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CITY OF MAYWOOD

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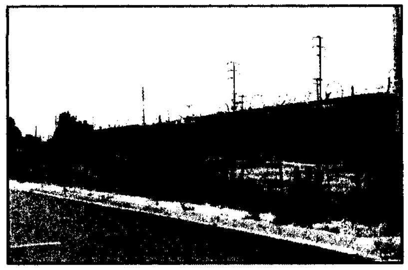
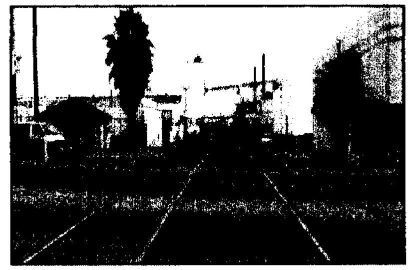
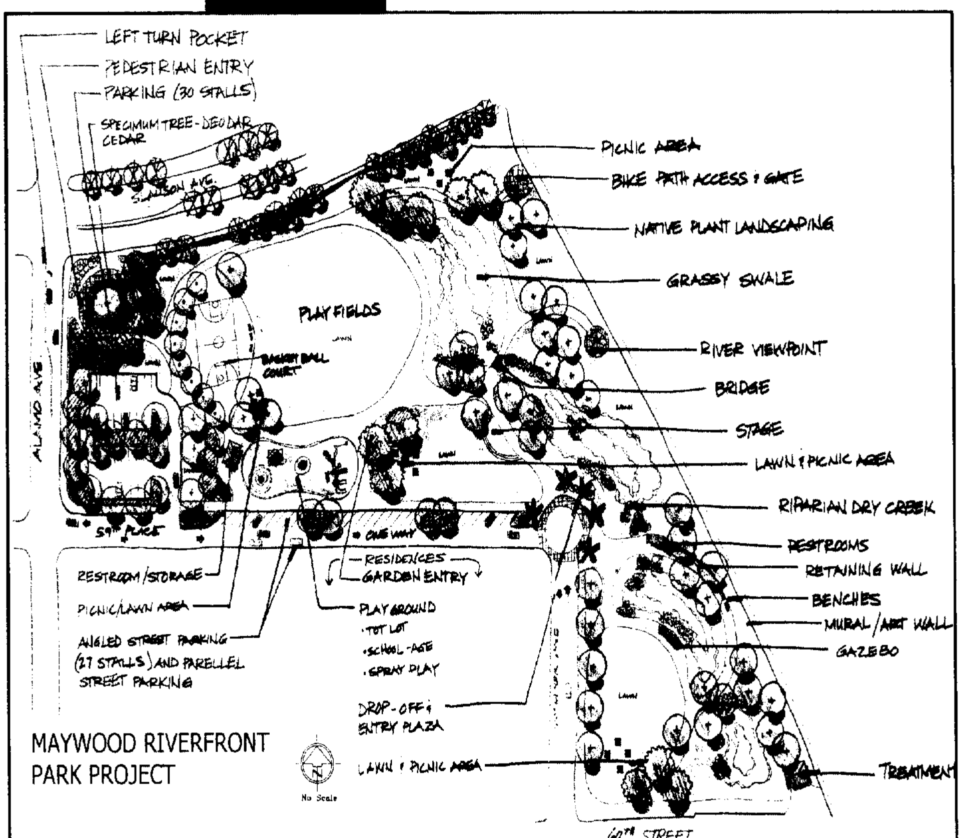
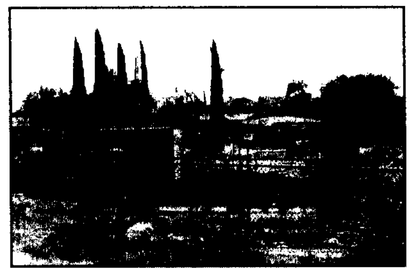
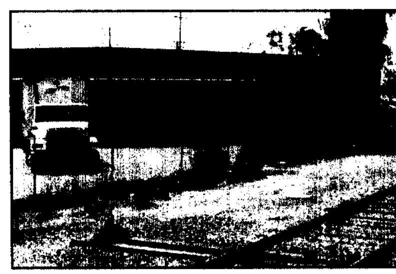
Riverfront Park

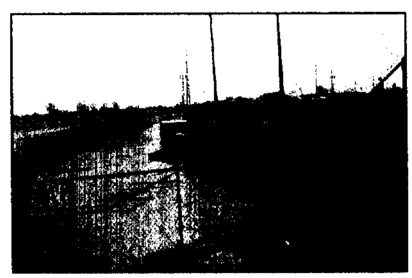












Prepared By:

WILLDAN
Serving Public Agencies

FINAL

ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NUMBER 2002051146

NOVEMBER 2002

City of Maywood
4319 East Slauson Avenue • Maywood, California 90270
Tel: (323) 562-5000 • Fax: (323) 773-2806

DATE: December 17, 2002

TO: Rose Marie Caraway, Remedial Project Manager

PROJECT NO:

SUBJECT: Maywood Riverfront Park Project

TRANSMITTING: Final Environmental Impact Report/State Clearing House Compliance letter/Resolution certifying Final EIR

COMMENTS: For your records.

SENT VIA: US Express Mail

FROM: Julia Gonzalez, Assistant Planner

CC:

129918

Riverfront Park

Final Environmental Impact Report

State Clearinghouse Number 2002051146

Prepared for:
The City of Maywood
4319 E. Slauson Ave.,
Maywood, CA 90270

Prepared by:
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November 2002

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SUMMARY

Introduction

This Final Environmental Impact Report (Final EIR) examines the potential environmental impacts of the proposed Riverfront Park project in the City of Maywood, California. The Final EIR identifies the level of significance of environmental impacts as well as mitigation measures to reduce impacts. The Initial Study/Notice of Preparation (IS/NOP) determined that potential effects to the following resources are not significant, and therefore, this Final EIR does not address them: Agricultural Resources, Biological Resources, Cultural Resources, Geology and Soils, and Mineral Resources. The Final EIR analyzes environmental impacts to the following resources: Aesthetics, Air Quality, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, and Transportation and Circulation. This Final EIR also analyzes potential long-term impacts and project alternatives.

Summary of Project Objectives

The following project objectives have been established to meet the City of Maywood's General Plan Open Space goals. These include:

- Providing more open space to meet the specific needs of the residents of the City of Maywood.
- Developing a park of adequate size to provide recreational facilities with adequate off-site parking.
- Utilization of the parkland development overlay zone established for properties zoned for industrial uses (M-1).
- Eliminating industrial uses in proximity to developed, residentially zoned properties.

Summary of Proposed Project

The proposed project consists of a Precise Plan of Design (Design Review) for the construction of a 7.3-acre park for the residents of the City of Maywood. The park would be located along Alamo Avenue, 59th Place, Walker Avenue, and 60th Street in the City of Maywood. The site currently is comprised of two industrial buildings located at 5010 and 5026 Slauson Avenue, and an existing park located at 5950 Walker Avenue and 5989 South District Boulevard. The proposed park would include a bridge, trails, lawn and picnic areas, a basketball court, a soccer field, and the incorporation of a swale to add to a natural habitat setting and aid in the control of runoff. Field lighting would also be provided for evening use of the park. Development of the park project would include construction of foundations, restroom facilities, retaining walls, landscaping, sidewalks, bicycle paths, a staging area for those using the Los Angeles

River bicycle trail, driveways and drive aisles providing access to the site, and 57 parking spaces. The project would also involve relocation of overhead utility lines and demolition of the two industrial buildings. A groundwater treatment facility and other site remediation equipment for the industrial parcels are proposed to be installed at the southeast corner of the site and will operate for an undetermined period until the site is adequately remediated. Off-site improvements proposed as part of this project include the conversion of 59th Place to a one-way street with angled parking provided on the street.

Synopsis of Project Alternatives

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to the project, or to the location of the project site, that could feasibly attain the basic objectives of the project.

Alternatives Found to be Infeasible

- Reduced Scale Alternative
- Alternative Site
- No Project/Less Intense/Reasonable Foreseeable Use Alternative

Potentially Feasible Alternatives

None

Issues to be Resolved

None

Significant and Unavoidable Impacts

None

Impact Summary Tables

Table S-1 identifies all potential impacts the project could have, the mitigation measures identified in Chapter 3.0 of this report, and the level of significance for each impact after mitigation.

Table S-1: Summary of Impacts, Mitigation Measures and Significance After Mitigation		
Impacts	**Mitigation Measures**	**Level of Significance After Mitigation**
Aesthetics		
• Construction of the proposed project will have a short-term adverse aesthetic impact on the residences fronting the park along 59th Place and Walker Avenue.		Less than Significant
• Views of the project site from Slauson Avenue and Alamo Avenue, and from remaining residences along 59th Place and Walker Avenue will be replaced by the park, its surface parking, restroom building, ball fields and lighting associated with the proposed park.	**Mitigation Measure 3.1.3:** Signage plan shall be reviewed for quality of design and aesthetic appearance AND SHALL BE DESIGNED TO BE CONSISTENT WITH THE Los Angeles River Signage Manual. The Planning Division shall specify requirements during plan/design review and the Building Division shall monitor compliance.	Less than Significant
• New lighting sources will be introduced to the site. New shielding designs and lighting technology will be utilized to reduce potential spillover, glare and glow effects associated with new lighting. The light standards will also be located such that they result in minimal intrusion into the adjacent residences.	**Mitigation Measure 3.1.1:** During the required design/site plan review of the proposed park development, the City shall ensure that site improvements, including lighting do not adversely affect adjacent land uses. **Mitigation Measure 3.1.2:** Site lighting after hours of operation shall be limited to lighting levels necessary for site security and identification. Compliance shall be demonstrated through Project lighting plan submittals.	Less than Significant
Air Quality		
• Construction activities for the proposed project would result in the generation of air pollutants and resulting short-term impacts on ambient air quality in the area. All remediation must comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public. In addition, normal daytime west-to-east winds will also help to minimize impact potential to any sensitive receivers.		Less than Significant
• Stationary sources include emissions from on-site activities and natural gas combustion for heating requirements, as well as emissions at the power plant generating electricity for the project site.		Less than Significant
• On-going site remediation may be a source of stationary source emissions. The net public exposure from the turbulently mixed plume of highly dilute exhaust air will be undetectably small. The remediation system must obtain an SCAQMD permit to operate, and the SCAQMD may not issue a permit if the system presents any threat to the health of park users or to nearby residents.	**Mitigation Measure 3.2.1:** Prior to any demolition activities, results from the completed Phase I and Phase II hazardous analysis shall be used to file the appropriate applications to comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.	Less than Significant

• Mobile source emissions could result from vehicle trips, including park users and maintenance activities. Project-related mobile source emissions will not exceed the significance thresholds for criteria pollutants set forth by SCAQMD.		Less than Significant
Hazards/Hazardous Materials		
• Demolition of the existing structures at the site may involve the temporary transport, use, or disposal of hazardous materials. The park project area may increase the level of risk or exposure to existing health hazards, since a groundwater treatment facility will be located within the park project area for an undetermined period.	**Mitigation Measure 3.3-1:** The City of Maywood shall comply with all applicable Federal, State, and local plans and policies regarding hazardous substances use, transportation, and disposal, as well as contaminant remediation, including but not limited to applicable provisions of the Toxic Substances Control Act (TSCA), the California Health and Safety Code, the California Hazardous Waste Control Law, and other applicable provisions of the California Code of Regulation (CCR), as well as applicable regulations promulgated by the U.S. and California Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA).	Less than Significant
• The demolition of structures and grading for the Park Project may involve the handling or use of hazardous materials. Construction of the proposed project could expose individuals to an increased health risk associated with exposure to contaminated soil.	**Mitigation Measure 3.3-2:** Prior to issuance of a grading permit, the City of Maywood shall, in consultation with and with approval of the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program, shall formulate a plan to protect workers and local residents. This plan is to be implemented in the event that grading or excavation activities during construction expose potentially contaminated soils. At a minimum, the plan shall identify the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program as a responsible agency, and shall include the following specific points: • *The City of Maywood shall create a Site Specific Health and Safety Plan* (SSHSP) outlining procedures for grading and construction activities that reduce the potential for human exposure to contaminated environmental media and specifically address the areas identified in TN & Associates' Health Risk Assessment dated July 19, 2002, and attached as Appendix D. • A qualified environmental construction monitor shall be designated and shall be present on-site during grading and excavation activity to ensure that procedures in the SSHSP are followed. • All grading and subsurface construction work at the future park shall be done by workers that have completed the 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) OSHA training. • *Workers shall don appropriate personal protection equipment as outlined in the* SSHSP and air monitoring for organic vapors will occur during all grading cuts and excavations. • The construction monitor shall be responsible for identifying areas of potentially contaminated soils, and, upon identification of potential contaminants, for implementing the procedures outlined in the plan.	Less than Significant

	• All work in the vicinity of the affected area shall cease if situations are found to exist that have potential to impact the health and safety of the workers. • *The Los Angeles RWQCB shall be contacted.* • The appropriate California Health and Safety Code procedures shall be followed. The plan shall also identify a procedure for sampling, testing, and remediation, as appropriate, of contaminated soils, and for obtaining the concurrence of and necessary clearance from the RWQCB, before construction activities can resume. The plan shall also provide for the preventive procedures for the protection of construction workers during work in areas where contaminated soils have previously been discovered.	
• The Heliotrope Elementary School site is located approximately 0.2 miles from the site. There is a potential that emitted hazardous substances, handling of acutely hazardous materials, substances or waste could negatively impact the school site if not well regulated and monitored.	**Mitigation Measure 3.3-1**	Less than Significant
• One of the parcels that make up the proposed park *site is included on a list of hazardous materials sites* compiled pursuant to Government Code Section 65962.5. Also, other properties comprising the proposed park are known to contain contaminated soil and groundwater.	**Mitigation Measure 3.3-1,** **Mitigation Measure 3.3-2,** **Mitigation Measure 3.3-3:** A minimum of 12 inches of certified clean fill material shall be placed over the entire park site as illustrated in TN & Associates' Health Risk Assessment dated July 19, 2002, and attached as Appendix D.	Less than Significant
Hydrology and Water Quality		
• A large percentage of the site will be graded to drain to proposed grassy swales. The low flow velocities in these swales will cause peak attenuation resulting in a decrease in the maximum flow rate leaving the site.		Less than Significant
Land Use		
• An existing railroad spur traverses the project site. Negotiations are underway with the Catellus Corporation to purchase the railroad right-of-way spur. The railroad spur was used to provide deliveries to an industrial business located within the project site.		Less than Significant
Noise		
• Construction of the project could be a short-term noise generator. However, the City Municipal Code indicates that no construction or repair work shall be performed between the hours of 7 p.m. and 7 a.m. of the following day on any weekday, since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling	**Mitigation Measure 3.6-3:** Construction contractors shall properly maintain and tune all construction equipment to minimize noise emissions. All internal combustion powered equipment shall be equipped with properly operating mufflers. **Mitigation Measure 3.6-4:** Construction contractors shall restrict noise-intensive construction to the hours of 7 a.m. to 7 p.m. Monday through Saturday. No noise-intensive construction shall take place on Sundays and federal holidays.	Less than Significant

hotel or apartment or other place of residence.	**Mitigation Measure 3.6-5:** Construction contractors shall provide the City a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site informing the public whom to contact. Adjacent residents within 100 feet of the property shall also be notified prior to construction activities and given the contact information. **Mitigation Measure 3.6-6:** During construction activities, the contractor shall ensure that portable equipment is located as far as possible from adjacent residences. If possible, construction employee parking shall be provided off site in a non-residential area.	
• Temporary construction activities may create vibration due to heavy equipment operations for demolition/ construction perceptible vibration from heavy equipment in soils typical of the Los Angeles Basin is dissipated within 50 feet (MTA Tunneling Study). On-site heavy equipment operations will typically be beyond 50 feet from the closest residence.	**Mitigation Measure 3.6-3,** **Mitigation Measure 3.6-4,** **Mitigation Measure 3.6-5,** **Mitigation Measure 3.6-6.**	Less than Significant
• Operational activities that could include noise generation could include recreational activity on site, portable public address systems, portable music systems, crowds at large events, and vehicular circulation. These sources would be limited to daylight hours, with a few exceptions for special events.	**Mitigation Measure 3.6-1:** Planned assemblies of more than 50 people, or planned use of a portable public address system for park events, shall first obtain a permit from the City of Maywood Parks Department. **Mitigation Measure 3.6-2:** The parking lot shall be closed and chained from 10 p.m. to 8 a.m. the next day.	Less than Significant
• Changes in noise levels affecting future park users would derive from changes in local traffic patterns. Traffic noise levels in the project area are not predicted to exceed City of Maywood planning standards in currently quiet areas, and any increase in noise attributed to the project is less than 3 dB in areas of existing elevated traffic noise.		Less than Significant
Transportation/Circulation		
• The proposed project is estimated to generate a total of 365 daily trip ends, of which 15 (10 In, 5 Out) trip ends would occur during the AM peak hour and 30 (10 In, 20 Out) trip ends would occur during the PM peak hour. However, all of the study intersections would have acceptable LOS A and B operations during both the AM and PM peak hours.		Less than Significant

• The proposed project would increase the number of vehicles parking in the project area. However, the project includes 57 parking spaces to serve the proposed Maywood Riverfront Park.		Less than Significant
• 59th Place, from east of Alamo Avenue to Walker Avenue, is proposed to have one-way eastbound operations only, with angled parking on the north side of the street as a part of the *Maywood Riverfront Park* project.	**Mitigation Measure 7.7-1:** Due to the changed intersection configuration at Walker Avenue and 59th Place, it is recommended (and has been assumed in these analyses) that the STOP sign which currently controls the northbound approach (Walker Avenue) be removed; leaving only a STOP sign for the eastbound approach (59th Place). Also, a physical barrier needs to be installed that would deter motorists on Walker Avenue from inadvertently turning west onto 59th Place, which would be an eastbound one-way street. **Mitigation Measure 7.7-2:** It is also recommended that the final design of 59th Place (from east of Alamo Avenue to Walker Avenue), including the one-way circulation and the angled parking, be reviewed be a qualified traffic engineer to ensure safe operations.	Less than Significant

1.0 INTRODUCTION

1.1. PURPOSE OF THE EIR

This Final Environmental Impact Report (Final EIR) has been prepared to meet all of the substantive and procedural requirements of the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq. as amended through January 1, 2001) and the rules, regulations and procedures for implementation of CEQA as adopted by the City of Maywood. The City of Maywood is the Lead Agency for this project, taking primary responsibility for conducting the environmental review and approving or denying the Precise Plan of Design (Design Review) under consideration.

Before beginning the preparation of an EIR, the Lead Agency must decide which specific issues should be evaluated in the document. CEQA Guidelines mandate various steps that Lead Agencies must take to define the scope and contents of an EIR, and also give lead agencies discretion to use additional "scoping" methods. For this project, the primary tool used to determine the scope of the Final EIR was the Initial Study.

As allowed by Section 15063 of the CEQA Guidelines, the Initial Study may be used to simplify preparation of an EIR by narrowing the scope of the issues evaluated. Therefore, the Initial Study may be used to:

- Focus the Draft EIR on environmental effects determined to be significant
- Identify effects that are not significant
- Explain why potentially significant effects were determined not to be significant; and
- Identify what type of EIR or other process can be used for the environmental analysis.

Under the statute, EIRs should focus their discussion on potentially significant impacts, and may limit discussion of other impacts to a brief explanation of why the impacts are not potentially significant. Under the Guidelines, environmental effects that were discussed in an Initial Study need not be discussed in the EIR unless the agency later receives information that is inconsistent with the findings of the Initial Study. This process results in a focused, or limited-topic EIR.

This Final EIR has been prepared to identify any potential significant environmental impacts associated with the implementation of the proposed project, as well as appropriate and feasible mitigation measures or project alternatives that would minimize or eliminate these impacts. According to PRC Section 21081, the Lead Agency must make specific Findings of Fact ("Findings") before approving the Final EIR, when the Draft EIR identifies significant environmental impacts that may result from a project. The purpose of the Findings is to establish the link between the contents of the Draft EIR and the action of the Lead Agency with regards to approval or rejection of the project. Prior to approval of a project, one of three findings must be made:

(1) Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the Draft EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other consideration, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Draft EIR.

Additionally, according to PRC Section 21081.6, for projects in which significant impacts will be avoided by mitigation measures, the Lead Agency must include in its Findings a Mitigation Monitoring Program ("MMP"). The purpose of the MMP is to ensure compliance with required mitigation during implementation of the project.

However, environmental impacts may not always be mitigated to a level considered less than significant: such impacts are considered significant and unavoidable. If a public agency approves a project that would result in significant and unavoidable environmental impacts, the agency shall state, in writing, the specific reasons for approving the project, based on information contained with the Final EIR, as well as any other information in the public record. The resulting document is called a Statement of Overriding Considerations, and serves to clearly state the proposed project's benefits when weighed against its unavoidable environmental risks. The public agency prepares the Statement of Overriding Considerations, if required, after completion of the Final EIR, but before project approval according to CEQA Guidelines Section 15091 and 15093. As further guidance, in *Citizens of Goleta Valley v. Board of Supervisors of Santa Barbara County* (1990, 52 Cal.3d 553), the California Supreme stated that:

> The wisdom of approving any development project, a delicate task that requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced.

Therefore, this document is intended to serve as an informational document, as stated in Section 15121(a) of the CEQA Guidelines:

> An EIR is an informational document, which will inform public agency decision makers, and the public generally of the significant environmental effect of a project, identifies possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the Draft EIR along with other information, which may be presented to the agency.

Furthermore, this Final EIR will constitute the primary source of environmental information for the lead, responsible, and trustee agencies to consider when exercising any permitting authority or approval power directly related to implementation of the proposed project.

1.2. DEFINITION OF A PROJECT EIR

A Project EIR, as defined within Section 15161 of the CEQA Guidelines, is an EIR which:

> Focuses primarily on the changes in the environment that would result from the development of the project. The EIR shall examine all phases of the project including planning, construction, and operation.

Where an agency has prepared a Project EIR, typically no further environmental review is necessary to carry out the project for which the document has been prepared. A subsequent EIR or supplemental EIR, however, may be required in certain circumstances outlined in Public Resources Code Section 21166 and CEQA Guidelines Section 15162 and 15163.

1.3. SCOPE OF THE EIR

This Final EIR addresses the potential environmental effects of the proposed project. The scope of the Final EIR includes issues identified by the City of Maywood during the preparation of the Initial Study (IS) and Notice of Preparation (NOP) for the proposed project and comment letters received during the IS/NOP review period. The IS/NOP and comment letters received during the NOP review period are included in Appendices A and B of this Final EIR. Based on this information, the Lead Agency has determined that implementation of the proposed project may result in potentially significant impacts. Chapter 3.0 discusses the following environmental issues:

- Aesthetics
- Air Quality

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Circulation

In accordance with Section 15063(c)(3)(B) of the State CEQA Guidelines, the IS/NOP (Appendix A) assists in the preparation of an EIR by identifying effects determined not to be significant, as determined by a brief environmental analysis, supported by evidence. The IS/NOP determined that the following effects are not significant and this Final EIR does not discuss them further:

- Agricultural Resources
- Biological Resources
- Cultural Resources
- Geology and Soils, and
- Mineral Resources

1.4. ENVIRONMENTAL REVIEW PROCESS

As a first step in complying with the procedural requirements of CEQA, the City of Maywood prepared an IS to determine whether any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment and, if so, to narrow the focus (or scope) of the environmental analysis. For this project, the IS indicated that an EIR would be the appropriate type of environmental document to address potential environmental impacts resulting from project planning, implementation, and operation.

After completion of the IS, the City filed an NOP with the California Governor's Office of Planning and Research as an indication that the EIR would be prepared. In turn, the first IS/NOP was distributed for a 30-day public review period, which began on May 23, 2002, and ended June 24, 2002. The purpose of the public review period was to solicit comments on the scope and content of the environmental analysis to be included in the Draft EIR. The City of Maywood received comment letters on the IS/NOP from the following agencies:

- State of California Department of Toxic Substances Control
- State of California Department of Transportation, District 7, Regional Planning
- State of California Regional Water Quality Control Board

- County of Los Angeles Sanitation District
- County of Los Angeles Department of Public Works

The IS/NOP and their respective comment letters are included in Appendices A (IS/NOP) and B (comment letters) of this EIR.

During the preparation of the EIR, agencies, organizations, and persons who the City of Maywood believes may have an interest in this project were specifically contacted. Information, data, and observations from these contacts are included in the EIR. Agencies or interested persons also had an opportunity to comment during the public review of the Draft EIR, as well as at subsequent hearings on the project.

1.5. SCOPING MEETING

In accordance with CEQA, the City of Maywood conducted an EIR scoping meeting on July 11, 2002, at the Maywood Community Center. Comments received at the scoping meeting have been incorporated into the Draft EIR and will be included in a separate section of the EIR along with public comments on the Final EIR.

1.6. INTENDED USE OF THE EIR

As previously mentioned, this EIR is intended to provide the Lead Agency, interested public agencies, and the public with information which enables them to intelligently consider the environmental consequences of the proposed action. EIRs not only identify significant or potentially significant environmental effects, but also identify ways in which those impacts can be reduced to less-than-significant levels, whether through the imposition of mitigation measures or through the implementation of specific alternatives to the project. In a practical sense, EIRs function as a technique for fact-finding, allowing an applicant, concerned citizens, and agency staff an opportunity to collectively review and evaluate baseline conditions and project impacts through a process of full disclosure.

To gain the most value from this report, certain key points should be kept in mind:

- This report should be used as a tool to give the reader an overview of the possible ramifications of the proposed project. It is designed to be an "early warning system" with regard to potential environmental impacts.

- A specific environmental impact is not necessarily irreversible or permanent. Most impacts, particularly in urban, more developed areas, can be wholly or partially mitigated by incorporating changes recommended in this report during the design and construction phases of the project development.

1.7. REQUIRED APPROVALS

This EIR will be used in connection with permits and other discretionary approvals necessary for implementation of the proposed project. The proposed project may require the following discretionary approvals by the City of Maywood:

1.7.1. Requested Approvals

- Approval of Precise Plan of Design (Design Review)

1.7.2. Other Agencies Whose Approval is Required

In addition to the Lead Agency, there are also local, state, and federal responsible agencies that have discretionary or appellate authority over specific aspects of the proposed project. The responsible agencies will also rely on this EIR when acting on those aspects of the project that require their approval. The following approvals are anticipated:

- ***County of Los Angeles***. Storm Drain Connection Permit
- ***Environmental Protection Agency.*** Environmental Remediation/Monitoring.
- ***Department of Toxic Substances and Control.*** Public Health Assessment.
- ***Regional Water Quality Control Board, Los Angeles Region.*** National Pollutant Discharge Elimination System (NPDES) general construction permit.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The City of Maywood is a small residential community located southeast of the City of Los Angeles. The City has an area of 1.14 square miles and a population of 29,469. The City is one of the smallest cities in Los Angeles County in terms of land area and is the most densely populated city in California. Ninety-three percent of the population is Latino, with a majority of that population being young. Over half of the population is between the ages of 5 and 24 years old. Maywood has only two parks, with a combined area of 5.8 acres; this area is far below the National Parks and Recreation Association recommendation of six to ten acreas of park space for every 1,000 people.

Maywood has approximately one-half mile of river frontage between Slauson Avenue and Randolph Street on the west bank of the Los Angeles River. It is an urbanized community situated approximately 8 freeway miles south of the Los Angeles Civic Center. The City is bounded by District Boulevard to the east, Downey Road to the west, Fruitland Avenue to the north, and Randolph Street to the south. Maywood is surrounded on three sides by heavy industry and is tied to the metropolitan area by Slauson Avenue and Atlantic Boulevard, as well as by I-710, the Long Beach Freeway. Cities bordering Maywood include: City of Vernon to the north and west, and the Cities of Huntington Park and Bell to the south, and the City of Bell to the east. Figure 2.0.1 shows the location of Maywood within Los Angeles County.

The project site is located between Slauson Avenue on the north, 60th Street on the south, the Los Angeles River on the east, and Alamo Avenue and Walker Avenue on the west. The site consists of eight parcels, including portions of District Boulevard and 59th Place. The irregularly shaped project site is located in the southeast portion of the City of Maywood, and as illustrated in Figure 2.0.2.

2.2. SITE CHARACTERISTICS

There are eight parcels that make up the project site. The City is in the process of acquiring or has acquired all of these properties to facilitate the park development. The parcels listed below are identified in Figure 2.0.3:

1. **W.W. Henry**
5920 Alamo Avenue (APN 6314-030-005)
Status: The building has been demolished and the Regional Water Quality Board is requiring clean up of the site.

2. **Catellus**
5950 Walker Avenue (APN 6314-032-900)
Status: This area has been converted to an interim park.

3. **Burlington Northern Railway**
Railroad spur leased by L.A. Junction (APN 6314-030-800)
Status: The City of Maywood is negotiating purchase of the railroad spur. The site is currently being investigated for contamination. The railroad spur is located adjacent to Pemaco, which is a superfund site.

4. **Pemaco**
5050 Slauson (APN 6314-003-001)
Status: The building has been demolished. This is a superfund site with potential groundwater contamination. The Environmental Protection Agency is planning to install a groundwater treatment system at the southeast corner of the park site for an undetermined period of time as remediation for the contamination.

5 & 6. **District Boulevard /59th Place**
City owned street right-of-ways.
Status: No studies have been conducted nor proposed for this area.

7. **Lubricating Oil Services**
5989 S. District Boulevard (APN 6314-032-008)
Status: The building has been demolished. An environmental review has been conducted for the property and Cape Environmental Management has taken remedial action. The Regional Water Quality Control Board (RWQCB) has issued a "no further Action" letter. However, further health risks need to be assessed.

8. **Precision Arrow**
5026 Slauson (APN 6314-030-004)
Status: The existing building will be demolished. A Phase I environmental analysis was conducted and there is no history of contamination on this site.

The Maywood Riverfront Park project is part of a larger effort to create a "greenway" along the 51 miles of the Los Angeles River. Interest in reclaiming the natural functions and recreation potential of the river was galvanized in the mid-1980s with the founding of the Friends of the Los Angeles River. In 1993, the Conservancy released a Los Angeles River park and recreation study that was commissioned by the Legislature and recommended park, open space, and habitat projects along the river.

The Trust for Public Land, through its Los Angeles River Greenway Program, is a leader in working with local agencies to convert riverfront brownfields properties into park and staging areas for the Los Angeles River ("Lario") trails. The Greenway Program is currently focusing on the small cities berween Los Angeles and Long Beach, which are among the most park-poor, densely-populated areas of Los Angeles County.

2.2.1. Topography

The project site is relatively flat. Elevations range from 141 feet above mean sea level (MSL) at the southeast corner of the parcels, to 152 feet above MSL at the northeast corner adjacent to Disctirc Boulevard and the Los Angeles River Flood Control. The entire site has previously been graded.

2.2.2. Site Cover

With the exception of the two buildings located on the Precision Arrow property, the majority of the project site is vacant and permeable.

2.2.3. Surrounding and On-Site Land Uses

Existing, on-site land uses comprise of two existing industrial buildings located at 5010 and 5026 Slauson Avenue, and an existing park located at 5950 Walker Avenue and 5989 South District Boulevard.

The project site is presently used for industrial and manufacturing purposes. It borders a residential neighborhood of low-to-moderate income families. The Riverfront Park project would convert the project site into a regional park with landscaping, and amenities and equipment for both passive and active recreational uses, with a view of the Los Angeles River. The General Plan land use and zoning designations for the neighboring properties are shown in Table 2.0.1. Photographs of surrounding land uses are presented as Figures 2.0.4 through 2.0.9.

Figure 2.0.1
Regional Location Map

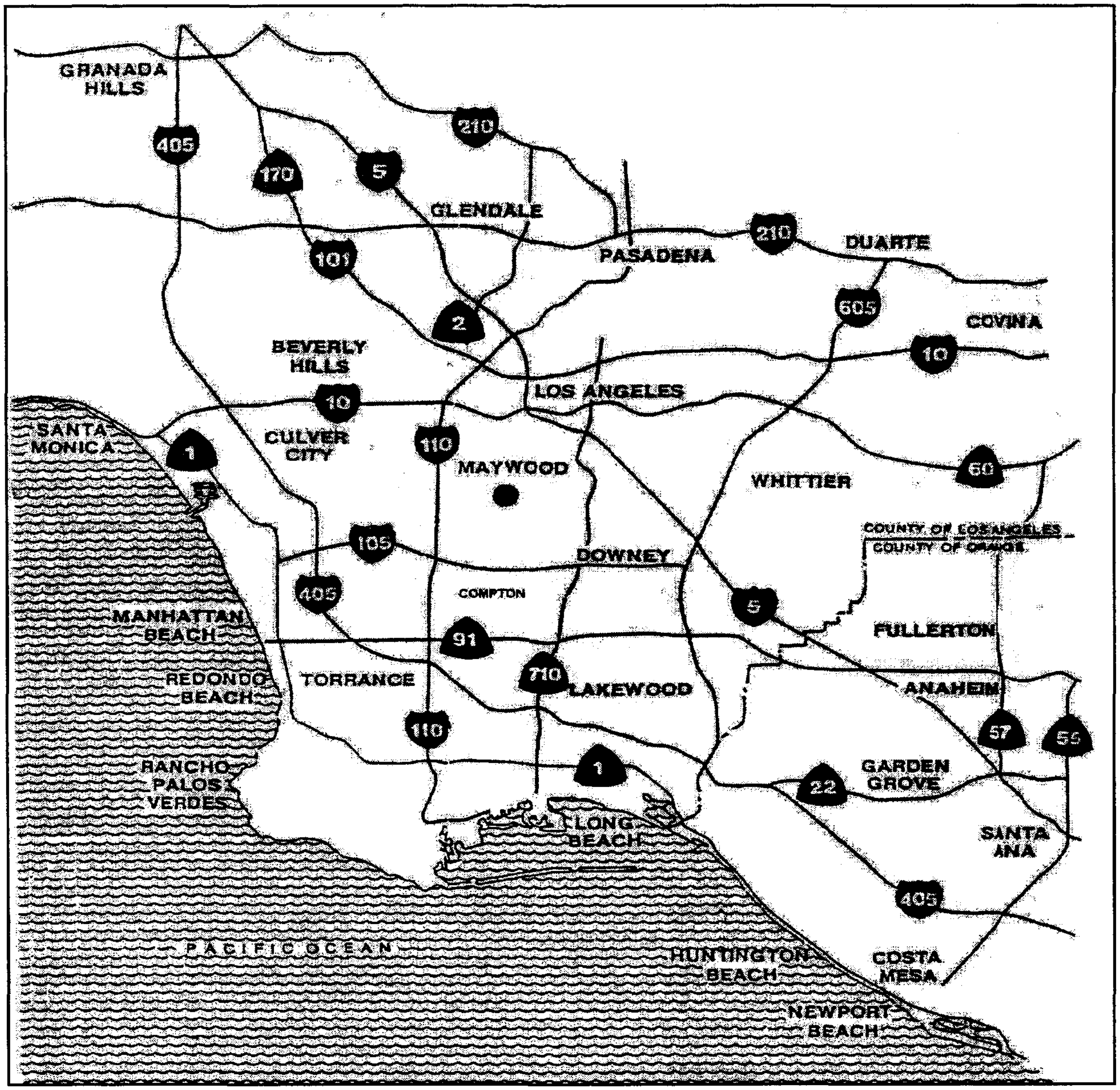


Figure 2.0.2
Project Site Location

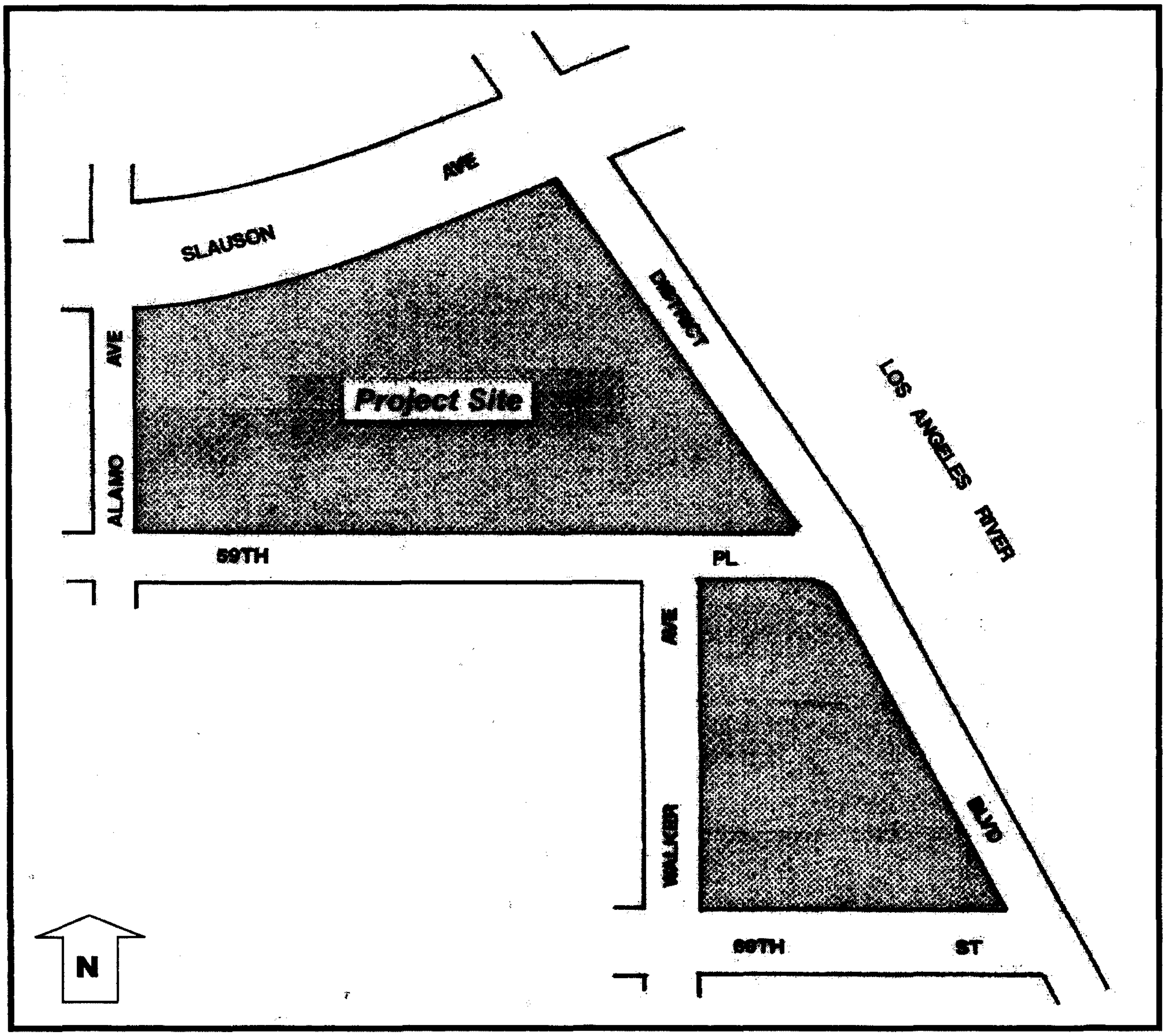


Figure 2.0.3
Existing Parcels

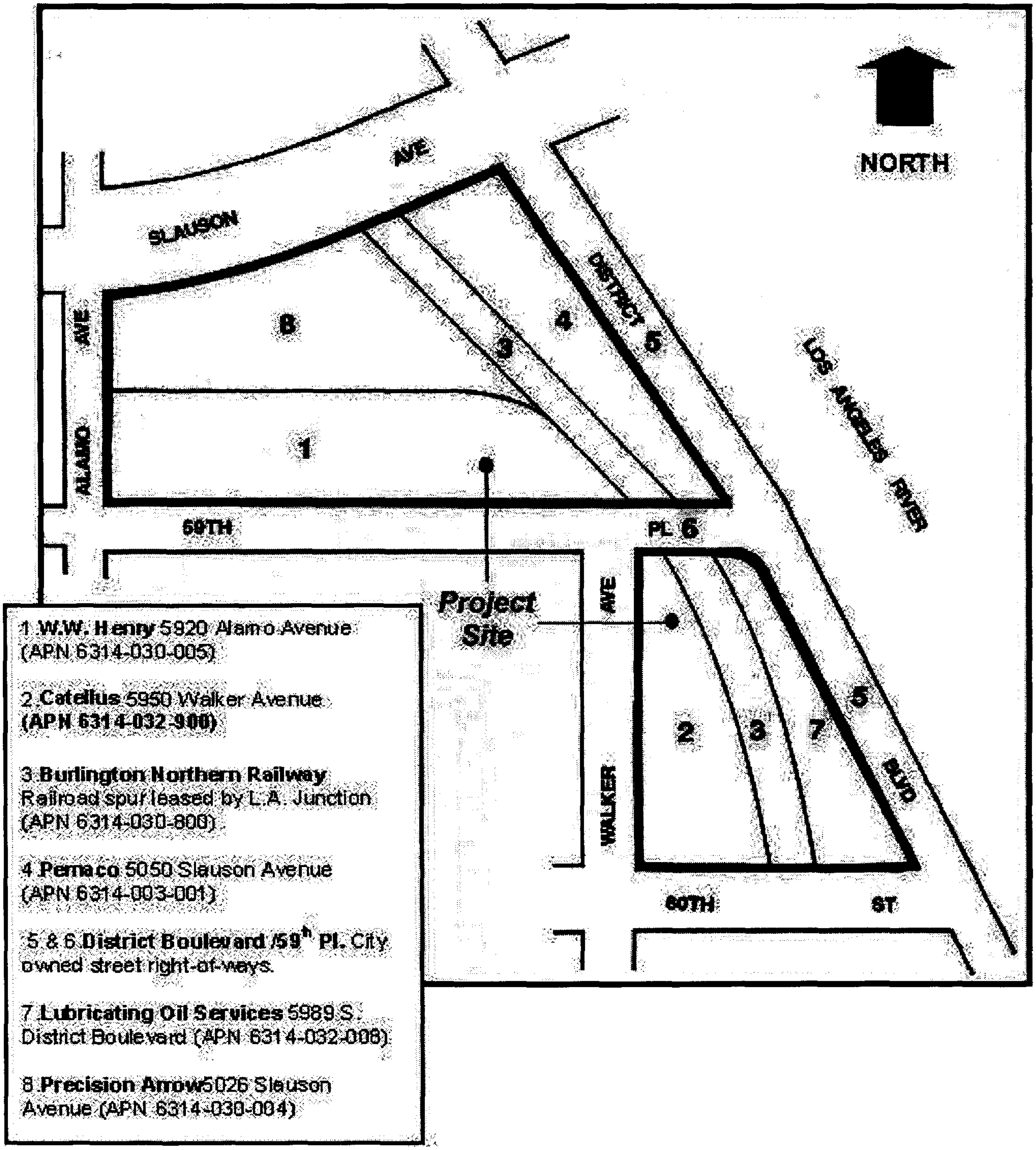


TABLE 2.0.1
GENERAL PLAN LAND USE AND ZONING DESIGNATIONS OF SURROUNDING LAND USES

Location In Relation To Project Site	General Plan Land Use Designation & Current Use	Zoning
North	City of Vernon - Industrial	Industrial (M)
South	City of Bell - Residential	Multi-Family Residential (R-3)
East	Los Angeles River Commercial Neighborhood and Commercial	Commercial Neighborhood (CN) and Commercial (C)
West	General Commercial (0.25–0.5 FAR) and Specialty Residential (2-48 du/acre, 75-100 persons/acre)	Multi-Family Residential (R-3)

du/ac = dwelling units per acre

2.3. PROJECT OBJECTIVES

The City of Maywood is completely urbanized with little open space remaining in the City. Recognizing that open space in the City is a premium, the community has emphasized the need to preserve existing open space used for recreation and to expand open space opportunities where it is feasible. Existing parks in the City include Maywood City Park and Pixley Park, which have a combined land area of 5.8 acres. The City would need over 61 acres of parkland to meet nationally recognized standards that evaluate needed park area for a given population. The proposed project is a 7.3-acre park development proposed primarily to meet the park demands of the residents of the City of Maywood.

The following project objectives have been established to meet the City of Maywood General Plan Open Space goals. These include:

a. Providing more open space to meet the specific needs of the residents of the City of Maywood.
b. Developing a park of adequate size to provide recreational facilities with adequate off-site parking.
c. Utilization of the parkland development overlay zone established for properties zoned for industrial uses (M-1).
d. Eliminating industrial uses in proximity to developed, residentially zoned properties.

This section describes the location and existing characteristics of the project site and surrounding area, project objectives, proposed structures and uses, and approvals required for project implementation. This section also provides information regarding anticipated uses of this EIR by agencies other than the lead agency. Illustrations show the project's proposed appearance, details and analysis of the project's anticipated environmental impacts follow in Chapter 3, organized by subject matter.

2.4. PROJECT HISTORY

As indicated above, with the exception of the Precision Arrow site, there are no buildings on the project site. However, there is a vapor extraction system consisting of a thermal oxidizer and six vapor extraction wells installed on the W.W. Henry site. With consent of the property owner, the vapor extraction system will be relocated to the southeast corner of the park site where the Environmental Protection Agency (EPA) is proposing a water treatment facility. At one time, the W.W. Henry site was a manufacturing facility that utilized certain hazardous substances as part of its normal business operations. The property contained three underground tanks that were removed in 1997 and three underground storage tanks are still pending closure from the Los Angeles County Department of Public Works.

T N & Associates, Inc. (TN&A) prepared a site-specific health risk assessment for the proposed Maywood Riverfront Park site. Most of the properties, like the W.W. Henry site, had historical industrial uses resulting in environmental impacts to soil and groundwater underlying each of the properties. The following list summarizes the course of action described in the health risk assessment above:

1. Identify a site-specific list of constituents of concern (COC's) for the proposed Maywood Riverfront Park properties using historical sources and environmental assessments.

2. Develop risk-based, site-specific target remediation goals for each COC.

3. Identify areas of the proposed park that have had soil tests results exceed the site specific remediation goal for any of the COC's or areas where there is an indication the COC's may exist, but no tests were performed.

4. Work with the City of Maywood and other associated entities to develop mitigation measures that address identified areas exceeding site-specific remediation goals.

Table 2.0.2 summarizes the chemicals that had detected concentrations above the site-specific remediation goals for the future Maywood Riverfront Park user:

Table 2.0.2
Chemicals Exceeding Future Park User Remediation Goals

Metals	Polychlorinated biphenyls (PCB's)	Polycyclic Aromatic Hydrocarbons (PAH's)
Arsenic	Arochlor-1260	Benzo (a) anthracene
Iron	Arochlor-1254	Benzo (a) pyrene
Lead		Benzo (b) fluoranthene
		Benzo (k) fluoranthene
		Chrysene
		Dibenzo (a,h) anthracene
		Indeno (1,2,3-cd) pyrene

2.4.1. Findings

The risk assessment found that certain chemicals do exist in shallow soil that could potentially pose an unacceptable health risk to future park users. The most feasible mitigation measure to eliminate these health risks would be to import clean fill material and place a minimum 1- foot thick layer of this clean fill over the entire park site. This mitigation measure will need to be integrated into the park grading plan and park design to ensure that the clean fill is in place as the uppermost soil layer after the final grading is complete.

The methodology and detailed analysis of the risk assessment will be provided under Hazards and Hazardous Materials Section of the Draft EIR (Section 3.3).

Figure 2.0.4
W.W. Henry, 5920 Alamo Avenue (APN 6314-030-005)

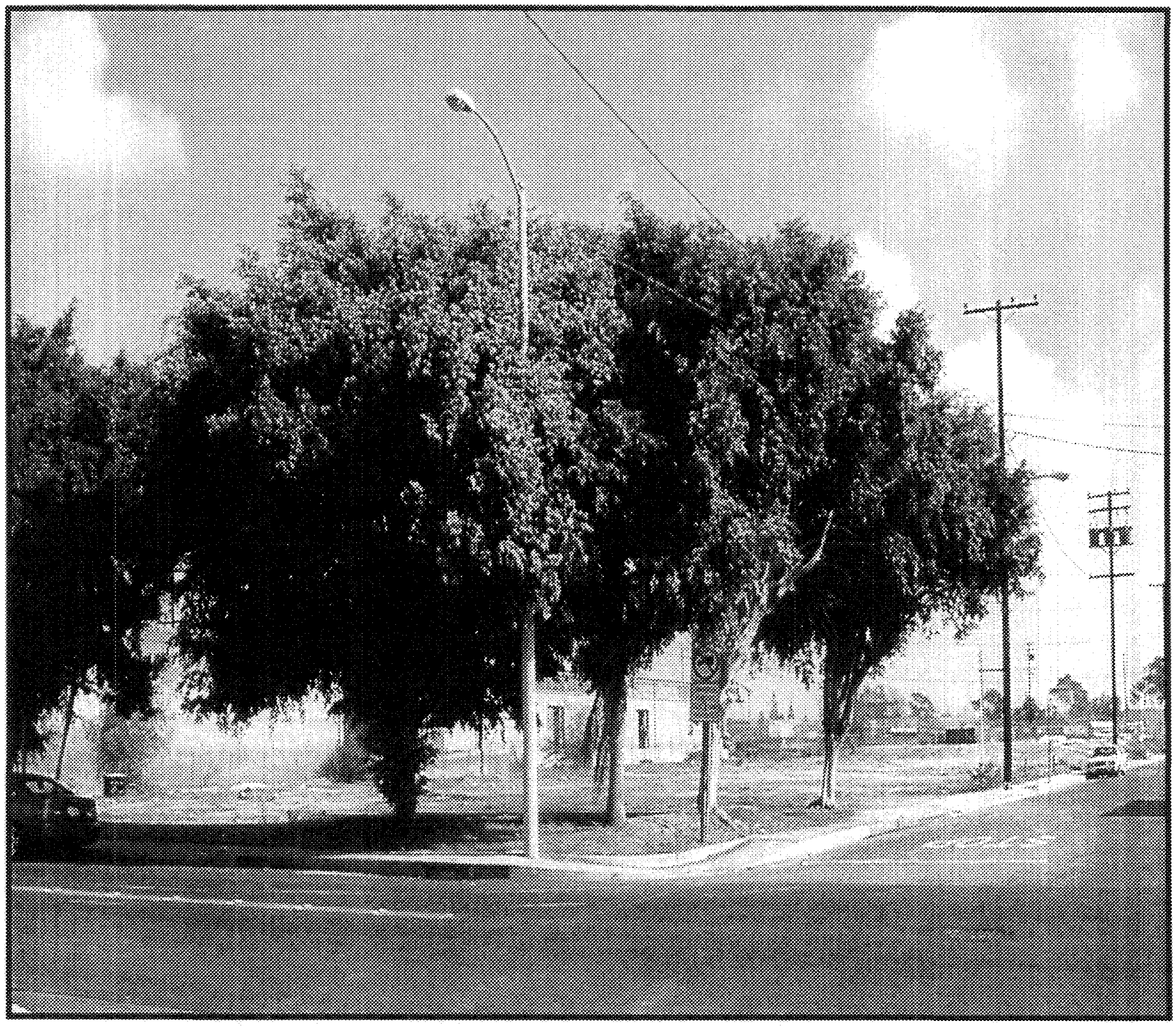


Figure 2.0.5
Catellus, 5950 Walker Avenue (APN 6314-032-900)

Figure 2.0.6
Burlington Northern Railway
Railroad spur leased by L.A. Junction (APN 6314-030-800)

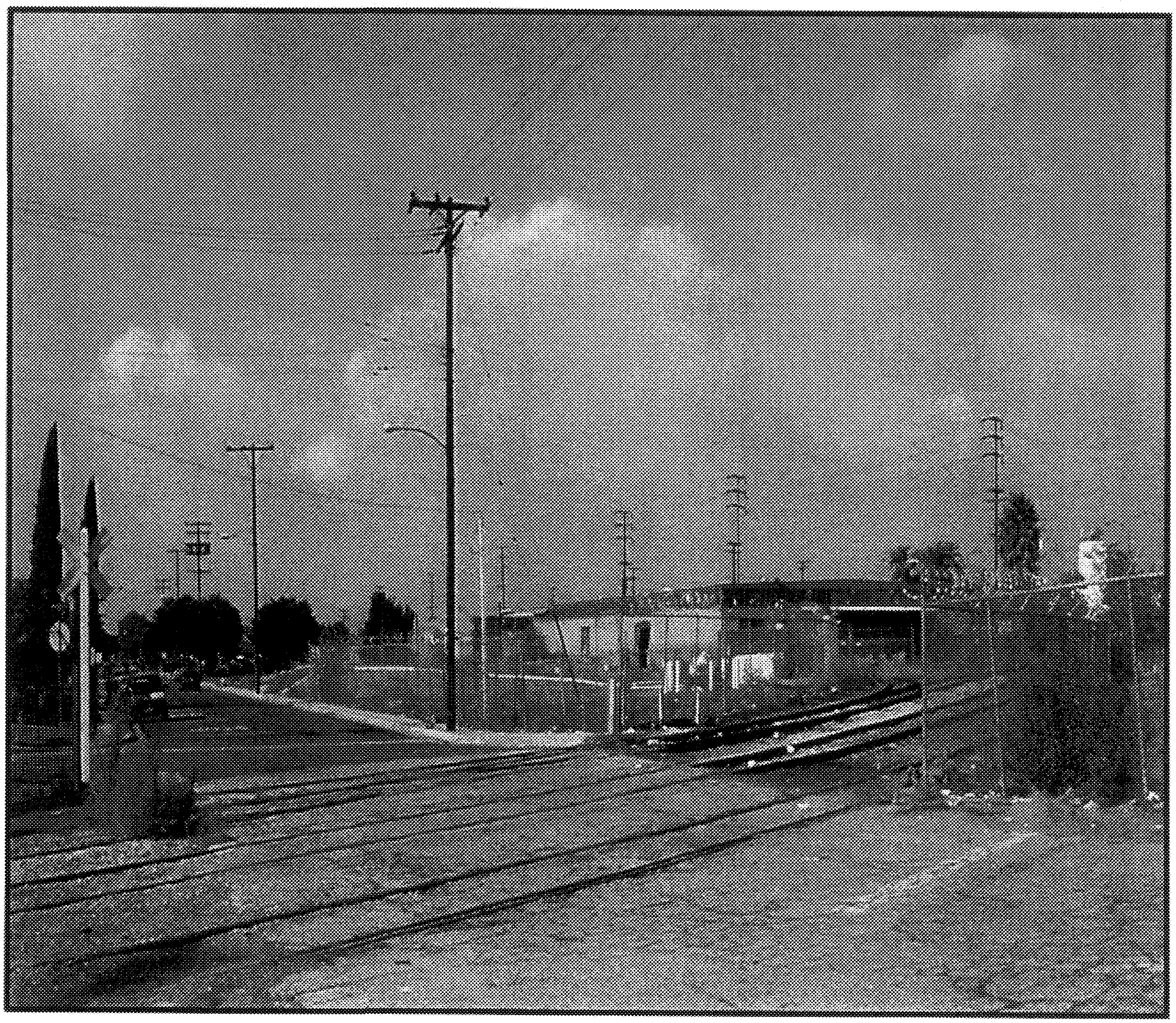


Figure 2.0.7
Pemaco, 5050 Slauson Avenue (APN 6314-003-001)

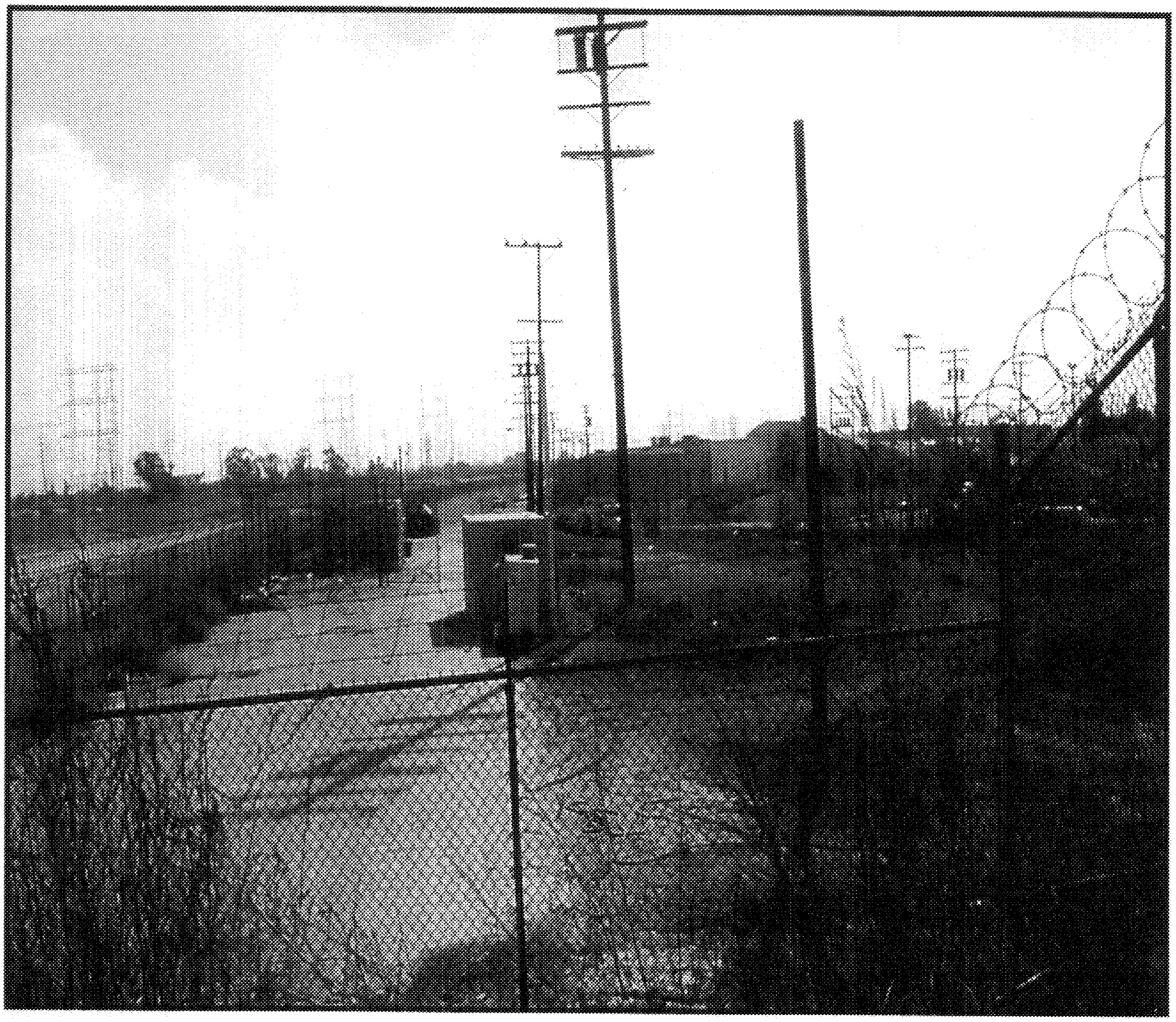


Figure 2.0.8
Lubricating Oil Services
5989 S. District Boulevard (APN 6314-032-008)

Figure 2.0.9
Precision Arrow 5026 Slauson Avenue (APN 6314-030-004)

2.5. DESCRIPTION OF PROPOSED PROJECT

2.5.1. Project Characteristics

The proposed project consists of a Precise Plan of Design (Design Review) for the construction of a 7.3-acre park for the residents of the City of Maywood. The park would be located along Alamo Avenue, 59th Place, Walker Avenue, and 60th Street in the City of Maywood. The site currently is comprised of two industrial buildings located at 5010 and 5026 Slauson Avenue, and an existing park located at 5950 Walker Avenue and 5989 South District Boulevard.

The site would then be graded to a level dictated by the findings in the Risk Assessment analysis. The proposed park would include a bridge, trails, lawn and picnic areas, a basketball court, a soccer field, and the incorporation of a swale to add to a natural habitat setting and aid in the control of runoff. Field lighting would be provided for evening use of the park. The lighting would be installed and operated in accordance with the most current practices in the industry, paying careful attention to the location of the park in relation to residential properties.

Development of the park project would include construction of foundations, restroom facilities, retaining walls, landscaping, sidewalks, bicycle paths, a staging area for those using the Los Angeles River bicycle trail, driveways and drive aisles providing access to the site. A total of 57 parking spaces would be provided for park users; 30 spaces would be located on site at the southwest corner of Alamo Avenue and 59th Place, and 27 off-street spaces would be located along 59th Place, which will be converted into a one-way street (Figure 2.0.10 – Project Site Plan).

The project would involve relocation of overhead utility lines and demolition of two industrial buildings. A groundwater treatment facility and other site remediation equipment for the industrial parcels are proposed to be installed at the southeast corner of the site and will operate for an undetermined period of time until the site is adequately remediated. Off-site improvements proposed as part of this project include the conversion of 59th Place to a one-way street with angled parking provided on the street.

2.5.2. Cumulative Scenario

As stated in Section 15130(b) of the CEQA Guidelines, the following elements are necessary for an adequate discussion of significant cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

Table 2.0.3
Related Projects

PROJECT	DESCRIPTION	STATUS
Past Projects		
Senior Development – 4560 Slauson Avenue.	38,034 sq. ft., 55-unit senior development	Completed 1990
Watts Shopping Center – 4001 Slauson Avenue.	Construct 18,000 sq. ft. shopping center	Completed 1992
Maywood Multi-purpose Recreational Facility.	Construct a 30,000 sq. ft. community building including an indoor basketball court, weight room, banquet hall and day care center	Completed 1999
Present Projects		
Slauson Street Improvements	Addition of new raised medians in the center of Slauson Avenue to include: landscaping, monument signage and decorative banner poles with flags; installation of trees and new bus shelters in the public right of way on either side of the street.	Pending

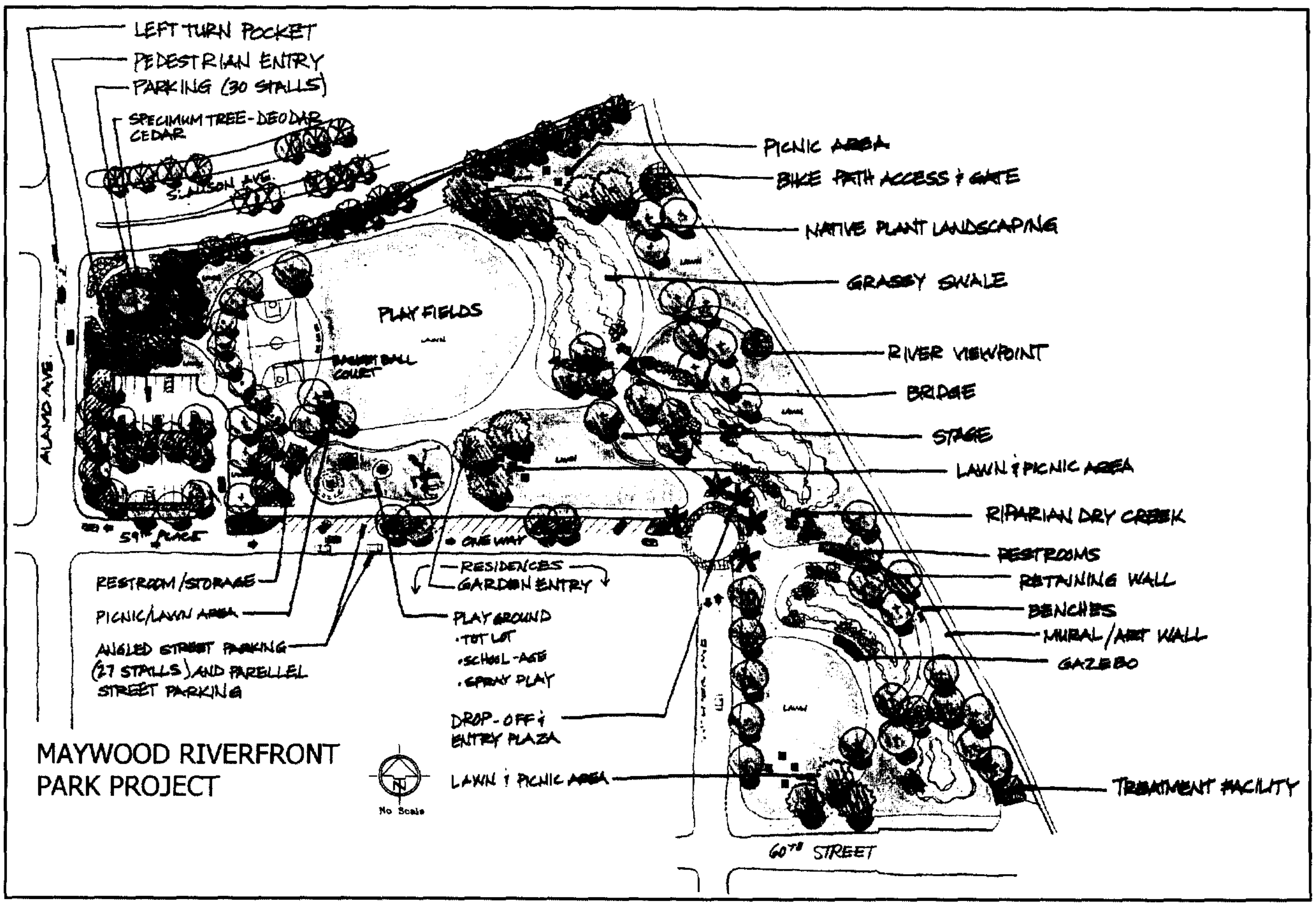
Source: City of Maywood Building and Planning Department

As indicated by the list, the past projects, because of their age, would not affect the proposed park development. Depending on the timing of Slauson Street improvements, minimal impacts with site accessibility for demolition and construction vehicles may be experienced. The City Engineer of the City of Maywood has indicated that Slauson Street improvements would commence in September 2002, but would not interfere with the proposed project because traffic lanes on Slauson Street would still remain open during the street improvement process. No impacts to the proposed project are anticipated.

- A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative project.

It is anticipated that the proposed project would be completed by April 2003, in accordance with the project grant from the State Resources Agency. For the purpose of further refining the cumulative impact analysis in this EIR, the "cumulative context" for the proposed project includes the existing, previously approved, and reasonably foreseeable future projects within the geographical area that would contribute to the particular cumulative impact. Those projects are listed in Table 2.0.3

Figure 2.0.10
Proposed Project Site Plan



3.0 ENVIRONMENTAL IMPACT ANALYSIS

This chapter describes the existing environmental resources at the project site and adjacent locations, analyzes potential impacts on those resources due to the proposed project, and identifies mitigation measures that could avoid or reduce the magnitude of any significant impacts. The evaluation of effects is presented on a resource-by-resource basis in Section 3.1 through Section 3.9. Each technical section is divided into four subsections: Introduction, Existing Conditions; Regulatory Framework; Threshold of Significance; Impacts; Cumulative Impacts, and Mitigation Measures. Each of these subsections is described below:

Introduction

The introduction provides an overview of the analysis within each section.

Existing Conditions

The existing conditions in each technical section include information about the physical environmental conditions in the vicinity of the project (as they exist at the time the notice of preparation is published) that are relevant to that particular environmental issue area. This establishes a baseline against which to compare the effects of the proposed project.

Regulatory Framework

A summary of relevant local and regional plans and policies is provided.

Thresholds of Significance

This section defines the type, amount, or extent of impact that is considered a significant adverse change in the environment. Some thresholds are quantitative (e.g. air quality, traffic, noise), while others are qualitative (e.g. visual quality). The thresholds are intended to assist the reader in understanding why the EIR reaches a conclusion that an impact is significant or less than significant.

Impacts

This section describes the potential environmental impact(s) of the project (listed separately) and, based upon the Threshold of Significance, concludes whether the project impact would be significant or less than significant. When a conclusion of a significant impact is reached, this subsection may include feasible mitigation measures that could reduce the impact of the project to a less than significant level. If mitigation measures are included, the section concluded with a statement regarding whether the impact, following implementation of the mitigation measure(s), would remain significant, or would be reduced to a less than significant level.

Cumulative Impacts

This Section describes cumulative impacts to which the project contributes. The summary of cumulative impacts is based upon related projects and projected regional growth in the surrounding area.

Mitigation Measures

This Section describes feasible mitigation measures that would substantially reduce an identified impact, as described above under impacts.

3.1 AESTHETICS

3.1.1. INTRODUCTION

As identified in the Initial Study (Appendix A) that was prepared for this project, it was determined that the implementation of this proposed project would not impact scenic vistas, scenic resources or the visual character or quality of the site and its surroundings. Therefore, this section specifically examines the potential effects of project-related light level increases. Particular consideration is given to the generation of nighttime light levels and the glare generated in relationship to surrounding residential uses to the south across 59th Place and Walker Avenue.

3.1.2. EXISTING CONDITIONS

The City of Maywood

The City of Maywood can be characterized as an urbanized environment that has been intensely developed. Primarily streetlights, exterior lighting on structures, parking lot lighting, illuminated commercial business signs, and vehicle headlights provide the ambient lighting emitted in the City at night.

The Project Site

Currently, few sources provide internal lighting on the proposed project location at night. While a small park currently exists at the southeast corner of the project site, the park is utilized primarily during daytime hours due to the absence of lighting at the park site. There are streetlights adjacent to the existing park site that provides some measure of evening and nighttime lighting.

3.1.3. REGULATORY FRAMEWORK

The City of Maywood General Plan and zoning code does not provide standards for light illumination as it pertains to sensitive land uses. However, since lighting is to be provided on the park site, and due to the site's proximity to residential land uses, some measure of mitigation needs to be provided to eliminate or reduce light intrusion into residential properties.

Scoping Meeting

At the EIR scoping meeting conducted at the Maywood Community Center on July 11, 2002, residents raised concerns about park security and lighting. The overwhelming consensus was that some level of nighttime lighting need to be provided at the park to keep gangs and criminals from taking over the park at night. This security concern needs to be balanced with the desire to not flood residential properties adjacent to the park site with unwanted night lighting.

3.1.4. THRESHOLDS OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) Guidelines, Appendix G – Significant Effects indicates "a project may be deemed to have a significant effect on the environment if it will:

1. Have a substantial effect in a scenic vista;

2. Substantially damage scenic resources;

3. Substantially degrade the existing visual character of the site of the quality of its surroundings, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or

4. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Since the City of Maywood does not have in place standards for nighttime light illumination, existing industry standards designed to protect sensitive land uses from excess light spillover will be implemented in the construction of the park.

3.1.5. IMPACTS

Aesthetics

Construction of the proposed project will have a short-term adverse aesthetic impact on the residences fronting the park along 59th Place and Walker Avenue, as existing structures are demolished and removed, and the site is graded in preparation for the construction of the park. The construction phase is anticipated to last approximately six months. Construction days and hours of operation are limited by the City to every day, 7 am to 7 pm, with no construction allowed on Sundays and holidays. Measures to control potential fugitive dust emissions and noise from construction activity are included in Section 3.2 (Air Quality) and Section 3.6 (Noise). The remaining construction phase aesthetic impact is considered to be less than significant.

With project construction, views of the project site from Slauson Avenue and Alamo Avenue, and from remaining residences along 59th Place and Walker Avenue will be replaced by the park with its surface parking, restroom building, ball fields and lighting associated with the proposed park. It is anticipated that this view would be more pleasing in comparison to the existing industrial buildings and remediation equipment. As discussed in Section 2.0, project description, a water treatment facility and the vapor extraction equipment currently located at the former W.W. Henry site would be relocated to the southeast corner of the project site. The facilities will be screened to further reduce aesthetic impacts. New trees and shrubs will be provided as part of the park design to add vegetation to the site where there currently are no trees or shrubs. Special attention will be paid in the park design to screen the water treatment facility and the vapor extraction equipment.

Lighting

With development of the proposed park, new lighting sources will be introduced to the site. New shielding designs and lighting technology will be utilized to reduce potential light spillover, glare and glow effects associated with new lighting. The light standards will also be located such that they result in minimal intrusion into the adjacent residences.

Signage

Signage plans and details for the proposed park are not yet known. However, it is anticipated that signage will be limited to non-illuminated monument signs. It is also anticipated that interpretive signage for the native landscaping will be included in the sign details.

3.1.6. CUMULATIVE IMPACTS

The impact area for project and cumulative aesthetic and visual effects is limited to view sheds encompassing the project site from surrounding vantage points. There are no related projects within the view shed of the proposed park facility that could result in cumulative impacts. The project's contribution to cumulative night illumination effects within the area is insignificant.

3.1.7. MITIGATION MEASURES

Mitigation Measure 3.1.1

During the required design/site plan review of the proposed park development, the City shall ensure that site improvements, including lighting do not adversely affect adjacent land uses.

Mitigation Measure 3.1.2

Site lighting after hours of operation shall be limited to lighting levels necessary for site security and identification. Compliance shall be demonstrated through Project lighting plan submittals.

Mitigation Measure 3.1.3

Signage plan shall be reviewed for quality of design and aesthetic appearance and shall be designed to be consistent with the Los Angeles River Signage Manual. The Planning Division shall specify requirements during plan/design review and the Building Division shall monitor compliance.

3.1.8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project aesthetic and visual impacts will be reduced to less than significant levels with implementation of the project design features and mitigation measures outlined above.

3.2 AIR QUALITY

3.2.1. INTRODUCTION

A project is deemed inconsistent with air quality plans if it will result in population and/or employment growth that exceed growth estimates included in the applicable air quality plan. Therefore, proposed projects need to be evaluated to determine whether they will generate population and employment growth and, if so, whether that growth will exceed the growth rates included in the relevant air plans.

The proposed project is designed to serve the local community. The park will primarily serve the residents the City of Maywood. Park visitors may also come from nearby surrounding communities from the cities of Vernon, Bell, Cudahy, or Huntington Park. The project would meet recreational demand in an underserved community/area close to the source of the demand. It would allow access by walking, bicycling or other non-vehicular sources. The project is consistent with vehicle mile travel/vehicle trip (VMT/VT) reduction goals of the air quality plan. The proposed project would not conflict with, or obstruct implementation of the South Coast Air Basin Air Quality Management Plan.

The project site is located within the South Coast Air Basin (SCAB). Air quality conditions in the SCAB are regulated by SCAQMD. The SCAB region has been designated by the US Environmental Protection Agency as non-attainment with respect to meeting ambient air quality standards for several air pollutants, including carbon monoxide, PM_{10}, and ozone.

Air Quality Standards

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the basin, and its meteorological conditions. During several times of the year, the SCAB experiences poor atmospheric mixing conditions and light winds which are conducive to the accumulation of air pollutants and thus poor air quality.

Air quality is measured by comparing contaminant levels in ambient air samples to national and state standards. These standards are set by the U.S. Environmental Protection Agency and the California Air Resources Board at levels determined to be protective of public health and welfare with an adequate margin of safety. The federal Clean Air Act of 1970 first authorized national ambient air quality standards. California ambient air quality standards were authorized by the State legislature in 1967. The California Ambient Air Quality Standards (CAAQS) describe adverse conditions; that is, pollution levels must be below these standards before a Basin can attain the standard. National Ambient Air Quality Standards (NAAQS) describe acceptable conditions. Air quality is considered in "attainment" if pollutant levels are below or equal to the standards continuously and exceed them on average no more than once each year (NAAQS).

California standards are generally more stringent than the national standards and are never to be exceeded.

3.2.2. EXISTING CONDITIONS

Existing Air Quality Conditions

Existing levels of ambient air quality and historical trends in the Maywood area are well documented by measurements made by SCAQMD at both its Central Los Angeles and/or Pico Rivera air monitoring stations. Air quality patterns at both monitoring sites are very similar such that the downtown Los Angeles site was used to characterize baseline air quality. Monitored air pollutants at this site include ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x) (as SO_2), sulfates, lead, and PM_{10} particulates.

Air quality trends developed at the Central Los Angeles monitoring station for the past 3 years are presented below in Table 3.2-2. As seen from Table 3.2-2, air quality standards have been exceeded in the Central Los Angeles air monitoring station area for particulate matter (PM_{10}) and ozone. This is consistent with the entire SCAB's classification as non-attainment for PM_{10} and ozone. Non-attainment in the South Coast Air Basin is a result of numerous factors, including meteorological and geographic features, population density, industrial factors, and age of automobiles in use in the area.

3.2.3. REGULATORY FRAMEWORK

Air quality standards specify the upper limits of concentrations and duration in the ambient air consistent with the management goal of preventing specific harmful effects. There are national and state standards for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), airborne particulate matter with an aerodynamic diameter of less than 10 microns (PM_{10}), sulfur dioxide (SO_2) and lead (Pb). A federal standard for ultra-fine particulate matter (2.5 microns in diameter or less, called "$PM_{2.5}$") was adopted in 1997. Since the California 24-hour PM_{10} standard, which includes $PM_{2.5}$ as a sub-set, is more stringent than the federal $PM_{2.5}$ standard, compliance with the state PM_{10} standard is presumed to assure compliance with the federal 24-hour $PM_{2.5}$ standard automatically. These are "criteria pollutants." The SCAQMD also measures for compliance with two other state standards: sulfate and visibility. In addition, California has set standards for hydrogen sulfide and vinyl chloride, but these latter pollutants are not measured at any SCAQMD monitoring stations because they are not considered to be a problem in the SCAB. Table 3.2-1 presents the Federal and State Ambient Air Quality Standards.

Both the federal government through the Clean Air Act and the State of California (through the California Clean Air Act) require the development of comprehensive plans for the attainment of air quality standards. These plans specify timeframes and emission control measures necessary for attainment of air quality standards for those pollutants that exceed the applicable air standards. As mentioned earlier, the SCAB has been designated as a non-attainment area for ozone, CO, and PM_{10}. Any proposed project must demonstrate that its construction and operational impacts on air quality will not conflict with or obstruct implementation of the applicable air quality control plan which in this case is the Air Quality Management Plan developed by the SCAQMD.

Table 3.2-1
Ambient Air Quality Standards

AMBIENT AIR QUALITY STANDARDS						
Pollutant	Averaging Tim	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O_3)	1 hour	0.09ppm (180pg/m^3)	Ultraviolet Photometry	0.12 ppm (235 pg/m^3)	Same as Primary Standard	Ethylene Chemiluminescence
	8 hour	—		0.08ppm (157pg/m^3)		
Respirable Particulate Matter (PM_{10})	Annual Geometric Mean	30pg/m^3	Size Selective Inlet Sampler ARB Method P(3/22/85)	—	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	24 hour	50pg/m^3		150pg/m^3		
	Annual Arithmetic Mean	—		50pg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24 hour	No Separate State Standard		65pg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arthmetric Mean			1550pg/m^3		
Carbon Monoxide (CO)	8 hour	9ppm (10mg/m^3)	Non-dispersive Infraed Photometry (NDIR)	9ppm (10mg/m^3)	None	Non-dispersive Infrared Photometry (NDIR)
	1 hour	20ppm (23mg/m^3)		35ppm (40mg/m^3)		
	8 hour (Lake Tahoe)	6ppm (7mg/m^3)		—		
Nitrogen Dioxide (NO_2)	Annual Arithmetric Mean	—	Gas Phase Chemiluminescence	0.053ppm (100pg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 hour	0.25ppm (470pg/m^3)		—		
Lead	30 days average	1.5pg/m^3	AIHL Method 54 (12/74) Atomic Absorption	—	—	High Volume Sample and Atomic Absorption
	calendar quarter	—		1.5pg/m^3	Same as Primary Standard	
Sulfur Dioxide (SO_2)	Annual Arithmetric Mean	—	Fluorescence	0.030ppm (80pg/m^3)	—	Parasosaniline
	24 hour	0.04ppm (105pg/m^3)		0.14ppm (365pg/m^3)	—	
	3 hour	—		—	0.5ppm (1300pg/m^3)	
	1 hour	0.25ppm (665pg/m^3)		—	—	
Visbility Reducing Particles	8 hour (10am to 6pm, PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent. Method: ARB Method V (8/18/89)		No Federal Standards		
Sulfates	24 hour	25pg/m^3	Turbidimetric Barium sulfate – AIHL Method 61 (2/76)			
Hydrogen Sulfide	1 hour	0.03ppm (42pg/m^3)	Cadmium Hydroxide STRactan			

3.2.4. THRESHOLDS OF SIGNIFICANCE

Project-related air emissions will have a significant effect on ambient air quality if they result in concentrations that create either a violation of an ambient air quality standard (as identified in Table 3.2-1) or contribute to an existing air quality violation. Should ambient air quality already exceed existing standards, the SCAQMD has established specific significance threshold criteria to account for the continued degradation of local air quality. Table 3.2-3 outlines these thresholds to consider project impacts on existing local air quality violations.

Table 3.2-2
Ambient Air Quality Monitoring Data from the SCAQMD Central Los Angeles Monitoring Station

Pollutant/Standards	2000	1999	1998
Carbon Monoxide (CO)			
Max. 8-hour Conc. (ppm)	6.0	6.3	6.1
Max. 1-hour Conc. (ppm)	7	7	8
Days Exceeding:			
NAAQS (8-hour) > 9.5 ppm	0	0	0
NAAQS (1-hour) > 35 ppm	0	0	0
CAAQS (8-hour) > 9.0 ppm	0	0	0
CAAQS (1-hour) > 20 ppm	0	0	0
Nitrogen Dioxide (NO_2)			
Max. 1-hour Conc. (ppm)	0.16	0.21	0.17
Annual Average (ppm)	0.0404	0.0391	0.0398
Days Exceeding:			
CAAQS (1-hour) >0.25 ppm	0	0	0
Annual Avg. > 0.053	No	No	No
Particulate Matter (PM-10)			
Maximum 24-hr Conc. ($\mu g/m^3$)	80	88	80
Avg. Geometric Mean ($\mu g/m^3$)	40.0	44.8	37.4
Percent Exceeding:			
CAAQS (24-hr) > 50$\mu g/m^3$	25	33	17
NAAQS (24-hr) > 150$\mu g/m^3$	0	0	0
Ozone (O_3)			
Maximum 1-hr. Conc. (ppm)	0.14	0.13	0.15
Day Exceeding:			
NAAQS (1-hour) >0.12 ppm	1	1	5
CAAQS (1-hour) >0.09 ppm	8	13	17

Source: SCAQMD Air Quality Summaries for the Central Los Angeles monitoring station
ND=no data

Table 3.2-3
Allowable Change in Ambient Air Concentrations

Air Pollutant	Averaging Time	Air Pollutant Concentration
Carbon Monoxide (CO)	8 Hours	0.45 ppm
	1 Hour	1.0 ppm
Nitrogen Dioxide (NO_2)	Annual	0.0005 ppm
	1 Hour	0.01 ppm
Particulates (PM-10)	Annual	1 $\mu g/m^3$
	24 Hour	2.5 $\mu g/m^3$

Source: SCAQMD, Rule 1303, Table A-2

Some pollutants require additional transformations to reach their most unhealthful state. This process may require a number of hours to be completed. Individual project impacts will have been diluted to immeasurably small levels by the time the process is completed. For such pollutants, the SCAQMD has established significance thresholds to assess the impact on regional air quality. Table 3.2-4 presents the allowable contaminant generation rates at which construction and operational emissions are considered to have a significant effect on air quality throughout the SCAB. The SCAQMD CEQA Air Quality Handbook recommends assessing emissions of reactive organic gases (ROG) as an indicator of O_3.

Table 3.2-4
SCAQMD Construction and Operation Emissions Thresholds

	CONSTRUCTION PHASE		OPER. PHASE
Air Pollutant	(lbs/day)	(tons/qtr.)	(lbs/day)
Reactive Organic Gases (ROG)	75	250	55
Carbon Monoxide (CO)	550	24.75	550
Nitrogen Oxides (NO_x)	100	2.50	55
Sulfur Oxides (SO_x)	150	6.75	150
Particulates (PM-10)	150	6.75	150

Source: SCAQMD, CEQA Air Quality Handbook, 1993

3.2.6. IMPACTS

Methodology

Operational air emissions from this project were calculated using the URBEMIS 2001 emissions model approved by the California Air Resources Board. The URBEMIS 2001 model uses EMFAC7G emission factors for vehicular traffic and includes emissions factors for typical construction equipment.

The calculated emissions from the project were compared to thresholds of significance for individual projects using the SCAQMD CEQA Air Quality Handbook shown in Tables 3.2-3 and 3.2-4 above to assess the significance of the project's emissions.

Short-Term Construction Impacts

Construction activities for the proposed project would result in the generation of air pollutants and resulting short-term impacts on ambient air quality in the area. Temporary construction emissions would result directly from demolition, grading and site preparation activities, asphalt paving, and building placement activities, and indirectly from construction equipment emissions and construction worker commuting patterns. Pollutant emissions will vary from day to day depending on the level of activity, the specific operations, and the prevailing weather. It is anticipated that construction activities would continue for approximately 6 months.

The process of calculating construction emissions involves subdividing the construction activities into distinct phases such as demolition, site clearing, site excavation, paving, and architectural coating activities. Emissions are then calculated separately for each distinct activity as appropriate using the URBEMIS 2001 model.

Demolition would occur before any grading and site preparation activities. Demolished materials would be exported off site to a nearby landfill. Actual construction phase emissions would result from direct material handling and heavy equipment operations. Due to the use of heavy construction equipment, and its associated dust-generating potential, it is anticipated that the demolition and site preparation activities will result in the highest daily contaminant generation. Construction emission estimates for the proposed project are presented in Table 3.2-5.

Table 3.2-5
Estimated Maximum Construction Emissions (Unmitigated)

Air Pollutant	lbs/day	Threshold Exceeded?	Ton/qtr.	Threshold Exceeded?
ROG	46	No	0.7	No
NO_x	94	No	2.2	No
PM-10	24	No	0.5	No

Note: CO emission factors were not available. However, CO emissions are expected to be less than the significant thresholds.

As shown in Table 3.2-5, estimated emissions are less than the SCAQMD significance emission thresholds. Therefore, the emissions from the construction operations are not considered significant and no mitigation measures are required for this project. The maximum daily emissions by construction activity are provided in Table 3.2-6.

Table 3.2-6
Estimated Maximum Daily Construction Emissions

Activity	ROG (lbs/day)	NOx (lbs/day)	PM-10 (lbs/day)
Demolition	4.1	55.2	10.5
Site Clearing	6.0	94.3	24.2
Site Excavation	5.6	88.6	23.7
Architectural Coatings	46.3	0.0	0.0
Asphalt Offgassing	0.6	7.0	0.4
Stationary	1.0	0.8	0.0
Mobile	0.4	0.1	0.0

Demolition will entail the removal of industrial buildings and possible sub-surface contamination. Older structures likely contain asbestos and other harmful building materials. Prior to any demolition activities, results from the completed Phase I and Phase II hazards analysis shall be used to file the appropriate applications to comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.

In addition to regulatory constraints on the remediation process, normal daytime west-to-east winds will also help to minimize impact potential to any sensitive receivers. Normal airflow is from the project site across the river and less sensitive industrial development beyond. The combination of extremely restrictive emissions regulation and favorable meteorology both support a finding that potential airborne hazards transport will have a negligible health impact on nearly sensitive populations.

Operational Impacts

Long-term air quality impacts are those associated with the change in permanent usage of the project site. Two types of air pollutant sources must be considered with respect to the proposed project: stationary and mobile sources.

Stationary Emission Impacts

Stationary sources include emissions from on-site activities and natural gas combustion for heating requirements, as well as emissions at the power plant generating electricity for the project site. Stationary source emissions are not considered to contribute a significant portion of project-related emissions. On-going site remediation may be a source of stationary source emissions. The remediation process will extract very small quantities of contaminants over an undetermined period until the site is remediated. The very small amounts of soil contamination will pass through a processing vessel, and the very small amount of unprocessed material will further be diluted by exhaust air. The net public exposure from the turbulently mixed plume of highly dilute exhaust air will be undetectably small. The remediation system must obtain an SCAQMD permit to operate, and the SCAQMD may not issue a permit if the system presents any threat to the health of park users or to nearby residents.

Mobile Source Emission Impacts

The majority of project-related emissions are associated with mobile source activities. Mobile source emissions result from vehicle trips, including park users and maintenance activities. Under typical conditions, the proposed project is estimated to generate approximately 365 trips per day. Existing land uses generate some daily trips. However, since the displaced trips will likely occur elsewhere in Los Angeles, the whole project itself was treated as a "new" project without displaced trip credit as a worst-case assumption. The emissions associated with the long-term operation of the project are shown in Table 3.2-7. From Table 3.2-7, project-related mobile source emissions will not exceed the significance thresholds for criteria pollutants set forth by SCAQMD. Therefore, no impact to regional air quality is anticipated to result from project operations.

Table 3.2-7
Operational Stationary and Mobile Source Air Emissions During Major Site Disturbance Activities (lbs/day)

Emission Source	ROG	CO	NOx	PM-10
Landscape Maint. Equip.	0.1	0.7	0.7	0.0
Motor Vehicles	3.9	51.4	4.2	2.3
TOTAL	4.0	52.1	4.9	2.3
SCAQMD Significance Thresholds	55	550	55	150
Exceeds Threshold?	No	No	No	No

Motor vehicle emissions are based on traffic study trip generation rates Willdan (2002) and on EMFAC7G 2001 emission factors.

Certain residents, such as the very young, the elderly, and those suffering from certain illnesses or disabilities, are particularly sensitive to air pollution and are considered "sensitive receptors." Examples of land uses where significant numbers of sensitive receptors are often found are schools, day care centers, parks, recreational areas, medical facilities, and rest homes and convalescent care facilities. The users of the proposed park would be considered sensitive receptors. Land use conflicts can arise when sensitive receptors are located next to major sources of air pollutant emissions.

The major source of project-related pollution affecting sensitive receptors will be carbon monoxide (CO) generated by increases in automobile traffic. Background concentrations within the project vicinity are below the state and federal hour standards. Based on implementation of stricter air quality regulations, CO concentrations are projected to be even lower in the future. Due to the low level of trips generated by the project, CO concentrations are anticipated to be well below the significance thresholds and therefore will not result in a significant air quality impact. The proposed project is not expected to increase overall air emissions. Rather, providing a new park closer to the community it serves will reduce overall commute emissions in the region.

In order to document the absence of any adverse micro-scale air quality impacts, a screening-level roadway air pollution impact analysis was conducted at the five intersections analyzed in the project traffic study. A screening procedure based upon the California line-source dispersion model CALINE4 was used to calculate the local peak hour CO concentration that is superimposed upon the regional background. The a.m. and p.m. peak hours were evaluated.

Three scenarios were analyzed consistent with project traffic study data as follows: Existing Plus Cumulative Projects, with Maywood Riverfront Park traffic. Local one-hour CO concentrations at 25 feet from the roadway edge were calculated. In 2000, the maximum one-hour background CO concentration measured by the SCAQMD in downtown Los Angeles was 7 ppm (Table 3.3-2). It would require a local contribution exceeding 13 ppm to create a CO "hot spot" exceeding the most stringent one-hour CO standard of 20 ppm if the worst-case background and the worst-case local exposure were to occur simultaneously.

The results of the microscale screening analysis (Table 3.2-8) are as follows (one-hour CO exposure in parts-per-million):

Table 3.2-8
City of Maywood
Micro-scale Impact Analysis
1-Hour CO Concentrations (ppm)

Intersection	Exist.	+ Other Projects	+ Other + Projects
AM			
Alamo Ave./Slauson Ave.	1.3	1.7	1.7
Alamo Ave./59th Place	0.5	0.5	0.5
Alamo Ave./E 60th St.	0.3	0.3	0.3
Walker Ave. 59th Place	<0.1	<0.1	<0.1
Walker Ave./E 60th St.	<0.1	0.1	0.1
PM			
Alamo Ave./Slauson Ave.	1.4	1.4	1.8
Alamo Ave./59th Place	0.4	0.4	0.4
Alamo Ave./E 60th St.	0.3	0.3	0.3
Walker Ave./ 59th Place	0.1	<0.1	0.1
Walker Ave./E 60th St.	0.1	0.1	0.1

Source: CALINE4 Model Screening Procedure

Worst-case combined local plus background CO levels would be less than 9 ppm compared to the most stringent one-hour standard of 20 ppm. A one-hour CO increment of 1.0 or less is considered a "de minimis" increase. The maximum one-hour CO increase attributable to project-related traffic is +0.5 ppm. Such an increase will not measurably increase local CO levels, or contribute to any possible localized violation of clean air standards. Project implementation will not expose any sensitive receptors to substantial pollutant concentrations.

3.2.7. MITIGATION MEASURES

Mitigation Measure 3.2.1

Prior to any demolition activities, results from the completed Phase I and Phase II hazards analysis shall be used to file the appropriate applications to comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.

3.2.8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project air quality impacts will be reduced to less than significant levels with implementation of the project design features and mitigation measures outlined above.

3.3 HAZARDS AND HAZARDOUS MATERIALS

3.3.1. INTRODUCTION

The Initial Study prepared for this project (which is included in Appendix A of this document) determined that project-related impacts regarding hazardous materials associated with the proposed 7.3-acre Riverfront Park project could be potentially significant. Therefore, this section of the EIR has been developed to:

1. Summarize the use of chemicals at each of the individual parcels/properties that are slated to be included in the project;

2. Summarize known releases of chemicals at the properties and environmental investigations that have been performed to determine the impact of those releases; and,

3. Consider the potential risk to human health that could be caused by project-related exposure of persons to soil contaminants.

The information included in this section has been compiled from a Risk Assessment study prepared by TN & Associates for the City of Maywood in July 2002; this document is hereby incorporated by reference in its entirety and included as Appendix D of this Final EIR. Full bibliographic entries to reports cited in this section are provided in Chapter 7.0 (References) of this EIR.

3.3.2. EXISTING CONDITIONS

Existing and Surrounding Land Uses

Existing, on-site land uses comprise:

- Vacant warehouse located at 5010 Slauson Avenue
- Warehouse and office located at 5026 Slauson Avenue (Precision Arrow Industries)
- Existing park located on the Catellus property at 5050 Walker Avenue
- Vapor extraction equipment and associated remedial activities and monitoring on the W.W. Henry property (5920 Alamo Avenue)
- Remediation equipment (used on a quarterly basis by the EPA), mobile office and storage container associated with on-going remedial and monitoring activities located on the Pemaco Site (5050 Slauson)

- Burlington Northern Railroad spur leased by L.A. Junction
- Existing park located on the Catellus property at 5050 Walker Avenue
- Active portions of District Boulevard and 59th Place
- Other associated properties are empty dirt lots

Surrounding land uses include multi-family residential uses to the south and west.

Properties Comprising the Maywood Riverfront Park Project

5050 Slauson Avenue (Former Pemaco Property)

The site was a chemical blending facility that was operated by Pemaco, Inc. from the late 1940s to 1991, when operation was halted. Chemicals such as chlorinated solvents, aromatic solvents, flammable liquids, petroleum hydrocarbons, and other volatile organic compounds (VOCs) were used at the facility. These chemicals were stored in underground storage tanks (USTs) located on the south end of the site, aboveground storage tanks in the center of the site, and in 55-gallon drums located on the east side of the site.

Officers of the Los Angeles County Fire Department Hazardous Waste Program inspected the site in May 1992 and observed approximately 400 55-gallon drums on the site. The drums contained waste product. Many of the drums were unlabeled, open, and overflowing onto the cracked concrete pad that covers most of the site.

A fire destroyed the onsite warehouse in 1993, after which the USEPA became involved with the site. In December 1993, there were six aboveground storage tanks (ASTs), six 55-gallon drums, and 31 underground storage tanks (USTs) on site when the USEPA conducted a Site Assessment. In August 1997, the USEPA removed 30 of the 31 USTs, and filled the remaining tank with concrete. When the tanks were removed, they were observed to be in relatively good shape. The connecting pipes and valves were sources of leaks. The Site Assessment revealed that VOCs, including chlorinated and non-chlorinated solvents, had been released into the groundwater and soil beneath the site.

The Pemaco site was nominated to the National Priorities List (NPL, or Superfund List) after the USEPA's assessment of the site concluded that the site posed a significant threat to human health, welfare, and the environment. The USEPA has identified and remediated soils on the Pemaco site that had potential to pose the greatest risk. The shallow groundwater beneath the site was found to be contaminated with chlorinated and non-chlorinated solvents. The nearest drinking water well is 0.4 miles away, and another 14 drinking water wells that service approximately 339,000 people are within two miles of the site.

Remedial investigations at the site are near completion and a feasibility study is currently underway to assess remedial alternatives to clean up the groundwater and sub-surface soil underlying the site and adjacent areas. Remedial activities will likely be ongoing for several years.

5920 Alamo Avenue (Former W. W. Henry Property)

Areas of the site have been used for various manufacturing activities since the 1940s. The W.W. Henry Company operated and owned the site located at 5920 Alamo Avenue from 1940s to 1986, and Armstrong, Inc. purchased W.W. Henry Company and operated the facility from 1986 to 1996. The major products of W.W. Henry were floor tile and roofing adhesives. Chemicals used include Hexane, naphtol/Alcohol, Toluene, and Stoddard solvents. Toluene, Stoddard solvents, and VOCs, namely Perchloroethylene (PCE), Trichloroethylene (TCE), 1,1,1-Trichloroethane (1,1,1-TCA), 1,1-Dichloroethylene (1,1-DCE), and 1,2-Dichloroethane (1,2-DCA) have been detected at the site in the soil and/or groundwater.

It was discovered that significant Toluene impacted soil and free-phase liquid Toluene in the underlying groundwater existed at the east end of the site and chlorinated VOC impacted soil existed in the western portion of the site. Remedial excavations were completed at both of these locations to clean up the soil contamination.

The Regional Water Quality Control Board (RWQCB) issued a Clean up and Abatement Order (CAO) on April 11, 2001 to the W.W. Henry Company to clean up the free product in groundwater at the site. Free product recovery was performed on April 26 and May 21, 2001. The free product was measured on May 18, 2001, with approximate 5 feet in USEPA well B29, and 2 feet in well B28, both on 59th Place, adjacent to residential areas. Soil vapor extraction was initiated on May 18, 2001 for 20-hour operation from 3 pm to 11 am, and resumed a five-day cycle, starting May 21, 2001.

Additional investigations in the western portion of the site and the adjacent residential property south of the site occurred in June and July 2001 to further assess the extent of the free product and the chlorinated contamination. Plans to expand the remediation system are currently underway to address the full extent of the plumes. Remedial activities and monitoring at the W. W. Henry property will likely be ongoing for several years.

5989 South District Boulevard (Former Lubricating Oil Services Property)

The site has been used since 1927. An aerial photograph from this year identifies a building on the southern portion of the site. Aerial photographs from 1948 identify three buildings on the site. The Clipper Fireworks Company occupied the site in 1949.

Lubricating Oil Services was issued a Certificate of Occupancy (C of O) for the site on January 27, 1991. According to the C of O, resale of lubricants was performed on the site. No files were available for the site at the RWQCB, LACDPW, California Department of Toxic Substances Control, Los Angeles Public Health Investigation, and the South Coast Air Quality Management District.

On September 4, 1991, Active Leak Testing (ALT) completed three soil borings at the site to a maximum depth of 30 feet below ground surface (bgs). On April 13, 2000, Wayne Perry Inc. completed five borings at the site to a maximum depth of 15 feet bgs. On January 15 and 16, 2001, samples of soil and gas were collected from 19 borings by Erler & Kalinowski, Inc. and InterPhase, Inc.

No VOCs were detected at concentrations above the method detection limit of one microgram per liter (ug/L) in the samples of soil and gas analyzed by InterPhase using the on-site, mobile analytical laboratory. VOCs were detected in three of the 12 samples of soil that were collected at the site and analyzed using EPA Method 8260B. Semi-volatile organic compounds were detected in two of the twelve samples of soils that were collected at the site and analyzed using EPA Method 8270C. Petroleum Hydrocarbon compounds, Polychlorinated biphenyls and 11 trace metals were detected in the soil samples. Soil samples with the highest concentrations of contamination were located adjacent to the Lubrication Oil Services property in the LA Junction railway property. No VOCs were detected at concentrations above method detection limits in the samples of perched groundwater collected at the site.

Impacted soil has been excavated and treated at the site, and the California Regional Water Quality Control Board issued a "No further Action" letter on the property on July 17, 2001.

<u>5026 E. Slauson (Genesis and Precision Arrow Property)</u>

The subject property is located at 5010 and 5026 East Slauson Avenue. An 18,841 square foot, brick building is located on 5010 Slauson Avenue (Genesis property). Genesis uses the building to warehouse metal and other non-hazardous materials for resale. Genesis transports these products on and off-site via trucks. According to Genesis, no manufacturing or other potentially hazardous, waste-generating activities occur at the Genesis property.

There is a 23,725 square foot building located on the Arrow property (5026 Slauson). Arrow uses this building to house its operations and offices. Arrow is a distributor of appliance installation materials. Operations consist of repackaging household appliance products for resale as appliance installation kits.

Genesis has occupied the property since July 1997. Prior to that, W.W. Henry leased the property. Arrow had once occupied the property in January 1980. Arrow manufactured brass parts in the building until approximately 1982. The manufacturing machinery utilized by Arrow consisted of lathes and finishing equipment. Arrow has an emergency back-up generator on the property. There are restrictions by the Los Angeles County Fire Department that a maximum of two gallons of gasoline may be stored on the property at any time.

Background of Previous Investigations

As indicated above, there have been numerous environmental investigations at each of the properties comprising the Maywood Riverfront Park Project (MRPP). These investigations have involved sampling of different types of environmental media (soil, soil vapor and groundwater) in areas that were most likely to contain contamination. Samples were analyzed for the presence of various types of constituents depending on the probable source of contamination. Over 2,000 samples have been collected from properties comprising the MRPP.

Numerous environmental reports concerning the individual properties comprising the MRPP were made available to TN & Associates (TN & A) by the City of Maywood. Data presented in each of these reports were reviewed, along with the data produced by the Remedial Investigation (RI) currently in progress at the Pemaco property (no RI report has been issued yet). The analytical data reviewed were screened for any concentrations that were detected above certain levels that are deemed to be protective of human health by the United States Environmental Protection Agency (USEPA) Region IX. These protective levels are termed Preliminary Remediation Goals (PRGs), and are used as a screening tool. The chemicals and metals that were found to be above the USEPA Region IX PRGs were used to create a list of Chemicals of Potential Concern (COPCs).

In addition to soil results, all soil vapor results collected in the MRPP area above 15' bg were screened against the USEPA Region IX PRG for chemical concentrations in ambient air. Volatile organic compounds (VOCs) detected in soil vapor samples at concentrations greater than 100 times the USEPA Region IX PRG for ambient air, were selected as COPCs for the health risk assessment.

While reviewing the environmental documents pertaining to the MRPP, the following data gap areas for shallow soil within the MRPP were identified:

- Stained soil identified on the Catellus property adjacent to the former Above-ground Storage Tanks (McClaren, 1989) and drum locations (EKI, 1998) was never removed as recommended in reports. Stained soil was not found in later assessments.

- A "Background" sample of surface soil was collected in the northwest corner of the Catellus property. This sample had a total recoverable petroleum hydrocarbons (TRPH) concentration of 600 mg/kg. This detection was never discussed or evaluated further.

- Two locations along the L.A. Junction Railway property were found to have soil contamination, which was not completely assessed and remediated. An environmental assessment is currently underway in these locations.

- Herbicides were likely used (and currently being used) on the L.A. Junction Railway; very limited herbicide testing has taken place along the railway corridor. However, an environmental assessment that has been recently completed indicate that no herbicides exist in the shallow soils above regulatory levels.

- Polycyclic Aromatic Hydrocarbons (PAHs) have been identified in surface soils throughout the MRPP; the only properties where a sufficient number of surface samples have been collected and analyzed for PAHs are the Pemaco property and the portion of the L.A. Junction Railway north of 59th Place. The pending L.A. Junction Railway assessment will add to the data set, however the Lubricating Oil Services Property, Catellus Property, District Blvd., Precision Arrow property and portions of the W.W. Henry property have not been sufficiently sampled to assess the extent of the PAH contamination. It is understood that background levels of PAHs exist in surface soils above Region IX PRGs due to the urban setting. The widespread presence of PAHs is not from prior site uses as indicated by the document review.

