553 - EMERYVILLE, CA

The Denali Group

2255 Morello Ave., Suite 170
Pleasant Hill, CA 94523

Tel: (925) 602-2333
Fax: (925) 687-1258
Website: www.thedenaligroup.com

June 5, 2000

Mr. Justin Chan
Design Manager
Properties Department
Longs Drug Stores California, Inc.
141 North Civic Drive
Walnut Creek, California 94596

RE: Updated Phase I Environmental Site Assessment
Emery Village Center, Emeryville, California

Dear Mr. Chan:

As you requested, The Denali Group (Denali) has prepared this letter report to provide an update to the Phase I Environmental Site Assessment Report for the Emery Village Center, Emeryville, California, completed in May 1999.

Background

The May 25, 1999 report was prepared by Lowney Associates (Lowney) for Park Emery Associates, L.P. (Park Emery) in preparation for new financing. This letter pertains to the Longs Drug Store, which is proposed for construction on the corner of 45th Street and San Pablo Avenue (formerly 4343 San Pablo Avenue) in the Emery Village Center.

Denali's project update activities included: 1) a review of the May 1999 Lowney report; 2) acquisition of a current environmental database search from Environmental Data Resources (EDR); 3) a site visit to observe current conditions; and 4) contact of regulatory agencies.

Appendices to this letter include Appendix A- Site Plan; Appendix B- Lowney Preliminary Geotechnical Summary; Appendix C- EDR Radius Map with Geocheck Database Report; Appendix D- Photographic Documentation; Appendix E- Alameda County Health Care Services Letter; Appendix F- Emery Village Deed Restriction and Emery Village Risk Management Plan.

Land Title Survey

A land title survey was performed by Brian Kangas Foulk Consulting Engineers, who produced an A.L.T.A./A.C.S.M. Land Title Survey of the Lands of Emery

Village dated January 11, 2000. This map identifies six parcels that comprise the Emery Village. The proposed 19,935 sq. ft. Longs Drugs Store is located in Parcel No. 1 in the northeast corner of the Emery Village. This area is shown on the attached MBH Architectural drawing in Appendix A. A figure prepared by ENVIRON illustrating the historical and proposed site layout for the Emery Village is also presented in Appendix A.

Site/Site Vicinity History

In the May 1999 report, Lowney reported the following Site history:

"*The approximate 5-acre site, shown on Figures 1 and 2, is located at 4301, 4303 4309, 4321, 4331, 4343 San Pablo Avenue and 1150 Park Avenue in Emeryville, California. The site is currently composed of several parcels owned by the City of Emeryville Redevelopment Agency (CERA) and Kaiser Foundation Health Plan. The site was formerly occupied by a Standard Brands Paint store (4343 San Paablo Avenue), a fire station (4331 San Pablo Avenue), a New Century Beverage Company facility (1150 Park Avenue), and a Kentucky Fried Chicken store (4301 San Pablo Avenue). The 4303 San Pablo Avenue parcel is occupied by the Broom and Brush coffee shop.*"

Regarding historical data, Lowney reported:

"*The site was developed with single family residences by 1903 and a fire station by 1911. Subsequent historical uses included a semi-professional baseball stadium, tire manufacturing facility, soft-drink bottling plant, two service stations, restaurants, and a hotel. By 1997, the majority of the on-site structures had been demolished, with the exception of the vacant Standard Brands Stroe, vacant Kentucky Fried Chicken restaurant, and the Broom and Brush coffee shop.*"

Regarding Observed 1999 Operational Activities of tenants within the proposed Emery Village boundaries, Lowney reported:

"At the time of our site visits, the subject property consisted of vacant lots, with the exception of the vacant Standard Brands store at 4343 San Pablo Avenue, the vacant Kentucky Fried Chicken restaurant at 4301 San Pablo Avenue, and the Broom and Brush coffee shop at 4303 San Pablo Avenue."

Park Emery has presented a general description of operations of others in the site vicinity:

"The surrounding land-uses include Pixar Animation offices to the west, AC Transit bus maintenance yard and a new Kentucky Fried Chicken restaurant

to the north, as well as Emery High School and the Emery Bay Village townhouse development further north, a mix of commercial, retail and residential land uses to the east across San Pablo Avenue, and the Oaks Card Room, various commercial office uses, the East Bay Bridge Shopping Center and apartments to the south."

Regarding 1999 Potential On-Site Soil and Ground Water Concerns, Lowney reported:

"USTs historically have been present on-site, including the tanks at the former Standard Brands parcel, the former fire department parcel, and the former Kentucky Fried Chicken (ARCO) parcel. Based on the information reviewed, the on-site USTs have been removed. Although there was no record of the removal of the USTs from the Kentucky Fried Chicken parcel, a geophysical investigation and excavation with a backhoe in 1994 by others reportedly did not find evidence of a fuel system indicating that the USTs had been removed."

"Based on the information reviewed, petroleum impacted soil and ground water are present beneath the site, although at levels that appear to be acceptable for residential development. The most highly impacted soil is primarily located beneath and immediately east of the vacant Standard Brands store."

"Based on the contamination present at the site, a health risk assessment was prepared by Environ. For a residential exposure scenario, Environ concluded that the level of risk to human health was within acceptable limits established by the EPA. Subsequently, staff at the ACDEH and CRWQCB have stated that they will approve residential development of the site, as long as an acceptable risk management plan is submitted for their review. The management plan will need to address notification of future residents, handling of anticipated and/or unanticipated impacted soil/ground water or other concerns during development, and future maintenance activities that may encounter impacted soil, among other issues. We understand that Environ is currently preparing this document for the CERA. The requirements of this management plan will likely impact the proposed development. For example, typical site grading, earthwork, and utility installation activities may be complicated by special soil handling requirements. Also, placing a cap of "clean" soil likely will be required in areas proposed for landscaping. Due to these potential impacts, it would be desirable to review a draft of the risk management plan (and case closure) prior to purchasing the property or finalizing development plans."

Geotechnical Summary

A summary of the geotechnical considerations of soils at the Emery Village has been prepared by Lowney Associates for Park Emery Properties LP (see

Appendix B). According to Lowney, subsurface explorations encountered clays and fill materials. Free groundwater has been present from depths of 4 to 18 feet. Geologic hazards are considered and building recommendations are presented. Among their geotechnical considerations, they note that existing fills in the proposed building areas should be removed and replaced as engineered fill to reduce the potential of future settlement of the existing fill. Also, because of the potential for shallow ground water, the final cuts for shallow loading docks should be limited to 4 feet or less.

Regulatory Agency Database Report

Denali retained Environmental Data Resources, Inc. (EDR) to provide an environmental database search for the Site and Site vicinity. EDR prepared report ID 0500128.1r dated May 25, 2000 and Sanborn Fire Insurance maps for the years 1903 – 1967.

The list of the database sources reviewed, a detailed description of the sources, and a radius map indicating the location of the reported facilities relative to the project site are presented in Appendix C.

The 1999 database information acquired by Lowney listed six on-site and nearby hazardous materials facitlities. The EDR database acquired by Denali indicates that Berkeley Farms may have an open LUST case.

Table 1. Onsite and Nearby Hazardous Materials Facilities

Facility Name	EDR Map ID No.	Address	Distance and Direction Site	Comments
Pepsi Bottling Company	F19	1150 Park Avenue	On-Site	Leaking underground fuel leak case. Case closed. (USTs were located off-site, down-gradient)
City of Emeryville Fire Department	C8	4331 San Pablo Avenue	On-Site	Leaking underground fuel leak case. (No action taken)
Standard Brands Paints	A1	4343 San Pablo Avenue	On-Site	Leaking underground fuel leak case. (Case closed)
City of Emeryville	G24	4300 San Pablo Avenue	East, across San Pablo Avenue	Leaking underground fuel leak case. (Case closed)
American Rubber Manufacturing Company	J36	1145 Park Avenue	South, across Park Avenue	Small quantity generator. Inactive underground storage tank.
AC Transit	E13	1140 45th Street	North, across 45th Street	Leaking underground fuel leak case. Status not provided.
Berkeley Farms	B/D11	4550/4575 San Pablo Avenue	1 block north, near 47th Street	Leaking underground fuel leak case. Status not provided.

Site and Site Vicinity Reconnaissance Visit

Denali conducted a preliminary Site and Site vicinity reconnaissance visit on May 24, 2000 to observe current Site conditions and changes since the May 1999 Lowney report. Photographic Documentation is included in this report in Appendix D.

Site

4343 San Pablo Avenue

The vacant Standard Brands store is located at 4343 San Pablo Avenue. The area is secured with a chain-link fence. The store parking lot is located to the east of the store where the former fuel depot was located. There appeared to be recent activity to grade soil and/or remove soil piles in the northern corner of the parking area. See Photograph 1 and 2.

Construction materials consisting of metal posts and steel beams are located on the northwest corner of the store. The Emery Street access (west side of the parcel) is secured by a fence. See Photograph 3.

4331 and 4309/4321 San Pablo Avenue

Vacant land with vegetation (weeds) is observed in this area of the property. See Photograph 4.

4303 San Pablo Avenue

This area is observed to contain a vacant building, trailer and construction equipment. See Photograph 5.

4301 San Pablo Avenue

This area is observed to contain a vacant building, trailer and construction equipment. See Photograph 5.

1150 Park Avenue

This area is observed to be vacant land. See Photographs 4 and 5.

Site Vicinity

The following observations were made on May 24th, 2000 of operations in the vicinity of the Site:

- Kentucky Fried Chicken (active). See Photograph 6.
- AC Transit Bus Maintenance Yard (active). See Photograph 7.

The AC Transit Maintenance Yard is listed as a LUST site, but is not considered by Denali to pose a direct environmental threat to the Site due to distance and downgradient location.

Site Remediation

Site remediation work has been performed to the satisfaction of the Alameda County Health Care Services Agency and the San Francisco Bay Regional Water Quality Control Board. No further remediation or monitoring has been approved for the Site. Future residential development activities are restricted through the use of a deed restriction and a risk management plan (see Appendix E).

