WESTERN DISTRICT YARD RENOVATION PROJECT

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

Department of Water and Power
City of Los Angeles
111 North Hope Street
Los Angeles, California 90012

June 2004

CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY
AND CHECKLIST
(Article IV – City CEQA Guidelines)

LEAD CITY AGENCY	COUNCIL DISTRICT	DATE
City of Los Angeles, Department of Water and Power 111 N. Hope Street, Room 1044 Los Angeles, CA 90012	10	06/16/04

PROJECT TITLE/NO.	CASE NO.
Western District Yard Renovation Project	WP148-04

PREVIOUS ACTIONS CASE NO.	☐ DOES have significant changes from previous actions. ☐ DOES NOT have significant changes from previous actions.

PROJECT DESCRIPTION:

The project involves the demolition of existing structures at the LADWP Western District Yard and construction of new buildings that will support the current functions of the Yard. (Please refer to Attachment A for more information.)

PROJECT LOCATION:

The project site is located at 5898 W. Venice Boulevard at the intersection of Fairfax Avenue and Venice Boulevard, in the City of Los Angeles.

PLANNING DISTRICT		STATUS:
8475 South Vermont Avenue, South Los Angeles Area Planning Commission		☐ PRELIMINARY ☐PROPOSED_____ ☐ADOPTED date
EXISTING ZONING PF-1	MAX. DENSITY ZONING:	☐ DOES CONFORM TO PLAN
PLANNED LAND USE & ZONE: Public Facilities	MAX. DENSITY PLAN:	☐ DOES NOT CONFORM TO PLAN
SURROUNDING LAND USES: Public Facilities, Residential Multiple Family, Industrial, Open Space	PROJECT DENSITY:	☐ NO DISTRICT PLAN

☞ **DETERMINATION (to be completed by Lead City Agency)**

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✔ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Charles C. Holloway

SIGNATURE

Charles C. Holloway

PRINTED NAME

Environmental Affairs Officer

TITLE

Supervisor of Environmental Assessment, LADWP

FOR

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).

5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   1) Earlier Analysis Used. Identify and state where they are available for review.
   2) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   3) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated

7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9) The explanation of each issue should identify:

1) The significance criteria or threshold, if any, used to evaluate each question; and

2) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ I. Aesthetics	☐ II. Agricultural Resources	☐ III. Air Quality
☐ IV. Biological Resources	☐ V. Cultural Resources	☐ VI. Geology and Soils
☐ VII. Hazards and Hazardous Materials	☐ VIII. Hydrology and Water Quality	☐ IX. Land Use and Planning
☐ X. Mineral Resources	☐ XI. Noise	☐ XII. Population and Housing
☐ XIII. Public Services	☐ XIV. Recreation	☐ XV. Transportation/Traffic
☐ XVI. Utilities and Service Systems	☐ XVII. Mandatory Findings of Significance	

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

☞ **BACKGROUND**

PROPONENT NAME	PHONE NUMBER:
City of Los Angeles, Department of Water and Power **Tania Bonfiglio**	**(213) 367-3027**
PROPONENT ADDRESS **111 N. Hope Street, Room 1044** **Los Angeles, CA 90012**	
AGENCY REQUIRING CHECKLIST **City of Los Angeles, Department of Water and Power**	**DATE SUBMITTED:** **06/16/04**
PROPOSAL NAME (If Applicable) **Western District Yard Renovation Project**	

ATTACHMENT A

PROJECT DESCRIPTION

Western District Yard Renovation Project

1.1 Project Location

The project site is located at 5898 W. Venice Boulevard at the intersection of Fairfax Avenue and Venice Boulevard, in the City of Los Angeles.

1.2 General Setting

The subject property is the existing Los Angeles Department of Water and Power (LADWP) Western District Yard and is composed of an Office Building, Warehouse, Tool Room, Welding Shop, Locker Room, Fleet Buildings, Cement Storage Building, Storage areas, gas pumps, and parking areas. The main function of the yard is to support Water Distribution work in LADWP's Western service area. The work includes installation of new distribution mains, upgrading existing pipelines, making emergency repairs, and installing fire hydrants.

1.3 Project Objectives

The proposed project will replace aging and deteriorating buildings in a layout that will support the current functions of the yard. The new buildings and layout will improve the reliability of services provided to the Western District service area and will consolidate existing buildings and work functions.

1.4 Historical Perspective

The LADWP acquired the parcels comprising the Yard between 1940 and 1960. Increasing service and personnel in the LADWP Western District necessitated the construction of a new headquarters facility. In 1947, the facility at 5898 Venice Boulevard was constructed, replacing the old Western District Hollywood Yard at Las Palmas and Franklin Avenue. The new facility was more centrally located and provided more space for Western District operations. Plans for the new facility began in 1945 and a building permit was applied for in 1946. An application for construction approval was filed with the Civilian Production Administration, which was denied due to federal government restrictions due to the veterans housing program (LADWP 1945, 1946, and 1947). The main function of the yard (i.e., to support the LADWP Water Distribution work in the Western service area) has remained consistent over the past six decades.

1.5 Project Description

The proposed project includes demolition and construction of replacement structures and construction of a new perimeter wall. The project would replace aging buildings that are deteriorating rapidly with new buildings in a layout that will support the current functions of the Yard. Renovations in the existing buildings would cause major personnel displacements and would not be cost effective because of the structural upgrades that would be required to bring them up to code. The buildings will implement energy efficiency measures to comply with all building codes.

The new buildings and layout will improve the safety of the facility by positioning the Administration Building so that views are provided to the entire Yard, including parking areas. In addition, the guard building on Fairfax Boulevard will have surveillance monitors so that all areas of the Yard can be monitored.

The new buildings and layout will improve the reliability of services provided to the Western District service area and will consolidate existing buildings and work functions. American with Disabilities Act standards will be followed for all buildings constructed during the three phases.

Existing and proposed structures are summarized below in Table 1-1, Site Changes. In addition, the existing block wall along Venice Boulevard will be demolished and a new blockwall fence will be built 20-feet north of the existing fenceline, to within 6.5 feet of the property line. Figure 1 shows the location and vicinity map of the project site.

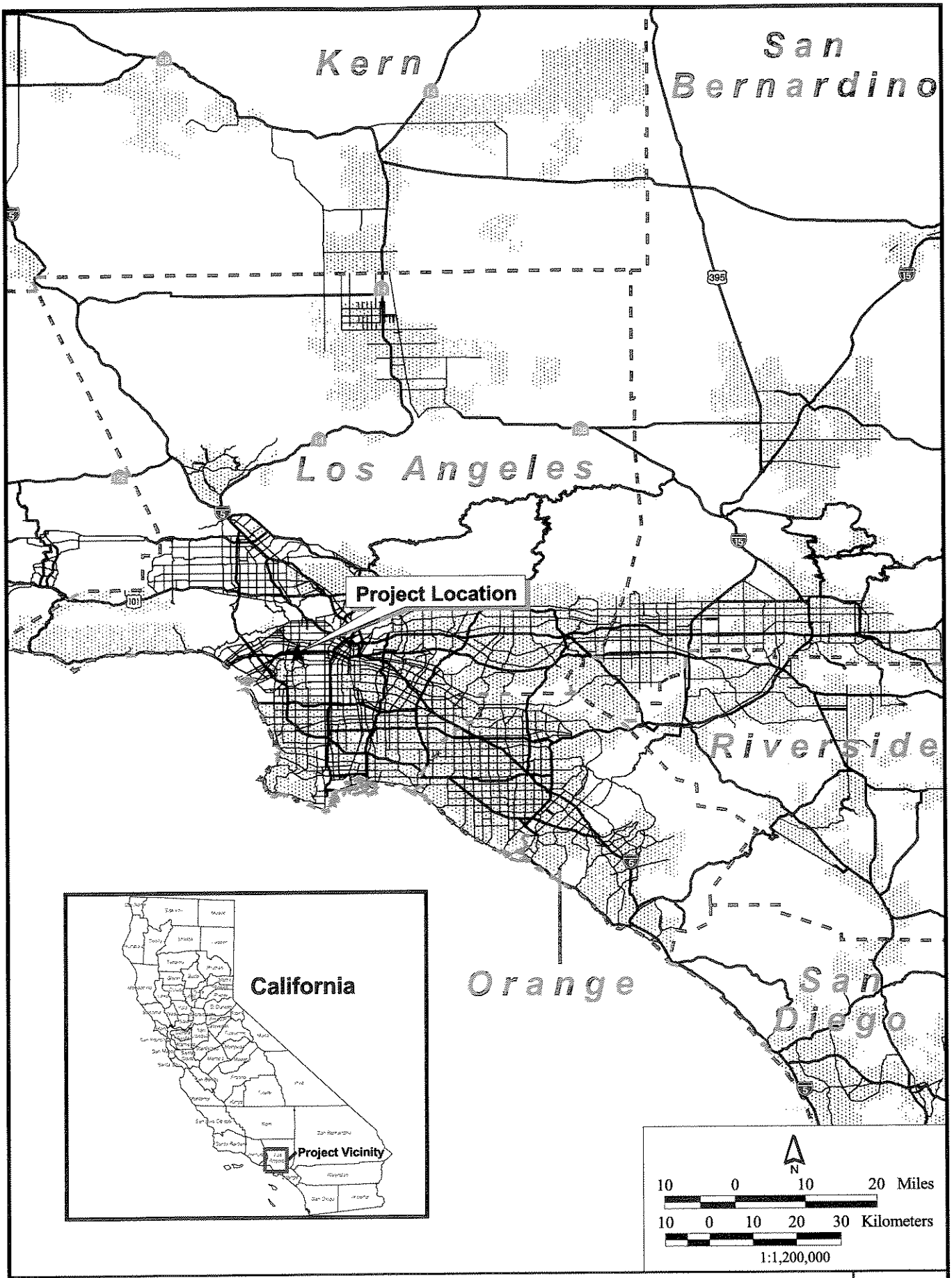
Table 1-1
Site Changes

Existing Structures	Square Feet	Proposed Structures	Square Feet
Office/Warehouse	10,000	Office	28,000
Fleet (2 buildings)	12,000	Tool Room/Warehouse	17,000
Weld Shop	6,400	Fleet/Weld	17,500
Total	**33,400**	**Total**	**62,000**

The proposed demolition and construction of new facilities at the Western District Yard will occur in three phases, as summarized below.

Phase One
Phase One activities are scheduled to begin in Summer 2005 and conclude in Fall 2006.

Demolition
Approximately 275 feet of yard wall and concrete pavement, which may be reused on site, will be demolished in Phase One.



URS	Project Location and Vicinity Map	Figure 1
Project No. 29870195	Los Angeles Department of Water and Power Western District Yard Improvement Project	April 2003

Administration Building

An approximate 28,000 square foot, two-story Administration Building with campus center and visitor parking will be constructed in the northeast corner of the Yard, at the intersection of Genesee Avenue and Venice Boulevard. The Administration Building will include a locker/changing room and Fitness Center for all Department employees. The Fitness Center will include Men and Women's locker rooms consisting of showers, water closets, sinks, and small lockers. The Administration Building will also include offices, meeting/conference room, and lunchroom.

Phase Two

Phase Two activities are scheduled to begin in 2007 and conclude in 2008. This Phase includes relocation of personnel from the existing Office/Warehouse building to the new Administration Building. The existing Office/Warehouse building will be used during this phase as a temporary tool room and weld shop.

Demolition

The existing locker room, tool room, weld shop buildings, and approximately 145 feet of yard wall will be demolished in Phase Two.

Warehouse/Tool Room Building

A new Warehouse and tool room will be constructed near the middle of the yard. The Warehouse/Tool Room Building will be a one story, approximately 17,000 square foot facility.

Phase Three

Phase Three activities are scheduled to begin in 2009 and conclude in 2010. This Phase includes relocation of personnel from the existing warehouse and tool room personnel and equipment into the new Warehouse/Tool Room Building, vacating the temporary location at the existing Office Building. Welding activities will temporarily occur at the new Warehouse/Tool Room Building. Employee parking lot will be re-striped and new fencing installed during Phase Three.

Guard Shack

A new guard shack will be built at the existing location on Fairfax Boulevard.

Demolition

The existing Office Building and approximately 120 feet of yard wall will be demolished in Phase Three.

Fleet/Welding Building

A new Fleet/Welding Building will be constructed near the western portion of the yard. The Fleet/Welding Building will be a one story, approximately 17,500 square foot facility. The welding portion of the building will consist of equipment area, crane area, storage space, and a small office. The fleet facility will consist of approximately six vehicle stalls with a door size of 20 feet high by 18 feet wide and a small office. Fleet and Welding will share a restroom, and a small locker room with a shower. A drive-through wash rack will be located at one end of the building.

1.6 Proposed Operation

The operations at the Yard will continue with the same purpose and at the same intensity as the current level of operations. No new employees are proposed once the proposed project is completed.

1.7 Land Use Consistency

The General Plan Land Use designation for the project site is "Public Facilities." This land use would remain unchanged by the proposed project. Therefore, the proposed project is consistent with the General Plan.

1.8 Environmental Setting

The Yard is currently a paved and fenced public facility, surrounded by urban uses. The existing structures at the Yard consist of an office/warehouse, fleet building, weld shop, and tool room totalling 33,400 square feet. The existing structures were built more than four decades ago and do not meet current seismic safety codes. The project site is approximately eight acres in size, and supports a staff of approximately 120 personnel.

The Yard is underlain by unconsolidated sands, clays, and silts to a depth of approximately 75 feet. The historic high water level at the site was estimated to be approximately 15 feet below ground surface and flows southerly in the site vicinity (GeoPentech 2003).

A part of the project site is currently being remediated for a gasoline product line leak that resulted in a gasoline release and dissolved constituent plume beneath the site. The LADWP commissioned a consultant in December 1987 to undertake a site assessment of the Yard. An initial Phase I study was completed in early 1988 and a report was submitted to LADWP in May 1988. The study indicated the presence of gasoline contamination both in soil and in groundwater within a portion of the Yard. A Work Plan for additional studies was developed and presented to LADWP and the Regional Water Quality Control Board, Los Angeles Region (RWQCB) to assess the effects of Yard operations on local water-producing wells, to define the extent of the contaminant plume, and to develop a remedial plan. In July 1988 LADWP authorized a consultant to prepare a Phase II Site Characterization Study. This Study was completed in November 1989 and includes an assessment of all data collected during the investigations and studies of the area at the Yard. It also presents findings to meet the objectives of the Workplan, including remediation of the free product plume (LADWP 1989). A soil vapor extraction unit has been operating at the Yard since October 1997. LADWP is currently working with RWQCB for final approval of their Remedial Action Plan for groundwater cleanup.

1.9 Required Permits and Approvals

The new facility will meet the requirements of all applicable regulations, codes, permits, and approvals.

1.10 References

City of Los Angeles, Department of Water and Power (LADWP). 1989. Western District Headquarters Agreement No. 10025, Site Characterization Study, Phase II, Final Report. November.

GeoPentech. 2003. Geotechnical Investigation Western District Yard Site. July 15, 2003.

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?				**X**
The City of Los Angeles General Plan, Conservation Element, Section 15: Land Form and Scenic Vistas identifies scenic views or vistas as "the panoramic public view access to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features. Public access to these views is from park lands, private and publicly owned sites and public rights-of-way." The proposed project site is located within an urbanized area in the City of Los Angeles. The LADWP Western District Yard (Yard) is not identified as a scenic vista, as defined in the City of Los Angeles General Plan. New structures and other elements that would obstruct focal or panoramic views would not be constructed or added as part of the project. No components of this project are located near or within the viewshed of a scenic vista, therefore no impacts are anticipated.				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
Los Angeles County contains only one officially designated scenic highway and 9 eligible state scenic highways including portions of State Routes (SR) 1, 2, 27, 39, 57, 118, 126, and 210 and Interstate 5 (Caltrans 2003). The Yard is not located in proximity to any of these scenic highways and would not have the capability to affect aesthetic resources within a scenic highway. The closest officially designated or eligible state scenic highway, located over 11 miles west of the Yard, is SR-1 from 187 near Santa Monica to SR-101 near El Rio. No impacts are anticipated.				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
The proposed project is located at the Western District Yard within an existing blockwall fence. The project would include additional landscaping and the construction of a new blockwall fence of a similar height as the existing wall. The project design and landscaping plan is required to be reviewed and approved by the City's Cultural Affairs Commission prior to project construction. Therefore, the potential impact to the existing visual character would be less than significant.				
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			**X**	
The project would incorporate new lighting for the Yard. However, this lighting would be designed so as not to spill offsite. Therefore, the new sources of light would not create a significant impact that would affect day or nighttime views in the area.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
References: California Department of Transportation (Caltrans). 2003. The California Scenic Highway System. http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm.				
II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
The proposed project would not be located on existing Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (farmland), as defined by the California Resources Agency. The proposed project also is not located within the immediate vicinity of agricultural operations, and would not have the potential to affect any farmlands or other agricultural operations. No impacts to agricultural resources would result from the proposed project.				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
The proposed project would not be located on land zoned for agricultural purposes, or on land that is under a Williamson Act contract.				
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X
The proposed project would not be located on existing farmland, or on land within the immediate vicinity of agricultural operations. Therefore, the project would not have the potential to affect any farmland or other agricultural operations.				
References: City of Los Angeles, 2003. Zoning information and Map Access System, Property Information for 5898 W. Venice Boulevard. http://zimas.lacity.org/.				
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan [e.g., the South Coast Air Quality Management District (SCAQMD) Plan or Congestion Management Plan]?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
Air quality plans are strategies designed to reduce emissions and comply with the federal and State ambient air quality standards. Typically, projects with significant impacts would have the potential to conflict or obstruct applicable air quality plans. The proposed project consists of demolishing the existing structures (i.e., buildings) and construction of new buildings that would improve efficiency in the existing operations and enhance the safety of the workers. The implementation of the proposed project is not expected to increase or change the existing services offered at the Los Angeles Department of Water and Power (LADWP), hence, operational emissions are expected to remain the same after the completion of the project. The only increase in air pollutant emissions associated with the proposed project would be for a short duration from construction activities such as the demolition of existing structures and construction of the new structures. However, the construction activities would be performed in several phases in order to maintain existing operations without any disruption of services. In order to assess the significance of impact from construction activities, emissions associated with construction activities are quantified for a peak day using the emission factors provided in the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook, April 1993, and presented in Appendix A as Table 1, Peak Day Construction Emissions. Construction emissions are quantified using data provided by LADWP and reasonable assumptions. As shown in Table 1 of Appendix A, emissions associated with the demolition and construction of the proposed project is below the SCAQMD daily construction emissions threshold. Therefore, the implementation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts are considered less than significant.				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
As mentioned in (a.), the operation at LADWP is expected to remain the same and construction activities on a peak day would not have a significant impact on air quality, therefore, the construction and the operation of the new LADWP facility would not violate any air quality standard nor contribute substantially to an existing or projected air quality violation.				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The South Coast Air Basin is designated as non-attainment for ambient standards for ozone (O_3), particulate matter less than or equal to 10 microns (PM_{10}), and carbon monoxide (CO). The construction and operation of the proposed project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant because the emissions associated with the operation of the new facility would remain the same and the construction emissions are only temporary over a short time period and considered to have less than significant impact. Hence, the construction and operation of the new LADWP facility would not result in a cumulatively considerable net increase of any criteria pollutant.				
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
Since the construction emissions are short-term, below the SCAQMD construction significance thresholds, and dust control measures would be implemented, it is expected that the emissions associated with construction activities would not impact the sensitive receptors in the project vicinity. Emissions associated with the operation of the new LADWP facility would remain the same, therefore, would not expose sensitive receptors to substantial pollutant concentrations.				
e) Create objectionable odors affecting a substantial number of people?			X	
Construction of the proposed project is not typically associated with odor issues. Odors are typically associated with industrial or institutional land uses, as listed in the SCAQMD CEQA Air Quality Handbook, April 1993. As previously mentioned, there would not be any changes to the existing operation, therefore, if during existing operation there were no odor issues, then upon the completion of the proposed project there would not be any odor issues.				
References: South Coast Air Quality Management District CEQA Air Quality Handbook, April 1993.				
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
The project site has been paved with approximately one foot of concrete, used as a public facility, surrounded by a blockwall fence, and located within an urban environment for more than 50 years. There is no potential for adverse effects to biological resources.				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The project site is adjacent to Ballona Channel, which is a large concrete lined flood channel located within an urban environment. Project-related activities would remain onsite and would not affect the Channel. There is no potential for adverse effects to sensitive natural communities.				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
The project site is completely paved, and does not possess any wetlands.				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
The Yard contains no habitat to support wildlife. Rodents and other typical urban wildlife species would relocate to similar habitats outside of the proposed construction area. The Yard does not provide wildlife corridors or native wildlife nursery sites. No impact would occur.				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?				X
The project would comprise the replacement of structures within an unvegetated project site. No conflicts would result to local policies or ordinances protecting biological resources.				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
The project would comprise the replacement of structures within an unvegetated project site. The site is not located within an HCP or NCCP. No conflicts would result to approved habitat conservation plans.				
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5?		X		

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
According to the Cultural Resources Technical Report for the proposed project (Appendix B), the LADWP Western District Headquarters office/warehouse building (Building 1) and its associated outbuildings appear to be eligible for listing in the California Register of Historical Resources (CRHR) under Criterion A (URS 2004). The property is representative of the expansion of public utilities in post-World War II Los Angeles, which resulted from the increased population and growth of industry and commerce of the era. It is also representative of the concurrent growth of LADWP, significant locally for its vital contribution to the growth and development of Los Angeles, and nationally as the largest municipally owned utility in the nation. Building 1 and its associated outbuildings maintain sufficient integrity and represent buildings constructed during the era of significance. Building 1 also appears to be eligible under Criterion C. Demolition of these buildings would result in a substantial adverse change in the significance of a historical resource. However, this impact will be mitigated to a less than significant level through detailed description and photodocumentation of the existing buildings.				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations Section 15064.5?		**X**		
The Project site is located immediately adjacent to Ballona Creek within one mile of several prehistoric archaeological sites. As such, the Project area is considered sensitive for buried prehistoric archaeological resources. The potential exists for ground disturbing construction activities to affect unknown archaeological resources. However, this potentially significant impact will be mitigated to a less than significant level through the incorporation of mitigation measures, namely compliance with the construction permit and resource sensitivity training. In the event archaeological resources are unearthed during excavation activities associated with the project, work shall be stopped immediately, and the discovery shall be evaluated by a qualified archaeologist, pursuant to the procedures set forth at CEQA Section 15064.5.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		
The Project site is located approximately two miles south of the La Brea Fossil Pits, one of richest and most important paleontological localities in the world. As such, the Project area is considered sensitive for subsurface paleontological resources. The potential exists for ground disturbing construction activities to affect unknown paleontological resources. However, this potentially significant impact will be mitigated to a less than significant level through the incorporation of mitigation measures, namely monitoring of construction and resource sensitivity training. No unique geologic features are known to exist in the Project area. If fossilized shells, plants or bones are discovered during construction of the project, work shall be suspended in the immediate vicinity of the finds, and the potential significance of the resource shall be evaluated by a qualified specialist.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	
No human remains are known to exist within the Project area. If human skeletal remains are found at the Project site during earth moving activities such as grading or trenching, work shall be suspended and the Los Angeles County Coroner's Office shall be notified. Standard guidelines set by California law provides for the treatment of skeletal material of Native American origin (California Public Resources Code, Sections 5097.98 et seq.; Health and Safety Code, Section 7050.5 and others). Procedures to be employed in the treatment of human remains are found in, "A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods," published by the California Native American Heritage Commission.				
References: South Central Coastal Information Center (SCCIC). 2003. *Records Search for the Proposed LADWP Western District Yard Improvement Project, Los Angeles, CA*. Letter reporting results of records search from SCCIC, Department of Anthropology, California State University, Fullerton to Ms. Christine Hacking of URS Corporation, April 2, 2003. URS Corporation. 2004. *Cultural Resources Technical Report: LADWP Western District Yard Improvement Project, Los Angeles, CA*. January 2004.				
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
The Yard does not fall within an Alquist-Priolo special study zone, per the City's Safety Element of the General Plan (1996). The Yard is located approximately 0.8 miles from the nearest fault (City of Los Angeles 2003). Although the Yard is not within an Alquist-Priolo special study zone, this does not preclude the local faults from serving as a potential seismic hazard. The design and construction of the project will conform to the 2000 International Building Code seismic standards as approved by the Department of Building and Safety. Therefore, the potential impact would be less than significant.				
ii) Strong seismic ground shaking?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Southern California region is prone to seismic ground shaking caused by earthquakes, which may result in hazardous conditions to people within the region. The most serious impacts associated with ground shaking would occur if the structures were not properly constructed according to seismic engineering standards. The design and construction of the project will conform to the 2000 International Building Code seismic standards as approved by the Department of Building and Safety. Therefore, the potential impact would be less than significant.				
iii) Seismic-related ground failure, including liquefaction?			X	
The Yard is located within a liquefiable area according to the Safety Element of the City's General Plan (1996). LADWP prepared a geotechnical study (July 2003) for the Yard and will design the proposed structures to meet all applicable design codes and standards accordingly. Appropriate structural design would reduce the potential seismic-related impact to less than significant.				
iv) Landslides?				X
The Yard is located on flat, graded land with no unique geological features. According to the Safety Element of the City's General Plan (1996), the Yard is not located in a landslide area. No significant impacts are anticipated to result from landslides.				
b) Result in substantial soil erosion or the loss of topsoil?			X	
The project site is currently developed and paved over with approximately one-foot of concrete. Project construction will include cutting in to the concrete, excavation, and hauling materials off site. Construction on the site would be subject to state codes and requirements for erosion control and grading. A NPDES General Construction Stormwater Permit is required for the project and will incorporate specific discharge limitations for point-source discharges to ensure that dischargers meet permit conditions and protect state-defined water quality standards. Compliance by construction contractors with this program and the conditions of the permit would minimize potential impacts during construction. Impacts on soil erosion during construction are considered less than significant.				
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Yard is located just east of the neck that connects Ballona Gap with the Downey Plain Section of the Los Angeles Basin. The Basin extends south from the foot of the San Gabriel Mountains to the sea, and southeast from the Santa Monica Mountains to the Santa Ana Mountains and the San Joaquin Hills. The Basin can be divided into a northern 1/3 and a southern 2/3 by the Puente Repetto hills. The Yard lies in the southern 2/3 of the Basin, which is predominantly a lowland sloping gently toward the sea (a coastal plain). The Yard is underlain by unconsolidated sands, clays, and silts to a depth of approximately 75 feet. The historic high water level at the site was estimated to be approximately 15 feet below ground surface and flows southerly in the site vicinity (GeoPentech 2003). The Yard is located within a liquefiable area according to the Safety Element of the City's General Plan (1996). LADWP prepared a geotechnical study for the Yard and will design the proposed structures to meet all applicable design codes and standards accordingly. Appropriate structural design would reduce the potential seismic-related impact to less than significant.				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
The Yard is underlain by unconsolidated sands, clays, and silts to a depth of approximately 75 feet. The historic high water level at the site was estimated to be approximately 15 feet below ground surface and flows southerly in the site vicinity (GeoPentech 2003). Clay, a potentially expansive soil, is present at the Yard. LADWP has prepared a geotechnical study for the Yard, which provides applicable design codes and standards for design of the proposed structures. Appropriate structural design would reduce potential expansive soil-related impacts to less than significant.				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X
The proposed project would be served by domestic sewer systems similar to the existing on-sites uses. Analysis of the soil to determine whether it can support the use of septic tanks or other disposal systems is not required. No impacts would occur.				
References: City of Los Angeles. 1996. General Plan, Safety Element. Adopted November 26, 2003. Zoning information and Map Access System, Property information for 5898 W. Venice Boulevard. http://zimas.lacity.org/. City of Los Angeles, Department of Water and Power (LADWP). 1989. Western District Headquarters Agreement No. 10025, Site Characterization Study, Phase II, Final Report. November. GeoPentech. 2003. Geotechnical Investigation Western District Yard Site. July 15, 2003.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		**X**		

The proposed project involves improvements to the existing LADWP Western District Headquarters Yard and would not create an increased need for the routine transport, use, or disposal of hazardous materials. Based on the age of the structures at the Yard, asbestos-containing materials (ACM) and lead-based paint may be present in the existing structures. The demolition and transportation of these materials will be done in accordance with state and federal regulations including compliance with SCAQMD's Rule 1403 (Asbestos Emissions from Demolition/ Renovation Activities), and will mitigate any significant adverse impact.

A gasoline release from product lines at the Yard has resulted in free product and dissolved constituent plumes beneath the site. Since October 1989, a layer of free product ranging up to about four feet thick has been detected in several of the groundwater monitoring wells installed at the Yard and other nearby areas. The lateral boundaries of the free product plume, with exception of the southeastern boundary, have been defined. A soil vapor extraction unit has been operating at the Yard since October 1997. LADWP is currently working with RWQCB for final approval of their Remedial Action Plan prior to initiation of groundwater cleanup.

Construction activities to complete proposed improvements to the Yard may result in exposing soil impacted by petroleum hydrocarbons or other related compounds, such as benzene, toluene, ethylbenzene, and xylenes (BTEX). To mitigate potential air quality and hazards impacts to less than significant, the following measures will be implemented during excavation activities.

1. Site personnel that may be exposed to or will handle impacted soil should have Occupational Safety and Health Administration (OSHA) 40-hour hazardous materials training, with site supervisory personnel having completed an 8-hour supervisor course.
2. Due to the potential presence of petroleum hydrocarbons or BTEX in soil, excavation and soil handling operations should be conducted in accordance with a South Coast Air Quality Management District (SCAQMD) Rule 1166 Soil Mitigation Plan.
3. During excavation and soil handling activities, the work zone and its immediate perimeter would be monitored. A direct reading instrument such as an organic vapor analyzer (OVA) would be used for this purpose. Air monitoring would be conducted in the work zone to document potential worker exposure and compliance with SCAQMD Rule 1166. Selected chemicals such as benzene would be monitored in the breathing zone within the work area using Draeger tubes.

