

09 CEQA_Volume II

NEWPORT BAY MARINA

FINAL ENVIRONMENTAL IMPACT REPORT



Lead Agency:
City of Newport Beach
3300 Newport Boulevard
P.O. Box 1768
Newport Beach, CA 92658-8915

Prepared by:
Hodge & Associates
24040 Camino Del Avion, #A247
Monarch Beach, CA 92629

State Clearinghouse No. 2003071144

VOLUME II – TECHNICAL APPENDICES

**FINAL EIR
NEWPORT BAY MARINA PROJECT
TABLE OF CONTENTS**

VOLUME I:

- Notice of Determination
- Planning Commission Hearing Resolution, CEQA Findings, Mitigation Monitoring & Reporting Program
- Response to Comments
- Errata for Final EIR
- Draft EIR

VOLUME II:

- Technical Appendices

VOLUME II - TECHNICAL APPENDICES

- A AIR QUALITY**
- B BIOLOGY (MARINE)**
- C CULTURAL RESOURCES**
 - ARCHEOLOGICAL STUDY**
 - PALEONTOLOGICAL STUDY**
 - HISTORICAL RESOURCES STUDY**
- D GEOTECHNICAL**
- E HAZARDS AND HAZARDOUS MATERIALS (PHASE I & II) &
WORK PLAN**
- F HYDROLOGY/WATER QUALITY MANAGEMENT PLAN**
- G NOISE**
- H TRAFFIC STUDY**

APPENDIX A

AIR QUALITY

Air Quality Assessment For:
Newport Bay Marina
Mixed Use Project
2300 NEWPORT BOULEVARD
CITY OF NEWPORT BEACH

Prepared For:
HODGE AND ASSOCIATES
24040 Camino Del Avion, Suite A-247
Monarch Beach, CA 92629

Submitted By:
MESTRE GREVE ASSOCIATES
Fred Greve P.E.
Tanya Moon
27812 El Lazo Road
Laguna Niguel, CA 92677
949-349-0671
Fax 949-349-0679

February 10, 2006
Report#06-8

Table of Contents

1.0 Existing Air Quality	1
1.1 Project Description	1
1.2 Climate	1
1.3 Effects of Pollutants on Health	3
1.4 Air Quality Management	4
1.5 Monitored Air Quality	7
2.0 Potential Air Quality Impacts	12
2.1 Thresholds of Significance	12
2.1.1 Regional Air Quality	12
2.1.2 Local Air Quality	12
2.2 Short-Term Impacts	12
2.2.1 Construction Air Pollutant Emissions	12
2.3 Long-Term Impacts	15
2.3.1 Local Air Quality Project Impacts	15
2.3.2 Regional Air Quality	15
Net Emission Increases With Project	16
2.4 Compliance with Air Quality Planning	16
2.4.1 Consistency with AQMP	17
3.0 Mitigation Measures	19
3.1 Short-Term Impacts	19
3.1.1 Construction Equipment Emission Control	19
3.2 Long-Term Impacts	19
3.2.1 Local Air Quality Impacts	19
3.2.2 Regional Emissions	19
4.0 Unavoidable Significant Impacts	20
4.1 Short-Term Impacts	20
4.2 Long-Term Impacts	20
APPENDIX	21

List of Tables

Table 1	Air Quality Levels Measured at Costa Mesa Monitoring Station.....	8
Table 2	Air Quality Levels Measured at Mission Viejo Monitoring Station.....	9
Table 3	SCAQMD Regional Pollutant Emission Thresholds of Significance	12
Table 4	SCAQMD Local Pollutant Concentration Increase	12
	Thresholds of Significance.....	12
Table 5	Worst Case Air Pollutant Emissions During Demolition.....	13
Table 6	Worst Case Air Pollutant Emissions During Excavation	14
Table 7	2010 Project Emissions – Net New Increase.....	16
Table 8	Project Net Emissions Compared With Regional Emissions	16

List of Exhibits

Exhibit 1	- Vicinity Map.....	2
-----------	---------------------	---

1.0 Existing Air Quality

1.1 Project Description

The proposed project consists of 27 condominium units located over approximately 36,000 squared feet of general commercial and office space. There will also be a subterranean parking lot. The project site is currently occupied by approximately 44,300 square feet of commercial, office and marine uses that will be demolished to accommodate the project. The site is located along Newport Boulevard north of 22nd Street in the Balboa Peninsula area of the City of Newport Beach. Exhibit 1 presents a vicinity map showing the location of the facility.

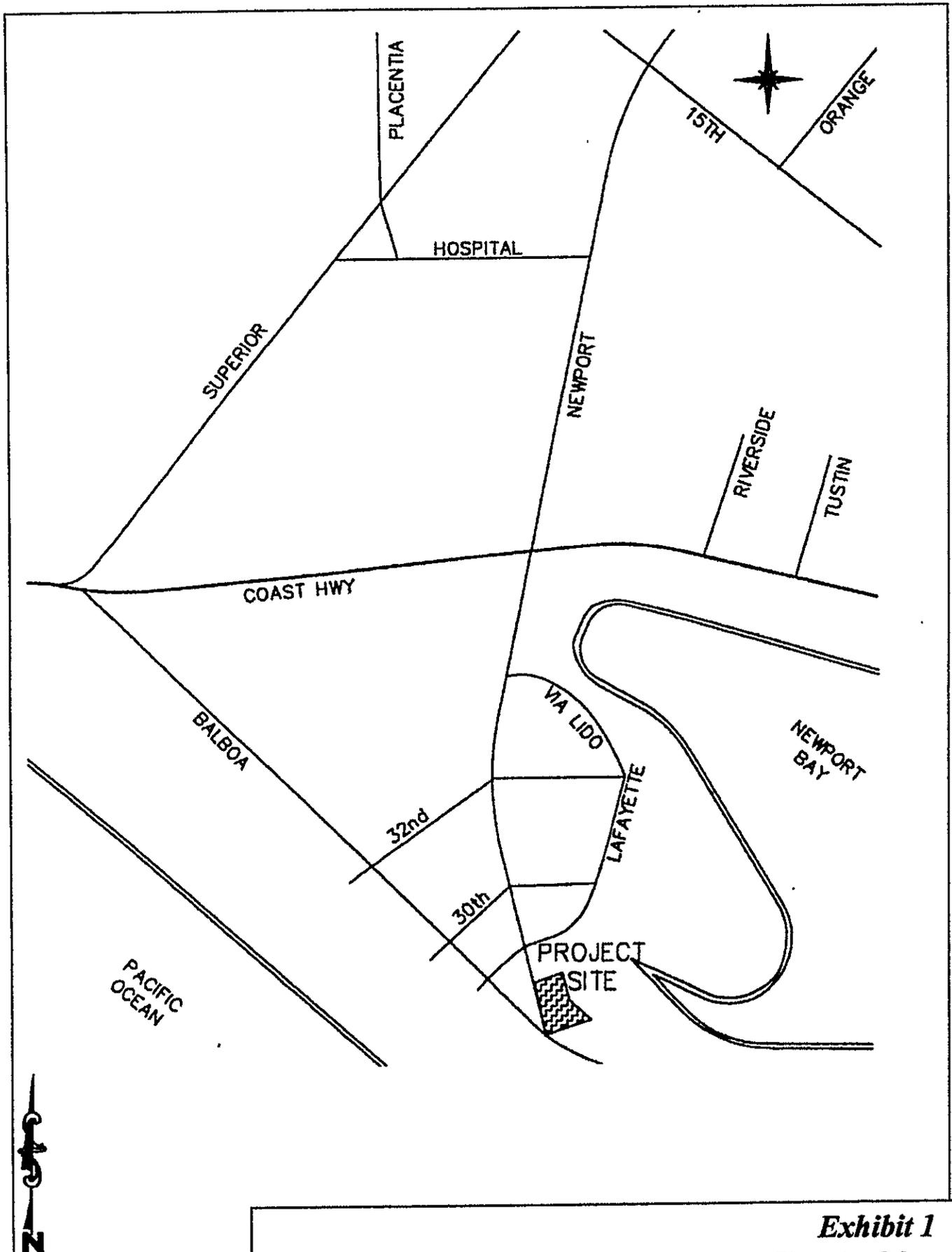
This report will analyze the potential air quality impacts associated with the proposed project. Regional air quality impacts from construction and operation of the proposed project are analyzed, as are potential local air quality impacts.

1.2 Climate

The climate in and around the project area, as with all of Southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. It maintains moderate temperatures and comfortable humidity, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild, excepting the summer months, which commonly bring substantially higher temperatures. In all portions of the basin, temperatures well above 100 degrees F. have been recorded in recent years. The annual average temperature in the basin is approximately 62 degrees Fahrenheit.

Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night the wind generally slows and reverses direction traveling towards the sea. Wind direction will be altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to the other, the dominant wind direction rotates into the south and causes a minor wind direction maximum from the south. The frequency of calm winds (less than 2 miles per hour) is less than 10 percent. Therefore, there is little stagnation in the project vicinity, especially during busy daytime traffic hours.

Southern California frequently has temperature inversions which inhibit the dispersion of pollutants. Inversions may be either ground based or elevated. Ground based inversions, sometimes referred to as radiation inversions, are most severe during clear, cold, early winter mornings. Under conditions of a ground based inversion, very little mixing or turbulence occurs, and high concentrations of primary pollutants may occur local to major roadways. Elevated inversions can be generated by a variety of meteorological phenomena. Elevated inversions act as a lid or upper boundary and restrict vertical mixing. Below the elevated inversion, dispersion is not restricted. Mixing heights for elevated inversions are lower in the summer and more persistent. This low summer inversion puts a lid over the South Coast Air Basin (SCAB) and is responsible for the high levels of ozone observed during summer months in the air basin.



MESTRE GREVE ASSOCIATES

Exhibit 1
Vicinity Map

1.3 Effects of Pollutants on Health

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in the prevalent air quality.

The following pollutants are regulated by the EPA and therefore are subject to emission reduction measures adopted by federal, state and other regulatory agencies.

Ozone (O₃): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds and nitrogen oxides (NO_x) under favorable meteorological conditions such as high temperature and stagnation episodes. An elevated level of ozone irritates the lungs and breathing passages, causing coughing, and pain in the chest and throat thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles because of incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of moderate levels of carbon monoxide can cause nausea, dizziness, and headaches, and can be fatal at high concentrations.

Particulate Matter (PM₁₀ and PM_{2.5}): The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than ten microns (PM₁₀) and even smaller particles with a aerodynamic diameter equal to or less than 2.5 microns (PM_{2.5}), are trapped in the nose, throat, and upper respiratory tract. These small particulates enter the body and could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM₁₀ and PM_{2.5}. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulate could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Nitrogen Oxides (NO_x): Major sources of NO_x include power plants, large industrial facilities, and motor vehicles. Nitrogen oxides are emitted from combustion processes and irritate the nose and throat. It increases susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_x is as a precursor to the formation of ozone.

Sulfur Dioxide (SO₂): Major sources of SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing

passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulate appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Volatile Organic Compounds (VOC): Though VOCs are not directly a health hazard and are not considered a criteria pollutant, they react with NO_x in the presence of sunlight to produce ozone. Hence, VOC emissions are regulated as a precursor of ozone. However, some state and local agencies regulate VOCs as Reactive Organic Gases (ROGs) which possess similar characteristics as VOCs.

1.4 Air Quality Management

The proposed project is located in the South Coast Air Basin (SCAB) and, jurisdictionally, is the responsibility of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin and works with SCAG to develop and implement Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. CARB establishes legal emission rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the basin include the U.S. Environmental Protection Agency (EPA) and the Southern California Association of Governments (SCAG). The EPA implements the provisions of the Federal Clean Air Act. This Act establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the Clean Air Act requires that plans be developed and implemented to meet the standards. The EPA oversees the efforts in this air basin and insures that appropriate plans are being developed and implemented. SCAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP), with SCAG's collaboration in preparing the transportation control measure component of the Plan.

SCAQMD and SCAG, in coordination with local governments and the private sector, have developed the Air Quality Management Plan (AQMP) for the air basin. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting state and federal ambient air quality standards. The 1997 AQMP is the current federally approved applicable air plan. However, the successor 2003 AQMP was adopted locally on August 1, 2003, by the governing board of the SCAQMD. CARB adopted the plan as part of the California State Implementation Plan on October 23, 2003. The EPA adopted the mobile source emission budgets from the plan on March 25, 2004. The PM₁₀ attainment plan received final approval on November 5, 2005 with an effective date of December 14, 2005. The EPA has not approved the ozone or CO attainment plans to date. For federal purposes, the 1997 AQMP with the 1999 amendments is the currently applicable Ozone attainment plan. The CO attainment plan in the 1997 AQMP was approved by the EPA but only on an interim basis through 1998. Therefore, the basin does not have a federally approved CO attainment plan,

State law mandates the revision of the AQMP at least every three years, and federal law specifies dates certain for attaining criteria pollutant standards, and preparing plans to meet them. Under federal law, the SCAB has been designated by the U.S. Environmental Protection Agency (EPA) as a non-attainment area for ozone, carbon monoxide, and suspended particulates. The SCAB has met the federal nitrogen dioxide standards for the third year in a row, and therefore, is qualified for redesignation to attainment. A maintenance plan for nitrogen dioxide is included in the 2003 AQMP. Under California state law, the Clean Air Act (CAA) mandates the implementation of a program that will achieve the California Ambient Air Quality Standards (CAAQS) and the CAA mandates the implementation of new air quality performance standards.

EPA has designated SCAB as extreme non-attainment for 1-hour ozone, and serious non-attainment for PM10 and CO. Attainment of all federal PM10 health standards is to be achieved by December 31, 2006, and ozone standards are to be achieved by November 15, 2010. For CO, the deadline was to be December 31, 2000 however the basin was granted an extension. The SCAB had only one violation of the federal CO standard in the past two years. Therefore, the SCAB has met the criteria for CO attainment. However, SCAB is still formally designated as a non-attainment area for CO until USEPA redesignates it as an attainment area.

In 1997, the EPA established an 8-hour standard for ozone and standards for particulate matter less than 2.5 microns in diameter (PM2.5). In 1999, a federal court ruling (American Trucking Associations, Inc., et al., v. United States Environmental Protection Agency) blocked implementation of these standards. In February 2001, the United States Supreme Court upheld the standards but remanded some issues back to the Circuit Court. In March 2002, the Circuit Court upheld the standards.

At the present time, the SCAB is in a transition from the old to the new ozone standard. EPA announced air quality designations for the new 8-hour ozone standard on April 15, 2004. The SCAB was designated severe non-attainment. The SCAQMD now has until 2007 to submit a plan showing measures to reduce 8-hour ozone levels to below the federal standard by June 15, 2021. As a part of the designation the EPA announced that the 1-hour ozone standard would be revoked in June of 2005. Thus, the 8-hour ozone standard attainment deadline of 2021 may supercede the current 1-hour ozone standard attainment deadline of 2010.

In July 1997, EPA issued NAAQS for fine particles (PM2.5). The standards include an annual standard set at 15 micrograms per cubic meter, based on the three-year average of annual mean PM2.5 concentrations and a 24-hour standard of 65 micrograms per cubic meter, based on the three-year average of the 98th percentile of 24-hour concentrations. EPA's standards were challenged by the American Trucking Association, the U.S. Chamber of Commerce, and state and business groups. In February of 2001, the Supreme Court upheld EPA's authority under the Clean Air Act to set NAAQS that protect the American public from harmful effects of air pollution. In March of 2002, the D.C. Circuit Court rejected all remaining legal challenges to EPA's 1997 ambient air quality standards for PM2.5.

On January 5, 2005, EPA took final action to designate attainment and nonattainment areas under the NAAQS for fine particles. The effective date of this rule is April 5, 2005. States and tribes with designated nonattainment areas must submit plans that show compliance with the PM2.5 standards. Areas are required to attain clean air as soon as possible but no later than

2010. EPA may grant attainment date extensions of up to five years in areas with more severe PM_{2.5} problems and where emissions control measures are not available or feasible. State, local and tribal governments must detail these control requirements in plans demonstrating how they will meet the PM_{2.5} national air quality standard, known as State or Tribal Implementation Plans, or SIPs/TIPs. States and tribes must submit their plans to EPA within three years after the final designations. Nonattainment areas may be subject to New Source Review and "transportation conformity," which requires local transportation and air quality agencies to coordinate planning to ensure that transportation projects, such as road construction, do not affect an area's ability to reach its clean air goals.

Orange County, California has been designated by EPA as nonattainment for PM_{2.5}, effective April 5, 2005. Although there is now a PM_{2.5} standard, adequate tools are not currently available to perform a detailed assessment of PM_{2.5} emissions and impacts at the project level. Further, there are no good sources for the significance thresholds for PM_{2.5} emissions. Until tools and methodologies are developed to assess the impacts of projects on PM_{2.5} concentrations the analysis of PM₁₀ will need to be used as an indicator of potential PM_{2.5} impacts.

On June 20, 2002, the CARB revised the state's PM₁₀ annual average standard to 20 µg/m³ and establish an annual average standard for PM_{2.5} of 12 µg/m³. These standards were approved by the Office of Administrative Law in June of 2003 and are now effective. However, as discussed above there are not adequate tools to assess PM_{2.5} impacts and PM₁₀ emissions must be used as an indicator of potential PM_{2.5} impacts. SCAQMD has not altered the recommended significance thresholds or analysis techniques based on these revised standards.

The overall control strategy for the AQMP is to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 2003 AQMP contains short- and long-term measures. These measures are included in Appendix IV-B of the AQMP.

Short-term measures propose the application of available technologies and management practices between 2005 and the year 2010. The 2003 AQMP includes 24 short-term control measures for stationary and mobile sources that are expected to be implemented within the next several years. The stationary source measures in the 2003 AQMP include measures from the 1997 AQMP and 1999 Amendment to the Ozone SIP with eleven additional new control measures. In addition, a new transportation conformity budget backstop measure is included in the 2003 AQMP.

One long-term measure for stationary sources is included in the 2003 AQMP. This control measure seeks to achieve additional VOC reductions from stationary sources. The long-term measure is made up of Tier I and Tier II components. Tier I long-term measure has an adoption date between 2005 and 2007 and implementation date between 2007 and 2009 for Tier I. Tier II has an adoption date between 2006 and 2008 and implementation date between 2008 and 2010.

To ultimately achieve ambient air quality standards, additional emission reductions will be necessary beyond the implementation of short-term measures. Long-term measure relies on the advancement of technologies and control methods that can reasonably be expected to occur between 2005 and 2010. Additional stationary source control measures are included in Appendix IV-B of the AQMP, Proposed 2003 State and Federal Strategy for the California SIP. Contingency measures are also included in Appendix IV-Section 2 of the 2003 AQMP.

1.5 Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("2003 Air Quality Management Plan", August 1, 2003). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 45 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NO_x) emissions, and approximately 76 percent of carbon monoxide (CO) emissions.

The SCAQMD has divided the SCAB into 38 source receptor areas (SRA) with a designated ambient air monitoring station representative of most of these areas. The project is located in SCAQMD Source Receptor Area 18, North Orange County Coastal. The air quality monitoring station designated for this area is the Costa Mesa Station. This is the nearest air quality monitoring station to the project. The Costa Mesa Station is located near Mesa Verde Drive west of Harbor Boulevard approximately 4 miles north of the project site. The air pollutants measured at the Costa Mesa station include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). Monitored concentrations of these pollutants for the years 2003 to 2005 at the Costa Mesa monitoring station are shown in Table 1.

Particulate (PM₁₀) concentrations are not measured at the Costa Mesa station. The nearest station where PM₁₀ is monitored is the Mission Viejo station. The Mission Viejo monitoring station is the designated station for SRA 19, Saddleback Valley. This station is located east of Los Alisos Boulevard between Jeronimo Road and Trabuco Road approximately 15 miles east of the project site. The air pollutants measured at the Mission Viejo station include ozone, carbon monoxide (CO), PM₁₀ and PM_{2.5}. Monitored concentrations of these pollutants for the years 2003 to 2005 at the Mission Viejo monitoring station are shown in Table 2.

The data presented in Tables 1 and 2 were obtained from the CARB air quality data website (www.arb.ca.gov/adam/). Tables 1 and 2 also present the Federal and State air quality standards.

Table 1
Air Quality Levels Measured at Costa Mesa Monitoring Station

Pollutant	California Standard	National Standard	Year	% Meas. ¹	Max. Level	Days State Standard Exceeded ²	Days National Standard Exceeded ²
Ozone	0.09 ppm for 1 hr.	0.12 ppm for 1 hr.	2005	40	0.085	0	0
			2004	98	0.104	2	0
			2003	100	0.107	4	0
Ozone	0.070 ppm ³ for 8 hr.	0.08 ppm for 8 hr.	2005	40	0.072	--	0
			2004	98	0.087	--	1
			2003	100	0.088	--	1
CO	20 ppm for 1 hour	35 ppm for 1 hour	2005	40	4.1	0	0
			2004	97	4.9	0	0
			2003	97	7.4	0	0
CO	9.0 ppm for 8 hour	9 ppm for 8 hour	2005	40	3.2	0	0
			2004	97	4.1	0	0
			2003	97	5.9	0	0
NO ₂ (1-Hour)	0.25 ppm for 1 hour	None	2005	32	0.062	0	n/a
			2004	97	0.097	0	n/a
			2003	96	0.107	0	n/a
NO ₂ (Annual)	None	0.053 ppm AAM ⁴	2005	32	--	n/a	--
			2004	97	0.016	n/a	No
			2003	96	0.018	n/a	No
SO ₂ (24 Hour)	0.04 ppm For 24 Hr.	0.14 ppm for 24 hr.	2005	29	0.008	0	0
			2004	98	0.008	0	0
			2003	93	0.012	0	0
SO ₂ (Annual)	None	0.030 ppm AAM ⁴	2005	29	0.001	n/a	No
			2004	98	0.002	n/a	No
			2003	93	0.001	n/a	No

1. Percent of year where high pollutant levels were expected that measurements were made

2. For annual averaging times a yes or no response is given if the annual average concentration exceeded the applicable standard.

3. This concentration standard was approved by the ARB on April 28, 2005 and is expected to become effective in early 2006.

4. Annual Arithmetic Mean

-- Data Not Reported

n/a indicates there is no applicable standard.

Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam/ accessed 11/30/05

Table 2
Air Quality Levels Measured at Mission Viejo Monitoring Station

Pollutant	California Standard	National Standard	Year	% Meas. ¹	Max. Level	Days State Standard Exceeded ²	Days National Standard Exceeded ²
Ozone	0.09 ppm for 1 hr.	0.12 ppm for 1 hr.	2005	47	0.125	2	1
			2004	99	0.116	11	0
			2003	99	0.153	16	4
Ozone	0.070 ppm ³ for 8 hr.	0.08 ppm for 8 hr.	2005	47	0.085	--	1
			2004	99	0.090	--	4
			2003	99	0.105	--	8
CO	20 ppm for 1 hour	35 ppm for 1 hour	2005	56	2.2	0	0
			2004	97	2.4	0	0
			2003	97	2.5	0	0
CO	9.0 ppm for 8 hour	9 ppm for 8 hour	2005	56	1.6	0	0
			2004	97	1.5	0	0
			2003	97	1.6	0	0
Particulates PM10 (24 Hour)	50 µg/m ³ for 24 hr.	150 µg/m ³ for 24 hr.	2005	13	41	--	0
			2004	93	47	0/0	0
			2003	93	64	2/13	0
Particulates PM10 (Annual)	12 µg/m ³ AAM ⁴	50 µg/m ³ AAM ⁴	2005	13	--	--	No
			2004	93	24	Yes	No
			2003	93	27	Yes	No
Particulates PM2.5 (24 Hour)	None	65 µg/m ³ for 24 hr.	2005	--	35	n/a	0
			2004	--	49.4	n/a	0
			2003	--	50.6	n/a	0
Particulates PM2.5 (Annual)	12 µg/m ³ AAM ⁴	15 µg/m ³ AAM ⁴	2005	--	--	--	--
			2004	--	12.0	No	No
			2003	--	--	--	--

1. Percent of year where high pollutant levels were expected that measurements were made

2. For annual averaging times a yes or no response is given if the annual average concentration exceeded the applicable standard. n/a indicates that there is no applicable standard. For the PM10 24 hour standard, daily monitoring is not performed. The first number shown in Days State Standard Exceeded column is the actual number of days measured that State standard was exceeded. The second number shows the number of days the standard would be expected to be exceeded if measurements were taken every day.

3. This concentration standard was approved by the ARB on April 28, 2005 and is expected to become effective in early 2006.

4. Annual Arithmetic Mean

-- Data Not Reported or insufficient data available to determine the value.

Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam/ accessed 11/7/05

The monitoring data presented in Tables 1 and 2 show that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area.

At the Costa Mesa station, the federal 1-hour ozone standard has not been exceeded in the past three years. At the Mission Viejo station, the standard was exceeded 4 days in 2003, 1 day in 2005, and none in 2004. The more stringent state 1-hour ozone standard was exceeded 4 days in 2003, 2 days in 2004, and was not exceeded in 2005 at the Costa Mesa Station. The state standard was exceeded 16 days in 2003, 11 days in 2004, and 2 days in 2005 at the Mission Viejo Station.

The federal 8-hour ozone standard was exceeded 1 day in 2003 and 2004, and was not exceeded in 2005 at the Costa Mesa Station. The standard was exceeded 8 days in 2003, 4 days in 2004, and 1 day in 2005 at the Mission Viejo Station. CARB recently adopted an 8-hour standard for ozone. At this time the number of days of exceedances is not reported on the CARB website.

Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Particulate matter (including both PM₁₀ and PM_{2.5}) is another air pollutant of primary concern in the area. The state 24-hour standard for PM₁₀ was exceeded at the Mission Viejo monitoring station 13 days in 2003, and was not exceeded in 2004 and 2005. The federal standard for PM₁₀ was not exceeded in the past three years. There appears to be a trend toward fewer days of exceedances and maximum levels for PM₁₀. The 24-hour federal PM_{2.5} standard was not exceeded in the last three years. The state and federal PM_{2.5} annual average standards were not exceeded in 2004. The CARB website does not present annual PM_{2.5} data for 2003 and 2005. Particulate levels in the area are due to natural sources, grading operations and motor vehicles.

The human body has the ability to prevent most large particles that might be inhaled from reaching the lungs. Smaller particles (particles smaller than 10 microns in diameter, referred to as PM₁₀, and particulates smaller than 2.5 microns in diameter, referred to as PM_{2.5}), however, are able to bypass the body's protection mechanisms and can easily reach areas deep inside the lung. Such small particles can contain substances that can irritate the lung, constrict airways, and aggravate chronic heart disease.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths.

Transportation sources can be major source of particulate matter. Fugitive dust, industrial activity and the burning of wood are other sources of particulates. Fine particle pollution (PM_{2.5}) can be emitted directly or formed secondarily in the atmosphere. Sulfates are a type of secondary particle formed from sulfur dioxide emissions from power plants and industrial facilities. Nitrates, another a type of fine particle, are formed from emissions of nitrogen oxides from power plants, automobiles, and other combustion sources.

Carbon monoxide (CO) is another important pollutant that is due mainly to motor vehicles. Currently, CO levels in the project region are in compliance with the state and federal 1-hour and 8-hour standards. However, high levels of CO commonly occur near major roadways and

freeways. CO may potentially be a problem in the future for areas next to freeways and other major roadways in spite of the area's overall compliance with state and federal standards

The monitored data shown in Tables 1 and 2 show that other than ozone and PM10 exceedances as mentioned above, state or federal standards were not exceeded for the remaining criteria pollutants at the Costa Mesa and Mission Viejo monitoring stations.

2.0 Potential Air Quality Impacts

Air quality impacts are usually divided into short-term and long-term. Short-term impacts are usually the result of construction or grading operations. Long-term impacts are associated with the built out condition of the proposed project.

2.1 Thresholds of Significance

2.1.1 Regional Air Quality

In the "1993 CEQA Air Quality Handbook", the SCAQMD has established significance thresholds to assess the regional impact of project related air pollutant emissions. Table 6 presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds are considered to have a less than significant effect on regional air quality throughout the South Coast Air Basin.

Table 3
SCAQMD Regional Pollutant Emission Thresholds of Significance

	Pollutant Emissions (lbs/day)				
	CO	ROG	NOx	PM10	SOx
<i>Construction</i>	550	75	100	150	150
<i>Operation</i>	550	55	55	150	150

2.1.2 Local Air Quality

To assess local air quality impacts, the significance thresholds are the relative to the State Ambient Air Quality Standards. Because the area is, technically, in attainment of the CO state standards exceedances of these standards, 20 ppm for 1-hour Carbon Monoxide (CO) concentration levels, and 9 ppm for 8-hour CO concentration levels, result in a significant local air quality impact. The thresholds presented in Table 3 account for the continued degradation of the local air quality. If the ambient air quality standards are exceeded then pollutant concentrations that exceed the thresholds presented in Table 3 are considered significant.

Table 4
SCAQMD Local Pollutant Concentration Increase
Thresholds of Significance

Pollutant	Averaging Time	Air Pollutant Concentration
Carbon Monoxide (CO)	8 Hours	0.45 ppm
	1 Hour	1 ppm

ppm-parts per million

2.2 Short-Term Impacts

2.2.1 Construction Air Pollutant Emissions

It is anticipated that the project would be constructed in two phases. Phase 1 would start in January 2008 and end in June 2009. Phase 2 would start in July 2009 and be completed in 2010.

Temporary impacts will result from project construction activities. Construction of the project includes demolition of all existing buildings, grading and excavation associated with the construction of the subterranean parking lot and site remediation. Air pollutants will be emitted by construction equipment, fugitive dust will be generated during grading, demolition/excavation of the project site, and Reactive Organic Gasses (ROG – an ozone precursor) will be released during asphalt laying and the application of architectural coatings.

Typically, the greatest levels of air pollutant emissions during construction activities occur during site grading, demolition and/or excavation. Operating more than four pieces of the largest heavy construction equipment for 8 hours a day or 6 to 8 pieces of smaller equipment will generate NO_x emissions in excess of the SCAQMD's 100 pounds per day significance threshold. However, actively disturbing the entire site of 2.4 acres per day during site preparation will not generate PM10 emissions greater than the 150 pounds per day significance threshold.

Demolition

The first phase of construction would include the demolition of the existing building structures on the project site. The project information indicates that approximately 44,300 square feet of the existing building structures will be demolished. Based on these square footages, it is estimated that a total of 166,125 cubic feet of structures or 922 cubic yards of demolition debris will be hauled off site. If the project removed material at a rate of 100 trucks per day, the demolition debris would be removed in one day. The heavy equipment required to perform the demolition includes, an excavator, a backhoe with hoe ram, a front loader, and a water truck. It is estimated that there will be 10 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 20 miles. Using the estimates presented above the peak construction emissions for the project were calculated and presented in Table 5. The data used to calculate the emissions are shown in the appendix.

Table 5
Worst Case Air Pollutant Emissions During Demolition

Activity	Pollutant Emissions (lbs/day)			
	CO	ROG	NO _x	PM10
On-Road Vehicle	2.4	0.3	1.2	0.2
Heavy Duty Trucks	23.7	5.2	147.3	2.8
Ground Disturbance	0.0	0.0	0.0	31.2
Demolition	0.0	0.0	0.0	69.8
Construction Equipment	29.7	3.7	21.9	0.8
Total Emissions	55.8	9.2	<u>170.5</u>	104.7
SCQAMD Thresholds	550	75	100	150

NOTE: Underlined data indicates exceedance.

The data presented in Table 5 shows that NO_x pollutant emissions associated with the demolition are projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of NO_x emissions is from the debris hauling trucks with construction equipment contributing substantially to the total NO_x emissions. Mitigation is discussed in Section 3.1.

Excavation

Approximately 30,000 CY of dirt will be excavated from the site for the subterranean parking structure. Where this material will be hauled will not be known until after the grading permit is issued and just before the excavation begins. The location is dependant on what sites, often construction sites, are accepting fill material at the same time as the excavation of the project. As a worst-case estimate, it was assumed that a one-way trip to the haul site would be 25 miles. If the project removed material at a rate of 100 trucks per day, the excavated material would be removed in 22 days. The heavy equipment required to perform the excavation includes, an excavator, two backhoes with hoe ram, a front loader, and a water truck. It is estimated that there would be 10 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 20 miles. Using the estimates presented above the peak construction emissions for the project were calculated and presented in Table 6. The data used to calculate the emissions are shown in the appendix.

Table 6
Worst Case Air Pollutant Emissions During Excavation

Activity	Pollutant Emissions (lbs/day)			
	CO	ROG	NO _x	PM ₁₀
On-Road Vehicle	2.4	0.3	1.2	0.2
Heavy Duty Trucks	23.7	5.2	147.3	2.8
Ground Disturbance	0.0	0.0	0.0	193.4
Demolition	0.0	0.0	0.0	0.0
Construction Equipment	34.9	4.3	26.4	1.0
Total Emissions	60.9	9.8	<u>174.9</u>	197.4
SCQAMD Thresholds	550	75	100	150

NOTE: Underlined data indicates exceedance.

The data presented in Table 6 shows that NO_x emissions associated with the excavation are projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of NO_x emissions is from the haul trucks with construction equipment contributing substantially to the total NO_x emissions. Mitigation is required and discussed in Section 3.1.

In 1998, the California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines (Diesel Particulate Matter or DPM) as a Toxic Air Contaminant (TAC). The majority of the heavy construction equipment utilized during construction will be diesel fueled and emit DPM. Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 70-year lifetime (California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Guide to Health Risk Assessment.) Because of the relatively short duration of construction compared to a 70-year lifespan, diesel emissions resulting from the construction of the project are not expected to result in a significant impact.

2.3 Long-Term Impacts

2.3.1 Local Air Quality Project Impacts

Increased traffic volumes due to the project emit increased pollutants in the vicinity of the roads utilized by this traffic, which can cause pollutant levels to exceed the ambient air quality standards. Carbon monoxide (CO) is the pollutant of major concern along roadways because the most notable source of carbon monoxide is motor vehicles. For this reason carbon monoxide concentrations are usually indicative of the local air quality generated by a roadway network, and are used as an indicator of its impacts on local air quality. CO concentrations are highest near intersections where queuing increases emissions. Local air quality impacts can be assessed by comparing future carbon monoxide levels with State and Federal carbon monoxide standards moreover by comparing future CO concentrations with and without the project. The Federal and State standards for carbon monoxide were presented earlier in Table 2.

The proposed project is projected to increase peak hour traffic volumes at intersections in the vicinity of the project site. However, the project would increase peak hour traffic by less than one percent and would not affect the LOS, and hence, pollutant concentrations at the intersections. Except for the Newport Boulevard and Via Lido intersection, peak hour traffic volume increases due to the project by more than one percent but would not be expected to alter CO concentrations significantly. The Newport Boulevard and Via Lido intersection is projected to operate with an LOS of "A" at the project's buildout year (2010). Because of this, CO concentrations at this intersection would not be expected to exceed the standards. Generally, only intersections operating at LOS of D or worse are considered to have the potential to cause CO concentrations to exceed the state ambient air quality standards of 20 ppm for a 1-hour averaging time and 9 ppm for an 8-hour averaging time. Since, the Newport Boulevard and Via Lido intersection will be operating at LOS "A", no CO modeling was performed. Significant local air quality impact is not projected for the project.

2.3.2 Regional Air Quality

The primary source of regional emissions generated by the proposed project will be from motor vehicles. Other emissions will be generated from the combustion of natural gas for space heating and the generation of electricity. Emissions will also be generated by the use of natural gas and oil for the generation of electricity off-site.

Emission factors from EMFAC2002 published by the SCAQMD on their CEQA Handbook web site (<http://www.aqmd.gov/ceqa/hdbk.html>) were used to estimate vehicular emissions. EMFAC2002 is a computer program generated by the California Air Resources Board that calculates emission rates for vehicles. The composite trip lengths were derived from data contained in the SCAQMD CEQA Handbook (Page 9-24). The average trip lengths were calculated to be 9 miles for the project area.

The data used to estimate the on-site combustion of natural gas, and off-site electrical usage are based on the proposed land uses in terms of building square footages, and emission factors taken from the 1993 CEQA Handbook. The analysis presented in this report is consistent with the SCAQMD's "CEQA Handbook."

Land use and trip generation information for the proposed project were provided by the traffic engineer for the project, Austin Foust Associates, Inc., November 2005. Emissions presented below were calculated for the earliest expected buildout year of the project, 2010. As vehicular emissions are projected to be reduced in future years, due to more vehicles complying with more stringent air pollution emission standards, consideration of the earliest buildout year of the project results in the highest emissions generation by the project

Net Emission Increases With Project

The project consists of 27 condominium units over 36,000 square feet of general commercial and office spaces. The proposed project generates a total of 1,259 average daily trips (ADT). However, with the implementation of the proposed project, approximately 44,000 square feet of existing commercial, office and marine uses will be demolished. The ADT generated by these existing land uses is approximately 577. As a result, the net increase due to the project will be 682 daily trips. Table 7 presents the estimate of emissions from the proposed project. A worksheet showing the detailed data used to calculate these emissions is presented in the appendix.

Table 7
2010 Project Emissions – Net New Increase

Source	Pollutant Emissions (lbs/day)				
	CO	ROG	NO _x	PM10	SO _x
Vehicular Trips	63.1	7.3	17.6	0.7	0.1
Natural Gas Consumption	0.2	0.0	0.8	0.0	0.0
Consumer Product Usage	0.0	1.8	0.0	0.0	0.0
Electrical Generation	0.3	0.0	1.5	0.1	0.2
Project Emission Net Increase	63.5	9.2	19.9	0.7	0.2
SCAQMD Thresholds	550	55	55	150	150

Table 7 indicates that the project emissions net increases are not projected to exceed the SCAQMD threshold of significance. Therefore, the project will not result in a significant air quality impact. No mitigation is recommended.

Table 8 compares the project emissions to the 2020 emissions projected for the South Coast Air Basin presented in the 2003 AQMP. The table shows that the emissions associated with the proposed project are a very small fraction, 0.0024% or less, of the basin's emissions.

Table 8
Project Net Emissions Compared With Regional Emissions

	Pollutant Emissions (tons/day)				
	CO	ROG	NO _x	PM10	SO _x
Project Net Emissions	0.032	0.005	0.010	0.000	0.000
2020 South Coast Air Basin*	2,414	584	532	318	76
Project as Percentage of Basin	0.0013%	0.0008%	0.0019%	0.0001%	0.0002%

* Source: 2003 AQMP Tables 3-5A & 3-5B

2.4 Compliance with Air Quality Planning

The following sections deal with the major air planning requirements for this project. Specifically, consistency of the project with the AQMP is addressed. As discussed below,

consistency with the AQMP is a requirement of the California Environmental Quality Act (CEQA).

2.4.1 Consistency with AQMP

An EIR must discuss any inconsistencies between the proposed project and applicable GPs and regional plans (California Environmental Quality Act (CEQA) guidelines (Section 15125)). Regional plans that apply to the proposed project include the South Coast Air Quality Management Plan (AQMP). In this regard, this section will discuss any inconsistencies between the proposed project with the federally-approved applicable 2003 AQMP.

The purpose of the consistency discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-maker determine that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD's CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the plan if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).
- (2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality analysis contained in this report, there will be significant short-term construction and long-term operational impacts due to the project based on the SCAQMD thresholds of significance. While emissions will be generated in excess of SCAQMD's threshold criteria, it is unlikely that short-term construction activities will increase the frequency or severity of existing air quality violations as monitored at the SCAQMD stations due to required compliance with SCAQMD Rules and Regulations. Similarly, the emissions from the project are projected to be a fraction of a percentage of the basin wide emissions. The analysis for long-term local air quality impacts showed that local pollutant concentrations are not projected to exceed any of the air quality standards.

The proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards, thus the project is found to be consistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by comparing the project's population, housing and employment growth with the growth assumptions in the AQMP. Thus, the emphasis of this criterion is to insure that the project growth and associated emissions do not exceed those assumed as a basis for the AQMP. AQMP growth assumptions are based upon the General Plans for the Cities in the Basin. The project development is included in the City's General Plan and therefore is the basis for the AQMP growth assumptions.

Since the SCAG forecasts are not detailed, the test for consistency of this project is not specific. The AQMP assumptions are based upon projections from local general plans at the time the AQMP is developed. Projects that are consistent with the local general plan when the AQMP was developed are consistent with the AQMP assumptions.

Table 7 shows that emissions with the proposed Project will be less than the significant thresholds. Since the AQMP predictions are based on the General Plan and the project will result in emissions less than the significance thresholds for all pollutants compared to the General Plan, the project is consistent with the AQMP assumptions.

3.0 Mitigation Measures

3.1 Short-Term Impacts

3.1.1 Construction Equipment Emission Control

The analyses presented in Section 2.2 showed that NOx emissions are projected to exceed the significance thresholds during demolition and excavation. This is primarily due to the trucks that will haul demolition debris and excavated dirt from the site. The only practical way to reduce the emissions is to limit the number of trucks hauling materials from the site. By limiting truck trips to a daily vehicle miles traveled to 2,600 miles or less, NOx emissions will remain below the 100 pounds per day significance threshold. For demolition this means limiting the hauling of demolition debris off site to 52 trucks per day. A side effect of this is that it extends the time it will take to haul demolition debris off site from 1 day to about 2 days. For the excavation it will depend on where the materials will be hauled. If the round-trip travel distance to the haul site is 25 miles or less, then materials could be removed at a rate of 48 truckloads per day. If the travel distance is greater, the number of daily truck trips would need to be reduced so that the total daily haul truck vehicle miles traveled did not exceed 2,400 miles. Depending on the distance to be traveled this could extend the duration of the excavation. Note, that the daily vehicle miles traveled by the haul trucks is calculated simply by multiplying the number of daily truck trips by the round trip travel distance.

AQ-1 During demolition and excavation, daily total haul trucks shall travel no more than a cumulative 2,600 miles hauling materials from the site to the dumping site and back again. Prior to commencement of demolition and grading the project applicant shall submit to the city calculations showing the proposed travel route for haul trucks, the distance traveled, and how many daily truck trips that can be accommodated while keeping the cumulative miles traveled to below 2,400 miles each day. The daily haul truck trips shall not exceed this amount during demolition and excavation.

3.2 Long-Term Impacts

3.2.1 Local Air Quality Impacts

The project would increase peak hour traffic but would not affect the LOS, and hence, pollutant concentrations at local intersections. Because of this, CO concentrations at this intersection would not be expected to exceed the standards. Significant local air quality impact is not projected for the project.

3.2.2 Regional Emissions

The project long term emissions are projected to be below the threshold of significance. Therefore, no mitigation is required.

4.0 Unavoidable Significant Impacts

4.1 Short-Term Impacts

The analysis indicates that project emissions from construction activities would likely exceed the SCAQMD's Thresholds of Significance without mitigations. Mitigation would reduce emissions to below the SCAQMD's thresholds, if construction haul truck activities could be limited 2,600 vehicle miles for demolition and 2,400 vehicle miles for excavation activities.

4.2 Long-Term Impacts

The analysis indicates that operational project emissions will not exceed the SCAQMD's Thresholds of Significance. Long-term regional air quality impacts will not be significant.

NEWPORT BAY MARINA MIXED USE PROJECT

APPENDIX

Construction Emissions Calculation Worksheets

Operational Emissions Calculation Worksheets

• MESTRE GREVE ASSOCIATES PROJECT EMISSIONS WORKSHEET •

v. 10.05

Project: *Bridgeport Mixed Use Project*
 Study Year: *2010*
 County: *OC*

1. VEHICULAR EMISSIONS

Emission Factor Source: EMFAC2002 Worst-Case By SCAQMD

Number of Trips=	682	% Passenger Vehicle = 90.0%			
Avg. Trip Length =	9.0	% Delivery Trucks = 10.0%			
VMT =	6,138				
	CO	ROG	NOx	PM10	SOx
Factors (lb/mi)					
Passenger Vehicle	0.009954	0.001087	0.001038	0.000081	0.000009
Delivery Trucks	0.013168	0.002141	0.019339	0.000374	0.000033
Emissions (Lb/Dy)	63.1	7.3	17.6	0.7	0.1

2. ON SITE EMISSIONS DUE TO NATURAL GAS COMBUSTION

Source: SCAQMD CEQA Handbook

Unit Type	Gas ft ³ /DU/Mo.	DU	Gas ft ³ /day		
Single Fam.	6665	27	5,900		
Mult. Fam. <=4	4105	0	0		
Mult. Fam. >=5	3918	0	0		
	ft ³ /ft ² /Mo	ft ²	5,900	<i>Subtotal for Residential</i>	
Commercial	2	36,000	2,361		
Office/Retail	2.9	0	0		
Hotel/Motel	4.8	0	0		
	ft ³ /Customer/Mo.	Customers/Mo.	2,361	<i>Subtotal for Retail/Commercial</i>	
Industrial	2936.6	0	0		
			0	<i>Subtotal for Industrial</i>	
			8,261	Total Gas Usage/Day	
	CO	ROG	NOx	PM10	SOx
Factor (lbs/10 ⁶ ft ³)	20.0	5.3	0.7	0.2	0.0
Emissions (Lb/Dy)	0.2	0.0	0.8	0.0	0.0

3. ON SITE EMISSIONS DUE TO CONSUMER PRODUCT USAGE

Emission Factor Source: URBEMIS2002

Number of Residents: 108					
	CO	ROG	NOx	PM10	SOx
Factor (lbs/resident)	0.0000	0.0171	0.0000	0.0000	0.0000
Emissions (Lb/Dy)	0.0	1.8	0.0	0.0	0.0

4. OFF SITE EMISSIONS DUE ELECTRICAL GENERATION

Source: April 1993 CEQA Hand Handbook

Unit Type	SCE KWH/Unit/Yr	LADWP KWH/Unit/Yr	DU	Electrical Use (KWH/Day)	(SCE Usage Rate)
Residential	6081	5172	27	450	
	KWH/ft ² /Yr.	KWH/ft ² /Yr.	ft ²		
Commercial	8.8	17.1	36,000	868	
Restaurant	47.3	47.6	0	0	
Office/Retail	11.8	15.3	0	0	
Food Store	51.4	55.2	0	0	
Warehouse	3.4	5.3	0	0	
Elementary School	6.3	5.5	0	0	
College	11.6	11.5	0	0	
Hospital	17.9	25.5	0	0	
Hotel/Motel	6.8	13.1	0	0	
Miscellaneous	8.8	12.2	0	0	
				1,318	Total KWH/Day
	CO	ROG	NOx	PM10	SOx
Factor (lbs/MWH)	0.20	0.01	1.15	0.04	0.12
Emis. (Lb/Dy)	0.3	0.0	1.5	0.1	0.2

****TOTAL PROJECT EMISSIONS ****

	CO	ROG	NOx	PM10	SOx
lbs/day	63.5	9.2	19.9	0.7	0.2
Ton/day	0.03	0.00	0.01	0.00	0.00
2020 SCAB (Tons/Day)	1,920	544	504	315	73
Percent Regional	0.002%	0.001%	0.002%	0.000%	0.000%

APPENDIX B

BIOLOGY

**BIOLOGICAL ASSESSMENT
BAY MARINA PROJECT
NEWPORT BEACH, CALIFORNIA**

July 2006

Prepared for:

**Hodge and Associates, Inc.
Monarch Beach, California 92629**



MBC

Prepared by:

**MBC Applied Environmental Sciences
Costa Mesa, California 92626**

**BIOLOGICAL ASSESSMENT
BAY MARINA PROJECT
NEWPORT BEACH, CALIFORNIA**

July 2006

Prepared for:

**Hodge and Associates, Inc.
24040 Camino del Avion, Suite A 247
Monarch Beach, California 92629**

Prepared by:

**MBC *Applied Environmental Sciences*
3000 Red Hill Avenue
Costa Mesa, California 92626**

BIOLOGICAL ASSESSMENT BAY MARINA, NEWPORT BEACH, CA

INTRODUCTION

This report represents the results of a biological assessment by MBC Applied Environmental Sciences (MBC) of the potential impacts of a proposed marina redevelopment plan by Bay Marina at the old South Coast Shipyard located at 2300 Newport Blvd., Newport Beach, California. The purpose of this investigation was to determine whether impacts from the marina development project will affect the existing marine biota at the site. In order to accomplish this, surveys were conducted of the intertidal and subtidal habitats surrounding the site. Particular emphasis was taken to determine whether the sensitive species eelgrass (*Zostera marina*), or the invasive species *Caulerpa*, were present in the study area. The study also assessed biological changes (if any) since Coastal Resources Management (CRM 2000) conducted surveys in the area on 20 January and 9 February 2000.

In response to a letter from the California Department of Fish and Game (CDF&G), dated 29 August 2003, and another letter from the California Coastal Commission (CCC), dated 21 August 2003, MBC re-occupied the site on 2 December 2004, and again on 9 February 2006 to determine answers to several questions about the initial project application. MBC found the project site biota markedly similar to what was reported in CRM's 2000 report. Their findings are supplemented in this report by MBC's current observations with additions noted where appropriate. MBC identified the existing marine resources in the vicinity of the project site, analyzed project impacts on marine resources, and identified mitigation measures to avoid, reduce, or mitigate for potential adverse project impacts on marine resources. As did CRM's survey, the survey by MBC assessed the types and abundances of marine biota living on the bulkheads, dock floats, pilings, bay substrate, and the shoreline of the property in the area proposed for redevelopment along with potential project impacts to these resources. For ease in comparison of the results of this report and the previous report by CRM (2000), we have used the same topical headings where appropriate.

Project Location

The project site is located on the Rhine Channel in west Newport Bay (Figure 1). The project waterfront consists of a small marina with 21 boat slips that extend 18 to 19 meters into the Rhine Channel. Its prior use as a shipyard and its present use as offices, small retail outlets, and a small boat marina will be converted to a newly redeveloped marina with residential areas and offices.

In two areas along the water front, the bulkhead ends and two slipways (Figure 2) extend into intertidal areas, one (Slipway 1) about 10 m inland and the other (Slipway 2) about 20 m inland of the surrounding bulkheads on either side of the slipways. The slipway on the northwest side (Photos 1 and 2) extends in from the bulkhead about 20 m, but has not been used since the 1960s. Since that time it has been covered by wood planks with the only light below being that which filters in from the entrance 20 m away (Photos 3 and 4). The slipway entrance is a very small mud flat at low tide that has scattered mussels, railroad tracks, and terrestrial debris including old boat parts strewn upon it. As insufficient light is present for photosynthesis beyond the entrance, no algae or other marine plants are present. This area was a marine railway launch ramp used to launch minesweepers and other small naval craft during World War II. Its prior use as a launch ramp is evident as railroad tracks extend from the back of the slipway out through the intertidal to the entrance to the slipway and then extend steeply into the water from the intertidal to a depth of approximately -13 ft MLLW. A second slipway (Photo 5), slightly to the southeast of the Slipway 1 is set between two buildings on the property. Slipway 2 is open to the sky and has a dock on the north side of the slipway that runs its length extending past the bulkheads on either side of the slipway and into the channel about 40 m (Photo 6). The shoreward extent of Slipway 2 terminates in a larger mud flat than noted at Slipway 1 with marina and shipyard debris strewn in the intertidal mixed with scattered patches of mussels (Photo 7). The mud flat terminates at a 0.5 m high embankment with a manicured grass lawn inland from the edge of the embankment (Photo 8).

Along the face of the embankment, a small patch of pickleweed habitat (totaling about 1.5 m²) is present just above the mud flat (Photo 8).



Figure 1. Location of the project site. Bay Marina Project, June 2006.

The bulkhead, docks, floats, and marina show major signs of disrepair (Photo 6). These conditions include cracks in the cement bulkheads, rusting metal sheet piling, shoaled areas in front of the shipyard upon which docks and boats settle during low tides, and extensive boatyard debris on the bay bottom.

METHODOLOGY- Field Survey

Marine biological field surveys were conducted on 2 December 2004 and 9 February 2006. On 2 December 2004, the subtidal biota in the slipways was examined beneath the docks, and offshore of the docks about 30 m bayward of the bulkheads. MBC biologists also examined the intertidal zone of the two slipways on 2 December 2004, 9 February 2006, and 27 June 2006, and noted types of salt marsh vegetation present and noted the biota living on the bulkheads.

MBC conducted a survey to assess the underwater marine life and bay bottom conditions. Biologist-divers swam underwater transects to examine the types of biota present on the bay bottom and to search for the presence of eelgrass or *Caulerpa*. Several transects were conducted parallel and seaward of the bulkhead along its length on either side of the slipways and perpendicular to shore into each of the slipways and slips. Parallel transects were offshore of the bulkhead at depths of -8 ft, -10 ft, and -13 ft. MLLW, respectively. Perpendicular transects into the slipways (as far as possible) and slips ranged from 0 ft to -13 ft. MLLW.

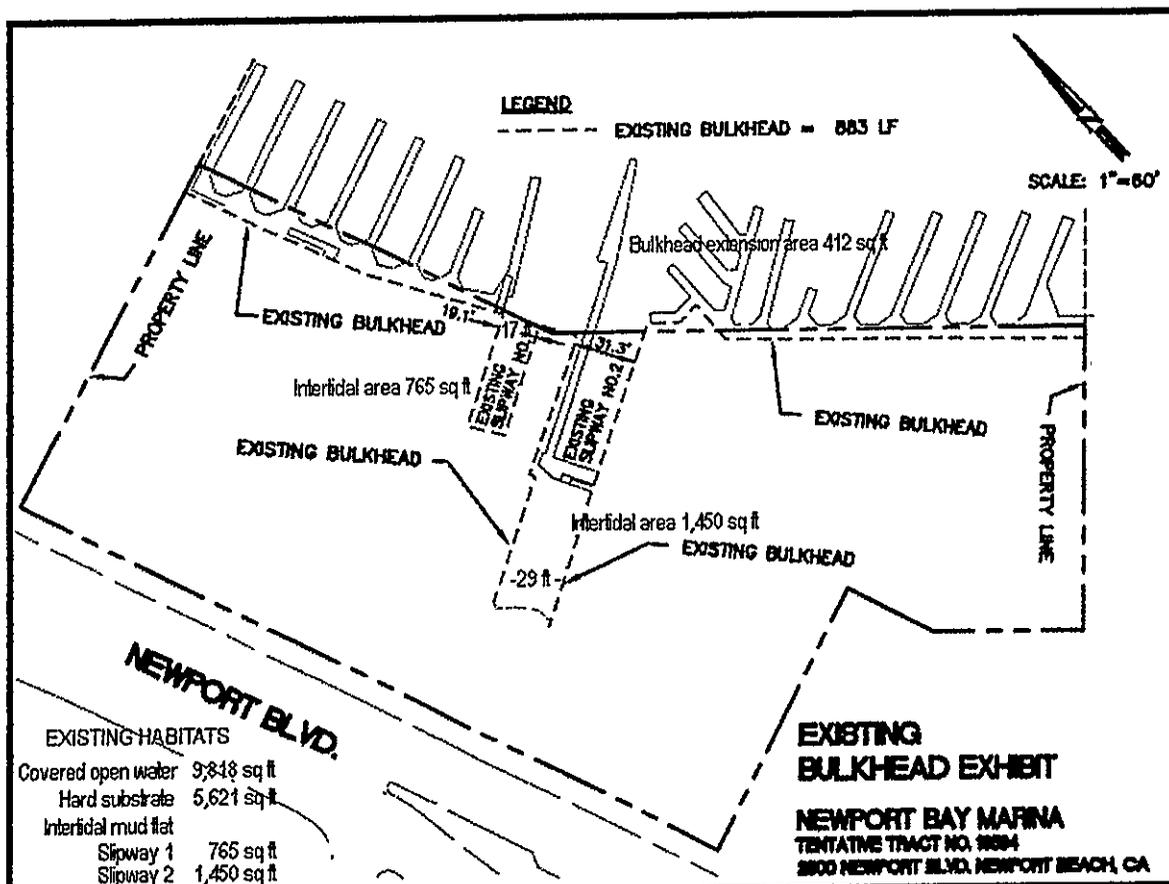


Figure 2. Existing habitats. Bay Marina Project, June 2006.

RESULTS

Sediment and Water Column Observations Recorded During the December 2004 Survey

Sediments in the survey area were unconsolidated silt-clays with black sulfide muds present just below the surface layer in the areas beneath the docks. Marina and shipyard associated debris was common on the bayfloor. Debris included sheets of glass, several old lobster traps, mops, nets, shopping carts, wood and metal debris, paper, styrofoam cups, and other miscellaneous materials. Because most of the area surveyed underwater was beneath boat docks and boats, visibility was limited by low light levels. Underwater visibility during the transects ranged from 1.5 m to 0.5 m.

Marine Habitats in the Project Area

Marine habitat types in the project area include mudflat, intertidal and subtidal hard bottom consisting of the bulkheads, pier pilings, and docks, and silt-mud unvegetated bay bottom.

The intertidal zone extended from -0.6 m MLLW to +2.2 m MLLW. Subtidally, water depths in the project area ranged from -0.6 m to -5 m MLLW. Depths at the edges of the boat docks were about -2.5 m to -3 m MLLW. The bay bottom habitat was unconsolidated silts and clays.

Mudflat. During the December 2004 field observations, the tide was low and muddy intertidal habitat at the entrance to Slipway 1 was covered with fouling debris. No algae or epibenthic marine organisms were observed in Slipway 1 during the December 2004 survey or during the CRM 2000 survey. Based on the steeper intertidal slope reflecting its prior use as a boat

ramp (with submerged rails), the mudflat area of Slipway 1 is approximately 17 ft wide by 45 ft in length intertidally covering about 765 ft² during a 7 ft tidal range. The shoreward extent of the mudflat at Slipway 2 was more gradual and wider (about 29 ft wide by 50 ft during a 7 ft tidal range) than noted at Slipway 1 and was vegetated with about 1.5 m² (increasing to about 3.0 m² in June 2006) of pickleweed (*Salicornia*) in February 2006 along the upper embankment (CRM observed a similarly low amount in February 2000). Green algae (*Enteromorpha* sp.) covered approximately 60% of the exposed mudflat in this slipway as noted in Photo 7.

Hard Substrate - Bulkheads, Pilings, and Boat Docks. The bulkhead hard substrate supports a few intertidal algae and invertebrates (Photo 9). The bulkhead that continues into Slipway 2 has similar biota to that observed on the outer bulkhead; however, the biota on the bulkhead into Slipway 1 terminates a few feet into the slipway where it is dark and covered by boards (Photo 4). Pier support pilings and the undersides of boat floats and docks provide habitat for a fouling community of algae and invertebrates. Parts of the bulkhead are degraded and rusting sheet metal was exposed along Slipway 2 (Photo 10).

Intertidal Organisms Associated with Hard Substrates. A total of 12 species were observed by MBC in December 2004, three more intertidal invertebrate species than observed on the bulkheads, pilings, and dock floats by CRM in 2000 (Table 1). As would be expected, the splash zone intertidal habitat was colonized by barnacles (*Chthamalus fissus/dalli*); along with *C. fissus/dalli*, the barnacle *Balanus glandula* was also present in the high tide zone. In the mid and low intertidal zones limpets (*Collisella limatula*), bay mussels [*Mytilus edulis* (=galloprovincialis)], oysters (*Ostrea conchaphilia*), sea squirts (*Styela montereyensis*) and *Styela plicata*, and the bryozoan *Zoobotryon verticillatum* were common-to-abundant. Encrusting sponges were also noted in the lower intertidal zone. Overall, this community exhibited signs of reduced diversity as might be expected in a back channel area with reduced tidal currents.

Table 1. Intertidal Invertebrates at the Bay Marina Project, June 2006.

Scientific Name	Common Name	Intertidal Zone	Relative Abundance
Porifera	Sponge		
<i>Haliclona</i> sp.	Sponge	low	uncommon
Cnidaria	Anemones		
<i>Anthopleura elegantissima</i>	Anemone	low to mid	uncommon
Arthropoda	Crustaceans		
<i>Balanus glandula</i>	barnacle	high	abundant
<i>Chthamalus fissus/dalli</i>	barnacle	high	abundant
Mollusca-Gastropoda	Snails-Nudibranchs		
<i>Collisella limatula</i>	finger limpet	high	common
<i>Diaululu sandiegensis</i>	ring-spotted dorid	low	uncommon
Mollusca-Pelecypoda	Bivalves		
<i>Chamaidae, unid</i>	rock jingle	low to mid	uncommon
<i>Ostrea conchicola</i>	oyster	low to mid	uncommon
<i>Mytilus galloprovincialis</i>	bay mussel	low to mid	common
Urochordata	Tunicates		
<i>Styela montereyensis</i>	sea squirt	low	common
<i>Styela plicata</i>	sea squirt	low	uncommon
Bryozoa (Ectoprocta)	Moss Animals		
<i>Zoobotryon verticillatum</i>	spagetti bryozoan	low	common

Subtidal Organisms Associated with Hard Substrates. Several species of algae and invertebrates were observed on the bulkheads, pilings, dock floats, the railroad track, and bottom debris that are common in Lower Newport Bay. Species observed during the survey included green algae (*Enteromorpha* sp. and *Ulva* sp.), brown algae (*Dictyota* sp.), unidentified red turf algae, sponges (*Haliclona* sp.), bay mussels, compound ascidians (*Botryllus/Botrylloides*), and solitary ascidians (Ascidacea unid. and *Styela montereyensis*).

Subtidal Soft Bottom Benthos

The subtidal bay bottom (benthic) environment consists primarily of silt and clay sediments. This habitat supports a community of organisms that live on the surface (epifauna) of, or within (infauna) these sediments. Epifaunal invertebrates observed by divers at depths between -0.6 m and -4 m MLLW included the hydroid *Corymorpha palma*, the cerianthid anemone *Pachycerianthus fimbriatus*, and *Timarete luxuriosa* and other terrebellid and cirratulid polychaeteworms.

Historically, the benthic infaunal community in this location had low numbers of species, but high abundance of a few species of invertebrates that reproduce well and out compete other species under stressed environmental conditions (Bernard and Reish 1959, CSWRCB et al. 1998).

Opportunistic species such as the polychaete worm *Capitella capitata* were common (Bernard and Reish 1959). The health of the benthic community in the Rhine Channel has improved only slightly between the early studies conducted based upon a comparison of the number of the pollution indicator species such as *Capitella capitata* (SWRCB et al. 1998).

Fishes

While several types of fishes are known to occur in the channels and in the vicinity of boat docks in Newport Bay (Horn and Allen 1979), only four species were observed during the field surveys; the spotted bay bass (*Paralabrax maculatofasciatus*), opaleye perch *Girella nigricans*, topsmelt (*Atherinops affinis*), and a California halibut (*Paralichthys californicus*). A school of approximately 15 to 20 opaleye were seen underwater, congregated within and around wood debris and an empty barrel in Slipway 1. The flatfish was seen at a depth of -12 ft MLLW immediately outside the boat docks. A large school (numbering several hundred individuals) of topsmelt was observed in the intertidal area of Slipway 2 on 27 June 2006.

Species commonly associated with Newport Harbor include the arrow goby (*Clevelandia ios*), bay goby (*Lepidogobius lepidus*), California halibut (*Paralichthys californicus*), topsmelt, black surfperch (*Embiotica jacksoni*), white surfperch (*Phanerodon furcatus*), shiner perch (*Cymatogaster aggregata*), and walleye surfperch (*Hyperprosopon argenteum*) (Horn and Allen 1979).

Sensitive Species

Eelgrass. Eelgrass is a marine angiosperm that forms meadows in mud-and-sand substrates of bays and wetland channels. In response to comments by CDF&G and the California Coastal Commission (letters dated 29 and 21 August 2003, respectively), the area was surveyed for the presence of eelgrass as it is an important biological habitat for invertebrates and fishes. In Newport Bay, eelgrass grows in the lower intertidal and the shallow subtidal substrates at depths between 0.0 and -5 m, MLLW, although more commonly, at depths shallower than -2.5 m MLLW. It grows along the low intertidal and shallow subtidal fringes of the Harbor entrance channel, Balboa Island, Harbor Island, and the seawall on the west side of the channel between the Turning Basin and the Coast Highway Bridge, as well as in the lower portion of the Upper Newport Bay along De Anza Peninsula (MBC 1999, MBC 2004, Recon and MBC 2004).

An eelgrass survey was conducted according to the protocols promulgated in the Southern California Eelgrass Mitigation Policy (NMFS 1991). Eelgrass was not found during the December 2004 survey, nor was it found during the previous surveys by CRM in 2000. It is not currently known to occur in the Rhine Channel.

Caulerpa. *Caulerpa* is an invasive green algal species that is of concern to the resource agencies because of its potential to rapidly propagate and smother other native biota as evidenced by the destruction this species caused in the Mediterranean Sea. It was also addressed by CDF&G and CCC in their letters of 29 August and 21 August 2003, respectively. It has been found in an isolated lagoon in Huntington Harbor in Huntington Beach, California and in Agua Hedionda Lagoon in Oceanside, California. A thorough search at the surveillance level by a resource agency certified *Caulerpa* surveyor covering more than 20% of the bottom with a visual survey did not reveal any *Caulerpa* infestation (NMFS and CDF&G 2003).

PROJECT IMPACTS

The habitats in the vicinity of the project site were analyzed to determine project impacts on marine resources. Impacts will result from the implementation of this project. These impacts include the removal and replacement of bulkheads, docks, and pilings, the dredging of a portion of the channel, the filling of a slipway, and indirect effects from turbidity in the water column caused by the construction (Figure 3).

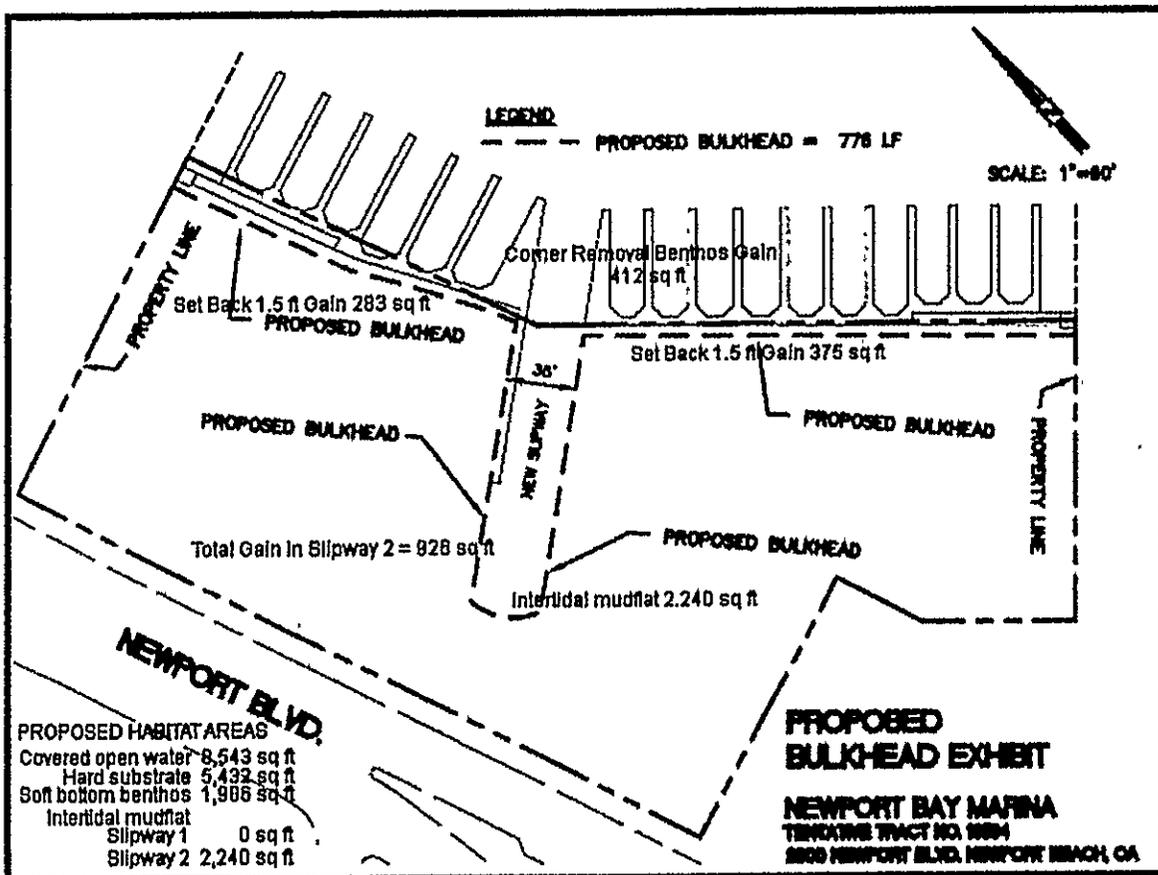


Figure 3. Proposed habitats. Bay Marina Project, June 2006.

Indirect Impacts to Habitat Due to Construction

Dredging Impacts Benthic Infauna and Fish. Dredging would remove sediments and associated benthic populations which are an important food source for many fish species and could increase turbidity if not conducted properly. Removal of bulkheads and pilings would also remove associated hard-substrate communities and habitat structure for fish from the water column. Adverse short-term impacts on benthic communities and fish populations would result from direct mortality of organisms, burial by settling of suspended sediments, arrested development, reduction in growth, reduced ingestion, depressed filtration rates, increased mucous secretion, and increased susceptibility to disease. However, these impacts would affect a very small portion of the harbor. Furthermore, over time the benthic communities would re-colonize both soft bottom and new hard substrate habitats, beginning immediately after dredging ceases and replacement of bulkheads and pilings occur. Previous studies (MEC 1988, MEC 2002) indicate that species composition over time would recover to mature communities similar to those present before the project. No permanent loss of most of the intertidal hard substrate or benthic habitat would occur. In addition, the small area to be dredged (200 ft²) for the dock area would provide a positive contribution insofar as the Rhine Channel is known to be contaminated from a number of sources. The resulting dredge operation would permanently remove the contaminated sediments in the area to be dredged ultimately providing a healthier environment to begin recolonization of the epibenthic and infauna biota. This would occur as soon as dredging was completed, due to adult and larval intrusion from surrounding substrate. In summary, impacts from dredging will be limited in scope, short-term, and will be less than significant.

Turbidity Impacts. Although fish could be affected by turbidity as well as by the disruption and removal of habitat as a result of dredging activities, studies have shown that even large-scale channel dredging and landfill operations in nearby harbors in the 1980s and 1990s did not have long-term adverse effects on fish populations (MEC 1988). Noise and disturbance associated with project activities could have short-term adverse impacts on aquatic habitat, but because noise and disturbance from boat traffic and other activities in Newport Harbor are part of the ambient conditions, the project impacts on fish in the project vicinity are expected to be temporary and minor. Turbidity would be minimized during project construction by following Best Management Practices (BMPs) such as berming the construction area to prevent runoff erosion to avoid decreases in water clarity. Turbidity will be controlled by the implementation BMPs and adherence to applicable permit requirements and regulations. Aside from stormwater runoff, there are no other anticipated sources of runoff resulting from the proposed project. In summary, all decreases in water clarity resulting from the construction and operation of the proposed project will be limited in scope, short-term, and will be less than significant.

Contaminants. Dredging operations could suspend contaminated sediments, thereby dispersing the contaminants into the water column. However, based on past dredge surveys, the extent and duration of the dredge plume, and the transport and availability of contaminants within the dredge plume, are expected to be very limited. Pre-dredge sediment evaluations and dredge water quality monitoring requirements imposed by the Santa Ana Regional Water Quality Control Board (SARWQCB) will ensure contaminant dispersal and potential effects on wildlife communities will be limited in scope, short-term, and will be less than significant.

Shading Effects. The area that will be shaded due to construction will be less than is presently shaded. A survey conducted for benthic biota did not reveal any significant amount of subtidal algae (most grew on the floats of the docks) and no eelgrass was found in the project vicinity nor has it been found in the Rhine Channel. A walkway that crosses Slipway 2 is sufficiently high over the water to minimize any shading effects as enough light will penetrate in the morning and afternoons to provide adequate light penetration for algal growth and its height will allow its use by marine birds as a resting space and also to provide feeding opportunities. Impacts due to shading effects will be limited in scope, short-term, and will be less than significant.

Direct Effects to Habitat Due to Construction

In response to the CDF&G and the CCC letters (21 and 29 August 2003) addressing concerns about the loss of benthic soft bottom habitat and the design of the bulkhead, the project was redesigned to actually increase the overall amount of benthic habitat and the docks and floats were reconfigured to result in a net increase of open water habitat from that of the existing configuration. The net impact of the reconstruction of the waterfront will result in an increase in benthic bay soft bottom, intertidal habitat, and open water habitat. In addition, contaminated sediments will be removed and water circulation will be increased in the area providing a more desirable habitat for marine species.

Benthic Bay Soft Bottom. Reconfiguration of the docks and bulkheads and elimination of one of the two existing berths (Slipway 1), will eliminate approximately 765 ft² of subtidal marine habitat (Figure 2). This is a permanent loss and is considered significant under CEQA and NEPA guidelines, and requires mitigation (Table 2). The proposed plan will increase the available soft bottom habitat by 1,986 ft² for a net increase of 1,221 ft² of soft bottom habitat.

Open Water Habitat. The present footprint of the docks covers 9,818 ft² of open water (Table 2). The project redesign will result in the removal of docks and replacement with fewer docks resulting in more open water area. The proposed plan will cover about 8,543 ft² upon the elimination and reconfiguration of the docks.

Table 2. Type and amount of habitat before and after project implementation. Bay Marina Project, June 2006.

Habitat type	Existing	Proposed	Net loss or gain
Benthic bay soft bottom	765 ft ²	1,986 ft ²	+ 1,221 ft ²
Covered open water habitat	9,818 ft ²	8,543 ft ²	+1,275 ft ²
Hard substrate	5,621 ft ²	5,432 ft ²	-189 ft ²
Intertidal mud flat (Slipway 1)	765 ft ²	0 ft ²	-765 ft ²
Intertidal mud flat (Slipway 2)	1,450 ft ²	2,240 ft ²	+790 ft ²

Hardscape Habitat. An approximately 883 ft long bulkhead and 21 boat slips are to be reconfigured and replaced by a 776 ft long bulkhead and 19 boat slips (Figures 2 and 3). The removal of the bulkhead will result in the loss of about 107 linear ft of bulkhead (the bulkhead area within Slipway 1 is about 125 linear ft). About 758 linear ft of the existing habitat is subject to a vertical tidal rise (on the average) of about 5.4 ft in Newport Harbor and on the higher of the high tides an average of about 7 ft (the limit of the bulkhead intertidal biota). Using the more conservative number of about 7 ft, this totals about 5,306 ft² of habitat. The remaining 125 linear ft of loss is associated with the filling of Slipway 1 and, as the bottom in the slipway tapers from a vertical rise of approximately 7 ft at the opening to 0 ft at 45 ft into the slipway, it equates to a coverage in this area of about 765 ft² of intertidal hardscape biota. The total bulkhead biota coverage is presently about 5,621 ft². The proposed bulkhead redesign has 5,432 ft² of vertical habitat, resulting in an overall loss of about 189 ft². While the total area lost is small (189 ft²) and the area where the bulkhead is missing (in Slipway 1) does not provide normal harbor habitat, it is a permanent loss and is considered significant under CEQA and NEPA guidelines and will require mitigation.

Intertidal Mudflat Habitat. There are also two existing intertidal mudflats of approximately 765 ft² and 1,450 ft² each, the latter of which (Slipway 2) includes a small pickleweed patch. Slipway 2's intertidal area (at low tide) is approximately 50 ft long by 29 ft wide or 1,450 ft² (Figure 2). This intertidal area will be increased to 64 ft by 35 ft resulting in an area of about 2,240 ft², an increase in intertidal area of about 790 ft². Slipway 1 does not provide typical mudflat habitat as it is covered and is not open to the sky and shallows to a intertidal beach underneath the boards covering Slipway 1. Slipway 1 is currently filled with sediment at the distal end, but will be filled completely resulting in the loss of its habitat value which, although heavily degraded, is nonetheless important

to the marine ecosystem. There will be the permanent loss of 765 ft² of intertidal habitat (Figure 2). Although this is a relatively small area (about 45 ft long by 17 ft wide), with no available light and heavily degraded, it is a permanent loss and is, therefore, considered significant under CEQA and NEPA guidelines and requires mitigation.

MITIGATION

Consistent with CEQA and NEPA guidelines, an impact to the aquatic habitat and biota and fauna that live in or associate with the habitat, would be considered significant if the following criteria are found to be impacted:

Substantial loss of an aquatic habitat. *(The project will cause a loss of aquatic habitat; however, the project design results in an increase in overall aquatic habitat)*

Substantial loss of individuals, or the reduction of existing habitat, of a state- or federally-listed endangered, threatened, rare, protected, candidate, or sensitive plant or animal species or a Species of Special Concern. *(There are no endangered, threatened, rare, protected, candidate, or sensitive plant or animal species or a Species of Special Concern in the area proposed for renovation.)*

Substantial loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a federally-, state-, or locally-designated natural habitat or plant community, including alteration or loss of an existing wetland habitat. *(There will be a loss of wetland habitat from this project; however, it will be mitigated by the creation of equal amount of habitat on site as detailed below.)*

Interference with or alteration of habitat such that normal species abundance or behaviors are disturbed (e.g., from the introduction of noise, light, pollutants) to a degree that may diminish the chances for long-term survival of a sensitive species or causes measurable changes in ecological function within a localized area. *(There will be no impacts to the long-term survival of any sensitive species nor will there be any measurable changes in ecological function within the project area.)*

Introduction of non-native species into the harbor. *(There will be no potential for an introduction of non-native species from this project.)*

Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species. *(There will be no potential for interference with wildlife movement or migration corridors which might jeopardize the survival of any sensitive species from this project.)*

Benthic Bay Bottom

The project will result in the loss of bay soft bottom habitat. Removing Slipway 1 will eliminate about 765 ft² of this subtidal marine habitat. This is a permanent loss, is considered significant under CEQA and NEPA guidelines, and requires mitigation. However, the reconfiguration of the second slipway and widening to 35 ft (Figure 3) will result in the addition of over 926 ft² of new habitat and the removal of a portion of the existing outer seawall and moving it inland will create an additional 412 ft² of new bay bottom (Figure 2). In addition, moving the entire bulkhead 1.5 feet inland (as recommended by CDF&G) will extend the soft bottom habitat and will create about 658 ft² of new soft bottom habitat, resulting in the total creation of 1,986 ft² of new bay soft bottom (Figure 3). This is a net gain of 1,221 ft² of bay soft bottom (Table 2). No mitigation will be necessary for the minor impact to the existing biota from the project as it will be short duration and ultimately

result in the creation of more habitat than originally disturbed reducing the impact to a level less than significant.

Open Water Habitat

The configuration of the docks of the proposed project cover 9,818 ft² of open water while the proposed plan will cover only 8,543 ft², an increase of 1,275 ft² from the elimination and reconfiguration of the docks (Table 2). The increase of 1,275 ft² of open water habitat will mitigate for the loss of habitat from the footprint of the new docks. Based on the creation of the new area, the impact of the project on open water area is reduced to a level less than significant.

Hardscape Habitat

The loss of about 107 linear ft of bulkhead, due to its location and the creation of additional area, results in the loss of only about 189 ft² of intertidal biota along the bulkheads. While the total area lost is small, it is a permanent loss and is considered significant based on CEQA and NEPA guidelines and will require mitigation.

When the marina concept was redesigned to address agency concerns, it resulted in the creation of an additional 1,275 ft² of open water area. Typically hard substrate is more valuable than open water habitat, so we propose a 6 to 1 ratio to mitigate the loss of the 189 ft² of the degraded hard substrate by the addition of 1,275 ft² of open water habitat. The proposed project would also increase the amount of shallow soft bottom benthos by 1,221 ft². Therefore, we propose to mitigate the loss of intertidal mud flat by the addition of the 1,221 ft² of soft bottom benthos. With this proposal, the minor loss of hard substrate habitat is mitigated by the additional open water and the shallow soft bottom benthos created by the project resulting in an overall impact at a level less than significant.

Intertidal Mud Flat

The project will result in the loss of 765 ft² of intertidal habitat at Slipway 1, but a slightly larger amount (790 ft²) of habitat will be created in Slipway 2, resulting in an overall increase of about 25 ft². The loss in Slipway 1 is a significant and permanent loss requiring mitigation. The ideal mitigation is the replacement in kind with similar or better benthic habitat in Newport Harbor. The new project design results in an overall increase in area and an increase in the quality of the intertidal substrate. In addition, Slipway 2 currently supports a small patch of pickleweed. This pickleweed habitat could be restored to a more natural small salt marsh habitat by the addition of more pickleweed in the upper portion of the intertidal. This replacement of intertidal area with an in-kind creation of habitat and the proposed restoration of the small mudflat as mitigation will more than compensate for the loss of the heavily degraded habitat of Slipway 1. Implementation of this proposed plan will reduce the impact on the intertidal mud flats to less than significant.

Project Impact Summary

Impacts of this project to the marine environment appear to result in a positive effect on the marine environment by replacement of most of the existing habitat with habitat of equal or greater value than that disturbed during the course of the project. The existing boat slipways were surveyed and found to be depauperate in species probably due to their location in a dead end channel and the contaminants that are known to reside there. The impacts to the biota from the project are expected to be short term as most of the biota of the intertidal community are species such as compound ascidians, barnacles, mussels, limpets, and oysters with swimming larval forms that will readily colonize new substrate. Intertidal and subtidal algae such as *Ulva* and *Enteromorpha* are very fast growing and will readily attach to the new substrate. Other species such as nudibranchs and fish will swim free of the construction area and recolonize the habitat once construction is

complete. Disturbances to the substrate in areas outside of the construction areas will have minor effects on polychaete worms, but they too will readily recolonize disturbed areas, so the loss to the infauna will be relatively small, short term in duration, and the impacts are, therefore, considered less than significant.

PRE-CONSTRUCTION SURVEYS

Prior to construction of the project, it will be necessary to survey for the presence of eelgrass and *Caulerpa*. The surveys reported on herein give an indication that neither species is present in the project location, but it is required that not more than 90 days nor less than 30 days prior to the initiation of actual construction that both eelgrass and *Caulerpa* surveys be conducted. The results are considered valid for project approval for a period of 90 days unless conducted in September or October, in which case the results are relevant until the following growth period beginning in March. In no case, will an eelgrass or *Caulerpa* survey conducted from November to February (non-growth period) be acceptable (SCEMP - NMFS 1991, and NMFS and CDF&G 2003).

LITERATURE CITED OR CONSULTED

- Barnard, J.L., and D.J. Reish. 1959. Ecology of Amphipoda and Polychaeta of Newport Bay, California. Allan Hancock Foundation Publications No. 21. Univ. of So. Calif. Press, Los Angeles. 106.p.
- CSWRCB/CDF&G/UC Santa Cruz/San Jose State University. 1998. Sediment Chemistry, Toxicity, and Benthic Community Conditions in Selected Water Bodies of the Los Angeles Region - Final Report. Prepared by: California State Water Resources Control Board, Division of Water Quality, Bay Protection and Toxic Cleanup Program; California Department of Fish and Game, Marine Pollution Studies Laboratory; University of California Santa Cruz, Institute of Marine Sciences; San Jose State University, Moss Landing Marine Laboratories. August 1998
- Coastal Resources Management. 2000. Marine Biological Resources Assessment South Coast Shipyards Newport Bay, CA. 10 p.
- Horn, M. H. and Allen, L.G.. 1979. Ecology of fishes in upper Newport Bay, California: Seasonal dynamics and community structure. December 1979. California State University, Fullerton-Department of Biological Science and University of Southern California-Department of Biological Science. 32 p. plus appendix and figures.
- Marine Biological Consultants, Inc. and Southern California Coastal Water Research Project. 1980. Upper Newport Bay and stream augmentation program. Final report. October 1979 - August 1980. Prepared for Irvine Ranch Water District.
- MBC Applied Environmental Sciences. 1999. Eelgrass Transplant Report Grand Canal Balboa Island Maintenance Dredging Project Newport Beach, California. Prepared for City of Newport Beach Public Works Department. Newport Beach, CA. 6 p.
- MBC Applied Environmental Sciences. 2004. Five-Year Post-Transplant Eelgrass Survey, 2209 Bayside Drive, Corona Del Mar, CA.. 7 p. plus appendices.
- MEC Analytical Systems. 1988. Biological baseline and ecological evaluation of existing habitats in Los Angeles Harbor and adjacent waters. Vol. I - Executive Summary. Vol. II - Final report. Vol. III - Appendices. Prepared for Port of Los Angeles. MEC05088001.

MEC Analytical Systems. 2002. Ports of Long Beach and Los Angeles: Year 2000 Biological Baseline Study of San Pedro Bay. June 2002.

National Marine Fisheries Service. 1991. Southern California Eelgrass Mitigation Policy. Revision 11, dated 30 August 2005. National Marine Fisheries Service and California Department of Fish and Game. 2003. *Caulerpa* Control Protocol (Version 1.2b, adopted January 31, 2003. 7 p.

Reçon Environmental, Inc. and MBC Applied Environmental Sciences. 2004. Upper Newport Bay Army Corp of Engineers Pre-transplant Survey. Newport Beach, CA. 4 p.



Photo 1. Slipway 1 extending into the intertidal. Bay Marina Project, June 2006.



Photo 2. Close-up view of Slipway 1. Bay Marina Project, June 2006.



Photo 3. Top view of Slipway 1. Bay Marina Project, June 2006.

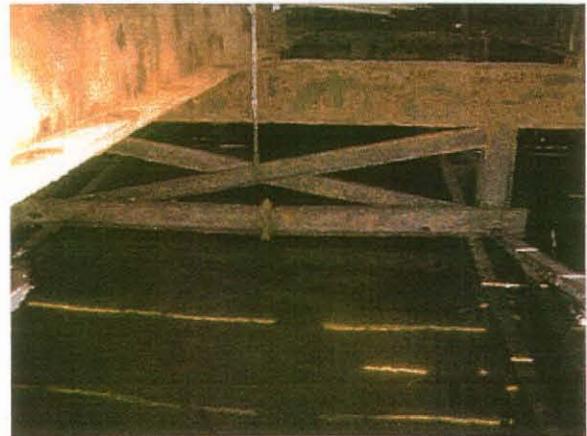


Photo 4. View under the dock. Bay Marina Project, June 2006.



Photo 5. Close-up view of intertidal beach. Bay Marina Project, June 2006.



Photo 6. Slipway 2 showing dock, bulkhead, and sheet piling. Bay Marina Project, June 2006.



Photo 7. Green algae (*Enteromorpha*) covering mudflat with debris visible. Bay Marina Project, June 2006.



Photo 8. Pickleweed on intertidal mudflat. Bay Marina Project, June 2006.



Photo 9. Intertidal invertebrates on bulkhead. Bay Marina Project, June 2006.



Photo 10. Rusty bulkheads along Slipway 2. Bay Marina Project, June 2006.

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
200 Oceanside, Suite 1000
Long Beach, CA 90802-4302
(562) 590-5071



August 21, 2003

Mr. James W. Campbell, Senior Planner
City of Newport Beach
Planning Department
3300 Newport Boulevard
Newport Beach, CA 92663

Re: **South Coast Shipyard and Design Center
Initial Mitigated Negative Declaration (SCH# 2003071144)**

Dear Mr. Campbell,

Thank you for the opportunity to review the Initial Mitigated Negative Declaration for the South Coast Shipyard and Design Center project. According to the Initial Mitigated Negative Declaration, the proposed project is a mixed-use development of residential and commercial uses on the South Coast Shipyard property.

The proposed project is located within the coastal zone in the City of Newport Beach. The proposed development will require a coastal development permit from the California Coastal Commission.

The following comments address the issue of the proposed project's consistency with the Chapter 3 policies of the California Coastal Act of 1978. The comments contained herein are preliminary and those of Coastal Commission staff only and should not be construed as representing the opinion of the Coastal Commission itself. As described below, the proposed project raises issues related to the protection of wetland habitat, water quality, and coastal access and recreation.

Below are the comments by Commission staff on the Initial Mitigated Negative Declaration.

1. **Wetlands.** One component of the proposed project consists of the fill of two (2) current boat haul inlets. On page 43 of the Initial Mitigated Negative Declaration, it states these two boat haul outlets are not considered true "open waters" of the harbor because they are not subject to adequate water circulation and flushing and thus do not result in the "Fill" of open coastal waters. The Initial Mitigated Negative Declaration further states that the area of fill has no environmental value and no mitigation of any potential loss of sensitive habitat is required. Section 30108.2 of the Coastal Act defines "Fill" as the placement of earth or any other substance or material placed in a submerged area. Section 30233 of the Coastal Act limits the fill of wetlands and open coastal waters to eight uses and it appears that the proposed project does result in "Fill" of open coastal waters and is not one of the eight uses where "Fill" is allowed. Projects, which propose the fill of wetlands and/or coastal waters, must demonstrate that the proposed impact would be allowable under the Coastal Act. If allowable the project must then provide adequate mitigation, preferably on-site. Commission staff requests that you re-evaluate the proposed "Fill" of the two (2) boat haul inlets in reference to Section 30233 of the Coastal Act. A biological study should also be prepared that addresses the presence of wetlands and open coastal waters using the

Initial Mitigated Negative Declaration
for the South Coast Shipyard and Design Center project
Page 2 of 3

Coastal Act definition.

2. **Coastal Access and Recreation.** Section 30222 of the Coastal Act places a priority on visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation over general commercial development. The project site currently consists of 44,300 square feet of commercial, office and marine industrial uses, including a shipyard, two (2) boat slipways, office buildings, retail shops and associated parking. The proposed project would consist of a mixed-use development with 30,000 square feet of commercial uses and 28 residential units. The City's certified Land Use Plan (LUP) designates the area as Recreational and Marine Commercial. It appears that the proposed mixed-use development would not adequately provide the types of uses on the project site as required by the LUP. Recreational and Marine Commercial uses such as the shipyard and boat slipways are being replaced with residential uses. Commission staff requests additional discussion regarding the proposed project's conformance with the LUP use designation of "Recreational and Marine Commercial."
3. **Water Quality.** The Initial Mitigated Negative Declaration discusses water quality in terms of CEQA requirements and Regional board requirements. In addition to CEQA, Regional Board and other regulatory requirements, the proposed project will undergo review based upon water quality provisions in the Coastal Act. Sections 30230 and 30231 of the California Coastal Act provide the broad basis for protecting coastal waters, habitats, and biodiversity from degradation of water quality associated with new and redevelopment.

Sound water quality management utilizes a three-pronged approach: site design, source control, and treatment control Best Management Practices. A successful program would first incorporate site design measures to minimize impact to the hydrologic landscape and source control Best Management Practices (BMPs) to reduce dry weather flows and the generation and introduction of pollutants into runoff. A few examples of site design practices include minimizing impervious surfaces, using porous pavements or alternative pavers in parking areas, preserving native vegetation and root systems, minimizing erosion and sedimentation, and reducing roadway or parking lot length. Some examples of source control BMPs include planting native, drought tolerant, non-invasive vegetation; minimizing pesticide and fertilizer use; using efficient irrigation systems; and implementing parking lot and street sweeping programs, among other measures.

After site design and source control BMPs have been designed, treatment control BMPs (typically in a treatment train approach for an extensive development like the one proposed) should be designed for the development. Treatment control BMPs should be designed to treat the specific pollutants generated on each portion of the site. In addition, the proposed measures must be sized and designed to mitigate water quality impacts generated by the development. As a goal, the Commission has required post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.

Based on Section 30230 and 30231 of the Coastal Act, the Coastal Commission must ensure that a development minimizes to the maximum extent feasible polluted runoff and its impact to coastal waters. Even where there is existing development on a site, a redevelopment project needs to demonstrate that it is minimizing to the maximum extent

Initial Mitigated Negative Declaration
for the South Coast Shipyard and Design Center project
Page 3 of 3

feasible the impact to coastal water quality. Therefore, the development should incorporate, and the Mitigated Negative Declaration should discuss, the site design, source control, and treatment control Best Management Practices (BMPs) that will be used in association with the entire site. Parking lots, landscaped areas, loading and unloading docks, dry weather flows, and trash and debris are common constituents in commercial and residential areas, and BMPs should be designed to address these constituents.

Finally, Commission staff suggest use of catch basin inserts throughout the development, use of filtration systems near areas with especially high risk of pollutant generation (loading/unloading docks, parking lots, etc.), and the use of biofiltration.

Thank you for the opportunity to comment on the Initial Mitigated Negative Declaration for the South Coast Shipyard and Design Center project. Commission staff request notification of any future activity associated with this project or related projects. Please note, the comments provided herein are preliminary in nature. Additional and more specific comments may be appropriate as the project develops into final form and when an application is submitted for a coastal development permit. Please feel free to contact me at 662-590-5071 with any questions.

Sincerely,



Fernie Sy
Coastal Program Analyst

Cc: State Clearinghouse
California Department of Fish and Game
U.S. Fish and Wildlife Service

H:\w\y\EIR's\Comment Letters\South Coast Shipyard and Design Center Project (SCH# 2003071144)\NB



State of California - The Resources Agency

CRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov

Marine Region

20 Lower Ragsdale Drive, Suite #100

Monterey, CA 93940

(831) 649-2870

RECEIVED BY
 August 29, 2003 PLANNING DEPARTMENT
 CITY OF NEWPORT BEACH

SEP 04 2003
 AM PM
 7,8,9,10,11,12,1,2,3,4,5,6

Mr. James Campbell
 Senior Planner
 City of Newport Beach
 3300 Newport Blvd.
 Newport Beach, California 92663

Dear Mr. Campbell:

The Department of Fish and Game (Department) has reviewed the City of Newport Beach's (City) Draft Mitigated Negative Declaration (MND) for the South Coast Shipyard and Design Center Project, 2300 Newport Blvd., Newport Beach, California (SCH No. 2003071144). The proposed project involves the redevelopment of a 2.4 acre site with 30,000 square feet of commercial uses and residential units including a partial subterranean garage. Some existing buildings on the site would be demolished and new buildings would be constructed in their place. A 485 foot bulkhead would be replaced and the 19-boat marina would be reconfigured. Two existing slipways, used for boat access and berthing and totaling approximately 4,560 square feet, would be filled with contaminated sediment from the project vicinity.

The Department is a Trustee Agency and pursuant to the California Environmental Quality Act (CEQA), Section 15388. Pursuant to Section 1802 of the Fish and Game Code, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency, the Department must be consulted by the lead agency during the preparation and public review for project-specific CEQA documents if there are potential impacts to biological resources.

The Department has several concerns regarding the proposed project. Foremost, the Department does not believe that measures incorporated into the MND address significant impacts to marine resources. Furthermore, the MND does not clearly describe the project site nor does it adequately describe all project elements.

The project, as described in the MND, will result in the loss of approximately 4,560 square feet of intertidal/subtidal marine bay habitat from filling the boat slipways. Page 43 states that contaminated sediments will be

Conserving California's Wildlife Since 1870

Mr. James Campbell
August 29, 2003
Page Two

removed from the harbor to accommodate filling the two slipways and reconstruction of the marina. Although we do not object to removal of contaminated sediments, we do object to the disposal of those sediments for purposes of fill when no mitigation is proposed for the habitat loss resulting from the fill. Although the fill would be partially mitigated by the removal of 589 square feet of existing dry land, which will be eliminated in the bulkhead redesign, no mitigation is proposed for the remaining 3,971 square feet of intertidal/subtidal marine bay habitat that will be lost.

It is the Department's position that a project should cause no net loss of wetland (e.g., intertidal mudflat) acreage or wetland habitat value. Filling the slipways has a significant impact on marine habitat as the habitat is permanently lost. The loss of bay habitat associated with this project is of concern to the Department because of cumulative impacts from this kind of activity. The intentional filling of marine waters has significant adverse volumetric impacts upon the marine environment. Fill replaces an aquatic environment with a dry one, and permanently eradicates the benthic habitat. In addition, fill eliminates the water column from substrate to surface removing habitat and displacing plankton, fish, and diving birds. The project, as currently proposed, would result in a permanent loss of marine habitat without any measures to minimize adverse environmental effects (e.g., an equivalent area of upland habitat restored to tidal influence within Lower Newport Bay). The Department disagrees with the MND conclusion that the slipways have no environmental value and thus no mitigation is required for their loss. Page 43 states that the two boat slipways are not considered true "open waters" of the harbor as they accumulate trash and do not have adequate circulation and flushing, thus, they have no environmental value and no mitigation for their loss is required because they are not considered sensitive habitat. The slipways may be examples of poor marine habitat, due to contamination and presence of extensive boatyard debris, but we do not believe they have no value. We question why these areas must be filled and why the contaminants and debris cannot be removed and taken to an authorized disposal site. Removal of debris and contaminants action would increase the habitat value. Accordingly, we recommend that the project be modified to eliminate or minimize the loss of marine habitat.

The description of the project site is conflicting and vague. For example, page 25 states the project site does not contain any wetlands. This is in contrast to the biological assessment (Appendix B) which describes the project site as possessing wetland surfaces, assuming that the mentioned alcoves represent the slipways (see comment below concerning the biological resources study). Additionally, there is no detail on fill activities, dredge activities, bulkhead design or marina reconfiguration. These issues are discussed in below.

Mr. James Campbell
August 29, 2003
Page Three

The MND project description mentions the removal of hazardous sediment waste located in the sediment near the slipways as an element of the proposed project. It further states that a conceptual removal action plan is being prepared in coordination with the Regional Water Quality Control Board, Region 8. However, page 43 states that *"dredging per se is not part of the project description; however contaminated sediments will be removed from the harbor in a process similar to dredging to accommodate the filling of the two boat haul out inlets and reconstruction of the marina."* Filling the slips with contaminated sediment appears to be part of the project. Thus, the previous statement is in error. Because removal of the sediment is an element of the proposed project, mentioned in the project description, the environmental document needs to discuss removal activities in detail. This includes dredging, or a process similar to dredging, cited on page 43. While we understand that the removal of hazardous waste could have a beneficial effect to water quality and the marine environment in general, the current proposed disposal of the sediment, filling of marine habitat, will significantly impact marine resources. Again, the environmental document needs to discuss this aspect of the project in greater detail including the amount of sediment to be removed, methodologies to remove the sediment, fate of contaminated sediment, resultant depth of water after dredging, and best management practices to avoid spread of contamination during removal activities. Contaminated materials that enter the water or have the potential to enter the water is a violation of Fish and Game Code Section 5650 and therefore, the Department needs to be involved in the cleanup plans.

We also have concerns with the proposed new bulkhead as the project description does not specifically discuss the bulkhead redesign. It is the Department's position to recommend that bulkhead projects be constructed in such a manner to be the least environmentally damaging, with minimal impacts to marine habitats. Thus, the bulkhead redesign should not result in the loss of marine habitat. Bulkhead replacements should be within the existing footprint or further shoreward. The Department recommends that the environmental document should discuss the bulkhead redesign in detail.

The project description also fails to discuss the reconfiguration of the marina. Thus, we do not know if project modifications represent an increase of benthic habitat loss and an increase in the surface area of the marina. An increase in surface area of structures covers a portion of the water column and results in the loss of foraging habitat for sight foraging marine birds such as terns & pelicans. Additionally, the structure may shade marine plants such as eelgrass (*Zostera marina*), algae, and benthic invertebrates. The MND stated that the increased depth of water from removal of contaminated sediments is an

Mr. James Campbell
August 29, 2003
Page Four

"unintended benefit" to the new marina. The environmental document should discuss the marina reconfiguration in detail, including current and proposed marina depths and current and proposed aerial coverage.

We believe the MND presents a flawed analysis of the local coastal program's section on dredging, diking, and filling of open coastal waters (page 43). Diking, filling, or dredging of open coastal waters is typically permitted when there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided. The Department believes there is a feasible less environmentally damaging alternative to filling the slipways. Additionally, no mitigation measures are proposed to address the habitat loss. Finally, it appears that none of the permissible uses for fill reflect the ultimate use of the filled slips which appears to be subterranean parking (again this is not clear in the MND).

The biological resources study (Appendix B) Section 1.1, refers to figures which are not included in the MND. This makes it difficult to evaluate the results of the survey and potential impacts from the proposed project. For example, we do not know where alcove 1 and alcove 2 are located or if they represent the slipways. If we assume the alcoves are what the MND calls slipways then there is a discrepancy in the total area involved. The biological resources study describes alcove 1 as having a surface area of 1,800 square feet and alcove 2 as 4,680 square feet. Additionally, alcove 1 and alcove 2 are described as possessing mudflat, and in the case of alcove 2, pickleweed habitat. This is not mentioned anywhere in the MND.

The biological resources study was conducted in January and February 2000. Conditions may have changed over the three and one half year time period and although the biological survey did not find any eelgrass in the year 2000, it is possible that eelgrass currently exists in the project vicinity. Additionally, the applicant will need to complete a preconstruction survey for *Caulerpa taxifolia* of the project area not earlier than 90 days prior to planned construction and not later than 30 days prior to construction in accordance with the National Marine Fisheries Service's (NMFS) *Caulerpa* Control Protocol, developed by NMFS and the Department (see <http://swr.ucsd.edu/hcd/ccpv1.htm>).

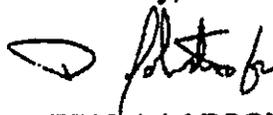
CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) be prepared where the project has possible environmental effects which are individually limited but cumulatively

Mr. James Campbell
August 29, 2003
Page Five

considerable, and/or when the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. CEQA terms this a Mandatory Finding of Significance. Department review indicates the project is subject to a Mandatory Finding of Significance relative to the loss of marine bay habitat and the achievement of short-term goals, therefore, we recommend an EIR be prepared. We would expect the EIR to address the issues we have summarized above.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion please contact Ms. Marilyn Fluharty, Environmental Scientist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

Sincerely,



ERIC J. LARSON,
Northern California Manager
Bays and Estuaries Ecosystem
Coordinator
Marine Region-Belmont

cc: State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Marilyn Fluharty
Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123

David Zoutendyk
U.S. Fish & Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92009

Robert Hoffman
NOAA Fisheries
501 West Ocean Boulevard, Suite 200
Long Beach, CA 90802-4213

APPENDIX C
CULTURAL RESOURCES

REPORT OF PHASE I ARCHAEOLOGICAL ASSESSMENT FOR THE
BRIDGEPORT MIXED-USE PROJECT, NEWPORT BEACH, CALIFORNIA

By:

Carol R. Demcak, RPA

Of:

Archaeological Resource Management Corporation
3756 Hightide Drive
Rancho Palos Verdes, CA 90275
310/265-7244

For:

Hodge & Associates
24040 Camino del Avion,, #A247
Monarch Beach, CA 92629

August 29, 2005

REPORT OF PHASE I ARCHAEOLOGICAL ASSESSMENT FOR THE BRIDGEPORT MIXED-USE PROJECT, NEWPORT BEACH, CALIFORNIA

INTRODUCTION

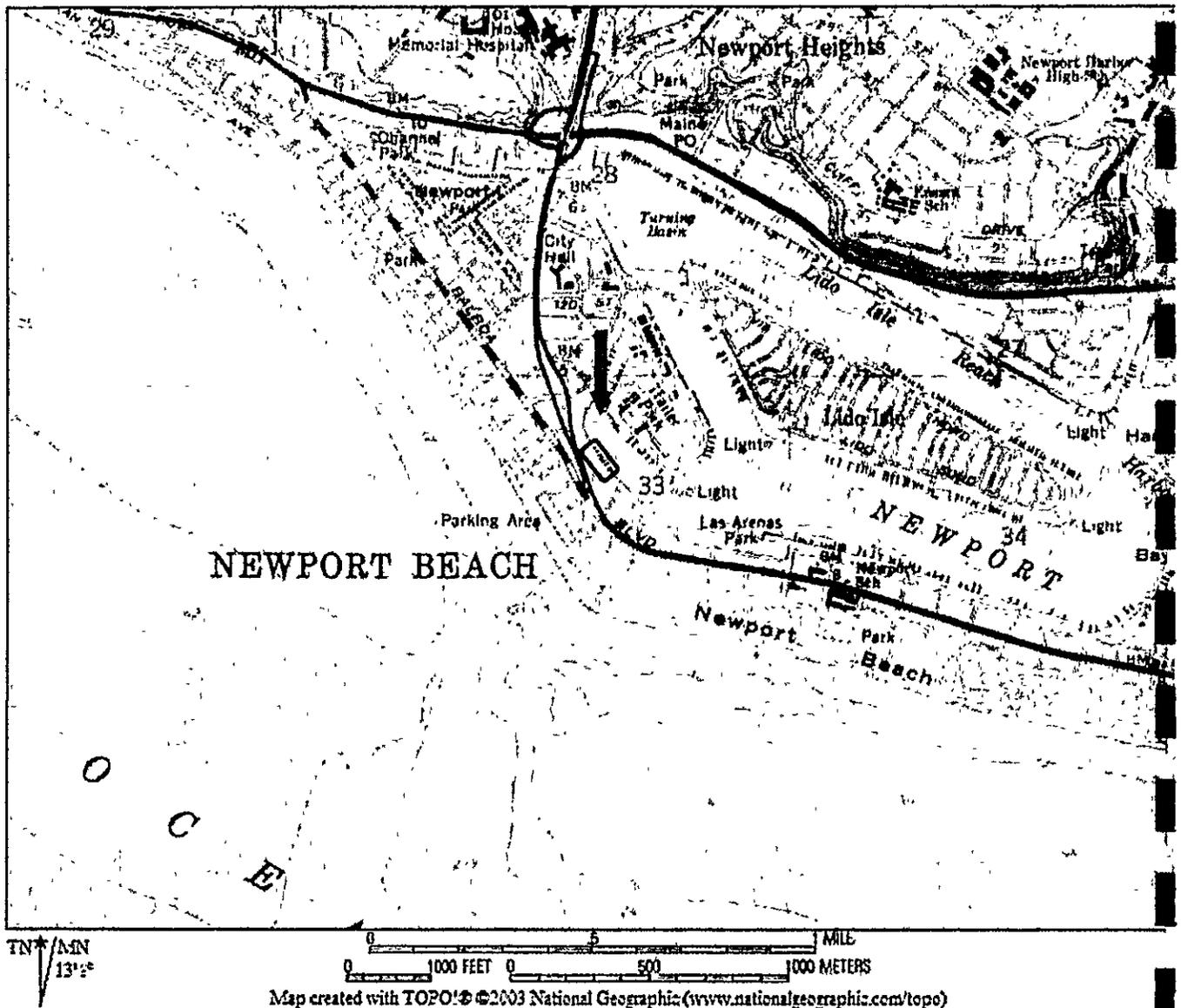
At the request of Cheryle Hodge of Hodge & Associates, personnel from Archaeological Resource Management Corporation (ARMC) conducted a Phase I Archaeological Assessment for the proposed Bridgeport Mixed-Use Project, Newport Beach, California. The assessment consisted of a records and literature search through the office of the South Central Coastal Information Center (SCCIC), California State University, Fullerton, and a field walkover survey of the project area. The author conducted the records search on August 25 and the field survey on August 28, 2005.

The results of the records and literature search were that the area had not been previously surveyed for archaeological resources and that no archaeological sites had been recorded within a ¼-mile radius of the proposed project area. A historic site, State Historical Landmark (SHL #794), McFadden Wharf, lies within a ¼-mile radius of the property.

The field survey did not uncover any archaeological resources. Because there is only one recorded resource and it is historic (SHL #794) in proximity to the proposed project area, no significant archaeological resources will be impacted by this proposed development. Thus there are no recommendations for additional archaeological studies on this project area prior to development. If in the course of construction, archaeological resources are encountered, a qualified archaeologist should be called in to evaluate the resources, design and implement a plan of mitigation, where appropriate.

NATURAL SETTING

The project area is located along Newport Boulevard, 21st Street, 22nd Street, and the Rhine Channel in the City of Newport Beach. On the USGS Newport Beach 7.5' Quadrangle (1965; PR 1981), it is found in Range 10W, Township 6S, and Section 33 (Figure 1). The area is completely developed, consisting of either commercial buildings, pavement (asphalt, brick, or wooden planks), or landscaping. There is no native vegetation present. In prehistoric and early historic times, the area was marshland. Native plant communities would have consisted of salt marsh varieties, such as prairie bulrush (*Scirpus robustus*), iceplant (*Gasoul crystallinum*), Parish's pickleweed (*Salicornia subterminalis*), halberd-leaved saltbush (*Atriplex patula ssp. hastata*), and sea blite (*Suaeda californica*).



Taken from USGS Newport Beach 7.5' Quadrangle (1965; PR 1981).

Figure 1. Project Location.

CULTURAL SETTING

Prehistory

Wallace (1955) and Warren (1968) have both proposed syntheses of the local cultural sequence. These summaries continue to be useful in defining the prehistoric period in

southern California. The two researchers propose that aboriginal populations remained hunters and gatherers before Spanish contact.

The Millingstone Horizon, or Encinitas Tradition, is the earliest occupation that has been properly documented for Orange County. Highly mobile populations adapted to a littoral, or coastal, environment during this occupation. Small native groups gathered plant foods, including seeds, tubers, and berries, collected shellfish, and hunted small and large game. They used millingstone and muller, more commonly called metate and mano, to grind seeds. Hunting tools included wide, thick, and heavy projectile points. They were presumably utilized as spear points, based on their weights (Fenenga 1953), and launched by atlatls, or wooden spear-throwers. Cogstones and discoidals, wheel-shaped and disc-shaped ceremonial stones respectively, and red argillite beads are diagnostic artifacts, or time-markers, for this earliest known occupation in Orange County.

During the subsequent Intermediate Horizon, or Campbell Tradition, prehistoric populations expanded their resource base to include more hunting and fishing. The mortar and pestle, tools associated with the processing of acorns and other fleshy plant foods, were introduced into the area. Projectile points remained relatively large and heavy.

In the final prehistoric occupation, the Late Horizon Cultures (Shoshonean and Hokan speakers), local economies expanded markedly. Artifact assemblages reveal an increase in the number and types of tools, reflecting population growth and task specialization. Non-utilitarian items, such as beads and ornaments, were also on the increase in the Late Horizon compared to earlier occupations. Local groups continued to rely primarily upon plants, shellfish, and terrestrial game, which they hunted with small, lightweight arrow points and the bow.

Steatite, obsidian, and other non-local lithic resources were traded into the area. Pottery was introduced into Kumeyaay territory in San Diego County and small quantities reached Orange County in the very late prehistoric period. Pestles and portable mortars, especially of the basket-hopper type, and bedrock mortars were utilized locally for acorn processing. Seed grinding continued to be carried out with manos and metates, as well as on bedrock grinding slicks.

Ethnohistory

Ethnographically, the study area falls within the territory of the Juaneño people. The Juaneños were named by their association with the Mission San Juan Capistrano. They are closely related to the Luiseños, who were associated with the Mission San Luis Rey (Bean and Shipek 1978). Shoshoneans, they are Takic speakers of the wider Uto-Aztecan family of languages. Uto-Aztecan speakers are presumed to have entered

California prior to 2000 B.C. (Moratto 1984:541) and perhaps arrived in the Los Angeles Basin by 1000 B.C. (Kowta 1969:50).

Hunter-gatherers, these Native populations exploited a diverse set of microenvironments from the coast, coastal plain, foothills, Santa Ana Mountains, to the interior valleys of southern California. Their territory is traditionally described as bounded on the north by Gabrielino territory at Aliso Creek. However, David Belardes (pers. comm.), member of the Juaneño Band of Mission Indians, asserts that the northern boundary of Juaneño territory was actually the mouth of the Santa Ana River. Inland, their territory extended to the upper reaches of the Santa Ana Mountains where it adjoined Luiseño territory. Southward, Juaneño territory reportedly extended to the area between the San Onofre and Las Pulgas drainages (Kroeber 1925:636) and westward to the Pacific Ocean.

With the coming of the Spanish in 1769, Native populations were brought into the mission system and forced to adapt to a new social and economic order with drastic consequences. Their populations were radically reduced in number and their aboriginal way of life was largely eliminated. Certain populations, among them Juaneños who managed to escape into the interior mountains, were spared the forced acculturation for a short time. Then they too were overwhelmed by Spanish, Mexican, and later American Period developments. Despite considerable hardship, many of their descendents still live and work in the area surrounding the Mission San Juan Capistrano.

The Juaneño Band, or Acjachemem Nation, strives to keep its distinct culture and language from extinction. After decades of struggle for recognition, the band was formally recognized by the California State Legislature in September, 1993 as the "...original native tribe of Orange County" (Hall 1993:A3). Band members are in the process of receiving federal recognition as a tribal unit.

Historical Overview

The arrival of the Portolá Expedition in 1769 marked the first efforts at extending Spanish control into Alta California through the establishment of Catholic missions. This move by the Spanish King Carlos III was intended to protect Pacific Coast shipping against Russian or English occupation of the area. Beginning in San Diego, the padres surveyed the lands as far north as Monterey Bay and secured them for the Spanish Crown. Mission sites were selected on the way north by Fathers Crespi and Gomez (Hallan-Gibson 1986).

The Portolá party arrived in Orange County on July 22, 1769, at a site in Cristianitos Canyon where two sick children were baptized by the fathers. The following day the travelers camped near the Mission Vieja site (CA-ORA-29) at the mouth of Gobernadora Canyon. The next day the expedition continued northwestward and out of

the survey area to the western edge of the Plano Trabuco and camped at the San Francisco Solano campsite at the present location of the Trabuco Adobe. Altogether they stopped at seven campsites (Smith 1965) in what became Orange County.

Missions, presidios, and pueblos were established by the Franciscan fathers, and in 1775, the Mission San Juan Capistrano was begun. Within days, however, a Native American uprising at the mission in San Diego forced the fathers to abandon the local mission, hastily bury its bells, and with the soldiers hurry southward to assist their fellow priests. The fathers returned the following year to re-establish the mission at a different site. There on November 1, 1776, the mission was officially founded. On October 4, 1778, the mission was removed to its present location closer to the Arroyo Trabuco, a dependable water source (Hallan-Gibson 1986). Substantially expanded in 1784, the mission continues in use and is believed to be the oldest building extant in California, according to Friis (1965).

The Native inhabitants were brought under the control of the mission. They were converted to Catholicism and provided the mission with a large labor pool. The padres taught them the necessary skills to grow crops, tend cattle, produce wine, and make pottery and other crafts. The missions intended to prepare them to look after their own lands, which were held in trust for them. Spanish legislators called for the disestablishment of the missions and turning over of the lands to the Native populations as early as 1813. However, it was not until the Mexican Period that secularization was begun.

At the end of the Mexican Revolution, mission lands were seized and turned over to Mexican citizens of the Catholic faith and of good character. The Mission San Juan Capistrano was the first mission to be secularized in 1834. A pueblo for Native Americans was set up at Mission San Juan Capistrano, but, after years of mismanagement, failed (Dixon 1988; Hallan-Gibson 1988). A town was instead chartered and land became available to petitioners, including Native Americans. Eventually, the town itself failed, and the mission was sold by Governor Pio Pico to his brother-in-law John Forster and James McKinley, a trader (Hallan-Gibson 1988). Forster maintained his residence at the mission until his claim to the property was denied (Muñoz 1980).

A series of land grants, or grazing rights, was issued by the Spanish Crown. The land between the Santa Ana and San Gabriel rivers was given to Manuel Nieto in 1784; this was the first land grant in Orange County. The second, called Rancho Santiago de Santa Ana, went to Juan Grijalva and Jose Yorba, his son-in-law. The grant was confirmed in 1810 to Yorba and Grijalva's grandson (Hallan-Gibson 1986). There followed a period of growth and development as rancheros built adobe homes, ran large herds of cattle and sheep, engaged in foreign trade, and dabbled in politics.

California was drawn into the Mexican-American War in 1846, and Governor Pico fled the oncoming American Army. His son-in-law John Forster, an American

sympathizer, tipped off the Union soldiers marching through Orange County that a large contingent of enemy soldiers was on its way. This may have saved their force from defeat by 600 Mexicans (Hallan-Gibson 1986). After the Treaty of Guadalupe Hidalgo ended the war in 1848 and California entered the Union, the land claims of the rancheros were scheduled to be upheld, but subsequent laws required the land owners to prove their claims, requiring considerable time and expense. Most of the land claims in Orange County were eventually confirmed by the courts.

In the American Period, life on the ranchos continued much as before although squatters, rustlers, and mounting debts grew troublesome. Large landholdings were increasingly broken up; towns and settlements grew in number. Mission San Juan Capistrano was returned to the Catholic Church in 1865 when the U.S. Government denied Forster's claim to the property. Forster took his family and moved southward to Rancho Santa Margarita, home of his relatives, the Picos (Hallan-Gibson 1986).

During the 1860s, severe drought, smallpox, and torrential rains alternately took their toll on the large landholders and other settlers in southern California. The cattle market collapsed, land was devalued, and a diversified economy developed. The end of the Civil War brought an impetus to settlement. Land was cheap, and thousands flocked to the Golden West. A real estate boom ensued in the 1880s. The arrival of the Union Pacific, Southern Pacific, and Santa Fe Railroad provided transportation for people and products into and out of California. Sheep ranching became highly profitable due to the scarcity of cotton in the South. Large land grants were partitioned. Development proceeded at a rapid pace through the late nineteenth and early twentieth century. Improvements in transportation and communication contributed to the boom. The citrus industry with its associated beekeeping was one of the most successful enterprises in the area.

In the post-World War II period, southern California has been characterized by expanding urbanization, business and industry. The aerospace industry, movie and television industries, automobile manufacturing, and tourism have spurred local growth and continue to attract visitors and potential residents. The last ranchos have been developed or are in the process of being developed.

Newport Beach

This sketch of city history is based upon Lee's (1988) account.

Older parts of Newport Beach, such as the Newport-Balboa Peninsula and the reclaimed residential islands (Balboa Island and Lido Isle), once belonged to the State of California. Post World War II development of the city has proceeded largely onto what was Irvine Ranch, formerly Rancho San Joaquin and Rancho Santiago de Santa Ana. The westernmost portion of the city (formerly part of Rancho Santiago de Santa Ana)

was owned after 1874 by the Banning family which also had landholdings in the Wilmington harbor area of Los Angeles County.

Newport Bay, which in the days of the ranchos in Orange County was known as Bolsa de San Joaquin, has played a very important role in local history. Newport Lower Bay was reclaimed and dedicated more than sixty years ago as Newport Harbor but was once the estuary of the Santa Ana River. This estuary was a wilderness area of salt marshes and tidal mudflats, a major resource area for prehistoric Native Americans.

The first settlers in Orange County came in the 1870s by covered wagon or coastal steamer to the newly established farming communities of Santa Ana, Tustin, and Orange. The pioneering families needed the means to transport lumber and merchandise into and out of the bay. The sternwheel steamer Vaquero made the first deliveries at a small landing below the bluffs of the Flint, Bixby and Irvine sheep ranch; this was later named Newport Landing. This landing was the starting point for the rutted road that led to inland settlements. From 1874 to 1889 the shipping business at the landing was owned by the McFadden family. The settlement itself consisted of grain and wool warehouses, a few frame houses and fishing shacks. Navigation into the shallow bay was difficult, and only small vessels could center the harbor. Unable to get federal funding, James McFadden built a wharf (McFadden Wharf, State Historic Landmark #974) in 1888 which extended far out into deep water so that large ships could anchor there.

Late in 1888 the families and their frame houses from the old landing were moved out to the new oceanfront location. The employees of McFadden's Newport Wharf and Lumber Company called the town Newport Beach to contrast it with their former home, Newport Landing. Large ships began arriving in January, 1889. In February James McFadden and a friend, William Spurgeon, traveled to the state Capitol and urged the formation of Orange County with its county seat in Santa Ana and its seaport in Newport Beach. They were successful.

The 1890s were a fabulous time in the Newport Beach area. Freight and passenger ships arrived frequently. Families enjoyed the fishing, clamming, bathing in the ocean, and waiting for the arrival of trains from inland after 1891. By this time it was clear to McFadden that San Pedro and not Newport Beach was going to be the major seaport in the area, so he sold his wharf and railroad (Santa Ana and Newport Railroad.) to the Southern Pacific Railroad. In 1902 he also unloaded his peninsular and marshland holdings as profits continued to dwindle.

The early 20th century saw a beach boom that brought the Pacific Electric Railroad's Red Cars to Newport Beach. McFadden's former lands were sold for extensive development, resulting in the establishment of the communities of West Newport, East Newport, Bay Island, and Balboa where its landmark pavilion was built in 1905. The City was incorporated in 1906.

After the beach boom went bust, the City grew more slowly, with annexations of parts of Newport Heights, Corona del Mar, harbor reclamation, and the creation of Balboa Island, Lido Isle, and Harbor Island. The arrivals of the Balboa Island ferry, movie making, rum running, bathing beauty contests, the Rendezvous Ballroom, and the Fun Zone came about in the early decades of the century. Final dredging of the Lower Bay and an extension of its breakwaters in a joint federal and county project from 1934 – 1936 gave Newport Bay its current contours. The new harbor became an important shipbuilding and repair center in World War II. The current project area was home to such an operation.

Fishing and fish canneries abounded during the war years. Residences for servicemen and war workers replaced summer rentals. Many of these personnel remained in the area after the war was over. With the coming of the Santa Ana Freeway in the 1950s, the character of Newport began to change from summer resort to residential and commercial center. Population grew rapidly with the development of former Irvine Ranch lands. Fishing declined, and canneries closed. The 1970s forward have seen exceptional growth in new luxury housing, resorts, shopping centers, hotels, fine arts establishments, and fine restaurants.

RECORDS SEARCH RESULTS

The author conducted a records and literature search at the SCCIC. The results were that only one archaeological study had been carried out in the project vicinity and no sites were recorded. A check of the listings of historic resources for the National Register of Historic Places did not reveal any listings within a ¼-mile radius of the property. The State of California, Department of Parks of Recreation, listings included a State Historical Landmark, No. 794, McFadden Wharf, within a ¼-mile radius. The original wharf was built in 1888 by the McFadden brothers as the western terminus of their Santa Ana and Newport Railway. The wharf was the primary conduit for lumber and other goods that were necessary for the development of Orange, San Bernardino, and Riverside counties from 1891 to 1907. The actual location is at Newport Pier, southeast corner of W. Oceanfront and McFadden Place.

A check of the historic USGS topographic map of the Newport Beach area (Santa Ana 30' quadrangle, 1896) revealed that the project area was then a marsh. The Santa Ana and Newport Railway had its western terminus at McFadden Wharf roughly ¼-mile from the study area. There was light development around the wharf. By 1901 (Santa Ana 15' quadrangle), the project area was still marshland. The Southern Pacific Railroad (Smeltzer Branch) connected with the Santa Ana and Newport Railway just to the northeast of the wharf. The area surrounding the wharf was still only lightly developed.

A check of the historic resource listings at the federal level did not disclose any listings within a ¼-mile radius of the project area. The Historic Resources Inventory (HRI) for the State of California, Department of Parks and Recreation lists a State Historical Landmark No. 974, the McFadden Wharf, within a ¼-mile radius of the study area. It is

located at Newport Pier, at the southeast corner of West Oceanfront and McFadden Place in Newport Beach.

FIELD SURVEY AND RESULTS

The author located the project area from maps provided by the client and project proponent. The area is completely developed and is covered by either commercial buildings, pavement (asphalt, bricks, or wood planks), or landscaping throughout. No native vegetation or soil was available for inspection.

No evidence of prehistoric occupation was observed during the field walkover survey. Therefore no significant archaeological resources will be impacted by the proposed development.

CONCLUSIONS AND RECOMMENDATIONS

The records search did not reveal any recorded archaeological resources in proximity to the proposed development, nor did the author see any evidence of prehistoric occupation during the field walkover survey. The only recorded resource is historic (SHL #794). Thus no significant archaeological resources will be impacted by the proposed development. Thus there are no recommendations for additional archaeological studies on the project area prior to development. If in the course of construction, archaeological resources are encountered, a qualified archaeologist should be called in to evaluate the resources, design and implement a plan of mitigation, where appropriate.

REFERENCES CITED

- Bean, L.J., and F.C. Shipek
1978 Luiseño. In *Handbook of North American Indians*, Vol. 8, California, edited by R.F. Heizer, pp. 550-563. Smithsonian Institution, Washington.
- Fenenga, F.
1953 The Weights of Chipped Stone Points: A Clue to Their Functions. *Southwestern Journal of Anthropology* 9(3):309-323.
- Friis, L.
1965 *Orange County Through Four Centuries*. Santa Ana.
- Hall, L.
1993 A Mission Fulfilled: After 140 Years, Juaneno Tribe Is Officially Recognized by the State. *Los Angeles Times*, South Bay Edition, December 1, 1993.

- Hallan-Gibson, P.
 1986 *The Golden Promise: An Illustrated History of Orange County*. Windsor Publications, Northridge.
- 1988 San Juan Capistrano. In *A Hundred Years of Yesterdays: A Centennial History of the People of Orange County and Their Communities*, edited by E.R. Cramer, K.A. Dixon, D. Marsh, P. Brigandi, and C.A. Blamer, pp. 173-175. The Orange County Centennial, Inc., Santa Ana.
- Kowta, M.
 1969 *The Sayles Complex: A Late Millingstone Assemblage from Cajon Pass and the Ecological Implications of its Scraper Planes*. University of California Press, Berkeley and Los Angeles.
- Kroeber, A.L.
 1925 Handbook of the Indians of California. *Bureau of American Ethnology, Bulletin 78*. Smithsonian Institution, Washington, D.C.
- Lee, E.K.
 1988 Newport Beach. In *A Hundred Years of Yesterdays: A Centennial History of the People of Orange County and Their Communities*, edited by E.R. Cramer, K.A. Dixon, D. Marsh, P. Brigandi, and C.A. Blamer, pp. 143-146. The Orange County Centennial, Inc., Santa Ana.
- Moratto, M.J.
 1984 *California Archaeology*. Academic Press, San Diego.
- Morton, P. and R. Miller
 1981 *Geological Map of Orange County, California, Bulletin 204, Plate 1*. California Division of Mines and Geology, Sacramento.
- Muñoz, Jeanne
 1980 Historic Resource of Horno Parcel. Copy on file, SCCIC.
- Smith, H.
 1965 The Portolá Camps Revisited. *Pacific Coast Archaeological Society Quarterly* 1(4):28-32. Costa Mesa.
- Wallace, W.J.
 1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology*, 11: 214-30. Albuquerque.
- Warren, C.N.
 1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory of the Western United States*, C. Irwin Williams, ed. *Eastern New Mexico Contributions in Anthropology*, Vol. 1(3), pp. 1-14. Portales.

**PHASE I PALEONTOLOGICAL ASSESSMENT FOR THE BRIDGEPORT
MIXED-USE PROJECT, NEWPORT BEACH, CALIFORNIA**

By:

Hugh M. Wagner, Ph.D.

Of:

Archaeological Resource Management Corporation
3756 Hightide Drive
Rancho Palos Verdes, CA 90275
310/265-7244

For:

Hodge & Associates
24040 Camino del Avion, #A247
Monarch Beach, CA 92629

September 2, 2005

INTRODUCTION

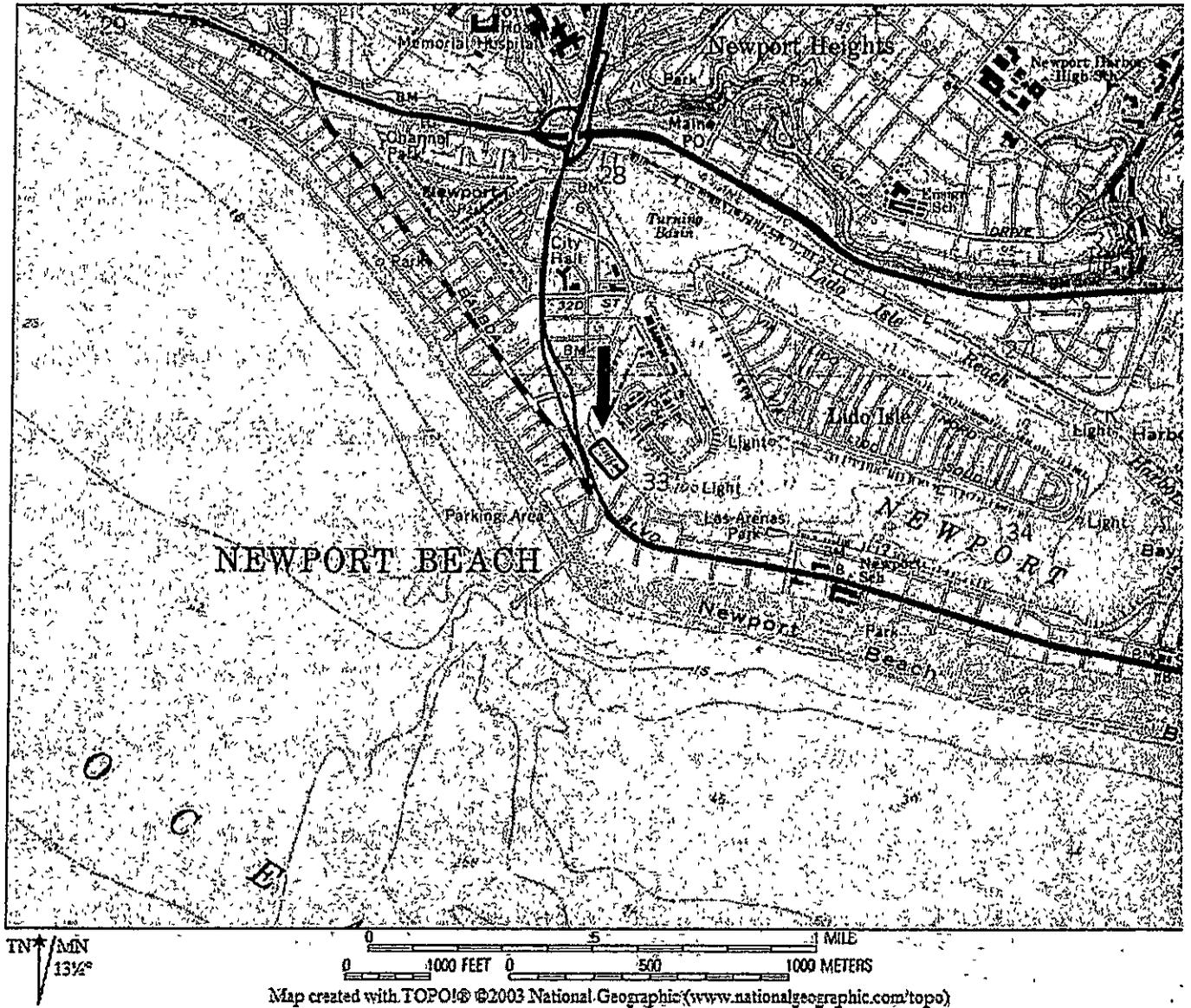
At the request of Cheryle Hodge of Hodge & Associates, personnel from Archaeological Resource Management Corporation (ARMC) conducted a Phase I paleontological assessment of the proposed Bridgeport Mixed-Use Project area. The property is located on the northwest corner of 21st and Newport Boulevard just opposite the Newport Beach Pier, in a commercial, industrial and residential district of Newport Beach, though in this area it caters primarily to tourists and beach-lovers. This area of Orange County is unsurveyed requiring a verbal description. The property lies between Newport Boulevard and the Rhine Channel due west of Lido Isle and another man-made peninsula that occupy a portion of the north end of Newport Bay. The property is currently occupied by a parking lot and various commercial enterprises on Newport Boulevard and on the east appears to abut the Rhine Channel and a ship repair shop, "Southcoast Shipyard" where large marine craft are currently moored. The property is perhaps 5 feet above sea level and appears to be underlain by reclaimed land, artificial landfill, or beach sand of Holocene (Recent) age. The property is flat, though occupied by several buildings and a parking lot. The external dimensions form a rectangle with its long dimension along Newport Boulevard (Figure 1).

The entire surface of the property is either paved or covered with structures. The deposits underlying the asphalt and structures are mapped as Qal (Vedder, Yerkes and Schoellhamer, 1957; Rogers, 1965), Qac (Morton and Miller, 1973, 1981), and Qya (Yerkes and Schoellhamer, 1976). Vedder and others (1957) indicate on their map of this region of Orange County that deposits mapped as Qal are Holocene in age and consist of alluvium, beach sand and artificial fill. On the other maps cited these deposits are mapped as Holocene alluvium or colluvium, bounded on the west by Qb (Holocene beach sand). Based upon the proximity of Lido Isle (mapped as Quaternary alluvium), a man-made island composed of artificial fill dredged to develop Newport Bay, it is assumed that the eastern edge of Newport Beach near the pier is composed of dredged mud and sand that has been converted to useable land for Newport and Balboa Beach. The elevated ground surface on both sides of Newport Boulevard at this location is probably supported by artificial fill dredged to form the bay with a veneer of sand that forms the beach to the west accumulates in response to long shore drift as sand migrates south down the California coastline to form the sand spit at the mouth of Newport Bay.

The evidence from the field survey strongly suggests that the entire parcel is underlain by artificial fill placed along the northwestern margin of Newport Bay earlier in the 20th Century. It is possible that organic material may be encountered during earth-moving activities that penetrate this fill, but it is out of geologic context and of no value to the scientific community. This paleontology report presents the results of a record and archival search and a field survey. The purpose of the report is to provide an assessment of potentially significant fossil resources that might occur on the parcel.

Paleontological Resources

The paleontological resource of a rock encompasses any evidence preserved in the rock of once living organisms. As recognized here, this pertains to fossils preserved either as impressions of soft or hard parts; mineralized remains of hard parts, tracks, burrows, or other trace fossils; coprolites, seeds or pollen; and other microfossils. These organisms may have been terrestrial, aquatic, or aerial in life habit.



Taken from USGS Newport Beach 7.5' Quadrangle (1965; PR 1981).

Figure 1. Project Location.

Fossils are an important resource to science as they are useful in demonstrating and documenting the evolution of particular groups of organisms. Fossils also enable geologists to reconstruct the environment in which the organisms lived and hence the environment during deposition of the rock. Fossils are also extremely useful in determining the age of the rock in which they are preserved.

Paleontological resources include fossil remains, fossil localities, and formations that have produced fossil material in other nearby areas. The paleontologic resource is a limited, nonrenewable, sensitive scientific educational resource afforded protection under federal laws and regulations designed to preserve environmental quality. In California, the paleontologic resource is offered protection under the California Environmental Quality Act.

Methods

Geologic and paleontologic literature including reports, papers, and maps that covered the geographic area of the parcel in Newport Beach, just east of the Newport Pier, in Orange County, was reviewed to ascertain what lithologic unit or units underlie the site. It was then determined whether these units had produced fossils in the past. No formal records search was requested due to the location of the parcel on artificial fill of historic age. A thorough literature review was conducted to determine if the site might be underlain by undisturbed deposits of late Pleistocene age. The results of this literature review indicated that the only fossiliferous deposits occur a short distance to the north and east of Newport Bay in the bluffs where late Pleistocene marine terrace deposits and marine Miocene age deposits of the Capistrano and Monterey Formation are preserved and exposed in the low cliffs that form the elevated area of the City of Newport Beach and east up into the lagoon.

A field survey of the parcel was undertaken to confirm what lithologic units underlie the site being examined and also to determine if any fossils were exposed if exposed rock was present at the surface. A field examination can provide information essential for the evaluation of the potential for an area to produce significant fossil material in the future.

Organization of Report

The remainder of this report is divided into three sections. First the lithologic units underlying the parcel are discussed and any previously recorded fossil localities in the vicinity are noted. Second, the paleontological sensitivity of these lithologic units is assessed, and the potential for impacts discussed. Finally, construction monitoring efforts are proposed and collection/curation procedures are presented for any significant fossil localities, which may be discovered during construction.

LITHOLOGIC UNITS AND PALEONTOLOGICAL RESOURCES

One sedimentary unit underlies the proposed project area. The entire parcel appears to be underlain by artificial fill placed at this site during the development of Newport Bay. This unit is mapped as either Quaternary alluvium, colluvium or as artificial fill. The latter is the most accurate term applied to the deposits that underlie the study parcel.

Quaternary Alluvium –Artificial Fill (Qal, Qac, Qya)

The deposits underlying the asphalt and structures at the corner of 21st Street and Newport Boulevard in Newport Beach is mapped as Qal (Vedder, Yerkes and Scheolhamer, 1957;Rogers, 1965), Qac (Morton and Miller, 1973, 1981), and Qya (Yerkes and Schoellhamer, 1976). Vedder and others (1957) indicate on their map of this region of Orange County that deposits mapped as Qal are Holocene in age and consist of alluvium, beach sand and artificial fill. On the other maps cited these deposits are mapped as Holocene alluvium or colluvium, bounded on the west by Qb (Holocene beach sand). Based upon the proximity of Lido Isle (mapped as Quaternary alluvium), a man-made island composed of artificial fill dredged to develop Newport Bay, it is assumed that the eastern edge of Newport Beach near the pier is composed of dredged mud and sand that has been converted to useable land for Newport and Balboa Beach.

The Holocene to historic age of this region of Newport Beach is supported by statements made by Vedder (1970:3) where he indicates that all the mouths of the principal drainages including the Santa Ana River at Newport Bay are drowned as a result of a post-Wisconsin rise in sea-level (latest Pleistocene) and that the incised channel at Newport Bay is as much as 123 feet below sea level near the upper bay. This indicates that the sand spit that forms the beach along the western edge of Newport and Balboa beach and associated deposits on the western margin of Newport Bay are of Holocene or historic age and are not old enough to contain fossils. "Fossil" material of late Pleistocene age may be present in artificial fill dredged to form Newport Bay, but such specimens are not of value to the scientific community as their provenience and stratigraphic context is unknown.

EVALUATION OF PALEONTOLOGICAL RESOURCES

In order to assess the paleontological resources of the project, available maps, reports, and papers that pertain to the geology and paleontology of the lithologic units in the City of Newport Beach, Orange County, were carefully examined for documentation of fossil occurrences. A field survey of the parcel was then conducted to determine if any fossils were present within the project boundaries. As previously stated the parcel is covered with asphalt and structures.

Potential Impacts

Paleontological resources, including fossil remains and associated scientific data, fossil sites, and fossiliferous rocks, could be adversely affected by the direct and indirect environmental impacts accompanying the grading and excavation activities needed for the development of the Bridgeport Mixed-Use Project Area in Newport Beach.

Direct impacts would result from the ground-disturbing activities associated with the clearing of the vegetation and soil, excavation of aggregate and increased development of the proposed processing facility. If a significant paleontological resource is identified within the boundaries of the proposed project ground disturbance could result in the loss of paleontological resources, including scientifically important fossil remains, associated geologic data, fossil sites, and fossiliferous rocks, by disturbing fossil-bearing and potentially fossiliferous rocks. Although construction would be a short-term activity, the loss of some fossil remains and the fossil-bearing rocks would be a permanent adverse environmental impact. On this particular parcel the project-related construction activities may have an affect any fossil-bearing formations.

Easier access to fossil sites and the accompanying potential for unauthorized fossil collecting by construction personnel, rock hounds, and amateur and commercial fossil collectors would not disturb fossiliferous rocks to a significant degree, but could result in the loss of additional fossil remains, associated scientific data, and fossil sites.

The level of potential significance (high, low, unknown, or none) of these adverse impacts in a particular area to be affected is based on the paleontologic importance of the formation underlying the area, and the potential for disturbing fossil localities and remains therein. The adverse impacts on any fossil locality containing identifiable remains, as well as on the fossiliferous bed that produced them, depends on the paleontologic importance of the formation in which the locality and bed occur, the extent of the impact, and the occurrence of other comparable remains nearby. Additionally, the feasibility of reducing impacts by scientific collection of data must also be considered.

Assessment Criteria

The paleontological sensitivity of a formation or unnamed sedimentary unit, described as high, low, unknown, or none, is the measurement most conducive to assessing the sensitivity of the paleontologic resources within the study area. The paleontologic sensitivity of a formation reflects its potential productivity and the importance of the fossils it has produced in the area. The procedures utilized in this study to evaluate the paleontologic resource of a rock unit are similar to those utilized by Wagner (1990, 1995).