Regulatory Agency Contacts

City of Emeryville Redevelopment Agency

Denali contacted the City of Emeryville Redevelopment Agency regarding the Site. Mr. Patrick O'Keefe reported that a deed restriction and a Risk Management Plan (RMP) had been prepared for Emery Village. Mr. Ron Gerber provided copies of the deed restriction and RMP for the Emery Village. These documents were mailed to the RWQCB and ACDEH during the week of May 29, 2000 (see Appendix F).

Alameda County Department of Environmental Health

Denali contacted Ms. Susan Hugo of the ACDEH, who reported that the Emery Village Risk Management Plan and the Deed Restriction were received at her office during the week of May 29, 2000. These documents are considered draft pending her review and consultation with the RWQCB.

Conclusions

Environmental conditions and the actual potential for contamination of the Site by hazardous substances and/or hazardous materials were updated and evaluated by performing the activities discussed above. The results of the evaluation of the onsite and off-site actual or potential contamination are summarized below.

1. Observed site conditions remain substantially unchanged from those reported by Lowney in its May 25, 1999 Phase I Environmental Site Assessment.

2. Denali's review of information indicates that there is a potential hazard of chemical exposure onsite. Denali's review of onsite information indicates that there is chemical contamination persisting in the soil and ground water of the Site following remediation activities. The Human Health Risk Assessment (HHRA) prepared by ENVIRON for the Emeryville Redevelopment Agency concludes that a deed restriction and a risk management plan will be required for the long-term protection of human health at the Emery Village Center.

3. Because the proposed Longs Drugs store will be built in the area of the former Oliver Rubber and Tire Company, the reported source of petroleum and solvents in the subsurface, construction workers will need to be especially alert to the provisions and procedures of the risk management plan.

Recommendations

Based on the findings and conclusions of the update of the Lowney Phase I Environmental Site Assessment (May 1999), the following recommendation is provided for consideration by Longs to address areas of concern:

- Longs should request a letter from Park Emery Associates LP to confirm that the Human Health Risk Assessment prepared by ENVIRON finds the risk to human health at the proposed Longs Drugs Store Site on Parcel One to be within acceptable limits established by the EPA and CalEPA.

- The final Risk Management Plans (RMP) for short-term exposure activities and for long-term exposure activities should be reviewed by Longs prior to construction. The RMP is prepared for the protection of individuals, who may be potentially exposed to contaminated soils and ground water at the Site.

- Longs should review language in the final approved deed restriction, which is to be recorded prior to completion of Site development.

- Longs should compile and maintain a record, which documents environmental baseline conditions following construction and during operations of the retail store.

Limitations

The Denali Group has completed an Update Phase I Environmental Site Assessment for the Emery Village parcel located at 4343 San Pablo Avenue, Emeryville, California on May 30, 2000. The assessment was performed at the Client's request utilizing methods and procedures consistent with good commercial or customary practice designed to conform with acceptable industry standards. This report is exclusively for the use and benefit of the Client for

which it has been prepared, and is not for the use or benefit of, nor may it be relied upon by, any other person or entity without the advance written consent of Denali. The independent conclusions represent Denali's best professional judgment based on information and data available to Denali. Factual information regarding operations, conditions, and test data provided by the Client, owner, or their representative have been assumed to be correct and complete. Additionally, the conclusions presented are based on the conditions that existed and the information available at the time of the assessment.

We trust that this letter report is responsive to Longs needs. If you have any questions regarding this letter report or if we may be of further assistance, please contact us at (925) 602-2333.

Sincerely,
The Denali Group

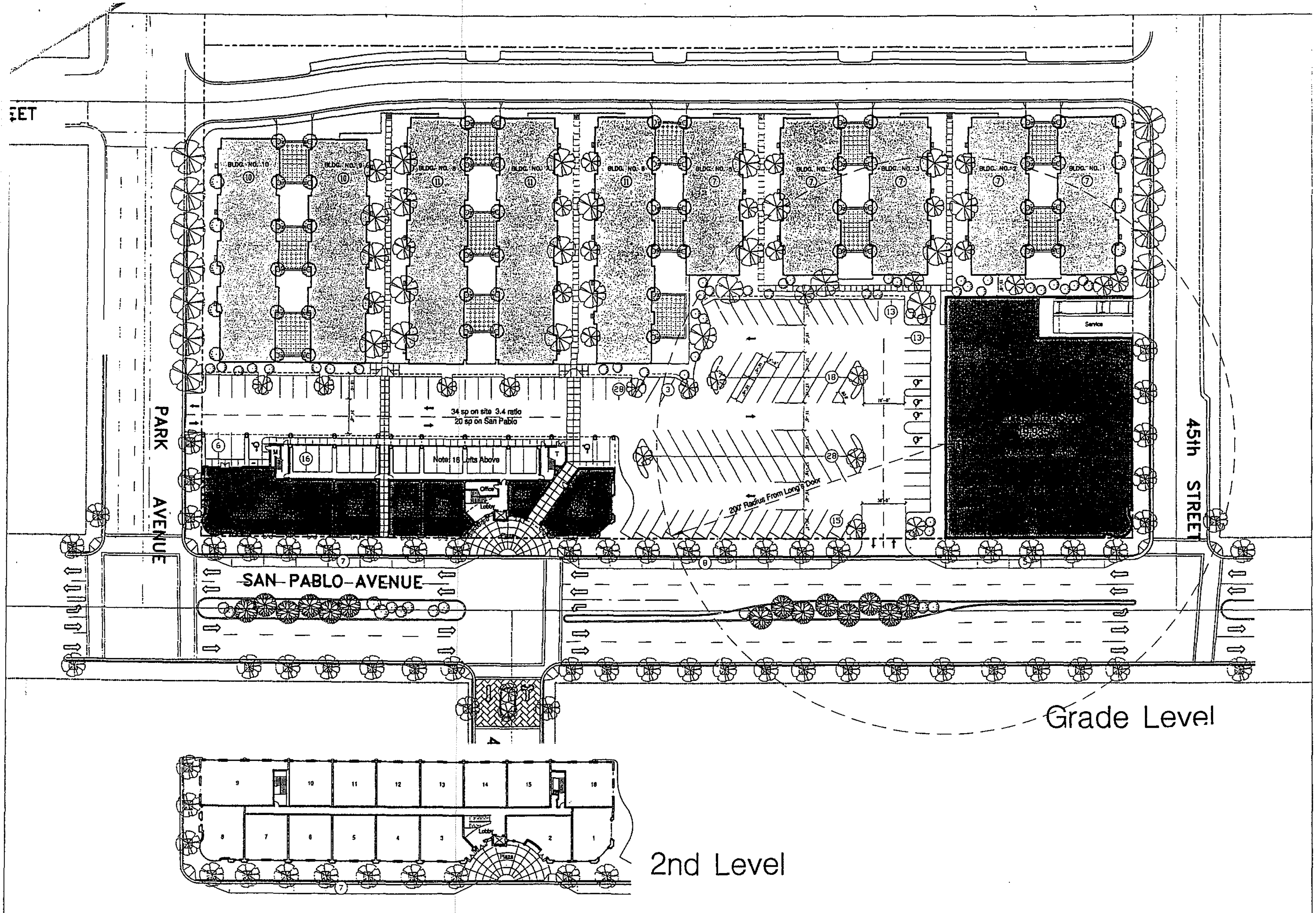
David Blunt RG, REA 306
Principal Environmental Geologist

Robert Kuykendall REA, CHMM
Principal Environmental Manager

Attachments

APPENDIX A

SITE PLAN



Site Plan

Emery Village

Emeryville, CA

Project No. 19353

Scale 1" = 60'

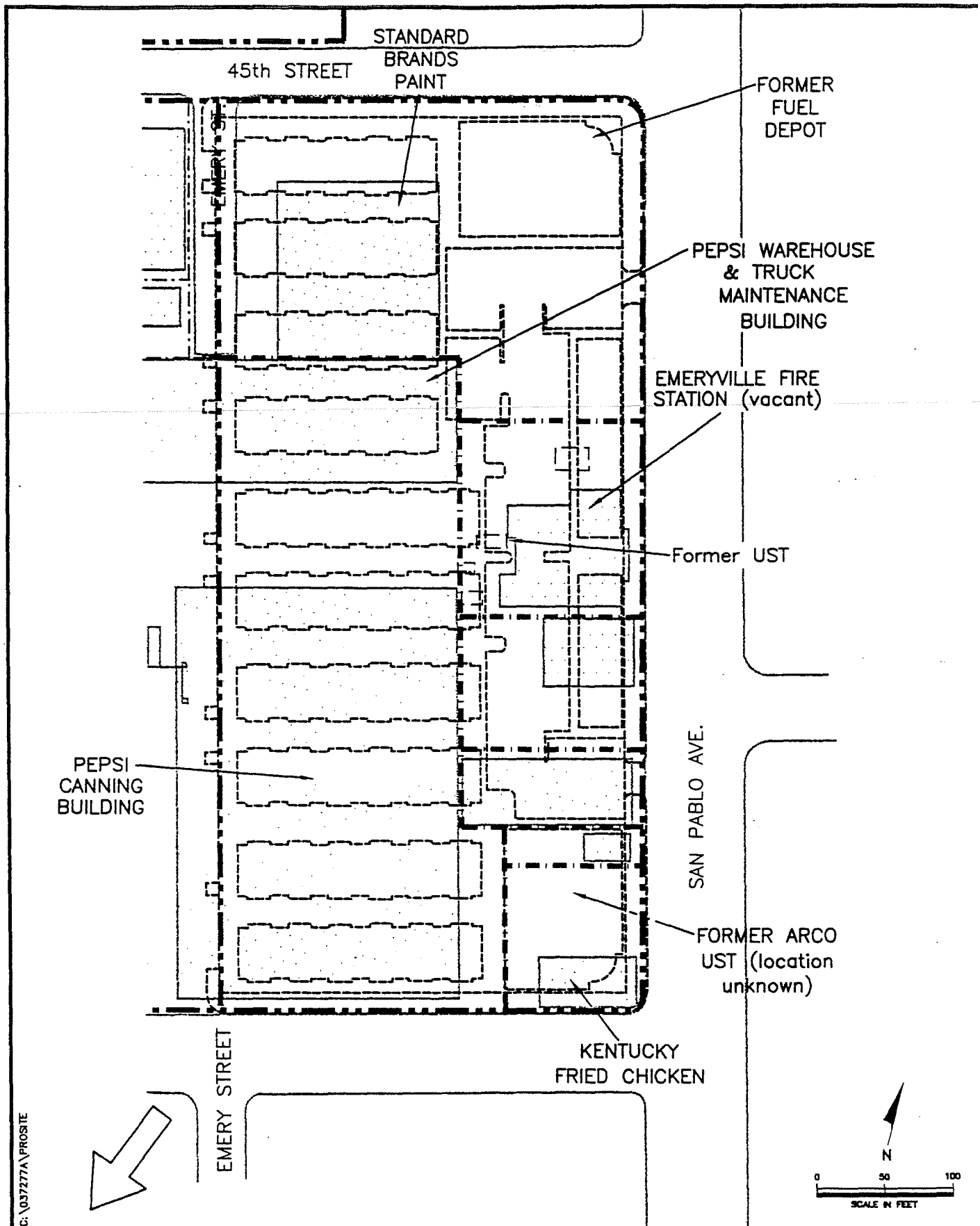
Date 5 April 2000

Drawing No.