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
4. Several dust and vapor control measures would be implemented during excavation. Initially, excavation will be conducted in a manner to reduce the potential to generate dust and vapor. Dust suppression during excavation will be performed by lightly spraying or misting the work areas with water. If vapor or odors generated during the excavation process are not mitigated using the water mist, suppressant foam will be used to control these emissions. Water mist and/or suppressant foam may also be used on soil placed in dump trucks prior to transporting this material. 5. Soil in stockpiles will be placed on, and covered with polyethylene or equivalent sheeting to reduce the potential to generate dust and/or vapor and to protect the surrounding environment and comply with SCAQMD requirements. Material used to cover the stockpiled soil will be secured by placing sandbags around the perimeter of the stockpiles. 6. Impacted soil will be disposed at appropriate landfill or soil recycling facilities. The chemical analyses required to profile the impacted soil will be determined by the landfill or recycling facility. 7. Regulations and procedures that will be followed during the excavation, handling, and transportation of impacted soil are listed below. A. California Code of Regulations (CCR), Title 8, Occupational Safety and Health Regulations. B. Code of Federal Regulations (CFR), 29 CFR Part 1910 and 1926, Occupational Safety and Health Regulations. C. Code of Federal Regulations (CFR), 40 CFR Section 761.79 and Section 761.60, Federal Environmental Protection Agency. D. Code of Federal Regulations (CFR), 49 CFR, Federal Department of Transportation - Hazardous Waste Transportation Regulations. E. Code of Federal Regulations (CFR), 22-661 CFR, Hazardous Waste Characterization for Management of Hazardous Waste. F. Local City and County Regulations. G. Obtain permits for licenses and certifications required by applicable regulatory agencies. H. Provide notifications, monitoring, and testing required by regulatory agencies. Operational uses of the Yard, after project completion, will not be at risk to exposure from contaminated soil or groundwater because of the one-foot thick concrete surface that covers the Yard. No operation-related impacts from hazards would occur.				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The proposed project involves the improvement of an existing LADWP Yard. Some minimally hazardous substances that are typically used in construction may be used at the site. The operation of the Yard after construction would not introduce a new hazard beyond the existing operations at the project site. The potential for the creation of hazards through the release of hazardous materials is less than significant.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
The closest school to the Yard is Marvin Elementary School, located approximately 0.34-mile southeast of the project site. Construction and operation of the proposed project would not affect the school. No impacts on existing or future schools would occur.				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
The Yard is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and updated by the California Department of Toxic Substances Control (DTSC) (DTSC 2003). No impacts would occur.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
The proposed project is not located within an airport land use plan or within 2 miles of a public use airport. The closest airports to the Yard include Los Angeles International Airport (LAX) located approximately 5.5 miles north and Santa Monica Municipal Airport located approximately 4 miles east. No impacts would occur.				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
The proposed project is not located within the vicinity of a private airstrip. Therefore, the project would not have the potential to expose people to associated safety hazards. No impacts would occur.				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
The proposed project would not impair implementation of or interfere with an emergency response or evacuation plan. The Yard is currently accessible to emergency vehicles from three locations (Venice Boulevard, Fairfax Avenue, and Genesee Avenue). The construction and operation of the proposed project would conform to all City access standards to allow adequate emergency access. Additionally, no streets are anticipated to be impacted during construction that would preclude emergency access. No impacts would occur.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				**X**
The proposed project is located within an existing public facilities yard, surrounded by an urbanized environment and not within the vicinity of wildlands. Also the project site is not located within a Wildfire Hazard Area, according to the City's Safety Element of the General Plan (1996). No impacts would occur.				
References: California Department of Toxic Substances Control (DTSC). 2003. Hazardous Waste and Substances Site List (Cortese List). As update April 11. City of Los Angeles. 1996. General Plan, Safety Element. Adopted November 26.				
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?			**X**	
The proposed project would not violate water quality standards or waste discharge requirements. The project would not directly discharge into surface waters or alter surface water quality in any water body. However, site runoff during construction and operation of the proposed project would discharge into area storm drains, which ultimately discharge into surface water bodies. The Los Angeles River is one of several major surface water bodies in the City. An extensive network of storm drains that either drain directly to the Santa Monica Bay, San Pedro Bay, or to waterways that ultimately drain to those bays serves the City. As part of the Clean Water Act (CWA), the EPA has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharges. The NPDES program regulates industrial pollutant discharges, which includes construction activities. A NPDES General Construction Stormwater Permit is required for this project and will incorporate specific discharge limitations for point-source discharges to ensure that dischargers meet permit conditions and protect state-defined water quality standards. Compliance by construction contractors with this program and the conditions of the permit will minimize potential impacts during construction. Impacts on water quality during construction are considered less than significant.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
The Yard does not contribute to groundwater recharge due to the existing approximately one-foot thick concrete lining throughout the site. The proposed project will not include unpaved surfaces, besides landscaped areas. Water in the area is supplied by several local and regional sources. The Yard currently consumes a negligible amount of the region's total water supply. As no new employees would be added to the Yard, potable water consumption would not increase. Also, the new toilets and showers in the proposed fitness center would utilize low-flow technology. Implementation of the proposed project would not create a substantial demand upon groundwater sources and would not substantially change the amount of groundwater pumped from local wells. Less than significant impacts are anticipated.				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The Yard is located in a developed area adjacent to the concrete-lined Ballona Channel. On-site drainage patterns may be slightly altered to accommodate the proposed site design. Any alternations in drainage associated with the proposed project would be negligible and would not result in substantial erosion or siltation on- or off-site. The concrete-paved Yard currently generates runoff during and following storm events that would include various types of compounds commonly found in the urban environment, such as petroleum products, fertilizers, pesticides, etc. There will be minimal changes in the content of storm runoff at the project site after construction because the Yard is currently developed with structures and the purpose and use of the facility would remain unchanged. No significant impacts would result from changes in absorption rates, drainage patterns, or the rate and amount of surface runoff from the proposed project. No stream or river courses would be altered due to the proposed project. Potential short-term erosion effects could occur during construction and site preparation activities. Construction of the proposed project would involve grading, excavation, and hauling of materials off-site. These activities would have the potential to result in soil erosion that could be conveyed as runoff to off-site storm drains. The Clean Water Act delineates a national permitting system for point-discharges known as the National Pollutant Discharge Elimination System (NPDES). The construction contractors for the proposed project will be required to comply with the conditions of the required NPDES permit, including any Best Management Practices (BMPs). Adherence to permit conditions would reduce the potential for siltation in the drainage system during construction and would reduce impacts to less-than-significant levels.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?			**X**	
Operation of the proposed project would generate surface runoff flows similar to existing conditions. On-site drainage patterns may be slightly altered to accommodate the proposed project site design. New drainage structures and improvement of existing drainage structures are proposed for the project. These structures will be designed and built in accordance with local, state, and federal requirements for surface water runoff. The amount of paved surface area at the Yard will decrease after project construction; therefore, the project would not increase the amount of surface runoff nor affect the potential for flooding.				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			**X**	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The proposed project would not increase the amount of paved surface at the project site and therefore, the amount of stormwater runoff flowing from the site to existing off site storm drains would not increase. New drainage structures and improvement of existing drainage structures are proposed for the project. These structures will be designed and built in accordance with local, state, and federal requirements for surface water runoff. Construction of the proposed project would involve grading, excavation, and hauling of materials off-site. These activities may have the potential to result in short term soil erosion that could affect off site storm drains. As described under Item *d*, the construction contractors for this project will be required to comply with the NPDES conditions that would apply to this project, including any BMPs. Adherence to permit conditions would greatly reduce the potential for siltation in the drainage system during construction. Impacts would be less than significant.				
f) Otherwise substantially degrade water quality?			X	
LADWP and their contractors will conform to BMPs relative to runoff from the Yard. Potential impacts to water quality would be less than significant.				
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
The proposed project does not involve the construction of housing. Therefore, there is no potential for impacts associated with placing housing within a flood hazard zone. No impacts would occur.				
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
The proposed project is not located within a 100-year flood hazard area, according to the City's Safety Element of the General Plan, Exhibit F (1996). No impacts would occur.				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
Review of the City of Los Angeles Inundation and Tsunami Hazard Areas Map (Exhibit G) indicates that the site lies within an inundation boundary (City of Los Angeles 1996). Although the Yard is located in a potential inundation area, less than significant impacts from flooding are anticipated. The measures taken by the City to control water levels in dams and reservoirs, and to conduct earthquake retrofits, have reduced potential impacts on the proposed site. The proposed project would not expose people or structures to significant risk of loss, injury, or death involving flooding, including flooding from failure of a dam or levee. Impacts are less than significant.				
j) Inundation by seiche, tsunami, or mudflow?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
According to the City of Los Angeles Safety Element, the Yard is not located in an area that would be subject to tsunami hazards (City of Los Angeles 1996). No impacts would occur. Seiches can cause water to overtop reservoirs and lakes. As discussed in Item i), measures taken by the City to control water levels in dams and reservoirs, and to conduct earthquake retrofits for dams, have significantly reduced potential impacts. Therefore, impacts from seiches are less than significant. The Yard is located in an area where site topography is generally flat; therefore, the site is not at risk for mudflows. Impacts from mudflows would be less than significant.				
References: City of Los Angeles. 1996 General Plan, Safety Element. Adopted November 26.				
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?				**X**
The proposed project would be constructed within the existing Yard property and is a compatible use to the existing surrounding public facility uses. The proposed project would not divide an established community and would not displace existing residential uses. Therefore, no impacts would occur.				
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				**X**
The Yard is located within the City of Los Angeles. The City regulates land use within its jurisdiction through a general plan and zoning ordinance. The Yard is located within the West Adams-Baldwin Hills-Leimert Community Plan, a part of the City of Los Angeles General Plan (City of Los Angeles 1998). No land use conflicts would occur.				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**
The project site has been paved with approximately one foot of concrete, used as a public facility, surrounded by a blockwall fence, and located within an urban environment for more than 50 years. There is not potential for an adverse effect to biological resources or conservation plans.				
References: City of Los Angeles, Department of City Planning. 1998. West Adams-Baldwin Hills-Leimert Community Plan Update. May 6.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
The existing project setting is a paved and fenced project site. The construction of the proposed project and the subsequent use of the site would not alter the ability to access or utilize mineral resources. Therefore, the potential impact to mineral resources at the site would remain unchanged and would be less than significant.				
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	
The existing project setting is a paved and fenced project site. The construction of the proposed project and the subsequent use of the site would not alter the ability to access or utilize mineral resources. Therefore, the potential impact to mineral resources at the site would remain unchanged and would be less than significant.				
References: None.				
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
The City of Los Angeles has established significance thresholds under CEQA for noise in the document entitled *Draft Los Angeles CEQA Threshold Guide*. The following are the specific thresholds identified in the guide. A project is considered to result in a significant impact if: • Construction activities, lasting more than 1 day, would exceed existing ambient exterior noise levels by 10 dBA or more at noise-sensitive land uses. • Construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use; or • Construction activities would exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9 p.m. and 7 a.m. Monday through Friday, before 8 a.m. or after 6 p.m. on Saturday, or at anytime on Sunday. • The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to a level at or above 70 dBA-CNEL at single-family residences. • The project causes the ambient noise level in CNEL measured at the property line of affected uses to increase by 5 dBA or more. The project would not generate excessive noise levels and would be consistent with applicable Laws, Ordinances, Regulations, and Standards of the City and relevant guidelines of other agencies (see Appendix C, Noise Study Report).				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
No high-impact sources of groundborne vibration such as pile driving will be used to construct the proposed project. However, grading and removal of concrete would occur. Based on data from the Federal Transit Administration (FTA 1995), ground vibration generated by a large bulldozer typically attenuates to a level considered acceptable for residential uses beyond a distance of about 60 feet. The project would not expose people to excessive groundborne vibration or noise because no grading would occur within 60 feet of residences. Impacts would be less than significant.				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
The project would not increase long-term operational activities/noise. Due to the nature of the project, some noise emissions from existing operations may decrease; therefore, the project would not cause a substantial permanent increase in noise. Thus, no impacts are anticipated and no mitigation is required.				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
The project would cause substantial temporary or periodic increases in ambient noise. However, construction activities would not exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9 p.m. and 7 a.m. Monday through Friday, before 8 a.m. or after 6 p.m. on Saturday, or at anytime on Sunday. The project would not cause the ambient CNEL noise level measured at the property line of affected uses to increase by 3 dBA CNEL to a level at or above 70 dBA-CNEL on residential properties. The project would not cause the ambient CNEL noise level measured at the property line of affected uses to increase by 5 dBA or more. Noise impact will be less than significant with incorporation of best management practices for construction noise minimization into the project description as discussed in Section 6.0 of the Noise Study Report (see Appendix C).				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
The proposed project is not located within an airport land use plan or within 2 miles of a public use airport. The closest airports to the Yard include Los Angeles International Airport (LAX) located approximately 5.5 miles north and Santa Monica Municipal Airport located approximately 4 miles east. No impacts would occur.				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
The proposed project is not located within the vicinity of a private airstrip. Therefore, the project would not have the potential to expose people to excessive noise levels. No impacts would occur.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
References: Federal Transit Administration. 1995. FTA Transit Noise and Vibration Impact Assessment Guidance Manual, DOT-T-95-16. April. URS. 2004. Noise Impact Analysis, Western District Yard Renovation Project, March.				
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
The proposed project would not alter the service provided by the LADWP Western District Headquarters or increase their capability to serve more customers, since the Western District customer base is relatively fixed. The surrounding area is developed and is currently served by infrastructure facilities, including sewers, storm drains, water, roadways, utilities, etc. Therefore, the project would not induce population growth in the area. No impacts would occur.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
Construction and operation of the proposed project would not involve the demolition or construction of any housing. Additionally, this project would not create a need for additional housing. No impacts would occur.				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
Construction and operation of the proposed project would not involve any displacement of people and would not require the construction of replacement housing. The project involves demolition and replacement of buildings at the existing LADWP Western District Yard. No housing-related impacts would occur.				
References: None.				
XIII. PUBLIC SERVICES -- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?				X

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
One Single-Engine Company station and two Task Force Stations provide fire protection in the West Adams-Baldwin Hills-Leimert Plan area. In addition to these three stations, there are 8 other fire stations outside the Community Plan area, four of them Task Force Stations, which offer additional fire protection services to the Plan (City of Los Angeles 1998). The proposed project would upgrade and replace outdated structures for the same use; i.e. LADWP support yard for Water Distribution Work in the Western service area. The new buildings would be constructed to the most current fire protection codes. The operation of the proposed project would not require additional fire protection and therefore, would result in no impact to maintain acceptable service ratios, response times, and other performance objectives.				
ii) Police protection?				X
The Los Angeles Police Department provides police protection services. There are four police stations serving the West Adams-Baldwin Hills-Leimert Plan area. All of these are located outside of the Community Plan boundaries. The Southwest area station is located in the South Central Plan area at 1546 Martin Luther King Jr. Boulevard and the Seventy Seventh Street station is located at 125 W. 77th Street. The West Los Angeles area station is located at 1663 Butler Avenue. In addition, there is a police substation located within the Baldwin Hills-Crenshaw Plaza. (City of Los Angeles 1998) The proposed project will upgrade and replace outdated structures for the same use; i.e. LADWP support yard for Water Distribution Work in the Western service area. The operation of the proposed project would not require additional police projection and therefore, would result in no significant impact to maintain acceptable service ratios, response times, and other performance objectives.				
iii) Schools?				X
The closest school to the Yard is Marvin Elementary School, located approximately 0.34-mile southeast of the project site. Construction and operation of the proposed project would not affect the school. No impacts on existing or future schools would occur.				
iv) Parks?				X
The demand for parks is generally associated with the increase of housing or population into an area. The proposed project would not induce population or result in new housing. The closest park is Genesee Avenue Park, located approximately 0.25-mile south of the project site. The proposed project would involve improvements to the existing Yard facility, and would not affect any nearby parks or recreation facilities. No impacts would occur.				
v) Other public facilities?				X

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
Existing public utilities and infrastructure currently serve the project site. Project implementation would not require new or altered maintenance services substantially above the existing conditions. No significant impacts are anticipated.				
References: City of Los Angeles, Department of City Planning. 1998. West Adams-Baldwin Hills-Leimert Community Plan Update. May 6.				
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				**X**
The increase in use of recreational facilities is generally spurred by population growth in an area. The proposed project would not result in an increase of population in the area. Therefore, the project would not increase the use of, or accelerate the deterioration of, nearby public recreational facilities. No impacts would occur.				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			**X**	
The proposed project includes improvement of the existing Yard, including the construction of an approximately 3,200-square-foot fitness center for LADWP employees. The fitness center would not be available for use by the general public. The potential impacts associated with this facility have been discussed throughout this document within each of the respective environmental disciplines. Impacts from the construction of this project component would be less than significant.				
References: None.				
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			**X**	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
A Traffic Technical Memorandum was prepared for the proposed project and is provided as Appendix D of this document (URS 2003). Approximately 30 construction workers would be onsite during peak construction activities. The construction workers generally follow a 7 AM to 4 PM work schedule, so there will be no or minimal contribution to the AM peak hour (7-9 AM) traffic. During the peak days of construction activity, approximately 46 equipment related trips will be generated daily, 23 trips (21 in / 2 out) during the AM peak hour and 23 trips (2 in /21 out) during the PM peak hour. The proposed construction activity at the Yard will generate minimal trips during the AM and PM peak hours and would not cause substantial increase in vehicle trips, create congestion or deterioration of intersection and roadway volume to capacity ratios to the surrounding roadway system. The operation of the Yard would not include an increase in workers onsite and therefore, there would not be an increase in traffic load or capacity of the street system from operational activities.				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
Approximately 30 construction workers would be onsite during peak construction activities. The construction workers are anticipated to commute to the Yard construction site early in the morning and leave in the mid-afternoon, therefore avoiding peak hour traffic. During the peak days of construction activity, approximately 46 equipment related trips will be generated daily, 23 trips (21 in / 2 out) during the AM peak hour and 23 trips (2 in /21 out) during the PM peak hour. On an average day, the trips generated could be lower as the calculation conservatively included one-time trips for heavy equipment as recurring trips so as to get the theoretical maximum trip generation on-site. The proposed construction activity at the Yard will generate trips below the Los Angeles County Congestion Management Plan (CMP) thresholds to warrant freeway mainline and arterial segment analysis. The operation of the Yard would not include an increase in workers onsite and therefore, there would not result in an exceedance of a level of service standard of the Los Angeles County CMP from operational activities.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
This project is not within an airport plan area or within the vicinity of a public or private airport. The proposed project would occur within the existing property of the Yard and land uses surrounding the Yard would not change as part of the proposed project. No impacts would occur.				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
The proposed project does not include construction of public roadways and would not result in incompatible uses. Therefore, no impacts would occur.				
e) Result in inadequate emergency access?				X
The Yard is currently accessible to emergency vehicles from three locations (Venice Boulevard, Fairfax Avenue, and Genesee Avenue). The construction and operation of the proposed project would conform to all City access standards to allow adequate emergency access. Additionally, no streets are anticipated to be impacted during construction that may preclude emergency access. No impacts would occur.				
f) Result in inadequate parking capacity?				X
Parking capacity will remain unchanged during construction and operation of the project. The existing employee parking lot would be striped during project construction. No impacts to parking would occur.				
g) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
The proposed project would occur entirely within the existing property line of the Yard. Alternative transportation routes would remain unchanged during project construction and operation. No impact to alternative transportation would occur.				
References: None.				
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
Wastewater discharges from the project site would enter the City's sewer system and flow to the Hyperion wastewater treatment plant where it would be treated and eventually discharged to the ocean. The existing Yard facilities, except the wash rack, currently discharge wastewater into the sewer. The design of the existing and new wash rack at the Yard includes containment of the runoff from the rack in a tank and then transport of the wastewater off site for proper disposal by a licensed contractor. Upon completion of construction, the proposed project is expected to generate approximately the same amount of domestic wastewater as do the existing facilities. The proposed project would not increase the number of employees at the Yard. Thus, there would be no net increase in wastewater flows within the region. The domestic wastewater flow from the proposed project would not cause the Hyperion wastewater treatment plant discharge to exceed Regional Water Quality Control Board wastewater treatment requirements. No impacts would occur.				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
No new water facilities would be required nor would existing facilities require expansion to accommodate new sources of water from the proposed project during construction. The only substantial use of water during project construction would be for dust suppression purposes. Potable water would be provided by water truck as necessary to control fugitive dust at the construction site. Construction impacts to water facilities are not considered significant. The Yard has existing local water supply facilities and wastewater connections. Implementation of the proposed project would require one new connection to these facilities. The Yard improvements would not require construction or expansion of existing water or wastewater treatment facilities. Less than significant impacts would occur.				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
The proposed project would include the construction of new surface runoff facilities onsite and one new connection to the sewer system. However, the Yard improvements would not require the construction or expansion of existing offsite water drainage facilities. Less than significant impacts would occur.				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
The only notable use of water during project construction would be for dust suppression purposes. Potable water provided by a water truck would be used as necessary to control fugitive dust at the construction site. Construction impacts to water supplies are not considered significant. The Yard has existing local water supply facilities and connections that serve the project area. Implementation of the proposed project would not require new connections to these facilities. The proposed project would utilize existing water sources. No impacts would occur.				
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
The proposed project would not increase the number of employees working at the Yard and therefore, wastewater generation from the site would not change. The proposed new restroom and fitness center facilities would not significantly increase wastewater generation beyond existing levels. Impacts would be less than significant.				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
As of December 31, 1995, the total remaining permitted inert waste (e.g. construction and demolition waste) capacity in Los Angeles County was estimated to be approximately 53.1 million tons. Based on the average 1995 disposal rate, this capacity would be exhausted in 96 years. (LADPW 1997). There is anticipated to be no shortfall in disposal capacity of inert wastes within the county. Therefore, construction impacts on existing landfill capacities are considered less than significant. After completion of the Yard renovation, there would not be an increase in the number of workers based out of the Yard. Therefore, municipal solid waste currently being generated at the Yard would not change and no impacts would occur.				
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
The proposed project would comply with all applicable laws and regulations related to solid waste generation, collection, and disposal in the County of Los Angeles, including the California Integrated Waste Management Act. The project would comply with all statutes and regulations related to solid waste. No impacts would occur.				
References: Los Angeles County Department of Public Works, Environmental Programs Division. 1997. Countywide Siting Element. June.				
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
The project site has been paved with approximately one foot of concrete, used as a public facility, surrounded by a blockwall fence, and located within an urban environment for more than 50 years. The project site is adjacent to Ballona Channel, which is a large concrete lined flood channel located within an urban environment. There is no potential for adverse effects to sensitive natural communities.				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
As discussed in the respective issue areas above, the proposed project would have less than significant impacts to some environmental resources. It is possible for construction activities associated with other projects outside the Yard to occur simultaneously with that of the proposed project. While the individual impacts of the proposed project may be less than significant, the impacts of the combined projects could contribute to cumulative effects. Implementation of the project-specific mitigation measures and compliance with applicable codes, ordinances, laws and other required regulations, would reduce the magnitude of these impacts to less than significant.				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	
The analysis presented throughout this document identifies mitigation measures and/or project design features to reduce impacts to less than significant levels. Therefore, project implementation is not anticipated to result in substantial adverse effects on human beings.				

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

☞ **DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)**

(Please refer to Attachment B for more information.)

PREPARED BY:	TITLE:	TELEPHONE NO.:	DATE:
Tania Bonfiglio	Environmental Supervisor	(213) 367-3027	06/16/04

APPENDIX A

PEAK DAY CONSTRUCTION EMISSIONS

Table 1
Los Angeles Department of Water and Power
Western District Yard Renovation
Peak Day Construction Emissions

Source [1]	Parameter 1 [1]	Parameter 2 [1]	Parameter 3 [1]	CO		ROC		NOx		SOx		PM10		Notes
				Emission Factor	Emission (lbs/day)	Emission Factor	Emission (lbs/day)	Emission Factor	Emission (lbs/day)	Emission Factor	Emission (lbs/day)	Emission Factor	Emission (lbs/day)	
CONSTRUCTION EQUIPMENT:														
Scraper		8 hours/day	1 unit	1.25 lb/hr	10.0	0.27 lb/hr	2.2	3.84 lb/hr	30.7	0.46 lb/hr	3.7	0.41 lb/hr	3.3	[2]
Wheeled Dozer		8 hours/day	1 unit	0.675 lb/hr	5.4	0.15 lb/hr	1.2	1.7 lb/hr	13.6	0.143 lb/hr	1.1	0.14 lb/hr	1.1	[2]
Backhoe		6 hours/day	1 unit	0.675 lb/hr	4.1	0.15 lb/hr	0.9	1.7 lb/hr	10.2	0.143 lb/hr	0.9	0.14 lb/hr	0.8	[2]
Excavator		6 hours/day	1 unit	0.675 lb/hr	4.1	0.15 lb/hr	0.9	1.7 lb/hr	10.2	0.143 lb/hr	0.9	0.14 lb/hr	0.8	[2]
Haul Trucks	30 miles/roundtrip	8 trips/truck-day	3 unit	0.019 lbs/mile	13.8	0.003 lbs/mile	2.0	0.027 lbs/mile	19.3	0.0002 lbs/mile	0.2	0.001 lbs/mile	0.6	[3]
Water Truck		8 hours/day	1 unit	0.675 lb/hr	5.4	0.15 lb/hr	1.2	1.7 lb/hr	13.6	0.143 lb/hr	1.1	0.1400 lb/hr	1.1	[2]
Worker's vehicles		40 miles/day	8 employees	0.014 lbs/mile	4.5	0.001 lbs/mile	0.5	0.001 lbs/mile	0.5	0.00001 lbs/mile	0.003	0.00011 lbs/mile	0.04	[3]
Fugitive Dust		0.75 acres	30 days/month									0.42 tons/acre-month	21.0	[4]
Daily Total (lbs/day)					47.1		8.8		98.1		7.8		28.9	
SCAQMD Daily Contruction Thresholds (pounds/day)					***550.00***		***75.0***		***100.0***		***150.00***		***150.00***	
Exceed SCAQMD Significance Threshold (Y/N)?					**NO**		**NO**		**NO**		**NO**		**NO**	

NOTES:
[1] Construction equipment engine sizes were derived from Caterpillar Performance Handbook, Edition 26, 1995, and SCAQMD CEQA Air Quality Handbook, 1993. Hours of operation, haul distances, number of employees, type of equipment, and traveling distance are assumed based on data provided by the Los Angeles Department of Water and Power.
[2] Heavy-duty diesel vehicle emission factors for construction equipment are derived from SCAQMD, CEQA Air Quality Handbook, 1993, Table A-9-8-A.
[3] Heavy-duty diesel vehicle emission factors for trucks and workers vehicles are derived from SCAQMD's web page - http://www.aqmd.gov.
[4] Emissions from fugitive dust was calculated using SCAQMD PM10 emissions factor on a peak-day construction scenario.

APPENDIX B

CULTURAL RESOURCES TECHNICAL REPORT

FINAL REPORT

WESTERN DISTRICT YARD RENOVATION PROJECT

CULTURAL RESOURCES TECHNICAL REPORT

Department of Water and Power
City of Los Angeles
111 North Hope Street
Los Angeles, California 90012

March 2004

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1.0 INTRODUCTION

This Cultural Resources Technical Report was prepared for an Initial Study/Mitigated Negative Declaration (IS/MND) for a proposed construction project in Los Angeles County, California. Known as the "Los Angeles Department of Water and Power (LADWP) Western District Yard Renovation Project" (the Project), the Project includes the replacement and renovation of existing buildings as well as construction of multiple new facilities. LADWP is the Project proponent and lead agency for the purposes of the California Environmental Quality Act (CEQA).

The purpose of this technical report is to inventory cultural resources that the Project could potentially affect, assess potential impacts, and provide mitigation recommendations, in accordance with CEQA. Background research and field surveys were conducted on the Project area. No previously recorded archaeological or paleontological resources are known to exist within the Project area. However, the Project area lies within one mile of several prehistoric archaeological sites and within two miles of important paleontological localities. As such, the area is considered to be sensitive for both archaeological and paleontological resources. Monitoring of construction is recommended to mitigate potential impacts to buried resources during ground disturbing construction activity.

Eight buildings located within the Western District Yard were formally inventoried and evaluated for inclusion in the California Register of Historic Resources (CRHR). The CRHR is a register of historical and archaeological resources considered to be significant to the history of the State of California. Resources that are evaluated as eligible for listing in the CRHR are considered significant historic resources for the purposes of CEQA. The office/warehouse building and five associated outbuildings within the Western District Yard appear to be eligible for inclusion in the CRHR under Criteria A and C (see Section 4.1). Because the Project involves the demolition of these buildings, historical documentation was completed to reduce Project impacts on historical resources to a less than significant level.

Federal agencies are required to complete documentation to Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards for buildings that are eligible for the National Register of Historic Places (NRHP) to mitigate adverse effects under the National Historic Preservation Act. The HABS/HAER program is a division of the National Park Service, which has regional offices that oversee HABS/HAER documentations.

In order to be assigned a HABS number and for documentation to be included in the HABS/HAER collections at the Library of Congress, a property must be considered eligible for or listed in the NRHP. Because the buildings at the Western District Yard were evaluated as eligible for the CRHR, but not the NRHP, formal HABS documentation was not completed for the Western District buildings. However, documentation of the Western District Yard buildings was completed based upon HABS Level II standards. These standards were developed by the NPS and the HABS/HAER program.

1.1 PROJECT DESCRIPTION

The Project is located northeast of the community of Culver City, within the county of Los Angeles, California. It is about eight miles from downtown Los Angeles, four miles south from Beverly Hills, and eight miles northeast of Santa Monica (Figure 1). The Project is located at 5898 Venice Boulevard, at the southeast corner of Fairfax Avenue and Venice Boulevard, in the City of Los Angeles. The Project is located on the United States Geological Survey (USGS) 7.5 minute topographic quadrangle of "Hollywood" (1966; photorevised 1981 and 1994), in Township 1 South, Range 14 West, in an Unsectioned area.

The Project comprises various improvements that will affect the entire Yard (Figure 2), principally the demolition of existing structures, the construction of a new Administration Building with campus center and visitor parking, new Fitness Center, new Warehouse and Tool Room, and the construction of a new Fleet Building and Welding Shop. Additional improvements include the re-striping and fencing of the employee parking lot as well as other applicable upgrades to existing mains and pipelines. The temporary relocation of personnel will be necessary during Phase I and II of construction activity.

1.1.1 Administration Building

The proposed Administration Building would be located in the northwestern portion of the property, just to the south of Venice Boulevard, near the intersection of Venice Boulevard and Genesee Avenue. The approximate square footage for the new Administration Building is 28,000 square feet. The proposed structure would include offices, a meeting/conference room and lunchroom, well as a campus center and a Fitness Center.

1.1.2 Fitness Center

The proposed Fitness Center would be located within the new Administration Building with elevator access to the second floor. A smaller Men's and Women's locker room will be included as part of the Fitness Center. The Men's Locker Room will consist of approximately 3,200 square feet of showers, urinals, water closets, sinks and 150 full size lockers. The Fitness Center is anticipated to encompass approximately 3,200 square feet and would offer all Department employees access to an aerobics room, a weight room, a cardiovascular equipment room, as well as a men and women's restroom and locker room. The men and women's restroom and locker room will consist of approximately 40 lockers with each restroom housing showers, water closets, urinals and sinks.

1.1.3 Warehouse/Tool Room

The proposed Warehouse and Tool Room would be constructed near the center of the Yard, just to the south of the proposed location for the new Administration Building. This new structure would be a one-story, approximately 17,000 square foot facility.

1.1.4 Fleet Building

The proposed Fleet Building would be located to the west of the new warehouse and tool room facility. This structure will be a one-story building, consisting of approximately 10,000 square feet. There will be

six vehicle stalls to accommodate larger-sized vehicles with a drive through wash rack stall located at one end of the building. A restroom and small locker room with a shower will also be located in the building.

1.1.5 Welding Shop

The proposed Welding Shop will be located within the same structure as the Fleet Building, though the shop will encompass the northwestern portion of the structure. The Welding Shop will be approximately 7,500 square feet, consisting of an equipment area, a crane area, storage space, and a small office and washroom.

1.1.6 Other Improvements (Employee Parking Lot)

In conjunction with the construction activities relating to the Administration Building/Fitness Center or the Fleet Building/welding shop, the employee parking lot will be re-striped. The employee parking lot will be located at the southern terminus of Genesee Avenue, along the eastern portion of the property.

1.2 Area of Potential Effect

The Project area of potential effect (APE) for cultural resources is defined as the footprint of the Project, which comprises the entire LADWP Western District Yard (Figure 2). The Project APE is a 7.91-acre area located at the eastern corner of the intersection of Fairfax Avenue and Venice Boulevard. This site is bordered to the southwest by Fairfax Avenue; to the northwest by Venice Boulevard; to the northeast by Genesee Avenue; and to the southeast by Ballona Creek.

1.3 Environmental Setting

The Yard consists of a concrete and asphalt-paved area with seven permanent buildings, situated in an urban setting. The site currently features an existing office building, warehouse, welding shop, locker room, fleet buildings, cement storage building, storage areas, gas pumps and parking areas. The native environment has been dramatically affected by the original construction of the Yard and adjacent residential, commercial, and industrial development. Nearly the entire Yard is paved, with existing vegetation consisting of ornamental trees and lawn grass around the perimeter. Ballona Creek is located immediately south of the Yard, although the portion directly adjacent to the property has been contained within a concrete channel.

Geographically, the Yard is located just east of the neck that connects Ballona Gap with the Downey Plain Section of the Los Angeles Basin. The Basin extends south from the foot of the San Gabriel Mountains to the sea, and southeast from the Santa Monica Mountains to the Santa Ana Mountains and the San Joaquin Hills. The Basin can be divided into a northern third and a southern two-thirds by the Puente Repetto hills. The Yard lies in the southern two-thirds of the Basin, which is predominantly a lowland sloping gently toward the sea (a coastal plain).

The Yard is underlain by unconsolidated sands, clays, and silts to a depth of approximately 75 feet. The historic high water level at the site was estimated to be approximately 15 feet below ground surface and flows southerly in the site vicinity (GeoPentech 2003).

2.0 BIBLIOGRAPHIC SURVEY

2.1 CULTURAL SETTING

The Los Angeles plain and fringing coastline has supported a continuous cultural occupation for at least the last 8,000 years. An Archaic occupation has been identified in the archaeological record that reflects the early emergence of non-agricultural village-based groups in the Los Angeles Basin. Current archaeological evidence suggests that a relatively small population existed in the basin until approximately 2,000 years before present (B.P.). After that temporal marker, populations appear to have expanded considerably into resource-rich coastal and near-shore estuarine environments (Dillon 1990:6). Reports from early European contacts to the area such as Juan Rodríguez Cabrillo (Wagner 1929:79-93) and Sebastian Vizcaino (Bolton 1930:52-103) indicated that some of the large coastal villages had hundreds of occupants. These observations appear to be supported by the archaeological evidence (Bean and Smith 1978:540), although by the late 18th Century, reports indicate that the Los Angeles City environs supported only a small but established hunter/gatherer culture (Dillon 1990:6).

2.1.1 Paleoindian Period

The academic community generally accepts the 'La Brea Woman' remains as the earliest confirmed Paleoindian evidence in the Los Angeles Basin. At 9000+/- 80 B.P. (uncalibrated) (Berger 1975), this would make the 'La Brea Woman' contemporaneous with the big game hunting tradition found at that time across most of the North American continent (Willey 1966:37-38; and cf. Dixon 1999:45-89). Due to a lack of corroborative evidence within the Los Angeles Basin, archaeologists have yet to assign a cultural affiliate group to the La Brea Woman.

To the north, in the Southern San Joaquin Valley, evidence of Early Holocene Paleoindian (~12,000-8,000 B.P) cultural activities have been firmly substantiated. However, it must be noted that the sites do not necessarily span the region in great quantity. The paleo-shoreline sites of Tulare Lake have provided nearly all of the diagnostic materials including fluted projectile points (described as Clovis-like), scrapers, and chipped crescents (Moratto 1984:81). The fluted projectile points of the San Joaquin Valley associate with sites to the east, in the Mojave Desert, and have been loosely classified into a 'Far Western Fluted Point Tradition' (ibid.). These sites appear along paleo-shorelines, piedmont zones of former grasslands, and in mountain passes associated with fossil lakes. The lithic assemblage typically contains chipped stone crescents, gravers, scrapers, choppers, perforators, and various fluted points.

2.1.2 The Millingstone Horizon

In Southern California, the Millingstone Period, also called the Millingstone Culture, extends to at least 6,000 B.P. and probably as far back to 8,500 + B.P. (cf. Warren 1968; Wallace 1955). Hard seed processing became one of the major components of subsistence during this period. Overall, the economy was based on plant collecting, but was supplemented by fishing and hunting. Initial in the near-shore and coastal locations, there also appears to have been infrequent exploitation of marine and estuarine resources (Wallace 1955).

The Millingstone Horizon is typified by large, heavy ground stone milling tools such as deep basin metates and wedge-shaped manos, and large core/cobble choppers and scrapers (Dillon 1990: 8). The portable manos and metates that characterize the Millingstone lithic assemblage were undoubtedly used as mobile processing equipment for collected plant materials. The reliance on this subsistence strategy and affiliated tools is further supported by the apparent scarcity of faunal remains at Millingstone sites. The flaked lithic tools trend towards a larger and cruder assemblage than the later periods. Projectile points and apparent hunting-type tools tend to be absent from Millingstone Culture assemblages. The so-called cogged stones, made by a characteristic pecking and grinding process, also appear in the Millingstone Horizon assemblages (Eberhardt 1961:361-370).

Millingstone Horizon sites are found from Santa Barbara to Los Angeles County, and into San Diego County, in both coastal and inland settings. In the Los Angeles area, the Millingstone Culture is typified by the so-called Topanga Culture, with type sites from the Topanga Canyon area just south of Malibu (Wallace 1955; Leonard 1971). Topanga Culture sites have the typical Millingstone assemblage materials such as core/cobble tools and an abundance of ground stone implements (manos, metates), while projectile points tend to occur less frequently.

2.1.3 The Intermediate Period

This period has also been called the 'Hunting Period' or 'Middle Horizon.' About 5,000 years ago, the Millingstone traditions, with their heavy reliance on vegetal food sources, began to gravitate more towards animal proteins and marine resources. Procurement of plants for caloric intake was not necessarily replaced in kind by game hunting, but rather the local Millingstone dietary regimen began to transition towards other/alternate resources. In the Los Angeles Basin, a higher percentage of projectile points and smaller chipped stone tools appear. Marine resources such as estuarine and saltwater shellfish, marine mammals, and fish are now abundant in the diets of the local inhabitants.

However, as excavations at sites such as the Little Sycamore shellmound in coastal Ventura County (Wallace et. al. 1956), the LAN-2 site in Topanga (Johnson 1966), and the Gilmore Ranch site in eastern Ventura County (Wallace 1955) indicate that there is a gradual transition in the archaeological record from the typical Millingstone assemblage to the Intermediate mortar/pestle and hunting tool kit. Specifically, manos and pestles appear in some instances as being contemporaneous, while at other sites, there is an adherence to the traditional Millingstone lifestyle. At Gilmore Ranch, more refined stemmed projectile points are present - unlike those in the Millingstone Horizon - and yet not necessarily akin to refined points typical of the Late Prehistoric Period.

2.1.4 The Late Prehistoric Period

Meighan (1954) originally characterized the Late Prehistoric Period in Southern California. The period probably began sometime around the B.C./A.D. transition, but probably expanded culturally around A.D. 500 with the introduction of the bow and arrow. The end of the period is recognized as the end of the 18th Century, when full implementation of the Spanish mission system took effect on the native populations. The Chumash, with a Hokan linguistic stock, and their neighbors to the east, the Gabrieleno/Tongva with a language derivative from Shoshonean stock, lived in large villages along the

coast and the wide valleys leading into the California interior. The western Los Angeles Basin was occupied by the so-called 'Canalino' culture (Rogers 1929). This was an ethnohistoric boundary group situated between the Chumash to the northwest and the Gabrieleno/Tongva to the south and east. In the archaeological record, the Gabrieleno/Tongva material culture (Johnston 1962; Blackburn 1963; Bean and Smith 1978) can be indistinguishable from the Chumash (Landberg 1965; Grant 1965; 1978a; 1978b).

