the collapse hazard.

5.5. Ground Subsidence

Ground subsidence is typically associated with regional changes in ground surface elevation associated with seismic warping, lowering of groundwater through pumping, and removal of oil and natural gas through pumping.

Seismic warping or uplift is occurring beneath the City based on global geodetic data. However, these movements are distributed over large areas and, as a consequence, rarely produce damage.

Given the recent trend for water conservation and controlled groundwater pumping and the consequent rise in groundwater, the hazard for ground subsidence from groundwater lowering is expected to be very low.

The nearest oil fields to the City are the Salt Lake and Beverly Hills/Cheviot fields. Only marginal activity currently exists within the Salt Lake field, located along the southern margin of the City along Beverly Boulevard. Water injection and flooding operations as part of secondary recovery are believed to have largely mitigated subsidence hazard in the City.

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City of West Hollywood

Map Reference No.	Site Address	Report Date	Consultant	Faults Encountered	Depth to Groundwater	No. of Probes	Report Citation
1	8569 Sunset Blvd.	Jun. 1997, Dec. 1997	Byers	None Encountered	Not Encountered (reported at 56 to 60 feet in nearby wells)	7 H.S.A. 2 slant under Sunset Blvd.	J. Byers Group, 1997. "*Geologic and Soils Engineering Exploration, Proposed Retail/Commercial Building, Portion of Lot 3, Tract 2662, 8569 Sunset Boulevard, West Hollywood, California*". Consultant report prepared for Plaza Development, Dated June 16, 1997, 23 pages. J. Byers Group, 1997. "*Addendum Geologic and Soils Engineering Report, Proposed Retail/Commercial Building, Portion of Lot 3, Tract 2662, 8569 Sunset Boulevard, West Hollywood, California*". Consultant report prepared for Plaza Development, Dated December 29, 1997, 10 pages.
2	8410 Sunset Blvd.	Dec. 1997	AES	Fault across southern portion of property (active)	30 to 43 feet	5 H.S.A. 1 B.A.	Applied Earth Science, 1997. "*Geological Fault Study, Proposed Commercial/Residential Building, 8410 Sunset Boulevard, West Hollywood, California*". Consultant Report Prepared for Plaza Development, Dated December 18, 1997, 16 pages.
3	8305 Sunset Blvd.	34819	ECI/AES	Minor shears, no active faults	Not available	11 H.S.A.	Earth Consultants International, 1999. "*Fault Investigation for the Property Located at 8305 Sunset Boulevard in the City of West Hollywood, Los Angeles County, California*". Consultants report prepared for Venice Investments.
4	SE corner of Sunset and La Cienega Blvd. (Petersen Bldg.)	Jan 98, Mar. 98	Harza/WLA	2 northern strands (inactive) and a southern fault (fault 1, potentially active)	30 to 85 feet	18 H.S.A. 2 B.A.	Harza, 1998. "*Fault Rupture Hazard Investigation, Proposed After Sunset Project, Southeast corner of Sunset and La Cienega Boulevards, West Hollywood, California*". Consultant report prepared for Griffin Reality LLC, Dated January 28, 1998, 30 pages. William Lettis & Assoc., 1998. "*Supplemental Fault Rupture Hazard Investigation, After SunsetProject, SE Corner of Sunset and La Cienega Blvds., West Hollywood, California*". Consultants report prepared for Griffin Realty II, LLC. dated March 2, 1998, 4 pages.
5	8950 Sunset Blvd.	Mar. 98	AES	None Encountered	24 to 41 feet	9 H.S.A. 1 in Sunset 1 in Hilldale	Applied Earth Science, 1998. "*Geological Fault Study, Proposed Commercial Building, 8950-8970 Sunset Boulevard, West Hollywood, California*". Consultant Report Prepared forOlympic Holding, Dated March 23, 1998, 8 pages.
6	8430 Sunset Blvd. (House of Blues)	Jan. 1999 (superseded by ref. 13)	Jeff Johnson	Fault Interpreted based on stratigraphy and groundwater discordance	25 feet, N side, 100 feet, S side of site	1 H.S.A.	Jeffrey A. Johnson, Inc., 1999. "*Fault Location Investigation, Proposed Parking Structure House of Blues, 8430 Sunset Blvd. West Hollywood, California*". Consultants report prepared for the House of Blues, dated January 31, 1999, 25 pages.
7	SW Corner of Sunset & Alta Loma (Sunset Millenium)	Oct. 1998	WLA	2 fault strands (determined to be inactive)	21 to 72 feet	50 H.S.A. 5 B.A.	William Lettis & Assoc., Inc., 1998. "*Fault Rupture Hazard Investigation for the Sunset Millenium, West Hollywood, California*". Consultant report prepared for Maefield Development, Dated October 7, 1998, 28 pages.
8	9016-9034 Sunset Blvd.	Feb. 1999	WLA	None Encountered	24 to 43 feet	12 H.S.A. 12 CPT	William Lettis & Assoc., Inc., 1999. "*Fault Rupture Hazard Investigation for the Proposed Sunset Place Project Site, Sunset Boulevard between Doheny and Hammond Street, West Hollywood, California*. Consultant report prepared for Griffin Reality II, LLC, Dated February 17, 1999, 18 pages.

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9	1200 Alta Loma (Sunset Marquis Hotel)	Aug. 1999	ECI	1 Fault Bisects study. Found inactive on site trends towards (fault 1)	28 to 107 feet	13 H.S.A. 2 B.A.	Earth Consultants International, 1999. "*Fault Rupture Hazard Investigation of the Sunset Marquis Hotel Expansion Project*". Consultant report prepared for Raleigh Enterprises, Dated August 1999, 40 pages .
10	1016, 1018, and 1020 Hilldale Ave.	July 1998	Advanced Geotechniques	None Encountered	15 to 18 feet	5 H.S.A.	Advanced Geotechniques, 1998. "*Geological Fault Study Proposed Residential Buildings, 1016, 1018, and 1020 Hilldale Avenue, West Hollywood, California*". Consultant report prepared for Harvard Investment Group, Inc., Dated July 8, 1998, 11 pages.
11	1011, 1404, and 1414 Harper Ave.	Oct. 1998	Bruce Schell	1 Fault across northern portion of Sunset Blvd.	26 feet (N side of fault), No groundwater to 245 feet on S side of fault	5 H.S.A., 2 Mud Rotary	Bruce A. Schell, 1998. "*Surface Fault Rupture Investigation, 1404 & 1414 Harper Avenue, City of West Hollywood, Los Angeles County, California*". Consultant report prepared for Lefevre Corporation, Dated October 22, 1998, 22 pages.
12	8626 Holloway Dr. (Pacific Hills School)	April 2000, Aug. 2000	GeoSystems	Continuous alluvial stratigraphy No Fault Encountered	13 to 32 feet	10 H.S.A.	GeoSystems, 2000. "*Fault Rupture Hazard Investigation for Proposed 4-Story Classroom Building with Basement, 8626 Holloway Drive, West Hollywood, California*". Consultant report prepared for Pacific Hills School, dated April 6, 2000. GeoSystems, 2000. "*Response to City of West Hollywood Geotechnical, Geology, and Seismic Review Sheet dated April 26, 2000 for for Pacific Hills School, 8626 Holloway Drive, West Hollywood, California*". Consultants report prepared for Pacific Hills School, dated August 18, 2000, 5 pages.
13	8430 Sunset Blvd.	June 2001	Law/ Crandall	2 northern strands (inactive) and 50 foot wide southern zone of faults (active) 2-3 ft vert. sep. on marine platform, sediments overlying date to ~9ka	20 to 41 feet on N side of fault, no water encountered on south side of fault	25 H.S.A.	Law/Crandall, 2001. "*Report of Fault Rupture Hazard Investigation, Proposed Sunset / Olive Mixed Use Development, West Hollywood, California*". Consultant report prepared for Gold Mountain Enterprises, LLC, dated June 26, 2001, 48 pages.
14	8788 Shoreham Drive	'May 2001	ECI	None Encountered	51 to 56 feet	7 H.S.A.	Earth Consultants International, 2001. "*Report, Study of the Potiential for Surface Fault Rupture at the Property on 8788 Shoreham Drive in the City of West Hollywood, Los Angeles County, California".* Consultant report prepared for Mr. Kleinman, dated May 1, 2001, 17 pages.
15	1146 N Hacienda Place	Aug. 2001	Subsurface Designs	None Encountered	66 to 78 feet	5 H.S.A.	Subsurface Designs, Inc., 2001. "*Fault Rupture Hazard Investigation, Proposed Condominium Complex, 1146 North Hacienda, West Hollywood, California*". Consultant report prepared for Mr. Benezry, dated August 27, 2001, 7 pages.
16	8480, 8490 Sunset Blvd. (Sunset Millenium, East Parcel)	Aug 2000	WLA	Supplemental Investigation to Log #4. Fault 1 considered to be inactive. (See log # 19)	35 to 47 feet	10 H.S.A. (Supplemental)	William Lettis & Assoc., Inc., 2000. "*Fault Rupture Hazard Investigation of Fault 1, East Parcel of Sunset Millenium Project, City of West Hollywood, California*". Consultant report prepared for Latham & Watkins, dated August 22, 2000, 17 pages.

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17	1433-1437 Havenhurst Dr.	Oct. 2001	ECI	None Encountered	Not Encountered	5 H.S.A.	Earth Consultants International, 2001. "*Fault Investigation for the Property at 1433-37 Havenhurst Drive, in the City of West Hollywood, Los Angeles County, California".* Consultant report prepared for West Hollywood Community Housing Corporation, dated October 19, 2001 Supplemental report submitted January 31, 2002, 3 pages.
18	8703 West Knoll Dr.	June 03	ECI	None Encountered	approx. 1 foot (possible confined conditions)	2 H.S.A.	Earth Consultants International, 2003. "*Report, Study of the Potiential for Surface Fault Rupture in the Southern Portion, Plus 50 feet South of a Proposed Development at 8703 West Knoll Drive in the City of West Hollywood, Los Angeles County, California".* Consultant report prepared for Mr. Shooshani, dated June 4, 2003, 26 pages.
19	8480, 8490 Sunset Blvd. (Sunset Millenium, East Parcel)	Apr. 2004	WLA	Supplemental Investigation to Log #4 and Log #16. Fault 1 found to be active.	41 to 45 feet	3 B.A. (supplemental)	William Lettis & Assoc., Inc., 2004. "*Summary of Fault Rupture Hazard Investigations of Fault 1, East Parcel of Sunset Millenium Project (Petersen Property), City of West Hollywood, California*". Consultant report prepared for Sunset Millenium, LLC, dated April 16, 2004, 17 pages.
20	1136-42 La Cienega Blvd.	'May 2004	Fugro	None Encountered	Not Encountered	11 CPTS 2 H.S.A. (supplemental)	Fugro West, Inc., 2004. "*Fault Rupture Hazard Study of 1136 and 1142 La Cienega Blvd., West Hollywood, California*". Consultant report prepared for Mr. Habibi, Dated May 17, 2004, 4 pages. Fugro West, Inc., 2005. "*Response to 2nd Review Letter, Fault Rupture Hazard Study of 1136 and 1142 La Cienega Blvd., West Hollywood, California*". Consultant Report Prepared for Mr. Fudenberg, Dated February 25, 2005, 6 pages.
21	1152 North La Cienega Blvd.	Nov. 2004	Land Phase, Inc.	None Encountered	Not Encountered	2 H.S.A. 5 CPTs	Land Phase Inc., 2004. "*Results of Fault Rupture Hazard Study, Hollywood Fault Zone, Proposed 8-unit Condominium Building, 1152 North La Cienega Blvd., West Hollywood, California*". Consultant report prepared For Mr. Niami, dated November 10, 2004, 23 pages.
22a	1019 San Vicente Blvd.	Aug. 2004	Fugro	None Encountered	13 to 20 feet	2 H.S.A. 9 CPTs	Fugro West, Inc, 2004. "*Report of Fault Rupture Hazard Study, 1019 San Vicente Blvd., West Hollywood, California*". Consultant report prepared for Mr. Fudenberg, dated August 11, 2004, 5 pages.
22b	1019 San Vicente Blvd.	Dec. 2004	MACTEC	None Encountered	23 to 33 feet	4 H.S.A. (supplemental)	MACTEC, 2004. "*Report of Fault Rupture Hazard Investigation, Proposed Residential Development, 1019 San VicenteBlvd., West Hollywood, California*". Consultant report prepared for San Vicente LLP, Inc., dated December 7, 2004, 15 pages.
23	1137 Hacienda Pl.	Nov. 2004	Fugro	None Encountered	81 feet	1 H.S.A., 5 CPTs	Fugro West, Inc, 2004. "*Report of Fault Rupture Hazard Study, 1137 Hacienda Pl., West Hollywood, California*". Consultant report prepared for YOR Apparel, LLC, dated September 20, 2004, 7 pages.

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24	8265 Fountain Ave.	Mar. 2006	Fugro	None Encountered	Not Encountered	2 H.S.A. 18 CPTs	Fugro West, Inc., 2006. "*Report of Fault Rupture Hazard Study, 8265 Fountain Avenue, West Hollywood, California*" Consultant report prepared for Copa, LLC, dated March 1, 2006, 7 pages. Fugro West, Inc., 2006. "*Addendum to Fault Rupture Hazard Study Report Issued March 1, 2006, 8265 Fountain Avenue, West Hollywood, California*" Consultant report prepared for Copa, LLC, dated April 21, 2006, 5 pages.
25	1351 Havenhurst Dr.	Feb. 2005	Fugro	None Encountered	Not Encountered	1 H.S.A. 13 CPTs	Fugro West, Inc., 2005. "*Report of Fault Rupture Hazard Study, 1351 Havenhurst Dr., West Hollywood, California*". Consultant report prepared for Havenhurst LLC, dated February 15, 2005, 6 pages.
26	9040 & 9056 Sunset Blvd.	June 2007 April 1999	WLA/ECI	None Encountered (Used findings from Log #8)	N.A.	WLA used data from Log #8 ECI 3 H.SA.	William Lettis & Assoc., Inc., 2007. "*Findings for the Fault Rupture Hazard Issues at 9040 & 9056 Sunset Boulevard, West Hollywood*". Consultant report prepared for Weintraub Financial Services, dated June 25, 2007, 2 pages. Earth Consultants International, 1999. "Fault Investigation for the Property at 9056 West Sunset Boulevard, City of West Hollywood, Los Angeles County, California". Consultant report prepared for Mr. Saparzadeh, dated April 19, 1999.
27	8600 W. Sunset Blvd.	Aug. 2007	WLA	Flt 3N, 2, & 3S (inactive)	46 to 65 Feet	7 H.S.A. 10 CPTs	William Lettis & Assoc., Inc., 2007. "*Fault Rupture Hazard Investigation, Sunset Plaza Project, 8600 W. Sunset Boulevard, West Hollywood, California*". Consultant report prepared for Montgomery Management Company, Dated August 23, 2007, 13 pages.
28	8801 Sunset Blvd.	Feb. 2009	VB&B	None Encountered	19 to 28 feet	5 H.S.A. 11 CPTs	Van Beveren & Butelo, 2009. "*Report of Geologic Fault Hazard Investigation, Proposed Office Building and Subterranean Parking, 8801 Sunset Boulevard, West Hollywood, California*". Consultant report prepared for Centrum Properties, dated February 24, 2009, 13 pages.

TABLE 2
CHARACTERISTICS OF FAULTS CONSIDERED SIGNIFICANT TO SEISMIC SHAKING HAZARD

Fault/Fault Segment Name	Fault Style[1]	Approximate Closest Distance to City[2] (km)	Notable Historic Earthquake Surface Wave Magnitude, Ms (yr.)	Estimated "Upper Bound" Moment Magnitude, Mw[3]*	Estimated Slip Rate (millimeters per year)
Santa Monica System					
Hollywood	OBL	0	--	6.7	1
Santa Monica	OBL	0.5	5 (1979, 1989)	6.4 – 6.8	0.5 – 1
Blind Thrust	TH	15	--	7.1	0.5 – 1
Malibu Coast	OBL	23	--	6.7	0.3
Newport-Inglewood System					
Inglewood Segment	RL	5.0	4.9 (1920)	7.2	0.5 – 1
Peralta Hills System					
Las Cienegas	R	8.6	--	6.7	
Elysian Park Thrust					
Los Angeles Segment	TH	11	--	6.7	0.6 – 1
Verdugo-Eagle Rock System	R	14	--	6.9	0.5
Whittier-Elsinore System					
West LA Blind Thrust	TH	14	--	6.8	2.5
East LA Blind Thrust	TH	22	--	7.0	
Puente Hills Thrust					
Los Angeles Segment	TH	15	--	7.0	0.7
Raymond	OBL	15	~6 (1855)	6.8	0.5 – 1.5
Northridge Hills	R	18	--	6.6	0.5 – 1.5
Sierra Madre System					1 – 2
Dunsmore	R	20	--	7.2	
San Fernando	R	21	6.4 (1971)	6.7	
Mission Hills	R	23	--	6.2	
Sierra Madre	R	27	5.8 (1991)	7.2	
Oak Ridge System					3.5 - 6
Northridge Blind Thrust	TH	25	6.7 (1994)	6.9	
Palos Verdes-Coronado Bank System					
Santa Monica Bay to LA Harbor	OBL	25	3.9 (1972)	7.3	3
San Gabriel (Western Part)	RL	26	--	7.3	1
Anacapa-Dume	OBL	33	5.0 (1979)	7.2	3
San Andreas System					varies by segment
Mojave Segment	RL	57	~8 (1857)[3]	6.8 – 8.0	22 - 36

Notes:
(1) Fault Styles: RL = Right Lateral; R = Reverse; TH = Thrust; OBL = Oblique
(2) Closest distance as defined by Abrahamson and Silva (1997)
(3) As reported by Dolan et al. (1995), Rubin et al. (1998) and Shaw and Shearer (1999), Petersen et al. (2008), Wills et al. (2008).
* Reported value could be larger if rupture is simultaneous with adjacent fault.

TABLE 3
SUMMARY OF HISTORIC EARTHQUAKES WITH MAGNITUDES GREATER THAN 5.0 AND EPICENTRAL DISTANCES OF LESS THAN 100 KM

Date	Earthquake (Fault Name where Known)	Latitude (ºN)	Longitude (ºW)	Magnitude	Epicentral Distance (km)
Jan. 17, 1994	Northridge (Northridge Blind Thrust)	34.21	118.54	6.7	20
July 11, 1855	Pasadena area (Raymond?)	34.1	118.1	~6	~21
Oct. 1, 1987	Whittier-Narrows (Puente Hills Blind Thrust)	34.06	118.08	5.9	27
Aug. 31, 1930	Santa Monica Bay	33.95	118.63	5.2	27
Jan. 19, 1989	Malibu	33.92	118.63	5.2	29
Jan. 1, 1979	Malibu	33.94	118.68	5.1	32
Nov. 14, 1941	San Pedro area (Newport-Inglewood?)	33.78	118.25	5.4	35
Feb. 9, 1971	San Fernando (San Fernando)	34.41	118.40	6.6	36
June 28, 1991	Sierra Madre (Sierra Madre)	34.26	118.00	5.8	39
Feb. 21, 1973	Point Mugu (Anacapa)	34.06	119.04	5.9	60
Feb. 28, 1990	Upland (San Jose)	34.14	117.7	5.4	62
Sept. 12, 1970	Lytle Creek	34.27	117.54	5.4	79
July 22, 1899	Cajon Pass	34.25	117.5	~5.7	~80
Sept. 4, 1981	North of Sta. Barbara Is.	33.66	119.09	5.9	82
Oct. 23, 1916	Tejon Pass	34.90	118.90	6.0	89
May 15, 1910	Lake Elsinore area (Elsinore)	33.7	117.4	6.0	99

TABLE 4
MODIFIED MERCALLI INTENSITY SCALE

MMI	EFFECTS	PHGA (g)	APPROXIMATE RICHTER SCALE MAGNITUDE
I.	Not felt. Marginal and long period effects of large earthquakes.	< 0.0017	Below 3.0
II.	Felt by persons at rest, on upper floors, or favorably placed.	0.0017-0.014	3.0-3.9
III.	Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.	0.0017-0.014	4.0-0.9
IV.	Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frame creak.	0.014-0.039	4.0-4.9
V.	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.	0.039-0.092	4.0-4.9
VI.	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc. off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle).	0.092-0.18	5.0-5.9
VII.	Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.	0.18-0.34	6.0-6.9
VIII.	Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed pilling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.	0.34-0.65	
IX.	General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames racked. Conspicuous cracks in ground. In alluvial areas sand and mud ejected, earthquake fountains, sand craters.	0.65-1.24	7.0-7.9
X.	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.	> 1.24	
XI.	Rails bent greatly. Underground pipelines completely out of service.		8.0-8.9
XII.	Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.		

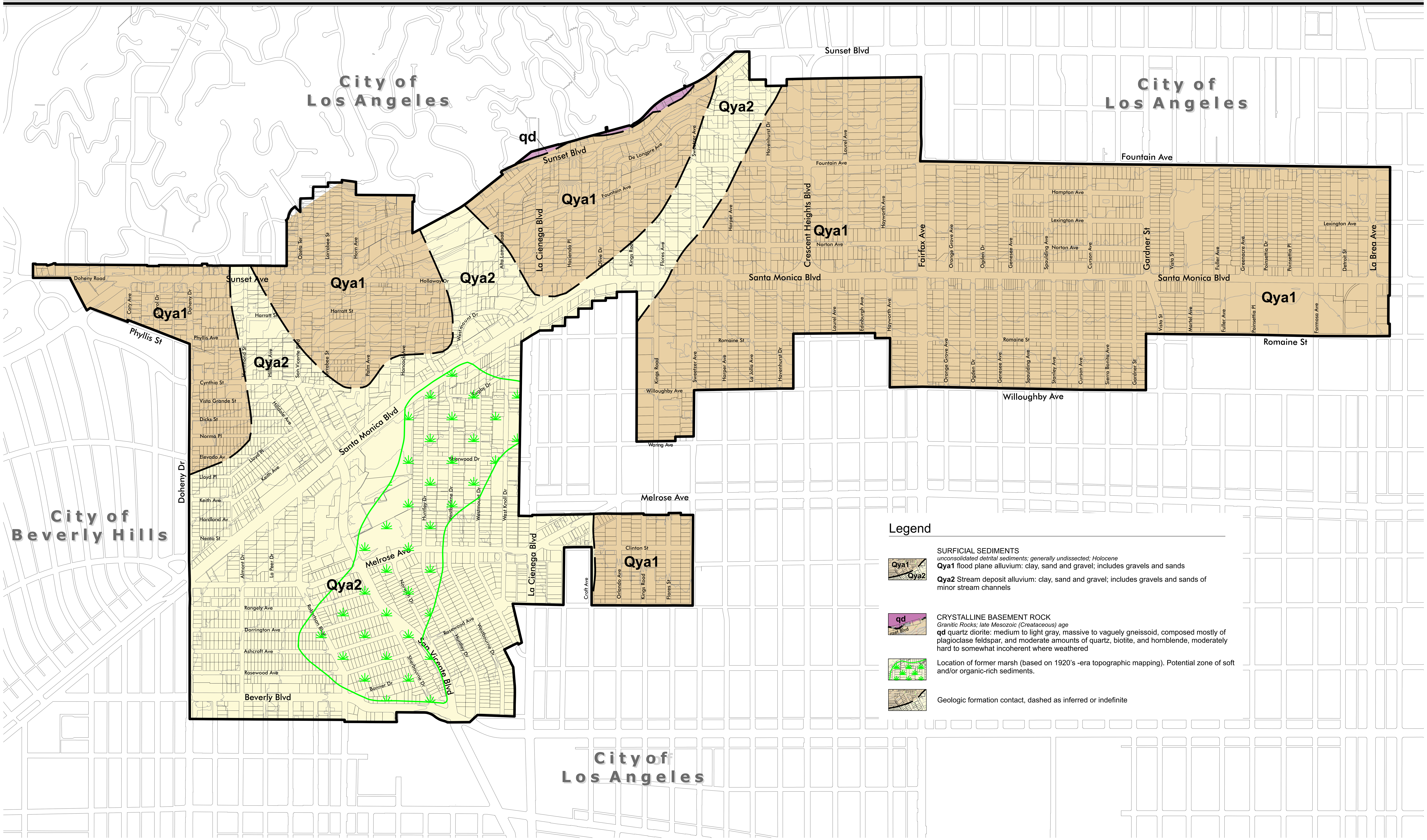
Masonry A: Good workmanship, mortar, and design; reinforced, especially laterally and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B: Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C: Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

Source: http://earthquake.usgs.gov/earthquakes/



Source: Geologic mapping from Quaternary Geologic Map Presented in CDMG Seismic Hazard Evaluation of the Hollywood Quadrangle (CDMG 1998a) and Beverly Hills Quadrangle (1998b)

City of West Hollywood General Plan

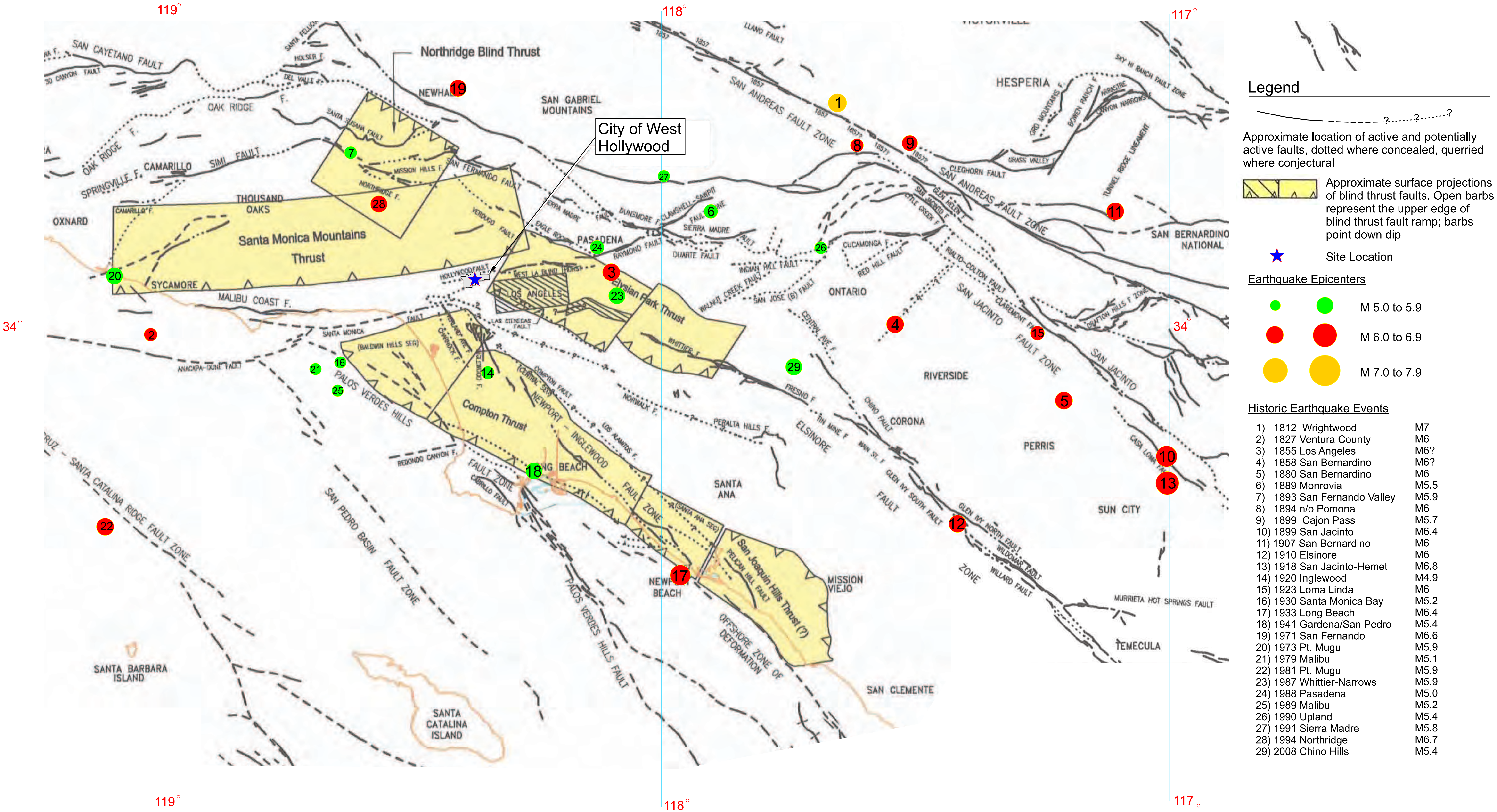
Feet
0 600 1200 1800 2400

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

KFM GEOSCIENCE
1360 Valley Vista Drive
Diamond Bar, CA 91765
Phone (909) 860-5096

Geology Map

Project Name: City of West Hollywood - Seismic Safety Element					
Project Number: cWH 08-14E	DATE: March 2010	DRAFTED: AHM	REVIEWED: EHS	CHECKED: PS	FIGURE NO: 1



City of West Hollywood General Plan

0 10 20 MILES

References:

Base Map:
USGS Southern California, Based on USGS 1:1,000,000 Los Angeles Map (NI-11), (drawn from Topo! CD-Rom)

Earthqauke Epicenters:
CDMG SP 116, Fig. 1, Page 10.

Fault Locations:
CDMG Map Number 6, 1994
Green and Kennedy 1987 and 1988; Ziony and Jones 1989; Hauksson 1990; wright 1991; Jennings 1994; Dolan, et al. 1995, Grant et al. 1999

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

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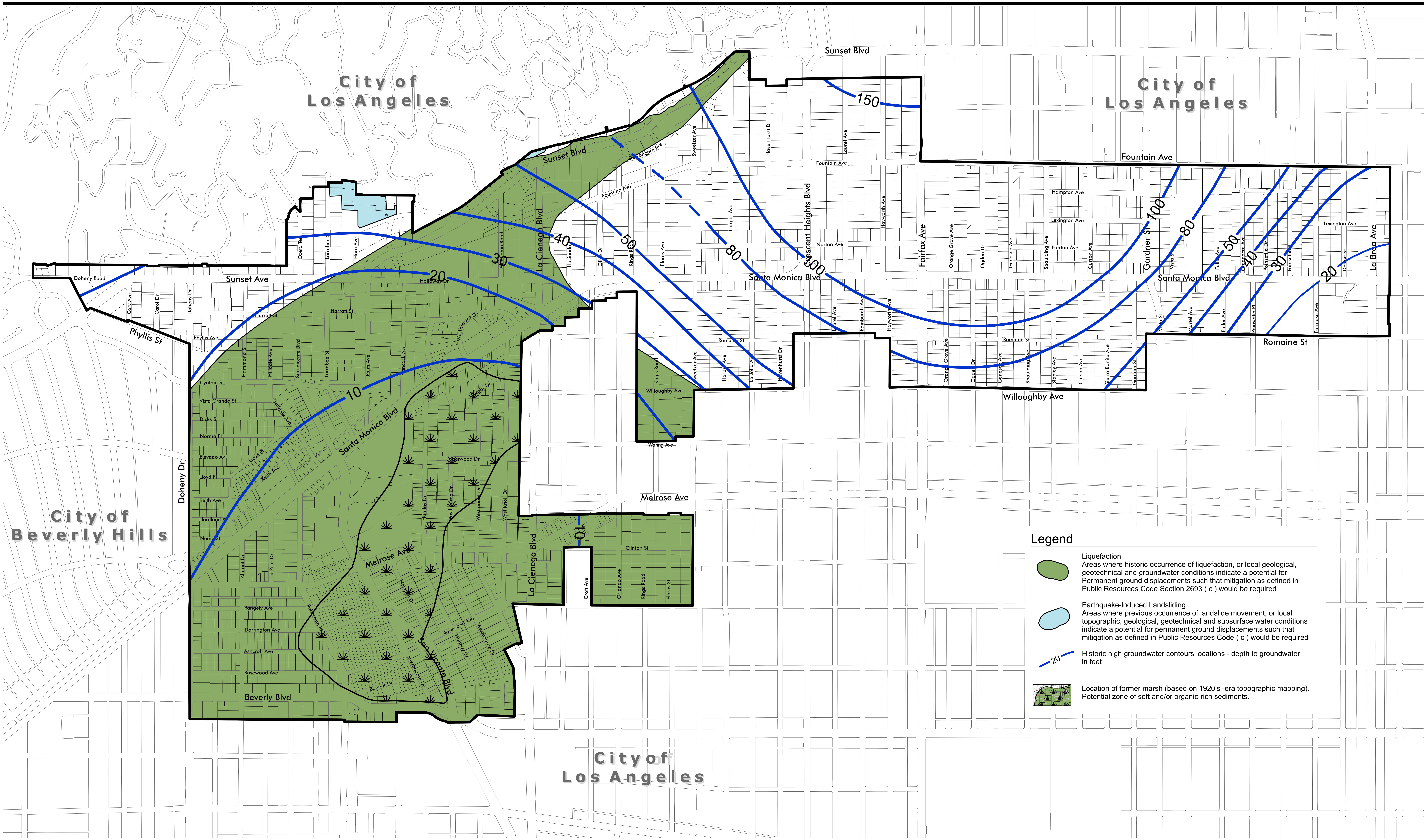
Regional Fault and Seismicity Map

Project Name: City of West Hollywood - Seismic Safety Element

Project Number: cWH 08-14E	DATE: March 2010	DRAFTED: AHM	REVIEWED: EHS	CHECKED: PS	FIGURE NO: 2



Source mapping from CDMG Seismic Hazard Zone Map ofthe Hollywood Quadrangle (CDMG 1999a) and Beverly Hills Quadrangle (1999b)

City of West Hollywood General Plan

0 600 1200 1800 2400 Feet

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

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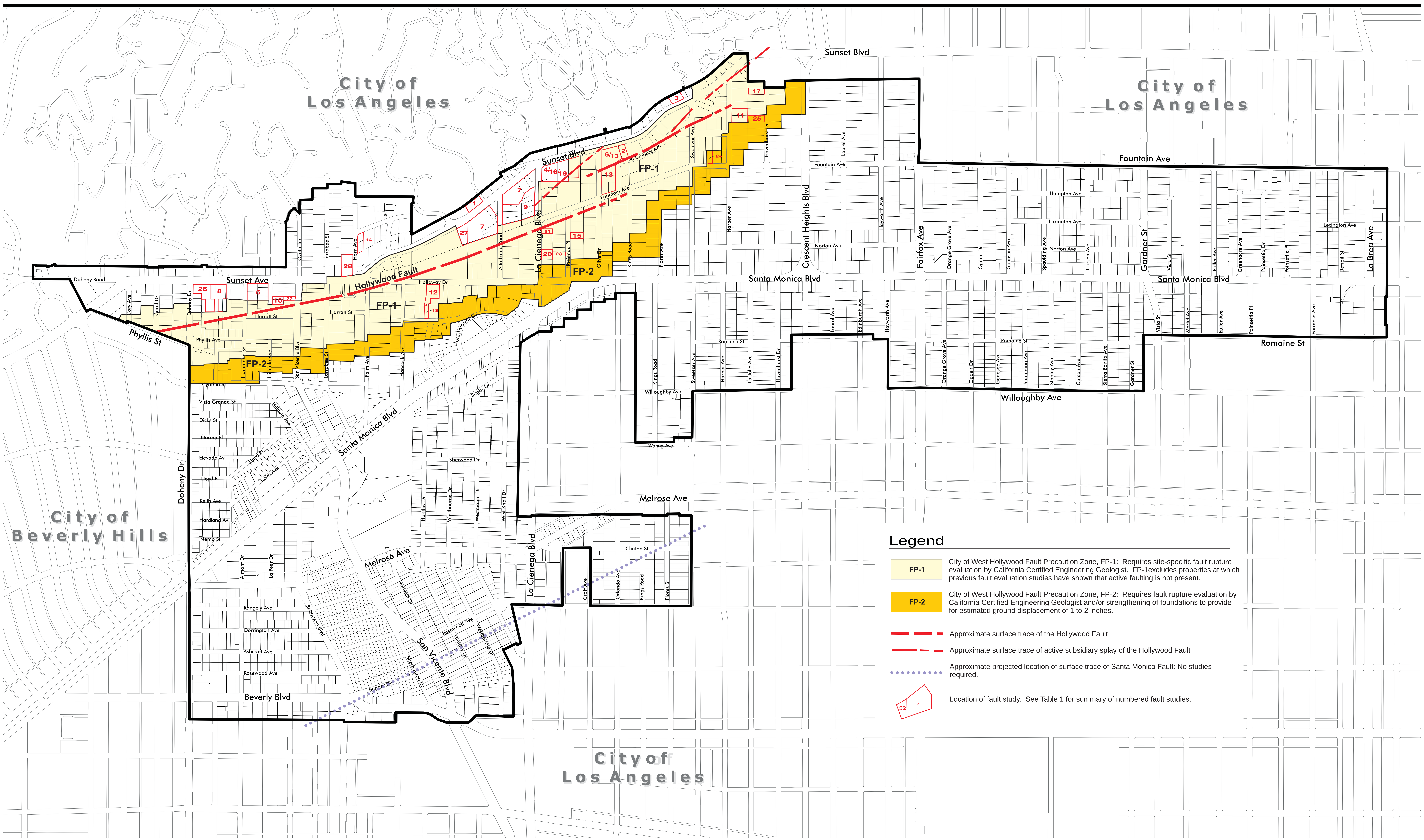
Seismic Hazard Zones Map

Project Name: City of West Hollywood - Seismic Safety Element					
Project Number: cWH 08-14E	DATE: March 2010	DRAFTED: AHM	REVIEWED: EHS	CHECKED: PS	FIGURE NO: 3



City of West Hollywood General Plan

Feet 0 600 1200 1800 2400

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

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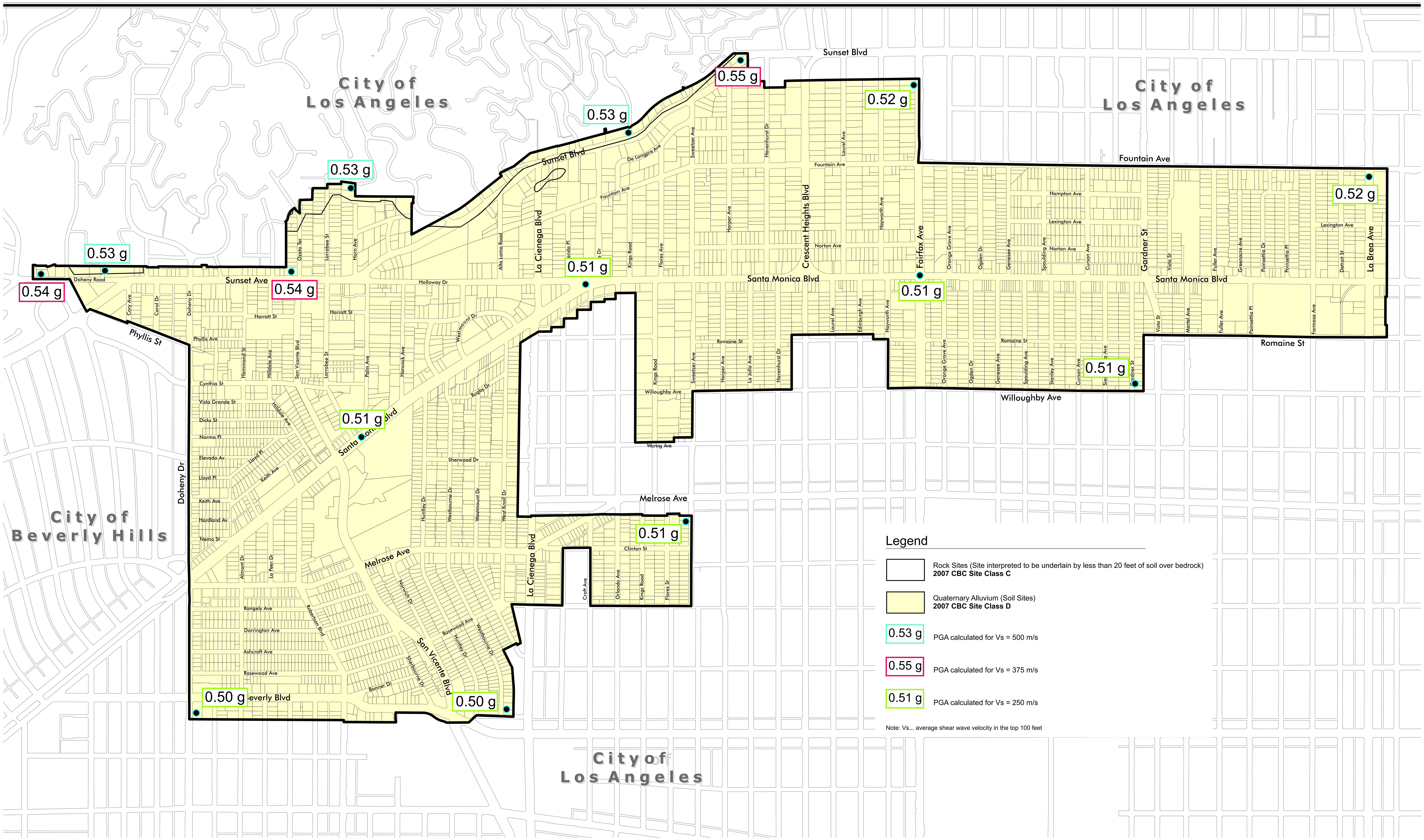
Phone (909) 860-5096

City Fault Location and Precaution Zone Map

Project Name: City of West Hollywood - Seismic Safety Element					
Project Number: cWH 08-14E	DATE: March 2010	DRAFTED: AHM	REVIEWED: EHS	CHECKED: PS	FIGURE NO: 4



City of West Hollywood General Plan

0 600 1200 1800 2400 Feet

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

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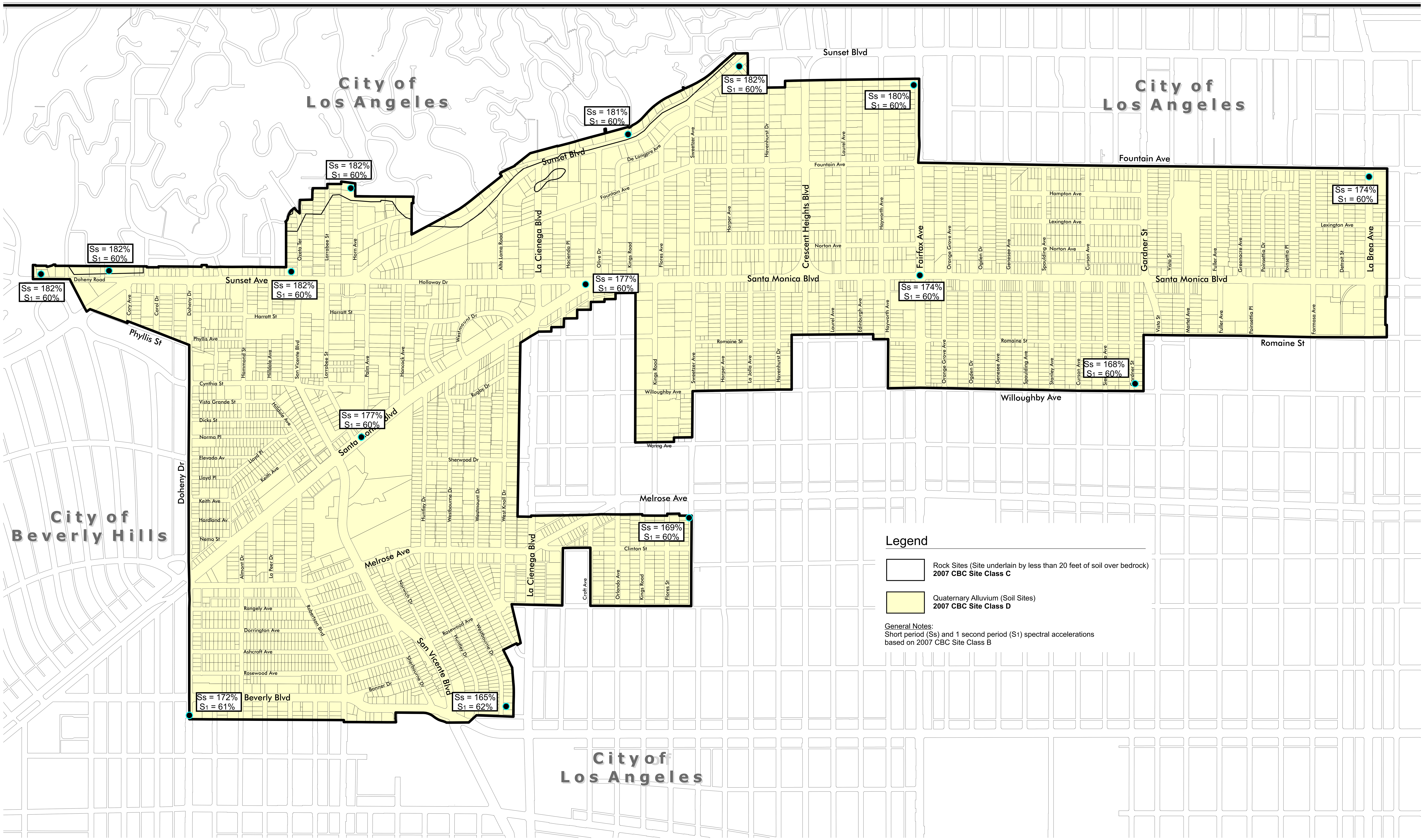
Peak Ground Acceleration Map
10% Probability of Exceedance in 50 years,
i.e., 475-year Return Period

Project Name: City of West Hollywood - Seismic Safety Element

Project Number: cWH 08-14E | DATE: March 2010 | DRAFTED: AHM | REVIEWED: EHS | CHECKED: PS | FIGURE NO: 5



City of West Hollywood General Plan

Feet
0 600 1200 1800 2400

NOTE: ALL LOCATIONS, DIRECTIONS AND DIMENSIONS ARE APPROXIMATE

KFM GEOSCIENCE

1360 Valley Vista Drive
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Phone (909) 860-5096

Guidelines for 2007 California Build Code
Governing Spectral Accelerations for
Seismic Design Response Spectrum per 2007 CBC

Project Name: City of West Hollywood - Seismic Safety Element						
Project Number: cWH 08-14E	DATE: March 2010	DRAFTED: AHM	REVIEWED: EHS	CHECKED: PS	FIGURE NO: 6	

APPENDIX E
NOISE BACKGROUND REPORT

NOISE BACKGROUND REPORT
FOR THE
CITY OF WEST HOLLYWOOD GENERAL PLAN
WEST HOLLYWOOD, CALIFORNIA

Prepared for:

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June 2010

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INTRODUCTION

This background report creates a foundation for updating the goals, policies, and programs of the Noise Element of the *City of West Hollywood General Plan*. The Noise Element provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of the City of West Hollywood (City) from excessive noise exposure.

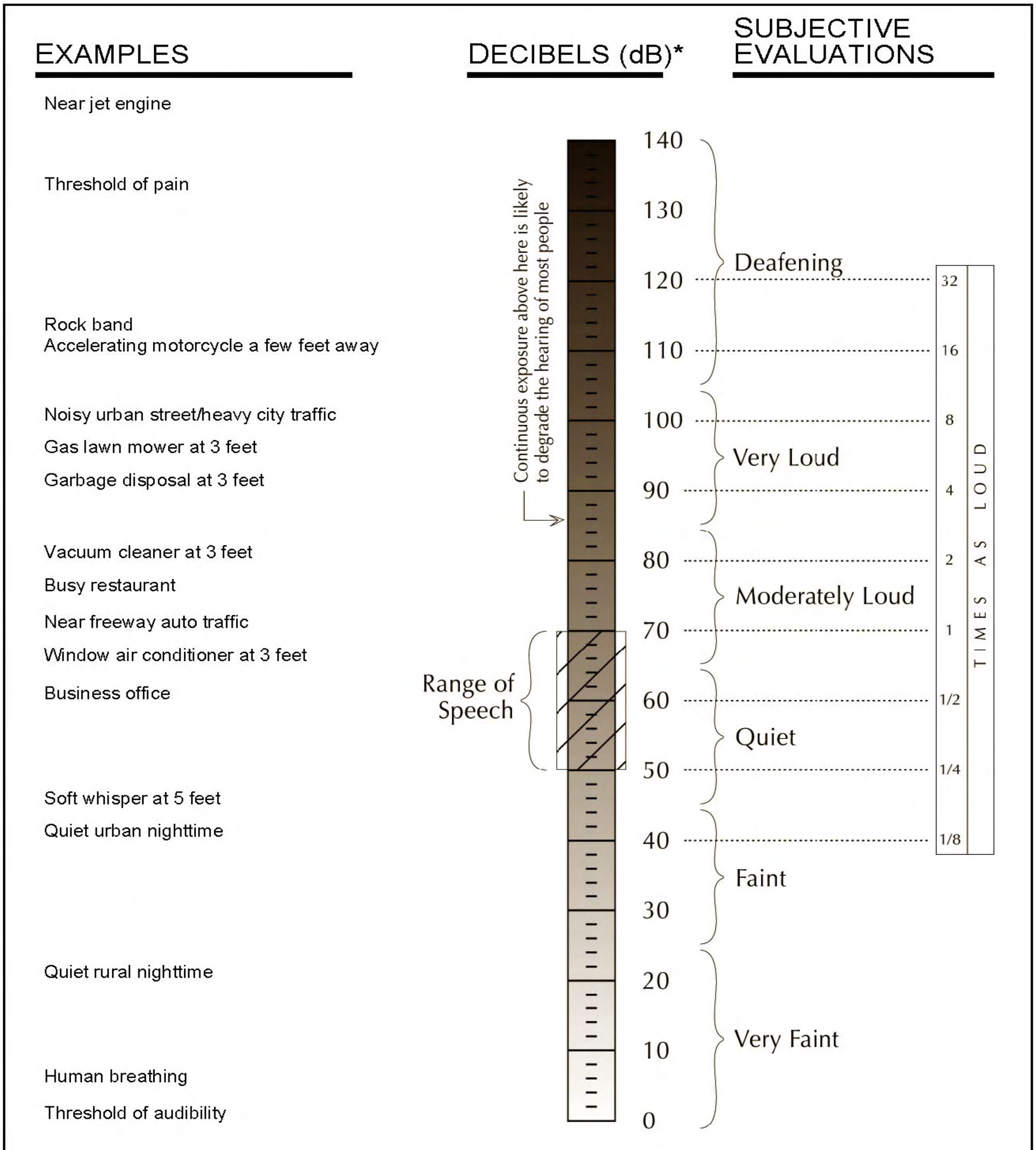
Unregulated noise can cause stress and strain on the general well-being of the City's residents. With proper planning, mitigation, and cooperation, unwanted noise can be managed to preserve the overall well-being of the people within the City.

The responsibility of the local governments is to "analyze and quantify" noise levels and the extent of noise exposure through actual measurement and/or the use of noise modeling. To do this, technical data relating to mobile and point sources must be collected, synthesized, and mapped. These data are used to develop a set of noise control policies and programs that minimizes incompatible land use and serves as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with control requirements for sound transmission and directly correlate to the land use, circulation, and housing elements.

The noise element is used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including commercial and light industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses.

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise; consequently, the perception of sound is subjective in nature and can vary substantially from person to person. Common sources of environmental noise and noise levels are presented in Figure 1.



* dB are "average" values as measured on the A-scale of a sound-level meter.
From Concepts in Architectural Acoustics: M. David Egan, McGraw Hill, 1972 and U.S. Department of Housing and Urban Development, Office of Community Planning and Development "The Noise Guidebook."

Source: **<<Source will be supplied in next submittal>>**

Figure 1
Common Noise Sources and Levels

A sound wave is initiated in a medium by a vibrating object (e.g., vocal chords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz (Hz), which is equivalent to one complete cycle per second.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more usable numbering system, the decibel (dB) scale was introduced. A sound level expressed in decibels is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure. For sound pressure in air the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold of human hearing. The use of the decibel is a convenient way to handle the millionfold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly added. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a hundredfold increase in acoustical energy.

The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). For this reason the A-weighted sound level can be used to predict community response to noise from the environment, including noise from transportation and stationary sources. Sound levels expressed as dB in this section are considered dBA, unless noted otherwise.

Noise can be generated by a number of sources, including mobile sources (transportation noise sources) such as automobiles, trucks, and airplanes and stationary sources (nontransportation noise sources) such as construction sites, machinery, and commercial and industrial operations. As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers (e.g., walls, building façades, berms). Noise generated from mobile sources generally attenuates at a rate of 3dB (typical for hard surfaces, such as asphalt) to

4.5 dB (typical for soft surfaces, such as grasslands) per doubling of distance, depending on the intervening ground type. Stationary noise sources spread with more spherical dispersion patterns that attenuate at a rate of 6 to 7.5 dB per doubling of distance.

Atmospheric conditions such as wind speed, turbulence, temperature gradients, and humidity may additionally alter the propagation of noise and affect levels at a receiver. Wind speed will bend the path of sound to "focus" it on the downwind side and make a "shadow" on the upwind side of the source. At short distances, up to 164 feet, the wind has minor influence on the measured sound level. For longer distances, the wind effect becomes appreciably greater. Temperature gradients create effects similar to those of wind gradients, except that they are uniform in all directions from the source. On a sunny day with no wind, temperature decreases with altitude, giving a shadow effect for sound. On a clear night, temperature may increase with altitude, focusing sound on the ground surface (Caltrans2009).

The presence of a large object (e.g., barrier, topographic feature, and intervening building façade) between the source and the receptor can also alter the propagation of noise and provide significant attenuation of noise levels at the receiver. The amount of noise level reduction or "shielding" provided by a barrier primarily depends on the size of the barrier, the location of the barrier in relation to the source and receivers, and the frequency spectra of the noise. Natural barriers such as berms, hills, or dense woods and human-made features such as buildings and walls may be effective noise barriers.

Noise Descriptors

The intensity of environmental noise fluctuates over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used to describe environmental noise are defined below.

- **L_{max} (Maximum Noise Level):** The highest noise level occurring during a specific period of time.
- **L_{min} (Minimum Noise Level):** The lowest noise level during a specific period of time.
- **Peak:** The highest weighted or unweighted instantaneous peak-to-peak value occurring during a measurement period.

- **L_n (Statistical Descriptor):** The noise level exceeded n percent of a specific period of time, generally accepted as an hourly statistic. An L_{10} would be the noise level exceeded 10 percent of the measurement period.
- **L_{eq} (Equivalent Noise Level):** L_{eq} represents an average of the sound energy occurring over a specified period. Effectively, the varying sound level over a specified period contains the same acoustical energy as a steady-state sound level that in that same period.
- **L_{dn} (Day-Night Noise Level):** The 24-hour L_{eq} with a 10-dB "penalty" applied during nighttime noise-sensitive hours, 10 p.m. through 7 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- **CNEL (Community Noise Equivalent Level):** Similar to the L_{dn} described above, but with an additional 5-dB "penalty" for the noise-sensitive hours between 7 p.m. to 10 p.m., which are typically reserved for relaxation, conversation, reading, and watching television. If the same 24-hour noise data are used, the CNEL is typically 0.5 dB higher than the L_{dn}.
- **SEL (Sound Exposure Level):** The cumulative exposure to sound energy over a stated period of time.

Effects of Noise on Humans

Excessive and chronic exposure to elevated noise levels can result in auditory and nonauditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Nonauditory effects of exposure to elevated noise levels are those related to behavioral and physiological effects. The nonauditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The nonauditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems such as hypertension and cardiovascular disease. The mass of research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to nonauditory health effects remains a subject of considerable research with no definitive conclusions.

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several nonacoustic factors. The number and effect of these nonacoustic environmental and physical factors vary depending on individual characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to changes in noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a new noise source relative to the environment an individual has become accustomed to, the less tolerable the new noise source will be to the individual.

With respect to how humans perceive and react to changes in noise levels, a 1-dB increase is imperceptible, a 3-dB increase is barely perceptible, a 6-dB increase is clearly noticeable, and a 10-dB increase is subjectively perceived as approximately twice as loud (Egan 1972). These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source. It is probably most applicable to noise levels in the range of 50 to 70 dB as this is the usual range of voice and interior noise levels. For these reasons, a permanent noise level increase of 3 dB or greater is typically considered substantial in terms of the degradation of the existing noise environment.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006:**7**-1 through 7-8; Caltrans 2004:5–7). PPV and RMS vibration velocity are normally described in inches per second.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. The response of the human body to vibration relates well to average vibration amplitude; therefore, vibration impacts on humans are evaluated in terms of RMS vibration velocity. Similar to airborne sound, vibration velocity can be expressed in decibel notation as vibration decibels (VdB). The logarithmic nature of the decibel serves to compress the broad range of numbers required to describe vibration.

Typical outdoor sources of perceptible groundborne vibration include construction equipment, steel-wheeled trains, and traffic on rough roads. Although the effects of vibration may be imperceptible at low levels, effects may result in detectable vibrations and slight damage to nearby structures at moderate and high levels, respectively. At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in damage to structural components. The range of vibration that is relevant to this analysis occurs from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings (FTA 2006:8-1 through 8-8).

REGULATORY CONTEXT

Various private and public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and other adverse physiological and social effects associated with noise. The following federal, state, and local regulations discussed below are applicable to the proposed project regarding noise and vibration standards.

Federal Plans, Policies, Regulations, and Laws

The U.S. Environmental Protection Agency's (EPA's) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at lower levels of government, thereby allowing more individualized control for specific issues by designated federal, state, and local government agencies. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to designated federal agencies and state and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place.

State Plans, Policies, Regulations, and Laws

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, establishes building standards applicable to all occupancies throughout the state. The code provides acoustical regulations for both exterior-to-interior sound insulation as well as sound and impact isolation between adjacent spaces of various occupied units. Title 24, Part 2, Chapter 12, Section 1207.11.2, states that interior noise levels generated by exterior noise sources shall not exceed 45 dB L_{dn}, in any habitable room.

Though not adopted by law, the *General Plan Guidelines 2003*, published by the California Governor's Office of Planning and Research (OPR), provides guidance for the compatibility of projects within areas of specific noise exposure. Table 1 presents acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Local Plans, Policies, Regulations, and Ordinances

West Hollywood General Plan

Goal 17A – Prevent and mitigate the adverse impacts of noise on the City's residents.

- Objective 17.1 – Minimize the impact of traffic-generated noise on residential and other noise sensitive land uses.
  - Policy 17.1.1 – Require development in areas where the ambient noise level exceeds 65 dB(A) to incorporate special treatment measures into project design to reduce interior noise levels. In addition to measures called out in the Uniform Building Code and State Noise Insulation Standards (California Administrative Code, Title 24), the following standard should be required, of new development in these areas:
    a. use sufficient glazing for all sliding glass doors and all windows;
    b. use insulation between walls and other appropriate measures to adequately reduce noise to acceptable levels (I17.1 and I17.5).