The identification of these data gaps led to the addition of chlorinated herbicides to the list of COPCs. The COPC list is presented in Table 3.3.1:

Table 3.3.1
Chemicals of Potential Concern (COPC) List

• 1,1,1-Trichloroethane	• 1,1-Dichloroethene	• 2,4,5-T
• 2,4,5-TP (Silvex)	• 2,4-D	• 2,4-DB
• 4-Nitrophenol	• Aroclor-1254	• Aroclor-1260
• Arsenic	• Benzene	• Benzo (a) anthracene
• Benzo (a) pyrene	• Benzo (b) fluoranthene	• Benzo (k) fluoranthene
• Chloroform	• Chrysene	• Dalapon
• DCAA	• Dibenzo (a, h) anthracene	• Dicamba
• Dichloroprop	• Dinoseb	• Indeno (1,2,3-cd) pyrene
• Iron	• Lead	• Manganese
• MCPA	• MCPP	• Naphthalene
• Pentachlorophenol	• Tetrachloroethene	• Trichloroethene

Source: TN & Associates, 2002
Note: Chemicals designated as COPCs have not definitely been proven to pose a potential health risk; inclusion in this listing merely indicates that further analysis may be required if there is a potential health risk.

Once this COPC list was created, a site-specific preliminary remediation goal (SSPRG) was calculated for each COPC. The calculations used equations that estimate the risk of developing cancer or the hazard of developing other types of health effects (e.g., liver damage, reproductive effects) given the amount of time that an individual is exposed to a certain level of contaminated soil and also given how much contaminated soil the individual touches, eats and/or inhales. This is termed an "exposure characteristic" for a specific "receptor" population scenario. A receptor population scenario is a name for a specific equation that integrates a receptor population with a potential negative health effect. The receptor population scenarios evaluated for the MRPP represent the activities of a park user who is exposed to surface soil and an excavation worker who is exposed to surface and subsurface soil.

For known or suspected carcinogens, the USEPA has indicated that acceptable exposure levels generally represent an excess upper-bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} (1 excess cancer case per 10,000 to 1,000,000 equally exposed individuals). The 10^{-6} level is used as the point of departure for determining SSPRGs (USEPA, 1990). In other words, if a risk calculation is done and the result is that the chances for one additional cancer case to develop from being exposed to a certain contaminant is less than 1 in a million people (say 1 in 10 million people), then that risk is considered negligible. For the MRPP, separate SSPRGs were calculated at both the 10^{-5} and 10^{-6} cancer risk level to provide additional information to the risk managers for the MRPP.

Once the SSPRGs were calculated for each of the COPCs, then all the analytical data for surface, near surface and subsurface soil samples collected at each of the properties were screened for any chemical concentration values in excess of the SSPRGs. There are three groups of chemicals, which have concentrations in soil that exceed the SSPRGs for the future park user and future excavation worker: metals, PCBs and PAHs. The COPCs that were detected over the SSPRGs are as follows:

TABLE 3.3.2
Metals, PCBs, and PAHs

Metals	**Polychlorinated biphenyls (PCBs)**	**Polycyclic Aromatic Hydrocarbons (PAHs)**
Arsenic Iron Lead	Arochlor – 1260 Arochlor - 1254	Benzo (a) anthacene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (k) fluoranthene Chrysene Dibenzo (a, h) anthracene Indeno (1,2,3-cd) pyrene

Source: TN & Associates, 2002
Note: Chemicals designated in this table may exceed normal levels per sight-specific analysis, but exceeding these levels does not constitute a potential health risk. Additional analysis would be required to make such a determination.

The elevated metal and PCB concentrations are limited to small areas within the Los Angeles Junction Railway property, and the PAH concentrations exceeding SSPRGs were found ubiquitously throughout the area on all of the properties that were tested.

City of Maywood General Plan Safety Element

The intent of the General Plan Safety Element is to "protect the lives, health, and property of the residents of the City of Maywood." The Chapter provides standards, policies, and programs to promote the safety of the community. However, no policies and programs in the Safety Chapter apply to the proposed project.

3.3.3. THRESHOLDS OF SIGNIFICANCE

The site-specific preliminary remediation goal (SSPRGs) calculated for the MRPP are health-based tools for evaluating environmental contamination. These SSPRGs have been derived specifically for the Maywood Riverfront Park project using national U.S. Environmental Protection Agency (USEPA) and California EPA (CalEPA) guidance for health risk assessment (USEPA, 1989, 1991b; 2000, 2001a, CalEPA, 1994, 1996).

These SSPRGs combine CalEPA and USEPA toxicity values along with "reasonable maximum" estimates of exposure potential to develop contaminant-specific soil concentrations that are considered to be protective of human health over a lifetime (CalEPA, 2002; USEPA, 1997a, 2002), including members of sensitive groups, such as children. Because the SSPRGs were developed using conservative ("health-protective") interpretations of toxicity data and assumptions about the degree, frequency and duration of human contact with affected media, the USEPA is confident that exposures to concentrations below the SSPRG levels will not create a potential health risk. Similarly the presence of higher concentrations (above SSPRGs) does not necessarily indicate that a potential health risk exists; rather it is an indication that further evaluation of potential risks is appropriate.

The Human Health Screening Evaluation (HHSE) considers the former industrial activities on the properties that comprise the MRPP; the future planned land use as a municipal park, and the analytical results from samples collected during earlier investigations. The analytical results were screened against USEPA Region IX Residential PRGs to select a list of chemicals of potential concern (COPCs) for the MRPP. A conceptual site model (CSM) for the MRPP was developed that identifies potential pathways that could result in exposure of humans to chemicals remaining in the soil, air, and water from the previous industrial land uses. Two potential exposure scenarios were evaluated: a park user who is exposed to surface soil during rigorous outdoor exercise, and an excavation worker who is exposed to the surface and subsurface soil during installation of utilities.

This information was used to derive SSPRGs for the COPCs specific for the future use of this land as a park. The SSPRGs combine current California Environmental Protection Agency (CalEPA) and USEPA toxicity values with site-specific exposure factors to estimate contaminant concentrations in environmental media that will be protective of the general population, including sensitive groups, over a lifetime.

3.3.4. IMPACTS

The proposed park encompasses five parcels, two public streets, and the LA Junction Railway. The five parcels include Pemaco (5050 Slauson Avenue), Catellus (5950 Walker Avenue), W. W. Henry (5920 Alamo Avenue), Precision Arrow (5026 Slauson Avenue), and Lubricating Oil Services (5989 District Boulevard). The street consists of part of 59th Place and District Boulevard. These properties have been used in the past for a range of industrial processes that have or may have contaminated the soil, water, and air. Investigations of some of the Catellus, W.W. Henry, Pemaco, and Lubricating Oil Services properties have revealed that contamination has occurred.

The plan for the park includes a playground area, playing fields, basketball courts, native plants landscaping, picnic areas, a staging area for those using the Los Angeles River bicycle trail, restrooms, and a parking area. An office and storage area are also included in the plan. Although not specifically included in the current plan, addition of a swimming pool in the future is a possibility. Two different exposure scenarios were evaluated for the development of SSPRGs for MRPP, one for a park user and one for an excavation worker.

Park User Scenario

Outdoor athletic activities are likely to be the most intensive use of the park. Because the residential neighborhood in the vicinity of MRPP is predominately Latin American and soccer in an intrinsic part of the Latin American culture, playing soccer was selected as an activity representative of the reasonable maximum exposure (RME). Park users are expected to have contact with the surface soil only. While playing soccer, the park users may incidentally ingest surface soil, have dermal contact with surface soil, and inhale dust particles emitted from the surface soil. The park users may also inhale volatile chemicals that are released from the surface and shallow subsurface soil. The native plant landscaping planned for MRPP may include some edible plant species, but the limited extent of the plantings are unlikely to provide a significant portion of the diet for park users. Therefore, ingestion of plants was considered an incomplete pathway.

Pathways for contact with the perched groundwater or the Exposition Aquifer are considered to be incomplete. The depth of the perched ground water is 25 feet, and the depth for the Exposition Aquifer is 65 feet. Drinking water for the park will be provided by the municipal water system, and no drinking wells are located in the Exposition Aquifer in the vicinity of the project area. The perched groundwater is limited in extent, and expected well yields would be limited. There are no current or anticipated uncontrolled uses of groundwater for drinking or domestic water supply. In addition, there is no potential for uncontrolled uses of the groundwater because new groundwater uses in the Los Angeles basin are strictly regulated. Thus, direct contact with the perched groundwater by park users is unlikely. Similarly, because the perched groundwater is found at depth of approximately 25 feet below grade (bg), volatilization from the perched groundwater also is considered an incomplete pathway for park users.

The USEPA intends to construct and operate a groundwater treatment facility on the project site regardless of whether or not the park is constructed. This facility will continue to operate on-site until groundwater contamination is remediated. In their memorandum of October 10, 2002, the USEPA stated their opinion that "potential impacts of the groundwater treatment facility should be considered independent of any potential impacts of the proposed park."

Excavation Worker Scenario

An excavation worker scenario was evaluated to include potential risks due to exposure to subsurface as well as surface soil. Thus, whereas the park user scenario considers only potential risks caused by exposure to surface soil, the excavation worker scenario evaluates potential exposures to soils to a depth of 15 feet bg. This depth was selected based on the possibility that a swimming pool with a diving well up to 15 feet deep could be constructed in the MRPP in the future. Installation of underground utilities could also result in exposure to subsurface soils. Excavation workers may incidentally ingest surface soil, have dermal contact with surface soil, and inhale dust particles. Excavation workers may also inhale volatile chemicals that are released from the surface and subsurface soil. As described for the park user scenario, pathways for exposure pathways for perched groundwater and the Exposition Aquifer also were considered incomplete for the excavation worker scenario.

Less Than Significant Impacts

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

The Maywood Riverfront Park project site is surrounded by urbanized areas and a significant portion of the site is currently covered with concrete asphalt and industrial buildings. The project site would consist of a park with landscaping and picnic and recreation uses. The park would be maintained to reduce the potential for fire hazard on the site or adjacent areas.

Potentially Significant Impacts

Implementation of the proposed project would result in the following potentially significant impacts related to hazards and hazardous materials:

Impact 3.3-1: Demolition of the existing structures at the site may involve the temporary transport, use, or disposal of hazardous materials, and consequently, could increase the potential for human exposure to these materials. Implementation of mitigations measure 3.3-1 would reduce the impact to a less-than-significant level.

Impact 3.3-2: The demolition of structures and grading for the Park Project may involve the handling or use of hazardous materials. Construction of the proposed project could expose individuals to an increased health risk associated with exposure to contaminated soil.

Potential soil contaminants may be present on the site as a result of the use, storage, and disposal of hazardous materials by previous uses. TN & Associates prepared a Risk Assessment analysis that identified impacted soil and groundwater contamination from previous uses. Implementation of Mitigation Measure 3.3-2 would reduce the impact to a less-than-significant level.

Impact 3.3-3: The Heliotrope Elementary School site is located approximately 0.2 miles from the site. There is a potential that emitted hazardous substances, handling of acutely hazardous materials, substances or waste could negatively impact the school site if not well regulated and monitored. Implementation of Mitigation Measure 3.3-1 would reduce the impact to a less-than significant level.

Impact 3.3-4: One of the parcels that make up the proposed park site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Also, other properties comprising the proposed park are known to contain contaminated soil and groundwater. TN & Associates has provided a Risk Assessment analysis for the project site and has recommended mitigation measures, including Mitigation Measures 3.3-1 through 3.3-3 to address the potentially significant impact. The proposed mitigation measures will reduce the impact to a less–than-significant level.

3.3.5 CUMULATIVE IMPACTS

For the purpose of this analysis, cumulative impacts are evaluated on a Citywide level, since exposure of contaminated soils are likely to remain contained.

Construction activities associated with the proposed project could expose workers to surface and sub-surface soil. Because the possible risks associated with construction activities would be minimized (i.e., reduced to a less-than-significant level), the project's contribution to risks associated with the construction-related release of or exposure to hazardous materials would not be cumulatively considerable, and this cumulative impact would be less than significant.

3.3.6. MITIGATION MEASURES

There are two basic types of mitigation measures that can be implemented to protect the health of the future park user and excavation worker from known contamination at the MRPP. A remedial action could be performed to remove the contamination from the area thus reducing any possible exposure to the future park user or a plan could be implemented that would remove the exposure pathway between the contamination and the future park user or excavation worker. The following mitigation measures have been proposed to avoid or lessen to the point of insignificance, the potentially significant impacts identified above in Section 3.3.4.

Remedial Action

In general, the most feasible remedial action to remove metals, PCB's and PAH's from shallow soil is to remove the contaminated soil and dispose of it at a certified landfill that is permitted to accept that type of waste. This is usually the most effective option due to the nature of these contaminants, which do not readily breakdown naturally over time.

Assessment data have indicated that PAHs are limited to the upper 3 feet of soil throughout the area. It is likely that if shallow soil was sampled throughout the entire Maywood Riverfront Park and tested for PAH's, the majority of the samples would have PAH concentrations above the SSPRGs. Therefore, an excavation of approximately 40,000 cubic yards would be needed to remove this contaminated soil. This volume was calculated by multiplying the surface area of the proposed Maywood Riverfront Park by 3 feet and converting this result into cubic yards. The cost to excavate, haul and dispose of this large volume of soil would be tremendous making a remedial action cost prohibitive. A remedial action may be feasible if a certain background level of PAH's is considered to be acceptable, this would greatly reduce the amount of soil to remediate and may make removal and disposal feasible.

Elimination of Exposure Pathway

Another effective mitigation alternative to protect the health of future park users is to eliminate the exposure pathway between the contaminant and the park user and excavation worker. This could be done by importing clean fill material to each property and placing a 1-foot thick layer of this clean fill over the areas that exceed the SSPRGs. There are many areas that are considered "data gap" areas due to the likely widespread presence of PAH's. The most cost/time feasible mitigation measures for these areas would be to place this 1-foot thick protective fill layer over the entire site.

For the excavation worker, the exposure pathway can be eliminated by having the worker wear personal protection equipment (PPE) that would protect the worker from dermal contact and particle inhalation during the time he or she spends inside of the excavation. This would require an institutional control to be put in place by the City of Maywood that would contain a list of guidelines/procedures for excavation work on the property.

Mitigation Measure 3.3-1: Compliance with applicable plans and policies

The City of Maywood shall comply with all applicable Federal, State, and local plans and policies regarding hazardous substances use, transportation, and disposal, as well as contaminant remediation, including but not limited to applicable provisions of the Toxic Substances Control Act (TSCA), the California Health and Safety Code, the California Hazardous Waste Control Law, and other applicable provisions of the California Code of Regulation (CCR), as well as applicable regulations promulgated by the U.S. and California Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA).

Mitigation Measure 3.3-2: Formulation of a procedure to be implemented for all grading and construction activities and in the event of discovery of previously unknown areas of contaminated soils.

Prior to issuance of a grading permit, the City of Maywood, in consultation with and with approval of the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program, shall formulate a plan to protect workers and local residents. This plan is to be implemented in the event that grading or excavation activities during construction expose potentially contaminated soils. At a minimum, the plan shall identify the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program as a responsible agency, and shall include the following specific points:

- The City of Maywood shall create a Site Specific Health and Safety Plan (SSHSP) outlining procedures for grading and construction activities that reduce the potential for human exposure to contaminated environmental media and specifically address the areas identified in TN & Associates' Health Risk Assessment dated July 19, 2002, and attached as Appendix D.

- A qualified environmental construction monitor shall be designated and shall be present on-site during grading and excavation activity to ensure that procedures in the SSHSP are followed.

- All grading and subsurface construction work at the future park shall be done by workers that have completed the 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) OSHA training.

- Workers shall don appropriate personal protection equipment as outlined in the SSHSP and air monitoring for organic vapors will occur during all grading cuts and excavations.

- The construction monitor shall be responsible for identifying areas of potentially contaminated soils, and, upon identification of potential contaminants, for implementing the procedures outlined in the plan.

- All work in the vicinity of the affected area shall cease if situations are found to exist that have potential to impact the health and safety of the workers or to release significant quantities of contaminated soil into the neighborhood as fugitive dust.

- The Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program shall be contacted.

- The appropriate California Health and Safety Code procedures shall be followed.

The plan shall also identify a procedure for sampling, testing, and remediation, as appropriate, of contaminated soils, and for obtaining the concurrence of and necessary clearance from the RWQCB, before construction activities can resume. The plan shall also provide for the preventive procedures for the protection of construction workers during work in areas where contaminated soils have previously been discovered.

Mitigation Measure 3.3-3: **Formulation of a plan to be integrated into the design of the park to reduce potential risks to the health of the future park users.**

- A minimum of 12 inches of certified clean fill material shall be placed over the entire park site as recommended by TN & Associates' Health Risk Assessment dated July 19, 2002, and attached as Appendix D.

3.4. HYDROLOGY AND WATER QUALITY

3.4.1. INTRODUCTION

The purpose of this Section is to describe the drainage impacts of the proposed project.

3.4.2. EXISTING CONDITIONS

The project is located in the Los Angeles River watershed in Southern California. The design storm for this region is a winter cyclonic cold front approaching from the north and west. These storms are characterized by short intense rainfall with longer periods of light rainfall preceding and subsequent to the most intense intervals. The 100-year rainfall pattern is a four-day storm with the most intense rainfall occurring during the night of the fourth day. These storms are described in detail in the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual.

Existing Hydrologic Characteristics

The site is currently used for industrial and manufacturing purposes. There are two large single-story buildings with associated parking and three smaller structures, which make up of the majority of the impervious area on the site. The site is split by existing railroad tracks and a spur line leading to the easterly of the two warehouse buildings.

The general direction of flow across the site is north-south with the majority of the area tributary to 59th Place. To the south of 59th Place the flows are divided by a small ridge with the west side tributary to Walker Avenue and the eastern side tributary to 60th Street.

Existing Drainage Systems

Offsite Drainage Systems

The eastern boundary of the site is immediately adjacent to the Los Angeles River. The Los Angeles River is reinforced concrete trapezoidal channel constructed by the U.S. Army Corps of Engineers and operated by the LACDPW. The River is in a perched condition with the tops of the levees approximately 10 feet above the project site.

The Corps of Engineers has recently completed the Los Angeles County Drainage Area Project. This project raised the levees on the Los Angeles River to the point where the capacity of the river equals or exceeds the anticipated flows from the 100-year design storm.

When the river flows at full capacity the water surface in the river will be above the project site. Although the site is not directly tributary to the Los Angeles River, the river is the nearest designated receiving waters of the United States.

3.4.3. THRESHOLDS OF SIGNIFICANCE

Capacity

The project can be considered to have significant impact if its construction would result in the need for expanded capacity in the existing drainage systems. These systems include: the existing roadways 59th Place, 60th Street and Walker Avenue, the existing underground storm drain systems which drain these roads, and the Los Angeles River.

City Policies

Maywood follows the drainage design policies described in the LACDPW Hydrology Manual and the companion Hydraulic Design Manual. These manuals set the design frequency of the storm, the methodology for calculating flow rates and the guidelines for design and construction of storm drain improvements.

The City also has established flooded width criteria for roadways. These criteria describe the extent to which a street can be flooded prior to the street becoming unsafe for traffic. The project can be considered to have significant impact if it increases the extent of flooding in the surrounding streets, beyond the levels permitted by the criteria.

City building ordinances require that all new construction be elevated above the maximum water surface generated by the 100-year storm. If this is not feasible, the City will require the owners to carry flood insurance. The City also requires owners of existing structures to carry flood insurance if they are subject to inundation by a 100-year flood. The project can be considered to have an impact if it raises the level flooding experienced by a structure or inundates a previously unaffected structure.

Regulatory Requirements

In 1972, the Federal Clean Water Act was amended to designate the discharge of pollutants to the waters of the United States as unlawful. In 1987, the Federal Clean Water Act was again amended to require that municipalities throughout the U.S. obtain a National Pollutant Discharge Elimination System (NPDES) Permit to discharge urban runoff from their municipal separate storm sewer system (MS4). The NPDES Permit allows the municipality to discharge storm flows into the waters of the United States. The City of Maywood has joined the surrounding municipalities and the County of Los Angeles as a co-permittee in obtaining a discharge permit.

The Los Angeles River is currently designated as an impacted receiving water with the major constituent of concern being macro-pollutants such as trash and other floatables. Other pollutants typical of large urbanized watersheds also reach the river. These pollutants include, heavy metals, petroleum products, BOD, COD, bacteria, nitrates or other nutrients, and phosphorus. The project can be considered to have an impact if it increases the volume of pollutants discharged to the Los Angeles River or to storm drains tributary to the river.

3.4.4. IMPACTS

Capacity

The entire site will be "blanketed" with a minimum 1-foot thick layer of clean, compacted soil and graded to drain as needed. This remediation would prevent contamination of surface water as it flows over the project site. Irrigation system controllers will be set to provide the proper amount of saturation for the landscaped surface only. This includes scheduling the quantity of irrigation to equal the estimated rate of evapotransportation, which is available through California Irrigation Management Information System (CIMIS). Using infiltration rates, the site will also be designed to convey any excess irrigation as surface water runoff rather than percolation into groundwater.

The project will construct impervious areas consisting of a basketball court, sidewalks and parking. However, the existing warehouses and other buildings will be removed resulting in a net decrease impervious percentage. The reduced imperviousness will result in a decrease in total volume of storm flows generated by the site. The proposed lawns will also reduce flow rates when compared to the existing dirt areas.

Due to the site's relatively flat topography, rainfall would not collect into standing pools of water on the site. In addition, the grading plan has been designed to divert runoff into a wetland swale in the eastern portion of the project site. This swale will be lined with a rubber polymer geomembrane, which will prevent infiltration. Runoff that flows through the proposed swale would flow into a proposed 18-inch storm drain that would outlet into to an existing 30-inch City drain, which outlets to the L.A. River. (See Figures 3.4-1 and 3.4-2.

The reduced storm flow volumes coupled with peak reduction result in a decrease in the storm flows reaching the surrounding streets and storm drain systems. Because of this decrease, no capacity thresholds will be triggered and the project can be considered to have no impact.

Since the entire surface of the park will consist of new material (i.e. concrete walks and clean soil), the amount of pollutants discharging into the L.A. River will not be increased. In addition, with adherence to structural BMPs including new catch basins outfitted with catch basin filters, runoff from the site would have reduced pollutants. .

City Policies

Reduction of flows generated by the park will reduce the depth of flooding in the adjacent streets. Reduced flow depths will result in reduced flooded area widths. Further, reduced flows from the site will result in a reduction of the flooding caused by

100-year storm event thereby reducing the building ordinance requirements or flood insurance requirements on adjacent structures. Again, the storm flow decreases indicate that no policy or ordinance thresholds will be triggered and the project can be considered to have no impact.

Regulatory Requirements

The project is required to comply with Section 401 of the Clean Water Act and the State Water Resources Control Board Order No. 99-08-DWQ. Since the project site is greater than five (5) acres, a General Storm Water Permit will be required to comply with these regulations. The approval of this permit by the Los Angeles Regional Water Quality Control Board is dependant on the project's compliance with the National Pollutant Discharge Emission System (NPDES). This includes the use of Best Management Practices as described in the NPDES. The project will construct a system of grassy swales. Grassy swales are an effective Best Management Practice (BMP) for capturing and treating pollutants. As the flows slowly pass through the grasses, trash settles out and the plants metabolize the nutrients in the flow. The water is also exposed to solar ultra-violet radiation, which kills bacteria.

Based on a rough estimate, the wetland swale is adequately sized to contain the volume of runoff (from ¾" rainfall) specified in the SUSMP. Furthermore, the lined swale is located over the Pemaco property (Superfund Site), which was excavated by the EPA and backfilled with clean material to a depth of about 15 feet several years ago.

These grassy swales will provide for a net overall reduction in pollutants exiting the site, with associated improvement in the water quality in downstream drainage facilities including the Los Angeles River. The decrease in pollutants will not trigger any regulatory thresholds.

3.4.5. CUMULATIVE IMPACTS

The result of the project will be a net decrease in the volume of storm flow and an improvement of the water quality of the storm flows. Because of these decreases the project will have no cumulative impact.

3.4.6. MITIGATION MEASURES

None required.

3.4.7. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Not Applicable.

Figure 3.4.1 Grading Plans

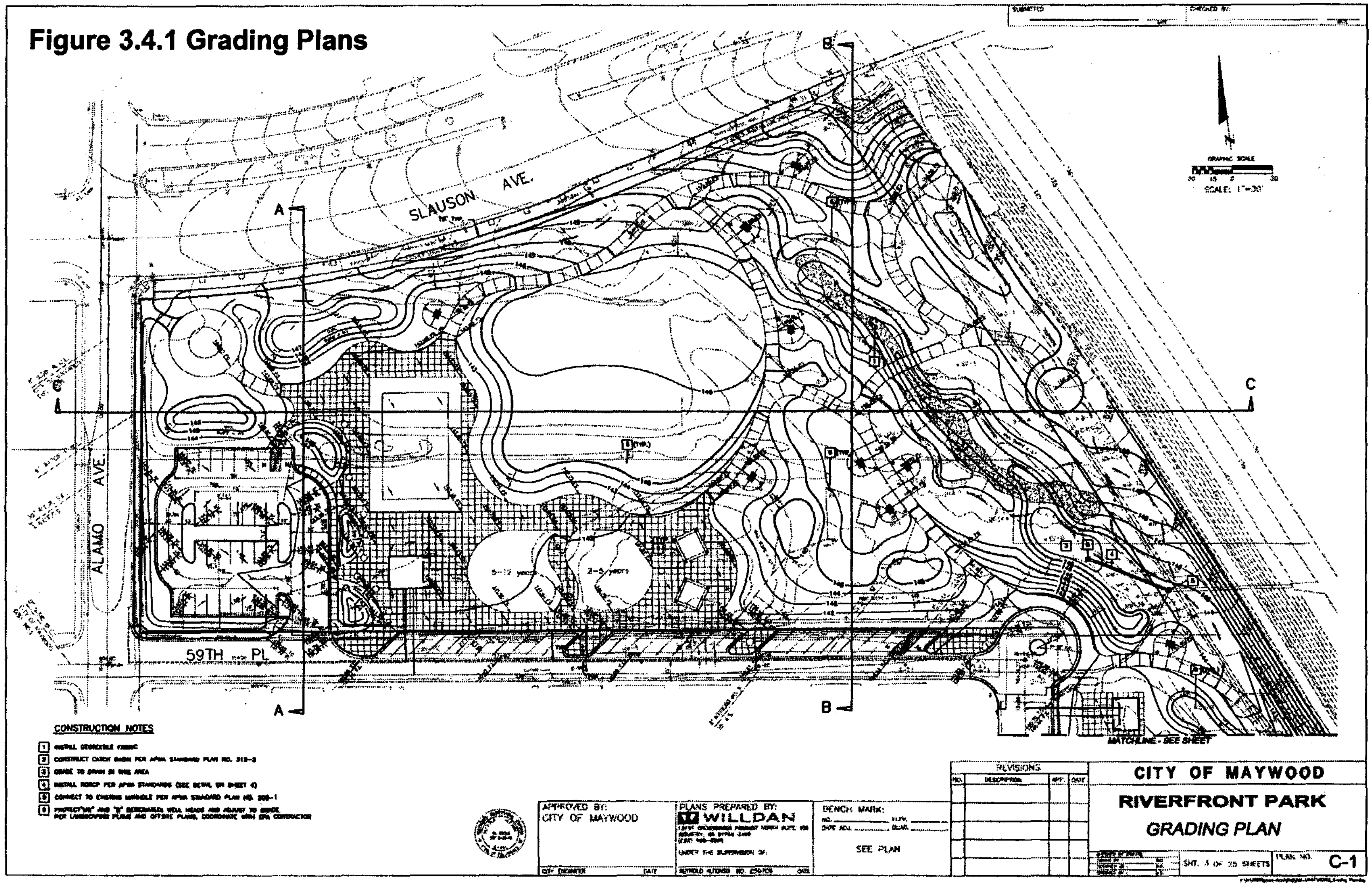


Figure 3.4.1 Grading Plans - continued

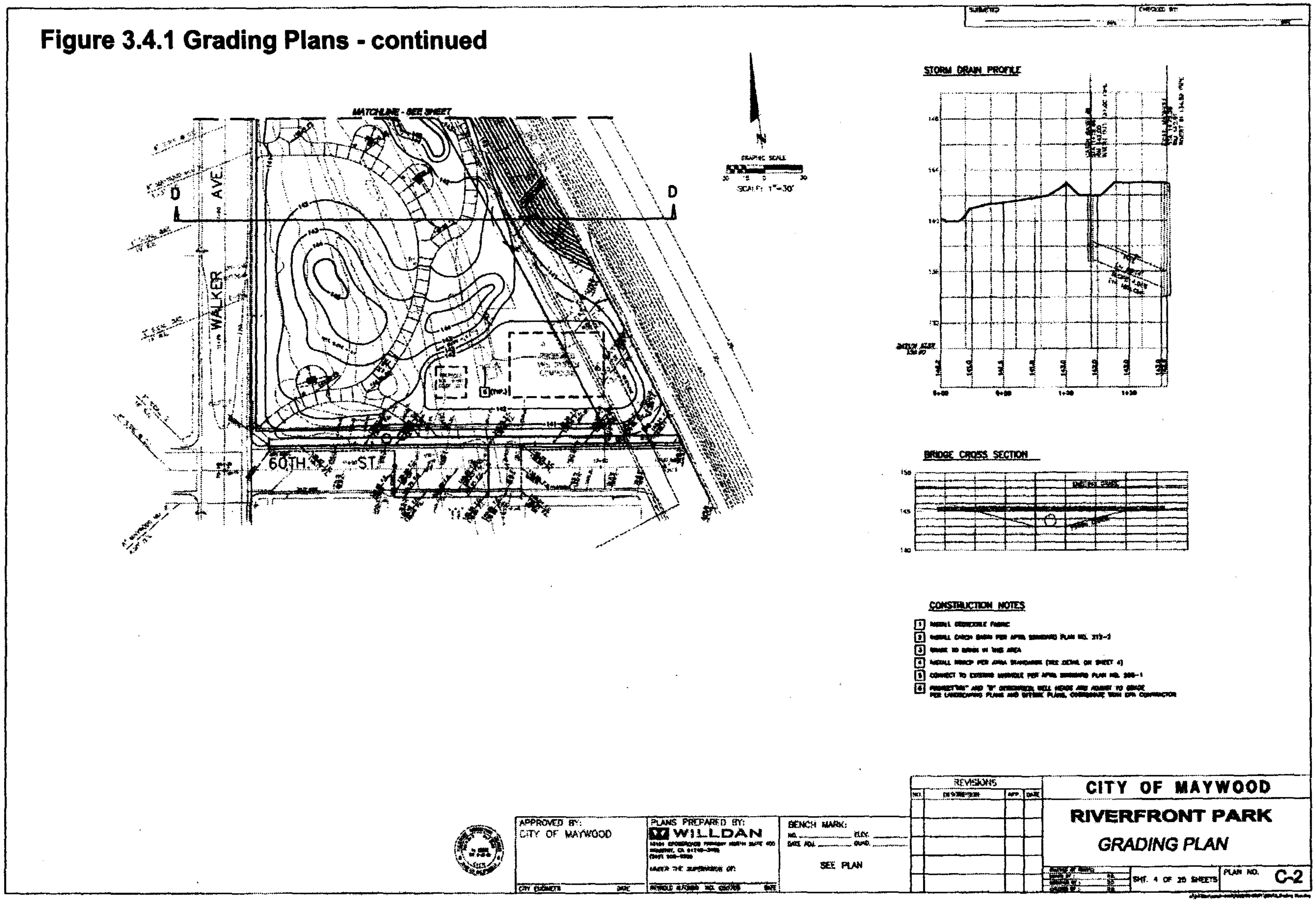
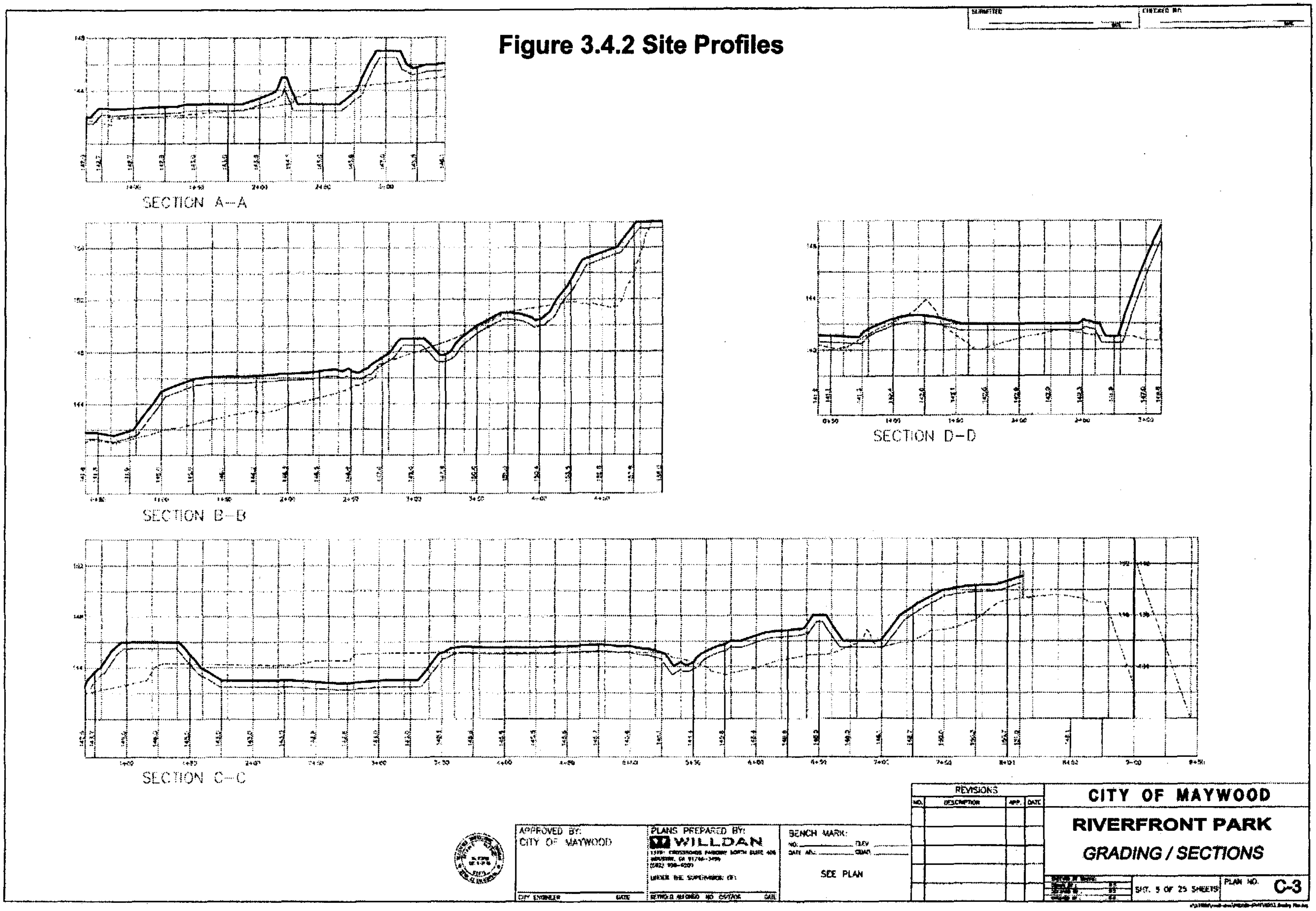


Figure 3.4.2 Site Profiles



3.5 LAND USE

3.5.1. INTRODUCTION

The purpose of this section is to provide information about the characteristics of the project site and the adjacent areas. In the Initial Study that was prepared in preparation for this project (contained in Appendix A) the determination was made that this project would result in a less than significant impact on land use in the proposed project area. The proposed project would not physically divide an established community, nor would it conflict with any applicable habitat conservation plan or natural community conservation plan. The Initial Study assumed that a General Plan amendment would be necessary, as well as rezoning of the project site in order to make the project site comply with the underlying zoning of the area, which is (M) an industrially designated zone. Upon further investigation of the City's General Plan, the information revealed that the Industrial Zone has a Parkland Overlay Zone that allows the site to be developed as a park. Therefore, the use of the site as parkland would not require such approval except for a Precise Plan of Design.

3.5.2. EXISTING CONDITIONS

The City of Maywood is located in southwest Los Angeles County and is an urbanized community situated approximately 8 freeway miles south of the Los Angeles Civic Center. The City is bounded by District Boulevard to the east, Downey Road to the west, Fruitland Avenue to the north, and Randolph Street to the south. Maywood is surrounded on three sides by heavy industry and is tied to the metropolitan area by Slauson Avenue and Atlantic Boulevard, as well as by I-710, the Long Beach Freeway. Cities bordering Maywood include: City of Vernon to the north and west, and the Cities of Huntington Park and Bell to the south, and the City of Bell to the east. Figure 3.5.1 shows the location of Maywood within Los Angeles County.

The project site consists of eight parcels, including portions of District Boulevard and 59th Place. The irregularly shaped project site is located in the southeast portion of the City of Maywood, and as illustrated in Figure 3.5.2 adjacent to the Los Angeles River. Slauson Avenue borders the project site to the north while Alamo Avenue and Walker Avenue border the project site to the west.

There are eight parcels that make up the project site. The City has acquired most of the parcels and is in the process of acquiring the Burlington Northern railroad spur as well as other properties to facilitate the park development. The parcels listed below are identified in Figure 3.5.3:

FIGURE 3.5.1
Regional Setting

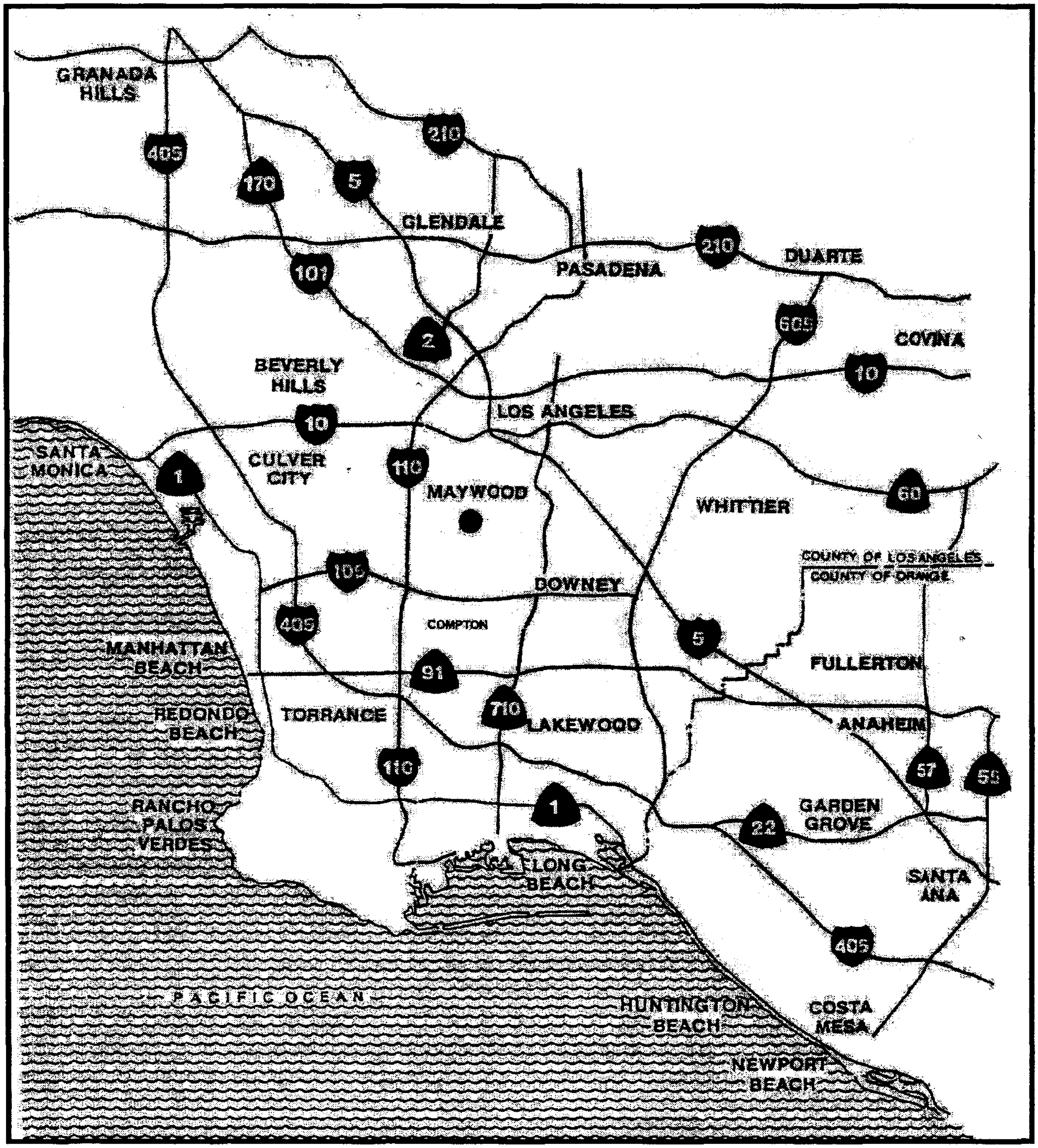


Figure 3.5.2
Project Site Location

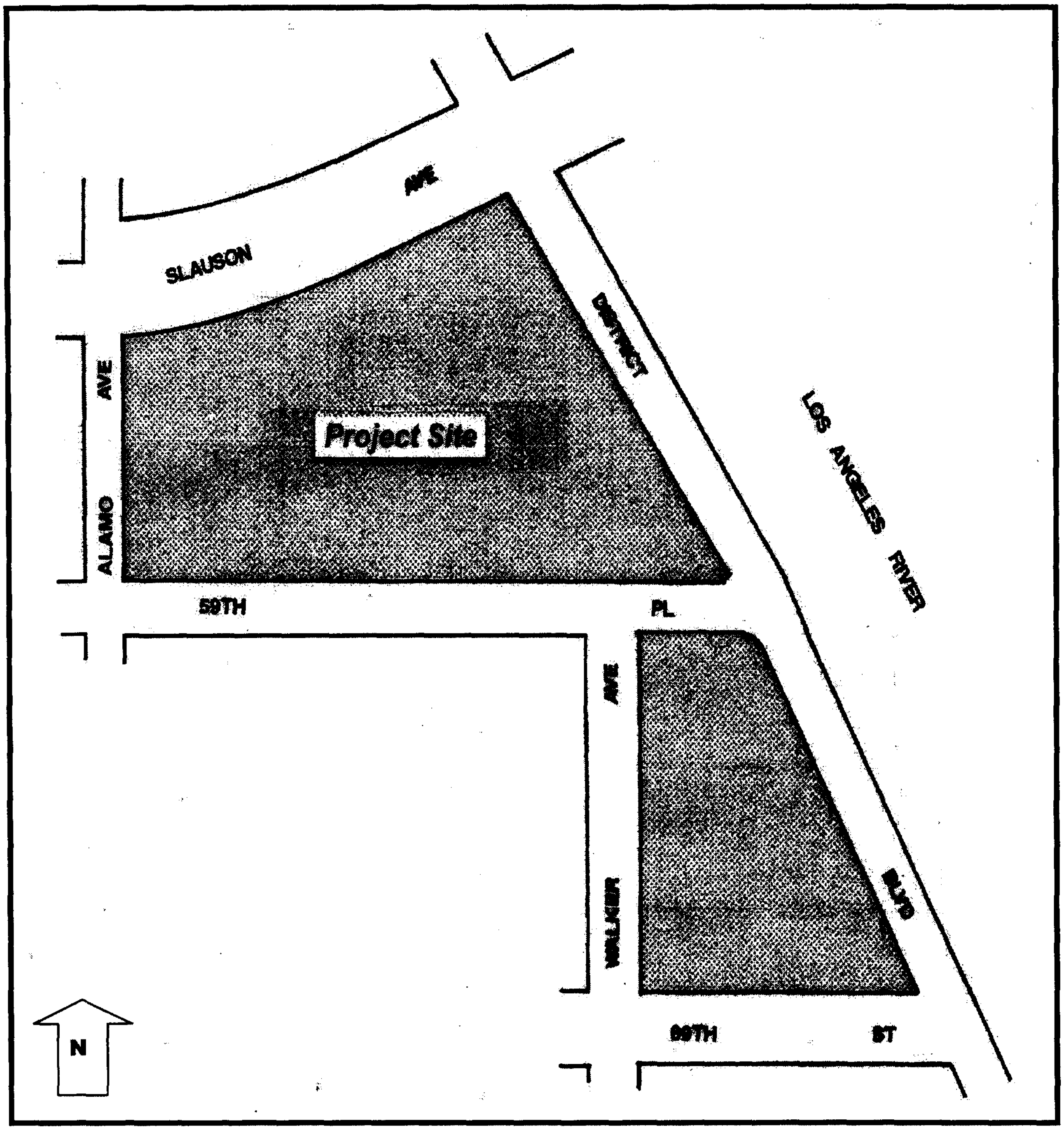
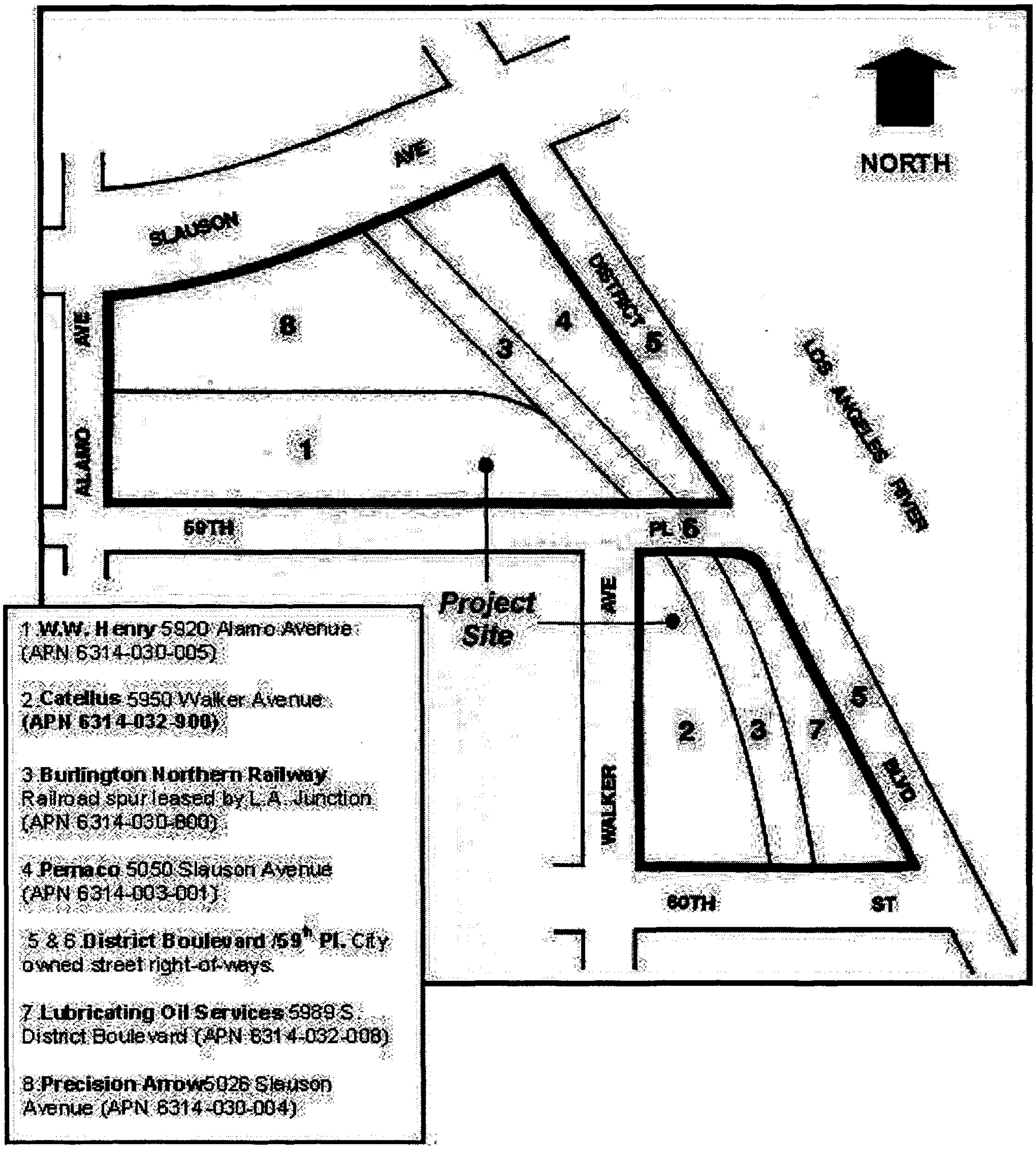


Figure 3.5.3
Existing Parcels



Existing and surrounding land uses are indicated in Figure 3.5.3:

1. **W.W. Henry**
5920 Alamo Avenue (APN 6314-030-005)
Status: The building has been demolished and the Regional Water Quality Board is requiring clean up of the site.

2. **Catellus**
5950 Walker Avenue (APN 6314-032-900)
Status: This area has been converted to an interim park.

3. **Burlington Northern Railway**
Railroad spur leased by L.A. Junction (APN 6314-030-800)
Status: The City of Maywood is negotiating purchase of the railroad spur. The site is currently being investigated for contamination. The railroad spur is located adjacent to Pemaco, which is a superfund site.

4. **Pemaco**
5050 Slauson (APN 6314-003-001)
Status: The building has been demolished. This is a superfund site with potential groundwater contamination. The Environmental Protection Agency is planning to install a groundwater treatment system at the southeast corner of the park site for an undetermined period to provide some remediation for the groundwater contamination.

5 & 6. **District Boulevard /59th Place**
City owned street right-of-ways.
Status: No studies have been conducted and none have been requested for this area.

7. **Lubricating Oil Services**
5989 S. District Boulevard (APN 6314-032-008)
Status: The building has been demolished. An environmental review has been conducted for the property and Cape Environmental Management has taken remedial action. The Regional Water Quality Control Board (RWQCB) has issued a "no further Action" letter. However, further health risks need to be assessed.

8. **Precision Arrow**
5026 Slauson (APN 6314-030-004)
Status: The existing buildings will be demolished. A Phase I environmental analysis was conducted and there is no history of contamination on this site.

TABLE 3.5.1

General Plan Land Use and Zoning Designations of Surrounding Land Uses

LOCATION IN RELATION TO PROJECT SITE	GENERAL PLAN LAND USE DESIGNATION & CURRENT USE	ZONING
North	City of Vernon - Industrial	Industrial (M)
South	City of Bell - Residential	Multi-Family Residential (R-3)
East	Los Angeles River Commercial Neighborhood and Commercial	Commercial Neighborhood (CN) and Commercial (C)
West	General Commercial (0.25–0.5 FAR) and Specialty Residential (2-48 du/acre, 75-100 persons/acre)	Multi-Family Residential (R-3)

du/ac = dwelling units per acre

3.5.3. REGULATORY FRAMEWORK

City of Maywood General Plan Land Use Element

The intent of the General Plan Land Use Element is to "designate the placement and distribution of future development to permit orderly growth and development in the community." The land use policy presently under consideration provides for seven land use designations including an industrial category and a category for parks. In addition, the land use plan provided for a number of overlay designations, including a Public Improvement Overlay Zone for future park development.

As indicated in the City of Maywood General Plan Open Space Element, the amount of open space remaining in Maywood is limited because the City is entirely developed. According to the City of Maywood General Plan Land Use Element, approximately 1.4 percent (10.3 acres) of the 728.3 acres land area for the City of Maywood is dedicated to open space or is vacant.

Also, open space in the City of Maywood used for public recreation is limited to the two existing parks (Maywood City Park and Pixley Park) and local schools (Loma Vista, Fishburn, and Heliotrope Elementary schools). Maywood City Park consists of 5.5 acres and Pixley Park has a land area of 0.3 acres. Aside from the two parks located in Maywood, the local schools provide the only other primary sources of recreational open spaces. Loma Vista, Fishburn, and Heliotrope Elementary schools have approximately 7.25 acres of playground area, though these are paved. The City would need over 61 acres of parkland to meet commonly used open space standards established by the

National Recreation and Parks Association. These standards may not be applicable to urbanized areas similar to Maywood, but the City's residents would clearly benefit from new park development and/or recreational opportunities. The industrial zoning classification at the project site includes a public improvement overlay zone, which allows for the development of parks.

3.5.4. THRESHOLDS OF SIGNIFICANCE

The proposed project will have a significant impact on land use if it conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

Impacts

Less Than Significant Impacts

Physically divide an established community

An existing railroad spur traverses the project site. Negotiations are underway with the Burlington Northern Railroad to purchase the railroad right-of-way spur. Currently, the railroad spur is used to provide deliveries to an industrial business located within the project site and the City is working to relocate that business. An alternate delivery route could be provided from the existing railway, which runs east and west on Randolph Street. Given the location of the project along the edge of the Los Angeles River, the project is not located in an area where the project would divide the community. Parks generally serve a connecting function.

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.

The proposed use of the industrially zoned and developed properties as a park is consistent with the General Plan Land Use Element, which has established a Public Improvement Overlay Zone for park uses. Approval of the park project would consist of approval of a Design Review for the project. The Planning Commission would review the Environmental Impact Report with a recommendation to the City Council.

Potentially Significant Impacts

Implementation of the proposed project would not result in any potentially significant land use impacts.

3.5.5. CUMULATIVE IMPACTS

The proposed project would not result in any inconsistencies with adopted plans and policies. Therefore, it would have a less than significant contribution to cumulative land use impacts.

3.5.6. MITIGATION MEASURES

Because impacts are less than significant, no mitigation measures would be required.

3.6 NOISE

3.6.1. INTRODUCTION

This section addresses noise impacts associated with the proposed project. It analyzes both potential noise impacts caused by the construction and operation of the park and potential noise impacts on the park users. Background information on environmental acoustics, including definitions of terms commonly used in noise analysis, is provided below.

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all frequencies within the entire spectrum, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called "A-weighting," written as dBA.

Definitions

A number of different metrics are used to characterize the time-varying nature of sound. These metrics include: the equivalent continuous sound level (Leq), the minimum and maximum sound levels (Lmin and Lmax), percentile-exceeded sound levels (Lxx), the day-night level, and the community noise equivalent level (CNEL). The following are brief definitions of these metrics and other terminology used in this section:

- Sound. A vibratory disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- Noise. Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- Decibel (dB). A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20-micro-pascals.

- A-Weighted Decibel (dBA). An overall frequency-weighted sound level in decibels, which approximates the frequency response of the human ear.

- Maximum Sound Level (Lmax). The maximum sound level measured during the measurement period of interest.

- Minimum Sound Level (Lmin). The minimum sound level measured during the measurement period of interest.

- Equivalent Sound Level (Leq). The equivalent steady state sound level, which in a stated period of time would contain the same acoustical energy.

- Percentile-Exceeded Sound Level (Lxx). The sound level exceeded xx percent of a specific time period. L10 is the sound level exceeded 10 percent of the time; L50 is the median (50th percentile) level, etc.

- Day-Night Level (Ldn). The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

- Community Noise Equivalent Level (CNEL). The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Ldn and CNEL values rarely differ by more than 1 dB. As a matter of practice, Ldn and CNEL values are considered to be equivalent and are treated as such in this assessment. In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of apparent loudness.

3.6.2 SETTING

The noise environment in the project area is dominated by noise from traffic and on-street activities. Vehicle engine noise, auto horns, brake squeal and occasional pedestrian noise (conversation, and portable music devices) are the most common noise sources along the project perimeter. Residential activity (children, dogs, lawn mowers, etc.) is audible away from nearby development. Residual industrial activity noise may occur, but the diminishing activity level in the area has reduced this source to very localized events near any individual site.

Noise monitoring was conducted on the project site on July 16, 2002, to quantify existing conditions on the site using a Larson-Davis Model 700B digital sound level meter with ANSI Type II (ambient quality) accuracy. Monitoring was conducted at three sites for 15 minutes per site along the project perimeter. Table 3.6-1 summarizes the noise monitoring results. Except near Slauson Avenue, observed noise levels were in the low to moderate range.

To further characterize existing noise levels in the project area, noise from traffic traveling on streets in the project area was modeled using the Federal Highway Administrative Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic engineer. Table 3.6-2 summarizes traffic noise modeling results for existing conditions.

Traffic noise throughout the project area is very low except along Slauson Avenue. The noise standard for "quiet" (passive) park uses is exceeded to a distance of around 110 feet from the Slauson Avenue centerline. The active park use noise guideline level extends to 50 feet from the centerline. This data suggest that active play should occur on the northern project parcel, and passive uses should occur on the southern side of the project.

3.6.3. REGULATORY FRAMEWORK

Noise Impacts Related to the proposed park.

The City of Maywood has no specific noise siting standards for parks, but typically applies residential standards (65 dB CNEL) for passive uses. Noise-generating active recreation is considered compatible with the ambient noise environment up to 70 dB CNEL.

TABLE 3.6-1

SUMMARY OF ON-SITE NOISE MONITORING (07-16-02) - dBA

Location	LEQ	Lmax	Lmin	L10	L50	L90
59th Pl./Walker (a)	57	72	50	58	52	50
59th Pl./Alamo (b)	56	72	48	58	53	50
Alamo/Slauson (c)	64	78	50	67	58	53

(a) aircraft noise, distant Slauson traffic

(b) barking dog, stereo, traffic on Slauson

(c) traffic on Slauson

TABLE 3.6-2

SUMMARY OF TRAFFIC MODELING FOR EXISTING CONDITIONS

Location	CNEL (dB) @ 100 ft.	Dist. to 65 dB*	Dist. to 70 dB**
Slauson Avenue			
W of Alamo Avenue	64.9	100'	<50'
E of Alamo Avenue	65.8	110'	50'
59th Place			
W of Alamo Avenue	50.4	<50'	<50'
Alamo - Walker	51.9	<50'	<50'
E of Walker Avenue	41.1	<50'	<50'
E 60th Street			
W of Alamo Avenue	47.8	<50'	<50'
Alamo - Walker	49.4	<50'	<50'
E of Walker Avenue	50.2	<50'	<50'
Alamo Avenue			
N of Slauson	57.9	<50'	<50'
Slauson - 59 Place	58.7	<50'	<50'
59th Pl. - E. 60th St.	58.3	<50'	<50'
S of E. 60th Street	58.1	<50'	<50'
Walker Avenue			
59th Pl. - E. 60th St.	51.2	<50'	<50'
S of E. 60th Street	51.3	<50'	<50'

* residential and park siting standard

** active park use siting standard

Source: FHWA-RD-77-108 (Calveno Mod.)

3.6.4 NOISE IMPACTS

Construction Impacts

The project is located within the City of Maywood and is subject to the General Plan and noise ordinances incorporated therein. The City Municipal Code indicates that no construction or repair work shall be performed between the hours of 7 p.m. and 7 a.m. of the following day on any weekday, since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling hotel or apartment or other place of residence. The construction contractor shall conform to City standards for construction noise impacts on adjacent land uses.

Operational Impacts

The City of Maywood siting guidelines for passive park sites is 65 dB CNEL (or Ldn). The standard for active uses is 70 dB CNEL. Measured daytime Leq levels were 64 dB near the Slauson/Alamo intersection. Mid-day Leq and weighted 24-hour CNELs are often within ± 2 dB of each other. Weighted 24-hour CNELs are typically 2 dB higher than short-term, early afternoon Leqs. The monitoring data suggests that existing noise levels are around 66 dB CNEL south of Slauson. Table 3.6-2 shows that the modeled noise level is also 66 dB CNEL. Both measurement and model calculations predict the same noise exposure. Siting of noise sensitive passive park uses along the Slauson Ave. frontage would require mitigation to meet City of Maywood noise/land use compatibility guidelines. With only moderate setback, or by placing active play closest to Slauson and quieter areas farther south, existing noise levels are not a substantial constraint to project implementation.

3.6.5. THRESHOLDS OF SIGNIFICANCE

The criteria used to determine the significance of an impact related to noise are based on the model initial study checklist in Appendix G of the State CEQA Guidelines and City of Maywood standards. The proposed project would result in significant noise impacts if it would:

- Expose existing receptors to or generate noise levels resulting from the project in excess of health standards established by the local general plan or noise ordinance or standards of other agencies, including City criteria (if existing noise levels currently exceed criteria, an incremental increase in 3 dBA above the ambient noise levels relative to no-project conditions would be considered significant);

- Expose future users of the proposed park to existing or projected noise levels in excess of established standards and thresholds (if existing noise levels currently exceed criteria, incremental changes in noise levels in excess of 3 dBA above existing noise would be considered significant);

- Result in noise levels of 75 dBA when measured at a distance of 50 feet from the noise source during construction activity occurring within 500 feet of a school zone or other sensitive noise receptor;

- Expose persons to or generate excessive ground borne vibration or ground borne noise levels; or

- Expose park users in the project area to excessive noise levels for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport. In the absence of any such airports near Maywood, this criterion was not evaluated.

3.6.6. PROJECT IMPACTS

Impact 1: Exposure of Persons to or Generation of Noise Levels in Excess of Health Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies and Result in 3 dBA or More Increase in Noise Relative to No Project Conditions.

The proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Operational activities that could include noise generation could include recreational activity on site, portable public address systems, portable music systems, crowds at large events, and vehicular circulation. These sources would be limited to daylight hours, with a few exceptions for special events.

Recreational activity noise may be audible at the nearest residences south of the site. The numbers and locations of off-site residences possibly affected by such noise will depend upon the location of any play area and the number of such participants engaged in outdoor play. The playfields are proposed for the center of the project site. The nearest homes are approximately 250 feet from the center of the basketball court or the lawn playfields area. Noise measurements were made at several locations used for basketball and for soccer. The reference noise level in terms of hourly averages were as follows:

Basketball - 50' to tip-off circle - 58 dBA LEQ

Soccer - 200' to center circle - 56 dBA LEQ

The basketball activity noise will diminish by an additional 14 dB through geometrical spreading losses. The noise level at the nearest residences will be well below ambient from basketball use. An intensive use of the playfields could produce noise levels in the low-to-mid-50s dB range. This would be similar in magnitude to existing observed levels. Recreational activity in general would not cause noise levels that measurably exceed existing levels.

Any noise perception due to park usage tends to be more single event noise from shouting, loud music, whistles, etc. Noise conflicts may also arise if the park is used late in the evening as an unsupervised gathering place. By limiting the types of gatherings or requiring special permits for large assemblies of people, and by adequate park use supervision, noise conflict potential with adjacent neighbors will be negligible.

Impact 2: Exposure of Future Park Users of the Proposed Project to Existing or Projected Noise Levels in Excess of Established Standards and Thresholds.

Changes in noise levels affecting future park users would derive from changes in local traffic patterns. Predicted traffic noise levels at the project area under existing conditions and future conditions with and without the project are summarized in Table 3.6-3. Traffic noise levels in the project area are not predicted to exceed City of Maywood planning standards in currently quiet areas, and any increase in noise attributed to the project is less than 3 dB in areas of existing elevated traffic noise. This impact is therefore considered less than significant.

TABLE 3.6-3

TRAFFIC NOISE IMPACT ANALYSIS (CNEL in dBA at 100 Feet from Centerline)

Location	Exist.	Exist. + Other	Ex. + Other + Project
Slauson Avenue			
W of Alamo Avenue	64.9	65.0	65.0
E of Alamo Avenue	65.8	65.8	65.8
59th Place			
W of Alamo Avenue	50.4	50.4	50.6
Alamo - Walker	51.9	51.9	51.9
E of Walker Avenue	41.1	41.1	---
E 60th Street			
W of Alamo Avenue	47.8	47.8	47.5
Alamo - Walker	49.4	53.3	53.7
E of Walker Avenue	50.2	50.8	50.8
Alamo Avenue			
N of Slauson	57.9	58.0	58.0
Slauson - 59 Place	58.7	58.8	58.8
59th Place - E. 60th St.	58.3	58.9	59.0
S of E. 60th Street	58.1	58.2	58.3
Walker Avenue			
59th Place - E. 60th St.	51.2	51.2	51.2
S. of E. 60th Street	51.3	51.3	51.5

Source: FHWA-RD-77-108 (Calveno Mod.)

Impact 3: Exposure in Noise Levels Exceeding 75 dBA when Measured at a Distance of 50 Feet from the Noise Source during Construction Activity unless Such Levels are Unavoidable because of the Nature of the Activity.

Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there would be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 87 dBA at 50 feet), the increase in noise would be small when averaged over a longer period of time, and therefore, would result in a less than significant impact to noise receptors along the truck routes and within the local area.

The second type of impact is related to noise generated by on-site construction operations. Residences are located on several sides of the project site.

Construction activities are carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase. Figure 1 lists typical construction equipment noise levels measured at a distance of 50 feet.

Noise ranges have been found to be similar during all phases of construction. Noise levels of up to 89 dBA at 50 feet may occur during the noisiest construction phases. Equipment used during maximum construction noise generation includes excavating machinery (back fillers, bulldozers, draglines, front loaders, etc.), and earthmoving and compacting equipment (compactors, scrapers, graders, etc.). Typical operating cycles may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA.

Construction of the proposed park facilities would involve the initial demolition of on-site hardscape or structures. This type of equipment would also be used for ground grading and other site preparation. Once accomplished, lesser use of this heavy equipment would be required in new construction and building assembly.

For heavy equipment involved in site preparation, such construction activities have the potential of generating noise levels on the order of 89 dBA at a distance of 50 feet from the active construction area. The noise level at the nearest residential receptors to the west or south of the project site would range intermittently up to about 85 dBA (Lmax) at the highest power settings. However, during the vast majority of the construction period, noise levels would range from 10 to 15 dBA lower, due to lower noise generating activities and/or lower power settings. Most heavy construction noise would then be on the order of 70 to 75 dBA Lmax intermittently at proximate sensitive land uses.

Compliance with the time requirements of the Maywood Municipal Ordinance regarding construction activities will maintain a less than significant temporary noise impact. Occasional heavy equipment operations may cause the recommended noise performance standard of 75 dB to be exceeded. Levels in excess of 75 dB are allowed in relevant codes if such excursions are unavoidable because of the nature of the activity. If construction equipment noise levels in excess of 75 dB are likely to occur, all reasonable and feasible noise control measures must be implemented. Recommended measures to minimize construction noise include:

1. Construction contractors shall properly maintain and tune all construction equipment to minimize noise emissions. All internal combustion powered equipment shall be equipped with properly operating mufflers.

2. Construction contractors shall restrict noise-intensive construction to the hours of 7 a.m. to 7 p.m. Monday through Saturday. No noise-intensive construction shall take place on Sundays and federal holidays.

3. Construction contractors shall provide the City a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site informing the public whom to contact. Adjacent residents within 100 feet of the property shall also be notified prior to construction activities and given the contact information.

4. During construction activities, the contractor shall ensure that portable equipment is located as far as possible from adjacent residences. If possible, construction employee parking shall be provided off site in a non-residential area.

Impact 4: Exposure of Persons to or Generation of Excessive Ground borne Vibration or Ground borne Noise Levels

Ground borne vibration or ground borne noise is not associated with park operational activities. Temporary construction activities may create vibration due to heavy equipment operations for demolition/ construction perceptible vibration from heavy equipment in soils typical of the Los Angeles Basin is dissipated within 50 feet (MTA Tunneling Study). On-site heavy equipment operations will typically be beyond 50 feet from the closest residence.

Impact 5: Exposure of Park Users to Excessive Noise Levels for Projects within Two Miles of a Public Airport or Public Use Airport.

The project is not located within two miles of any public airport.

3.6.7. MITIGATION MEASURES

Mitigation Measure 3.6-1. Planned assemblies of more than 50 people, or planned use of a portable public address system for park events, shall first obtain a permit from the City of Maywood Parks Department.

Mitigation Measure 3.6-2. The parking lot shall be closed and chained from 10 p.m. to 8 a.m. the next day.

Mitigation Measure 3.6-3. Construction contractors shall properly maintain and tune all construction equipment to minimize noise emissions. All internal combustion powered equipment shall be equipped with properly operating mufflers.

Mitigation Measure 3.6-4. Construction contractors shall restrict noise-intensive construction to the hours of 7 a.m. to 7 p.m. Monday through Saturday. No noise-intensive construction shall take place on Sundays and federal holidays.

Mitigation Measure 3.6-5. Construction contractors shall provide the City a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site informing the public whom to contact. Adjacent residents within 100 feet of the property shall also be notified prior to construction activities and given the contact information.

Mitigation Measure 3.6-6. During construction activities, the contractor shall ensure that portable equipment is located as far as possible from adjacent residences. If possible, construction employee parking shall be provided off site in a non-residential area.

3.6.8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project noise impacts will be reduced to less than significant levels with implementation of the mitigation measures outlined above.

3.7 TRANSPORTATION/CIRCULATION

3.7.1. INTRODUCTION

This section provides summary results of a traffic impact analysis that was conducted in preparation for this project. Generally, the methodology for the traffic study, was to: (1) establish the existing baseline traffic conditions at the potentially affected intersections in the study area, (2) develop future baseline traffic conditions by considering the results of regional growth and the cumulative traffic impacts of other development projects in the area, (3) estimate the level of additional traffic that would be generated by the proposed project, (4) conduct a comparative analysis of traffic conditions with and without the project, (5) assess the parking impacts, and (6) identify potential mitigation measures.

The intersection analysis is based on weekday peak hour traffic conditions at five intersections in the project vicinity. The analysis of the access / circulation system is based on a review of the proposed site plan in context with the existing layout of the local street network.

3.7.2. EXISTING CONDITIONS

The street network in the project vicinity, the existing traffic volumes, and level of service at the affected study area intersections are described below. The study area street network and the location of the intersections that were analyzed are illustrated in Figure 3.7.1.

Street Network

Regional access to the project area is provided by the Long Beach (1-710) Freeway, which is located approximately eight (8) miles north and east of the project. Within the project vicinity, the Long Beach Freeway has an interchange at Atlantic Boulevard. The streets that provide direct access to the project site are Slauson Avenue, Alamo Avenue, East 59th Place, 60th Street, and Walker Avenue.

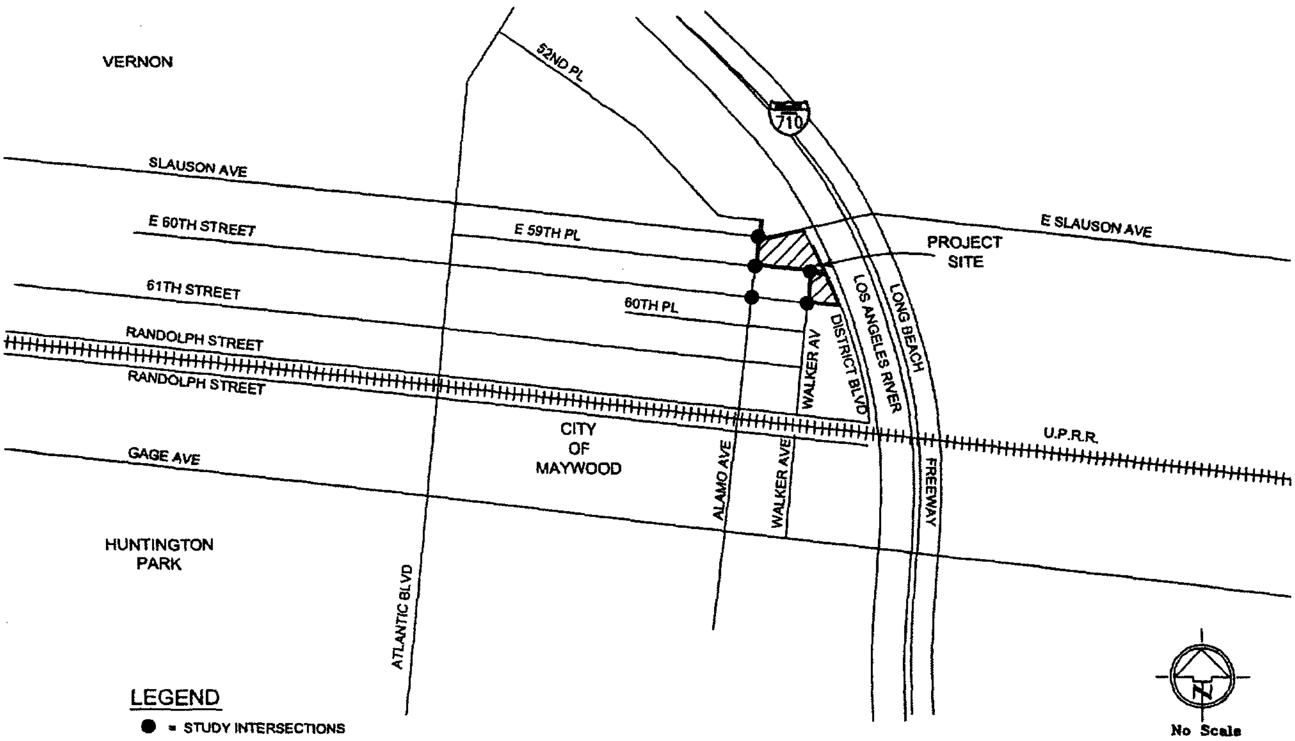
Slauson Avenue is an east-west roadway, which travels through the City of Maywood. In the City's General Plan, Slauson Avenue is designated as a Major Highway. To the west, Slauson Avenue continues through the Cities of Vernon, Huntington Park, and Los Angeles; and east of the City of Maywood, it serves areas in Commerce, Montebello, and Pico Rivera. In the study area, Slauson Avenue provided four lanes of travel, divided by a two-way left turn lane. The speed limit on Slauson Avenue is posted at 35 miles per hour (MPH) within the study area. On-street parking is permitted during restricted time periods on Slauson Avenue.

Alamo Avenue is designated as a Secondary Highway in the City's General Plan and provides north-south travel through the Cities of Maywood and Bell. It extends from

52nd Place in the north (in Maywood) to Bell Avenue in the south (in the City of Bell). Through the study area, Alamo Avenue is a two-lane, undivided roadway, which serves mostly residential uses. A 25 MPH speed limit is posted on Alamo Avenue and some on-street parking is allowed. The intersection of Alamo Avenue / Slauson Avenue is currently signalized.

Figure 3.7.1

Study Intersections



59th Place is a two-lane, undivided roadway, which runs in an east-west direction. The City's General Plan designates this street as a Local Roadway. It begins at Atlantic Boulevard and currently terminates at District Boulevard. In the study area (east of Alamo Avenue), the south side of 59th Place is lined with residential uses, while the north side consists of vacant land and a couple of industrial buildings (which are planned to be demolished with the proposes park project). On-street parking is available on 59th Street during restricted time periods. The Alamo Avenue / 59th Plan intersection is currently unsignalized, with STOP sign control for the 59th Place approaches only.

60th Street is a designated Local Roadway, which extends westerly from District Boulevard through the Cities of Maywood and Huntington Park, This east-west roadway provides two lanes of undivided travel through the study area and serves residential land uses. On-street parking is permitted on 60^{th} Street. A four-way STOP currently controls the intersection of Alamo Avenue and 60^{th} Street.

Walker Avenue has a north-south alignment and provides two undivided travel lanes from 59^{th} Place to Randolph Street in the study area. The City's General Plan designates this street as a Local Roadway. Residential land uses line the majority of Walker Avenue. The posted speed limit on Walker Avenue is 25 MPH and on-street parking is allowed. Currently, the Walker Avenue / 50^{th} Place intersection is a "T" intersection, with STOP signs controlling only the northbound approach (Walker Avenue) and the eastbound approach (59^{th} Place). The intersection of Walker Avenue / 60^{th} Street is currently two-way STOP controlled, with STOP control for the 60^{th} Street approaches only.

Existing Traffic Volumes

AM and PM peak hour traffic counts were conducted at the five study intersections on Thursday, May 2, 2002, and existing field data were also collected for use in the overall analysis.

Analyses

The 2000 Highway Capacity manual methodology (HCS 2000) was utilized for analyzing both the signalized and unsignalized intersections in these traffic analyses. Under these intersection analysis procedures, the operating conditions are defined in terms of Levels of Service (LOS). The Levels of Service are described as letter "grades," which are associated with vehicle delay times, where "A" is considered the best and "F" is over capacity. It is generally recognized that LOS A through D represent acceptable intersections operations, while LOS E and F indicate an over capacity (unacceptable) situation. An explanation of the Levels of Service as it relates to vehicle delay is provided in Appendix G.

Table 3.7.1 summarizes the results of the intersection analyses under existing conditions. As shown in Table 3.7.2, all of the study intersections are currently operating acceptably with Levels of Service A and B both at the AM and PM peak hours. The supporting HCS intersection analyses work sheets can be referenced in Figure 3.7.2.

Table 3.7.1
Intersection Analyses Summary

INTERSECTION	LEVEL OF SERVICE (LOS) [1]					
	EXISTING CONDITIONS		EXISTING (ADJUSTED) [5] + OTHER CONDITIONS		EXISTING (ADJUSTED) [5] + OTHER + PROJECT CONDITIONS	
	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
SIGNALIZED INTERSECTION:						
Alamo Avenue / Slauson Avenue [2]	A	A	B	A	B	B
- With Improvement [7]					A [7]	B [7]
UNSIGNALIZED INTERSECTIONS:						
Alamo Avenue / 59th Place [3]	A / A / B / B	A / A / A / B	A / A / A / B	A / A / A / B	A / A / B / B	A / A / B / B
Alamo Avenue / 60th Street [4]	A	A	A	A	A	A
Walker Avenue / 59th Place [4]	A	A	A / A / A [6]	A / A / A [6]	A / A / A [6]	A / A / A [6]
Walker Avenue / 60th Street [3]	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A

(1) The study intersections were analyzed utilizing the 2000 Highway Capacity Manual analysis procedures (HCS 2000) for signalized and unsignalized intersections

(2) For this signalized study intersection, the LOS value presented is for the entire intersection.

(3) For these unsignalized study intersections (two-way STOP controlled), the "A / A / B / B" results are the LOS values for the Northbound Approach / Southbound Approach / Westbound Approach / Eastbound Approach movements, respectively.

(4) For these unsignalized study intersections (all-way STOP controlled), the LOS value presented is for the entire intersection.

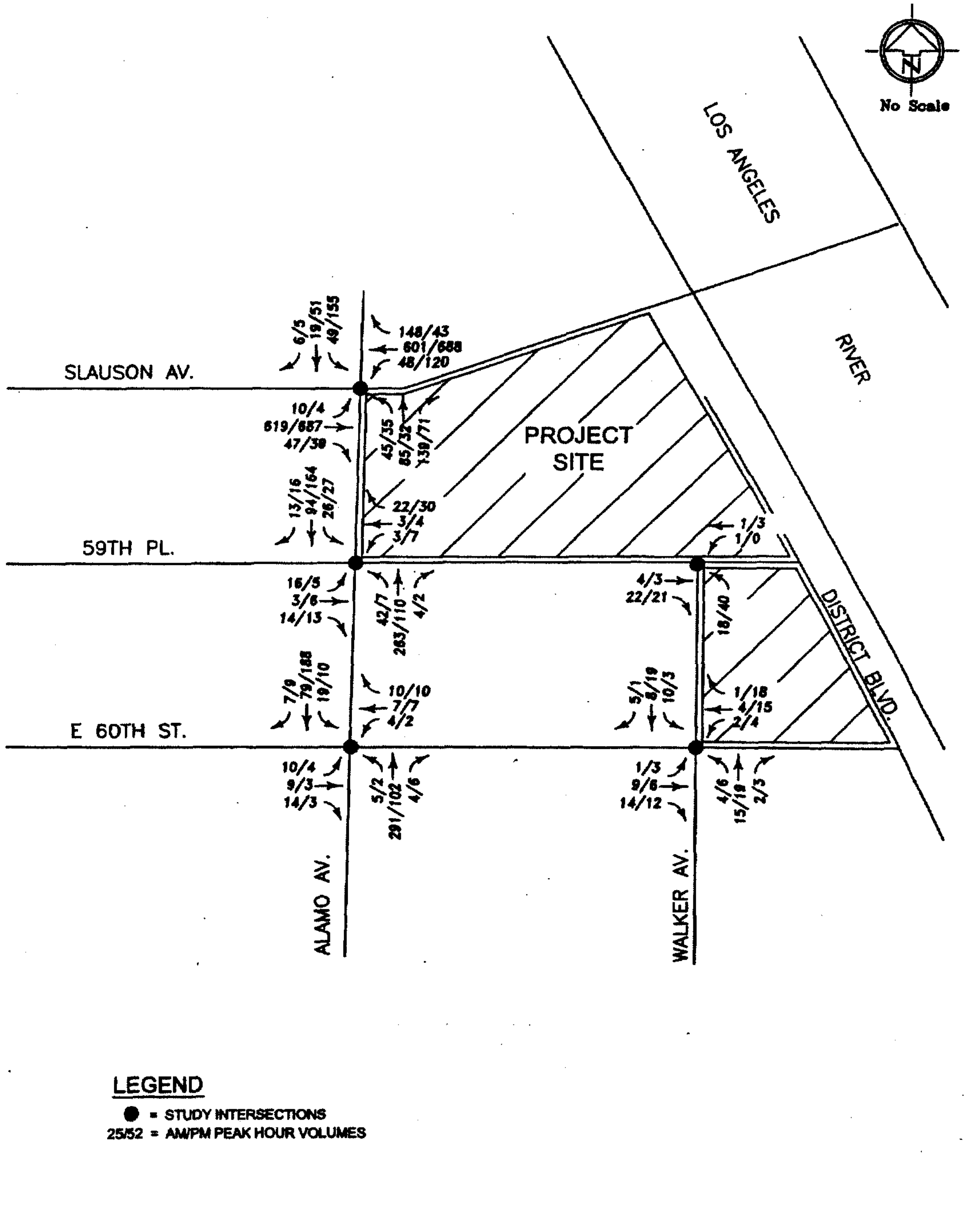
(5) Adjustments were made to the existing volumes at the study intersections to account for: **a)** 59th Place, from east of Alamo Avenue to Walker Avenue, being changed from two-way operations to one-way (eastbound) operations; **b)** the vacation of 59th Place, from Walker Avenue to District Boulevard; and **c)** the vacation of District Boulevard, from 60th Street to Slauson Avenue. These adjustments to the street system are proposed as a part of the *Maywood Riverfront Park* project.

(6) The adjustments to the street system result in a changed intersection configuration for Walker / 59th; and, it is recommended that the STOP sign currently controlling northbound traffic on Walker Avenue be removed. The north end of Walker Avenue would be a cul-de-sac and would provide a drop-off / pick-up area for the proposed park. The Walker / 59th intersection was then analyzed as a two-way STOP controlled intersection, with STOP sign control for 59th Place (eastbound) only; and the "A / A / A" results are the LOS values for the Northbound Approach / Southbound Approach / Eastbound Approach movements, respectively.

(7) The City is proposing an improvement to the signalized intersection of Alamo / Slauson in conjunction with the *Maywood Riverfront Park* project. This improvement consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane.

Figure 3.7.2

Existing Volumes



Adjustment to Existing Traffic

The development of the Maywood Riverfront Park project proposes changes to the existing street system. As a part of the proposed park project, angled parking (27 spaces) would be provided on the north side of 59th Place (along the southern border of the park); thereby, changing the current two-way street operations on 59th Place, from east of Alamo Avenue to Walker Avenue, to one-way (eastbound) operations. The traffic that currently travels westbound on 59th Place was then redistributed on the surrounding street system.

Included as a part of the proposed project is the vacation of existing roadway segments: a) 59th Place, from Walker Avenue to District Boulevard, and b) District Boulevard, from 60th Street to Slauson Avenue. With these street closures, some existing traffic was also rerouted. The vacation of 59th Place, east of Walker Avenue (from Walker Avenue to District Boulevard), would also change the configuration of the Walker / 59th intersection. The proposed park project would create a cul-de-sac area (drop-off / pick-up area) at the north end of Walker Avenue, just north of the Walker / 59th intersection, and it is assumed that the STOP sign currently controlling the northbound approach of Walker Avenue would be removed. The STOP sign for eastbound traffic on 59th Place would remain. (It is noted that with the new assumptions for the Walker / 59th intersection, the intersection was then analyzed as a two-way STOP controlled location for the remaining analysis conditions.)

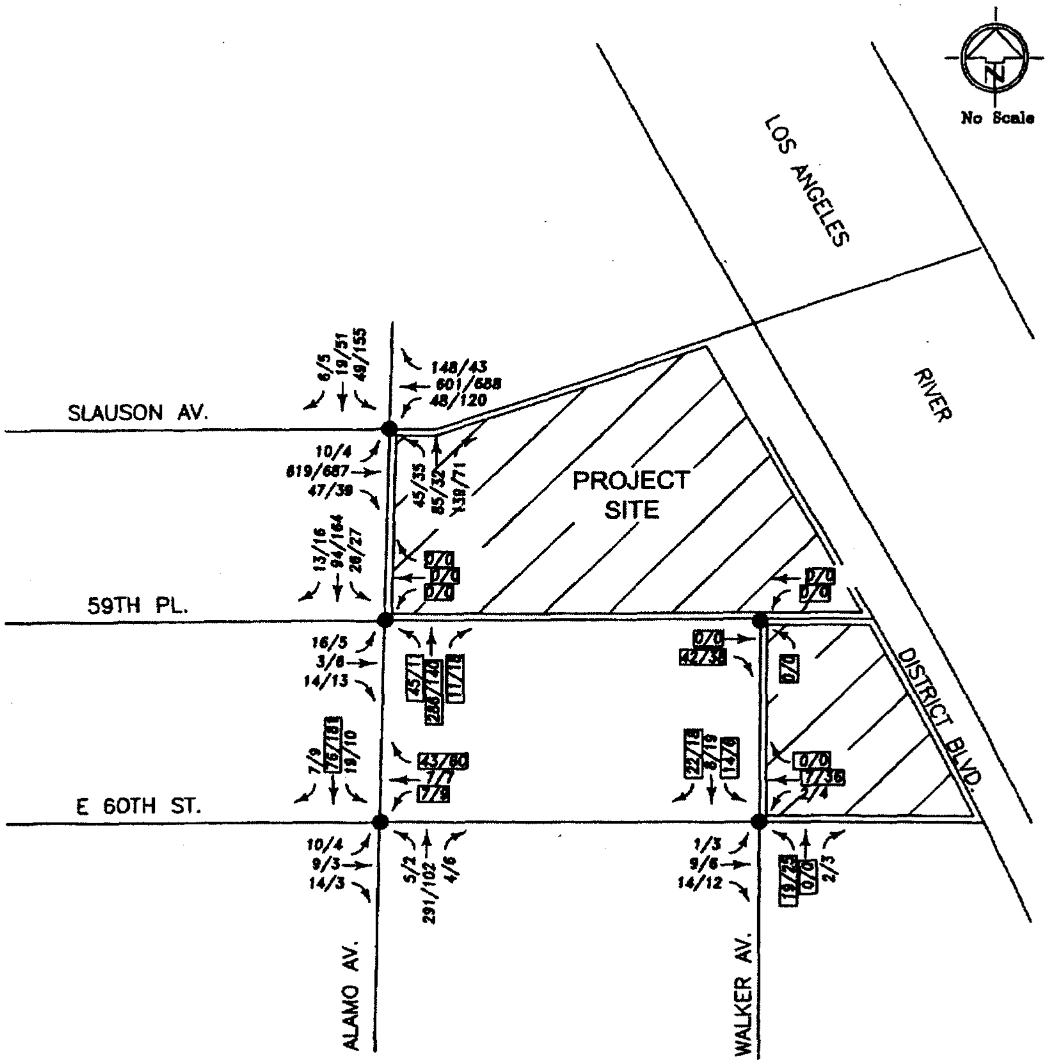
Assuming these proposed changes to the street system, the existing traffic was redistributed (adjusted) on the surrounding street system. (Figure 3.7-3) illustrates the adjusted existing AM and PM peak hour volumes at the five study intersections. (It is noted that the volumes, which were adjusted, are shown in boxes on (Figure 3.7.3).

Ambient Traffic Growth

The proposed project is anticipated to be constructed and operational by April 2003 (approximately one year). The existing (adjusted) peak hour traffic volumes at the five study intersections (previously shown on (Figure 3.7.3) were then projected to the future Year 2003. A conservative ambient growth rate of 1.5 percent per year was approved by City Staff and utilized in these traffic analyses based upon both the Los Angeles County, Congestion Management Program (CMP) guidelines and previously completed studies in the vicinity of the proposed project. This growth rate is intended to address the potential traffic increases due to unidentified projects and/or general traffic growth in the study area. The future, pre-project traffic volumes were then calculated by applying the growth factor to the existing (adjusted) peak hour traffic count volumes (Figure 3.7.3), utilizing the equation $(1 + i)^n$; where "i" is the growth factor (1.5 percent per year) and "n" is the number of years of growth (one year). The existing (adjusted) plus other (growth) AM and PM peak hour volumes at the five study intersections are presented on (Figure 3.7-4).

Figure 3.7.3

Adjusted Existing Volumes



NOTE: The existing volumes were adjusted (boxed) to account for:
a) 59th Place, from east of Alamo Ave. to Walker Ave., being changed from two-way operations to one-way (eastbound) operations;
b) the vacation of 59th Place, from Walker Ave. to District Blvd.; and
c) the vacation of District Blvd., from 60th St. to Slauson Ave.
These conditions are proposed as a part of the project (Maywood Riverfront Park).

LEGEND

● = STUDY INTERSECTIONS

25/52 = AM/PM PEAK HOUR VOLUMES

Other Area Projects

Contact was made with City of Maywood staff and it was indicated that there are no other area projects in the immediate vicinity of the proposed park project, which should be considered in this traffic study. City Staff did mention that, in conjunction with *Caltrans*, ongoing improvements along the I-710 (Long Beach) Freeway (east of the proposed project) are being investigated, which include a possible interchange with Slauson Avenue. There is no specific project at the time of completion of this study. Further discussions with City Staff indicated that completion of this interchange would go beyond the Maywood Riverfront Park project-opening day.

3.7.3 REGULATORY FRAMEWORK

The City of Maywood General Plan Circulation Element has goals and policies designed to improve the ability of all systems to meet the existing and future transportation needs of Maywood.

3.7.4. THRESHOLDS OF SIGNIFICANCE

The proposed project will have a significant impact on land use if it would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

3.7.5. IMPACTS

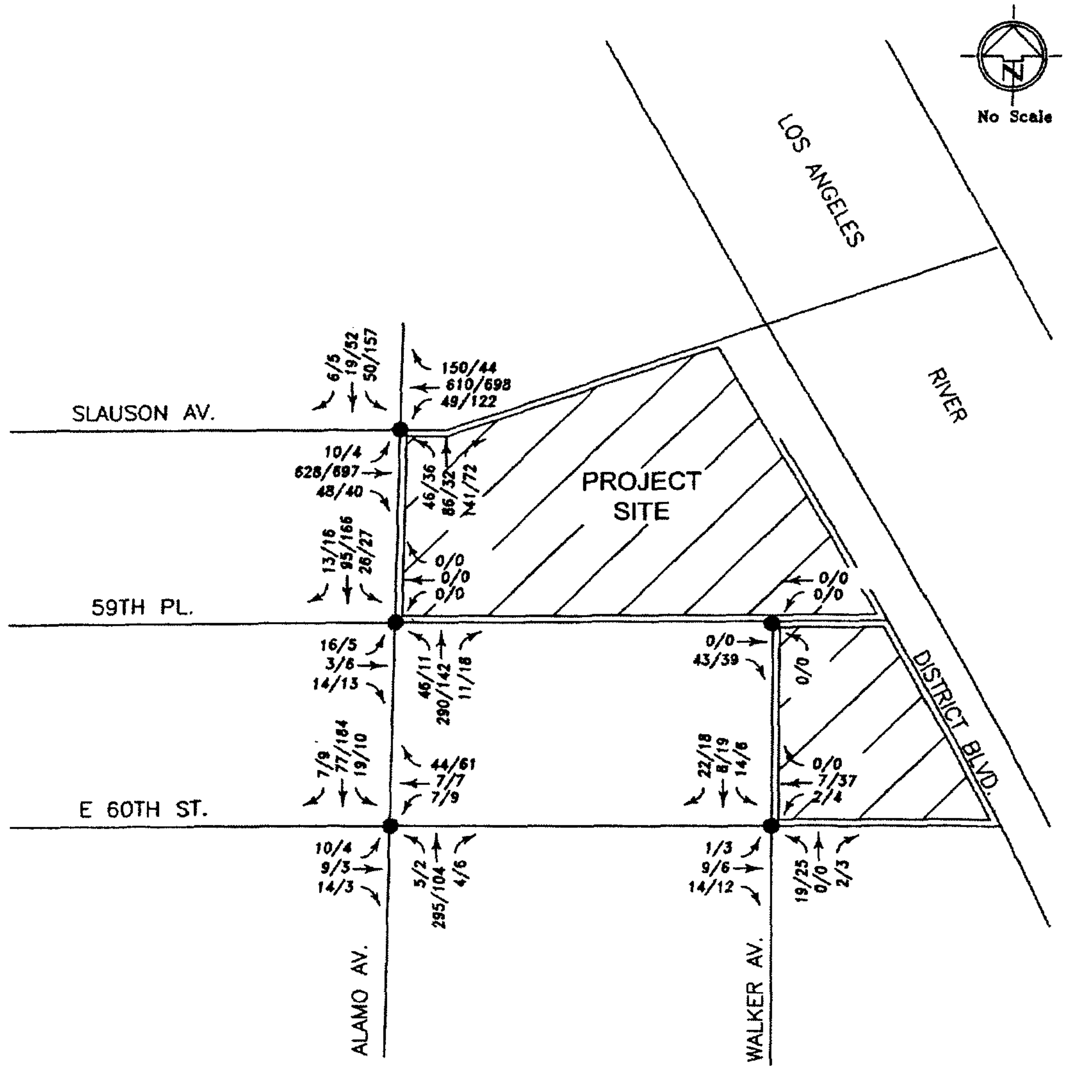
The following sections summarize the analysis of the project's impacts on study area traffic conditions. First is a discussion of project-generated traffic volumes. This is followed by a description of the future baseline traffic conditions without the project. Then an analysis is presented of the project's impacts on intersection levels of service at the affected study area intersections. The impacts are then evaluated.

Analyses - Existing (Adjusted) Plus Other Conditions

The existing (adjusted) plus other AM and PM peak hour volumes (previously presented on (Figure 3.7-4) were then analyzed to determine the operating conditions at the five study intersections under the pre-project (existing plus other) conditions. Table 3.7-1, which was presented earlier in this study, shows that under existing (adjusted) plus other conditions, all of the study intersections would continue to have acceptable operations (LOS A and B) during both the AM and PM peak hours. Appendix G-1 provides the supporting HCS intersection analyses worksheets.

Figure 3.7.4

Existing (Adjusted)+Other Volumes



LEGEND

● = STUDY INTERSECTIONS

25/52 = AM/PM PEAK HOUR VOLUMES

NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

Project Conditions

Trip Generation

In order to analyze the potential impacts of the proposed Maywood Riverfront Park project, it is necessary to determine the trip generation of this proposed project. Trip generation rates applicable to the proposed park project were referenced from the *San Diego Association of Governments (SANDAG)* publication, ***San Diego Traffic Generators***[1], and are presented in Table 3.7-2. It should be noted that the *Institute of Transportation Engineers (ITE)* publication, ***Trip Generation, Sixth Edition***, does not provide sufficient trip generation data for a City Park land use; therefore, the *SANDAG* trip rates for a City Park were utilized in this traffic study. The City Park trip generation rates were then applied to the proposed Maywood Riverfront Park project (7.3 acres) and the resulting proposed trip generation is also shown in Table 3.7-2. The proposed project is estimated to generate a total of 365 daily trip ends, of which 15 (10 In, 5 Out) trip ends would occur during the AM peak hour and 30 (10 In, 20 Out) trip ends would occur during the PM peak hour.

As previously noted in this traffic study, two industrial type buildings currently exist on the proposed project site; and, one of the buildings (*Precision Arrow* - 23,725 SF) is currently operating. These existing buildings are planned to be demolished with the development of the proposed Maywood Riverfront Park project. The traffic generated by the building that is currently in operation (*Precision Arrow* - 23,725 SF) is included in the existing count data at the five study intersections. In order to provide a conservative, "*worst case*" analysis, the trip ends associated with the existing building (*Precision Arrow*), which is currently in operation were not deducted from the existing volumes on the street system. In reality, these trip ends would be eliminated from the street system with the demolition of the existing land uses.

1 ***San Diego Traffic Generators***; *San Diego Association of Governments (SANDAG)*; updated July, 1998.

Table 3.7.2

Trip Generation – Proposed Project MAYWOOD RIVERFRONT PARK, CITY OF MAYWOOD						
LAND USE	DESCRIPTOR / SIZE	TRIP ENDS				
		DAILY	AM PEAK HOUR		PM PEAK HOUR	
			IN	OUT	IN	OUT
TRIP RATES:						
City Park (1)	Per Acre	50.00	1.60	0.40	1.64	2.36
TRIP ENDS:						
Maywood Riverfront Park	7.3 Acres	365	10	5	10	20

(1) Trip generation rate information referenced from **San Diego Traffic Generators**; San Diego Association of Governments (SANDAG); updated July 1998. The Institute of Transportation Engineers (ITE) publication, **Trip Generation, Sixth Edition** does not provide sufficient trip generation data for a City Park land use; therefore, SANDAG trip rates were utilized in this study.

Trip Distribution and Assignment

Distribution percentages were developed for the proposed Maywood Riverfront Park project based upon a review of regional land uses, the type of land use proposed, and the changes proposed to the surrounding street system with the park development. (The proposed changes to the street system, previously mentioned in this study, include one-way [eastbound] operations on 59th Place, from east of Alamo Avenue to Walker Avenue; the vacation of 59th Place, from Walker Avenue to District Boulevard; and the vacation of District Boulevard, from 60th Street to Slauson Avenue.) Figure 3.7.5 illustrates the distribution pattern for the proposed park project. The project-generated trip ends, identified in Table 3.7.2, were then assigned to the surrounding street system based upon the distribution percentages on Figure 3.7.5 and upon the proposed park access areas (the parking lot on the northeast corner of Alamo / 59th, the angled parking on the north side of 59th Place, the drop-off / pick-up area north of Walker / 59th, and the on-street parking on Walker Avenue). The resulting inbound and outbound project trip assignment volumes at the five study intersections are illustrated on Figure 3.7.6 and Figure 3.7.7 respectively. Illustrations in Figure 3.7.6 and Figure 3.7.7 also show the project volumes at the proposed park access areas.

Analyses - Existing (Adjusted) Plus Other Plus Project Conditions

The total project traffic was then added to the existing (adjusted) plus other volumes (previously presented on Figure 3.7.4), so the potential project impacts upon the five study intersections could be evaluated. Figure 3.7.8 illustrates the existing (adjusted) plus other project AM and PM peak hour volumes at the five study intersections. With the addition of the proposed Maywood Riverfront Park project to the existing (adjusted) plus other conditions, Table 3.7.1 (presented earlier) indicates that all of the study intersections would have acceptable LOS A and B operations during both the AM and PM peak hours. The supporting HCS intersection analyses worksheets are contained in Appendix G-1. Since all of the five study intersections would have acceptable operating conditions, it can be concluded that the proposed Maywood Riverfront Park project would not cause a significant traffic impact to the study area.