Both groups interacted and traded with each other, with intermarriage also occurring between the groups. Kroeber (1925) originally indicated that the territorial division between the Gabrieleno/Tongva and Chumash was at Topanga Canyon, although this is certainly an arbitrary division as there is no clear indication of this in the archaeological record. As Dillon has indicated (1990:14-15), the coastal and inland areas were a more or less permeable ethnic frontier, continually in flux between the two groups at varying times in the archaeological record. Indeed, it is only in the later part of the Late Prehistoric - and even then only in certain marginal areas - that researchers can assume, with any confidence, which areas were typically Gabrieleno/Tongva or Chumash. So, even though the rich Malibu site (CA-LAN-264) was a Chumash locus at the time of its abandonment (roughly A.D. 1825), this should not imply that the site was always affiliated exclusively with the Chumash.

Certain indicators such as diagnostic shell beads and finely worked projectile points help identify many Late Prehistoric sites in Southern California. Both the Gabrieleno/Tongva and Chumash were highly sea oriented and, given the presence of earlier sites on the offshore islands, this suggests that there was a maritime tradition at least partially carried over from the Millingstone and Intermediate Period cultures (Harrington 1978). By 1,000 B.P the Canalino/Chumash/Gabrieleno/Tongva maritime traditions were using blue-water vessels in an exploitation strategy partially based on deep-sea fishing and marine mammal hunting.

2.1.5 Ethnography

The Project area is located within the ethnographic boundaries of the Gabrieleno/Tongva. The following discussion has been synthesized from Dillon (1990), Bean and Smith (1978), Moratto (1984) and Grant (1978a and 1978b).

Although the Gabrieleno were not the first inhabitants in the Los Angeles Basin, they arrived around 500 B.C. and displaced the indigenous Hokan speakers (Bean and Smith 1978:540). At the time of Spanish contact in 1769, the Gabrieleno occupied most of present-day Los Angeles and Orange counties, along with a number of off-shore islands. It is believed that with the exception of the Chumash, the Gabrieleno "were the wealthiest, most populous, and most powerful ethnic nationality in aboriginal southern California" (Bean and Smith 1978:538). Contact has been documented between the Gabrieleno and neighboring ethnographic groups as far north of the San Joaquin valley Yokuts. The Gabrieleno also had relationships with ethnographic groups as far east as the Colorado River, and south into Baja California.

Linguistic evidence suggests that the Gabrieleno/Tongva had numerous dialectical differences. This was due to geographical separation along with other factors such as social, cultural and linguistic contacts with neighboring non-Gabrielino speakers. The Gabrieleno/Tongva, are speakers of a Cupan language in the Takic family, which is an Uto-Aztecan-based language. The Project area lies exclusively within

traditional Gabrieleno/Tongva territory, but certain areas might, at one time, have been considered ethnographic territory of the Ventureño Chumash. The pre-European contact Chumash population of this area was probably between 10,000 and 15,000 individuals. To the south, the Gabrieleno/Tongva, who occupied the San Fernando Valley and the Los Angeles basin as far east as San Bernardino, may have numbered 5,000.

The Gabrielino settlement patterns indicate the existence of both primary subsistence villages and smaller secondary gathering camps, with multiple clan groupings and small family units inhabiting each respectively. These settlements were dependent upon on specific environmental zones, the time of the year, and resource availability. There are four major environmental zones that the Gabrielino occupied (with multiple biotic zones with each): the Interior Mountains/Adjacent Foothills, Prairie, Exposed Coast, and Sheltered Coast (Hudson 1971). Houses within the settlements were domed, thatched, circular structures that were at times more than 60 feet in diameter and housed three to four families.

The material culture of the Gabrielino was elaborately developed, with "many everyday use items decorated with shell inlaid in asphaltum, rare minerals, carvings, and painting" (Bean and Smith 1978: 542). These items are believed to rival the work of their Chumash neighbors to the northeast. A variety of tools were made, including saws made from deer scapulae, bone or shell needles, fish hooks, flakers, wedges, hafted and unhafted flint or cane knives, and flint drills. Women crafted baskets made from rushes, grass, and squawbrush. Men participated in the hunting, deep-sea fishing, and occasionally with the gathering activities, while women participated in mainly collecting and preparing the food resources.

The Chumash had a high level of material culture and craftsmanship, including intricate basketry, woodcarving, fine stone objects, well-developed rock art, and excellent canoes that highly impressed Spanish explorers. Most Chumash lived in permanent villages, composed of large round houses up to 50 feet in diameter, which might be home to as many as 10 families. Families were monogamous. The dietary staple for all Chumash groups was the acorn, though the addition of pine nuts, soaproot, berries, mushrooms, seeds, mollusks, fish, and game varied the diet. The material culture of the Chumash appears to have been similar to that of the Gabrieleno/Tongva, including permanent villages and a subsistence strategy like that mentioned above.

The first recorded European contact with the Gabrieleno/Tongva was by Juan Rodriguez Cabrillo in October of 1542 (Wagner 1929). However, it was not until 1769 that Portola made the first Spanish overland expedition through present day Los Angeles County. Prior to that time, the Spanish were focused on the immediate coast and islands. Hence, the interior Gabrieleno/Tongva probably had little European contact prior to Portola's journey. While en route from San Diego to Monterrey Bay, Portola stopped at an interior Gabrieleno/Tongva village called Yang'na, situated on the western bank of the Los Angeles River, near what is now downtown Los Angeles. From there, Portola and his crew traveled west, through the Sepulveda Pass (now the 405 freeway), and into the San Fernando Valley.

Hugo Reid, an immigrant from Scotland who became a Mexican citizen of Los Angeles and married a Gabrieleno/Tongva woman, is considered to be an important source for Gabrieleno/Tongva village names and locations (Dillon 1990:22). He noted 28 Gabrieleno/Tongva villages or place names known to him

from the 1830s and 1840s (Dakin 1978:220-221). Reid noted the aforementioned Yang'na, as well as Maug'na (Rancho de los Veliz), and Cahueg'na (now near Cahuenga Boulevard).

In 1771, two years after Portola's expedition, Mission San Gabriel was founded. It was at this time that the Native Americans from the Los Angeles Plain were encouraged to move from their old habitation sites to the mission area. The Gabrieleno name is derived from the mission at which they congregated. It was standard practice during the Spanish and Mexican periods to name the local inhabitants after the local Catholic Mission (Johnston 1962; La Lone 1980). The mission became the center of Gabrieleno/Tongva culture during this earlier part of the historic period. It was during the 1800s that the Chinigchinich cult, reliant on the use of the psychotropic plant *Datura*, or "Jimson weed," by its practitioners, became known to Europeans (Boscana 1983). Boscana's informants were Juaneño, from the San Juan Capistrano Mission in present day Orange County. Kroeber (1959), through Luiseño informants at San Juan Capistrano, maintains that the Chinigchinich cult had come over from Santa Catalina Island (hence, Gabrieleno/Tongva).

By 1832, the Spanish had baptized 7,825 Native Americans at the San Gabriel Mission. At that time, there were no remaining Native Americans living on the Los Angeles plain or the adjacent coast. By the 1850s, the Gabrieleno/Tongva ethnic identity had been almost entirely suppressed by the rapidly expanding Los Angeles population, and by the end of the 1800s, the Gabrieleno/Tongva language and culture had been further eroded (Dillon 1990:23).

2.1.6 Historic Setting

The historic period of settlement in southern California began with Spanish exploration in the late eighteenth century. The Spanish government subsequently established missions and military outposts to facilitate colonization of the area. The pueblo of Los Angeles was founded on 4 September 1781, and by 1800, featured approximately 30 adobe houses and had become an important stop for trade along the Santa Fe Trail (Weaver 1973; Dillon 1990).

After Mexico won independence from Spain in 1821, colonization efforts in Alta California decreased. The Spanish mission system was abandoned and late in the 1830s the Mexican government began bestowing land grants or ranchos to those loyal to the Mexican government and to some Anglo settlers. The influx of new settlers increased the population of Los Angeles to 1,500 in the 1830s (Dakin 1978: 200), and in 1835, Los Angeles was officially designated a city and California's capital (Weaver 1973; Dillon 1990).

After the American victory in the Mexican-American War, the United States gained control of California through the Treaty of Guadalupe-Hidalgo in 1848. American immigration into California increased, and in 1850, California was granted statehood and the city of Los Angeles was incorporated with a population of 1,610. At that time the "city" consisted mostly of agricultural fields and ranchland, with a small, concentrated, commercial center (JRP Historical Consulting Services 2003).

The economy changed beginning in 1869, when the transcontinental railroad came to Los Angeles. The railroad opened new markets to the residents of Los Angeles, and resulted in a citrus boom in the 1870s.

A short-lived land speculation boom occurred in southern California in the 1880s, mainly as a result of the railroad construction. Now connected with the rest of the country, immigration to southern California became easier and a rate war between the Southern Pacific Railroad and Santa Fe Railroad resulted in low fares. The favorable climate and agricultural potential also attracted immigrants to southern California. Increased Anglo-American immigration into the area resulted in increased urbanization of Los Angeles. Commercial and industrial enterprises began to overshadow agriculture, and by the end of the 19th century, the commercial center of the city had expanded, with suburban developments at its periphery (San Buenaventura Research Associates 1999; JRP Historical Consulting Services 2003).

During the 1920s and 1930s, the expansion of industry and the rise in population led to an increase in demand for property. Areas traditionally used for agriculture became the home to new residential suburbs, and smaller towns in the Los Angeles metropolitan area became "bedroom communities" for those who worked in the city. Heavy industries began to locate factories and plants in the Los Angeles area and the community experienced a boom period during World War II as demand increased for wartime products, such as aircraft parts. The boom period continued after the war, resulting in a housing shortage. New residential subdivisions with tract housing were constructed quickly to meet the demand (San Buenaventura Research Associates 1999; JRP Historical Consulting Services 2003).

2.1.6.1 Los Angeles Department of Water and Power

The Los Angeles River provided a water source for the early settlement of Los Angeles. For more than 100 years, water from the Los Angeles River was distributed to city residents through a system of open ditches or zanjas, water wheels, and dams. By 1857, hollowed logs were being used as the city's first water main. The city's water system became more formalized in 1868 when the city entered into a contract with the privately owned Los Angeles City Water Company, which constructed a water distribution system for the city, which included storage reservoirs, iron and steel water mains, and supply lines. The city's water system continued to be privately owned until the beginning of the 20th century (LADWP 1959; Lee 1989).

In 1902, the City of Los Angeles purchased the water system from the Los Angeles City Water Company for $2 million and the city council established the Board of Commissioners Domestic Water Works System to administer the municipal water works. William Mulholland, an employee of the Los Angeles City Water Company, was appointed the first superintendent and chief engineer. By the turn of the 20th century, Los Angeles had experienced tremendous growth and the need for additional water sources was recognized. Mulholland advocated the purchase of land and water rights in the Owens Valley and the construction of an aqueduct to deliver the water to Los Angeles. In 1905, the city voters passed a $1.5 million bond issue to purchase the Owens Valley property. An additional $23 million bond issue was passed in 1907 for the construction of the Owens Valley Aqueduct, which was completed in 1913 (LADWP 1959; Lee 1989).

Not only did the Owens Valley Aqueduct provide water to the city, it also provided power. In 1906, Ezra F. Scattergood, a consulting engineer, was hired to develop hydroelectric power along the aqueduct. Power for the construction of the Aqueduct was provided by the city's first power plant, which was constructed at Division Creek in the Owens Valley. In 1909, the city established the Bureau of Los

Angeles Aqueduct Power, with Scattergood as the chief electrical engineer. By 1911, the Department of Public Service was created, replacing the old Water Department. The new Department had two utility branches—the Bureau of Water Works and the Bureau of Power and Light. The Department of Public Service eventually became the Los Angeles Department of Water and Power (LADWP) (LADWP 1959; Lee 1989; LAWDP 2003).

The population of Los Angeles tripled between 1900 and 1910 and continued to grow at a rapid pace. New reservoirs and pipelines were constructed between 1915 and 1919. In 1916, the first power pole was installed in Los Angeles and in 1917, the San Francisquito Power Plant 1 began to distribute municipally generated electricity. In the 1920s, LADWP constructed five additional reservoirs and purchased more property in the Owens Valley to keep up with the water demands of the Los Angeles population. In 1925, a $2 million bond issue was passed to construct an aqueduct to bring water to the city from the Colorado River to the east (LADWP 1959; LADWP 2003).

Throughout the first half of the 20th century, LADWP continued to expand in order to provide water and electricity to the rapidly expanding city. Between 1940 and 1950, Los Angeles became an important center for defense production. This resulted in further increases to the population throughout the decade, again causing LADWP to construct more reservoirs and a system of large pipelines. More expansion projects were completed between 1950 and 1960, including the construction of additional reservoirs and newer and larger water truck lines. The Valley Steam Plant was in full operation during the 1950s, and in the 1960s, work began on the Second Los Angeles Owens River Aqueduct. A new, $32 million LADWP headquarters building was constructed near the Los Angeles Civic Center in 1964 that promised "to become one of southern California's architectural showplaces" (LADWP 1959; Lee 1989; *Los Angeles Times* 1963).

LADWP has played an important role in the development of Los Angeles. Without adequate water and power supply, the city could not have grown and developed. Today, LADWP is the largest municipally owned utility in the United States and provides water and power to 3.8 million residents and businesses.

2.1.6.1.1 LADWP Western District Headquarters

Increasing service and personnel in the LADWP Western District necessitated the construction of a new headquarters facility. In 1947, the facility at 5898 Venice Boulevard was constructed, replacing the old Western District Hollywood Yard at Las Palmas and Franklin Avenue. The new facility was more centrally located and provided more space for Western District operations. Plans for the new facility began in 1945 and a building permit was applied for in 1946. An application for construction approval was filed with the Civilian Production Administration, which was denied due to federal government restrictions due to the veterans housing program (LADWP 1945, 1946, and 1947).

Construction began on the facility in 1947. The new Western District Yard included an office and warehouse building (Building 1) and two motor vehicle buildings (currently Buildings 4 and 5). Other structures built at this time included storage bins and an equipment platform. LADWP employees supervised the design and construction of the buildings. The head of the Water Design Division, C.J. Itter, supervised the design with engineer S.A. Evans, structural engineer H.E. Bird, inspection engineer

O.N. Denman, and architect Walter S. Claberg. Claberg would later serve as architectural coordinator during the construction of the LADWP Headquarters building in 1964. The total cost for the Western District Headquarters Buildings was $280,000--$104,825 for the office/warehouse building, $71,000 for the motor vehicle buildings, and $10,000 for landscaping and other improvements. The Western District Headquarters became the workplace of approximately 225 employees in 1947, mostly assigned to the Water Distribution division of LADWP (LADWP 1947; *Los Angeles Times* 1965).

The Western District Headquarters office/warehouse building was designed in a utilitarian style, with characteristics of both the Greek Revival style and modern elements associated with the Art Deco and Streamline Moderne styles. The architect and engineers were motivated to design a structure that was less industrial and more residential in style, in keeping with the residential properties that were in the vicinity of the Western District Yard at the time of construction. The classical characteristics were in reflective of the long tradition of public utility service that LADWP had provided to the Los Angeles community for more than 50 years, while the more modern styles represented the industrial and technological innovations of the era. When first opened, the Western District Headquarters served not only as an operations center, but also had a public counter where patrons could pay their utility bills. Special attention was given to the design of the entry hall, which exhibits ornamental features such as a terrazzo floor, Art Deco style fluorescent light fixtures, and a drinking fountain with an elaborate sand carved surround featuring a landscape design. The motor vehicle buildings were designed to complement the office/warehouse building (LADWP 1945 and 1947).

In 1949, additional outbuildings were constructed within the Western District Headquarters Yard. Both the Shop Building (currently Building 2) and the Change Building (currently Building 3) were built at this time. Both buildings were designed with gable roofs with wide bands of trim around the gables and cornices and centered louvered vents in the gable ends in imitation of the office portion of the office/warehouse building. In 1955, a cement storage building was constructed upon the 1947 equipment platform (currently Building 7). Wings were constructed on the office/warehouse building circa 1965. Also, a basement was added beneath the west wing addition.

Today the Western District Headquarters is utilized for district operations, including installation of new distribution mains, upgrading of existing pipelines, installation of fire hydrants, and operation and maintenance of valves and regulators. Other functions include emergency repairs, which involves 99 employees and 92 Department vehicles, and the installation of services and meters, which involves 17 employees and 19 Department vehicles. The public counter is no longer in operation, but the office building continues to serve the Western District Headquarters Yard.

2.2 California Historical Resources Information System Records Search

Bibliographic references, previous survey reports, and archaeological site records were compiled through a records search of the California Historical Resources Information System (CHRIS) in order to identify prior archaeological studies and known cultural resources within or adjacent to the Project APE. This records search (Invoice # 2349) was conducted at the South Central Coastal Information Center (SCCIC), at the University of California, Fullerton on March 26 March 2003. The Project APE and a 0.5-mile search radius comprised the study area.

The CHRIS search included a review of all recorded sites, studies, historical listings, and historical maps within and adjacent to the Project area. The following references were also reviewed: the California Points of Historical Interest (PHI), the California Historical Landmarks, the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), and the California State Historic Resources Inventory (HRI). In addition, the listing of the Los Angeles Historic-Cultural Monuments was also checked.

2.2.1 Previous Studies within Study Area

The CHRIS records search showed that a total of six previous cultural resources studies have been conducted within 0.5-mile of the search area. Three were cultural resource assessments, one was a negative archaeological survey and the remaining three were general area overviews. None of these studies included the Project area; the Project APE has not been subjected to intensive pedestrian survey for cultural resources. The California Historic Resources inventory listed several properties (a total of 84 properties) that have been evaluated for significance (falling under either code 4S or 6) that may be within a one-half mile radius of the Project area. There are sixteen (16) additional investigations located on the Hollywood 7.5' U.S.G.S. quadrangle and fifteen (15) additional investigations on the Beverly Hills 7.5' U.S.G.S. quadrangle that could potentially be located within 0.5-mile. These reports have not been mapped due to insufficient locational information.

2.2.2 Previously Recorded Cultural Resources within Study Area

There are no previously recorded cultural resources within the Project APE or within the 0.5-mile search radius. It is important to note, however, that several prehistoric archaeological sites lie within one mile of the Project, near Ballona Creek. Ballona Creek runs immediately adjacent to the Project site, and the area is considered to be sensitive for prehistoric archaeological resources.

2.3 Native American Heritage Commission Records Search

Concurrent with the CHRIS records search, the California Native American Heritage Commission (NAHC) was contacted on 19 March 2003 to identify any areas of concern within the proposed Project area that may be listed in the NAHC's Sacred Lands File. A response was received on 16 April 2003, indicating that there are no Native American cultural resources listed in the NAHC's Sacred Lands File within the vicinity of the Project.

2.4 Archival Research

URS Architectural Historian Kirsten Erickson conducted historic context and resource-specific research on 9 and 10 April 2003. This archival research was conducted to develop an historic context for the purpose of evaluating the significance of the historic architectural resources located within the Project APE. As-built plans of the Western District Yard buildings were provided by LADWP, as well as historical information regarding the facility. Historic context research was conducted at the Los Angeles Public Library where newspaper articles, Sanborn Fire Insurance maps, and subject-specific files were consulted. Relevant archaeological and historical reports also were reviewed.

Historic context was focused on the following themes of study:

- the general history of the Los Angeles metropolitan area, specifically population, commercial, and industrial growth
- the history of utilities in Los Angeles
- the general history of LADWP
- the history of the Western Division Headquarters

The results of this archival research area presented above in Section 2.4 Historic Setting.

3.0 FIELD SURVEY

3.1 SURVEY METHODS

3.1.1 Archaeological Survey Methods

URS Archaeologist Alex Wesson covered all portions of the Project APE with an intensive pedestrian survey for cultural resources on 09 April 2003. Regularly-spaced survey transects were not employed due to the presence of multiple buildings and other obstacles (i.e. vehicles, material storage bins, and equipment). Careful attention was paid to unpaved areas and exposed soils.

3.1.2 Historic Architectural Survey Methods

Prior to the field survey, URS staff obtained the construction dates of the existing buildings within the Project APE to determine which properties were of historic age (45 years old or older). The properties determined to be over 45 years old were inventoried and documented in the field.

Property descriptions were recorded on a standardized architectural field form, including information about location, property type, historic and present building use, construction materials, architectural style, condition, modifications or additions, and other integrity considerations. Information from these field forms was used to complete California Department of Parks and Recreation (DPR) 523 forms for each newly recorded resource (see Attachment A). In addition the front façade of the inventoried building was photographed with 35 mm black-and-white film. The front façade of each building, as well as other elevations and architectural details, as appropriate, were photographed using a digital camera.

3.2 SURVEY RESULTS

3.2.1 Archaeological Survey Results

Approximately 95% of the survey area was developed, paved, or landscaped, thus obscuring the ground surface. Landscaped areas around the perimeter of the Project APE afforded limited soil visibility, however, it is not know if the light brown silty sand observed was imported fill material or the native soil matrix. All portions of the survey area had been disturbed.

The survey for archaeological resources was negative; no cultural material was observed on the ground surface within or immediately adjacent to the Project APE.

3.2.2 Historic Architectural Survey Results

The buildings within the LADWP Western District Headquarters yard were constructed between 1947 and 1955, with an addition completed to the office/warehouse building circa 1965. The office/warehouse building (Building 1) was built in 1947. The T-shaped building faces onto Venice Boulevard and is a concrete block utilitarian structure with features of the Greek Revival, Art Deco, and Streamline Moderne styles. The horizontal portion of the T-shape houses the offices of the Western District and the vertical portion of the "T" serves as the warehouse. Additions were constructed on the east and west wings of the

office portion of the building wings circa 1965 and windows and doors have been replaced on the rear of the office portion and the warehouse portion of the building. Despite these alterations, the office/warehouse building appears much as it did upon construction and retains integrity.

There are seven outbuildings associated with the office/warehouse building located within the Western District Yard. These buildings include the Shop Building (Building 2), the Change Building (Building 3), two Vehicle Buildings (Buildings 4 and 5), the Welding Building (Building 6), an Equipment Platform (Building 7), and an Equipment Building (Building 8).

The Shop Building and the Change Building (Buildings 2 and 3) were both constructed in 1949. These buildings are located east and southeast of the office/warehouse building. The buildings are utilitarian in style and mimic the classical design elements of Building 1 with wide bands of trim along the gables and cornices and louvered gable vents. Alternations to the buildings have been minimal, and both buildings appear much as they did when constructed and retain integrity.

The vehicle buildings (Buildings 4 and 5) were both constructed in 1947, at the same time as the office/warehouse building. Of similar construction, the buildings have reinforced concrete frames infilled with concrete block masonry. These buildings are also utilitarian in style. These buildings have sustained more alterations then other buildings within the yard, but still maintain historic integrity.

The Welding Building (Building 6) is a structural steel canopy and the exact construction year is unknown. The building was not indicated on plans of the Western District Yard in 1965, and appears to be less than 45 years old.

Constructed in 1955, the Equipment Platform (Building 7) is utilized for cement storage. The building is utilitarian in design and no major alterations appear to have been completed and it retains integrity.

The Equipment Building (Building 8) is located adjacent to Building 7. The construction year of this building is unknown, and it does not appear on any of the facility drawings dated 1947, 1949, 1955, or 1965. The building may have been moved to this location.

4.0 RESOURCE SIGNIFICANCE

Each building within the Project APE over 45 years in age was documented and evaluated for inclusion on the CRHR. A total of six buildings were evaluated.

4.1 STATE MANDATES

This study is consistent with compliance procedures set forth in CEQA, Sections 15064.5 and 15126.4. The Project does not have any Federal involvement. As such, Federal mandates are not discussed in this report.

Before considering impact significance under CEQA, the significance of the resource itself must first be determined. At the State level, consideration of significance as an "important archaeological resource" is measured by cultural resource provisions considered under CEQA Sections 15064.5 and 15126.4, and the draft criteria regarding resource eligibility to the CRHR.

Generally, under CEQA a historic built-environment resource or historic and prehistoric archaeological resource is considered significant if it meets at least one of the criteria for listing on the CRHR. Such resources are referred to as "historical resources." The CRHR eligibility criteria are set forth in CEQA Section 15064.5. A "historical resource" is defined as any resource that:

A. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. is associated with lives of persons important in our past;

C. 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

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

Section 15064.5 of CEQA also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC 5097.98.

Impacts to "unique archaeological resources" and "unique paleontological resources" are also considered under CEQA, as described under PRC 21083.2. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge there is a high probability that it meets one of the following criteria:

1. the archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information; or
2. the archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
3. the archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological resources and resources which do not qualify for listing on the CRHR receive no further consideration under CEQA.

4.2 Evaluation of Significance for Newly Recorded Resources

4.2.1 Evaluation Methodology

Eight existing buildings within the Yard (one main office/warehouse building and seven ancillary buildings) were inventoried in the field and formally evaluated for significance. Utilizing the study themes outlined in Section 2.4, an historic overview (Section 2.1.6) was completed to place the inventoried buildings into a historic context. The significance of each building was evaluated based upon its importance within that context.

A general history of Los Angeles and its metropolitan area was included to provide a framework for the development of LADWP. The history of LADWP was influenced by the history of Los Angeles and its expansion, and in turn, LADWP affected the development and growth of Los Angeles. The history of LADWP provided a context for the construction of the Western District Headquarters, and the history of the Western District Headquarters describes the conditions under which the buildings were constructed and their purpose.

4.2.2 Evaluation Results

The LADWP Western District Headquarters office/warehouse building (Building 1) and its associated outbuildings appear to be eligible for listing in the CRHR under Criterion A. The property is representative of the expansion of public utilities in post-World War II Los Angeles, which resulted from the increased population and growth of industry and commerce of the era. It is also representative of the post-World War II growth of LADWP, significant locally for its contribution to the growth and development of Los Angeles, and nationally as the largest municipally owned utility in the nation. Building 1 and its associated outbuildings maintain sufficient integrity and represent buildings constructed during the era of significance.

Historic research did not identify any important persons associated with the Western Division Headquarters, and the property does not appear to be eligible under Criterion B.

Building 1 appears to be eligible under Criterion C. Although the building is not a representative example of any one form of architecture, the building is unusual in that it exhibits characteristics of both classical and modern forms of architecture and was designed by an LADWP architect. It maintains its integrity of location, design, setting, materials, workmanship, association, and feeling, as the building has not been substantially altered since its construction in 1947. The addition completed to the wings of the building was sensitively constructed, and does not detract from the appearance of the original building.

Buildings 2, 3, and 7 have retained integrity and contribute to the eligibility of Building 1 as associated outbuildings. Buildings 4 and 5 have been sustained more alterations than the other outbuildings, but also maintain a high level of integrity. These buildings are also considered eligible as contributing elements to

the function of Building 1 and the Western District Yard. Building 6 is likely a modern structure, Building 8 was likely moved onto the property less than 45 years ago, and they are not evaluated as eligible.

5.0 SIGNIFICANCE IMPACTS AND MITIGATION MEASURES

5.1 SIGNIFICANCE IMPACTS

5.1.1 State Mandates

As noted above, impacts to identified cultural resources need to be considered only if the resource is an "important" resource or an "unique archaeological resource", under the provisions of CEQA Sections 15064.5 and 15126.4. Under CEQA Section 15064.5, a project potentially would have significant impacts if it would cause substantial adverse change in the significance of:

- an historical resource (i.e. a cultural resource eligible for inclusion on the CRHR);
- an archaeological resource (defined as a unique archaeological resource which does not meet CRHR criteria);
- a unique paleontological resource or unique geologic feature (i.e. would directly or indirectly destroy a site); or
- human remains (i.e. would disturb or destroy burials).

5.1.2 Project Impacts

5.1.2.1 Paleontological Resources

The Project area is considered sensitive for subterranean paleontological resources. The Quaternary alluvial soils at the site may contain fossilized remains of Pleistocene fauna and/or flora, and potentially fossils from earlier periods. Furthermore, the Project area is located within two miles of the La Brea Fossil Pits, an important paleontological locality. Excavation for building foundations, trenching for utilities, and/or other earthmoving activities associated with the construction of the proposed buildings have the potential to result in impacts to significant paleontological resources.

5.1.2.2 Archaeological Resources

The Project area is considered sensitive for buried archaeological resources. The Project APE is situated immediately adjacent to Ballona Creek, within one mile of several prehistoric archaeological sites. Excavation for building foundations, trenching for utilities, and/or other earthmoving activities associated with the construction of the proposed buildings have the potential to result in impacts to significant archaeological resources.

5.1.2.3 Historic Architectural Resources

The LADWP Western District office/warehouse building and five of its associated outbuildings appear to be eligible for the CRHR under Criteria A and C. These six buildings are considered "historical resources" under CEQA. Demolition would cause a substantial adverse change in the significance of these resources. This adverse change would constitute a significant impact if it is not mitigated to a less than significant level.

5.2 MITIGATION MEASURES

Both general and resource-specific mitigation measures will be implemented for the project, in order to reduce potentially significant impacts to a less than significant level. Resource-specific mitigation measures will be required for the six significant historic architectural resources within the Project APE. General mitigation measures will be implemented to reduce potential impacts to unknown archaeological and paleontological resources.

5.2.1 Resource-Specific Mitigation Measures

5.2.1.1 Historic Architectural Resources

The LADWP Western District office/warehouse building and five of its associated outbuildings appear to be eligible for the CRHR under Criteria A and C. Because LADWP plans to demolish these buildings as part of the Project, measures to mitigate this significant impact are warranted. Historic American Building Survey (HABS)/ Historic American Engineering Record (HAER) documentation is the most common method for mitigation of impacts to historical architectural resources. Because as-built drawings of the buildings exist and the history of the yard is well documented, URS recommends HABS Level II documentation (existing drawings, large format photography, written historical narrative).

The following resource-specific mitigation measure will reduce Project impacts to historic architectural resources to a less than significant level:

HAR-1: For each of the six buildings evaluated as eligible for listing on the CRHR, HABS/HAER Level II documentation will be completed. An experienced HABS photographer will use large-format cameras to produce perspective corrected, black-and-white photographs of overall views and details of important exterior and interior features of the structure. The photographs record textures, details, and spatial relationships not easily conveyed by drawings or the written word. As-built drawings will be photographed with large-format negatives or photographically reproduced on mylar. A short report will be prepared for each building, which will include a HABS Architectural Data Form. An archival-quality deliverable including written reports, black and white large-format photographic prints, and photographed/reproduced as-built drawings, suitable for inclusion in the HABS/HAER Collection at the National Archives.

5.2.2 General Mitigation Measures

The potential exists for ground disturbing construction activities to affect unknown paleontological and archaeological resources. Grading, trenching, potholing, shoveling, soil core boring, and other activities have the potential to damage these nonrenewable resources. However, these potentially significant impacts will be mitigated to a less than significant level through the implementation of several general mitigation measures.

5.2.2.1 Archaeological Resources

Areas adjacent to natural watercourses are considered sensitive for prehistoric archaeological resources, and the potential exists for previously unknown cultural resources to be found during construction at any location. Potentially significant impacts to archaeological resources will be mitigated to a less than significant level through the implementation of the following general mitigation measures:

CR-1: LADWP shall provide specific instructions in their construction permits regarding the inadvertent discovery of potential archaeological resources. Specific language shall state that if previously unknown subsurface cultural materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented. A specific LADWP staff and his/her contact information shall be provided on the construction permit. If potential archaeological resources are encountered, LADWP staff shall have the authority to stop and/or redirect construction in the event of an unanticipated discovery. If necessary, an archaeological monitor shall be notified. LADWP staff shall be notified of the current construction schedule on a regular basis, and if any unscheduled ground disturbing activity is required. The archaeological monitor will conduct on-site cultural resources sensitivity training (crew education) as outlined below.

CR-2: Prior to the beginning of earth moving construction activities (including initial grading of vegetation removal), all construction personnel (including management) shall be informed of the cultural resource values involved and of the regulatory protections afforded those resources. The construction personnel shall also be informed of procedures relating to the discovery of unanticipated cultural resources (as outlined below). They shall be cautioned not to collect artifacts, and asked to inform a construction supervisor and the onsite archaeological monitor in the event that cultural remains are discovered during the course of construction. The archaeological monitor shall administer supplemental briefings to all new construction personnel, prior to their commencement of earth moving construction activities. LADWP will be responsible for notifying the archaeological monitor when new construction personnel are scheduled to work on the Project.

CR-3: In the event archaeological resources are unearthed during excavation activities associated with the Project, work shall be stopped immediately, and the discovery shall be evaluated by a qualified archaeologist, pursuant to the procedures set forth at CEQA Section 15064.5. If the find is evaluated as significant under CEQA, further mitigation measures will be developed in concert with LADWP.

CR-4: If human skeletal remains are found at the project site during earth moving activities such as grading or trenching, work shall be suspended and the Los Angeles County Coroner's Office shall be notified. Standard guidelines set by California law provides for the treatment of skeletal material of Native American origin (California Public Resources Code, Sections 5097.98 et seq.; Health and Safety Code, Section 7050.5 and others). Procedures to be employed in the treatment of human remains are found in, "A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods," published by the California Native American Heritage Commission.

5.2.2.2 Paleontological Resources

Ground disturbing construction has the potential to impact subterranean paleontological resources. Potentially significant impacts to paleontological resources will be mitigated to a less than significant level through the implementation of the following general mitigation measures:

PR-1: Earth moving construction activity will be observed by a paleontological monitor. The monitoring will be on an intermittent, spot-check basis. LADWP will be responsible for providing the paleontological monitor with the current construction schedule on a regular basis, and for notifying the paleontological monitor if any unscheduled ground disturbing activity is required. The paleontological monitor will conduct on-site paleontological resourcessensitivity training (crew education) as outlined below. If previously unknown subsurface paleontological materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented. The paleontological monitor will have the authority to stop and/or redirect construction in the event of an unanticipated discovery.

PR-2: Prior to the beginning of earth moving construction activities (including initial grading of vegetation removal), all construction personnel (including management) shall be informed of the paleontological resource values involved and of the regulatory protections afforded those resources. The construction personnel shall also be informed of procedures relating to the discovery of unanticipated paleontological resources (as outlined below). They shall be cautioned not to collect fossils, and asked to inform a construction supervisor and the onsite paleontological monitor in the event that fossils or mineralized bones are discovered during the course of construction. The paleontological monitor shall administer supplemental briefings to all new construction personnel, prior to their commencement of earth moving construction activities. LADWP will be responsible for notifying the paleontological monitor when new construction personnel are scheduled to work on the Project.