Table 1
Land Use Noise Compatibility Guidelines

Land Use Category	Community Noise Exposure (CNEL/L_{dn}, dB)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential-Low Density Single Family, Duplex, Mobile Home	<60	55–70	70–75	75+
Residential-Multiple Family	<65	60–70	70–75	75+
Transient Lodging, Motel, Hotel	<65	60–70	70–80	80+
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	80+
Auditorium, Concert Hall, Amphitheater		<70	65+	
Sports Arenas, Outdoor Spectator Sports		<75	70+	
Playground, Neighborhood Park	<70		67.5–75	72.5+
Golf Courses, Stable, Water Recreation, Cemetery	<75		70–80	80+
Office Building, Business Commercial and Professional	<70	67.5–77.5	75+	
Industrial, Manufacturing, Utilities, Agriculture	<75	70–80	75+	

Notes: CNEL = Community Noise Equivalent Level; dB = A-weighted decibels; L_{dn} = day-night average noise level.
[1] Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
[2] New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
[3] New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.
[4] New construction or development should generally not be undertaken.
Source: OPR 2003:244–254

- Policy 17.1.2 – Encourage noise sensitive uses, including schools, libraries, hospitals, religious facilities and residential uses, to incorporate walls and other sound barriers where feasible to do so (I17.1 and I17.6).
- Policy 17.1.3 – Discourage through traffic in residential neighborhoods by the use of cul-de-sacs and one-way streets (I17.19).
- Policy 17.1.4 – Require that new development minimize the noise impacts of trips it generates on residential neighborhoods by controlling the location of driveways and parking (I17.8).

- Policy 17.1.5 – Actively enforce existing sections of the California Vehicle Code related to mufflers and modified exhaust systems (I17.13).
- Policy 17.1.6 – Require new equipment and vehicles purchased by the City of West Hollywood to comply with noise performance standards consistent with the best available noise reduction technology (I17.14).
- Policy 17.1.7 – Encourage employers to participate in van-pools and other demand management programs to reduce traffic and noise impacts in the city (I17.5).
- Policy 17.1.8 – Work with local agencies to provide public transit services which reduce traffic and noise (I17.20).
- Policy 17.1.9 – Work with public transit agencies to ensure that the equipment they use does not generate excessive noise levels (I17.20).

▪ Objective 17.2: – Minimize noise spillover from commercial uses into adjacent residential neighborhoods.

- Policy 17.2.1 – Adopt and enforce a standard for exterior noise levels for all commercial uses which prevents adverse levels of discernible noise on adjacent residential properties (I17.1, I17.3, and I17.8). (Res. 452, 6-20-1988)
- Policy 17.2.2 – Require a landscaped buffer between a commercial or mixed-use structure and any adjoining residential parcel in accordance with the requirements of policies 1.39.1 and 1.39.2 (I17.1). (Res. 95-1395, 1-17-1995)
- Policy 17.2.3 – Require that automobile and truck access to commercial properties located adjacent to residential parcels be located at the maximum practical distance from the residential parcel (I17.3).
- Policy 17.2.4 – Require that all parking for commercial uses adjacent to residential areas be enclosed within a structure or on surface lots whose hours of operation shall be limited (I17.3 and I17.6).
- Policy 17.2.5 – Require that parking lot and structures be designed to minimize noise impacts on-site and adjacent uses; including the use of materials which mitigate sound transmission and configuration of interior spaces to minimize sound amplification and transmission (I17.3).
- Policy 17.2.6 – Require that noise from entertainment uses not be discernible from ambient noise at a distance of fifty (50) feet from the establishment in which it is

being conducted or within ten (10) feet of a residence, whichever is more restrictive (I17.1 and I17.6).

- Policy 17.2.7 – Provide for increased police enforcement to minimize noise-related disturbances in residential neighborhoods adjacent to concentrations of entertainment uses and require that such uses monitor the activities of patrons who are waiting in line or loitering outside of the establishment (I17.11).
- Policy 17.2.8 – Require that entertainment uses, restaurants and bars control the activities of their patrons on-site and within reasonable and legally justifiable proximity to minimize noise impacts on adjacent residences (I17.10).
- Policy 17.2.9 – Discourage the development of new nightclubs, discotheques, and other high noise-generating uses adjacent to residential areas, unless it can be demonstrated that adequate measures can be employed to mitigate impacts of on-site operations and off-site customer access (I17.2).
- Policy 17.2.10 – Prohibit the development of new nightclubs, discotheques, and other high noise-generating uses adjacent to senior citizen housing, schools, health care facilities, and other noise-sensitive uses (I17.2).
- Policy 17.2.11 – Prohibit the use of the leaf blowers, motorized lawn mowers, parking lot sweepers, or other high noise equipment on commercial properties between 8 p.m. and 8 a.m. if their activity will result in noise which adversely affects adjacent residential parcels (I17.3).
- Policy 17.2.12 – Require that truck deliveries to commercial properties abutting residential uses be limited to 8 a.m. to 8 p.m. unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour (I17.4).
- Policy 17.2.13 – Encourage commercial uses which abut residential properties to employ techniques to mitigate noise impacts from truck deliveries, such as the use of a sound wall or enclosure of delivery area (I17.9).
- Policy 17.2.14 – Require the posting of signs in all commercial uses which request that all employees and customers minimize the noise they generate on their departure between 8 p. m. and 7 a. m. (I17.1).

▪ Objective 17.3 – Minimize the noise impacts of commercial-related parking overflow in residential areas.

- Policy 17.3.1 – Continue the existing and initiate, where appropriate, a residential permit parking system in residential areas containing large amounts of commercial-related parking spillover (I17.15).

- Policy 17.3.2 – Require businesses which generate substantial parking overflow into residential areas to participate in the development of municipal parking structures (I17.16).

▪ Objective 17.4 – Minimize the noise impacts associated with the development of residential units above ground floor commercial uses in designated "Mixed-Use" areas.

- Policy 17.4.1 – Require that commercial uses developed as part of a mixed-use project (with residential) not be noise intensive (I17.1).

- Policy 17.4.2 – Design mixed-use structures to prevent transfer of noise from the commercial to the residential use (I17.1 and I17.6).

- Policy 17.4.3 – Require common walls and floors between commercial and residential uses be constructed to minimize the transmission of noise and• vibration (I17.1).

▪ Objective 17.5 – Minimize the impacts of construction noise on adjacent uses.

- Policy 17.5.1 – Require that construction activities which may impact adjacent residential units be limited to 8 a.m. to 7 p.m. during weekdays, except under special circumstances approved by the City; limited to interior construction between 8 a.m. and 7 p.m. on Saturdays; and prohibited on Sundays (I17.4).

- Policy 17.5.2 – Require that construction activities incorporate feasible and practical techniques which minimize the noise impacts on adjacent uses (I17.4 and I17.17).

▪ Objective 17.6 – Ensure that base line information regarding the noise environment of the City is maintained.

- Policy 17.6.1 – Monitor and update data regarding the City's current and projected noise levels (I17.26).

- Policy 17.6.2 – Employ state-of-the-art advances in noise impact mitigation as they become available (I17.28).

▪ Objective 17.7 – Minimize the noise impacts of helicopter overflights on West Hollywood residents.

- Policy 17.7.1 – Discourage the overflight of police and emergency helicopters in residential areas of the City (I17.21).
- Policy 17.7.2 – Allow the development of heliports or helipads only when it can be demonstrated that noise impacts on adjacent residential uses can be adequately mitigated (I17.9).
- Policy 17.7.3– Require that helicopters which utilize City of West Hollywood airspace fly in compliance with Federal Air Regulations (FAR) Part 91 rules, maintain noise alleviating altitudes until landing, and utilize noise abatement procedures, except when these rules must be disregarded for safety and emergency reasons (I17.22).
- Policy 17.7.4 – Establish the City's commercial streets as the principal' helicopter flight corridors and require use of, these, except as may be required for safety and emergency reasons (I17.23).
- Policy 17.7.5 – Require that helicopter takeoff and landing patterns be limited to commercial areas (I17.23).
- Policy 17.7.6 – Discourage helicopter-training flights over, the City between 11:00 p.m. and 7:00 a.m. (I17.22).

▪ Objective 17.8 – Minimize noise spillover of transit and other uses on public properties into adjacent residential neighborhoods.

- Policy 17.8.1 – Require the Southern California Transit District to control and buffer, as necessary, its operations at its maintenance yards to minimize noise impacts on adjacent residential neighborhoods (I17.24).
- Policy 17.8.2 – Encourage public agencies and institutions located in the City to incorporate appropriate measures to contain noise generated by their activities on-site (I17.25).

▪ Objective 17.9 – Ensure that buildings are constructed soundly to prevent adverse noise transmission between differing uses located• in the same structure and individual residences in multifamily buildings.

- Policy 17.9.1 – Establish design criteria for commercial buildings which prevents transmission of significant and unacceptable noise between individual tenants and businesses (I17.1).

- Policy 17.9.2 – Establish design criteria for multi-family buildings which prevents transmission of significant and unacceptable noise between individual residential units (I17.1).

City of West Hollywood Municipal Code, Title 9 Public Peace, Morals, and Safety

Article 1 – Prohibited Conduct and Offenses

Chapter 9.04 General Offenses

<u>9.04.080 Noisy Hawking and Advertising Prohibited.</u>

No person on a street or sidewalk, or in any doorway or entrance set back less than ten feet from the front property line, shall make or cause to be made in any manner any loud or raucous noise for the purpose of advertising, announcing or calling attention to any goods, wares or merchandise, or to any show, exhibition, entertainment or event.

(Ord. 85-102U Section 1 (part), 1985: Ord. 85-102 Section 1 (part), 1985: prior code Section 4109)

Article 2 – Miscellaneous

Chapter 9.08 Noise

<u>9.08.010 Short Title.</u>

This chapter may be cited as the "Noise Control Ordinance" of the City of West Hollywood.

(Ord. 85-21 (part), 1985: prior code Section 4300)

<u>9.08.020 Purpose and Findings.</u>

The city is a densely developed community. Residential dwelling units are located in close proximity to one another and commercial activities often adjoin residential housing. This pattern of land use development makes it almost inevitable that everyday noise will be audible to one degree or another. The purpose of this chapter is to strike a balance between normal, everyday noises that are unavoidable in an urban environment and those noises that are so excessive and annoying to persons of ordinary sensitivity that they must be curtailed in order to protect the comfort and tranquility of all persons who live and work in the city.

(Ord. 07-769U Section 1, 2007: Ord. 07-768 Section 1, 2007: Ord. 85-21 (part), 1985: prior code Section 4301)

9.08.030 Definitions.

The following words, phrases and terms as used in this chapter shall have the meanings indicated as follows:

1. "City Manager" shall mean the City Manager of the City of West Hollywood or the City Manager's designee.
2. "Construction" shall mean any of the following:
   A. The operation of any tool, machine or equipment including, but not limited to vehicles and helicopters, to carry out any work for which a building permit is required, including, but not limited to, demolition, grading, excavating, or construction;

   B. Performing any construction, maintenance or repair on buildings, structures or utilities or any work preparing the site for construction or repair including, but not limited to, staging, grading, excavation, and demolition;

   C. Any painting using motorized equipment or any painting that is part of the construction activity for which a building permit has been issued;

   D. The loading or unloading of construction equipment, materials, or supplies from vehicles at or near the site of the construction activity;

   E. The staging or idling, at or near the site of construction activity, of any construction vehicle or any vehicles bringing construction equipment, materials or supplies to the site of the construction;

   F. The staging or idling, at or near the site of construction activity, of any food services vehicle providing food services to persons working at a site of construction activity or the use of a horn or other device by a food services vehicle to alert customers that the vehicle has arrived.
3. "Emergency machinery, vehicle or alarm" shall mean any machinery, vehicle or alarm used, employed, performed or operated in an effort to protect, provide or restore safe conditions in the community or for the citizenry or work by private or public utilities when restoring utility service.
4. "Emergency work" shall mean any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency or work by private or public utilities when restoring utility services.

5. “Weekday” shall mean any day, Monday through Friday, which is not a legal holiday.

(Ord. 09-808 Section 1, 2009; Ord. 85-21 (part), 1985: prior code Section 4302)

9.08.040 Prohibited Noises – General Standard.

Unless otherwise permitted in this chapter, no person shall make, permit to be made or cause to suffer any noises, sounds or vibrations that in view of the totality of the circumstances are so loud, prolonged and harsh as to be annoying to reasonable persons of ordinary sensitivity and to cause or contribute to the unreasonable discomfort or disturbance of any persons within the vicinity. When considering whether a noise, sound or vibration is unreasonable within the meaning of this section, the following factors shall be taken into consideration:

a. The volume and intensity of the noise, particularly as it is experienced within a residence or place of business;

b. Whether the noise is prolonged and continuous;

c. How the noise contrasts with the ambient noise level;

d. The proximity of the noise source to residential and commercial uses;

e. The time of day;

f. The anticipated duration of the noise; and

g. Any other relevant circumstances or conditions.

(Ord. 07-769U Section 2, 2007: Ord. 07-768 Section 2, 2007: Ord. 95-435 Section 3, 1995: Ord. 85-21 (part), 1985: prior code Section 4303)

9.08.050 Prohibited Noises – Specific Examples.

Notwithstanding any other provisions of this chapter, the following acts and the causing or permitting thereof, are declared to be in violation of this chapter:

a. *Radios, Phonographs, Etc.* The using, operating or permitting to be played, used or operated between the hours of 10:00 p.m. and 8:00 a.m. of any radio, musical instrument, phonograph, television set, or instrument or device similar to those heretofore specifically mentioned for the production or reproduction of sound in volume sufficiently loud as to be plainly audible at a distance of fifty feet or more therefrom.

b. *Band or Orchestral Rehearsals.* The conducting of or carrying on, or allowing the conducting or carrying on of band or orchestral concerts or rehearsals or practices between the hours of 10:00 p.m. and 8:00 a.m. sufficiently loud as to be plainly audible at a distance of fifty feet or more therefrom.

c. *Engines, Motors and Mechanical Devices Near Residential District.* The sustained, continuous or repeated operation or use between the hours of 10:00 p.m. and 8:00 a.m. of any motor or engine or the repair, modification, reconstruction, testing or operation of any automobile, motorcycle, machine, contrivance, or mechanical device or other contrivance or facility unless such motor, engine, automobile, motorcycle, machine or mechanical device is enclosed within a sound insulated structure so as to prevent noise and sound from being plainly audible at a distance of fifty feet or more from such structure, or at a distance of ten feet or more from any residence.

d. *Motor Vehicles.* Racing the engine of any motor vehicle or needlessly bringing to a sudden start or stop of any motor vehicle.

e. *Loading and Unloading.* Loading, unloading, opening, closing or other handling of boxes, containers, building materials, solid waste and recycling containers or similar objects between the hours of 10:00 p.m. and 8:00 a.m. in such manner as to cause unreasonable noise disturbance, excluding normal handling of solid waste and recycling containers by a franchised collector pursuant to Title 15.

f. *Construction.* Construction between the hours of 7:00 p.m. and 8:00 a.m. on weekdays; or at any time on Saturdays (except, between the hours of 8:00 a.m. and 7:00 p.m., interior construction is permissible); or at any time on Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day; all except as provided in subsection (d) of Section 9.08.060.

g. *Non-Emergency Signaling Devices.* Sounding or permitting the sounding of any electronically amplified signal from any bell, chime, siren, whistle or similar device, intended primarily for non-emergency purposes, from any place, for more than ten consecutive seconds in any hourly period.

   Houses of religious worship shall be exempt from the operation of this provision.

   Sound sources included within this provision which are not exempted under Section 9.08.060 may be exempted by a variance issued by the City Manager.

h. *Emergency Signaling Devices.*

   1. The intentional sounding, or permitting the sounding, outdoors of any emergency signaling device including fire, burglar, civil defense alarm, siren, whistle or similar

emergency signaling device, for testing, except as provided in subdivision (2) of this subsection.

2. Testing of an emergency signaling device shall not occur before 8:00 a.m. or after 10:00 p.m. Any such testing shall use only the minimum cycle test time. In no case shall such test time exceed sixty seconds. Testing of the emergency signaling system shall not occur more than once in each calendar month.

3. Sounding or permitting the sounding of any exterior burglar or fire alarm unless such alarm is terminated within fifteen minutes of activation.

4. Sounding or permitting the sounding of any motor vehicle alarm unless such alarm is terminated within five minutes of activation.

5. Sounding or permitting the sounding of any motor vehicle alarm more than three times of any duration in any twenty-four-hour period.

i. *Noises by Animals.* No person shall permit any animal that is kept or maintained upon any premises owned, occupied or controlled by such person to permit such animal to emit any noise, sound, or cry which interferes with the comfortable enjoyment of life and property by any individual. It is hereby declared a public nuisance to keep, maintain or permit an animal which emits such noise upon any lot or parcel of land. A violation of this section is subject to the provisions of Sections 1.08.030 through 1.08.070 of this code.

j. *Leaf Blowers.* The use or operation or allowing the use or operation of any portable machine powered with a combustion or gasoline engine used to blow leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces.

k. *Commercial Establishments Adjacent to Residential Property.* Notwithstanding any provision of this code to the contrary, continuous, repeated or sustained noise from the premises of any commercial establishment which is adjacent to one or more residential dwelling units, including any outdoor area part of or under the control of the establishment, between the hours of 10:00 p.m. and 8:00 a.m. that is plainly audible from the residential dwelling unit's property line.

l. *Loud Parties or Gatherings.* Generating any noise from a party, event or other gathering of people on private property (whether from a home, a commercial business or any other location in the city) that is determined by a law enforcement officer at the scene to constitute a threat to public peace, health and safety or a violation of this code or state law due to the magnitude of the crowd, the volume of noise, the level of disturbance to the surrounding neighborhood, unruly behavior, excessive traffic or destruction of property generated by the party or gathering. The city shall enforce this subsection as follows:

1. The law enforcement officer at the scene shall take such actions and give such direction as is necessary to investigate or abate the violation or condition and shall advise the responsible person that, if additional law enforcement (which term includes Fire Department) personnel are required to respond to abate the condition, the responsible person and the owner or occupant of the property shall be held liable for the cost of providing such services. Such direction and advice shall be given to the person responsible for the party or gathering or to the owner or occupant of the property involved. Such direction may include such measures as concluding the party, dispersing the crowd, shutting off or reducing the volume of music or any other measure necessary to eliminate the disturbance.

2. If the condition is not voluntarily abated in the time period requested by the law enforcement officer and, if additional city or law enforcement (which term includes Fire Department) personnel are required in order to disperse the party or gathering, quell any disturbance, direct traffic, cite illegally parked vehicles or otherwise respond, then the responsible person and the owner or occupant of the property shall be required to reimburse the city for costs pursuant to Section 9.08.090 of this code.

Violation of this subsection by the person responsible for the party and/or the owner or occupant of the property shall be a misdemeanor.

(Ord. 09-808 Section 2, 2009; Ord. 07-769U Section 3, 2007; Ord. 07-768 Section 3, 2007; Ord. 04-690 Section 1, 2004: Ord. 97-507 Section 12, 1997: Ord. 95-435 Section 4, 1995: Ord. 94-412 Section 1, 1994: Ord. 92-354 Section 2, 1992: Ord. 90-270 Section 2, 1990: Ord. 90-270U Section 2, 1990: Ord. 87-139 Section 2, 1987: Ord. 86-123 Section 2, 1986: Ord. 85-85 Section 2, 1985: Ord. 85-21 (part), 1985: prior code Section 4304)

9.08.060 Exemptions.

The following activities shall be exempt from the provisions of this chapter:

a. *Emergency Exemption.* The emission of sound for the purpose of alerting persons to the existence of an emergency or the emission of sound in the performance of emergency work. For the purposes of this section, “emergency” means a condition that constitutes an immediate threat to public safety, health or welfare or to property.

b. *Warning Devices.* Warning devices necessary for the protection of public safety as for example, police, fire and ambulance sirens and train horns.

c. *Outdoor Activities.* Activities conducted on public playgrounds, fully licensed and approved child day care facilities within residential areas as permitted by law, and public or private school grounds, including but not limited to school athletic and school entertainment events.

d. *Construction; Special Circumstances.* The provisions of Section 9.08.050 do not apply to any person who performs construction, repair, excavation or earthmoving work if and to the extent that the City Manager has given express prior written permission to perform such work at times prohibited in Section 9.08.050. In order to be given such permission, the person must submit to the City Manager an application in writing, stating the reasons for the request and the facts upon which such reasons are based. The City Manager may grant or conditionally grant such permission if the City Manager, City Engineer, Code Enforcement Officer or Building Official has found that:

   1. The work proposed to be done is necessary to protect or promote public safety or welfare or is otherwise in the public interest; or

   2. Hardship, including but not limited to unreasonable delay due to weather, acts of God or labor strikes, would result from the interruption thereof during the hours and days specified in Section 9.08.060; or

   3. The building or structure involved is devoted or intended to be devoted to a use immediately incidental to public defense.

   Any applicant dissatisfied with the decision of the City Manager may appeal to the City Council by filing a notice of appeal with the City Clerk within ten days after notice of the City Manager's decision. The City Council shall, within thirty days of filing the appeal, affirm, reverse or modify the decision of the City Manager.

   The provisions of Section 9.08.050 do not apply to the construction, repair, or excavation during prohibited hours as may be necessary for the preservation of life or property, when such necessity arises during such hours as the offices of the city are closed, or where such necessity requires immediate action prior to the time at which it would be possible to obtain a permit pursuant to this section. The person doing such construction, repair or excavation shall obtain a permit therefore within one business day of

e. *Outdoor Gatherings, Public Dances, Shows and Sporting Events.* Provided the events are conducted pursuant to a permit issued by the City Manager.

(Ord. 95-435 Section 6, 1995: Ord. 85-21 (part), 1985: prior code Section 4305)

9.08.070 Enforcement.

A violation of this chapter is subject to the administrative penalty provisions of Sections 1.08.030 through 1.08.070 of this code. The City Manager shall have primary responsibility, with such assistance of the Sheriff's Department as may be necessary or desirable, for the enforcement of the noise regulations contained herein. Nothing in this chapter shall preclude the City Manager from seeking to obtain voluntary compliance by way of warning, notice, or informational materials.

(Ord. 97-507 Section 13, 1997: Ord. 95-435 Section 6, 1995: Ord. 85-21 (part), 1985: prior code Section 4306)

9.08.080 Additional Remedies – Motor Vehicle Alarms.

a. *Deactivation.* In addition to the remedies set forth in this chapter, the Sheriff's Department may undertake such procedures as are reasonably necessary to deactivate a motor vehicle alarm generating noise in violation of this chapter. If the Sheriff's Department is unable to deactivate the alarm, the Sheriff may cause the motor vehicle to be removed according to the procedure set forth in Section 22651.5 of the California Vehicle Code.

b. *Removal.* Any costs associated with the removal or storage of a motor vehicle pursuant to subsection (a) of this section and any costs incurred by the city in connection therewith shall be paid by the registered owner of the motor vehicle.

(Ord. 92-354 Section 3, 1992: prior code Section 4307)

9.08.090 Additional Remedies – Recovery of Law Enforcement Costs for Certain Repeat Offenders.

a. This section shall apply to the following people:

   1. The animal owner or custodian who has received more than one citation pursuant to subsection (i) of Section 9.08.050;

   2. The person or persons responsible for a party or gathering described in paragraph i. of Section 9.08.050, or the owner or occupant of the property on which the party or gathering is held, or, if any such person is a minor, the parents or legal guardians of the minor.

b. The persons denoted in subsection (a) of this section shall be jointly and severally liable for the following costs incurred by the city:

1. The actual cost to the city of law enforcement (which term includes Fire Department) services, excluding the initial response provided by city or law enforcement (which term includes Fire Department) personnel, necessary to abate a violation of Section 9.08.050;
2. Damage to public property resulting from such law enforcement (which term includes Fire Department) response; and
3. Injuries to any city personnel or law enforcement (which term includes Fire Department) personnel involved in such law enforcement (which term includes Fire Department) response.

c. The Sheriff's Department shall accurately compute the cost of providing such services in accordance with the schedule of rates and charges for personnel and equipment contained in the law enforcement services agreement and advise the City Manager of such costs as well as any other costs of damage to public property or injuries to personnel resulting from the law enforcement (which term includes Fire Department) response. The City Manager shall bill said costs (and any additional such costs of the city) to the person or persons specified above in subsection (a) of this section. Payment shall be due and payable within thirty days of the billing date. If the amount due is not paid, the city may collect the debt, as well as any fees and costs incurred in its collection, pursuant to all applicable provisions of law.

d. The remedies set forth in this section are not exclusive and may be used in addition to those set forth elsewhere in this code or by law.

(Ord. 92-354 Section 7, 1992: prior code Section 4308)

ROADWAY TRAFFIC SOURCE NOISE

Traffic noise is the dominant noise source in West Hollywood and is influenced by major roads such as Sunset Boulevard, Santa Monica Boulevard, La Brea Avenue, and Fountain Avenue. Existing vehicle traffic noise levels in the City were modeled using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic consultant (Fehr & Peers 2010). The FHWA model has been modified to use CALVENO reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receptor, and ground attenuation factors. Vehicle classification mix and vehicle speeds on study area roadways were based on field observations. Caltrans data were also available and used for vehicle mix data for state facilities (Caltrans 2009:13).

Table 2 summarizes the modeled traffic noise levels, provides noise levels at 75 feet from the centerline of each major roadway within the City, and lists distances from the roadway centerlines to the 60-dB, 65-dB, and 70-dB L_{dn} traffic noise contours. Figure 2 shows the traffic noise contours for roadways within the City. These traffic noise modeling results are based on existing average daily traffic (ADT) volumes. As shown in Table 2, the location of the 65 dB L_{dn} contour ranges from 76 to 487 feet from the centerline of the modeled roadways. The extent to which existing land uses in the project area are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise.

Table 2
Summary of Modeled Existing Traffic Noise Levels in the Planning Area

Roadway	Segment		L_{dn}, 75 Feet from Roadway Centerline (dB)	Distance (feet) from Roadway Centerline to L_{dn} Contour		
	From	To		70 dB	65 dB	60 dB
Beverly Boulevard	Doheny Drive	Robertson Boulevard	71	87	275	869
Beverly Boulevard	Robertson Boulevard	La Cienega Boulevard	72	116	368	1,163
Crescent Heights Boulevard	Santa Monica Boulevard	Romaine Street	69	55	175	552
Crescent Heights Boulevard	Sunset Boulevard	Santa Monica Boulevard	70	80	254	802
Doheny Drive	Santa Monica Boulevard	Beverly Boulevard	65	24	76	240
Doheny Drive	Beverly Boulevard	Alden Drive	66	31	97	305
Doheny Drive	Sunset Boulevard	Santa Monica Boulevard	66	33	103	326
Fairfax Avenue	Santa Monica Boulevard	Willoughby Avenue	70	73	230	728
Fairfax Avenue	Sunset Boulevard	Santa Monica Boulevard	70	75	237	749
Fountain Avenue	La Cienega Boulevard	Crescent Heights Boulevard	70	77	244	772
Fountain Avenue	Crescent Heights Boulevard	Fuller Avenue	71	83	264	834
Fountain Avenue	Fuller Avenue	Sycamore Avenue	71	85	269	852
La Brea Avenue	Santa Monica Boulevard	Romaine Street	70	68	216	684
La Brea Avenue	Sunset Boulevard	Santa Monica Boulevard	70	66	210	664
La Cienega Boulevard	Santa Monica Boulevard	Beverly Boulevard	70	71	223	706
La Cienega Boulevard	Sunset Boulevard	Santa Monica Boulevard	70	72	227	718
Melrose Avenue	Robertson Boulevard	La Cienega Boulevard	70	72	227	718

Roadway	Segment		L_{dn}, 75 Feet from Roadway Centerline (dB)	Distance (feet) from Roadway Centerline to L_{dn} Contour		
	From	To		70 dB	65 dB	60 dB
Melrose Avenue	La Cienega Boulevard	N. Sweetzer Avenue	72	115	364	1,150
Robertson Boulevard	Beverly Boulevard	Alden Drive	68	47	147	466
Robertson Boulevard	Santa Monica Boulevard	Beverly Boulevard	66	28	88	278
San Vicente Boulevard	Santa Monica Boulevard	Beverly Boulevard	70	72	227	718
San Vicente Boulevard	Sunset Boulevard	Santa Monica Boulevard	68	43	137	434
Santa Monica Boulevard	Doheny Drive	La Cienega Boulevard	73	137	433	1,368
Santa Monica Boulevard	La Cienega Boulevard	Crescent Heights Boulevard	72	123	390	1,234
Santa Monica Boulevard	Westbourne Drive	La Cienega Boulevard	73	145	460	1,454
Santa Monica Boulevard	Crescent Heights Boulevard	Formosa Avenue	72	111	351	1,111
Santa Monica Boulevard	Formosa Avenue	Sycamore Avenue	72	109	344	1,088
Sunset Boulevard	Crescent Heights Boulevard	Formosa Avenue	73	154	487	1,539
Sunset Boulevard	Doheny Drive	La Cienega Boulevard	73	140	443	1,401
Sunset Boulevard	La Cienega Boulevard	Crescent Heights Boulevard	73	142	450	1,422

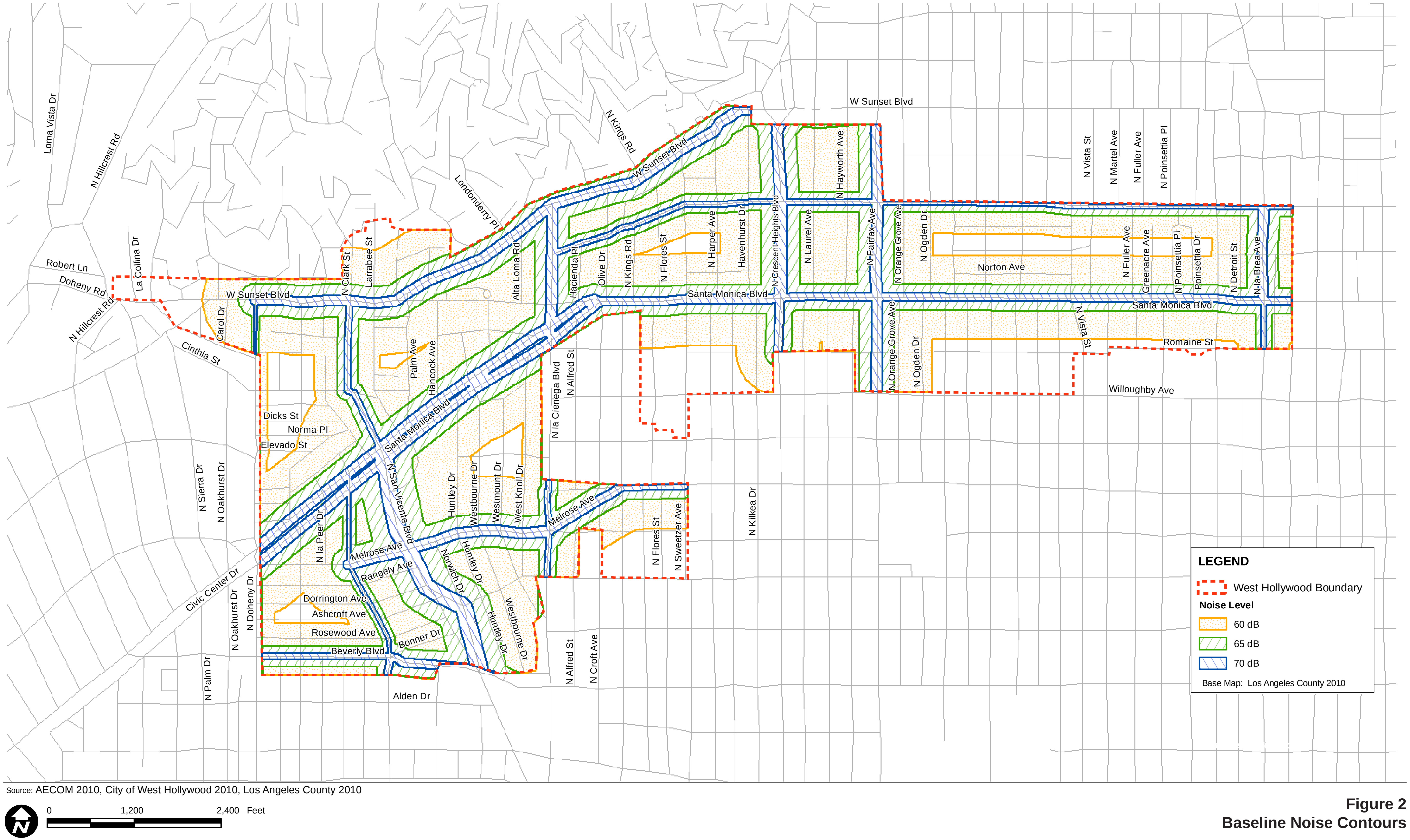
Notes: dB = A-weighted decibels; CNEL = Community Noise Equivalent Level
Source: Modeled by AECOM 2010

AIRCRAFT FLYOVER NOISE

Airports that are either public or serve a scheduled airline are required to have a comprehensive land use plan (CLUP) prepared by the airport land use commission (ALUC). The purpose of ALUC is to:

- Protect public health, safety, and welfare through the adoption of land use standards that minimize the public’s exposure to safety hazards and excessive levels of noise.
- Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports into the future.

The adoption and implementation of a CLUP embodies the land use compatibility guidelines for height, noise, and safety. The Los Angeles County ALUC was established as the ALUC for public use airports in Los Angeles County (Los Angeles County ALUC 2004).



Source: AECOM 2010, City of West Hollywood 2010, Los Angeles County 2010

Figure 2
Baseline Noise Contours

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The closest airports in the vicinity of West Hollywood include Burbank/Glendale/Pasadena Airport, located approximately 7 miles to the north, and Santa Monica Municipal Airport, located approximately 7 miles to the southwest. Burbank Airport was established in 1930 as a private field and is now owned and operated by the Burbank-Glendale-Pasadena Airport Authority. This is a scheduled air carrier airport with a total size of 435 acres, containing 310 based aircraft, and has an ADT count of 600 operations. Burbank Airport maintains an active airfield on the premises and the 65-dB CNEL noise contour is approximately 5.5 miles from the nearest City boundary line (Los Angeles County ALUC 2004:4, 13). Santa Monica Airport began in 1926 when the City of Santa Monica purchased 158 acres of land adjacent to Ocean Park Boulevard for use as an airport. The airport is a general aviation airport and the oldest operating air field in Los Angeles County. The airport is approximately 225 acres in size, has approximately 550 based aircraft, and has an ADT count of 520 operations. Santa Monica Airport maintains an active airfield on the premises and the 70-dB CNEL noise contour is approximately 6 miles from the nearest City boundary line (Los Angeles County ALUC 2004:7, 21).

STATIONARY SOURCE NOISE

A significant stationary source of noise that exists in West Hollywood is the CEMEX ready mix concrete facility located at 1000 N La Brea Avenue. Adjacent land uses to CEMEX are not considered noise sensitive. Commercial corridors extending along major arterials (e.g., Sunset Boulevard, Santa Monica Boulevard) are also considered sources of stationary noise. Noise sources associated with these commercial uses would include rooftop heating, ventilation, and air conditioning units; parking lot movements; and loading dock activities.

COMMUNITY NOISE SURVEY

In the City of West Hollywood, the primary noise source is vehicle traffic. Ambient noise levels in the area are influenced by traffic on major roads such as Sunset Boulevard and Santa Monica Boulevard. A community noise survey was conducted to document existing ambient noise within noise-sensitive communities. Noise-sensitive receptors were defined as residential land uses, churches, theaters, and schools.

A community noise survey was conducted on January 27 through January 29, 2010, to document the existing noise environment at noise-sensitive receptors within the City and existing noise sources. The dominant noise source identified during the ambient noise survey was traffic from the local area roadway network. Measurements of noise levels were taken in accordance with American National Standards Institute (ANSI) standards at six locations using a Larson Davis Laboratories (LDL) Model 820 precision integrating sound-level meter. Continuous 24-hour, long-term monitoring of noise levels was conducted at four locations within the City using an LDL Model 820 sound-level meter. The sound-level meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure that the measurements would be accurate. The equipment used meets all pertinent specifications of the ANSI for Type 1 sound-level meters (ANSI S1.4-1983[R2006]).

Community noise survey locations are shown in Figure 3. The L_{eq}, L_{max}, L_{10}, L_{50}, and L_{90} values were taken at each short-term ambient noise measurement location presented in Table 3. During the survey, average daytime ambient noise levels ranged from 68.5 dB to 72.2 dB L_{eq}, with maximum noise levels that ranged from 79.1 dB to 93.4 dB L_{max}. Maximum noise levels (L_{max}) were attributable to back-up alarms, car horns, buses, and modified mufflers.

Table 3
Summary of Monitored Short-Term Daytime Ambient Noise Levels

Site	Location	Date/Time	Noise Sources	A-Weighted Sound Level (dBA)				
				L_{eq}	L_{max}	L_{10}	L_{50}	L_{90}
A	Intersection of North La Brea Avenue and Santa Monica Boulevard	January 29, 2010 1:250–1:40 pm	Traffic, pedestrians	70.3	83.0	72.9	68.7	64.8
B	Intersection of North Vista Street and Santa Monica Boulevard	January 29, 2010 1:46–2:01 pm	Traffic, pedestrians, parking lot, music	69.0	80.7	71.9	67.0	59.0
C	Intersection of North Vista Street and Fountain Avenue	January 29, 2010 2:05–2:20 pm	Traffic, music, leaf blower	68.5	79.1	71.3	68.0	60.1
E	Intersection of North Crescent Heights Boulevard and Fountain Avenue	January 29, 2010 2:32–2:47 pm	Traffic, music	72.2	93.4	73.6	69.0	63.1
F	Intersection of North Harper Avenue and Sunset Boulevard	January 29, 2010 2:57–3:12 pm	Traffic, pedestrians	70.2	81.6	73.5	68.6	61.6
J	Intersection of North Doheny Drive and Rosewood Avenue	January 29, 2010 3:27–3:42 pm	Traffic	68.6	86.7	71.5	65.8	60.2

Notes: dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{max} = maximum noise level; L_n = noise level exceeded n percent of a specific period of time.
Monitoring locations correspond to those depicted in Figure 3.
Source: Data collected by AECOM 2010

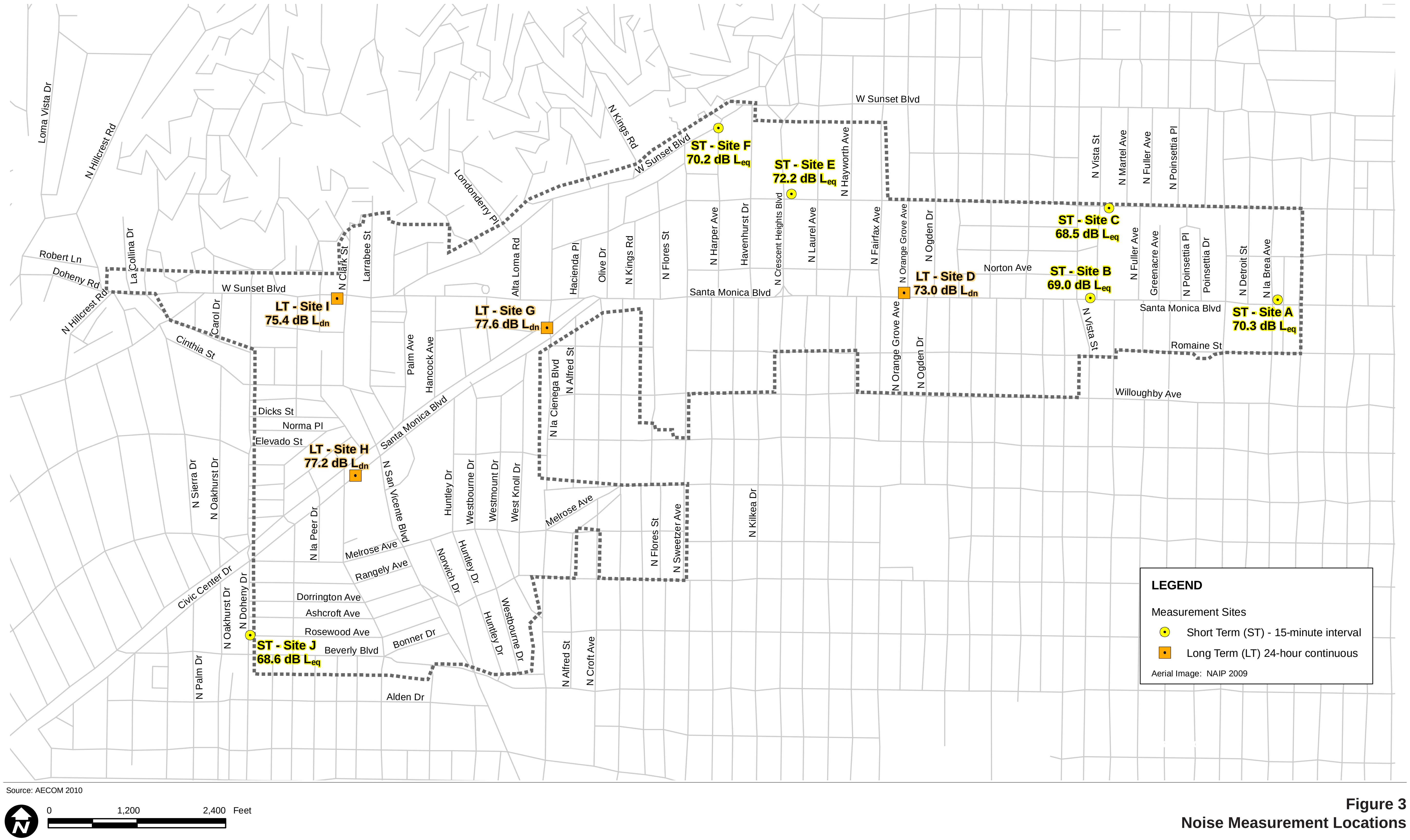

Figure 3
Noise Measurement Locations

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The L_{dn}, L_{eq}, L_{max}, L_{50}, and L_{90} values were taken at each long-term ambient noise measurement location presented in Table 4. During the survey, 24-hour ambient noise levels ranged from 73.0 dB to 77.6 dB L_{dn}, with maximum noise levels that ranged from 83.3 dB to 92.3 dB L_{max}.

Table 4
Summary of Measured 24-hour Long-Term Ambient Noise Levels

				Average Measured Hourly Noise Levels, dBA					
				Daytime (7 a.m.–10 p.m.)			Nighttime (10 p.m.–7 a.m.)		
Site	**Location**	**Date**	**L_{dn}**	**L_{eq}**	**L_{max}**	**L_{50}**	**L_{eq}**	**L_{max}**	**L_{50}**
D	North Fairfax Avenue and Santa Monica Boulevard	1/27/10–1/28/10	73.0	68.7	87.6	66.1	66.1	83.3	62.5
G	La Cienega Boulevard and Santa Monica Boulevard	1/28/10–1/29/10	77.6	72.0	92.3	69.9	71.0	91.3	66.5
H	North Robertson Boulevard and Santa Monica Boulevard	1/28/10–1/29/10	77.2	70.3	89.0	67.2	70.8	86.6	66.5
I	Sunset Boulevard and San Vincente Avenue	1/27/10–1/28/10	75.4	70.1	89.3	66.9	68.8	86.1	64.0

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level; L_{eq} = the equivalent hourly average noise level; L_{max} = maximum noise level; L_{50} = the noise level exceeded 50% of a specific period of time; L_{90} = the noise level exceeded 90% of a specific period of time.
Monitoring locations correspond to those depicted in Figure 3.
Source: Data collected by AECOM 2010

NOISE-SENSITIVE LAND USES

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to exterior noise levels. Schools, places of worship, hotels, libraries, nursing homes, retirement residences, and other places, where low interior noise levels are essential, are also considered noise-sensitive land uses. The majority of noise-sensitive land uses within the City are residential, of which there are nine senior housing complexes (Figure 4). Additional sensitive land uses include 17 schools and learning centers, eight places of worship, and six parks within the City of West Hollywood (see Figure 4).

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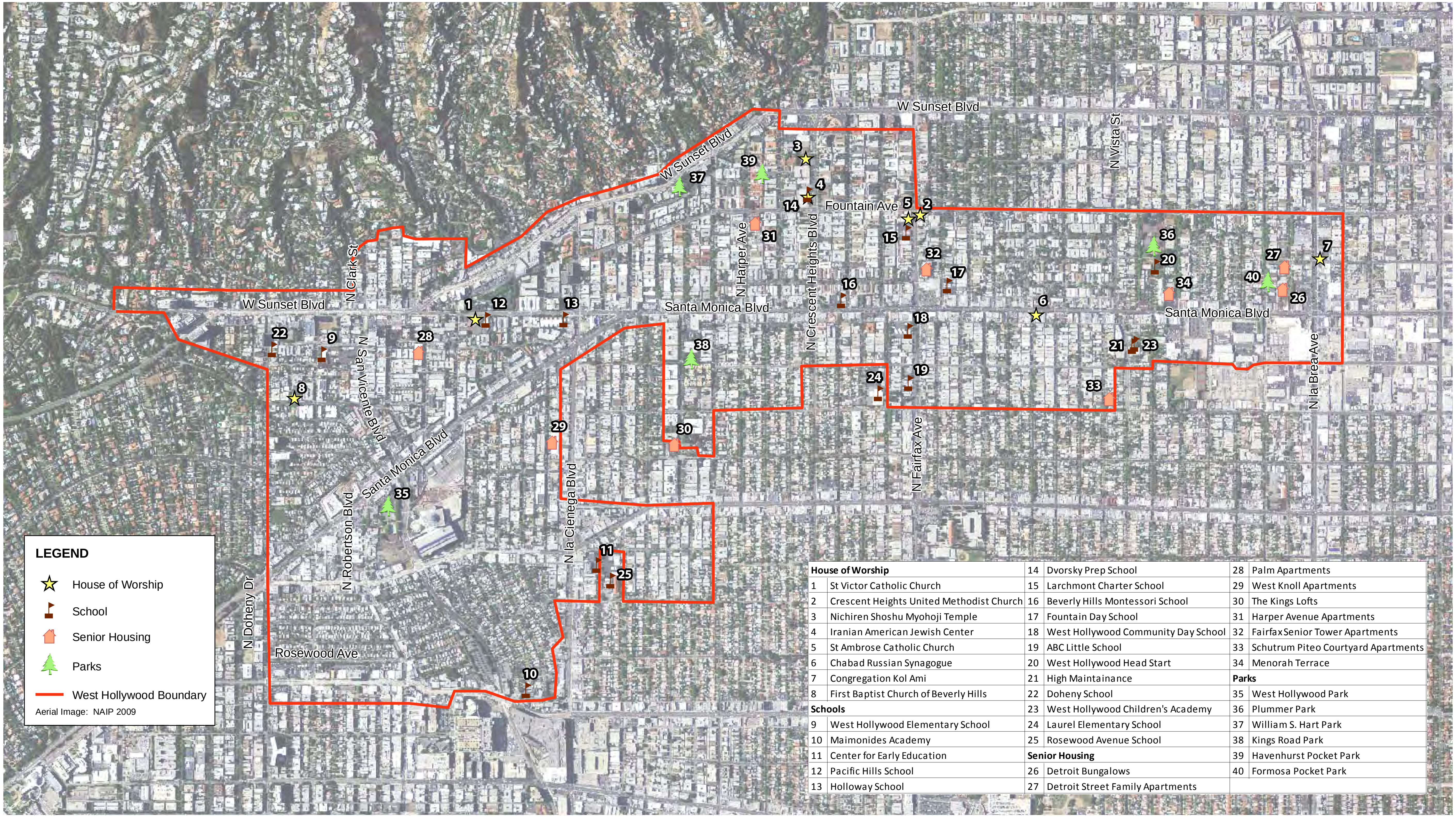

House of Worship		14	Dvorsky Prep School	28	Palm Apartments
1	St Victor Catholic Church	15	Larchmont Charter School	29	West Knoll Apartments
2	Crescent Heights United Methodist Church	16	Beverly Hills Montessori School	30	The Kings Lofts
3	Nichiren Shoshu Myohoji Temple	17	Fountain Day School	31	Harper Avenue Apartments
4	Iranian American Jewish Center	18	West Hollywood Community Day School	32	Fairfax Senior Tower Apartments
5	St Ambrose Catholic Church	19	ABC Little School	33	Schutrum Piteo Courtyard Apartments
6	Chabad Russian Synagogue	20	West Hollywood Head Start	34	Menorah Terrace
7	Congregation Kol Ami	21	High Maintainance	**Parks**	
8	First Baptist Church of Beverly Hills	22	Doheny School	35	West Hollywood Park
Schools		23	West Hollywood Children's Academy	36	Plummer Park
9	West Hollywood Elementary School	24	Laurel Elementary School	37	William S. Hart Park
10	Maimonides Academy	25	Rosewood Avenue School	38	Kings Road Park
11	Center for Early Education	**Senior Housing**		39	Havenhurst Pocket Park
12	Pacific Hills School	26	Detroit Bungalows	40	Formosa Pocket Park
13	Holloway School	27	Detroit Street Family Apartments		

Source: AECOM 2010, City of West Hollywood 2010, Los Angeles County 2010

0 1,200 2,400 Feet

Figure 4
Noise-Sensitive Land Uses and Parks

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APPENDIX F
TRAFFIC STUDY

TECHNICAL MEMORANDUM

Date: June 22, 2010

To: Terri Slimmer

From: Brian Welch and Reid Keller

Subject: TRAVEL FORECASTS AND TRAFFIC IMPACT REPORT FOR THE WEST HOLLYWOOD GENERAL PLAN UPDATE

SM09-2221.02

INTRODUCTION

The City of West Hollywood General Plan update pursues the community's goal of a vibrant and livable City that is not dependant on the personal automobile for mobility through thoughtful allocation of new development and the introduction of innovative Travel Demand Management (TDM) programs.

The City built a travel demand model to quantify and understand the implications of these measures on travel. The City model, developed in the TransCAD Transportation Geographic Information System (GIS) software, was successfully calibrated and validated to current conditions.[1] Although there are seasonal variations in traffic in West Hollywood, the model was calibrated and validated to average mid-week traffic. The land use data and roadway network reflect 2008 conditions. The resulting model represents travel during a period when people in West Hollywood are participating in their normal day-to-day activities.

The West Hollywood travel demand model contains a number of innovative features that allow it to capture the effects of land use and policy initiatives on transportation and traffic congestion. These include the effects of potential development patterns, urban design factors, alternative transportation networks, parking management, and transportation demand management (TDM) programs. Also included is a more detailed analysis of how development patterns affect trip making and travel. This is assessed using a modeling strategy that includes an analysis of density, diversity, design, and destinations associated with the built environment, known collectively as the 4Ds.

The travel demand model provides metrics and indicators (traffic volumes, levels of service, VMT, etc.) that document the plan's ability to meet various transportation-related goals, objectives, and policies. In many cases these goals aim to decrease automobile use while promoting other modes. The extent to which policies that encourage transit usage or walking and biking are successful will be reflected in decreased reliance on the automobile for travel. Quantification of the expected mode shift that could result from the introduction of a robust and comprehensive TDM program, and the effect that this will have on automobile use is covered in this memo. In addition, indicators and results from the model will be used to support forthcoming CEQA documentation.

[1] For details regarding the model development, including calibration and validation statistics, please refer to *West Hollywood Model Development Report* (Fehr & Peers, 2010).

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www.fehrandpeers.com

This technical memorandum presents a comparison between the West Hollywood General Plan Update Proposed General Plan, Existing (2008) conditions, and the three alternative horizon year (2035) scenarios for a variety performance measures. The alternative scenarios include the Existing General Plan (No Project), the Transit Oriented Development (TOD) Focus Alternative, and the Extensive TDM Alternative.

This memo presents the following:

- A discussion of existing automobile circulation in West Hollywood
- Descriptions of the Proposed General Plan and future year alternative scenarios
- A brief overview of the Travel Demand Model
- A brief overview of how the forecast data was prepared using the Travel Demand Model
- A comparison of key performance measures, including intersection levels of service (LOS), daily and peak hour roadway segment volumes, vehicle miles traveled (VMT), vehicle hours traveled (VHT), vehicle trips (VT), average trip length, and Greenhouse Gas (GHG) emissions
- Intersection impact analysis.

EXISTING CONDITIONS

Automobile Circulation

The City of West Hollywood General Plan circulation element defines the functional classification of major roadways inside the City boundaries. Traditionally, functional classification has been applied to automobile traffic and describes the extent to which a given roadway segment fulfills its two general purposes of mobility and access. Most local jurisdictions define five or more functional classifications, ranging from local streets, which primarily provide access, to freeways, which primarily provide mobility. The City of West Hollywood specifically defines only three classes of roadways; arterial, collector, and local. This limited classification is reasonable in West Hollywood, a geographically small city with few different types of roadways. Figure 1 illustrates the current roadway functional classification system.

Major east-west vehicle thoroughfares with the City include Santa Monica Boulevard, Sunset Boulevard, and Fountain Avenue which serve not only local trips but a significant number of regional trips. In the north-south direction, La Brea Avenue and La Cienega Boulevard serve regional as well as local trips.

Existing Automobile Traffic in West Hollywood

West Hollywood has a limited supply of roadway and intersection capacity, and there is high demand throughout the day for automobile travel within, to, and through the City. Additionally, many operational conditions contribute to traffic friction, including a large number of closely-spaced traffic signals and most major corridors being lined with commercial land uses and on-street parking. The result is congestion experienced in West Hollywood not just during the traditional a.m. and p.m. peak periods, but for long periods throughout the day.

The City of West Hollywood is a built out city situated in the midst of a highly urbanized area. Cut-though traffic - trips with neither a beginning nor an end in the City - accounts for a sizeable portion of vehicle trips in West Hollywood. Additionally, West Hollywood attracts trips from all over the Southern California area as a regional destination for entertainment and shopping.

Therefore, much of the traffic in West Hollywood can be attributed to sources over which the City has little control, in the case of cut-through traffic, or that are vital to the City's ongoing economic success, such as attracting regional visitors. Additionally, because the City is built out, increasing roadway capacity may not feasible or even desirable.

The following issues contribute to the congested traffic conditions experienced in West Hollywood:

- A variety of factors contribute to a high demand for vehicular travel in and through the City. Regional trips are attracted to West Hollywood's jobs, entertainment, and shopping amenities. Additionally, the City is surrounded by a broad mixture of land uses that interact with one another, sending automobile traffic through the streets of West Hollywood, which consumes limited roadway and intersection capacity.

- West Hollywood is situated in a region where the automobile is the dominant form of transportation. Although the City itself is relatively compact and amenable to alternative modes of transportation, its regional context suggests that the automobile will be the dominant mode of transportation in the City as well. Trips from and through the City from neighboring jurisdictions, as well as trips by West Hollywood residents from the City to other areas generally rely on the automobile.

- Traffic carrying capacity along most major and minor streets, especially Sunset and Santa Monica Boulevards, is limited by commercial uses along each corridor with on-street parking and large numbers of traffic signal installations.

- Parking is allowed along most major streets in the City. While supplying parking to supplement deficiencies in off-street parking availability, on-street parking reduces the available right-of-way for traffic carrying lanes, and vehicles attempting to access this parking often block a lane of travel while they execute the parking maneuver. The City has addressed this problem by imposing peak period parking restrictions along certain corridors.

GENERAL PLAN HORIZON YEAR (2035) ALTERNATIVES

The West Hollywood General Plan update explores four future policy and land use alternatives, defined as follows:

- **Proposed General Plan -** This is the preferred project and it includes increased development potential along the commercial corridors. In some areas, increases in allowable height and Floor Area Ratio (FAR) are being proposed. In other areas no increases to FAR or height are being proposed, but policy incentives such as shared parking and parking districts are expected to spur additional development. Proposed development bonuses for desirable development characteristics, such as affordable housing and green buildings, may increase the maximum intensity of eligible parcels.

- **No Project/Existing General Plan** – This alternative assumes that the Proposed General Plan is not adopted and that the existing General Plan remains in effect. No new policies for issues such as climate change, parking, or TDM are created as part of the

General Plan. As a result of the assumptions, this alternative has less overall growth than the proposed General Plan but does not meet other General Plan objectives such as encouraging a wider diversity of housing and increasing development opportunities in transit-rich areas. The alternative also does not address climate change in a comprehensive way as no policies exist in the current General Plan to reduce GHG emissions.

- **TOD Focus Alternative** – This alternative focuses new development around two transit nodes, La Brea Avenue & Santa Monica Boulevard and Fairfax Avenue & Santa Monica Boulevard. The focused development occurs by maintaining the existing General Plan land use designations in all areas of the city except for the transit nodes where the FAR and maximum allowable height would be increased on some parcels. This alternative assumes that the new "subway to the sea" will open toward the end of the General Plan time horizon and that future development under this General Plan will be focused only in these areas. Policies to encourage development in the TOD areas – such as parking reductions, TDM, etc – are included in the alternative. Policies are also created to discourage development in areas outside of the two designated growth areas. This alternative has the least amount of new growth of the future alternatives being considered as part of the General Plan update.

- **Extensive Transportation Demand Management (TDM) Alternative** - This alternative uses the same land use assumptions as the Proposed General Plan, but introduces more aggressive TDM policies. The TDM policies will require a significant number of existing and new trips to be taken using transit, biking and walking. The overall amount of development is expected to be the same as the Proposed General Plan but the TDM program would reduce traffic congestion.

MODEL OVERVIEW

As noted, the forecasts for this memo were prepared using the West Hollywood Travel Demand Model developed by Fehr & Peers on the TransCAD platform. The travel demand model is based on three core components:

- A **land use** database – In this case a parcel level database provided by the City with detailed information on the type and amount of development on each parcel, stratified into multiple categories. Land use databases were prepared by the City for existing conditions and projected amounts and locations of future residential and non-residential growth. Existing and future land use outside the City of West Hollywood was drawn from the Southern California Association of Governments (SCAG) regional travel demand model.

- A **highway and roadway network** database – The highway and roadway network in this case was based on the City's GIS roadway centerline file. The model roadway network includes all roadway facilities in the City of West Hollywood as well as relevant roads in Los Angeles and Beverly Hills bordering West Hollywood.

  As is typical for urban-area models, the model network focuses on larger facilities and does not attempt to replicate travel patterns on local residential streets, but does include them to distribute traffic. The travel model includes 22 external stations to represent travel to and from areas outside the City. These stations, located on streets that provide access into and out of the model area, capture the traffic entering, exiting, and passing through the model area.

- A table of **trip generation rates** – Initial rates were researched from sources including SCAG, the National Household Travel Survey, the San Diego Association of Governments (SANDAG), and the Institute of Transportation Engineers (ITE). Trip generation rates were then calibrated to match the existing trip-making characteristics of West Hollywood.