The potential productivity of a formation is measured as high, low, unknown, or none, based upon the densities of fossil specimens or localities within or near the study area. Exposures of a particular formation within a study area most likely will yield fossils

similar in number and kind to those previously recorded from the formation in the surrounding area, and may contain a similar density of fossil sites. The criteria for establishing the potential productivity of a formation exposed within the study area are described below:

- High potential: Formation contains a high density of fossil sites and/or has produced numerous remains locally and is very likely to yield additional remains.
- Low potential: Poorly exposed or studied formation that contains a very low density of recorded fossil localities and has produced little remains locally. Further investigation could establish that it contains comparatively numerous localities and common remains.
- Unknown potential: Formations for which no data, or insufficient data is available from the immediate vicinity to allow an accurate assessment of its potential for yielding important fossil remains within the study area.
- No potential: Unfossiliferous igneous and metamorphic rock units with no potential for yielding any fossil remains or Recent to sub-Recent sedimentary deposits that are too young to yield organic remains greater than 10,000 years old.

To determine the paleontological sensitivity for each formation exposed within the study area, the following procedures were utilized:

- 1) The productivity of each formation was assessed based upon the densities of fossil localities and remains it has produced locally.
- 2) The importance of the fossil remains recovered from each formation was assessed.
- 3) The importance of fossil remains that might be recovered from a formation if different techniques are utilized to collect the fossils was assessed. The criterion is implemented due to the effectiveness of screen-washing large volumes of matrix followed by heavy liquid separation in extracting fossil specimens where no fossils were previously observed.
- 4) The paleontologic importance of each formation was assessed based upon its potential fossil content.

PALEONTOLOGIC RESOURCE ASSESSMENT

A description and evaluation of the resources found in the one unit anticipated during construction is provided in this section (see also Table 1).

Quaternary Alluvium-Artificial Fill (Qal, Qac, Qya)

The parcel at the corner of 21st Street and Newport Boulevard in the City of Newport Beach appears to be underlain by artificial fill either dredged from Newport Bay or rock imported from a local source. These deposits do not have a potential for producing significant fossils during earthmoving activities related to redevelopment of this property. Therefore, this property is not considered to be paleontologically sensitive.

MITIGATION MEASURES

A description and evaluation of the resources found in the one unit anticipated during construction is provided in this section.

Quaternary Alluvium-Artificial Fill (Qal, Qac, Qya) Holocene to historic age deposits of artificial fill appear to underlie this parcel. No fossils valuable to the scientific community could be recovered from these deposits and they have no potential for yielding significant fossils.

Specific Mitigation Recommendations for the Proposed Bridgeport Mixed-Use Project Area, Newport Beach, Orange County

Quaternary Alluvium-Artificial Fill (Qal, Qac, Qya)

The ground surface area within the boundaries of this parcel appears to be underlain by artificial fill either dredged from Newport Bay or imported from some local source rock. These deposits are of Holocene to historic in age and have no potential for yielding significant fossils and are therefore not considered to be paleontologically sensitive. Therefore, they do not require mitigation for paleontological resources.

REFERENCES CITED

- Morton, P. K. and R. V. Miller, 1973. Geologic Map of Orange County, California. In, Geo-Environmental Maps of Orange County, California, Preliminary Report 15. California Division Mines and Geology.
- Morton, P. K., and R. V. Miller, 1981. Geologic Map of Orange County, California. California Division Mines and Geology.
- Rogers, T.H., 1965. Geologic Map of California, Santa Ana Sheet, 1:250,000. California Division of Mines Map Series, Olaf P. Jenkins edition.
- Vedder, J G., R. F. Yerkes, and J. E. Shoellhamer, 1957: Geologic map of the San Joaquin Hills-San Juan Capistrano area, Orange County, California. U. S. Geol. Surv., Oil and Gas Investigations Map OM 193.

Vernon, J. W., A. D. Warren, and J. L. Wildharber, 1970. Road Log – Southeastern Rim, Los Angeles Basin. In, Southeastern Rim of the Los Angeles Basin Orange County, California, Newport Lagoon - San Joaquin Hills – Santa Ana Mountains. Pacific Section AAPG –SEPM Field Trip March 21, 1970, Geologic Guidebook: 1-14.

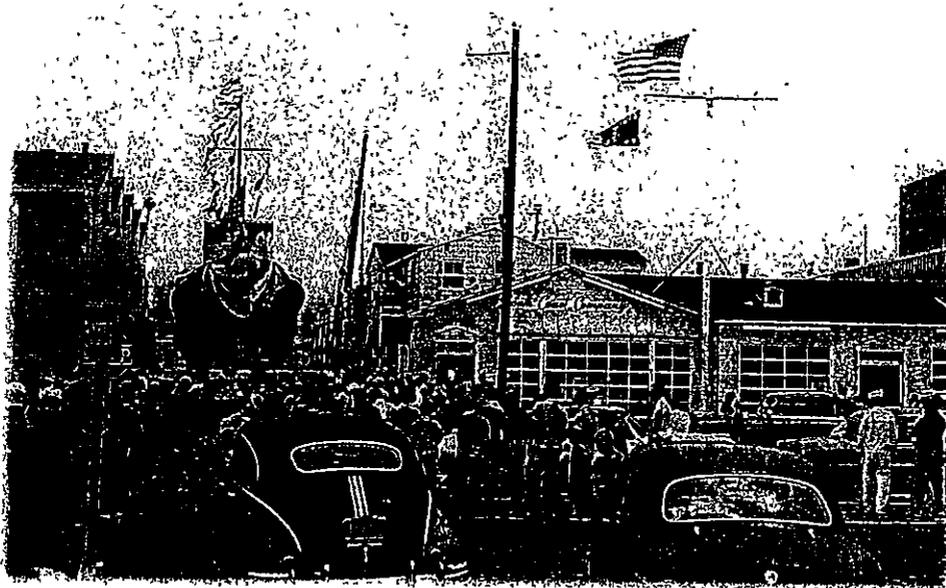
Wagner, H. M., 1995. Paleontologic resource assessment of the Tuscarora Natural Gas Pipeline Route from Malin, Oregon to Tracy, Nevada. Submitted to Tuscarora Gas Transmission Company, Reno, Nevada, 1-38.

Table 1. The Paleontological Sensitivity of the Lithologic Unit Underlying the Bridgeport Mixed-Use Project Area in the City of Newport Beach, California.

Lithologic Unit	Paleontological Sensitivity
Quaternary Alluvium-Artificial Fill	None

HISTORICAL RESOURCE ASSESSMENT

THE SOUTH COAST SHIPYARD
CITY OF NEWPORT BEACH
ORANGE COUNTY, CALIFORNIA



LSA

October 2005

HISTORICAL RESOURCE ASSESSMENT

THE SOUTH COAST SHIPYARD

CITY OF NEWPORT BEACH

ORANGE COUNTY, CALIFORNIA

Prepared for:

Ms. Cheryle Hodge
Hodge and Associates
24040 Camino Del Avion, #A247
Monarch Beach, California 92629

Prepared by:

Judith Marvin and Shannon Carmack
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0006

LSA Project No. HOG530

National Archaeological Data Base (NADB)

Type of Study: Record Search, Survey, Interview

Sites Recorded: One, the South Coast Shipyard .

Sites Updated: None

USGS Quadrangle: Newport Beach 7.5' (USGS 1965, Photorevised 1981)

Acreage: 2.4 acres

Level of Investigation: CEQA

Key Words: CEQA, Historic Shipyard, Positive Survey, Orange County

LSA

October 2005

TABLE OF CONTENTS

ABSTRACT	1
INTRODUCTION	3
HISTORICAL OVERVIEW	5
SOUTH COAST SHIPYARD.....	9
METHODS	17
RECORDS RESEARCH.....	17
FIELD SURVEY.....	17
RESULTS	19
RECORDS SEARCH.....	19
FIELD SURVEY.....	19
BUILDING DESCRIPTIONS	19
SIGNIFICANCE EVALUATIONS	29
SIGNIFICANCE.....	30
MANAGEMENT RECOMMENDATIONS	32
REFERENCES	34

FIGURES

Figure 1: Project Location Map	4
Figure 2: 1904 Map of Original Newport Townsite	8
Figure 3: 1926 Map of Tract No. 814	10
Figure 4: 1929 Sanborn Map	11
Figure 5: 1942 Map of the South Coast Shipyard.....	13
Figure 6: Photograph of Slipway, ca. 1942.....	14
Figure 7: Photograph of Minesweeper, ca. 1942	16
Figure 8: Aerial Map of the Shipyard.....	20
Figure 9: Sketchmap of the Shipyard	21
Figure 10: Boat Shop, Planing Mill and Slipway	22
Figure 11: Hardware Shops, Boat Showroom	24
Figure 12: Machine Shop and Offices	25
Figure 13: Foundry, Shops and Arcade	27
Figure 14: Warehouse and Pipe Shop.....	28

APPENDIX

A: DPR523 FORMS

ABSTRACT

This document reports the results of a historical resource assessment conducted for the South Coast Shipyard. Under contract to Hodge and Associates, LSA Associates, Inc. (LSA) evaluated the architectural resources that may be impacted by proposed development activities within the project site. The South Coast Shipyard project area consists of approximately 2.4 acres, located at 2300 Newport Boulevard in the City of Newport Beach, County of Orange, California. This project was conducted pursuant to the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Chapter 2.6, Section 21083.2 (as amended January 1, 1999), and the California Code of Regulations (CCR), Title 14, Chapter 3, Article 5, Section 15064.5. In addition, the project area was assessed for significance in accordance with the City of Newport Beach's Landmark Buildings Ordinance, Chapter 20.62-7 of the Planning Code.

A records search was conducted at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. No previously recorded historical resources were identified within the project area, and there are no properties listed in the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), California Landmarks, or the California Points of Historical Interest within the project area. The Historic Properties Directory (2005) did not identify any properties within the project area. Three cultural resources are located within one-half mile of the facility. The closest resource, the McFadden Wharf (State Historic Landmark #794), is located 800 feet south of the project area.

The South Coast Shipyard was previously identified as a historic landmark by the Newport Beach Historical Society, and it appears on the Historic Resources Inventory of the City of Newport Beach. The South Coast Shipyard was identified as a local historic site, representing historic/architectural themes of local importance. While the South Coast Shipyard was recognized as a locally significant property, the City of Newport Beach does not have a Historic Preservation Ordinance and only encourages the adaptive reuse and preservation of buildings, recognized by the City to be Landmark Buildings. The South Coast Shipyard is not recognized by the City of Newport Beach to be a Landmark Building.

On September 15, 2005, LSA Architectural Historian Shannon Carmack conducted a field survey of the South Coast Shipyard. The architectural resources that comprise the South Coast Shipyard include three groups of industrial and office buildings that total 43,500 square feet of space. These architectural resources, constructed between 1926 and 1938, were photographed, recorded, and evaluated for eligibility for listing in the California Register of Historical Resources (California Register). Archival research was also conducted to provide a contextual basis from which to determine eligibility.

The South Coast Shipyard appears to be eligible for listing in the California Register as a historical resource at the local level of significance under Criteria 1 and 3. Under Criterion 1, the South Coast Shipyard is associated with the development of the maritime economy of Newport Beach and with World War II, as a local contributor to the war effort. Under Criterion 3, the South Coast Shipyard

represents an excellent example of maritime architecture in the City of Newport Beach, particularly on Balboa Peninsula. The buildings are in good condition and retain integrity of location, design, feeling, association, workmanship, materials, and setting. The South Coast Shipyard buildings exhibit a collective distinction as a historic district.

The proposed project involves demolition of the buildings within the South Coast Shipyard. This will be a significant impact on the environment that should be reported as a significant impact in an Environmental Impact Report prepared to comply with CEQA. Possible alternatives and mitigation must be considered per CEQA and the CEQA Guidelines. Mitigation options and alternatives are as follows: 1) avoidance or preservation in place, 2) moving the buildings to a new location, 3) documentation of the buildings/place according Historic American Building Survey (HABS) Level 1, prior to demolition, and 4) memorialization of the buildings within the new development. Only avoidance of demolition or preservation of the buildings in place avoids a significant impact on the environment, per CEQA Guidelines. Mitigation measures derived from 2, 3 and 4, above, lessen the impacts, but, not to a level that is less than significant.

Should the project limits change to include areas outside of the current project area, the new areas will require a supplemental cultural resource survey and evaluation. If any cultural resources are identified during construction activities, a qualified professional archaeologist must be contacted to assess the nature and significance of the find and to determine appropriate mitigation measures.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

A copy of this cultural resource report will be filed with the SCCIC of the California Historical Resources Information System (CHRIS) located at the University of California, Fullerton.

INTRODUCTION

Under contract to Hodge and Associates, LSA Associates, Inc. (LSA) conducted a historical resource assessment of the South Coast Shipyard. This study was undertaken to determine whether historical resources are present within the South Coast Shipyard project area and to evaluate their importance under the provision of CEQA (as amended January 1, 2004): PRC, Division 13 (Environmental Quality), Chapters 2.6 §21083.2 (Archaeological Resources) and 2.6 §21084.1 (Historical Resources) and the Guidelines for CEQA (as amended December 1, 2003), CCR Title 14, Chapter 3, Article 5 §15064.5 (Determining the Significance of Impacts on Historical and Unique Archaeological Resources). In addition, the project area was assessed for significance in accordance with the City of Newport Beach's Landmark Buildings Ordinance, Chapter 20.62-7 of the Planning Code. Sites determined to be important under CEQA are considered eligible for listing on the California Register.

The South Coast Shipyard project area is an unevenly shaped polygon located at 2300 Newport Boulevard in the City of Newport Beach, County of Orange, California. The property consists of approximately 2.4 acres of industrial retail space with oceanfront access. Specifically, the project area is located within Township 6 South, Range 10 West, in the northeast quarter of the northwest quarter of the southwest quarter of Section 33 on the *Newport Beach* 7.5-minute United States Geological Survey (USGS) quadrangle map (Figure 1).

The South Coast Shipyard consists of three groups of industrial and office buildings that total 43,500 square feet of space. These architectural resources were built between 1926 and 1938. The project area also consists of a commercial marina, two boat slipways, and parking lots. The proposed project would require demolition of these existing buildings for the development of a new mixed-use development with approximately 36,000 square feet for commercial use and 27 residential units.

Project personnel included Deborah McLean, M.A., RPA, who provided project management; Architectural Historian Shannon Carmack, who recorded and researched the buildings and the property history; and Architectural Historian Judith Marvin, who evaluated the historic resources. This report was completed by Judith Marvin and Shannon Carmack.

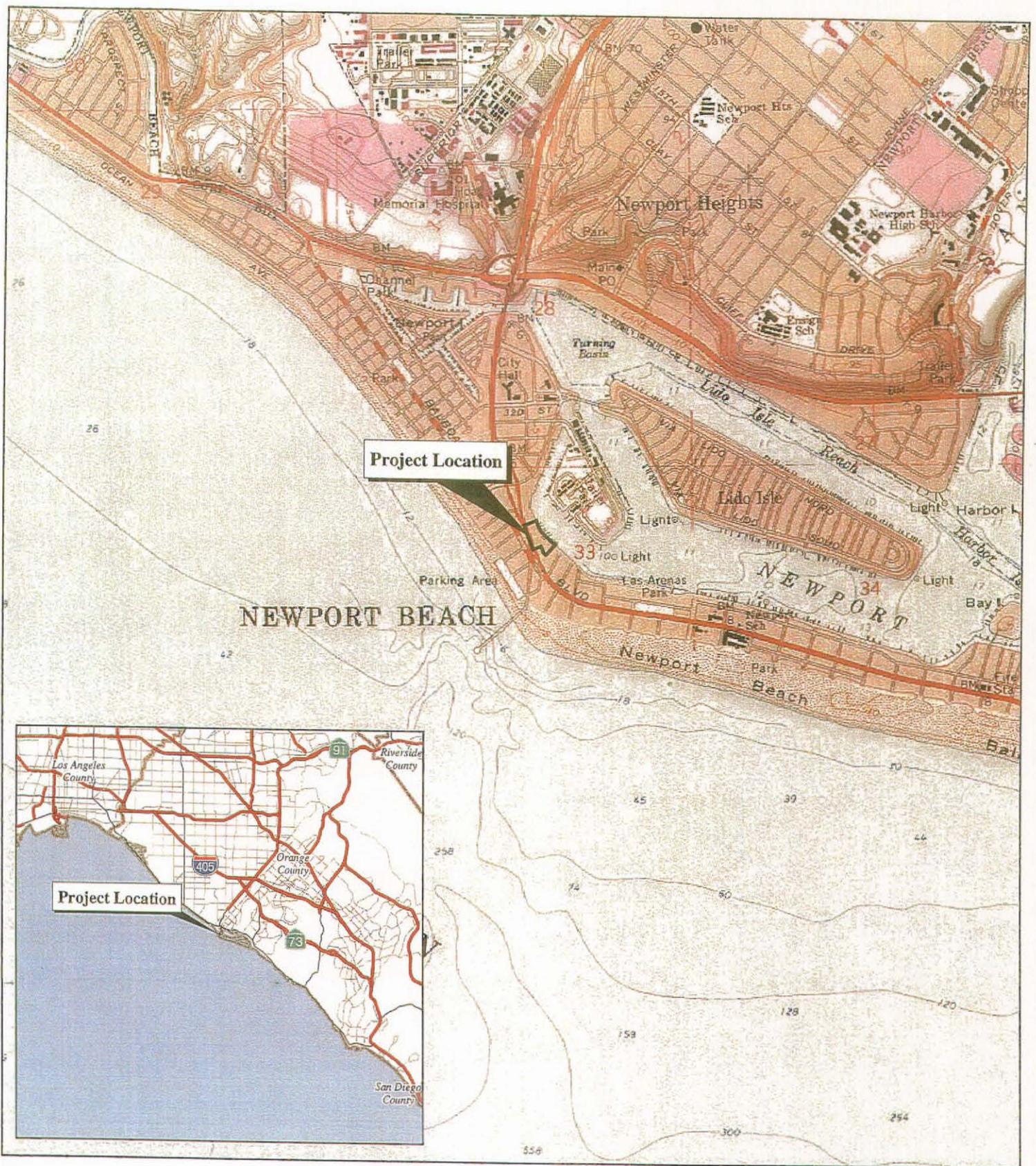
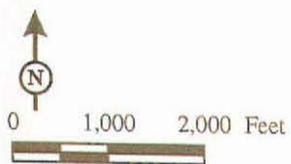


FIGURE 1

LSA



South Coast Shipyard
 Historical Resource Assessment
 Project Location and Regional Map

SOURCE: USGS 7.5' QUAD - NEWPORT BEACH (81), CALIF.
 I:\LHM430\GIS\Fig1.mxd (07/12/05)

HISTORICAL OVERVIEW

The historic period in California began with the establishment of Spanish Colonial military outposts, the first of which was Mission San Diego de Alcalá, built in 1769. That same year, Gaspar de Portolá led an expedition through the coastal areas of southern California, passing through what is now Orange County on its way to northern California (Hoover et al. 2002:263).

In 1771, Father Junipero Serra established a Franciscan mission at San Gabriel. In 1776, another mission was established in San Juan Capistrano. The Franciscans' goal was to convert the Indians to Christianity and incorporate them into Spanish society. The Indians learned metallurgy, plant and animal domestication, and European building construction methods. Europeans learned how and where indigenous people lived, and gathered information about native lifeways as well as ceremonial and ritual practices (Bean and Smith 1978:548).

In 1821, Mexico gained independence from Spain, and in 1848 the United States formally obtained California in the Treaty of Guadalupe Hidalgo (Cleland 1962: xiii). The period from 1821 to 1848 is referred to as the Mexican Rancho Period. It was during this period that large tracts of land termed *ranchos* were granted by the various Mexican Governors of *alta* California, usually to individuals who had worked in the service of the Mexican Government. In 1833, 12 years after gaining independence from Spain, the Mexican government's Secularization Act changed missions into civil parishes, and those natives who had inhabited regions adjacent to a Spanish Period mission were to obtain half of all mission possessions, including land. However, in most instances this did not occur, and the Secularization Act resulted in the transfer of large mission tracts to politically prominent individuals.

One such rancho, *Rancho San Joaquin*, was owned by Don José Andrés Sepúlveda. The rancho totaled 48,803 acres of land and was comprised of two Spanish Mission period ranchos: *Rancho Cienega de las Ranas* (Swamp of the Frogs) and *Rancho Bolsas de San Joaquin*. *Rancho Cienega de las Ranas* was granted to Sepúlveda in 1837 and extended from Red Hill to the ocean; it included the mainland of Newport Beach and Laguna Beach, north of Laguna Canyon. *Rancho Bolsas de San Joaquin*, located on Upper Newport Bay, was granted to Sepúlveda in 1842. Sepúlveda combined the two land grants and renamed the property *Rancho San Joaquin* (Liebeck 1990:2, 3).

Sepúlveda built a large adobe house for his family on the ranch, on the upper Newport Bay marshes. A workers' compound, known as the Sepúlveda Rancheria, was built nearby. Although Sepúlveda planted grain and maintained gardens on part of his land, most of the property was devoted to cattle ranching. Cattle ranching was a highly profitable enterprise for several years during the Gold Rush due to the massive influx of immigrants (Cleland 1941:102-108; Liebeck 1990:2, 3).

During this era, few people lived in California, and no one practiced intensive agriculture in Orange County. Initially, the settlers used these large land grants for herding cattle. Wild cattle—descendants of the cattle the Franciscan missionaries brought when they established the missions—roamed the

hills. Grazing land was abundant. Trading of hides and tallow began in the early 1800s, and by the 1840s, livestock ranching was the primary economic resource of California (Cleland 1975).

Following the end of hostilities between Mexico and the United States in January 1847, the United States officially obtained California from Mexico through the Treaty of Guadalupe Hidalgo on February 2, 1848 (Cleland 1962: xiii). Thus, the American Period begins in 1848. In 1850, California was accepted into the Union of the United States, primarily due to the population increase created by the Gold Rush of 1849.

In 1864, Sepúlveda sold *Rancho San Joaquin* to a business partnership comprising James Irvine I, Llewellyn Bixby, Thomas Flint, and Benjamin Flint. The four called their partnership Flint, Bixby & Company. Two years later, in 1866, Flint, Bixby & Company also purchased William Wolfskill's *Rancho Lomas de Santiago*, as well as Wolfskill's interest in *Rancho Santiago de Santa Ana*. (Liebeck 1990:6, 10, 11).

In 1876, James Irvine bought out the partnership and became sole owner of *Rancho San Joaquin*. Although the rancho retained the name *Rancho San Joaquin* for a time, it eventually became known as the Irvine Ranch (Liebeck 1990:6-14). Thus, at its greatest extent, the Irvine Ranch included 125,000 acres of land that were once part of three ranchos: *Rancho San Joaquin*, *Rancho Lomas de Santiago*, and *Rancho Santiago de Santa Ana* (Liebeck 1990:2-4).

NEWPORT BEACH

James McFadden

During the mid-19th century, Newport Bay was used as a landing to load hides, tallow, hay and other goods for export. In 1870 the 105-ton steamer *Vaquero* entered the bay under the command of Captain Samuel S. Dunnells to offload supplies. Originally deemed too dangerous, the voyage of the *Vaquero* proved that the bay was navigable, and the maritime industry of Newport Beach officially began. Dunnells and his partner, D.M. Dorman, built a warehouse and dock that same year, calling it "New Port" (Newport) Landing. It was located just below the bluffs that separate the Upper and Lower Newport Bay, near the intersection of present-day Pacific Coast Highway and Dover Drive, approximately 1.25 miles southwest of the project area (Sherman 1931:9).

Shortly after Newport Landing was established, brothers James, John, and Robert McFadden arrived in Orange County (Baker 2004:15). In 1873, James McFadden traveled to San Francisco to procure fencing lumber, with the shipment to be delivered to the landing at Newport. Upon delivery of their shipment, the McFaddens discovered that due to the lack of local resources, there was a high demand for lumber. This launched the brothers into the lumber business. That same year, the McFadden brothers purchased Newport Landing and established the site as their business headquarters (Sherman 1931:9, Hoover et al 2002:269).

The McFadden's lumber venture quickly expanded and soon the family was operating a thriving shipping and trade business. Unfortunately, the bay proved to be more difficult to navigate than previously anticipated. Shifting sand bars and the dangerous entrance to the bay made the trip so difficult to navigate that the wharf was abandoned (Baker 2004:24) The McFaddens decided to

relocate their operations to the oceanfront, along the vacant sand spit that is now called the Balboa Peninsula, on the location of the present-day Newport Pier (Sherman 1931:18).

The wharf was completed in 1888. In 1889, the McFaddens purchased 1,000 acres from the State of California that were deemed to be overflow/swampland at a cost of \$1 an acre. This purchase consisted of most of Balboa Peninsula between 9th and 40th Streets, including the newly built wharf (Sherman 1931:18). In 1891, the wharf became the first line of the Santa Ana and Newport Railroad. Goods were received at the pier and used to supply the construction of the railroad (Hoover et al 2002:269).

Prior to 1885, no buildings or structures existed on Balboa Peninsula. Once construction on the new wharf began, buildings quickly emerged. In 1890, a house was moved in pieces and reassembled on Balboa Peninsula to accommodate McFadden's work force of 24 men. That same year, John Sharp came to work for the McFaddens. Sharp previously operated a hotel at San Juan Point. Once in Newport, his wife operated a boarding house for the dock workers, which was located near the wharf (Sherman 1931:1618). The McFaddens also established a corral and feed yard approximately 800 feet north of the wharf, within the project area. The feed yard was operated by Horace Salter (Felton 1981:210).

The Newport town site was plotted in 1892 by S.H. Finley. Lots were leased with the provision that the renter could remove any buildings constructed at the termination of the lease (Sherman 1931:18). A fishing village developed near the wharf. After a day of fishing, the men would bank the fishing dories onto the shore. There they would repair the fishing nets and boats while their wives sold the day's catch at the marketplace (Felton 1981:209-210).

The McFadden wharf remained successful until 1899, when federal funding was secured for improvements to the new harbor at San Pedro. Disappointed by the failure to secure funding for a port expansion, the McFaddens sold their entire Newport holdings. The wharf and railroad were sold to the Southern Pacific Railroad, and the commercial shipping industry at Newport came to an end.

W.S. Collins

In 1902, the Newport town site, the swamplands, and half of Balboa Peninsula were sold to William S. Collins for approximately \$35,000 (Sherman 1931:23, Baker 2004:40). Collins was a young businessman in his 30s who owned interests in automobile, mine, oil, banking, and hotel industries (Lee 1973:57).

Seeing Newport's potential as a resort and recreation town, Collins secured the financial support of railroad magnate, Henry E. Huntington. Huntington owned the Pacific Electric Railway system, which he used to promote new communities outside the Los Angeles area. Huntington promised Collins that he would extend the rail line into Newport Beach in order to promote tourism and development and to capitalize on the lure of the beaches. In 1904, Collins and Huntington organized the Newport Beach Company and filed several amendments to the Newport town map, one of which included the project area (Figure 2).

The Newport Beach Company promptly set about developing the new town, announcing that existing residents would have to purchase their town lots at an estimated cost of \$125 to \$300 a lot. This

Map of Section A NEWPORT BEACH

S.H. FINLEY
County Surveyor

Newport Beach Co
25 July 1902
S.H. Finley
- 4-21
H.S. Bagg
Jr.

-CERTIFICATE-
I hereby certify that the attached map was made by the Surveyor of Newport Beach, in accordance with the provisions of the Act of the Legislature of the State of California, passed at the Regular Session of 1899, and amended by the Act of the Legislature of the State of California, passed at the Special Session of 1901, and the Act of the Legislature of the State of California, passed at the Regular Session of 1902, and that the same is a true and correct copy of the original map on file in the office of the County Surveyor of Newport Beach, California, and that the same is a true and correct copy of the original map on file in the office of the County Surveyor of Newport Beach, California, and that the same is a true and correct copy of the original map on file in the office of the County Surveyor of Newport Beach, California.

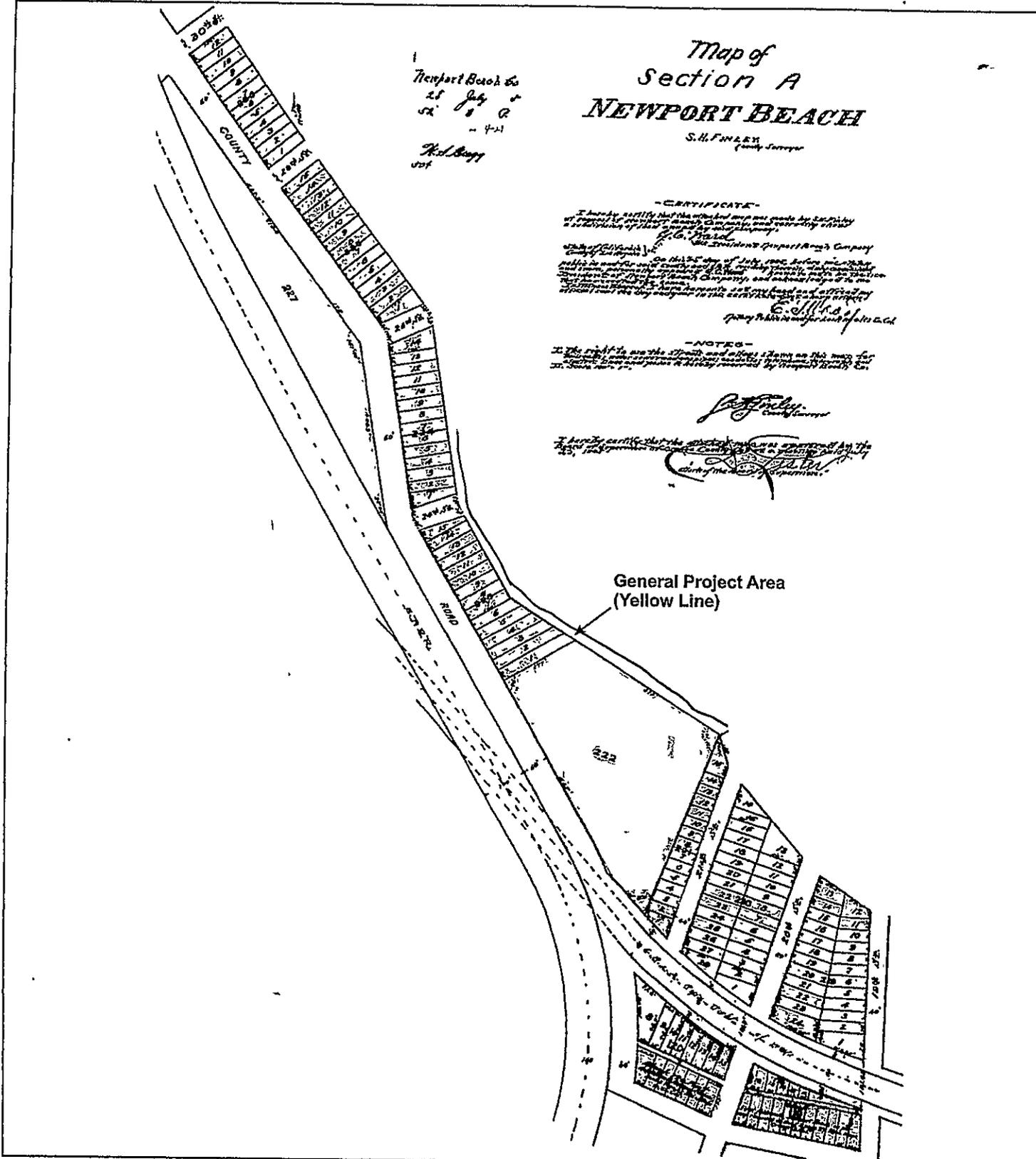
E. J. Finley
County Surveyor

-NOTES-
In the right of the street and alley shown on this map, the right of way is shown as a yellow line, and the same is a true and correct copy of the original map on file in the office of the County Surveyor of Newport Beach, California.

I hereby certify that the attached map was approved by the Board of Supervisors of the County of Orange, California, and that the same is a true and correct copy of the original map on file in the office of the County Surveyor of Newport Beach, California.

E. J. Finley
County Surveyor

General Project Area
(Yellow Line)



LSA

FIGURE 2

SOURCE: facilities of the South Coast Building Co.
on file - Sherman Library, Corona Del Mar, California

South Coast Shipyard
Historical Resource Assessment
Subdivision Map of Section A
of the Newport Beach Tract, Filed, 1902.

caused an upset amongst the residents, particularly the Dory fisherman who had leased their lots at an affordable rate during the McFadden tenure of the property (Sherman 1931:23, 37, Lee 1973:57).

By 1906, Huntington's Pacific Electric "Red Cars" extended their line to Newport and Balboa Island. A hotel was built near the Balboa Pavilion and the town began to quickly expand. That same year, the City of Newport Beach incorporated and Collins began dredging the channel on the north side of Newport Bay and deposited the sand and silt onto tidelands that would eventually become Balboa Island. By 1907 the City engineer had set the grade for Central Avenue (now Newport Boulevard) from Newport to Balboa, and the first City barn was constructed, on a \$500 lot near the bay, located west of the present project area (Sherman 1931:27).

Collins brought the first commercial boatyard to Newport Harbor in the early 1900s. Under the name Collins Commercial Company, he built a machine shop to begin his boat-building business. In addition to building small boats and race boats, Collins also built a dredger, so that he could dredge a motor raceway around Balboa Island. By 1913, when Collins built the motor cruiser named the "W.S.," the Collins Commercial Company was building the largest and fastest boats available in Newport Beach (Felton 1981:210).

The boat-building business continued to expand throughout the 1920s and 1930s. Local yacht clubs and racing clubs began appearing in harbors throughout Southern California. In Newport Beach, an estimated \$500,000 in annual business was being conducted in the boating industry by the 1930s (Sherman 1931:126).

SOUTH COAST SHIPYARD

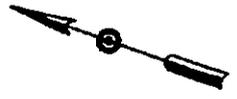
In November 1926, Harry J. Bauer began construction on a new boatyard on Balboa Peninsula. Bauer was a wealthy Southern California attorney who later became the president of the Automobile Club of Southern California (1931) and president of Southern California Edison (1932). Bauer was an established yachtsman who wanted his own boatyard to maintain and repair his yacht. He purchased Lots 1 and 2 of the newly subdivided Tract No. 814 for the sum of \$25,000 (Figure 3). The tract was located on the Balboa Peninsula, along West Central Avenue (Newport Boulevard) between 22nd and 26th Streets (County of Orange Assessor, Felton 1981:210, *Los Angeles Times*, Dec. 5, 1926).

Bauer entered into partnership with local Newport Beach resident and boat builder, Ben Cope. Cope set about designing and constructing the new shipyard at a cost of \$22,000. Two buildings were constructed on the property: a large warehouse and a machine shop (Figure 4). Operating under the name Better Boats, Inc., it was one of the largest boatyards built at the time, with the ability to handle construction of yachts over 100 feet in length. The warehouse was designed to be 80 feet by 100 feet in ground dimensions with walls approximately 20 feet in height. Special ways leading into the bay were added so that the shipyard could accommodate the largest boats entering Newport Harbor (*Los Angeles Times*, Dec. 5, 1926). Twenty-five men worked continuously on the new shipyard until it was completed in March of 1927. Cope doubled his workforce when the shipyard was finished, as he already had contracts to construct three new boats (*Los Angeles Times*, March 6, 1927). The first boat to be constructed at the new shipyard, a 26-foot runabout, was built for George D. Hoffman of Los Angeles (*Los Angeles Times*, March 27, 1927).

TRACT N° 814

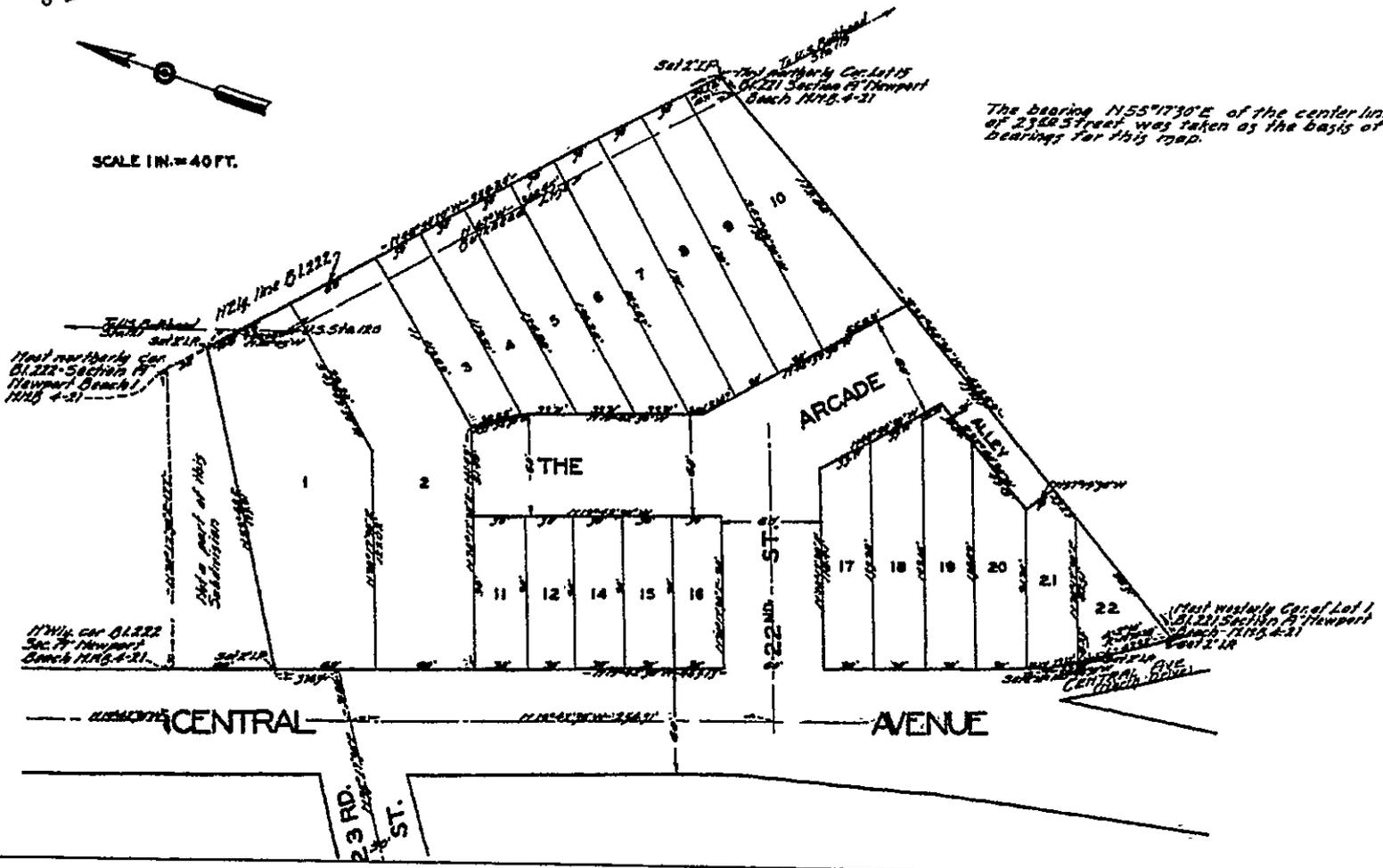
BEING A RE-SUBDIVISION OF A PORTION OF BLOCK 222 SECTION A
NEWPORT BEACH M.M.B. 4-21 RECORDS OF ORANGE COUNTY CALIF

50 9 2
Wesun
Jonathan Whitney
500



SCALE 1 IN. = 40 FT.

The bearing N55°17'30"E of the center line of
of 23rd Street was taken as the basis of
bearings for this map.

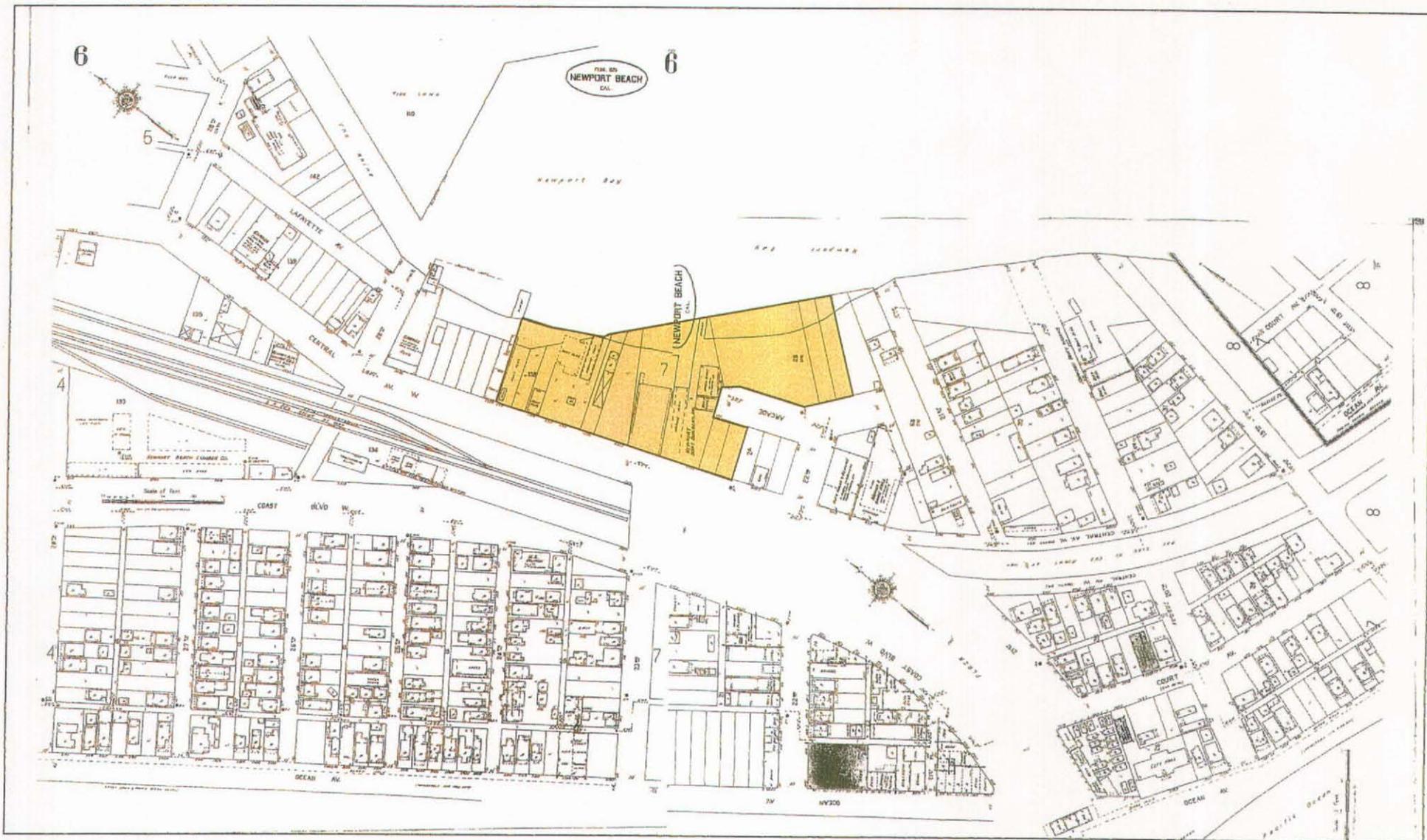


LSA

FIGURE 3

SOURCE: facilities of the South Coast Building Co.
on file - Sherman Library, Corona Del Mar, California

South Coast Shipyard
Historical Resource Assessment
Map of Tract No. 814, Filed 1926.



LSA

Project Area

FIGURE 4

South Coast Shipyard
 Historical Resource Assessment
 1929 Sanborn Map of Newport Beach, California
 Showing Project Location

SOURCE: Sanborn Fire Insurance Co.

I:\HOG530\GMap_Sanborn_NB.cdr (10/11/05)

Although the new shipyard was an immediate success, the partnership of Cope and Bauer was short-lived. Upon completion of the project, Bauer sold his interest in the business to Cope. Cope quickly grew tired of the business himself, and on April 15, 1928, sold his interests to Charles Lockard and Frank Rhinehart. Lockard was a former owner of the Seattle baseball club and an associate of William Wrigley, Jr. (*Los Angeles Times* Oct 7, 1928). Rhinehart had previously operated the Balboa Motion Picture Company and worked for the Gas Company, later becoming a superintendent. Lockard and Rhinehart began operating the business as the Newport Boat Builders, Inc. (Sherman 1931:67, 124-125)

Three months after purchasing the property, Lockard and Rhinehart entered into partnership with earthworks contractors, Sparks and McCellan, who owned a suction dredger, referred to as *Little Aggie*. By November, the group was securing several large boat-building and dredging contracts within Newport Bay. They made several improvements to the shipyard, including the addition of a new marine way between the shipyard's two buildings (Felton 1981:211).

Lockard and Rhinehart later sold their interest in the company to Sparks and McCellan. By 1930, the Newport Beach Boat Builders was one of the largest shipyards in Newport Beach, despite the high turnover in ownership during its short existence. The company boasted an annual payroll of \$80,000 and secured some of the largest contracts in the bay (Sherman 1931:67, 124-125).

In 1933, the shipyard was purchased by the Hubbard family. The owners incorporated, and the name of the business was changed to the South Coast Boat Building Company. The company was operated by several members of the Hubbard family, including Dr. Walton Hubbard, Sr. and two Lewellan brothers (of Lewellan Steel), who were cousins of the Hubbards. Walton Hubbard, Jr. was the general manager of the company. Hubbard Jr. was a noted sailor, a member of the Newport Harbor Yacht Club, and winner of the International Star Boat competition in 1927 (Felton 1981:211).

Following the change of ownership, the new owners made several additions to the property (Figure 5). They purchased the adjacent parcels, Lots 3 through 9 of Tract No. 814. A new warehouse was constructed in 1933. Several new offices, shops, and a foundry also were built during the 1930s. Later, the company expanded again and purchased Lots 10 through 14. In 1936, nineteen new boat slips and approximately 250 feet of new ocean frontage were added to the shipyard. In 1938, a new Art Deco Style showroom was built at the Arcade, and a pipe shop was built next to the warehouse (Orange County Assessor, Felton 1981:211).

The South Coast Boat Building Company maintained the shipyard's high reputation, building custom yachts and race boats for Southern California's wealthy citizens (Figure 6). The larger vessels built at the shipyard ranged from 70 to 150 feet in length. Some of the most famous race boats they built include the *Wayfarer*, built by Ed Carpenter, and the *Vagabundo*, built for Louie Cass. Other types of boats they built included Star Boats (Star Class), Snowbirds, and Rhodes Class. Smaller vessels were also constructed at the shipyard, ranging in size from 16-30 feet in length; these were built on a production line basis. In addition to building boats, the company maintained and repaired boats. The company also manufactured its own line of marine hardware supplies, which it sold nationally (Felton 1981:211, South Coast Company 1942).



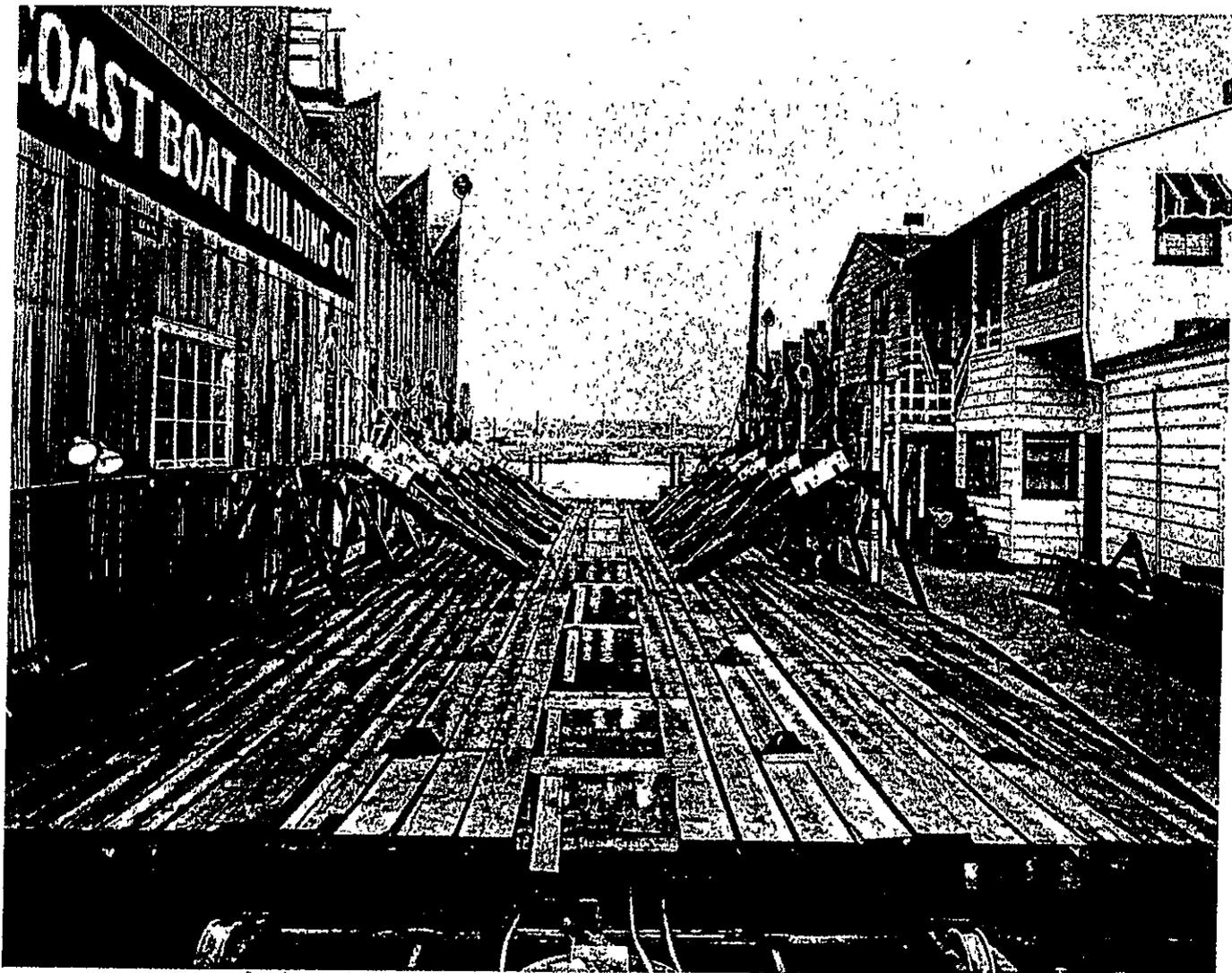
LSA

Existing Buildings

FIGURE 5

SOURCE: facilities of the South Coast Building Co.
on file - Sherman Library, Corona Del Mar, California

South Coast Shipyard
Historical Resource Assessment
Map of South Coast Company, Ca. 1945



Structure on the west of the slipway is the current architectural office, and to the north is the arcade.

LSA

FIGURE 6

SOURCE: facilities of the South Coast Building Co.
on file - Sherman Library, Corona Del Mar, California

IAHOG530\GN_So_Coast_Co.cdr (10/11/05)

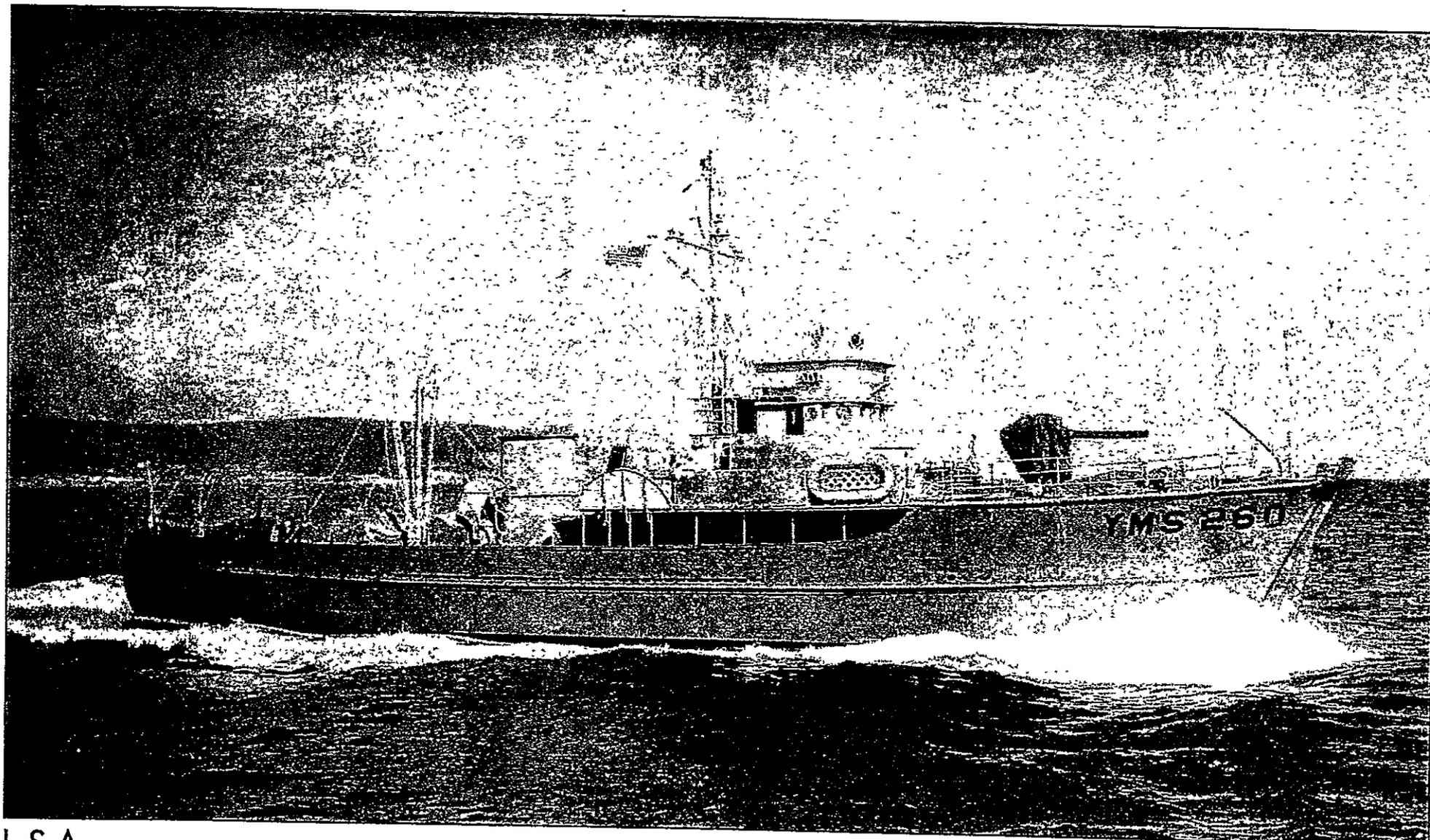
South Coast Shipyard
Historical Resource Assessment
View North of the South Coast Company, Ca. 1942,

Shortly before the U.S. entered into World War II, the South Coast Boat Building Company began working on contracts for the U.S. Navy, building and repairing boats for the war effort. During this time, the company expanded from 150 to 1,000 employees. The company first received contracts to convert tuna boats into mine sweepers, towing the boats down from San Pedro (Felton 1981:211). Later, they were awarded contracts to build "Wherries" picket boats, 110-foot sub chasers, 45- and 63-foot aircraft rescue boats, and 47- and 135-foot mine sweepers (*Los Angeles Times*, January 3, 1944). By 1942, nearly 100 percent of the Company's work force was devoted to government contracts, building, repairing, and converting an array of war craft for the U.S. Navy and Army (Figure 7) (*Los Angeles Times*, Dec 25 1951, South Coast Company 1942).

Clearly the U.S. Navy was satisfied with the operations at the South Coast Shipyard. The company was the first west coast shipbuilder to receive the Navy "E" flag for excellence, which is the highest award granted to a wartime shipyard. Given to only a few companies during World War II, the company received this honor six times (South Coast Company 1942, Felton 1981:212-213).

Following the end of World War II, the shipyard again began to construct pleasure craft and fishing boats. However, the company continued to secure U.S. Navy contracts well into the 1950s, supplying the Korean War effort. In late December 1951, the company announced it had received a multi-million dollar contract to construct six new AMS 60-class minesweeper boats. Each minesweeper boat measured over 144 feet long, with a wooden hull, and cost \$1M to construct. Earlier that same month, the company secured a Navy contract to build five MSB 5 class ships (*Los Angeles Times*, Dec 25 1951).

The South Coast Shipyard remained a successful shipbuilding plant until it was sold in 1964 to a pool company (Felton 1981:213). For nearly nine years the shipyard remained relatively unused until local architect William E. Blurock purchased the property. Blurock chose to keep the existing structures intact, using the 1926 warehouse as the office of his architecture design firm. The remaining buildings within the shipyard were converted for use as retail and office space.



LSA

FIGURE 7

SOURCE: facilities of the South Coast Building Co.
on file - Sherman Library, Corona Del Mar, California

I:\HOG530\GMinesweeper.cdr (10/10/05)

South Coast Shipyard
Historical Resource Assessment
Photograph of 135 ft. Minesweeper boat
Built by the South Coast Company

METHODS

RECORDS RESEARCH

A historical resource record search was conducted at the SCCIC of the CHRIS, located at California State University, Fullerton; it included a review of all recorded historic and prehistoric archaeological sites and of known cultural resource survey and excavation reports within one-half mile of the facility. In addition, LSA examined the National Register, California Register, California Historical Landmarks, and California Points of Historical Interest. The Historic Properties Directory (2005) was also inspected for the address of the South Coast Shipyard.

Archival Research

Archival research for the South Coast Shipyard focused on examining historic maps, City directories, written histories, and previous reports on the history of the area.

The following repositories, publications, and individuals were contacted to identify known historic land uses and the locations of research materials pertinent to the project area:

- Office of the Orange County Clerk-Recorder, Archives Division, County of Orange
- Office of the Assessor, County of Orange
- City of Newport Beach, Department of Building and Planning
- Newport Beach City Directories, 1930s-1950s
- Phil Brigandi, County Archivist, County of Orange.
- Newport Beach Public Library, City of Newport Beach
- California Heritage Room, Santa Ana Public Library, Santa Ana, California
- Sherman Library, City of Newport Beach
- Sanborn Fire Insurance Maps
- Other miscellaneous publications as noted in the Bibliography

FIELD SURVEY

The purpose of the field survey was to identify any historical resources that may be impacted by the proposed project. The field survey consisted of a visual inspection of all the buildings and structures within the shipyard. The buildings were photographed and documented on State Department of Parks and Recreation (DPR 523 Series) Primary and Building, Structure, and Object Forms. Architectural Historian Judith Marvin evaluated the buildings for listing in the California Register and assessed the potential impacts of the proposed project to the buildings.

Digital photographs and notes recording the general condition of the property were taken during the survey. All photographs and notes are on file at LSA.

RESULTS

RECORDS SEARCH

Results of the record search indicate that there are no previously recorded cultural resources within the South Coast Shipyard project boundaries. There are no properties listed on the National Register, California Register, California Historical Landmarks, or the California Points of Historical Interest within the project area. In addition, the project area is not listed in the Historic Properties Directory (2004). Three cultural resources are located within one-half mile of the facility. The closest resource, the McFadden Wharf (State Historic Landmark #794), is located 800 feet south of the project area.

Research conducted at the City of Newport revealed that in 1974, the South Coast Shipyard was identified as a historical landmark by the Newport Beach Historical Society. In 1992, the Ad Hoc Historic Preservation Advisory Committee conducted a Historic Resources Inventory for the City of Newport Beach. The South Coast Shipyard was identified as a local historic site, representing historic/architectural themes of local importance.

FIELD SURVEY

The South Coast Shipyard is comprised of three groupings of buildings that total 43,500 square feet of space. The buildings within the shipyard were built between 1926 and 1938 and consist of the following architectural resources and features: (1) a boat shop, planing mill, and slipway; (2) The Arcade: a complex of industrial and office buildings and a boat showroom; and (3) a pipe shop and warehouse (Figures 8 and 9).

BUILDING DESCRIPTIONS

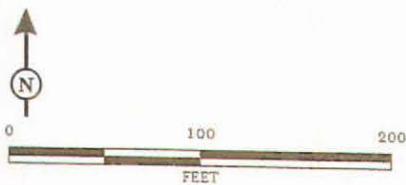
Boat Shop, Planing Mill and Slipway

There are two conjoined buildings (a boat shop and a planing mill) and a marine slipway located in the northwestern corner of the shipyard (Figure 10). The two-story boat shop was built in 1926 by Ben Cope. The building is rectangular in plan and rests on a concrete foundation. The roof consists of a series of five corrugated metal clad sawtooth projections, each featuring a band of clerestory windows on the east, vertical plane. The original wall claddings of corrugated sheet metal and clapboard siding are still partially visible on the west, east, and south elevations. The primary western facade is partially clad in new wooden shingles and clapboard siding. Fenestration consists of wooden sash and modern metal slider windows. Two 2/1 wooden sash windows are located on the second story of the primary facade. The original main entrance on the primary facade was boarded over, leaving no entrance from the street.

To the south of the original boat shop building are the remains of the slipway, which was constructed in 1926. The slipway originally contained a wood plank dock, which was used to repair and maintain the boats that entered the quay from the bay. The boat dock no longer remains, and part of the quay



LSA



LEGEND

 Project Boundary

FIGURE 8

*South Coast Shipyard
Historical Resource Assessment
Aerial of Project Location*

SOURCE: Eagle Aerial (2004)

i:\hog530\gis\Fig7_Aerial (09/28/05)



LSA



0 50 100
FEET

Source: Eagle Aerial, 2004

I:\HOG530\G\Sketchmap.cdr (10/13/05)

- Project Boundary
- Shipyard Buildings

FIGURE 9

*South Coast Shipyard
Historical Resource Assessment
Sketch Map of Project Area*

has been filled in and landscaped. A metal plaque indicating that the site was the location of the "South Coast Boat Building Co., 1933-1964" is mounted here.

Adjacent to the boat shop is the planing mill, constructed in 1938. It has a flat, lean-to roof clad in corrugated metal with exposed rafters. It has a rectangular plan and rests on a concrete foundation. The walls are clad in horizontal wood and vinyl siding. Fenestration consists of several original wooden frame sash and metal frame windows. In 1975, the planing mill and adjacent boat shop underwent major alterations. The buildings were joined together and converted for use as an architectural office. A main entrance was created on the northern elevation of the mill; new steel frame windows were added and the walls were clad in wood shingles.

The boat shop and planing mill were originally given street addresses of 2300 and 2302 Newport Boulevard, respectively. Both buildings face southwest toward Newport Boulevard.

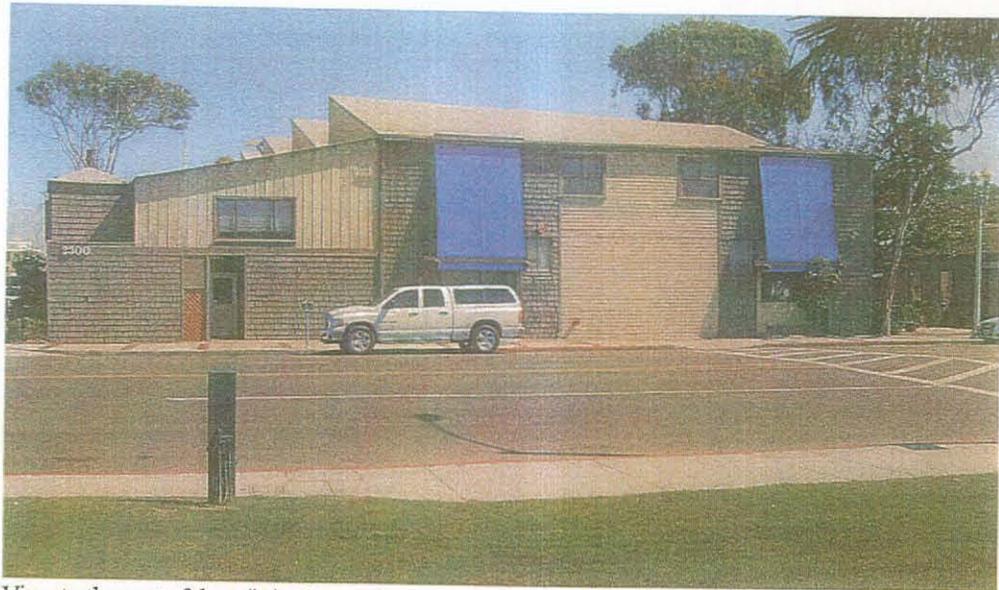
The Arcade

The Arcade is a U-shaped group of conjoined buildings built between 1926 and 1938. This cluster of buildings, located to the south of the boat shop, feature varying architectural styles. Originally these buildings were used as workshops, offices, and showrooms for the South Coast Shipyard. These buildings are now used for retail and office space.

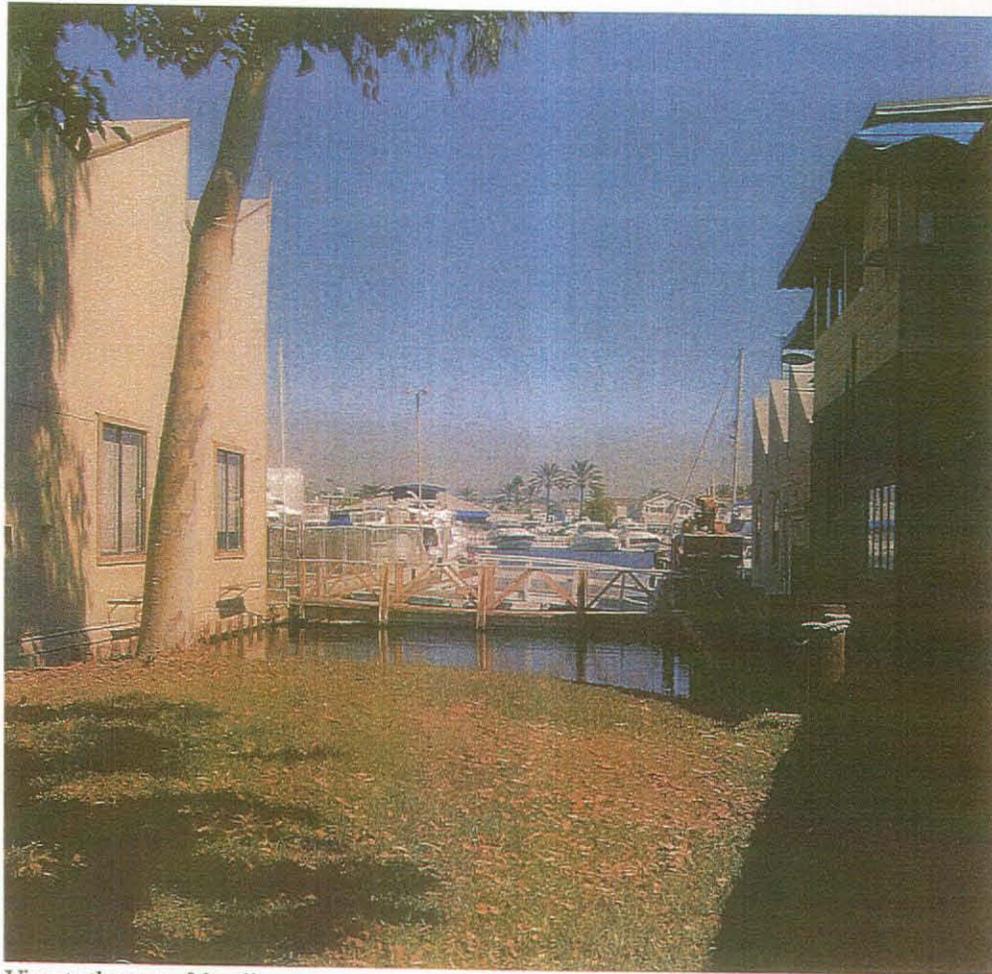
Located to the south of the slipway, facing west toward Newport Boulevard, is the boat hardware shop, built between 1933 and 1938 and converted into two retail buildings in 1958 (Figure 11). The one-story shops feature elements of the Colonial Revival Style. These buildings have gabled roofs clad in composition shingles. Wall cladding consists of horizontal tongue-in-groove siding. The shop front directly adjacent to the slipway also features an addition of cobblestone wainscoting. Fenestration consists of wooden frame multi-light windows and steel frame sash windows. Both buildings face west toward Newport Boulevard.

Adjacent to the hardware/retail shops is the South Coast Shipyard boat showroom (Figure 11). This two-story Art Deco building was built in 1938 by the South Coast Boat Building Company to display the boats sold by the company. The building is rectangular in plan and has a reinforced concrete foundation. It has a flat roof and walls clad in smooth stucco. Designed with a nautical theme, the primary west facade features wood doors on each end of the building. These doors have rounded edges and central window panes, similar to those found on ships. Above both doors on the primary facade, there are two bands of decorative moldings, designed to look like the rivets featured on the outside hull of a ship. A small round window is featured above this door between the bands of moldings. Between the doors there is a ribbon of curving vertical steel frame windows. Above these windows there is a curving metal lattice that features panels of downward curving bars, designed to look like the railing on a ship. According to building permit and assessor records, the building was altered in 1954. The building faces west toward Newport Boulevard, is in good condition, and retains integrity.

To the east of the hardware/retail shops are the machine shop and offices (Figure 12). The office building, built between 1933 and 1938, is two stories and features elements of the Colonial Revival Style. It has a gabled roof with extended eaves clad in rolled composition roofing. The walls are clad in wood shingles on the first story and horizontal wood siding on the second story. Fenestration



View to the east of the original boat shop and planning mill.

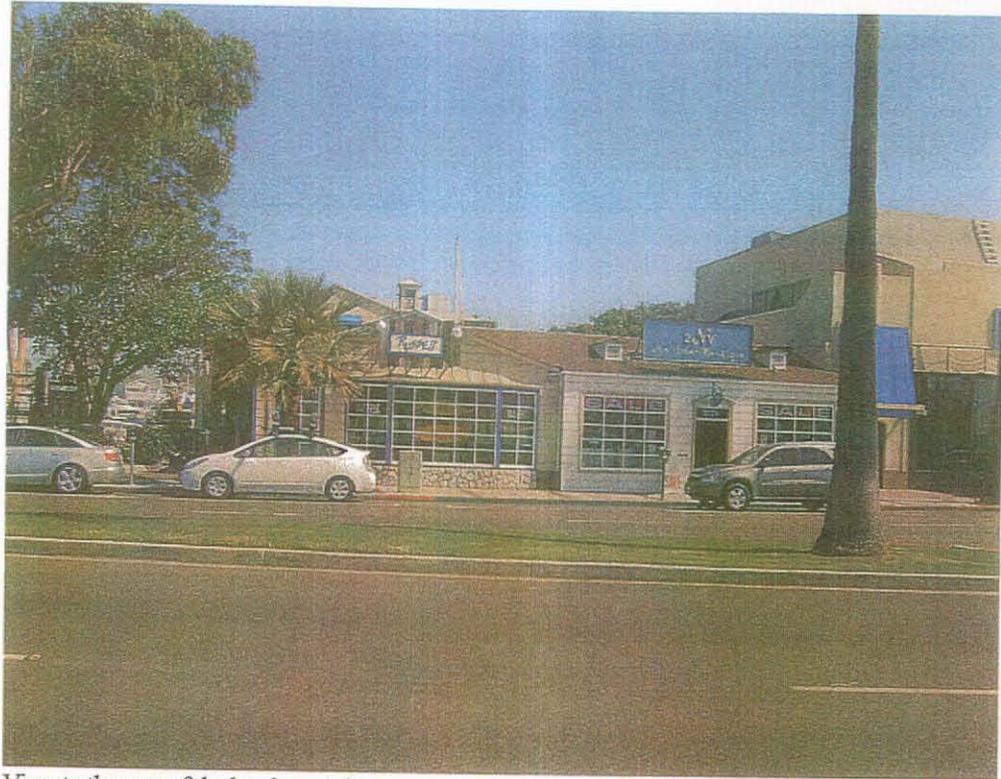


View to the east of the slipway.

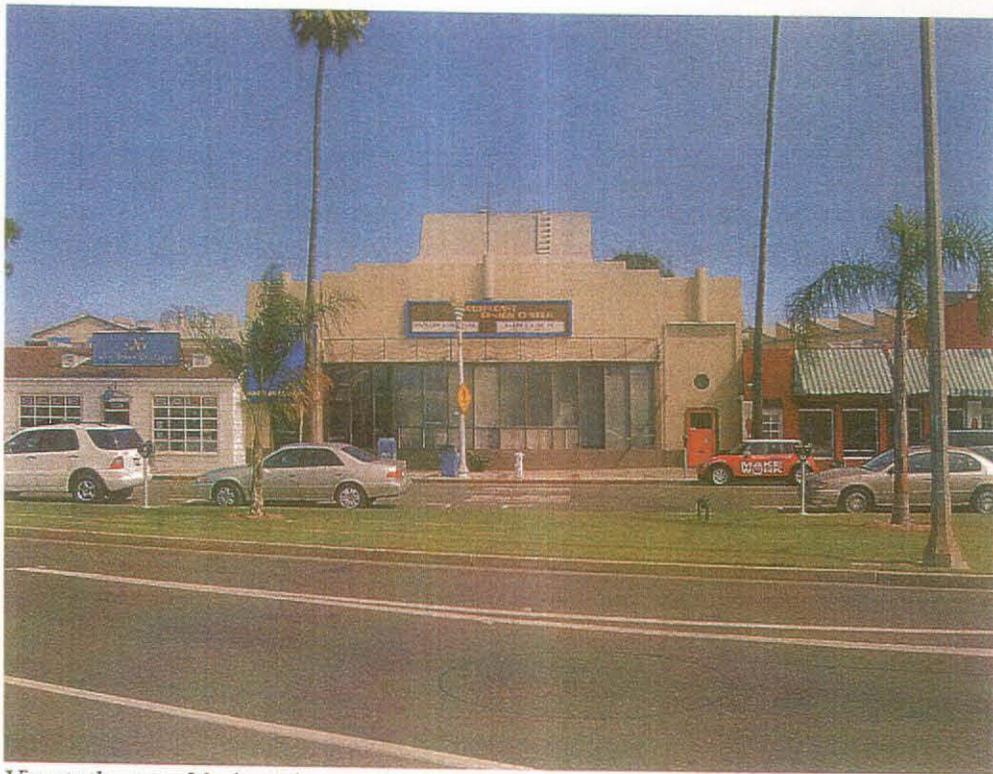
LSA

FIGURE 10

*South Coast Shipyard
Historical Resource Assessment
Site Photos*



View to the east of the hardware shops.



View to the east of the boat showroom.

LSA

FIGURE 11

*South Coast Shipyard
Historical Resource Assessment
Site Photos*

consists of wooden frame multi-light casement and sash windows, hung in ribbons of two and three. Several original windows have been replaced with aluminum sliders. A single-story lean-to addition is located on the western facade. The office building is joined to the eastern elevation of the hardware shops and faces north towards the slipway.

The original machine shop is located to the east of the office building. It was built in 1926 by Ben Cope. The building is rectangular in plan and rests on a concrete foundation. Similar to the original boat shop also built by Cope, the machine shop has a sawtooth roof consisting of a series of three corrugated metal clad projections. Each projection features a band of clerestory windows on the east vertical plane. The building is clad in corrugated sheet metal. Fenestration consists of 1/1 wooden sash and modern metal slider windows. The eastern facade has been substantially altered; the walls are clad in wood paneling, and the original doors were replaced with residential sliding glass doors. The machine shop faces towards Newport Bay.

To the south of the machine shop, on the eastern side of the Arcade, are the foundry and shops, built between 1933 and 1938 (Figure 13). These two- and one-story buildings were built in a Maritime Vernacular Style. The walls are clad in corrugated sheet metal. Fenestration consists of wood frame, multi-light fixed, casement, and sash windows, hung in ribbons. Several original windows have been replaced with aluminum sliders. Along the western elevation of the building there is a row of single-story additions that are now used for retail/office space. The foundry and machine shops face west, toward the interior courtyard of the Arcade. Originally a paved street, and later used as the steel fabrication yard, the Arcade is now a landscaped courtyard. A large tree enclosed in a brick planter is located in the center of the Arcade, and the floor is lined with brick. To the east of the foundry and machine shops is Newport Bay.

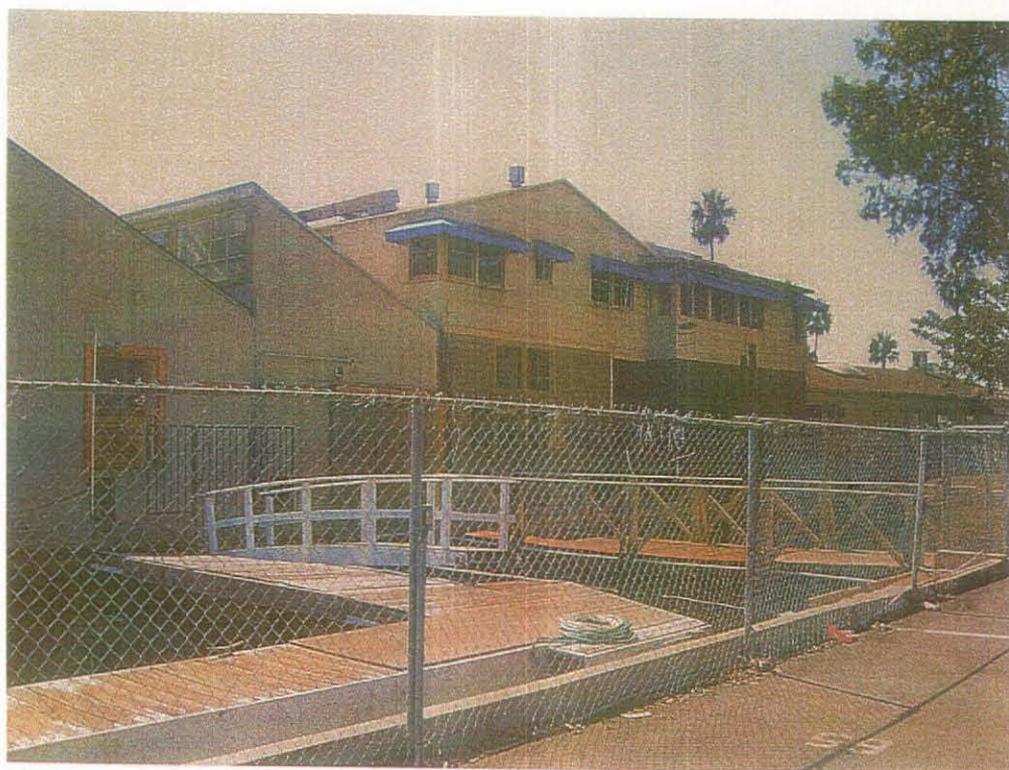
Warehouse And Pipe Shop

Located to the south of the Arcade buildings are the warehouse and pipe fabrication shop (Figure 14). The warehouse is a three-story building with a rectangular plan and a concrete foundation. Built in 1933 by the South Coast Company, it is similar in construction to the original boat shop and machine shop. The warehouse has a sawtooth roof featuring eight corrugated metal clad projections. The walls are also clad in corrugated metal. Fenestration consists of wooden frame sash and modern metal slider windows. The eastern facade features floor-to-ceiling ribbons of metal frame fixed windows. The original doors on this facade were replaced with metal frame sliding glass doors. The northern elevation had the words "Crow's Nest" painted on the wall. The warehouse is joined to the southern elevation of the pipe shop and faces west toward the Arcade entrance.

Located to the north of the warehouse is the pipe shop, built in 1938. The two-story building is rectangular in plan and rests on a concrete foundation. The pipe shop also has a sawtooth roof, consisting of two corrugated metal clad projections. Each projection features a band of clerestory windows on the north vertical plane. The building is clad in corrugated sheet metal. Fenestration consists of wooden frame multi-light fixed and sash windows. Several original windows have been replaced with aluminum sliders. The northern elevation features large metal bay doors. The western facade was substantially altered in 1950; the walls are clad in decorative wood paneling and feature two shop fronts. The original doors were replaced with Dutch doors. The pipe shop faces west toward the Arcade entrance. To the east of the pipe shop is Newport Bay.



View to the south of the machine shop.

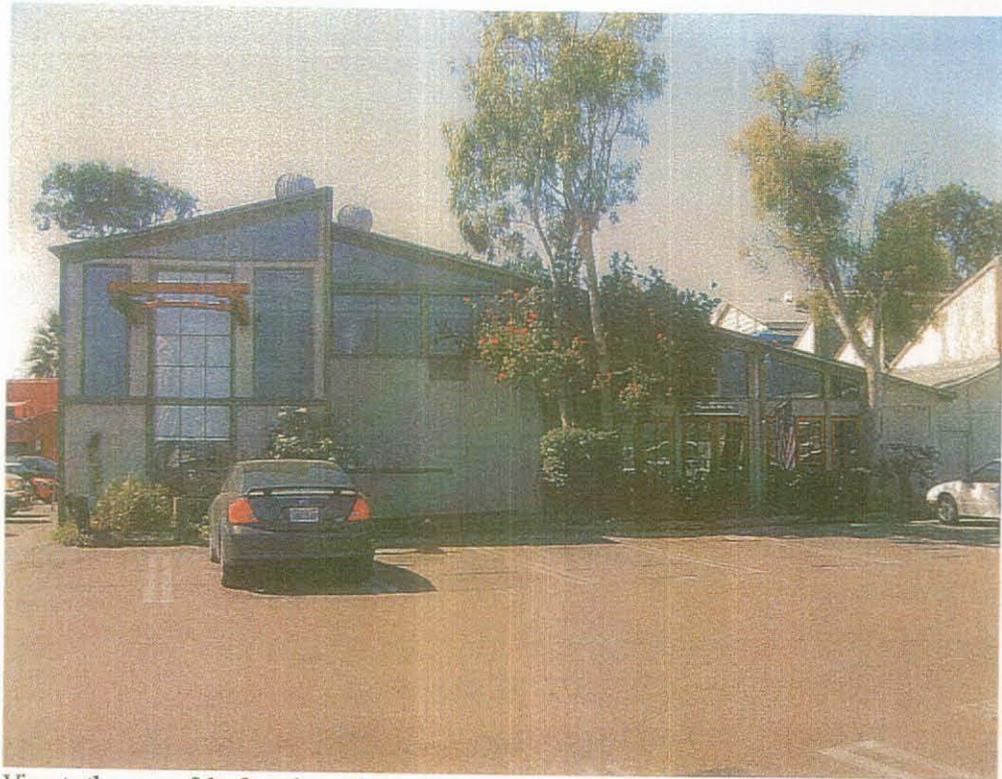


View to the southwest of the offices.

LSA

FIGURE 12

*South Coast Shipyard
Historical Resource Assessment
Site Photos*



View to the west of the foundry and shops.



View to the south of the center of the arcade.

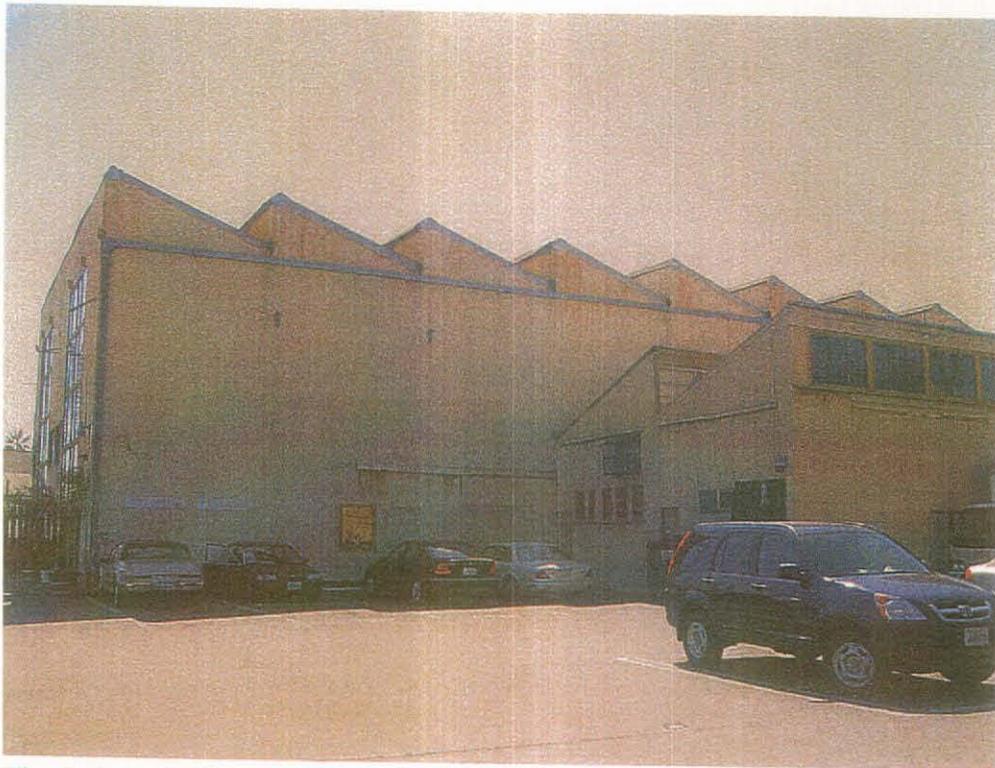
LSA

FIGURE 13

*South Coast Shipyard
Historical Resource Assessment
Site Photos*



View to the east of the warehouse and pipe shop.



View to the south of the warehouse and pipe shop.

LSA

FIGURE 14

South Coast Shipyard
Historical Resource Assessment
Site Photos

SIGNIFICANCE EVALUATIONS

The buildings within the South Coast Shipyard were evaluated to determine whether they are eligible for listing in the California Register. The State administers historic preservation programs through the Office of Historic Preservation in the Department of Parks and Recreation. The California Register, adopted in 1992, is the "authoritative guide to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change."¹ State and local agencies may also determine which resources are to be considered in order to comply with CEQA.

California Register of Historical Resources

The California Register criteria are based on National Register criteria. California properties that meet these criteria may be listed in the California Register. For a property to be eligible for inclusion on the California Register, one of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States
2. It is associated with the lives of persons important to local, California, or national history
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resource." Fifty years is used as a general estimate of time needed to develop the perspective to understand the resource's significance (CCR 4852 [d][2]).

The California Register also requires that a resource possess integrity, which is defined as the authenticity of an individual historical resource's physical identity evidenced by "the survival of characteristics that existed during the resource's period of significance." To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. The importance of these factors will depend on the particular criteria under which the resource is considered eligible for listing. Resources that are significant, meet the age guidelines, and possess integrity will generally be considered eligible for listing on the California Register.

If the owner of a historic resource objects to the nomination, the property is not listed in the California Register, but the State Commission may formally designate the resource as eligible for

¹ Title 14, State Historical Resources Commission, Regulations for the Nomination of Historical Resources to the California Register of Historical Resources.

listing. Being listed in or eligible for the California Register does not protect the resource from demolition or alteration, but it does require an environmental review for projects that could have an effect on these resources. The State *CEQA Guidelines* require that "a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources."¹

City of Newport Beach Ordinance on Landmark Buildings (Chapter 20.62-7)

Although the City of Newport Beach does not have a Historic Preservation ordinance, Chapter 20.62-7 of the Planning Code encourages the adaptive reuse and preservation of buildings, recognized by the City to be Landmark Buildings. The following types of buildings are recognized as having importance to the history and architecture of the City of Newport Beach and are designated as Landmark Buildings:

1. **Landmark Theaters:** The term Landmark Theaters shall mean any building constructed for use as a cinema or theater that (a) was constructed on or before December 12, 1950; (b) has a single screen or stage; and (c) was designed to seat more than 300 people.
2. **Landmark Structure:** The term Landmark Structure shall mean any building listed on the National Register of Historic Places, constructed prior to December 12, 1950.

The architectural resources located within the South Coast Shipyard are described and evaluated on the Primary and Building, Structure and Object Record (DPR 523) forms (Appendix A).

SIGNIFICANCE

A resource's period of significance is defined as the span of time in which a property attains the significance for which it meets the National Register criteria. The architectural resources that were evaluated for this report are identified with maritime development and World War II. The South Coast Shipyard in its current form dates from 1926, when the first warehouse was constructed on the property, to 1964, when the shipyard business was sold and the buildings were no longer collectively used in the boat-building business. This period of significance reflects its development as a working shipyard during the boom years of boat building in Southern California to its transition from local yacht builder to a contributor of the war effort during World War II. The period of significance includes all the buildings on the 2.4-acre parcel constructed between 1926 and 1938. The first buildings on the property, a two-story boat shop and a machine shop, were constructed by local boat builder Ben Cope in 1926. The remaining buildings were built by the South Coast Company between 1933 and 1938. The South Coast Shipyard is in good condition and retains integrity to its period of significance. Although most of the buildings have undergone alterations of some type, each retains integrity to the period of significance and exhibit a collective distinction as a historic district. None of the buildings appear to be individually eligible for listing in the California Register.

¹ Title 14 CCR Sec.15064.5(a)(3).

The South Coast Shipyard appears to be eligible for listing in the California Register as a historical resource at the local level of significance under Criterion 1, for its association with the development of the maritime economy of Newport Beach, and for its local contribution to the World War II effort. The South Coast Shipyard was one of the largest and most successful boat builders, building custom yachts and race boats during the boom years of boat building and maritime development of southern California. During World War II, the South Coast Boat Building Company shifted to working on contracts for the U.S. Navy, building and repairing boats for the war effort, earning the shipyard the Navy "E" flag for excellence, which is the highest award granted to a wartime shipyard. All of the buildings located within the South Coast Shipyard are contributors to the district under this criterion.

Under Criterion 3, the South Coast shipyard represents an excellent example of maritime architecture in the City of Newport Beach, particularly on Balboa Peninsula. The buildings are in good condition and retain integrity of location, design, feeling, association, workmanship, materials, and setting. Although none of the buildings represents the work of a master, the shipyard buildings are unique examples of industrial/maritime architecture, and they possess many significant architectural features that express the maritime theme of the property. The sawtooth roof design that is featured on four of the buildings is a unique example of Industrial Vernacular architecture. The boat showroom is a fine example of the Art Deco style and it possesses artistic values. The remaining buildings were built in the Industrial Vernacular Style; these also feature unique architectural elements, including corrugated metal siding and large wooden and steel frame windows. Although most of the buildings have undergone alterations of some type, all of the buildings retain integrity to the period of significance. The South Coast Shipyard buildings exhibit a collective distinction as a historic district. All of the buildings located within the South Coast Shipyard are contributors to this district. While the buildings individually possess unique architectural elements, none of the buildings appear to be individually eligible for listing in the California Register under Criterion 3.

The South Coast Shipyard does not appear to be eligible for listing in the California Register under Criteria 2 or 4. Although the shipyard was connected to several prominent business people and noted residents of Newport Beach, none of these individuals were associated with any activities that were demonstrably important to the history of Newport Beach, California, or the nation (Criterion 2). The South Coast Shipyard does not appear to be able to answer questions important in history (Criterion 4).

In 1974, the South Coast Shipyard was identified as a historical landmark by the Newport Beach Historical Society. In 1992, the Ad Hoc Historic Preservation Advisory Committee conducted a Historic Resources Inventory for the City of Newport Beach. The South Coast Shipyard was identified as a local historic site, representing historic/architectural themes of local importance. While the South Coast Shipyard was recognized as a locally significant property, the City of Newport Beach does not have a Historic Preservation ordinance, and only encourages the adaptive reuse and preservation of buildings, recognized by the City to be Landmark Buildings. The South Coast Shipyard is not recognized by the City of Newport Beach to be a Landmark Building.

MANAGEMENT RECOMMENDATIONS

The South Coast Shipyard appears to be eligible for listing in the California Register as a historical resource at the local level of significance under Criteria 1 and 3. Under Criterion 1, the South Coast Shipyard is associated with the development of the maritime economy of Newport Beach and with World War II, as a local contributor to the war effort. Under Criterion 3, the South Coast shipyard represents an excellent example of maritime architecture in the City of Newport Beach, particularly on Balboa Peninsula. The buildings are in good condition and retain integrity of location, design, feeling, association, workmanship, materials, and setting. The South Coast Shipyard buildings exhibit a collective distinction as a historic district. All of the buildings located within the South Coast Shipyard are contributors to this district. None of the buildings appear to be individually eligible for listing in the California Register, as the shipyard represents a significant and distinguishable entity whose components lack individual distinction.

CEQA Government Code Section 21084.1, Historical Resources, states that, "A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Because the proposed project includes demolition of the South Coast Shipyard building complex, determined to be eligible for inclusion on the California Register, the impacts to the site are determined to be materially detrimental to the historical significance of the site, and, therefore, a significant impact on the environment, according to CEQA Guidelines Section 15064.5(b).

Mitigation options and alternatives are as follows: 1) avoidance or preservation in place, 2) moving the buildings to a new nearby location, along with rehabilitation of the structures to maintain their historical integrity, 3) documentation of the buildings/place according Historic American Building Survey (HABS) Level 1, prior to demolition, and 4) memorialization of the buildings within the new development. Only avoidance of demolition or preservation of the buildings in place avoids the significant impact on the environment. CEQA Guidelines state that a lead agency must identify potentially feasible measures to mitigate significant adverse changes to the significance of an historical resource (Guidelines 15064.5(b)(a)). A significant impact to an identified historical resource will be considered to be mitigated to a less-than-significant level if the mitigation measure requires preservation, rehabilitation, restoring or reconstructing historic buildings, subject to the Secretary of the Interior Standards for the Treatment of Historic Properties. Should the City of Newport Beach attach these measures to the proposed project as conditions of approval, project impacts on the historic buildings would be mitigated to a level of less-than-significant.

The Guidelines also recognize that documentation of an historical resource by an historic narrative, photographs, or an architectural drawing can serve to mitigate impacts. This mitigation should be included in the project as a condition of approval requiring thorough documentation of the buildings according to Historic American Building Survey (HABS) Level 1, prior to demolition. Such documentation should be deposited with the Newport Beach Historical Society, the City of Newport Beach Public Library, the Newport Harbor Nautical Museum, and the SCCIC located at California State University, Fullerton. However, because of the integrity and importance of the resources

involved in the South Coast Boatyard, this mitigation will not lessen the level of impacts to a less-than-significant level.

Another feasible mitigation measure is to attach a condition of approval to the project requiring memorialization of the importance of the site and buildings into the new buildings via reference to project design and plaque on the site. Such design features should incorporate the character-defining features of the South Coast Boatyard, and/or a commemorative plaque depicting the buildings and their context to the site, into the design of the new project. As with other mitigation that is short of preservation and avoidance of demolition, mitigation to memorialize the South Coast Boatyard on site does not lessen the environmental impacts of the project on historical resources to a level that is less than significant.

The language of the mitigation-referenced above is provided for incorporation into the EIR.

- 1) Documentation of the South Coast Boatyard shall be provided by the developer prior to issuance of demolition permits by the City of Newport Beach. Prior to issuance of demolition permits, the Planning Director shall be provided an historic narrative, photographs, and architectural drawings of all on-site buildings in accordance with Historic American Building Survey (HABS) Level 1 documentation requirements. The Planning Director shall ensure that the HABS documentation is deposited with the Newport Beach Historical Society, the City of Newport Beach Public Library, the Newport Harbor Nautical Museum, and the SCCIC located at California State University, Fullerton, prior to issuance of demolition permits.
- 2) Prior to issuance of building permits, the Planning Director shall review project building plans and permits to ensure incorporation of design features referencing and memorializing the character-defining features of the South Coast Boatyard into design of the project, including, but not limited to, incorporation of a commemorative plaque depicting the buildings and their context to the historical importance of the structures on site. Such plaque shall be oriented to a public right-of-way, so as to be visible and accessible to the public from such right-of-way.
- 3) If previously undocumented cultural resources are found during construction activities within the current project area, a qualified professional archaeologist shall assess the nature and significance of the find in order to recommend appropriate mitigation measures, halting construction activity in the vicinity of the find, if necessary.

REFERENCES

- Baker, Gayle.
2004. *A Harbor Town History*, Newport Beach. Harbor Town History Publications, Santa Barbara.
- Bean, Lowell John and Charles R. Smith
1978 Gabrielino. In *California*, edited by R. Heizer, pp. 538-549. Handbook of North American Indians, Volume 8, W. C. Sturtevant, General Editor. Washington, D.C.: Smithsonian Institution.
- City of Newport Beach Directories
var. 1905-1955. On file, Sherman Library, City of Corona Del Mar, California.
- Cleland, Robert Glass
1941 *The Cattle on a Thousand Hills—Southern California, 1850-80*. San Marino, California: Huntington Library.
1975 *The Irvine Ranch*. San Marino: The Huntington Library.
1962 Introduction. In Hoover et al., *Historic Spots in California*, pp. xi-xiv. Fourth printing revised by R. Teiser. Stanford University Press.
- County of Orange, Archives
var Deed Books. Office of the Clerk-Recorder, County of Orange, California.
- Felton, James P.
1981 *Newport Beach. 75 Years*. Sultana Press.
- Hoover, M. B., H. E. Rensch, and W. N. Abeloe
2002 *Historic Spots in California*. 5th Ed. Revised by Douglas E. Kyle. Stanford University Press, Stanford, California.
- Lee, Ellen K.
1973 *Newport Bay: A Pioneer History*. Sultana Press.
- Liebeck, Judy
1990 *Irvine: A History of Innovation and Growth*. Houston: Pioneer Publications.
- Los Angeles Times*
var. *Los Angeles Times* 1900-1974.

Sherman, H.L.

1931 *A History of Newport Beach. City of Newport Beach, California.*

South Coast Shipyard

1942 *Facilities of the South Coast Shipyard. On file, Sherman Library, City of Corona Del Mar, California.*

United States Geologic Survey (USGS)

1938 *Newport Beach, California 15-minute Quadrangle. USGS, Denver, Colorado, 80225.*

1965 *Newport Beach, California 7.5-minute Quadrangle. Photorevised 1982.*

APPENDIX A
DPR523 FORMS

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 1 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: Boatshop and Slipway, 2300 Newport Boulevard

*P2. Location: Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.
c. Address: 2300 Newport Boulevard City: Newport Beach Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This resource is the South Coast Shipyard, located at 2300 Newport Boulevard. The shipyard is comprised of three groupings of buildings that total 43,500 square feet of space. The buildings within the shipyard were built between 1926 and 1938 and consist of the following architectural resources and features: (1) a boat shop and mill and an associated slipway; (2) The Arcade, a complex of industrial and office buildings and a showroom that is now used as retail/office space; and (3) a pipe shop and warehouse that are also now used for retail/office space.

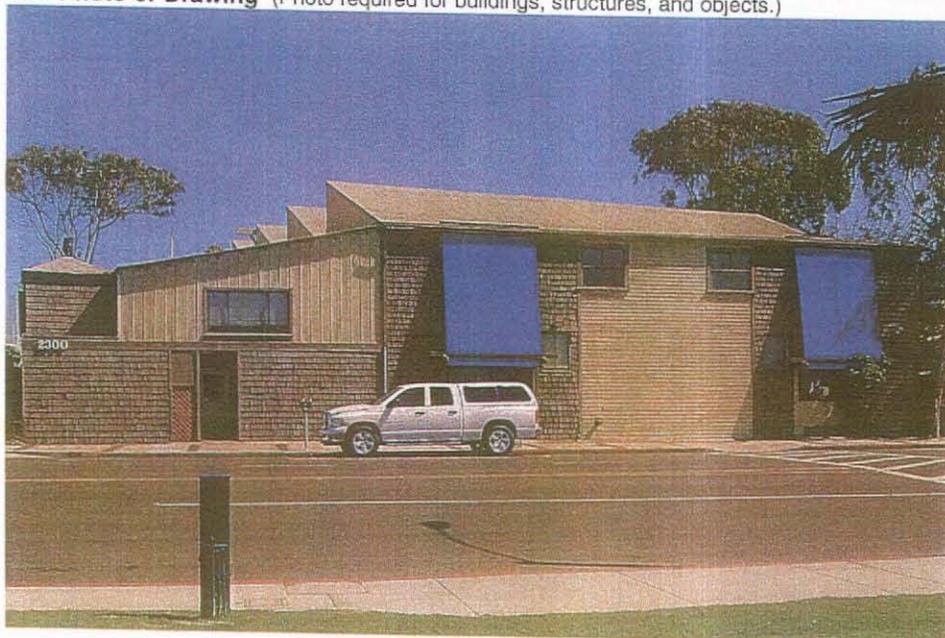
The two-story boat shop was built in 1926 by Ben Cope. The building is rectangular in plan and rests on a concrete foundation. The roof consists of a series of five corrugated metal clad sawtooth projections, each featuring a band of clerestory windows on the east vertical plane. The original wall claddings of corrugated sheet metal and clayboard siding are still partially visible on the west, east, and south elevations. The primary western facade is partially clad in new wooden shingles and clayboard siding. Fenestration consists of wooden sash and modern metal slider windows. Two 2/1 wooden sash windows are located on the second story of the primary facade. The original main entrance on the primary facade was boarded over, leaving no entrance from the street.

Located to the south of the original boat shop building are the remains of the slipway, which was constructed in 1926. The slipway originally contained a wood plank dock, which was used to repair and maintain the boats that entered the quay from the bay. The boat dock no longer remains, and part of the quay has been filled in and landscaped. A metal plaque indicating that the site was the location of the "South Coast Boat Building Co., 1933-1964" is mounted here.

*P3b. Resource Attributes: (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)

View to the east of the boathouse and mill, 9/15/05

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

Boat Shop: 1926

Planing Mill: 1938

County of Orange Assessor

*P7. Owner and Address:

El Bridgeport LLC

2312 Newport Boulevard

Newport Beach, CA 92663

*P8. Recorded by: (Name, affiliation, and address)

Shannon Carmack

LSA Associates, Inc.

20 Executive Park, Suite 200

Irvine, CA 92614

*P9. Date Recorded: 9/15/05

*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California, October 2005.

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

DPR 523A (1/95)

*Required information

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 2 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: Planing Mill, 2302 Newport Boulevard

*P2. Location: Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: *Newport Beach* Date: 1965 (PR 1981) T 6 South; R 10 West; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.

c. Address: 2300 Newport Boulevard

City: Newport Beach

Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

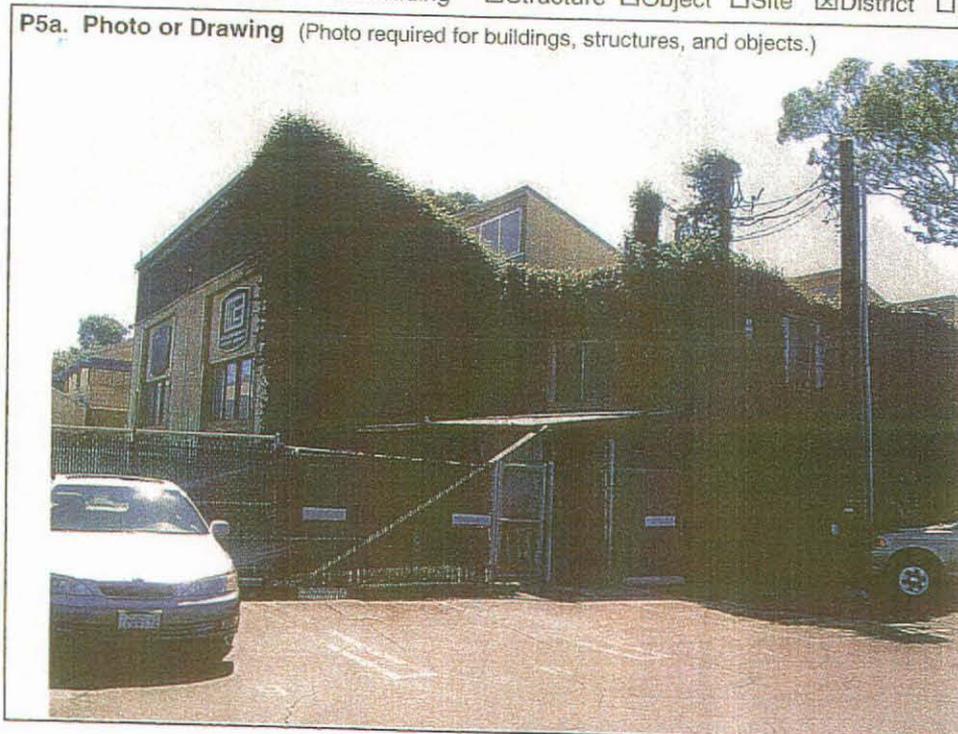
*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located adjacent to the boat shop, the planing mill was constructed in 1938. It has a flat, lean-to roof clad in corrugated metal with exposed rafters. It has a rectangular plan and rests on a concrete foundation. The walls are clad in clapboard and vinyl siding. Fenestration consists of several original wooden frame sash and metal frame windows. In 1975, the planing mill and the adjacent boat shop underwent major alterations. The buildings were joined together and converted for use as an architectural office. A main entrance was created on the northern elevation of the mill; new steel frame windows were added and the walls were clad in wood shingles.

The boat shop and planing mill were originally given street addresses of 2300 and 2302 Newport Boulevard, respectively. Both buildings face southwest toward Newport Boulevard.

*P3b. Resource Attributes: (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)

View to the southwest of the boathouse and mill, 9/15/05

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

Planing mill: 1938

County of Orange Assessor

*P7. Owner and Address:

El Bridgeport LLC

2312 Newport Boulevard

Newport Beach, CA 92663

*P8. Recorded by: (Name, affiliation, and address)

Shannon Carmack

LSA Associates, Inc.

20 Executive Park, Suite 200

Irvine, CA 92614

*P9. Date Recorded: 9/15/05

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

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

DPR 523A (1/95)

*Required information

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 3 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: The Arcade, Hardware Shops

*P2. Location: Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.

c. Address: 2300 Newport Boulevard

City: Newport Beach

Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

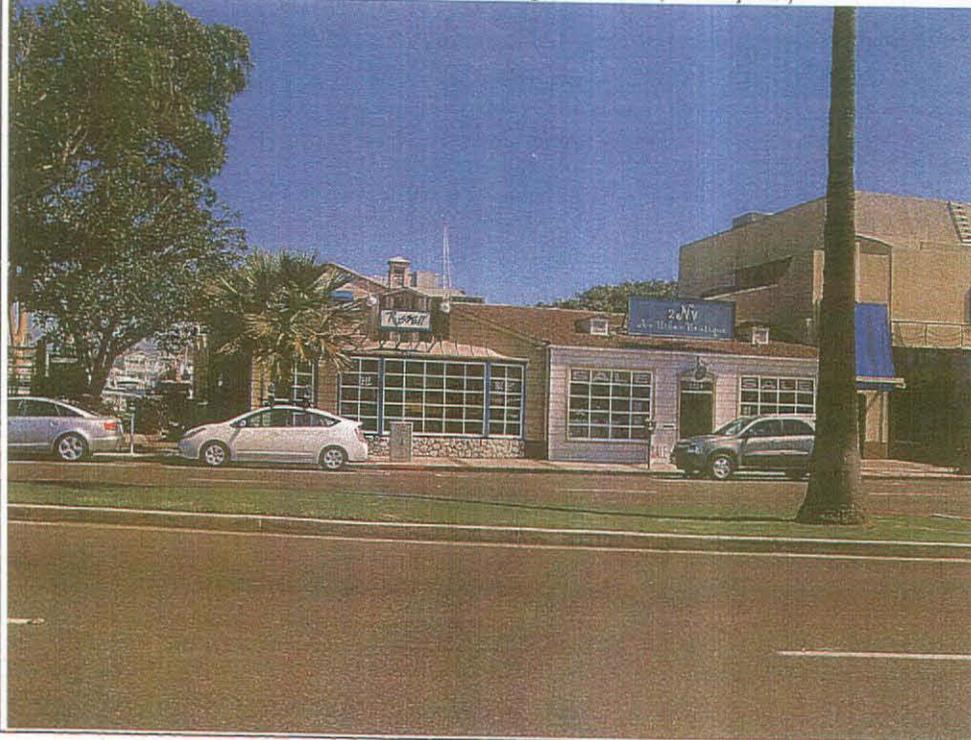
*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The Arcade is a U-shaped group of conjoined buildings built between 1926 and 1938. This cluster of buildings located to the south of the boat shop, features varying architectural styles. Originally these buildings were used as workshops, offices, and showrooms for the South Coast Shipyard. These buildings are now used for retail and office space.

Located to the south of the slipway, facing west toward Newport Boulevard, is the boat hardware shop, built between 1933 and 1938, that was converted into two retail buildings in 1958. The one-story shops feature elements of the Colonial Revival Style. These buildings have gabled roofs clad in composition shingles. Wall cladding consists of horizontal tongue-in-groove siding. The shop front directly adjacent to the slipway also features an addition of cobblestone wainscoting. Fenestration consists of wooden frame multi-light windows and steel frame sash windows. Both buildings face west toward Newport Boulevard.

*P3b. Resource Attributes: (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)

View to the east of the boat hardware shop/retail buildings, 9/15/05

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1926-1938

County of Orange Assessor

*P7. Owner and Address:

EI Bridgeport LLC

2312 Newport Boulevard

Newport Beach, CA 92663

*P8. Recorded by: (Name, affiliation, and address)

Shannon Carnack

LSA Associates, Inc.

20 Executive Park, Suite 200

Irvine, CA 92614

*P9. Date Recorded: 9/15/05

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

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

DPR 523A (1/95)

*Required information

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CS

Other Listings
Review Code

Reviewer

Date

Page 4 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: South Coast Shipyard Boat Showroom, 2210 Newport Boulevard

***P2. Location:** Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.

c. Address: 2300 Newport Boulevard

City: Newport Beach

Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located adjacent to the hardware/retail shops, the South Coast Shipyard boat showroom is located at 2210 Newport Boulevard. This two-story Art Deco building was built in 1938 by the South Coast Boat Building Co. to display the boats sold by the company. The building is rectangular in plan and has a reinforced concrete foundation. It has a flat roof and walls clad in smooth stucco. Designed with a nautical theme, the primary west facade features wooden doors on each end of the building. These doors have rounded edges and central window panes, similar to those found on ships. Above each door, there are two bands of decorative moldings designed to look like the rivets featured on the outside hull of a ship. A small round window is featured above this door between the bands of moldings. Between the doors there is a ribbon of curving vertical steel frame windows. Above these windows there is a curving metal lattice that features panels of downward curving bars, designed to look like the railing on a ship. According to building permit and assessor records, the building was altered in 1954. The building faces west toward Newport Boulevard, is in good condition, and retains integrity.

***P3b. Resource Attributes:** (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the east of the boathouse and mill, 9/15/05

***P6. Date Constructed/Age and Sources:** Historic
 Prehistoric Both
Showroom: 1938
County of Orange Assessor

***P7. Owner and Address:**
El Bridgeport LLC
2312 Newport Boulevard
Newport Beach, CA 92663

***P8. Recorded by:** (Name, affiliation, and address)
Shannon Carmack
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

***P9. Date Recorded:** 9/15/05

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):
DPR 523A (1/95)

*Required information

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 5 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: Offices and machine shop, 2222-2224 Newport Boulevard

***P2. Location:** Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.
c. Address: 2300 Newport Boulevard City: Newport Beach Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located to the east of the hardware/retail shops are the machine shop and offices. The office building, built between 1933 and 1938, is two stories and features elements of the Colonial Revival Style. It has a gabled roof with extended eaves clad in rolled composition roofing. The walls are clad in wooden shingles on the first story and horizontal wooden siding on the second story. Fenestration consists of wooden frame multi-light casement and sash windows, hung in ribbons of two and three. Several original windows have been replaced with aluminum sliders. A single-story lean-to addition is located on the western facade. The office building is joined to the eastern elevation of the hardware shops and faces north toward the slipway.

Located to the east of the office building is the original machine shop, built in 1926 by Ben Cope. The building is rectangular in plan and rests on a concrete foundation. Similar to the original boat shop also built by Cope, the machine shop has a sawtooth roof, consisting of a series of three corrugated metal clad projections. Each projection features a band of clerestory windows on the east vertical plane. The building is clad in corrugated sheet metal. Fenestration consists of 1/1 wooden sash and modern metal slider windows. The eastern facade has been substantially altered, the walls are clad in wood paneling, and the original doors were replaced with residential sliding glass doors. The machine shop faces toward Newport Bay.

***P3b. Resource Attributes:** (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the southwest of the machine shop and offices, 9/15/05

***P6. Date Constructed/Age and Sources:** Historic Prehistoric Both
Machine shop: 1926
Offices: 1933-38
County of Orange Assessor

***P7. Owner and Address:**
El Bridgeport LLC
2312 Newport Boulevard
Newport Beach, CA 92663

***P8. Recorded by:** (Name, affiliation, and address)
Shannon Carmack
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

***P9. Date Recorded:** 9/15/05

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 6 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: Foundry and shops, 2230-2240 Newport Boulevard

*P2. Location: Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West ; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.

c. Address: 2300 Newport Boulevard

City: Newport Beach

Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located to the south of the machine shop, on the eastern side of the Arcade are the foundry and shops, built between 1933 and 1938. These two- and one-story buildings were built in a Maritime Vernacular Style. The walls are clad in corrugated sheet metal. Fenestration consists of wooden frame, multi-light fixed casement and sash windows, hung in ribbons. Several original windows have been replaced with aluminum sliders. Along the western elevation of the building there is a row of single-story additions that are now used for retail/office space. The foundry and machine shops face west toward the interior courtyard of the Arcade. Originally a paved street, and later used as the steel fabrication yard, the Arcade is now a landscaped courtyard. A large tree enclosed in a brick planter is located in the center of the Arcade, and the floor is lined with brick. To the east of the foundry and machine shops is Newport Bay.

*P3b. Resource Attributes: (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the west of the foundry and shops, 9/15/05

*P6. Date Constructed/Age and Sources: Historic
 Prehistoric Both
Foundry and shops: 1933-1938
County of Orange Assessor

*P7. Owner and Address:
El Bridgeport LLC
2312 Newport Boulevard
Newport Beach, CA 92663

*P8. Recorded by: (Name, affiliation, and address)
Shannon Carmack
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

*P9. Date Recorded: 9/15/05

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

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

DPR 523A (1/95)

*Required information

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD

Other Listings
Review Code

Reviewer

Date

Page 7 of 14

*Resource Name or #: South Coast Shipyard

P1. Other Identifier: Warehouse and Pipe Shop, 2122 and 2130 Newport Boulevard

*P2. Location: Not for Publication Unrestricted

*a. County: Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Newport Beach Date: 1965 (PR 1981) T 6 South; R 10 West ; NE ¼; NW ¼; SW ¼ of Sec 33; S.B. B.M.

c. Address: 2300 Newport Boulevard

City: Newport Beach

Zip: 92663

d. UTM: Zone: 11; 413976 mE/ 3719159 mN (NAD27)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 047-120-31, Lot 1 through 14 of Tract No. 814, of the Newport Beach Townsite, Section A.

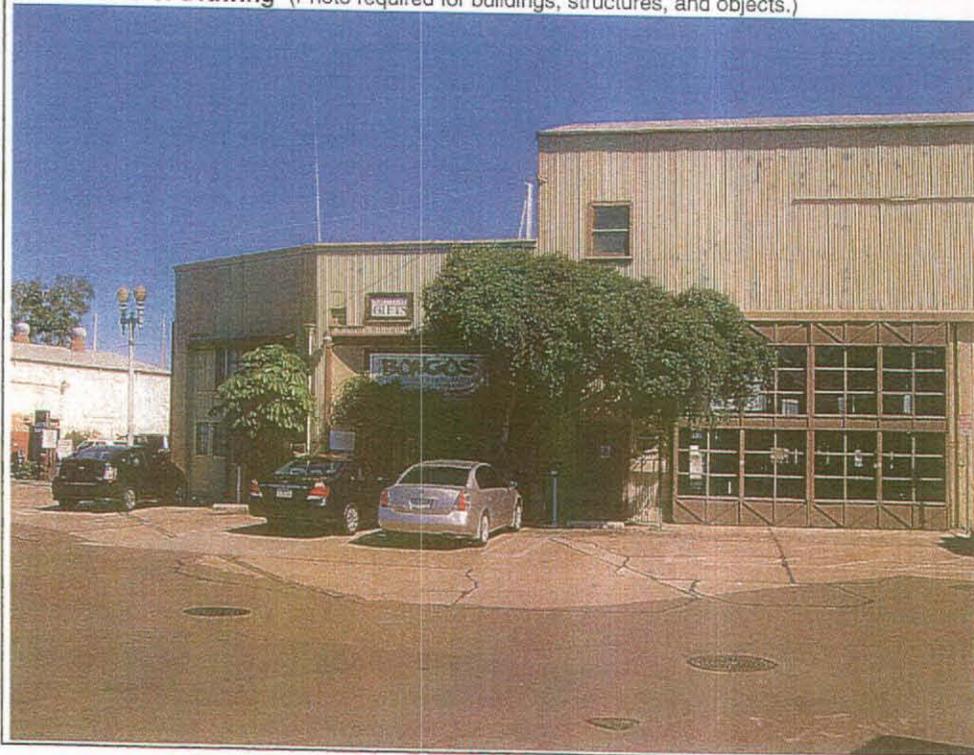
*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located to the south of the Arcade buildings are the warehouse and pipe shop. The warehouse is a three-story building with a rectangular plan and a concrete foundation. Built in 1933 by the South Coast Co., it is similar in construction to the original boat shop and machine shop. The warehouse has a sawtooth roof featuring eight corrugated metal clad projections. The walls are also clad in corrugated metal. Fenestration consists of wooden frame sash and modern metal slider windows. The eastern facade features floor-to-ceiling ribbons of metal frame fixed windows. The original doors on this facade were replaced with metal frame sliding glass doors. The northern elevation had the words "Crow's Nest" painted on the wall. The warehouse is joined to the southern elevation of the pipe shop and faces west toward the Arcade entrance.

Located to the north of the warehouse is the pipe shop, built in 1938. The two-story building is rectangular in plan and rests on a concrete foundation. The pipe shop also has a sawtooth roof, consisting of two corrugated metal clad projections. Each projection features a band of clerestory windows on the north vertical plane. The building is clad in corrugated sheet metal. Fenestration consists of wooden frame multi-light fixed and sash windows. Several original windows have been replaced with aluminum sliders. The northern elevation features large metal bay doors. The western facade was substantially altered in 1950; the walls are clad in decorative wood paneling and feature two shop fronts. The original doors were replaced with Dutch doors. The pipe shop faces west toward the Arcade entrance. To the east of the pipe shop is Newport Bay.

*P3b. Resource Attributes: (List attributes and codes) HP6-Commercial Building, HP8-Industrial Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the east of the pipe shop and warehouse, 9/15/05

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both
Warehouse: 1933
Pipe shop: 1938
County of Orange Assessor

*P7. Owner and Address:
El Bridgeport LLC
2312 Newport Boulevard
Newport Beach, CA 92663

*P8. Recorded by: (Name, affiliation, and address)
Shannon Carmack
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

*P9. Date Recorded: 9/15/05

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historical Resource Assessment for the South Coast Shipyard, City of Newport Beach, County of Orange, California. October 2005.

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

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

UNOCAL #5310 (Continued) S101528955

Region: CORTESE
 Reg By: Leaking Underground Storage Tanks

Reg Id: 083000431T
 Region: CORTESE
 Reg By: Leaking Underground Storage Tanks

FID:
 Facility ID: 30000591
 Reg By: Active Underground Storage Tank Location
 Cortese Code: Not reported
 Status: Active
 Mail To: Not reported
 911 WILSHIRE BLVD STE 10
 NEWPORT BEACH, CA 92660

Contact: Not reported
 DUNS No: Not reported
 Creation: 10/22/93
 EPA ID: Not reported
 Comments: Not reported

Regulate ID: Not reported
 SIC Code: Not reported
 Facility Tel: (714) 836-8550

Contact Tel: Not reported
 NPDES No: Not reported
 Modified: 00/00/00

H39 UNOCAL #5310 LUST U003763047
 NNW 3001 NEWPORT BLVD # 5310 UST N/A
 1/4-1/2 NEWPORT BEACH, CA 92663
 1545 ft.

Site 6 of 6 in cluster H

Relative: LUST Region OR
 Lower: Facility ID: 86UT008
 Actual: Site Number: RO0001139
 9 ft. Region: ORANGE
 Case Type: Not reported
 Chemical: Gasoline
 Date Closed: 09/18/1986
 Current Status: 9
 Facility Status: 02

State UST:
 Facility ID: 4852
 Region: STATE
 Local Agency: 30000

40 LIDO PARK CONDOMINIUMS LUST S103444592
 NNE 801 LIDO PARK DR N/A
 1/4-1/2 NEWPORT BEACH, CA 92663
 1780 ft.

State LUST:
 Relative: Cross Street: Not reported
 Lower: Qty Leaked: Not reported
 Actual: Case Number: 083003306T
 8 ft. Reg Board: 8
 Chemical: Diesel
 Lead Agency: Local Agency
 Local Agency: 0
 Case Type: Other ground water affected
 Status: Case Closed
 Review Date: 01/01/1965
 Workplan: 11/3/93

Confirm Leak: 01/01/1965
 Prelim Assess: 11/3/98

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

LIDO PARK CONDOMINIUMS (Continued) S103444592

Remed Plan: Not reported

Pollution Char: Not reported
 Remed Action: Not reported
 Monitoring: Not reported
 Close Date: 12/03/1999
 Release Date: 12/15/1998
 Cleanup Fund Id: Not reported
 Discover Date: 11/03/1998
 Enforcement Di: Not reported
 Enf Type: Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
 Enter Date: 12/15/1998
 Funding: Not reported
 Staff Initials: JK
 How Discovered: Not reported
 How Stopped: Not reported
 Interim: Not reported
 Leak Cause: Not reported
 Leak Source: Not reported
 MTBE Date: 01/01/1965
 Max MTBE GW: 0 Parts per Billion
 MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
 Priority: 2A
 Local Case #: 98UT090
 Beneficial: Not reported
 Staff: CAB
 GW Qualifier: <
 Max MTBE Soil: 0.001 Parts per Million
 Soil Qualifier: <
 Hydr Basin #: Not reported
 Operator: Not reported
 Oversight Prgm: Local Oversight Program UST
 Oversight Prgm: LOP
 Review Date: 12/15/1998
 Stop Date: / /
 Work Suspended: Not reported
 Responsible Party: BILL CUNNINGHAM
 RP Address: 801 LIDO PARK DR
 Global Id: T060590222D
 Org Name: Not reported
 Contact Person: Not reported
 MTBE Conc: 2
 Mibe Fuel: 0
 Water System Name: Not reported
 Well Name: Not reported
 Distance To LUST: 0
 Waste Discharge Global ID: Not reported
 Waste Disch Assigned Name: Not reported

LUST Region 8
 Region: 8
 Substance: 12034
 Regional Board: 06
 Local Case Num: 98UT090
 Facility Status: Case Closed
 Staff: CARL BERNHARDT
 Lead Agency: Local Agency
 Local Agency: 30000
 Qty Leaked: Not reported
 County: Orange

Cross Street: Not reported

Map ID
Direction
Distance
Elevation (ft.)
Site

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

(Continued)

8105854872

Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CCC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Comments: Not reported
Facility Telephone Number: Not reported
Waterway Involved: Yes
Waterway: Newport Harbor
Spill Site: Ship/Harbor/Port
Cleanup By: Reporting Party
Containment: Yes
What Happened: Vessel was sinking, allowed oil mixture to rise out of engine area. Contained with booms.
Type: PETROLEUM
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: 8/7/98
Evacuations: 0

43
NNW
1/4-1/2
2138 ft.

CHMRS S190278340
N/A

Relative: CHMRS.
Lower: OES Control Number: 9099261
Actual: Chemical Name: Not reported
8 ft. Extent of Release: Not reported
Property Use: Residential
Incident Date: 11-JUN-90
Date Completed: 11-JUN-90
Time Completed: 830
Agency Id Number: 30055
Agency Incident Number: 90-010529
OES Incident Number: 9099261
Time Notified: 0
Surrounding Area: 400
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported

Map ID
Direction
Distance
Elevation (ft.)
Site

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

(Continued)

S100278340

Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CCC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: BIC A. WAGNER
Report Date: 11-JUL-90
Comments: Yes
Facility Telephone Number: 714 644-3103
Waterway Involved: Not reported
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Not reported
Containment: Not reported
What Happened: Not reported
Type: Not reported
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: Not reported
Evacuations: Not reported

144
NNW
1/4-1/2
2189 ft.

LUST S184160897
N/A

Relative: Site 1 of 4 in cluster 1
Lower: LUST Region OR:
Facility Id: 68UT142
Actual: Site Number: R00002304
8 ft. Region: ORANGE
Case Type: Ground water
Chemical: Gasoline
Date Closed: 05/19/1991
Current Status: 9
Facility Status: 02

145
NNW
1/4-1/2
2189 ft.

LUST I061577422
HST LUST N/A

Relative: Site 2 of 4 in cluster 1
Lower: State LUST:
Actual: Cross Street: Not reported
8 ft. City Leaked: Not reported
Case Number: 083000199T
Reg Board: B
Chemical: Gasoline

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

NEWPORT BEACH CITY HALL (Continued)

U001577422

Staff: PATRICIA HANNON
Case Type: O
Summary: Not reported
UST HIST:
Facility ID: 57040 Tank Used for: PRODUCT
Tank Num: 1 Container Num: 8
Tank Capacity: 10000 Year Installed: Not reported
Type of Fuel: UNLEADED Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: MEL KOEHN Telephone: (714) 644-3080
Total Tanks: 1 Region: STATE
Facility Type: Other Other Type: CITY HALL

146
NNW 3300 NEWPORT BLVD.
1/4-1/2 NEWPORT BEACH, CA 92663
2169 ft.

CHMIRS S100276595
N/A

Site 3 of 4 in cluster 1

Relative:
Lower CHMIRS
OES Control Number: 9100116
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Not reported
Incident Date: 06-FEB-91
Date Completed: 06 FEB-91
Time Completed: 830
Agency Id Number: 30055
Agency Incident Number: 102238
OES Incident Number: 9100116
Time Notified: 801
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: AJ WAGONER
Report Date: 06-FEB 91
Comments: Yes
Facility Telephone Number: 714 644-3103
Waterway Involved: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

(Continued)

S100276595

Waterway: Not reported
Spill Site: Not reported
Cleanup By: Not reported
Containment: Not reported
What Happened: Not reported
Type: Not reported
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: Not reported
Evacuations: Not reported

147
NNW 3300 NEWPORT CITY HALL
1/4-1/2 NEWPORT BLVD
2169 ft. NEWPORT BEACH, CA 92668

Cortese S105035894
N/A

Site 4 of 4 in cluster 1

Relative:
Lower CORTESE
Reg Id: 083000199T
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

48
NNW 3300 MARCUS AVENUE
1/4-1/2 NEWPORT BEACH, CA 92663
2180 ft.

CHMIRS S100221260
N/A

Relative:
Lower CHMIRS
OES Control Number: 9099260
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Residential
Incident Date: 10-JUN-90
Date Completed: 10-JUN-90
Time Completed: 821
Agency Id Number: 30055
Agency Incident Number: 010529
OES Incident Number: 9099260
Time Notified: 828
Surrounding Area: 400
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/year: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

1000278385

WORLD OIL CO (Continued)

Review Date: Not reported
Workplace: 11/13/89
Pollution Char: Not reported
Remed Action: Not reported
Close Date: Not reported
Cleanup Fund Id: Not reported
Discover Date: 11/13/1989
Enforcement Ct: Not reported
Enf Type: 8
Enter Date: 03/19/1990
Funding: Not reported
Staff Initials: JK
How Discovered: Not reported
How Stopped: Not reported
Inlet(s): Not reported
Lat/Long: 33.6172342 / -117.9306584
Leak Cause: Not reported
Leak Source: Not reported
Beneficial: Not reported
MTBE Date: 2/4/02
MTBE Tested: YES
Max MTBE GW: 36000
GW Qualities: =
Max MTBE Soil: .052
Soil Qualities: =
Hydr Basin #: COASTAL PLAIN OF ORA
Operator: Not reported
Oversight Prgm: LOP
Priority: Not reported
Work Suspended: Not reported
Responsible Party: JOHN HUNTOLEY
Well name: Not reported
Distance From Lust: 17879.297419284909281110823349
Waste Disch Global Id: Not reported
MTBE Class: C
Waste Disch Assigned Name: Not reported
Case Type: Other Ground Water not used for drinking or no beneficial use
Global ID: T0806901108
How Stopped Date: / /
Organization Name: Not reported
Contact Person: Not reported
RP Address: 9302 GARFIELD AVE
MTBE Concentration: 3
MTBE Fuel: 0
Case Number: 083001458T
Water System Name: Not reported
Code Name: ORANGE
Agency Name: Not reported
Priority: 1B
State Explanation: REMEDIAL ACTION UNDERWAY
Substance: Not reported
Salt: TOM MBEKE-EKANEM
Case Type: 0
Summary: Not reported

Confirm Leak: Not reported
Prelim Assess: 11/13/89
Remed Plan: Not reported
Monitoring: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

1000278385

WORLD OIL CO (Continued)

HAZNET:
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 1.4178
Waste Category: Tank bottom waste
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 58.9811
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 3.8781
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange

HAZNET:
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 1.4178
Waste Category: Tank bottom waste
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 58.9811
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange
Gepaid: CAD981180633
TSD EPA ID: CAT080013352
Gen County: Orange
Tsd County: Los Angeles
Tons: 3.8781
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WORLD OIL MARKETING COMPANY
Telephone: (562) 928-0100
Mailing Address: 9302 S GARFIELD AVE
SOUTH GATE, CA 90280 - 1968
County: Orange

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number

EDR ID Number
EPA ID Number

(Continued)

S105660331

Others Number Of Fatalities : Not reported
 Vehicle Make/Year : Not reported
 Vehicle License Number : Not reported
 Vehicle State : Not reported
 Vehicle Id Number : Not reported
 CA/DOT/PUC/CCC Number : Not reported
 Company Name : Not reported
 Reporting Officer Name/ID : Not reported
 Report Date : Not reported
 Comments : Not reported
 Facility Telephone Number : Not reported
 Waterway Involved : No
 Waterway : Not reported
 Spill Site : Treatment/Sewage Facility
 Cleanup By : Reporting Party
 Containment : Yes
 What Happened : Contained in a construction pit, spill was caused by a power outage at a pumping station. Spill has been cleaned up
 Type : SEWAGE
 Other : Not reported
 Chemical 1 : Not Reported
 Chemical 2 : Not Reported
 Chemical 3 : Not Reported
 Date/Time : 8/18/99 530
 Evacuations : 0

L52
North
1/2-1
2644 ft.

3356 VIA LIDO
NEWPORT BEACH, CA 9

CHMIRS S105670012
N/A

Site 1 of 4 in cluster L

Relative:
Lower

CHMIRS:
 OES Control Number: 01-7204
 Chemical Name: Unk. Of
 Extent of Release: Not reported
 Property Use: Not reported
 Incident Date: Not reported
 Date Completed: Not reported
 Time Completed: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 OES Incident Number: 01-7204
 Time Notified: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: Not reported
 Special Studies 1: Not reported
 Special Studies 2: Not reported
 Special Studies 3: Not reported
 Special Studies 4: Not reported
 Special Studies 5: Not reported
 Special Studies 6: Not reported
 Responding Agency Personnel # Of Injuries : 0
 Responding Agency Personnel # Of Fatalities : 0
 Resp Agency Personnel # Of Decontaminated : Not reported
 Others Number Of Decontaminated : Not reported

Actual:
0 ft.

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number

EDR ID Number
EPA ID Number

(Continued)

S105670012

Others Number Of Injuries : Not reported
 Others Number Of Fatalities : Not reported
 Vehicle Make/Year : Not reported
 Vehicle License Number : Not reported
 Vehicle State : Not reported
 Vehicle Id Number : Not reported
 CA/DOT/PUC/CCC Number : Not reported
 Company Name : Not reported
 Reporting Officer Name/ID : Not reported
 Report Date : Not reported
 Comments : Not reported
 Facility Telephone Number : Not reported
 Waterway Involved : Yes
 Waterway : Newport Bay
 Spill Site : Ship/Harbor/Port
 Cleanup By : Unknown
 Containment : Unknown
 What Happened : The caller is reporting an unknown sheen on the water. Cause is unknown. The sheen is located around a vessel that had been in the process of having it's bilges steam cleaned. The company states there was no oil in the machine. Absorbents applied
 Type : UNSPECIFIED
 Other : Not reported
 Chemical 1 : Not Reported
 Chemical 2 : Not Reported
 Chemical 3 : Not Reported
 Date/Time : 12/13/01 1300
 Evacuations : 0

K53
North
1/2-1
2647 ft.

CHEVRON #9-7100
3531 NEWPORT BLVD
NEWPORT BEACH, CA 92663

LUST S104760689
Cortese N/A

Site 2 of 2 in cluster K

Relative:
Higher

Actual:
11 ft.

State LUST:
 Cross Street : SHORT
 Qty Leaked : Not reported
 Case Number : 083000104T
 Reg Board : 8
 Chemical : 80068191203
 Lead Agency : Local Agency
 Local Agency : 0
 Case Type : Other ground water affected
 Status : Case Closed
 Abate Method : Excavate and Dispose - remove contaminated soil and dispose in approved site
 Review Date : Not reported
 Workplan : 2/5/85
 Pollution Char : Not reported
 Remed Action : 11/1/91
 Monitoring : Not reported
 Close Date : 08/13/2001
 Release Date : Not reported
 Cleanup Fund Id : Not reported
 Discover Date : / /
 Enforcement Dt : Not reported
 Enf Type : Consent order/enforceable agreement to cooperative responsible parties (includes CAO)

Confirm Leak: Not reported
 Prelm Assess: 2/5/85
 Remed Plan: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

L54
North
1/2-1
2652 ft.

CHMRS S198276777
N/A

Site 2 of 4 in cluster L.

Relative:
Lower
Actual:
7 ft.

CHMRS:
OES Control Number: 9100483
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Not reported
Incident Date: 31-MAY-91
Date Completed: 01-JUN-91
Time Completed: 580
Agency Id Number: 30055
Agency Incident Number: 9350
OES Incident Number: 9100483
Time Notified: 1841
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/Year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: B/C A.J. WAGNER
Report Date: 18-AUG-91
Comments: Yes
Facility Telephone Number: 714 644-3103
Waterway Involved: Not reported
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Not reported
Containment: Not reported
What Happened: Not reported
Type: Not reported
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: Not reported
Evacuations: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

S198276777

L55
North
1/2-1
2708 ft.

CHMRS S100276468
N/A

Site 3 of 4 in cluster L.

Relative:
Lower
Actual:
7 ft.

CHMRS:
OES Control Number: 9099628
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: 099
Incident Date: 18-OCT-90
Date Completed: 18-OCT-90
Time Completed: 1420
Agency Id Number: 30055
Agency Incident Number: UNKNOWN
OES Incident Number: 9099628
Time Notified: 1245
Surrounding Area: 942
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/Year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: B/C AJ WAGNER
Report Date: 18-OCT-90
Comments: Yes
Facility Telephone Number: 714 644-3103
Waterway Involved: Not reported
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Not reported
Containment: Not reported
What Happened: Not reported
Type: Not reported
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: Not reported
Evacuations: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

S100221530

59 CALTRANS
North 3600 NEWPORT BLVD
1/2-1 NEWPORT BEACH, CA 92663
2867 ft.

Cortese S103695023
N/A

Relative: CORTESE,
Higher Reg Id 083001790T
Region CORTESE
Actual: Reg By Leaking Underground Storage Tanks
12 ft.

59 NEWPORT ARCHES MARINA
North 12 SALBOA COVES
1/2-1 NEWPORT BEACH, CA 92663
3452 ft.

LUST S102434351
Cortese N/A

Relative: State LUST;
Higher Cross Street FINLEY
City Leaked Not reported
Actual: Case Number 083000034T
15 ft. Reg Board 8
Chemical Gasoline
Lead Agency Regional Board
Local Agency: 0
Case Type Other ground water affected
Status Case Closed
Abate Method No Action Required - incident is minor, requiring no remedial action
Review Date Not reported Confirm Leak Not reported
Workplan Not reported Prelim Assess Not reported
Pollution Char Not reported Remed Plan Not reported
Remed Action Not reported
Monitoring Not reported
Close Date 04/09/1985
Release Date 03/03/1982
Cleanup Fund Id Not reported
Discover Date //
Enforcement Dt Not reported
Enf Type Not reported
Enter Date 05/19/1987
Funding Not reported
Staff Initials Not reported
How Discovered Not reported
How Stopped Not reported
Interim Not reported
Leak Cause Not reported
Leak Source Not reported
MTBE Date //
Max MTBE GW: 0 Parts per Billion
MTBE Tested Site NOT Tested for MTBE Includes Unknown and Not Analyzed
Priority Not reported
Local Case # Not reported
Beneficial Not reported
Staff PAH
GW Qualifier Not reported
Max MTBE Soil Not reported
Soil Qualifier Not reported
Hydr Basin # Not reported
Operator Not reported
Oversight Prgm: RB Lead Underground Storage Tank

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

NEWPORT ARCHES MARINA (Continued)

S102434351

Oversight Prgm: UST
Review Date: 07/05/1988
Stop Date: //
Work Suspended Not reported
Responsible Party: CITY OF NEWPORT BEACH
RP Address: 3300 NEWPORT BOULEVARD, NEWPORT BEACH, CA 92663
Global Id T090590028
Org Name Not reported
Contact Person Not reported
MTBE Conc: 0
Mibe Fuel 1
Water System Name Not reported
Well Name Not reported
Distance To LUST 0
Waste Discharge Global ID Not reported
Waste Disch Assigned Name Not reported

LUST Region 8
Region 8
Substance 8006619 Cross Street FINLEY
Regional Board 08
Local Case Num: Not reported
Facility Status Case Closed
Staff PATRICIA HANNON
Lead Agency Regional Board
Local Agency Not reported
Abate Method: No Action Required - incident is minor, requiring no remedial action
City Leaked Not reported
County Orange
Review Date Not reported Confirm Leak Not reported
Workplan Not reported Prelim Assess Not reported
Pollution Char Not reported Remed Plan Not reported
Remed Action Not reported
Close Date 04/09/1985 Monitoring Not reported
Cleanup Fund Id Not reported
Discover Date Not reported
Enforcement Dt Not reported
Enf Type Not reported
Enter Date 05/19/1987
Funding Not reported
Staff Initials Not reported
How Discovered Not reported
How Stopped Not reported
Interim Not reported
Leak Cause Not reported
Leak Source Not reported
Beneficial Not reported
MTBE Date Not reported
MTBE Tested NT
Max MTBE GW: Not reported
GW Qualifier Not reported
Max MTBE Soil Not reported
Soil Qualifier Not reported
Hydr Basin # COASTAL PLAIN OF ORA
Operator Not reported
Oversight Prgm: UST
Priority Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

\$102433388

PORT CALYPSO (Continued)

How Discovered: Not reported
How Stopped: Not reported
Infirm: Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date: / /
Max MTBE GW: 0 Parts per Billion
MTBE Tested: Not Required to be Tested.
Priority: 2A
Local Case #: 95UT037
Beneficial: Not reported
Staff: CAB
GW Qualifer: Not reported
Max MTBE Soil: Not reported
Soil Qualifer: Not reported
Hydr Basin #: Not reported
Operator: Not reported
Overnight Prgm: Local Oversight Program UST
Overnight Prgm: LOP
Review Date: 06/06/1996
Stop Date: / /
Work Suspended: Not reported
Responsible Party: JUDY MILLS, ASSET MANAGER
RP Address: 2428 W COAST HWY 207
Global ID: T0605901894
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mibe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported.
Waste Disch Assigned Name: Not reported

LUST Region 8:

Region: 8
Substance: 8006819,1203
Regional Board: 08
Local Case Num: 95UT037
Facility Status: Case Closed
Staff: CARL BERRHARDT
Lead Agency: Local Agency
Local Agency: 30000L
Qty Leaked: Not reported
County: Orange
Review Date: Not reported
Workplan: 5/30/95
Pollution Char: Not reported
Remed Action: Not reported
Close Date: 06/11/1996
Cleanup Fund Id: Not reported
Discover Date: 05/30/1995
Enforcement Dt: Not reported
Enf Type: Warning/notice of violation to uncooperative responsible parties (includes COO and CAD)
Enter Date: 12/15/1995
Funding: Not reported
Staff Initials: JK

Cross Street: TUSTIN

Confirm Leak: Not reported
Prelim Assess: 5/30/95
Remed Plan: Not reported
Monitoring: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

\$182433388

PORT CALYPSO (Continued)

How Discovered: Not reported
How Stopped: Not reported
Infirm: Not reported
Lat/Lon: 33.6195442, -117.9230942
Leak Cause: Not reported
Leak Source: Not reported
Beneficial: Not reported
MTBE Date: Not reported
MTBE Tested: NRC
Max MTBE GW: Not reported
GW Qualifer: Not reported
Max MTBE Soil: Not reported
Soil Qualifer: Not reported
Hydr Basin #: COASTAL PLAIN OF ORA
Operator: Not reported
Overnight Prgm: LOP
Priority: Not reported
Work Suspended: Not reported
Responsible Party: JUDY MILLS, ASSET MANAGER
Well name: LPA REPORTED PRIMARY SOURCE
Distance From Lust: 15464.479607459822353594534689
Waste Disch Global Id: W0806900228
MTBE Class:
Waste Disch Assigned Name: 4500225-001GEN
Case Type: Other Ground Water not used for drinking or no beneficial use
Global ID: T0605901894
How Stopped Date: / /
Organization Name: Not reported
Contact Person: Not reported
RP Address: 2428 W COAST HWY 207
MTBE Concentration: 0
MTBE Fuel: 0
Case Number: 083002745T
Water System Name: OUTPOST, THE
Code Name: ORANGE
Agency Name: Not reported
Priority: 2A
State Explanation: CASE CLOSED
Substance: Not reported
Staff: CARL BERRHARDT
Case Type: 0
Summary: Not reported

LUST Region OR:

Facility Id: 95UT037
Site Number: RC0001888
Region: ORANGE
Case Type: Ground water
Chemical: Diesel
Date Closed: 06/11/1996
Current Status: 9
Facility Status: 02

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

(Continued)

Special Studies 1 : Not reported
 Special Studies 2 : Not reported
 Special Studies 3 : Not reported
 Special Studies 4 : Not reported
 Special Studies 5 : Not reported
 Special Studies 6 : Not reported
 Responding Agency Personnel # Of Injuries : 0
 Responding Agency Personnel # Of Fatalities : 0
 Resp Agency Personnel # Of Decontaminated : 0
 Others Number Of Decontaminated : 0
 Others Number Of Injuries : 0
 Others Number Of Fatalities : 0
 Vehicle Make/year : Not reported
 Vehicle License Number : Not reported
 Vehicle State : Not reported
 Vehicle Id Number : Not reported
 CA/DOY/PUC/ICG Number : Not reported
 Company Name : Not reported
 Reporting Officer Name/ID : A.J. WAGNER B/C
 Report Date : 10-DCT-90
 Comments : Yes
 Facility Telephone Number : 714 644-3103
 Waterway Involved : Not reported
 Waterway : Not reported
 Spill Site : Not reported
 Cleanup By : Not reported
 Containment : Not reported
 What Happened : Not reported
 Type : Not reported
 Other : Not reported
 Chemical 1 : Not Reported
 Chemical 2 : Not Reported
 Chemical 3 : Not Reported
 Date/Time : Not reported
 Evacuations : Not reported

S100221373

N65
NE
1/2-1
3796 ft.

