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ALAMEDA COUNTY  
PATRICK O'CONNELL



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**Recording Requested By:**

DODG CORPORATION

**When Recorded, Mail To:**

Loretta K. Barsamian, Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612

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MK

COVENANT AND ENVIRONMENTAL RESTRICTION  
ON PROPERTY

5051 Coliseum Way  
Oakland, California

This Covenant and Environmental Restriction on Property (this "Covenant") is made as of the 18<sup>th</sup> day of April, 2002 by DODG CORPORATION ("Covenantor") who is the Owner of record of that certain property situated at 5051 Coliseum Way, in the City of Oakland, County of Alameda, State of California, which is more particularly described in EXHIBIT A attached hereto and incorporated herein by this reference (such portion hereinafter referred to as the "Property"), for the benefit of the California Regional Water Quality Control Board for the San Francisco Bay Region (the "Board"), with reference to the following facts:

- A. The Property and groundwater underlying the Property contains hazardous materials.
- B. Contamination of the Property. Soil and shallow groundwater at the Property was contaminated by lead smelting, sulfuric and nitric acid production, coal tar storage and lithopone manufacturing operations previously performed at or near the Property. These operations resulted in contamination of soil and shallow groundwater with inorganic and organic chemicals including antimony, arsenic, barium, cadmium, copper, lead, mercury, zinc and some petroleum hydrocarbons, which constitute hazardous materials as that term is defined in Health & Safety Code Section 25260. This Covenant incorporates the terms of a Soil Management Plan (attached hereto as EXHIBIT B) applicable to the Property which details specific health, safety and procedural requirements for handling contaminated soils and groundwater during subsurface activities to protect the health and safety of on-site workers, the public and the environment. These measures include, but are not limited to, requirements for development and

implementation of a specific health and safety plan for subsurface activities, provisions to cover and cap all waste materials deposited on the Property, provisions to maintain the current surface conditions until such time that the Property is developed and covered (except for minor landscaped areas) by impervious surfaces and provisions to remove from the site and properly dispose any soils or waste containing metals in excess of soil cleanup standards that are disturbed by such subsurface activities. The requirements of the Soil Management Plan apply only to subsurface construction activities that take place at the Property; there is no restriction under this Covenant on the development or reconstruction of the Property so long as such development or reconstruction is not prohibited in this Covenant or applicable Board Order. With Board approval, future development of the Property may include building foundations or other structures. In addition, a groundwater diversion wall, approximately 350 feet in length, has been installed along the northwest boundary of the Property (as set forth on EXHIBIT D, attached hereto) and a 3-year program (beginning March 29, 2001) of quarterly groundwater monitoring of on-site wells and weep holes in the stormwater channel is being performed to further evaluate metals concentrations, primarily zinc and cadmium, detected in shallow groundwater at and adjacent to the Property.

C. Exposure Pathways. The contaminants addressed in this Covenant are present in soil and shallow groundwater on the Property. Without the mitigation measures which have been performed on the Property, exposure to these contaminants could take place via inhalation and ingestion of particulate dusts and through direct skin contact if subsurface waste residuals or contaminated soil or groundwater is encountered during subsurface construction activities. The risk of public exposure to the contaminants has been substantially lessened by the remediation and controls described herein.

D. Adjacent Land Uses and Population Potentially Affected. The Property is currently undeveloped commercial/industrial property and is adjacent to commercial and industrial land uses.

E. Full and voluntary disclosure to the Board of the presence of hazardous materials on the Property has been made and extensive sampling of the Property has been conducted.

F. Covenantor desires and intends that in order to benefit the Board, and to protect the present and future public health and safety, the Property shall be used in such a manner as to avoid potential harm to persons or property that may result from hazardous materials that may have been deposited on portions of the Property.

ARTICLE I  
GENERAL PROVISIONS

1.1 Provisions to Run with the Land. This Covenant sets forth protective provisions, covenants, conditions and restrictions (collectively referred to as "Restrictions") upon and subject to which the Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. The restrictions set forth in Article III are reasonably necessary to protect present and future human health and safety or the

environment as a result of the presence on the land of hazardous materials. Each and all of the Restrictions shall run with the land, and pass with each and every portion of the Property, and shall apply to, inure to the benefit of, and bind the respective successors in interest thereof, for the benefit of the Board and all Owners and Occupants. Each and all of the Restrictions are imposed upon the entire Property unless expressly stated as applicable to a specific portion of the Property. Each and all of the Restrictions run with the land pursuant to section 1471 of the Civil Code. Each and all of the Restrictions are enforceable by the Board.

1.2 Concurrence of Owners and Lessees Presumed. All purchasers, lessees, or possessors of any portion of the Property shall be deemed by this purchase, leasing, or possession of such Property, to be in accord with the foregoing and to agree for and among themselves, their heirs, successors, and assignees, and the agents, employees, and lessees of such owners, heirs, successors, and assignees, that the Restrictions as herein established must be adhered to for the benefit of the Board and the Owners and Occupants of the Property and that the interest of the Owners and Occupants of the Property shall be subject to the Restrictions contained herein.

1.3 Apportionment of Burden Among Multiple Owners. Where ownership of the Property is held by multiple persons, holding by several titles, the burdens imposed by this Covenant shall be apportioned between them proportionate to the value of the property held by each owner, if such value can be ascertained, and if not, then according to their respective interests in point of quantity. (Cal. Civ. Code, § 1467.)

1.4 Incorporation into Deeds and Leases. Covenantor desires and covenants that the Restrictions set out herein shall be incorporated in and attached to each and all deeds and leases of any portion of the Property. Recordation of this Covenant shall be deemed binding on all successors, assigns, and lessees, regardless of whether a copy of this Covenant and Agreement has been attached to or incorporated into any given deed or lease.

1.5 Purpose. It is the purpose of this instrument to convey to the Board real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

## ARTICLE II DEFINITIONS

2.1 Board. "Board" shall mean the California Regional Water Quality Control Board for the San Francisco Bay Region and shall include its successor agencies, if any.

2.2 Improvements. "Improvements" shall mean all buildings, roads, driveways, regradings, and paved parking areas, constructed or placed upon any portion of the Property.

2.3 Occupants. "Occupants" shall mean Owners and those persons entitled by ownership, leasehold, or other legal relationship to the exclusive right to use and/or occupy all or any portion of the Property.

2.4 Owner or Owners. "Owner" or "Owners" shall mean the Covenantor and/or its successors in interest, who hold title to all or any portion of the Property.

### ARTICLE III DEVELOPMENT, USE AND CONVEYANCE OF THE PROPERTY

3.1 Restrictions on Development and Use. Covenantor promises to restrict the use of the Property as follows:

- a. Future development of the Property shall be restricted to industrial, commercial or office space;
- b. No residence for human habitation shall be permitted on the Property;
- c. No hospitals shall be permitted on the Property;
- d. No schools for persons under 21 years of age shall be permitted on the Property;
- e. No day care centers for children or day care centers for Senior Citizens shall be permitted on the Property;
- f. No Owners or Occupants of the Property or any portion thereof shall conduct any subsurface excavation work on the Property, unless a written Health and Safety Plan (as required under the Soil Management Plan) and scope of work for the subsurface activities are expressly approved in writing by the Board. Surficial maintenance activities, such as landscaping, patching or repairs do not require approval by the Board if such activities will not disturb contaminated soils. Any contaminated soils or groundwater brought to the surface by grading, excavation, trenching, or backfilling shall be managed by Covenantor or his agent in accordance with all applicable provisions of local, state and federal law;
- g. All uses and development of the Property shall be consistent with any applicable Board Order (See EXHIBIT C) or Soil Management Plan (See EXHIBIT B), each of which is hereby incorporated by reference including future amendments thereto. Construction of buildings or other structures at the Property may be undertaken with written approval of the Board. All uses and development shall preserve the integrity of any cap, any remedial measures taken or remedial equipment installed (such as the groundwater diversion wall), and any groundwater monitoring system installed on the Property pursuant to the requirements of the Board, unless otherwise expressly permitted in writing by the Board. Any physical structures, such as the groundwater diversion wall, that are installed on the Property for the purpose of preventing migration of contaminated soil or groundwater shall be maintained and shall not be altered or removed without written approval by the Board.

h. No Owners or Occupants of the Property or any portion thereof shall drill, bore, otherwise construct, or use a well for the purpose of extracting water for any use, including but not limited to, domestic, potable, or industrial uses, unless expressly permitted in writing by the Board.

i. The Owner shall notify the Board of each of the following: (1) The type, cause, location and date of any disturbance to any cap, any remedial measures taken or remedial equipment installed, and of the groundwater monitoring system installed on the Property pursuant to the requirements of the Board, which could affect the ability of such cap or remedial measures, remedial equipment, or monitoring system to perform their respective functions and (2) the type and date of repair of such disturbance. Notification to the Board shall be made by registered mail within ten (10) working days of both the discovery of such disturbance and the completion of repairs.

j. The Covenantor agrees that the Board, and/or any persons acting pursuant to Board orders, shall have reasonable access to the Property for the purposes of inspection, surveillance, maintenance, or monitoring, as provided for in Division 7 of the Water Code.

k. No Owner or Occupant of the Property shall act in any manner that will aggravate or contribute to the existing environmental conditions of the Property. All use and development of the Property shall preserve the integrity of any capped areas.

3.2 Enforcement. Failure of an Owner or Occupant to comply with any of the restrictions, as set forth in paragraph 3.1, shall be grounds for the Board, by reason of this Covenant, to have the authority to require that the Owner modify or remove any Improvements constructed in violation of that paragraph. Violation of the Covenant shall be grounds for the Board to file civil actions against the Owner as provided by law.

3.3 Notice in Agreements. After the date of recordation hereof, all Owners and Occupants shall execute a written instrument which shall accompany all purchase agreements or leases relating to the property. Any such instrument shall contain the following statement:

The land described herein contains hazardous materials in soils and in the ground water under the property, and is subject to a deed restriction dated as of APRIL 18, 2002, and recorded on APRIL 19<sup>20</sup>, 2002, in the Official Records of Alameda County, California, as Document No. \_\_\_\_\_, which Covenant and Restriction imposes certain covenants, conditions, and restrictions on usage of the property described herein. This statement is not a declaration that a hazard exists.

ARTICLE IV  
VARIANCE AND TERMINATION

4.1 Variance. Any Owner or, with the Owner's consent, any Occupant of the Property or any portion thereof may apply to the Board for a written variance from the provisions of this Covenant.

4.2 Termination. Any Owner or, with the Owner's consent, any Occupant of the Property or a portion thereof may apply to the Board for a termination of the Restrictions as they apply to all or any portion of the Property.

4.3 Term. Unless terminated in accordance with paragraph 4.2 above, by law or otherwise, this Covenant shall continue in effect in perpetuity.

ARTICLE V  
MISCELLANEOUS

5.1 No Dedication Intended. Nothing set forth herein shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property or any portion thereof to the general public.

5.2 Notices. Whenever any person gives or serves any notice, demand, or other communication with respect to this Covenant, each such notice, demand, or other communication shall be in writing and shall be deemed effective (1) when delivered, if personally delivered to the person being served or official of a government agency being served, or (2) three (3) business days after deposit in the mail if mailed by United States mail, postage paid certified, return receipt requested:

*If To*. "Covenantor"

Balgit Singh  
Dodg Corporation  
4849 E. 12<sup>th</sup> Street  
Oakland, CA 94601

and

Oakland 5051, L.L.C.  
C/o Thomas Roberts  
1650 Des Peres Road, Suite 303  
St. Louis, MO 63131

and

Daniel T. Engle  
Thompson Coburn LLP  
One US Bank Plaza, Suite 3500  
St. Louis, MO 63101

*If To:* "Board"  
Regional Water Quality Control Board  
San Francisco Bay Region  
Attention: Executive Officer  
1515 Clay Street, Suite 1400  
Oakland, California 94612

5.3 Partial Invalidation. If any portion of the Restrictions or terms set forth herein is determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such portion had not been included herein.

5.4 Article Headings. Headings at the beginning of each numbered article of this Covenant are solely for the convenience of the parties and are not a part of the Covenant.

5.5 Recordation. This instrument shall be executed by the Covenantor and by the Executive Officer of the Board. This instrument shall be recorded by the Covenantor in the County of Alameda within thirty (30) days of the last date of execution.

5.6 References. All references to Code sections include successor provisions.

5.7 Construction. Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Covenant to effect the purpose of this instrument and the policy and purpose of the Water Code. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

**[Remainder Of Page Intentionally Blank]**

IN WITNESS WHEREOF, the parties execute this Covenant as of the date set forth above.

Covenantor: DODG CORPORATION

By: Oakland 5051, L.L.C., its authorized agent

By: MC Portfolio Properties, L.L.C., being the sole member of Oakland 5051, L.L.C.

By: Thomas E. Roberts, Member

Signature: Thomas E. Roberts  
Thomas E. Roberts, Member

Date: 4-8-02

Agency: State of California  
Regional Water Quality Board,  
San Francisco Bay Region

By: Loretta K. Barsamian  
Loretta K. Barsamian

Title: Executive Officer

Date: April 18, 2002

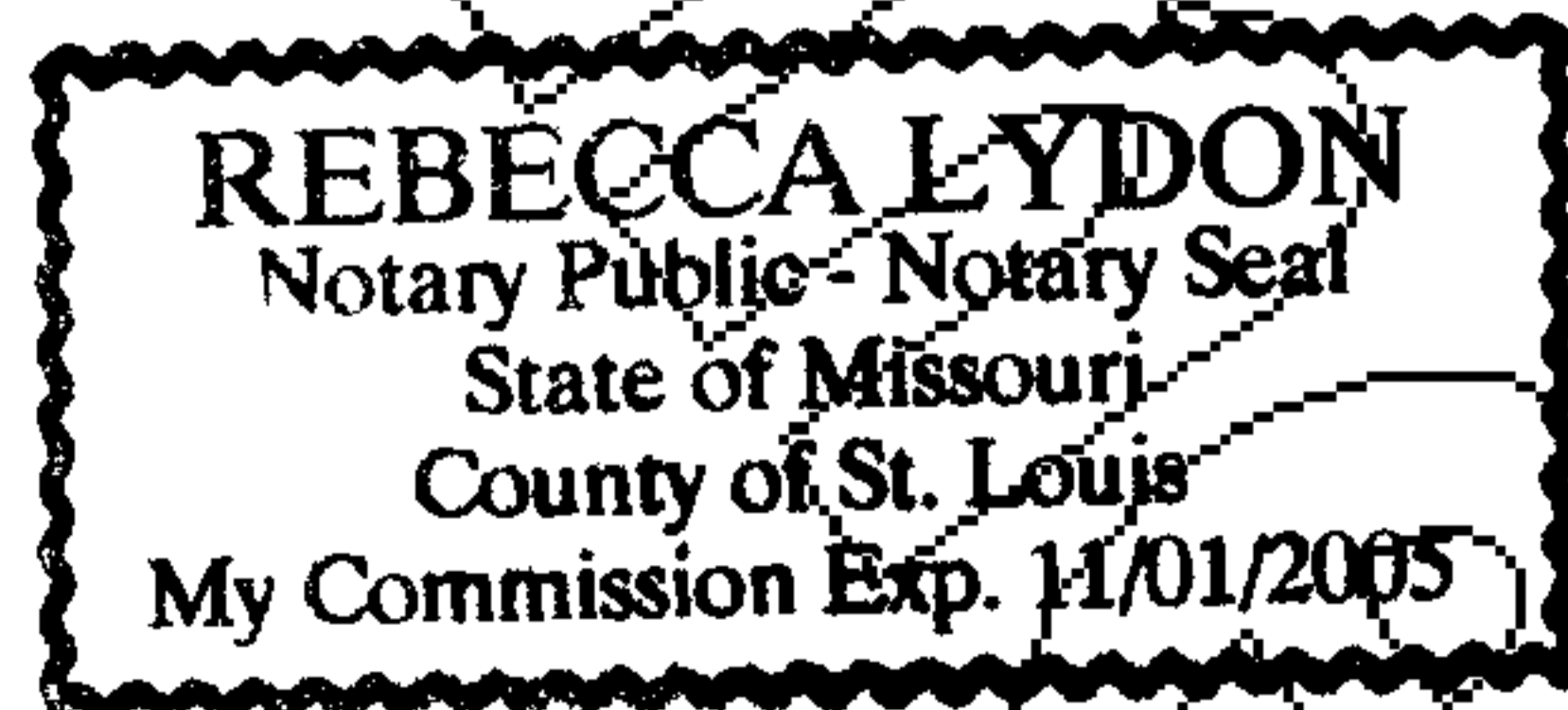
STATE OF MISSOURI )

COUNTY OF ST. LOUIS )

On this 8<sup>th</sup> day of April, 2002, before me, a Notary Public, the undersigned individual personally appeared, Thomas E. Roberts, who acknowledged himself to be a Member of MC Portfolio Properties, L.L.C., which is the sole member of Oakland 5051, L.L.C., being the authorized agent of Dodg Corporation, a Delaware corporation, and that as such Member, being authorized to do so, he executed this Covenant and Environmental Restriction On Property.

WITNESS my hand and official seal.

Rebecca Lydon  
Notary Public in and for said  
County and State

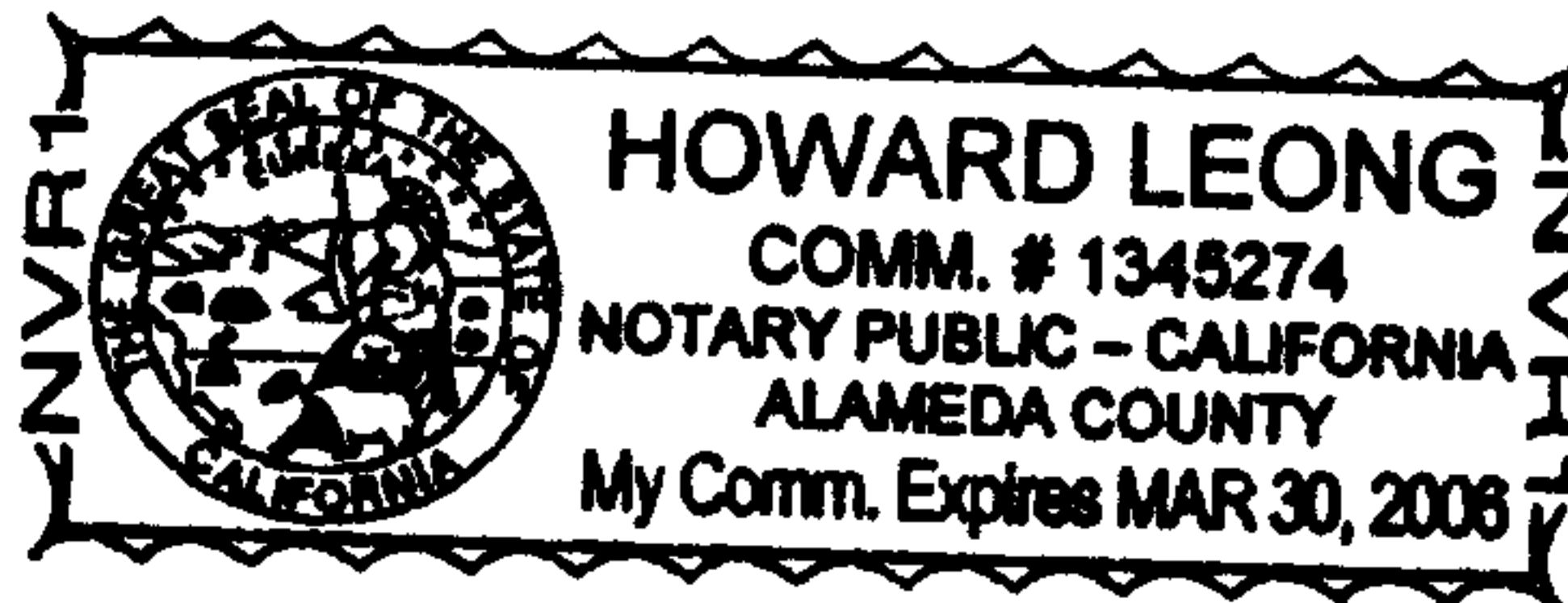




STATE OF CALIFORNIA )  
 )  
COUNTY OF ALAMEDA )

On this 18 day of APRIL, 2002, before me, the undersigned a Notary Public in and for said state, personally appeared Loretta K. Barsamian, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument.