The model was validated and calibrated to standards set by Caltrans, the Federal Highway Administration (FHWA), and Fehr & Peers. Once the model met the required set of calibration and validation criteria, the land use database was modified to reflect future development growth. This growth can be attributed to two sources:

1. Currently pending, approved, and under construction development projects and;

2. Forecasts of future growth and development to occur by the horizon year (Year 2035) under the various future land use scenarios.

Interactions between the study area and the outside world were addressed through the process of balancing trip productions with trip attractions. At one extreme, a job-rich area needs to import people from outside to fill those jobs and use the services they are providing. At the other extreme, a housing-rich area needs to export residents from the study area to work and shop. West Hollywood is a bit different; while it has a mix of jobs and housing, most workers still leave the area for employment and most employees live outside the area.

The West Hollywood Model balancing was calibrated to existing conditions. The change in land use associated with the various future land use scenarios did not substantially alter the existing jobs/housing mix, and absent strong policy goals that require new housing to be filled by area workers, the existing commuting patterns are likely to remain the same. As such, the existing balancing was used.

In addition to land use database changes, funded roadway projects are usually added to the highway network database. However, as a built-out city, West Hollywood will not likely have any major new capacity adding roadway projects. Similarly, Capital Improvement Programs for the cities of Beverly Hills and Los Angeles do not indicate any funded improvements in the areas of those jurisdictions covered by the travel model. Therefore, the existing roadway network was carried forward for the future forecasts.

PREPARATION OF THE FORECAST DATA

Trip Adjustments for Land Use and Policy Strategies

The West Hollywood Travel Model contains a number of enhancements that allow it to capture the effects of land use and policy initiatives on transportation and traffic congestion. These include the effects of potential development patterns, urban design factors, alternative transportation networks, parking management, and Travel Demand Management (TDM) programs. Also included is a more detailed analysis of how the fabric of urban design affects trip-making and travel. This is assessed using a modeling strategy known as the 4Ds.

4Ds: Overview

The following narrative, prepared by Reid Ewing[2], summarizes the 4D process and is included to provide an overview of the approach:

> Some of today's most vexing problems—sprawl, congestion, oil dependence, climate change—are prompting states and localities to turn to land planning and urban design for help in reducing automobile use. Many have concluded that roads cannot be built fast enough to keep up with travel demands induced by road building itself and by the sprawling development patterns it spawns. Travel demand must somehow be moderated.
>
> The potential to moderate travel demand through changes in the built environment is the subject of more than 150 empirical studies. It has become the most heavily researched subject in urban planning.
>
> In travel research, urban development patterns have come to be characterized by "D" variables.

Density is measured in terms of activity level per unit area. Density is measured on a population and employment basis. Population and employment density per acre are summed to compute an overall "activity density."

Diversity is related to the number of different land uses in an area, and the degree to which they are "balanced" when comparing (1) regional employment and regional population with (2) local employment and local population.

Design includes street network characteristics within a neighborhood. Street networks vary from dense urban grids of highly interconnected, straight streets to sparse suburban networks of curving streets forming "loops and lollipops." Street accessibility is measured in terms of number of intersections per square mile.

Destination accessibility is synonymous with regional accessibility. It is represented by the number of jobs or other attractions (for example shopping opportunities) reachable within a given travel time, which tends to be highest at central locations and lowest at peripheral ones. The gravity model of trip attraction measures regional accessibility.

The 4Ds compare the built environment characteristics of the future scenarios to the existing (2008) conditions on the ground. For each of the "D" variables, there is an associated elasticity, derived from numerous studies, which is used to adjust the vehicle trip generation of each TAZ. The elasticities utilized in the West Hollywood model are as follows:

---

[2] *Travel and the Built Environment* (Reid Ewing)

Variable	Vehicle Trip Elasticity
Density	-0.04
Diversity	MXD[3]
Design	-0.02
Destination	-0.03

In practice, elasticity is a measure of the percentage change that occurs in an independent variable (vehicle trips) as a result of a percentage change in an influential variable (density, diversity, design, or destinations). For example, if vehicle trips decrease by 0.04% for each 1% increase in density, then vehicle trips are said to have an elasticity of -0.04 with respect to density.

Because the 4Ds are based on physical characteristics of the built environment, the calculation of these variables is an exercise in spatial modeling, and the process is performed outside of the travel demand model using GIS desktop software. GIS files with land use data and the location of intersections are used as inputs. A "D" variable value for each TAZ is the output.

The density and diversity "D" variables for each TAZ take into account not only the total land use within that zone, but the land use that is within a ¼-mile radius of that zone. The ¼-mile radius is assumed to be a reasonably conservative distance that people can easily walk. This process is designed to account for land uses, such as neighborhood commercial land uses, that are "right across the street" for a person on foot or bicycle, but would require a trip of a much longer distance if the traveler followed the model network. Thus, these variables are calculated to take into account the experience of a person on foot or bike.

The design variable looks at street connectivity and sidewalk design. More connected streets (as opposed to cul-de-sacs, for instance) generally allow for more direct walking and cycling, making these modes more attractive. The design variable uses the number of intersections within ¼ mile. West Hollywood, as a built-out city with small block lengths, a dense grid network, and near complete sidewalk connectivity, already reflects many of the ideal urban design characteristics that the design "D" looks for. The level of data precision does not allow the measurement of the types of changes West Hollywood would likely experience, such as sidewalk widening and treatments, or the addition of shade trees. As a result, the design "D" does not result in substantial vehicle trip reductions in West Hollywood since most of the mode shift associated with it has already been achieved.

The destinations "D" is calibrated in the model structure. West Hollywood is a small city and all areas have about the same level access to regional destinations. The geographic distribution of these regional commercial centers is not anticipated to change to any great extent, and consequently future year scenarios carry forward the current rates for the destinations "D."

The total amount of new growth projected for West Hollywood is relatively modest compared to the quantity of existing development given the 27-year time horizon. Growth attributable to the General Plan update land use scenarios can be summarized as follows:

[3] West Hollywood diversity reductions were calculated using the Mixed Use District (MXD) methodology. The MXD method predicts a decrease in Home Based Work (HBW), Home Based Other (HBO), and Non-Home Based (NHB) trips from ITE trip rates. The initial reduction from ITE trip rates was assumed to have already been part of the model calibration process. As such, the reduction was calculated using the existing land use data, and then the future scenario land use data. Any further change from existing conditions was used as the reduction in vehicle trips for the future scenarios.

	Proposed General Plan Change from Existing	No Project Change from Existing	TOD Focus Alternative Change from Existing	Extensive TDM Alternative Change from Existing
Population	18.3%	17.3%	14.1%	18.3%
Total Employment	19.9%	18.1%	11.3%	19.9%
Retail	9.4%	9.4%	9.9%	9.4%
Office	24.0%	20.6%	8.7%	24.0%
Other	32.7%	32.4%	27.8%	32.7%

The 4D effects, as noted, apply to areas that change between two scenarios, in this case existing and future conditions. When the amount of change anticipated is modest, the 4D effects will therefore be somewhat muted due to the relatively small amount of change compared to the base condition.

In addition, since the 4D effects measure change from a base condition, those communities with initially (1) higher density, (2) better diversity, (3) stronger design, and (4) establishment as a destination – compared to regional and national averages – will show less overall impact of the Ds when comparing base conditions with future conditions. In other words, if existing West Hollywood transformed from a low density, wholly residential, poorly connected, remote community to something just the opposite in the future, the Ds would significantly alter trip generation between existing and future conditions. However, as the model effort shows, West Hollywood's base condition is characterized by beneficial densities, good diversity, excellent design, and a strong role as a destination. It is therefore much more difficult to realize high trip reductions attributable to the Ds.

While the D reductions are relatively modest, they in no way indicate a lack of 4D effectiveness in West Hollywood. In fact, the City is already experiencing many of the benefits attributable to the D factors, and the Proposed General Plan furthers that trend.

Within West Hollywood, people make significantly different transportation choices when they travel to districts with a greater density and diversity of land uses. The Proposed General Plan makes the most of these differences by focusing efforts to reduce auto use in areas where people are already likely to be less reliant on automobile use. The beneficial relationship between West Hollywood's existing 4D qualities with policy-based trip reduction strategies, as discussed below, is significant.

Policy-Based Trip Reduction Strategies: Overview

In addition to a land use plan, the West Hollywood Proposed General Plan contains a number of policy initiatives and TDM strategies aimed at strengthening West Hollywood's alternative transportation network and encouraging travelers to shift modes. A potential range of policies was outlined by City staff and the effect of these policies was investigated and reported in *West Hollywood General Plan Update Trip Reduction Impacts* (Nelson\Nygaard, 2010). The entire report is included as Appendix B.

Analytical Methodology Employed

The following text, supplied by Nelson\Nygaard, provides an overview of the analytical methodology used to evaluate the various policy options and TDM programs:

- The potential range of transportation policies and programs under three different General Plan policy alternatives was outlined by Nelson\Nygaard in discussion with City staff and the full project team. (Please see Appendix B). Nelson\Nygaard then worked with the full City and consultant team to refine and operationalize these policy alternatives based on past and current experience in West Hollywood. For example, some existing policies and programs are evaluated based on status quo implementation or expanded implementation, and for new policies or programs, a modest or robust implementation framework was considered. Some policies and programs evaluated would primarily affect vehicle trips associated with new development (such as TDM requirements for new development projects), while others could also reduce existing traffic congestion (such as subsidized transit and more comprehensive parking pricing/cash-out program).
- Based on the best available research tailored to local conditions in West Hollywood, Nelson\Nygaard derived planning-level, order-of-magnitude estimates of the reductions in peak-hour vehicle trips that could be anticipated with the a) continuation of existing policies and programs and b) implementation of new policies and programs that research has shown to have a proven effect on mode choice and travel behavior.
- The reductions were quantified based on whether a trip was a commuter trip purpose or a non-commuter trip purpose and if a trip was a new trip or an existing trip. In addition, trips ending in different areas were reduced by different levels based on an analysis of the likely effectiveness of different strategies in different geographic areas. For many policy strategies, trips ending in the Commercial Corridor or TOD areas were reduced by a greater percentage than trips ending in the residential area based on the assessment that certain strategies would have a greater effect on reducing peak hour vehicle trips in some areas and a lesser effect in others (please see Figure 2 for location of the Area Types).

Nelson\Nygaard estimates of the likely peak-hour vehicle trip reduction impacts of Proposed General Plan, the TOD Focus Alternative, and the Extensive TDM Alternative policies and programs were drawn from their own library of best practice case studies as well as a literature review. Wherever possible, the estimates were based on quantitative data (empirically derived or modeled). When appropriate, professional judgment was used to refine the estimates as appropriate for the West Hollywood context, based on experience in developing and analyzing vehicle trip reduction strategies. At every step of the analysis, the assumptions and analysis were conservative to avoid overstating potential benefits. At the same time, the inverse error of being overly conservative and thereby understating potential benefits was avoided.

The analysis represents the highest and best professional standards of transportation planning. The team is confident in the validity and accuracy of these conclusions for purposes of deriving planning-level, order-of-magnitude estimates of the likely peak hour vehicle trip reduction benefits of future scenario transportation policies and programs.

Overview of Analytical Outputs

Appendix B contains a detailed explanation of the methodology utilized and outputs of the analysis. Highlights are provided below.

Summary of Outputs

Nelson\Nygaard's findings suggest that West Hollywood can certainly reduce per capita vehicle trips with the implementation of trip reduction strategies. While the precise impacts of specific trip reduction policies can vary depending on a number of factors, peer-reviewed empirical evidence, real-world experience of West Hollywood and other peer communities, and basic economic theory provide overwhelming support for our findings in this report that a concerted and comprehensive effort to promote mode shift and reduce vehicle trips can be effective. The order-of-magnitude estimates of likely trip reduction impacts for the three different policy scenarios and each potential policy are summarized below.[4]

Aggregate Impacts[5]

The cumulative estimates of trip reductions for each of the three General Plan alternatives were developed using a non-additive methodology.[6] The aggregate order of magnitude reductions in peak hour vehicle trips that result from implementation of a comprehensive package of strategies discussed in *West Hollywood General Plan Update Trip Reduction Impacts Analysis* are summarized below, with the full findings presented in Appendix B. Figure 2 shows the boundaries of the area types used in this analysis.

- **Existing General Plan.** In the "No Project" scenario, there will likely be no reduction in peak hour vehicle trips (relative to existing):

  Commuter Trips

  - Commercial Corridors: 0%
  - TOD Zones: 0%
  - Residential Zones: 0%

  Non-Commuter Trips

  - Commercial Corridors: 0%
  - TOD Zones: 0%
  - Residential Zones: 0%

- **Proposed General Plan.** In the Proposed General Plan, there will likely be moderate reductions in peak hour vehicle trips (relative to existing) as follows[7]:

  Commuter Trips

  - Commercial Corridors: 20.4%

[4] The full analysis and findings, including definitions of area types and trip types, are presented in Appendix B.
[5] The full findings are presented in Appendix B.
[6] For more information on the non-additive methodology, refer to the section titled "Non-additive impacts".
[7] All percentage reduction numbers represent a weighted average for new and existing trips. The net increase in HBW attractions was used as a proxy for new commuter trips, while the net increase in HBO and NHB was used a proxy for new non-commuter trips. In practice, through redevelopment of existing buildings, it is likely that some existing trips will be arriving at new, more TDM friendly buildings in the future. The resulting number therefore represents a conservative estimate of overall trip reductions.

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- TOD Zones: 23.2%
- Residential Zones: 12%

Non-Commuter Trips

- Commercial Corridors: 3.0%
- TOD Zones: 5.7%
- Residential Zones: 1.8%

- **TOD Focus Alternative.** In the TOD Focus Alternative, there will likely be moderate reductions in peak hour vehicle trips (relative to existing) as follows[8]:

  Commuter Trips

  - Commercial Corridors: 30.1%
  - TOD Zones: 32.0%
  - Residential Zones: 10.0%

  Non-Commuter Trips

  - Commercial Corridors: 5.0%
  - TOD Zones: 10.4%
  - Residential Zones: 2.5%

- **Extensive TDM Alternative.** In the Extensive TDM Alternative, there will likely be moderate reductions in peak hour vehicle trips (relative to existing) as follows[9]:

  Commuter Trips

  - Commercial Corridors: 36.0%
  - TOD Zones: 37.0%
  - Residential Zones: 19.6%

  Non-Commuter Trips

  - Commercial Corridors: 12.6%

[8] All percentage reduction numbers represent a weighted average for new and existing trips. The net increase in HBW attractions was used as a proxy for new commuter trips, while the net increase in HBO and NHB was used a proxy for new non-commuter trips. In practice, through redevelopment of existing buildings, it is likely that some existing trips will be arriving at new, more TDM friendly buildings in the future. The resulting number therefore represents a conservative estimate of overall trip reductions.

[9] All percentage reduction numbers represent a weighted average for new and existing trips. The net increase in HBW attractions was used as a proxy for new commuter trips, while the net increase in HBO and NHB was used a proxy for new non-commuter trips. In practice, through redevelopment of existing buildings, it is likely that some existing trips will be arriving at new, more TDM friendly buildings in the future. The resulting number therefore represents a conservative estimate of overall trip reductions.

- TOD Zones: 12.7%
- Residential Zones: 6.9%

Stand-Alone Impacts[10]

The order-of-magnitude reductions in peak hour vehicle trips that result from implementation of individual strategies are discussed in Appendix B. In general, the most effective individual trip reduction strategies—when evaluated in isolation—will likely be a continuation and/or enhancement of the following policies and programs:

- Public parking management/pricing to discourage commuter parking
- Parking cash-out programs, including a local ordinance and/or local enforcement of existing State law
- Subsidized transit
- Transit system improvements
- Carpooling incentives
- Telecommuting and alternative work schedules

Some strategies will certainly have an impact on reducing peak-hour commuter vehicle trips (e.g., enhancements to pedestrian and bicycle facilities), but those impacts could not be quantified at this time. For more information see "Impacts of Some Strategies not Quantifiable with Available Information" below.

<u>Impacts of some strategies were not quantifiable with available information</u>

The estimated reduction in peak-hour vehicle trips can be quantified with greater certainty for some policies and programs due to available data, while others do not lend themselves to easy quantification due to lack of data or other unknown variables. Where there was not enough available data to quantify the likely impact, we indicated in our analysis that the impact was "not known" or "not applicable." It must be stated emphatically that such a designation does not necessarily mean that a strategy has no impact on reducing vehicle trips in reality. Instead, these designations mean that:

- The impact on peak-hour trips is not significant enough to model (e.g., the impact could fall within the margin of error);
- In our professional opinion there is no solid basis (e.g., empirical research or published case studies) for documenting the precise trip reduction impacts; or
- We believe the 4D (density, design, diversity, destinations) traffic model adjustments conducted by Fehr & Peers will adequately account for the impacts of this strategy.

We have therefore excluded the impacts of certain strategies from this analysis in order to avoid the risk of misstating the likely benefits or to avoid "double counting" the benefits (e.g., pedestrian improvements adequately accounted for under "street network connectivity" factor of the 4D traffic model adjustments).

[10] The full analysis and findings are presented in Appendix B.

It should also be noted that for certain measures, such as unbundled parking and carsharing, reductions in household vehicle ownership were calculated rather than peak hour vehicle trip reductions. While there is undoubtedly a correlation between vehicle ownership and peak hour vehicle trips (e.g., lower auto ownership rates correlate with lower trip generation rates), there is currently insufficient research available to offer an estimate of the exact nature of that relationship. For this reason we have taken a conservative approach and assumed that each proposed policy either affects vehicle trip generation rates or vehicle ownership rates, but not both. In addition, for those strategies where we were only able to quantify vehicle ownership reductions, we have been conservative and assumed that those impacts are already accounted for by trip reduction strategies that we were able to quantify.

Non-Additive Impacts for Each Policy Alternative

The cumulative estimates of trip reductions for each of the three General Plan alternatives were developed using a non-additive methodology. This was done for several reasons, including:

- Evaluative research of vehicle trip reduction strategies often attempts to isolate the stand-alone effects of implementing these strategies in order to understand the actual relationship of the independent and dependent variables. Often it is difficult to isolate these effects because in reality, multiple changes to the transportation system occur concurrently.
- Because trip reduction strategies often support one another in creating high-quality alternatives to auto commuting, multiple strategies implemented jointly can leverage greater impacts when compared to stand-alone implementation. For example, constructing the Subway to the Sea and offering subsidized transit fares will increase transit ridership (and reduce vehicle trips) to a greater degree than one or other in isolation.
- Conversely, some trip reduction strategies are mutually exclusive. For example, Nelson\Nygaard considered telecommuting to be a mutually-exclusive strategy from other TDM strategies (since telecommuters cannot by definition commute by transit, carpooling, bicycling, etc.). These impacts were therefore “netted out” of the cumulative estimates for certain policy alternatives.
- The stand-alone estimates of the effectiveness of strategies such as pricing of public parking were reduced in the cumulative estimates, given that the City of West Hollywood can only directly influence the pricing structure of the on-street parking and off-street lots and garages which are under its jurisdiction. Since the City has jurisdiction over an estimated 30% percent of the publically-available parking within West Hollywood’s boundaries, the impact of parking pricing in the cumulative trip reduction estimates were reduced to account for this.
- When estimating the cumulative impacts of multiple transit-related strategies (e.g., subsidized transit fares, fare-free transit zones, transit system improvements), the stand-alone impacts for each individual strategy were adjusted by varying degrees depending on the area type and General Plan alternative. This was done based on professional judgment and common sense to reflect the fact that, while these are complementary transit measures that have increased efficacy when implemented together, there is a

practical limit to how many vehicle trips can reasonably be expected to be converted to transit trips in West Hollywood even under the most aggressive policy scenario.[11]

Putting It All Together

Figure 3 illustrates the total trip reductions achieved during the p.m. peak hour for the horizon year scenarios. These trip reductions are attributable to the 4Ds and TDM measures as described above.

As the figure shows, scenarios such as the Proposed General Plan and Extensive TDM Alternative, with more development in areas with stronger TDM measures, see the greatest reductions in trip generation.

Development of the Forecast Volumes

The development of the forecast volumes for this analysis followed the approach presented in *National Cooperative Highway Research Program (NCHRP) Report 255* (Transportation Research Board, 1982). This approach is the accepted professional standard for preparing traffic forecasts for urbanized area planning applications.

The NCHRP Report 255 approach involves post-processing model data and applying the growth to existing counts collected in the field. The first step in the process is to run the validated base year model and collect data for the desired segments and intersection turning movements. The model is then updated with future year land use changes and highway network improvements and run again. The data for the same study segments and turning movements is again collected from the future year model run.

The data from both model runs is then compared and applied to the existing counts using one of two methods depending on the relationship between the count and base year model volume at that location:

- The difference method directly applies the difference between the future and base year model runs to the existing count. This method is used when the existing count and the existing model volume are similar at the location being forecast.

- The ratio method factors the existing counts by the ratio of the future year data to the base year data. This method is used when the difference between the existing count and the existing model volume is comparatively large. In this case, numeric changes can be overstated at the location being forecast, and using the ratio is more appropriate.

PEAK HOUR INTERSECTION LEVEL OF SERVICE ANALYSIS

Table 1 and Figure 4 illustrate existing intersection LOS at 42 major signalized intersections throughout the City during the a.m. and p.m. peak hours. These intersections were analyzed according to the Highway Capacity Manual (HCM) methodology using the Synchro software

[11] These constraints include financial, technical, or political limitations on the ability to implement more aggressive TDM strategies. Nelson\Nygaard therefore believes that it is prudent to acknowledge these real-world implementation constraints when developing the cumulative trip reduction estimates by recognizing that there is likely a practical limit to the total trip reductions that can be achieved even in the most aggressive implementation scenario.

package.[12] LOS definitions for signalized intersections are shown in Table 2 and stop-controlled intersections in Table 3.

The following figures and tables illustrate intersection LOS at the study intersections for the horizon year scenarios:

- Proposed General Plan: Figure 5, Table 4
- No Project: Figure 6, Table 5
- TOD Focus Alternative: Figure 7, Table 6
- Extensive TDM Alternative: Figure 8, Table 7

Figures 9 and 10 chart the frequency distribution of LOS during the a.m. and p.m. peak hours, respectively, for the existing year (2008) and all horizon year (2035) scenarios. These figures depict the level of vehicular congestion in the City under each scenario. More intersections towards the LOS A-C side of the chart indicate less congestion, while more intersections operating towards the LOS F side of the chart indicate greater vehicular congestion. Figure 11 highlights the number of intersections operating at LOS F during the a.m. and p.m. peak hours for all scenarios, where more LOS F intersections indicate greater vehicle congestion.

Comparing the Scenarios: What Does it All Mean?

In all scenarios, including existing conditions, congestion levels are generally better during the a.m. peak hour than the p.m. peak hour in both analysis years. All future scenarios lead to an increase in traffic at the study intersections. The p.m. peak hour particularly shows a trend towards worse LOS between 2008 and 2035 under all future scenarios, with a greater frequency of intersections operating at LOS F.

It should be noted that through trips will continue to grow regardless of decisions made in West Hollywood as development in the surrounding jurisdictions continues to grow. Therefore all future scenarios will see some growth in congestion regardless of the quantity of development or TDM programs implemented.

However, amongst the various future scenarios the increases in congestion vary substantially. The major difference between these scenarios can be attributed to the scope of TDM programs being proposed and the trip purpose, commute or non-commute, that these programs influence. The reduced level of future development does have some effect on congestion with the TOD Focus Alternative, but not to the extent as the TDM measures do in the Proposed General Plan and Extensive TDM Alternative.

Currently, commute trips account for roughly 20% of West Hollywood's daily total. Commute trips climb as high as 44% during the a.m. peak hour. TDM programs that target commute trips are an effective way of reducing a.m. peak hour congestion.

During the p.m. peak hour, commute trips make up 27% of the total. This number is somewhat lower than the average American city and can be attributed to the concentration of retail, restaurant, and nightlife land uses in the West Hollywood. While TDM programs targeting

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[12] Source: *Highway Capacity Manual* (Transportation Research Board, 2000).

commute trips are still effective in reducing p.m. peak hour congestion, scenarios with more aggressive TDM programs aimed at non-commute trips tend to show lower levels of congestion during this time period.

West Hollywood already enjoys a diverse mix of land uses surrounding the residential areas. Residents are generally able, if they so choose, to meet their basic day-to-day needs without driving. Depending on their destination in the City, many of West Hollywood's visitors can take transit or park once and walk between their destinations.

West Hollywood can continue to build on its success in these areas by clustering development at key transit nodes and along commercial corridors. These are the development patterns seen in the Proposed General Plan and the alternatives. Doing so not only brings more goods and services into reach of more residents, but also increases the effectiveness of TDM programs. For instance, placing more development near transit nodes, while increasing the price of parking for residents (through unbundling) or visitors (through on and off-street pricing) allows for growth with lower per-capita trip making.

DAILY AND PEAK HOUR ROADWAY SEGMENT TRAFFIC VOLUMES

Figures 12 and 13 illustrate daily and peak hour roadway segment volumes respectively for existing conditions. These volumes are also shown in Tables 8 and 9. Daily and peak hour roadway segment volumes for the horizon year scenarios are illustrated in the following tables and figures:

- Proposed General Plan: Figure 14 (daily), Figure 15 (peak hour), Table 8
- No Project: Figure 16 (daily), Figure 17 (peak hour), Table 8
- TOD Focus Alternative: Figure 18 (daily), Figure 19 (peak hour), Table 9
- Extensive TDM Alternative: Figure 20 (daily), Figure 21 (peak hour), Table 9

Roadway Segment Volumes: Understanding the Outputs of the Travel Forecast

West Hollywood is a small and generally built-out city. Although there are some areas with a greater concentration of land use, and others with a lesser concentration of land use, the entire city has a fair amount of development. There is no one specific place towards which people head into in the morning, and out of in the evening. As a major activity center in the middle of the greater Los Angeles region, it is not surprising that high volumes of traffic move in all directions at all times of day in and through West Hollywood.

The tables and figures illustrate that in general, development under the horizon year scenarios will not substantially alter the overall pattern of traffic on West Hollywood streets, though all study segments will see some increase in vehicular traffic. Some segments with relatively lower existing volumes, such as Doheny Drive or San Vicente Boulevard south of Sunset Boulevard, will see a greater percentage increase in volumes. However, the absolute gain in traffic volume will usually be lower than the larger streets. Similarly, streets with greater existing volumes tend to see a lower percentage increase, but a greater absolute gain in volumes.

As with the intersection LOS analysis, the strength of the TDM programs being implemented is the major difference between the future land use scenarios in the aggregate. Specific concentrations of development influence traffic levels at certain locations. Similarly, scenarios that cluster development around transit nodes benefit from not only increased effectiveness of the TDM measures, but the creation of even more walkable neighborhoods that allow people to meet their day-to-day needs without the use of an automobile.

VEHICLE MILES TRAVELED (VMT)

In accordance with policy guidance[13] provided by the SB 375 Regional Targets Advisory Committee, the following trip types and percentages are included in the tabulation of daily trips:

- Internal to External: Trips beginning inside the City and ending outside the City (50%)
- External to Internal: Trips beginning outside the City and ending inside the City (50%)
- Internal to Internal: Trips beginning and ending inside the City (100%)
- External to External: Trips beginning outside the City and ending outside the City (0%)

Figure 22 illustrates estimated daily VMT, quantified as described above, for existing conditions and all future year scenarios. Due to anticipated growth in both population and employment, total daily VMT is forecast to increase by 14% with the Proposed General Plan.

VMT can also be viewed on a per capita basis. Daily VMT per West Hollywood resident is projected to decline by 3.8% with the Proposed General Plan compared to existing conditions.

Since West Hollywood would also experience employment growth under the Proposed General Plan, it is worthwhile to look at VMT per combined population and employment. Daily VMT per combined population and employment, shown in Figure 23, is forecast to decrease by 4.3% with the Proposed General Plan compared to existing conditions. Although VMT is projected to increase overall, the projected rate of VMT increase is less than the rate of population and employment growth, resulting in a lower level of VMT per capita.

OTHER PERFORMANCE MEASURES: VEHICLE HOURS OF TRAVEL (VHT), VEHICLE TRIP GENERATION (VT), AND AVERAGE TRIP LENGTH

In addition to roadway segment volumes and intersection LOS, other performance measures are often analyzed when considering the effects of different general plan development scenarios. These measures include:

- **Vehicle Hours Traveled** (VHT) – a measure of total time spent traveling in and to the City of West Hollywood affected by factors including length of trip making, amount of trip making and congestion levels.

[13] *Recommendations of the Regional Targets Advisory Committee Pursuant to Senate Bill 375*, September 30, 2009.

- **Vehicle Trips** (VT) – the total number of vehicle trips made in the City of West Hollywood (including into and out of the City, but not including through trips).

- **Average Trip Length** – calculated by dividing the total VMT by the total number of vehicle trips. Note that while VMT only includes half of the IX and XI trip making (the other half being attributed to the other jurisdiction) the average trip length includes the full trip length.

Table 10 reports these performance measures for the base year (2008) and all horizon year (2035) scenarios for trips with one or both ends in the study area.

GREENHOUSE GAS EMISSIONS ANALYSIS

The quantity of GHG emissions from automobiles is strongly correlated to fuel consumption. Fuel consumption is strongly correlated to the amount of driving (VMT) and the driving speed. Other factors, ranging from temperature to driver behavior to the average fuel efficiency of the overall vehicle fleet, influence fuel consumption and GHG emissions. A comprehensive analysis of GHG emissions for existing conditions and all future scenarios was previously performed and a separate memorandum prepared. That analysis is attached as Appendix A.

INTERSECTION IMPACT ANALYSIS

Traffic Impact Thresholds of Significance

The City of West Hollywood adopted traffic impact *thresholds of significance* that expose the potential impact of development projects on traffic congestion. These thresholds were designed to address the unique traffic situation in West Hollywood and provide members of the public and decision makers with accurate information in Traffic Impact Studies (TIS) prepared for development projects in the City.

The West Hollywood traffic impact criteria are highly detailed by necessity to address the City's complex traffic situation. The criteria are as follows:

Commercial Corridor Signalized Intersections – If the intersection is formed by two commercial corridors, an impact is considered significant if the following criteria are met:

- The addition of project traffic results in a LOS D and an increase in delay of 12 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 8 seconds or greater.

  For purposes of the TIS the following are considered commercial corridors:
  - Sunset Boulevard
  - Santa Monica Boulevard
  - Melrose Avenue
  - Beverly Boulevard
  - Doheny Drive
  - Robertson Boulevard
  - San Vicente Boulevard (at and/or South of Santa Monica Boulevard)

- La Cienega Boulevard
- Fairfax Avenue
- La Brea Avenue

Other Signalized and/or 4-way Stop Intersections - Significant impacts will occur if the following criteria are met:

- The addition of project traffic results in a LOS D and an increase in delay of 8 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 5 seconds or greater.

Unsignalized Intersections (and/or 1-way or 2-way stops) - Significant impacts will occur if the following criteria are met:

- The addition of project traffic results in a LOS D, E, or F and an increase in delay of 5 seconds or greater.

Proposed General Plan Traffic Impact Analysis and Mitigation Discussion

Table 4 shows the potential significant traffic impacts that would occur with implementation of the Proposed General Plan and the locations of these impacts are mapped in Figure 24. While the number of impacted intersections may seem large, it is important to consider that the significance thresholds were designed with sufficient detail to capture the impacts of individual development projects, while the various General Plan update scenarios include *all* development potential in the City. Similarly, intersections most likely to experience increase traffic congestion were selected as analysis locations. Therefore, the percentage of impacted intersections shown here may not reflect the percentage of impacted intersection citywide with implementation of the Proposed General Plan, and should represent a worst-case scenario.

Traffic impacts occurring at study intersections are discussed below. The built environment in the study area creates minimal opportunity for physical roadway or intersection widening. Potential improvements, if feasible, are presented below for each impacted location. Due to limited right-of way in the study area, the impacted intersections would remain at unacceptable levels of service with the proposed General Plan, resulting in a significant and unavoidable impact.

- Doheny Drive & Sunset Boulevard: This intersection is projected to degrade one service level during both the a.m. and p.m. peak hours with buildout of the proposed General Plan. During the a.m. peak hour, the intersection would worsen from LOS D under existing. Increases in traffic volumes along Sunset Boulevard and Doheny Drive would result in increased delay for westbound and northbound drivers. During the p.m. peak hour, the increase in average delay would be approximately 20 seconds due to traffic volume increases and additional delay for vehicles traveling north and south on Doheny Drive and westbound on Sunset Boulevard. Increasing the green time for vehicles traveling on Doheny Drive would reduce delays for northbound and southbound traffic but would further delay eastbound and westbound vehicles traveling on Sunset Boulevard. Operations at this intersection could be improved by providing an exclusive westbound right-turn lane. However, the bus stop located at this corner in addition to limited right-of-way makes this improvement infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- San Vicente Boulevard & Sunset Boulevard: This intersection is projected to degrade from LOS D under existing conditions to LOS E with buildout of the proposed General Plan and experience an increase in average delay of 25 seconds during the p.m. peak hour. The increase in delay is primarily due to additional vehicles making the northbound right-turn movement from San Vicente Boulevard onto Sunset Boulevard during the p.m. peak hour. This intersection already provides an exclusive northbound right-turn lane plus a shared northbound left/through/right-turn lane, and right-of-way is not available to provide additional northbound capacity. Increasing the amount of green time for the northbound approach would improve the average delay at the intersection; however, the intersection would continue to operate at LOS E during the p.m. peak hour. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- La Cienega Boulevard/Miller Drive & Sunset Boulevard: This intersection is projected to degrade from LOS E under existing p.m. peak hour conditions to LOS F with buildout of the proposed General Plan (average delay increase of 31 seconds). The high level of delay at the intersection is primarily caused by heavy eastbound and westbound traffic volumes along Sunset Boulevard and for the westbound left-turn movement from Sunset Boulevard onto La Cienega Boulevard. The westbound left-turn movement currently operates under protected-permissive phasing, and extending the green time would reduce delays for these vehicles. However, an increase in green time for the westbound left-turn movement would result in decreased green time for eastbound through vehicles, which already experience substantial delays during peak travel hours. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Crescent Heights Boulevard & Sunset Boulevard: This intersection currently operates at LOS E during both the a.m. and the p.m. peak hours and would continue to operate at LOS E with buildout of the General Plan (10-second increase in average delay during the a.m. peak hour and 14-second increase in average delay during the p.m. peak hour). LOS E operations are caused by high traffic volumes along Sunset Boulevard and on southbound Crescent Heights Boulevard under existing and future conditions. The increase in delay at this intersection is primarily due to traffic volume increases along Sunset Boulevard in both the eastbound and westbound directions during the peak hours. Limited right-of-way makes improvements to this intersection infeasible. This intersection is located outside the jurisdiction of West Hollywood, within the City of Los Angeles.

- La Cienega Boulevard & Fountain Avenue: This intersection operates at LOS D and LOS F under existing conditions during the a.m. and p.m. peak hours, respectively, and is projected to degrade to LOS E during the a.m. peak hour and continue to operate at LOS F during the p.m. peak hour with buildout of the proposed General Plan. The increase in average delay is expected to be 9 seconds during the a.m. peak hour and 48 seconds during the p.m. peak hour. During the a.m. peak hour, the additional delay is caused by increased volumes and congestion for vehicles traveling westbound on Fountain Avenue and turning onto southbound La Cienega Boulevard. Increases in p.m. peak hour delay are primarily due to vehicles traveling northbound on La Cienega Boulevard and turning onto Fountain Avenue. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Crescent Heights Boulevard & Fountain Avenue: This intersection operates at LOS F under existing conditions during the a.m. peak hour and is projected to continue to operate at LOS F with buildout of the proposed General Plan with an increase in average delay of 15 seconds. During the p.m. peak hour, this intersection currently operates at LOS D and would degrade to LOS E with an increase in delay of 22 seconds with the proposed General Plan. During the a.m. peak hour, the poor LOS is due to high traffic volumes on westbound Fountain Avenue and southbound Crescent Heights Boulevard. Conversely, during the p.m. peak hour the intersection experiences high traffic volumes on eastbound Fountain Avenue and northbound Crescent Heights Boulevard. This intersection could be improved by providing exclusive right-turn lanes on Fountain Avenue for vehicles turning onto Crescent Heights Boulevard. The width of the curb lane currently allows some vehicles to make a right turn on red even if a vehicle traveling through the intersection is stopped. While striping the right-turn pockets would provide reduced delay for vehicles turning onto Crescent Heights Boulevard, the intersection would continue to operate at LOS F during the a.m. peak hour and LOS E during the p.m. peak hour. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Fountain Avenue & Fairfax Avenue: This intersection currently operates at LOS E during both peak hours and is projected to degrade to LOS F during the a.m. and p.m. peak hours with buildout of the proposed General Plan (average delay increase of 30 seconds during the a.m. peak hour and 44 seconds during the p.m. peak hour). Poor operations are partially caused by heavy left-turn movements from Fountain Avenue onto Fairfax Avenue with peak volumes exceeding 200 vehicles per hour in both the eastbound and westbound directions. Modifying the existing permissive left-turn phasing to protected permissive would improve the delay for left-turning vehicles. An additional improvement at this location is the striping of a right-turn lane on southbound Fairfax Avenue for vehicles turning onto Fountain Avenue. During the a.m. peak hour, nearly 300 vehicles make this turning movement and additional demand would occur with the proposed General Plan. The width of the southbound curb lane currently allows some vehicles to make a right turn on red even if a vehicle traveling through the intersection is stopped. While providing protected-permissive left-turn phasing on Fountain Avenue and striping the southbound right-turn pocket on Fairfax Avenue would provide reduced delay for applicable movements, the intersection would continue to operate at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.

- Gardner Street & Fountain Avenue: This intersection currently operates at LOS E during the a.m. peak hour and is expected to degrade to LOS F with buildout of the proposed General Plan (average delay increase of 31 seconds). During the p.m. peak hour, the intersection currently operates at LOS F and would continue to operate at LOS F with an increase in average delay of 100 seconds with the proposed General Plan. The poor operations at this intersection are due to high traffic volumes along Gardner Avenue. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- La Brea Avenue & Fountain Avenue: This intersection currently operates at LOS E during the a.m. peak hour and is expected to continue to operate at LOS E with buildout of the proposed General Plan while experiencing a 16-second increase in average delay. During the p.m. peak hour, the intersection is expected to degrade from LOS D operations under existing conditions to LOS E with the proposed General Plan with an average delay increase of 14 seconds. The poor operations at this intersection are primarily due to high delays for eastbound and westbound vehicles traveling on Fountain Avenue. Increasing the green time for these vehicles, including providing permissive protected left-turn phasing, worsens the overall average intersection delay by degrading operations for north-south traffic on La Brea Avenue. Limited right-of-way makes improvements to this intersection infeasible. This intersection is located outside the jurisdiction of West Hollywood, within the City of Los Angeles.

- Holloway Drive/Horn Avenue & Sunset Boulevard: This intersection currently operates at LOS D during the a.m. and p.m. peak hours and is expected to degrade to LOS E with buildout of the proposed General Plan. The increase in average delay with the General Plan exceeds the City’s threshold for significant impacts with an increase of 17 seconds during the a.m. peak hour and 15 seconds during the p.m. peak hour. The approaches with the highest delay at this intersection are northbound Holloway Drive and southbound Horn Avenue. Increasing green times for the north-south movements would improve delay for these vehicles; however, the high traffic volumes on Sunset Boulevard would result in poor east-west operations and worsen overall intersection operations. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- La Cienega Boulevard & Holloway Drive: This intersection currently operates at LOS C during the a.m. peak hour and LOS E during the p.m. peak hour. With buildout of the proposed General Plan, this intersection would degrade to LOS D during the a.m. peak hour and experience an increase in average delay of 13 seconds. During the p.m. peak hour, the intersection would continue to operate at LOS E with an increase in average delay of 12 seconds. LOS D operations during the a.m. peak hour are primarily due to high southbound traffic volumes along La Cienega Boulevard including the southbound right-turn movement volume of over 600 vehicles (under both existing and proposed General Plan conditions). LOS E conditions during the p.m. peak hour are caused by high traffic volumes along northbound La Cienega Boulevard in addition to a high demand for the eastbound left-turn movement from Holloway Drive to La Cienega Boulevard (over 500 vehicles under both existing and proposed General Plan conditions). An exclusive southbound right-turn lane is already provided at this intersection and the eastbound left-turn movement already operates with protected-permissive signal phasing. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Doheny Drive & Cynthia Street: This is a shared intersection between the City of West Hollywood and the City of Beverly Hills. This intersection is unsignalized with stop signs on Cynthia Street and free-flow traffic along Doheny Drive. The poor operations at this location, LOS C in the a.m. peak hour and LOS F in the p.m. peak hour, are due to 90 vehicles traveling through the intersection along Cynthia Street in the westbound direction during the a.m. peak hour and 50 vehicles traveling in the eastbound direction during the p.m. peak hour. Vehicles turning left from westbound Cynthia Street to southbound Doheny Drive are prohibited during the peak hours. The reported increase in delay with the proposed General Plan is reflecting the worst-case movement at the intersection (the east-west through movements). If the delay for all vehicles traveling through the intersection is considered, this location currently operates at LOS B or better during the peak hours and is expected to continue to operate at LOS B during the peak hours with buildout of the Proposed General Plan. The traffic volumes at this location do not warrant the installation of a traffic signal.

- Doheny Drive & Santa Monica Boulevard & Melrose Avenue: This 5-legged intersection serves as the western gateway to the City of West Hollywood and experiences substantial congestion during both the a.m. and p.m. peak hours with LOS F conditions for the majority of vehicles traveling through the intersection during peak hours. High traffic volumes along Santa Monica Boulevard cause delays for north-south traffic along Doheny Drive. Traffic volumes are particularly high in the westbound direction in the a.m. peak hour and in the eastbound direction during the p.m. peak hour along Santa Monica Boulevard. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Robertson Boulevard & Santa Monica Boulevard: This intersection currently operates at LOS C during the a.m. and p.m. peak hours. With buildout of the proposed General Plan, operations are expected to degrade by two service levels during both peak hours resulting in LOS E conditions during the a.m. peak hour (22-second increase in average delay) and LOS E during the p.m. peak hour (24-second increase in average delay). The degraded LOS at this intersection is primarily due to high traffic volumes along Santa Monica in both the eastbound and westbound directions. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- San Vicente & Santa Monica Boulevard: This intersection currently operates at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour. Traffic operations are projected to degrade by one service level with buildout of the proposed General Plan to LOS E during the a.m. peak hour (20-second increase in average delay) and LOS F during the p.m. peak hour (40-second increase in average delay). The increase in delay with the General Plan is caused by additional vehicles traveling on Santa Monica Boulevard during both peak hours. Traffic volume increases on San Vicente Boulevard also worsen delay for north-south vehicles during the p.m. peak hour. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- La Cienega Boulevard & Santa Monica Boulevard: This intersection currently operates at LOS F during the a.m. peak hour and is expected to worsen with buildout of the proposed General Plan with an increase in average delay of 20 seconds. During the p.m. peak hour, this intersection operates at LOS E and is expected to degrade to LOS F with an increase in average delay of 23 seconds. Additional delay during the a.m. peak hour is caused primarily by increases in traffic volumes on westbound Santa Monica Boulevard and on southbound La Cienega Boulevard. During the p.m. peak hour, operations worsen at each approach to the intersection as a result of increased traffic volumes. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Croft Avenue/Holloway Drive & Santa Monica Boulevard: This intersection currently operates at LOS C during the p.m. peak hour and is expected to degrade to LOS D with buildout of the proposed General Plan with an increased in average delay of 19 seconds. The increase in delay is primarily due to additional congestion at the intersection of Croft Avenue/Santa Monica Boulevard and Holloway Drive. These movements could be improved by increasing the amount of green time provided. However, the high traffic volumes along Santa Monica Boulevard would be adversely affected by this change. A westbound right-turn lane is already provided for vehicles traveling on Santa Monica Boulevard to Holloway Drive (over 200 vehicles during the p.m. peak hour). Additional turn lanes are not feasible due to right-of-way constraints. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Crescent Heights Boulevard & Santa Monica Boulevard: This intersection currently operates at LOS D during the a.m. peak hour and LOS F during the p.m. peak hour. With buildout of the proposed General Plan, operations are expected to degrade to LOS E during the a.m. peak hour with an increase in average delay of 20 seconds and stay at LOS F during the p.m. peak hour with an increase in average delay of 24 seconds. Poor LOS at this intersection is due to high volumes along Santa Monica Boulevard during both peak hours, on southbound Crescent Heights Boulevard during the a.m. peak hour, and on northbound Crescent Heights Boulevard during the p.m. peak hour. The northbound left-turn movement from Crescent Heights Boulevard to Santa Monica Boulevard is currently prohibited during the p.m. peak hour (3:00–7:00 p.m.). Exclusive right-turn lanes are provided for the westbound and southbound right-turn movements. Additional turn lanes are not feasible due to right-of-way constraints. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Fairfax Avenue & Santa Monica Boulevard: This intersection currently operates at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour. With buildout of the proposed General Plan, the intersection is expected to continue to operate at LOS E and LOS F during the a.m. and p.m. peak hours, respectively, with an increase in average delay of 20 seconds during the a.m. peak hour and 73 seconds during the p.m. peak hour. This intersection could be improved by providing an exclusive right-turn lane on southbound Fairfax Avenue for vehicles turning onto Santa Monica Boulevard. The width of the curb lane currently allows some vehicles to make a right turn on red even if a vehicle traveling through the intersection is stopped. While striping the right-turn pocket would reduce delay for vehicles turning onto Santa Monica Boulevard, the intersection would continue to operate at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.

- Gardner Street & Santa Monica Boulevard: This intersection currently operates at LOS C during the p.m. peak hour and is expected to degrade to LOS D with buildout of the General Plan with an increase in average delay of 12 seconds. The increase in delay is primarily due to high traffic volumes along Santa Monica Boulevard. In addition, the eastbound left-turn movement from Santa Monica Boulevard onto Gardner Street has a volume ranging from 160 to 170 vehicles (under existing conditions and with the General Plan) during the p.m. peak hour. Providing protected-permissive phasing for the eastbound left-turn movement during the p.m. peak hour would improve delay for these vehicles. However, overall intersection operations would remain at LOS D during the p.m. peak hour with the proposed General.

- Formosa Avenue & Santa Monica Boulevard: This intersection currently operates at LOS D and is expected to degrade to LOS E with an increase in average delay of 23 seconds with buildout of the General Plan during the p.m. peak hour. The increase in delay is primarily due to heavy traffic volumes on Santa Monica Boulevard. Limited right-of-way and potential loss of parking along Formosa Avenue make improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- La Brea Avenue & Santa Monica Boulevard: This intersection currently operates at LOS E during the a.m. and p.m. peak hours. With buildout of the proposed General Plan, operations would remain at LOS E during the a.m. peak hour (average delay increase of 21 seconds) and worsen to LOS F during the p.m. peak hour (average delay increase of 30 seconds). The additional delay during both peak hours is due to heavy traffic volumes along Santa Monica Boulevard and La Brea Avenue. During peak hours, parking along La Brea is restricted to provide three northbound and southbound travel lanes. In addition, protected-permissive phasing is provided for each left-turn movement at this intersection. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible

- .La Cienega Boulevard & Melrose Avenue: This intersection currently operates at LOS E during the a.m. peak hour and is expected to continue to operate at LOS E with buildout of the proposed General Plan (average delay increase of 9 seconds). Poor operations are due to high traffic volumes along southbound La Cienega Boulevard during the a.m. peak hour along with a high demand for the westbound left-turn movement from Melrose Avenue onto La Cienega Boulevard (over 300 vehicles under both existing and proposed General Plan conditions). The westbound left-turn movement already operates with protected signal phasing. Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- Doheny Drive & Beverly Boulevard: This intersection currently operates at LOS D during the a.m. and p.m. peak hours. With buildout of the proposed General Plan, operations are expected to degrade by one service level during both peak hours to LOS E with an increase in average delay of 26 seconds during the a.m. peak hour and 24 seconds during the p.m. peak hour. The worsened LOS is primarily due to heavy traffic volumes along Beverly Boulevard and increased delay on Doheny Drive with buildout of the proposed General Plan. A protected left-turn phase is currently provided for vehicles traveling on westbound Beverly Boulevard and turning left onto Doheny Drive (approximately 250 vehicles during the a.m. peak hour and 150 vehicles during the p.m. peak hour). Limited right-of-way makes improvements to this intersection infeasible. There is no feasible mitigation for this intersection LOS impact within the existing right-of-way, and taking additional right-of-way for vehicular traffic would be infeasible.

- San Vicente Boulevard & Beverly Boulevard: This is a shared intersection between the City of West Hollywood and the City of Los Angeles. This intersection currently operates at LOS D during the p.m. peak hour and is expected to degrade to LOS E with buildout of the proposed General Plan with an increase in average delay of 20 seconds. LOS E operations are primarily due to high left-turn volumes for vehicles traveling on San Vicente Boulevard, both northbound (over 230 vehicles) and southbound (over 160 vehicles), and making a left-turn onto Beverly Boulevard. Delay could be reduced by provided protected-permissive phasing for these left-turn movements during the p.m. peak hour; however, the intersection would continue to operate at LOS E with the proposed General Plan.

- La Cienega Boulevard & Beverly Boulevard: This intersection currently operates at LOS E during the a.m. peak hour and is expected to degrade to LOS F with buildout of the proposed General Plan with an increase in average delay of 21 seconds. During the p.m. peak hour, the intersection currently operates at LOS F and would continue to operate at LOS F with an increase in average delay of 23 seconds with the proposed General Plan. Poor operations at this intersection are due to high peak hour traffic volumes along westbound Beverly Drive and southbound La Cienega Boulevard during the a.m. peak hour and on eastbound Beverly Drive and northbound La Cienega Boulevard during the p.m. peak hour. An exclusive northbound right-turn lane is already provided along with a right-turn overlap phase to serve the high p.m. peak hour demand for this movement (approximately 400 vehicles under existing and proposed General Plan conditions). A protected left-turn phase is provided for vehicles traveling on eastbound Beverly Boulevard to northbound La Cienega Boulevard (over 250 vehicles under existing and General Plan conditions during the p.m. peak hour). Limited right-of-way makes improvements to this intersection infeasible. This intersection is located outside the jurisdiction of West Hollywood, within the City of Los Angeles.

CONGESTION MANAGEMENT PROGRAM IMPACT ANALYSIS

Los Angeles Metro's Congestion Management Plan (CMP) for Los Angeles County designates certain freeway segments and arterial roadways as CMP facilities. West Hollywood is not served directly by any of the region's freeways, so there are no CMP freeway segments within City. Two intersections are designated CMP arterial monitoring locations:

- Doheny Drive & Santa Monica Boulevard
- La Cienega Boulevard & Santa Monica Boulevard

The CMP specifies a standard of LOS E for CMP freeway and intersection monitoring locations.

CMP Impact Analysis

The Los Angeles Congestion Management Program defines a significant impact to a CMP arterial monitoring location as follows:

> "For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity (V/C ≥ 0.02)."

Table 11 presents existing and Proposed General Plan intersection operating conditions at the two CMP arterial monitoring locations in the City of West Hollywood. As shown in the table, both intersections would operate at LOS F during at least one peak hour, and both intersections would see a change of 0.02 V/C or greater.

Implementation of the Draft General Plan Update would result in exceeding, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. This is a potentially significant impact. As there is no feasible mitigation within the existing right-of-way, and taking additional right-of-way for vehicular traffic may conflict with a number of other policies, the impact would remain significant and unavoidable. However, it should be noted the Proposed General Plan places a strong emphasis on multimodal circulation, transit-oriented development, and TDM, which are measures intended to provide additional transportation choices and reduce impacts on local and regional facilities. Implementation of the proposed goals and policies of the Proposed General Plan would improve mobility within the City.

Comparative Impacts of Future Alternative Scenarios

The same study intersections analyzed for significant traffic impacts for the Proposed General Plan were analyzed for the each of the General Plan alternative scenarios and the results are shown in the following tables and figures:

- No Project: Figure 25, Table 6
- TOD Focus Alternative: Figure 26, Table 7
- Extensive TDM Alternative: Figure 27, Table 8

Figure 28 illustrates the number of significantly impacted locations during both peak hours for all future scenarios. As shown, the No Project Alternative results in the greatest number of significantly impacted intersections, while the Extensive TDM Alternative results in the fewest intersection impacts. This difference can be explained largely by the presence of TDM strategies, in the case of the Extensive TDM Alternative, or absence of TDM strategies in the case of the No Project Scenario. The difference between the Proposed General Plan and the TOD Focus Alternative is largely a function of the decreased level of overall development in the later.

Table 11 reports the CMP analysis results for all of the future alternative scenarios. All of the scenarios would result in the same CMP impacts as the Proposed General Plan. As stated, there is no feasible mitigation, so these impacts would remain significant and unavoidable.

CONCLUSIONS

The preceding forecast data for West Hollywood General Plan Update illustrate:

- The strong TDM program and purposeful clustering of land uses around major corridors and transit nodes leads to superior performance in nearly all documented metrics.

- The TDM programs that lead to mode shift are most effective during the peak hours and most effective in reducing vehicle commute trips. As mentioned, commute trips constitute a significant portion of a.m. peak hour trips, a still significant but lesser portion p.m. peak hour trips, and a relatively small percentage of daily trips. TDM programs targeting commute trips are an effective way to reduce a.m. peak hour congestion, while a combination of strategies targeting both commute and non-commute trips are necessary to reduce p.m. peak hour congestion and daily metrics such as VMT.

- Intersections would be significantly and unavoidably impacted under all future scenarios. The Proposed General Plan would create 22 a.m. peak hour impacts and 26 p.m. peak hour impacts. Mitigating these impacts is not feasible as doing so would conflict with a number of other City policies and goals. However, the proposed General Plan places a strong emphasis on multimodal circulation, transit-oriented development, and TDM, which are measures intended to provide additional transportation choices and reduce impacts on local and regional facilities. Implementation of the proposed goals and policies of the Proposed General Plan would improve mobility within the City.