2101 WEST COAST HWY
NEWPORT BEACH, CA

CHMIRS S105661264
N/A

Relative:
Higher

Site 2 of 2 in cluster N

CHMIRS

Actual:
15 ft.

OES Control Number: 99-2472
 Chemical Name: Brown Liquid Substance
 Extent of Release: Not reported
 Property Use: Not reported
 Incident Date: Not reported
 Date Completed: Not reported
 Time Completed: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 OES Incident Number: 99-2472
 Time Notified: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: Not reported
 Special Studies 1: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

(Continued)

Special Studies 2 : Not reported
 Special Studies 3 : Not reported
 Special Studies 4 : Not reported
 Special Studies 5 : Not reported
 Special Studies 6 : Not reported
 Responding Agency Personnel # Of Injuries : 0
 Responding Agency Personnel # Of Fatalities : 0
 Resp Agency Personnel # Of Decontaminated : Not reported
 Others Number Of Decontaminated : Not reported
 Others Number Of Injuries : Not reported
 Others Number Of Fatalities : Not reported
 Vehicle Make/year : Not reported
 Vehicle License Number : Not reported
 Vehicle State : Not reported
 Vehicle Id Number : Not reported
 CA/DOY/PUC/ICG Number : Not reported
 Company Name : Not reported
 Reporting Officer Name/ID : Not reported
 Report Date : Not reported
 Comments : Not reported
 Facility Telephone Number : Not reported
 Waterway Involved : Yes
 Waterway : storm drain
 Spill Site : Road
 Cleanup By : Newport Hazmat
 Containment : Unknown
 What Happened : Unknown type of brown liquid substance flowing at 100 gallons a minute Unknown when flow began. Flowing into Lido Channel storm drain which flows to the ocean Attempting to trace source of flow.
 Type : UNSPECIFIED
 Other : Not reported
 Chemical 1 : Not Reported
 Chemical 2 : Not Reported
 Chemical 3 : Not Reported
 Date/Time : 6/10/99 851
 Evacuations : 0

S105661284

O66
NNE
1/2-1
3805 ft.

3101 WEST COAST HWY.
NEWPORT BEACH, CA 0

CHMIRS S105648928
N/A

Relative:
Higher

Site 1 of 2 in cluster O

CHMIRS

Actual:
12 ft.

OES Control Number: 12743
 Chemical Name: gasoline and oil
 Extent of Release: Not reported
 Property Use: Not reported
 Incident Date: Not reported
 Date Completed: Not reported
 Time Completed: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 OES Incident Number: 12743
 Time Notified: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Size

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

S100221130

Special Studies 5 : Not reported
Special Studies 6 : Not reported
Responding Agency Personnel # Of Injuries : 0
Responding Agency Personnel # Of Fatalities : 0
Resp Agency Personnel # Of Decontaminated : 0
Others Number Of Decontaminated : 0
Others Number Of Injuries : 0
Others Number Of Fatalities : 0
Vehicle Make/year : Not reported
Vehicle License Number : Not reported
Vehicle State : Not reported
Vehicle Id Number : Not reported
CA/DOT/PUC/RCC Number : Not reported
Company Name : Not reported
Reporting Officer Name/ID : B/C A. WAGNER
Report Date : 11-MAY-80
Comments : Yes
Facility Telephone Number : 714 844-3103
Waterway Involved : Not reported
Waterway : Not reported
Spill Site : Not reported
Cleanup By : Not reported
Containment : Not reported
What Happened : Not reported
Type : Not reported
Other : Not reported
Chemical 1 : Not Reported
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : Not reported
Evacuations : Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Size

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

S100276968

Responding Agency Personnel # Of Injuries : 0
Responding Agency Personnel # Of Fatalities : 0
Resp Agency Personnel # Of Decontaminated : 0
Others Number Of Decontaminated : 0
Others Number Of Injuries : 0
Others Number Of Fatalities : 0
Vehicle Make/year : Not reported
Vehicle License Number : Not reported
Vehicle State : Not reported
Vehicle Id Number : Not reported
CA/DOT/PUC/RCC Number : Not reported
Company Name : Not reported
Reporting Officer Name/ID : B/C A.J. WAGNER
Report Date : 08-JAN-82
Comments : Yes
Facility Telephone Number : 714 844-3103
Waterway Involved : Not reported
Waterway : Not reported
Spill Site : Not reported
Cleanup By : Not reported
Containment : Not reported
What Happened : Not reported
Type : Not reported
Other : Not reported
Chemical 1 : Not Reported
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : Not reported
Evacuations : Not reported

71
NW
1/2-1
3874 ft.

4118 RIVER AVENUE
NEWPORT BEACH, CA 92863

CHMRS S100276968
N/A

Relative: CHMRS:
Lower OES Control Number: 9100819
Chemical Name: Not reported
Actual: Extent of Release: Not reported
7 ft. Property Use: Not reported
Incident Date: 10-OCT-81
Date Completed: 11-OCT-81
Time Completed: 34
Agency Id Number: 30055
Agency Incident Number: 117679
OES Incident Number: 9100819
Time Notified: 1410
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: N
Special Studies 1 : Not reported
Special Studies 2 : Not reported
Special Studies 3 : Not reported
Special Studies 4 : Not reported
Special Studies 5 : Not reported
Special Studies 6 : Not reported

72
North
1/2-1
4099 ft.

238 NEWPORT BLVD
NEWPORT BEACH, CA

CHMRS S100430175
N/A

Relative: CHMRS:
Higher OES Control Number: 60387
Actual: Chemical Name: water based paint
31 ft. Extent of Release: Not reported
Property Use: Not reported
Incident Date: Not reported
Date Completed: Not reported
Time Completed : Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
OES Incident Number: 60387
Time Notified : Not reported
Surrounding Area : Not reported
Estimated Temperature : Not reported
Property Management : Not reported
More Than Two Substances Involved? : Not reported
Special Studies 1 : Not reported
Special Studies 2 : Not reported
Special Studies 3 : Not reported
Special Studies 4 : Not reported
Special Studies 5 : Not reported
Special Studies 6 : Not reported
Responding Agency Personnel # Of Injuries : NO
Responding Agency Personnel # Of Fatalities : NO

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

74
 NNE
 1/2-1
 4256 ft.

3199 PARK CENTER
 NEWPORT BEACH, CA 92663

Database(s) CHMIRS
 EDR ID Number S100276859
 EPA ID Number N/A

Relative: CHMIRS
 Higher
 Actual: 89 ft.

OES Control Number: 9100640
 Chemical Name: Not reported
 Extent of Release: Not reported
 Property Use: Not reported
 Incident Date: 24-JUL-91
 Date Completed: 24-JUL-91
 Time Completed: 1546
 Agency Id Number: 30055
 Agency Incident Number: 112885
 OES Incident Number: 9100640
 Time Notified: 1530
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: N
 Special Studies 1: Not reported
 Special Studies 2: Not reported
 Special Studies 3: Not reported
 Special Studies 4: Not reported
 Special Studies 5: Not reported
 Special Studies 6: Not reported
 Responding Agency Personnel # Of Injuries: 0
 Responding Agency Personnel # Of Fatalities: 0
 Resp Agency Personnel # Of Decontaminated: 0
 Others Number Of Decontaminated: 0
 Others Number Of Injuries: 0
 Others Number Of Fatalities: 0
 Vehicle Make/year: Not reported
 Vehicle License Number: Not reported
 Vehicle State: Not reported
 Vehicle Id Number: Not reported
 CA/DOT/PUC/ICC Number: Not reported
 Company Name: Not reported
 Reporting Officer Name/ID: B/C A.J. WAGNER
 Report Date: 07-OCT-91
 Comments: Yes
 Facility Telephone Number: 714 844-3103
 Waterway Involved: Not reported
 Waterway: Not reported
 Spill Site: Not reported
 Cleanup By: Not reported
 Containment: Not reported
 What Happened: Not reported
 Type: Not reported
 Other: Not reported
 Chemical 1: Not Reported
 Chemical 2: Not Reported
 Chemical 3: Not Reported
 Date/Time: Not reported
 Evacuations: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

(Continued)

Database(s)
 EDR ID Number
 EPA ID Number

75
 NW
 1/2-1
 4360 ft.

43RD ST. / RIVER AVE
 NEWPORT BEACH, CA

CHMIRS S105631846
 N/A

Relative: CHMIRS
 Lower
 Actual: 9 ft.

OES Control Number: 26672
 Chemical Name: DIESEL
 Extent of Release: Not reported
 Property Use: Not reported
 Incident Date: Not reported
 Date Completed: Not reported
 Time Completed: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 OES Incident Number: 26672
 Time Notified: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: Not reported
 Special Studies 1: Not reported
 Special Studies 2: Not reported
 Special Studies 3: Not reported
 Special Studies 4: Not reported
 Special Studies 5: Not reported
 Special Studies 6: Not reported
 Responding Agency Personnel # Of Injuries: UNKNOWN
 Responding Agency Personnel # Of Fatalities: UNKNOWN
 Resp Agency Personnel # Of Decontaminated: Not reported
 Others Number Of Decontaminated: Not reported
 Others Number Of Injuries: Not reported
 Others Number Of Fatalities: Not reported
 Vehicle Make/year: Not reported
 Vehicle License Number: Not reported
 Vehicle State: Not reported
 Vehicle Id Number: Not reported
 CA/DOT/PUC/ICC Number: Not reported
 Company Name: Not reported
 Reporting Officer Name/ID: Not reported
 Report Date: Not reported
 Comments: Not reported
 Facility Telephone Number: Not reported
 Waterway Involved: Not reported
 Waterway: NEWPORT BAY
 Spill Site: Not reported
 Cleanup By: F D
 Containment: YES
 What Happened: UNKNOWN
 Type: PETROLEUM
 Other: Not reported
 Chemical 1: Not Reported
 Chemical 2: Not Reported
 Chemical 3: Not Reported
 Date/Time: 1995
 Evacuations: UNKNOWN

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

NEWPORT IMPORTS (Continued)

S101299881

Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region B:

Region: 8
Substance: 12035
Regional Board: 08
Local Case Num: 90UT038
Facility Status: Case Closed
State: CARL BERNHARDT
Lead Agency: Local Agency
Local Agency: 30000L
City Leaked: Not reported
County: Orange
Review Date: Not reported
Work Plan: 2/7/90
Pollution Char: Not reported
Remed Action: Not reported
Close Date: 06/09/1994
Cleanup Fund ID: Not reported
Discover Date: 02/07/1990
Enforcement Dt: Not reported
Enf Type: Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
Enter Date: 02/11/1990
Funding: Not reported
Staff Initials: JK
How Discovered: Not reported
How Stopped: Not reported
Interim: Not reported
Lat/Long: 33.8163744 / -117.91418
Leak Cause: Not reported
Leak Source: Not reported
Beneficial: Not reported
MTBE Date: Not reported
MTBE Tested: NRG
Max MTBE GW: Not reported
GW Qualities: Not reported
Max MTBE Soil: Not reported
Soil Qualities: Not reported
Hydr Basin #: COASTAL PLAIN OF ORA
Operator: Not reported
Overnight Prgm: LOP
Priority: Not reported
Work Suspended: Not reported
Responsible Party: LEE WEST

Cross Street: Not reported

Confirm Leak: Not reported
Prelm Assess: 2/7/90
Remed Plan: Not reported
Monitoring: Not reported

Well name: LPA REPORTED PRIMARY SOURCE
Distance From Lust: 13583.381453047112718735319872
Waste Disch Global ID: W0608900228
MTBE Class:
Waste Disch Assigned Name: 4500228-001GEN
Case Type: Other Ground Water not used for drinking or no beneficial use
Global ID: T0605901085
How Stopped Date: / /
Organization Name: Not reported
Contact Person: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

NEWPORT IMPORTS (Continued)

S101299881

RP Address: 45 GOLETA POINT DR
MTBE Concentration: 0
MTBE Fuel: 0
Case Number: 063001432T
Water System Name: OUTPOST, THE
Code Name: ORANGE
Agency Name: Not reported
Priority: Not reported
State Explanation: CASE CLOSED
Substance: WASTE OIL
State: CARL BERNHARDT
Case Type: O
Summary: Not reported

LUST Region OR:

Facility ID: 90UT038
Site Number: R00001781
Region: ORANGE
Case Type: Ground water
Chemical: Waste Oil
Date Closed: 06/09/1994
Current Status: 9
Facility Status: 02

CORTESE:

Reg ID: 063001432T
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

78 UNOCAL #5688
NNW 377 SUPERIOR AVE
1/2-1 NEWPORT BEACH, CA 92668
5203 ft.

Cortese S101343582
N/A

Relative: CORTESE:
Higher Reg ID: 063000428T
Region: CORTESE
Actual: Reg By: Leaking Underground Storage Tanks
78 ft.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/11/03
 Date Made Active at EDR: 08/01/03
 Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/03
 Elapsed ASTM days: 39
 Date of Last EDR Contact: 09/24/03

CORRACTS: Corrective Action Report

Source: EPA
 Telephone: 800-424-9346
 CORRACTS identifies hazardous waste handlers with RCRA corrective action activity

Date of Government Version: 08/13/03
 Date Made Active at EDR: 03/18/03
 Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/22/03
 Elapsed ASTM days: 27
 Date of Last EDR Contact: 09/08/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA
 Telephone: 800-424-9346
 Resource Conservation and Recovery Information System RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03
 Date Made Active at EDR: 10/01/03
 Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/11/03
 Elapsed ASTM days: 20
 Date of Last EDR Contact: 09/11/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard
 Telephone: 202-260-2342
 Emergency Response Notification System ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/02
 Date Made Active at EDR: 02/03/03
 Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03
 Elapsed ASTM days: 7
 Date of Last EDR Contact: 07/28/03

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS
 Telephone: 800-424-9346
 The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/99
 Database Release Frequency: Biennially

Date of Last EDR Contact: 10/01/03
 Date of Next Scheduled EDR Contact: 12/15/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices
 Telephone: Varies
 Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
 Database Release Frequency: Varies

Date of Last EDR Contact: N/A
 Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Source: EPA
 Telephone: 703-416-0223
 Record of Decision, ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/09/03
 Database Release Frequency: Annually

Date of Last EDR Contact: 07/07/03
 Date of Next Scheduled EDR Contact: 10/06/03

DELISTED NPL: National Priority List Deletions

Source: EPA
 Telephone: N/A
 The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425 (e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/22/03
 Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/04/03
 Date of Next Scheduled EDR Contact: 11/03/03

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA
 Telephone: N/A
 Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System)

Date of Government Version: 07/25/03
 Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/02/03
 Date of Next Scheduled EDR Contact: 10/06/03

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation
 Telephone: 202-366-4555
 Hazardous Materials Incident Report System HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/31/03
 Database Release Frequency: Annually

Date of Last EDR Contact: 07/23/03
 Date of Next Scheduled EDR Contact: 10/20/03

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission
 Telephone: 301-415-7169
 MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 6,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/18/03
 Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/02/03
 Date of Next Scheduled EDR Contact: 10/06/03

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration
 Telephone: 303-231-5959

Date of Government Version: 06/07/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/01/03
 Date of Next Scheduled EDR Contact: 12/29/03

NPL LIENS: Federal Superfund Liens

Source: EPA
 Telephone: 202-564-4267
 Federal Superfund Liens Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CHMIRS: California Hazardous Material Incident Report System

Source: Office of Emergency Services
Telephone: 916-845-8400

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 08/25/03

CORTESE: "Corleese" Hazardous Waste & Substances Sites List

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWFLS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/28/01
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 07/28/03

NOTIFY 85: Proposition 65 Records

Source: State Water Resources Control Board
Telephone: 916-445-3848

Proposition 65 Notification Records. NOTIFY 85 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/23/03

TOXIC PITS: Toxic Pits Cleanup Act Sites

Source: State Water Resources Control Board
Telephone: 916-227-4384

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 08/28/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 08/04/03

SWFLF (SWIS): Solid Waste Information System

Source: Integrated Waste Management Board
Telephone: 916-341-8320

Active, Closed and Inactive Landfills. SWFLF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities of open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/13/03
Date Made Active at EDR: 07/07/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 08/16/03
Elapsed ASTM days: 21
Date of Last EDR Contact: 08/15/03

WMUDS/SWAT: Waste Management Unit Database

Source: State Water Resources Control Board
Telephone: 916-227-4448

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 09/12/03

LUST: Leaking Underground Storage Tank Information System

Source: State Water Resources Control Board
Telephone: 916-341-5740

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/25/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/18/03
Elapsed ASTM days: 9
Date of Last EDR Contact: 07/08/03

CA BOND EXP. PLAN: Bond Expenditure Plan

Source: Department of Health Services
Telephone: 916-255-2118

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities

Source: SWRCB
Telephone: 916-341-3700

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/30/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 14
Date of Last EDR Contact: 07/08/03

VCP: Voluntary Cleanup Program Properties

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/31/03
Date Made Active at EDR: 09/17/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/02/03
Elapsed ASTM days: 15
Date of Last EDR Contact: 09/02/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 9
Telephone: 415-972-3388

Date of Government Version: N/A
Date Made Active at EDR: N/A
Database Release Frequency: Varies

Date of Data Arrival at EDR: N/A
Elapsed ASTM days: 0
Date of Last EDR Contact: N/A

CA FID UST: Facility Inventory Database

Source: California Environmental Protection Agency
Telephone: 916-445-8532

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local county source for current data.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/03/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/07/03
 Date of Next Scheduled EDR Contact: 10/27/03

Underground Tanks
 Source: Alameda County Environmental Health Services
 Telephone: 510-587-6700

Date of Government Version: 07/03/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/07/03
 Date of Next Scheduled EDR Contact: 10/27/03

CONTRA COSTA COUNTY:

Site List
 Source: Contra Costa Health Services Department
 Telephone: 926-846-2266

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs

Date of Government Version: 09/04/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 09/02/03
 Date of Next Scheduled EDR Contact: 12/01/03

FRESNO COUNTY:

CUPA Resources List

Source: Dept. of Community Health
 Telephone: 559-445-3271

Certified Unified Program Agency CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/15/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/21/03
 Date of Next Scheduled EDR Contact: 11/10/03

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
 Source: Kern County Environment Health Services Department
 Telephone: 881-852-8700
 Kern County Sites and Tanks Listing.

Date of Government Version: 07/25/03
 Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/08/03
 Date of Next Scheduled EDR Contact: 12/08/03

LOS ANGELES COUNTY:

List of Solid Waste Facilities
 Source: La County Department of Public Works
 Telephone: 818-458-5185

Date of Government Version: 06/03/03
 Database Release Frequency: Varies

Date of Last EDR Contact: 08/18/03
 Date of Next Scheduled EDR Contact: 11/17/03

City of El Segundo Underground Storage Tank
 Source: City of El Segundo Fire Department
 Telephone: 310-524-2235

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/11/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/18/03
 Date of Next Scheduled EDR Contact: 11/17/03

City of Long Beach Underground Storage Tank
 Source: City of Long Beach Fire Department
 Telephone: 562-570-2543

Date of Government Version: 05/30/02
 Database Release Frequency: Annually

Date of Last EDR Contact: 08/29/03
 Date of Next Scheduled EDR Contact: 11/24/03

City of Torrance Underground Storage Tank
 Source: City of Torrance Fire Department
 Telephone: 310-618-2973

Date of Government Version: 09/03/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/18/03
 Date of Next Scheduled EDR Contact: 11/17/03

City of Los Angeles Landfills
 Source: Engineering & Construction Division
 Telephone: 213-473-7869

Date of Government Version: 03/01/02
 Database Release Frequency: Varies

Date of Last EDR Contact: 09/15/03
 Date of Next Scheduled EDR Contact: 12/15/03

HMS Street Number List

Source: Department of Public Works
 Telephone: 626-458-3517

Industrial Waste and Underground Storage Tank Sites

Date of Government Version: 04/03/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/18/03
 Date of Next Scheduled EDR Contact: 11/17/03

Site Mitigation List

Source: Community Health Services
 Telephone: 323-890-7805

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/03
 Database Release Frequency: Annually

Date of Last EDR Contact: 08/18/03
 Date of Next Scheduled EDR Contact: 11/17/03

San Gabriel Valley Areas of Concern

Source: EPA Region 9
 Telephone: 415-972-3178

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/99
 Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
 Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
 Source: Public Works Department Waste Management
 Telephone: 415-499-6847
 Currently permitted USTs in Marin County.

Date of Government Version: 08/18/03
 Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/04/03
 Date of Next Scheduled EDR Contact: 11/03/03

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/31/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/08/03
Date of Next Scheduled EDR Contact: 10/06/03

SAN FRANCISCO COUNTY:

Local Overlake Facilities

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 09/11/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/08/03
Date of Next Scheduled EDR Contact: 12/08/03

Underground Storage Tank Information

Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 09/11/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/08/03
Date of Next Scheduled EDR Contact: 12/08/03

SAN MATEO COUNTY:

Fuel Leak List

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 07/21/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/28/03
Date of Next Scheduled EDR Contact: 10/27/03

Business Inventory

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 08/16/03
Database Release Frequency: Annually

Date of Last EDR Contact: 07/08/03
Date of Next Scheduled EDR Contact: 10/13/03

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report

Source: Santa Clara Valley Water District
Telephone: 408-285-2800

Date of Government Version: 07/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 09/30/03
Date of Next Scheduled EDR Contact: 12/29/03

Hazardous Material Facilities

Source: City of San Jose Fire Department
Telephone: 408-277-4859

Date of Government Version: 12/11/02
Database Release Frequency: Annually

Date of Last EDR Contact: 09/08/03
Date of Next Scheduled EDR Contact: 12/06/03

SOLANO COUNTY:

Leaking Underground Storage Tanks

Source: Solano County Department of Environmental Management
Telephone: 707-421-8770

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/21/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

Underground Storage Tanks

Source: Solano County Department of Environmental Management
Telephone: 707-421-8770

Date of Government Version: 08/21/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 07/28/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/28/03
Date of Next Scheduled EDR Contact: 10/27/03

SUTTER COUNTY:

Underground Storage Tanks

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 07/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/07/03
Date of Next Scheduled EDR Contact: 10/06/03

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites

Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 08/25/03
Date of Next Scheduled EDR Contact: 11/24/03

Listing of Underground Tank Cleanup Sites

Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/22/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

Underground Tank Closed Sites List

Source: Environmental Health Division
Telephone: 805-654-2813

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/08/03
Date of Next Scheduled EDR Contact: 10/13/03

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

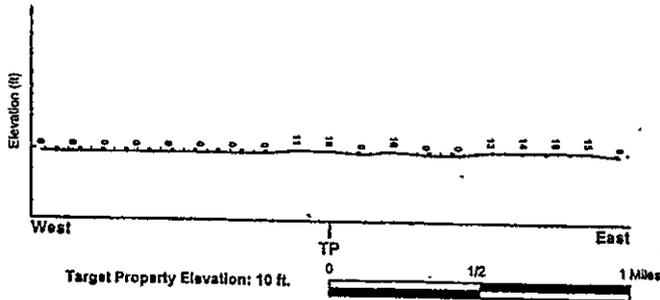
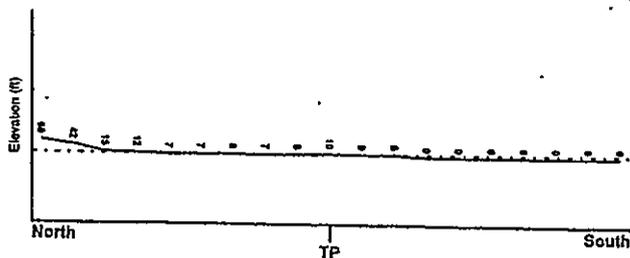
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 2433117-E8 NEWPORT BEACH, CA
 General Topographic Gradient: General West
 Source: USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water)

FEMA FLOOD ZONE

Target Property County: ORANGE, CA
 FEMA Flood Electronic Data: YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06059C0054E

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property: NEWPORT BEACH
 NWI Electronic Data Coverage: YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:
 Search Radius: 1.25 miles
 Status: Not found

AQUIFLOW®

Search Radius: 1,000 Miles.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
A1	1/8 - 1/4 Mile NNW	Not Reported
A2	1/4 - 1/2 Mile NNW	S
A3	1/4 - 1/2 Mile NNW	S
4	1/4 - 1/2 Mile NNE	Not Reported
6	1/4 - 1/2 Mile North	NE
7	1/2 - 1 Mile ESE	Varies
9	1/2 - 1 Mile NNE	SW

For additional site information, refer to Physical Setting Source Map Findings.

* 01184 Site-specific hydrogeological data gathered by CERCLUS Acme, Inc., Bellingham, WA. All rights reserved. All of the information and systems presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-578-6600

Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/28/03
Date of Next Scheduled EDR Contact: 10/27/03

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075

Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 07/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/07/03
Date of Next Scheduled EDR Contact: 10/08/03

SLIC REG 6L: SLIC Sites

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 09/09/03
Database Release Frequency: Varies

Date of Last EDR Contact: 09/08/03
Date of Next Scheduled EDR Contact: 12/08/03

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Source: Regional Water Quality Control Board, Victoria Branch
Telephone: 819-241-8583

Date of Government Version: 05/08/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/02/03
Date of Next Scheduled EDR Contact: 10/06/03

SLIC REG 7: SLIC List

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-348-7491

Date of Government Version: 05/29/03
Database Release Frequency: Varies

Date of Last EDR Contact: 06/08/03
Date of Next Scheduled EDR Contact: 11/2/03

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/07/03
Date of Next Scheduled EDR Contact: 10/08/03

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-467-2940

Date of Government Version: 06/08/03
Database Release Frequency: Annually

Date of Last EDR Contact: 06/02/03
Date of Next Scheduled EDR Contact: 12/01/03

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 06/31/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/02/03
Date of Next Scheduled EDR Contact: 12/01/03

US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency
Telephone: 202-566-2777

Included in the listing are brownfields properties addressed by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Plots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients—States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-260-5981

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1,000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1,000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
8	CA3900831	T/2 - 1 Mile North

Note. PWS System location is not always the same as well location

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 01062660.1r



- ↖ County Boundary
- ↖ Major Roads
- ↖ Contour Lines
- ↖ Earthquake Fault Lines
- ✈ Airports
- ⊙ Earthquake epicenter, Richter 5 or greater
- ⊕ Water Wells
- ⊕ Public Water Supply Wells
- ⊕ Cluster of Multiple Icons
- ↓ Groundwater Flow Direction
- ⊕ Indeterminate Groundwater Flow at Location
- ⊕ Groundwater Flow Varies at Location
- ⊕ Closest Hydrogeological Data
- Oil, gas or related wells

TC01062660.1r Page A-6

TARGET PROPERTY: South Coast Shipyard
 ADDRESS: 2300 Newport Blvd
 CITY/STATE/ZIP: Newport Beach CA 92663
 LAT/LONG: 33.6108 / 117.9287

CUSTOMER: Petra Geotechnical Inc
 CONTACT: Rox Akin
 INQUIRY #: 01062660.1r
 DATE: October 10, 2003 8:13 am

Copyright © 2003 GSI, Inc. © 2003 GSI, Inc. All Rights Reserved.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

9
 NNE
 1/2 - 1 Mile
 Higher

Site ID: 083000358Y
 Groundwater Flow: SW
 Shallow Water Depth: Not Reported
 Deep Water Depth: Not Reported
 Average Water Depth: 10
 Date: 04/14/1995

AQUIFLOW 83144

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
 RADON**

AREA RADON INFORMATION

Federal EPA Radon Zone for ORANGE County: 3

Note: Zone 1 indoor average level > 4 pCi/L
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L
 : Zone 3 indoor average level < 2 pCi/L

Federal Area Radon Information for ORANGE COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.783 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NEWPORT BEACH	200541256	1221 W. PACIFIC COAST HWY	1221 W. PACIFIC COAST HWY	92663	ERNS
NEWPORT BEACH	S10524784	NEWPORT TERRACE LP	WEST 19TH ST, DEAD END	92663	SWFLAP
NEWPORT BEACH	100378042	SOUTH OILASIN OIL CO WELL #1	204 & 206 43RD ST	92663	CERC-NFRAP
NEWPORT BEACH	S10456356	DON FRET	DALDOA COVE SLP G3	92663	HAZNET
NEWPORT BEACH	9649201	DAYSIDE DRIVE & PACIFIC COAST HWY	DAYSIDE DRIVE & PACIFIC COAST HWY		ERNS
NEWPORT BEACH	S101854124	RON BEARD (BIG O TREE)	16091 BEACH BOULEVARD		CA SLIC
NEWPORT BEACH	91234412	3928 COAST HWY	3928 COAST HWY	92659	ERNS
NEWPORT BEACH	S103444589	BOYS SCOUTS OF AMERICA SEA BASE	1011 COAST HWY W	92663	HAZNET
NEWPORT BEACH	S103075505	NAUT-A-CAPRE MARINE SERVICES	900A W COAST HWY	92660	HAZNET
NEWPORT BEACH	U001159100	CAL TRANSCITY OF NEWPORT BEACH	6500 S COAST W	92663	HAZNET
NEWPORT BEACH	U003778630	UNOCAL #3737	2201 W COAST HWY # 3737	92663	HAZNET
NEWPORT BEACH	U003305153	UNOCAL (TOSCON02653)	2201 W COAST HWY # 3737	92663	HAZNET
NEWPORT BEACH	S104566667	FREY ENVIRONMENTAL INC	NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF BIRSE CHANNEL, NEA	92663	HAZNET
NEWPORT BEACH	8712860	NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF BIRSE CHANNEL, NEA	NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF BIRSE CHANNEL, NEA	92663	ERNS
NEWPORT BEACH	S10393724	CLEASER DEL MAR	3235 NEWPORT BLVD, UNIT A	92663	HAZNET, CLEANERS
NEWPORT BEACH	S105262812	RITZ CLEANERS	3308 NEWPORT BEACH UNIT C	92663	CLEANERS
NEWPORT BEACH	8719331	3300 W PACIFIC COAST	3300 W PACIFIC COAST	0	ERNS
NEWPORT BEACH	2002631604	3333 PACIFIC COAST HWY	3333 PACIFIC COAST HWY	92663	HAZNET
NEWPORT BEACH	S109540719	NEWPORT IMPORTS, INC	3100 PACIFIC COAST HWY	92663	HAZNET
NEWPORT BEACH	S10279124	GRAY TRUSTMILLS PARADO BANK	2033 PACIFIC COAST HWY	92663	HAZNET
NEWPORT BEACH	S102814420	NEWPORT AUTO CARE CENTER	1000 W PACIFIC COAST HWY	92663	HAZNET
NEWPORT BEACH	S102465492	HORN BLOWER CRUISES & EVENTS	2431 W PACIFIC COAST HWY	92663	HAZNET
NEWPORT BEACH	S103952775	BLACK DIAMOND MARINE	2439 PACIFIC COAST HWY #102	92663	HAZNET
NEWPORT BEACH	S104569410	DOMINO REALTY	3333 PACIFIC COAST HWY	92663	HAZNET, CHAIRS
NEWPORT BEACH	S10583000	LEADING EDGE YACHT SERVICES	2439 PACIFIC COAST HWY #103	92663	HAZNET
NEWPORT BEACH	S105987037	HOANG MEMORIAL HOSPITAL	4000 WEST PACIFIC COAST HWY BLD 41	92663	HAZNET
NEWPORT BEACH	S105225971	OLYMPIC BOAT CENTERS	2200 W PACIFIC HWY	92663	HAZNET
NEWPORT BEACH	S105939817	NEWPORT HARBOR SHIPYARD, INC	101-151 SHIPYARD WAY BERTH C	92663	EM
NEWPORT BEACH	1006820078	NEWPORT HARBOR SHIPYARD	101 SHIPYARD WAY # B	92663	FINOS
NEWPORT BEACH	1006820254	ERIC KIEVIT MARINE DIESEL	151 SHIPYARD WAY BERTH C CON 5	92663	RCRUS-SGG FINOS
NEWPORT BEACH	S100661491	MARINE DIESEL & MECHANICAL REPAIRS	151 SHIPYARD WAY BERTH C CON 5	92663	HAZNET
NEWPORT BEACH	S103833109	MARINE DIESEL & MECHANICAL REP	151 SHIPYARD WAY #B 41/5	92663	HAZNET
ORANGE COUNTY	S103637060		OFFSHORE SEAL BEACH	92663	CHAIRS, EM

DETAILED ORPHAN LISTING

Site	Database(s)	EDR ID Number	EPA ID Number
1221 W. PACIFIC COAST HWY 1221 W. PACIFIC COAST HWY NEWPORT BEACH, CA 92663	ERNS	2000541256	N/A
Site ID	541256		
Incident Description	THE CALLER STATED THE PUMP OUT STATION'S FIELD PIPE BROKE DUE TO RUST AND IS RELEASING RAW SEWAGE INTO THE WATER.		
Incident Type	FIXED	Incident Cause:	EQUIPMENT FAILURE
Incident TO	OCCURRED	Incident Date:	20000908
Incident Address	1221 W. PACIFIC COAST HWY NEWPORT BEACH, CA 92663		
Distance From City:		BIO Flag:	False
Lat/Long	Not reported	Potential:	Not reported
Lat/Long Quad	Not reported	Military:	No
Incident Location	20000908		
Township/Section/Range	//		
WMD Flag	False		
RAD Flag	False		
Oil Flag	Not reported		
Amr Material Flag	Not reported		
LNG Flag	Not reported		
ERNS INC DET 2000:			
Fire Involved	No		
Fire Extinguished	Unknown		
Any Evacuations	No		
Num Evacuations	Not reported		
Who Evacuated	Not reported		
Radius of Evacuations	Not reported		
Any Injuries	No		
Num Injuries	Not reported		
Num Hospitalized	Not reported		
Any Fatalities	No		
Num Fatalities	Not reported		
Any Damages	No		
Damage Amount	Not reported		
Air Corridor	No		
Air Corridor Desc	Not reported		
Air Corridor Closed	Not reported		
Water Closed	No		
Water Desc	Not reported		
Water Closed Time	Not reported		
Road Closed	No		
Road Desc	Not reported		
Rd Cl Tim	Not reported		
Closure Direction	Not reported		
Major Artery	No		
Track Closed	No		
Track Desc	Not reported		
Track Closed Time	Not reported		
Media Interest	NONE		
Media Description	WATER		
Add Media Interest	NEWPORT BEACH HARBOR		
Body Of Water	NEWPORT BEACH HARBOR		
Tributary	PACIFIC OCEAN		
Near River	Not reported		
Release Secured	No		
Est Duration Of Rel	Not reported		
Release Rate	Not reported		

DETAILED ORPHAN LISTING

Site _____ Database(s) _____ EDR ID Number _____
 EPA ID Number _____

BOYS SCOUTS OF AMERICA SEA BASE (Continued)

S103444589

Regional Board: 08
 Local Case Num: 90UT132
 Facility Status: Case Closed
 Staff: PATRICIA HANNON
 Lead Agency: Local Agency
 Local Agency: 30000L
 Qty Leaked: Not reported
 County: Orange
 Review Date: Not reported
 Workplan: 5/7/90
 Pollution Char: Not reported
 Remed Action: Not reported
 Close Date: 08/08/1990
 Cleanup Fund Id: Not reported
 Discover Date: 05/07/1990
 Enforcement Dt: Not reported
 End Type: Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
 Enter Date: 05/24/1990
 Funding: Not reported
 Staff Initials: JK
 How Discovered: Not reported
 How Stopped: Not reported
 Interim: Not reported
 Lat/Lon: 33 6174873 / -117 9188711
 Leak Cause: Not reported
 Leak Source: Not reported
 Beneficial: Not reported
 MTBE Date: Not reported
 MTBE Tested: NRQ
 Max MTBE GW: Not reported
 GW Qualifies: Not reported
 Max MTBE Soil: Not reported
 Soil Qualifies: Not reported
 Hydr Basin #: COASTAL PLAIN OF ORA
 Operator: Not reported
 Oversight Prgm: LOP
 Priority: Not reported
 Work Suspended: Not reported
 Responsible Party: MIKE HARRISON
 Well name: LPA REPORTED PRIMARY SOURCE
 Distance From Lust: 14622.717772314121357238582398
 Waste Disch Global Id: W0608900228
 MTBE Class:
 Waste Disch Assigned Name: 4500228-001GEN
 Case Type: Soil only
 Global ID: T0605901174
 How Stopped Date: / /
 Organization Name: Not reported
 Contact Person: Not reported
 RP Address: 14321 W CHAMBERS RD
 MTBE Concentration: 0
 MTBE Fuel: 0
 Case Number: 083001534T
 Water System Name: OUTPOST, THE
 Code Name: ORANGE
 Agency Name: Not reported
 Priority: Not reported

Confirm Leak: Not reported
 Prelim Assess: 5/7/90
 Remed Plan: Not reported
 Monitoring: Not reported

DETAILED ORPHAN LISTING

Site _____ Database(s) _____ EDR ID Number _____
 EPA ID Number _____

BOYS SCOUTS OF AMERICA SEA BASE (Continued)

S103444589

State Explanation: CASE CLOSED
 Substance: WASTE OIL
 Staff: PATRICIA HANNON
 Case Type: S
 Summary: Not reported
 LUST Region OR
 Facility Id: 90UT132
 Site Number: R00002551
 Region: ORANGE
 Case Type: Soil only
 Chemical: Waste Oil
 Date Closed: 08/08/1990
 Current Status: 9
 Facility Status: 02

NAUT-A-CARE MARINE SERVICES
 900A W COAST HWY
 NEWPORT BEACH, CA 92663

HAZNET S103675805
 N/A

HAZNET
 Gepad: CAL000163697
 TSD EPA ID: CAD000088252
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: .2000
 Waste Category: Unspecified oil-containing waste
 Disposal Method: Transfer Station
 Contact: HARRY WEST
 Telephone: (714) 631-5823
 Mailing Address: PO BOX 1021
 NEWPORT BEACH, CA 92659 - 0021
 County: Orange
 Gepad: CAL000163697
 TSD EPA ID: CAD000088252
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: .2500
 Waste Category: Unspecified oil-containing waste
 Disposal Method: Transfer Station
 Contact: HARRY WEST
 Telephone: (714) 631-5823
 Mailing Address: PO BOX 1021
 NEWPORT BEACH, CA 92659 - 0021
 County: Orange

DETAILED ORPHAN LISTING

DETAILED ORPHAN LISTING

Site Database(s) EDR ID Number
EPA ID Number

FREY ENVIRONMENTAL INC (Continued)

S10456867

HAZNET:
Gepaid: CAC001476640
TSD EPA ID: CAD028409019
Gen County: Orange
Tsd County: Los Angeles
Tons: 0
Waste Category:
Disposal Method: Treatment, Tank
Contact: FREY ENV INC
Telephone: (000) 000-0000
Mailing Address: 2817 LAFAYETTE AVE UNIT A
NEWPORT BEACH, CA 92663 - 3715
County: Orange
Gepaid: CAC001476640
TSD EPA ID: CAD028409019
Gen County: Orange
Tsd County: Los Angeles
Tons: 0.2283
Waste Category: Tank bottom waste
Disposal Method: Not reported
Contact: FREY ENV INC
Telephone: (000) 000-0000
Mailing Address: 2817 LAFAYETTE AVE UNIT A
NEWPORT BEACH, CA 92663 - 3715
County: Orange

NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF RHINE CHANNEL, NEA
NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF RHINE CHANNEL, NEA
NEWPORT BEACH, CA

ERNS 8712846
N/A

Site ID: 8712846
Site Location: NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF RHINE CHANNEL, NEA
NEWPORT BEACH, CA
ORANGE County
Report No: 13145
EPA Region: 00
Spill Date: 10/15/1987
Spill Time: 15:30
Medium Desc: Water
Damage/Am: Yes / \$0.00
Evacuation: No
Fatalities: None
Notes: RHINE CHANNEL
Disch Add: Not reported
Disch County: Not reported
Cause: Not reported
Spilled Material
Total Qty In Water Undot Cas Qty
DIESEL 0.00 LNK 0.00 LNK Not reported Not reported 0.00 lbs.
Description: LNK
Resp Action: NONE
Misc. Inf: AT LEAST 1 BLOCK LONG
Location: NEWPORT HARBOR SHIPYARD, ALONG E. SIDE OF RHINE CHANNEL, NEAR
LANDINGS RESTRAINT

Site Database(s) EDR ID Number
EPA ID Number

CLEANER DEL MAR
2825 NEWPORT BLVD UNIT A
NEWPORT BEACH, CA 92663

HAZNET S103887734
CLEANERS N/A

HAZNET:
Gepaid: CAD983660192
TSD EPA ID: CAD981397417
Gen County: Orange
Tsd County: Los Angeles
Tons: 4058
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Contact: HO KIM
Telephone: (714) 875-2405
Mailing Address: 2825 NEWPORT BLVD UNIT A
NEWPORT BEACH, CA 92663 - 3723
County: Orange
Gepaid: CAD983660192
TSD EPA ID: OHD980587384
Gen County: Orange
Tsd County: 99
Tons: .2250
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: HO KIM
Telephone: (714) 875-2405
Mailing Address: 2825 NEWPORT BLVD UNIT A
NEWPORT BEACH, CA 92663 - 3723
County: Orange
Gepaid: CAD983660192
TSD EPA ID: CAD981397417
Gen County: Orange
Tsd County: Los Angeles
Tons: .8487
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Contact: HO KIM
Telephone: (714) 875-2405
Mailing Address: 2825 NEWPORT BLVD UNIT A
NEWPORT BEACH, CA 92663 - 3723
County: Orange
CA Cleaners:
Create Date: 02/22/93
Inactive Date: 08/03/98
EPA Id: CAD983660192
County: Orange

RITZ CLEANERS
3185 NEWPORT BEACH UNIT C
NEWPORT BEACH, CA 92663

CLEANERS S166284612
N/A

CA Cleaners:
Create Date: 12/17/01
Inactive Date: / /
EPA Id: CAL000183665
County: Orange

DETAILED ORPHAN LISTING

Site	Database(s)	EDR ID Number EPA ID Number
3333 PACIFIC COAST HWY (Continued)		2002631604
Location Subdivis: Not reported	Railroad Milepost: Not reported	
Vehicle Type: Not reported	Device Operational Yes	
Crossing Device: Not reported	Brakes Failed: No	
DOT Crossing #: Not reported	Tank Above Ground: ABOVE	
Tank Description: TWO 55 GALLON DRUMS	Tank Regulated: Unknown	
Transportable Container	Tank Id: Not reported	
Tank Regulated By: Not reported	Tank Capacity Units: GALLON(S)	
Tank Capacity: 55	Actual Amount: Not reported	
Actual Amount: Not reported	Platform Letter: Not reported	
Platform Rig Name: Not reported	Local Block ID: Not reported	
Local Area ID: Not reported	OCSG Number: Not reported	
OCSG Number: Not reported	Pier Dock #: Not reported	
State Lease #: Not reported	Continuous Rel Typl: Not reported	
Berth Slip Number: Not reported	Continuous Rel Par: Not reported	
Initial Continuous Release	Structure Type: Not reported	
Amount: No	Structure Operator: Unknown	
Structure Name: Not reported	Date Time Normal: Not reported	
Air Bag Deployed: Not reported	Service Disruption: Not reported	
Service Disruption: Not reported	Transit Bus Flag: Not reported	
Transit Bus Flag: Not reported	Begin Date: Not reported	
End Date: Not reported	Change Date: Not reported	

NEWPORT IMPORTS, INC
3100 PACIFIC COAST HWY
NEWPORT BEACH, CA 92663

HAZNET S100940719
N/A

HAZNET:

Gepaid: CAC000975088
TSD EPA ID: CAD028409019
Gen County: Orange
Tsd County: Los Angeles
Tons: .5629
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc)
Disposal Method: Treatment, Tank
Contact: LELAND WEST
Telephone: (800) 000-0000
Mailing Address: 3000 W PACIFIC COAST HWY
NEWPORT BEACH, CA 92663
County: Orange

GRAY TRUST/WELLS FARGO BANK
2833 PACIFIC COAST HIGHWAY
NEWPORT BEACH, CA 92663

HAZNET S102797124
N/A

HAZNET:

Gepaid: CAC000911008
TSD EPA ID: CAT050013352
Gen County: Orange
Tsd County: Los Angeles
Tons: .4170
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: JOSHUA ONG
Telephone: (714) 999-5151
Mailing Address: 2030 MAIN STREET
IRVINE, CA 92714
County: Orange

DETAILED ORPHAN LISTING

Site	Database(s)	EDR ID Number EPA ID Number
NEWPORT AUTO CARE CENTER 1000 W PACIFIC COAST HWY NEWPORT BEACH, CA 92663	HAZNET	S102814420 N/A
HAZNET:		
Gepaid: CAL000065186	TSD EPA ID: CAD093459485	
Gen County: 3	Tsd County: Fresno	
Tsd County: Fresno	Tons: .0166	
Waste Category: Unspecified solvent mixture Waste	Disposal Method: Transfer Station	
Contact: ABE HASHEMTOUR	Telephone: (800) 000-0000	
Mailing Address: 1000 W COAST HWY NEWPORT BEACH, CA 92663 - 5666	County: 3	
County: 3	Gepaid: CAL000065186	
Gepaid: CAL000065186	TSD EPA ID: CAD050099696	
Gen County: 3	Tsd County: Los Angeles	
Tsd County: Los Angeles	Tons: .3753	
Waste Category: Unspecified aqueous solution	Disposal Method: Not reported	
Contact: ABE HASHEMTOUR	Telephone: (800) 000-0000	
Mailing Address: 1000 W COAST HWY NEWPORT BEACH, CA 92663 - 5666	County: 3	
County: 3		

HORN BLOWER CRUISES & EVENTS
2431 WEST PACIFIC COAST HWY
NEWPORT BEACH, CA 92663

HAZNET S103645492
N/A

HAZNET:

Gepaid: CAL000131057
TSD EPA ID: CAD908252405
Gen County: Orange
Tsd County: Los Angeles
Tons: .4000
Waste Category: Other organic solids
Disposal Method: Recycler
Contact: TERRY MACRAE
Telephone: (800) 000-0000
Mailing Address: PIER 3
SAN FRANCISCO, CA 94111
County: Orange

Gepaid: CAL000131057
TSD EPA ID: CAD008252405
Gen County: Orange
Tsd County: Los Angeles
Tons: .1750
Waste Category: Other organic solids
Disposal Method: Recycler
Contact: TERRY MACRAE
Telephone: (800) 000-0000
Mailing Address: PIER 3
SAN FRANCISCO, CA 94111
County: Orange

DETAILED ORPHAN LISTING

DETAILED ORPHAN LISTING

Site	Database(s)	EPA ID Number	EDR ID Number
DOMINO REALTY (Continued)		S104569413	
Chemical Name:	Soy Sauce		
Extent of Release:	Not reported		
Property Use:	Not reported		
Incident Date:	Not reported		
Date Completed:	Not reported		
Time Completed:	Not reported		
Agency ID Number:	Not reported		
Agency Incident Number:	Not reported		
OES Incident Number:	02-6730		
Time Notified:	Not reported		
Surrounding Area:	Not reported		
Estimated Temperature:	Not reported		
Property Management:	Not reported		
More Than Two Substances Involved? :	Not reported		
Special Studies 1:	Not reported		
Special Studies 2:	Not reported		
Special Studies 3:	Not reported		
Special Studies 4:	Not reported		
Special Studies 5:	Not reported		
Special Studies 6:	Not reported		
Responding Agency Personnel # Of Injuries:	0		
Responding Agency Personnel # Of Fatalities:	0		
Resp Agency Personnel # Of Decontaminated:	Not reported		
Others Number Of Decontaminated:	Not reported		
Others Number Of Injuries:	Not reported		
Others Number Of Fatalities:	Not reported		
Vehicle Make/year:	Not reported		
Vehicle License Number:	Not reported		
Vehicle State:	Not reported		
Vehicle ID Number:	Not reported		
CADOT/PUC/KCC Number:	Not reported		
Company Name:	Not reported		
Reporting Officer Name/ID:	Not reported		
Report Date:	Not reported		
Comments:	Not reported		
Facility Telephone Number:	Not reported		
Waterway Involved:	No		
Waterway:	Not reported		
Spill Site:	Waterways		
Cleanup By:	Reporting Party		
Containment:	Yes		
What Happened:	Per NRC; TWO SEALED 55 GALLON DRUMS WERE DISCOVERED IN THE PACIFIC OCEAN FROM AN UNKNOWN ORIGIN. ONE DRUM WAS MARKED "SOY SAUCE" AND THE OTHER WAS UNMARKED. THERE HAS BEEN NO RELEASE OF ANY MATERIALS.		
Type:	Gal(s), Gal(s)		
Other:	food stuff, unknown		
Chemical 1:	Other		
Quantity Released:	55		
Chemical 2:	Not Reported		
Chemical 3:	Not Reported		
Date/Time:	12/11/2002 1700		
Evacuations:	0		

Site	Database(s)	EPA ID Number	EDR ID Number
LEADING EDGE YACHT SERVICES 2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663			HAZNET S105048630 N/A
HAZNET:			
Gepaid:	CAC001439416		
TSD EPA ID:	CAD028409019		
Gen County:	Orange		
Tsd County:	Los Angeles		
Tons:	3.2943		
Waste Category:	Tank bottom waste		
Disposal Method:	Treatment, Tank		
Contact:	MIKE BRESEDESKI		
Telephone:	(949) 722-0639		
Mailing Address:	2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663		
County:	Orange		
Gepaid:	CAC001439416		
TSD EPA ID:	CAD028409019		
Gen County:	Orange		
Tsd County:	Los Angeles		
Tons:	.0375		
Waste Category:	Other organic solids		
Disposal Method:	Transfer Station		
Contact:	MIKE BRESEDESKI		
Telephone:	(949) 722-0639		
Mailing Address:	2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663		
County:	Orange		

LEADING EDGE YACHT SERVICES 2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663			HAZNET S105048757 N/A
HAZNET:			
Gepaid:	CAC002289401		
TSD EPA ID:	CAD009452708		
Gen County:	Orange		
Tsd County:	Los Angeles		
Tons:	.1688		
Waste Category:	Waste oil and mixed oil		
Disposal Method:	Recycler		
Contact:	RICHARD YORR		
Telephone:	(949) 722-0839		
Mailing Address:	2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663		
County:	Orange		
Gepaid:	CAC002289401		
TSD EPA ID:	CAD0028409019		
Gen County:	Orange		
Tsd County:	Los Angeles		
Tons:	4.1700		
Waste Category:	Unspecified oil-containing waste		
Disposal Method:	Not reported		
Contact:	RICHARD YORR		
Telephone:	(949) 722-0639		
Mailing Address:	2439 PACIFIC COAST HWY #103 NEWPORT BEACH, CA 92663		
County:	Orange		

DETAILED ORPHAN LISTING

DETAILED ORPHAN LISTING

Site Database(s) EDR ID Number
EPA ID Number

ERIC KIEVIT MARINE DIESEL (Continued)

1000820254

RCRIS
Owner: ERIC KIEVITS
(714) 673-0882
EPA ID CAD983662883
Contact: ERIC KIEVITS
(714) 673-0882
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Facility Registry System (FRS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

MARINE DIESEL & MECHANICAL REPAIRS
151 SHIPYARD WY BERTH C CBN 5
NEWPORT BEACH, CA 92663

HAZNET S100861491
N/A

HAZNET:
Gepald: CAD983662883
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: 1245
Waste Category: Organic liquids (nonsolvents) with halogens
Disposal Method: Not reported
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY STE 5
NEWPORT BEACH, CA 92663
County: Orange

Gepald: CAD983662883
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: 1245
Waste Category: Organic liquids (nonsolvents) with halogens
Disposal Method: Transfer Station
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY STE 5
NEWPORT BEACH, CA 92663
County: Orange

Gepald: CAD983662883
TSD EPA ID: CAT000613893
Gen County: Orange
Tsd County: Los Angeles
Tons: 4980
Waste Category: Organic liquids (nonsolvents) with halogens
Disposal Method: Transfer Station
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY STE 5
NEWPORT BEACH, CA 92663

Site Database(s) EDR ID Number
EPA ID Number

MARINE DIESEL & MECHANICAL REPAIRS (Continued)

S100861491

County: Orange
Gepald: CAD983662883
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: 8715
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY STE 5
NEWPORT BEACH, CA 92663
County: Orange
Gepald: CAD983662883
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: 1245
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY STE 5
NEWPORT BEACH, CA 92663
County: Orange

The CA HAZNET database contains 9 additional records for this site.
Please contact your EDR Account Executive for more information.

MARINE DIESEL & MECHANICAL REP
151 SHIPYARD WAY #5 475
NEWPORT BEACH, CA 92663

HAZNET S103632109
N/A

HAZNET:
Gepald: CAL000064162
TSD EPA ID: CAT000613893
Gen County: Orange
Tsd County: Los Angeles
Tons: 1245
Waste Category: Organic liquids (nonsolvents) with halogens
Disposal Method: Transfer Station
Contact: ERIC KIEVIT
Telephone: (000) 000-0000
Mailing Address: 151 SHIPYARD WAY 485
NEWPORT BE, CA 92663
County: Orange

OFFSHORE SEAL BEACH
ORANGE COUNTY, CA

CHMIRS S105637080
EMI N/A

CHMIRS:
OES Control Number: 813
Chemical Name: CRUDE OIL/PRODUCED WATER
Extent of Release: Not reported
Property Use: Not reported
Incident Date: Not reported

APPENDIX C

RECORDS OF COMMUNICATION



FAXED

COSTA MESA • SAN DIEGO • TEMECULA • LOS ANGELES

Transmission Information

Date: 10/24/03

J.N.: 9249-03

Time:

Number of Pages: 2 / (Including Cover)

FACSIMILE COVER SHEET

From: Callie L. Cullum
Company: Petra Geotechnical, Inc.
Telephone: (714) 549-8921 x255 Voice
(714) 540-7572 FAX

To: Annette/File Review
Company: Santa Ana RWQCB
Telephone: (909) 782-4130 Voice
(909) 781-6288 FAX

Subject: Files for Site in Newport Beach

Comments: I would like to know if you have any files for the following addresses:
2122, 2140, 2210, 2224, 2230, 2234, 2240, 2280, 2300, 2304, and 2312 Newport Boulevard,
Newport Beach, CA.

Thanks!

Callie

10/24/03 ~13:30
Per Annette,
No files

The documents accompanying this facsimile transmission contain information from the firm of Petra Geotechnical, Inc. which is confidential and/or legally privileged. The information is only for the use of the individual or entity named in this transmission. If you are not the intended recipient, you are hereby notified that any distribution, copying, or taking any action in relying on the contents of this faxed information is prohibited and that the documents should be returned to this firm immediately. If you received this transmission in error, please notify us by phone immediately so we can arrange for the return of the original documents to us at no charge to you.

3185-A Airway Avenue, Costa Mesa, CA 92626 • (714) 549-8921 • (714) 549-3400



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**FINANCIAL AND ADMINISTRATIVE
SERVICES
CUSTODIAN OF RECORDS**

**JULIETTE POULSON, RN, MN
DIRECTOR**

**ALICE L. MANNING
INTERIM DEPUTY AGENCY DIRECTOR
FINANCIAL & ADMINISTRATIVE SERVICES**

**MAILING ADDRESS
P.O. BOX 359
SANTA ANA, CA 92702**

**TELEPHONE: (714) 834-3536
FAX: (714) 835-9312**

PETRA GEOTECHNICAL, INC.
CALLIE L. CULLUM
3185-A AIRWAY AVE.
COSTA MESA, CA 92626

CERTIFICATION OF NO RECORDS

I, the undersigned, being the Custodian of Records for the County of Orange, Health Care Agency, certify that a thorough search of our files, carried out under my direction and control, revealed no hazardous waste records regarding 2122, 2140, 2210, 2224, 2230, 2234, 2240, 2280, 2300, 2312 NEWPORT BLVD., NEWPORT BEACH, CA.

It is understood that such records could exist under another spelling, name, or classification, but with the information furnished to this office and to the best of our knowledge, no such records exist in our files.

The Health Care Agency may not be the only source of records. Please check with the Fire Department, the Water Quality Control Board and/or the State Department of Health Services.

Sue Warnke, ART
Custodian of Records
Health Care Agency

DATE: November 5, 2003
CERT#: 107937

*Recorded by: Shannon Carmack, LSA Associates, Inc. *Date: 9/15/05

Continuation

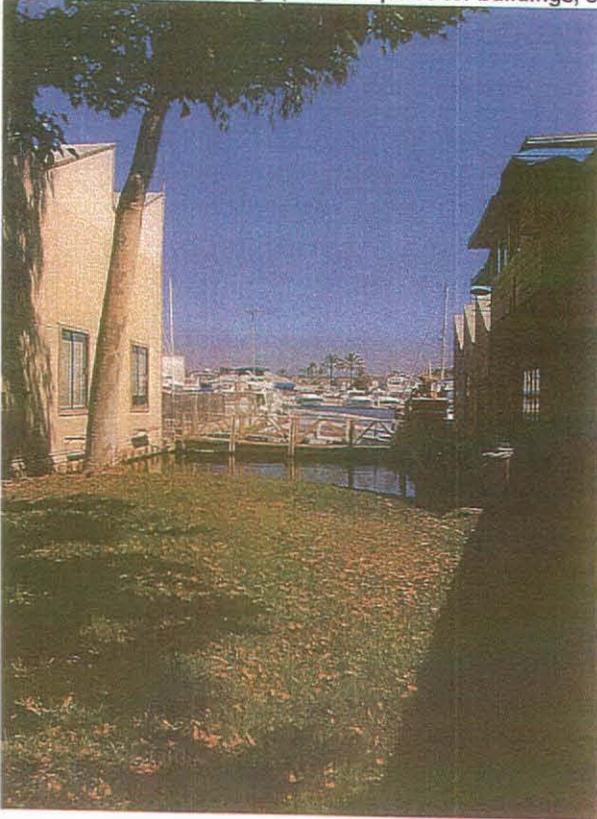
Update

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the south of the warehouse and pipe shop, 9/15/05

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View to the east of the slipway, 9/15/05

*Resource Name or # (Assigned by recorder): South Coast Shipyard

D1. Historic Name: South Coast Boat Building Co., Newport Boat Builder, Better Boats, Inc.

D2. Common Name: South Coast Shipyard and Design Center

*D3. Detailed Description (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.): The South Coast Shipyard is comprised of three groupings of buildings that total 43,500 square feet of space. The buildings within the shipyard were built between 1926 and 1938 and consist of the following architectural resources and features: (1) a boat shop and mill and an associated slipway; (2) The Arcade, a complex of industrial and office buildings and a showroom that are now used as retail/office space; and (3) a pipe shop and warehouse that are also now used for retail/office space. Overall, the buildings are in good condition and retain integrity of design, feeling, setting, workmanship, materials, association, and location. The shipyard is located on Tract No. 814 of the Newport Beach Town site. The property is bound by Newport Boulevard to the west, 21st Street to the south, 26th Street to the north, and Newport Bay to the east. The buildings are generally Vernacular Maritime in style and appearance, with an industrial/rustic feeling. The western view of the property from Newport Boulevard depicts the store fronts and the Art Deco showroom. The eastern elevation of the shipyard is of the marina and boat works. The property features minimal landscaping, most of which is centered on the Arcade.

*D4. Boundary Description (Describe limits of district and attach map showing boundary and district elements.): The 2.4-acre shipyard district is bound by Newport Boulevard to the west, 21st Street to the south, 26th Street to the north, and Newport Bay to the east. The parcel number is 047-12-031.

*D5. Boundary Justification:

The district boundary encompasses all of the buildings and property that was acquired by the shipyard during its years of continuous operation as a shipyard, from 1926 to 1964.

*D6. Significance: Theme: Maritime Development and World War II Area: Newport Beach

Period of Significance: 1926-1964

Applicable Criteria: 1 and 3

(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

The South Coast Shipyard in its current form dates from 1926, when the first warehouse was constructed on the property, to 1964, when the shipyard business was sold and the buildings were no longer collectively used in the boat building business. This period of significance reflects its development as a working shipyard during the boom years of boat building in Southern California to its transition from local yacht builder to a contributor of the war effort during World War II. The period of significance includes all the buildings on the 2.4-acre parcel constructed between 1926 and 1938. The first buildings on the property, a two-story boat shop and a machine shop, were constructed by local boat builder Ben Cope in 1926. The remaining buildings were built by the South Coast Company between 1933 and 1938.

In November 1926, Harry J. Bauer began construction on a new boatyard on the Balboa Peninsula. Bauer was a wealthy Southern California attorney who later became the president of the Automobile Club of Southern California (1931) and the president of Southern California Edison (1932). Bauer was an established yachtsman who wanted his own boatyard to maintain and repair his yacht. He purchased lots 1 and 2 of a newly subdivided Tract No. 814 for the sum of \$25,000. The tract was located on the Balboa Peninsula along West Central Avenue (Newport Boulevard) between 22nd and 26th Streets.

(See continuation sheet)

*D7. References (Give full citations including the names and addresses of any informants, where possible.):

Assessor Records, County of Orange Archives.

Baker, Gayle. *A Harbor Town History, Newport Beach*. Harbor Town History Pub., Santa Barbara, 2004.

City Directories, Newport Beach Public Library.

Felton, James P. *Newport Beach 75 Years*. Sultana Press, 1981.

Lee, Ellen K. *Newport Bay, a Pioneer History*. Sultana Press, 1973.

Meyer, Samuel A. *50 Golden Years*. Newport Harbor Press, 1957.

Sherman, H.L. *A History of Newport Beach*. City of Newport Beach, 1931.

South Coast Co. *Facilities of the South Coast Company*. 1942. Scrapbook. On file, Sherman Library, Coronado Del Mar, California.

*D8. Evaluator: Judith Marvin

Date: 9/15/05

Affiliation and Address: LSA Associates Inc., 20 Executive Park, Irvine, California 92614

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 10 of 14

*NRHP Status Code 3CD

*Resource Name or # (Assigned by recorder) South Coast Shipyard

B1. Historic Name: South Coast Boat Building Co., Newport Boat Builder, Better Boats, Inc.

B2. Common Name: South Coast Shipyard

B3. Original Use: Shipyard

B4. Present Use: Offices and Retail Shops

*B5. Architectural Style: Vernacular Maritime, Art Deco, Colonial Revival

*B6. Construction History: (Construction date, alterations, and date of alterations) The shipyard was established in 1926 by Ben Cope and Harry Bauer. The machine shop, the boat shop, and slipway were built that year. When the South Coast Co. purchased the shipyard in 1933, they built a new warehouse. From 1933 to 1938 they built a series of shops, offices, and the foundry near the central portion of the shipyard, known as the Arcade. In 1938 two buildings were constructed: the pipe shop and the Art Deco boat showroom. Most of the buildings have undergone alterations and additions over the years, particularly during the 1950s. In 1974, the shipyard was purchased by a local architect and substantially altered.

*B7. Moved? No Yes Unknown Date:

Original Location:

*B8. Related Features:

B9a. Architect: Ben Cope and South Coast Co.

b. Builder: Ben Cope and South Coast Co.

*B10. Significance: Theme: Maritime Development and World War II Development

Area: Newport Beach

Period of Significance: 1926-1964

Property Type: Shipyard

Applicable Criteria: 1 and 3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

(See continuation sheet)

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

*B12. References:

Assessor Records, County of Orange Archives.

Baker, Gayle. *A Harbor Town History, Newport Beach*. Harbor Town History Pub., Santa Barbara, 2004.

City Directories, Newport Beach Public Library.

Felton, James P. *Newport Beach 75 Years*. Sultana Press, 1981.

Lee, Ellen K. *Newport Bay, a Pioneer History*. Sultana Press, 1973.

Meyer, Samuel A. *50 Golden Years*. Newport Harbor Press, 1957.

Sherman, H.L. *A History of Newport Beach*. City of Newport Beach, 1931.

South Coast Co. *Facilities of the South Coast Company*. 1942. Scrapbook. On file, Sherman Library, Coronado Del Mar, California.

B13. Remarks:

*B14. Evaluator: Judith Marvin, LSA Associates, Inc., 20 Executive Park, Irvine, California 92614

*Date of Evaluation: 9/15/05

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

CONTINUATION SHEET

*Recorded by: Shannon Carmack, LSA Associates, Inc.

*Date: 9/15/05

Continuation

Update

***D6. Significance:** Bauer entered into partnership with local Newport Beach resident and boat builder Ben Cope. Cope set about designing and constructing the new shipyard at a cost of \$22,000. Two buildings were constructed on the property: a large warehouse and a machine shop. Operating under the name Better Boats, Inc., it was one of the largest boatyards built at the time, with the ability to handle construction of yachts over 100 feet in length. The warehouse was designed to be 80 feet by 100 feet in ground dimensions with walls approximately 20 feet in height. Special ways leading into the bay were added so that the shipyard could accommodate the largest boats entering Newport Harbor. Twenty-five men worked continuously on the new shipyard until it was completed in March of 1927. Cope doubled his workforce when the shipyard was finished, as he already had contracts to construct three new boats. The first boat to be constructed at the new shipyard, a twenty-six foot runabout, was built for George D. Hoffman of Los Angeles.

Although the new shipyard was an immediate success, the partnership of Cope and Bauer was short-lived. Upon completion of the project, Bauer sold his interest in the business to Cope. Cope quickly grew tired of the business himself, and on April 15, 1928, sold his interests to Charles Lockard and Frank Rhinehart. Lockard was a former owner of the Seattle baseball club and an associate of William Wrigley, Jr. Rhinehart had previously operated the Balboa Motion Picture Company and worked for the Gas Company, later becoming a superintendent. Lockard and Rhinehart began operating the business as the Newport Boat Builders, Inc.

Three months after purchasing the property, Lockard and Rhinehart entered into partnership with earthworks contractors, Sparks and McCellan, who owned a suction dredger, referred to as *Little Aggie*. By November, the group was securing several large boat building and dredging contracts within the Newport Bay. They made several improvements to the shipyard, including the addition of a new marine way between the shipyard's two buildings.

Lockard and Rhinehart later sold their interest in the company to Sparks and McCellan. By 1930, the Newport Beach Boat Builders was one of the largest shipyards in Newport Beach, despite the high turnover in ownership during its short existence. The company boasted an annual payroll of \$80,000 and secured some of the largest contracts in the bay.

In 1933, the shipyard was purchased by the Hubbard family. The owners incorporated, and the name of the business was changed to the South Coast Boat Building Company. The company was operated by several members of the Hubbard family, including Dr. Walton Hubbard, Sr., son-in-law John Millner, and two Lewellan brothers of Lewellan Steel who were cousins of the Hubbards. Walton Hubbard, Jr. was the general manager of the company. Hubbard, Jr. was a noted sailor, a member of the Newport Harbor Yacht Club, and winner of the International Star Boat competition in 1927.

Following the change of ownership, the new owners made several additions to the property. They purchased the adjacent parcels, Lots 3 through 9 of Tract No. 814. A new warehouse was constructed in 1933. Several new offices, shops, and a foundry were also built during the 1930s. Later, the company expanded again and purchased Lots 10 through 14. In 1936, 19 new boat slips and approximately 250 feet of new ocean frontage were added to the shipyard. In 1938, a new Art Deco Style showroom was built at the Arcade and a pipe shop was built next to the warehouse.

The South Coast Boat Building Company maintained the shipyard's high reputation, building custom yachts and race boats for Southern California's wealthy citizens. The larger vessels built at the shipyard ranged from 70 to 150 feet in length. Some of the most famous race boats they built include the *Wayfarer*, built by Ed Carpenter, and the *Vagabundo*, built for Louie Cass. Other types of boats they built included Star Boats (Star Class), Snowbirds, and Rhodes Class. Smaller vessels were also constructed at the shipyard, ranging in size from 16 to 30 feet in length; these were built on a production-line basis. In addition to building boats, the company maintained and repaired boats and also manufactured its own line of marine hardware supplies, which they sold nationally.

Shortly before the U.S. entered into World War II, the South Coast Boat Building Company began working on contracts for the U.S. Navy, building and repairing boats for the war effort. During this time, the company expanded from 150 to 1,000 employees. The company first received contracts to convert tuna boats into mine sweepers, towing the boats down from San Pedro. Later, they were later awarded contracts to build "Wherries," picket boats, 110-foot sub chasers, 45- and 63-foot aircraft rescue boats, and 47- and 135-foot mine sweepers. By 1942, nearly 100 percent of the Company's work force was devoted to government contracts, building, repairing, and converting an array of war crafts for the U.S. Navy and Army.

Clearly the U.S. Navy was satisfied with the operations at the South Coast Shipyard. The company was the first west coast shipbuilder to receive the Navy "E" flag for excellence, which is the highest award granted to a wartime shipyard. Given to only a few companies during World War II, the company received this honor six times.

(See continuation sheet)

CONTINUATION SHEET

*Recorded by: Shannon Carmack, LSA Associates, Inc.

*Date: 9/15/05

Continuation

Update

***D6. Significance:** Following the end of World War II, the shipyard again began to construct pleasure crafts and fishing boats. However, the company continued to secure U.S. Navy contracts well in the 1950s, supplying the Korean War effort. In late December 1951, the company announced it had received a multimillion dollar contract to construct six new AMS 60-class minesweeper boats. Each minesweeper boat measured over 144 feet long, with a wooden hull, and cost \$1M to construct. Earlier that same month, the company secured a Navy contract to build five MSB 5 class ships.

The South Coast Shipyard remained a successful shipbuilding plant until it was sold in 1964 to a pool company. For nearly nine years the shipyard remained relatively unused until local architect William E. Blurock purchased the property. Blurock chose to keep the existing structures intact, using the 1926 warehouse as the office of his architecture design firm. The remaining buildings within the shipyard were converted for use as retail and office space.

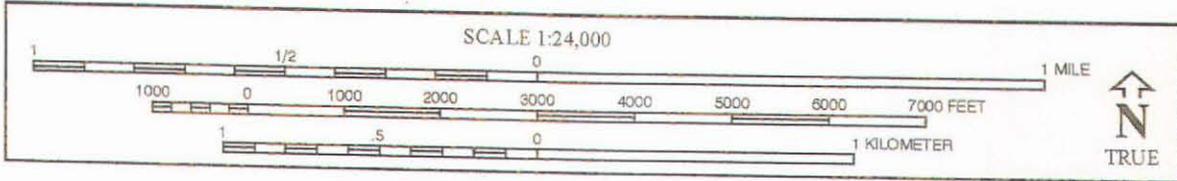
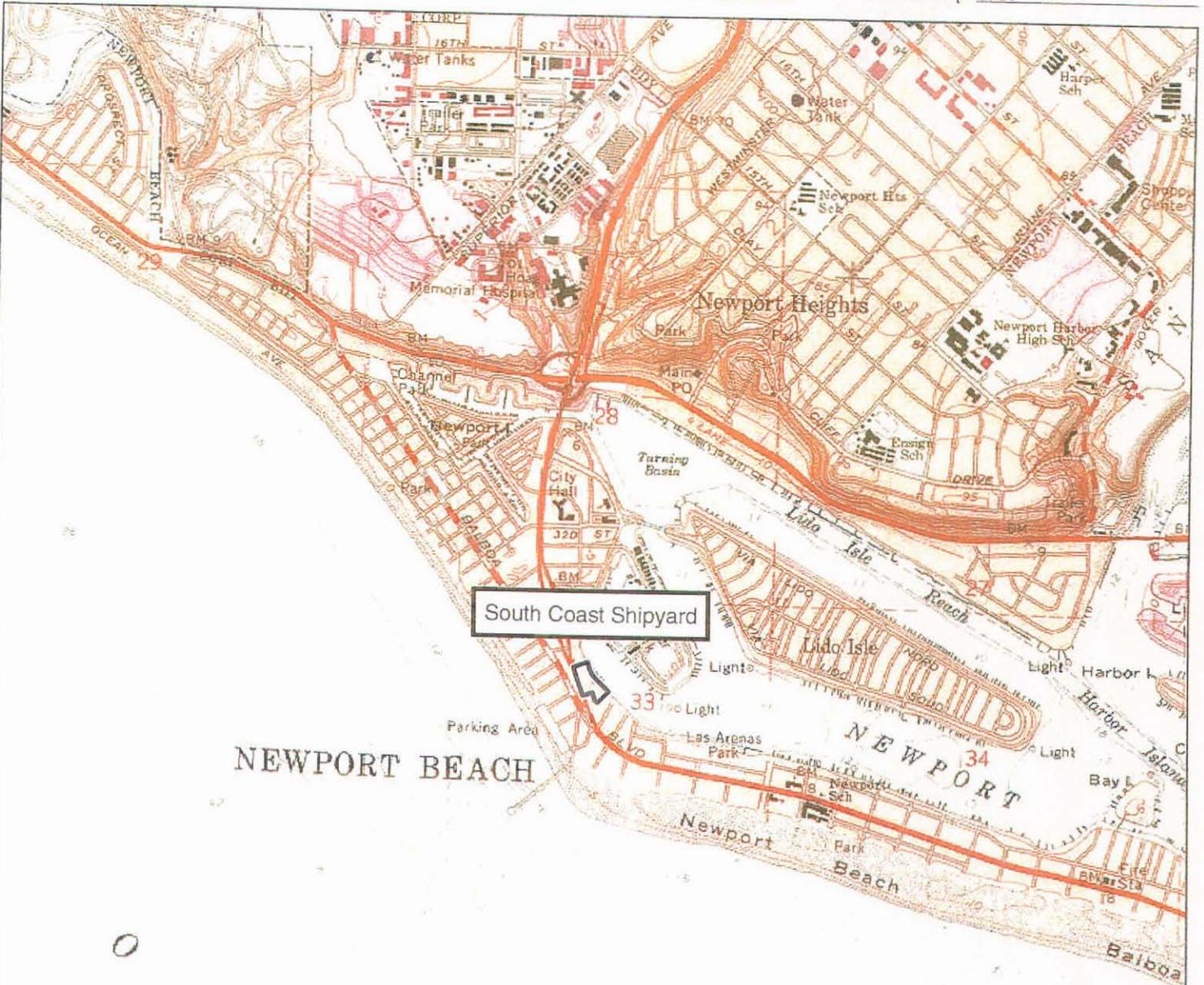
The South Coast Shipyard is in good condition and retains integrity to its period of significance. Although most of the buildings have undergone alterations of some type, each of the buildings retains integrity to the period of significance. All of the buildings within the South Coast Shipyard exhibit a collective distinction as a historic district. None of the buildings appear to be individually eligible for listing in the California Register.

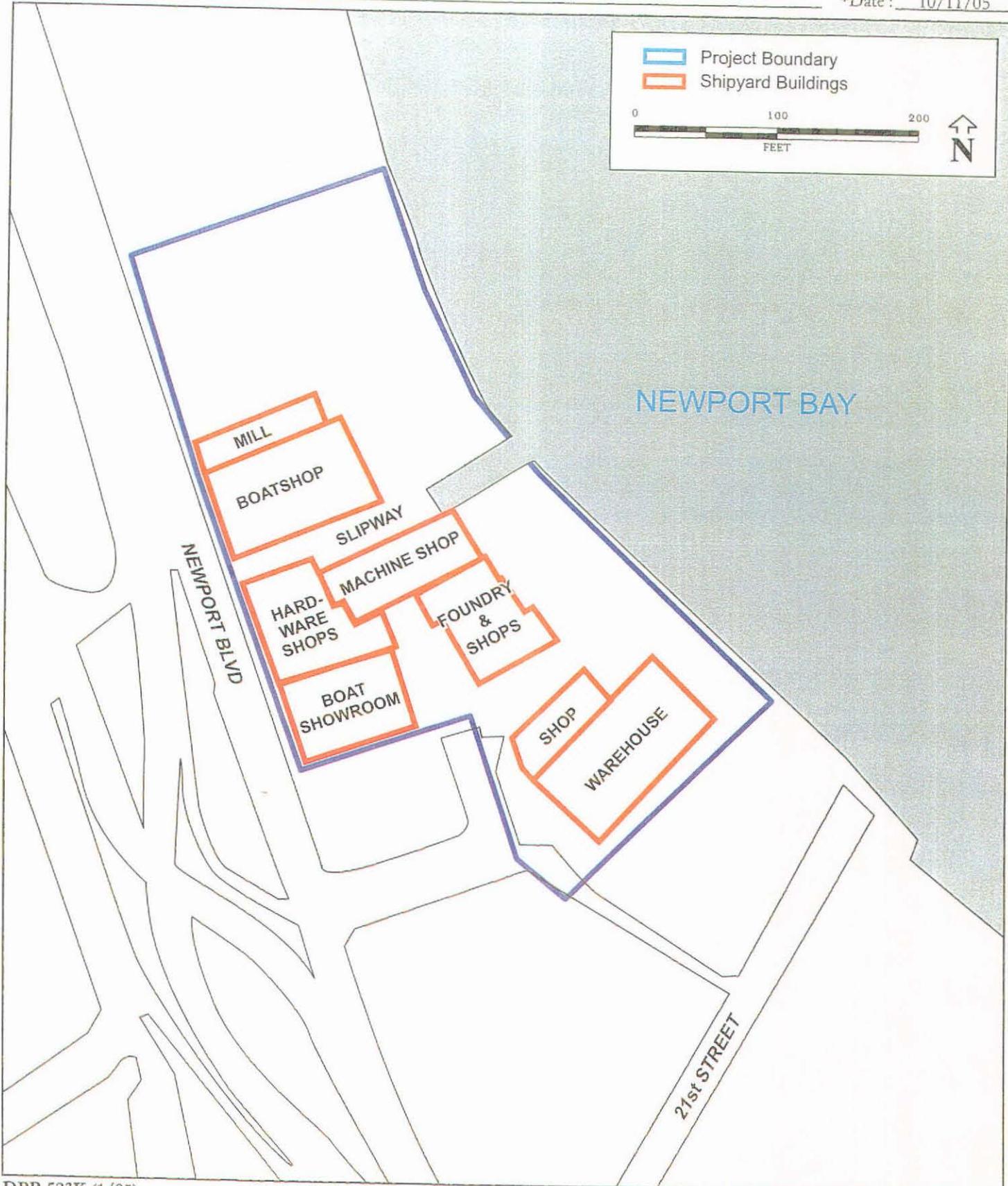
The South Coast Shipyard appears to be eligible for listing in the California Register as a historical resource at the local level of significance under Criterion 1 for its association with the development of the maritime economy of Newport Beach and for its local contribution to the World War II effort. The South Coast Shipyard was one of the largest and most successful boat builders, building custom yachts and race boats during the boom years of boat building and maritime development of southern California. During World War II, the South Coast Boat Building Company shifted to working on contracts for the U.S. Navy, building and repairing boats for the war effort, earning the shipyard the Navy "E" flag for excellence, which is the highest award granted to a wartime shipyard.

Under Criterion 3, the South Coast shipyard represents an excellent example of maritime architecture in the City of Newport Beach, particularly on Balboa Peninsula. The buildings are in good condition and retain integrity of location, design, feeling, association, workmanship, materials, and setting. Although none of the buildings represents the work of a master, the shipyard buildings are unique examples of industrial/maritime architecture, and they possess many significant architectural features that express the maritime theme of the property. The sawtooth roof design that is featured on four of the buildings is a unique example of Industrial Vernacular architecture. The boat showroom is a fine example of the Art Deco style in the City of Newport Beach, and it possesses artistic value. The remaining buildings were built in the Industrial Vernacular Style; these also feature unique architectural elements, including corrugated metal siding and large wooden and steel frame windows. Although most of the buildings have undergone alterations of some type, all of the buildings retain integrity to the period of significance. The South Coast Shipyard buildings exhibit a collective distinction as a historic district. All of the buildings located within the South Coast Shipyard are contributors to this District. While the buildings individually possess unique architectural elements, none of the buildings appear to be individually eligible for listing in the California Register under Criterion 3.

The South Coast Shipyard does not appear to be eligible for listing in the California Register under Criteria 2 or 4. Although the shipyard was connected to several prominent business people and noted residents of Newport Beach, none of these individuals was associated with any activities that were demonstrably important to the history of Newport Beach, California, or the nation (Criterion 2). The South Coast Shipyard does not appear to be able to answer questions important in history (Criterion 4).

In 1974, the South Coast Shipyard was identified as a historical landmark by the Newport Beach Historical Society. In 1992, the Ad Hoc Historic Preservation Advisory Committee conducted a Historic Resources Inventory for the City of Newport Beach. The South Coast Shipyard was identified as a local historic site, representing historic/architectural themes of local importance. While the South Coast Shipyard was recognized as a locally significant property, the City of Newport Beach does not have a Historic Preservation ordinance and only encourages the adaptive reuse and preservation of buildings recognized by the City to be Landmark Buildings. The South Coast Shipyard is not recognized by the City of Newport Beach to be a Landmark Building.





APPENDIX D
GEOTECHNICAL



GEO TECHNICAL AND SEISMIC INPUT FOR
ENVIRONMENTAL IMPACT REPORT, SOUTH COAST
SHIPYARD AND DESIGN CENTER, 2300 NEWPORT
BOULEVARD, NEWPORT BEACH, CALIFORNIA

MR. WILLIAM BLUROCK

August 19, 2002
I.N. 174-00



COSTA MESA ■ SAN DIEGO ■ MURRIETA ■ LOS ANGELES ■ ONTARIO

August 19, 2002
J.N. 174-00

MR. WILLIAM BLUROCK
2300 Newport Boulevard
Newport Beach, CA 92663

**Subject: Geotechnical and Seismic Input for Environmental Impact Report,
South Coast Shipyard and Design Center, 2300 Newport Boulevard,
Newport Beach, California.**

References: See Attached List.

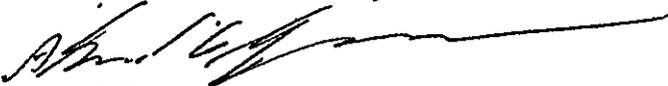
Dear Mr. Blurock:

The following report presents the results of our preliminary geotechnical evaluation of the South Coast Shipyard and Design Center which is located at 2300 Newport Boulevard in the city of Newport Beach, California. This report provides a summary of the principal geotechnical and seismic constraints to development of the property and possible mitigation measures that may be employed to reduce the impact of these constraints. It is our understanding that the results of our study will be included in an environmental impact report for the property.

Petra Geotechnical, Inc. appreciates this opportunity to be of service and looks forward to providing continued service on this project.

Respectfully submitted,

PETRA GEOTECHNICAL, INC.


Ahmad Ghazimoor
Senior Associate Engineer

AG/nls

PETRA GEOTECHNICAL, INC.

3185-A Airway Avenue ■ Costa Mesa ■ CA 92626 ■ Tel: (714) 549-8921 ■ Fax: (714) 549-1438

MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 2

**GEOTECHNICAL AND SEISMIC INPUT FOR
ENVIRONMENTAL IMPACT REPORT, SOUTH COAST
SHIPYARD AND DESIGN CENTER, 2300 NEWPORT
BOULEVARD, NEWPORT BEACH, CALIFORNIA**

INTRODUCTION

Purpose and Scope of Services

The purpose of this study is to provide a preliminary engineering geologic assessment of the potential geotechnical, and seismic impacts, or constraints, which may affect development of the South Coast Shipyard and Design Center. A 20-scale site plan prepared by Gregory E. Pitcher, Architect, dated September 29, 2001 was used as the basis for this study (see Plate 1 following References).

In order to complete this study, we performed the following services:

- Review of available published and unpublished geologic reports and maps and the Public Safety element of the City of Newport Beach General Plan.
- Drilled five exploratory borings to depths ranging from 26.5 to 51.5 feet to determine subsurface soil, geologic, and groundwater conditions.
- Collected representative bulk and relatively undisturbed soil samples for laboratory analysis.
- Performed laboratory analysis on soil samples including determination of in-situ and maximum density, in-situ and optimum moisture content, grain-size distribution, and shear strength characteristics.
- Assessed potential geologic related constraints to development and evaluated possible mitigation measures.
- Prepared this report which summarizes the results of our study and provides possible mitigation measures for the geotechnical and seismic constraints identified during our study.



Site Location and Description

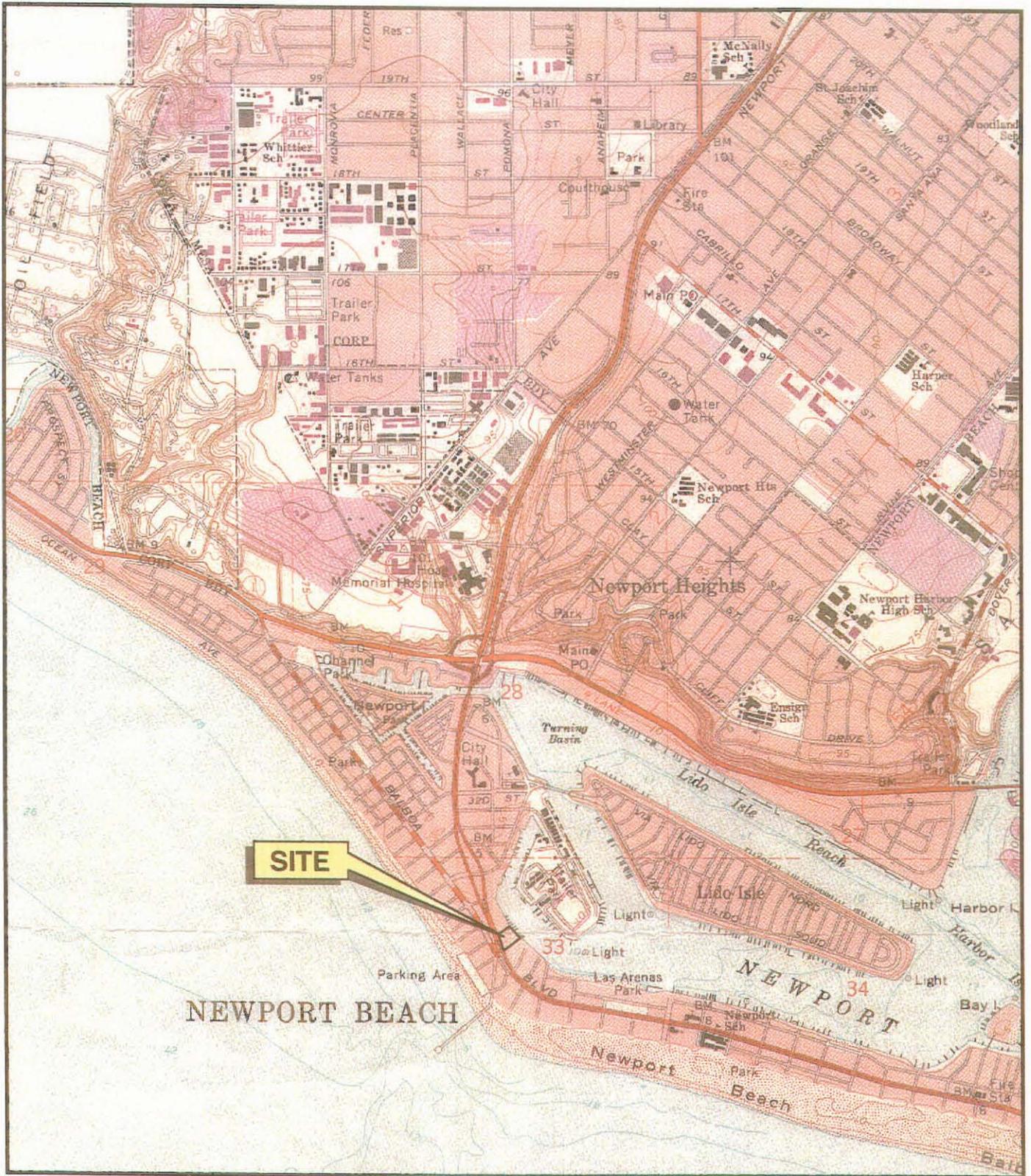
The subject property is located to the north of the intersection of Newport Boulevard and 22nd Street in the City of Newport Beach and extends approximately 450 feet to the northwest along Newport Boulevard from 22nd Street (see Figure 1). The irregularly shaped property is bounded on the southwest by Newport Boulevard, on the northwest by an existing commercial property, on the southeast by 22nd Street, The Arcade and an existing commercial property, and on the northeast by Newport Bay. The property is presently occupied by four corrugated metal buildings and a stucco building (The Crab Cooker).

An existing sea wall bulkhead is present along the northeasterly property boundary. The bulkhead has two inlets that extend approximately 60 and 140 feet, respectively, into the property. Other improvements within the site consist of asphalt covered automobile parking and boat storage areas, planter areas, and concrete sidewalks and curbs adjacent to the streets. The site is relatively level and lies at an elevation of approximately 5 to 6 feet above mean sea level.

Proposed Development

Based on our review of the Site Plan for the subject site (Plate 1), three of the existing corrugated metal buildings and asphalt parking areas will be removed to accommodate construction of several new, three- to four-story structures. The proposed buildings are planned with partially subterranean parking on the lowest floor (approximately 4 feet below Newport Boulevard). The buildings facing Newport Boulevard will contain a commercial space and covered parking area on the first floor (above the partially subterranean parking), and apartment or condominium units on the second and third





SITE LOCATION MAP

Ref: Portion of USGS NEWPORT BEACH QUADRANGLE,
7.5 Minute Topographic Series 1965,
Photorevised 1981

SCALE: 1 inch = 2000 feet



PETRA GEOTECHNICAL, INC.

JN 174-00

AUG., 2002

FIGURE 1

floors. The buildings facing Newport Bay are proposed with the same partially subterranean parking with two residential floors above. Additionally, a strictly commercial building is proposed within the southern portion of the site to the east of The Arcade. It is expected that the structures will be of masonry block and woodframe construction with the lowermost floor slabs constructed on-grade. The existing corrugated metal building and stucco building occupied by the Crab Cooker at the corner of Newport Boulevard and 22nd Street will be protected in place.

It is proposed to remove the existing sea wall bulkhead and inlets and construct a new bulkhead in its place. The new bulkhead will be continuous with no inlets. Other improvements proposed within the site will likely include landscape areas, masonry block walls, and new exterior concrete flatwork.

SITE INVESTIGATION

Investigative Methods

The methods of investigation employed during this study included: (1) a site reconnaissance, (2) a subsurface exploration consisting of the drilling of five exploratory borings, and the collection of relatively undisturbed and bulk earth materials, and (3) laboratory testing of collected samples.

Site Reconnaissance

A preliminary reconnaissance of the site was performed by a representative of this firm at the same time as our subsurface exploration on April 3, 2000. Due to the amount of time that has elapsed since our subsurface exploration, a second site reconnaissance



MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 5

was recently performed on August 13, 2002 in order to confirm that conditions within the site are the same as those observed during our preliminary reconnaissance and subsurface exploration. Our reconnaissances consisted of a visual evaluation of the existing surface conditions of the site and surrounding areas. Existing surface conditions within the site and surrounding areas, as observed during our recent site reconnaissance, were described in the "Site Location and Description" section of this report.

Subsurface Exploration

Our subsurface exploration was performed on April 3, 2000, and involved the drilling of five 8-inch-diameter exploratory borings to depths of 26.5 to 51.5 feet below the existing ground surface using a hollow stem auger drilling rig. Earth materials encountered were classified and logged in accordance with the visual-manual procedures of the Unified Soil Classification System. The approximate locations of the exploratory borings are shown on the enclosed site plan, Plate 1, and the "Exploration Logs" are presented in Appendix A.

Associated with the subsurface exploration was the collection of bulk samples and relatively undisturbed samples of soil for laboratory testing. Bulk samples consisted of selected soil materials obtained at various depth intervals from the exploratory borings. Relatively undisturbed samples were obtained at frequent depth intervals by using both a 3-inch, outside diameter, modified California split-spoon soil sampler lined with 1-inch-high brass ring liners.



The modified California split-spoon soil samplers were driven with successive 30-inch drops of a pneumatically-operated 140-pound hammer. Blow counts for each 6-inch driving increment were recorded on the exploration logs. The central brass rings from the driven sampler samples were placed in sealed containers and transported to our laboratory for testing.

The Standard Penetration Tests (SPT's) were performed in accordance with the American Society for Testing Materials (ASTM) Standard Procedure D 1586. This method consisted of mechanically driving an unlined standard split-barrel sampler 18 inches into the soil with successive 30-inch drops of a pneumatically-operated, 140-pound hammer. Blow counts were recorded for each 6-inch driving increment. The number of blows required to drive the standard split-spoon sampler for the last 12 of the 18 inches was identified as the uncorrected standard penetration resistance (N). Disturbed soil samples from the unlined standard split-spoon samplers were placed in plastic bulk bags and transported to our laboratory for testing.

Laboratory Testing

To evaluate the engineering properties of the onsite soils, several laboratory tests were performed on selected samples considered representative of those encountered. Laboratory tests included the determination of maximum dry density and optimum moisture content, grain size analysis, and shear strength characteristics. Moisture content and unit dry density were also determined for the in-place soils in representative strata. A description of laboratory test procedures and summaries of the test data are presented in Appendix B. Moisture content and unit dry density of the in situ materials are included in the "Exploration Logs," Appendix A. An evaluation of the test data is reflected throughout the "Conclusions and Recommendations" section of this report.



GEOTECHNICAL AND SEISMIC CONDITIONS

The feasibility of development of a property is strongly influenced by the site's underlying geologic conditions and exposure to natural hazards including earthquakes and flooding. The following sections describe the geologic conditions surrounding and underlying the site, and the types of seismic related phenomena that may impact the property.

Regional Geologic Setting

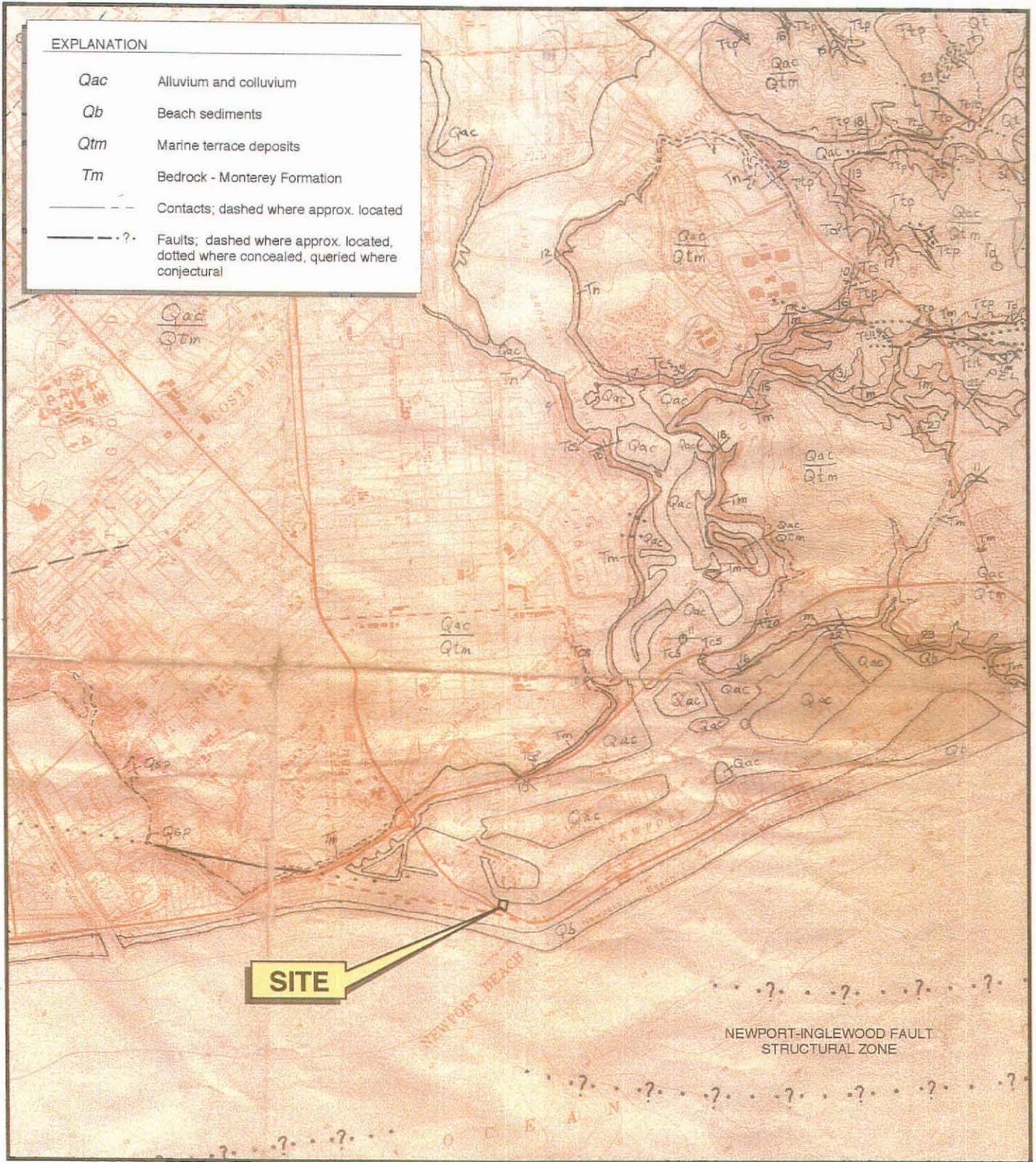
The subject site is located within the southeasterly portion of the Los Angeles Basin within the Lower Bay area of Newport Harbor. While the Upper Bay area of the Newport Harbor is still in a somewhat natural condition, the Lower Bay area has been extensively developed and altered. The natural harbor was dredged and islands and peninsulas were then constructed by reworking the dredged materials, and by constructing bulkhead sea walls and placing fill materials behind these walls.

More specifically, the subject site is located at the western end of the Newport Peninsula, an area composed of both recent marine sands and dredged fill materials (Figure 2). The marine sands were deposited by wave and tidal action.

Local Geology

Artificial fill materials were encountered in each exploratory boring to depths ranging from 2 to 11 feet below the existing ground surface. These materials are likely dredged fill materials that were placed during construction of the Newport islands and peninsula. The materials generally consist of sand with minor amounts of silt and were observed to be slightly moist to wet and very loose to medium dense. The artificial fill materials encountered in borings B-2 and B-5 contained significant amounts of debris





SITE LOCATION MAP

Ref: Portion of GEOLOGIC MAP OF ORANGE COUNTY, CALIFORNIA
 Compiled by Paul K. Morton and Russell V. Miller, 1973

SCALE: 1 inch = 4000 feet



PETRA GEOTECHNICAL, INC.

JN 174-00

AUG., 2002

FIGURE 2

MR. WILLIAM BLUROCK

August 19, 2002

J.N. 174-00

Page 8

such as concrete, wood, asphalt, and metal. This materials was likely incorporated into the backfill of the existing seawall during its construction.

Native marine deposits were encountered beneath the artificial fill materials to the maximum depth explored (51.5 feet). These materials consist of alternating layers of poorly graded sand, sand with silt and moderately graded sand. The upper approximately 15 feet consists of poorly graded sand. These materials were found to be wet, fine-grained, and very loose to medium dense. The materials from approximately 15 to 25 feet became more coarse-grained and medium dense to dense. The materials encountered below a depth of 25 feet generally consisted of fine, poorly-graded sand that were observed to be medium dense to dense. Additionally, a thin, approximately 1-inch thick clay layer was observed in borings B-4 and B-5 and noted to be wet and soft.

Groundwater

Groundwater was measured at a depth of 3.8 to 4.5 feet below the existing ground surface within our exploratory borings on April 3, 2000 at approximately 11:00 am to 5:30 p.m. Although the sea level fluctuates as much as 5 to 7 feet between high and low tides (depending on astronomical conditions), it has been our experience that corresponding fluctuations in groundwater elevations within subsurface soils at some distance from the ocean and bay is considerably less; generally on the order of one to two feet between low and high tides.

In order to evaluate the possible fluctuation in groundwater levels beneath the site, we reviewed the 2000 Orange Coast Tide Calendar. This calendar is based on National Ocean Survey Tables produced by the U.S. Department of Commerce. According to the tide calendar, we took our groundwater measurements at high tide and a few hours



after. The tide level was approximately 5 to 6 feet above the mean low-low tide (the reference elevation for the tide calendar). Based on these conditions, the groundwater levels beneath the site are expected to rise to within approximately 3.5 to 4 feet of the ground surface during high tide conditions.

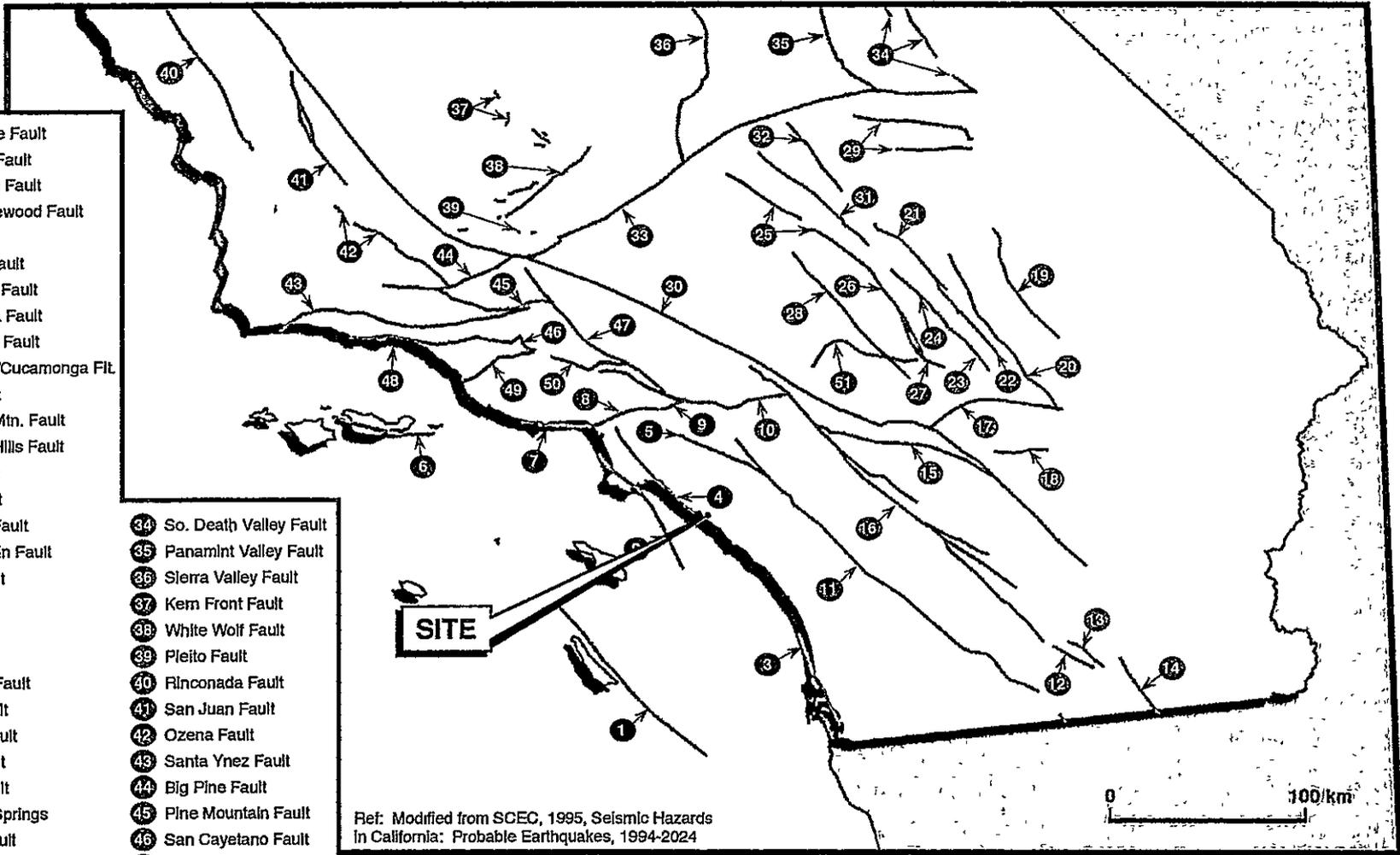
Faulting

Traces of the major active faults in the southern California area are shown on Figure 3. Based on our review of published and unpublished geotechnical maps and literature pertaining to site and regional geology, the site lies within the Newport-Inglewood Fault Zone. This fault zone consists of a series of parallel and en-echelon, northwest-trending faults and folds extending from the southern edge of the Santa Monica Mountains southeast to the offshore area of Newport Beach. This zone has a history of moderate to high seismic activity, with numerous earthquakes greater than magnitude 4, including the magnitude 6.3 Long Beach earthquake which was centered near Newport Beach on March 11, 1933. At the time of the 1933 earthquake, secondary effects were noted in the Long Beach and Huntington Beach areas (i.e., sand boils, ground cracking and liquefaction). Subsurface fault displacement of a few inches was associated with the October 21, 1941 earthquake (magnitude 4.9), and with the June 18, 1944 earthquake (magnitude 4.5) in the Dominguez Hills area (Barrows, 1974).

No active or potentially active faults project through the site. In addition, the Newport-Inglewood Fault is not sufficiently well-defined in the area of the subject site to be placed within the boundaries of an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act.



- 11 San Clemente Fault
- 22 Palos Verde Fault
- 31 Rose Canyon Fault
- 41 Newport-Inglewood Fault
- 51 Whittier Fault
- 61 Santa Cruz Fault
- 71 Malibu Coast Fault
- 81 Santa Monica Fault
- 91 Raymond Hill Fault
- 101 Sierra Madre/Cucamonga Flt.
- 111 Elsinore Fault
- 121 Superstition Mtn. Fault
- 131 Superstition Hills Fault
- 141 Imperial Fault
- 151 Banning Fault
- 161 San Jacinto Fault
- 171 Pinto Mountain Fault
- 181 Blue Cut Fault
- 191 Ludlow Fault
- 201 Pisgah Fault
- 211 Calico Fault
- 221 West Calico Fault
- 231 Emerson Fault
- 241 Camprock Fault
- 251 Lockhart Fault
- 261 Lenwood Fault
- 271 Old Woman Springs
- 281 Helendale Fault
- 291 Sierra Frontal Fault
- 301 San Andreas Fault
- 311 Harper Fault
- 321 Blackwater Fault
- 331 Garlock Fault
- 341 So. Death Valley Fault
- 351 Panamint Valley Fault
- 361 Sierra Valley Fault
- 371 Kern Front Fault
- 381 White Wolf Fault
- 391 Pleito Fault
- 401 Rinconada Fault
- 411 San Juan Fault
- 421 Ozena Fault
- 431 Santa Ynez Fault
- 441 Big Pine Fault
- 451 Pine Mountain Fault
- 461 San Cayetano Fault
- 471 San Gabriel Fault
- 481 Arroyo Parida Fault
- 491 Oakridge Fault
- 501 Santa Susana Fault
- 511 North Frontal Fault



Ref: Modified from SCEC, 1995, Seismic Hazards
 in California: Probable Earthquakes, 1994-2024

**MAJOR ACTIVE FAULTS IN
 SOUTHERN CALIFORNIA**



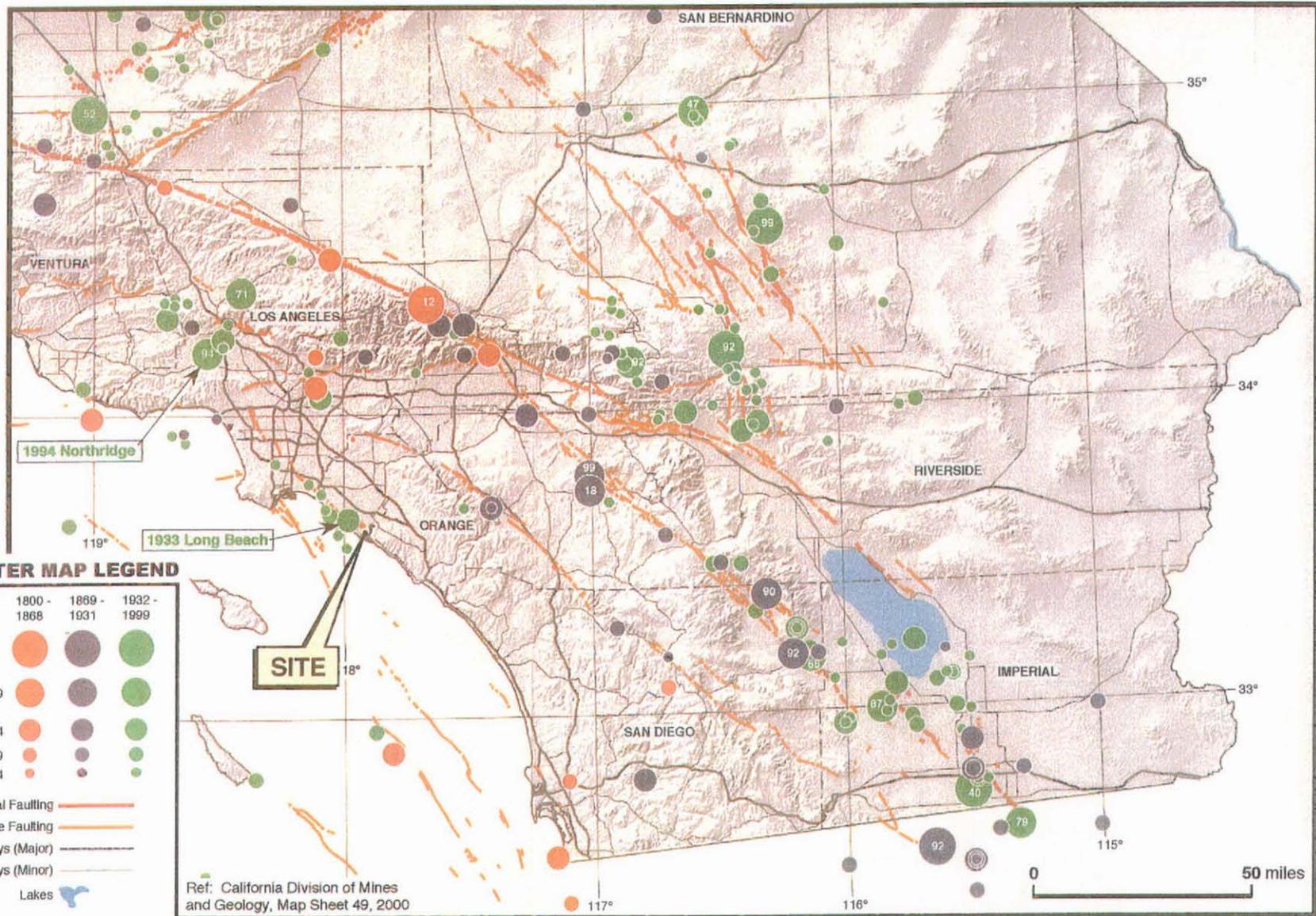
Seismicity

Seismicity is the phenomenon of earthquakes, and is an important consideration in the development of property in a seismically active area such as southern California. Earthquakes can cause extensive damage to man-made structures if not properly considered during design and construction. Earthquakes release large amounts of energy that generate forces that result in strong ground shaking, and can cause several different types of ground failure including ground rupture, liquefaction, lateral spreading, dynamic settlement, and landslides. They can also generate damaging sea waves (tsunamis) and standing-wave oscillations (seiches) that pose risks to structures along the shorelines of oceans, lakes, and reservoirs. Figure 4 shows the epicenter locations of significant historical earthquakes that have occurred over the last two hundred years within the southern California area (Topozada, et al., 2000).

In an effort to protect the general public's health and welfare from earthquakes, the State of California Legislature passed the Seismic Hazards Mapping Act in 1990, which was enacted by the Governor in 1991. This act is codified in the Public Resources Code as Division 2, Chapter 7.8 and the California Code of Regulations, Title 14, Division 2, Chapter 8, Article 10. The act requires that the California Geological Survey, formerly the California Division of Mines and Geology (CDMG) prepare seismic hazard evaluations throughout the state. In 1997, CDMG prepared a seismic hazard evaluation report for the Newport Beach 7.5-minute quadrangle (1997, revised 2001) and an accompanying seismic hazard map in 1998. The subject parcel is located in the southwest corner of this map, which is provided as Figure 5.

Strong ground shaking is the principal cause of most damage sustained during an earthquake. The most severe ground shaking at the site is expected to originate from an earthquake along the Newport-Inglewood fault zone, which the site lies within.





EPICENTER MAP LEGEND

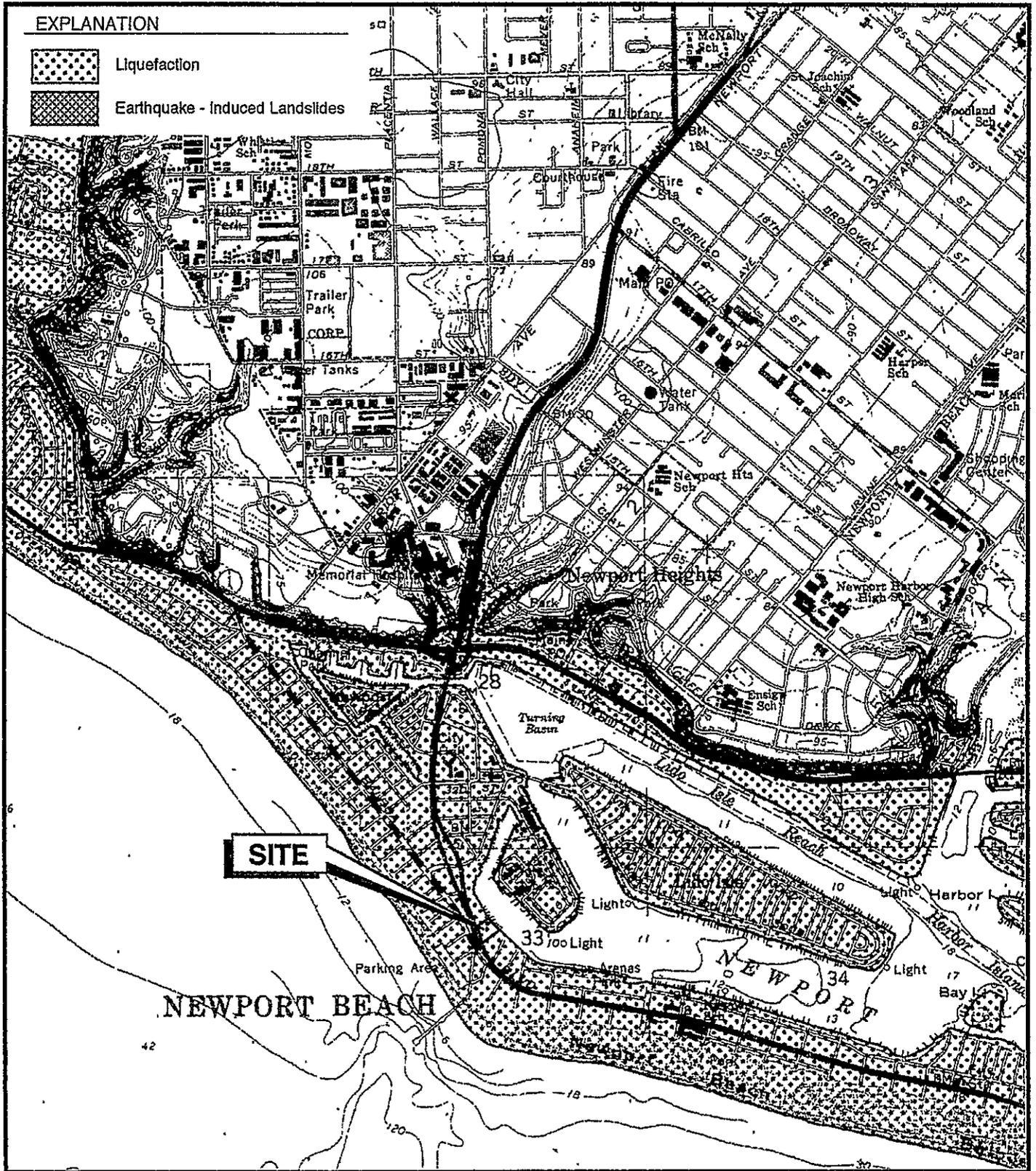
Magnitude (M)	Period		
	1800 - 1868	1869 - 1931	1932 - 1999
>7.0	Large Red Circle	Large Purple Circle	Large Green Circle
6.5 - 6.9	Medium Red Circle	Medium Purple Circle	Medium Green Circle
6.0 - 6.4	Small Red Circle	Small Purple Circle	Small Green Circle
5.5 - 5.9	Very Small Red Circle	Very Small Purple Circle	Very Small Green Circle
5.0 - 5.4	Dot	Dot	Dot

Historical Faulting	Red Dashed Line
Holocene Faulting	Orange Dashed Line
Highways (Major)	Black Solid Line
Highways (Minor)	Grey Dashed Line
Lakes	Blue Area

Last two digits of M₂>6.5 earthquake year

Ref: California Division of Mines and Geology, Map Sheet 49, 2000

**HISTORICAL EARTHQUAKE EPICENTERS
1800-1999**



SITE LOCATION MAP

Ref: Portion of Seismic Hazard Zones NEWPORT BEACH
 7.5 minute Quadrangle, 1998
 SCALE: 1 inch = 2000 feet

MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 11

According to the California Geological Survey (CDMG, 1997, revised 2001), the site has a 10 percent probability of experiencing a peak ground acceleration of about 0.4g, where g is the acceleration of gravity over a 50-year period. This acceleration is a preliminary value and site specific studies would be required to refine this estimate.

In addition to strong ground shaking, the site is also susceptible to liquefaction, seismically induced settlement, and seismic-induced flooding. The probability of occurrence of each type of ground failure depends on the severity of the earthquake, distance from faults, topography, subsoils and groundwater conditions, in addition to other factors. These effects could occur during an earthquake and could cause damage to overlying structures. The California Geological Survey (CDMG, 1997, revised 2001) report and accompanying map (Figure 5) also indicates that the site is located within an area susceptible to liquefaction. This is due primarily to the presence of loose sands underlying the area, to the presence of shallow groundwater, and to the proximity of the Newport-Inglewood fault.

Seismically induced flooding which might be considered as a potential hazard to a particular site normally includes flooding due to a tsunami (seismic sea wave), a seiche, or failure of a major reservoir retention structure upstream of the site. The site is located in close proximity to the Pacific Ocean at an elevation of approximately 5 to 6 feet above mean sea level; therefore, the potential for seismically-induced flooding due to a tsunami run-up is considered moderate.

Although the site is located adjacent to Lower Newport Bay, the potential for induced flooding at the site due to a seiche (i.e., a wave-like oscillation of the surface of water in an enclosed basin that may be initiated by strong earthquakes) is considered very low due to the elevation of the site above the bay and to the existence of a protective



bulkhead seawall between the bay and the subject site. In addition, no major reservoirs lie upstream of the site. Therefore, the probability of flooding at the site as a result of earthquake-induced damage to a reservoir is considered nonexistent.

IMPACTS AND POTENTIAL MITIGATION MEASURES FOR POTENTIAL GEOTECHNICAL AND SEISMIC CONSTRAINTS

Property development feasibility is strongly influenced by the site's underlying geologic conditions and exposure to natural hazards including earthquakes and flooding. The subject property is located in a seismically active area and is susceptible to the effects of strong ground motions. Thus, development of the property will require design and implementation of the remedial measures to minimize the impact of several geotechnical and seismic constraints. This section summarizes these primary constraints and their related impacts and practical mitigation measures.

Earthquake Damage

Several seismically related constraints, including strong ground shaking, primary ground rupture, fault movement, liquefaction, seismically induced ground deformation (lateral spread), and seismic settlement impose significant impacts on property development. These constraints are described in the following sections.

Strong Ground Shaking

Based on regional evaluations by the California Geological Survey (CDMG, 1997, revised 2001), the site could experience strong ground shaking during a future earthquake. Probabilistic seismic analyses indicates that the site has a 10 percent probability of experiencing a peak ground acceleration of around 0.4 g, where g is the acceleration of gravity, over a 50-year period. Design and construction of proposed



structures in accordance with the latest version of the Uniform Building Code (UBC), in addition to site-specific seismic analysis will be required to mitigate this impact.

Ground Rupture and Fault Movement

As stated previously, the site lies within the Newport-Inglewood fault zone, however, the fault is not sufficiently well-defined in the area of the subject site. Therefore, primary ground rupture of the fault can not be addressed with certainty. However, the potential exists for sympathetic fault movement and secondary ground rupture consisting of sand boils, ground cracking, and liquefaction similar to that which occurred in the 1933 Long Beach earthquake. Alternative mitigation measures are discussed in the following section.

Liquefaction

Loosely compacted/deposited granular soils located below the water table can fail through the process of liquefaction during strong earthquake-induced ground shaking. When solid particles in saturated soil consolidate into a tighter package as a result of vibration due to an earthquake, the non-compressible pore water between the particles will be squeezed out. If the soil has a high permeability, a sufficient amount of water will drain out of the pores. However, if the permeability is fairly low, the water will not be able to drain away quickly enough and positive excess pore water pressures will build up. When excess pore water pressures build up, they reduce the effective stresses acting on the soil and, in turn, reduce the shear strength of the soil. If the pore water pressure rises to a level such that the shear strength of the soil becomes negligible, then liquefaction is said to have occurred. Factors known to influence liquefaction potential include soil type and depth, grain size, relative density, groundwater level, and both intensity and duration of ground shaking.



MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 14

Based on our review of the published Seismic Hazards Zones map for the Newport Beach quadrangle (CDMG, 1998), the property lies within a designated liquefaction hazard area. This is due primarily to the presence of loose sands and shallow groundwater, and to the proximity of the Newport-Inglewood fault. In the event of seismically induced liquefaction, the proposed structures may be subjected to such potential hazards as foundation-bearing failure and liquefaction-induced subsidence and lateral spreading.

Our evaluation and analyses indicate fill materials and marine deposit soils located from a depth of 4 to 30 feet below the ground surface are susceptible to liquefaction. When liquefaction develops at layers in proximity to the ground surface, the pore water pressure from the underlying liquified sand will be able to easily break through the surface non-liquefiable layer, causing loss of bearing, sand boiling, and fissuring with various types of associated damages to structures and underground installations. According to design curves proposed by Ishihara (1985), the thickness of non-liquefiable surface layer (approximately 4 feet) is not sufficient, and loss of bearing, sand boiling, and fissures are anticipated. Therefore, the impact of liquefaction could include loss of support for foundations of structures leading to collapse, loss of support for buried structures such as pipelines, and significant total and differential settlement causing distress to structures, pavements, utilities, and other man-made facilities. These impacts are mitigable by ground improvement techniques such as stone columns, use of deep foundations which penetrate below the liquefiable zone, pressure grouting, or appropriate combinations of these and/or other mitigative measures.

Lateral spread is the ground deformation resulting from soil displacement toward a free face along the shear zones that form within the liquefiable zone. Although the site is level, there is a free face structure along the Newport Bay (existing or proposed



bulkhead sea walls), and there is a potential for lateral spread toward the Newport Bay. However, the potential for lateral spread may be mitigated by the measures addressed previously for liquefaction potential.

Groundwater Concerns

As stated previously, groundwater was encountered at depth of approximately 3.8 to 4.5 feet below the existing ground surface on the date and at the time of our subsurface exploration. Although sea levels are tidal influenced and fluctuate as much as 5 to 7 feet between low and high tides, the fluctuation in the groundwater level elevation within the subsurface soils beneath the site are expected to be on the order of only a couple of feet. Based on this condition and the proposed construction, groundwater may be encountered at or above the elevation of the partially subterranean parking proposed approximately 4 feet below Newport Boulevard. Therefore, construction of mat foundations or structural slabs may be required. The presence of a shallow groundwater table should also be considered in design of utility lines and surface drainage at proposed subterranean parking.

Corrosive Soils and Seawater

Due to the potential of the footings coming in contact with seawater in the area, exposure to sulfate can be expected for concrete placed in contact with on-site soils, which may be mitigated by using appropriate type of cement and concrete specification according to Table 19-A-4 of the Uniform Building Code. Corrosive soils may also be present and can be mitigated by proper identification and design in accordance with current building code requirements.



MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 16

Erosion, Sedimentation and Flooding

The main issues regarding erosion, and sedimentation include erosion of graded areas, alteration of runoff, unprotected drainages, and the increase in impervious surfaces. Redevelopment of the site will not significantly increase the erosion and sedimentation rates. Furthermore, the site and surrounding areas are currently covered by either concrete or asphalt pavement or buildings, therefore, the potential for erosion is considered negligible. It is also anticipated that there will be no significant increase in the amount of impervious areas. Preparation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the Federal Clean Water Act and other requirements of the City of Newport Beach will help reduce the adverse impacts of erosion and sedimentation from graded areas and altered and unprotected drainage ways.

REPORT LIMITATIONS

This report is based on the proposed project and geotechnical data as described herein. The materials encountered on the project site, and described in other literature are believed representative of the project area, and the conclusions contained in this report are presented on that basis. However, soil materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein.

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guarantee or warranty.



MR. WILLIAM BLUROCK

August 19, 2002
J.N. 174-00
Page 17

This report should be reviewed and updated after a period of one year or if the project concept changes from that described herein. This report has not been prepared for use by parties or projects other than those named or described herein and may not contain sufficient information for other parties or other purposes.

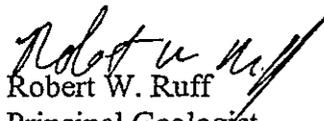
This opportunity to be of service is sincerely appreciated. Please call if you have any questions pertaining to this report.

Respectfully submitted,

PETRA GEOTECHNICAL, INC.



Michael Putt
Senior Staff Geologist

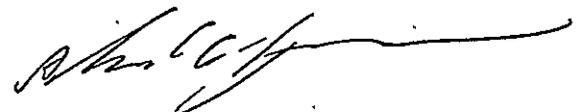


Robert W. Ruff
Principal Geologist
CEG 1165

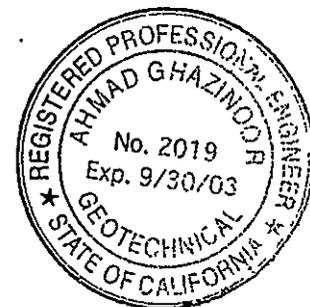
MP/RWR/AG/nls

Distribution: (5) Addressee

cc 2002\100\174-00A.GEO



Ahmad Ghazinoor
Senior Associate Engineer
GE 2019



REFERENCES

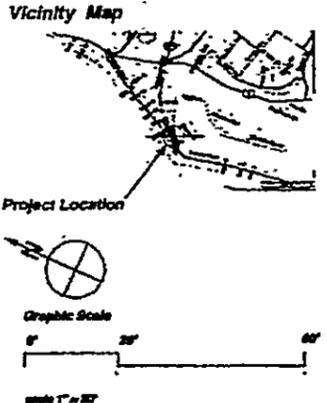
- BARROWS, A.G., 1974, "A Review of the Geology and Earthquake History of the Newport-Inglewood Structural Zone, Southern California": California Division of Mines and Geology, Special Report 114.
- BRYANT, W.A., 1988, "Recently Active Traces of the Newport-Inglewood Fault Zone, Los Angeles and Orange Counties, California": Division of Mines and Geology, Open File Report 88-14.
- CALIFORNIA DIVISION OF MINES AND GEOLOGY, 1997, Guidelines for Evaluating and Mitigating Seismic Hazards in California: California Division of Mines and Geology, Special Publication 117.
- CALIFORNIA DIVISION OF MINES AND GEOLOGY, 1997 (Revised 2001), Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-minute Quadrangles, Orange County, California: California Division of Mines and Geology, Seismic Hazard Zone Report 003.
- CALIFORNIA DIVISION OF MINES AND GEOLOGY, 1998, Seismic Hazard Zones Map, Newport Beach 7.5-minute Quadrangle, California: California Division of Mines and Geology, scale 1:24,000.
- CITY OF NEWPORT BEACH, 1993, Public Safety Element, Newport Beach General Plan: City of Newport Beach, California, dated February 6, 1975.
- GUPTILL, P., ARMSTRONG, C., EGLI, M., 1992, "Structural Features of West Newport Mesa," in The Regressive Pleistocene Shoreline, Coastal Southern California, 1992 Annual Field Trip Guide Book No. 20, South Coast Geological Society.
- HART, E.W. AND BRYANT, W.A., 1999, Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act: California Division of Mines and Geology, Special Publication 42.
- ISHIHARA, K., 1985, "Stability of Natural deposits during Earthquakes," Proceedings of 11th International Conference on Soil Mechanics and Foundation Engineering, San Francisco, Vol. 2, pp. 321-376.
- NORRIS, R.M. AND WEBB, R.W., 1976, Geology of California: John Wiley & Sons, New York, New York, 365 p.
- PETERSEN, M.D., BRYANT, W.A., CRAMER, C.H., CAO, T., REICHLE, M.S., 1996, Probabilistic Seismic Hazard Assessment for the State of California: California Division of Mines and Geology, Open-File Report 96-08 (U.S. Geological Survey Open-File Report 96-706).
- TOPPOZADA, T.R., BENNETT, J.H., BORCHARDT, G., SAUL, R., and DAVIS, J.F., 1988, "Planning Scenario for a Major Earthquake on the Newport-Inglewood Fault Zone": California Division of Mines and Geology, Special Publication 99.
- TOPPOZADA, T., BRANUM, D., PETERSEN, M., HALLSTROM, C., CRAMER, C., AND REICHLE, M, 2000, Epicenters of and Areas Damaged by $M \geq 5$ California Earthquakes, 1800 - 1999: California Division of Mines and Geology, Map Sheet 49.
- WRIGHT, T.L., 1991, Structural Geology and Tectonic Evolution of the Los Angeles Basin, California: in ed. Biddle, K.T., Active Margin Basins, American Association of Petroleum Geologists, Memoir 52, pp. 35-134.
- YERKES, R.F., MCCULLOH, T.H., SCHOELLHAMER, J.E., AND VEDDER, J.G., 1965, Geology of the Los Angeles Basin, California - An Introduction: U.S. Geological Survey, Professional Paper 420-A.
- ZIONY, J.I. (ed.), 1985, "Evaluating Earthquake Hazards in the Los Angeles Region - An Earth Science Perspective": U.S. Geological Survey Professional Paper 1360, 505 p.



Prepared for: **William E. Blurock FAIA**
 2300 Newport Blvd
 Newport Beach, Ca 92663
 949-473-0300

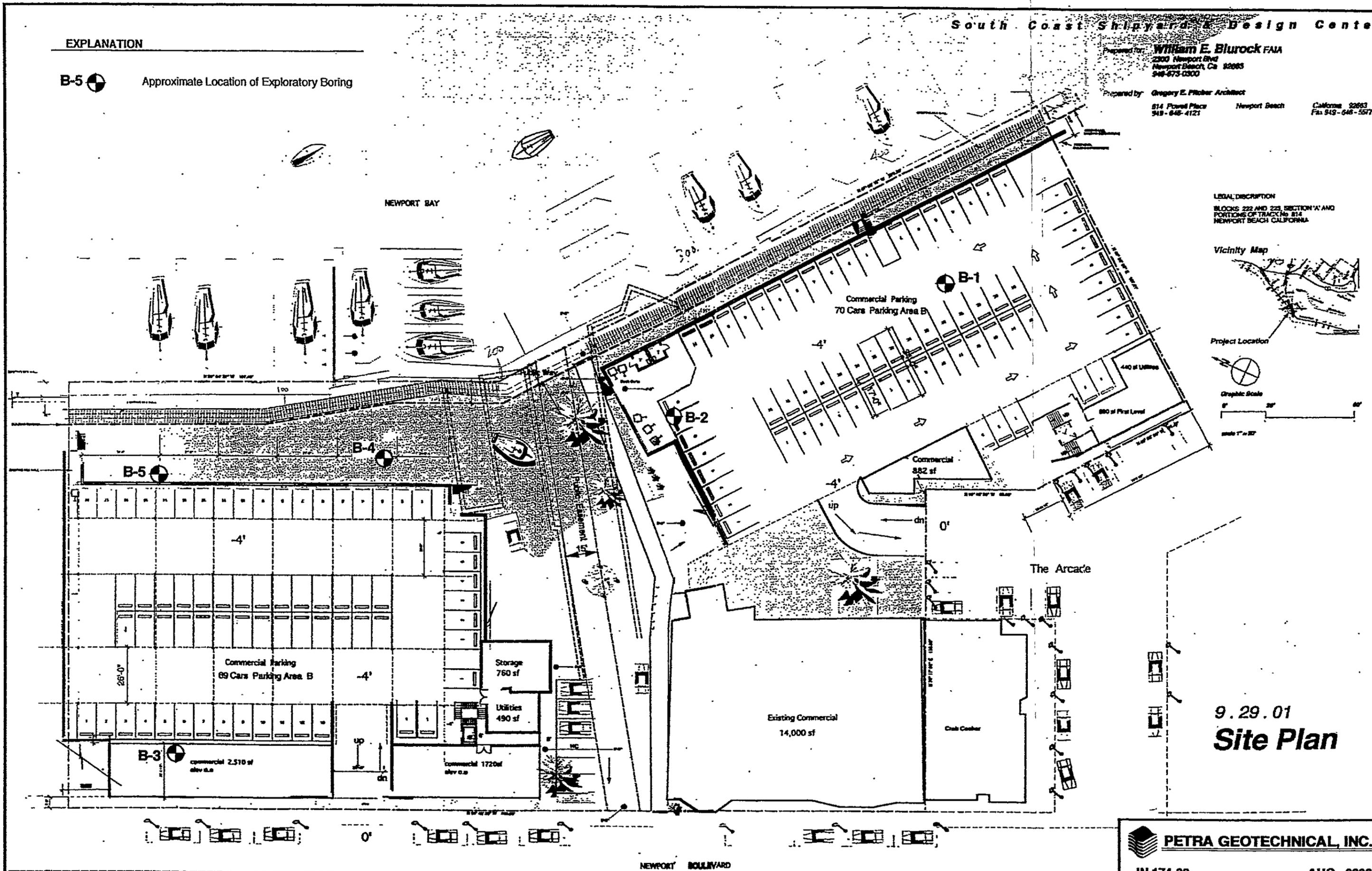
Prepared by: **Gregory E. Fischer Architect**
 614 Flower Place Newport Beach California 92663
 949-446-4121 Fax 949-446-5577

LEGAL DESCRIPTION
 BLOCKS 222 AND 223, SECTION 14 AND
 PORTIONS OF TRACK No. 814
 NEWPORT BEACH, CALIFORNIA



EXPLANATION

B-5 Approximate Location of Exploratory Boring



9.29.01
Site Plan

APPENDIX A

EXPLORATION LOGS

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-1
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/02
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Samples			Laboratory Tests		
			Blows Per 6"	Core	Block	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		4-inches of Asphalt; no aggregate base..						
		DREDGED FILL Sand (SP): Yellowish-brown; slightly moist; loose; fine-grained sand; poorly graded; trace shell fragments.						
		@ 3.8 feet: Groundwater.						
5			4			2.3	100.0	MAX DSR
			5					
			7					
			3					
			4					
			3					
		MARINE DEPOSITS Sand (SP): Yellowish-brown to gray; wet; very loose; fine-grained sand; poorly graded.	1					
			1					
			2					
10		@ 10 feet: Becomes medium gray; wet; loose.	2					MA
			3					
			4					
15		@ 15 feet: Becomes slightly coarser grained.	2					
			2					
			4					
20		@ 20 feet: Becomes medium dense; slightly coarser grained.	7					MA
			13					
			19					

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/7/02

PLATE A-1



EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-1
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/02
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	C o r e	B u r k	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		@ 25 feet: Becomes dense.		7 16 23	█				
30		@ 30 feet: Fine-grained; slight increase in fines.		7 19 23	█				MA
35		@ 35 feet: No change.		7 15 20	█				
40		@ 40 feet: Becomes medium dense.		2 8 13	█				MA
45		@ 45 feet: Becomes dense.		4 13 20	█				

EXPLORATION LOG - V3 174-00 GPJ PETRA GDT 08/02



EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-1
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/02
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Samples			Laboratory Tests		
			Blows Per 6"	Core	Block	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
	●●●●●	@ 50 feet: No change.	9	█				
			22	█				
			26	█				
		Total Depth = 51.5 feet. Groundwater at 3.8 feet Sever caving upon withdrawal of drilling augers.						

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/7/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-2
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/02
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	Core	Block	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		4-inches of Asphalt over 4-inches of aggregate base. ARTIFICIAL FILL (AD) Debris: Scattered debris consisting of wood, asphalt, pottery, and metal mixed with pale gray sand and shell fragments; very loose; estimated to be 4= to 5-feet thick. @ 3.8 feet: Groundwater.	▼	3			3.8	97.4	
5		MARINE DEPOSITS Sand (SP): Gray; wet; very loose; fine-grained sand; poorly graded.		3					
		@ 10 feet: wet; loose; fine- to medium-grained sand with trace fine gravel; less fines.		1					
10				3					
		@ 15 feet: wet; loose; fine-grained sand.		2					
15				3					
		@ 20 feet: Becomes medium dense.		2					
20				7					
				11					

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/7/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation			Boring No.: B-2				
Location: South Coast Shipyard and Design Center, Newport Beach			Elevation: 5 +/-				
Job No.: 174-00		Client: Blurock		Date: 4/3/02			
Drill Method: Hollow-Stem Auger		Driving Weight: 140 lbs / 30 in		Logged By: MP			
Depth (Feet)	Lithology	Material Description	Samples		Laboratory Tests		
			Blows Per 6"	Water	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
	•••••	@ 25 feet: Becomes dense.	12 18 22	█ █ █			
		Total Depth = 26.5 feet. Groundwater at 3.8 feet Sever caving upon withdrawal of drilling augers.					