Figure 3.7.5

Project Distribution

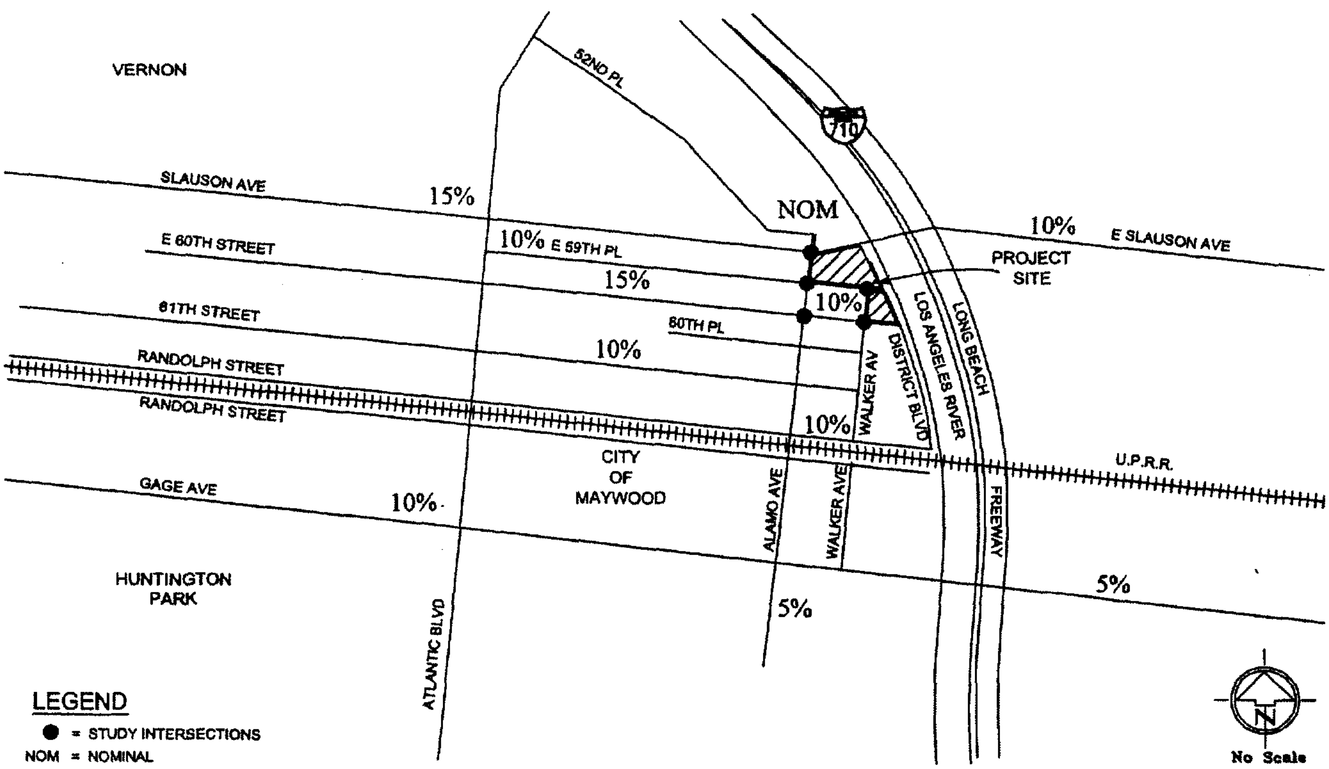
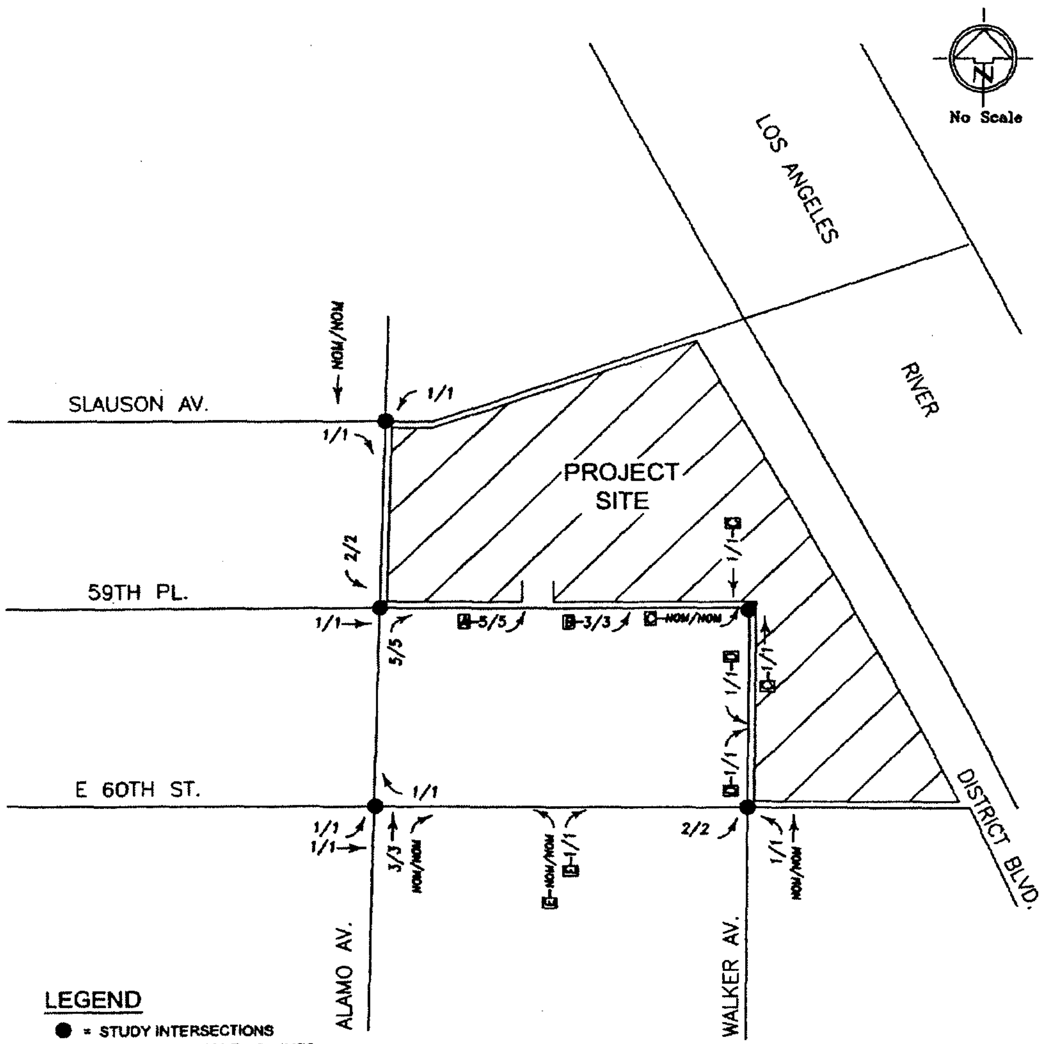


Figure 3.7.6

Inbound Project Volumes



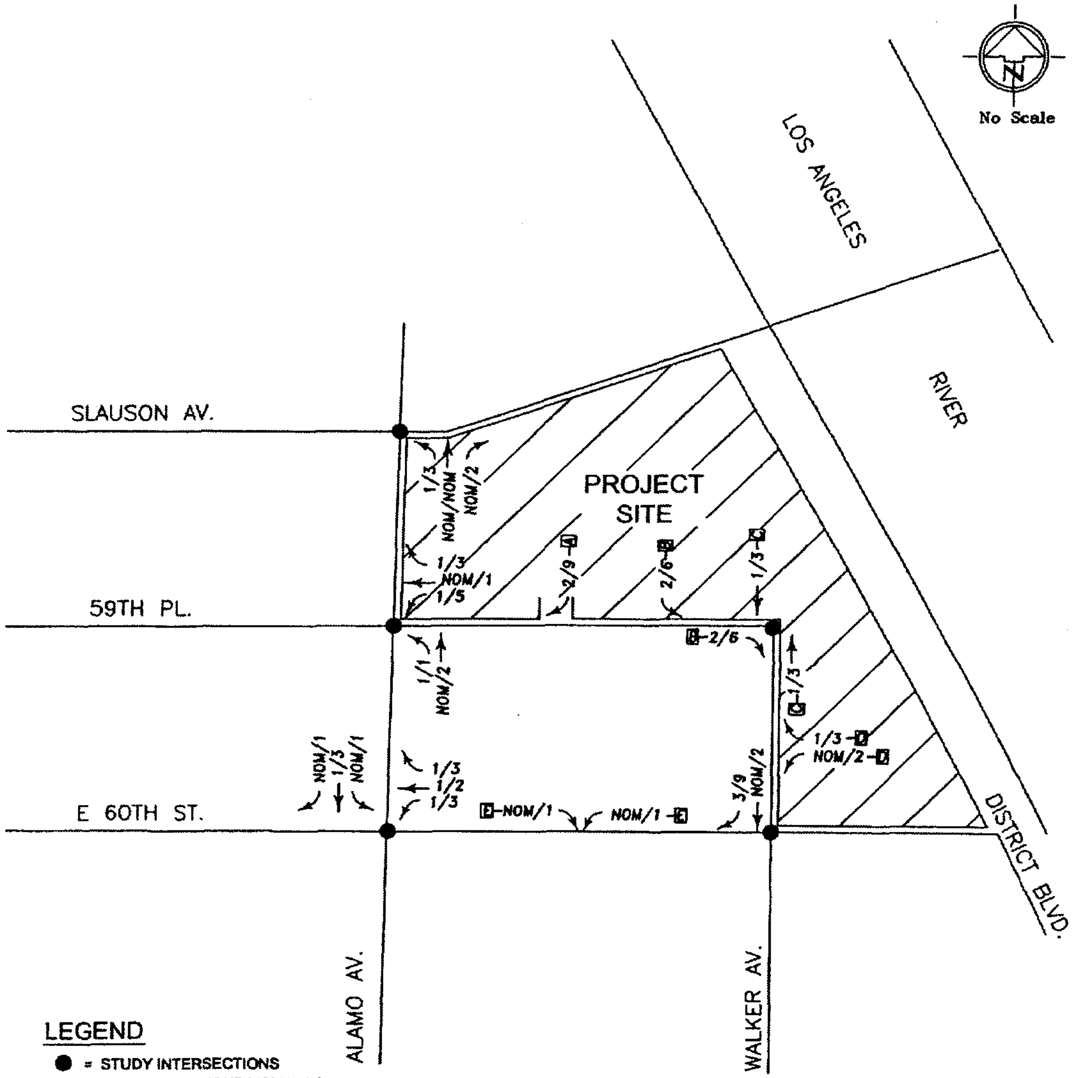
LEGEND

● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES
NOM = NOMINAL
[A] = Vehicles entering the parking lot for the proposed park.
[B] = Vehicles parking in the angled parking spaces on the north side of 59th Place, adjacent to proposed park.
[C] = Vehicles dropping-off people at the proposed park. The park's drop-off/pick-up area will be located at the cul-de-sac at the north end of the Walker/59th intersection. It is assumed that the "drop-off" vehicles would then park on Walker Ave.
[D] = Vehicles parking on-street on Walker Ave.
[E] = Vehicles coming from residences in this area.

NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

Figure 3.7.7

Outbound Project Volumes



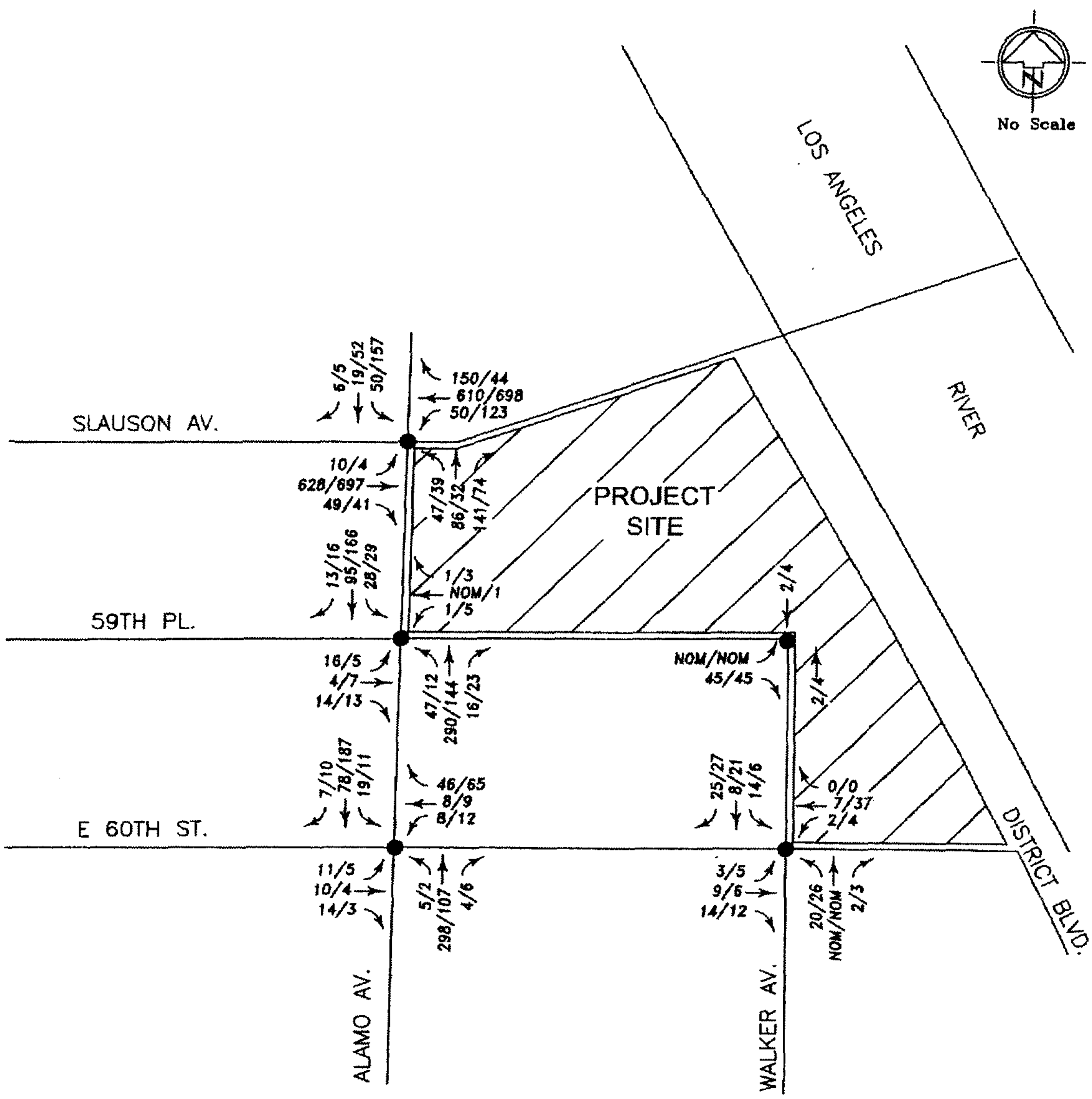
LEGEND

- ● = STUDY INTERSECTIONS
- 25/52 = AM/PM PEAK HOUR VOLUMES
- NOM = NOMINAL
- [A] = Vehicles exiting the parking lot for the proposed park.
- [B] = Vehicles exiting the angled parking spaces on the north side of 59th Place, adjacent to proposed park.
- [C] = Vehicles picking-up people at the proposed park. The park's drop-off/pick-up area will be located at the cul-de-sac at the north end of the Walker/59th intersection. It is assumed that the "pick-up" vehicles were previously parked on Walker Ave.
- [D] = Vehicles leaving on-street parking on Walker Ave.
- [E] = Vehicles staying in this residential area.

NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

Figure 3.7.8

Existing Adjusted+Other+Project Volumes



LEGEND

● = STUDY INTERSECTIONS

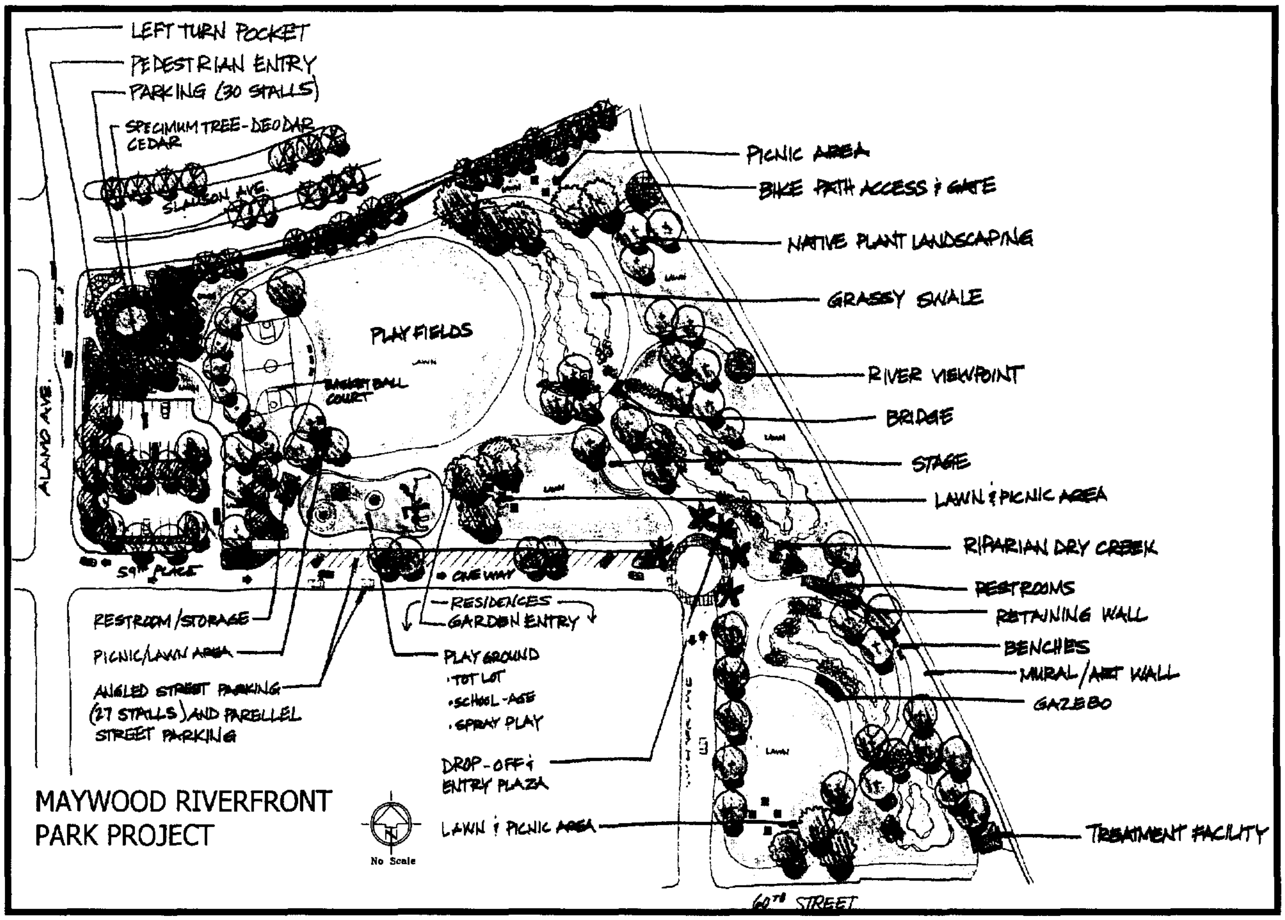
25/52 = AM/PM PEAK HOUR VOLUMES

NOM = NOMINAL

NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

Figure 3.7.9

Project Site Plan



Proposed Intersection Improvement

It was previously mentioned in this traffic study that in conjunction with the proposed Maywood Riverfront Park project, the City is proposing an improvement to the signalized study intersection of Alamo Avenue and Slauson Avenue. Table 3.7-1, previously presented, shows that this study intersection would have acceptable LOS B operations during both peak hours under the existing (adjusted) plus other project conditions, without any improvement. The improvement proposed consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane. (Currently, the northbound approach only consists of a single left / through / right combination lane.) With the proposed improvement added to the signalized study intersection of Alamo / Slauson, the intersection operations would be improved to LOS A and LOS B during the AM and PM peak hours, respectively, under the existing (adjusted) plus other plus project conditions (with improvement).

Parking

As illustrated on the project site plan on Figure 3.7-9, presented earlier in this study, a total of 57 parking spaces are planned to serve the proposed Maywood Riverfront Park. A 31 90° parking space parking lot would be located on the southwest corner of the project site (near the Alamo / 59th Place intersection) and 27 angled parking spaces would also be provided on the north side of 59th Place (along the southern border of the park). It should be noted that additional on-street parking is also permitted on Walker Avenue in the vicinity of the proposed park.

In discussions with City of Maywood Staff, it was determined that a parking code for City Parks does not currently exist. Based upon our past experience with similar parks, however, we feel that the 57 parking spaces would be adequate to serve the proposed Maywood Riverfront Park.

Operations

59th Place, from east of Alamo Avenue to Walker Avenue, is proposed to have one-way eastbound operations only, with angled parking on the north side of the street as a part of the Maywood Riverfront Park project. Engineering street design plans, which illustrate the proposed improvements of 59th Place, from east of Alamo Avenue to Walker Avenue, were not available for review at the completion of this traffic study. Preliminary investigation of the project site plan, however, indicates that the design of 59th Place would also need to address provisions for emergency vehicles and maintenance service trucks. The final design of 59th Place, including the one-way circulation and the angled parking, should be reviewed by a qualified traffic engineer to ensure safe operations.

Potentially Significant Impacts

Implementation of the proposed project would not result in any potentially significant land use impacts. The proposed project (7.3 acres) is estimated to generate a total of 365 daily trip ends, of which 15 (10 In, 5 Out) trip ends would occur during the AM peak hour and 30 (10 In, 20 Out) trip ends would occur during the PM peak hour. In conjunction with the proposed project, the City of Maywood is proposing an improvement to the signalized study intersection of Alamo Avenue / Slauson Avenue.

This proposed improvement consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane. Without the proposed improvement, under existing (adjusted) plus other plus project conditions, the Alamo / Slauson intersection would have acceptable LOS B operations during both peak hours. With the addition of the proposed improvement, the intersection operations would be improved to LOS A and LOS B during the AM and PM peak hours, respectively.

3.7.6. CUMULATIVE IMPACTS

The proposed project would not result in any inconsistencies with adopted plans and policies. Therefore, it would have a less than significant contribution to cumulative land use impacts.

3.7.7. MITIGATION MEASURES

Because impacts are less than significant, no mitigation measures would be required. However, the following recommendations are noted:

(a) Due to the changed intersection configuration at Walker Avenue and 59th Place, it is recommended (and has been assumed in these analyses) that the STOP sign which currently controls the northbound approach (Walker Avenue) be removed; leaving only a STOP sign for the eastbound approach (59th Place). Also, a physical barrier needs to be installed that would deter motorists on Walker Avenue from inadvertently turning west onto 59th Place, which would be an eastbound one-way street.

(b) It is also recommended that the final design of 59th Place (from east of Alamo Avenue to Walker Avenue), including the one-way circulation and the angled parking, be reviewed by a qualified traffic engineer to ensure safe operations.

4.0 ALTERNATIVES

4.1. INTRODUCTION

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to the project, or to the location of the project site, that could feasibly attain the basic objectives of the project. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR should also evaluate the comparative merits of the alternatives. This Chapter sets forth alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines relating to the alternatives analysis area summarized below:

- The discussion of alternatives should focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.
- One of the alternatives analyzed must be the "no project" alternative. The "no project" alternative analysis shall discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community service.
- The range of alternatives required in an EIR is governed by a "rule of reason"; therefore, the EIR must evaluate only those alternatives necessary to permit a reasonable choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- The EIR should identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

Rationale for Selecting Potentially Feasible Alternatives

Since the CEQA Guidelines require that an EIR state why an alternative is being rejected, a preliminary rationale for rejecting an alternative is presented, where applicable, in this EIR. If an alternative would cause any significant effects in addition to those that would be caused by the project, the significant effects of the alternatives must be discussed, although in less detail than the significant effects of the project.

The alternatives may include no project, a different type of project, modification of the proposed project, or suitable alternative projects sites. However, the range of alternatives discussed in an EIR is governed by a "rule of reason" which CEQA Guidelines Section 15126.6(f) defines as setting forth:

> only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the Lead Agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making.

Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Section 15126.6(f)(1) are environmental impacts, site suitability, economic viability, availability of infrastructure, General Plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote or speculative, and that would not achieve the basic project objectives.

For purpose of this analysis, the project alternatives are evaluated to determine the extent to which they attain the basic project objectives, while significantly lessening any significant effects of the project. The objectives of the City of Maywood (the Lead Agency) for the project are as follows:

- Developing a park of adequate size to provide recreational facilities with adequate off-site parking.
- Providing more open space to meet the specific needs of the residents of the City of Maywood.
- Utilization of the parkland development overlay zone established for properties zoned for industrial uses (M-1).
- Eliminating industrial uses in proximity to residentially zoned and developed properties.

The EIR has found the following potential adverse effects of the proposed project are either less than significant, or capable of mitigation to a less-than-significant level:

- Aesthetics
- Air Quality
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Circulation

The Lead Agency selected the alternatives below for a variety of reasons; however, the goal for evaluating the alternative is to identify ways to mitigate or avoid the significant environmental effects identified above resulting from the proposed project. This EIR analyzes the following alternatives:

4.2. NO PROJECT/NO DEVELOPMENT ALTERNATIVE

Description

In addition to altermative development scenarios, Section 15126.6(e) of the CEQA Guidelines requires the analyses of a "no project" alternative. This "no project" analysis must discuss the existing condition of the project site, as well as what would be reasonably expected to occur in the foreseeable future if the project were not to be approved. The "no project" alternative represents the status quo, or maintaining the project site in its current state, which includes the two existing industrial buildings and the existing park. No new environmental effects would directly result from the selection of this altermative. Maintenance of the project site in the present state would allow the site to continue its current, partially abandoned state. Because the site would not be developed, any significant and adverse environmental impacts directly or cumulatively associated with the proposed project would be avoided.

Attainment of Project Objectives

This alternative would not meet the basic project objectives outlined earlier in this Section of the report. The existing state of the site would not constitute the highest and best use of the site, which is zoned for General Manufacturing with a park development overlay zone. No parks would be developed to meet the open space and recreational needs of the residents of the City of Maywood. The visual characteristics of the site would not be enhanced, and the site would undergo the same level of remediation as a result of the project.

4.3. ALTERNATIVES FOUND TO BE INFEASIBLE

Reduced Scale Alternative

This alternative proposes to reduce the scale of the proposed project in order to reduce environmental impacts associated with the proposed project. This alternative would be most useful in minimizing the hazards and hazardous materials impacts identified in the Risk Assessment analysis prepared by TN & Associates. The alternative would not include acquisition by the City of Maywood of the Pemaco superfund site, the Lubricating Oil Services site, and District Boulevard.

Attainment of Project Objectives

Implementation of this alternative would not meet the basic project objectives outlined in this report. Some of the funding needed for the development of the project through the State Coastal Conservancy would not be available, and the City of Maywood would not be in a position to purchase the Pemaco and the Lubricating Oil Services sites.

Alternative Site

According to CEQA Guidelines, two major provisions are necessary for an adequate alternative site analysis – feasibility and location. The EIR should consider alternate project locations if a significant project impact could be avoided or substantially lessened by moving the project to an alternative site.

The most significant potential change associated with an alternative site analysis is a potential lessening of the Hazard and Hazardous Materials impact. This impact is significant with the current project site because of the history of contamination of the Pemaco Site (5050 Slauson Avenue), which is a superfund site, and the W.W. Henry Site (5920 Alamo Avenue), which is also contaminated. However, obtaining an alternative site is not feasible because of the lack of available sites. The City of Maywood is completely urbanized with little open space remaining in the City. Recognizing that open space in the City is a premium, the community has emphasized the need to preserve existing open space used for recreation and to expand open space opportunities where it is feasible. Existing parks in the City include Maywood City Park and Pixley Park, which have a combined land area of 5.8 acres. The park is feasible at the proposed project site because the City of Maywood General Plan and Zoning Code allows for the development of parks on industrially zoned properties. Also, the existence of a park area at 5950 Walker Avenue (the former Catellus Property) makes a park use more feasible on the remainder of the parcels that comprise the project site.

The proposed project is unique by virtue of its location and existing uses. It is a 7.3-acre site located adjacent to the Los Angeles River. Upon completion, this site would be the largest park site in the City considering existing parks in the City have a combined land area of 5.8 acres and that the City would need over 61 acres of parkland to meet nationally recognized standards that evaluate needed park area for a given population.

No Project/Less Intense/Reasonable Foreseeable Use Alternative

This alternative discusses potential impacts associated with build-out of the project site under the existing zoning and General Plan for the site. Under this alternative, development would reflect and expand the industrial use on site or encourage construction of new buildings on the site. This alternative would increase truck traffic, noise and air quality impacts from the proposed project, but reduce the hazard and hazardous materials impacts. While the hazard and hazardous materials impacts would be less than with the proposed project, the alternative does not meet project objectives and was eliminated from further consideration.

4.4. SUMMARY OF PROJECT ALTERNATIVES

A summary of the identified feasible project alternatives, and a comparison of environmental impacts relative to the proposed project, is presented in Table 4.0 -1.

Table 4.0.1

SUMMARY OF PROJECT ALTERNATIVE Issue Area	No Project/No Development
Aesthetics	+1
Air Quality	-1
Noise	-1
Hazard and Hazardous Materials	-1
Hydrology and Water Quality	-1
Land Use and Planning	-1
Noise	-1
Transportation and Circulation	-1
TOTAL	-6

+1: Impacts are greater than those created by the proposed project
-1: Impacts are less than those created by the proposed project
0: Impacts are the same as those created by the proposed project

4.5. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project/No Development option most significantly lessens all environmental impacts associated with the proposed project, and would be considered the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the "no project" alternative is identified as environmentally superior, the EIR shall also identify an environmentally superior alternative among the other alternatives. The No Project/Less Intense/Reasonable Foreseeable Use option also lessens the environmental impacts associated with the proposed project, but does not meet basic project objectives. Therefore, although the other alternatives could reduce the environmental impacts of the proposed project, the other alternatives would not achieve the project objectives.

5.0 LONG TERM IMPLICATION

5.1. GROWTH-INDUCING IMPACTS

Section 15126 of the State CEQA Guidelines requires that this section discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment. Growth-inducing impacts are caused by those characteristics of a project that tend to foster or encourage population and/or economic growth. Inducements to growth include the generation of construction and permanent employment opportunities in the support sector of the economy. The proposed project could result in the following types of growth-inducing impacts: 1) the creation of short-term employment opportunities associated with the construction of the project; and 2) the increase in long-term employment opportunities associated with new jobs associated with the proposed project.

Construction

The proposed project would create short-term (six months) employment in the City of Maywood. As described in Section 2.0 (Project Description), the overall project would require site demolition, grading, and construction activities related to the project. Workers in the local area could be recruited to perform multiple aspects of the project construction thereby decreasing the total size of the construction workforce. Construction-related activities would therefore have a negligible impact on population and housing resources.

Housing Demand

The proposed project is not anticipated to affect the City of Maywood's housing demand.

5.2. SUMMARY OF CUMULATIVE IMPACTS

CEQA Guidelines Section 15130(a) states that, "an EIR shall discuss cumulative impacts of a project when the project's incremental effects is cumulatively considerable, as defined in CEQA Guidelines Section 15065(c)." This discussion, as stated by CEQA Guidelines Section 15130 (b), "should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified and other projects contribute, rather than the attributes of other projects which do not contribute to the cumulative impact."

In accordance with CEQA Guidelines Section 15130(b)(1)(B), the cumulative impact analysis for the proposed project is derived from a list of pending, approved, and reasonably foreseeable projects within the City of Maywood, and other surrounding cities.

Based on the above criteria, the proposed project would not have a cumulative impact.

6.0 ORGANIZATION AND PERSONS CONSULTED

Willdan:
EIR Preparation, Aesthetics, Hydrology and Water Quality, Land Use, and Transportation/Circulation

TN & Associates:
Risk Analysis

Giroux & Associates:
Air Quality Impact Analysis and Noise Impact Analysis

County of Los Angeles, Department of Public Works:
Recommendations for Water Quality Impacts

California Department of Toxic Substances Control:
Recommendations for Hazardous Materials Investigations

California Department of Transportation District 7:
Recommendations for Transportation Analysis

County Sanitation Districts of Los Angeles County:
Recommendations for Wastewater Impacts

California Regional Water Quality Control Board, Los Angeles Region
Recommendations for Water Quality Impacts

7.0 REFERENCES

California EPA. 1994, 1996. Guidance for Health Risk Assessment.

California, State of. 2001. California Environmental Quality Act. Public Resources Code Section 21000-21777.

California, State of. 2002. Guidelines for California Environmental Quality Act. California Code of Regulations Title 14, Chapter 3, Section 15000-15387.

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Maywood, City of. 1990. Maywood General Plan.

Maywood, City of. 2002. Initial Study: Riverfront Park.

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TN & Associates. July 2002. Risk Assessment.

Willdan. July 2002. Hydrology & Water Quality.

Willdan. May 2002. Traffic Study.

United States Environmental Protection Agency (USEPA) Region IX. Preliminary Remediation Goals.

United States Environmental Protection Agency (USEPA). 1989, 1991b; 2000. Guidance for Health Risk Assessment.

8.0 COMMENTS AND RESPONSES

8.1 INTRODUCTION

Sections 15088, 15089, and 15132 of the California Environmental Quality Act (CEQA), describe the requirements for responding to comments received on the Draft EIR, and for completion of a Final EIR. This Section of the EIR identifies the comments received on the Draft EIR, including comments received at the EIR Scoping Meeting on July 11, 2002, and provides the City of Maywood's responses to those comments.

This section, combined with the Draft EIR, constitutes a Final EIR.

8.2. COMMENTS FROM THE SCOPING MEETING OF JULY 11, 2002

The predominant concern at the scoping meeting was park safety after hours. Residents were concerned that turning lights out at the park after 10 p.m. would encourage gang activities and pose a potential threat to the safety of the residents of the City.

In response to this concern, Mitigation Measure 3.1.2 has been included in the Draft and Final EIR to limit after-hour lighting levels to that necessary for site security and identification. Compliance shall be demonstrated through Project lighting plan submittals.

8.3. LIST OF COMMENTS

1. Stephen J. Buswell, Department of Transportation
2. Governor's Office of Planning and Research, State Clearinghouse
3. Gerald F. S. Hiatt, United States Environmental Protection Agency Region IX
4. Terry Roberts, the Governor's Office of Planning and Research, State Clearinghouse
5. Rod Kubomoto, County of Los Angeles Department of Public Works
6. Rebecca Chou, California Regional Water Quality Control Board

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

ACKNOWLEDGEMENT OF RECEIPT

DATE: September 17, 2002

TO: Julia Gonzalez
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

RE: City of Maywood Riverfront Park Project EIR
SCH#: 2002051146

This is to acknowledge that the State Clearinghouse has received your environmental document for state review. The review period assigned by the State Clearinghouse is:

Review Start Date: August 28, 2002
Review End Date: October 11, 2002

We have distributed your document to the following agencies and departments:

California Highway Patrol
Caltrans, District 7
Department of Conservation
Department of Fish and Game, Region 5
Department of Parks and Recreation
Department of Water Resources
Native American Heritage Commission
Public Utilities Commission
Regional Water Quality Control Board, Region 7
Resources Agency
State Lands Commission
State Water Resources Control Board, Division of Water Quality

The State Clearinghouse will provide a closing letter with any state agency comments to your attention on the date following the close of the review period.

Thank you for your participation in the State Clearinghouse review process.

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street (SFD-8B)
San Francisco, CA 94105

MEMORANDUM October 10, 2002

Subject: **Riverfront Park, Maywood CA - Review of the Environmental Impact Report from a Human Health Risk Assessment Perspective**

From: **Gerald F.S. Hiatt, Ph.D.**
Senior Regional Toxicologist

To: **Rose Marie Caraway**
Project Manager, Pemaco Superfund Site

This memo summarizes comments from a human health risk assessment review of the draft Environmental Impact Report (EIR) for a public park to be constructed at the Pemaco Superfund site in Maywood, California. The document reviewed was "Riverfront Park, Screencheck Draft Environmental Impact Report (State Clearinghouse # 2002051146)" prepared for The City of Maywood by Willdan and dated July 2002.

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Background:

The draft EIR addresses a public park to be constructed, in part, on land comprising the Pemaco property at 5050 Slausen Avenue, Maywood, CA. The Pemaco property was formally occupied by a chemical blending operation which resulted in significant chemical contamination of surface soils, sub-surface soils and groundwater. This contamination was of sufficient magnitude for the property to be declared a Superfund site. Contamination at the Pemaco Superfund is currently being remediated (cleaned up) under the direction of the U.S. EPA Region 9 Superfund program. To date, contaminated and sub-surface surface soils have been remediated to a depth of approximately 30 feet by on-site treatment. In addition, U.S. EPA is completing a study of remaining contamination in soil vapor, deeper sub-surface soils and groundwater; this information will be used to determine the need for and type of further remedial (clean up) activities to ensure adequate protection of human health and the environment. At present it is anticipated that further remedial activities will include installation of a groundwater extraction and treatment system, which will likely be required to operate for many years, possibly decades, into the future.

Nature of the Review:

As part of the EIR process, the draft EIR is required to assess potential impacts to human health from construction and operation of the park. It is futher required to delineate appropriate

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mitigation measures for any impacts found to be significant. As the human health risk assessor on the Pemaco project, I reviewed the draft EIR from the perspective of determining whether construction and future use of the park would create any conditions that could potentially adversely affect human health, paying especial attention to any potential impacts from the remaining chemical contamination at the Pemaco Superfund site.

Comments on the Draft EIR:

Health-related comments on the draft EIR falling into two cateogories: 1) general comments on the project and the health-protectiveness of measures addressing residual contamination at the site, and 2) comments on specific wording of the draft EIR.

***General Comments*:**

GC1. Summary of Known Potential Risks and Their Remediation:

With respect to the possibility for adverse impacts to human health from residual contamination at the properties which will become the park, there are the following potential concerns:

(1) exposure to contamination in surface soils (either via direct contact with contaminated surface soils or due to secondary exposure following release of fugitive dust),
(2) exposure to contamination in sub-surface soils (either via direct contact following soil excavation to depths containing contaminants, release of contaminated fugitive dusts during such excavation or as a result of volatile contaminants migrating upwards and being released as vapors at the soil surface),
(3) exposure due to extraction and use of groundwater (either as drinking water or as water used for irrigation and other "non-potable" water uses).

(1) Surface Soils: Surface soils at the park will not pose a potential risk to human health, either for park users, including children, or for neighborhood residents. There are two reasons for reaching this conclusion. *First*, the most highly contaminated surface soils, those which had the potential to pose the greatest health risk, have already been identified and treated to remediate that contamintaion on the Pemaco property during U.S. EPA's emergency response operations. In addition, as noted in the draft EIR, removal of surface soil contamination has also taken place at the W.W. Henry and Lubricating Oils properties. *Second*, Mitigation Measure 3.3-1, installation of a 12" thick layer of clean fill over the entire surface of the park, will eliminate exposure to any residual contamination at the current soil surface, as identified in the various investigations of the affected properties and noted in the draft EIR. This clean fill will also protect park users and the neighborhood in the event those investigations have not fully identified or characterized all surface soil contamination at any of the properties which will make up the park. These measures (the completed surface soil treatment and the planned clean soil layer) will eliminate both direct contact exposures for park users and the potential for the release into the neighborhood of contaminated fugitive dust. 1

- 3 -

(2) *Sub-Surface Soils*: Under the measures outlined in the draft EIR and actions being undertaken by U.S. EPA, sub-surface soils will not pose a potential risk to human health. There are four reasons for reaching this conclusion. *First*, since this residual contamination is only present in deeper soils, there is no pathway by which park users or neighborhood residents could be directly exposed to sub-surface contamination during routine uses of the park. Therefore, direct contact or release of contaminated fugitive dust is only of potential concern during soil excavation operations (e.g., park construction, future installation of swimming pool). *Second*, the draft EIR mandates the use of appropriate monitoring, fugitive dust suppression and worker protection procedures for construction activities at the park (see Mitigation Measures 3.2-1, 3.3-1 and 3.3-2). *Third*, the draft EIR and U.S. EPA's eventual final decision document on the Pemaco Superfund site will mandate the use of appropriate monitoring, fugitive dust suppression and worker protection procedures for future soil excavation activities at the park (see Mitigation Measures 3.2-1, 3.3-1 and 3.3-2). *Fourth*, on-going EPA monitoring of soil vapor, ambient air and indoor air has found no evidence that residual sub-surface contamination is volatilizing to the surface to create human exposures to soil vapor contaminants. 1

(3) *Groundwater*: The construction and operation of Riverfront Park is expected to have no impact on the potential for health risks due to groundwater contamination. Groundwater uses in the Los Angeles basin are tightly regulated and there is no option for the installation of private wells. Thus there is no current, or anticipated future, potential for the uncontrolled use of groundwater as a drinking or domestic water supply. In addition, U.S. EPA will mandate remediation of groundwater contamination as part of it's final decision regarding the Pemaco Superfund site.

GC2. Health Protectiveness of Remedial Actions at Contaminated Properties: 2

Two of the parcels of land being used for the Riverfront Park, the Pemaco property and the W.W. Henry property, are hazardous materials sites. The Pemaco property is being remediated (cleaned up) under the direction of U.S. EPA as a project of the federal Superfund program and the W.W. Henry property is being remediated under the authority of the Los Angeles Regional Water Quality Control Board (LARWQCB). The goals and responsibilities of both agencies are to ensure that contamination at these properties is sufficiently remediated so as to protect the health of people using or living near these properties, either now or in the future. U.S. EPA and the LARWQCB have the responsibility of meeting these goals independent of the construction of the Riverfront Park. Thus, protection of the community's health from contamination at these properties is not dependent on park construction, nor on implementation of the proposed mitigation measures within the draft EIR.

GC3. Status of Groundwater Treatement Facility: 3

There are many comments in the draft EIR (e.g., bullet 1 under Hazards/Hazardous Materials on p. S-4, "Impact 3.3-1" on page 3.3-10,) referring to the "groundwater treatment facility"with the assumption that any potential health impacts of the "treatment facility" should be considered as impacts of the proposed park project.

-4-

It is U.S. EPA's opinion that potential impacts of the groundwater treatement facility should be considered *independent* of any potential impacts of the proposed park project. The reason is that, while the treatment facility will be a feature of the park, its construction and operation is not contingent upon approval nor actual realization of the proposed park project. Stated another way, it is U.S. EPA's intention to construct and operate a groundwater treatment facility regardless of whether the park project proceeds. Therefore, any potential health impacts of the groundwater treatement facility should not be considered to be impacts of park construction or operation. 3

Furthermore, it is a requirement of U.S. EPA's Superfund program that any such treatment facility not subject the community, nor local property owners and users, to any potential health risks during construction and operation. Therefore, it is U.S. EPA's position that a groundwater treatment facility will be installed regardless of whether the proposed park project proceeds and it will be constructed and operated in a manner as to protect the health of community members and current and future property users.

Specific Comments:

SC1. The first sentence of the last paragraph under "Park User Scenario" on page 3.3-9 notes "Pathways for contact with the perched groundwater or the Exposition Aquifer ..." This section should note the depth to groundwater for both of these aquifers. 4

SC2. Page 3.3-4, paragraph 4: This statement should note that the impacted soil has been excavated and treated at the site. 5

SC3. A notation should be added to Table 3.3.1 on page 3.3-6. It should note that this list of COPCs is a list of chemicals that merit further assessment to determine *if* any of them pose a potential health threat. Inclusion of a chemical on a list of COPCs does not mean that chemical definately poses a health risk, it only means that further analysis is required if there is a potential health risk. 6

SC4. A notation similar to that mentioned in SC3 should be added to Table 3.3.2 on page 3.3-7. This is a list of chemicals whose concentrations at the property exceed health-based screening levels, the SSPRGs. It should be noted that mere exceedence of a SSPRG does not, in and of itself, mean that chemical constitutes a health threat. Similar to comment SC3, it means that additional analysis is required. 7

SC5. Suggested edits to the first 2 paragraphs on page 3.3-12: "The following mitigation measures have been proposed to avoid or lessen **to the point of insignificance, to the extent** possible, the **potentially** significant impacts identified above in Section 3.3.4. Remedial Action. In general, the most effective remedial action to remove metals, PCBs and PAHs from shallow soil is to remove the contaminated soil and haul it off to **dispose of it at** a certified landfill that is permitted to accept that type of waste. This is usually the only **most effective** option due to the nature of these contaminants, **which**. These types of contaminants do not readily breakdown 8

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naturally over time, nor can soil additives or other in situ remedial technologies accelerate their decomposition." 8

SC6. Suggested edits re: "Elimination of Expoure Pathway[s]", page 3.3-12: "The other **Another effective** mitigation alemative...". Also, I would insert a paragraph break before "For the excavation worker..." 9

SC7. Suggested edits re: "Mitigation Measure 3.3-2": "Prior to issuance ... of the RWCQB, formulate a plan **to protect workers and local residents. This plan is** to be implemented ...' 10

SC8. Suggested edits re: 6th bullet under "Mitigation Measure 3.3-2": "All work ... health and safety of the workers **or to release significant quantities of contaminated soil into the neighborhood as fugitive dust**." 11

Conclusions:

Based on our review of the draft EIR, U.S. EPA concludes that the residual chemical contamination present at the site, which is confined to sub-surface soils and groundwater, will not create a potential health risk for people, including children, using the park. Nor will construction of the park create additional exposure to residual contamination that could adversely affect the health of park users, nearby residents or school children in the area. This conclusion is based on the risk assessment information contained in the draft EIR, the extensive data on chemical contamination at the Pemaco Superfund site and adjacent properties, and the assumed implementation of proposed Mitigation Measure 3.3-3 (addition of a 12" layer of clean fill over the entire park site).

If you have any questions or need any clarification, I can be reached by voice at (415) 972-3064, or by email at hiatt.gerald@epa.gov.

021010M.wp5.MaywoodParkEIR.wpd

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
GOVERNOR

Tal Finney
INTERIM DIRECTOR

October 15, 2002

Julia Gonzalez
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

Subject: City of Maywood Riverfront Park Project EIR
SCH#: 2002051146

Dear Julia Gonzalez:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on October 11, 2002, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 www.opr.ca.gov

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
www.ladpw.org

JAMES A. NOYES, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

October 28, 2002

IN REPLY PLEASE REFER TO FILE: WM-4

Ms. Julia Gonzalez
City of Maywood
4319 East Slauson Avenue
Maywood, CA 90270

Dear Ms. Gonzalez:

RESPONSE TO A DRAFT ENVIRONMENTAL IMPACT REPORT
MAYWOOD RIVERFRONT PARK
CITY OF MAYWOOD

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report for the proposed Maywood Riverfront Park project. The project is located along Alamo Avenue, 59th Place, Walker Avenue, and 60th Street in the City of Maywood. The project proposes the construction of a 7.3-acre park that includes a bridge, a gazebo, trails, lawn, picnic areas, a basketball court, and a soccer field. We have reviewed the submittal and offer the following comments:

Design

As requested, we have reviewed the subject document and have no comments.

If you have any questions, please contact Mr. Richard Weyermuller at (626) 458-7870.

Environmental Programs

Under Section XVI, "Utilities and Service Systems," the designations for solid waste (f and g) should be changed to "Less Than Significant With Mitigation Incorporation." As projected in the Los Angeles County Countywide Siting Element, which was approved by a majority of the cities in the County of Los Angeles in late 1997 and by the County Board of Supervisors in January 1998, a shortfall in permitted daily landfill capacity may be experienced in the County within the next few years. 1

Ms. Julia Gonzalez
October 28, 2002
Page 2

The demolition of existing structures to develop this project will increase the generation of solid waste and negatively impact solid waste management infrastructure in the County. Therefore, the document must identify what measures the project proponent plans to implement to mitigate the impact. Mitigation measures may include, but are not limited to, implementation of waste reduction and recycling programs to divert the solid waste, including construction and demolition waste, from the landfills. 1

Should the project remove underground storage tanks discovered on the site, our Environmental Programs Division must be contacted for required approvals and operating permits.

If you have any questions, please contact Mr. Wilson Fong at (626) 458-3581.

Flood Maintenance

We have reviewed the subject document for impacts on maintenance activities. We have no comments at this stage of their proposal.

If you have any questions, please contact Mr. Charles Darensbourg at (562) 861-0316.

Geotechnical and Materials Engineering

The proposed project will not have significant environmental effects from a geology and soils standpoint, provided the appropriate ordinances and codes are followed. The project is located within a mapped potentially liquefiable area, per the State of California Seismic Hazard Zone Map, South Gate Quadrangle. However, a liquefaction analysis is not warranted at this time. Detailed liquefaction analyses, conforming to the requirements of the State of California Division of Mines and Geology Special Publication 117, must be conducted at the tentative map and/or grading/building plan stages. 2

Land Development (Transportation Planning)

As requested, we have reviewed the subject document and have no comments.

If you have any questions, please contact Mr. Hubert Seto at (626) 458-4349.

Land Development (Grading and Drainage)

As requested, we have reviewed the subject document and have no comments.

If you have any questions, please contact Mr. Tony Hui at (626) 458-4921.

Ms. Julia Gonzalez
October 28, 2002
Page 3

Programs Development (Bike Lane Studies)

As there are increased interests from the County, different cities, and agencies to continue the Los Angeles River Bike Path north of Atlantic Boulevard (where it stops) and link it to the segment that runs along the Interstate 5 freeway by Griffith Park, the City of Maywood should coordinate its efforts with these various agencies before developing a new bike path at the location of this new project. 3

If you have any questions, please contact Mr. Mondher Saied at (626) 458-3941.

Programs Development (Railroad Study)

As requested, we have reviewed the subject document and have no comments.

If you have any questions, please contact Mr. Greg Jaquez at (626) 458-3935.

Traffic and Lighting

The proposed project will not have a significant impact on County roadways or intersections.

If you have any questions, please contact Ms. Anna Marie Gilmore of our Traffic Studies Section at (626) 300-4741.

Watershed Management (Los Angeles River Watershed)

We do not object to the City of Maywood's proposal to develop a park along the Los Angeles River because the project is consistent with the Los Angeles River Master Plan goals of creating a greenway along the river. Also, the EIR addresses our concerns regarding impacts to increased storm flows and water quality, by proposing Best Management Practices to collect and treat the storm flows. Although, we have no objections to the project, we would like to recommend that the park's signage be consistent with the Los Angeles River Signage Manual. The manual is currently being finalized, but will be available for review through the Los Angeles River Master Plan Advisory Committee, of which the City of Maywood is a stakeholder. 4

If you have any questions, please contact Ms. Maria Lopez at (626) 458-4342.

Ms. Julia Gonzalez
October 28, 2002
Page 4

The proposed project should include investigation of watershed management opportunities to maximize capture of local rainfall on the project site, eliminate incremental increase in flows to the storm drain system, and provide filtering of flows to capture contaminants originating from the project site. 5

If you have any questions regarding the above comments or the environmental review process of Public Works, please contact Ms. Massie Munroe at the above address or at (626) 458-4359.

Very truly yours,

JAMES A. NOYES
Director of Public Works

ROD H. KUBOMOTO
Assistant Deputy Director
Watershed Management Division

MM:ro
C:\eirmaywood.wpd

Winston H. Hickox
Secretary for Environmental Protection

California Regional Water Quality Control Board

Los Angeles Region

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320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

October 16, 2002

Ms. Julia Gonzalez, Assistant Planner
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

Via Facsimile (323) 773-2806
And Regular Mail

SUBJECT: **DRAFT ENVIRONMENTAL IMPACT STUDY – MAYWOOD RIVERFRONT PARK (Project), MAYWOOD, CALIFORNIA (STATE CLEARINGHOUSE NO. 2002051146, SLIC NO. 811, SITE ID NO. 204GF00)**

Dear Ms. Gonzalez:

The Los Angeles Regional Water Quality Control Board (Regional Board) has received the August 2002, "DRAFT ENVRIONMENTAL IMPACT REPORT" (DEIR) for the referenced Project site. Based on our review of the information included in the DEIR, we have the following comments:

1. The DEIR presents the evaluation and mitigation measures of the Project impacts to human health by the potential release of hazardous materials from the site. It does not provide the evaluation and mitigation measures regarding the impacts to the environment, which includes surface water and groundwater resources. Section 3.3.1 should include a consideration of the potential risk (impact) to surface water and groundwater resources. Please evaluate the Project impacts to on-going soil and groundwater investigation and remediation, including, but not limited to: 1

   - Future site access for soil borings and groundwater wells for investigation, remediation and monitoring;
   - Limitations on the selection of future soil and groundwater remediation technologies for the contaminated properties; and,
   - Available and feasible locations, in addition to the southeast corner of the proposed park, for soil and groundwater treatment facilities.

   Please be advised that the City of Maywood may be required to conduct soil and groundwater remediation at least at the former W.W. Henry site, if the intended park use exacerbates the existing contamination and materially interferes with any cleanup activities to be conducted by W.W. Henry.

2. To adequately evaluate the potential impacts to soil and groundwater beneath the site, a map showing the current park design over the known soil and groundwater plumes shall be included in section 3.3, Hazard/Hazardous Materials. 2

3. Currently, the Regional Board is the lead agency for oversight of investigation and remediation at the former W.W. Henry site, but not for other parcels within the Project site. In section 3.3-2, Mitigation Measure, the Regional Board is identified as a responsible agency for oversight of investigation and remediation of soil contamination that may be encountered at other parcels during the Project site 3

California Environmental Protection Agency

Ms. Julia Gonzalez
City of Maywood

-2-

October 16, 2002

grading. Due to the limited resources available to the Regional Board, we recommend that all soil contamination only cases be reported to and overseen by the Los Angeles County Fire Department, Health Hazardous Materials Division, Site Mitigation Unit, or the Department of Toxic Substances Control (DTSC), Site Mitigation Program. Please discuss this with us before the Regional Board is identified as a responsible agency in your final Environmental Impact Report (EIR) or the revision of the DEIR. 3

4. Percolation of rain and irrigation water to the groundwater table through the landscaping or grass areas shall be eliminated. Since groundwater has been encountered at approximately 20 to 25 feet below ground surface, the water content increase resulting from rain and irrigation water percolation in sandy soil, at the confirmed soil contamination locations, may carry residual contaminants to the groundwater table. Please discuss how you will limit the infiltration of surface water (from storm and irrigation) into the subsurface in section 3.4, Hydrology and Water Quality. 4

5. Since the Los Angeles River is designated as an impacted receiving water, any discharge from the proposed park shall not result in an increase in pollutants such as trash, nutrients, bacteria, metals, pesticides and polynuclear aromatic hydrocarbons (PAHs). The anticipated loads of these constituents shall be evaluated and estimated. Best management practices (BMPs), including structural BMPs, shall be proposed to ensure that no loading increase will occur. 5

6. The proposed Project site plan (Figure 2.0.10) should include future drainage information. Drainage to the Los Angeles River or to other storm drains in the area shall be discussed more explicitly in the EIR. 6

7. To verify that the Los Angeles River is "perched" with levees rising about ten feet above the Project site, the elevations of the Project grade and the Los Angeles River should be provided in the Hydrology and Water Quality section. 7

8. The proposed grassy swale is an acceptable BMP as long as it meets the numerical design criteria (i.e. the 85th percentile 24-hour runoff event) specified in the Standard Urban Storm Water Mitigation Plan (SUSMP) approved by the Regional Board for unincorporated areas and cities within Los Angeles County. To eliminate exacerbation of the exiting groundwater contamination, the grassy swale shall not be located at the confirmed and suspected soil contamination areas within the Project boundary, unless the soil contamination has been cleaned up to the natural background levels or to levels with no threats to the groundwater resource. 8

Should you have any questions regarding this response, please contact me at (213) 576-6733 or Ms. Su Han at (213) 576-6735.

Sincerely,

Rebecca Chou, Ph.D., P.E.
Chief, Site Cleanup I Unit

cc: W. Michael Crouch, W. W. Henry/Ardex, Inc.
Elizabeth B. Davis, Womble Carlyle Sandridge and Rice, Atlanta

8.4. RESPONSES TO COMMENTS

Letter from Stephen J. Buswell, Department of Transportation, August 28, 2002

Response to Comment DOT-1:

Storm water run off comment noted.

Response to Comment DOT-1:

Transportation of oversized transport vehicles on State roadways will follow Caltrans requirements including obtaining proper permits.

Letter from the Governor's Office of Planning and Research, State Clearinghouse, September 17, 2002

Acknowledgement of Receipt Received

Letter from Gerald F. S. Hiatt, United States Environmental Protection Agency Region IX, October 10, 2002

Response to Comment EPA-1:

Comments noted and reiterated in Section 3.3 of the EIR

Response to Comment EPA-2:

Comments noted and reiterated on Page 3.3.10 of the EIR

Response to Comment EPA-3:

Comments noted and reiterated on Page 3.3.10 of the EIR

Response to Comment EPA-4:

The depth of perched groundwater (25 feet below ground surface) and of the Exposition Aquifer (65 feet below ground surface) have been identified under Park User Scenario, Section 3.3.4 (Impacts) of the EIR.

Response to Comment EPA-5:

Treatment of impacted soil and "no further action" letter from CRWQCB on 07/17/01 has been noted on Page 3.3.4 of the EIR.

Response to Comment EPA-6:

Notation has been included in Table 3.3.1.

Response to Comment EPA-7:

Notation has been included in Table 3.3.2.

Response to Comment EPA-8:

Suggested language changes have been made to Section 3.3.6: Mitigation Measures.

Response to Comment EPA-9:

Suggested language changes have been made to section 3.3.6 Mitigation Measures – Elimination of Exposure Pathways.

Response to Comment EPA-10:

Edit made to Mitigation Measure 3.3.2 regarding RWQCB and action.

Response to Comment EPA-11:

Edit made to Mitigation Measure 3.3.2 bullet 6.

Letter from Terry Roberts, the Governor's Office of Planning and Research, State Clearinghouse, September 17, 2002

Compliance with the State Clearinghouse Noted.

Letter from Rod Kubomoto, County of Los Angeles Department of Public Works, October 28, 2002

Response to Comment DPW-1:

Changing the designations for solid waste (f and g) from "Less-Than Significant-Impact" to "Less Than Significant Impact with Mitigation Incorporation," would have a far reaching impact on the analysis of "Utilities and Service Systems" beyond the scope of the project. Alternatively, we recommend inclusion of your statement that a shortfall in permitted daily landfill capacity may be experienced in the County within the next few years. Furthermore, in Section XVI (f) and XVI (g) of the Environmental Checklist, we have indicated that waste disposal from the project site, based on current site conditions (predominantly vacant), will not have a significant impact on landfill capacity.

In addition, the City has agreed to include a clause in its contract with the demolition company for the project site to implement waste reduction and recycling programs that would divert the solid waste including construction and demolition waste from landfills. We believe that a combination of these measures would satisfy your concerns on future landfill capacities and mitigate potential impacts on the landfill.

Underground storage tanks are not proposed to be removed from the site.

Response to Comment DPW-2:

Section VI (a) of Geology and Soils of the Initial Study assumes that all appropriate ordinances and codes will be followed including the requirement for a detailed liquefaction analysis, conforming to the requirements of the State of California Division of Mines and Geology Special Publication 117, prior to issuance of building permit.

Response to Comment DPW-3:

The City of Maywood is not opposed to the continuation of the Los Angeles River Bike Path north of Atlantic Boulevard to Griffith Park. However, the issue of the bike path is not part of this project because no regional bike paths are proposed. The bike path proposed with the project is an internal bike path for the park with access from the park to the existing regional trail.

Response to Comment DPW-4:

Signage for the Park shall be designed to be consistent with the Los Angeles River Signage Manual.

Response to Comment DPW-5:

The park has been designed to maximize watershed management opportunities to capture local rainfall on the project site. Additionally, design of the park incorporates elimination of the incremental increase in the flows to the storm drain system and provides filtering of flows to capture containment originating from the project site. This is evident in the site grading and drainage plans (Figure 3.4.1 and Figure 3.4.2) included in the EIR.

Letter from Rebecca Chou, California Regional Water Quality Control Board, October 16, 2002

Response to Comment WQCB-1

The proposed topography of the Project is relatively flat, and there are less than 1000 sq. ft. of proposed surface structures over the more that 7 acres that will comprise the park. Site access for soil borings and groundwater wells for investigation, remediation and monitoring, will not be impacted significantly by the Project.

There will not be any limitations on the selection of future soil and groundwater remediation technologies posed by the project. While it is the City of Maywood's desire that to the extent possible remediation treatment compounds be located in the southeast corner of the proposed park, the City understands that certain activities associated with soil and groundwater remediation may require operations at other locations within the proposed park boundaries.

As discussed above, it is the City of Maywood's desire that to the extent possible remediation treatment facilities be located in the southeast corner of the proposed park. The City has had numerous meetings with the U.S. EPA (lead for the remediation of the Pemaco property) and representatives of W.W. Henry. Both have agreed that the southeast corner of the park is an acceptable location for remediation treatment facilities for their respective cleanup programs. The City understands that certain activities associated with soil and groundwater remediation (e.g. additional wells, trenches, etc.) may require operations at other locations within the proposed park boundaries, but that reasonable efforts will be made by Responsible Parties to place facilities in the southeast of the park when feasible.

Response to Comment WQCB-2

Comment noted. See Figures 8.0.1 and 8.0.2.

Response to Comment WQCB-3

Comment noted. Mitigation Measure 3.3.2 has been modified to delete reference to the Regional Water Quality Control Board (RWQCB), including reference in bullet #7. All soil contamination only cases shall be reported to and overseen by the Los Angeles County Fire Department, Health Hazards Materials Division, Site Mitigation Unit, and the Department of Toxic Substances Control (DTSC), Site Mitigation Program.

Response to Comment WQCB-4

The City of Maywood proposed to limit the infiltration of surface water from storms and irrigation by using the following techniques, which have been reiterated in Section 3.4 of the EIR:

1. The entire site will be "blanketed" with a minimum 1-foot thick layer of clean, compacted soil and graded to drain as needed. This remediation would prevent contamination of surface water as it flows over the project site.

2. Irrigation system controllers will be set to provide the proper amount of saturation for the landscaped surface only. This includes scheduling the quantity of irrigation to equal the estimated rate of evapotransportation, which is available through California Irrigation Management Information System (CIMIS). Using infiltration rates, the site will also be designed to convey any excess irrigation as surface water runoff rather than percolation into groundwater.

3. The site is relatively flat. Thus, rainfall would not collect into standing pools of water on the site. In addition, the grading plan has been designed to divert runoff into a wetland swale in the eastern portion of the project site. This swale will be lined with a rubber polymer geomembrane, which will prevent infiltration. Runoff that flows through the proposed swale would flow into a proposed 18-inch storm drain that would outlet to an existing 30-inch City drain, which outlets to the L.A. River (see EIR Figures 3.4-1 and 3.4-2).

Response to Comment WQCB-5

Since the entire surface of the park will consist of new material (ie. concrete walks and clean soil), the City of Maywood would not be increasing the amount of pollutants discharging into the L.A. River. The surface of the project site will be covered with at least 12 inches of clean, compacted fill. Surface water on the project site would flow over the clean fill and would not encounter existing chemical pollutants as it currently does. Thus, by placing a one (1) foot layer of clean compacted fill over the entire project site, the City would reduce the potential for chemical pollutant discharges into the Los Angeles River. In addition, with adherence to structural BMPs including new catch basins outfitted with catch basin filters, runoff from the site would have reduced pollutants.

Response to Comment WQCB-6

Comment noted and Section 3.4 of the EIR has been modified to include the Site Drainage Plan as Figure 3.4-1.

Response to Comment WQCB-7

Comment noted and Section 3.4 of the EIR has been modified to include a profile of the project site as Figure 3.4-2. This figure includes the elevations across the project site as well as the elevation of the adjacent Los Angeles River.

Response to Comment WQCB-8

Based on a rough estimate, the wetland swale is adequately sized to contain the volume of runoff (from ¾" rainfall) specified in the SUSMP. Furthermore, the lined swale is located over the Pemaco property which was excavated by the EPA and backfilled with clean material to a depth of about 15 feet several years ago.

Figure 8.0.1
TCE Exposition Aquifer Plume, Zone B, January 2002

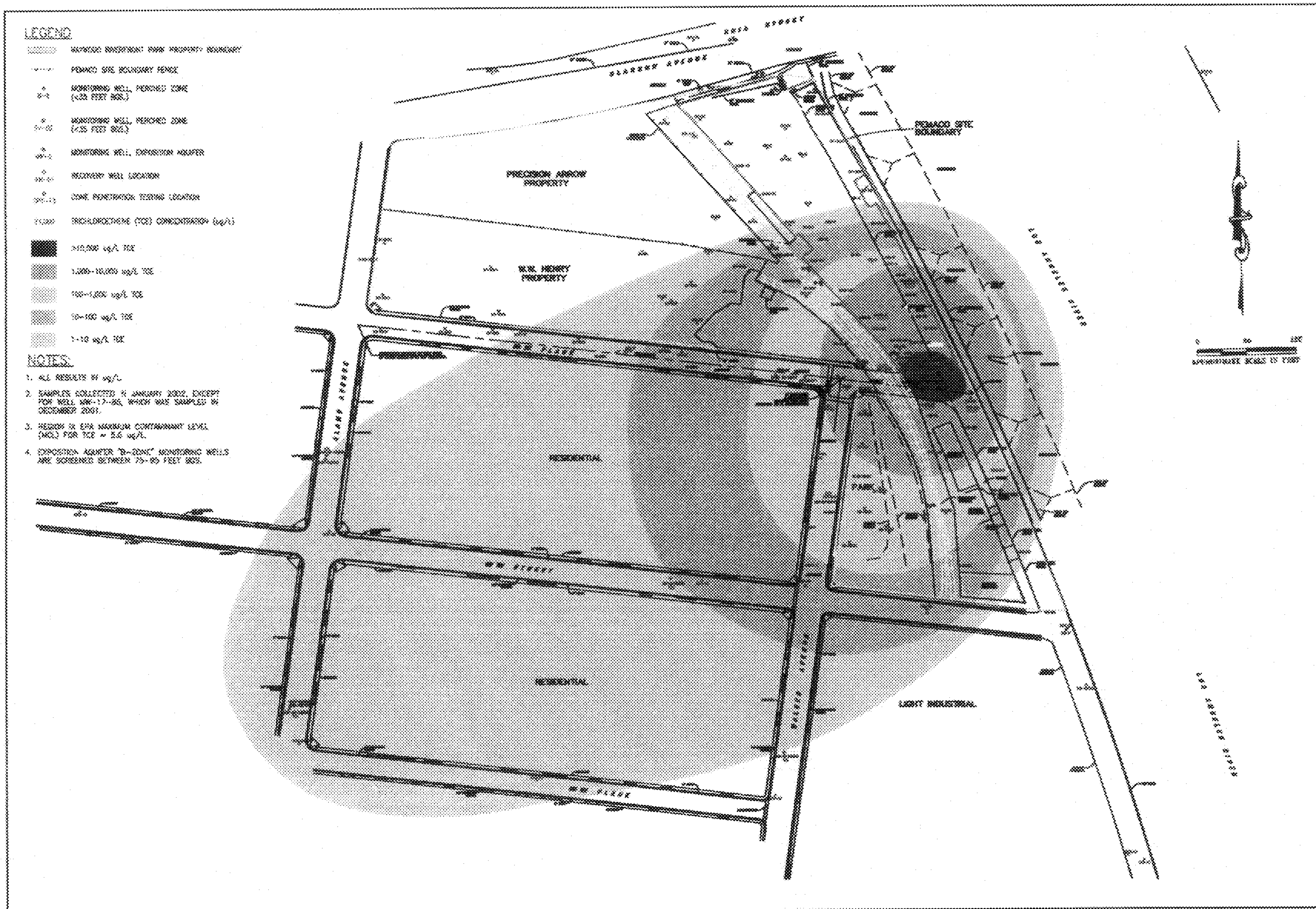
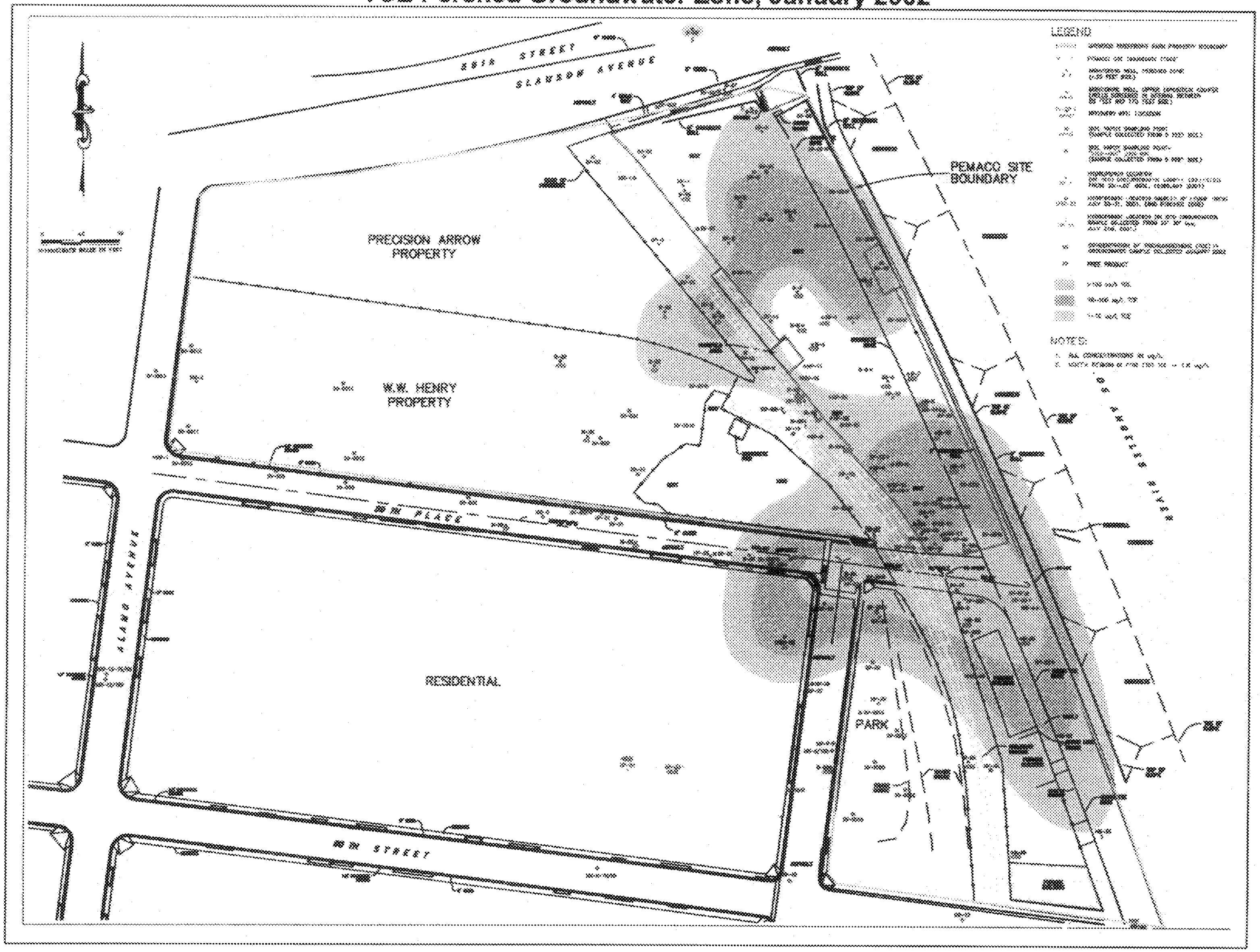


Figure 8.0.2
TCE Perched Groundwater Zone, January 2002



9.0 MITIGATION MONITORING PROGRAM

The Summary section of this EIR identifies the Mitigation Measures that will be implemented to offset the impacts resulting from the proposed Riverfront Park Project. Section 21081.6 of CEQA requires the public agency to adopt a monitoring program of mitigations to ensure the enforceability of the mitigations identified in the CEQA document. This section of CEQA also identifies guidelines for implementation of a monitoring program. The monitoring program is required to be completed prior to certification of a Final EIR.

The following Mitigation Monitoring Program (MMP) identifies all the mitigations identified in the EIR along with the party responsible for completing the mitigations and the timeframe for implementation. This MMP satisfies the requirements of Section 21081.6 of CEQA.

CITY OF MAYWOOD RIVERFRONT PARK
MITIGATION MONITORING PROGRAM

Mitigation Measures	Period of Implementation	Monitoring Responsibility	Reporting Procedure	Comments
AESTHETICS				
Mitigation Measure 3.1.1: During the required design/site plan review of the proposed park development, the City shall ensure that site improvements, including lighting do not adversely affect adjacent land uses.	Plan Review	Building Division	The Building Division staff, through the Plan Review Process, shall ensure that site improvements, including lighting do not adversely affect adjacent land uses.	This is a required mitigation measure.
Mitigation Measure 3.1.2: Site lighting after hours of operation shall be limited to lighting levels necessary for site security and identification. Compliance shall be demonstrated through Project lighting plan submittals.	Lighting Plan Review	Building Division	The Building Division staff, through the Lighting Plan Review Process, shall ensure that lighting after hours of operation shall be limited to lighting levels necessary for site security and identification.	This is a required mitigation measure.
Mitigation Measure 3.1.3: Signage plan shall be reviewed for quality of design and aesthetic appearance and shall be designed to be consistent with the Los Angeles River Signage Manual. The Planning Division shall specify requirements during plan/design review and the Building Division shall monitor compliance.	Sign Plan Review	Building Division	The Building Division staff, through the Sign Plan Review Process, shall ensure that new development is consistent with established design guidelines.	This is a required mitigation measure.
Air Quality				
Mitigation Measure 3.2.1: Prior to any demolition activities, results from the completed Phase I and Phase II hazardous analysis shall be used to file the appropriate applications to comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.	Prior to Demolition Activities	City of Maywood	The City of Maywood shall file the appropriate applications to comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.	This is a required mitigation measure.

HAZARDS/HAZARDOUS MATERIALS				
Mitigation Measure 3.3-1: The City of Maywood shall comply with all applicable Federal, State, and local plans and policies regarding hazardous substances use, transportation, and disposal, as well as contaminant remediation, including but not limited to applicable provisions of the Toxic Substances Control Act (TSCA), the California Health and Safety Code, the California Hazardous Waste Control Law, and other applicable provisions of the California Code of Regulation (CCR), as well as applicable regulations promulgated by the U.S. and California Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA).	Demolition and Construction Phase	City of Maywood/ Demolition and Construction Contractors	The Contractors shall comply with all applicable Federal, State, and local plans and policies regarding hazardous substances use, transportation, and disposal, as well as contaminant remediation.	This is a required mitigation measure.
Mitigation Measure 3.3-2: Prior to issuance of a grading permit, the City of Maywood, in consultation with and with approval of the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program, shall formulate a plan to protect workers and local residents. This plan is to be implemented in the event that grading or excavation activities during construction expose potentially contaminated soils. At a minimum, the plan shall identify the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program as a responsible agency, and shall include the following specific points: • The City of Maywood shall create a Site Specific Health and Safety Plan (SSHSP) outlining procedures for grading and construction activities that reduce the potential for human exposure to contaminated environmental media and specifically address the areas identified in TN & Associates Health Risk Assessment dated July 24, 2002, and attached as Appendix D. • A qualified environmental construction monitor shall be designated and shall be present on-site during grading and excavation activity to ensure that procedures in the SSHSP are followed.	Prior to the issuance of a Grading Permit	City of Maywood/ the Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program	Documentation and compliance with mitigation measure.	This is a required mitigation measure.

• All grading and subsurface construction work at the future park shall be done by workers that have completed the 40-hour Hazardous Waster Operations and Emergency Response (HAZWOPER) OSHA training. • Workers shall don appropriate personal protection equipments as outlined in the SSHSP and air monitoring for organic vapors will occur during all grading cuts and excavations. • The construction monitor shall be responsible for identifying areas of potentially contaminated soils, and, upon identification of potential contaminants, for implementing the procedures outlined in the plan. • All work in the vicinity of the affected area shall cease if situations are found to exist that have potential to impact the health and safety of the workers or to release significant quantities of contaminated soil into the neighborhood as fugitive dust. • The Los Angeles County Fire Department, Health Hazards Division Site Mitigation Unit or Department of Toxic Substances Control (DTSC) Site Mitigation Program shall be contacted. • The appropriate California Health and Safety Code procedures shall be followed. The plan shall also identify a procedure for sampling, testing, and remediation, as appropriate, of contaminated soils, and for obtaining the concurrence of and necessary clearance from the RWQCB, before construction activities can resume. The plan shall also provide for the preventive procedures for the protection of construction workers during work in areas where contaminated soils have previously been discovered.				
Mitigation Measure 3.3-3: A minimum of 12 inches of certified clean fill material shall be placed over the entire park site as illustrated in TN & Associates' Health Risk Assessment dated July 19, 2002, and attached as Appendix D.	Grading	City of Maywood/ Grading Contractor	The Grading Contractor shall document compliance with mitigation measure. City of Maywood shall verify compliance.	This is a required mitigation measure.

Noise				
Mitigation Measure 3.6-1: Planned assemblies of more than 50 people, or planned use of a portable public address system for park events, shall first obtain a permit from the City of Maywood Parks Department.	Park Use of more than 50 people, or planned use of a portable public address system for park events	City of Maywood Parks Department	The City of Maywood Parks Department shall ensure compliance with mitigation and issue required permits.	This is a required mitigation measure.
Mitigation Measure 3.6-2: The parking lot shall be closed and chained from 10 p.m. to 8 a.m. the next day.	Continuing upon opening of the park	City of Maywood	The City of Maywood shall ensure compliance with mitigation. Compliance shall be documented	This is a required mitigation measure.
Mitigation Measure 3.6-3: Construction contractors shall properly maintain and tune all construction equipment to minimize noise emissions. All internal combustion powered equipment shall be equipped with properly operating mufflers.	Grading, Construction, and Demolition Phase	The City of Maywood/ Construction Contractors	The City of Maywood staff shall occasionally visit the construction site to ensure compliance with mitigation. Compliance shall be documented.	This is a required mitigation measure.
Mitigation Measure 3.6-4: Construction contractors shall restrict noise-intensive construction to the hours of 7 a.m. to 7 p.m. Monday through Saturday. No noise-intensive construction shall take place on Sundays and federal holidays.	Grading, Construction, and Demolition Phase	The City of Maywood/ Construction Contractors	The City of Maywood staff shall occasionally visit the construction site to ensure compliance with mitigation. Compliance shall be documented.	This is a required mitigation measure.
Mitigation Measure 3.6-5: Construction contractors shall provide the City a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site informing the public whom to contact. Adjacent residents within 100 feet of the property shall also be notified prior to construction activities and given the contact information.	Prior to Grading	The City of Maywood/ Construction Contractors	The City of Maywood staff shall ensure compliance with mitigation. Compliance shall be documented.	This is a required mitigation measure.
Mitigation Measure 3.6-6: During construction activities, the contractor shall ensure that portable equipment is located as far as possible from adjacent residences. If possible, construction employee parking shall be provided off site in a non-residential area.	Grading, Construction, and Demolition Phase	The City of Maywood/ Construction Contractors	The City of Maywood staff shall occasionally visit the construction site to ensure compliance with mitigation. Compliance shall be documented.	This is a required mitigation measure.

Mitigation Measure 7.7-1: The STOP sign which currently controls the northbound approach (Walker Avenue) shall be removed; leaving only a STOP sign for the eastbound approach (59th Place). Also, a physical barrier shall be installed to deter motorists on Walker Avenue from inadvertently turning west onto 59th Place, which would be an eastbound one-way street.	Project Development Phase	The City of Maywood	The City of Maywood shall document removal of STOP sign and placement of barriers.	This is a required mitigation measure.
Mitigation Measure 7.7-2: The final design of 59th Place (from east of Alamo Avenue to Walker Avenue), including the one-way circulation and the angled parking, shall be reviewed be a qualified traffic engineer to ensure safe operations.	Design Review and Project Development Phases	The City of Maywood	The City of Maywood shall have a qualified traffic engineer review the final design of 59th Place from east of Alamo Avenue to Walker Avenue.	This is a required mitigation measure.

APPENDICIES

APPENDIX A

INITIAL STUDY

NOTICE OF PREPARATION

December 3, 2001

MAYWOOD RIVERFRONT PARK
INITIAL STUDY, ENVIRONMENTAL CHECKLIST

Lead Agency:

City of Maywood
4319 East Slauson Avenue
Maywood, CA 90270

Prepared by:

Willdan
13191 Crossroads Parkway N., Suite 405
Industry, CA 91746
(562) 908-6200

INITIAL STUDY, ENVIRONMENTAL CHECKLIST

1. **Project Title:**	Maywood Riverfront Park
2. **Lead Agency Name and Address:**	City of Maywood 4319 East Slauson Avenue Maywood, CA 90270
3. **Contact Person and Phone Number:**	Julia Gonzales, Assistant Planner (323) 562-5722
4. **Project Location:**	The Riverfront Park project is located in the City of Maywood, in the County of Los Angeles. As shown in **Figure 2**, the park site is located on Alamo Avenue, just south of Slauson Avenue and just west of the Los Angeles River.
5. **Project Sponsor's Name and Address:**	City of Maywood 4319 East Slauson Avenue Maywood, CA 90270
6. **General Plan Designation:**	Industrial
7. **Zoning:**	M-1, Light Manufacturing

8. **Surrounding Land Uses and Setting:**

The proposed Riverfront Park project is a 7.3-acre area would be located in the City of Maywood in the County of Los Angeles. The City of Maywood is surrounded by the City of Bell to the east and south, and the City of Vernon to the north. The regional setting is illustrated in **Figure 1**. The project site is zoned M-1, Industrial, and is bordered on the east by the Los Angeles River, on the north by Slauson Avenue, on the west and south by Alamo and Walker Avenues and 59th Place and 60th Street (**Figure 2**). As shown in **Figure 3**, there are eight parcels that make up the project site. They are identified as the following:

1. **W.W. Henry**
   5920 Alamo Avenue (APN 6314-030-005)
   Status: The building has been demolished and the Regional Water Quality Board is requiring clean-up.

2. **Catellus**
   5950 Walker Avenue (APN 6314-032-900)
   Status: This area has been converted to an interim park.

3. **Burlington Northern Railway,**
   Railroad spur leased by L.A. Junction (APN 6314-030-800)
   Status: The City of Maywood is negotiating purchase of the railroad spur. The site has not been investigated for contamination. The railroad spur is located adjacent to Pemaco which is a superfund site.

4. **Pemaco**
5050 Slauson (APN 6314-003-001)
Status: The building has been demolished. This is a superfund site and the Environmental Protection Agency is planning to install a groundwater treatment system that will be installed at the park site for a period of 20 years.

5 & 6 **District Boulevard /59th Place**
City owned street right-of-ways.
Status: No studies have been conducted for this area.

7. **Lubricating Oil Services**
5989 S. District Boulevard (APN 6314-032-008)
Status: The building has been demolished. An environmental review has been conducted for the property and Cape Environmental Management has taken remedial action. The Regional Water Quality Control Board (RWQCB) has issued a "No further Action" letter. However, further health risks need to be assessed.

8. **Precision Arrow**
5026 Slauson (APN 6314-030-004)
Status: The existing building will be demolished. A Phase 1 was conducted and there is no history of contamination on the site.

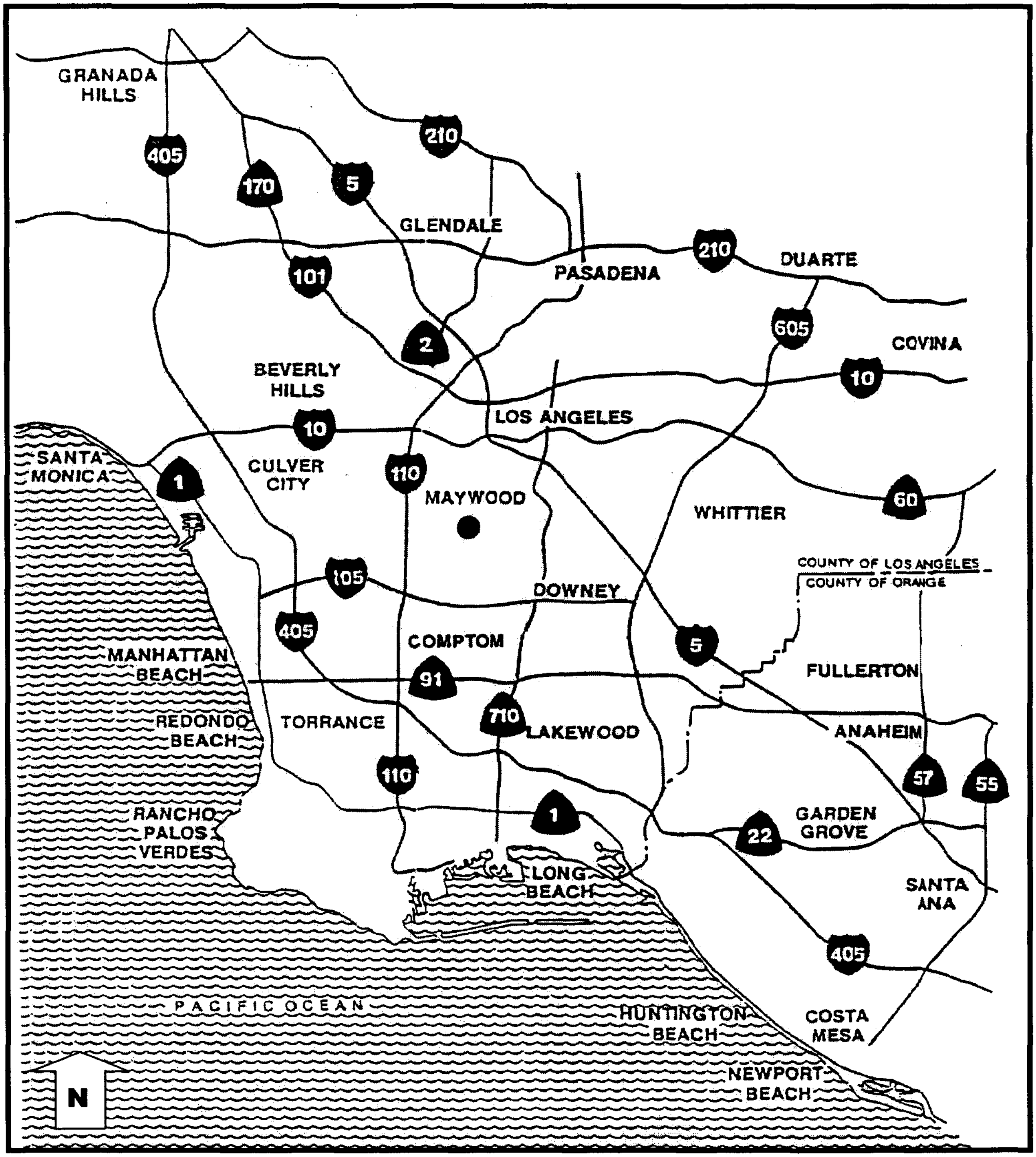


Figure 1 – Regional Map

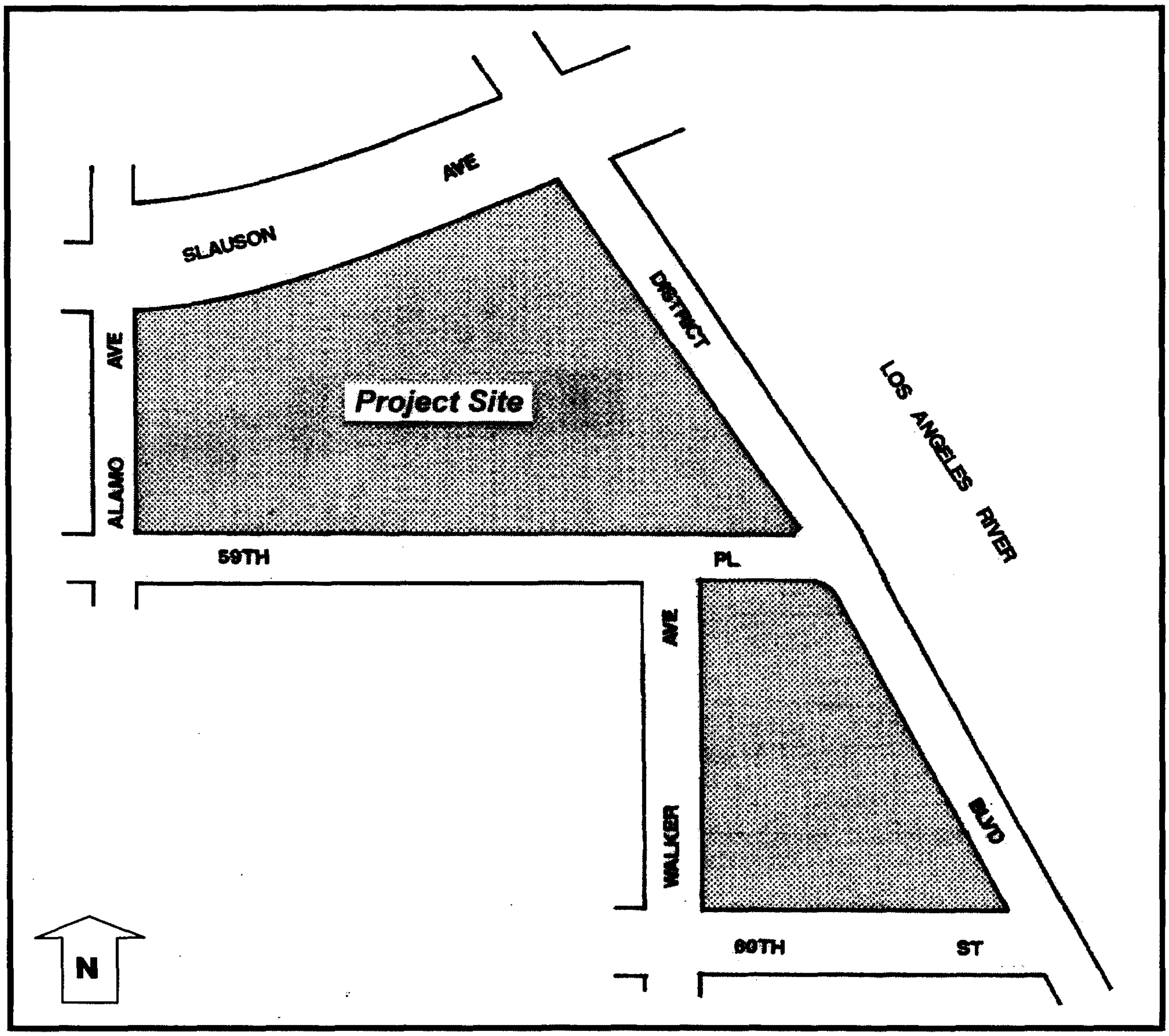


Figure 2 – Project Location Map

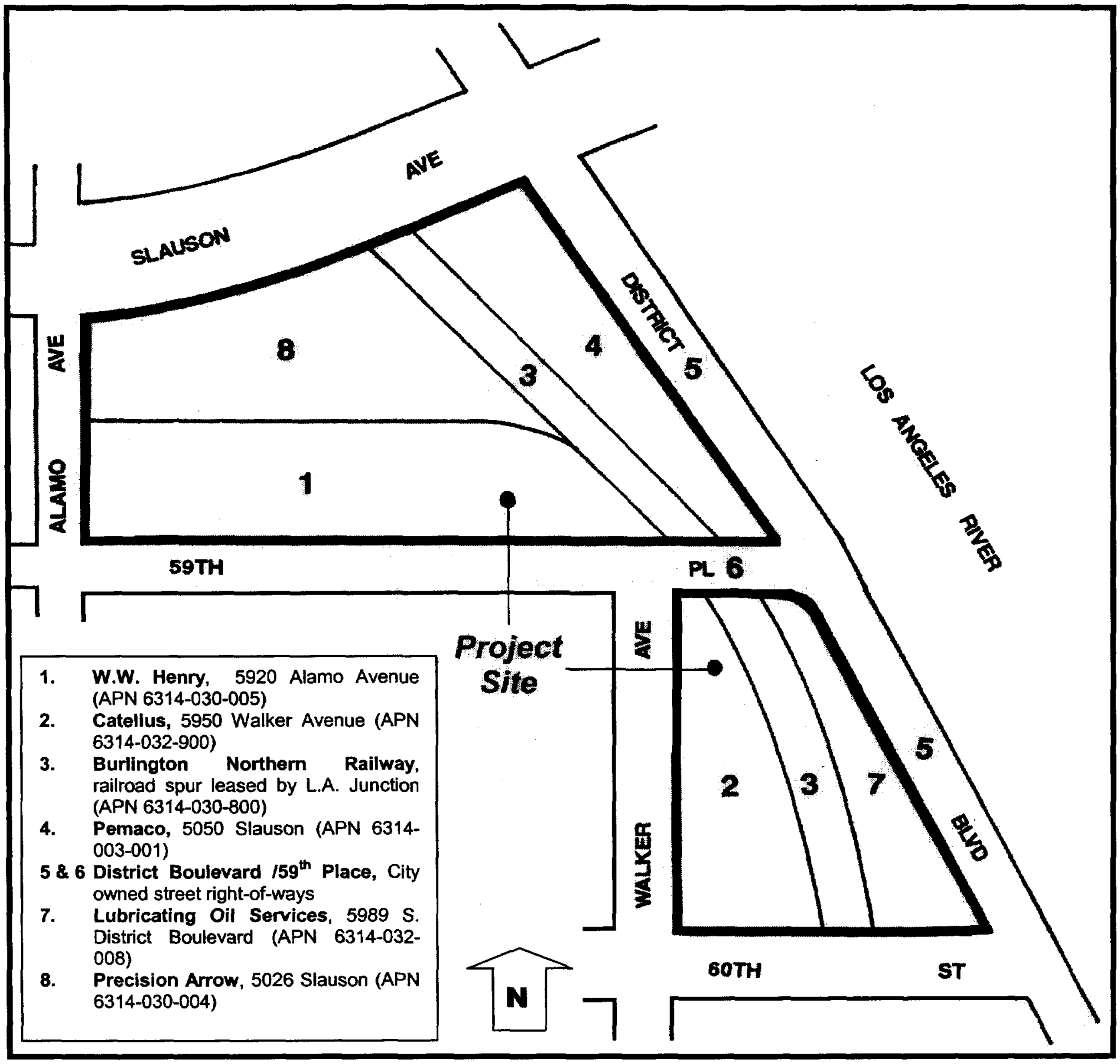


Figure 3 – Parcels Located Within The Riverfront Park Project Area

The project area is presently used for industrial and manufacturing purposes. It borders a residential neighborhood of low-to-moderate income families. The Riverfront Park project would convert the site into a recreational area with views of the Los Angeles River. The General Plan land use and zoning designations for the neighboring properties are shown in **Table 1,** below.

TABLE 1
GENERAL PLAN LAND USE AND ZONING DESIGNATIONS OF SURROUNDING LAND USES

LOCATION IN RELATION TO PROJECT SITE	GENERAL PLAN LAND USE DESIGNATION & CURRENT USE	ZONING
North	City of Vernon - Industrial	Industrial (M)
South	City of Bell - Residential	Multi-Family Residential (R-3)
East	Los Angeles River Commercial Neighborhood and Commercial	Commercial Neighborhood (CN) and Commercial (C)
West	General Commercial (0.25–0.5 FAR) and Specialty Residential (2-48 du/acre, 75-100 persons/acre)	Multi-Family Residential (R-3)

du/ac = dwelling units per acre

9. Description of Project:

The proposed project will be a 7.3-acre park for residents of the City of Maywood and neighboring communities of Vernon, Bell, Cudahy and Huntington Park. Given the proximity of the proposed park site to a residential area and the small size of the City, the project would benefit the entire population of Maywood, as well as that of other neighboring cities.

The project would involve relocation of overhead utility lines and demolition of one industrial building. The site would be graded and backfilled up to the existing concrete wall located along eastern border of the project site, which acts as a barrier between District Boulevard and the Los Angeles River. The eastern portion of the project site is proposed to be raised in elevation with fill material adjacent to the Los Angeles River. The western portion of the project will provide a level area for the playing fields.

A groundwater treatment facility will be installed at the southeast corner of the site and will operate for a period of 20 years. Upon investigation of the parcels formerly occupied by industrial uses, any contamination found upon the properties will be remedied. The project site would be converted to a regional park with landscaping and equipment for both passive and active recreational uses.

As depicted in **Figure 4,** the proposed project includes a lake, a bridge, a gazebo, trails, lawn and picnic areas, a basketball court and a ball field. Field lighting would be provided for evening use of the park, however, the lights would be turned off at 10 p.m. Development of the park project would include construction of foundations, restroom facilities, retaining walls, landscaping sidewalks, bicycle paths driveways and parking lot surfacing. A total of 55 parking spaces would provided for park users; 25 spaces would be located on the southern border on 59^{th} Pace, and 30 off-street spaces would be located at the northwest corner of Alamo Avenue and Slauson Avenue.

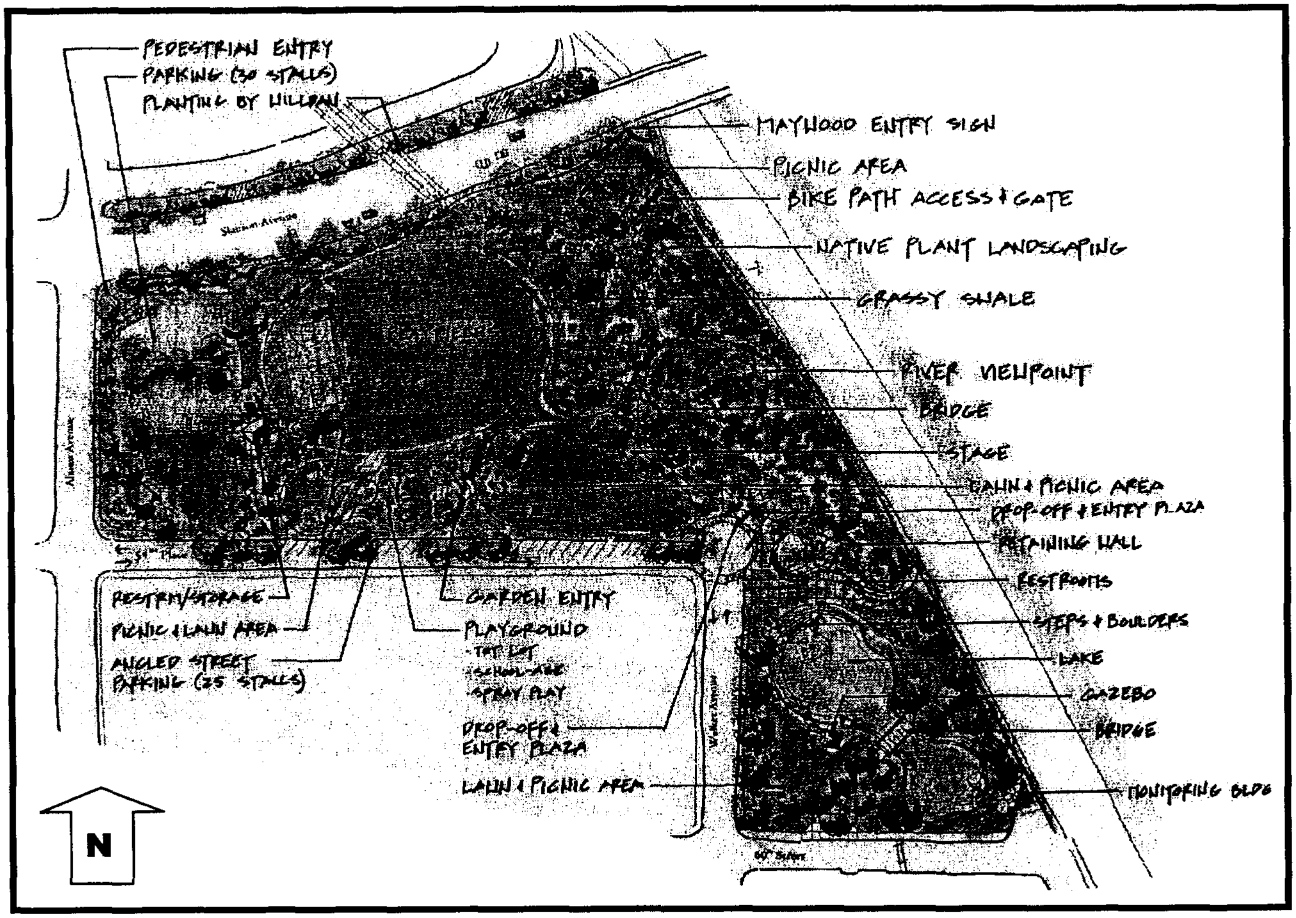


Figure 4 - Maywood Riverfront Park Site Plan

10. Other public agencies whose approval is required (e.g., permits, approval, participation agreement or financing):

Various permits and approvals will be required from the City of Maywood. They consist of the following:

City of Maywood

- Precise Plan of Design (Design Review)
- Grading Permits
- Hazmat studies to be conducted by consultants
- Plumbing, Electrical, Mechanical and Structural Permits

County of Los Angeles

- Storm Drain Connection Permit

Environmental Protection Agency (EPA)

- Environmental Remediation/Monitoring

Department of Toxic Substance and Control

- Public Health Assessment

Regional Water Quality Board

- Water Remediation/Monitoring

Burlington Northern Rail Authority

- The railroad spur that traverses a portion of the proposed park project site is owned by the Burlington Northern Railroad and the property is leased by the Los Angeles Junction. Negotiations are underway to purchase the railroad spur. Upon successful acquisition, the spur would be removed.

Utility Relocation Permits

- The proposed park project site has overhead utility lines which would be re-located underground for Southern California Edison and Pac Bell.

FINANCING

Funding sources include California Transportation Commission, California Department of Parks and Recreation, Los Angeles County Regional Park and Open Space District, California State Coastal Conservancy, and the Environmental Protection Agency. A portion of the financing for the park project will consist of grant funding from Propositions A, 12, and 13. Additional funding will be necessary to complete the entire project.

11. AUTHORITY

The project review and permitting process must comply with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). Prior to any decision by the City of Maywood regarding permission to construct the project, environmental documentation must be prepared and adopted by the City. This Initial Study has been prepared in compliance with CEQA.

CONSULTATION AND COORDINATION

The following individuals were consulted in the preparation of this document:

1. Julia Gonzales, Assistant Planner, City of Maywood
2. Bill Pagett, City Engineer

REPORT PREPARERS

The following consulting firms assisted the City of Maywood in the preparation of this Initial Study/Environmental Checklist:

Willdan
13191 Crossroads Parkway North, Suite 405
Industry, California 91746-3497
(562) 908-6200

Dr. Susan O Carroll, Principal Planner
Kim Zuppiger, Senior Planner

INITIAL STUDY CHECKLIST

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:

■ Aesthetics	☐ Agriculture Resources	■ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
■ Hazards & Hazardous Materials	■ Hydrology / Water Quality	■ Land Use / Planning
☐ Mineral Resources	■ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	■ Transportation / Traffic
☐ Utilities / Service Systems	■ Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead 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 in 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 that 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 address by mitigation measures based on the 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.

______________________	______________________
Signature	Date
Julia Gonzales	City of Maywood
Printed Name	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 factor 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 offsite as well as onsite, 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 than 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 mitigation measures has reduced an effect from "Potentially Significant Impact" to a "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 Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiring, 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:

    a) Earlier Analysis Used. Identify and state where they are available for review.

    b) 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.

    c) 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 source 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 whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact too less than significant.

SUPPORTING DOCUMENTATION:

1. City of Maywood Comprehensive General Plan, 1990
2. City of Maywood Zoning Ordinance

ENVIRONMENTAL CHECKLIST:

I **AESTHETICS**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) *Have a substantial adverse effect on a scenic vista?*	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Explanation of Checklist Judgements:

I(a) **No Impact.** The Park project consists a 7.3-acre site that is located in the City of Maywood, in the County of Los Angeles. The regional location of the project site is shown on **Figure 1**. As shown in **Figure 2**, the project site would be located on Alamo Avenue, just south of Slauson Avenue and just west of the Los Angeles River. The proposed Riverfront Park site is located in an urban area developed with industrial uses.

The project would involve relocation of overhead utility lines and demolition of one industrial building (Precision Arrow). The site would be graded and backfilled up to the existing concrete wall located along eastern border of the project site, which acts as a barrier between District Boulevard and the Los Angeles River. The eastern portion of the project site is proposed to be raised in elevation with fill material adjacent to the Los Angeles River. The western portion of the project will provide a level area for the playing fields. Views of the Los Angeles River would be provided to visitors of the park. The project would result in conversion of land formerly occupied by industrial uses to a public park with landscaping and equipment for both passive and active recreational uses. Therefore, the proposed project would significantly improve scenic views from surrounding public and private properties. No adverse impact is thus anticipated. Existing Views are depicted in **Photo Plates 1 through 6.**

I(b). **No Impact.** The project site is in a highly urbanized area and the demolition of the remaining building and concrete pads and paved areas would not result in the removal of any significant rock outcroppings, geologic features, trees, or historic resources. As can be seen in **Photo Plate 1 through 6**, all of the parcels contained within the project site have been previously disturbed by grading activities and are void of any significant vegetation, geologic features, or historic buildings/resources.