ATTACHMENTS

FIGURES:

1. Roadway Functional Classification
2. Trip Reduction Analysis Area Types
3. PM Peak Hour Trip Generation With and Without Trip Reductions
4. Existing (Year 2008) Intersection Levels of Service
5. Proposed General Plan (Year 2035) Intersection Levels of Service
6. No Project (Year 2035) Intersection Levels of Service
7. TOD Focus Alternative (Year 2035) Intersection Levels of Service
8. Extensive TDM Alternative (Year 2035) Intersection Levels of Service
9. AM Peak Hour Study Intersection LOS Distribution
10. PM Peak Hour Study Intersection LOS Distribution
11. Number of Intersections at LOS F
12. Daily Segment Volumes - Existing
13. Peak Hour Segment Volumes - Existing
14. Daily Segment Volumes – Proposed General Plan
15. Peak Hour Segment Volumes – Proposed General Plan
16. Daily Segment Volumes – No Project
17. Peak Hour Segment Volumes – No Project
18. Daily Segment Volumes – TOD Focus Alternative
19. Peak Hour Segment Volumes – TOD Focus Alternative
20. Daily Segment Volumes – Extensive TDM Alternative
21. Peak Hour Segment Volumes – Extensive TDM Alternative
22. Daily Vehicle Miles Traveled (VMT)
23. Daily VMT Per Capita
24. Proposed General Plan Intersection Impacts
25. No Project Intersection Impacts
26. TOD Focus Alternative Intersection Impacts
27. Extensive TDM Alternative Impacts
28. Number of Significant Intersection Impacts

TABLES:

APPENDICES:

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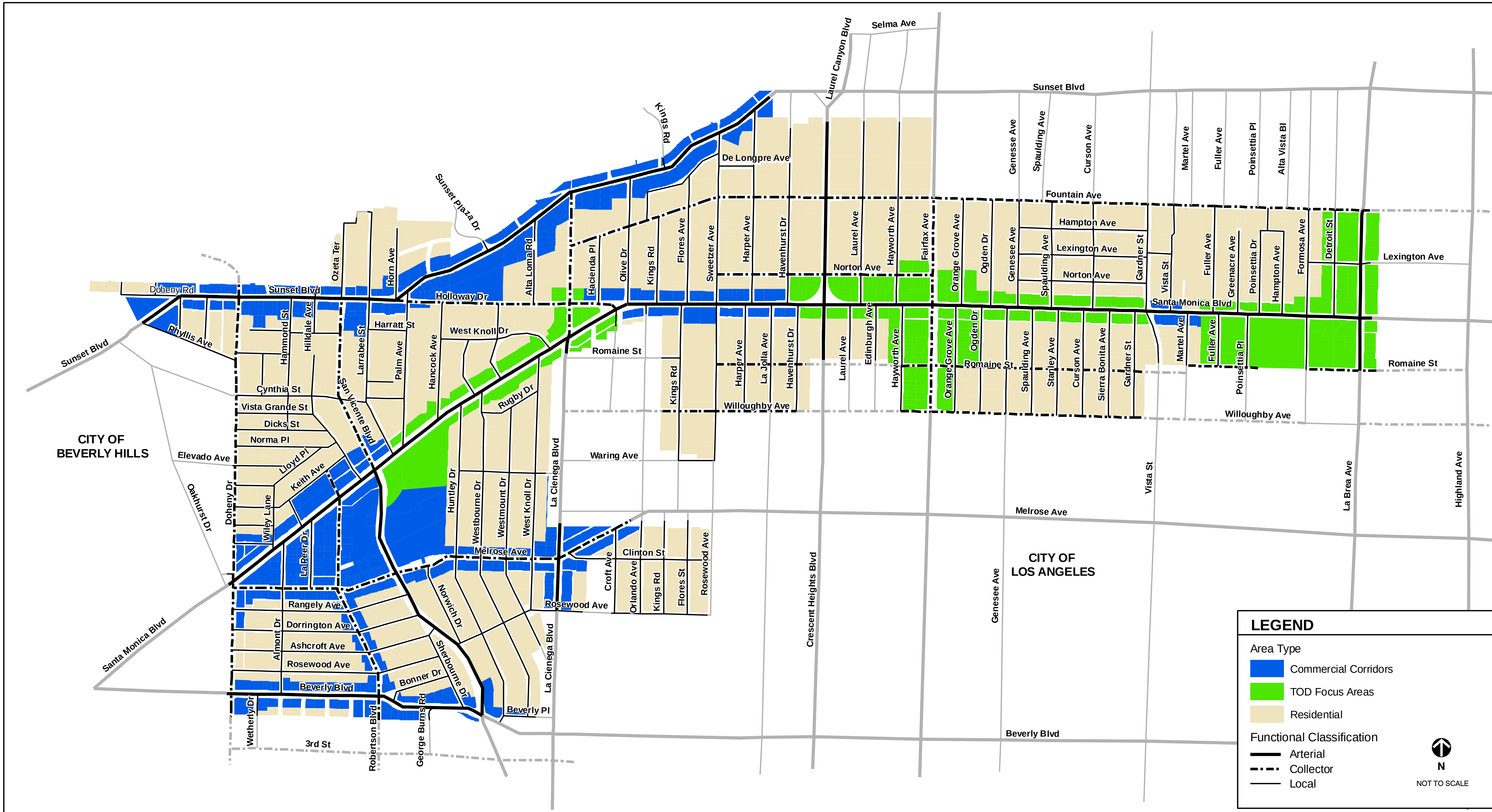
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
ROADWAY FUNCTIONAL CLASSIFICATION

FIGURE 1



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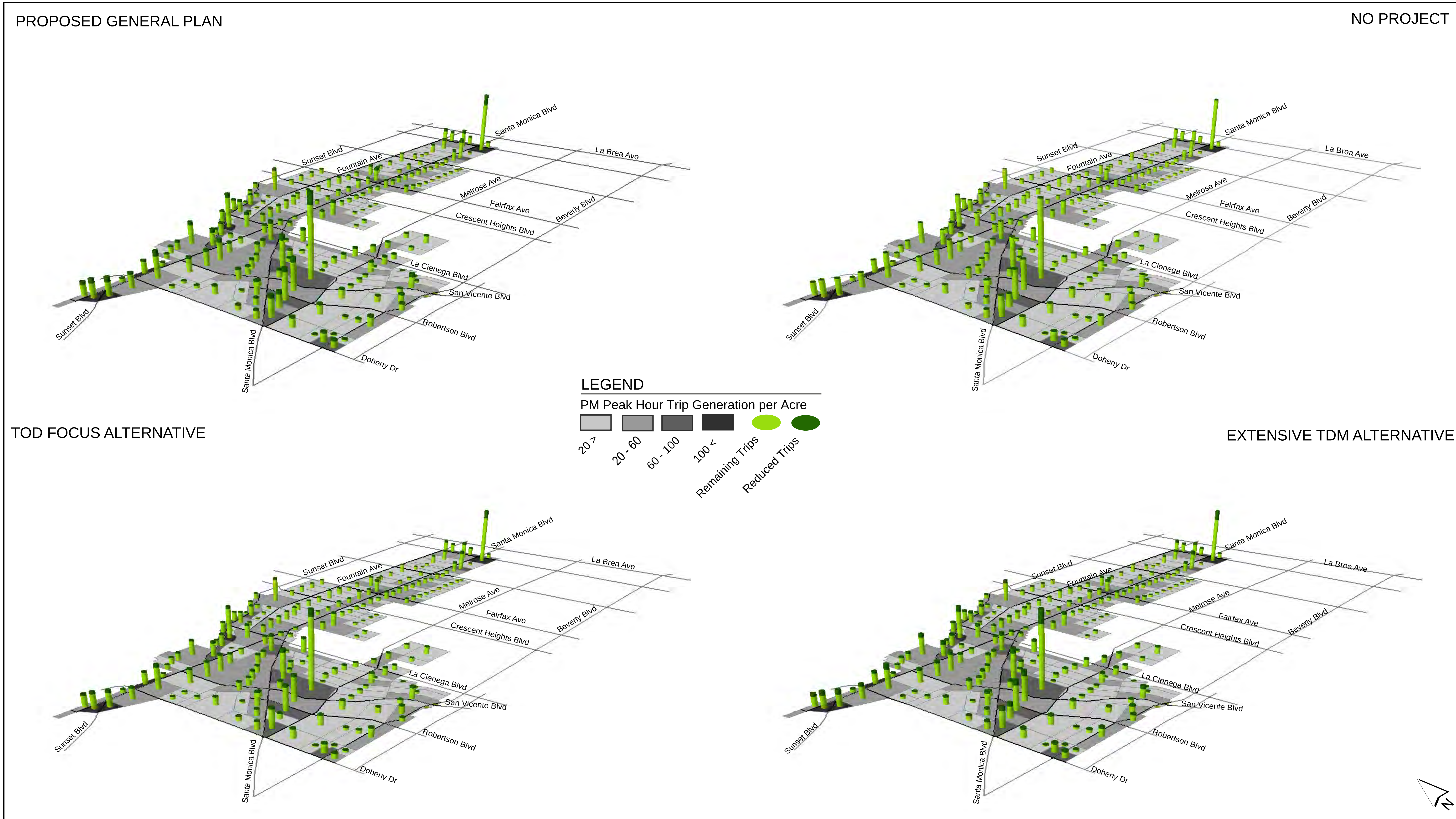
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
TRIP REDUCTION ANALYSIS AREA TYPES

FIGURE 2



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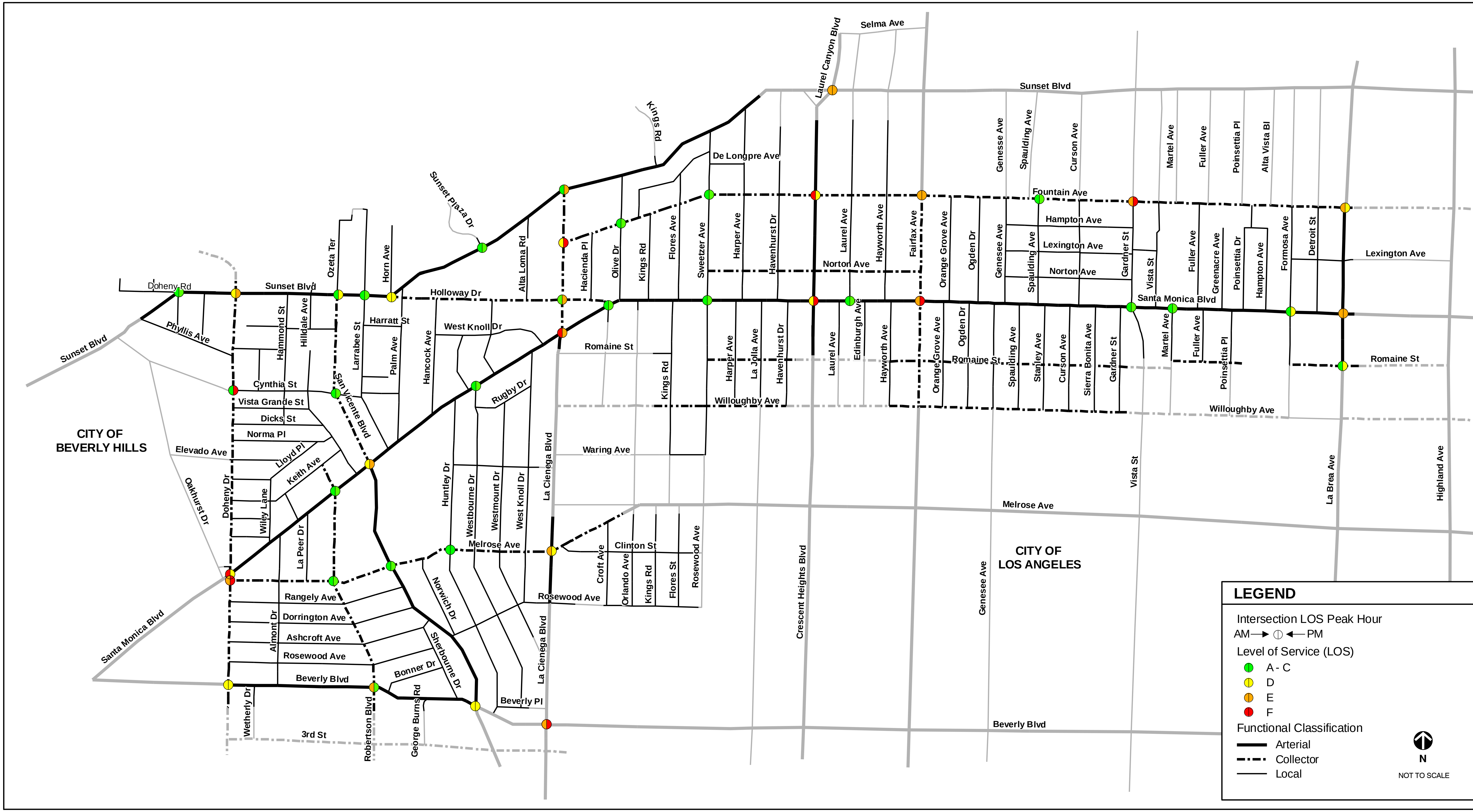
PM PEAK HOUR TRIP GENERATION WITH AND WITHOUT TRIP REDUCTIONS
FIGURE 3



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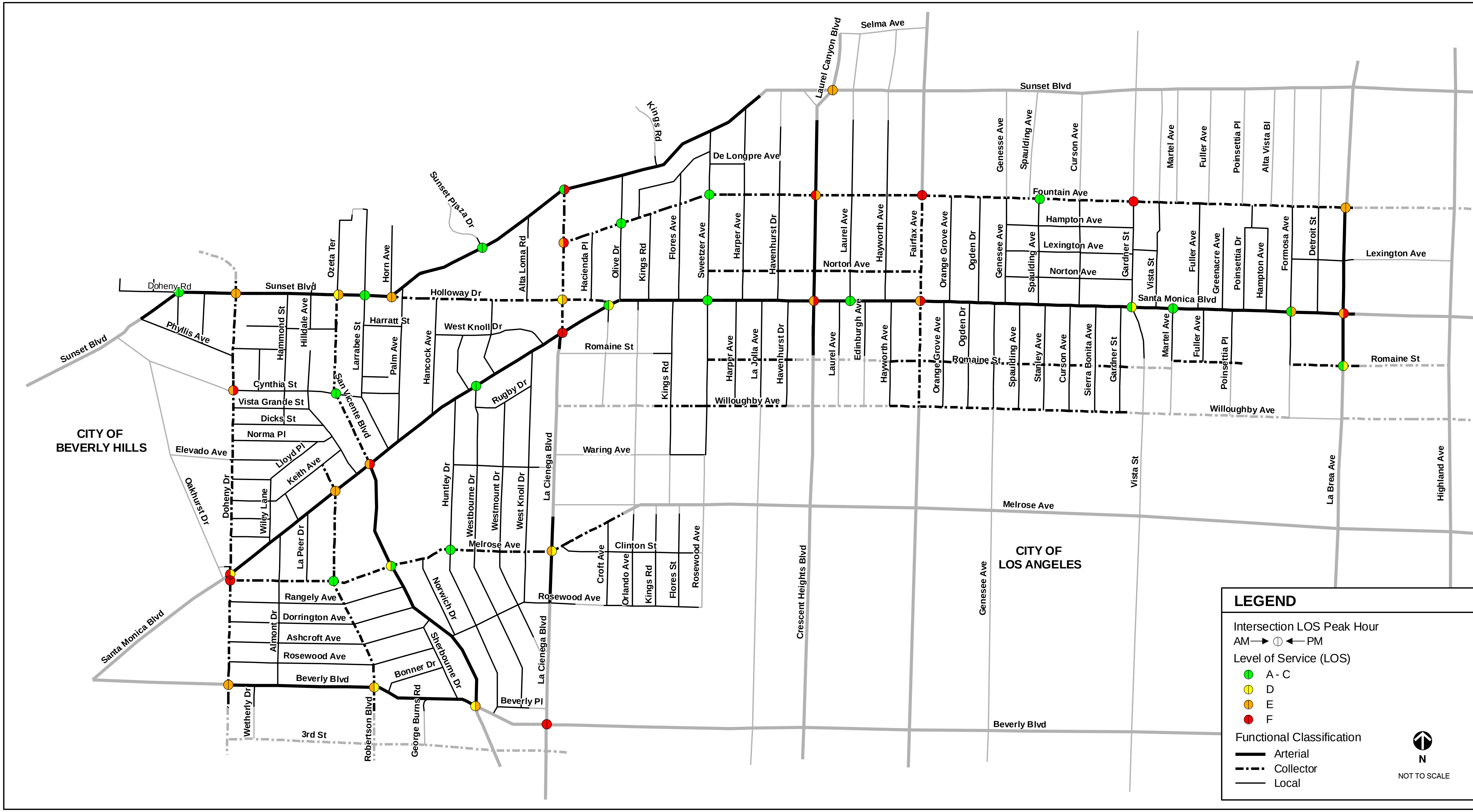
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
EXISTING (YEAR 2008) INTERSECTION LEVELS OF SERVICE
FIGURE 4



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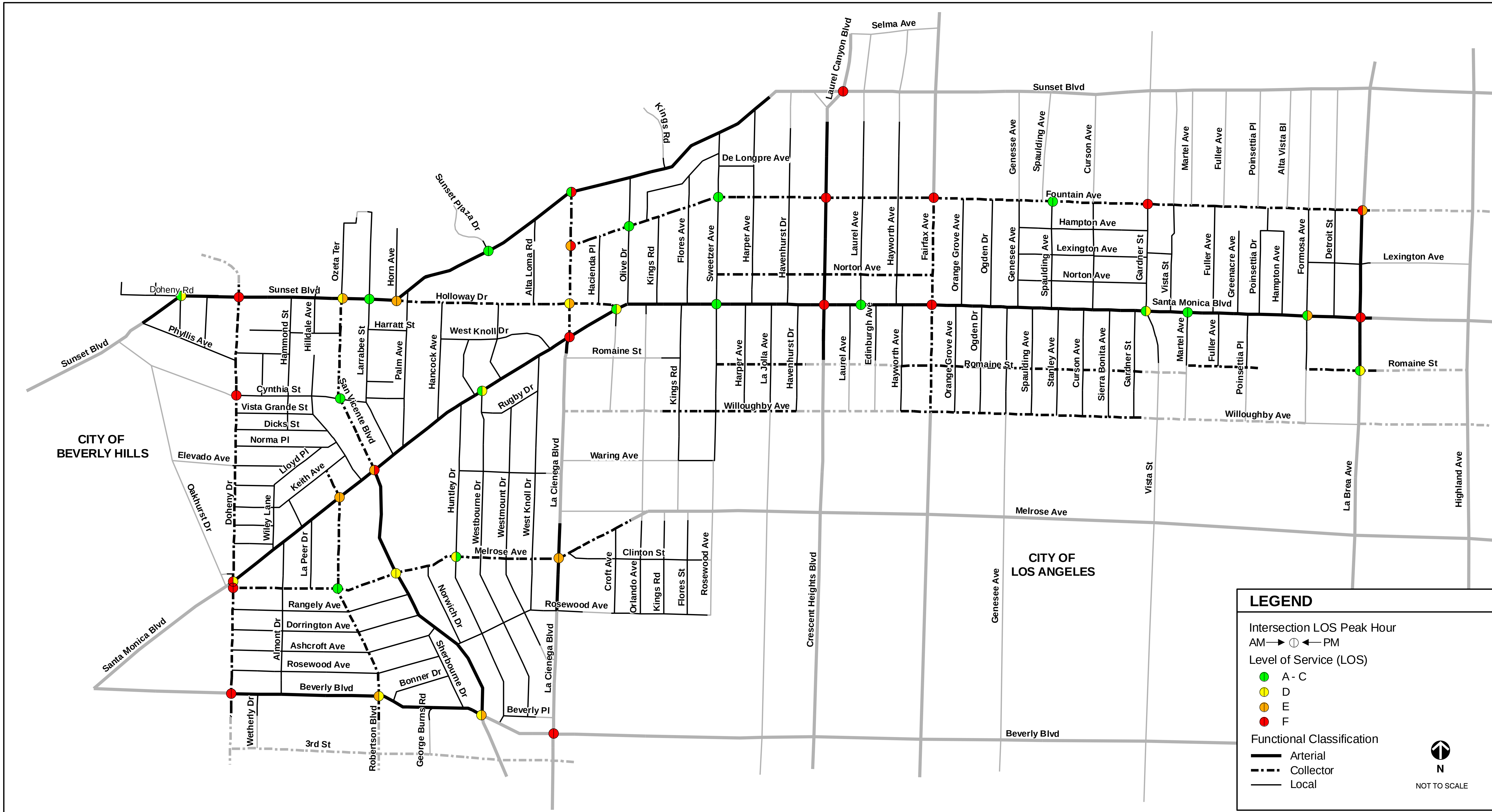
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PROPOSED GENERAL PLAN (YEAR 2035) INTERSECTION LEVELS OF SERVICE
FIGURE 5



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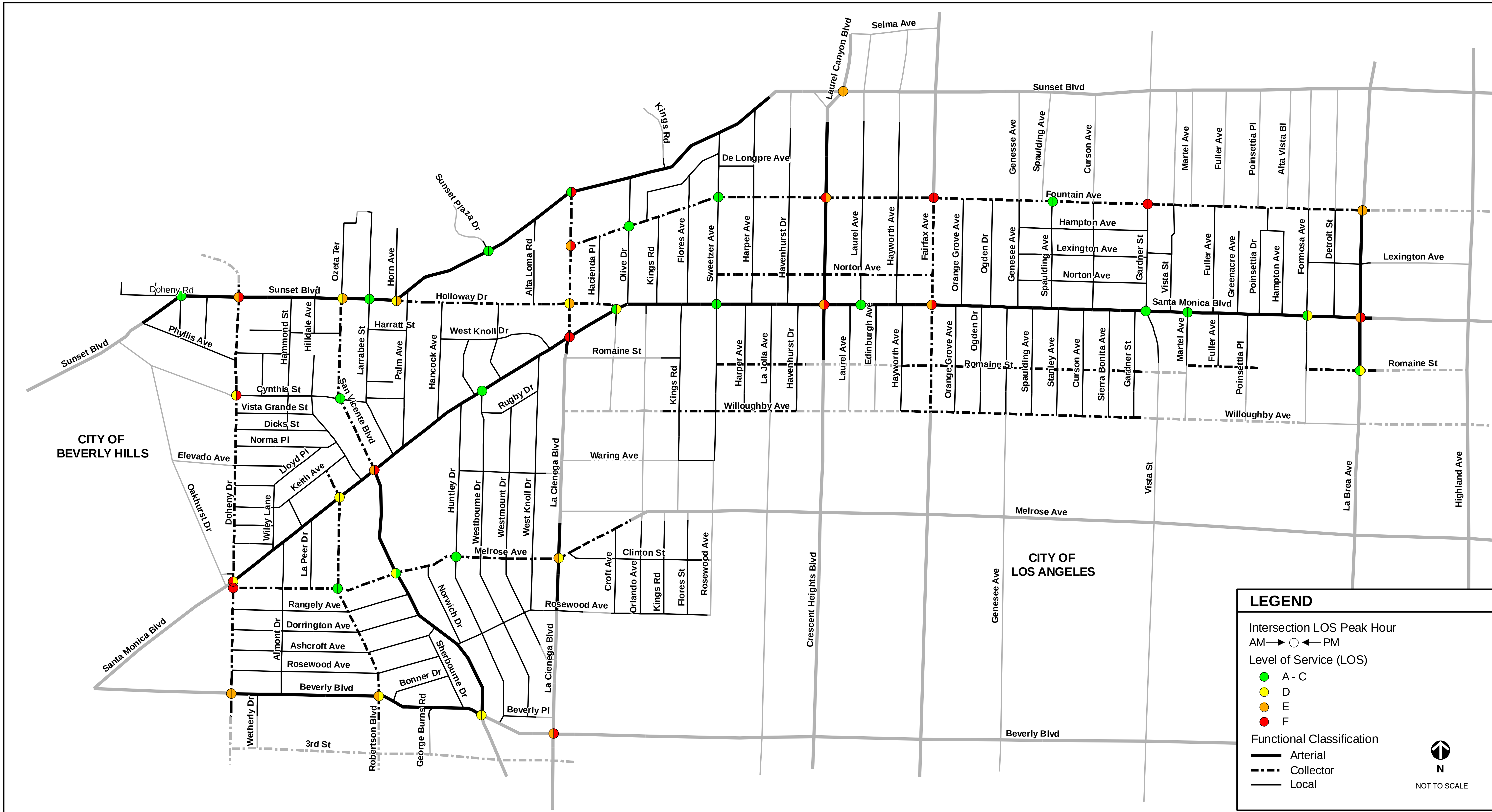
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
NO PROJECT (YEAR 2035) INTERSECTION LEVELS OF SERVICE
FIGURE 6



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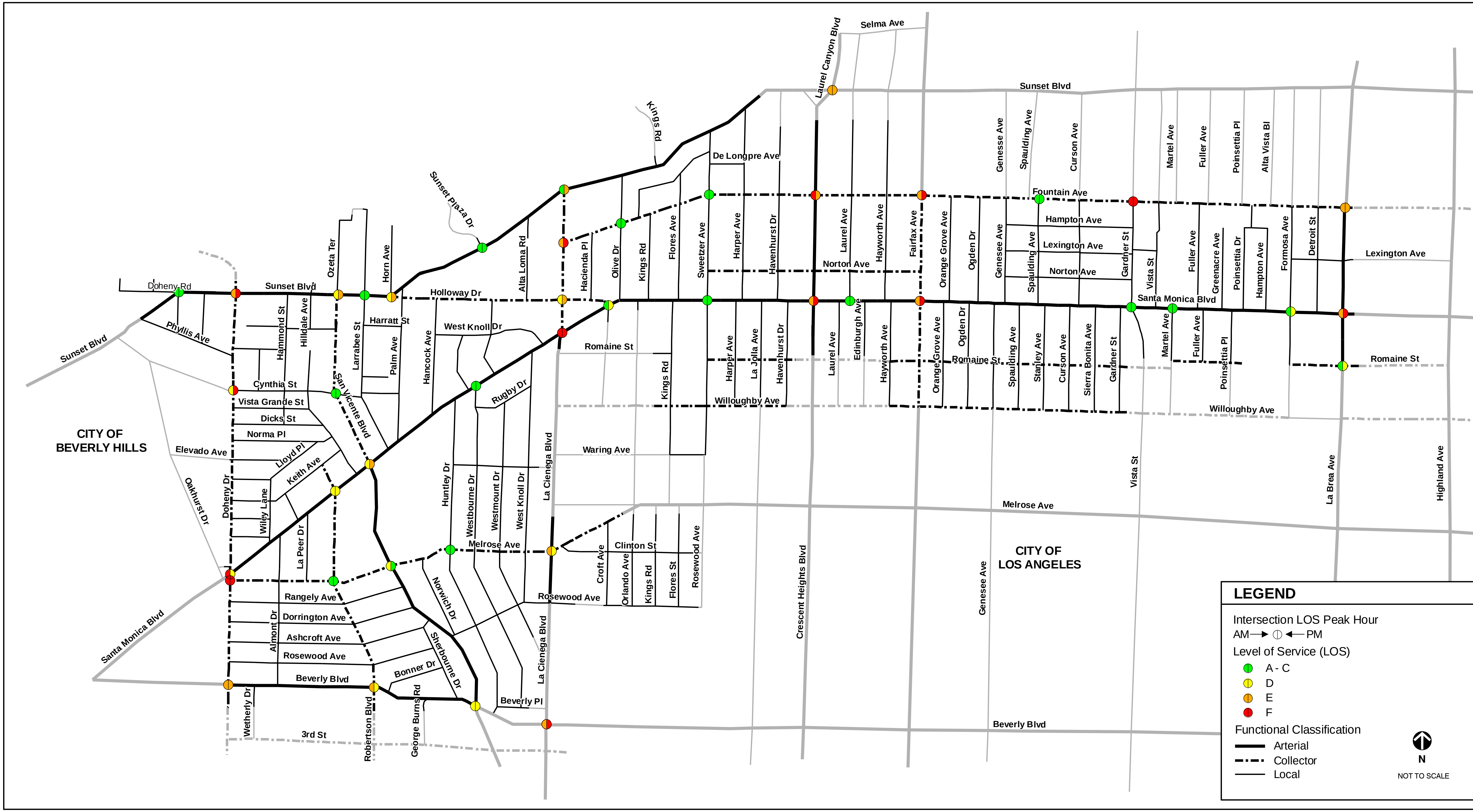
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
TOD FOCUS ALTERNATIVE (YEAR 2035) INTERSECTION LEVELS OF SERVICE
FIGURE 7



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CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
EXTENSIVE TDM ALTERNATIVE (YEAR 2035) INTERSECTION LEVELS OF SERVICE
FIGURE 8

FIGURE 9
AM PEAK HOUR STUDY INTERSECTION LOS DISTRIBUTION

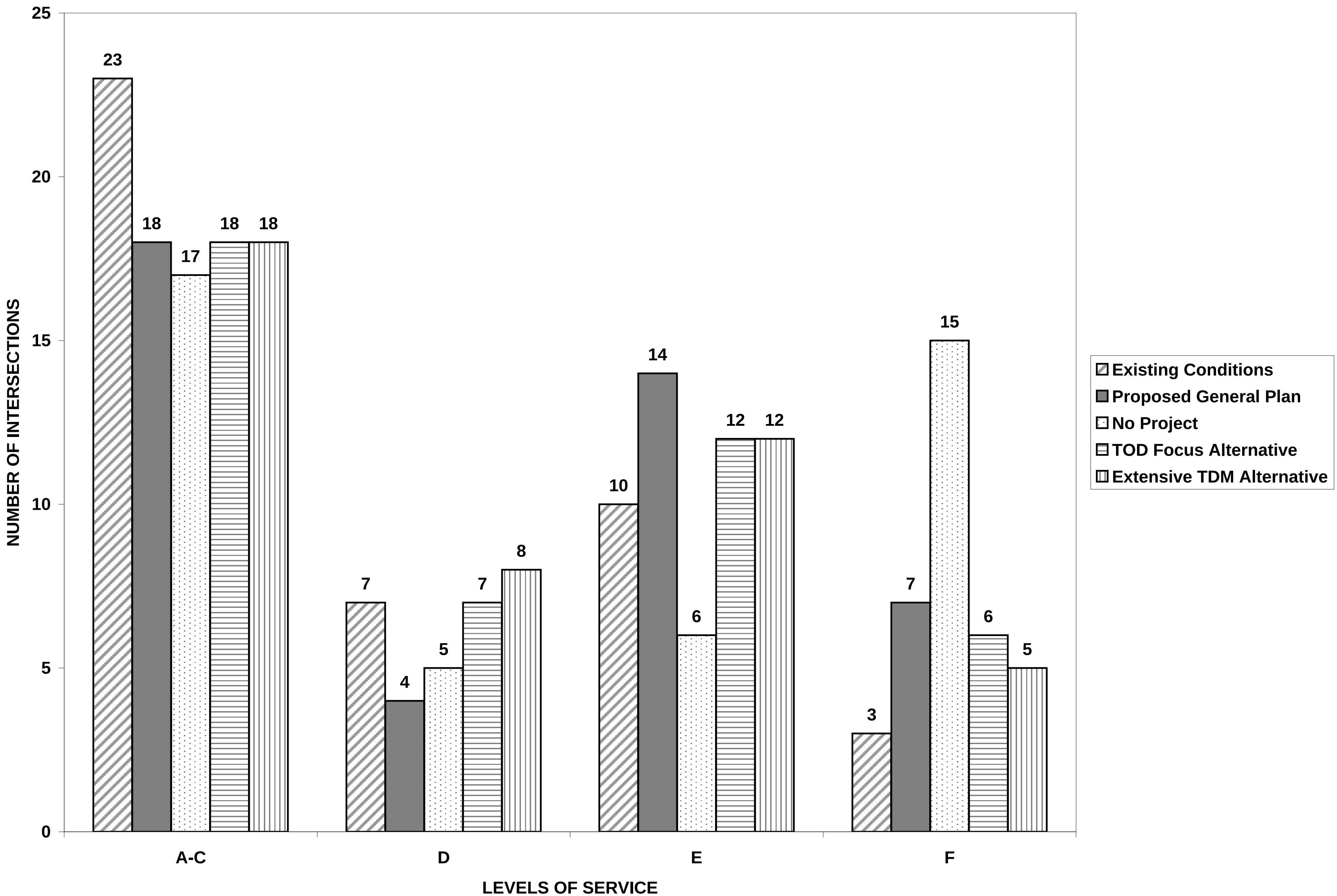


FIGURE 10
PM PEAK HOUR STUDY INTERSECTION LOS DISTRIBUTION

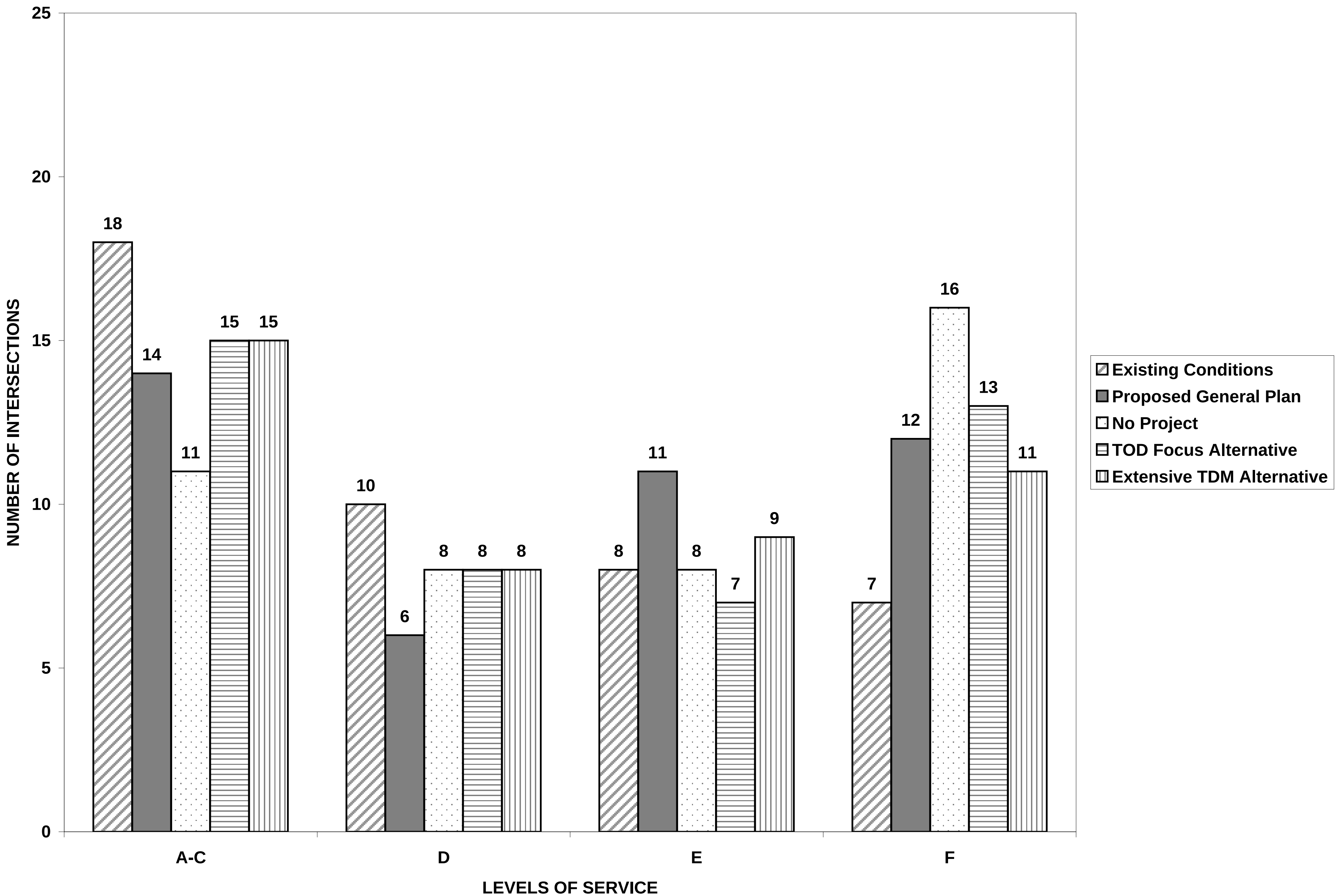
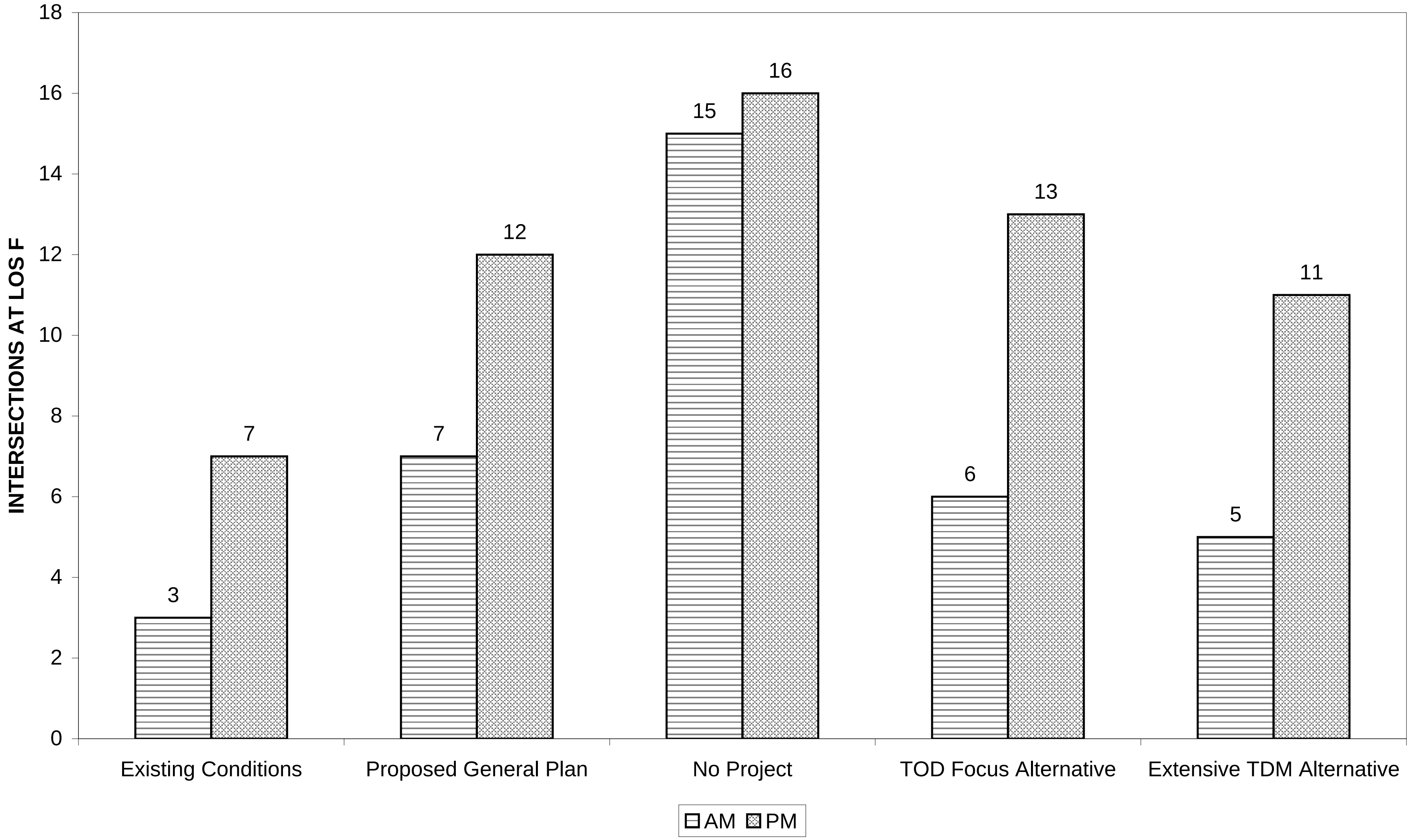
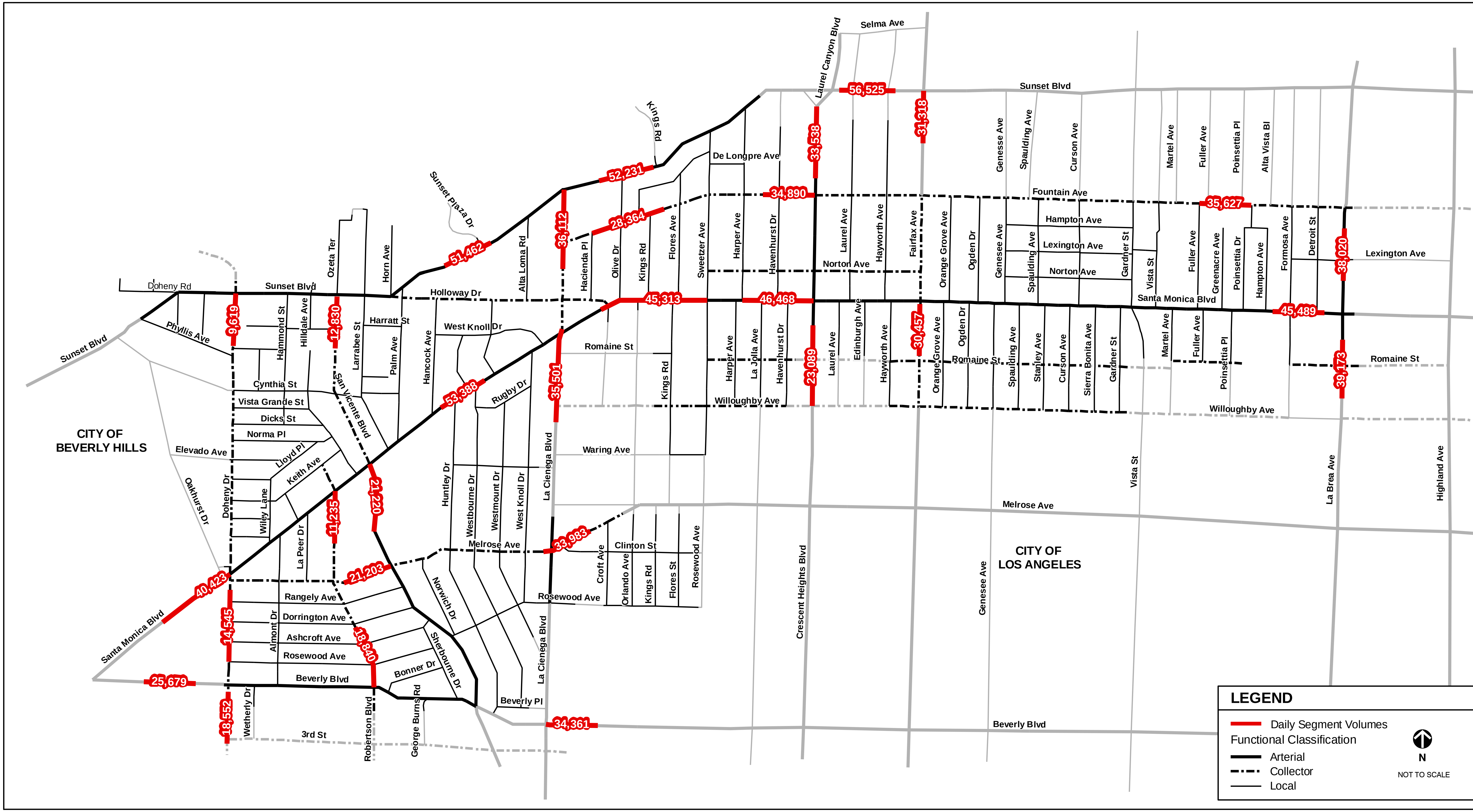


FIGURE 11
NUMBER OF INTERSECTIONS AT LOS F





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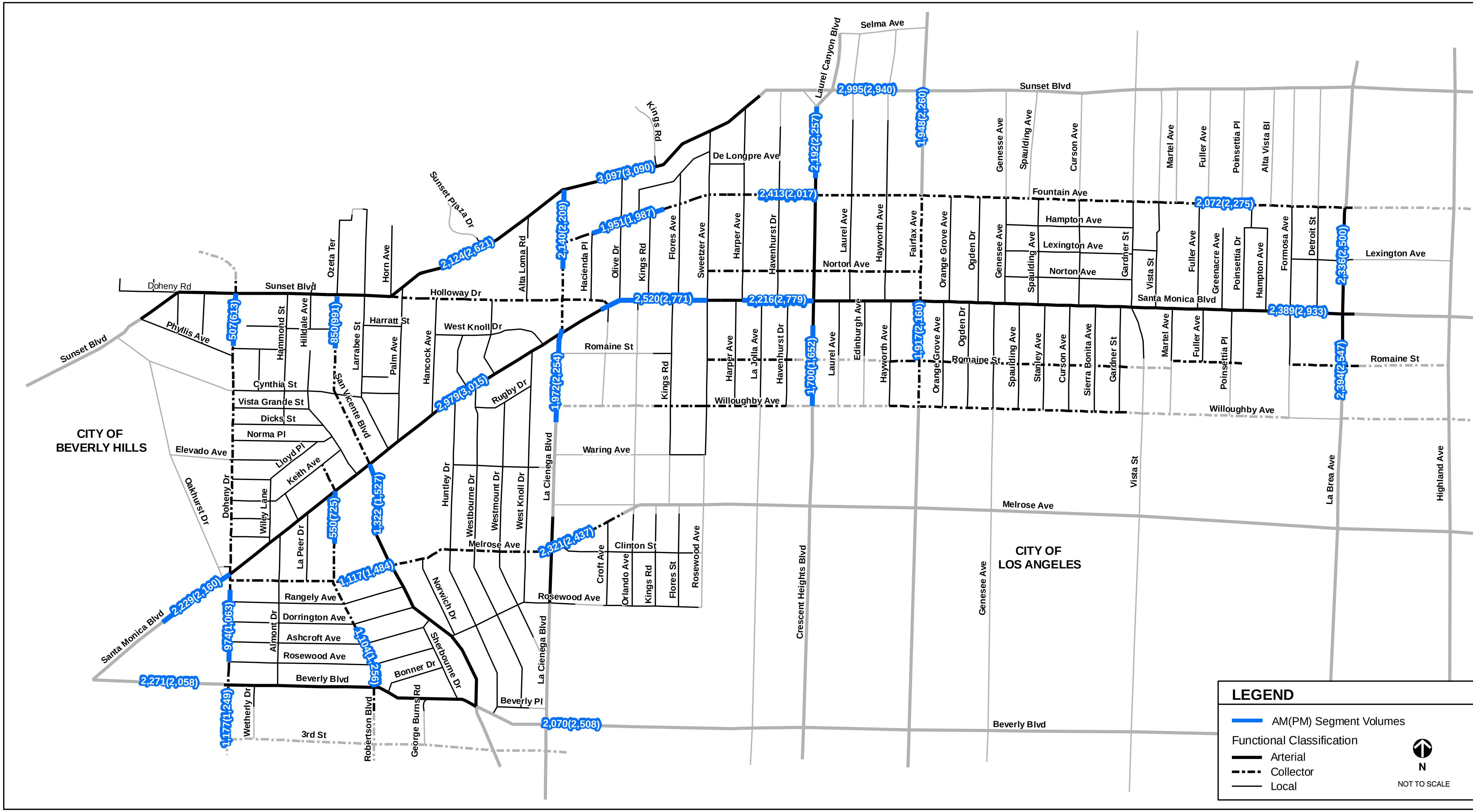
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
DAILY SEGMENT VOLUMES - EXISTING
FIGURE 12



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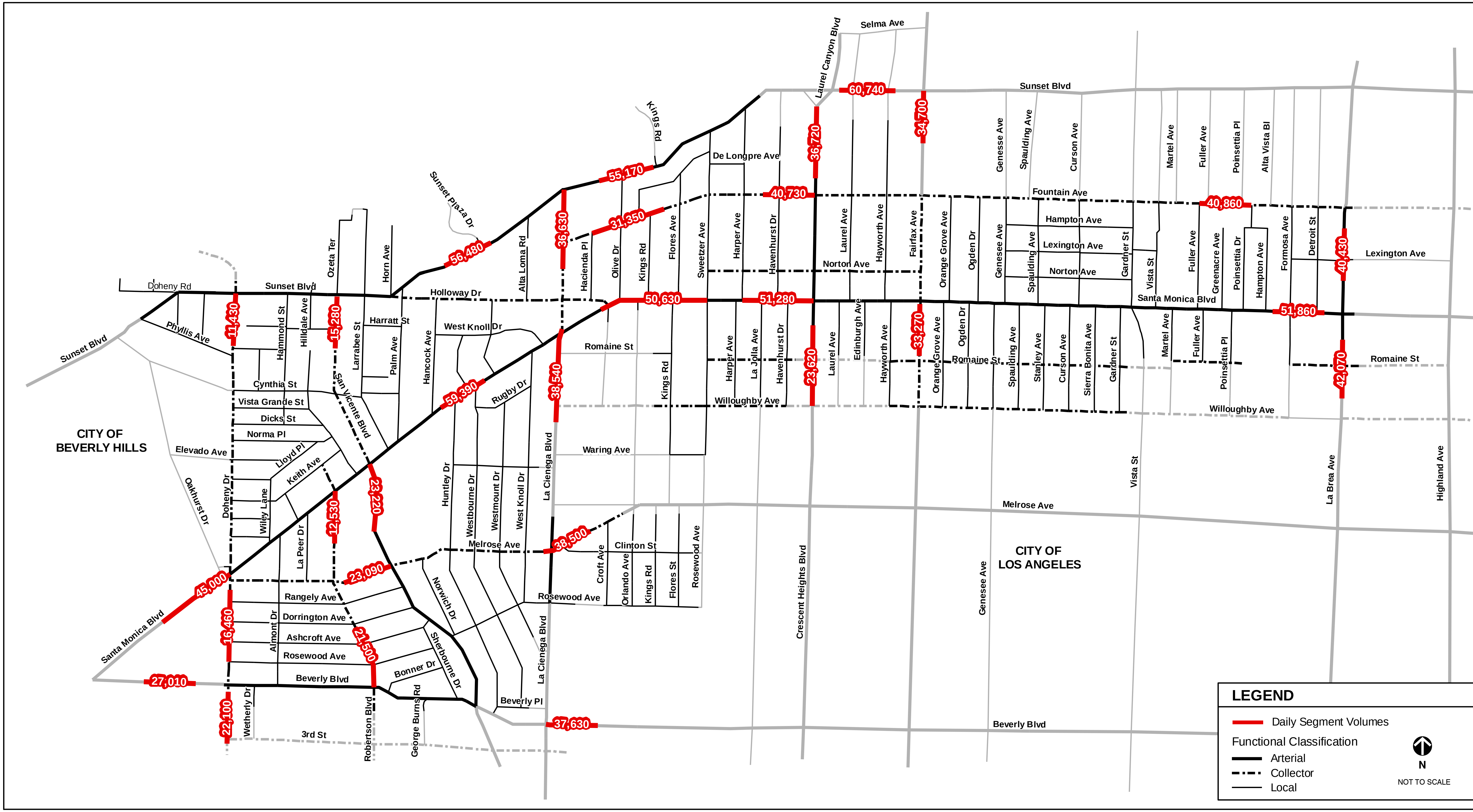
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PEAK HOUR SEGMENT VOLUMES - EXISTING

FIGURE 13



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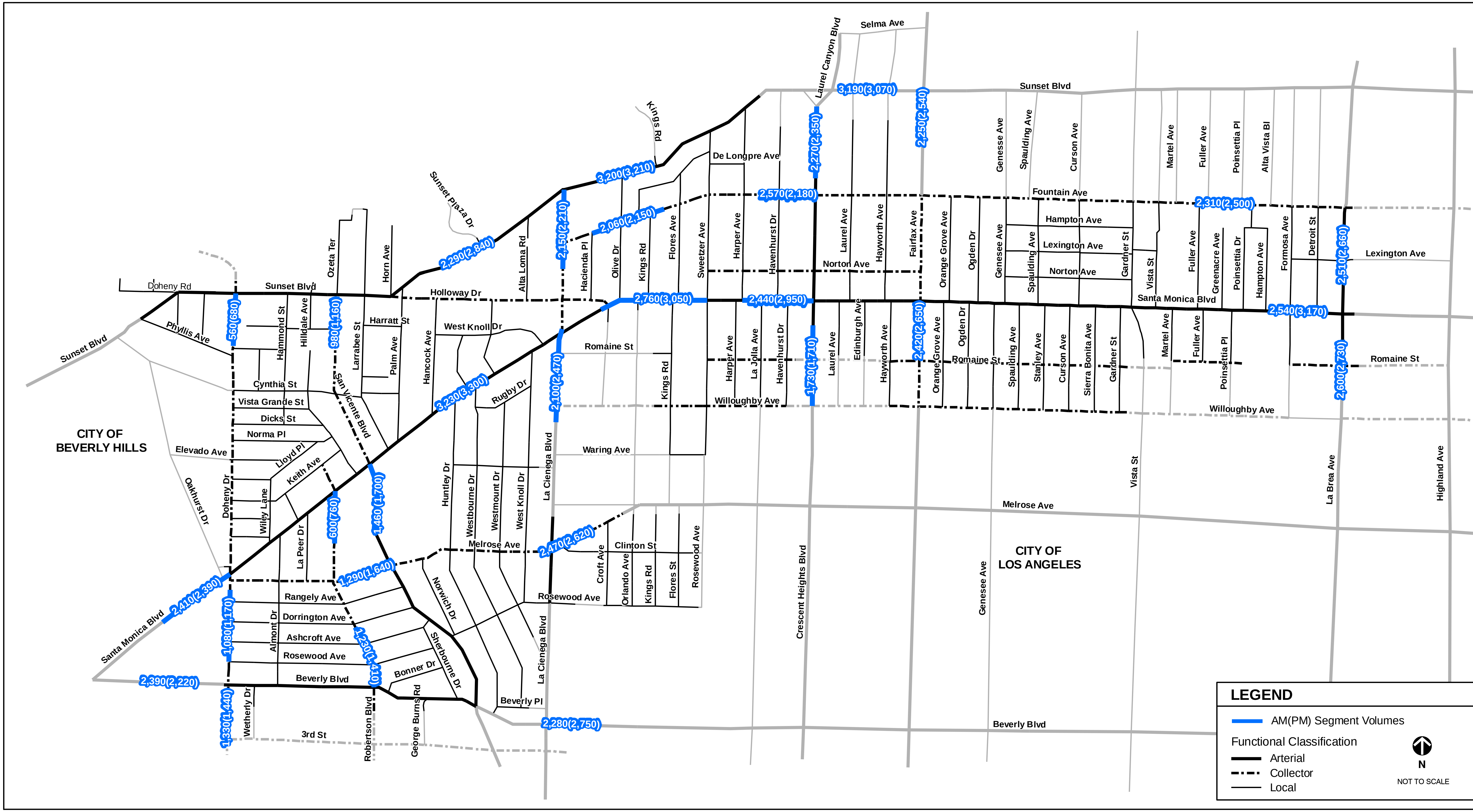
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
DAILY SEGMENT VOLUMES - PROPOSED GENERAL PLAN

FIGURE 14



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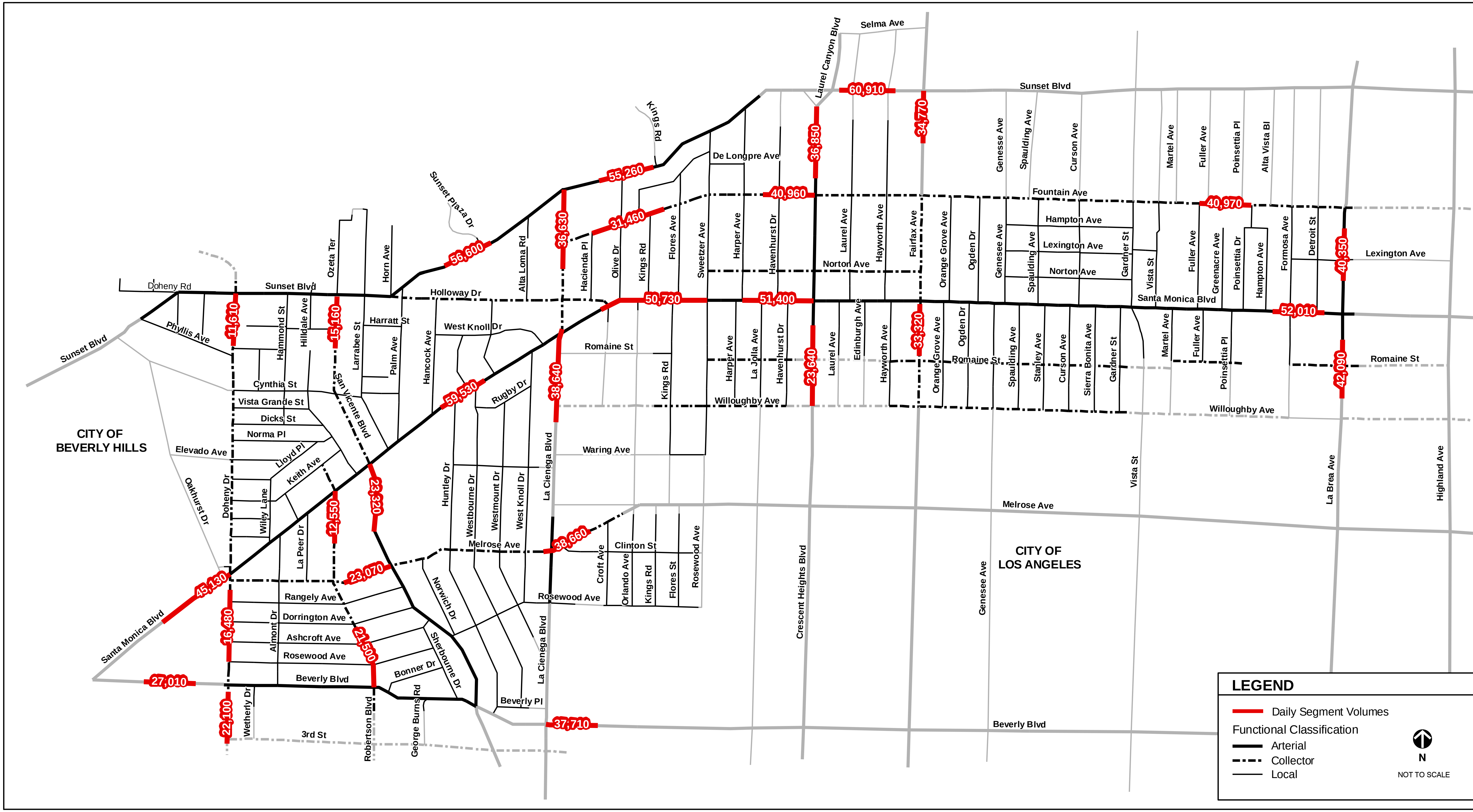
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PEAK HOUR SEGMENT VOLUMES - PROPOSED GENERAL PLAN
FIGURE 15



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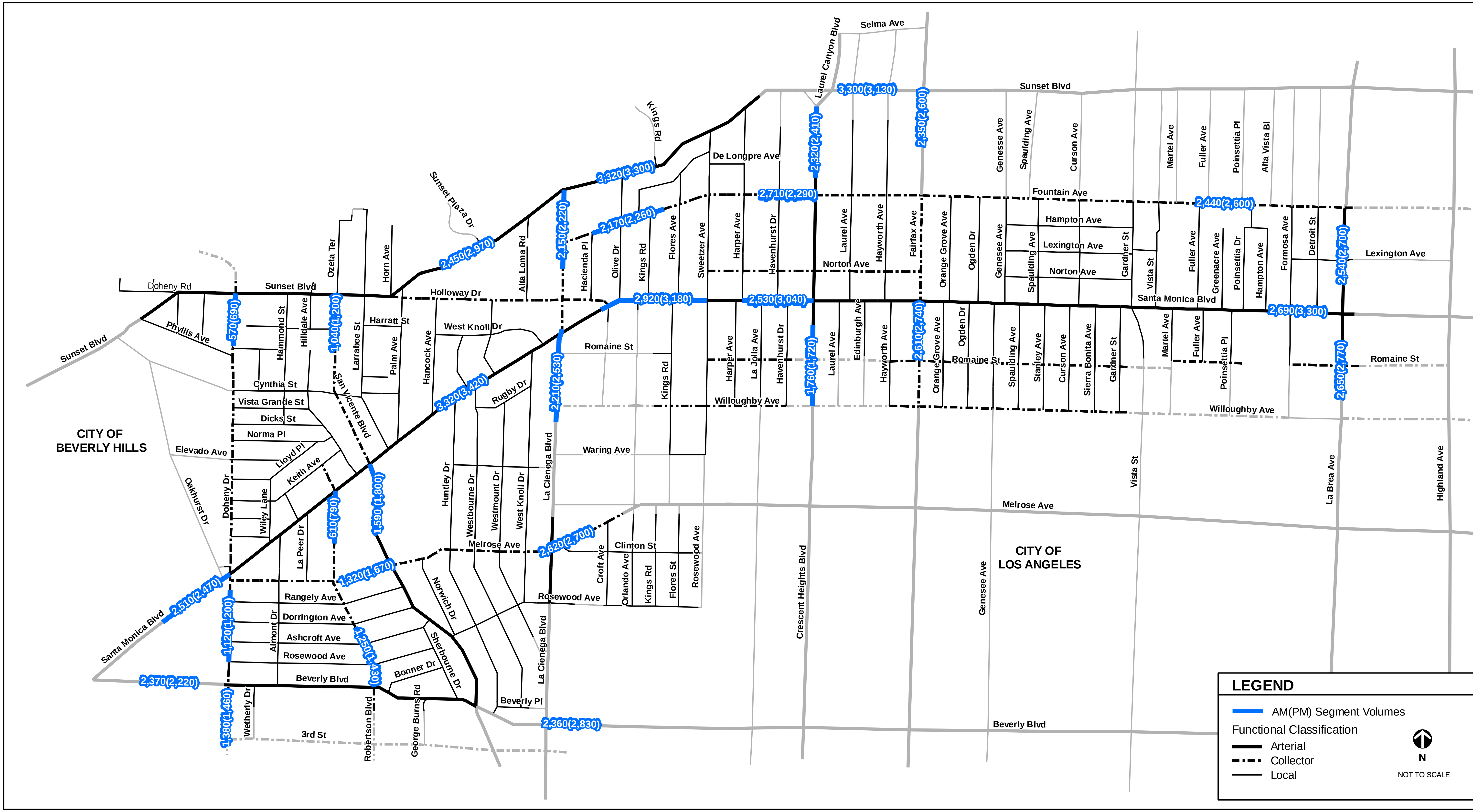
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
DAILY SEGMENT VOLUMES - NO PROJECT
FIGURE 16