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/7/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-3
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	Core	Block	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
	[Pattern: Vertical Lines]	ARTIFICIAL FILL (Af) Silty Sand (SM): Medium brown; slightly moist; medium dense; fine-grained sand; trace roots.			[Pattern: Solid Black]				MAX
	[Pattern: Dotted]	MARINE DEPOSITS Sand (SP): Medium brown to yellowish-brown; slightly moist to moist; medium dense; fine-grained sand; poorly graded. @ 4.0 feet: Groundwater.	▼		[Pattern: Solid Black]		5.2	106.6	
5				4 5 12	[Pattern: Solid Black]		17.0	102.8	
	[Pattern: Dotted]	Sand with Silt (SP-SM): Medium to dark gray; wet; medium dense; fine-grained sand; poorly graded.			[Pattern: Solid Black]				
10				2 5 6	[Pattern: Solid Black]				
	[Pattern: Dotted]	Sand (SP-SW): Alternating yellowish-brown and medium gray; wet; medium dense; fine- to coarse-grained sand; moderately graded; some fine gravel; some shell fragments.			[Pattern: Solid Black]				MA
15				9 15 18	[Pattern: Solid Black]				
	[Pattern: Dotted]	Sand (SP): Gray; wet; medium dense; fine-grained sand with trace medium-grained sand; moderately graded; some shell fragments.			[Pattern: Solid Black]				
20				3 8 14	[Pattern: Solid Black]				

EXPLORATION LOG - V3 174-00.GPJ PETRA.GDT BH602

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-3
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	C o r e	B u l k	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
25	[Dotted pattern]	@ 25 feet: Becomes finer grained.	4	[Shaded]				MA	
30	[Dotted pattern]	@ 30 feet: No change.	5	[Shaded]					
35	[Dotted pattern]	@ 35 feet: Wet; medium dense; very fine-grained sand.	9	[Shaded]				MA	
40	[Dotted pattern]	@ 40 feet: No change.	2	[Shaded]					
45	[Dotted pattern]	@ 45 feet: Becomes dense.	5	[Shaded]				MA	

EXPLORATION LOG - V3 174-00.GPJ PETRA.GDT 8/16/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation				Boring No.: B-3					
Location: South Coast Shipyard and Design Center, Newport Beach				Elevation: 5 +/-					
Job No.: 174-00		Client: Blurock		Date: 4/3/00					
Drill Method: Hollow-Stem Auger		Driving Weight: 140 lbs / 30 in		Logged By: MP					
Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	C o r e	B u l k	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
	●●●●	@ 50 feet: No change.		4 15 26	X X				
		Total Depth = 51.5 feet. Groundwater at 4.0 feet Severe caving upon withdrawal of drilling augers.							

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/16/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-4
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	Core	Block	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		2- to 3-inches of Asphalt over 3-inches of aggregate base.							
		ARTIFICIAL FILL (Af) Sand (SP): Pale gray; slightly moist; medium dense; fine-grained sand; poorly graded; upper foot has trace silt content; trace pods of clay; some shell fragments.		5	█		2.1	102.9	
				7	█				
				8	█				
				3	█		5.2	104.4	
				4	█				
				4	█				
5		@ 4 feet: Becomes wet; loose.	▼						
		@ 4.5 feet: Groundwater.							
		@ 5 feet: Thin clay layer (less than 1-inch thick); dark gray; wet; soft; trace very fine-grained sand.		2	█				
				3	█				
		MARINE DEPOSITS		1	█				
		Sand (SP): Pale gray; wet; loose to medium dense; fine-grained sand with trace medium-grained sand; moderately graded.							
10				3	█				
				4	█				
				6	█				
15		Sand (SP-SW): Pale gray to yellowish-brown; wet; medium dense; fine- to medium-grained sand; moderately graded; trace shell fragments.		5	█				
				6	█				
				9	█				
20		Sand (SP): Pale gray; wet; medium dense; fine-grained sand; poorly graded.		5	█				
				9	█				
				14	█				

EXPLORATION LOG - V3 174-00.GPJ PETRA.GDT 8/16/02

EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-4
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Samples			Laboratory Tests		
			Water	Blows Per 6"	Core	Bulk	Moisture Content (%)	Dry Density (pcf)
30	[Dotted pattern]	@ 25 feet: Becomes loose.		1				
		@ 26 feet: Becomes very fine-grained; sample possible disturbed.		3				
				6				
		@ 30 feet: Becomes dense.		7				
				14				
				22				
		Total Depth = 31.5 feet. Groundwater at 4.5 feet Sever caving upon withdrawal of drilling augers.						

EXPLORATION LOG - V3 174-00 GPJ PETRA.GDT 8/16/02

PLATE A-10



EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-5
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per 6"	C	B	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		2- to 3-inches of Asphalt over 3-inches of aggregate base.							
		ARTIFICIAL FILL (Af) Sand (SP): Reddish-brown; moist; loose to medium dense; fine-grained sand; some gravel; some asphalt and concrete debris. @ 3 feet: Becomes pale brown; slightly moist; trace fine gravel. @ 3.5 feet: Groundwater; loose.	▼				3.2	103.1	
5		@ 5 feet: 1/2 to 1-inch thick clay layer; dark gray; wet; soft; sand below becomes dark gray; wet; loose; fine-grained with trace medium-grained sand.		5 6 7			12.7	104.9	
10		@ 10 feet: wet; loose; fine- to medium-grained sand with trace fine gravel; less fines.		10 3 2					
		MARINE DEPOSITS Sand (SP): Pale gray; wet; loose; fine-grained sand; poorly graded.							
15		Sand (SP-SW): Medium brown; wet; medium dense; fine- to medium-grained sand with trace coarse-grained sand; moderately graded; numerous shell fragments.		4 6 7					
20		@ 20 feet: No change.		3 5 7					

EXPLORATION LOG - V3 174-00 GPJ PETRA GDT 8/16/02



EXPLORATION LOG

Project: Geotechnical Feasibility Investigation		Boring No.: B-5
Location: South Coast Shipyard and Design Center, Newport Beach		Elevation: 5 +/-
Job No.: 174-00	Client: Blurock	Date: 4/3/00
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: MP

Depth (Feet)	Lithology	Material Description	Samples			Laboratory Tests		
			Water	Blows Per 6"	Core	Moisture Content (%)	Dry Density (pcf)	Other Tests
		@ 25 feet: Becomes dense.		5 13 19				
		Total Depth = 26.5 feet. Groundwater at 3.5 feet Sever caving upon withdrawl of drilling augers.						

EXPLORATION LOG - V3 174-00 GPJ PETRA_GDT 8/16/02

APPENDIX B

LABORATORY TEST PROCEDURES

LABORATORY TEST DATA

LABORATORY TEST PROCEDURES

Soil Classification

Soils encountered within the property were classified and described using the visual-manual procedures of the Unified Soil Classification System, and in general accordance with Test Method ASTM D 2488-84. The assigned group symbols are presented in the "Exploration Logs," Appendix A.

In Situ Moisture and Density

Moisture content and unit dry density of the in-place soils were determined in representative strata. Test data are summarized in the "Exploration Logs," Appendix A.

Laboratory Maximum Dry Density

Maximum dry density and optimum moisture content of onsite soils were determined for selected samples in accordance with Method A of ASTM D 1557-91. Pertinent test values are presented in Appendix B, Plate B-1.

Direct Shear

The Coulomb shear strength parameters, angle of internal friction and cohesion, were determined for a sample of soil remolded to 90 percent of maximum dry density. This test was performed in general accordance with Test Method No. ASTM D 3080-72. Three specimens were prepared for the test. The test specimens were artificially saturated, and then sheared under various normal loads at a maximum constant rate of strain of 0.01 inches per minute. Results are graphically presented on Plate B-2.

Grain Size Distribution

Grain-size analyses were performed on samples of selected on-site soils to verify visual classifications, and also to aid in liquefaction evaluation of the soils below groundwater. These tests were performed in accordance with Tests Methods ASTM D 422-63. The results of these tests are graphically presented on Plates B-3 through B-11.



LABORATORY MAXIMUM DRY DENSITY*

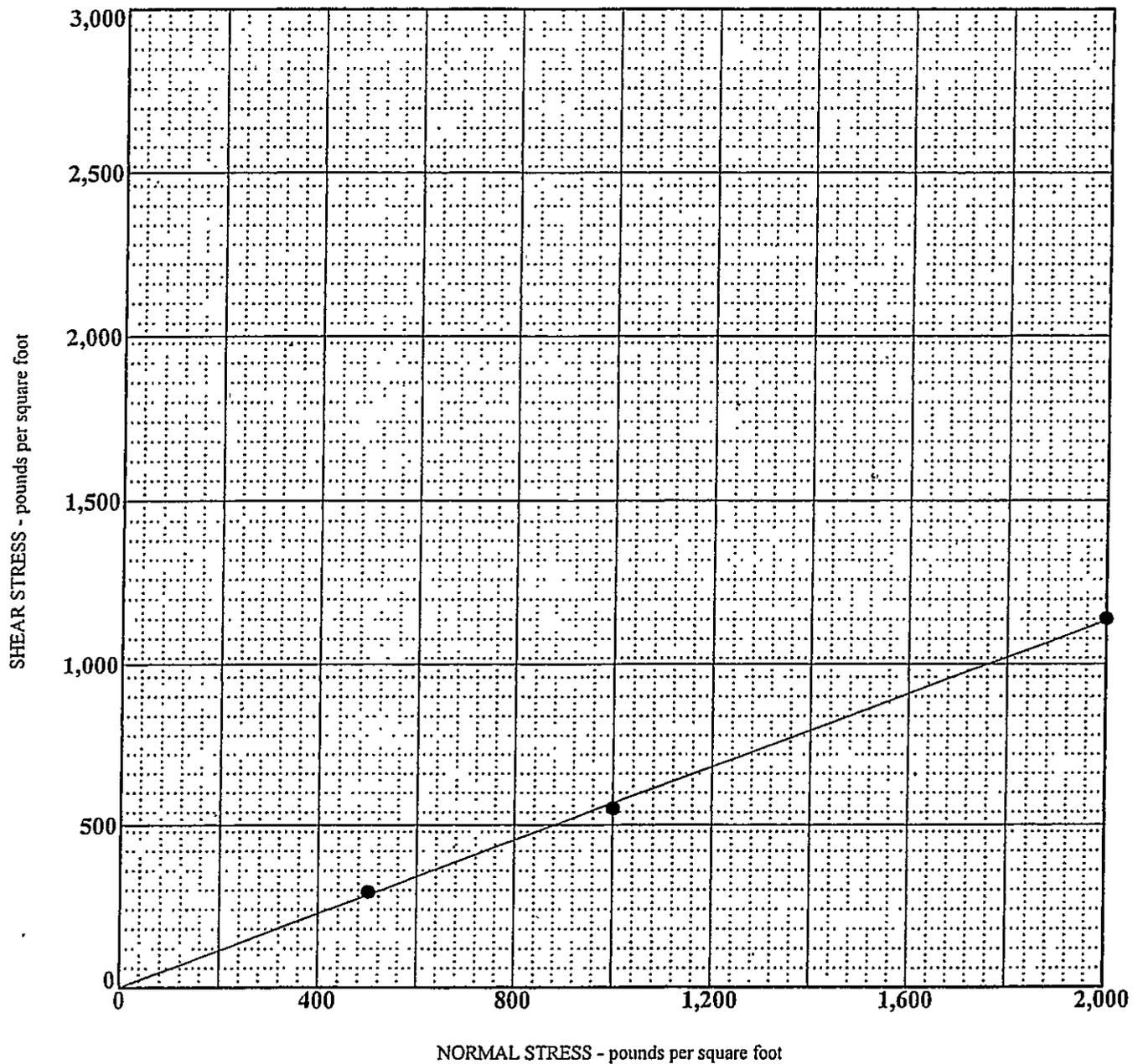
Test Pit Number	Depth (ft.)	Soil Type	Optimum Moisture (%)	Maximum Dry Density (pcf)
B - 1	2.0 - 6.0	A - Sand (SP)	10.0	109.0
B - 3	0.0 - 5.0	B - Sand (SP)	9.0	119.0

* Per Test Method ASTM D 1557-91

PLATE B-1

PETRA GEOTECHNICAL, INC.
J.N. 174-00



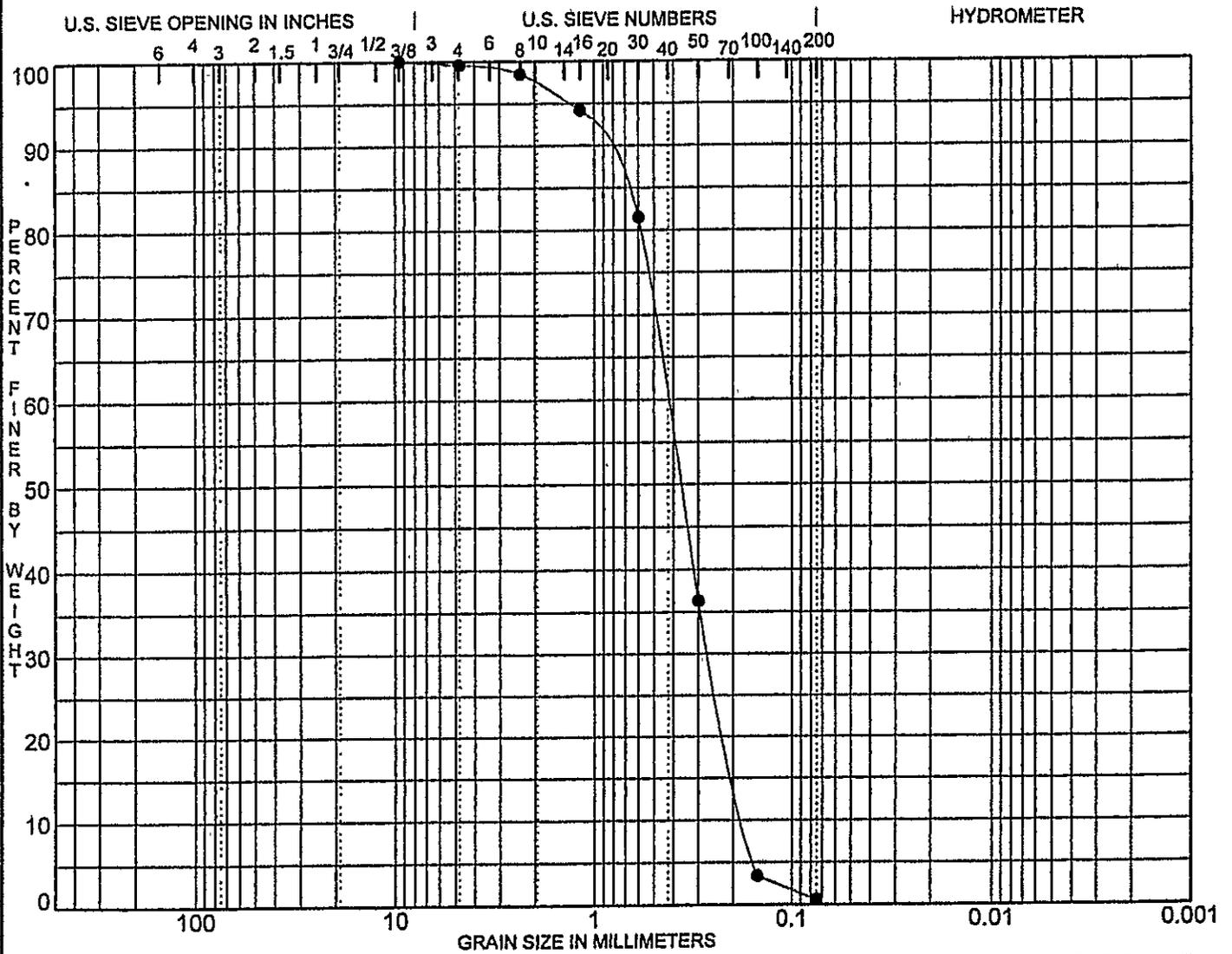


SAMPLE LOCATION	DESCRIPTION	FRICITION ANGLE (°)	COHESION (PSF)
● B-1 @ 2.0	Poorly Graded Sand (SP)	30	0

NOTES:

DIRECT SHEAR BLUROCKGPJ PETRA.GDT_B1202

J.N. 174-00	DIRECT SHEAR TEST DATA UNDISTURBED TEST SAMPLES	August, 2002
PETRA GEOTECHNICAL, INC.		PLATE B-2

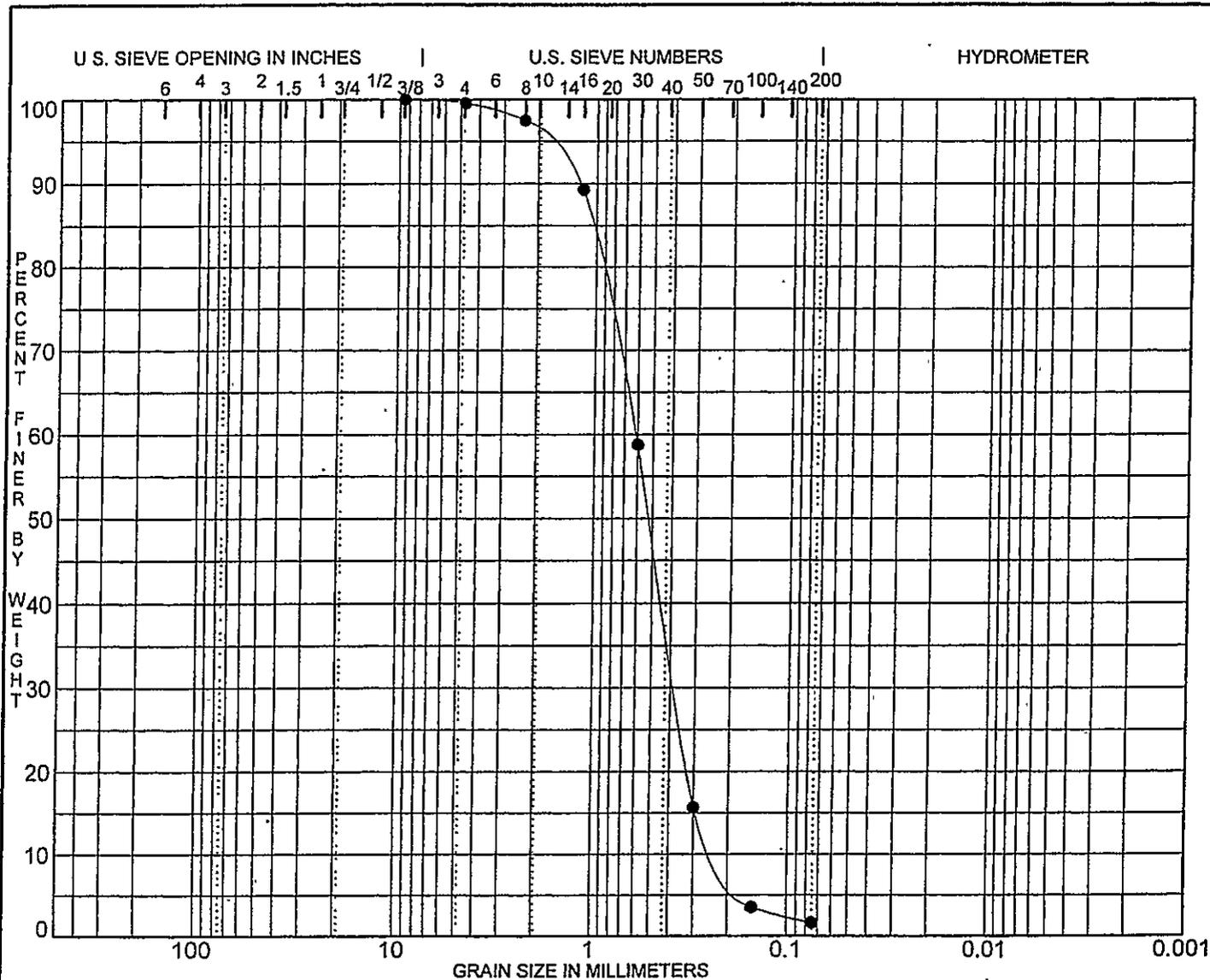


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-1 10.0	Poorly Graded Sand (SP)		NP	NP	NP	0.93	2.5

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-1 10.0	9.50	0.43	0.263	0.3701	0.4	99.0	0.6	

GRAIN SIZE - V1 BLUROCK.GPJ PETRA.GDT 8/12/02

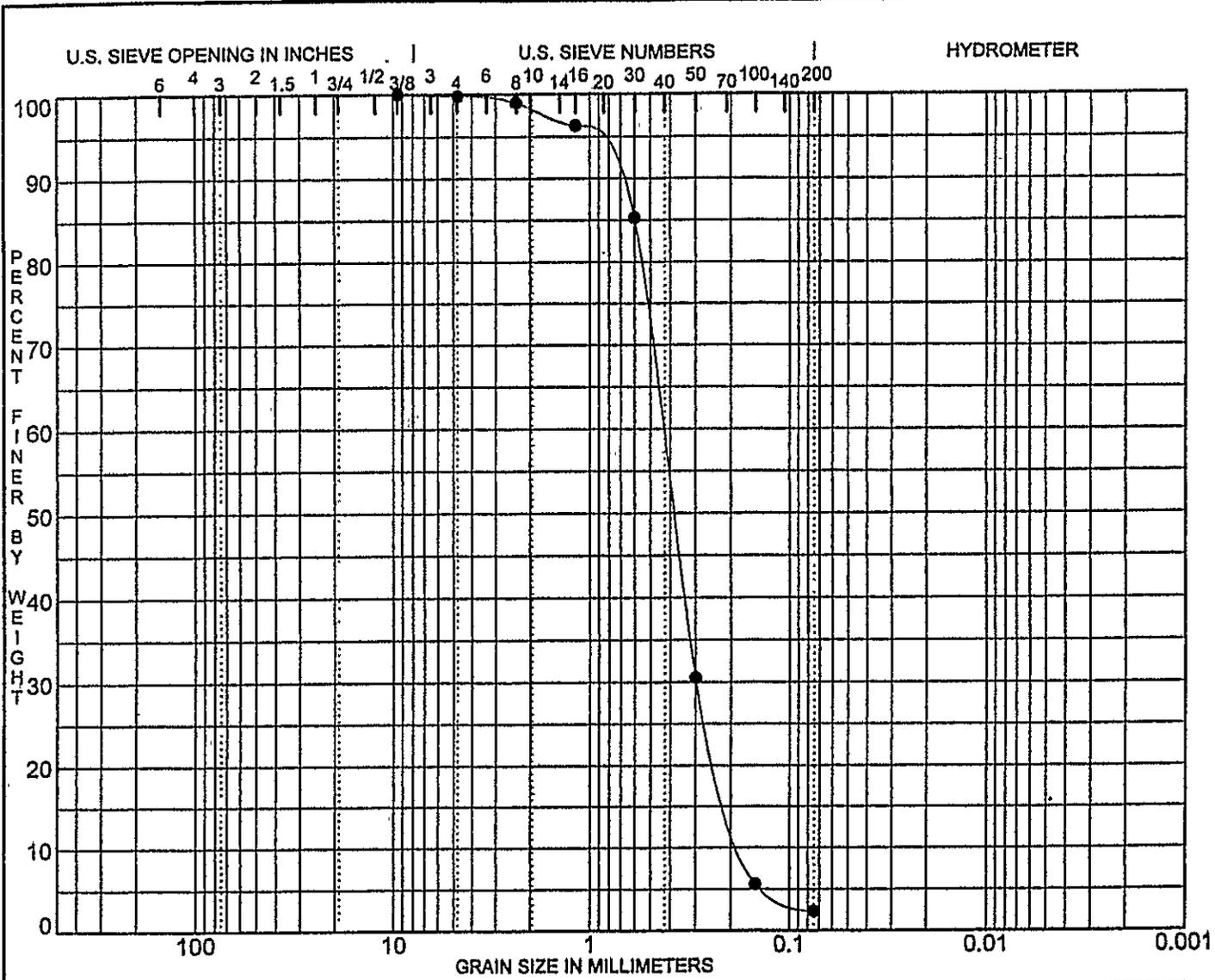


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
B-1 20.0	Poorly Graded Sand (SP)					1.07	2.8

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
B-1 20.0	9.50	0.62	0.378	0.5208	0.4	98.0	1.6	

GRAIN SIZE -V1 BLUROCK.GPJ PETRA.GDT BH2002

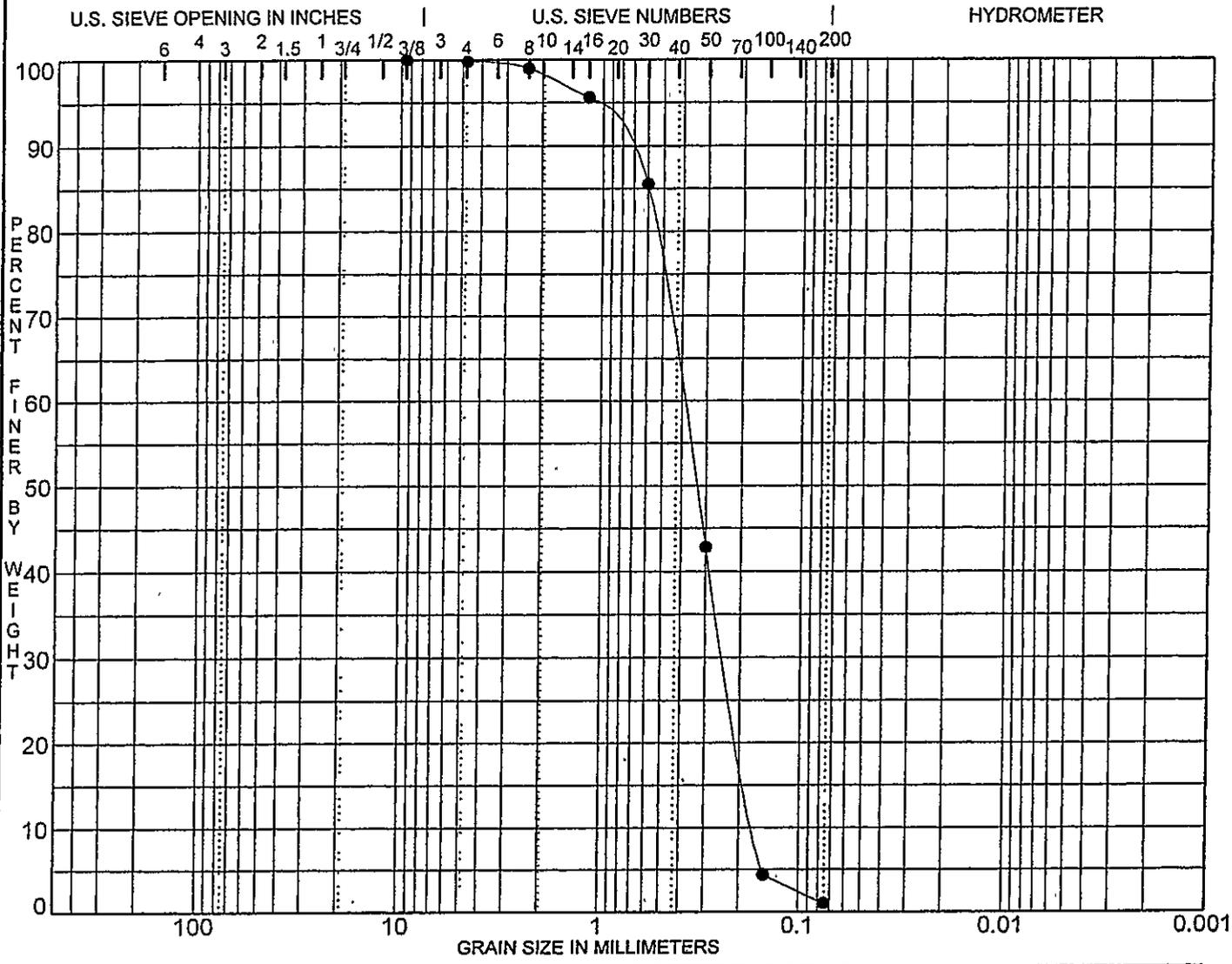


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
B-1 30.0	Poorly Graded Sand (SP)		NP	NP	NP	1.18	2.6

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
B-1 30.0	9.50	0.44	0.296	0.3839	0.2	97.5	2.3	

GRAIN SIZE - V1 BLUROCK.GPJ PETRA.GDT 8/2/02

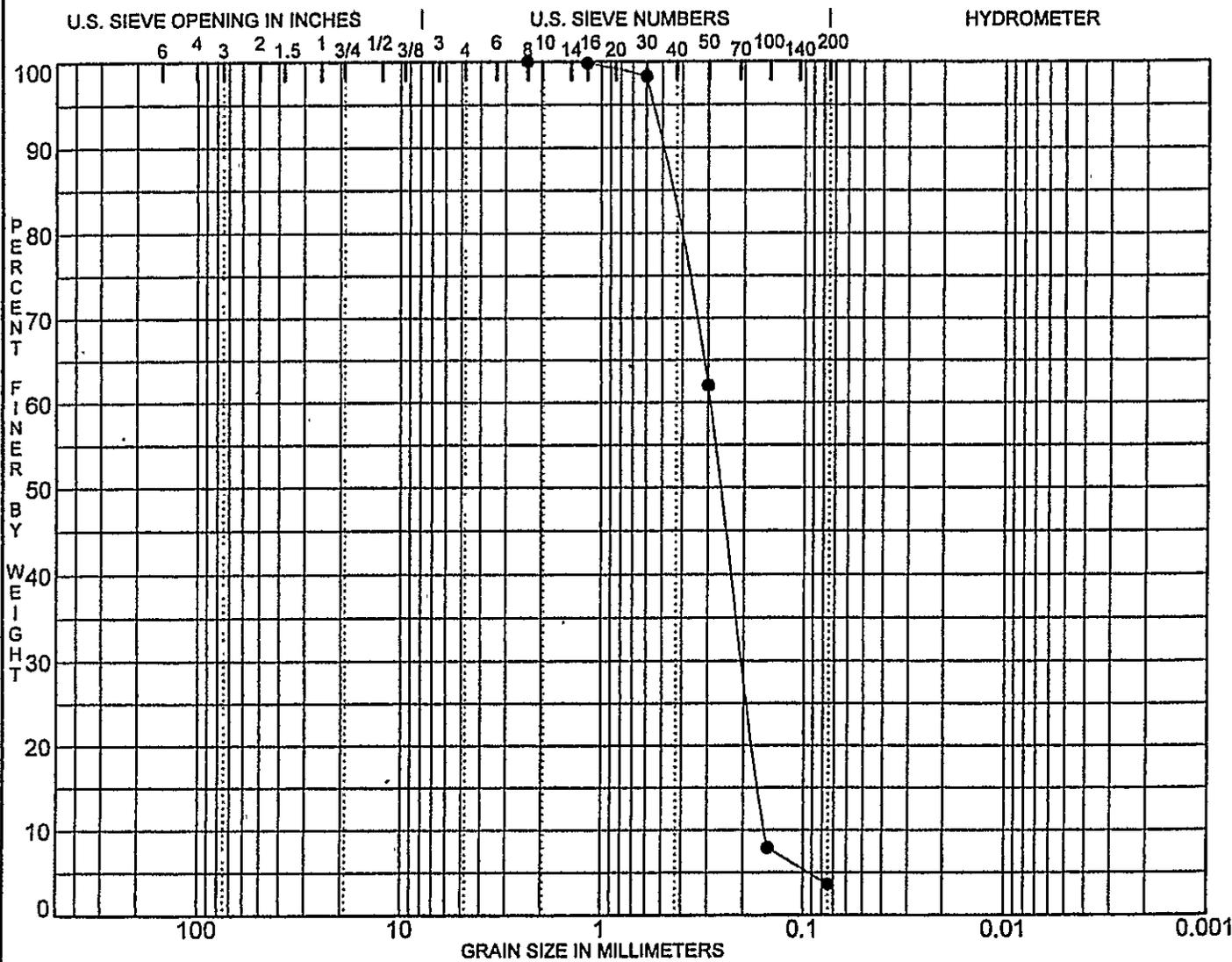


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-1 40.0	Poorly Graded Sand (SP)		NP	NP	NP	0.86	2.4

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-1 40.0	9.50	0.40	0.238	0.3372	0.2	98.8	1.0	

GRAIN SIZE - V1 BLUROCK.GPJ_PETRA.GDT_8/2/02

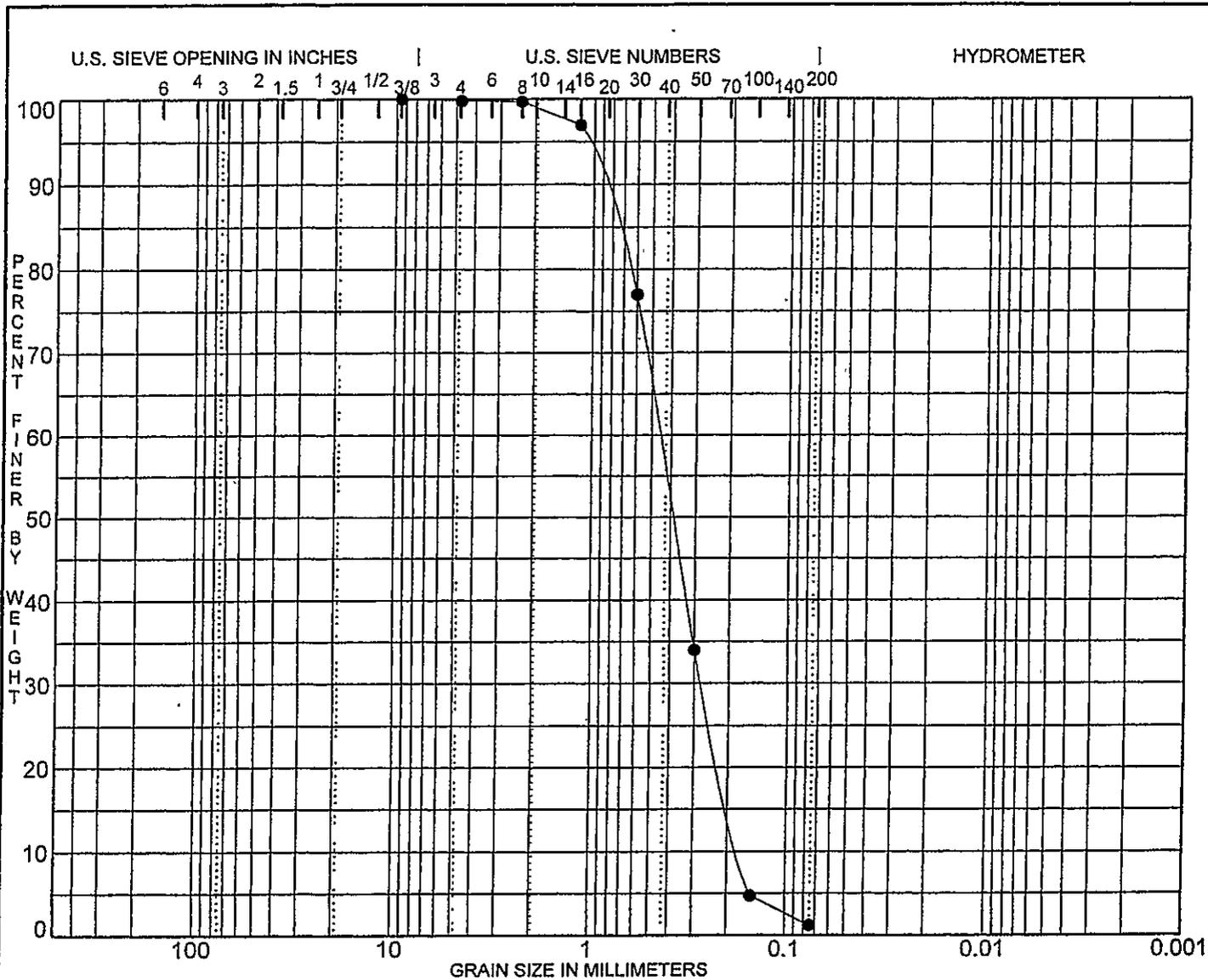


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-1 45.0	Poorly Graded Sand (SP)		NP	NP	NP	0.88	1.9

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-1 45.0	2.36	0.29	0.199	0.2572	0.0	96.4	3.6	

GRAIN SIZE - V1 BLUROCK.GPJ PETRA.GDT 8/12/02

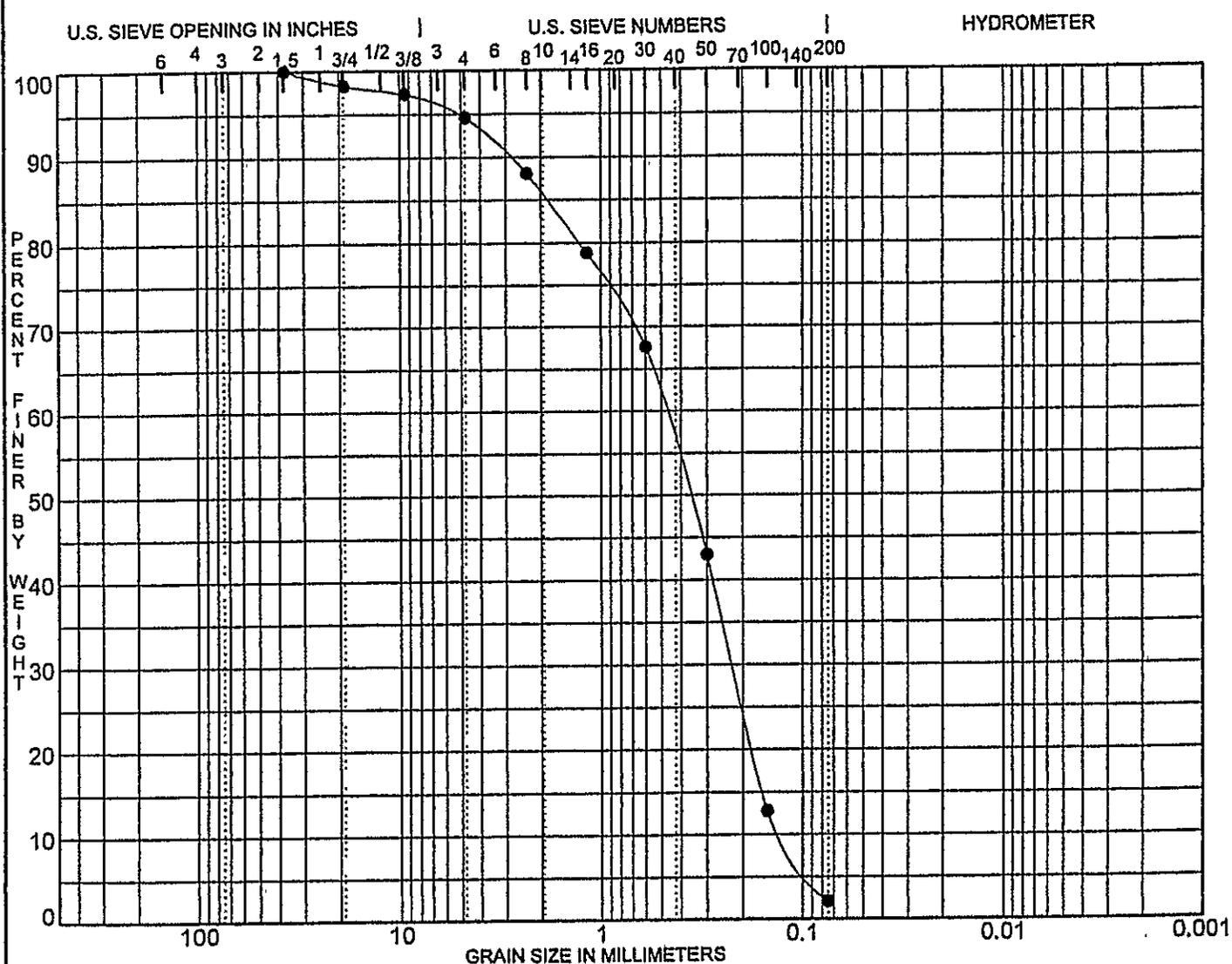


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-1 50.0	Poorly Graded Sand (SP)		NP	NP	NP	0.96	2.7

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-1 50.0	9.50	0.46	0.273	0.3883	0.2	98.6	1.2	

GRAIN SIZE-VI BLUROCKGPJ PETRAGDT 8/12/02

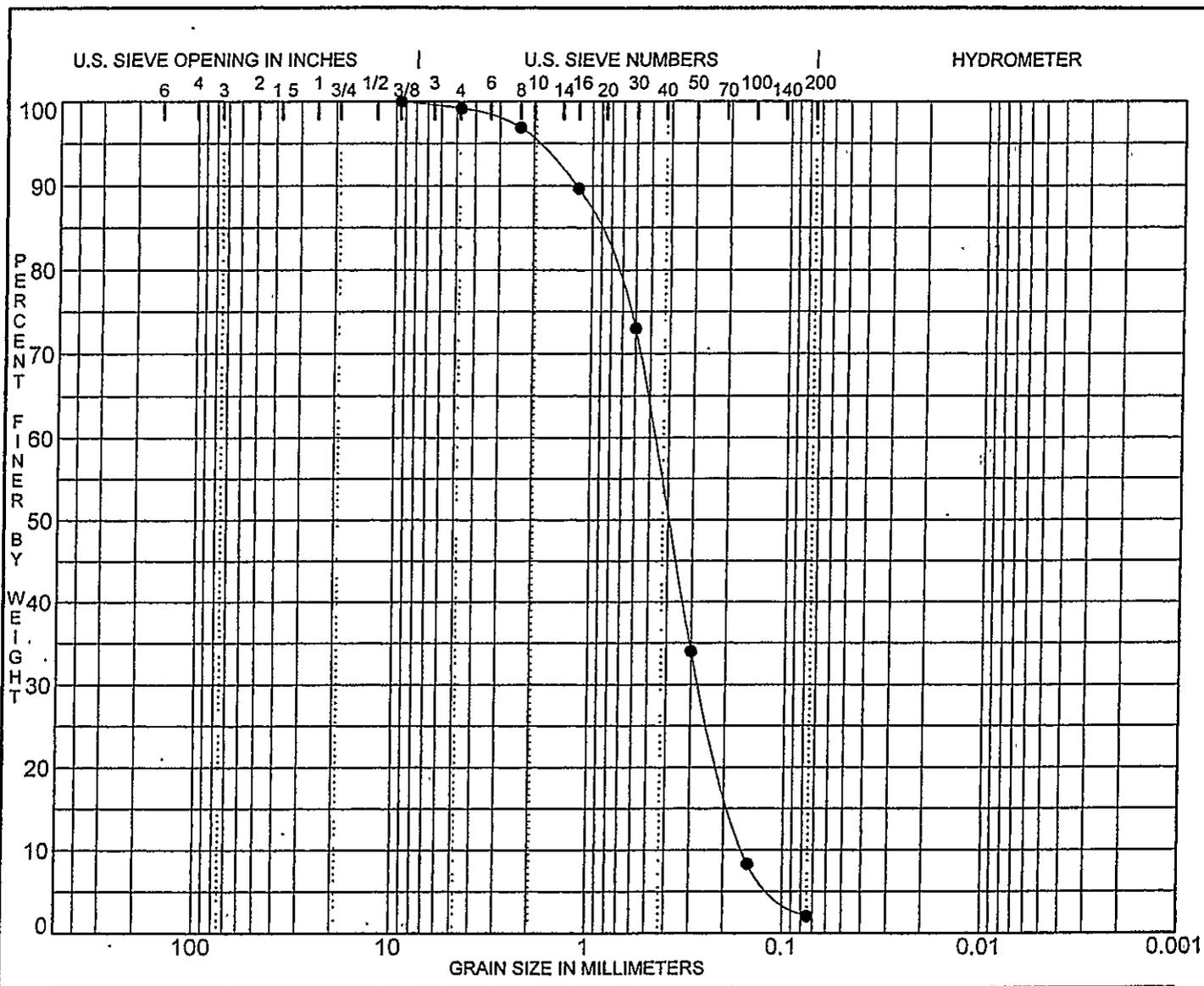


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-3 15.0	Poorly Graded Sand (SP)		NP	NP	NP	0.82	3.9

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-3 15.0	37.50	0.48	0.223	0.3654	5.4	92.5	2.1	

GRAIN SIZE - V1 BLUROCK.GPJ PETRA.GDT 8/12/02

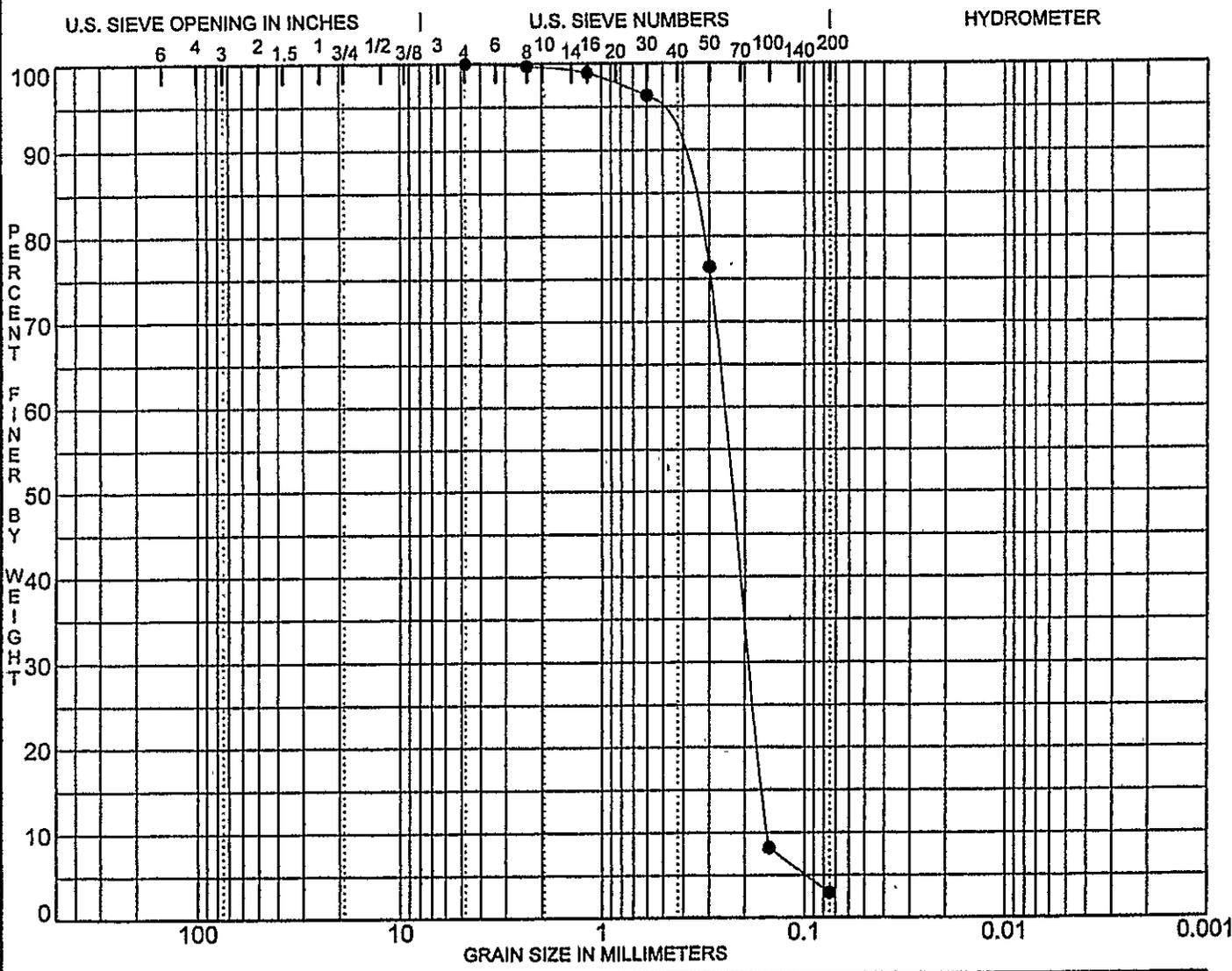


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-3 25.0	Poorly Graded Sand (SP)		NP	NP	NP	0.97	3.0

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-3 25.0	9.50	0.48	0.269	0.3987	0.8	97.2	2.0	

GRAIN SIZE-V1 BLUROCK.GPJ PETRA.GDT 8/12/02



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
● B-3 35.0	Poorly Graded Sand (SP)		NP	NP	NP	0.90	1.7

Specimen Identification	D100	D60	D30	D50	%Gravel	%Sand	%Silt	%Clay
● B-3 35.0	4.75	0.25	0.187	0.2294	0.0	97.1	2.9	

GRAIN SIZE - VI BLUROCK.GPJ PETRA.GDT 8/12/02



APPENDIX E

HAZARDS & HAZARDOUS MATERIALS
PHASE I & II STUDIES

WORK PLAN



COSTA MESA ■ SAN DIEGO ■ MURRIETA ■ SANTA CLARITA ■ ONTARIO

December 3, 2003
J.N. 9249-03

Mr. Steve Schapel
ETCO INVESTMENTS, LLC
540 Westminster Mall
Westminster, California 92683

Subject: Phase I Environmental Site Assessment; Proposed Mixed Use
Development at 2300 Newport Boulevard, City of Newport Beach,
County of Orange, California

Dear Mr. Schapel:

The Environmental Division of Petra Geotechnical, Inc. (Petra) is pleased to present this Phase I Environmental Site Assessment for the above-referenced site. This investigation has been conducted in accordance with our proposal No. 03306 dated September 17, 2003 and with the current Standards of Practice for Phase I Environmental Site Assessments as adopted by the American Society for Testing and Materials (ASTM Practice E 1527).

This opportunity to be of service to you is sincerely appreciated. Please do not hesitate to call this office if you have questions pertaining to this report.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION

Callie L. Cullum

Callie L. Cullum
Project Geologist
REA 7511



David Darrow

David Darrow
Division Manager
REA 20202

<WA:ENVIRON2003\9294-03\9294-03.fil.wpd>

PETRA GEOTECHNICAL, INC.

3185-A Alrway Avenue ■ Costa Mesa ■ CA 92626 ■ Tel: (714) 549-8921 ■ Fax: (714) 540-7572 ■ environ@petra-inc.com

EXECUTIVE SUMMARY

PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Proposed Mixed Use Development at 2300 Newport Boulevard,
City of Newport Beach, County of Orange, California**

INTRODUCTION

The information presented in this report includes the results of our recent site reconnaissance, a review of pertinent literature, and recent federal, state, and local government agency records, and interviews with persons familiar with the subject site. Our field reconnaissance, data gathering and compilation was performed by Ms. Callie L. Cullum, Registered Environmental Assessor, with oversight by Mr. David Darrow, Registered Environmental Assessor.

SITE DESCRIPTION AND GENERAL INFORMATION

1. The subject site is comprised of four buildings, associated parking areas, a boat maintenance area, and two marine ways in Newport Beach, California. The following addresses are associated with the site:

2122 Newport Boulevard	2130 Newport Boulevard
2140 Newport Boulevard	2210 Newport Boulevard
2212 Newport Boulevard	2222 Newport Boulevard
2224 Newport Boulevard	2230 Newport Boulevard
2234 Newport Boulevard	2240 Newport Boulevard
2244 Newport Boulevard	2280 Newport Boulevard
2300 Newport Boulevard	2312 Newport Boulevard

The current uses of the site buildings include professional offices, a sound studio, a recording studio, a gift shop, a wood working shop, a surfboard retail shop, a machine shop, and storage.

2. The site has been primarily used for the design, construction, and maintenance of ships and boats since the late-1920's. A foundry, sheet metal shop, and lumber yard were also formerly located on the site. Although much of the area was converted for office and retail space in the late-1970's, boat maintenance continues at the site. Historical information dating back to 1901 was reviewed during this investigation.



3. Based on the age of the buildings on the site, between 20 and 80 years old, it is likely that asbestos-containing materials and lead-based paints are present in the construction materials.
4. Fluorescent lights were observed in many of the buildings. It is possible that polychlorinated biphenyls (PCBs) are present in the fluorescent light ballasts. Seven pole-mounted transformer were present on the site. Based on the estimated age of these transformers, they may contain PCBs. No staining or indications of a release were noted relative to the light fixtures or transformers.
5. The machine shop was paved with asphalt in moderately good condition. Items in the machine shop included a parts washer and several one-gallon containers of oil and fuel. While these items were not keep in appropriate cabinets or secondary containment areas; housekeeping appeared to be good in the shop and no significant staining was noted.
6. The boat maintenance area was paved with asphalt which was observed to be in moderately good condition. Items in this area included 5-gallon buckets and 55-gallon drums of oil. A shed for waste oil drums was also observed. The floor of the shed was covered with sawdust and therefore was not visible. None of oil containers were keep within a secondary containment area.
7. No recognized environmental conditions were identified with the current use of the remaining buildings on the subject site.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Recognized environmental conditions are defined by the American Society of Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, or surface water at the site. The identified presence of recognized environmental conditions at the site may warrant additional research, site investigation, and/or action. Those items identified at the site or nearby properties which are considered to be recognized environmental conditions relative to the subject site are discussed below.



1. Due to the historical land use at the site, it is recommended that a limited subsurface investigation be conducted around the areas of the foundry, the machine shop, the boat maintenance area, and the former ship construction areas (northern parking lot, 2300 Newport Boulevard, and 2122 Newport Boulevard). At the request of the client, this work is currently being conducted by Petra and will be discussed in a separate report.
2. During previous investigations conducted at the subject site by Petra (2000 and 2002), it was determined that the bay muds around the marine ways have been impacted by PCBs and metals. No known regulatory action is currently pending for this contamination.

SITE CONSIDERATIONS

The items presented below are not considered recognized environmental conditions in accordance with ASTM 1527-00. Although these items may warrant consideration in conjunction with any planned development activities, they are not recognized environmental conditions. The information regarding possible actions relative to these items has been provided as guidance.

1. If the buildings are to be demolished, it is recommended that a survey for asbestos-containing materials and lead-based paints be conducted. Identified asbestos-containing materials and lead-based paint should be abated by licensed contractors prior to demolition.
2. Seven pole-mounted transformers were observed on the site. If the transformers are to be removed, it is recommended that the removals be completed by a licensed contractor or the utility company responsible for the transformer.
3. It is recommend that the fuel and oil containers observed in the machine shop and boat maintenance area be placed within appropriate cabinets and/or secondary containment areas.



TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Involved Parties	1
2.0 SCOPE OF INVESTIGATION	2
3.0 SITE OVERVIEW	3
4.0 PREVIOUS LAND USE	4
5.0 PREVIOUS REPORTS	6
6.0 ENVIRONMENTAL SETTING	7
6.1 Geology	7
6.2 Surface and Groundwater Conditions	7
6.2.1 Surface Water	7
6.2.2 Groundwater	7
7.0 RESULTS OF INVESTIGATION	8
7.1 Site Inspection	8
7.2 Adjacent Site and Vicinity Observations	10
7.3 Government Agency Database Research	11
7.3.1 Results of Agency Records Search	11
7.3.2 Local Agencies	15
7.3.3 Evaluation of Records Search Results	16
7.4 Results of Aerial Photo Analysis	16
7.5 Historical USGS Topographic Maps	18
7.6 Fire Insurance Maps and City Directories	19
7.7 Interviews	21
8.0 DISCUSSION OF POTENTIAL ENVIRONMENTAL CONCERNS ..	21
8.1 Regulatory Actions	21
8.2 Adjacent and Nearby Properties	22
8.3 Polychlorinated Biphenyls	22
8.4 Underground Storage Tanks	22
8.5 Above Ground Storage Tanks	23
8.6 Storm Water/Waste Water Discharge	23



TABLE OF CONTENTS
(cont'd)

	<u>Page</u>
8.7 Pesticide and Herbicide Residues	23
8.8 Asbestos Containing Materials	23
8.9 Lead-Based Paints	23
8.10 Landfills	24
8.11 Water Supplies	24
8.12 Waste Generation and Storage	24
9.0 CONCLUSIONS	24
9.1 General Site Information	24
9.2 Recognized Environmental Conditions	25
9.3 Site Considerations	26
10.0 LIMITATIONS	27
11.0 QUALIFICATIONS	27
12.0 REFERENCES	28

FIGURES

PLATE A

SITE PHOTOGRAPHS

APPENDIX A

SITE ASSESSMENT CHECKLIST

APPENDIX B

AGENCY DATABASE SEARCH RESULTS

APPENDIX C

RECORDS OF COMMUNICATION

APPENDIX D

HISTORICAL DOCUMENTS

APPENDIX E

RESUMES



PHASE I ENVIRONMENTAL SITE ASSESSMENT

Proposed Mixed Use Development at 2300 Newport Boulevard,
City of Newport Beach, County of Orange, California

1.0 INTRODUCTION

The information presented in this report includes the results of our field reconnaissance, a thorough review of various federal, state, and local government agency records, and interviews with persons familiar with the subject site. This report includes a summary of our findings, recommendations, and our assessment of the present environmental condition of the site.

1.1 Purpose

This investigation was conducted to determine if any recognized environmental conditions exist on the subject site. Recognized environmental conditions are defined by the American Society for Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, or surface water at the site. Emphasis has been placed upon identifying the potential presence of petroleum products, hazardous or otherwise toxic materials, or waste on the subject site and adjacent properties.

1.2 Involved Parties

This report was prepared by the Environmental Division of Petra Geotechnical, Inc. (Petra) at the request of the ETCO Investments, LLC (ETCO) for their exclusive use. Use of this report or reliance thereon by other parties or projects is not authorized. The report may not be suitable for other parties or other purposes.



2.0 SCOPE OF INVESTIGATION

The scope of this investigation included the following:

1. Performing a site reconnaissance to identify the current conditions and land use of the subject site and adjoining properties. Visual evidence of prior uses of the subject site and adjoining properties were noted. The site reconnaissance included a visual inspection of the site surface, the building interior, and the site perimeter.
2. Researching historical land use of the subject site and vicinity by reviewing available historical aerial photographs, United States Geologic Survey (USGS) topographic maps, fire insurance maps, city directories, local building department records, local planning department records, and other reasonably ascertainable maps and data.
3. Performing a literature study and contacting relevant persons and agencies to identify local and regional geological conditions and estimated groundwater depth and gradient.
4. Obtaining and reviewing a database search of pertinent federal, state, and local regulatory agency databases concerning environmental conditions on and in the vicinity of the subject site. As specified in the ASTM standard the following databases were searched using, at a minimum, the ASTM search radius:
 - *Federal NPL site list,*
 - *Federal CERCLIS site list,*
 - *Federal RCRA CORRACTS TSD facilities list,*
 - *Federal RCRA non-CORRACTS TSD facilities list,*
 - *Federal RCRA generators list,*
 - *Federal ERNS list,*
 - *California state lists of hazardous waste sites identified for investigation or remediation (Cal-Sites, Cortese, TOXIC PITS),*
 - *California state equivalent NPL sites list (Cal-Sites, BEP),*
 - *California state equivalent CERCLIS sites list (Cal-Sites, TOXIC PITS),*
 - *California state landfill and/or solid waste disposal site lists (Cortese, SWF/LF),*
 - *California state leaking underground storage tank site lists (Cortese, LUST), and*
 - *California state registered underground storage tank site lists (UST).*

In the interest of thoroughness, numerous non-ASTM databases were also searched. These databases are listed and discussed in the database report included with this Phase I report.



5. Contacting and interviewing knowledgeable persons, such as property owners, managers, and representatives of local government agencies regarding historical site use and current site conditions, if possible.
6. Evaluating the presence of recognized environmental conditions at the subject site through visual observation and research of reasonably ascertainable records. Recognized environmental conditions may include the presence of hazardous materials, petroleum products, underground storage tanks, above ground storage tanks, drums, chemical containers, polychlorinated biphenyls, liquid or solid wastes, water wells, oil wells, and areas indicative of potential contamination including stained soils and/or pavement, stressed vegetation, drains, sumps, pits, ponds, lagoons, odors, and septic systems.
7. Non-Scope Items. In addition to those items discussed above, several items outside the scope of ASTM Standard E 1527-00 have been addressed in this investigation. The non-scope items include:
 - Visual examination of the site for the potential presence of asbestos containing materials.
 - Visual examination of the site for the potential presence of lead-based paint.
8. Preparing a report presenting the results of our investigation.

Unless otherwise stated in this section, no other services, assessments, or testing were included in the scope of work completed for this project.

3.0 SITE OVERVIEW

The subject site is located northeast of the intersection of Newport Boulevard and 22nd Street, in the City of Newport Beach, California. According to the 1981 photoinspected topographic map (Newport Beach Quadrangle) prepared by the United States Geological Survey (USGS), the subject site is located in northern portion of Section 33, Township 6 South, Range 10 West, San Bernardino Base and Meridian, at



an elevation of approximately 5 feet above sea level. A site vicinity map is included as Figure 1.

At the time of our inspection the site consisted of approximately 2.6 acres and was developed with seven buildings, associated parking areas, a boat maintenance area, and two marine ways. The following addresses were identified associated with current land use at the subject site:

2122 Newport Boulevard	2130 Newport Boulevard
2140 Newport Boulevard	2210 Newport Boulevard
2212 Newport Boulevard	2222 Newport Boulevard
2224 Newport Boulevard	2230 Newport Boulevard
2234 Newport Boulevard	2240 Newport Boulevard
2244 Newport Boulevard	2280 Newport Boulevard
2300 Newport Boulevard	2312 Newport Boulevard

A site plan is shown in Figure 2.

4.0 PREVIOUS LAND USE

Based on our interpretation of historic aerial photographs, Sanborn Fire Insurance Maps, USGS Topographic Maps, city directories, building permits, and upon information obtained during interviews, the subject site has been developed since the 1920's. The primary historical use of the site has been the design and construction of ships, the repair of boats, and office space. A brief description of historical land use at the site follows:

Building 1

This building was constructed between 1928 and 1945. The addresses associated with this building are 2122, 2130, and 2140 Newport Boulevard. The building was used for a lumber supply warehouse from prior to 1945 until at least 1961 and possibly the late-1970's. A woodworking shop has also been located here from prior to 1945 until



present and this building has been used for storage, office space, and a sound studio since the 1980's.

Building 2

This building was constructed between 1928 and 1945. The addresses associated with this building are 2230, 2234, and 2240 Newport Boulevard. The building was used for a foundry and an electric repair shop from prior to 1945 until at least 1961. A sheet metal shop was added on the western portion of this structure in 1959. The building appears to have been converted into office space in the mid-1970's.

Building 3

This building was constructed between 1928 and 1945. The addresses associated with this building are 2210, 2212, 2222, 2224, and 2280 Newport Boulevard. A portion of this building was used as a boat sales and display room from prior to 1945 until at least 1961. Additional areas were used as a marine supply and print shop from prior to 1945 until at least 1961. It was also occupied by the South Coast Company in the 1950's and 1960's and has been used for office space and a recording studio and offices since at least 1980.

Building 4

This building was constructed in the mid-1920's. The address associated with this building is 2244 Newport Boulevard. The building appears to have been used as a machinery shop from the 1920's until present.

Building 5

This building was constructed in the mid-1920's. The addresses associated with this building 2300, 2302, and 2304 Newport Boulevard. It was used as a boat shop in the 1920's. In the 1940's until at least the 1960's, it is listed as a carpenter and pattern shop, and a planing mill. The building was converted into offices in the 1980's.

Buildings 6 and 7

The western building was constructed in the late-1950's while the eastern building was constructed around 1980. The address associated with these buildings are 2312 Newport Boulevard. These buildings have been used for boat sales since they were



constructed. A separate boat building was located at this address from the late-1920's until the late-1940's.

Northern Parking lot

Historically the address associated with this area was 2306 Newport Boulevard. A garage and stable was located at this address in the late-1920's. The area was used to construct ships from at least the 1940's until the mid 1950's. It appears to have been used as a parking lot since the 1960's.

Historical information reviewed during this investigation includes aerial photographs (dating back to 1928), USGS topographical maps (dating back to 1901), fire insurance maps (dating back to 1907), city directories (dating back to 1955), city permit files (dating back to 1971), and interviews.

5.0 PREVIOUS REPORTS

During previous investigations conducted for others at the subject site, Petra completed site assessment activities and issued the following reports.

- "Results of Limited Sediment Sampling at South Coast Shipyard and Design Center, 2300 Newport Boulevard, Newport Beach, California," dated July 5, 2000.
- "Report of Additional Subsurface Environmental Assessment at the South Coast Ship Yard and Design Center Located at 2300 Newport Boulevard, Newport Beach, California," dated October 11, 2002.

These reports indicate that the bay muds around the marine ways have been impacted by polychlorinated biphenyls (PCBs) and metals. At the request of the client, Petra is conducting a limited subsurface investigation at the subject site. The results of the current subsurface investigation will be provided under separate cover. No other reports were available for Petra's review during this investigation.



6.0 ENVIRONMENTAL SETTING

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the subject site.

6.1 Geology

The subject site is located within the Peninsular Ranges Geomorphic Province of Southern California (Norris and Webb, 1990). Based on observations made during the site reconnaissance, a review of published and unpublished geologic maps and literature, and information from investigations conducted by Petra at the site, the site is underlain by primarily sands and clays.

6.2 Surface and Groundwater Conditions

6.2.1 Surface Water

With the exception of the marine ways, there were no impoundments of surface water observed on the subject site.

6.2.2 Groundwater

The subject site is located within the Orange County Coastal Basin Pressure Area (Metropolitan Water District, 1987). During drilling investigations conducted by Petra at the subject site, groundwater was encountered beneath the site at approximately four feet below ground surface. Due to the close proximity of the site to the Rhine Channel, it is anticipated that groundwater at the site is tidally influenced, therefore gradient direction would be expected to fluctuate based on the tide.



7.0 RESULTS OF INVESTIGATION

The results of our site reconnaissance and inspection of adjacent sites, agency list review, aerial photograph analysis, and site history and land use study are presented in the following sections.

7.1 Site Inspection

A reconnaissance of the subject site was conducted by a representative of this firm on October 23, 2003. Site photographs are included as Plate A and a completed site Assessment Checklist is located in Appendix A.

In general, based on the age of the buildings on the site (between 20 and 80 years old), it is likely that asbestos-containing materials and lead-based paint are present in the construction materials. Fluorescent lights were also observed in many of the buildings. Mercury is present in fluorescent lights and it is possible that PCBs are present in the fluorescent light ballasts. Our site specific observations are summarized below.

Building 1

This building is a metal frame structure with finished with sheet metal on the exterior. Portions of the building were completed with a second, interior level.

A portion of this building is currently occupied by a sound studio with offices, storage and stage construction areas. The floor of this area was primarily asphalt in moderately good condition. Finished flooring was present in the office and storage rooms. One store room was observed to contain numerous one-gallon and spray paint cans, as well as miscellaneous equipment. The housekeeping was observed to be good and no obvious spills were noted.

The remaining portion of this building is currently occupied by a gift shop, a wood shop, and storage space. The housekeeping was observed to be good and no obvious recognized environmental conditions were noted. A small room in the rear of this building was modified for use as a personal gym. A set of free weights and



miscellaneous items were stored in this room. The floor was concrete and a drain was observed in the middle of the floor.

Building 2

This building is a wood frame structure finished with stucco on the exterior. Finished flooring was observed in the interior. Portions of the building were completed with a second, interior level. The building was used for offices and storage and is currently occupied by two architect firms and a waste transport company office.

Building 3

This building is a wood frame structure finished with stucco on the exterior. The floor of the building was concrete covered with carpet, tile, or similar finished flooring. Portions of the building were completed with a second, interior level. The building was used for offices and storage and is currently occupied by a recording studio, a licensing firm, two structural engineering firms, and a surfboard retail shop.

Building 4

This building is a metal frame structure finished with metal on the exterior. The floor of the building was asphalt in the machine shop area while finished flooring was observed in the office areas. Portions of the building were completed with a second, interior, level. This building is currently occupied by a machine shop. The interior included a work shop area, offices, and storage.

Items observed in the machine shop included a sand blaster, a parts washer, boxes of oil, eight 1-gallon gas cans, and miscellaneous mechanical parts. These items were not stored in appropriate cabinets and/or secondary containment areas. However, the housekeeping was observed to be good with no significant staining on the floor.

Building 5

This building is a metal frame structure finished with metal on the exterior. Finished flooring was observed in the interior. Portions of the building were completed with a second, interior level. This building is currently occupied by an architect firm. The interior included offices and storage.



Buildings 6 and 7

These buildings are wood frame structures with wood exteriors. Finished flooring was observed in the interior. These two buildings are currently occupied by a yacht sales company. One building is used for offices. The second building is used for storage. A small storage shed is located between the buildings.

Exterior areas

- A boat maintenance area was located behind 2300 Newport Boulevard. Most of the area was covered with asphalt, except for crane equipment with a concrete foundation, and a small marine way which was covered with a wooden platform. Two 5-gallon buckets of oil, electric and gas motors, and rope were observed in the crane area. A wood shed was used as an electric room and contained buckets, equipment, and rope. The floor of this shed was not visible. A drum shed for waste oil was also present. Twelve 55-gallon drums and twelve 5-gallon containers were in the drum shed. The floor of the shed was covered with sawdust and therefore was not visible. No secondary containment was observed for the oil containers. Two metal portable storage containers in the maintenance area are reportedly used to contain paints and machinery. Both storage containers were locked at the time of our inspection.
- A marine way, formerly used for launching small ships, is located adjacent to the south of 2300 Newport Boulevard. The marine way is currently used to dock boats.
- A pole-mounted transformer was observed on the southeastern portion of the site. Six additional pole-mounted transformers were located on the northern parking area. Based on the estimated age of these transformers, it is possible they contain PCBs. No staining was observed on the transformers.
- Parking lots were observed on the eastern and northern portions of the site. The asphalt appeared to be in moderately good condition.

7.2 Adjacent Site and Vicinity Observations

The site is located in an area of commercial and retail businesses. The following specific observations were made regarding adjacent and vicinity land use.



North - The site is bounded on the north by a restaurant with additional restaurants beyond.

East - The site is bounded on the east by boat docks and the Rhine Channel.

South - The site is bounded on the southwest by a restaurant with 22nd Street beyond. The site is bounded on the southeast by a boatyard with 21st Street beyond.

West - The site is bounded on the west by Newport Boulevard with a parking lot beyond.

The Rhine Channel has been identified by the California Regional Water Quality Control Board Santa Ana Region (CRWQCB) as an area of concern due to the presence of hazardous concentrations of chemicals and metals within the sediments. It is unknown if any contaminants within the channel have affected the groundwater or soil beneath the subject site.

7.3 Government Agency Database Research

A search of federal, state, and local government listings was performed by Environmental Data Resources, Inc. (EDR) for the purposes of this report. In the interest of thoroughness, a number of government databases were consulted which are not listed among the Standard Environmental Record Sources as established under the American Society for Testing and Materials (ASTM) standards of practice. The search radius used for all government databases meets or exceeds the standard search distance adopted by ASTM. For more complete information about individual databases, please see Appendix B.

7.3.1 Results of Agency Records Search

The EDR report revealed three listings for the subject site. The EDR report also identified 78 database listings for sites within the requested search radius. None of the sites listed in the EDR report are considered to present an



environmental concern with respect to the subject site due to the nature of the listings and/or the relative distance of the sites from the subject site. A brief description of the subject site listings and listings with releases within 1,000 feet of the subject site are provided below:

Site A1 2270 Newport Boulevard, Newport Beach, CA

This listing is for the subject site. This site is included on the California Hazardous Materials Incident Reporting System (CHMIRS) database for a release of sanding dust from boat sanding without protection of a plastic tarp in 1996. This is unlikely to have resulted in contamination to the site.

Site A2 WBR Transportation LLC, 2240 Newport Boulevard, Newport Beach, CA

This listing is for the subject site. This site is identified on the Resource Conservation and Recovery Information System-Small Quantity Generator (RCRIS-SQG) and the Facility Index System (FINDS) databases as a small quantity generator of regulated materials. No releases or violations are reported in this listing. Also, during the site reconnaissance this location was observed to be an office location and not a waste storage facility. It is unlikely that this listing is a recognized environmental condition with regard to the subject site.

Site A3 Martin, Chow, and Nakabara Structural Eng, 2210 Newport Boulevard, Newport Beach, CA

This listing is for the subject site. This site is identified on the Hazardous Waste Information System (HAZNET) database. The HAZNET listing is for generation of material requiring a waste manifest and is listed in the EDR report as off-specification, aged, or surplus inorganics. No releases or violations are reported in this listing; therefore, it is unlikely that this listing is a recognized environmental condition with regard to the subject site.

Site C7 N/R Marina Partners, 2809 Newport Boulevard, Newport Beach, CA

This listing is for a site located approximately 1,000 feet north of the subject site. This site is identified on the Cortese and Underground Storage Tank (UST) databases for a release from a UST. No additional information is provided in



the EDR report. Based on the distance of this site from the subject site, it is unlikely that this listing is a recognized environmental condition with regard to the subject site.

D11-D15 Newport Plating, 2810 Villa Way, Newport Beach, CA

This site is located approximately 1,000 feet north of the subject site and is included on the Unconfirmed Properties Referred to Another Agency (REF), Resource Conservation and Recovery Information System-Small Quantity Generator (RCRIS-SQG), Facility Index System (FINDS), CERCLIS No Further Remedial Action Planned (CERC-NFRAP), Cortese, Spills Leaks Investigation Cleanup (CA SLIC), and Orange County Industrial Site (OC Ind) databases. According to the EDR report, this site had an unlined sump and has impacted both soil and groundwater. The CERC-NFRAP and CA SLIC listings indicate assessment of the site started in 1989.

During previous Phase I Investigations conducted in the vicinity of the subject site, Petra reviewed available files regarding this facility at the Orange County Health Care Agency (OCHCA), the CRWQCB, and the Department of Toxic Substances Control (DTSC). The Newport Plating facility operated for at least 20 years, with some records indicating the facility may have operated for 40 years. The facility was closed in 1987 or 1988. In 1987 a Cleanup and Abatement Order was issued and subsequently two site investigations were conducted at the facility. The first investigation was conducted in 1987 by Petroleum Industry Consultants Inc. (PIC). The second investigation was conducted in 1988 by Remedial Action Corporation (RAC). These investigations indicated that the soil beneath the facility had been impacted by heavy metals, cyanide, and toluene. Groundwater beneath the facility had been impacted by heavy metals, cyanide, tetrachloroethane and trans-1,2-dichloroethene. Based on information in the RAC report, groundwater gradient in the vicinity is tidally influenced; however, the overall flow is expected to be toward the Rhine Channel.

No additional investigations have been conducted at the Newport Plating facility since the 1988 RAC report was issued. The OCHCA was the primary agency overseeing the facility during the initial investigations. Based on the information reviewed in the OCHCA files, the OCHCA unofficially closed the file for the facility in 1994 without issuing a "no further action required" letter. Files reviewed at the CRWQCB and the DTSC did not contain any additional information relating to the migration of contaminants from the facility. Based on the distance of this facility from the subject site and the groundwater gradient



generally flowing toward the Rhine Channel, it is unlikely that this facility is a recognized environmental condition with regard to the subject site.

Orphan Sites

Orphan sites are unable to be located by EDR due to lack of complete address information. Thirty-four orphan sites are listed in the EDR report. A brief description of the orphan sites is provided below. A site may be listed on more than one database:

- Sixteen sites are listed on the HAZNET database,
- six sites are listed on the Emergency Response Notification System (ERNS) database,
- three sites are listed on the UST database,
- two sites are listed on the Leaking Underground Storage Tank (LUST) database,
- two sites are listed on the Cleaners Facilities (Cleaners) database,
- two sites are listed on the CHMIRS database,
- two sites are listed on the Emissions Inventory (EMI) database,
- two sites are listed on the FINDS database,
- one site is listed on the Solid Waste Information System (SWF/LF) database,
- one site is listed on the CERC-NFRAP database,
- one site is listed on the CA SLIC database,
- one site is listed on the Hazardous Substance Storage Container (HIST UST) database,
- one site is listed on the Cortese database, and
- one site is listed on the RCRIS-SQG.

The closest listing is an ERNS site located approximately 500 feet to the northeast of the subject site, across the Rhine Channel. The SWF/LF site is for a closed facility located approximately 1,000 feet to the south. And a HAZNET listing is located approximately 1,000 feet to the north of the subject site. The remaining listings are located over ¼ mile from the subject site. None of the orphan sites appear to be a recognized environmental condition with regard to



the subject site due to their distance from the subject site and/or the nature of the listing.

7.3.2 Local Agencies

In addition to the EDR database search, information was obtained from the local agencies discussed below.

A. County Health Care Agency

The OCHCA maintains records related to underground storage tanks and underground storage tank cleanup sites within the City of Newport Beach. Records held by these agencies were accessed by EDR during the government database search. No database listings for the subject site were reported by EDR. A written request was also sent to the file review department. No files were reported for the site addresses. The memorandum documenting this inquiry is included in Appendix C.

B. California Regional Water Quality Control Board

The CRWQCB maintains records of leaking underground storage tanks sites and groundwater cleanups for sites located in the City of Newport Beach. Records held by this agency were searched as part of the EDR report. According to the EDR report, no database listings for the subject site was found. Additionally, Petra submitted an inquiry to the CRWQCB using the site address. A representative of the CRWQCB responded and stated there were no files for the subject site address. A memorandum documenting this inquiry is included in Appendix C.

C. City of Newport Beach

Petra visited the City of Newport Beach Building, Planning, and Engineering Departments to determine the building and flood zoning designation for the subject site. Land use at the site is designated SP #6 Cannery Village/McFadden Square- RMC-retail and marine commercial. The site designated as Flood Zone "X" shaded, located within the 500-year flood zone. According to the engineering department, the sewers were installed in the area in the 1920's; therefore, it is unlikely that septic systems are present on the site.



Available permit records for the site were reviewed. The permits reviewed were for building, electrical, and plumbing work. No indication regarding USTs were noted in the permits reviewed. No permits prior to 1970 were found in the records reviewed. A detailed listing of the permits is included in Appendix D.

D. California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR) Wildcat Map W1-6 (2000), there are no active or abandoned oil, gas, water flood, water disposal, water source, or steam wells located on the subject site. Further, there were no indications of any such wells found during our reconnaissance of the subject site.

7.3.3 Evaluation of Records Search Results

In summary, no sites were identified in our search of various government agency database records which may have impacted the soils or groundwater beneath the subject site.

7.4 Results of Aerial Photo Analysis

Although aerial photographs can often be a valuable source of information in the assessment of historical land usage, it should be understood that information extrapolated from photographic images is strictly interpretation and not necessarily fact. For this reason, it may not be appropriate to draw conclusions regarding previous site activities based solely upon aerial photograph analysis.

In order to provide a complete updated assessment of historical land usage on and in the vicinity of the subject site, stereographic aerial photographs with coverage of the subject site and vicinity were obtained from Continental Aerial Photo in Los Alamitos, California and viewed by a representative of this firm. Photographs from the years 1952 through 1998 were reviewed. Additional photographs were obtained from EDR for the



years 1928 through 1994. The specific photograph dates and flight/frame numbers obtained as part of this study are listed in the Aerial Photograph Summary located in Appendix C.

A summary of the information obtained during the aerial photograph review follows.

1928

In this photograph, the "saw-tooth" buildings at 2244 and 2300 are present on the site. Two additional buildings are located on the northern portion of the site.

A building, listed as lumber sales on the Sanborn maps, is visible north of the site. Newport Boulevard is visible west of the site. The boat docks and the Rhine Channel are visible east of the site. A small building, listed as grocery on the Sanborn maps, is visible to the southwest of the site. A vacant lot with two small buildings beyond, listed as dwellings on the Sanborn maps, is visible to the southeast of the site.

1945 and 1947

In these photographs, all of the present day buildings are present with the exception of the yacht sales building in the northwest corner of the site. Ships are being constructed on the site and are visible on the northern parking lot. A small structure, possibly a boat house, is present on the northeast edge of the site. The two marine ways, south and east of 2300 Newport Boulevard, are visible. The two buildings observed on the northern portion of the site are no longer present.

The grocery shop southwest of the site has been replaced by the present day buildings.

1953

In the 1953 photographs, three ships are being constructed on the northern vacant area. The remainder of the site and vicinity appear similar to that observed in the 1947 photographs.

In the 1959 photographs, a structure has been constructed in the northwest corner of the site. The northern portion of the site, the present day parking lot, appears to be inundated with water.



1967

In these photographs, the site and vicinity appear similar to the 1959 photographs except the area previously inundated with water on the northern portion of the site appears to be a dirt lot.

1970, 1973, 1975, 1976, and 1978

In these photographs, the site and vicinity appear similar to that observed in the 1967 photographs. The dirt lot on the northern portion of the site is in use as a parking lot. The slip configuration appears different in 1978 from that observed in previous photographs.

1980, 1981, 1983, and 1987

In these photographs, the site and vicinity appear similar to that observed in the 1978 photographs.

1992, 1995, 1997, and 1999

In these photographs, the site and vicinity appear similar to that observed in the 1987 photographs. The present day buildings, parking lots, boat yard, and boat slips are visible.

7.5 Historical USGS Topographic Maps

Petra reviewed historical USGS topographic maps of the site and vicinity researched and provided by EDR (1901, 1943, 1949, 1965, 1972, and 1981). The site vicinity is shaded on the 1943, 1949, 1965, 1972, and 1981 maps, indicating a developed area. The boat slips are shown along the waterfront on the 1965, 1972, and 1981 maps. Limited development is shown in the site vicinity on the 1901 map; however, none of the structures appear to be located on the subject site. Copies of the maps reviewed are provided in Appendix D.



7.6 Fire Insurance Maps and City Directories

Sanborn Fire Insurance Maps for the vicinity of the subject site were provided to this firm by EDR for the years 1907, 1912, 1922, 1929, 1949, 1959, and 1961. A summary of the information pertinent to the subject site follows below.

1907

- Newport Boulevard is listed as Central Avenue; however, the address numbers are the same range.
- No defining lots lines are shown on the southern portion of the site.
- A shed is shown on the southwest portion of the site.
- The northern portion of the site is not shown on the maps.
- 22nd Street and The Arcade, adjacent to the south, are not present.

1912

- No structures are shown on the southern portion of the site.
- The northern portion of the site is not shown on the maps.

1922

- No structures are shown on the southern portion of the site.
- The northern portion of the site is not shown on the maps.

1929

- The overall area is listed as Newport Boat Builders, Inc.
- No structures are shown on the southern portion of the site; however lot lines are now shown.
- 2222 Newport Boulevard: A boat supply shop is shown at this address.
- 2244 Newport Boulevard: A machinery shop is shown at this address.
- 2300 Newport Boulevard: A boat shop is shown at this address. The marine ways south and east of this address are present.
- 2306 Newport Boulevard: A garage and a stable are shown at this address.
- 2312 Newport Boulevard: A marine way and a boat building are shown at this address.
- Central Avenue is now listed as Newport Boulevard.
- 22nd Street and The Arcade are present.



1945

- The overall area is listed as the South Coast Co.
- 2122 Newport Boulevard: A lumber supply warehouse is shown at this address.
- 2130 Newport Boulevard: A woodworking shop is shown at this address.
- 2210 Newport Boulevard: A boat sales and display room is shown at this address.
- 2224 Newport Boulevard: A marine supply and print shop is shown at this address.
- 2230 Newport Boulevard: A foundry is shown at this address.
- 2240 Newport Boulevard: A electric shop is shown at this address.
- 2244 Newport Boulevard: As in 1929, a machinery shop is shown at this address.
- 2300 Newport Boulevard: A carpenter and pattern shop is shown at this address.
- 2302 Newport Boulevard: A planing mill is shown at this address.
- 2306 Newport Boulevard: The garage and stable are no longer shown at this address.
- 2312 Newport Boulevard: The marine way and boat building are no longer shown at this address.

1959

- A sheet metal shop is shown along the western half of 2230, 2234, and 2240 Newport Boulevard.
- 2312 Newport Boulevard: A store is shown at this address.
- The remaining land use appears to be the same as shown on the 1945 maps.

1961

- The land use appears to be the same as shown on the 1959 maps.

The Sanborn Maps reviewed for this project are presented in Appendix D.

A listing of past occupants of the site, in approximately five year intervals, was researched by Petra from the city directories at the Sherman Gardens Library in Corona del Mar. Available directories for the site covered the period between 1955 and 1987. The information obtained from the city directories corroborate information obtained



from the Sanborn Maps and City of Newport Beach Building Department permit files. Information obtained from the city directories is summarized in Appendix D.

7.7 Interviews

Petra contacted Mr. William Blurock, the current owner, to discuss the site. Mr. Blurock acquired the property in the mid-1970's, at which time he converted most of the building space into offices. Prior to that time the site was used as a shipyard. According to Mr. Blurock, the current boat yard received a general notice regarding discharge into the Rhine Channel. No action is currently pending regarding this notice.

Mr. Blurock also indicated the following:

1. There is no pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject site.
2. There are no pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject site.

The completed interview questionnaires is located in Appendix "C." Additional information from interviews has been incorporated into this report.

8.0 DISCUSSION OF POTENTIAL ENVIRONMENTAL CONCERNS

The following discussions of potential environmental concerns are presented to inform the client as to the existence, or lack thereof, of recognized environmental conditions present on the subject site.

8.1 Regulatory Actions

Based upon a thorough search of available federal, state, and local records, no current regulatory action is pending with respect to the subject site. Although the boat yard



historically received a general notice regarding discharge into the Rhine Channel, no known regulatory action is pending at this time. As stated in Section 5.0, previous investigations determined that the marine ways have been impacted by PCBs and metals. Based on information obtained during these previous investigations, if any construction work to the seawall is conducted at the subject site, oversight will be required from the DTSC and the CRWQCB.

8.2 Adjacent and Nearby Properties

The sediments in the Rhine Channel contain elevated concentrations of chemicals and metals. It is unknown if these contaminants have impacted the soil and groundwater beneath the subject site. Petra is currently conducting a Limited Subsurface Investigation at the subject site. Findings from the investigation will be discussed in a separate report.

8.3 Polychlorinated Biphenyls

Seven pole-mounted transformers were observed on the site. Based on the estimated age of these transformers, they may contain PCBs. Fluorescent lights were also observed in many of the buildings. It is possible that PCBs are present in the fluorescent light ballasts.

8.4 Underground Storage Tanks

Based on our review of the EDR Radius Report and interviews, no USTs are reported to be located on the subject site currently nor are USTs reported to have been located on the site in the past. Further, no surface indications of USTs were observed on the subject site during the site reconnaissance.



8.5 Above Ground Storage Tanks

Based on our review of the EDR Radius Report and aerial photographs, and information obtained during interviews, no aboveground fuel storage tanks (ASTs) are reported to be located on the subject site currently nor are ASTs reported to have been located on the site in the past.

8.6 Storm Water/Waste Water Discharge

Storm water discharge from the site appears to be limited to surface water runoff. Sources of waste water discharge at the site appears to be limited to sewage and sea water from the boat yard. Based on the date of initial development, 1920's, it is likely that septic tanks or cess pools are located on the site. As previously discussed, the boat yard has received a general notice regarding runoff.

8.7 Pesticide and Herbicide Residues

No agricultural land use was observed on the site and no indication of historical agriculture land use was found during this investigation. Therefore, it is unlikely that pesticides and/or herbicides residues are a recognized environmental condition with regard to the subject site.

8.8 Asbestos Containing Materials

Based on the age of the buildings on the subject site, over 20 years old, it is likely that asbestos-containing materials are present in the construction materials.

8.9 Lead-Based Paints

Based on the age of the buildings on the subject site, over 20 years old, it is likely that lead-based paints are present in the construction materials.



8.10 Landfills

The EDR report lists one orphan landfill, located approximately 1,000-feet south of the subject site. Based on the distance from the site, it is unlikely that this landfill is a recognized environmental condition with regard to the subject site.

8.11 Water Supplies

Domestic water services are currently supplied to the subject site by the local municipal water district.

8.12 Waste Generation and Storage

Petroleum products and hazardous materials were observed in the boat repair area and the machine shop. These items were not located within appropriate cabinets and/or secondary containment areas.

9.0 CONCLUSIONS

9.1 General Site Information

1. The subject site is comprised of four buildings, associated parking areas, a boat maintenance area, and two marine ways in Newport Beach, California. The following addresses are associated with the site:

2122 Newport Boulevard	2130 Newport Boulevard
2140 Newport Boulevard	2210 Newport Boulevard
2212 Newport Boulevard	2222 Newport Boulevard
2224 Newport Boulevard	2230 Newport Boulevard
2234 Newport Boulevard	2240 Newport Boulevard
2244 Newport Boulevard	2280 Newport Boulevard
2300 Newport Boulevard	2312 Newport Boulevard

The current uses of the site buildings include professional offices, a sound studio, a recording studio, a gift shop, a wood working shop, a surfboard retail shop, a machine shop, and storage.



2. The site has been primarily used for the design, construction, and maintenance of ships and boats since the late-1920's. A foundry, sheet metal shop, and lumber yard were also formerly located on the site. Although much of the area was converted for office and retail space in the late-1970's, boat maintenance continues at the site. Historical information dating back to 1901 was reviewed during this investigation.
3. Based on the age of the buildings on the site, between 20 and 80 years old, it is likely that asbestos-containing materials and lead-based paints are present in the construction materials.
4. Fluorescent lights were observed in many of the buildings. It is possible that PCBs are present in the fluorescent light ballasts. Seven pole-mounted transformer were present on the site. Based on the estimated age of these transformers, they may contain PCBs. No staining or indications of a release were noted relative to the light fixtures or transformers.
5. The machine shop was paved with asphalt in moderately good condition. Items in the machine shop included a parts washer and several one-gallon containers of oil and fuel. While these items were not keep in appropriate cabinets or secondary containment areas; housekeeping appeared to be good in the shop and no significant staining was noted.
6. The boat maintenance area was paved with asphalt which was observed to be in moderately good condition. Items in this area included 5-gallon buckets and 55-gallon drums of oil. A shed for waste oil drums was also observed. The floor of the shed was covered with sawdust and therefore was not visible. None of oil containers were keep within a secondary containment area.
7. No recognized environmental conditions were identified with the current use of the remaining buildings on the subject site.

9.2 Recognized Environmental Conditions

Recognized environmental conditions are defined by the American Society of Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, or surface water at the site. The identified presence of recognized environmental conditions at the site may warrant additional research, site



investigation, and/or action. Those items identified at the site or nearby properties which are considered to be recognized environmental conditions relative to the subject site are discussed below.

1. Due to the historical land use at the site, it is recommended that a limited subsurface investigation be conducted around the areas of the foundry, the machine shop, the boat maintenance area, and the former ship construction areas (northern parking lot, 2300 Newport Boulevard, and 2122 Newport Boulevard). At the request of the client, this work is currently being conducted by Petra and will be discussed in a separate report.
2. During previous investigations conducted at the subject site by Petra (2000 and 2002), it was determined that the bay muds around the marine ways have been impacted by PCBs and metals. No known regulatory action is currently pending for this contamination.

9.3 Site Considerations

The items presented below are not considered recognized environmental conditions in accordance with ASTM 1527-00. Although these items may warrant consideration in conjunction with any planned development activities, they are not considered to recognized environmental conditions. The information regarding possible actions relative to these items has been provided as guidance.

1. If the buildings are to be demolished, it is recommended that a survey for asbestos-containing materials and lead-based paints be conducted. Identified asbestos-containing materials and lead-based paint should be abated by licensed contractors prior to demolition.
2. Seven pole-mounted transformers were observed on the site. If the transformers are to be removed, it is recommended that the removals be completed by a licensed contractor or the utility company responsible for the transformer.
3. It is recommend that the fuel and oil containers observed in the machine shop and boat maintenance area be placed within appropriate cabinets and/or secondary containment areas.



10.0 LIMITATIONS

This investigation is based upon the project as described and the environmental data obtained from the field reconnaissance and research performed as outlined in this report. This report has not been prepared for use by parties or projects other than those named or described in this report, additional studies may be required.

Since our investigation is based upon a visual inspection, the conclusions presented herein are professional opinions. These opinions have been derived in accordance with current standards of practice, and no warranty is expressed or implied.

This firm's evaluation of previous reports focuses on the completeness of the information presented in the document, in accordance with applicable rules and regulations, and does not include the establishment of data sufficiency or accuracy.

11.0 QUALIFICATIONS

The environmental professions who prepared and reviewed this Phase I Environmental Site Assessment report and those who provided input during report preparation included Mr. David Darrow and Ms. Callie Cullum. Resumes for these staff are present in Appendix F.



ETCO INVESTMENTS, LLC
2300 Newport Boulevard, Newport Beach

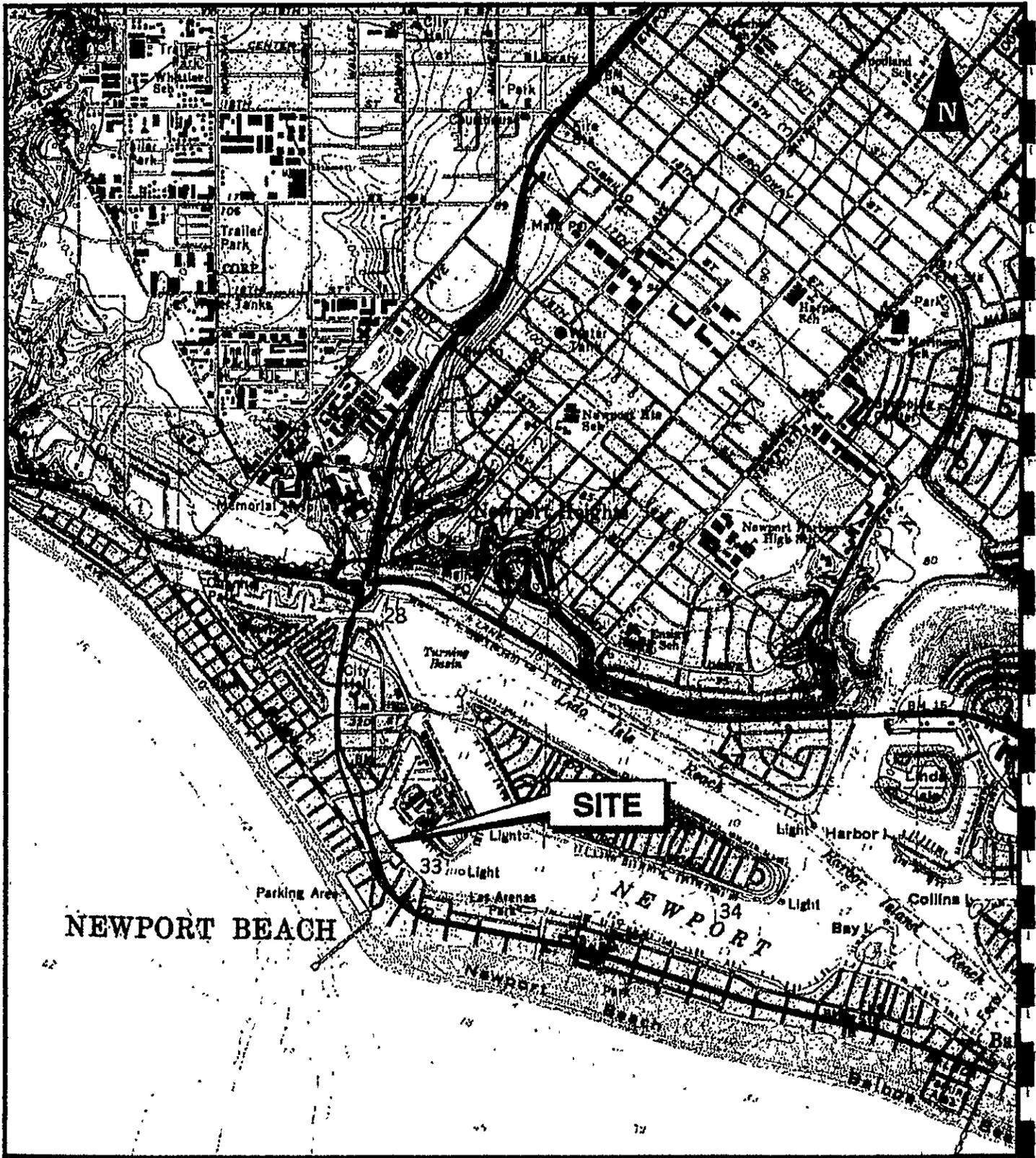
December 3, 2003
J.N. 9249-03
Page 28

12.0 REFERENCES

- ENVIRONMENTAL DATA RESOURCES, INC., 2003, "EDR Aerial Photography Print Service, 9194-03, 801 S. Figueroa Street, Los Angeles, CA 90017"; (Inquiry No. 1015736-8).
- ENVIRONMENTAL DATA RESOURCES, INC., 2003, "EDR Historical Topographic Map Report, 2300 Newport Blvd, Newport Beach, CA 92663"; (Inquiry No. 1061715-6).
- ENVIRONMENTAL DATA RESOURCES, INC., 2003, "EDR Radius Map Report, 2300 Newport Blvd, Newport Beach, CA 92663"; (Inquiry No. 01062660.1r).
- ENVIRONMENTAL DATA RESOURCES, INC., 2003, "EDR Sanborn Map Report, 2300 Newport Blvd, Newport Beach, CA 92663"; (Inquiry No. 1061715.5s).
- NORRIS, ROBERT M. AND WEBB, ROBERT W., 1990, "Geology of California."
- PETRA GEOTECHNICAL, INC., 2000, "Results of Limited Sediment Sampling at South Coast Shipyard and Design Center, 2300 Newport Boulevard, Newport Beach, California."
- PETRA GEOTECHNICAL, INC., 2002, "Report of Additional Subsurface Environmental Assessment at the South Coast Ship Yard and Design Center Located at 2300 Newport Boulevard, Newport Beach, California."
- UNITED STATES GEOLOGICAL SURVEY, 1965, 7.5 Minute Topographic Map, Newport Beach Quadrangle, photorevised 1981.



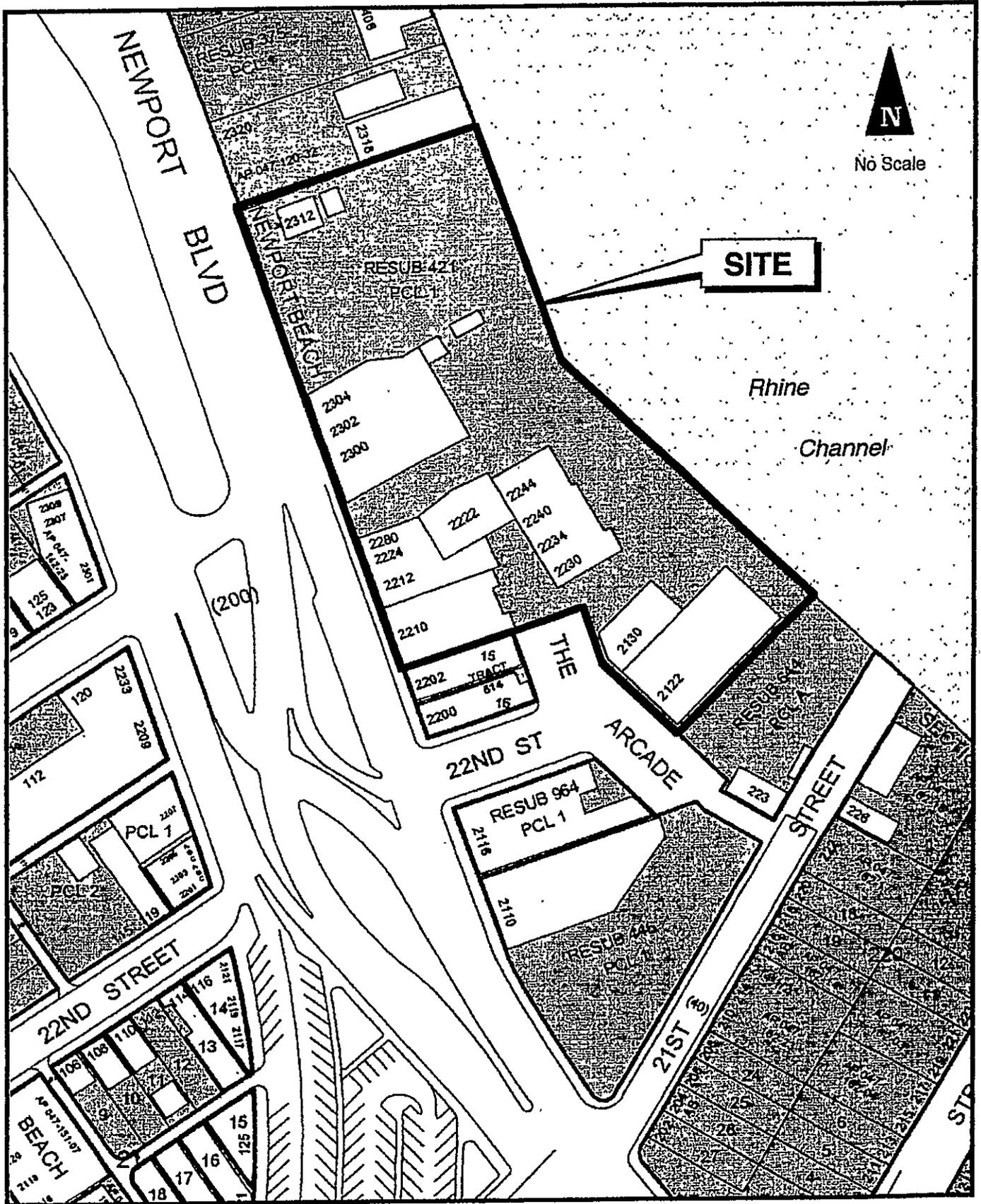
FIGURES



SITE LOCATION MAP

Ref: Portion of USGS NEWPORT BEACH QUADRANGLE,
 7.5 Minute Topographic Series 1965,
 (Photorevised 1981)

SCALE: 1 inch = 2000 feet



SITE PLAN

PLATE A

SITE PHOTOGRAPHS



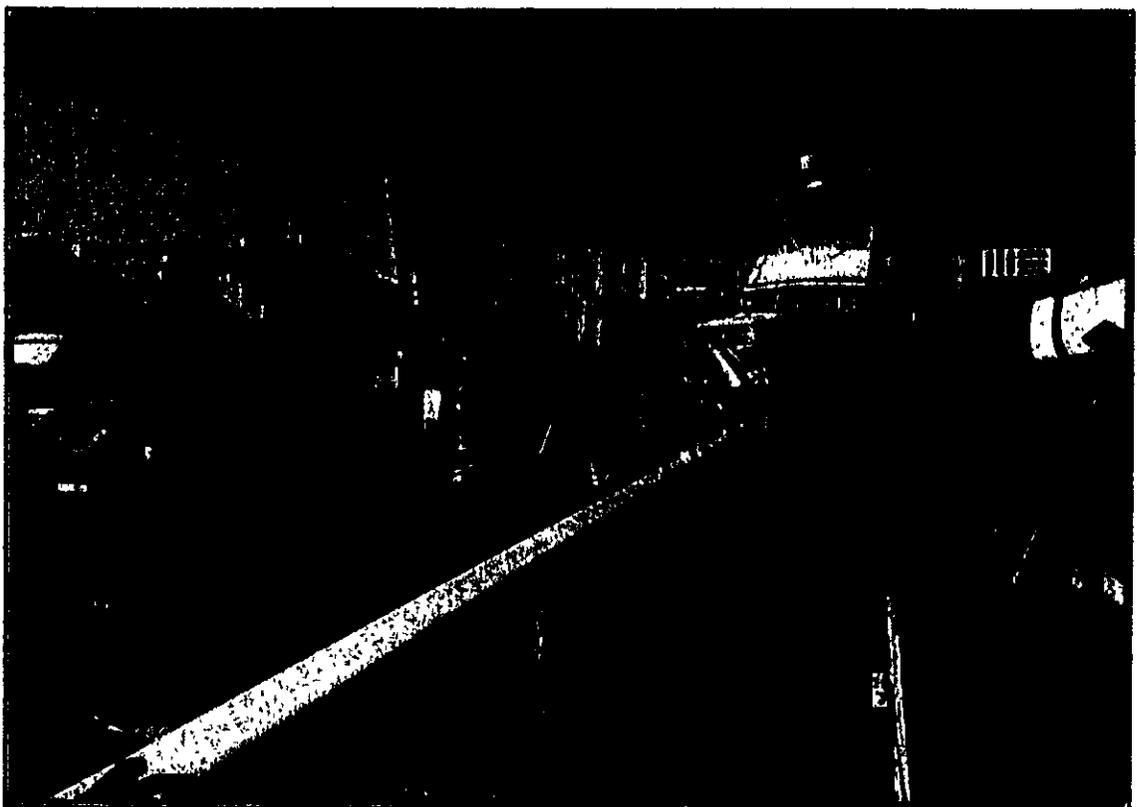
Northern portion of site and buildings at 2312 Newport Boulevard.



Building located at 2300 Newport Boulevard. Two sets of pole-mounted transformers visible adjacent to the building.



Crane in boat repair area behind 2300 Newport Boulevard.



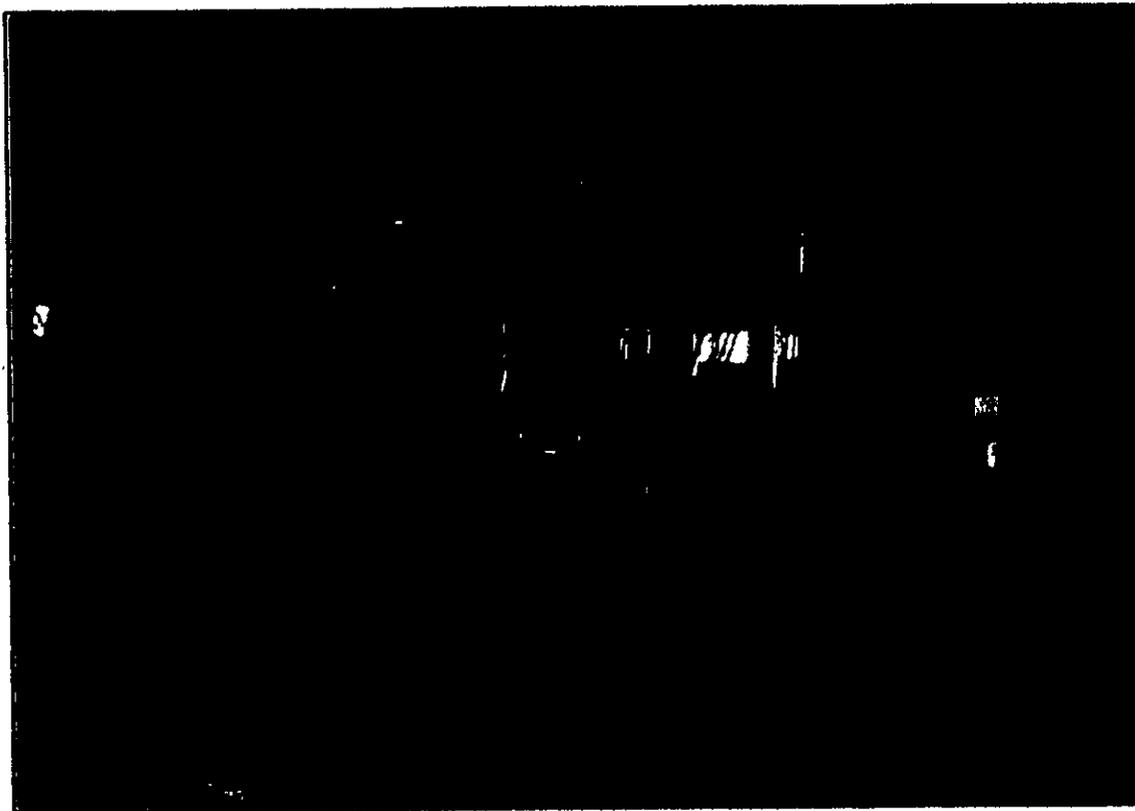
Boat repair area.



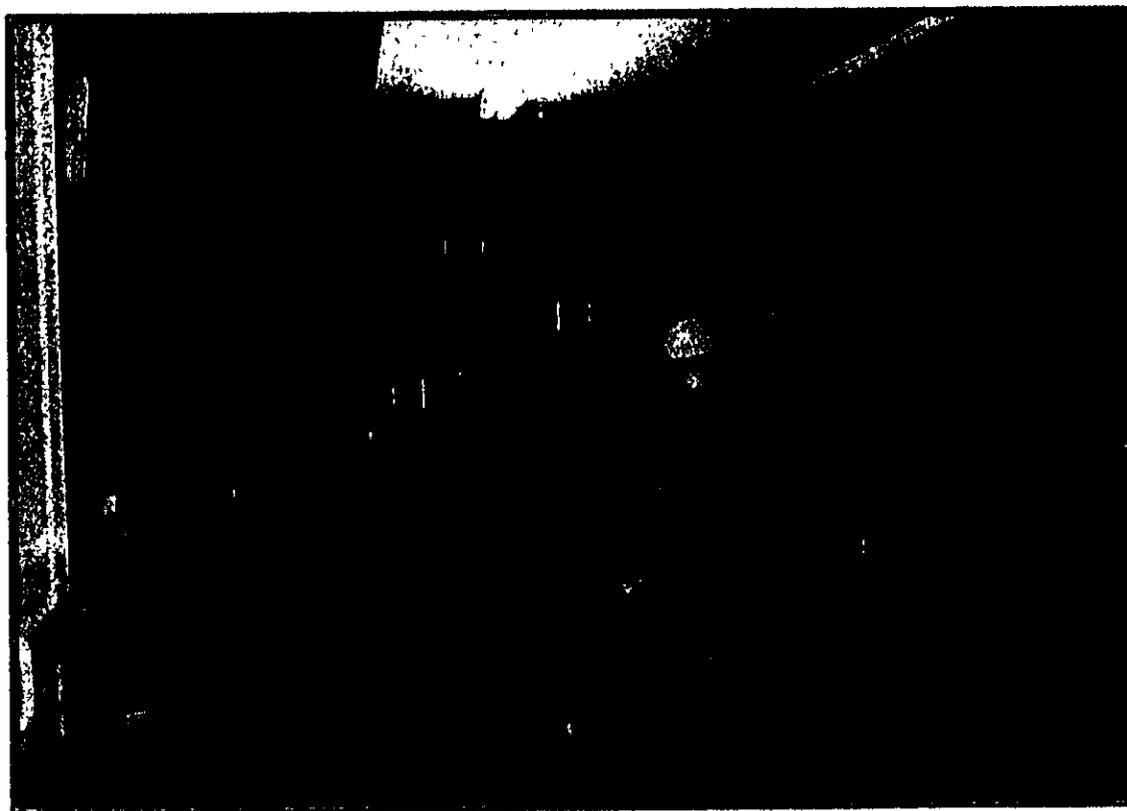
Eastern portion of the site.



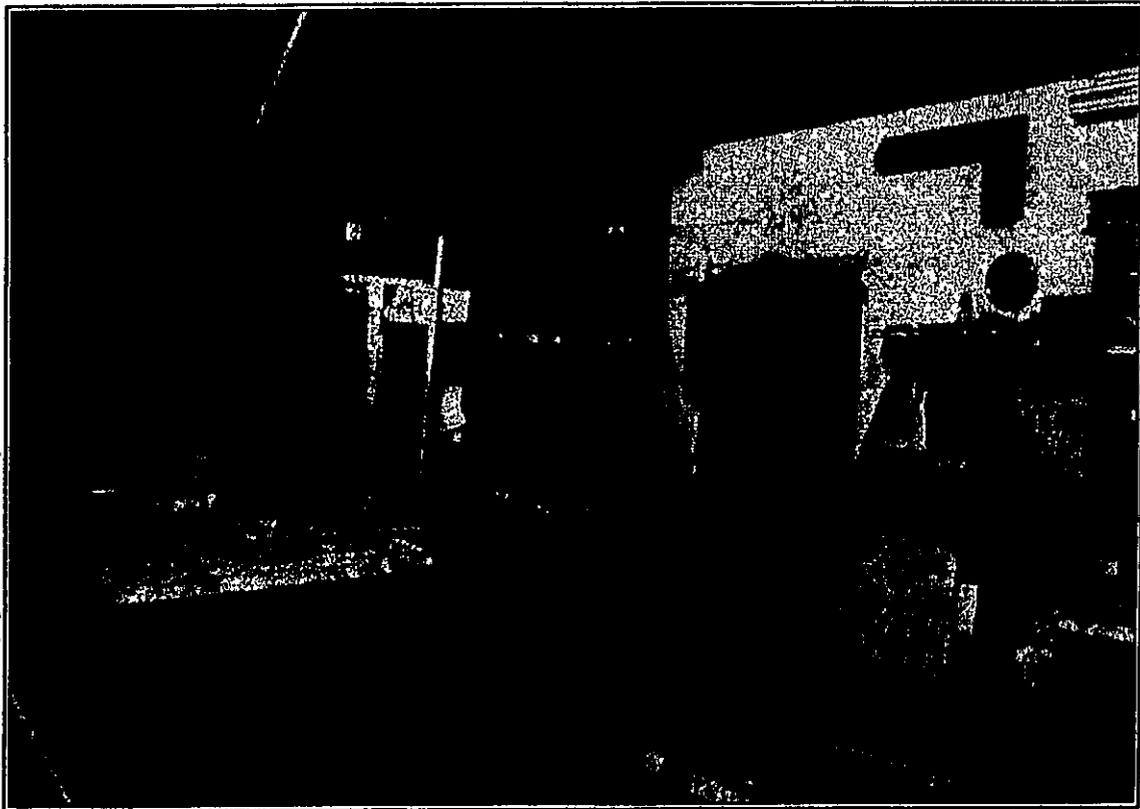
Interior of mechanic shop at 2244 Newport Boulevard.



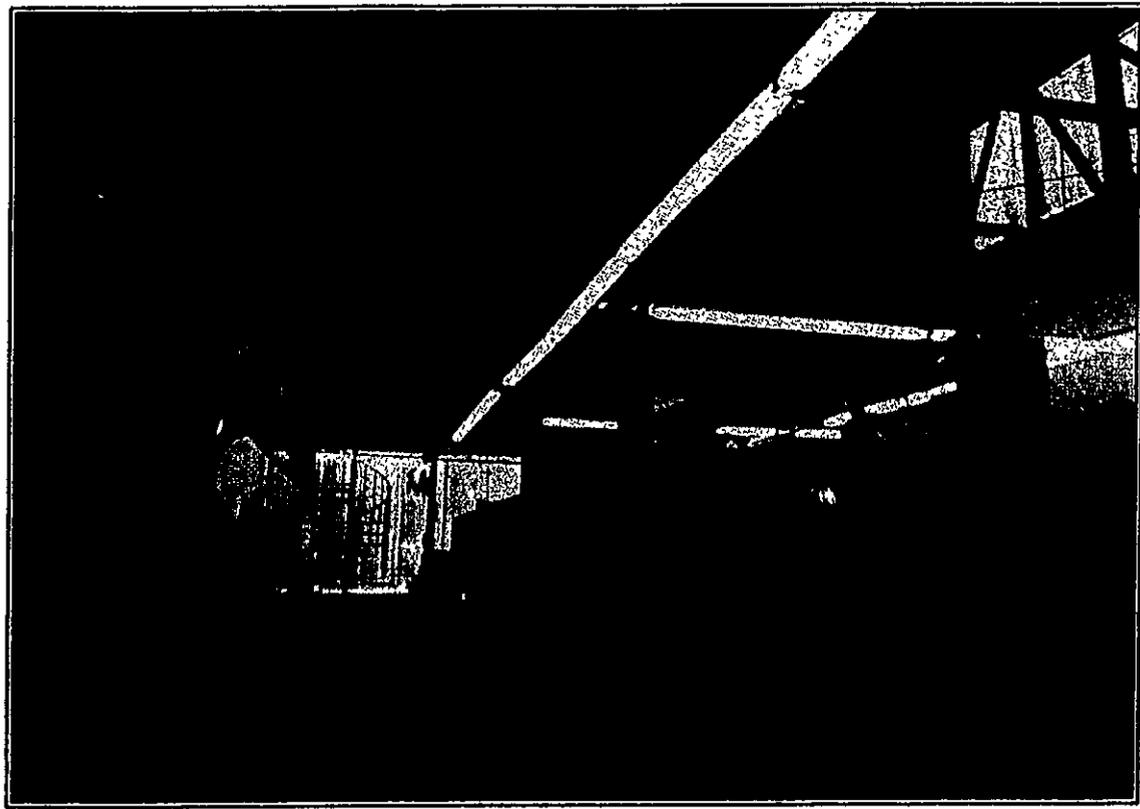
Sound studio at 2122 Newport Boulevard.



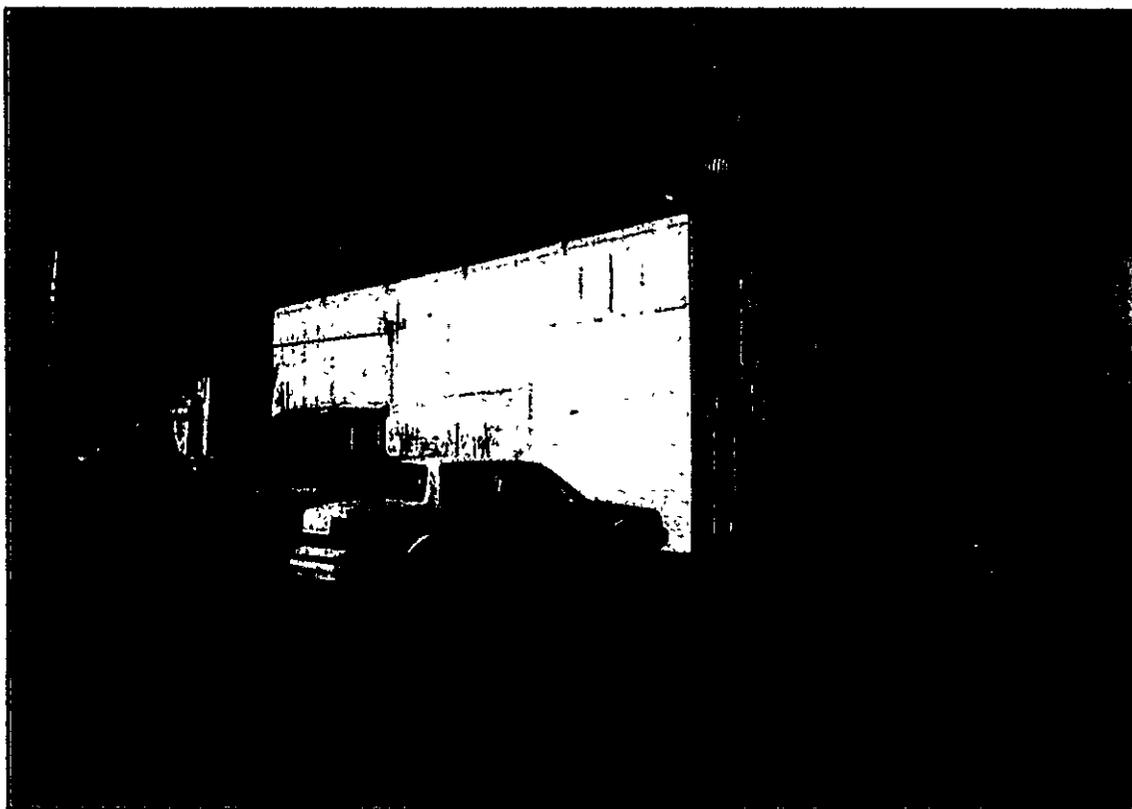
Paint storage room in sound studio.



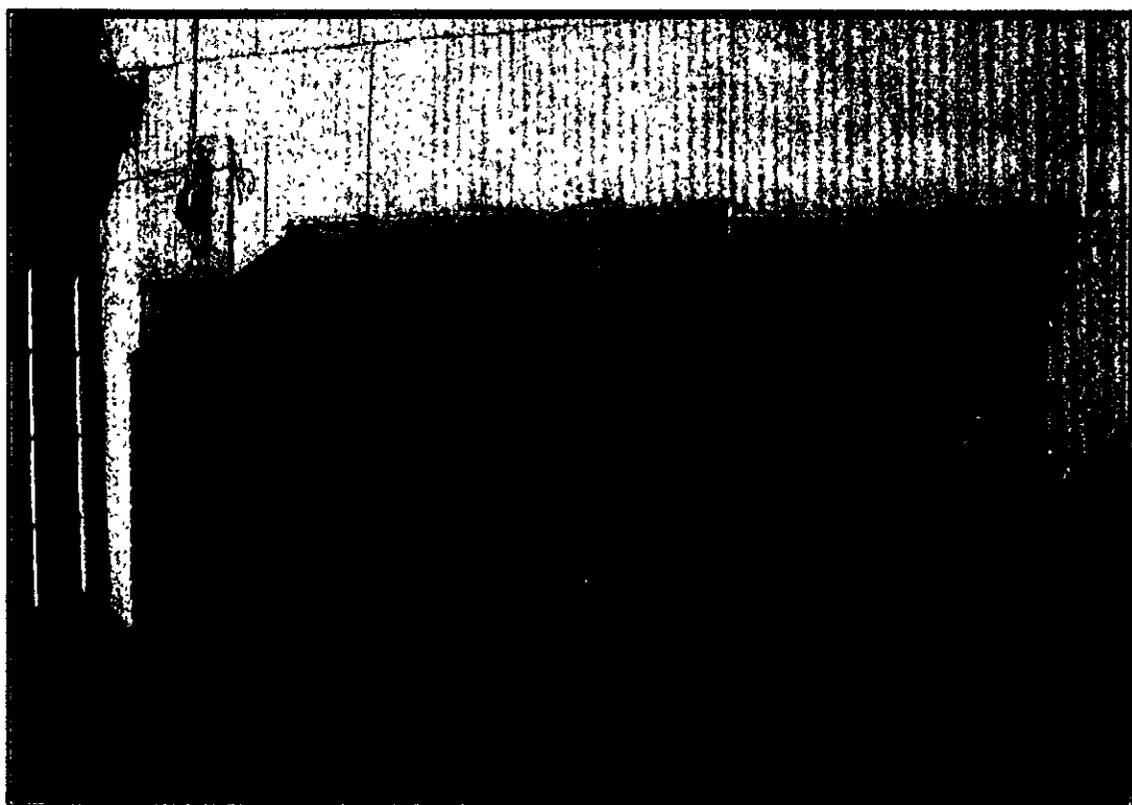
Woodshop at 2140 Newport Boulevard.



Interior of office at 2210 Newport Boulevard.



Former foundry at 2234 Newport Boulevard.



Exterior of furnace at the former foundry.

APPENDIX A

SITE ASSESSMENT CHECKLIST



PETRA GEOTECHNICAL, INC.

Environmental Division

3185-E Airway Avenue, Costa Mesa, CA 92626

* Phone (714) 549-8921

* Fax (714) 540-7572

PHASE I ESA SITE INSPECTION CHECKLIST

J.N. 9249-03 Start: Time _____ Miles _____

Date: 10/22/02 Finish: Time _____ Miles _____

1. Site Information

Address: 2122, 2130, 2140, 2219, 2212, 2222, 2224, 2230, 2234, 2240, 2244, 2280, 2300, 2302, 2304, 2312
Parcel Size:
Facility Size: 4 units Newport St, NB, CA
Map Reference: Thom Bros Pk 918 H1
Owner: Blue Rock

2. Site Description

Topographic Conditions: Flat
Obvious Geologic Features: None
Estimated % of Site Covered by Buildings and Pavement: 99%
Ground Cover: asphalt
Type and Condition of Pavement: med. good
Roads and Parking Facilities: Parking on N + E portions of site.
Structures: 4
Description of Obstructions:

3. Indications of Current Site Use(s)

[] Agriculture [] Industrial [X] Commercial/Retail
[] Residential [] Undeveloped [] No indications of current use
[] Other:

4. Indications of Previous Site Use(s)

[] Agriculture [] Industrial [X] Commercial/Retail
[] Residential [] Undeveloped [] No indications of prior use
[] Other:

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

5. Indications of Current Adjacent Land Use

North: restaurant

South: boat yard/restaurant

East: Rhino channel

West: Newport Bl.

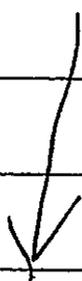
6. Indications of Previous Adjacent Land Use

North: No obvious difference

South: _____

East: _____

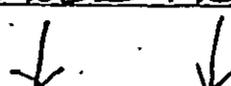
West: _____



7. Indications of Vicinity Adjacent Land Use

North: Commercial/Retail

South: _____



East: Rhino Channel

West: Parking/Commercial/Retail/Residential

8. Potential Sensitive Receptors (Wells, Streams, Schools, etc.) and Location Relative to the Site

Rhino Channel adjacent to east

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

9. Tanks/Containers (include tanks, drums, labeled and unlabeled containers)

Approximate Capacity	Contents	Tank Composition	Location on Site
55 gal (~20)	waste oil	metal	boat repair
5 gal [15]	oil	plastic	" "
5 gal [8]	gas	metal	Petro's
1 gal (Numerous)	paint	metal	sound studio

10. Indications of USTs (fill pipes, vents, etc.)

Yes No

none seen

11. Indications of Other Underground Structures (e.g. clarifiers, wells, dry wells, septic systems, etc.)

Yes No

none seen

12. Indications of PCB-containing equipment or potential PCBs-containing equipment (e.g. electrical equipment, hydraulic equipment, transformers, etc.)

Yes No

2 sets of 3-pole-mounted transformers by 2300 Newport,
- No staining
1 pole-mounted trans on southern edge of site
- No staining

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

13. Surface Staining (appearance, location, approximate size) Yes No

Minor staining on asphalt in beat repair
yard + at Petro's.

14. Pits, Ponds, Lagoons, Pools of Liquid (description/location) Yes No

None seen (not incl ocean)

15. Odors Yes No

16. Stressed Vegetation (from something other than insufficient water) Yes No

17. Solid Waste/Refuse/Evidence of Dumping (description, location, approximate amount) Yes No

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

18. Evidence of Hazardous Materials, Hazardous Waste, or Petroleum Products Yes No

Drum of oil, waste oil, cans of gas,
cans of paint

19. Public Services

- a. Potable Water Supply: City of N.B.
- b. Sewage Disposal System: " "
- c. Storm Water Runoff: Into storm drain system
- d. Waste Water: _____

20. Site Observations

21. Site Sketch

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

22. Facility Information

a. Number and Size of Structures

4 structures - varied in size

b. Site Housekeeping

Good

Average

Poor

Provide Description _____

c. Age of Structures if Known

most over 70 yrs, 2312 over 20 yrs

d. Condition of Structures.

average to poor

e. Description of Building Materials

Interior: varied

Exterior: larger buildings sheet metal
smaller building wood +/or stucco

f. Provide Comment on Suspected Asbestos-Containing Building Materials and/or Lead-Based Paint

likely

g. Any Noted Stains or Corrosion

Provide Description minor oil stains

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

h. Current Use and Occupancy (attach rent role/tenant list if available)

see attached notes

i. Inaccessible Areas

j. Heating and Cooling Systems and System Fuel Sources

k. Drains, Sumps, Clarifiers, Oil Traps, Grease Pits (description, location and note any signs of staining and/or corrosion)

l. Hydraulic Equipment (lifts, elevators, etc.) (description, location and note any signs of leakage and stored fluids)

m. Radioactive Sources (description/location/permits)

n. Use of Chemicals/Raw Materials/Hazardous Materials, Petroleum Products

PHASE I ESA SITE INSPECTION CHECKLIST

PAGE NOT APPLICABLE

- o. Chemical/Raw Materials Storage Areas (including hazardous materials, petroleum products) (description, location, list materials, number and size of containers, permits)

see attached notes

- p. Chemical Waste Storage Areas (including hazardous waste and petroleum products) (description, location, list materials, and number and size of containers, permits)

23. Additional Observations/Notes:

Handwritten checkmark at the bottom of the section.

Dan - here since 1980

Photo 1 1st building - 2300 \$
sheet metal & saw tooth
2 sets of 3-pole trans - no staining

2 Looking SW from NE

3 " SE " "

4 " " " "

5 "toch" canisters

Wonder paint cleaner - 55 gal drum

6 cables; on concrete slab, part of
crain

7 base of crain

crain area, 3 boats

- 5 gal bucket oil (2), equip, motor

9 asphalt covered

8 shed, buckets, equipment, ropes

unable to see floor, electric room?

10 ~~other~~ smaller way, boat, wood platform

in rain area

- 11) Drum shed, ~12 55 gal + 12 5 ga
waste oil, some open, oxygen tanks
wood sheds, brick around base
~~asph~~ no floor on asphalt
- 12) outside shed, 6+ drums, equipment,
white metal storage containers
is reportedly machinery, on
wood side - locked
orange storage on rain side may
be paint - locked

historic corrain - reportedly elect.

13 lg ways

14 SE parking lot

- 15-17. Petros, asphalt floor, mod cond,
equip. wood in areas,
18 parts washer, sand blaster,
19 elect cabinets, boxes of oil
reportedly, historic wood shop

20 gas cars ~8

21 overall

22 center buildings

23 looking NE from SE

24 S building

27 S building
25 Workout/storage/showers room
concrete floor w/ floor drain

2140 Gift shop (Bongos)
2122 Stage 21 (Sound studio)

26 Looking E along S
Sound studio, offices asphalt? floor
28 sink area, 2 gas cans
29+30 paint storage, numerous
spray & gal cans, trash, bottle paints
wood saw

* Note: concrete floor w/ wood on top

31,32 upstairs

33 inside S building

34,35 2140 Woodshop

2234 Architects
used to be foundry, hoist
for lifting eng

38 fireplace (Berge)
39 building

2230, 2234 both architects

2240 Waste by rail
brick floor on top of concrete ~

40 10 yrs ago
sprinkles system, interior 41

Lyon studio

tile floor, 41 interior

2210 Martin Chow

carpet over concrete

41 was showroom for boats, now
architects (struct eng)

Simpson (structural Eng)
historic - ship drawings kept
keep payroll (cash)
in vault

42 Kitchen upstairs

2280 Russell

43 Interior

2224 Wayne Enterprises, licensing
properties

2304 also Bluerock

~~Edgewater~~ 2312

Johnston's Yacht Sales

storage shed w/ ~~pt~~ paints

& clearers, metal w/
wood floor.

+ storage room ~ 20 yrs.

2130 + 2140 Bongos
- single pole trans

foundry

- length of time operated
- use (what did they make)

Gym

- prior use?

APPENDIX B

**AGENCY DATABASE SEARCH RESULTS BY
ENVIRONMENTAL DATA RESOURCES, INC.**



The EDR Radius Map with GeoCheck®

South Coast Shipyard
2300 Newport Blvd
Newport Beach, CA 92663

Inquiry Number: 01062660.1r

October 10, 2003

EDR Environmental
Data
Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary.....	ES1
Overview Map.....	2
Detail Map.....	3
Map Findings Summary.....	4
Map Findings.....	8
Orphan Summary.....	89
Government Records Searched/Data Currency Tracking.....	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum.....	A-1
Physical Setting Source Summary.....	A-2
Physical Setting Source Map.....	A-7
Physical Setting Source Map Findings.....	A-8
Physical Setting Source Records Searched.....	A-12

*Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.*

Disclaimer

Copyright and Trademark Notice

This report contains information obtained from a variety of public and other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL EDR BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES.

Entire contents copyright 2003 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and the edr logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

FEDERAL ASTM STANDARD

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 06/16/2003 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
CAGNEY TRUST	SW CORNER OF 32ND ST &	1/4 - 1/2NNW 41		46

CERCLIS-NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERCLIS-NFRAP list, as provided by EDR, and dated 08/11/2003 has revealed that there are 2 CERCLIS-NFRAP sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
NEWPORT PLATING	2810 VILLA WAY	1/8 - 1/4N	D12	15
NEWPORT PLATING CO #3	2815 VILLA WAY	1/8 - 1/4N	D14	16

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 6 RCRIS-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
W B R TRANSPORTATION LLC	2240 NEWPORT BLVD	0 - 1/8 SSE	A2	7
LIDO PENINSULA CO	201 SHIPYARD WY CABIN N	1/8 - 1/4NE	E19	21
NEWPORT HARBOR SHIPYARD	151 SHIPYARD WAY BERTH	1/8 - 1/4ENE	F21	22

Lower Elevation	Address	Dist / Dir	Map ID	Page
SEA SPRAY BOAT YARD	226 21ST ST	0 - 1/8 SE	B5	9

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir	Map ID	Page
NEWPORT PLATING	2810 VILLA WAY	1/8 - 1/4N	D12	15
PHILIPS ONE HR PHOTO	2825 NEWPORT BLVD	1/8 - 1/4NNW	C16	19

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 28 CHMIRS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	2270 NEWPORT BLVD	0 - 1/8 SSE	A1	6
Not reported	151 SHIPYARD WAY, LIDO	1/8 - 1/4ENE	A7	19
Not reported	634 LIDO PARK DR.	1/8 - 1/4ENE	G25	28
Not reported	3500 NEWPORT BLVD, LIDO	1/4 - 1/2N	K51	59
Not reported	2751 WEST COAST HWY	1/2 - 1 NNE	M63	73
Not reported	2101 W. COAST HWY	1/2 - 1 NE	N64	74
Not reported	2101 WEST COAST HWY	1/2 - 1 NE	N65	75
Not reported	3101 WEST COAST HWY.	1/2 - 1 NNE	O66	76
Not reported	3300 W. COAST HWY	1/2 - 1 N	P70	78
Not reported	230 NEWPORT BLVD	1/2 - 1 N	T2	80
Not reported	3199 PARK CENTER	1/2 - 1 NNE	T4	83

Lower Elevation	Address	Dist / Dir	Map ID	Page
Not reported	2806 LAFAYETTE AVENUE	1/8 - 1/4N	D10	12
Not reported	2902 NEWPORT BLVD	1/8 - 1/4NNW	30	32
Not reported	711 LIDO PARK DRIVE	1/4 - 1/2NE	32	33
Not reported	3010 LAFAYETTE AVENUE	1/4 - 1/2NNE	33	34
Not reported	3206 MARCUS STREET	1/4 - 1/2NNW	42	46
Not reported	313 33RD STREET	1/4 - 1/2NNW	43	47
Not reported	3300 NEWPORT BLVD.	1/4 - 1/2NNW	146	51
Not reported	3300 MARCUS AVENUE	1/4 - 1/2NNW	48	52
Not reported	3366 VIA LIDO	1/2 - 1 N	L52	59
Not reported	3412 VIA OPORTO	1/2 - 1 N	L54	63
Not reported	3432 VIA OPORTO	1/2 - 1 N	L55	64
Not reported	3531 NEWPORT BLVD./SHOR	1/2 - 1 NNW	58	65
Not reported	3450 VIA OPORTO	1/2 - 1 N	L57	66
Not reported	3912 RIVER AVENUE	1/2 - 1 NW	60	69
Not reported	4110 RIVER AVENUE	1/2 - 1 NW	71	79
Not reported	43RD ST. / RIVER AVE	1/2 - 1 NW	75	84
Not reported	44TH / CHANNEL PLACE -	1/2 - 1 NW	76	85

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California

EXECUTIVE SUMMARY

have been referred to another state or local regulatory agency.

A review of the REF list, as provided by EDR, and dated 08/31/2003 has revealed that there are 2 REF sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
NEWPORT PLATING CO.	2810 VILLA WAY	1/8 - 1/4N	D11	13
NEWPORT PLATING COMPANY #3	2815 VILLA WAY	1/8 - 1/4N	D15	16

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there is 1 CA SLIC site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
NEWPORT PLATING	2810 VILLA WAY	1/8 - 1/4N	D12	15

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, has revealed that there are 9 HAZNET sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MARTIN, CHOW, & NAKABARA STRUC	2210 NEWPORT BLVD.	0 - 1/8 SSE	A3	7
LIDO PENINSULA COMPANY	251 SHIPYARD WAY	1/8 - 1/4NE	E18	20
NEWPORT HARBOR SHIPYARD	151 SHIPYARD WAY BERTH	1/8 - 1/4ENE	F21	22
LIDO PARK CONDO ASSOCIATION	621-633 LIDO PARK DRIVE	1/8 - 1/4ENE	G22	23
RICHARD KIDDER	633 LIDO PARK DR. UNIT	1/8 - 1/4ENE	G26	27

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
BALBOA BOAT YARD, INC.	2414 NEWPORT BLVD	0 - 1/8 NNW	4	7
PENINSULA SHIPYARD INC	228 21ST ST	0 - 1/8 SE	B6	10
BEST CLEANERS	2815 NEWPORT BLVD	1/8 - 1/4NNW	C9	11
SCHOCK MARINE	504 29TH ST	1/8 - 1/4N	29	30

PROPRIETARY DATABASES

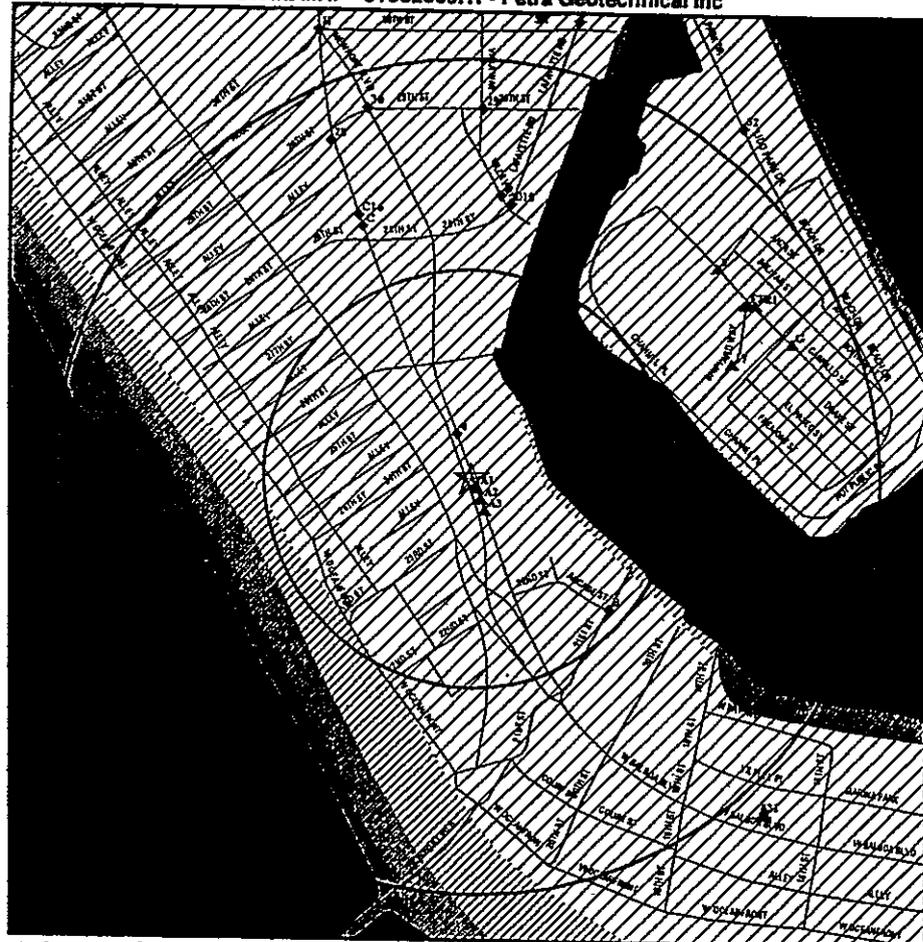
Former Manufactured Gas (Coal Gas) Sites:

The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

A review of the Coal Gas list, as provided by EDR, has revealed that there is 1 Coal Gas site within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
SOUTHERN COUNTIES GAS CO.	BALBOA STREET AND 18TH	1/4 - 1/2SE	31	33



- * Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ⚡ Sensitive Receptors
- 🏠 National Priority List Sites
- 🗑️ Landfill Sites
- 🛡️ Dept. Defense Sites
- 🛢️ Oil & Gas pipelines
- 🌊 100-year flood zone
- 🌊 500-year flood zone
- 🌿 Federal Wetlands
- 🏠 Areas of Concern

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1 000	0	0	0	0	NR	0
Proposed NPL		1 000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	1	NR	NR	1
CERC-NFRAP		0.250	0	2	NR	NR	NR	2
CORRACTS		1 000	0	0	0	0	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
RCRIS Lg Quan Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Sm. Quan Gen.		0.250	2	4	NR	NR	NR	6
ERNS		TP	NR	NR	NR	NR	NR	0
STATE ASTM STANDARD								
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	0	0	0	NR	0
CHMIRS		1 000	1	4	7	16	NR	28
Cortese		1 000	0	3	4	11	NR	18
Notify 65		1.000	0	0	0	0	NR	0
Toxic Pits		1 000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
LUST		0.500	0	2	10	NR	NR	0
CA Bond Exp Plan		1 000	0	0	0	0	NR	12
UST		0.250	0	3	NR	NR	NR	0
VCP		0.500	0	0	0	NR	NR	3
INDIAN UST		0.250	0	0	NR	NR	NR	0
CA FID UST		0.250	0	1	NR	NR	NR	0
HIST UST		0.250	1	0	NR	NR	NR	1
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1 000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
DOD		TP	NR	NR	NR	NR	NR	0
US BROWNFIELDS		1 000	0	0	0	0	NR	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		TP	NR	NR	NR	NR	NR	0

TARGET PROPERTY: South Coast Shipyard	CUSTOMER: Petra Geotechnical Inc
ADDRESS: 2300 Newport Blvd	CONTACT: Rox Akin
CITY/STATE/ZIP: Newport Beach CA 92663	INQUIRY #: 01062660.1r
LAT/LONG: 33.6108 / 117.9287	DATE: October 10, 2003 8:13 am

Copyright © 2003 EIA, Inc. © 2003 EIA, Inc. All Rights Reserved.