WITNESS my hand and official seal.



  
\_\_\_\_\_  
Notary Public in and for said  
County and State

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

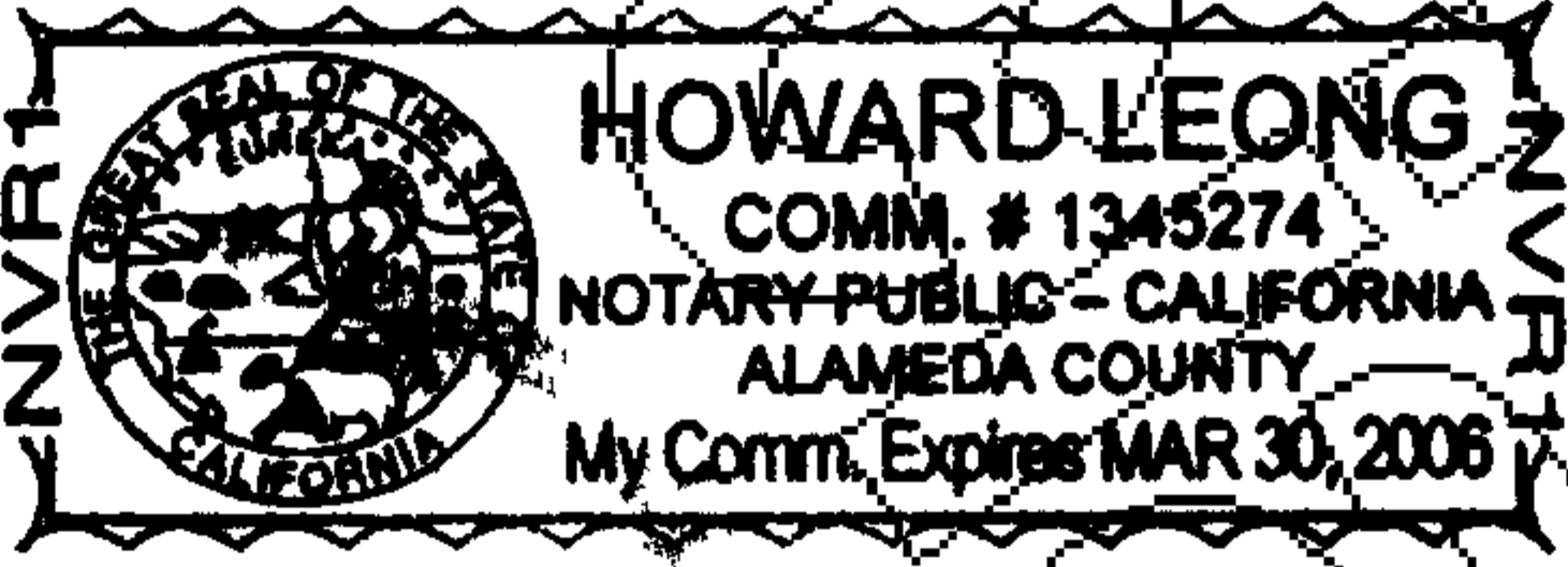
County of Alameda } ss.

On 4/18/2002, before me, Howard Leong, Notary Public  
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared LORETTA K. BARSAMIAN  
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Place Notary Seal Above

[Signature]  
Signature of Notary Public

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document*

### Description of Attached Document

Title or Type of Document Covenant & Environ. Restriction

Document Date \_\_\_\_\_ Number of Pages \_\_\_\_\_

Signer(s) Other Than Named Above \_\_\_\_\_

### Capacity(ies) Claimed by Signer

- Signer's Name: \_\_\_\_\_
- Individual
- Corporate Officer — Title(s) \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_

Signer Is Representing \_\_\_\_\_



EXHIBIT A

*Legal Description of the Property*

CITY OF OAKLAND

COMMENCING AT THE CITY MONUMENT (DESIGNATED AS CITY OF OAKLAND MONUMENT "19SW7"), AS SAID MONUMENT IS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD ON NOVEMBER 29, 1977, IN BOOK 98 OF PARCEL MAPS, AT PAGE 64 OF ALAMEDA COUNTY RECORDS, AND FROM WHICH A CITY MONUMENT (DESIGNATED AS CITY OF OAKLAND MONUMENT "19SE14"), AS SAID MONUMENT IS SHOWN ON THE LAST SAID PARCEL MAP, BEARS SOUTH 51° 03' 36" EAST, 713.83 FEET, SAID LINE BEING THE BASIS OF BEARINGS FOR THIS DESCRIPTION; THENCE ALONG SAID MONUMENT LINE (COLISEUM WAY), SOUTH 51° 03' 36" EAST, 268.03 FEET, THENCE LEAVING LAST SAID MONUMENT LINE, SOUTH 38° 56' 24" WEST, 35.00 FEET TO A POINT ON THE SOUTHWESTERLY LINE OF THE RIGHT OF WAY OF COLISEUM WAY, AS DESCRIBED IN THAT CERTAIN GRANT DEED TO THE CITY OF OAKLAND, FILED FEBRUARY 26, 1965, IN REEL 1445, AS IMAGE 447 OF OFFICIAL RECORDS OF SAID COUNTY, SAID POINT ALSO ON THE SOUTHEASTERLY LINE OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THAT GRANT DEED FILED FEBRUARY 4, 1939, IN BOOK 3700, AT PAGE 415 OF OFFICIAL RECORDS, SAID POINT BEING ALSO THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING ALONG THE SOUTHWESTERLY LINE OF THE LAST SAID RIGHT OF WAY OF COLISEUM WAY, THE FOLLOWING THREE (3) COURSES: 1) SOUTH 51° 03' 36" EAST, 331.52 FEET TO A TANGENT CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 470.03 FEET AND A CENTRAL ANGLE OF 25° 30' 00"; 2) SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, 209.19 FEET; AND 3) SOUTH 25° 33' 36" EAST, 40.33 FEET TO A POINT ON THE NORTHWESTERLY LINE OF THE PARCEL AS DESCRIBED IN THAT CERTAIN GRANT DEED FILED APRIL 14, 1988, AS RECORDER'S SERIES NUMBER 88-088626 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE ALONG SAID NORTHWESTERLY LINE AND THE NORTHWESTERLY LINE OF PARCEL 2 AS DESCRIBED IN THE LAST SAID GRANT DEED, SOUTH 47° 26' 45" WEST, 281.09 FEET; THENCE CONTINUING ALONG THE NORTHWESTERLY LINE OF LAST SAID PARCEL 2, THE FOLLOWING TWO (2) COURSES: 1) NORTH 61° 43' 43" WEST, 43.24 FEET; AND 2) SOUTH 50° 28' 20" WEST, 277.63 FEET TO A POINT ON THE EASTERLY LINE OF THAT PARCEL OF LAND DESCRIBED IN THAT CERTAIN GRANT DEED FILED AUGUST 29, 1968, IN REEL 2245, AS IMAGE 708 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE ALONG THE LAST SAID EASTERLY LINE, THE FOLLOWING FIVE (5) COURSES: 1) NORTH 33° 01' 57" WEST, 103.79 FEET; 2) NORTH 00° 18' 46" WEST, 18.00 FEET; 3) NORTH 11° 13' 26" EAST, 200.00 FEET; 4) NORTH 78° 46' 34" WEST, 15.00 FEET; AND 5) NORTH 08° 06' 58" WEST, 54.46 FEET TO A POINT ON THE

SOUTHEASTERLY LINE OF THE PARCEL 1 AS DESCRIBED IN THAT CERTAIN GRANT DEED FILED JANUARY 11, 1973, IN REEL 3318, AS IMAGE 348 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE ALONG SAID SOUTHEASTERLY LINE, NORTH 25° 18' 17" EAST, 315.74 FEET TO A TANGENT CURVE, CONCAVE TO THE WEST, SAID CURVE HAVING A RADIUS OF 55.50 FEET AND A CENTRAL ANGLE OF 38° 53' 36"; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE, 36.67 FEET TO A POINT ON THE LAST SAID NORTHEASTERLY LINE OF THE PARCEL OF LAND DESCRIBED IN THAT CERTAIN GRANT DEED FILED JULY 21, 1927, IN BOOK 1648, AT PAGE 155 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE CONTINUING ALONG THE LAST DESCRIBED CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIAL WHICH BEARS NORTH 76° 24' 41" EAST, A RADIUS OF 55.50 FEET AND A CENTRAL ANGLE OF 37° 57' 24", ALONG THE NORTHEASTERLY LINE OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THAT CERTAIN GRANT DEED FILED JANUARY 6, 1972, IN REEL 3034, AS IMAGE 674 OF OFFICIAL RECORDS OF SAID COUNTY, NORTH AND NORTHWESTERLY ALONG THE ARC OF SAID CURVE, 36.77 FEET; THENCE CONTINUING ALONG THE LAST SAID NORTHEASTERLY LINE, NORTH 51° 32' 43" WEST, 47.07 FEET TO A POINT ON THE SOUTHEASTERLY LINE OF THE LAST SAID PARCEL OF LAND DESCRIBED IN THE GRANT DEED FILED FEBRUARY 4, 1939, IN BOOK 3700, AT PAGE 415 OF OFFICIAL RECORDS; THENCE ALONG LAST SAID SOUTHEASTERLY LINE, NORTH 43° 19' 17" EAST, 19.16 FEET TO THE TRUE POINT OF BEGINNING.

ASSESSOR'S PARCEL NOS.      034-2341-001-05  
   034-2341-001-13  
   034-2341-006-08  
   034-2341-009-07

EXHIBIT B

SOIL MANAGEMENT PLAN FOR 5051 COLISEUM WAY

UNAPPROVED

6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566  
925.426.2600  
Fax 925.426.0106



**Soil Management Plan  
5051 Coliseum Way  
Oakland, California**

**For  
5051 Coliseum LLC and Oakland 5051 LLC**

**Clayton Project No. 70-00509.100  
March 30, 2001**

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## Appendix

- Appendix A    Health and Safety Plan Outline

## EXECUTIVE SUMMARY

This Soil Management Plan (SMP) provides background information as well as administrative and technical requirements that govern the future handling and management of waste residuals and contaminated soil located in the subsurface on an industrial property located at 5051 Coliseum Way in Oakland, California. The property is approximately 4.4 acres in size.

This plan has been written at the request of the California Regional Water Quality Control Board (RWQCB) and will be a referenced and permanently attachment to a deed for this property.

The environmental condition of this property has been extensively investigated. These investigations indicated the presence of waste residuals and chemical compounds in subsurface soil and groundwater at the Site. The most notable compounds or constituents of concern include arsenic, barium, cadmium, mercury, zinc, and some petroleum hydrocarbons.

The nature and extent of the waste residuals and contaminated soil have been investigated and a health risk assessment has been performed. The health risk assessment considered two exposure scenarios: one for construction workers and one for commercial/industrial on-site occupants. The risk assessment indicated that potential risks for on-site commercial/industrial occupants are within acceptable levels and that potential noncarcinogenic risks to construction workers (if subsurface waste residuals and contaminated soil were encountered and disturbed) exceeded typically acceptable risk levels.

The RWQCB found the risk assessment acceptable, provided that steps be taken to reduce risk levels for construction workers. This Soil Management Plan presents the information needed to reduce those risks to acceptable levels. This plan provides protocols to be followed during any future construction or other activities that may encounter or expose the waste residuals or contaminated soil in the subsurface at the Site.

The requirements of the SMP only apply to possible subsurface construction activities at the site and impose no restriction on the development or reconstruction of this Site for commercial or industrial uses. Implementation of the technical and procedural requirements of the plan should prevent negative impacts to health or the environment which could be associated with the known constituents of concern which are present at the Site.



## **1.0 INTRODUCTION**

Clayton Group Services, Inc. (Clayton) has prepared this Soil Management Plan (SMP) for the property located at 5051 Coliseum Way in Oakland, California ("the Site"). The Site location is shown on Figure 1. The Site is one of four properties that are sometimes collectively referred to as the Coliseum Way Properties. The other adjacent properties, 5050 Coliseum Way (including 750-50th Avenue) and 5200 Coliseum Way, were historically associated with the Site. Figure 2 shows the Site and the two other Coliseum Way Properties.

This SMP is based on information provided in several reports previously submitted to the California Regional Water Quality Control Board (RWQCB). The major reports are listed in Section 3.0. In consideration of the data and information generated for this site, including the health risk assessment (described in Section 4.0), the RWQCB staff has agreed with the risk assessment that showed the potential risks for on-site commercial/industrial occupants are within acceptable levels and that the potential noncarcinogenic risks for on-site construction workers who may encounter or expose subsurface waste residuals or contaminated soil exceed acceptable levels.

To address the potential construction related risk; the RWQCB has required the filing of a permanent SMP to establish proper environmental protocols for potential construction activities on the site. Such construction activities could include excavation, handling and disposal of the contaminated soils and waste residuals that are known to exist at the site.

This SMP is to be referenced in the deed for this site in the form of a Covenant and Environmental Restriction, with the intention that these provisions are to "Run With the Land," and will be binding on all future purchasers, lessees, subleases, or possessors of this site.

## **2.0 SITE SETTING AND BACKGROUND**

The Site is located in an industrial area of Oakland, California with numerous industrial sites generally surrounding the Site. The Site is somewhat triangular in shape and is approximately 4.4 acres in size. Coliseum Way is located along the northeastern border, a storm water drainage canal is located along the western border, and an adjacent narrow parcel owned by the East Bay Municipal Utility District (EBMUD) borders the southeast property boundary. The EBMUD parcel is paralleled by the 54th Avenue creek to the southeast. Northwest of the Site and across the drainage canal is PG&E's Substation J; southwest of the Site and across the drainage canal is Interstate 880.

The topography of the site is generally flat; the elevation of the Site and the area around the Site ranges from approximately 7 -15 feet above mean sea level. The Site is approximately 0.5 miles east/northeast of the San Leandro Bay. Regionally, groundwater flows west toward the San Leandro Bay.

According to information summarized in the 1996 Geomatrix report referenced below, historic aerial photos through the 1940's show that the site was a tidal marshland. The photos taken between 1946 and 1963 showed discharges to the 5051 property from the former lithopone facility at 5050 Coliseum Way and discharges of both solid and slurry waste materials that originated on the 5050 and 5200 Coliseum Way property. By 1953, the photo showed a roadway across the west central portion of the Site. According to the Geomatrix report, the 1966 photo showed the Site to have been graded and filled.

Currently, the Site is not developed though the southern portion is paved and used for parking. The 5051 Coliseum Way property was subsequently acquired by Pacific Gas and Electric Co. (PG&E). PG&E used this parcel for the storage and management of soil and fill materials. The previously deposited waste layers are currently capped with about 2 to 8 feet of undifferentiated soil and fill materials. More detailed information about the Site history can be obtained by reviewing the various reports referenced in Section 3.0.

The adjacent properties have a long history of industrial usage. From the approximately 1870 to about 1903, the properties at 5050 and 5200 Coliseum Way were used for lead smelting. From 1903 to around 1917, pyrite ores were retorted at those properties for the production of sulfuric acid. The ore reduction process resulted in the deposition of approximately 15, 000 cubic yards of pyrite slag and cinders on portions of the properties at 5050 and 5200 Coliseum Way.

A lithopone (paint pigment) manufacturing facility occupied the adjacent properties at 750-50th Avenue, 5050 Coliseum Way, and 5200 Coliseum Way from approximately 1926 to 1963. Residuals from lithopone production included various forms of insoluble sulfate solid residuals that were deposited as both dry filter cake and slurry deposits on the site as well as portions of the adjacent 5200 Coliseum Way property. The residuals included various metals, barium sulfate and zinc sulfate. In addition to the lithopone operations, there was a history of storage and distribution of coal tar (used in roofing applications) in above ground storage tanks and drums located on the 5050 and 5200 properties.

In 1963, the lithopone manufacturing facility was sold and a year later the site was demolished. In 1964, the lithopone facility buildings and structures were demolished, regrading occurred, and the former site of the lithopone facility remained vacant for approximately 10 years.

Subsequent environmental investigations, completed under the direction of the Alameda County Health Care Services (ACHCS) and the RWQCB, have indicated that the previously deposited waste residuals and contaminated soils remain in the subsurface of this site.

### **3.0 SUMMARY OF ENVIRONMENTAL SITE INVESTIGATIONS**

Numerous soil and groundwater investigations have been completed on this Site. These investigations have evaluated a variety of potential release sources and the nature and extent of impacts from those sources. A summary of the pertinent environmental investigations that have characterized the Site to date is provided below. Figures 3 and 4

show the sampling locations associated with these investigations. Additional information is available from the listed reports that follow.

Site Characterization Report 5051 Coliseum Way Oakland, California (Geomatrix 1996)	Geomatrix Consultants	6-96
Monitoring Well Sampling and Analysis at 5051 Coliseum Way Oakland, California (Clayton 1997A)	Clayton Environmental Consultants	10-2-97
Additional Remedial Investigation and Third Quarter 1998 Monitoring Report at Coliseum Way Properties 750-50 <sup>th</sup> Avenue and 5050, 5051 and 5200 Coliseum Way, Oakland, California (Clayton 1998)	Clayton Environmental Consultants	11-5-98
Additional Remedial Investigation 1999 at 5050, 5051, and 5200 Coliseum Way and 750-50 <sup>th</sup> Avenue, Oakland, California (Clayton 1999)	Clayton Environmental Consultants	5-25-99
Remediation and Risk Management Plan LeMean Holdings Properties Located at 750-50 <sup>th</sup> Avenue, 5050, 5051 and 5200 Coliseum Way, Oakland California.	Clayton Environmental Consultants	11-30-99

Geomatrix Consultants prepared a Site Characterization Report for the 5051 Coliseum Way property in June 1996. The field investigation was conducted in three phases. The first phase resulted in the collection of soil and groundwater samples from seven soil borings with analysis for metals. The second phase included additional soil and groundwater sampling from two soil borings and three groundwater monitoring wells. Soil samples were analyzed for metals, total sulfur, and soluble sulfate. Groundwater samples were analyzed for metals, anions, and alkalinity. The third phase included the advancement of six soil borings, installation of five monitoring wells, and the collection of groundwater elevation measurements from all wells on site. Soil samples were analyzed for metals only and groundwater samples were analyzed for metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The Geomatrix report also included a summary of the findings of the field investigations conducted at the site, other consultants work on the adjacent Coliseum Way Properties, and a review of historical photographs dating back to 1930.