PR-3: In the event paleontological resources are unearthed during excavation activities associated with the Project, work shall be suspended in the immediate vicinity of the finds, and the potential significance of the resource shall be evaluated by a qualified specialist.

5.2.3 Evaluation of Unanticipated Discoveries

All archaeological and paleontological resources encountered during the mitigation and monitoring phases of the Project, with the exception of isolate artifacts and isolate features that appear to lack integrity or data potential, will be evaluated for significance vis-à-vis CRHR and CEQA criteria described above. If a resource is found to be significant, then it will be subject to avoidance through alterations in project design when feasible. In the event that avoidance of cultural resources is not possible via project design modifications, appropriate mitigation measures, in accordance with this report and the LADWP, will be conducted.

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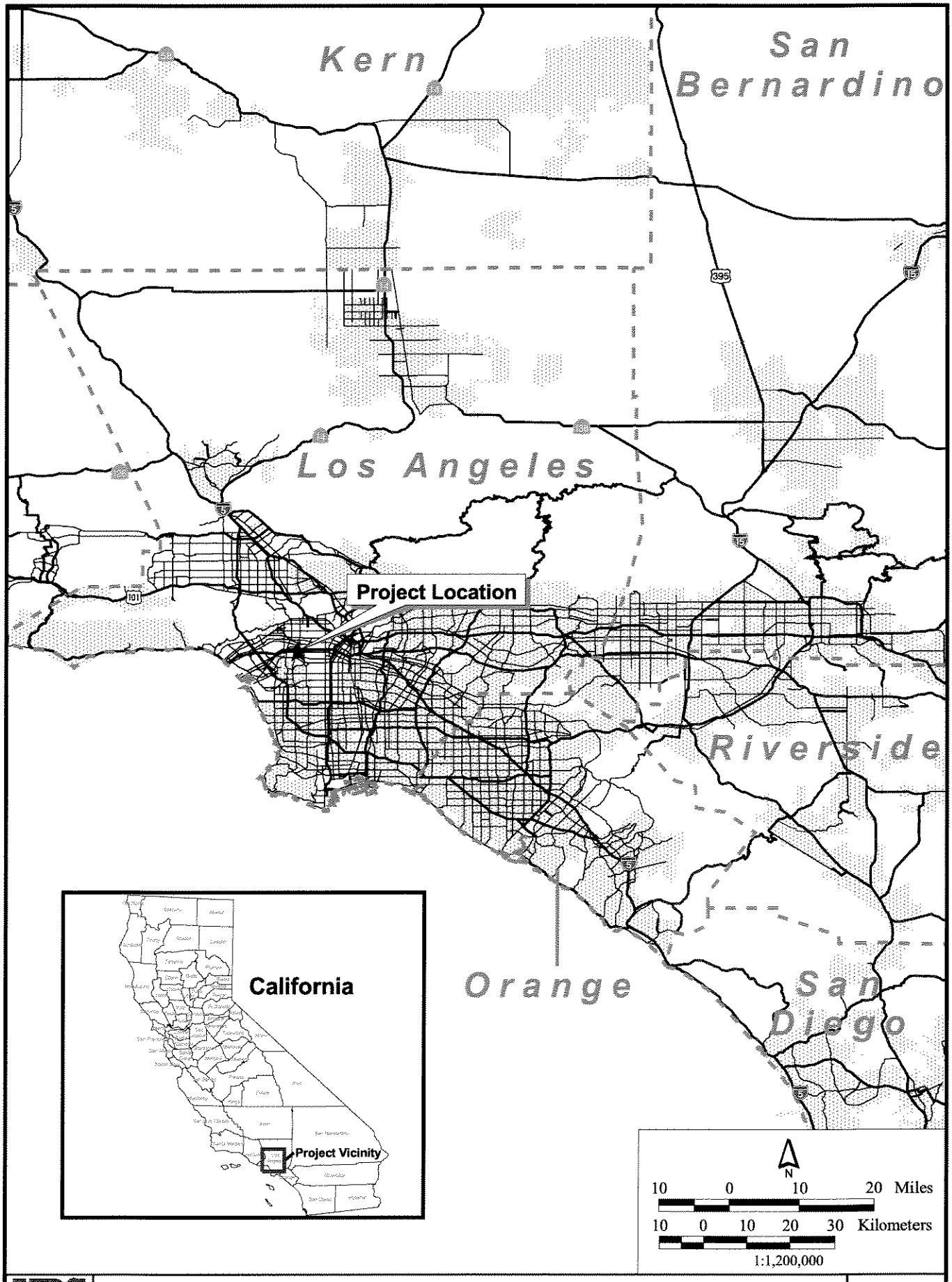
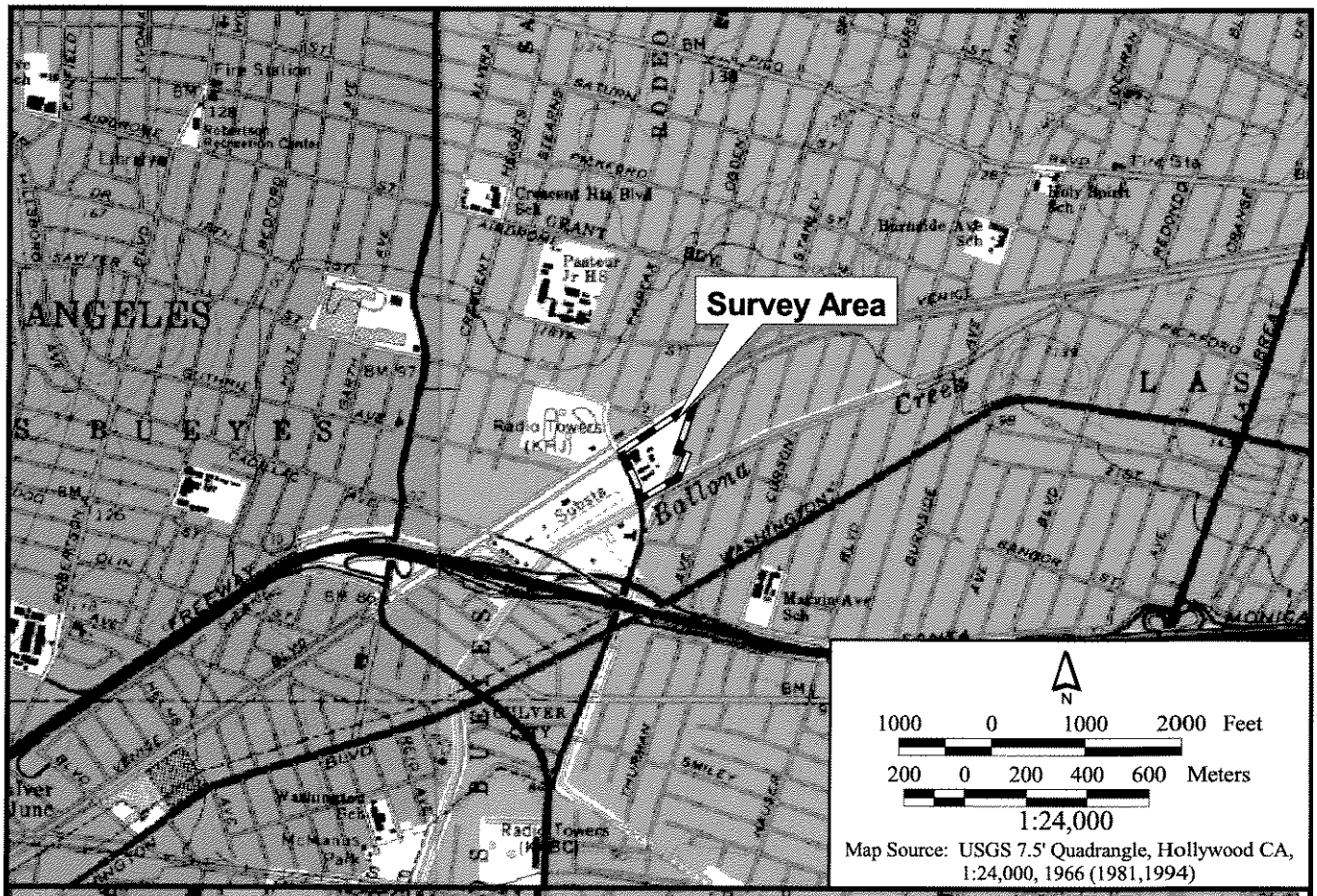
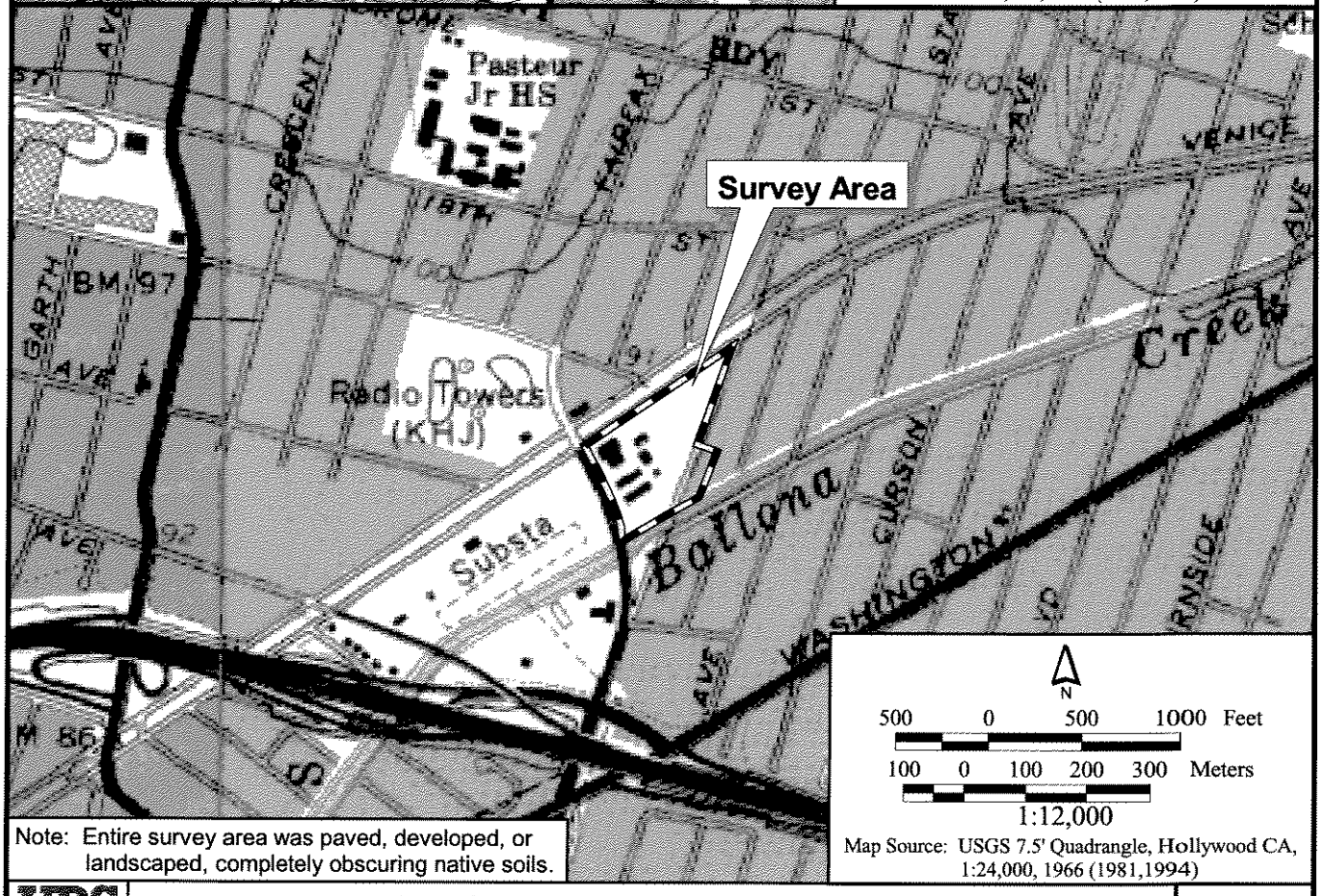
FIGURES



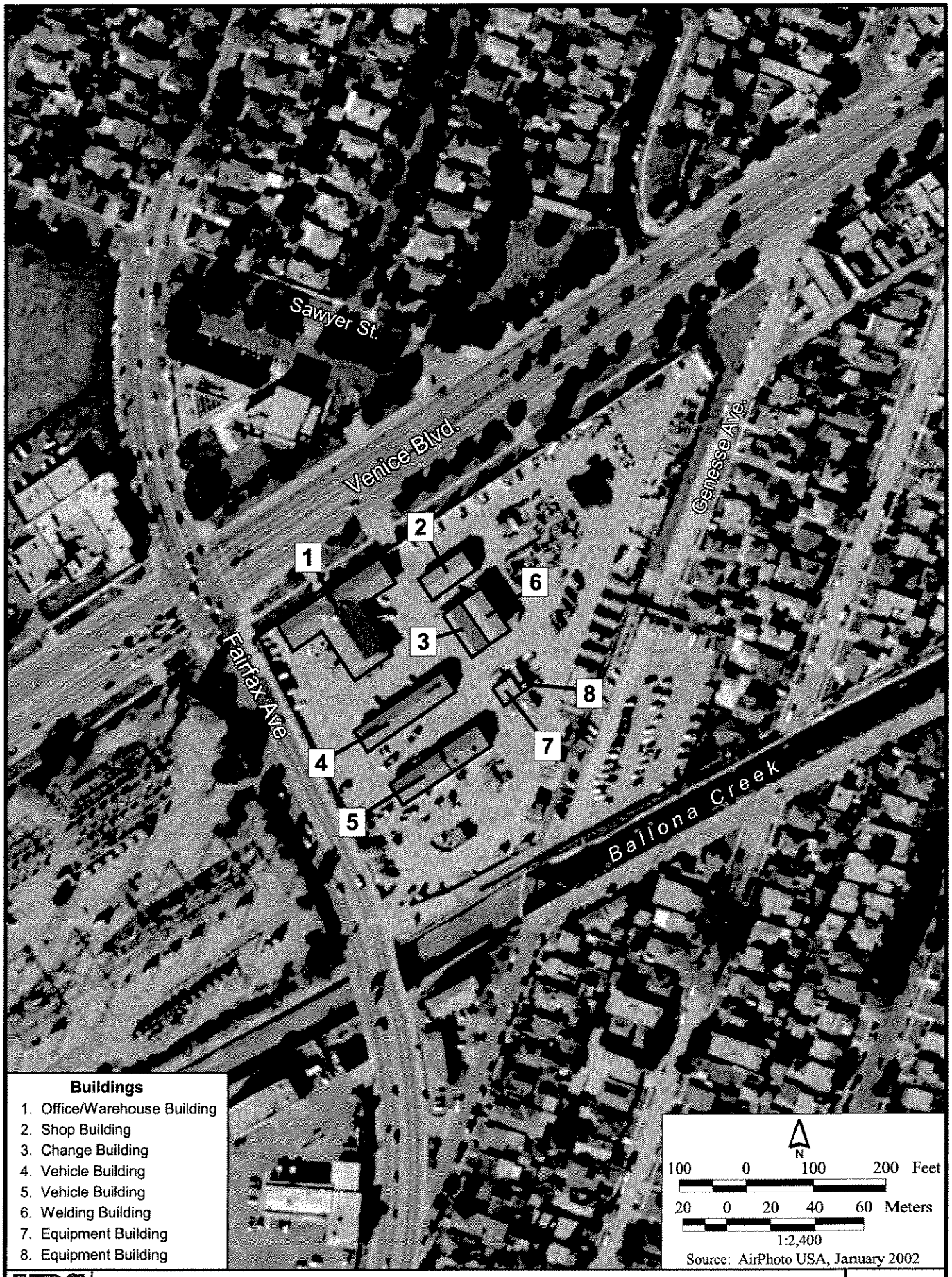
URS	Project Location and Vicinity Map	Figure 1
Project No. 29870195	Los Angeles Department of Water and Power Western District Yard Improvement Project	April 2003





Note: Entire survey area was paved, developed, or landscaped, completely obscuring native soils.

URS	Area Surveyed for Cultural Resources	Figure 2
Project No. 29870195	Los Angeles Department of Water and Power Western District Yard Improvement Project	April 2003



URS	Inventoried Buildings	Figure 3
Project No. 29870195	Los Angeles Department of Water and Power Western District Yard Improvement Project	April 2003

ATTACHMENTS

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 7
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 18 *Resource Name or #: (Assigned by recorder) LADWP Western District Headquarters

P1. Other Identifier: Western District Yard

P2. Location: ❑ Not for Publication X Unrestricted

*a. County Los Angeles and (P2c,P2e, and P2b or P2d. Attach Location Map as necessary.)

*b. USGS 7.5' Quad Hollywood Date 1981 T 1S ; R 14W ; ____¼ of ____¼ of Sec Unsectioned ; 91 B.M.

c. Address 5898 Venice Boulevard City Los Angeles Zip 90019

d. UTM: (Give more than one for large and/or linear resources) Zone 11; 373662 mE/ 3767401 mN (center of building cluster)

*e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
APN 5064-029-908; Tract 26317, extension of streets, Lot 1

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The property is located on the southeast corner of Venice Boulevard and Fairfax Boulevard on a 7.9-acre lot. Headquarters for the Western District of operations for the Los Angeles Department of Water and Power (LADWP), the property consists of a main office and warehouse building, and seven ancillary buildings that support headquarters operations.

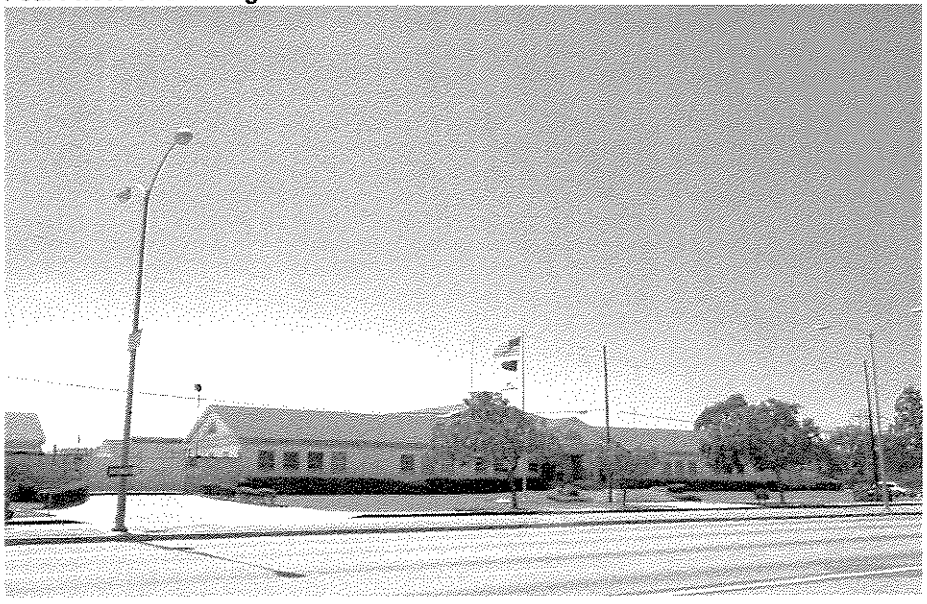
Building 1. The main office and warehouse building (Building 1) faces northwest onto Venice Boulevard and was constructed circa 1947. It is a one story, T-shaped building constructed of concrete block. The foundation is also concrete block and the exterior wall surface consists of painted concrete blocks in running bond. The office portion of the building is located within the horizontal portion of the "T" shape, which is parallel to Venice Boulevard and the vertical portion of the "T" houses the warehouse function of the building. The building has a cross gable roof.

See continuation sheet.

*P3b. Resource Attributes: (List attributes and codes) (HP6) Commercial building under 3 stories, (HP9) Public utility building

P4. Resources Present: X Building ❑ Structure ❑ Object ❑ Site ❑ District ❑ Element of District ❑ Other (isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (View, date, accession #)
Building 1, View southwest from north side of Venice Blvd.
9 April 2003

*P6. Date Constructed/Age and Source: X Historic ❑ Prehistoric ❑ Both
1947; Los Angeles Department of Water and Power

*P7. Owner and Address:
LADWP
111 N. Hope Street
Los Angeles, California 90012

*P8. Recorded by: (Name, affiliation, and address)
Kirsten Erickson, URS Corp.
7720 N. 16th Street, Suite 100
Phoenix, Arizona 85020

*P9. Date Recorded:
9 April 2003

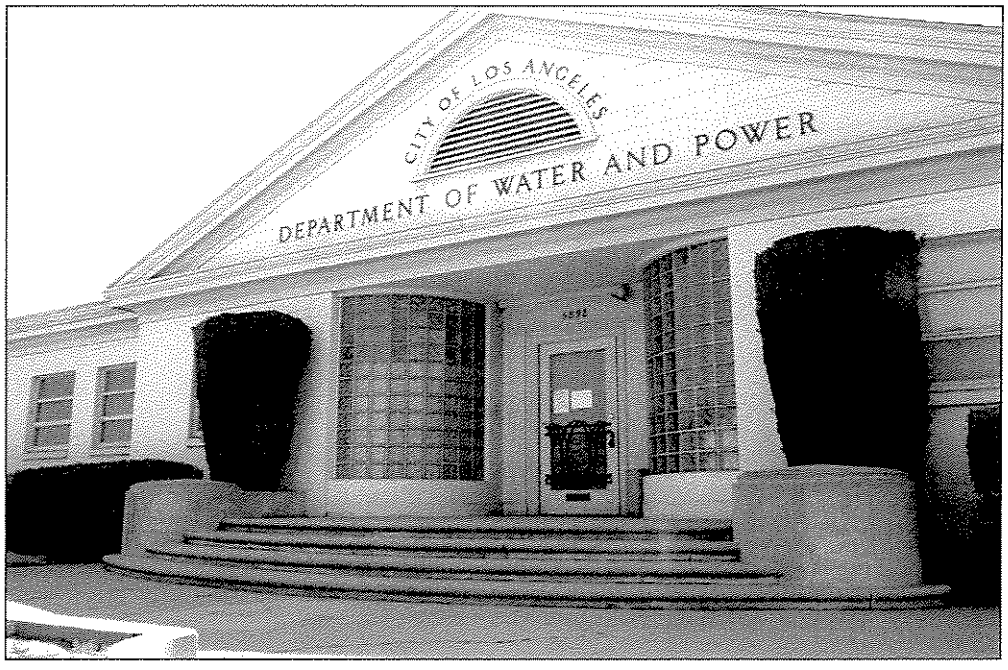
*P10. Survey Type: (Describe)
California Register Nomination

P11. Report Citation*: (Cite survey report and other sources, or enter "none".) URS Corp. May 2003. Cultural Resources Technical Report: LADWP Western District Yard Improvement Project.

*Attachments: ❑ NONE X Location Map X Sketch Map X Continuation Sheet X Building, Structure and Object Record
❑ Archaeological Record ❑ District Record ❑ Linear Feature Record ❑ Milling Station Record ❑ Rock Art Record
❑ Artifact Record ❑ Photograph Record ❑ Other (List)

Description (continued)

The roof of Building 1 is clad in composition shingles. The office portion of the building measures approximately 40 feet by 197 feet. There is a basement located beneath the west side of the office building, which measures approximately 30 feet by 40 feet. The warehouse portion of the building measures 47 feet by 80 feet. The front entry has a centered gable, which has a lower roofline than the warehouse portion of the building. The centered gable forms a pediment over the entry. The entry gable is clad in horizontal wood siding and there is a centered, arched, louvered vent in the gable. There is an octagonal cupola on the roof ridgeline of the warehouse portion of the building. The top of the cupola is covered in metal and there are louvered vents located in each side. The pediment-style gable has a wide band of trim along the gable edges and the cornice, which is characteristic of the Greek Revival style. The wide band of trim extends along the cornice the entire length of the building front. Bronze lettering spells out "City of Los Angeles Department of Water and Power" on the entry gable end.



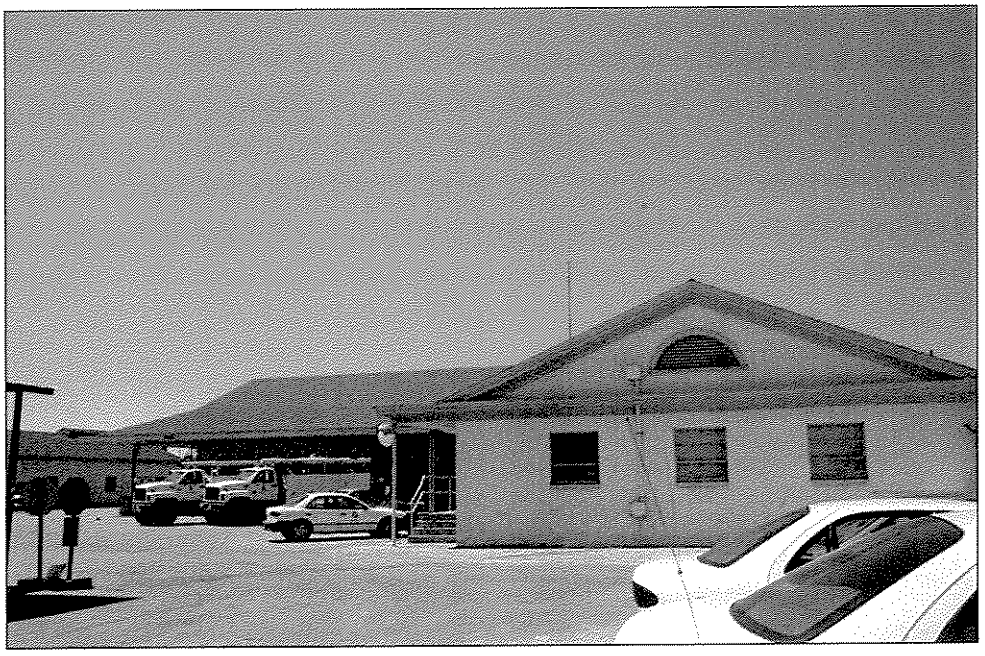
Front entry of Building 1 (view southeast)

The main entry is recessed beneath the entry gable. The main entry door surround consists of an entablature and pilasters, also a detail of the Greek Revival style. The main entrance is a single entry wood door with one light and wrought iron ornamentation. There are two, rounded glass block windows (made of 99 glass blocks each) located on either side of the main entrance. The landing in front of the entrance is constructed of cast stone. The landing is reached via a rounded staircase. There are two newel posts—one on each side of the staircase. The staircase and newel posts are also constructed of cast stone. Two additional parallel stairways, on either side of a planting box, descend to the sidewalk level. These stairs and the planting box are constructed of concrete. The wrought iron detailing on the door, the glass block windows, and the curved staircase and newel posts are characteristics of the Art Deco and Streamline Moderne styles.

There are three types of windows on the front of the building (which faces northwest and is referred to on the construction plans and in this description as the north elevation). All of the windows have cast concrete sills, lintels constructed of vertically laid concrete blocks, and steel frames. The two windows located on either side of the entry way are 3-light windows, with one fixed light above a 1-light awning and a 1-light hopper window. The windows in the office wings are also three light windows. The windows in the original portion of the structure are 3-light windows with one awning window above two fixed lights. Office wings were extended both east and west circa 1968. The windows in the addition have 3-lights with a 2-light awning window above one fixed light.

Description (continued)

The gable end of Building 1 on the east elevation has a wide band of trim along the gable edges and the cornice, continuing the theme from the front of the building. There is a centered, arched, louvered vent in the gable end, which is clad in horizontal siding. The exterior wall surface is concrete block in running bond. There are three windows, which are identical to the windows on the north side of the addition—3-lights with a 2-light awning window over one fixed light. The west addition of the office portion of the building is similar to the east addition, and was also added to the building circa 1968. An additional, modern window has been inserted on the western portion of the original front elevation side of the building. The window is a 1 over 1-light, metal framed, awning window with no sill or lintel. There are steps on the west side of the building that lead to the basement level and there also are platforms for air conditioning units. The roof and cornice extends from both the east and west sides of the office portion of the building to form a flat roofed porch on the rear (south).



East Side of Building 1 (view southwest)

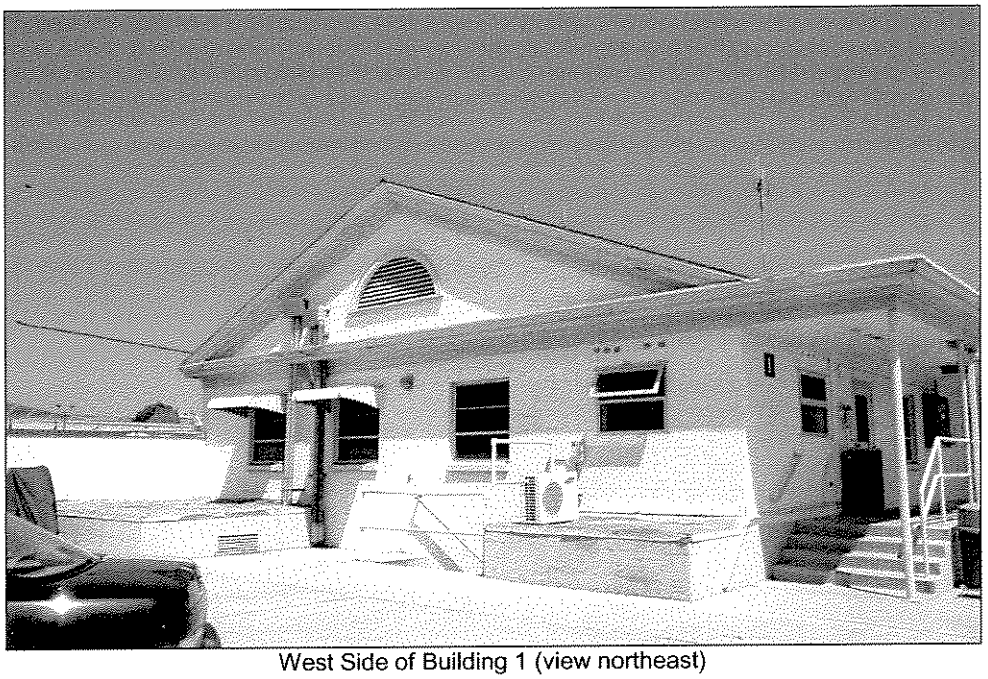
The rear of the office portion is shaded by a flat roofed overhang supported by metal poles over a raised concrete loading platform. Staircases provide access to the loading platform, which is bordered by metal railings. The windows are a mix of hopper and awning windows with metal frames and concrete block lintels. Some of these windows were added when the side additions were completed circa 1968. Other windows have been replaced at other times. There is a modern window on the west side of the rear portion that was added approximately the same time as the modern window on the west side of the office portion. There are two single entry doors on the east side of the rear wall (one metal door with one-light and one wood door with one-light) and two single entry doors on the west side of the rear wall (one wood paneled door with one-light and one metal door with one light).

The raised loading dock with metal railings and overhanging roof along the east and west sides, continues from the rear of the office portion of the building to the warehouse portion of the building. There are six windows on the east side of the warehouse building. These are three-light pivot windows with steel frames. There are two single entry doors on the east side—one wood paneled door with one light and one metal door with one light. There are no windows on the west side of the warehouse building, but there are two metal single entry doors with one-light and one metal, double entry door with one-light.

The roof on the rear (south) of the warehouse building is a hip and gable roof, with the hipped portion of the roof forming a porch roof supported by metal posts. There is a 6-light window in the gable end—the center two-lights are a pivot window, which is surrounded on each side by two fixed lights. The floor of the porch also is a raised concrete loading deck.

Description (continued)

There are two doors in the south wall of Building 1. One is a metal single entry door with metal surrounds, and the other is a wood, 4-panel roll-up door with four fixed lights with textured glass.



West Side of Building 1 (view northeast)

Rear West Side of Building 1 (view northwest)

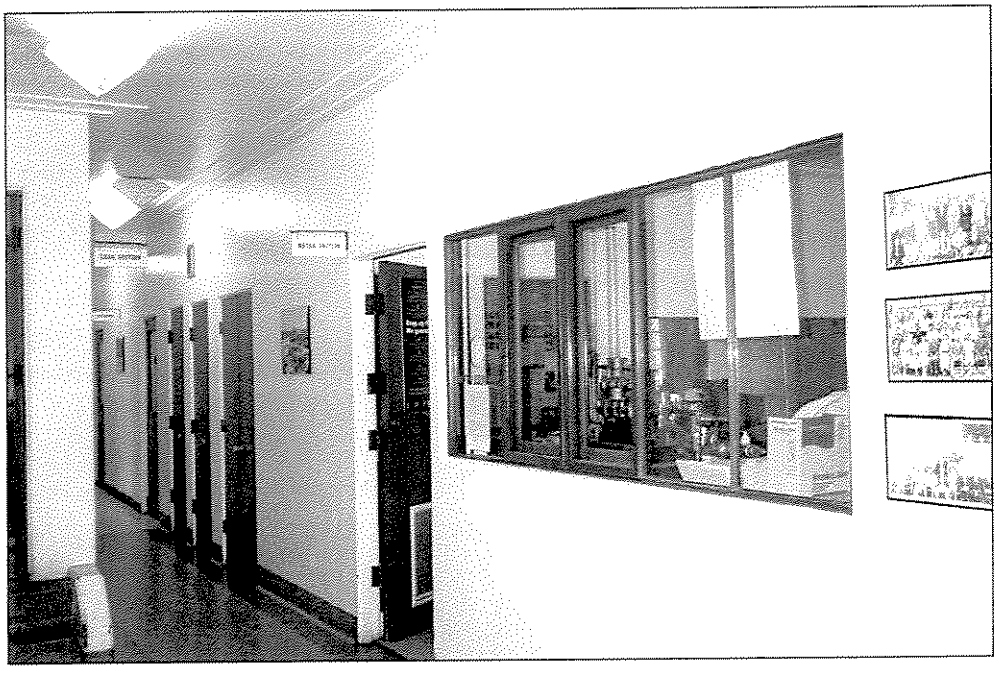
Description (continued)

The interior of Building 1 is largely utilitarian in style, with the exception of the front entry hall. Because the building once housed a public counter where patrons paid their utility bills, attention was given to the interior design of this area. Of particular note are the terrazzo floor, Art Deco style fluorescent light fixtures, and a drinking fountain with an elaborately etched glass surround.

Drinking Fountain Located on the Entry Hall of Building 1 (view southeast)

Other than the 1968 addition constructed on the east and west sides of the office building, the front of the building has not been substantially altered since its construction in 1947. Windows and doors have been replaced on the rear of the office portion of the building and windows and doors have been blocked and added to the east, west, and south sides of the warehouse portion of the building. The 1968 renovations included the addition of a 30- by 40-foot wing and basement addition on the west side of the office building and a 38- by 40-foot wing addition on the east side.