Ev-08a

MBH ARCHITECTS

McNulty Briskman Heath
1115 Atlantic Avenue
Alameda, CA 94501
Tel 510 865 8663
Fax 510 865 1611



ENVIRON

6001 Shellmound St., Suite 700, Emeryville, CA 94608

Historical and Proposed Site Layout
Proposed Emeryville Village Center
Emeryville, California

Figure
6

Drafter: RS | Date: 3/23/99 | Contract Number: 03-7277A | Approved: | Revised:

APPENDIX B

LOWNEY PRELIMINARY GEOTECHNICAL SUMMARY

PRELIMINARY GEOTECHNICAL SUMMARY
Emery Village Station - Emeryville, California

Based on our review of available geotechnical information from reports prepared for the site and adjacent sites, in our opinion, the site is suitable for development as planned. Our preliminary geotechnical conclusions and recommendations are summarized below. These recommendations are preliminary in nature and are subject to modifications in our forthcoming geotechnical report.

SUBSURFACE CONDITIONS

In general, subsurface explorations have encountered stiff to very stiff clays with thin layers (1/2 to 3 feet) of medium dense to dense silty sands to depths of 45 feet. Fills on the order of 2 to 7 feet have been encountered in explorations at the site. Fill associated with under ground storage tanks removals are anticipated at the site.

Plasticity Index (PI) tests performed on the surficial clayey soils resulted in PI's ranging from 25 to 35, indicating moderate to high expansion potential.

Free ground water has historically been present at depths of 4 to 18 feet. During February 1999, ground water was encountered at approximately 12 feet below grade.

GEOLOGIC HAZARD CONSIDERATIONS

- *Fault Rupture:* The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (known formerly as a Special Studies Zones), therefore, fault rupture through the site is not anticipated.

- *Ground Shaking:* Strong ground shaking can be expected at the site during moderate to severe earthquakes in the general region.

- *Differential Compaction:* Because the surface soils encountered are generally stiff to very stiff and do not appear to change in thickness or consistency abruptly over short distances, the probability of differential compaction at the site is low.

- *Liquefaction:* The sand layers in the explorations reviewed are generally medium dense to dense and contain a significant amount of fine grained material, and were capped by stiff to very stiff clays. There may be a potential for some settlement of these layers to occur during and immediately after an earthquake, however, the anticipated settlements are anticipated to be on the order of less than ½-inch. Therefore,

in our opinion, the potential for liquefaction to impact the proposed development is considered low.

- *Lateral Spreading:* Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or "free" face such as an open body of water, channel, or excavation. There are no creeks or open bodies of water within an appropriate distance from the site, in our opinion, for lateral spreading to occur on the site. For this reason, the probability of lateral spreading occurring at the site during a seismic event is low.

GEOTECHNICAL CONSIDERATIONS

The primary geotechnical concerns are the moderate to high expansion potential of the native soils and the shallower fills at the site. Of additional concern is the potential presence of shallow ground water at the site.

Expansive soils are commonly encountered in the Bay Area including the east bay. To reduce the potential for damage to the existing structures, we recommend slabs-on-grade have sufficient reinforcement and be supported on a layer of non-expansive fill and that footings extend below the zone of seasonal moisture fluctuation.

We recommend that the existing fills in the proposed building areas be removed and replaced as engineered fill to reduce the potential future settlement of the existing fill.

Because of the potential for shallow ground water, we recommend that cuts be limited during final grading. Construction of shallow loading docks (on the order of 4 feet or less) appears to be feasible. Contractors should be made aware that shallow ground water may be encountered during removal of some of the thicker fills at the site and other deeper temporary excavations. Subgrade stabilization may be required for deeper excavations.

Based on the information reviewed to date, new structures may be supported on conventional shallow footings provided they bear entirely on undisturbed native soils or compacted engineered fill. Footings should be embedded at least 24 inches below lowest adjacent grade.

APPENDIX F

EMERY VILLAGE DEED RESTRICTION
AND
EMERY VILLAGE RISK MANAGEMENT PLAN

Recording Requested By:

Park Emery Associates
Limited Partnership

When Recorded, Mail to:
Loretta K. Barsamian, Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay St., Suite 1400
Oakland, California 94612

COVENANT AND ENVIRONMENTAL RESTRICTION ON PROPERTY

This Covenant and Environmental Restriction on Property(this "Covenant") is made as of the_____ day of_____, 2000 by Park Emery associates Limited Partnership, a California limited partnership ("Covenantor"), who is the Owner of record of that certain property situated along the west side of San Pablo Avenue between 45th Street and Park Avenue in the City of Emeryville, county of Alameda, state of California, which is more particularly described in Exhibit A attached hereto and incorporated herein by this reference (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 contain hazardous materials.

B. Soil and groundwater at the Property were contaminated by past industrial, commercial and institutional activities conducted on the Property. These activities deposited residual volatile petroleums from several on-site underground storage tanks, as well as residual chlorinated solvents from solvent usage areas and chemical storage facilities. These chemicals constitute hazardous material as that term is defined in Health and Safety Code Section 25260.

Prior to 1950, approximately the northerly one hundred eighty feet (180') of the Property was an oil and gas depot which utilized underground storage tanks and fuel pumps. Thereafter, in the early 1950's, the Oliver Rubber and Tire Company acquired that portion of the Property, removed the oil and gas depot, and utilized the area for a tire recapping and rubber goods factory. Various chemicals were used in the operation (hydraulic and other oils, solvents, rubber, carbon black) as well as subsurface sumps. Thereafter, in 1985, this area was acquired by Standard Brands and utilized as a retail store: no chemicals were used in this area during this period.

That portion of the Property southeast of the Standard Brands/Oliver Rubber site was previously occupied by the City of Emeryville Fire Department. The Fire Department utilized an underground storage tank to store diesel and gasoline for its vehicles. The City occupied this area from about the 1940's through the early 1990's, when the station was closed and remained vacant thereafter.

That portion of the Property southwest of the former Standard Brands/Oliver Rubber site and extending to the south edge of the Property (ie. Park Avenue) was the location of the former New Century Beverage Co.(Pepsi) canning, bottling and distribution facility from approximately 1958 through 1995. Underground storage tanks to store diesel and gasoline for its delivery trucks were utilized in this area. Prior to 1958, the Pepsi , the Pepsi site comprised a portion of the Oakland Oaks baseball stadium which was constructed in 1913. No known operations occurred on this portion of the Property prior to 1913.

The southeast corner of the Property was last occupied by a Kentucky Fried Chicken restaurant from about 1968 until its recent closure in 1999. Prior thereto, the Atlantic Richfield Company (ARCO) operated a gas station from about 1947 to 1968 which utilized underground storage tanks for the storage of gasoline for sale to customers.

All underground storage tanks on the Property (ie. former Standard Brands/Oliver Rubber, Fire Station, New Century Beverage Company, and KFC/ARCO) have been removed from the ground, impacted soils removed and disposed of at an appropriate facility. Further, quarterly ground water monitoring has been conducted in areas of concern since early 1994, which results indicate that the levels of chlorinated volatile organic compounds are below federal or state Maximum Contaminant Levels, suggesting that the Property has little to no impact on ground water. Furthermore, since local groundwater is shallow and not used as a source of drinking water, there is no anticipated impact from the Property to drinking water aquifers. As noted herein, soils on the Property will need to be handled in accordance with a Risk Management Plan/Soil Management Plan approved by the Board on _____.

C. The contaminants addressed in this Covenant are present in soil and groundwater on the Property. Without the mitigation measures which have been performed on the Property, exposure to these contaminants could take place via in-place contact, surface-water runoff, and wind dispersal, resulting in dermal contact, inhalation or ingestion by humans, etc. The risk of public exposure to the contaminants has been substantially lessened by the remediation and controls described herein.

D. The City of Emeryville and the Emeryville Redevelopment Agency have granted land use and development entitlements for the benefit of the Property which allow for the construction of approximately 26,000 square feet of ground floor retail space and associated at-grade parking on the easterly half of the property, as well as approximately 112 urban townhouses above parking garages on the westerly half of the Property. Approximately the westerly thirty-four feet (34') of the property will be dedicated to the City of Emeryville to provide for the extension and construction of the emery Street right-

of-way between 45th Street and Park Avenue.

Surrounding land uses include Pixar Animation Studio offices to the west, AC Transit bus maintenance yard and a new Kentucky Fried Chicken restaurant to the north, as ell as Emery High School and the Emery Bay Village townhouse development further north, a mix of commercial, retail and residential land uses to the east across San Pablo Avenue, and the Oaks Card Room, various commercial office uses, the East Bay Bridge Shopping Center and the apartments to the south.

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 desire 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 futurehuman 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 their 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 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 portions 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.