Geomatrix identified three distinct soil layers at the site; an upper fill (ranging from 2 to 20 feet thick), a waste layer (identified in 16 of the 23 borings, thickest near Coliseum Way and thinning to the southwest from 0.5 to 7 feet thick where identified), and native soils (Bay Muds) from the former marshland that existed at the site prior to filling. Analytical results were evaluated for each of the three soil layers and the groundwater at the Site.

Geomatrix concluded that the former lithopone manufacturing operations used the 5051 Coliseum Way property for waste disposal. The waste layer identified beneath the fill material contains elevated concentrations of metals including arsenic, barium, cadmium, copper, lead, mercury, antimony, and zinc. The waste layer thins to the west covering only about half of the property. The waste layer in the northern part likely corresponds to filter mud wastes from the zinc sulfate plant. The wastes in the eastern part likely corresponds to black ash sludge from the former baryte plant. These and other wastes appear to be mixed in some portion of the deposit and likely include waste from former smelting and acid manufacturing. The groundwater at the site has been impacted by metals in the same general areas as the identified subsurface waste layer with potential contaminant migration from upgradient sources.

Geomatrix conducted additional groundwater monitoring in December 1996. Clayton's Monitoring Well Sampling and Analysis at 5051 Coliseum Way report dated October 2, 1997, includes Geomatrix's groundwater results. Clayton has conducted quarterly monitoring of the wells at 5051 Coliseum Way since April of 1998.

Clayton's Additional Remedial Investigation and Third Quarter 1998 Monitoring Report at Coliseum Way Properties (Clayton 1998) resulted in the collection of additional soil and groundwater samples from one boring (CSB-9) drilled to a total depth of 60 feet. Soil and groundwater samples were analyzed for metals, TDS, chlorides, and pH. The deep groundwater samples had TDS concentrations ranging from 26,000 to 35,000 mg/L. Continued quarterly groundwater monitoring of the wells included additional analyses for TDS and select samples were analyzed for petroleum hydrocarbons. Two additional adjacent and offsite wells (CW-8 and CW-9) were installed on the East Bay Municipal Utility District (EBMUD) property to further define the groundwater gradient near the 54th Avenue Creek that parallels the southeast property boundary about 75 feet to the southeast. Sample locations are presented in Figure 3. Clayton conducted surface water sampling of the open storm water channels that surround the site to determine if the metals in groundwater on the site was impacting surface waters.

Clayton concluded that no contaminants migrated below about 20 feet deep. Elevated chloride and TDS concentrations in the deeper groundwater samples indicate trapped connate saline water during Bay Mud deposition and no downward migration of surficial contaminants. Groundwater elevations and apparent tidal influences affecting the immediate area of well MW-4 indicate the possible presence of permeable materials that may allow groundwater to migrate to the weep holes along the base of the open storm water channel to the southwest. Surface water results indicated detectable concentrations of arsenic, barium, and zinc; however, the concentrations were generally found to be near basin plan objectives.

Clayton also prepared an Additional Remedial Investigation 1999 report that summarized weep water sampling from the storm water channel that borders the southwest property boundary, calculated metals mass loading for the storm channel upgradient of the site, and calculated an area-weighted TDS for the Coliseum Way Property.

Clayton concluded that zinc and cadmium in groundwater were impacting the surface waters from weep hole releases at low tide along the southwest property boundary; however, the release is considered minimal. Clayton calculated the metal mass loading rate at approximately 7.6 pounds of zinc and 0.1 pounds of cadmium per year. (The proposed remedial actions to address this release are detailed in the Feasibility Study attached to the Remediation and Risk Management Plan for these properties.)

The area-weighted TDS concentration for the entire Coliseum Way Properties was calculated to be more than 6,400 mg/L and the elevated TDS in the deeper groundwater samples down to 47 feet bgs indicate that the local groundwater is not a potential source for drinking water.

#### 4.0 HEALTH RISK ASSESSMENT

On February 18, 1998, the RWQCB issued a letter requiring, among other items, a risk assessment to determine if the contaminants detected at the Site pose a threat to human health. In response to that letter, a Risk Assessment Workplan was prepared and submitted to the RWQCB in November 1998. After the Workplan was approved, a Health Risk Assessment Report (HRA) was subsequently prepared and submitted in February 1999.

The HRA addresses the 5051 Coliseum Way property, as well as the adjacent 5050/750-50th Avenue and 5200 Coliseum Way properties. To evaluate potential health impacts from metals in soil; the HRA evaluated data from each of the three separate properties. To evaluate potential impacts from volatile and semi-volatile organic compounds (VOCs and SVOCs) in the soil and groundwater, data from all three properties were evaluated as one data set resulting in a site wide risk. This approach avoided the arbitrary grouping of data from groundwater wells that collect groundwater from more than one property over time and provided a better depiction of the potential risks and movement of VOCs and SVOCs.

To determine the potential impacts to public health that the contaminants may pose, two distinct exposure scenarios were evaluated as part of the HRA. The first scenario assumed that the Site remains in its current state and that exposures only occur if construction and excavation activities take place. The second scenario assumes that the properties remain industrial as zoned, and that additional buildings are constructed on each of the properties. The HRA findings for both scenarios are summarized below.

The calculated average carcinogenic risk (presented as an Individual Excess Lifetime Cancer Risk) and calculated average noncarcinogenic Hazard Index for the construction scenario at the Site were 6.8E-06 and 1.9348 respectively.

The calculated carcinogenic risk (presented as an Individual Excess Lifetime Cancer Risk) and noncarcinogenic Hazard Index for the on-site commercial/industrial scenario at the Site were 1.21 E-06 and 0.0766 respectively.

As stated by the RWQCB, an individual excess lifetime cancer risk greater than 1E-04 is generally considered an unacceptable carcinogenic risk and a Hazard Index of greater than 1.0 is considered unacceptable exposure to noncarcinogens. The construction worker scenario indicated unacceptable noncarcinogenic hazards. The risks for on-site commercial/industrial occupants are within acceptable levels.

The RWQCB approved the HRA for the Coliseum Properties in a letter dated July 26, 1999 providing that Remediation and Risk Management Plan (RRMP) accompany soil management plans with appropriate health and safety measures for construction workers. This document was prepared to comply with that requirement.

## **5.0 FUTURE MANAGEMENT ACTIVITIES AND MITIGATION OF RISK**

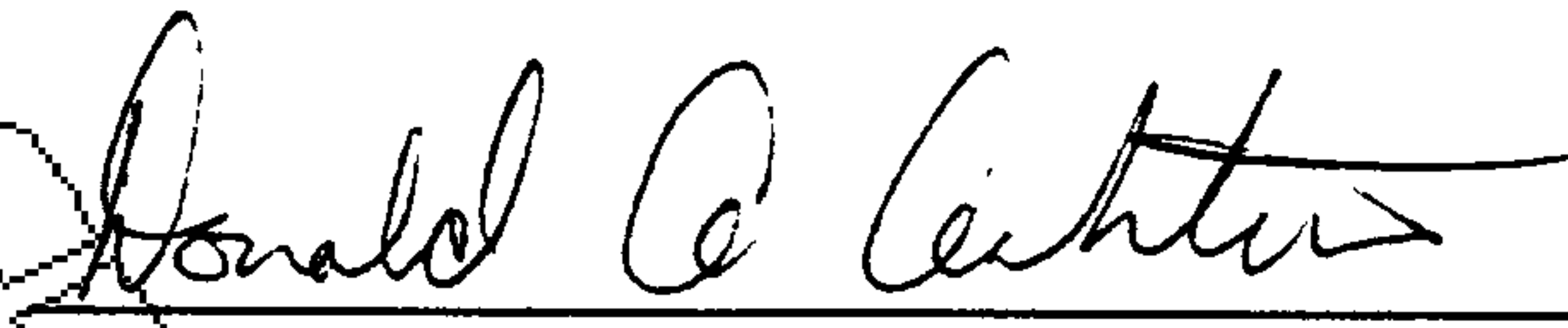
Future excavation and grading of the site will be limited to that which is performed in a manner protective of the health and safety of on-site construction workers, the public and the environment. The following guidelines are to govern any future site work, or use of this property, that will significantly disturb or expose the constituents of concern.

- It is prudent to take precautions against worker exposure in any area that has been impacted by hazardous chemicals. For this reason, future excavation and construction activities on any portion of the subject site, which will disturb subsurface soils shall be undertaken in accordance with a written Health and Safety Plan that conforms to the applicable State and Federal Guidelines, specifically, California Code of Regulations Title 8, Section 5192, and, Title 29 of the Code of Federal Regulations Section 1910. 120 (See Appendix A – Health and Safety Plan Outline). This plan is to be prepared to address the specific site activities and to minimize potential exposures to the construction workers. The plan will be signed by a California Certified Industrial Hygienist.
- Any excavation into subsurface soil, which causes exposure of contaminated soil shall be restricted to that specified in a written scope of work and shall be approved in advance by the staff of the RWQCB (or a successor agency.) Unless specific approval is provided by the RWQCB (or successor agency), the current surface conditions (i.e., a relatively level topography with the surface covered by 2 to 8 feet of imported soil) will be maintained until such time that the property is developed and entirely covered by impervious surfaces (paving, building foundations/roofs), except for minor landscaped areas. Development and or capping of the property will be necessary in order for the agency to grant conditional no further action for this property.

- Any soils excavated at the site will be handled and/or disposed of according to applicable State, and Federal laws and regulations. All waste materials deposited on the property will be covered and capped to contain the waste and protect workers from potential exposure. Any waste materials or soils containing metals in excess of soil cleanup standards and disturbed by subsurface construction or maintenance activities should be removed from the site for off-site disposal in accordance with applicable rules and regulations for the handling of contaminated materials. (It should be noted that based on current analytical data, some of the site soils may exceed federal hazardous waste characteristic levels, if excavated.) Further, some soil and waste previously excavated from portions of the Site were managed as federal Hazardous Waste.
- Any physical structures (i.e. barriers, cut-off walls etc.) that are installed on the property for the purpose of preventing migration of contaminated soil or groundwater will be maintained on this property and shall not be altered or removed without approval of the Regional Water Quality Control Board, or a successor agency.
- If groundwater is encountered during excavation, it will be handled and disposed of according to applicable State, and Federal laws and regulations. The pH for groundwater samples has ranged from about 5.5 to 7.9 units. Groundwater purged from some wells may require handling as California hazardous waste due to high metal concentrations.
- To prevent potential degradation of deeper aquifers at the site, any deep excavation or drilling will be performed according to a written scope of work which shall be submitted to the RWQCB no less than 30 days prior to commencing activities. All on-site work shall be done according to applicable Alameda County, State, and Federal laws and regulations governing such activities.
- A copy of this SMP shall be maintained by the owner, with additional copies maintained on site where they may be accessed by current and future tenants.
- The land use at the site shall remain industrial or commercial, unless appropriate measures are taken to mitigate potential risk to the public, according to applicable environmental regulation and agency approvals.

- A deed restriction, with a copy of this SMP appended, shall be imposed on the property and submitted to the RWQCB and all other interested and applicable government agencies.

Report prepared by:



Donald A. Ashton, RG, REA  
Senior Geologist  
Environmental Services

Report reviewed by:

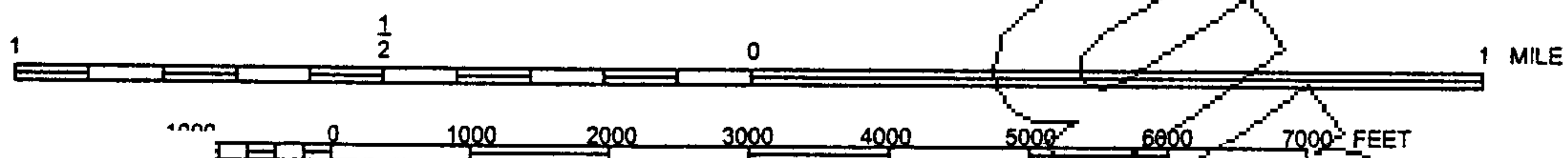
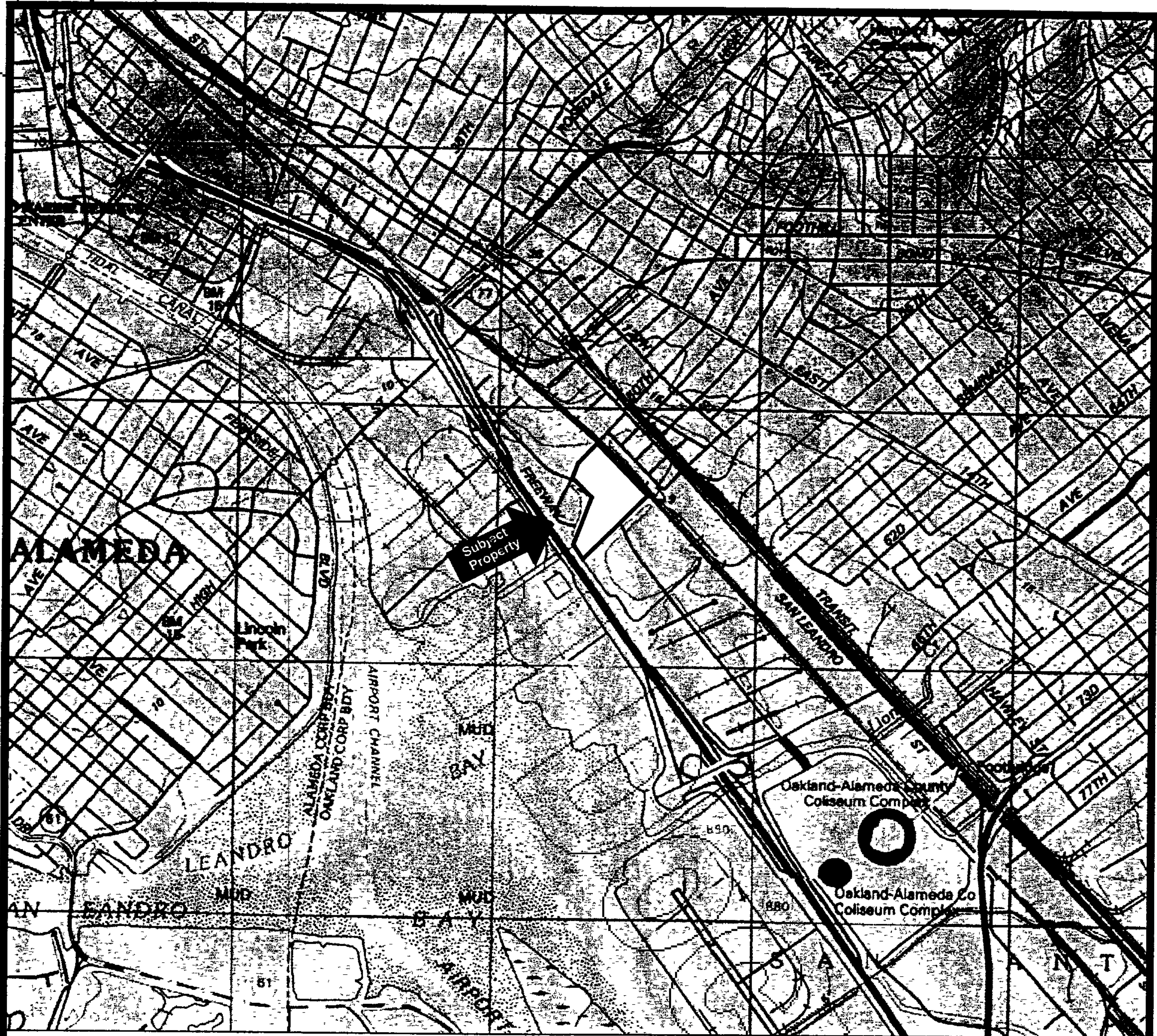


Dwight R. Hoenig  
Vice President, Western Regional Director  
Environmental Services  
San Francisco Regional Office

March 30, 2001



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DOCSUMBER  
FIGURES



RECORDERS MEMO  
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 OF THIS DOCUMENT WHEN RECORDED.

Portion of the 7.5-Minute Series Oakland East, California  
 Quadrangle Topographic Map  
 United States Department of the Interior  
 Geological Survey  
 1997