Description (continued)



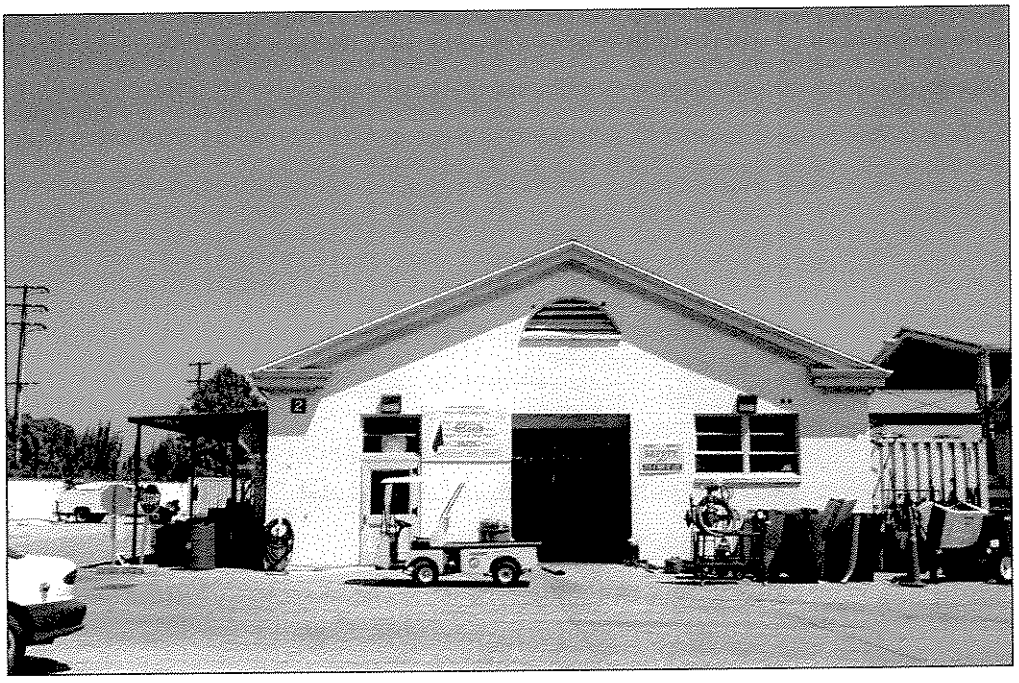
Entry Hall and Public Window in Building 1 (view west)

Entry Hall, Building 1 (view northeast)

Description (continued)

There are seven outbuildings associated with the Office / Warehouse Building (Building 1), including the Shop Building (Building 2), the Change Building (Building 3), two Vehicle Buildings (Buildings 4 and 5), the Welding Building (Building 6), an Equipment Platform (Building 7), and an Equipment Building (Building 8).

Building 2. Building 2 or the Shop Building is located to the east of Building 1. The Shop Building is one story, rectangular building that measures approximately 40 feet by 80 feet. The building faces southwest and was constructed between 1949 and 1950. The building's foundation is concrete slab. The exterior walls are concrete block in running bond. The front gable roof is clad in composition shingles. There is a wide band of trim around the gable ends and on the cornices, which is discontinuous across the gable end. An arched louvered vent is also located in the gable end, which is framed by a concrete block soldier course. There is a metal, single entry door with one-light on the front (west) of the building, with a two-light, steel frame awning transom window. The transom window has a lintel constructed of vertically laid concrete blocks. There is one, steel, roll-up door with a ramp and concrete wheel guards. Besides the transom window, there is a set of paired windows, which have three-lights each (2-light awning window over a 1-light fixed window) with cast concrete sills. Both the roll-up door and the window have lintels constructed of vertically laid concrete blocks.



Front of Building 2 (view northeast)

The north side of the building has three sets of three ribbon windows. The windows are 3-light windows, with a 2-light awning window over a fixed light. There are two steel roll-up doors with concrete wheel guards. There is a temporary, 3-bay, metal frame, storage canopy located adjacent to the north side of the building. The east side of the building has two sets of paired windows, which are the same type as those on the north side of the building. There is a metal, single entry door with one-light on the east side, and the door has two, two-light transom awning windows. The gable end, including the trim and louvered vent, is identical to the west side of the building. The south side of the building has three sets of three ribbon windows, which are the same type as on the north and east sides. There is a single entry metal door with one-light, which has a two-light awning transom window. Also, there is a grouping of six windows to the east of the doorway, which are a mix of awning, hopper, and fixed windows. The other entry on the south side is a steel roll-up door with concrete wheel guards. All windows have cast concrete sills and lintels constructed of vertically laid concrete blocks. Lintels of the same type are located over all entries as well.

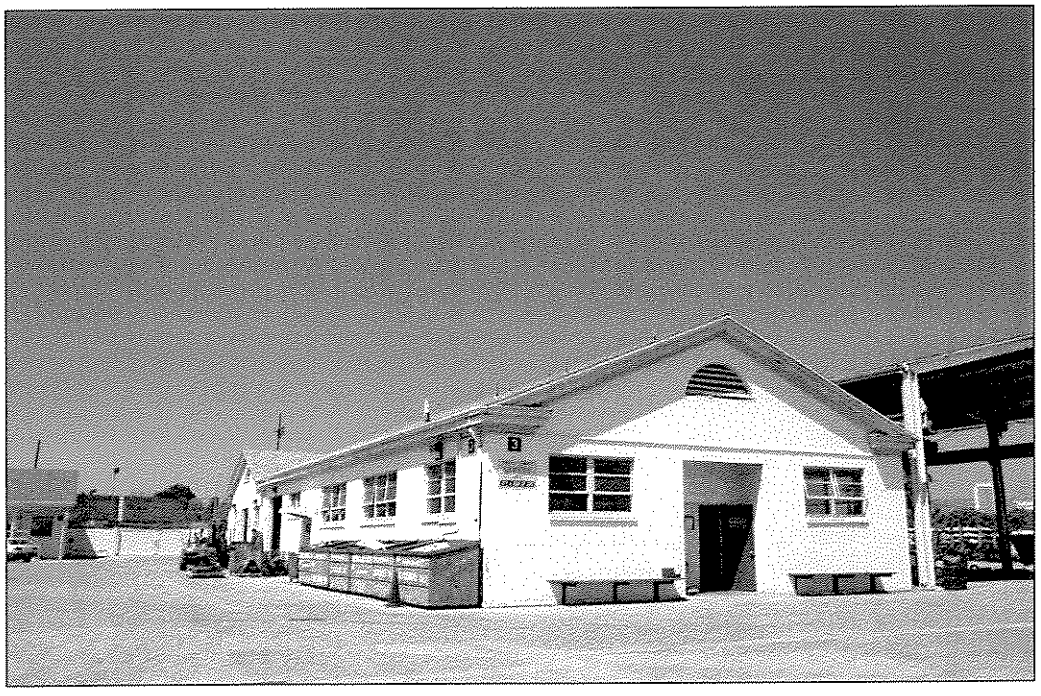
Alterations to Building 2 since its construction have been relatively minor. Windows have been replaced and added on the south side of the building.

Description (continued)

Building 3. Building 3 or the Change Building is located to the south of Building 2 and measures 40 feet by 80 feet. Building 3 was constructed at the same time as Building 2 (between 1949 and 1950) and has a similar design. Building 3 is one story and faces southeast. The rectangular-shaped building has a concrete foundation and is constructed of concrete block in running bond. The front gable roof is clad with composition shingles, and like Building 2, also has a wide band of trim around the gable ends and on the cornices, which is discontinuous across the gable end. An arched louvered vent also is located in the gable end, which is framed by a concrete block soldier course. The windows on the front of the building consist of 2 sets of 3-light paired windows (2-light awning window over one fixed light). There is one, recessed, double entry door, which is wood with one light.

The north side of the building has two sets of paired windows, which are the same type as those on the south side of the building. There is a metal, single entry door with one-light on the north side, and the door has two, two-light transom awning windows. The gable end, including the trim and louvered vent, is identical to the south side of the building. The east side of the building has one set of paired windows and two sets of three ribbon windows of the same type as the north and south sides of the building (3-light: 2-light awning window over 1-light fixed window). Entries consists of one, single entry, metal door with one light and one, steel roll-up door with concrete wheel guards. The west side has one set of paired, 2-light hopper windows and two sets of 3 ribbon windows and one set of paired windows of the same type as the north and south sides of the building. Entries on the west side consists of one single entry wood door with one-light and one steel roll-up door with concrete wheel guards. The single entry door is shaded by an aluminum awning. All windows in the building have cast concrete sills. All windows and door openings have lintels constructed of vertically laid concrete blocks.

Alterations to Building 3 since its construction are minor, and limited to some window and door replacements.



Front and west side of Building 3 (view north)

Description (continued)

Building 4. Building 4 is one of two vehicle buildings located southeast of Building 1. Both vehicle buildings were constructed in 1947, at the same time as Building 1. Building 4 measures approximately 37 feet by 155 feet and faces southeast. The one story building has a concrete foundation and has a reinforced concrete frame that is infilled with concrete block masonry. The side gable roof clad with composition shingles is supported by wood trusses. There are two monitor roof vents on the ridgeline at the east and west ends of the building. There are seven, vehicle sized bays on the front of the building. The first bay from the west has been infilled with concrete block, and the block has been faced with stucco. The next three bays remain open and have steel roll-up doors. The third bay from the east has been infilled with concrete block and faced with stucco. An entrance opening in this bay leads to a restroom entrance. There is also a single entry metal door with one light and modern aluminum frame sliding windows in this bay. The last two vehicle bays on the east end are open with steel roll-up doors. The second bay from the east end is a washroom and the last bay on the end has a truck hoist and a repair pit.

Front of Building 4 (view west)

The bays on the north side of the building were infilled with concrete block when the building was constructed. There are two, metal single entry doors on the north side and six, four-over-two-light pivot windows with steel frames and cast concrete sills. There is a two-bay porch attached to the northeast corner of the building, which has a flat roof and wood supports. The two windows on the east side are also four-over-two-light pivot windows with steel frames and cast concrete sills. These windows also have lintels constructed of vertically laid concrete blocks. There is also a single entry metal door on the east side. The west side has no features.

Alterations to Building 4 since its construction include the addition of the window and door on the front (south) of the building. One window on the north side has been infilled with wood and an air conditioning unit.

Description (continued)

Building 5. Building 5 is a vehicle building located south of Building 4. Building 5 was constructed in 1947 and faces northwest, toward the very similar Building 4. Measuring approximately 37 feet by 155 feet, the building has a concrete foundation and a reinforced concrete frame that is infilled with concrete block masonry. The side gable roof, clad with composition shingles, is supported by wood trusses. The building has seven vehicle-sized bays on the front (north), and the center bay has a slightly higher roofline. The first bay from the east has been infilled with concrete block and surfaced with stucco. There is a single entry metal door with one light and a small, steel roll-up door. The second bay from the east is also infilled with concrete block and surfaced with stucco. There is one, one-over-one light, aluminum framed, single hung window and a single entry opening that leads to an interior corridor with two additional doors. The third bay from the east also is infilled and has three, one-over-one light, aluminum framed, single hung windows. There is a steel roll-up door in the center bay, and the three bays on the west end of the front side of the building are open.

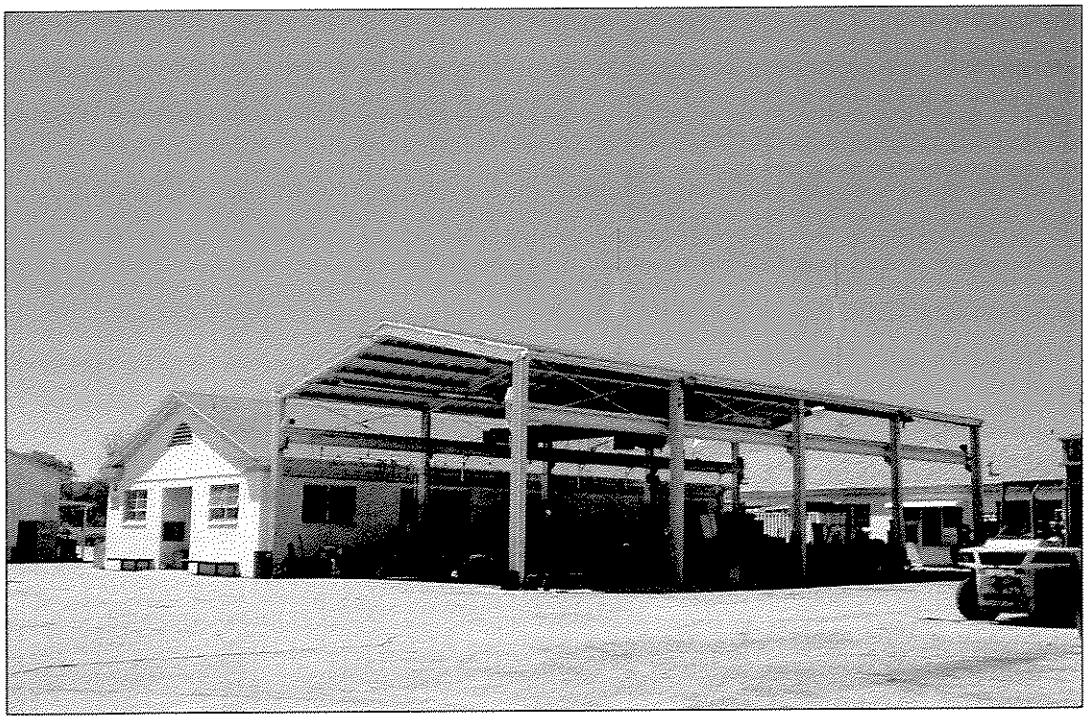
Front and East Side of Building 5 (view southwest)

The bays on the south side of the building have all been infilled with concrete block. There are four windows on the south side with steel frames and cast concrete sills. The windows are pivot, awning, and fixed windows. There is one, metal, single entry door and two wood single entry doors. The west side of the building has no features, and there is a metal, single entry door on the east side of the building.

Alterations to Building 5 since its construction include the infilling of two bays and the addition of windows and doors on the north side of the building. Some windows on the south side may have been removed and infilled and the door on the east side was a later addition.

Description (continued)

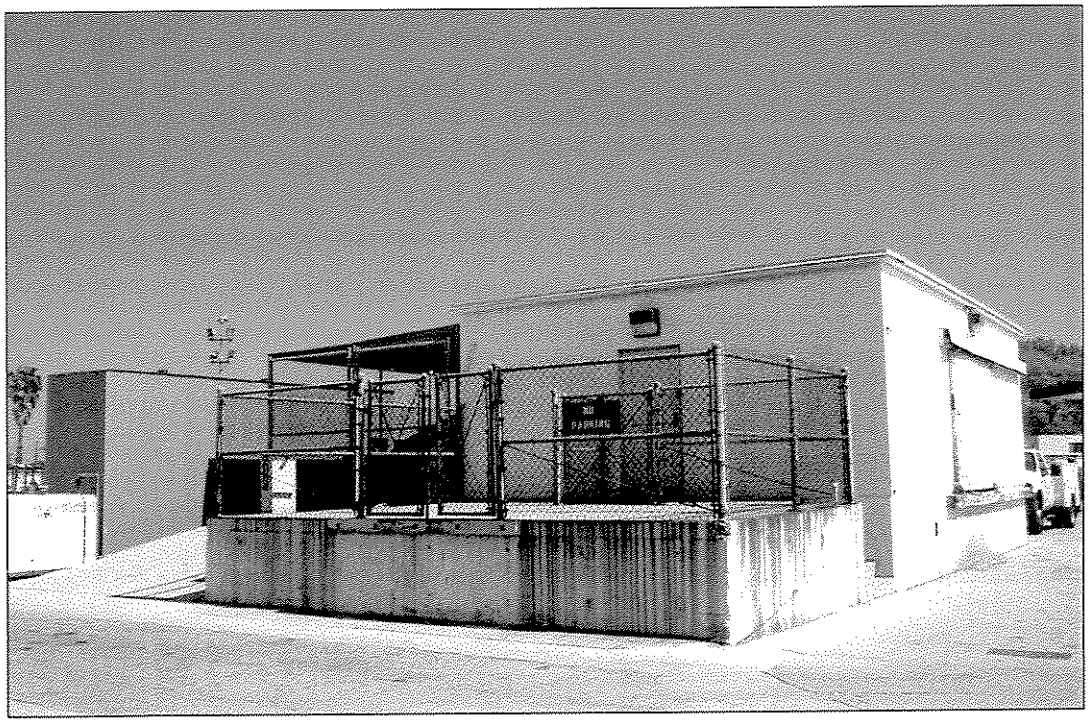
Building 6. Building 6 or the Welding Building is a one story, structural steel canopy, which measures approximately 40 feet by 80 feet. The canopy has four bays and there are five steel support beams on each side (east and west), which are anchored in concrete. There is a track located along the sides of the canopy, which supports a pulley and hoist for equipment repair. The exact construction year of Building 6 is not known, but the building is not indicated on plans of the Western District Yard in 1965. Building 6 appears to be less than 45 years old.



Building 6, Adjacent to Building 3 (view west)

Description (continued)

Building 7. Building 7 or the Equipment Platform measures approximately 37- by 155-feet. When the yard was constructed in 1947, the Equipment Platform consisted of a poured concrete platform and ramp only. The building currently known as the Equipment Platform was not constructed until circa 1955. It was built for the purpose of cement storage and continues to function in that capacity today. Building 7 is one story and faces northwest. It was built on an existing concrete equipment platform and is constructed of concrete block. The roof is flat with narrow eaves and is clad with composition shingles. There is a single entry, metal, paneled door on the front of the building. An additional concrete platform was constructed at the front of the building in 1955 and it is enclosed with chain link fencing. There are no features on the south side of the building.



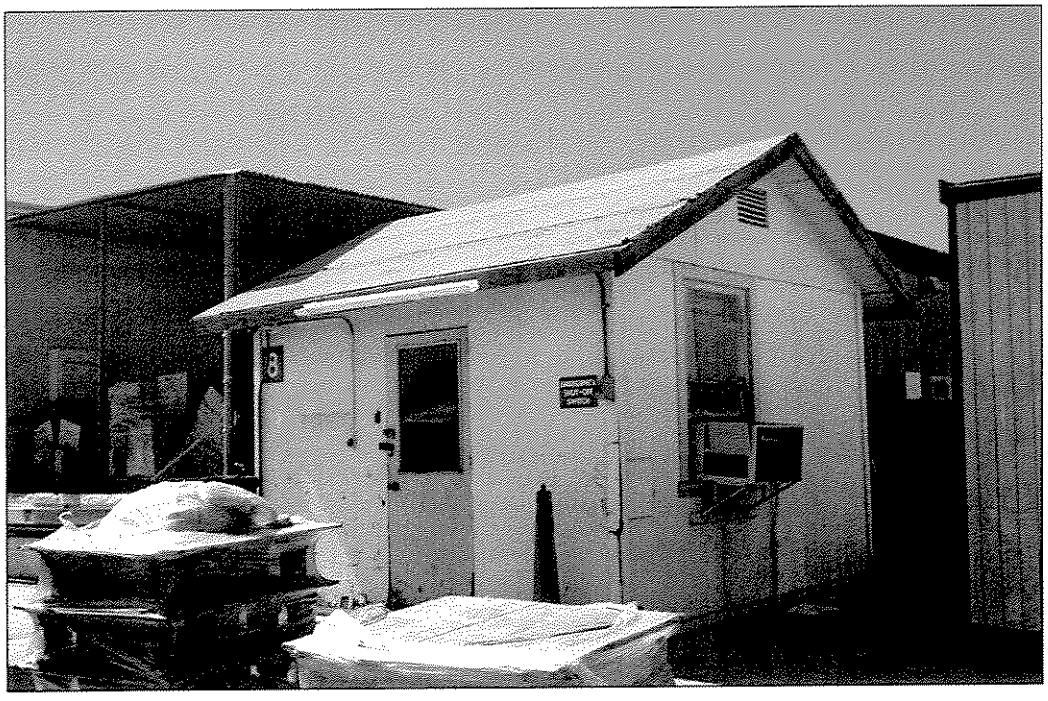
Front of Building 7 (view southeast)

The 1947 ramp is located on the east side of the building. There is a chain link enclosure with a corrugated metal roof at the top of the ramp where it levels out into a platform. The chain link enclosure is attached to the east side of Building 7. There is a sliding metal loading door on the west side of the building. The door is attached to the building with wood runners reinforced with metal.

There do not appear to be any major alterations to Building 7.

Description (continued)

Building 8. Building 8 or the Equipment Building is located adjacent to the east corner of Building 7 and faces southeast. The construction year of this building is unknown, and it does not appear on any of the drawings dated 1947, 1949, 1955, or 1965. The building may have been moved to this location at some point. The building is a small, square structure measuring approximately 12 feet by 12 feet. The building likely has a wood frame, and the exterior wall material is plywood. The side gable roof has boxed eaves and is clad in composition material. There is a wood, single entry door with one light on the front of the building.



Front and East Side of Building 8 (view west)

The only feature on the north side (rear) of the building is a 2-light, wood frame, pivot window with a wood sill. On the east side, there is a one-over-one light, wood frame, single hung window with an air conditioning unit installed in it. There is also a louvered vent in east gable. The west side also has a similar vent in the gable, one window of the same type as the east side, and one wood paneled door. The extent of alterations to this building is unknown.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 7

*Resource Name or # (Assigned by recorder) LADWP Western District Headquarters

B1. Historic Name: LADWP Western District Headquarters
B2. Common Name: LADWP Western Yard
B3. Original Use: Construction and maintenance yard; public counter services
B4. Present Use: Construction and maintenance yard
*B5. **Architectural Style:** Utilitarian with Classical / Greek Revival, Art Deco, and Streamline Moderne detailing
*B6. **Construction History:** (Construction date, alterations, and date of alterations)
Buildings 1, 4 and 5 completed in 1947 and Buildings 2 and 3 were constructed circa 1949. Building 7 was completed 1955. The construction years of Building 6 and 8 are unknown. Wing additions and a basement addition were completed on Building 1 in 1965. Other alterations include window and door replacements—dates unknown.

*B7. **Moved?** X No ❑ Yes ❑ Unknown **Date:** _____ **Original Location:** _____
*B8. **Related Features:** none
B9a. Architect/ Engineer: W.S. Claberg / H.E. Bird b. Builder: J. WalterJohnson
*B10. **Significance: Theme** public utilities **Area** Los Angeles
Period of Significance 1947 **Property Type** public utility building **Applicable Criteria** A, B, and C
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Historic Context Los Angeles

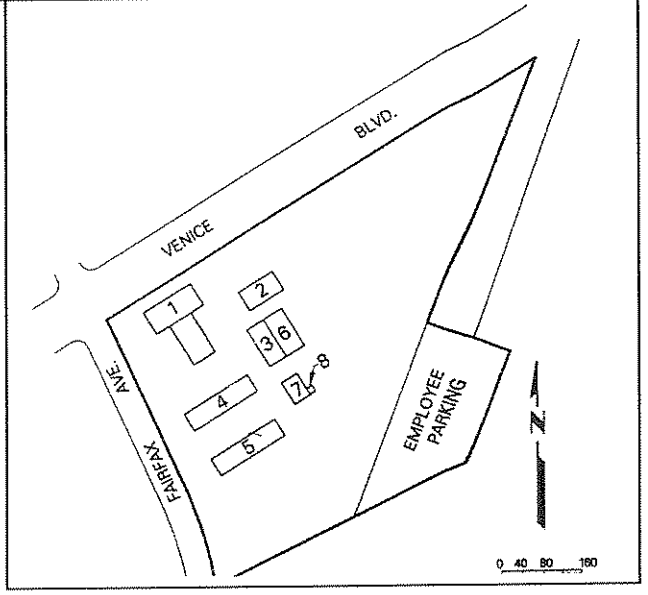
The historic period of settlement in southern California began with Spanish exploration in the late eighteenth century. The Spanish government subsequently established missions and military outposts to facilitate colonization of the area. The pueblo of Los Angeles was founded on 4 September 1781, and by 1800, featured approximately 30 adobe houses and had become an important stop for trade along the Santa Fe Trail (Weaver 1973; Dillion 1990).

After Mexico won independence from Spain in 1821, colonization efforts in Alta California decreased. The Spanish mission system was largely abandoned and late in the 1830s the Mexican government began bestowing land grants or ranchos to those loyal to the Mexican government and to some Anglo settlers. The influx of new settlers increased the population of Los Angeles to 1,500 in the 1830s (Dakin 1978: 200), and in 1835, Los Angeles was officially designated a city and California's capital (Weaver 1973; Dillion 1990).

In 1848, the United States gained control of California through the Treaty of Guadalupe-Hidalgo, which was a result of the American victory in the Mexican-American War. American immigration into California increased, and in 1850, California was granted statehood and the city of Los Angeles was incorporated with a population of 1,610. At that time the "city" consisted
mostly of agricultural fields and ranchland, with a small, concentrated, commercial center (JRP Historical Consulting Services 2003). **See continuation sheet.**

B11. Additional Resource Attributes: (List attributes and codes)
(HP4) Ancillary buildings

(Sketch map with north arrow required)



*B12. **References:** Dillion, B., *Archaeological Records Search and Impact Evaluation for the Los Angeles Wastewater Program Management (NOS-NCOS) Project, Los Angeles, California* (Prepared for Dr. Janet Fahey, James M. Montgomery, Consulting Engineers, Pasadena, 1990); JRP Consulting Services, *North Spring Street Bridge Seismic Retrofitting and Widening Historic Resources Evaluation Report* (JRP Consulting Services, Los Angeles, 2003); Lee, Robert, *The LADWP: Its Place in the Making of a City* (LADWP and City of Los Angeles, 1989); Los Angeles Department of Water and Power, *From Pueblo to Metropolis: Water and Power in the Story of Los Angeles* (LADWP, 1959); Los Angeles Department of Water and Power, *Annual Report for Fiscal Year Ending June 30, 1945* (LADWP, 1945); Los Angeles Department of Water and Power, *45th Annual Report Fiscal Year Ending June 30, 1946* (LADWP, 1946); Los Angeles Department of Water and Power, *46th Annual Report Fiscal Year Ending June 30 1947* (LADWP, 1947); LADWP, *Intake Magazine*, Water System Unwraps Its New Western District Headquarters, (LADWP 1947); Los Angeles Department of Water and Power, *LADWP Historical Background* (http://www5.ladwp.com/ aboutdwp/history/allabout /allabout.htm); Los Angeles Times, Article on new LADWP Headquarters Building (LA Times 4/15/1963); Los Angeles Times, *DWP Starts Move-In of Employees Friday* (LA Times 5/9/1965); San Buenaventura Research Associates, *City of Burbank Historic Preservation Plan* (City of Burbank Planning Department, Burbank, 1999); Weaver, J.D., *El Pueblo Grande: Los Angeles from the Brush Huts of Yangna to the Skyscrapers of Modern Megapolis* (Anderson, Richie, and Simon, Los Angeles, 1973);

*B14. **Evaluator:** Kirsten Erickson
Date of Evaluation: 18 April 2003

Historic Context (continued)

The economy changed beginning in 1869, when the transcontinental railroad came to Los Angeles. The railroad opened new markets to the residents of Los Angeles, and resulted in a citrus boom in the 1870s. A short-lived land speculation boom occurred in southern California in the 1880s, mainly as a result of the railroad construction. Now connected with the rest of the country, immigration to southern California became easier and a rate war between the Southern Pacific Railroad and Santa Fe Railroad resulted in low fares. Immigrants to southern California also were attracted by the favorable climate and agricultural potential. Increased Anglo-American immigration into the area resulted in increased urbanization of Los Angeles. Commercial and industrial enterprises began to overshadow agriculture, and by the end of the 19th century, the commercial center of the city had expanded, with suburban developments at its periphery (San Buenaventura Research Associates 1999; JRP Historical Consulting Services 2003).

During the 1920s and 1930s, the expansion of industry and the rise in population led to an increase in demand for property. Areas traditionally used for agriculture became the home to new residential suburbs, and smaller towns in the Los Angeles metropolitan area became "bedroom communities" for those who worked in the city. Heavy industries began to locate factories and plants in the Los Angeles area and the community experienced a boom period during World War II as demand increased for wartime products, such as aircraft parts. The boom period continued after the war, resulting in a housing shortage. New residential subdivisions with tract housing were constructed quickly to meet the demand (San Buenaventura Research Associates 1999; JRP Historical Consulting Services 2003).

Los Angeles Department of Water and Power

The Los Angeles River provided a water source for the early settlement of Los Angeles. For more than 100 years, water from the Los Angeles River was distributed to city residents through a system of open ditches or zanjas, water wheels, and dams. By 1857, hollowed logs were being used as the city's first water main. The city's water system became more formalized in 1868 when the city entered into a contract with the privately owned Los Angeles City Water Company, which constructed a water distribution system for the city, including storage reservoirs, iron and steel water mains, and supply lines. The city's water system continued to be privately owned until the beginning of the 20th century (LADWP 1959; Lee 1989).

In 1902, the City of Los Angeles purchased the water system from the Los Angeles City Water Company for $2 million and the city council established the Board of Commissioners Domestic Water Works System to administer the municipal water works. William Mulholland, an employee of the Los Angeles City Water Company, was appointed the first superintendent and chief engineer. By the turn of the 20th century, Los Angeles had experienced tremendous growth and the need for additional water sources was recognized. Mulholland advocated the purchase of land and water rights in the Owens Valley and the construction of an aqueduct to deliver the water to Los Angeles. In 1905, the city voters passed a $1.5 million bond issue to purchase the Owens Valley property. An additional $23 million bond issue was passed in 1907 for the construction of the Owens Valley Aqueduct, which was completed in 1913 (LADWP 1959; Lee 1989).

Not only did the Owens Valley Aqueduct provide water to the city, it also provided power. In 1906, Ezra F. Scattergood, a consulting engineer, was hired to develop hydroelectric power along the aqueduct. Power for the construction of the Aqueduct was provided by the city's first power plant, which was constructed at Division Creek in the Owens Valley. In 1909, the city established the Bureau of Los Angeles Aqueduct Power, with Scattergood as the chief electrical engineer. By 1911, the Department of Public Service was created, replacing the old Water Department. The new Department had two utility branches—the Bureau of Water Works and the Bureau of Power and Light. The Department of Public Service eventually became the Los Angeles Department of Water and Power (LADWP) (LADWP 1959; Lee 1989; LAWDP 2003).

The population of Los Angeles tripled between 1900 and 1910 and continued to grow at a rapid pace. New reservoirs and pipelines were constructed between 1915 and 1919. In 1916, the first power pole was installed in Los Angeles and in 1917, the San Francisquito Power Plant 1 began to distribute municipally generated electricity. In the 1920s, LADWP constructed five additional reservoirs and purchased more property in the Owens Valley to keep up with the water demands of the Los Angeles population. In 1925, a $2 million bond issue was passed to construct an aqueduct to bring water to the city from the Colorado River to the east (LADWP 1959; LADWP 2003).

Throughout the first half of the 20th century, LADWP continued to expand in order to provide water and electricity to the rapidly expanding city. Between 1940 and 1950, Los Angeles became an important center for the production of World War II products. This resulted in further increases to the population throughout the decade, again causing LADWP to construct more reservoirs and a system of large pipelines. More expansion projects were completed between 1950 and 1960, including the construction

Historic Context (continued)

of additional reservoirs and newer and larger water truck lines. The Valley Steam Plant was in full operation during the 1950s, and in the 1960s, work began on the Second Los Angeles Owens River Aqueduct. A new, $32 million LADWP headquarters building was constructed near the Los Angeles Civic Center in 1964 that promised "to become one of southern California's architectural showplaces" (LADWP 1959; Lee 1989; *Los Angeles Times* 1963).

LADWP has played an important role in the development of Los Angeles. Without adequate water and power supply, the city could not have grown and developed. Today, LADWP is the largest municipally owned utility in the United States and provides water and power to 3.8 million residents and businesses.

LADWP Western District Headquarters

Increasing service and personnel in the LADWP Western District necessitated the construction of a new headquarters facility. In 1947, the facility at 5898 Venice Boulevard was constructed, replacing the old Western District Hollywood Yard at Las Palmas and Franklin Avenue. The new facility was more centrally located and provided more space for Western District operations. Plans for the new facility began in 1945 and a building permit was applied for in 1946. An application for construction approval was filed with the Civilian Production Administration, which was denied due to federal government restrictions due to the veterans housing program (LADWP 1945, 1946, and 1947).

Construction began on the facility in 1947. The new Western District Yard included an office and warehouse building (Building 1) and two motor vehicle buildings (currently Buildings 4 and 5). Other structures built at this time included storage bins and an equipment platform. LADWP employees supervised the design and construction of the buildings. The head of the Water Design Division, C.J. Itter, supervised the design with engineer S.A. Evans, structural engineer H.E. Bird, inspection engineer O.N. Denman, and architect Walter S. Claberg. Claberg would later serve as architectural coordinator during the construction of the LADWP Headquarters building in 1964. The total cost for the Western District Headquarters Buildings was $280,000--$104,825 for the office/warehouse building, $71,000 for the motor vehicle buildings, and $10,000 for landscaping and other improvements. The Western District Headquarters became the workplace of approximately 225 employees in 1947, mostly assigned to the Water Distribution division of LADWP (LADWP 1947; *Los Angeles Times* 1965).

The Western District Headquarters office/warehouse building was designed in a utilitarian style, with characteristics of both the Greek Revival style and modern elements associated with the Art Deco and Streamline Moderne styles. The architect and engineers were motivated to design a structure that was less industrial and more residential in style, in keeping with the residential properties that were in the vicinity of the Western District Yard at the time of construction. The classical characteristics were in reflective of the long tradition of public utility service that LADWP had provided to the Los Angeles community for more than 50 years, while the more modern styles represented the industrial and technological innovations of the era. When first opened, the Western District Headquarters served not only as an operations center, but also had a public counter where patrons could pay their utility bills. Special attention was given to the design of the entry hall, which exhibits ornamental features such as a terrazzo floor, Art Deco style fluorescent light fixtures, and a drinking fountain with an elaborate sand carved surround featuring a landscape design. The motor vehicle buildings were designed to complement the office/warehouse building (LADWP 1945 and 1947).

In 1949, additional outbuildings were constructed within the Western District Headquarters Yard. Both the Shop Building (currently Building 2) and the Change Building (currently Building 3) were built at this time. Both buildings were designed with gable roofs with wide bands of trim around the gables and cornices and centered louvered vents in the gable ends in imitation of the office portion of the office/warehouse building. In 1955, a cement storage building was constructed upon the 1947 equipment platform (currently Building 7). Wings were constructed on the office/warehouse building circa 1965. Also, a basement was added beneath the west wing addition.

Today the Western District Headquarters is utilized for district operations, including installation of new distribution mains, upgrading of existing pipelines, installation of fire hydrants, and operation and maintenance of valves and regulators. Other functions include emergency repairs, which involves 99 employees and 92 Department vehicles, and the installation of services and meters, which involves 17 employees and 19 Department vehicles. The public counter is no longer in operation, but the office building continues to serve the Western District Headquarters Yard.