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 it successors 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. Development of the Property shall be conducted in accordance with the Preliminary Development Plan for the Property approved by the City of Emeryville on April 20, 1999 pursuant to Ordinance No. 99-003 and the Final Development Plan for the Residential Component approved on April 20, 1999 pursuant to Resolution No. 99-64 and any subsequent amendments as well as a Final Development Plan for the Retail Compont, and is otherwise restricted to industrial, commercial of office space uses;

b. No hospitals shall be permitted on the Property;

c. No schools for persons under 21 years of age shall be permitted on the property;

d. No day care centers for children or day care centers for senior citizens shall be permitted on the property;

e. No Owners or Occupants of the Property or any portion thereof shall conduct any excavation, grading, removal, trenching, filling or other earth movement activities on the Property without the Board's prior written approval of a Risk Management Plan/Soil Development Plan, unless expressly permitted in writing by the Board. Any contaminated soils brought of the surface by grading, excavation, trenching, or backfilling shall be managed by Covenantor or his agent in accordance with the Risk Management Plan approved by the Board and all applicable provisions of local, state and federal law;

f. All uses and development of the Property shall be consistent with any applicable Board Order or Risk Management Plan, each of which is hereby incorporated by reference including future amendments thereto;

g. 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 use;

h. No raising of food (e.g., livestock, food crops, etc.) shall be permitted on the Property;

i. The Owner shall notify the Board of each of the following: (1) The type, cause, location and date of any disturbance to the cap (as described in the Risk Management Plan) or which could affect the ability of such cap to perform its function 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 of 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 unauthorized use of the Property or 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 residual hazardous materials in soils and in the groundwater under the Property, and is subject to a deed restriction recorded in the Official Records of Alameda County, which imposes certain covenants, conditions, and restrictions on usage of the Property described herein. This statement is not a declaration that a hazard exists on this Property."

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 serve, or (2) three (3) business

days after deposit in the mail if mailed by United States mail, postage paid, certified or return receipt requested:

If to: **"Covenantor"**
Christopher J. Kober, Vice-President
Park Emery Associates, L.P.
675 Mariners Island Boulevard, Suite 109
San Mateo, CA 94404

If to: **"Board"**
Regional Water Quality Control Board
San Francisco Bay Region
ATTN.: Executive Officer
1515 Clay Street, Suite 1400
Oakland, CA 94612

5.3 Partial Invalidity. 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 the invalid 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 ten (10) days of the 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 provisions 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.

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

Park Emery Associates Limited Partnership,
a California Limited Partnership

By: **Park Emery Associated**
a California Corporation, its
General Partner

By: _____ Date: _____
Christopher J. Kober
Its: **Vice-President**

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

By: _____ Date: _____

Its: **Executive Officer**

LOWNEY ASSOCIATES
Environmental/ Geotechnical/ Engineering Services

Risk Management Plan

Emery Village Center

Emeryville, California

This report has been prepared for:

Park Emery Associates, L.P.

675 Mariners Island Boulevard, Suite 109, San Mateo, California 94404

May 15, 2000

Project No. 1103-5

Peter M. Langtry, R.G., C.HG.
Senior Project Geologist

Stason I. Foster, P.E.
Principal Engineer
Quality Assurance Reviewer

Mountain View *Oakland* *Pasadena* *San Ramon*

405 Clyde Avenue Mountain View, CA 94043-2209 Tel: 650.967.2365 Fax: 650.967.2785
P.O. Box 1388 Mountain View, CA 94042-1388 E-mail: mail@lowney.com

TABLE OF CONTENTS

RISK MANAGEMENT PLAN

EMERY VILLAGE CENTER

EMERYVILLE CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

The purpose of this risk management plan is to provide guidelines for the management of residual contaminants in soil and ground water detected beneath the Emery Village Center in Emeryville, California.

1.2 Background

The approximately 4.6-acre site, shown on Figures 1 and 2, is located at 4301, 4303, 4309, 4321, 4331, 4343 San Pablo Avenue and 1150 Park Avenue in Emeryville, California. The site is currently composed of several parcels owned by the City of Emeryville Redevelopment Agency (CERA) and Kaiser Foundation Health Plan. The site was formerly occupied by a Standard Brands Paint store (4343 San Pablo Avenue), a fire station (4331 San Pablo Avenue), a New Century Beverage Company facility (1150 Park Avenue), and a Kentucky Fried Chicken store (4301 San Pablo Avenue). The 4303 San Pablo Avenue parcel is occupied by the vacant Broom Brush coffee shop. The parcels are shown on Figure 2.

Based on historical information reviewed during our Phase I environmental site assessment, the site was developed with single family residences by 1903 and a fire station by 1911. Subsequent historical uses included a semi-professional baseball stadium and soft-drink bottling plant (on the New Century Beverage Parcel), a tire manufacturing facility and a service station (on Standard Brands parcel), a service station on the former Kentucky Fried Chicken parcel, restaurants, and a hotel. The majority of the on-site structures have been demolished, with the exception of the vacant Standard Brands Store, vacant Kentucky Fried Chicken restaurant, and the vacant Broom Brush coffee shop (Lowney Associates, 1999).

Underground storage tanks (USTs) historically have been present on-site, including the USTs at the former Standard Brands parcel, the former fire department parcel, and the former Kentucky Fried Chicken (ARCO) parcel. Based on the information reviewed during our Phase I environmental site assessment, the on-site USTs have been removed. Although there was no record of the removal of the USTs from the Kentucky Fried Chicken parcel, a geophysical investigation and excavation with a backhoe in 1994 by others reportedly did not find evidence of a fuel system, indicating that the USTs had been removed (Lowney Associates, 1999).

Based on the information reviewed, petroleum impacted soil and ground water are present beneath the site. The residual contaminants present are summarized in Section 2.1. The most highly impacted soil is primarily located beneath and immediately east of the vacant Standard Brands store. In addition, low concentrations of petroleum hydrocarbons were detected in the former UST areas at the former fire department and former Kentucky Fried Chicken parcels. Low concentrations of VOCs were also detected in the upper approximately 2 feet of soil beneath the southern portion of the New Century Beverages parcel. Based on the contaminants present at the site, a health risk assessment was prepared by Environ. For a residential exposure scenario, Environ concluded that the level of risk to human health was within acceptable limits established by the EPA.

1.3 Planned Development of the Site

Park Emery Associates, LP currently plans to build a residential and retail development on the approximately 4.3-acre parcel. The current site development plans include the following:

- Construction of 90 townhouses, each of which will have two stories of living space over a two-car garage.
- Construction of landscaped and communal areas.
- Construction of approximately 30,000 square-feet of retail space with 10 to 15 residential units on the second level and associated parking areas along San Pablo Avenue.
- Extension of Emery Street, which is currently a dead-end, from 45th Street south to Park Avenue.

2.0 RISK MANAGEMENT PLAN

2.1 Potential Contaminants of Concern

Potential contaminants present in soil and ground water beneath the site are listed in Table A-1 in Appendix A, based on previous on-site investigations. Table A-1 also lists Site-Specific Target Levels (SSTLs) for the potential contaminants of concern. The SSTLs are human health risk based concentrations developed by Environ (Environ, 1999), and have been approved by the Alameda County Health Care Services (ACHCS) and the California Regional Water Quality Control Board (CRWQCB). Site plans showing the concentrations and locations of the compounds detected are presented in Appendix B.

2.2 Applicability of the Risk Management Plan

This risk management plan is applicable to site activities that may result in contact with contaminated soil and ground water, both during and after the construction of

the planned development. These activities include but are not limited to the following:

- Excavation and grading;
- Subsurface utility installation, maintenance, or repair;
- Landscaping, and;
- Building foundation construction.

2.3 Risk Management During Construction

This section presents the risk management procedures to be followed during construction of the on-site development, including worker training, construction impact mitigation measures, excavation de-watering, and soil management protocol.

2.3.1 Site-Specific Health and Safety Worker Requirements

Prior to beginning construction, a site-specific health and safety plan (HSP) for construction workers who encounter on-site soils will be prepared by the contractors. Contractor's are responsible for the health and safety of their own employees and are required to have their own health and safety plans, and Injury and Illness Prevention Plans (IIPPs).

2.3.2 Construction Impact Mitigation Measures

During construction, measures will be taken to minimize dust generation, storm water runoff, and tracking of soil off-site. In addition, measures will be taken to prevent the creation of preferential migration pathways (vertical and horizontal) for contaminants detected on-site. The construction impact mitigation measures are summarized below.

2.3.2.1 Dust Control

Construction operations will be conducted so as to minimize the creation and dispersion of dust, including the following measures:

- Application of water while grading, excavating, and loading, as needed;
- Limiting vehicle speeds to 5 miles per hour on unpaved portions of the site;
- Minimizing drop heights while loading/unloading soil;
- Covering stockpiles of soil with residual contaminants with visqueen.

2.3.2.2 Equipment Decontamination

Contractors whose vehicles and construction equipment contact impacted site soil will be required to clean the equipment prior to leaving the site. Decontamination may include dry methods, such as brushing, scraping, or vacuuming. If the dry methods are not effective, the contractor may use wet methods, such as steam cleaning or pressure washing. The contractor, however, will be required to collect and appropriately manage the wash water. Wash water management methods may include use for dust control in areas of impacted soil and/or off-site disposal at an appropriate facility.

2.3.2.3 Prevention of Preferential Pathways

The current development plans do not include the construction of deep foundations, such as piers or piles. In addition, deed restrictions will not allow the installation of water supply wells on-site. Therefore, no vertical preferential pathways will be created.

Ground water has historically been present at depths of approximately 4 to 18 feet. During February 1999, ground water was encountered at a depth of approximately 12 feet (Environ, 1999). To reduce the likelihood of creating lateral preferential pathways for the migration of contaminants, any utility trench greater than 4 feet in depth will be backfilled with a low-permeability soil approved by the geotechnical engineer below a depth of 4 feet; backfill in the upper 4 feet can be composed of any soil type approved by the geotechnical engineer. Contractors installing utilities below a depth of 4 feet may use sand or gravel bedding for pipes and/or conduits; however, where sand or gravel bedding is used below a depth of 4 feet, barriers of low permeable material, such as a bentonite grout seal, will be used where the utility exits the site. The low-permeability barriers will be at least five feet in length.

2.3.2.4 Storm Water Pollution Controls

The Urban Runoff Pollution Prevention Program, also called the Non-Point Source Program, was developed in accordance with the requirements of the 1986 San Francisco Bay Basin Water Quality Control Plan to reduce water pollution associated with urban storm water runoff. This program was also designed to fulfill the requirements of the Federal Clean Water Act, which mandated that the EPA develop National Pollution Discharge Elimination system (NPDES) Permit application requirements for various storm water discharges, including those from municipal storm drain systems and construction site.