QUADRANGLE LOCATION

PROPERTY LOCATION MAP  
 Coliseum Way Properties  
 Oakland, California

Clayton Project No. 70-00509.00.100

Figure

1



54TH AVENUE CREEK  
SUBSURFACE CULVERT

ROAD

5200  
COLISEUM WAY

SEUM WAY

5051  
COLISEUM WAY

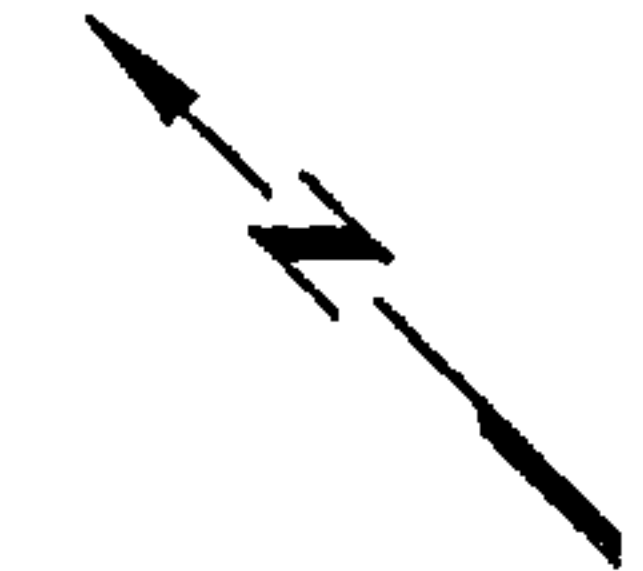
PUMP  
STATION

EBMUD  
PROPERTY

54TH AVE.  
CREEK

STORMWATER  
DRAINAGE CHANNEL

TO BAY



**SITE PLAN**

5051 COLISEUM WAY  
OAKLAND, CALIFORNIA  
Clayton Project No 70-00509 00 100

Figure

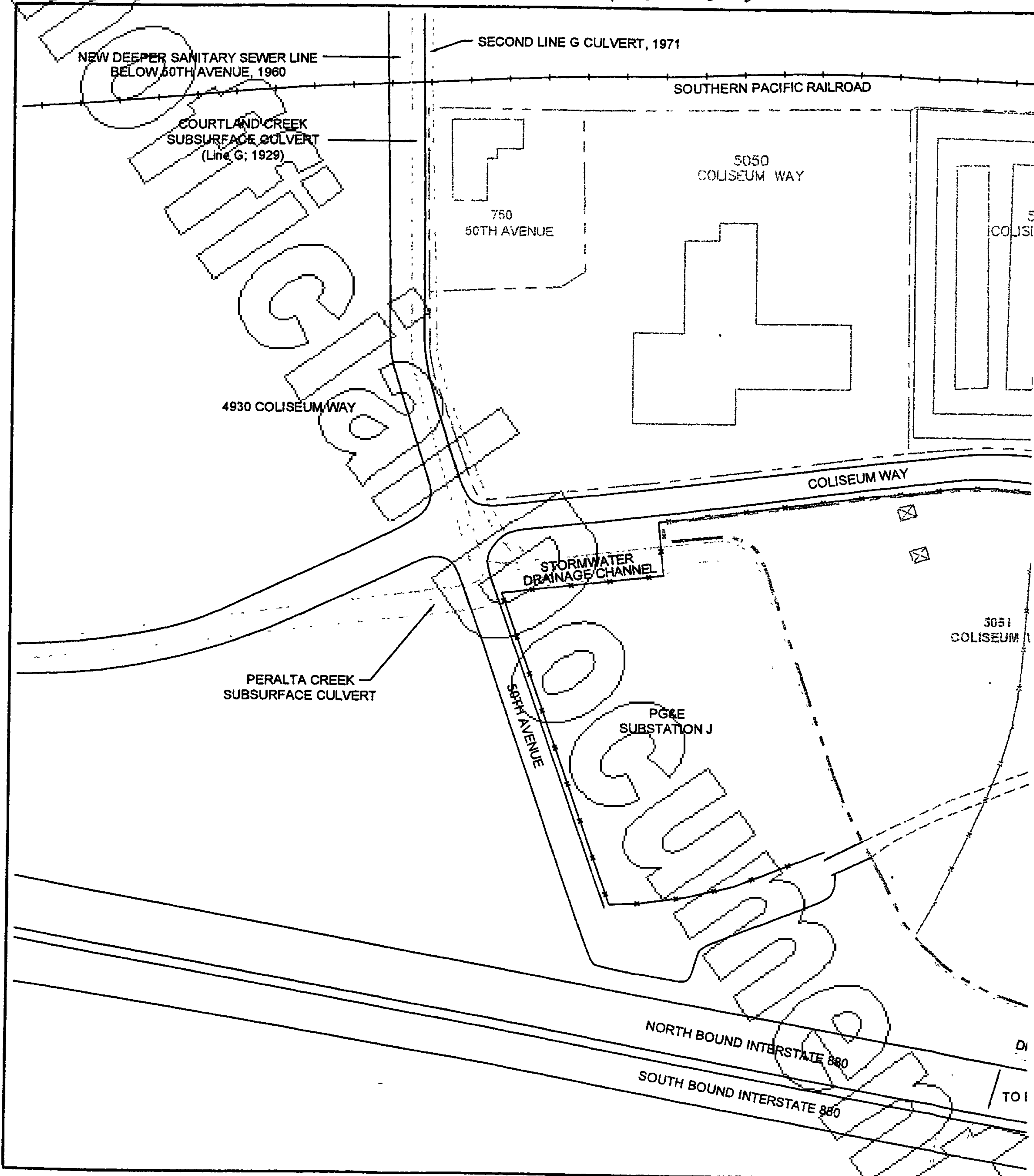
**2**

03/27/01

SMP-5051 DWG



FIGURE 2

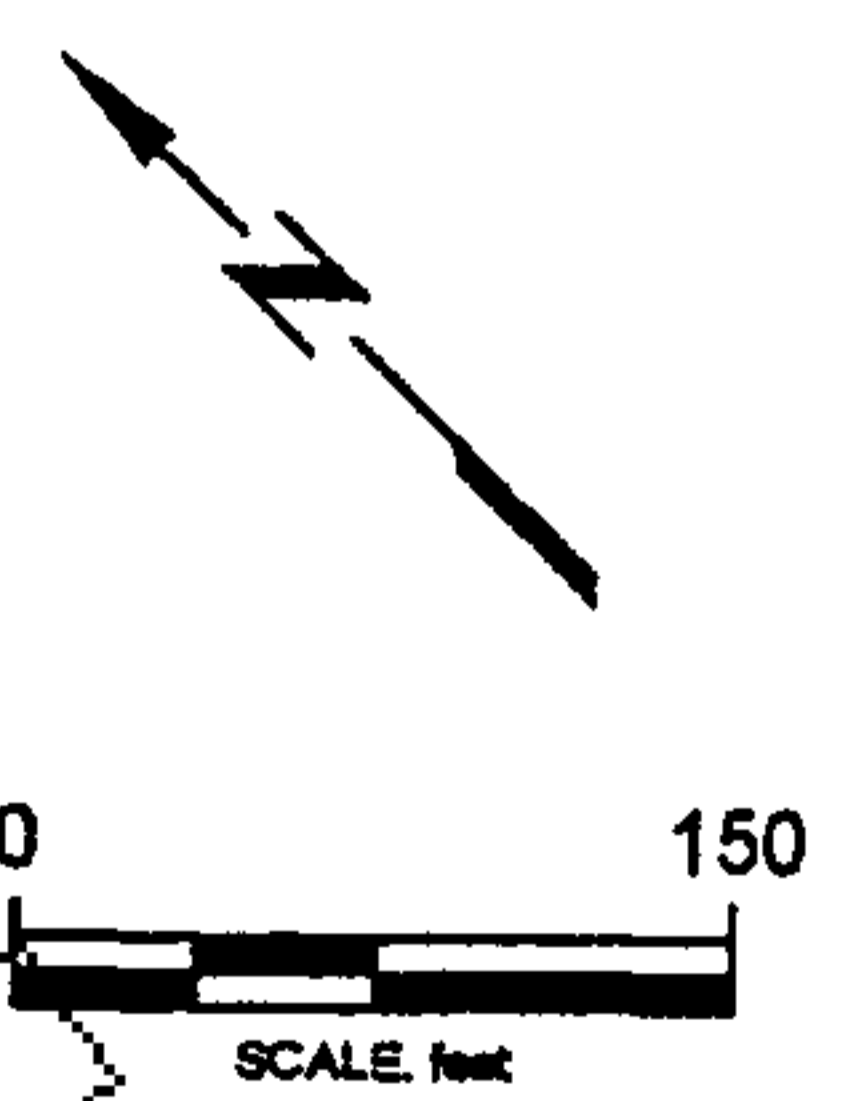
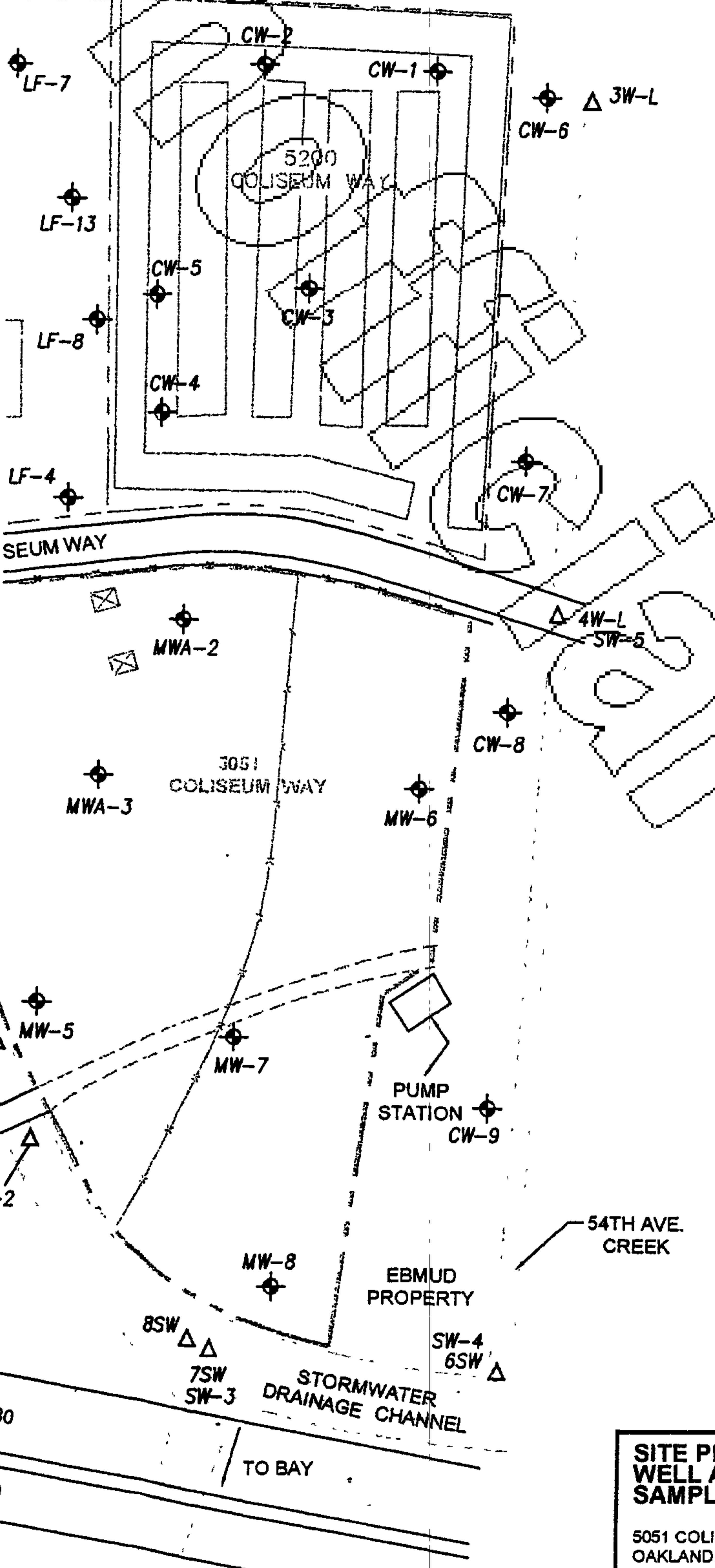