Evaluation

The LADWP Western District Headquarters office/warehouse building (Building 1) and its associated outbuildings appear to be eligible for listing in the National Register of Historic Places (National Register) under Criterion A. The property is representative of the expansion of public utilities in post-World War II Los Angeles, which resulted from the increased population and growth of industry and commerce of the era. It is also representative of the post-World War II growth of LADWP, significant locally for its contribution to the growth and development of Los Angeles, and nationally as the largest municipally owned utility in the nation. Building 1 and its associated outbuildings maintain sufficient integrity and represent buildings constructed during the era of significance.

Historic research did not identify any important persons associated with the Western Division Headquarters, and the buildng does not appear to be eligible under Criterion B.

Building 1 appears to be eligible under Criterion C. Although the building is not a representative example of any one form of architecture, the building is unusual in that it exhibits characteristics of both classical and modern forms of architecture and was designed by an LADWP architect. It maintains its integrity of location, design, setting, materials, workmanship, association, and feeling, as the building has not been substantially altered since its construction in 1947. The addition completed to the wings of the building was sensitively constructed, and does not detract from the appearance of the original building.

Buildings 2, 3, and 7 have retained integrity and contribute to the eligibility of Building 1 as associated outbuildings. Buildings 4 and 5 have been sustained more alterations than the other outbuildings, but also maintain a high level of integrity. These buildings are also considered eligible as contributing elements to the function of Building 1 and the Western District Yard. Building 6 is likely a modern structure, and Building 8 was likely moved onto the property less than 45 years ago.

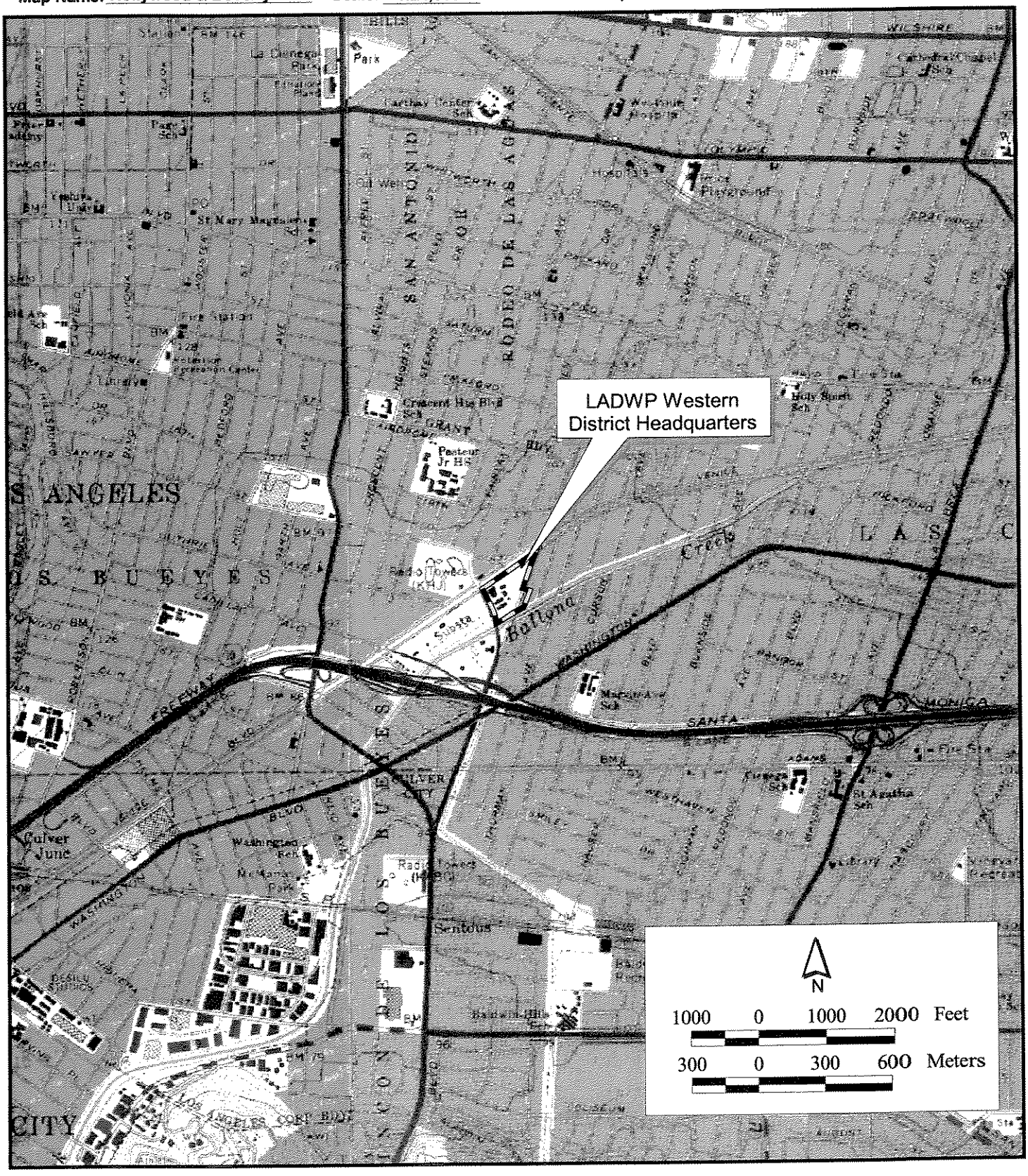
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI# _____
Trinomial _____

Page 18 of 18 *Resource Name or # (Assigned by recorder) : LADWP Western District Headquarters

*Map Name: Hollywood & Beverly Hills *Scale: 1:24,000 *Date of map: 1981



DPR 523J (1/95)

*Required information

APPENDIX C

NOISE IMPACT ANALYSIS

FINAL REPORT

WESTERN DISTRICT YARD RENOVATION PROJECT

NOISE IMPACT ANALYSIS

Department of Water and Power
City of Los Angeles
111 North Hope Street
Los Angeles, California 90012

March 2004

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1.0 INTRODUCTION AND ACOUSTICAL DEFINITIONS

1.1 INTRODUCTION

The Los Angeles Department of Water and Power (LADWP) operates the Western District Headquarters and Yard. This 7.9 acre site, acquired between 1940 and 1960, is located easterly of the intersection of Venice and Fairfax Boulevards in Los Angeles as shown on Figure 1. The entire location is considered the project site. It currently contains offices, shops, warehouses and storage buildings, and a yard associated with water operating facilities. The yard serves as a laydown area for materials and supplies storage, the parking area for heavy-duty special purpose trucks and machinery, and employee parking. From this location the LADWP services the area water conveyance and distribution system including the installation of new force mains, upgrading of existing pipelines, installation of fire hydrants, operation and maintenance of valves and regulators, and dispatch of emergency repair crews. This location also serves as the base for installation of local water service and meters. Approximately 120 personnel and 115 LADWP vehicles are based at this facility.

The proposed project is designed to improve the reliability and efficiency of LADWP services provided to the Western Service Area. The project includes demolition of the aging and deteriorating buildings and construction of replacement structures, including a new, relocated perimeter wall along Venice Boulevard. The process of demolition and reconstruction would occur in three phases beginning in 2004 with completion expected during 2009. The total square footage of existing structures (33,400) would increase to 62,000 square feet upon completion of the project. The overall size of the LADWP site is not planned to change. Although some generation of environmental noise is associated with existing operations at the site, the primary noise concern regarding the proposed project is the elevated intermittent noise resulting from substantial demolition and construction activities during an extended period.

To the west, the triangular shaped project site is bounded entirely by busy, primary streets; commercial uses are located directly north, thus project construction noise is not a concern in these directions. However, the site is bounded by noise-sensitive residential land uses on the east. This nearest group of residences is located approximately 100 feet easterly of the project's potentially closest construction activity. A smaller number of dwellings are located about 200 feet easterly of the proposed project's potentially closest construction activity. Additional residential uses are located southerly of the site across the Ballona Creek channel, where the nearest noise-sensitive receptors are located between 150 and 250 feet from the proposed project's construction activity. The topography of the area is relatively flat with the noise-sensitive receptors easterly of the project site and those across the Ballona Creek channel slightly below project grade.

Section 2 of this report discusses relevant applicable laws, ordinances, regulations or standards (LORS). Section 3 of this report describes the measurements of the existing ambient noise levels conducted at the nearest noise-sensitive receptors. Assessment of potential impacts is analyzed in Section 4. As appropriate, recommended noise abatement and mitigation measures are also presented. The 24-hour time format is used throughout the report.

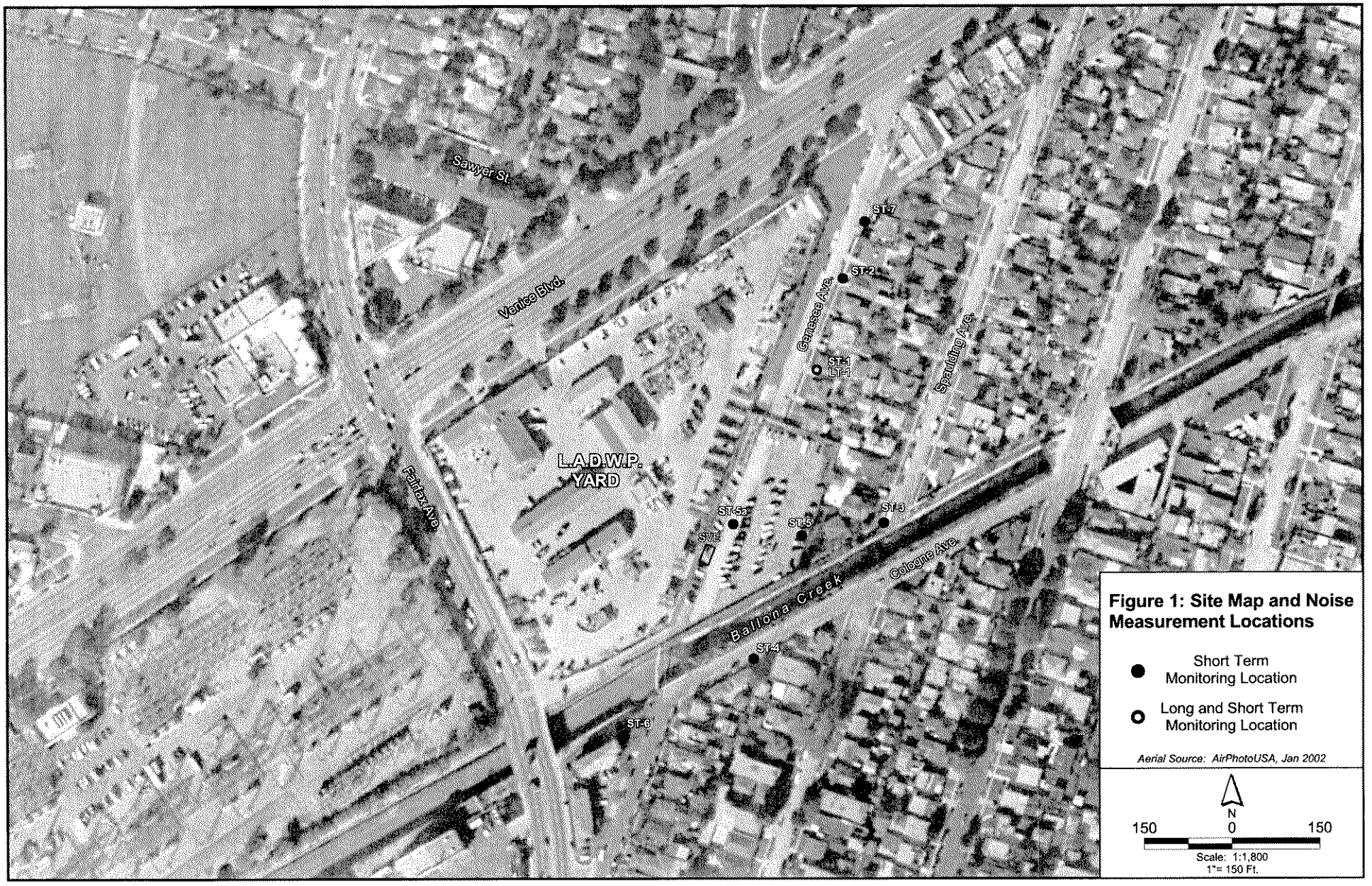

Figure 1: Site Map and Noise Measurement Locations

1.2 ACOUSTICAL DEFINITIONS

Sound levels are measured on a logarithmic scale in decibels, abbreviated as dB. The universal measure for environmental sound is the "A"-weighted sound level, abbreviated as dBA. "A" scale weighting is a "filter" or adjustment curve applied by the measuring instrument to shape the frequency content of the sound in a manner similar to the way the human ear perceives sound. "Noise" is defined as unwanted sound.

The ambient sound level is the existing sound level resulting from natural and mechanical sources, plus human activity, considered normally present in a particular area. The ambient noise level is composed of the cumulative sum of all noise sources, both near and far. Potential responses of persons to changes in the noise environment are usually assessed by evaluating the absolute noise level and differences between the existing and total predicted future and/or interim noise environments. The following relationships of perception and response to quantifiable noise increases are used as a basis for assessing potential effects of changes to long-term environmental noise levels:

- Except in a carefully controlled laboratory condition, a change of 1 dBA is very difficult to perceive.
- In the outside environment, a 3 dBA change is considered just perceptible.
- An increase of 5 dBA is considered readily perceptible and would generally result in a change in community response.
- A 10 dBA increase is perceived as a doubling in loudness and would likely result in a widespread community response.

As an example, a doubling of traffic volume (assuming speed and the mix of vehicle types remains constant) represents a doubling of sound energy yielding a 3 dBA increase. Thus, for an environment dominated by traffic noise, the volume of traffic must generally double for a noise level increase to be consistently perceived.

Because environmental noise varies with time, it is beneficial to define certain measurement terms that are used to characterize this fluctuating quantity. The true energy-average level over a specific period is defined as the Equivalent Sound Level, abbreviated as L_{eq}. The L_{eq} is the measured or (calculated) energy average sound pressure level occurring during a specified period that is equivalent to a perfectly constant sound pressure level containing the same acoustic energy occurring during a period of equal length. Thus, L_{eq} includes all constant sound and sporadic or transient events that have varying sound levels. L_{eq} is generally used to measure noise affecting sensitive receptors where the noise source itself is not of special concern during evening and nighttime hours, or where the noise is only generated during daytime hours such as with typical construction activities. Where there is concern about nighttime noise, time-weighted descriptors are more appropriately used as discussed below.

Using L_{eq} as a "building block", other descriptors of noise are commonly used to predict the average community reaction to adverse effects of environmental noise including traffic-generated and industrial noise. These descriptors include the Day-Night Average Noise Level (L_{dn}), and (in California) the Community Noise Equivalent Level (CNEL). Each of these descriptors uses units of dBA. Both L_{dn} and

CNEL noise metrics represent 24-hour periods and both apply a time-weighted factor designed to penalize noise events that occur during non-daytime hours, when relaxation and sleep disturbance is of more concern. In the case of CNEL, noise occurring during the daytime hours between 07:00 and 19:00 receives no penalty. Noise occurring from 19:00 to 22:00 (evening period) is penalized by adding 5 dB to the measured noise level, while noise occurring from 22:00 to 07:00 (nighttime period) is penalized by adding 10 dB to the measured level. L_{dn} differs from CNEL by adding only the 10 dB penalty for the nighttime period. Numerically, the two descriptors typically differ by only one decibel in most community noise environments. Either CNEL or L_{dn} may be used consistent with the state guideline for noise/land use compatibility planning purposes (State of California, General Plan Guidelines, November 1990). CNEL and L_{dn} are the predominant metrics used by local governments to describe noise environments and determine noise/land use compatibility within their jurisdictions, with the City of Los Angeles selecting the CNEL descriptor for use.

2.0 LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS)

This section identifies the applicable federal, state and local LORS.

2.1 FEDERAL

There are a number of laws and guidelines at the Federal level that direct the consideration of a broad range of noise issues. Some of these federal areas of concern are **not** directly related to the proposed project; however, several of the more significant documents are listed below for information:

- National Environmental Policy Act (42 U.S.C. 4321, et. seq.) (PL-91-190) (40 C.F.R. § 1506.5);
- Noise Control Act of 1972 (42 U.S.C. 4910);
- Environmental Protection Agency (EPA) recommendations on "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety", NTIS 550\9-74-004, USEPA, Washington, D.C., March 1974.
- Federal Highway Administration (FHWA) Noise Abatement Procedures (23 C.F.R. Part 772);
- Housing and Urban Development (HUD) Environmental Standards (24 C.F.R. Part 51);
- Occupational Safety and Health Administration (OSHA) Occupational Noise Exposure; Hearing Conservation Amendment (FR 48 (46), 9738--9785 (1983).

The U.S. EPA has not promulgated standards or regulations for environmental noise generated by operation and maintenance yards. However, as listed above, the EPA has published a guideline (EPA Levels Document, Report No. 556/9-74-664) containing recommendations for noise levels affecting residential land use of 55 dBA L_{dn} for outdoors and 45 dBA L_{dn} for indoors. The EPA is careful to stress that their recommendations contain a factor of safety and do not consider technical or economic feasibility issues, and therefore should not be construed as standards or regulations.

2.2 STATE OF CALIFORNIA

The State has enacted a broad-based environmental impact analysis and disclosure law (The California Environmental Quality Act of 1970, as Amended along with relevant Guidelines for implementation). This statute generally requires agencies that are considering discretionary actions to approve or deny a proposed project to first study, evaluate, and consider potential significant adverse and beneficial environmental effects (including noise) that may result from their action. The guidance provided by the Resources Agency generally take the form of questions about the potential effect of the project on the environment in each specific area of concern, in this case *noise and vibration* effects. The questions posed in the Guidelines are presented below. The standards of significance used for the evaluation of projects with less than regional effects are most often developed and adopted by the local agency. The standards of significance utilized by the City are presented in Section 2.3. With respect to environmental noise impact considerations required by CEQA, the potential for significant environmental impact arising from the project is evaluated based on the answers to the following questions (from the City's CEQA Checklist):

XI. NOISE – *Would the project result in:*	
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The responses to these questions and their evaluation are provided in Section 5.0 of this report.

The State has also adopted standards for the minimally acceptable interior noise level in multi-family dwellings resulting from the exterior noise environment (California Noise Insulation Standards, State Building Code, Part 2, Title 24, CCR).

Further, the State has enacted legislation regarding the requirement to consider environmental noise during the general planning process (California Code of Regulations, 65302(F)).

The California Department of Industrial Relations, Division of Occupational Safety and Health (Cal OSHA) (8 CCR, General Industrial Safety Orders, Article 105, Control of Noise Exposure, §5095, et seq.) to protect worker safety, requires implementation of engineering controls to reduce equipment noise emission where workers may be exposed to sound pressure levels of 90 dBA or greater from equipment noise. Where engineering and/or administrative controls are not feasible or practicable the use of Personal Protective Equipment (PPE) is required. Areas where a sound pressure level of 85 dBA is typically exceeded would be identified and signs would be posted indicating the potential noise hazard and requiring the use of hearing protection. A range of PPE for hearing protection shall be provided and worn.

2.3 LOCAL

The project site is located in the City of Los Angeles. The land use in the vicinity of the project site is a mixture of industrial/municipal, commercial, and residential. Because the nearest residential land uses are approximately 100 feet from potentially noisy project construction activity, LORS applicable to residential use are important.

The City of Los Angeles General Plan Noise Element indicates that residential use is generally compatible with ambient sound levels of up to 55 or 60 dBA CNEL and may be "Conditionally Acceptable" up to 65 dBA CNEL with some degree of noise abatement (e.g., closed windows, mechanical ventilation).

The City of Los Angeles has a very comprehensive Municipal Code containing numerous regulations. Most relevant to this project is SEC. 41.40 NOISE DUE TO CONSTRUCTION, EXCAVATION WORK WHEN PROHIBITED. This ordinance section regulates noisy construction activity by time-of-day restrictions. Unless prior special permission is granted by the Board of Police Commissioners, construction work "which makes loud noises to the disturbance of persons occupying sleeping quarters..." is prohibited between the hours of 9:00 P.M. and 7:00 A.M. of the following day. If necessary, there is an identified procedure for the granting of a variance (subsection (j) added by Ord. No. 174,207, Eff. 8/29/01.) for "...major public works construction by the City of Los Angeles and its proprietary Departments..." Another relevant Municipal Code section is SEC. 112.05 MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS. This section sets quantitative decibel limits on such tools used "Between the hours of 7:00 a.m. and 10:00 p.m. in any residential zone of the City or within 500 feet thereof..." The decibel limits are given for a distance of 50 feet from the equipment or tool. Subsection (a) specifies a limit of "75 dB(A) for construction...machinery including crawler-tractors, dozers, loaders... power shovels, cranes, derricks, motor-graders, trucks, trenchers, ...compactors, scrapers,... pavement breakers, compressors, and pneumatic or other powered equipment;" This is very likely the same list of equipment that would be working on this project. This noise limit is very stringent and it is not technically feasible in many cases to comply with this limit. This is discussed below in Section 4.0. Fortunately, the ordinance does provide that it "shall not apply" where the "person charged with a violation of this section" can prove technical unfeasibility in accord with the guidance provided in the ordinance section.

The City of Los Angeles has established CEQA significance thresholds for noise in the document entitled Draft Los Angeles CEQA Threshold Guide. The following are the City's thresholds applicable to this project that correspond to the questions posed by the CEQA Guidelines Checklist.

a. The project would generate excessive noise levels and be inconsistent with applicable Laws, Ordinances, Regulations, and Standards of the City and relevant guidelines of other agencies.

b. The City's threshold for construction vibration and groundborne noise impact is derived from the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* Guidance Manual (DOT-T-95-16, April 1995). Based on FTA published data, ground vibration generated by a large bulldozer typically attenuates to a level considered acceptable for residential uses beyond a distance of about 60 feet. Thus, if project equipment capable of generating substantial ground vibration were to be used within 60 feet of sensitive uses an impact could occur.

c. The project would not result in a *permanent* noise increase, thus a threshold of significance is not applicable.

d. For substantial temporary or periodic noise increases due to construction activities, the City considers a project to result in a significant impact if:

   - Construction activities, lasting more than one day, would exceed existing ambient exterior noise levels by 10 dBA CNEL or more at noise-sensitive land uses.
   - Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA CNEL or more at a noise-sensitive use; or

- Construction activities would exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9 p.m. and 7 a.m. Monday through Friday, before 8 a.m. or after 6 p.m. on Saturday, or at anytime on Sunday;
- The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to a level at or above 70 dBA-CNEL at single-family residences;
- The project causes the ambient noise level in CNEL measured at the property line of affected uses to increase by 5 dBA or more.

e. For projects located within an airport land use plan area or within two miles of a public use airport, the project would expose people residing or working in the project area to excessive noise levels.

f. For projects within the vicinity of a private airstrip, the project would expose people residing or working in the project area to excessive noise levels.

3.0 AMBIENT NOISE SURVEY

In order to evaluate existing sound levels and assess any potential project noise impacts on the surrounding community, a sound level survey was conducted during June 4 and 5, 2003. Short-term (attended; duration typically less than one hour) and long-term (unattended; typically 24 or more hours duration) sound level measurements were conducted at noise-sensitive receptors adjacent to the easterly and southerly boundaries of the project site as shown in Figure 1.

Noise-sensitive receptors (residences) that would be closest to future project construction are located 100 feet easterly of the project site along Genesee Avenue. These residences face the LADWP Yard and are parallel with noise monitoring location LT-1. The existing LADWP site perimeter wall provides partial noise shielding except where the northerly (emergency access) gate to the LADWP employee parking area is located. Additional residences, whose rear property lines abut the LADWP employee parking area, are located on Spaulding Avenue just north of Ballona Creek. These residences are approximately 200 feet from potential project construction activity. Their ground level areas have a partially obstructed line-of-site to the LADWP Yard due to perimeter walls and slight elevation differences. Their second stories have an unobstructed view toward the LADWP Yard. Noise-sensitive receptors are also located southerly of the project site across the Ballona Creek channel. These dwellings are approximately 150 to 250 feet from potential project construction activity. Their ground level areas have a partially obstructed line-of-sight to the LADWP construction area due to topography and existing walls, with a less restricted view from upper stories.

Short-term sound level measurements were conducted with a Brüel & Kjær Sound Level Meter (SLM) Type 2231. This instrument is classified as Type 1 (Precision Grade) in accord with ANSI standards. A long-term unattended measurement was also conducted. A Community Noise Analyzer (CNA) measured noise levels continuously, in 15-minute intervals, during a 29-hour period from June 4 to June 5, 2003. The monitoring location designated Long-Term 1 (LT-1) was located on an end fence-post in the frontyard of 2024 Genesee Avenue adjacent to 2030 Genesee Avenue. This location is approximately mid-block, easterly of the northern portion of the project site. The CNA used for the long-term noise measurement was a Type 2 (Engineering Grade) Metrosonics dB308.

The sound measuring instruments used for the survey were set to the Slow time response and the A-weighted decibel (dBA) scale for all of the noise measurements. To ensure accuracy, the laboratory calibration of the instruments was field checked before and after each measurement period. The accuracy of the acoustical calibrator is maintained through a program established through the manufacturer and traceable to the National Institute of Standards and Technology. The sound measurement instruments meet the requirements of the American National Standard S 1.4-1983 and the International Electrotechnical Commission Publications 804 and 651. The calibration certificates of the equipment used in the ambient noise survey are contained in Attachment A. The microphone height was five feet above the ground and the microphone was equipped with a windscreen for each measurement.

Weather conditions during the survey period were mostly overcast with some partial sunshine and partly cloudy skies. Temperature, relative humidity and wind were measured with a thermo-hygrometer

(Mannix Model CMM880) and a three-cup anemometer (Maximum Model DIC) during the attended short-term measurements. Air temperatures varied from 71 degrees Fahrenheit (°F) to 77 °F. Relative humidity varied between 40 percent to 54 percent and winds varied from zero to seven miles per hour, from the southerly to westerly direction. Meteorological conditions were conducive to accurate noise measurements.

Physical observations of the predominant noise sources were noted during the field measurements. The noise sources in the project area typically included traffic, rustling leaves, birds, aircraft, and occasional noise from the Western District Yard. A Soil Vapor Extraction Unit (SVE) currently exists and operates in the Employee Parking Area of the YARD, but it is not a part of or a consequence of the project. Figure 2 shows the hourly L_{eq} sound levels measured at the Long-Term (LT-1) monitoring location. The measured L_{eq} during the 28.5 hour period at LT-1 was 55.5 dBA. The CNEL, calculated from the hourly L_{eq}'s, was 61 dBA. These L_{eq} and CNEL values are very representative of all the residences along Genesee Avenue. Other residential areas measured in the vicinity of the Yard appear to have slightly higher ambient community noise levels. The results of the attended short-term sound level measurements are summarized in Table 1. The field data sheets are provided in Attachment B.

Figure 2. Measured Hourly Equivalent Sound Levels ($L_{eq(h)}$), June 4-5, 2003

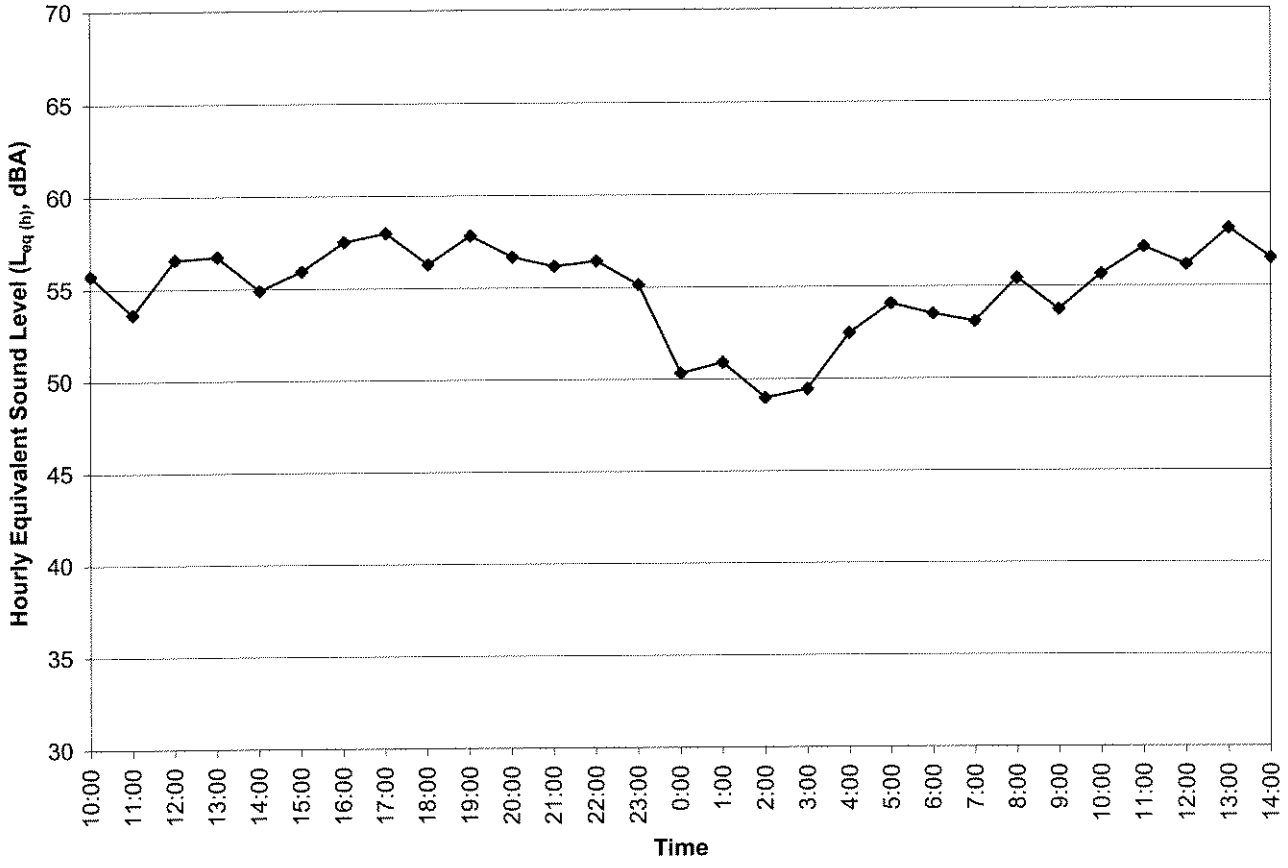

Table 1: Short-Term Sound Level Measurement Results

Measurement ID	Measurement Location	Measurement Period			Noise Sources	Measurement Results, dBA					
		Date	Start Time	Duration (minutes)		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}
ST-1	Between 2024 and 2030 Genesee Avenue PL, at building line setback.	6/4/03	10:00	15	Distant traffic, distant aircraft, distant landscaping, SVE* and grinder from LADWP Yard.	54.4	58.8	41.9	52.3	53.8	56.8
ST-2	2010 Genesee Avenue, on front sidewalk.	6/4/03	11:00	15	Traffic, birds, distant aircraft, distant back-up alarms - some Yard noise.	53.4	60.4	49.9	51.3	52.8	54.8
ST-3	In front of 5705 Cologne Avenue.	6/4/03	11:35	10	Traffic, birds, distant back-up alarms.	54.2	65.4	49.3	50.8	52.8	56.8
ST-4	Side yard of 5720 Cologne Avenue.	6/4/03	12:05	15	Traffic, aircraft, birds, distant back-up alarms, SVE* at Yard.	58.6	72.2	51.7	55.3	57.3	60.3
ST-5	East fencline of LADWP employee parking lot.	6/4/03	12:40	3	Primarily SVE* (155 feet from measurement location)	57.9	61.4	56.4	56.8	57.8	58.8
ST-6	Grass area at 2211 Genesee Avenue.	6/4/03	14:45	15	Traffic, birds, back-up alarm.	59.9	72.1	45.5	56.8	59.3	61.8
ST-7	In front of 2000 Genesee Avenue	6/4/03	15:10	10	Traffic, birds, distant back-up alarms, windchimes.	56.5	65.6	51.7	53.8	55.8	58.8

Note: SVE = Soil Vapor Extraction Unit

4.0 NOISE PREDICTION MODELING OF CONSTRUCTION NOISE

Noise related to construction of the project is of paramount importance. The project's construction noise is essentially the only potentially significant noise impact that might result from the project.

Because of the nature of the project, any adverse changes in the long-term community noise environment due to ongoing "operations" aspects of the Yard are unlikely. Minor reductions in noise emission could result from the construction of new, more-enclosed shop areas. The measurement of existing ambient noise included environmental noise attributable to the Yard. The noise from the SVE was also included in the ambient measurements. Thus, modeling of future "operations" noise was considered unnecessary.

Various construction phases are expected to occur *intermittently* during an estimated five-year period from approximately 2004 through 2009. The intermittent nature of the project's noise is an important factor in the determination of potential adverse impact. There would be periods of noise related to construction activity inter-mixed with periods of no construction noise during the span of the project. Either of two professionally accepted methods is typically used to characterize and predict the noise and potential noise impact that may result from a project's construction. Because the potential noise impacts from this project are entirely related to construction activities, the information presented herein and the noise impact analysis/mitigation used both methods. Noise produced by construction equipment required to build this project would occur with varying intensity and duration during the various phases of construction.

One noise prediction method lists the noise emissions from various individual pieces of construction equipment and/or vehicles. This information is helpful in predicting the specific noise from one type of source (e.g., bulldozer or building crane) but is less instructive when predicting or describing the noise from a particular construction "phase" or activity (e.g., excavation or building erection). Table 2 "Construction Equipment Noise Ranges" presents typical construction noise levels for various pieces of construction equipment at a distance of 15 meters (50 feet). Noise levels generated by construction equipment (or by any "point source") decrease at a rate of approximately 6 dBA per doubling of distance away from the source (Diehl, 1973). Therefore, at a distance of 30 meters or 100 feet, the noise levels would be about 6 dBA lower than at the 15-meter reference distance. Similarly, at a distance of 60 meters (200 feet) the noise levels would be approximately 12 dBA lower than at the 15-meter reference distance. Additional reduction of construction noise can result from intervening structures or topographical features that act as noise barriers. For example, the LADWP site has substantial (acoustically and structurally) masonry perimeter walls that act as noise barriers. Also, at distances greater than about 300 feet, excess attenuation results from absorption of sound by air, cancellation of sound by reflection off "soft" surfaces such as grass, and scattering of sound by atmospheric effects (temperature and wind currents) within a few hundred feet above the ground surface.

Table 2. Noise Level Ranges of Typical Construction Equipment*

Equipment	Levels in dBA at 50 feet*
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammer	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Pile Driving (peaks)	95-107
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

***Machinery equipped with noise control devices or other noise-reducing design features generates a lower level of emissions as that shown in this table.**

Source: EPA, Noise from Construction equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

The second, and typically more useful, method of quantifying and predicting project construction noise is to assess noise generation that is associated with a phase of construction activity. The construction equipment most often associated with the activity is assumed to be on-site and operating. Allowances are calculated for the typical "duty cycle" and usage pattern of certain kinds of construction equipment because not all construction equipment is operated at full power (with full noise output) all the time. The rate of attenuation of sound with distance and the extra noise reduction effects of air, barriers, ground type, etc. are the same as with individual pieces of construction equipment/vehicles and are calculated identically.