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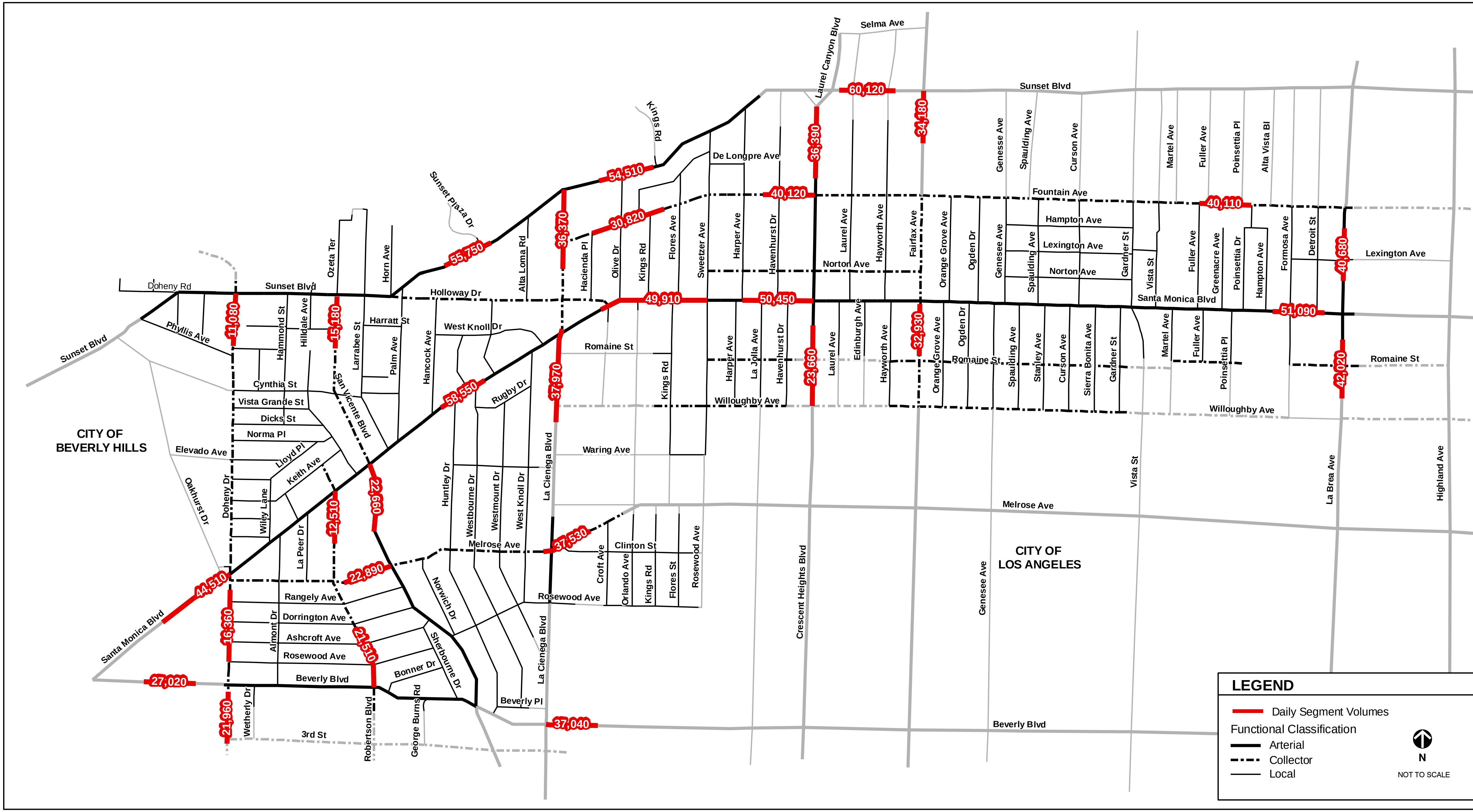
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PEAK HOUR SEGMENT VOLUMES - NO PROJECT

FIGURE 17



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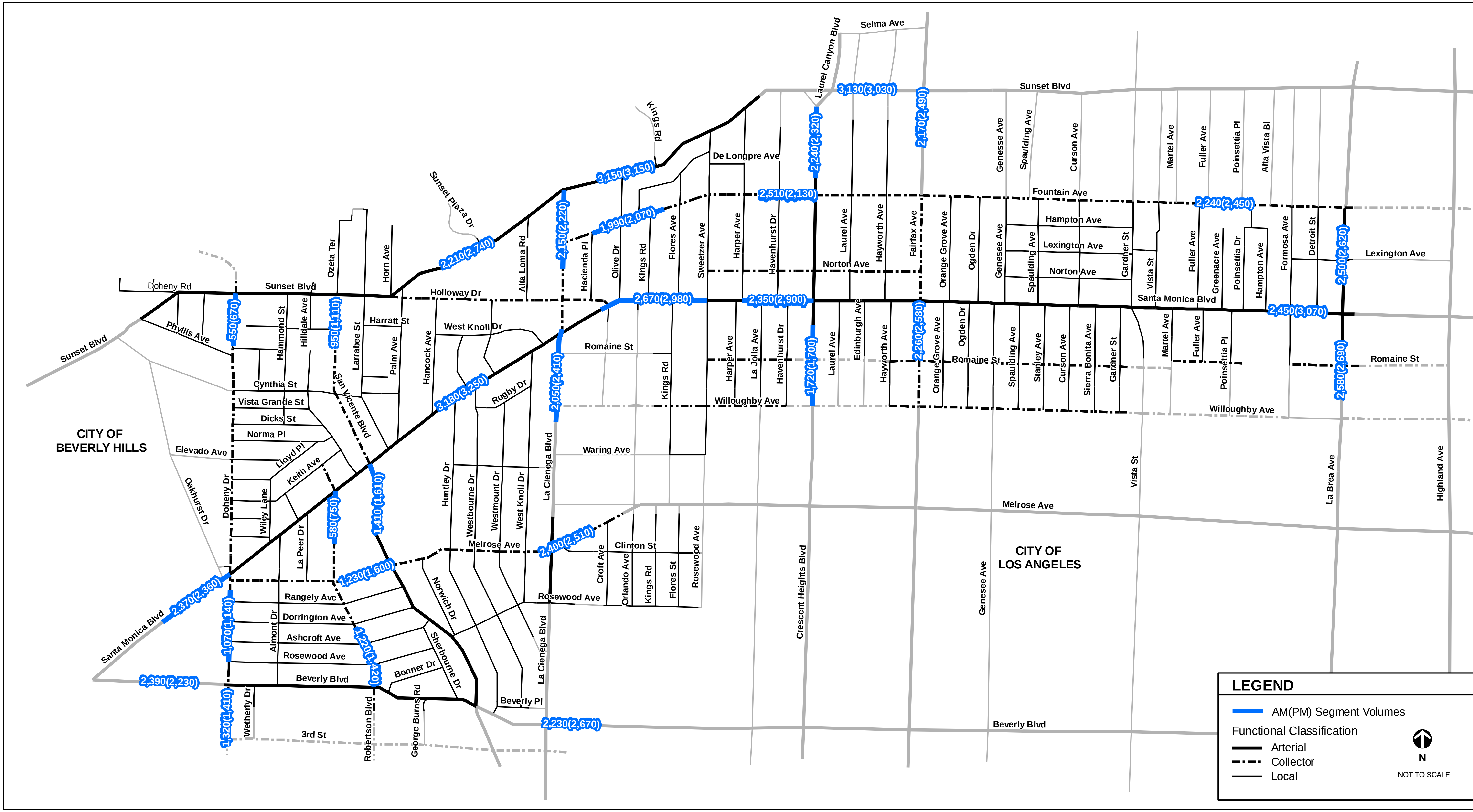
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
DAILY SEGMENT VOLUMES - TOD FOCUS ALTERNATIVE
FIGURE 18



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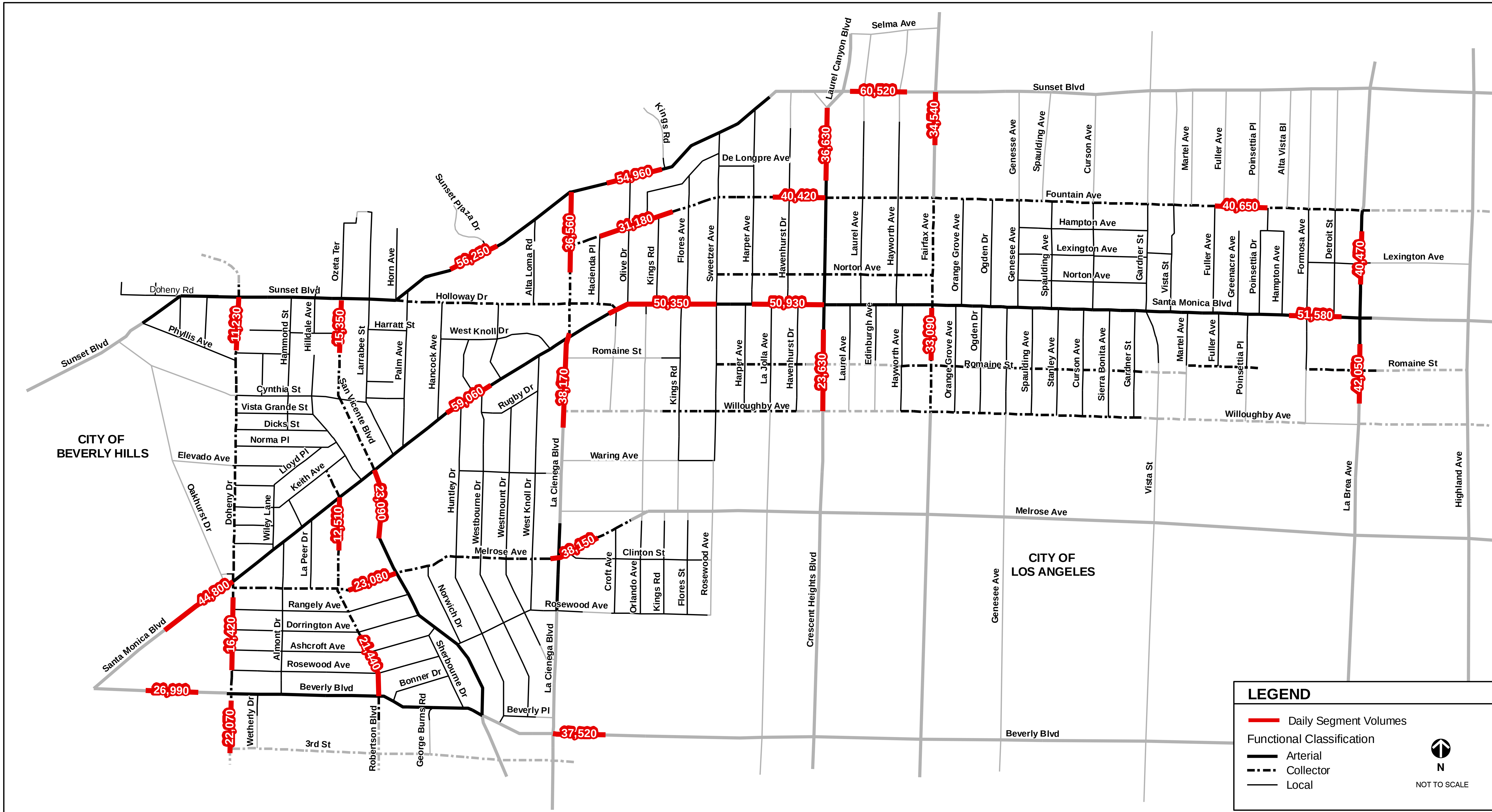
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PEAK HOUR SEGMENT VOLUMES - TOD FOCUS ALTERNATIVE

FIGURE 19



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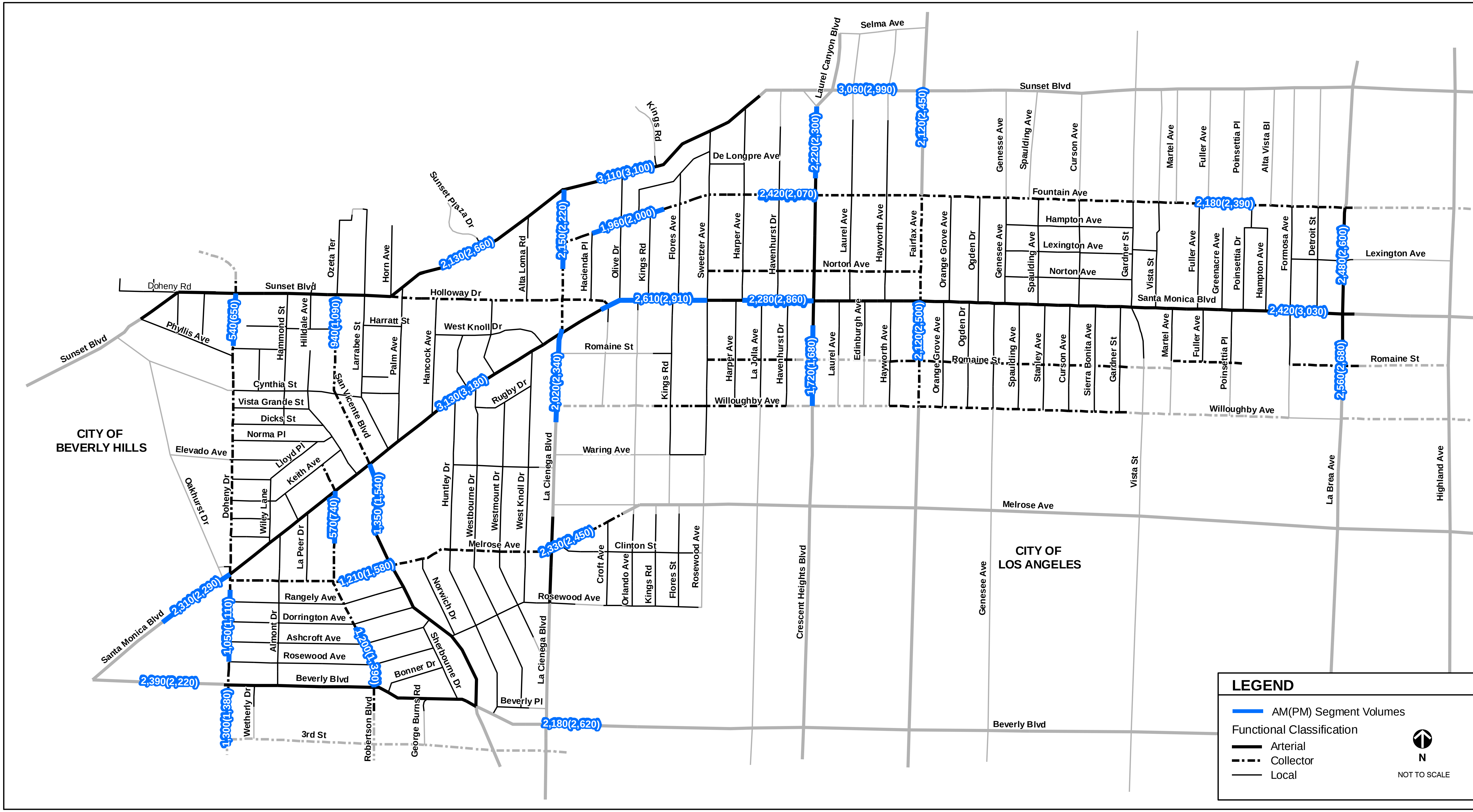
DAILY SEGMENT VOLUMES - EXTENSIVE TDM ALTERNATIVE

FIGURE 20



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CITY OF WEST HOLLYWOOD GENERAL PLAN
PEAK HOUR SEGMENT VOLUMES - EXTENSIVE TDM ALTERNATIVE
FIGURE 21

FIGURE 22
TOTAL DAILY VEHICLE MILES TRAVELED (VMT)

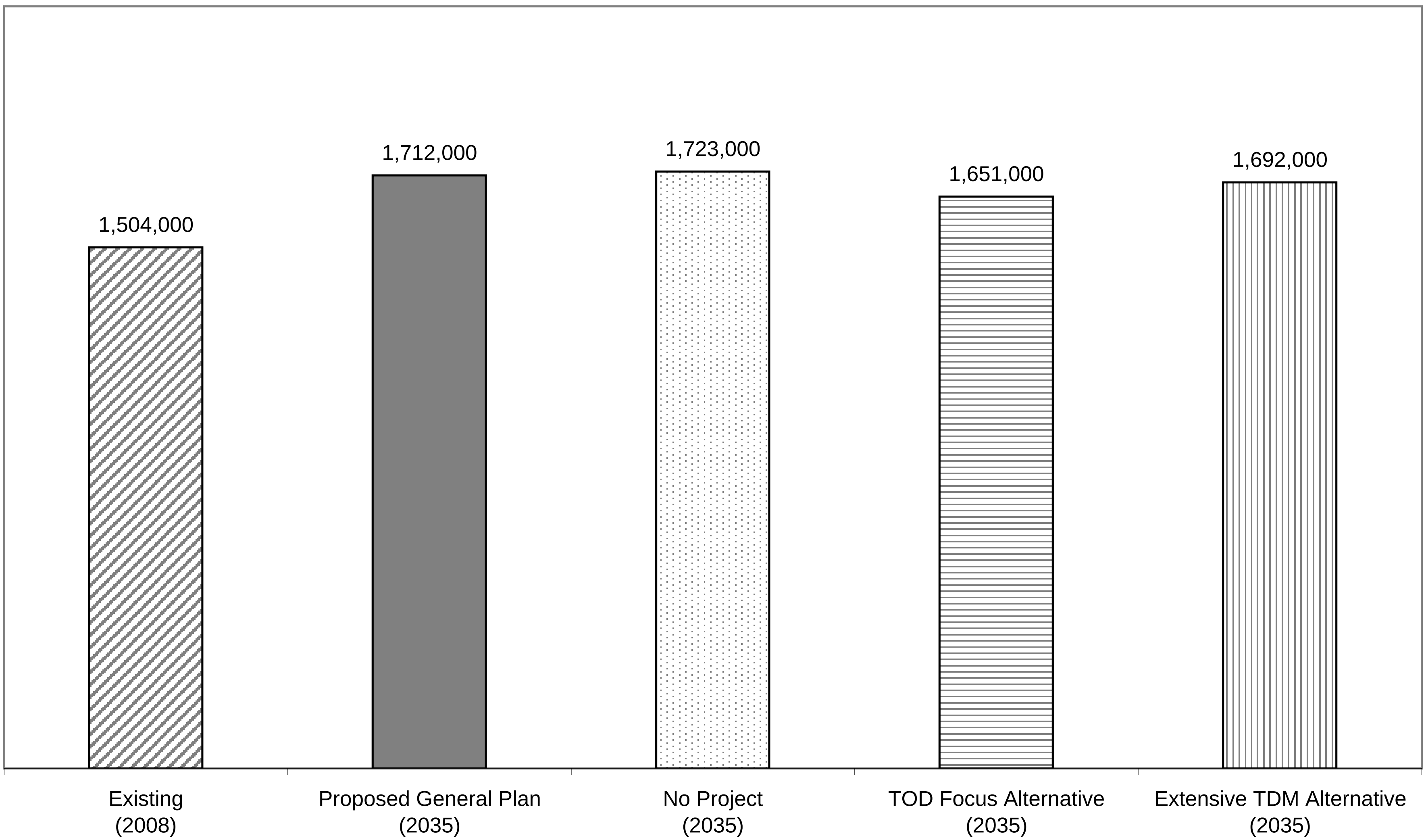
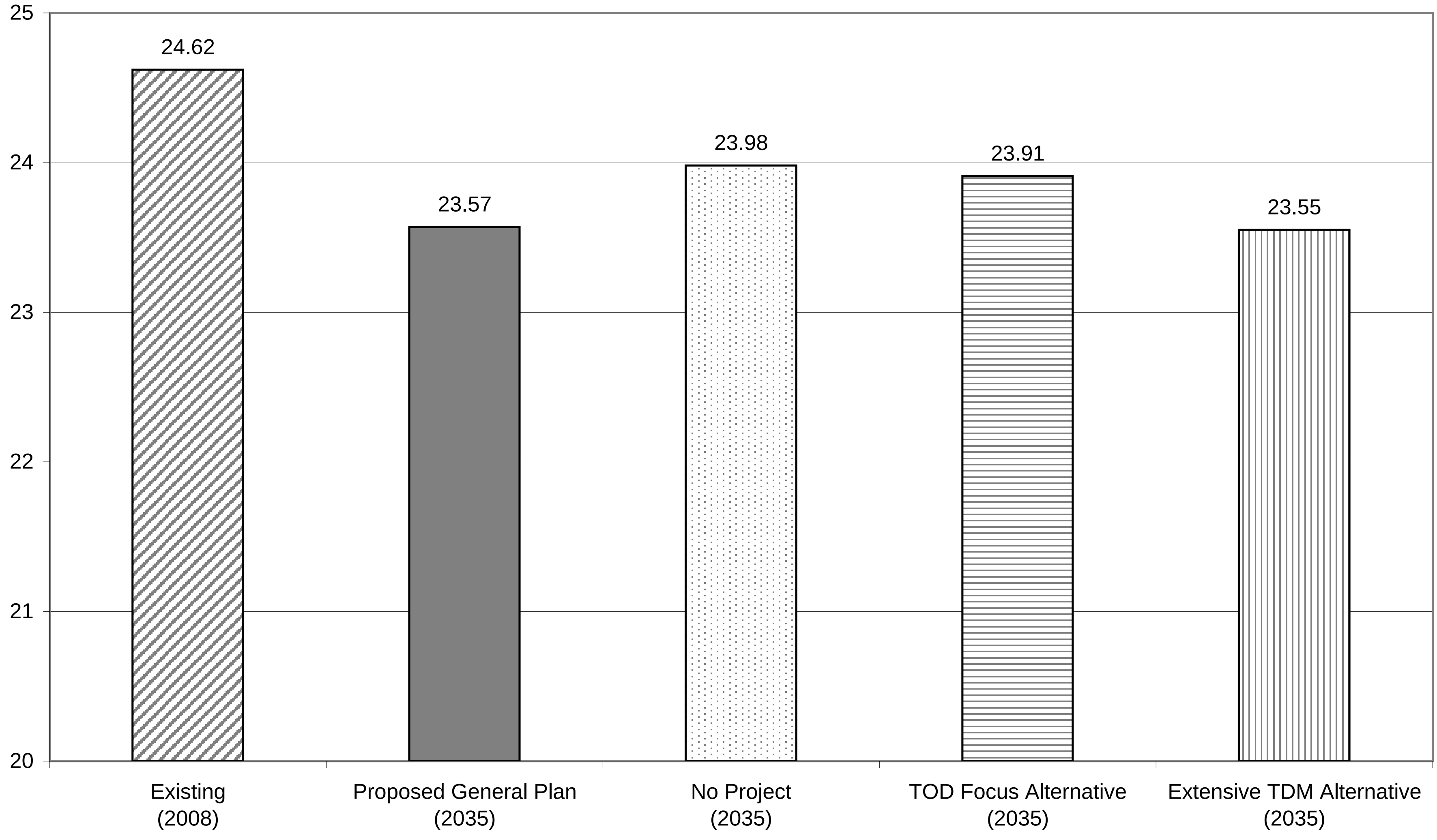
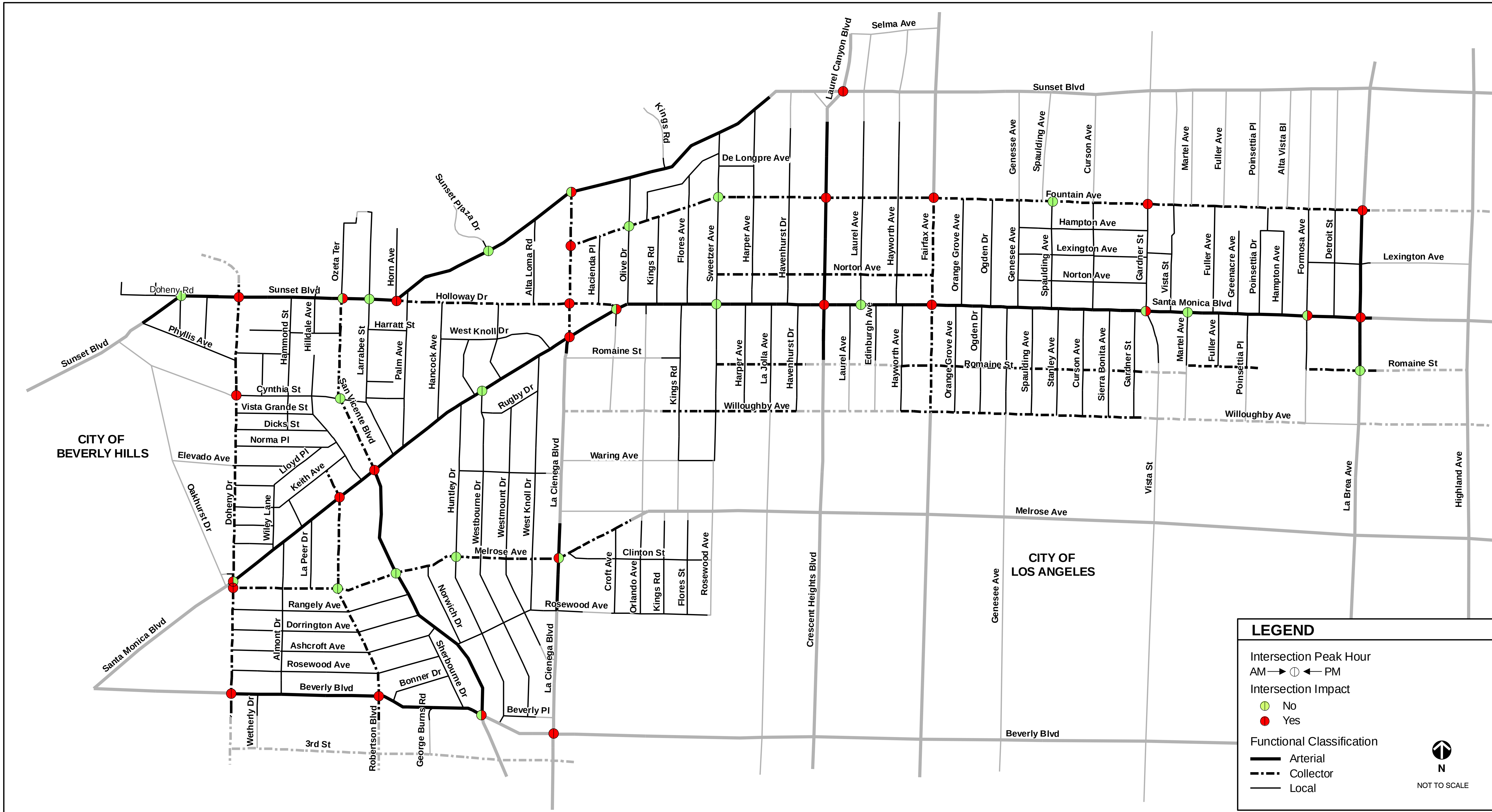


FIGURE 23
VMT PER CAPITA (WHERE CAPITA = POPULATION + EMPLOYMENT)





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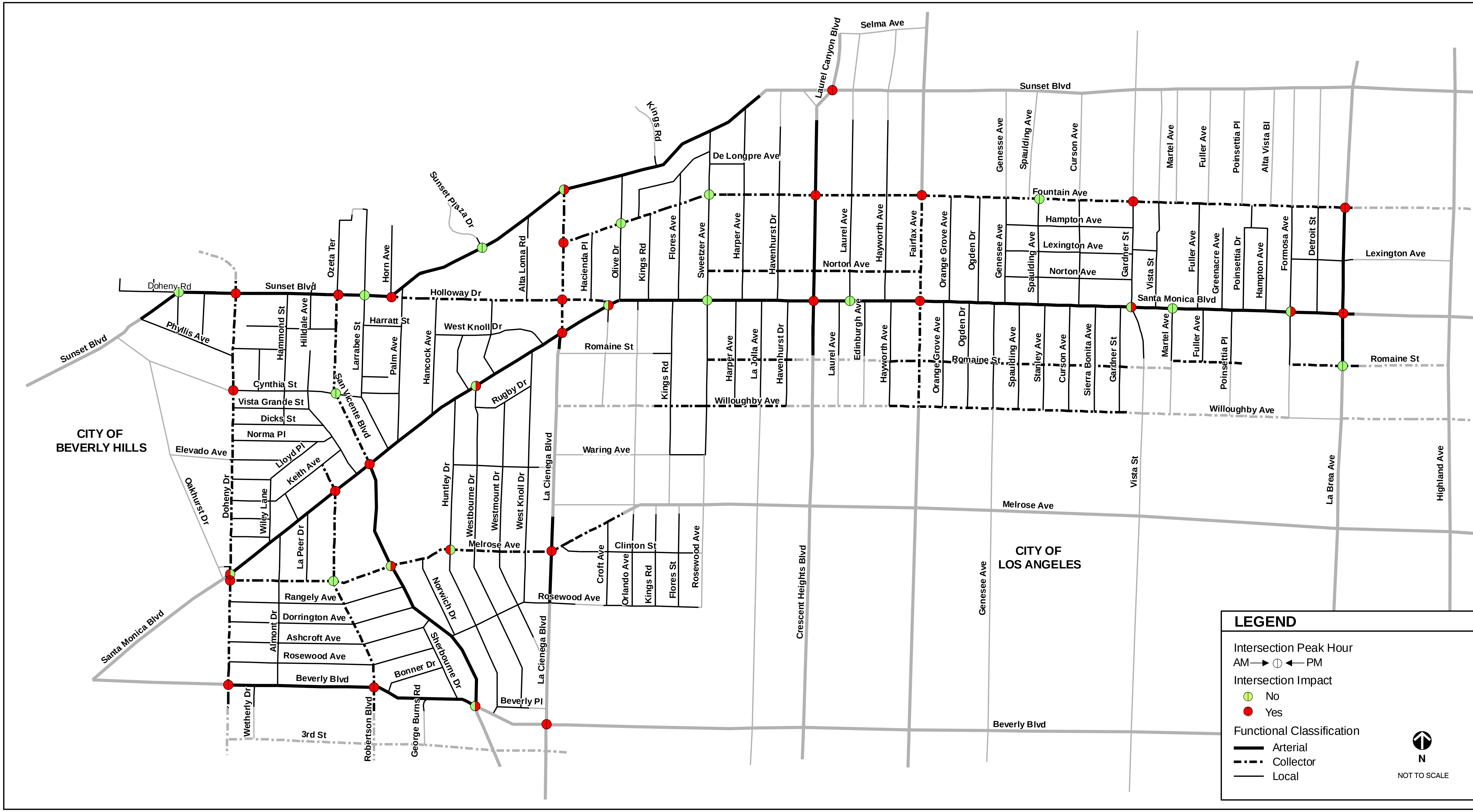
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
PROPOSED GENERAL PLAN INTERSECTION IMPACTS
FIGURE 24



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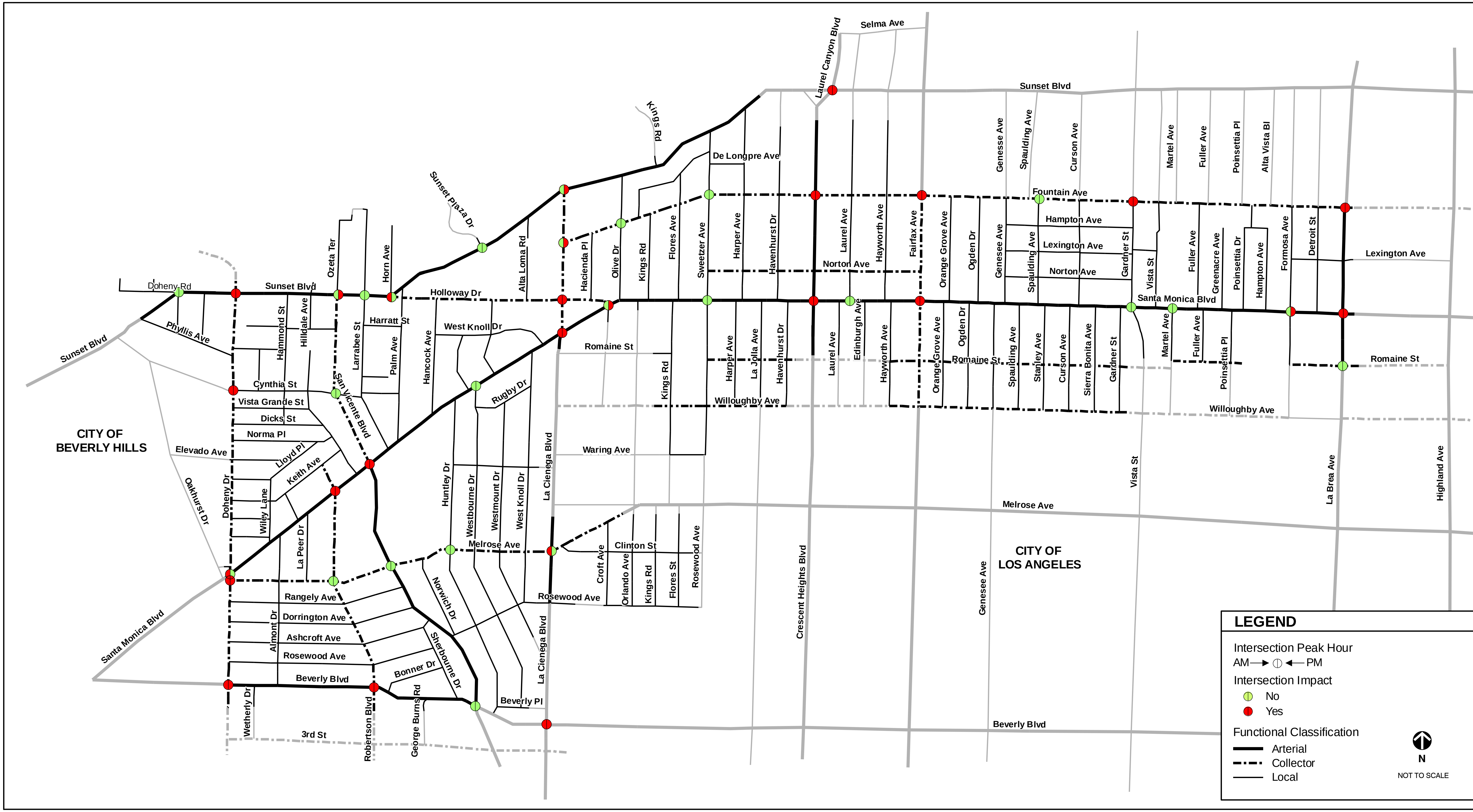
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
NO PROJECT INTERSECTION IMPACTS

FIGURE 25



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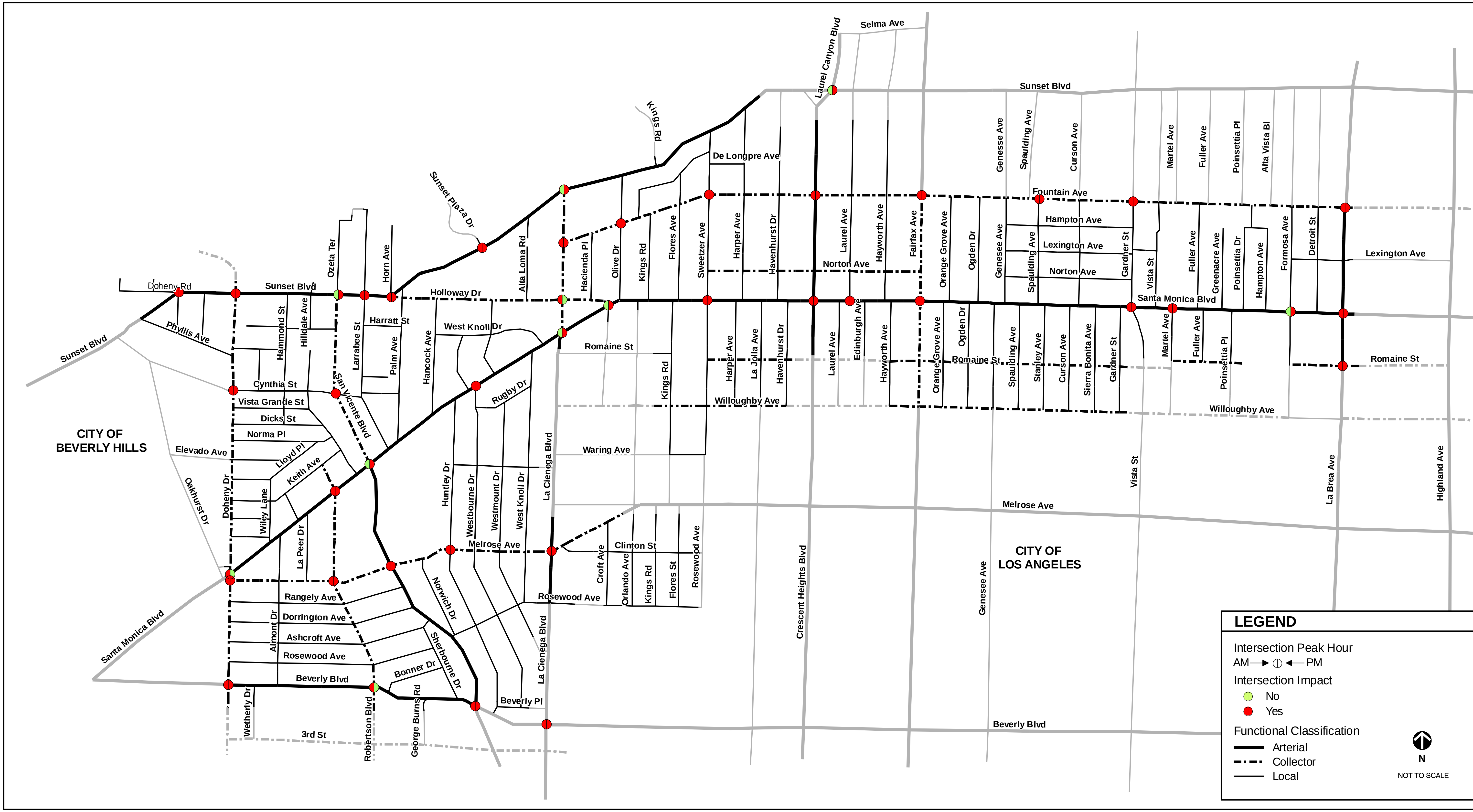
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
TOD FOCUS ALTERNATIVE INTERSECTION IMPACTS

FIGURE 26



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CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE
EXTENSIVE TDM ALTERNATIVE INTERSECTION IMPACTS

FIGURE 27

FIGURE 28
NUMBER OF SIGNIFICANT INTERSECTION IMPACTS

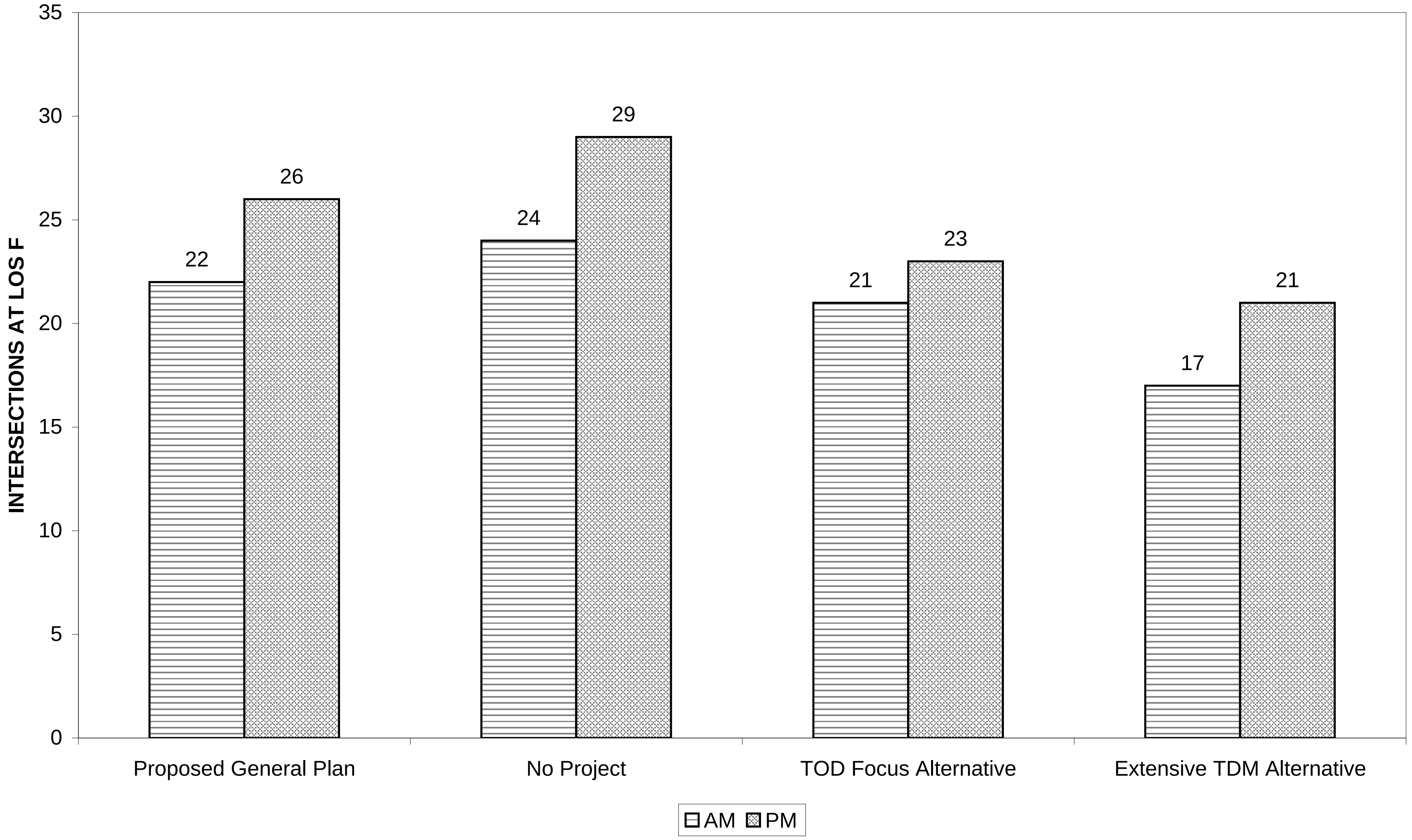

TABLE 1
EXISTING LEVELS OF SERVICE
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY INTERSECTIONS

Int	North/South Street	East/West Street	AM Delay [c]	AM LOS*	PM Delay [c]	PM LOS*
1	Doheny Rd/Cory Av	Sunset Bl	23	C	28	C
2	Doheny Dr	Sunset Bl	52	D	60	E
4	San Vicente Bl	Sunset Bl	33	C	36	D
5	Larrabee St	Sunset Bl	7	A	10	B
6	Sunset Plaza Dr	Sunset Bl	9	A	14	B
7	La Cienega Bl / Miller Dr	Sunset Bl	19	B	59	E
9	Crescent Heights Bl	Sunset Bl	58	E	60	E
11	La Cienega Bl	Fountain Av	54	D	192	F
12	Olive Dr	Fountain Av	6	A	4	A
14	Sweetzer Av	Fountain Av	9	A	12	B
15	Crescent Heights Bl	Fountain Av	98	F	49	D
17	Fairfax Av	Fountain Av	66	E	58	E
18	Spaulding Av	Fountain Av	5	A	5	A
20	Gardner St	Fountain Av	56	E	190	F
24	La Brea Av	Fountain Av	64	E	50	D
26	Holloway Dr/Horn Av	Sunset Bl	40	D	54	D
27	La Cienega Bl	Holloway Dr	30	C	58	E
28	Doheny Dr	Cynthia St [a]	21	C	52	F
29	San Vicente Bl	Cynthia St	15	B	20	C
30	Doheny Dr	Santa Monica Bl (WB) [b]	98	F	39	D
	Doheny Dr	Melrose Av/SM Bl (EB) [b]	65	E	191	F
32	Robertson Bl	Santa Monica Bl	35	C	33	C
33	San Vicente Bl	Santa Monica Bl	42	D	61	E
34	Westbourne Dr	Santa Monica Bl	16	B	18	B
35	La Cienega Bl	Santa Monica Bl	83	F	77	E
36	Croft Av/Holloway Dr	Santa Monica Bl	15	B	32	C
39	Sweetzer Av	Santa Monica Bl	14	B	18	B
41	Crescent Heights Bl	Santa Monica Bl	54	D	111	F
42	Laurel Av	Santa Monica Bl	10	A	11	B
43	Fairfax Av	Santa Monica Bl	60	E	82	F
46	Gardner St	Santa Monica Bl	19	B	25	C
47	Martel Av	Santa Monica Bl	8	A	15	B
49	Formosa Av	Santa Monica Bl	10	A	36	D
50	La Brea Av	Santa Monica Bl	59	E	71	E
54	Robertson Bl	Melrose Av	15	B	13	B
55	San Vicente Bl	Melrose Av	34	C	23	C
56	Huntley Dr	Melrose Av	26	C	7	A
57	La Cienega Bl	Melrose Av	60	E	40	D
61	Doheny Dr	Beverly Bl	45	D	48	D
63	Robertson Bl	Beverly Bl	61	E	34	C
65	San Vicente Bl	Beverly Bl	40	D	39	D
66	La Cienega	Beverly Bl	64	E	84	F
72	La Brea Av	Romaine St	11	B	51	D

notes:

[a] Intersection is controlled by stop signs on the minor approach only and delay is reported for the worst case movement

[b] Intersection is controlled by two signals on one controller. Delay and LOS are reported for each signal

[c] Beyond a certain point intersection delay can no longer be accurately calculated. The intersection is said to be overflowing.
For signalized intersections, average delay beyond 200 seconds is reported as OVFL
For unsignalized intersections, worst case approach delay beyond 50 seconds is reported as OVFL

* At some intersections, field-collected traffic count data may represent only the number of vehicles that proceed through the intersection, rather than including the actual demand, which can be in queue upstream. Any traffic counts conducted under these conditions may under-represent the true demand for the intersection, and the actual LOS may be worse than represented above.

TABLE 2 LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS		
Level of Service	**Average Approach Delay in Seconds**	**Definition**
A	$\leq$ 10	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	>10-20	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>20-35	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>35-55	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>55-80	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>80	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Highway Capacity Manual. Transportation Research Board, 2000*
Source for descriptions:
Transportation Research Circular No. 212, Interim Materials on Highway Capacity
Transportation Research Board, 1980.

TABLE 3 LEVEL OF SERVICE DEFINITIONS FOR STOP-CONTROLLED INTERSECTIONS	
Level of Service	**Average Total Delay (seconds per vehicle)**
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: *Highway Capacity Manual*
Transportation Research Board, 2000

TABLE 4
FUTURE PROPOSED GENERAL PLAN LEVELS OF SERVICE
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY INTERSECTIONS

			Existing (2008) AM		Existing (2008) PM		Future (2035) Proposed Project AM		Future (2035) Proposed Project PM		AM Impact Analysis		PM Impact Analysis	
Int	North/South Street	East/West Street	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Change in Delay	Impact?	Change in Delay	Impact?
1	Doheny Rd/Cory Av	Sunset Bl	23	C	28	C	26	C	34	C	4	No	7	No
2	Doheny Dr	Sunset Bl	52	D	60	E	73	E	80	E	22	**Yes**	20	**Yes**
4	San Vicente Bl	Sunset Bl	33	C	36	D	42	D	61	E	9	No	25	**Yes**
5	Larrabee St	Sunset Bl	7	A	10	B	9	A	11	B	2	No	1	No
6	Sunset Plaza Dr	Sunset Bl	9	A	14	B	11	B	22	C	2	No	8	No
7	La Cienega Bl / Miller Dr	Sunset Bl	19	B	59	E	25	C	90	F	7	No	31	**Yes**
9	Crescent Heights Bl	Sunset Bl	58	E	60	E	69	E	74	E	10	**Yes**	14	**Yes**
11	La Cienega Bl	Fountain Av	54	D	192	F	63	E	240	F	9	**Yes**	48	**Yes**
12	Olive Dr	Fountain Av	6	A	4	A	9	A	6	A	2	No	2	No
14	Sweetzer Av	Fountain Av	9	A	12	B	12	B	14	B	2	No	1	No
15	Crescent Heights Bl	Fountain Av	98	F	49	D	113	F	71	E	15	**Yes**	22	**Yes**
17	Fairfax Av	Fountain Av	66	E	58	E	96	F	101	F	30	**Yes**	44	**Yes**
18	Spaulding Av	Fountain Av	5	A	5	A	6	A	6	A	1	No	1	No
20	Gardner St	Fountain Av	56	E	190	F	87	F	289	F	31	**Yes**	100	**Yes**
24	La Brea Av	Fountain Av	64	E	50	D	80	E	64	E	16	**Yes**	14	**Yes**
26	Holloway Dr/Horn Av	Sunset Bl	40	D	54	D	57	E	69	E	17	**Yes**	15	**Yes**
27	La Cienega Bl	Holloway Dr	30	C	58	E	42	D	70	E	13	**Yes**	12	**Yes**
28	Doheny Dr	Cynthia St [a]	21	C	52	F	38	E	110	F	17	**Yes**	59	**Yes**
29	San Vicente Bl	Cynthia St	15	B	20	C	17	B	28	C	1	No	8	No
30	Doheny Dr	Santa Monica Bl (WB) [b]	98	F	39	D	114	F	41	D	16	**Yes**	2	No
	Doheny Dr	Melrose Av/SM Bl (EB) [b]	65	E	191	F	247	F	208	F	182	**Yes**	17	**Yes**
32	Robertson Bl	Santa Monica Bl	35	C	33	C	57	E	56	E	22	**Yes**	24	**Yes**
33	San Vicente Bl	Santa Monica Bl	42	D	61	E	63	E	102	F	20	**Yes**	40	**Yes**
34	Westbourne Dr	Santa Monica Bl	16	B	18	B	20	B	31	C	4	No	13	No
35	La Cienega Bl	Santa Monica Bl	83	F	77	E	103	F	100	F	20	**Yes**	23	**Yes**
36	Croft Av/Holloway Dr	Santa Monica Bl	15	B	32	C	18	B	51	D	3	No	19	**Yes**
39	Sweetzer Av	Santa Monica Bl	14	B	18	B	17	B	21	C	2	No	3	No
41	Crescent Heights Bl	Santa Monica Bl	54	D	111	F	74	E	135	F	20	**Yes**	24	**Yes**
42	Laurel Av	Santa Monica Bl	10	A	11	B	11	B	11	B	1	No	1	No
43	Fairfax Av	Santa Monica Bl	60	E	82	F	79	E	155	F	20	**Yes**	73	**Yes**
46	Gardner St	Santa Monica Bl	19	B	25	C	21	C	37	D	2	No	12	**Yes**
47	Martel Av	Santa Monica Bl	8	A	15	B	9	A	17	B	1	No	2	No
49	Formosa Av	Santa Monica Bl	10	A	36	D	14	B	59	E	4	No	23	**Yes**
50	La Brea Av	Santa Monica Bl	59	E	71	E	80	E	101	F	21	**Yes**	30	**Yes**
54	Robertson Bl	Melrose Av	15	B	13	B	17	B	15	B	2	No	2	No
55	San Vicente Bl	Melrose Av	34	C	23	C	42	D	32	C	8	No	9	No
56	Huntley Dr	Melrose Av	26	C	7	A	35	C	8	A	9	No	1	No
57	La Cienega Bl	Melrose Av	60	E	40	D	69	E	50	D	9	**Yes**	10	No
61	Doheny Dr	Beverly Bl	45	D	48	D	71	E	72	E	26	**Yes**	24	**Yes**
63	Robertson Bl	Beverly Bl	61	E	34	C	75	E	50	D	14	**Yes**	16	**Yes**
65	San Vicente Bl	Beverly Bl	40	D	39	D	44	D	59	E	4	No	20	**Yes**
66	La Cienega	Beverly Bl	64	E	84	F	85	F	107	F	21	**Yes**	23	**Yes**
72	La Brea Av	Romaine St	11	B	51	D	14	B	46	D	3	No	-5	No

notes:

[a] Intersection is control by stop signs and delay is reported for the worst case movement

[b] Intersection is controlled by two signals on one controller. Delay and LOS are reported for each signal

[c] Beyond a certain point intersection delay can no longer be accurately calculated. The intersection is said to be overflowing.
For signalized intersections, average delay beyond 200 seconds is reported as OVFL
For unsignalized intersections, worst case approach delay beyond 50 seconds is reported as OVFL

* At some intersections, field-collected traffic count data may represent only the number of vehicles that proceed through the intersection, rather than including the actual demand, which can be in queue upstream. Any traffic counts conducted under these conditions may under-represent the true demand for the intersection, and the actual LOS may be worse than represented above.

TABLE 5
FUTURE NO PROJECT LEVELS OF SERVICE
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY INTERSECTIONS

			Existing (2008) AM		**Existing (2008) PM**		**Future (2035) No Project AM**		**Future (2035) No Project PM**		**AM Impact Analysis**		**PM Impact Analysis**	
Int	North/South Street	East/West Street	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Change in Delay	Impact?	Change in Delay	Impact?
1	Doheny Rd/Cory Av	Sunset Bl	23	C	28	C	29	C	37	D	7	No	9	No
2	Doheny Dr	Sunset Bl	52	D	60	E	82	F	84	F	30	**Yes**	25	**Yes**
4	San Vicente Bl	Sunset Bl	33	C	36	D	49	D	76	E	15	**Yes**	39	**Yes**
5	Larrabee St	Sunset Bl	7	A	10	B	10	A	12	B	2	No	2	No
6	Sunset Plaza Dr	Sunset Bl	9	A	14	B	11	B	26	C	2	No	12	No
7	La Cienega Bl / Miller Dr	Sunset Bl	19	B	59	E	28	C	110	F	10	No	51	**Yes**
9	Crescent Heights Bl	Sunset Bl	58	E	60	E	81	F	80	F	22	**Yes**	20	**Yes**
11	La Cienega Bl	Fountain Av	54	D	192	F	73	E	276	F	19	**Yes**	84	**Yes**
12	Olive Dr	Fountain Av	6	A	4	A	10	A	6	A	4	No	2	No
14	Sweetzer Av	Fountain Av	9	A	12	B	12	B	14	B	3	No	2	No
15	Crescent Heights Bl	Fountain Av	98	F	49	D	123	F	81	F	25	**Yes**	32	**Yes**
17	Fairfax Av	Fountain Av	66	E	58	E	112	F	124	F	46	**Yes**	67	**Yes**
18	Spaulding Av	Fountain Av	5	A	5	A	6	A	7	A	1	No	1	No
20	Gardner St	Fountain Av	56	E	190	F	88	F	300	F	33	**Yes**	111	**Yes**
24	La Brea Av	Fountain Av	64	E	50	D	90	F	68	E	26	**Yes**	18	**Yes**
26	Holloway Dr/Horn Av	Sunset Bl	40	D	54	D	61	E	76	E	21	**Yes**	22	**Yes**
27	La Cienega Bl	Holloway Dr	30	C	58	E	47	D	72	E	18	**Yes**	14	**Yes**
28	Doheny Dr	Cynthia St [a]	21	C	52	F	60	F	176	F	39	**Yes**	124	**Yes**
29	San Vicente Bl	Cynthia St	15	B	20	C	17	B	28	C	2	No	8	No
30	Doheny Dr	Santa Monica Bl (WB) [b]	98	F	39	D	119	F	42	D	22	**Yes**	3	No
	Doheny Dr	Melrose Av/SM Bl (EB) [b]	65	E	191	F	228	F	211	F	163	**Yes**	21	**Yes**
32	Robertson Bl	Santa Monica Bl	35	C	33	C	63	E	71	E	28	**Yes**	38	**Yes**
33	San Vicente Bl	Santa Monica Bl	42	D	61	E	79	E	119	F	36	**Yes**	58	**Yes**
34	Westbourne Dr	Santa Monica Bl	16	B	18	B	22	C	40	D	6	No	22	**Yes**
35	La Cienega Bl	Santa Monica Bl	83	F	77	E	123	F	112	F	40	**Yes**	35	**Yes**
36	Croft Av/Holloway Dr	Santa Monica Bl	15	B	32	C	19	B	53	D	4	No	21	**Yes**
39	Sweetzer Av	Santa Monica Bl	14	B	18	B	19	B	23	C	4	No	5	No
41	Crescent Heights Bl	Santa Monica Bl	54	D	111	F	82	F	143	F	28	**Yes**	32	**Yes**
42	Laurel Av	Santa Monica Bl	10	A	11	B	11	B	12	B	2	No	1	No
43	Fairfax Av	Santa Monica Bl	60	E	82	F	104	F	166	F	45	**Yes**	84	**Yes**
46	Gardner St	Santa Monica Bl	19	B	25	C	21	C	43	D	3	No	17	**Yes**
47	Martel Av	Santa Monica Bl	8	A	15	B	9	A	17	B	1	No	2	No
49	Formosa Av	Santa Monica Bl	10	A	36	D	15	B	68	E	5	No	32	**Yes**
50	La Brea Av	Santa Monica Bl	59	E	71	E	89	F	115	F	30	**Yes**	44	**Yes**
54	Robertson Bl	Melrose Av	15	B	13	B	18	B	17	B	3	No	4	No
55	San Vicente Bl	Melrose Av	34	C	23	C	43	D	35	D	9	No	12	**Yes**
56	Huntley Dr	Melrose Av	26	C	7	A	53	D	8	A	27	**Yes**	2	No
57	La Cienega Bl	Melrose Av	60	E	40	D	77	E	61	E	17	**Yes**	21	**Yes**
61	Doheny Dr	Beverly Bl	45	D	48	D	81	F	83	F	36	**Yes**	35	**Yes**
63	Robertson Bl	Beverly Bl	61	E	34	C	78	E	52	D	17	**Yes**	18	**Yes**
65	San Vicente Bl	Beverly Bl	40	D	39	D	46	D	72	E	6	No	33	**Yes**
66	La Cienega	Beverly Bl	64	E	84	F	94	F	112	F	30	**Yes**	29	**Yes**
72	La Brea Av	Romaine St	11	B	51	D	14	B	46	D	3	No	-5	No

notes:

[a] Intersection is control by stop signs and delay is reported for the worst case movement

[b] Intersection is controlled by two signals on one controller. Delay and LOS are reported for each signal

[c] Beyond a certain point intersection delay can no longer be accurately calculated. The intersection is said to be overflowing.
For signalized intersections, average delay beyond 200 seconds is reported as OVFL
For unsignalized intersections, worst case approach delay beyond 50 seconds is reported as OVFL

* At some intersections, field-collected traffic count data may represent only the number of vehicles that proceed through the intersection, rather than including the actual demand, which can be in queue upstream. Any traffic counts conducted under these conditions may under-represent the true demand for the intersection, and the actual LOS may be worse than represented above.