54TH AVENUE CREEK  
SUBSURFACE CULVERT

ROAD

**LEGEND:**

- CW-6  Monitoring Well Location
- JW-L  Surface Water Sample Location



**SITE PLAN WITH MONITORING  
WELL AND SURFACE WATER  
SAMPLE LOCATIONS**

5051 COLISEUM WAY  
OAKLAND, CALIFORNIA  
Clayton Project No 70-00509 00 100

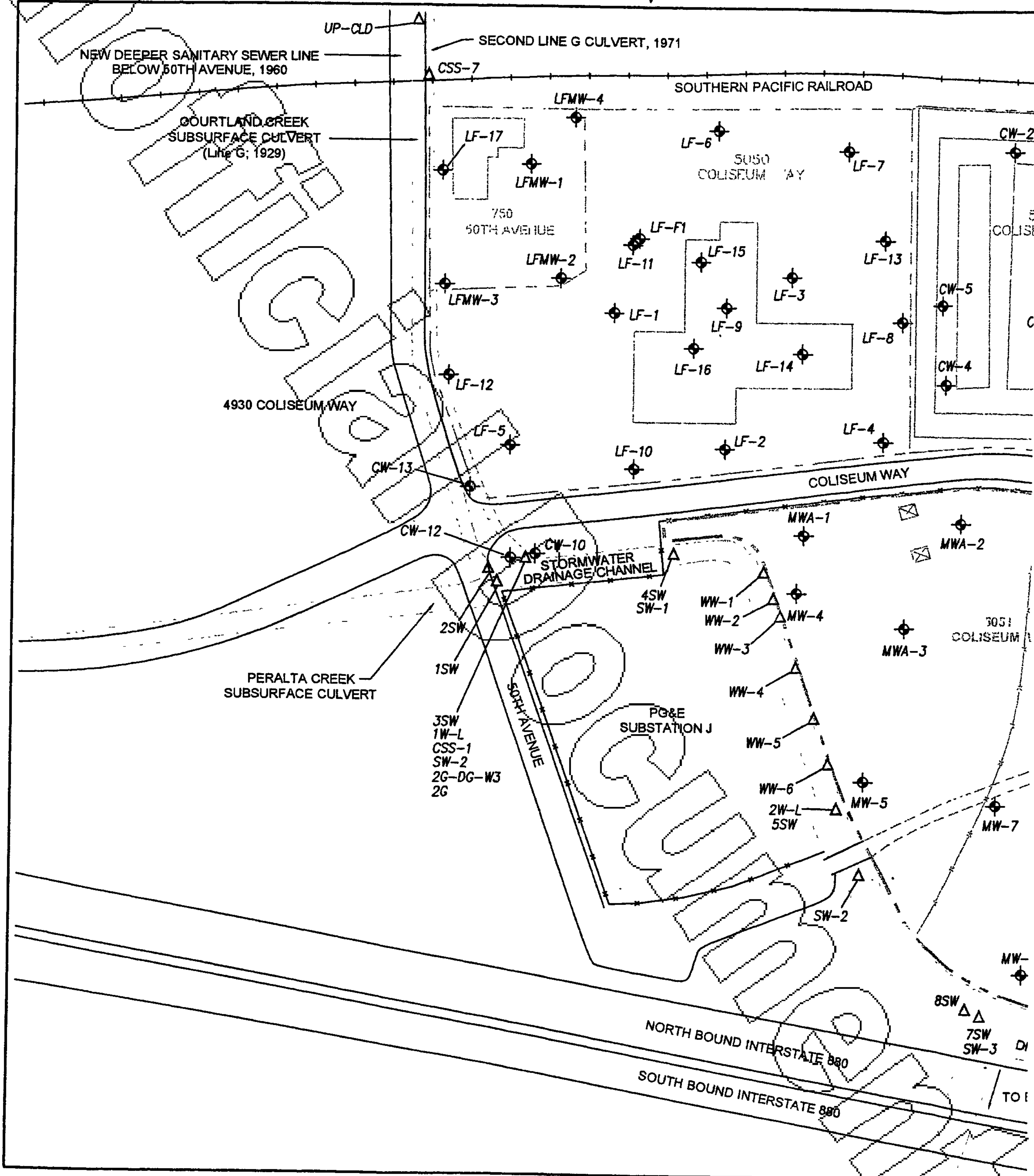
Figure

**3**



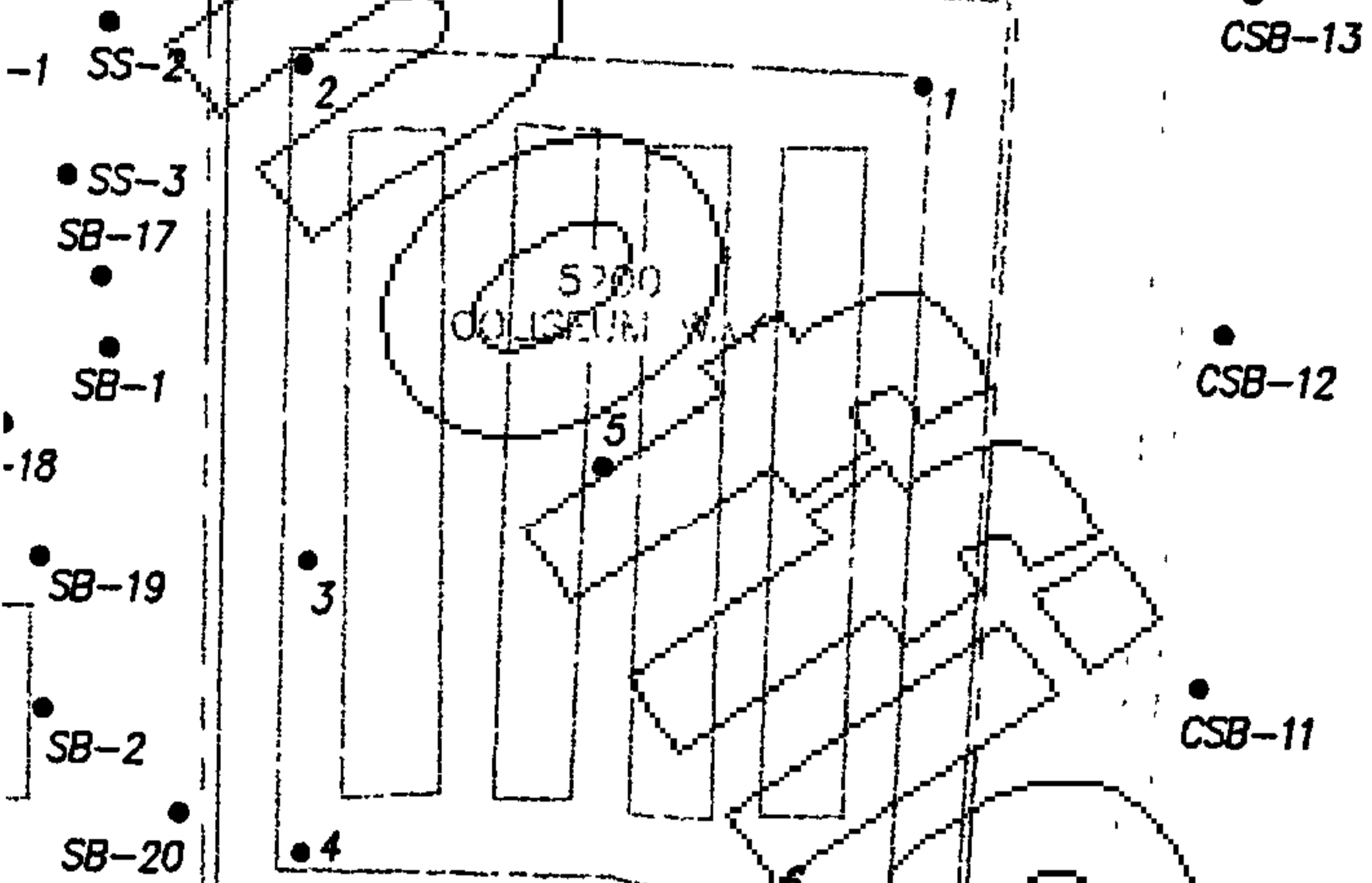
03/27/01  
SMP-5051 DWG

FIGURE 3



54TH AVENUE CREEK  
SUBSURFACE CULVERT

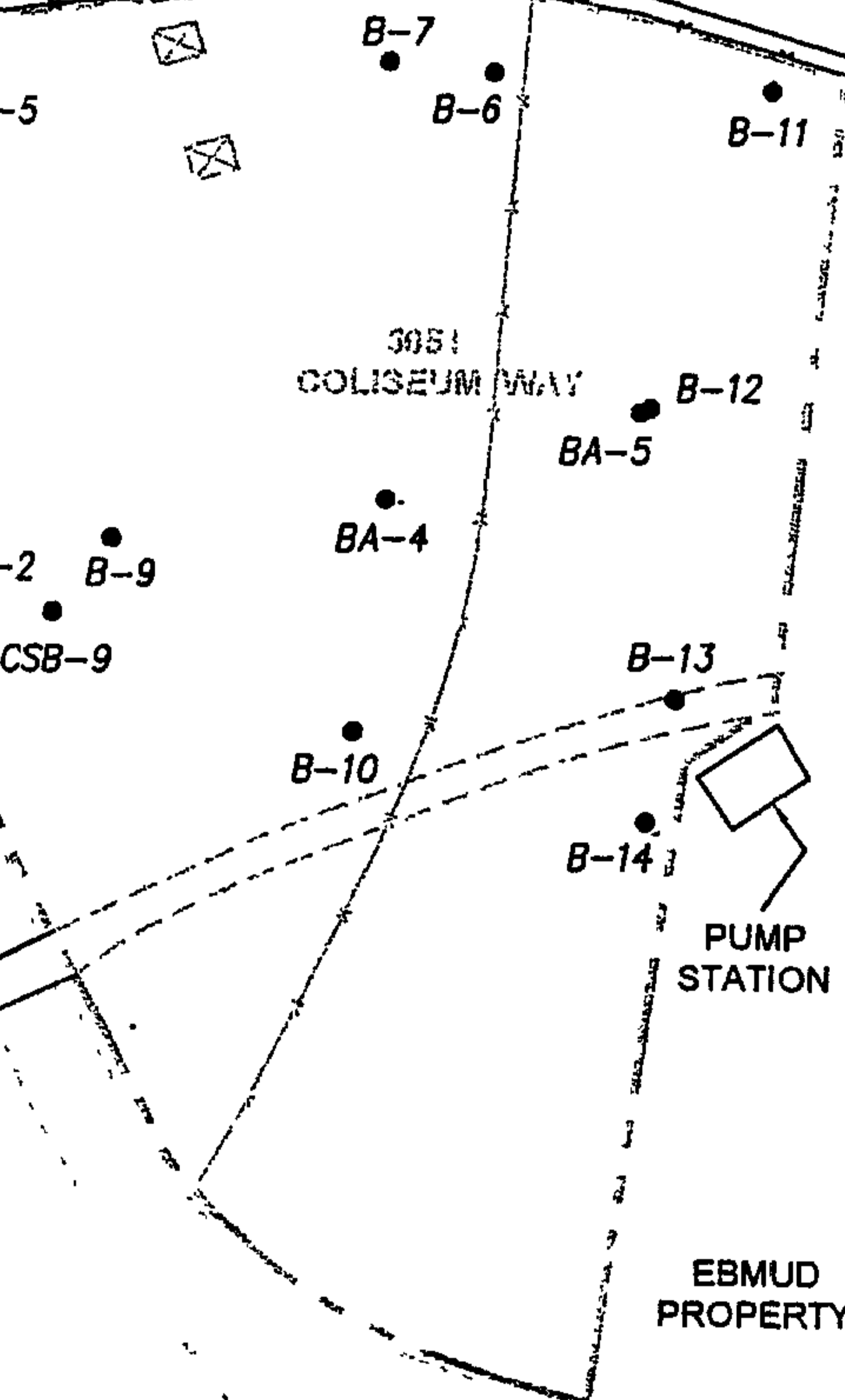
OAD



**LEGEND:**

CSB-13 • Soil Boring Location

SEUM WAY

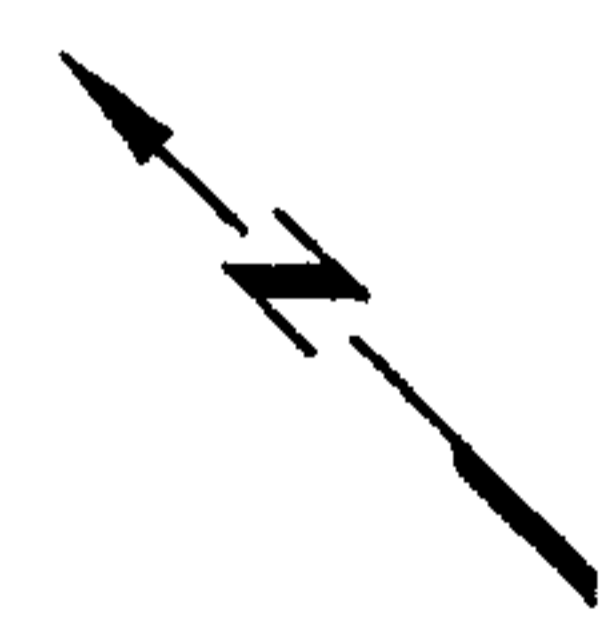


54TH AVE.  
CREEK

EBMUD  
PROPERTY

STORMWATER  
DRAINAGE CHANNEL

TO BAY



**SITE PLAN WITH  
SOIL BORING LOCATIONS**

5051 COLISEUM WAY  
OAKLAND, CALIFORNIA  
Clayton Project No 70-00509 00 100

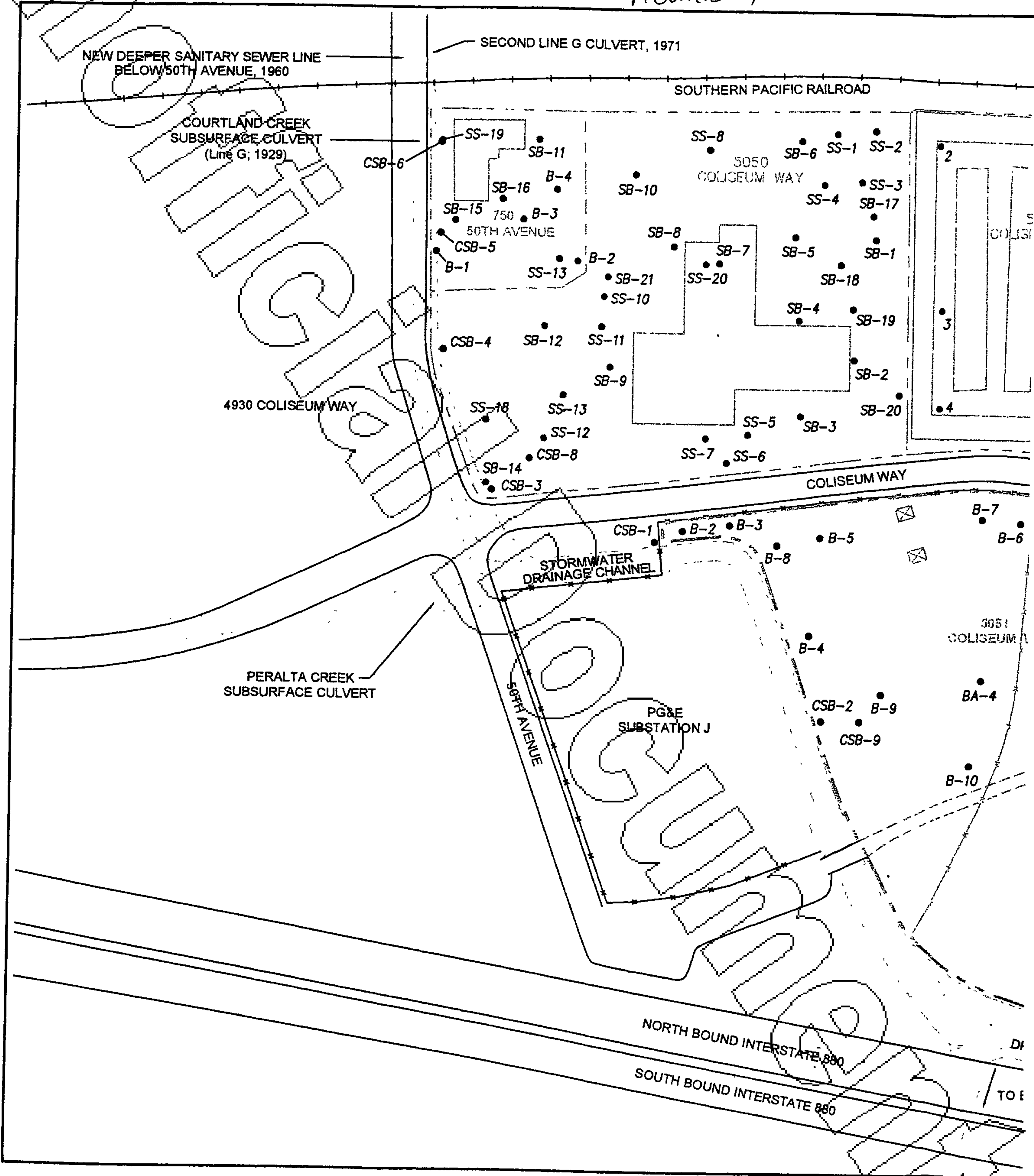
Figure

**4**

03/27/01  
SMP-5051 DWG

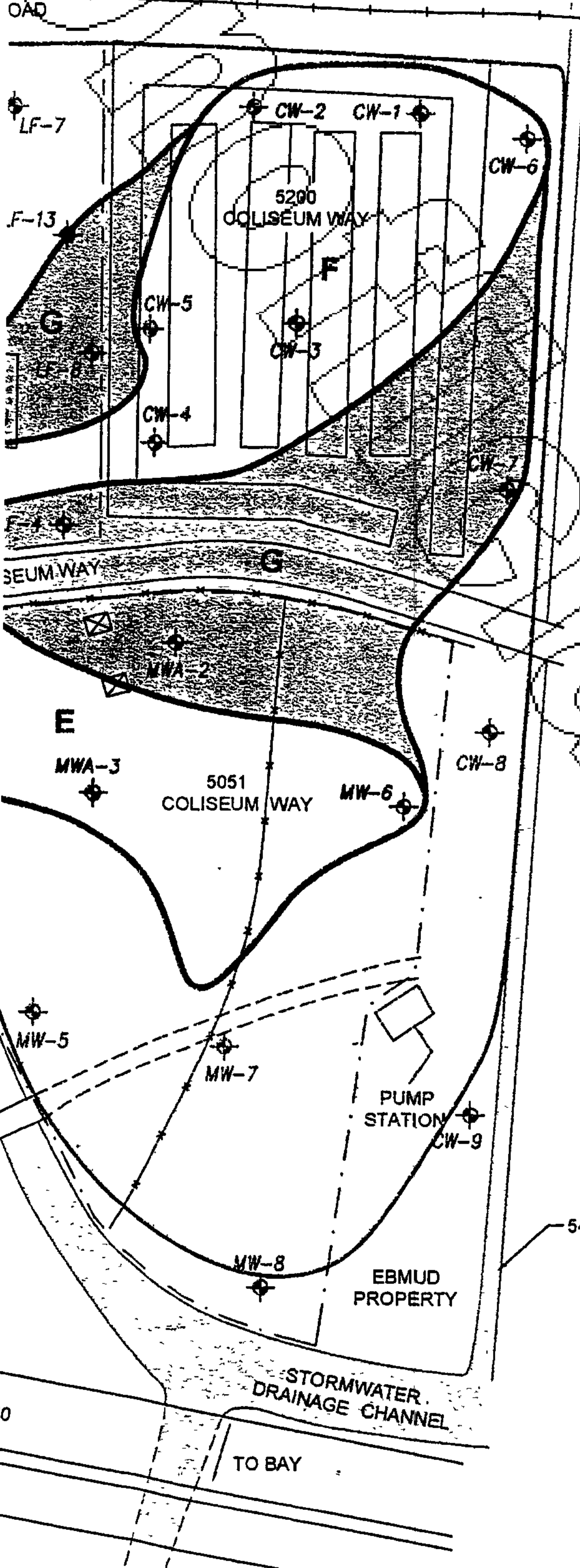


FIGURE 4





54TH AVENUE CREEK  
SUBSURFACE CULVERT



**LEGEND:**

⊕ Monitoring Well Location

Subsurface Waste Areas

*North Area*

A 25'

B 15'

C 15'

D 7.5'

*South Area*

E 13'

F 13'

G 7.5'

↑ Maximum Known Depth  
of Buried Waste Material

Buffer Zone  
*Potentially contaminated  
groundwater and soil - waste  
layers not identified*

**ZONES OF POTENTIALLY  
CONTAMINATED GROUNDWATER AND  
SOIL, AND SUBSURFACE WASTES**

5050, 5051, AND 5200 COLISEUM WAY  
OAKLAND, CALIFORNIA  
Clayton Project No 70-00509 00.100

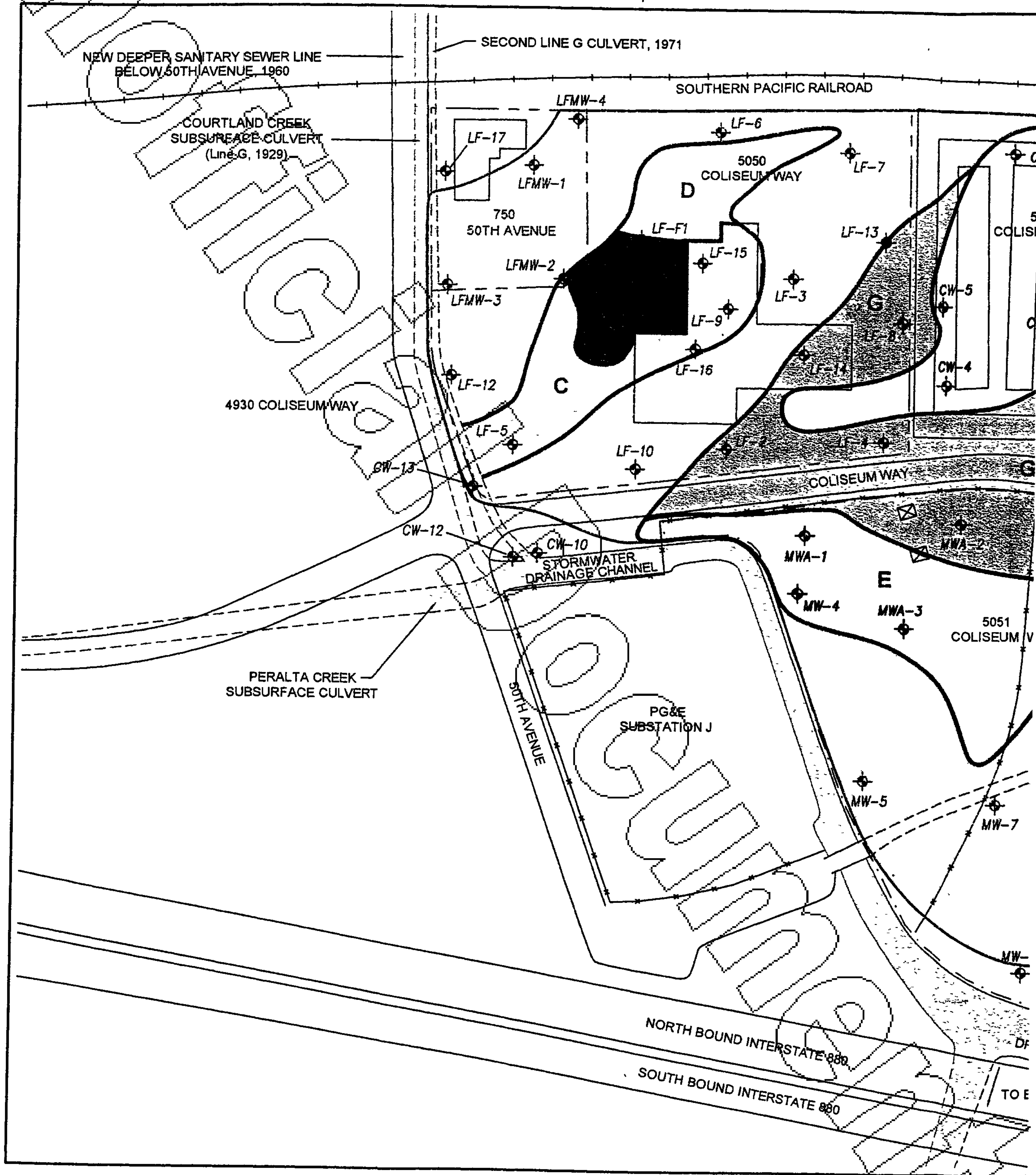
Figure

**5**



03/27/01  
SUBSURFACE

FIGURE 5



**APPENDIX A**  
**HEALTH AND SAFETY PLAN OUTLINE**

UNOFFICIAL DOCUMENT

## HEALTH AND SAFETY PLAN OUTLINE

### COLISEUM WAY PROPERTIES 5051 COLISEUM WAY, OAKLAND, CALIFORNIA

The following Health and Safety Plan Outline has been prepared as an appendix to the Soil Management Plan for the individual property listed above. The outline identifies the basic requirements of a health and safety program as promulgated in 29 CFR 1910.120 (as of March 2001) with special comments in parentheses ( ) and italics identifying special concerns that should be addressed in the preparation of future health and safety programs for any excavation projects that may take place at these properties until such time that the properties are fully remediated.

Previous subsurface investigations of this property have indicated the presence of significant quantities of potentially hazardous soil, slag and fill materials. The contaminants of concern are found in both soil and groundwater and include heavy metals such as arsenic, barium, zinc (See attached table). These constituents may be present at concentrations, which could pose a health and safety threat to workers who have the need or opportunity to conduct excavation or subsurface construction projects on this property, if such workers are not properly advised, trained and protected. This document is intended to advise future site owners, managers, contractors and others of the existence of subsurface contaminants. This document also provides technical information, which would assist a qualified health and safety professional in writing the appropriate "project specific" health and safety protocols that will govern future excavation or construction work that will encounter contaminated subsurface materials.

This document was prepared as part of a Remediation and Risk Management Plan (Clayton 2001) for the Coliseum Way Properties that was submitted to the San Francisco Regional Water Quality Control Board (RWQCB). This document, as well as other technical documentation for this site, is on file with the RWQCB as well as the Alameda County Department of Environmental Health Services.

#### **Required information.**

The following information, to the extent available, shall be obtained by the site manager or supervising contractor prior to initiating subsurface excavation or construction activities:

- (i) Location and approximate size of the future project site.
- (ii) Description of the response activity and/or the job task to be performed.
- (iii) Duration of the planned employee activity.
- (iv) Site accessibility.

(v) Safety and health hazards expected at the site. Potential hazards will be a function of the proposed scope of work, such as depth of excavation and nature of work performed in the excavation, as well as the contact with the potentially hazardous substances and exposure pathways identified at the site (See item viii).

(vi) Pathways for hazardous substance dispersion.

(vii) Present status and capabilities of emergency response teams that would provide assistance to hazardous waste clean up site employees at the time of an emergency.

(viii) Hazardous substances and health hazards involved or expected at the site, and their chemical and physical properties. (See attached table of Identified Substances that Potentially Present Health Risks)

### **Safety and health program.**

The "site manager" (supervisor/contractor or other party responsible for the supervision or direction of subsurface excavation or construction projects) shall develop and implement a written safety and health program for employees involved in operations or activities which may expose them to contaminated materials. That written program shall be available for inspection by employees, their representatives and OSHA personnel. The program shall be designed to identify, evaluate and control safety and health hazards associated with subsurface hazardous constituents at this site for the purpose of employee protection, to provide for emergency response and to address as appropriate site analysis, engineering controls, maximum exposure limits, and hazardous waste handling procedures.

### **Elements of an emergency response plan**

The employer shall develop an emergency response plan for emergencies, which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

(A) Pre-emergency planning and coordination with outside parties.

(B) Personnel roles, lines of authority, and communication.

(C) Emergency recognition and prevention.

(D) Safe distances and places of refuge.

(E) Site security and control.

(F) Evacuation routes and procedures.

(G) Decontamination procedures.

(H) Emergency medical treatment and first aid.

(I) Emergency alerting and response procedures.

(J) Critique of response and follow-up.

(K) PPE and emergency equipment.

#### **Site-specific safety and health plan**

(i) General. The site safety and health plan, which must be kept on site, shall address the safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection.

(ii) Elements. The site safety and health plan, as a minimum, shall address the following:

(A) A safety and health risk or hazard analysis for each site task and operation of a proposed project which may result in an exposure to hazardous materials found in the subsurface.

(B) Employee training assignments to assure compliance with appropriate health and safety regulations.

(C) Appropriate personal protective equipment (PPE) to be used by employees for each of the site tasks and operations being conducted. *(Note: The health risk assessment conducted for these properties identified exposure pathways as contact, ingestion and inhalation by workers. Appropriate PPE and work practices should be used to protect against exposure by these pathways when handling soil and groundwater at the work site.)*

(D) Appropriate medical surveillance requirements for identified contaminants.

(E) Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used. *(Identified contaminants are subsurface solid wastes, petroleum hydrocarbons, and contaminated groundwater. Waste materials and contaminated groundwater may exist immediately below the site capping materials and all excavated material should be handled as hazardous material until appropriate testing is conducted. Protective measures should be used to protect against exposure to these substances. Dust management should be employed if waste materials are placed on the surface and allowed to dry.)*

(F) Appropriate site control measures in accordance with the site control program. *(Note: Special care should be made to keep any residual excavated wastes from entering the onsite storm drains so that there is no impact to the adjacent surface waters and the bay.)*

(G) Appropriate decontamination procedures for the identified contaminants.