Similar to the noise level listing of individual pieces of equipment, the "construction phase" method of noise analysis also uses data from the same extensive field study of various types of construction projects including industrial projects (US EPA, Bolt, Beranek and Newman, 1971). Average noise levels associated with various construction phases where all pertinent equipment is present and operating, at a reference distance of 50 feet, are shown in Table 3. Because of vehicle technology improvements and more strict noise regulations since the EPA study was published, this analysis conservatively uses the average noise levels shown in Table 3 for the loudest construction phase. This information indicates that the overall average noise level generated on a construction site could be 89 dBA at a distance of 50 feet (15m) for the loudest construction phase. Construction activity during other phases would be quieter as shown in the table. The instantaneous magnitude of construction noise emission varies over time because construction activity is intermittent and power demands on construction equipment (and the resulting noise output) are cyclical as previously stated.

Table 3. Typical Noise Levels from Construction Activities for Industrial Projects

Construction Activity	Average Sound Level at 50 feet (dBA L_{eq}) [1]	Standard Deviation (dB)
Ground Clearing	84	6
Excavation	89	7
Foundations	78	3
Erection	85	7
Finishing	89	6

Source: Bolt, Beranek and Newman (Prepared under contract for the U.S. Environmental Protection Agency), Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, December 31, 1971.

[1] Sound level with all pertinent equipment operating.

Accounting only for attenuation of sound by distance (6 dBA per doubling of distance) the construction noise level would be reduced to 83 dBA L_{eq} at the nearest residence (100 feet) and 77 dBA L_{eq} at a point 200 feet distant from the construction activity. Excess attenuation due to air absorption (1 dBA per 1,000 feet) would not be a factor at these distances. However, noise reduction due to existing shielding from barriers/topography would be substantial. This noise reduction effect varies with the specific geometric relationship among the noise *source*, the *barrier*, and the *receptor*. For surface construction activity at the Yard site, the attenuating effect (properly termed *Insertion Loss*) of the walls would vary slightly. It would typically be 10 to 11 decibels when construction machinery is closer to the wall (e.g., where the nearest residences are within 100 feet) and would be slightly less at 7 to 8 decibels when the construction activity and/or the receptor is farther away from the construction activity. For example, in the maximum noise case with construction equipment 100 feet from the nearest residences, the predicted construction sound level could be 83 dBA L_{eq}. This includes the noise reduction due to distance, less the 11 dBA insertion loss of the perimeter wall, to yield an expected construction noise level of 72 dBA L_{eq} during the noisiest-construction-phase daytime activity. At a location 200 feet from the same noisy activity, the predicted construction sound level could be 77 dBA L_{eq}. This also includes the distance reduction, less the 8 dBA insertion loss of the perimeter wall, to yield an expected construction noise level of 69 dBA L_{eq} during the noisiest-construction-phase daytime activity. Based on an evaluation of the proposed layout of new buildings on the site, it is likely that sustained construction activity would generally be at least 200 feet from the nearest residence.

Thus, for the expected maximum likely case, a temporary construction noise increase could be 12 dBA L_{eq} only during some daytime hours and less during others. This level of daytime construction noise would not violate the City of Los Angeles Noise Ordinance. Also, the temporary and intermittent increase above ambient daytime noise level would be less than the 15 dBA L_{eq} considered as the threshold of significance for many federal (e.g., Bureau of Reclamation) construction projects conducted in the vicinity of residential land use using conventional construction techniques (i.e., no pile driving, blasting, etc.). The 69 dBA L_{eq} absolute noise level is also well below (perceived as one-half as loud as) the 80 dBA L_{eq} considered permissible for noise generated by construction of transit projects as found in the *Noise and Vibration Impact Assessment Guidelines* adopted by the Federal Transit Administration (1995) and many local Metropolitan Planning Organizations (MPO).

5.0 ENVIRONMENTAL CONSEQUENCES

This section addresses operational noise, construction noise and noise control measures in the first three subsections. Cumulative project noise impacts are discussed in Section 5.4.

5.1 WATER SERVICES OPERATIONAL NOISE

As previously discussed, any adverse change in the long-term community noise environment due to ongoing "operations" aspects of the Yard are unlikely. Minor reductions in noise emission could actually result from the construction of new more-enclosed shop areas. Thus, no adverse noise impact would result from future, water services-related, non-construction activities associated with the project.

5.2 CONSTRUCTION PHASE NOISE

As previously indicated the construction scenario is expected to last approximately five years commencing during 2004 and, although the construction schedule could change depending on various factors, reaching completion in 2009. Based on the five year construction schedule, the typical phases of construction (along with a "demolition" phase that generates no more noise than 'excavation" or "finishing") would occur in cycles for each old building replaced by a new one. During these activities a varying number of pieces of construction equipment and personnel would be on site, resulting in varying levels of construction noise. Although the construction schedule is based on a 40-hour workweek, it could vary from 8-10 hours per day, 4-6 days per week depending on schedule status. It is assumed that the typical construction workday would take place sometime between 07:00 and 16:00, Monday through Friday, but in any case would comply with the requirements of the City of Los Angeles Noise Ordinance.

Construction Traffic. Construction of the project would require the delivery of material and equipment to the site and possible export of excavation spoils from the site by heavy truck. Due to the high proportion and volume of existing heavy truck traffic on Fairfax Avenue and Venice Boulevard, and the degree to which heavy equipment and trucks currently use the Yard and adjacent similar facilities, the additional project construction traffic would not perceptibly change the existing noise environment. Therefore, project construction traffic would not result in noise impact. The noise created by construction worker private vehicles traveling to and from the site would also contribute imperceptibly to the noise environment of any adjacent noise-sensitive use. Parking of construction worker's private vehicles would be restricted to areas of the Yard that are *not* immediately adjacent to existing residences. Because there would be no impact during the highest rate of construction traffic, there would be no traffic noise impact during the other stages of construction. No additional mitigation is required.

Construction. Construction noise associated with the project would result in moderate temporary and periodic increases of existing ambient noise levels. As discussed in Section 4.0, the expected temporary construction noise increase would be about 12 dBA L_{eq} worst-case. This would occur only during some daytime hours and a lesser increase would occur during other hours. The worst-case level of daytime construction noise would not violate the City of Los Angeles Noise Ordinance. The anticipated temporary and intermittent increase above ambient daytime noise level is less than the 15 dBA L_{eq} considered by

several agencies as the threshold of significance for temporary conventional construction noise. Also, the 69 dBA L_{eq} typical worst-case noise level is well below (perceived as one-half as loud as) the 80 dBA L_{eq} considered permissible for noise generated by construction of municipal projects including transit project construction conducted in proximity to noise-sensitive uses such as residential.

The construction-noise CNEL (worst-case based on construction noise of 69 dBA L_{eq} for 8 continuous daytime hours per day) would be 64 dBA CNEL. This would increase the existing measured CNEL of 61 dBA by slightly less than 5 dBA CNEL. Thus, project construction noise would be just below the City of Los Angeles threshold of significance and would not create a significant construction noise impact.

A list of *required* "Best Management Practices" for construction noise abatement and minimization is provided in Section 6.2 of this report. These practices would assist in achieving the typical noise emission characteristics of the equipment and processes expected to be used to construct this project and upon which this impact analysis was based. Implementation of these practices would avoid significant adverse noise impact and no additional construction noise mitigation measures are required for community noise increases pursuant to CEQA. Also, implementation of the required practices along with some or all of the *recommended* noise control practices listed in Section 6.2 would provide a greater margin by which all noise standards may be satisfied.

Based upon the construction noise data, noise levels on the construction site could exceed federal standards for occupational noise exposure (OSHA) and California Department of Industrial Relations, Division of Occupational Safety and Health (Cal OSHA) regulations (8 CCR, General Industrial Safety Orders, Article 105, Control of Noise Exposure, §5095, et seq.) for worker noise exposure. Compliance with Cal/OSHA regulations would ensure that construction personnel are adequately protected from potential noise hazards and would also comply with federal regulations. The noise exposure level to protect hearing of workers is regulated at 90 dBA Time-Weighted Average (TWA) over an eight-hour work shift. Areas above 85 dBA sound pressure level will be posted as high noise level areas. The project owner and contractor may each have employees potentially exposed to hazardous noise. Hearing protection would be provided by respective employers and shall be required to be worn by respective employees. The project owner would implement or require implementation of a hearing conservation program for applicable employees as outlined in Cal/OSHA regulations.

Special Construction Techniques. Pile driving, blasting, aerial materials delivery, and/or other high noise emission specialized construction activity is not anticipated to be used on this project. Thus, no noise impacts from or required mitigation for this type activity are contemplated.

Off-site Construction Area Noise. No off-site construction parking or laydown areas are planned for this project. Thus, no noise impacts from or required mitigation for this type activity are contemplated.

5.3 Responses to CEQA Checklist Questions and Environmental Impact Significance Assessment for the Project

Based on an evaluation of the project's potential noise characteristics with respect to the relevant thresholds of significance, this project, with incorporation of the recommended best management

practices for construction noise minimization, would not have a significant adverse effect on the noise environment for the following reasons:

a. The project would not generate excessive noise levels and would be consistent with applicable Laws, Ordinances, Regulations, and Standards of the City and relevant guidelines of other agencies.

b. No high-impact sources of groundborne vibration such as pile driving would be used to construct the proposed project. However, grading and removal of concrete would occur. Based on data published in the *Transit Noise and Vibration Impact Assessment Final Report* (Federal Transit Administration 1995), ground vibration generated by a large bulldozer typically attenuates to a level considered acceptable for residential uses beyond a distance of approximately 60 feet. The project would not expose people to excessive groundborne vibration or noise because there are no vibration-sensitive uses within 100 feet of the proposed construction activity and no heavy equipment use that is likely to generate excessive ground vibration would occur within 100 feet of residences. Thus, no impacts would occur and no mitigation is required.

c. The project would not increase long-term operational activities/noise. Due to the nature of the project some noise emissions from existing operations may decrease; therefore, the project would not cause a substantial permanent increase in noise. Thus, no impacts are anticipated and no mitigation is required.

d. The project would cause substantial temporary or periodic increases in ambient noise. Construction activities would not exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9 p.m. and 7 a.m. Monday through Friday, before 8 a.m. or after 6 p.m. on Saturday, or at anytime on Sunday. The project would not cause the ambient CNEL noise level measured at the property line of affected uses to increase by 3 dBA CNEL to a level at or above 70 dBA-CNEL on residential properties. The project would not cause the ambient CNEL noise level measured at the property line of affected uses to increase by 5 dBA or more. Noise impact will be less than significant with incorporation of best management practices for construction noise minimization into the project description as discussed in Section 6.0.

e. The proposed project is not located within an airport land use plan or within 2 miles of a public use airport. The closest airports to the Yard include Los Angeles International Airport (LAX) located approximately 5.5 miles northerly and Santa Monica Municipal Airport located approximately 4 miles easterly of the project. Thus, no impact would occur and no mitigation is required.

f. The proposed project is not located within the vicinity of a private airstrip. The project would not have the potential to expose people who do live near an airstrip to excessive noise levels. Thus, no impact would occur and no mitigation is required.

5.4 Cumulative Noise Impact

There are no other known sources of non-project noise close enough to the project site to result in a significant adverse cumulative noise impact.

6.0 NOISE CONTROL MITIGATION AND ABATEMENT MEASURES

6.1 FACILITY OPERATIONS

Areas above 85 dBA shall be posted as high noise level areas and hearing protection shall be *required* as outlined in Cal/OSHA regulations. No other mitigation measures are required. However, best management practices for minimizing noise emissions are *recommended* as follows where practicable:

1. All noise-producing equipment and vehicles using internal combustion engines operating on the Yard premises shall be equipped with mufflers, air-inlet silencers where appropriate, and any other original equipment shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
2. All mobile or fixed noise-producing equipment, which is regulated for noise output by a local, state, or federal agency, shall comply with such regulation while operating at the Yard.
3. Material stockpiles requiring frequent access by heavy equipment, and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.

6.2 FACILITY CONSTRUCTION

Implementation of the following noise abatement actions for construction noise minimization is *required* to avoid significant impacts to noise-sensitive receptors and avoid unnecessary annoyance from construction noise:

1. Comply with the City of Los Angeles CEQA Threshold Guide, such that project construction activities would not exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9 p.m. and 7 a.m. Monday through Friday, before 8 a.m. or after 6 p.m. on Saturday, or at anytime on Sunday.
2. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features kept in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
3. All mobile or fixed noise-producing equipment used on the project, which is regulated for noise output by a local, state, or federal agency, shall comply with such regulation while in the course of project activity at the Yard.
4. All noise producing equipment in use on the project site shall be operated in the quietest manner possible. The equipment operator shall also avoid unnecessary equipment idling for long periods.
5. The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.
6. Use portable noise screens to provide additional shielding for jack hammering or other similar very noisy type activities when work is close to noise-sensitive areas.

7. Post areas with continuous, temporary, or intermittent noise levels above 85 dBA sound pressure level as potential noise hazard areas and require the wearing of hearing protection by all persons entering these areas during noise producing activity.

   Consideration and implementation of the following Best Management Practices for construction noise minimization prior to project construction, as necessary for each project component, is *recommended* to avoid impacts to noise-sensitive receptors and avoid unnecessary annoyance from construction noise:

8. The construction contractor should implement a noise awareness program for construction workers.
9. Use electrically powered equipment instead of pneumatic or internal combustion powered equipment, where feasible.
10. Locate material stockpiles and mobile heavy equipment staging, parking, and maintenance areas, and construction worker parking as far as practicable from noise-sensitive receptors.
11. Establish and enforce Yard speed limits during the construction period.
12. No project-related public address, two-way radio, or music system shall be audible at any adjacent noise-sensitive use.
13. The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the LADWP shall be established prior to construction commencement that would allow for resolution of noise problems that cannot be immediately solved by the site supervisor.
14. The contractor shall develop a project noise control plan, which shall have been approved and implemented prior to commencement of any project construction activity.
15. Noise control features and plans shall be reviewed and approved by a noise control engineering professional.
16. Offer contract incentives to the construction contractor to minimize or eliminate noise complaints resulting from project activities where project construction could result in significant noise impacts.
17. Consider erection of temporary soundwall barriers where project activity is unavoidably close to noise-sensitive receptors.
18. Planting of trees and shrubbery while useful for visual screening is not an effective noise control mechanism and is not considered a noise control or mitigation measure for noise impacts.

6.3 CUMULATIVE IMPACT

As previously stated, there are no other known sources of non-project noise close enough to the project site to result in a significant adverse cumulative noise impact; therefore, no additional noise abatement or mitigation is necessary.

7.0 STUDY PERSONNEL & LIMITATIONS

Mr. Rob Greene conducted the environmental noise survey and prepared this noise impact assessment. He is Vice President, Noise and Vibration and a Principal Scientist in URS's Environmental Sciences Practice. Mr. Greene is a Board-Certified Member of the Institute of Noise Control Engineering of the United States (No. 84004), a licensed Acoustical Consultant by County of Orange (No. 10104), a Certified Environmental Consultant (Air & Noise) by County of San Diego, and OSHA 29CFR 1910.120 Worker and Management/Supervisor Certified. He was appointed as an expert specialist in construction noise by the US Department of Interior to assist their Bureau of Reclamation in evaluating, measuring, and predicting conventional and specialized construction noise for major projects. During his more than 28 years practice in acoustics and noise control engineering, Mr. Greene has placed considerable emphasis on the study of surface transportation and construction noise/vibration and the design and evaluation of control methods. He has measured and evaluated the noise from standard and specialized construction equipment and vehicles for excavation, tunneling, deep-dynamic-compaction, blasting, drilling, and driven pile projects. Ms. Rachel Pirie, INCE, Assistant Project Engineer, assisted with field data reduction and report preparation.

The opinions and recommendations presented herein are based in part upon field measurements and observations of what is believed to be typical and representative conditions of normal industrial, motor vehicle and community activity, and URS Corporation's understanding of the project as presented in this report. The noise measurements and analyses were conducted using the professional standard of care as practiced in the industry and are representative of the activity being measured as influenced by environmental conditions existing during the measurement periods. Because of the variability of factors not within the control of the investigator, including but not limited to environmental conditions, no warranty can be made that the exact community noise, traffic, or activity levels would be present or duplicated by subsequent field measurements. However, for similar climatic and seasonal conditions, intensity of community activity and traffic, and Yard activity, the measured noise levels would be very similar to those presented and discussed herein.

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Appendix A
Calibration Records

CERTIFICATE OF CONFORMANCE
10538-1
FOR BRÜEL & KJÆR INTERGRATING SOUND LEVEL METER

Model **2231**

Serial No. **1413404**
Id. No. **N/A**

Customer: **URS Greiner,**
Santa Ana, CA 92705

P.O. # **Verbal**

was tested and met factory specifications
according to the Referenced Test Procedure

on **28 March, 2002** **BY** **HAROLD LYNCH**
Service Manager

As received condition: Within Specification.
Re-calibration due on: **28 March, 2004**

Certified References*

Mfg.	Type	Serial No.	Date Due
HP	3458A	2823A07179	02 AUG 2002
B&K	4165	1430369	11 NOV 2002
B&K	111284	4	17 APR 2002

Performed in Compliance with ANSI, NCSL Z-540-1 (which also covers MIL STD 45662A)
*References are traceable to NIST (National Institute of Standards and Technology).

Reference Test Procedure: **2231**

Brüel & Kjær Factory Service Instructions: **2231** Rev. Oct 1990

Temperature	Relative Humidity	Barometric Pressure
23° C	**33 %**	**989.08** hPa

Signed: Harold Lynch

ODIN METROLOGY, INC.
CALIBRATION OF BRÜEL & KJÆR INSTRUMENTS
3533 OLD CONEJO ROAD; SUITE 125 THOUSAND OAKS CA 91320
PHONE: (805) 375-0830 FAX: (805) 375-0405

CERTIFICATE OF CALIBRATION FOR BRÜEL & KJÆR

Sound Level Calibrator Type 4231

The Sound Pressure Level has been measured by comparison with Standard Reference Pistonphone.

Type 4220 serial No. **1510240** and
Type 4220 serial No. **1476021**

Calibrated by: **TS** (BRÜEL & KJÆR)
Date of calibration: **10 AUG 2002**
Re-calibration due : **10 AUG 2003**

The calibrator type **4231**

Serial number **1850301**
ID number **N/A**

has been found to be within the specifications listed below.
Sound Pressure Level produced in the coupler terminated by a loading volume of 1.333 cm^3:
94.0 dB ± 0.2 dB
Level step: SPL increase of: **20 dB ± 0.1 dB**
Frequency: **1000 Hz ± 0.1 %**
Distortion: **< 1%**

For: **URS**
Santa Ana, CA 92705

Certificate: **11448-1** PO #: **Letter**

CONDITION OF TEST

Ambient Pressure:	**990.15**	hPa
Temperature	**23°**	C
Relative Humidity	**36**	%
Date of Calibration	**13 APR 2003**	
Re-calibration due on	**13 APR 2004**	

Calibration procedure: Brüel & Kjær 4231, Rev. 13 AUG 2001

PERFORMANCE AS RECEIVED:

Frequency	**999.80**	Hz
SPL	**93.95**	dB
SPL + 20 dB	**113.96**	dB
Distortion (at 94 dB)	**+0.4**	%
Battery voltage	**1.49**	Volt

Was frequency and SPL adjusted for improvement? **No!**
Was battery replaced with new alkaline type? **Yes!**

UNCERTAINTY OF MEASUREMENT:

A: Estimated Uncertainty of comparison:+/-0.09 dB at 99 % Confidence Level
B: Estimated Uncertainty of Ref. 4220: +/-0.09 dB at 99 % Confidence Level
C: Total Uncertainty : 0.13 dB (calculated as the Square root of the summed squares of a and b) at 99 % Confidence Level

FINAL PERFORMANCE:

Frequency	**999.80**	Hz
SPL	**93.95**	dB
SPL + 20 dB	**113.96**	dB
Distortion (at 94 dB)	**+0.4**	%

Note: This calibrator was **within** Mfg. Specifications as received.

Performed on a test system which operates in compliance with ANSI/ NCSL Z540-1.
Reference standards pistonphones calibrated traceable to NIST with, NIST test no.822/265357-01, D1164

Calibration performed by:
Torben Ehlert, Quality Assurance Manager

ODIN METROLOGY, INC.
CALIBRATION OF BRÜEL & KJÆR INSTRUMENTS
3533 OLD CONEJO ROAD, SUITE # 125
THOUSAND OAKS, CA 91320
PHONE: (805) 375-0830 FAX: (805) 375-0405

Excalibur Engineering
11 Musick
Irvine, CA 92618
Phone : (949) 454-6603
Fax : (949) 454-6642

Certificate Of Calibration

Customer	URS CORPORATION	**Dept.**	N/A
Report #	25584-1	**Bar Code #**	
Date Received	THURSDAY, MARCH 28, 2002	**P.O. #**	99-00020057.61REG
Manufacturer	METROSONIC	**Serial #**	3068
Model #	DB308	**Asset #**	NAN
Description	DOSIMETER		

Calibration Information

Date Calibrated	4/3/2002	**Calibration Due Date**	4/3/2004	**Calibration Interval**	24
Maintenance Procedure	4226				
Temperature	22 ° C	**Humidity**	44 %	**Calibration Performed By**	7
Accuracy	ANSI TYPE 2				

Condition Received

Received In Tolerance

Remarks UNIT MEETS ANSI TYPE 2 SPECIFICATIONS UNDER LABRATORY CONDITIONS.

Condition Returned

Returned In Tolerance

Remarks

Standards Employed

ID #	Manufacturer	Model #	Description	Calibration Expires
878	BRUEL & KJAER	4226	SLM CALIBRATOR	7/20/02

Excalibur Engineering, Inc. certifies that the instrument specified above meets the manufacturer's specifications and has been calibrated using standards and instruments also listed above whose accuracies are traceable to the National Institute of Standards and Technology (NIST), and the calibration systems and records are in compliance to ISO-10012 and ANSI Z540-1-1994.

EEQA 4

APR 0 5 2002

Approved By

Excalibur Engineering
11 Musick
Irvine, CA 92618
Phone : (949) 454-6603
Fax : (949) 454-6642

Certificate Of Calibration

Customer	URS CORPORATION	**Dept.**	N/A
Report #	25584-2	**Bar Code #**	
Date Received	THURSDAY, MARCH 28, 2002	**P.O. #**	99-00020057.61REG
Manufacturer	METROSONIC	**Serial #**	2881
Model #	DB308	**Asset #**	NAN
Description	DOSIMETER		

Calibration Information

Date Calibrated 4/3/2002 **Calibration Due Date** 4/3/2004 **Calibration Interval** 24

Maintenance Procedure 4226

Temperature 22 ° C **Humidity** 44 % **Calibration Performed By** 7

Accuracy ANSI TYPE 2

Condition Received

Received In Tolerance

Remarks DEAD BATTERY. UNIT MEETS ANSI TYPE 2 SPECIFICATIONS UNDER LABRATORY CONDITIONS.

Condition Returned

Returned In Tolerance

Remarks REPLACED BATTERY.

Standards Employed

ID #	Manufacturer	Model #	Description	Calibration Expires
878	BRUEL & KJAER	4226	SLM CALIBRATOR	7/20/02

Excalibur Engineering, Inc. certifies that the instrument specified above meets the manufacturer's specifications and has been calibrated using standards and instruments also listed above whose accuracies are traceable to the National Institute of Standards and Technology (NIST), and the calibration systems and records are in compliance to ISO-10012 and ANSI Z540-1-1994.

APR 0 5 2002

Approved By

Excalibur Engineering
11 Musick
Irvine, CA 92618
Phone : (949) 454-6603
Fax : (949) 454-6642

Certificate Of Calibration

Customer	URS CORPORATION	**Dept.**	N/A
Report #	28708-1	**Bar Code #**	
Date Received	WEDNESDAY, APRIL 9, 2003	**P.O. #**	VERBAL: ROB GREENE
Manufacturer	METROSONIC	**Serial #**	2551
Model #	CL304	**Asset #**	NAN
Description	ACOUS.CALIBRATOR		

Calibration Information

Date Calibrated 4/14/2003 **Calibration Due Date** 4/14/2004 **Calibration Interval** 12

Maintenance Procedure 1211

Temperature 22 ° C **Humidity** 49 % **Calibration Performed By** 4

Accuracy ±.3dB

Condition Received

Received In Tolerance

Remarks See attached data report.

Condition Returned

Returned In Tolerance

Remarks

Standards Employed

ID #	Manufacturer	Model #	Description	Calibration Expires
043	BRUEL & KJAER	4190	MICROPHONE	3/4/05
051	BRUEL & KJAER	2639	PREAMPLIFIER	1/10/04
610	BRUEL & KJAER	4228	PISTONPHONE	6/28/03
713	FLUKE	8920A	TRUE RMS VOLTMETER	5/30/03
878	BRUEL & KJAER	4226	SLM CALIBRATOR	10/24/03
938	HEWLETT PACKARD	8903B	AUDIO ANALYZER	12/7/03
949	BRUEL & KJAER	2636	MEASURING AMPLIFIER	11/13/03

Excalibur Engineering, Inc. certifies that the instrument specified above meets the manufactruer's specifications and has been calibrated using Standards and instruments also listed above whose accuracies are traceable to the National Institute of Standards and Technlogy(NIST), and the calibration systems and records are in compliance to ISO-10012 and ANSI Z540-1-1994.

EEQA 4 APR 1 5 2003

Approved By

Appendix B
Field Noise Measurement Data Sheets

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: LT-1 OBSERVER(s): R. Greene
START DATE & TIME: 6-4-03 10:00a END DATE & TIME: 6-5-03, 2:30 pm
ADDRESS: on south R of 2024 Genesee (Alberto Trujillo resi) between 2024 and 2030 Genesee at end of fence

Weather

TEMP: 72 °F HUMIDITY: 50 % R.H. WIND: CALM [LIGHT] MODERATE [VARIABLE]
WINDSPEED 2-4 MPH DIR: [N] NE E SE [S] SW W NW STEADY GUSTY
SKY: [OVRCST] PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: Metrosonic dB 308 TYPE: 1 (2) SERIAL #: 2881
CALIBRATOR: Metrosonic SERIAL #: 2551
CALIBRATION CHECK: PRE-TEST 102.0 dBA SPL POST-TEST 102.0 dBA SPL WINDSCREEN ✓
SETTINGS: [A-WEIGHTED] [SLOW] FAST FRONTAL [RANDOM] ANSI OTHER:
6-4-03/14:24:25

28hrs 30min:	L_{eq} 55.5,	L_{max} 80.2,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	____
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	____
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	____
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	____

COMMENTS: Ambient noise environment same on pickup as when monitor installed

Source Info and Traffic Counts

SOURCE: [TRAFFIC] AIRCRAFT RAIL [INDUSTRIAL] OTHER:
ROADWAY TYPE:

COUNT DURATION: ____-MINUTE

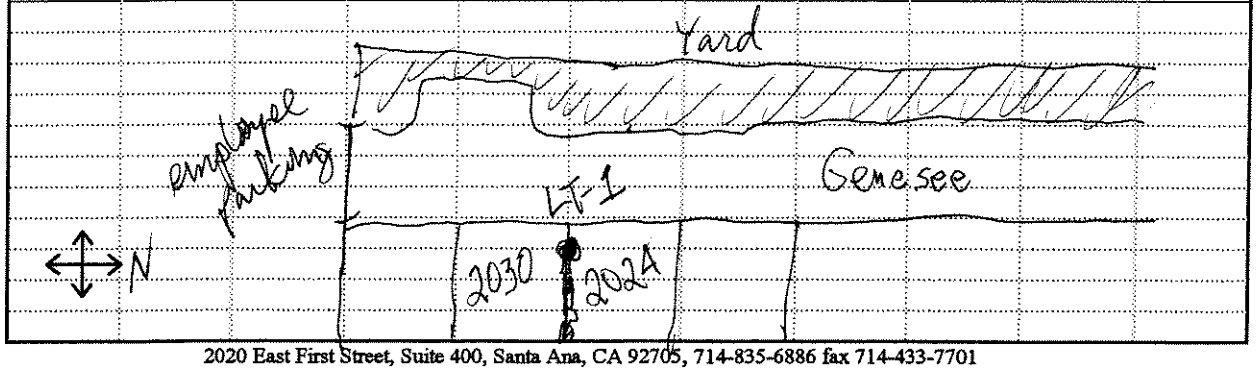
	#1 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: [distant AIRCRAFT] overhead / RUSTLING LEAVES / [distant BARKING DOGS] / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / [distant LANDSCAPING] / distant TRAINS
OTHER: distant back-up alarms distant VES

Description / sketch

TERRAIN: [HARD] SOFT MIXED [FLAT] OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



meas form4.xls

2020 East First Street, Suite 400, Santa Ana, CA 92705, 714-835-6886 fax 714-433-7701

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-1 OBSERVER(s): R. Greene
START DATE & TIME: 6-4-03 END DATE & TIME:
ADDRESS: between 2024 and 2030 Genesee at building line

Weather

TEMP: 71 °F HUMIDITY: 52 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 0-3 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE (1) 2 SERIAL #: 1613404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.8 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ~
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

10:00-10:15 :	L_{eq} 54.4	L_{max} 58.8	L_{min} 41.9	L_{90} 52.3	L_{50} 53.8	L_{10} 56.8	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE:

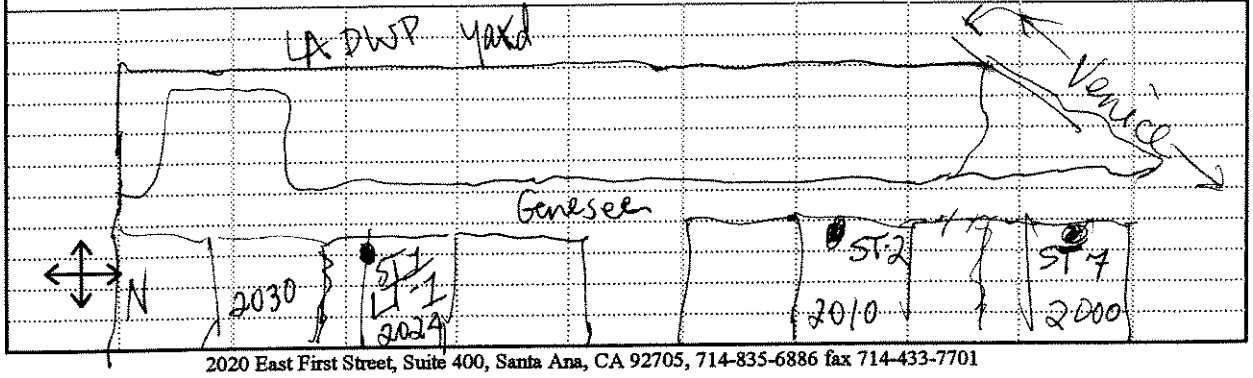
COUNT DURATION: ____-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: VES at yard and grinder noise from yard

Description / sketch

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS: ✓
OTHER COMMENTS / SKETCH:



measform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-2 OBSERVER(s): R. Greene
START DATE & TIME: 6-4-03 END DATE & TIME:
ADDRESS: 2010 Genesee Ave on front sidewalk

Weather

TEMP: 71 °F HUMIDITY: 54 % R.H. WIND: CALM (LIGHT) MODERATE (VARIABLE)
WINDSPEED 3-7 MPH DIR: N NE E SE (S) SW W NW STEADY GUSTY
SKY: (OVRCST) PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE (1) 2 SERIAL #: 1413404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.8 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ✓
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER:

11:00-11:15 am:	L_{eq} 53.4	L_{max} 60.4	L_{min} 49.4	L_{90} 51.3	L_{50} 52.8	L_{10} 54.8	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER: I-10 Freeway 1/2 mile
ROADWAY TYPE: local dead-end street, primary hiway 200 meters away

COUNT DURATION: ____-MINUTE

	SPEED (mph) NB / EB / SB / WB	NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: (distant AIRCRAFT overhead) / RUSTLING LEAVES / distant BARKING DOGS / (BIRDS)
distant CHILDREN PLAYING / (distant TRAFFIC) / distant LANDSCAPING / distant TRAINS
OTHER: distant police siren distant back-up alarms - some yard noise

Description / sketch

TERRAIN: (HARD) SOFT MIXED (FLAT) OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH: See ST-1

meas form4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-3 OBSERVER(s): R. Greene
START DATE & TIME: 6-4-03 END DATE & TIME:
ADDRESS: in front of "5705 Cologne" (15 feet north of Baltona Ck) (AKA 2039 Spaulding Ave

Weather

TEMP: 71 °F HUMIDITY: 54 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 3-6 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE: 1 2 SERIAL #: 1413404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.9 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ___
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

11:35-11:45:	L_{eq} 54.2,	L_{max} 65.4,	L_{min} 49.3,	L_{90} 50.8,	L_{50} 52.8,	L_{10} 56.8,	
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	
____:	L_{eq} ____,	L_{max} ____,	L_{min} ____,	L_{90} ____,	L_{50} ____,	L_{10} ____,	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER: local traffic on
ROADWAY TYPE: 2-lane - (across (s) Baltona Creek)
COUNT DURATION: ____-MINUTE

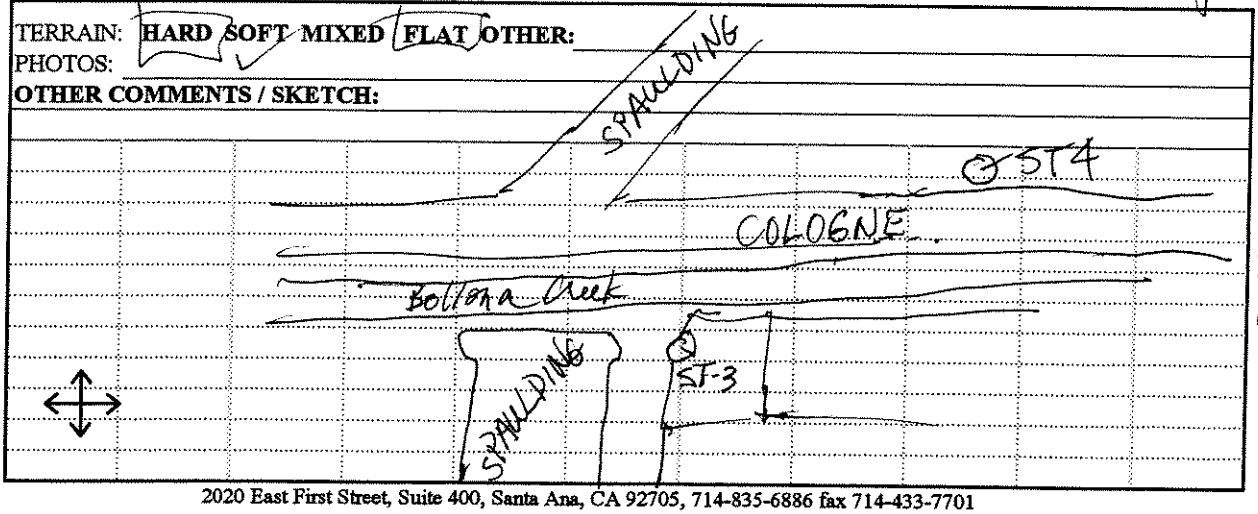
	#1 COUNT: NB / EB / SB / WB	#1 SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	#2 SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: distant back up alarms dominate background