For properties of 5 acres or greater, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to commencement of construction. Although the site is less than 5 acres, storm water management controls will be implemented to reduce the potential for impacted soils to impact storm water runoff. These storm water controls will be based on best management practices (BMCs), such as those described in the *Erosion and Sediment Control*

Field Manual (CRWQCB , 1998) and the *Manual of Standards for Erosion and Sediment Control Measures, Second Edition* (ABAG, 1995). The BMPs implemented may include, but are not limited to, the following:

- Construction of berms or silt fences at the perimeter of the site, as appropriate;
- Placing of straw bale barriers around entrances to storm drains and catch basins;
- Covering stockpiles of contaminated soil with visqueen during rain events;
- Placement of gravel at project entrances/exits where soil can be removed from vehicles prior to leaving the site.

2.3.2.5 Excavation De-Watering

If excavation de-watering is required, a sample of the ponded water will be collected for laboratory analyses, as discussed in Section 2.3.3.6. Depending on the analytical results, the ponded water may be:

- Used for dust control on-site;
- Discharged to storm drain;
- Discharged to sanitary sewer; or
- Disposed at an appropriate off-site facility.

If used for dust control, prior approval would be obtained from the ACHCS agency. Discharge into the storm sewer or sanitary sewer would be performed under an approved permit from the CRWQCB or East Bay Municipal Utility District, respectively. If water is to be discharged into the sanitary sewer system, approval will also be requested from the City of Emeryville Public Works Department. If required, water will be treated prior to discharge.

2.3.3 Soil Management Protocols

As discussed in Section 1.2, soils with residual contaminants are present beneath the Standard Brands parcel and in the former UST areas of the Emeryville Fire Station and Kentucky Fried Chicken parcels, and in the southern portion of the New Century Beverage parcels; these areas are designated as Zone A (Figure 2). Areas with no identified significantly impacted soil are designated as Zone B.

2.3.3.1 Use of Clean Soil

Clean soil will be used for the top 3 feet of landscaped outdoor communal areas. Existing site soil from Zone B could be used anywhere on the site, including the upper 3 feet of landscaping areas, without further testing unless the soil is

subsequently observed to be visibly contaminated (e.g., stained, discolored, shiny, or oily) or has a noticeable solvent-like or hydrocarbon odor (suspect soil).

2.3.3.2 Management of In-Place Soil

Based on the analytical data collected to date, suspect soil may be encountered in Zone A during construction, particularly beneath portions of the former Standard Brands parcel. The previous analytical data did not show concentrations of VOCs or petroleum hydrocarbons exceeding the SSTLs (Table A-1). Therefore, unless soil that appears highly impacted is encountered in the excavations (such as free product), or if air monitoring indicates action levels are exceeded ("suspect soil"), further sampling of the in-place soil within Zone A will not be performed. Air monitoring is discussed in Section 2.3.3.5. If verification sampling is required, it will be performed as discussed below.

If suspect soil is encountered in Zone B, one soil sample will be collected for each approximately 50 lineal feet of trench excavation or 2,500 square feet of grading cut in the suspect area. The verification soil samples will be analyzed as discussed in Section 2.3.3.6.

If the analytical results of in-place verification samples exceed the SSTLs, the soil will be excavated until verification soil sampling indicates that soil concentrations are below the SSTLs or the top of ground water or a property boundary are reached. Alternatively, the impacted area shall be characterized through testing, then hypothetical risks to future population shall be recalculated to reflect the actual concentrations of VOCs and/or petroleum hydrocarbons present in the soil. If the estimated incremental cancer risk to future site occupants is less than 10^{-5} and the non-cancer hazard index is less than 1, then the soil will be left in-place.

2.3.3.3 Management of Excavated Soils

Suspect soil excavated during construction in Zones A and B will be stockpiled on-site on top of visqueen within a designated fenced enclosure. One discrete soil sample per approximately 50 cubic yards of stockpiled soil will be collected and analyzed as discussed in Section 2.3.3.6. If the volume of soil excavated exceeds 200 cubic yards, one discrete soil sample will be collected per approximately 100 cubic yards. If the contaminants of concern (COC) do not exceed the risk-based SSTLs, the soil may be used anywhere on-site except in the upper 3 feet of outdoor communal landscaped areas. If the analytical results of stockpiled soil exceed the SSTLs, the stockpiles shall either:

- Be disposed off-site an appropriate, permitted facility; or
- Treated on-site to levels below SSTLs with regulatory agency approval.
- Alternatively, the stockpiled soil shall be characterized through testing, then hypothetical risks to future population shall be recalculated to reflect the

actual concentrations of VOCs and/or petroleum hydrocarbons present in the soil.

2.3.3.4 Regulatory Agency Notification

If suspect soil is encountered in Zone B, or if soil exceeding the SSTLs is encountered within Zone A, the ACHCS and RWQCB will be notified.

2.3.3.5 Air Monitoring

Air monitoring will be performed under the direction of the project certified industrial hygienist (CIH) while excavating and grading in Zone A and in suspect areas encountered in Zone B, if any. Periodic air monitoring will be performed in the worker breathing zone using an organic vapor meter (OVM). A Lower Explosive Limit (LEL) meter will also be used in trenches and excavations. If organic vapors exceed 50 ppmv or if an LEL of 10 percent or greater is measured, the work in the trench and within 20 feet of the trench/excavation will be stopped until levels dissipate to within acceptable limits. The project CIH may also upgrade the personal protective equipment (PPE) and/or perform personal air monitoring, as discussed in the health and safety plan.

2.3.3.6 Laboratory Analyses

Initial verification soil samples collected from a suspect area will be analyzed for total petroleum hydrocarbons in the gasoline range (TPHg); benzene, toluene, ethylbenzene, and xylenes (BTEX) plus MTBE (EPA Test Method 8015M/8020); total petroleum hydrocarbons in the diesel range (TPHd) and motor oil range (TPHmo) (EPA Test Method 8015M); and volatile organic compounds (VOCs) (EPA Test Method 8010). This set of analyses will be used to evaluate which VOCs and/or petroleum hydrocarbons are present in the suspect soil; subsequent samples would be analyzed only for those compounds detected.

2.3.4 Management of Abandoned Pipes and Tanks

If an abandoned pipe (other than common utility lones) and/or tank is encountered during construction, the ACHCS and RWQCB will be notified. Any abandoned tank and associated piping encountered during construction will be removed in accordance with ACHCS and RWQCB guidelines. Abandoned pipes that do not appear to be associated with a tank will be managed as outlined below:

If the pipe contains liquid or sludge, the following steps will be taken:

- The liquid or sludge will be removed from the pipe, if feasible, and placed in appropriate containers.
- The liquid or sludge will be tested to evaluate appropriate disposal options.

- The pipe and liquid or sludge will be removed from the site for appropriate disposal/recycling.

If the entire pipe is not removed during construction (if approved by the geotechnical engineer), the ends of the pipe that are to remain in-place will be capped.

2.4 Post-Construction Risk Management

Post-construction risk managment includes precautions that will be taken to reduce long-term risks to human health and the environment from residual VOCs and petroleum hydrocarbons in soil and ground water after the construction of the on-site residential and retail development.

2.4.1 Long-Term Risk to Human Health

Based on the HRA prepared by Environ, the concentrations of residual VOCs and petroleum hydrocarbons detected in the soil and ground water beneath the site are not a significant threat to the health of future residents of the townhomes or occupants of the retail stores.

2.4.2 Protocol for Future Subsurface Activities

Individuals who contact impacted on-site soil and/or ground water during future activities that require excavation will be required to follow the risk management procedures outlined in this document. Future activities may include, but are not limited to, modification or repair to utilities, construction of building foundations, and changes to paved areas. Because of the 3-foot cap of clean soil in communal outdoor landscaped areas, landscape workers are not expected to contact impacted soil during routine landscaping activities. If modifications to landscaping areas are performed that require excavation greater than 3 feet, however, landscaping contractors will be required to comply with the management protocol in this document.

2.4.3 Long-Term Compliance with Risk Management Plan

In order to ensure the long-term compliance with the risk management plan, the following measures will be implemented

- The risk management plan will be submitted to the RWQCB and the ACHCS for their files.

- The risk management plan will be referenced in the Covenants, Conditions, and Restrictions (CCRs) for the townhouse development. Sellers of the townhouses and retail units will be required to disclose the risk management plan to buyers.

- Procedures will be developed to inform workers and contractors who may contact site soils about the risk management plan.

- The land-use of the site (90 residential townhouses and 30,000 square feet of retail space with 10 to 15 residential units above the retail level) will not be significantly changed without notifying the RWQCB and the ACHCS.

- Restrictions on site use, in the form of a deed restriction, will be implemented to prevent the use of on-site ground water for domestic, industrial, or irrigation purposes. The deed restriction will also prevent the construction of detached single-family residences with backyards on the site.

3.0 LIMITATIONS

This risk management plan was prepared for the sole use of Park Emery Associates, L.P. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. We are not responsible for the accuracy of information provided by others.