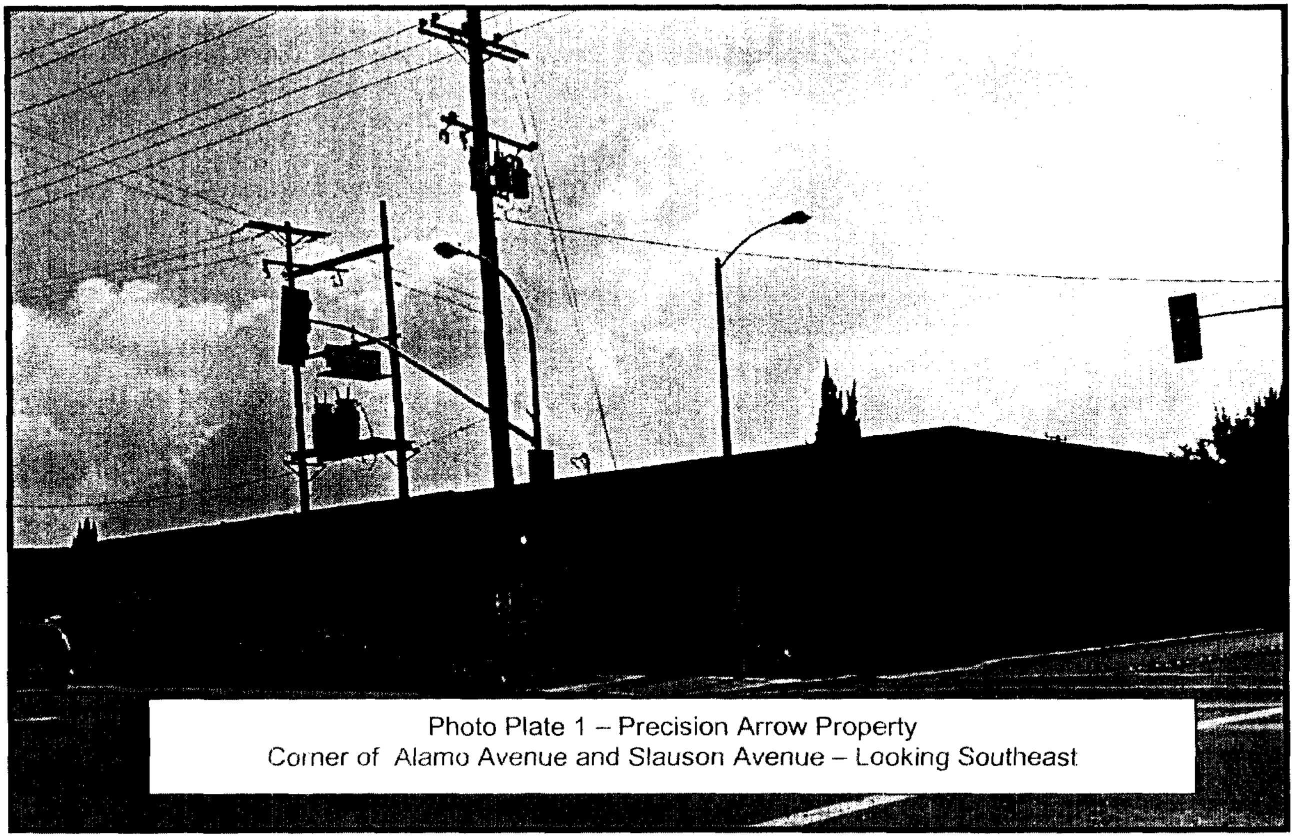


Photo Plate 1 – Precision Arrow Property
Corner of Alamo Avenue and Slauson Avenue – Looking Southeast

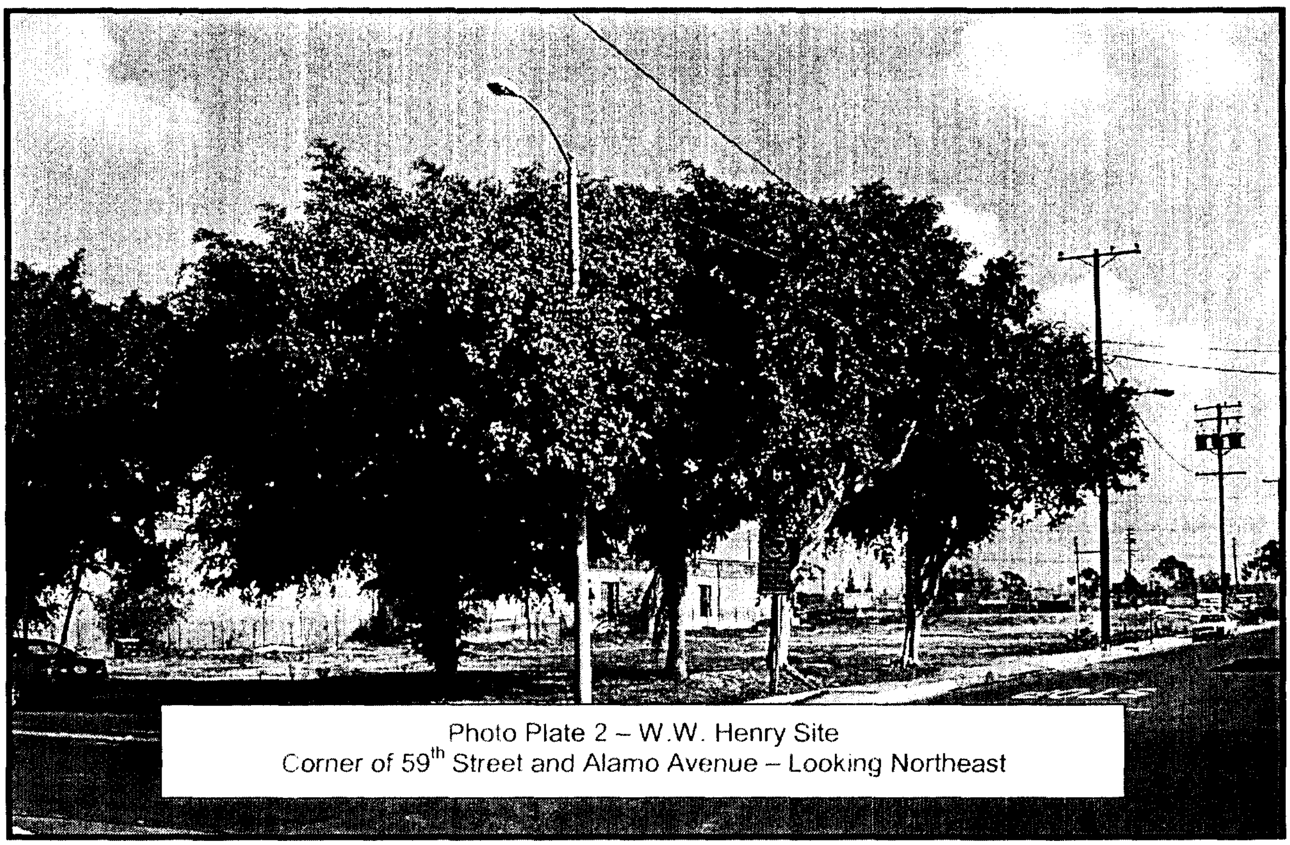


Photo Plate 2 – W.W. Henry Site
Corner of 59th Street and Alamo Avenue – Looking Northeast

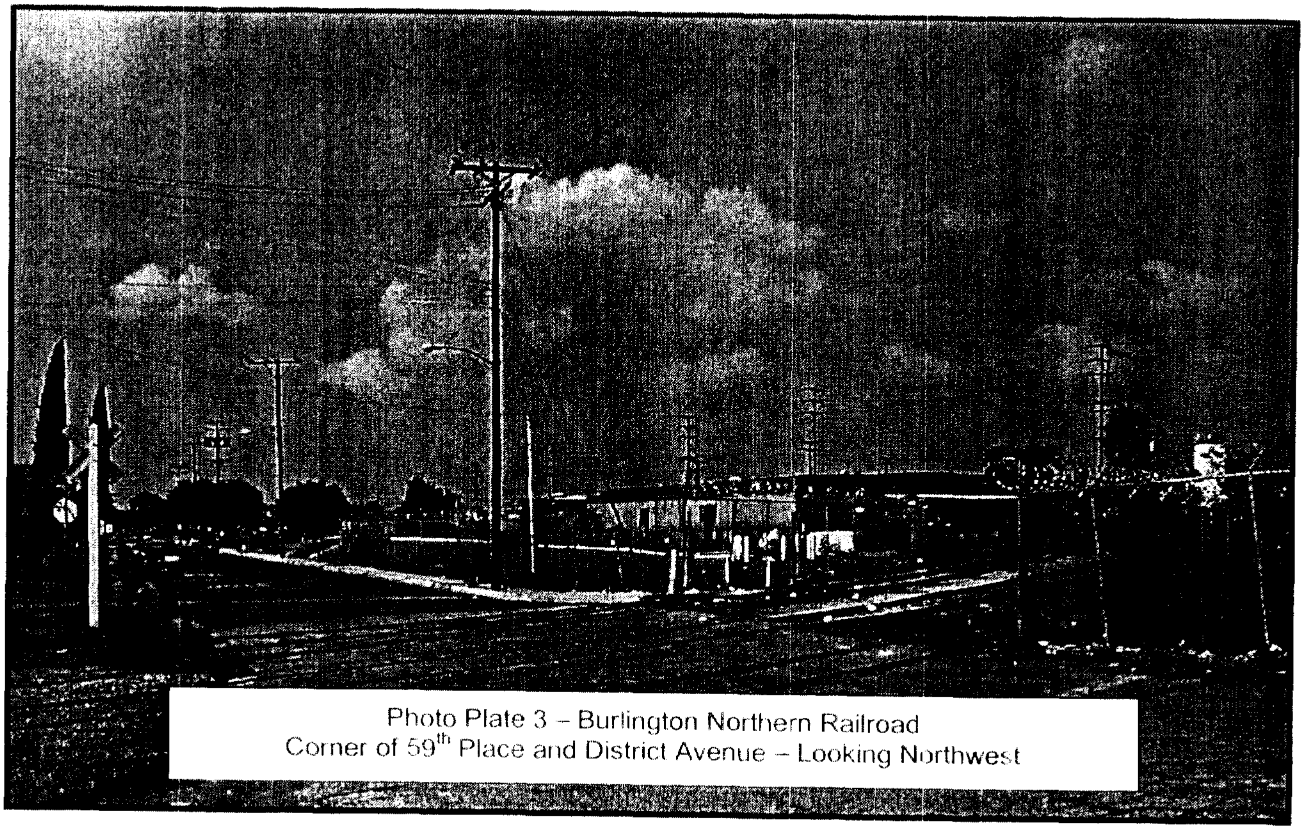


Photo Plate 3 – Burlington Northern Railroad
Corner of 59th Place and District Avenue – Looking Northwest

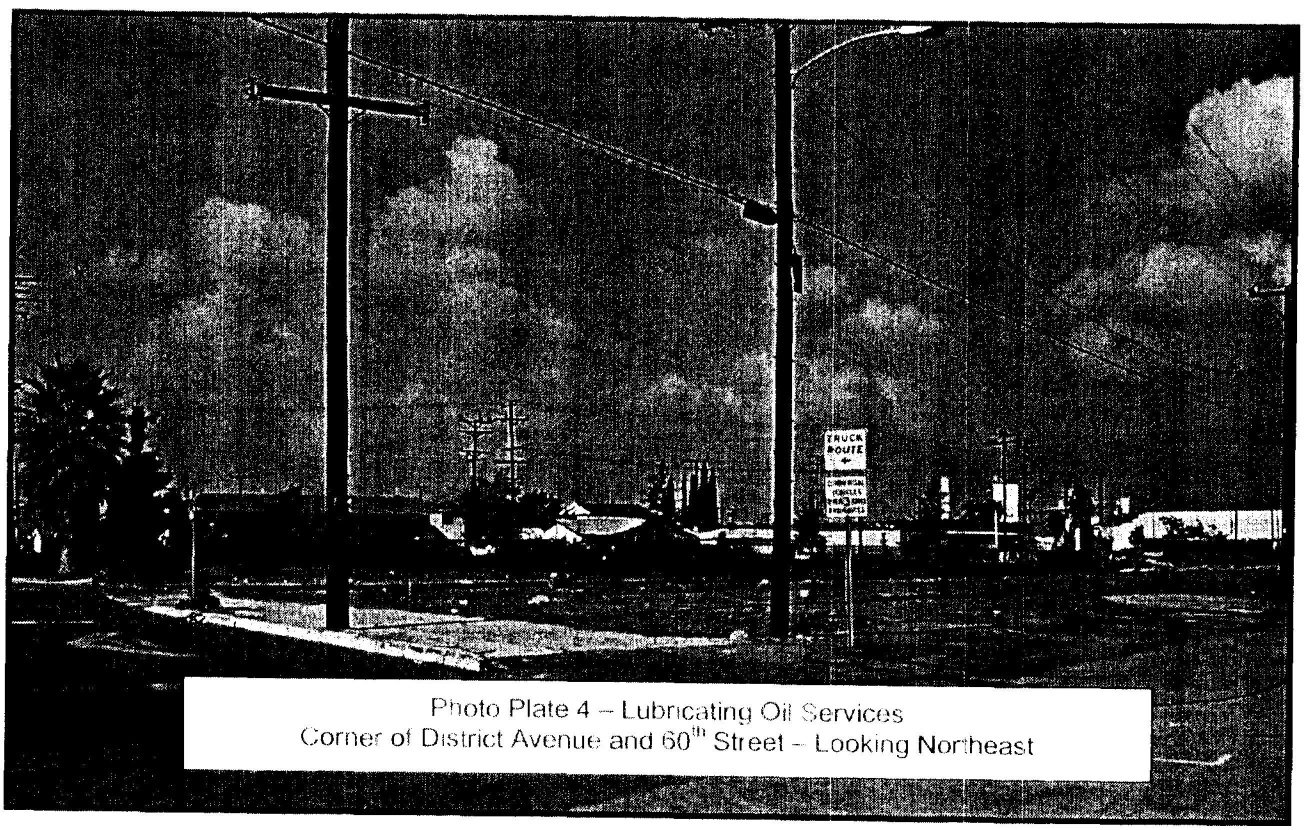


Photo Plate 4 – Lubricating Oil Services
Corner of District Avenue and 60th Street – Looking Northeast

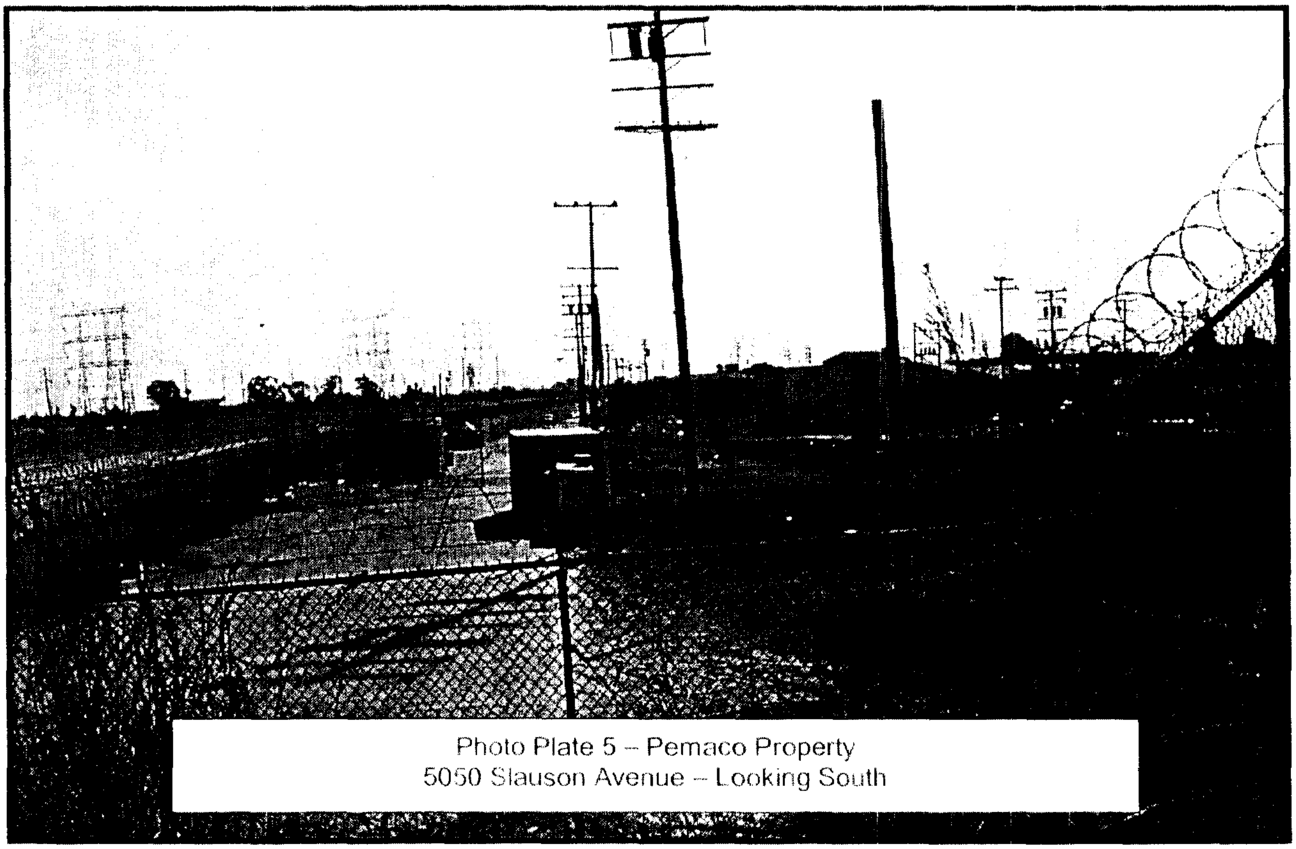


Photo Plate 5 – Pemaco Property
5050 Slauson Avenue – Looking South

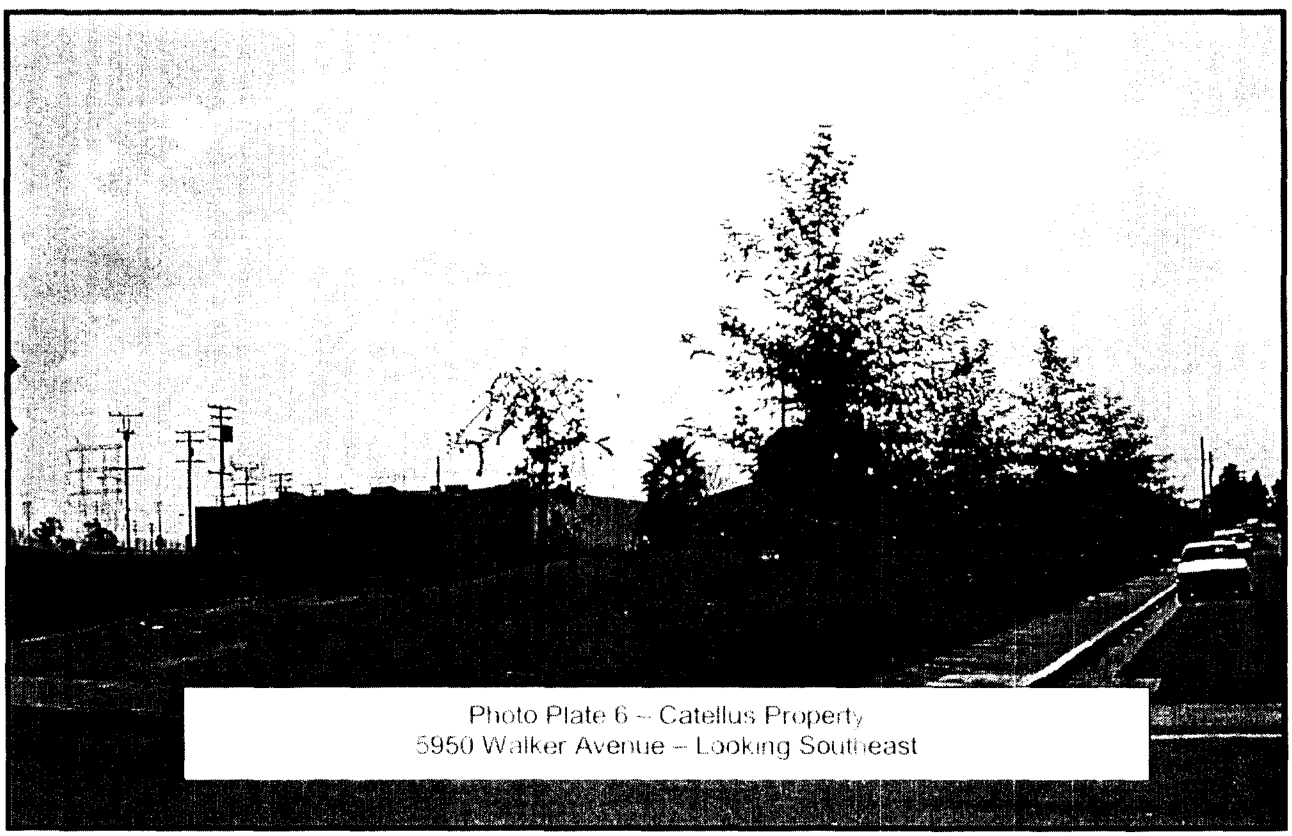


Photo Plate 6 – Catellus Property
5950 Walker Avenue – Looking Southeast

I(c). **No Impact.** The proposed project site is currently occupied by industrial buildings. The proposed park would be situated at a finished grade elevation approximately 15 feet above the Los Angles River and would be separated from the river by a retaining wall. The surrounding properties consist of a mix of commercial, industrial and residential uses. Views from these properties would change appreciably for the better, because the current industrial uses would be removed and the site would be converted to a five acre regional park with trees and recreational uses. There would also be an open and unobstructed view of the Los Angeles River.

I(d). **Potentially Significant Impact.** The proposed Riverfront Park project would have not any large surface areas that would create a significant amount of glare. The proposed project would have security lighting and field lighting for nighttime use of the park that would be turned off at 10 p.m. The proposed lighting may be a source of annoyance to some residents because the lighting may be visible from their windows.

II AGRICULTURE RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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 Dept. 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or 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?	☐	☐	☐	☒

Explanation of Checklist Judgements:

II(a). **No Impact.** The project site is industrially zoned, is occupied with industrial and manufacturing related uses, and is not used for agriculture. The surrounding area is urbanized. Furthermore, the City of Maywood does not contain any land generally categorized as "Important Farmland".

II(b). **No Impact.** The park site is not zoned or used for agricultural purposes and the City does not contain any land designated as agricultural preserve by the Williamson Act.

II(c). **No Impact.** As indicated above, the Park site is not zoned or used for agricultural purposes.

III **AIR QUALITY**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relief upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or 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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

Explanation of Checklist Judgements:

III(a). **Less–than-Significant Impact.** The City of Maywood is located within South Coast Air Basin of California. The basin covers a 6,600 square mile area within Orange County, non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. Air quality in the basin is monitored by the South Coast Air Quality Management District (SCAQMD) at 35 monitoring stations throughout the area. Given the small scale of the nature of the project, it is not anticipated to conflict with the Air Quality Management Plan.

III(b). **Less–than-Significant Impact.** The SCAQMD CEQA Air Quality/Handbook (1993) provides guidance at the initial study stage of analysis for determining if the construction and operation of a project has the potential to result in air quality impacts. Based on Tables 6-2 and 6-3 of the CEQA Air Quality Handbook, it would appear that project impacts would be less than significant. For example, in order for construction or grading impacts to be significant, 177-acres would need to be graded. The park project would consist of 7.3-acres of grading, therefore, the impact would be less than significant. Although no guidance is provided for daily operation thresholds for parks, a sense of the level of operations necessary to generate impacts can be gained by looking at the screening thresholds for homes and universities. The daily operation thresholds for single family homes is 166 houses. In comparison, the park is anticipated to service a maximum of 55 car loads. The operation threshold for university is 813 students. The proposed park project will clearly serve fewer individuals per day than 166 single family homes or 813 university students. Air quality impacts are thus anticipated to be less than significant.

III(c). **Less Than Significant Impact.** Because project emissions are anticipated to be below the project thresholds provided by the SCAQMD, the project's contribution to cumulative impacts is similarly anticipated to be less than significant.

III(d). **Potentially Significant Impact.** Sensitive receptors include those types of land uses that may be susceptible to health problems caused by high concentrations of air pollutants and include such uses as schools, parks, hospitals, convalescent homes or nursing homes. The Heliotrope Elementary School and residential uses currently exist within the project vicinity, therefore demolition and construction of structures within the project area would potentially result in pollutant concentrations in the vicinity of sensitive receptors.

III(e). **Potentially Significant Impact.** The demolition of the structures on the project site may have the potential to generate objectionable odors.

	IV BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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.	☐	☐	☐	☒
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 U.S. Fish and Wildlife Service.	☐	☐	☐	☒
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?	☐	☐	☐	☒
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	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Explanation of Checklist Judgements:

IV(a). **No Impact.** No special status species of plants or animals occupy or use the site or are expected to use the site. Therefore, no endangered, threatened or rare species or their habitats would be impacted by this project.

IV(b). **No Impact.** There would be no impact to locally or regionally designated species since none exist at the project site.

IV(c). **No Impact.** Development of the Park site would have no substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

IV(d). **No Impact.** There are no wetland habitats at the project site; therefore, no impact would occur.

IV(e). **No Impact.** Development of the Park will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No significant trees including specimen trees, were noted at the site of the proposed Park.

IV(f). **No Impact.** No portion of the Park site lies within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, no impact would occur.

V CULTURAL RESOURCES		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Explanation of Checklist Judgements:

V(a). **No Impact.** Development of the Park site will not create any adverse impacts to historical resources in the City as defined in Section 15064.5 because the Maywood General Plan indicates that there are no significant cultural or historical resources at the project site or in the general vicinity.

V(b). **No Impact.** Development of the Park site will not create a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 because the Maywood General Plan indicates that there are no significant cultural or historical resources at the project site or in the general vicinity.

V(c). **No Impact.** The site is essentially flat and has no unique geological features or paleontological resources are located on the site, therefore there would be no impacts related to unique geologic or physical features.

V(d). **No Impact.** Development of the Park site will not disturb human remains, including those interred outside of formal cemeteries.

VI **GEOLOGY AND SOILS**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risk to life or property?	☐	☐	☒	☐
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 wastewater?	☐	☐	☐	☒

Explanation of Checklist Judgements:

VI(a). **Less-than-Significant Impact.** The topography of the City of Maywood is relatively level. The City, Maywood is in a seismically active region with several faults present in the surrounding area the immediate vicinity that are likely to cause moderate ground shaking (Public Safety Element p.125).

The proposed park will not cause any changes to the geologic substructures, covering of any unique geologic or physical features, any increase in wind or water erosion to the soil or any changes in deposition. There may be a slight change in the topography of the site to make the site to make the site accessible from the west bank of the Los Angeles River. However, since the ground is relatively level landslides and mudslides are unlikely.

The project area may be subject to liquefaction because it is adjacent to the Los Angeles River and a high groundwater table. However, given the proposed land use, impacts are anticipated to be less than significant. For liquefaction to actually occur, however, strong earthquake shaking, high groundwater, and poorly consolidated soils are all required.

VI(b). **Less-than-Significant Impact.** The construction/development phase of the Park project may result in soil erosion or the loss of topsoil. However, the erosion control measures (including installation of storm drain improvements that apply to all new development) would render such impacts less-than-significant.

VI(c). **Less-than-Significant Impact.** Development of the Park project is not anticipated to result in a project that would 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

VI(d). **Less-than-Significant Impact.** Development of the Park project is not anticipated to result in a project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risk to life or property. The existence of expansive soils at a new development site is determined through soil testing prior to finalizing construction plans. The existence of such soils can influence footing and foundation design and, typically, engineering design measures incorporated into construction plans can adequately address potential problems associated with expansive soils.

VI(e). **No Impact.** None of the development associated with the Park project will be served by septic tank or alternative wastewater disposal systems.

	VII HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	
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?	☒	☐	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐	☐
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?	☒	☐	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Explanation of Checklist Judgements:

VII(a). **Potentially Significant Impact.** The proposed project will offer recreational activities to promote a healthy living environment. However, due to the nature of the existing industrial uses on the project site, demolition of these structures may involve the temporary transport, use, or disposal of hazardous materials. The park project area may increase the level of risk or exposure to existing health hazards, since a groundwater treatment facility will be located within the park project area for a period of roughly 20 years. The precise time is undetermined and the Environmental Protection Agency has not decided what system to use.

VII(b). **Potentially Significant Impact.** All commercial and industrial facilities within the City are regularly inspected by the Los Angeles County Fire Department for code violations. The Los Angeles County Fire Department has a fully manned hazardous materials units and all personnel and trained in hazardous material response. However, the demolition of structures and grading for the Park project may involve the handling or use of hazardous materials.

VII(c). **Potentially Significant Impact.** The Heliotrope elementary school site is located at 5911 Woodlawn and is approximately 0.2 miles away from the site.

VII(d). **Potentially Significant Impact.** One of the parcel within the Park project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The status of the clean-up for the parcels within the project area are shown in the **Table 2** and locations as shown on **Figure 3**.

TABLE 2
PROJECT AREA STATUS

NO.	NAME	ADDRESS/APN	STATUS
1.	W.W. Henry	5920 Alamo Avenue (APN 6314-030-005)	Regional Water Quality Board is requiring clean-up.
2.	Catellus	5950 Walker Avenue (APN 6314-032-900)	This area has been converted to an interim park.
3.	Burlington Northern Railway	Railway Spur (APN 6314-030-800)	The City of Maywood is negotiating purchase of the railroad spur and site has not been investigated for contamination; the railroad spur is located adjacent to Pemaco which is a superfund site.
4.	Pemaco	5050 Slauson Avenue (APN 6314-003-001)	This is a superfund site and the Environmental Protection Agency is planning to install a treatment system at the park site.
5. 6.	District Boulevard 59th Place	City owned street right-of-ways	No studies have been conducted for these areas.
7.	Lubricating Oil Services	5989 S. District Boulevard (APN 6314-032-008)	An environmental review has been conducted for the property and Cape Environmental Management has taken remedial action.
8.	Precision Arrow	5026 Slauson Avenue (APN 6314-030-004)	A Phase 1 was conducted and there is no history of contamination on the site

VII(e). **No Impact.** No portion of the Park site is proposed within an airport land use plan or within two miles of a public airport or public use airport.

VII(f). **No Impact.** No portion of the Park site is proposed within the vicinity of a private airstrip.

VII(g). **No Impact.** Development of the Park site does not have any potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VII(h). **Less-Than-Significant Impact.** The site is surrounded by urbanized areas and is currently covered with concrete asphalt and industrial buildings, which would be removed before construction begins. The project site would consist of a park with landscaping and picnic and recreation uses. The park would be maintained to reduce the potential fire hazard on the site or adjacent areas.

	VIII HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
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)?	☐	☐	☒	☐
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 offsite?	☒	☐	☐	☐
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 offsite?	☐	☐	☒	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	☒	☐	☐	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☒	☐	☐	☐
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Explanation of Checklist Judgements:

VIII(a). **Potentially Significant Impact.** Development and/or operation of the Park site may violate water quality standards or waste discharge requirements because localized improvements would be required in conjunction with site-specific developments to transport runoff to the established citywide drainage system. Although the majority of the park project would be permeable, groundwater contamination has been identified in the project area and the potential for contaminated water to run-off into the Los Angeles River and the Pacific Ocean may exist.

VIII(b). **Less-Than-Significant Impact.** Development of the Park site will not 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.

VIII(c). **Potentially Significant Impact.** Development of the Park site will not substantially alter existing drainage patterns in a manner that would result in substantial erosion or siltation on or offsite. The existing storm water collection (storm drain system) may convey contaminated storm water runoff into the existing storm drain into the street.

VIII(d). **Less-Than-Significant Impact.** Development of the Park site would not substantially alter existing drainage patterns or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site.

VIII(e). **Potentially Significant Impact.** Development of the project site will not create or contribute runoff water, which would not exceed the capacity of existing or planned storm water drainage systems, however, there may be the potential for additional sources of polluted runoff.

VIII(f). **Less-Than-Significant Impact.** Through the application of erosion control and other NPDES measures, the anticipated Park project is not expected to substantially degrade local water quality.

VIII(g). **No impact.** No housing development is associated with the project, therefore, no new housing will be located 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.

VIII(h). **No impact.** According to the Federal Emergency Management Agency's (FEMA) the City of Maywood is not located in any designated 100- or 500-year flood zones. The Park project would be located outside flood hazard area and the Flood Insurance Rate Map (FIRM) indicates that flows within the nearby Los Angles River would be contained in the flood channel (Public Safety Element p. 129).

VIII(i). **Potentially Significant Impact.** Development of the Park could potentially expose people or structures to a risk of loss, injury or death involving flooding. If the Los Angeles River were to overflow, the flood water depth is projected to be between 1 and 2 feet (Public Safety Element p. 130). In the event that flooding was to occur in the area, or pedestrians were to fall in the Los Angeles River, there would be a need for search and rescue teams.

VIII(j). **No impact.** The City is not subject to seiche, tsunami, or mudflow, therefore, no hazard-related impacts are anticipated.

IX LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
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?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Explanation of Checklist Judgements:

IX(a). **Less-than-Significant Impact.** An existing railroad spur traverses the project site and negotiations are underway with the Burlington Northern to purchase the railroad right-of-way spur. Currently, the railroad spur is used to provide deliveries to an industrial business located within the project site and the City is working to relocate that business. An alternate delivery route could be provided from the existing railway, which runs east and west on Randolph Street. Given the location of the project along the edge of the Los Angeles River, the project is not located in an area where the project would divide the community. Parks generally serve a connecting function.

IX(b). **Potentially Significant Impact.** The General Plan establishes a complementary pattern and intensity of land uses that seek to avoid or minimize potential land use incompatibilities. The General Plan land use and the zoning designation for the project site is Industrial (M) which conflicts with the proposed park use. In order to convert the industrial use to a park the City would need to amend the General Plan and re-zone the property to make the use consistent. The act of re-zoning and amending the General Plan will not result in any adverse impacts. Furthermore, the park project will accomplish one of the goals of the Maywood General Plan, which is to provide additional open space for the community.

IX(c). **No Impact.** As previously indicated, the proposed Park does not conflict with any habitat conservation plan or natural community conservation plan.

X ENERGY AND MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with adopted energy conservation plans?	☐	☐	☐	☒
b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	☒
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☒

Explanation of Checklist Judgements:

X(a). **No Impact.** The project will not affect adopted energy plans because it is required to comply with adopted energy conservation plans.

X(b). **No Impact.** Proposed construction and operation of the project would not involve the wasteful use of nonrenewable resources.

X(c). **No Impact.** There are no known mineral resources on the project site, so construction of the project would not result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State.

XI <u>NOISE</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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 ground borne vibration or ground borne 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?	☐	☐	☐	☒

Explanation of Checklist Judgements:

XI(a). **Potentially Significant Impact.** The primary source of noise in Maywood are the two main arterial roadways, Slauson Avenue and Atlantic Boulevard, that traverse the City. Another noise source for Maywood is the I-710 (Long Beach Freeway) located north and east of the City. The roadways and freeway traffic noise represent a relatively steady constant noise source. The proposed riverside park will be located at the intersection of the Los Angeles River and Slauson Avenue at the eastern boundary of the City.

Potential noise impacts from project implementation may result from three main sources:

1. Location of parking areas relative to off-site receivers.

2. Temporary construction activity noise generation during construction of the accessory facilities (bridge, restrooms, retaining walls, play equipment, lights etc.)

3. Noise associated with park use.

According to Appendix G of the CEQA Guidelines, noise impacts are considered significant if they create long-term exposures that exceed City of Maywood noise/land use compatibility standards where such standards are currently met, or exacerbate an already existing excessive noise environment by a measurable amount.

The General Plan indicates that the noise contours for the area are between 60db to 65db and the playgrounds and neighborhood parks would normally be within these in noise parameters. Although it is unlikely the park project would create increased noise, it is not possible to draw conclusions without a further noise study.

XI(b). **Less-Than-Significant Impact.** The project may expose persons to ground borne vibration or ground borne noise from passing cars or from project construction and site remediation. However, levels are anticipated to be less than significant.

XI(c). **Less-Than-Significant Impact.** The major noise concern for surrounding neighbors due to project implementation is from parking lot traffic and ball field use. Because of the intermittent nature of parking lot use and the small number of cars anticipated, it typically would not create sufficient volumes to cause noise/land use compatibility standards to be exceeded. Parking activity noise tends more to be a nuisance rather than causing any violation of noise standards. Any unusual noise such as a car horn, car alarms, or other single events could be even more noticeable.

Noise generated by parking areas and park use may be audible from residents in neighboring homes, however, they would likely be away from home during hours of primary use. Nighttime field lighting will be available. However, the lights will be turned off at approximately 10 p.m. Impacts are thus anticipated to be less than significant.

XI(d). **Less-Than-Significant Impact.** Heavy construction equipment noise may be temporarily audible to these source-receivers. Construction equipment noise may interrupt and intrude into residential enjoyment at the nearest off-site residences for a brief period of time. To abate the potential nuisance from construction noise, especially in very close proximity to any adjacent noise-sensitive development, noise ordinances limit the times for allowable time periods for non-emergency construction activities. By limiting noisy activities to this time period, most off-site receivers will usually not be present at their homes to hear the equipment operations.

XI(e). **No Impact.** The project is not located within an airport land use plan or, where such a plan has not been adopted. The project is not located within two miles of a public airport or public use airport.

XI(f). **No Impact.** The project is not located within the vicinity of a private airstrip.

XII POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Explanation of Checklist Judgements:

XII(a). **No Impact.** Development of the Park will not induce substantial population growth in the City because the project is designed for the purpose of providing recreation for existing residents, and no residential development is associated with the project.

XII(b). **No Impact.** Development of the Park project will not result in displacement of existing housing.

XII(c). **No Impact.** As indicated above, no housing will be displaced as a result of the development of the Park project. Therefore, no people will be displaced.

XIII PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Explanation of Checklist Judgements:

XIII(a). **Less-than-Significant Impact.** The Park is not expected to result in a substantial increase in fire service demand because there would be very few structures of significant size requiring fire protection services.

XIII(b). **Less-than-Significant Impact.** The Park is not expected to result in a substantial increase in police service demand. The City of Maywood has a Police Department and existing personnel as well as the Citizens' Patrol volunteer organization would patrol the project site.

XIII(c). **No Impact.** The Park will not result impact school needs because the project doesn't create an increase in the student population.

XIII(d). **Less-than-Significant Impact.** The Park project would result in an incremental demand on maintenance of park facilities.

XIII(e). **Less-than-Significant Impact.** The project site would be City owned and operated, consequently, the City will be responsible for maintaining these facilities including landscaping, maintenance and trash pick-up. Given the small scale of the project, the additional cost is anticipated to be able to be accommodated within the existing City budget.

XIV RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Explanation of Checklist Judgements:

XIV(a). **No Impact.** The project would not induce population growth and therefore, would not result in an increased demand for neighborhood or regional parks or other recreational facilities. The project would help meet an existing need for recreational facilities and open space.

XIV(b). **Less-Than-Significant.** The site is will be City owned and would provide a variety of public recreational facilities would be provided for residents of the City of Maywood and surrounding communities. The proposed project would result in new recreational facilities, which would enhance the quality or quantity of existing recreational opportunities in and around the City.

XV **TRANSPORTATION/TRAFFIC**		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Cause an increase in traffic which 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)?	☒	☐	☐	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Result in inadequate parking capacity?	☐	☐	☒	☐
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Explanation of Checklist Judgements:

XV(a). **Potentially Significant Impact.** Due to the size of the park and the fact that it will provide recreational opportunities on a city-wide scale, it is anticipated that the development and/or operation of the Park project will generate additional vehicle trips, which will contribute to increased traffic volumes on City streets in the project vicinity. Whether this increase will be significant cannot be determined without further study.

XV(b). **Less-than- Significant Impact.** Given the small scale of the project and its location, trip generation is not anticipated to exceed CMP thresholds.

XV(c). **No Impact.** Development and/or operation of the Park site would not have an impact on air traffic patterns, given the nature of the project and the fact that there are no airports in the vicinity of the project.

XV(d). **Potentially Significant Impact.** Development and/or operation of the Park could potentially result in pedestrian safety hazards due to the proximity of Slauson Avenue and exiting truck routes. The project site is located along the Los Angeles River at Slauson Avenue, which is a 155-foot wide arterial, providing access from Pico Rivera to an area near Los Angeles International Airport. Currently the 5000-5100 block of East 59th Place (from Alamo Avenue to District Boulevard) is a truck route servicing the industries on District Boulevard and Walker Avenue.

XV(e). **Less-than-Significant Impact.** Adequate site ingress/egress, including the provision of emergency access will be on the project site. The project will not result in any alteration of existing emergency routes

XV(f). **Less-than-Significant Impact.** The proposed park would provide a total of 55 parking stalls: 25 on-street parking spaces would be located on 59th street and 30 off-street parking spaces would be located at the northwest corner of the project site. It is also anticipated that the users of the proposed Riverfront park will use the riverbank to bicycle, skate, jog and walk to the site. School children from nearby Heliotrope Avenue School will be able to walk to the park using the public sidewalk on Slauson Avenue.

XV(g). **Less-than-Significant Impact.** Development and operation of the Park project may create in increase site visits and generate an increased demand for public transit and related facilities. New street improvements would be installed in front of the project (curb, sidewalk, and gutter) that would conform to City standards and, therefore, no conflict with transportation policies would occur.

XVI UTILITIES AND SERVICE SYSTEMS		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Explanation of Checklist Judgements:

XVI(a). **Less-than-Significant Impact.** The Park is not anticipated to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. The City of Maywood, like other municipal jurisdictions in southern California, is required to adhere to the State- mandated regulations pertaining to wastewater control and treatment. Adherence to these regulations will result in less than significant wastewater impacts.

XVI(b). **Less-than-Significant Impact.** The Park project is not anticipated to result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. The City relies on water provided by the Maywood Water District and no major deficiencies in its water purveyance system have been identified. Ongoing capital improvements will be sufficient to address existing and future water conveyance needs.

XVI(c). **Less-than-Significant Impact.** Construction of the Park could result in increased in storm water runoff. This increased runoff, however, will be handled through the construction of an onsite storm water collection system, which will transport runoff to the established citywide drainage system.

XVI(d). **Less-than-Significant Impact.** The availability of adequate water supplies to meet the anticipated increase in demand, resulting from future urban development in the City, has been analyzed in the EIR prepared for the Maywood General Plan. The Park project will not result in any increase in water demand beyond that already analyzed in the General Plan EIR.

XVI(e). **Less-than-Significant Impact.** The Park will not result in a significant impact on wastewater facilities. Two restroom facilities are proposed in the park design, and these facilities would create a limited amount of wastewater, which would require treatment and disposal.

XVI(f). **Less-than-Significant Impact.** The Park project would require solid waste disposal service during the construction phase. During project operation, solid waste disposal would consist of the emptying of trash receptacles provided for the public convenience. The current Los Angeles County Countywide Siting Element projects that a shortfall in permitted daily landfill capacity may be experienced in the County within the next few years. However, the amount of waste to be disposed of will not be significant.

XVI(g). **Less-than-Significant Impact.** The operation of Park project may result in a minor increase in the amount of solid waste generated within the City. During project operation, any solid wastes generated on-site would be removed during maintenance visits to the site. Solid waste disposal would be required to comply with federal, state, and local statutes and regulations regardless of whether the proposed project or the original development was constructed on the site.

XVII **MANDATORY FINDINGS OF SIGNIFICANCE**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Does the project:				
a) 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?	☐	☐	☐	☒
b) 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.)	☒	☐	☐	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Explanation of Checklist Judgements:

XVII(a). **No Impact.** The proposed project will be implemented in an area which is urbanized and which has been developed previously with industrial uses. The project site is located along an existing railroad right-of-way that is currently used for deliveries to a business located within the project site. The proposed project site has been previously disturbed and there is no significant vegetation or other natural (including animal life) resources on the site. The project site is also void of any significant cultural or historical resources.

XVII(b). **Potentially Significant Impact.** The proposed project, along with other cumulative projects in the area, may create significant cumulative impacts in the area unless appropriate mitigation measures have been provided which will improve noise, soil, water and air quality and pedestrian safety and vehicular access in and around the proposed project site.

XVII(c). **Potentially Significant Impact.** There is the potential for environmental effects from the project, which would cause substantial adverse effects on human beings, either directly or indirectly. According to Hazmat studies conducted within the project site, human health hazards may result from exposure to contaminated water soil and air.

City of Maywood

4319 East Slauson Avenue • Maywood, California 90270
Tel: (323) 562-5000 • Fax: (323) 773-2806

NOTICE OF PREPARATION

TO: State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

FROM: Julia Gonzalez, Assistant Planner
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Maywood will be the Lead Agency and will prepare an environmental Impact Report for the project identified below. We need to know the views of your agency as the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location and the probable environmental effects are contained in the attached materials. A copy of the Initial Study is attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Julia Gonzalez, Assistant Planner, City of Maywood, at the address shown above. We will need a name for a contact person in your agency.

Project Title: City of Maywood Riverfront Park Project EIR

Project Applicant: City of Maywood

Date: 5/20/02

Signature Julia Gonzalez
Title: Assistant Planner
Telephone: (323) 562-5722

Reference: California Administrative Code, Title 14, Sections 15082(a), 15103, 15375

City of Maywood
Notice of Preparation of a Draft Environmental Impact Report
For the Riverfront Park Project

PROJECT LOCATION:

Figure 1 provides the regional setting for the project in the City of Maywood. As indicated in Figure 2, the project site is bounded by Alamo Avenue to the west, District Boulevard to the east, adjacent to the Los Angeles River, 59th Place to the south, and Slauson Avenue to the north, in the City of Maywood, County of Los Angels, California. The existing park extends south to 60th Place and Walker Avenue, with District Boulevard bordering the site to the east. Figure 4 identifies the proposed park plan concept.

FIGURE 1 – Regional Location

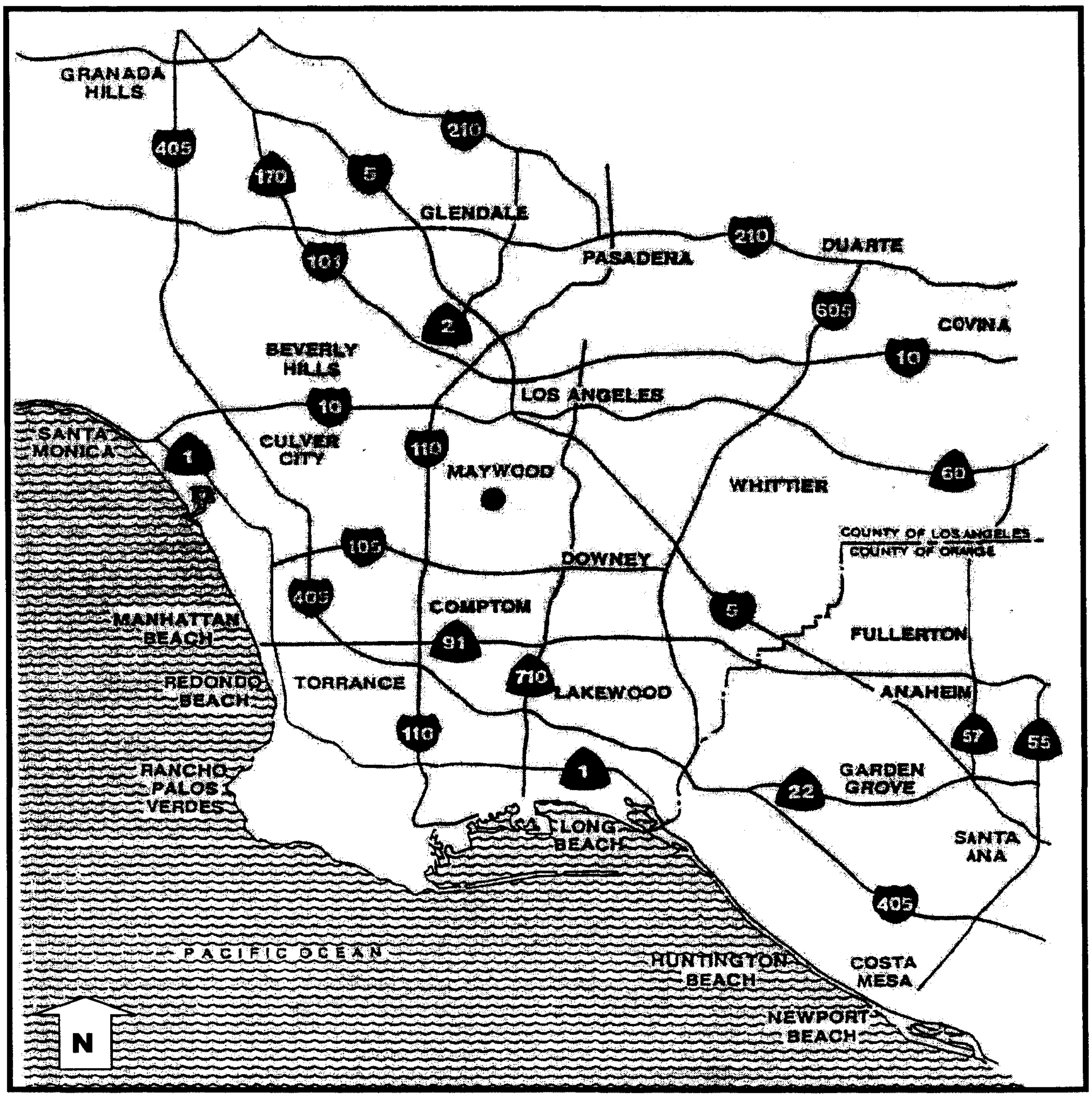
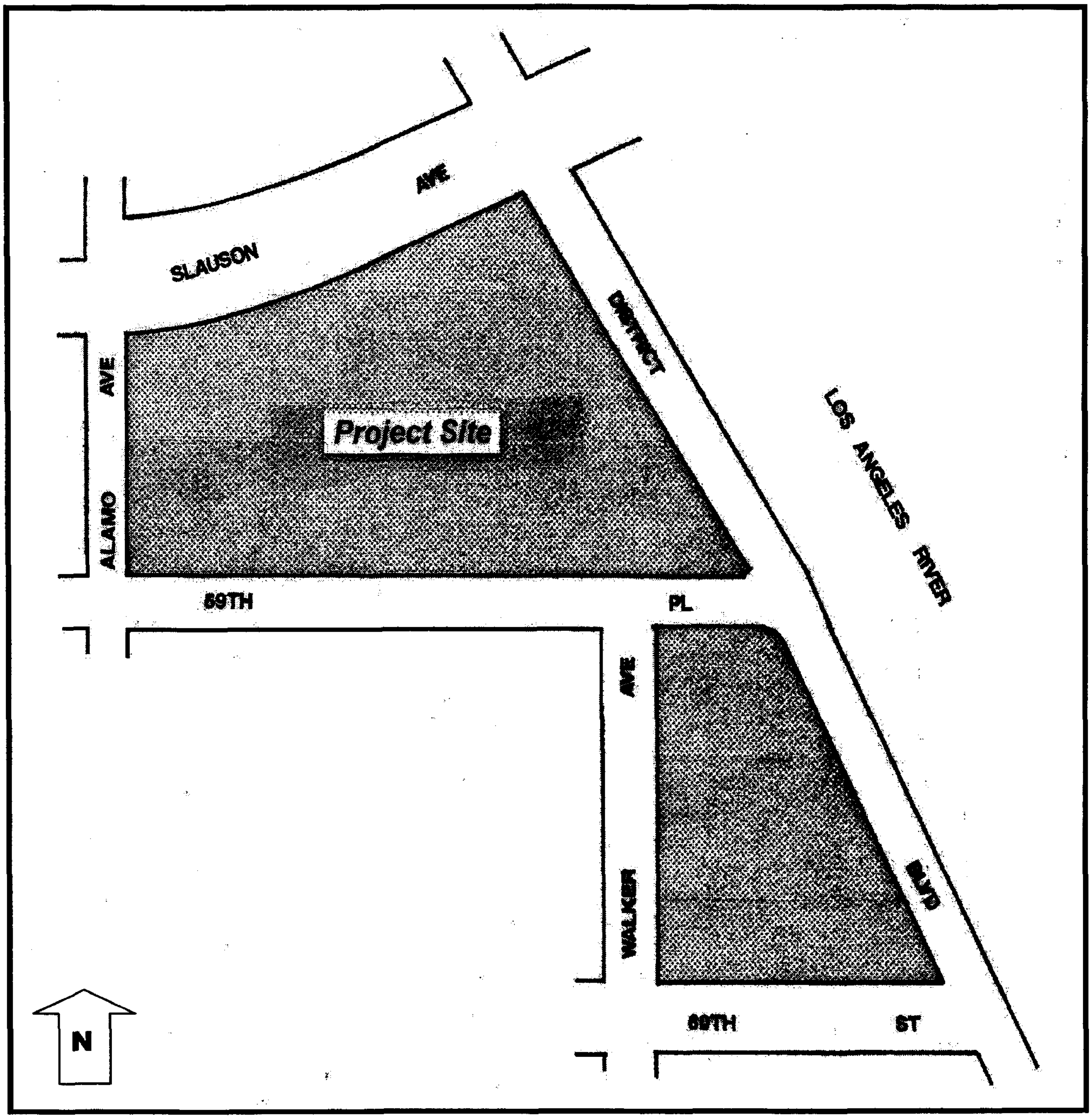


FIGURE 2- Project Location



PROJECT DESCRIPTION:

The proposed project is a 7.3-acre park primarily for the residents of the City of Maywood. However, because of the size of the park and its location, the proposed facility would serve the neighboring communities of Vernon, Bell, Cudahy and Huntington Park.

There are eight parcels that make up the project site. The City is in the process of acquiring or has acquired all of these properties to facilitate the park development. The parcels listed below are identified in Figure 3:

1. **W.W. Henry**
   5920 Alamo Avenue (APN 6314-030-005)

2. **Catellus**
   5950 Walker Avenue (APN 6314-032-900)

3. **Burlington Northern Railway,**
   Railroad spur leased by L.A. Junction (APN 6314-030-800)

4. **Pemaco**
   5050 Slauson (APN 6314-003-001)

5 & 6 District Boulevard /59th Place
City owned street right-of-ways.

7. **Lubricating Oil Services**
   5989 S. District Boulevard (APN 6314-032-008)

8. **Precision Arrow**
   5026 Slauson (APN 6314-030-004)

The project site is presently used for industrial and manufacturing purposes. It borders a residential neighborhood of low-to-moderate income families. The Riverfront Park project would convert the project site into a regional park with landscaping, and amenities and equipment for both passive and active recreational uses, with a view of the Los Angeles River. The General Plan land use and zoning designations for the neighboring properties are shown in **Table 1,** below.

TABLE 1
GENERAL PLAN LAND USE AND ZONING DESIGNATIONS OF SURROUNDING LAND USES

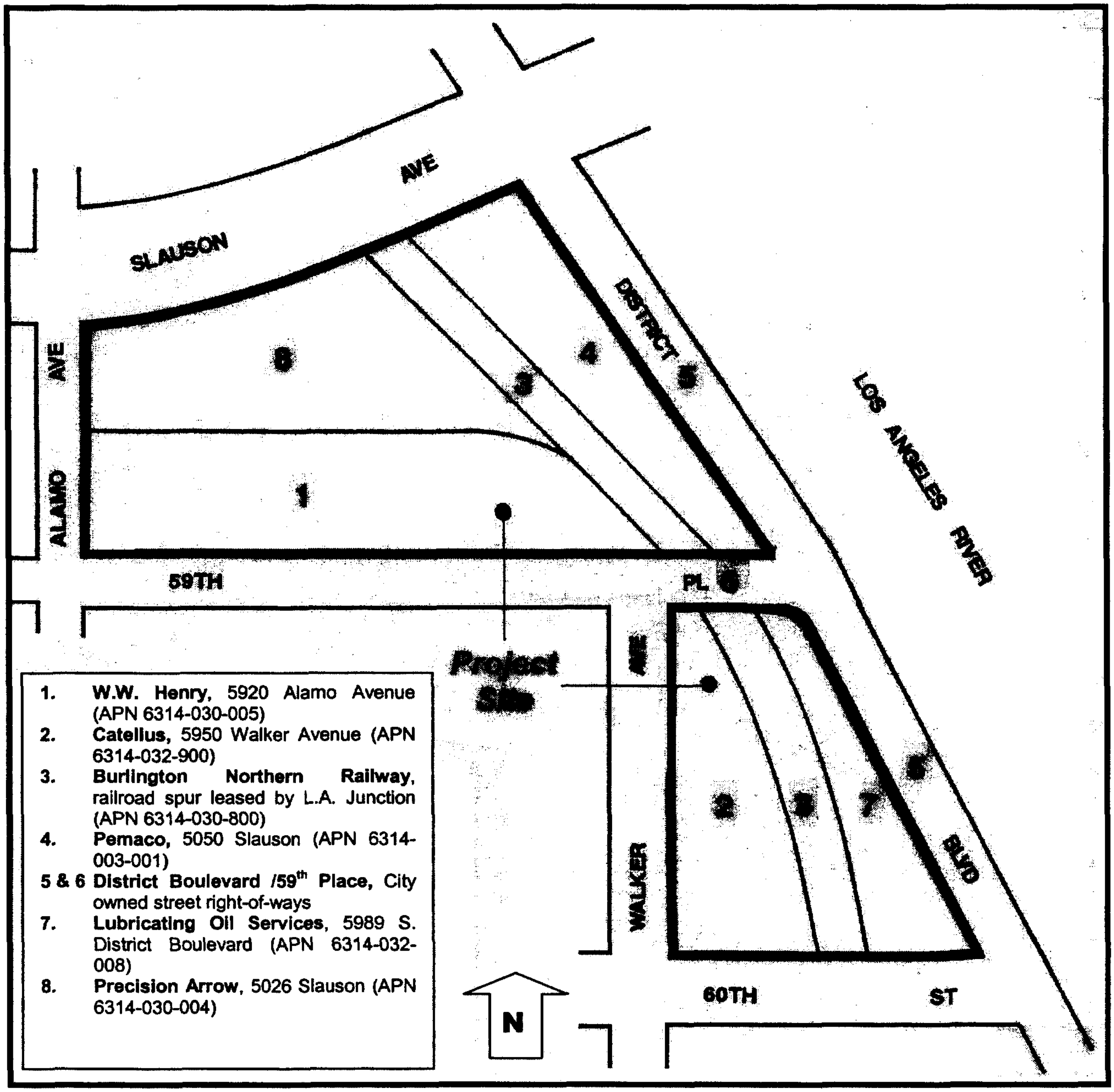
LOCATION IN RELATION TO PROJECT SITE	GENERAL PLAN LAND USE DESIGNATION & CURRENT USE	ZONING
North	City of Vernon - Industrial	Industrial (M)
South	City of Bell - Residential	Multi-Family Residential (R-3)
East	Los Angeles River, Commercial Neighborhood and Commercial	Commercial Neighborhood (CN) and Commercial (C)
West	General Commercial (0.25–0.5 FAR) and Specialty Residential (2-48 du/acre, 75-100 persons/acre)	Multi-Family Residential (R-3)

The proposed project would include a lake, a bridge, a gazebo, trails, lawn and picnic areas, a basketball court and a soccer field. Field lighting would be provided for evening use of the park, however, the lights would be required to be turned off at 10 p.m. Development of the park project would include construction of foundations, restroom facilities, retaining walls, landscaping, sidewalks, bicycle paths, driveways and parking lot surfacing. A total of 55 parking spaces would be provided for park users; 25 spaces would be located on the southern border on 59th Pace, and 30 off-street spaces would be located at the northwest corner of Alamo Avenue and Slauson Avenue.

The project would involve relocation of overhead utility lines and demolition of one industrial building. The site would be graded and backfilled up to the existing concrete wall located along the eastern border of the project site, which acts as a barrier between District Boulevard and the Los Angeles River. Playing fields and the parking lot for the park are proposed for the western portion of the project, which is level.

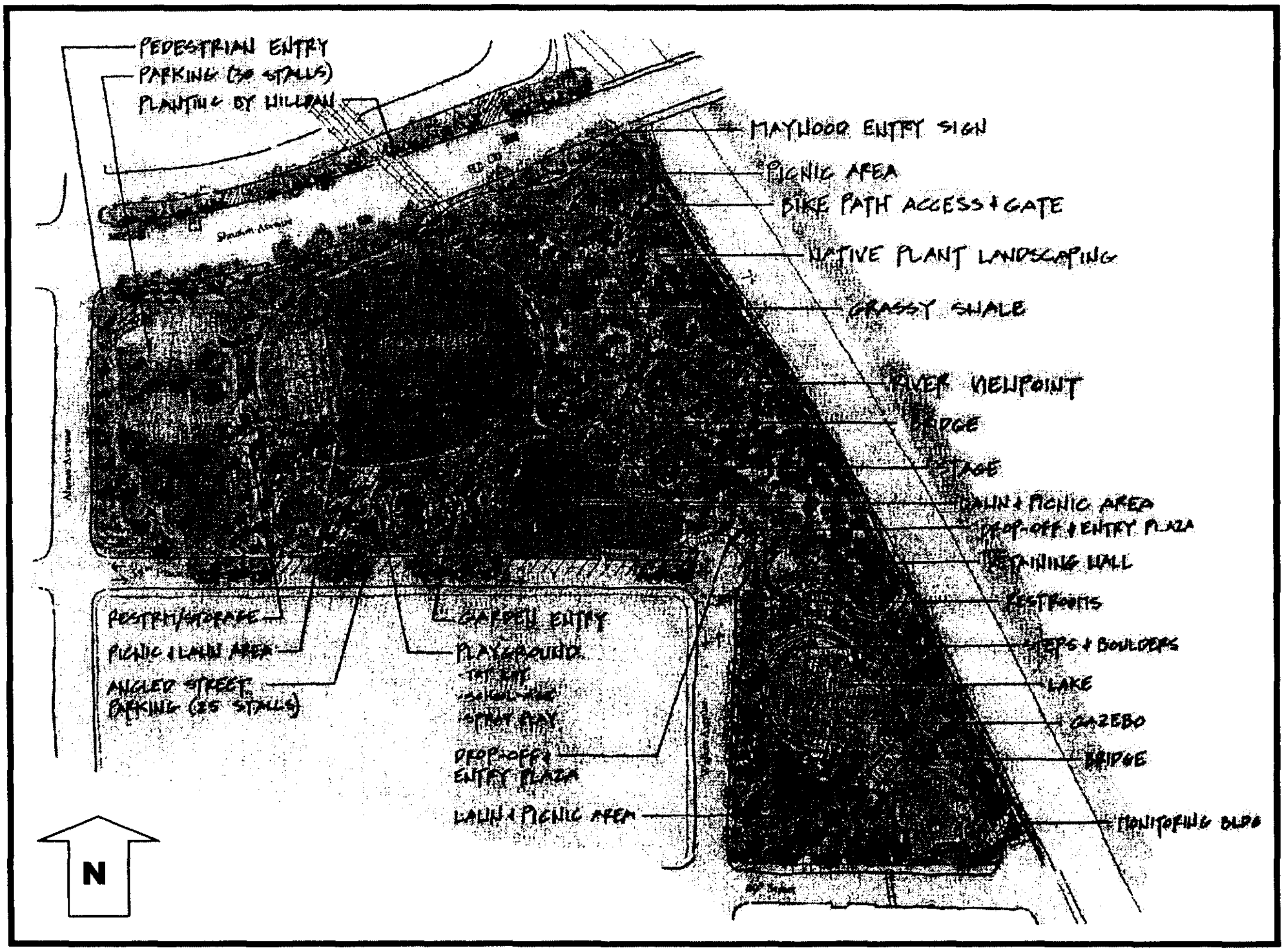
A groundwater treatment facility and other site remediation equipment for the industrial parcels are proposed to be installed at the southeast corner of the site and will operate for a period of 20 years or until the site is adequately remediated.

FIGURE 3 – Existing Parcels



City of Maywood
Notice of Preparation of a Draft Environmental Impact Report
For the Riverfront Park Project

FIGURE 4- Maywood Riverfront Park Site Plan



PROBABLY ENVIRONMENTAL EFFECTS:

The EIR will address the following environmental issue areas:

■ Aesthetics	☐ Agriculture Resources	■ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
■ Hazards & Hazardous Materials	■ Hydrology / Water Quality	■ Land Use / Planning
☐ Mineral Resources	■ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	■ Transportation / Traffic
☐ Utilities / Service Systems	■ Mandatory Findings of Significance	

After the Draft EIR has been prepared, the Planning Commission will hold one or more public hearings on the EIR and on the project. There will also be two community meetings – a scoping meeting and a final meeting. Notices of the availability of the Draft EIR and of the hearings on the project will be provided at a later date. The case file on this project, which includes the concept plans, is available for public review at the Planning Department, City of Maywood, 4319 E. Slauson Avenue, Maywood, CA 90270, and at the Maywood Public Library located at 4323 E. Slauson Avenue, Maywood 90270. The library telephone number is (323) 771-8600. Copies of the checklist of initial environmental issues (Initial Study) to be addressed by the EIR are also available in the Planning Department. If there are any questions regarding this notice, please contact Julia Gonzalez at (323) 562-5722.

A list of agencies and persons receiving this notice is attached as **Table 2**:

APPENDIX B

COMMENTS ON INITIAL STUDY

AND

NOTICE OF PREPARATION

Department of Toxic Substances Control

Edwin F. Lowry, Director
1011 N. Grandview Avenue
Glendale, California 91201

/inston H. Hickox
gency Secretary
alifornia Environmental
rotection Agency

Gray Davis
Governor

May 30, 2002

Ms. Julia Gonzalez
City of Maywood
4319 East Slauson Avenue
Maywood, California 90270

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF MAYWOOD RIVERFRONT PARK PROJECT (PROJECT)

Dear Ms Gonzalez. :

The Department of Toxic Substances Control (DTSC) has received your Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) for the above mentioned Project. The Initial Study was not attached to the NOP.

Based on the review of the document, the DTSC comments are as follows:

1) The draft EIR needs to identify and determine whether current or historic uses at the Project site have resulted in any release of hazardous wastes/substances at the Project area.

2) The draft EIR needs to identify any known or potentially contaminated site within the proposed Project area. For all identified sites, the draft EIR needs to evaluate whether conditions at the site pose a threat to human health or the environment.

3) The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and which government agency will provide appropriate regulatory oversight.

4) If during construction of the project, soil contamination is suspected, construction in the area should stop and appropriate Health and Safety procedures should be implemented. If it is determined that contaminated soil exists, the draft EIR should identify how any required investigation and/or remediation will be conducted, and which government agency will provide appropriate regulatory oversight.

DTSC provides guidance for Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP please visit DTSC's web site at www.dtsc.ca.gov. If you would like to meet and discuss this matter further please contact Mr. Michel Iskarous, Project Manager, at (818) 551-2857 or me, at (818) 551-2877.

Sincerely,

Harlan R. Jeche

Harlan R. Jeche
Unit Chief
Southern California Cleanup Operations Branch - Glendale Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

YEKES

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, REGIONAL PLANNING
IGR/CEQA BRANCH
120 SO. SPRING ST.
LOS ANGELES, CA 90012
PHONE (213) 897-6536
FAX (213) 897-1337

Flex your power!
Be energy efficient!

Ms. Julia Gonzalez
Planning Department
City of Maywood
4319 E. Slauson Ave.
Maywood, CA. 90270

RE: IGR/CEQA# 020605NY
Notice of Preparation
Riverfront Park Project
SCH#2002051146
LA/710/21.92

June 6, 2002

Dear Ms. Gonzalez:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for Riverfront Park Project.

Based on the information received, and to assist us in our efforts to completely evaluate and assess the impacts of this project on the State transportation system, a traffic study in advance of the DEIR should be prepared to analyze the following information:

1. Assumptions and methods used to develop trip generation/distribution, percentages and assignments.

2. An analysis of ADT, AM, and PM peak-hour volumes for both the existing and future conditions. This should include Freeway 710 crossroads, and controlling intersections.

3. This analysis should include project traffic, cumulative traffic generated for all approved developments in the area, Interchange Utilization (I.C.U.) and Level of Service (LOS) of affected freeway ramp intersections on the State Highway indicating existing + project(s) + other projects LOS (existing and future).

4. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:
    - o financing
    - o scheduling considerations
    - o implementation responsibilities
    - o monitoring plan

5. Developer's percent share of the cost, as well as a plan of realistic mitigation measures under the control of the developer should be addressed. Any assessment fees for mitigation should be of such proportion as to cover mainline highway deficiencies that occur as a result of the additional traffic generated by the project.

We look forward to reviewing the DEIR. We expect to receive a copy from the State Clearinghouse. However, to expedite the review process, you may send two copies in advance to the undersigned at the following address:

Stephen Buswell
IGR/CEQA Branch Chief
Caltrans District 07
Regional Transportation Planning Office
120 S. Spring St., Los Angeles, CA 90012

If you have any questions, please call Mr. Yerjanian at (213) 897-6536 and refer to IGR/CEQA # 020605NY.

Sincerely,

STEPHEN J. BUSWELL
IGR/CEQA Branch Chief
Transportation Planning Office

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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

JAMES F. STAHL
Chief Engineer and General Manager

June 12, 2002

File No: 01-00.04-00

Ms. Julia Gonzalez
Assistant Planner
City of Maywood
4319 East Slauson Avenue
Maywood, CA 90270

Dear Ms. Gonzalez:

Riverfront Park

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on May 28, 2002. The proposed development is located within the jurisdictional boundaries of District No. 1. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Wilcox Avenue Trunk Sewer, located in Alamo Avenue at Randolph Street. This 15-inch diameter trunk sewer has a design capacity of 2.1 million gallons per day (mgd) and conveyed a peak flow of 1.2 mgd when last measured in 2001.

2. The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson. The JWPCP has a design capacity of 385 mgd and currently processes an average flow of 320.1 mgd.

3. The expected average wastewater flow from the project site is 1,415 gallons per day.

4. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or **increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected**. This connection fee is required to construct an incremental expansion of the Sewerage System to accommodate the proposed project which will mitigate the impact of this project on the present Sewerage System. Payment of a connection fee will be required before a permit to connect to the sewer is issued. A copy of the Connection Fee Information Sheet is enclosed for your convenience. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

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

If you have any questions, please contact the undersigned at (562) 699-7411, extension 2717.

Very truly yours,

James F. Stahl

Ruth I. Frazen

Ruth I. Frazen
Engineering Technician
Planning & Property Management Section

RIF:eg

Enclosure

INFORMATION SHEET FOR APPLICANTS
PROPOSING TO CONNECT OR INCREASE THEIR DISCHARGE TO
THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY SEWERAGE SYSTEM

THE PROGRAM

The County Sanitation Districts of Los Angeles County are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting to a Sanitation District's sewerage system. Your connection to a City or County sewer constitutes a connection to a Sanitation District's sewerage system as these sewers flow into a Sanitation District's system. The County Sanitation Districts of Los Angeles County provide for the conveyance, treatment, and disposal of your wastewater. **PAYMENT OF A CONNECTION FEE TO THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY WILL BE REQUIRED BEFORE A CITY OR THE COUNTY WILL ISSUE YOU A PERMIT TO CONNECT TO THE SEWER.**

I. WHO IS REQUIRED TO PAY A CONNECTION FEE?

(1) Anyone connecting to the sewerage system for the first time any structure located on a parcel(s) of land within a County Sanitation District of Los Angeles County.

(2) Anyone increasing the quantity of wastewater discharged due to the construction of additional dwelling units on or a change in land usage of a parcel already connected to the sewerage system.

(3) Anyone increasing the improvement square footage of a commercial or institutional parcel by more than 25 percent.

(4) Anyone increasing the quantity and/or strength of wastewater from an industrial parcel.

(5) If you qualify for an Ad Valorem Tax or Demolition Credit, connection fee will be adjusted accordingly.

II. HOW ARE THE CONNECTION FEES USED?

The connection fees are used to provide additional conveyance, treatment, and disposal facilities (capital facilities) which are made necessary by new users connecting to a Sanitation District's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program insures that all users pay their fair share for any necessary expansion of the system.

III. HOW MUCH IS MY CONNECTION FEE?

Your connection fee can be determined from the Connection Fee Schedule specific to the Sanitation District in which your parcel(s) to be connected is located. A Sanitation District boundary map is attached to each corresponding Sanitation District Connection Fee Schedule. Your City or County sewer permitting office has copies of the Connection Fee Schedule(s) and Sanitation District boundary map(s) for your parcel(s). If you require verification of the Sanitation District in which your parcel is located, please call the Sanitation Districts' information number listed under Item IX below.

IV. WHAT FORMS ARE REQUIRED*?

The Connection Fee application package consists of the following:

(1) Information Sheet for Applicants (this form)
(2) Application for Sewer Connection
(3) Connection Fee Schedule with Sanitation District Map (one schedule for each Sanitation District)

*Additional forms are required for Industrial Dischargers

V. WHAT DO I NEED TO FILE?

(1) Completed Application Form
(2) A complete set of architectural blueprints (not required for connecting one single family home)
(3) Fee Payment (checks payable to: County Sanitation Districts of Los Angeles County)
(4) Industrial applicants must file additional forms and follow the procedures as outlined in the application instructions

VI. WHERE DO I SUBMIT THE FORMS?

Residential, Commercial, and Institutional applicants should submit the above listed materials either by mail or in person to:

County Sanitation Districts of Los Angeles County
Connection Fee Program, Room 130
1955 Workman Mill Road
Whittier, CA 90601

Industrial applicants should submit the appropriate materials directly to the City or County office which will issue the sewer connection permit.

VII. HOW LONG DOES IT TAKE TO PROCESS MY APPLICATION?

Applications submitted by mail are generally processed and mailed within three working days of receipt. Applications brought in person are processed on the same day provided the application, supporting materials, and fee are satisfactory. Processing of large and/or complex projects may take longer.

VIII. HOW DO I OBTAIN MY SEWER PERMIT TO CONNECT?

An approved Application for Sewer Connection will be returned to the applicant after all necessary documents for processing have been submitted. Present this approved-stamped copy to the City or County Office issuing sewer connection permits for your area at the time you apply for actual sewer hookup.

IX. HOW CAN I GET ADDITIONAL INFORMATION?

If you require assistance or need additional information, please call the County Sanitation Districts of Los Angeles County at (562) 699-7411, extension 2727.

X. WHAT ARE THE DISTRICTS' WORKING HOURS?

The Districts' offices are open between the hours of 7:00 a.m. and 4:00 p.m., Monday through Thursday, and between the hours of 7:00 a.m. and 3:00 p.m. on Friday, except holidays. When applying in person, applicants must be at the Connection Fee counter at least 30 minutes before closing time.

Winston H. Hickox
Secretary for Environmental Protection

California Regional Water Quality Control Board
Los Angeles Region
Over 50 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

July 3, 2002

Ms. Julia Gonzalez, Assistant Planner
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

SUBJECT: MAYWOOD RIVERFRONT PARK, INITIAL STUDY, ENVIRONMENTAL CHECKLIST (SLIC No. 811)

Dear Ms. Gonzalez:

We appreciate the opportunity to review the "INITIAL STUDY, ENVIRONMENTAL CHECKLIST" for the proposed "MAYWOOD RIVERFRONT PARK" project. Based on the information included in the initial study, we have the following comments:

1. To eliminate or minimize the impacts of the known soil contamination to human health and groundwater resources, additional soil remediation at a portion of the former W.W. Henry site, a parcel within the proposed MAYWOOD RIVERFRONT PARK, will be required before the park construction. Please update on the progress of the soil remediation at the former W.W. Henry site.

2. Pursuant to the Federal Clean Water Act and the State Water Resources Control Board Order No. 99-08-DWQ, projects disturbing five or more acres of land by any type of construction activity must be covered by the General Storm Water Permit. Since the proposed project is a 7.3-acre park, you are required to obtain the appropriate coverage under the General Construction Storm Water Permit through the State Water Resources Control Board prior to starting the proposed construction activities. Please contact the State Water Resources Control Board, Storm Water Permit Unit, for details of the requirements

Should you have any questions regarding this response, please contact me at (213) 576-6733 or Ms. Su Han at (213) 576-6735.

Sincerely,

Rebecca Chou

Rebecca Chou, Ph.D., P.E.
Chief, Site Cleanup I Unit

Cc: Storm Water Permit Unit, Division of Water Quality, State Water Resources Control Board
W. Michael Crouch, W. W. Henry/Ardex, Inc.
Elizabeth B. Davis, Womble Carlyle Sandridge and Rice, Atlanta

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
www.ladpw.org

JAMES A. NOYES, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE REFER TO FILE: WM-5

July 8, 2002

Ms. Julia Gonzalez
City of Maywood
4319 East Slauson Avenue
Maywood, CA 90270

Dear Ms. Gonzalez:

CITY OF MAYWOOD RIVERFRONT PARK
NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

We have reviewed the Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the proposed City of Maywood Riverfront Park from a watershed management perspective. We understand that the City is proposing to develop a 7.3-acre park in the vicinity of the Los Angeles River at Slauson Avenue and District Boulevard. Public Works supports the project, as it is consistent with the Los Angeles River Master Plan, but recommends that the probable environmental effects be addressed accordingly.

As you may know, Public Works is leading the implementation of the Los Angeles River Master Plan which identifies opportunities for aesthetic, recreational, and environmental resource enhancements along the Los Angeles River and Tujunga Wash. The proposed project would further implement the Master Plan goals, which require proposed projects to assure adequate flood protection while revitalizing the river.

However, Public Works is concerned with any adverse impacts to the Los Angeles River. Thus, for the DEIR, we recommend that Best Management Practices be identified for mitigation of potential stormwater runoff contamination. We encourage that the project integrate watershed management elements such as porous pavement along walking paths. Watershed management features could also be proposed to retain and treat stormwater on site, and thereby reduce stormwater in the river. As part of the park operations, methods such as mulching, recycling, and composting could be utilized. In addition, the project should comply with SUSMP requirements, as set forth by the Regional Water Quality Control Board.

Public Works is committed to protecting the community and the environment and we look forward to reviewing the DEIR. Please send five copies of the DEIR to our agency when ready so that, we may coordinate a rapid comprehensive review of your project. If you have any questions, please contact Ms. Maria Lopez at (626) 458-4342 or via e-mail at marlopez@ladpw.org.

Very truly yours,

JAMES A. NOYES
Director of Public Works

Rod Kub

ROD H. KUBOMOTO
Assistant Deputy Director
Watershed Management Division

ML:sv
P:\WMPUB\LAR Watershed\Maria\NOPmaywood.wpd

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
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Over 50 Years Serving Coastal Los Angeles and Ventura Counties
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320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

July 24, 2002

Mr. W. Michael Crouch
Executive Vice President
W. W. Henry/Ardex, Inc.
400 Ardex Park Drive
Aliquippa, PA 15001

WORKPLAN FOR ADDITIONAL INVESTIGATION OF THE FLOATING PRODUCT PLUME – FORMER W. W. HENRY SITE, 5920 ALAMO AVENUE, MAYWOOD, CALIFORNIA (CLEANUP AND ABATEMENT ORDER [CAO] NO. 01-046, SLIC NO. 811)

Dear Mr. Crouch:

Los Angeles Regional Water Quality Control Board (Regional Board) staff have reviewed the June 18, 2002, "Workplan for Additional Investigation of the Floating Product Plume" (Workplan), prepared by your consultant, LFR Levine·Fricke (LFR), for the referenced site. The Workplan presents the scope of work to evaluate the effectiveness of the existing on-site vapor extraction system (VES) in removing floating product from the site. Based on our review of the information submitted, we concur with your Workplan, provided the following requirements are met:

1. In addition to the volatile organic compounds (VOCs) normally reported by the laboratory, please add hexane to the VOCs reporting list for all soil and groundwater samples collected from the site.

2. A minimum of four additional groundwater monitoring wells shall be installed at appropriate locations, in the vicinity of existing wells MW-5 and MW-6, to define and monitor the extent of toluene contaminated groundwater. All new and existing wells shall be sampled in accordance with the current groundwater monitoring program specified in Cleanup and Abatement Order (CAO) No. 01-046 for the site.

Regional Board staff also reviewed the following three reports submitted to the Regional Board:

- Addendum to Soil, Soil Gas, Groundwater and Ambient Air Evaluation, Former W.W. Henry Property, 5920 Alamo Avenue, Maywood, California, dated November 1, 2001, prepared by LFR.

- Vapor Extraction System (VES) Quarterly Operation and Maintenance Report at Former W.W. Henry Site Located at 5920 Alamo Avenue, Maywood, California, dated February 14, 2002, prepared by PSI.

- Quarterly Groundwater Monitoring Report for the First Quarterly of 2002, Former W.W. Henry Property, 5920 Alamo Avenue, Maywood, California, dated June 18, 2002, prepared by LFR.

Based on the information included in these reports, we have the following requirements:

1. Quarterly progress reports for both the VES and the groundwater monitoring shall be submitted in according to the schedule specified in CAO No. 01-046. Should you fail to submit the required technical reports by specified due dates, or comply with any provision of CAO No. 01-046, you may be subject to further enforcement action, including injunction and civil monetary remedies.

2. In the Regional Board November 27, 2001 letter addressed to you, Regional Board staff approved a VES workplan to remediate VOCs contaminated soil located in the west portion of the site. To eliminate or minimize the impacts of the known soil contamination to human health and groundwater resources, soil remediation must be conducted prior to the proposed MAYWOOD RIVERFRONT PARK construction at the site. Since two vapor extraction wells have been installed within the contaminated area, you are required to start the VES for the west portion of the site by **August 26, 2002**. Results of the additional soil remediation at the west portion of the site shall be included in the quarterly progress report submitted to the Regional Board for review and evaluation.

Should you have any questions regarding this response, please contact Dr. Rebecca Chou at (213) 576-6733 or Ms. Su Han at (213) 576-6735.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Ms. Rose Marie Caraway, U.S. Environmental Protection Agency, San Francisco
Ms. Julia Gonzalez, Building and Planning Department, City of Maywood
Mr. Frederick L. Tolhurst, Cohen & Grigsby
Ms. Elizabeth B. Davis, Womble Carlyle Sandridge and Rice
Mr. Gero VonDehn, GD Engineering
Mr. Martin Hamann, LFR Levine·Fricke
Mr. Nick Norocea, Professional Service Industries, Inc.

APPENDIX C
AIR QUALITY IMPACT ANALYSIS

AIR QUALITY IMPACT ANALYSIS

MAYWOOD RIVERFRONT PARK

CITY OF MAYWOOD, CALIFORNIA

Prepared for:

Willdan Associates
Attn: Gabriel Elliott
13191 Crossroads Pkwy., #405
Industry, CA 91746

Date:

July 29, 2002

AIR QUALITY

a.) Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project is deemed inconsistent with air quality plans if it will result in population and/or employment growth that exceed growth estimates included in the applicable air quality plan. Therefore, proposed projects need to be evaluated to determine whether they will generate population and employment growth and, if so, whether that growth will exceed the growth rates included in the relevant air plans.

The proposed project is designed to serve the local community. The park will primarily serve the residents of Maywood. Park visitors may also come from nearby surrounding communities from Vernon, Bell, Cudahy or Huntington Park. The project would meet recreational demand in an underserved community/area close to the source of the demand. It would allow access by walking, bicycling or other non -vehicular sources. The project is consistent with vehicle mile travel/vehicle trip (VMT/VT) reduction goals of the air quality plan. The proposed project would not conflict with, or obstruct implementation of the South Coast Air Basin Air Quality Management Plan.

Mitigation Measure(s)

None

b.) Would the project violate any air quality standard or contribute substantially to existing or projected air quality violation?

The project site is located within the South Coast Air Basin (SCAB). Air quality conditions in the SCAB are regulate d by SCAQMD. The SCAB region has been designated by the US Environmental Protection Agency as non-attainment with respect to meeting ambient air quality standards for several air pollutants, including carbon monoxide, PM-10, and ozone.

Air Quality Standards

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the basin, and its meteorological conditions. During several times of the year, the SCAB experiences poor atmospheric mixing conditions and light winds which are conducive to the accumulation of air pollutants and thus poor air quality.

Air quality is measured by comparing contaminant levels in ambient air samples to national and state standards. These standards are set by the U.S. Environmental Protection Agency and the California Air Resources Board at levels determined to be protective of public health and welfare with an adequate margin of safety. The federal Clean Air Act of 1970 first authorized national ambient air quality standards. California ambient air quality standards were authorized by the State legislature in 1967. The California Ambient Air Quality Standards (CAAQS) describe adverse conditions; that is, pollution levels must be below these standards before a Basin can attain the standard. National Ambient Air Quality Standards (NAAQS) describe acceptable conditions. Air quality is considered in "attainment" if pollutant levels are below or equal to the standards continuously and exceed them on average no more than once each year (NAAQS). California standards are generally more stringent than the national standards and are never to be exceeded.

Air quality standards specify the upper limits of concentrations and duration in the ambient air consistent with the management goal of preventing specific harmful effects. There are national and state standards for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO2), airborne particulate matter with an aerodynamic diameter of less than 10 microns (PM-10), sulfur dioxide (SO_2) and lead (Pb). A federal standard for ultra -fine particulate matter (2.5 microns in diameter or less, called "PM-2.5") was adopted in 1997. Since the California 24-hour PM-10 standard, which includes PM-2.5 as a sub -set, is more stringent than the federal PM -2.5 standard, compliance with the state PM-10 standard is presumed to assure compliance with the federal 24 -hour PM -2.5 standard automatically. These are "criteria pollutants." The SCAQMD also measures for compliance with two ot her state standards: sulfate and visibility. In addition, California has set standards for hydrogen sulfide and vinyl chloride, but these latter pollutants are not measured at any SCAQMD monitoring stations because they are not considered to be a problem in the SCAB. Table 1 presents the Federal and State Ambient Air Quality Standards.

Both the federal government through the Clean Air Act and the State of California (through the California Clean Air Act) require the development of comprehensive plans for the attainment of air quality standards. These plans specify timeframes and emission control measures necessary for attainment of air quality standards for those pollutants that exceed the applicable air standards. As mentioned earlier, the SCAB has been designated as a non-attainment

Table 1

area for ozone, CO, and PM -10. Any proposed project must demonstrate that its construction and operational impacts on air quality will not conflict with or obstruct implementation of the applicable air quality control plan which in this case is the Air Quality Management Plan developed by the SCAQMD.

Existing Air Quality Conditions

Existing levels of ambient air quality and historical trends in the Maywood area are well documented by measurements made by SCAQMD at both its Central Los Angeles and/or Pico Rivera air monitoring stations. Air quality patterns at both monitoring sites are very similar such that the downtown Los Angeles site was used to characterize baseline air quality. Monitored air pollutants at this site include ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x) (as SO_2), sulfates, lead, and PM-10 particulates.

Air quality trends developed at the Central Los Angeles monitoring station for the past 3 years are presented below in Table 2. As seen from Table 2, air quality standards have been exceeded in the Central Los Angeles air monitoring station area for particulate matter (PM-10) and ozone. This is consistent with the entire SCAB's classification as non -attainment for PM -10 and ozone. Non-attainment in the South Coast Air Basin is a result of numerous factors, including meteorological and geographic features, population density, industrial factors, and age of automobiles in use in the area.

Project Impacts

Thresholds of Significance

Project-related air emissions will have a significant effect on ambient air quality if they result in concentrations that create either a violation of an ambient air quality standard (as identified in Table 1) or contribute to an existing air quality violation. Should ambient air quality already exceed existing standards, the SCAQMD has established specific significance threshold criteria to account for the continued degradation of local air quality. Table 3 outlines these thresholds to consider project impacts on existing local air quality violations.

Table 2. Ambient Air Quality Monitoring Data from the SCAQMD Central Los Angeles Monitoring Station

Pollutant/Standards	2000	1999	1998
Carbon Monoxide (CO)			
Max. 8-hour Conc. (ppm)	6.0	6.3	6.1
Max. 1-hour Conc. (ppm)	7	7	8
Days Exceeding:			
NAAQS (8-hour) > 9.5 ppm	0	0	0
NAAQS (1-hour) > 35 ppm	0	0	0
CAAQS (8-hour) > 9.0 ppm	0	0	0
CAAQS (1-hour) > 20 ppm	0	0	0
Nitrogen Dioxide (NO_2)			
Max. 1-hour Conc. (ppm)	0.16	0.21	0.17
Annual Average (ppm)	0.0404	0.0391	0.0398
Days Exceeding:			
CAAQS (1-hour) >0.25 ppm	0	0	0
Annual Avg. > 0.053	No	No	No
Particulate Matter (PM-10)			
Maximum 24-hr Conc. ($\mu g/m^3$)	80.	88.	80.
Avg. Geometric Mean ($\mu g/m^3$)	40.0	44.8	37.4
Percent Exceeding:			
CAAQS (24-hr) > $50 \mu g/m^3$	25.	33.	17.
NAAQS (24-hr) > $150 \mu g/m^3$	0	0	0
Ozone (O_3)			
Maximum 1-hr. Conc. (ppm)	0.14	0.13	0.15
Day Exceeding:			
NAAQS (1-hour) >0.12 ppm	1	1	5
CAAQS (1-hour) >0.09 ppm	8	13	17

Source: SCAQMD Air Quality Summaries for the Central Los Angeles monitoring station   ND=no data

Table 3. Allowable Change in Ambient Air Concentrations

Air Pollutant	Averaging Time	Air Pollutant Concentration
Carbon Monoxide (CO)	8 Hours	0.45 ppm
	1 Hour	1.0 ppm
Nitrogen Dioxide (NO_2)	Annual	0.0005 ppm
	1 Hour	0.01 ppm
Particulates (PM-10)	Annual	1 $\mu g/m^3$
	24 Hour	2.5 $\mu g/m^3$

Source: SCAQMD, Rule 1303, Table A-2

Some pollutants require additional transformations to reach their most unhealthful state. This process may require a number of hours to be completed. Individual project impacts will have been diluted to immeasurably small levels by the time the process is completed. For such pollutants, the SCAQMD has established significance thresholds to assess the impact on regional air quality. Table 4 below presents the allowable contaminant generation rates at which construction and operational emissions are considered to have a significant effect on air quality throughout the SCAB. The SCAQMD CEQA Air Quality Handbook recommends assessing emissions of reactive organic gases (ROG) as an indicator of O_3.

Table 4. SCAQMD Construction and Operation Emissions Thresholds

	CONSTRUCTION PHASE		OPER. PHASE
Air Pollutant	**(lbs/day)**	**(tons/qtr.)**	**(lbs/day)**
Reactive Organic Gases (ROG)	75	250	55
Carbon Monoxide (CO)	550	24.75	550
Nitrogen Oxides (NO_x)	100	2.50	55
Sulfur Oxides (SO_x)	150	6.75	150
Particulates (PM-10)	150	6.75	150

Source: SCAQMD, CEQA Air Quality Handbook, 1993

Methodology

Operational air emissions from this project were calculated using the URBEMIS 2001 emissions model approved by the California Air Resources Board. The URBEMIS 2001 model uses EMFAC7G emission factors for vehicular traffic and includes emissions factors for typical construction equipment.

The calculated emissions from the project were compared to thresholds of significance for individual projects using the SCAQMD CEQA Air Quality Handbook shown in Tables 3 and 4 above to assess the significance of the project's emissions.

Short-Term Construction Impacts

Construction activities for the proposed project would result in the generation of air pollutants and resulting short-term impacts on ambient air quality in the area. Temporary construction emissions would result directly from demolition, grading and site preparation activities, asphalt paving, and building placement activities, and indirectly from construction equipment emissions and construction worker commuting patterns. Pollut ant emissions will vary from day to day depending on the level of activity, the specific operations, and the prevailing weather. It is anticipated that construction activities would continue for approximately 12 months.

The process of calculating construction emissions involves subdividing the construction activities into distinct phases such as demolition, site clearing, site excavation, paving, and architectural coating activities. Emissions are then calculated separately for each distinct activity as a ppropriate using the URBEMIS 2001 model.

Demolition would occur before any grading and site preparation activities. Demolished materials would be exported off site to a nearby landfill. Actual construction phase emissions would result from direct material handling and heavy equipment operations. Due to the use of heavy construction equipment, and its associated dust-generating potential, it is anticipated that the demolition and site preparation activities will result in the highest daily contaminant generation. Construction emission estimates for the proposed project are presented in Table 5.

Table 5. Estimated Maximum Construction Emissions (Unmitigated)

Air Pollutant	lbs/day	Threshold Exceeded?	Ton/qtr.	Threshold Exceeded?
ROG	46	No	0.7	No
NO_x	94	No	2.2	No
PM-10	24	No	0.5	No

Note: CO emission factors were not available. However, CO emissions are expected to be less than the significant thresholds.

As shown in Table 5 above, estimated emissions are less than the SCAQMD significance emission thresholds. Therefore, the emissions from the construction operations are not considered significant and no mitigation measures are required for this project. The maximum daily emissions by construction activity are provided in Table 6.

Table 6. Estimated Maximum Daily Construction Emissions

Activity	ROG (lbs/day)	NOx (lbs/day)	PM-10 (lbs/day)
Demolition	4.1	55.2	10.5
Site Clearing	6.0	94.3	24.2
Site Excavation	5.6	88.6	23.7
Architectural Coatings	46.3	0.0	0.0
Asphalt Offgassing	0.6	7.0	0.4
Stationary	1.0	0.8	0.0
Mobile	0.4	0.1	0.0

Demolition will entail the removal of industrial buildings and possible sub -surface contamination. Older structures likely contain asbestos and other harmful building materials. Prior to any demolition activities, results from the completed Phase I hazards analysis will be used to conduct a Phas e II analysis to identify/quantify the nature and amount of such materials, and to develop a specific remediation plan based upon the results of the analysis. All remediation must comply with SCAQMD regulations on the types of controls that must be used to protect both workers and the public.

In addition to regulatory constraints on the remediation process, normal daytime west -to-east winds will also help to minimize impact potential to any sensitive receivers. Normal airflow is from the project site acr oss the river and less sensitive commercial development beyond. The combination of extremely restrictive emissions regulation and favorable meteorology both support a finding that potential airborne hazards transport will have a negligible health impact on nearly sensitive populations.

Operational Impacts

Long-term air quality impacts are those associated with the change in permanent usage of the project site. Two types of air pollutant sources must be considered with respect to the proposed project: stationary and mobile sources.

Stationary Emission Impacts

Stationary sources include emissions from on -site activities and natural gas combustion for heating requirements, as well as emissions at the power plant generating electricity for the project site. Stationary source emissions are not considered to contribute a significant portion of project -related emissions. On-going site remediation may be a source of stationary source emissions. The remediation process will extract very small quantities of contaminants over a 20-year period. The very small amounts of soil contamination will pass through a processing vessel, and the very small amount of unprocessed material will further be diluted by exhaust air. The net public exposure from the turbulently mixed plume of highly dilute exhaust air will be undetectably small. The remediation system must obtain an SCAQMD permit to operate, and the SCAQMD may not issue a permit of the system presents any threat to the health of park users or to nearby residents.

Mobile Source Emission Impacts

The majority of project -related emissions are associated with mobile source activities. Mobile source emissions result from vehicle trips, including park users and maintenance activities. Under typical conditions, the proposed project is estimated to generate approximately 365 trips per day. Existing land uses generate some daily trips. However, since the displaced trips will likely occur elsewhere in Los Angeles, the whole project itself was treated as a "new" proj ect without displaced trip credit as a worst-case assumption. The emissions associated with the long-term operation of the project are shown in Table 7 below. From Table 7, project -related mobile source emissions will not exceed the significance thresholds for criteria pollutants set forth by SCAQMD. Therefore, no impact to regional air quality is anticipated to result from project operations.

Mitigation Measure(s)

None.

c.) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non -attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

The SCAB is designated as a non -attainment area for several pollutants as described above. The project will not create individually significant construction or operational air quality impacts. Park users would drive to other parks outside the local area with greater air emissions if a neighborhood park is not built at/near this site. Therefore, a cumulatively considerable net regional increase of any criteria pollutant will not occur.

Mitigation Measure(s)

None.

Table 7. Operational Stationary and Mobile Source Air Emissions during Major Site Disturbance Activities (lbs/day)

Emission Source	ROG	CO	NOx	PM-10
Landscape Maint. Equip.	0.1	0.7	0.7	0.0
Motor Vehicles	3.9	51.4	4.2	2.3
TOTAL	4.0	52.1	4.9	2.3
SCAQMD Significance Thresholds	55	550	55	150
Exceeds Threshold?	No	No	No	No

Motor vehicle emissions are based on traffic study trip generation rates Willdan (2002) and on EMFAC7G 2001 emission factors.

d.) Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain residents, such as the very young, the elderly, and those suffering from certain illnesses or disabilities, are particularly sensitive to air pollution and are considered "sensitive receptors." Examples of land uses where signi ficant numbers of sensitive receptors are often found are schools, day care centers, parks, recreational areas, medical facilities, and rest homes and convalescent care facilities. The users of the proposed park would be considered sensitive receptors. Land use conflicts can arise when sensitive receptors are located next to major sources of air pollutant emissions.

The major source of project-related pollution affecting sensitive receptors will be (CO) generated by increases in automobile traffic. Ba ckground concentrations within the project vicinity are below the state and federal hour standards. Based on implementation of stricter air quality regulations, CO concentrations are projected to be even lower in the future. Due to the low level of trips generated by the project, CO concentrations are anticipated to be well below the significance thresholds and therefore will not result in a significant air quality impact. The proposed project is not expected to increase overall air emissions. Rather, providing a new park closer to the community it serves will reduce overall commute emissions in the region.

In order to document the absence of any adverse microscale air quality impacts, a screening -level roadway air pollution impact analysis was conducted at the five intersections analyzed in the project traffic study. A screening procedure based upon the California line -source dispersion model CALINE4 was used to calculate the local peak hour CO concentration that is superimposed upon the regional background. The a.m. and p.m. peak hours were evaluated.

Three scenarios were analyzed consistent with project traffic study data as follows: Existing Plus Cumulative Projects, with Maywood Riverpark traffic. Local one-hour CO concentrations at 25 feet from the roadway edge were calculated. In 2000, the maximum one-hour background CO concentration measured by the SCAQMD in downtown Los Angeles was 7 ppm (Table 2). It would require a local

CITY OF MAYWOOD

Microscale Impact Analysis
1-Hour CO Concentrations (ppm)

Intersection	Exist.	+ Other Projects	+ Other + Projects
AM			
Alamo Ave./Slauson Ave.	1.3	1.7	1.7
Alamo Ave./59th Place	0.5	0.5	0.5
Alamo Ave./E 60th St.	0.3	0.3	0.3
Walker Ave. 59th Place	<0.1	<0.1	<0.1
Walker Ave./E 60th St.	<0.1	0.1	0.1
PM			
Alamo Ave./Slauson Ave.	1.4	1.4	1.8
Alamo Ave./59th Place	0.4	0.4	0.4
Alamo Ave./E 60th St.	0.3	0.3	0.3
Walker Ave. 59th Place	0.1	<0.1	0.1
Walker Ave./E 60th St.	0.1	0.1	0.1

Source: CALINE4 Model Screening Procedure contribution exceeding 13 ppm to create a CO "hot spot" exceeding the most stringent one -hour CO standard of 20 ppm if the worst-case background and the worst -case local exposure were to occur simultaneously.

The results of the microscale screening analysis were as follows (one-hour CO exposure in parts-per-million):

Worst-case combined local plus background CO levels would be less than 9 ppm compared to the most stringent one-hour standard of 20 ppm. A one-hour CO increment of 1.0 or less is considered a "de minimis" increase. The maximum one-hour CO increase attributable to project-related traffic is +0.5 ppm. Such an increase will not measurably increase local CO levels, or contribute to any possible localized violation of clean air standards. Project implementation will not expose any sensitive receptors to substantial pollutant concentrations.

Mitigation Measure(s)

None.

e.) Would the project create objectionable odors affecting a substantial number of people?

The proposed project includes the construction of educational and support facilities. No substances would be utilized on site that have the capability to produce offensive odors. Site remediation may remove hydrocarbons in the soil that can generate odors. Odor potential may be reduced due to project implementation. No significant impacts are anticipated.

Mitigation Measure(s)

None.

APPENDIX D
RISK ASSESSMENT ANALYSIS

HEALTH RISK ASSESSMENT
MAYWOOD RIVERFRONT PARK
MAYWOOD, CALIFORNIA

TN & Associates Project No. 2002060
July 19, 2002

Prepared for:

City of Maywood
4319 East Slauson Avenue
Maywood, California 90270

Prepared by:

T N & Associates, Inc.
Engineering and Science

468 East Main Street
Ventura, California 93001
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HEALTH RISK ASSESSMENT
MAYWOOD RIVERFRONT PARK
MAYWOOD, CALIFORNIA

TN & Associates Project No. 2002060
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Prepared for:

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EXECUTIVE SUMMARY

The City of Maywood is proposing to build a 7.3-acre public recreational park in the City of Maywood adjacent to and west of the Los Angeles River just south of East Slauson Avenue (Figure 1). T N & Associates, Inc. (TN&A) has prepared this document to report the results of a site-specific health risk assessment for the proposed Maywood Riverfront Park Property (MRPP). TN&A was contracted by the City of Maywood to evaluate any potential health risks that exist as a result of the interaction of future activities at the proposed recreational park with any contamination that may exist at each of the properties from historical industrial uses.

The MRPP includes several properties located in the City of Maywood (Figure 2). These properties include the former W.W. Henry Property (5920 Alamo Avenue), the former Catellus property (5950 Walker Avenue), the former Pemaco property (5050 East Slauson Avenue), the former Lubricating Oil Services property (5989 South District Boulevard), the Precision Arrow Property (5010 and 5026 East Slauson Avenue), the Los Angeles Junction Railroad Property and portions of 59th Place and District Boulevard (Figure 2).

Environmental activities (sub-surface assessment and remediation) are on-going at the Pemaco and W.W. Henry properties and will likely continue for several years.

The objective of this study is to assess any potential health risks for the future recreational users of the MRPP and the future excavation workers that may work at the MRPP. This health risk assessment was performed to identify areas within the MRPP where residual chemicals in soil from historic property uses could cause potential impact human health.

There have been numerous environmental investigations at each of the properties comprising the MRPP. These investigations have involved sampling of different types of environmental media (soil, soil vapor and groundwater) in areas that were most likely to contain contamination. Samples were analyzed for the presence of various types of constituents depending on the probable source of contamination. Over 2,000 samples have been collected from properties comprising the MRPP.

Numerous environmental reports concerning the individual properties comprising the MRPP were made available to TN&A by the City of Maywood. Data presented in each of these reports were reviewed, along with the data produced by the Remedial Investigation (RI) currently in progress at the Pemaco property (no RI report has been issued yet). The analytical data reviewed were screened for any concentrations that were detected above certain levels that are deemed to be protective of human health by the United States Environmental Protection Agency (USEPA) Region IX. These protective levels are termed preliminary remediation goals (PRGs), and are used as a screening tool. The chemicals and metals that were found to be above the USEPA Region IX PRGs were used to create a list of constituents of potential concern (COPCs).

In addition to soil results, all soil vapor results collected in the MRPP area above 15' bg were screened against the USEPA Region IX PRG for chemical concentrations in ambient air. Volatile organic compounds (VOCs) detected in soil vapor samples at concentrations greater than 100 times the USEPA Region IX PRG for ambient air, were selected as COPCs for the health risk assessment.

While reviewing the environmental documents pertaining to the MRPP, the following data gap areas for shallow soil within the MRPP were identified:

- Stained soil identified on the Catellus property adjacent to the former AST (McClaren, 1989) and drum locations (EKI, 1998) was never removed as recommended in reports. Stained soil was not found in later assessments.

- A "Background" sample of surface soil was collected in the northwest corner of the Catellus property (SSB-2, Figure 7). This sample had a total recoverable petroleum hydrocarbons (TRPH) concentration of 600 mg/kg. This detection was never discussed or evaluated further.

- Three locations (SB-01, SB-02 and SB-03) along the L.A. Junction Railway property were found to have soil contamination. Two of the areas (SB-01 and SB-02) were remediated by excavation, however confirmation samples indicated that residual polychlorinated biphynol (PCB) contamination was found to remain in subsurface soil. Furthermore, no confirmatory samples were collected at the SB-03 location. An environmental assessment is currently underway in these locations.

- Herbicides were likely used (and currently being used) on the L.A. Junction Railway, very limited herbicide testing has taken place along the railway corridor. However, an environmental assessment has recently been completed; preliminary results indicate that no herbicides exist in the shallow soils above regulatory levels.

- Polycyclic Aromatic Hydrocarbons (PAHs) have been identified in surface soils throughout the MRPP, the only properties where a sufficient number of surface samples have been collected and analyzed for PAHs are the Pemaco property and the portion of the L.A. Junction Railway north of 59th Place. The pending L.A. Junction Railway assessment will add to the data set, however the Lubricating Oil Services Property, Catellus Property, District Blvd., Precision Arrow property and portions of the W.W. Henry property have not been sufficiently sampled to assess the extent of the PAH contamination. It is understood that background levels of PAHs exist in surface soils above Region IX PRGs due to the urban setting. The widespread presence of PAH's is not from prior site uses as indicated by the document review.

The identification of these data gaps led to the addition of chlorinated herbicides to the list of COPCs. The COPC list is presented below:

- 1,1,1-Trichloroethane
- 1,1-Dichloroethene
- 2,4,5-T
- 2,4,5-TP (Silvex)
- 2,4-D
- 2,4-DB
- 4-Nitrophenol
- Aroclor-1254
- Aroclor-1260
- Arsenic
- Benzene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Chloroform
- Chrysene
- Dalapon
- DCAA
- Dibenzo(a,h)anthracene
- Dicamba
- Dichloroprop
- Dinoseb
- Indeno(1,2,3-cd)pyrene
- Iron
- Lead
- Manganese
- MCPA
- MCPP
- Naphthalene
- Pentachlorophenol
- Tetrachloroethene
- Trichloroethene

Once this COPC list was created, a site specific preliminary remediation goal (SSPRG) was calculated for each COPC. The calculations used equations that estimate the risk of developing cancer or the hazard of developing other types of health effects (e.g., liver damage, reproductive effects) given the amount of time that an individual is exposed to a certain level of contaminated soil and also given how much contaminated soil the individual touches, eats and/or inhales. This is termed an "exposure characteristic" for a specific "receptor" population scenario. A receptor population scenario is a name for a specific equation that integrates a receptor population with a potential negative health effect. The receptor population scenarios evaluated for the MRPP represent the activities of a park user who is exposed to surface soil and an excavation worker who is exposed to surface and subsurface soil.

For known or suspected carcinogens, the USEPA has indicated that acceptable exposure levels generally represent an excess upper-bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} (1 excess cancer case per 10,000 to 1,000,000 equally exposed individuals). The 10^{-6} level is used as the point of departure for determining SSPRGs (USEPA, 1990). In other words, if a risk calculation is done and the result is that the chances for one additional cancer case to develop from being exposed to a certain contaminant is less than 1 in a million people (say 1 in 10 million people), then that risk is considered negligible. For the MRPP, separate SSPRGs were calculated at both the 10^{-5} and 10^{-6} cancer risk level to provide additional information to the risk managers for the MRPP.

Once the SSPRGs were calculated for each of the COPCs, then all the analytical data for surface, near surface and subsurface soil samples collected at each of the properties were screened for any chemical concentration values in excess of the SSPRGs. There are three groups of chemicals which have concentrations in soil that exceed the SSPRGs for the future park user and future excavation worker: metals, PCBs and PAHs.
The COPCs that were detected over the SSPRGs are as follows:

Metals	Polychlorinated biphenyls (PCBs)	Polycyclic Aromatic Hydrocarbons (PAHs)
Arsenic Iron Lead	Arochlor-1260 Arochlor-1254	Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (k) fluoranthene Chrysene Dibenzo (a,h) anthracene Indeno (1,2,3-cd) pyrene

The elevated metal and PCB concentrations are limited to small areas within the Los Angeles Junction Railway property, and the PAH concentrations exceeding SSPRGs were found ubiquitously throughout the area on all of the properties that were tested.

There are two basic types of protective measures that can be implemented to protect the health of the future park user and excavation worker from known contamination at the MRPP: 1) A remedial action could be performed to remove the contamination from the area thus reducing any possible exposure to the future park user; or, 2) a mitigation plan/institutional control could be implemented that would remove the exposure pathway from the contamination and the future park user or excavation worker.

In general, the most feasible remedial action to remove metals, PCBs and PAHs from shallow soil is to remove the contaminated soil and haul it off to a certified landfill that is permitted to accept such waste. This may be feasible for the areas with elevated PCBs and metals, however, due to the ubiquitous nature of the PAH contamination, it would be cost prohibitive to excavate surficial soil from the entire MRPP area.