(H) An emergency response plan meeting the requirements for safe and effective responses to emergencies, including the necessary PPE and other equipment.

(I) Confined space entry procedures, if applicable.

(J) A spill containment program should be implemented to insure that contaminated waste materials do not migrate, especially to storm drains and adjacent storm channels.

(iii) Pre-entry briefing. The site specific safety and health plan shall provide for pre-entry briefings to be held prior to initiating any site activity which may expose individuals to subsurface contaminants, and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The information and data obtained from site characterization and analysis work shall be used to prepare and update the site safety and health plan.

(iv) Effectiveness of site safety and health plan. Inspections shall be conducted by the site safety and health supervisor or, in the absence of that individual, another individual who is knowledgeable in occupational safety and health, acting on behalf of the employer as necessary to determine the effectiveness of the site safety and health plan. Any deficiencies in the effectiveness of the site safety and health plan shall be corrected by the employer.

**Identified Substances That Potentially Present Health Risks  
To Future Subsurface Construction Workers at  
5051 Coliseum Way, Oakland, California**

**CARCINOGENIC SUBSTANCES**

**Oral**

Arsenic

**Dermal**

Arsenic

**Inhalation**

Arsenic

Cadmium

**NONCARCINOGENIC SUBSTANCES**

**Oral**

Antimony

Arsenic

Barium

Cadmium

Mercury

Thallium

Zinc

**Dermal**

Arsenic

Mercury

Zinc

Note: Potential Health Risks Identified in *Health Risk Assessment  
Report Coliseum Properties, Oakland, California*, February 22, 1999,  
RATECH Resources



EXHIBIT C

BOARD ORDER NO. 01-032

ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS

ADOPTED MARCH 21, 2001

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 01-032

ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS AND RESCISSION OF  
ORDER NO. 99-014 FOR:

MILLENNIUM HOLDINGS, INC.,  
5050 COLISEUM, LLC, and  
OAKLAND 5051, LLC

for the property located at

750 50<sup>th</sup> AVENUE AND 5050, 5051, AND 5200 COLISEUM WAY  
OAKLAND  
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location:** The subject properties (the "site") are located at 750 50<sup>th</sup> Avenue and 5050, 5051, and 5200 Coliseum Way, Oakland, Alameda County. They are in an industrial area of Oakland, approximately one half-mile east of San Leandro Bay. The site is approximately 15 acres in size and bounded by a Southern Pacific Railroad to the northeast, the 54<sup>th</sup> Avenue Creek (an open drainage ditch) to the south, an open stormwater drainage channel to the west, and the Courtland Creek Culvert and the Second Line G Culvert underneath 50<sup>th</sup> Avenue to the northwest. (see Figure 1. Site Location Map, attached)

2. **Site History:**

This site has been under investigation since 1990. It consists of 4 properties, 750 50<sup>th</sup> Avenue, 5050, 5051, and 5200 Coliseum Way. Three properties are fully developed and entirely covered with impervious surfaces. The fourth property, 5051 Coliseum Way, is vacant and unimproved except for two high voltage electrical transmission towers. The 750 50<sup>th</sup> Ave. and 5050 Coliseum Way parcels are considered as a single property and are occupied by a truck maintenance facility which is leased to the City of Oakland. The 5200 Coliseum Way property is developed with self storage units.

The site has a long history of industrial use. From about 1879 to 1903, the site was used for lead smelting from sulfide ores. From 1903 to 1917, it was used for sulfuric

and nitric acid production including the retorting of pyrite ores and sodium nitrate. The smelting and ore reduction reportedly resulted in the deposition of about 15,000 cubic yards of process waste residuals on the 5050 and 5200 Coliseum Way properties. From 1917 to 1926, it was used by various chemical manufacturing companies.

In 1926, a lithopone (paint pigment) manufacturing facility was developed on the site and operated by the Glidden Paint Company. Lithopone consists of a chemically co-precipitated pigment of barium sulfate and zinc sulfide. Processing residuals from lithopone production included various forms of insoluble sulfate residuals including barium sulfate, zinc sulfate, and black ash. These residuals were deposited as both dry filter cake and slurry deposits on the 5050, 5051, and 5200 Coliseum Way properties. These deposits were buried by a cover of 3 to 7 feet of imported soil and other fill materials which remain in place today. In addition to the lithopone operations there was a history of storage and distribution of coal tar (used in roofing applications) in above ground storage tanks and drums located on the 5050 and 5200 Coliseum Way properties.

The lithopone facility operated until 1963. Above ground structures were demolished and removed from the site in 1964. In 1974, a heavy-truck maintenance facility was developed by Volvo/General Motors Truck Division (Volvo GM) on a portion of the site (the 5050 Coliseum Way and 750 50<sup>th</sup> Ave. properties). The property at 5200 Coliseum Way was developed into a self storage facility in 1977. The northerly part of the 5051 Coliseum Way property has been used for the storage of construction materials and the southerly part of the property has been used for weekend parking.

In 1997 and 1998 Millennium Holdings (Millennium), corporate successor to Glidden Paint Company, purchased the 750 50<sup>th</sup> Ave. and 5050 Coliseum Way property from Volvo GM, and the 5051 Coliseum Way property from Pacific Gas and Electric Company (PG&E). Millennium also accepted responsibility for environmental issues on the 5200 Coliseum Way property that were associated with the former lithopone manufacturing use.

Millennium's ownership interest in the subject properties was conveyed to LeMean Property Holdings (LeMean) in March 1999. In January 2000, LeMean's ownership interest in the 750 50<sup>th</sup> Avenue and the 5050 Coliseum Way parcels was conveyed to 5050 Coliseum, LLC and its interest in the 5051 Coliseum Way parcel was conveyed to Oakland 5051, LLC. In addition, Oakland 5051 has agreed to act as Millennium's agent to address environmental issues on the 5200 Coliseum Way parcel.

3. **Named Dischargers:** Millennium Holding, Inc. is named the discharger due to Millennium's successor corporate interest in the Glidden Paint Company, its prior ownership of the 750 50<sup>th</sup> Avenue, and 5050 and 5051 Coliseum Way properties.

Millennium's acceptance of responsibility for remediation of the 750 50<sup>th</sup> Avenue, 5050, 5051, and 5200 Coliseum Way and because Millennium was the named Discharger in Order No. 99-014.

5050 Coliseum, LLC, is named as discharger due to its ownership interest in the 750 50<sup>th</sup> Avenue, and the 5050 Coliseum Way properties. Oakland 5051, LLC, is named as discharger due to its ownership interest in the 5051 Coliseum Way property.

Volvo GM (former owner of 750 50<sup>th</sup> Avenue and 5050 Coliseum Way) and PG&E (former owner of 5051 Coliseum Way) are not named as dischargers in this order for the following reasons: Millennium has adequate financial resources to comply with this order; Millennium has complied with prior Board requests; and Millennium has requested that Volvo GM and PG&E not be named in this order. However, Volvo GM and PG&E may be named in the future if these circumstances change.

Coliseum Storage Associates (CSA), current owner of the 5200 Coliseum Way property, is not a named discharger in this order because Millennium has adequate financial resources to comply with this order; Millennium has complied with prior Board requests; and Millennium and Oakland 5051, LLC, have accepted responsibility for investigation and cleanup of the site. However, CSA may be named in the future if these circumstances change.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Board will consider adding those parties' names to this order.

4. **Regulatory Status:** This site was subject to the following Board order: Site Cleanup Requirements (Order No. 99-014) adopted April 8, 1999.
5. **Site Hydrogeology:** The Site is located in the East Bay Plain Basin. Soils immediately underlying the site consist of clayey to silty sand with gravel fill material extending to approximately 3 to 7 feet below ground surface (bgs). Below the fill material is a layer of waste material. Bay Mud consisting of silty clay, clayey sand, silt, and thinly bedded sands underlies the waste materials to a depth of 60 feet bgs, the total depth investigated.

Groundwater is first encountered at approximately 7 feet bgs. It generally flows west towards San Leandro Bay at a gradient of 0.015 feet per foot. Shallow aquifers of limited extent located throughout the East Bay Plain are often perched, discontinuous, and unconfined.

The site is bordered on three sides by tidally influenced storm drainage channels. An open and unlined channel (54<sup>th</sup> Avenue Creek) borders the southerly property boundary. Two underground stormwater conduits (Courtland Creek and the Second Line G Culvert) border the northerly property boundary and join with the Peralta Creek drainage channel prior to discharging to San Leandro Bay.

6. **Remedial Investigation:**

The following documents which describe the soil and groundwater investigations, risk analysis, and remedial/risk management plans have been submitted to the Board:

Sept. 19, 1994, *Remedial Investigation Report 5050 Coliseum Way and 750 50<sup>th</sup> Avenue Oakland, California*, prepared by Levine-Fricke for Volvo GM

Nov. 23, 1994, *Preliminary Remedial Alternatives Evaluation Report 5050 Coliseum Way and 750 50<sup>th</sup> Avenue Oakland, California*, prepared by Levine-Fricke for Volvo GM

Nov. 5, 1998, *Additional Remedial Investigation and Third Quarter 1998 Monitoring Report at Coliseum Way Properties 750 50<sup>th</sup> Avenue and 5050, 5051 and 5200 Coliseum Way, Oakland, California*, prepared by Clayton Environmental for Millennium

May 25, 1999, *Additional Remedial Investigation 1999 at 5050, 5051, and 5200 Coliseum Way and 750 50<sup>th</sup> Avenue, Oakland, California*, prepared by Clayton Environmental for Millennium

Nov. 30, 1999, *Remediation and Risk Management Plan, LeMean Property Holdings Located at 750 50<sup>th</sup> Avenue, 5050, 5051, and 5200 Coliseum Way, Oakland, California*, prepared by Clayton Environmental for LeMean Property Holdings

April 14, 2000, *Remediation and Risk Management Plan, at 5050, 5051, and 5200 Coliseum Way and 750 50<sup>th</sup> Avenue, Oakland, California*, prepared by Clayton Environmental for 5050 Coliseum Way LLC and Oakland 5051 LLC and as amended by letters dated January 26, 2001, and January 31, 2001.

June 1996, *Site Characterization Report 5051 Coliseum Way Oakland, California*, prepared by Geomatrix for PG&E

Oct. 2, 1997, *Monitoring Well Sampling and Analysis at 5051 Coliseum Way Oakland, California*, prepared by Clayton Environmental for Millennium

March 22, 1995, *Limited Soil and Groundwater Investigation, 5200 Coliseum Way, Oakland, California*, prepared by Subsurface Consultants for Coliseum Storage Associates

Oct. 2, 1997, *Limited Soil and Groundwater Investigation Coliseum Storage 5200 Coliseum Way, Oakland, California*, prepared by Clayton Environmental for Millennium

The above documents provide the information summarized below.

A layer of waste materials (waste ore and slag materials, lithopone process waste residuals, and petroleum hydrocarbons) underlies portions of the 5050, 5051, and 5200 Coliseum Way properties. The general areas and depths of the waste materials are shown in figure 2, attached.

The historical maximum and mean soil concentrations of the primary pollutants for each of the four properties are shown in Table 1 below.

Table 1. Maximum and Mean Soil Concentration (mg/kg), by property.

Constituent	750 50 <sup>th</sup> Ave. 5050 Coliseum Way		5051 Coliseum Way		5200 Coliseum Way	
	Max.	Mean	Max.	Mean	Max.	Mean
Arsenic	18,000	254	1,500	88	890	161
Barium	92,000	3,317	100,000	2,105	190,000	29,304
Cadmium	1,400	34	2,100	35	230	48
Chromium	80	29	210	35	49	21
Copper	3,600	319	16,570	451	5,500	921
Lead	24,000	1,254	42,000	2,337	23,000	2,004
Zinc	60,000	3,854	54,000	5,674	84,000	13,791

The groundwater plumes of dissolved metals and hydrocarbons have been defined. Sampling in the adjacent stormwater channels and dye tracer studies indicate that contaminants are not migrating off-site except for small releases of zinc laden groundwater through the weep holes in the concrete sidewall of the stormwater channel.

On the 5050 Coliseum Way property, the presence of sulfide rich waste materials has contributed to a localized area of low pH shallow groundwater which has solubilized a suite of metals, primarily zinc, barium, and cadmium. The maximum reported concentration of zinc, barium, and cadmium in groundwater are 47,000, 70, and 140 mg/l respectively. Sampling of wells along the northwestern property boundary

indicates that these metals are not migrating off-site in measurable quantities. However, metals concentrations in some wells within 50 feet of the property boundary currently exceed certain surface water quality objectives.

The highest concentrations of barium and arsenic (1,400 and 27 mg/l respectively) occur on the 5200 Coliseum Way property due to the preferential deposition of black filter cake on that property. Although concentrations of barium and arsenic in groundwater currently exceed surface water quality objectives, testing in the 54<sup>th</sup> Avenue Creek indicates that neither barium nor arsenic are being released off-site in measurable quantities.

The zinc plume in groundwater underlying the 5050 Coliseum Way property extends to the 5051 Coliseum Way property where maximum reported concentration is 1,800 mg/l. Sampling of the weep holes in the concrete lined storm drainage channel indicates that an estimated 7.6 pounds of zinc per year are released from the 5051 property.

A surface water study of the stormwater drainage channels and culverts adjacent to the site has yielded concentrations of heavy metals at or near the water quality objectives set forth in a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) adopted by the Board on June 21, 1995. Each of these stormwater channels drains a large industrial area in the city of Oakland. Samples have been collected from upstream locations and from the weep holes near MW-4 on 5051 Coliseum Way. These sampling results indicate that mass loadings of metals from existing stormwater flows are several orders of magnitude higher than metals loadings from the site and that a supplemental environmental project to reduce metals loadings in stormwater flows could be a cost effective measure to mitigate the effects of contaminants at this site.

A limited plume of petroleum hydrocarbons underlies portions of the 5050, 5051, and 5200 Coliseum Way properties. This contamination is attributed to the former tar storage, distillation facility, and associated piping located on the 5200 Coliseum Way property. Recent sampling indicates that this plume has stabilized.

Total dissolved solids (TDS) in groundwater was measured at several locations throughout the Site. The TDS levels ranged from a low of 620 ppm to a high of 170,000 ppm. The areas with high TDS border upon the stormwater drainage channels which are tidally influenced. An area-weighted TDS average of 6417 mg/l was calculated for the site. Due to this high level of TDS, shallow groundwater is not a potential supply of drinking water.

#### 7. Adjacent Sites:

There are no adjacent sites with contamination affecting the Coliseum Way properties nor is contamination on the Coliseum Way properties affecting other properties.

8. **Interim Remedial Measures:**

Following demolition of the lithopone manufacturing facility, the 750 50<sup>th</sup> Ave. and 5050 Coliseum Way properties were developed for a heavy-truck maintenance facility and the 5200 Coliseum Way property was developed with self storage units. These uses effectively covered each of these properties with impervious surfaces.

The impervious surfaces have served as an interim remedial measure since they limit direct and indirect human exposure, and isolate contaminants from surface drainage and runoff. No other remediation or risk management of the subsurface contamination has been performed.

Additional remediation and risk management is needed to protect the health and safety of future site workers, the public and the environment and to constrain future development of 5051 Coliseum Way property or redevelopment of the 5050 and 5200 Coliseum Way properties.

9. **Feasibility Study:**

Past industrial uses on the site have resulted in the deposition of waste ores, waste slag, and other metal bearing solid waste. The storage of petroleum hydrocarbons, including roofing tars, has also impacted shallow groundwater on portions of the site. Remedial investigations have characterized environmental contamination on this site and identified potential pathways for contaminated groundwater to migrate off-site to adjacent stormwater channels thence San Leandro Bay, and for potential exposures of future construction or utility workers to unacceptable human health risks.

A feasibility study has been prepared which evaluates a range of remedial alternatives. These alternatives included the following measures: institutional constraints (a deed restriction on future land use, and a soil and human health risk management plan); a supplemental environmental project; in-situ treatment to raise pH and stabilize metal containing wastes; excavation and removal of waste materials; a groundwater diversion wall; and long term monitoring. The alternatives were compared on the basis of potential effectiveness and reliability, practicality of implementation, and cost effectiveness.

The feasibility study recommends implementation of: institutional constraints that include a deed restriction and a soil and human health risk management plan (*Soil*



Management Plan), a supplemental environmental project, a groundwater diversion wall on the 5051 Coliseum Way property, and long term monitoring.

The deed restrictions and property specific Soil Management Plans will run with the land. The Soil Management Plans will prescribe the technical, safety and regulatory measures necessary for managing the contaminated soil and waste residuals which remain in the subsurface and for protecting the future health of on-site workers, the public, and the environment. Long term monitoring will assess attenuation of dissolved metals and hydrocarbons in shallow groundwater.

10. **Cleanup Plan:**

The Remediation/Risk Management Plan, submitted in draft form in accordance with Task 3 of Order 99-014, and amended by letters dated January 26, 2001, and January 31, 2001, proposes the following measures:

- filing of a permanent deed restriction on land use and a site specific Soil Management Plan to run with the land;
- implementation of a supplemental environmental project to enhance wetland habitat values in San Leandro Bay and in the form of a one-time contribution of \$30,000 to the Arrowhead Marsh Endowment managed by the East Bay Regional Park District;
- monitoring of shallow groundwater and the weep holes in the stormwater channel; and
- construction of a groundwater diversion wall on the 5051 Coliseum Way property.

The proposed site specific Soil Management Plans prescribe the remedial measures that are planned to protect the future health and safety of on-site workers, the public, and the environment. These measures include, but are not limited to, requirements for a site specific health and safety plan for subsurface activities, provisions to cover and cap all deposited waste materials, cover each of the properties with impervious surfaces (paving, building foundations/roofs) except for minor landscaped areas, and remove from the site any waste materials or soils disturbed by subsurface activities and containing metals in excess of soil cleanup standards.

Following implementation of the cleanup plan, and demonstration that contaminant migration potential is minimal, that contaminant concentrations are stable and that water quality beneficial uses are protected, the responsible parties may petition for a

conditional no further action determination. Although conditional no further action would require continued compliance with institutional and risk management remedial measures described by this finding, further active remedial measures would not be required.

11. **Risk Assessment:**

To determine the potential impacts to public health posed by on-site contaminants, a human health risk assessment was prepared. The risk assessment identified and evaluated two exposure scenarios. The first scenario assumed that the site remains in its current state and that exposures only occur through construction or other soil disturbing activities. The second scenario assumed that the properties remain in industrial use (as currently zoned), that additional buildings are constructed on the site, and exposures occur through indoor air inhalation.

The risk assessment found that calculated non-carcinogenic and carcinogenic risks are within acceptable levels for future on-site commercial or industrial workers but that soil disturbing activities could expose future site workers to unacceptable non-carcinogenic hazards. The exposure pathways which pose potentially hazardous non-carcinogenic risks to future site workers are through inhalation and ingestion of particulate dusts and through direct skin contact.

The calculated baseline non-carcinogenic and carcinogenic risks, as site-wide averages, are listed in the table below:

Exposure Scenario	Non-Carcinogenic Risk	Carcinogenic Risk
Construction Worker	9.8	$1.56 * 10^{-5}$
Indoor Industrial Worker	0.08	$1.21 * 10^{-6}$

For comparison, the Board considers the following risks to be acceptable at remediation sites: hazard index of 1.0 or less for non-carcinogens, and an excess cancer risk of  $10^{-4}$  to  $10^{-6}$  or less for carcinogens.