4.0 REFERENCES

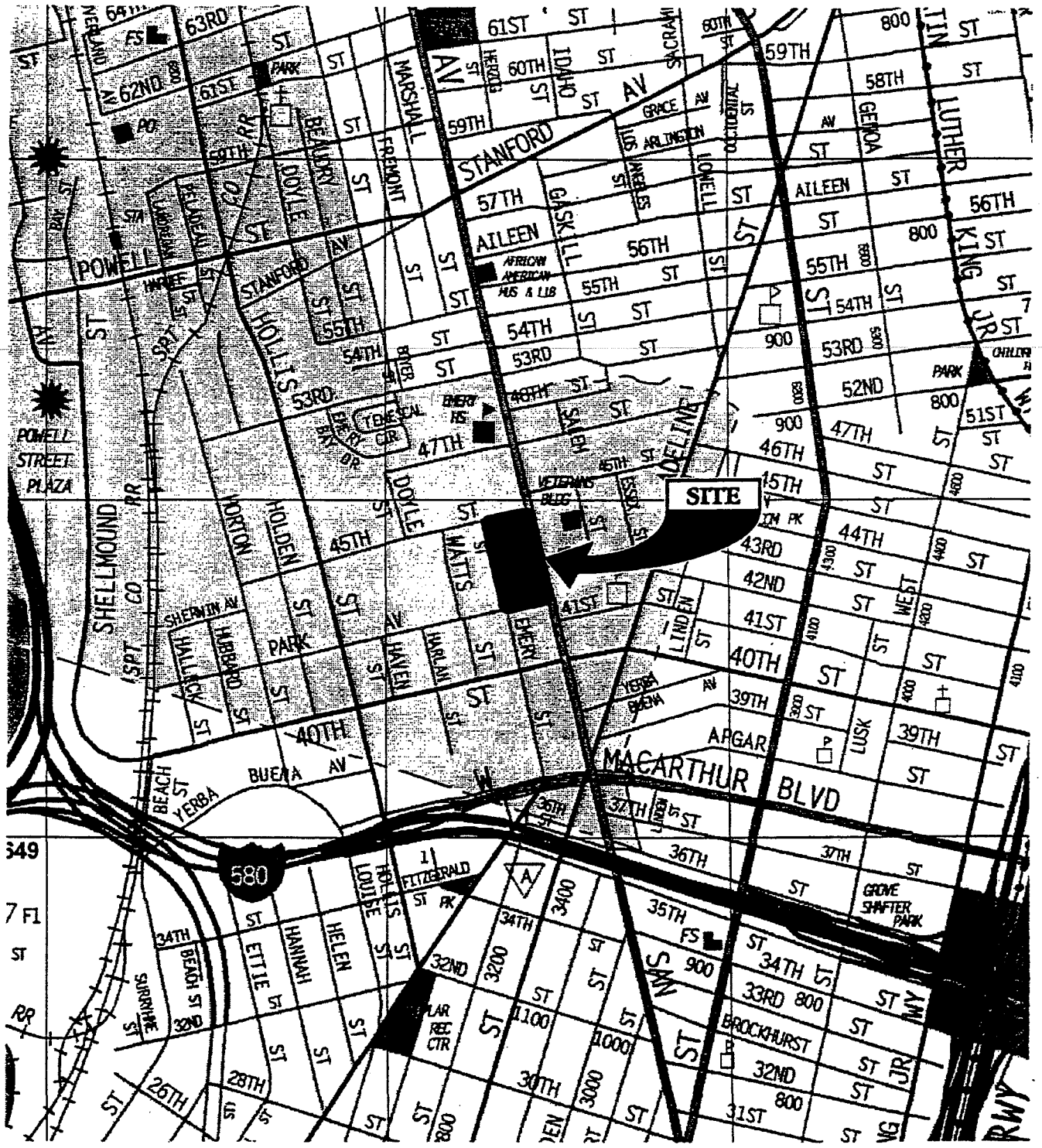
Association of Bay Area Governments. May 1995. *Manual of Standards for Erosion and Sediment Control Measures, 2nd Edition.*

California Regional Water Quality Control Board (CRWQCB), 1998. *Erosion and Sediment Control Field Manual.*

Environ, June 14, 1999. *Draft Human Health Risk Assessment Report, Proposed Emeryville Village Center, Emeryville, California.*

Lowney Associates, May 25, 1999. *Phase I Environmental Site Assessment, Emery Village Center, Emeryville, California.*

* * * * * * * * * * * * * * *



"Reproduced with permission granted by THOMAS BROS. MAP"

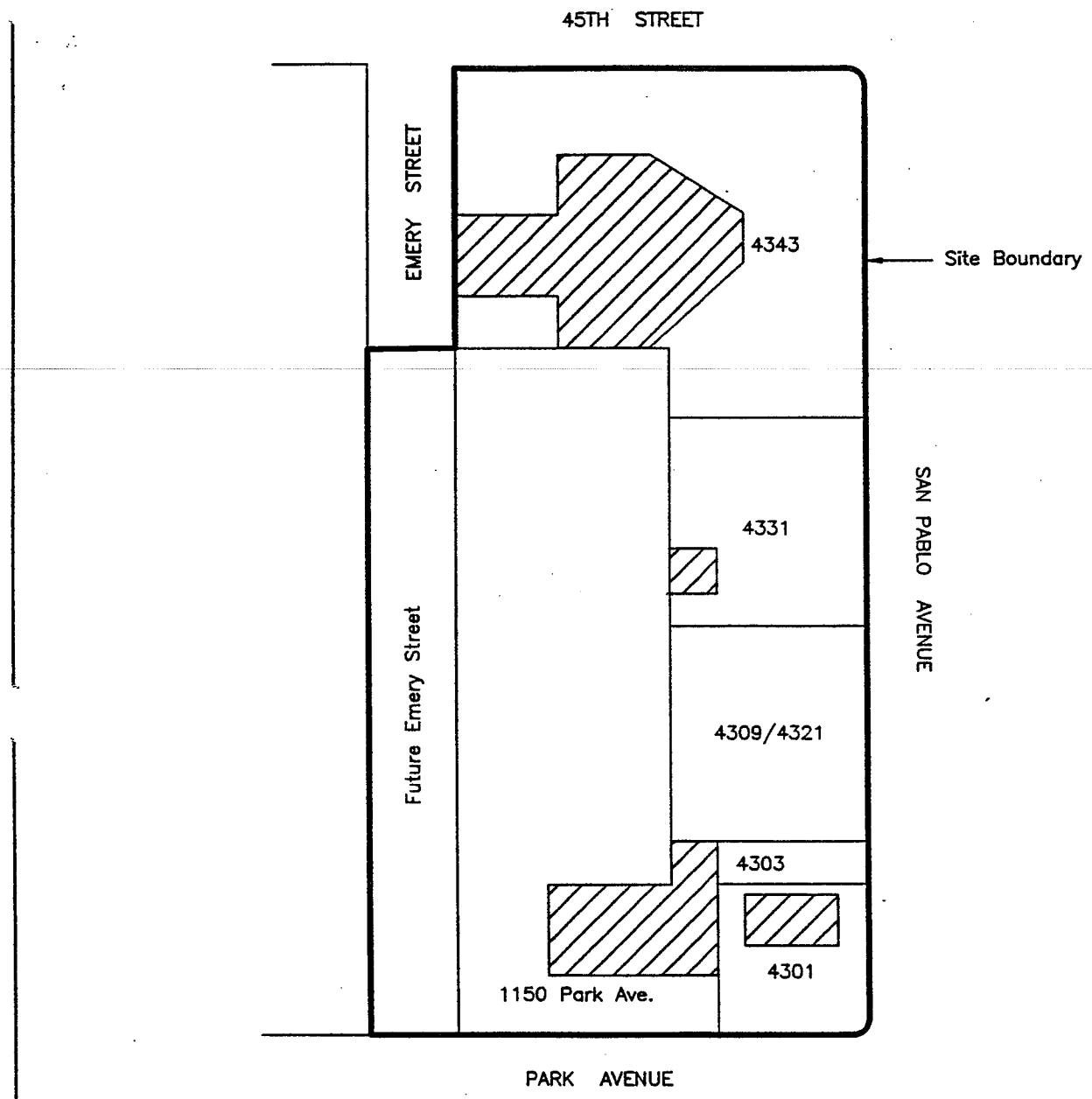
8/99*EB

VICINITY MAP

EMERVILLE VILLAGE CENTER PHASE II
Emeryville, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
1103–5A



3/00-EB

SITE PLAN

EMERY VILLAGE CENTER PHASE I
Emeryville, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
1103-5

APPENDIX A

TABLE OF SSTLS AND MAXIMUM CONCENTRATIONS OF CONTAMINANTS DETECTED

TABLE 3
Site-Specific Target Levels (SSTLs) - Soil (mg/kg)
Proposed Emeryville Village Center
Emeryville, California

Chemical	Estimated SSTLs (mg/kg)				Site Data (mg/kg)	Comparison to Site Data	
	Carcinogens	Noncarcinogens					
	Age Adjusted	Adult	Child	Lowest	Onsite Maximum	Carcinogen Risk Ratio	Noncarcinogen HI Ratio
Benzene	2.43E+00	3.43E+01	4.19E+00	2.43E+00	4.20E-01	1.73E-06	1.00E-01
1,1-Dichloroethane	3.98E+01	2.01E+03	2.15E+02	3.98E+01	1.30E-02	3.27E-09	6.04E-05
trans-1,2-Dichloroethene	NC	4.01E+02	4.22E+01	4.22E+01	7.10E-02	NC	1.68E-03
Ethylbenzene	NC	7.73E+03	1.59E+03	1.59E+03	5.40E+00	NC	3.39E-03
Methylene chloride	6.45E+01	1.72E+04	1.83E+03	6.45E+01	6.70E-02	1.04E-08	3.66E-05
2-Methylnaphthalene	NC	6.92E+02	2.86E+02	2.86E+02	7.10E-01	NC	2.48E-03
Naphthalene	NC	6.92E+02	2.86E+02	2.86E+02	3.40E+00	NC	1.19E-02
Tetrachloroethene	1.13E+01	2.01E+02	2.34E+01	1.13E+01	3.20E-01	2.84E-07	1.37E-02
Toluene	NC	2.52E+03	4.35E+02	4.35E+02	9.80E-01	NC	2.25E-03
TPH(diesel)	NC	1.47E+05	5.68E+04	5.68E+04	2.50E+03	NC	4.40E-02
TPH(gasoline)	NC	6.11E+04	5.73E+03	5.73E+03	5.90E+02	NC	1.03E-01
TPH(motor oil)	NC	9.14E+05	3.75E+05	3.75E+05	4.50E+03	NC	1.20E-02
1,1,1-Trichloroethane	NC	5.82E+03	6.02E+02	6.02E+02	3.60E-02	NC	5.98E-05
Trichloroethene	2.70E+01	1.52E+02	2.22E+01	2.22E+01	1.20E-01	4.44E-08	5.41E-03
Xylenes (mixed)	NC	5.84E+04	1.26E+04	1.26E+04	3.50E+01	NC	2.79E-03
Cumulative						**2.07E-06**	**3.03E-01**

Notes:
NC = Not a carcinogen.