The mitigation plan/institutional alternative to protect the health of future park users is to eliminate the exposure pathway between the contaminant and the park user or excavation worker. The exposure pathway for the park user can be eliminated by importing clean fill material to each property and placing a 1-foot thick layer of this clean fill over the areas that exceed the SSPRGs. Representatives of the USEPA, the City of Maywood and TN&A have agreed that a 1-foot thick layer of clean imported fill would be a sufficient "buffer zone" that would eliminate the park user from coming into contact with any potential health risks from the existing surface soil. There are many areas that are considered "data gap" areas due to the likely widespread presence of PAHs. The most cost/time feasible mitigation measure for these areas would be to place this 1-foot thick protective fill layer over the entire site. For the excavation worker, the exposure pathway can be eliminated by having the worker wear personal protection equipment (PPE) that would protect the worker from dermal contact and particle inhalation during the time he or she spend inside of the excavation. This would require an institutional control to be put in place by the City of Maywood that would contain a list of guidelines/procedures for excavation work on the MRPP.

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LIST OF ACRONYMS

AF	adherence factor
ALM	Adult Lead Model
bg	below grade
CalEPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
COC	chemical of concern
COPC	chemical of potential concern
CSM	conceptual site model
ELCR	extra lifetime cancer risk
GSDi	geometric standard deviation
HEAST	Health Effects Assessment Summary Tables
HHSE	Human Health Screening Evaluation
HQ	Hazard Quotient
IEUBK	Integrated Exposure Uptake Biokinetic Model
IRIS	Integrated Risk Information System
LD_{50}	lethal dose beyond which 50% pop^n mortality
mg/kg	micrograms per kilogram
MRPP	Maywood Riverfront Park Project
NOAEL	no-observed-adverse-effect level
OEHHA	Office of Environmental Health Hazard Assessment

LIST OF ACRONYMS (Continued)

PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphynol
PEF	particulate emission factor
PM_{10}	respirable portion of dust
PRG	preliminary remediation goal
RAGS	Risk Assessment Guidance for Superfund (Document)
RfC	reference concentration
RG	remediation goal
RfD	reference dose
RG	remediation goal
RME	reasonable maximum exposure
SA	surface area
SF	slope factor
SSPRG	site specific preliminary remediation goal
SVOC	semivolatile organic compound
TPH	total petroleum hydrocarbon
TRPH	total recoverable petroleum hydrocarbon
USEPA	U.S. Environmental Protection Agency
VF	volatilization factors
VOC	volatile organic compound

1.0 INTRODUCTION

The City of Maywood is proposing to build a 7.3-acre public recreational park in the City of Maywood adjacent to and west of the Los Angeles River just south of East Slauson Avenue (Figure 1). T N & Associates, Inc. (TN&A) has prepared this document to report the results of a site-specific health risk assessment for the proposed Maywood Riverfront Park Property (MRPP). TN&A was contracted by the City of Maywood to evaluate any potential health risks that exist as a result of the interaction of future activities at the proposed recreational park with any contamination that may exist at each of the properties.

The MRPP includes several properties located in the City of Maywood (Figure 2). These properties include the former W.W. Henry Property (5920 Alamo Avenue), the former Catellus property (5950 Walker Avenue), the former Pemaco property (5050 East Slauson Avenue), the former Lubricating Oil Services property (5989 South District Boulevard), the Precision Arrow Property (5010 and 5026 East Slauson Avenue), the Los Angeles Junction Railroad Property and portions of 59th Place and District Boulevard (Figure 2).

Environmental activities (sub-surface assessment and remediation) are on-going at the Pemaco and W.W. Henry properties and will likely continue for several years.

These properties have had historic industrial uses resulting in environmental impacts to soil and groundwater underlying each of these properties. TN&A has been contracted by the City of Maywood to assess if these impacts will result in adverse health effects of future park users and workers.

2.0 OBJECTIVES

The objective of this study is to assess any potential health risks for the future recreational users of the MRPP and for excavation workers that may work at the MRPP in the future. The City of Maywood would like to quantify that the creation of the future park will not add to the baseline health risks of people that come into contact with the park. In order to do this, site-specific preliminary remediation goals (SSPRGs) were calculated for each type of contaminant that is historically known to exist or has the potential to exist at the MRPP.

The risk assessment was performed to identify areas within the MRPP which may have the potential to adversely impact human health. This was done by calculating the SSPRGs and then assessing if any contamination exists at levels above the SSPRGs. Once these areas are identified, then mitigation measures can be implemented to reduce any potential risks. These mitigation measures may include remediation, exposure pathway elimination, institutional controls, or a combination of these.

The SSPRGs that have been calculated for this project should not be construed as clean-up levels; rather, they are screening levels associated with possible health risks.

3.0 TECHNICAL APPROACH TO SITE-SPECIFIC RISK ASSESSMENT EVALUATION

The site-specific risk assessment evaluation was done by first assessing what impacts existed to each of the properties from their historical uses. A review of the site histories and historical environmental investigations at each of the properties was done to generate a list of chemicals that have been detected in soil in significant concentrations during previous investigations. Risk assessment calculations were then performed with each of these chemicals to produce a concentration for each chemical that is protective of human health for future users of the park and also for future excavation workers that may work at the park. Once these concentrations were established, then a screening of all the available data for each property was done to assess what areas of the future park contained soil contamination which poses an unacceptable amount of risk to the future park user and excavation worker

The following list summarizes the course of action described above:

1. Identify a site-specific list of constituents of potential concern (COPCs) for the proposed MRPP using historic industrial property uses and previous environmental assessments.
2. Develop risk-based, SSPRGs for each COPC.
3. Identify areas of the proposed park where soil test results exceed any of the SSPRGs. These exceedences constitute a list of constituents of concern (COCs).
4. Identify areas where there is an indication that COC's may exist, or may exist, but no tests were performed.
5. Work with the City of Maywood, regulatory agencies and the public to develop mitigation measures that address identified areas exceeding SSPRGs.

The following sections describe the methodology and parameters used to complete the site specific risk evaluation.

3.1 Identification of Chemicals of Potential Concern

There have been numerous environmental investigations resulting in the identification of various contaminants at each of the properties comprising the proposed Maywood Riverfront Park. These investigations have involved sampling of different types of environmental media (soil, soil vapor and groundwater) in areas that were most likely to contain contamination. Samples were analyzed for the presence of various types of chemicals and metals depending on the probable source of the contamination. Over 2,000 samples have been collected from properties comprising the future park. Data from these samples were used to create a list of COPCs (Table 3.4.1).

3.2 Individual Properties Background Summaries

The following sections summarize the historical uses and environmental assessments that were performed on the individual properties comprising the MRPP. A summary table for environmental activities at each of the properties is included in each appropriate section. In each of the tables (except for the Pemaco Property), there is a letter grade (A,B,C or D) that pertains to the quality of the analytical data for each of the environmental investigation reports provided to TN&A. The explanation for this grading system and the evaluation reports themselves are provided in Appendix 1. The letter grades are not meant to rate or score the environmental condition of the property.

3.2.1 Pemaco Property (5050 East Slauson Avenue)

The 1.4-acre Pemaco property (Figure 2) was used as a chemical blending facility and chemical distributor from the 1950's until 1991 when it became inactive (E&E, 1998). No other use of the property is documented. Large quantities of chemicals were stored in 55-gallon drums, aboveground storage tanks (ASTs) and in thirty-one, 500 to 20,000 gallon underground storage tanks (USTs). A wide variety of chemicals were used on-site including chlorinated and aromatic solvents, flammable liquids, oils and specialty chemicals. Most of the chemicals brought to the site were delivered via railcar from a rail spur that branched out from the LA Junction Railway property west of the site (Figure 2). Currently the site is empty except for a temporary office trailer and sampling supply storage container.

Elevated levels of the following chemicals have been found in soils and groundwater underlying the former Pemaco facility: acetone, 4-methyl-2-pentanone , benzene, ethylbenzene, toluene, xylene, methylene chloride, 2-butanone, paraldehyde, trichloroethene (TCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene, and 1,1-dichloroethane.

Numerous soil and groundwater investigations have been completed at the property to assess the extent of contamination at the Pemaco site and surrounding area. The first soil assessment of the property was completed in 1990 by the Pemaco facility owner. The owner abandoned the site sometime after 1990 and environmental activities at the site became the responsibility of the USEPA under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The property was placed on the USEPA's National Priorities List (NPL) as a Superfund site in 1999 after additional assessments were completed and subsurface contamination was further identified. Environmental cleanup activities are on-going at the site and likely will continue for several years into the future.

Table 3.2.1 is a summary of historical environmental activities and Figure 3 illustrates the sampling locations completed for the Remedial Investigation (RI) that was completed from January 2001 through December 2001. Additional surface and near surface sampling locations are illustrated in Figure 4. The data produced from the RI activities are the only data used for this risk assessment due to their superior quality as compared to data from previous assessments at the property.

3.2.2 W.W. Henry Property (5920 Alamo Avenue)

The 1.5-acre W.W. Henry property was used for industrial manufacturing from the 1940's up until 1997. It was used for the manufacturing of batteries, cosmetics and more recently adhesive products used for various construction applications such as floor tile and roofing (Cornerstone, 1998). The W.W. Henry company, an adhesives manufacturer, occupied the property from approximately 1980 to 1997 (EKI, 1999). The

following chemicals have been used on the property: 1,1,1-TCA, toluene, hexane, naptha, methanol, mineral spirits, acetone, isopropyl alcohol and PCE. These chemicals were stored in above-ground mixing tanks and onsite UST's. These chemicals were delivered to the site via a rail spur that branched off from the L.A. Junction Railway property east of the site. The spur ran along the W.W. Henry property's northern boundary. The property was occupied by one large building which covered the majority of the property, this building was leveled in 2000. Currently, the site is an empty dirt lot with no structures, except for an operating soil vapor extraction system.

Numerous environmental assessments have been conducted at the site. Most notably, there has been a significant amount of free product (toluene/hexane) found to be floating atop the perched groundwater underlying the eastern portion of the site. Also, 1,1,1-TCA and other chlorinated compounds have been found in soil and groundwater in the western portion of the site. In 2001, a soil vapor extraction system was installed at the site to clean-up the contaminated soil and free product in the eastern portion of the site. The system is still in operation and there are plans underway to expand the system to clean-up the 1,1,1-TCA contamination in the western portion of the site.

A summary of the environmental investigations conducted at the site is provided in Table 3.2.2 and Figure 5 illustrates the associated sampling locations. It should be noted that several perched zone monitoring wells are located on the property. Three of these wells (B-30, B-31 and B-39) were installed as a part of the Pemaco RI activities.

3.2.3 Lubricating Oil Services Property (5989 South District Blvd.)

The 0.4-acre Lubricating Oil Services Property (Figure 2) was used for ink manufacturing from 1929 to 1945 and a fireworks warehouse from 1945 to 1957 (EKI, 2001a). The site was reportedly owned by Pemaco, Inc. from 1957 through 1989 and then became occupied by Lubricating Oil Services from 1991 until 1999 when it was used for the re-sale of lubricants for automotive purposes (EKI, 2001a). Two warehouse structures, three AST's and one brick office building occupied the property. The AST's were removed in 2000 and the buildings were leveled in 2001. The site is currently a dirt lot.

Several environmental assessments have been performed at the site. These assessments ultimately led to some shallow remedial excavations and then to site closure by the Los Angeles Regional Water Quality Control Board (LARWQCB). The largest area of soil contamination that was excavated appeared to be contamination from oil in the southwest portion of the site; other small areas that were visually stained were also excavated. Two of the small excavated areas located on the L.A. Junction Railway property (adjacent to the Lubricating Oil Services Property) were found to be contaminated with polychlorinated biphenyls (PCB's), PCE, total petroleum hydrocarbons (TPH) and semivolatile organic compounds (SVOCs). After these two small areas were excavated, confirmatory samples indicated that contamination still existed down to 4' below grade (bg). The excavations were not extended and the contaminated soil was left in place because the areas were not on the Lubricating Oil Services Property.

Table 3.2.3 summarizes the environmental activities that were performed on the site and Figure 6 illustrates the associated sampling locations. It should be noted that two perched zone monitoring wells and one Exposition Aquifer monitoring well are located on the property. These wells were installed as a part of the Pemaco RI activities.

3.2.4 Catellus Property (5201 East 60th Street)

The 0.7-acre Catellus property (Figure 2) was occupied by the Safeway Corporation and used for the manufacturing of bleach and household cleaning products from 1937 until 1990 (EKI, 1998). Several types of chemicals were used at the site. The chemicals were delivered to the site via truck and railcar from a spur branching from the L.A. Junction Railway property, located to the east. The site was occupied with two buildings until 1990 when a fire destroyed the structures. One building was used as an office building and the other larger building housed the manufacturing facility. There were AST's, a drum storage area and a clarifier as part of the manufacturing facility. One large AST was located near the rail spur in the eastern portion of the property. The site is currently a public park with a large grass area and native landscaping.

The assessments have not identified any substantial soil and groundwater contamination resulting from prior site uses. There was some shallow oil-stained soil that was reportedly located near the former AST, however samples from the stained soil indicated that the levels were below clean-up standards for the time. It was recommended that the stained soil be removed, but none of the environmental reports reviewed by TN&A document removal actions.

Table 3.2.4 summarizes the environmental investigations performed at the Catellus property and Figure 7 illustrated the associated sampling locations. Soil gas, soil and groundwater sampling were also performed on the Catellus property as part of the Pemaco RI.

3.2.5 Precision Arrow Property (5010 and 5026 East Slauson Avenue)

The 1.7-acre Precision Arrow property (Figure 2) is currently occupied by two large buildings and the remaining space is asphalted parking lots. One of the buildings is occupied by Genesis Transportation Services (west portion, 5010 East Slauson) and the other building is occupied by Arrow Industries (east portion, 5026 East Slauson). Genesis Transportation uses the building to store metals and other non-hazardous materials and Arrow Industries uses the property to re-package household appliance products as appliance installation kits (EKI, 2001). The property was previously used to warehouse hospital equipment and was used by the W.W. Henry company to store their packaged adhesive products before they were shipped out to the distributors (EKI, 2001b).

There have not been any environmental samples collected on the Arrow property, except for some soil and groundwater samples that were collected in the east portion of the site as part of the Pemaco RI. There is currently a perched groundwater well at this location (B-32, Figure 5). A Phase I site assessment was completed for the property in 2001. Results of the report indicated that no environmental conditions existed at the property according to a records search and a site reconnaissance. The report did state that subsurface contamination existed at the adjacent W.W. Henry and Pemaco properties. Table 3.2.5 summarizes this report.

3.2.6 L.A. Junction Railway Property

The 0.8-acre L.A. Junction railway property bisects the proposed Maywood Riverfront Park from north to south (Figure 2). The property has been historically used as a railway corridor with a main track and several spurs leading to the adjacent properties. The railway is still active, but far less rail traffic exists on it then in the past when more businesses operated in the area. Numerous hazardous materials, including the substances that were delivered to the Pemaco, W.W. Henry, Catellus and Lubricating Oil Services properties have been transported along the railway. The section of the railway located north of 59th Place and south of Slauson Avenue has been thoroughly assessed for environmental contamination during the Pemaco RI. Metals and PAH's were found in surface and near-surface soils along the railway and subsurface contamination from the Pemaco and W.W. Henry properties was also identified underlying the railway property. Figures 3, 4 and 6 illustrate the sampling locations.

In the beginning of July 2002, TN&A performed additional assessment activities along the railway property on behalf of the Trust for Public Land (TPL). Surface and near-surface soil samples, subsurface soil, soil gas and groundwater samples were collected along the railway. The surface soil samples collected in the portion of the railway north of 59th Place were only analyzed for chlorinated herbicides (0.5' and 2.5' bg) due to the previous work done in that area during the Pemaco RI. The surface samples collected along the railway south of 59th Place were analyzed for chlorinated herbicides, SVOC's and metals and the subsurface soils (5' to 30' bg) and groundwater samples were analyzed for VOC's. Also, samples collected in the area along the railway identified as having PCB contamination (EKI, 2001 and Cape, 2001) were analyzed for PCB's.

As of the date of this risk assessment, preliminary results indicate that no concentrations of chlorinated herbicides were found at levels above USEPA Region IX PRGs in the surface soils. PAH's exist in surface samples at levels above USEPA PRGs. This contamination appears to be anthropogenic background contamination. Surface soil samples collected at the Pemaco, W.W. Henry and Lubricating Services Properties have also contained PAH's at similar levels. No other preliminary results (PCB's, VOC's and metals) have been received as of the date of this health risk assessment report.

3.2.7 District Boulevard

The portion of District Blvd. located north of 60th Street and south of 59th Place is proposed to be part of the Maywood Riverfront Park. There is no indication in any of the reports for the neighboring properties that this property has ever been occupied by

anything but a street. There have been soil gas, sub-surface soil and groundwater samples collected from several locations in this section of District Blvd. (Figure 6) as part of the Pemaco RI activities. The contamination found appears to be sourced from Pemaco and possibly the Lubricating Oil Services properties.

3.3 Identified Data Gaps

Upon reviewing the environmental reports summarized in Tables 3.2.1 through 3.2.4, the following data gap areas were identified:

- Stained soil identified on the Catellus property adjacent to the former AST (McClaren, 1989) and drum locations (EKI, 1998) was never removed as recommended in reports. Stained soil was not found in later assessments.

- A "Background" sample of surface soil was collected in the northwest corner of the Catellus property (SSB-2, Figure 7). This sample had a total recoverable petroleum hydrocarbons (TRPH) concentration of 600 micrograms per kilogram (mg/kg). This detection was never discussed or evaluated further.

- Three locations (SB-01, SB-02 and SB-03) along the L.A. Junction Railway property were found to have soil contamination. Two of the areas (SB-01 and SB-02) were remediated by excavation, however confirmation samples indicated that residual PCBs contamination was found to remain in subsurface soil. Furthermore, no confirmatory samples were collected at the SB-03 location. An environmental assessment is currently underway in these locations.

- Herbicides were likely used (and currently being used) on the L.A. Junction Railway. Very limited testing for herbicides has taken place along the railway corridor. However, an environmental assessment has recently been completed; preliminary results indicate that no herbicides exist above regulatory levels in the shallow soils.

- Polycyclic Aromatic Hydrocarbons (PAHs) have been identified in surface soils throughout the MRPP. The only properties where a sufficient number of surface samples have been collected and analyzed for PAHs are the Pemaco property and the portion of the L.A. Junction Railway north of 59th Place. The pending L.A. Junction Railway assessment will add to the data set; however the Lubricating Oil Services Property, Catellus Property, District Blvd., Precision Arrow property and portions of the W.W. Henry property have not been sufficiently sampled to assess the extent of the PAH contamination. It is understood that background levels of PAHs exist in surface soils above Region IX PRGs due to the urban setting. The widespread presence of PAH's is not from prior site uses as indicated by the document review.

It should be noted that the data gaps listed above pertain only to soil contamination down to 15 feet bg and do not include soil and groundwater data gaps identified below 15 bg in the MRPP area.

3.4 USEPA Region IX Preliminary Remediation Goal (PRG) Screening

The results of the assessments mentioned above have been screened for any concentrations that were detected above certain levels that are deemed to be protective of human health by the United States Environmental Protection Agency (USEPA) Region IX. These protective levels are termed preliminary remediation goals (PRGs) and are used as a screening tool. For example, if chemical X was detected at a concentration of 1 milligram per kilogram (mg/kg) in a soil sample and the USEPA Region IX PRG for chemical X is 10 mg/kg, then it would indicate that no significant risk of negative health effects will occur as a result of coming into contact with that chemical X concentration. If the soil sample result for chemical X was 20 mg/kg (more than the PRG), then a more detailed assessment is warranted to ascertain the extent of the contamination. Once the nature and extent (chemicals present, concentration ranges and spatial delineation) of the contamination is defined and the specific use of the site is defined, then a remediation goal that is site specific can be calculated.

For the USEPA Region IX PRGs there are two types of land uses: residential and industrial. The residential PRGs are much more conservative (lower concentrations). Residential PRGs assume that the amount of time that one is being exposed to a certain chemical is much greater because that exposure is occurring at home rather than if that exposure is occurring at work (assuming a normal 40-hour work week).

The list of COPC's for the proposed Maywood Riverfront Park was comprised from taking all the chemical data that was available to TN&A from previous assessments of each property and screening those concentrations against the USEPA Region IX PRGs. Any chemical or metal that was found in soil at the MRPP at levels above the residential PRGs was compiled to form the COPC list (Table 3.4.1). A summary table of the detected concentrations above PRGs in soil (0 to 15' bg) is provided in Table 3.4.2. In addition, due to the known application of weed abatement chemicals sprayed along the LA Junction Railway property, chlorinated herbicides were also added to the list.

In addition to soil results, all soil vapor results collected in the MRPP area above 15' bg were screened against 100 times the USEPA Region IX PRG for chemical concentrations in ambient air (Table 3.4.3). This screening procedure is typically used to evaluate whether further investigation of indoor air concentrations should be evaluated. With the higher expected dilution factors for outdoor air, this is a very conservative approach. Volatile organic compounds (VOCs) detected in soil vapor samples at concentrations greater than 100 times the USEPA Region IX PRG for ambient air were selected as COPC's for the health risk assessment. Exposure to these VOCs was included in the calculation of SSPRGs using volatilization factors specified by USEPA Region IX (USEPA, 2000).

An SSPRG was then calculated for each of the COPC's using the methods described in the following sections.

3.5 Site Specific Remediation Goal's (SSPRGs)

The SSPRGs calculated for the MRPP are health-based tools for evaluating environmental contamination. These SSPRGs have been derived specifically for the Maywood Riverfront Park project using national U.S. Environmental Protection Agency (USEPA) and California EPA (CalEPA) guidance for health risk assessment (USEPA, 1989, 1991b; 2000, 2001a, CalEPA, 1994, 1996). These SSPRGs combine Cal/EPA and USEPA toxicity values along with "reasonable maximum" estimates of exposure potential to develop contaminant-specific soil concentrations that are considered to be protective of human health over a lifetime (CalEPA, 2002; USEPA, 1997a, 2002), including members of sensitive groups, such as children. Because the SSPRGs were developed using conservative ("health-protective") interpretations of toxicity data and assumptions about the degree, frequency and duration of human contact with affected media, the USEPA is confident that exposures to concentrations below the SSPRG levels will not create a potential health risk. Similarly the presence of higher concentrations (above SSPRGs) does not necessarily indicate that a potential health risk exists; rather it is an indication that further evaluation of potential risks is appropriate.

The SSPRGs were calculated using equations that estimate the risk of developing cancer or the hazard of developing other types of health effects (e.g., liver damage, reproductive effects) given the amount of time that an individual is exposed to a certain level of contaminated soil and also given how much contaminated soil the individual touches, eats and inhales. This is termed an “exposure characteristic” for a specific "receptor" population scenario. A receptor population scenario is a name for a specific equation that integrates a receptor population with a potential negative health effect. The receptor population scenarios evaluated for the MRPP represent the activities of a park user who is exposed to surface soil and an excavation worker who is exposed to surface and subsurface soil.

For known or suspected carcinogens, the USEPA has indicated that acceptable exposure levels generally represent an excess upper-bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} (1 excess cancer case per 10,000 to 1,000,000 equally exposed individuals). The 10^{-6} level is used as the point of departure for determining SSPRGs (USEPA, 1990). In other words, if a risk calculation is done and the result is that the chances for one additional cancer case to develop from being exposed to a certain contaminant is less than 1 in a million people (say 1 in 10 million people), then that risk is considered negligible. For the MRPP, separate SSPRGs were calculated at both the 10^{-5} and 10^{-6} cancer risk level to provide additional information to the risk managers for the MRPP. The SSPRGs for chemicals that have only noncancer health effects were calculated based on hazard quotient of 1, and the SSPRGS for these chemicals will not vary regardless of the cancer risk level selected.

3.6 Human Health Screening Evaluation

The Human Health Screening Evaluation (HHSE) considers the former industrial activities on the properties that comprise the MRPP; the future planned land use as a municipal park, and the analytical results from samples collected during earlier

investigations. The analytical results were screened against USEPA Region IX Residential PRGs to select a list of chemicals of potential concern (COPCs) for the MRPP. A conceptual site model (CSM) for the MRPP was developed that identifies potential pathways that could result in exposure of humans to chemicals remaining in the soil, air, and water from the previous industrial land uses. Two potential exposure scenarios were evaluated: a park user who is exposed to surface soil during rigorous outdoor exercise, and an excavation worker who is exposed to the surface and subsurface soil during installation of a swimming pool or underground utilities.

This information was used to derive SSPRGs for the COPCs specific for the future use of this land as a park. The SSPRGs combine current California Environmental Protection Agency (CalEPA) and USEPA toxicity values with site-specific exposure factors to estimate contaminant concentrations in environmental media that will be protective of the general population, including sensitive groups, over a lifetime.

3.6.1 Exposure Pathways and Media of Concern

The proposed park encompasses five parcels, two public streets, and the LA Junction Railway. The five parcels include Pemaco (5050 Slauson Avenue), Catellus (5950 Walker Avenue), W. W. Henry (5920 Alamo Avenue), Precision Arrow (5026 Slauson Avenue), and Lubricating Oil Services (5989 District Boulevard). The street consists of part of 59th Place and District Boulevard. These properties have been used in the past for a range of industrial processes that have or may have contaminated the soil, water, and air. Investigations of some of the Catellus, W.W. Henry, Pemaco, and Lubricating Oil Services properties have revealed that contamination has occurred. Previous investigations have only partially characterized contamination along the railroad right-of-way; the potential for contamination by herbicides is currently under investigation. No samples have been collected at the Arrow property; thus, the nature and extent of contamination of this property is uncertain. The industrial activities and chemicals used at these sites are described in Section 3.2 above. Previous investigations have found that contamination is present in the surface soil, subsurface soil, soil gas, and groundwater.

In the future, these properties will be used as a recreational park for the City of Maywood. The plan for the park includes a playground area, playing fields, basketball courts, native plants landscaping, picnic areas, restrooms, and a parking area. No enclosed structures are planned. Although not specifically included in the current plan, addition of a swimming pool in the future is a possibility. Two different exposure scenarios were evaluated for the development of SSPRGs for MRPP, one for a park user and one for an excavation worker. The media to which these receptors would be exposed and the evaluated exposure pathways are summarized in the conceptual site model (Table 3.6.1).

3.6.1.1 Park User Scenario

Outdoor athletic activities are likely to be the most intensive use of the park. Because the residential neighborhood in the vicinity of MRPP is predominately Latin American and soccer an intrinsic part of the Latin American culture, playing soccer was selected as an activity representative of the reasonable maximum exposure (RME). Park users are expected to have contact with the surface soil only. While playing soccer, the park users may incidentally ingest surface soil, have dermal contact with surface soil, and inhale dust particles emitted from the surface soil. The park users may also inhale volatile chemicals that are released from the surface and shallow subsurface soil. The native plant landscaping planned for MRPP may include some edible plant species, but the limited extent of the plantings is unlikely to provide a significant portion of the diet for park users. Therefore, ingestion of plants was considered an incomplete pathway.

Pathways for contact with the perched groundwater or the Exposition Aquifer are considered to be incomplete. Drinking water for the park will be provided by the municipal water system, and no drinking wells are located in the Exposition Aquifer in the vicinity of the project area. The perched groundwater is limited in extent, and expected well yields would be limited. Thus, direct contact with the perched groundwater by park users is unlikely. Similarly, because the perched groundwater is found at a depth of approximately 25 feet below grade (bg), volatilization from the perched groundwater also is considered an incomplete pathway for park users. The exposure parameters used to calculate remediation goals for park users are discussed in Section 3.6.7.1.1.

3.6.1.2 Excavation Worker Scenario

An excavation worker scenario was evaluated to include potential risks due to exposure to subsurface as well as surface soil. Thus, whereas the park user scenario considers only potential risks caused by exposure to surface soil, the excavation worker scenario evaluates potential exposures to soils to a depth of 15 feet bg. This depth was selected based on the possibility that a swimming pool with a diving well up to 15 feet deep could be constructed in the MRPP in the future. Installation of underground utilities could also result in exposure to subsurface soils. Excavation workers may incidentally ingest surface soil, have dermal contact with surface soil, and inhale dust particles. Excavation workers may also inhale volatile chemicals that are released from the surface and subsurface soil. As described for the park user scenario, pathways for exposure pathways for perched groundwater and the Exposition Aquifer also were considered incomplete for the excavation worker scenario. The exposure parameters used to calculate remediation goals for excavation workers are discussed in Section 3.6.7.1.2.

3.6.2 Toxicity Values

Toxicity values for cancer and non-cancer toxicological effects are used in combination with estimates of chronic daily doses modeled for applicable site-specific receptors (exposure assessment). This process quantitatively expresses a subject's degree of cancer risk or non-carcinogenic hazard.

For the MRPP HHSE, suggested risk-based remediation goals (in mg/kg soil) were derived from the levels of carcinogenic risk or non-carcinogenic hazard considered to be

protective of the population as a whole [an extra lifetime cancer risk (ELCR) of $1x10^{-6}$ and a non-carcinogenic hazard index (HI) of unity] using the applicable exposure parameters for each group of hypothetically exposed population sub-groups.

A hierarchy of information sources was used to develop the list of chemical-specific toxicity values. These sources were, in rank order:

1. State of California EPA Consolidated Table of the Office of Environmental Health Hazard Assessment (OEHHA) and Air Resources Board, March 4, 2002. Accessed at http://www.arb.ca.gove/toxics/healthval/healthval.htm.

2. USEPA's Integrated Risk Information System. Accessed at http://www.epa.gov/iris/.

3. USEPA Region 9 table of PRGs, November 11, 2000. Accessed at http://www.epa.gov/Region9/waste/sfund/prg/index.htm.

4. Health Effects Assessment Summary Tables (USEPA, 1997). FY-1997 Annual and FY-1997 Supplement. Office of Research and Development, Office of Emergency and Remedial Response, Washington, DC.

5. Reference Dose Tracking Report (USEPA, 1997c). Data valid as of 2/25/97. Office of Pesticide Programs (OPP), National Pesticide Information Center, Corvallis, Oregon.

[a]VOC–Volatile chemicals are defined as having Henry's Law constants of 1E-05 atm-m3/mole or greater and with a
molecular weight of less than 200 g/mole.
[b]ABS_{derm}–Fraction of chemical absorbed through the skin from soil
[c]VFs–Volatilization factor for soil to ambient air
[d]Sat–Soil saturation concentration

Toxicological profiles and properties for some of the chemicals detected at the MRPP site are presented in Section 3.6.6.

3.6.3 Non-cancer Toxicity Assessment

Toxicity values used in risk calculations include the chronic reference dose (RfD), which is used to estimate the potential for systemic toxicity or non-carcinogenic risk. The chronic RfD is defined as, "An estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime." (USEPA, 1989). It can be derived from a no-observed-adverse-effect level (NOAEL), lowest-observable-adverse-effect level, or benchmark dose, with uncertainty factors generally applied to reflect limitations of the data used. The RfDs used for oral and dermal routes of exposure for the COPCs considered in this report are presented in Table 3.6.3A. The inhalation RfDs used in this HHSE are presented in Table 3.6.3B.

3.6.4 Carcinogenic Toxicity Assessment

The cancer slope factor is defined as, "An upper bound, approximating a 95 percent confidence limit, on the increased cancer risk from a lifetime exposure to an agent." This estimate, usually expressed in units of proportion (of a population) affected per mg/kg/day, is generally reserved for use in the low-dose region of the dose-response relationship, that is, for exposures corresponding to risks less than 1 in 100 (EPA, 2002). Slope factors are specific for each chemical and route of exposure. Slope factors are currently available for ingestion and inhalation routes of exposure. Dermal slope factors may be derived from ingestion slope factors by adjusting the ingestion slope factor for absorption efficiency as described below. The oral and dermal slope factors used in this HHSE are presented in Table 3.6.4A, and inhalation slope factors are presented in Table 3.6.4B.

In addition to the quantitative dose-response evaluation provided by the slope factor, EPA uses a weight-of-evidence approach to characterize the extent to which the available data support the hypothesis that an agent causes cancer in humans. Each chemical is placed in one of five categories: Group A, human carcinogen; Group B, probable human carcinogen; Group C, possible human carcinogen; Group D, not classifiable as to human carcinogenicity; and Group E, evidence of noncarcinogenicity for humans. Group B is further divided into two subgroups: Group B1, limited human evidence, and Group B2, sufficient evidence in animals and inadequate or no evidence in humans. The weight-of-evidence classification for each potential carcinogen COPC at the MRPP site is also provided in Tables 3.6.4A and 3.6.4B.

3.6.5 Adjustment of Toxicity Factors for Dermal Exposure

For the dermal routes of exposure (i.e., dermal contact with contaminated soil), it is necessary to consider the absorbed dose received by a receptor. This is reflected by the addition of an absorption coefficient in the equations used to calculate the CDI for these pathways. Because the dermal CDI is expressed in terms of absorbed dose, it is necessary to use RfDs and slope factors based on absorbed dose. EPA has produced guidance concerning the estimation of absorbed dose RfDs and slope factors from administered dose values. For this HHSE, guidance described in Supplemental Guidance for Dermal Risk Assessment was used (USEPA, 2001a). An administered dose slope factor is converted to an absorbed dose slope factor by dividing it by the gastrointestinal absorption efficiency for each COPC. An administered dose RfD is converted to an absorbed dose RfD by multiplying by the gastrointestinal absorption efficiency for each COPC. A gastrointestinal absorption value of 1 was used for all organic compounds and for arsenic, as recommended by USEPA (2001a). The dermal absorption fractions from soil values used in this HHSE are given in Table 3.4.1. The values for arsenic, benzo(a)pyrene, PAHs, and semivolatile organic compounds (SVOCs) were derived from USEPA (2001a).

3.6.6 Toxicological Profiles for the Primary Chemicals of Potential Concern

3.6.6.1 Arsenic

Arsenic (CAS No. 7440-38-2) has been known throughout history as a profound and acutely lethal poison. Accordingly, it has been widely abused as an agent for suicide or homicide. In addition, the biomedical literature abounds with accounts of accidental poisonings in which food products or beverages became adulterated with the element. However, the existence of small quantities of arsenic in various food and medicinal products, patented remedies, etc., provides adequate demonstration that human beings can tolerate low levels of the element. This is fortunate because the potential for incidental exposure to the element is substantial since arsenic is widely distributed throughout the earth's crust. Circumstances where exposure to environmental arsenic might constitute a human health concern include instances where people have access to sites with abnormally high concentrations of the element. Such locations include dumpsites, active or abandoned mines, and areas in the proximity of industrial sources such as smelters.

Comparison of the median lethal dose (LD_{50}) values for arsenic observed in rodents with estimates of the lethal oral dose in humans (70–180 mg arsenic trioxide) suggest that humans are more susceptible than other mammals to the toxic effects of the element. Accordingly, studies on the environmental and/or occupational exposure of human beings to arsenic have been emphasized for setting toxicity values for the metal and its compounds. For example, index populations exposed to arsenic in well water have displayed an

increased incidence of characteristic skin lesions, including hyperpigmentation, keratosis (Blackfoot disease) and skin tumors. Several retrospective studies of smelter workers have found an association between occupational arsenic exposure and lung cancer mortality.

Toxicity values employed for arsenic in this HHSE include oral and dermal RfDs of 3E-4 mg/kg-day, carcinogenic oral and dermal slope factors of 1.5E+0 $(mg/kg\text{-}day)^{-1}$, and a carcinogenic slope factor for inhalation exposure or 1.2E+1$(mg/kg\text{-}day)^{-1}$.

3.6.6.2 Lead

Lead (CAS No. 7439-92-1) occurs naturally in the earth's crust and may enter the atmosphere through the weathering of rocks, windblown soil, or volcanoes. However, these sources and mechanisms represent a minor contribution to the worldwide dispersion of lead compared to anthropogenic processes such as the mining of ores, smelting, refining, manufacturing of lead compounds, and the use of lead in automotive batteries, etc. (ATSDR, 1993).

A sizable bibliographic database exists on the toxicity of lead and its compounds. In summary, lead causes hematological, gastrointestinal and neurological dysfunction in adults and children, with severe or prolonged exposure causing chronic nephropathy, hypertension and reproductive impairment. Lead may cause alterations in the activity of certain enzymes in the blood and trigger neurobehavioral impairment at blood lead concentrations that are extremely low. This observation gives rise to the concept that a dosimetric sub-threshold point-of-departure may not exist for the toxic effects of lead. Consequently, USEPA has not developed quantitative toxicity values such as an RfD for inorganic lead.

The USEPA's IRIS record for lead has assigned a qualitative weight-of-evidence classification of B2 to the potential human carcinogenicity of lead (USEPA, 2002). This designation as a "probable human carcinogen" is based primarily on data in experimental animals since epidemiological studies have not found positive associations between occupational lead exposure and the onset of tumors. However, in like manner to its quantitative analysis of the non-carcinogenic effects of lead, the Agency did not use the animal studies to develop a quantitative expression of lead's carcinogenicity, such as a carcinogenic oral slope factor or an inhalation unit risk. However, in the absence of national consensus numerical toxicity values for evaluating risks of lead exposure within the existing risk paradigm, the Agency has developed alternative approaches for evaluating risks associated with environmental lead contamination. These include the Integrated Exposure Uptake Biokinetic (IEUBK) model for lead in children and the Adult Lead Model.

For the purposes of this HHSE, carcinogenic toxicity values for lead that were specified by the California Office of Environmental Health Hazard Assessment (OEHHA) have been used, including oral and dermal slope factors of 8.5E-3 $(mg/kg\text{-}day)^{-1}$, and an inhalation slope factor of 4.20E-2 $(mg/kg\text{-}day)^{-1}$. Note that although an RG based on these values was calculated for comparison, the actual selected SSPRG was based on USEPA guidance (USEPA, 1994a, 1994b, 1996a).

3.6.6.3 Manganese

Manganese (CAS No 7439-96-5) has been implicated in a variety of serious toxic responses in persons exposed for long periods at elevated concentrations, either orally or by inhalation, with the central nervous system (CNS) appearing to be the primary target. Thus, initial symptoms are headache, insomnia, disorientation, anxiety, lethargy, and memory loss. However, these symptoms progress with continued exposure and eventually include irreversible motor disturbances, tremors, and symptoms similar to those seen with Parkinsonism.

Effects on reproduction (decreased fertility, impotence) have been observed in humans as a result of exposure to manganese by inhalation, and in animals with oral exposure at the same or similar doses that initiate the CNS effects. An increased incidence of coughs, colds, dyspnea during exercise, bronchitis, and altered lung ventilatory parameters have also been seen in humans and animals inhaling the metal in dust. A possible effect on the immune system may account for some of these respiratory symptoms.

EPA's RfD evaluation of manganese resulted in the derivation of a chronic oral toxicity value for the element of 1.4E-1 mg/kg-day, a consensus NOAEL based on composite data from several epidemiological studies. This value was offered unmodified when the toxicity of the element is modeled from a dietary source. However, the use of a modifying factor of 3 is recommended by the Agency when the source of the element is drinking water or soil. Therefore, in this HHSE a chronic oral RfD of 4.66E-2 mg/kg-day was used, along with a chronic RfD of 1.43E-5 mg/kg-day for inhalation exposure, as derived from the IRIS chronic inhalation reference concentration (RfC) of 5.0E-5 mg/m^3.

Some conflicting data exist on possible carcinogenesis following injections of manganese chloride and manganese sulfate into mice. However, the EPA weight-of-evidence classification is Group D, not classifiable as to human carcinogenicity based on no evidence in humans and inadequate evidence in animals. Consequent, no cancer slope factors for manganese are available.

3.6.6.4 Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic aromatic hydrocarbons (PAHs) are a group of chemicals that are formed during the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances, such as tobacco and charbroiled meat. The compounds generally occur as complex mixtures (e.g., as part of combustion products such as soot), not as single compounds. PAHs usually occur naturally, but they can be manufactured as individual compounds for research purposes but not as the mixtures found in combustion products. Thus, a few PAHs are used in medicines and to make dyes, plastics, and pesticides, while others are contained in asphalt used in road construction. Mixtures of the compounds can also be found in substances such as crude oil, coal, coal tar pitch, creosote, and roofing tar. Spills, combustion emissions, and careless use of these substances ensure that PAHs are found throughout the environment in the air, water, and soil.

USEPA IRIS database records are available for carcinogenic PAHs such as benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, and indeno(1,2,3-cd)pyrene, each of which is assigned to the B2 weight-of-evidence category, indicative of a probable human carcinogen. A key feature of the group's tumorigenicity is the profound "site-of-impact" effects of the compounds. Thus, a typical consequence of oral administration of the compounds is the development of tumors of the forestomach or at other sites in the anterior gastrointestinal tract. Similarly, subcutaneous injection is frequently followed by the development of tumorous masses in and around the injection site. However, the compounds' intrinsic lipophilicity ensures that a portion of each substance is able to cross the absorption barrier, with the consequent formation of compound-related tumors at remote sites. For example, the oral administration of dibenzo(a,h)anthracene to DBA/2 mice induces carcinomas of the mammary gland, among other organs.

Benzo(a)pyrene is regarded as the benchmark carcinogenic PAH, with multiple studies in numerous species attesting to the compound's carcinogenicity. Similarly, numerous epidemiologic studies have shown a clear association between exposure to various mixtures of PAHs containing benzo(a)pyrene (e.g., coke oven emissions, roofing tar emissions, and cigarette smoke) and increased risk of lung cancer and other tumors. However, because these substances also contain other potentially carcinogenic PAHs, it is impossible to evaluate the sole contribution of benzo(a)pyrene or of any other single PAH component to the carcinogenicity of these mixtures in an environmental or occupational setting.

As specified by the California OEHHA, the oral and dermal slope factor for benzo(a)pyrene in this HHSE is 1.2E+1 (mg/kg-day)$^{-1}$. The inhalation slope factor is 3.9E+0 (mg/kg-day)$^{-1}$, with carcinogenic toxicity values for the other PAHs listed in Tables 4.1 and 4.2. However, non-cancer effects of this subset of compounds have not been identified; consequently, no chronic oral, dermal or inhalation RfDs are available for benzo(a)pyrene or its analogs.

3.6.6.5 Polychlorinated Biphynols (PCBs)

PCBs (CAS No. 1336-36-3) are a group of synthetic organic chemicals formerly used as coolants and lubricants in transformers, capacitors, and other electrical equipment. However, manufacture of PCBs stopped in the United States in August 1977 because of evidence that PCBs may cause harmful health effects.

Aroclors 1242, 1248, 1254 and 1260 are well-defined commercial mixtures of a possible 209 structurally related PCB congeners that are frequently detected at hazardous wastes sites. That this group of substances have not been manufactured in the United

States for nearly 25 years points to their persistence once released to the environment as a result of spills, leaking electricity transformers, etc. PCBs bioaccumulate in tissues of animals that occupy higher niches of aquatic or terrestrial food chains.

The USEPA's IRIS records for individual Aroclors, 1016, 1248, and 1254, contain no carcinogenic toxicity information or values for this mixture. However, IRIS carries a carcinogenicity evaluation for PCBs as a group, which is assigned a B2 qualitative weight-of-evidence classification, a probable human carcinogen. This has been demonstrated experimentally through long-term dietary exposure of female rats to Aroclor 1016, 1242, 1254, or 1260 treatments associated with dose-dependant increases in the incidence of liver adenomas, carcinomas, cholangiomas, and cholangiocarcinomas.

IRIS uses data from two such studies to derive a range of cancer potency values for PCB mixtures. Respective upper-bound and central-estimate slope factors for high risk and environmental persistence of the PCBs of 2E+0 and 1E+0 $(mg/kg\text{-}day)^{-1}$ were derived, with values of 4E-1 and 3E-1 $(mg/kg\text{-}day)^{-1}$ for low risk and persistence and 7E-2 and 4E-2 $(mg/kg\text{-}day)^{-1}$ for lowest risk and persistence. The (highest risk) slope factor of 2E+0 $(mg/kg\text{-}day)^{-1}$ was used for each individual Aroclor in this HHSE. However, the IRIS= oral RfD for Aroclor 1254 of 2.00E-5 mg/kg-day was used for that mixture of congeners alone, with the non-cancer toxicity of the other detected Aroclor (1260) not assessed quantitatively.

3.6.7 Risk Characterization Summary

Risk characterization summarizes and integrates the results of the exposure assessment and toxicity assessment into quantitative and qualitative expressions of risks to human health. This section presents the calculated human health SSPRGs associated with exposure to surface soil for the park user scenario and subsurface as well as surface soil for the excavation worker scenario. It is important to recognize that these SSPRGs are not intended to be used alone. Risk assessment is a regulatory process that provides risk managers with quantitative estimates to be used for comparative purposes only.

3.6.7.1 Exposure Assumptions and Parameters

The exposure assumptions and parameters used to calculate remediation goals for MRPP are a combination of standard default values from USEPA guidance, CalEPA guidance, and site-specific values for the park user and excavation worker scenarios (USEPA, 1989, 1991a, 1991b, 2000, 2001a, 2001b; CalEPA, 1994, 1996). The exposure parameters were selected to be consistent with those used by USEPA Region 9 in calculating residential PRGs (USEPA, 2000).

3.6.7.1.1 Park User Parameters

Frequent use of the park is expected, because MRPP is located in a densely populated area and it immediately adjoins a residential neighborhood. The exposure parameters selected to evaluate potential exposure to COPCs by the park user are summarized in Tables 3.6.7.1.1A and 3.6.7.1.1B. Because the residential neighborhood in the vicinity of the MRPP is predominately Latin American and soccer in an intrinsic part of the Latin American culture, playing soccer was selected as an activity representative of the RME parameters. Soccer players may practice up to 5 hours per day, 3 days per week, as well as play in one to two games per week (Gonzales, 2002). This was converted to an exposure time (ET) of 4 hours per day (2 hours per day as a child), an exposure frequency (EF) of 5 days per week for 50 weeks each year or 250 days per year. The default residential exposure duration (ED) of 30 years was selected, because it was expected that the individuals would continue to use the park as long as they resided in the same neighborhood. The period of 30 years represents the upper 95 percent confidence limit for the length of residency in the same home (USEPA, 1991a). The ED was divided into 6 years as a child and 24 years as an adult. The body weight values selected are standard USEPA defaults for children and adults (USEPA, 1991a).

The standard USEPA residential default soil ingestion rates of 100 mg/d for adults and 200 mg/d for children were selected for the park user (USEPA, 1991a). Although the adult and child park users are expected to spend only a portion of each day there, this period is expected to be a time of intensive activity with intimate contact with soil. Scientific documentation of soil ingestion rates is limited, and there was considered to be an inadequate basis for partitioning the daily soil ingestion between park use and other time (USEPA, 1997c). Therefore, the entire daily soil ingestion rate was assumed to occur during park use to calculate conservative SSPRGs that would be protective of human health. Standard USEPA residential default values for exposed skin surface area of 5,700 cm^2/d for adults and 3,300 cm^2/day for children and for soil adherence factors of 0.07 mg/cm^2 for adults and 0.2 mg/cm^2 for children were selected for the park user scenario (USEPA, 2001a). Time spent in the park playing soccer or in the playground area for younger children is expected to be a period of intensive activity with intimate contact with soil. Thus, the residential exposure parameters were considered to be appropriate for the park user scenario.

Inhalation exposure, however, was adjusted to be proportional to the time spent in the park. The USEPA-recommended inhalation rates for heavy activity of 3.2 m^3/h for adults and of 1.9 m^3/h for children were selected (USEPA, 1997c). These inhalation rates were multiplied by the ET values for adults and children to derive the total inhalation exposure. To estimate inhalation exposure to non-volatile chemicals attached to particulates, the standard default particulate emission factor (PEF) of1.32E+09 was used (USEPA, 1996a). Inhalation exposure to volatile organic chemicals volatilized from the soil was evaluated using chemical-specific volatilization factors (VF) presented in Table 3.4.1.

3.6.7.1.2 Excavation Worker

The excavation worker parameters were selected to produce a site-specific exposure scenario for contact with contaminated subsurface soil at the MRPP site. The exposure parameters selected to evaluate potential exposure to COPCs by the excavation worker

are summarized in Table 3.6.7.1.2A and 3.6.7.1.2B. The most likely event that would result in exposure to subsurface soils would be excavation to install utilities for the park. Another possibility would be construction of a swimming pool with a 15-foot-deep diving well. Although a swimming pool is not included in the current plans for MRPP, a swimming pool was considered in planning and could be a future addition to the park (Gonzalez, 2002). To provide a remediation goal that would be protective over the worker's entire career and not just the limited period needed for excavations at MRPP, excavation worker scenario parameters were selected that represented RME values for a career. An exposure duration of 18 years was selected based on the median tenure for operators, fabricators, and laborers aged 55–64 (USEPA, 1997d). This was the longest period of tenure for any age group and was based on a study by Carey (1988). USEPA has recommended an exposure frequency of 225 d/year for an outdoor industrial worker (USEPA, 2001b). This exposure frequency was adapted for the excavation worker scenario by assuming that the worker would be digging at sites with levels of contamination similar to those at MRPP for 25 percent of his work time or 56 d/year. The assumption of 25 percent was based on the concept that in a heavily developed urban area such as Los Angeles, much of the new construction would be on land with previous industrial uses. The ET of 8 hours/d is a standard occupational default value (USEPA, 1991a).

The exposure parameters for the ingestion, dermal, and inhalation routes were selected to represent extensive contact with soil and high levels of dust. The soil ingestion rate is the USEPA default value for activities with intensive soil contact (USEPA, 1991a). The exposed surface area (SA) of 3,300 cm^2/d is the recommended value for outdoor industrial workers and assumes that workers have their faces, forearms, and hands exposed (USEPA, 2001a). An adherence factor (AF) of 0.2 mg/cm^2 reflects the amount of soil that will adhere to exposed skin. Both the SA and AF values represent the median (50^{th} percentile) values for all adult workers at commercial and industrial sites based on USEPA studies (USEPA, 1997c). A high level of dust in the air is expected because of vehicle traffic on unpaved surfaces and soil disturbance during excavation. To account for this, it was assumed that ambient air particulates were equal to the National Ambient Air Quality Standard for the annual average respirable portion (PM_{10}) of suspended particulate matter of 0.05 mg/m^3 (CalEPA, 1994). For the purpose of calculation, this was converted to a particulate emission factor (PEF) of 2.0E+07. Inhalation exposure to volatile organic chemicals volatilized from the soil was evaluated using chemical-specific volatilization factors (VFs) presented in Table 3.4.1.

3.6.8 Calculation of Site Specific Preliminary Remediation Goals

Calculation of risk-based SSPRGs for exposure to chemicals in soil at MRPP was based on the methods presented in *Risk Assessment Guidance for Superfund (RAGS), Part B,* *Soil Screening Guidance*, and *Region 9 Preliminary Remediation Goals, Technical Support Documentation* (USEPA, 1991b, 1996a, 2000). These methods backcalculate soil concentrations from a target risk level (for carcinogens) or hazard quotient (for noncarcinogens). Calculations have been performed for both 1 x 10^{-6} (one in a million) and 1 x 10^{-5} (one in one hundred thousand) excess cancer risk for all carcinogenic compounds. The equations used in this HHSE are presented in Tables 3.6.7.1.1A, 3.6.7.1.1B, 3.6.7.1.2A and 3.6.7.1.2B. These equations combine exposure by the ingestion, dermal, and inhalation exposure routes.

Carcinogenic risk SSPRGs for the park user scenario were calculated using age-adjusted factors ("adj") for the first 30 years of life as described in *Region 9 Preliminary Remediation Goals, Technical Support Documentation* (USEPA, 2000). This was done because contact rates may be different for children and adults. This is especially important for soil ingestion exposures since they are higher during childhood and decrease with age. Studies have shown the incidental soil ingestion is common among children 6 years' old and younger (Calabrese et al. 1989). For the purposes of combining exposure across routes, additional age-adjusted factors were used for inhalation and dermal exposures. These factors integrate exposure from age 1 to 31 combining contact rates, body weights, and exposure durations for children under 7 and adults from 7 to 31 years of age.

Only the higher exposure rates for children were considered in calculating SSPRGs based on noncarcinogenic toxicity. This approach in considered to be conservative because it combines the higher contact rates for children with chronic toxicity criteria. The Science Advisory Board has indicated that this method may be overly protective for most chemicals; however, this approach is consistent with the methods that USEPA Region 9 uses to calculate PRGs (USEPA, 1993, 2000).

3.6.8.1 Site Specific Preliminary Remediation Goals for Lead, Park User

Health risks associated with exposure to inorganic lead is not assessed using the traditional risk assessment methodology based on the use of toxicity values [RfDs, RfCs, or cancer slope factors(SFs)]. Rather, lead exposure is assessed using the IEUBK Model for residential exposures or using the Adult Lead Model (ALM) for nonresidential exposures to lead in the soil. The IEUBK model predicts the steady-state blood lead concentration for children under 7 years old who are exposed to soil in a residential yard on a daily basis (USEPA, 1994a). The IEUBK approach was selected as being most appropriate for the Park User scenario, and the USEPA residential soil screening level of 400 mg/kg was selected as the remediation goal for MRPP (USEPA, 1994b).

3.6.8.2 Site Specific Preliminary Remediation Goals for Lead, Excavation Worker

In contrast, ALM uses a simplified representation of lead biokinetics to predict quasi-steady state blood lead concentrations among adults who have relatively steady patterns of site exposures (USEPA, 1996b). This approach is designed for assessing sites where places of employment will be situated on lead-contaminated soils. ALM was selected to develop a RG for the excavation worker. ALM was developed to provide a scientifically defensible approach for assessing adult lead risks associated with nonresidential exposure scenarios. It supports more detailed predictions about the time course of blood lead concentrations for acute or variable exposures to lead.

The ALM relates soil lead intake to blood lead concentrations in women of childbearing age. As a health-based goal, USEPA has sought to establish SSPRGs that would limit childhood risk of exceeding a blood lead concentration of 10 ug/dL to 5 percent (USEPA, 1996b). The basis for the RG calculation in ALM is the relationship between the developing fetuses of adult women who have site exposures. Thus, ALM calculates PRGs that would limit the risk of fetal blood lead concentrations exceeding 10 ug/dL to 5 percent (USEPA, 1996b).

The default values recommended in EPA (1996) were used for 95th percentile blood lead concentration in the fetus ($PbB_{fetal,0.95}$), fetal/maternal PbB ratio ($R_{fetal/maternal}$), intake biokinetic SF for ingestion ($BKSF_{ing}$), and ingestion absorption factor (AF). Site-specific values, however, were used for the remaining ALM parameters. The baseline blood lead concentration (PbB_0) is intended to represent the best estimate of a reasonable central value of blood lead concentration in women of child bearing age who are not exposed to lead-contaminated soils at the site. Ideally, the value for PbB_0 should be based on measurements from a representative sample of adult women in the population of concern. In the absence of site-specific data, a blood lead concentration range of 1.7–2.2 ug/dL is recommended as plausible (Brody et al., 1994; EPA, 1996). Brody et al. (1994) reported that the geometric mean background blood lead concentration for Mexican American women was 2.0. Thus, a PbB_0 concentration of 2.0 was selected for MRPP. The geometric standard deviation (GSDi) is a measure of the inter-individual variability in blood lead concentrations in a population exposed to the same soil lead concentration. A range of 1.8–2.1 is considered as plausible for GSDi (USEPA, 1996b). Values within this range are selected based on an evaluation of the whether the population at the site would be more or less heterogeneous than the United States population with respect to racial, ethnic, cultural, and socioeconomic factors that may affect exposure. Brody et al. (1994) reported that the GSDi for Mexican American women was 2.1; this value was selected.

The ALM is a biokinetic model designed to predict blood lead levels in the fetus of adult women exposed to the site soils. The assumptions of the model require that the exposures be averaged over the period of exposure. Because the types of field activities workers are expected to perform at the MRPP site potentially can be performed at any time during the year, 365 days/year was selected as the most appropriate exposure averaging time. Incidental soil ingestion rates of 480 mg/day for the excavation worker were used to calculate remediation goals for lead. Using ALM with the exposure parameters selected, an RG of 362 mg/kg was calculated for excavation.

3.6.8.3 Final Selection of Site Specific Preliminary Remediation Goals

The SSPRG selected for each chemical was determined by comparing RGs calculated based on carcinogenic and noncarcinogenic effects. The lower of the two RG values was selected. In addition, the calculated RG values were compared to the chemical-specific soil saturation concentrations (USEPA, 2000). SSPRGs were capped at the saturation concentration for those chemicals for which the calculated risk-based RG exceeded saturation. Saturation values were taken from *Region 9 Preliminary Remediation Goals, Technical Support Documentation* (USEPA, 2000). The selected

SSPRGs were also capped at 1E+05 mg/kg for chemicals for which the calculated RG exceeded this concentration. The RG values based on a target risk values of 10^{-6} for carcinogenic and noncarcinogenic effects and the selected SSPRGs for the park user and excavation worker scenarios are presented in Tables 3.6.8.3A and Table 3.6.8.3B, respectively. Table 3.6.8.3C and 3.6.8.3D represent the SSPRG values when a target risk of 10^{-5} was used for the calculations.

4.0 SUMMARY OF FINDINGS

Once the list of COPC's was generated (Table 3.4.1) and the SSPRGs were calculated for each COPC (Tables 3.6.8.3A-D), then all the analytical data for surface, near surface and subsurface soil samples collected at each of the properties were screened for any chemical concentration values in excess of the SSPRGs. There were three groups of chemicals which had concentrations in soil that exceed the SSPRGs for the future park user and future excavation worker: metals, PCB's and PAH's. Table 4.1 summarizes these COCs.

Tables 4.1A, 4.1B, 4.1C and 4.1D summarize the COC concentrations found at each property that had detected concentrations above the SSPRGs for the future Maywood Riverfront Park user and excavation worker. Tables 4.1A and 4.1B use the 10^{-6} additional cancer risk SSPRG's and Table 4.1C and 4.1D use the 10^{-5} additional cancer risk SSPRG's. These chemicals are as follows: Arsenic, Iron, Lead, Arochlor-1260, Arochlor-1254, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene and Indeno (1,2,3-cd) pyrene.

The elevated metal and PCB concentrations are limited to small areas within the Los Angeles Junction Railway property, and the PAH concentrations are found throughout the MRPP area at many of the locations that were tested.

Figures 8 and 9 illustrate the locations where the samples were collected which exceeded the 10^{-5} SSPRGs for the park user scenario and excavation worker exceedences, respectively.

5.0 DISCUSSION

It must be noted that the environmental assessments done at each of the properties involved with the Maywood Riverfront Park were done to assess impacts to the properties resulting from historical uses. For example, many solvent type chemicals were used in the west portion of the W.W. Henry property, therefore, the sampling that was done for that portion of the property focused on assessing the extent of the solvent chemicals. However, certain types of chemicals (and metals) are found as background constituents, either originating from natural sources or emanating from urbanized areas. A distinction must be made between what is background contamination and what is contamination originating from industrial operations that occurred on the property itself as a result of industrial operations. The majority of the elevated metal and PAH concentrations were found on the Pemaco and L.A. Junction Railway properties, however, these were the only properties where extensive surface sampling occurred. It is likely that similar metal and PAH concentrations would be found at the other MRPP properties if extensive surface sampling was done.

5.1 Metals

Eight out of over 150 surface and near surface samples collected on the Pemaco and L.A. Junction Railway properties had metal concentrations (arsenic, lead and iron) that exceeded any of the SSPRG's. These elevated concentrations were all found along the LA Junction Railway. The elevated metal concentrations could be associated with the historical use of railcars and the presence of the train tracks. However, the concentrations may also be contributed to high naturally-occurring background levels in the soil. Background concentrations in California soils as compared with PRG's, SSPRG's and concentrations found at the MRPP are summarized in Table 5.1. The vast majority of metal concentrations found in samples collected from the MRPP were within these background ranges.

5.2 Polychlorinated biphynols (PCB's)

PCB's were found along the southern portion of the LA Junction Railway property at three locations (SB-1, SB-2 and SB-3, Figure 6). These locations were sampled because of soil staining observed along the railway. The areas were excavated and the soil was hauled offsite, however residual PCB contamination was found to remain in two of the locations (SB-01 and SB-02) and no confirmation sampling was done at the SB-03 location. The residual contamination in the subsurface of the SB-01 and SB-02 locations exceeds the SSPRG's.

The impact from PCB's to the soil was caused by an unauthorized release of the substance onto the railway property. The most common cause of PCB contamination is from older (pre-1980's) electrical transformers that have leaked or exploded.

There is no documented record presented to TN&A of PCB's being stored or used on any of the future park properties, however, there may have been transformers and other electrical devices that contained PCB's located on the property. The PCB contamination found along the L.A. Junction Railway property (Section 3.2.6) is currently being further assessed by TN&A on behalf of the Trust for Public Land.

5.3 Polycyclic Aromatic Hydrocarbons (PAH's)

There are no historical uses of PAH's at the MRPP according to the documentation provided to TN&A, however, it is common to test for PAH's when stained soil is observed and the source is not known. In addition, many samples were collected from the Pemaco property and the LA Junction Railway property and analyzed for PAH's as part of the RI that occurred between January and June 2001 at the Pemaco site and surrounding area. PAH analyses for surficial soils are done routinely at many Superfund sites. Although there was no indication of the historical use of PAH's as a product or commodity, the compounds were detected in many of the samples analyzed on all the future park properties tested. A possible source of PAH contamination could be from creosote treated railroad ties located along the LA Junction Railway and the associated spurs branching off each property. However, PAH's were also detected in areas that are far from the railway.

It is likely that PAH's can be found in shallow soil throughout the Maywood area due to vehicle exhaust, fires and paving activities that have occurred over the years.

6.0 MITIGATION ALTERNATIVES

There are two basic types of mitigation measures that can be implemented to protect the health of the future park user and excavation worker from known contamination at the MRPP. A remedial action could be performed to remove the contamination from the area thus reducing any possible exposure to the future park user or a plan could be implemented that would remove the exposure pathway between the contamination and the future park user or excavation worker.

6.1 Remedial Action

In general, the most feasible remedial action to remove metals, PCB's and PAH's from shallow soil is to remove the contaminated soil and haul it off to a certified landfill that is permitted to accept that type of waste. This is usually the only option due to the nature of these contaminants. These types of contaminants do not readily break-down naturally over time nor can soil additives or other in-situ remedial technologies accelerate their decomposition.

Assessment data have indicated that PAHs are limited to the upper 3 feet of soil throughout the area. It is likely that if shallow soil was sampled throughout the entire Maywood Riverfront Park and tested for PAH's, the majority of the samples would have PAH concentrations above the SSPRGs. Therefore, an excavation of approximately 40,000 cubic yards would be needed to remove this contaminated soil. This volume was calculated by multiplying the surface area of the proposed Maywood Riverfront Park by 3 feet and converting this result into cubic yards.

The cost to excavate, haul and dispose of this large volume of soil would be tremendous making a remedial action cost prohibitive. A remedial action may be feasible if a certain background level of PAH's is considered to be acceptable, this would greatly reduce the amount of soil to remediate and may make removal and disposal feasible.

6.2 Elimination of Exposure Pathway

The other mitigation alternative to protect the health of future park users is to eliminate the exposure pathway between the contaminant and the park user and excavation worker. This could be done by importing clean fill material to each property and placing a 1-foot thick layer of this clean fill over the areas that exceed the SSPRGs. Numerous areas exist at the site that are considered "data gap" areas due to the likely widespread presence of PAH's. The most cost/time feasible mitigation measures for these areas would be to place this 1-foot thick protective fill layer over the entire site. For the excavation worker, the exposure pathway can be eliminated by having the worker wear personal protection equipment (PPE) that would protect the worker from dermal contact and particle inhalation during the time he or she spend inside of the excavation. This would require an institutional control to be put in place by the City of Maywood that would contain a list of guidelines/procedures for excavation work on the property.

7.0 CONCLUSIONS

A health risk assessment was done for the MRPP. Historical environmental information was used to compile a list of chemicals that exist at the site, which may be at levels that pose a health risk to the users of the future park. It was found that certain chemicals do exist in shallow soil that could potentially pose an unacceptable health risk to future park users and future excavation workers. The most feasible mitigation measure to eliminate these health risks to the future park user would be to import clean fill material and place a minimum 1-foot thick layer of this clean fill over the entire park site. Representatives of the USEPA, the City of Maywood and TN&A have agreed that a 1-foot thick layer of clean imported fill would be a sufficient "buffer zone" that would eliminate the park user from coming into contact with any potential health risks from the existing surface soil.

For the excavation worker, the exposure pathway can be eliminated by having the worker wear personal protection equipment (PPE) that would protect the worker from dermal contact and particle inhalation during the time he or she spend inside of the excavation. This would require an institutional control to be put in place by the City of Maywood that would contain a list of guidelines/procedures for excavation work on the MRPP.

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APPENDIX 1
Data Quality Review for the Previous Investigations of the Maywood Riverfront Park

T N & Associates, Inc.
Engineering and Science

Memorandum

Date: May 24, 2002

To: Tim Garvey, TN&A Jacques Marcillac, TN&A

From: Ewelina Mutkowska, TN&A

Copy:

Subject: **Maywood City Park Risk Assessment**
Review of the Historical Chemical Data for Data Usability Purpose

Quality evaluation of the chemical data generated between 1997 and 2002 for Catellus (Existing Park) (5201 East 60th Street), District Blvd., LA Junction Railway, Lubricating Oil Services (5989 South District Blvd.), Pemaco Superfund Site (5050 E. Slauson Avenue), Precision Arrow, WW Henry was performed. A comprehensive review looked for quality assurance (QA) and quality control (QC) elements such as precision, accuracy, representativeness, completeness, comparability (PARCC), presence of agency approved work plans, and a documented validation effort of the data. A checklist of the various items characterizing data quality was completed for each of the received documents containing historical chemical data for the properties included in the Risk Assessment process for Maywood City Park. The checklists and associated chemical data are attached to the memorandum. Evaluated data were classified according to the following criteria:

Level A	–	All EPA requirements are met, definite use data.
Level B	–	Few deficiencies such as no data validation, no SOP developed and no agency approved SAP/QAPP documents, no DQO defined in work plan.
Level C	–	Besides deficiencies listed under Level B, there were no field precision measures reported.
Level D	-	Besides deficiencies listed under Level B and C, there were no laboratory precision and accuracy measures reported.

Our evaluation revealed that analytical data generated for Pemaco Superfund Project by T N & Associates, Inc. met all of the required elements established for definitive data and was classified as **Level A**:

- Pemaco Superfund Project Analytical Data, T N & Associates, Inc., (District Blvd., LA Junction Railway, Precision Arrow, Pemaco Superfund Site - 5050 E. Slauson Avenue)

468 East Main Street
Ventura, CA 93001
Phone: (805) 585 2110
Fax: (805) 585 2111

The following data sets were classified as **Level B**:

- Phase II Environmental Assessment Report, Lubricating Oil Services Property prepared for the Trust for Public Land by Erler & Kalinowski. March 30, 2001 (Lubricating Oil Services, 5989 South District Blvd.)
- Soil, Soil Gas, and Groundwater Evaluation, Former W.W. Henry Property, 5920 Alamo Avenue, Maywood, California. Prepared by Levine Fricke, July 6, 2001 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Phase II Investigation Report prepared for the Trust for Public Land by Erler & Kalinowski. February 12, 1998 (Catellus (Existing Park), 5201 East 60th Street)

The following data sets were classified as **Level C**:

- Phase II Environmental Site Investigation Report prepared for the Trust for Public Land by Erler & Kalinowski. August 22, 1997 (Catellus (Existing Park) 5201 East 60th Street)
- Results of excavation and confirmatory sampling of oil-impacted soil Lubricating Oil Services Site by Cape Environmental Management, Inc., June 15 2001 (Lubricating Oil Services, 5989 South District Blvd.)
- Subsurface Investigation Report for W.W. Henry Company Property by Erler & Kalinowski. August 31, 1999 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Report for Fourth Quarter 2000 Groundwater Monitoring at Removed UST Area of Former W.W. Henry Facility, 5920 Alamo Avenue, Maywood, California, Cornerstone Technologies, Inc. January 2001 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Product Removal and Interim Remediation Letter Report by PSI. 6/27/01 (2 copies) (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Vapor Extraction System Start-up Report. Prepared by Professional Services Industries, Inc. July 17, 2001 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Addendum to Soil, Soil Gas, Groundwater and Ambient Air Evaluation by Levine-Fricke. November 1, 2001 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Quarterly Groundwater monitoring report for the 4th quarter of 2001 by Levine-Fricke. January 9, 2002 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Vapor Extraction System Quarterly Operation and Maintenance Report by PSI. February 14, 2002 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)
- Results of Additional Excavation and Confirmation Sampling of Oil-Impacted Soil at the Lubricating Oil Services Site, Cape Environmental Inc., July 3, 2001 (Lubricating Oil Services, 5989 South District Blvd.)

Due to significant deficiencies the following data sets were qualified as **Level D**:

- Addendum to the Screening Human Health Risk Assessment for the W.W. Henry Company Property by Erler & Kalinowski. February 16, 2000 (WW Henry, 5920 Alamo Ave. & 5920 59th Place)

Data sets classified as Level B, Level C, and Level D should be used with caution before making project decisions.

Attachments:

Chemical data checklists for the above-referenced documents:

X	A Level
	B Level
	C Level
	D Level

Title of Document:

Pemaco Superfund Project Analytical Data, T N & Associates, Inc.

Summary of Analytical Data:

TN&A's project database contains the analytical data generated for soil gas, soil, and groundwater samples for the U.S. EPA Pemaco Superfund Site project.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☐ No ☑ NA
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ field blanks, ☑ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☑ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Representativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☑ Yes ☐ No ☐ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Completeness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☑ Yes ☐ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☑ Yes ☐ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☑ Yes ☐ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☑ Yes ☐ No ☐ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

The analytical data meets all of the required elements established for definitive data and is classified as Level A.

	A Level
X	B Level
	C Level
	D Level

Title of Document:

Phase II Environmental Assessment Report, Lubricating Oil Services Property prepared for The Trust for Public Land by Erler & Kalinowski Inc., March 30, 2001.

Summary of Analytical Data:

Both documents dated February 13, 2001 and March 30, 2001report the same soil gas, soil, and groundwater results.

Soil gas and soil samples were collected at 19 locations. Petroleum hydrocarbons, VOC by EPA 8260B, SVOC by EPA 8270C, PCB by EPA 8082, tot. organic carbon by EPA 5310B, organochloride pesticides by EPA 8081A, chlorinated herbicides by EPA 8151A, and seventeen (17) trace metals by EPA 6010B and 7471A. Two soil gas samples were collected using SUMMA and analyzed for VOC using EPA TO-15.

For tot. organic carbon analyses method blank, laboratory control sample, matrix spike/matrix spike duplicate were reported.

Note from off-site laboratory (STL LA) that soil samples were received at 18°C which can affect the results.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. App. C (soil & gw)
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☑ Yes ☐ No ☐ Unk. Detailed lab QA/QC in App. C
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk App. B (soil gas), App. C (soil & gw)
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk App. C. (soil & gw)
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported? (ambient sample and method blank by TO-15)	☑ Yes ☐ No ☐ Unk App. B (soil gas), App. C (soil & gw)
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA App. B (soil gas), App. C (soil & gw)
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
Completeness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Comparability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☐ Field Sampling Plan and/or ☐ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☑ No ☐ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to few deficiencies of the reported analytical results, the data in this report is classified as a Level B.

☐	A Level
X	B Level
☐	C Level
☐	D Level

Title of Document:

Soil, Soil Gas, and Groundwater Evaluation, Former W.W. Henry Property, 5920 Alamo Avenue, Maywood, California, Prepared by Levine-Fricke, July 6, 2001.

Summary of Analytical Data:

Groundwater (grab samples and samples from monitoring wells), soil gas, and soil samples were collected. Groundwater samples were analyzed for VOC by EPA 8260B and soil samples for VOC by EPA 5035/8260B. On-site mobile lab performed analyses on soil gas samples using GC/MS technique.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk. Soil, groundwater (gw), soil gas
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. gw, soil
	Was ☐ field and/or ☐ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk gw, soil gas
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk gw, soil
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk gw, soil gas, soil
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA gw, soil gas, soil
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk Soil gas (µg/L)
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk Work Plan is mentioned in Introduction

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to few deficiencies of the reported analytical results, the data in this report is classified as Level B.

☐	A Level
X	B Level
☐	C Level
☐	D Level

Title of Document:

Phase II Investigation Report prepared for the Trust for Public Land by Erler & Kalinowski Inc., February 12, 1998.

Data Quality Review for Soil Gas Samples.

Summary of Analytical Data:

This report contains soil gas and soil sample results. Soil results are the same as reported in "Phase II Environmental Site Investigation Report prepared for the Trust for Public Land by Erler & Kalinowski Inc., 8/22/97." for which data review was prepared.

Soil gas was surveyed at 16 locations at 5' and 12' below ground surface. Soil gas sample collection method, apparatus, and equipment decontamination procedures were described in the "InterPhase Soil Gas Survey Report" (Attachment E).

On-site mobile laboratory analyzed soil gas samples for VOCs using GC technique. Split samples were analyzed by off-site lab using EPA TO-14.

Soil Gas Data Quality Review

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported? 1 duplicate sample was analyzed by on –site lab and 1 split sample (SUMMA by TO-14) was analyzed by off-site lab.	☑ Yes ☐ No ☐ Unk. Attachment E
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. For split sample analysis by off -site lab
	Was ☑ field and/or ☐ laboratory precision data reported or discussed in the report?	☑ Yes ☐ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk For split sample analysis by off -site lab
	Were ☑ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported? (Method blank by off-site lab; System blank and ambient air samples by on-site lab)	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☑ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA Internal standard in Quality Control Summary (St. Conc.)
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (μg/Kg, μg/L), Inorganics (μg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk Soil gas (μg/L)
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☑ Yes ☐ No ☐ Unk For split sample analysis by off -site lab; for others no qualifiers were assigned.
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☑ No ☐ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to few deficiencies of the reported analytical results, the data in this report is classified as a Level B.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Phase II Environmental Site Investigation Report prepared for the Trust for Public Land by Erler & Kalinowski Inc., August 22, 1997.

Summary of Analytical Data:

Sampling activities involved:

- 8 soil borings,
- soil sample collection from 5' intervals from groundwater level to the total depth of each boring.

On-site mobile laboratory performed the following analyses:

- halogenated VOCs by EPA 8010
- aromatic VOCs by EPA 8220 for and.

Off-site laboratory performed the following analyses:

- TPH (extractable) by EPA 8015
- SVOC by EPA 8270
- pH by EPA 150.1
- Tot. surfactants by EPA 425.1
- Tot. phosphorus/phosphates by EPA 365.2
- Tot. sulfides by EPA 9030
- Ammonia by EPA 350.2
- Nitrate/nitrite by EPA 300
- Tot. cyanide by EPA 9010
- Tot. phenols by EPA 420.1
- Ethylene glycol by EPA 8015/3050
- Cadmium by EPA 6010.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☐ No ☑ Unk. Tot. phosphorus - duplicate
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. Attachment C "Quality Control Report"
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑Yes ☐ No ☐ Unk Attachment C
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk Attachment C, Quality Control Report
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk Attachment C "Quality Control Report"

Element	Element Description	Comments
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA Attachment C
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk Inorganics [mg/Kg]
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☑ No ☐ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Results of Excavation and Confirmatory Sampling of Oil-impacted Soil Lubricating Oil Services Site by Cape Environmental Management, Inc., June 15, 2001.

Summary of Analytical Data:

Confirmatory samples analyzed by on-site lab for :
- Tot. petroleum hydrocarbons gasoline (TPHg) and diesel range (TPHd) by EPA 8015M
- VOC by EPA 8260B.

Confirmatory samples analyzed by off-site lab for :
- SVOC by EPA 8270
- PCB by EPA 8082,
- California Assessment Manual (CAM) total metals.

For TPH and VOC lab QC information was reported (including continuing calibration verification). For SVOC, PCB, and CAM metals only method blank results were reported.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk Att. B
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk CAM metals (mg/Kg) VOC (mg/Kg) in report VOC (mg/Kg) in lab report
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans? (Work plan is referred to in the report but it's not available for the review)	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
x	C Level
☐	D Level

Title of Document:

Subsurface Investigation Report for W.W. Henry Company Property by Erler & Kalinowski Inc., August 31, 1999.

Summary of Analytical Data:

Soil gas samples were collected using Tedlar bags for VOC analysis (Attachment B). No laboratory QC information, however, data qualifiers and all results (detects and nondetects) were reported.

Soil samples were analyzed for VOC (EPA 5030/8260B), SVOC (EPA 8270C), Chlorinated pesticides (EPA 8010A), PCB (EPA 8082), percent moisture, 17 metals, chlorinated herbicide (EPA 8151A), tot. organic carbon (EPA 5310B) (Attachment C).

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. Soil
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk QC water, soil
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk Soil, air (ambient blank)
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA Air, soil
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk Air, soil
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk Air (ug/L)
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☑ Yes ☐ No ☐ Unk Estimated values (air)
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Report for Fourth Quarter 2000 Groundwater Monitoring at Removed UST Area of Former W.W. Henry Facility, 5920 Alamo Avenue, Maywood, CA. Prepared for Armstrong World Industries, Inc., Prepared by Cornerstone Technologies, Inc., January 2001.

Summary of Analytical Data:

Soil & groundwater samples analyzed for TPH-g by EPA 8015 and VOCs by EPA 8260.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☑ internal standards (if applicable) added to organic analyses and reported?	☐ Yes ☑ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Product Removal and Interim Remediation Letter Report by Professional Service Industries Inc., June 27, 2001.

Summary of Analytical Data:

Sample analyses included MTBE and BTEX by EPA 8020 and VOC by 8260B.
Soil gas results reported for toluene. Results for water analysis by EPA 8260B all but toluene were nondetects.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. Air - batch precision results
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk Air batch accuracy results
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk Air batch accuracy results
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk Air, water
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA Water
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk Date reported in lab reports
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Comparability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Vapor Extraction System Start-up Report, prepared by Professional Services Industries, Inc., July 17, 2001.

Summary of Analytical Data:

Soil gas samples analyzed for VOC by EPA 8260.
Influent and effluent monitoring.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk. Benzene and toluene results reported.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☐ Yes ☑ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☐ Yes ☑ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☑ Yes ☐ No ☐ Unk According to EPA prescribed Method, nothing specific

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Addendum to Soil, Soil Gas, Groundwater and Ambient Air Evaluation by Levine-Fricke, November 1, 2001.

Summary of Analytical Data:

Additional sample collection and analyses for soil gas, ambient air, groundwater (July 2001).

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk. Groundwater (gw), air
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk. gw
	Was ☐ field and/or ☐ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk. Air, gw
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☑ Yes ☐ No ☐ Unk Air
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk gw
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk Air, gw
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA Air, gw
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk Air, gw
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☑ Yes ☐ No ☐ Unk Air
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Quarterly Groundwater monitoring report for the 4th quarter of 2001 by Levine-Fricke, January 9, 2002.

Summary of Analytical Data:

Groundwater was collected from 5 monitoring wells and analyzed for VOC by EPA 8260B (Appendix B)

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☑ Yes ☐ No ☐ Unk.
	Was ☐ field and/or ☐ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☐ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☑ Yes ☐ No ☐ Unk results obtained by dilution runs marked
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Vapor Extraction System Quarterly Operation and Maintenance Report by PSI, 2/14/02.

Summary of Analytical Data:

Soil gas samples collected in Tedlar bags for GC/MS analysis.

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☑ Yes ☐ No ☐ Unk. Cis-1,2-DCE, TCE, PCE
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☐ Yes ☑ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☐ Yes ☑ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☐ No ☑ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk

Element	Element Description	Comments
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk According to EPA prescribed methods; nothing specific

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
X	C Level
☐	D Level

Title of Document:

Results of Additional Excavation and Confirmation Sampling of Oil-Impacted Soil at the Lubricating Oil Services Site, Cape Environmental Inc., July 3, 2001.

Summary of Analytical Data:

One soil sample was collected and analyzed for Total Petroleum Hydrocarbons (C7 thoughC30) by EPA 8015M, VOCs by EPA 8260B, and SVOC by EPA 8270

QA/QC Check List

Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☐ Yes ☑ No ☐ Unk.
	Was ☑ field and/or ☑ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☑ laboratory control sample (LCS) and/or ☑ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☐ Yes ☑ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☑ method blanks analyzed and reported?	☑ Yes ☐ No ☐ Unk
	Were ☑ surrogate compounds and/or ☐ internal standards (if applicable) added to organic analyses and reported?	☑ Yes ☐ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☑ No ☐ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report is classified as a Level C.

☐	A Level
☐	B Level
☐	C Level
X	D Level

Title of Document:

Addendum to the Screening Human Health Risk Assessment for the W.W. Henry Company Property by Erler & Kalinowski Inc., February 16, 2000.

Summary of Analytical Data:

Only soil gas samples have sufficient information for review of data quality. Sixteen (16) soil gas samples were collected in SUMMA Canisters and analyzed for VOC by TO-14.

QA/QC Check List

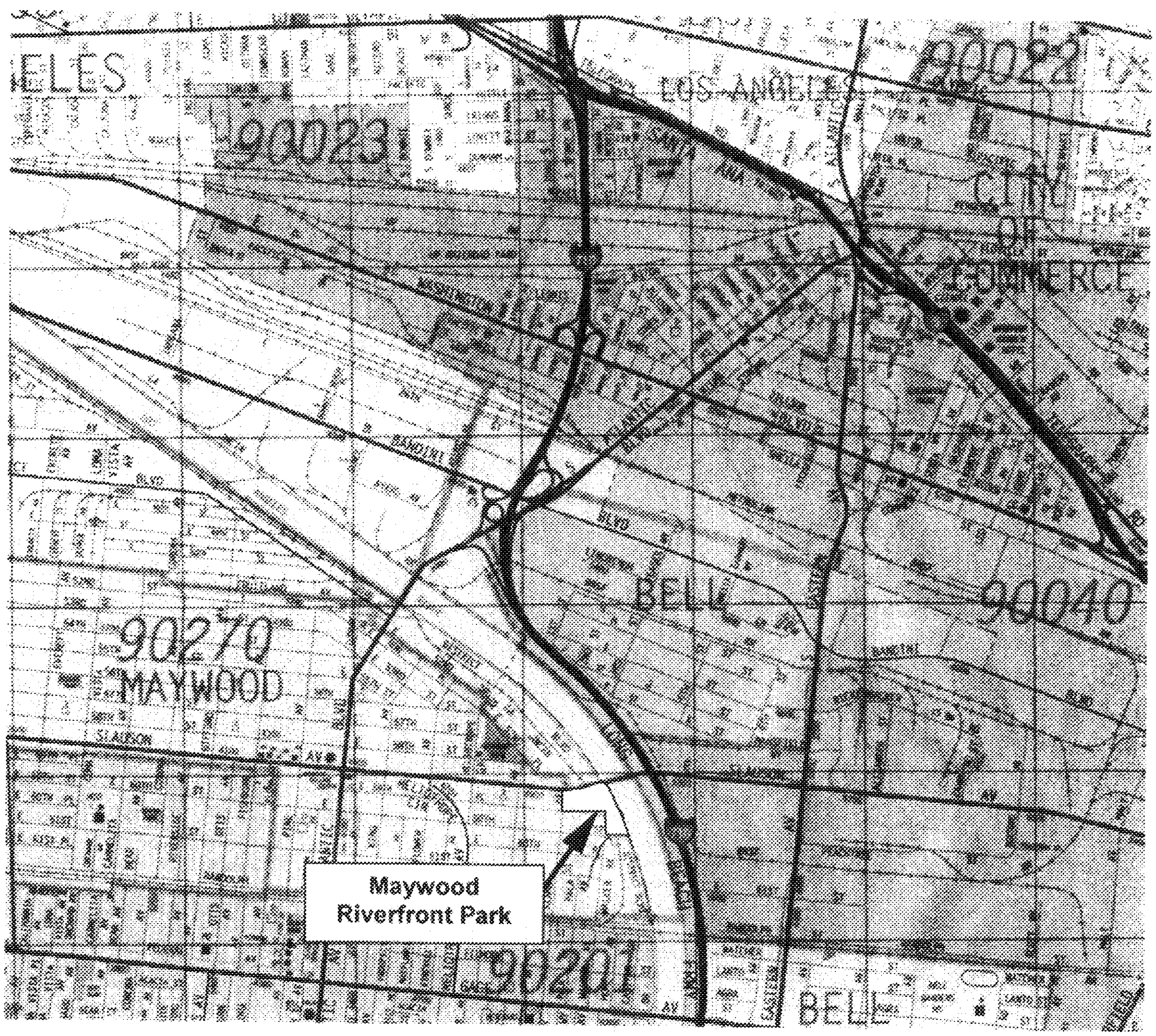
Element	Element Description	Comments
Precision	Were field duplicate samples collected and reported?	☐ Yes ☑ No ☐ Unk.
	Were matrix spike duplicate (or lab duplicate) analyses performed and reported?	☐ Yes ☑ No ☐ Unk.
	Was ☐ field and/or ☐ laboratory precision data reported or discussed in the report?	☐ Yes ☑ No ☐ Unk.
Accuracy	Were the results of ☐ laboratory control sample (LCS) and/or ☐ performance evaluation (PE) samples reported?	☐ Yes ☑ No ☐ Unk
	Were matrix spike samples analyzed and reported?	☐ Yes ☑ No ☐ Unk
	Were ☐ field blanks, ☐ equipment rinsates, and ☐ method blanks analyzed and reported?	☐ Yes ☑ No ☐ Unk
	Were ☑ surrogate compounds and/or ☑ internal standards (if applicable) added to organic analyses and reported?	☐ Yes ☑ No ☐ Unk ☐ NA
Represent-ativeness	Were Standard Operating Procedures developed for the project and do they appear to have been followed in conducting the fieldwork?	☐ Yes ☑ No ☐ Unk
	Was background information considered in the sampling plan design?	☑ Yes ☐ No ☐ Unk
Complete-ness	Were all of the chemical data reported including detected and non-detected?	☑ Yes ☐ No ☐ Unk
	Were copies of the original laboratory data reports included in the report?	☑ Yes ☐ No ☐ Unk
	Was data completeness calculated by using the number of valid results divided by the number of possible individual analyte results, expressed as percentage?	☐ Yes ☑ No ☐ Unk

Element	Element Description	Comments
Compar-ability	Were chemical analyses performed using standard methods?	☑ Yes ☐ No ☐ Unk
	Were standard units of measures used for the results: Organics (µg/Kg, µg/L), Inorganics (µg/L and mg/Kg), Wet Chemistry (mg/L, mg/Kg), Others as appropriate, e.g. pH = std. units.	☑ Yes ☐ No ☐ Unk Air (ug/m^3 & ppbv)
	Were field activities conducted using standardized data collection forms, consistent sampling techniques, and proper documentation procedures throughout the project?	☑ Yes ☐ No ☐ Unk
Validation	Were the chemical data evaluated using a documented data validation procedure?	☐ Yes ☑ No ☐ Unk
	Were data qualifiers assigned to the sample results, which provided an indication of data quality?	☐ Yes ☑ No ☐ Unk
Other	Was the investigation performed under an agency approved ☑ Field Sampling Plan and/or ☑ Quality Assurance Project Plan (QAPP)?	☐ Yes ☑ No ☐ Unk
	Were the Data Quality Objectives of the investigation described in the project Work Plans?	☐ Yes ☐ No ☑ Unk

Notes:
Unk = Unknown
NA = Not Applicable

General Comments:

Due to the deficiencies of the reported analytical results, the data in this report was classified as Level D.



1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

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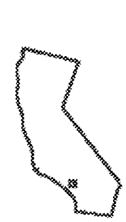


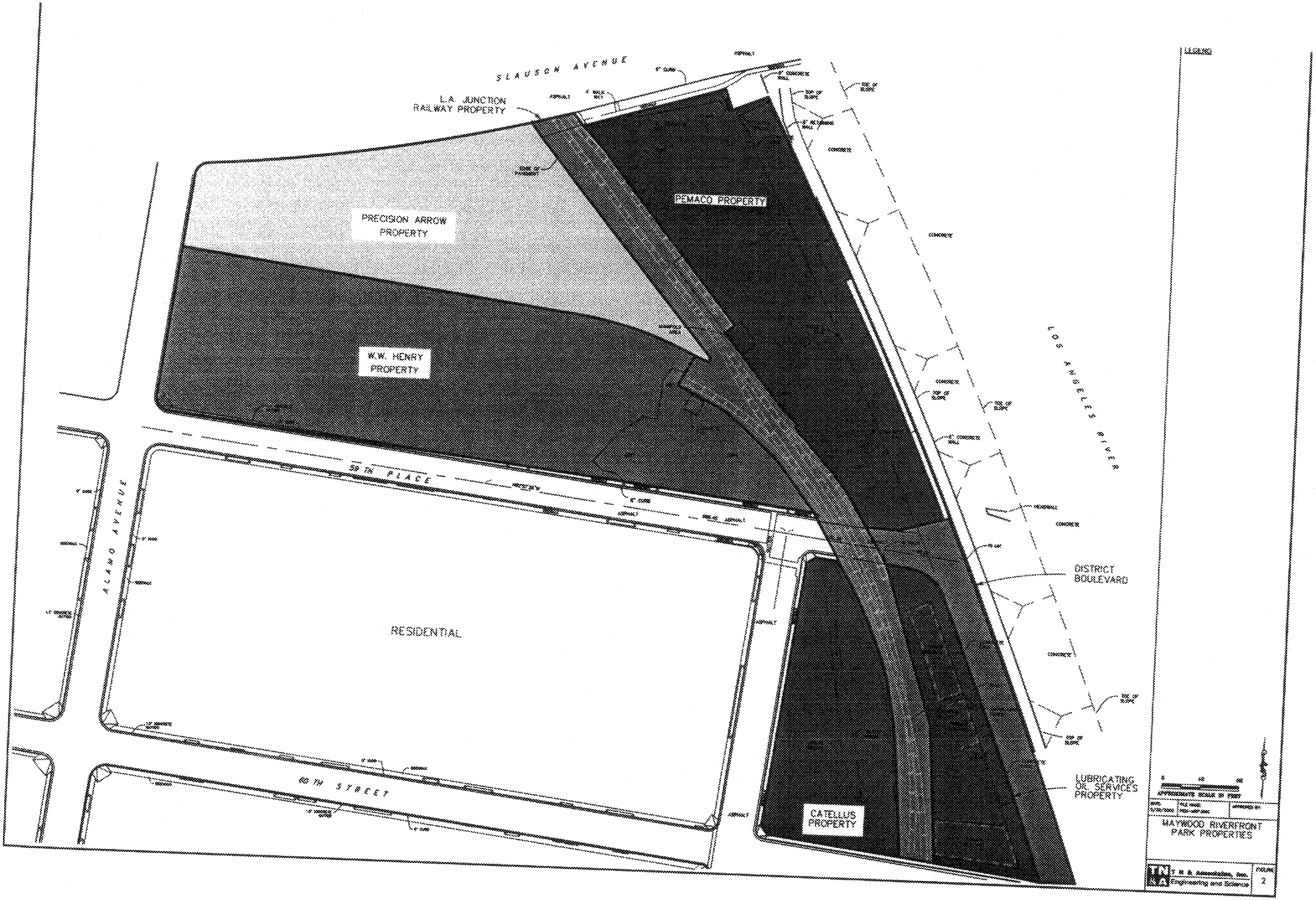
DATE: 11/5/2000	FILE NAME: PEMACO-SL	APPROVED BY:

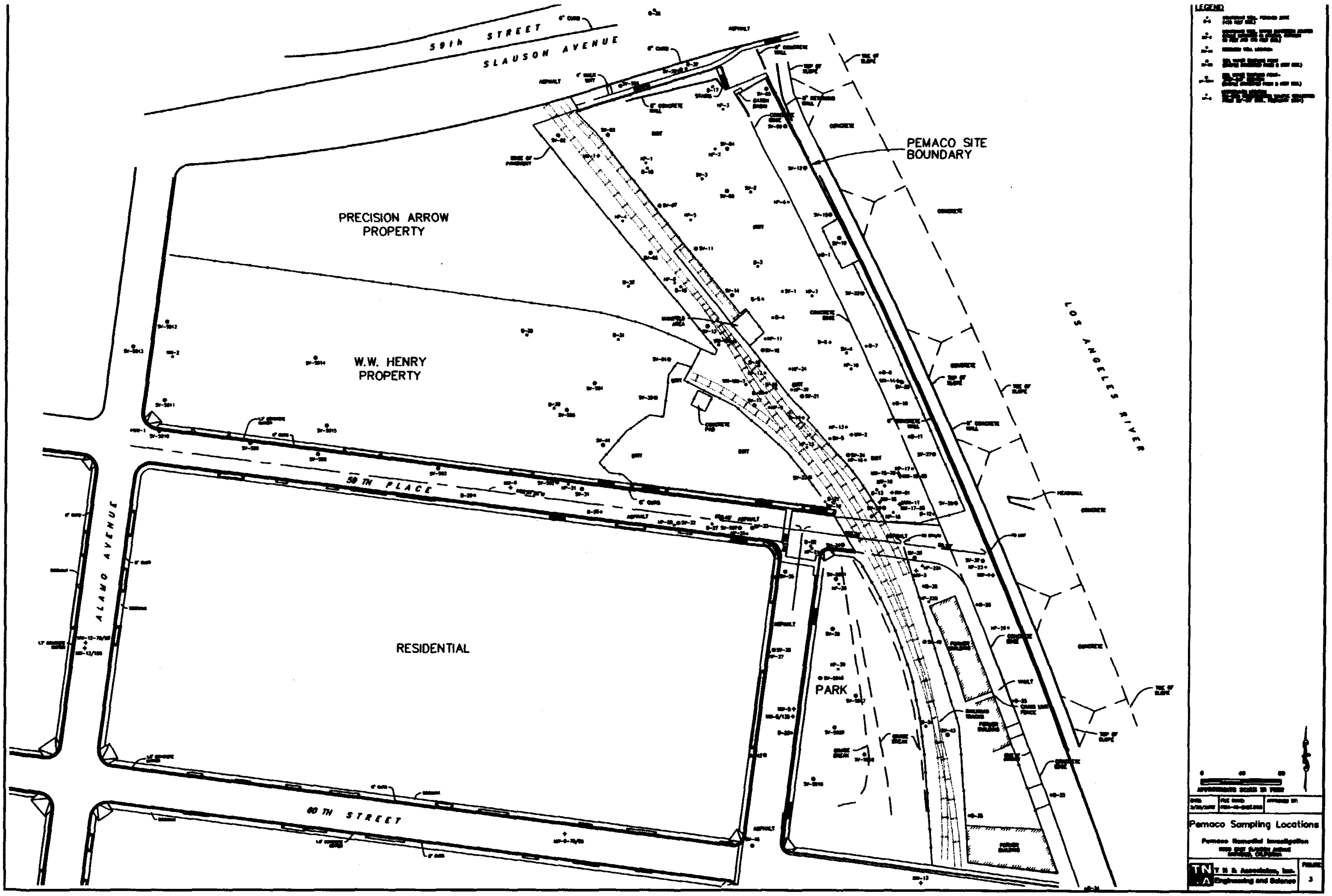
SITE LOCATION MAP

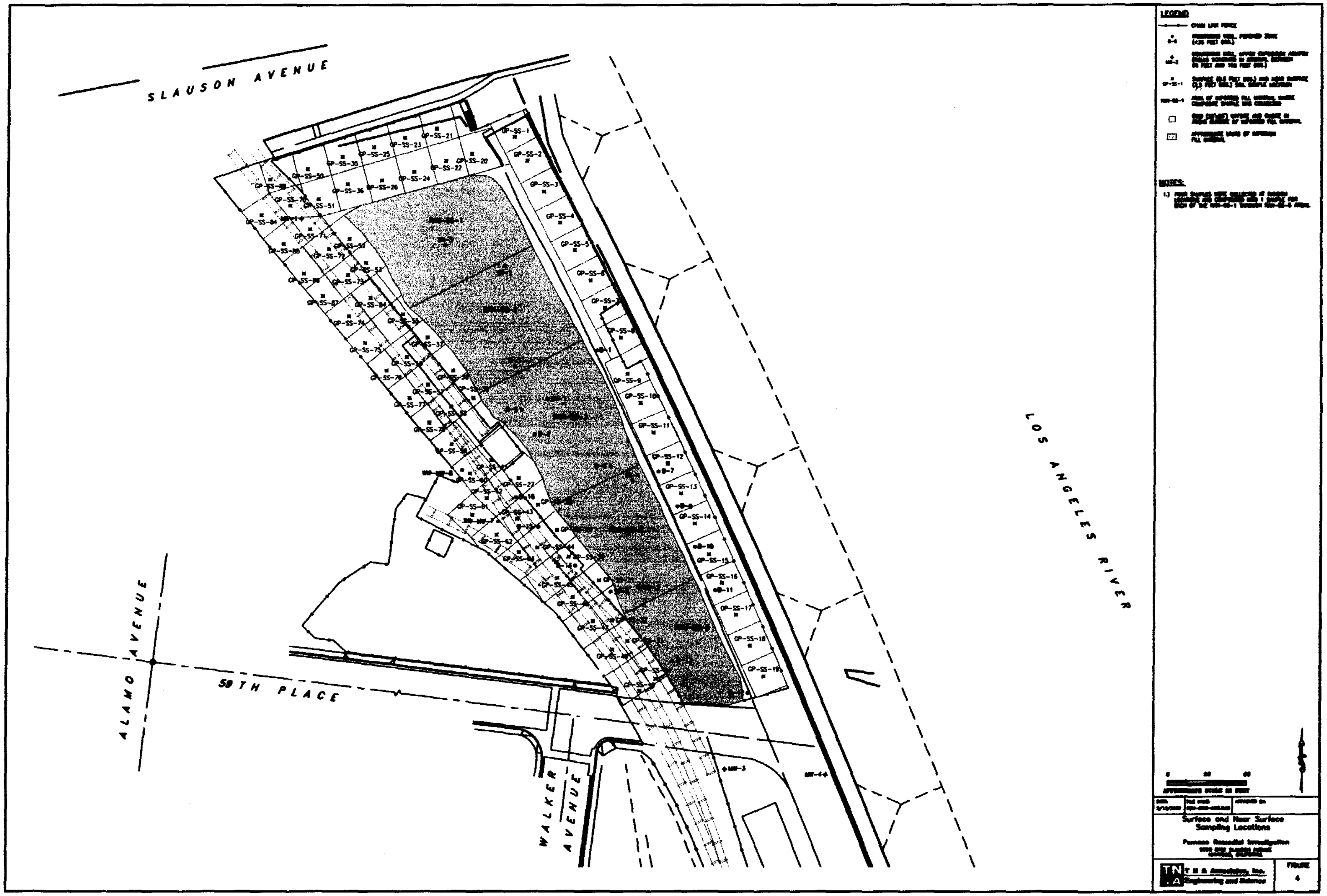
MAYWOOD, CALIFORNIA

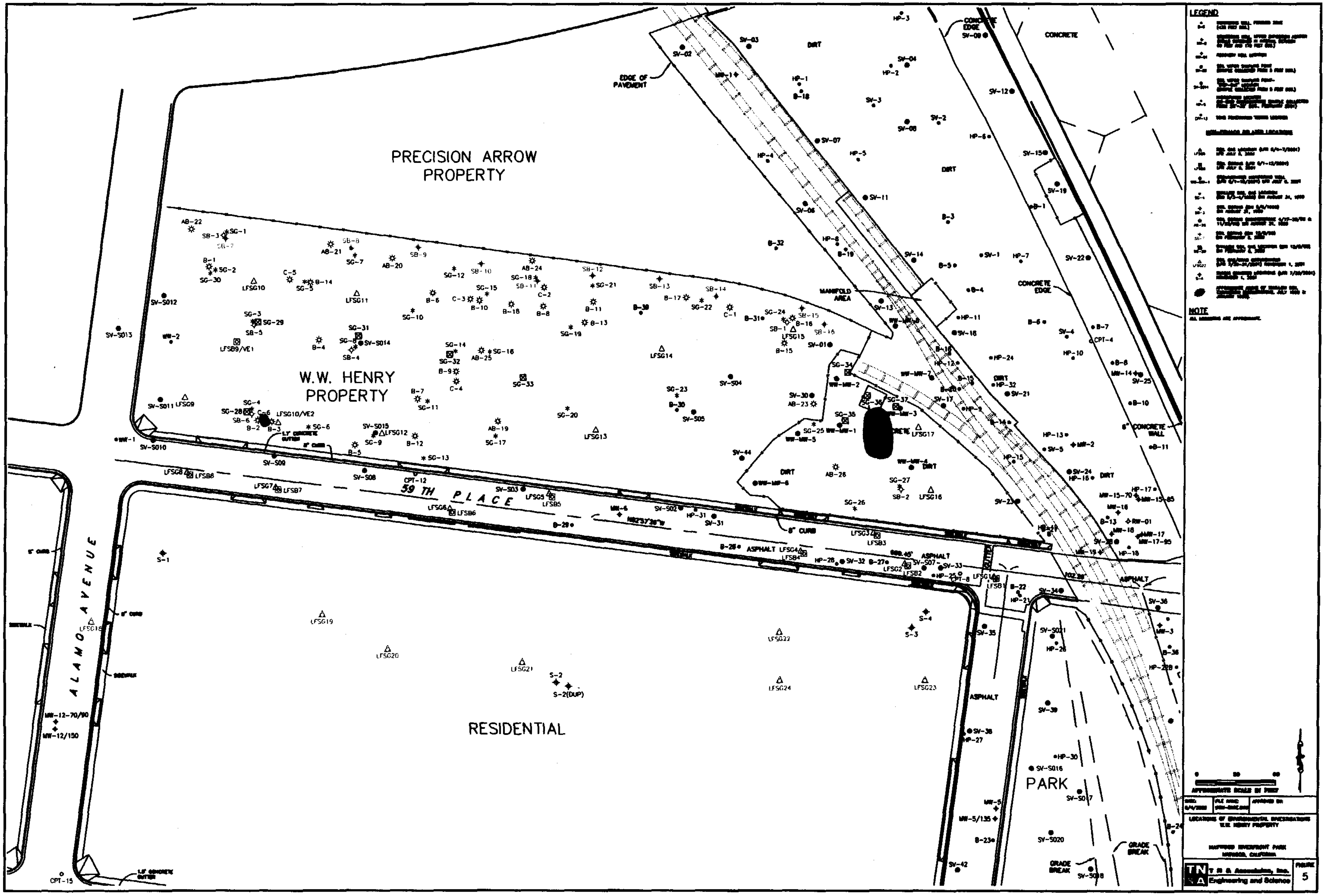
T N & Associates, Inc.
Engineering and Science