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Site Database(s) EDR ID Number
EPA ID Number

(Continued)

5195844562

A2 W B R TRANSPORTATION LLC
SSE 2240 NEWPORT BLVD
< 1/8 NEWPORT BEACH, CA 92663
76 ft.

RCRIS-SQG 1003864381
FINDS CAR000121731

Site 2 of 3 in cluster A

Relative: Equal
Actual: 18 ft.
RCRIS:
Owner: WILLIAM BLUROCK
(949) 673-1247
EPA ID: CAR000121731
Contact: JOHN LINDSEY
(949) 673-1247

Classification: Small Quantity Generator
TSD Activities: Not reported

Violation Status: No violations found

FINDS:

Other Permit Environmental Activity Identified at Site:
Facility Registry System (FRS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

A3 MARTIN, CHOW, & NAKABARA STRUCTURAL ENG
SSE 2218 NEWPORT BLVD.
< 1/8 NEWPORT BEACH, CA 92663
112 ft.

HAZNET 518288767
N/A

Site 3 of 3 in cluster A

Relative: Equal
Actual: 18 ft.
HAZNET:
Gepaid: CAC001198848
TSD EPA ID: CAD000088252
Gen County: Orange
Tsd County: Los Angeles
Tons: .0623
Waste Category: Off-specification, aged, or surplus inorganics
Disposal Method: Transfer Station
Contact: MARTIN, CHOW, & NAKABARA INC.
Telephone: (000) 000-0000
Mailing Address: 2210 NEWPORT BLVD.
NEWPORT BEACH, CA 92663
County: Orange

4 BALBOA BOAT YARD, INC.
NNW 2414 NEWPORT BLVD
< 1/8 NEWPORT BEACH, CA 92663
147 ft.

HAZNET 1000183907
HSTUST N/A

Relative: Lower

Actual: 9 ft.

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Site Database(s) EDR ID Number
EPA ID Number

BALBOA BOAT YARD, INC. (Continued)

1000183907

HAZNET:
Gepaid: CAD982020760
TSD EPA ID: CAD980737076
Gen County: Orange
Tsd County: Los Angeles
Tons: .2085
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Contact: Not reported
Telephone: (000) 000-0000
Mailing Address: PO BOX 3135
NEWPORT BEACH, CA 92659 - 0729

County: Orange

Gepaid: CAL000091395
TSD EPA ID: CAD050099696
Gen County: Orange
Tsd County: Los Angeles
Tons: .5421

Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Contact: BALBOA BOAT YARD
Telephone: (714) 673-6834
Mailing Address: 2414 NEWPORT BLVD
NEWPORT BEACH, CA 92663

County: Orange

Gepaid: CAL000091395
TSD EPA ID: CAD068302903
Gen County: Orange
Tsd County: Los Angeles
Tons: .2293

Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Not reported
Contact: BALBOA BOAT YARD
Telephone: (714) 673-6834
Mailing Address: 2414 NEWPORT BLVD
NEWPORT BEACH, CA 92663

County: Orange

Gepaid: CAL000091395
TSD EPA ID: CAD069452708
Gen County: Orange
Tsd County: Los Angeles
Tons: .7297

Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Contact: BALBOA BOAT YARD
Telephone: (714) 673-6834
Mailing Address: 2414 NEWPORT BLVD
NEWPORT BEACH, CA 92663

County: Orange

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

N/R MARINA PARTNERS (Continued)

S101307823

C8
NNW
1/8-1/4
850 ft.

UNDERSIGNED PARKING AREA
2809 NEWPORT BLVD
NEWPORT BEACH, CA 92663

UST U003778847
N/A

Site 2 of 4 in cluster C

Relative:
Lower
Actual:
8 ft.

State UST.
Facility ID: 11319
Region: STATE
Local Agency: 30000

C9
NNW
1/8-1/4
873 ft.

BEST CLEANERS
2815 NEWPORT BLVD
NEWPORT BEACH, CA 92663

HAZNET S105092798
CLEANERS N/A

Site 3 of 4 in cluster C

Relative:
Lower
Actual:
8 ft.

CA Cleaners:
Create Date: 01/25/00
Inactive Date: / /
EPA ID: CAL000213659
County: Orange

HAZNET:

Gepaid: CAL000213659
TSD EPA ID: CAD981387417
Gen County: Orange
Tsd County: Los Angeles
Tons: .1187

Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Contact: BRYAN CHONG
Telephone: (000) 000-0000
Mailing Address: 2815 NEWPORT BLVD
NEWPORT BEACH, CA 92663

County: Orange

Gepaid: CAL000213659
TSD EPA ID: CAD008302903
Gen County: Orange
Tsd County: Los Angeles
Tons: 0.83

Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Contact: BRYAN CHONG/OWNER
Telephone: (949) 673-5490
Mailing Address: 2815 NEWPORT BLVD
NEWPORT BEACH, CA 92663
County: Orange

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

BEST CLEANERS (Continued)

S105092798

Gepaid: CAL000213659
TSD EPA ID: CAD008302903
Gen County: Orange
Tsd County: Los Angeles
Tons: 0.14
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Not reported
Contact: BRYAN CHONG/OWNER
Telephone: (949) 673-5490
Mailing Address: 2815 NEWPORT BLVD
NEWPORT BEACH, CA 92663
County: Orange

Gepaid: CAL000213659
TSD EPA ID: CAD008302903
Gen County: Orange
Tsd County: Los Angeles
Tons: 0.06
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Transfer Station
Contact: BRYAN CHONG/OWNER
Telephone: (949) 673-5490
Mailing Address: 2815 NEWPORT BLVD
NEWPORT BEACH, CA 92663
County: Orange

D10
North
1/8-1/4
884 ft.

2806 LAFAYETTE AVENUE
NEWPORT BEACH, CA 92663

CHMIRS S100221547
N/A

Site 1 of 5 in cluster D

Relative:
Lower
Actual:
7 ft.

CHMIRS.
OES Control Number: S099533
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Not reported
Incident Date: 15-SEP-90
Date Completed: 15-SEP-90
Time Completed: 910
Agency Id Number: 30055
Agency Incident Number: 017830
OES Incident Number: 9099533
Time Notified: 903
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: U
More Than Two Substances Involved?: N
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

NEWPORT PLATING CO. (Continued)

5100185836

BACK LOT, BBLs STILL STORED HAPHAZARDLY.
 MAY BE ENFORCEMENT PROB.
 SITE SCREENING DONE RATIONALE FOR PA. MORE INFO. NEEDED.
 INSPECTION(STATE) RWQCB & N.B. SANITATION DEPT, PERFORM
 DRY TEST
 INSPECTION(STATE) JOINT INSPECTION BY RWQCB, ORANGE CO.
 HLTH CARE AGENCY, NEWPORT BEACH POLICE
 & FIRE DEPT.; OBSERVE HAZ WSTE DISCHARGE
 TO SOILS
 FINAL STRATEGY SITE REFERRED TO HYMB- LA ENFORCEMENT.
 RWQCB-FILES ON INSP/ SURFACE WATER
 DHS-SOME FILES ON FACILITY
 PRELIM ASSESS DONE. DHS-PENDING STATUS; RWQCB AND CO HLTH
 INVOLVED IN AN ENFORCEMENT ACTION.
 SUBMIT TO EPA NFA: SITE WILL NOT SCORE BASED ON
 AVAILABLE INFO

D12
 North
 1/8-1/4
 894 ft.

NEWPORT PLATING
 2818 VILLA WAY
 NEWPORT BEACH, CA 92661

RCRIS-SQG 1990348885
 FINDE CAD982348358
 CA SLIC
 CERC-NFRAP

Site 3 of 8 in cluster D

Relative:
 Lower
 CERCLIS-NFRAP Classification Data:
 Site Incident Category: Not reported

Federal Facility: Not a Federal Facility

Actual:
 7 ft.
 Non NPL Code: NFRAP
 Ownership Status: Private

NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History
 Assessment: DISCOVERY
 Assessment: PRELIMINARY ASSESSMENT
 Assessment: ARCHIVE SITE

Completed: 11/01/1987
 Completed: 04/27/1988
 Completed: 04/27/1989

RCRIS

Owner: NOT REQUIRED
 (415) 555-1212

EPA ID: CAD982348358

Contact: Not reported

Classification: Small Quantity Generator
 TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Potential Environmental Activity Identified at Site:
 Facility Registry System (FRS)
 Resource Conservation and Recovery Act Information System (RCRAINFO)

SLIC Region 8:

Facility ID: 76
 Type: Soil and Groundwater
 Region: 8
 Facility Status: Additional Characterization Underway
 Lead Agency: Regional Board
 Cross Street: Not reported
 Sub Release: METALS
 Staff: Ann Skurdiani, Tel 509-782-4904, LAHO DISPOSAL
 Location Code: NB-11
 Thomas Bros map(?)
 Program: SLIC

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

NEWPORT PLATING (Continued)

1900348885

CAO Number: 87-111
 ACL Number: Not reported
 Permit Number: Not reported
 Complexity: C
 Comments: CONTAMINANTS PRESENT: CYANIDE, CADMIUM, CHROMIUM, NICKEL, COPPER, AND
 ZINC. ADDITIONAL ASSESSMENT WORK NEEDED

D13
 North
 1/8-1/4
 894 ft.

MC CULLOUGH FAMILY TRUST PROPERTY
 2818 VILLA
 NEWPORT BEACH, CA

Database(s)
 EDR ID Number
 EPA ID Number
 S101126353
 Orange Co. Industrial Site
 N/A

Site 4 of 8 in cluster D

Relative:
 Lower

CORTESE:

Reg Id: B302547N01

Region: CORTESE

Actual:
 7 ft.
 Reg By: Cleanup or abatement orders that concern the discharge of wastes that are
 hazardous materials

Industrial Site:

Case ID: 87IC15

Open Date: 04/11/88

Closed Date: 04/21/94

Haz Mat: Plating Waste-other metals/or combination of metals

Region: ORANGE

D14
 North
 1/8-1/4
 908 ft.

NEWPORT PLATING CO #3
 2815 VILLA WAY
 NEWPORT BEACH, CA 92661

CERC-NFRAP 196378988
 CAD982348414

Site 5 of 8 in cluster D

Relative:
 Lower

CERCLIS-NFRAP Classification Data:

Site Incident Category: Not reported

Non NPL Code: NFRAP

Ownership Status: Private

Federal Facility: Not a Federal Facility

CERCLIS-NFRAP Assessment History:

Assessment: DISCOVERY

Assessment: PRELIMINARY ASSESSMENT

Assessment: ARCHIVE SITE

NPL Status: Not on the NPL

Completed: 11/01/1987

Completed: 10/01/1988

Completed: 10/01/1988

D15
 North
 1/8-1/4
 866 ft.

NEWPORT PLATING COMPANY #3
 2815 VILLA WAY
 NEWPORT BEACH, CA 92661

REF 1960348933
 N/A

Site 6 of 8 in cluster D

Relative:
 Lower

REF:

Facility ID 30340151

Disc Region Code 4

Region Code Definition: CYPRESS

County Code: 30

Site Name Under: Not reported

Current Status Date: 08281988

Current Status Code: REFRC

Current Status: PROPERTY/SITE REFERRED TO RCRS

Lead Agency Code: Not reported

Lead Agency: N/A

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

NEWPORT PLATING COMPANY #3 (Continued)

1000346933

SITE SCREENING DONE NFA UNDER CERCLA; PENDING STATUS FOR DHS
BECAUSE RCRA REGULATED FACILITY.
FACILITY DRIVE-BY SITE OCCUPIED BY ANOTHER BUSINESS NO
INDICATION OF ANY PROBLEMS AT SITE
PRELIM ASSESS DONE NO EVIDENCE OF NEWPORT PLATING EVER
BEING AT 2815 VILLA WAY
SUBMIT TO EPA NFA UNDER CERCLA 2

C16 PHILIPS ONE HR PHOTO
NNW 2825 NEWPORT BLVD
1/8-1/4 NEWPORT BEACH, CA 92663
911 ft.

RCRIS-5QG 1000818594
FINDS CAD983644766

Relative: Lower
Actual: 8 ft.

Site 4 of 4 in cluster C

RCRIS:

Owner: PHILIP YANG KIM
(213) 627-9805
EPA ID: CAD983644766
Contact: PHILIP YANG KIM
(213) 627-9803

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site
Facility Registry System (FRS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

17 ENE 151 SHIPYARD WAY, LIDO SHIPYARD
1/8-1/4 NEWPORT BEACH, CA
920 ft.

CHMIRS S105659654
N/A

Relative: Higher
Actual: 12 ft.

CHMIRS

OES Control Number: 99-4211
Chemical Name: oil substance
Extent of Release: Not reported
Property Use: Not reported
Incident Date: Not reported
Date Completed: Not reported
Time Completed: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
OES Incident Number: 99-4211
Time Notified: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

S105659654

Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CAC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Comments: Not reported
Facility Telephone Number: Not reported
Waterway Involved: Yes
Waterway: Newport Harbor
Spill Site: Ship/Harbor/Port
Cleanup By: Unknown
Containment: No
What Happened: Sheen is 75 yards X 50 yards. Source and cause unknown.
Rainbow sheen Ref DR #99-46877
Type: PETROLEUM
Other: Not reported
Chemical 1: Not reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: 10/4/99 816
Evacuations: 0

E18 LIDO PENINSULA COMPANY
NE 251 SHIPYARD WAY
1/8-1/4 NEWPORT BEACH, CA 92660
1045 ft.

HAZNET S100866028
N/A

Relative: Higher
Actual: 12 ft.

Site 1 of 2 in cluster E

HAZNET.

Gepaid: CAL000026665
TSD EPA ID: CAD000088252
Geo County: Orange
Tsd County: Los Angeles
Tons: .1668
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: CURCI TURNER CO
Telephone: (909) 000-0000
Mailing Address: 251 SHIPYARD WAY
NEWPORT BEACH, CA 92660
County: Orange

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Site Database(s) EDR ID Number
 EPA ID Number

NEWPORT HARBOR SHIPYARD (Continued)

1600348816

Gepaid: CAD981853199
 TSD EPA ID: CAD028409019
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: 0.45
 Waste Category: Waste oil and mixed oil
 Disposal Method: Not reported
 Contact: JESS SALEM VP
 Telephone: (949) 723-6600
 Mailing Address: 101 SHIPYARD WAY STE B
 NEWPORT BEACH, CA 92663 - 4447

County: Orange

Gepaid: CAD981853199
 TSD EPA ID: CAD028409019
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: 0

Waste Category: Unspecified solvent mixture Waste
 Disposal Method: Not reported
 Contact: JESS SALEM VP
 Telephone: (949) 723-6600
 Mailing Address: 101 SHIPYARD WAY STE B
 NEWPORT BEACH, CA 92663 - 4447

County: Orange

Gepaid: CAD981853199
 TSD EPA ID: CAD008252405
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: 0.28

Waste Category: Unspecified solvent mixture Waste
 Disposal Method: Recycler
 Contact: JESS SALEM VP
 Telephone: (949) 723-6600
 Mailing Address: 101 SHIPYARD WAY STE B
 NEWPORT BEACH, CA 92663 - 4447

County: Orange

The CA HAZNET database contains 6 additional records for this site.
 Please click here or contact your EDR Account Executive for more information.

G22 LIDO PARK CONDO ASSOCIATION
 ENE 821-833 LIDO PARK DRIVE
 1/8-1/4 NEWPORT BEACH, CA 92663
 1122 ft.

HAZNET S183874862
 N/A

Relative: Site 1 of 6 in cluster G
 Higher

HAZNET:
 Gepaid: CAC000725568
 TSD EPA ID: CAD009007626
 Gen County: Orange
 Tsd County: Los Angeles
 Tons: 5.4782
 Waste Category: Asbestos-containing waste
 Disposal Method: Disposal, Land Fill
 Contact: LIDO PARK CONDO ASSN
 Telephone: (700) 000-0000
 Mailing Address: 17220 NEWHOPE STREET

Actual:
 13 ft.

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Site Database(s) EDR ID Number
 EPA ID Number

LIDO PARK CONDO ASSOCIATION (Continued)

S183874862

County FOUNTAIN VALLEY, CA 92708
 Orange

G23 DELANEY'S
 ENE 634 LIDO PARK DR
 1/8-1/4 NEWPORT BEACH, CA 92663
 1122 ft.

Cortese S182428788
 N/A

Relative: Site 2 of 6 in cluster G
 Higher

CORTESE
 Reg Id: 0830018227
 Actual: Region: CORTESE
 13 ft. Reg By: Leaking Underground Storage Tanks

G24 DELANEY'S
 ENE 634 LIDO PARK DR
 1/8-1/4 NEWPORT BEACH, CA 92663
 1122 ft.

LUST S182428787
 N/A

Relative: State LUST:
 Higher

Actual: Cross Street: Not reported
 13 ft. Qty Leaked: Not reported
 Case Number: 0830018227
 Reg Board: 8
 Chemical: Diesel
 Lead Agency: Local Agency
 Local Agency: 0
 Case Type: Other ground water affected
 Status: Case Closed
 Review Date: Not reported
 Workplan: 9/8/90 Confirm Leak: Not reported
 Pollution Char: Not reported Prelim Assess: 9/8/90
 Remed Action: Not reported Remed Plan: Not reported
 Monitoring: Not reported
 Close Date: 02/18/1993
 Release Date: 03/23/1993
 Cleanup Fund Id: Not reported
 Discover Date: / /
 Enforcement Dt: Not reported
 Enf Type: Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
 Enter Date: 03/30/1991
 Funding: Not reported
 Staff Initials: JK
 How Discovered: Not reported
 How Stopped: Not reported
 Interim: Not reported
 Leak Cause: Not reported
 Leak Source: Not reported
 MTBE Date: / /
 Max MTBE GW: 0 Parts per Billion
 MTBE Tested: Not Required to be Tested.
 Priority: Not reported
 Local Case #: 90UT225
 Beneficial: Not reported
 S&M: NCM
 GW Qualifier: Not reported
 Max MTBE Sol: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

(Continued)

Property Management: Not reported
More Than Two Substances Involved?: Not reported
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
Responding Agency Personnel # Of Injuries: 0
Responding Agency Personnel # Of Fatalities: 0
Resp Agency Personnel # Of Decontaminated: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/Year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/CC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Comments: Not reported
Facility Telephone Number: Not reported
Waterway Involved: Yes
Waterway: Newport Harbor
Spill Site: Ship/Harbor/Port
Cleanup By: Let evaporate
Containment: Yes
What Happened: Found by deputies patrolling area, a sheen about 50 yds by 50 yds. Will not be boomed, will let evaporate
Type: PETROLEUM
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: 5/12/97
Evacuations: 0

S105851022

G26
ENE
1/8-1/4
1122 ft.

RICHARD KIDDER
633 LIDO PARK DR. UNIT B-1
NEWPORT BEACH, CA 92663

HAZNET S103984366
N/A

Site 5 of 6 in cluster G

Relative:
Higher

HAZNET.

Actual:
13 ft.

Gepald CAC001045388
TSD EPA ID CAD067788749
Gen County: Orange
Tsd County: Los Angeles
Tons: .0375
Waste Category: Asbestos-containing waste
Disposal Method: Disposal, Land Fill
Contact: RICHARD KIDDER
Telephone: (000) 000-0000
Mailing Address: 633 LIDO PARK DR. UNIT B-1
NEWPORT BEACH, CA 92663
County: Orange

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

RICHARD KIDDER (Continued)

S103984366

G27
ENE
1/8-1/4
1122 ft.

LEVON GUGASIAN
634 LIDO PARK DR
NEWPORT BEACH, CA 92663

UST U003778860
N/A

Site 6 of 6 in cluster G

Relative:
Higher

State UST:
Facility ID: 11421
Region: STATE
Local Agency: 30000

28
NNW
1/8-1/4
1159 ft.

UNDESIGNATED PARKING AREA
2809 NEWPORT BLVD
NEWPORT BEACH, CA 92660

LUST S102439581
N/A

Relative:
Lower

State LUST:
Cross Street: 28TH
Qty Leaked: Not reported
Case Number: 083001570T
Reg Board: 8
Chemical: 88008206
Lead Agency: Local Agency
Local Agency: 0
Case Type: Other ground water affected
Status: Case Closed
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site

Actual:
8 ft.

Review Date: Not reported
Workplan: 5/4/90
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 11/07/1990
Release Date: 01/09/1991
Cleanup Fund Id: Not reported
Discover Date: 05/04/1990
Enforcement Dt: Not reported
Enf Type: Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
Enter Date: 06/25/1990
Funding: Not reported
Staff Initials: JK
How Discovered: Not reported
How Stopped: Not reported
Interim: Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date: / /
Max MTBE GW: 0 Parts per Billion
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case #: SOUT156
Beneficial: Not reported
Staff: PAH
GW Qualifier: Not reported
Max MTBE Soil: Not reported
Soil Qualifier: Not reported

Confirm Leak: Not reported
Prelim Assess: 5/4/90
Remed Plan: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site



Database(s)
EPA ID Number

SCHOCK MARINE (Continued)

8182814033

Gepaid: CAL000059574
TSD EPA ID: CADC89448710
Gen County: Orange
Tsd County: Los Angeles
Tons: .0000
Waste Category: Unspecified sludge waste
Disposal Method: Recycler
Contact: SCOTT SCHOCK
Telephone: (714) 873-2050
Mailing Address: 2900 LAFAYETTE RD
NEWPORT BEACH, CA 92663 - 3718
County: Orange

Gepaid: CAL000059574
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: .0000

Waste Category: Transfer Station
Disposal Method: SCOTT SCHOCK
Contact: SCOTT SCHOCK
Telephone: (714) 873-2050
Mailing Address: 2900 LAFAYETTE RD
NEWPORT BEACH, CA 92663 - 3718
County: Orange

Gepaid: CAL000059574
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: .0000

Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Not reported
Contact: SCOTT SCHOCK
Telephone: (714) 873-2050
Mailing Address: 2900 LAFAYETTE RD
NEWPORT BEACH, CA 92663 - 3718
County: Orange

Gepaid: CAL000059574
TSD EPA ID: CAT000613976
Gen County: Orange
Tsd County: Orange
Tons: .0000

Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: SCOTT SCHOCK
Telephone: (714) 873-2050
Mailing Address: 2900 LAFAYETTE RD
NEWPORT BEACH, CA 92663 - 3718
County: Orange

The CA HAZNET database contains 6 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

Map ID
Direction
Distance
Distance (ft.)
Elevation Site



Database(s)
EPA ID Number

SCHOCK MARINE (Continued)

8102814033

30
NNW
1/8-1/4
1216 ft.

Relative:
Lower
Actual:
8 ft.

2802 NEWPORT BLVD
NEWPORT BEACH, CA

CHMRS
8185468505
N/A

CHMRS.

DES Control Number:	99-3288
Chemical Name:	glycol
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
DES Incident Number:	99-3288
Time Notified:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
Responding Agency Personnel # Of Injuries:	0
Responding Agency Personnel # Of Fatalities:	0
Resp Agency Personnel # Of Decontaminated:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CANDOT/PUC/CC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone Number:	Not reported
Waterway Involved:	Yes
Waterway:	Pacific Ocean
Spill Site:	Industrial Plant
Cleanup By:	Unknown
Containment:	Yes
What Happened:	Pump broke at Newport Brewing Co. Company employees attempted to flush substance down storm drains, investigation ongoing
Type:	CHEMICAL
Other:	Not reported
Chemical 1:	Not Reported
Chemical 2:	Not Reported
Chemical 3:	Not Reported
Date/Time:	8/5/99 938
Evacuations:	0

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

S100277054

(Continued)

Type: Not reported
Other: Not reported
Chemical 1: Not Reported
Chemical 2: Not Reported
Chemical 3: Not Reported
Date/Time: Not reported
Evacuations: Not reported

H34 UNOCAL
NNW 3001 NEWPORT BLVD
1/4-1/2 NEWPORT BEACH, CA 92663
1489 ft.

LUST S105774221
N/A

Relative: Site 1 of 6 in cluster H

Lower State LUST:
Cross Street Not reported
Qty Leaked Not reported
Case Number Not reported
Reg Board 8
Chemical Gasoline
Lead Agency Local Agency
Local Agency 0
Case Type UG
Status Case Closed
Review Date Not reported
Workplan Not reported
Pollution Char Not reported
Remed Action Not reported
Monitoring Not reported
Close Date 09/16/1986
Release Date Not reported
Cleanup Fund Id Not reported
Discover Date //
Enforcement Dt Not reported
Ent Type None taken
Enter Date //
Funding Not reported
Staff Initials JK
How Discovered Not reported
How Stopped Not reported
Interim Not reported
Leak Cause Not reported
Leak Source Not reported
MTBE Date //
Max MTBE GW 0 Parts per Billion
MTBE Tested Site NOT Tested for MTBE. Includes Unknown and Not Analyzed.
Priority Not reported
Local Case # 86UT008
Beneficial Not reported
Slab NDM
GW Qualifier Not reported
Max MTBE Soil Not reported
Soil Qualifier Not reported
Hydr Basin # Not reported
Operator Not reported
Oversight Prgm RB Lead Underground Storage Tank
Oversight Prgm UST
Review Date Not reported
Stop Date //

Confirm Leak Not reported
Prelim Assess Not reported
Remed Plan Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

S105774221

UNOCAL (Continued)

Work Suspended Not reported
Responsible Party Not reported
RP Address Not reported
Global Id T0605937174
Org Name Not reported
Contact Person Not reported
MTBE Conc 0
Miba Fuel 1
Water System Name Not reported
Well Name Not reported
Distance To Lust 0
Waste Discharge Global ID Not reported
Waste Disch Assigned Name Not reported

LUST Region 6:

Region 6
Substance 8006819
Regional Board 08
Local Case Num 86UT008
Facility Status Case Closed
Staff NANCY OLSON MARTIN
Lead Agency Local Agency
Local Agency 3000GL
Qty Leaked Not reported
County Orange
Review Date Not reported
Workplan Not reported
Pollution Char Not reported
Remed Action Not reported
Close Date 09/16/1986
Cleanup Fund Id Not reported
Discover Date Not reported
Enforcement Dt Not reported
Ent Type None taken
Enter Date //
Funding Not reported
Staff Initials JK
How Discovered Not reported
How Stopped Not reported
Interim Not reported
La/Lon Not reported
Leak Cause Not reported
Leak Source Not reported
Beneficial Not reported
MTBE Date Not reported
MTBE Tested NT
Max MTBE GW Not reported
GW Qualifier Not reported
Max MTBE Soil Not reported
Soil Qualifier Not reported
Hydr Basin # Not reported
Operator Not reported
Oversight Prgm UST
Priority Not reported
Work Suspended Not reported
Responsible Party Not reported
Well name Not reported
Distance From Lust Not reported

Cross Street Not reported

Confirm Leak Not reported
Prelim Assess Not reported
Remed Plan Not reported
Monitoring Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number

GERMAN AUTOS (Continued)

U063784517

Beneficial: Not reported
Slat: PAH
GW Qualifer: Not reported
Max MTBE Sol: Not reported
Soil Qualifer: Not reported
Hydr Basin #: Not reported
Operator: VAN LINGEN, THEO
Oversight Prgm: Local Oversight Program UST
Oversight Prgm: LOP
Review Date: 08/31/1988
Stop Date: / /
Work Suspended: Not reported
Responsible Party: THEO VAN LINGEN
RP Address: 3000 NEWPORT BLVD
Global Id: T0605800604
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Milbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region #: 8

Region: 8
Subelement: 12035
Local Case Num: 88UT124
Facility Status: Case Closed
Staff: PATRICIA HANNON
Lead Agency: Local Agency
Local Agency: 30000L
Qty Leaked: Not reported
County: Orange
Review Date: Not reported
Workplan: 8/30/88
Pollution Char: Not reported
Remed Plan: Not reported
Monitoring: Not reported
Confirm Leak: Not reported
Prelim Assess: 8/30/88
Remed Plan: Not reported
Monitoring: Not reported

Cross Street: 30TH STREET

Warning/notice of violation to uncooperative responsible parties (includes CDO and CAO)
Enter Date: 08/31/1988
Funding: Not reported
Staff Initials: JK
How Discovered: Not reported
How Stopped: Not reported
Interim: Not reported
Lat/Lon: 33.8150853 / -117.8301324
Leak Cause: Not reported
Leak Source: Not reported
Beneficial: Not reported
MTBE Date: Not reported
MTBE Tested: NRQ
Max MTBE GW: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number

GERMAN AUTOS (Continued)

U063784517

GW Qualifer: Not reported
Max MTBE Sol: Not reported
Soil Qualifer: Not reported
Hydr Basin #: COASTAL PLAIN OF ORA
Operator: VAN LINGEN, THEO
Oversight Prgm: LOP
Priority: Not reported
Work Suspended: Not reported
Responsible Party: THEO VAN LINGEN
Well Name: Not reported
Distance From Lust: 18075.693590597731882785702694
Waste Disch Global Id: Not reported
MTBE Class: 0
Waste Disch Assigned Name: Not reported
Case Type: Soil only
Global ID: T0605800604
How Stopped Date: / /
Organization Name: Not reported
Contact Person: Not reported
RP Address: 3000 NEWPORT BLVD
MTBE Concentration: 0
MTBE Fuel: 0
Case Number: 063001015T
Water System Name: Not reported
Code Name: ORANGE
Agency Name: Not reported
Priority: Not reported
State Expiration: CASE CLOSED
Substance: WASTE OIL
Staff: PATRICIA HANNON
Case Type: S
Summary: Not reported

State UST:
Facility ID: 8183
Region: STATE
Local Agency: 30000

H3H UNOCAL #9318
NNW 3981 NEWPORT BLVD
1/4-1/2 NEWPORT BEACH, CA 92868
1538 ft.

LUST S10158855
Corrosive N/A
CA FID UST

Relative:
Lower

Actual:
9 ft.

Site # of 6 in cluster H

State LUST:
Cross Street: 30TH STREET
Qty Leaked: Not reported
Case Number: 063000431T
Reg Board: 8
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency: 0
Case Type: Other ground water affected
Status: Remedial action (cleanup) Underway
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site, Remove Free Product - remove floating product from water table
Review Date: 03/18/1988
Workplan: 3/2/89
Pollution Char: Not reported

Confirm Leak: 03/18/1989
Prelim Assess: 3/2/89
Remed Plan: Not reported

City of N.B.

Flood Zone X shaded
Areas of 500 yr flood
" " 100 yr flood wave
depth less than 1 ft

FIRM # 06059 0054 F

1/3/97

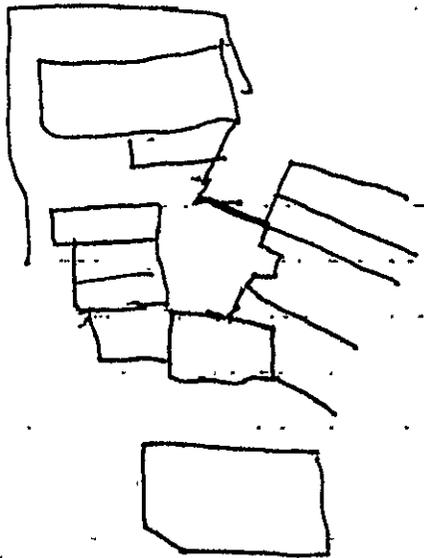
Revised COMR 6/14/2000

Planning

Current Zoning

SP District # 6
Cannary Village / McFadden Square

R.M.C. rec & marine commercial



**POOR
QUALITY
ORIGINAL (S)**

please provide a PO #

CONTINENTAL AERIAL PHOTO, INC.
LOS ALAMITOS, CALIFORNIA 90720
(714) 236-9084 FAX (714) 236-9233 FAX

DATE 10-2-03 LIBRARY ORDER JOB # 1795

VIEW DATE _____ TIME _____

TIME IN _____ TIME OUT _____ TOTAL _____

COMPANY PETRA PHONE # _____

ADDRESS _____

ORDERED BY BRIAN Villalobos REVIEWED BY _____

PO # _____ PROJ. # _____ INVOICE # _____

SEARCH OC-888-4-7 Newport Beach

PRINT SIZE _____ PHOTO SCALE _____ ENL. FACTOR _____

SHIP. INSTR. UPS FED EX OTHER _____ S. & H COST _____

NEG SCALE _____ DATE _____ NEG _____ NEG SCALE _____ DATE _____ NEG _____

4-19-99	C136-41-58-59	
9-23-97	C117-41-1-2	
1-28-95	C102-40-141-142	
2-2-93	C86-8-3-4	
1-20-92	C85-13-22-23	
1-9-87	F-266-267	
3-30-83	218-6-28-29	
1-31-81	211-5-21-22	
2-26-80	80033-215-216	
12-14-78	203-5-37-38	
12-28-76	181-5-24-25	
1-28-75	157-5-27-28	
10-29-73	132-5-17-18	
1-31-70	61-9-220-221	
6-2-53	6K-66-67	
3-1-67	1-46-47	
3-24-59	261-140-142	

IT IS UNLAWFUL TO REPRODUCE THESE PHOTOGRAPHS

IN ANY FORM
COPYRIGHT ©

please Return by
Thursday, Oct. 9-03



COSTA MESA • SAN DIEGO • TEMECULA • LOS ANGELES

FACSIMILE COVER SHEET

Transmission Information

Date: October 23, 2003

J.N.: 9294-03

Time: _____

Number of Pages: 3
(Including Cover)

From: Callie L. Cullum
Company: Petra Geotechnical, Inc.
Telephone: (714) 549-8921 Voice
(714) 549-3400 FAX
540-7572

To: Custodian of Records
Company: OCHCA
Telephone: (714) 834-3446 Voice
(714) 835-9312 FAX

Subject: File Review

Comments: Attached is a request to review files. Please call me if you have any questions.
Thank you.

The documents accompanying this facsimile transmission contain information from the firm of Petra Geotechnical, Inc. which is confidential and/or legally privileged. The information is only for the use of the individual or entity named in this transmission. If you are not the intended recipient, you are hereby notified that any distribution, copying, or taking any action in relying on the contents of this faxed information is prohibited and that the documents should be returned to this firm immediately. If you received this transmission in error, please notify us by phone immediately so we can arrange for the return of the original documents to us at no charge to you.



COUNTY OF ORANGE
HEALTH CARE AGENCY

JULIETTE POULSON, RN, MN
DIRECTOR

ALICE L. MANNING
INTERIM DEPUTY AGENCY DIRECTOR
FINANCIAL & ADMINISTRATIVE SERVICES

FINANCIAL AND ADMINISTRATIVE
SERVICES

MAILING ADDRESS:
P.O. BOX 355
SANTA ANA, CA 92702

CUSTODIAN OF RECORDS

TELEPHONE: (714) 834-3536
FAX: (714) 835-9312

<http://ochealthinfo.com/custrecords.htm>

REQUEST FOR HAZARDOUS WASTE RECORDS

The undersigned hereby requests a copy of the records prepared and maintained by the Health Care Agency in the ordinary course of business, at or near the time of the act, condition, or event which they depict.

The records requested are maintained under the Public Records Act Government Code § 6250 - 6270. Some information held in the documents may be exempt from release pursuant to the Public Records Act.

The undersigned understands that the Health Care Agency will charge \$0.15 per page copied. In the case of a request for a large number of copies, the Health Care Agency may provide the requestor an estimate of copy costs prior to making said copies. If any request is to be canceled, this office must be notified at the above number within ten (10) days of receipt of request, otherwise cost incurred will be charged to the undersigned.

Specific records are: **10 SITES PER REQUEST ONLY** ADDRESS REQUIRED

2122, 2140, 2210, 2224, 2230, 2234,
2240, 2280, 2300, & 2312 Newport
Bldg, Newport Beach, CA.

REVIEW ONLY OR REVIEW FIRST BEFORE ASKING FOR COPIES: CHECK HERE

Records are required for the purpose of: Phase I ESA

Callie L. Cullum
SIGNATURE of Requester and DATE

Callie L. Cullum / Petra Geotechnical, Inc.
PRINT Name of Requester (and Company Name - if applicable)

3185-A Airway Ave. (714) 549-8921 x 255
PRINT Street Address Daytime Area Code & Phone Number

Costa Mesa, Ca, 92626
PRINT City, State & Zip Code

Return this form to the Custodian of Records office for processing at 511 N. Sycamore, Santa Ana, Ca 92701

Fax (714) 835-9312 Phone (714) 834-3536



COUNTY OF ORANGE
HEALTH CARE AGENCY

FINANCIAL AND ADMINISTRATIVE
SERVICES
CUSTODIAN OF RECORDS

<http://ochealthinfo.com/custrecords.htm>

JULIETTE POULSON, RN, MN
DIRECTOR

ALICE L. MANNING
INTERIM DEPUTY AGENCY DIRECTOR
FINANCIAL & ADMINISTRATIVE SERVICES

MAILING ADDRESS:
P.O. BOX 355
SANTA ANA, CA 92702
TELEPHONE: (714) 834-3538
FAX: (714) 835-9312

HAZARDOUS WASTE INFORMATION CHECKLIST

Please check the appropriate items below. This will enable us to search the actual files that you need, therefore, cutting down the time spent searching for records that you may not want.

SITE SPECIFIC INFORMATION	<input checked="" type="checkbox"/>	Hazardous Waste Generator files (complete file)
	<input type="checkbox"/>	Tiered Permitting
	<input checked="" type="checkbox"/>	Underground Storage Tank files (complete file)
	<input checked="" type="checkbox"/>	Leaking Underground Storage Tank cleanup
	<input checked="" type="checkbox"/>	Hazardous Waste site cleanup (industry cleanup)
	<input type="checkbox"/>	Solid Waste Facility File (large files – need to be specific)
	<input checked="" type="checkbox"/>	Hazardous Waste Spill Response Logs (emergency incidents)
	<input type="checkbox"/>	Hazardous Waste Underground Storage Tank and Infectious Waste Investigation request files (complaints regarding the above)
	<input type="checkbox"/>	Proposition 65 reports
	<input type="checkbox"/>	Certified Unified Program Agency (CUPA)
<input type="checkbox"/>	Infectious Waste (Medical Waste)	

LISTS INFORMATION	Lists are available for immediate purchase or review at the Custodian of records Office located at 511 N. Sycamore, Santa Ana, Ca 92701. Lists are updated regularly. Cost is \$.15 per page.	
	<input type="checkbox"/>	List of Underground Storage Tank facilities for Orange County (USTFACILITIES.SRW)
	<input type="checkbox"/>	List of Underground Storage Tank cleanups (computer printout for all of Orange County)
	<input type="checkbox"/>	List of Hazardous Waste Generator facilities for Orange County (HWFACILITIES.SRW)
	<input type="checkbox"/>	List of Industrial Cleanup Sites (ICS) (Current listing from 10/00)
	Solid Waste Landfill Inventory Report (includes old solid landfills) (SEE California website: www.ciwmb.ca.gov/swis/)	

OTHER INFORMATION: _____

Return this form for processing to the Custodian of Records office at 511 N. Sycamore, Santa Ana, Ca 92701

Fax (714) 835-9312 Phone (714) 834-3536

FROM : BLUROCK

PHONE NO. : 9496730317

Nov. 20 2003 10:27AM P1

TRANSMITTAL

WILLIAM E. BLUROCK, FAIA
SOUTH COAST SHIPYARD & DESIGN CENTER
OLSON INVESTMENT COMPANY
2300 Newport Boulevard
Newport Beach, CA 92663
Phone: (949) 673-0300 Fax: (949) 673-0317

DATE: NOVEMBER 20, 2003
TO: CALLIE L. CULLUM
PETRA GEOTECHNICAL, INC.
FAX: (714) 540-7572
FROM: WILLIAM E. BLUROCK, FAIA

MESSAGE:

The six page questionnaire regarding the South Coast Shipyard & Design Center has been answered to the best of our knowledge.

PETRA GEOTECHNICAL, INC.
Environmental Division
3185-A Airway Avenue, Costa Mesa, CA 92626

* Phone (714) 549-8921

* Fax (714) 540-7572

PHASE I INTERVIEW QUESTIONNAIRE

The purpose of this questionnaire is to obtain information from knowledgeable individuals regarding the Subject Site. This questionnaire will become part of the investigation report.

A. SITE INFORMATION

Project Number: _____ Property Location: _____
Property Name: _____

B. INTERVIEW INFORMATION

Date/Time: _____ In Person
Interviewer: _____ By Telephone, Number: _____
Person Interviewed: _____ By Facsimile, Number: _____
Title/Company: _____ Email: _____

1. What is your relationship to the property? CONTRACT PARTNER

2. Do you have good knowledge regarding the uses and physical characteristics of the property?
 Yes
 No If not, who does? _____ Phone Number: _____

3. Do you have good knowledge regarding the activities/processes conducted at the property?
 Yes
 No If not, who does? _____ Phone Number: _____

C. PROPERTY INFORMATION

1. To the best of your knowledge, what are the current and past uses of the property? Please describe with approximate dates.

COMMERCIAL OFFICE SPACE, W/ FRONT RETAILER YARD: 1974-PRESENT.
PAST! SOUTH EAST SHIPYARD

PHASE I INTERVIEW QUESTIONNAIRE

2. To your knowledge, are there:

Hazardous substances present on the site?
Petroleum products present on the site?

Yes No
 Yes No

If the preceding items are present, are there indications of any of the following:

An existing release?
A past release?
A threat of their release?

Yes No
 Yes No
 Yes No

If yes to any of the above, please describe: _____

3. Are you aware of the presence of any of the following either currently or previously on the property or any nearby properties:

Potential Recognized Environmental Conditions	Site		Adjacent	
	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hazardous substances?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Petroleum products?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Chemicals?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Asbestos or asbestos-containing materials?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Lead-based paints?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Underground storage tanks?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Above-ground storage tanks?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Oil Wells?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sumps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If yes to any of the above, please describe: my only knowledge is from

tests & studies by POTRA &

4. Are you aware of any current or previous uses of the property or nearby properties that would suggest the presence of the foregoing items, substances, or materials? Yes No

If yes to any of the above, please describe: The Smith Court Slippage was
in existence from 1930 - 1960

PHASE I INTERVIEW QUESTIONNAIRE

5. To your knowledge, are there any utility corridors on the property? Yes No

If yes, please describe: _____

6. To your knowledge, are you aware of any of the following on the property:

Water Wells? Yes No Disposal Wells? Yes No
Clarifiers? Yes No Underground Irrigation Systems? Yes No

If yes to any of the above, please describe: _____

7. Are there any occupants on the property? Yes No

If yes, please describe: 13 tenants commercial, office and
Back yard.

8. Do you have good knowledge regarding the identity of any existing documents relating to the property?

Yes
 No If not, who does? _____ Phone Number: _____

9. To your knowledge, do any of the following documents exist with respect to the subject property? If yes, please name the document and comment upon whether it is available for review.

Document	Yes	No	Name/Availability
Environmental site assessment reports?			
Environmental audit reports?			
Environmental permits?			
Storage tank registrations?			
Material safety data sheets (MSDS)?			
Community right-to-know plans?			
Safety plans?			
Spill Prevention, Countermeasure, & Control Plans?			
Illness and Injury Prevention Plans?			
Reports regarding hydrogeologic conditions on the property or surrounding area?			
Hazardous waste generator notices or reports?			
Geotechnical studies?			

PHASE I INTERVIEW QUESTIONNAIRE

10. To your knowledge, do any of the following exist with respect to the subject property?

a. Notices or other correspondence from any government agency relating to past or current violations of environmental laws? Yes No

*Per Mr. Blurock
'General'
storm water"
11/25/03 0933*

If yes, please describe: The South Coast Boat Yard and Los Angeles "Notices" regarding drainage into Bay by California Coastal Board.

b. Notices or other correspondence from any government agency relating to environmental liens encumbering the property? Yes No

If yes, please describe: _____

c. Pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances, or petroleum products in, on, or from the property? Yes No

If yes, please describe: _____

d. Notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? Yes No

If yes, please describe: _____

11. Please provide any additional information relative to this project.

Additional questions regarding the property.

Do you have any knowledge regarding the Newport Boat Builders formerly located at 2214 Newport Bl.

No.

Do you know if the parking lot between 2300 and 2312 was ever used as a beach, pool, lagoon, or similar type of use in the late-1950's early 1960's. We are just trying to clarify what we see in an old aerial photograph.

None to my knowledge.

APPENDIX D

HISTORICAL DOCUMENTS

City Directories Information

980 2140 sea Properties Ltd
 Newport Mantle + Panel Co.
 Blonham's yacht Cove
 2210 The Wooden Boat
 2217 Lyon Recording Studios
 2218 Neck + Sunderland
 2222 Simpson Win
 By Sargo International
 2224 Newport Surf + Sport
 2270 S. C. Boat Yard Inc
 2280 Russell Surf Boards
 22 Bluerock Ned + Laura
 2300 Bluerock William + Partners
 2312 Johnson Yacht Sales

985 2140 same
 2210 Martin + Tranbarger
 2212 same
 2218 same
 2222 Simpson
 2224 same
 2230 Pacific - National Yachts
 Aquatic Const.
 2270 same S. C. Boatyard
 2300 same
 2317 same

1955 2212 South Coast Co.
~~2212~~ 2141 Bennett, EL
2202 Gray AW

1959 2212 South Coast Co.
Security Police

1965 2210 Newport - Bal. Storage
2212 South Coast Co.
2212 C-F Boat Yard
Hal's Boat Shop

1970 2312 Brazide Frank
Marines Yachts
Johnson John
~~Tommy~~ Tomcat Boats Inc.
Beards Aircraft
Dewes Norman H
Blorham Roger W.

1974 2204 Watter's sign studios
South Coast Shipyard &
Design Center
2240 Master Blueprint + Supply Co.
2246 Pot, Knots, & Whatnots
2180 Russell, Surfboards
2312 Diversified Service
Zografides Anthony
Miles J S
Beards Aircraft - Marine Industries

City of Newport Beach
Permit Information

2140 Newport Bl.

1/29/86 Modified Existing fire sprinkles
Building Permit Fire
owner: Newport Mantel + Panel Co.

2122 Newport Bl.

7/98 Building Permit
roofing
owner: Blurock

1/31/85 Building Permit
Remodel

owner: Gordon Barrenbrock "The Crow's Nest"
2. ads?

2224 Newport Bl

2/19/84 application for Heating, Ventila, Refrig, & air

1/25/96 Building Permit: signs

2210 Newport Bl

9/18/95 Building Permit - windows/siding
Blurock

5/6/81 Building - signs
Blurock

1/9/94 Building - repairs
Blurock

3/9/81 Non-Bearing Partitions
Building

2234 Newport Bl

4/3/84 Building - Fire
Install sprinklers
owner: Mount Assoc.

8/76 Building - Fire
sprinklers
owner: Frank Spangler

2312 Newport Bl

1/21/89 Building - signs
owner: Dale Johnson

2240 Newport Bl

Building - sprinklers late 70s

76 Southcoast Shipyard & Design Center
Refurbish interior

76 Electric

2300 Newport Bl

- 47 Building + Electric
Blurock
- 79 Rehab - foundation for Crane
Blurock
- 81/89 Electric
- 84 Heating
- 74 Plumbing

2312 Newport Bl.

- 71 Building - signs - Mariner Yachts
- 72 Building - New const of Relocatable
~~Relocatable~~ Office Building
- 71 Electric - Mariner's
- 73 Misc - owners: EA White
- 89 signs - Dale Johnson

**The EDR-Historical
Topographic Map
Report**

**South Coast Shipyard
2300 Newport Blvd
Newport Beach, CA 92663**

October 15, 2003

Inquiry Number: 1061715-6

EDR^R : **Environmental
Data
Resources, Inc.**
: *an edr company*

***The Source
For Environmental
Risk Management
Data***

**3530 Post Road
Southport, Connecticut 06490**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802**

Environmental Data Resources, Inc. Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources*. *Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

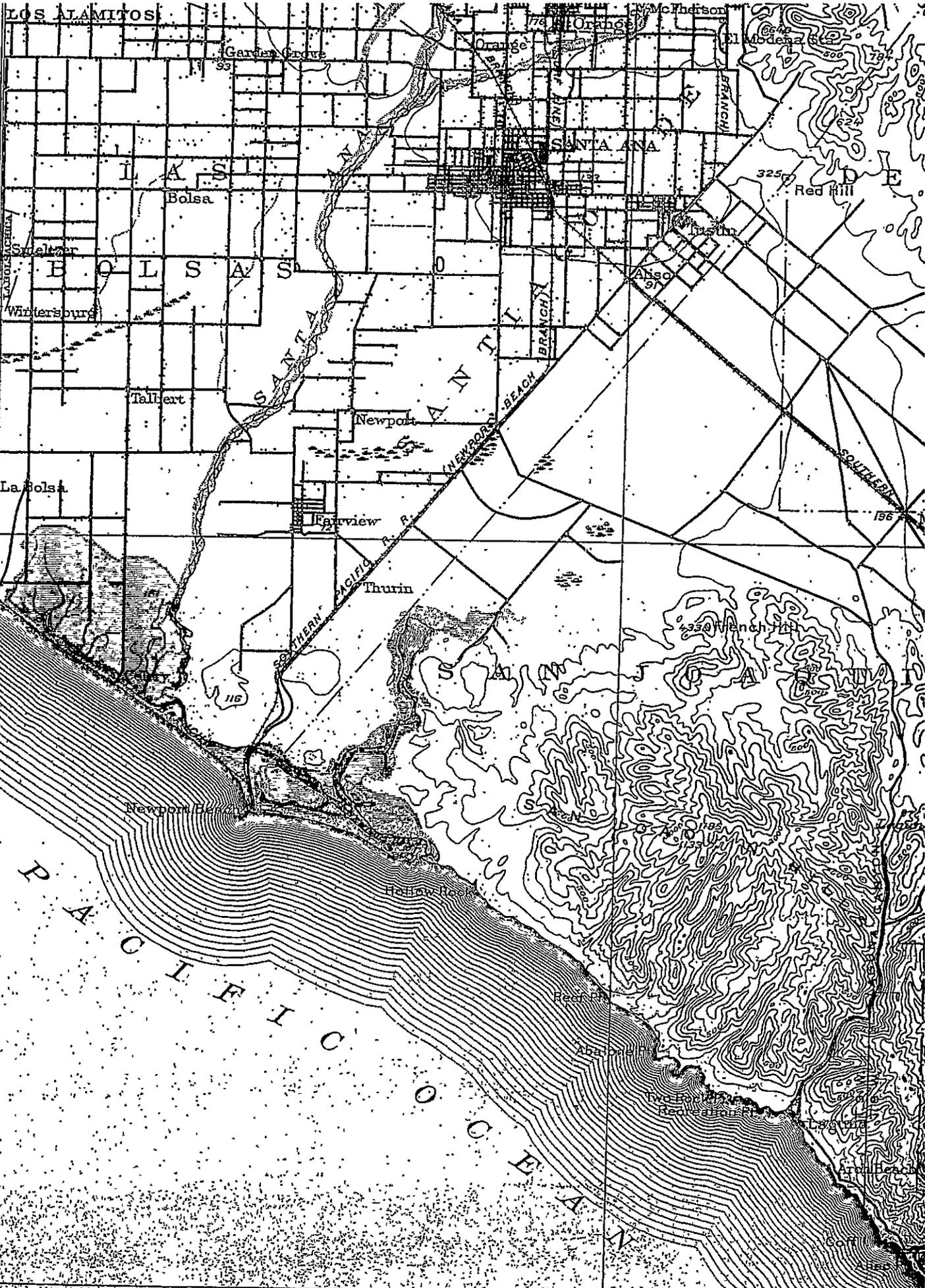
To meet the prior use requirements of ASTM E 1527-00, Section 7.3.2, the following *standard historical sources* may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires "*All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.*" (ASTM E 1527-00, Section 7.3.2 page 11.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

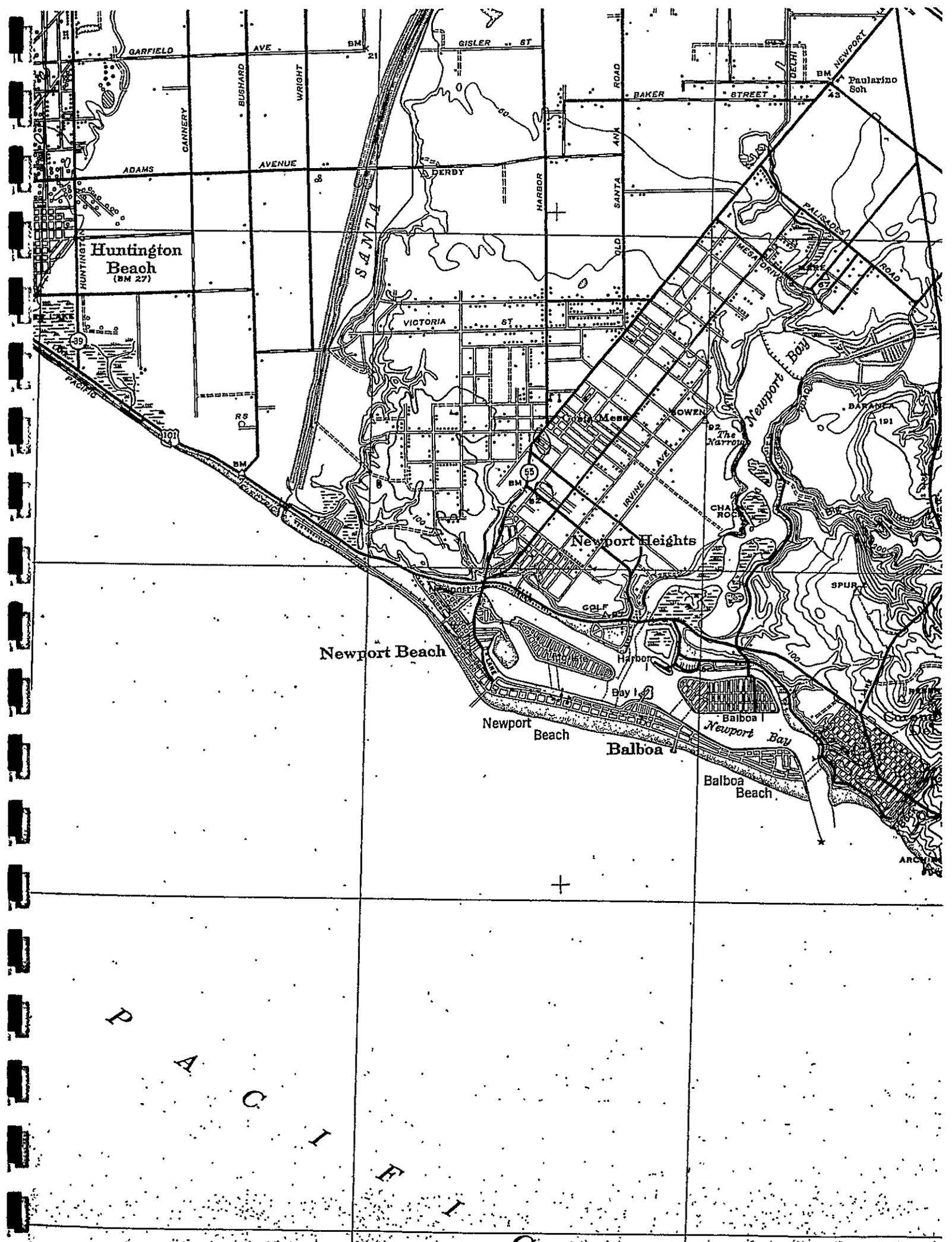
For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.



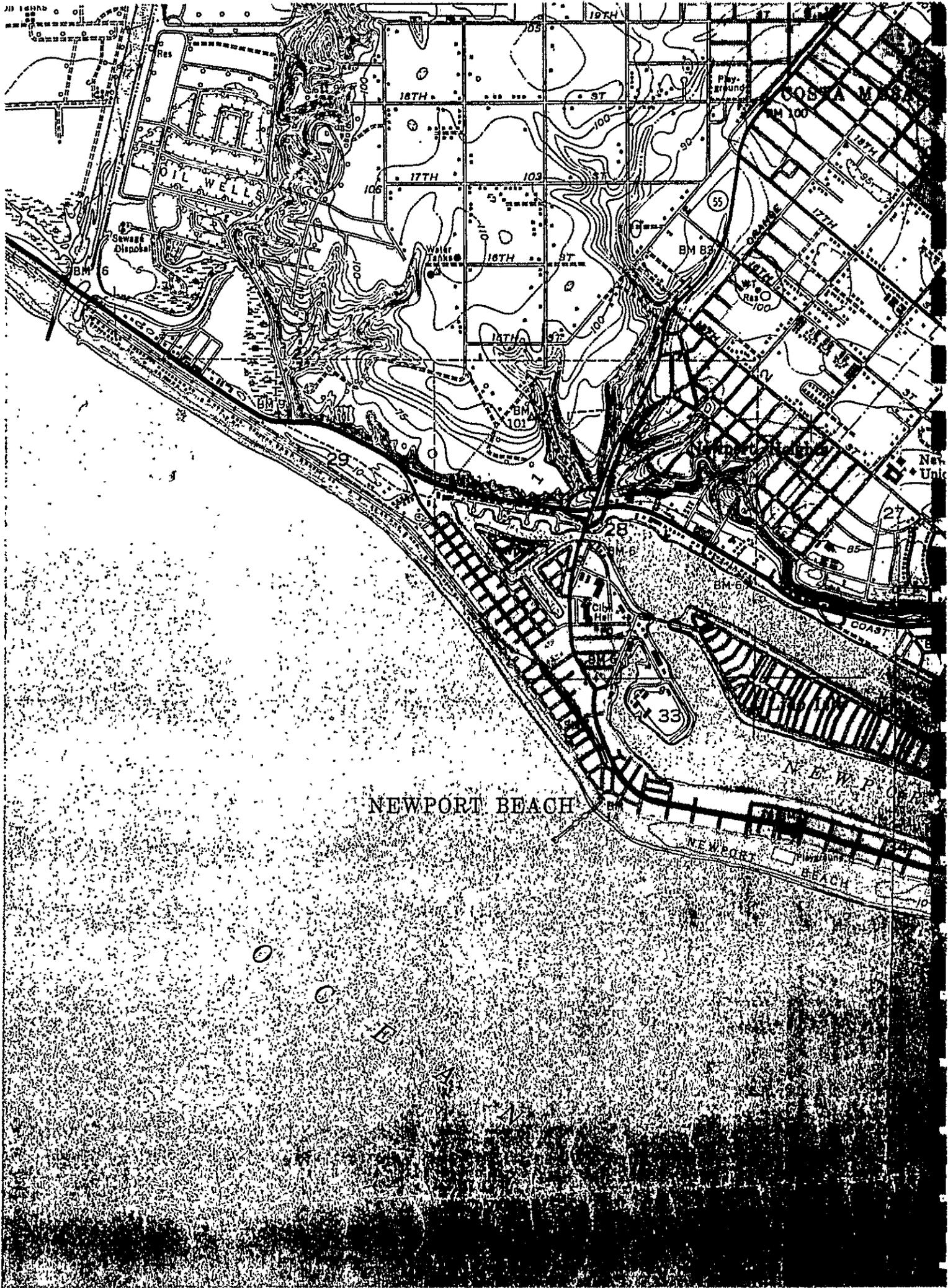
Las Bolsas 5200

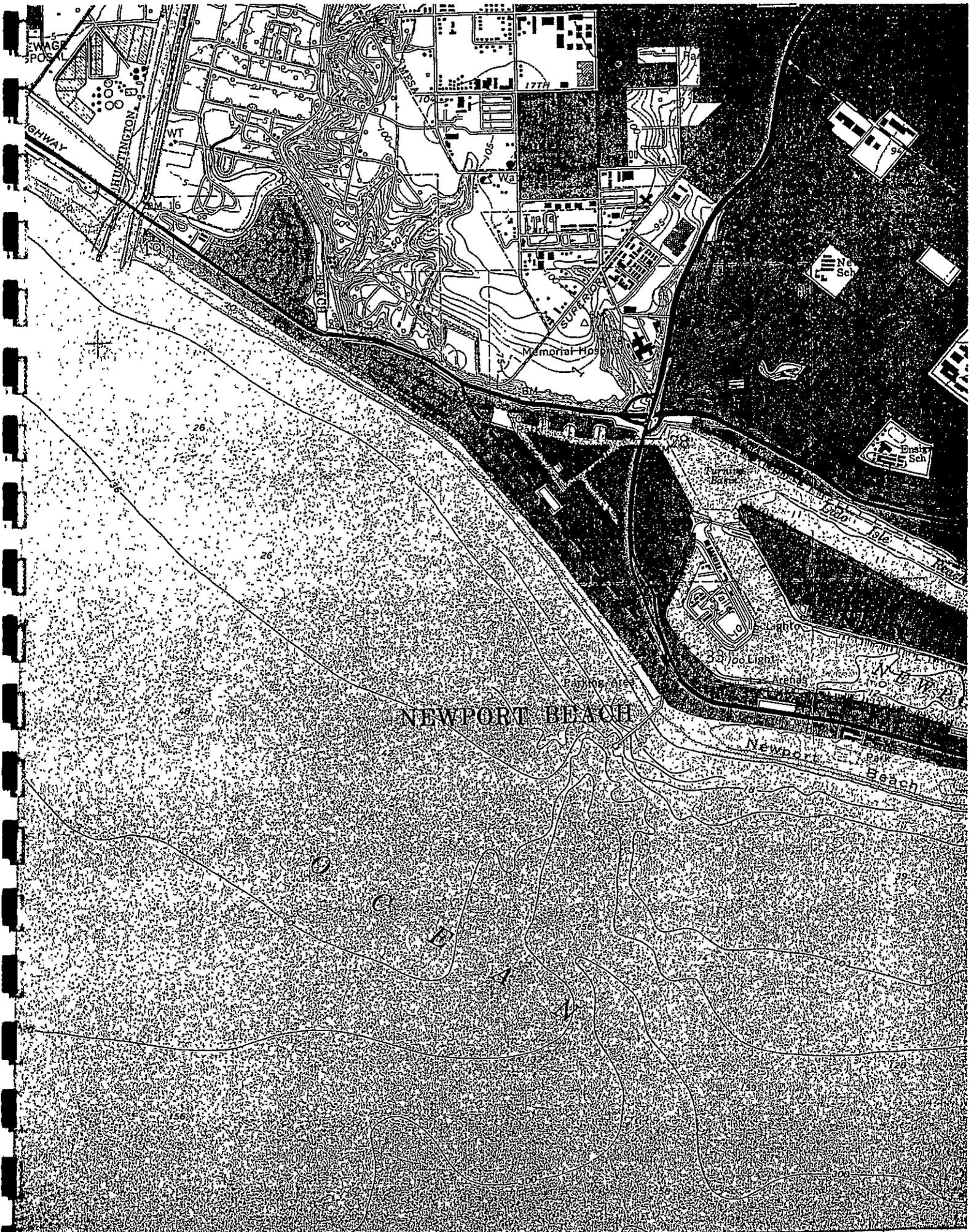
11800
 ENGRAVED IN MAR. 1922 BY U.S.G.S.
 F. U. Goode, Geographer in Charge
 The 180 Ularis by U.S. Coast and Geodetic Survey and Army
 Topography by R. C. Meade, J. E. Paul, H. J. Holman, P. B. Marshall
 E. C. Barnard, A. B. Seale, and U.S.C. & G.S.
 Survey in 1897 and 1899





P
A
C
I
F
I
C





NEWPORT BEACH

57'30" | 412 | 413 | 414 | 55' 415

SCALE 1:24 000



NEWPORT BEACH

O
C
E
A
N

Turner Barn

Light

33 100 Light

Parking Area

Newport Beach

NEWPORT BEACH

NEWPORT BEACH

156

100

588

300

758

128

74

258

132

60

48

42

26

26

36

16

128

12

10

120

45

39

60

+

WAG

HWAY

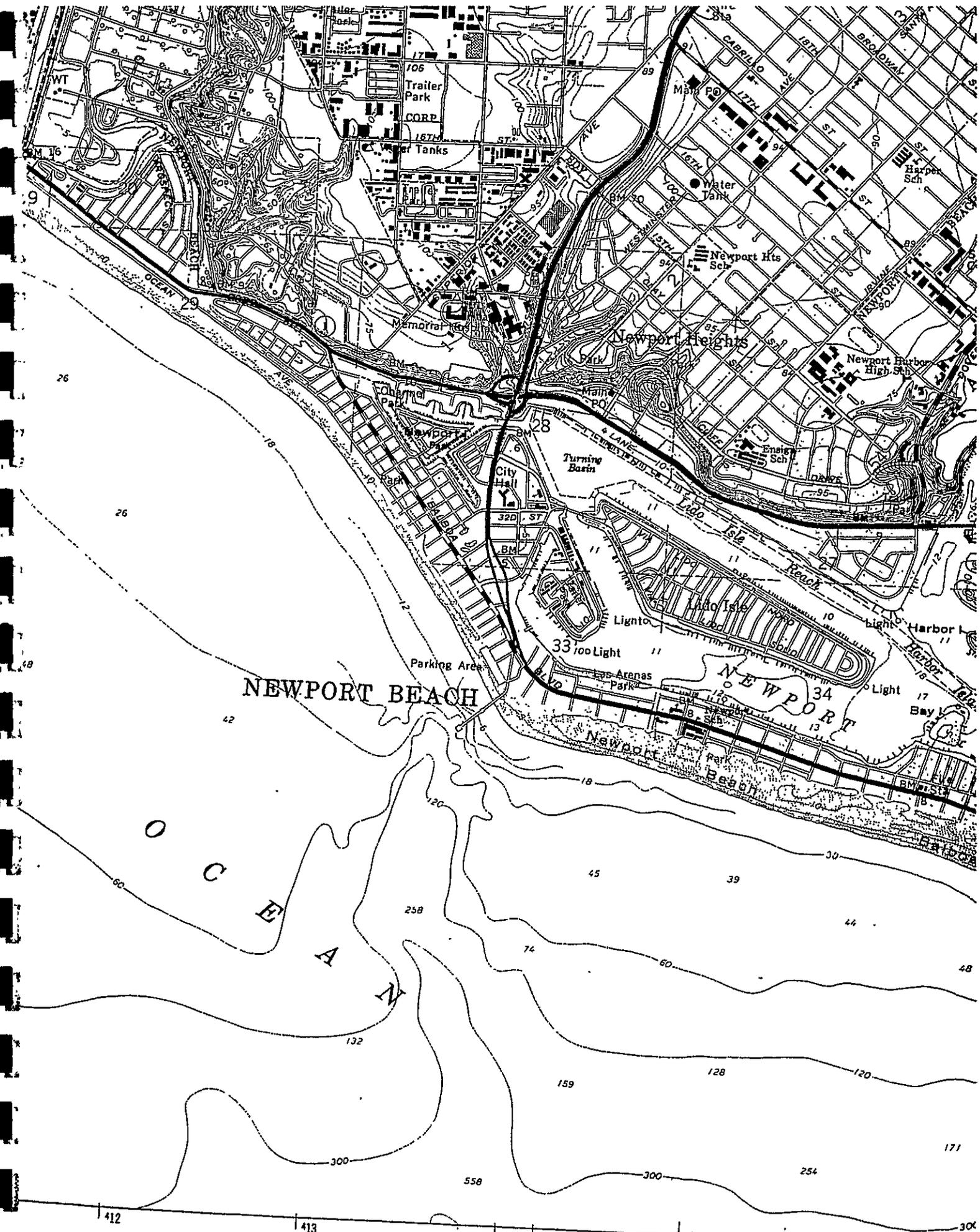
19

16

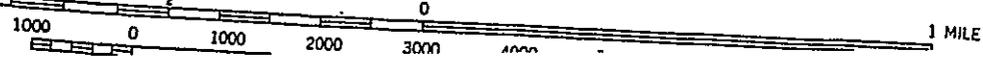
Sch

Park

Sch



SCALE 1:24 000





"Linking Technology with Tradition"

Sanborn® Map Report

Ship to: Rox Akin

Petra Geotechnical Inc
3185-E Airway Avenue
Costa Mesa, CA 92626

Order Date: 10/8/2003

Completion Date: 10/9/2003 8:12:

Inquiry #: 1061715,5s

P.O. #: 9249-03

Site Name: South Coast Shipyard

Address: 2300 Newport Blvd

City/State: Newport Beach, CA 92663

Customer Project: 9249-03

1013779NIC

714-549-8921

Cross Streets:

Based on client-supplied information, fire insurance maps for the following years were identified

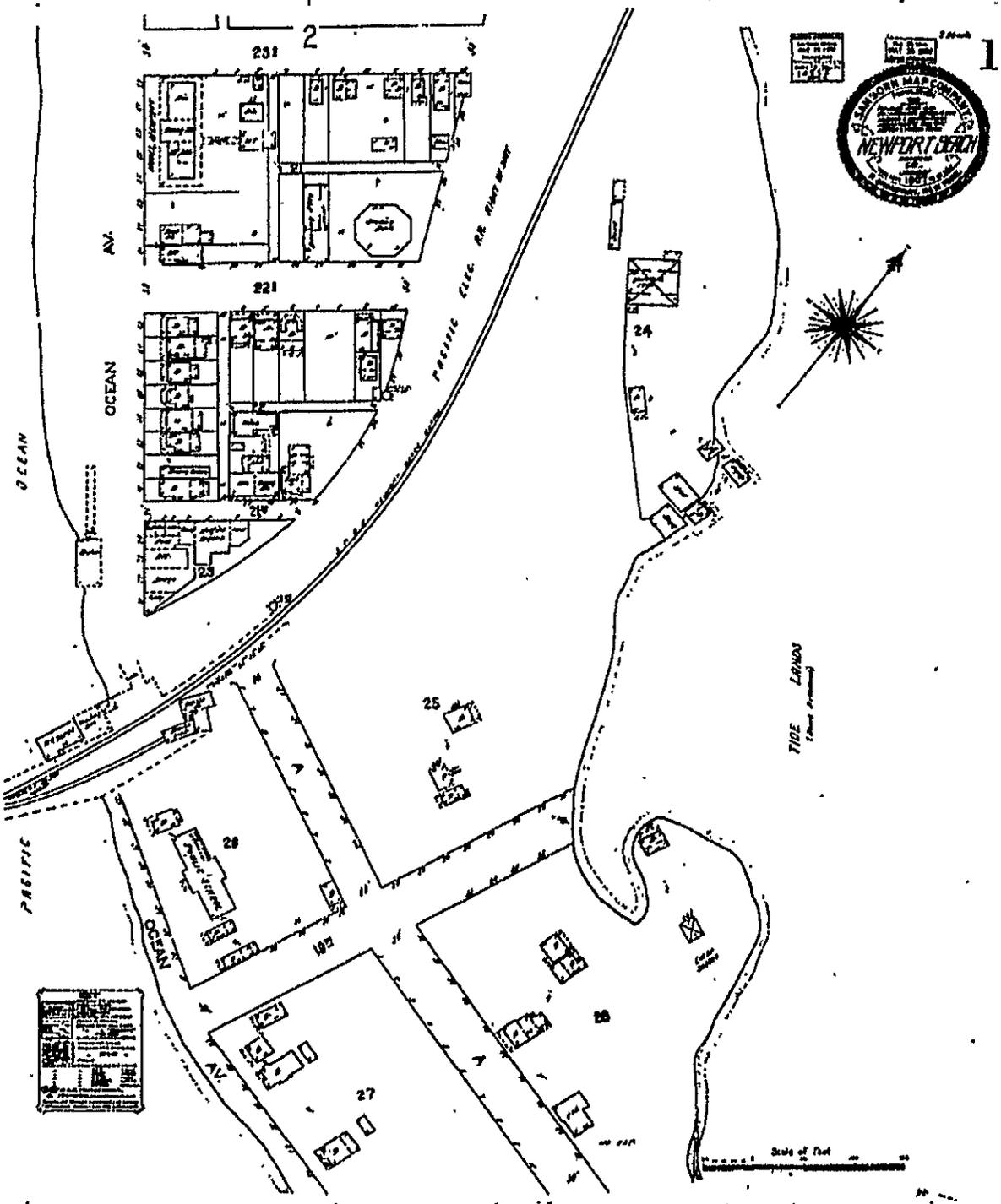
- 1907 - 2 Maps
- 1912 - 2 Maps
- 1922 - 2 Maps
- 1929 - 2 Maps
- 1945 - 2 Maps
- 1959 - 2 Maps
- 1961 - 2 Maps

Total Maps: 14

Limited Permission to Photocopy

Petra Geotechnical Inc (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

All maps provided pursuant to a Sanborn® Map Report are currently reproducible of fire insurance maps owned or licensed by Environmental Data Resources, Inc. NO WARRANTY, EXPRESSED OR IMPLIED IS MADE WHATSOEVER. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO ACCURACY, VALIDITY, COMPLETENESS, SUITABILITY, CONDITION, QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR USE OR PURPOSE WITH RESPECT TO THE REPORT, THE MAPS, THE INFORMATION CONTAINED THEREIN, OR THE RESULTS OF A SEARCH OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. Environmental Data Resources, Inc. assumes no liability to any party for any loss or damage whether arising out of errors or omissions, negligence, accident or any other cause. In no event shall Environmental Data Resources, Inc., its affiliates or agents, be liable to anyone for special, incidental, consequential or exemplary damages.



The Sanborn Library, LLC

The Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under agreement with The Sanborn Library, LLC. Information on the Sanborn® Map is derived from Sanborn field surveys conducted by:

Copyright © 1997 The Sanborn Library, LLC
 1918
 ERIE RECORDS ASSOCIATES

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

PACIFIC OCEAN BEACH
AV.

PACIFIC ELECTRIC & LIGHTING CO.
AV.

PACIFIC ELECTRIC & LIGHTING CO.
AV.



JUN 1907
NEWPORT BEACH
CAL.

2

2

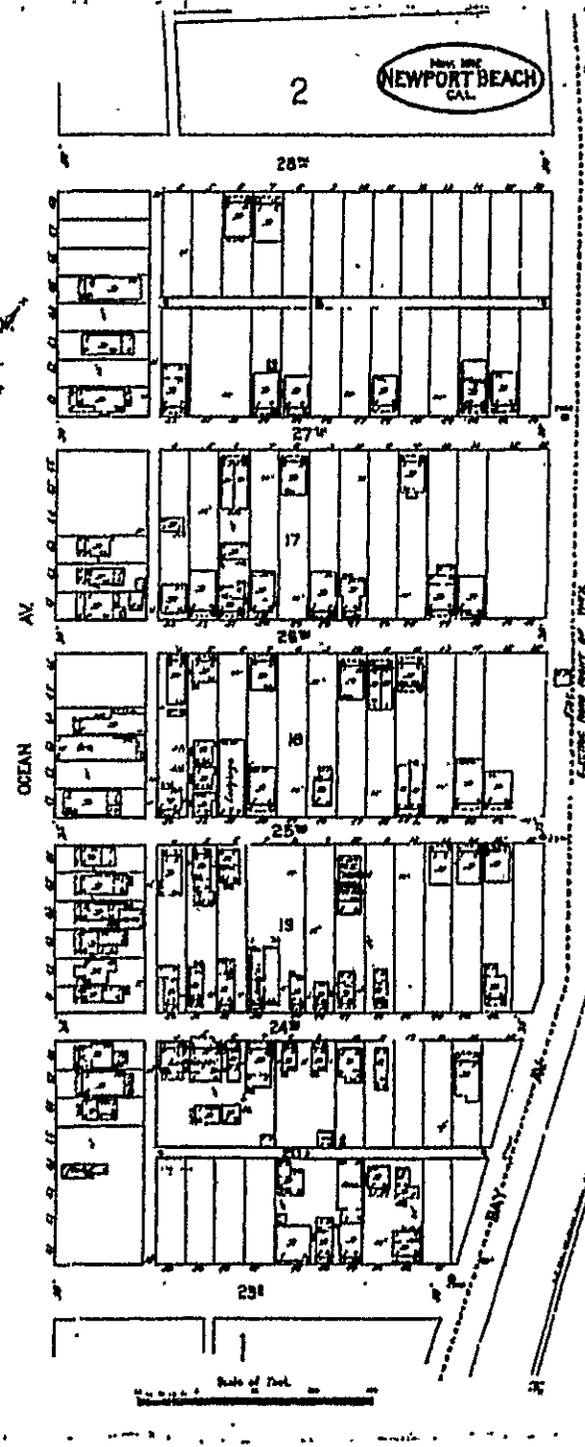
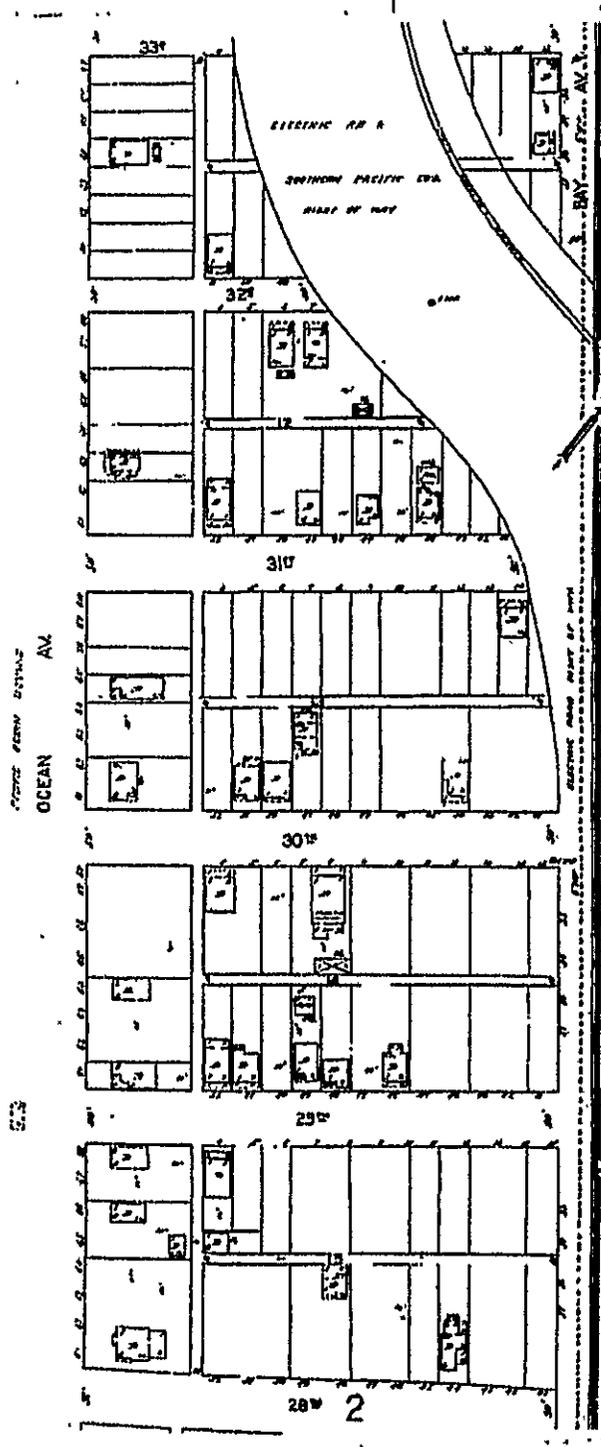


The Sanborn Library, LLC

This Sanborn Map is a certified copy produced by
Environmental Data Resources, Inc. under arrangement with
The Sanborn Library, LLC. Information on this Sanborn Map
is derived from Sanborn field surveys conducted in:

Copyright © 1907 The Sanborn Library, LLC 1945
EDR Research Associates

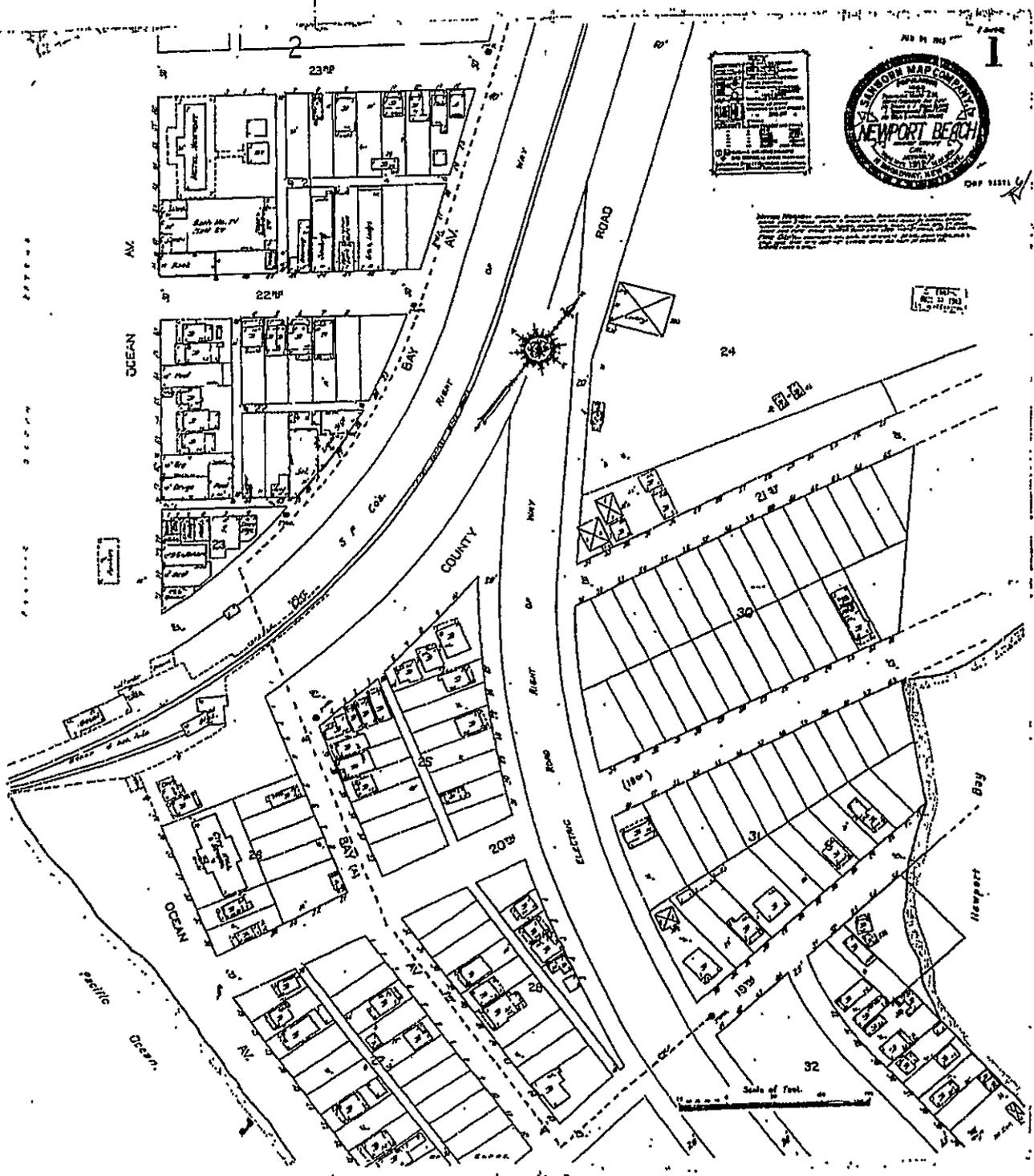
Reproduced in whole or in part on any map of The Sanborn Library, LLC may be prohibited without prior
written permission from The Sanborn Library, LLC.



 **The Sanborn Library, LLC**
 This Sanborn map is a certified copy prepared by
 Environmental Data Resources, Inc. under agreement with
 The Sanborn Library, LLC. Information on this Sanborn map
 is derived from Sanborn fire surveys conducted by:

Copyright © 1912 The Sanborn Library, LLC 1448
 Fire Insurance Maps
 Environmental Data Resources, Inc.

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior
 written permission from The Sanborn Library, LLC.



The Sanborn Library, LLC

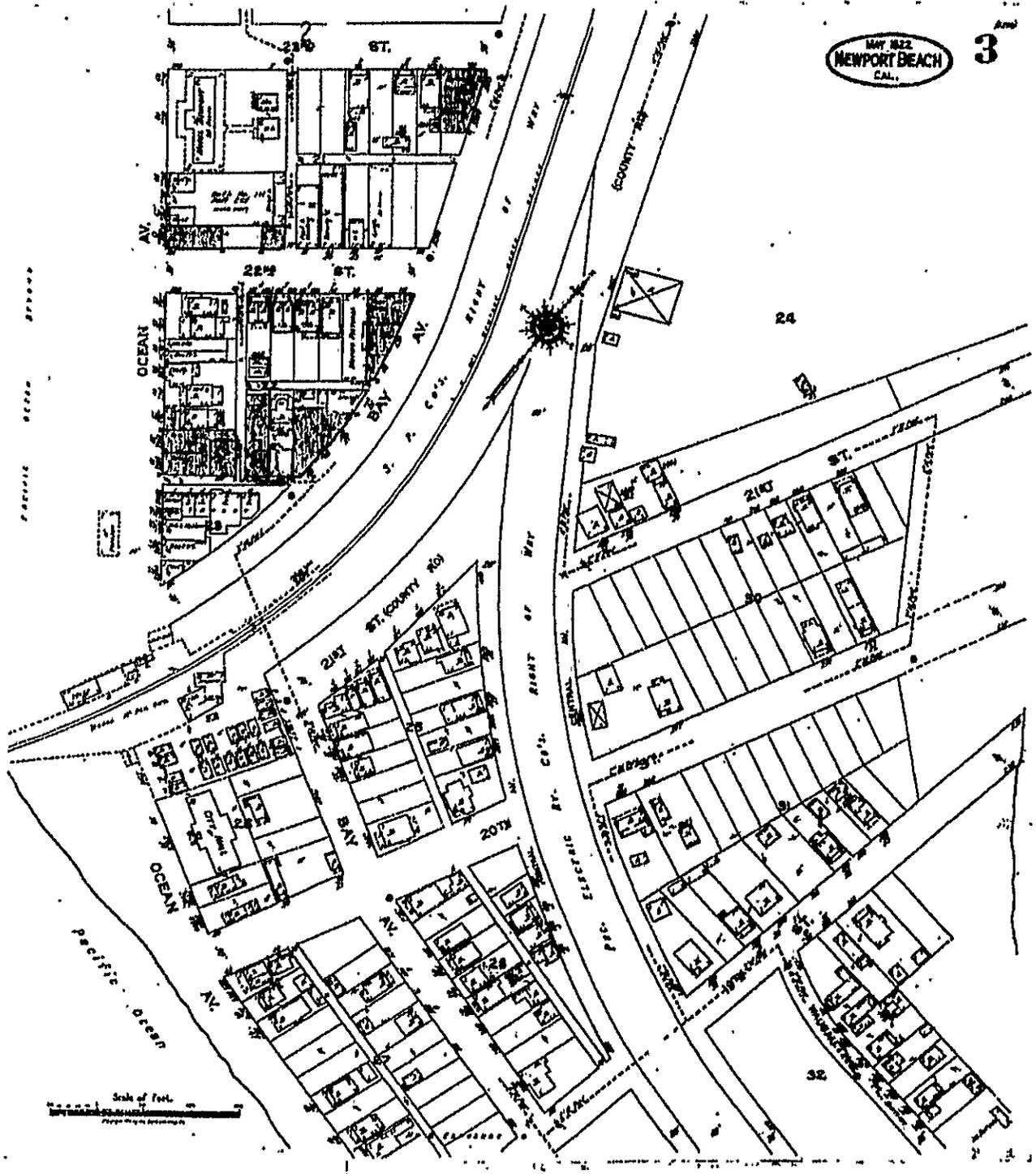
The Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted in:

Copyright © 1912 The Sanborn Library, LLC IHS
The EDRI Research Associates

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

MAY 1922
NEWPORT BEACH
CAL.

3



Scale of Feet
0 100 200 300 400 500
Property shown as surveyed

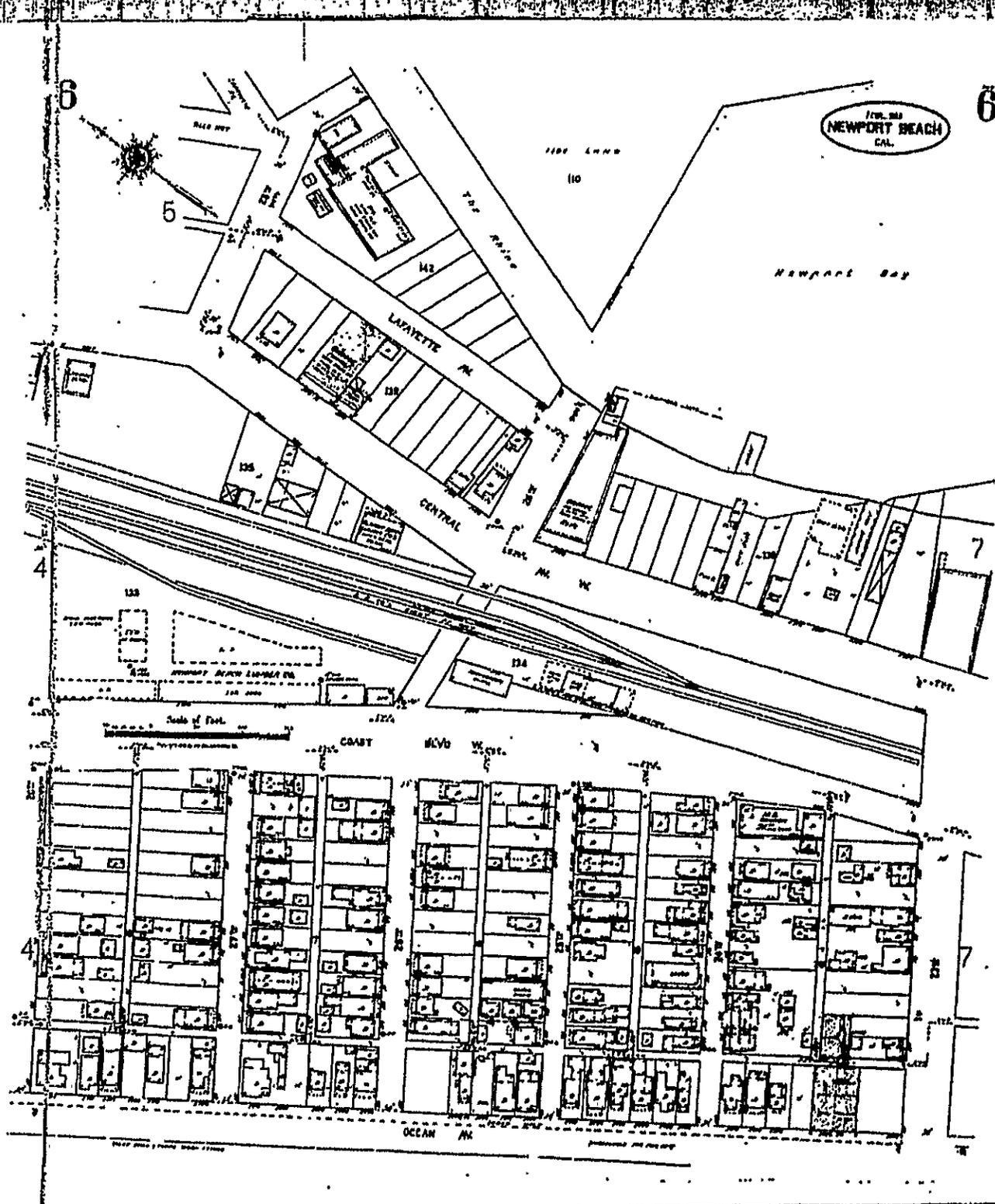


The Sanborn Library, LLC

This Sanborn Map is a certified copy produced by
ScribbleData Productions, Inc. under arrangement with
The Sanborn Library, LLC. Information on this Sanborn Map
is derived from Sanborn Aerial surveys conducted by:

Copyright © 1922 The Sanborn Library, LLC 1948
The Sanborn Library, LLC
San Francisco, California

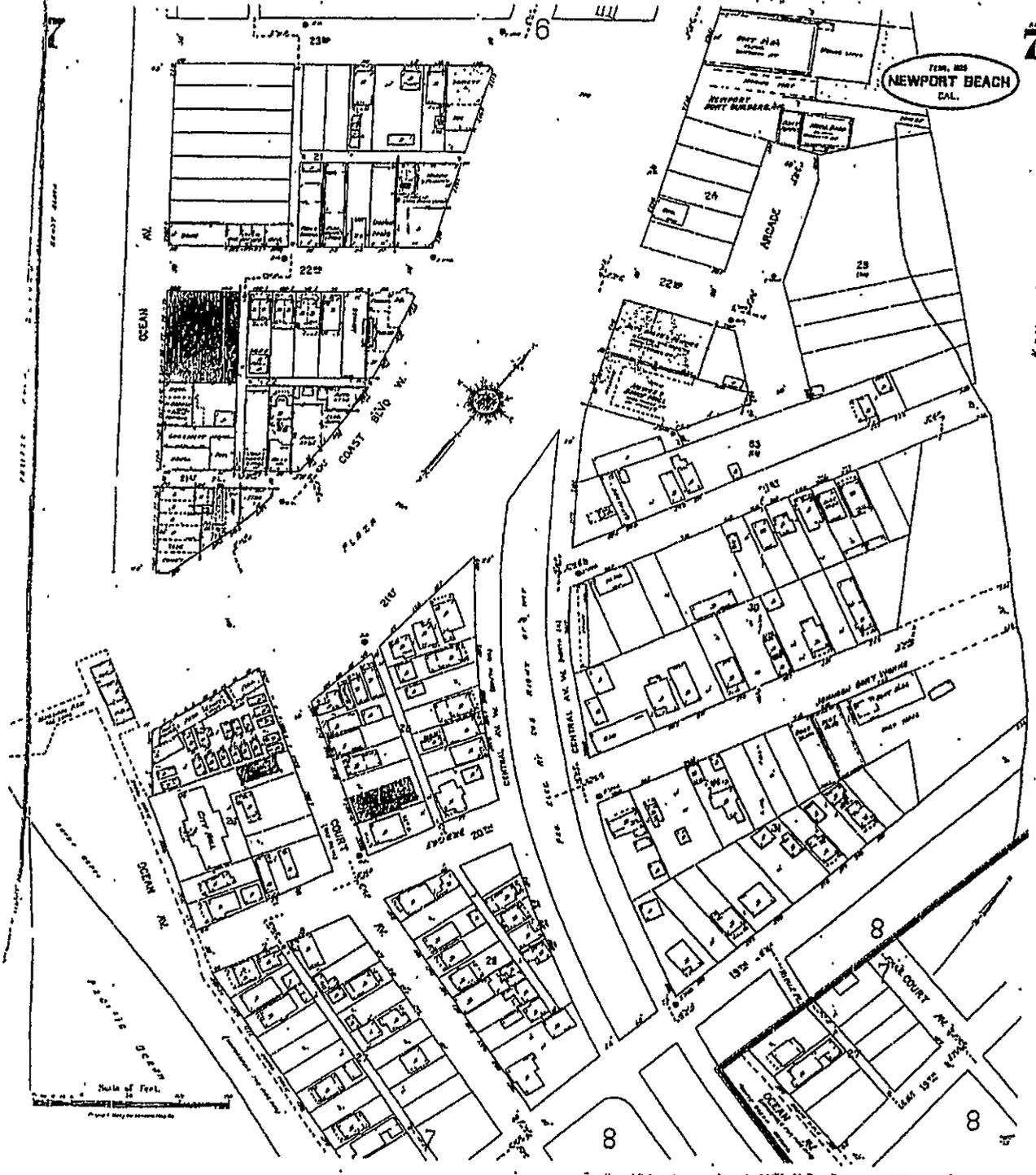
Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior
written permission from The Sanborn Library, LLC.



 **The Sanborn Library, LLC**
 This Sanborn® map is a certified copy produced by
 Environmental Data Resources, Inc. in conjunction with
 The Sanborn Library, LLC. Information on this Sanborn® map
 is derived from Sanborn fire surveys conducted by:

Copyright © 1930 The Sanborn Library, LLC 1932
 The Sanborn Library, LLC
 Environmental Data Resources, Inc.

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be published without prior
 written permission from The Sanborn Library, LLC.

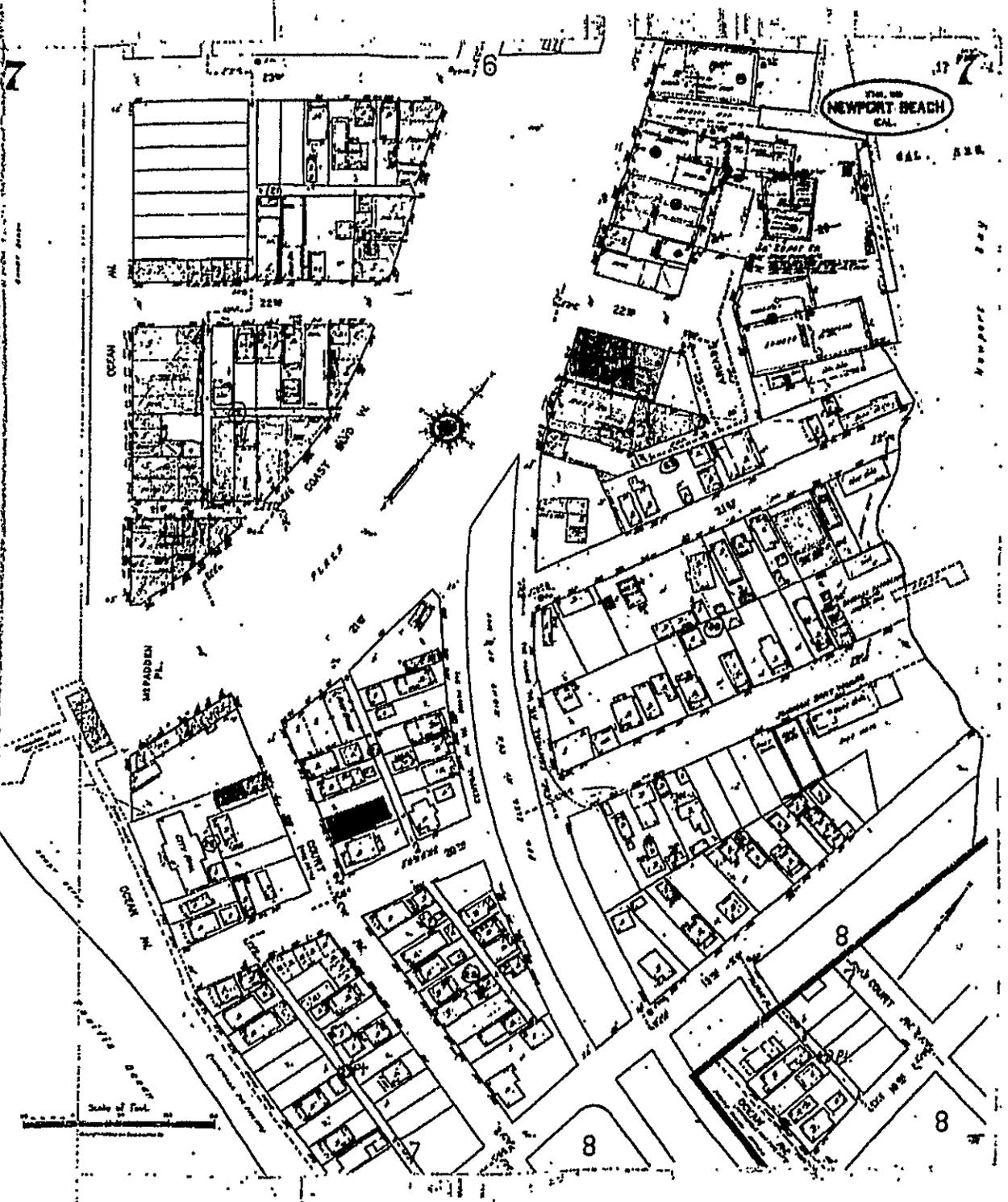


The Sanborn Library, LLC

The Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under agreement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted by:

Copyright © 1929 The Sanborn Library, LLC 1929
 Year EDN Research Associates

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

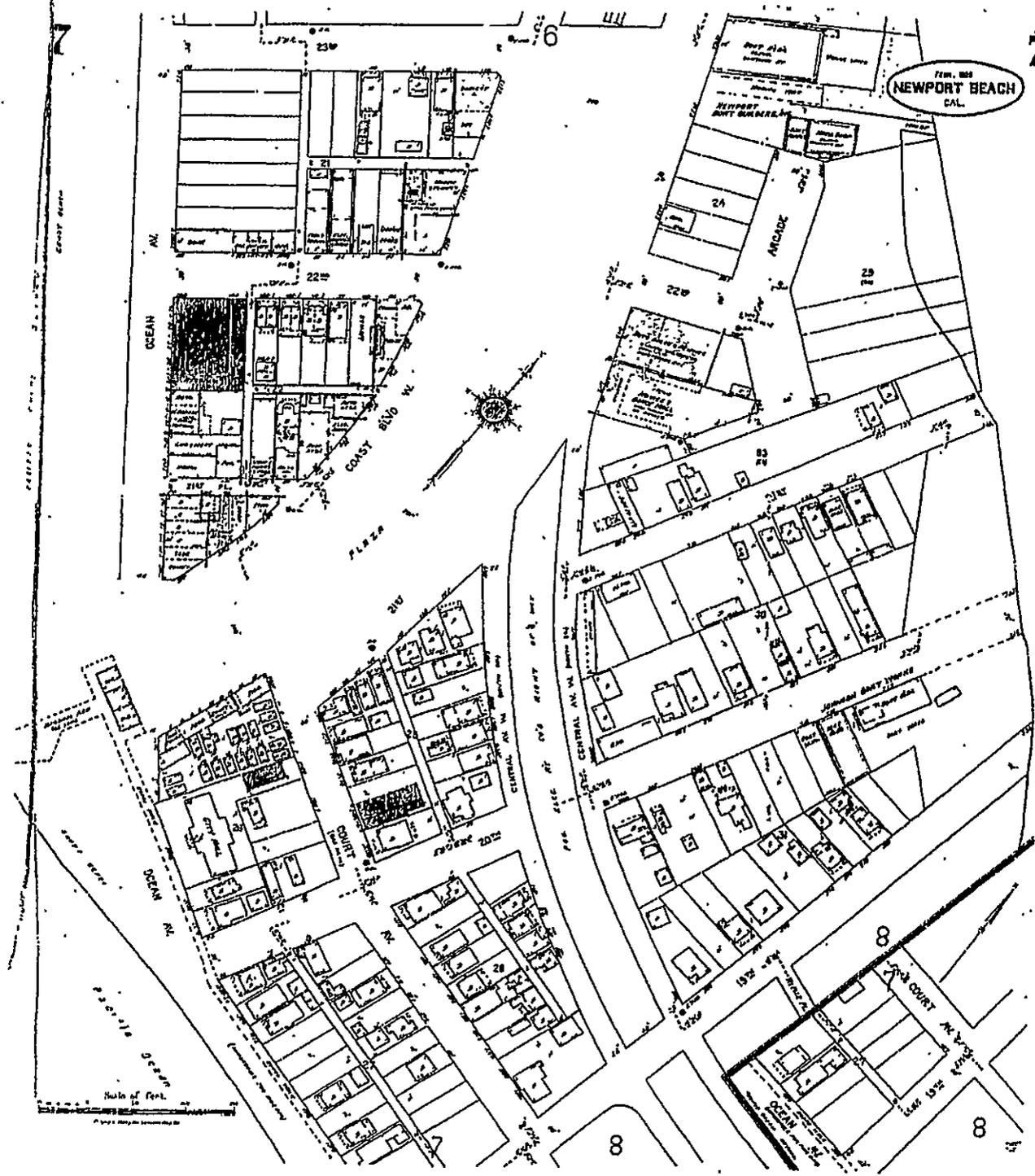


The Sanborn Library, LLC

The Sanborn Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn Map is taken from Sanborn fire surveys conducted by

Copyright © 1946 The Sanborn Library, LLC 1948
 The Sanborn Library, LLC
 825 Research Avenue

Representations in whole or in part of any map of The Sanborn Library, LLC may be published without prior written permission from The Sanborn Library, LLC.



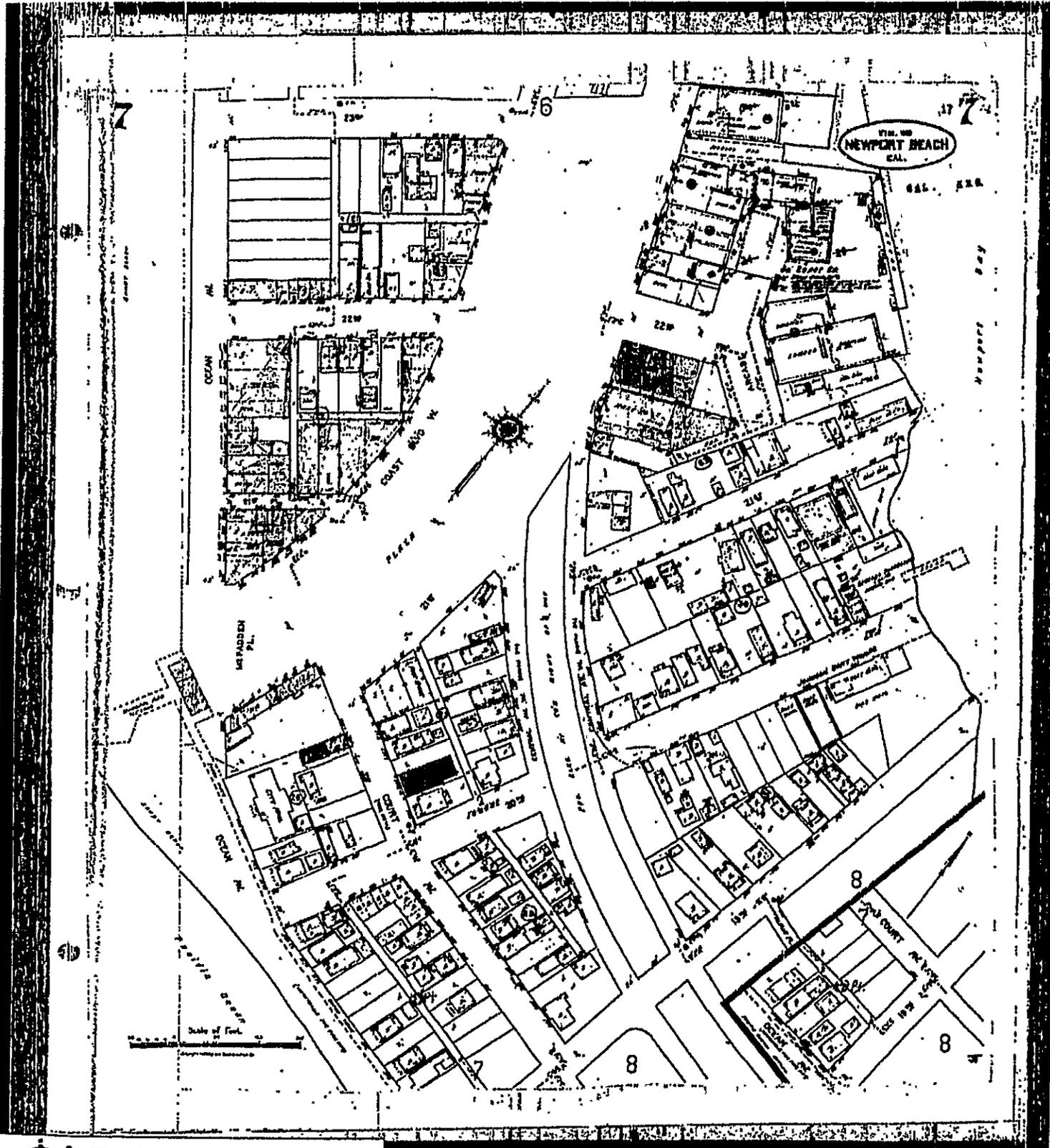
FROM 688
NEWPORT BEACH
CAL.

The Sanborn Library, LLC

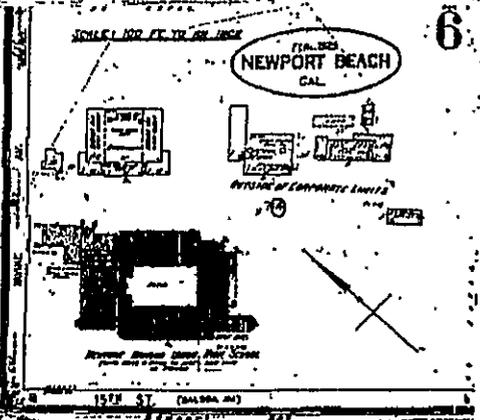
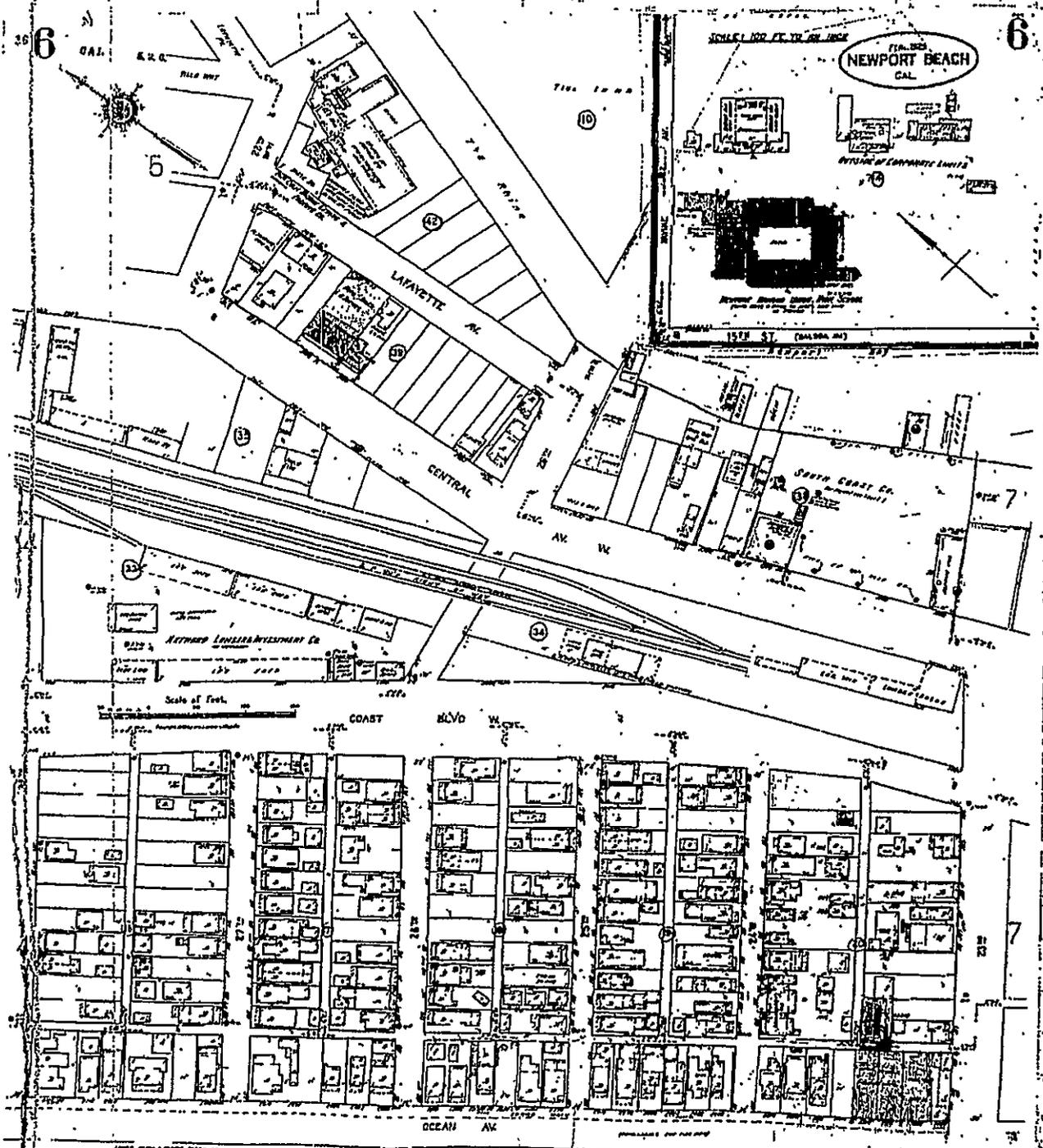
This Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted by:

Copyright © 1929 The Sanborn Library, LLC 1925
EDR Research Associates

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

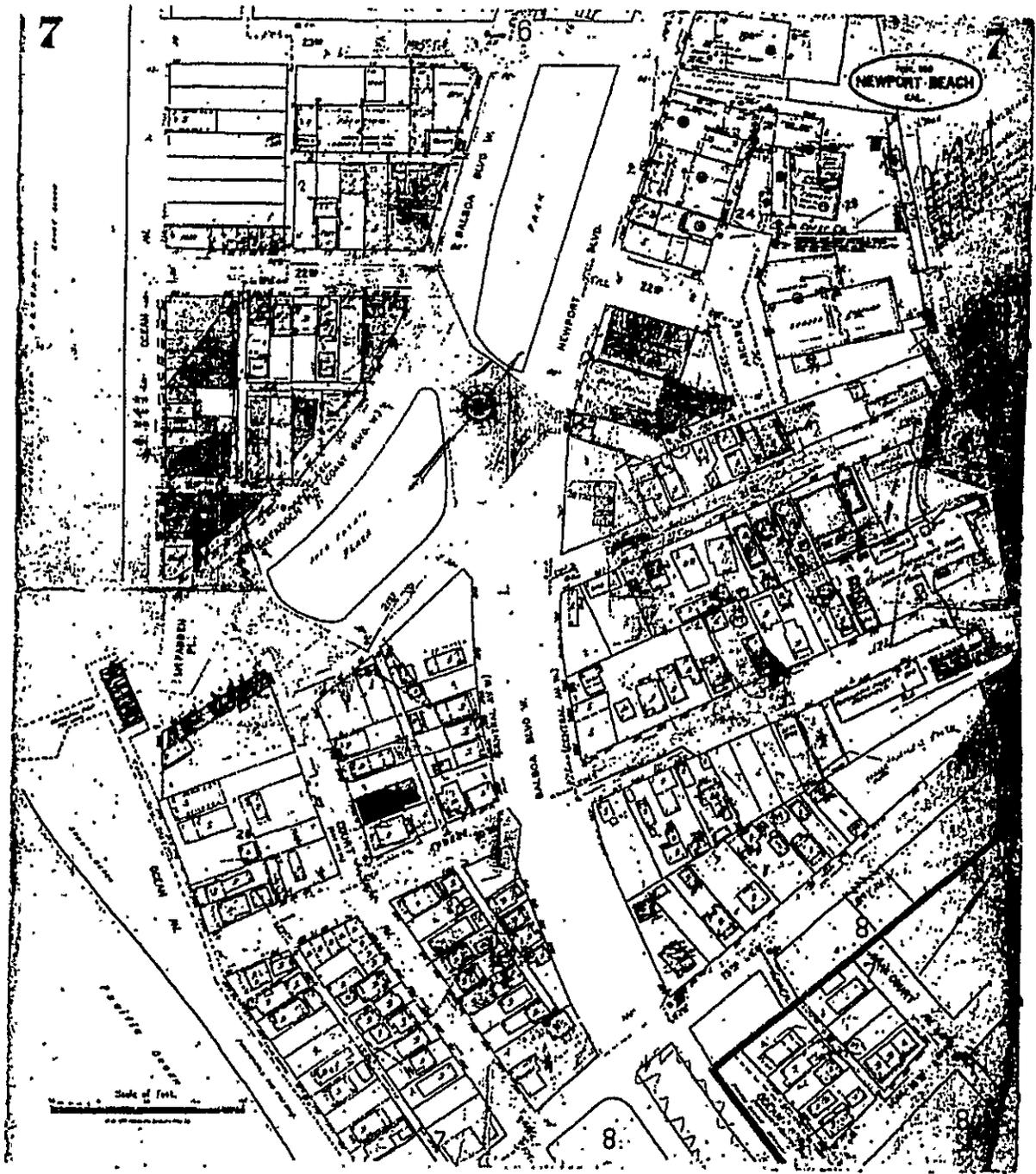



The Sanborn Library, LLC
 This Sanborn® map is a certified copy produced by
 Environmental Data Resources, Inc. under arrangement with
 The Sanborn Library, LLC. Information on this Sanborn® map
 is derived from Sanborn fire surveys conducted by
 Copyright © 1948 The Sanborn Library, LLC 1948
 EDR Research Associates
 Permission to reproduce or to use in any way any part of this Sanborn Library, LLC map is prohibited without prior
 written permission from The Sanborn Library, LLC.



 **The Sanborn Library, LLC**
 The Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted by:
 Copyright © 1945 The Sanborn Library, LLC
 Year 1945
 EDR Research Association

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

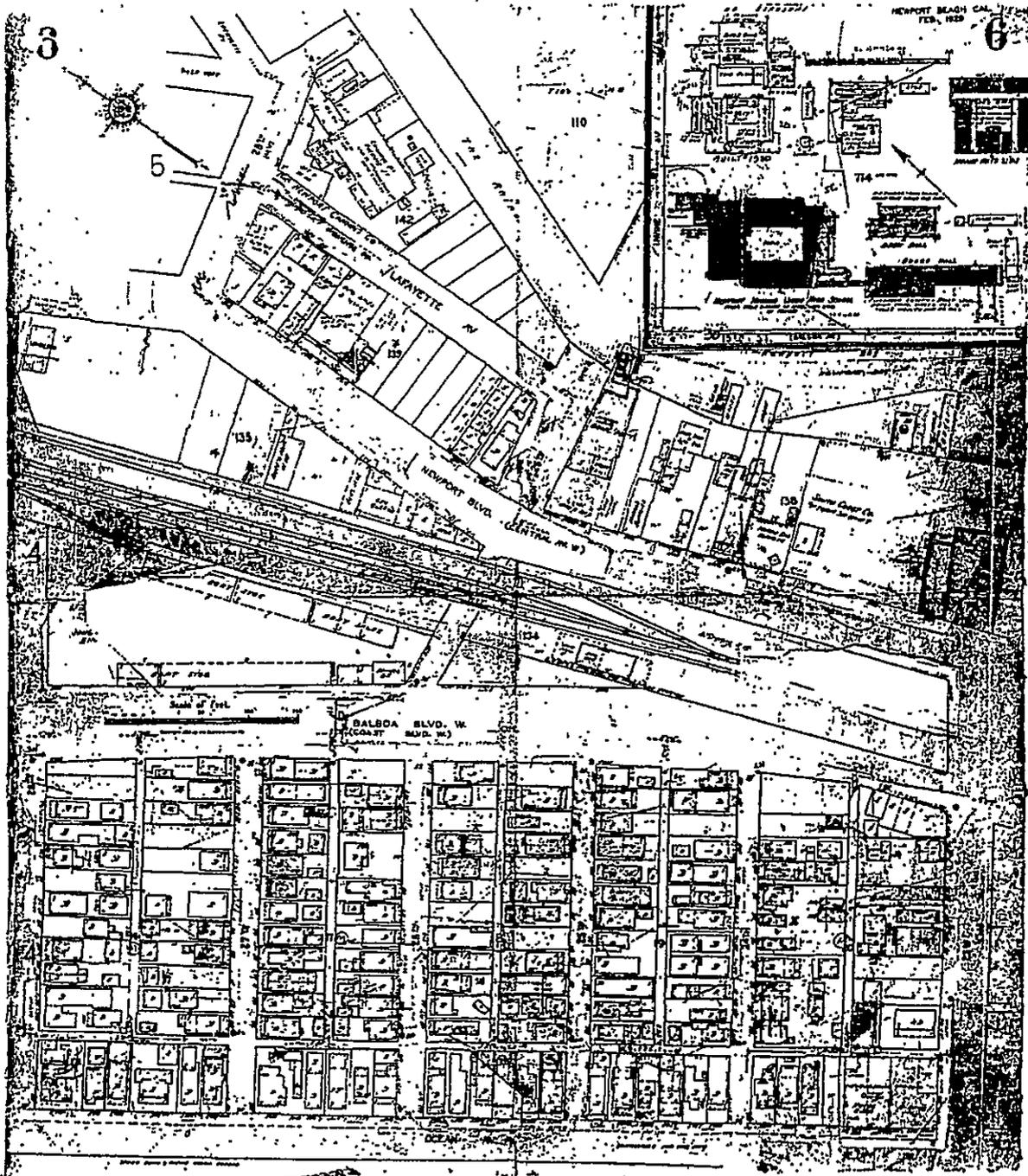


The Sanborn Library, LLC

This Sanborn® map is a printed copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® map is derived from Sanborn 100 surveys conducted by:

Copyright © 1996 The Sanborn Library, LLC 124E
 7th EDR Research Architects

Permission is granted to use or to part of any map of The Sanborn Library, LLC may be printed without prior written permission from The Sanborn Library, LLC.

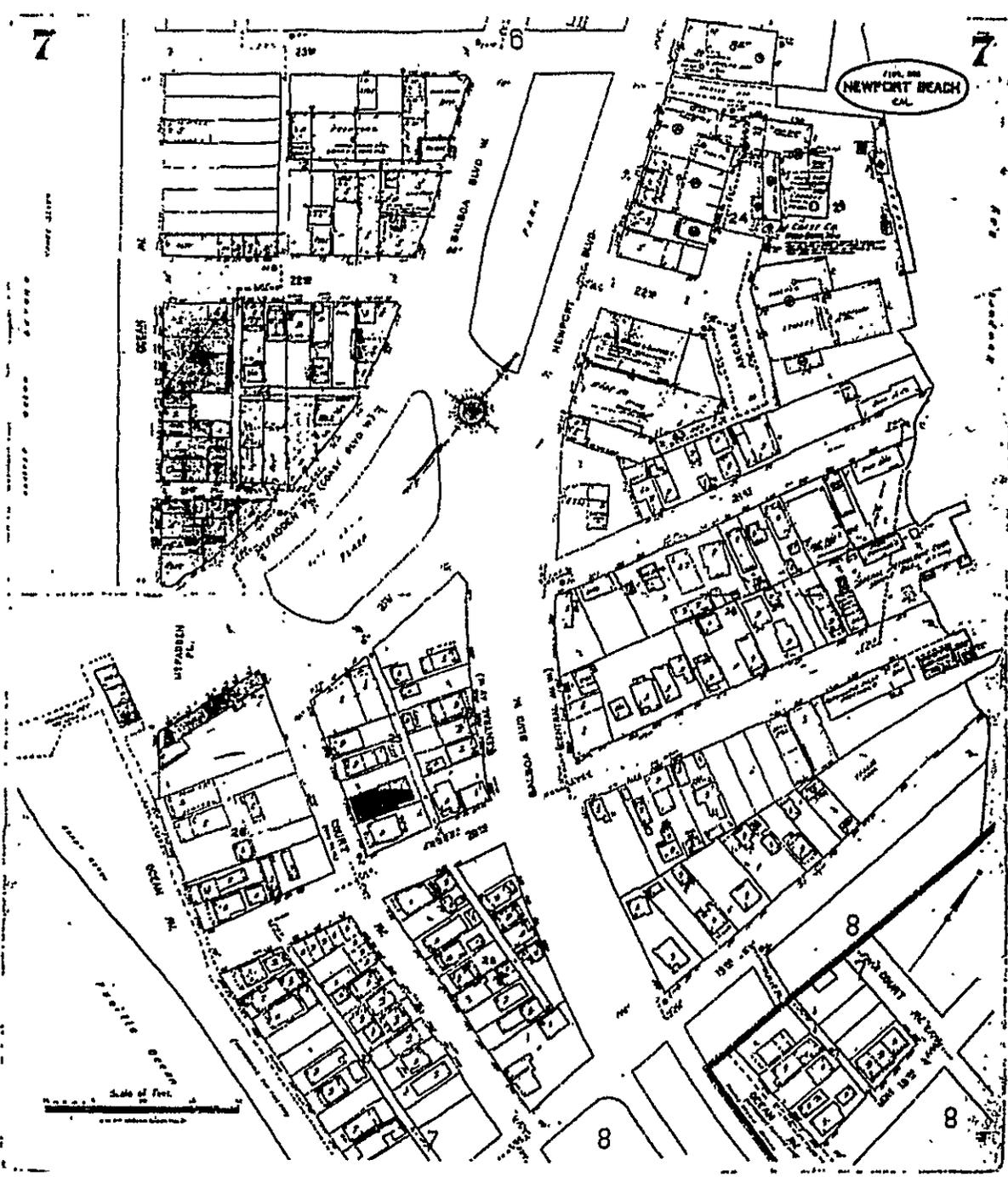


The Sanborn Library, LLC

This Sanborn® Map is a certified copy produced by
 Environmental Data Resources, Inc. under arrangement with
 The Sanborn Library, LLC. Information on this Sanborn® Map
 is derived from Sanborn Aerial Surveys conducted by

Copyright © 1928 The Sanborn Library, LLC 1928
 Year EDR Research Associates

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior
 written permission from The Sanborn Library, LLC.

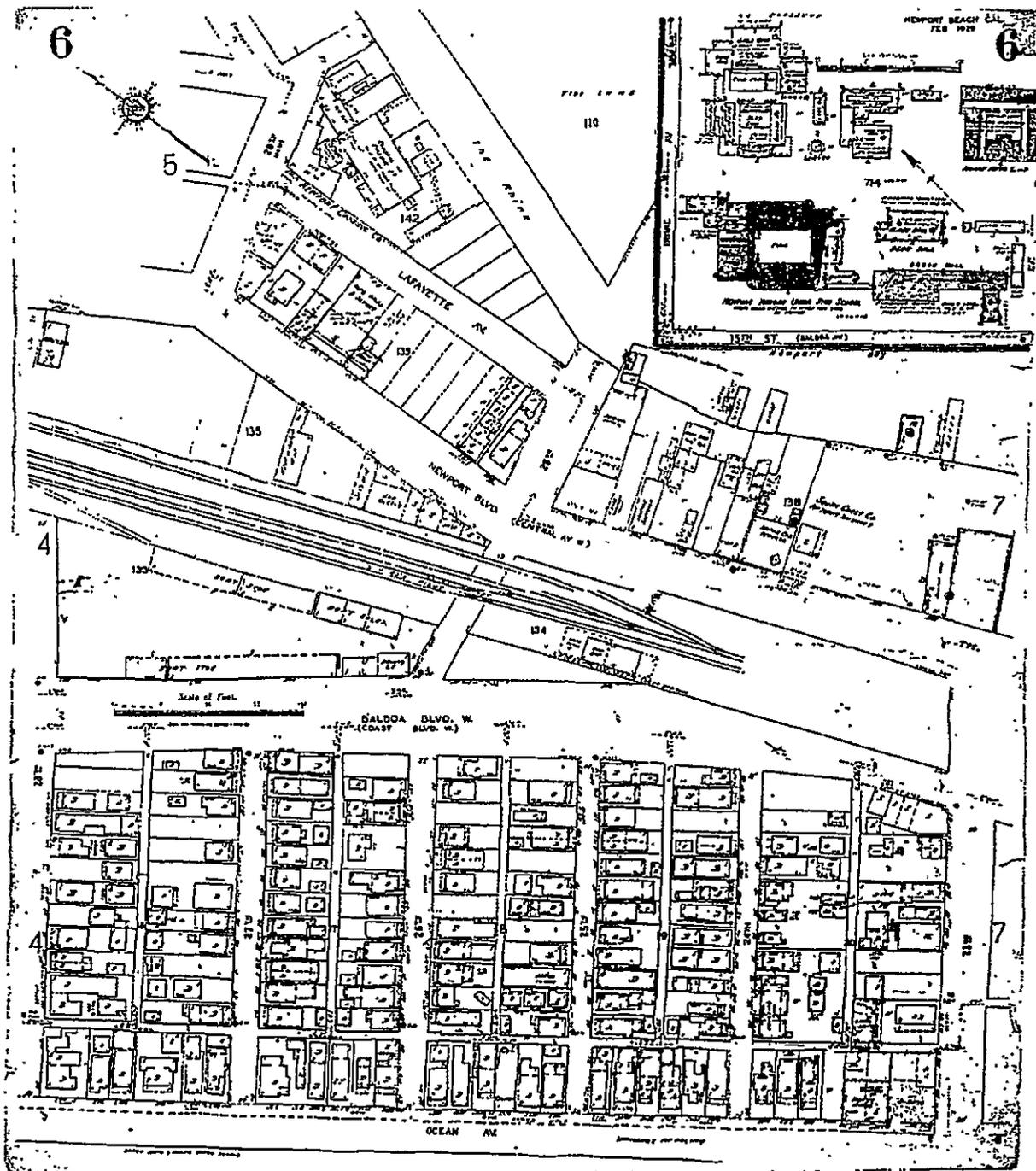


The Sanborn Library, LLC

This Sanborn Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn Map is derived from Sanborn field surveys conducted by:

Copyright © 1981 The Sanborn Library, LLC 1981
 The Sanborn Library, LLC
 1981

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be purchased without prior written permission from The Sanborn Library, LLC.



The Sanborn Library, LLC

This Sanborn® map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted by:

Copyright © 1981 The Sanborn Library, LLC 1985
 Year EDR Research Associates

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

APPENDIX E

RESUMES

DAVID DARROW

Associate Environmental Scientist
Manager of Environmental Division

EDUCATION

Bachelor of Arts,
Environmental Studies,
1990, University of
California, Santa Barbara

Geology Courses -
California State Fullerton
and Long Beach

Environmental Science
Courses - University
California, Irvine

REGISTRATIONS

California Registered
Environmental Assessor
REA Class I 6810
REA Class II 20202

CERTIFICATIONS

OSHA Hazwoper 40-Hour
Health and Safety

OSHA 8-Hour Site
Supervisor

Asbestos Hazard
Emergency Response
(AHERA) Certified
Building Inspector

ASTM-Standard
Technology Training
Course - Groundwater
Monitoring, Well Design,
Installation and Sampling

PROFESSIONAL SUMMARY

Mr. Darrow has 12 years of experience conducting environmental site assessments, site characterizations, and remediation. His experience includes project management and field task execution. Specific project management responsibilities have included the coordination of project task execution, project planning, and interfacing with regulatory representatives, clients, and community members. He is experienced in performing Preliminary Environmental Assessments (PEAs), Supplemental Site Investigations, and Removal Actions under the Department of Toxic Substances Control's Schools Evaluation Program, as well as Phase I and Phase II site assessments and soil remediation of a variety of properties throughout California.

His field experience includes environmental site assessment; site characterization, monitoring well installation, soil and groundwater sampling, soil vapor surveys, underground storage tank removal, excavation oversight, heavy equipment operator oversight, and site health and safety monitoring/management.

PROFESSIONAL RESPONSIBILITIES

As a Manager of the Environmental Division and Associate Environmental Scientist for Petra Geotechnical, Inc., Mr. Darrow:

- Manages PEAs, Supplemental Site Investigations, and Removal Actions for existing and proposed school sites;
- Prepares PEA and Removal Action work plans for existing and proposed school sites
- Prepares PEA and Removal Action reports;
- Conducts environmental investigations for planned residential communities, commercial complexes and industrial buildings;
- Conducts site inspections and historical site characterizations;
- Interfaces with regulatory agencies and client representatives; and
- Prepares final reports and site characterization work plans.

PROJECT EXPERIENCE

Preliminary Environmental Assessments

Mr. Darrow has managed and conducted numerous PEAs for school districts throughout Southern California. The projects have included existing schools, existing residential, agricultural, commercial, and industrial properties, and native land. He has worked closely with the DTSC project teams and school districts to complete the projects and receive agency closure.

Supplemental Site Investigations and Removal Actions

Where the PEA has identified soil and/or groundwater contaminants that require further investigation, Mr. Darrow has managed the Supplemental Site Investigation to adequately define the extent of contamination in order to prepare the Removal Action Work Plan for site remediation. Using the results of the PEA and SSI, Mr. Darrow has managed and prepared the Removal

Action Work Plan. Mr. Darrow has managed numerous school projects from the site remediation phase through the Removal Action process with DTSC oversight.

Phase I Environmental Site Assessments

Mr. Darrow has completed and managed numerous Phase I environmental site assessments throughout Southern California. Properties include school properties, recreation, industrial, commercial, retail, agricultural, residential; developed land, and previously undeveloped land. These assessments have included plating operations; automotive scrapping and metal recycling operations; railroad lines and railroad yards; light to moderate manufacturing; oil fields; high-rise office and apartment buildings; single-family residences; strip malls; retail stores; commercial bakeries; commercial canning operations; and undeveloped land parcels ranging from 1/3-acre in urban areas to greater than 400 acres in rural undeveloped areas.

Phase II Site Characterizations

Mr. Darrow has performed numerous soil and groundwater assessments and soil vapor surveys during the assessment of industrial, commercial, agricultural, and residential properties throughout southern and central California.

Brownfield/Site Remediation

Mr. Darrow managed several projects at industrial properties throughout southern and central California that have included site assessment, site investigations, remediation, and closure. These projects have included regulatory oversight by local and county agencies.

Underground Storage Tank Removal and Pipeline Excavation

Mr. Darrow has managed, conducted, and provided oversight for underground storage tank and pipeline excavation projects throughout Southern California. Underground storage tank excavation projects have included service stations, industrial facilities, and agricultural operations. Pipeline excavations have included excavation for responsible party determination with Federal EPA oversight, soil characterization within railroad easements, and leak repair and assessment.

EDUCATION

Bachelor of Science, 1989, Geology
California State University,
Bakersfield

REGISTRATION

Environmental Assessor, California,
REA 7511

CERTIFICATION

OSHA Hazwoper 40 Hour Health
and Safety

OSHA 8 Hour Site Supervisor

OSHA AHERA Asbestos
Awareness

PROFESSIONAL SUMMARY

Ms. Cullum is a Project Geologist presenting over 11 years of experience in environmental consulting. She has extensive experience on hazardous waste management projects, including remedial investigations and feasibility studies.

PROFESSIONAL RESPONSIBILITIES

As a Project Geologist for Petra Geotechnical, Inc. Ms. Cullum:

- Conducts Phase I environmental site assessments.
- Conducts Phase II soil and groundwater investigations.
- Directs soil and groundwater remediation projects.

PROJECT EXPERIENCE

Phase I Environmental Site Assessments

Ms. Cullum has conducted numerous Phase I Environmental Site Assessments. These properties have included planned transportation facilities, industrial areas; light to moderate manufacturing facilities; trucking facilities; agricultural sites; dairy farms; residential areas; planned residential housing developments; and both developed land and previously undeveloped land ranging from 1/3-acre in urban areas to approximately 400-acres in rural areas.

Site Investigation

Ms. Cullum has conducted soil and groundwater investigations for manufacturing production plants, dairies, active and inactive service stations, military bases, amusement parks, sewage treatment facilities, dry cleaners, landfills, and residential sites.

Remediation

Ms. Cullum has provided remediation services of sites containing hazardous materials for amusement parks; manufacturing facilities; agricultural sites; active and inactive service stations; and residential sites. Her remediation experience includes soil vapor extraction, pump and treatment of groundwater, dual phase extraction, installation of oxygenated material into the subsurface, and soil removal.



COSTA MESA ■ SAN DIEGO ■ MURRIETA ■ SANTA CLARITA ■ ONTARIO

January 6, 2004
J.N. 9257-03

Mr. Steve Schapel
ETCO INVESTMENTS, LLC.
540 Westminster Mall
Westminster, California, 92683

Subject: Report of Limited Phase II Environmental Site Assessment, 2300
Newport Boulevard, Newport Beach, California

Dear Mr. Schapel:

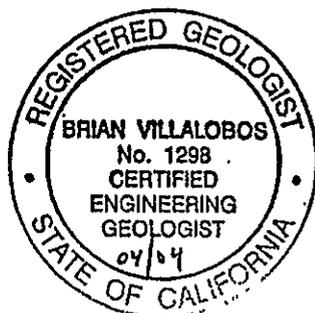
Petra is pleased to present this "Report of Limited Phase II Environmental Site Assessment, 2300 Newport Boulevard, Newport Beach, California." This report presents the results of environmental assessment work conducted on October 30, November 3, 18, and 26, 2003. The work was conducted in general accordance with our proposal number 03306 (revised) dated October 17, 2003 with modifications approved by yourself by fax dated October 29, 2003. Should you have any questions regarding this report please do not hesitate to contact the undersigned.

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION


Brian Villalobos
Senior Project Geologist
C.E.G. 1298, C.Hg. 794


David Darrow
Division Manager
R.E.A. 20202

<WAENVIRON2003\9257-03\Final Report>



EXECUTIVE SUMMARY

Report of Limited Phase II Environmental Site Assessment, 2300 Newport Boulevard, Newport Beach, California

INTRODUCTION

Petra conducted environmental site assessment work at 2300 Newport Boulevard in Newport Beach, California. The work consisted of drilling and sampling twenty-six borings to assess the environmental condition of artificial fill soils, natural beach sediments, and groundwater which are present in the subsurface on site.

FINDINGS

The geologic and chemical information obtained indicates the following:

- Three areas of the site contain lead in subsurface soils in concentrations above the United States Environmental Protection Agency (USEPA) preliminary remediation goal (PRG) for lead of 150 mg/kg. In addition, Soluble Threshold Limiting Concentration analysis indicates that hazardous concentrations of lead are present on site.
- One area of the site contains soil with polychlorinated biphenyls (PCBs) above the EPA PRG.
- Groundwater in the areas of elevated lead did not contain concentrations of lead, copper, cadmium, or zinc above the Total Maximum Daily loads (TMDLs) as developed by the Santa Ana Regional Water Quality Board and adopted by the USEPA Region 9.
- Groundwater containing elevated concentrations of fuel hydrocarbons appears to be confined to water in the sand backfill within the concrete structure of the former winch system.
- Groundwater in the area of elevated PCB concentrations did not contain detectable concentrations of PCBs.

CONCLUSIONS

- Approximately 850 to 1,050 cubic yards of soil with hazardous concentrations of lead are present on site.



- Approximately 350 cubic yards of soil with elevated concentrations are present on site. The PCB concentrations are below the threshold requiring disposal as a hazardous waste.

RECOMMENDATIONS

Regulation and oversight of the removal of contaminated soil in the site area will be conducted by the Orange County Health Care Agency. Therefore, a copy of this report should be provided to that agency along with a workplan for soil removal.

During the removal action, confirmation samples should be collected and analyzed to confirm all soils containing elevated concentrations of lead and PCBs have been removed from the site. Soil removals should be conducted by contractors properly licensed to handle and dispose hazardous materials.

During removal of the sand backfill from the former winch system concrete structure, water containing hydrocarbons present within the sand should be removed, contained, and disposed.



TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 SCOPE OF WORK	1
3.0 FIELD SETTING	4
3.1 Previous Site Use	4
3.2 Site Location and Description	5
3.3 Assessment Area	5
4.0 PREVIOUS ENVIRONMENTAL INVESTIGATION	6
4.1 Subsurface Environmental Assessments	6
4.2 Phase I Environmental Site Assessment	6
5.0 FIELD WORK	7
5.1 Drilling and Soil Sampling.	7
5.2 Groundwater Sampling.	8
6.0 LABORATORY ANALYTICAL TESTING	9
6.1 Phase A Investigation.	9
6.2 Phase A Investigation Results.	9
6.3 Phase B Investigation and Results.	10
7.0 GEOLOGIC CONDITIONS	12
8.0 CONCLUSIONS	13
9.0 RECOMMENDATIONS	14
10.0 REFERENCES	15

TABLES

FIGURES

APPENDIX A

Boring Logs

APPENDIX B

Laboratory Analytical Data



**Report of Limited Phase II Environmental Site Assessment, 2300 Newport
Boulevard, Newport Beach, California**

1.0 INTRODUCTION

This report presents the results of the a limited Phase II environmental site assessment conducted at 2300 Newport Boulevard on October 30, November 3, 18, and 26, 2003. The work was conducted according to our October 17, 2003 proposal with client approved modifications dated October 29, 2003. The purpose of the investigation was to assess the environmental condition of subsurface soils and groundwater at the site.

2.0 SCOPE OF WORK

The approved scope of work to assess the subsurface soils and groundwater consisting of the following tasks:

Task 1 - Health and Safety Plan Preparation, Field Preparation, and Underground Service Alert Notification. Petra performed the following prior to the initiation of field work:

- A site to reconnaissance to assess proposed boring locations and to mark the selected proposed or revised boring locations for evaluation by the appropriate local utilities.
- Prepared a health and safety plan in accordance with 29 CFR 1910 to address worker safety during the implementation of the field activities.
- Contacted and coordinated field activities with subcontractors.
- Contacted Underground Service Alert (USA) for notification of planned drilling activities, in accordance with state law.



Task 2 - Soil and Groundwater Sampling.

October 24. Modifications

Based on observations made during the Phase I Environmental Site Assessment (ESA) site walk, Petra suggested an additional five borings be drilled and sampled during the Phase A portion of the investigation. The additional borings were recommended to allow initial assessment of areas of concern noted in the Phase I ESA. The modification was approved by Mr. Steve Schapel on October 29, 2003.

Phase A Soil Sampling - Petra collected soil and groundwater samples from eleven borings drilled at representative locations of former site usage to provide preliminary assessment information of the environmental condition of subsurface soils in various areas of the shipyard. The Phase A sampling was screening level to provide data to assess the environmental condition of the subsurface soils in areas of similar former site usage. Analytical targets for soil and groundwater include metals, polychlorinated biphenyls (PCBs), pentachlorophenol (PCP), polynuclear aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), as well as California Assessment Method (CAM) metals.

Borings were advanced using Geoprobe drilling equipment. Soil samples were collected at depths of 1.0, 3.0, 5.0, and 10 feet below grade or until groundwater was encountered. Retrieving the ten foot samples was difficult due to saturated conditions therefore no attempt was made to obtain a fifteen foot sample. All the soil samples collected were sent to Orange Coast Analytical Laboratory. Selected samples were analyzed. The remaining samples are archived for potential future analysis. Samples submitted to the laboratory were analyzed as follows:

- Seven soil samples and two groundwater sample for lead, copper, and arsenic by EPA methods 6010\7471A.



- Seven soil samples and four groundwater samples for CAM metals by EPA methods 6010B/7010.
- Thirteen soil samples and six groundwater samples for PCBs by EPA Method 8082.
- Ten soil samples and five groundwater samples for pentachlorophenol by EPA Methods 8041/604.
- Thirteen soil samples and six groundwater samples for polynuclear aromatic hydrocarbons by EPA Method 8310
- Three soil samples and one groundwater sample for TPH by EPA Method 8015M.
- One soil sample and one groundwater sample for volatile organic compounds (VOCs) by EPA Method 8260B.

Phase B - Soil Sampling - The purpose of the Phase B portion of the investigation was to further assess areas of the site based on the information obtained during Phase A. The Phase B investigation consisted of five targets of further investigation which were:

- (1) Analyzing deeper samples from the Phase A borings where elevated concentrations of metals were present
- (2) Conducting Soluble Threshold Limiting Concentration (STLC) analysis for lead and copper on one sample with elevated lead and copper concentrations from Phase A boring ET-1 to assess whether elevated metals concentrations which would require handling the soil as a hazardous waste.
- (3) Further investigation to delineate areas of elevated (hazardous) metals concentrations, including STLC analysis for selected soil samples containing lead above the EPA PRG value for lead.
- (4) Assessment of the approximate extent of fuel hydrocarbon contamination detected in boring ET-6.



- (5) Further assessment of groundwater for metals concentrations in the areas where soil was shown to contain elevated lead concentrations.

The Phase B investigation included drilling and sampling 15 borings. Samples were collected and submitted for the following analysis:

- Forty-one soil samples for copper and 42 soil samples for lead by EPA methods 6010.
- Two soil samples and two groundwater samples for CAM metals by EPA methods 6010B/7010.
- Eleven soil samples and four groundwater samples for PCBs by EPA Method 8082.
- Seventeen soil samples and three groundwater samples for pentachlorophenol by EPA Methods 8041/604.
- Thirteen soil samples and four groundwater samples for polynuclear aromatic hydrocarbons by EPA Method 8310
- Nine STLC analysis for lead and one STLC analysis for copper.
- Four groundwater samples were analyzed for cadmium, copper, and lead, zinc, pH, and total dissolved solids (TDS) by EPA methods 6010B/7010 and 160.1/9045

Task 3 - Preparation of Draft and Final Report.

3.0 FIELD SETTING

3.1 Previous Site Use

Based on information obtained during Petra's Phase I ESA (2003), a shipyard has been located at the site since 1915. There is no known prior use of the site. Activities reportedly conducted on the site included construction of wooden-hulled mine



sweepers for the United States Navy from the 1940s until the 1950s. Minesweeper construction reportedly involved the use of chemical wood preservatives. Other site uses that may have impacted channel sediments include boat maintenance activities involving the use of petroleum compounds and paints or discarding of redundant vessel related products into areas surrounding the floating docks. Information developed during the Phase I ESA indicates the northern portion of the site was used as a swimming beach several years sometime after 1951. Buildings present on site have been present for at least 55 years.

3.2 Site Location and Description

The site is located on 2.4 acres of land at 2300 Newport Boulevard in the City of Newport Beach. The site is currently developed with approximately 12 buildings, 19 boat slips, and two boat slipways. Land use at the site consists of commercial and retail businesses, with asphalt-paved parking areas. The site location is shown on Figure 1 "Site Location Map."

3.3 Assessment Area

The environmental assessment conducted during this investigation was confined to the landward side of the seawall in the parking areas and building areas on site. Previous investigations conducted by Petra for others focused on limited areas on the seaward side of the seawall and within the slipways. The area of investigation consists of the two parking areas present along the north and south portion of the site, the existing shipyard located in the central portion of the site, and site buildings located throughout the site. Figure 2 shows the area assessed during the present investigation. The major portion of the site has been largely unchanged for at least 35 years. The northern portion of the site, currently used as a parking lot, has been used for boat construction and a swimming beach prior to the current use.



4.0 PREVIOUS ENVIRONMENTAL ASSESSMENT WORK

4.1 Subsurface Environmental Assessments

Petra completed two rounds of investigative work of the site (2000 and 2002). Petra was retained by the current site owner, Mr. Blurock to provide environmental consultation in relation to issues arising from the proposed re-building of the seawall, replacement of the docks which form the boat slips on site, and the environmental condition of sediments within two slipways which extend landward from the seawall. Elevated concentrations of lead and polychlorinated biphenyls (PCBs) were detected in the slipways and/or shallow sediments immediately outside the seawall. Based on the findings of the subsurface assessment, it was determined the site sediments in a shoal area and in the key ways require remediation. The subsurface assessments are provided in our reports entitled "Report of Limited Sediment Sampling at South Coast Ship Yard and Design Center, 2300 Newport Boulevard, Newport Beach, California," dated July 5, 2000 and "Report of Additional Subsurface Environmental Assessment at the South Coast Ship Yard and Design Center Located at 2300 Newport Boulevard, Newport Beach, California," dated October 11, 2002.

4.2 Phase I Environmental Site Assessment

A Phase I ESA for the site was conducted by Petra for the subject site with the results provided in our report entitled "Phase I Environmental Site Assessment; Proposed Mixed Use Development at 2300 Newport Boulevard, City of Newport Beach, County of Orange, California," dated December 3, 2003. The Phase I investigation concluded: "Due to the historical land use at the site, it is recommended that a limited subsurface investigation be conducted around the areas of the foundry, the machine shop, the boat maintenance area, and the former ship construction areas (northern parking lot, 2300 Newport Boulevard, and 2122 Newport Boulevard). Information developed during the



Phase I ESA, based on former site usage, provided the initial basis for the investigative targets discussed in this report. In addition, the area around a former winch system located near Newport Boulevard in the central part of the site was added to the areas of concern for the Phase II Investigation. Historical site photographs provided by the current site owner indicated the winch system consisted of a cable-on-drum located within a concrete structure constructed below grade. According to the site maintenance supervisor, the winch and concrete structure were removed. However, during drilling of ET-6, a concrete slab was encountered at the five-foot depth indicating the concrete structure was not removed, but rather filled with sand and capped with concrete. Groundwater was encountered above the concrete slab at five feet indicating that groundwater is probably trapped in the concrete structure (discussed in Section 5.0 below).

5.0 FIELD WORK

5.1 Drilling and Soil Sampling

Drilling and sampling during the Phase A portion of this investigation was conducted on October 30, 2003 and November 3, 2003. The Phase B sampling was conducted on November 18 and November 26, 2003.

Samples were collected from borings by driving a four-foot long sample barrel lined with an acetate sleeve, into the underlying sediment using a hydraulic ram and a vibrating hammer device. The sample barrel was driven to collect samples from 1.0, 3.0, 5.0, and 10.0 feet below ground surface. Sample recovery varied from zero to 100% depending on the friability of the sediments.



Samples collected were capped with a teflon sheet and plastic cap, geologically logged, labeled, and placed in a cooler until transport to the laboratory for analysis. The boring logs of the sediment samples collected are presented in Appendix A.

5.2 Groundwater Sampling

Drilling was continued until saturated subsurface sediments were penetrated. Groundwater samples were collected using a hydropunch groundwater screen and a peristaltic pump. Groundwater samples were collected from ten of the eleven borings drilled during the Phase A portion (Boring ET-8 could not be drilled below the 3.0 foot depth; therefore, a groundwater sample could not be obtained). Samples were collected into the appropriate laboratory prepared sample containers and placed on ice in a cooler until transport to the laboratory for analysis.

Phase B groundwater sampling consisted of analysis of groundwater from boring ET-14 located in the vicinity of the former winch system. The purpose of the sampling and analysis was to assess whether fuel hydrocarbons detected in the groundwater from sample ET-6 extended east toward the slipway. Additional groundwater samples were collected from the sediments beneath the northern parking lot to assess whether elevated concentrations of lead in shallow soils in this area have impacted the groundwater. Groundwater samples collected from borings ET-1A, ET-15, ET-18, and ET-20 were filtered through a 0.45 micron filter to remove suspended sediments prior to collecting the sample. This technique was employed to reduce the possibility of suspended sediments being dissolved and resulting in a false positive metal concentration in the groundwater sample.



6.0 LABORATORY ANALYTICAL TESTING.

6.1 Phase A Investigation

The Phase A sampling consisted of drilling and sampling soil and groundwater in eleven borings spread out over the specific areas of concern, the former foundry, machine shop, former shipyard, current boat maintenance yard, and an area which was the former site of a winch system used to pull ships landward for maintenance. The areas of concern and associated analytical screening targets are indicated in the table below.

Area of Concern	Analytical Targets
Former Foundry	Metals, PCBs, and PAHs
Machine Shop	Metals, PCBs, PCP, VOCs, and PAHs
Former Shipyard (current parking lot)	Metals, PCBs, PCP, TPH, and PAHs
Current Boat Maintenance Yard	Metals, PCBs, PCP, TPH, and PAHs
Winch System Area	Metals, PCBs, PCP, TPH, PAHs, and VOCs

The laboratory analytical program was designed to provide a screening level assessment of potential contaminants based on the former site usage.

6.2 Phase A Investigation Results

The results of the Phase A investigation indicated the following:

- Elevated concentrations of metals (lead and copper) were present in one boring located in the northern parking lot (ET-1).
- Concentrations of PCBs and PCP were not detected in soil or groundwater in any of the Phase A borings.



- TPH (fuel hydrocarbons) was detected in the groundwater from Boring ET-6.
- Low concentrations of VOCs were present in the groundwater sample from ET-6 (see Table 2)
- PAHs at concentrations generally associated with background levels in Southern California are present in nine out of eleven borings. Boring ET-1 at the one foot depth contained elevated PAH concentrations. The PAH-impacted soil is coincident with elevated lead concentrations and will be removed simultaneously with lead containing soil.

6.3 Phase B Investigation and Results

Based on the laboratory results of the Phase A sampling, the Phase B assessment was initiated on November 18, 2003 and included the following:

- STLC analysis for lead and copper for sample ET-1 at one foot (a STLC concentration of 5 milligrams per kilogram (mg/l) lead and 25 mg/l copper or greater indicates the soil will require handling during removal as a hazardous waste).
- Further investigation of the area in the vicinity of ET-6 (boring ET-14) for the extent of fuel hydrocarbons encountered in the groundwater sample in ET-6. Groundwater collected from ET-14, in addition to the previous parameters was analyzed for VOCs.
- Analysis of groundwater from ET-6 for VOCs.
- Drilling and sampling of two additional borings (ET-12 and ET-13) in the northern parking lot to assess elevated lead and PAH concentrations

The results of the November 18, 2003 sampling and analysis indicated the following:

- Elevated concentrations of lead (greater than 5 mg/l STLC) are present in subsurface sediments beneath the northern parking lot near the seawall (ET-1 at one foot, ET-12 at three feet and five feet and ET-13 at one foot).
- The groundwater sample analyzed from ET-14 located in the vicinity of ET-6 indicated fuel hydrocarbons present in groundwater at the ET-6 location is likely confined to the area around the boring (in groundwater present in the



concrete containment structure for the former winch system). However, elevated concentrations of PCBs were detected in soil from ET-14.

- Elevated PAH concentrations were present in samples ET-1, ET-12, ET-13, and ET-14

Based on the November 18, 2003 results, the client approved the request to further delineate the extent of elevated lead in the subsurface soils in the northern parking lot. On November 26, 2003 twelve additional borings were drilled and sampled in the northern parking lot in an effort to delineate the extent of soil containing elevated concentrations of lead and to provide a volume estimate of soil requiring removal and transport as a hazardous waste. Based on the Phase A results, soil samples were collected and analyzed for copper and lead. In addition, four groundwater samples were collected from the parking lot area (borings ET-1A, ET-15, ET-18, and ET-20). The groundwater samples were collected, filtered, and placed in sample containers. The groundwater samples were analyzed for cadmium, copper, lead, and zinc which are the TMDLs parameters developed by the Santa Ana Regional Water Quality Control Board (SARWQCB). The TMDLs were adopted by the USEPA Region 9 and provided in a document entitled "Total Maximum Daily Loads for Toxic Pollutants, San Diego Creek and Newport Bay, California," dated June 14, 2002. The TMDLs provide a means to reduce pollutants in the Rhine Channel by reducing the toxic loads reaching the Rhine Channel. Discharge of water into the Rhine Channel will be required to comply with the TMDLs.

The results of the November 26, 2003 investigation are summarized as follows:

- Hazardous concentrations of lead were detected in a soil sample from only a single additional boring, ET-15 at the one foot dept. The soil sample from the three foot depth did not contain hazardous concentrations of lead. Sample ET-21 at one foot contained 770 mg/kg lead. The STLC analysis was not conducted on this sample, however it is likely that this sample would yield an STLC value above the 5 mg/l threshold.



- Lead concentrations above the EPA PRG were present in ET-16 at three feet (250 mg/kg), ET-17 at one foot (160 mg/kg). The STLC values for these samples were slightly below the 5.0 mg/l threshold value.
- Groundwater analyzed from the four locations in the northern parking lot have cadmium, copper, lead, and zinc concentrations below the TMDLs for these metals.

The locations of the Phase A and Phase B borings are shown on Figure 3. The analytical results are summarized on Table 1 and Table 2. Laboratory data sheets and the chain of custody forms for the soil samples submitted to the laboratory are provided in Appendix B.

7.0 GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

Geologic materials encountered during this investigation are described by depth in the boring logs presented in Appendix A. The sediments encountered consisted of hydraulic fill consisting of sand and silty sand in the upper one to five feet. The hydraulic fill was generally clean of debris. Greater thickness of fill appears to be present closer to the seawall. Beneath the hydraulic fill are beach deposits consisting of fine to medium grained micaceous sand. The sand is brown in the upper five feet becoming dark bluish gray at depth. The sand layers consist of poorly to well graded sand with lenses of coarse sand and shell fragments and are faintly bedded to massive. A layer of organic clay was penetrated in some of the borings at depths ranging from four to six feet below ground surface. The organic clay is a natural sedimentary layer and is dark blue gray in color. Borings ET-8 and ET-9 located in the southern parking lot encountered a concrete obstruction at the three foot depth. The obstruction appears to be concrete rip-rap material used in the backfill behind the seawall. Staining of the soil was noted locally in borings located in the northern parking lot. Staining of black and red and was present only in the fill soils.



Groundwater was encountered in all of the borings. Due to the proximity of the Rhine Channel, groundwater depth is tidally influenced. The depth to groundwater beneath the site is a function of time and distance from the seawall. Areas closest to the seawall will have a groundwater surface elevation almost equivalent to the elevation of the water surface in the Rhine Channel. The areas landward of the seawall will have groundwater levels at elevations which lag behind the tidally influenced sea levels. Water from the Rhine Channel likely infiltrates into the subsurface beneath the site when the tide is high. Groundwater from beneath portions of the site likely flows seaward, discharging to the Rhine Channel when the tide is low. The groundwater levels encountered in the borings ranged from four to seven feet below ground surface.

8.0 CONCLUSIONS

The geologic and chemical data obtained during this investigation indicate that areas of concern requiring soil removals are confined to four areas on site. Three areas contain elevated concentrations of lead and the fourth area contains elevated concentrations of PCBs. Figure 4 shows the location of the four proposed removal areas.

Lead

Lead contamination is present in the eastern portion of the northern parking lot to depths of five feet and in the backfill placed in the former winch system concrete structure. A summary of the lead findings is provided below:

- The PRG for residential sites for lead is 150 mg/kg. Soil samples ET-1 at one foot, ET-3 at three foot, ET-4 at three feet, ET-6 at five feet, ET-12 at three feet, ET-12 at five feet, ET-13 at one foot, ET-15 at one foot, ET-16 at three feet, ET-17 at one foot and ET-21 at one foot contained lead concentrations above the PRG. The soils containing lead concentrations above the PRG should be removed and disposed off site. Figure 4 indicates the proposed lead removal areas.



- The STLC for lead was 26 mg/l in ET-1 at one foot, 13 mg/l in ET-12 at three feet, 6.5 mg/l in ET-12 at five feet, 15 mg/l in ET-13 at one foot, and 33 mg/l in ET-15 at one foot.
- The STLC analysis results indicate soil with lead concentrations in excess of 5mg/l will require handling as a hazardous waste. This area will include a volume of 850 to 1,050 cubic yards from Areas A, B, and C as indicated on Figure 4.

PCBs

Elevated PCB concentrations were detected only in boring ET-14. The EPA - PRG for PCBs is 220 ug/kg. The soil sample from ET-14 at six feet contained 3,000 ug/kg of the PCB congener Aroclor 1016 and 1,000 ug/kg of Aroclor 1260. These soils should be removed and disposed offsite. It is likely that PCB containing soils are present throughout this area and it should be anticipated that approximately 350 cubic yards of soil will require removal. The concentrations of PCBs in the ET-14 soil sample are below the 50 mg/kg concentration threshold which would require handling and disposal as a hazardous waste.

Groundwater

Groundwater beneath the northern parking lot does not appear to have been degraded from the metals in the upper soils. The concentrations of lead, copper, cadmium, and zinc are below the TMDLs set by the SARWQCB for the Rhine Channel. Fuel hydrocarbon contamination detected in groundwater from ET-6 appears to be confined within the concrete structure which formerly housed the winch system.

9.0 RECOMMENDATIONS

Regulation and oversight of the removal of contaminated soil in the site area will be conducted by the Orange County Health Care Agency. Therefore a copy of this report should be provided to that agency along with a workplan for soil removal.



ETCO INVESTMENTS, LLC
Limited Phase II Investigation
2300 Newport Boulevard, Newport Beach

January 6, 2004
J.N. 9257-03
Page 15

During the removal action, confirmation samples should be collected to confirm all soils containing elevated concentrations of lead and PCBs have been removed from the site. Soil removals should be conducted by contractors properly licensed to handle and dispose hazardous materials.

During removal of the sand backfill from the former wench system concrete structure, water containing hydrocarbons present within the sand should be removed, contained, and disposed.



ETCO INVESTMENTS, LLC
Limited Phase II Investigation
2300 Newport Boulevard, Newport Beach

January 6, 2004
J.N. 9257-03
Page 16

10.0 REFERENCES

- PETRA GEOTECHNICAL, INC. "Report of Limited Sediment Sampling at South Coast Ship Yard and Design Center, 2300 Newport Boulevard, Newport Beach, California" dated July 5, 2000
- PETRA GEOTECHNICAL, INC. "Report of Additional Subsurface Environmental Assessment at the South Coast Ship Yard and Design Center Located at 2300 Newport Boulevard, Newport Beach, California" dated October 11, 2002.
- CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SANTA ANA REGION "Final Problem Statement for the Total Maximum Daily Load For Toxic Substances In Newport Bay and San Diego Creek," dated December 15, 2000.
- COASTAL RESOURCES MANAGEMENT "Marine Biological Resource Assessment, South Coast Shipyards, Newport Bay, California", dated May 30, 2000.
- U.S. ENVIRONMENTAL PROTECTION AGENCY - REGION 9 "Total Maximum Daily Loads For Toxic Pollutants, San Diego Creek and Newport Bay, California" dated June 14, 2002
- UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Environmental Response Team, "Sediment Sampling "SOP# 2016, dated November 17, 1994.
- UNITED STATES GEOLOGICAL SURVEY, 1965, 7.5 Minute Topographic Map, Newport Beach Quadrangle, photo revised 1981.



TABLAS

Table 1
Summary Table of Soil Sampling Analytical Results - Metals
 2 of 3

Sample ID	CAM Metals																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
T-10-3.0	<5.0	1.7	3	<0.5	<0.5	1.5	<0.5	1	<1.0	<0.1	<1.0	0.78	<5.0	<0.5	<5.0	3.1	4.2
T-10-H ₂ O	<0.10	<0.050	0.11	<0.010	<0.010	0.072	<0.010	0.027	<0.050	<0.001	<0.050	0.022	<0.10	<0.010	<0.10	0.022	0.25
T-11-1.0	NT	1.6	NT	NT	NT	NT	NT	4.2	2.4	NT	NT	NT	NT	NT	NT	NT	NT
T-11-3.0	<5.0	1.6	2.4	<0.5	<0.5	3.4	<0.5	0.91	<1.0	<0.1	<1.0	0.65	<5.0	<0.5	<5.0	2.4	3.4
T-11-H ₂ O	<0.10	0.061	0.079	<0.010	<0.010	0.032	<0.010	0.019	<0.050	<0.001	<0.050	0.013	<0.10	<0.010	<0.10	0.018	0.12
T-12-1.0	NT	NT	NT	NT	NT	NT	NT	33	71	NT	NT	NT	NT	NT	NT	NT	NT
T-12-3.0	NT	NT	NT	NT	NT	NT	NT	170	200/13**	NT	NT	NT	NT	NT	NT	NT	NT
T-12-5.0	NT	NT	NT	NT	NT	NT	NT	200	190/6.5**	NT	NT	NT	NT	NT	NT	NT	NT
T-13-1.0	NT	NT	NT	NT	NT	NT	NT	89	150/15**	NT	NT	NT	NT	NT	NT	NT	NT
T-13-3.0	NT	NT	NT	NT	NT	NT	NT	3.9	2.1	NT	NT	NT	NT	NT	NT	NT	NT
T-13-5.0	NT	NT	NT	NT	NT	NT	NT	2.8	2.1	NT	NT	NT	NT	NT	NT	NT	NT
T-15-1.0	NT	NT	NT	NT	NT	NT	NT	85	330/33**	NT	NT	NT	NT	NT	NT	NT	NT
T-15-3.0	NT	NT	NT	NT	NT	NT	NT	56	51/2.0**	NT	NT	NT	NT	NT	NT	NT	NT
T-15-H ₂ O	NT	NT	NT	NT	<0.002	NT	NT	0.0028	0.0063	NT	NT	NT	NT	NT	NT	NT	0.21
T-16-0	NT	NT	NT	NT	NT	NT	NT	210	46	NT	NT	NT	NT	NT	NT	NT	NT
T-16-1.0	NT	NT	NT	NT	NT	NT	NT	9.1	4.7	NT	NT	NT	NT	NT	NT	NT	NT
T-16-3.0	NT	NT	NT	NT	NT	NT	NT	44	250/2.1**	NT	NT	NT	NT	NT	NT	NT	NT
T-17-0	NT	NT	NT	NT	NT	NT	NT	130	160/4.7**	NT	NT	NT	NT	NT	NT	NT	NT
T-17-3.0	NT	NT	NT	NT	NT	NT	NT	13	9.6	NT	NT	NT	NT	NT	NT	NT	NT
T-18-1.0	NT	NT	NT	NT	NT	NT	NT	15	5	NT	NT	NT	NT	NT	NT	NT	NT
T-18-3.0	NT	NT	NT	NT	NT	NT	NT	140	10	NT	NT	NT	NT	NT	NT	NT	NT
T-18-H ₂ O	NT	NT	NT	NT	<0.009	NT	NT	<0.002	<0.002	NT	NT	NT	NT	NT	NT	NT	<0.01
T-19-1.0	NT	NT	NT	NT	NT	NT	NT	11	8.8	NT	NT	NT	NT	NT	NT	NT	NT
T-19-3.0	NT	NT	NT	NT	NT	NT	NT	10	15	NT	NT	NT	NT	NT	NT	NT	NT
T-20-1.0	NT	NT	NT	NT	NT	NT	NT	10	4.7	NT	NT	NT	NT	NT	NT	NT	NT
T-20-3.0	NT	NT	NT	NT	NT	NT	NT	49	30	NT	NT	NT	NT	NT	NT	NT	NT

Table 1
Summary Table of Soil Sampling Analytical Results - Metals
 3 of 3

Sample ID	CAM Metals																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
ET-20-5.0	NT	NT	NT	NT	NT	NT	NT	1.2	<1.0	NT	NT	NT	NT	NT	NT	NT	NT
ET-20-15.0*	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	NT	NT	NT	NT	NT	NT	NT	<0.01
ET-21-1.0	NT	NT	NT	NT	NT	NT	NT	330	770	NT	NT	NT	NT	NT	NT	NT	NT
ET-21-3.0	NT	NT	NT	NT	NT	NT	NT	3	5.4	NT	NT	NT	NT	NT	NT	NT	NT
ET-22-1.0	NT	NT	NT	NT	NT	NT	NT	11	4.3	NT	NT	NT	NT	NT	NT	NT	NT
ET-22-3.0	NT	NT	NT	NT	NT	NT	NT	2.4	3.1	NT	NT	NT	NT	NT	NT	NT	NT
ET-23-1.0	NT	NT	NT	NT	NT	NT	NT	24	7.5	NT	NT	NT	NT	NT	NT	NT	NT
ET-23-3.0	NT	NT	NT	NT	NT	NT	NT	1.2	<1.0	NT	NT	NT	NT	NT	NT	NT	NT
ET-24-1.0	NT	NT	NT	NT	NT	NT	NT	24	25	NT	NT	NT	NT	NT	NT	NT	NT
ET-24-3.0	NT	NT	NT	NT	NT	NT	NT	3.1	1.5	NT	NT	NT	NT	NT	NT	NT	NT
ET-25-1.0	NT	NT	NT	NT	NT	NT	NT	33	5.7	NT	NT	NT	NT	NT	NT	NT	NT
ET-25-3.0	NT	NT	NT	NT	NT	NT	NT	50	27	NT	NT	NT	NT	NT	NT	NT	NT
ET-25-5.0	NT	NT	NT	NT	NT	NT	NT	40	49	NT	NT	NT	NT	NT	NT	NT	NT
ET-26-1.0	NT	NT	NT	NT	NT	NT	NT	24	11	NT	NT	NT	NT	NT	NT	NT	NT
ET-26-3.0	NT	NT	NT	NT	NT	NT	NT	6.8	12	NT	NT	NT	NT	NT	NT	NT	NT

Notes

All concentrations listed in mg/kg

CAM = California Assessment Method

1/2O=Water sample-units in mg/L

= sample collected after filtering through 0.45 micron filter. See lab reports in Appendix B for detection limits.

* = STLC analysis

Table 2
Summary Table of Soil Sampling Analytical Results
Sheet 1 of 5

Sample ID	TPH	MDL	PCBs		MDL	Penta	MDL	VOCs	MDL	PAHs		MDL
	8015B mg/kg	mg/kg	8082 ug/kg	ug/kg	ug/kg	8041/804 ug/kg	ug/kg	8280B ug/kg	ug/kg	8310 ug/kg	ug/kg	
ET-1-2.0	ND	<5.0	ND	<25	ND	<100	NT			Benz(a)anthracene	43	<2.0
										Benzo(a)pyrene	160	<2.0
										Benzo(b)fluoranthene	260	<2.0
										Benzo(k)fluoranthene	130	<2.0
										Benzo(g,h,i)perylene	180	<2.0
										Chrysene	140	<2.0
										Dibenzo(a,h)anthracene	36	<2.0
										Fluoranthene	42	<2.0
										Pyrene	120	<2.0
ET-1-3.0	ND	<5.0	ND	<25	ND	<100	NT			Indeno(1,2,3-C,D)pyrene	230	<2.0
										Benzo(a)anthracene	6.2	<2.0
										Benzo(a)pyrene	7.3	<2.0
										Benzo(b)fluoranthene	5.7	<2.0
										Benzo(k)fluoranthene	3.8	<2.0
										Benzo(g,h,i)perylene	5.8	<2.0
										Chrysene	5.4	<2.0
										Fluoranthene	7.8	<2.0
										Pyrene	8.9	<2.0
										Phenanthrene	2.2	<2.0
										Indeno(1,2,3-C,D)pyrene	8.1	<2.0
ET-1-H2O	NT		ND	<5.0ug/l	ND	<1.0ug/l	NT			ND		<0.05ug/l
ET-2-1.0			ND	<25	ND	<100				Benzo(a)pyrene	2.5	<2.0
										Benzo(b)fluoranthene	2.4	<2.0
										Benzo(k)fluoranthene	1.8	<2.0
										Fluoranthene	2.7	<2.0
										Pyrene	2.5	<2.0
										Indeno(1,2,3-C,D)pyrene	2.1	<2.0
ET-2-3.0	NT		ND	<25	ND	<100	NT			ND		<2.0
ET-2-H2O	NT		ND	<5.0	ND	<1.0	NT			Naphthalene	0.1	<0.05

Table 2
Summary Table of Soil Sampling Analytical Results
Sheet 2 of 5

Sample ID	TPH	MDL	PCBs	MDL	Penta	MDL	VOCs	MDL	PAHs	MDL	
	8015B mg/kg	mg/kg	8082 ug/kg	ug/kg	8041/604 ug/kg	ug/kg	8260B ug/kg	ug/kg	8310 ug/kg	ug/kg	
ET-3-1.0	ND	<5.0	ND	<25	ND	<100			Benz(a)anthracene	21	<10
									Benzo(a)pyrene	58	<10
									Benzo(b) fluoranthene	60	<10
									Benzo(k) fluoranthene	50	<10
									Benzo(g,h,i)perylene	51	<10
									Chrysene	19	<10
									Dibenzo(a,h)anthracene	11	<10
									Fluoranthene	44	<10
									Pyrene	43	<10
									Phenanthrene	34	<10
									Indeno(1,2,3-C,D)pyrene	51	<10
ET-3-3.0	ND	<5.0	ND	<25	ND	<100		NT		ND	<2.0
ET-3-H2O	NT		ND	<5.0	ND	<1.0		NT	Naphthalene	0.13	<0.05
ET-4-1.0	NT		ND	<25	ND	<100		NT	ND		<2.0
ET-4-3.0	NT		ND	<25	ND	<100		NT	Benz(a)anthracene	2.8	<2.0
									Benzo(b) fluoranthene	5.6	<2.0
									Benzo(k) fluoranthene	4	<2.0
									Chrysene	3.5	<2.0
									Fluoranthene	6	<2.0
ET-4-H2O	NT		ND	<5.0ug/l	ND	<1.0ug/l		NT		ND	<0.05ug/l
ET-5-1.0	NT		ND	<25	ND	<100		NT		ND	<2.0
ET-5-3.0	NT		ND	<25	ND	<100		NT	Benz(a)anthracene	13	<2.0
									Benzo(a)pyrene	7.4	<2.0
									Benzo(b) fluoranthene	23	<2.0
									Benzo(k) fluoranthene	12	<2.0
									Benzo(g,h,i)perylene	12	<2.0
									Chrysene	31	<2.0
									Fluoranthene	15	<2.0
									Pyrene	19	<2.0
									Phenanthrene	4.4	<2.0
									Indeno(1,2,3-C,D)pyrene	12	<2.0
									Naphthalene	4.1	<2.0
ET-5-H2O	NT		ND	<5.0	ND	<1.0		NT	Naphthalene	0.056	<0.05

Table 2
Summary Table of Soil Sampling Analytical Results
Sheet 3 of 5

Sample ID	TPH		PCBs		Pests		VOCs		PAHs		MDL ug/kg			
	8016B mg/kg	MDL mg/kg	8082 ug/kg	MDL ug/kg	8041/804 ug/kg	MDL ug/kg	8260B ug/kg	MDL ug/kg	8310 ug/kg					
ET-6-1.0	ND	<5.0	ND	<25	ND	<100						Benzo(a)pyrene	11	<4.0
												Benzo(b)fluoranthene	26	<4.0
												Benzo(k)fluoranthene	18	<4.0
												Benzo(g,h,i)perylene	22	<4.0
												Chrysene	60	<4.0
												Fluoranthene	19	<4.0
												Pyrene	40	<4.0
												Phenanthrene	34	<4.0
												Indeno(1,2,3-C,D)pyrene	30	<4.0
ET-6-5.0	ND	<5.0	ND	<25	ND	<100			NT			Naphthalene	8.4	<4.0
												Benzo(b)fluoranthene	2.5	<2.0
												Chrysene	5.5	<2.0
												Fluoranthene	2.4	<2.0
												Pyrene	4.7	<2.0
												Phenanthrene	2.6	<2.0
ET-6-H2O	VFH	1,100	<50	ND	<5.0	NT						Indeno(1,2,3-C,D)pyrene	3.8	<2.0
												Acenaphthalene	0.42	<0.25
												Pyrene	0.4	<0.25
												Flourene	0.81	<0.25
												Naphthalene	0.87	<0.25
ET-7-1.0	ND	<5.0	ND	<25	ND	<100						Flourancene	3.3	<2.0
												Phenanthrene	2	<2.0
												indeno(1,2,3-c)pyrene	5.8	
ET-7-3.0	ND	<5.0	ND	<25	ND	<100			ND	<2.5-<50		Acenaphthalene	3.2	<2.0
ET-7-H2O	ND	<50 ug/l	ND	<5.0ug/l	ND	<1.0ug/l						ND		<0.05ug/l
ET-8-3.0			ND	<25								ND		<2.0
ET-9-1.0	NT		ND	<25	ND	<100			NT			Fluoranthene	3.1	<2.0
												Phenanthrene	2	<2.0
ET-9-3.0	NT		ND	<25	ND	<100			NT			Indeno(1,2,3-C,D)pyrene	5.1	<2.0
ET-9-H2O	NT		ND	<5.0ug/l	ND	<1.0ug/l			NT			ND		<2.0
									NT			ND		<0.05ug/l

Table 2
Summary Table of Soil Sampling Analytical Results
Sheet 4 of 5

Sample ID	TPH	MDL	PCBs	MDL	PCBs	MDL	VOCs	MDL	PAHs	MDL			
	8015B mg/kg	mg/kg	808Z ug/kg	ug/kg	804J/804 ug/kg	ug/kg	8260B ug/kg	ug/kg	8310 ug/kg	ug/kg			
ET-10-1.0	NT										Acenaphthene	2	<2.0
											Benzo(a)anthracene	2.4	<2.0
											Benzo(a)pyrene	6	<2.0
											Benzo(b)fluoranthene	6	<2.0
											Benzo(k)fluoranthene	3.3	<2.0
											Benzo(g,h,i)perylene	9.5	<2.0
											Fluoranthene	7.3	<2.0
											Pyrene	5.9	<2.0
											Phenanthrene	2.6	<2.0
											Indeno(1,2,3-C,D)pyrene	14	<2.0
											Naphthene	2.6	<2.0
ET-10-3.0	NT		ND	<25	ND	<100			NT			ND	<2.0
ET-10-H2O	NT		ND	<5.0ug/l	NT	<1.0ug/l			NT			ND	<0.05ug/l
ET-11-3.0	NT		ND	<25	NT				NT			ND	<2.0
ET-11-3.0	NT		ND	<25	NT				NT			ND	<2.0
ET-11-H2O	NT		ND	<5.0ug/l	NT				NT			ND	<0.05ug/l
ET-12-1.0											Benzo(a)anthracene	24	<10.0
											Benzo(a)pyrene	26	<10.0
											Benzo(b)fluoranthene	20	<10.0
											Benzo(k)fluoranthene	15	<10.0
											Benzo(g,h,i)perylene	17	<10.0
											Chrysene	22	<10.0
											Fluoranthene	41	<10.0
											Pyrene	36	<10.0
											Phenanthrene	12	<10.0
											Indeno(1,2,3-C,D)pyrene	27	<10.0
ET-12-3.0	NT		NT		NT				NT		Benzo(a)pyrene	190	<100
											Benzo(b)fluoranthene	150	<100
											Benzo(k)fluoranthene	270	<100
											Benzo(g,h,i)perylene	110	<100
											Fluoranthene	180	<100
											Pyrene	160	<100
											Indeno(1,2,3-C,D)pyrene	200	<100

Table 2
Summary Table of Soil Sampling Analytical Results
Sheet 5 of 5

Sample ID	TPH 8015B mg/kg	MDL mg/kg	PCBs 8082 ug/kg	MDL ug/kg	Pests 8041/804 ug/kg	MDL ug/kg	VOCs 8280B ug/kg	MDL ug/kg	PAHs 8310 ug/kg	MDL ug/kg	
ET-13-1.0	NT		NT		NT			NT	Benz(a)anthracene	190	<40
									Benzo(a)pyrene	220	<40
									Benzo(b) fluoranthene	190	<40
									Benzo(k) fluoranthene	120	<40
									Benzo(g,h,i)perylene	130	<40
									Chrysene	170	<40
									Fluoranthene	410	<40
									Pyrene	440	<40
									Phenanthrene	120	<40
									Indeno(1,2,3-C,D)pyrene	200	<40
ET-13-3.0	NT		NT		NT			NT		ND	<2.0
ET-14-6.0	NT		PCB-1016	3000	<25	ND	<100	NT	Benz(a)anthracene	81	<40
			PCB-1260	1000	<25				Benzo(a)pyrene	110	<40
									Benzo(b) fluoranthene	120	<40
									Benzo(k) fluoranthene	57	<40
									Benzo(g,h,i)perylene	81	<40
									Chrysene	93	<40
									Fluoranthene	250	<40
									Pyrene	250	<40
									Phenanthrene	100	<40
									Indeno(1,2,3-C,D)pyrene	100	<40
ET-14-H ₂ O	ND	<50	NT		NT			ND	<0.5-<2.0		

Notes:

TPH = Total Petroleum Hydrocarbons reported in mg/kg

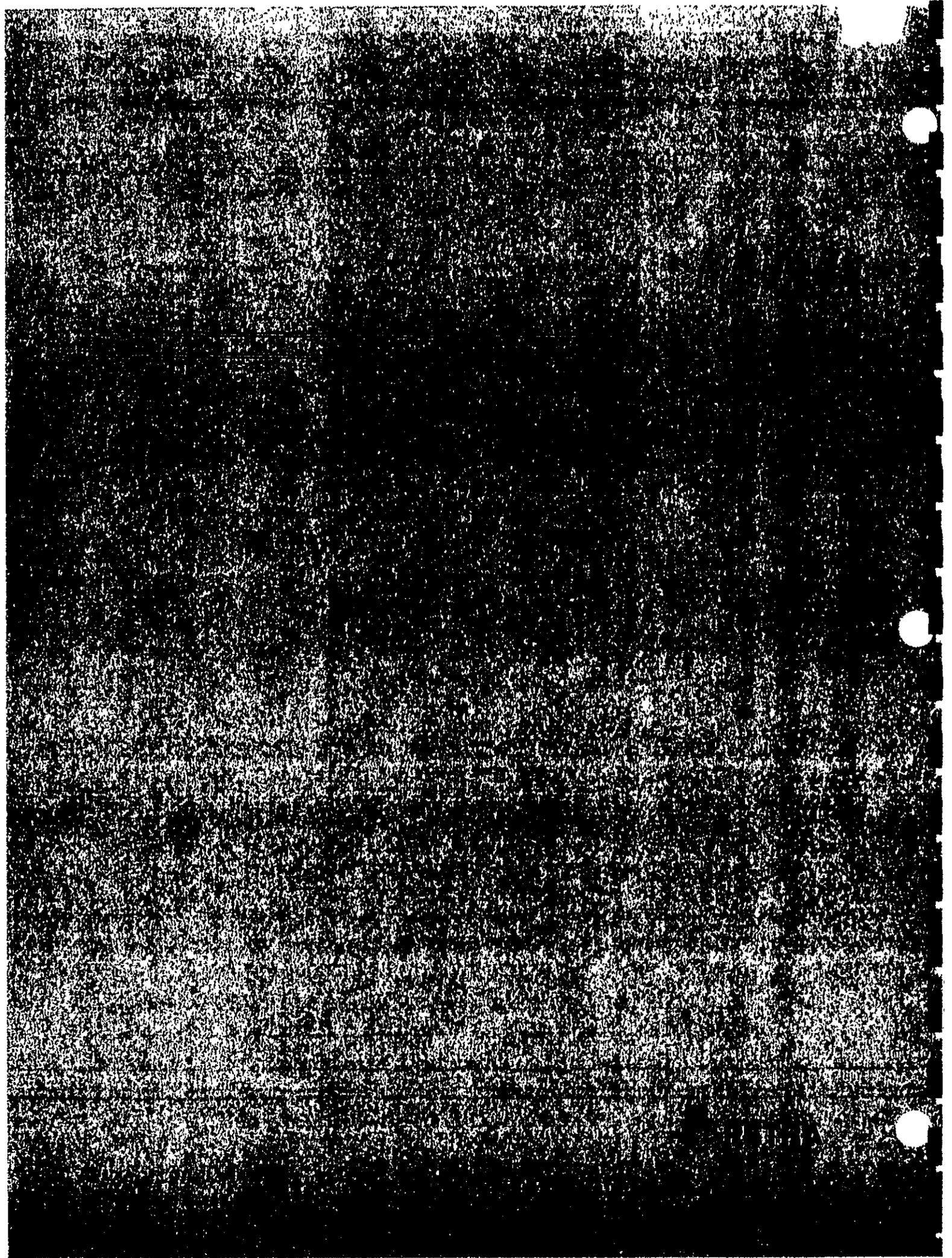
MDL = Method Detection Limit

OCP = Organochlorine Pesticides reported in mg/kg

PCBs = Polychlorinated Biphenols reported in mg/kg

VOCs = Volatile Organic Compounds reported in ug/kg

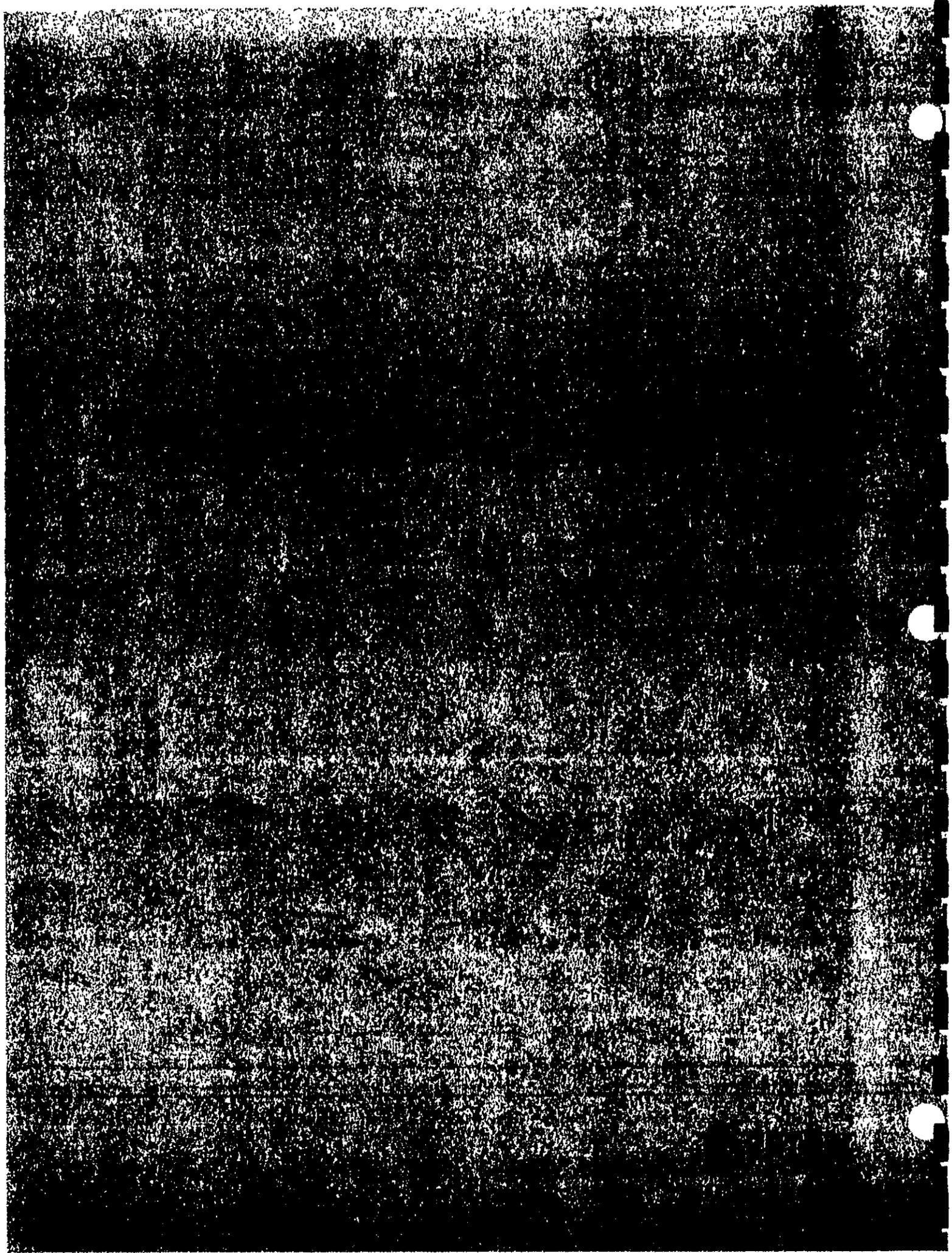
SVOCs = Semi-Volatile Organic Compounds reported in mg/kg





SITE

ET-1
ET-13
ET-17
ET-5
ET-16
ET-13
ET-3
ET-25
ET-21
ET-23
ET-18
ET-22
ET-19
ET-15
ET-2
ET-26
ET-20
ET-24





Project:		Boring No.: ET-1	
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03	
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV	
Drilling Co.: Strongarm		Approved By:	

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	R	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 10 ft.						
		4-inch Asphalt.						
		ARTIFICIAL FILL (Af) Poorly Graded Sand (SP): Brown to light gray; damp to moist; medium dense; fine- to medium-grained sand; some shell fragments.						
		@ 3.0 feet: Black pod; dark yellowish brown; medium to coarse sand; wet; medium dense.						
5		@ 5.0 feet: Grayish brown; saturated; fine to medium sand.						
		BEACH DEPOSITS (Ob) Poorly Graded Sand (SP): Dark greenish-gray; saturated; medium-grained sand.						
		Fine to very fine sand.						
10		Terminate Boring at 10.0 feet Collect Water Samples Backfilled with Bentonite chips.						

ENVIRONMENTAL LOG - vs. 9257-03.GPJ PETRA.GDT 12/23/03



Project:		Boring No.: ET-2
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/3/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	Run	Rec	PID (ppm)	OVA (ppm)	Oil Lab Test
		Depth to Water: Not Encountered Total Depth of Boring: 10 ft.							
		3-inch Asphalt.							
		ARTIFICIAL FILL (A0) Sand and Gravel (SW-GW): Brown mottled dark brown; large amounts of silt; gravel up to 1/2" diameter.							
		Gravel and Sand: Brown to yellowish brown.							
		BEACH DEPOSITS (Ob) Sand: very fine; saturated; dark bluish gray.							
5		Organic Clay (OL): Dark greenish-gray; wet; plastic; medium dense.							
		Sand (SP): Dark greenish-gray; saturated; poorly graded, medium to coarse sand; 10% shell fragments.							
10		End boring at 10 feet Collect water samples Backfilled with Bentonite chips Patched with asphalt.							

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03

PLATE A



PETRA

EXPLORATION LOG

Project:		Boring No.: ET- 3
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/3/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 10 ft. ARTIFICIAL FILL (Af) Mixed Sand, Silt, Clay: Dark brown; very damp; very soft; mottled reddish brown and black.							
		Sand (SP): Brown; very damp; fine- to medium-grained sand; poorly graded; mottled.							
5		BEACH DEPOSITS (Ob) Sand (SP): Poorly graded; fine to medium sand; dark yellowish brown to brown; 10% shell fragments; saturated; medium dense.							
		Organic Clay (CL): Dark greenish-gray; few shell fragments; plastic; strong organic odor.							
		Sand (SP): Dark greenish-gray; saturated; medium dense; medium-grained sand; poorly graded; 5% shell fragments; some fine sand.							
10		End boring at 10 feet Collect water samples Backfilled with Bentonite chips Patched hole with concrete.							

ENVIRONMENTAL LOG - 9257-03 GP1 PETRA_GDT 122303



EXPLORATION LOG

Project:		Boring No.: ET-4
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	U	R	PID (ppm)	OVA (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 10 ft. ARTIFICIAL FILL (Ad) Sand (SW): Grayish-brown; damp to moist; medium dense; well graded; fine to coarse grained sand; 10-15% shell fragments. @ 3.0 feet: Medium to coarse-grained sand; black -brownish yellow - brown smear; wet.						
5		BEACH DEPOSITS (Ob) Sand (SW): Dark red; maroon staining; yellow brown staining; saturated; fine sand. @ 5.0 feet: Dark greenish gray; fine sand; micaceous; saturated.						
10		@ 10.0 feet: Coarse grained; 15% shell fragments. Terminate boring at 10 feet Collect water samples Backfilled with Bentonite chips Patched with concrete.						

ENVIRONMENTAL LOG - V2 9257-03 GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-5
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/3/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	u	c	PID (ppm)	OVA (ppm)
		Depth to Water: Not Encountered. Total Depth of Boring: 10 ft. ARTIFICIAL FILL (Af) Sand (SP): Brown to light brown; medium dense; fine-grained sand; poorly graded; few scattered gravel.							
5		BEACH DEPOSITS (Ob) Sand (SP): Dark greenish-gray to brown; medium- to coarse-grained sand; poorly graded; 10% shell fragments. @ 6.0 feet: Sand (SP): poorly graded very fine sand; saturated; micaceous; dark greenish gray. @ 8.0 feet: Fine to medium grained sand; dark greenish gray; micaceous.							
10		End boring at 10 feet Collect water samples Backfilled with Bentonite chips Patched hole with concrete.							

ENVIRONMENTAL LOG - - 9257-03 GPJ PETRA.GDT 12/23/03



Project:		Boring No.: ET- 6
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	u	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 5 ft.						
		2 inches of Concrete (edge of concrete square).						
		<u>ARTIFICIAL FILL (A1)</u>						
		Sand (SP): Brown mottled dark brown - black; fine- to medium-grained sand; poorly graded; some silt.						
		@ 3.0 feet: Faintly layered.						
5		@ 5.0 feet: Pieces of plastic; dark greenish gray - black; medium to coarse sand with silt.						
		Refusal at 5 feet Water from 3 to 5 feet Collect water sample Backfilled with Bentonite chips Patched hole with concrete.						

ENVIRONMENTAL LOG - YZ 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-7
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	Run	Rec	PID (ppm)	OVA (ppm)	Other Lab Tests
		4-inches of Concrete.							
		ARTIFICIAL FILL (Af) Sand (SW): Brown; damp to very damp; fine- to coarse-grained sand; well graded; very faintly layered; pod of grayish brown silt with clay.							
5		BEACH DEPOSITS (Ob) Clayey Silt (CL): Dark greenish-gray; moist to wet; medium dense; plastic; strong organic odor.							
		Sand (SW): Dark greenish-gray; saturated; fine- to coarse-grained sand; well graded; very slight organic odor; shell fragments.							
		Silty Sand (SM): 25% silt.							
10		Sand (SW).							
		End boring at 10 feet Collect water samples Backfilled with Bentonite chips Patched hole with concrete.							

ENVIRONMENTAL LOG - v.2 9257-03.GPJ PETRA.GDT 12/23/03



PETRA

EXPLORATION LOG

Project:		Boring No.: ET-8
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	u	n	PID (ppm)	OVA (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 3.5 ft.						
		4-inches of Asphalt.						
		ARTIFICIAL FILL (Af) Sand (SW): Brown; medium dense; fine- to coarse-grained sand; well-graded; some organics; shell fragments.						
		Refusal at 3.5 feet - concrete. Moved 3 feet west, again refusal at 3.5 feet (possible concrete slab).						
		Terminate boring at 3.5 feet Backfilled with Bentonite chips Patched hole with asphalt.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET- 9
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	R	PID (ppm)	OVA (ppm)	Other Lab Tests
		4-inches of Asphalt.							
		ARTIFICIAL FILL (Af) Sand (SW): Brown; damp to very damp; medium dense; fine- to coarse-grained sand; well graded; few shell fragments.							
		@ 3.0 feet: Moist.							
		@ 4.0 feet: Dark grayish brown; 2-inch layer of gravel; slag chip; silty sand - sandy silt.							
5		BEACH DEPOSITS (Ob) Silty Clay (CL): 2" of organic clay; dark greenish gray; strong organic odor; medium dense. Sand (SW): Brown to gray; saturated; coarse-grained sand; 15% shell fragments.							
10									
		End boring at 11 feet Collect water samples Backfilled with Bentonite chips Patched hole with asphalt.							

ENVIRONMENTAL LOG - 9257-03 GSP1 PETRA.GDT 12/23/03



PETRA

EXPLORATION LOG

Page 1

Project:		Boring No.: ET-10	
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03	
Job No.: 9257-03	Drilling Method: Direct-Push		Logged By: BV
Drilling Co.: Strongarm		Approved By:	

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 11 ft.						
		ARTIFICIAL FILL (Af) Sand (SW): Brown; medium dense; fine- to coarse-grained sand; well graded; few 1" thick dark grayish brown silt layer; damp to very damp; irregular.						
		BEACH DEPOSITS (Ob) Sand (SP): Brown; damp; fine- to medium-grained sand.						
		Silty Clay (Organic) (CL): Dark greenish-gray; plastic; strong organic odor; 5-inches of organic.						
5		Sand (SP): Dark greenish-gray; moist; fine- to medium-grained sand; poorly graded; few shell fragments.						
10								
		End boring at 11 feet Collect water samples Backfilled with Bentonite chips Patched hole with concrete.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03

PLATE A-



Project:		Boring No.: ET-11
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 10/30/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Strongarm		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	u	R	c	PID (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 11 ft.							
		ARTIFICIAL FILL (Af) Sand (SP): Brown; damp to very damp; medium dense; fine- to medium-grained sand; poorly graded; few shell fragments.							
		BEACH DEPOSITS (Ob) Sand (SP): fine- to medium-grained sand.							
		Silty Clay (Organic): Dark greenish-gray; moist to wet; medium dense; strong organic odor; 4" thick organic clay.							
5		Sand (SW): Dark greenish-gray; fine- to coarse-grained sand; well graded; slight organic odor.							
10		Sand (SP): Dark greenish-gray; saturated; medium dense; coarse-grained sand; poorly graded; 10-15% shell fragments.							
		End boring at 11 feet Collect water samples Backfilled with Bentonite chips Patched hole with asphalt.							

ENVIRONMENTAL LOG - 9257-03 GFJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-12	
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/18/03	
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV	
Drilling Co.: Interphase		Approved By:	

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 10 ft.							
		2-inch Asphalt.							
		ARTIFICIAL FILL (AD)							
		Silty Sand (SM): Reddish-brown (5YR 4/3); damp; dense; fine-to medium-grained sand; moderate amounts of silt; few pebbles.							
		Sand (SP): Light reddish-brown to brown; black streak - red streak; moist; medium-grained sand; poorly graded.							
5		BEACH DEPOSITS (Ob)							
		Clayey Silt (MH): plastic; very moist; soft.							
		Sand with Silt (SP-SM): Black; wet; strong organic odor; moderate amounts of silt.							
		Sand (SP): Dark greenish-gray; wet; medium dense; medium-grained sand; poorly graded; few shell fragments.							
10		Terminate boring at 10 feet Backfilled with Bentonite chips.							

ENVIRONMENTAL LOG - VZ 9257-03.GPJ, PETRA.GDT 12/23/03



EXPLORATION LOG

Project:	Boring No.: ET-13
Location: 2300 Newport Blvd., Newport Beach, CA	Date: 11/18/03
Job No.: 9257-03	Drilling Method: Hand Auger
Drilling Co.: Interphase	Logged By: BV
Approved By:	

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 15 ft.						
		2-inch Asphalt.						
		ARTIFICIAL FILL (Af)						
		Silty Sand (SM): Brown; dry; large amounts of silt.						
		Sand (SP): Brown; slightly damp; medium dense; medium-grained sand; few pebbles.						
5		BEACH DEPOSITS (Ob)						
		Sand (SP): Dark greenish-gray; medium-grained sand; shell fragments; strong organic odor; few pebbles.						
		fine-grained sand; moderate organic odor.						
10		Greenish-gray.						
15		Sand (SP-SM): Yellowish-brown (10YR 5/4); saturated; dense; medium-grained sand with 25% shell fragments.						
		Terminate boring at 15 feet Backfilled with Bentonite chips.						

ENVIRONMENTAL LOG - 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Page 1 of 1

Project:		Boring No.: ET-14
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/18/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Oil Lab Test
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.						
		<u>ARTIFICIAL FILL (Af)</u> <u>Silty Sand (SM):</u> Brown to light brown; damp; dense; medium-grained sand; large amounts of silt.						
		<u>BEACH DEPOSITS (Ob)</u> <u>Sand (SP):</u> Gray; moist; dense; medium-grained sand.						
		@ 4.0 feet: Saturated.						
5		Black; odorous.						
		Dark greenish-gray; few small shell fragments.						
		Terminate boring at 6 feet Backfilled with Bentonite chips Replaced grass at surface.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03

PLATE A-



EXPLORATION LOG

Project:		Boring No.: ET-15
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	R	PID (ppm)	OVA (ppm)	Other Lab Tests
		<p>Depth to Water: Not Encountered Total Depth of Boring: 6 ft.</p> <p>ARTIFICIAL FILL (Af) <u>Silty Sand (SM):</u> dry; medium dense; fine-grained sand; large amounts of silt; some roots and wood chips. <u>Sand (SP):</u> Brown pinkish brown; poorly graded medium sand.</p>							
		<p>BEACH DEPOSITS <u>Sandy Silt (ML):</u> @ 4.0 feet: Dark bluish gray sand. @ 4.5 feet: Medium sand, brown. @ 5.0 feet: Silty Clay: Dark bluish gray; strong organic odor. @ 5.5 feet: Sand (SW): Well graded sand; 25% shell fragments.</p>							
5		<p>End boring at 6 feet Collect water sample Backfilled with Bentonite chips Water at 7 feet (0850 hrs).</p>							

ENVIRONMENTAL LOG - 9257-03 GPL PETRA.GDT 12/23/03



Project:		Boring No.: ET-16
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	Run	Rec	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.						
		2" Asphalt.						
		<u>ARTIFICIAL FILL (Af)</u>						
		Silty Sand with Gravel (SM): Brown to dark brown; dry.						
		Sand (SP): Brown; medium- to coarse-grained sand.						
		Brown to gray; some shell fragments.						
5		<u>BEACH DEPOSITS (Ob)</u>						
		Sand (SP): Dark bluish-gray.						
		End boring at 6 feet Backfilled with Bentonite chips Asphalt patched Water at 6 feet (0930 hrs).						

ENVIRONMENTAL LOG - VZ 9257-03.GPJ PETRA.GDT 12/23/03



Project:		Boring No.: ET-17
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	R	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.						
		ARTIFICIAL FILL (Af)						
		Silty Sand (SM): Brown; dry; fine-grained sand; large amounts of silt.						
		Sand (SP): Brown; very damp; medium- to coarse-grained sand; poorly graded.						
		Some shell fragments; brown-gray.						
5		Wet.						
		BEACH DEPOSITS (Ob)						
		Silty Clay (CL): Dark bluish-gray; very damp to moist; organic; plastic.						
		End of boring at 6 feet Backfilled with Bentonite chips Asphalt patched Water at 5.5 feet.						

ENVIRONMENTAL LOG - 9257-03.GPJ PETRA.GDT 12/23/03



Project:		Boring No.: ET-18
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	u	c	PID (ppm)	OVA (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.						
		2" asphalt. ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Brown; fine-grained sand; large amounts of silt. Sand (SP): Light brown tan; dry; medium-grained sand; few pebbles and small gravel.						
5		BEACH DEPOSITS (Ob) Sandy Silt (ML): Dark bluish-gray; fine-grained sand; mottled reddish brown. Sand (SP): Brown; moist; fine- to medium-grained sand. Silty Sand (SM): Brown; moist. Sand (SP): Dark bluish-gray; wet; fine- to medium-grained sand; 10% shell fragments.						
		End boring at 6 feet Collect water sample Backfilled with Bentonite chips Asphalt patched Water at 5.5 feet.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-19
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA. (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. 2" asphalt. <u>ARTIFICIAL FILL (Af)</u> Silty Sand with Gravel (SM). Sand (SP): Brown; dry; medium dense; medium-grained sand.						
5		<u>BEACH DEPOSITS (Ob)</u> Silty Sand (SM): Brown to dark yellowish-brown; moist to wet; mottled reddish brown. Sand (SP): Dark bluish-gray; wet; medium- to coarse-grained sand; 25% shell fragments; moderate organic odor. Micaceous; fine grained with 1" clay layer.						
		End boring at 6 feet Backfilled with Bentonite chips Asphalt patched.						

ENVIRONMENTAL LOG - 9257-03.GPJ PETRA.GDT 12/22/03



EXPLORATION LOG

Project:		Boring No.: ET-20
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	U	R	Rec	PID (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.							
		ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Brown to dark brown; damp; medium dense; medium-grained sand; large amounts of silt.							
		BEACH DEPOSITS (Ob) Sand (SP): Brown; dry; medium dense; medium- to coarse-grained sand; poorly graded.							
5		Sand: dark bluish gray; saturated; some shell fragments.							
		End boring at 6 feet Backfilled with Bentoite chips.							

ENVIRONMENTAL LOG - VZ 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-21
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R	R	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Brown to dark brown; damp; medium dense; medium-grained sand; large amounts of silt. Sand (SP): Brown; dry; medium dense; medium- to coarse-grained sand; poorly graded.						
5		BEACH DEPOSITS (Ob) Sand (SP): Bluish-gray; saturated; some shell fragments.						
		End boring at 6 feet Backfilled with Bentonite chips.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03



PETRA

EXPLORATION LOG

Project:		Boring No.: ET-22
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	u	R	c	PID (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. <u>ARTIFICIAL FILL (Af)</u> Silty Sand with Gravel (SM): Brown; fine-grained sand; large amounts of silt. Sand (SP): Brown to light brown; damp; medium dense; medium-grained sand.							
5		<u>BEACH DEPOSITS (Qb)</u> Sand (SP): Dark bluish-gray; wet; medium- to coarse-grained sand; some shell fragments. Silty Clay (CL): Dark bluish-gray; organic; plastic; roots.							
		End boring at 6 feet Backfilled with Bentonite chips.							

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03



PETRA

EXPLORATION LOG

Project:		Boring No.: ET-23
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. 2" asphalt. ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Brown; dry; fine-grained sand; large amounts of silt. Sand (SP): very damp; medium dense; fine- to medium-grained sand; 5% shell fragments. @ 3.5 feet: Some silt and clay; brown.						
5		BEACH DEPOSITS (Ob) Sand (SP): Dark bluish-gray; wet; medium- to coarse-grained sand; 10% shell fragments. Organic Clay (OL): Dark bluish-gray; wet; plastic; roots.						
		End boring at 6 feet Backfilled with Bentonite chips Asphalt patched.						

ENVIRONMENTAL LOG - 9257-03.GPJ - PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-24
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. 2" asphalt. ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Brown; dry. Silty Sand (SM): Brown; very damp; medium dense; medium-grained sand; moderate to large amounts of silt; few pebbles. BEACH DEPOSITS (Ob) Sand (SP): Brown; medium dense; medium-grained sand; poorly graded. 1/2" mottled black layer. Sand: Dark bluish-gray; wet; medium- to coarse-grained sand; shell fragments. Organic Clay (OL): Dark bluish-gray; moist; plastic; roots. End boring at 6 feet Backfilled with Bentonite chips Asphalt patched.						

ENVIRONMENTAL LOG - V2 9257-03.GPJ PETRA.GDT 12/23/03



EXPLORATION LOG

Project:		Boring No.: ET-25
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Samples			Field and Laboratory Tests		
			Blows Per 6 in.	R u n	R e c	PID (ppm)	OVA (ppm)	Other Lab Tests
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft. ARTIFICIAL FILL (Af) Silty Sand with Gravel (SM): Dark brown; dry; fine-grained sand; large amounts of silt. Sand (SP): Light brown; dry; medium dense; fine-grained sand.						
		Silty Sand / Sandy Silt (SM/ML): Dark brown to reddish-brown; fine-grained sand; micaceous. BEACH DEPOSITS (Ob) Sand (SP): Brown to light brown; fine-grained sand. Becomes dark bluish gray; medium grained sand; 5% shell fragments; strong organic odor. 1" thick silt layer. @ 6.0 feet: Fine grained sand.						
5		End boring at 6 feet Backfilled with Bentonite chips.						

ENVIRONMENTAL LOG - v. 9257-03.GPJ PETRA.GDT 12/23/03



Project:		Boring No.: ET-26
Location: 2300 Newport Blvd., Newport Beach, CA		Date: 11/26/03
Job No.: 9257-03	Drilling Method: Direct-Push	Logged By: BV
Drilling Co.: Interphase		Approved By:

Depth (Feet)	Lithology	Material Description	Water	Samples			Field and Laboratory Tests		
				Blows Per 6 in.	R	u	c	PID (ppm)	OVA (ppm)
		Depth to Water: Not Encountered Total Depth of Boring: 6 ft.							
		2" asphalt.							
		ARTIFICIAL FILL (Af)							
		Silty Sand with Gravel (SM): Dark grayish-brown; damp; fine-grained sand; large amounts of silt.							
		Sand (SP): Brown; damp; medium dense; medium-grained sand.							
		Silty Clay with Sand (CL): Dark brown; mottled reddish brown; red streak.							
		BEACH DEPOSITS (Ob)							
		Sand (SP): Brown; damp; medium dense; medium-grained sand.							
		@ 4.0 feet: Wet.							
5		Sand: Dark bluish-gray; wet; fine-grained sand; micaceous; 5% shell fragments.							
		Organic Clay (OL): Dark bluish-gray; moderate organic odor; plastic; roots.							
		End boring at 6 feet Backfilled with Bentonite chips Asphalt patched.							

ENVIRONMENTAL LOG - V2 9257-03 GFIJ PETRA.GDT 12/23/03

APPENDIX B

LABORATORY REPORT



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2005

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14529B

Analytical Method: STLC 6010B

Date Sampled: 11/26/03

Date Received: 11/26/03

Date Reported: 12/12/03

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14529B
Client Project ID: ETCO
Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled: --- 11/26/03
Received: --- 11/26/03
Reported: 12/12/03 12/12/03

Lab Sample #: MB 03120102
Client Sample #: --- ET-6-5.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg
Lead	6010B	12/09/03	<1.0	36

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14529B
 Client Project ID: ETCO
 Client Project #: 9257-03

STLC METALS

Sample Description: Soil

Sampled:	--	11/28/03	11/28/03	11/28/03	11/28/03
Received:	--	11/28/03	11/28/03	11/28/03	11/28/03
Reported:	12/12/03	12/12/03	12/12/03	12/12/03	12/12/03

Lab Sample #:	MB	03110524	03110525	03110528	03110529
Client Sample #:	--	ET-15-1.0	ET-15-3.0	ET-16-3.0	ET-17-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l	mg/l	mg/l
Lead	6010B	12/12/03	<0.25	33	2.0	2.1	4.7

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14529B

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Lead	12/09/03	A03120008	2.4	20.0	21.7	20.7	97	92	5	75-125	20.

Definition of Terms :

R1	Result of QC Sample
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
ACP RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Lead	12/09/03	OCA 10588	20.0	19.5	98	80-120

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14529B

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Lead	12/12/03	03110398	0.0	0.200	0.186	0.188	93	94	1	75-125	2

Definition of Terms :

R1 Result of QC Sample
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Lead	12/12/03	OCA 10585	0.200	0.196	98	80-120

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: RE: Results: ETCO (2 of 65)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Mon, 8 Dec 2003 12:11:57 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Cc: David Darrow <ddarrow@petra-inc.com>

Reply-to: bvillalobos@petra-inc.com

Subject: RE: Results: ETCO

Thank you,

Please analyze ET-16-5.0 for Lead and run STLC analysis for Lead on samples ET-15-1.0, ET-15-3.0, ET-16-3.0, and ET-17-1.0

Thanks again

Brian

-----Original Message-----

From: Orange Coast Analytical, Inc. [mailto:markn@ocalab.com]

Sent: Monday, December 08, 2003 11:02 AM

To: Brian Villalobos

Cc: David Darrow

Subject: Results: ETCO

Good Morning Brian:

Results are attached for your review. Please contact me if you have any questions.

Thanks

Mark Noorani
Orange Coast Analytical, Inc.
714) 832-0064
714) 832-0067 (fax)

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2005

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO

Laboratory Reference: PTE 14529A

Analytical Method: 6010B

Date Sampled: 11/26/03

Date Received: 11/26/03

Date Reported: 12/09/03

Sample Matrix: Water

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14529A
 Client Project ID: ETCO
 Client Project #: 9257-03

METALS

Sample Description: Water

Sampled:	---	11/26/03	11/26/03	11/26/03	11/26/03
Received:	---	11/26/03	11/26/03	11/26/03	11/26/03
Reported:	12/09/03	12/09/03	12/09/03	12/09/03	12/09/03
Lab Sample #:	MB	03110526	03110533	03110534	03110544
Client Sample #:	---	ET-15-H2O	ET-18-H2O	ET-1A-H2O	ET-20-H2O

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l	mg/l	mg/l
Cadmium	6010B	12/03/03	<0.009	<0.009	<0.009	<0.009	<0.009
Copper	200.9	12/08/03	<0.002	0.0028	<0.002	<0.002	<0.002
Lead	200.9	12/08/03	<0.002	0.0063	<0.002	0.0022	<0.002
Zinc	6010B	12/03/03	<0.01	0.21	<0.01	<0.01	<0.01

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14529A

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Cadmium	12/03/03	03110526	0.0	0.100	0.0965	0.0968	97	97	0	75-125	20
Copper	12/08/03	03110526	0.0028	0.200	0.213	0.226	105	112	6	70-130	20
Lead	12/08/03	03110526	0.0063	0.200	0.216	0.216	105	105	0	70-130	20
Zinc*	12/03/03	03110526	0.21	0.400	0.391	0.394	45	46	1	75-125	20

Definition of Terms :

- R1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference
- * Matrix spike recovery was low, the method control sample recovery was acceptable.

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Cadmium	12/03/03	OCA 10585	0.100	0.0932	93	80-120
Copper	12/03/03	OCA 10585	0.200	0.221	111	85-115
Lead	12/03/03	OCA 10585	0.200	0.217	109	85-115
Zinc*	12/03/03	OCA 10585	0.400	0.373	93	80-120

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: RE: ETCO H2O (1 of 66)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Mon, 8 Dec 2003 12:51:24 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Reply-to: bvillalobos@petra-inc.com

Subject: RE: ETCO H2O

Yes, Please analyze all of the most recent H2O samples(ET-1A-H2O, ET-15-H2O, ET-18-H2O, ET-20-H2O) for the same parameters (Cd, Cu,PB, and Zn) at the lower detection limit on a 24 hr turnaround. Would the costs be 4 (samples) X \$80.00 (four parameters-\$20 each) X 2 (24hr turnaround)= \$640.00?

Thanks

Brian

-----Original Message-----

From: Orange Coast Analytical, Inc. [mailto:markn@ocalab.com]

Sent: Monday, December 08, 2003 12:28 PM

To: bvillalobos@petra-inc.com

Subject: Re: ETCO H2O

Hi Brian:

We can use a different methodology to analyze samples for lead to achieve a lower detection limit. There is a charge of \$20 per sample for this analysis.

Please let me know if you would like us to do this (detection limit will be 2ug/l).

Thanks

Quoting Brian Villalobos <bvillalobos@petra-inc.com>:

> Mark

> Is there a way to get the detection limits to <10 ug/l for the water samples? The Regional Board TMDLs for salt water for Lead is 8.1 ug/l.

> Sincerely,

> Brian Villalobos
> Petra Geotechnical
> (714) 549-8921

Mark Noorani
Orange Coast Analytical, Inc.
714) 832-0064
714) 832-0067 (fax)



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416 Expiration Date: 2005

Laboratory Director's Name (Print) : Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14512A

Analytical Method: STLC 6010B

Date Sampled: 11/18/03

Date Received: 11/18/03

Date Reported: 11/26/03

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512A
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

STLC METALS

Sample Description: Soil

Sampled:	—	11/18/03	11/18/03	11/18/03
Received:	—	11/18/03	11/18/03	11/18/03
Reported:	11/26/03	11/26/03	11/26/03	11/26/03

Lab Sample #:	MB	03110381	03110382	03110383
Client Sample #:	—	ET-12-3.0	ET-12-5.0	ET-13-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l	mg/l
Lead	6010B	11/26/03	<0.25	13	6.5	15

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14512A

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Lead	11/26/03	A03110084D	0.0	0.200	0.178	0.176	89	88	-1	75-125	20

Definition of Terms :

R1 Result of QC Sample
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Lead	11/26/03	OCA 10585	0.200	0.181	91	80-120

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: ETCO Project (1 of 62)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Fri, 21 Nov 2003 17:39:01 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Reply-to: bvillalobos@petra-inc.com

Subject: ETCO Project

Marie/Mark

Please run STLC analysis for Lead on Samples: ET-12-3.0

03110381

ET-12-5.0 03110382
ER-13-1.0 03110383

Sincerely,

Brian Villalobos
Petra Geotechnical
(714) 549-8921

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14512

Analytical Method: 8015g, 8041, 8310, 8082, 6010B, 8260

Date Sampled: 11/18/03

Date Received: 11/18/03

Date Reported: 11/20/03

Sample Matrix: Soil, Water

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	---	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03
Received:	---	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03
Extracted:	11/19/03	11/19/03	11/19/03	11/19/03	11/19/03	11/19/03
Analyzed:	11/19/03	11/19/03	11/19/03	11/19/03	11/19/03	11/19/03
Reported:	11/20/03	11/20/03	11/20/03	11/20/03	11/20/03	11/20/03

Lab Sample #:	MB	03110380	03110381	03110383	03110384	03110387
Client Sample #:	---	ET-12-1.0	ET-12-3.0	ET-13-1.0	ET-13-3.0	ET-14-6.0
Dilution Factor:	1	5	50	20	1	20

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	83-32-9	<2.0	<10	<100	<40	<2.0	<40
Acenaphthylene	208-96-8	<2.0	<10	<100	<40	<2.0	<40
Anthracene	120-12-7	<2.0	<10	<100	<40	<2.0	<40
Benz(a)anthracene	56-55-3	<2.0	24	<100	190	<2.0	81
Benzo(a)pyrene	50-32-8	<2.0	26	190	220	<2.0	110
Benzo(b)fluoranthene	205-99-2	<2.0	20	150	190	<2.0	120
Benzo(k)fluoranthene	207-08-9	<2.0	15	270	120	<2.0	57
Benzo(g,h,i)perylene	191-24-2	<2.0	17	110	130	<2.0	81
Chrysene	218-01-9	<2.0	22	<100	170	<2.0	93
Dibenzo(a,h)anthracene	53-70-3	<2.0	<10	<100	<40	<2.0	<40
Fluoranthene	206-44-0	<2.0	41	180	410	<2.0	250
Pyrene	129-00-0	<2.0	36	160	440	<2.0	250
Fluorene	86-73-7	<2.0	<10	<100	<40	<2.0	<40
Phenanthrene	85-01-8	<2.0	12	<100	120	<2.0	100
Indeno(1,2,3-C,D)pyrene	193-39-5	<2.0	27	200	200	<2.0	100
Naphthalene	81-20-3	<2.0	<10	<100	<40	<2.0	<40
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC	%RC
Nitrobenzene-d5	35-118%	95	81	100	85	108	110

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512
Client Project ID: ETCO Investments
Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	—	11/18/03
Received:	—	11/18/03
Extracted:	11/19/03	11/19/03
Analyzed:	11/19/03	11/19/03
Reported:	11/20/03	11/20/03

Lab Sample #:	MB1119	03110387
Client Sample #:	—	ET-14-6.0
Dilution Factor:	1	20

ANALYTE	CAS #	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	3,000
PCB-1221	111104-28-2	<25	<500
PCB-1232	11141-16-5	<25	<500
PCB-1242	53469-21-9	<25	<500
PCB-1248	12672-29-6	<25	<500
PCB-1254	11097-69-1	<25	<500
PCB-1260	11096-82-5	<25	1,000

Acceptable Surrogate %RC		%RC	%RC
Decachlorobiphenyl	30-168%	46	76

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512
Client Project ID: ETCO Investments
Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Soil

Sampled:	—	11/18/03
Received:	—	11/18/03
Extracted:	11/20/03	11/20/03
Analyzed:	11/20/03	11/20/03
Reported:	11/20/03	11/20/03

Lab Sample #:	MB1120	03110387
Client Sample #:	—	ET-14-6.0
Dilution Factor:	1	1

ANALYTE	µg/kg	µg/kg
Pentachlorophenol	<100	<100

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled:	---	11/18/03	11/18/03	11/18/03	11/18/03
Received:	---	11/18/03	11/18/03	11/18/03	11/18/03
Reported:	11/20/03	11/20/03	11/20/03	11/20/03	11/20/03
Lab Sample #:	MB	03110380	03110381	03110382	03110383
Client Sample #:	---	ET-12-1.0	ET-12-3.0	ET-12-5.0	ET-13-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Copper	6010B	11/19/03	<0.5	33	170	200	89
Lead	6010B	11/19/03	<1.0	71	200	190	150

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled:	11/18/03	11/18/03	11/18/03
Received:	11/18/03	11/18/03	11/18/03
Reported:	11/20/03	11/20/03	11/20/03

Lab Sample #:	03110384	03110385	03110387
Client Sample #:	ET-13-3.0	ET-13-5.0	ET-14-6.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg
Copper	6010B	11/19/03	3.9	2.8	210
Lead	6010B	11/19/03	2.1	2.1	45

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512
Client Project ID: ETCO Investments
Client Project #: 9257-03

VOLATILE FUEL HYDROCARBONS (EPA 8015B)

Sample Description: Water

Sampled:	—	11/18/03
Received:	—	11/18/03
Analyzed:	11/19/03	11/19/03
Reported:	11/20/03	11/20/03
Lab Sample #:	MB	03110386
Client Sample #:	—	ET-14-H20
Dilution Factor:	1	1
ANALYTE	µg/l	µg/l
VFH ¹	<50	<50

¹ Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14512
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

VOLATILE ORGANICS BY GC/MS (EPA 8260B)

Sample Description: Water

Sampled: — 11/18/03
 Received: — 11/18/03
 Analyzed: 11/18/03 11/18/03
 Reported: 11/20/03 11/20/03

Lab Sample #: MB 03110386
 Client Sample #: — ET-14-H2O
 Dilution Factor: 1 1

ANALYTE	CAS #	µg/l	µg/l
t-Amyl methyl ether (TAME)	955-05-8	<2.0	<2.0
Benzene	71-43-2	<0.5	<0.5
Bromobenzene	108-86-1	<0.5	<0.5
Bromochloromethane	74-97-5	<0.5	<0.5
Bromodichloromethane	75-27-4	<1.0	<1.0
Bromoform	75-25-2	<0.5	<0.5
Bromomethane	74-83-9	<5.0	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<20	<20
n-Butylbenzene	104-51-8	<0.5	<0.5
sec-Butylbenzene	135-98-8	<0.5	<0.5
tert-Butylbenzene	98-06-6	<0.5	<0.5
Carbon disulfide	75-15-0	<0.5	<0.5
Carbon tetrachloride	56-23-5	<0.5	<0.5
Chlorobenzene	108-90-7	<0.5	<0.5
Chlorodibromomethane	124-48-1	<0.5	<0.5
Chloroethane	75-00-3	<5.0	<5.0
Chloroform	67-66-3	<0.5	<0.5
Chloromethane	74-87-3	<5.0	<5.0
2-Chlorotoluene	95-49-8	<0.5	<0.5
4-Chlorotoluene	106-43-4	<0.5	<0.5
1,2-Dibromo-3-chloropropane	98-12-8	<1.0	<1.0
1,2-Dibromoethane	106-93-4	<0.5	<0.5
Dibromomethane	74-95-3	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	<0.5	<0.5
1,1-Dichloroethane	75-34-3	<0.5	<0.5
1,2-Dichloroethane	107-06-2	<0.5	<0.5
1,1-Dichloroethene	75-35-4	<1.0	<1.0
cis-1,2-Dichloroethene	158-59-2	<1.0	<1.0
trans-1,2-Dichloroethene	158-60-5	<0.5	<0.5
Dichlorodifluoromethane	75-71-8	<2.0	<2.0
1,2-Dichloropropane	78-87-5	<0.5	<0.5

VOLATILE ORGANICS BY GC/MS (EPA 8260B) (continued)

Laboratory Reference #: PTE 14512
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

Sampled: — 11/18/03
 Received: — 11/18/03
 Analyzed: 11/18/03 11/18/03
 Reported: 11/20/03 11/20/03

Lab Sample #: MB 03110386
 Client Sample #: — ET-14-H20
 Dilution Factor: 1 1

ANALYTE (con't)	CAS #	µg/l	µg/l
1,3-Dichloropropane	142-28-9	<0.5	<0.5
2,2-Dichloropropane	594-20-7	<0.5	<0.5
1,1-Dichloropropene	563-58-6	<0.5	<0.5
cis-1,3-Dichloropropene	10061-01-5	<0.5	<0.5
trans-1,3-Dichloropropene	10061-02-6	<0.5	<0.5
Diisopropyl ether (DIPE)	108-20-3	<2.0	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0	<2.0
Ethylbenzene	100-41-4	<0.5	<0.5
Hexachlorobutadiene	87-68-3	<0.5	<0.5
Isopropylbenzene	98-82-8	<0.5	<0.5
4-Isopropyltoluene	99-87-6	<0.5	<0.5
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	<1.0
Methylene chloride	75-09-2	<5.0	<5.0
Naphthalene	91-20-3	<0.5	<0.5
n-Propylbenzene	103-65-1	<0.5	<0.5
Styrene	100-42-5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	<0.5	<0.5
Tetrachloroethene	127-18-4	<0.5	<0.5
Toluene	108-88-3	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	<0.5	<0.5
Trichloroethene	79-01-6	<0.5	<0.5
Trichlorofluoromethane	75-69-4	<2.0	<2.0
1,2,3-Trichloropropane	96-18-4	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	<0.5	<0.5
Vinyl acetate	108-05-4	<5.0	<5.0
Vinyl chloride	75-01-4	<1.0	<1.0
Xylenes, Total	1330-20-7	<2.0	<2.0

Acceptable Surrogate %RC	%RC	%RC
Dibromofluoromethane	54-172%	115
Toluene-d8	70-123%	100
4-Bromofluorobenzene	41-141%	90

QA/QC REPORT
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/19/03
Laboratory Sample No : 03110219
Laboratory Reference No : PTE 14512

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PCB-1016	0.0	250	200	190	80	76	5	44-152	23
PCB-1260	0.0	250	190	170	76	68	11	55-130	35

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP % Acceptable Range of Percent for MS/MSD
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/19/03
Laboratory Standard No : OCA 10820

Analyte	SP CONC	Results	% Recovery	ACP %
PCB-1016	250	220	88	54-149
PCB-1260	250	150	60	59-144

QA/QC REPORT
for
Polynuclear Aromatic Hydrocarbons (EPA 8310)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/19/03
Laboratory Sample No : 03110248
Laboratory Reference No : PTE 14512

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Acenaphthene	2.6	10	7.8	7.3	52	47	7	38-128	21
Anthracene	0.0	10	5.1	5.0	51	50	2	39-114	23
Pyrene	3.7	10	8.8	8.7	51	50	1	43-130	26
Chrysene	0.0	10	8.8	8.9	88	89	1	42-125	20
Benzo (a) Pyrene	0.0	10	7.8	7.8	78	78	0	41-125	22

Definition of Terms :

R1	Result of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
ACP RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/19/03
Laboratory Standard No : OCA 10781

Analyte	SP CONC	Results	% Recovery	ACP %
Acenaphthene	10	8.1	81	48-126
Anthracene	10	5.6	56	48-113
Pyrene	10	8.6	86	54-122
Chrysene	10	8.6	86	61-123
Benzo (a) Pyrene	10	8.2	82	40-133

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14512

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Copper	11/19/03	03110380	33	20.0	53.5	52.6	103	98	2	75-125	20
Lead	11/19/03	03110380	71	20.0	91.1	89.7	101	94	2	75-125	20

Definition of Terms :

- R1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Copper	11/19/03	OCA 10585	20.0	18.9	95	80-120
Lead	11/19/03	OCA 10585	20.0	18.3	92	80-120

QA/QC REPORT
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/19/03
Laboratory Sample No : A03110020
Laboratory Reference No : PTE 14512

Analyte	R1	SP CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD
Volatile Fuel Hydrocarbons	0	250	220	232	88	93	5	81-120	11

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %MS(MSD) Acceptable Range of Percent
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Quality Control Standard

Date of Analysis : 11/19/03
Laboratory Standard No : OCA10457

Analyte	SP CONC	RESULTS	% RECOVERY	ACCEPTABLE %
Volatile Fuel Hydrocarbons	500	485	97	73-133

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting Units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/18/03
Laboratory Sample No : 03110331
Laboratory Reference No : PTE 14512

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
1,1-Dichloroethene	0.0	50	62	63	124	126	2	58-137	10
Benzene	0.0	50	54	54	108	108	0	65-114	9
Trichloroethene	0.0	50	53	54	106	108	2	64-119	11
Toluene	0.0	50	53	55	106	110	4	64-122	13
Chlorobenzene	0.0	50	56	57	112	114	2	73-122	11

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/18/03
Laboratory Standard No : OCA10751b

Analyte	SP CONC	Results	% Recovery	ACP %
1,1-Dichloroethene	50	60	120	58-138
Benzene	50	55	110	64-120
Trichloroethene	50	54	108	64-122
Toluene	50	54	108	70-120
Chlorobenzene	50	56	112	74-124

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 738-0980 Fax (480) 738-0970

Lab Job No: _____
Page _____ of _____

COMPANY: <u>Federal Corrections</u>	PROJECT NAME: _____
SEND REPORT TO: <u>William Villalobos</u>	NUMBER: <u>9257-03</u>
ADDRESS: <u>2300 Avenida Arroyo</u>	LOCATION: <u>2300 Avenida Arroyo, HB</u>
<u>Costa Mesa, CA</u>	ADDRESS: _____
PHONE: <u>714 832-0064</u> <small>TAX: 714 832-7877</small>	SAMPLED BY: <u>[Signature]</u>

Load CT 11/14/03
 11/14/03 11:00 AM
 PAMs - 8310
 IR BS - 2082
 11/14/03
 TPH - Gas 2015

ET-#-#-#	QTY	DATE	TIME	SOIL	WATER	NA	X	X	X	X	X	REMARKS/PRECAUTIONS
ET-12-1-0	1	11/14/03	14:17	Soil	Water	NA	X	X				
ET-12-2-0	1		1505				X	X				
ET-12-5-0	1		1502				X					BV
ET-12-10-0	1		1516						X	X		
ET-13-1-0	1		1525				X	X				
ET-13-3-0	1		1528				X	X				
ET-13-9-0	1		1530				X					BV
ET-13-12-0	1		1537						X	X		BV
ET-13-15-0	1		1547						X	X		BV
ET-14-11-0	3	11/14/03	16:15	H ₂ O	WATER	NA	X			X		
ET-14-6-0	1	11/14/03	16:10	Soil	Water	NA	X	X	X			

Total No. of Samples: _____		Method of Shipment: _____	
Relinquished By: <u>[Signature]</u>	Date/Time: <u>11/14/03 1658</u>	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received For Lab By: <u>[Signature]</u>	Date/Time: <u>11/14/03 1658</u>

Reporting Format (check)
 NORMAL _____ S.D. HMMD _____
 RWQCB _____ OTHER _____

Sample Integrity (check)
 Intact _____ on ice _____

All samples remain the property of the client who is responsible for their use. A fee will be imposed if client fails to pickup samples.

RANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: _____
Page: _____ of _____

REQUIRED TAT: NA

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY: <u>Petra Geotechnical</u>	PROJECT NAME:	NUMBER: <u>9297-03</u>	
SEND REPORT TO: <u>Union Villalobos</u>	LOCATION: <u>2300 Newport Blvd, NB</u>	ADDRESS:	
ADDRESS: <u>3189A Nirvaney Avenue</u> <u>Costa Mesa, CA</u>	PHONE: <u>714 599-8911</u> FAX: <u>714 150-7572</u>	SAMPLED BY: <u>SV</u>	

ANALYSIS METHOD
REQUIRES
Local T-Test
10/8260 B
PAHs - E310
PCBs - 8082
Merch: 8091
Hold

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.							REMARKS/PRECAUTIONS
ET-12-1.0	1	11/19/03	1457	Soil	Acetab	NA	X						
ET-12-3.0	1		1505				X						
ET-12-5.0	1		1506				X						
ET-12-10.0	1		1516								X		
ET-13-1.0	1		1525				X						
ET-13-3.0	1		1528				X						
ET-13-5.0	1		1530				X						
ET-13-10.0	1		1537								X		
ET-13-15.0	1		1547	✓	✓	✓					X		
ET-14-H ₂ O	3	✓	1615	H ₂ O	VOHS	HCL	X						
ET-14-6.0	1	✓	1610	Soil	Acetab	NA	X	X	X	X			

Total No. of Samples:		Method of Shipment:	
Relinquished By: <u>[Signature]</u>	Date/Time: <u>11/19/03 1658</u>	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Reporting Format: (check)			
NORMAL _____	S.D. HMMD _____		
RWQCB _____	OTHER _____		
Relinquished By:	Date/Time:	Received For Lab By: <u>[Signature]</u>	Date/Time: <u>11/19/03 1658</u>
Sample Integrity: (check)			
intact _____		on ice <u>10°C</u>	

All samples remain the property of the client who is responsible for disposal.



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416 Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14481A

Analytical Method: 6010B, 8260B

Date Sampled: 11/03/03

Date Received: 11/04/03

Date Reported: 11/21/03

Sample Matrix: Soil, Water

Chain of Custody Received: Yes

Laboratory Director's Signature: 

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481A
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

VOLATILE ORGANICS BY GC/MS (EPA 8260B)

Sample Description: Water

Sampled: -- 11/03/03
 Received: -- 11/04/03
 Analyzed: 11/17/03 11/17/03
 Reported: 11/21/03 11/21/03

Lab Sample #: MB 03110036
 Client Sample #: -- ET-6-H2O
 Dilution Factor: 1 1

ANALYTE	CAS #	µg/l	µg/l
t-Amyl methyl ether (TAME)	955-05-8	<2.0	<2.0
Benzene	71-43-2	<0.5	1.1
Bromobenzene	108-86-1	<0.5	<0.5
Bromochloromethane	74-97-5	<0.5	<0.5
Bromodichloromethane	75-27-4	<1.0	<1.0
Bromoform	75-25-2	<0.5	<0.5
Bromomethane	74-83-9	<5.0	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<20	470
n-Butylbenzene	104-51-8	<0.5	<0.5
sec-Butylbenzene	135-98-8	<0.5	<0.5
tert-Butylbenzene	98-06-6	<0.5	<0.5
Carbon disulfide	75-15-0	<0.5	<0.5
Carbon tetrachloride	56-23-5	<0.5	<0.5
Chlorobenzene	108-90-7	<0.5	<0.5
Chlorodibromomethane	124-48-1	<0.5	<0.5
Chloroethane	75-00-3	<5.0	<5.0
Chloroform	67-66-3	<0.5	<0.5
Chloromethane	74-87-3	<5.0	<5.0
2-Chlorotoluene	95-49-8	<0.5	<0.5
4-Chlorotoluene	106-43-4	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	<1.0
1,2-Dibromoethane	106-93-4	<0.5	<0.5
Dibromomethane	74-95-3	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	<0.5	<0.5
1,1-Dichloroethane	75-34-3	<0.5	<0.5
1,2-Dichloroethane	107-06-2	<0.5	<0.5
1,1-Dichloroethene	75-35-4	<1.0	<1.0
cis-1,2-Dichloroethene	156-59-2	<1.0	<1.0
trans-1,2-Dichloroethene	156-60-5	<0.5	<0.5
Dichlorodifluoromethane	75-71-8	<2.0	<2.0
1,2-Dichloropropane	78-87-5	<0.5	<0.5

VOLATILE ORGANICS BY GC/MS (EPA 8260B) (continued)

Laboratory Reference #: PTE 14481A
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

Sampled: --- 11/03/03
 Received: --- 11/04/03
 Analyzed: 11/17/03 11/17/03
 Reported: 11/21/03 11/21/03

Lab Sample #: MB 03110036
 Client Sample #: --- ET-6-H2O
 Dilution Factor: 1 1

ANALYTE (con't)	CAS #	µg/l	µg/l
1,3-Dichloropropane	142-28-9	<0.5	<0.5
2,2-Dichloropropane	594-20-7	<0.5	<0.5
1,1-Dichloropropene	563-58-6	<0.5	<0.5
cis-1,3-Dichloropropene	10061-01-5	<0.5	<0.5
trans-1,3-Dichloropropene	10061-02-6	<0.5	<0.5
Diisopropyl ether (DIPE)	108-20-3	<2.0	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0	<2.0
Ethylbenzene	100-41-4	<0.5	11
Hexachlorobutadiene	87-68-3	<0.5	<0.5
Isopropylbenzene	98-82-8	<0.5	<0.5
4-Isopropyltoluene	99-87-6	<0.5	<0.5
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0	<1.0
Methylene chloride	75-09-2	<5.0	<5.0
Naphthalene	91-20-3	<0.5	<0.5
n-Propylbenzene	103-65-1	<0.5	2.7
Styrene	100-42-5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	<0.5	<0.5
Tetrachloroethene	127-18-4	<0.5	<0.5
Toluene	108-88-3	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	<0.5	<0.5
Trichloroethene	79-01-6	<0.5	<0.5
Trichlorofluoromethane	75-69-4	<2.0	<2.0
1,2,3-Trichloropropane	96-18-4	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	<0.5	11
1,3,5-Trimethylbenzene	108-67-8	<0.5	2.8
Vinyl acetate	108-05-4	<5.0	<5.0
Vinyl chloride	75-01-4	<1.0	<1.0
Xylenes, Total	1330-20-7	<2.0	<2.0

Acceptable Surrogate %RC		%RC	%RC
Dibromofluoromethane	54-172%	105	130
Toluene-d8	70-123%	102	100
4-Bromofluorobenzene	41-141%	94	104

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481A
Client Project ID: ETCO Investments
Client Project #: 9257-03

STLC METALS

Sample Description: Soil

Sampled:	--	11/03/03	11/03/03
Received:	--	11/04/03	11/04/03
Reported:	11/21/03	11/21/03	11/21/03

Lab Sample #:	MB	03110031	03110034
Client Sample #:	--	ET-3-1.0	ET-6-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l
Copper	6010B	11/21/03	<0.050	2.3	1.5
Lead	6010B	11/21/03	<0.25	24	4.7

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting Units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/17/03
Laboratory Sample No : 03110118
Laboratory Reference No : PTE 14481A

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
1,1-Dichloroethene	0.0	50	54	57	108	114	5	58-137	10
Benzene	0.0	50	53	56	106	112	6	65-114	9
Trichloroethene	0.0	50	53	54	106	108	2	64-119	11
Toluene	0.0	50	53	55	106	110	4	64-122	13
Chlorobenzene	0.0	50	54	56	108	112	4	73-122	11

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/17/03
Laboratory Standard No : OCA 10751B

Analyte	SP CONC	Results	% Recovery	ACP %
1,1-Dichloroethene	50	57	114	56-138
Benzene	50	56	112	64-120
Trichloroethene	50	55	110	64-122
Toluene	50	55	110	70-120
Chlorobenzene	50	58	116	74-124

· QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14481A

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Copper	11/21/03	A03110003	0.0	0.400	0.371	0.409	93	102	10	75-125	20
Lead	11/21/03	A03110003	0.0	0.400	0.336	0.368	84	92	9	75-125	20

Definition of Terms :

R1	Result of QC Sample
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
ACP RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Copper	11/21/03	OCA 10585	0.400	0.385	96	80-120
Lead	11/21/03	OCA 10585	0.400	0.365	91	80-120

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: RE: Results: ETCO (2 of 51)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Fri, 14 Nov 2003 19:33:27 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Reply-to: bvillalobos@petra-inc.com

Subject: RE: Results: ETCO

Thanks again.

Please run STLC analysis focopper and lead for samples.ET-301.0 and ET-6-1.0.

Brian Villalobos

-----Original Message-----

From: Orange Coast Analytical, Inc. [mailto:markn@ocalab.com]

Sent: Thursday, November 13, 2003 12:31 PM

To: Brian Villalobos

Cc: David Darrow

Subject: Results: ETCO

Hi Brian:

Results are attached for your review. I am not sure what kind of requirement you have for this project since there are some positive hits on the 8310 analysis.

Please contact me if you have any questions.

Mark Noorani
Orange Coast Analytical, Inc.
714) 832-0064
714) 832-0067 (fax)

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to

ORANGE COAST ANALYTICAL, INC.
PHONE CONVERSATION

INITIALS: BS by MK

CLIENT: Petra

CONTACT: David D.

PROJECT: ETCO Investment

DATE 11-14-03 David added 8240 analysis to
sample # ET-6-1220

DATE

DATE

DATE

DATE

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: RE: Results: ETCO (2 of 51)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Fri, 14 Nov 2003 19:33:27 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Reply-to: bvillalobos@petra-inc.com

Subject: RE: Results: ETCO

Thanks again

Please run STLC analysis focopper and lead for samples ET-301.0 and ET-6-1.0.

Brian Villalobos

-----Original Message-----

From: Orange Coast Analytical, Inc. [mailto:markn@ocalab.com]

Sent: Thursday, November 13, 2003 12:11 PM

To: Brian Villalobos

Cc: David Darrow

Subject: Results: ETCO

Hi Brian:

Results are attached for your review. I am not sure what kind of requirement you have for this project since there are some positive hits on the 8310 analysis.

Please contact me if you have any questions.

Mark Noorani

Orange Coast Analytical, Inc.

714) 832-0064

714) 832-0067 (fax)

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
Client Project ID: ETCO Investments
Client Project #: 9257-03

VOLATILE FUEL HYDROCARBONS (EPA 8015B)

Sample Description: Soil

Sampled:	---	11/03/03	11/03/03	11/03/03	11/03/03
Received:	---	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/07/03	11/07/03	11/07/03	11/07/03	11/07/03
Analyzed:	11/07/03	11/07/03	11/07/03	11/07/03	11/07/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03
Lab Sample #:	MB1107	03110031	03110032	03110034	03110035
Client Sample #:	---	ET-3-1.0	ET-3-3.0	ET-6-1.0	ET-6-5.0
Dilution Factor:	1	1	1	1	1
ANALYTE	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VFH[†]	<5.0	<5.0	<5.0	<5.0	<5.0

[†] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	—	11/03/03	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/08/03	11/08/03	11/08/03	11/08/03	11/08/03
Analyzed:	11/10/03	11/10/03	11/10/03	11/10/03	11/10/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	MB	03110025	03110026	03110028	03110029
Client Sample #:	—	ET-2-1	ET-2-3.0	ET-5-1.0	ET-5-3.0
Dilution Factor:	1	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	83-32-9	<2.0	<2.0	<2.0	<2.0	<2.0
Acenaphthylene	208-96-8	<2.0	<2.0	<2.0	<2.0	<2.0
Anthracene	120-12-7	<2.0	<2.0	<2.0	<2.0	<2.0
Benz(a)anthracene	56-55-3	<2.0	<2.0	<2.0	<2.0	13
Benzo(a)pyrene	50-32-8	<2.0	2.5	<2.0	<2.0	7.4
Benzo(b)fluoranthene	205-99-2	<2.0	2.4	<2.0	<2.0	23
Benzo(k)fluoranthene	207-08-9	<2.0	1.8	<2.0	<2.0	12
Benzo(g,h,i)perylene	191-24-2	<2.0	<2.0	<2.0	<2.0	12
Chrysene	218-01-9	<2.0	<2.0	<2.0	<2.0	31
Dibenzo(a,h)anthracene	53-70-3	<2.0	<2.0	<2.0	<2.0	<2.0
Fluoranthene	206-44-0	<2.0	2.7	<2.0	<2.0	15
Pyrene	129-00-0	<2.0	2.5	<2.0	<2.0	19
Fluorene	86-73-7	<2.0	<2.0	<2.0	<2.0	<2.0
Phenanthrene	85-01-8	<2.0	<2.0	<2.0	<2.0	4.4
Indeno(1,2,3-C,D)pyrene	193-39-5	<2.0	2.1	<2.0	<2.0	12
Naphthalene	91-20-3	<2.0	<2.0	<2.0	<2.0	4.1
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC
Nitrobenzene-d5	35-118%	99	84	93	109	104

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	11/03/03	11/03/03	11/03/03	11/03/03
Received:	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/08/03	11/08/03	11/08/03	11/08/03
Analyzed:	11/10/03	11/10/03	11/10/03	11/10/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	03110031	03110032	03110034	03110035
Client Sample #:	ET-3-1.0	ET-3-3.0	ET-6-1.0	ET-6-5.0
Dilution Factor:	5	1	2	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	83-32-9	<10	<2.0	<4.0	<2.0
Acenaphthylene	208-96-8	<10	<2.0	<4.0	<2.0
Anthracene	120-12-7	<10	<2.0	<4.0	<2.0
Benz(a)anthracene	56-55-3	21	<2.0	<4.0	<2.0
Benzo(a)pyrene	50-32-8	58	<2.0	11	<2.0
Benzo(b)fluoranthene	205-99-2	60	<2.0	26	2.5
Benzo(k)fluoranthene	207-08-9	50	<2.0	18	<2.0
Benzo(g,h,i)perylene	191-24-2	51	<2.0	22	<2.0
Chrysene	218-01-9	19	<2.0	60	5.5
Dibenzo(a,h)anthracene	53-70-3	11	<2.0	<4.0	<2.0
Fluoranthene	206-44-0	44	<2.0	19	2.4
Pyrene	129-00-0	43	<2.0	40	4.7
Fluorene	86-73-7	<10	<2.0	<4.0	<2.0
Phenanthrene	85-01-8	34	<2.0	34	2.6
Indeno(1,2,3-C,D)pyrene	193-39-5	51	<2.0	30	3.8
Naphthalene	91-20-3	<10	<2.0	8.4	<2.0
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC
Nitrobenzene-d5	35-118%	68	117	80	111

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA .92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	—	11/03/03	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/10/03	11/10/03	11/10/03	11/10/03	11/10/03
Analyzed:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	MB1110	03110025	03110026	03110028	03110029
Client Sample #:	—	ET-2-1	ET-2-3.0	ET-5-1.0	ET-5-3.0
Dilution Factor:	1	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	<25	<25	<25	<25
PCB-1221	111104-28-2	<25	<25	<25	<25	<25
PCB-1232	11141-16-5	<25	<25	<25	<25	<25
PCB-1242	53469-21-9	<25	<25	<25	<25	<25
PCB-1248	12672-29-6	<25	<25	<25	<25	<25
PCB-1254	11097-69-1	<25	<25	<25	<25	<25
PCB-1260	11096-82-5	<25	<25	<25	<25	<25

Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC
Decachlorobiphenyl	30-168%	50	76	91	59	62

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	11/03/03	11/03/03	11/03/03	11/03/03
Received:	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/10/03	11/10/03	11/10/03	11/10/03
Analyzed:	11/13/03	11/13/03	11/13/03	11/13/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	03110031	03110032	03110034	03110035
Client Sample #:	ET-3-1.0	ET-3-3.0	ET-6-1.0	ET-6-5.0
Dilution Factor:	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	<25	<25	<25
PCB-1221	111104-28-2	<25	<25	<25	<25
PCB-1232	11141-16-5	<25	<25	<25	<25
PCB-1242	53469-21-9	<25	<25	<25	<25
PCB-1248	12672-29-6	<25	<25	<25	<25
PCB-1254	11097-69-1	<25	<25	<25	<25
PCB-1260	11096-82-5	<25	<25	67	<25

Acceptable Surrogate %RC		%RC	%RC	%RC	%RC
Decachlorobiphenyl	30-168%	68	66	72	89

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
Client Project ID: ETCO Investments
Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Soil

Sampled:	—	11/03/03	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03
Analyzed:	11/12/03	11/12/03	11/12/03	11/12/03	11/12/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03
Lab Sample #:	MB1111	03110025	03110026	03110028	03110029
Client Sample #:	—	ET-2-1	ET-2-3.0	ET-5-1.0	ET-5-3.0
Dilution Factor:	1	1	1	1	1
ANALYTE	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Pentachlorophenol	<100	<100	<100	<100	<100

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
Client Project ID: ETCO Investments
Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Soil

Sampled:	11/03/03	11/03/03	11/03/03	11/03/03
Received:	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/11/03	11/11/03	11/11/03	11/11/03
Analyzed:	11/12/03	11/12/03	11/12/03	11/12/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03
Lab Sample #:	03110031	03110032	03110034	03110035
Client Sample #:	ET-3-1.0	ET-3-3.0	ET-6-1.0	ET-6-5.0
Dilution Factor:	1	1	1	1
ANALYTE	µg/kg	µg/kg	µg/kg	µg/kg
Pentachlorophenol	<100	<100	<100	<100

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

CCR METALS

Sample Description: Soil

Sampled:	—	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	MB	03110029	03110032	03110035
Client Sample #:	—	ET-5-3.0	ET-3-3.0	ET-6-5.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	6010B	11/06/03	<5.0	<5.0	<5.0	<5.0
Arsenic	6010B	11/06/03	<1.0	2.2	1.6	1.1
Barium	6010B	11/06/03	<0.5	23	6.9	17
Beryllium	6010B	11/06/03	<0.5	<0.5	<0.5	<0.5
Cadmium	6010B	11/06/03	<0.5	<0.5	<0.5	<0.5
Chromium (Total)	6010B	11/06/03	<0.5	4.5	2.0	1.1
Cobalt	6010B	11/06/03	<0.5	1.5	0.55	<0.5
Copper	6010B	11/06/03	<0.5	6.5	3.3	5.9
Lead	6010B	11/06/03	<1.0	12	3.6	9.0
Mercury	7471A	11/06/03	<0.1	<0.1	<0.1	<0.1
Molybdenum	6010B	11/06/03	<1.0	<1.0	<1.0	<1.0
Nickel	6010B	11/06/03	<0.5	3.0	1.3	0.85
Selenium	6010B	11/06/03	<5.0	<5.0	<5.0	<5.0
Silver	6010B	11/06/03	<0.5	<0.5	<0.5	<0.5
Thallium	6010B	11/06/03	<5.0	<5.0	<5.0	<5.0
Vanadium	6010B	11/06/03	<0.5	9.7	3.4	1.7
Zinc	6010B	11/06/03	<0.5	30	23	18

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA, 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled:	--	11/03/03	11/03/03	11/03/03	11/03/03
Received:	--	11/04/03	11/04/03	11/04/03	11/04/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03
Lab Sample #:	MB	03110026	03110028	03110031	03110034
Client Sample #:	--	ET-2-3.0	ET-5-1.0	ET-3-1.0	ET-6-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic	6010B	11/06/03	<1.0	1.6	1.7	11	11
Copper	6010B	11/06/03	<0.5	1.6	1.8	560	100
Lead	6010B	11/06/03	<1.0	<1.0	1.5	860	120

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
Client Project ID: ETCO Investments
Client Project #: 9257-03

VOLATILE FUEL HYDROCARBONS (EPA 8015B)

Sample Description: Water

<i>Sampled:</i>	—	11/03/03	11/03/03
<i>Received:</i>	—	11/04/03	11/04/03
<i>Analyzed:</i>	11/07/03	11/07/03	11/07/03
<i>Reported:</i>	11/14/03	11/14/03	11/14/03
<i>Lab Sample #:</i>	MB	03110033	03110036
<i>Client Sample #:</i>	—	ET-3-H20	ET-6-H20
<i>Dilution Factor:</i>	1	1	1
<i>ANALYTE</i>	<i>µg/l</i>	<i>µg/l</i>	<i>µg/l</i>
VFH ¹	<50	<50	1100

¹ Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Water

Sampled:	—	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/11/03	11/11/03	11/11/03	11/11/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03
Lab Sample #:	MB1111	03110027	03110030	03110033
Client Sample #:	—	ET-2-H2O	ET-5-H2O	ET-3-H2O
Dilution Factor:	1	1	1	1
ANALYTE	µg/l	µg/l	µg/l	µg/l
Pentachlorophenol	<1.0	<1.0	<1.0	<1.0

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Water

Sampled:	---	11/03/03	11/03/03	11/03/03	11/03/03
Received:	---	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/08/03	11/08/03	11/08/03	11/08/03	11/08/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	MB1104	03110027	03110030	03110033	03110036
Client Sample #:	---	ET-2-H2O	ET-5-H2O	ET-3-H2O	ET-6-H2O
Dilution Factor:	1	1	1	1	1

ANALYTE	CAS #	µg/l	µg/l	µg/l	µg/l	µg/l
PCB-1016	12674-11-2	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1221	111104-28-2	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1232	11141-16-5	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1242	53469-21-9	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1248	12672-29-6	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1254	11097-69-1	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1260	11096-82-5	<5.0	<5.0	<5.0	<5.0	<5.0

Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC
Decachlorobiphenyl	D-220%	65	70	85	70	50

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
Client Project ID: ETCO Investments
Client Project #: 9257-03

CCR METALS

Sample Description: Water

Sampled: — 11/03/03 11/03/03
Received: — 11/04/03 11/04/03
Reported: 11/14/03 11/14/03 11/14/03

Lab Sample #: MB 03110030 03110036
Client Sample #: — ET-5-H20 ET-6-H20

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l
Antimony	6010B	11/06/03	<0.10	<0.10	<0.10
Arsenic	6010B	11/06/03	<0.050	0.071	0.35
Barium	6010B	11/06/03	<0.010	0.32	5.8
Beryllium	6010B	11/06/03	<0.010	<0.010	0.013
Cadmium	6010B	11/06/03	<0.010	<0.010	0.049
Chromium (Total)	6010B	11/06/03	<0.010	0.91	1.8
Cobalt	6010B	11/06/03	<0.010	0.039	0.16
Copper	6010B	11/06/03	<0.010	0.12	2.6
Lead	6010B	11/06/03	<0.050	0.057	4.6
Mercury	7470	11/06/03	<0.001	<0.001	0.017
Molybdenum	6010B	11/06/03	<0.050	0.061	0.12
Nickel	6010B	11/06/03	<0.010	0.44	0.84
Selenium	6010B	11/06/03	<0.10	<0.10	<0.10
Silver	6010B	11/06/03	<0.010	<0.010	<0.010
Thallium	6010B	11/06/03	<0.10	<0.10	<0.10
Vanadium	6010B	11/06/03	<0.010	0.29	0.56
Zinc	6010B	11/06/03	<0.010	0.47	8.8

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Water

Sampled:	—	11/03/03	11/03/03	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03	11/04/03	11/04/03
Extracted:	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03
Analyzed:	11/07/03	11/07/03	11/07/03	11/07/03	11/07/03
Reported:	11/14/03	11/14/03	11/14/03	11/14/03	11/14/03

Lab Sample #:	MB	03110027	03110030	03110033	03110036
Client Sample #:	—	ET-2-H2O	ET-5-H2O	ET-3-H2O	ET-6-H2O
Dilution Factor:	1	1	1	1	5

ANALYTE	CAS #	µg/l	µg/l	µg/l	µg/l	µg/l
Acenaphthene	83-32-9	<0.05	<0.05	<0.05	<0.05	<0.25
Acenaphthylene	208-96-8	<0.05	<0.05	<0.05	<0.05	0.42
Anthracene	120-12-7	<0.05	<0.05	<0.05	<0.05	<0.25
Benz(a)anthracene	56-55-3	<0.05	<0.05	<0.05	<0.05	<0.25
Benzo(a)pyrene	50-32-8	<0.05	<0.05	<0.05	<0.05	<0.25
Benzo(b)fluoranthene	205-99-2	<0.05	<0.05	<0.05	<0.05	<0.25
Benzo(k)fluoranthene	207-08-9	<0.05	<0.05	<0.05	<0.05	<0.25
Benzo(g,h,i)perylene	191-24-2	<0.05	<0.05	<0.05	<0.05	<0.25
Chrysene	218-01-9	<0.05	<0.05	<0.05	<0.05	<0.25
Dibenzo(a,h)anthracene	53-70-3	<0.05	<0.05	<0.05	<0.05	<0.25
Fluoranthene	206-44-0	<0.05	<0.05	<0.05	<0.05	<0.25
Pyrene	129-00-0	<0.05	<0.05	<0.05	<0.05	0.40
Fluorene	86-73-7	<0.05	<0.05	<0.05	<0.05	0.81
Phenanthrene	85-01-8	<0.05	<0.05	<0.05	<0.05	<0.25
Indeno(1,2,3-C,D)pyrene	193-39-5	<0.05	<0.05	<0.05	<0.05	<0.25
Naphthalene	91-20-3	<0.05	0.10	0.056	0.13	0.87

Acceptable Surrogate %RC	%RC	%RC	%RC	%RC	%RC	
Nitrobenzene-d5	39-111%	94	111	109	92	4400*

* = Surrogate recovery was above laboratory and method acceptance limits due to sample matrix interference, this was verified by re-extracting and re-running the sample.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Alrway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14481
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Water

Sampled:	—	11/03/03	11/03/03
Received:	—	11/04/03	11/04/03
Reported:	11/14/03	11/14/03	11/14/03
Lab Sample #:	MB	03110027	03110033
Client Sample #:	—	ET-2-H20	ET-3-H20

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l
Arsenic	6010B	11/06/03	<0.05	0.11 1.0 ppb	<0.05
Copper	6010B	11/06/03	<0.01	0.13 1.3 ppb	0.090 70 ppb
Lead	6010B	11/06/03	<0.05	0.083 8.3 ppb	<0.05

QA/QC REPORT
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/13/03
Laboratory Sample No : 03110032
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PCB-1016	0.0	250	210	240	84	96	13	44-152	23
PCB-1260	0.0	250	200	240	80	96	18	55-130	35

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP % Acceptable Range of Percent for MS/MSD
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/13/03
Laboratory Standard No : OCA 10820

Analyte	SP CONC	Results	% Recovery	ACP %
PCB-1016	250	150	60	54-149
PCB-1260	250	180.0	72	59-144

QA/QC REPORT
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03

Laboratory Sample No : 03100335

Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD
Volatile Fuel Hydrocarbons	0.0	12.5	10.1	10.4	81	83	3	55-125	11

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %MS(MSD) Acceptable Range of Percent
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/07/03

Laboratory Standard No. : OCA10916

Analyte	SP CONC	RESULTS	% RECOVERY	ACCEPTABLE %
Volatile Fuel Hydrocarbons	12.5	12.6	101	82-119

QA/QC REPORT
for
Phenols (EPA 8041)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/12/03
Laboratory Sample No : 03100352
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACPRPD
PENTACHLOROPHENOL	0.0	100	110	100	110	100	10	17-135	30

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 % RPD Acceptable Range of Percent for MS/MSD
 RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/12/03
Laboratory Standard No : OCA 10728

Analyte	SP CONC	Results	% Recovery	ACP %
PENTACHLOROPHENOL	100	71	71	29-147

QA/QC REPORT
for
Polynuclear Aromatic Hydrocarbons (EPA 8310)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/10/03
Laboratory Sample No : A03103065
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Acenaphthene	0.0	10	6.4	5.8	64	58	10	38-126	21
Anthracene	0.0	10	4.7	4.1	47	41	14	39-114	23
Pyrene	0.0	10	7.3	6.6	73	66	10	43-130	26
Chrysene	0.0	10	7.2	6.8	72	68	6	42-125	20
Benzo (a) Pyrene	0.0	10	7.0	7.9	70	79	12	41-125	22

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/10/03
Laboratory Standard No : OCA 10781

Analyte	SP CONC	Results	% Recovery	ACP %
Acenaphthene	10	7.2	72	48-126
Anthracene	10	5.2	52	48-113
Pyrene	10	8.6	86	54-122
Chrysene	10	7.6	76	61-123
Benzo (a) Pyrene	10	11.3	113	40-133

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14481

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Antimony	11/06/03	03110029	0.0	20.0	15.2	15.4	76	77	1	75-125	20
Arsenic	11/06/03	03110029	2.2	20.0	20.9	21.3	94	96	2	75-125	20
Barium	11/06/03	03110029	23	40.0	55.9	57.3	82	86	2	75-125	20
Beryllium	11/06/03	03110029	0.0	10.0	9.84	10.0	98	100	2	75-125	20
Cadmium	11/06/03	03110029	0.0	10.0	9.08	9.26	91	93	2	75-125	20
Chromium (Total)	11/06/03	03110029	4.5	20.0	23.8	22.5	97	90	6	75-125	20
Cobalt	11/06/03	03110029	1.5	20.0	19.5	19.9	90	92	2	75-125	20
Copper	11/06/03	03110029	6.5	20.0	27.6	25.8	106	97	7	75-125	20
Lead	11/06/03	03110029	12	20.0	29.1	32.0	86	100	9	75-125	20
Mercury	11/06/03	03110029	0.0	1.00	1.11	1.12	111	112	1	80-120	20
Molybdenum	11/06/03	03110029	0.0	20.0	18.0	18.4	90	92	2	75-125	20
Nickel	11/06/03	03110029	3.0	20.0	20.4	20.6	87	88	1	75-125	20
Selenium	11/06/03	03110029	0.0	20.0	18.7	18.7	94	94	0	75-125	20
Silver	11/06/03	03110029	0.0	20.0	17.6	18.1	88	91	3	75-125	20
Thallium	11/06/03	03110029	0.0	20.0	16.9	17.3	85	87	2	75-125	20
Vanadium	11/06/03	03110029	9.7	20.0	26.6	27.4	85	89	3	75-125	20
Zinc	11/06/03	03110029	30	40.0	61.7	64.0	79	85	4	75-125	20

Definition of Terms :

- 1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Antimony	11/06/03	OCA 10585	20.0	18.5	93	80-120
Arsenic	11/06/03	OCA 10585	20.0	18.5	93	80-120
Barium	11/06/03	OCA 10585	40.0	36.4	91	80-120
Beryllium	11/06/03	OCA 10585	10.0	9.38	94	80-120
Cadmium	11/06/03	OCA 10585	10.0	9.11	91	80-120
Chromium (Total)	11/06/03	OCA 10585	20.0	18.3	92	80-120
Cobalt	11/06/03	OCA 10585	20.0	18.4	92	80-120
Copper	11/06/03	OCA 10585	20.0	18.6	93	80-120
Lead	11/06/03	OCA 10585	20.0	18.0	90	80-120
Mercury	11/06/03	OCA 10547	1.00	0.965	97	80-120
Molybdenum	11/06/03	OCA 10585	20.0	18.2	91	80-120
Nickel	11/06/03	OCA 10585	20.0	18.6	93	80-120
Selenium	11/06/03	OCA 10585	20.0	18.5	93	80-120
Silver	11/06/03	OCA 10585	20.0	17.4	87	80-120
Thallium	11/06/03	OCA 10585	20.0	17.6	88	80-120
Vanadium	11/06/03	OCA 10585	20.0	18.6	93	80-120
Zinc	11/06/03	OCA 10585	40.0	38.0	95	80-120

QA/QC REPORT
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03
Laboratory Sample No : 03100337
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD
Volatile Fuel Hydrocarbons	0	250	251	259	100	104	3	81-120	11

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %MS(MSD) Acceptable Range of Percent
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Quality Control Standard

Date of Analysis : 11/07/03
Laboratory Standard No : OCA10457

Analyte	SP CONC	RESULTS	% RECOVERY	ACCEPTABLE %
Volatile Fuel Hydrocarbons	500	504	101	73-133

QA/QC REPORT
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/08/03
Laboratory Sample No : OCA 100
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PCB-1016	0.0	10	6.1	6.8	61	68	11	13-159	35
PCB-1260	0.0	10	6.0	7.0	60	70	15	6-146	28

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/08/03
Laboratory Standard No : OCA 10819

Analyte	SP CONC	Results	% Recovery	ACP %
PCB-1016	700	660	94	D-168
PCB-1260	700	610	87	D-170

QA/QC REPORT
for
Polynuclear Aromatic Hydrocarbons (EPA 8310)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03
Laboratory Sample No : OCA 100
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Acenaphthene	0.0	0.25	0.169	0.156	68	62	8	39-103	23
Anthracene	0.0	0.25	0.141	0.154	56	62	9	45-97	24
Pyrene	0.0	0.25	0.203	0.179	81	72	13	37-118	17
Chrysene	0.0	0.25	0.207	0.220	83	88	6	39-121	21
Benzo (a) Pyrene	0.0	0.25	0.156	0.132	62	53	17	31-122	24

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/07/03
Laboratory Standard No : OCA 10781

Analyte	SP CONC	Results	% Recovery	ACP %
Acenaphthene	0.25	0.199	80	50-140
Anthracene	0.25	0.152	61	53-138
Pyrene	0.25	0.224	90	71-124
Chrysene	0.25	0.210	84	72-125
Benzo (a) Pyrene	0.25	0.199	80	70-127

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)
Laboratory Reference No : PTE 14481

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Antimony	11/06/03	03110030	0.0	0.200	0.189	0.186	95	93	2	75-125	20
Arsenic	11/06/03	03110030	0.071	0.200	0.256	0.256	93	93	0	75-125	20
Barium	11/06/03	03110030	0.32	0.400	0.660	0.640	85	80	3	75-125	20
Beryllium	11/06/03	03110030	0.0	0.100	0.0961	0.0957	96	96	0	75-125	20
Cadmium	11/06/03	03110030	0.0	0.100	0.0948	0.0948	95	95	0	75-125	20
Chromium (Total)	11/06/03	03110030	0.91	0.200	1.09	1.08	90	85	1	75-125	20
Cobalt	11/06/03	03110030	0.039	0.200	0.207	0.205	84	83	1	75-125	20
Copper	11/06/03	03110030	0.12	0.200	0.324	0.319	102	100	2	75-125	20
Lead	11/06/03	03110030	0.057	0.200	0.221	0.221	82	82	0	75-125	20
Mercury	11/06/03	03110030	0.0	0.005	0.00526	0.00507	105	101	4	80-120	20
Molybdenum	11/06/03	03110030	0.061	0.200	0.229	0.232	84	86	1	75-125	20
Nickel	11/06/03	03110030	0.44	0.200	0.620	0.617	90	89	0	75-125	20
Selenium	11/06/03	03110030	0.0	0.200	0.163	0.157	82	79	4	75-125	20
Silver	11/06/03	03110030	0.0	0.200	0.190	0.190	95	95	0	75-125	20
Thallium	11/06/03	03110030	0.0	0.200	0.153	0.153	77	77	0	75-125	20
Vanadium	11/06/03	03110030	0.29	0.200	0.467	0.459	89	85	2	75-125	20
Zinc	11/06/03	03110030	0.47	0.400	0.806	0.772	84	76	4	75-125	20

Definition of Terms :

- 1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID.	SP CONC	Results	% Recovery	ACP %
Antimony	11/06/03	OCA 10585	0.200	0.178	89	80-120
Arsenic	11/06/03	OCA 10585	0.200	0.173	87	80-120
Barium	11/06/03	OCA 10585	0.400	0.352	88	80-120
Beryllium	11/06/03	OCA 10585	0.100	0.0901	90	80-120
Cadmium	11/06/03	OCA 10585	0.100	0.0873	87	80-120
Chromium (Total)	11/06/03	OCA 10585	0.200	0.177	89	80-120
Cobalt	11/06/03	OCA 10585	0.200	0.177	89	80-120
Copper	11/06/03	OCA 10585	0.200	0.185	93	80-120
Lead	11/06/03	OCA 10585	0.200	0.175	88	80-120
Mercury	11/06/03	OCA 10547	0.005	0.00532	106	80-120
Molybdenum	11/06/03	OCA 10585	0.200	0.177	89	80-120
Nickel	11/06/03	OCA 10585	0.200	0.176	88	80-120
Selenium	11/06/03	OCA 10585	0.200	0.170	85	80-120
Silver	11/06/03	OCA 10585	0.200	0.172	86	80-120
Thallium	11/06/03	OCA 10585	0.200	0.173	87	80-120
Vanadium	11/06/03	OCA 10585	0.200	0.180	90	80-120
Zinc	11/06/03	OCA 10585	0.400	0.367	92	80-120

QA/QC REPORT
for
Phenols (EPA 8041)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/11/03
Laboratory Sample No : OCA 100
Laboratory Reference No : PTE 14481

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PENTACHLOROPHENOL	0.0	10	8.2	9.6	82	96	16	20-181	40

Definition of Terms :

R1	Result of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference; $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
ACP RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/11/03
Laboratory Standard No : OCA 9484

Analyte	SP CONC	Results	% Recovery	ACP %
PENTACHLOROPHENOL	30	35	117	77-125

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No:
Page 12 of 20

REQUIRED TAT:

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY: <u>Petro Geotechnical</u>	PROJECT NAME: <u>Petro Insulation</u>	NUMBER: <u>9257-03</u>	LOCATION: <u>2300 Newport Blvd</u>
SEND REPORT TO: <u>Brian Villalobos</u>	ADDRESS: <u>Newport Beach</u>	PHONE: <u>926 20</u>	FAX: <u>949 540-7572</u>
ADDRESS: <u>3185A Avenida Ave</u>	SAMPLED BY: <u>BV</u>		

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	ANALYSIS METHOD REQUIRES										REMARKS/PRECAUTIONS					
							TPH	Petrol	PAHs	PCBs	W. Metals	Arsenic	Lead	Cadmium	Silver	Chloride		Ammonia				
ET-2-0.0	1	11/3/03	0742	Soil	Acetate	N/A	X	X	X													
ET-2-3.0	1	"	0743	H ₂ O	Acetate	UNOT UCL	X	X	X													
ET-2-5.0	1	"	0745	Soil	Acetate	N/A																
ET-2-10.0	1	"	0750	Soil	Acetate																	
ET-2-#0.0	4	"	0800	Acetate	Acetate	ANG	X	X	X													
ET-5-#0.0	1	"	0853	Soil	Acetate		X	X	X													
ET-5-3.0	1	"	0858	Soil	Acetate	NA	X	X	X													
ET-5-5.0	1	"	0900	Soil	Acetate																	
ET-5-9.5	1	"	0910	Soil	Acetate																	
ET-5-H ₂ O	4	"	0915	H ₂ O	Acetate	UNOT UCL	X	X	X													
ET-3-1.0	1	"	0947	Soil	Acetate		X	X	X													
ET-3-3.0	1	"	0950	Soil	Acetate		X	X	X													
ET-3-5.0	1	"	0955	Soil	Acetate																	
ET-3-10.0	1	"	1005	Soil	Acetate																	

Total No. of Samples:		Method of Shipment:	
Relinquished By: <u>[Signature]</u>	Date/Time: <u>11/4/03 13:43</u>	Received By:	Date/Time:
Reporting Format: (check)	NORMAL _____	S.D. HMMD _____	
Relinquished By:	Date/Time:	Received By:	Date/Time:
RWQCB _____	OTHER _____		
Relinquished By:	Date/Time:	Received For Lab By: <u>[Signature]</u>	Date/Time: <u>11/4/03 13:43</u>
Sample Integrity: (check)	intact _____	on ice _____	

All samples remain the property of the client who is responsible for disposal.



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: _____
Page 2 of 5

REQUIRED TAGS

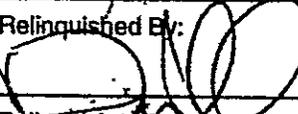
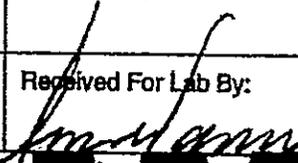
11/13/03

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	Intou Ecotechmeo	PROJECT NAME:	PTCC Investments
SEND REPORT TO:	Brian Villalobos	NUMBER:	9257-03
ADDRESS:	3185A Airways Ave. Costa Mesa, CA 92626	LOCATION:	2100 Newport Blvd.
PHONE:	FAX: (714) 540-7572	ADDRESS:	Newport Beach
		SAMPLED BY:	BI

ANALYSIS METHOD REQUEST

TPH - 8015 M
 Metals - 8041/604
 PCBs - 8310
 Metals - 8082
 Arsenic Lead Cadm
 SVOCs
 Arsenic
 8270

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES	TPH	Metals	PCBs	Metals	Arsenic Lead Cadm	SVOCs	Arsenic	REMARKS/PRECAUTIONS
ET-3-H ₂ O	6	11/13/03	1015	H ₂ O	3-ml 1- poly 1- glass	HMMD HCL	X	X	X	X	X			
BT-6-100	1		1130	Soil	125ml	M/A	X	X	X	X	X			
BT-6-300	1		1133		"		X	X	X	X		X		
BT-6-500	1		1135		"		X	X	X	X				
BT-6-1000	1				"		X	X	X	X				
BT-6-H ₂ O	1		1145		2-ml 2-ml 2-VOL	HMMD HCL	X	X	X	X				

Total No. of Samples:	Method of Shipment:
Relinquished By:  Date/Time: 11/13/03 1347	Received By: _____ Date/Time: _____
Reporting Format: (check) NORMAL _____ S.D. HMMD _____ RWQCB _____ OTHER _____	
Relinquished By: _____ Date/Time: _____	Received For Lab By:  Date/Time: 11/13/03 1347
Sample Integrity: (check) intact _____ on ice _____	



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14477B

Analytical Method: 8260B

Date Sampled: 10/30/03

Date Received: 10/30/03

Date Reported: 11/21/03

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 1447B
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

VOLATILE ORGANICS BY GC/MS (EPA 8260B)

Sample Description: Soil

Sampled: --- 10/30/03
 Received: --- 10/30/03
 Extracted: 11/19/03 11/19/03
 Analyzed: 11/19/03 11/19/03
 Reported: 11/21/03 11/21/03

Lab Sample #: MB 03100336*
 Client Sample #: --- ET-7-3
 Dilution Factor: 1 1

ANALYTE	CAS #	µg/kg	µg/kg
t-Amyl methyl ether (TAME)	955-05-8	<10	<10
Benzene	71-43-2	<2.5	<2.5
Bromobenzene	108-86-1	<2.5	<2.5
Bromochloromethane	74-97-5	<2.5	<2.5
Bromodichloromethane	75-27-4	<2.5	<2.5
Bromoform	75-25-2	<2.5	<2.5
Bromomethane	74-83-9	<5.0	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<50	<50
n-Butylbenzene	104-51-8	<2.5	<2.5
sec-Butylbenzene	135-98-8	<2.5	<2.5
tert-Butylbenzene	98-06-6	<2.5	<2.5
Carbon disulfide	75-15-0	<5.0	<5.0
Carbon tetrachloride	56-23-5	<2.5	<2.5
Chlorobenzene	108-90-7	<2.5	<2.5
Chlorodibromomethane	124-48-1	<2.5	<2.5
Chloroethane	75-00-3	<5.0	<5.0
Chloroform	67-66-3	<2.5	<2.5
Chloromethane	74-87-3	<5.0	<5.0
2-Chlorotoluene	95-49-8	<2.5	<2.5
4-Chlorotoluene	106-43-4	<2.5	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	<5.0
1,2-Dibromoethane	106-93-4	<2.5	<2.5
Dibromomethane	74-95-3	<2.5	<2.5
1,2-Dichlorobenzene	95-50-1	<2.5	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	<2.5
1,1-Dichloroethane	75-34-3	<2.5	<2.5
1,2-Dichloroethane	107-06-2	<2.5	<2.5
1,1-Dichloroethene	75-35-4	<2.5	<2.5
cis-1,2-Dichloroethene	156-59-2	<2.5	<2.5
trans-1,2-Dichloroethene	156-60-5	<2.5	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	<2.5
1,2-Dichloropropane	78-87-5	<2.5	<2.5

VOLATILE ORGANICS BY GC/MS (EPA 8260B) (continued)

Laboratory Reference #: PTE 1447B
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

Sampled: — 10/30/03
 Received: — 10/30/03
 Extracted: 11/19/03 11/19/03
 Analyzed: 11/19/03 11/19/03
 Reported: 11/21/03 11/21/03

Lab Sample #: MB 03100336*
 Client Sample #: — ET-7-3
 Dilution Factor: 1 1

ANALYTE (con't)	CAS #	µg/kg	µg/kg
1,3-Dichloropropane	142-28-9	<2.5	<2.5
2,2-Dichloropropane	594-20-7	<2.5	<2.5
1,1-Dichloropropene	563-58-6	<2.5	<2.5
cis-1,3-Dichloropropene	10061-01-5	<2.5	<2.5
trans-1,3-Dichloropropene	10061-02-6	<2.5	<2.5
Diisopropyl ether (DIPE)	108-20-3	<10	<10
Ethyl t-butyl ether (ETBE)	637-92-3	<10	<10
Ethylbenzene	100-41-4	<2.5	<2.5
Hexachlorobutadiene	87-68-3	<2.5	<2.5
Isopropylbenzene	98-82-8	<2.5	<2.5
4-Isopropyltoluene	99-87-6	<2.5	<2.5
Methyl t-butyl ether (MTBE)	1634-04-4	<5.0	<5.0
Methylene chloride	75-09-2	<10	<10
Naphthalene	91-20-3	<2.5	<2.5
n-Propylbenzene	103-65-1	<2.5	<2.5
Styrene	100-42-5	<2.5	<2.5
1,1,1,2-Tetrachloroethane	630-20-6	<2.5	<2.5
1,1,2,2-Tetrachloroethane	79-34-5	<2.5	<2.5
Tetrachloroethene	127-18-4	<2.5	<2.5
Toluene	108-88-3	<2.5	<2.5
1,2,3-Trichloropropane	96-18-4	<2.5	<2.5
1,2,4-Trichlorobenzene	120-82-1	<2.5	<2.5
1,1,1-Trichloroethane	71-55-6	<2.5	<2.5
1,1,2-Trichloroethane	79-00-5	<2.5	<2.5
Trichloroethene	79-01-6	<2.5	<2.5
Trichlorofluoromethane	75-69-4	<5.0	<5.0
1,2,3-Trichlorobenzene	87-61-6	<2.5	<2.5
1,2,4-Trimethylbenzene	95-63-6	<2.5	<2.5
1,3,5-Trimethylbenzene	108-67-8	<2.5	<2.5
Vinyl acetate	108-05-4	<5.0	<5.0
Vinyl chloride	75-01-4	<2.5	<2.5
Xylenes, Total	1330-20-7	<5.0	<5.0
Acceptable Surrogate %RC		%RC	%RC
Dibromofluoromethane	42-187%	94	117
Toluene-d8	72-116%	107	104
4-Bromofluorobenzene	55-116%	92	87

* Analysis requested past the holding time.

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting Units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/19/03
Laboratory Sample No : A03110087
Laboratory Reference No : PTE 14477B

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
1,1-Dichloroethene	0.0	50	39	40	78	80	3	57-149	15
Benzene	0.0	50	49	49	98	98	0	65-121	13
Trichloroethene	0.0	50	47	46	94	92	2	63-125	12
Toluene	0.0	50	51	52	102	104	2	61-130	16
Chlorobenzene	0.0	50	52	52	104	104	0	67-128	17

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/19/03
Laboratory Standard No : OCA 10751b

Analyte	SP CONC	Results	% Recovery	ACP %
1,1-Dichloroethene	50	40	80	54-146
Benzene	50	50	100	66-120
Trichloroethene	50	48	96	66-120
Toluene	50	51	102	64-126
Chlorobenzene	50	52	104	70-126

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: ETCO -9257-03 (1 of 61)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Wed, 19 Nov 2003 10:33:32 -0800
From: Brian Villalobos <bvillalobos@petra-inc.com>
To: markn@ocalab.com

Reply-to: bvillalobos@petra-inc.com
Subject: ETCO -9257-03

Mark/Marie

Please run 8260B analysis on sample ET-7-3.0. Please use the other end of the sample container, then previously used, to extract the sample.

Sincerely,

Brian Villalobos
Petra Geotechnical
(714) 549-8921

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14477A

Analytical Method: 6010B

Date Sampled: 10/30/03

Date Received: 10/30/03

Date Reported: 11/18/03

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477A
Client Project ID: ETCO Investments
Client Project #: 9257-03

STLC METALS

Sample Description: Soil

Sampled: -- 10/30/03
Received: -- 10/30/03
Reported: 11/18/03 11/18/03

Lab Sample #: MB 03100348
Client Sample #: -- ET-1-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l
Copper	6010B	11/18/03	<0.50	11
Lead	6010B	11/18/03	<0.25	26

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14477A

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Copper	11/18/03	03110082	0.0	0.200	0.204	0.203	102	102	0	75-125	20
Lead	11/18/03	03110082	0.0	0.200	0.181	0.181	91	91	0	75-125	20

Definition of Terms :

R1 Result of QC Sample
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Copper	11/18/03	OCA 10585	0.200	0.200	100	80-120
Lead	11/18/03	OCA 10585	0.200	0.191	96	80-120

INBOX Compose Folders Options Search Help Address Book Logout

Open Folder INBOX

INBOX: RE: Results: ETCO (1 of 46)

Move | Copy | This message to

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Date: Thu, 13 Nov 2003 14:44:40 -0800

From: Brian Villalobos <bvillalobos@petra-inc.com>

To: "Orange Coast Analytical, Inc." <markn@ocalab.com>

Reply-to: bvillalobos@petra-inc.com

Subject: RE: Results: ETCO

Thanks Mark

Please run STLC analysis on sample ET-1-1.0 for Lead and Copper.
STLC analysis on sample ET-4-3.0 for Lead.

Are the remaining results near completion?