Description / sketch

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



meaform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-4 OBSERVER(s): R Greene
START DATE & TIME: 6-4-03 END DATE & TIME:
ADDRESS: side yard of 5720 Cologne Ave approx 100' east of Genesee Ave and 35' s/o Ballona Creek

Weather

TEMP: 74 °F HUMIDITY: 46 % R.H. WIND: CALM [LIGHT] MODERATE [VARIABLE]
WINDSPEED 2-4 MPH DIR: N NE E SE [S] SW W NW STEADY GUSTY
SKY: [OVRCST] PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE: (1) 2 SERIAL #: 1413404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.9 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ✓
SETTINGS: ~~A-WEIGHTED~~ [SLOW] FAST FRONTAL [RANDOM] [ANSI] OTHER:

		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
12:05-12:20	:	58.6	72.2	51.7	55.3	57.3	60.3	
	:							
	:							
	:							

COMMENTS:

Source Info and Traffic Counts

SOURCE: [TRAFFIC] AIRCRAFT RAIL [INDUSTRIAL] OTHER:
ROADWAY TYPE: 2 lane local
COUNT DURATION: ____-MINUTE

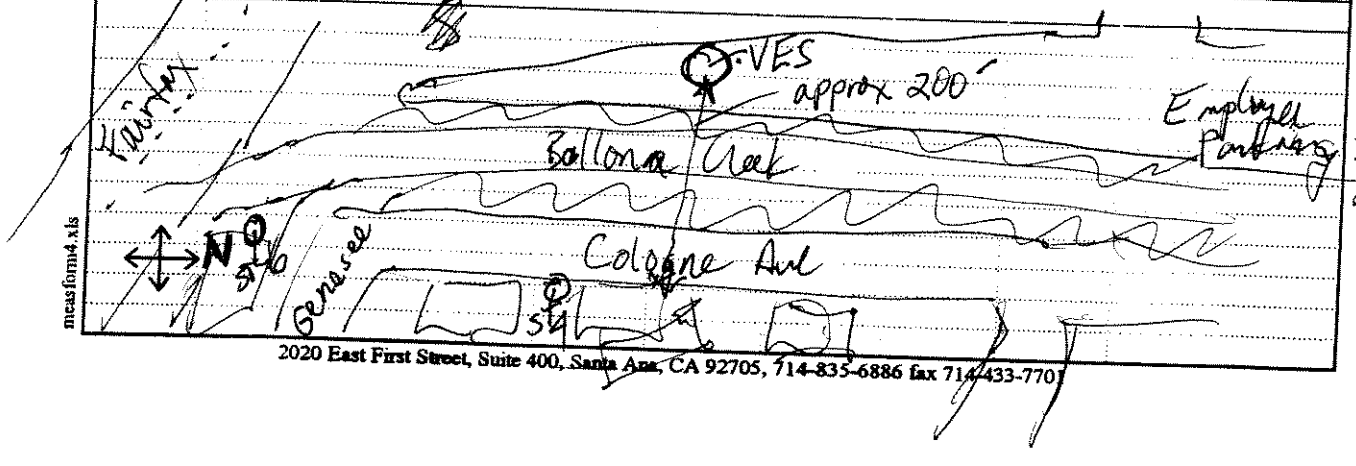
	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	1 / 1 / 1 / 1	/	/	/
MED. TRUCKS:	/	/	/	/
HVY TRUCKS:	/	/	/	/
BUSES:	/	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant [AIRCRAFT overhead] / RUSTLING LEAVES / distant BARKING DOGS / [BIRDS]
distant CHILDREN PLAYING / [distant TRAFFIC] / distant LANDSCAPING / distant TRAINS
OTHER: distant back-up alarms (300') YES at yard audible (200')

Description / sketch

TERRAIN: [HARD] SOFT MIXED [FLAT] OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH: See ST-3



meassform4.xls

2020 East First Street, Suite 400, Santa Ana, CA 92705, 714-835-6886 fax 714-433-7701

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-5 OBSERVER(s): R Greene
START DATE & TIME: 6-4-03 12:30 END DATE & TIME:
ADDRESS: Employee parking lot east fenceline (next to rear yard of ST-3) and closer to VES

Weather

TEMP: 74 °F HUMIDITY: 40 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 4-7 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE: 1 2 SERIAL #: 1413404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.9 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ___
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

ST-5	12:40 - 12:43	L_{eq} 57.9	L_{max} 64.4	L_{min} 56.4	L_{90} 56.8	L_{50} 57.8	L_{10} 58.8	@155'
ST-5a ST-6	13:00 - 1305	L_{eq} 69.2	L_{max} 72.6	L_{min} 68.4	L_{90} 68.8	L_{50} 69.3	L_{10} 69.8	@50'
		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE:
COUNT DURATION: ____-MINUTE

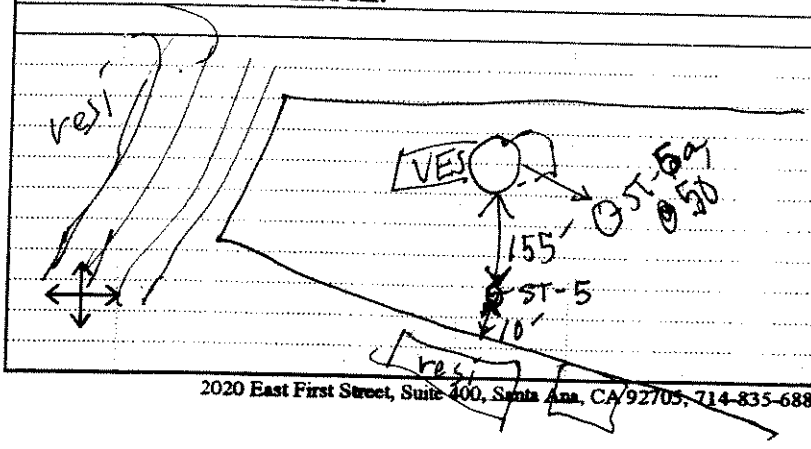
	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	___ / ___	___ / ___	___ / ___	___ / ___
MED. TRUCKS:	___ / ___	___ / ___	___ / ___	___ / ___
HVY TRUCKS:	___ / ___	___ / ___	___ / ___	___ / ___
BUSES:	___ / ___	___ / ___	___ / ___	___ / ___
MOTORCYCLES:	___ / ___	___ / ___	___ / ___	___ / ___

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: Primarily VES unit

Description / sketch

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



measform4.xls

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FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

ID

SITE IDENTIFICATION: ST-6 OBSERVER(s): R. Greene
START DATE & TIME: 6-04-03 END DATE & TIME:
ADDRESS: SW of Cologne Street and Genesee Ave intersection (2211 Genesee) Apartment grass area

Weather

TEMP: 77 °F HUMIDITY: 43 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 6-7 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: B&K 2231 TYPE: 1 2 SERIAL #: 1413404
CALIBRATOR: B&K 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.9 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ✓
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

1445-1500 :	L_{eq} 59.9	L_{max} 72.1	L_{min} 45.5	L_{90} 56.8	L_{50} 59.3	L_{10} 61.8	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: 4 lane primary (Fairfax) + local street
COUNT DURATION: ____-MINUTE

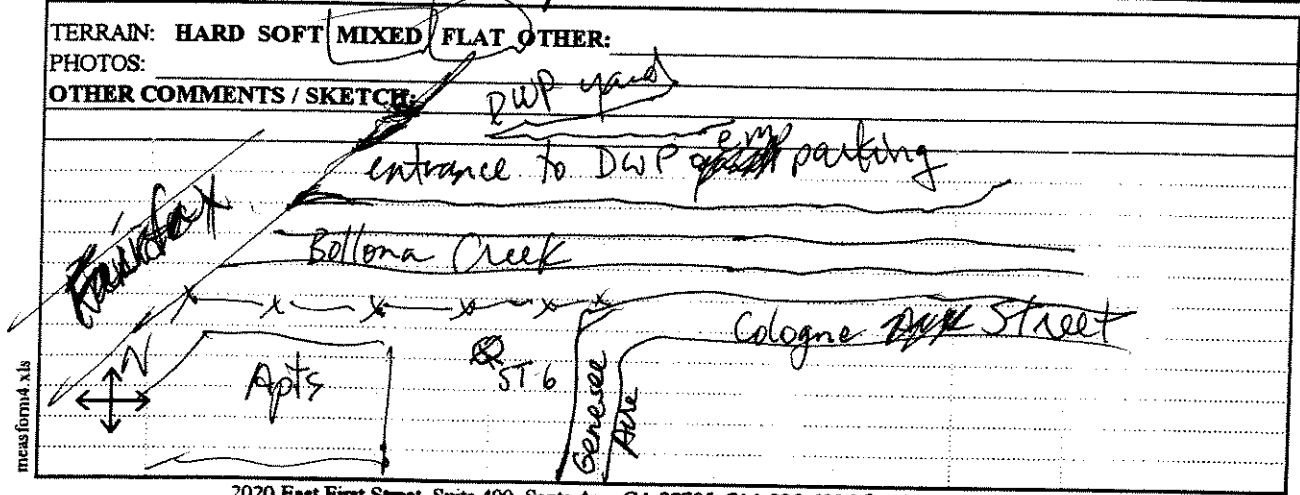
	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	✓ /		
MED. TRUCKS:	✓ /		
HVY TRUCKS:	✓ /		
BUSES:	/		
MOTORCYCLES:	/		

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: auto horn back up alarm

Description / sketch

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



measform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: LADWP

SITE IDENTIFICATION: ST-7 **OBSERVER(s):** R. Greene
START DATE & TIME: 6-4-03 **END DATE & TIME:**
ADDRESS: in front of 2000 Genesee (norternmost house on this block

ID

TEMP: 77 °F HUMIDITY: 43 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 5-7 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Weather

INSTRUMENT: B&K 2231 **TYPE:** 1 2 **SERIAL #:** 1413404
CALIBRATOR: B&K 4231 **SERIAL #:** 1850301
CALIBRATION CHECK: **PRE-TEST** 93.9 dBA SPL **POST-TEST** 93.9 dBA SPL **WINDSCREEN** ✓
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI **OTHER:**

1510-1520	L_{eq} 56.5	L_{max} 65.6	L_{min} 51.7	L_{90} 53.8	L_{50} 55.8	L_{10} 58.8	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Acoustic Measurements

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL **OTHER:**
ROADWAY TYPE:
COUNT DURATION: ____-MINUTE

	SPEED (mph)	#2 COUNT:	SPEED (mph)
	NB / EB / SB / WB	NB EB / SB WB	NB / EB / SB / WB	NB EB / SB WB
AUTOS:	✓ /	/	/	/
MED. TRUCKS:	✓ /	/	/	/
HVY TRUCKS:	✓ /	/	/	/
BUSES:	✓ /	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: distant backup alarms very distant I-10 fwy windchimes

Source Info and Traffic Counts

TERRAIN: HARD SOFT MIXED FLAT **OTHER:**
PHOTOS:
OTHER COMMENTS / SKETCH: see ST-7

Description / sketch

meas form4.xls

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APPENDIX D

TRAFFIC TECHNICAL MEMORANDUM

URS

Technical Memorandum

Date: November 4, 2003

To: Charles Smith

From: Noel V. Casil, P.E.
Douglas Smith, P.E.

Subject: **LADWP Western District Yard**

The following discussion outlines methodology and result of the traffic analysis conducted, in relation to the anticipated construction activities at the LADWP Western District Yard.

Field Review

Project access points were identified and found to be adequate, the Fairfax gate functions as the primary entrance for construction vehicles, the two gates along Venice function more as alternate entry/exit points as there was no traffic activity noted, the Genesee Avenue gate is adjacent to residential homes and only right turn in and out movements are possible at the intersection of Genesee Avenue/Venice Boulevard. The intersection of Fairfax Avenue/Venice Boulevard has protected left turns for Venice Boulevard and permitted left turns (green ball) for Fairfax Avenue. Venice Boulevard is a divided Major Class II arterial with four lanes in each direction, the fourth curb lane is primarily dedicated for on-street parking with shared Class II bicycle lanes on both directions. Fairfax Avenue is classified as a Major Class II arterial with two lanes in each direction near the vicinity of the project site. Trucks exceeding 10,000 pounds are prohibited along Fairfax Avenue immediately north of the Venice Boulevard intersection.

Existing Intersection Level of Service

Based on existing traffic counts obtained from City of Los Angeles DOT, intersection level of service (LOS) at Fairfax Avenue/Venice Boulevard is LOS E for both AM and PM. The calculations were conducted according to both LA County CMP (ICU Method) and City of Los Angeles (Circular 212 Planning Method) guidelines, which resulted in the same LOS E findings. It must be noted that further increases in traffic at critical intersection movements during the AM peak hour (northbound left, southbound through, eastbound left and westbound through) and PM peak hour (northbound through, southbound left, eastbound left and westbound through) could potentially worsen the existing LOS E conditions to LOS F, resulting in a significant impact.

Project Trip Generation

Based on information provided by LADWP staff, the following key project milestones were analyzed to determine the most conservative assumption that would represent the maximum trip generation scenario that would occur during project construction.

Phase 1 Construction Activities Trips

The detailed construction equipment requirements for Phase 1, was used as the basis for the estimation of trips associated with the proposed LADWP Western Yard Renovation Project. The average numbers of equipment

use per day were ranked in relation with the number of days of operation for each project phase component and vice versa. A trip generation analysis was conducted to the top three project construction phase components to determine the worst possible case of construction traffic activity. Table 1 summarizes the New Pavement Construction, Table 2 summarizes Concrete Paving Removal and Table 3 summarizes the Foundation excavation phase components of the construction.

Table 1
New Pavement Construction Activity

	Average Number of Equipment Per Day	Days of Operation	Hours of Operation	Peak Hour Trips (Worst case)
Trucks – CAB [1]	2 = (6 PCE)	22	8	AM Peak Hour
Trucks – Asphalt [1]	3 = (9 PCE)	24	8	(21 In / 2 Out)
30,000 lb Grader [2]	1 = (3 PCE)	24	8	PM Peak Hour
Backhoe [2]	1 = (3 PCE)	24	8	(2 In / 21 Out)
Paving Machine [2]	1 = (3 PCE)	24	8	
Pick-up Trucks	11 = (11 PCE)	24	5	Daily = 46 trips
TOTAL	35 PCEs			

PCE – Passenger Car Equivalent for Heavy Vehicles
[1] – Combined PCE totals for trucks per day equates to 2 inbound and 2 outbound trucks per hour which are added to worst case peak hour conditions.
[2] – One time trip activity assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 9 inbound (AM) and 9 outbound (PM) trips.
[3] – Recurring trip activity (24 days) assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 11 inbound (AM) and 11 outbound (PM) trips.

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Table 2
Concrete Pavement Removal

	Average Number of Equipment Per Day	Days of Operation	Hours of Operation	Peak Hour Trips (Worst case)
Trucks – CAB [1]	10 = (30 PCE)	30	8	AM Peak Hour
Front End Loader [2]	1 = (3 PCE)	30	8	(18 In / 4 Out)
Backhoe Loader[2]	1 = (3 PCE)	30	8	PM Peak Hour
Hydraulic Hammer [2]	1 = (3 PCE)	30	8	(4 In / 18 Out)
Pick-up Trucks	5 = (5 PCE)	30	8	
TOTAL	44 PCEs			Daily = 44 trips

PCE – Passenger Car Equivalent for Heavy Vehicles
[1] – PCE totals for trucks per day equates to 4 inbound and 4 outbound vehicles per hour which are added to worst case peak hour conditions.
[2] – One time trip activity assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 9 inbound (AM) and 9 outbound (PM) trips.
[3] – Recurring trip activity (30 days) assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 5 inbound (AM) and 5 outbound (PM) trips.

Table 3
Foundation Excavation

	Average Number of Equipment Per Day	Days of Operation	Hours of Operation	Peak Hour Trips (Worst case)
Trucks – Import [1]	3 = (9 PCE)	39	8	AM Peak Hour
Trucks – Export [1]	3 = (9 PCE)	39	8	(16 In / 2 Out)
Backhoe [2]	1 = (3 PCE)	39	8	PM Peak Hour
Dozer [2]	1 = (3 PCE)	39	8	(2 In / 16 Out)
Water Truck [2]	1 = (3 PCE)	39	8	
Hydraulic Excavator [2]	1 = (3 PCE)	39	8	Daily = 36 trips
Pick-up Trucks [3]	2 = (2 PCE)	39	8	
TOTAL	32 PCEs			

PCE – Passenger Car Equivalent for Heavy Vehicles
[1] – Combined PCE totals for trucks per day equates to 2 inbound and 2 outbound trucks per hour which are added to worst case peak hour conditions.
[2] – One time trip activity assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 12 inbound (AM) and 12 outbound (PM) trips.
[3] – Recurring trip activity (39 days) assumed 100% inbound (AM) and 100% outbound (PM) trips, added to worst case peak hour conditions. This equates to 2 inbound (AM) and 2 outbound (PM) trips.

Based on the above trip generation summaries, the new pavement construction activity shown in Table 1 was determined to generate the highest peak hour traffic (23 peak hour trips) although it has the shortest duration of 24 days. On the other the hand, the foundation excavation shown in Table 3 has longest duration of 39 days but has the lowest generation of peak hour traffic (18 peak hour trips).

URS

Worker Trips

Approximately 30 worker trips are anticipated to be onsite during peak construction activities. A typical construction schedule starting at 5 AM to 2 PM would essentially eliminate construction worker traffic during the morning (7-9 AM) and evening (4-6 PM) peak hour commute period.

Traffic Impact Analysis

Based on the above trip generation assumptions, the peak construction equipment related traffic occurring during the peak hour analysis period would be only 23 trips during either AM or PM peak hours. Since the trips are primarily construction equipment related, the majority of the traffic would utilize the Fairfax gate which is located to the south of the Fairfax Avenue/Venice Boulevard intersection, therefore minimal trips are anticipated to be added at the intersection resulting in less than significant project impact.

In addition, the proposed construction activity at the Yard will generate trips below the Los Angeles County CMP thresholds to warrant freeway mainline and arterial segment analysis.

Attachments:

LA CMP - ICU Analysis
LA DOT – Circular 212 Analysis
LADOT – Traffic Counts
Intersection Field Review

cc:

Los Angeles Department of Water and Power Project
Existing AM Peak Hour Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 FAIRFAX AVE/VENICE BL

Cycle (sec):	100	Critical Vol./Cap. (X):	0.963
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	146	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Protected Include			Protected Include		
Rights:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 29 Jul 2003 << AM												
Base Vol:	88	683	74	55	883	260	187	1139	60	181	1991	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	683	74	55	883	260	187	1139	60	181	1991	53
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	683	74	55	883	260	187	1139	60	181	1991	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	683	74	55	883	260	187	1139	60	181	1991	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	683	74	55	883	260	187	1139	60	181	1991	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	683	74	55	883	260	187	1139	60	181	1991	53
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	2887	313	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.24	0.03	0.28	0.16	0.12	0.24	0.04	0.11	0.41	0.03
Crit Moves:	****				****		****				****	

Los Angeles Department of Water and Power Project
Existing PM Peak Hour Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 FAIRFAX AVE/VENICE BL

Cycle (sec):	100	Critical Vol./Cap. (X):	0.910
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	3	0 1	1 0	3	0 1
Volume Module:	PM											
Base Vol:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	848	192	130	1046	176	174	1397	102	165	1416	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	848	192	130	1046	176	174	1397	102	165	1416	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	2609	591	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.33	0.32	0.08	0.33	0.11	0.11	0.29	0.06	0.10	0.29	0.02
Crit Moves:		****		****			****				****	

Los Angeles Department of Water and Power Project
Existing AM Peak Hour Conditions

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

****

Intersection #1 FAIRFAX AVE/VENICE BL

****

Cycle (sec): 100 Critical Vol./Cap. (X): 0.969
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Protected Include			Protected Include		
Rights:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 1	1 0	1	0 2	0 1	1	0 3	0 1	1	0 3	0 1
Volume Module: >> Count Date: 29 Jul 2003 << AM												
Base Vol:	88	683	74	55	883	260	187	1139	60	181	1991	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	683	74	55	883	260	187	1139	60	181	1991	53
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	683	74	55	883	260	187	1139	60	181	1991	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	683	74	55	883	260	187	1139	60	181	1991	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	683	74	55	883	260	187	1139	60	181	1991	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	683	74	55	883	260	187	1139	60	181	1991	53
Saturation Flow Module:												
Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1425	2571	279	1425	2850	1425	1425	4275	1425	1425	4275	1425
Capacity Analysis Module:												
Vol/Sat:	0.06	0.27	0.27	0.04	0.31	0.18	0.13	0.27	0.04	0.13	0.47	0.04
Crit Vol:	88				442		187				664	
Crit Moves:	****				****		****				****	

****

Los Angeles Department of Water and Power Project
Existing PM Peak Hour Conditions

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #1 FAIRFAX AVE/VENICE BL

Cycle (sec): 100 Critical Vol./Cap. (X): 0.909
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: PM												
Base Vol:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	848	192	130	1046	176	174	1397	102	165	1416	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	848	192	130	1046	176	174	1397	102	165	1416	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	81	848	192	130	1046	176	174	1397	102	165	1416	33
Saturation Flow Module:												
Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1425	2324	526	1425	2850	1425	1425	4275	1425	1425	4275	1425
Capacity Analysis Module:												
Vol/Sat:	0.06	0.36	0.36	0.09	0.37	0.12	0.12	0.33	0.07	0.12	0.33	0.02
Crit Vol:		520		130			174				472	
Crit Moves:		****		****			****				****	

TRAFFIC COUNT SUMMARY

City of Los Angeles
Department of Transportation
(Rev Apr 92)

STREET:
North/South FAIRFAX AV

East/West VENICE BL

Day: TUESDAY Date: JULY 29, 2003 Weather: CLEAR

Hours: 7-10 AM 3-6 PM

School Day: NO District: HOLLYWOOD I/S CODE 2710075570

	N/B	S/B	E/B	W/B
DUAL-WHEELED	97	131	108	172
BIKES	2	0	14	6
BUSES	87	65	111	116

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	239	8.30	306	8.15	396	8.45	574	8.15
PM PK 15 MIN	329	5.15	352	5.15	468	4.30	451	5.45
AM PK HOUR	909	7.45	1198	8.00	1470	8.30	2225	8.00
PM PK HOUR	1190	4.30	1352	5.00	1730	4.30	1614	5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	85	670	82	837
8-9	88	683	74	845
9-10	70	589	53	712
3-4	77	774	163	1014
4-5	74	764	188	1026
5-6	81	848	192	1121
TOTAL	475	4328	752	5555

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	49	767	166	982
8-9	55	863	260	1198
9-10	59	720	226	1005
3-4	95	832	164	1091
4-5	91	856	165	1112
5-6	130	1046	176	1352
TOTAL	479	5104	1157	6740

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	139	591	65	795
8-9	187	1139	60	1386
9-10	196	1056	46	1298
3-4	176	1091	73	1340
4-5	189	1414	95	1698
5-6	174	1397	102	1673
TOTAL	1061	6688	441	8190

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	199	1636	45	1880
8-9	181	1991	53	2225
9-10	158	1682	39	1879
3-4	168	858	28	1054
4-5	172	981	33	1186
5-6	165	1416	33	1614
TOTAL	1043	8564	231	9838

TOTAL

N-S
1819
2043
1717
2105
2138
2473
12295

XING S/L

Ped	Sch
16	2
2	0
3	0
12	0
10	0
12	0
55	2

XING N/L

Ped	Sch
47	0
32	2
36	2
35	0
41	4
43	0
234	8

TOTAL

E-W
2675
3611
3177
2394
2884
3287
18028

XING W/L

Ped	Sch
17	8
17	0
6	0
8	0
7	0
3	0
58	8

XING E/L

Ped	Sch
9	0
10	0
17	0
17	0
13	0
17	0
83	0

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

BETA FILE 'STM$0003.JD
COUNTER ARMANDO
DATE 06/04/03
START TIME 12 AM
DATE PREPARED 05-Jun-2003
SENSOR LAYOUT '11'
SENSOR SPACING '160'

LOCATION FAIRFAX AV S/O VENICE BL
INTERSECTION N/S STREET
DESCRIPTION 3E+09

DAY OF WEEK WEDNESDAY
DOT DISTRICT HOLLYWOOD
WEATHER OVERCAST

	NORTH / WEST BOUND					SOUTH / EAST BOUND					
TIME	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	TOTAL
12 AM	70	66	46	45	227	115	90	69	72	346	573
1 AM	35	37	26	20	118	62	28	38	28	156	274
2 AM	19	11	20	30	80	42	42	29	20	133	213
3 AM	19	16	16	30	81	19	24	16	15	74	155
4 AM	16	23	38	32	109	12	20	42	32	106	215
5 AM	42	53	96	112	303	42	56	106	102	306	609
6 AM	93	142	162	220	617	110	157	205	237	709	1326
7 AM	232	248	304	314	1098	270	327	306	374	1277	2375
8 AM	355	316	342	349	1362	372	364	295	316	1347	2709
9 AM	384	319	348	326	1377	273	275	266	244	1058	2435
10 AM	326	314	284	308	1232	244	268	270	277	1059	2291
11 AM	316	294	288	314	1212	289	269	272	249	1079	2291
12 NN	284	324	290	314	1212	284	265	298	290	1137	2349
1 PM	280	305	279	317	1181	248	282	314	264	1108	2289
2 PM	295	280	306	299	1180	319	296	334	317	1266	2446
3 PM	322	306	286	310	1224	328	369	368	350	1415	2639
4 PM	310	304	295	308	1217	324	335	301	326	1286	2503
5 PM	352	364	308	372	1396	342	403	379	376	1500	2896
6 PM	384	344	358	399	1485	354	354	381	328	1417	2902
7 PM	355	355	268	267	1245	300	284	272	248	1104	2349
8 PM	258	270	222	258	1008	227	238	240	207	912	1920
9 PM	245	212	228	213	898	234	206	224	184	848	1746
10 PM	208	192	173	174	747	176	178	180	152	686	1433
11 PM	134	146	130	86	496	147	149	112	98	506	1002

FIRST 12-HOURS PEAK QUARTER COUNT	384	9 AM	1ST
LAST 12-HOURS PEAK QUARTER COUNT	399	6 PM	4TH
24 HOUR VEHICLES TOTAL		21105	
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	479.28	

374	7 AM	4TH
403	5 PM	2ND
	20835	41940
[+,-]	459.66	932.12

PEAK HOURS VOLUME

	NORTH / WEST BOUND			SOUTH / EAST BOUND			BOTH DIRECTIONS	
	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR	VOLUME VEHICLES
FIRST 12H PEAK	9 AM		1377	8 AM		1347	1377	2724
LAST 12H PEAK	6 PM		1485	5 PM		1500	1500	2985
FIRST 12H PEAK STD		[+,-]	*********		[+,-]	32.24		1409.24
LAST 12H PEAK STD		[+,-]	21.51		[+,-]	21.74		43.25

PROGRAM B : LADOT

24 Hours Traffic Volume

City of Los Angeles
Department of Transportation

BETA FILE 'TM0001.JD
COUNTER MANDO
DATE 07/10/02
START TIME 12 AM
DATE PREPARED 12-Jul-2002
SENSOR LAYOUT '11'
SENSOR SPACING '160'

LOCATION FAIRFAX AV S/O VENICE BL
INTERSECTION N/S ST
DESCRIPTION 3E+09

DAY OF WEEK WEDNESDAY
DOT DISTRICT WESTERN
WEATHER SUNNY

TIME	NORTH / WEST BOUND 1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	SOUTH / EAST BOUND 1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	TOTAL
12 AM	114	79	74	72	339	98	104	72	61	335	674
1 AM	56	48	36	46	186	44	49	44	26	163	349
2 AM	44	29	36	30	139	42	35	32	24	133	272
3 AM	26	23	17	16	82	22	20	14	17	73	155
4 AM	21	26	40	46	133	36	24	30	39	129	262
5 AM	42	36	62	103	243	44	48	80	112	284	527
6 AM	114	133	188	249	684	121	130	170	217	638	1322
7 AM	221	292	298	312	1123	180	226	234	275	915	2038
8 AM	285	333	327	363	1308	271	320	288	352	1231	2539
9 AM	311	278	316	254	1159	358	390	367	304	1419	2578
10 AM	254	276	282	266	1078	304	340	312	324	1280	2358
11 AM	268	272	246	278	1064	301	302	294	300	1197	2261
12 NN	276	296	287	296	1155	258	297	332	340	1227	2382
1 PM	281	286	340	313	1220	300	289	314	286	1189	2409
2 PM	316	295	338	332	1281	320	312	285	306	1223	2504
3 PM	345	312	334	332	1323	299	260	268	285	1112	2435
4 PM	308	339	316	317	1282	312	289	336	312	1249	2531
5 PM	324	348	351	386	1409	326	335	334	324	1319	2728
6 PM	364	363	375	374	1476	337	380	381	368	1466	2942
7 PM	284	272	242	256	1054	358	350	372	342	1422	2476
8 PM	237	240	210	219	906	308	265	238	249	1060	1966
9 PM	226	224	224	221	895	252	250	272	252	1026	1921
10 PM	196	196	164	177	755	263	229	218	176	886	1641
11 PM	120	140	108	116	484	158	148	122	118	546	1030

FIRST 12-HOURS PEAK QUARTER COUNT	363	8 AM	4TH	390	9 AM	2ND
LAST 12-HOURS PEAK QUARTER COUNT	386	5 PM	4TH	381	6 PM	3RD
24 HOUR VEHICLES TOTAL			20778			21522	42300
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]		451.81	[+,-]		464.83	907.20

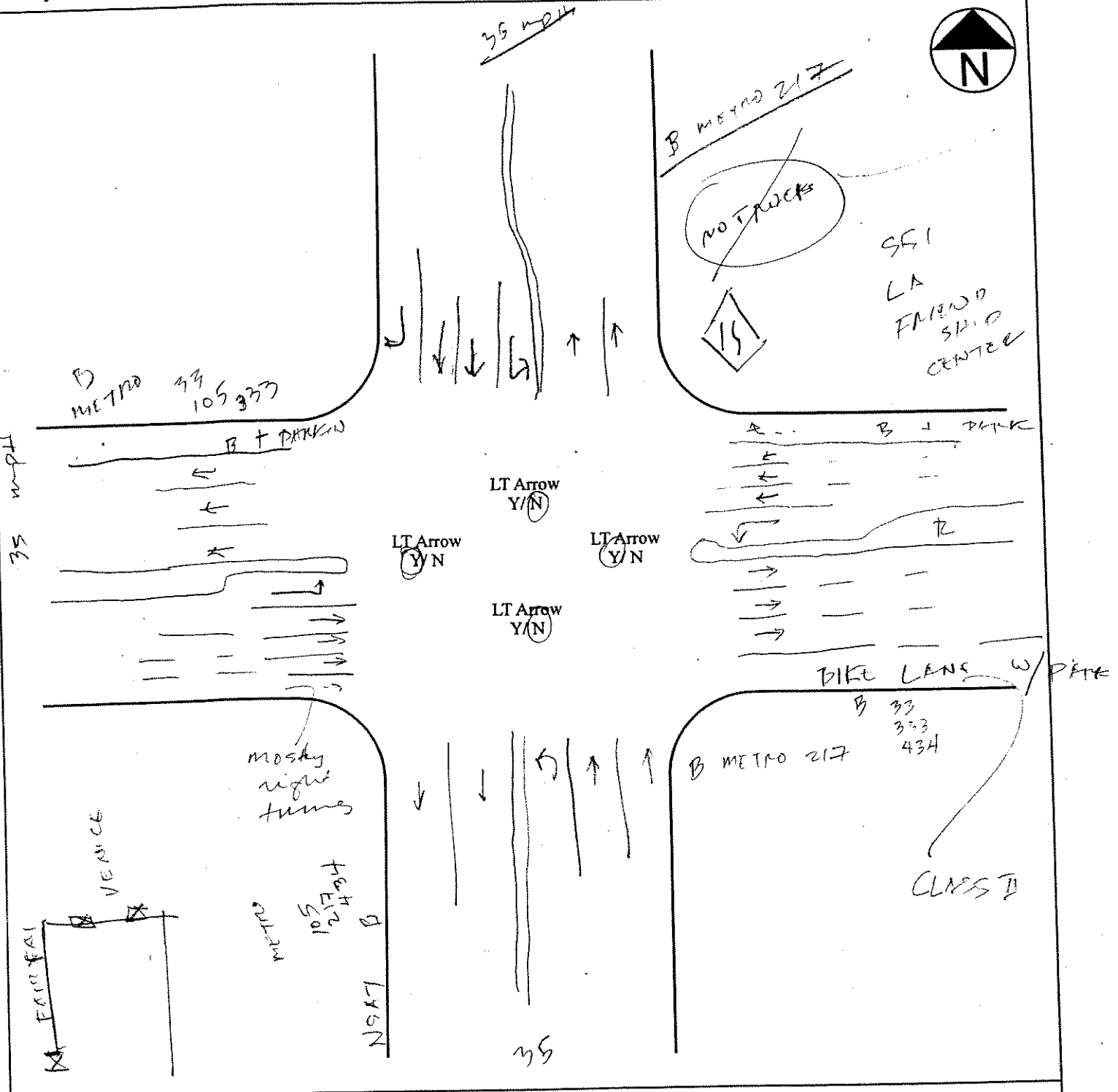
PEAK HOURS VOLUME

	NORTH / WEST BOUND PEAK HOUR		VOLUME VEHICLES	SOUTH / EAST BOUND PEAK HOUR		VOLUME VEHICLES	BOTH DIRECTIONS PEAK HOUR	VOLUME VEHICLES
FIRST 12H PEAK	8 AM		1308	9 AM		1419	1419	2727
LAST 12H PEAK	6 PM		1476	6 PM		1466	1476	2942
FIRST 12H PEAK STD		[+,-]	27.82		[+,-]	31.54		59.36
LAST 12H PEAK STD		[+,-]	5.52		[+,-]	17.78		23.31

PROGRAM BY LADOT

Intersection: FAIRFAX AVENUE / VENICE BLVD Intersection No: _____

Analyst: NVC Date: _____ Time: _____



Identify in diagram and check when completed:

- _____ • Lane Configuration
- _____ • Lane Widths
- _____ • Islands (Painted/Raised)
- _____ • Cross Walks
- _____ • Turn Bay Storage Lengths
- _____ • Parking within 250'
- _____ • Peak Hour Parking Restrictions
- _____ • Bus Stops within 250'
- _____ • Turn Restrictions
- _____ • Ped Buttons (PPB)
- _____ • Loading Zones within 250'
- _____ • Grade by Approach

URS

BRW