DR

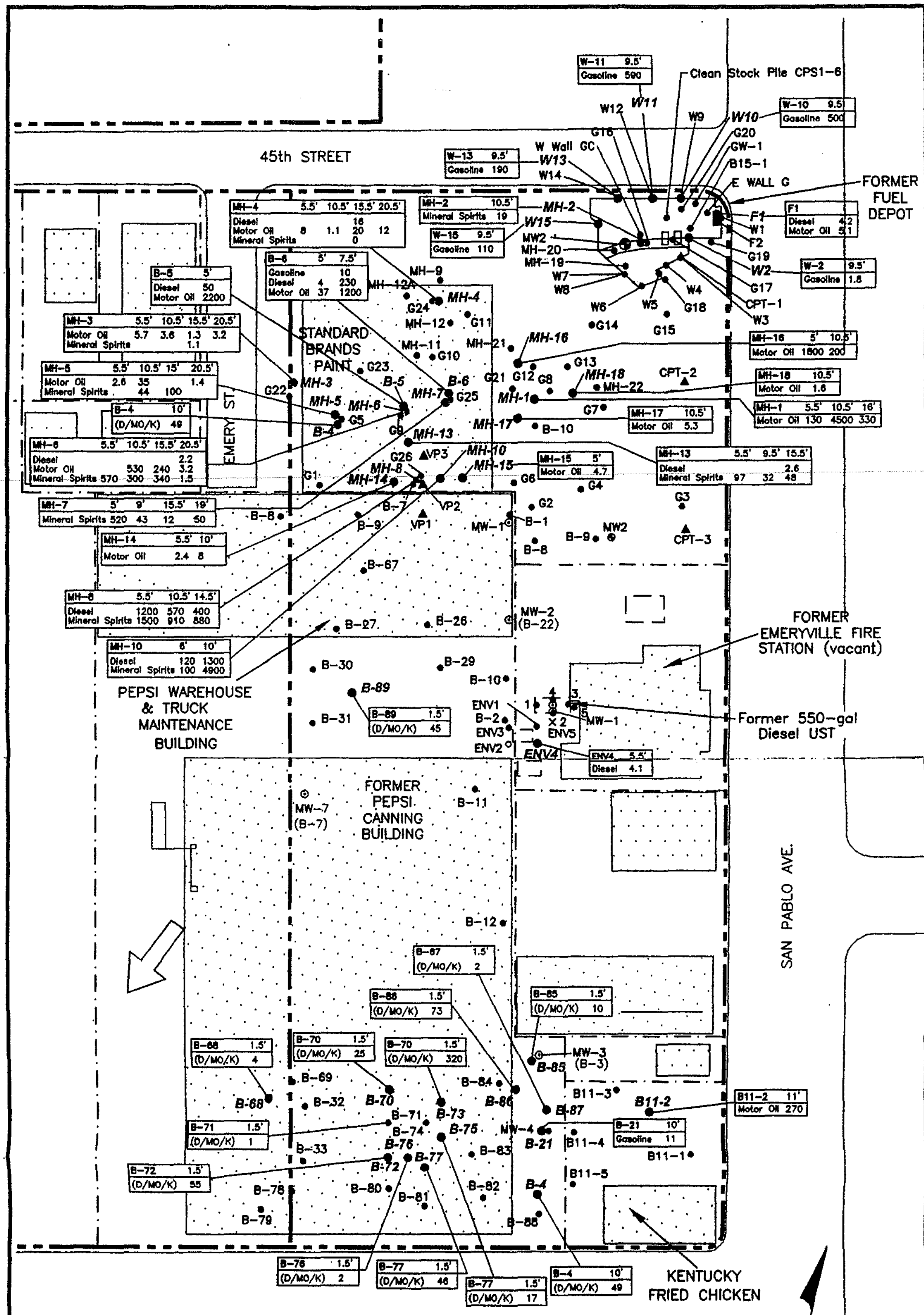
TABLE 4
Site-Specific Target Levels (SSTLs) - Ground Water (mg/L)
Proposed Emeryville Village Center
Emeryville, California

Chemical	Estimated SSTLs (mg/L)				Site Data (mg/L)	Comparison to Site Data	
	Carcinogens	Noncarcinogens					
	Age Adjusted	Adult	Child	Lowest	Maximum	Carcinogen Risk Ratio	Noncarcinogen HI Ratio
Acenaphthene	NC	1.58E+05	6.75E+04	6.75E+04	4.00E-03	NC	5.92E-08
Benzene	1.17E+00	1.08E+01	4.64E+00	1.17E+00	3.40E-01	2.90E-06	7.33E-02
Chlorobenzene	NC	6.56E+01	2.81E+01	2.81E+01	1.80E-02	NC	6.40E-04
Chloroform	7.93E+00	8.18E+01	3.51E+01	7.93E+00	3.40E-03	4.29E-09	9.69E-05
Chloromethane	9.44E+00	2.77E+02	1.19E+02	9.44E+00	1.00E-03	1.06E-09	8.43E-06
1,2-Dichlorobenzene	NC	9.54E+02	4.09E+02	4.09E+02	5.00E-03	NC	1.22E-05
1,1-Dichloroethene	1.40E-01	1.19E+01	5.12E+00	1.40E-01	2.60E-03	1.86E-07	5.08E-04
cis-1,2-Dichloroethene	NC	1.04E+02	4.46E+01	4.46E+01	1.60E-01	NC	3.59E-03
trans-1,2-Dichloroethene	NC	9.40E+01	4.03E+01	4.03E+01	5.30E-02	NC	1.32E-03
Ethylbenzene	NC	1.51E+03	6.47E+02	6.47E+02	7.70E-01	NC	1.19E-03
Fluoranthene	NC	4.26E+06	1.82E+06	1.82E+06	7.00E-03	NC	3.84E-09
Fluorene	NC	5.59E+05	2.40E+05	2.40E+05	1.20E-02	NC	5.01E-08
Naphthalene	NC	1.18E+02	5.04E+01	5.04E+01	1.30E+00	NC	2.58E-02
Tetrachloroethene	2.07E+00	2.35E+01	1.01E+01	2.07E+00	3.00E-03	1.45E-08	2.97E-04
Toluene	NC	6.16E+02	2.64E+02	2.64E+02	4.10E-02	NC	1.55E-04
TPH(diesel)	NC	1.14E+04	4.90E+03	4.90E+03	2.20E+02	NC	4.49E-02
TPH(gasoline)	NC	1.91E+03	8.18E+02	8.18E+02	2.00E+01	NC	2.44E-02
TPH(motor oil)	NC	1.34E+04	5.72E+03	5.72E+03	3.20E+02	NC	5.59E-02
Trichloroethene	7.06E+00	2.82E+01	1.21E+01	7.06E+00	1.40E-01	1.98E-07	1.16E-02
Vinyl chloride	7.41E-02	NA	NA	7.41E-02	1.40E-02	1.89E-06	NA
Xylenes (mixed)	NC	1.19E+04	5.09E+03	5.09E+03	1.90E+00	NC	3.73E-04
Cumulative						**5.19E-06**	**2.44E-01**

Notes:
NA = Not available.
NC = Not a carcinogen.

APPENDIX B

SITE PLANS SHOWING EXTENT OF CONTAMINANTS IN SOIL AND GROUND WATER



Note:

- Gasoline = TPH Gasoline
- (D/MO/K) = TPH Diesel/Mineral Oil/Kerosene Mixture
- Diesel = TPH Diesel
- Motor Oil = TPH Motor Oil
- Mineral Spirits = TPH Mineral Spirits
- (black box) = Detectable Levels of TPH in Soil

0 60 120
SCALE IN FEET

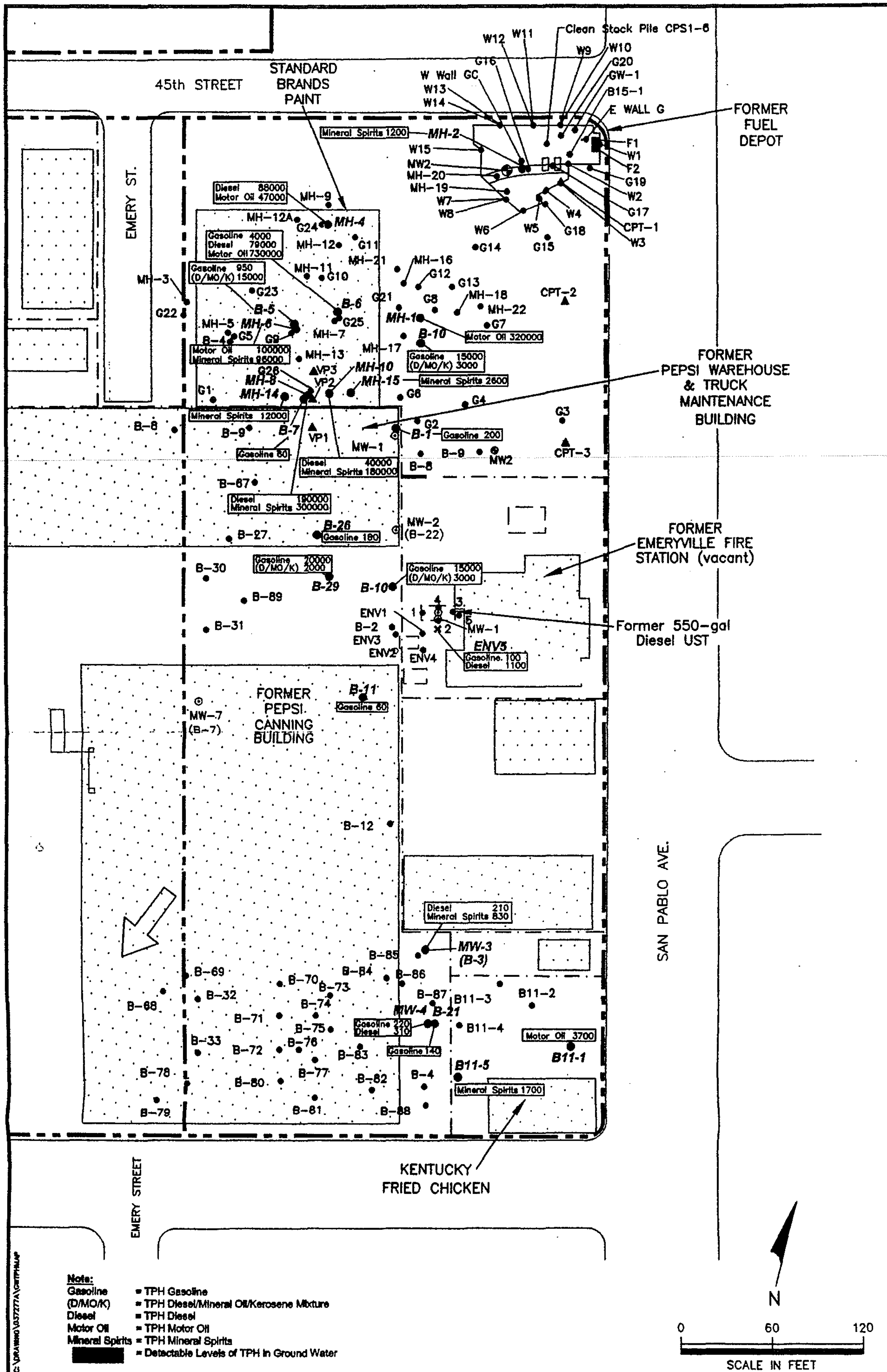
G:\03727A\SOILFIG

ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608

Total Petroleum Hydrocarbons (TPH) in Soil (mg/kg)
Planned Emeryville Village Center
Emeryville, California