TABLE 6
FUTURE TOD FOCUS ALTERNATIVE LEVELS OF SERVICE
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY INTERSECTIONS

			Existing (2008) AM		Existing (2008) PM		Future (2035) TOD Alt AM		Future (2035) TOD Alt PM		AM Impact Analysis		PM Impact Analysis	
Int	North/South Street	East/West Street	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Change in Delay	Impact?	Change in Delay	Impact?
1	Doheny Rd/Cory Av	Sunset Bl	23	C	28	C	26	C	34	C	4	No	7	No
2	Doheny Dr	Sunset Bl	52	D	60	E	73	E	81	F	21	**Yes**	22	**Yes**
4	San Vicente Bl	Sunset Bl	33	C	36	D	42	D	56	E	8	No	19	**Yes**
5	Larrabee St	Sunset Bl	7	A	10	B	9	A	11	B	2	No	1	No
6	Sunset Plaza Dr	Sunset Bl	9	A	14	B	11	B	20	B	2	No	6	No
7	La Cienega Bl / Miller Dr	Sunset Bl	19	B	59	E	25	C	81	F	7	No	22	**Yes**
9	Crescent Heights Bl	Sunset Bl	58	E	60	E	65	E	72	E	7	**Yes**	12	**Yes**
11	La Cienega Bl	Fountain Av	54	D	192	F	57	E	213	F	2	No	21	**Yes**
12	Olive Dr	Fountain Av	6	A	4	A	8	A	6	A	1	No	2	No
14	Sweetzer Av	Fountain Av	9	A	12	B	11	B	13	B	2	No	1	No
15	Crescent Heights Bl	Fountain Av	98	F	49	D	107	F	67	E	9	**Yes**	18	**Yes**
17	Fairfax Av	Fountain Av	66	E	58	E	86	F	93	F	20	**Yes**	35	**Yes**
18	Spaulding Av	Fountain Av	5	A	5	A	6	A	6	A	1	No	1	No
20	Gardner St	Fountain Av	56	E	190	F	84	F	258	F	28	**Yes**	69	**Yes**
24	La Brea Av	Fountain Av	64	E	50	D	75	E	62	E	11	**Yes**	13	**Yes**
26	Holloway Dr/Horn Av	Sunset Bl	40	D	54	D	53	D	57	E	13	**Yes**	3	No
27	La Cienega Bl	Holloway Dr	30	C	58	E	39	D	63	E	9	**Yes**	5	**Yes**
28	Doheny Dr	Cynthia St [a]	21	C	52	F	33	D	102	F	12	**Yes**	50	**Yes**
29	San Vicente Bl	Cynthia St	15	B	20	C	17	B	27	C	1	No	7	No
30	Doheny Dr	Santa Monica Bl (WB) [b]	98	F	39	D	112	F	41	D	14	**Yes**	2	No
	Doheny Dr	Melrose Av/SM Bl (EB) [b]	65	E	191	F	224	F	233	F	159	**Yes**	42	**Yes**
32	Robertson Bl	Santa Monica Bl	35	C	33	C	51	D	50	D	16	**Yes**	17	**Yes**
33	San Vicente Bl	Santa Monica Bl	42	D	61	E	57	E	88	F	15	**Yes**	27	**Yes**
34	Westbourne Dr	Santa Monica Bl	16	B	18	B	19	B	26	C	3	No	8	No
35	La Cienega Bl	Santa Monica Bl	83	F	77	E	93	F	92	F	10	**Yes**	15	**Yes**
36	Croft Av/Holloway Dr	Santa Monica Bl	15	B	32	C	17	B	44	D	2	No	12	**Yes**
39	Sweetzer Av	Santa Monica Bl	14	B	18	B	16	B	21	C	1	No	3	No
41	Crescent Heights Bl	Santa Monica Bl	54	D	111	F	71	E	131	F	18	**Yes**	20	**Yes**
42	Laurel Av	Santa Monica Bl	10	A	11	B	10	B	11	B	1	No	0	No
43	Fairfax Av	Santa Monica Bl	60	E	82	F	73	E	150	F	13	**Yes**	68	**Yes**
46	Gardner St	Santa Monica Bl	19	B	25	C	20	C	33	C	2	No	8	No
47	Martel Av	Santa Monica Bl	8	A	15	B	9	A	17	B	1	No	2	No
49	Formosa Av	Santa Monica Bl	10	A	36	D	14	B	52	D	4	No	16	**Yes**
50	La Brea Av	Santa Monica Bl	59	E	71	E	77	E	92	F	18	**Yes**	21	**Yes**
54	Robertson Bl	Melrose Av	15	B	13	B	17	B	15	B	2	No	2	No
55	San Vicente Bl	Melrose Av	34	C	23	C	41	D	29	C	7	No	6	No
56	Huntley Dr	Melrose Av	26	C	7	A	32	C	8	A	6	No	1	No
57	La Cienega Bl	Melrose Av	60	E	40	D	68	E	47	D	8	**Yes**	6	No
61	Doheny Dr	Beverly Bl	45	D	48	D	73	E	70	E	28	**Yes**	22	**Yes**
63	Robertson Bl	Beverly Bl	61	E	34	C	75	E	47	D	15	**Yes**	14	**Yes**
65	San Vicente Bl	Beverly Bl	40	D	39	D	45	D	50	D	5	No	11	No
66	La Cienega	Beverly Bl	64	E	84	F	80	E	100	F	16	**Yes**	16	**Yes**
72	La Brea Av	Romaine St	11	B	51	D	14	B	45	D	3	No	-6	No

notes:

[a] Intersection is control by stop signs and delay is reported for the worst case movement

[b] Intersection is controlled by two signals on one controller. Delay and LOS are reported for each signal

[c] Beyond a certain point intersection delay can no longer be accurately calculated. The intersection is said to be overflowing.
For signalized intersections, average delay beyond 200 seconds is reported as OVFL
For unsignalized intersections, worst case approach delay beyond 50 seconds is reported as OVFL

* At some intersections, field-collected traffic count data may represent only the number of vehicles that proceed through the intersection, rather than including the actual demand, which can be in queue upstream. Any traffic counts conducted under these conditions may under-represent the true demand for the intersection, and the actual LOS may be worse than represented above.

TABLE 7
FUTURE EXTENSIVE TDM ALTERNATIVE LEVELS OF SERVICE
CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY INTERSECTIONS

			Existing (2008) AM		Existing (2008) PM		Future (2035) TDM Alt AM		Future (2035) TDM Alt PM		AM Impact Analysis		PM Impact Analysis	
Int	North/South Street	East/West Street	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Delay [c]	LOS*	Change in Delay	Impact?	Change in Delay	Impact?
1	Doheny Rd/Cory Av	Sunset Bl	23	C	28	C	26	C	31	C	3	No	3	No
2	Doheny Dr	Sunset Bl	52	D	60	E	72	E	82	F	20	**Yes**	22	**Yes**
4	San Vicente Bl	Sunset Bl	33	C	36	D	39	D	58	E	6	No	22	**Yes**
5	Larrabee St	Sunset Bl	7	A	10	B	9	A	11	B	1	No	1	No
6	Sunset Plaza Dr	Sunset Bl	9	A	14	B	11	B	17	B	2	No	3	No
7	La Cienega Bl / Miller Dr	Sunset Bl	19	B	59	E	24	C	67	E	6	No	8	**Yes**
9	Crescent Heights Bl	Sunset Bl	58	E	60	E	63	E	68	E	4	No	8	**Yes**
11	La Cienega Bl	Fountain Av	54	D	192	F	56	E	192	F	1	No	0	No
12	Olive Dr	Fountain Av	6	A	4	A	8	A	5	A	2	No	1	No
14	Sweetzer Av	Fountain Av	9	A	12	B	11	B	13	B	2	No	1	No
15	Crescent Heights Bl	Fountain Av	98	F	49	D	103	F	60	E	5	**Yes**	11	**Yes**
17	Fairfax Av	Fountain Av	66	E	58	E	77	E	84	F	12	**Yes**	27	**Yes**
18	Spaulding Av	Fountain Av	5	A	5	A	6	A	6	A	0	No	1	No
20	Gardner St	Fountain Av	56	E	190	F	85	F	261	F	29	**Yes**	72	**Yes**
24	La Brea Av	Fountain Av	64	E	50	D	72	E	59	E	8	**Yes**	9	**Yes**
26	Holloway Dr/Horn Av	Sunset Bl	40	D	54	D	55	D	66	E	14	**Yes**	12	**Yes**
27	La Cienega Bl	Holloway Dr	30	C	58	E	38	D	62	E	8	**Yes**	4	No
28	Doheny Dr	Cynthia St [a]	21	C	52	F	31	D	119	F	10	**Yes**	67	**Yes**
29	San Vicente Bl	Cynthia St	15	B	20	C	17	B	28	C	1	No	8	No
30	Doheny Dr	Santa Monica Bl (WB) [b]	98	F	39	D	108	F	40	D	10	**Yes**	1	No
	Doheny Dr	Melrose Av/SM Bl (EB) [b]	65	E	191	F	223	F	223	F	158	**Yes**	32	**Yes**
32	Robertson Bl	Santa Monica Bl	35	C	33	C	49	D	49	D	14	**Yes**	17	**Yes**
33	San Vicente Bl	Santa Monica Bl	42	D	61	E	51	D	80	E	9	No	19	**Yes**
34	Westbourne Dr	Santa Monica Bl	16	B	18	B	18	B	25	C	3	No	7	No
35	La Cienega Bl	Santa Monica Bl	83	F	77	E	88	F	87	F	5	No	10	**Yes**
36	Croft Av/Holloway Dr	Santa Monica Bl	15	B	32	C	17	B	44	D	2	No	12	**Yes**
39	Sweetzer Av	Santa Monica Bl	14	B	18	B	15	B	21	C	1	No	3	No
41	Crescent Heights Bl	Santa Monica Bl	54	D	111	F	68	E	117	F	14	**Yes**	6	**Yes**
42	Laurel Av	Santa Monica Bl	10	A	11	B	10	A	11	B	0	No	0	No
43	Fairfax Av	Santa Monica Bl	60	E	82	F	70	E	144	F	11	**Yes**	61	**Yes**
46	Gardner St	Santa Monica Bl	19	B	25	C	20	B	33	C	1	No	7	No
47	Martel Av	Santa Monica Bl	8	A	15	B	9	A	17	B	1	No	2	No
49	Formosa Av	Santa Monica Bl	10	A	36	D	13	B	51	D	3	No	15	**Yes**
50	La Brea Av	Santa Monica Bl	59	E	71	E	73	E	88	F	14	**Yes**	17	**Yes**
54	Robertson Bl	Melrose Av	15	B	13	B	16	B	15	B	2	No	2	No
55	San Vicente Bl	Melrose Av	34	C	23	C	40	D	27	C	6	No	4	No
56	Huntley Dr	Melrose Av	26	C	7	A	30	C	8	A	4	No	1	No
57	La Cienega Bl	Melrose Av	60	E	40	D	66	E	45	D	6	No	5	No
61	Doheny Dr	Beverly Bl	45	D	48	D	70	E	68	E	25	**Yes**	20	**Yes**
63	Robertson Bl	Beverly Bl	61	E	34	C	73	E	44	D	12	**Yes**	11	No
65	San Vicente Bl	Beverly Bl	40	D	39	D	45	D	46	D	5	No	7	No
66	La Cienega	Beverly Bl	64	E	84	F	78	E	94	F	14	**Yes**	11	**Yes**
72	La Brea Av	Romaine St	11	B	51	D	14	B	45	D	3	No	-6	No

notes:

[a] Intersection is control by stop signs and delay is reported for the worst case movement

[b] Intersection is controlled by two signals on one controller. Delay and LOS are reported for each signal

[c] Beyond a certain point intersection delay can no longer be accurately calculated. The intersection is said to be overflowing.
For signalized intersections, average delay beyond 200 seconds is reported as OVFL
For unsignalized intersections, worst case approach delay beyond 50 seconds is reported as OVFL

* At some intersections, field-collected traffic count data may represent only the number of vehicles that proceed through the intersection, rather than including the actual demand, which can be in queue upstream. Any traffic counts conducted under these conditions may under-represent the true demand for the intersection, and the actual LOS may be worse than represented above.

TABLE 8 FUTURE (YEAR 2035) NO PROJECT SCENARIO & PROPOSED PROJECT SCENARIO FORECAST ROADWAY SEGMENT VOLUMES CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY SEGMENTS										
		Existing (Year 2008)			Future (Year 2035) Proposed Project			Future (Year 2035) No Project		
Roadway	Segment	ADT	AM	PM	ADT	AM	PM	ADT	AM	PM
Beverly Boulevard	W/O Doheny Drive	25,679	2,271	2,058	27,010	2,390	2,220	27,010	2,370	2,220
Beverly Boulevard	E/O La Cienega Boulevard	34,361	2,070	2,508	37,630	2,280	2,750	37,710	2,360	2,830
Crescent Heights Boulevard	S/O Santa Monica Boulevard	23,089	1,700	1,652	23,620	1,730	1,710	23,640	1,760	1,720
Crescent Heights Boulevard	S/O Sunset Boulevard	33,538	2,192	2,257	36,720	2,270	2,350	36,850	2,320	2,410
Doheny Drive	S/O Santa Monica Boulevard	14,545	974	1,063	16,460	1,080	1,170	16,480	1,120	1,200
Doheny Drive	S/O Beverly Boulevard	18,552	1,177	1,249	22,100	1,330	1,440	22,100	1,380	1,460
Doheny Drive	S/O Sunset Boulevard	9,619	507	613	11,430	560	680	11,610	570	690
Fairfax Avenue	S/O Santa Monica Boulevard	30,457	1,917	2,160	33,270	2,420	2,650	33,320	2,610	2,740
Fairfax Avenue	S/O Sunset Boulevard	31,318	1,948	2,260	34,700	2,250	2,540	34,770	2,350	2,600
Fountain Avenue	E/O La Cienega Boulevard	28,364	1,951	1,987	31,350	2,060	2,150	31,460	2,170	2,260
Fountain Avenue	@ Crescent Heights Boulevard	34,890	2,413	2,017	40,730	2,570	2,180	40,960	2,710	2,290
Fountain Avenue	@ Fuller Avenue	35,627	2,072	2,275	40,860	2,310	2,500	40,970	2,440	2,600
La Brea Avenue	S/O Santa Monica Boulevard	39,173	2,394	2,547	42,070	2,600	2,730	42,090	2,650	2,770
La Brea Avenue	S/O Sunset Boulevard	38,020	2,336	2,500	40,430	2,510	2,660	40,350	2,540	2,700
La Cienega Boulevard	S/O Santa Monica Boulevard	35,501	1,972	2,254	38,540	2,100	2,470	38,640	2,210	2,530
La Cienega Boulevard	S/O Sunset Boulevard	36,112	2,140	2,209	36,630	2,150	2,210	36,630	2,150	2,220
Melrose Avenue	E/O Robertson Boulevard	21,203	1,117	1,484	23,090	1,290	1,640	23,070	1,320	1,670
Melrose Avenue	E/O La Cienega Boulevard	33,983	2,321	2,437	38,500	2,470	2,620	38,660	2,620	2,700
Robertson Boulevard	S/O Beverly Boulevard	18,840	1,104	1,256	21,500	1,230	1,410	21,500	1,250	1,430
Robertson Boulevard	S/O Santa Monica Boulevard	11,235	550	725	12,530	600	760	12,550	610	790
San Vicente Boulevard	S/O Santa Monica Boulevard	21,220	1,322	1,527	23,220	1,460	1,700	23,320	1,590	1,800
San Vicente Boulevard	S/O Sunset Boulevard	12,830	850	991	15,280	980	1,160	15,160	1,040	1,200
Santa Monica Boulevard	W/O Doheny Drive	40,423	2,229	2,160	45,000	2,410	2,390	45,130	2,510	2,470
Santa Monica Boulevard	E/O La Cienega Boulevard	45,313	2,520	2,771	50,630	2,760	3,050	50,730	2,920	3,180
Santa Monica Boulevard	@ Westbourne Drive	53,388	2,979	3,015	59,390	3,230	3,300	59,530	3,320	3,420
Santa Monica Boulevard	@Crescent Heights Boulevard	46,468	2,216	2,779	51,280	2,440	2,950	51,400	2,530	3,040
Santa Monica Boulevard	@Formosa Avenue	45,489	2,389	2,933	51,860	2,540	3,170	52,010	2,690	3,300
Sunset Boulevard	E/O Crescent Heights Boulevard	56,525	2,995	2,940	60,740	3,190	3,070	60,910	3,300	3,130
Sunset Boulevard	@ Sunset Plaza Drive	51,462	2,124	2,621	56,480	2,290	2,840	56,600	2,450	2,970
Sunset Boulevard	E/O La Cienega Boulevard	52,231	3,097	3,090	55,170	3,200	3,210	55,260	3,320	3,300

TABLE 9 FUTURE (YEAR 2035) TOD FOCUS ALTERNATIVE & EXTENSIVE TDM ALTERNATIVE FORECAST ROADWAY SEGMENT VOLUMES CITY OF WEST HOLLYWOOD GENERAL PLAN UPDATE STUDY SEGMENTS										
		Existing (Year 2008)			Future (Year 2035) TOD Alternative			Future (Year 2035) TDM Alternative		
Roadway	Segment	ADT	AM	PM	ADT	AM	PM	ADT	AM	PM
Beverly Boulevard	W/O Doheny Drive	25,679	2,271	2,058	27,020	2,390	2,230	26,990	2,390	2,220
Beverly Boulevard	E/O La Cienega Boulevard	34,361	2,070	2,508	37,040	2,230	2,670	37,520	2,180	2,620
Crescent Heights Boulevard	S/O Santa Monica Boulevard	23,089	1,700	1,652	23,660	1,720	1,700	23,630	1,720	1,680
Crescent Heights Boulevard	S/O Sunset Boulevard	33,538	2,192	2,257	36,390	2,240	2,320	36,630	2,220	2,300
Doheny Drive	S/O Santa Monica Boulevard	14,545	974	1,063	16,360	1,070	1,140	16,420	1,050	1,110
Doheny Drive	S/O Beverly Boulevard	18,552	1,177	1,249	21,960	1,320	1,410	22,070	1,300	1,380
Doheny Drive	S/O Sunset Boulevard	9,619	507	613	11,080	550	670	11,230	540	650
Fairfax Avenue	S/O Santa Monica Boulevard	30,457	1,917	2,160	32,930	2,260	2,580	33,090	2,120	2,500
Fairfax Avenue	S/O Sunset Boulevard	31,318	1,948	2,260	34,180	2,170	2,490	34,540	2,120	2,450
Fountain Avenue	E/O La Cienega Boulevard	28,364	1,951	1,987	30,820	1,990	2,070	31,180	1,960	2,000
Fountain Avenue	@ Crescent Heights Boulevard	34,890	2,413	2,017	40,120	2,510	2,130	40,420	2,420	2,070
Fountain Avenue	@ Fuller Avenue	35,627	2,072	2,275	40,110	2,240	2,450	40,650	2,180	2,390
La Brea Avenue	S/O Santa Monica Boulevard	39,173	2,394	2,547	42,020	2,580	2,690	42,050	2,560	2,680
La Brea Avenue	S/O Sunset Boulevard	38,020	2,336	2,500	40,680	2,500	2,620	40,470	2,480	2,600
La Cienega Boulevard	S/O Santa Monica Boulevard	35,501	1,972	2,254	37,970	2,050	2,410	38,170	2,020	2,340
La Cienega Boulevard	S/O Sunset Boulevard	36,112	2,140	2,209	36,370	2,150	2,220	36,560	2,150	2,220
Melrose Avenue	E/O Robertson Boulevard	21,203	1,117	1,484	22,890	1,230	1,600	23,080	1,210	1,580
Melrose Avenue	E/O La Cienega Boulevard	33,983	2,321	2,437	37,530	2,400	2,510	38,150	2,330	2,450
Robertson Boulevard	S/O Beverly Boulevard	18,840	1,104	1,256	21,510	1,220	1,420	21,440	1,200	1,390
Robertson Boulevard	S/O Santa Monica Boulevard	11,235	550	725	12,510	580	750	12,510	570	740
San Vicente Boulevard	S/O Santa Monica Boulevard	21,220	1,322	1,527	22,660	1,410	1,610	23,090	1,350	1,540
San Vicente Boulevard	S/O Sunset Boulevard	12,830	850	991	15,180	950	1,110	15,350	940	1,090
Santa Monica Boulevard	W/O Doheny Drive	40,423	2,229	2,160	44,510	2,370	2,360	44,800	2,310	2,290
Santa Monica Boulevard	E/O La Cienega Boulevard	45,313	2,520	2,771	49,910	2,670	2,980	50,350	2,610	2,910
Santa Monica Boulevard	@ Westbourne Drive	53,388	2,979	3,015	58,550	3,180	3,250	59,060	3,130	3,180
Santa Monica Boulevard	@Crescent Heights Boulevard	46,468	2,216	2,779	50,450	2,350	2,900	50,930	2,280	2,860
Santa Monica Boulevard	@Formosa Avenue	45,489	2,389	2,933	51,090	2,450	3,070	51,580	2,420	3,030
Sunset Boulevard	E/O Crescent Heights Boulevard	56,525	2,995	2,940	60,120	3,130	3,030	60,520	3,060	2,990
Sunset Boulevard	@ Sunset Plaza Drive	51,462	2,124	2,621	55,750	2,210	2,740	56,250	2,130	2,660
Sunset Boulevard	E/O La Cienega Boulevard	52,231	3,097	3,090	54,510	3,150	3,150	54,960	3,110	3,100

TABLE 10 DAILY PERFORMANCE MEASURES				
Scenario	**VMT**	**VHT**	**Trip Gen (VT)**	**Average Trip Length**
Existing	1,503,700	44,600	355,000	7.02
Proposed Project	1,712,000	55,400	406,500	6.98
No Project	1,722,500	55,800	408,200	6.99
TOD Focus Alternative	1,651,100	53,000	393,300	6.95
Extensive TDM Alternative	1,691,600	54,600	402,100	6.97

TABLE 11
INTERSECTION LEVELS OF SERVICE FOR CMP IMPACT ANALYSIS

Scenario	Street Names	Peak Hour	Scenario V/C	Scenario LOS	Change in V/C	Significant Impact?
Existing Conditions	Doheny Drive & Santa Monica Boulevard	AM	1.053	F	N/A	N/A
		PM	0.984	E	N/A	N/A
	La Cienega Boulevard & Santa Monica Boulevard	AM	0.989	E	N/A	N/A
		PM	0.799	C	N/A	N/A
Proposed General Plan	Doheny Drive & Santa Monica Boulevard	AM	1.111	F	0.058	**Yes**
		PM	1.019	F	0.035	**Yes**
	La Cienega Boulevard & Santa Monica Boulevard	AM	1.058	F	0.069	**Yes**
		PM	0.889	D	0.090	No
No Project	Doheny Drive & Santa Monica Boulevard	AM	1.144	F	0.091	**Yes**
		PM	1.057	F	0.073	**Yes**
	La Cienega Boulevard & Santa Monica Boulevard	AM	1.119	F	0.130	**Yes**
		PM	0.918	E	0.119	No
TOD Focus Alternative	Doheny Drive & Santa Monica Boulevard	AM	1.101	F	0.048	**Yes**
		PM	1.013	F	0.029	**Yes**
	La Cienega Boulevard & Santa Monica Boulevard	AM	1.028	F	0.039	**Yes**
		PM	0.856	D	0.057	No
Extensive TDM Alternative	Doheny Drive & Santa Monica Boulevard	AM	1.074	F	0.021	**Yes**
		PM	1.014	F	0.030	**Yes**
	La Cienega Boulevard & Santa Monica Boulevard	AM	1.016	F	0.027	**Yes**
		PM	0.826	D	0.027	No

APPENDIX A:

FEHR & PEERS TECHNICAL MEMORANDUM:

CITY OF WEST HOLLYWOOD GENERAL PLAN GREENHOUSE GAS EMISSIONS ANALYSIS

FEHR & PEERS
TRANSPORTATION CONSULTANTS

APPENDIX A: MEMORANDUM

Date: March 19, 2010

To: Terri Slimmer, City of West Hollywood

From: Brian Welch, Reid Keller, and Peter Carter

Subject: ***City of West Hollywood General Plan Greenhouse Gas Emissions Analysis***

SM09-2221.02

INTRODUCTION

This technical memorandum describes vehicle emissions for City of West Hollywood General Plan update scenarios. The principal factors influencing vehicle emissions are described, followed by an explanation of emission pollutants and the models used to calculate them. Summary statistics are provided in tables and figures for comparing and evaluating each scenario.

VARIABLES AFFECTING VEHICLE EMISSIONS

The volume of vehicle emissions is influenced by a number of variables, including the types of vehicles in circulation, how often they are used, and how far they are driven. These variables correspond to the following inputs: vehicle population, daily vehicle trips, and vehicle miles traveled (VMT).

VMT

VMT is an output derived from the City of West Hollywood's travel demand model. In addition, because the speed of vehicle travel affects the rate of emissions (Figure 1), driving distances are summed based on vehicle speeds.

Daily Vehicle Trips

The City's travel demand model also outputs daily vehicle trips. While the City's model includes both the City itself and a buffer area surrounding the City, through trips that neither begin nor end inside the City are not counted as part of the daily trip total. This memorandum is based on results for the incorporated City limits.

In accordance with policy guidance[1] provided by the SB 375 Regional Targets Advisory Committee, the following trip types and percentages are included in the tabulation of daily trips:

[1] *Recommendations of the Regional Targets Advisory Committee Pursuant to Senate Bill 375*, September 30, 2009.

201 Santa Monica Blvd., #500, Santa Monica, CA 90401 (310) 458-9916 Fax (310) 394-7663
www.fehrandpeers.com

- Internal to External: Trips beginning inside the City and ending outside the City (50%)
- External to Internal: Trips beginning outside the City and ending inside the City (50%)
- Internal to Internal: Trips beginning and ending inside the City (100%)
- External to External: Trips beginning outside the City and ending outside the City (0%)

Vehicle Population

Vehicle population was calculated from the most recent National Household Travel Survey (NHTS) produced by the U.S. Department of Transportation in 2002. The City's vehicle population in the existing scenario was calculated by summing the number of cars in each census tract, based on household auto ownership statistics. For future scenarios, the existing vehicle population was factored in proportion to the number of dwelling units in the City.

The types of vehicles within a vehicle population and their geographic location also affect emissions rates. For this analysis, ambient temperature, relative humidity, vehicle population, fleet composition, fleet growth rates, mileage accrual rates, vehicle age distribution, smog check regulations, fuel properties, and altitude were based on data for Los Angeles County.[2] For the chosen calendar year, the existing vehicle model year and 44 model years prior are analyzed.[3]

EMISSION POLLUTANTS

About a third of all greenhouse gases produced in the U.S. come from the transportation sector, and the Environmental Protection Agency estimates that about 60% of all transportation emissions come from personal automobile use.[4] The following greenhouse gases were included in this emissions analysis:

- Carbon dioxide (CO_2)
- Organic gases (all organic gases emitted into the atmosphere, including methane, CH_4)
- Carbon monoxide (CO)
- Oxides of nitrogen (NOx)
- Oxides of sulfur (SOx)

In addition to greenhouse gases, this analysis includes the following particulate matter pollutant because of its link to vehicle traffic and its detrimental effects on human health and the environment:

- Particulate matter (PM10)

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[2] *California: California Air Resources Board's Emissions Inventory Series*, Volume 1, Issue 7, p. 3.
[3] *Emfac2007/Version 2.30: Calculating Emission Inventories for Vehicles in California*, California Air Resources Board.
[4] *Inventory of U.S. Greenhouse Gas Emissions and Sinks*, U.S. EPA, April 15, 2009, p. ES-8.

EMFAC2007

This analysis uses Emfac2007 to estimate emissions pollutants. As the most recent edition of emissions modeling software created by the California Air Resources Board (CARB), Emfac2007 provides the best estimates of existing and future greenhouse gas emissions. Emfac2007 uses emissions rates for different types of vehicles in conjunction with travel activity statistics to calculate vehicle-based emissions in tons per day.

As described in CARB's *Emfac2007/Version 2.30: Calculating Emission Inventories for Vehicles in California*, Emfac2007 accounts for the following emission processes in its emissions inventory:

- Running exhaust: emissions that come out of the vehicle tailpipe while it is traveling on the road.

- Idle exhaust: emissions that come out of the vehicle tailpipe while it is operating but not traveling any significant distance. This process captures emissions from heavy-duty vehicles that idle for extended periods of time while loading or unloading goods. Idle exhaust is calculated only for heavy-duty trucks.

- Starting exhaust: tailpipe emissions that occur as a result of starting a vehicle. These emissions are independent of running exhaust emissions and can be thought of as a slug of emissions associated with starting a vehicle. The magnitude of these emissions is dependent on how long the vehicle has been sitting prior to starting. Starting emissions are only estimated for gasoline fueled vehicles.

- Diurnal: Hydrocarbon (HC) emissions that occur when rising ambient temperatures cause fuel evaporation from vehicles sitting throughout the day. These losses are from leaks in the fuel system, fuel hoses, connectors, and as a result of breakthrough of vapors from the carbon canister. If a vehicle is sitting for a period of time, emissions from the first 35 minutes are counted as hot soak (discussed below) and emissions from the remaining period are counted as diurnal emissions, provided that the ambient temperature is increasing during the remaining period of time.

- Resting loss: these losses occur while the vehicle is sitting and are caused by fuel permeation through rubber and plastic components. Emissions are counted as resting loss emissions if the vehicle has not been operated for 35 minutes and vehicle is still stationary, but the ambient temperature is either constant or decreasing.

- Hot soak: evaporative HC emissions that occur immediately after a trip end due to fuel heating and the fact that the engine remains hot for a short time after being switched off. In older, carbureted vehicles these emissions are attributed to vapor losses from the carburetor float bowl. In newer, fuel-injected vehicles, these vapor losses come from leaky fuel injectors or from fuel hoses.

- Running losses: evaporative HC emissions that occur when hot fuel vapors escape from the fuel system or overwhelm the carbon canister while the vehicle is operating.

- Tire wear: particulate matter emissions from tires as a result of wear.

- Brake wear: particulate matter emissions from brake use.

Future year assumptions in Emfac2007 reflect changes in the overall vehicle fleet as determined by historical trends and geographic location. For example, vehicle survival rates determine how quickly vehicles fall out of the fleet and must be replaced. Because cars and trucks have different mileage accrual rates, their rate of survival can cause a shift in the vehicle fleet. Emfac2007 does not include predictions about changes in fuel type or fuel economy beyond what already exists in the market. However, Emfac2007 does assume a shift toward a greater number of low emissions vehicles in future years.

CT-EMFAC

CT-EMFAC is used in this analysis to better estimate the quantity of sulfur oxides. Because such small quantities of SOx are produced, Emfac2007's estimates of SOx are affected by the model's rounding of outputs to two decimal places. CT-EMFAC produces more precise reports of SOx emissions that extend to six decimal places. Comparing percentage changes in SOx with percentage changes in other emissions suggests that for SOx, the estimates produced by CT-EMFAC come closer to accurately representing the change between existing and future scenarios.

CT-EMFAC is not used to predict other emissions in this analysis because it only includes running emissions and omits idle exhaust, hot soaks, and other causes of vehicle emissions. However, because the large majority of emissions are running emissions, CT-EMFAC represents an accurate estimation of vehicle emissions for the purpose regulatory requirements, including the California Environmental Quality Act (CEQA).[5]

CT-EMFAC is a project-level emissions analysis tool developed by Caltrans and UC Davis. It uses the same emissions factors as Emfac2007. As stated in *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions*, the model includes the following emissions processes:

- Running exhaust: pollutants emitted from the vehicle tailpipe while it is traveling.
- Running losses: evaporative total organic gas (TOG) emissions that occur when hot fuel vapors escape from the fuel system or overwhelm the carbon canister while the vehicle is operating.

ANALYSIS

Table 1 contains output values from Emfac2007 and CT-EMFAC when the vehicle fleet is held constant at calendar year 2008. Holding the calendar year constant for future year scenarios allows all changes in emissions to be attributed to differences in scenarios rather than to changes in the vehicle fleet. Values are shown in units of tons produced per day.

Figure 2 looks at output values from Table 1 as a percentage of existing emissions. For each emission, Figure 2 shows how much each scenario would increase emissions compared to the exiting baseline.

Table 2 contains emissions model outputs produced using future year vehicle fleets. Year 2035 is used for all scenarios except Alternative 3, which assumes Year 2020. Figure 3 compares values in Table 2 to existing emissions. The projected decrease in the emission of organic gases, carbon

[5] *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions,* Caltrans/UC Davis, December 10, 2007.

monoxide, oxides of nitrogen, and particulate matter reflects CARB's assumptions about a cleaner running vehicle fleets in 2035 and 2020. The emission of carbon dioxide and oxides of sulfur continues to increase, despite less polluting vehicle fleets, because they are inherent by-products of the internal combustion engine used in the majority of cars and trucks.

Figure 4 shows VMT per capita, where capita equals population plus employment. VMT is the primary driver of GHG emissions, and normalizing VMT based on people and jobs illustrates the comparative effectiveness of each scenario at reducing driving. Although VMT is expected to increase in absolute terms, the projected rate of VMT increase in the City of West Hollywood is less than the rate of population and employment growth, resulting in lower levels of VMT per capita.

FIGURE 1
EMFAC CO2 EMISSIONS CURVE

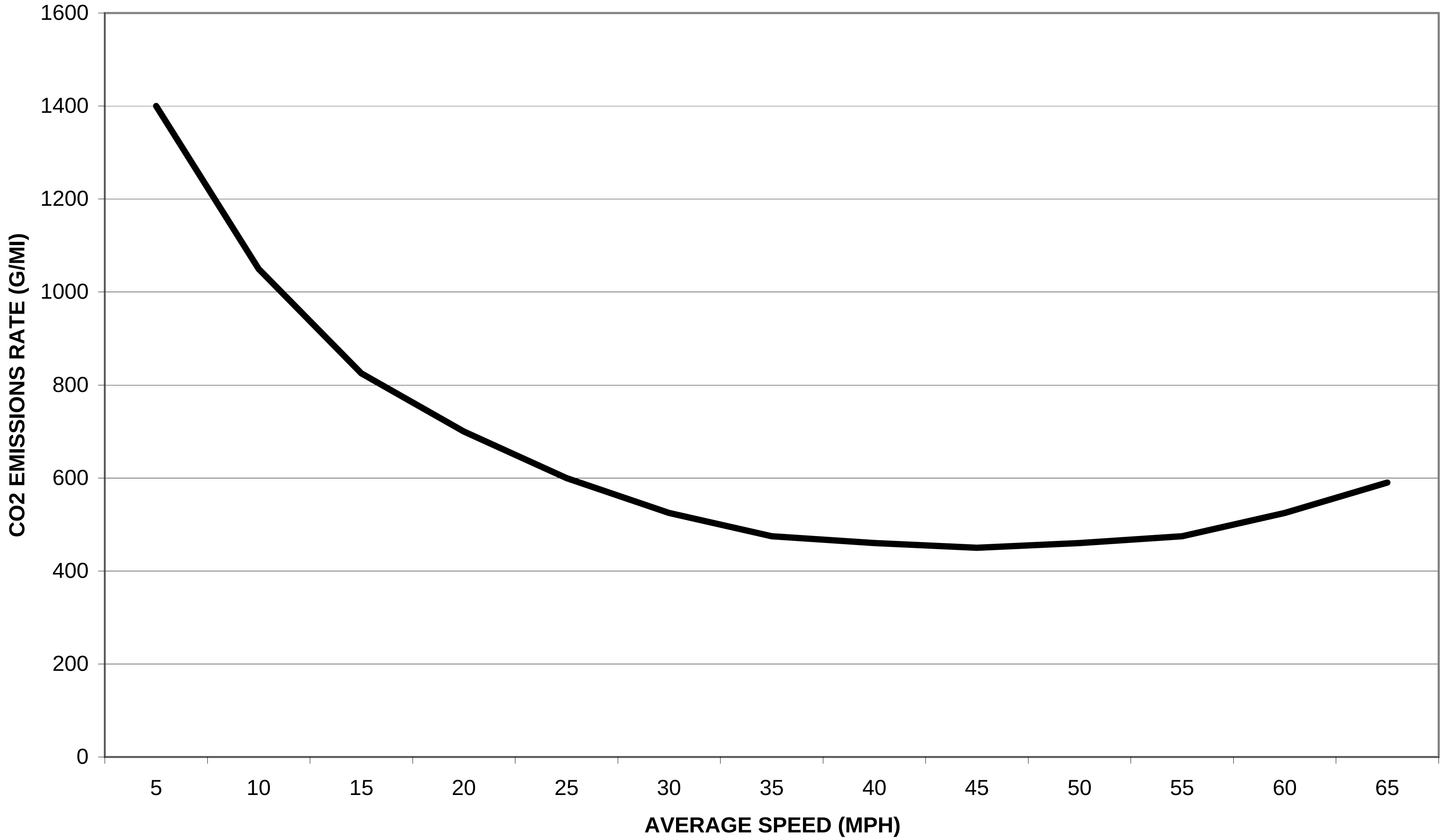


TABLE 1
EMFAC EMISSIONS ESTIMATES WITH VEHICLE FLEET HELD CONSTANT (CALENDAR YEAR 2008 FOR ALL SCENARIOS)
IN TONS PER DAY

	Existing	No Project	Proposed Project	Alternative 1	Alternative 2	Alternative 3
	2008	2008	2008	2008	2008	2008
Organic Gas Emissions (including CH4)	1.24	1.64	1.50	1.44	1.48	1.38
Carbon Monoxide Emissions (CO)	10.40	13.30	12.33	11.87	12.17	11.45
Oxides of Nitrogen Emissions (NOx)	2.01	2.57	2.36	2.27	2.33	2.19
Carbon Dioxide Emissions (CO2)	990	1,190	1,210	1,160	1,190	1,110
Particulate Matter Emissions (PM10)	0.08	0.11	0.11	0.10	0.11	0.10
Oxides of Sulfur Emissions (SOx), Emfac2007	0.01	0.01	0.01	0.01	0.01	0.01
Oxides of Sulfur Emissions (SOx), CT-EMFAC	0.008544	0.010507	0.010438	0.010023	0.010295	0.009612

FIGURE 2
PERCENTAGE CHANGE COMPARED TO EXISTING EMISSIONS ESTIMATES
WITH VEHICLE FLEET HELD CONSTANT (CALENDAR YEAR 2008 FOR ALL SCENARIOS)

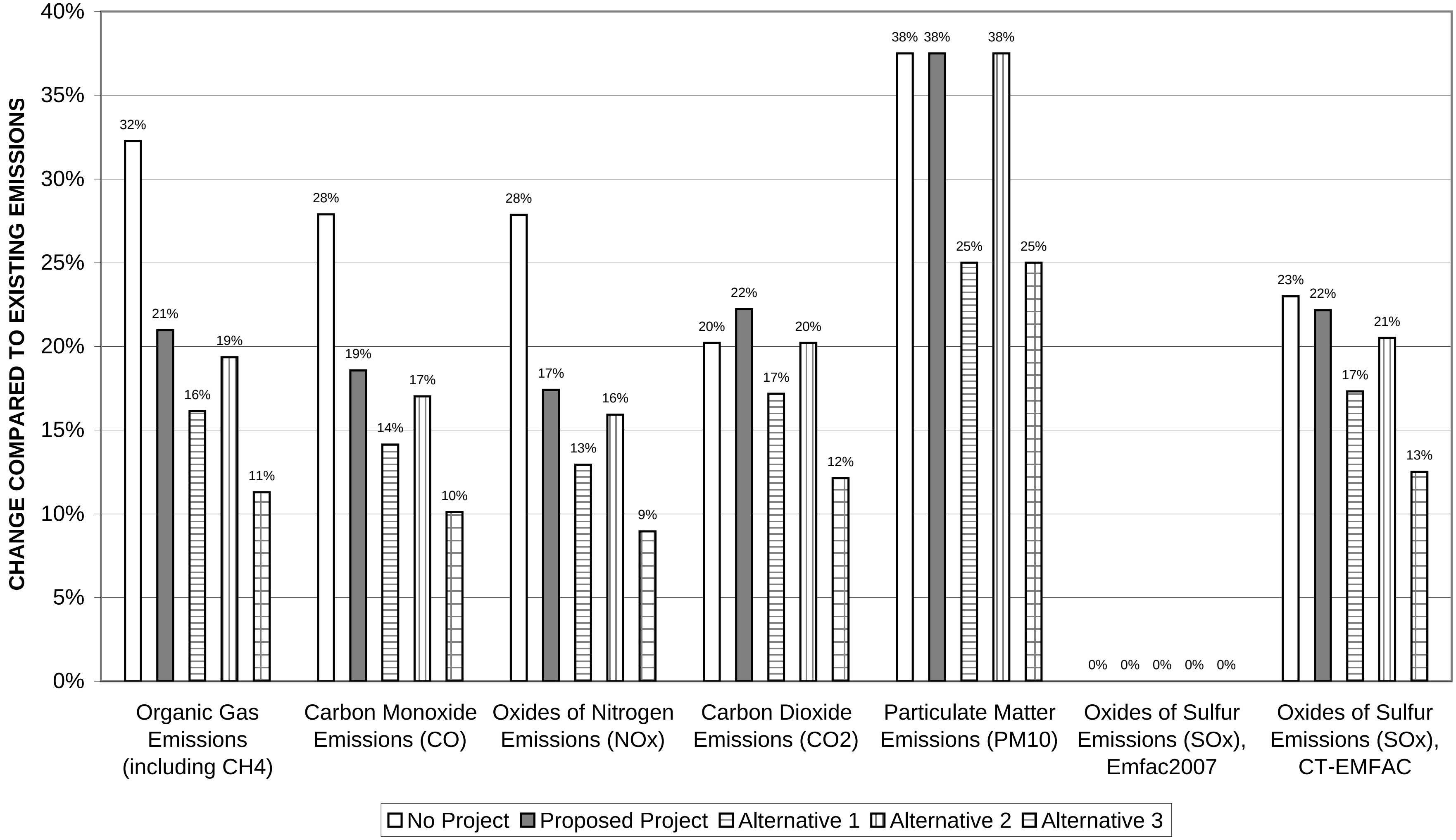
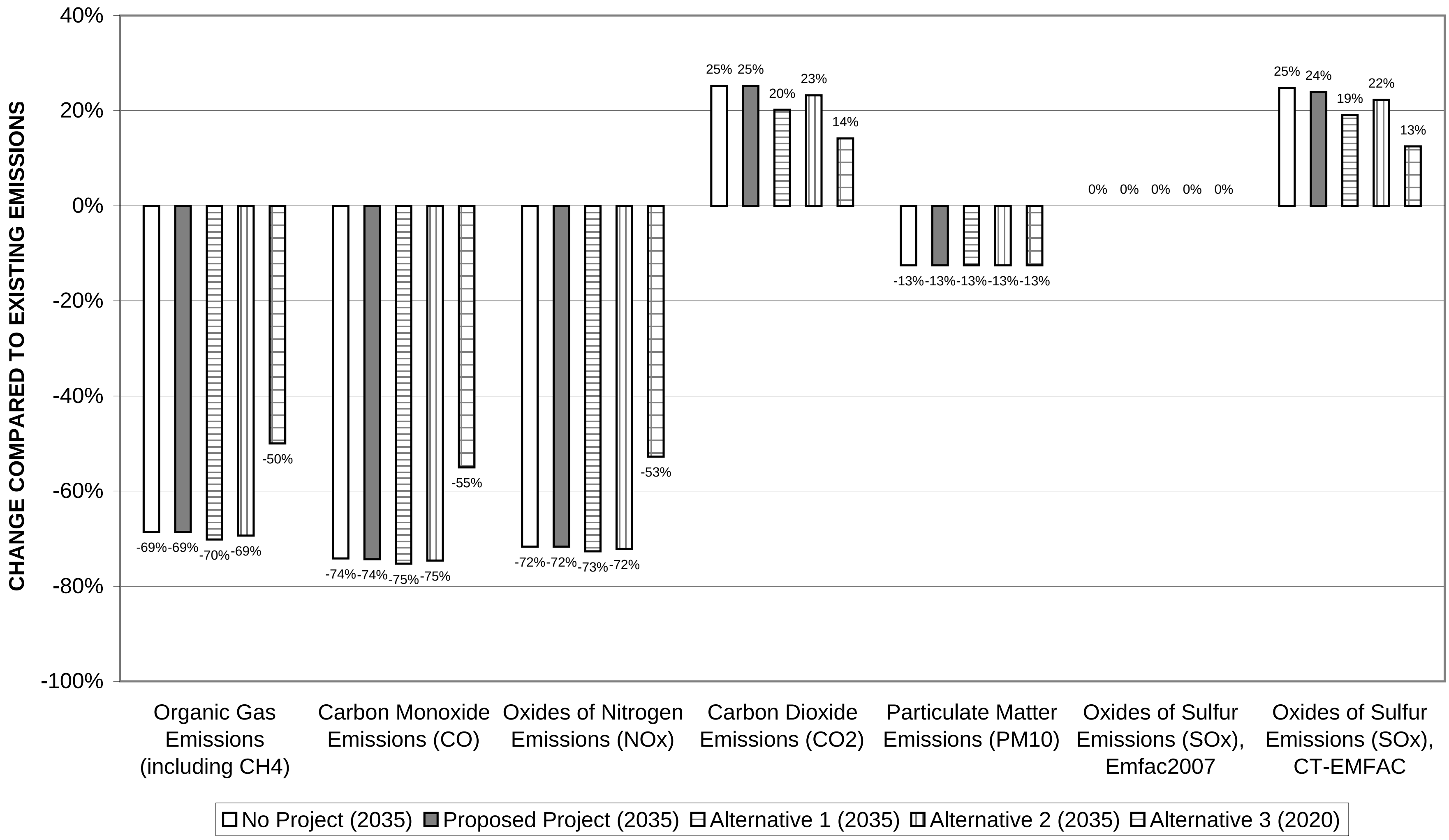


TABLE 2
EMISSIONS ESTIMATES WITH FUTURE VEHICLE FLEET
IN TONS PER DAY

	Existing	No Project	Proposed Project	Alternative 1	Alternative 2	Alternative 3
	2008	2035	2035	2035	2035	2020
Organic Gas Emissions (including CH4)	1.24	0.39	0.39	0.37	0.38	0.62
Carbon Monoxide Emissions (CO)	10.40	2.69	2.67	2.57	2.64	4.68
Oxides of Nitrogen Emissions (NOx)	2.01	0.57	0.57	0.55	0.56	0.95
Carbon Dioxide Emissions (CO2)	990	1,240	1,240	1,190	1,220	1,130
Particulate Matter Emissions (PM10)	0.08	0.07	0.07	0.07	0.07	0.07
Oxides of Sulfur Emissions (SOx), Emfac2007	0.01	0.01	0.01	0.01	0.01	0.01
Oxides of Sulfur Emissions (SOx), CT-EMFAC	0.008544	0.010662	0.010591	0.010175	0.010449	0.009612

FIGURE 3
PERCENTAGE CHANGE COMPARED TO EXISTING EMFAC EMISSIONS ESTIMATES WITH FUTURE VEHICLE FLEET



APPENDIX B:

NELSON\NYGAARD TECHNICAL MEMORANDUM:

WEST HOLLYWOOD GENERAL PLAN UPDATE TRIP REDUCTION IMPACTS ANALYSIS

Nelson\Nygaard
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APPENDIX B: MEMORANDUM

To: Terri Slimmer

From: Jeff Tumlin, Jeremy Nelson, and Francesca Napolitan

Date: March 26, 2010

Subject: West Hollywood General Plan Update Trip Reduction Impacts Analysis

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Executive Summary

Background

In California, every city and county is required to develop a General Plan. General Plans are often described as the "constitution" or "blueprint" for a community, articulating a community's vision for the future and policies to guide its growth and development. The City of West Hollywood is currently in the planning process of their general plan update which will establish policies to govern development through the year 2035.

One of the central aims of the general plan update process is to evaluate what changes the City of West Hollywood could implement that would allow the City to sustain its success as a vibrant, dynamic place that provides a high quality of life and economic opportunity, while minimizing traffic congestion.

A transportation planning consultant team was tasked with assisting City staff to accomplish the objective to continue sustainable growth while reducing the rate of increase in traffic and congestion. Specifically, the transportation consultant team will assist City staff in developing and analyzing strategies that can reasonably be expected to help reduce per capita vehicle traffic and promote increased use of carpooling, transit, bicycling, and walking.

Purpose of this Memo

This technical memorandum was developed by Nelson\Nygaard to assist the City and the consultant team in evaluating the trip reduction impacts of various transportation and parking policies and programs under consideration as part of the general plan update. It should be noted that the purpose of this memo is to provide planning-level, order-of-magnitude, comparative estimates of the quantitative impacts of proposed/planned system changes on auto trips and mode split. Portions of this introductory text will be integrated into Fehr & Peers' report summarizing the traffic modeling analysis of each of the West Hollywood General Plan policy alternatives, and the entire memo will be attached as an Appendix to that report.

What this Memo Contains

- This Executive Summary.
- **Appendix A:** A draft map showing the 3 different area types used during the analysis and referenced throughout this memo. These area types are: Commercial Corridors, Transit-Oriented Development (TOD) Zones, and Residential Areas.
- **Appendix B:** Summary table of the proposed policies and programs under consideration for the three different General Plan alternatives. This policies and programs contained in this table (and the underlying assumptions) were developed by Nelson\Nygaard based on our previous issues and opportunities analysis with feedback from the entire project team.
- **Appendix C:** Summary of the estimates of the likely anticipated reduction in peak-hour vehicle trips that could be achieved with the implementation of the 13 policies under consideration in each of the three different West Hollywood alternatives. Because of the long planning horizon and inherent uncertainty in long-term planning analysis, these are planning-level, order-of-magnitude, comparative estimates.
- **Appendix D:** Detailed description of each of the 13 policies and the research used to develop the trip reduction estimates in the summary table.
- **Appendix E:** A select list of works cited in the development of our estimates of trip reduction impacts.

Proposed Trip Reduction Policies & Programs

This memorandum presents a comparison of tiered implementation scenarios for 3 different General Plan alternatives: the Preferred General Plan Alternative, a TOD Focus Alternative, and an Enhanced TDM Alternative. The trip reduction policies and programs evaluated in each alternative are:

- Parking Policies
  - Reduced/eliminated minimum parking requirements
  - Unbundled parking
  - Public parking pricing
- Transportation System Improvements
  - Bike system improvements
  - Pedestrian system improvements
  - Transit system improvements
- Transportation Demand Management (TDM) Policies
  - Subsidized transit
  - Fare-free transit zone or service
  - Parking cash-out
  - Car sharing
  - Bike sharing
- Mode Shift Policies
  - Carpooling
  - Telecommuting/alternative work schedules

Analytical Methodology

Stand-Alone Methodology

In addition to a land use plan, the West Hollywood General Plan will contain a number of the above listed transportation policies and programs initiatives intended to help reduce per capita vehicle trips, strengthen West Hollywood's alternative transportation network, and encourage travelers to shift to sustainable travel modes. The following provides an overview of the analytical methodology used in this memorandum to evaluate the *stand-alone* trip reduction impacts of the General Plan transportation policies and programs under consideration.

- **Development of policy options.** The potential range of transportation policies and programs under three different General Plan policy alternatives was outlined by Nelson\Nygaard in discussion with City staff and the full project team.
- **Development of comparative implementation scenarios.** Nelson\Nygaard then worked with City staff and consultant team to refine and operationalize these policy alternatives based on past and current experience in West Hollywood. For example:
  - Some existing policies and programs were evaluated based on either status quo implementation or expanded implementation.
  - For new policies or programs, either a moderate or robust implementation framework was considered.
- **Trip Reduction Impact Analysis (TRIA).** Based on the best available research tailored to local conditions in West Hollywood, Nelson\Nygaard derived planning-level, order-of-magnitude, comparative estimates of the reductions in peak-hour vehicle trips that could be anticipated with implementation of a suite of policies and programs. These estimates were based on the reasonable implementation assumptions described above that included:
  - Continuation and/or expansion of existing policies and programs; and
  - Implementation of new policies and programs that research has shown to have a proven effect on mode choice and travel behavior.
- **Disaggregation of impacts.** Nelson\Nygaard disaggregated the trip reduction estimates for individual strategies wherever it was logical to do so and the available research and case studies allowed us to derive a reasonable estimate. In some instances, trip reduction estimates for individual policies and programs were disaggregated as follows:
  - **New trips versus existing trips.** For several polices, reductions in new versus existing trips were evaluated due to differing policies for new development/employers versus existing development/employers. For example, in determining the effects of unbundled parking on auto ownership, new households were separated from existing households for the purposes of this analysis due to the fact that the unbundled parking policy in each of the three alternatives only applies to new residential developments. Thus, no reductions in existing household vehicle ownership are expected as these households will not be required to unbundle parking in any of the three alternatives. Similarly, in determining the effects of subsidized transit passes, new peak-hour commuter trips were separated from existing peak-hour commuter trips. For each of the three alternatives, the provision of partially or fully subsidized transit passes will only be required in new commercial and residential developments, thus no reductions in peak-hour trips from existing commercial and residential developments would be expected.

- **Vehicle trip generation versus vehicle ownership.** Household vehicle ownership is called out separately from vehicle trip reductions in the analysis because different policies impact each metric differently. While there is undoubtedly a correlation between vehicle ownership and peak-hour vehicle trips (e.g., lower auto ownership rates correlate with lower trip generation rates), there is currently insufficient research available to offer an estimate of the exact nature of that relationship. For this reason we have taken a conservative approach and assumed that each proposed policy either affects vehicle trip generation rates or vehicle ownership rates, but not both. In addition, for those strategies where we were only able to quantify vehicle ownership reductions, we have been conservative and assumed that those impacts are already accounted for by trip reduction strategies that we were able to quantify.

- **Impacts of some strategies were not quantifiable with available information.** The estimated reduction in peak-hour vehicle trips can be quantified with greater certainty for some policies and programs due to available data, while others do not lend themselves to easy quantification due to lack of data or other unknown variables. Where there was not enough available data to quantify the likely impact, we indicated in our analysis that the impact was "not known" or "not applicable." It must be stated emphatically that such a designation does not necessarily mean that a strategy has no impact on reducing vehicle trips in reality. Instead, these designations mean that:
  - The impact on peak-hour trips is not significant enough to model (e.g., the impact could fall within the margin of error);
  - In our professional opinion there is no solid basis (e.g., empirical research or published case studies) for documenting the precise trip reduction impacts; or
  - We believe the 4D (density, design, diversity, destinations) traffic model adjustments conducted by Fehr & Peers will adequately account for the impacts of this strategy.

  We have therefore excluded the impacts of certain strategies from this analysis in order to avoid the risk of misstating the likely benefits or to avoid "double counting" the benefits (e.g., pedestrian improvements adequately accounted for under "street network connectivity" factor of the 4D traffic model adjustments).

Cumulative Methodology

Because the transportation policies and programs under consideration in the three General Plan alternatives would ideally be implemented concurrently as a package, Nelson\Nygaard also developed a *cumulative* estimate of the likely trip reduction impacts of implementing several strategies concurrently.[1] The following provides an overview of the analytical methodology used to evaluate the cumulative trip reduction impacts of the General Plan transportation policies and programs under consideration.

- **Impacts of reforming parking requirements are highly localized.** At the request of the City of West Hollywood, Nelson\Nygaard developed an estimate of the likely estimate of the stand-alone impacts of reforming off-street parking requirements for new development. However, these impacts were excluded (netted out) of the cumulative impacts analysis for two reasons:
  - Changes to parking requirements would affect only the supply of off-street parking provided at new development while leaving the existing parking supply development unaffected. After examining the growth projections being considered in each of the General Plan alternatives, Nelson\Nygaard realized that new development projected

[1] As described in the previous section, Nelson\Nygaard developed a tailored package of trip reduction strategies for each General Plan alternative in coordination with the City of West Hollywood. It was this package that was evaluated in the cumulative analysis.

by 2035 in all alternatives is a very small percentage of total development in 2035.[2] For this reason, the absolute, citywide impacts of reducing off-street parking requirements will be much smaller than the site-level impacts that can be achieved when comparing a single development project's trip generation with conventional parking requirements versus reduced parking requirements.[3]

- While the methodology Nelson\Nygaard developed for calculating the stand-alone trip reduction impacts of reforming parking requirements is based on the best available data, it also includes a number of assumptions that were necessary to incorporate into the model where local data, case studies, or transportation research was not available. For this reason, we felt that it was prudent to exclude these stand-alone impacts from the cumulative analysis in order to maintain a highly conservative methodology.

- **Variable impacts depending on trip origins and destinations.** As discussed in the overview of the stand-alone methodology, the effectiveness of many TDM strategies implemented by West Hollywood can vary depending on trip type. One dimension of trip type is where a trip begins and ends. TDM strategies can have different effectiveness on trips with different origins and destinations. For example:
  - *Internal/Internal Trips.* Some policies and programs implemented by West Hollywood may be most effective in reducing vehicle trips that begin and end in West Hollywood (e.g., reforming residential parking requirements, reforming commercial parking requirements, demand-responsive pricing for all public parking).
  - *Internal/External Trips.* Some policies and programs implemented by West Hollywood may be most effective in reducing vehicle trips that begin in West Hollywood but end outside of West Hollywood (e.g., reforming residential parking requirements, regional transit system improvements).
  - *External/Internal Trips.* Some policies and programs implemented by West Hollywood may be most effective in reducing vehicle trips that begin outside of West Hollywood but have their final destination in West Hollywood (e.g., employee parking cash-out, regional transit system improvements).
  - *External/External Trips.* Most of the policies and programs under consideration in the West Hollywood General Plan will have effectively no impact on regional "pass through" trips that both begin and end outside of West Hollywood.[4] For this reason, Nelson\Nygaard did not estimate the trip reduction impacts on these trip types.[5]

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[2] For example, according to City of West Hollywood estimates, the total increase in off-street parking associated with new development by 2035 under the Preferred General Plan alternative will be 6,767 spaces (relative to 2035 No Project). This represents only 6.5% of the total estimated parking supply in 2035 under the Preferred General Plan alternative. For more information see Appendices C and D.

[3] While the trip reduction *percentages* may be similar in the citywide analysis we developed compared to a site-level analysis done using a modeling program such as Urbemis, the *absolute* reduction in vehicle trips will be smaller because the trip reductions percentages are being applied to a small number of parcels relative to the amount of existing development.

[4] The sole exception is the Subway to the Sea rail extension that is assumed in all General Plan alternatives. While Nelson\Nygaard did estimate the potential transit mode shifts and peak-hour trip reductions from this project, it was not possible to disaggregate how many of those former vehicle trips were pass through trips (relative to other trip types). For this reason, it was assumed that *all* the peak-hour trip reductions from the Subway to the Sea project applied only to those vehicle trips that under No Project alternative would have originated in West Hollywood, ended in West Hollywood, or both originated and ended in West Hollywood.

[5] There are other TDM strategies that would have a significant impact on regional "pass through" vehicle trips that both begin and end outside of West Hollywood but pass through the City boundaries for some portion of their trip. These strategies include a) coordinated capacity reductions or signal retiming on some West Hollywood arterials that could result in diversion of trips to non-West Hollywood streets or b) local or regional congestion pricing (to be effective at reducing pass-through peak-hour vehicle trips in West Hollywood, congestion pricing cannot just be applied to regional freeways but would also need to be applied to local West Hollywood streets). Aside from these strategies, the only

For the purposes of Nelson\Nygaard's analysis, it was assumed that the variable effectiveness of *individual* TDM strategies as a function of trip origins and destinations are averaged out in the *cumulative* trip reduction estimates. (Note that only the cumulative estimates are incorporated into Fehr and Peers 4D traffic modeling.) This was done because it was not possible at this time to further disaggregate the trip reduction impacts by trip origins and destinations as doing so would require a better understanding of the proportion of trips of internal/internal, internal/external, and external/internal trips and—for trips that end outside of West Hollywood—a speculative analysis of the policies and programs likely to be implemented in neighboring jurisdictions by 2035. Fehr and Peers may tailor Nelson\Nygaard's vehicle trip reduction estimates based on the relative proportion of trips with different origins and destinations being assumed in the traffic modeling of each General Plan alternative.