Due to the risk that will remain at the site pending full remediation, institutional constraints are appropriate to limit on-site exposure to acceptable levels. These constraints include permanent deed restrictions on land use and site-specific Soil Management Plans. The deed restrictions and Soil Management Plans will run with the land and will notify future owners of sub-surface contamination.

Land use at the site should be restricted to industrial or commercial uses. Uses of the site for residences, hospitals for humans, schools for persons under 21 years of age,

"day-care" centers for children, or other potentially incompatible purposes would create unacceptable human health risks.

Use of shallow groundwater underlying the site is not restricted.

12. **Basis for Cleanup Standards**

- a. **General:** State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. The previously-cited cleanup plan confirms the Board's initial conclusion that background levels of water quality cannot be restored. Remedial investigations have demonstrated that adjacent surface and ground waters are not impacted by low level releases from this site. This order and its requirements are consistent with Resolution No. 68-16.

State Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

- b. **Beneficial Uses:** The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in Title 23, California Code of Regulations, Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and ground waters.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

Shallow groundwater underlying and adjacent to the site, to a depth of about 60 feet below ground surface, is brackish. There is no known historical, current or planned use of the shallow brackish groundwater as a source of potable drinking water, industrial process or service water, or as an agricultural supply. The estimated rate of freshwater replenishment to surface waters is less than half a gallon per minute.

The Basin Plan designates the following potential beneficial uses of groundwater underlying and adjacent to the site: freshwater replenishment to surface waters.

The existing and potential beneficial uses of Courtland, Second Line G, Peralta and 54<sup>th</sup> Ave. Creek thence San Leandro Bay include:

- o Estuarine habitat
- o Water contact and non-contact recreation
- o Wildlife habitat
- o Preservation of rare and endangered species

c. **Basis for Groundwater Remedial Action Levels:** The groundwater remedial action levels for portions of the site within 50 feet of surface waters are based on applicable surface water quality objectives for the protection of salt water life. Because the on-site contaminants are largely confined to the waste layer, and are highly immobile, the remedial action levels include a 10:1 attenuation factor. This attenuation factor reflects the chemical-specific characteristics, site-specific hydrogeological conditions, and the absence of benthic habitat due to the concrete channel lining.

d. **Basis for Soil Remedial Action Levels:** The soil remedial action levels for the site will be the lower of human health and ecological action levels for industrial use and for saltwater environments but not less than background soil concentrations. Soil Remedial Action Levels will apply in areas subject to ground disturbing activities where potentially unacceptable human health risks could be present.

13. **Future Changes to Remedial Action Levels:** The goal of this remedial action is to restore the beneficial uses of groundwater underlying and adjacent to the site. Results from other sites suggest that full restoration of beneficial uses to groundwater as a result of active remediation at this site may not be possible. If full restoration of beneficial uses is not technologically nor economically achievable within a reasonable period of time, then the discharger may request modification to the remedial action levels or establishment of a containment zone, a limited groundwater pollution zone where water quality objectives are exceeded. Conversely, if new technical information

indicates that remedial action levels can be surpassed, the Board may decide that further cleanup actions should be taken.

14. **Reuse or Disposal of Extracted Groundwater:** Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.
15. **Basis for 13304 Order:** The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.
16. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.
17. **CEQA:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
18. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
19. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

**IT IS HEREBY ORDERED**, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

**A. PROHIBITIONS**

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

## B. CLEANUP PLAN AND CLEANUP STANDARDS

1. **Implement Cleanup Plan:** The discharger shall implement the cleanup plan described in finding 10. The discharger shall continue to monitor groundwater quality and shall conduct additional site investigations, as needed, to verify the stability and attenuation of contaminants which remain in the subsurface. Should monitoring results show evidence of contaminant migration, additional contaminant characterization may be required.
2. **Groundwater Cleanup Standards:** The following remedial action levels apply to all wells located within 50 feet, as a horizontal projection, of any surface water or storm drainage channel. Until such time that these levels are met, the remedial actions defined by paragraph B.1. shall be implemented and shall remain in effect.

Constituent	Groundwater Remedial Action Level (ug/l)	Basis
Arsenic	360	Basin Plan, Table 3-3 (Salt)
Barium	10,000	US EPA Gold Book
Cadmium	93	Basin Plan, Table 3-3 (Salt)
Chromium (VI)	500	Basin Plan, Table 3-3 (Salt)
Copper	49	Basin Plan, Table 3-3 (Salt)
Lead	56	Basin Plan, Table 3-3 (Salt)
Mercury	.25	Basin Plan, Table 3-3 (Salt)
Nickel	71	Basin Plan, Table 3-3 (Salt)
Zinc	580	Basin Plan, Table 3-3 (Salt)

Groundwater remedial action levels are based on applicable surface water quality objectives with a 10:1 attenuation factor.

3. **Soil Cleanup Standards:** The following soil remedial action levels shall be met for any soils excavated or exposed at the surface as a result of any construction or other soil disturbing activities.

Constituent	Soil Remedial Action Level (mg/kg)	Constituent	Soil Remedial Action Level (mg/kg)
Antimony	40	Mercury	10
Arsenic	14	Molybdenum	40
Barium	1500	Nickel	150
Beryllium	95	Selenium	10
Cadmium	12	Silver	40
Total Chromium	12	Thallium	29
Cobalt	80	Vanadium	200
Copper	225	Zinc	600
Lead	1000	TPH residuals	1000

### C. TASKS

1. **IMPLEMENTATION OF SUPPLEMENTAL ENVIRONMENTAL PROJECT**

COMPLIANCE DATE: May 31, 2001

Submit a technical report, acceptable to the Executive Officer, documenting implementation of the Supplemental Environmental Project described by finding 10.

2. **PROPOSED INSTITUTIONAL CONSTRAINTS**

COMPLIANCE DATE: March 1, 2001

Submit a final copy of the Remediation and Risk Management Plan described by finding 10 which incorporates the two letter amendments and documents

proposed measures to protect the future health of on-site workers, the public, and the environment. Such measures shall include a deed restriction to limit future land use to commercial or industrial use and to prohibit development of the properties for residences, hospitals, schools for persons under 21 years of age, and day care centers for children or adults.

**3. IMPLEMENTATION OF INSTITUTIONAL CONSTRAINTS**

**COMPLIANCE DATE:** 60 days after Executive Officer approval

Submit a technical report acceptable to the Executive Officer documenting that the proposed risk management measures and institutional constraints have been implemented.

**4. IMPLEMENTATION OF REMEDIAL ACTION**

**COMPLIANCE DATE:** June 1, 2001

Submit a technical report acceptable to the Executive Officer documenting completion of the groundwater diversion barrier described by findings 9 and 10.

**5. NOTIFICATION OF PROJECT SPECIFIC HEALTH AND SAFETY PLAN**

**COMPLIANCE DATE:** 30 days prior to any ground-disturbing activities

For any future ground disturbing activities that would potentially expose on-site workers to residual waste materials and for which a written Health and Safety Plan is required under the site specific Soil Management Plan, written notification of the proposed activities shall be submitted to the Executive Officer. The notification shall include a description of the proposed activities and a copy of the written Health and Safety Plan prepared for the work to be performed.

**6. THREE-YEAR STATUS REPORT**

**COMPLIANCE DATE:** March 1, 2004

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved cleanup plan. The report should include:



- a. Summary of effectiveness in controlling contaminant migration and protecting human health and the environment
- b. Comparison of contaminant concentration trends with time
- c. Comparison of anticipated versus actual costs of cleanup activities
- d. Performance data (e.g. groundwater volume extracted, chemical mass removed, mass removed per million gallons extracted)
- e. Cost effectiveness data (e.g. cost per pound of contaminant removed)
- f. Summary of additional investigations (including results) and significant modifications to remediation systems
- g. Additional remedial actions proposed (if applicable) including time schedule

7. **REQUEST FOR CONDITIONAL NO FURTHER ACTION**

**COMPLIANCE DATE:** As appropriate and no earlier than  
March 1, 2004

Submit a technical report acceptable to the Executive Officer containing a request for conditional no further action for some or all of the properties. Conditional no further action is expected to mean that no further remedial action will be required at some or all of the properties subject to the condition that the approved institutional constraints and risk management measures would remain in effect. In order to obtain the conditional no further action, the responsible parties must demonstrate that contaminant concentrations are stable, that contaminant migration potential is minimal and that water quality beneficial uses are protected. Further, the request for conditional no further action shall include assurances that the approved institutional constraints and risk management measures would remain in effect. For the 5051 Coliseum Way property, the responsible parties must also demonstrate that the property has been developed or capped. The request for conditional no further action should include a reasonable rationale for decision making and demonstrate that the conditions for conditional no further action are satisfied.

This technical report can be submitted concurrently with the three year status report, if desired.

8. **EVALUATION OF NEW HEALTH CRITERIA**

**COMPLIANCE DATE:** 90 days after requested  
by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved cleanup plan of revising one or more cleanup standards in response to revision of drinking water standards, maximum contaminant levels, or other health-based criteria.

**9. EVALUATION OF NEW TECHNICAL INFORMATION**

**COMPLIANCE DATE:** 90 days after requested  
by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved cleanup plan and cleanup standards for this site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved cleanup plan or cleanup standards.

10. **Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

**D. PROVISIONS**

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).
2. **Good Operation and Maintenance (O&M):** The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used

in that program shall be consistent with the dispute resolution procedures for that program.

<sup>4</sup> **Access to Site and Records:** In accordance with California Water Code Section 13267(c), the discharger shall permit the Board or its authorized representative:

- a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
  - b. Access to copy any records required to be kept under the requirements of this Order.
  - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
  - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
5. **Self-Monitoring Program:** The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
6. **Contractor / Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.
7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).
8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:
- a. City of Oakland, Department of Public Works
  - b. County of Alameda, Department of Environmental Health

c. California State Department of Toxic Substances Control

The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.


10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Rescission of Existing Order:** This Order supercedes and rescinds Order No. 99-014.
12. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary.

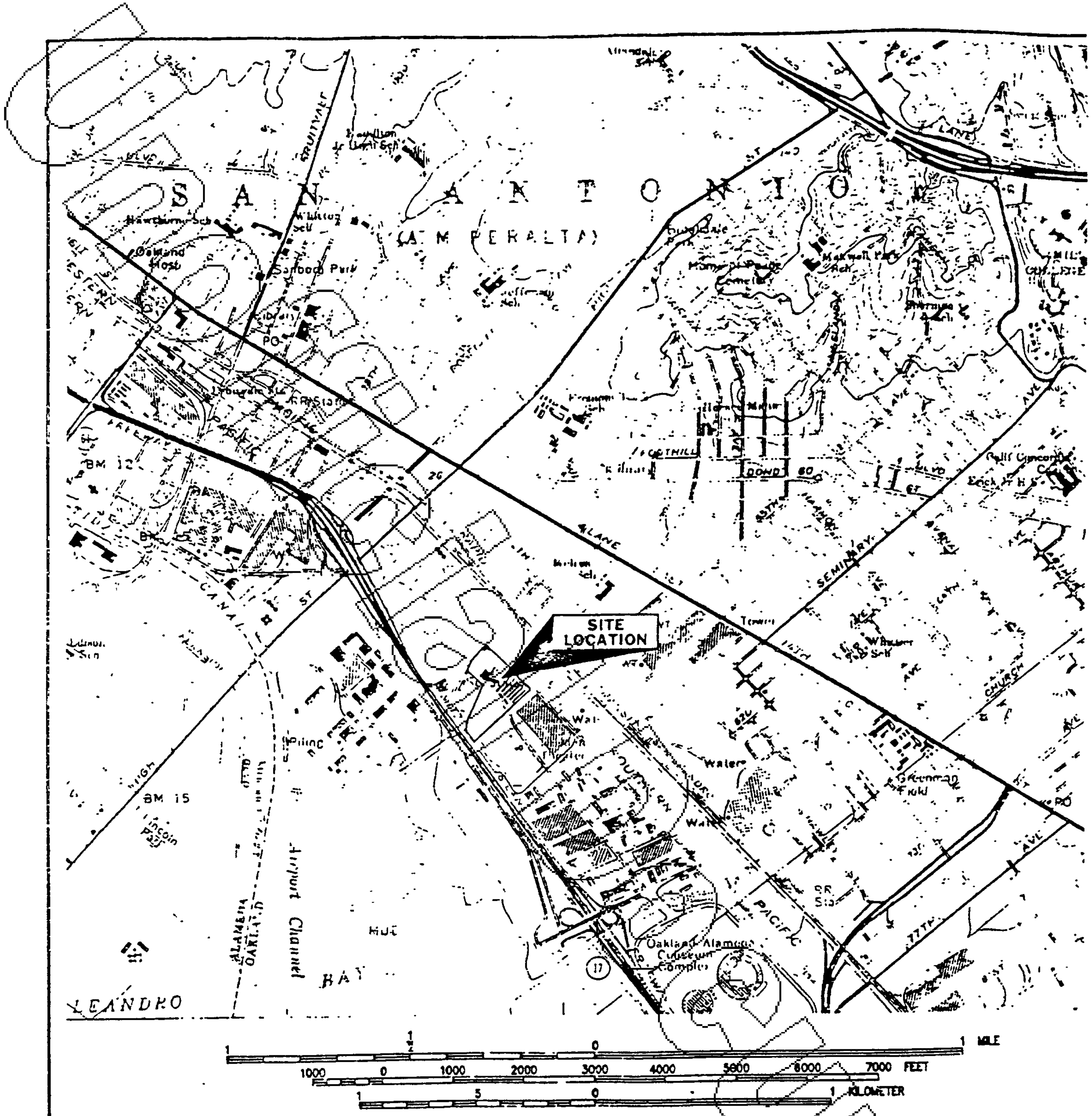
I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 21, 2001.

  
Loretta K. Barsamian  
Executive Officer

**FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO:  
IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY**

=====

**Attachments: Site Location Map  
Approximate Locations of Residual Waste Materials  
Self-Monitoring Program**



Portion of 7.5-Minute Oakland East, California Quadrangle Map  
 United States Department of the Interior  
 Geological Survey  
 1959  
 Photorevised 1980



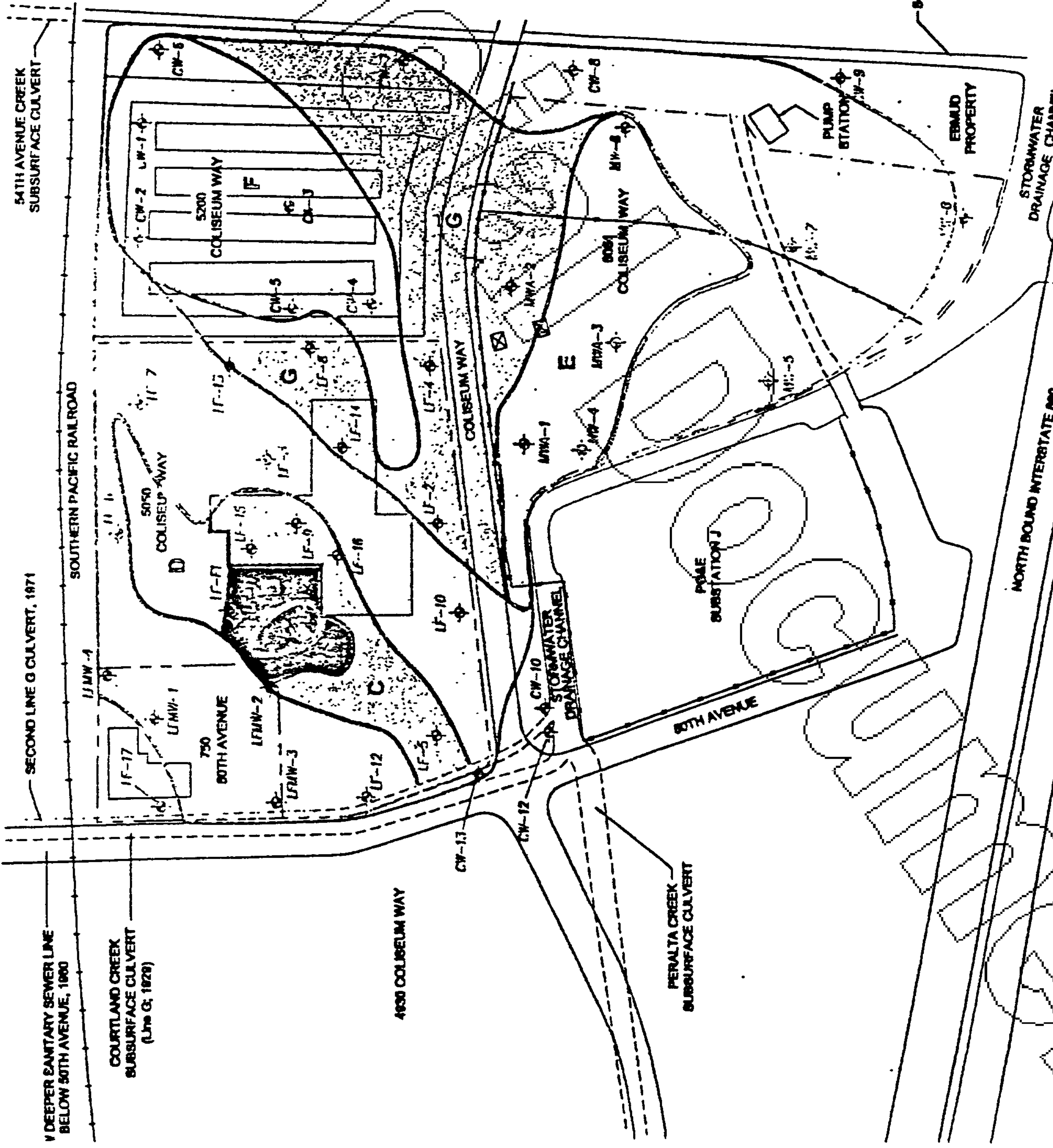
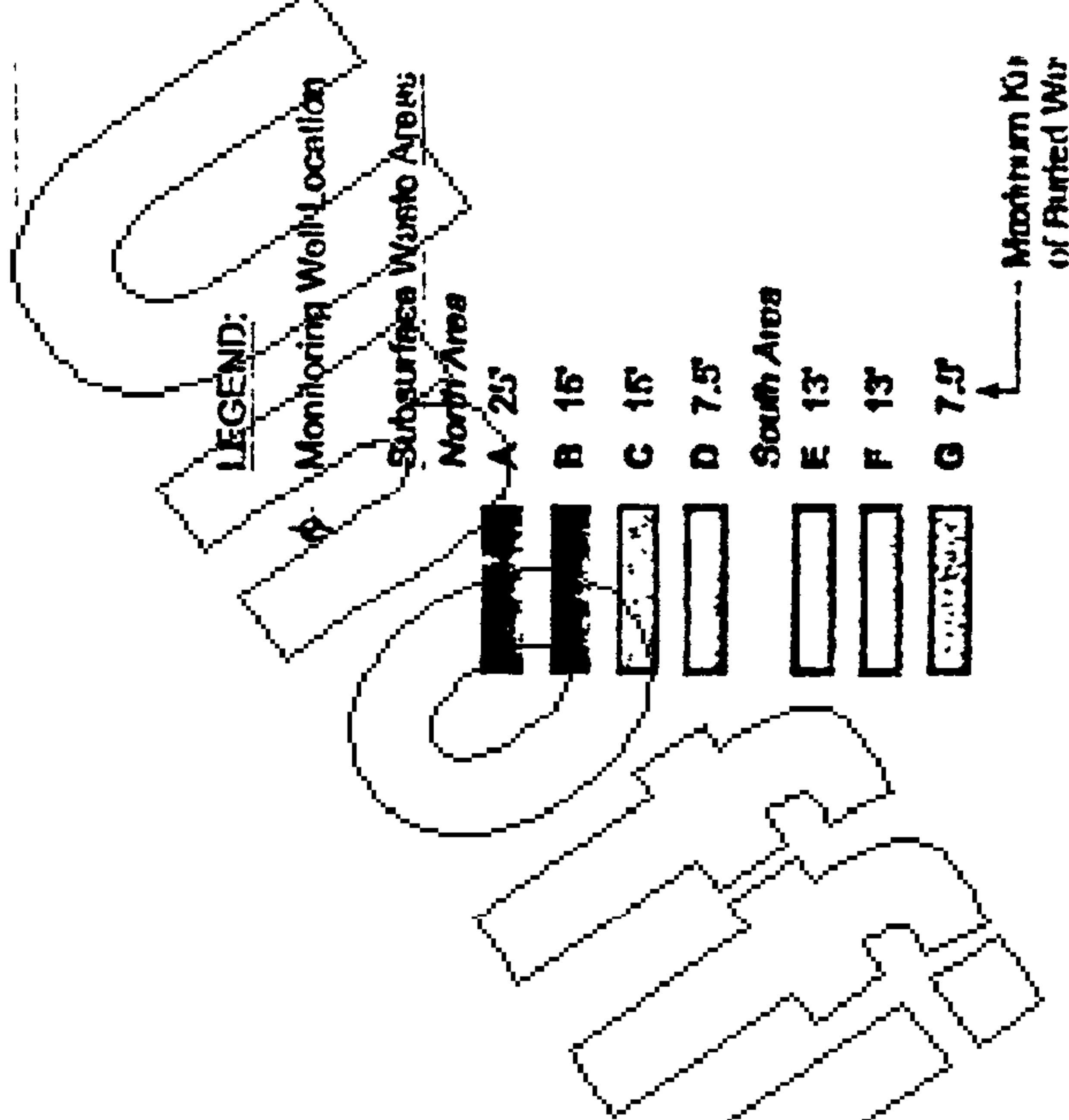
**SITE LOCATION MAP**  
 Coliseum Way Properties  
 Oakland, California