Thanks again

Brian Villalobos

-----Original Message-----

From: Orange Coast Analytical, Inc. [mailto:markn@ocalab.com]

Sent: Thursday, November 13, 2003 12:31 PM

To: Brian Villalobos

Cc: David Darrow

Subject: Results: ETCO

Hi Brian:

Results are attached for your review. I am not sure what kind of requirement you have for this project since there are some positive hits on the 8310 analysis.

Please contact me if you have any questions.

Mark Noorani
Orange Coast Analytical, Inc.
714) 832-0064
714) 832-0067 (fax)

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Message Source | Save as | Print

Back to INBOX

Move | Copy | This message to



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416

Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Petra Environmental

Project No.: 9257-03

Project Name: ETCO Investments

Laboratory Reference: PTE 14477

Analytical Method: 8015g, 8041, 8310, 8082, 6010B, 7471A

Date Sampled: 10/30/03

Date Received: 10/30/03

Date Reported: 11/13/03

Sample Matrix: Soil, Water

Chain of Custody Received: Yes

Laboratory Director's Signature: *Mark Noorani*

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

VOLATILE FUEL HYDROCARBONS (EPA 8015B)

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03
Extracted:	11/07/03	11/07/03	11/07/03	11/07/03
Analyzed:	11/07/03	11/07/03	11/07/03	11/07/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03
Lab Sample #:	MB1107	03100335	03100336	03100349
Client Sample #:	—	ET-7-1	ET-7-3	ET-1-3.0
Dilution Factor:	1	1	1	1
ANALYTE	mg/kg	mg/kg	mg/kg	mg/kg
VFH ¹	<5.0	<5.0	<5.0	<5.0

¹ Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	10/31/03	10/31/03	10/31/03	10/31/03	10/31/03	10/31/03
Analyzed:	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB	03100335	03100336	03100338	03100339	03100340
Client Sample #:	—	ET-7-1	ET-7-3	ET-8-3	ET-11-1	ET-11-3
Dilution Factor:	1	1	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	83-32-9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Acenaphthylene	208-96-8	<2.0	<2.0	3.2	<2.0	<2.0	<2.0
Anthracene	120-12-7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benz(a)anthracene	56-55-3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(a)pyrene	50-32-8	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(b)fluoranthene	205-99-2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(k)fluoranthene	207-08-9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(g,h,i)perylene	191-24-2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chrysene	218-01-9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibenzo(a,h)anthracene	53-70-3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Fluoranthene	206-44-0	<2.0	3.3	<2.0	<2.0	<2.0	<2.0
Pyrene	129-00-0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Fluorene	86-73-7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phenanthrene	85-01-8	<2.0	2.0	<2.0	<2.0	<2.0	<2.0
Indeno(1,2,3-C,D)pyrene	193-39-5	<2.0	5.8	<2.0	<2.0	<2.0	<2.0
Naphthalene	91-20-3	<2.0	<2.0	2.6	<2.0	<2.0	<2.0
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC	%RC
Nitrobenzene-d5	35-118%	85	93	89	111	101	97

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Alrway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	10/31/03	10/31/03	10/31/03	10/31/03	10/31/03	10/31/03
Analyzed:	11/05/03	11/05/03	11/05/03	11/07/03	11/05/03	11/05/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	03100342	03100343	03100345	03100346	03100348	03100349
Client Sample #:	ET-10-1	ET-10-3	ET-9-1.0	ET-9-3.0	ET-1-1.0	ET-1-3.0
Dilution Factor:	1	1	1	1	10	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	83-32-9	<2.0	<2.0	<2.0	<2.0	<20	<2.0
Acenaphthylene	208-96-8	2.0	<2.0	<2.0	<2.0	<20	<2.0
Anthracene	120-12-7	<2.0	<2.0	<2.0	<2.0	<20	<2.0
Benz(a)anthracene	56-55-3	2.4	<2.0	<2.0	<2.0	43	6.2
Benzo(a)pyrene	50-32-8	6.0	<2.0	<2.0	<2.0	160	7.3
Benzo(b)fluoranthene	205-99-2	6.0	<2.0	<2.0	<2.0	260	5.7
Benzo(k)fluoranthene	207-08-9	3.3	<2.0	<2.0	<2.0	130	3.0
Benzo(g,h,i)perylene	191-24-2	9.5	<2.0	<2.0	<2.0	180	5.8
Chrysene	218-01-9	<2.0	<2.0	<2.0	<2.0	140	5.4
Dibenzo(a,h)anthracene	53-70-3	<2.0	<2.0	<2.0	<2.0	36	<2.0
Fluoranthene	208-44-0	7.1	<2.0	3.1	<2.0	42	7.8
Pyrene	129-00-0	5.9	<2.0	<2.0	<2.0	120	8.9
Fluorene	86-73-7	<2.0	<2.0	<2.0	<2.0	<20	<2.0
Phenanthrene	85-01-8	2.6	<2.0	2.0	<2.0	<20	2.2
Indeno(1,2,3-C,D)pyrene	193-39-5	14	<2.0	5.1	<2.0	230	8.1
Naphthalene	91-20-3	2.6	<2.0	<2.0	<2.0	<20	<2.0
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC	%RC
Nitrobenzene-d5	35-118%	100	83	88	101	92	104

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Soil

Sampled:	10/30/03	10/30/03
Received:	10/30/03	10/30/03
Extracted:	10/31/03	10/31/03
Analyzed:	11/05/03	11/05/03
Reported:	11/13/03	11/13/03

Lab Sample #:	03100351	03100352
Client Sample #:	ET-4-1.0	ET-4-3.0
Dilution Factor:	1	1

ANALYTE	CAS #	µg/kg	µg/kg
Acenaphthene	83-32-9	<2.0	<2.0
Acenaphthylene	208-96-8	<2.0	<2.0
Anthracene	120-12-7	<2.0	<2.0
Benz(a)anthracene	56-55-3	<2.0	2.8
Benzo(a)pyrene	50-32-8	<2.0	<2.0
Benzo(b)fluoranthene	205-99-2	<2.0	5.6
Benzo(k)fluoranthene	207-08-9	<2.0	4.0
Benzo(g,h,i)perylene	191-24-2	<2.0	<2.0
Chrysene	218-01-9	<2.0	3.5
Dibenzo(a,h)anthracene	53-70-3	<2.0	<2.0
Fluoranthene	206-44-0	<2.0	6.0
Pyrene	129-00-0	<2.0	<2.0
Fluorene	86-73-7	<2.0	<2.0
Phenanthrene	85-01-8	<2.0	<2.0
Indeno(1,2,3-C,D)pyrene	193-39-5	<2.0	<2.0
Naphthalene	91-20-3	<2.0	<2.0
Acceptable Surrogate %RC		%RC	%RC
Nitrobenzene-d5	35-118%	88	103

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB1104	03100335	03100336	03100338	03100339	03100340
Client Sample #:	—	ET-7-1	ET-7-3	ET-8-3	ET-11-1	ET-11-3
Dilution Factor:	1	1	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	<25	<25	<25	<25	<25
PCB-1221	111104-28-2	<25	<25	<25	<25	<25	<25
PCB-1232	11141-16-5	<25	<25	<25	<25	<25	<25
PCB-1242	53469-21-9	<25	<25	<25	<25	<25	<25
PCB-1248	12672-29-6	<25	<25	<25	<25	<25	<25
PCB-1254	11097-69-1	<25	<25	<25	<25	<25	<25
PCB-1260	11096-82-5	<25	<25	<25	<25	<25	<25
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC	%RC
Decachlorobiphenyl	30-168%	90	58	87	84	71	69

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	03100342	03100343	03100345	03100346	03100348	03100349
Client Sample #:	ET-10-1	ET-10-3	ET-9-1.0	ET-9-3.0	ET-1-1.0	ET-1-3.0
Dilution Factor:	1	1	1	1	1	1

ANALYTE	CAS #	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	<25	<25	<25	<25	<25
PCB-1221	111104-28-2	<25	<25	<25	<25	<25	<25
PCB-1232	11141-16-5	<25	<25	<25	<25	<25	<25
PCB-1242	53469-21-9	<25	<25	<25	<25	<25	<25
PCB-1248	12672-29-6	<25	<25	<25	<25	<25	<25
PCB-1254	11097-69-1	<25	<25	<25	<25	<25	<25
PCB-1260	11096-82-5	<25	<25	<25	<25	<25	<25
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC	%RC
Decachlorobiphenyl	30-168%	76	82	74	82	74	76

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Soil

Sampled:	10/30/03	10/30/03
Received:	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03
Analyzed:	11/05/03	11/05/03
Reported:	11/13/03	11/13/03

Lab Sample #:	03100351	03100352
Client Sample #:	ET-4-1.0	ET-4-3.0
Dilution Factor:	1	1

ANALYTE	CAS #	µg/kg	µg/kg
PCB-1016	12674-11-2	<25	<25
PCB-1221	111104-28-2	<25	<25
PCB-1232	11141-16-5	<25	<25
PCB-1242	53469-21-9	<25	<25
PCB-1248	12672-29-6	<25	<25
PCB-1254	11097-69-1	<25	<25
PCB-1260	11096-82-5	<25	<25

Acceptable Surrogate %RC	%RC	%RC	
Decachlorobiphenyl	30-168%	69	81

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03
Analyzed:	11/12/03	11/12/03	11/12/03	11/12/03	11/12/03	11/12/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03
Lab Sample #:	MB1111	03100335	03100336	03100342	03100343	03100345
Client Sample #:	—	ET-7-1	ET-7-3	ET-10-1	ET-10-3	ET-9-1.0
Dilution Factor:	1	1	1	1	1	1
ANALYTE	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Pentachlorophenol	<100	<100	<100	<100	<100	<100

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Soil

Sampled:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03
Analyzed:	11/12/03	11/12/03	11/12/03	11/12/03	11/12/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03
Lab Sample #:	03100346	03100348	03100349	03100351	03100352
Client Sample #:	ET-9-3.0	ET-1-1.0	ET-1-3.0	ET-4-1.0	ET-4-3.0
Dilution Factor:	1	1	1	1	1
ANALYTE	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Pentachlorophenol	<100	<100	<100	<100	<100

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

CCR METALS

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB	03100335	03100340	03100343	03100345
Client Sample #:	—	ET-7-1	ET-11-3	ET-10-3	ET-9-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	6010B	11/03/03	<5.0	<5.0	<5.0	<5.0	<5.0
Arsenic	6010B	11/03/03	<1.0	1.9	1.6	1.7	1.4
Barium	6010B	11/03/03	<0.5	14	2.4	3.0	2.9
Beryllium	6010B	11/03/03	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	6010B	11/03/03	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Total)	6010B	11/03/03	<0.5	3.4	3.4	1.6	1.3
Cobalt	6010B	11/03/03	<0.5	1.1	<0.5	<0.5	<0.5
Copper	6010B	11/03/03	<0.5	4.9	0.91	1.0	1.9
Lead	6010B	11/03/03	<1.0	6.6	<1.0	<1.0	4.4
Mercury	7471A	11/03/03	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	6010B	11/03/03	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel	6010B	11/03/03	<0.5	2.4	0.65	0.78	0.69
Selenium	6010B	11/03/03	<5.0	<5.0	<5.0	<5.0	<5.0
Silver	6010B	11/03/03	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	6010B	11/03/03	<5.0	<5.0	<5.0	<5.0	<5.0
Vanadium	6010B	11/03/03	<0.5	7.5	2.4	3.1	2.5
Zinc	6010B	11/03/03	<0.5	16	3.4	4.2	5.6

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

CCR METALS

Sample Description: Soil

Sampled: 10/30/03 10/30/03
 Received: 10/30/03 10/30/03
 Reported: 11/13/03 11/13/03

Lab Sample #: 03100349 03100351
 Client Sample #: ET-1-3.0 ET-4-1.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg
Antimony	6010B	11/03/03	<5.0	<5.0
Arsenic	6010B	11/03/03	2.4	3.3
Barium	6010B	11/03/03	7.5	2.9
Beryllium	6010B	11/03/03	<0.5	<0.5
Cadmium	6010B	11/03/03	<0.5	<0.5
Chromium (Total)	6010B	11/03/03	2.4	2.2
Cobalt	6010B	11/03/03	<0.5	<0.5
Copper	6010B	11/03/03	30	11
Lead	6010B	11/03/03	43	12
Mercury	7471A	11/03/03	0.62	0.37
Molybdenum	6010B	11/03/03	<1.0	<1.0
Nickel	6010B	11/03/03	1.4	1.1
Selenium	6010B	11/03/03	<5.0	<5.0
Silver	6010B	11/03/03	<0.5	<0.5
Thallium	6010B	11/03/03	<5.0	<5.0
Vanadium	6010B	11/03/03	3.6	3.9
Zinc	6010B	11/03/03	63	15

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03
Lab Sample #:	MB	03100336	03100338	03100339	03100342	03100346
Client Sample #:	—	ET-7-3	ET-8-3	ET-11-1	ET-10-1	ET-9-3.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic	6010B	11/03/03	<1.0	1.6	2.1	1.6	1.6	1.7
Copper	6010B	11/03/03	<0.5	4.6	7.7	4.2	8.1	6.0
Lead	6010B	11/03/03	<1.0	23	5.6	2.4	23	13

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

METALS

Sample Description: Soil

Sampled:	10/30/03	10/30/03
Received:	10/30/03	10/30/03
Reported:	11/13/03	11/13/03
Lab Sample #:	03100348	03100352
Client Sample #:	ET-1-1.0	ET-4-3.0

ANALYTE	EPA METHOD	DATE TESTED	mg/kg	mg/kg
Arsenic	6010B	11/03/03	9.6	4.5
Copper	6010B	11/03/03	290	61
Lead	6010B	11/03/03	300	230

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

VOLATILE FUEL HYDROCARBONS (EPA 8015B)

Sample Description: Water

Sampled:	—	10/30/03
Received:	—	10/30/03
Analyzed:	11/07/03	11/07/03
Reported:	11/13/03	11/13/03
Lab Sample #:	MB	03100337
Client Sample #:	—	ET-7-H20
Dilution Factor:	1	1
ANALYTE	µg/l	µg/l
VFH ¹	<50	<50

¹ Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Water

Sampled:	---	10/30/03	10/30/03	10/30/03	10/30/03
Received:	---	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/05/03	11/05/03	11/05/03	11/05/03	11/05/03
Analyzed:	11/07/03	11/07/03	11/07/03	11/07/03	11/07/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB	03100337	03100341	03100344	03100347
Client Sample #:	---	ET-7-H2O	ET-11-H2O	ET-10-H2O	ET-9-H2O
Dilution Factor:	1	1	1	1	1

ANALYTE	CAS #	µg/l	µg/l	µg/l	µg/l	µg/l
Acenaphthene	83-32-9	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	208-96-8	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	120-12-7	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	56-55-3	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	50-32-8	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	207-08-9	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	191-24-2	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	218-01-9	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenzo(a,h)anthracene	53-70-3	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	206-44-0	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	129-00-0	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	86-73-7	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	85-01-8	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-C,D)pyrene	193-39-5	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene	81-20-3	<0.05	<0.05	0.53	<0.05	<0.05
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC
Nitrobenzene-d5	39-111%	94	110	103	109	104

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYNUCLEAR AROMATIC HYDROCARBONS BY HPLC (EPA 8310)

Sample Description: Water

Sampled:	10/30/03	10/30/03
Received:	10/30/03	10/30/03
Extracted:	11/05/03	11/05/03
Analyzed:	11/07/03	11/07/03
Reported:	11/13/03	11/13/03

Lab Sample #:	03100350	03100353
Client Sample #:	ET-1-H20	ET-4-H20
Dilution Factor:	2	2

ANALYTE	CAS #	µg/l	µg/l
Acenaphthene	83-32-9	<0.10	0.15
Acenaphthylene	208-96-8	<0.10	<0.10
Anthracene	120-12-7	0.15	<0.10
Benz(a)anthracene	56-55-3	<0.10	<0.10
Benzo(a)pyrene	50-32-8	<0.10	<0.10
Benzo(b)fluoranthene	205-99-2	<0.10	<0.10
Benzo(k)fluoranthene	207-08-9	<0.10	<0.10
Benzo(g,h,i)perylene	191-24-2	<0.10	<0.10
Chrysene	218-01-9	<0.10	<0.10
Dibenzo(a,h)anthracene	53-70-3	<0.10	<0.10
Fluoranthene	206-44-0	1.3	<0.10
Pyrene	129-00-0	0.97	<0.10
Fluorene	86-73-7	<0.10	0.54
Phenanthrene	85-01-8	<0.10	0.25
Indeno(1,2,3-C,D)pyrene	193-39-5	<0.10	<0.10
Naphthalene	91-20-3	0.12	0.70

Acceptable Surrogate %RC	%RC	%RC
Nitrobenzene-d5	39-111%	103
		96

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

PENTACHLOROPHENOL (EPA 8041)

Sample Description: Water

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03	11/11/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03
Lab Sample #:	MB1104	03100337	03100344	03100347	03100350	03100353
Client Sample #:	—	ET-7-H2O	ET-10-H2O	ET-9-H2O	ET-1-H2O	ET-4-H2O
Dilution Factor:	1	1	1	1	1	1
ANALYTE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Pentachlorophenol	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Water

Sampled:	---	10/30/03	10/30/03	10/30/03	10/30/03
Received:	---	10/30/03	10/30/03	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03	11/04/03	11/04/03	11/04/03
Analyzed:	11/08/03	11/08/03	11/08/03	11/08/03	11/08/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB1104	03100337	03100341	03100344	03100347
Client Sample #:	---	ET-7-H2O	ET-11-H2O	ET-10-H2O	ET-9-H2O
Dilution Factor:	1	1	1	1	1

ANALYTE	CAS #	µg/l	µg/l	µg/l	µg/l	µg/l
PCB-1016	12674-11-2	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1221	111104-28-2	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1232	11141-16-5	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1242	53469-21-9	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1248	12672-29-6	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1254	11097-69-1	<5.0	<5.0	<5.0	<5.0	<5.0
PCB-1260	11096-82-5	<5.0	<5.0	<5.0	<5.0	<5.0
Acceptable Surrogate %RC		%RC	%RC	%RC	%RC	%RC
Decachlorobiphenyl	D-220%	65	70	60	65	75

Petra Environmental
ATTN: Mr. Brian Villalobos
3185-A Airway
Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
Client Project ID: ETCO Investments
Client Project #: 9257-03

POLYCHLORINATED BIPHENYL'S (EPA 8082)

Sample Description: Water

Sampled:	10/30/03	10/30/03
Received:	10/30/03	10/30/03
Extracted:	11/04/03	11/04/03
Analyzed:	11/08/03	11/08/03
Reported:	11/13/03	11/13/03

Lab Sample #:	03100350	03100353
Client Sample #:	ET-1-H2O	ET-4-H2O
Dilution Factor:	1	1

ANALYTE	CAS #	µg/l	µg/l
PCB-1016	12674-11-2	<5.0	<5.0
PCB-1221	111104-28-2	<5.0	<5.0
PCB-1232	11141-18-5	<5.0	<5.0
PCB-1242	53469-21-9	<5.0	<5.0
PCB-1248	12672-29-6	<5.0	<5.0
PCB-1254	11097-69-1	<5.0	<5.0
PCB-1260	11096-82-5	<5.0	<5.0
Acceptable Surrogate %RC		%RC	%RC
Decachlorobiphenyl	D-220%	85	70

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

CCR METALS

Sample Description: Water

Sampled:	—	10/30/03	10/30/03	10/30/03	10/30/03
Received:	—	10/30/03	10/30/03	10/30/03	10/30/03
Reported:	11/13/03	11/13/03	11/13/03	11/13/03	11/13/03

Lab Sample #:	MB	03100337	03100341	03100344	03100350
Client Sample #:	—	ET-7-H20	ET-11-H20	ET-10-H20	ET-1-H20

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l	mg/l	mg/l
Antimony	6010B	11/03/03	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	6010B	11/03/03	<0.050	<0.050	0.061	<0.050	<0.050
Barium	6010B	11/03/03	<0.010	0.044	0.079	0.11	0.26
Beryllium	6010B	11/03/03	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium	6010B	11/03/03	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium (Total)	6010B	11/03/03	<0.010	0.020	0.032	0.072	0.085
Cobalt	6010B	11/03/03	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	6010B	11/03/03	<0.010	0.020	0.019	0.027	0.24
Lead	6010B	11/03/03	<0.050	<0.050	<0.050	<0.050	0.35
Mercury	7470	11/03/03	<0.001	<0.001	<0.001	<0.001	0.0037
Molybdenum	6010B	11/03/03	<0.050	<0.050	<0.050	<0.050	<0.050
Nickel	6010B	11/03/03	<0.010	0.011	0.013	0.021	0.028
Selenium	6010B	11/03/03	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	6010B	11/03/03	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	6010B	11/03/03	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	6010B	11/03/03	<0.010	<0.010	0.018	0.022	0.068
Zinc	6010B	11/03/03	<0.010	0.10	0.12	0.25	0.36

Petra Environmental
 ATTN: Mr. Brian Villalobos
 3185-A Airway
 Costa Mesa, CA 92626

Laboratory Reference #: PTE 14477
 Client Project ID: ETCO Investments
 Client Project #: 9257-03

METALS

Sample Description: Water

Sampled:	--	10/30/03	10/30/03
Received:	--	10/30/03	10/30/03
Reported:	11/13/03	11/13/03	11/13/03
Lab Sample #:	MB	03100347	03100353
Client Sample #:	--	ET-9-H20	ET-4-H20

ANALYTE	EPA METHOD	DATE TESTED	mg/l	mg/l	mg/l
Arsenic	6010B	11/03/03	<0.05	<0.05	<0.05
Copper	6010B	11/03/03	<0.01	0.037	0.078
Lead	6010B	11/03/03	<0.05	<0.05	0.47

QA/QC REPORT
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/05/03
Laboratory Sample No : 0310339
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PCB-1016	0.0	250	180	180	72	72	0	44-152	23
PCB-1260	0.0	250	270.0	220.0	108	88	20	55-130	35

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP % Acceptable Range of Percent for MS/MSD
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/05/03
Laboratory Standard No : OCA 10820

Analyte	SP CONC	Results	% Recovery	ACP %
PCB-1016	250	210	84	54-149
PCB-1260	250	290	116	59-144

QA/QC REPORT
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03
Laboratory Sample No : 03100335
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD
Volatile Fuel Hydrocarbons	0.0	12.5	10.1	10.4	81	83	3	55-125	11

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %MS(MSD) Acceptable Range of Percent
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/07/03
Laboratory Standard No : OCA10916

Analyte	SP CONC	RESULTS	% RECOVERY	ACCEPTABLE %
Volatile Fuel Hydrocarbons	12.5	12.6	101	82-119

QA/QC REPORT
for
Phenols (EPA 8041)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/12/03
Laboratory Sample No : 03100352
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPE
PENTACHLOROPHENOL	0.0	100	110	100	110	100	10	17-153	30

Definition of Terms :

R1	Result of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/12/03
Laboratory Standard No : OCA 10728

Analyte	SP CONC	Results	% Recovery	ACP %
PENTACHLOROPHENOL	100	71	71	29-147

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)
Laboratory Reference No : PTE 14477

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Antimony	11/03/03	03100335	0.0	20.0	15.7	16.3	79	82	4	75-125	20
Arsenic	11/03/03	03100335	1.9	20.0	21.0	20.9	96	95	0	75-125	20
Barium	11/03/03	03100335	14	40.0	52.2	52.2	96	96	0	75-125	20
Beryllium	11/03/03	03100335	0.0	10.0	9.95	10.1	100	101	1	75-125	20
Cadmium	11/03/03	03100335	0.0	10.0	9.30	9.47	93	95	2	75-125	20
Chromium (Total)	11/03/03	03100335	3.4	20.0	22.6	22.6	96	96	0	75-125	20
Cobalt	11/03/03	03100335	1.1	20.0	19.3	19.6	91	93	2	75-125	20
Copper	11/03/03	03100335	4.9	20.0	24.6	24.6	99	99	0	75-125	20
Lead	11/03/03	03100335	6.6	20.0	24.6	24.9	90	92	1	75-125	20
Mercury	11/03/03	03100335	0.0	1.00	1.10	1.09	110	109	1	80-120	20
Molybdenum	11/03/03	03100335	0.0	20.0	18.5	18.8	93	94	2	75-125	20
Nickel	11/03/03	03100335	2.4	20.0	20.7	20.9	92	93	1	75-125	20
Selenium	11/03/03	03100335	0.0	20.0	18.4	18.5	92	93	1	75-125	20
Silver	11/03/03	03100335	0.0	20.0	18.5	18.4	93	92	1	75-125	20
Thallium	11/03/03	03100335	0.0	20.0	17.1	17.1	86	86	0	75-125	20
Vanadium	11/03/03	03100335	7.5	20.0	28.1	26.6	103	96	5	75-125	20
Zinc	11/03/03	03100335	16	40.0	54.1	54.9	95	97	1	75-125	20

Definition of Terms :

- R1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Antimony	11/03/03	OCA 10585	20.0	18.6	93	80-120
Arsenic	11/03/03	OCA 10585	20.0	18.5	93	80-120
Barium	11/03/03	OCA 10585	40.0	36.2	91	80-120
Beryllium	11/03/03	OCA 10585	10.0	9.44	94	80-120
Cadmium	11/03/03	OCA 10585	10.0	9.14	91	80-120
Chromium (Total)	11/03/03	OCA 10585	20.0	18.2	91	80-120
Cobalt	11/03/03	OCA 10585	20.0	18.1	91	80-120
Copper	11/03/03	OCA 10585	20.0	18.5	93	80-120
Lead	11/03/03	OCA 10585	20.0	18.1	91	80-120
Mercury	11/03/03	OCA 10547	1.00	1.10	110	80-120
Molybdenum	11/03/03	OCA 10585	20.0	18.3	92	80-120
Nickel	11/03/03	OCA 10585	20.0	18.3	92	80-120
Selenium	11/03/03	OCA 10585	20.0	18.2	91	80-120
Silver	11/03/03	OCA 10585	20.0	17.5	88	80-120
Thallium	11/03/03	OCA 10585	20.0	17.8	89	80-120
Vanadium	11/03/03	OCA 10585	20.0	18.5	93	80-120
Zinc	11/03/03	OCA 10585	40.0	37.3	93	80-120

QA/QC REPORT
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03
Laboratory Sample No : 03100337
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD
Volatile Fuel Hydrocarbons	0	250	251	259	100	104	3	81-120	11

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP %MS(MSD) Acceptable Range of Percent
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Quality Control Standard

Date of Analysis : 11/07/03
Laboratory Standard No : OCA10457

Analyte	SP CONC	RESULTS	% RECOVERY	ACCEPTABLE %
Volatile Fuel Hydrocarbons	500	504	101	73-133

QA/QC REPORT
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/08/03
Laboratory Sample No : OCA 100
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PCB-1016	0.0	10	6.1	6.8	61	68	11	13-159	35
PCB-1260	0.0	10	6.0	7.6	60	76	24	6-146	28

Definition of Terms :

R1 Result of Laboratory Sample Number
SP CONC Spike Concentration Added to Sample
MS Matrix Spike Results
MSD Matrix Spike Duplicate Results
% MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP % Acceptable Range of Percent for MS/MSD
ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/08/03
Laboratory Standard No : OCA 10819

Analyte	SP CONC	Results	% Recovery	ACP %
PCB-1016	700	660	94	D-168
PCB-1260	700	613	88	D-170

QA/QC REPORT
for
Polynuclear Aromatic Hydrocarbons (EPA 8310)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/05/03
Laboratory Sample No : A03100042
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Acenaphthene	0.0	10	11.1	11.3	111	113	2	38-126	21
Anthracene	0.0	10	6.6	6.8	66	68	3	39-114	23
Pyrene	0.0	10	10.7	11.3	107	113	5	43-130	26
Chrysene	0.0	10	10.4	10.2	104	102	2	42-125	20
Benzo (a) Pyrene	0.0	10	8.9	9.1	89	91	2	41-125	22

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/05/03
Laboratory Standard No : OCA 10781

Analyte	SP CONC	Results	% Recovery	ACP %
Acenaphthene	10	9.5	95	48-126
Anthracene	10	6.2	62	48-113
Pyrene	10	9.5	95	54-122
Chrysene	10	9.0	90	61-123
Benzo (a) Pyrene	10	8.2	82	40-133

QA/QC REPORT
for
Polynuclear Aromatic Hydrocarbons (EPA 8310)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/07/03
Laboratory Sample No : OCA 100
Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Acenaphthene	0.0	0.25	0.169	0.156	68	62	8	39-103	23
Anthracene	0.0	0.25	0.141	0.154	56	62	9	45-97	24
Pyrene	0.0	0.25	0.203	0.179	81	72	13	37-118	17
Chrysene	0.0	0.25	0.207	0.220	83	88	6	39-121	21
Benzo (a) Pyrene	0.0	0.25	0.156	0.132	62	53	17	31-122	24

Definition of Terms :

R1 Result of Laboratory Sample Number
 SP CONC Spike Concentration Added to Sample
 MS Matrix Spike Results
 MSD Matrix Spike Duplicate Results
 % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
 % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
 RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
 ACP % Acceptable Range of Percent for MS/MSD
 ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/07/03
Laboratory Standard No : OCA 10781

Analyte	SP CONC	Results	% Recovery	ACP %
Acenaphthene	0.25	0.199	80	50-140
Anthracene	0.25	0.152	61	53-138
Pyrene	0.25	0.224	90	71-124
Chrysene	0.25	0.210	84	72-125
Benzo (a) Pyrene	0.25	0.199	80	70-127

QA/QC REPORT
for Metals
Reporting units: ppm

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Laboratory Reference No : PTE 14477

Analyte	Date Tested	QC Sample	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
Antimony	11/03/03	03100337	0.0	0.200	0.193	0.193	97	97	0	75-125	20
Arsenic	11/03/03	03100337	0.0	0.200	0.213	0.21	107	105	1	75-125	20
Barium	11/03/03	03100337	0.044	0.400	0.408	0.407	91	91	0	75-125	20
Beryllium	11/03/03	03100337	0.0	0.100	0.0972	0.0966	97	97	1	75-125	20
Cadmium	11/03/03	03100337	0.0	0.100	0.0967	0.0967	97	97	0	75-125	20
Chromium (Total)	11/03/03	03100337	0.020	0.200	0.213	0.213	97	97	0	75-125	20
Cobalt	11/03/03	03100337	0.0	0.200	0.195	0.194	98	97	1	75-125	20
Copper	11/03/03	03100337	0.020	0.200	0.242	0.241	111	111	0	75-125	20
Lead	11/03/03	03100337	0.0	0.200	0.179	0.18	90	90	1	75-125	20
Mercury	11/03/03	03100341	0.0	0.005	0.00537	0.00549	107	110	2	80-120	20
Molybdenum	11/03/03	03100337	0.0	0.200	0.221	0.22	111	110	0	75-125	20
Nickel	11/03/03	03100337	0.010	0.200	0.196	0.195	93	93	1	75-125	20
Selenium	11/03/03	03100337	0.0	0.200	0.191	0.187	96	94	2	75-125	20
Silver	11/03/03	03100337	0.0	0.200	0.204	0.203	102	102	0	75-125	20
Thallium	11/03/03	03100337	0.0	0.200	0.156	0.157	78	79	1	75-125	20
Vanadium	11/03/03	03100337	0.0	0.200	0.208	0.209	104	105	0	75-125	20
Zinc	11/03/03	03100337	0.10	0.400	0.459	0.453	90	88	1	75-125	20

Definition of Terms :

- R1 Result of QC Sample
- SP CONC Spike Concentration Added to Sample
- MS Matrix Spike Results
- MSD Matrix Spike Duplicate Results
- % MS Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
- % MSD Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
- RPD Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
- ACP % Acceptable Range of Percent for MS/MSD
- ACP RPD Acceptable Relative Percent Difference

2. Laboratory Control Sample

Analyte	Date Tested	Spike Standard ID	SP CONC	Results	% Recovery	ACP %
Antimony	11/03/03	OCA 10585	0.200	0.188	94	80-120
Arsenic	11/03/03	OCA 10585	0.200	0.180	90	80-120
Barium	11/03/03	OCA 10585	0.400	0.369	92	80-120
Beryllium	11/03/03	OCA 10585	0.100	0.0921	92	80-120
Cadmium	11/03/03	OCA 10585	0.100	0.0895	90	80-120
Chromium (Total)	11/03/03	OCA 10585	0.200	0.192	96	80-120
Cobalt	11/03/03	OCA 10585	0.200	0.201	101	80-120
Copper	11/03/03	OCA 10585	0.200	0.199	100	80-120
Lead	11/03/03	OCA 10585	0.200	0.183	92	80-120
Mercury	11/03/03	OCA 10547	0.005	0.00531	106	80-120
Molybdenum	11/03/03	OCA 10585	0.200	0.189	95	80-120
Nickel	11/03/03	OCA 10585	0.200	0.189	95	80-120
Selenium	11/03/03	OCA 10585	0.200	0.164	82	80-120
Silver	11/03/03	OCA 10585	0.200	0.181	91	80-120
Thallium	11/03/03	OCA 10585	0.200	0.173	87	80-120
Vanadium	11/03/03	OCA 10585	0.200	0.192	96	80-120
Zinc	11/03/03	OCA 10585	0.400	0.355	89	80-120

QA/QC REPORT
for
Phenols (EPA 8041)
Reporting units: ppb

1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Analysis : 11/11/03
 Laboratory Sample No : OCA 100
 Laboratory Reference No : PTE 14477

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP%	ACP RPD
PENTACHLOROPHENOL	0.0	10	8.2	9.6	82	96	16	20-161	40

Definition of Terms :

R1	Result of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
% MS	Percent Recovery of MS: $\{(MS-R1) / SP\} \times 100$
% MSD	Percent Recovery of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
ACP %	Acceptable Range of Percent for MS/MSD
ACP RPD	Acceptable Relative Percent Difference

2. Laboratory Control Sample

Date of Analysis : 11/11/03
 Laboratory Standard No : OCA 9494

Analyte	SP CONC	Results	% Recovery	ACP %
PENTACHLOROPHENOL	30	35	117	77-125

Analysis Request and Chain of Custody Record



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: _____
Page 2 of 2

REQUIRED TAT: _____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY: <u>Petra Geotechnical</u>	PROJECT NAME: <u>ESCO Investments</u>		
SEND REPORT TO: <u>Brian U. Holbe</u>	NUMBER: <u>9257-03</u>		
ADDRESS: <u>3129A Arroyo Ave.</u>	LOCATION: <u>2300 Alameda Blvd</u>		
<u>Costa Mesa, Calif</u>	ADDRESS: <u>Newport Beach</u>		
PHONE: _____	FAX: <u>(714) 940-7572</u>	SAMPLED BY: <u>BV</u>	

ANALYSIS METHOD REQUEST

TYPH... Boris M.

PAME... Boris M.

PCOs... Boris M.

Water... Boris M.

Arsenic... (AKA)

Cadmium... (AKA)

Acetone... (AKA)

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	TYPH	PAME	PCOs	Water	Arsenic	Cadmium	Acetone	REMARKS/PRECAUTIONS
ET-10-5	1	1/30/03	1005	Soil	Acetate	N/A								X
ET-10-10	1	"	1013	"	"	"								X
ET-10-15														
ET-10-20	6	10/30/03	1015	H ₂ O	Acetate	N/A	X	X	X					
ET-10-1	1	1/30/07	1105	Soil	Acetate		X	X	X	X				
ET-10-3	1	"	1108	"	"		X	X	X	X				
ET-10-5	1	"	1111	"	"									X
ET-10-10	1	"	1120	"	"									X
ET-10 H ₂ O	6	"	1130	H ₂ O	Acetate	N/A	X	X	X	X				
ET-9-1.0	1	"	1208	Soil	Acetate	N/A	X	X	X	X				
ET-9-3.0	1	"	1210	"	"		X	X	X	X				
ET-9-4.0	1	"	1214	"	"									X
ET-9-10.0	1	"	1217	"	"									X

Total No. of Samples: _____		Method of Shipment: _____	
Relinquished By: <u>[Signature]</u>	Date/Time: <u>10/30/03 1711</u>	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received For Lab By: <u>[Signature]</u>	Date/Time: <u>10/30/03 17:13</u>
		Reporting Format: (check)	
		NORMAL _____ S.D. HMMD _____	
		RWQCB _____ OTHER _____	
		Sample Integrity: (check)	
		Intact _____ on ice _____	



ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: _____
Page 3

REQUIRED TAT: _____

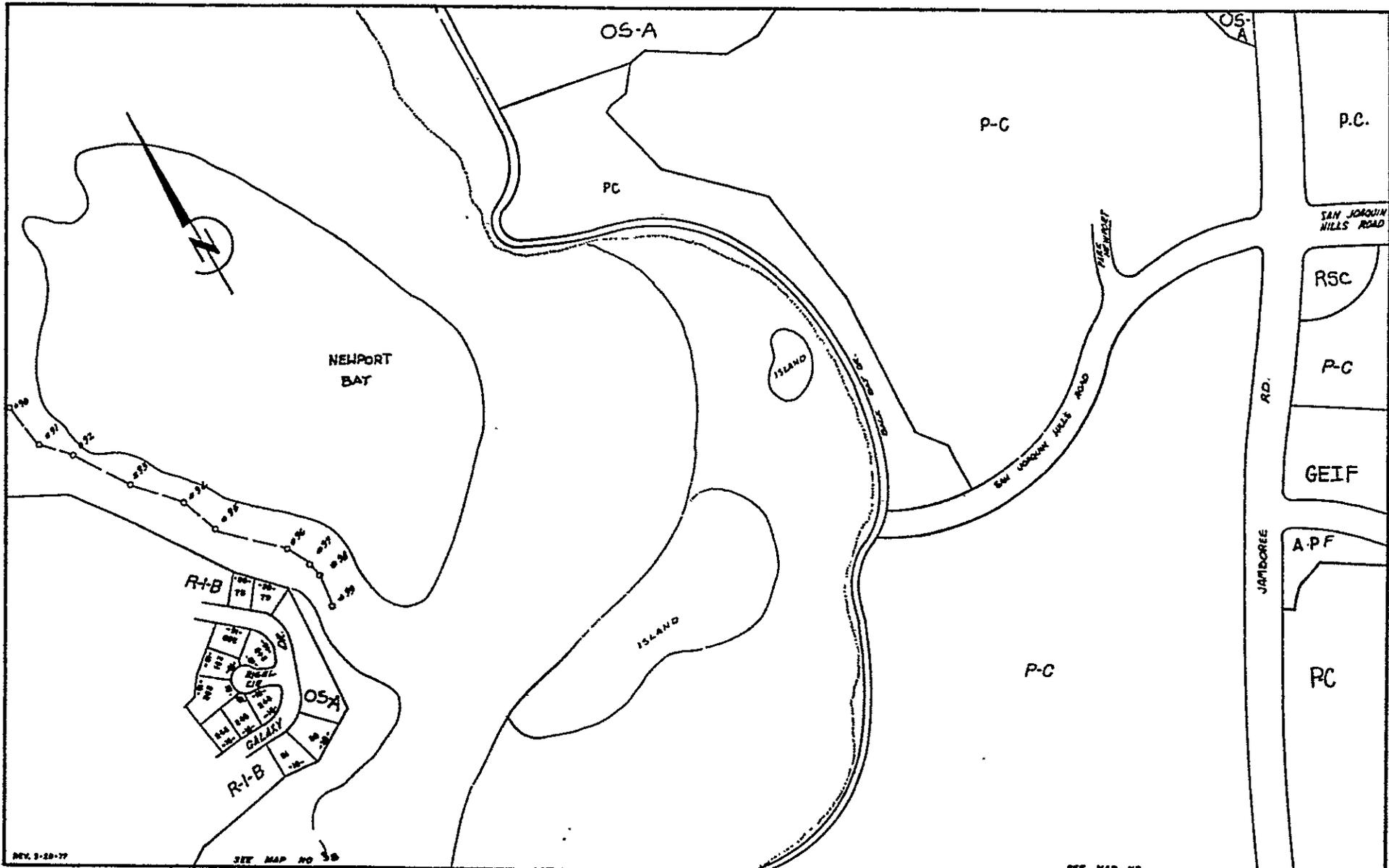
CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY: <i>Brian Villalobos</i>	PROJECT NAME: <i>ETCO Investments</i>	ANALYSIS METHOD REQUEST <i>TPH - 2015 M</i> <i>PCBs - 204/1604</i> <i>PCBs - 5310</i> <i>1604/1604 - 8082</i> <i>Aromatics - CHM 6</i> <i>SOX - 5270</i> <i>Archives</i>	
SEND REPORT TO: <i>Patricia Goodenough</i>	NUMBER: <i>9757-07</i>		
ADDRESS: <i>3184 A Arroyo Ave</i>	LOCATION: <i>2306 Newport Blvd.</i>		
<i>Costa Mesa, CA</i>	ADDRESS: <i>Newport Beach</i>		
PHONE: _____	FAX: <i>949-440-7572</i>	SAMPLED BY: <i>[Signature]</i>	

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	TPH	PCBs	PCBs	1604/1604	Aromatics	SOX	Archives	REMARKS/PRECAUTIONS
<i>ET-91-H₂O</i>	<i>6</i>	<i>10/2/03</i>	<i>1230</i>	<i>H₂O</i>	<i>3-2000</i>	<i>LNH</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-1-1.0</i>	<i>1</i>		<i>1410</i>	<i>Soil</i>	<i>Acetate</i>	<i>N/A</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-1-3.0</i>			<i>1412</i>	<i>Soil</i>			<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-1-5.0</i>	<i>6</i>		<i>1415</i>	<i>Soil</i>									<i>X</i>	
<i>ET-1-10.0</i>	<i>6</i>		<i>1425</i>	<i>Soil</i>									<i>X</i>	
<i>ET-1-H₂O</i>	<i>6</i>		<i>1430</i>	<i>H₂O</i>	<i>3-2000</i>	<i>LNH</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-4-1.0</i>			<i>1507</i>	<i>Soil</i>	<i>Acetate</i>	<i>N/A</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-4-3.0</i>			<i>1508</i>				<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
<i>ET-4-5.0</i>			<i>1516</i>										<i>X</i>	
<i>ET-4-10.0</i>	<i>6</i>		<i>1521</i>										<i>X</i>	
<i>ET-4-H₂O</i>	<i>6</i>		<i>1530</i>	<i>H₂O</i>	<i>3-2000</i>	<i>LNH</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>			
<i>ET-3-1.0</i>				<i>Soil</i>	<i>Acetate</i>	<i>N/A</i>								
<i>ET-3-3.0</i>														
<i>ET-3-5.0</i>														

Total No. of Samples: _____		Method of Shipment: _____	
Relinquished By: <i>[Signature]</i>	Date/Time: <i>10/30/03 17:13</i>	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received For Lab By: <i>[Signature]</i>	Date/Time: <i>17:13</i>
		Sample Integrity: (check)	
		Intact _____ on ice _____	

All samples remain the property of the client until _____

SEE MAP NO. 54



SEE MAP NO. 54

SEE MAP NO. 54

REV. 9-29-77

SEE MAP NO. 55

SEE MAP NO.

DISTRICTING MAP CITY OF NEWPORT BEACH CALIFORNIA

R-A	JURISDICTIONAL-RESIDENTIAL DISTRICT
R-1	SINGLE FAMILY DISTRICT
R-2	DUPLEX RESIDENTIAL DISTRICT
R-3	RESTRICTED MULTIPLE RESIDENTIAL
R-4	MULTIPLE RESIDENTIAL DISTRICT
B	CONDOS OR "B" DISTRICT

C-N	NEIGHBORHOOD COMMERCIAL DISTRICT
C-B	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT
C-1	LIGHT COMMERCIAL DISTRICT
C-2	GENERAL COMMERCIAL DISTRICT
I	INTERMEDIATE DISTRICT
U	UNCLASSIFIED DISTRICT

M-1	MANUFACTURING DISTRICT
M-2	CONTROLLED MANUFACTURING DISTRICT
H	CONDOS OR "H" DISTRICT
Z	CONDOS OR "Z" DISTRICT

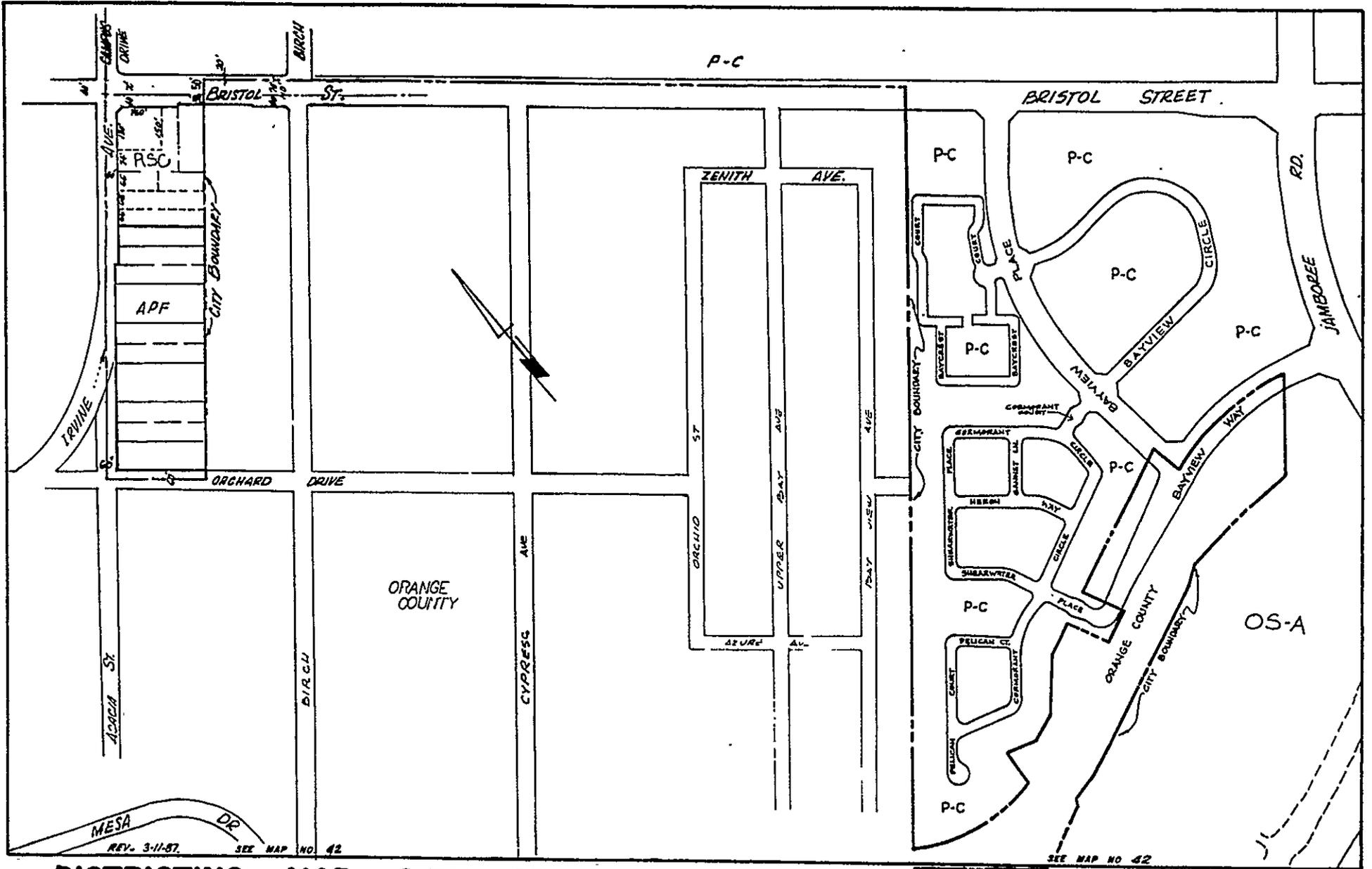
REVISIONS		
AUTHORITY	LOCATIONS	DATE
ORD. NO. 1000	INTERSECTION CORNER OF JORDOREE ROAD AND SAN JOAQUIN HILLS ROAD NORTH SIDE OF BLUFFS FROM 'S' TO 'P-C' (ADJACENT TO 2000)	11-18-75
ORD. NO. 1000	ADJACENT TO THE NORTH BY SAN JOAQUIN HILLS RD. EAST BY JORDOREE RD. SOUTH BY THE NEWPORT BEACH BEACH BY SAN JOAQUIN HILLS RD. UPPER BEACH BY JORDOREE RD. (ADJACENT TO 2000)	12-17-75

ALL DISTRICTS ARE SUBJECT TO THE CITY OF NEWPORT BEACH ZONING ORDINANCES AND THE CITY OF NEWPORT BEACH ZONING MAP NO. 11. THE CITY OF NEWPORT BEACH ZONING ORDINANCES AND THE CITY OF NEWPORT BEACH ZONING MAP NO. 11 ARE THE AUTHORITY FOR THE DISTRICTING MAP.



MAP NO. 60

SEE MAP NO. 34



SEE MAP NO.

SEE MAP NO.

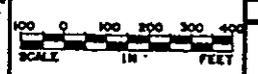
SEE MAP NO. 41

SEE MAP NO. 42

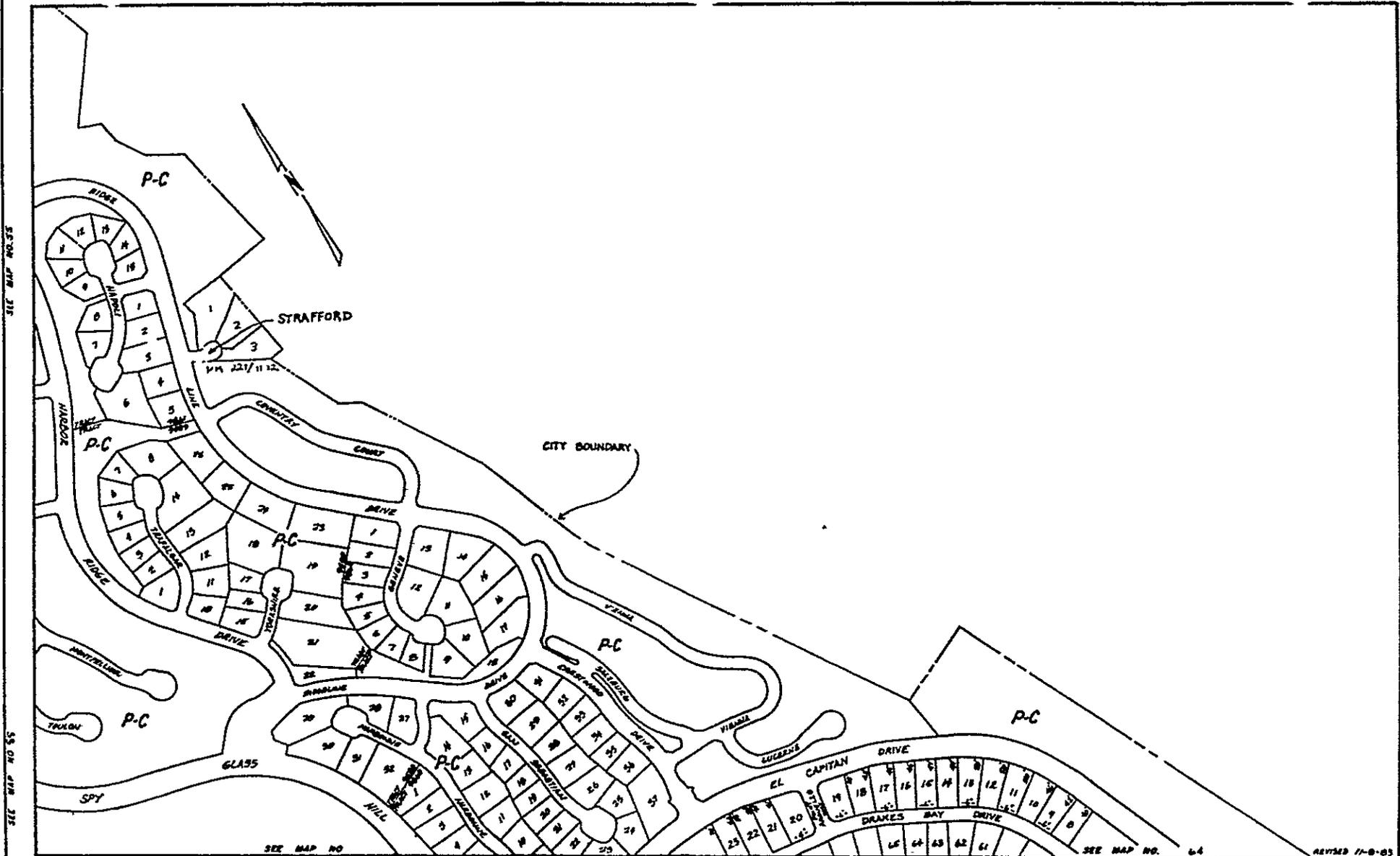
DISTRICTING MAP CITY OF NEWPORT BEACH CALIFORNIA

R-A	AGRICULTURAL-RESIDENTIAL DISTRICT	C-N	NEIGHBORHOOD COMMERCIAL DISTRICT	M-1	MANUFACTURING DISTRICT
R-1	SINGLE FAMILY DISTRICT	C-O	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT	M-1-A	CONTROLLED MANUFACTURING DISTRICT
R-2	DUPLEX RESIDENTIAL DISTRICT	C-1	LIGHT COMMERCIAL DISTRICT	H	COMBINING OR "H" DISTRICT
R-3	RESTRICTED MULTIPLE RESIDENTIAL	C-2	GENERAL COMMERCIAL DISTRICT	Z	COMBINING OR "Z" DISTRICT
R-4	MULTIPLE RESIDENTIAL DISTRICT	I	INTERMEDIATE DISTRICT		
B	COMBINING OR "B" DISTRICT	U	UNCLASSIFIED DISTRICT		

REVISIONS		
AUTHORITY	LOCATIONS	DATE
ORD. 1549	E. OF IRVINE AVE. (ACACIA)	8-10-70
	BETWEEN BRISTOL ST. (BALSAC)	
	LINE OF CHURCH ST. (204)	
ORD. 88-29	REWORKING BAYVIEW PLANNED	1-8-88
ORD. 87-4	REWORKING BAYVIEW PLANNED	3-17-87



MAP NO
61



SEE MAP NO. 55

SEE MAP NO. 53

SEE MAP NO.

SEE MAP NO. 64

REVISED 7-8-83

SEE MAP NO.

DISTRICTING MAP - CITY OF NEWPORT - BEACH - CALIFORNIA

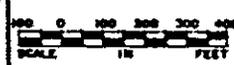
R-1	AGRICULTURAL-RESIDENTIAL DISTRICT
R-2	SINGLE FAMILY DISTRICT
R-3	DUPLEX RESIDENTIAL DISTRICT
R-4	RESTRICTED MULTIPLE RESIDENTIAL
R-5	MULTIPLE RESIDENTIAL DISTRICT
B	COMBINING OR "B" DISTRICT

C-1	NEIGHBORHOOD COMMERCIAL DISTRICT
C-2	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT
C-3	LIGHT COMMERCIAL DISTRICT
C-4	GENERAL COMMERCIAL DISTRICT
I	INTERMEDIATE DISTRICT
U	UNCLASSIFIED DISTRICT

M-1	MANUFACTURING DISTRICT
M-2	CONTROLLED MANUFACTURING DISTRICT
H	COMBINING OR "H" DISTRICT
Z	COMBINING OR "Z" DISTRICT

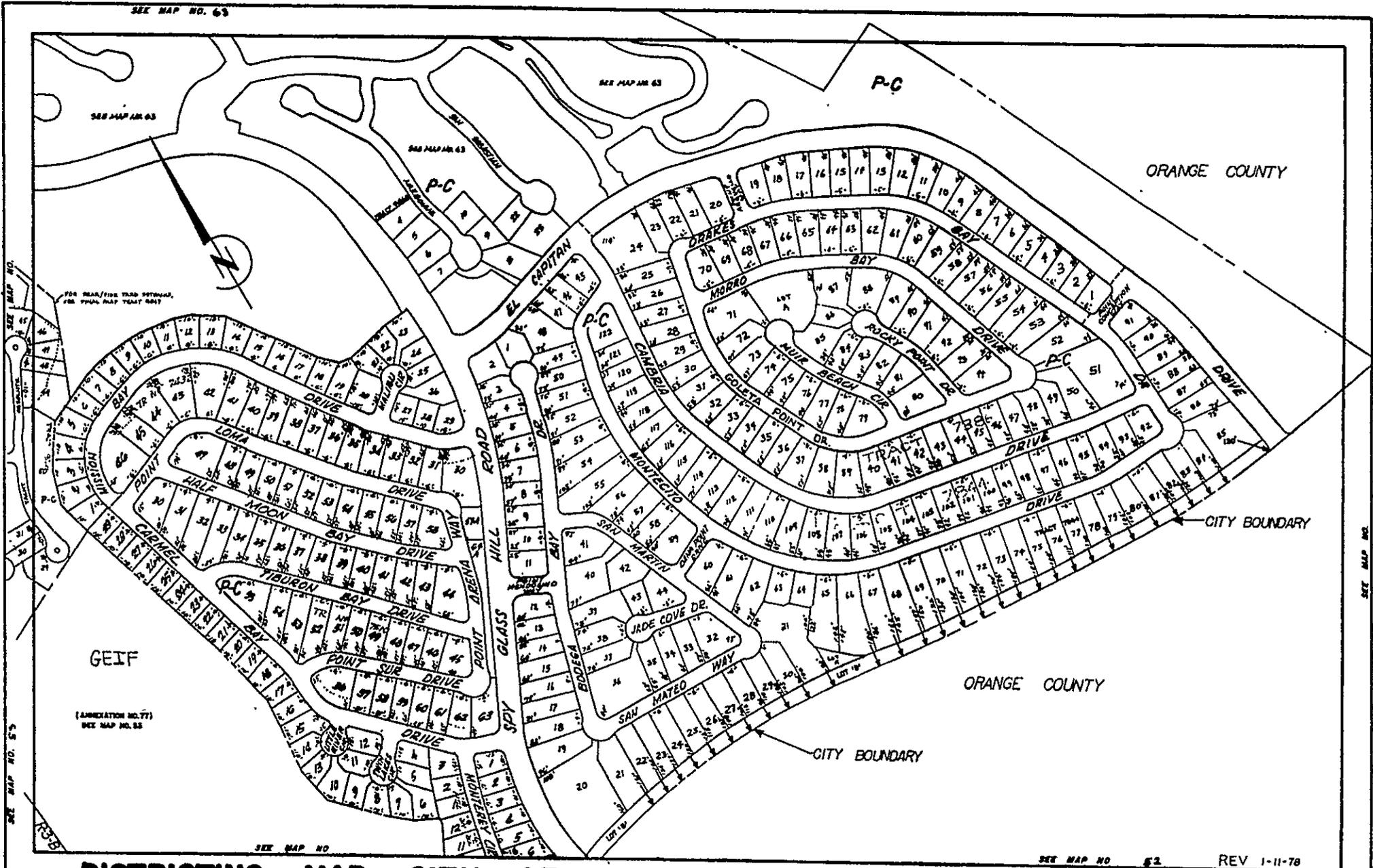
REVISIONS		
AUTHORITY	LOCATIONS	DATE
ORD 1377	RELATIVE TO P.C. A-240	7-18-83
ORD 1388	AMENDMENT NO 81	8-9-83
ORD NO 1405	AMENDMENT NO 82	8-29-83
ORD 1406-24	AMENDMENT NO 83	9-27-83
ORD 83-34	ADD BOUND TO P.C. Appendix of Ord. 83-34, (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	

ADOPTED BY
ORD. NO.
PREPARED BY
PLANNING DEPT



MAP NO.
63

SEE MAP NO. 63



DISTRICTING MAP CITY OF NEWPORT BEACH CALIFORNIA

SEE MAP NO. 62 REV 1-11-78

- R-A AGRICULTURAL-RESIDENTIAL DISTRICT
- R-1 SINGLE FAMILY DISTRICT
- R-2 DUPLEX RESIDENTIAL DISTRICT
- R-3 RESTRICTED MULTIPLE RESIDENTIAL
- R-4 MULTIPLE RESIDENTIAL DISTRICT
- B COMBINING OR "B" DISTRICT

- C-N NEIGHBORHOOD COMMERCIAL DISTRICT
- C-O LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT
- C-1 LIGHT COMMERCIAL DISTRICT
- C-2 GENERAL COMMERCIAL DISTRICT
- I INTERMEDIATE DISTRICT
- U UNCLASSIFIED DISTRICT

- M-1 MANUFACTURING DISTRICT
- M-1A CONTROLLED MANUFACTURING DISTRICT
- H COMBINING OR "H" DISTRICT
- X COMBINING OR "X" DISTRICT

REVISIONS		
AUTHORITY	LOCATIONS	DATE
ORD. 1947	RANGE TO -PC- A-240	9-20-74
ORD. 1971	RANGE TO -PC- A-477	1-12-76

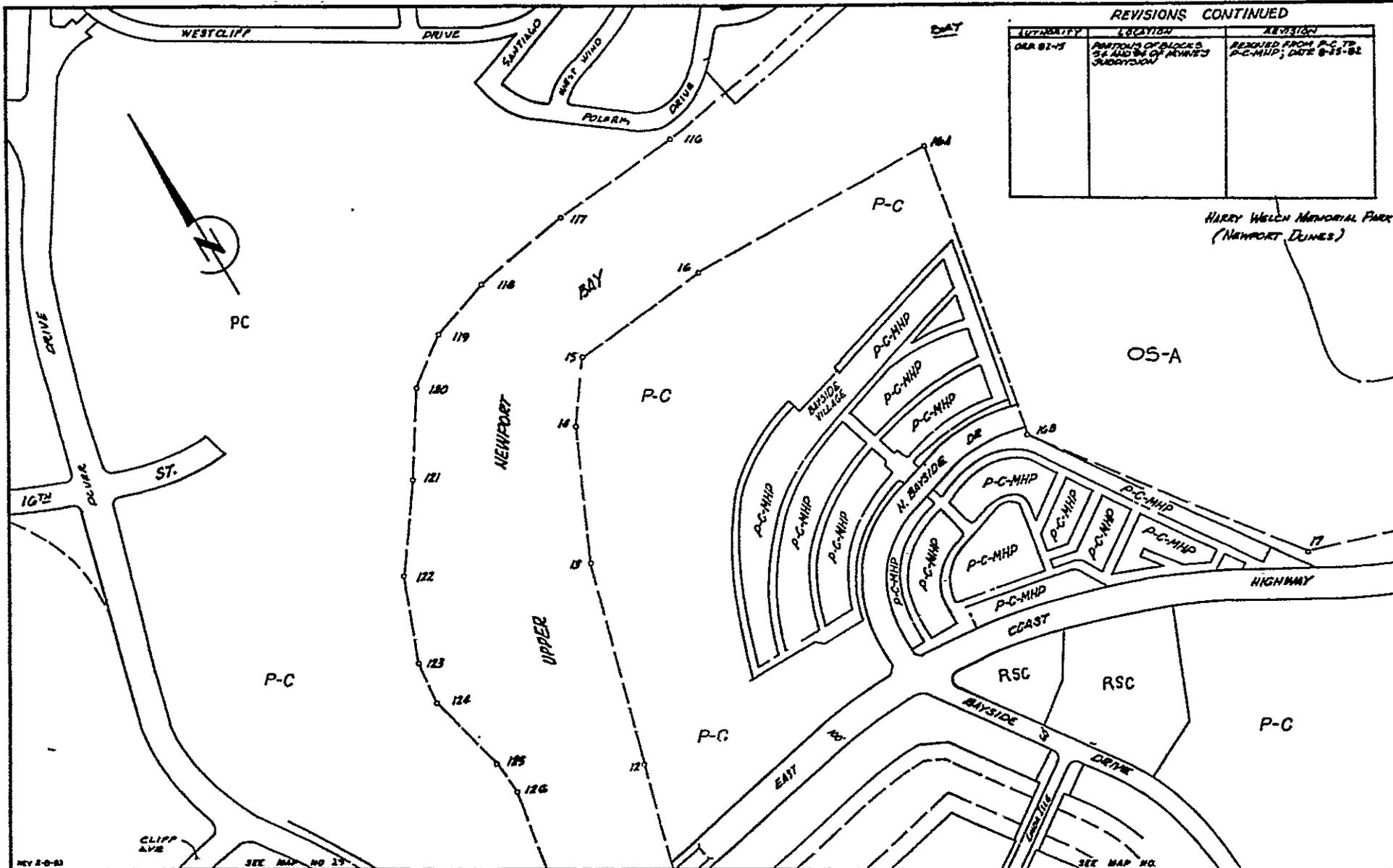
ADOPTED BY ...
ORD. NO.

PREPARED BY ...
PLANNING DEPT.

MAP NO
64

SCALE 1" = 400 FEET

SEE MAP NO. 27



REVISIONS CONTINUED		
AUTHORITY	LOCATION	REVISION
ORD 81-15	PORTIONS OF BLOCKS 5, 6 AND 7A OF NEWPORT JURDICTION	REMOVED FROM P-C TO P-C-MHP; DATE 8-25-82

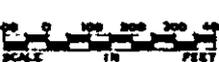
HARRY WELCH MEMORIAL PARK (NEWPORT DUNES)

DISTRICTING MAP CITY OF NEWPORT BEACH CALIFORNIA

R-A AGRICULTURAL-RESIDENTIAL DISTRICT	C-12 NEIGHBORHOOD COMMERCIAL DISTRICT	M-1 MANUFACTURING DISTRICT
R-1 SINGLE FAMILY DISTRICT	C-8 LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT	M-1-A CONTROLLED MANUFACTURING DISTRICT
R-2 DUPLEX RESIDENTIAL DISTRICT	C-1 LIGHT COMMERCIAL DISTRICT	H COMMING OR "H" DISTRICT
R-3 RESTRICTED MULTIPLE RESIDENTIAL	C-2 GENERAL COMMERCIAL DISTRICT	Z COMMING OR "Z" DISTRICT
R-4 MULTIPLE RESIDENTIAL DISTRICT	I INTERMEDIATE DISTRICT	MHP MARINE HOME PARK OVERLAY ZONE
B COMMING OR "B" DISTRICT	U UNCLASSIFIED DISTRICT	P-C PLANNED COMMUNITY

REVISIONS		DATE
AUTHORITY	LOCATIONS	
ORD. NO. 1000	ADDED TO THE NORTH BY WESTCLIFF DR., EAST BY UPPER NEWPORT DR., SOUTH BY WEST CLIFF DR., AND WEST BY WEST CLIFF DR. (ADDITIONAL TO 1978 MAPS C-1, R-1, R-2 AND R-3 P-C.	12-17-78
ORD. NO. 1046	ADDED TO THE SOUTH BY UPPER NEWPORT DR., EAST BY THE EAST COAST DR. WEST BY UPPER NEWPORT DR. (ADDITIONAL TO 1978 MAPS C-1, R-1, R-2 AND R-3 P-C.	1-14-79

ADOPTED BY . . .
ORD. NO.
ORD. NO. 102-45
RELINE SPECIFIC PARCELS TO RSC ETC. 12-9-78.



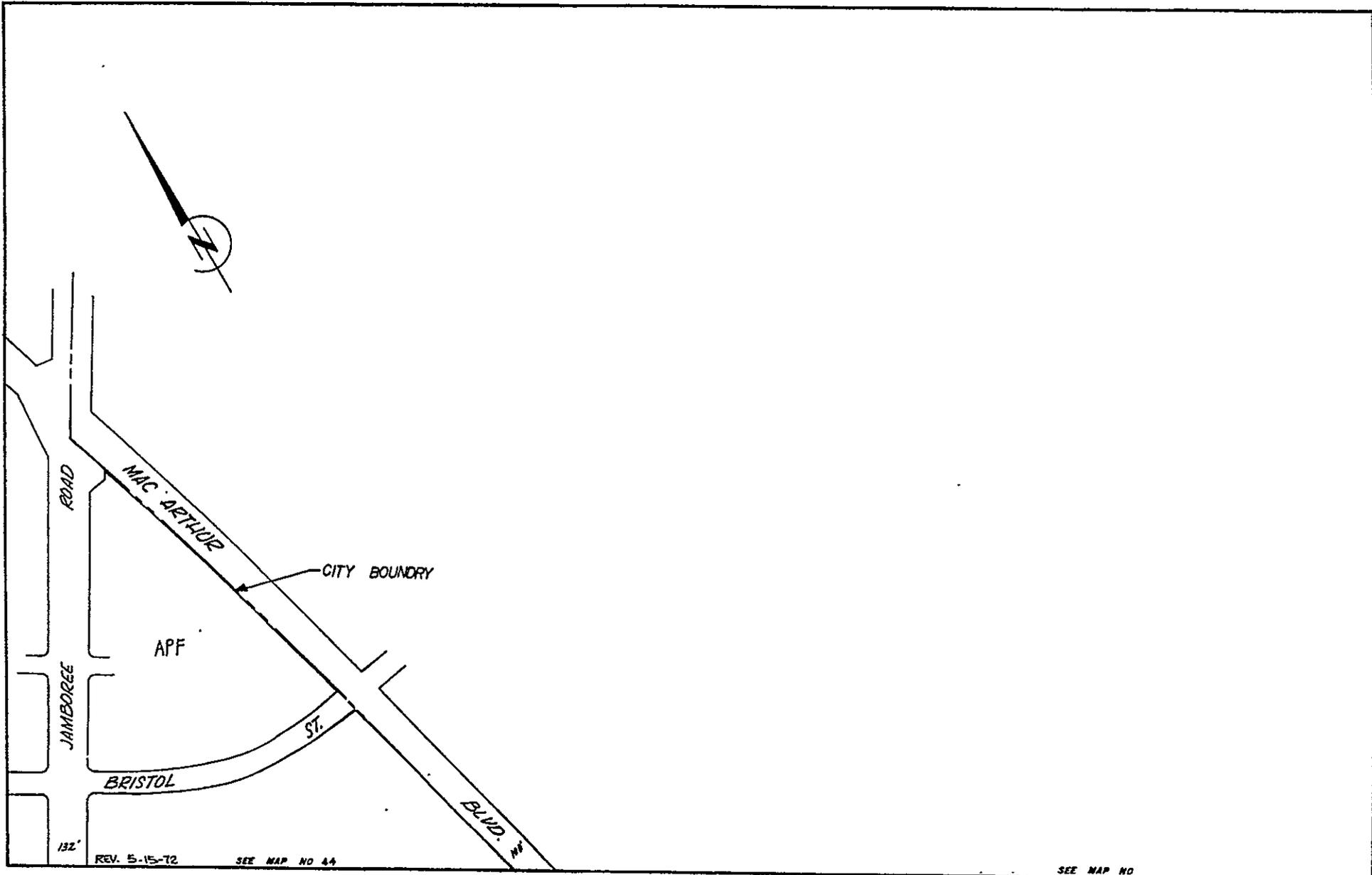
MAP NO
65

MAP NO.

SEE MAP NO. 34

SEE MAP NO. 34

SEE MAP NO.



REV. 5-15-72

SEE MAP NO 44

SEE MAP NO

DISTRICTING MAP CITY OF NEWPORT BEACH CALIFORNIA

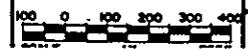
R-A	AGRICULTURAL-RESIDENTIAL DISTRICT
R-1	SINGLE FAMILY DISTRICT
R-2	DUPLEX RESIDENTIAL DISTRICT
R-3	RESTRICTED MULTIPLE RESIDENTIAL
R-4	MULTIPLE RESIDENTIAL DISTRICT
B	COMBINING OR "B" DISTRICT

C-B	NEIGHBORHOOD COMMERCIAL DISTRICT
C-C	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT
C-1	LIGHT COMMERCIAL DISTRICT
C-2	GENERAL COMMERCIAL DISTRICT
I	INTERMEDIATE DISTRICT
U	UNCLASSIFIED DISTRICT

M-1	MANUFACTURING DISTRICT
M-1-A	CONTROLLED MANUFACTURING DISTRICT
H	COMBINING OR "H" DISTRICT
Z	COMBINING OR "Z" DISTRICT

REVISIONS		
AUTHORITY	LOCATIONS	DATE
ORD 42-18	RESUME VARIOUS PROPERTIES TO APF	12-9-92

ADOPTED BY....
ORD. NO.

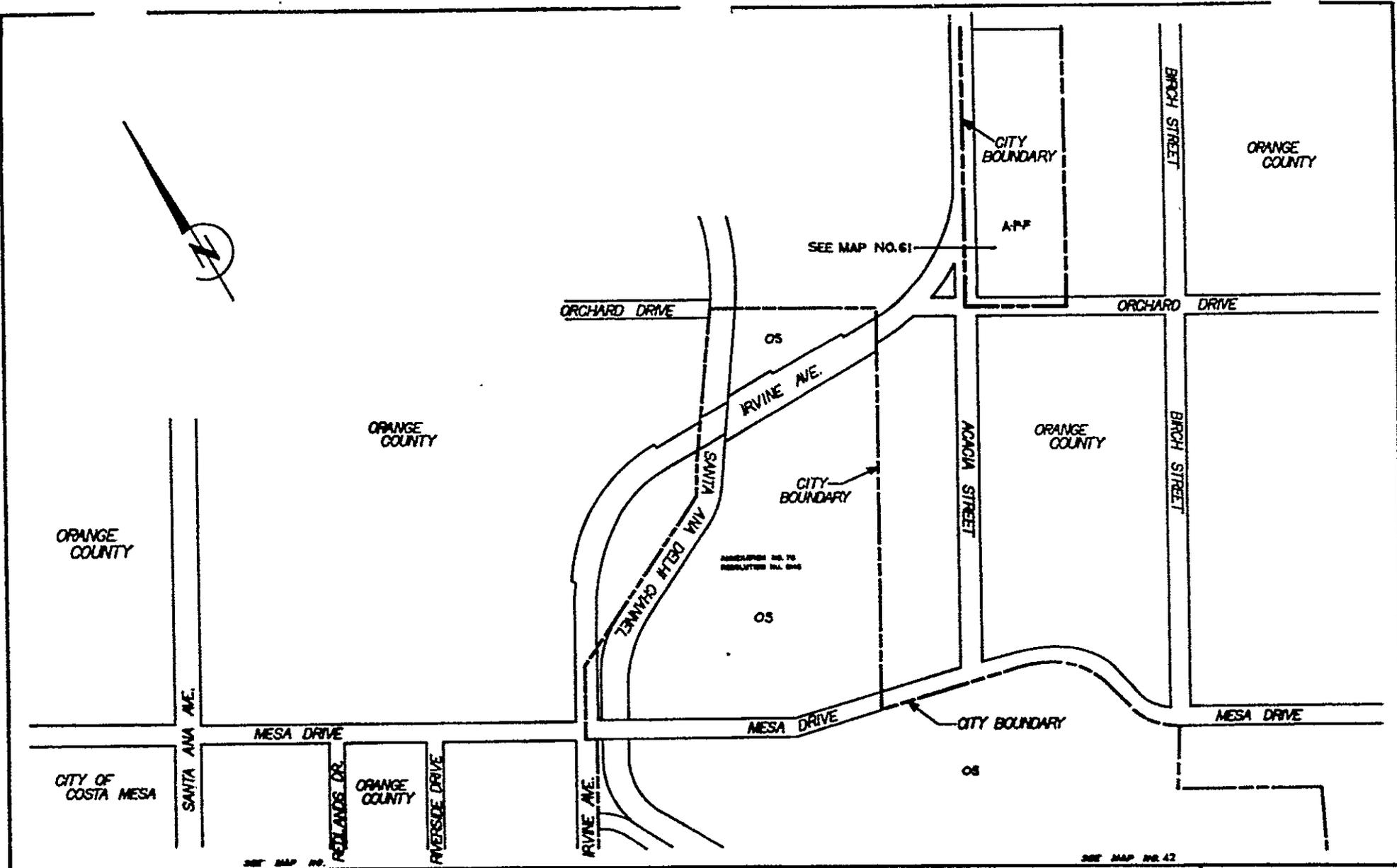


MAP NO.
66

SEE MAP NO.

SEE MAP NO.

SEE MAP NO. 61



DISTRICTING MAP - CITY OF NEWPORT BEACH - CALIFORNIA

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">R-1</td><td>AGRICULTURAL-RESIDENTIAL DISTRICT</td></tr> <tr><td style="text-align: center;">R-1</td><td>SINGLE FAMILY DISTRICT</td></tr> <tr><td style="text-align: center;">R-2</td><td>DUPLEX RESIDENTIAL DISTRICT</td></tr> <tr><td style="text-align: center;">R-3</td><td>RESTRICTED MULTIPLE RESIDENTIAL</td></tr> <tr><td style="text-align: center;">R-4</td><td>MULTIPLE RESIDENTIAL DISTRICT</td></tr> <tr><td style="text-align: center;">S</td><td>COMMINGLED OR "S" DISTRICT</td></tr> </table>	R-1	AGRICULTURAL-RESIDENTIAL DISTRICT	R-1	SINGLE FAMILY DISTRICT	R-2	DUPLEX RESIDENTIAL DISTRICT	R-3	RESTRICTED MULTIPLE RESIDENTIAL	R-4	MULTIPLE RESIDENTIAL DISTRICT	S	COMMINGLED OR "S" DISTRICT	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">O-1</td><td>NEIGHBORHOOD COMMERCIAL DISTRICT</td></tr> <tr><td style="text-align: center;">O-2</td><td>LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT</td></tr> <tr><td style="text-align: center;">O-1</td><td>LIGHT COMMERCIAL DISTRICT</td></tr> <tr><td style="text-align: center;">O-2</td><td>GENERAL COMMERCIAL DISTRICT</td></tr> <tr><td style="text-align: center;">I</td><td>INTERMEDIATE DISTRICT</td></tr> <tr><td style="text-align: center;">U</td><td>UNCLASSIFIED DISTRICT</td></tr> </table>	O-1	NEIGHBORHOOD COMMERCIAL DISTRICT	O-2	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT	O-1	LIGHT COMMERCIAL DISTRICT	O-2	GENERAL COMMERCIAL DISTRICT	I	INTERMEDIATE DISTRICT	U	UNCLASSIFIED DISTRICT	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">M-1</td><td>MANUFACTURING DISTRICT</td></tr> <tr><td style="text-align: center;">M-1-A</td><td>CONTROLLED MANUFACTURING DISTRICT</td></tr> <tr><td style="text-align: center;">M</td><td>COMMINGLED OR "M" DISTRICT</td></tr> <tr><td style="text-align: center;">Z</td><td>COMMINGLED OR "Z" DISTRICT</td></tr> <tr><td style="text-align: center;"> </td><td> </td></tr> <tr><td style="text-align: center;"> </td><td> </td></tr> </table>	M-1	MANUFACTURING DISTRICT	M-1-A	CONTROLLED MANUFACTURING DISTRICT	M	COMMINGLED OR "M" DISTRICT	Z	COMMINGLED OR "Z" DISTRICT				
R-1	AGRICULTURAL-RESIDENTIAL DISTRICT																																					
R-1	SINGLE FAMILY DISTRICT																																					
R-2	DUPLEX RESIDENTIAL DISTRICT																																					
R-3	RESTRICTED MULTIPLE RESIDENTIAL																																					
R-4	MULTIPLE RESIDENTIAL DISTRICT																																					
S	COMMINGLED OR "S" DISTRICT																																					
O-1	NEIGHBORHOOD COMMERCIAL DISTRICT																																					
O-2	LIMITED COMMERCIAL - MULTIPLE RESIDENTIAL DISTRICT																																					
O-1	LIGHT COMMERCIAL DISTRICT																																					
O-2	GENERAL COMMERCIAL DISTRICT																																					
I	INTERMEDIATE DISTRICT																																					
U	UNCLASSIFIED DISTRICT																																					
M-1	MANUFACTURING DISTRICT																																					
M-1-A	CONTROLLED MANUFACTURING DISTRICT																																					
M	COMMINGLED OR "M" DISTRICT																																					
Z	COMMINGLED OR "Z" DISTRICT																																					

REVISIONS		
AUTHORITY	LOCATION	DATE
ORD. NO. 5771	2.07' BRIDGE, AND BRIDGE, OF AND BRIDGE, FROM A1 TO A-PF (PLAN 1, AND 2, OF BRIDGE, AND BRIDGE, AND BRIDGE, FROM 9-19-76)	6-14-76
ORD. NO. 5772	REVISION OF BRIDGE, FROM 9-19-76	3-26-77

MAP NO.

67

APPENDIX F

HYDROLOGY &
WATER QUALITY MANAGEMENT PLAN

**HYDROLOGY . STUDY
AND
HYDRAULIC ANALYSIS**

for

Bridgeport Plaza

TENTATIVE TRACT NO. 16594

2300 Newport Boulevard

In the City of Newport Beach, California

Prepared By:

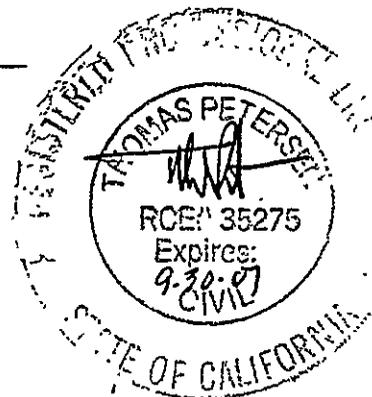
**SP Consulting
Group**

Civil Engineering, Land Surveying, Planning and Public Works

500 Saint Vincent
Irvine, California 92618
(949) 387-7035 FAX (949) 387-7534

Contact: Thomas A. Petersen, P.E.

February 22, 2006



PURPOSE OF THE STUDY:

This study will evaluate the run-off from the site and design the proposed facilities needed to convey runoff from the site to a treatment system prior to discharge into the Newport Bay Harbor.

DESCRIPTION OF WATERSHED:

The site is currently developed with existing commercial office buildings, parking lots. A one time the site was used as a boat yard.

The existing watershed consists of a commercial land use that drains partially into Newport Blvd. and mostly into the Newport Bay Harbor.

The proposed watershed consists of redeveloping the site into a mixed-used Commercial and Residential site on top of an underground parking structure. Since the proposed Land Use does not change from its predevelopment Land Use, it can be safely assumed that the runoff from the site will not change with the proposed development. What will change as a result of the development is the manner of discharge into the adjacent Newport Bay Harbor. All run-off and subdrainage will be intercepted by a drainage system and conveyed to a package treatment system that will remove pollutants of concern prior to discharge into the Newport Bay Harbor.

METHODOLOGY:

The modified rational method was used to analyze the run-off from the project site. Runoff was calculated using the AES program for Orange County and was calculated for 25-year and 100-year storms.

A proposed on-site storm drain system is proposed with catch basins in the parking lot and in the courtyard areas. All drainage pipes and catch basins on the deck area above the garage will drain to the drainage system in the underground parking garage and subsequently to the storm water treatment system.

The project area previously sheet flowed over the site through the property to the east and into the bay without treatment. The proposed project will drain to the bay with treatment . The flow leaving the site will not increase as a result of this development.

DESIGN ASSUMPTIONS:

1. The property is located in Valley Rainfall Zone per the Hydrology Manual.
2. The site uses the program AES to calculate initial time of concentration and runoff quantities.
3. The site was analyzed for a 100-year storm event per the requirements of the Hydrology Manual. A Rational Method Analysis was performed and the appropriate calculations are provided herein.
4. Storm drains were sized for a 100-year storm, which will protect the project in a conservative way.
5. Intensity is based on 100-year storm and Figure B-1.
6. The Hydrology Map attached at the rear of this study is made a part of the study.
7. Site has a Commercial Land Use designation and the corresponding runoff coefficient is utilized.
8. Runoff was calculated using the rational equation $Q=CIA$ modified per the Hydrology Manual.
9. Individual pipe sizes and catch basins for courtyard are to sized using the total area runoff and proportioning it to the individual smaller catch basin sub-areas.

CATCH BASIN DESIGN:

Catch basin inlets of area drains will be designed and calculated utilizing the principle of allowing water to pond 0.2 feet deep on a 12"x12" or 24"x24" grate catch basin. The maximum Q is calculated w/ 50% clogging assumed. The resultant Q indicates the maximum capability of the catch basin at that particular ponded depth.

STORM DRAIN DESIGN:

Storm drains will be sized according to requirements of the plumbing code, since the piping will be part of the structure plumbing and mechanical design. The values for sizing drainage lines are more conservative than the results obtained from rational method hydrology calculations.

WATER QUALITY TREATMENT AND PUMP DESIGN:

The project will utilize a treatment system prior to discharge of run-off from the site. At this time the system will be located in the underground parking structure in two locations. Two systems will offer redundancy when maintenance is required. The water will be pumped through the system and discharged into the Newport Bay Harbor through the new bulkhead wall. The system will be sized to convey a maximum 100-year storm event. In addition, the system will also treat subdrainage that will be present from under the parking structure that is present due to tidal action in the Newport Bay Harbor.

HYDROLOGY SUMMARY:

The study shows that the project is protected from Q100 maximum storm runoff. The storm drain system and treatment system this project is connecting to will be designed for a 100-year storm event. The total Pre-Development Q100 runoff from the site is 10.4 cfs compared with a Post-Development Q100 of 12.5 cfs. Although there is an increase in run-off, this is offset by the fact that the discharge goes directly to the Newport Bay Harbor after treatment. Public storm drain facilities are not used for run-off conveyance from this project. The treatment system will be sized to convey Q100 flows as well as subdrainage resulting from tidal forces in the Newport Bay Harbor.

REFERENCES:

1. County of Orange, "Hydrology Manual", October 1986.
2. "Handbook of Hydraulics", King and Brater, 6th Edition, 1976.
3. "Open Channel Hydraulics", Chow, 1959.
4. "Standard Plans for Public Works Construction", American Public Works Association, 1994 Edition.
5. Hydrology Map for site, prepared by The SP Consulting Group and included this study.
6. Water Surface and Pressure Gradient (WSPG) Hydraulic Analysis System, Computer Program, Los Angeles County Department of Public Works Program No. F0515P, April 1979.
7. Advanced Engineering Software, RATSC6 Rational Method for Orange County County, HELE1 Hydraulic Elements I for Pipe Design, 1996 version.
8. Conceptual Grading Plan for the proposed Bridgeport Plaza, Garage Structure and Plaza Deck Level prepared by The SP Consulting Group.

**ON-SITE
HYDROLOGY STUDY
For
Pre-Development Condition
25-year Storm Event**

 RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
 (Reference: 1986 OCEMA HYDROLOGY CRITERION)
 (c) Copyright 1983-96 Advanced Engineering Software (aes)
 Ver. 6.1 Release Date: 01/01/96 License ID 1429

Analysis prepared by:

THE SP CONSULTING GROUP
 8175 EAST KAISER BOULEVARD
 ANAHEIM, CALIFORNIA 92808
 (714) 921-8472 FAX (714) 921-8471

***** DESCRIPTION OF STUDY *****
 * PRE-DEVELOPMENT CONDITION *
 * 25-YEAR ANALYSIS *
 * *

FILE NAME: 283-025E.DAT
 TIME/DATE OF STUDY: 10:44 2/15/2006

=====

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

=====

---*TIME-OF-CONCENTRATION MODEL*---

USER SPECIFIED STORM EVENT(YEAR) = 25.00
 SPECIFIED MINIMUM PIPE SIZE(INCH) = 18.00
 SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = .01
 DATA BANK RAINFALL USED
 ANTECEDENT MOISTURE CONDITION (AMC II) ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF-	CROWN TO	STREET-CROSSFALL:			CURB	GUTTER-GEOMETRIES:			MANNING
	WIDTH	CROSSFALL	IN-	/	OUT-/PARK-	HEIGHT	WIDTH	LIP	HIKE	FACTOR
	(FT)	(FT)	SIDE	/	SIDE/ WAY	(FT)	(FT)	(FT)	(FT)	(n)
1	30.0	20.0	.018/	.	.018/ .020	.67	2.00	.03125	.1670	.01500

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
 1. Relative Flow-Depth = .00 FEET
 as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
 2. (Depth)*(Velocity) Constraint = .0 (FT*FT/S)

FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 230.00
ELEVATION DATA: UPSTREAM (FEET) = 8.00 DOWNSTREAM (FEET) = 6.90

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 7.792

* 25 YEAR RAINFALL INTENSITY (INCH/HR) = 3.763

SUBAREA T_c AND LOSS RATE DATA (AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	.82	.40	.10	32	7.79

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 2.75

TOTAL AREA (ACRES) = .82 PEAK FLOW RATE (CFS) = 2.75

FLOW PROCESS FROM NODE 3.00 TO NODE 4.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 200.00
ELEVATION DATA: UPSTREAM (FEET) = 8.20 DOWNSTREAM (FEET) = 6.90

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 6.930

* 25 YEAR RAINFALL INTENSITY (INCH/HR) = 4.056

SUBAREA T_c AND LOSS RATE DATA (AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	1.00	.40	.10	32	6.93

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 3.61

TOTAL AREA (ACRES) = 1.00 PEAK FLOW RATE (CFS) = 3.61

A-1

A-2

 FLOW PROCESS FROM NODE 5.00 TO NODE 6.00 IS CODE = 2.1

=====
 >>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====
 INITIAL SUBAREA FLOW-LENGTH (FEET) = 90.00
 ELEVATION DATA: UPSTREAM (FEET) = 7.20 DOWNSTREAM (FEET) = .00

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$
 SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 5.000
 * 25 YEAR RAINFALL INTENSITY (INCH/HR) = 4.820

SUBAREA T_c AND LOSS RATE DATA (AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	.05	.40	.10	32	5.00

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = .22

TOTAL AREA (ACRES) = .05 PEAK FLOW RATE (CFS) = .22

A-3

 FLOW PROCESS FROM NODE 7.00 TO NODE 8.00 IS CODE = 2.1

=====
 >>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====
 INITIAL SUBAREA FLOW-LENGTH (FEET) = 90.00
 ELEVATION DATA: UPSTREAM (FEET) = 8.30 DOWNSTREAM (FEET) = 7.60

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$
 SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 5.000
 * 25 YEAR RAINFALL INTENSITY (INCH/HR) = 4.820

SUBAREA T_c AND LOSS RATE DATA (AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	.36	.40	.10	32	5.00

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 1.55

TOTAL AREA (ACRES) = .36 PEAK FLOW RATE (CFS) = 1.55

B-1

=====
 END OF STUDY SUMMARY:

TOTAL AREA (ACRES) = .36 T_c (MIN.) = 5.00
 EFFECTIVE AREA (ACRES) = .36 AREA-AVERAGED F_m (INCH/HR) = .04
 AREA-AVERAGED F_p (INCH/HR) = .40 AREA-AVERAGED A_p = .10
 PEAK FLOW RATE (CFS) = 1.55

=====
 END OF RATIONAL METHOD ANALYSIS

**ON-SITE
HYDROLOGY STUDY
For
Pre-Development Condition
100-year Storm Event**

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
(Reference: 1986 OCEMA HYDROLOGY CRITERION)
(c) Copyright 1983-96 Advanced Engineering Software (aes)
Ver. 6.1 Release Date: 01/01/96 License ID 1429

Analysis prepared by:

THE SP CONSULTING GROUP
8175 EAST KAISER BOULEVARD
ANAHEIM, CALIFORNIA 92808
(714) 921-8472 FAX (714) 921-8471

***** DESCRIPTION OF STUDY *****

* PRE-DEVELOPMENT CONDITION *
* 100-YEAR ANALYSIS *
* *

FILE NAME: 283-100E.DAT
TIME/DATE OF STUDY: 10:48 2/15/2006

=====

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

=====

--*TIME-OF-CONCENTRATION MODEL*--

USER SPECIFIED STORM EVENT (YEAR) = 100.00
SPECIFIED MINIMUM PIPE SIZE (INCH) = 18.00
SPECIFIED PERCENT OF GRADIENTS (DECIMAL) TO USE FOR FRICTION SLOPE = .01
DATA BANK RAINFALL USED
ANTECEDENT MOISTURE CONDITION (AMC III) ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT- / PARK- SIDE / SIDE / WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP (FT) (FT)	HIKE (FT)	MANNING FACTOR (n)
1	30.0	20.0	.018/ .018/ .020	.67	2.00 .03125	.1670	.01500

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = .00 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)*(Velocity) Constraint = .0 (FT*FT/S)

 FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
 =====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 230.00
 ELEVATION DATA: UPSTREAM (FEET) = 8.00 DOWNSTREAM (FEET) = 6.90

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 7.792

* 100 YEAR RAINFALL INTENSITY (INCH/HR) = 4.814

SUBAREA T_c AND LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN	Tc (MIN.)
COMMERCIAL	A	.82	.40	.10	52	7.79

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 3.52

TOTAL AREA (ACRES) = .82 PEAK FLOW RATE (CFS) = 3.52

 FLOW PROCESS FROM NODE 3.00 TO NODE 4.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
 =====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 200.00
 ELEVATION DATA: UPSTREAM (FEET) = 8.20 DOWNSTREAM (FEET) = 6.90

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 6.930

* 100 YEAR RAINFALL INTENSITY (INCH/HR) = 5.194

SUBAREA T_c AND LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN	Tc (MIN.)
COMMERCIAL	A	1.00	.40	.10	52	6.93

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 4.64

TOTAL AREA (ACRES) = 1.00 PEAK FLOW RATE (CFS) = 4.64

A-1

A-2

 FLOW PROCESS FROM NODE 5.00 TO NODE 6.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 90.00
 ELEVATION DATA: UPSTREAM (FEET) = 7.20 DOWNSTREAM (FEET) = .00

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$
 SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 5.000
 * 100 YEAR RAINFALL INTENSITY (INCH/HR) = 6.190

SUBAREA T_c AND LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	.05	.40	.10	52	5.00

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = .28

TOTAL AREA (ACRES) = .05 PEAK FLOW RATE (CFS) = .28

 FLOW PROCESS FROM NODE 7.00 TO NODE 8.00 IS CODE = 2.1

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 90.00
 ELEVATION DATA: UPSTREAM (FEET) = 8.30 DOWNSTREAM (FEET) = 7.60

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** .20$
 SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 5.000
 * 100 YEAR RAINFALL INTENSITY (INCH/HR) = 6.190

SUBAREA T_c AND LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	F_p (INCH/HR)	A_p (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	.36	.40	.10	52	5.00

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = .40

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = .10

SUBAREA RUNOFF (CFS) = 1.99

TOTAL AREA (ACRES) = .36 PEAK FLOW RATE (CFS) = 1.99

=====

END OF STUDY SUMMARY:

TOTAL AREA (ACRES) = .36 T_c (MIN.) = 5.00
 EFFECTIVE AREA (ACRES) = .36 AREA-AVERAGED F_m (INCH/HR) = .04
 AREA-AVERAGED F_p (INCH/HR) = .40 AREA-AVERAGED A_p = .10
 PEAK FLOW RATE (CFS) = 1.99

=====

END OF RATIONAL METHOD ANALYSIS

A-3

B-1

**ON-SITE
HYDROLOGY STUDY
For
Post-Development Condition
25-year Storm Event**

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
(Reference: 1986 OCEMA HYDROLOGY CRITERION)
(c) Copyright 1983-96 Advanced Engineering Software (aes)
Ver. 6.1 Release Date: 01/01/96 License ID 1429

Analysis prepared by:

THE SP CONSULTING GROUP
8175 EAST KAISER BOULEVARD
ANAHEIM, CALIFORNIA 92808
(714) 921-8472 FAX (714) 921-8471

***** DESCRIPTION OF STUDY *****
* POST-DEVELOPMENT CONDITION *
* 25-YEAR ANALYSIS *
* *

FILE NAME: 283-025P.DAT
TIME/DATE OF STUDY: 14:47 2/15/2006

=====

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

=====

--*TIME-OF-CONCENTRATION MODEL*--

USER SPECIFIED STORM EVENT(YEAR) = 25.00
SPECIFIED MINIMUM PIPE SIZE(INCH) = 18.00
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = .01
DATA BANK RAINFALL USED
ANTECEDENT MOISTURE CONDITION (AMC II) ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF- CROWN TO STREET-CROSSFALL:			CURB GUTTER-GEOMETRIES:				MANNING FACTOR (n)
	WIDTH (FT)	CROSSFALL (FT)	IN- / OUT-/ SIDE / SIDE/ WAY	HEIGHT (FT)	WIDTH (FT)	LIP (FT)	HIKE (FT)	
1	30.0	20.0	.018/ .018/ .020	.67	2.00	.03125	.1670	.01500

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = .00 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)*(Velocity) Constraint = .0 (FT*FT/S)

FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 2.2

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>>>>USE SPECIFIED Tc VALUE FOR INITIAL SUBAREA<<<<<

=====

INITIAL SUBAREA FLOW-LENGTH(FEET) =	280.00				
USER SPECIFIED Tc(MIN.) =	5.000				
* 25 YEAR RAINFALL INTENSITY(INCH/HR) =	4.820				
SUBAREA LOSS RATE DATA(AMC II):					
DEVELOPMENT TYPE/	SCS SOIL	AREA	Fp	Ap	SCS
LAND USE	GROUP	(ACRES)	(INCH/HR)	(DECIMAL)	CN
COMMERCIAL	A	1.23	.40	.10	32
SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =		.40			
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =		.10			
SUBAREA RUNOFF(CFS) =		5.29			
TOTAL AREA(ACRES) =	1.23	PEAK FLOW RATE(CFS) =	5.29		

L-1

FLOW PROCESS FROM NODE 3.00 TO NODE 4.00 IS CODE = 2.2

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>>>>USE SPECIFIED Tc VALUE FOR INITIAL SUBAREA<<<<<

=====

INITIAL SUBAREA FLOW-LENGTH(FEET) =	260.00				
USER SPECIFIED Tc(MIN.) =	5.000				
* 25 YEAR RAINFALL INTENSITY(INCH/HR) =	4.820				
SUBAREA LOSS RATE DATA(AMC II):					
DEVELOPMENT TYPE/	SCS SOIL	AREA	Fp	Ap	SCS
LAND USE	GROUP	(ACRES)	(INCH/HR)	(DECIMAL)	CN
COMMERCIAL	A	1.02	.40	.10	32
SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =		.40			
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =		.10			
SUBAREA RUNOFF(CFS) =		4.39			
TOTAL AREA(ACRES) =	1.02	PEAK FLOW RATE(CFS) =	4.39		

=====

L-2

END OF STUDY SUMMARY:
TOTAL AREA(ACRES) = 1.02 TC(MIN.) = 5.00
EFFECTIVE AREA(ACRES) = 1.02 AREA-AVERAGED Fm(INCH/HR) = .04
AREA-AVERAGED Fp(INCH/HR) = .40 AREA-AVERAGED Ap = .10
PEAK FLOW RATE(CFS) = 4.39

=====

END OF RATIONAL METHOD ANALYSIS

**ON-SITE
HYDROLOGY STUDY**

For

Post-Development Condition

100-year Storm Event

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
(Reference: 1986 OCEMA HYDROLOGY CRITERION)
(c) Copyright 1983-96 Advanced Engineering Software (aes)
Ver. 6.1 Release Date: 01/01/96 License ID 1429

Analysis prepared by:

THE SP CONSULTING GROUP
8175 EAST KAISER BOULEVARD
ANAHEIM, CALIFORNIA 92808
(714) 921-8472 FAX (714) 921-8471

***** DESCRIPTION OF STUDY *****

* POST-DEVELOPMENT CONDITION *
* 100-YEAR ANALYSIS *
*

FILE NAME: 283-100P.DAT
TIME/DATE OF STUDY: 14:45 2/15/2006

=====

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

=====

--*TIME-OF-CONCENTRATION MODEL*--

USER SPECIFIED STORM EVENT (YEAR) = 100.00
SPECIFIED MINIMUM PIPE SIZE (INCH) = 18.00
SPECIFIED PERCENT OF GRADIENTS (DECIMAL) TO USE FOR FRICTION SLOPE = .01
DATA BANK RAINFALL USED
ANTECEDENT MOISTURE CONDITION (AMC III) ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF-	CROWN TO	STREET-CROSSFALL:			CURB GUTTER-GEOMETRIES:			MANNING	
	WIDTH	CROSSFALL	IN-	/	OUT-/PARK-	HEIGHT	WIDTH	LIP	HIKE	FACTOR
	(FT)	(FT)	SIDE	/	SIDE/	(FT)	(FT)	(FT)	(FT)	(n)
1	30.0	20.0	.018/	.018/	.020	.67	2.00	.03125	.1670	.01500

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = .00 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)*(Velocity) Constraint = .0 (FT*FT/S)

FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 2.2

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>>>USE SPECIFIED Tc VALUE FOR INITIAL SUBAREA<<<<

=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 280.00
USER SPECIFIED Tc (MIN.) = 5.000
* 100 YEAR RAINFALL INTENSITY (INCH/HR) = 6.190
SUBAREA LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN
COMMERCIAL	A	1.23	.40	.10	52

SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp (INCH/HR) = .40
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap = .10
SUBAREA RUNOFF (CFS) = 6.81
TOTAL AREA (ACRES) = 1.23 PEAK FLOW RATE (CFS) = 6.81

C-1

FLOW PROCESS FROM NODE 3.00 TO NODE 4.00 IS CODE = 2.2

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>>>USE SPECIFIED Tc VALUE FOR INITIAL SUBAREA<<<<

=====

INITIAL SUBAREA FLOW-LENGTH (FEET) = 260.00
USER SPECIFIED Tc (MIN.) = 5.000
* 100 YEAR RAINFALL INTENSITY (INCH/HR) = 6.190
SUBAREA LOSS RATE DATA (AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN
COMMERCIAL	A	1.02	.40	.10	52

SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp (INCH/HR) = .40
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap = .10
SUBAREA RUNOFF (CFS) = 5.65
TOTAL AREA (ACRES) = 1.02 PEAK FLOW RATE (CFS) = 5.65

C-2

=====

END OF STUDY SUMMARY:
TOTAL AREA (ACRES) = 1.02 TC (MIN.) = 5.00
EFFECTIVE AREA (ACRES) = 1.02 AREA-AVERAGED Fm (INCH/HR) = .04
AREA-AVERAGED Fp (INCH/HR) = .40 AREA-AVERAGED Ap = .10
PEAK FLOW RATE (CFS) = 5.65

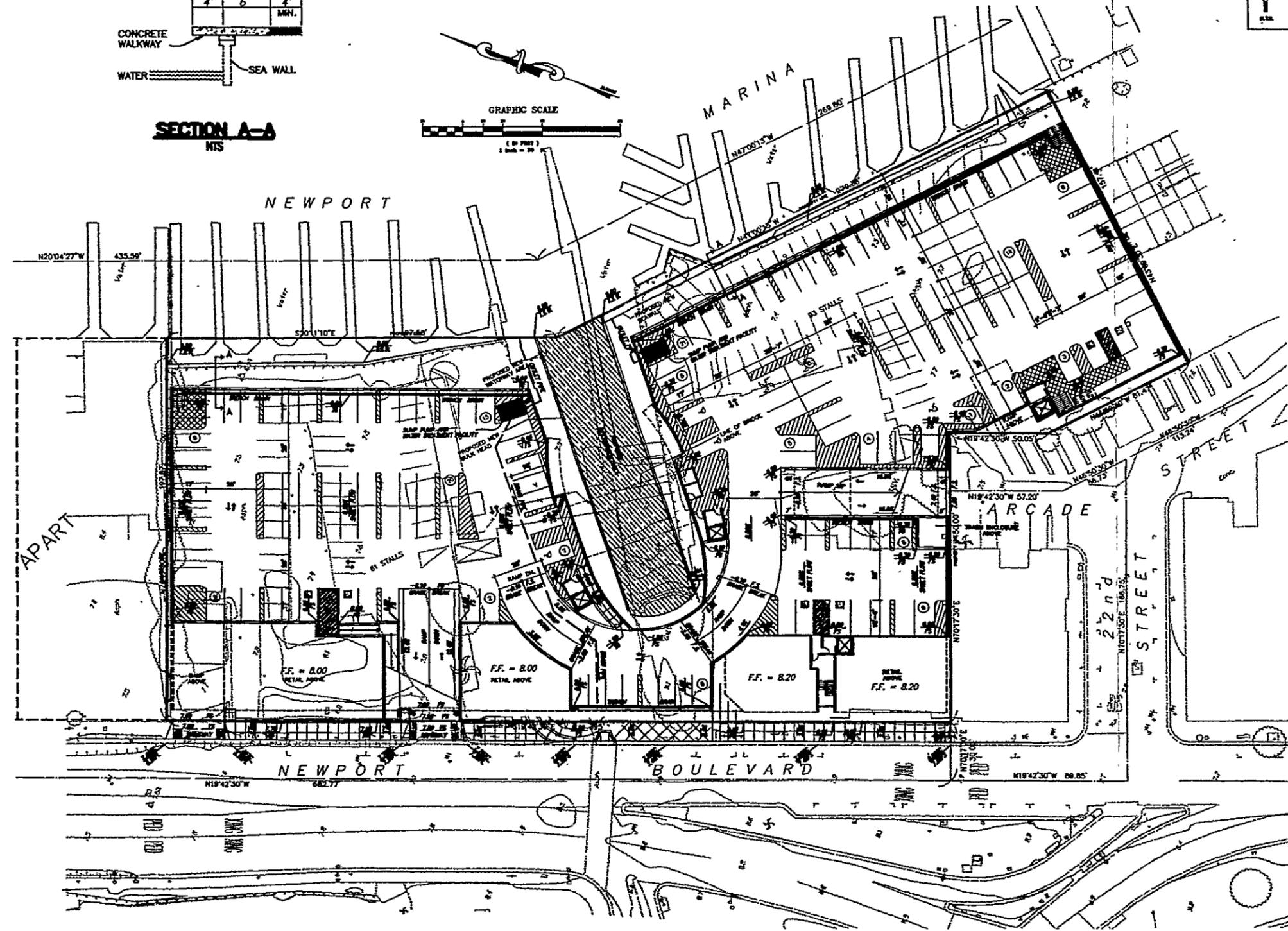
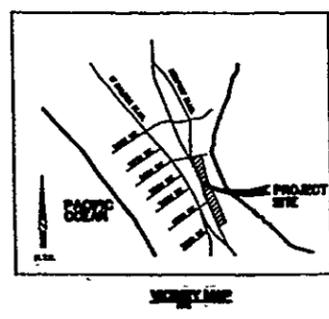
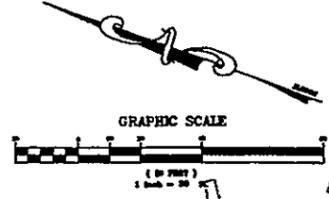
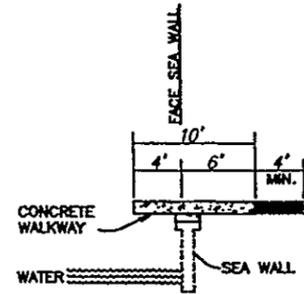
=====

END OF RATIONAL METHOD ANALYSIS

HYDROLOGY MAPS

CONCEPTUAL GRADING PLAN

CONCEPTUAL GRADING PLAN - GARAGE LEVEL



LEGAL DESCRIPTION
 TRACT NO. 10584
 CITY OF NEWPORT, CALIFORNIA

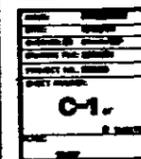
GENERAL NOTES
 1. SEE PROPOSED GRADING PLAN FOR VERTICAL ALIGNMENT.
 2. SEE PROPOSED GRADING PLAN FOR HORIZONTAL ALIGNMENT.
 3. SEE PROPOSED GRADING PLAN FOR CURVATURE.
 4. SEE PROPOSED GRADING PLAN FOR SLOPE.

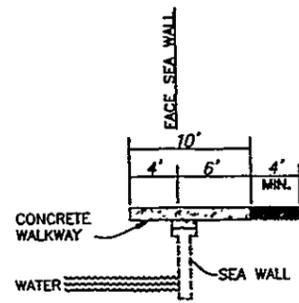
SP
 300 East Vermont
 Irvine, California 92618
 (949) 477-7025 FAX (949) 397-2534

NO.	DATE	REVISION

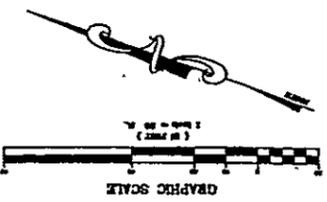
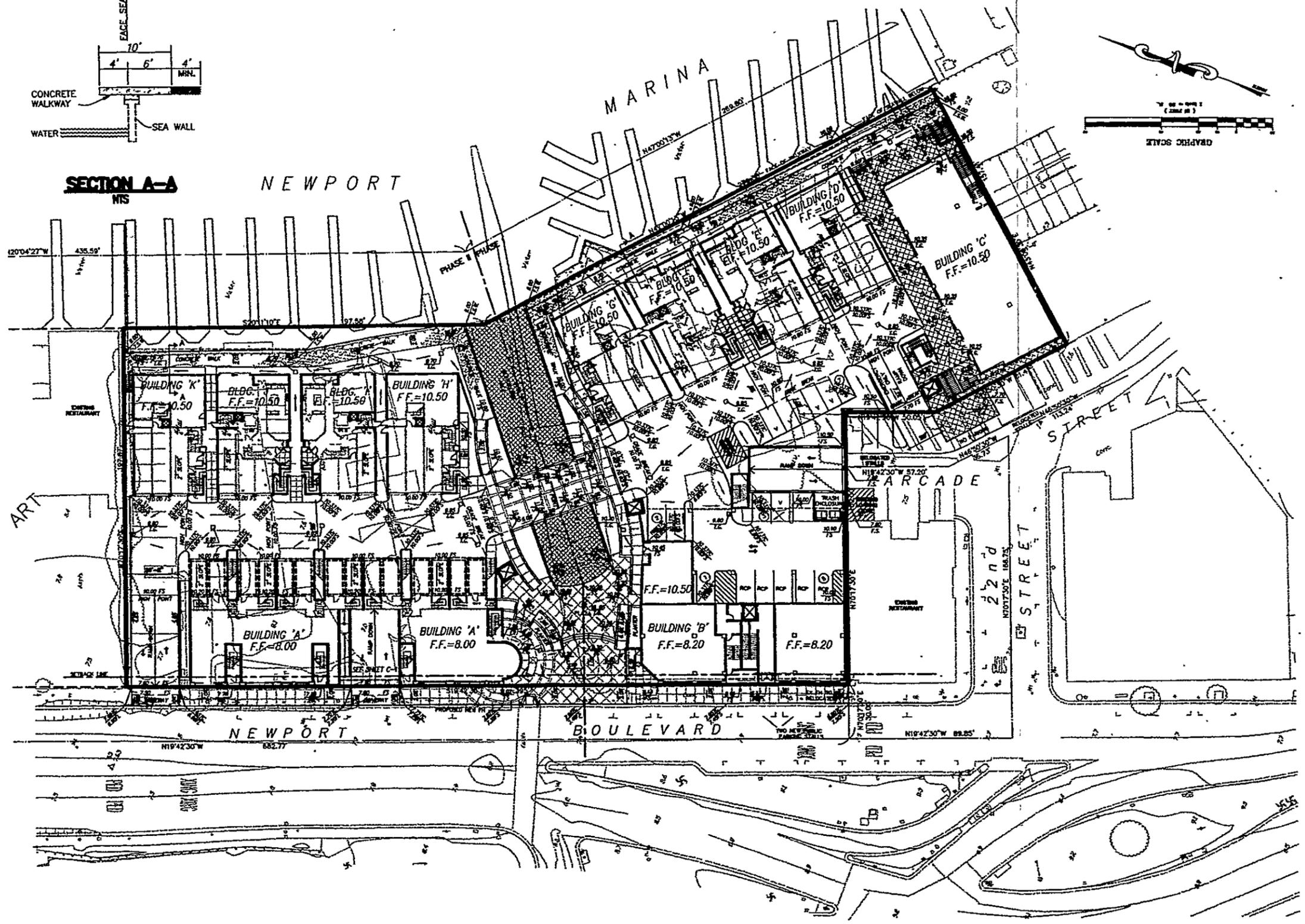
PROJECT: **NEWPORT TENTATIVE TRACT NO. 10584**

DATE: **CONCEPTUAL GRADING PLAN - GARAGE LEVEL**





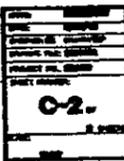
NEWPORT



SP
500 S. Hill Street
Pasadena, California 92318
(415) 377-7033 FAX (415) 377-7534

NO.	
DATE	
BY	
CHECKED	
APPROVED	

NEWPORT TENTATIVE TRACT NO. 16594
CONCEPTUAL GRADING PLAN - DECK LEVEL



WATER QUALITY MANAGEMENT PLAN

FOR

BRIDGEPORT PLAZA

Tentative Tract Map No. 16594

**2300 Newport Boulevard
In the Newport Beach, California**

Prepared For:

**EI-Bridgeport, LLC
9952 So. Santa Monica Blvd., Suite 200
Beverly Hills, CA 90212
(949) 200-7223**

Prepared By:

**SP Consulting
Group**

Civil Engineering, Land Surveying, Planning and Public Works

**500 Saint Vincent
Irvine, California 92618
(949) 387-7035 FAX (949) 387-7534**

Contact: Thomas A. Petersen, P.E.

February 20, 2006

**OWNER'S CERTIFICATION
WATER QUALITY MANAGEMENT PLAN FOR**

Tentative Tract Map No. 16594

**BRIDGEPORT PLAZA
2300 Newport Boulevard
In the Newport Beach, California**

This Water Quality Management Plan has been prepared for the EI-Bridgeport, LLC, by the SP Consulting Group. The WQMP is intended to comply with the requirements of the City of Newport Beach Tentative Tract No. 16594, conditions of approval, requiring the preparation of a Water Quality Management Plan (WQMP).

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region Stormwater Runoff Management Program. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

EI-Bridgeport, LLC

Date

Managing Member

**9952 South Santa Monica Blvd., Suite 200
Beverly Hills, CA 90212
(949) 200-7223**

TABLE OF CONTENTS

I.	DISCRETIONARY PERMITS & WATER QUALITY CONDITIONS.....	1
II.	PROJECT DESCRIPTION.....	3
III.	SITE DESCRIPTION.....	4
IV.	BEST MANAGEMENT PRACTICES (BMPs).....	12
V.	INSPECTION/MAINTENANCE RESPONSIBILITY FOR BMPs	19
VI.	LOCATION MAP, PLOT PLAN and BMP DETAILS.....	24
VII.	LIST OF EDUCATION MATERIALS INCLUDED.....	45

ATTACHMENTS

Attachment A.....	Educational Materials
Attachment B.....	Conditions of Approval
Attachment C.....	Notice of Transfer of Responsibility

**I. DISCRETIONARY PERMITS AND
WATER QUALITY CONDITIONS**

Tentative Tract No. 16594

Coastal Permit from California Coastal Commission

Legal Description:

Located in the City of Newport Beach, County of Orange, State of California, being Parcel 1 of a Parcel Map, as shown on a map recorded in book 68, page 48, of Parcel Maps, in the Office of the County Recorder of said county.

Priority Project Category:

Table 7.11-1

1. (2) Commercial and industrial development greater than 100,000 square feet including parking areas.
2. (7) Parking Lots 5,000 square feet or more, or with 15 parking spaces or more, and potentially exposed to urban storm water run-off.

APN No. 047-120-31

2.36 Acres Gross – 102,800

2.36 Acres Net

II. PROJECT DESCRIPTION

The project site is located on a developed commercial site used for parking, office space and marina/dock use.

The proposed project includes a mixed-use commercial condominium project with additional retail space and office space. The site will be essentially covered with one building structure with three levels. The first level being below grade and used for parking. The second and third level will be multi-story residential units on the deck level covering the below grade parking. In addition, multi-story office and retail space will be provided around the perimeter of the structure with direct access to the adjacent street frontage. The individual units are to be for-sale condominium units.

Designated delivery areas or loading docks will not be allowed on the site. Outdoor materials storage areas will not be allowed on the site. Waste generation, car washing, auto repair and vehicle fueling will not be allowed on the site.

The existing Newport Bay seawall will be reconstructed to be at a higher elevation and located in approximately the same location. The wall will create a water inlet and public access will be provided to the water and the underground parking will conform to the inlet area. The deck level will cross the water inlet via a concrete slab bridge allowing vehicular access throughout the site.

The site proposes a total of 237 parking spaces with 9 spaces designated for disabled parking, 38 spaces in garages in residential units, 24 stalls in carports, 145 commercial stalls, 16 visitor stalls, and 14 marina slips. The open parking is located on the southerly portion of the site on the deck level. The remaining parking is located in the below grade parking area and deck level garages. All driveway and parking surfaces are proposed to be concrete.

The site covers an area of 2.36 acres, where urban landscaping is proposed. Landscaping will be mainly in raised planter areas throughout the site. Street trees will be provided around the perimeter of the site. All other surface area is either building area or concrete surfaces and sidewalks. Ninety percent of the site is impermeable. Landscaping and site improvements will be maintained by the Association.

The property is owned by EI-Bridgeport, LLC and will be managed by a Property Owners Association. The individual offices will be sold as air-space condominiums, to which the overall property will be owned in common. The residential units will also be sold as air-space condominiums. The contact person is Steve Schapel for the owner. A Property Owners Association will be formed prior to sale of the first condominium unit.

III. SITE DESCRIPTION

Site Assessment:

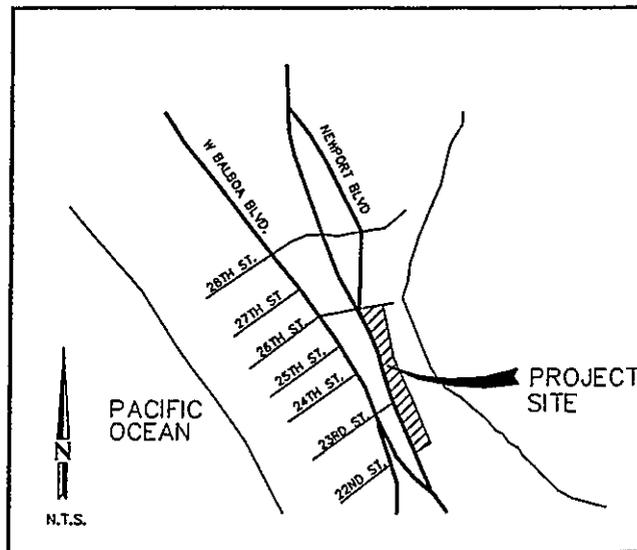
The site is located on the currently developed commercial site located east of Newport Boulevard, north of 22nd Street and west of the Newport Bay Harbor. See Exhibit below. The site is zoned Commercial (C) and is subject to the regulations of the City of Newport Beach. Project address is 2300 Newport Boulevard.

The site is currently an active commercial site owned by EI-Bridgeport, LLC. The Southcoast Shipyard and Design Center previously owned the site. The site has an area of 2.36 acres. The site will be owned in common by the owners of the office and residential units. The site is bordered to the north by a Commercial Building, the west by Newport Boulevard, to the east by Newport Bay Harbor and Marina, and to the south by the Crab Cooker Restaurant.

This parcel is within the San Diego Creek Watershed, and drains into the Lower Newport Bay and then the Pacific Ocean. As with most watersheds in Southern California, it deals with water quality issues, mainly pollution. Pollutants of concern are Heavy Metals and Pesticides for the watershed. By implementing the Best Management Practices in this report, our project will mitigate these water quality issues of the Lower Newport Boulevard. Our project will contribute heavy metals and pesticides which come from Commercial Developments and parking lots.

Environmentally Sensitive Areas (ESAs) and Areas of Special Biological Significance (ASBSs) are in close proximity to the site, the Lower Newport Bay.

The proposed site is designed to drain via catch basins and drain pipes to the parking below grade where the water will be treated with a 'Stormfilter' system prior to discharge to the Newport Bay Harbor to the east. Tidal subdrainage will also be intercepted in the in the below grade subdrainage system in the below grade parking garage and treated before discharge. No on-site drainage will be discharged to the surrounding streets. The Plot Plan in Section VI of this report shows the drainage pattern of this site.



VICINITY MAP
N.T.S.

Identification of Pollutants & Hydrologic Conditions of Concern:

The existing site has typical pre-existing water quality problems associated with a Commercial Site. Commercial buildings, parking lots and marina/boat operations currently occupy the site. The site drains into the Newport Bay Harbor to the east without treatment prior to discharge.

The Table shown on the following page identifies anticipated and potential pollutants generated by the project for the Priority Project Category and/or Project Features. In addition, the Table also shows the pollutants of concern for the Body of Water the project drains into. This project drains into the Lower Newport Bay, which in turn drains into the Pacific Ocean. Pollution is a significant issue in this body of water. Pollutants of concern are Heavy Metals and Pesticides for the watershed.

The Table shows that our project contributes the pollutants: Pesticides and Heavy Metals. It is important that the BMP's proposed for the project lower these particular pollutants, as well as others that are potential to the development type..

Hydrologic Conditions of Concern resulting from the development are negligible, since the site is currently and in the future considered a commercial development. The site drains directly into the Newport Bay Harbor with no impact to surrounding public drainage systems. Run-off of sediment from this property is not anticipated since the site is mostly concrete and erosion control will be in-place to mitigate construction run-off and will be in-place throughout construction. Ultimately, the project will have irrigated landscaping and a parking lot that will minimize site erosion and sediment transport.

Participation in Regional or Watershed Programs is not a solution for or alternative for this project.

**Table 7.11-2
ANTICIPATED AND POTENTIAL POLLUTANTS GENERATED BY THE PROJECT**

Priority Project Categories and/or Project Features	General Pollutant Categories								
	Bacteria/Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash & Debris	Oxygen Demanding Substances	Oil & Grease
Commercial/Industrial Development > 100,000 sf			P	P	P	P	X	P	X
Parking Lots		X	P	P		P	X	P	X

X=Anticipated
P=Potential

**Table 7.11-3
SUMMARY OF THE 1998 303(d) LISTED WATER BODIES AND ASSOCIATED POLLUTANTS OF CONCERN**

Water Body	General Pollutant Categories							
	Bacteria/Virus	Heavy Metals	Nutrients	Pesticides	Toxicity	Trash	Salinity/TDS Chlorides	Turbidity
Newport Bay, Lower		X		X				

STORMWATER QUALITY DESIGN STORM VOLUME (SQDY)CALCULATIONS

- LOCATED IN THE CITY OF NEWPORT BEACH
- AT SEA LEVEL
- TOTAL PROJECT AREA, A_t , IS 2.4 ACRES
- IMPERVIOUS AREA, A_i , IS 2.3 ACRES (95.8%)
- $i = 0.958$

RUNOFF COEFFICIENT IS $C = 0.858i^3 - 0.78i^2 + 0.77i + 0.04$
 $C = 0.82$

DEPTH OF RAINFALL OF 85% STORM EVENT IS

85% RAINFALL INTENSITY =

$$P_b = 0.58$$

$$\text{MAXIMIZED DETENTION VOLUME} = (2.4)(0.82)(0.58) = 1.14 \text{ AC}\cdot\text{FT.}$$

$$\text{UNIT STORAGE VOLUME} = 0.82 \text{ INCHES (CHART 4050)} \quad \text{OR } \underline{\underline{49,700 \text{ FT}^3}}$$

(48 hr. drawdown)

VOLUME OF RUNOFF:

$$\left(\frac{A_i}{A_t} \right) * 100 = \left(\frac{2.3}{2.4} \right) * 100 = 95.8\%$$

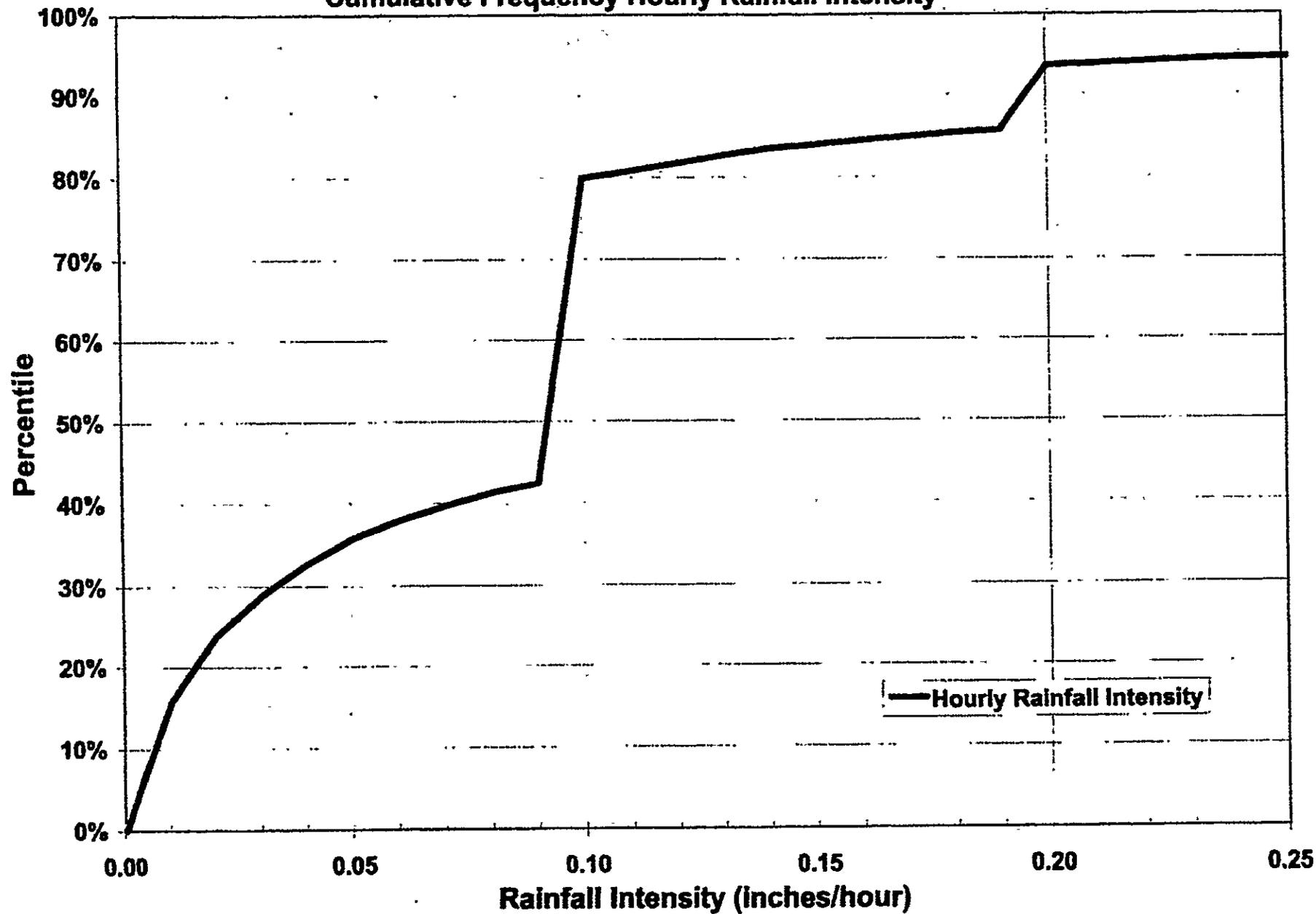
$$V_b = CIA$$

$$V_b = (0.82)(0.82)(2.4)\left(\frac{1}{2}\right)(49,360)$$

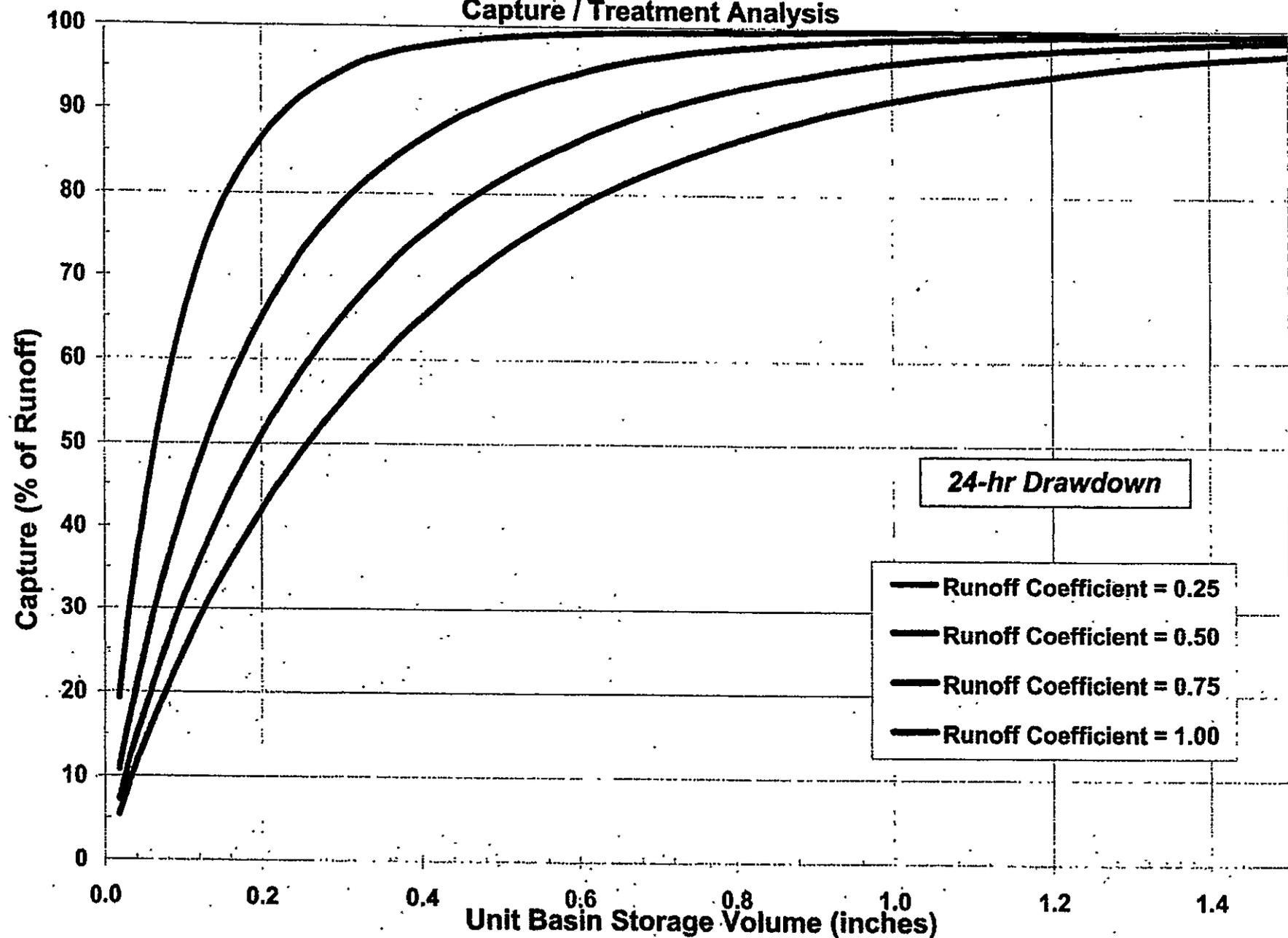
$$\underline{\underline{V_b = 5,900 \text{ FT}^3}}$$

MINIMUM VOLUME TO BE TREATED. SYSTEM WILL TREAT 100-YEAR
MAXIMUM STORM AT THE MAX. STORM FLOW RATE OF 12.2 CFS.

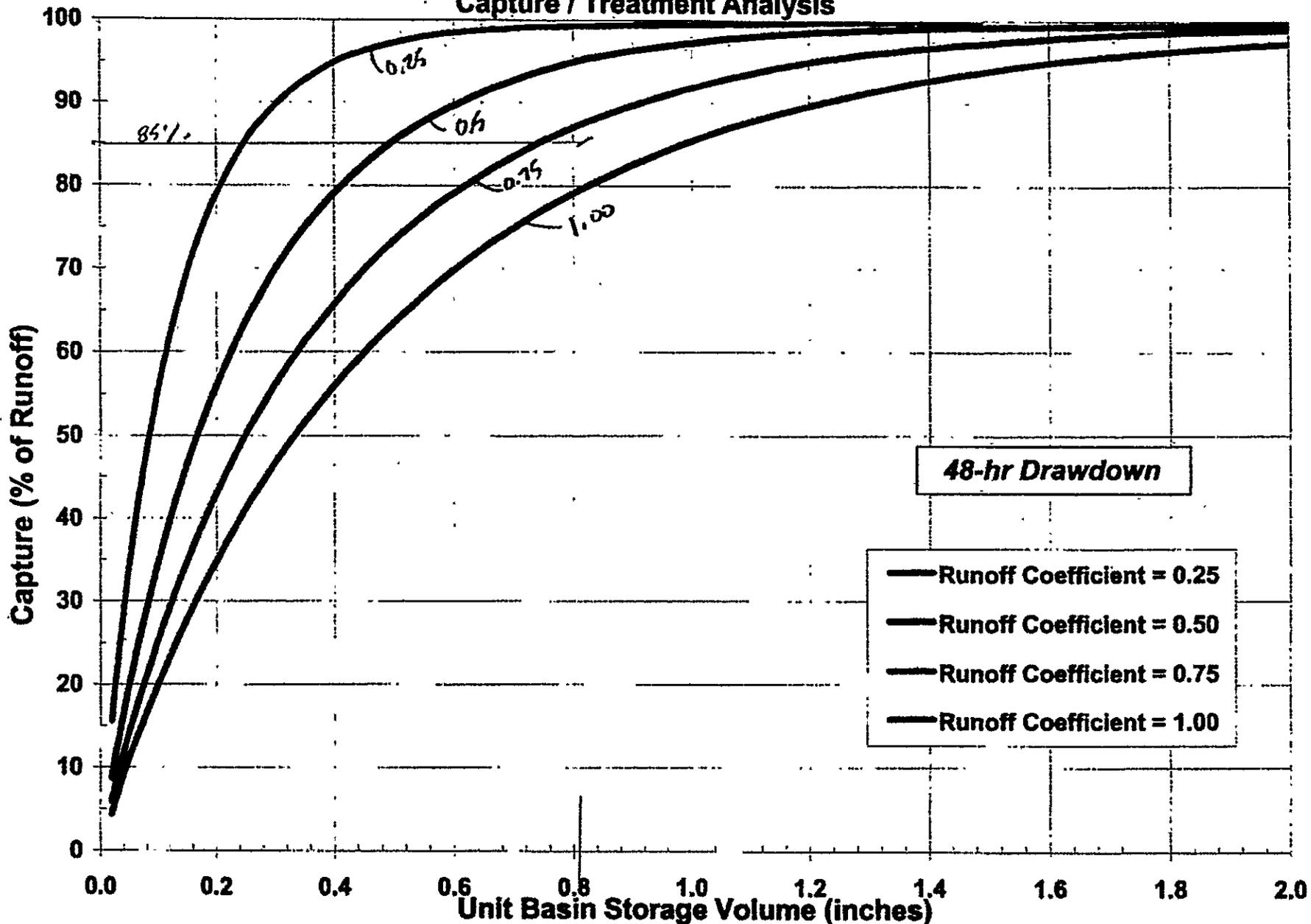
**Laguna Beach (4650) - Orange County, California
Cumulative Frequency Hourly Rainfall Intensity**



Laguna Beach (4650) - Orange County, California
Capture / Treatment Analysis



Laguna Beach (4650) - Orange County, California
Capture / Treatment Analysis



48-hr Drawdown

- Runoff Coefficient = 0.25
- Runoff Coefficient = 0.50
- Runoff Coefficient = 0.75
- Runoff Coefficient = 1.00

IV. BEST MANAGEMENT PRACTICES (BMPs)

The following tables show source control BMP's (routine non-structural and routine structural) included in this project and those that were not included.

Site BMPs were selected on the basis of Pollutants of Concern to the downstream water bodies determined in the previous section.

Source Control BMPs

N1 – Education for Property Owners, Tenants and Occupants

Practical information materials will be provided to the first occupants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be provided by the developer. Thereafter such materials will be available through the permittee's education program.

N2 – Activity Restrictions

Conditions, covenants and restrictions (CCRs) have been prepared by the developer for the purpose of surface water quality protection.

N3 - Common Area Landscape Management

On-going maintenance shall be consistent with City Water Conservation Resolutions. Fertilizer and Pesticide usage shall be consistent with the DAMP.

N4 – BMP Maintenance

Table attached indicates periodic maintenance of Structural BMPs.

N11 – Common Area Litter Control

Association Management Company will implement regulate trash pick-up and litter control.

N12 - Employee Training

Employee Manuals shall be developed to include awareness of the WQMP education material and require it to be reviewed on a regular basis.

N14 – Common Area Catch Basin Inspection

80 percent of all on-site catch basins shall be cleaned and repaired on an annual basis. 100 percent every two years.

N15 – Street Sweeping of Parking Lots

Parking lots are required to swept prior to the storm season, in late summer or early fall.

Structural BMP's

1. Provide storm drain stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language "NO DUMPING-DRAINS TO OCEAN", to discourage illegal dumping. Maintain signs.
2. Design Trash Storage areas to maintain a screened site for trash , no drainage allowed to run-in, have lids on all trash containers to exclude rain form containers and have trash removed on a regular basis.
3. Use efficient irrigation systems and landscape design. Timing and design of irrigation application shall minimize run-off of excess water into the storm drain system. Utilize rain shut-off devices to prevent irrigation after precipitation. Implement automatic shut-offs in case of breakage. Group plants with similar water needs.
4. Maintain filter cartridges in 'Stormfilter' system to manufacturers specifications. Maintain pump systems to minimize pump rep[lacement and downtimes.

Source Control BMP's

The following tables show source control BMPs (routine non-structural and routine structural) included in this project and those that were not included

Routine Non-Structural BMP's

Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	X		
N2	Activity Restrictions	X		
N3	Common Area Landscape Management	X		
N4	BMP Maintenance	X		
N5	Title 22 CCR Compliance (How development will comply)		X	Not an Industrial Use Project
N6	Local Industrial Permit Compliance		X	Not an Industrial Use Project
N7	Spill Contingency Plan		X	No Hazardous Materials Stored or used On Site
N8	Underground Storage Tank Compliance		X	No Underground Fuel Storage Tank
N9	Hazardous Materials Compliance Disclosure		X	No Fuel Dispensing or Vehicle Maintenance
N10	Uniform Fire Code Implementation		X	No Fuel Dispensing or Vehicle Maintenance
N11	Common Area Litter Control	X		
N12	Employee Training	X		
N13	Housekeeping of Loading Docks		X	No Loading Docks
N14	Common Area Catch Basin Inspection	X		
N15	Street Sweeping Private Streets and Parking Lots	X		
N16	Commercial Vehicle Washing		X	No Vehicle Washing Area

Routine Structural BMP's

Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Provide storm drain system stenciling and signage	X		
Design and construct outdoor material storage areas to reduce pollution introduction		X	No Outdoor Storage
Design and construct trash and waste storage areas to reduce pollution introduction	X		
Use efficient irrigation systems & landscape design, water conservation, smart controllers and source control	X		
Protect slopes and channels and provide energy dissipation	X		
Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	X		
a. Dock areas		X	No Dock Area
b. Maintenance bays		X	No Maintenance Bays
c. Vehicle wash areas		X	No Vehicle Wash Area
d. Outdoor processing areas		X	No Outdoor Processing Area
e. Equipment wash areas		X	No Equipment Washing
f. Fueling areas		X	No Fueling Area
g. Hillside landscaping		X	No Hillside Landscaping
h. Wash water control for food preparation areas		X	No Food Preparation Area
i. Community car wash racks		X	No Car Wash Area

Site Design BMPs

The following table shows site design BMPs that are included in this project. A description of each BMP follows:

Site Design BMP's

Name	Check One		Brief Description of Method
	Included	Not Applicable	
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)		X	
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)		X	
Create Reduced or "Zero Discharge" Areas (Run-off Volume Reduction)		X	
Conserve Natural Areas (C-Factor Reduction)		X	

Site Design BMP's

The site is in a high water table area with no opportunity to infiltrate run-off. Permeable surfaces provide no benefit to this project. The project intercepts all runoff into a site drainage system and filters it prior direct discharge in the adjacent Newport Bay Harbor to the east.

Design Objectives

Onsite irrigation drainage and subdrainage shall not discharge in a uncontrolled manner into streets or surrounding areas. An on-site drainage system is proposed to intercept all site drainage. Subdrainage is present on this site since the site is adjacent to the Newport Harbor Bay and experiences fluctuations in subdrainage as a result of tidal action. The subdrainage will intercepted in the below ground parking structure and drain into the same treatment system used for site storm run-off.