- **Development of reductions in non-commuter trips**. For Nelson\Nygaard's analysis of stand-alone impacts of each of the individual trip reduction strategies, we focused on peak-hour *commuter* vehicle trips. This is because the transportation literature contains a significant amount of information on commuter travel generally, and more specifically, the effects of TDM policies on reducing peak-hour commuter vehicle trips are relatively well understood. At the request of the City, Nelson\Nygaard has also analyzed the cumulative trip reduction impacts on *non-commuter* trips. However, the literature on non-commuter travel is less robust, and the research on the precise effects of TDM policies on peak-hour non-commuter trips is extremely limited. What is known is summarized below:
  - Traditionally, non-commuter trips have comprised a small percentage of peak-hour travel in U.S. communities. For this reason, much of the funding for programs and policies to reduce traffic congestion has focused on commuter travel and much of the research analyzing the effectiveness of reducing peak-hour traffic congestion has focused on commuter trips.
  - Due to demographic shifts (especially the aging of Baby Boomers) and growth in the incidence of flexible work schedules, telecommuting, and self-employment, non-commuter trips comprise an increasingly large proportion of all peak-hour trips.[6] However, the funding criteria for TDM programs and the amount of research analyzing the effectiveness of such programs has not kept pace with these changes in peak-hour travel behavior.
  - Further complicating this issue, the distinction between a commuter trip and a non-commuter trip has become blurred in recent decades as more commuters engage in "trip chaining." Trip chaining occurs when a trip for shopping, socializing, or other non-work purpose is combined (or chained) before, after, or during the commute trip.
  - In addition, non-commuter travel must be broken down into two distinct categories: discretionary and non-discretionary. Some discretionary trips are unconstrained both spatially and temporally, so that the traveler has a great degree of flexibility in determining trip time and route (e.g. Saturday afternoon walking trip to the Starbucks in my neighborhood versus a Saturday morning vehicle trip to the Starbucks across town). However, some non-commuter trips can be as highly constrained as a commuter trip (e.g. a trip to the doctor has a relatively fixed origin-destination pair and

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effective way for West Hollywood to reduce pass through vehicle trips on its local streets is to continue to collaborate with neighboring jurisdictions (including communities that are trip "donors" and trip "attractors") for the timely implementation of more robust regional trip reduction policies and programs.

[6] According to the 2009 National Household Transportation Survey, non-commuter trips comprise approximately 50% of all trips in the U.S. (by all modes at all times). According to Fehr and Peers, non-commuter peak-hour vehicle trips in West Hollywood comprise approximately 73% of all PM peak-hour vehicle trips.

limited flexibility of trip route and trip time). The effects of TDM programs on these two different categories of non-commuter travel are not well understood.

- Many of the TDM strategies that are most effective at reducing peak-hour vehicle trips (such as parking cash-out, subsidized transit passes) are commonly deployed as part of an employer-based TDM program. The effects of these strategies on non-commuter peak-hour trips are therefore not typically analyzed.
- Other TDM strategies (such as telecommuting and alternative work schedules) are *only* implemented as part of an employer-based TDM program, but potential decreases in peak-hour commuter trips made possible by these strategies may be offset by potential increases in peak-hour non-commuter trips.
- The effects of other TDM strategies (such as improvements to the transit, bicycle, and pedestrian networks) on non-commuter travel are highly context sensitive. For example, comparing the peak-hour mode splits for commuter and non-commuter trips in several different communities with subway systems would be technically possible (using the National Household Transportation Survey). But this approach is not advisable due to the likely variability of a number of other factors in these communities that affect mode choice and travel behavior, including regional employment distribution patterns, relative travel times on key local and regional corridors, and per-mile costs of travel by auto versus transit (largely a function of differences in parking pricing and relative levels of transit subsidy).
- Finally, some TDM strategies (such as Safe Routes to School) are specifically targeted at non-commuter peak-hour trips, and as a result, the effects of these programs on reducing such trips are well understood. However, Safe Routes to School was determined not to be a relevant policy for the City of West Hollywood to consider, given the presence of few schools and a relatively low percentage of households with school age children.

To undertake our analysis of the cumulative trip reduction effects of TDM policies on peak-hour non-commuter vehicle trips, Nelson\Nygaard conducted a second literature review. As we had anticipated, the available research on this topic is limited. However practical experience and common sense suggests that TDM policies certainly have *some* impact on peak-hour non-commuter vehicle trips, so we have derived a planning-level, order-of-magnitude, comparative estimate of the potential cumulative non-commuter effects. This estimate was derived by applying a highly conservative discount factor to the cumulative commuter trip reduction percentages, effectively “scaling them down” based on what is known about TDM strategies’ relatively weaker efficacy in reducing non-commuter trips. This discount factor was tailored to the specific trip types (new versus existing trips) and area types (commercial corridors, TOD zones, and residential zones) for each of the three General Plan alternatives. We believe that this method, while speculative, represents a highly conservative approach that provides the City with a reasonable estimate of the likely trip reduction effects of TDM strategies on non-commuter trips (while simultaneously avoiding the risk of overstating potential reductions).

- **Non-additive impacts.** The cumulative estimates of trip reductions for each of the three General Plan alternatives were developed using a non-additive methodology. This was done for several reasons, including:
  - Evaluative research of vehicle trip reduction strategies often attempts to isolate the stand-alone effects of implementing these strategies in order to understand the actual relationship of the independent and dependent variables. Often it is difficult to isolate these effects because in reality, multiple changes to the transportation system occur concurrently.

- Because trip reduction strategies often support one another in creating high-quality alternatives to auto commuting, multiple strategies implemented jointly can leverage greater impacts when compared to stand-alone implementation. For example, constructing the Subway to the Sea and offering subsidized transit fares will increase transit ridership (and reduce vehicle trips) to a greater degree than one or other in isolation.
- Conversely, some trip reduction strategies are mutually exclusive. For example, Nelson\Nygaard considered telecommuting to be a mutually-exclusive strategy from other TDM strategies (since telecommuters cannot by definition commute by transit, carpooling, bicycling, etc.). These impacts were therefore "netted out" of the cumulative estimates for certain policy alternatives.
- The stand-alone estimates of the effectiveness of strategies such as pricing of public parking were reduced in the cumulative estimates, given that the City of West Hollywood can only directly influence the pricing structure of the on-street parking and off-street lots and garages which are under its jurisdiction. Since the City has jurisdiction over an estimated 30% percent of the publically-available parking within West Hollywood's boundaries, the impact of parking pricing in the cumulative trip reduction estimates were reduced to account for this.
- When estimating the cumulative impacts of multiple transit-related strategies (e.g., subsidized transit fares, fare-free transit zones, transit system improvements), the stand-alone impacts for each individual strategy were adjusted by varying degrees depending on the area type and General Plan alternative. This was done based on professional judgment and common sense to reflect the fact that, while these are complementary transit measures that have increased efficacy when implemented together, there is a practical limit to how many vehicle trips can reasonably be expected to be converted to transit trips in West Hollywood even under the most aggressive policy scenario.[7]

Summary of Methodology

The stand-alone and cumulative estimates of peak-hour vehicle trip reductions that could likely be achieved with implementation of the proposed transportation policies and programs were drawn from Nelson\Nygaard's library of best practice case studies as well as a literature review. Wherever possible, the estimates were based on quantitative data (empirically derived or modeled). When appropriate, professional judgment was used to refine the estimates for the proposed policy alternatives, based on our experience in developing, analyzing, and implementing vehicle trip reduction strategies. At every step, assumptions and analysis were conservative, in order to avoid overstating potential benefits. At the same time, the inverse error of being overly conservative—and thereby understating potential benefits—was also avoided.

Findings

Nelson\Nygaard's findings suggest that West Hollywood can certainly reduce per capita peak-hour vehicle trips with the implementation of a broad-based suite of trip reduction strategies. While the precise impacts of specific trip reduction policies can vary, several factors—including peer-reviewed empirical evidence, real-world experience of peer communities, basic economic

[7] While there is no theoretical limit to the maximum cumulative reduction in vehicle trips that could be achieved with trip reduction strategies, in practice the application of such policies and programs can obviously be constrained by external factors. These constraints include financial, technical, or political limitations on the ability to implement more aggressive TDM strategies. Nelson\Nygaard therefore believes that it is prudent to acknowledge these real-world implementation constraints when developing the cumulative trip reduction estimates by recognizing that there is likely a practical limit to the total trip reductions that can be achieved even in the most aggressive implementation scenario.

theory, and common sense—provide overwhelming support for the findings in this memorandum that a concerted and comprehensive effort to promote mode shift and reduce vehicle trips can be effective in West Hollywood. The planning-level, order-of-magnitude, comparative estimates of likely trip reduction impacts are summarized below and discussed in detail in Appendices B, C, and D.

Stand-Alone Impacts

In general, the most effective individual trip reduction strategies—when evaluated in isolation—will likely be a continuation and/or enhancement of the following policies and programs:

- Public parking management/pricing to discourage commuter parking
- Parking cash-out programs, including a local ordinance and/or local enforcement of existing State law
- Subsidized transit
- Transit system improvements
- Carpooling incentives
- Telecommuting and alternative work schedules

As discussed above, some strategies will certainly have an impact on reducing peak-hour commuter vehicle trips (e.g., enhancements to pedestrian and bicycle facilities), but those impacts could not be quantified at this time.[8]

Cumulative Impacts

Preferred General Plan

In the Preferred General Plan scenario, there will likely be moderate reductions in peak-hour vehicle trips (relative to existing) as follows:

Commuter Trips

- Commercial Corridors: 31% (new), 19% (existing)
- TOD Zones: 26% (new), 22% (existing)
- Residential Zones: 12%

Non-Commuter Trips

- Commercial Corridors: 5% (new), 3% (existing)
- TOD Zones: 7% (new), 6% (existing)
- Residential Zones: 2%

TOD Focus Alternative

In the TOD Focus Alternative, there will likely be moderate reductions in peak-hour vehicle trips (relative to existing) as follows:

Commuter Trips

- Commercial Corridors: 20%
- TOD Zones: 39% (new), 30% (existing)

[8] For more information see the section titled “Impacts of some strategies not quantifiable with available information.”

- Residential Zones: 10%

Non-Commuter Trips

- Commercial Corridor Non-Commuter Trips: 5%
- TOD Zones Non-Commuter Trips: 13% (new), 10% (existing)
- Residential Zone Non-Commuter Trips: 3%

Extensive TDM Alternative

In the Extensive TDM Alternative, there will likely be high reductions in peak-hour vehicle trips (relative to existing) as follows:

Commuter Trips

- Commercial Corridor and TOD Zones Commuter Trips: 44% (new), 35% (existing)
- Residential Zone Commuter Trips: 20%

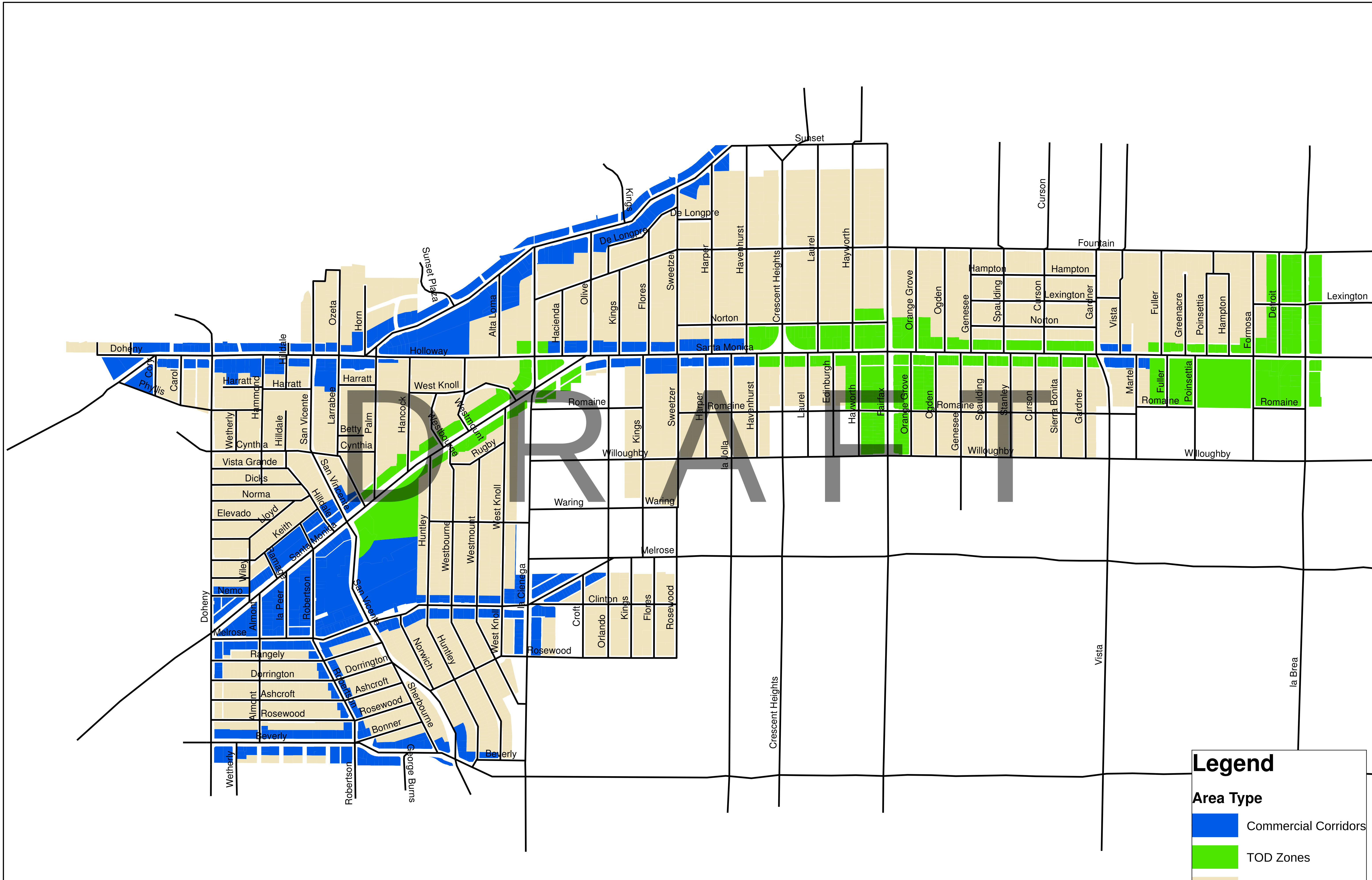
Non-Commuter Trips

- Commercial Corridors and TOD Zones: 15% (new), 12% (existing)
- Residential Zones: 7%

Summary of Findings

The findings of the trip reduction impact analysis represent what we believe to be best practice in transportation planning. We have undertaken this analysis according to the highest professional standards. Nelson\Nygaard is confident in the validity and accuracy of these findings for the purposes of deriving planning-level, order-of-magnitude, comparative estimates of the likely peak-hour vehicle trip reduction benefits of the transportation policies and programs under consideration in the City of West Hollywood's General Plan Update.

Appendix A:
Area Types Map



Source: City of West Hollywood (provided by Fehr and Peers 3/23/10)

Appendix B:

Proposed Policies & Programs

Proposed Policy or Program	**Preferred General Plan**		**TOD Focus Alternative**		**Enhanced TDM Alternative**	
	Residential Areas	*Commercial Corridors/ TOD Zones*	*Residential Areas*	*Commercial Corridors/ TOD Zones*	*Residential Areas*	*Commercial Corridors/ TOD Zones*
Reduced or Eliminated Auto Parking Requirements	No change from existing policy.	Phase in tailored reductions in minimum parking requirements.	No change from existing policy.	- Eliminate minimum parking requirements for TOD projects. - Phase in tailored maximum parking requirements for TOD projects (higher maximum for shared parking).	- Eliminate minimum parking requirements. - Set low maximum for parking requirements (higher maximum for shared parking).	
Unbundled Auto Parking	No change from existing policy.	All new multifamily residential and commercial development will be required to unbundle parking.	- All new multifamily residential and commercial development will be required to unbundle parking.		No change from existing policy.	All new multifamily residential and commercial development in TOD projects will be required to unbundle parking. Explore creating a Zoning Parking Credit program in commercial corridors.
Pricing of Public Auto Parking	No change from existing policy.	Demand responsive pricing of all public on- and off-street parking in commercial corridors.	- Demand responsive pricing of all public on- and off-street parking in all areas. - Phased increases to price of on-street residential parking permits.		No change from existing policy.	-Demand responsive pricing of all public on- and off-street parking for TOD projects.
Bike System Improvements	Implement improvements identified in the adopted Bicycle and Pedestrian Mobility Plan as funding becomes available.		Expedite funding of improvements identified in the adopted Bicycle and Pedestrian Mobility Plan as funding becomes available, with target improvements to enhance regional/through connectivity to jobs, educational institutions, and services.		Implement improvements identified in the adopted Bicycle and Pedestrian Mobility Plan as funding becomes available, with targeted improvements to enhance access to TOD projects.	
Pedestrian System Improvements	- Implement improvements identified in the adopted Bicycle and Pedestrian Mobility Plan/ADA Transition Plan as funding becomes available. - Continue to pursue Safe Routes to School funding for public schools and work to improve cooperation with the LAUSD to be eligible for additional funding opportunities.		- Expedite funding of improvements identified in the adopted Bicycle and Pedestrian Mobility Plan/ADA Transition Plan as funding becomes available, with targeted improvements to enhance local connectivity to jobs, educational institutions, and services. - Continue to pursue Safe Routes to School funding for public schools and work to improve cooperation with the LAUSD to be eligible for additional funding opportunities. - Coordinate with private schools located within the City and adjacent cities to develop Safe Routes to School programs/projects and apply for funding.		- Implement improvements identified in the adopted Bicycle and Pedestrian Mobility Plan/ADA Transition Plan as funding becomes available, with targeted improvements to enhance access to TOD projects. - Continue to pursue Safe Routes to School funding for public schools within the City and in adjacent cities and work to improve cooperation with the LAUSD to be eligible for additional funding opportunities.	
Transit System Improvements	- Implement improvements identified in the adopted regional Short-Range Transit Plan as funding becomes available. - Assume subway-to-the-sea alignment through West Hollywood.		- Advocate for expedited funding of improvements identified in the adopted regional Short-Range Transit Plan as funding becomes available, with targeted improvements to enhance regional/through connectivity to jobs, educational institutions, and services. - Assume subway-to-the-sea alignment through West Hollywood.		- Advocate for expedited funding of improvements identified in the adopted regional Short-Range Transit Plan as funding becomes available, with targeted improvements to enhance access to TOD projects. - Assume subway-to-the-sea alignment through West Hollywood.	

Trip Reduction Strategy	Preferred General Plan		TOD Focus Alternative		Enhanced TDM Alternative	
	Residential Areas	*Commercial Corridors/ TOD Zones*	*Residential Areas*		*Residential Areas*	*Commercial Corridors/ TOD Zones*
Fare Free Transit Zone	No change from existing policy.		No change from existing policy.		- Create a fare-free transit zone within the City of West Hollywood so that all transit trips originating within City boundaries are fare-free.	
Auto Parking Cash-Out	N/A to residential development (see unbundled parking).	No change from existing policy.	N/A to residential development (see unbundled parking).	- Expand existing parking cash-out requirement to all businesses (i.e. regardless of number of employees or SF of business) if the employer subsidizes or provides free parking for employees.	N/A to residential development (see Unbundled Parking).	- Expand existing parking cash-out requirement to all businesses in TOD projects (i.e. regardless of number of employees or SF of business) if the employer subsidizes or provides free parking for employees.
Car Sharing	- Implement a small-scale car sharing program for City employees. - Pursue multi-jurisdictional car sharing program with regional partners including City of LA, Westside Cities, and SCAG.		Require development projects to implement o-site car sharing program or pay into a fund to incentivize a car sharing operator to implement a citywide program in the near-term. - Pursue multi-jurisdictional car sharing program with regional partners including City of LA, Westside Cities, and SCAG.		Require TOD development projects to implement on-site car sharing program or pay into a fund to incentivize a car sharing operator to implement a citywide program in the near-term. - Pursue multi-jurisdictional car sharing program with regional partners including City of LA, Westside Cities, and SCAG.	
Bike Sharing	- Implement a small-scale bike sharing program for City employees. - Pursue multi-jurisdictional bike sharing program with regional partners including City of LA, Westside Cities, and SCAG.		- Require development projects to implement on-site bike sharing program or pay into a fund to incentivize a bike sharing operator to implement a citywide program in the near-term. - Pursue multi-jurisdictional bike sharing program with regional partners including City of LA, Westside Cities, and SCAG.		- Require TOD development projects to implement on-site bike sharing program or pay into a fund to incentivize a bike sharing operator to implement a citywide program in the near-term. - Pursue multi-jurisdictional bike sharing program with regional partners including City of LA, Westside Cities, and SCAG.	
Carpooling/Vanpooling	Target small to moderate increase in employee participation rates in carpools and vanpools due to additional promotional efforts by the City.		Target moderate to high increase in employee participation rates in carpools and vanpools due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.		Target moderate to high increase in employee participation rates in carpools and vanpools at TOD projects due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.	
Telecommuting/Alternative Work Schedules	Target small to moderate increase in employee participation rates in telecommuting and alternative work schedules due to additional promotional efforts by the City.		Target moderate to high increase in employee participation rates in telecommuting and alternative work schedules for employees due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.		Target moderate to high increase in employee participation rates in telecommuting and alternative work schedules for employees at TOD projects due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.	

Appendix C:

Summary of Vehicle Trip Reduction Estimates

Summary of Estimated Reductions in Peak-Hour Vehicle Trips

	Proposed Policy or Program	Trip Type Affected[1]	Reduction in Peak-Hour Vehicle Trips[2]: Preferred General Plan	TOD Focus	Enhanced TDM	No Project	Impact on Household Auto Ownership[3]: Preferred General Plan	TOD Focus	Enhanced TDM	No Project
Stand-Alone Estimates	Reduced / Eliminated Minimum Parking Requirements[4]	Commuter	17% (All Areas)	22% (All Areas)	28% (All Areas)	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Unbundled Parking[6]	Commuter	N/A[5]	N/A[5]	N/A[5]	N/A[5]	Commercial New: 15% Commercial Existing: 0% TOD: 0% Residential: 0%	Commercial: 0% TOD New: 15% TOD Existing: 0% Residential: 0%	All Areas New: 15% All Areas Existing: 0%	All Areas New: 0% All Areas Existing: 0%
	Public Parking Pricing	Commuter	Commercial: 17% TOD: 0% Residential: 0%	Commercial: 0% TOD: 17% Residential: 0%	Commercial: 17% TOD: 17% Residential: 0%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Bike System Improvements[7]	Commuter	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Pedestrian System Improvements	Commuter	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Transit System Improvements[8]	Commuter	Commercial: 20.1% TOD: 20.1% Residential: 10%	Commercial: 20.1% TOD: 20.1% Residential: 10%	Commercial: 20.1% TOD: 20.1% Residential: 10%	0%	N/A[4]	N/A[4]	N/A[4]	N/A[4]
	Subsidized Transit Fares[9]	Commuter	Commercial New: 8.5% Commercial Existing: 0% TOD New: 8.5% TOD Existing: 0% Residential: 0%	Commercial New: 0% Commercial Existing: 0% TOD New: 29% TOD Existing: 0% Residential: 0%	Commercial New: 29% Commercial Existing: 0% TOD New: 29% TOD Existing: 0% Residential: 0%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Transit Fare Free Zone[10]	Commuter	0%	0%	Commercial: 9.2% TOD: 9.2% Residential: 4.6%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Parking Cash-Out	Commuter	0%	Commercial: 0% TOD: 5% Residential: 0%	Commercial: 5% TOD: 5% Residential: 0%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Car Sharing	Commuter	N/A[5]	N/A[5]	N/A[5]	N/A[5]	0%	Commercial: 0% TOD: 10% Residential: 0%	Commercial: 10% TOD: 10% Residential: 0%	0%
	Bike Sharing[11]	Commuter	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Carpooling[12]	Commuter	Commercial: 2% TOD: 2% Residential: 2%	Commercial: 0% TOD: 5% Residential: 0%	Commercial: 5% TOD: 5% Residential: 5%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	Telecommuting / Alternative Work Schedules[13]	Commuter	Commercial: 2% TOD: 2% Residential: 2%	Commercial: 0% TOD: 5% Residential: 0%	Commercial: 5% TOD: 5% Residential: 5%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
Cumulative Estimates	Commercial Corridors[14]	New Commuter	31%	20%	44%	0%	Commercial: 15%	Commercial: 0%	Commercial: 15%	0%
	TOD Zones[14]		26%	39%	44%		TOD: 0%	TOD: 15%	TOD: 15%	
	Residential Zones[14]		12%	10%	20%		Residential: 0%	Residential: 0%	Residential: 15%	
	Commercial Corridors[14]	Existing Commuter	19%	20%	35%	0%	0%	0%	0%	0%
	TOD Zones[14]		22%	30%	35%					
	Residential Zones[14]		12%	10%	20%					
	Commercial Corridors[15]	New Non-Commuter	5%	5%	15%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	TOD Zones[15]		7%	13%	15%					
	Residential Zones[15]		2%	3%	7%					
	Commercial Corridors[15]	Existing Non-Commuter	3%	5%	12%	0%	N/A[5]	N/A[5]	N/A[5]	N/A[5]
	TOD Zones[15]		6%	10%	12%					
	Residential Zones[15]		2%	3%	7%					

Notes and Sources

[1] "Commuter Trips" are Home-Based Work (HBW) trips, including school trips. All other trip types are "Non Commuter."

[2] For estimates of both peak-hour vehicle trip reductions and household vehicle ownership reductions, area types are defined as follows: Commercial Corridors, TOD Zones, Residential Zones. For more information, see Appendix A.

[3] Household vehicle ownership is called out separately from vehicle trip reductions because different policies impact each metric differently and although there is undoubtedly a correlation between vehicle ownership and peak-hour vehicle trips (e.g. lower auto ownership rates certainly correlate with lower trip generation rates), there is currently insufficient research available to offer an estimate of the exact nature of that relationship. For this reason we have taken a conservative approach and assumed that each proposed policy either affects vehicle trip generation rates or vehicle ownership rates, but not both.

[4] The stand-alone impacts of this strategy were excluded (netted out) of the cumulative impacts estimates because the methodology Nelson\Nygaard developed at the City's request for estimating the stand-alone impacts includes a number of assumptions that were necessary to incorporate into the model where local data, case studies, or transportation research was not available. For this reason, we felt that it was prudent to exclude these stand-alone impacts from the cumulative analysis in order to maintain a highly conservative methodology.

[5] N/A doesn't necessarily mean that a strategy has no impact on reducing vehicle trips in reality. Instead it means that a) the impact on peak-hour trips is not significant enough to model (e.g. the impact could fall within the margin of error) or b) in our professional opinion there is not a solid enough basis (e.g. empirical research or published case studies) to allow us to document the precise trip reduction impacts for the purposes of traffic model, c) we believe the 4D model adjustments (density, design, diversity, destinations) will adequately account for the impacts and we have therefore excluded these impacts to avoid "double counting" (e.g. pedestrian improvements are adequately accounted for under "street connectivity" factor of the 4D model adjustments), or d) the policy alternatives considered in West Hollywood and their impacts are not well understood (e.g. reducing and/or eliminating minimum parking requirements will certainly have some impact on vehicle ownership through Tiebout Sorting, (e.g. self-selection) effects; however the order of magnitude impacts depend on a number of factors that are not known at this time such as: phased implementation of recommendations, how developers respond to reduced/eliminated parking minimums and/or parking maximums, and West Hollywood's households' sensitivity to changes in the costs of auto ownership, know as price elasticity of demand). Where 0% reduction is noted, this indicates that we estimate the strategy to have no measurable impact at all in reducing peak-hour vehicle trips (or no additional impact beyond impacts of current programs).

[6] New commuter trips are separated from existing commuter trips both for unbundled parking and subsidized transit fares. This is because the trip reduction impacts are different for each group due to the fact that these programs will only be applied to new developments (unbundled parking) or new employers (subsidized transit fares).

[7] The available research on the impact of this strategy suggests a 0.46% to 0.96% increase in bike commuting trips, but does not document the reduction in peak-hour vehicle trips.

[8] Transit system improvements assume a Subway to the Sea alignment through West Hollywood in all General Plan alternatives. The effectiveness of this policy in Residential Zones is reduced given the lower percentage of existing residents in this area who currently commute via transit.

[9] New commuter trips are separated from existing commuter trips both for unbundled parking and subsidized transit fares. This is because the trip reduction impacts are different for each group due to the fact that these programs will only be applied to new developments (unbundled parking) or new employers (subsidized transit fares).

[10] Fare free zones assume that all transit rides originating within West Hollywood are free. The effectiveness of this policy in Residential Zones is reduced given the lower percentage of residents who in this area who commute via transit. Also, it is important to note that the effects of fare free zones and subsidized transit fares are not additive.

[11] The available research on the impact of this strategy suggests a 5% to 8% shift from auto commuters (both those in single occupant vehicles and those in carpools) to bike commuters. It should be noted that when summing the impacts of multiple strategies, telecommuting is a mutually-exclusive strategy (e.g. telecommuters cannot by definition commute by transit, carpooling, bicycling, etc.).

[12] The available research on the impact of this strategy suggests a 5% to 15% increase in ridesharing, but does not document the reduction in peak-hour vehicle trips.

[13] The available research on the impact of this strategy suggests a 20% to 50% decrease in peak-hour vehicle trips, but does not specify participation rates. For this reason we have conservatively estimated the reduction in peak-hour vehicle trips as 50% of the total documented decrease, assuming that participation rates will only be half of the participation rates in the case studies researched.

[14] Estimates of cumulative trip reduction impacts for commuter trips are not a summation of the stand-alone trip reductions impacts for the individual strategies. Instead they are based on highly-conservative calculation based on available literature, professional judgment, and practical experience of the likely maximum trip reduction effects of all policies and programs under consideration in each General Plan alternative. For more information, see the section entitled "Cumulative Methodology" included in the Introduction to this technical memorandum.

[15] Estimates of trip reduction impacts for non-commuter trips are based on available literature, professional judgment, and practical experience of the likely maximum trip reduction effects of all policies and programs under consideration in each General Plan alternative. A highly conservative discounting of the commuter trip reduction impacts was derived for each trip type and area type based on the likely effectiveness of the TDM policies and programs on non-commuter trips. For more information, see the section entitled "Cumulative Methodology" included in the Introduction to this technical memorandum.

Appendix D:

Detailed Discussion of Vehicle Trip Reduction Estimates

Category 1: Parking Policies

1.1 Reduced / Eliminated Minimum Parking Requirements

Overview

Most cities' minimum parking requirements for new development typically take into account only two variables: land use type and the size (or intensity) of the development. However, they fail to take into account a number of other factors which affect parking demand including geographic factors (e.g. pedestrian environment, proximity to transit, and availability of services), demographic factors (e.g. income, household size, and vehicle ownership rates), and other relevant factors that affect parking demand (e.g. the presence of transportation demand management programs like car-sharing).

Minimum parking requirements are intended to achieve specific goals (most commonly identified by cities as avoiding spillover parking problems and reducing congestion of on-street parking). However, these goals can also be achieved through other policies, such as pricing curb parking at market rates, residential parking permit programs, and other parking management techniques.

Reduced parking requirements could be established in locations where parking demand will be lower due to the geographic and demographic factors described above. Eliminating parking requirements would not mean that no new parking would be constructed. Rather, it would mean that market forces would determine the appropriate level of supply, based on market demands. Minimum parking requirements could be waived entirely anywhere in the City of West Hollywood where there are measures in place to combat parking spillover but especially in mixed-used areas and in proximity to major transit corridors.

Current Policies & Programs

For commercial and retail uses, the West Hollywood municipal code generally requires 3.5 parking spaces per 1,000 sq. ft. Restaurant uses require 9 parking spaces per 1,000 sq. ft. and bars and clubs require 15 parking spaces per 1,000 sq. ft.

For residential uses, parking requirements vary based on number of bedrooms and location.

- Single family detached: 2 spaces per unit
- Condominiums, multifamily, duplexes, townhouses:
  - Studio up to 500 sq. ft.: 1 space per unit
  - 1 bedroom and studios over 500 sq. ft.: 1.5 spaces per unit
  - 2 to 3 bedrooms: 2 spaces per unit
  - 4 or more bedrooms: 3 spaces per unit
  - Guests: 1 covered space per 4 units, for developments with more than 5 units

Proposed Trip Reduction Policies & Programs

Preferred General Plan

In Commercial Corridors, phase in tailored reductions in minimum commercial parking requirements.

In residential areas, maintain existing policies.

TOD Focus Alternative

In TOD Zones, eliminate minimum parking requirements for Transit Oriented Development (TOD) projects and phase in tailored reductions in maximum parking requirements for TOD projects (higher maximum for shared parking).

Outside of the TOD Zones, maintain existing policies.

Enhanced TDM Alternative

Throughout West Hollywood eliminate minimum parking requirements and set low maximum parking requirements for both commercial and residential development projects (higher maximum for shared parking).

Summary of Literature and Study Impacts

Research shows that there is an indirect link between reduced minimum parking requirements and a decline in vehicle trips. Setting minimum parking requirements often results in lower parking prices, as the supply of parking exceeds demand, which in turn increases vehicle ownership. Studies reveal that the elasticity of vehicle ownership with respect to vehicle operating costs is typically -0.4 to -1.0, hence a 10% increase in total vehicle operating costs reduces vehicle ownership 4-10%.[1]

Average income households in the US spend an average of $3,800 annually per vehicle.[2] Therefore, if one assumes that a hypothetical residential parking space has an annualized cost of $800 per year, parking costs would add 21% to vehicle costs for an average income household. If we assume a vehicle price elasticity of –0.7 (Figure 1), residential minimum parking requirements that exceed the actual demand for parking increase vehicle ownership about 15%. The resulting increase in vehicle ownership produces more residential-based vehicle trips. Conversely, decreasing or eliminating residential parking requirements would result in a proportionate reduction in residential-based vehicle trips.

Figure 1 Vehicle Ownership Reductions from Residential Parking Pricing

Annual (Monthly) Fee	-0.4 Elasticity	-0.7 Elasticity	-1.0 Elasticity
$300 ($25)	4%	6%	8%
$600 ($50)	8%	11%	15%
$900 ($75)	11%	17%	23%
$1,200 ($100)	15%	23%	30%
$1,500 ($125)	19%	28%	38%

In order to determine the impacts of restructuring parking requirements a number of assumptions were made in order to determine how many daily trips are associated with a single residential or commercial parking space and how many of these trips occur during the peak-hour. Described below are the assumptions and methodology employed for this analysis:

1. The trip generation factor associated with a parking space is the parking turnover factor of the number of vehicles/space/day multiplied by 2 to derive number of trips/space/day. This is a daily average from multiple parking facilities drawn from both primary sources (parking surveys in West Hollywood and other Southern California peer cities) and

[1] Victoria Transport Policy Institute (2009), *Transportation Elasticities,* www.vtpi.org/tdm/tdm11.htm.
[2] Bureau of Labor Statistics (2003), Consumer Expenditure Survey, 2002, www.bls.gov.

secondary sources (transportation literature). The average may include weekdays and weekends depending on data available. This was calculated as follows[3]:

a. Residential off-street: This average was derived based on the assumption that every residential unit in West Hollywood has an off-street parking space. The average drive alone mode split in West Hollywood is 75% (US Census), therefore it is assumed that 75% of all off-street residential parking spaces generate 2 trips per day for commuting and that the remaining 25% of all off-street residential parking spaces generate 2 trips per day for non-commuting (shopping, errands etc.). In reality, some off-street residential parking spaces generate zero non-commuting trips, while others generate both commuter and non-commuter trips, so 2 trips/space/day was used as a reasonable estimate for purposes of this analysis.

b. Commercial/Visitor/Employee Off-street: Limited local data is available for this parking type. City-provided data for a single hardware store suggested 16 vehicles/space/day for a trip generation factor of 32 trips/day/space.[4] Because a hardware store is likely a high-turnover land use, other types of off-street parking (especially employee) have a longer average parking durations and therefore lower turnover rates, and to maintain a conservative methodology, the average trip generation rate for all commercial/visitor/employee off-street parking is assumed to 50% of the rate of the surveyed hardware store.

c. Public off-street: No available local data exists for this parking type. Average parking turnover and trip generation factor is assumed to be the same as public on-street parking as explained below.

d. Public on-street: Average weekday and weekend on-street parking turnover for Sunset and Melrose Commercial Corridors is 6.3 vehicles/space/day.[5] This equates with 12.6 trips/space/day. Because not all on-street parking in West Hollywood is along commercial and/or metered streets (which have higher turnover factor than on-street parking in unmetered residential areas), and in order to maintain a highly conservative analysis, the combined turnover factor for commercial and visitor on-street parking is was discounted by 66%, resulting in a citywide on-street parking turnover factor of 3.1 vehicles/space/day and 4.2 trips/space/day.

2. To estimate the number of future parking spaces that would be available for each of the three alternatives, the current number of parking spaces[6] was increased based on an estimate of the number of spaces projected to be provided under current parking standards:

   a. No Project Build Out: Residential assumes an average of 1.5 spaces per unit.[7] Growth in on-street parking is excluded because City assumes that there will be no increase in on-street parking.[8]

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[3] For the Aggressive TDM alternative only, a 10% reduction was applied to account for the reduced trip generation assumed with the robust TDM scenario proposed in this alternative.
[4] City of West Hollywood communication, 3/4/10.
[5] "West Hollywood Parking Turnover," West Hollywood On-Street Parking Study. Prepared by Civic Enterprises Associates, 2009.
[6] The current number of parking spaces is based on actual survey counts or informed order-of-magnitude estimates Source: City of West Hollywood communication, 3/4/10.

[7] City of West Hollywood growth projections under consideration in the Draft General Plan and current parking requirements in the City's existing zoning code.

b. Preferred General Plan Build Out Residential: No changes proposed to residential parking requirements in this alternative, so residential number assumes an average of 1.5 spaces per unit for residential development (current requirement for 1 BR and large studios).

c. Preferred General Plan Build Out Commercial: Proposed policy is a phased reduction in commercial parking requirements tailored to location, so commercial number assumes 2.625 spaces per KSF for new commercial development, a 25% reduction of existing requirement for typical commercial use of 3.5 spaces per KSF.[9] Public off- and on-street parking based on informed order-of-magnitude estimates. Growth in on-street parking is excluded because City assumes that there will be no increase in on-street parking.[10]

d. TOD Focus Alternative Build Out Residential: For new residential development in TOD Zones/Commercial Corridors, the proposed policy is to eliminate minimum parking requirements and implement parking maximums; the residential number therefore assumes an average of 1 space per unit for new residential development in TOD Zones/Commercial Corridors (in other words, assumption is that a) the parking maximums implemented average to 1 space/unit and b) all development provides parking at the maximum ratio).

e. TOD Focus Alternative Build Out Commercial: For new commercial development in TOD Zones/Commercial Corridors, the proposed policy is to eliminate minimum parking requirements and implement parking maximums (with a higher maximum for shared parking); the commercial number therefore assumes an average of 2 spaces per KSF per unit for new commercial development in TOD Zones/Commercial Corridors, a 42.9% reduction of existing requirement for typical commercial use of 3.5 spaces per KSF.[11] This hypothetical commercial parking maximum aligns with Nelson\Nygaard research that blended commercial parking demand in "Main St." retail context is less than 2 spaces/KSF as well as recent research that TOD projects parked according to standard parking requirements are over parked by as much as 50%.[12] Growth in on-street parking is excluded because City assumes that there will be no increase in on-street parking.[13]

f. Enhanced TDM Alternative Build Out Residential: For all new residential development, the proposed policy is to eliminate minimum parking requirements and implement parking maximums; the residential number therefore assumes an average of 1 space per unit for all new residential development in (in other words, assumption is that a) the parking maximums implemented average to 1 space/unit and b) all development provides parking at the maximum ratio).

g. Enhanced TDM Alternative Build Out Commercial: For new commercial development, the proposed policy is to eliminate minimum parking requirements and implement parking maximums (with a higher maximum for shared parking);

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[8] City of West Hollywood communication, 3/4/10.
[9] City of West Hollywood growth projections under consideration in the Draft General Plan and current parking requirements in the City's existing zoning code.
[10] City of West Hollywood communication, 3/4/10.
[11] City of West Hollywood growth projections under consideration in the Draft General Plan and current parking requirements in the City's existing zoning code.
[12] "Technical Memorandum: Main St. Parking Demand," Nelson\Nygaard, 2006 and "TCRP Report 128: Effects of TOD on Housing, Parking, and Travel." G.B. Arrington and Robert Cervero, Washington, D.C.: National Academies of Sciences' Transportation Research Board Transit Cooperative Research Program, 2008.
[13] City of West Hollywood communication, 3/4/10.

the commercial number therefore assumes an average of 2 spaces per KSF per unit for all new commercial development in TOD Zones/Commercial Corridors, a 42.9% reduction of existing requirement for typical commercial use of 3.5 spaces per KSF.[14] This hypothetical commercial parking maximum aligns with Nelson\Nygaard research that blended commercial parking demand in "Main St." retail context is less than 2 spaces/KSF as well as recent research that TOD projects parked according to standard parking requirements are overparked by as much as 50%.[15] Growth in on-street parking is excluded because City assumes that there will be no increase in on-street parking.[16]

3. To determine the total daily trips for each of the three alternatives, the trip generation factor calculated in Step 1 was multiplied by the total number of parking spaces calculated in Step 2. The resulting total daily trips was then multiplied by a parking space occupancy factor of peak-hour of 90%.[17]

4. To determine how many of the total daily trips generated would likely occur during the peak-hour, total daily trips were multiplied by 0.1. Industry standard "rule of thumb" is that 15% (0.15) of total daily trips occur in peak-hours. However, West Hollywood does not have typical employment travel demand patterns, but instead has more trips occurring outside of commute hours than is common in a typical urban Central Business District (CBD) or suburban office park. Therefore a slightly lower discount factor of 10% (0.1) was used for this analysis. The resulting number of total AM and PM peak-hour trips is in the same range as Fehr and Peers' 2035 No Project model output for total AM and PM peak-hour trips of 48,998.[18]

5. To determine the total daily PM commuter peak-hour trips, total daily peak-hour trips (Step 4) were reduced by 50% and multiplied by 0.27. A factor of 0.27 was used based on the assumption that the 2035 split between PM peak-hour commuter and PM non-commuter vehicle trips is the same as current 27% commuter and 73% non-commuter.[19]

6. To determine the total daily PM non-commuter peak-hour trips, total daily peak-hour trips (Step 4) were reduced by 50% and multiplied by 0.73. A factor of 0.73 was used based on the assumption that total 2035 No Project Commute PM peak-hour trips is 7,342 and total 2035 No Project Non-Commute PM peak-hour trips is 19,785. Total 2035 No Project PM peak-hour trips is 27,127.[20]

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

Based on the assumptions and methodology described above, the Preferred General Plan would result in a 17% in peak-hour vehicle trips. Because the available data did not allow for fine-

[14] City of West Hollywood growth projections under consideration in the Draft General Plan and current parking requirements in the City's existing zoning code.
[15] "Technical Memorandum: Main St. Parking Demand," Nelson\Nygaard, 2006 and "TCRP Report 128: Effects of TOD on Housing, Parking, and Travel." G.B. Arrington and Robert Cervero, Washington, D.C.: National Academies of Sciences' Transportation Research Board Transit Cooperative Research Program, 2008.
[16] City of West Hollywood communication, 3/4/10.
[17] Best practice peak-hour parking occupancy thresholds are 85% for on-street parking and 95% for off-street. This average of 90% assumes that all parking will be managed using best practice principles at least at peak demand periods. This parking occupancy rate is highly conservative in that it does not account for commercial or residential vacancy rates which drive down blended average parking occupancy rates.
[18] Fehr and Peers communication, dated 3/3/10.
[19] Fehr and Peers communication, dated 3/3/10.
[20] Fehr and Peers communication, dated 3/3/10.

grained analysis of this strategy, this trip reduction estimate was not disaggregated by area type or trip type.

TOD Focus Alternative

Based on the assumptions and methodology described above, the TOD Focus alternative would result in a 22% in peak-hour vehicle trips. Because the available data did not allow for fine-grained analysis of this strategy, this trip reduction estimate was not disaggregated by area type or trip type.

Enhanced TDM Alternative

Based on the assumptions and methodology described above, the Enhanced TDM alternative would result in a 28% in peak-hour vehicle trips. Because the available data did not allow for fine-grained analysis of this strategy, this trip reduction estimate was not disaggregated by area type or trip type.

1.2 Unbundled Parking

Overview

Parking costs are generally subsumed into the sale or rental price of housing and commercial space. Although the cost of parking is often hidden in this way, parking is never free; instead the cost to construct and maintain the "free" parking is hidden in the cost of all other goods and services. For all commercial and residential development in West Hollywood, the cost to lease or purchase parking could be unbundled from the cost to lease or purchase the usable space.

Such a policy would provide a financial incentive to residents and employers to lease only the amount of parking they need. For residential development, unbundled parking may prompt some residents to dispense with one of their cars and to make more of their trips by other modes. Among households with below-average vehicle ownership rates (e.g., low-income people, singles and single parents, seniors on fixed incomes, and college students), unbundled parking can also provide a substantial financial benefit that increases housing affordability. Unbundled parking can allow employers to provide employees with an equitable transportation benefit that can reduce vehicle commuting.

Current Policies & Programs

The City of West Hollywood does not require the unbundling of parking in residential or commercial developments.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

All new multi-family residential and commercial developments, located within the Commercial Corridors will be required to unbundle parking.

In the remaining areas of West Hollywood, unbundled parking in residential or commercial developments will not be required.

TOD Focus Alternative

All new multi-family residential and commercial developments, located within the TOD Zones will be required to unbundle parking.

In the remaining areas of West Hollywood, unbundled parking in residential or commercial developments will not be required.

Enhanced TDM Alternative

All new multi-family residential and commercial developments, in the City of West Hollywood will be required to unbundle parking. The City of West Hollywood will also explore creating a Zoning Parking Credit program in Commercial Corridors.

Summary of Literature and Study Impacts

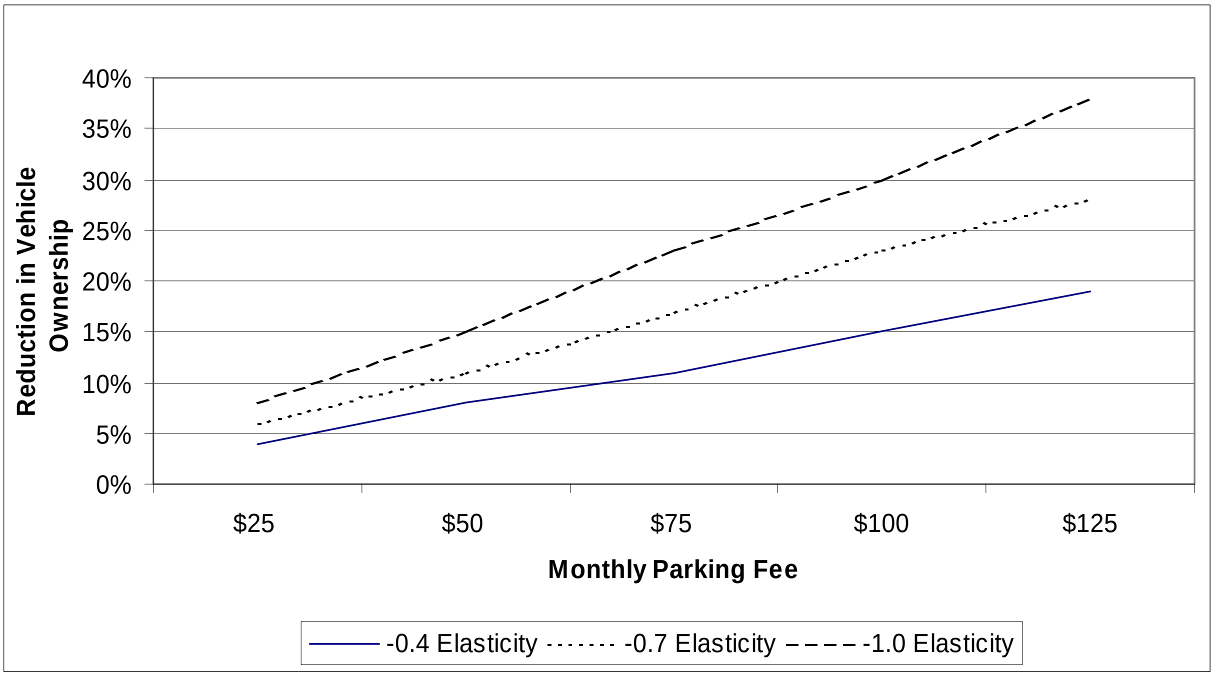
Charging separately for parking is the single most effective strategy to encourage households to own fewer cars, and subsequently reduce vehicle trips. According to a study by Todd Litman, unbundling residential parking can significantly reduce household vehicle ownership.[21] Studies

[21] Victoria Transport Policy Institute (2009), *Parking Requirement Impacts on Housing Affordability,* www.vtpi.org/park-hou.pdf.

reveal that the elasticity of vehicle ownership with respect to price is typically -0.4 to -1.0, so a 10% increase in total vehicle costs reduces vehicle ownership 4-10%.[22]

Average income households spend an average of $3,800 annually per vehicle.[23] Assuming that residential parking spaces have a monthly cost of $100 and a very conservative vehicle price elasticity of demand factor of –0.4 the unbundling of residential parking costs would decrease vehicle ownership by 15% (Figure 2). This decrease would likely result in a proportionate reduction in residential-based vehicle trips.

Figure 2 Reduction in Vehicle Ownership from Unbundling Parking Costs



Summary of Estimated Impacts in West Hollywood

Preferred General Plan

If we assume a monthly cost of $100 per space for unbundled parking in all new multi-family residential developments and unit types within Commercial Corridors, residential vehicle ownership at new multi-family residential developments will likely fall by 15% by 2035.

TOD Focus Alternative

If we assume a monthly cost of $100 per space for unbundled parking in all new multi-family residential developments and unit types within TOD Zones, residential vehicle ownership at new multi-family residential developments will likely fall by 15% by 2035.

[22] Victoria Transport Policy Institute (2009), *Transportation Elasticities,* www.vtpi.org/tdm/tdm11.htm.
[23] Bureau of Labor Statistics (2003), *Consumer Expenditure Survey, 2002*, www.bls.gov.

Enhanced TDM Alternative

If we assume a monthly cost of $100 per space for unbundled parking in all new multi-family residential developments and unit types in all area types, residential vehicle ownership at new multi-family residential developments will likely fall by 15% by 2035.

1.3 Public Parking Pricing

Overview

One of the most significant factors affecting motorists' choice of whether to drive or travel by another mode is the price of parking at the destination. In addition, studies have shown that an average of 28% of traffic congestion in urban mixed-use districts is attributable to cruising for parking: motorists who have already arrived at their destination but are searching and circling to find a free or below market-rate curb parking space.[24]

In these circumstances, managing on- and off-street parking prices as part of an integrated district-wide parking system is an important strategy for reducing peak-hour trip generation and localized traffic congestion, especially for trips to areas with high employment densities. Demand-responsive, market-based prices for parking pricing also have secondary benefits including:

- Distributing highly variable parking demand to match available supply to ensure that there are available curb parking spaces at all times of day.
- Promoting parking turnover to prevent commuters parking all-day in on-street parking spaces intended for short-term parking.

Current Policies and Programs

Off-Street Parking Pricing

Off-street parking pricing varies in West Hollywood by garage and time of day. Figure 3 below provides details on the hourly and daily maximum cost for parking at public parking garages in West Hollywood.

Figure 3 Off-Street Public Parking

Parking Lot/Structure	Current Rate Per 20 minutes or per hour	Current Peak Maximum Rate
Kings Road	$1.00 / 20 minutes – 8am to 6 pm $7.50 max.	$4.00
La Jolla/Havenhurst Lot	$.75 / hour	
Orange Grove Lot	$.75 / hour – 8am to 6 pm	$4.00
Spaulding Lot	$.75 / hour	$7.00
Sunset Lot	$1.00 / hour	$8.00
Melrose Lot	$1.00/ hour	
La Peer Lot	$1.00 / hour	$8.00
West Hollywood Park	$1.00 / hour	$10.00

The monthly cost of off-street parking varies from $60 to $100 for a monthly daytime pass at West Hollywood municipal garages. The majority of West Hollywood municipal garages charge $90 for a monthly daytime parking permit.

On-Street Parking Pricing

On-street parking meters are located on major thoroughfares and Commercial Corridors throughout the City, and the cost per hour and hours of enforcement vary by location. Currently the majority of meters operate from 8 AM to 6 PM, Monday through Saturday except for those on

[24] Shoup, Donald. *The High Cost of Free Parking.* APA Planner's Press. 2005.

Sunset Boulevard, which operate from 8 AM to 2 AM, Monday through Saturday. Most meters throughout West Hollywood have a 2-hour time limit. The time limits on Sunset Boulevard change from 2 to 4 hours after 10 PM. In addition, there are some short-stay meters (10 to 30 minutes) to accommodate businesses that have requested short-term parking. Parking charges vary from $1.00 per hour on Sunset Boulevard and the area around Pacific Design Center to $0.75 throughout the rest of the City.

Proposed Trip Reduction Policies & Programs

For the purposes of this analysis it is assumed, based on consultant judgment, that there is a 50 percent increase in the average monthly parking rate in municipal parking lots and garages from the current $90 per month to $135 per month by the 2035 endpoint planning horizon of the General Plan.

Preferred General Plan

Within Commercial Corridors implement demand-responsive pricing of all public on-street and off-street parking.

Outside of the Commercial Corridors, parking management policies will remain as they currently are.

TOD Focus Alternative

Within TOD Zones implement demand responsive pricing of all public on-street and off-street parking for commercial projects.

Outside of the TOD Zones, parking management policies will remain as they currently are.

Enhanced TDM Alternative

Implement demand responsive pricing of all public on-street and off-street parking, including phased increases to price of on-street residential parking permits.

Summary of Literature and Study Impacts

The reduction in employee vehicle trips from public parking pricing varies both in the amount charged for parking and in the type of location the pricing is implemented. Parking pricing has a much more profound effect in denser areas where more alternative mode choices are present and as a result, vehicle trips face greater reductions in those districts. Data regarding vehicle trip reductions are drawn from a study conducted by Comsis Corporation and the Institute of Transportation Engineers (ITE), and translated into informative tables by Todd Litman of the Victoria Transport Policy Institute (VTPI; see Figure 3).[25] According to the information developed by Litman regarding "place types," every community fits into one of three categories: Low Density Suburb, Activity Center, or Regional CBD/Corridor. With a commute citywide drive alone rate of 75%, the travel characteristics of West Hollywood indicate that the city is similar to what Litman terms an Activity Center.[26]

Figure 3 Typical Mode Split by Location

	Low Density Suburb	Activity Center	Regional CBD/Corridor

[25] Comsis Corporation (1993), *Implementing Effective Travel Demand Management Measures: Inventory of Measures and Synthesis of Experience*, USDOT and Institute of Transportation Engineers; www.bts.gov/ntl/DOCS/474.html. Victoria Transport Policy Institute (2009), *Trip Reduction Tables*, www.vtpi.org/tdm/tdm41.htm

[26] In this case, the term transit encompasses all non-drive alone and carpool modes (i.e. buses, shuttles, walking, biking, etc.). The citywide drive alone rate was calculated using 2000 U.S. Census data.

Single Occupant Vehicle	85%	66%	41%
Transit	7%	16%	30%
Rideshare	8%	18%	29%
Average Vehicle Occupancy	*1.05*	*1.20*	*1.35*
Average Vehicle Ridership	*1.13*	*1.35*	*1.90*

Source: Victoria Transport Policy Institute, TDM Encyclopedia, Trip Reduction Tables, www.vtpi.org/tdm/tdm41.htm.

If we assume that a public parking space in West Hollywood increases from $90 to $135 per month by 2035, this would represent an average increase in daily parking charges from $4.15 to $6.22 by 2035 (a net $2.07 increase per day by 2035). As shown in Figure 4, research from VTPI suggests that the decrease in commuter vehicle trips would be between 12.3% and 25.1% given that West Hollywood is an “Activity Center.” Additional reductions in commuter vehicle trips could likely be achieved with higher parking charges (see Figure 4).

Figure 4 Vehicle Trips Reduced by Increased Daily Parking Fees[27]

Worksite Setting	$1.49	$2.98	$4.47	$5.96
Low Density Suburb	6.5%	15.1%	25.3%	36.1%
Activity Center	12.3%	25.1%	37.0%	46.8%
Regional CBD/Corridor	17.5%	31.8%	42.6%	50.0%

Research regarding the pricing effects on short-term visitor vehicle trips is insufficient to make an estimate of impacts. No documented drop in visitor vehicle trips has been found from cities that have implemented public parking pricing. Instead, common responses by short-term parkers to changes in public parking prices are to slightly reduce the amount of time they park for or to seek out lower-priced parking in facilities that may be further away from high demand areas (and are therefore underutilized) and then walk or take a transit to their final destination.

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

If we assume that the daily parking fee increases by $2.07 for employee parking, it is conservatively estimated that the decrease in employee vehicle trips would be 17% in Commercial Corridors, given that West Hollywood is an “Activity Center.”[28]

TOD Focus Alternative

If we assume that the daily parking fee increases by $2.07 for employee parking, it is conservatively estimated that the decrease in employee vehicle trips would be 17% in TOD Zones, given that West Hollywood is an “Activity Center.”[29]

[27] Victoria Transport Policy Institute (2008), *Land Use Impacts on Transport*, www.vtpi.org/landtravel.pdf.
[28] The percentage decrease in vehicle trips is calculated using the formula derived from the relationship between Activity Center vehicle trip reductions and daily parking fees in Figure 4 ($y = 0.0774x + 0.0145$).
[29] The percentage decrease in vehicle trips is calculated using the formula derived from the relationship between Activity Center vehicle trip reductions and daily parking fees in Figure 4 ($y = 0.0774x + 0.0145$).

Enhanced TDM Alternative

If we assume that the daily parking fee increases by $2.07 for employee parking, it is conservatively estimated that the decrease in employee vehicle trips would be 17% in Commercial Corridors and TOD Zones given that West Hollywood is an "Activity Center."[30]

[30] The percentage decrease in vehicle trips is calculated using the formula derived from the relationship between Activity Center vehicle trip reductions and daily parking fees in Figure 4 ($y = 0.0774x + 0.0145$).