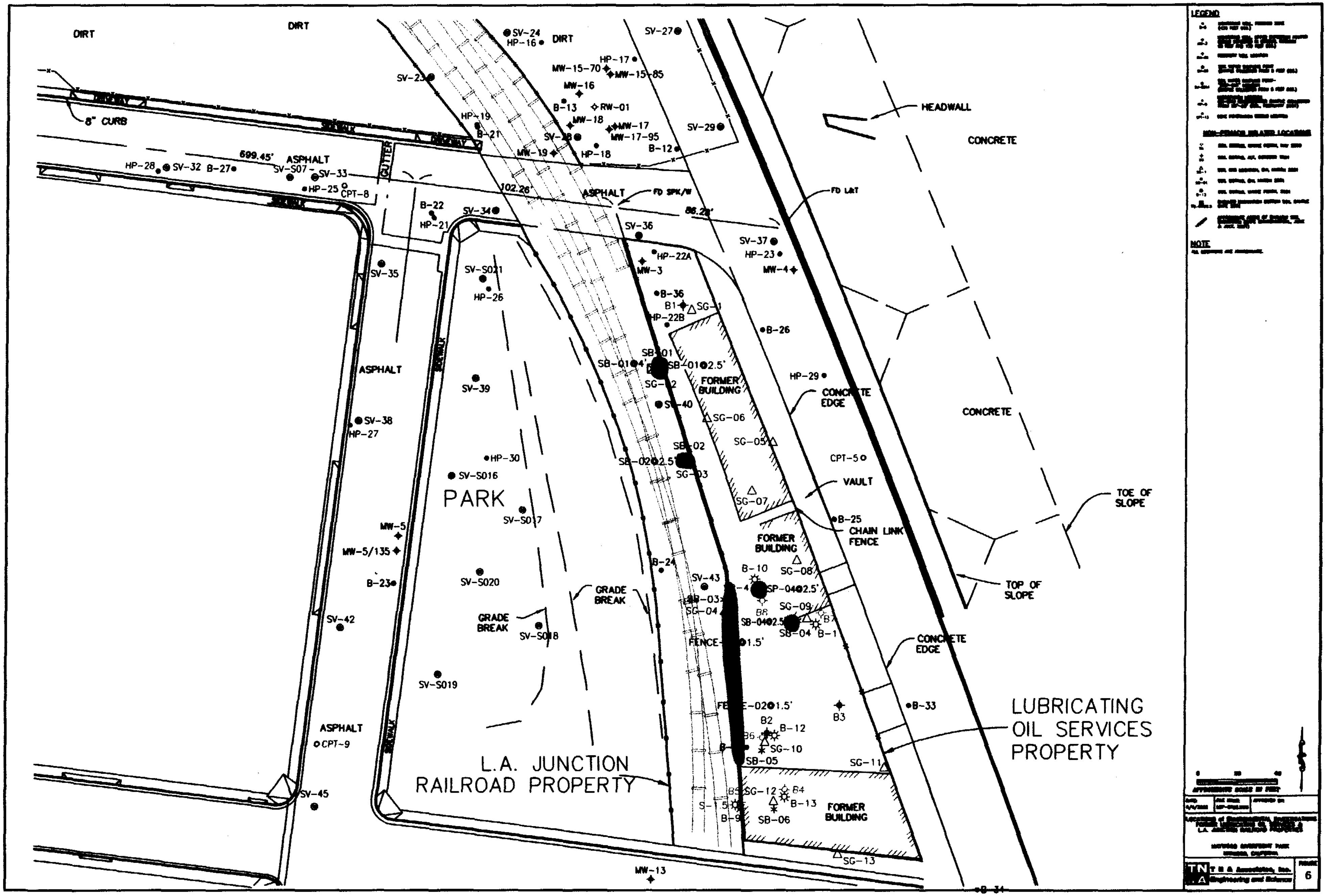
FIGURE 1


LEGEND
SLAUSON AVENUE
L.A. JUNCTION RAILWAY PROPERTY
PRECISION ARROW PROPERTY
PEMACO PROPERTY
W.W. HENRY PROPERTY
LOS ANGELES RIVER
59 TH PLACE
ALAMO AVENUE
RESIDENTIAL
DISTRICT BOULEVARD
LUBRICATING OIL SERVICES PROPERTY
CATELLUS PROPERTY
60 TH STREET
MAYWOOD RIVERFRONT PARK PROPERTIES
T N & Associates, Inc.
Engineering and Science
FIGURE 2

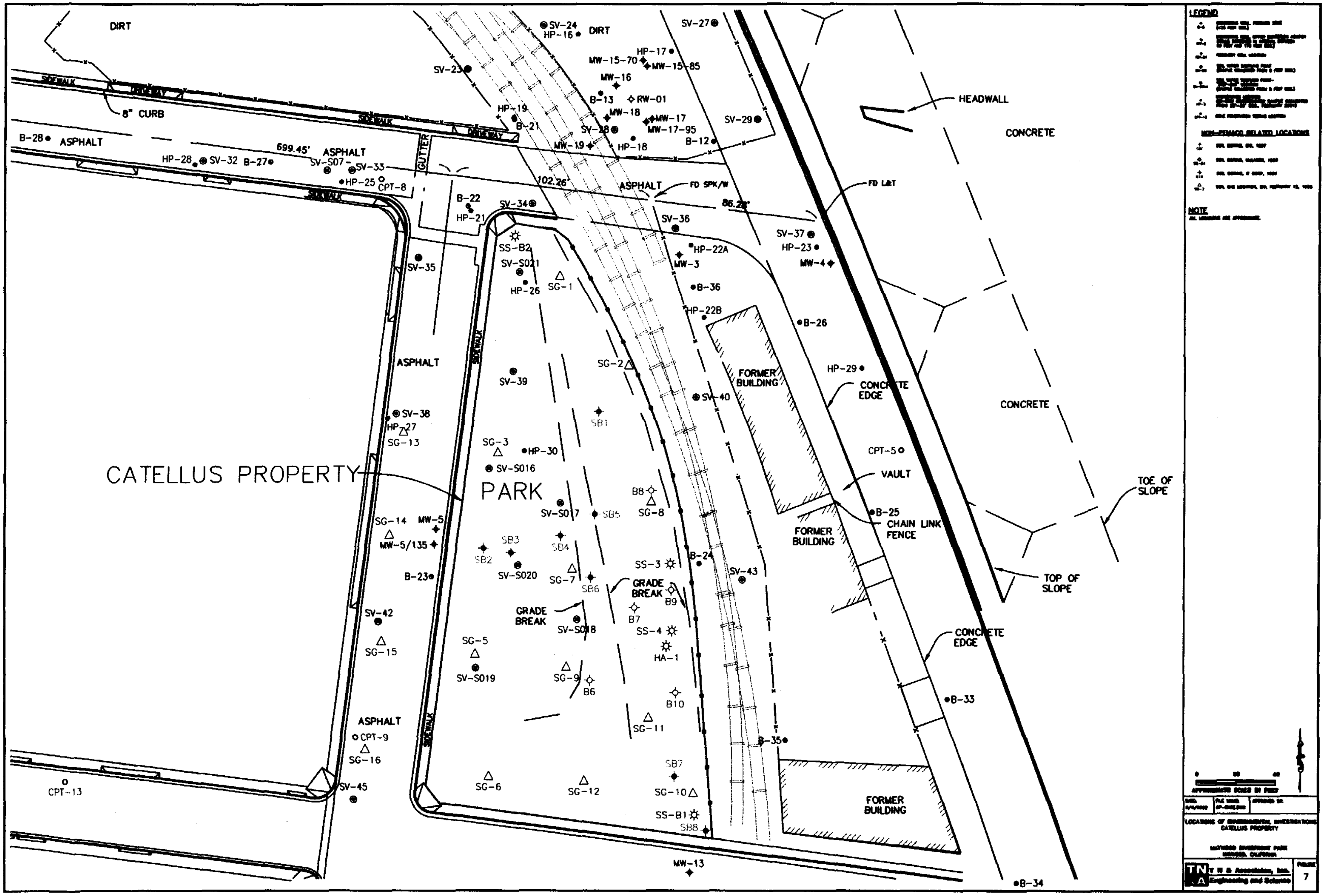

59th STREET
SLAUSON AVENUE
PRECISION ARROW PROPERTY
W.W. HENRY PROPERTY
PEMACO SITE BOUNDARY
LOS ANGELES RIVER
59 TH PLACE
ALAMO AVENUE
RESIDENTIAL
PARK
60 TH STREET
LEGEND
Pemaco Sampling Locations
Pemaco Remedial Investigation
FIGURE
3


SLAUSON AVENUE
LOS ANGELES RIVER
ALAMO AVENUE
59TH PLACE
WALKER AVENUE
LEGEND
NOTES:
Surface and Near Surface
Sampling Locations
FIGURE

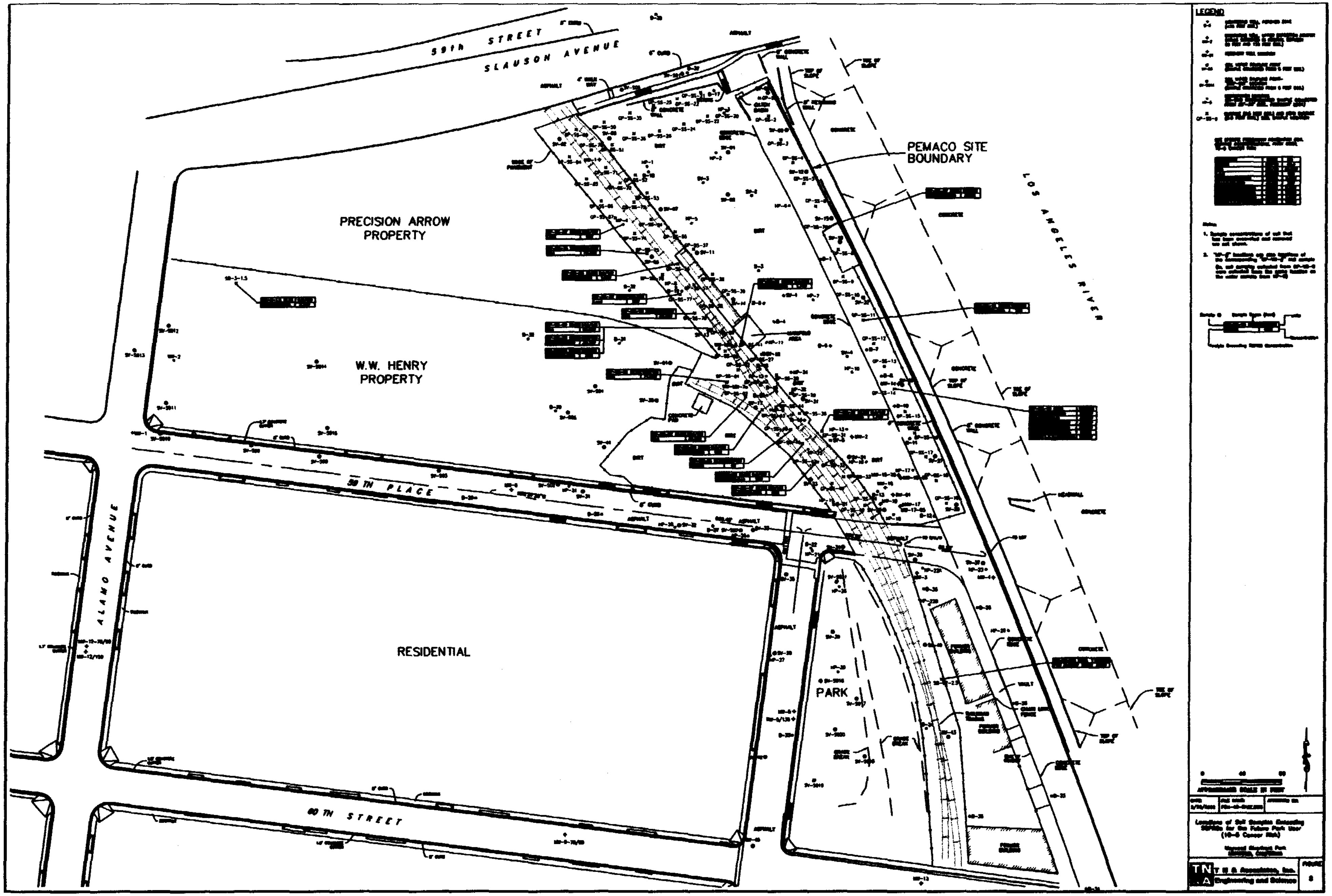

PRECISION ARROW PROPERTY
W.W. HENRY PROPERTY
RESIDENTIAL
PARK
59 TH PLACE
ALAMO AVENUE
EDGE OF PAVEMENT
MANIFOLD AREA
CONCRETE
DIRT
ASPHALT
CONCRETE EDGE
CONCRETE WALL
GRADE BREAK
LEGEND
NOTE
Engineering and Science
FIGURE
5



DIRT
DIRT
DIRT
8" CURB
ASPHALT
ASPHALT
ASPHALT
ASPHALT
GUTTER
699.45'
102.28'
86.29'
FD SPK/W
FD L&T
CONCRETE
CONCRETE
HEADWALL
PARK
GRADE BREAK
GRADE BREAK
FORMER BUILDING
FORMER BUILDING
FORMER BUILDING
CONCRETE EDGE
CONCRETE EDGE
VAULT
CHAIN LINK FENCE
TOE OF SLOPE
TOP OF SLOPE
L.A. JUNCTION RAILROAD PROPERTY
LUBRICATING OIL SERVICES PROPERTY
SV-24
HP-16
HP-17
MW-15-70
MW-15-85
MW-16
B-13
RW-01
MW-18
MW-17
MW-17-95
SV-23
SV-27
SV-29
HP-19
B-21
SV-28
MW-19
HP-18
B-12
HP-28
SV-32
B-27
SV-S07
SV-33
HP-25
CPT-8
B-22
HP-21
SV-34
SV-36
SV-37
HP-23
MW-4
HP-22A
MW-3
SV-35
SV-S021
HP-26
B-36
B1
SG-1
HP-22B
B-26
SB-01
SV-39
HP-29
SG-06
SG-05
SV-38
HP-27
HP-30
SV-S016
SB-02
SG-03
CPT-5
SG-07
SV-S017
B-25
MW-5
MW-5/135
SG-08
B-10
SV-43
SV-S020
B-23
B-24
SG-09
SB-04
B-1
B7
SV-42
SV-S018
SV-S019
B-33
B3
B2
B-12
SG-10
SB-05
SG-11
CPT-9
SV-45
SG-12
B4
B-13
B5
SB-06
SG-13
MW-13
B-34
LEGEND
NOTE
T N & A Associates, Inc.
Engineering and Science
6



CATELLUS PROPERTY
PARK
DIRT
ASPHALT
CONCRETE
SIDEWALK
DRIVEWAY
8" CURB
GUTTER
699.45'
102.26'
86.28'
FD SPK/W
FD L&T
HEADWALL
FORMER BUILDING
CONCRETE EDGE
VAULT
CHAIN LINK FENCE
TOE OF SLOPE
TOP OF SLOPE
GRADE BREAK
SV-24
HP-16
SV-27
HP-17
MW-15-70
MW-15-85
SV-23
MW-16
B-13
RW-01
HP-19
MW-18
MW-17
MW-17-95
SV-29
B-21
SV-28
MW-19
HP-18
B-12
B-28
HP-28
SV-32
B-27
SV-S07
SV-33
HP-25
CPT-8
B-22
HP-21
SV-34
SV-36
SV-37
HP-23
MW-4
SS-B2
HP-22A
MW-3
SV-35
SV-S021
HP-26
SG-1
B-36
HP-22B
B-26
SG-2
HP-29
SV-39
SV-40
SB1
SV-38
HP-27
SG-13
SG-3
HP-30
SV-S016
CPT-5
B8
SG-8
SV-S017
SB5
B-25
SG-14
MW-5
MW-5/135
SB3
SB4
SB2
SV-S020
SG-7
SB6
SS-3
B-24
SV-43
B-23
B9
B7
SV-42
SV-S018
SS-4
HA-1
SG-15
SG-5
SV-S019
SG-9
B6
B10
B-33
SG-11
CPT-9
SG-16
B-35
SB7
CPT-13
SV-45
SG-6
SG-12
SG-10
SS-B1
SB8
MW-13
B-34
LEGEND
NON-PEMACO RELATED LOCATIONS
NOTE
LOCATIONS OF ENVIRONMENTAL INVESTIGATIONS
CATELLUS PROPERTY
Engineering and Science
FIGURE
7


59th STREET
SLAUSON AVENUE
PRECISION ARROW PROPERTY
W.W. HENRY PROPERTY
PEMACO SITE BOUNDARY
LOS ANGELES RIVER
59 TH PLACE
ALAMO AVENUE
RESIDENTIAL
PARK
60 TH STREET
LEGEND
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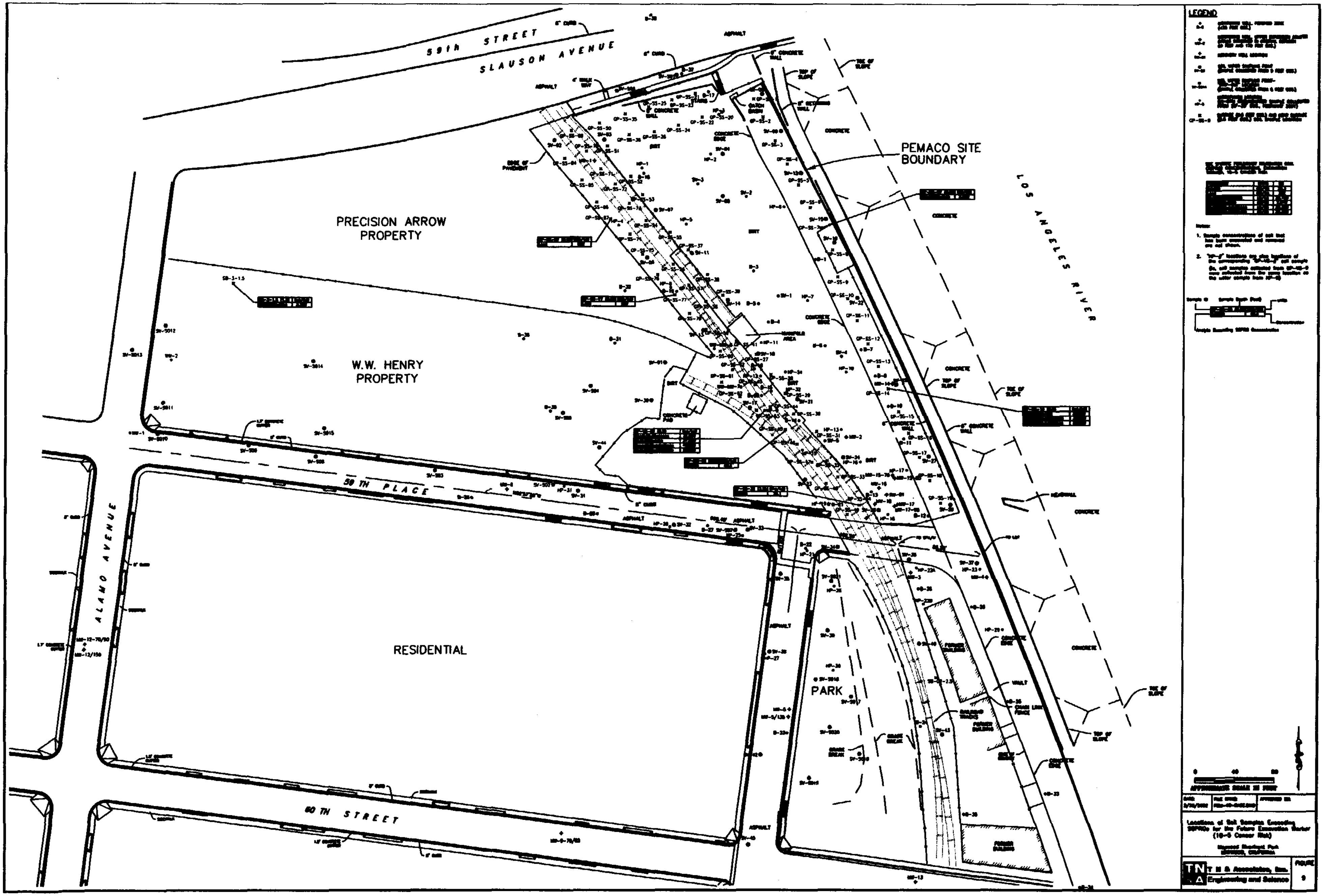
59th STREET
SLAUSON AVENUE
PRECISION ARROW PROPERTY
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PEMACO SITE BOUNDARY
LOS ANGELES RIVER
58 TH PLACE
ALAMO AVENUE
RESIDENTIAL
PARK
60 TH STREET
LEGEND
Engineering and Science
FIGURE
9

TABLES

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
Active Leak Testing, Inc.	12/26/90	*Subject Site Assessment Investigation Report* • 16 Soil borings (B-1 through B-16) drilled from 30' to 40' bg, sampled every 5'. • Locations of the borings were determined from a previous soil vapor survey performed by ALT. • Each soil sample analyzed for BTEX and non-halogenated volatiles, 2 samples from each boring analyzed for VOC's as determined by PID readings. • Contaminants detected in every boring, toluene and paraldehyde were the most prevalent, but benzene, PCE, 1,1-DCE and TCE were only chemicals exceeding regulatory levels. • Each boring converted to shallow monitoring well (B-1 through B-16). • No indication in report of any water sampling performed.
Ecology and Environment, inc.	2/25/94	*Final Site Assessment Report* • Describes visual site characterization activities performed by E & E (contracted by the USEPA) to assess whether federal involvement was warranted. The site had been abandoned and the warehouse burnt down in December 1993, 31 UST's, 4 AST's, 6 drums and one 15'-diameter open borehole remained onsite. • The borehole was grouted and a fence was placed around the site as an initial security measure. • The six remaining drums were sampled and removed and all the UST standpipes were locked.
Ecology and Environmental, Inc.	03/10/98	*Pemaco Maywood Expanded Site Inspection* • Details Expanded Site Assessment activities performed by the E & E's START team over the time period between February – May 1997. • 118 shallow soil samples (5' bg), 102 collected beneath concrete pad (former drum storage) and 19 others collected in UST and AST areas. All samples analyzed for VOC's. Majority of detects were BTEX, 1,1,1-TCA, PCE and acetone mainly found in northern portion of former drum storage pad. • 6 soil borings (SSB-1 through SSB-4, SMW-1 and SMW-2) completed to 90' bg, samples collected approx. every 10' and analyzed for VOC's. • Acetone, 1,1-DCE, 1,1-DCA and TCE were main detects. SSB-3 and SSB-4 had majority of hits (TCE

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
Ecology and Environment, Inc. (continued)		up to 1,200,0000 ppb at 15' (SSB-3) and 990 ppb at 80' (SSB-4). • Two of these borings converted to deep monitoring wells and 2 more deep (80') monitoring wells (MW-3 and MW-4) installed downgradient with no soil sampling. • Groundwater samples collected from all perched wells (B-1 through B-16) and analyzed for VOC's, product found in 3 of the wells (B-2, B-6 and B-9). • Product wells sampled and analyzed and found to be 20% - 30% gasoline range hydrocarbons. • Chlorinated VOC's found in all perched wells sampled from <10 to 180 ppb. • TCE found in groundwater samples from MW-2 through MW-4 from 430 (MW-2) to 11,000 ppb (MW-4), MW-1 was ND.
Ecology and Environmental, Inc.	03/98	*Subsurface Investigation* • All USTs were removed in August through September 1997 except for one UST that was abandoned in place and all above ground structures were demolished and removed by the START group. Horizontal screened piping was laid down in tank pits before backfilling to be hooked up to a future SVE system. • 44 surface (0.5') and near surface samples (2.5') were collected from 22 locations spread throughout the site in the UST, AST and warehouse areas in October 1997. • Also, 6 samples from 3 locations in former sump area (south of existing SVE manifolding). • All soil samples were analyzed for VOC's. • PCE and 1,1,1-TCA were most prevalent (up to 927 ppb). • 22 soil vapor locations (10' – 15' bg) and 14 locations (18' – 25' bg) were field screened using an FID/PID, flame-out occurred due to lack of oxygen at 18 locations and 15 of the locations had reading >10,000 ppmv. • 15 soil vapor samples were collected from selected locations mentioned above and analyzed for VOC's. Toluene, 1,1,1-TCA, PCE, methylene chloride and xylenes were the most prevalent (up to 1,280 ppmv). • 44 sub-surface soil samples from the 22 locations were collected (co-located with the soil vapor and near surface locations) from 12' and 22' bg. • All 44 samples were analyzed for VOC's and a selected 10 samples were analyzed for SVOC's. • 1,1-DCE, TCE, BTEX, 1,2,4-Trimethybenzene, 1,3,5-Trimethylbenzene, 4-Methyl-2-pentanone were the prevalent VOC's (up to 237 ppm).

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
Ecology and Environment, Inc. (continued)		• Phenol and naphthalene were most prevalent SVOC's (up to 11 ppm). • Deep wells MW-1 through MW-4 were re-sampled and analyzed for VOC's in November 1997. • MW-2 through MW-4 had hits of TCE from 1,090 ppb (MW-2) to 8,590 ppb (MW-3), MW-1 was ND results lower than the May 1997 sampling. • Report concludes that in general the VOC's detected in all media consisted of: acetone, 4-methyl-2-pentanone, BTEX, methylene chloride, 2-butanone, TCE, PCE, 1,1-DCE, 1,1-DCA and 1,1,1-TCA. Some levels were above residential PRG's and SSL's (threat to groundwater), no SVOC's exceeded PRG's or SSL's. • Groundwater gradients calculated for the perched zone and Exposition Aquifer Zone from data collected during the water sampling. • Perched zone characterized as discontinuous and sporadic with overall flow north towards the LA River with many localized mounds and sinks causing varying flow directions. • Exposition Aquifer flow calculated to be towards the south.
CET Environmental Services, Inc.	3/98	*Design Report* • Document is a design report for the SVE system with several schematics and discussion of design parameters for the SVE system.
CET Environmental Services, Inc.	2/4/99 1/4/99 11/12/98 10/29/98 9/2/98 8/5/98 7/8/98 6/8/98 5/11/98 4/4/98	*Vapor Extraction Reports* • Each of these documents is a monthly SVE system report with field PID measurements of influent and effluent concentrations, system parameter measurements and mass removal calculations. • Documents also give details of system adjustments and carbon usage • The February 1999 document (last report before system shut-down) reported that a total of 144,412 lbs of hydrocarbons were removed from the site through vapor extraction and natural degrading.

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
CET Environmental Services, Inc.	5/6/98	*Pemaco Stack Test* • Stack test results for thermal oxidation unit.
Ecology and Environmental, Inc.	5/99	*Pemaco Removal Site Final Report* • Report summarizes work listed above and also summarizes pilot testing (SVE, in-situ respiration and bio-slurping) of remedial techniques. • A soil vapor well (SV-1) was installed in the former UST area along with three vapor monitoring points (VMP-1 – VMP-3). • A 2-day in-situ respiration test concluded that a mass destruction of 300 lbs per month of VOC's was possible. • A 2-day bio-slurping test was conducted, it was concluded that this was not effective in removing free product in the perched zone. • The soil vapor extraction pilot test concluded that 33,000 lbs per month of VOC's could be removed from the site. • Ultimately the SVE system with 5 "SV" wells (SV-1 – SV-5), all the existing ALT wells, (B-1, B-3 – B-16) and the horizontal wells placed in the tank pit backfills were plumbed into a system with carbon canisters and a thermox unit. • SVE system operates from March 1998 to March 1999 when it was shut down due to community concerns. • From the weekly monitoring readings and measurements, it was calculated that the SVE system removed 67,610 lbs of contaminants. • An additional 82,294 lbs of hydrocarbons were destroyed by natural degradation during the 1 year SVE operation according to calculations.

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
T N & Associates, Inc.	12/00	*Preliminary Summary of Groundwater and SVE System Sampling Events* • **This is an internal draft document that was not formally submitted outlining sampling activities performed to assess current site conditions (current in 2000).** • Scope included testing of lo-flo sampling equipment, sampling of perched wells and Exposition Aquifer wells, and sampling of the dormant vapor extraction system by connecting a mobile blower to it, applying vacuum and collecting samples out of the sampling ports located on the manifold. • Perched wells B-1, B-3, B-4, B-5, B-10, B-13, SV-1 and SV-5 were lo-flo sampled (other wells were dry or obstructed) and analyzed for TPH-g, VOC's, SVOC's and non-halogenated VOC's (NHVOC's). • Well B-15 was found to contain 6' of floating free product; the product was sampled and was characterized as kerosene range organics by the EPA Region IX lab. • Every perched well sampled had detectable concentrations of TPH-g at 60 ppb (B-10) to 2,600 ppb (B-13). • VOC's in the perched wells were predominately acetone (up to 6,200 ppb) and BTEX (up to 100 ppb). The chlorinated compounds 1,1,1-TCA, 1,1-DCA, 1,1-DCE, PCE, TCE and vinyl chloride were semi-prevalent and ranged from 0.3 ppb to 750 ppb. • SVOC's were detected in the perched wells from 19 ppb (naphthalene) to 150 ppb (4-methyl phenol) and were not as prevalent as the VOC's. • NHVOC's were detected in the perched wells from 0.16 ppm to 7.53 ppm (acetone, 1,4-dioxane, MEK and isopropanol). • The 4 Exposition Aquifer wells (MW-1 – MW-4) were lo-flo sampled and also analyzed for TPH-g, VOC's, SVOC's and NHVOC's. • TPH-g ranged from 2,200 ppb (MW-2) to 10,000 ppb (MW-3) in MW-2 through MW-4, MW-1 was ND. • VOC's detected in the wells MW-1 through MW-4 were TCE, cis-1,2-DCE, TCE, methylene chloride and cyclohexane ranging from 0.2 ppb to 13,000 ppb. The predominant VOC in the Exposition wells is TCE. Well MW-1 had only trace hits of VOC's, none more than 2.1 ppb. • SVOC's above detection limits in the Exposition wells were 4-Methylphenol (12 ppb to 190 ppb) and naphthalene (19 ppb). • The only NHVOC detected in the Exposition wells was acetone on MW-2 at 200 ppb.

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
TN & Associates, Inc. (continued)		• The gradient of the perched groundwater zone measured during this event indicated that no prevalent gradient direction existed and the potentiometric surface was highly irregular. • Based on the three data points (MW-2, MW-3 and MW-4), the groundwater gradient direction in the upper part of the Exposition Aquifer was toward the west. • It was concluded that the vertical and lateral extent of groundwater contamination in the perched zone, Exposition Aquifers and deeper aquifers is not defined. • Summa sampling of the dormant vapor system indicated trace to low concentrations of BTEX, 1,1-DCE, cis-1,2-DCE, vinyl chloride, methylene chloride, 1,1-DCA, 1,1,1-TCA TCE; PCE; acetone; chloroethane; propylene; hexane; and cyclohexane ranged from <0.5 ppbv to 4,400 ppbv (cis-1,2-DCE in well B-3).
T N & Associates, Inc.	TBD	• **The following is a summary of Remedial Investigation (RI) Activities that were performed at the Pemaco site and adjacent areas from January 2001 through December 2001. Only data collected during these RI activities were used for the SSPRG screening.** • 66 soil gas samples from 66 different locations were collected from 5' bg and analyzed for VOCs. • Completion of soil borings including the following: - 14 borings to 90' bg via Cone Penetrometer Test (CPT); - 46 borings to 25'-35' bg via Geoprobe; - 9 borings to 90'-100' bg and 1 boring to 130' bg via hollow stem auger; and - 4 borings to 110'-175' feet bg via mud-rotary rig. • Collection of soil samples from soil borings, including the following: - 152 upper vadose zone samples for VOCs, SVOCS, solvents, and metals; - 19 samples for total organic carbon (TOC) analysis; - 149 surface and near-surface samples via Geoprobe rig for SVOCs and metals; - 71 lower vadose zone samples for VOCs, SVOCs, solvents, and metals; - 25 lower vadose zone samples for TOC analysis;

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
TN & Associates, Inc. (continued)		- 38 lower vadose zone samples for geotechnical parameters; and - 5 lower vadose zone samples for TOC and geotechnical parameters. • Conversion of 14 soil borings to 18 monitoring wells (4 were double-nested). Soil borings ranged in depth from approximately 68 feet to 174 feet bgs. • Installation of 16 perched zone monitoring wells via a Geoprobe rig. • Groundwater monitoring: - May 2001 (34 new wells, 23 existing wells) - Samples from 51 wells for VOCs, solvents, SVOCs, metals, cyanide, CrVI, CO_2, TOC, methane, ethane, and ethene; - 3 wells (B-7, B-14, and B-16) were dry; - 3 wells (B-15, B-28, and B-29) had free product. • Collection of groundwater level measurements: - 35 perched zone wells in October 2000 and June 2001; - 22 Exposition Aquifer wells weekly for the month of May 2001, and monthly from June 2001 to present (measurements were used to evaluate the effects of the active Maywood production wells on the Exposition Aquifer System groundwater. • Quarterly monitoring has been on-going since May 2001. • Groundwater aquifer testing: - conducted in December 2001 on Exposition Aquifer 'A' and 'B' zones (slug, step- drawdown and 72-hour continuous test). • Soil vapor and Summa canister samples of indoor/outdoor air were collected from private residences adjacent to Pemaco in July 2001 and March 2002.

Table 3.2.1
Summary of Environmental Assessment Activities for the Pemaco Property
5050 East Slauson Avenue, Maywood, California
(Table only includes reports involving actual site activities)

Company	Report Date	Scope and Summary of Investigation
**	**	• Analytical results of the above activities were not summarized due to the large amount of data produced, however, the RI activities have completely delineated the vertical and horizontal extent of soil and groundwater contamination sourced from the Pemaco property. • The Pemaco Superfund site in currently in the Feasibility Study stage to identify the best remedial action to clean-up contaminated soil and groundwater.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Meredith/Boli & Associates, Inc.	10/21/97	No Record	*Tank Removal Report for Underground Storage Tanks* • Documents the removal of 2- 10,000 gallon UST's and 1 – 4,000 gallon UST in the eastern portion of the site, 2 of the tanks were split tanks with two different compartments in each. • The tanks variously contained toluene, hexane, naptha, alcohol and paint thinners. • Samples from the tank pit bottoms had hits of toluene (78 - 14,000,000 ug/kg), ethylbenzene and xylenes (2,000 – 6,600 ug/kg), trimethybenzene (2,000 ug/kg) and PCE (3,700 ug/kg) was detected beneath the associated tank piping that ran from the railspur to the UST's. • The UST's and approximately 150 tons of contaminated soil was hauled off the site.
Cornerstone Technologies, Inc.	3/3/98	No Record	*Phase I Environmental Site Assessment including Preliminary Asbestos and Lead Based Paint Survey and Limited Phase II Subsurface Investigation* Phase I and Limited Phase II Investigations December 1997 • 18 soil borings (B-1 thru B-18) - samples taken at 5 ft. bgs and analyzed for chlorinated solvents (8010) and TRPH (total recoverable petroleum hydrocarbons). • Results revealed detectable concentrations of 1,1,1-TCA (TCA) and PCE. Detects of TCA from 28-33 ug/kg in B-1 and B-14 and 5.8 ug/kg PCE near the former loading ramp and 7.4-25 ug/kg in B-15 thru B-17 near the north side of the building and site of removed USTs. Max concentrations: 17-105 ug/kg of TCE and 5.6-5.7 ug/kg PCE in B-2 and B-3 at the former mixing patio. B-12 at former latex storage area contained 20 mg/kg of TRPH. TRPH at B-15 contained 24 mg/kg TRPH.
Cornerstone Technologies, Inc.	4/19/98	No Record	*Completion of Additional Borings for Limited Phase II Subsurface Investigation and Exploratory Excavation* April 1998 • 8 borings advanced 5 – 15 ft. bgs, sampled in 5-ft. intervals; (9) samples analyzed for VOCs (8240) and TRPH (418.1). • All samples were ND (non detect).

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
Cornerstone Technologies, Inc.	7/23/98	No Record	*Remedial Action Report for Toluene-Impacted Soils for Former UST Area at W.W. Henry Property* An excavation 17-ft wide x 34-ft long x 21-ft deep between monitoring wells, MW-1 thru 4, and nearest to MW-1 and MW-2. Eight sampling locations each about 12.75 ft. apart were collected along the excavation perimeter at 8-, 13-, and 18-ft. depths. Six discrete soil samples were also collected from the bottom of the 21-ft. excavation and a stockpiled soils pile. All were analyzed for TPH, BTEX and MTBE. • 30 sidewall confirmation samples: 2 detects for TPH from 9-14 mg/kg. No benzene. Toluene detected in small concentrations in a few samples, max in ESW-18' at 14.5 mg/kg. No BTEX or MTBE. Less significant concentrations of toluene reported for EEWN-18' at 2.85 mg/kg and ENW-18' at 1.16 mg/kg. • Excavation bottom samples: all 6 samples contained detectable concentrations of benzene ranging from 20 ug/kg in sample EBSW-21' to 160 ug/kg in sample EBME-21'. Detectable toluene levels ranged from 3.83 mg/kg in EBSE-21' to 245 mg/kg in EBME-21'. • Stockpiled soil samples: Detects were for toluene ranging from 1.25 – 4,280 mg/kg; all others were ND.
Cornerstone Technologies, Inc.	1/15/99	No Record	*DRAFT Remedial Action Report for HVOC Impacted Soils for Former Mixing Patio Area The W.W. Henry Company Vacant Industrial Building* 6 borings, C-1 thru C-6, advanced 5 – 15 ft. bgs and sampled in 5-ft. intervals, November 1998. • 18 total samples analyzed for HVOs (halogenated volatile organics) by 8010. Results showed detects for PCE in 7 samples at 5-, 10-, and 15-ft. intervals ranging from 9.6-45 ug/kg. TCA was detected in C-5-5, C-5-15, C-6-5, C-6-10 and C-6-15 ranging from 13-22 ug/kg. • On 1/8/99, a 6-ft. x 6-ft. x 16-ft. deep excavation was made surrounding C-6. Confirmation samples were taken from the excavation area from 4 to16 feet and from the stockpiled soil pile. HVOC analysis revealed trace levels (<5 ug/kg) of TCA in 2 samples from the confirmation samples. The stockpiled soil samples revealed one detect for 1,1-DCE at 2.3 ug/kg and a 1,2-DCA level of 1.9 ug/kg. TCA levels ranged from 2 - 51 ug/kg. • On 1/11/99, the 1/8/99 excavation around C-6 was further excavated to 19 feet. Subsequent analyses revealed no detects and the previously HVOC-impacted soils were apparently mitigated.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
Erler & Kalinowski, Inc. (EKI)	8/31/99	C	*Subsurface Investigation Report fro the W.W. Henry Company Property located at 5920 Alamo Avenue in Maywood, California* Soil and perched groundwater investigations – precursor to "Screening Human Health Assessment" 25 soil gas samples collected April 4 and 5, 1999 in shallow vadose zone soil ~10 ft. bgs in SG-1 thru SG-27 (no samples from SG-13 or SG-19) and analyzed for VOCs. • Detected VOCs were primarily 1,1,1-TCA (18 detections with max at 4,200 ug/L) and 1,1-DCE (16 detections with max of 800 ug/L). Concentrations were greatest beneath western portion of former manufacturing building in SG-1 thru SG-17. Small detects of PCE and 1,1-DCA and trace chloroform and carbon tetrachloride. Soil samples were collected May 7, 1999 from 6 boring locations (SB-1 thru SB-6) from 1.5 – 20.5 ft. bgs and analyzed for VOCs, SVOCs, PCBs, percent moisture (ASTM), metals, chlorinated herbicides and TOC. • Detected VOCs in all 6 locations – 1,1,1-TCA and 1,1-DCE in SB-3 thru SB-6 were at concentrations of 5.9 – 2,900 ug/kg. In SB-4 thru SB-6, the max concentrations of 1,1,1-TCA were in the deepest samples of 20.5 ft. bgs. Others including PCE, TCE, 1,1-DCA and 1,2-DCA were above RLs at 4 – 260 ug/kg. SB-1 and SB-2 contained aromatic compounds. • 12 samples, SB-1 thru SB-6, SVOCs were detected in all locations below 1.5 ft. bgs – several analytes above RLs (acenapthene, benzo(a)pyrene, fluoranthene, fluorine, naphthalene and phenanthrene from 270 – 21,000 ug/kg. • 15 samples from SB-1 thru SB-6 from 1.5 to 11 ft. bgs were analyzed for herbicides, percent moisture, PCBs, pesticides, TPC. • Herbicides, PCBs and pesticides were Non-Detect.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
Erler & Kalinowski, Inc.	8/31/99	No Record	*Screening Human Health Risk Assessment* Analytical data from the collection of soil, FHP, soil gas and groundwater to determine COCs for potential human health risks evaluation. 39 total samples collected from shallow vadose zone soil (2 – 5 ft. bgs). 39 samples analyzed for VOCs. • VOCs – (6) VOCs were determined to be COCs – PCE at 44% frequency of detection; 1,1,1-TCA at 36%; 1,1-DCE and xylenes at 8%; 1,2-DCA and TCE at 3%. 12 samples analyzed for metals, SVOCs, PCBs, herbicides and pesticides. • Metals – (9) metals detected, but none were considered to be COCs. • SVOCs – (14) detected SVOCs were determined to be COCs: benzo (a) pyrene and fluoranthene @ 92% frequency of detection; phenanthrene at 83%; benzo (g,h,i) pyrene, benzo(k)fluoranthene, chrysene and ideno(1,2,3-c,d)pyrene at 75%; benzo(a)anthracene at 42%; others 10% and below. • No PCBs, herbicides or pesticides detected from 12 samples – None considered COCs. Deep vadose zone soil (5 – 15 ft. bgs). Between 1 – 21 select samples were analyzed for VOCs between June 1986 and May 1999. From these samples, 15 VOCs were detected and 13 were determined to be COCs. • Historically, only 1 sample [No.1 (UST 1)] in May 1988 has been analyzed for acetone (1.8 mg/kg), 2-hexanone (0.11 mg/kg) and MEK (0.082 mg/kg) only 2 samples [S-1 and S-2] in June 1986 have been analyzed for hexane (15 mg/kg and ND). 1,2,4- and 1,3,5-trimethylbenzene were only tested for in May 1999 – there (2) detects in SB-1-20.5 between 0.0043 and 0.014 mg/kg. • EKI did not consider toluene, enthylbenzene, isopropyl alcohol, or 2-hexanone as COCs.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
Erler & Kalinowski, Inc.	2/16/00	D	*Addendum to the Screening Human Health Risk Assessment for the W.W. Henry Company Property* Ten additional samples (SB-7 thru SB-16) of shallow vadose zone soil (1.5 – 3 ft. bgs) were collected to further delineate the PAHs in soil along the railroad spur at the northern portion of the site; these were analyzed for SVOCs. • Results showed detects in all 10 samples with ranges similar to previous sampling events. Noteworthy exceptions were the first-time detections of: a single analyte for acenapthylene at 0.012 mg/kg, two detects for dibenzo (a,h) anthracene ranging from 0.019 - 0.065 mg/kg and nine detects for benzo(b)fluoranthene and pyrene from 0.024 – 0.36 mg/kg. These analytes were previously either not analyzed for or were below RLs. • Ten additional soil gas samples (SG-28 thru SB-33) were also collected in SUMMA canisters in December 1999.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
LFR Levine Fricke	7/6/01	No Record	*Soil, Gas, and Groundwater Evaluation* *Former W.W. Henry Property* Ten soil borings (LFSB1 – LFSB10). Thirty-nine soil samples collected at 5-ft. intervals between 5 – 25 ft. bgs and analyzed for VOCs. • Benzene detects ranged from 29 – 470 ug/kg in LFSB2 at 15 ft. bgs (LFSB2-15) to LFSB5-25. Toluene in LFSB3-20 at 17 ug/kg, LFSB4-15 and LFSB4-20 at 37 ug/kg and 7 ug/kg, respectively. • Significant hits of 1,1-DCE, 1,1-DCA, 1,1,1-TCA and minor hits of 1,2-DCA, TCE and PCE for borings LFSB9 and LFSB10 at 15-30 ft. bgs. Soil broings LFSB9 and LFSB10 were subsequently completed as 2-inch vapor extraction wells, VE1 and VE2. Ten groundwater grab samples (LFSB1 thru LFSB10; MW-1, MW-3, MW-4, MW-7 and MW-8) analyzed for VOCs. • Benzene detects LFSB2 thru LFSB5 from 66 – 2,300 ug/L and MW-1, MW-3 and MW-4 from 23 – 420 ug/L. • Toluene in LFSB4 at 86,000 ug/L; MW-1 thru MW-4 at 100,000 – 430,000 ug/L. • Ethylbenzene and xylene detects in LFSB4, MW-1, MW-3 and MW-4. • Chlorinated compounds in LFSB1, LFSB2, LFSB7 thru LFSB10, MW-1, MW-7 and MW-8. Significant concentrations of chlorinated compounds in LFSB9 and LFSB10 (410 – 890 ug/L) and 1,2,4-trimethylbenzene in MW-1, MW-3 and MW-4. Seventeen soil gas probes (LFSG1 thru LFSG17) yielded 52 soil gas samples collected at 5-ft. intervals to groundwater at ~25 ft. bgs and analyzed for VOCs. • Benzene in LFSG5-5 at 6.8 ug/L, LFSG14-25 at 1.5 ug/L, LFSG16-20 at 3.8 ug/L and LFSG17-5 at 1.7 ug/L. • Toluene in LFSG1-5, -10, and –15 at 4.1, 5.6 and 5.2 ug/L, respectively; trace amounts in LFSG11 and LFSG12. • 1,1,1-TCA and 1,1-DCE in LFSG10 thru LFSG13 from 1.2 – 33 ug/L. The highest concentrations were at 5 – 10 ft. bgs, increasing with depth.

Table 3.2.2
Summary of Environmental Assessment Activities for the W.W. Henry Property
5920 Alamo Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Report Title, Scope and Summary of Investigation
LFR Levine Fricke	11/1/01	C	*Addendum to Soil, Soil Gas, Groundwater and Ambient Air Evaluation Former W.W. Henry Company Property* Seven soil gas probe borings total – (6) probes [pLFSG19 thru LFSG24] advanced in residential property on 59th Place; (1) boring [LFSG18] on Alamo Drive. • Thirty-three soil gas samples were collected at 5 ft intervals between 5 – 20 ft bgs and analyzed for VOCs. Nine detects above RLs for BTEX, between 1.1 and 3.0 ug/L. Groundwater grab samples were collected in 5 borings, LFSG18 – LFSG21 and LFSG23, and were analyzed for VOCs. • Acetone was detected in 4 borings between 33 and 54 ug/L. LFSG23 had hits of benzene at 9 ug/L, TCE at 13 ug/L and cis-1,2-TCE at 24 ug/L. LFSG21 detected toluene at 18 ug/L and 1,2,4- and 1,3,5-trimethylybenzene from 6 – 21 ug/L. No additional soil samples beyond the July 6, 2001 report.

Table 3.2.3
Summary of Environmental Assessment Activities for the Lubricating Oil Services Property
5989 S. District Boulevard, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
ALT Leak Testing, Inc.	10/91	No Record	*Report of Site Investigations* • 3 borings to 30' bg (B-1, B-2 and B-3) completed, sampled every 5'. • 1 surface soil sample (SP-4) collected in stained area. • 2 composite samples analyzed from each boring, one shallow – one deep. • Shallow samples analyzed for BTEX, deep samples analyzed for VOC's, no detects. • Surface sample analyzed for TRPH and SVOC's, detected SVOC's from 5.8 to 190 mg/kg and TRPH at 18,000 mg/kg. ** above scope summary taken from EKI, 2001
Wayne Perry, Inc.	5/12/00	No Record	*Phase II Site Assessment Report* • 5 soil borings to ~15' bg (B4 – B8), sampled every 5'. • One composite sample analyzed from each boring for VOC's, SVOC's, TPH, TRPH, PAH's. • No detects. ** above scope summary taken from EKI, 2001
Wayne Perry, Inc.	3/16/ 01	No Record	*Site Assessment Report* • Soil excavation performed in stained areas (specific locations unknown). • 5 hand auger borings completed to 5' bg (B-9 – B-13), one 5' sample from each boring collected along with one shallow soil sample (S-1.5) collected as confirmatory excavation bottom sample. • All samples analyzed for VOC's, SVOC's, TRPH, TPH, PAH's and metals. • Boring B-13 at 5' had TRPH hit at 48 mg/kg, no other detects, and metals within normal ranges.

Table 3.2.3
Summary of Environmental Assessment Activities for the Lubricating Oil Services Property
5989 S. District Boulevard, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Erler & Kalinowski, Inc.	3/30/01	B	*Phase II Environmental Assessment Report* • Geophysical survey detects buried RR spur in western portion of site. • 13 soil gas borings (SG-01 - SG-13) completed, samples collected at 10' bg, and analyzed for VOC's. • 6 soil borings (SB-01 – SB-06) completed to 25' bg, only samples from 6" and 3' bg collected. • Soil samples analyzed for VOC's, SVOC's and TPH, shallow sample from each boring also analyzed for pesticides, herbicides, PCB's and metals. • Perched groundwater successfully collected from SB-03 and SB-06, analyzed for VOC's, no detects. • Soil vapor samples all <1 ug/L for all VOC's, except for duplicates samples collected with Summa canisters, which had hits of BTEX, acetone and PCE from 0.009 ug/L to 0.061 ug/L, (SG-06 and SG-12). • Several VOC's (BTEX and chlorinated's) detected in shallow samples from SB-01 and SB-02 (0.01 to 17,000 ug/kg), PCE in SB-01at 3' = 63 ug/kg, TCE in SB-02 at 0.5' = 1,300 ug/kg. These locations in RR ROW adjacent to site. • SVOC's also detected at SB-01 location from 19 to 680 mg/kg. • No pesticides or herbicides detected. • PCB's detected in RR ROW adjacent to site (SB-01, SB-02 and SB-03) at levels above residential PRG's.

Table 3.2.3
Summary of Environmental Assessment Activities for the Lubricating Oil Services Property
5989 S. District Boulevard, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Cape Environmental, Inc.	6/15/01	C	*Results of Excavation and Confirmatory Sampling of Oil-Impacted Soil Lubricating Oil Services Site* • Small excavations (4' x 4' x 2.5' deep) were done at areas SB-01, SB-02 (RR ROW) and SB-04 (onsite). • Large area (2' x 80' x 1.5' deep) excavated along southwestern fence line to remove TPH impacted soil. • One confirmation sample was collected from the bottom of excavation at the SB-01, SB-02 and SB-04 excavations and 2 confirmatory samples collected from large excavation. • Samples analyzed for TPH, VOC's, SVOC's, PCB's and metals. • TPH-diesel range detected in the SB-01 and SB-02 excavation bottoms (460 mg/kg and 3,200 mg/kg). • PCE detected in the SB-01 and SB-02 samples (57 and 11 ug/kg). • PCB's detected in the SB-01 and SB-02 samples (3.2. and 8.5 mg/kg). • SVOC's only detected in SB-04 excavation bottom sample and large excavation bottom samples (0.11 to 0.23 mg/kg). • SB-01 excavation extended to 4' x 5' x 4' deep and re-sampled. • Second confirmatory sample from SB-01 had TPH-d at 8,300 mg/kg, PCE at 110 ug/kg and PCB's at 1.8 mg/kg. • No further excavating completed due to locations being offsite in RR ROW. • Excavations "caved in", not properly backfilled.

Table 3.2.3
Summary of Environmental Assessment Activities for the Lubricating Oil Services Property
5989 S. District Boulevard, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Cape Environmental, Inc.	7/3/01	C	*Results of Additional Excavation and Confirmatory Sampling of Oil-Impacted Soil at the Lubricating Oil Services Site.* • Excavation of SP-04 location, stained area of ALT, 1991, completed (2' x 2' x 1' deep). • Confirmatory sample collected from excavation bottom and analyzed for TPH, VOC's and SVOC's, all results non-detect. • 5 hand-auger borings to 1' bg were completed around the SP-04 location with no visual indications of stained soil.
LARWQCB	7/17/01	NA	*No Further Action – Lubricating Oil Services, Inc.* • Closure letter issued to Mr. John Donahue of Lube Oil Services.

Table 3.2.4
Summary of Environmental Assessment Activities for the Catellus Property
5950 Walker Avenue (also 5201 East 60th Street), Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
McClaren Environmental Engineering, Inc.	01/30/89	No Record	*Property Transaction Environmental Assessment and Phase II Soil Sampling* • Identifies onsite clarifier, AST's, isopropyl alcohol storage and loading/unloading areas as possible sources of contamination. • 3 borings (HA-1, SS-3 and SS-4) ranging from 3' to 8' bg completed in AST area located at terminus of RR spur. • 2 borings (SS-B1 and SS-B2) collected in north and south portions of site for background data. • Selected samples collected at 0.5', 3', 5' and 8' bg and analyzed for TPH, TRPH, VOC's, methylene blue active substances (MBAS) and phosphates. • No TPH detected except for SS-4, 0.5' bg (200 mg/kg). • TRPH at 0.5' from HA-1, SS-3 and SS-4 from 17,000 mg/kg to 49,000 mg/kg, TRPH at ND and 600 mg/kg for background surface samples SS-B1 and SS-B2, respectively. • TRPH at 8' bg = 90 – 620 mg/kg. • MBAS at 0.5' and 3' bg from 1.6 – 110 mg/kg, ND at 5' and 8' bg. • No VOC's detected (only 2 samples from HA-1 analyzed for VOC's). • Report recommends excavation of TRPH impacted soil in an area 60' x 30' x 4' deep. ** above scope summary taken from EKI, 1998
Levine Fricke, Inc.	4/25/89	No Record	*Work Order No. 1, Recommendations for Further Characterization of Soils* • Recommends further site characterization, specifics are unknown, mentioned in EKI, 1998. ** above scope summary taken from EKI, 1998

Table 3.2.4
Summary of Environmental Assessment Activities for the Catellus Property
5950 Walker Avenue (also 5201 East 60th Street), Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
IT Corporation	11/1/91	No Record	*Report of Site Investigation* • Assessed extent of soil contamination from AST's and contamination from onsite fire in 1990. • Contents of several drums released to soil during fire including alkyl aryl sulfonic acid, potassium hydroxide, potash solid, sulfuric acid, ammonium hydroxide and soap stock. • Isopropyl alcohol tanks were intact and not damaged by fire (no release). • 5 borings to 21.5' bg (B6 – B10) completed, sampled every 5'. • 19 samples analyzed for TRPH and 5 for VOC's. • Only 1 TRPH detect of 33 mg/kg in B10 at 20' bg. • No VOC's detected. • Recommended no further action. ** above scope summary taken from EKI, 1998
CTL Environmental	6/11/96	NA	*Phase I Environmental Site Assessment* • Phase I only, no sampling. • Property operated as household cleaning product manufacturing facility by Safeway Stores, Inc. ~1930 to 1990. • Fire in 1990 led to demolition of buildings. • TPH impacted soil referenced from McLaren report. • Recommends additional sampling in former clarifier area.
Erler & Kalinowski, Inc.	8/22/97	C	*Phase II Environmental Site Investigation Report* • 8 soil borings (SB-1 – SB-8) completed ranging from 1.5' to 35' bg. • Select soil samples analyzed for VOC's, TRPH, SVOC's, total surfactants, total phosphorous/phosphates, total sulfide, ammonia, nitrites/nitrates, ethylene glycol, cadmium and cyanide.

Table 3.2.4
Summary of Environmental Assessment Activities for the Catellus Property
5950 Walker Avenue (also 5201 East 60th Street), Maywood, California

Company	**Report Date**	**Laboratory Data Grade**	**Scope and Summary of Investigation**
Erler & Kalinowski, Inc. (continued)			• Insufficient water encountered for groundwater sampling. • Only VOC's detected were TCE and cis-1,2-DCE ranging from 2 – 5.1 ug/kg and chloroform from 4 – 46 ug/kg. • All chlorinated hits found deep (>30') and chlorofom found at 15' and 20' bg. • C_{20} – C_{30} hydrocarbons at 10,760 mg/kg found at 0.5' bg (SB-8) near former loading dock location. • No SVOC's, sulfides, ammonia, cyanide, phenols, ethylene glycol and cadmium detected in analyzed samples. • Surfactants detected in 1 sample (1.9 mg/kg), phosphates detected from 480 – 600 mg/kg and nitrate/nitrite detected from 3 to 18 mg/kg. • Removal of TPH impacted soil and a groundwater assessment is recommended by report. • Also recommends removal of misc. debris scattered throughout site.
ERM-West, Inc.	10/7/97	NA	*Drum Removal and Disposal* • Report documents removal and disposal of 4 55-gallon drums containing an unidentified oily substance. • Drums reported to be in good condition, no soil staining observed below drums. • Drums hauled off site and disposed of by fuel blending and recycling at Systech Corp. of Le Beque, Ca.

Table 3.2.4
Summary of Environmental Assessment Activities for the Catellus Property
5950 Walker Avenue (also 5201 East 60th Street), Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Erler & Kalinowski, Inc.	11/4/97	B	*Summary and Findings of Additional Phase II Investigations* • 16 soil gas borings (SG-1 – SG-16) sampled at 5' bg, SG-9 sampled at 5' and 12' bg. • All samples analyzed for VOC's. • TCE, PCE and chloroform detected at 0.01 to 2 ug/L. • TCE appears to be from Pemaco property, PCE and chloroform appear to be from onsite source. • Backhoe exploration done of TPH impacted soil area and misc. debris area. • Only small amounts of stained soil observed (<55 gallons) and only minor amounts of misc. debris observed.
Erler & Kalinowski, Inc.	12/3/97	NA	*Summary of Findings from a Screening Assessment of Potential Human Health Risk and Soil Cleanup Screening Level for Protection of Groundwater* • Report takes data from previous assessments and uses it to assess risk to human health and groundwater • More detailed risk assessment recommended in Introduction section of report. • Risk assessment assumes TPH impacted surface soil described in previous reports will be removed • Risk assessment uses DTSC's PEA guidelines according to report • Conclusions indicate that VOC's and nitrate/nitrite found in onsite soil and soil gas does not pose a risk to human health (carcinogenic effects = 2×10^{-8} and Hazard Index = 0.003) • VOC levels also found to be below levels that threaten groundwater, no explanation was given as to how calculations were made
Erler & Kalinowski, Inc.	2/12/98	B	*Phase II Investigation Report* • Same data as 8/22/97 report, but with more complete laboratory data packages.

Table 3.2.5
Summary of Environmental Assessment Activities for the Arrow Property
5010 and 5026 East Slauson Avenue, Maywood, California

Company	Report Date	Laboratory Data Grade	Scope and Summary of Investigation
Erler & Kalinowski, Inc.	2/13/01	NA	*Phase I Environmental Site Assessment* • Phase I Historical Investigation only, no sampling completed. • Two current tenants, Arrow Industries and Genesis Transportation. • No hazardous materials used in any significant quantity. • Historical research indicates property was undeveloped until the early 1950's. • The property has been used as a hospital equipment warehouse and other uses have involved various packaging operations. • No recognized environmental conditions were recognized as a result of historical onsite activities except for possible PCB contamination from transformers.

TABLE 3.4.1
CHEMICALS OF POTENTIAL CONCERN AND PHYSICAL-CHEMICAL PROPERTIES

Chemical	CAS Number	VOC[a]	ABS_{derm}[b] (unitless)	VFs[c] (m^3/kg)	Sat[d] (mg/kg)
1,1,1-Trichloroethane	71-55-6	Yes	NA	2.4E+03	1.4E+03
1,1-Dichloroethene	75-35-4	Yes	NA	1.5E+03	1.6E+03
2,4,5-T	93-76-5	No	0.1	NA	NA
2,4,5-TP (Silvex)	93-72-1	No	0.1	NA	NA
2,4-D	94-75-7	No	0.05	NA	NA
2,4-DB	94-82-6	No	0.1	NA	NA
4-Nitrophenol	100-02-1	No	0.1	NA	NA
Aroclor-1254	11097-69-1	No	0.14	NA	NA
Aroclor-1260	11096-82-5	No	0.14	NA	NA
Arsenic	7440-38-2	No	0.03	NA	NA
Benzene	71-43-2	Yes	NA	2.8E+03	9.0E+02
Benzo(a)anthracene	56-55-3	No	0.13	NA	NA
Benzo(a)pyrene	50-32-8	No	0.13	NA	NA
Benzo(b)fluoranthene	205-99-2	No	0.13	NA	NA
Benzo(k)fluoranthene	207-08-9	No	0.13	NA	NA
Chloroform	67-66-3	Yes	NA	2.9E+03	3.5E+03
Chrysene	218-01-9	No	0.13	2.7E+06	3.8E+00
Dalapon	75-99-0	No	0.1	NA	NA
DCAA	79-43-6	No data	NA	NA	NA
Dibenzo(a,h)anthracene	53-70-3	No	0.13	NA	NA
Dicamba	1918-00-9	No	0.1	NA	NA
Dichloroprop	120-36-5	No	0.1	NA	NA
Dinoseb	88-85-7	No	0.1	NA	NA
Indeno(1,2,3-cd)pyrene	193-39-5	No	0.13	NA	NA
Iron	7439-89-6	No	NA	NA	NA
Lead	7439-92-1	No	NA	NA	NA
Manganese	7439-96-5	No	NA	NA	NA
MCPA	94-74-6	No	0.1	NA	NA
MCPP	93-65-2	No	0.1	NA	NA
Naphthalene	91-20-3	Yes	NA	4.3E+04	2.2E+02
Pentachlorophenol	87-86-5	No	0.25	NA	NA
Tetrachloroethene	127-18-4	Yes	NA	3.2E+03	3.7E+02
Trichloroethene	79-01-6	Yes	NA	2.6E+03	8.2E+02

[a]VOC–Volatile chemicals are defined as having Henry's Law constants of 1E-05 atm-m3/mole or greater and with a molecular weight of less than 200 g/mole.
[b]ABS_{derm}–Fraction of chemical absorbed through the skin from soil
[c]VFs–Volatilization factor for soil to ambient air
[d]Sat–Soil saturation concentration

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	Metal	Metal	Metal	Metal	Metal
		PARAMETER	Arsenic	Iron	Lead	Manganese	Thallium
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	22	23,000	400	1,800	5.20
		UNITS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Sample ID	**Sample Depth (feet)**	*Collection Date:*					
Pemaco Property							
GP-SS-01	0.5	2/27/2001	--	--	--	--	--
GP-SS-02	0.5	2/27/2001	--	--	--	--	--
GP-SS-03	0.5	2/27/2001	--	--	--	--	--
GP-SS-03	2.5	2/27/2001	--	--	--	--	--
GP-SS-04	0.5	2/27/2001	--	--	--	--	--
GP-SS-05	2.5	2/27/2001	--	--	--	--	--
GP-SS-06	0.5	2/27/2001	--	--	--	--	--
GP-SS-07	0.5	2/27/2001	--	--	--	--	--
GP-SS-07	2.5	2/27/2001	--	--	--	--	--
GP-SS-08	0.5	2/27/2001	--	--	--	--	--
GP-SS-08	2.5	2/27/2001	--	--	--	--	--
GP-SS-09	0.5	2/27/2001	--	--	--	--	--
GP-SS-09	2.5	2/27/2001	--	--	--	--	--
GP-SS-10	0.5	2/27/2001	--	26,300	--	--	--
GP-SS-11	0.5	2/27/2001	--	--	--	--	--
GP-SS-11	2.5	2/27/2001	--	23,000	--	--	--
GP-SS-11	2.5	2/27/2001	--	--	--	--	--
GP-SS-14	0.5	2/27/2001	--	--	--	--	--
GP-SS-17	2.5	2/28/2001	--	--	--	--	--
GP-SS-18	2.5	2/28/2001	--	--	--	--	--
GP-SS-20	0.5	2/28/2001	--	--	--	--	--
GP-SS-20	2.5	2/28/2001	--	--	--	--	--
GP-SS-22	0.5	2/28/2001	--	--	--	--	--
GP-SS-24	2.5	2/28/2001	--	28,300	--	--	--
GP-SS-26	0.5	2/28/2001	--	--	--	--	--
GP-SS-26	2.5	2/28/2001	--	--	--	--	--
GP-SS-28	0.5	2/28/2001	--	26,000	--	--	--
GP-SS-31	2.5	2/28/2001	--	--	--	--	--
GP-SS-37	0.5	2/28/2001	--	--	--	--	--
GP-SS-37	2.5	2/28/2001	--	--	--	--	--
GP-SS-38	2.5	2/28/2001	--	--	--	--	--
GP-SS-50	0.5	2/28/2001	--	--	--	--	--
GP-SS-51	2.5	2/28/2001	--	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	Metal	Metal	Metal	Metal	Metal
		PARAMETER	Arsenic	Iron	Lead	Manganese	Thallium
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	22	23,000	400	1,800	5.20
		UNITS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**					
GP-SS-51	0.5	2/28/2001	--	31,200	--	1,940	--
GP-SS-53	0.5	3/1/2001	--	--	--	--	--
GP-SS-55	0.5	2/28/2001	--	--	--	--	--
GP-VS-01	5	2/19/2001	--	--	--	--	--
GP-VS-05	5	2/19/2001	--	--	--	--	--
GP-VS-06	5	2/19/2001	--	--	--	--	--
GP-VS-17	5.5	2/20/2001	--	--	--	--	--
GP-VS-24	5	2/16/2001	--	26,700	--	--	--
MW-14	5	11/14/2001	--	--	--	--	--
MW-14	15	11/14/2001	--	25,500	--	--	--
MW-16	5	11/15/2001	--	25,700	--	--	--
MW-16	15	11/15/2001	--	25,600	--	--	--
RAN-SS-5	0.5	3/1/2001	--	--	--	--	--
RW-01	5	11/20/2001	--	27,500	--	--	--
L.A. Junction Railway Property							
GP-SS-32	2.5	3/1/2001	--	--	--	--	--
GP-SS-33	2.5	2/28/2001	--	--	--	--	--
GP-SS-34	2.5	2/28/2001	--	--	--	--	--
GP-SS-34	2.5	2/28/2001	24	--	--	--	--
GP-SS-41	0.5	3/1/2001	--	--	--	--	--
GP-SS-41	2.5	3/1/2001	--	--	--	--	--
GP-SS-42	0.5	3/1/2001	--	--	--	--	--
GP-SS-43	2.5	3/1/2001	--	--	--	--	--
GP-SS-44	2.5	3/1/2001	--	--	--	--	--
GP-SS-45	2.5	3/1/2001	40	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	--	--	--	--
GP-SS-47	0.5	3/1/2001	--	--	--	--	--
GP-SS-48	2.5	3/1/2001	--	--	--	--	--
GP-SS-48	0.5	3/1/2001	--	--	--	--	--
GP-SS-49	0.5	2/28/2001	--	--	--	--	--
GP-SS-49	2.5	2/28/2001	--	--	--	--	--
GP-SS-56	0.5	3/1/2001	--	--	--	--	--
GP-SS-57	0.5	3/1/2001	--	--	--	--	--
GP-SS-58	0.5	3/1/2001	--	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	Metal	Metal	Metal	Metal	Metal
		PARAMETER	Arsenic	Iron	Lead	Manganese	Thallium
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	22	23,000	400	1,800	5.20
		UNITS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**					
GP-SS-59	0.5	3/1/2001	--	--	--	--	--
GP-SS-59	0.5	3/1/2001	--	60,200	--	--	--
GP-SS-59	2.5	3/1/2001	--	34,300	--	--	--
GP-SS-60	0.5	3/1/2001	--	--	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--	--
GP-SS-61	2.5	3/1/2001	--	71,500	--	--	--
GP-SS-62	0.5	3/1/2001	--	--	--	--	--
GP-SS-63	0.5	3/1/2001	--	--	--	--	--
GP-SS-63	2.5	3/1/2001	--	--	--	--	--
GP-SS-69	0.5	2/28/2001	--	28,700	--	--	--
GP-SS-69	2.5	2/28/2001	--	26,500	--	--	--
GP-SS-70	0.5	3/1/2001	--	26,000	--	--	--
GP-SS-72	2.5	3/1/2001	--	24,300	--	--	--
GP-SS-73	0.5	3/1/2001	--	24,100	--	--	--
GP-SS-73	2.5	3/1/2001	--	24,400	--	--	--
GP-SS-75	0.5	3/1/2001	--	73,200	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--	--
GP-SS-76	2.5	3/1/2001	--	--	--	--	--
GP-SS-76	0.5	3/1/2001	--	26,500	--	--	--
GP-SS-76	2.5	3/1/2001	--	23,100	--	--	--
GP-SS-77	0.5	3/1/2001	--	25,800	507 J	--	--
GP-SS-77	2.5	3/1/2001	--	--	--	--	--
GP-SS-78	2.5	3/1/2001	--	--	--	--	--
GP-SS-78	0.5	3/1/2001	--	35,200	--	--	--
GP-SS-84	0.5	3/1/2001	--	24,100	--	--	--
GP-SS-84	2.5	3/1/2001	--	27,900	--	--	--
GP-SS-85	0.5	3/1/2001	--	30,400	--	--	--
GP-SS-85	2.5	3/1/2001	--	25,300	--	--	--
GP-SS-86	0.5	3/1/2001	--	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	23,500	952	--	--
GP-VS-04	5	2/22/2001	--	23200 J	--	--	--
GP-VS-09	5	2/22/2001	--	--	--	--	--
GP-VS-12	5	2/22/2001	--	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	Metal	Metal	Metal	Metal	Metal
		PARAMETER	Arsenic	Iron	Lead	Manganese	Thallium
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	22	23,000	400	1,800	5.20
		UNITS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**					
W.W. Henry Property							
B-30	5	4/16/2001	--	--	--	--	--
WWH2	5	2/26/2001	--	--	--	--	--
SB-1-2.5	2.5	5/6/1999	--	--	--	--	--
SB-2-1.5	1.5	5/6/1999	--	--	--	--	--
SB-2-2.5	2.5	5/6/1999	--	--	--	--	--
SB-3-1.5	1.5	5/6/1999	--	--	--	--	--
SB-3-2.5	2.5	5/6/1999	--	--	--	--	--
SB-4-1.5	1.5	5/6/1999	--	--	--	--	--
SB-4-2.5	2.5	5/6/1999	--	--	--	--	--
SB-5-1.5	1.5	5/6/1999	--	--	--	--	--
SB-5-2.5	2.5	5/6/1999	--	--	--	--	--
SB-6-2.5	2.5	5/6/1999	--	--	--	--	--
SB-10-2	2	12/8/1999	--	--	--	--	--
SB-11-1.5	1.5	12/8/1999	--	--	--	--	--
SB-12-1.5	1.5	12/8/1999	--	--	--	--	--
SB-13-1.5	1.5	12/8/1999	--	--	--	--	--
SB-14-2	2	12/8/1999	--	--	--	--	--
LFSB9-15	15	6/12/2001	--	--	--	--	--
LFSB10-15	15	6/12/2001	--	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	Metal	Metal	Metal	Metal	Metal
		PARAMETER	Arsenic	Iron	Lead	Manganese	Thallium
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	22	23,000	400	1,800	5.20
		UNITS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Sample ID	Sample Depth (feet)	Collection Date:					
District Blvd.							
GP-VS-23	5.5	2/20/2001	--	--	--	--	--
Catellus Property							
No Detections above PRG's			--	--	--	--	--
Lubricating Oil Services Property							
SB-01	0.5	1/16/2001	--	--	--	--	--
SB-02	0.5	1/16/2001	--	--	--	--	--
SB-03	0.5	1/16/2001	--	--	--	--	--
SB-01@2.5	2.5	6/6/2001	--	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--	--

Notes:
PRG = USEPA Region IX Preliminary Remediation Goal
Data compiled from Pemaco RI data and Other
Environmental Investigations (see Tables 3.2.1 - 3.2.5 for references
-- = analyte not detected above PRG
NA = not analyzed for analyte
PCB = polychlorinated biphenyls
VOC - volatile organic compound
SVOC = semi-volatile organic compound
J = estimated concentration

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(k)fluoranthene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	620	62	620	6,200	610
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:					
Pemaco Property							
GP-SS-01	0.5	2/27/2001	--	520	--	--	--
GP-SS-02	0.5	2/27/2001	--	62 J	--	--	--
GP-SS-03	0.5	2/27/2001	--	83 J	--	--	--
GP-SS-03	2.5	2/27/2001	--	73 J	--	--	--
GP-SS-04	0.5	2/27/2001	--	150 J	--	--	--
GP-SS-05	2.5	2/27/2001	--	110 J	--	--	--
GP-SS-06	0.5	2/27/2001	--	80 J	--	--	--
GP-SS-07	0.5	2/27/2001	1,800	2,800	2,800	--	1,300
GP-SS-07	2.5	2/27/2001	--	280 J	--	--	--
GP-SS-08	0.5	2/27/2001	--	96 J	--	--	--
GP-SS-08	2.5	2/27/2001	--	66 J	--	--	--
GP-SS-09	0.5	2/27/2001	--	98 J	--	--	--
GP-SS-09	2.5	2/27/2001	--	69 J	--	--	--
GP-SS-10	0.5	2/27/2001	--	--	--	--	--
GP-SS-11	0.5	2/27/2001	--	78 J	--	--	--
GP-SS-11	2.5	2/27/2001	--	--	--	--	--
GP-SS-11	2.5	2/27/2001	--	770	1000 J	--	760 J
GP-SS-14	0.5	2/27/2001	22000 J	33000 J	38000 J	28000 J	28000 J
GP-SS-17	2.5	2/28/2001	--	110 J	--	--	--
GP-SS-18	2.5	2/28/2001	--	100 J	--	--	--
GP-SS-20	0.5	2/28/2001	--	300 J	--	--	--
GP-SS-20	2.5	2/28/2001	--	140 J	--	--	--
GP-SS-22	0.5	2/28/2001	--	98 J	--	--	--
GP-SS-24	2.5	2/28/2001	--	--	--	--	--
GP-SS-26	0.5	2/28/2001	--	130 J	--	--	--
GP-SS-26	2.5	2/28/2001	--	63 J	--	--	--
GP-SS-28	0.5	2/28/2001	--	--	--	--	--
GP-SS-31	2.5	2/28/2001	--	310 J	--	--	--
GP-SS-37	0.5	2/28/2001	--	68 J	--	--	--
GP-SS-37	2.5	2/28/2001	--	65 J	--	--	--
GP-SS-38	2.5	2/28/2001	--	69 J	--	--	--
GP-SS-50	0.5	2/28/2001	--	100 J	--	--	--
GP-SS-51	2.5	2/28/2001	--	340 J	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(k)fluoranthene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	620	62	620	6,200	610
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:					
GP-SS-51	0.5	2/28/2001	--	--	--	--	--
GP-SS-53	0.5	3/1/2001	--	170 J	--	--	--
GP-SS-55	0.5	2/28/2001	--	210 J	--	--	--
GP-VS-01	5	2/19/2001	--	330 J	--	--	--
GP-VS-05	5	2/19/2001	--	79 J	--	--	--
GP-VS-06	5	2/19/2001	--	130 J	--	--	--
GP-VS-17	5.5	2/20/2001	--	63 J	--	--	--
GP-VS-24	5	2/16/2001	--	--	--	--	--
MW-14	5	11/14/2001	--	190 J	--	--	--
MW-14	15	11/14/2001	--	--	--	--	--
MW-16	5	11/15/2001	--	--	--	--	--
MW-16	15	11/15/2001	--	--	--	--	--
RAN-SS-5	0.5	3/1/2001	--	120 J	--	--	--
RW-01	5	11/20/2001	--	--	--	--	--
L.A. Junction Railway Property							
GP-SS-32	2.5	3/1/2001	--	140 J	--	--	--
GP-SS-33	2.5	2/28/2001	--	290 J	--	--	--
GP-SS-34	2.5	2/28/2001	--	62 J	--	--	--
GP-SS-34	2.5	2/28/2001	--	--	--	--	--
GP-SS-41	0.5	3/1/2001	1,100	1,700	3000 J	--	3100 J
GP-SS-41	2.5	3/1/2001	--	130 J	--	--	--
GP-SS-42	0.5	3/1/2001	--	120 J	--	--	--
GP-SS-43	2.5	3/1/2001	--	62 J	--	--	--
GP-SS-44	2.5	3/1/2001	--	180 J	--	--	--
GP-SS-45	2.5	3/1/2001	--	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	550	--	--	--
GP-SS-47	0.5	3/1/2001	620	830	--	--	770
GP-SS-48	2.5	3/1/2001	--	270 J	--	--	--
GP-SS-48	0.5	3/1/2001	--	210 J	--	--	--
GP-SS-49	0.5	2/28/2001	--	130 J	--	--	--
GP-SS-49	2.5	2/28/2001	--	240 J	--	--	--
GP-SS-56	0.5	3/1/2001	--	1,000	1,900	--	--
GP-SS-57	0.5	3/1/2001	--	160 J	--	--	--
GP-SS-58	0.5	3/1/2001	--	150 J	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(k)fluoranthene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	620	62	620	6,200	610
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:					
GP-SS-59	0.5	3/1/2001	--	590	720	--	--
GP-SS-59	0.5	3/1/2001	--	--	--	--	--
GP-SS-59	2.5	3/1/2001	--	--	--	--	--
GP-SS-60	0.5	3/1/2001	--	160 J	--	--	--
GP-SS-61	2.5	3/1/2001	--	90 J	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--	--
GP-SS-62	0.5	3/1/2001	--	100 J	--	--	--
GP-SS-63	0.5	3/1/2001	--	670	650	--	--
GP-SS-63	2.5	3/1/2001	--	120 J	--	--	--
GP-SS-69	0.5	2/28/2001	--	--	--	--	--
GP-SS-69	2.5	2/28/2001	--	--	--	--	--
GP-SS-70	0.5	3/1/2001	--	--	--	--	--
GP-SS-72	2.5	3/1/2001	--	--	--	--	--
GP-SS-73	0.5	3/1/2001	--	--	--	--	--
GP-SS-73	2.5	3/1/2001	--	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	76 J	--	--	--
GP-SS-76	2.5	3/1/2001	--	480	650	--	--
GP-SS-76	0.5	3/1/2001	--	--	--	--	--
GP-SS-76	2.5	3/1/2001	--	--	--	--	--
GP-SS-77	0.5	3/1/2001	--	--	--	--	--
GP-SS-77	2.5	3/1/2001	--	140 J	--	--	--
GP-SS-78	2.5	3/1/2001	--	310 J	--	--	--
GP-SS-78	0.5	3/1/2001	--	--	--	--	--
GP-SS-84	0.5	3/1/2001	--	--	--	--	--
GP-SS-84	2.5	3/1/2001	--	--	--	--	--
GP-SS-85	0.5	3/1/2001	--	--	--	--	--
GP-SS-85	2.5	3/1/2001	--	--	--	--	--
GP-SS-86	0.5	3/1/2001	--	130 J	--	--	--
GP-SS-87	0.5	3/1/2001	--	62 J	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--	--
GP-VS-04	5	2/22/2001	--	--	--	--	--
GP-VS-09	5	2/22/2001	32000 J	27000 J	40,000	29000 J	29000 J
GP-VS-12	5	2/22/2001	--	85 J	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(k)fluoranthene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	620	62	620	6,200	610
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:					
W.W. Henry Property							
B-30	5	4/16/2001	--	360	--	--	--
WWH2	5	2/26/2001	--	62 J	--	--	--
SB-1-2.5	2.5	5/6/1999	--	240	--	--	--
SB-2-1.5	1.5	5/6/1999	--	130	--	--	--
SB-2-2.5	2.5	5/6/1999	--	150	--	--	--
SB-3-1.5	1.5	5/6/1999	4,100	3100	--	--	--
SB-3-2.5	2.5	5/6/1999	--	200	--	--	--
SB-4-1.5	1.5	5/6/1999	--	180	--	--	--
SB-4-2.5	2.5	5/6/1999	--	120	--	--	--
SB-5-1.5	1.5	5/6/1999	--	210	--	--	--
SB-5-2.5	2.5	5/6/1999	--	180	--	--	--
SB-6-2.5	2.5	5/6/1999	--	310	--	--	--
SB-10-2	2	12/8/1999	--	140	--	--	--
SB-11-1.5	1.5	12/8/1999	--	230	--	--	--
SB-12-1.5	1.5	12/8/1999	--	100	--	--	--
SB-13-1.5	1.5	12/8/1999	--	80	--	--	--
SB-14-2	2	12/8/1999	--	160	--	--	--
LFSB9-15	15	6/12/2001	--	--	--	--	--
LFSB10-15	15	6/12/2001	--	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(k)fluoranthene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	620	62	620	6,200	610
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**					
District Blvd.							
GP-VS-23	5.5	2/20/2001	1,200	880	1300 J	--	970 J
Catellus Property							
No Detections above PRG's			--	--	--	--	--
Lubricating Oil Services Property							
SB-01	0.5	1/16/2001	63,000	19,000	20,000	17,000	--
SB-02	0.5	1/16/2001	--	--	--	--	--
SB-03	0.5	1/16/2001	--	--	--	--	--
SB-01@2.5	2.5	6/6/2001	--	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--	--

Notes:
PRG = USEPA Region IX Preliminary Remediation Goal
Data compiled from Pemaco RI data and Other
Environmental Investigations (see Tables 3.2.1 - 3.2.5 for references
-- = analyte not detected above PRG
NA = not analyzed for analyte
PCB = polychlorinated biphenyls
VOC - volatile organic compound
SVOC = semi-volatile organic compound
J = estimated concentration

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	35,000	6,100	62	620
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:				
Pemaco Property						
GP-SS-01	0.5	2/27/2001	--	--	--	--
GP-SS-02	0.5	2/27/2001	--	--	--	--
GP-SS-03	0.5	2/27/2001	--	--	--	--
GP-SS-03	2.5	2/27/2001	--	--	--	--
GP-SS-04	0.5	2/27/2001	--	--	--	--
GP-SS-05	2.5	2/27/2001	--	--	--	--
GP-SS-06	0.5	2/27/2001	--	--	--	--
GP-SS-07	0.5	2/27/2001	--	--	270 J	1,700
GP-SS-07	2.5	2/27/2001	--	--	--	--
GP-SS-08	0.5	2/27/2001	--	--	--	--
GP-SS-08	2.5	2/27/2001	--	--	--	--
GP-SS-09	0.5	2/27/2001	--	--	--	--
GP-SS-09	2.5	2/27/2001	--	--	--	--
GP-SS-10	0.5	2/27/2001	--	--	--	--
GP-SS-11	0.5	2/27/2001	--	--	--	--
GP-SS-11	2.5	2/27/2001	--	--	--	--
GP-SS-11	2.5	2/27/2001	--	--	--	--
GP-SS-14	0.5	2/27/2001	--	24000 J	5300 J	19000 J
GP-SS-17	2.5	2/28/2001	--	--	--	--
GP-SS-18	2.5	2/28/2001	--	--	--	--
GP-SS-20	0.5	2/28/2001	--	--	--	--
GP-SS-20	2.5	2/28/2001	--	--	--	--
GP-SS-22	0.5	2/28/2001	--	--	--	--
GP-SS-24	2.5	2/28/2001	--	--	--	--
GP-SS-26	0.5	2/28/2001	--	--	--	--
GP-SS-26	2.5	2/28/2001	--	--	--	--
GP-SS-28	0.5	2/28/2001	--	--	--	--
GP-SS-31	2.5	2/28/2001	--	--	--	--
GP-SS-37	0.5	2/28/2001	--	--	--	--
GP-SS-37	2.5	2/28/2001	--	--	--	--
GP-SS-38	2.5	2/28/2001	--	--	--	--
GP-SS-50	0.5	2/28/2001	--	--	--	--
GP-SS-51	2.5	2/28/2001	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	35,000	6,100	62	620
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	***Collection Date:***				
GP-SS-51	0.5	2/28/2001	--	--	--	--
GP-SS-53	0.5	3/1/2001	--	--	--	--
GP-SS-55	0.5	2/28/2001	--	--	--	--
GP-VS-01	5	2/19/2001	--	--	--	--
GP-VS-05	5	2/19/2001	--	--	--	--
GP-VS-06	5	2/19/2001	--	--	--	--
GP-VS-17	5.5	2/20/2001	--	--	--	--
GP-VS-24	5	2/16/2001	--	--	--	--
MW-14	5	11/14/2001	--	--	--	--
MW-14	15	11/14/2001	--	--	--	--
MW-16	5	11/15/2001	--	--	--	--
MW-16	15	11/15/2001	--	--	--	--
RAN-SS-5	0.5	3/1/2001	--	--	--	--
RW-01	5	11/20/2001	--	--	--	--
L.A. Junction Railway Property						
GP-SS-32	2.5	3/1/2001	--	--	--	--
GP-SS-33	2.5	2/28/2001	--	--	--	--
GP-SS-34	2.5	2/28/2001	--	--	--	--
GP-SS-34	2.5	2/28/2001	--	--	--	--
GP-SS-41	0.5	3/1/2001	--	--	490 J	1,400
GP-SS-41	2.5	3/1/2001	--	--	--	--
GP-SS-42	0.5	3/1/2001	--	--	--	--
GP-SS-43	2.5	3/1/2001	--	--	--	--
GP-SS-44	2.5	3/1/2001	--	--	--	--
GP-SS-45	2.5	3/1/2001	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	--	110 J	--
GP-SS-47	0.5	3/1/2001	--	--	130 J	640
GP-SS-48	2.5	3/1/2001	--	--	--	--
GP-SS-48	0.5	3/1/2001	--	--	--	--
GP-SS-49	0.5	2/28/2001	--	--	--	--
GP-SS-49	2.5	2/28/2001	--	--	--	--
GP-SS-56	0.5	3/1/2001	--	--	270 J	960
GP-SS-57	0.5	3/1/2001	--	--	--	--
GP-SS-58	0.5	3/1/2001	--	--	73 J	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	35,000	6,100	62	620
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**				
GP-SS-59	0.5	3/1/2001	--	--	88 J	--
GP-SS-59	0.5	3/1/2001	--	--	--	--
GP-SS-59	2.5	3/1/2001	--	--	--	--
GP-SS-60	0.5	3/1/2001	--	--	76 J	--
GP-SS-61	2.5	3/1/2001	--	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--
GP-SS-62	0.5	3/1/2001	--	--	--	--
GP-SS-63	0.5	3/1/2001	--	--	66 J	--
GP-SS-63	2.5	3/1/2001	--	--	--	--
GP-SS-69	0.5	2/28/2001	--	--	--	--
GP-SS-69	2.5	2/28/2001	--	--	--	--
GP-SS-70	0.5	3/1/2001	--	--	--	--
GP-SS-72	2.5	3/1/2001	--	--	--	--
GP-SS-73	0.5	3/1/2001	--	--	--	--
GP-SS-73	2.5	3/1/2001	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--
GP-SS-76	2.5	3/1/2001	--	--	110 J	650
GP-SS-76	0.5	3/1/2001	--	--	--	--
GP-SS-76	2.5	3/1/2001	--	--	--	--
GP-SS-77	0.5	3/1/2001	--	--	--	--
GP-SS-77	2.5	3/1/2001	--	--	62 J	--
GP-SS-78	2.5	3/1/2001	--	--	--	--
GP-SS-78	0.5	3/1/2001	--	--	--	--
GP-SS-84	0.5	3/1/2001	--	--	--	--
GP-SS-84	2.5	3/1/2001	--	--	--	--
GP-SS-85	0.5	3/1/2001	--	--	--	--
GP-SS-85	2.5	3/1/2001	--	--	--	--
GP-SS-86	0.5	3/1/2001	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--
GP-VS-04	5	2/22/2001	--	--	--	--
GP-VS-09	5	2/22/2001	--	33000 J	5,200	15000 J
GP-VS-12	5	2/22/2001	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	35,000	6,100	62	620
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**				
W.W. Henry Property						
B-30	5	4/16/2001	--	--	65 J	--
WWH2	5	2/26/2001	--	--	--	--
SB-1-2.5	2.5	5/6/1999	--	--	--	--
SB-2-1.5	1.5	5/6/1999	--	--	--	--
SB-2-2.5	2.5	5/6/1999	--	--	--	--
SB-3-1.5	1.5	5/6/1999	--	--	--	--
SB-3-2.5	2.5	5/6/1999	--	--	--	--
SB-4-1.5	1.5	5/6/1999	--	--	--	--
SB-4-2.5	2.5	5/6/1999	--	--	--	--
SB-5-1.5	1.5	5/6/1999	--	--	--	--
SB-5-2.5	2.5	5/6/1999	--	--	--	--
SB-6-2.5	2.5	5/6/1999	--	--	--	--
SB-10-2	2	12/8/1999	--	--	--	--
SB-11-1.5	1.5	12/8/1999	--	--	65	--
SB-12-1.5	1.5	12/8/1999	--	--	--	--
SB-13-1.5	1.5	12/8/1999	--	--	--	--
SB-14-2	2	12/8/1999	--	--	--	--
LFSB9-15	15	6/12/2001	--	--	--	--
LFSB10-15	15	6/12/2001	--	--	--	--

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	35,000	6,100	62	620
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**				
District Blvd.						
GP-VS-23	5.5	2/20/2001	--	--	--	--
Catellus Property						
No Detections above PRG's			--	--	--	--
Lubricating Oil Services Property						
SB-01	0.5	1/16/2001	--	6,100	--	--
SB-02	0.5	1/16/2001	--	--	--	--
SB-03	0.5	1/16/2001	--	--	--	--
SB-01@2.5	2.5	6/6/2001	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--

Notes:
PRG = USEPA Region IX Preliminary Remediation Goal
Data compiled from Pemaco RI data and Other
Environmental Investigations (see Tables 3.2.1 - 3.2.5 for references
-- = analyte not detected above PRG
NA = not analyzed for analyte
PCB = polychlorinated biphenyls
VOC - volatile organic compound
SVOC = semi-volatile organic compound
J = estimated concentration

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC/VOC	VOC	VOC	VOC	PCB	PCB
		PARAMETER	Naphthalene	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Aroclor-1260	Aroclor-1254
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	56,000	54	350	650	220	220
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:						
Pemaco Property								
GP-SS-01	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-02	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-03	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-03	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-04	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-05	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-06	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-07	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-07	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-08	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-08	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-09	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-09	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-10	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-11	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-11	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-11	2.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-14	0.5	2/27/2001	--	NA	NA	NA	NA	NA
GP-SS-17	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-18	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-20	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-20	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-22	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-24	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-26	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-26	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-28	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-31	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-37	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-37	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-38	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-50	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-51	2.5	2/28/2001	--	NA	NA	NA	NA	NA

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC/VOC	VOC	VOC	VOC	PCB	PCB
		PARAMETER	Naphthalene	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Aroclor-1260	Aroclor-1254
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	56,000	54	350	650	220	220
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:						
GP-SS-51	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-53	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-55	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-VS-01	5	2/19/2001	--	NA	NA	NA	NA	NA
GP-VS-05	5	2/19/2001	--	NA	NA	NA	NA	NA
GP-VS-06	5	2/19/2001	--	NA	NA	NA	NA	NA
GP-VS-17	5.5	2/20/2001	--	NA	NA	NA	NA	NA
GP-VS-24	5	2/16/2001	--	NA	NA	NA	NA	NA
MW-14	5	11/14/2001	--	--	--	--	NA	NA
MW-14	15	11/14/2001	--	--	--	--	NA	NA
MW-16	5	11/15/2001	--	--	--	--	NA	NA
MW-16	15	11/15/2001	--	--	--	--	NA	NA
RAN-SS-5	0.5	3/1/2001	--	NA	NA	NA	NA	NA
RW-01	5	11/20/2001	--	--	--	--	NA	NA
L.A. Junction Railway Property								
GP-SS-32	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-33	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-34	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-34	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-41	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-41	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-42	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-43	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-44	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-45	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-46	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-47	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-48	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-48	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-49	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-49	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-56	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-57	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-58	0.5	3/1/2001	--	NA	NA	NA	NA	NA

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC/VOC	VOC	VOC	VOC	PCB	PCB
		PARAMETER	Naphthalene	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Aroclor-1260	Aroclor-1254
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	56,000	54	350	650	220	220
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:						
GP-SS-59	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-59	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-59	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-60	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-61	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-61	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-62	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-63	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-63	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-69	0.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-69	2.5	2/28/2001	--	NA	NA	NA	NA	NA
GP-SS-70	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-72	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-73	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-73	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-75	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-75	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-76	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-76	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-76	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-77	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-77	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-78	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-78	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-84	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-84	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-85	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-85	2.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-86	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-87	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-SS-87	0.5	3/1/2001	--	NA	NA	NA	NA	NA
GP-VS-04	5	2/22/2001	--	--	--	--	NA	NA
GP-VS-09	5	2/22/2001	--	--	--	--	NA	NA
GP-VS-12	5	2/22/2001	--	--	--	--	NA	NA

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC/VOC	VOC	VOC	VOC	PCB	PCB
		PARAMETER	Naphthalene	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Aroclor-1260	Aroclor-1254
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	56,000	54	350	650	220	220
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date:						
W.W. Henry Property								
B-30	5	4/16/2001	--	--	--	--	NA	NA
WWH2	5	2/26/2001	--	--	--	--	NA	NA
SB-1-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-2-1.5	1.5	5/6/1999	--	--	--	--	NA	NA
SB-2-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-3-1.5	1.5	5/6/1999	--	--	--	--	NA	NA
SB-3-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-4-1.5	1.5	5/6/1999	--	--	--	--	NA	NA
SB-4-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-5-1.5	1.5	5/6/1999	--	--	--	--	NA	NA
SB-5-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-6-2.5	2.5	5/6/1999	--	--	--	--	NA	NA
SB-10-2	2	12/8/1999	--	--	--	--	NA	NA
SB-11-1.5	1.5	12/8/1999	--	--	--	--	NA	NA
SB-12-1.5	1.5	12/8/1999	--	--	--	--	NA	NA
SB-13-1.5	1.5	12/8/1999	--	--	--	--	NA	NA
SB-14-2	2	12/8/1999	--	--	--	--	NA	NA
LFSB9-15	15	6/12/2001	--	150	--	--	NA	NA
LFSB10-15	15	6/12/2001	--	120	--	--	NA	NA

Table 3.4.2
Detected Concentrations Exceeding USEPA Region IX PRG's
Maywood Riverfront Park Property

		GROUP	SVOC/VOC	VOC	VOC	VOC	PCB	PCB
		PARAMETER	Naphthalene	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Aroclor-1260	Aroclor-1254
		PRGType	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil	Residential Soil
		PRG Value	56,000	54	350	650	220	220
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date:**						
District Blvd.								
GP-VS-23	5.5	2/20/2001	--	--	--	--	NA	NA
Catellus Property								
No Detections above PRG's			--	--	--	--	NA	NA
Lubricating Oil Services Property								
SB-01	0.5	1/16/2001	680,000	--	--	--	--	760
SB-02	0.5	1/16/2001	--	--	--	--	1,600	--
SB-03	0.5	1/16/2001	--	--	--	--	--	25,000
SB-01@2.5	2.5	6/6/2001	--	--	--	--	8,500	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	3,200	--
SB-01@4	4	6/6/2001	--	--	--	--	1,800	--

Notes:
PRG = USEPA Region IX Preliminary Remediation Goal
Data compiled from Pemaco RI data and Other
Environmental Investigations (see Tables 3.2.1 - 3.2.5 for references
-- = analyte not detected above PRG
NA = not analyzed for analyte
PCB = polychlorinated biphenyls
VOC - volatile organic compound
SVOC = semi-volatile organic compound
J = estimated concentration

TABLE 3.4.3
Detections Of Volatile Organic Compound Concentrations in Soil Vapor Exceeding 100 x Ambient Air PRGs, Pemaco RI Data
Maywood Riverfront Park Property

		PARAMETER	1,1,1-Trichloroethane	1,1-Dichloroethane	Benzene
		UNITS	UG/M3	UG/M3	UG/M3
		PRG_Value	1000	1.2	0.25
		Screening Criteria (PRG x 100)	100000	120	25
Sample ID	Depth (feet)	Sample Date			
Pemaco Property					
FASP-GP-SV28-6	5	02/05/01	--	--	--
FASP-GP-SV-29-6	5	02/05/01	--	--	--
FASP-GP-SV-SO #1	5	02/05/01	--	--	--
FASP-GP-SV-3	5	02/06/01	--	--	--
FASP-GP-SV-4	5	02/06/01	110000	8000	--
FASP-GP-SV-5	5	02/06/01	--	2000	--
FASP-GP-SV-7	5	02/06/01	--	--	--
FASP-GP-SV-8	5	02/06/01	--	--	--
FASP-GP-SV-9	5	02/06/01	--	1000 J	--
FASP-GP-SV-11	5	02/06/01	--	--	--
FASP-GP-SV-12	5	02/06/01	--	--	--
FASP-GP-SV-14	5	02/06/01	--	--	--
FASP-GP-SV-15	5	02/06/01	--	--	--
FASP-GP-SV-19	5	02/06/01	--	--	--
FASP-GP-SV-25	5	02/06/01	--	--	--
SV2002-5-5	5	03/19/02	--	--	35.1
SV2002-5-15	15	03/19/02	--	--	204.5
Catellus Property					
FASP-GP-SV-SO #20	5	02/09/01	--	--	--
SV2002-2-5	5	03/20/02	--	--	30 J
SV2002-2-15	15	03/20/02	--	--	41.5 J
L.A. Junction Railway Property					
FASP-GP-SV-2	5	02/06/01	--	--	--
FASP-GP-SV-6	5	02/06/01	--	--	--
FASP-GP-SV-13	5	02/07/01	--	--	--
FASP-GP-SV-40	5	02/08/01	--	--	--
SV2002-4-5	5	03/19/02	--	--	92.7 J
SV2002-4-15	15	03/19/02	--	--	127.8 J
59th Place and District Blvd.					
FASP-GP-SV-36	5	02/07/01	--	--	--
W.W. Henry Property					
FASP-GP-SV-1	5	02/07/01	--	--	--
FASP-GP-SV-30	5	02/07/01	--	--	--
FASP-GP-SV-44	5	02/07/01	--	--	--
FASP-GP-SV-SO #4	5	02/08/01	--	--	--
FASP-GP-SV-SO #5	5	02/08/01	--	--	--
FASP-GP-SV-SO #11	5	02/08/01	--	--	--
FASP-GP-SV-SO #12	5	02/08/01	--	--	--
FASP-GP-SV-SO #13	5	02/08/01	--	--	--
FASP-GP-SV-SO #14	5	02/08/01	--	--	--
FASP-GP-SV-SO #15	5	02/08/01	--	--	--
SV2002-1-5	5	03/20/02	--	--	--
SV2002-1-15	15	03/20/02	--	--	35.1 J

Notes:
PRG = United States Environmental Protection Agency
Region IX Preliminary Remediation Goal, Ambient Air
-- = Concentration not Detected above 100 x PRG for Ambient Air
J = Estimated Concentration
UG/M3 = micrograms per cubic meter

TABLE 3.4.3
Detections Of Volatile Organic Compound Concentrations in Soil Vapor Exceeding 100 x Ambient Air PRGs, Pemaco RI Data
Maywood Riverfront Park Property

		PARAMETER	Chloroform	Tetrachloroethene	Trichloroethene
		UNITS	UG/M3	UG/M3	UG/M3
		PRG_Value	0.084	3.3	1.1
Screening Criteria (PRG x 100)			8.4	330	110
Sample ID	**Depth (feet)**	**Sample Date**			
Pemaco Property					
FASP-GP-SV28-6	5	02/05/01	--	--	1000 J
FASP-GP-SV-29-6	5	02/05/01	--	--	1000 J
FASP-GP-SV-SO #1	5	02/05/01	--	1000 J	--
FASP-GP-SV-3	5	02/06/01	--	1000	--
FASP-GP-SV-4	5	02/06/01	--	24000	1000 J
FASP-GP-SV-5	5	02/06/01	--	100000	11000
FASP-GP-SV-7	5	02/06/01	--	2000	--
FASP-GP-SV-8	5	02/06/01	--	11000	1000
FASP-GP-SV-9	5	02/06/01	1000 J	140000	1000
FASP-GP-SV-11	5	02/06/01	--	4000	--
FASP-GP-SV-12	5	02/06/01	--	43000	1000 J
FASP-GP-SV-14	5	02/06/01	--	9000	1000
FASP-GP-SV-15	5	02/06/01	--	10000	--
FASP-GP-SV-19	5	02/06/01	--	4000	--
FASP-GP-SV-25	5	02/06/01	--	500 J	--
SV2002-5-5	5	03/19/02	27.8	4205.1 J	2416.4 J
SV2002-5-15	15	03/19/02	10.3	1288.7	590.7
Catellus Property					
FASP-GP-SV-SO #20	5	02/09/01	1000 J	--	--
SV2002-2-5	5	03/20/02	--	--	--
SV2002-2-15	15	03/20/02	--	--	--
L.A. Junction Railway Property					
FASP-GP-SV-2	5	02/06/01	--	1000	--
FASP-GP-SV-6	5	02/06/01	--	2000	--
FASP-GP-SV-13	5	02/07/01	--	1000	--
FASP-GP-SV-40	5	02/08/01	--	1000 J	--
SV2002-4-5	5	03/19/02	--	--	3168.1 J
SV2002-4-15	15	03/19/02	--	373 J	4618 J
59th Place and District Blvd.					
FASP-GP-SV-36	5	02/07/01	--	--	1000 J
W.W. Henry Property					
FASP-GP-SV-1	5	02/07/01	--	19000	--
FASP-GP-SV-30	5	02/07/01	--	4000	--
FASP-GP-SV-44	5	02/07/01	--	2000	--
FASP-GP-SV-SO #4	5	02/08/01	--	9000	--
FASP-GP-SV-SO #5	5	02/08/01	--	3000	--
FASP-GP-SV-SO #11	5	02/08/01	--	500 J	--
FASP-GP-SV-SO #12	5	02/08/01	--	--	--
FASP-GP-SV-SO #13	5	02/08/01	--	--	--
FASP-GP-SV-SO #14	5	02/08/01	--	--	--
FASP-GP-SV-SO #15	5	02/08/01	--	--	--
SV2002-1-5	5	03/20/02	--	--	--
SV2002-1-15	15	03/20/02	--	481.6 J	--

Notes:
PRG = United States Environmental Protection Agency
Region IX Preliminary Remediation Goal, Ambient Air
-- = Concentration not Detected above 100 x PRG for Ambient Air
J = Estimated Concentration
UG/M3 = micrograms per cubic meter

TABLE 3.6.1
SELECTION OF EXPOSURE PATHWAYS
MAYWOOD RIVERFRONT PARK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-site/ Off-site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Surface Soil	Surface Soil	Surface Soil in Park	Park User	Adult	Ingestion	On-site	Quantitative	Park Users may ingest soil
						Dermal	On-site	Quantitative	Park Users may contact soil
						Inhalation	On-site	Quantitative	Park Users may inhale dust
					Child	Ingestion	On-site	Quantitative	Park Users may contact with soil
						Dermal	On-site	Quantitative	Park Users may contact soil
						Inhalation	On-site	Quantitative	Park Users may inhale dust
Future	Surface Soil and Subsurface Soil	Air	Ambient Air in Park	Park User	Adult	Inhalation	On-site	Quantitative	Volatiles may be released to air
					Child	Inhalation	On-site	Quantitative	Volatiles may be released to air
				Excavation Worker	Adult	Inhalation	On-site	Quantitative	Volatiles may be released to air
	Surface Soil and Subsurface Soil	Surface Soil and Subsurface Soil	Excavation Site in Park	Excavation Worker	Adult	Ingestion	On-site	Quantitative	Excavation Workers may ingest soil
						Dermal	On-site	Quantitative	Excavation Workers may contact soil
						Inhalation	On-site	Quantitative	Excavation Workers may inhale dust

TABLE 3.6.3A
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/ Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)
1,1,1-Trichloroethane	Chronic	2.00E-02	mg/kg-day	1	2.00E-02	mg/kg-day	ND	ND	US EPA Region 9	11/1/2000
1,1-Dichloroethene	Chronic	9.00E-03	mg/kg-day	1	9.00E-03	mg/kg-day	Liver	1000	IRIS	5/22/2002
2,4,5-T	Chronic	1.00E-02	mg/kg-day	1	1.00E-02	mg/kg-day	Kidney	300	IRIS	5/22/2002
2,4,5-TP (Silvex)	Chronic	8.00E-03	mg/kg-day	1	8.00E-03	mg/kg-day	Liver	100	IRIS	5/22/2002
2,4-D	Chronic	1.00E-02	mg/kg-day	1	1.00E-02	mg/kg-day	Liver	100	IRIS	5/22/2002
2,4-DB	Chronic	8.00E-03	mg/kg-day	1	8.00E-03	mg/kg-day	Vasculature	1000	IRIS	5/22/2002
4-Nitrophenol	Chronic	8.00E-03	mg/kg-day	1	8.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/01/00
Aroclor-1254	Chronic	2.00E-05	mg/kg-day	1	2.00E-05	mg/kg-day	Immune system	300	IRIS	5/22/2002
	Subchronic	5.00E-05	mg/kg-day	1	5.00E-05	mg/kg-day	Immune system	100	HEAST	7/1/1997
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	Chronic	3.00E-04	mg/kg-day	1	3.00E-04	mg/kg-day	Skin	3	CALTOX/IRIS	5/1/2001
	Subchronic	3.00E-04	mg/kg-day	1	3.00E-04	mg/kg-day	Skin	3	HEAST	7/1/1997
Benzene	Chronic	3.00E-03	mg/kg-day	1	3.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	Chronic	1.00E-02	mg/kg-day	1	1.00E-02	mg/kg-day	Liver	100	IRIS	5/22/2002
	Subchronic	1.00E-02	mg/kg-day	1	1.00E-02	mg/kg-day	Liver	1000	HEAST	7/97
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	Chronic	3.00E-02	mg/kg-day	1	3.00E-02	mg/kg-day	Kidney	300	IRIS	5/22/2002

TABLE 3.6.3A CONTINUED
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/ Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)
DCAA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	Chronic	3.00E-02	mg/kg-day	1	3.00E-02	mg/kg-day	Maternal/Fetal	100	IRIS	5/22/2002
Dichloroprop	NA	5.00E-03	mg/kg-day	NA	NA	NA	ND	ND	OPP	2/25/97
Dinoseb	Chronic	1.00E-03	mg/kg-day	1	1.00E-03	mg/kg-day	Fetal	1000	IRIS	5/22/2002
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	Chronic	3.00E-01	mg/kg-day	NA	NA	NA	ND	ND	USEPA Region 9	11/01/2000
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Chronic	4.66E-02	mg/kg-day	NA	NA	NA	CNS	3	IRIS	5/22/2002
MCPA	Chronic	5.00E-04	mg/kg-day	1	5.00E-04	mg/kg-day	Kidney/Liver	300	IRIS	5/22/2002
MCPP	Chronic	1.00E-03	mg/kg-day	1	1.00E-03	mg/kg-day	Kidney	3000	IRIS	5/22/2002
Naphthalene	Chronic	2.00E-02	mg/kg-day	1	2.00E-02	mg/kg-day	Body weight decline	3000	IRIS	5/22/2002
Pentachlorophenol	Chronic	3.00E-02	mg/kg-day	1	3.00E-02	mg/kg-day	Liver/Kidney	100	IRIS	5/22/2002
Tetrachloroethene	Chronic	1.00E-02	mg/kg-day	1	1.00E-02	mg/kg-day	Liver	1000	IRIS	5/22/2002
Trichloroethene	Chronic	6.00E-03	mg/kg-day	1	6.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/01/2000

ND = No Data

NA = Not Applicable

(1) Recommended gastrointestinal absorption factors available in USEPA 2000

(2) Dermal RfD = Oral RfD x Oral to Dermal Adjustment Factor

(3) For IRIS values, the date IRIS was searched is given.
For HEAST values, the date of HEAST used is given.
For OPP the date of the latest USEPA Reference Dose Tracking Report was used.