Roof drains will connect to drainage system that drains to the adjacent Newport Bay Harbor. Roof drains either connect to drainage system or outlet into parking lot where runoff is intercepted by the catch basin and drainage system. A 'Stormfilter' system device is located in underground parking garage.

Landscaping plans for slopes exceeding one acre and all upland common areas should utilize only native, drought-tolerant landscape materials. Not applicable to this project.

Irrigation system plans should not include irrigation lines for the bluff-side of a coastal parcel. Not applicable to this project.

Treatment Control BMPs

'Stormfilter' system. Used to treat runoff from developments that discharge directly into ocean waters. The system will be designed to treat dissolved metals, nutrients, trash, debris, oil, grease, organics, and TSS (80% removal of mean size of 16 micron).

Treatment BMPs

The following table shows treatment BMPs that are included in this project. A description of each BMP follows:

Treatment BMP's

Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Vegetated (grass) Swales		X	None Used or Required
Proprietary Control Measures	X		
Dry Detention Basin		X	None Used or Required
Wet Detention Basin		X	None Used or Required
Constructed Wetland		X	None Used or Required
Detention Basin/Sand Filter		X	None Used or Required
Porous Pavement Detention		X	None Used or Required
Infiltration Basin		X	None Used or Required Typical Landscape Infiltration
Infiltration Trench		X	None Used or Required
Media Filter	X		

V. INSPECTION/MAINTENANCE RESPONSIBILITY FOR BMPs

Responsibility for inspection and maintenance of source control, site design and treatment control BMP's will be by:

Mr. Steve Schapel, Director of Land Development
ETCO Development, Inc.
9952 So. Santa Monica Boulevard, Suite 200
Beverly Hills, CA 90212
(949) 200-7223

Inspection and maintenance BMPs will be initially initiated by the ETCO Development, Inc. As the property/condominium units are sold, the responsibility of the inspection and maintenance of the BMPs will be transferred to all the Property Owners Association. The property will be owned in common interest. The Property Owners Association shall retain all maintenance records for a period of three years after the recorded inspection date for the lifetime of the project. Inspection and Maintenance will be the responsibility of the Property Owner's Association Management Company. The records will be available for review by government agencies. The methods used for inspection and maintenance will conform to the guidelines outlined in the Orange County "Drainage Area Management Plan". A copy of the Orange County "Drainage Area Maintenance Plan" can be obtained from the county of Orange, Public Facilities and Resources Department.

If ownership of the Treatment Control BMPs are to be transferred to a public agency, then Attachment 'C', 'Water Quality Management Plan - Notice of Transfer of Responsibility will be implemented.

A reserve fund established by the CCR's will provide for the long term maintenance of the structural BMPs.

Tables on the following pages indicate BMP used and Maintenance and inspection requirements. A BMP Inspection Form to be used by the Owner/Tenant on a regular basis is also provided. It is suggested that a separate binder be used to keep a record of these inspections as required by this report.

**POST DEVELOPMENT BEST MANAGEMENT PRACTICES
NON-STRUCTURAL BMP MAINTENANCE RESPONSIBILITY/FREQUENCY MATRIX (N4)**

<u>BMP Designation</u>	<u>BMP Description</u>	<u>Responsibility</u>	<u>Activity and Frequency</u>
N1	Education for Property Owners, Tenants and Occupants	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during safety meeting and attached to tenant sales and lease agreements for new and existing tenants.
N2	Activity Restrictions	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Attached to sales and lease agreements for lessee.
N3	Common Area Landscape Maintenance	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection.
N4	BMP Maintenance	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection.
N11	Common Area Litter Control	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once every two weeks during regular maintenance of landscaping.
N12	Employee Training	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during safety meeting.
N12	Common Area Catch Basin Inspection	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a year, once prior to storm season, no later than October 15.
N15	Street Sweeping Private Streets and Parking Lots	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Twice a year, once prior to storm season, no later than October 15.

**POST DEVELOPMENT BEST MANAGEMENT PRACTICES
STRUCTURAL BMP MAINTENANCE REAPONSIBILITY/FREQUENCY MATRIX**

Name	Responsibility	Activity and Frequency
Provide storm drain system stenciling and signage	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection. Verify Stenciling has not been removed.
Design and construct trash and waste storage areas to reduce pollution introduction	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection. Verify no obstructions exist to obstruct flow to sewer.
Use efficient irrigation systems & landscape design, water conservation, smart controllers and source control	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a week in conjunction with landscape maintenance activities. Verify that runoff minimizing design continues to function by checking that water sensors are working properly, that irrigation heads are adjusted properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands, given time of year, weather and day or nighttime temperatures.
Protect slopes and channels and provide energy dissipation	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection. Verify no obstructions exist to obstruct flow to storm drain.
Maintain Filtration System and Pumps	Mr. Steve Schapel, Director of Land Development ETCO Development, Inc. (949)200-7223	Once a month during regular maintenance inspection. Verify filter replacement/recharging. Maintain Pumps.

BMP INSPECTION FORM

DATE: _____

COMPANY: _____

INSPECTOR: _____

PHONE NO.: _____

TITLE: _____

No.	BMP Description	Inspection Frequency	Compliance		Comments
			YES	NO	
1	Education for Owners & Tenants	Monthly			
2	Activity Restrictions	Lease Agreement			
3	Common Area Landscape Maintenance	Monthly			
4	BMP Maintenance	Monthly			
5	Common Area Litter Control	Every Two Weeks			
6	Employee Training	Monthly			
7	Catch Basin Inspection	Yearly (<Oct.15th)			
8	Parking Lot Sweeping	Twice Yearly			
9	Storm Drain Stenciling	Monthly			
10	Trash Enclosure	Monthly			
11	Landscape Irrigation Systems	Weekly			
12	Slope Protection and Drainage Swales	Monthly			
13	Hillside Landscaping	Monthly			
14	Hardscape Clean and Good Condition	Monthly			
15	Landscaping in All Planters	Monthly			
16	Vegetated Grass / Swales in Good Condition	Weekly			
17	Fossil Filter Maintenance	Monthly			

NOTES:

SIGNATURE

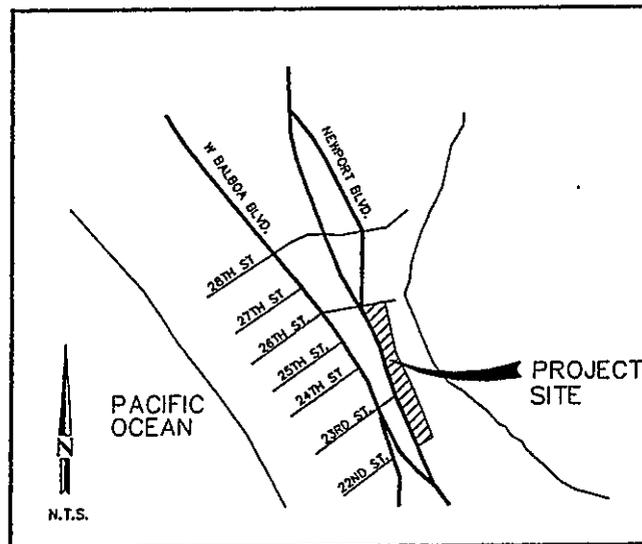
VI. LOCATION MAP, PLOT PLAN AND BMP DETAILS

Location Map

Plot Plan - Garage Level
Deck Level

'Stormfilter' System Details and Specifications

LOCATION MAP



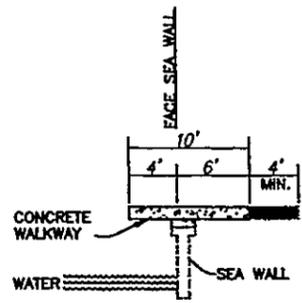
VICINITY MAP
N.T.S.

PROJECT LOCATION

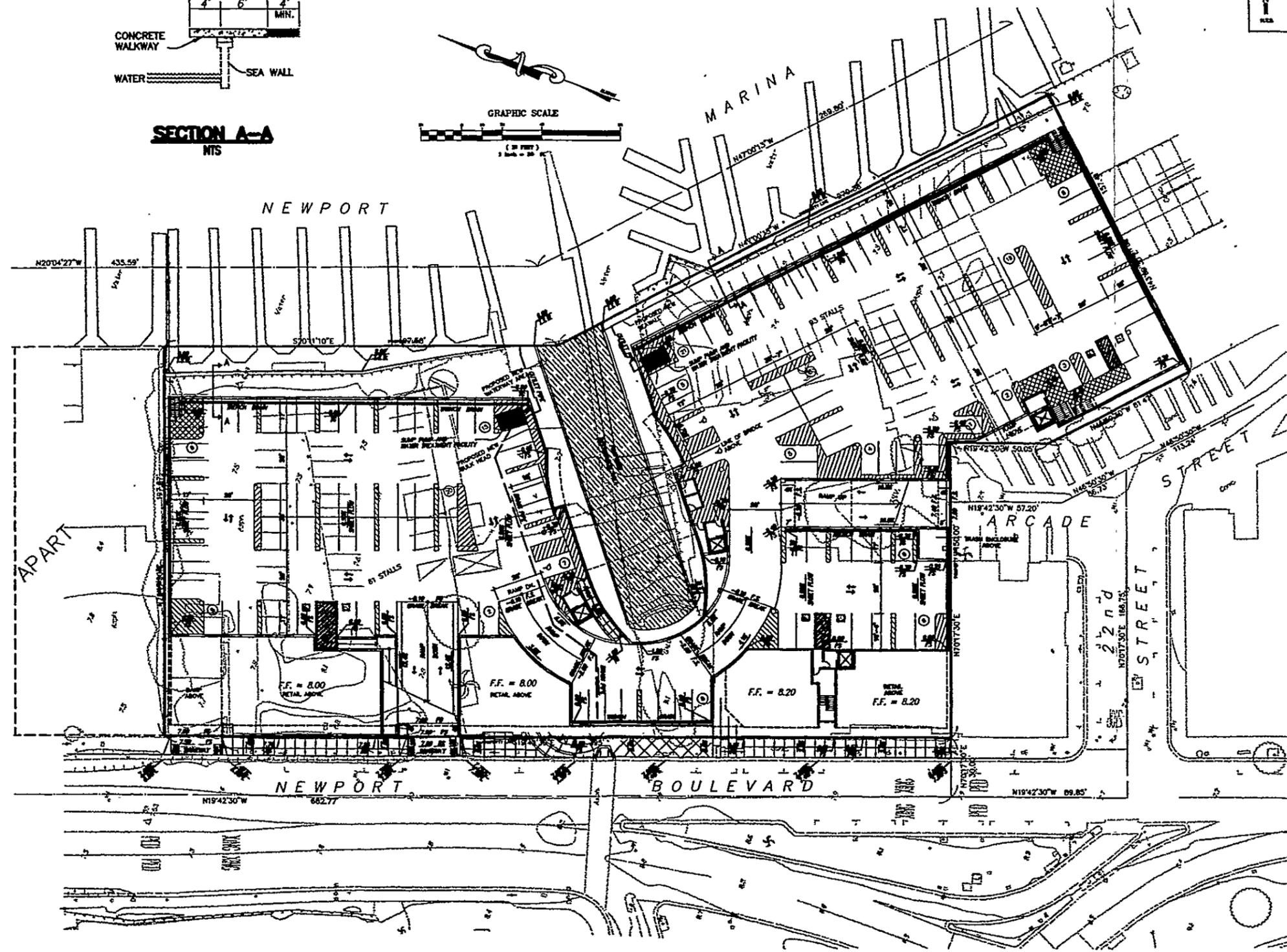
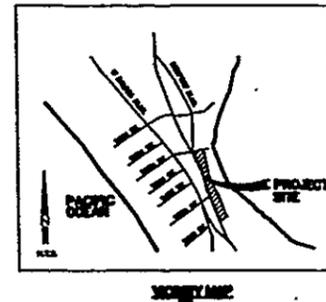
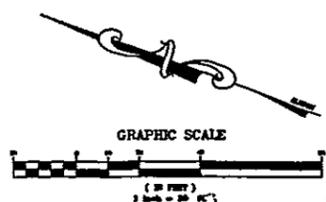
2300 Newport Boulevard
In the City of Newport Beach, California

Allowed Use: Retail and other commercial uses as well as a variety of multi-family residential units.

CONCEPTUAL GRADING PLAN - GARAGE LEVEL



SECTION A-A
NIS



LEGAL DESCRIPTION
 TRACT NO. 18684
 BRIDGEPORT TENTATIVE TRACT NO. 18684
GENERAL NOTES
 1. SEE PREVIOUS SHEETS FOR ALL DIMENSIONS
REVISIONS
 1. SEE PREVIOUS SHEETS FOR ALL DIMENSIONS

SP
 500 East 14th Street
 Irvine, California 92618
 (714) 261-7335 FAX (714) 261-7334

DATE	DESCRIPTION

BRIDGEPORT TENTATIVE TRACT NO. 18684
CONCEPTUAL GRADING PLAN - GARAGE LEVEL



OUR PRODUCTS

[StormFilter](#)
[StormScreen®](#)
[StormGate Separator™/ Separation](#)
[StormGate™](#)
[Enviropod™](#)
[Electrocoagulation System](#)
[Detention Management System](#)
[Accessories](#)

[Construction & Bidding](#)
[Product Maintenance](#)
[Product Multimedia](#)

[Contact Us](#)
[Project Info Worksheet](#)
[Site Map](#)

PRODUCT LITERATURE

Click to view or right click to download (PC users).

- Electrocoagulation System
- Industrial Applications
- Maintenance
- Product Overview
- StormFilter
- StormScreen®

LATEST NEWS

2004 Water Quality Grant Recipient— Drain Dare, City of Olympia, Washington

Home > Our Products > Electrocoagulation System

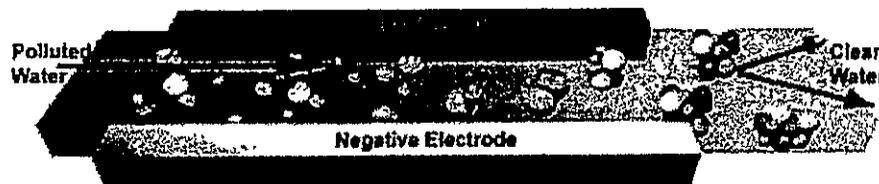
Electrocoagulation System™

 [Electrocoagulation System Home](#) | [Electrocoagulation System Maintenance](#)

The Electrocoagulation System™ is an electrolytic separation technology appropriate for washwater recycling, challenging stormwater applications and some wastewater applications. The system is well-suited for applications where colloidal solids or metals, emulsified oils or stringent discharge standards apply. It can be supplied in a number of sizes and configurations including portable, containerized and as stand-alone equipment.

How It Works

Pollutant removal in the EC System™ process begins when contaminated water is exposed to electrolytic cells. As polluted water passes through these cells, it is exposed to a controlled electrical current and becomes charged. Once charged, suspended and colloidal particulates bond together to form larger masses. Soluble heavy metals are oxidized to insoluble metal oxides and removed as particulates. The charged water is discharged to a separation tank where heavier coagulated solids settle to the bottom and lighter masses float to the surface, leaving clean and clear water for recycle or discharge.



Key Advantages

- No chemicals required (other than pH control)
- Ability to process multiple contaminants: suspended & colloidal solids, heavy metals, free and emulsified oils, bacteria and organics.
- Tolerates fluctuations in influent water quality
- Ability to recycle water for reuse
- Reduced sludge volume
- Integrates benefits of chemical precipitation, floatation and settling in much smaller footprint
- Fully automated, minimal operator attention
- Low maintenance due to self cleaning plates
- Low power consumption
- Available in fully-containerized, weatherized and portable configuration
- Backed by Stormwater Management, Inc. expertise and service department



HOME || OUR PRODUCTS || HOW WE HELP || INDUSTRIAL APPLICATIONS || ENGINEER

OUR PRODUCTS

- StormFilter
- StormScreen®
- StormGate Separator™/ Separation
- StormGate™
- EnviroPod™
- Electrocoagulation System
- Detention Management System
- Accessories.

- Construction & Bidding
- Product Maintenance
- Product Multimedia

- Contact Us
- Project Info Worksheet
- Site Map

PRODUCT LITERATURE

Click to view or right click to download (PC users).

- Electrocoagulation System
- Industrial Applications
- Maintenance
- Product Overview
- StormFilter
- StormScreen®

LATEST NEWS

2004 Water Quality Grant Recipient— Drain Dare, City of Olympia, Washington

Home > Our Products > Electrocoagulation System > EC System Maintenance

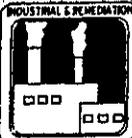
Electrocoagulation System™ Maintenance

[Electrocoagulation System Home](#) | [Electrocoagulation System Maintenance](#)

The EC System maintenance can be performed while the system is offline or between treatment events. Here's how:

1. Disconnect the main power to the system
2. Remove the poser leads from the spent anode cell
3. Unscrew the connection bolts that hold the anode cell in the housing
4. Pull out the spent EC cell
5. Install a new EC cell
6. Tighten the connection bolts that hold the anode in the housing
7. Attach the power leads
8. Reconnect the power
9. Return the spent EC cell to Stormwater Management, Inc. or dispose as scrap metal

Anodes should typically be replaced every 50,00-75,000 gallons of processed water.



THE STORMWATER MANAGEMENT ELECTROCOAGULATION SYSTEM

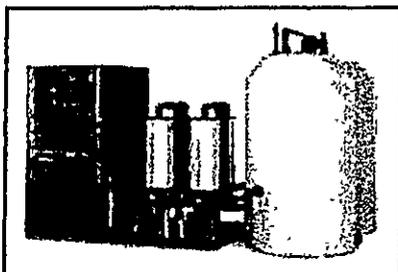
EC SYSTEM™

The Stormwater Management Electrocoagulation System (EC System™) is a highly effective technology for removal of emulsified oils, TPH, suspended solids, and heavy metals from industrial wastewater and wash water resulting in clean water for reuse or discharge. Using a unique process of passing a controlled electrical current through industrial wastewater to aid in the removal of contaminants (electrocoagulation), the EC System represents a major advancement in water treatment technology, as only one system is required to remove contaminants under a range of influent concentrations and compositions.

The EC System complements The Stormwater Management StormFilter™ by generating consistent, high-quality effluent from higher-strength wastewater and, in many instances, does not require the use of chemicals. Packaged with on-board automation, the EC System is fully automatic, reducing maintenance by up to 95%. Most importantly, the system provides economical onsite treatment of complex waste streams.

APPLICATIONS

- Marine wastewater: hull wash water, hydroblast water, bilge water
- Removal of tannins and lignins, pigments, colloidal solids
- Wood treating runoff
- Equipment wash water treatment: wash racks, rail, vehicle/trucking, mass transit
- Recycle systems (closed loop, water reuse)
- Other applications



10 GPM System for Shipyard Hydroblast Water Treatment



Self-contained Configuration

BENEFITS

With systems available to treat 5 gpm to 65 gpm, the Stormwater Management Electrocoagulation System:

- Meets discharge requirements
- Recycles water for reuse (zero discharge)
- Removes the need for chemicals (other than pH control)
- Processes multiple contaminants
- Reduces cradle-to-grave liabilities

The EC System also offers:

- Built-in redundancy and remote troubleshooting capabilities
- Minimal operator attention
- Low maintenance
- Low operating cost
- Quick return on investment
- Availability in stand-alone or self-contained configurations



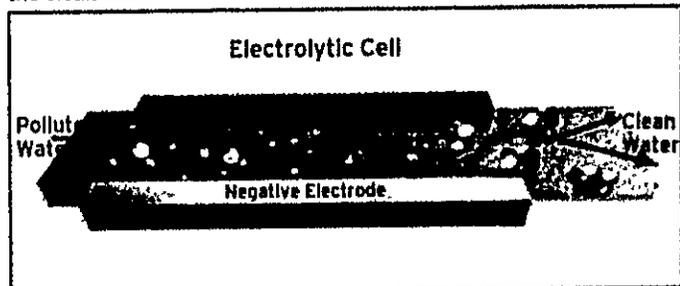


THE STORMWATER MANAGEMENT ELECTROCOAGULATION SYSTEM

EC SYSTEM CELL OPERATION

Pollutant removal in the EC System process begins when contaminated water is exposed to electrolytic cells. As water passes through these cells, it is exposed to a controlled electrical current and becomes charged. Once charged, the suspended contaminant particles bond together like small magnets and form larger masses. Any masses comprised of coagulated material are quickly removed, while masses comprised of heavy solids settle to the bottom. What is left is a clear phase of water with less contaminants. This process is effective on any size of suspended solids including sub-micron particles such as

pigments and tannins. The clean water is then sent to a separation unit where any remaining floc is removed from the clean water.

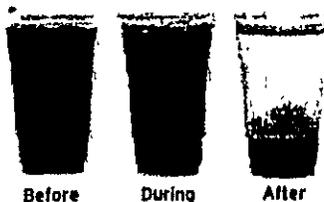


Electrolytic Cell Operation

FEATURES

The EC System process is highly effective on complex industrial waste water.

- It is a programmed technology, so no periodic maintenance is required.
- Any wetting agents (soaps, detergents) will remain in the water for reuse.
- It is effective on suspended solids (of any micron size), emulsified/suspended petroleum and heavy metals,
- It is an excellent technology for recycled water applications, as suspended solids are removed from the water rather than passed through and allowed to build up in the clean (reuse) water tank.
- It may be installed alone for wastewater applications or in combination with the StormGate™ and StormFilter for commingled stormwater and wastewater applications.



TYPICAL PERFORMANCE*

Parameter	Total Lead	Total Copper	Total Zinc	BOD	Diesel	Total Oil and Grease
Influent (mg/L)	8.21	287	221	3500	2005	2960
Effluent (mg/L)	0.23	0.48	0.14	500	19.2	40.8
Removal Efficiency	97%	99%	99%	85%	99%	98%

*Lab test data taken from various EC System configurations.

ABOUT STORMWATER MANAGEMENT INC.

Stormwater Management Inc. is the leading manufacturer of stormwater treatment systems for industrial applications including the StormScreen™, StormGate Separator™, the Stormwater Management Electrocoagulation System™, and our flagship product, the Stormwater Management StormFilter®. Stormwater Management Inc. serves the industrial and remediation market by providing reliability and flexibility to meet environmental permit requirements. We understand the changing regulatory environment and offer complete sales and engineering support to help you navigate the sea of options. Our products are used in many industry sectors to capture and remove pollutants such as suspended solids, oil and grease, dissolved metals, organics and nutrients from stormwater runoff wastewater discharges.

CONTACT

Technical Sales
 Stormwater Management Inc.
 Toll Free: 800.548.4667 Local: 503.240.3393 Fax: 800.561.1271

LIST OF EDUCATION MATERIALS

1. Orange County Urban Storm Water Pollution Prevention Program / The Ocean Begins at Your Front Door
2. Ten Ways that Will Save the Most Water
3. Your Business and the County Partners in Protecting the Ocean
4. Driving Green: 11 tips to Lessen Your Car's Impact
5. Guide to the Disposal of Water-Based Cleaners
6. What you need to know about Water-Based Cleaners
7. A Road Map to Orange County's Landfill and Household Hazardous Waste Disposal Sites
8. County Ordinance No. O-97-3987 (Storm Water Management and Urban Runoff)
9. County Ordinance No. 3802 (Conservation of Water in Landscaping for Common Areas)
10. EPA, When It Rains It Drains
11. Housekeeping Practices
12. Inlet Cleaning
13. Catch Basin Cleaning
14. Spot Cleaning
15. Spill Prevention and Control
16. Employee/Contractor Training
17. Management Guidelines for the Use of Fertilizers and Pesticide
18. Employee Education/Maintenance Staff Training
19. Healthy Lawn Healthy Environment
20. Common Pollutants and Non-Industrial Pollutant Sources Associated with Urban Runoff
21. Precyclin / The Solution is to Recycle
22. Model Water Efficient Landscape Ordinance

Provided upon request.

Attachment C

**Orange County Urban Storm Water
Pollution Prevention Program / The Ocean
Begins at Your Front Door**

Ten Ways that Will Save the Most Water

**Your Business and the County Partners in
Protecting the Ocean**

**Driving Green: 11 tips to Lessen
Your Car's Impact**

**Guide to the Disposal of Water-Based
Cleaners**

**What you need to know about
Water-Based Cleaners**

**A Road Map to Orange County's Landfill
and Household Hazardous Waste Disposal
Sites**

**County Ordinance No. O-97-3987 (Storm
Water Management and Urban Runoff)**

**County Ordinance No. 3802 (Conservation of
Water in Landscaping for Common Areas)**

EPA, When It Rains It Drains

Housekeeping Practices

Inlet Cleaning

Catch Basin Cleaning

Spot Cleaning

Spill Prevention and Control

Employee/Contractor Training

**Management Guidelines for the Use of
Fertilizers and Pesticide**

**Employee Education/Maintenance Staff
Training**

Healthy Lawn Healthy Environment

**Common Pollutants and Non-Industrial Pollutant
Sources Associated with Urban Run-off**

Precyclin / The Solution is to Recycle

Model Water Efficient Landscape Ordinance

WORK PLAN

**Water Quality Monitoring during Redevelopment
Activities at the South Coast Shipyard and Design Center
2300 Newport Boulevard
Newport Beach, CA**

**Prepared for:
ETCO Development, Inc.
2222 Newport Blvd.
Newport Beach, CA 92663**

**Prepared by:
Anchor Environmental CA L.P.
28202 Cabot Road, Suite 620
Laguna Niguel, CA 92677**



Work Plan

Water Quality Monitoring During Redevelopment Activities at 2300 Newport Boulevard Newport Beach, CA

This document presents a proposed work plan for implementing a water quality monitoring program to ensure field construction activities at 2300 Newport Boulevard (also known as tentative Tract No. 16594) do not result in the redistribution of contaminated sediments known to be present in the adjacent waters of the Rhine Channel. This document is submitted to the Santa Ana Regional Water Quality Control Board (SARWQCB) to support a planned application for a 401 Water Quality Certification under the Clean Water Act.

1. Background

Redevelopment activities are planned for the waterfront property located at 2300 Newport Boulevard in the City of Newport Beach, California. The site is located on 2.4 acres and currently houses approximately 12 buildings, 19 boat slips and two boat slipways. Current land use at the site consists of commercial and retail businesses, and an asphalt-paved parking lot.

Redevelopment activities proposed for the site include construction of an underground parking structure overlaid by residential and commercial properties. The focus of this work plan is the activities planned for the waterfront portion of the site, which borders the Rhine Channel in the western portion of lower Newport Harbor. The Rhine Channel is known to contain elevated concentrations of metals and PCBS in the sediments (SCCWRP 2003) and is the focus of a planned feasibility study sponsored by the State of California to evaluate remediation alternatives for sediment removal or treatment.

Previous chemical analyses of the sediments located directly in front of the proposed project show metals, PAHs and PCB concentrations above threshold-based aquatic screening values; and some metals concentrations above Title 22 landfill screening values. Concentrations exceeding the threshold-based aquatic screening values suggest the onset of potential risks to aquatic organisms present in the sediments

assuming the material was left in place. Concentrations exceeding Title 22 screening values suggest that the material may be considered a "hazardous waste" by the State of California, which limits handling and disposal practices to include only individuals and facilities licensed to receive such material.

This work plan focuses on addressing construction Best Management Practices (BMPs) that can be implemented to minimize disturbance and prevent re-mobilization and off-site transport of these contaminated sediments during in-water construction activities. A proposed water quality monitoring program is also described to evaluate the effectiveness of the construction BMPs in meeting the above objectives.

2. Planned In-Water Construction Activities

The following three (3) in-water construction activities are planned for the Rhine Channel as part of the redevelopment project at 2300 Newport Boulevard:

- 2.1 **Sediment Excavation** - Removal of a small volume of sediment that has accumulated to form a shoal in front of the two remaining slipways in the area known as the former boat yard on the subject property (Figure 1). This material is proposed for removal to restore usage of the dock facilities.

Description - Previous investigations (Petra 2002) have shown that the sediment is contaminated with metals exceeding Title 22 screening criteria requiring special upland disposal. This material will be excavated using a shore-based long reach backhoe and placed in an upland roll-off container for mixing with a cement-based product intended to de-water the material and bind the contaminants prior to upland disposal at a licensed facility. This process (commonly referred to as cement stabilization) has been used extensively on the east coast and recently shown to be effective regionally during tests conducted by the Los Angeles District Corps of Engineers using dredge material from the Port of Los Angeles (USACE 2002).

One option may be to use the smaller of the two slips (located immediately on-shore from the shoal area) as a mixing cell for the cement stabilization step. The overall site redevelopment plan calls for backfilling this slipway with clean material to allow for upland construction. In this case, a cofferdam would be erected at the mouth of the slip and the water drained prior to use. After mixing, all contaminated material would be removed from the slipway and it would be back-filled to the existing grade with clean fill prior to initiating upland construction activities.

- 2.2 **Piling and Dock Removal and Replacement** - Removal and replacement of the existing timber pilings and dock structure with a similar dock structure, using a slightly different configuration to facilitate less restrictive vessel navigation (Figure 1).

Description - This task will be accomplished by first pulling the existing pilings using a shore or barge based crane. New piling installation will be performed utilizing an outer casing around the drill to collect any sediment excavated as the holes are drilled. This material will be transported to shore for disposal at an upland landfill, after de-watering and cement stabilization (if that material exceeds Title 22 screening values).

- 2.3 **Bulkhead Removal and Replacement** - Removal of the existing sheet pile and concrete bulk head and construction of a new concrete bulk head (Figure 1).

Description - This task will be accomplished using standard shore-based construction equipment and all debris will be discarded off site. A new concrete bulkhead will be constructed just inside of the existing bulk head to tie in the property lines of the seawalls located up- and down-stream of the subject property. This will form a more aesthetically pleasing image than currently present with the dilapidated existing structure. Once the new bulk head is completed, the existing structures will be demolished and disposed of

accordingly. This task is also required to ensure geotechnical stability of the shoreline prior to upland construction.

Current plans are for the projects to be conducted in the sequence presented above. Since each will be conducted separately, construction BMPs and associated water quality monitoring plans have been developed separately for each stage.

3. Proposed Construction BMPs and Monitoring

The following construction-related BMPs and associated field monitoring steps are proposed to meet the concerns of the City of Newport Beach and SARWQCB staff.

3.1 Contaminated Sediment Dredging:

The two primary issues of concern with this phase of the project are: (1) prevention of contaminated sediment remobilization and off-site transport away from the dredge area during construction; and (2) effective removal of the contaminated sediment such that residual surface sediment chemical concentrations do not exceed the State's secondary sediment TMDL requirements (used as a predictor of potential aquatic risk). To accomplish these objectives, the following construction-related BMPs are proposed:

- Installation of a silt curtain around the work area (Figure 2) that extends from the surface of the water to the sediment water interface for the entire duration of the project. The silt curtain will be deployed at least one hour prior to construction and left in place following completion until field monitoring for suspended sediments indicates that the water inside the silt curtain is similar (within 30%) to that observed outside of the silt curtain.
- Anchor the silt curtain using concrete blocks, floats and/or the existing pilings to ensure that no currents are able to pass under or over the material during tidal exchanges in the harbor. If it is determined that the curtain cannot be adequately secured during all phases of the tide cycle, construction activities will be suspended during peak tidal exchanges.

Proposed Monitoring:

- Water column turbidity will be used as an indicator of suspended sediment releases caused by dredging-related construction activities. Water column turbidity will be monitored on an hourly basis for the first four hours of construction (and then once per day thereafter) at each of three stations located within 10 feet of the outside of the silt curtain. The locations will be spaced apart such that they represent one up current and two down-current locations. This process will be used to verify containment of the suspended material within the isolated area. Samples will be collected from mid-depth using a Van Dorn bottle or similar collection device and analyzed immediately using a field turbidimeter. Sample results from just outside the silt curtain will then be compared to an up-current¹ sample station to determine effectiveness of the containment device. Sample turbidity readings that vary by more than 30% (on an absolute basis) will indicate that the containment structure may not be properly deployed and will trigger a temporary halt in field activities while the system is checked for failure.
- The residual sediment surface layer will be sampled at the completion of field activities to verify that the new surface layer is not contaminated. Surface (upper 10 cm) grab samples will be collected from three stations within the dredge area using a petite ponar grab sampler and composited together to form a single sample for chemical analysis of priority pollutant metals. Results of the chemical analysis will be used to verify effectiveness of the contaminated sediment removal task by comparing them to the State's secondary sediment TMDL requirements. If contaminated sediments remain on the surface after removal, either additional excavation activities will occur or a thin layer of clean sand will be placed over the excavated area to serve as a temporary cap until channel-wide remediation efforts are initiated.

¹ Up-current reference stations will be determined at the time of sampling using a location-corrected NOAA tide chart and portable current meter to verify direction. Stations will be

3.2 Piling Removal and Replacement:

The primary issue of concern with this phase of the project is preventing redistribution and off-site migration of contaminated sediments away from the study area to other portions of the Rhine Channel. To address this concern, the following construction-related BMPs are proposed:

- Installation of a silt curtain around the work area (Figure 3) that extends from the surface of the water to the sediment water interface for the entire duration of the project. The silt curtain will be deployed at least one hour prior to construction and left in place following completion until field monitoring for suspended sediments indicates that the water inside the silt curtain is similar (within 30%) to that observed outside of the silt curtain.
- Anchor the silt curtain using concrete blocks and floats to ensure that no currents are able to pass under or over the material during tidal exchanges in the harbor. If it is determined that the curtain cannot be adequately secured during all phases of the tide cycle, construction activities will be suspended during peak tidal exchanges.
- Attempt to remove the pilings using mechanical force rather than jetting water to minimize resuspension of contaminated sediments.
- Use an outside casing around the drill when installing the new pilings to allow the subsurface sediment that is extracted during the drilling process to be collected for upland disposal.

Proposed Monitoring:

- Water column turbidity will be used as an indicator of suspended sediment releases caused by dredging-related construction activities. Water column

positioned so that they are as close as possible to the construction activities without being directly affected by the operations.

turbidity will be monitored on an hourly basis for the first four hours of construction (and then once per day thereafter) at each of three stations located within 10 feet of the outside of the silt curtain. The locations will be spaced apart such that they represent one up current and two down-current locations. This process will be used to verify containment of the suspended material within the isolated area. Samples will be collected from mid-depth using a Van Dorn bottle or similar collection device and analyzed using a field turbidimeter. Sample results from just outside the silt curtain will then be compared to an up-current sample station to determine effectiveness of the containment device. Sample turbidity readings that vary by more than 30% (on an absolute basis) will indicate that the containment structure may not be properly deployed and will trigger a temporary halt in field activities while the system is checked for failure.

3.3 Bulkhead Removal and Replacement:

As with the piling removal task, the primary issue of concern with this phase of the project is preventing redistribution and off-site migration of contaminated sediments away from the study area to other portions of the Rhine Channel. To accomplish this objective, the following construction BMPs are proposed:

- Installation of a silt curtain around the work area (Figure 3) that extends from the surface of the water to the sediment water interface for the entire duration of the project. The silt curtain will be deployed at least one hour prior to construction and left in place following completion until field monitoring for suspended sediments indicates that the water inside the silt curtain is similar (within 30%) to that observed outside of the silt curtain.
- Anchor the silt curtain using concrete blocks and floats to ensure that no currents are able to pass under or over the material during tidal exchanges in the harbor. If it is determined that the curtain cannot be adequately secured during all phases of the tide cycle, construction activities will be suspended during peak tidal exchanges.

- Attempt to remove the structures using mechanical force rather than jetting water to minimize resuspension of contaminated sediments.

Proposed Monitoring:

- Water column turbidity will be used as an indicator of suspended sediment releases caused by dredging-related construction activities. Water column turbidity will be monitored on an hourly basis for the first four hours of construction (and then once per day thereafter) at each of three stations located within 10 feet of the outside of the silt curtain. The locations will be spaced apart such that they represent one up current and two down-current locations. This process will be used to verify containment of the suspended material within the isolated area. Samples will be collected from mid-depth using a Van Dorn bottle or similar collection device and analyzed using a field turbidimeter. Sample results from just outside the silt curtain will be then compared to an up-current sample station to determine effectiveness of the containment device. Sample turbidity readings that vary by more than 30% (on an absolute basis) will indicate that the containment structure may not be properly deployed and will trigger a temporary halt in field activities while the system is checked for failure.

4. Reporting Schedule

Field monitoring results for each phase of in-water construction operations will be summarized and compiled into a single monitoring report. The monitoring report will be submitted to the City of Newport Beach and SARWQCB at the end of the project. Data will be available for review by City or SARWQCB staff at any time during field operations.

5. References

Petra 2002. Report of Additional Subsurface Environmental Assessment at the South Coast Shipyard and Design Center Located at 2300 Newport Boulevard, Newport

Beach, California. Prepared for South Coast Shipyard by Petra Geotechnical, Inc. October 11, 2002.

SCCWRP 2003. Chemistry and Toxicity in Rhine Channel Sediments. Final Report by Steven Bay and Jeffrey Brown. Southern California Coastal Water Research Project. Technical Report #391. May 16, 2003.

USACE 2002. Los Angeles County Regional Dredged Material Management Plan Pilot Studies, Los Angeles County, California – APPENDIX B2 – Evaluation of Cement Stabilization Alternative. Prepared by Anchor Environmental for the US Army Corps of Engineers Los Angeles District, November 2002.

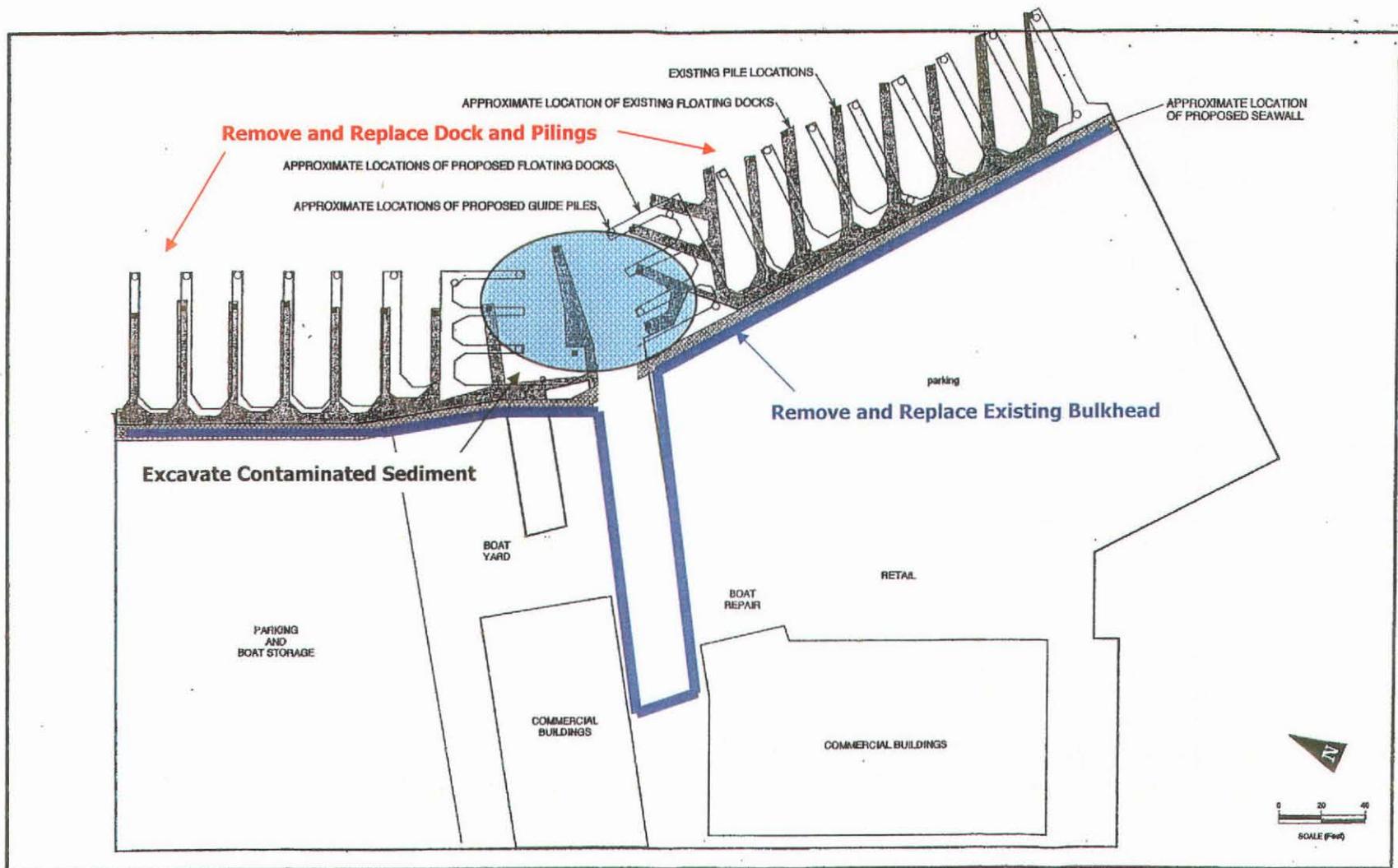


Figure 1 – 2300 Newport Boulevard Redevelopment Project - Planned In-Water Construction Activities

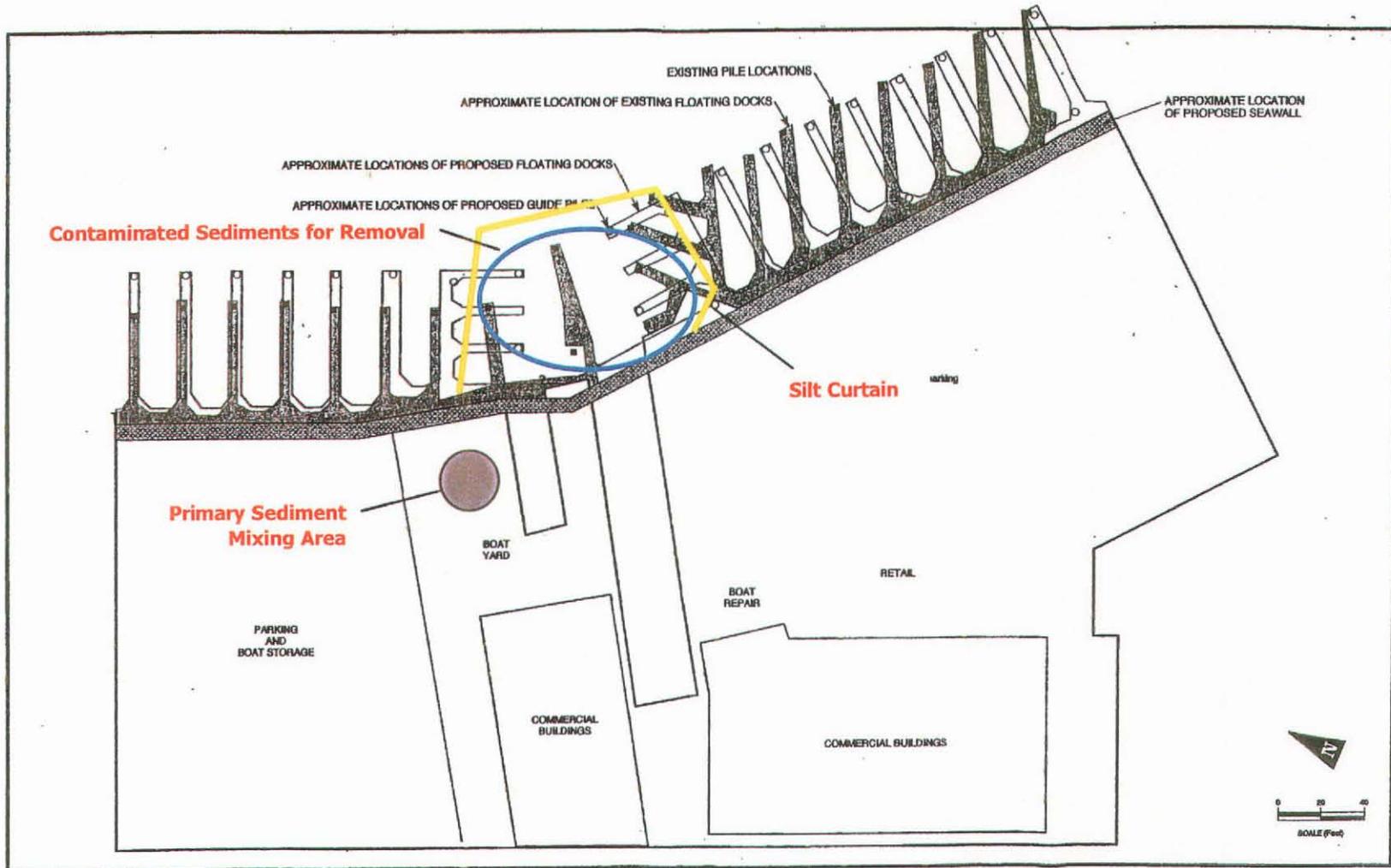
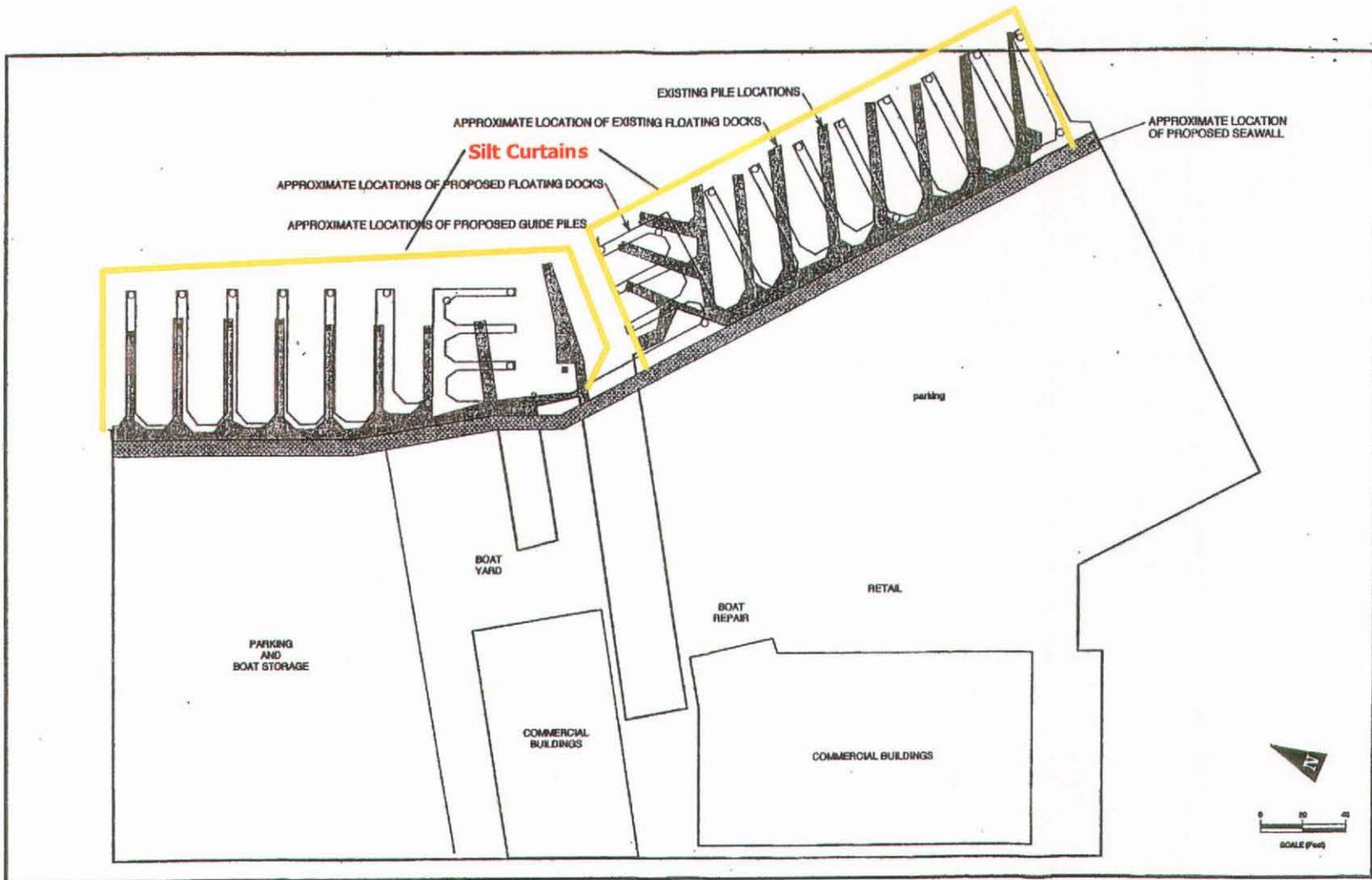


Figure 2 – 2300 Newport Boulevard Redevelopment Project – Contaminated Sediment Removal Task



**Figure 3 – 2300 Newport Boulevard Redevelopment Project –
 Dock, Piling and Bulkhead Replacement Task**

APPENDIX G

NOISE

7

1

Noise Assessment For:
NEWPORT BAY MARINA
MIXED USE PROJECT
(2300 NEWPORT BEACH BOULEVARD)
CITY OF NEWPORT BEACH

Prepared For:
HODGE AND ASSOCIATES
24040 Camino Del Avion, Suite A-247
Monarch Beach, CA 92629

Submitted By:
MESTRE GREVE ASSOCIATES
Fred Greve P.E.
Tanya Moon
27812 El Lazo Road
Laguna Niguel, CA 92677
949-349-0671
Fax 949-349-0679

June 16, 2006
Report#06-7.B

X

Table Of Contents

1.0 EXISTING SETTING	1
1.1 <i>Project Description</i>	1
1.2 <i>Background Information on Noise</i>	1
1.3 <i>Existing Noise Measurements</i>	5
1.4 <i>Existing Roadway Noise Levels</i>	7
2.0 POTENTIAL NOISE IMPACTS	8
2.1 <i>Noise Impact Criteria</i>	8
3.0 Temporary Impacts.....	9
4.0 MITIGATION MEASURES	14
4.1 <i>Temporary Impacts</i>	14
4.2 <i>Long Term Off-Site Impacts</i>	14
4.3 <i>Long Term On-Site Impacts</i>	14
5.0 UNAVOIDABLE NOISE IMPACTS.....	15
APPENDIX	16

1.0 EXISTING SETTING

1.1 Project Description

The proposed project consists of 27 condominium units located over approximately 36,000 squared feet of general commercial and office space. There will also be a subterranean parking structure. The project site is currently occupied by approximately 44,300 square feet of commercial, office and marine uses that will be demolished to accommodate the project. The site is located along Newport Boulevard north of 22nd Street in the Balboa Peninsula area of the City of Newport Beach. Exhibit 1 presents a vicinity map.

This report will analyze the potential noise impacts associated with this project. Traffic volume information used in this report to project traffic noise levels were provided by Austin-Foust and Associates and are presented in their traffic study for the project. Traffic noise impacts are evaluated at the opening year of the project. Traffic noise impacts on the project site are also assessed. Project Noise impacts from project site activity on nearby residential areas are also discussed.

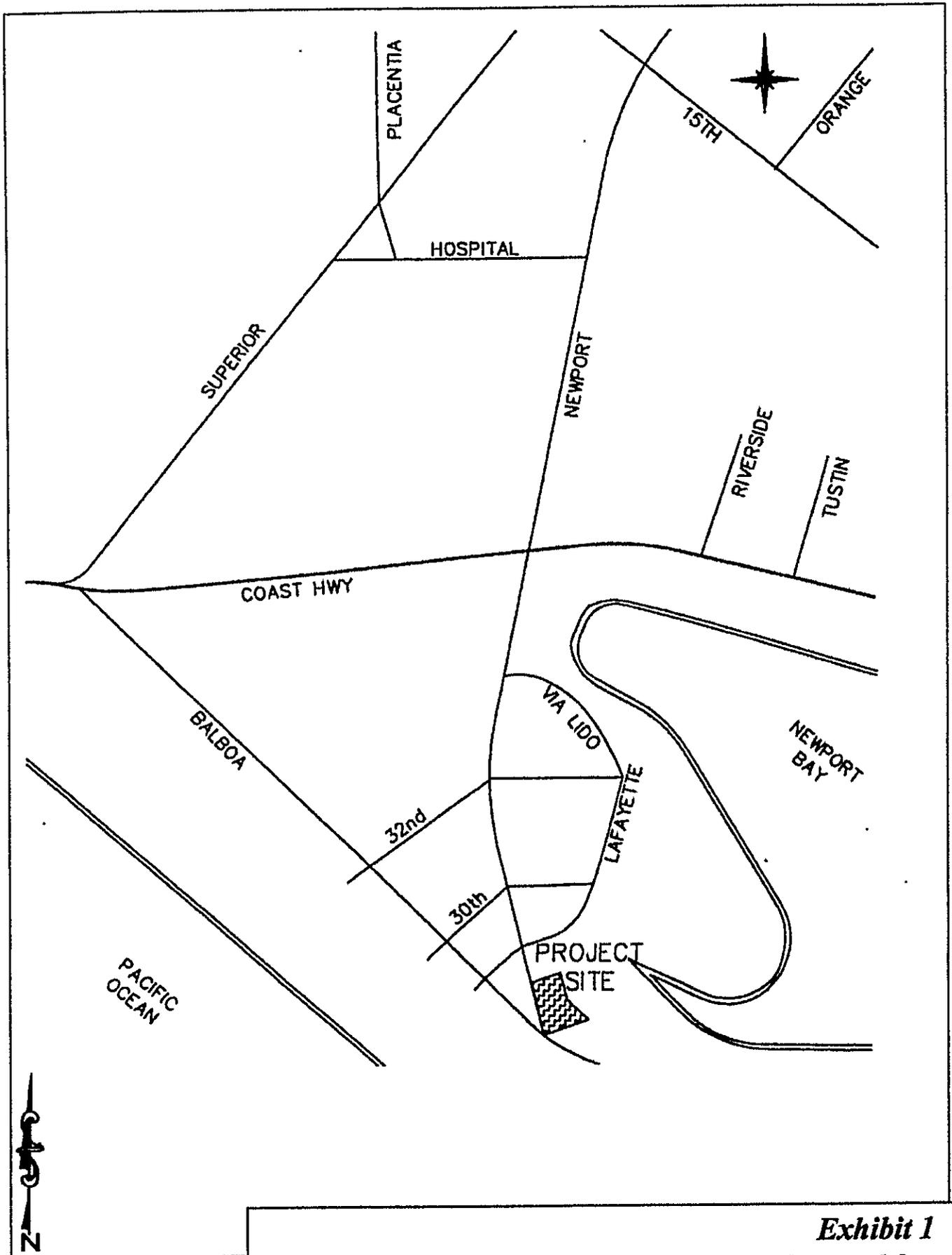
1.2 Background Information on Noise

1.2.1 Noise Criteria Background

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

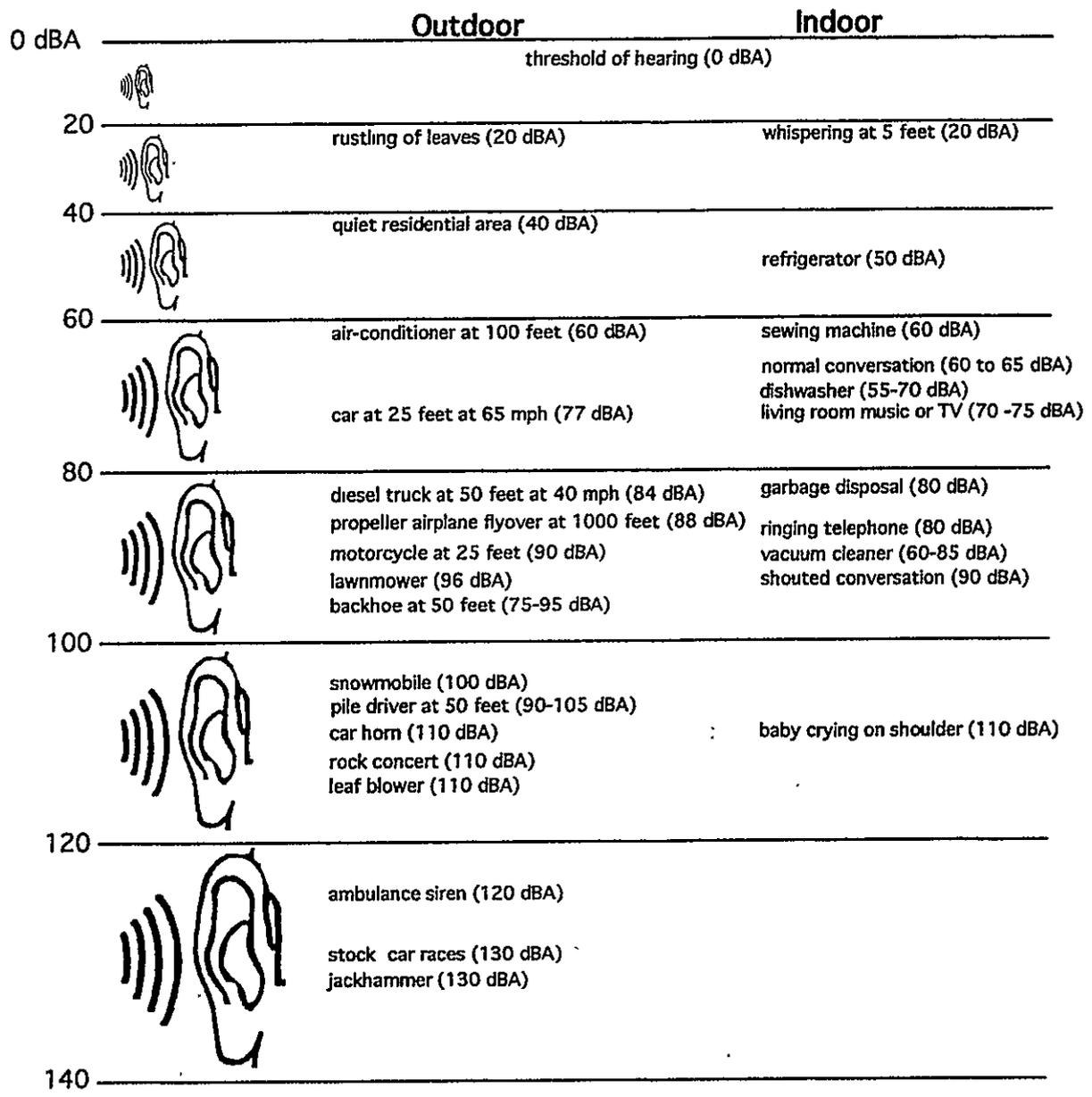
Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. Exhibit 2 provides examples of various noises and their typical A-weighted noise level.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the effective perceived noise levels.



MESTRE GREVE ASSOCIATES

Exhibit 1
Vicinity Map



Sources: League For The Hard Of Hearing, www.lhh.org
 Handbook of Noise Control, McGraw Hill, Edited by Cyril Harris, 1979
 Measurements by Mestre Greve Associates

Exhibit 2
Typical Sounds Levels in A-Weighted Decibels (dBA)

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

HEARING LOSS is not a concern in community noise situations of this type. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environs, is not sufficiently loud to cause hearing loss.

SPEECH INTERFERENCE is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level.

SLEEP INTERFERENCE is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

PHYSIOLOGICAL RESPONSES are those measurable effects of noise on people that are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are sign of harm.

ANNOYANCE is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

1.2.2 Noise Assessment Metrics

The description, analysis and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft fly over or perhaps a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time period, which is typically 1 or 24-hours for community noise problems. For this type of analysis, cumulative noise metrics will be used.

Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on man, (2) the variety of noises found in the environment, (3) the variations in noise levels that occur as a person moves through the environment, and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominate noise scales are the: Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

LEQ is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for 1 hour. This 1 hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL, Community Noise Equivalent Level, is the predominant rating scale now in use in California for land use compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA. These time periods and penalties were selected to reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL." Typical noise levels in terms of the CNEL scale for different types of communities are presented in Exhibit 3.

L_{dn}, the day-night scale is similar to the CNEL scale except that evening noises are not penalized. It is a measure of the overall noise experienced during an entire day. The time-weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. In the L_{dn} scale, those noise levels that occur during the night (10 pm to 7 am) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day, where home and sleep is the most probable activity.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example since 5 minutes is 25% of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty minute measurement period. It is L(%) that is used for most noise ordinance standards. For example, most daytime city, state and county noise ordinances use an ordinance standard of 55 dBA for 30 minutes per hour or an L(50) level of 55 dBA. In other words, the noise ordinance states that no noise level should

CNEL

OUTDOOR LOCATION

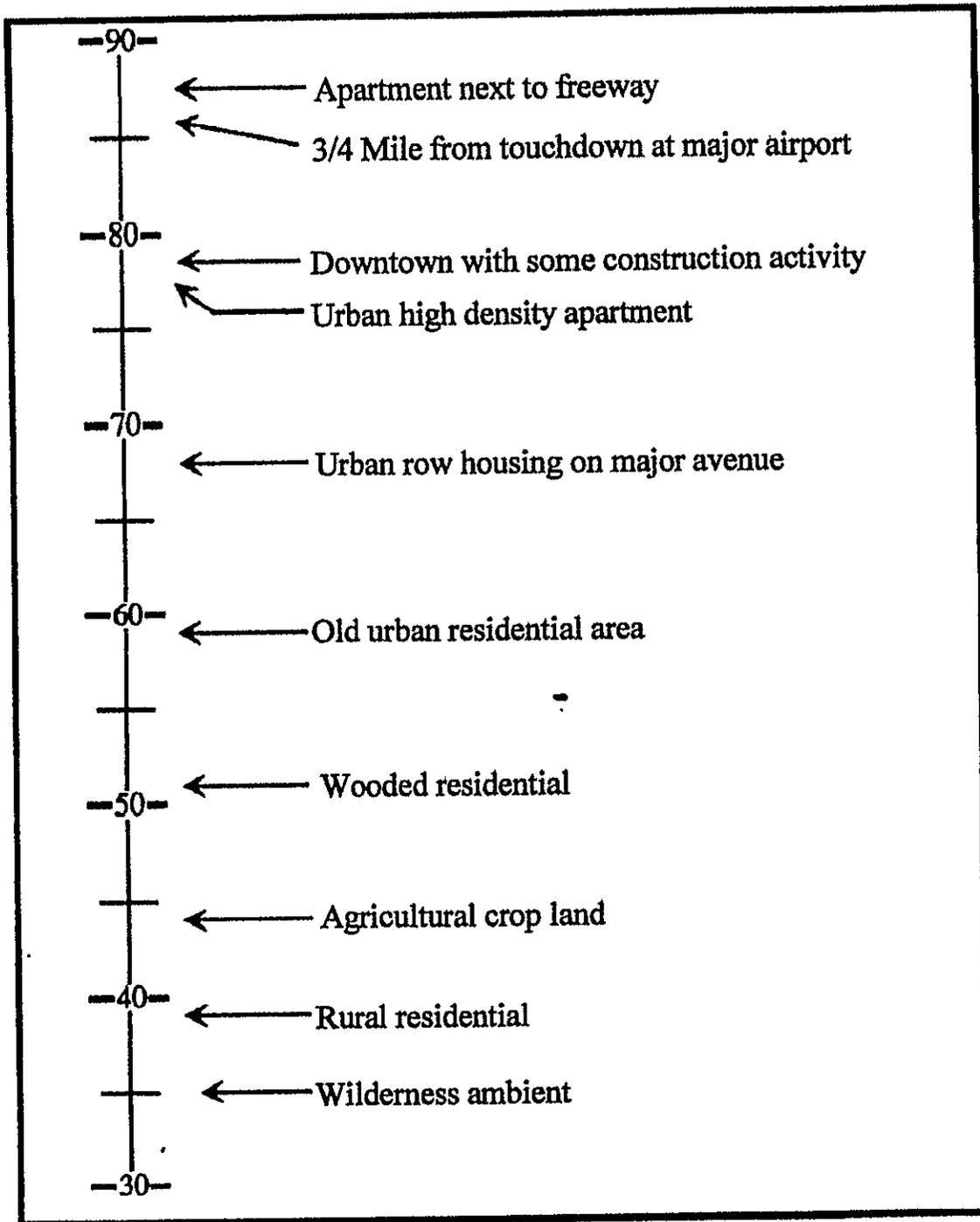


Exhibit 3
Typical CNEL Noise Levels

exceed 55 dBA for more than fifty percent of a given period. The Lmax is the maximum noise level and represents the highest noise level during a specified period.

1.2.3 Noise Criteria

The Noise Ordinance and Noise Element of the General Plan contain the City's policies on noise. The Noise Ordinance applies to noise on one property impacting a neighboring property. Typically, it sets limits on noise levels that can be experienced at the neighboring property. The Noise Ordinance is part of the City's Municipal Code and is enforceable throughout the City. The Noise Element of the General Plan presents limits on noise levels from transportation noise sources, vehicles on public roadways, railroads and aircraft. These limits are imposed on new developments. The new developments must incorporate the measures to ensure that the limits are not exceeded. The City of Newport Beach Noise Ordinance and Noise Element policies are presented below.

Noise Ordinance

The Newport Beach Noise Ordinance (Chapter 10.26 Community Noise Control) establishes exterior and interior noise standards for noise generated on private property affecting a neighbor. Table 1 presents the City of Newport Beach's Noise Ordinance standards. The noise ordinance is designed to control unnecessary, excessive and annoying sounds from sources such as parking lots, loading docks, and mechanical equipment at the residential property line. The noise ordinance requirements can not be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Federal and State laws preempt control of the mobile noise sources on public roads. However, the requirements can be applied to vehicles traveling on public property.

The City of Newport Beach exterior and interior noise criteria are given in terms of 15 minute Leq and Lmax noise levels. These noise levels are not to be exceeded at a property from noise generated at a neighbor property. Noise levels are to be measured with A-weighting and a slow time response. Greater noise levels are permitted during the day (7 a.m. to 10 p.m.) as compared to the nighttime period (10 p.m. to 7 a.m.).

Table 1
City Of Newport Beach Noise Ordinance Standards

Zone	Noise Metric	Noise Level Not To Be Exceeded	
		7 a.m. to 10 p.m. (daytime)	10 p.m. to 7 a.m. (nighttime)
EXTERIOR NOISE STANDARDS			
I Residential	Leq (15 min)	55 dBA	50 dBA
	Lmax	75 dBA	70 dBA
II Commercial	Leq (15 min)	65 dBA	60 dBA
	Lmax	85 dBA	80 dBA
III Mixed Use Residential*	Leq (15 min)	60 dBA	50 dBA
	Lmax	80 dBA	70 dBA
IV Industrial/Manufacturing	Leq (15 min)	70 dBA	70 dBA
	Lmax	90 dBA	90 dBA
INTERIOR NOISE STANDARDS			
I Residential	Leq (15 min)	45 dBA	40 dBA
	Lmax	65 dBA	60 dBA
III Mixed Use Residential*	Leq (15 min)	45 dBA	45 dBA
	Lmax	65 dBA	65 dBA

* Residential within 100' of a commercial property where noise is from said commercial property

Noise Element

The City of Newport Beach specifies outdoor and indoor noise limits for various land uses impacted by transportation noise sources. Exhibit 4 presents the complete Interior and exterior noise standards contained in the City of Newport Beach Noise Element. The noise standards specified in the City's Noise Element are in terms of the Community Noise Equivalent Level (CNEL). Although the proposed project consists of both residential and commercial land uses, the City noise standards shown in Exhibit 4 do not include standards for mixed-use developments. The standards specify that for residential (single-family and multi-family) land uses, the exterior noise exposure level shall not exceed 65 CNEL and the interior noise exposure level shall not exceed 45 CNEL. Commercial buildings shall not exceed an interior noise standard of 50 CNEL.

1.3 Existing Noise Measurements

Noise measurements were made during the morning hours (between 10 a.m. and 12 p.m.) on February 23, 2006. The purpose of the noise measurements was to determine the existing ambient noise levels. The measurements were made with a Bruel & Kjaer Modular Precision Sound Level Meter, Type 2236. The system was calibrated before and after each measurement series. The wind speed during the time of measurements was light (0 to 5 miles per hour).

Measurements were made at two locations on the project site. Measurement Site 1 was located along the northeast property line facing the harbor. Site 2 was located on-site at an opening between two existing buildings facing Newport Boulevard. The noise monitor was

LAND USE CATEGORIES		ENERGY AVERAGE CNEL	
CATEGORIES	USES	INTERIOR ¹	EXTERIOR ²
RESIDENTIAL	Single Family, Two Family, Multiple Family	45 ³ 55 ⁴	65
	Mobile Home	65	65
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Hotel, Motel, Transient Lodging	45	65 ⁶
	Commercial Retail, Bank, Restaurant	55	---
	Office Building, Research and Development, Professional Offices, City Office Building	50	---
	Amphitheater, Concert Hall Auditorium, Meeting Hall	45	---
	Gymnasium (Multipurpose)	50	---
	Sports Club	55	---
	Manufacturing, Warehousing, Wholesale, Utilities	65	---
	Movie Theaters	45	---
INSTITUTIONAL	Hospital, Schools' Classroom	45	65
	Church, Library	45	---
OPEN SPACE	Parks	---	65

INTERPRETATION

1. Indoor environment excluding: Bathrooms, toilets, closets, corridors
2. Outdoor environment limited to: Private yard of single family
Multi-family private patio or balcony which is served by a means of an exit from inside.
Mobile home park
Hospital patio
Park's picnic area
School's playground
Hotel and motel recreation area
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as part of Chapter 12, Section 1205 of UBC.
4. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.
5. Exterior noise level should be such that the interior noise level will not exceed 45 CNEL.
6. Except those areas around the airport within the 65 CNEL contour.

SOURCE: City of Newport Beach Noise Element

Mestre Groves Associates

EXHIBIT 4

CITY OF NEWPORT BEACH NOISE STANDARDS

approximately 20 feet from the edge of the roadway. The noise measurement locations are shown in Exhibit 6.

Two 10-minute period measurement periods were made at each site. The measurement results are given in Table 2. They are presented in terms of the equivalent noise level (Leq), maximum noise level (Lmax), minimum noise level (Lmin), and noise levels exceeded for a percentage of time (L%). The Leq is the average noise level on an energy basis in any period. The Lmax and Lmin levels are the maximum and minimum noise levels during the measurement periods. The L percentile noise levels are the noise levels that are exceeded for a specific percentage of the measurement period. The L50 is the noise level exceeded for half of the measurement period. It is the median noise level. The L90 is the noise level exceeded 90 percent of the period and describe the background noise level.

**Table 2
Ambient Noise Measurements (dBA)**

Location	Leq	Lmax	Lmin	L1.7	L8.3	L25	L50	L90	L99
1 Facing the harbor-- on-site	53.0	65.0	46.0	59.5	57.0	52.0	50.5	48.0	46.5
	51.5	59.7	46.6	57.0	54.5	51.5	50.0	48.5	47.0
2 Along Newport Blvd. -- on-site*	66.3	78.0	49.0	71.5	69.5	67.0	64.5	56.0	49.5
	65.2	76.2	48.6	71.0	69.0	66.0	63.5	56.0	50.0

* Existing noise measurements may include shielding effects from the existing commercial buildings.

The noise measurement data at Site 1 mainly reflect noise from the harbor such as boat maintenance activities and shipyard operations across the harbor. Other noise sources influenced the measurement data were small boat pass-bys, distant helicopters, on-site parking lot activities. Occasionally overhead airplane also contributed to the noise environment. Distant traffic noise from Newport Boulevard was not discernible and represents the background noise. The data show that the site experienced ambient (L50) noise levels in the low 50s dBA and background (L90) levels in the high 40s dBA. A maximum noise level of 65 dBA was from a distant helicopter.

Measurement Site 2 was located on-site at an opening between two existing buildings adjacent to Newport Boulevard. The noise monitor was approximately 20 feet from the edge of the roadway. The primary noise source was traffic on Newport Boulevard. Other noise sources influenced the measurement data were car pass-bys on the adjacent parking lot, as well as other urban noise sources such as people, cars parked on the street, and distant traffic. The data show that the site experienced ambient (L50) noise levels in the mid 60s dBA and a background (L90) level of approximately 50 dBA. A maximum noise level of 78 dBA was from a heavy truck on the nearest lane.

1.4 Existing Roadway Noise Levels

An estimate of highway noise levels in terms of CNEL was computed for the roadways affected by project traffic. The Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December, 1978) was utilized. The CALVENO noise emission curves developed by Caltrans were used with the FHWA model. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 3. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The values given in Table 3 represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.

Table 3
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL	Distance To CNEL Contour from			
	Level @ 100' †	Centerline of Roadway (feet)	70 CNEL	65 CNEL	60 CNEL
NEWPORT BOULEVARD					
North of Pacific Coast Highway	68.8	83	179	385	
South of Pacific Coast Highway	68.6	81	175	376	
BALBOA BOULEVARD					
South of Pacific Coast Highway	65.6	51	110	237	

† From Centerline of Roadway

Table 3 shows that noise levels in the areas immediate adjacent to Newport Boulevard and Balboa Boulevard are substantial. The noise levels along these roadways are in excess of 70 CNEL. Residential uses along these roadways with existing noise barriers (concrete block walls) likely do not experience noise levels in excess of 65 CNEL City standard.

2.0 POTENTIAL NOISE IMPACTS

Potential noise impacts are commonly divided into two groups; temporary and long term. Temporary impacts are usually associated with noise generated by construction activities. Long term impacts are further divided into impacts on surrounding land uses generated by the proposed project and those impacts which occur at the proposed project site.

2.1 Noise Impact Criteria

Off-site impacts from on-site activities, temporary and long-term, are measured against the City of Newport Noise Ordinance presented previously. Any activity on private property must comply with the noise ordinance. Any activity that could not comply with the noise ordinance would result in a significant noise impact.

Long-term off-site impacts from traffic noise are measured against two criteria. Both criteria must be met for a significant impact to be identified. First, project traffic must cause a noise level increase greater than 3dB on a roadway segment adjacent to a noise sensitive land use. Second, the resulting future with project noise level must exceed the criteria level for the noise sensitive land use. In this case, the criteria level is 65 CNEL for residential land uses.

In community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note that there is no scientific evidence is available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

Long-term on site impacts are measured against the noise level limits given in the City of Newport Beach Noise Element standards shown in Exhibit 4. Although the proposed project includes both residential and commercial land uses, the City's noise standards do not include standards for mixed-use projects. The standards applicable to the project are the 45 CNEL interior and 65 CNEL exterior noise standards for residential uses, and a 50 CNEL interior standard for commercial uses.

3.0 Temporary Impacts

3.1.1 Construction Noise

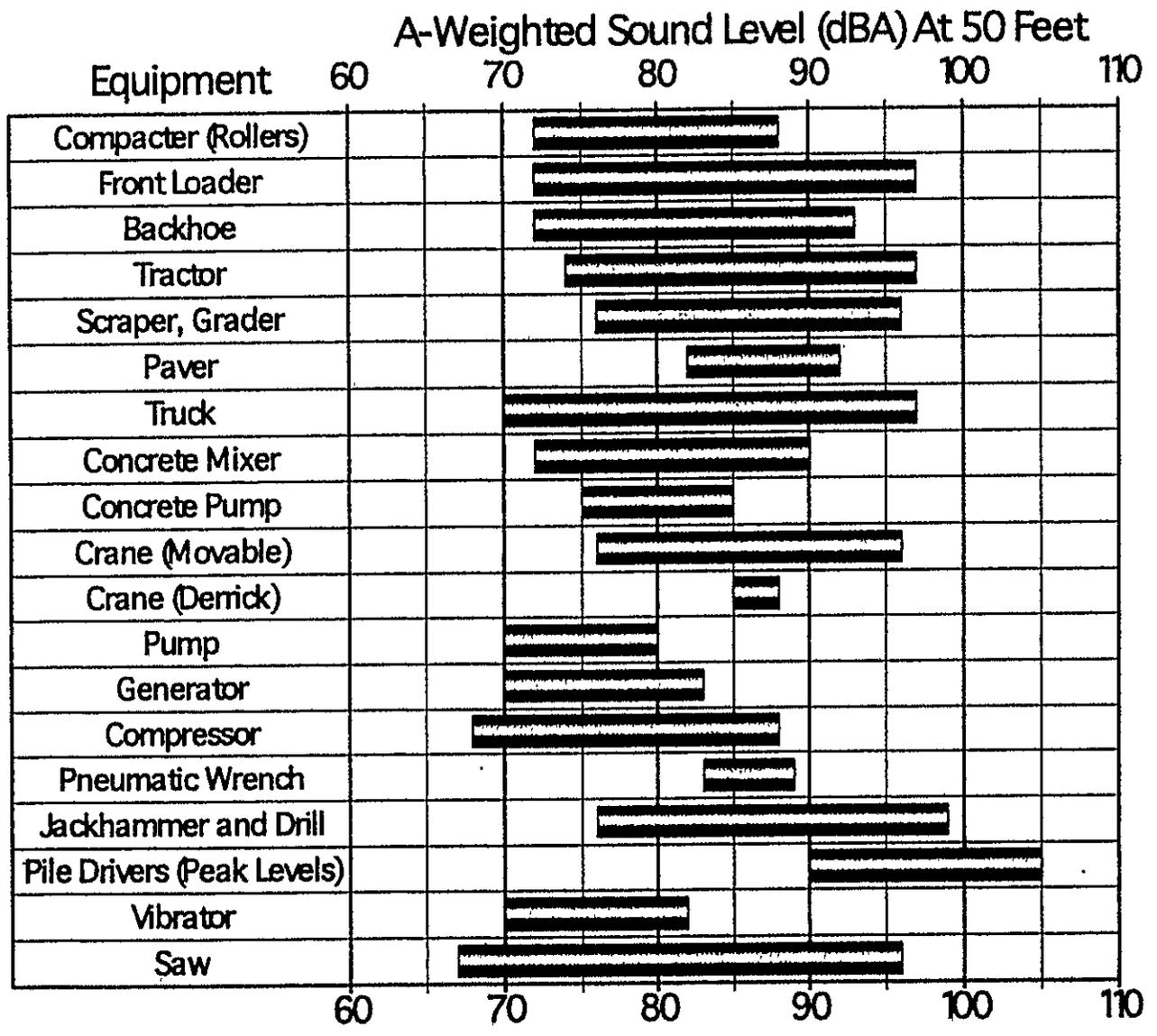
Construction noise represents a short term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Construction of the project includes demolition of all existing buildings, grading and excavation associated with the construction of the parking garage and site remediation.

Construction noise, generally, represents a short-term impact on ambient noise levels. Noise generated by construction equipment and construction activities can reach high levels. Construction equipment noise comes under the control of the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). Examples of construction noise at 50 feet are presented in Exhibit 5. Note that at twice the distance (i.e. 100 feet) the noise levels will be 6 dB lower than those shown in Exhibit 5. At 4 times the distance (i.e. 200 feet), the noise levels will be 12 dB lower. At 500 feet, the noise levels are 20 dB lower than shown on Exhibit 5. Note that noise measurements made by Mestre Greve Associates for other projects show that the noise levels generated by commonly used grading equipment (i.e. loaders, graders and trucks) generate noise levels that typically do not exceed the middle of the range shown in Exhibit 5.

The nearest residential area are located south of the project site on 21st Street. Construction activities may occur approximately 210 feet of the nearest homes. At this distance, construction noise levels are about 12 dB lower than those shown in Exhibit 5. Peak noise levels from construction equipment could be in the range of 58 and 84 dBA at the nearest residential area. The peak noise levels generated by on-site construction activities could be in excess of the Noise Ordinance Standards.

Section 10.26.035.D of the Newport Beach Municipal Code exempts construction equipment from the provisions of the Noise Ordinance and requires them to comply with Section 10.28 of the Code. Section 10.28.040 of the Code restricts hours of construction to between the hours of 7:00 a.m. and 6:30 p.m. Monday through Friday and 8:00 a.m. and 6:00 p.m. on Saturday. Noise-generating construction activities are not allowed on Sundays or Holidays. The project does not propose any construction activities outside of these hours, and therefore, will not result in a significant noise impact.

Demolition debris and dirt excavated for the subterranean parking garage will be trucked off site to remote locations. These trucks will generate noise along public roadways. The trucks are expected to travel on Newport Boulevard, entering and exiting the site from the project's main entrance. For the proposed project, it is assumed that material removed from the site at a rate of 100 trucks per day. This would add 200 daily truck trips to Newport Boulevard. This would increase existing noise level on Newport Boulevard due to the addition of the trucks by 0.3 dBA. This noise increase is not significant.



Source: "Handbook of Noise Control," by Cyril Harris, 1979

Exhibit 5
Construction Equipment Noise Levels

3.1.2 Long Term Off-Site Impacts

This section examines noise impacts from the proposed project on the surrounding land uses. Specifically traffic noise increases due to the project are examined as well as potential noise impacts from activities on the project site.

3.1.3 Traffic Noise

Table 4 shows the incremental noise level increases due to traffic on roadways in the vicinity of the project. The first column presents the roadway segments analyzed. The second column shows the increases in traffic noise CNEL levels over existing conditions due to all projected growth in the area. This includes general traffic volume growth as well as additional traffic from currently approved projects. The final column shows the projects contribution to this increase. That is, how much louder future noise levels will be with approval of the proposed project.

Table 4
Traffic Noise CNEL Level Increases

Roadway Segment	Noise Level Increase	
	Over Existing	Project Contribution
NEWPORT BOULEVARD		
North of Pacific Coast Highway	0.4	0.0
South of Pacific Coast Highway	0.3	0.1
BALBOA BOULEVARD		
South of Pacific Coast Highway	0.2	0.0

Table 4 shows that the greatest noise increases due to all traffic growth are along Newport Boulevard with increases up to 0.4 dB. This increase is not substantial. As a result, there are no significant cumulative traffic noise impacts.

The traffic associated with the project is projected increase traffic noise levels by, at most, 0.1 dB. This is much less than the 3 dB threshold and will not be perceptible to residents. The project will not result in a significant noise impact.

The distances to the future 60, 65 and 70 CNEL contours with the proposed project for the roadways in the vicinity of the proposed project site are given in Table 5. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels. The traffic data used to calculate these noise levels is presented in the appendix. The distances to the future 60, 65 and 70 CNEL contours with the project for the roadways in the vicinity of the proposed project site are presented in the appendix.

**Table 5
Future (2007) With Proposed Project Traffic Noise Levels**

Roadway Segment	CNEL @ 100' †	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
NEWPORT BOULEVARD				
North of Pacific Coast Highway	69.2	89	191	411
South of Pacific Coast Highway	68.9	84	182	392
BALBOA BOULEVARD				
South of Pacific Coast Highway	65.8	53	113	244

† From Roadway Centerline

The data indicate that nearest areas along Newport Boulevard and Balboa Boulevard will experience unmitigated traffic noise levels of greater than 70 CNEL. It should be noted that the existing Leq is not a measure of CNEL but it does imply a CNEL range. CNEL on the project site can range between 0 to 3 dBA higher than the existing Leq at the same location, and is even higher in areas with no shielding from the existing buildings. Therefore, the 70 CNEL noise level projected on the project site is not unreasonable.

3.1.4 Long Term On-Site Impacts

Future traffic noise levels impacting the project site are presented in Table 5. For the project site the data is also presented graphically in Exhibit 6. Exhibit 6 shows the 65 and 70 CNEL noise contours on the project site.

The project proposes both residential and commercial land uses. The noise standards (Exhibit 4) from the Noise Element that is applicable to the project are a 45 CNEL interior standard and a 65 CNEL exterior standard for residential uses, and a 50 CNEL interior noise standard for commercial uses. Table 5 shows that the traffic noise generated by Newport Boulevard will be greater than 70 CNEL on the project site. Again, CNEL on the project site can range between 0 to 3 dBA higher than the existing Leq, and is even greater in areas with no shielding effects from the existing buildings.

Mitigation measures are needed to reduce noise levels in outdoor and indoor residential areas exposed to noise levels greater than the 65 CNEL. Specifically, units adjacent to Newport Boulevard may experience noise levels over the 70 CNEL without some form of mitigation.

The FHWA Model described previously and future traffic volumes were used to assess the feasibility of sound barriers in reducing the noise levels along roadways of concern. A 5 foot observer height as recommended in the FHWA Model was utilized. It was assumed that a noise barrier would be constructed at the residential property line and that the observer was located 5 feet from the barrier. A few second and third story balcony units are planned along Newport Boulevard. These balcony units (those with useable outdoor areas) will be located inside the 65 CNEL impact zone and will require noise mitigation in terms of noise barriers. Detailed

engineering plans will need to address the heights and locations of noise reducing design methods (i.e. barriers such as plexiglass, masonry materials etc.).

Residential units adjacent to Newport Boulevard will be experience noise levels in excess of 70 CNEL requiring at least a 25 dB of outdoor-to indoor noise reduction. Typical construction achieves at least 20 dB of outdoor-to-indoor noise reduction. To show that greater levels of reduction are achieved detailed acoustical calculations must be performed. These calculations need to be based on architectural drawing details such as critical roof and wall elements, living room dimensions, window and door dimensions, attic configuration and building insulation. Detailed engineering plans will need to address compliance with the 45 CNEL indoor noise standard for the residential buildings. Without building upgrades, it is possible that interior noise levels will exceed the City's 45 CNEL standard. Mitigation is required and discussed in Section 4.3.

The proposed commercial buildings adjacent to Newport Boulevard will experience traffic noise levels in excess of 70 CNEL, and will require at least a 20 dB of outdoor-to indoor noise reduction. Detailed engineering calculations are necessary for building attenuation requirements greater than 20 dB. These calculations need to be based on architectural drawing details such as critical roof and wall elements, room dimensions, window and door dimensions, attic configuration and insulation. Detailed engineering plans will need to address compliance with the 50 CNEL indoor noise standard for the commercial buildings. Mitigation is discussed in Section 3.3.

3.1.5 On-Site Parking Lot Activities

Onsite activities that could potentially result in noise impacts are surface parking lot activity. Additional parking on-site will be provided via the underground parking structure. There is also on-street parking on Newport Boulevard and 21st Street. The nearest residential uses are located to the south of the project site on 21st Street.

Traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL or Leq scale. However, the instantaneous maximum sound levels generated by car door slamming, engine start-up, and car pass-bys can be annoying to nearby residents. Tire squeal may also be a problem depending on the type of parking surface. Estimates of the maximum noise levels associated with some parking lot activities are presented below and are based on limited measurements conducted by Mestre Greve Associates (Table 6). The noise levels presented are for a distance of 50 feet from the source, and are the maximum noise level generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles.

Table 6
Maximum Noise Levels Generated by Parking Lots
(dBA at 50 feet)

Event	Lmax
Door Slam	60 to 70
Car Alarm Activation	65 to 70
Engine Start-up	60 to 70
Car pass-by	55 to 70

The nearest existing residential area is located approximately 210 feet to the south. Table 6 shows that the maximum noise levels anticipated at the nearest homes from the parking lot activity are approximately 58 dBA. Therefore, parking lot noise levels are well below the City's nighttime Noise Ordinance limit of 70 dBA. Further, the proposed parking lot is at the same location as the existing parking lot. While the project may result in more vehicles using the parking lot, it will not substantially increase the noise levels generated within the parking lot. Therefore, parking lot activity will not result in a significant noise impact.

4.0 MITIGATION MEASURES

4.1 Temporary Impacts

Demolition and construction of the project will generate noise levels in excess of the City's Noise Ordinance limits. However, the City of Newport Beach has adopted a Noise Ordinance that excludes control of construction activities during the hours between 7:00 a.m. and 6:30 p.m. on weekdays, 8:00 a.m. and 6:00 p.m. on Saturdays. Construction activities are not excluded on Sundays and Holidays. The project does not propose construction outside of the hours permitted in the Noise Ordinance. Therefore, construction project will not result in significant noise impact and no mitigation is required.

4.2 Long Term Off-Site Impacts

4.2.1 Traffic Noise

The project is not projected to result in any significant long-term off-site traffic noise impacts. No mitigation is required.

4.3 Long Term On-Site Impacts

The proposed residences are required to meet an outdoor noise standard of 65 CNEL and an indoor noise standard of 45 CNEL. Residences along Newport Boulevard may be exposed to noise levels in excess of 70 CNEL. A few second and third floor useable balcony units are planned along Newport Boulevard.

Noise barrier heights were calculated for the second and third floor useable balcony units along Newport Boulevard. The results indicate that balcony barriers of 5 feet high will be required for all second and third floor useable balcony units exposed to Newport Boulevard (refer to the architectural plans for the locations of these balcony units). In general, noise barrier heights may be reduced considerably through site design, such as setbacks from the roadway, grade separations, and exterior living area orientation. Noise barriers must be continuous, with no openings or gaps, and have a minimum density of 3.5 pounds per square foot. The noise barriers may be constructed of 1/4-inch plate glass, 5/8-inch plexiglass, any masonry material, or any combination of these materials. Wood and other materials may also be used only if specifically designed as a noise barrier.

The residential buildings facing Newport Boulevard will experience traffic noise levels of 70 CNEL or greater, and will require outdoor-to-indoor noise reduction of at least a 25 dB. In some cases, standard construction will achieve this level of reduction; however, these residences will likely require upgraded windows to achieve the required outdoor to indoor noise reduction.

With typical residential construction, a minimum of 20 dB of outdoor-to-indoor noise reduction is achieved with windows closed. With windows open outdoor-to-indoor, noise reduction falls to 12 dBA. Therefore, units requiring more than 12 dB of noise reduction require adequate ventilation per the Uniform Building Code to allow windows to remain closed. Typically, this is provided through mechanical ventilation. Mechanical ventilation may be required for all homes in the project.

The commercial buildings must comply with an interior standard of 50 CNEL. The commercial buildings along Newport Boulevard could be experiencing noise levels in excess of 70 CNEL, and noise insulation for the buildings may be necessary.

Prior to the issuance of any building permits, detailed engineering construction plans will be submitted to the City for review and approval. The engineering plans shall provide details such as roof and wall elements, room dimensions, window and door dimensions, attic configuration and building insulation. An acoustical report will be provided with the plans and shall demonstrate and ensure that the City's noise standards are met for proposed mixed-use project (residential and commercial).

5.0 UNAVOIDABLE NOISE IMPACTS

There are no unavoidable noise impacts associated with the project.

APPENDIX

Traffic Volumes
Traffic Mixes

Table A-1

Roadway	Link	Speed	***** Average Daily Traffic *****			
			Existing	Project	2007 No Project	2007 With Project
NEWPORT BOULEVARD						
	North of Pacific Coast Highway	45	43,400	340	47,500	47,840
	South of Pacific Coast Highway	45	41,900	505	44,100	44,605
BALBOA BOULEVARD						
	South of Pacific Coast Highway	45	21,000	60	21,800	21,860
PACIFIC COAST HIGHWAY						
	West of Balboa Boulevard	55	36,000	115	41,600	41,715
	West of SR-55	55	44,000	55	49,900	49,955
	East of SR-55	55	51,000	110	58,800	58,910

Table A-2
Day/Evening/Night Traffic Distributions

1. Arterial Roadways

	Day	Eve	Night
Auto	75.51%	12.57%	9.34%
MT	1.56%	0.09%	0.19%
HT	0.64%	0.02%	0.08%

APPENDIX H

TRAFFIC

2300 NEWPORT BOULEVARD
TPO

Traffic Analysis

November 2005



**2300 NEWPORT BOULEVARD TPO
TRAFFIC ANALYSIS**

Prepared by:

Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, California 92705-7827
(714) 667-0496

December 8, 2005

2300 NEWPORT BOULEVARD TPO TRAFFIC ANALYSIS

This report summarizes an analysis performed for 2300 Newport Boulevard residential/commercial center in Newport Beach based on the City's Traffic Phasing Ordinance (TPO) methodology. In addition, this report summarizes the results of an analysis of cumulative conditions in compliance with California Environmental Quality Act (CEQA) requirements.

PROJECT DESCRIPTION

2300 Newport Boulevard consists of 27 condominium units located over approximately 36,000 square feet of general commercial and office space. The project is located along Newport Boulevard north of 22nd Street in the Balboa Peninsula area of the City of Newport Beach. Figure 1 illustrates the location of the project. Access to the proposed project will be provided by two right-turn only driveways on Newport Boulevard as well as one driveway at The Arcade/22nd Street. Figure 2 illustrates the proposed site plan.

TRIP GENERATION AND DISTRIBUTION

The proposed project, located on the northeast corner of Newport Boulevard and 22nd Street, consists of 27 condominium units and approximately 36,000 square feet of general commercial and office space. The project site is currently developed with a mixture of office, retail and industrial uses. Trip rates for the existing uses were determined by City Staff including the rates for marine services businesses. A combined retail/industrial rate was applied to these marine services uses to reflect the hybrid nature of the operations. Traffic generated by the existing uses was subtracted from the trips generated by the proposed project to obtain the net new trips being added to the surrounding circulation system. Trip generation for the existing uses and the proposed project is summarized in Table 1. As this table indicates, the proposed project generates a total of 1,259 trips daily, of which 682 trips are new trips. During the AM peak hour there is a reduction in trips generated compared with the trip generation of the existing uses. During the PM peak hour the proposed project generates 28 new trips compared with the trip generation of the existing uses.

Trip distribution of project-generated traffic onto the surrounding circulation system was determined from observed travel patterns in the vicinity of the project site as well as from locations and levels of development in relation to the subject property. The residential units will have a different

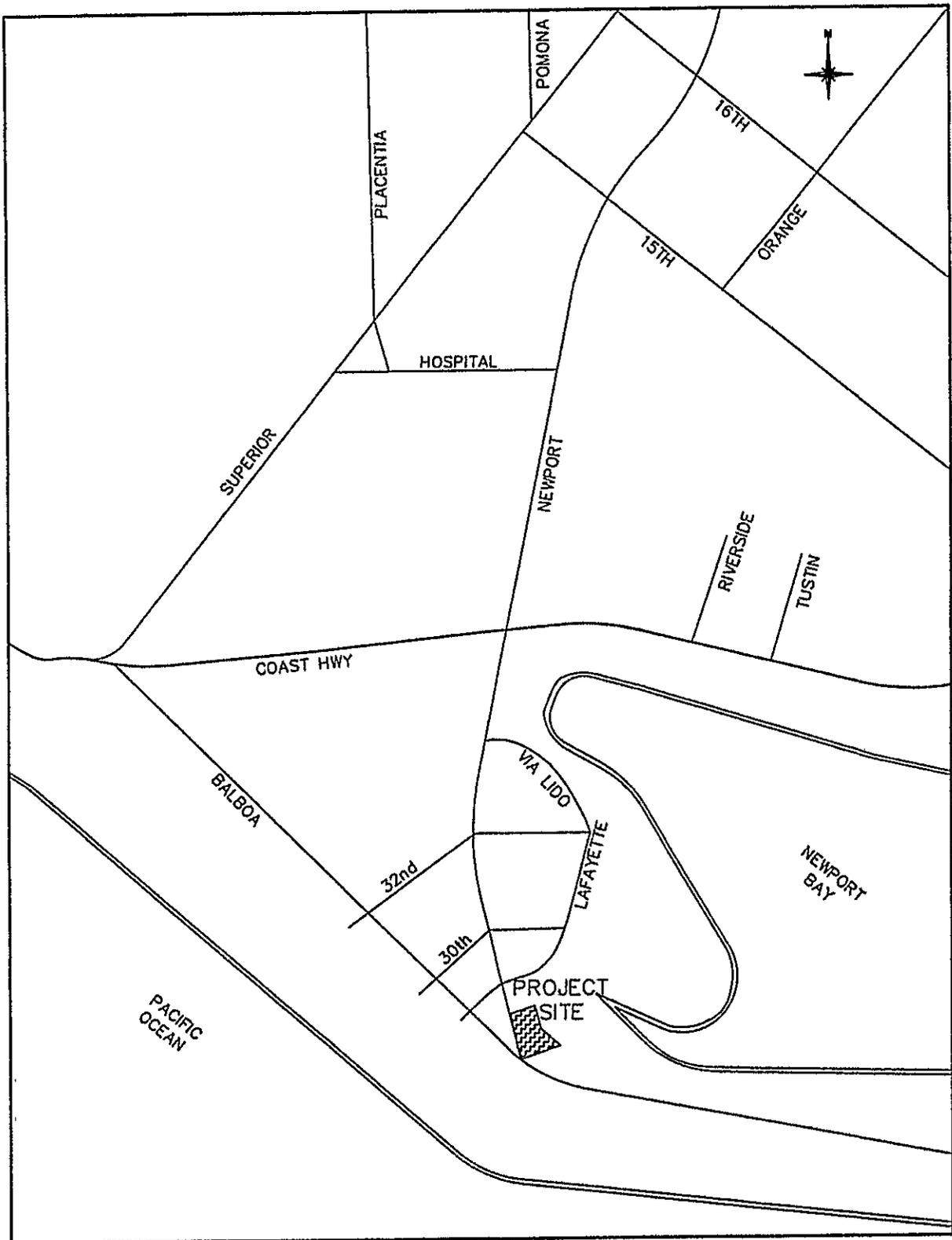


Figure 1
PROJECT LOCATION

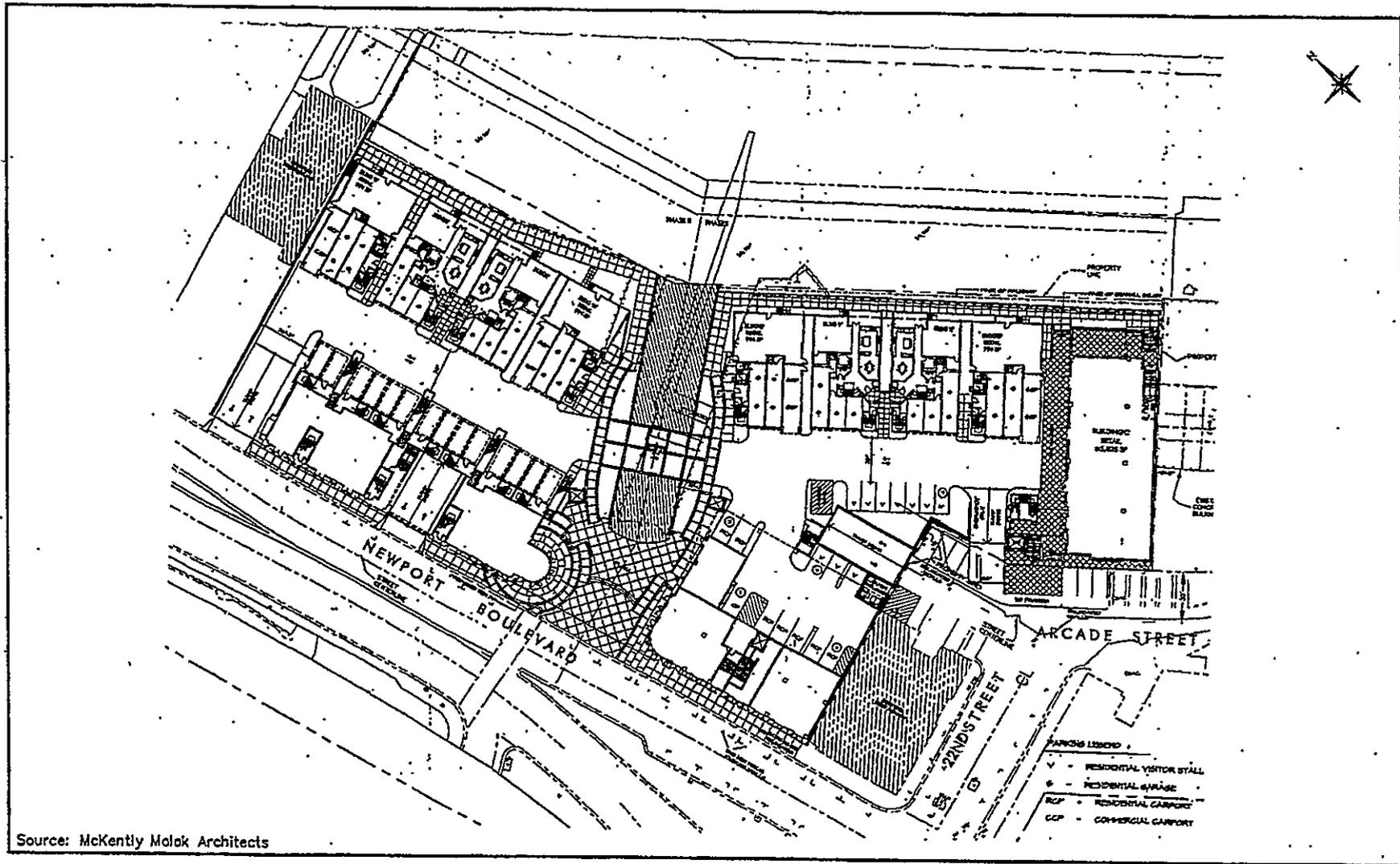
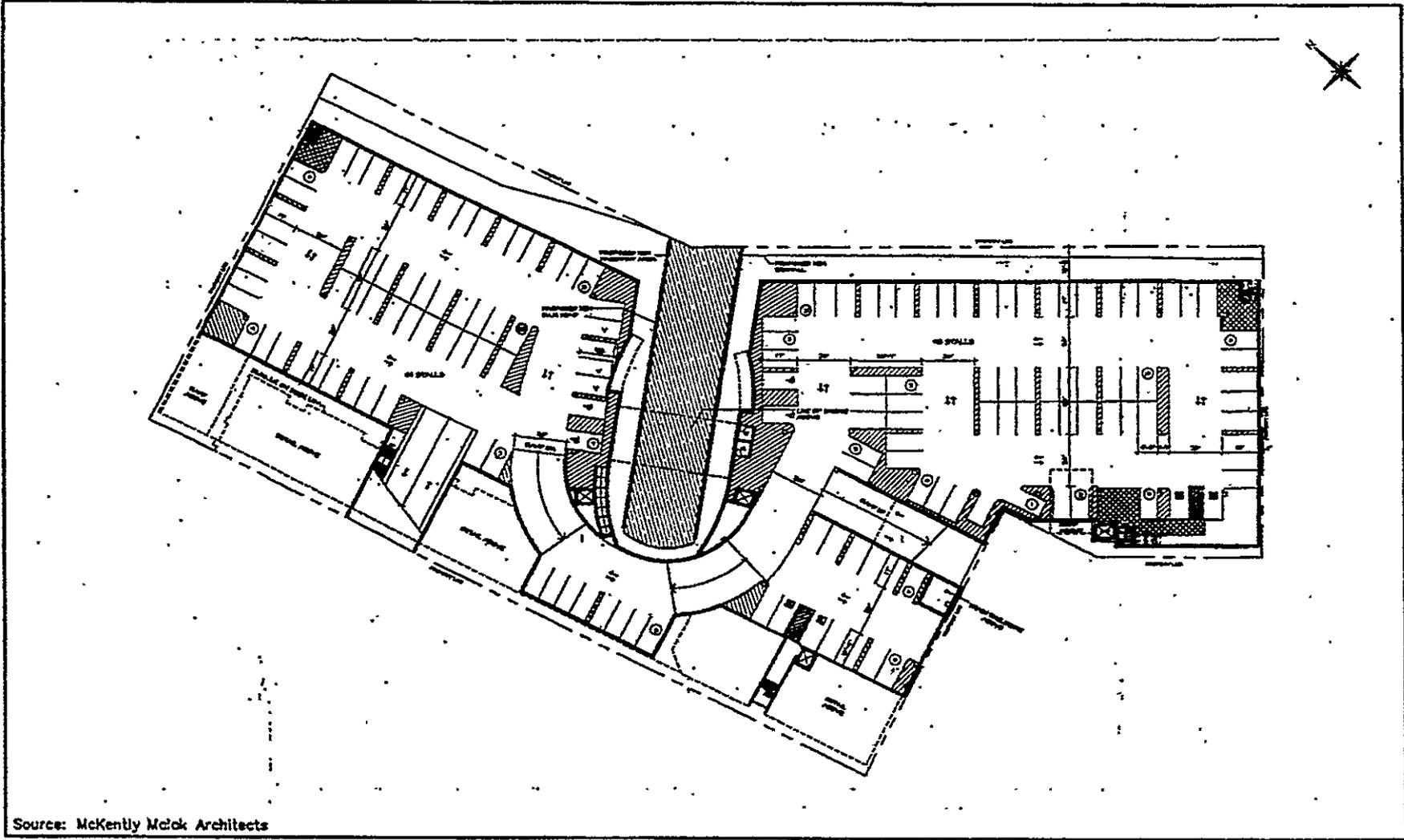


Figure 2 (a)
PROPOSED SITE PLAN
 - DECK LEVEL



Source: McKently Clark Architects

Figure 2 (b)
PROPOSED SITE PLAN
- UNDERGROUND PARKING LEVEL

Table 1
TRIP GENERATION SUMMARY

LAND USE	UNITS	AM PEAK HOUR			PM PEAK HOUR			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
TRIP RATES (ITE)								
Low-Rise Condominium*	DU	.17	.50	.67	.45	.33	.78	8.15
Specialty Retail Center**	TSF	.45	.29	.74	1.19	1.52	2.71	44.32
General Office	TSF	1.36	.19	1.55	.25	1.24	1.49	11.01
General Light Industrial	TSF	.81	.11	.92	.12	.86	.98	6.97
TRIP GENERATION								
Existing Credits								
Office	14.35 TSF	20	3	23	4	18	22	158
Industrial	38.40 TSF	31	4	35	5	33	38	268
Retail	.75 TSF	0	0	0	1	1	2	33
Retail/Industrial	4.60 TSF	3	1	4	3	5	8	118
TOTAL CREDITS		54	8	62	13	57	70	577
Proposed Project								
Residential-Medium	27 DU	5	14	19	12	9	21	220
Retail	19.3 TSF	9	6	15	23	29	52	855
Office	16.7 TSF	23	3	26	4	21	25	184
TOTAL		37	23	60	39	59	98	1,259
NET NEW TRIPS		-17	15	-2	26	2	28	682

* ADT rate averaged between ITE Single Family Detached ADT rate (9.57 trips/DU) and Apartment ADT rate (6.72 trips/DU).

** AM peak hour rates estimated based on the ratio of ITE Shopping Center AM/PM peak hour rates.

Source: "Trip Generation, 7th Edition", Institute of Transportation Engineers, 2003

distribution pattern than the general commercial and office uses. The commercial shops and offices are small and will have a large proportion of local trips which do not impact any of the study intersections; whereas, virtually all traffic from the residential units is assumed to leave the area. The general distribution is illustrated in Figure 3. Approximately 50 percent of residential project traffic is oriented toward the north, 25 percent is oriented toward the west, and 25 percent is oriented toward the east. Approximately 50 percent of the commercial and office uses traffic is oriented toward the north, 13 percent is oriented toward the west, 12 percent is oriented toward the east, and 25 percent is assumed to remain in the Balboa Peninsula area. Project-generated trips were distributed to the circulation system according to these distribution patterns. Figure 4 illustrates AM and PM peak hour project trips.

TPO TRAFFIC IMPACTS

The City of Newport Beach identified six intersections for analysis to determine the impact of the proposed residential/commercial development. These intersections are:

Newport Boulevard and Hospital Road
Balboa Boulevard/Superior Avenue and Coast Highway
Riverside Avenue and Coast Highway
Tustin Avenue and Coast Highway
Newport Boulevard and Via Lido
Newport Boulevard and Coast Highway

Existing (2004 and 2003) peak hour intersection volumes were provided by City Staff. An ambient growth rate of 1.0 percent per year was added to the existing volumes on Newport Boulevard and Coast Highway. Construction of the project is assumed to be complete in 2006; therefore, the study year is 2007. Traffic generated by approved projects in the study area, obtained from City Staff, were added to the existing peak hour volumes to obtain year 2007 background peak hour volumes for the intersections prior to the addition of project-generated traffic. Table 2 summarizes the approved projects included in this analysis. Background-plus-project peak hour volumes were obtained by adding the project-generated peak hour intersection volumes presented above to the existing-plus-regional growth-plus-approved projects peak hour volumes.

The TPO analysis consists of a one percent analysis and an ICU analysis at each study intersection. The one percent analysis compares the proposed project traffic with projected background peak hour

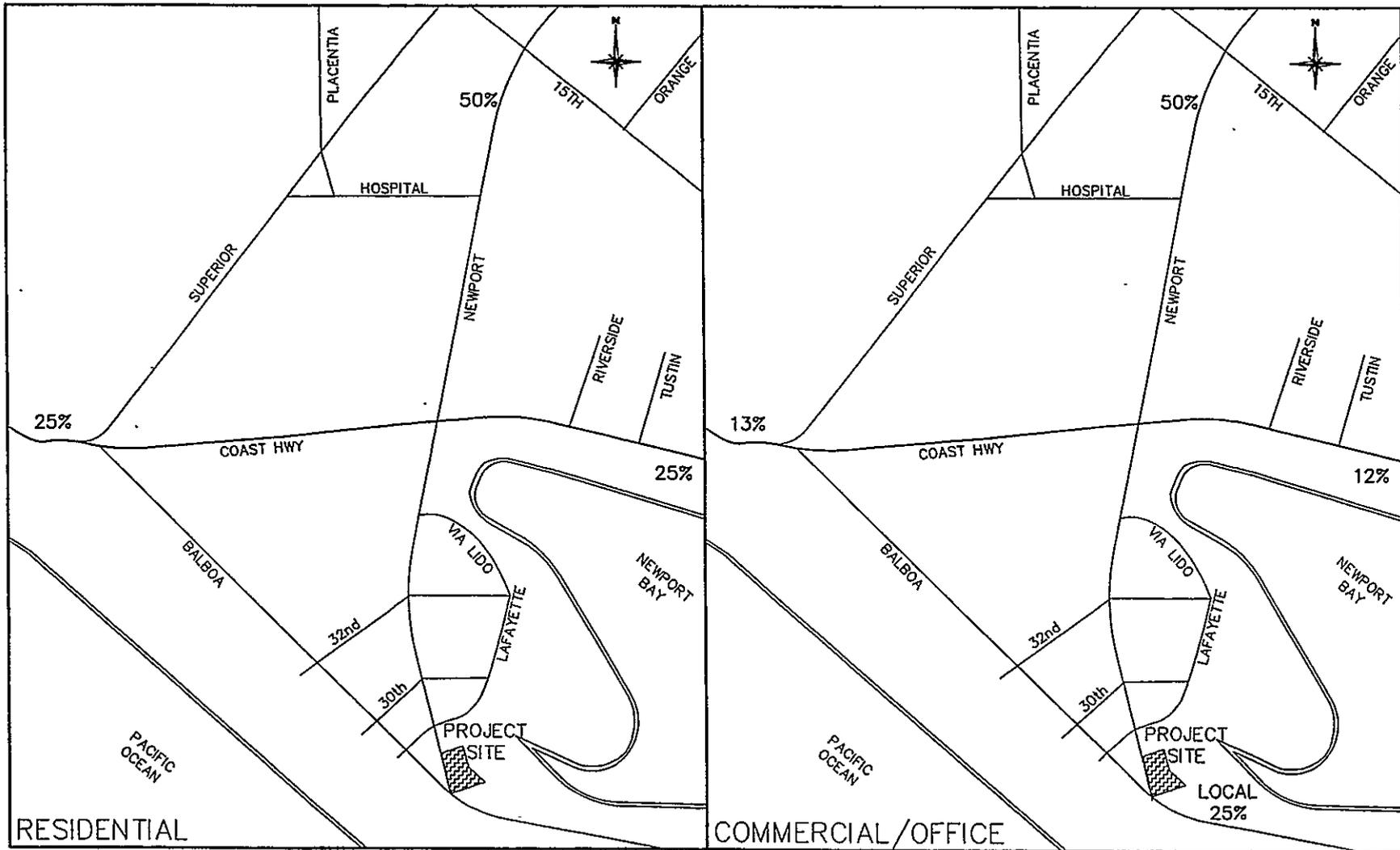


Figure 3
PROJECT DISTRIBUTION

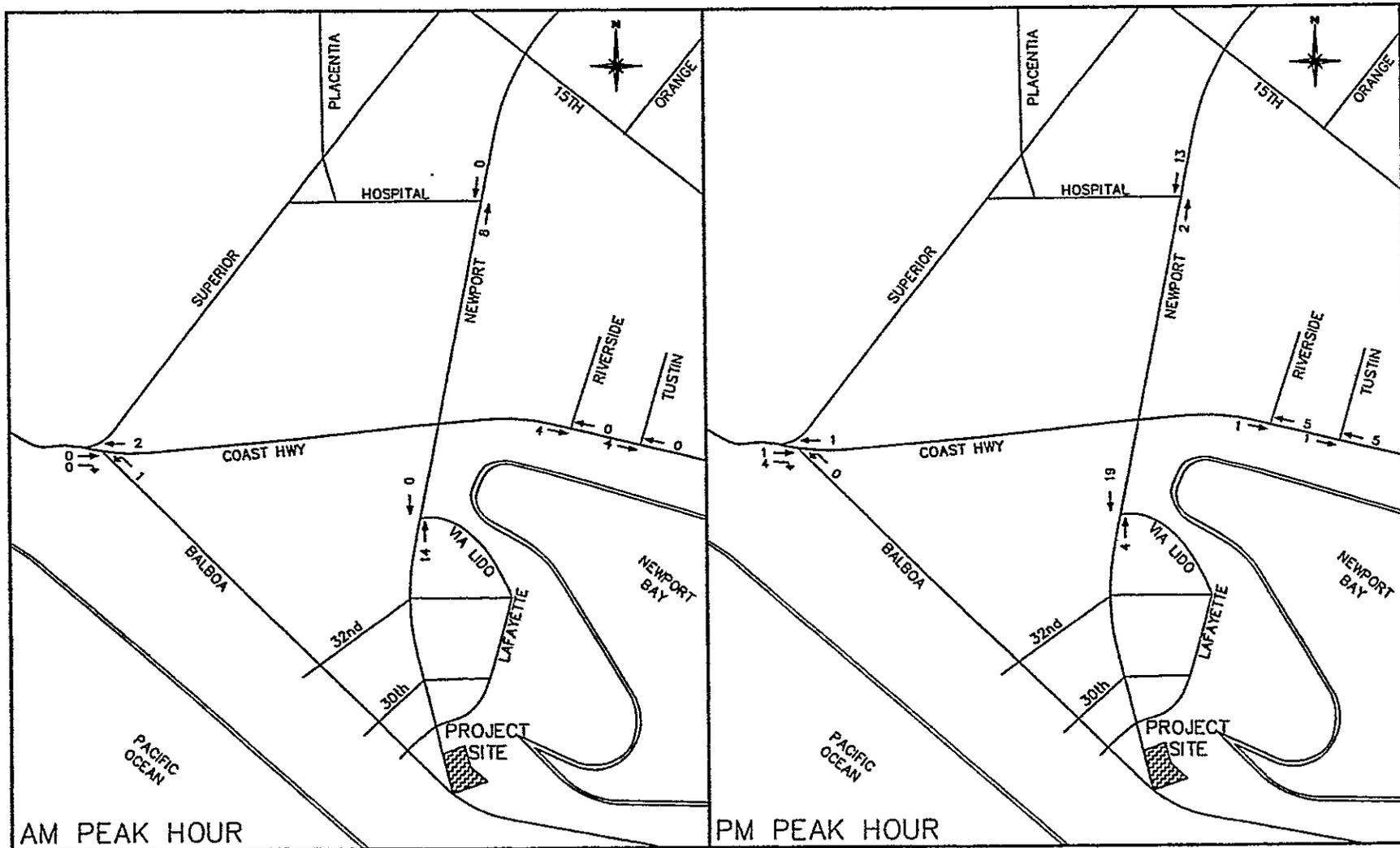


Figure 4
PEAK HOUR PROJECT TRIPS

Table 2
APPROVED PROJECTS SUMMARY

LOCATION	PERCENT COMPLETE
Fashion Island Expansion	36
Temple Bat Yahm Expansion	65
Ford Redevelopment	95
Cannery Lofts Village	0
Hoag Hospital Phase II	0
CIOSA – Irvine Project	91
Newport Dunes	0
1401 Dove Street	0
Newport Auto Center Expansion	0
Olsen Townhome Project	0
Bayview Landing Senior Housing	0
Birch Bayview Plaza II	0
494/496 Old Newport Blvd	0
401 Old Newport Blvd	0
Newport Technology Center	0
1901 Westcliff Surgical Center	0
Newport Lexus	0
Birch Street Medical Office	0

volumes. To pass the one percent analysis, peak hour traffic from the proposed project must be less than one percent of the projected background peak hour traffic on each leg of the intersection. If the proposed project passes the one percent analysis, then the ICU analysis is not required and no further analysis is necessary. If the proposed project does not pass the one percent analysis, then the ICU analysis must be performed for the intersection which fails to pass the one percent test.

Table 3 summarizes the results of the one percent analysis (the one percent analysis sheets are included in the appendix). As this table indicates, the proposed project passes the one percent analysis at all study intersections during the AM and PM peak hour, with the exception of Newport Boulevard and Via Lido during the PM peak hour; therefore, an ICU analysis is required for the intersection of Newport Boulevard and Via Lido.

The ICU analysis for the intersection which did not pass the one percent analysis (Newport Boulevard and Via Lido) assumes existing lane configurations and a capacity of 1,600 vehicles per hour per lane with no clearance factor. The existing, background, and background-plus-project ICU values are summarized in the following table (actual ICU calculation sheets are included in the appendix).

ICU ANALYSIS SUMMARY						
INTERSECTION	EXISTING		BACKGROUND		BACKGROUND + PROJECT	
	AM	PM	AM	PM	AM	PM
5. Newport & Via Lido	.456	.347	.456	.347	.459	.348
Level of service ranges:	.000 – .600 A .601 – .700 B .701 – .800 C .801 – .900 D .901 – 1.000 E Above 1.000 F					

As the ICU summary table indicates, the project will have no impact on the intersection of Newport Boulevard and Via Lido during the peak hours, which will operate at LOS "A". The project has no significant impact on the study intersections, and no mitigation is required.

CUMULATIVE CONDITIONS ANALYSIS

City Staff provided a list of five known but not approved projects for use in a cumulative conditions analysis. These cumulative projects are summarized in Table 4. Trip generation and

Table 3

SUMMARY OF ONE PERCENT ANALYSIS

INTERSECTION	----- AM PEAK HOUR VOLUMES -----				LESS THAN 1% OF PEAK HOUR VOLUMES
	NB	SB	EB	WB	
1. Newport & Hospital	8	0	0	0	Yes
2. Balboa/Superior & Coast Hwy	1	0	0	2	Yes
3. Riverside & Coast Hwy	0	0	4	0	Yes
4. Tustin & Coast Hwy	0	0	4	0	Yes
5. Newport & Via Lido	14	0	0	0	Yes
6. Newport & Coast Hwy	0	0	0	2	Yes

INTERSECTION	----- PM PEAK HOUR VOLUMES -----				LESS THAN 1% OF PEAK HOUR VOLUMES
	NB	SB	EB	WB	
1. Newport & Hospital	2	13	0	0	Yes
2. Balboa/Superior & Coast Hwy	0	0	5	1	Yes
3. Riverside & Coast Hwy	0	0	1	5	Yes
4. Tustin & Coast Hwy	0	0	1	5	Yes
5. Newport & Via Lido	4	19	0	0	No
6. Newport & Coast Hwy	0	0	1	6	Yes

Table 4
CUMULATIVE PROJECTS SUMMARY

PROJECT	LAND USE	AMOUNT
Saint Mark Presbyterian Church	Church	34.80 TSF
	Day Care	4.72 TSF
Saint Andrews Church	Church	33.00 TSF
Newport Coast TAZ 1 - 4	Single Family Detached	954 DU
	Condominium/Townhouse	389 DU
	Multi-Family Attached	175 DU
Newport Ridge TAZ 1 - 3	Single Family Detached	632 DU
	Multi-Family Attached	384 DU
	Commercial	102.96 TSF
Mormon Temple	Temple	17.46 TSF
TSF - thousand square feet DU - dwelling units		

distribution for each cumulative project was also provided by City Staff. The peak hour cumulative intersection volumes were added to the background volumes presented earlier, then project-generated traffic was compared to one percent of the background-plus-cumulative traffic. The results of the cumulative one percent analysis are summarized in Table 5. The proposed project passes the one percent test at all study intersections, with the exception of Newport Boulevard and Via Lido during the PM peak hour; therefore, an ICU analysis is required for the intersection of Newport Boulevard and Via Lido.

The results of the cumulative ICU analysis are summarized in the following table (actual ICU calculation sheets are included in the appendix). As the cumulative ICU summary table indicates, the proposed project will have no significant impact on the intersection of Newport Boulevard and Via Lido during the peak hours, which will operate at LOS "A". The project has no significant impact on the study intersections, and no mitigation is required.

CUMULATIVE ICU ANALYSIS SUMMARY								
INTERSECTION	EXISTING		BACKGROUND		BACKGROUND + CUMULATIVE		BACKGROUND + CUMULATIVE + PROJECT	
	AM	PM	AM	PM	AM	PM	AM	PM
5. Newport & Via Lido	.456	.347	.456	.347	.456	.347	.459	.348
Level of service ranges:	.000 - .600 A .601 - .700 B .701 - .800 C .801 - .900 D .901 - 1.000 E Above 1.000 F							

SITE ACCESS AND CIRCULATION

Access to the proposed project will be provided by two driveways on Newport Boulevard and one driveway on The Arcade. The northern driveway on Newport Boulevard will be a right-turn only driveway providing the sole access to the upper level parking structure. An emergency access driveway to the upper level parking deck will be provided on The Arcade. The southern driveway on Newport Boulevard will be right-turn only also and will provide access to the underground parking structure. A driveway on The Arcade will provide additional access to the underground parking structure.

Since left turns will be prohibited at the driveways along Newport Boulevard, the inbound vehicles arriving from the north on Newport Boulevard will either make a U-turn at 22nd Street to access the two

Table 5

SUMMARY OF CUMULATIVE ONE PERCENT ANALYSIS

INTERSECTION	AM PEAK HOUR VOLUMES				LESS THAN 1% OF PEAK HOUR VOLUMES
	NB	SB	EB	WB	
1. Newport & Hospital	8	0	0	0	Yes
2. Balboa/Superior & Coast Hwy	1	0	0	2	Yes
3. Riverside & Coast Hwy	0	0	4	0	Yes
4. Tustin & Coast Hwy	0	0	4	0	Yes
5. Newport & Via Lido	14	0	0	0	Yes
6. Newport & Coast Hwy	0	0	0	2	Yes
INTERSECTION	PM PEAK HOUR VOLUMES				LESS THAN 1% OF PEAK HOUR VOLUMES
	NB	SB	EB	WB	
1. Newport & Hospital	2	13	0	0	Yes
2. Balboa/Superior & Coast Hwy	0	0	5	1	Yes
3. Riverside & Coast Hwy	0	0	1	5	Yes
4. Tustin & Coast Hwy	0	0	1	5	Yes
5. Newport & Via Lido	4	19	0	0	No
6. Newport & Coast Hwy	0	0	1	6	Yes

driveways on Newport Boulevard or make a left turn at 22nd Street and utilize the entrance on The Arcade. The proposed project will generate 37 AM peak hour inbound trips and 39 PM peak hour inbound trips. The vehicles which arrive from the north via Newport Boulevard and make U-turns or left turns can be accommodated at 22nd Street. Similarly, 23 AM peak hour outbound trips and 59 PM peak hour outbound trips will be generated by the proposed project and will be distributed over the three driveways. The portion of these inbound and outbound trips which utilize The Arcade entrance will not have a significant effect on The Arcade.

A field count of the existing traffic at the intersection of Newport Boulevard and 22nd Street was conducted on a Thursday evening in September, 2004 to determine the typical peak vehicle storage and congestion associated with the left- and U-turns at this location. The results of this observation (see Appendix for actual data) reveals that during the peak hour approximately one vehicle per minute (approximately two vehicles per minute during the peak 15 minute period) currently makes the left turn onto 22nd Street. The maximum queue observed during the count period was three vehicles. The available storage is about 200 feet which can safely store nine to 10 vehicles before interfering with traffic on Newport Boulevard. The proposed project is expected to add no more than 39 additional vehicles per hour or less than one vehicle per minute to the current demand for this left turn movement. The available storage is more than adequate to accommodate all existing plus project trips.

In addition, some project trips could utilize the existing signal at 21st Street to access the project site via The Arcade to avoid delays and/or congestion at 22nd Street. The PM peak hour volumes making a southbound left turn at 21st Street is 20 vehicles. Southbound U-turns are prohibited at this location.

Parking for the proposed project will be provided by an underground parking structure, an upper deck parking lot, and on-street parking. No on-street parking will be lost on Newport Boulevard along the project frontage, and two new on-street parking spaces on Newport Boulevard are proposed by relocating an existing fire hydrant. No on-street parking will be lost on 22nd Street. Five on-street parking spaces on The Arcade will be relocated on The Arcade along the project frontage.

Parking for the residential portion of the project is provided on the upper deck. On-site parking is provided for approximately 58 vehicles in a combination of garages, carports, and open parking spaces. Access to the upper parking deck will be provided by a single driveway on Newport Boulevard, and additional emergency access to the upper deck parking lot is provided on The Arcade. Approximately five vehicles inbound will be generated by the residential portion of the proposed project during the AM peak hour and 12 vehicles inbound will be generated during the PM peak hour. These low volumes (an

average of one vehicle every 12 minutes during the AM peak hour or one vehicle every six minutes during the peak five minutes of the AM peak hour and approximately one vehicle every five minutes during the PM peak hour with approximately one vehicle every two minutes during the peak five minutes of the PM peak hour) are not expected to create queuing problems on Newport Boulevard at the single right-turn only driveway.

Two-way circulation is provided in the upper parking deck; however, the parking lot ends in a dead-end and vehicles will have to maneuver to turn around. The bridge linking the northern portion of the upper parking deck with the southern portion is 26 feet wide, which is sufficient for two-way vehicular traffic; however, this width does not provide room for safe pedestrian or handicap access between the northern and southern portion of the upper parking deck. The site plan does not indicate a loading zone on the upper parking deck for deliveries and moving vans, and it is not clear if proper turning radii are provided to accommodate large vehicles such as moving vans, delivery vehicles, or trash trucks on the upper parking deck.

Vehicles must exit the project site to circulate between the upper parking deck and underground parking lot. Two-way circulation is provided in the underground structure, and on-site parking is provided for 154 vehicles in the underground structure. However, the outer edge of the ramp between the northern and southern sections of the underground parking encroaches on eight parking spaces. These eight parking spaces should be relocated. The upper parking deck and underground parking lot provide a total of 212 spaces. On-street parking along the Newport Boulevard project frontage provides 14 spaces, which the applicant proposes to utilize toward the project parking count for a total of 226 spaces compared to a City Code requirement of 226 spaces.

The current striping on Newport Boulevard does not prohibit left-turns into or out of the southern driveway into the underground parking lot. A raised median on Newport Boulevard should be installed to prevent left-turn access at the southern driveway. The radius of the circular ramp connecting the northern portion of the underground parking lot with the southern portion of the parking lot appears to be 80 feet, which is adequate. The site plan should indicate the grades on the ramps.

The dimensions of the parking stalls and the drive aisles in the underground parking lot appear to meet City requirements. The site plan does not indicate pedestrian paths, and it appears that pedestrians will share the drive aisles with vehicles. The number of handicapped parking stalls appears to be sufficient, and they are adequately spread throughout the underground parking lot. Two out of three of the parking stalls in the underground parking lot are adjacent to columns at the rear of the stalls which

result in restricted visibility and increased difficulty maneuvering in and out of these stalls. The site plan needs to indicate the location of loading zones.

Queuing of vehicles on Newport Boulevard at the underground parking lot driveway is not expected to be a problem. Approximately 32 vehicles inbound will be generated by the commercial/office portion of the proposed project during the AM peak hour and 27 vehicles inbound will be generated during the PM peak hour. These volumes are split between the two underground parking lot driveways. The resulting volumes (an average of one vehicle every two minutes during the peak hour or one vehicle per minute during the peak five minutes of the peak hour) are not expected to create queuing problems on Newport Boulevard at the right-turn only driveway or at the driveway on The Arcade.

CONCLUSIONS

The proposed project, consisting of 27 condominium units and approximately 36,000 square feet of general commercial and office space, will generate 682 more daily trips than is currently being generated by the site, and 28 more PM peak hour trips than existing uses. Six intersections in the vicinity were checked to determine the marginal impact of project traffic on the street system. One of the six intersections does not pass the City's one percent analysis; therefore, an ICU analysis for this intersection was performed. With the proposed project, the intersection of Newport Boulevard and Via Lido operates at LOS "A", and the project has no significant impact on this intersection. Consequently, the proposed project has no significant impact on the study intersections, and no additional intersection improvements are required.

The impact of traffic from known but not approved projects was included in a cumulative conditions analysis. Under cumulative conditions, the project passed the City's one percent test at five study intersections and did not pass the one percent test at the intersection of Newport Boulevard and Via Lido. Therefore, an ICU analysis was performed for this intersection. The intersection of Newport Boulevard and Via Lido operates at LOS "A" under cumulative conditions, and the project has no significant impact on the ICU value. The proposed project has no significant impact on the study intersections under cumulative conditions, and no intersection mitigation measures are required.

Access and on-site circulation have been reviewed and several issues and improvements have been identified.

DEFINITIONS

Certain terms used throughout this report are defined below to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
DU	Dwelling Unit. Used in quantifying residential land use.
ICU	Intersection Capacity Utilization. A measure of the volume to capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume/capacity ratios of arterial segments.
Peak Hour	This refers to the hour during the AM peak period (typically 7 AM - 9 AM) or the PM peak period (typically 3 PM - 6 PM) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
TSF	Thousand Square Feet. Used in quantifying non-residential land uses, and refers to building floor area.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a one hour period, typically the AM or PM peak hour.

APPENDIX

1% Traffic Volume Analysis

Intersection: 1. Newport Blvd & Hospital
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
AM PEAK PERIOD							
Northbound	1942	58	61	0	2061	21	8
Southbound	1282	38	150	0	1470	15	0
Eastbound	542	0	92	0	634	6	0
Westbound	306	0	9	0	315	3	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PM PEAK PERIOD							
Northbound	1213	36	49	0	1298	13	2
Southbound	1904	57	98	0	2059	21	13
Eastbound	320	0	142	0	462	5	0
Westbound	545	0	54	0	599	6	0

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 1. Newport Blvd & Hospital
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	1942	58	61	2	2063	21	8
Southbound	1282	38	150	4	1474	15	0
Eastbound	542	0	92	0	634	6	0
Westbound	306	0	9	0	315	3	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	1213	36	49	2	1300	13	2
Southbound	1904	57	98	4	2063	21	13
Eastbound	320	0	142	0	462	5	0
Westbound	545	0	54	0	599	6	0

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 2. Balboa/Superior & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
AM PEAK PERIOD							
Northbound	695	0	9	0	704	7	1
Southbound	455	0	13	0	468	5	0
Eastbound	3300	99	90	0	3489	35	0
Westbound	1024	31	34	0	1089	11	2

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PM PEAK PERIOD							
Northbound	622	0	2	0	624	6	0
Southbound	1226	0	34	0	1260	13	0
Eastbound	1726	52	46	0	1824	18	5
Westbound	2738	82	70	0	2890	29	1

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 2. Balboa/Superior & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	695	0	9	0	704	7	1
Southbound	455	0	13	25	493	5	0
Eastbound	3300	99	90	53	3542	35	0
Westbound	1024	31	34	238	1327	13	2

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	622	0	2	0	624	6	0
Southbound	1226	0	34	86	1346	13	0
Eastbound	1726	52	46	177	2001	20	5
Westbound	2738	82	70	169	3059	31	1

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 3. Riverside & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
AM PEAK PERIOD							
Northbound	3	0	0	0	3	0	0
Southbound	370	0	0	0	370	4	0
Eastbound	2301	69	85	0	2455	25	4
Westbound	1251	38	75	0	1364	14	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PM PEAK PERIOD							
Northbound	35	0	0	0	35	0	0
Southbound	500	0	0	0	500	5	0
Eastbound	1863	56	105	0	2024	20	1
Westbound	2344	70	92	0	2506	25	5

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 3, Riverside & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	3	0	0	0	3	0	0
Southbound	370	0	0	0	370	4	0
Eastbound	2301	69	85	80	2535	25	4
Westbound	1251	38	75	239	1603	16	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	35	0	0	0	35	0	0
Southbound	500	0	0	2	502	5	0
Eastbound	1863	56	105	266	2290	23	1
Westbound	2344	70	92	169	2675	27	5

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 4, Tustin & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
AM PEAK PERIOD							
Northbound	1	0	0	0	1	0	0
Southbound	53	0	0	0	53	1	0
Eastbound	2284	69	87	0	2440	24	4
Westbound	1347	40	67	0	1454	15	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PM PEAK PERIOD							
Northbound	3	0	0	0	3	0	0
Southbound	87	0	0	0	87	1	0
Eastbound	1716	51	92	0	1859	19	1
Westbound	2484	75	87	0	2646	26	5

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 4. Tustin & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	1	0	0	0	1	0	0
Southbound	53	0	0	0	53	1	0
Eastbound	2284	69	87	79	2519	25	4
Westbound	1347	40	67	239	1693	17	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	3	0	0	0	3	0	0
Southbound	87	0	0	0	87	1	0
Eastbound	1716	51	92	263	2122	21	1
Westbound	2484	75	87	169	2815	28	5

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 5. Newport Blvd & Via Lido
 Existing Traffic Volumes Based on Average Winter/Spring 2003

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	1538	0	19	0	1557	16	14
Southbound	1092	0	8	0	1100	11	0
Eastbound	0	0	0	0	0	0	0
Westbound	328	0	3	0	331	3	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	926	0	7	0	933	9	4
Southbound	1779	0	41	0	1820	18	19
Eastbound	0	0	0	0	0	0	0
Westbound	398	0	2	0	400	4	0

Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

==> Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 5. Newport Blvd & Via Lido
 Existing Traffic Volumes Based on Average Winter/Spring 2003

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	1538	0	19	0	1557	16	14
Southbound	1092	0	8	0	1100	11	0
Eastbound	0	0	0	0	0	0	0
Westbound	328	0	3	0	331	3	0

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	926	0	7	1	934	9	4
Southbound	1779	0	41	1	1821	18	19
Eastbound	0	0	0	0	0	0	0
Westbound	398	0	2	0	400	4	0

Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

==> Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

5. Newport Blvd & Via Lido

Existing						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	1511	.315*	891	.186*
NBR	f		27		35	
SBL	2	3200	415	.130*	464	.145*
SBT	3	4800	677	.141	1315	.274
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	17	.011*	26	.016*
WBT	0	0	0		0	
WBR	2	3200	311	.097	372	.116

TOTAL CAPACITY UTILIZATION .456 .347

Existing + Regional Growth + Approved Projects						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	1511	.315*	892	.186*
NBR	f		27		35	
SBL	2	3200	415	.130*	464	.145*
SBT	3	4800	677	.141	1316	.274
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	17	.011*	26	.016*
WBT	0	0	0		0	
WBR	2	3200	311	.097	372	.116

TOTAL CAPACITY UTILIZATION .456 .347

Existing + Growth + Approved + Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	1525	.318*	896	.187*
NBR	f		27		35	
SBL	2	3200	415	.130*	464	.145*
SBT	3	4800	677	.141	1335	.278
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	17	.011*	26	.016*
WBT	0	0	0		0	
WBR	2	3200	311	.097	372	.116

TOTAL CAPACITY UTILIZATION .459 .348

Existing + Growth + Approved + Cumulative Proje						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	1511	.315*	893	.186*
NBR	f		27		35	
SBL	2	3200	415	.130*	464	.145*
SBT	3	4800	677	.141	1317	.274
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	17	.011*	26	.016*
WBT	0	0	0		0	
WBR	2	3200	311	.097	372	.116

TOTAL CAPACITY UTILIZATION .456 .347

5. Newport Blvd & Via Lido

Existing + Growth + Approved + Cumulative + Pro						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	1525	.318*	897	.187*
NBR	f		27		35	
SBL	2	3200	415	.130*	464	.145*
SBT	3	4800	677	.141	1336	.278
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	17	.011*	26	.016*
WBT	0	0	0		0	
WBR	2	3200	311	.097	372	.116

TOTAL CAPACITY UTILIZATION .459 .348

1% Traffic Volume Analysis

Intersection: 6. Newport Blvd & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
AM PEAK PERIOD							
Northbound	0	0	0	0	0	0	0
Southbound	543	0	13	0	556	6	0
Eastbound	2243	67	41	0	2351	24	0
Westbound	1098	33	43	0	1174	12	2

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PM PEAK PERIOD							
Northbound	0	0	0	0	0	0	0
Southbound	835	0	25	0	860	9	0
Eastbound	1419	43	65	0	1527	15	1
Westbound	2862	86	22	0	2970	30	6

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

1% Traffic Volume Analysis

Intersection: 6. Newport Blvd & Coast Hwy
 Existing Traffic Volumes Based on Average Winter/Spring 2004

Approach Direction	Existing Peak 1 Hour Volume	Peak 1 Hour Regional Growth Volume	Approved Projects Peak 1 Hour Volume	Cumulative Projects Peak 1 Hour Volume	Projected Peak 1 Hour Volume	1% of Projected Peak 1 Hour Volume	Project Peak 1 Hour Volume
<u>AM PEAK PERIOD</u>							
Northbound	0	0	0	0	0	0	0
Southbound	543	0	13	2	558	6	0
Eastbound	2243	67	41	78	2429	24	0
Westbound	1098	33	43	238	1412	14	2

==> Project AM Traffic is estimated to be 1% or less of Projected AM Peak 1 Hour Traffic Volume.

Project AM Traffic is estimated to be greater than 1% of Projected AM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

<u>PM PEAK PERIOD</u>							
Northbound	0	0	0	0	0	0	0
Southbound	835	0	25	2	862	9	0
Eastbound	1419	43	65	263	1790	18	1
Westbound	2862	86	22	169	3139	31	6

==> Project PM Traffic is estimated to be 1% or less of Projected PM Peak 1 Hour Traffic Volume.

Project PM Traffic is estimated to be greater than 1% of Projected PM Peak 1 Hour Traffic Volume.
 Intersection Capacity Utilization (ICU) Analysis is required.

PROJECT: 2300 Newport Blvd

FULL OCCUPANCY YEAR: 2007

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : NEWPORT BLVD
 E/W ST : 22ND ST
 CITY : NEWPORT BEACH

FILENAME: 0840501P
 DATE: 9/02/04
 DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			Total
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	2	2	0				0	1				1	

4:00 PM	59	180	1				1	7				6	254
15 PM	48	194	2				1	7				11	263
30 PM	43	186	3				5	10				7	254
45 PM	40	176	1				4	16				7	244
5:00 PM	59	158	2				6	22				16	263
15 PM	63	152	3				2	14				7	241
30 PM	52	179	6				6	6				11	260
45 PM	46	145	4				2	19				17	233

PEAK HOUR BEGINS AT:
 1615 PM

PHF: 0.97

VOLUMES = 190 714 8 0 0 0 16 55 0 0 0 41 1024

COMMENTS:

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : BALBOA BLVD
E/W ST : 21ST ST
CITY : NEWPORT BEACH

FILENAME: 0940502P
DATE: 9/02/04
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			Total
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	1	3	0	1	3	0	0	1	0	0	1	0	

4:00 PM	2	207	0	5	210	13	26	0	3	1	0	7	474
15 PM	3	148	1	2	184	10	28	5	1	2	2	4	390
30 PM	4	155	1	5	192	7	27	0	11	3	0	6	411
45 PM	2	168	2	2	241	16	17	3	6	0	0	8	465
5:00 PM	5	177	2	4	255	11	30	0	6	2	0	9	501
15 PM	2	162	4	4	251	17	24	0	8	3	0	5	480
30 PM	3	175	1	4	255	15	30	0	3	0	0	6	492
45 PM	1	171	5	8	292	20	24	1	6	4	0	5	537

PEAK HOUR BEGINS AT:

PHF: 0.94

1700 PM

VOLUMES = 11 685 12 20 1053 63 108 1 23 9 0 25 2010

COMMENTS: THERE WERE TWO ILLEGAL SOUTHBOUND U-TURNS DURING THIS SURVEY PERIOD.