Figure 7

Drafter: RS | Date: 4/15/99 | Contract Number: 03-7277A | Approved: | Revised:



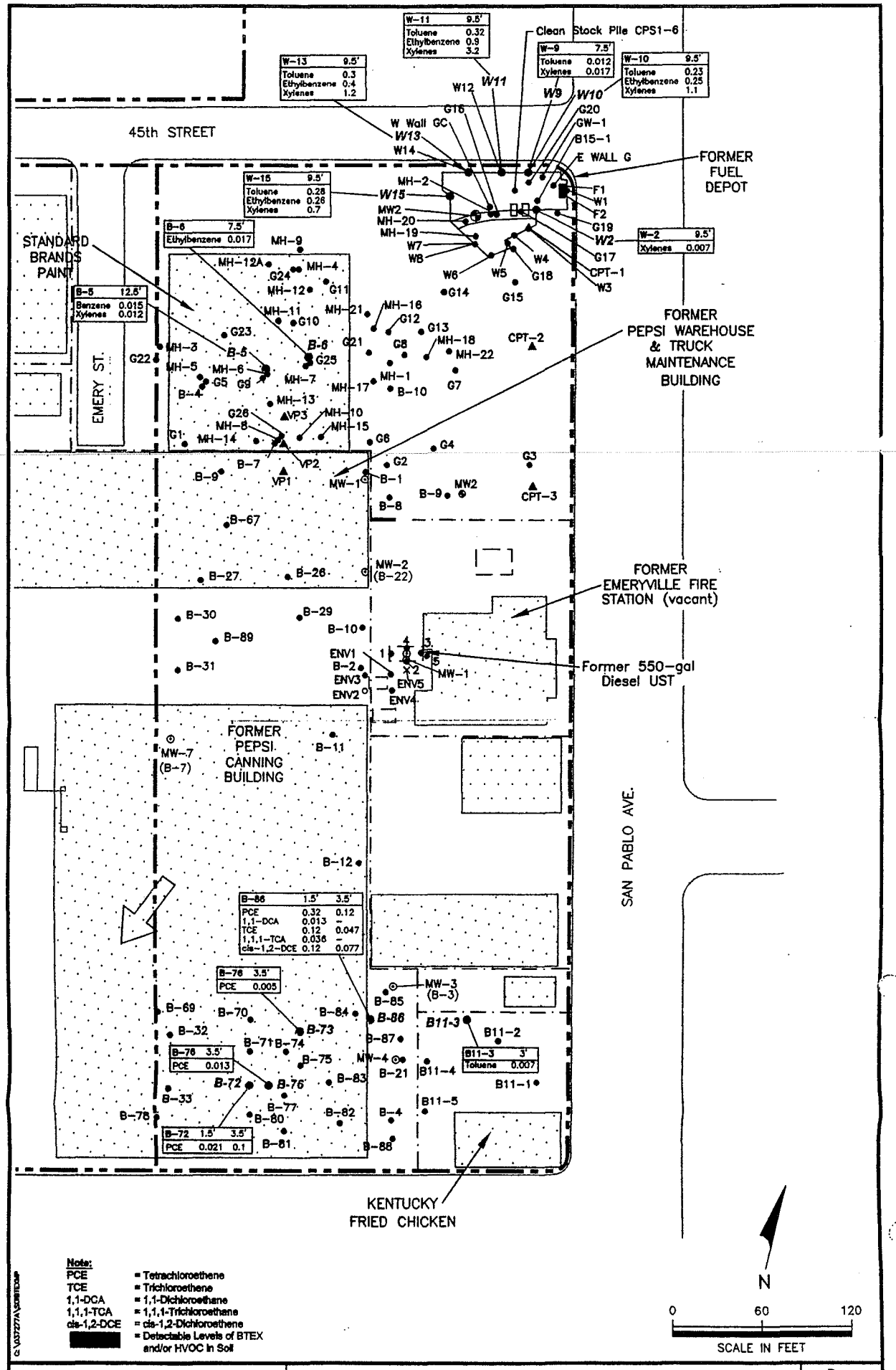
ENVIRON

6001 Shellmound St., Suite 700, Emeryville, CA 94608

Total Petroleum Hydrocarbons (TPH) in Ground Water (μg/L)
Planned Emeryville Village Center
Emeryville, California

Figure 7

Drafter: RS | Date: 4/14/99 | Contract Number: 03-7277A | Approved: | Revised:



Note:

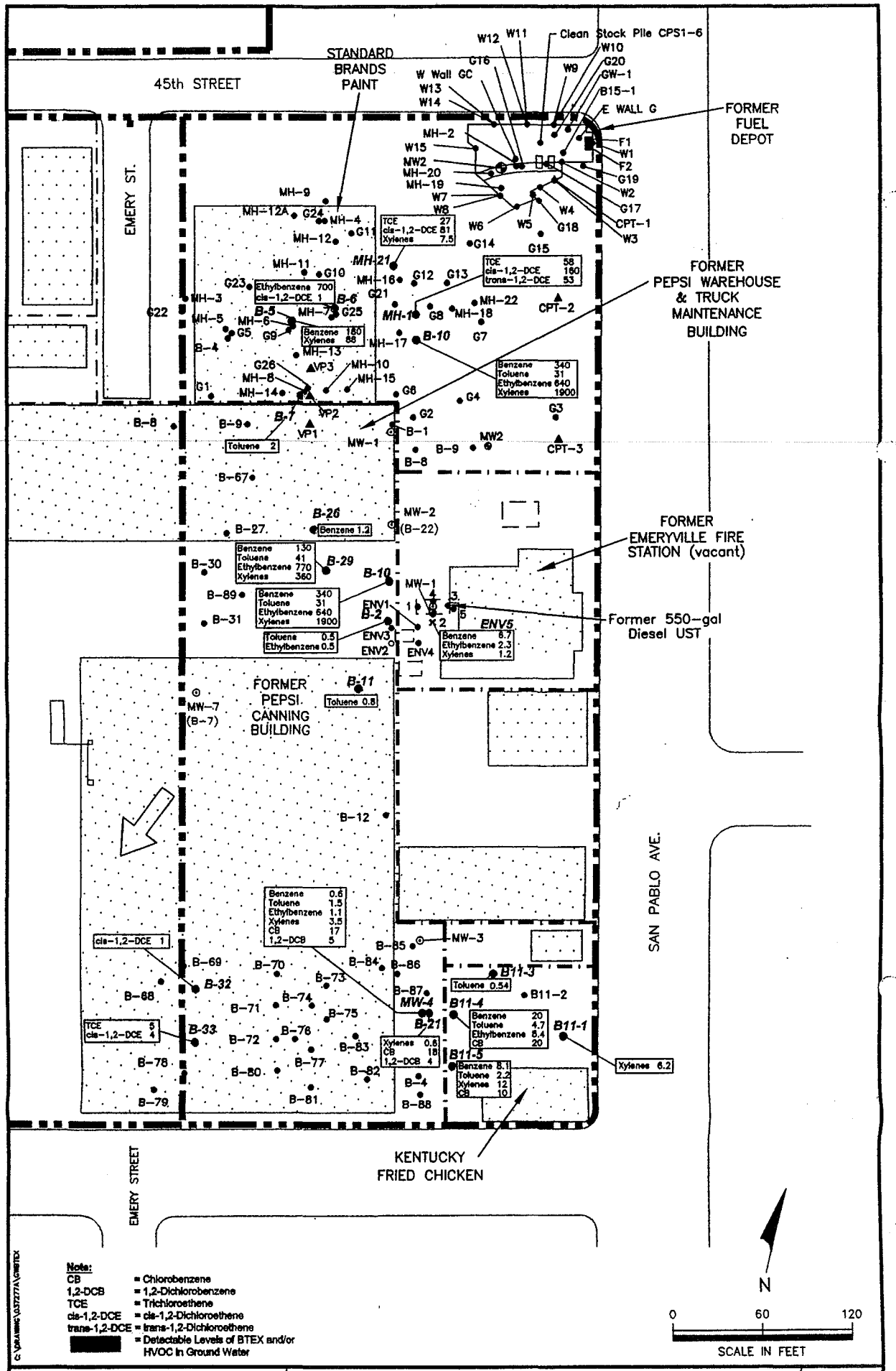
PCE	= Tetrachloroethene
TCE	= Trichloroethene
1,1-DCA	= 1,1-Dichloroethane
1,1,1-TCA	= 1,1,1-Trichloroethane
cis-1,2-DCE	= cis-1,2-Dichloroethene
■	= Detectable Levels of BTEX and/or HVOC in Soil

ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608

BTEX and HVOCs in Soil (mg/kg)
Planned Emeryville Village Center
Emeryville, California

Figure 7

Drafter: RS | Date: 4/15/99 | Contract Number: 03-7277A | Approved: | Revised:



ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608

BTEX and HVOC in Ground Water (μg/L)
Planned Emeryville Village Center
Emeryville, California

Figure 7

Drafter: RS | Date: 4/15/99 | Contract Number: 03-7277A | Approved: | Revised:

C:\DRAWING\03727A\GWBTEX