TABLE 3.6.3B
NON-CANCER TOXICITY DATA -- INHALATION
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD (1)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ	Dates (2) (MM/DD/YY)
1,1,1-Trichloroethane	Chronic	ND	NA	2.90E-01	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
1,1-Dichloroethene	Chronic	ND	NA	9.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
2,4,5-T	Chronic	ND	NA	1.00E-02	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
2,4,5-TP (Silvex)	Chronic	ND	NA	8.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
2,4-D	Chronic	ND	NA	1.00E-02	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
2,4-DB	Chronic	ND	NA	8.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
4-Nitrophenol	Chronic	ND	NA	8.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	Chronic	ND	NA	8.60E-05	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	Chronic	ND	NA	3.00E-02	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
DCAA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3.6.3B CONTINUED
NON-CANCER TOXICITY DATA -- INHALATION
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD (1)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ	Dates (2) (MM/DD/YY)
Dicamba	Chronic	ND	NA	3.00E-02	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Dichloroprop	NA	NA	NA	5.00E-03	mg/kg-day	ND	ND	OPP	2/25/97
Dinoseb	Chronic	ND	NA	1.00E-03	mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Chronic	5.00E-05	mg/m^3	1.43E-05	Mg/kg-day	CNS	1000	IRIS	5/22/2001
MCPA	Chronic	ND	NA	5.00E-04	Mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
MCPP	Chronic	ND	NA	1.00E-03	Mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Naphthalene	Chronic	3.00E-03	mg/m^3	8.60E-04	Mg/kg-day	Nasal Epithelium	3000	IRIS	5/22/2002
Pentachlorophenol	Chronic	ND	NA	3.00E-02	Mg/kg-day	ND	ND	USEPA Region 9	11/1/2000
Tetrachloroethene	Chronic	3.50E+01	µg/m^3	1.00E-02	Mg/kg-day	ND	ND	CALTOX	11/1/2000
Trichloroethene	Chronic	6.00E+02	µg/m^3	1.71E-01	Mg/kg-day	ND	ND	CALTOX	11/1/2000

ND = No Data

NA = Not Applicable

(1) RfDs were derived from inhalation RfCs (mg/m^3) by multiplying by a conversion factor of 20 m^3/day per 70 kg.

(2) For IRIS values, the date IRIS was searched is given.
For HEAST values, the date of HEAST used is given.
For OPP the date of the latest USEPA Reference Dose Tracking Report was used.

TABLE 3.6.4A
CANCER TOXICITY DATA -- ORAL/DERMAL
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/ Cancer Guideline Description	Source (SF/WOE)	Date (2) (MM/DD/YY)
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	6.00E-03	1	6.00E-03	$(mg/kg\text{-}day)^{-1}$	C	IRIS	5/23/2002
2,4,5-T	NA	NA	NA	NA	D	IRIS	5/23/2002
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	IRIS	5/23/2002
2,4-D	NA	NA	NA	NA	NA	IRIS	5/23/2002
2,4-DB	NA	NA	NA	NA	NA	IRIS	5/23/2002
4-Nitrophenol	NA	NA	NA	NA	NA	IRIS	5/23/2002
Aroclor-1254	2.00E+00	1	2.00E+00	$(mg/kg\text{-}day)^{-1}$	B2	N/A	5/23/2002
Aroclor-1260	2.00E+00	1	2.00E+00	$(mg/kg\text{-}day)^{-1}$	B2	Region 9/IRIS	5/23/2002
Arsenic	1.50E+00	1	1.50E+00	$(mg/kg\text{-}day)^{-1}$	A	IRIS	5/23/2002
Benzene	5.50E-02	1	5.50E-02	$(mg/kg\text{-}day)^{-1}$	A	IRIS	5/23/2002
Benzo(a)anthracene	1.20E+00	1	1.20E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(a)pyrene	1.20E+01	1	1.20E+01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(b)fluoranthene	1.20E+00	1	1.20E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(k)fluoranthene	1.20E+00	1	1.20E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Chloroform	6.10E-03	1	6.10E-03	$(mg/kg\text{-}day)^{-1}$	B2	Region 9/IRIS	5/24/2002
Chrysene	1.20E-01	1	1.20E-01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	09/13/01
Dalapon	NA	NA	NA	NA	NA	IRIS	5/24/2002
DCAA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	4.10E+00	1	4.10E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001

TABLE 3.6.4A CONTINUED
CANCER TOXICITY DATA -- ORAL/DERMAL
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/ Cancer Guideline Description	Source (SF/WOE)	Date (2) (MM/DD/YY)
Dicamba	NA	NA	NA	NA	NA	IRIS	05/24/2002
Dichloroprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	USEPA Region 9	11/1/2000
Indeno(1,2,3-cd)pyrene	1.20E+00	1	1.20E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Iron	NA	NA	NA	NA	NA	USEPA Region 9	11/1/2000
Lead	8.50E-03	1	8.50E-03	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Manganese	NA	N/A	NA	N/A	D	IRIS	5/24/2002
MCPA	NA	N/A	NA	N/A	NA	IRIS	5/24/2002
MCPP	NA	NA	NA	NA	NA	IRIS	5/24/2002
Naphthalene	NA	NA	NA	NA	C	IRIS	5/24/2002
Pentachlorophenol	1.20E-01	N/A	1.20E-01	N/A	B2	IRIS	5/24/2002
Tetrachloroethene	5.20E-02	1	5.20E-02	$(mg/kg\text{-}day)^{-1}$	ND	USEPA Region 9	11/01/00
Trichloroethene	1.10E-02	1	1.10E-02	$(mg/kg\text{-}day)^{-1}$	ND	USEPA Region 9	11/01/00

IRIS = Integrated Risk Information System
HEAST= Health Effects Assessment Summary Tables
NA = Not Applicable

(1) Dermal RfD = Oral RfD/Oral to Dermal Adjustment Factor
(2) For IRIS values, the date IRIS was searched is given.
For HEAST values, the date of HEAST used is given.

EPA Group:
A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C - Possible human carcinogen
D - Not classifiable as a human carcinogen
E - Evidence of noncarcinogenicity
* - high risk

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TABLE 3.6.4B
CANCER TOXICITY DATA -- INHALATION
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Unit Risk	Units	Adjustment	Inhalation Cancer Slope Factor	Units	Weight of Evidence/ Cancer Guideline Description	Source (SF/WOE)	Date (1) (MM/DD/YY)
1,1,1-Trichloroethane	NA	N/A	NA	NA	N/A	NA	N/A	NA
1,1-Dichloroethene	5.00E-02	$(mg/m^3)^{-1}$	3.5	1.80E-01	$(mg/kg\text{-}day)^{-1}$	C	IRIS	5/23/2002
2,4,5-T	NA	NA	NA	NA	NA	D	IRIS	5/23/2002
2,4,5-TP (Silvex)	NA	N/A	NA	NA	N/A	NA	IRIS	5/23/2002
2,4-D	NA	NA	NA	NA	NA	NA	IRIS	5/23/2002
2,4-DB	NA	NA	NA	NA	NA	NA	IRIS	5/23/2002
4-Nitrophenol	NA	NA	NA	NA	NA	NA	IRIS	5/23/2002
Aroclor-1254	NA	N/A	NA	2.00E+00	$(mg/kg\text{-}day)^{-1}$	ND	USEPA Region 9	11/1/2000
Aroclor-1260	5.70E-04	$(\mu g/m^3)^{-1}$	3500	2.00E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	5/23/2002
Arsenic	3.30E-03	$(\mu g/m^3)^{-1}$	3500	1.20E+01	$(mg/kg\text{-}day)^{-1}$	A	CALTOX/IRIS	9/13/2001
Benzene	2.90E-05	$(\mu g/m^3)^{-1}$	3500	1.00E-01	$(mg/kg\text{-}day)^{-1}$	A	CALTOX/IRIS	9/13/2001
Benzo(a)anthracene	1.10E-04	$(\mu g/m^3)^{-1}$	3500	3.90E-01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(a)pyrene	1.10E-03	$(\mu g/m^3)^{-1}$	3500	3.90E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(b)fluoranthene	1.10E-04	$(\mu g/m^3)^{-1}$	3500	3.90E-01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Benzo(k)fluoranthene	1.10E-04	$(\mu g/m^3)^{-1}$	3500	3.90E-01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Chloroform	5.30E-06	$(\mu g/m^3)^{-1}$	3500	1.90E-02	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Chrysene	1.10E-05	$(\mu g/m^3)^{-1}$	3500	3.90E-02	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Dalapon	NA	NA	NA	NA	NA	NA	IRIS	05/24/02
DCAA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3.6.4B CONTINUED
CANCER TOXICITY DATA -- INHALATION
CITY OF MAYWOOD RIVERFRONT PARK

Chemical of Potential Concern	Unit Risk	Units	Adjustment	Inhalation Cancer Slope Factor	Units	Weight of Evidence/ Cancer Guideline Description	Source (SF/WOE)	Date (1) (MM/DD/YY)
Dibenzo(a,h)anthracene	1.20E-03	$(\mu g/m^3)^{-1}$	3500	4.10E+00	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA
Dichloroprop	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1.10E-04	$(\mu g/m^3)^{-1}$	3500	3.90E-01	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Iron	NA	N/A	NA	NA	N/A	NA	NA	NA
Lead	1.20E-05	$(\mu g/m^3)^{-1}$	3500	4.20E-02	$(mg/kg\text{-}day)^{-1}$	B2	CALTOX/IRIS	9/13/2001
Manganese	NA	NA	NA	NA	NA	D	IRIS	5/24/2002
MCPA	NA	N/A	NA	NA	N/A	NA	IRIS	5/24/2002
MCPP	NA	N/A	NA	NA	N/A	NA	IRIS	5/24/2002
Naphthalene	ND	NA	NA	NA	NA	C	IRIS	5/24/2002
Pentachlorophenol	ND	NA	NA	1.20E-01	$(mg/kg\text{-}day)^{-1}$	B2	Region 9/IRIS	5/24/2002
Tetrachloroethene	5.90E-06	$(\mu g/m^3)^{-1}$	3500	2.10E-02	$(mg/kg\text{-}day)^{-1}$	ND	CALTOX	09/13/01
Trichloroethene	2.00E-06	$(\mu g/m^3)^{-1}$	3500	7.00E-03	$(mg/kg\text{-}day)^{-1}$	ND	CALTOX	09/13/01

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

ND = Not Data

NA = Not Applicable

(1) For IRIS values, the date IRIS was searched is given.
For HEAST values, the date of HEAST used is given.

EPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

TABLE 3.6.7.1.1A
SITE SPECIFIC PRELIMINARY REMEDIATION GOAL EQUATIONS AND PARK USER EXPOSURE PARAMETERS FOR 10^{-6} INCREASED CANCER RISK

Cancer Equation

$$RG\,(mg/kg) = \frac{TR \times AT_c}{EF \times \left[\left(\frac{IFS_{adj} \times CSF_o}{10^6\ mg/kg}\right) + \left(\frac{SFS_{adj} \times ABS \times CSF_d}{10^6\ mg/kg}\right) + \left(\frac{InhF_{adj} \times CSF_i}{PEF}\right)\right]}$$

Non-cancer Equation

$$RG\,(mg/kg) = \frac{THQ \times BW_a \times AT_{nc}}{EF \times ED_c\left[\left(\frac{1}{RfD_o} \times \frac{IRS_c}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_d} \times \frac{SA_c \times AF \times ABS}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_i} \times \frac{ET_c \times IRA_c}{PEF}\right)\right]}$$

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference
All	RG	Remediation Goal	mg/kg	NA	NA
	TR	Target Risk	Unitless	1.0E-06	NA
	THQ	Target Hazard Quotient	Unitless	1.0	NA
	EF	Exposure Frequency	days/year	250	Site-specific
	ED_a	Exposure Duration–Adult	Years	24	USEPA, 1991a
	ED_c	Exposure Duration–Child	Years	6	USEPA, 1991a
	ET_a	Exposure Time-Adult	hours/day	4	Site-specific
	ET_c	Exposure Time-Child	hours/day	2	Site-specific
	BW_a	Body Weight–Adult	Kg	70	USEPA, 1991a
	BW_c	Body Weight–Child	Kg	15	USEPA, 1991a
	AT_c	Averaging Time (Cancer)	Days	25,550	USEPA, 1989
	AT_{nc}	Averaging Time (Non-cancer)	Days	2,190	USEPA, 1989
Ingestion	CF	Conversion Factor	kg/mg	1.0E-06	NA
	IRS_a	Soil Ingestion Rate –Adult	mg/day	100	USEPA, 1991a
	IRS_c	Soil Ingestion Rate–Child	mg/day	200	USEPA, 1991a
	IFS_{adj}	Ingestion Factor Soil–Adjusted[a]	mg-yr/kg-d	114	USEPA, 2000
Dermal	CF	Conversion Factor	kg/mg	1.0E-06	NA
	SA_a	Surface Area–Adult	cm^2/day	5,700	USEPA, 2001a
	SA_c	Surface Area–Child	cm^2/day	3,300	USEPA, 2001a
	AF_a	Adherence Factor–Adult	mg/cm^2	0.07	USEPA, 2001a
	AF_c	Adherence Factor–Child	mg/cm^2	0.2	USEPA, 2001a
	SFS_{adj}	Skin Factor Soil–Adjusted[a]	mg-yr/kg-d	361	USEPA, 2000
Inhalation	IRA_a	Inhalation Rate–Adult	m^3/hr	3.2	USEPA, 1997c
	IRA_c	Inhalation Rate–Child	m^3/hr	1.9	USEPA, 1997c
	$InhF_{adj}$	Inhalation Factor–Adjusted[a]	m^3-yr/kg-d	6	USEPA, 2000
	PEF[b]	Particulate Emission Factor	m^3/kg	1.32E+09	USEPA, 1996
	VF[b]	Volatilization Factor	m^3/kg	Chemical-specific	Table 3.8.2.1

[a]Adjusted child and adult exposure factors combining intake rates and body weights for both the child and adult exposure periods.
[b]Particulate emission factor was used for non-volatile chemicals and volatilization factor for volatiles

TABLE 3.6.7.1.1B
SITE SPECIFIC PRELIMINARY REMEDIATION GOAL EQUATIONS AND PARK USER EXPOSURE PARAMETERS FOR 10^{-5} INCREASED CANCER RISK

Cancer Equation

$$RG\,(mg/kg) = \frac{TR \times AT_c}{EF \times \left[\left(\frac{IFS_{adj} \times CSF_o}{10^6\ mg/kg}\right) + \left(\frac{SFS_{adj} \times ABS \times CSF_d}{10^6\ mg/kg}\right) + \left(\frac{InhF_{adj} \times CSF_i}{PEF}\right)\right]}$$

Non-cancer Equation

$$RG\,(mg/kg) = \frac{THQ \times BW_a \times AT_{nc}}{EF \times ED_c\left[\left(\frac{1}{RfD_o} \times \frac{IRS_c}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_d} \times \frac{SA_c \times AF \times ABS}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_i} \times \frac{ET_c \times IRA_c}{PEF}\right)\right]}$$

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference
All	RG	Remediation Goal	mg/kg	NA	NA
	TR	Target Risk	Unitless	1.0E-05	NA
	THQ	Target Hazard Quotient	Unitless	1.0	NA
	EF	Exposure Frequency	days/year	250	Site-specific
	ED_a	Exposure Duration–Adult	Years	24	USEPA, 1991a
	ED_c	Exposure Duration–Child	Years	6	USEPA, 1991a
	ET_a	Exposure Time-Adult	hours/day	4	Site-specific
	ET_c	Exposure Time-Child	hours/day	2	Site-specific
	BW_a	Body Weight–Adult	Kg	70	USEPA, 1991a
	BW_c	Body Weight–Child	Kg	15	USEPA, 1991a
	AT_c	Averaging Time (Cancer)	Days	25,550	USEPA, 1989
	AT_{nc}	Averaging Time (Non-cancer)	Days	2,190	USEPA, 1989
Ingestion	CF	Conversion Factor	kg/mg	1.0E-06	NA
	IRS_a	Soil Ingestion Rate –Adult	mg/day	100	USEPA, 1991a
	IRS_c	Soil Ingestion Rate–Child	mg/day	200	USEPA, 1991a
	IFS_{adj}	Ingestion Factor Soil–Adjusted[a]	mg-yr/kg-d	114	USEPA, 2000
Dermal	CF	Conversion Factor	kg/mg	1.0E-06	NA
	SA_a	Surface Area–Adult	cm^2/day	5,700	USEPA, 2001a
	SA_c	Surface Area–Child	cm^2/day	3,300	USEPA, 2001a
	AF_a	Adherence Factor–Adult	mg/cm^2	0.07	USEPA, 2001a
	AF_c	Adherence Factor–Child	mg/cm^2	0.2	USEPA, 2001a
	SFS_{adj}	Skin Factor Soil–Adjusted[a]	mg-yr/kg-d	361	USEPA, 2000
Inhalation	IRA_a	Inhalation Rate–Adult	m^3/hr	3.2	USEPA, 1997c
	IRA_c	Inhalation Rate–Child	m^3/hr	1.9	USEPA, 1997c
	$InhF_{adj}$	Inhalation Factor–Adjusted[a]	M^3-yr/kg-d	6	USEPA, 2000
	PEF[b]	Particulate Emission Factor	m^3/kg	1.32E+09	USEPA, 1996
	VF[b]	Volatilization Factor	m^3/kg	Chemical-specific	Table 3.8.2.1

[a]Adjusted child and adult exposure factors combining intake rates and body weights for both the child and adult exposure periods.
[b]Particulate emission factor was used for non-volatile chemicals and volatilization factor for volatiles

TABLE 3.6.7.1.2A
SITE SPECIFIC PRELIMINARY REMEDIATION GOAL EQUATIONS AND EXCAVATION WORKER EXPOSURE PARAMETERS FOR 10^{-6} INCREASED CANCER RISK

Cancer Equation

$$RG\ (mg/kg) = \frac{TR \times BW \times AT_c}{EF \times ED \times \left[\left(\frac{IR \times CSF_o}{10^6\ mg/kg}\right) + \left(\frac{SA \times AF \times ABS \times CSF_d}{10^6\ mg/kg}\right) + \left(\frac{IRA \times CSF_i}{PEF}\right)\right]}$$

Non-cancer Equation

$$RG\ (mg/kg) = \frac{THQ \times BW \times AT_{nc}}{EF \times ED \times \left[\left(\frac{1}{RfD_o} \times \frac{IRS}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_d} \times \frac{SA \times AF \times ABS}{10^6\ mg/kg}\right) + \left(\frac{1}{RfD_i} \times \frac{ET \times IRA}{PEF}\right)\right]}$$

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference
All	RG	Remediation Goal	mg/kg	NA	NA
	TR	Target Risk	Unitless	1.0E-06	NA
	THQ	Target Hazard Quotient	Unitless	1.0	NA
	EF	Exposure Frequency	days/year	56	Site-specific
	ED	Exposure Duration	years	18	USEPA, 1997d
	ET	Exposure Time	hours/day	8	Site-specific
	BW	Body Weight	kg	70	USEPA, 1991a
	AT_c	Averaging Time (Cancer)	days	25,550	USEPA, 1989
	AT_{nc}	Averaging Time (Non-cancer)	days	6,750	USEPA, 1989
Ingestion	CF	Conversion Factor	kg/mg	1.0E-06	NA
	IRS	Soil Ingestion Rate	mg/day	480	USEPA, 1991a
Dermal	CF	Conversion Factor	kg/mg	1.0E-06	NA
	SA_a	Surface Area–Adult	cm^2/day	3,300	USEPA, 2001a
	AF_a	Adherence Factor–Adult	mg/cm^2	0.2	USEPA, 2001a
Inhalation	IRA	Inhalation Rate–Adult	m^3/hr	2.5	USEPA, 1997c
	PEF[a]	Particulate Emission Factor	m^3/kg	2.0E+07	USEPA, 1996b
	VF[a]	Volatilization Factor	m^3/kg	Chemical -specific	Table 3.8.2.1

[a]Particulate emission factor was used for non-volatile chemicals and volatilization factor for volatiles

TABLE 3.6.7.1.2B
SITE SPECIFIC PRELIMINARY REMEDIATION GOAL EQUATIONS AND EXCAVATION WORKER EXPOSURE PARAMETERS FOR 10^{-5} INCREASED CANCER RISK

Cancer Equation

$$\mathrm{RG\ (mg/kg)} = \frac{\mathrm{TR} \times \mathrm{BW} \times \mathrm{AT_c}}{\mathrm{EF} \times \mathrm{ED} \times \left[\left(\frac{\mathrm{IR} \times \mathrm{CSF_o}}{10^6\ \mathrm{mg/kg}}\right) + \left(\frac{\mathrm{SA} \times \mathrm{AF} \times \mathrm{ABS} \times \mathrm{CSF_d}}{10^6\ \mathrm{mg/kg}}\right) + \left(\frac{\mathrm{IRA} \times \mathrm{CSF_i}}{\mathrm{PEF}}\right)\right]}$$

Non-cancer Equation

$$\mathrm{RG\ (mg/kg)} = \frac{\mathrm{THQ} \times \mathrm{BW} \times \mathrm{AT_{nc}}}{\mathrm{EF} \times \mathrm{ED} \times \left[\left(\frac{1}{\mathrm{RfD_o}} \times \frac{\mathrm{IRS}}{10^6\ \mathrm{mg/kg}}\right) + \left(\frac{1}{\mathrm{RfD_d}} \times \frac{\mathrm{SA} \times \mathrm{AF} \times \mathrm{ABS}}{10^6\ \mathrm{mg/kg}}\right) + \left(\frac{1}{\mathrm{RfD_i}} \times \frac{\mathrm{ET} \times \mathrm{IRA}}{\mathrm{PEF}}\right)\right]}$$

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference
All	RG	Remediation Goal	mg/kg	NA	NA
	TR	Target Risk	Unitless	1.0E-05	NA
	THQ	Target Hazard Quotient	Unitless	1.0	NA
	EF	Exposure Frequency	days/year	56	Site-specific
	ED	Exposure Duration	Years	18	USEPA, 1997d
	ET	Exposure Time	hours/day	8	Site-specific
	BW	Body Weight	Kg	70	USEPA, 1991a
	AT_c	Averaging Time (Cancer)	Days	25,550	USEPA, 1989
	AT_{nc}	Averaging Time (Non-cancer)	Days	6,750	USEPA, 1989
Ingestion	CF	Conversion Factor	kg/mg	1.0E-06	NA
	IRS	Soil Ingestion Rate	mg/day	480	USEPA, 1991a
Dermal	CF	Conversion Factor	kg/mg	1.0E-06	NA
	SA_a	Surface Area–Adult	cm^2/day	3,300	USEPA, 2001a
	AF_a	Adherence Factor–Adult	mg/cm^2	0.2	USEPA, 2001a
Inhalation	IRA	Inhalation Rate–Adult	m^3/hr	2.5	USEPA, 1997c
	PEF[a]	Particulate Emission Factor	m^3/kg	2.0E+07	USEPA, 1996b
	VF[a]	Volatilization Factor	m^3/kg	Chemical-specific	Table 3.8.2.1

[a]Particulate emission factor was used for non-volatile chemicals and volatilization factor for volatiles

TABLE 3.6.8.3A
SITE SPECIFIC PRELIMINARY REMEDIATION GOALS
MAYWOOD RIVERFRONT PARK CALCULATED AT 10^{-6} CANCER RISK
PARK USER SCENARIO IN COMPARISON TO
EPA REGION IX RESIDENTIAL PRGS

Chemical Of Potential Concern	Park User				Residential	
	Cancer RG (mg/kg)	Noncancer RG (mg/kg)	Selected SSPRG (mg/kg)		Region 9 PRG (mg/kg)	
1,1,1-Trichloroethane	NA	1.44E+03	**1.4E+03**	Sat	6.30E+02	nc
1,1-Dichloroethene	1.39E-01	7.44E+01	**1.39E-01**	Ca	5.40E-02	ca
2,4,5-T	NA	8.55E+02	**8.55E+02**	Nc	6.10E+02	nc
2,4,5-TP (Silvex)	NA	6.84E+02	**6.84E+02**	Nc	4.90E+02	nc
2,4-D	NA	9.61E+02	**9.61E+02**	Nc	6.90E+02	nc
2,4-DB	NA	6.84E+02	**6.84E+02**	nc	4.90E+02	nc
4-Nitrophenol	NA	6.84E+02	**6.84E+02**	nc	4.90E+02	nc
Aroclor-1254	3.10E-01	1.57E+00	**3.10E-01**	ca	2.20E-01	ca
Aroclor-1260	3.10E-01	NA	**3.10E-01**	ca	2.20E-01	ca
Arsenic (1)	5.45E-01	3.03E+01	**3.03E+01**	nc	2.20E+01	nc
Benzene	4.60E-01	3.29E+02	**4.60E-01**	ca	6.50E-01	ca
Benzo(a)anthracene	5.28E-01	NA	**5.28E-01**	ca	6.20E-01	ca
Benzo(a)pyrene	5.28E-02	NA	**5.28E-02**	ca	6.20E-02	ca
Benzo(b)fluoranthene	5.28E-01	NA	**5.28E-01**	ca	6.20E-01	ca
Benzo(k)fluoranthene	5.28E-01	NA	**5.28E-01**	ca	6.10E-01	ca
Chloroform	2.58E+00	1.53E+00	**1.53E+00**	nc	2.40E-01	ca
Chrysene	5.28E+00	NA	**5.28E+00**	ca	6.10E+00	ca
Dalapon	NA	2.57E+03	**2.57E+03**	nc	1.80E+03	nc
DCAA	NA	NA	**NA**	NA	NA	
Dibenzo(a,h)anthracene	1.55E-01	NA	**1.55E-01**	ca	6.20E-02	ca
Dicamba	NA	2.57E+03	**2.57E+03**	nc	NA	
Dichloroprop	NA	5.47E+02	**5.47E+02**	nc	NA	
Dinoseb	NA	8.55E+01	**8.55E+01**	nc	6.10E+01	nc
Indeno(1,2,3-cd)pyrene	5.28E-01	NA	**5.28E-01**	ca	6.20E-01	ca
Iron	NA	3.29E+04	**3.29E+04**	nc	2.30E+04	ca
Lead (2)	1.05E+02	NA	**4.00E+02**		4.00E+02	nc
Manganese	NA	4.88E+03	**4.88E+03**	nc	1.80E+03	nc
MCPA	NA	4.28E+01	**4.28E+01**	nc	3.10E+01	nc
MCPP	NA	8.55E+01	**8.55E+01**	nc	6.10E+01	nc
Naphthalene	NA	2.05E+02	**2.05E+02**	nc	5.60E+01	nc
Pentachlorophenol	4.16E+00	1.93E+03	**4.16E+00**	ca	3.00E+00	ca
Tetrachloroethene	2.25E+00	1.65E+02	**2.25E+00**	ca	5.70E+00	ca
Trichloroethene	5.85E+00	5.28E+02	**5.85E+00**	ca	2.80E+00	ca

(1) The noncancer value for arsenic was selected because the cancer risk-based value was within the background range
(2) The value for lead is the USEPA screening level for residential exposure
ca = cancer, nc = non-cancer, NA = not applicable, NA = not applicable

TABLE 3.6.8.3B
SITE SPECIFIC PRELIMINARY REMEDIATION GOALS FOR MAYWOOD RIVERFRONT PARK CALCULATED AT 10^{-6} CANCER RISK EXCAVATION WORKER SCENARIO IN COMPARISON TO EPA REGION IX RESIDENTIAL PRGS

Chemical of Potential Concern	Excavation Worker Cancer RG (mg/kg)	Excavation Worker Noncancer RG (mg/kg)	Excavation Worker Selected SSPRG (mg/kg)		Residential Region 9 PRG (mg/kg)	
1,1,1-Trichloroethane	NA	8.63E+03	**1.4E+03**	sat	6.30E+02	nc
1,1-Dichloroethene	7.22E-01	2.92E+02	**7.22E-01**	ca	5.40E-02	ca
2,4,5-T	NA	8.34E+03	**8.34E+03**	nc	6.10E+02	nc
2,4,5-TP (Silvex)	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
2,4-D	NA	8.88E+03	**8.88E+03**	nc	6.90E+02	nc
2,4-DB	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
4-Nitrophenol	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
Aroclor-1254	1.54E+00	1.59E+01	**1.54E+00**	ca	2.20E-01	ca
Aroclor-1260	1.54E+00	NA	**1.54E+00**	ca	2.20E-01	ca
Arsenic (1)	2.32E+00	2.74E+02	**2.74E+02**	nc	2.20E+01	nc
Benzene	2.38E+00	2.85E+03	**2.38E+00**	ca	6.50E-01	ca
Benzo(a)anthracene	2.61E+00	NA	**2.61E+00**	ca	6.20E-01	ca
Benzo(a)pyrene	2.61E-01	NA	**2.61E-01**	ca	6.20E-02	ca
Benzo(b)fluoranthene	2.61E+00	NA	**2.61E+00**	ca	6.20E-01	ca
Benzo(k)fluoranthene	2.61E+00	NA	**2.61E+00**	ca	6.10E-01	ca
Chloroform	1.34E+01	5.75E+00	**5.75E+00**	nc	2.40E-01	ca
Chrysene	2.61E+01	NA	**2.61E+01**	ca	6.10E+00	ca
Dalapon	NA	2.50E+04	**2.50E+04**	nc	1.80E+03	nc
DCAA	NA	NA	**NA**		NA	
Dibenzo(a,h)anthracene	7.62E-01	NA	**7.62E-01**	ca	6.20E-02	ca
Dicamba	NA	2.50E+04	**2.50E+04**	nc	NA	
Dichloroprop	NA	4.74E+03	**4.74E+03**	nc	NA	
Dinoseb	NA	8.34E+02	**8.34E+02**	nc	6.10E+01	nc
Indeno(1,2,3-cd)pyrene	2.61E+00	NA	**2.61E+00**	ca	6.20E-01	ca
Iron	NA	2.85E+05	**1.00E+05**	max	2.30E+04	ca
Lead (2)	4.29E+02	3.62E+02	**3.62E+02**		4.00E+02	nc
Manganese	NA	5.69E+03	**5.69E+03**	nc	1.80E+03	nc
MCPA	NA	4.17E+02	**4.17E+02**	nc	3.10E+01	nc
MCPP	NA	8.34E+02	**8.34E+02**	nc	6.10E+01	nc
Naphthalene	NA	8.12E+02	**2.2E+02**	sat	5.60E+01	nc
Pentachlorophenol	2.28E+01	2.12E+04	**2.28E+01**	ca	3.00E+00	ca
Tetrachloroethene	1.13E+01	6.76E+02	**1.13E+01**	ca	5.70E+00	ca
Trichloroethene	2.99E+01	3.65E+03	**2.99E+01**	ca	2.80E+00	ca

(1) The noncancer value for arsenic was selected because the cancer risk-based value was within the background range
(2) The lead value was derived using the Adult Lead Model for non-residential exposure using parameters for a Mexican American Population
ca = cancer, nc = non-cancer, NA = not applicable, NA = not applicable
max=non-risk based ceiling level

TABLE 3.6.8.3C
SPECIFIC PRELIMINARY REMEDIATION GOALS FOR MAYWOOD RIVERFRONT PARK USER SCENARIO CALCULATED AT 10^{-5} CANCER RISK IN COMPARISON TO EPA REGION IX RESIDENTIAL PRGS

Chemical Of Potential Concern	Park User: Cancer RG (mg/kg)	Park User: Noncancer RG (mg/kg)	Park User: Selected SSPRG (mg/kg)		Residential: Region 9 PRG (mg/kg)	
1,1,1-Trichloroethane	NA	1.44E+03	**1.4E+03**	sat	6.30E+02	nc
1,1-Dichloroethene	1.39E+00	7.44E+01	**1.39E+00**	ca	5.40E-02	ca
2,4,5-T	NA	8.55E+02	**8.55E+02**	nc	6.10E+02	nc
2,4,5-TP (Silvex)	NA	6.84E+02	**6.84E+02**	nc	4.90E+02	nc
2,4-D	NA	9.61E+02	**9.61E+02**	nc	6.90E+02	nc
2,4-DB	NA	6.84E+02	**6.84E+02**	nc	4.90E+02	nc
4-Nitrophenol	NA	6.84E+02	**6.84E+02**	nc	4.90E+02	nc
Aroclor-1254	3.11E+00	1.57E+00	**1.57E+00**	nc	2.20E-01	ca
Aroclor-1260	3.11E+00	NA	**3.11E+00**	ca	2.20E-01	ca
Arsenic (1)	5.46E+00	3.03E+01	**3.03E+01**	nc	2.20E+01	nc
Benzene	4.61E+00	3.29E+02	**4.61E+00**	ca	6.50E-01	ca
Benzo(a)anthracene	5.29E+00	NA	**5.29E+00**	ca	6.20E-01	ca
Benzo(a)pyrene	5.29E-01	NA	**5.29E-01**	ca	6.20E-02	ca
Benzo(b)fluoranthene	5.29E+00	NA	**5.29E+00**	ca	6.20E-01	ca
Benzo(k)fluoranthene	5.29E+00	NA	**5.29E+00**	ca	6.10E-01	ca
Chloroform	2.58E+01	1.53E+00	**1.53E+00**	nc	2.40E-01	ca
Chrysene	5.29E+01	NA	**5.29E+01**	ca	6.10E+00	ca
Dalapon	NA	2.57E+03	**2.57E+03**	nc	1.80E+03	nc
DCAA	NA	NA	**NA**	NA	NA	
Dibenzo(a,h)anthracene	1.55E+00	NA	**1.55E+00**	ca	6.20E-02	ca
Dicamba	NA	2.57E+03	**2.57E+03**	nc	NA	
Dichloroprop	NA	5.47E+02	**5.47E+02**	nc	NA	
Dinoseb	NA	8.55E+01	**8.55E+01**	nc	6.10E+01	nc
Indeno(1,2,3-cd)pyrene	5.29E+00	NA	**5.29E+00**	ca	6.20E-01	ca
Iron	NA	3.29E+04	**3.29E+04**	nc	2.30E+04	ca
Lead (2)	1.05E+03	NA	**4.00E+02**		4.00E+02	nc
Manganese	NA	4.88E+03	**4.88E+03**	nc	1.80E+03	nc
MCPA	NA	4.28E+01	**4.28E+01**	nc	3.10E+01	nc
MCPP	NA	8.55E+01	**8.55E+01**	nc	6.10E+01	nc
Naphthalene	NA	2.05E+02	**2.05E+02**	nc	5.60E+01	nc
Pentachlorophenol	4.17E+01	1.93E+03	**4.17E+01**	ca	3.00E+00	ca
Tetrachloroethene	2.25E+01	1.65E+02	**2.25E+01**	ca	5.70E+00	ca
Trichloroethene	5.86E+01	5.28E+02	**5.86E+01**	ca	2.80E+00	ca

(1) The noncancer value for arsenic was selected because the cancer risk-based value is within the background range

The lead value was derived using the Adult Lead Model for non-residential exposure using parameters for a Mexican American Population

ca = cancer, nc = non-cancer, NA = not applicable, NA = not applicable

TABLE 3.6.8.3D
SITE SPECIFIC PRELIMINARY REMEDIATION GOALS FOR MAYWOOD RIVERFRONT PARK EXCAVATION WORKER SCENARIO CALCULATED AT 10^{-5} CANCER RISK IN COMPARISON TO EPA REGION IX RESIDENTIAL PRGS

Chemical of Potential Concern	Excavation Worker				Residential	
	Cancer RG (mg/kg)	Noncancer RG (mg/kg)	Selected SSPRG (mg/kg)		Region 9 PRG (mg/kg)	
1,1,1-Trichloroethane	NA	8.63E+03	**1.4E+03**	sat	6.30E+02	nc
1,1-Dichloroethene	7.24E+00	2.92E+02	**7.24E+00**	ca	5.40E-02	ca
2,4,5-T	NA	8.34E+03	**8.34E+03**	nc	6.10E+02	nc
2,4,5-TP (Silvex)	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
2,4-D	NA	8.88E+03	**8.88E+03**	nc	6.90E+02	nc
2,4-DB	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
4-Nitrophenol	NA	6.67E+03	**6.67E+03**	nc	4.90E+02	nc
Aroclor-1254	1.55E+01	1.59E+01	**1.55E+01**	ca	2.20E-01	ca
Aroclor-1260	1.55E+01	NA	**1.55E+01**	ca	2.20E-01	ca
Arsenic (1)	2.33E+01	2.74E+02	**2.33E+01**	ca	2.20E+01	nc
Benzene	2.38E+01	2.85E+03	**2.38E+01**	ca	6.50E-01	ca
Benzo(a)anthracene	2.61E+01	NA	**2.61E+01**	ca	6.20E-01	ca
Benzo(a)pyrene	2.61E+00	NA	**2.61E+00**	ca	6.20E-02	ca
Benzo(b)fluoranthene	2.61E+01	NA	**2.61E+01**	ca	6.20E-01	ca
Benzo(k)fluoranthene	2.61E+01	NA	**2.61E+01**	ca	6.10E-01	ca
Chloroform	1.34E+02	5.75E+00	**5.75E+00**	nc	2.40E-01	ca
Chrysene	2.61E+02	NA	**2.61E+02**	ca	6.10E+00	ca
Dalapon	NA	2.50E+04	**2.50E+04**	nc	1.80E+03	nc
DCAA	NA	NA	**NA**		NA	
Dibenzo(a,h)anthracene	7.63E+00	NA	**7.63E+00**	ca	6.20E-02	ca
Dicamba	NA	2.50E+04	**2.50E+04**	nc	NA	
Dichloroprop	NA	4.74E+03	**4.74E+03**	nc	NA	
Dinoseb	NA	8.34E+02	**8.34E+02**	nc	6.10E+01	nc
Indeno(1,2,3-cd)pyrene	2.61E+01	NA	**2.61E+01**	ca	6.20E-01	ca
Iron	NA	2.85E+05	**1.00E+05**	max	2.30E+04	ca
Lead (2)	4.30E+03	3.62E+02	**3.62E+02**		4.00E+02	Nc
Manganese	NA	5.69E+03	**5.69E+03**	nc	1.80E+03	Nc
MCPA	NA	4.17E+02	**4.17E+02**	nc	3.10E+01	Nc
MCPP	NA	8.34E+02	**8.34E+02**	nc	6.10E+01	Nc
Naphthalene	NA	8.12E+02	**2.2E+02**	sat	5.60E+01	Nc
Pentachlorophenol	2.29E+02	2.12E+04	**2.29E+02**	ca	3.00E+00	Ca
Tetrachloroethene	1.13E+02	6.76E+02	**1.13E+02**	ca	5.70E+00	Ca
Trichloroethene	3.00E+02	3.65E+03	**3.00E+02**	ca	2.80E+00	Ca

(1) The cancer value for arsenic was selected because both cancer and noncancer based values exceeded the background range
(2) The lead value was derived using the Adult Lead Model for non-residential exposure using parameters for a Mexican American Population
ca = cancer, nc = non-cancer, NA = not applicable, NA = not applicable

Table 4.1
Chemicals Exceeding Future Park User and Future Excavation Worker Site Specific Preliminary Remediation Goals
Maywood Riverfront Park

Metals	**Polychlorinated biphenyls (PCB's)**	**Polycyclic Aromatic Hydrocarbons (PAH's)**
Arsenic Iron Lead	Arochlor-1260 Arochlor-1254	Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (k) fluoranthene Chrysene Dibenzo (a,h) anthracene Indeno (1,2,3-cd) pyrene

Note:

Chemicals listed include detected concentrations in soil that remains on the Maywood Riverfront Park property. Chemicals found in soils that have been excavated and removed are not included.

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benzo(a)anthracene	Benzo(a)pyrene
		SSPRG Value	30.3	32,850.0	400.0	528.2	52.8
		UNITS	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**					
Pemaco Property							
GP-SS-01	0.5	2/27/2001	--	--	--	--	520
GP-SS-02	0.5	2/27/2001	--	--	--	--	62 J
GP-SS-03	0.5	2/27/2001	--	--	--	--	83 J
GP-SS-03	2.5	2/27/2001	--	--	--	--	73 J
GP-SS-04	0.5	2/27/2001	--	--	--	--	150 J
GP-SS-05	0.5	2/27/2001	--	--	--	--	60 J
GP-SS-05	2.5	2/27/2001	--	--	--	--	110 J
GP-SS-06	0.5	2/27/2001	--	--	--	--	80 J
GP-SS-07	0.5	2/27/2001	--	--	--	1,800	2,800
GP-SS-07	2.5	2/27/2001	--	--	--	--	280 J
GP-SS-08	0.5	2/27/2001	--	--	--	--	96 J
GP-SS-08	2.5	2/27/2001	--	--	--	--	66 J
GP-SS-09	0.5	2/27/2001	--	--	--	--	98 J
GP-SS-09	2.5	2/27/2001	--	--	--	--	69 J
GP-SS-11	0.5	2/27/2001	--	--	--	--	78 J
GP-SS-11	2.5	2/27/2001	--	--	--	550	770
GP-SS-14	0.5	2/27/2001	--	--	--	22000 J	33000 J
GP-SS-16	2.5	2/28/2001	--	--	--	--	58 J
GP-SS-17	2.5	2/28/2001	--	--	--	--	110 J
GP-SS-18	2.5	2/28/2001	--	--	--	--	100 J
GP-SS-19	2.5	2/28/2001	--	--	--	--	55 J
GP-SS-20	0.5	2/28/2001	--	--	--	--	300 J
GP-SS-20	2.5	2/28/2001	--	--	--	--	140 J
GP-SS-22	0.5	2/28/2001	--	--	--	--	98 J
GP-SS-26	0.5	2/28/2001	--	--	--	--	130 J
GP-SS-26	2.5	2/28/2001	--	--	--	--	63 J
GP-SS-31	2.5	2/28/2001	--	--	--	--	310 J

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benzo(a)anthracene	Benzo(a)pyrene
		SSPRG Value	30.3	32,850.0	400.0	528.2	52.8
		UNITS	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**					
GP-SS-37	0.5	2/28/2001	--	--	--	--	68 J
GP-SS-37	2.5	2/28/2001	--	--	--	--	65 J
GP-SS-38	2.5	2/28/2001	--	--	--	--	69 J
GP-SS-50	0.5	2/28/2001	--	--	--	--	100 J
GP-SS-51	2.5	2/28/2001	--	--	--	--	340 J
GP-SS-53	0.5	3/1/2001	--	--	--	--	170 J
GP-SS-55	0.5	2/28/2001	--	--	--	--	210 J
RAN-SS-2	0.5	3/1/2001	--	--	--	--	58 J
RAN-SS-4	0.5	3/1/2001	--	--	--	--	53 J
RAN-SS-5	0.5	3/1/2001	--	--	--	--	120 J
Catellus Property							
No detections above SSPRG's			--	--	--	--	--
Lubricating Oil Services Property							
SP-4*	0.5	9/4/1991	--	--	--	54,000	190,000
L.A. Junction Railway Property							
GP-SS-32	2.5	3/1/2001	--	--	--	--	140 J
GP-SS-33	2.5	2/28/2001	--	--	--	--	290 J
GP-SS-34	2.5	2/28/2001	--	--	--	--	62 J
GP-SS-41	0.5	3/1/2001	--	--	--	1,100	1,700
GP-SS-41	2.5	3/1/2001	--	--	--	--	130 J
GP-SS-42	0.5	3/1/2001	--	--	--	--	120 J
GP-SS-43	2.5	3/1/2001	--	--	--	--	62 J
GP-SS-44	2.5	3/1/2001	--	--	--	--	180 J
GP-SS-45	2.5	3/1/2001	40	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	--	--	--	550
GP-SS-47	0.5	3/1/2001	--	--	--	620	830
GP-SS-48	2.5	3/1/2001	--	--	--	--	270 J
GP-SS-48	0.5	3/1/2001	--	--	--	--	210 J

TABLE 4.1A

Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)

Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benzo(a)anthracene	Benzo(a)pyrene
		SSPRG Value	30.3	32,850.0	400.0	528.2	52.8
		UNITS	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date					
GP-SS-49	0.5	2/28/2001	--	--	--	--	130 J
GP-SS-49	2.5	2/28/2001	--	--	--	--	240 J
GP-SS-56	0.5	3/1/2001	--	--	--	--	1,000
GP-SS-57	0.5	3/1/2001	--	--	--	--	160 J
GP-SS-58	0.5	3/1/2001	--	--	--	--	150 J
GP-SS-59	0.5	3/1/2001	--	60,200	--	--	--
GP-SS-59	2.5	3/1/2001	--	34,300	--	--	--
GP-SS-59	0.5	3/1/2001	--	--	--	--	590
GP-SS-60	0.5	3/1/2001	--	--	--	--	160 J
GP-SS-61	2.5	3/1/2001	--	71,500	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--	90 J
GP-SS-62	0.5	3/1/2001	--	--	--	--	100 J
GP-SS-63	0.5	3/1/2001	--	--	--	560	670
GP-SS-63	2.5	3/1/2001	--	--	--	--	120 J
GP-SS-74	0.5	3/1/2001	--	--	--	--	54 J
GP-SS-75	0.5	3/1/2001	--	73,200	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--	76 J
GP-SS-76	2.5	3/1/2001	--	--	--	--	480
GP-SS-77	0.5	3/1/2001	--	--	507 J	--	--
GP-SS-77	2.5	3/1/2001	--	--	--	--	140 J
GP-SS-78	0.5	3/1/2001	--	35,200	--	--	--
GP-SS-78	2.5	3/1/2001	--	--	--	--	310 J
GP-SS-86	0.5	3/1/2001	--	--	--	--	130 J
GP-SS-87	0.5	3/1/2001	--	--	952	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--	62 J
SB-01*	0.5	1/16/2001	--	--	--	63,000	19,000
SB-02*	0.5	1/16/2001	--	--	--	--	--
SB-03*	0.5	1/16/2001	--	--	--	--	--

TABLE 4.1A

Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)

Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benzo(a)anthracene	Benzo(a)pyrene
		SSPRG Value	30.3	32,850.0	400.0	528.2	52.8
		UNITS	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date					
SB-01@2.5*	2.5	6/6/2001	--	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--	--
W.W. Henry Property							
SB-1-2.5	2.5	5/6/1999	--	--	--	--	240
SB-2-1.5	1.5	5/6/1999	--	--	--	--	130
SB-2-2.5	2.5	5/6/1999	--	--	--	--	150
SB-3-1.5	1.5	5/6/1999	--	--	--	4,100	3,100
SB-3-2.5	2.5	5/6/1999	--	--	--	--	200
SB-4-1.5	1.5	5/6/1999	--	--	--	--	180
SB-4-2.5	2.5	5/6/1999	--	--	--	--	120
SB-5-1.5	1.5	5/6/1999	--	--	--	--	210
SB-5-2.5	2.5	5/6/1999	--	--	--	--	180
SB-6-2.5	2.5	5/6/1999	--	--	--	--	310
SB-10-2	2	12/8/1999	--	--	--	--	140
SB-11-1.5	1.5	12/8/1999	--	--	--	--	230
SB-12-1.5	1.5	12/8/1999	--	--	--	--	100
SB-13-1.5	1.5	12/8/1999	--	--	--	--	80
SB-14-2	2	12/8/1999	--	--	--	--	160

Notes:

SSPRG = Site Specific Preliminary Remediation Goal

-- = Analyte not detected above SSPRG

J = Estimated Value

NA = not analyzed for parameter

* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
		SSPRG Value	528.2	528.2	5,281.8	154.6
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
Pemaco Property						
GP-SS-01	0.5	2/27/2001	560	--	--	--
GP-SS-02	0.5	2/27/2001	--	--	--	--
GP-SS-03	0.5	2/27/2001	--	--	--	--
GP-SS-03	2.5	2/27/2001	--	--	--	--
GP-SS-04	0.5	2/27/2001	--	--	--	--
GP-SS-05	0.5	2/27/2001	--	--	--	--
GP-SS-05	2.5	2/27/2001	--	--	--	--
GP-SS-06	0.5	2/27/2001	--	--	--	--
GP-SS-07	0.5	2/27/2001	2,800	1,300	--	270 J
GP-SS-07	2.5	2/27/2001	--	--	--	--
GP-SS-08	0.5	2/27/2001	--	--	--	--
GP-SS-08	2.5	2/27/2001	--	--	--	--
GP-SS-09	0.5	2/27/2001	--	--	--	--
GP-SS-09	2.5	2/27/2001	--	--	--	--
GP-SS-11	0.5	2/27/2001	--	--	--	--
GP-SS-11	2.5	2/27/2001	1000 J	760 J	--	--
GP-SS-14	0.5	2/27/2001	38000 J	28000 J	24000 J	5300 J
GP-SS-16	2.5	2/28/2001	--	--	--	--
GP-SS-17	2.5	2/28/2001	--	--	--	--
GP-SS-18	2.5	2/28/2001	--	--	--	--
GP-SS-19	2.5	2/28/2001	--	--	--	--
GP-SS-20	0.5	2/28/2001	--	--	--	--
GP-SS-20	2.5	2/28/2001	--	--	--	--
GP-SS-22	0.5	2/28/2001	--	--	--	--
GP-SS-26	0.5	2/28/2001	--	--	--	--
GP-SS-26	2.5	2/28/2001	--	--	--	--
GP-SS-31	2.5	2/28/2001	--	--	--	--

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
		SSPRG Value	528.2	528.2	5,281.8	154.6
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
GP-SS-37	0.5	2/28/2001	--	--	--	--
GP-SS-37	2.5	2/28/2001	--	--	--	--
GP-SS-38	2.5	2/28/2001	--	--	--	--
GP-SS-50	0.5	2/28/2001	--	--	--	--
GP-SS-51	2.5	2/28/2001	--	--	--	--
GP-SS-53	0.5	3/1/2001	--	--	--	--
GP-SS-55	0.5	2/28/2001	--	--	--	--
RAN-SS-2	0.5	3/1/2001	--	--	--	--
RAN-SS-4	0.5	3/1/2001	--	--	--	--
RAN-SS-5	0.5	3/1/2001	--	--	--	--
Catellus Property						
No detections above SSPRG's			--	--	--	--
Lubricating Oil Services Property						
SP-4*	0.5	9/4/1991	190,000	180,000	150,000	26,000
L.A. Junction Railway Property						
GP-SS-32	2.5	3/1/2001	--	--	--	--
GP-SS-33	2.5	2/28/2001	--	--	--	--
GP-SS-34	2.5	2/28/2001	--	--	--	--
GP-SS-41	0.5	3/1/2001	3000 J	3100 J	--	490 J
GP-SS-41	2.5	3/1/2001	--	--	--	--
GP-SS-42	0.5	3/1/2001	--	--	--	--
GP-SS-43	2.5	3/1/2001	--	--	--	--
GP-SS-44	2.5	3/1/2001	--	--	--	--
GP-SS-45	2.5	3/1/2001	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	--	--	--
GP-SS-47	0.5	3/1/2001	540	770	--	--
GP-SS-48	2.5	3/1/2001	--	--	--	--
GP-SS-48	0.5	3/1/2001	--	--	--	--

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
		SSPRG Value	528.2	528.2	5,281.8	154.6
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
GP-SS-49	0.5	2/28/2001	--	--	--	--
GP-SS-49	2.5	2/28/2001	--	--	--	--
GP-SS-56	0.5	3/1/2001	1,900	600	--	270 J
GP-SS-57	0.5	3/1/2001	--	--	--	--
GP-SS-58	0.5	3/1/2001	--	--	--	--
GP-SS-59	0.5	3/1/2001	--	--	--	--
GP-SS-59	2.5	3/1/2001	--	--	--	--
GP-SS-59	0.5	3/1/2001	720	--	--	--
GP-SS-60	0.5	3/1/2001	--	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--
GP-SS-61	2.5	3/1/2001	--	--	--	--
GP-SS-62	0.5	3/1/2001	--	--	--	--
GP-SS-63	0.5	3/1/2001	650	--	--	--
GP-SS-63	2.5	3/1/2001	--	--	--	--
GP-SS-74	0.5	3/1/2001	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--
GP-SS-75	0.5	3/1/2001	--	--	--	--
GP-SS-76	2.5	3/1/2001	650	--	--	--
GP-SS-77	0.5	3/1/2001	--	--	--	--
GP-SS-77	2.5	3/1/2001	--	--	--	--
GP-SS-78	0.5	3/1/2001	--	--	--	--
GP-SS-78	2.5	3/1/2001	--	--	--	--
GP-SS-86	0.5	3/1/2001	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	--	--
SB-01*	0.5	1/16/2001	20,000	17,000	59,000	--
SB-02*	0.5	1/16/2001	--	--	--	--
SB-03*	0.5	1/16/2001	--	--	--	--

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
		SSPRG Value	528.2	528.2	5,281.8	154.6
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
SB-01@2.5*	2.5	6/6/2001	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--
W.W. Henry Property						
SB-1-2.5	2.5	5/6/1999	--	--	--	--
SB-2-1.5	1.5	5/6/1999	--	--	--	--
SB-2-2.5	2.5	5/6/1999	--	--	--	--
SB-3-1.5	1.5	5/6/1999	--	--	--	--
SB-3-2.5	2.5	5/6/1999	--	--	--	--
SB-4-1.5	1.5	5/6/1999	--	--	--	--
SB-4-2.5	2.5	5/6/1999	--	--	--	--
SB-5-1.5	1.5	5/6/1999	--	--	--	--
SB-5-2.5	2.5	5/6/1999	--	--	--	--
SB-6-2.5	2.5	5/6/1999	--	--	--	--
SB-10-2	2	12/8/1999	--	--	--	--
SB-11-1.5	1.5	12/8/1999	--	--	--	--
SB-12-1.5	1.5	12/8/1999	--	--	--	--
SB-13-1.5	1.5	12/8/1999	--	--	--	--
SB-14-2	2	12/8/1999	--	--	--	--

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	528.2	205,000	310	310
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date				
Pemaco Property						
GP-SS-01	0.5	2/27/2001	--	--	NA	NA
GP-SS-02	0.5	2/27/2001	--	--	NA	NA
GP-SS-03	0.5	2/27/2001	--	--	NA	NA
GP-SS-03	2.5	2/27/2001	--	--	NA	NA
GP-SS-04	0.5	2/27/2001	--	--	NA	NA
GP-SS-05	0.5	2/27/2001	--	--	NA	NA
GP-SS-05	2.5	2/27/2001	--	--	NA	NA
GP-SS-06	0.5	2/27/2001	--	--	NA	NA
GP-SS-07	0.5	2/27/2001	1,700	--	NA	NA
GP-SS-07	2.5	2/27/2001	--	--	NA	NA
GP-SS-08	0.5	2/27/2001	--	--	NA	NA
GP-SS-08	2.5	2/27/2001	--	--	NA	NA
GP-SS-09	0.5	2/27/2001	--	--	NA	NA
GP-SS-09	2.5	2/27/2001	--	--	NA	NA
GP-SS-11	0.5	2/27/2001	--	--	NA	NA
GP-SS-11	2.5	2/27/2001	--	--	NA	NA
GP-SS-14	0.5	2/27/2001	19000 J	--	NA	NA
GP-SS-16	2.5	2/28/2001	--	--	NA	NA
GP-SS-17	2.5	2/28/2001	--	--	NA	NA
GP-SS-18	2.5	2/28/2001	--	--	NA	NA
GP-SS-19	2.5	2/28/2001	--	--	NA	NA
GP-SS-20	0.5	2/28/2001	--	--	NA	NA
GP-SS-20	2.5	2/28/2001	--	--	NA	NA
GP-SS-22	0.5	2/28/2001	--	--	NA	NA
GP-SS-26	0.5	2/28/2001	--	--	NA	NA
GP-SS-26	2.5	2/28/2001	--	--	NA	NA
GP-SS-31	2.5	2/28/2001	--	--	NA	NA

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	528.2	205,000	310	310
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
GP-SS-37	0.5	2/28/2001	--	--	NA	NA
GP-SS-37	2.5	2/28/2001	--	--	NA	NA
GP-SS-38	2.5	2/28/2001	--	--	NA	NA
GP-SS-50	0.5	2/28/2001	--	--	NA	NA
GP-SS-51	2.5	2/28/2001	--	--	NA	NA
GP-SS-53	0.5	3/1/2001	--	--	NA	NA
GP-SS-55	0.5	2/28/2001	--	--	NA	NA
RAN-SS-2	0.5	3/1/2001	--	--	NA	NA
RAN-SS-4	0.5	3/1/2001	--	--	NA	NA
RAN-SS-5	0.5	3/1/2001	--	--	NA	NA
Catellus Property						
No detections above SSPRG's			--	--	NA	NA
Lubricating Oil Services Property						
SP-4*	0.5	9/4/1991	90,000	--	NA	NA
L.A. Junction Railway Property						
GP-SS-32	2.5	3/1/2001	--	--	NA	NA
GP-SS-33	2.5	2/28/2001	--	--	NA	NA
GP-SS-34	2.5	2/28/2001	--	--	NA	NA
GP-SS-41	0.5	3/1/2001	1,400	--	NA	NA
GP-SS-41	2.5	3/1/2001	--	--	NA	NA
GP-SS-42	0.5	3/1/2001	--	--	NA	NA
GP-SS-43	2.5	3/1/2001	--	--	NA	NA
GP-SS-44	2.5	3/1/2001	--	--	NA	NA
GP-SS-45	2.5	3/1/2001	--	--	NA	NA
GP-SS-46	2.5	3/1/2001	--	--	NA	NA
GP-SS-47	0.5	3/1/2001	640	--	NA	NA
GP-SS-48	2.5	3/1/2001	--	--	NA	NA
GP-SS-48	0.5	3/1/2001	--	--	NA	NA

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	528.2	205,000	310	310
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date				
GP-SS-49	0.5	2/28/2001	--	--	NA	NA
GP-SS-49	2.5	2/28/2001	--	--	NA	NA
GP-SS-56	0.5	3/1/2001	960	--	NA	NA
GP-SS-57	0.5	3/1/2001	--	--	NA	NA
GP-SS-58	0.5	3/1/2001	--	--	NA	NA
GP-SS-59	0.5	3/1/2001	--	--	NA	NA
GP-SS-59	2.5	3/1/2001	--	--	NA	NA
GP-SS-59	0.5	3/1/2001	600	--	NA	NA
GP-SS-60	0.5	3/1/2001	--	--	NA	NA
GP-SS-61	2.5	3/1/2001	--	--	NA	NA
GP-SS-61	2.5	3/1/2001	--	--	NA	NA
GP-SS-62	0.5	3/1/2001	--	--	NA	NA
GP-SS-63	0.5	3/1/2001	--	--	NA	NA
GP-SS-63	2.5	3/1/2001	--	--	NA	NA
GP-SS-74	0.5	3/1/2001	--	--	NA	NA
GP-SS-75	0.5	3/1/2001	--	--	NA	NA
GP-SS-75	0.5	3/1/2001	--	--	NA	NA
GP-SS-76	2.5	3/1/2001	650	--	NA	NA
GP-SS-77	0.5	3/1/2001	--	--	NA	NA
GP-SS-77	2.5	3/1/2001	--	--	NA	NA
GP-SS-78	0.5	3/1/2001	--	--	NA	NA
GP-SS-78	2.5	3/1/2001	--	--	NA	NA
GP-SS-86	0.5	3/1/2001	--	--	NA	NA
GP-SS-87	0.5	3/1/2001	--	--	NA	NA
GP-SS-87	0.5	3/1/2001	--	--	NA	NA
SB-01*	0.5	1/16/2001	--	680,000	--	764
SB-02*	0.5	1/16/2001	--	--	1,600	--
SB-03*	0.5	1/16/2001	--	--	--	25,000

TABLE 4.1A
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	528.2	205,000	310	310
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**				
SB-01@2.5*	2.5	6/6/2001	--	--	8,500	--
SB-02@2.5	2.5	6/6/2001	--	--	3,200	--
SB-01@4	4	6/6/2001	--	--	1,800	--
W.W. Henry Property						
SB-1-2.5	2.5	5/6/1999	--	--	NA	NA
SB-2-1.5	1.5	5/6/1999	--	--	NA	NA
SB-2-2.5	2.5	5/6/1999	--	--	NA	NA
SB-3-1.5	1.5	5/6/1999	--	--	NA	NA
SB-3-2.5	2.5	5/6/1999	--	--	NA	NA
SB-4-1.5	1.5	5/6/1999	--	--	NA	NA
SB-4-2.5	2.5	5/6/1999	--	--	NA	NA
SB-5-1.5	1.5	5/6/1999	--	--	NA	NA
SB-5-2.5	2.5	5/6/1999	--	--	NA	NA
SB-6-2.5	2.5	5/6/1999	--	--	NA	NA
SB-10-2	2	12/8/1999	--	--	NA	NA
SB-11-1.5	1.5	12/8/1999	--	--	NA	NA
SB-12-1.5	1.5	12/8/1999	--	--	NA	NA
SB-13-1.5	1.5	12/8/1999	--	--	NA	NA
SB-14-2	2	12/8/1999	--	--	NA	NA

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently
excavated and removed from property (Cape, 2001)

TABLE 4.1B

Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-6 Cancer Risk)

Maywood Riverfront Park

		GROUP	Metal	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Lead	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene
		SSPRG Value	362.0	2,605.4	260.5	2,605.4	2,605.4	26,054.3
		UNITS	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date						
Pemaco Property								
GP-SS-01	0.5	2/27/2001	--	--	520	--	--	--
GP-SS-07	0.5	2/27/2001	--	--	2,800	2,800	--	--
GP-SS-07	2.5	2/27/2001	--	--	280 J	--	--	--
GP-SS-11	2.5	2/27/2001	--	--	770	--	--	--
GP-SS-14	0.5	2/27/2001	--	22000 J	33000 J	38000 J	28000 J	--
GP-SS-20	0.5	2/28/2001	--	--	300 J	--	--	--
GP-SS-31	2.5	2/28/2001	--	--	310 J	--	--	--
GP-SS-51	2.5	2/28/2001	--	--	340 J	--	--	--
GP-VS-01	5	2/19/2001	--	--	330 J	--	--	--
Lubricating Oil Services Property								
SP-4*	0.5	9/4/1991	--	54,000	190,000	190,000	180,000	150,000
Catellus Property								
No detections above SSPRG's			--	--	--	--	--	--
District Blvd.								
GP-VS-23	5.5	2/20/2001	--	--	880	--	--	--
L.A. Junction Railway Property								
GP-SS-33	2.5	2/28/2001	--	--	290 J	--	--	--
GP-SS-41	0.5	3/1/2001	--	--	1,700	3000 J	3100 J	--
GP-SS-46	2.5	3/1/2001	--	--	550	--	--	--
GP-SS-47	0.5	3/1/2001	--	--	830	--	--	--
GP-SS-48	2.5	3/1/2001	--	--	270 J	--	--	--
GP-SS-56	0.5	3/1/2001	--	--	1,000	--	--	--
GP-SS-59	0.5	3/1/2001	--	--	590	--	--	--
GP-SS-63	0.5	3/1/2001	--	--	670	--	--	--

TABLE 4.1B
Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	SVOC	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Lead	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene
		SSPRG Value	362.0	2,605.4	260.5	2,605.4	2,605.4	26,054.3
		UNITS	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date						
GP-SS-76	2.5	3/1/2001	--	--	480	--	--	--
GP-SS-77	0.5	3/1/2001	507 J	--	--	--	--	--
GP-SS-78	2.5	3/1/2001	--	--	310 J	--	--	--
GP-SS-87	0.5	3/1/2001	952	--	--	--	--	--
GP-VS-09	5	2/22/2001	--	32000 J	27000 J	40,000	29000 J	33000 J
SB-01*	0.5	1/16/2001	--	63,000	19,000	20,000	17,000	59,000
SB-02*	0.5	1/16/2001	--	--	--	--	--	--
SB-03*	0.5	1/16/2001	--	--	--	--	--	--
SB-01@2.5*	2.5	6/6/2001	--	--	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	--	--
SB-01@4	4	6/6/2001	--	--	--	--	--	--
W.W. Henry Property								
B-30	5	4/16/2001	--	--	360	--	--	--
SB-3-1.5	1.5	5/6/1999	--	4,100	3,100	--	--	--
SB-6-2.5	2.5	5/6/1999	--	--	310	--	--	--

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

TABLE 4.1B
Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	761.7	2,605.4	205,000	1,540	1,540
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	Sample Depth (feet)	Collection Date					
Pemaco Property							
GP-SS-01	0.5	2/27/2001	--	--	--	NA	NA
GP-SS-07	0.5	2/27/2001	--	--	--	NA	NA
GP-SS-07	2.5	2/27/2001	--	--	--	NA	NA
GP-SS-11	2.5	2/27/2001	--	--	--	NA	NA
GP-SS-14	0.5	2/27/2001	5300 J	19000 J	--	NA	NA
GP-SS-20	0.5	2/28/2001	--	--	--	NA	NA
GP-SS-31	2.5	2/28/2001	--	--	--	NA	NA
GP-SS-51	2.5	2/28/2001	--	--	--	NA	NA
GP-VS-01	5	2/19/2001	--	--	--	NA	NA
Lubricating Oil Services Property							
SP-4*	0.5	9/4/1991	26,000	90,000	--	NA	NA
Catellus Property							
No detections above SSPRG's			--	--	--	--	--
District Blvd.							
GP-VS-23	5.5	2/20/2001	--	--	--	NA	NA
L.A. Junction Railway Property							
GP-SS-33	2.5	2/28/2001	--	--	--	NA	NA
GP-SS-41	0.5	3/1/2001	--	--	--	NA	NA
GP-SS-46	2.5	3/1/2001	--	--	--	NA	NA
GP-SS-47	0.5	3/1/2001	--	--	--	NA	NA
GP-SS-48	2.5	3/1/2001	--	--	--	NA	NA
GP-SS-56	0.5	3/1/2001	--	--	--	NA	NA
GP-SS-59	0.5	3/1/2001	--	--	--	NA	NA
GP-SS-63	0.5	3/1/2001	--	--	--	NA	NA

TABLE 4.1B
Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-6 Cancer Risk)
Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSPRG Value	761.7	2,605.4	205,000	1,540	1,540
		UNITS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Sample ID	**Sample Depth (feet)**	**Collection Date**					
GP-SS-76	2.5	3/1/2001	--	--	--	NA	NA
GP-SS-77	0.5	3/1/2001	--	--	--	NA	NA
GP-SS-78	2.5	3/1/2001	--	--	--	NA	NA
GP-SS-87	0.5	3/1/2001	--	--	--	NA	NA
GP-VS-09	5	2/22/2001	5,200	15000 J	--	NA	NA
SB-01*	0.5	1/16/2001	--	--	680,000	--	--
SB-02*	0.5	1/16/2001	--	--	--	1,600	--
SB-03*	0.5	1/16/2001	--	--	--	--	25,000
SB-01@2.5*	2.5	6/6/2001	--	--	--	8,500	--
SB-02@2.5	2.5	6/6/2001	--	--	--	3,200	--
SB-01@4	4	6/6/2001	--	--	--	1,800	--
W.W. Henry Property							
B-30	5	4/16/2001	--	--	--	NA	NA
SB-3-1.5	1.5	5/6/1999	--	--	--	NA	NA
SB-6-2.5	2.5	5/6/1999	--	--	--	NA	NA

Notes:

SSPRG = Site Specific Preliminary Remediation Goal

-- = Analyte not detected above SSPRG

J = Estimated Value

NA = not analyzed for parameter

* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

TABLE 4.1C
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-5 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene
		SSRG	30.3	32,900	400	5,290	529	5,290	5,290
		Units	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	**Sample Depth (feet)**	**Collection Date**							
Pemaco Property									
GP-SS-07	0.5	2/27/2001	--	--	--	--	2,800	--	--
GP-SS-11	2.5	2/27/2001	--	--	--	--	770	--	--
GP-SS-14	0.5	2/27/2001	--	--	--	22,000 J	33,000 J	38,000 J	28,000 J
GP-SS-31	2.5	2/28/2001	--	--	--	--	1,100	--	--
L.A. Junction Railway Property									
GP-SS-41	0.5	3/1/2001	--	--	--	--	1,700	--	--
GP-SS-45	2.5	3/1/2001	40	--	--	--	--	--	--
GP-SS-46	2.5	3/1/2001	--	--	--	--	550	--	--
GP-SS-47	0.5	3/1/2001	--	--	--	--	830	--	--
GP-SS-56	0.5	3/1/2001	--	--	--	--	1,000	--	--
GP-SS-59	0.5	3/1/2001	--	60,200	--	--	--	--	--
GP-SS-59	2.5	3/1/2001	--	34,300	--	--	--	--	--
GP-SS-59	0.5	3/1/2001	--	--	--	--	590	--	--
GP-SS-61	2.5	3/1/2001	--	71,500	--	--	--	--	--

TABLE 4.1C
Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-5 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	Metal	Metal	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Arsenic	Iron	Lead	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene
		SSRG	30.3	32,900	400	5,290	529	5,290	5,290
		Units	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	**Sample Depth (feet)**	**Collection Date**							
GP-SS-62	0.5	3/1/2001	--	35,700	--	--	--	--	--
GP-SS-63	0.5	3/1/2001	--	--	--	--	670	--	--
GP-SS-75	0.5	3/1/2001	--	73,200	--	--	--	--	--
GP-SS-77	0.5	3/1/2001	--	--	507 J	--	--	--	--
GP-SS-78	0.5	3/1/2001	--	35,200	--	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	--	952	--	--	--	--
SB-01*	0.5	1/16/2001	--	--	--	63,000	19,000	20,000	17,000
SB-03*	0.5	1/16/2001	--	--	--	--	--	--	--
SB-01@2.5*	2.5	6/6/2001	--	--	--	--	--	--	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	--	--	--
Lubricating Oil Services Property									
SP-4*	0.5	9/4/1991	--	--	--	54,000	190,000	190,000	180,000
Catellus Property									
No detections above SSPRG's			--	--	--	--	--	--	--
W.W. Henry Property									
SB-3-1.5	1.5	5/6/1999	--	--	--	4,100	3,100	--	--

Notes:

SSPRG = Site Specific Preliminary Remediation Goal

-- = Analyte not detected above SSPRG

J = Estimated Value

NA = not analyzed for parameter

* = *Sample collected from soil that was subsequently* excavated and removed from property (Cape, 2001)

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TABLE 4.1C

Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-5 Cancer Risk)

Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Chrysene	Dibenz[ah]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSRG	52,900	1,550	5,290	205,000	3,110	1,570
		Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	Sample Depth (feet)	Collection Date						
Pemaco Property								
GP-SS-07	0.5	2/27/2001	--	--	--	--	NA	NA
GP-SS-11	2.5	2/27/2001	--	--	--	--	NA	NA
GP-SS-14	0.5	2/27/2001	--	5,300 J	19,000 J	--	NA	NA
GP-SS-31	2.5	2/28/2001	--	--	--	--	NA	NA
L.A. Junction Railway Property								
GP-SS-41	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-45	2.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-46	2.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-47	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-56	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-59	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-59	2.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-59	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-61	2.5	3/1/2001	--	--	--	--	NA	NA

TABLE 4.1C

Concentrations in Surface and Near Surface Soils Exceeding Site Specific Preliminary Remediation Goals for the Future Park User Scenario (10-5 Cancer Risk)

Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC	SVOC/VOC	PCB	PCB
		PARAMETER	Chrysene	Dibenz[ah]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Aroclor-1260	Aroclor-1254
		SSRG	52,900	1,550	5,290	205,000	3,110	1,570
		Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	**Sample Depth (feet)**	**Collection Date**						
GP-SS-62	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-63	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-75	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-77	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-78	0.5	3/1/2001	--	--	--	--	NA	NA
GP-SS-87	0.5	3/1/2001	--	--	--	--	NA	NA
SB-01*	0.5	1/16/2001	59,000	--	--	680,000	--	764
SB-03*	0.5	1/16/2001	--	--	--	--	--	25,000
SB-01@2.5*	2.5	6/6/2001	--	--	--	--	8,500	--
SB-02@2.5	2.5	6/6/2001	--	--	--	--	3,200	--
Lubricating Oil Services Property								
SP-4*	0.5	9/4/1991	150,000	26,000	90,000	--	NA	NA
Catellus Property								
No detections above SSPRG's			--	--	--	--	NA	NA
W.W. Henry Property								
SB-3-1.5	1.5	5/6/1999	--	--	--	--	NA	NA

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

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TABLE 4.1D
Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-5 Cancer Risk)
Maywood Riverfront Park

		GROUP	Metal	Metal	SVOC	SVOC	SVOC	SVOC
		PARAMETER	Arsenic	Lead	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene
		SSPRG	23.3	362	26,100	2,610	26,100	26,100
		UNITS	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	Sample Depth (feet)	Collection Date						
Pemaco Property								
GP-SS-07	0.5	2/27/2001	--	--	--	2,800	--	--
GP-SS-14	0.5	2/27/2001	--	--	--	33,000 J	38,000 J	28,000 J
L.A. Junction Railway Property								
GP-SS-34	2.5	2/28/2001	24	--	--	--	--	--
GP-SS-45	2.5	3/1/2001	40	--	--	--	--	--
GP-SS-77	0.5	3/1/2001	--	507 J	--	--	--	--
GP-SS-87	0.5	3/1/2001	--	952	--	--	--	--
GP-VS-09	5.5	2/22/2001	--	--	32,000 J	27,000 J	40,000	29,000 J
SB-01*	0.5	1/16/2001	--	--	63,000	19,000	--	--
SB-03*	0.5	1/16/2001	--	--	--	--	--	--
Catellus Property								
No detections above SSPRG's			--	--	--	--	--	--
Lubricating Oil Services Property								
SP-4*	0.5	9/4/1991	--	--	54,000	190,000	190,000	180,000
W.W. Henry Property								
SB-3-1.5	1.5	5/6/1999	--	--	--	3,100	--	--

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently
excavated and removed from property (Cape, 2001)

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TABLE 4.1D

Concentrations in Surface and Subsurface Soils (0 - 15' bg) Exceeding Site Specific Preliminary Remediation Goals for the Future Excavation Worker Scenario (10-5 Cancer Risk)

Maywood Riverfront Park

		GROUP	SVOC	SVOC	SVOC/VOC	PCB
		PARAMETER	Dibenz[ah]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Aroclor-1254
		SSPRG	7,630	26,100	220,000	15,500
		UNITS	ug/kg	ug/kg	ug/kg	ug/kg
Sample ID	Sample Depth (feet)	Collection Date				
Pemaco Property						
GP-SS-07	0.5	2/27/2001	--	--	--	NA
GP-SS-14	0.5	2/27/2001	--	--	--	NA
L.A. Junction Railway Property						
GP-SS-34	2.5	2/28/2001	--	--	--	NA
GP-SS-45	2.5	3/1/2001	--	--	--	NA
GP-SS-77	0.5	3/1/2001	--	--	--	NA
GP-SS-87	0.5	3/1/2001	--	--	--	NA
GP-VS-09	5.5	2/22/2001	--	--	--	NA
SB-01*	0.5	1/16/2001	--	--	680,000	--
SB-03*	0.5	1/16/2001	--	--	--	25,000
Catellus Property						
No detections above SSPRG's			--	--	--	NA
Lubricating Oil Services Property						
SP-4*	0.5	9/4/1991	26,000	90,000	--	NA
W.W. Henry Property						
SB-3-1.5	1.5	5/6/1999	--	--	--	NA

Notes:
SSPRG = Site Specific Preliminary Remediation Goal
-- = Analyte not detected above SSPRG
J = Estimated Value
NA = not analyzed for parameter
* = Sample collected from soil that was subsequently excavated and removed from property (Cape, 2001)

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Table 5.1
California Background Concentrations and Remediation Goals for Arsenic, Iron and Lead in Soil

Metal	Highest Concentration Detected at the MRPP (mg/kg)	California Background Soil Concentrations* (mg/kg)			USEPA Region IX PRG (mg/kg)	Site Specific Preliminary Remediation Goal for Future Park User (mg/kg)
		Mean	Min	Max		
Arsenic	40.4	3.5	0.6	11	22	30.3
Iron	73,200	37,000	10,000	87,000	23,000	32,900
Lead	952	23.9	12.4	97.1	400	400

Note:

*California background soil concentrations taken from Bradford et al, 1996

APPENDIX E
HYDROLOGY AND WATER QUALITY

1.0 Setting

1.1 General

The project is located in the Los Angeles River watershed in Southern California. The design storm for this region is a winter cyclonic cold front approaching from the north and west. These storms are characterized by short intense rainfall with longer periods of light rainfall preceding and subsequent to the most intense intervals. The 100 year rainfall pattern is a four-day storm with the most intense rainfall occurring during the night of the fourth day. These storms are described in detail in the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual

1.2 Existing Hydrologic Characteristics

The site is currently used for industrial and manufacturing purposes. There are two large single story buildings with associated parking and three smaller structures which makeup of the majority of the impervious area on the site. The site is split by existing railroad tracks and a spur line leading to the easterly of the two warehouses.

The general direction of flow across the site is north-south with the majority of the area tributary to 59th of Place. To the south of 59th Place the flows are divided by a small ridge with the west side tributary to Walker Avenue and the eastern side tributary to 60th Street.

1.3 Existing Drainage Systems

1.3.1 Offsite Drainage Systems

The eastern boundary of the site is immediately adjacent to the Los Angeles River. The Los Angeles River is reinforced concrete trapezoidal channel constructed by the U.S. Army Corps of Engineers and operated by the LACDPW. The River is in a perched condition with the tops of the levees approximately 10 feet above the project site.

The Corps of engineers has recently completed the Los Angeles County Drainage Area Project. This project raised the levees on the Los Angeles River to the point where the capacity of the river equals or exceeds the anticipated flows from the 100 year design storm.

When the river flows at full capacity the water surface in the river will be above the project site. Although the site is not directly tributary to the Los Angeles River, the river is the nearest designated receiving waters of the United States.

1.3.2 Onsite Drainage

- *Existing flow levels in project vicinity*
- *Existing system capacity*

I need to visit the site to do this discussion.

2.0 Thresholds of Significance

2.1 Capacity

The project can be considered to have significant impact if it's construction would result in the need for expanded capacity in the existing drainage systems. These systems include: the existing roadways 59th, 60th and Walker Avenue, the existing underground storm drain systems which drain these roads, and the Los Angeles River.

2.2 City Policies

The City of Maywood follows the drainage design policies described in the LACDPW Hydrology Manual and the companion Hydraulic Design Manual. These manuals set the design frequency for the storm, the methodology for calculating flow rates and the guidelines for design and construction of storm drain improvements.

The City also has established flooded width criteria for roadways. These criteria describe the extent to which a street can be flooded prior to the street becoming unsafe for traffic. The project can be considered to have significant impact if it increases the extend of flooding in the surrounding streets beyond the levels permitted by the criteria.

City building ordnances require that all new construction be elevated above the maximum water surface generated by the 100-year storm. If this is not feasible, the City will require the owners to carry flood insurance. The City also requires owners of existing structures to carry flood insurance if they are subject to inundation by a 100 year flood.

The project can be considered to have an impact if it raises the level flooding experienced by a structure or inundates a previously unaffected structure.

2.3 Regulatory Requirements

In 1972 the Federal Clean Water Act was amended to designate the discharge of pollutants to the waters of the United States as unlawful. In 1987 the Federal Clean Water Act was again amended to require that municipalities throughout the U.S. obtain a National Pollutant Discharge Elimination System (NPDES) Permit to discharge urban runoff from their municipal separate storm sewer system (MS4). The NPDES Permit allows the municipality to discharge storm flows into the waters of the United States. The City of Maywood has joined the surrounding municipalities and the County of Los Angeles as a co-permittee in obtaining a discharge permit.

The Los Angeles River is currently designated as an impacted receiving water with the major constituent of concern being macro-pollutants such as trash and other floatables. Other pollutants typical of large urbanized watersheds also reach the river. These pollutants include, heavy metals, petroleum products, BOD, COD, bacteria, nitrates or other nutrients, and phosphorus.

The project can be considered to have an impact if it increases the volume of pollutants discharged to the Los Angeles River or to storm drains tributary to the river.

3.0 Project Impacts

3.1 Capacity

The project will construct impervious areas consisting of a basketball court, sidewalks and parking. However, the existing warehouses and other buildings will be removed resulting in a net decrease impervious percentage. The reduced imperviousness will result in a decrease in total volume of storm flows generated by the site. The proposed lawns will also reduce flow rates when compared to the existing dirt areas.

A large percentage of the site will be graded to drain to proposed grassy swales. The low flow velocities in these swales will cause peak attenuation resulting in a decrease in the maximum flow rate leaving the site.

He reduced storm flow volumes coupled with peak reduction result in a decrease in the storm flows reaching the surrounding streets and storm drain systems. Because of this decrease, no capacity thresholds will be triggered and the project can be considered to have no impact.

3.2 City Policies

Reduction of flows generated by the park will reduce the depth of flooding in the adjacent streets. Reduced flow depths will result in reduced flooded widths. Further, reduced flows from the site will result in a reduction of the flooding caused by 100-year storm event thereby reducing the building ordinance requirements or flood insurance requirements on adjacent structures.

Again, the storm flow decreases indicate that no policy or ordinance thresholds will be triggered and the project can be considered to have no impact.

3.2 Regulatory Requirements

The project will construct a system of grassy swales. Grassy swales are an effective Best Management Practice (BMP) for capturing and treating pollutants. As the flows slowly pass through the grasses, trash settles out and the plants metabolize the nutrients in the flow. The water is also exposed to solar ultra-violet radiation which kills bacteria.

These grassy swales will provide for a net overall reduction in pollutants exiting the site with associated improvement in the water quality in downstream drainage facilities including the Los Angeles River.

The decrease in pollutants will not trigger any regulatory thresholds.

4.0 Cumulative Impacts

The result of the project will be a net decrease in the volume of storm flow and an improvement of the water quality of the storm flows. Because of these decreases the project will have no cumulative impact.

5.0 Mitigations

None required.

6.0 Level of Significance After Mitigation

N/A

APPENDIX F
NOISE IMPACT ANALYSIS

NOISE IMPACT ANALYSIS

MAYWOOD RIVERFRONT PARK

CITY OF MAYWOOD, CALIFORNIA

Prepared for:

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Date:

July 30, 2002

INTRODUCTION

This section addresses noise impacts associated with the proposed project. It analyzes both potential noise impacts caused by the construction and operation of the park and potential noise impacts on the park users. Background information on environmental acoustics, including definitions of terms commonly used in noise analysis, is provided below.

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all frequencies within the entire spectrum, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called "A-weighting," written as dBA.

A number of different metrics are used to characterize the time-varying nature of sound. These metrics include: the equivalent continuous sound level (Leq), the minimum and maximum sound levels (Lmin and Lmax), percentile -exceeded sound levels (Lxx), the day -night level, and the community noise equivalent level (CNEL). The following are brief definitions of these metrics and other terminology used in this section:

- o Sound. A vibratory disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- o Noise. Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- o Decibel (dB). A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20-micro-pascals.

- A-Weighted Decibel (dBA). An overall frequency-weighted sound level in decibels which approximates the frequency response of the human ear.

- Maximum Sound Level (Lmax). The maximum sound level measured during the measurement period of interest.

- Minimum Sound Level (Lmin). The minimum sound level measured during the measurement period of interest.

- Equivalent Sound Level (Leq). The equivalent steady state sound level which in a stated period of time would contain the same acoustical energy.

- Percentile-Exceeded Sound Level (Lxx). The sound level exceeded xx percent of a specific time period. L10 is the sound level exceeded 10 percent of the time, L50 is the median (50th percentile) level, etc.

- Day-Night Level (Ldn). The energy average of the A -weighted sound levels occurring during a 24 -hour period, with 10 dB added to the A -weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

- Community Noise Equivalent Level (CNEL). The energy average of the A -weighted sound levels occurring during a 24 -hour period with 5 dB added to the A -weighted sound levels occurring during the period from 7:00 p.m. to 10 p.m. and 10 dB added to the A -weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Ldn and CNEL values rarely differ by more than 1 dB. As a matter of practice, Ldn and CNEL values are considered to be equivalent and are treated as such in this assessment. In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of apparent loudness.

SETTING

The noise environment in the project area is dominated by n oise from traffic and on-street activities. Vehicle engine noise, auto horns, brake squeal and occasional pedestrian noise (conversation, and portable music devices) are the most common noise sources along the project perimeter. Residential activity (children, dogs, lawn mowers, etc.) are audible away from nearby development. Residual industrial activity noise may occur, but the diminishing activity level in the area has reduced this source to very localized events near any individual site.

Noise monitoring was conducted on the project site on July 16, 2002 to quantify existing conditions on the site using a Larson-Davis Model 700B digital sound level meter with ANSI Type II (ambient quality) accuracy. Monitoring was conducted at three sites for 15 minutes per site along the project perimeter. Table 1 summarizes the noise monitoring results. Except near Slauson Avenue, observed noise levels were in the low to moderate range.

To further characterize existing noise levels in the project area, noise from traffic traveling on streets in the project area was modeled using the Federal Highway Administrative Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic engineer. Table 2 summarizes traffic noise modeling results for existing conditions.

Traffic noise throughout the project area is very low except along Slauson Avenue. The noise standard for "quiet" (passive) park uses is exceeded to a distance of around 110 feet from the Slauson Avenue centerline. The activ e park use noise guideline level extends to 50 feet from the centerline. These data suggest that active play should occur on the northern project parcel, and passive uses should occur on the southern side of the project.

Applicable Regulations

Noise Impacts Related to the proposed park.

The City of Maywood has no specific noise siting standards for parks, but typically applies residential standards (65 dB CNEL) for passive uses. Noise -generating active recreation is considered compatible with the ambient noise environment up to 70 dB CNEL.

TABLE 1

SUMMARY OF ON-SITE NOISE MONITORING (07-16-02) - dBA

Location	LEQ	Lmax	Lmin	L10	L50	L90
59th Pl./Walker (a)	57	72	50	58	52	50
59th Pl./Alamo (b)	56	72	48	58	53	50
Alamo/Slauson (c)	64	78	50	67	58	53

(a) aircraft noise, distant Slauson traffic

(b) barking dog, stereo, traffic on Slauson

(c) traffic on Slauson

TABLE 2

SUMMARY OF TRAFFIC MODELING FOR EXISTING CONDITIONS

Location	CNEL (dB) @ 100 ft.	Dist. to 65 dB*	Dist. to 70 dB**
Slauson Avenue			
W of Alamo Avenue	64.9	100'	<50'
E of Alamo Avenue	65.8	110'	50'
59th Place			
W of Alamo Avenue	50.4	<50'	<50'
Alamo - Walker	51.9	<50'	<50'
E of Walker Avenue	41.1	<50'	<50'
E 60th Street			
W of Alamo Avenue	47.8	<50'	<50'
Alamo - Walker	49.4	<50'	<50'
E of Walker Avenue	50.2	<50'	<50'
Alamo Avenue			
N of Slauson	57.9	<50'	<50'
Slauson - 59 Place	58.7	<50'	<50'
59th Pl. - E. 60th St.	58.3	<50'	<50'
S of E. 60th Street	58.1	<50'	<50'
Walker Avenue			
59th Pl. - E. 60th St.	51.2	<50'	<50'
S of E. 60th Street	51.3	<50'	<50'

* residential and park siting standard

** active park use siting standard

Source: FHWA-RD-77-108 (Calveno Mod.)

NOISE IMPACTS

Construction Impacts

The project is located within the City of Maywood and is subject to the General Plan and noise ordinances incorporated therein. The City Municipal Code indicates that no construction or repair work shall be performed between the hours of 7 p.m. and 7 a.m. of the following day on any weekday, since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling hotel or apartment or other place of residence. The construction contractor shall conform to City standards for construction noise impacts on adjacent land uses.

Operational Impacts

The City of Maywood siting guidelines for passive park sites is 65 dB CNEL (or Ldn). The standard for active uses is 70 dB CNEL. Measured daytime Leq levels were 64 dB near the Slauson/Alamo intersection. Mid-day Leq and weighted 24-hour CNELs are often within ± 2 dB of each other. Weighted 24-hour CNELs are typically 2 dB higher than short-term, early afternoon Leqs. The monitoring data suggests that existing noise levels are around 66 dB CNEL south of Slauson. Table 2 shows that the modeled noise level is also 66 dB CNEL. Both measurement and model calculations predict the same noise exposure. Siting of noise sensitive passive park uses along the Slauson Ave. frontage would require mitigation to meet City of Maywood noise/land use compatibility guidelines. With only moderate setback, or by placing active play closest to Slauson and quieter areas farther south, existing noise levels are not a substantial constraint to project implementation.

Criteria for Determining Significance

The criteria used to determine the significance of an impact related to noise are based on the model initial study checklist in Appendix G of the State CEQA Guidelines and City of Maywood standards. The proposed project would result in significant noise impacts if it would:

- expose existing receptors to or generate noise levels resulting from the project in excess of health standards established by the local general plan or noise ordinance or standards of other agencies, including City criteria (if existing noise levels currently exceed criteria, an incremental increase in 3 dBA above the ambient noise level s relative to no -project conditions would be considered significant);

- expose future users of the proposed park to existing or projected noise levels in excess of established standards and thresholds (if existing noise levels currently exceed criteria, incremental changes in noise levels in excess of 3 dBA above existing noise would be considered significant);

- result in noise levels of 75 dBA when measured at a distance of 50 feet from the noise source during construction activity occurring within 500 feet of a school zone or other sensitive noise receptor;

- expose persons to or generate excessive groundborne vibration or groundborne noise levels; or

- expose park users in the project area to excessive noise levels for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport. In the absence of any such airports near Maywood, this criterion was not evaluated.

Project Impacts

Impact 1: Exposure of Persons to or Generation of Noise Levels in Excess of Health Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies and Result in 3 dBA or More Increase in Noise Relative to No Project Conditions.

The proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Operational activities that could include noise generation could include recreational activity on site, portable public address systems, portable music systems, crowds at large events, and vehicular circulation. These sources would be limited to daylight hours, with a few exceptions for special events.

Recreational activity noise may be audible at the nearest residences south of the site. The numbers and locations of off-site residences possibly affected by such noise will depend upon the location of any play area and the number of such participants engaged in outdoor play. The playfields are is proposed for the center of the project site. The nearest homes are approximately 250 feet from the center of the basketball court or the lawn playfields area. Noise measurements were made at several used for basketball and for soccer. The reference noise level in terms of hourly averages were as follows:

Basketball	- 50' to tipoff circle	-	58 dBA LEQ
Soccer	- 200' to center circle	-	56 dBA LEQ

The basketball activity noise will diminish by an additional 14 dB through geometrical spreading losses. The noise level at the nearest residences will be well below ambient from basketball use. An intensive use of the playfields could produce noise levels in the low-to-mid-50s dB range. This would be similar in magnitude to existing observed levels. Recreational activity in general not cause noise levels that measurably exceed existing levels.

Any noise perception due to park usage tends to be more single event noise from shouting, lou d music, whistles, etc. Noise conflicts may also arise if the park is used late in the evening as an unsupervised gathering place. By limiting the types of gatherings or requiring special permits for large assemblies of people, and by adequate park use supervision, noise conflict potential with adjacent neighbors will be negligible.

MITIGATION

(1) Planned assemblies of more than 50 people, or planned use of a portable public address system for park events, shall first obtain a permit from the City of Maywood Parks Department.

(2) The parking lot shall be closed and chained from 10 p.m. to 8 a.m. the next day.

Impact 2: Exposure of Future Park Users of the Proposed Project to Existing or Projected Noise Levels in Excess of Established Standards and Thresholds.

Changes in noise levels affecting future park users would derive from changes in local traffic patterns. Predicted traffic noise levels at the project area under existing conditions and future conditions with and without the project are summarized in Table 3. Traffic noise levels in the project area are not predicted to exceed City of Maywood planning standards in currently quiet areas, and any increase in noise attributed to the project is less than 3 dB in areas of existing elevated traffic noise. This impact is therefore considered less than significant.

TABLE 3

TRAFFIC NOISE IMPACT ANALYSIS
(CNEL in dBA at 100 Feet from Centerline)

Location	Exist.	Exist. + Other	Ex. + Other + Project
Slauson Avenue			
W of Alamo Avenue	64.9	65.0	65.0
E of Alamo Avenue	65.8	65.8	65.8
59th Place			
W of Alamo Avenue	50.4	50.4	50.6
Alamo - Walker	51.9	51.9	51.9
E of Walker Avenue	41.1	41.1	----
E 60th Street			
W of Alamo Avenue	47.8	47.8	47.5
Alamo - Walker	49.4	53.3	53.7
E of Walker Avenue	50.2	50.8	50.8
Alamo Avenue			
N of Slauson	57.9	58.0	58.0
Slauson - 59 Place	58.7	58.8	58.8
59th Place - E. 60th St.	58.3	58.9	59.0
S of E. 60th Street	58.1	58.2	58.3
Walker Avenue			
59th Place - E. 60th St.	51.2	51.2	51.2
S. of E. 60th Street	51.3	51.3	51.5

Source: FHWA-RD-77-108 (Calveno Mod.)

Impact 3: Exposure in Noise Levels Exceeding 75 dBA when Measured at a Distance of 50 Feet from the Noise Source during Construction Activity unless Such Levels are Unavoidable because of the Nature of the Activity.

Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there would be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 87 dBA at 50 feet), the increase in noise would be small when averaged over a longer period of time, and therefore, would result in a less than significant impact to noise receptors along the truck routes and within the local area.

The second type of impact is related to noise generated by onsite construction operations. Residences are located on several sides of the project site.

Construction activities are carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase. Figure 1 lists typical construction equipment noise levels measured at a distance of 50 feet.

Noise ranges have been found to be similar during all phases of construction. Noise levels of up to 89 dBA at 50 feet may occur during the noisiest construction phases. Equipment used during maximum construction noise generation includes excavating machinery (back fillers, bulldozers, draglines, front loaders, etc.), and earthmoving and compacting equipment (compactors, scrapers, graders, etc.). Typical operating cycles may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA.

Construction of the proposed park facilities would involve the initial demolition of on-site hardscape or structures. This type of equipment would also be used for ground grading and other site preparation. Once accomplished, lesser use of this heavy equipment would be requ ired in new construction and building assembly.

FIGURE 1 - NOISE LEVELS GENERATED BY TYPICAL CONSTRUCTION EQUIPMENT

For heavy equipment involved in site preparation, such construction activities have the potential of generating noise levels on the order of 89 dBA at a distance of 50 feet from the active construction area. The noise level at the nearest residential receptors to the west or south of the project site would range intermittently up to about 85 dBA (Lmax) at the highest power settings. However, during the vast majority of the construction period, noise levels would range from 10 to 15 dBA lower, due to lower noise generating activities and/or lower power settings. Most heavy construction noise would then be on the order of 70 to 75 dBA Lmax intermittently at proximate sensitive land uses.

Compliance with the time requirements of the Maywood Municipal Ordinance regarding construction activities will maintain a less than significant temporary noise impact. Occasional heavy equipment operations may cause the recommended noise performance standard of 75 dB to be exceeded. Levels in excess of 75 dB are allowed in relevant codes if such excursions are unavoidable because of the nature of the activity. If construction equipment noise levels in excess of 75 dB are likely to occur, all reasonable and feasible noise control measures must be implemented. Recommended measures to minimize construction noise include:

1. Construction contractors shall properly maintain and tune all construction equipment to minimize noise emissions. All internal combustion powered equipment shall be equipped with properly operating mufflers.

2. Construction contractors shall restrict noise-intensive construction to the hours of 7 a.m. to 7 p.m. Monday through Saturday. No noise-intensive construction shall take place on Sundays and federal holidays.

3. Construction contractors shall provide the City a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site informing the public whom to contact. Adjacent residents within 100 feet of the property shall also

be notified prior to construction activities and given the contact information.

4. During construction activities, the contractor shall ensure that portable equipment is located as far as possible from adjacent residences. If possible, construction employee parking shall be provided off site in a non-residential area.

Impact 4: Exposure of Pe rsons to or Generation of Excessive Groundborne Vibration or Groundborne Noise Levels

Groundborne vibration or groundborne noise is not associated with park operational activities. Temporary construction activities may create vibration due to heavy equipment operations for demolition/ construction perceptible vibration from heavy equipment in soils typical of the Los Angeles Basin is dissipated within 50 feet (MTA Tunneling Study). On -site heavy equipment operations will typically be beyond 50 feet from the closest residence.

Impact 5: Exposure of Park Users to Excessive Noise Levels for Projects within Two Miles of a Public Airport or Public Use Airport.

The project is not located within two miles of any public airport.

APPENDIX G
TRAFFIC STUDY

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June 5, 2002

Ms. Julia Gonzalez
Assistant Planner
City of Maywood
4319 E. Slauson Avenue
Maywood, CA 90270

***SUBJECT: MAYWOOD RIVERFRONT PARK - TRAFFIC STUDY
CITY OF MAYWOOD***

Dear Ms. Gonzalez:

This study presents a summary of traffic factors related to the proposed *Maywood Riverfront Park*, to be located south of Slauson Avenue and west of the Los Angeles River, in the City of Maywood. These analyses are based upon information provided by the City of Maywood and its representatives, field studies conducted by our staff, and standard reference materials.

PROJECT DESCRIPTION

The proposed *Maywood Riverfront Park* is planned to be located on a 7.3 acre site, which is bordered by Slauson Avenue to the north, the Los Angeles River to the east, 59th Place and 60th Street to the south, and Alamo Avenue and Walker Avenue to the west. *Maywood Riverfront Park* is intended to serve the City of Maywood residents; however, residents from neighboring cities would also visit the park. ***Figure 1*** illustrates the location of the project site in relationship to the surrounding street system. The proposed park would consist of lawn and picnic areas, a playground, athletic fields, a basketball court, a stage

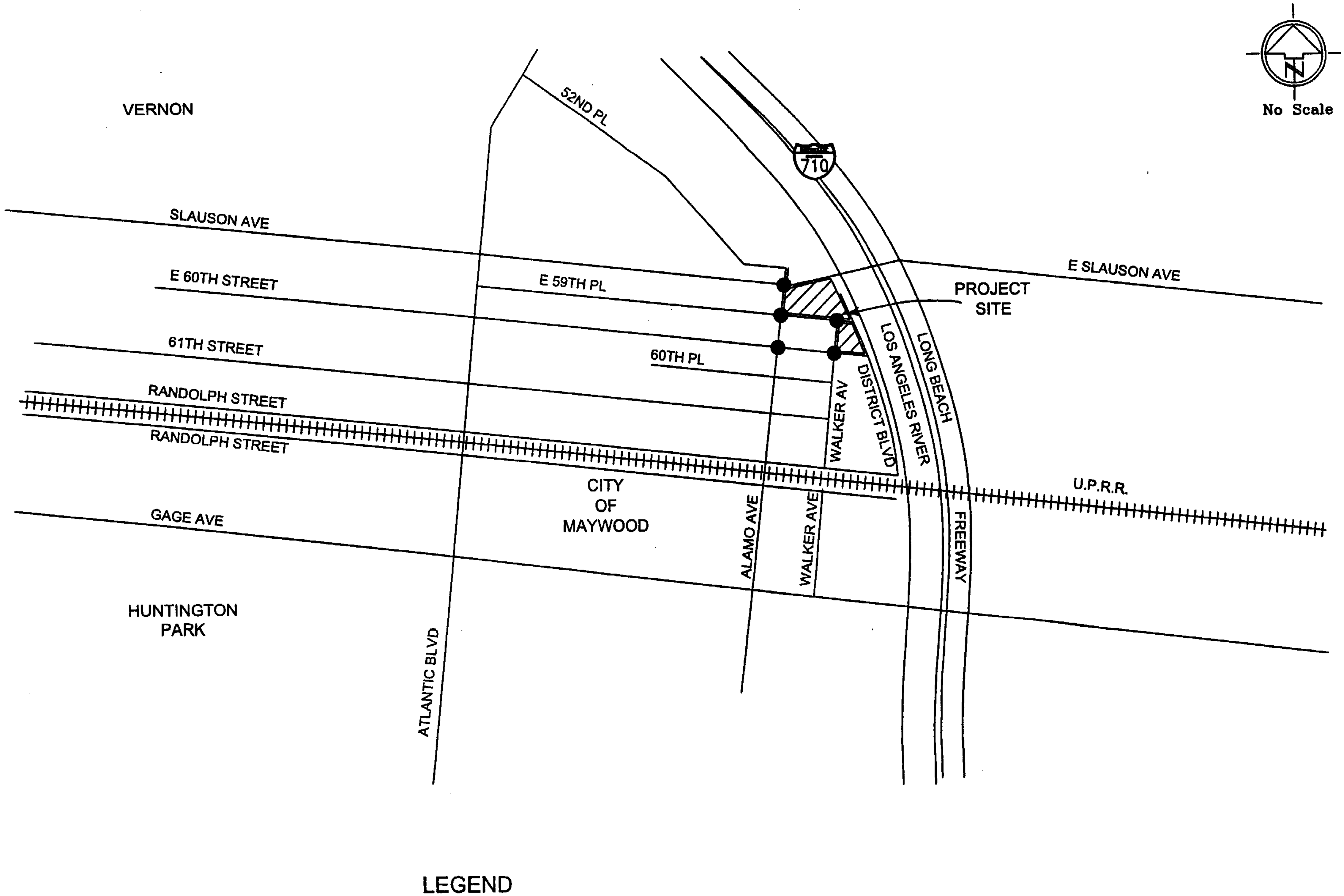

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FIGURE
Project Locatio

area, a garden, a bike path, restrooms, and other amenities. A total of 57 parking spaces are planned to serve the proposed park: a 30 space parking lot would be located on the southwest corner of the project site (near the Alamo / 59th intersection) and there would be 27 angled parking spaces on the north side of 59th Place, along the southern border of the proposed park site. A cul-de-sac area is planned at the north end of the Walker / 59th intersection, which would serve as a drop-off / pick-up area for the proposed park. The site plan for the proposed *Maywood Riverfront Park* is shown on ***Figure 2***.

Two industrial type buildings currently exist on the project site, which would be demolished as a part of the proposed project. It is noted that one of these buildings (*Precision Arrow* - 23,725 SF) is currently operating. The development of the park project also involves proposed changes to existing street system. 59th Place, from east of Alamo Avenue to Walker Avenue, would be changed from two-way operations to one-way (eastbound) operations. This would accommodate the proposed angled parking on the north side of 59th Place, adjacent to the park site. In conjunction with the development of the proposed *Maywood Riverfront Park*, some existing roadway segments would be vacated: **a)** 59th Place, from Walker Avenue to District Boulevard, and **b)** District Boulevard, from 60th Street to Slauson Avenue. The City is proposing an improvement to the signalized intersection of Alamo Avenue and Slauson Avenue in conjunction with the proposed park project. The northbound approach of this intersection is planned to be widened to accommodate a separate left turn lane. The northbound geometrics would be changed from a single left / through / right combination lane to a separate left turn lane and a through / right combination lane.