Category 2: Transportation System Improvements

2.1 Bike System Improvements

Overview

Bicycle system improvements can help reduce peak-hour vehicle trips by making commuting by bike easier and more convenient for more people. Bike facilities can serve direct door-to-door trips, especially those trips that are "too far too walk but too close to drive" (e.g. trips of between one and two miles are too long to walk for most people, but are a short bicycle ride). In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the "catchment area"[31] of the transit stop or station and increasing ridership. Bicycle access can also reduce parking pressure on heavily-used and/or heavily-subsidized feeder bus lines and auto-oriented park-and-ride facilities.

Current Policies and Programs

Currently, West Hollywood has a limited number of excellent bike facilities, such as the dedicated bike lanes on Santa Monica Boulevard between Almont and Kings Roads. In addition, San Vicente Boulevard, Beverly Boulevard, Melrose Avenue, Fairfax Avenue, and Fountain Avenue between Fairfax Avenue and La Brea Avenue are signed bike routes. In total, the bicycle network consists of approximately 5.5 miles of bike lanes and routes.

All new non-residential buildings or structures are required to provide off-street bicycle parking. A minimum of one employee bicycle parking space for each 7,500 square feet of gross floor area, and a minimum of one visitor or short term bicycle parking space for each 10,000 square feet of gross floor area is required. In addition, non-residential buildings over 10,000 square feet must provide shower and locker facilities.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The Preferred General Plan alternative assumes that the City of West Hollywood will implement bike system improvements identified in the West Hollywood Bicycle and Pedestrian Mobility Plan, adopted in April 2003, as necessary funding becomes available.

TOD Focus Alternative

Assumes the bike system improvements detailed in the Preferred General Plan scenario above, with targeted projects to enhance access to TOD Zones.

Enhanced TDM Alternative

Assumes the bike system improvements detailed in the Preferred General Plan scenario above, with targeted projects to enhance regional/through connectivity to jobs, educational institutions, and services.

Summary of Literature and Study Impacts

One important advantage of bicycling compared to walking is that bicycling can substitute directly for automobile trips with longer distances. A before-after study of bicycle facility implementation

[31] A transit catchment area is the geographic area from which a transit station draws riders.

found that each mile of bikeway improvement per 100,000 residents increases bicycle commuting 0.075%, all else being equal.[32]

Summary of Estimated Impacts in West Hollywood

The estimated impacts of bicycle system improvements are relatively small, and we believe that the 4-D model adjustments (density, design, diversity, destinations) will adequately account for these impacts for purposes of the modeling effort. This does not imply that bicycle system improvements will have no impact on vehicle ownership and trips in West Hollywood, but they have been excluded from the impacts analysis in order to maintain a conservative methodology as the available data does not document the impacts of bicycle system improvements on peak-hour vehicle trips.

[32] Arthur Nelson and David Allen (1997), *If You Build Them, Commuters Will Use Them; Cross-Sectional Analysis of Commuters and Bicycle Facilities,* Transportation Research Record 1578, www.enhancements.org/download/trb/1578-10.PDF.

2.2 Pedestrian System Improvements

Overview

A walkable environment gives people more transportation choices and improves quality of life. A well-designed network of streets and pedestrian ways is key to improving pedestrian accessibility, and includes streets, alleys, trails, midblock crossings and pedestrian paseos. Walking is also a free transportation option for accessing public transit, and is available to most people within a quarter to half mile of transit stations and stops. Creating a safe, comfortable, and convenient walking environment is key part of supporting alternative modes of transportation as all types of trips begin and end with a walk trip.

Current Policies and Programs

The city of West Hollywood's pedestrian facilities are relatively well developed. The design of the pedestrian realm (which includes the ground-floor street wall, public sidewalk/crosswalk right-of-way, and private/public open spaces) on a number of streets within West Hollywood is excellent, particularly considering the amount of auto traffic that the major streets are carrying. There has been significant public sector investment to improve streetscapes, such as Santa Monica Boulevard (to make it more pleasant to walk), and the private sector has also invested in pedestrian realm amenities. West Hollywood has a high rate of walking, with 2000 U.S. Census data showing that 5.5% of residents walk to work, more than twice the national rate of 2.7%. The high rates of walking in West Hollywood suggest that conditions are favorable for walking.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The Preferred General Plan alternative assumes that the City of West Hollywood will implement pedestrian system improvements identified in the West Hollywood Bicycle and Pedestrian Mobility Plan/ ADA Transition Plan, adopted April 2003, as necessary funding becomes available.

The City of West Hollywood will continue to pursue pedestrian grant funding and will work to improve cooperation with the LAUSD to be eligible for additional Safe Routes to School funding opportunities.

TOD Focus Alternative

Assumes the pedestrian system improvements detailed in the Preferred General Plan scenario above, with targeted projects to enhance access to TOD Zones.

The City of West Hollywood will continue to pursue pedestrian grant funding and will work to improve cooperation with the LAUSD to be eligible for additional Safe Routes to School funding opportunities.

Enhanced TDM Alternative

Assumes the pedestrian system improvements detailed in the Preferred General Plan scenario above, with targeted projects to enhance local connectivity to jobs, educational institutions, and services.

The City of West Hollywood will continue to pursue pedestrian grant funding and will work to improve cooperation with the LAUSD to be eligible for additional Safe Routes to School funding opportunities. In addition, the City of West Hollywood will coordinate with private schools located within the City to apply for funding.

Summary of Literature and Study Impacts

It can be difficult to estimate precisely how much walkability investments affect travel, since it is often accompanied by investments in other alternative transportation means and changes in land use. However, studies have found that there is a direct connection between a high quality pedestrian environment and usage of travel modes other than driving:

- Walking is three times more common in a community with pedestrian friendly streets than in otherwise comparable communities that are less conducive to walking.[33]
- Residents in a pedestrian friendly community walk, bicycle, or ride transit for 49% of work trips (18 percentage points higher than in a comparable automobile community) and 15% of their non-work trips (11 percentage points higher than in a comparable automobile-oriented community).[34]
- Investments in the pedestrian environment have positive impacts on all road users. Benefits include: reduces auto-dependency and air pollution, improves livability, increases mobility for low-income households, and even increases retail sales and property values.[35]

In addition to the studies discussed above, a significant amount of research had been conducted on how urban form affects travel behavior. Urban design elements that impact pedestrian access such as street patterns (grid versus cul-de-sacs), topography, ease of street crossings, sidewalk continuity have been shown to reduce VMT and daily vehicle trips.[36] In another study, which examined how urban form variables affected the number of pedestrian trips for recreation and shopping, it was shown that perceived safety, shade, and the frequency and desirability of seeing people while walking had a significant impact (for shopping trips, distance, the ease of walking and comfort were significant variables).[37]

Summary of Estimated Impacts in West Hollywood

Nelson\Nygaard believes that the 4-D model adjustments (density, design, diversity, destinations) will adequately account for the impacts, specifically in terms of the street connectivity criteria in the model. We have therefore excluded these impacts to avoid "double counting" as part of the modeling effort. This does not imply that pedestrian system improvements will have no impact on vehicle ownership and trips in West Hollywood, but they have been excluded from the impacts analysis in order to maintain a conservative methodology as the available data does not document the impacts of pedestrian system improvements on peak-hour vehicle trips.

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[33] Anne Vernez Moudon, Paul Hess, Mary Catherine Snyder and Kiril Stanilov (2003), *Effects of Site Design on Pedestrian Travel in Mixed Use, Medium-Density Environments*, www.wsdot.wa.gov/research/reports/fullreports/432.1.pdf

[34] Robert Cervero and Carolyn Radisch (1995), *Travel Choices in Pedestrian Versus Automobile Oriented Neighborhoods*, www.uctc.net/papers/281.pdf.

[35] Local Government Commission (2001) *The Economic Benefits of Walkable Communities*. www.lgc.org/freepub/docs/community_design/focus/walk_to_money.pdf

[36] 1000 Friends of Portland (1993) *The Pedestrian Environment: LUTRAQ Report Volume 4A*, http://ntl.bts.gov/DOCS/tped.html.

[37] Susan Handy, Kelly Clifton, and Janice Fisher (1998) The Effectiveness of Land Use Policies as a Strategy for Reducing Auto Dependence : A Study of Austin Neighborhoods, www.des.ucdavis.edu/faculty/handy/Austin_Report.pdf.

2.3 Transit System Improvements

Overview

In most cities that have succeeded in growing while limiting the growth of vehicle trips, a fundamental component of their success has been improved transit services. Existing transit services can be improved in several ways, including:

- Increasing frequency (e.g. reduced headways).
- Increasing reliability and on-time performance.
- Reducing travel time and travel time variability.
- Increasing service span (e.g. hours of operation).
- Enhancing passenger amenities (both in-vehicle and at stations and stops).

The connectivity and convenience of the transit system can also be enhanced through the addition of new bus routes running in mixed-flow travel lanes or by adding new service running in dedicated transit rights-of-way, such as Bus Rapid Transit (BRT), light rail, or heavy/commuter rail service.

Current Policies and Programs

A variety of public and private transportation services are available within the city of West Hollywood, and connect to other communities in the greater Los Angeles area. A summary of existing services is below.

Los Angeles Metro

The Los Angeles County Metropolitan Transportation Authority (Metro) provides fixed route bus service in Los Angeles County with a total service area of 1,433 square miles. Within West Hollywood Metro operates 16 local bus routes and four rapid bus lines. Metro is in the planning phase of identifying a Westside rail extension that may run along Santa Monica Boulevard.

Los Angeles Department of Transportation (LADOT) Community DASH

LADOT Community DASH service supplements Metro service by connecting local communities with local service connections through three community shuttle services in the area: the Hollywood/West Hollywood DASH that operates on Sunset Blvd. connecting the Hollywood/Highland Red Line subway station to Cedars Sinai Medical Center; the Fairfax DASH operates a circular route running north-south on Fairfax Avenue, each-west on Melrose, north-south on La Cienega Blvd. to Cedars Sinai Medical Center, and east-west on 3rd Ave. to the Farmer's Market; and the Hollywood DASH operates a circular route that primarily runs east-west on Hollywood Blvd. and Fountain Avenues between Highland Ave. and Vermont Ave.

CityLine

West Hollywood's CityLine is a local fixed-route transit service provided by the City of West Hollywood primarily running east-west along Santa Monica Blvd. and Fountain Ave. between La Brea Ave. and Cedar Sinai Medical Center.

Proposed Trip Reduction Policies & Programs

All scenarios assume a Subway-to-the-Sea alignment through West Hollywood.

Preferred General Plan

The Preferred General Plan alternative assumes that the City of West Hollywood will implement transit improvements identified in LA Metro's Short Range Transit Plan as necessary funding becomes available.

TOD Focus Alternative

Advocate for expedited funding of improvements identified in the adopted Regional Short-Range Transit Plan, with targeted improvements to enhance access to TOD Zones.

Enhanced TDM Alternative

Advocate for expedited funding of improvements identified in the adopted Regional Short-Range Transit Plan as funding becomes available, with targeted projects to enhance regional/through connectivity to jobs, educational institutions, and services.

Summary of Literature and Study Impacts

The elasticity of transit use with respect to transit service frequency is about 0.5, which means that a 1.0% increase in service (measured by transit vehicle mileage or operating hours) increases average ridership by 0.5%.[38] The elasticity of transit use to service expansion (e.g. routes into new parts of a community already served by transit) is in the range of 0.6 to 1.0, which means that 1.0% of additional service increases ridership by 0.6-1.0%.

Comprehensive improvements, such as Light Rail or Bus Rapid Transit systems, can provide large increases in transit use and attract large numbers of discretionary riders who would otherwise travel by automobile. Various cities have seen increases in bus ridership with the introduction of BRT service – Pittsburgh (38%), Los Angeles (40%), Brisbane (42%), Adelaide (76%), Leeds (50%). Impacts of other expansions in transit vary depending on the conditions in which it is implemented.[39]

At this time, the only major transit capacity upgrade planned by local or regional transit operators in to or through West Hollywood is LA Metro's "Subway to the Sea" project. Metro projects a 500% increase in transit capacity for all of the Subway to the Sea alternatives that include Heavy Rail Transit (HRT) compared to the "No Build" (existing conditions) scenario.[40] Given the 0.5 elasticity listed above from increases in service, we can anticipate a 250% increase in ridership from both residents and employees of West Hollywood.[41] This results in 5,885 new resident transit trips and 3,960 new employee transit trips (excluding resident employees) for a total of 9,845 new transit trips compared to existing transit ridership in the 2000 Census.[42]

However, not all of these new transit riders will be shifting to transit from single-occupant vehicles (SOV); some will be shifting to transit from other non-SOV modes (e.g. biking and telecommuting are two common "donor modes" when a community upgrades its transit facilities). In order to calculate the net decrease in vehicles trips, we have factored out 100% of the bike trips and "other" trips (888 total rips) reported in the 2000 Census from the total new transit trips (9,845 trips). The resulting estimate of 8,957 new weekday transit commuter trips coming from single-

[38] Richard Pratt (2000) *Traveler Response to Transportation System Changes*, Interim Handbook, TCRP Web Document 12. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_webdoc_12.pdf.
[39] Victoria Transport Policy Institute (2008). *Traffic Calming*, www.vtpi.org/tdm/tdm4.htm.
[40] Westside Extension Transit Corridor Study, pp 7-9.
[41] It should be noted that a 0.5 elasticity is a conservative estimate as it reflects increases in bus capacity, and not rail capacity, which typically experiences greater gains in ridership.
[42] Census 2000 data showing 1,177 resident and 1,969 employee transit riders. Two trips are assumed per rider.

occupant commuter vehicles represents a 20.1% decrease in the West Hollywood's current number of single-occupant commuter vehicle trips.[43]

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

Based on our analysis, Nelson\Nygaard estimates a 20.1% decrease in new commuter vehicle trips in the Preferred General Plan alternative for Commercial Corridors and TOD Zones, and a 10% reduction in new commuter vehicle trips in Residential Zones given the lower percentage of residents in this area who commute to work via transit in comparison to Commercial Corridors and TOD Zones.

TOD Focus Alternative

Based on our analysis, Nelson\Nygaard assumes a 20.1% decrease in new commuter vehicle trips in the TOD Focus alternative for Commercial Corridors and TOD Zones, and a 10% reduction in new commuter vehicle trips in Residential Zones given the lower percentage of residents in this area who commute to work via transit in comparison to Commercial Corridors and TOD Zones.

Enhanced TDM Alternative

Based on our analysis Nelson\Nygaard assumes a 20.1% decrease in new commuter vehicle trips in the Enhanced TDM alternative for Commercial Corridors and TOD Zones, and a 10% reduction in new commuter vehicle trips in Residential Zones given the lower percentage of residents in this area who commute to work via transit in comparison to Commercial Corridors and TOD Zones.

[43] The 2000 US Census reports a total of 44,476 single-occupant commuter vehicle trips in West Hollywood.

Category 3: Transportation Demand Management (TDM) Policies

3.1 Subsidized Transit Fares

Overview

In recent years, growing numbers of transit agencies have teamed with universities, employers, building developers, or entire districts or neighborhoods to provide universal or subsidized transit fares to certain riders (students, employees, etc). This subsidy typically provides unlimited transit rides on local or regional transit providers for a low monthly fee, often absorbed entirely by the employer, school, or developers.[44]

Current Policies & Programs

The City's current TDM Ordinance applies to businesses over 10,000 sq. ft. and with more than 5 employees. The TDM Ordinance includes a number of programs that subject employers may choose to implement in order to meet their Average Vehicle Ridership (AVR) target. Subsidized transit fares are one of the eligible programs. A number of private employers provide transit subsidies to their employees. The type and amount of subsidy varies by employer. Some employers cover a percentage of the cost that an employee spends on transit, others give a set dollar amount, and others provide employees with 100% free transit passes. Currently, there is not a formally established enforcement mechanism for compliance with the TDM Ordinance.

In addition, some development projects are often required by the City to develop a TDM Plan which may include providing subsidized transit fares to the development's employees and/or residents. In the last five years, a number of major developments have submitted or inquired about the TDM Ordinance requirement. There are approximately 8 TDM Plans which have been approved since the adoption of the Ordinance. The Sunset Millennium and Gateway Plaza, have both committed in their TDM Plan to a monthly parking charge ranging from $20 to $150, with the revenues to be used to subsidize employee transit commute benefits. The TDM Plans are required to be reviewed annually by the City and a penalty fee assessed in the development is in violation of any provision of the Plan, but the monitoring and enforcement process has been not been as robust as originally envisioned.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

Assumes expansion of subsidized transit programs throughout the City of West Hollywood as follows:

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[44] It should be noted that subsidized transit fares don't mean that *nobody* pays for the costs of providing the service. Instead the foregone farebox revenue that would have been received from current or new transit riders is backfilled by a public agency and/or a private entity (such as an employer or developer). Typically, program costs are negotiated by the transit operator and the payee based on the "net average operating cost per subsidized rider." This is the average operating cost per rider (net of those riders' foregone farebox revenue) multiplied by the total number of subsidized riders (including both current riders and any projected increase in riders). When transit operators have surplus capacity available on existing transit service in the fare-free route or zone so that all subsidized riders can be accommodated on existing service, they can typically lower the discounted pass cost to the payee (since empty seats generate no revenue, any revenue is a net financial benefit to the operator). However, transit operators will naturally need to negotiate a higher per-pass cost whenever the projected growth in subsidized riders requires new transit capacity to be added (in order to cover the additional costs for more drivers and/or vehicles, reduced headways, and/or longer service span). In either case, transit operators typically offer a "volume discount" to the payee to reflect their reduced operating costs (through shortened dwell times) and transaction costs (through less processing of low-value payments) that often accrue with subsidized transit fare programs where a larger share of system riders are using pre-paid fare media.

- In all new commercial developments, the developer and/or property management will be required to provide a 50% transit fare subsidy for all employees for the lifetime of the building.
- In all new residential developments, the developer and/or property management will be required to provide a 50% transit fare subsidy for all residents for the lifetime of the building.

TOD Focus Alternative

Assumes expansion of subsidized transit fare programs in TOD Zones as follows:

- In all new commercial developments, the developer and/or property management will be required to provide a 100% transit fare subsidy for all employees for the lifetime of the building.
- In all new residential developments, the developer and/or property management will be required to provide a 100% transit fare subsidy for all residents for the lifetime of the building.
- With facilitation by the City, BIDs and/or TMAs will be encouraged to provide a similar transit fare subsidy to groups that are not covered by the requirements for new construction.
- Require development to provide financial contributions to the transit capital and/or operational funds to expand existing City transportation services.

In the rest of West Hollywood, no changes to existing polices would be made.

Enhanced TDM Alternative

Assumes expansion of subsidized transit fare program throughout the City of West Hollywood is proposed:

- In all new commercial developments, the developer and/or property management will be required to provide a 100% transit fare subsidy for all employees for the lifetime of the building.
- In all new residential developments, the developer and/or property management will be required to provide a 100% transit fare subsidy for residents for the lifetime of the building.
- With facilitation by the City, BIDs and/or TMAs will be encouraged to provide a similar transit fare subsidy to groups that are not covered by the requirements for new construction.
- Require development to provide financial contributions to the transit capital and/or operational funds to expand existing City transportation services.

Summary of Literature and Study Impacts

Current research regarding the impacts of subsidized transit fare programs can be generally broken into two categories.

- The first set of research focuses on demonstrating the effects transit passes have on mode splits by surveying users before and after implementation.
- The second method bases the results of a transit pass implementation on the actual percent of vehicle trips reduced.

Both of these types of research can be useful for different purposes, as discussed below.

The first set of data is useful in illustrating the impacts of transit passes in various settings. Figure 5 shows the drive-alone and transit mode splits before and after subsidized transit pass implementation in different locations. These studies show reductions in drive-alone mode share of 4% to 42%, with an average reduction of 19%. In addition, these case studies show a wide range of increased transit mode share of between 25% and 145% with an average rise of 95%.

Figure 5 Employee Mode Splits Before & After Implementation of Subsidized Transit Pass Programs

Location	Drive Alone to work			Transit to work		
Municipalities	*Before*	*After*	*% Change*	*Before*	*After*	*% Change*
Santa Clara (County)[45]	76%	60%	27%	11%	27%	145%
Bellevue, Washington (Downtown)[46]	81%	57%	42%	13%	18%	38%
Ann Arbor, Michigan (Downtown)[47]	N/A	N/A	4%	20%	25%	25%
Universities						
UCLA (faculty and staff)[48]	46%	42%	9%	9%	20%	122%
Univ. of Washington, Seattle (faculty)[49]	60%	47%	22%	11%	27%	145%
Univ. of Washington, Seattle (staff)	44%	39%	11%	25%	36%	44%
Average Percent Change	**-**	**-**	**19%**	**-**	**-**	**87%**

Source: Table created by Nelson\Nygaard from studies cited in table footnotes.

Data regarding vehicle trip reductions are drawn from a study conducted by Comsis Corporation and the Institute of Transportation Engineers (ITE), and translated into informative tables by Todd Litman of the Victoria Transport Policy Institute (VTPI).[50] According to the information developed by Litman regarding "place types" and summarized in Figure 6, every community fits into one of three categories: Low Density Suburb, Activity Center, or Regional CBD/Corridor. With a commute citywide drive alone rate of 75%, the travel characteristics of West Hollywood indicate that the city is similar to what Litman terms an Activity Center.[51]

Figure 6 Typical Mode Split by Location

	Low Density Suburb	Activity Center	Regional CBD/Corridor
Single Occupant Vehicle	85%	66%	41%
Transit	7%	16%	30%
Rideshare	8%	18%	29%

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[45] Santa Clara Valley Transportation Authority (1997). *Eco Pass Pilot Program Survey Summary of Findings*.
[46] King County Metro (2000) *FlexPass: Excellence in Commute Reduction, Eight Years and Counting*. www.commuterchallenge.org/cc/newsmar01_flexpass.html.
[47] Christopher White, Jonathan Levine, and Moira Zellner (2002). *Impacts of an Employer-Based Transit Pass Program: The Go Pass in Ann Arbor, Michigan*. www.apta.com/research/info/briefings/documents/white.pdf.
[48] Jeffrey Brown, Daniel Baldwin Hess, and Donald Shoup (2003). *Fare-Free Public Transit at Universities*. http://shoup.bol.ucla.edu/FareFreePublicTransitAtUniversities.pdf.
[49] University of Washington Facilities Services, *The U-PASS Online and Telephone Survey Report (2006)*, www.washington.edu/commuterservices/programs/upass/reports.php.
[50] Comsis Corporation (1993), *Implementing Effective Travel Demand Management Measures: Inventory of Measures and Synthesis of Experience*, USDOT and Institute of Transportation Engineers, www.bts.gov/ntl/DOCS/474.html. Victoria Transport Policy Institute (2009), *Trip Reduction Tables*, www.vtpi.org/tdm/tdm41.htm.
[51] In this case, the term transit encompasses all non-drive alone and carpool modes (i.e. buses, shuttles, walking, biking, etc.). The citywide drive alone rate was calculated using 2000 U.S. Census data.

Average Vehicle Occupancy	*1.05*	*1.20*	*1.35*
Average Vehicle Ridership	*1.13*	*1.35*	*1.90*

Source: Victoria Transport Policy Institute, TDM Encyclopedia, Trip Reduction Tables, www.vtpi.org/tdm/tdm41.htm.

Furthermore, Figure 7 breaks each category into three subcategories of rideshare oriented, mode neutral, and transit oriented. Essentially, if transit or ridesharing comprises more than 50% of the alternate mode share, the site is transit oriented or rideshare oriented, respectively. If neither transit nor ridesharing dominates, then the area is considered mode neutral. In the case of West Hollywood, neither carpooling nor transit usage comprise more than 50% of the alternative mode share making the city mode neutral.

Figure 7 Vehicle Trip Reduction by Workplace Setting and Daily Transit Subsidy[52]

	Daily Transit Subsidy			
Worksite Setting	**$0.75**	**$1.49**	**$2.98**	**$5.96**
Low density suburb, rideshare oriented	0.1%	0.2%	0.6%	1.9%
Low density suburb, mode neutral	1.5%	3.3%	7.9%	21.7%
Low density suburb, transit oriented	2.0%	4.2%	9.9%	23.2%
Activity center, rideshare oriented	1.1%	2.4%	5.8%	16.5%
Activity center, mode neutral	3.4%	7.3%	16.4%	38.7%
Activity center, transit oriented	5.2%	10.9%	23.5%	49.7%
Regional CBD/Corridor, rideshare oriented	2.2%	4.7%	10.9%	28.3%
Regional CBD/Corridor, mode neutral	6.2%	12.9%	26.9%	54.3%
Regional CBD/Corridor, transit oriented	9.1%	18.1%	35.5%	64.0%

We have updated the daily transit subsidy information in Figure 7 to account for inflation since the Litman data was compiled; the source for this inflationary escalation was the U.S. Bureau of Labor Statistics Consumer Price Index (CPI).[53] This analysis utilizes the current cost of an LA Metro "EZ Transit Pass" as this is the most comprehensive monthly pass type currently offered by a transit operator serving West Hollywood. Given the $70 monthly cost of an EZ Transit Pass, it can be estimated that the daily amount needed to fully subsidize the transit cost for an employee would be $3.27.[54]

However, the Preferred General Plan assumes only a 50% subsidy or a $1.64 daily subsidy. As shown in Figure 7, this sum falls between the $1.49 and $2.98 subsidies. By calculating the statistical relationship between the proposed level of transit subsidy and likely associated percent decrease in vehicle trips, we find that the likely percent reduction in vehicle trips from a transit subsidy covering all employees in West Hollywood would be 8.5%.[55]

The TOD Focus alternative and the Enhanced TDM alternative both assume a 100% subsidy or a $3.27 daily subsidy. As shown in Figure 7, this sum falls between the $2.98 and $5.96 subsidies. By calculating the statistical relationship between the proposed level of transit subsidy and likely associated percent decrease in vehicle trips, we find that a likely percent reduction in vehicle trips from a transit fare subsidy covering all employees in West Hollywood would be 29%.

[52] Victoria Transport Policy Institute (2008), *Transportation Elasticities*, www.vtpi.org/elasticities.pdf.
[53] Bureau of Labor Statistics, *Consumer Price Index*, http://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt.
[54] Based on an average 260.7 weekdays per year and 21.7 weekdays per month.
[55] The percentage decrease in vehicle trips is calculated using the formula derived from the relationship between Activity Center vehicle trip reductions and daily parking fees in Figure 7 (y = 0.0684x - 0.0267).

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

The Preferred General Plan assumes an expansion of the program to provide a 50% subsidized EZ Transit Pass to 100% of employees and residents in new commercial or residential developments in Commercial Corridors and TOD Zones, resulting in an 8.5% reduction in new trips.

TOD Focus Alternative

The TOD Focus alternative assumes an expansion of the program to provide a 100% subsidized EZ Transit Pass to 100% of employees and residents in new commercial or residential developments in TOD Zones, resulting in a 29% reduction in new trips.

Enhanced TDM Alternative

The Enhanced TDM alternative assumes an expansion of the program to provide a 100% subsidized EZ Transit Pass to 100% of employees and residents in new commercial or residential developments in Commercial Corridors and TOD Zones, resulting in a 29% reduction in new trips.

3.2 Fare-Free Transit Service or Zone

Overview

Fare-free transit refers to programs in which transit riders do not pay out of pocket any of the cost of their transit trips. The implementation of fare-free transit services or zones in North American dates back to the 1970's when a number of free transit services were tested in federally-funded case studies. Given the significant funding constraints facing public transit operators since that time period, offering fare-free transit has not been sustainable on a widespread basis. Today, fare-free free transit service is offered by over 50 transit operators in North America, typically on select transit routes (e.g. tourist-focused circulators) and or in specific geographic areas (e.g. downtowns or university campuses).

Current Policies & Programs

Neither the City of West Hollywood nor other regional transit operators currently offer any transit fare-free services or zones within the City of West Hollywood boundaries.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The Preferred General Plan assumes that the City of West Hollywood will maintain existing policies.

TOD Focus Alternative

The TOD Focus alternative assumes that the City of West Hollywood will maintain existing policies.

Enhanced TDM Alternative

The Enhanced TDM alternative assumes the creation of a fare-free transit zone within the City of West Hollywood so that all transit trips originating within City boundaries are fare-free.

Summary of Literature and Study Impacts

The best known cases in the United States of fare-free zones are Portland, OR and Seattle, WA which have both been in place for approximately 25 years. Both cities instituted a fare-free policy for trips taken entirely within the CBD on regular bus service. Prior to the implementation of a fare free zone the average fare was 22.5 cents in Portland. After elimination of the fare, a nine-fold ridership increase was estimated for intra-CBD trips. In Seattle, surveys showed that the fare-free service had resulted in a three-fold increase after eight months over the intra-CBD ridership previously carried on all buses.[56]

It is important to note that fare-free transit zones and peak-hour commuter vehicle trips are not equivalent mode choices (what economists call "substitute goods"). Instead, transit ridership gained through fare-free zones is to some extent due to travelers shifting some of their shorter trips within the fare-free zone from other modes such as walking and bicycling. In other words, while fare-free transit zones do increase the share of intra-zonal transit trips taken throughout the day, this strategy doesn't necessarily reduce peak-hour vehicle commuter trips (which tend to be longer and therefore are more likely to have origins or destinations outside the fare-free zone). In addition, fare-free transit zones also tend to induce more people to travel more often within the fare-free zone, meaning that an increase in transit trips created by establishing a fare-free transit

[56] Richard Pratt (2000) *Traveler Response to Transportation System Changes*, Interim Handbook, TCRP Web Document 12. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_webdoc_12.pdf.

zone does not necessarily equate to a proportional reduction in vehicle trips and we can not therefore assume a 1:1 “displacement effect.”

Fare-free transit zones will affect intra-city and inter-city transit trips differently. Research shows that intra-city transit trips that are completely within the fare-free zone (and therefore 100% free) can experience a 200% increase.[57] Given the difference in current[58] and projected[59] transit trips in West Hollywood with the planned increase in transit capacity from the Subway-to-the-Sea project, Nelson\Nygaard estimates the potential for 4,708 new *intra*-city transit trips in West Hollywood by 2035.

The same research also shows that inter-city transit trips that are only reduced cost (but not free) do not experience the same level of transit ridership increases. These transit trips experience a -0.36 elasticity, which means that if one leg of a two-way inter-city trip is free, there will be an 18% increase in transit ridership. Employee data from the 2000 US Census suggests that an 18% increase in transit ridership would result in 285 new *inter*-city transit trips with origins or destinations in West Hollywood by 2035.

Combining new inter-city and intra-city trips results in an estimate of 4,993 new transit trips in West Hollywood by 2035. Once we net out 100% of commuter trips by those individuals who are shifting from substitute modes (bicycling and “other”), we estimate 4,105 fewer peak-hour vehicle trips, or a decrease of 9.2% compared to the total peak-hour commuter vehicle trips in West Hollywood 2000.[60]

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

This alternative assumes no implementation of a fare free zone; therefore no reductions in vehicle trips can be estimated.

TOD Focus Alternative

This alternative assumes no implementation of a fare free zone; therefore no reductions in vehicle trips can be estimated.

Enhanced TDM Alternative

Based on our analysis, Nelson\Nygaard assumes a 9.2% decrease in new peak-hour commuter vehicle trips in the Enhanced TDM alternative for Commercial Corridors and TOD Zones, and a 4.1% reduction in new peak-hour vehicle trips in Residential Zones given the lower percentage of residents in this area who commute to work via transit in comparison to Commercial Corridors and TOD Zones.

[57] Richard Pratt (2000) *Traveler Response to Transportation System Changes*, Interim Handbook, TCRP Web Document 12. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_webdoc_12.pdf.
[58] According to the 2000 U.S. Census, 1,177 West Hollywood residents currently commute to work by transit.
[59] Projected transit trips are based on research from Richard Pratt (2000) *Traveler Response to Transportation System Changes*, Interim Handbook, TCRP Web Document 12. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_webdoc_12.pdf.
[60] According to the 2000 U.S. Census, there are currently a total of 44,476 peak-hour commuter vehicle trips in West Hollywood.

3.3 Parking Cash-Out

Overview

The majority of North American employers provide free or reduced price parking for their employees as a fringe benefit. Under a parking cash-out requirement, employers are allowed to continue this practice on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work. Offering employees the option of "cashing out" their subsidized parking space can incentivize employees to ride transit, bike, walk, or carpool to work, thereby reducing vehicle commute trips and emissions.

The cash value of the parking subsidy can be offered in one of three forms:

- A transit/vanpool subsidy equal to the value of the parking subsidy (of which up to $120 is tax-free for both employer and employee).
- A taxable carpool/walk/bike subsidy equal to the value of the parking subsidy.
- Alternately, employees can be given a general "transportation fringe benefit" equal to the market value of an employee parking space, and all employee parking can simply be priced with a daily fee.

Parking cash-out is already state law in California, but the current state law only applies to employers with 50 employees or more who lease their parking and who's parking costs can be separated out as a line item on their lease. In addition, the California Air Resources Board (CARB) is nominally tasked with monitoring compliance, but CARB currently has no dedicated enforcement resources. For this reason, California jurisdictions such as West Hollywood and Los Angeles have implemented local parking cash-out requirements and enforcement mechanisms. In the Fall of 2009, SB 375 (Lowenthal) was signed into law giving local California agencies (including cities, counties, and air districts) the explicit authority to enforce the state's existing parking cash-out law beginning January 1, 2010.

Current Policies and Programs

The City of West Hollywood has adopted a TDM Ordinance which requires all businesses with five or more employees at a worksite located in the city and in a development of 10,000 or more square feet of enclosed space to offer parking cash out to employees if the employer subsidizes or provides free parking for employees.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The City of West Hollywood will maintain its existing parking cash out policy.

TOD Focus Alternative

Assumes the expansion of the existing parking cash-out requirement to all businesses in TOD zones (i.e. regardless of number of employees or SF of business) if the employer subsidizes or provides free parking for employees.

In the rest of West Hollywood, no changes to existing polices would be made.

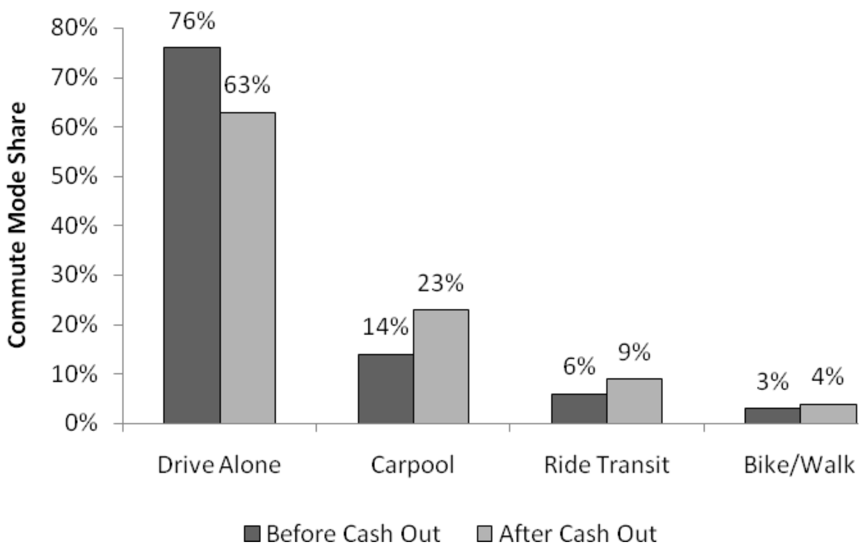
Enhanced TDM Alternative

Assumes the expansion of the existing parking cash-out requirement to all businesses throughout the City of West Hollywood (i.e. regardless of number of employees or the square footage of the business) if the employer subsidizes or provides free parking for employees.

Summary of Literature and Study Impacts

Research performed by Donald Shoup at the University of California-Los Angeles found that single-occupancy vehicle trips declined by 17% and other modes increased significantly (carpooling by 64%, transit by 50%, and walking/biking by 33%) after a parking cash-out program was introduced at various urban and suburban worksites with varying levels of transit service. These findings are illustrated in Figure 10. These mode shifts resulted in an average 12% fewer vehicle miles traveled (VMT) per year per employee. This reduction is equivalent to removing one of every eight cars driven to work.[61] The analysis found that reductions in auto trips tend to increase over time, as more employees find opportunities to reduce their driving and take advantage of the parking cash-out "fringe benefit."

Figure 8 Parking Cash-Out Impacts on Commute Mode



Another parking cash-out case study is that of suburban Pleasanton. The City initiated a daily form of parking cash-out in January 1994. The City offers $2 per day to employees who use a commute alternative instead of driving to work alone. All City employees are eligible to participate with no minimum days required. In 1993, the year before the program was implemented, only 28 employees were commuting to work using alternative modes. Average participation in 2004 doubled to 57 employees per month, which has resulted in an annualized reduction of 20,625 commuter vehicle trips.[62]

[61] Donald C. Shoup, *Evaluating the Effects of Cashing Out Employer-Paid Parking: Eight Case Studies*, www.arb.ca.gov/research/apr/past/93-308a.pdf.
[62] U.S. Environmental Protection Agency (2005), *Parking Cash Out: Implementing Commuter Benefits as One of the Nation's Best Workplaces for Commuters,* www.bestworkplaces.org/pdf/ParkingCashout_07.pdf.

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

This alternative assumes no expansion of existing parking cash-out programs, therefore no reductions in vehicle trips can be estimated.

TOD Focus Alternative

By expanding the current parking cash-out ordinance to apply to all employers in TOD Zones, Nelson\Nygaard conservatively estimates a 5% reduction in peak-hour vehicle trips in this area.

Enhanced TDM Alternative

By expanding the current parking cash-out ordinance to apply to all employers in Commercial Corridors and TOD Zones, Nelson\Nygaard conservatively estimates a 5% reduction in peak-hour vehicle trips in these areas.

3.4 Car Sharing

Overview

Car sharing programs allow people to have on-demand access to a shared fleet of vehicles on an as-needed basis. Usage charges are assessed at an hourly and/or mileage rate, in addition to a refundable deposit and/or a low annual membership fee. Car sharing is similar to conventional car rental programs with a few key differences:

- System users must be members of a car sharing organization.
- Fee structures typically emphasize short-term rentals rather than daily or weekly rentals.
- Vehicle reservations and access is “self-service.”
- Vehicle locations are widely distributed rather than concentrated.
- Vehicles must be picked up and dropped off at the same location.

Car sharing programs reduce the need for businesses or households to own vehicles, and reduce personal transportation costs and vehicle miles traveled (VMT). Through car sharing, individuals gain access to vehicles by joining an organization that maintains a fleet of cars and light trucks in a network of locations.

Car sharing has sometimes been referred to as the “missing link” in the package of alternatives to the private automobile. For example, vehicles available near a person’s workplace or school can enable them to commute to work via transit or other means, knowing that they’ll have a car share vehicle available to them throughout the day for unanticipated work or personal trips but will pay for the service only if it is needed and on a “a la carte” per-trip basis.

Current Policies and Programs

There are currently no car share programs in West Hollywood.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The Preferred General Plan alternative assumes that the City of West Hollywood will:

- Implement a small-scale car sharing program for City employees.
- Pursue multi-jurisdictional car sharing program with regional partners including the Westside Cities, and SCAG.

TOD Focus Alternative

The TOD Focus alternative assumes that the City of West Hollywood will:

- Require development projects in the TOD zone to implement on-site car sharing program or pay into a fund to incentivize a car sharing operator to implement a citywide program in the near-term.
- Pursue multi-jurisdictional car sharing program with regional partners including the Westside Cities, and SCAG.

Enhanced TDM Alternative

The Enhanced TDM alternative assumes that the City of West Hollywood will:

- Require development projects throughout the City to implement on-site car sharing program or pay into a fund to incentivize a car sharing operator to implement a citywide program in the near-term.
- Pursue multi-jurisdictional car sharing program with regional partners including the Westside Cities, and SCAG.

Summary of Literature and Study Impacts

According to the Transportation Research Board, each car-sharing vehicle takes nearly 15 private cars off the road – a net reduction of almost 14 vehicles.[63] Additionally, according to the Transportation Research Board, the average reduction in vehicle ownership in North American cities with carsharing programs was 20%. This study also citied research which found that the impacts of carsharing can increase over time as the program expands and/or gains wider visibility and familiarity among target markets (for example: in Seattle, WA the 2001 impact of car sharing was a 6% reduction in vehicle ownership but by 2004 the program had resulted in a 15% reduction in vehicle ownership).

A UC Berkeley study of San Francisco's City CarShare found that members drive nearly 50% less after joining. The study also found that when people joined the car-sharing organization, nearly 30% reduced their household vehicle ownership and two-thirds avoided purchasing another car.

For the purposes of this analysis, carsharing may not have a large impact on peak-hour commuter vehicle trips. This is because some studies, including the UC Berkeley study cited above, found that nearly three-quarters of the vehicle trips made by carsharing members were for discretionary (non-commute) travel, such as running errands, visiting friends and other social activities; conversely, about one-quarter of trips were for commuting to work or for recreation. This research also indicates that most carsharing trips were made outside of peak periods, thereby generating a limited impact on reducing peak period vehicle traffic.[64]

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

Given the small scale carsharing program proposed in the Preferred General Plan alternative it is difficult to determine the impact of car sharing. Therefore, no reductions in vehicle trips or auto ownership can be estimated.

TOD Focus Alternative

It is estimated that the introduction of a car sharing program in TOD Zones would result in a 10% reduction in household vehicle ownership in this area.

Enhanced TDM Alternative

It is estimated that the introduction of a car sharing program in Commercial Corridors and TOD Zones would result in a 10% reduction in household vehicle ownership in these areas.

[63] Transportation Research Board (2005), *Car-Sharing: Where and How it Succeeds*, Transit Cooperative Research Program Report 108. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_108.pdf.
[64] Robert Cervero and Yu-Hsin Tsai (2003), *San Francisco City CarShare: Travel-Demand Trends and Second-Year Impacts, Institute of Urban and Regional Development*, http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1026&context=iurd.

3.5 Bike Sharing

Overview

Bike sharing is a form of bike rental where people can have access to a shared fleet of bicycles on an as-needed basis. Bike share programs provide safe and convenient access to bicycles for short trips, such as running errands during lunch or for accessing the transit system by helping to bridge “first mile/last mile” barriers.

Bike sharing programs have been implemented in various forms for the past 40 years. Until recently, bike share programs worldwide have experienced low to moderate success. However, in the last 5 years innovations in technology have given rise to a new (third) generation of technology-driven bike share programs. These new bike share programs can dramatically lower the barrier to use by allowing reservations and/or payment via smart card, credit card, or even cell phone. In addition, damage or theft of bicycles is minimized by linking accounts to a user’s credit card.

The most common operational models for current bike sharing programs are:

- The first and most common model is a privately–operated program, where contracts for exclusive rights to outdoor advertising space (bus stops, billboards, etc.) include a provision that requires the advertising company to install, operate, and maintain a bike sharing system. The Vélib system in Paris is an example of this first model.

- The second model is a publicly-operated program run by a government agency as part of a larger transit access or TDM/parking management strategy. Montreal’s Bixi and Long Beach’s employee-based program are examples of this second model. Some cities sell advertising rights at the bike stations and on the bikes themselves to help defray program costs, but the program is not operated by an advertising company.

Pricing of bike sharing programs is structured to encourage short trips in order to prevent users from tying up a single bicycle for long periods of time and to optimize utilization of the fleet.

The Vélib program in Paris, France is one of the most successful examples of the third generation bicycle sharing programs. Vélib provides rental bikes that are available day or night throughout the city and stations are densely distributed. The system has 1,450 stations located about 900 – 1500 feet apart. Stations consist of terminals and stands for securing the bikes. Bicycles are accessed through Smart Cards that can be swiped at any station. Bicycles can also be returned at any station. Annual membership is not required, but accounts are linked to a credit card which is charged in the event of loss or damage to a bicycle. The first 30 minutes of each use are free, $1.30 for the second half hour, $2.60 for the third half hour and $5.20 for the fourth half hour and each additional half hour. The maximum ride time is three hours. Credit cards may also be used to purchase a short-term pass of one-day or seven-day subscriptions.

Current Policies and Programs

There are currently no bike share programs in West Hollywood.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

The Preferred General Plan alternative assumes that the City of West Hollywood will:

- Implement a small-scale bike sharing program for City employees.

- Pursue multi-jurisdictional bike sharing program with regional partners including the Westside Cities, and SCAG.

TOD Focus Alternative

The TOD Focus alternative assumes that the City of West Hollywood will:

- Require development projects located in the TOD zone to implement on-site bike sharing program or pay into a fund to incentivize a bike sharing operator to implement a citywide program in the near-term.
- Pursue multi-jurisdictional bike sharing program with regional partners including the Westside Cities, and SCAG.

Enhanced TDM Alternative

The Enhanced TDM alternative assumes that the City of West Hollywood will:

- Require all development projects throughout the City to implement on-site bike sharing program or pay into a fund to incentivize a bike sharing operator to implement a citywide program in the near-term.

- Pursue multi-jurisdictional bike sharing program with regional partners including the Westside Cities, and SCAG.

Summary of Literature and Study Impacts

Successful bike sharing programs have resulted in automobile to bike mode shifts as large as 5% to 8% in all trip types in the areas they serve.[65] Impacts may be lower if conditions are not conducive to bicycling (few available bicycles in the system, insufficient network of dedicated bike routes, and/or climate conditions not conducive to bicycling).

In general, bike share programs are not utilized for regular commuter trips: since there is a per-use fee, regular bicycle commuters will ultimately purchase their own bicycle. Instead, bike-share programs are a “supportive” mode in that that they provide on-demand and close to door-to-door travel for short, unscheduled trips that are too far to walk and not well-served by transit. Similar to car-sharing programs, bike sharing programs – while not used primarily for commuting – play an important role in the transportation system by allowing commuters to travel by transit knowing that they will have multiple travel options available to them during the workday.

Summary of Estimated Impacts in West Hollywood

The available research does not allow Nelson\Nygaard to develop a meaningful estimate of the impacts of bike sharing programs on peak-hour vehicle trips. In addition, it is our professional opinion that implementation of a bike sharing program would likely result in a relatively small reduction in peak-hour vehicle trips. This does not imply that a bike sharing program would have no impact on vehicle ownership and trips in West Hollywood, or offer secondary benefits to the residents, employees, and visitors (such as expanded mobility options, better public health outcomes through encouragement of active transportation, etc.). However, any benefits realized from a bike sharing program have been excluded from the impacts analysis in order to maintain a conservative methodology.

[65] Victoria Transport Policy Institute (2008), *Public Bike Systems: Automated Bike Rentals for Short Utilitarian Trips*, www.vtpi.org/tdm/tdm126.htm. Note: this research does not state if the shift from automobile trips to bicycle trips is for commute or non-commute trips, nor does the research state at what time of day these trips occur, i.e. peak or non peak trips.

Category 4: Mode Shift Policies

4.1 Carpooling

Overview

Carpooling is the shared use of a car by the driver—usually the owner of the vehicle—and one or more passengers. When carpooling, people either get a ride or offer a ride to others instead of each driving separately. Carpooling arrangements and schemes involve varying degrees of formality and regularity. Carpools may be formal (a regular arrangement facilitated by an employer, ridesharing website, or other means) or casual (where the driver and passenger make an ad hoc, one-time arrangement).

Current Policies and Programs

Under the City of West Hollywood's TDM Ordinance employers with 5 or more employees in a building of 10,000 square feet or greater are required to provide each of their employees with information about ridesharing and provide preferential parking for carpools. According to 2000 US Census data 6.1% of West Hollywood residents carpooled to work and according to 2000 CTTP data 11.5% of employees who work in West Hollywood carpool to work.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

This alternative assumes a small to moderate increase in employee participation rates in carpools and vanpools due to additional promotional efforts in by the City.

TOD Focus Alternative

This alternative assumes a moderate to high increase in employee participation rates in carpools and vanpools for employees located in the TOD Zones due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.

Enhanced TDM Alternative

This alternative assumes a moderate to high increase in employee participation rates in carpools and vanpools for employees located throughout the City due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.

Summary of Literature and Study Impacts

Experience indicates that ridesharing programs typically attract 5-15% of commute trips if they offer only information and encouragement, and 10-30% if they also offer financial incentives such as parking cash out or vanpool subsidies.[66]

Rideshare programs that include incentives such as HOV priority and parking cash-out often reduce affected commute trips by 10-30%.[67] If implemented without such incentives travel impacts are usually smaller. A study conducted by Reid Ewing concluded that ridesharing programs can reduce daily vehicle commute trips to specific worksites by 5-15%, and up to 20% or more if implemented with parking pricing.[68]

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[66] Bryon York and David Fabricatore (2001), *Puget Sound Vanpool Market Assessment*, www.wsdot.wa.gov.
[67] Philip Winters and Daniel Rudge (1995), *Commute Alternatives Educational Outreach*, www.cutr.eng.usf.edu.
[68] Reid Ewing (1993), *TDM, Growth Management, and the Other Four Out of Five Trips.*

Analysis by other researchers indicate that the elasticity of vanpool ridership with respect to fees is -2.6% using a 1997 data set and -14.8% using a less statistically robust 1999 data set, that is, a one dollar decrease in vanpool fares is associated with a 2.6% to 14.8% increase in the predicted odds of choosing vanpool with respect to drive alone. The same study found that the elasticity of vanpooling with respect to price to be -0.61 (1997) and 13.4% (1999), meaning that for each 10% increase in vanpool price, there is a 6% to 13% decrease in vanpool mode choice with respect to vehicle mode choice. Conversely, a 10% decrease in vanpool price will increase the odds of choosing vanpool (with respect to vehicle mode choice) by 6% to 13%. Using a nested logit model, the study found the elasticity of vanpooling with respect to fares to be -1.14.[69]

One study estimates the price elasticity of vanpooling at about 1.5, meaning that a 10% reduction in vanpool fares increases ridership by about 15%.[70] For example, if vanpool fares that are currently $50 per month are reduced to $40 (a 20% reduction), ridership is likely to increase by about 30% (20% x 1.5). Of course, the precise trip reduction impacts will vary depending on the specific market and whether other ridesharing incentives are also provided.

Because rideshare passengers tend to have relatively long commutes, mileage reductions can be relatively large. For example, if ridesharing reduces 5% of commute trips it may reduce 10% of vehicle miles because the trips that are reduced are twice as long as average. Rideshare programs can typically reduce up to 8.3% of commute VMT, up to 3.6% of total regional VMT, and up to 1.8% of regional vehicle trips.[71]

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

Based on the available research and our professional judgment, a moderate expansion of carpool and vanpool programs will result in an employee rideshare increase of 2% in all area types.

TOD Focus Alternative

Based on the available research and our professional judgment, a moderate expansion of carpool and vanpool programs will result in an employee rideshare increase of 5% in TOD Zones.

Enhanced TDM Alternative

Based on the available research and our professional judgment, a moderate expansion of carpool and vanpool programs will result in an employee rideshare increase of 5% in all area types.

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[69] Francis Wambalaba, Sisinnio Concas and Marlo Chavarria (2004), *Price Elasticity of Rideshare: Commuter Fringe Benefits for Vanpools*, www.nctr.usf.edu/pdf/527-14.pdf.
Sisinnio Concas, Philip L. Winters and Francis W. Wambalaba (2005), *Fare Pricing Elasticity, Subsidies And The Demand For Vanpool Services.*
[70] Bryon York and David Fabricatore (2001), *Puget Sound Vanpool Market Assessment*, www.wsdot.wa.gov.
[71] Apogee (1994), *Costs and Cost Effectiveness of Transportation Control Measures; A Review and Analysis of the Literature*, National Association of Regional Councils, www.narc.org.
TDM Resource Center (1996), *Transportation Demand Management; A Guide to Including TDM Strategies in Major Investment Studies and in Planning for Other Transportation Projects*, Office of Urban Mobility, WSDOT, www.wsdot.wa.gov.

4.2 Telecommuting / Alternative Work Schedules

Overview

Telecommuting and alternative work schedules typically allow or require employees to start and/or leave work outside of peak-hours. These strategies are often a part of a company's Trip Reduction or TDM program and include:

- *Flextime.* Employees are allowed some flexibility in their daily work schedules, e.g. starting at 7:30AM or after 9AM and leaving at 4 PM or after 6 PM.
- *Compressed Workweek (CWW).* Employees work fewer but longer days, such as four 10-hour days each week (4/40), or 9-hour days with one day off every two weeks (9/80).
- *Staggered Shifts.* Shifts are staggered to reduce the number of employees arriving and leaving a worksite at one time, e.g. one shift works between 8:00 and 4:30, another shift 8:30 and 5:00, and a third 9:00 and 5:30.

Current Policies and Programs

A number of West Hollywood employers offer their employees the option of alternative work schedules including compressed work weeks such as four 10-hour days each week (4/40), or 9-hour days with one day off every two weeks (9/80). According to the 2000 US Census 6.9% of West Hollywood residents work from home.

Proposed Trip Reduction Policies & Programs

Preferred General Plan

Assumes a small to moderate increase in employee participation rates in telecommuting and alternative work schedules for employees located throughout the City due to additional promotional efforts by the City.

TOD Focus Alternative

Assumes a moderate to high increase in employee participation rates in telecommuting and alternative work schedules for employees located in the TOD Zones and transit corridors due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.

Enhanced TDM Alternative

Assumes a moderate to high increase in employee participation rates in telecommuting and alternative work schedules for employees located throughout the City due to additional promotional efforts by the City, mode split performance targets for new development, and public or private subsidies.

Summary of Literature and Study Impacts

Flextime reduces peak period congestion directly, and can make ridesharing and transit use more feasible.[72] Staggered shifts can reduce peak-period trips, particularly around large employment centers. Reid Ewing estimates that flextime and telecommuting together can reduce peak-hour vehicle commute trips by 20-50%.[73]

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[72] Alyssa Freas and Stuart Anderson (1991), *Effects of Variable Work Hour Programs on Ridesharing and Organizational Effectiveness, Transportation Research Record 1321*.
[73] Reid Ewing (1993), *TDM, Growth Management, and the Other Four Out of Five Trips.*

Flexible work schedules can also reduce total vehicle travel. One survey of commuters found that it could reduce vehicle trips by up to 8% if 50% of employees are participating in the program, making it among the most effective commute trip reduction strategies considered in that study.[74]

Another analysis estimates that compressed work weeks can reduce up to 0.6% of VMT and up to 0.5% of vehicle trips in a region.[75] However, other research indicates that compressed work weeks may provide modest reductions in total vehicle travel, in part because participants make additional vehicle trips during their non-work days.[76] Compressed work weeks may also encourage some employees to move further from worksites or to drive rather than rideshare.

Summary of Estimated Impacts in West Hollywood

Preferred General Plan

Based on the available research and our professional judgment, we conservatively estimate that a small to moderate increase in telecommuting/alternative work schedule programs could reduce peak-hour vehicle commuting trips by 2% in all area types.

TOD Focus Alternative

Based on the available research and our professional judgment, we conservatively estimate that a moderate to high increase in telecommuting/alternative work schedule programs could reduce peak-hour vehicle commuting trips by 5% in Residential Zones.

Enhanced TDM Alternative

Based on the available research and our professional judgment, we conservatively estimate that a moderate to high increase in telecommuting/alternative work schedule programs could reduce peak-hour vehicle commuting trips by 5% in all area types.

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[74] Center for Urban Transportation Research (1998), *A Market-Based Approach to Cost-Effective Trip Reduction Program Design*, http://ntl.bts.gov/lib/3000/3600/3633/cashdoc.pdf.
[75] Apogee (1994), *Costs and Cost Effectiveness of Transportation Control Measures; A Review and Analysis of the Literature*, National Association of Regional Councils, www.narc.org.
[76] Amy Ho and Jakki Stewart (1992), "Case Study on Impact of 4/40 Compressed Workweek Program on Trip Reduction," *Transportation Research Record 1346*, TRB, www.trb.org, pp. 25-32 and Genevieve Giuliano (1995), "The Weakening Transportation-Land Use Connection, *ACCESS*, Vol. 6, University of California Transportation Center, www.uctc.net, Spring 1995, pp. 3-11.

Appendix E:
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APPENDIX G
CLIMATE CHANGE TECHNICAL DATA

Appendix West Hollywood General Plan GHG Calculations

Air Quality Modeling Output	CO2 Estimates			Conversion Factors			Total CO2 Emissions	
Construction Emissions (Source: URBEMIS)								
2011-2035	17,052.50	tons		0.907	MT/ton		15,470	MT/yr
Total Construction-Generated Emissions							**15,470**	MT
Area-Source Emissions (Source: URBEMIS)								
Operational Year 2035	16,926.48	tons/day	lb/ton	0.907	MT/ton	days/year	15,355	MT/yr
Mobile-Source Emissions (Source: URBEMIS)								
Operational Year 2035	96,396.91	tons/day	lb/ton	0.907	MT/ton	days/year	87,450	MT/yr
Total Direct Operational Emissions							**102,805**	MT/yr

Indirect Emissions from Energy Consumption [1,2]

KWh/du/year	# du	KWh/ksf/year	# ksf Commercial	Total KWh	MWh	Region	Emission Factor (lb CO2/MWh)	GWP	Emission Factor (lb CH4/MWh)	GWP	Emission Factor (lb N2O/MWh)	GWP	Total CO2e (Metric Tons/year)
4274	125	16,000	2,613	42,344,298	42,344	CALI	804.54	1	0.0067	21	0.0037	310	**15,478**

Indirect Emissions from Municipal Water Use (includes conveyance, treatment, distribution, and wastewater treatment) [3,4]

KWh/million gallons/year*	KWh/acre-ft/year	acre-ft/year	Total KWh	MWh	Region	Emission Factor (lb CO2/MWh)	GWP	Emission Factor (lb CH4/MWh)	GWP	Emission Factor (lb N2O/MWh)	GWP	Total CO2e (Metric Tons/year)
12,700	4138	1,166	4,825,090	4,825	CALI	804.54	1	0.0067	23	0.0037	296	**1,764**

*for Southern California

Total Indirect Emissions (MT CO2e/yr)	**17,241**
Total Direct & Indirect Emissions (MT CO2e/yr)	**120,046**

Assumptions:

3.069 acre-ft = 1 Million gallon

0.135 acre-ft/yr

Sources:

1 California Energy Commission [CEC] 2009. California Commercial End Use Survey. Available: http://capabilities.itron.com/CeusWeb/Chart.aspx; California Energy Commission [CEC] 2000. California Energy Demand Staff Report P200-00-002

2 California Climate Action Registry [CCAR] General Reporting Protocol v 3.1 January 2009

3 California Energy Commission [CEC] 2006. California Energy - Water Relationship Staff Report CEC-700-2005-011-SF. Available: http://www.energy.ca.gov/2007publications/CEC-999-2007-008/CEC-999-2007-008.PDF