Client: Lempres & Yulfsberg  
 Clayton Project No. 70-97203.00.300

Figure  
**1**

**Clayton**  
 ENVIRONMENT,  
 CONSULTANT

97203-0-16



**ZONES OF POTENTIALLY CONTAMINATED GROUNDWATER AND SOIL, AND SUBSURFACE WASTES**

8001, 8001, AND 8001 COLISEUM WAY  
 OAKLAND, CALIFORNIA  
 Clayton Project No. 70-000008.00.100

Figure 2

04/2000  
 COLISEUM.DWG

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**SELF-MONITORING PROGRAM FOR:**

Millennium Holdings, Inc.  
5050 Coliseum, LLC  
Oakland 5051, LLC

for the property located at

750 50<sup>th</sup> Avenue and 5050, 5051, & 5200 Coliseum Way  
Oakland  
Alameda County

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No.01-032 (site cleanup requirements).
  
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule (Table 1). In addition, representative samples of surface water shall be collected from the stormwater-drainage channel which abuts the 5051 Coliseum Way property.

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
LF-2	Q	GW Elev.	MWA-1	Q	TPHg, TPHd/o, CAM-17, TDS, GW Elev.
LF-5	Q	CAM-17, TDS, GW Elev.	MWA-2	Q	GW Elev.



LF-6	Q	GW Elev.	MWA-3	Q	GW Elev.
LF-11	Q	TPHd/o, CAM-17, TDS, GW Elev.	MW-4	Q	TPHg, CAM-17, TDS, GW Elev.
LF-12	Q	CAM-17, TDS, GW Elev.	MW-5	Q	CAM-17, TDS, GW Elev.
LF-13	Q	GW Elev.	CW-8	Q	GW Elev.
LF-17	Q	GW Elev.	CW-9	Q	GW Elev.
CW-13	Q	CAM-17, TDS, GW Elev.	CW-10	Q	GW Elev.
CW-1	Q	CAM-17, TDS, GW Elev.	CW-12	Q	CAM-17, TDS, GW Elev.
CW-2	Q	TPHg, TPHd/o, CAM-17, TDS, GW Elev.	CW6	Q	TPHg,TPH d/o, CAM- 17, TDS, GW Elev.
CW-4	Q	GW Elev.	CW7	Q	TPHg,TPH d/o, CAM- 17, TDS, GW Elev.

Key: Q = Quarterly  
 TPHg = Total Petroleum Hydrocarbons as Gasoline/Benzene, Toluene,  
 Ethylbenzene, & Xylene  
 TPHd/o = Total Petroleum Hydrocarbons as Diesel and Motor Oil  
 CAM-17 = California Assessment Manual 17 Metals  
 TDS = Total Dissolved Solids  
 GW Elev. = Groundwater Elevation

The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table.

The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The discharger shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g. report for first quarter of the year due April 30). The first quarterly monitoring report shall be due on January 30, 2001. The reports shall include:

- a. **Transmittal Letter:** The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.
- c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).
- d. **Groundwater Extraction:** If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year.

Status Report: The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

4. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.
5. **Other Reports:** The discharger shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
6. **Record Keeping:** The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on March 21, 2001.


  
Loretta K. Barsamian  
Executive Officer

EXHIBIT D

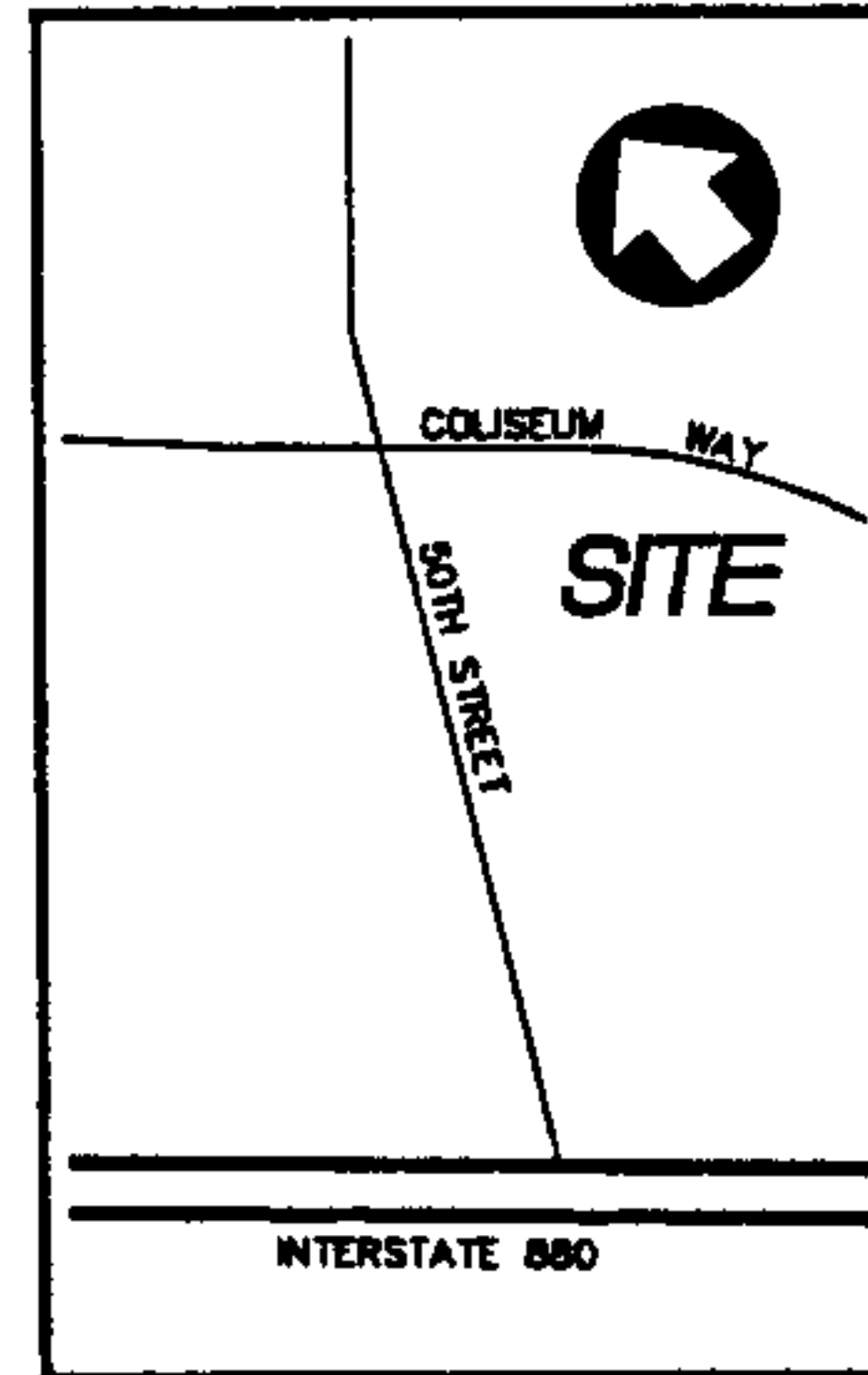
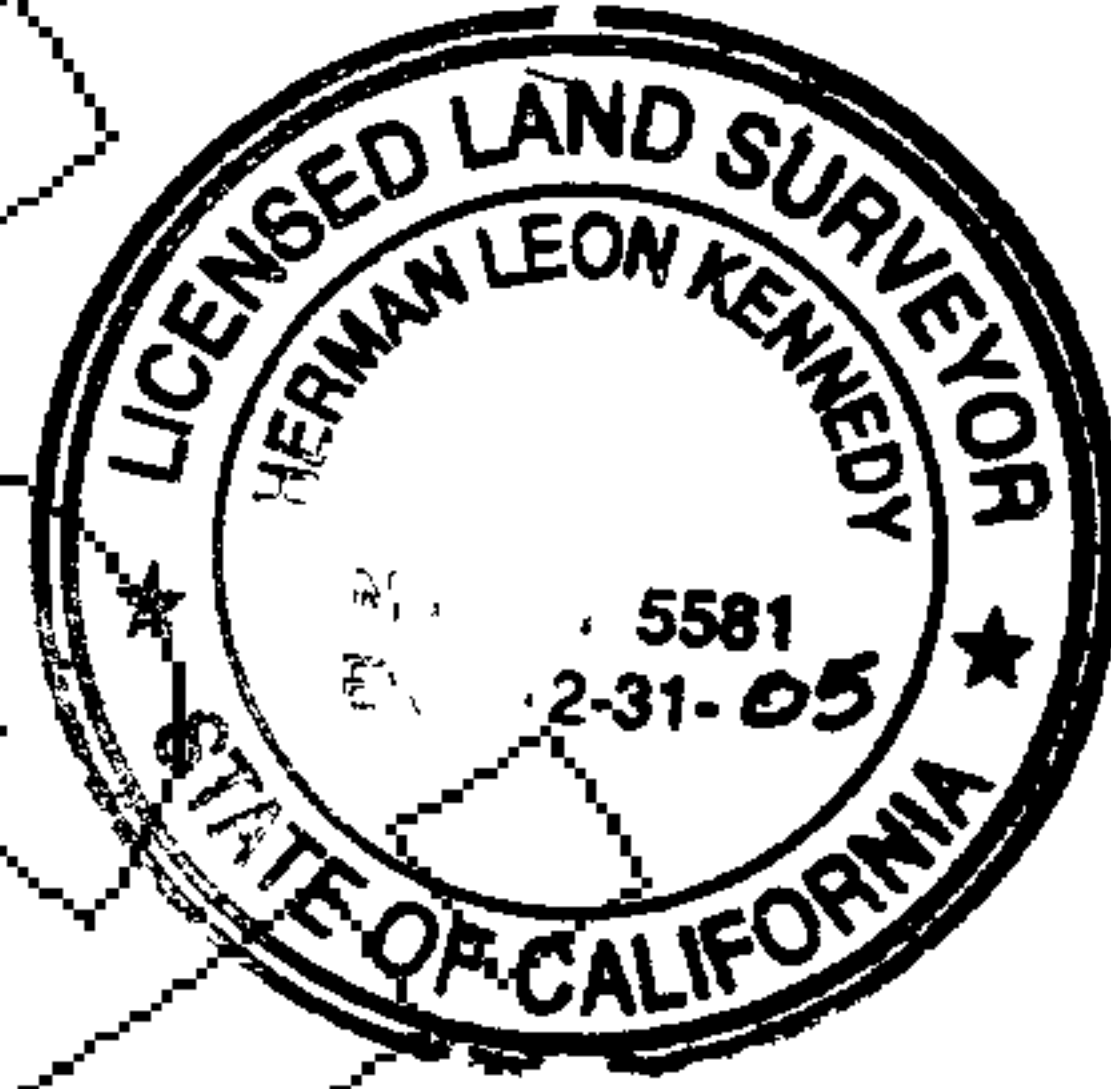
MAP SHOWING LOCATION OF GROUNDWATER DIVERSION WALL



**SURVEYOR'S STATEMENT**

I, HERMAN L. KENNEDY, HEREBY STATE THAT I AM A LICENSED LAND SURVEYOR FOR THE STATE OF CALIFORNIA AND THAT THIS MAP CORRECTLY REPRESENTS A SURVEY MADE UNDER MY SUPERVISION DURING THE MONTH OF APRIL, 2002.

*[Signature]*  
HERMAN L. KENNEDY, P.L.S. #5581



**VICINITY MAP**  
NO SCALE

**BARRIER WALL COORDINATES**

POINT	LATITUDE	LONGITUDE	NAD83 NORTHING	NAD83 EASTING	ELEVATION
A	37°45'48.032"	122°12'48.830"	2104946.30	6066360.15	6.46
B	37°45'47.649"	122°12'48.815"	2104908.08	6066360.48	8.96
C	37°45'47.545"	122°12'48.810"	2104897.56	6066360.70	9.54
D	37°45'46.557"	122°12'49.400"	2104798.44	6066311.43	11.07
E	37°45'44.787"	122°12'50.372"	2104620.92	6066230.13	10.31
19SW7	37°45'50.620"	122°12'52.089"	2105213.37	6066103.14	4.58
19SE14	37°45'46.285"	122°12'45.075"	2104764.66	6066658.21	5.72

**BENCH MARK**

CITY OF OAKLAND BENCHMARK #1094 ELEVATION 4.85' CITY DATUM

\*T\* IN CONCRETE HEADWALL ON SOUTHERLY SIDE OF COLISEUM WAY ON THE EASE SIDE OF 50th AVENUE, 3.4 FEET NORTH OF SOUTH END OF HEADWALL OVER PERALTA CREEK.

**BASIS OF COORDINATES**

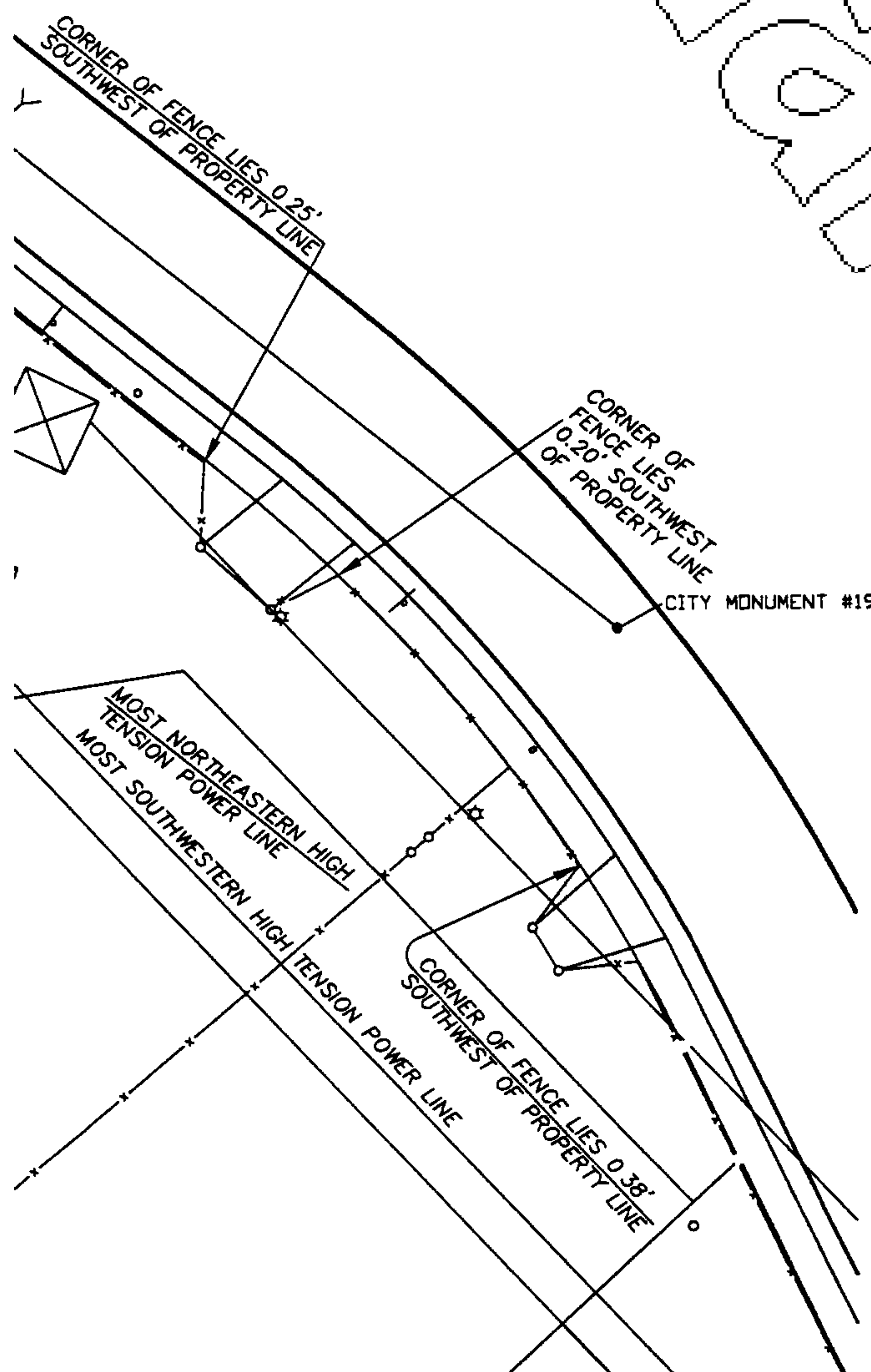
COORDINATES ARE BASED LOCALLY UPON NAD83, EPIC 2000.35 FROM CORS STATION \*P DIAB\* 37° 52' 42.85533", 121° 54' 56.20503", 9250.7'

**SURVEY OF SHEET PILE  
BARRIER WALL**

5051 COLISEUM WAY, OAKLAND, CALIFORNIA

DATE: 4-09-02

SCALE: 1" = 60'



JN: 35-100193  
DRAWING: SHEETPILE WALL  
PLOT: 4-09-02



PLANNING ■ DESIGN ■ CONSTRUCTION

1981 N BROADWAY, SUITE 235  
WALNUT CREEK, CALIFORNIA 94596-3817  
925.906.1480 • FAX 925.906.1485 • www.RBF.com

UNOFFICIAL