EXISTING CONDITIONS

Slauson Avenue is an east-west roadway, which travels through the City of Maywood. In the City's General Plan, Slauson Avenue is designated as a Major Highway. To the west, Slauson Avenue continues through the Cities of Vernon, Huntington Park, and Los Angeles; and east of the City of Maywood, it serves areas in Commerce, Montebello, and

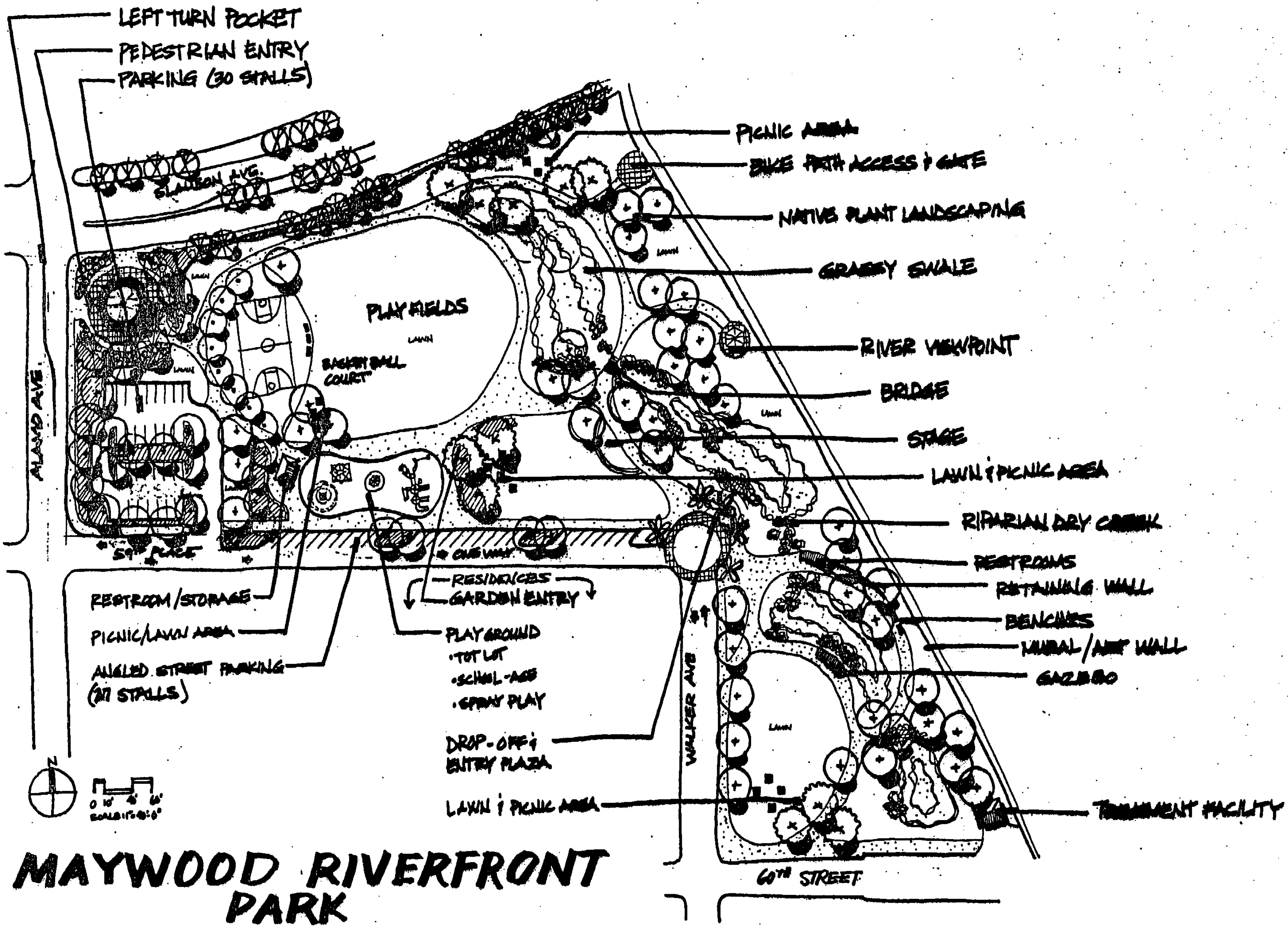

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FIGURE 2
Project Site Plan

Pico Rivera. In the study area, Slauson Avenue provides four lanes of travel, divided by a two-way left turn lane. The speed limit on Slauson Avenue is posted at 35 miles per hour (MPH) within the study area. On-street parking is permitted during restricted time periods on Slauson Avenue.

Alamo Avenue is designated as a Secondary Highway in the City's General Plan and provides north-south travel through the Cities of Maywood and Bell. It extends from 52^{nd} Place in the north (in Maywood) to Bell Avenue in the south (in the City of Bell). Through the study area, Alamo Avenue is a two-lane, undivided roadway, which serves mostly residential uses. A 25 MPH speed limit is posted on Alamo Avenue and some on-street parking is allowed. The intersection of Alamo Avenue / Slauson Avenue is currently signalized.

59^{th} Place is a two-lane, undivided roadway, which runs in an east-west direction. The City's General Plan designates this street as a Local Roadway. It begins at Atlantic Boulevard and currently terminates at District Boulevard. In the study area (east of Alamo Avenue), the south side of 59^{th} Place is lined with residential uses, while the north side consists of vacant land and a couple of industrial buildings (which are planned to be demolished with the proposed park project). On-street parking is available on 59^{th} Street during restricted time periods. The Alamo Avenue / 59^{th} Place intersection is currently unsignalized, with STOP sign control for the 59^{th} Place approaches only.

60^{th} Street is a designated Local Roadway, which extends westerly from District Boulevard through the Cities of Maywood and Huntington Park. This east-west roadway provides two lanes of undivided travel through the study area and serves residential land uses. On-street parking is permitted on 60^{th} Street. A four-way STOP currently controls the intersection of Alamo Avenue and 60^{th} Street.

Walker Avenue has a north-south alignment and provides two undivided travel lanes from 59th Place to Randolph Street in the study area. The City's General Plan designates this street as a Local Roadway. Residential land uses line the majority of Walker Avenue. The posted speed limit on Walker Avenue is 25 MPH and on-street parking is allowed. Currently, the Walker Avenue / 59th Place intersection is a "T" intersection, with STOP signs controlling only the northbound approach (Walker Avenue) and the eastbound approach (59th Place). The intersection of Walker Avenue / 60th Street is currently two-way STOP controlled, with STOP control for the 60th Street approaches only.

Contact was made with City of Maywood Staff and it was determined that a total of five intersections in the vicinity of the proposed project were to be analyzed as a part of this traffic analysis. One of the five study intersections is currently signalized, while the remaining four intersections are STOP sign controlled. The five study intersections are:

SIGNALIZED INTERSECTION	
Alamo Avenue / Slauson Avenue	
UNSIGNALIZED INTERSECTIONS	
Alamo Avenue / 59th Place	Two-way STOP controlled; STOP signs for 59th Place approaches.
Alamo Avenue / 60th Street	Four-way STOP controlled.
Walker Avenue / 59th Place	"T" intersection; STOP controls for northbound approach (Walker Ave.) and for eastbound approach (59th Pl.), but not for westbound approach; analyzed as a four-way STOP controlled intersection for existing conditions.
Walker Avenue / 60th Street	Two-way STOP controlled; STOP signs for 60th Street approaches.

AM (7:00 - 9:00 AM) and PM (4:00 - 6:00 PM) peak hour traffic counts were conducted at the five study intersections by *The Traffic Solution*, a traffic counting firm. The counts were conducted on Thursday, May 2, 2002, and existing field data were also collected for use in the overall analyses. ***Appendix A*** contains the count data for the study intersections. The existing AM and PM peak hour volumes at the study intersections are illustrated on ***Figure 3***.

Analyses - Existing Conditions

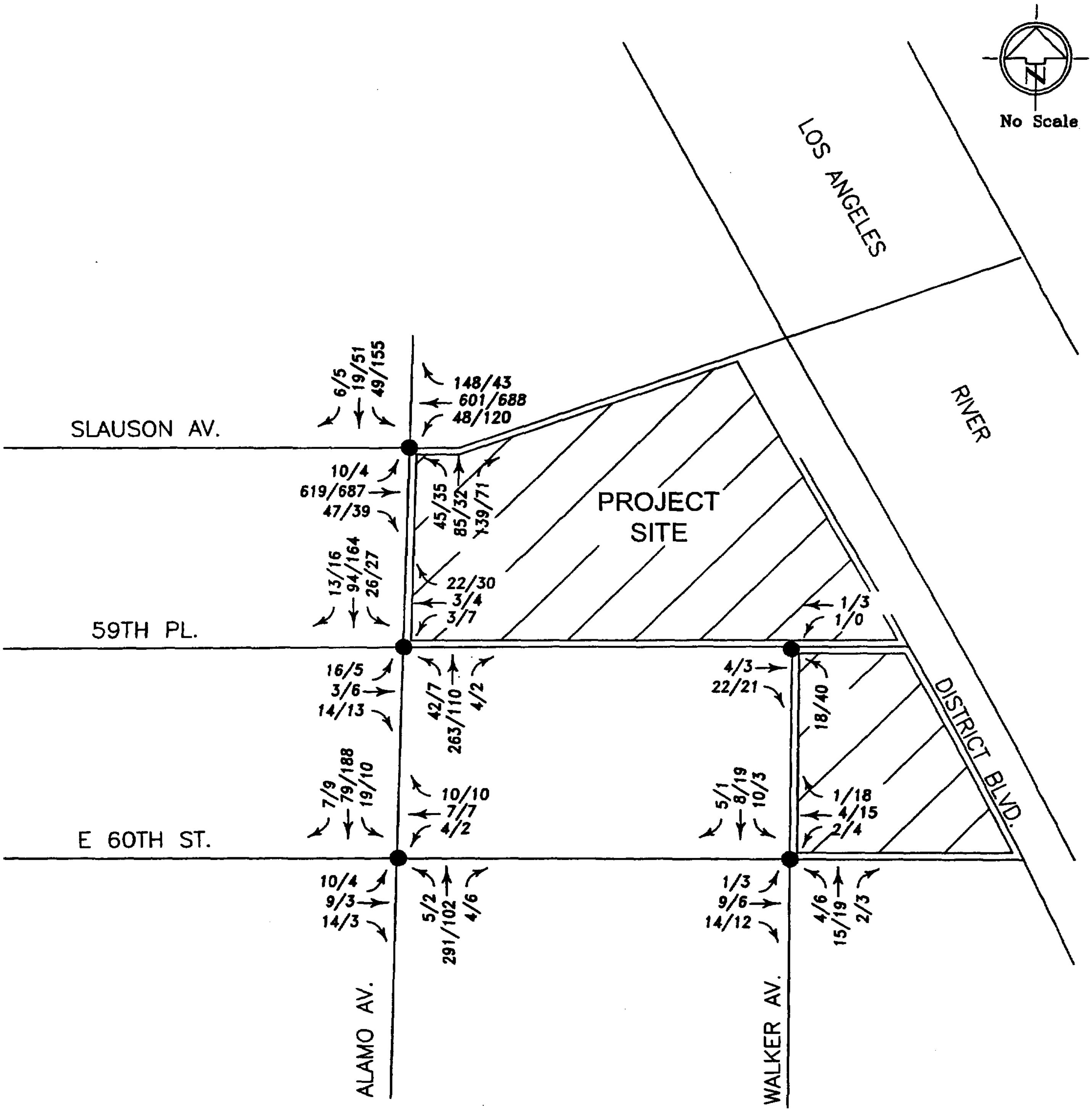
The 2000 Highway Capacity Manual methodology (HCS 2000) was utilized for analyzing both the signalized and unsignalized intersections in these traffic analyses. Under these intersection analyses procedures, the operating conditions are defined in terms of Levels of Service (LOS). The Levels of Service are described as letter "*grades*", which are associated with vehicle delay times, where "A" is considered the best and "F" is over capacity. It is generally recognized that LOS A through D represent acceptable intersection operations, while LOS E and F indicate an over capacity (unacceptable) situation. An explanation of Level of Service as it relates to vehicle delay is provided in ***Appendix B***.

Table 1 summarizes the results of the intersection analyses under existing conditions. As shown in ***Table 1***, all of the study intersections are currently operating acceptably with Levels of Service A and B during both the AM and PM peak hours. The supporting HCS intersection analyses worksheets can be referenced in ***Appendix C***.

"OTHER" CONDITIONS

Adjustments to Existing Traffic

The development of the *Maywood Riverfront Park* project proposes changes to the existing street system. As a part of the proposed park project, angled parking (27 spaces) would be provided on the north side of 59th Place (along the southern border of the park); thereby, changing the current two-way street operations on 59th Place, from east of Alamo Avenue to Walker Avenue, to one-way (eastbound) operations. The traffic that currently travels westbound on 59th Place was then redistributed on the surrounding street system.



LEGEND

● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES

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FIGURE 3
Existing Volumes

TABLE 1

INTERSECTION ANALYSES SUMMARY

Maywood Riverfront Park, City of Maywood

INTERSECTION	LEVEL OF SERVICE (LOS) (1)					
	EXISTING CONDITIONS		EXISTING (ADJUSTED) (5) + OTHER CONDITIONS		EXISTING (ADJUSTED) (5) + OTHER + PROJECT CONDITIONS	
	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
SIGNALIZED INTERSECTION:						
Alamo Avenue / Slauson Avenue (2)	A	A	B	A	B	B
- With Improvement (7)					A (7)	B (7)
UNSIGNALIZED INTERSECTIONS:						
Alamo Avenue / 59th Place (3)	A / A / B / B	A / A / A / B	A / A / A / B	A / A / A / B	A / A / B / B	A / A / B / B
Alamo Avenue / 60th Street (4)	A	A	A	A	A	A
Walker Avenue / 59th Place (4)	A	A	A / A / A (6)	A / A / A (6)	A / A / A (6)	A / A / A (6)
Walker Avenue / 60th Street (3)	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A	A / A / A / A

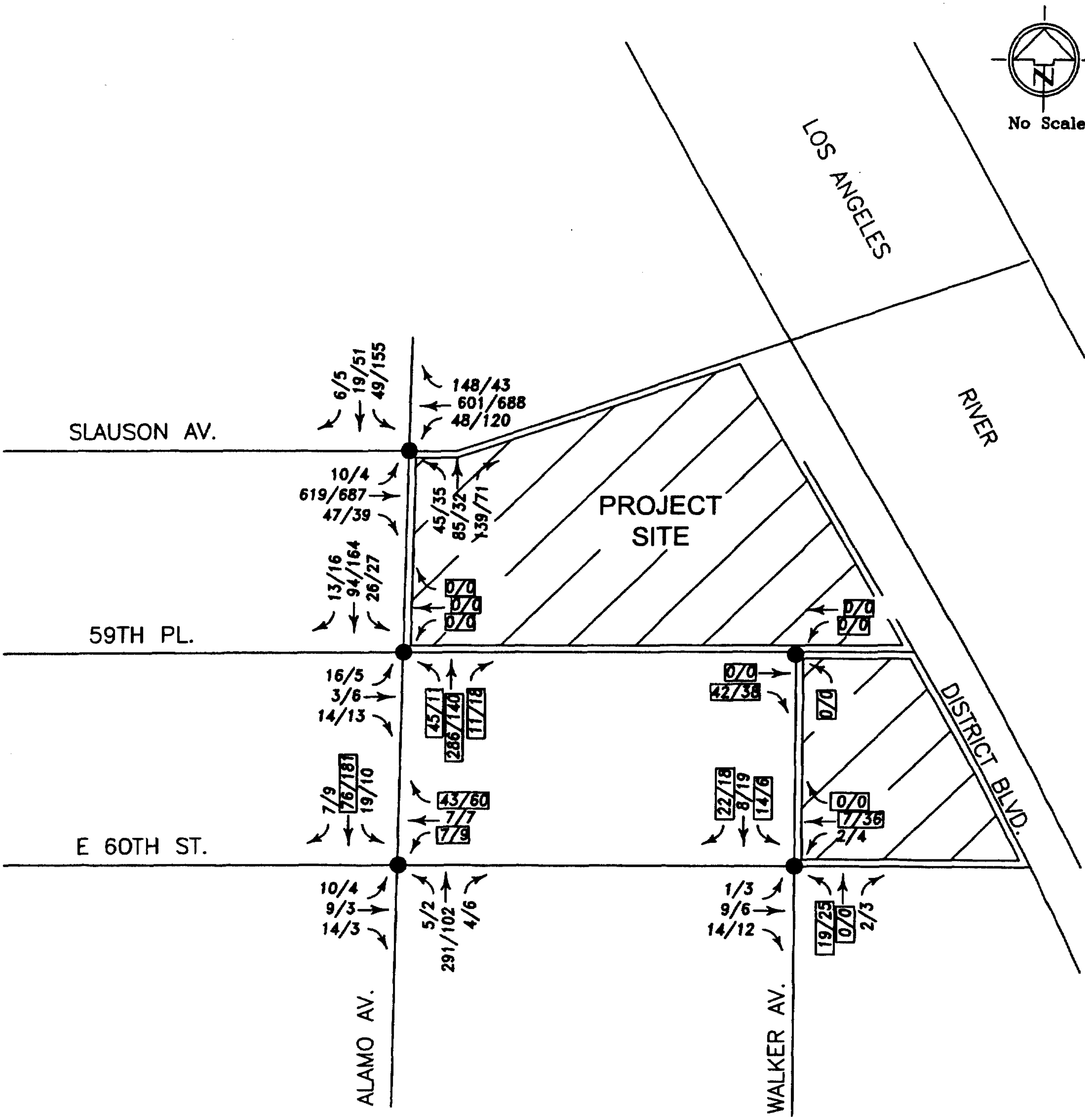
(1) The study intersections were analyzed utilizing the 2000 Highway Capacity Manual analysis procedures (HCS 2000) for signalized and unsignalized intersections.
(2) For this signalized study intersection, the LOS value presented is for the entire intersection.
(3) For these unsignalized study intersections (two-way STOP controlled), the "A / A / B / B" results are the LOS values for the Northbound Approach / Southbound Approach / Westbound Approach / Eastbound Approach movements, respectively.
(4) For these unsignalized study intersections (all-way STOP controlled), the LOS value presented is for the entire intersection.
(5) Adjustments were made to the existing volumes at the study intersections to account for: **a)** 59th Place, from east of Alamo Avenue to Walker Avenue, being changed from two-way operations to one-way (eastbound) operations; **b)** the vacation of 59th Place, from Walker Avenue to District Boulevard; and **c)** the vacation of District Boulevard, from 60th Street to Slauson Avenue. These adjustments to the street system are proposed as a part of the *Maywood Riverfront Park* project.
(6) The adjustments to the street system result in a changed intersection configuration for Walker / 59th; and, it is recommended that the STOP sign currently controlling northbound traffic on Walker Avenue be removed. The north end of Walker Avenue would be a cul-de-sac and would provide a drop-off / pick-up area for the proposed park. The Walker / 59th intersection was then analyzed as a two-way STOP controlled intersection, with STOP sign control for 59th Place (eastbound) only; and the "A / A / A" results are the LOS values for the Northbound Approach / Southbound Approach / Eastbound Approach movements, respectively.
(7) The City is proposing an improvement to the signalized intersection of Alamo / Slauson in conjunction with the *Maywood Riverfront Park* project. This improvement consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane.

Included as a part of the proposed project is the vacation of existing roadway segments: **a)** 59th Place, from Walker Avenue to District Boulevard, and **b)** District Boulevard, from 60th Street to Slauson Avenue. With these street closures, some existing traffic was also rerouted. The vacation of 59th Place, east of Walker Avenue (from Walker Avenue to District Boulevard), would also change the configuration of the Walker / 59th intersection. The proposed park project would create a cul-de-sac area (drop-off / pick-up area) at the north end of Walker Avenue, just north of the Walker / 59th intersection, and it is assumed that the STOP sign currently controlling the northbound approach of Walker Avenue would be removed. The STOP sign for eastbound traffic on 59th Place would remain. (It is noted that with the new assumptions for the Walker / 59th intersection, the intersection was then analyzed as a two-way STOP controlled location for the remaining analysis conditions.)

Assuming these proposed changes to the street system, the existing traffic was redistributed (adjusted) on the surrounding street system. ***Figure 4*** illustrates the adjusted existing AM and PM peak hour volumes at the five study intersections. (It is noted that the volumes which were adjusted are shown in boxes on ***Figure 4***.)

Ambient Traffic Growth

The proposed *Maywood Riverfront Park* project is anticipated to be constructed and operational by April 2003 (approximately one year). The existing (adjusted) peak hour traffic volumes at the five study intersections (previously shown on ***Figure 4***) were then projected to the future Year 2003. A conservative ambient growth rate of 1.5 percent per year was approved by City Staff and utilized in these traffic analyses based upon both the Los Angeles County, Congestion Management Program (CMP) guidelines and previously completed studies in the vicinity of the proposed project. This growth rate is intended to address the potential traffic increases due to unidentified projects and/or general traffic growth in the study area. The future, pre-project traffic volumes were then calculated by applying the growth factor to the existing (adjusted) peak hour traffic count volumes (***Figure 4***), utilizing the equation $(1 + i)^n$; where "i" is the growth factor (1.5 percent per



NOTE: The existing volumes were adjusted (boxed) to account for:
a) 59th Place, from east of Alamo Ave. to Walker Ave., being changed from two-way operations to one-way (eastbound) operations;
b) the vacation of 59th Place, from Walker Ave. to District Blvd.; and
c) the vacation of District Blvd., from 60th St. to Slauson Ave.
These conditions are proposed as a part of the project (Maywood Riverfront Park).

LEGEND
● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES

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FIGURE 4
Adjusted Existing Volumes

year) and "n" is the number of years of growth (one year). The existing (adjusted) plus other (growth) AM and PM peak hour volumes at the five study intersections are presented on ***Figure 5.***

Other Area Projects

Contact was made with City of Maywood Staff and it was indicated that there are no other area projects in the immediate vicinity of the proposed park project which should be considered in this traffic study. City Staff did mention that, in conjunction with *Caltrans,* ongoing improvements along the I-710 (Long Beach) Freeway (east of the proposed project) are being investigated, which include a possible interchange with Slauson Avenue. There is no specific project at the time of completion of this study. Further discussions with City Staff indicated that completion of this interchange would go beyond the project opening day.

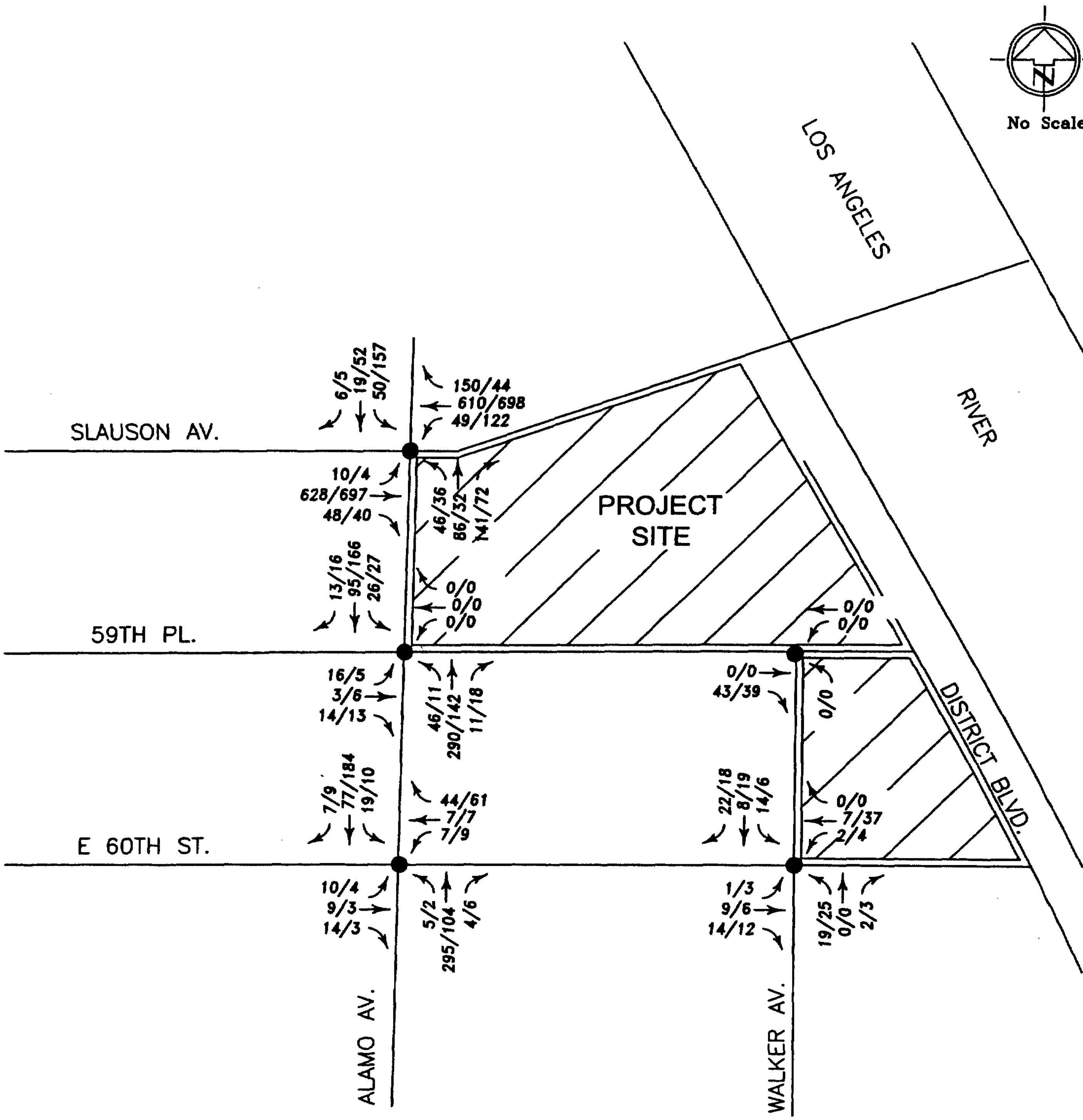
Analyses - Existing (Adjusted) Plus Other Conditions

The existing (adjusted) plus other AM and PM peak hour volumes (previously presented on ***Figure 5***) were then analyzed to determine the operating conditions at the five study intersections under the pre-project (existing plus other) conditions. ***Table 1***, which was presented earlier in this study, shows that under existing (adjusted) plus other conditions, all of the study intersections would continue to have acceptable operations (LOS A and B) during both the AM and PM peak hours. 3-C ~~***Appendix C***~~ provides the supporting HCS intersection analyses worksheets.

PROJECT CONDITIONS

Trip Generation

In order to analyze the potential impacts of the proposed *Maywood Riverfront Park* project, it is necessary to determine the trip generation of this proposed project. Trip generation rates applicable to the proposed park project were referenced from the *San Diego*



NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

LEGEND

● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES

City of Maywood

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FIGURE

Existing(Adjusted) + Other Volumes

Association of Governments (SANDAG) publication, ***San Diego Traffic Generators***[1], and are presented in ***Table 2***. It should be noted that the *Institute of Transportation Engineers (ITE)* publication, ***Trip Generation, Sixth Edition***, does not provide sufficient trip generation data for a City Park land use; therefore, the *SANDAG* trip rates for a City Park were utilized in this traffic study. The City Park trip generation rates were then applied to the proposed *Maywood Riverfront Park* project (7.3 acres) and the resulting proposed trip generation is also shown in ***Table 2***. The proposed project is estimated to generate a total of 365 daily trip ends, of which 15 (10 In, 5 Out) trip ends would occur during the AM peak hour and 30 (10 In, 20 Out) trip ends would occur during the PM peak hour.

As previously noted in this traffic study, two industrial type buildings currently exist on the proposed project site; and, one of the buildings (*Precision Arrow* - 23,725 SF) is currently operating. These existing buildings are planned to be demolished with the development of the proposed *Maywood Riverfront Park* project. The traffic generated by the building which is currently in operation (*Precision Arrow* - 23,725 SF) is included in the existing count data at the five study intersections. In order to provide a conservative, "*worst case*" analysis, the trip ends associated with the existing building (*Precision Arrow*) which is currently in operation were not deducted from the existing volumes on the street system. In reality, these trip ends would be eliminated from the street system with the demolition of the existing land uses.

Trip Distribution and Assignment

Distribution percentages were developed for the proposed *Maywood Riverfront Park* project based upon a review of regional land uses, the type of land use proposed, and the changes proposed to the surrounding street system with the park development. [The proposed changes to the street system, previously mentioned in this study, include one-way (eastbound) operations on 59th Place, from east of Alamo Avenue to Walker Avenue;

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1 ***San Diego Traffic Generators***; *San Diego Association of Governments (SANDAG)*; updated July, 1998.

TABLE 2

TRIP GENERATION - PROPOSED PROJECT

Maywood Riverfront Park, City of Maywood

LAND USE	*DESCRIPTOR / SIZE*	*TRIP ENDS*				
		DAILY	*AM PEAK HOUR*		*PM PEAK HOUR*	
			IN	*OUT*	*IN*	*OUT*
TRIP RATES:						
City Park [1]	Per Acre	50.00	1.60	0.40	1.64	2.36
TRIP ENDS:						
Maywood Riverfront Park	7.3 Acres	365	10	5	10	20

(1) Trip generation rate information referenced from ***San Diego Traffic Generators***; *San Diego Association of Governments (SANDAG)*; updated July, 1998. The *Institute of Transportation Engineers (ITE)* publication, ***Trip Generation, Sixth Edition*** does not provide sufficient trip generation data for a City Park land use; therefore, *SANDAG* trip rates were utilized in this study.

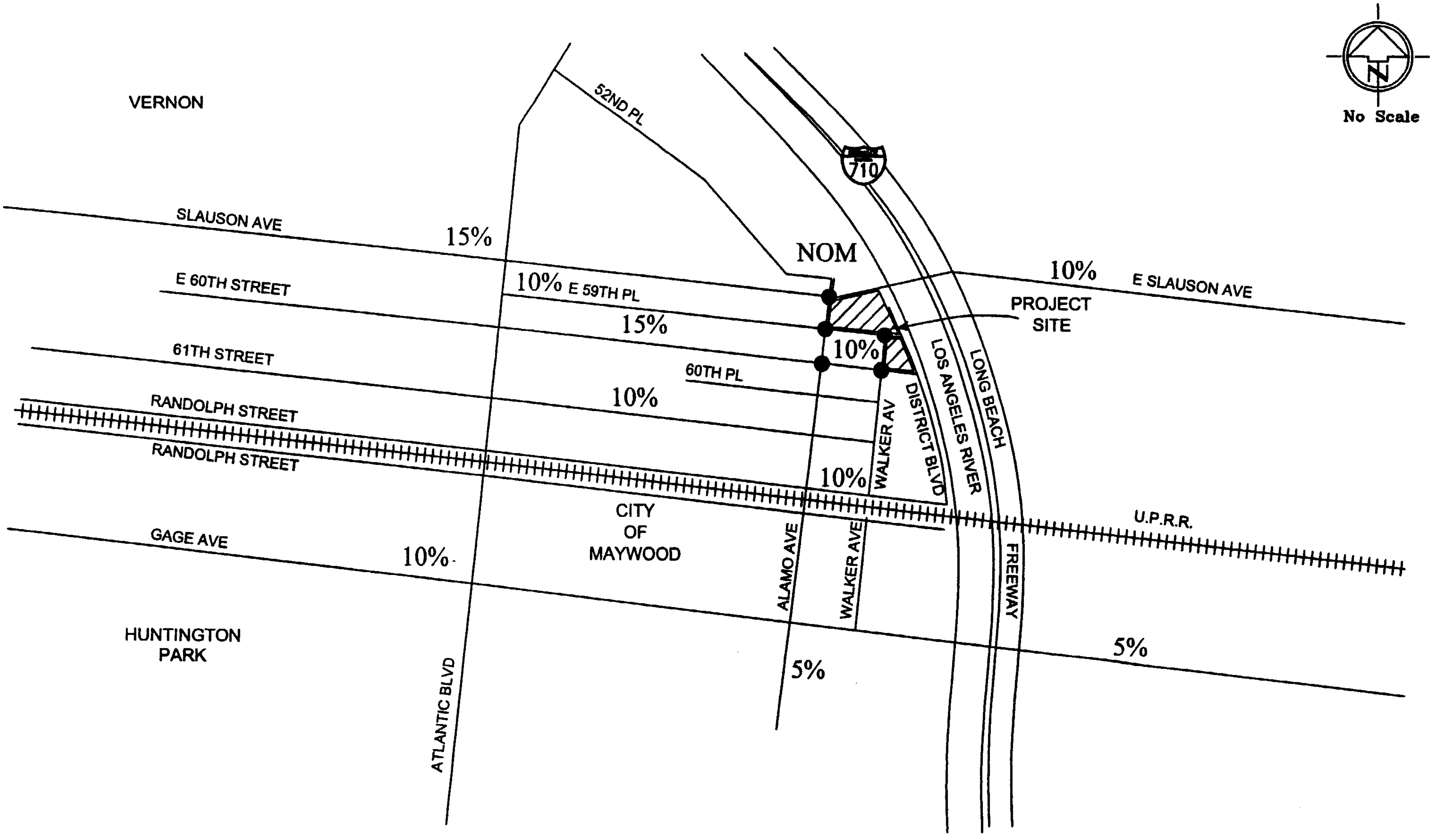
the vacation of 59th Place, from Walker Avenue to District Boulevard; and the vacation of District Boulevard, from 60th Street to Slauson Avenue.] ***Figure 6*** illustrates the distribution pattern for the proposed park project. The project generated trip ends, identified in ***Table 2***, were then assigned to the surrounding street system based upon the distribution percentages on ***Figure 6*** and upon the proposed park access areas (the parking lot on the northeast corner of Alamo / 59th, the angled parking on the north side of 59th Place, the drop-off / pick-up area north of Walker / 59th, and the on-street parking on Walker Avenue). The resulting inbound and outbound project trip assignment volumes at the five study intersections are illustrated on ***Figures 7A and 7B***, respectively. ***Figures 7A and 7B*** also show the project volumes at the proposed park access areas.

<u>Analyses - Existing (Adjusted) Plus Other Plus Project Conditions</u>

The total project traffic was then added to the existing (adjusted) plus other volumes (previously presented on ***Figure 5***), so the potential project impacts upon the five study intersections could be evaluated. ***Figure 8*** illustrates the existing (adjusted) plus other plus project AM and PM peak hour volumes at the five study intersections. With the addition of the proposed *Maywood Riverfront Park* project to the existing (adjusted) plus other conditions, ***Table 1*** (presented earlier) indicates that all of the study intersections would have acceptable LOS A and B operations during both the AM and PM peak hours. The supporting HCS intersection analyses worksheets are contained in ***Appendix C***. Since all of the five study intersections would have acceptable operating conditions, it can be concluded that the proposed *Maywood Riverfront Park* project would not cause a significant traffic impact to the study area.

<u>PROPOSED INTERSECTION IMPROVEMENT</u>

It was previously mentioned in this traffic study that in conjunction with the proposed *Maywood Riverfront Park* project, the City is proposing an improvement to the signalized study intersection of Alamo Avenue and Slauson Avenue. ***Table 1***, previously presented, shows that this study intersection would have acceptable LOS B operations during both



LEGEND

● = STUDY INTERSECTIONS

NOM = NOMINAL

City of Maywood

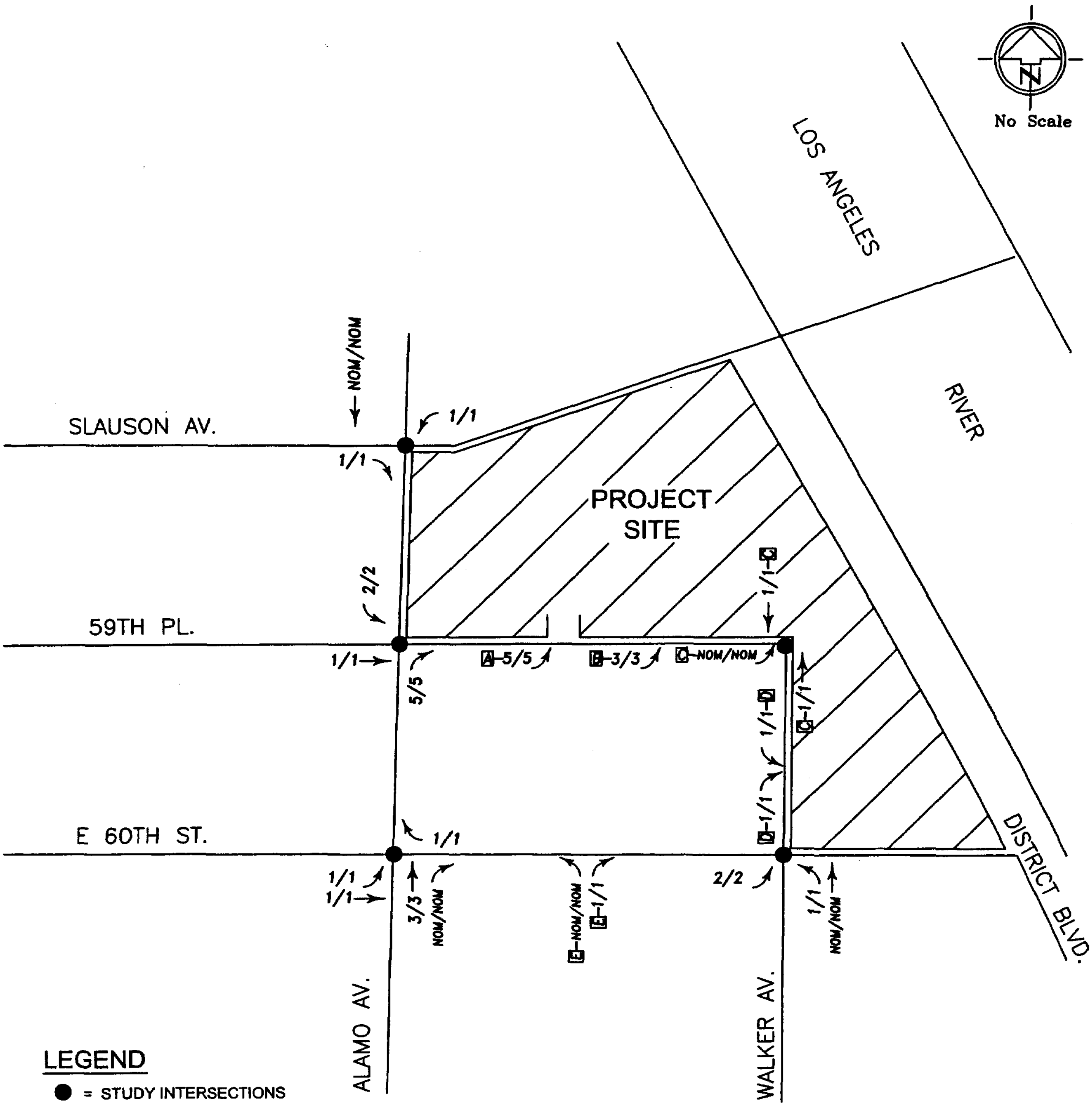
JOB# 13541

WILLDAN

Traffic Division

FIGURE 6

Project Distribution



LEGEND

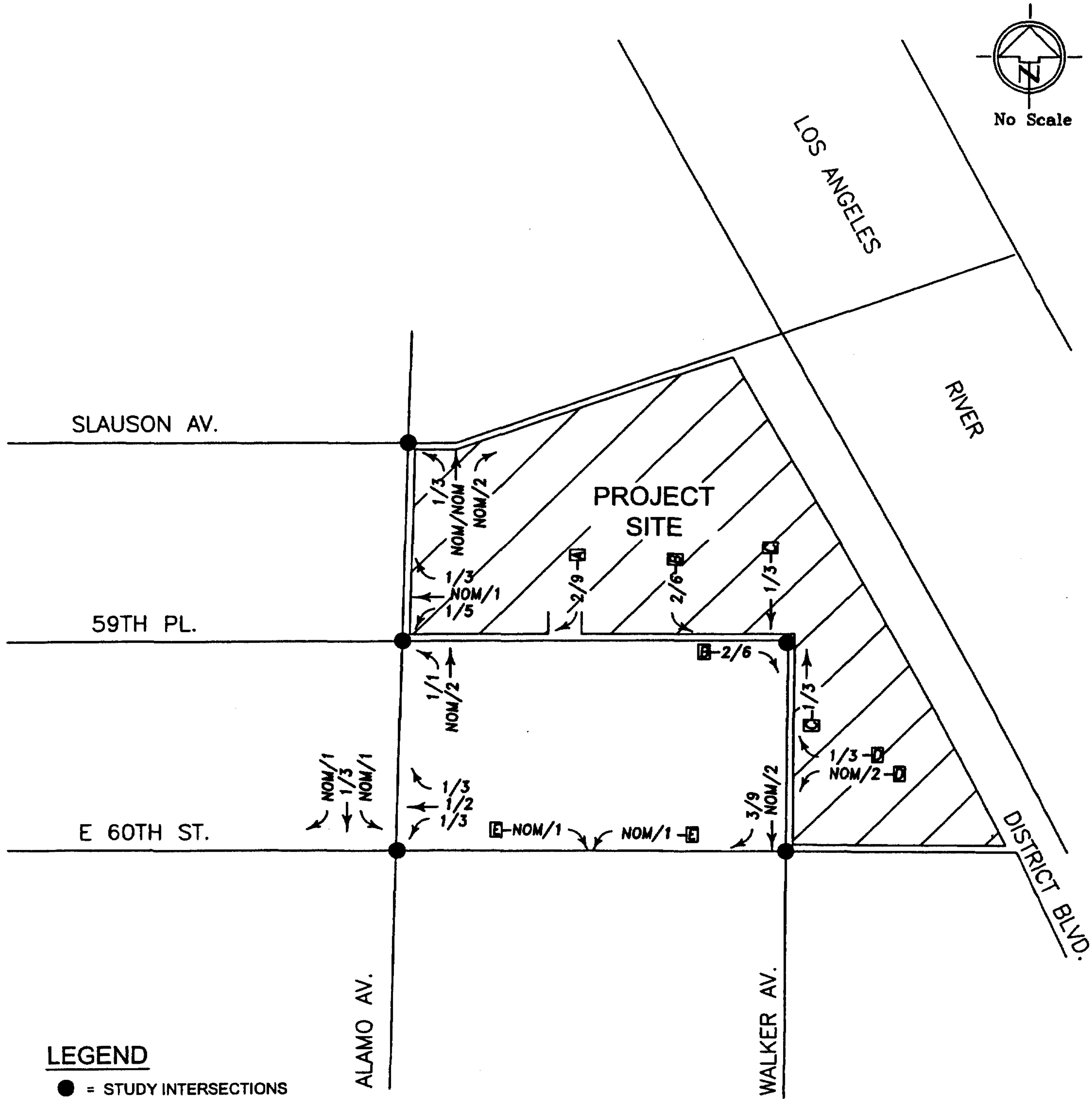
● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES
NOM = NOMINAL
A = Vehicles entering the parking lot for the proposed park.
B = Vehicles parking in the angled parking spaces on the north side of 59th Place, adjacent to proposed park.
C = Vehicles dropping-off people at the proposed park. The park's drop-off/pick-up area will be located at the cul-de-sac at the north end of the Walker/59th intersection. It is assumed that the "drop-off" vehicles would then park on Walker Ave.
D = *Vehicles parking on-street on Walker Ave.*
E = Vehicles coming from residences in this area.

<u>NOTE:</u> As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

City of Maywood

JOB# 13541
WILLDAN
Traffic Division

FIGURE 7A
Inbound Project Volumes



LEGEND

● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES
NOM = NOMINAL
[A] = Vehicles exiting the parking lot for the proposed park.
[B] = Vehicles exiting the angled parking spaces on the north side of 59th Place, adjacent to proposed park.
[C] = Vehicles picking-up people at the proposed park. The park's drop-off/pick-up area will be located at the cul-de-sac at the north end of the Walker/59th intersection. It is assumed that the "pick-up" vehicles were previously parked on Walker Ave.
[D] = Vehicles leaving on-street parking on Walker Ave.
[E] = Vehicles staying in this residential area.

NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

City of Maywood

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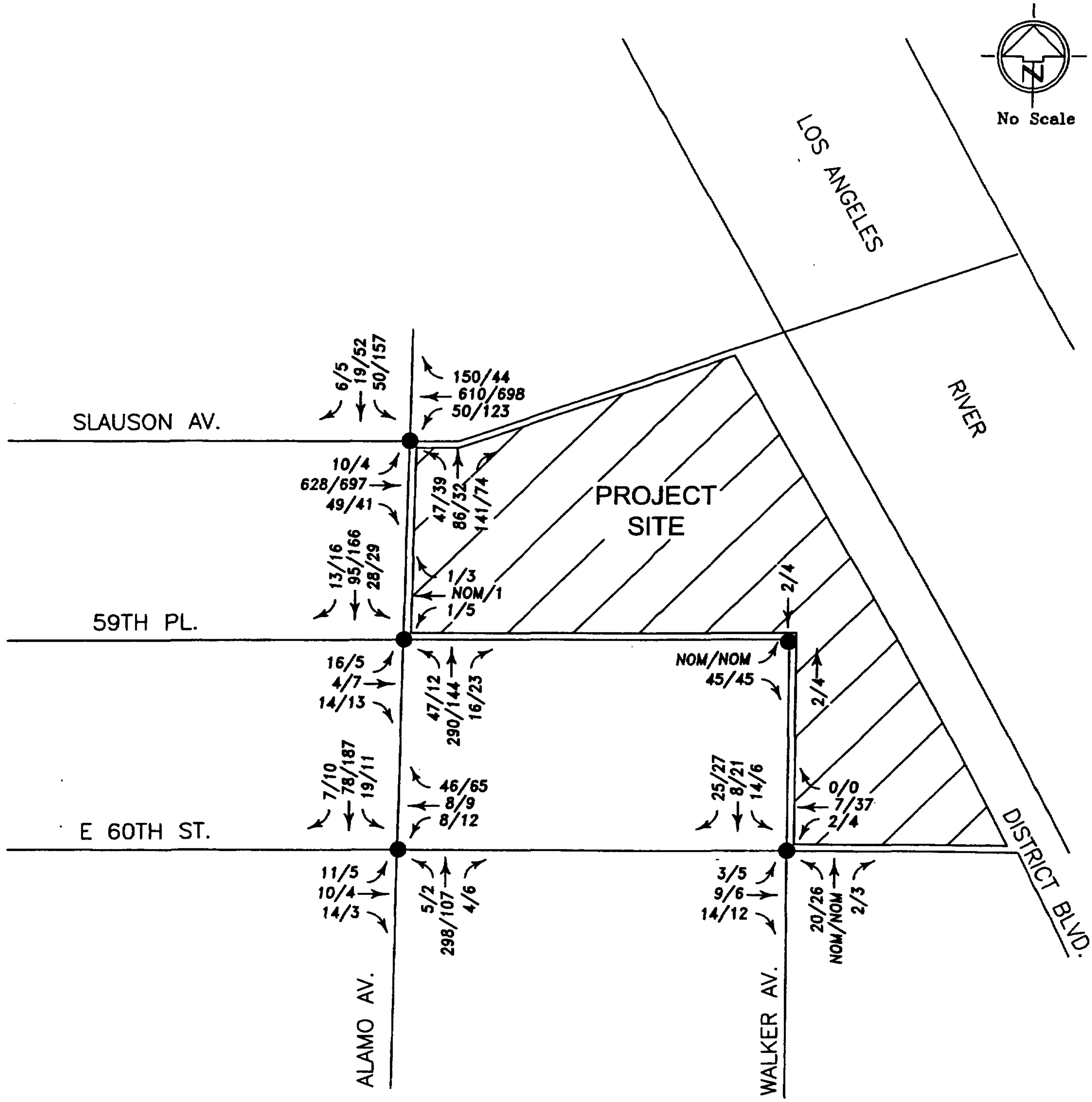
Traffic Division

FIGURE 7B
Outbound Project Volumes



NOTE: As a part of the proposed Maywood Riverfront Park project, 59th Place, from east of Alamo Ave. to Walker Ave., is assumed to have one-way (eastbound) operations. The only westbound traffic on 59th Place would be the traffic exiting the proposed park's parking lot (located on northeast corner of Alamo and 59th). Also, existing street segments would be vacated as a part of the proposed project:
a) 59th Place, from Walker Ave. to District Blvd.; and
b) District Blvd. from 60th St. to Slauson Ave.

LEGEND

● = STUDY INTERSECTIONS
25/52 = AM/PM PEAK HOUR VOLUMES
NOM = NOMINAL

City of Maywood

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FIGURE 8
Existing(Adjusted) + Other + Project Volumes

peak hours under the existing (adjusted) plus other plus project conditions, without any improvement. The improvement proposed consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane. (Currently, the northbound approach only consists of a single left / through / right combination lane.) With the proposed improvement added to the signalized study intersection of Alamo / Slauson, the intersection operations would be improved to LOS A and LOS B during the AM and PM peak hours, respectively, under the existing (adjusted) plus other plus project conditions (with improvement).

PARKING

As illustrated on the project site plan on ***Figure 2***, presented earlier in this study, a total of 57 parking spaces are planned to serve the proposed *Maywood Riverfront Park*. A 30 space parking lot would be located on the southwest corner of the project site (near the Alamo / 59th intersection) and 27 angled parking spaces would also be provided on the north side of 59th Place (along the southern border of the park). It should be noted that additional on-street parking is also permitted on Walker Avenue in the vicinity of the proposed park.

In discussions with City of Maywood Staff, it was determined that a parking code for City Parks does not currently exist. Based upon our past experience with similar parks, however, we feel that the 57 parking spaces would be adequate to serve the proposed *Maywood Riverfront Park*.

OPERATIONS

59th Place, from east of Alamo Avenue to Walker Avenue, is proposed to have one-way eastbound operations only, with angled parking on the north side of the street as a part of the *Maywood Riverfront Park* project. Engineering street design plans which illustrate the proposed improvements of 59th Place, from east of Alamo Avenue to Walker Avenue, were not available for review at the completion of this traffic study. Preliminary investigation of the project site plan, however, indicates that the design of 59th Place would also need to address provisions for emergency vehicles and maintenance service trucks. The final design of 59th Place, including the one-way circulation and the angled parking, should be reviewed be a qualified traffic engineer to ensure safe operations.

RECOMMENDATIONS

Due to the changed intersection configuration at Walker Avenue and 59th Place, it is recommended (and has been assumed in these analyses) that the STOP sign which currently controls the northbound approach (Walker Avenue) be removed; leaving only a STOP sign for the eastbound approach (59th Place). Also, a physical barrier needs to be implemented that would deter motorists on Walker Avenue from inadvertently turning west onto 59th Place, which would be an eastbound one-way street.

It is also recommended that the final design of 59th Place (from east of Alamo Avenue to Walker Avenue), including the one-way circulation and the angled parking, be reviewed be a qualified traffic engineer to ensure safe operations.

SUMMARY

This study has examined traffic factors related to the proposed *Maywood Riverfront Park* project, to be located south of Slauson Avenue and west of the Los Angeles River, in the City of Maywood. Existing conditions were reviewed and quantified. Existing traffic was rerouted on the surrounding street system to account for changes to some existing street segments, which are proposed with the park development. [The proposed street system changes include one-way (eastbound) operations on 59th Place, from east of Alamo Avenue to Walker Avenue; the vacation of 59th Place, from Walker Avenue to District Boulevard; and the vacation of District Boulevard, from 60th Street to Slauson Avenue.] Traffic growth in the study area and other area projects were addressed in these traffic analyses. Trip generation and assignment analyses were completed for the proposed park project, in order to evaluate the potential project impacts upon five study intersections.

This study also examined the adequacy of the parking to be provided for the proposed *Maywood Riverfront Park.*

The following are the principal findings of this study.

1) Under existing conditions, all five study intersections currently have acceptable operations [Levels of Service (LOS) A and B] during both the AM and PM peak hours.

2) Due to proposed changes to existing street segments, existing traffic was redistributed (adjusted) on the surrounding street system in the study area. No other area projects were identified. Traffic volumes related to traffic growth in the study area were then added to the existing (adjusted) volumes at the five study intersections. Acceptable LOS A and B operations would continue at the five study intersections during both peak hours under the existing (adjusted) plus other (pre-project) conditions.

3) The proposed *Maywood Riverfront Park* project (7.3 acres) is estimated to generate a total of 365 daily trip ends, of which 15 (10 In, 5 Out) trip ends would occur during the AM peak hour and 30 (10 In, 20 Out) trip ends would occur during the PM peak hour.

4) It is noted that two industrial type buildings currently exist on the proposed project site and one of the buildings (*Precision Arrow* - 23,725 SF) is currently operating. These buildings would be demolished with the development of the proposed *Maywood Riverfront Park* project. The traffic currently being generated by the operating building (*Precision Arrow*) is included in the existing count data at the five study intersections. In order to provide a conservative, "*worst case*" analysis, the trip ends associated with the existing operating building (*Precision Arrow*) were <u>not</u>

deducted from the existing volumes on the street system. In reality, these trip ends would be eliminated from the street system with the demolition of the existing land uses.

5) With the addition of the proposed *Maywood Riverfront Park* project to the existing (adjusted) plus other conditions, all of the five study intersections would maintain acceptable operating conditions (LOS A and B) during both the AM and PM peak hours. Since all of the study intersections would operate acceptably, it can be concluded that the proposed park project would not cause a significant traffic impact to the study area.

6) In conjunction with the proposed *Maywood Riverfront Park* project, the City is proposing an improvement to the signalized study intersection of Alamo Avenue / Slauson Avenue. This proposed improvement consists of widening the northbound approach to accommodate a separate left turn lane and a through / right combination lane. Without the proposed improvement, under existing (adjusted) plus other plus project conditions, the Alamo / Slauson intersection would have acceptable LOS B operations during both peak hours. With the addition of the proposed improvement, the intersection operations would be improved to LOS A and LOS B during the AM and PM peak hours, respectively.

7) Based upon past experience with similar parks, it was concluded that the 57 parking spaces (30 space parking lot and 27 angled parking spaces) planned to serve the proposed *Maywood Riverfront Park* would be adequate. It is also noted that additional on-street parking is available on Walker Avenue in the vicinity of the proposed park.

8) With the development of the proposed *Maywood Riverfront Park*, a couple of recommendations are noted.

a) Due to the changed intersection configuration at Walker Avenue and 59th Place, it is recommended (and has been assumed in these analyses) that the STOP sign which currently controls the northbound approach (Walker Avenue) be removed; leaving only a STOP sign for the eastbound approach (59th Place). Also, a physical barrier needs to be implemented that would deter motorists on Walker Avenue from inadvertently turning west onto 59th Place, which would be an eastbound one-way street.

b) It is also recommended that the final design of 59th Place (from east of Alamo Avenue to Walker Avenue), including the one-way circulation and the angled parking, be reviewed be a qualified traffic engineer to ensure safe operations.

* * * * * * *

We trust that these analyses will be of assistance to you. If you have any questions or require additional information, please do not hesitate to contact us.

Respectfully submitted,
WILLDAN

R. Scott Bacsikin, P.E.
Registered Professional Engineer
State of California Number C48774

RSB:CC
#13541 / 1307

APPENDIX A

COUNT DATA

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

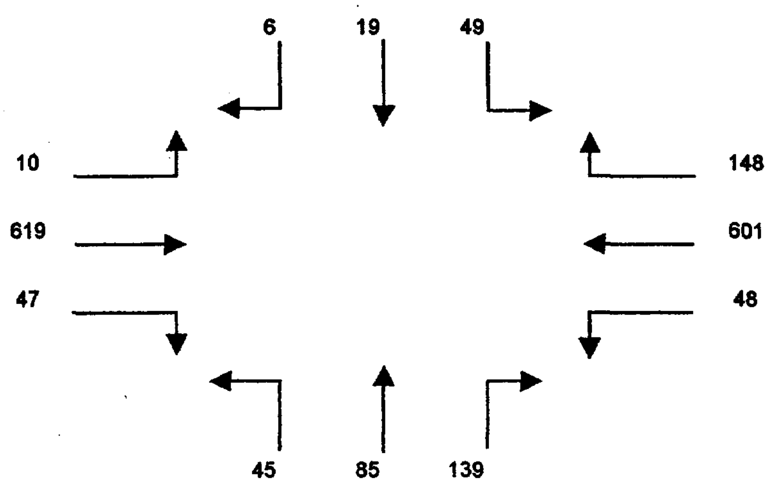
CLIENT: WILLDAN
PROJECT: CITY OF MAYWOOD
DATE: THURSDAY, MAY 02, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S ALAMO AVENUE
E/W SLAUSON AVENUE
FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	5	10	12	30	123	8	20	25	8	6	119	3
715-730	0	16	15	23	120	8	27	29	6	5	133	1
730-745	1	5	7	34	165	11	26	27	13	10	186	3
745-800	1	8	10	30	150	16	37	23	7	17	146	1
800-815	2	4	17	50	143	15	49	24	16	13	152	4
815-830	2	2	15	34	143	6	27	11	9	7	135	2
830-845	1	7	12	34	137	9	17	16	8	11	131	3
845-900	2	4	13	24	116	4	14	7	4	7	115	2

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	7	39	44	117	558	43	110	104	34	38	584	8	168[illegible]
715-815	4	33	49	137	578	50	139	103	42	45	617	9	180[illegible]
730-830	6	19	49	148	601	48	139	85	45	47	619	10	1816
745-845	6	21	54	148	573	46	130	74	40	48	564	10	171[illegible]
800-900	7	17	57	142	539	34	107	58	37	38	533	11	158[illegible]

A.M. PEAK HOUR
730-830

SLAUSON AVENUE



ALAMO AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

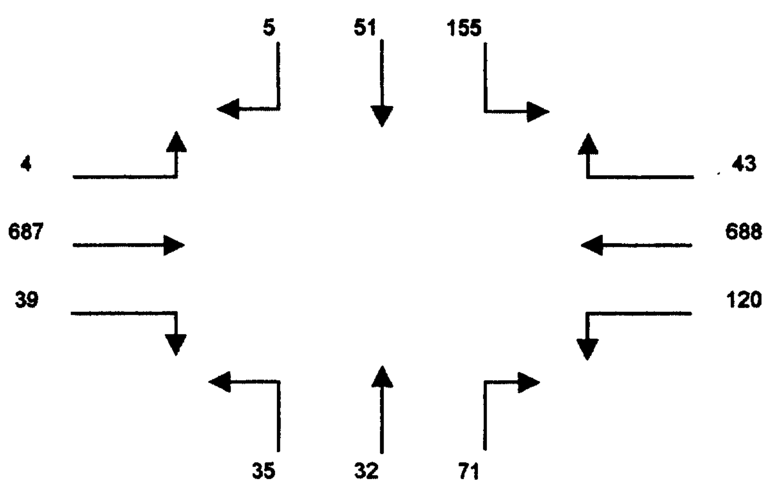
CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		04:00 PM TO 06:00 PM
INTERSECTION:	N/S	ALAMO AVENUE
	E/W	SLAUSON AVENUE
FILE NUMBER:		1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	1	8	30	8	152	13	12	3	5	10	149	1
415-430	0	12	37	12	148	23	14	7	9	9	153	0
430-445	2	19	62	17	187	47	20	19	11	6	191	0
445-500	1	12	34	7	165	32	21	2	4	12	158	2
500-515	2	8	22	7	188	18	16	4	11	12	185	2
515-530	1	12	24	3	124	12	22	4	9	18	172	3
530-545	0	15	22	8	105	15	13	0	17	20	140	0
545-600	0	16	33	6	136	10	22	0	13	11	115	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	4	51	163	44	652	115	67	31	29	37	651	3	1847
415-515	5	51	155	43	688	120	71	32	35	39	687	4	1930
430-530	6	51	142	34	664	109	79	29	35	48	706	7	1910
445-545	4	47	102	25	582	77	72	10	41	62	655	7	1684
500-600	3	51	101	24	553	55	73	8	50	61	612	5	1596

P.M. PEAK HOUR
415-515

SLAUSON AVENUE



ALAMO AVENUE

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329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

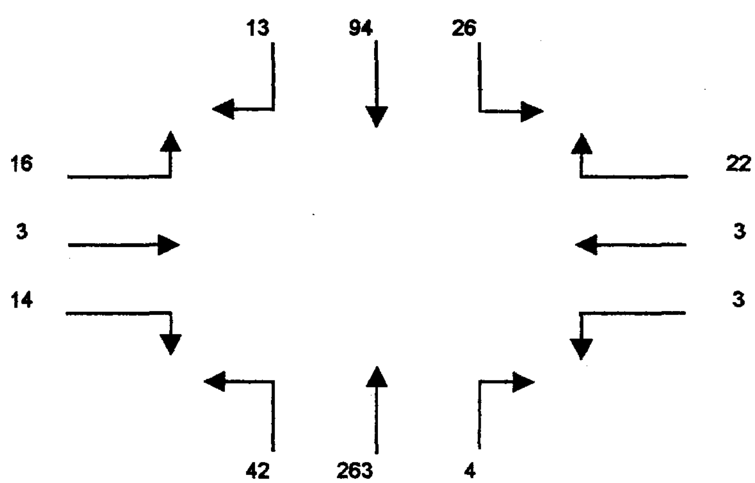
CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		07:00 AM TO 09:00 AM
INTERSECTION:	N/S	ALAMO AVENUE
	E/W	59TH PLACE
FILE NUMBER:		2-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	3	14	5	4	1	0	0	40	5	3	0	2
715-730	3	20	5	7	1	0	0	50	10	3	0	1
730-745	7	27	4	3	0	0	3	74	12	7	1	7
745-800	2	27	9	8	0	1	0	75	15	2	1	6
800-815	1	20	8	4	2	2	1	64	5	2	1	2
815-830	2	16	4	2	1	0	1	34	3	0	2	4
830-845	2	17	3	1	0	0	1	28	1	3	0	2
845-900	2	16	2	1	1	0	0	39	2	2	0	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOT
700-800	15	88	23	22	2	1	3	239	42	15	2	16	
715-815	13	94	26	22	3	3	4	263	42	14	3	16	
730-830	12	90	25	17	3	3	5	247	35	11	5	19	4
745-845	7	80	24	15	3	3	3	201	24	7	4	14	3
800-900	7	69	17	8	4	2	3	165	11	7	3	8	

A.M. PEAK HOUR
715-815

59TH PLACE



ALAMO AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

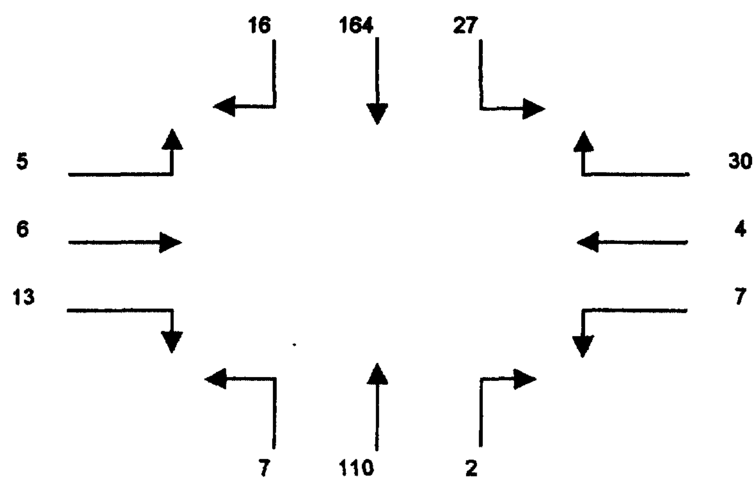
CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		04:00 PM TO 06:00 PM
INTERSECTION:	N/S	ALAMO AVENUE
	E/W	59TH PLACE
FILE NUMBER:		2-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	2	38	5	8	1	2	1	22	1	3	1	2
415-430	5	34	6	5	0	0	1	24	1	1	0	0
430-445	6	49	7	7	1	1	0	30	1	1	0	1
445-500	1	53	7	11	1	0	1	28	3	1	1	2
500-515	6	38	7	4	0	3	1	30	1	2	1	1
515-530	3	24	6	8	2	3	0	22	2	9	4	1
530-545	2	21	1	6	0	1	2	22	2	9	0	2
545-600	0	24	1	11	0	4	2	29	4	7	1	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	14	174	25	31	3	3	3	104	6	6	2	5	376
415-515	18	174	27	27	2	4	3	112	6	5	2	4	384
430-530	16	164	27	30	4	7	2	110	7	13	6	5	391
445-545	12	136	21	29	3	7	4	102	8	21	6	6	355
500-600	11	107	15	29	2	11	5	103	9	27	6	4	329

P.M. PEAK HOUR
430-530

59TH PLACE



ALAMO AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

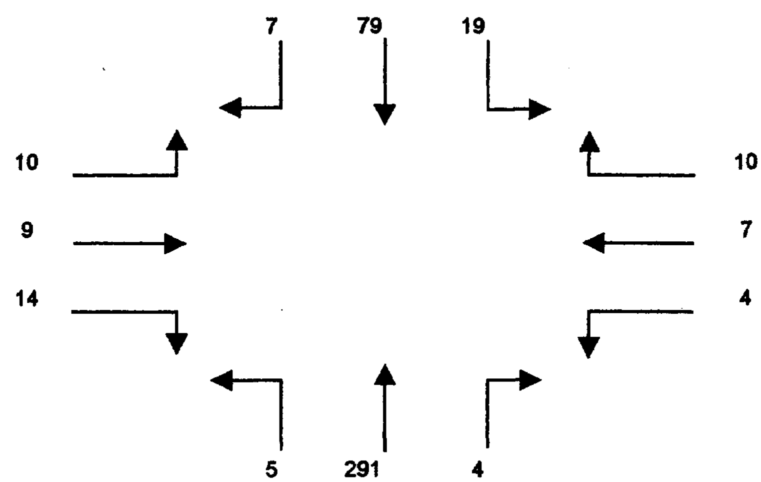
CLIENT: WILLDAN
PROJECT: CITY OF MAYWOOD
DATE: THURSDAY, MAY 02, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S ALAMO AVENUE
E/W 60TH STREET
FILE NUMBER: 3-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	2	18	6	10	0	0	0	50	0	2	0	4
715-730	3	18	3	1	1	1	3	52	2	2	3	3
730-745	2	24	3	3	2	0	0	76	1	6	2	2
745-800	2	23	7	4	1	1	1	94	0	5	2	2
800-815	0	14	6	2	3	2	0	69	2	1	2	3
815-830	0	10	4	4	2	1	0	31	2	1	1	1
830-845	2	17	1	1	2	0	1	28	0	2	1	1
845-900	3	15	2	2	1	0	0	27	1	2	1	1

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	9	83	19	18	4	2	4	272	3	15	7	11	447
715-815	7	79	19	10	7	4	4	291	5	14	9	10	459
730-830	4	71	20	13	8	4	1	270	5	13	7	8	424
745-845	4	64	18	11	8	4	2	222	4	9	6	7	359
800-900	5	56	13	9	8	3	1	155	5	6	5	6	272

A.M. PEAK HOUR
715-815

60TH STREET



ALAMO AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

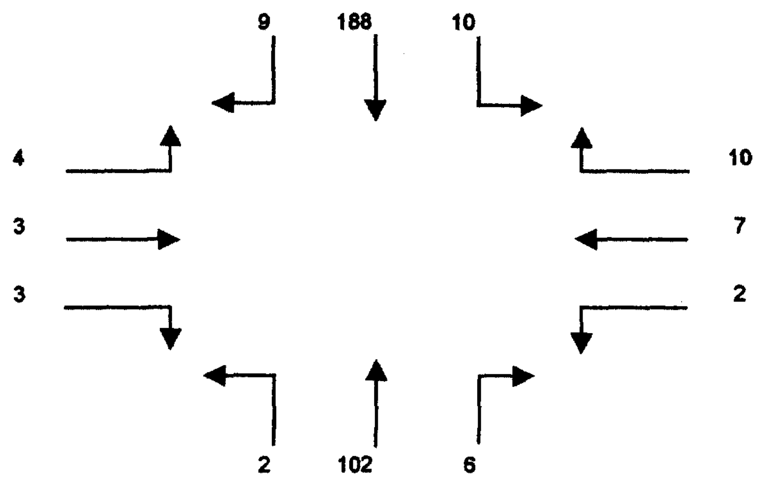
CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		04:00 PM TO 06:00 PM
INTERSECTION:	N/S	ALAMO AVENUE
	E/W	60TH STREET
FILE NUMBER:		3-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	2	37	1	2	3	1	1	19	1	2	1	1
415-430	3	44	2	2	2	1	2	23	0	0	0	0
430-445	4	56	3	1	1	1	2	29	1	1	0	0
445-500	2	46	4	4	4	0	1	30	1	1	1	2
500-515	0	42	1	3	0	0	1	20	0	1	2	2
515-530	0	22	1	1	1	3	0	30	1	4	1	3
530-545	1	22	3	3	3	0	2	31	2	7	1	2
545-600	4	28	3	0	4	1	0	41	3	6	1	1

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
400-500	11	183	10	9	10	3	6	101	3	4	2	3	345
415-515	9	188	10	10	7	2	6	102	2	3	3	4	346
430-530	6	166	9	9	6	4	4	109	3	7	4	7	334
445-545	3	132	9	11	8	3	4	111	4	13	5	9	312
500-600	5	114	8	7	8	4	3	122	6	18	5	8	308

P.M. PEAK HOUR
415-515

60TH STREET



ALAMO AV.

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

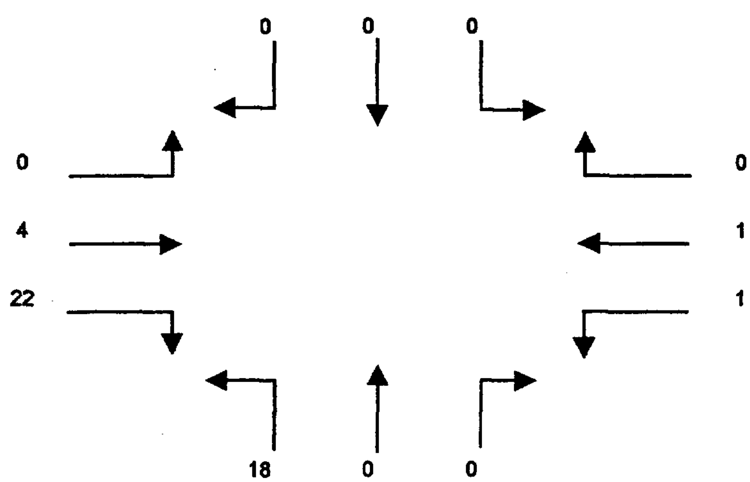
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		07:00 AM TO 09:00 AM
INTERSECTION:	N/S	WALKER AVENUE
	E/W	59TH PLACE
FILE NUMBER:		4-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	0	0	0	0	0	5	4	0	0
715-730	0	0	0	0	0	0	0	0	10	3	0	0
730-745	0	0	0	0	0	0	0	0	1	7	1	0
745-800	0	0	0	0	0	0	0	0	6	6	2	0
800-815	0	0	0	0	1	1	0	0	1	6	1	0
815-830	0	0	0	0	0	0	0	0	2	6	0	0
830-845	0	0	0	0	0	0	0	0	2	5	0	0
845-900	0	0	0	0	0	0	0	0	1	1	1	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	0	0	0	0	0	0	0	0	22	20	3	0	45
715-815	0	0	0	0	1	1	0	0	18	22	4	0	46
730-830	0	0	0	0	1	1	0	0	10	25	4	0	41
745-845	0	0	0	0	1	1	0	0	11	23	3	0	39
800-900	0	0	0	0	1	1	0	0	6	18	2	0	28

A.M. PEAK HOUR
715-815



59TH PLACE

WALKER AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

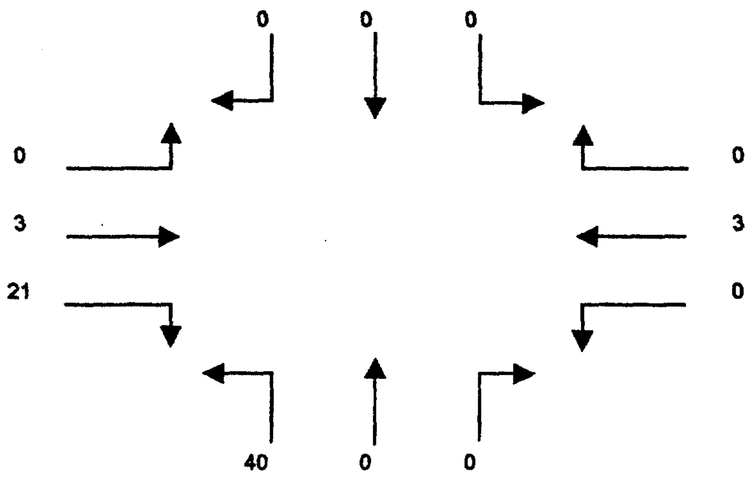
CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		04:00 PM TO 06:00 PM
INTERSECTION:	N/S	WALKER AVENUE
	E/W	59TH PLACE
FILE NUMBER:		4-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	0	0	0	0	0	3	3	1	0
415-430	0	0	0	0	0	1	0	0	4	3	0	0
430-445	0	0	0	0	0	0	0	0	14	7	1	0
445-500	0	0	0	0	0	0	0	0	7	7	1	0
500-515	0	0	0	0	2	0	0	0	10	5	1	0
515-530	0	0	0	0	1	0	0	0	9	2	0	0
530-545	0	0	0	0	0	0	0	0	9	1	1	0
545-600	0	0	0	0	0	0	0	0	4	4	0	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
400-500	0	0	0	0	0	1	0	0	28	20	3	0	52
415-515	0	0	0	0	2	1	0	0	35	22	3	0	63
430-530	0	0	0	0	3	0	0	0	40	21	3	0	67
445-545	0	0	0	0	3	0	0	0	35	15	3	0	56
500-600	0	0	0	0	3	0	0	0	32	12	2	0	49

P.M. PEAK HOUR
430-530

59TH PLACE.



WALKER AV.

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

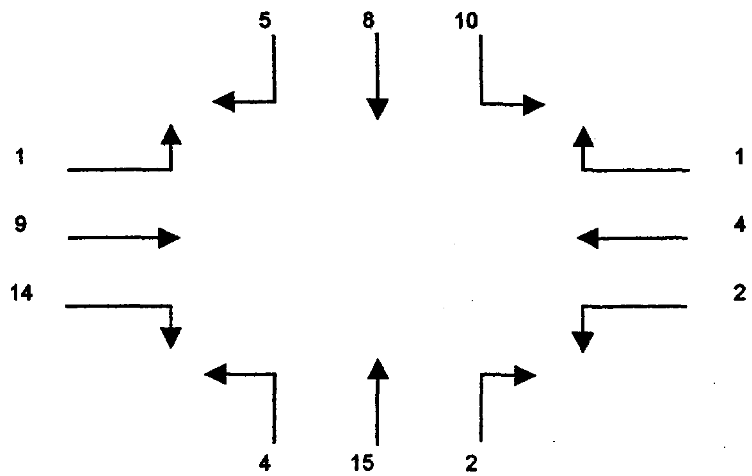
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		WILLDAN
PROJECT:		CITY OF MAYWOOD
DATE:		THURSDAY, MAY 02, 2002
PERIOD:		07:00 AM TO 09:00 AM
INTERSECTION:	N/S	WALKER AVENUE
	E/W	60TH STREET
FILE NUMBER:		5-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	2	2	1	1	0	0	4	1	1	0	0
715-730	0	1	2	0	1	0	1	9	0	2	3	1
730-745	2	4	1	0	0	1	0	2	3	0	1	0
745-800	1	0	7	1	1	0	1	3	1	11	1	0
800-815	2	3	0	0	2	1	0	1	0	1	4	0
815-830	1	3	3	0	2	1	1	1	1	1	1	1
830-845	1	2	1	1	1	0	0	0	0	1	2	0
845-900	0	0	0	0	1	0	0	1	1	1	2	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	3	7	12	2	3	1	2	18	5	14	5	1	73
715-815	5	8	10	1	4	2	2	15	4	14	9	1	7
730-830	6	10	11	1	5	3	2	7	5	13	7	1	7.
745-845	5	8	11	2	6	2	2	5	2	14	8	1	66
800-900	4	8	4	1	6	2	1	3	2	4	9	1	4

A.M. PEAK HOUR
715-815



60TH STREET

WALKER AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

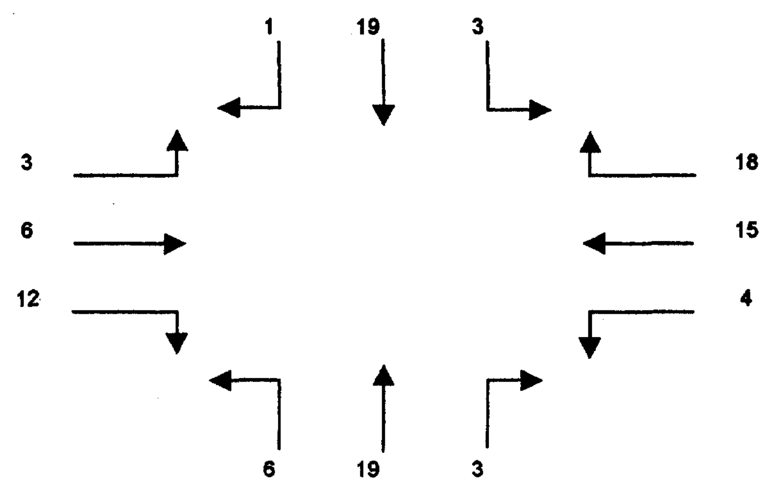
CLIENT: WILLDAN
PROJECT: CITY OF MAYWOOD
DATE: THURSDAY, MAY 02, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION: N/S WALKER AVENUE
E/W 60TH STREET
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	1	0	3	2	0	1	4	1	2	1	0
415-430	0	3	2	2	1	0	1	3	0	1	1	0
430-445	0	5	3	7	4	0	0	6	2	4	3	1
445-500	1	6	0	4	2	2	0	3	1	4	0	0
500-515	0	5	0	6	5	2	2	4	1	4	3	0
515-530	0	3	0	1	4	0	1	6	2	0	0	2
530-545	1	0	0	3	0	5	0	4	3	5	0	0
545-600	1	2	1	3	3	0	1	1	0	4	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	1	15	5	16	9	2	2	16	4	11	5	1	87
415-515	1	19	5	19	12	4	3	16	4	13	7	1	104
430-530	1	19	3	18	15	4	3	19	6	12	6	3	109
445-545	2	14	0	14	11	9	3	17	7	13	3	2	95
500-600	2	10	1	13	12	7	4	15	6	13	3	2	88

P.M. PEAK HOUR
430-530

60TH STREET



WALKER AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

APPENDIX B

2000 HIGHWAY CAPACITY MANUAL

(HCS 2000)

EXPLANATION OF LEVEL OF SERVICE

APPENDIX B - HCS 2000

LEVEL OF SERVICE DESCRIPTIONS FOR INTERSECTIONS

LEVEL OF SERVICE	DESCRIPTION
A	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during traffic periods; often used as design standard in urban areas.
E	Capacity; the maximum traffic volumes an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume which occurs at Level of Service E.

LEVEL OF SERVICE CRITERIA

SIGNALIZED INTERSECTION

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 - 20.0
C	> 20.0 - 35.0
D	> 35.0 - 55.0
E	> 55.0 - 80.0
F	> 80.0

UNSIGNALIZED INTERSECTION

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 - 15.0
C	> 15.0 - 25.0
D	> 25.0 - 35.0
E	> 35.0 - 50.0
F	> 50.0

APPENDIX C

INTERSECTION ANALYSES

WORKSHEETS

SHORT REPORT * SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	AM PEAK HOUR	Analysis Year	EXISTING CONDITIONS

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	10	619	47	48	601	148	45	85	139	49	19	6
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 60.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	701		51	789			282			78	
Lane group cap.	367	2143		412	2102			444			363	
v/c ratio	0.03	0.33		0.12	0.38			0.64			0.21	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.9	6.0		5.2	6.2			19.4			17.1	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.2	0.4		0.6	0.5			6.8			1.4	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	5.0	6.4		5.8	6.7			26.2			18.5	
Lane group LOS	A	A		A	A			C			B	
Apprch. delay	6.4			6.7			26.2			18.5		
Approach LOS	A			A			C			B		
Intersec. delay	9.9			Intersection LOS						A		

SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	PM PEAK HOUR	Analysis Year	EXISTING CONDITIONS

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	4	687	39	120	688	43	35	32	71	155	51	5
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 60.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	4	764		126	769			146			222	
Lane group cap.	377	2149		379	2147			422			357	
v/c ratio	0.01	0.36		0.33	0.36			0.35			0.62	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.8	6.1		6.0	6.1			17.8			19.3	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.1	0.5		2.3	0.5			2.2			7.9	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	4.9	6.6		8.3	6.6			20.0+			27.3	
Lane group LOS	A	A		A	A			C			C	
Apprch. delay	6.6			6.8			20.0+			27.3		
Approach LOS	A			A			C			C		
Intersec. delay	9.9			Intersection LOS						A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	AM PEAK HOUR		

Project Description 13541 / 1307

East/West Street: 59TH PLACE	North/South Street: ALAMO AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	42	263	4	26	94	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	44	276	4	27	98	13
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	3	22	16	3	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	3	3	23	16	3	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	44	27		29			33	
C (m) (vph)	1492	1294		660			556	
v/c	0.03	0.02		0.04			0.06	
95% queue length	0.09	0.06		0.14			0.19	
Control Delay	7.5	7.8		10.7			11.9	
LOS	A	A		B			B	
Approach Delay	--	--	10.7			11.9		
Approach LOS	--	--	B			B		

>

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307

East/West Street: 59TH PLACE	North/South Street: ALAMO AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	110	2	27	164	16
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	7	115	2	28	172	16
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	4	30	5	6	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	7	4	31	5	6	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	7	28		42			24	
C (m) (vph)	1398	1484		796			685	
v/c	0.01	0.02		0.05			0.04	
95% queue length	0.02	0.06		0.17			0.11	
Control Delay	7.6	7.5		9.8			10.4	
LOS	A	A		A			B	
Approach Delay	--	--	9.8			10.4		
Approach LOS	--	--	A			B		

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	C. Carden
Agency/Co.	Willdan
Date Performed	5/10/2002
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	ALAMO & 60TH
Jurisdiction	CITY OF MAYWOOD
Analysis Year	EXISTING CONDITIONS

Project ID 13541 / 1307

East/West Street: 60TH STREET

North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	10	9	14	4	7	10
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	5	291	4	19	79	7
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	33		21		315		110	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.3		0.2		0.0		0.2	
Prop. Right-Turns	0.4		0.5		0.0		0.1	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.66		4.66		4.66		4.66	

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.03		0.02		0.28		0.10	
hd, final value	4.66		4.66		4.66		4.66	
x, final value	0.04		0.03		0.36		0.13	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.7		2.7		2.7		2.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	283		271		565		360	
Delay	7.87		7.75		9.48		8.01	
LOS	A		A		A		A	
Approach: Delay	7.87		7.75		9.48		8.01	
LOS	A		A		A		A	
Intersection Delay	8.96							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	C. Carden
Agency/Co.	Willdan
Date Performed	5/10/2002
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	ALAMO & 60TH
Jurisdiction	CITY OF MAYWOOD
Analysis Year	EXISTING CONDITIONS

Project ID 13541 / 1307

East/West Street: 60TH STREET | North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	4	3	3	2	7	10
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	2	102	6	10	188	9
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	10		19		115		216	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.1		0.0		0.0	
Prop. Right-Turns	0.3		0.5		0.1		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.53		4.53		4.53		4.53	

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.01		0.02		0.10		0.19	
hd, final value	4.53		4.53		4.53		4.53	
x, final value	0.01		0.02		0.13		0.24	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.5		2.5		2.5		2.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	260		269		365		466	
Delay	7.59		7.42		7.78		8.37	
LOS	A		A		A		A	
Approach: Delay	7.59		7.42		7.78		8.37	
LOS	A		A		A		A	
Intersection Delay	8.11							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	AM PEAK HOUR		

Project ID 13541 / 1307

East/West Street: 59TH PLACE | North/South Street: WALKER AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	0	4	22	1	1	0
%Thrus Left Lane	50			50		
Approach	**Northbound**			**Southbound**		
Movement	L	T	R	L	T	R
Volume	18	0	0	0	0	0
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	TR		LT		LTR			
PHF	0.95		0.95		0.95			
Flow Rate	27		2		18			
% Heavy Vehicles	0		0		0			
No. Lanes	1		1		1		0	
Geometry Group	1		1		1			
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.0		0.5		1.0			
Prop. Right-Turns	0.9		0.0		0.0			
Prop. Heavy Vehicle	0.0		0.0		0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2		
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6		
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7		
hadj, computed	3.43		3.43		3.43			

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20			
x, initial	0.02		0.00		0.02			
hd, final value	3.43		3.43		3.43			
x, final value	0.03		0.00		0.02			
Move-up time, m	2.0		2.0		2.0			
Service Time	1.4		1.4		1.4		1.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	277		252		268			
Delay	6.52		7.07		7.24			
LOS	A		A		A			
Approach: Delay	6.52		7.07		7.24			
LOS	A		A		A			
Intersection Delay	6.82							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	PM PEAK HOUR		

Project ID 13541 / 1307

East/West Street: 59TH PLACE | North/South Street: WALKER AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	0	3	21	0	3	0
%Thrus Left Lane	50			50		
Approach	**Northbound**			**Southbound**		
Movement	L	T	R	L	T	R
Volume	40	0	0	0	0	0
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	TR		LT		LTR			
PHF	0.95		0.95		0.95			
Flow Rate	25		3		42			
% Heavy Vehicles	0		0		0			
No. Lanes	1		1		1		0	
Geometry Group	1		1		1			
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.0		0.0		1.0			
Prop. Right-Turns	0.9		0.0		0.0			
Prop. Heavy Vehicle	0.0		0.0		0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2		
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6		
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7		
hadj, computed	3.47		3.47		3.47			

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20			
x, initial	0.02		0.00		0.04			
hd, final value	3.47		3.47		3.47			
x, final value	0.02		0.00		0.05			
Move-up time, m	2.0		2.0		2.0			
Service Time	1.5		1.5		1.5		1.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	275		253		292			
Delay	6.56		7.03		7.36			
LOS	A		A		A			
Approach: Delay	6.56		7.03		7.36			
LOS	A		A		A			
Intersection Delay	7.06							
Intersection LOS	A							

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	AM PEAK HOUR		

Project Description	13541 / 1307		
East/West Street:	60TH STREET	North/South Street:	WALKER AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	4	15	2	10	8	5
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	4	15	2	10	8	5
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2	4	1	1	9	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	2	4	1	1	9	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	4	10		7			24	
C (m) (vph)	1619	1613		880			965	
v/c	0.00	0.01		0.01			0.02	
95% queue length	0.01	0.02		0.02			0.08	
Control Delay	7.2	7.2		9.1			8.8	
LOS	A	A		A			A	
Approach Delay	--	--		9.1			8.8	
Approach LOS	--	--		A			A	

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING CONDITIONS
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307

East/West Street: 60TH STREET	North/South Street: WALKER AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	19	3	3	19	1
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	6	20	3	3	20	1
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	4	15	18	3	6	12
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	4	15	18	3	6	12
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	6	3		37			21	
C (m) (vph)	1608	1605		938			959	
v/c	0.00	0.00		0.04			0.02	
95% queue length	0.01	0.01		0.12			0.07	
Control Delay	7.2	7.2		9.0			8.8	
LOS	A	A		A			A	
Approach Delay	--	--	9.0			8.8		
Approach LOS	--	--	A			A		

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SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	AM PEAK HOUR	Analysis Year	EXISTING (ADJ) + OTHER

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	10	628	48	49	610	150	46	86	141	50	19	6
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 60.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	712		52	800			287			79	
Lane group cap.	361	2143		406	2102			444			358	
v/c ratio	0.03	0.33		0.13	0.38			0.65			0.22	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.9	6.0		5.2	6.2			19.5			17.1	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.2	0.4		0.7	0.5			7.1			1.4	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	5.0	6.4		5.8	6.7			26.6			18.6	
Lane group LOS	A	A		A	A			C			B	
Apprch. delay	6.4			6.7			26.6			18.6		
Approach LOS	A			A			C			B		
Intersec. delay	10.0+			Intersection LOS						B		

SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	PM PEAK HOUR	Analysis Year	EXISTING (ADJ) + OTHER

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	4	697	40	122	698	44	36	32	72	157	52	5
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 60.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	4	776		128	781			148			225	
Lane group cap.	371	2149		373	2147			422			356	
v/c ratio	0.01	0.36		0.34	0.36			0.35			0.63	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.8	6.1		6.0	6.1			17.8			19.4	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.1	0.5		2.5	0.5			2.3			8.3	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	4.9	6.6		8.5	6.6			20.1			27.7	
Lane group LOS	A	A		A	A			C			C	
Apprch. delay	6.6			6.9			20.1			27.7		
Approach LOS	A			A			C			C		
Intersec. delay	10.0-			Intersection LOS						A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	AM PEAK HOUR		

Project Description 13541 / 1307

East/West Street: 59TH PLACE	North/South Street: ALAMO AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	46	290	11	26	95	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	48	305	11	27	100	13
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	1	16	3	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	1	16	3	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	48	27		1			33	
C (m) (vph)	1489	1256		735			545	
v/c	0.03	0.02		0.00			0.06	
95% queue length	0.10	0.07		0.00			0.19	
Control Delay	7.5	7.9		9.9			12.0	
LOS	A	A		A			B	
Approach Delay	--	--	9.9			12.0		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*C. Carden*	Intersection	*ALAMO & 59TH*
Agency/Co.	*Willdan*	Jurisdiction	*CITY OF MAYWOOD*
Date Performed	*5/10/2002*	Analysis Year	*EXISTING (ADJ) + OTHER*
Analysis Time Period	*PM PEAK HOUR*		

Project Description *13541 / 1307*	
East/West Street: *59TH PLACE*	North/South Street: *ALAMO AVENUE*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	11	142	18	27	166	16
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	11	149	18	28	174	16
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	1	5	6	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	1	5	6	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	11	28		1			24	
C (m) (vph)	1396	1423		893			663	
v/c	0.01	0.02		0.00			0.04	
95% queue length	0.02	0.06		0.00			0.11	
Control Delay	7.6	7.6		9.0			10.6	
LOS	A	A		A			B	
Approach Delay	--	--		9.0			10.6	
Approach LOS	--	--		A			B	

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ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	AM PEAK HOUR		

Project ID 13541 / 1307

East/West Street: 60TH STREET | North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	10	9	14	7	7	44
%Thrus Left Lane	50			50		
Approach	**Northbound**			**Southbound**		
Movement	L	T	R	L	T	R
Volume	5	295	4	19	77	7
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	33		60		319		108	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
Prop. Left-Turns	0.3		0.1		0.0		0.2	
Prop. Right-Turns	0.4		0.8		0.0		0.1	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.74		4.74		4.74		4.74	

Departure Headway and Service Time

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.03		0.05		0.28		0.10	
hd, final value	4.74		4.74		4.74		4.74	
x, final value	0.04		0.07		0.38		0.13	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.7		2.7		2.7		2.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	283		310		569		358	
Delay	7.95		7.82		9.77		8.14	
LOS	A		A		A		A	
Approach: Delay	7.95		7.82		9.77		8.14	
LOS	A		A		A		A	
Intersection Delay	9.09							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	PM PEAK HOUR		

Project ID 13541 / 1307

East/West Street: 60TH STREET | North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	4	3	3	9	7	61
%Thrus Left Lane	50			50		
Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	2	104	6	10	184	9
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	10		80		117		212	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
Prop. Left-Turns	0.4		0.1		0.0		0.0	
Prop. Right-Turns	0.3		0.8		0.1		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.62		4.62		4.62		4.62	

Departure Headway and Service Time

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.01		0.07		0.10		0.19	
hd, final value	4.62		4.62		4.62		4.62	
x, final value	0.01		0.09		0.14		0.25	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.6		2.6		2.6		2.6	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	260		330		367		462	
Delay	7.68		7.61		7.99		8.59	
LOS	A		A		A		A	
Approach: Delay	7.68		7.61		7.99		8.59	
LOS	A		A		A		A	
Intersection Delay	8.21							
Intersection LOS	A							

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	AM PEAK HOUR		
Project Description	13541 / 1307		
East/West Street:	59TH PLACE	North/South Street:	WALKER AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	0	0	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	0	43
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	45
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					45	
C (m) (vph)	1636	1636					1091	
v/c	0.00	0.00					0.04	
95% queue length	0.00	0.00					0.13	
Control Delay	7.2	7.2					8.4	
LOS	A	A					A	
Approach Delay	--	--				8.4		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	PM PEAK HOUR		
Project Description	13541 / 1307		
East/West Street:	59TH PLACE	North/South Street:	WALKER AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	0	0	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	0	39
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	41
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					41	
C (m) (vph)	1636	1636					1091	
v/c	0.00	0.00					0.04	
95% queue length	0.00	0.00					0.12	
Control Delay	7.2	7.2					8.4	
LOS	A	A					A	
Approach Delay	--	--				8.4		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	AM PEAK HOUR		

Project Description	13541 / 1307		
East/West Street:	60TH STREET	North/South Street:	WALKER AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	19	0	2	14	8	22
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	20	0	2	14	8	23
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2	7	0	1	9	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	2	7	0	1	9	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	20	14		9			24	
C (m) (vph)	1595	1634		793			933	
v/c	0.01	0.01		0.01			0.03	
95% queue length	0.04	0.03		0.03			0.08	
Control Delay	7.3	7.2		9.6			9.0	
LOS	A	A		A			A	
Approach Delay	--	--		9.6			9.0	
Approach LOS	--	--		A			A	

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ) + OTHER
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307

East/West Street: 60TH STREET	North/South Street: WALKER AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	25	0	3	6	19	18
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	26	0	3	6	20	18
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	4	37	0	3	6	12
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	4	38	0	3	6	12
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	26	6		42			21	
C (m) (vph)	1585	1632		781			924	
v/c	0.02	0.00		0.05			0.02	
95% queue length	0.05	0.01		0.17			0.07	
Control Delay	7.3	7.2		9.9			9.0	
LOS	A	A		A			A	
Approach Delay	--	--		9.9			9.0	
Approach LOS	--	--		A			A	

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SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	AM PEAK HOUR	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	10	628	49	50	610	150	47	86	141	50	19	6
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 60.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	713		53	800			288			79	
Lane group cap.	361	2143		406	2102			443			358	
v/c ratio	0.03	0.33		0.13	0.38			0.65			0.22	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.9	6.0		5.2	6.2			19.5			17.1	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.2	0.4		0.7	0.5			7.2			1.4	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	5.0	6.4		5.9	6.7			26.7			18.6	
Lane group LOS	A	A		A	A			C			B	
Apprch. delay	6.4			6.7			26.7			18.6		
Approach LOS	A			A			C			B		
Intersec. delay	10.0+			Intersection LOS						B		

SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	PM PEAK HOUR	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	4	697	41	123	698	44	39	32	74	157	52	5
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0			3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 60.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	4	777		129	781			153			225	
Lane group cap.	371	2148		373	2147			420			353	
v/c ratio	0.01	0.36		0.35	0.36			0.36			0.64	
Green ratio	0.60	0.60		0.60	0.60			0.27			0.27	
Unif. delay d1	4.8	6.1		6.1	6.1			17.9			19.4	
Delay factor k	0.50	0.50		0.50	0.50			0.50			0.50	
Increm. delay d2	0.1	0.5		2.5	0.5			2.4			8.5	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	4.9	6.6		8.6	6.6			20.3			28.0	
Lane group LOS	A	A		A	A			C			C	
Apprch. delay	6.6			6.9			20.3			28.0		
Approach LOS	A			A			C			C		
Intersec. delay	10.1			Intersection LOS						B		

SHORT REPORT *SIGNALIZED

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & SLAUSON
Agency or Co.	Willdan	Area Type	All other areas
Date Performed	5/10/2002	Jurisdiction	CITY OF MAYWOOD
Time Period	AM PEAK HOUR	Analysis Year	EX (ADJ)+ OTH+ PROJECT- W/ IMP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Lane group	L	TR		L	TR		L	TR			LTR	
Volume (vph)	10	628	49	50	610	150	47	86	141	50	19	6
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Arrival type	3	3		3	3		3	3			3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0			0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 60.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	713		53	800		49	239			79	
Lane group cap.	361	2143		406	2102		393	460			316	
v/c ratio	0.03	0.33		0.13	0.38		0.12	0.52			0.25	
Green ratio	0.60	0.60		0.60	0.60		0.28	0.27			0.27	
Unif. delay d1	4.9	6.0		5.2	6.2		16.0	18.7			17.3	
Delay factor k	0.50	0.50		0.50	0.50		0.50	0.50			0.50	
Increm. delay d2	0.2	0.4		0.7	0.5		0.7	4.2			1.9	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000			1.000	
Control delay	5.0	6.4		5.9	6.7		16.6	22.9			19.2	
Lane group LOS	A	A		A	A		B	C			B	
Apprch. delay	6.4			6.7			21.8			19.2		
Approach LOS	A			A			C			B		
Intersec. delay	9.3			Intersection LOS						A		

SHORT REPORT *SIGNALIZED	
General Information	**Site Information**
Analyst: C. Carden	Intersection: ALAMO & SLAUSON
Agency or Co.: Willdan	Area Type: All other areas
Date Performed: 5/10/2002	Jurisdiction: CITY OF MAYWOOD
Time Period: PM PEAK HOUR	Analysis Year: EX (ADJ)+ OTH+ PROJECT- W/ IMP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Lane group	L	TR		L	TR		L	TR			LTR	
Volume (vph)	4	697	41	123	698	44	39	32	74	157	52	5
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0			3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Arrival type	3	3		3	3		3	3			3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0			0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 37.0	G =	G =	G =	G = 17.0	G =	G =	G =
	Y = 3	Y =	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 60.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	4	777		129	781		41	112			225	
Lane group cap.	371	2148		373	2147		359	454			323	
v/c ratio	0.01	0.36		0.35	0.36		0.11	0.25			0.70	
Green ratio	0.60	0.60		0.60	0.60		0.28	0.27			0.27	
Unif. delay d1	4.8	6.1		6.1	6.1		15.9	17.3			19.8	
Delay factor k	0.50	0.50		0.50	0.50		0.50	0.50			0.50	
Increm. delay d2	0.1	0.5		2.5	0.5		0.6	1.3			11.8	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000			1.000	
Control delay	4.9	6.6		8.6	6.6		16.6	18.6			31.6	
Lane group LOS	A	A		A	A		B	B			C	
Apprch. delay	6.6			6.9			18.0			31.6		
Approach LOS	A			A			B			C		
Intersec. delay	10.3			Intersection LOS						B		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	AM PEAK HOUR		

Project Description	13541 / 1307		
East/West Street:	59TH PLACE	North/South Street:	ALAMO AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	47	290	16	28	95	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	49	305	16	29	100	13
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	1	0	1	16	4	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	1	0	1	16	4	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	49	29		2			34	
C (m) (vph)	1489	1250		513			533	
v/c	0.03	0.02		0.00			0.06	
95% queue length	0.10	0.07		0.01			0.20	
Control Delay	7.5	7.9		12.0			12.2	
LOS	A	A		B			B	
Approach Delay	--	--		12.0			12.2	
Approach LOS	--	--		B			B	

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	ALAMO & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307	
East/West Street: 59TH PLACE	North/South Street: ALAMO AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	12	144	23	29	166	16
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	12	151	24	30	174	16
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	1	3	5	7	13
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	5	1	3	5	7	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	12	30		9			25	
C (m) (vph)	1396	1414		589			646	
v/c	0.01	0.02		0.02			0.04	
95% queue length	0.03	0.07		0.05			0.12	
Control Delay	7.6	7.6		11.2			10.8	
LOS	A	A		B			B	
Approach Delay	--	--		11.2			10.8	
Approach LOS	--	--		B			B	

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	C. Carden
Agency/Co.	Willdan
Date Performed	5/10/2002
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	ALAMO & 60TH
Jurisdiction	CITY OF MAYWOOD
Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT

Project ID 13541 / 1307

East/West Street: 60TH STREET

North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	11	10	14	8	8	46
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	5	298	4	19	78	7
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	35		64		322		109	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
Prop. Left-Turns	0.3		0.1		0.0		0.2	
Prop. Right-Turns	0.4		0.8		0.0		0.1	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.78		4.78		4.78		4.78	

Departure Headway and Service Time

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.03		0.06		0.29		0.10	
hd, final value	4.78		4.78		4.78		4.78	
x, final value	0.05		0.08		0.38		0.14	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.8		2.8		2.8		2.8	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	285		314		572		359	
Delay	8.01		7.88		9.85		8.18	
LOS	A		A		A		A	
Approach: Delay	8.01		7.88		9.85		8.18	
LOS	A		A		A		A	
Intersection Delay	9.15							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	C. Carden
Agency/Co.	Willdan
Date Performed	5/10/2002
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	ALAMO & 60TH
Jurisdiction	CITY OF MAYWOOD
Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT

Project ID 13541 / 1307

East/West Street: 60TH STREET | North/South Street: ALAMO AVENUE

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	5	4	3	12	9	65
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	2	107	6	11	187	10
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate	12		89		120		217	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.1		0.0		0.1	
Prop. Right-Turns	0.3		0.8		0.1		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.69		4.69		4.69		4.69	

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.01		0.08		0.11		0.19	
hd, final value	4.69		4.69		4.69		4.69	
x, final value	0.02		0.10		0.14		0.26	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.7		2.7		2.7		2.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	262		339		370		467	
Delay	7.77		7.73		8.06		8.69	
LOS	A		A		A		A	
Approach: Delay	7.77		7.73		8.06		8.69	
LOS	A		A		A		A	
Intersection Delay	8.30							
Intersection LOS	A							

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	AM PEAK HOUR		

Project Description 13541 / 1307	
East/West Street: 59TH PLACE	North/South Street: WALKER AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	2	0	0	2	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	2	0	0	2	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	0	45
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	47
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					47	
C (m) (vph)	1634	1634					1088	
v/c	0.00	0.00					0.04	
95% queue length	0.00	0.00					0.14	
Control Delay	7.2	7.2					8.5	
LOS	A	A					A	
Approach Delay	--	--				8.5		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 59TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307	
East/West Street: 59TH PLACE	North/South Street: WALKER AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	4	0	0	4	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	4	0	0	4	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	0	45
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	0	0	47
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					47	
C (m) (vph)	1631	1631					1085	
v/c	0.00	0.00					0.04	
95% queue length	0.00	0.00					0.14	
Control Delay	7.2	7.2					8.5	
LOS	A	A					A	
Approach Delay	--	--				8.5		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	AM PEAK HOUR		

Project Description	13541 / 1307		
East/West Street:	60TH STREET	North/South Street:	WALKER AVENUE
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	20	0	2	14	8	25
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	21	0	2	14	8	26
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2	7	0	3	9	14
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	2	7	0	3	9	14
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	21	14		9			26	
C (m) (vph)	1591	1634		788			925	
v/c	0.01	0.01		0.01			0.03	
95% queue length	0.04	0.03		0.03			0.09	
Control Delay	7.3	7.2		9.6			9.0	
LOS	A	A		A			A	
Approach Delay	--	--		9.6			9.0	
Approach LOS	--	--		A			A	

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	C. Carden	Intersection	WALKER & 60TH
Agency/Co.	Willdan	Jurisdiction	CITY OF MAYWOOD
Date Performed	5/10/2002	Analysis Year	EXISTING (ADJ)+ OTHER+ PROJECT
Analysis Time Period	PM PEAK HOUR		

Project Description 13541 / 1307	
East/West Street: 60TH STREET	North/South Street: WALKER AVENUE
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	26	0	3	6	21	27
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	27	0	3	6	22	28
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	4	37	0	5	6	12
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	4	38	0	5	6	12
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	27	6		42			23	
C (m) (vph)	1570	1632		767			904	
v/c	0.02	0.00		0.05			0.03	
95% queue length	0.05	0.01		0.17			0.08	
Control Delay	7.3	7.2		10.0-			9.1	
LOS	A	A		A			A	
Approach Delay	--	--	10.0-			9.1		
Approach LOS	--	--	A			A		

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