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8:16 am, Feb 10, 2011

Alameda County  
Environmental Health

February 9, 2011

Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Re: Ambassador Laundry, 3623 Adeline Street, Emeryville, California,  
Fuel Leak Case No. RO0002973, Geotracker Global ID T0619717287  
Soil and Groundwater Management Plan

Dear Alameda County Environmental Health:  
Resources for Community Development (RCD), in partnership with the City of Emeryville Redevelopment Agency, are proposing to newly construct 69 multifamily rental homes for low-income families and individuals with special needs. The Ambassador will provide high quality, affordable studios, one, two and three bedroom homes for families and individuals with annual incomes between \$19,000 and \$52,000. The development will also offer numerous amenities to residents including on site resident support services, youth afterschool and summer programming, a main lounge, youth activity rooms, a community garden and a playground.

The Soil and Groundwater Management Plan dated January 6, 2011 and Addendum – Soil and Groundwater Management Plan dated February 8, 2011, was prepared by our consultant, Fugro West, Inc. ("Fugro"), who we believe to be experienced and qualified to advise us in a technical area that requires a high degree of professional expertise. Therefore we have relied upon Fugro's assistance, knowledge and expertise in their preparation of the attached Management Plan. I am unaware of any material inaccuracy in the information in the report or of any violation of government guidelines that are applicable to the Management Plan. Accordingly, I am not aware of any reason to question the conclusions and recommendations contained in the Management Plan.

This letter is submitted pursuant to the requirements of California Water Code Section 13267 (b)(1). I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Deni Adaniya  
Associate Director of Housing



1000 Broadway, Suite 440  
Oakland, California 94607  
Tel: (510) 268-0461  
Fax: (510) 268-0545

February 8, 2011  
Project No. 04.74100016

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Attention: Mr. Mark Detterman, P.G., C.E.G., Hazardous Materials Specialist

Subject: Addendum - Soil and Groundwater Management Plan; Fuel Leak Case No.  
RO0002973 and Geotracker Global ID T0619717287, Ambassador Laundry, 3623  
Adeline St., Emeryville, CA 94608

Dear Mr. Detterman:

With this letter Fugro provides Alameda County Environmental Health (ACEH) with the Addendum to our Soil and Groundwater Management Plan dated January 6, 2011. This Addendum was prepared to address your letter dated January 28, 2011 which requested additional information to address the sampling and handling of potentially contaminated soil and groundwater that may be encountered during construction of the affordable housing development. Fugro is providing environmental consultation services to Resources for Community Development (RCD), which will redevelop the Site for affordable housing.

Fugro previously provided ACEH with a copy of our report *Results of Surficial Soil Sampling, Ambassador Housing, 1168 36<sup>th</sup> Street, Emeryville* dated February 26, 2010 which identified the presence of total lead concentrations that exceeded the California Human Health Screening Level (CHHSL) of 80 milligrams per kilogram (mg/kg) for residential land use but no total lead concentrations exceeding 750 mg/kg, the Environmental Screening Level (ESL) for a construction worker. The highest total lead concentrations were located in near surface soil at the proposed park area and in the proposed subterranean parking area. With the offsite removal of that lead-impacted soil, the only other soil samples containing total lead concentrations exceeding 80 mg/kg include S-4 (130 mg/kg) and S-10 (99 mg/kg). Based on the available lead data for near-surface soil and with the removal of the impacted soil from the proposed park and subterranean parking area, the average total lead concentration would be about 62 mg/kg. Furthermore, both S-4 and S-10 will be located beneath buildings preventing exposure to that soil. Accordingly, total lead concentrations in surface soil will not pose a significant health risk to construction workers or residents at the proposed development.

For brevity, we have summarized your comments and listed our response beneath.

### TECHNICAL COMMENTS

- 1. Management of Petroleum Contaminated Soil and Groundwater – As noted , the SGMP appears to be principally geotechnical in nature, but does reference the potential to encounter contaminated soil and groundwater at the site, and defines the**





**analytical suite. To move this project forward, ACEH requests an addendum to the SGMP, to be attached to the existing SGMP, which will document standard contaminant management methodologies. These should include, but should not be limited to, details associated with:**

**a. Use of Photoionization Detectors (or equivalent) to identify impacted soil and to identify sampling locations,**

Fugro personnel will be present during excavation of the proposed park and parking area to monitor, screen soil for indications of contamination, and collect soil samples for chemical analyses as detailed in the SGMP and this Addendum. If petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) are detected during excavation activities, the presence and extent of TPH and VOC contamination will be identified by odor, staining, soil discoloration, or a positive measurement on the photoionization detector (PID) or equivalent.

Fugro personnel will calibrate the PID before each day at the Site and record field observations. If needed, PID readings will be collected by screening the soil sample headspace to evaluate TPH or VOC impacts. Specifically, a soil sample will be placed into a clean, re-sealable plastic bag which will be gently agitated and allowed to equilibrate for at least 5 minutes. Subsequently, the tip of the PID will be inserted into the headspace to record the detected volatile compounds from the headspace. Sample locations, field observations, and PID readings will be noted as part of our field reports to document our findings.

**b. Appropriate sample collection procedures and preservation techniques,**

To confirm that the soil excavation activities remove the lead-impacted soil from the proposed park and parking area, confirmation soil samples will be collected and submitted to a state-certified chemical laboratory for testing. At this time and barring filed observations to the contrary, the confirmation samples will be tested for total lead using EPA Method 6010. Samples will be collected in clean, stainless steel tubes, or laboratory-prepared glass jars.

Fugro may also assist RCD's contractor by collecting soil samples to characterize soil for offsite disposal. Discrete samples will be collected to represent the soil stockpiles. The laboratory will be instructed to composite soil samples prior to analyses. The number of samples and the analytical suite for those samples will depend on the requirements of the landfill accepting the excavated soil.

If field observations indicate that TPH or VOC impacted soil is encountered, the sampling program may be altered to collect discrete soil samples for TPH and VOC analyses. In this case, samples will be collected using clean, stainless steel tubes filled to avoid headspace.

All soil samples will be stored in an ice chest, cooled to below 4 degrees Centigrade, and transported to the laboratory under chain-of-custody documentation. We anticipate that



samples will be tested on a 24 to 48 hour turnaround to avoid delays to the ongoing construction schedule.

**c. Appropriate excavation confirmation sampling (at a minimum, bottom sampling intervals mirroring overexcavation sampling intervals [e.g. 20 foot centers and a 1 foot depth at signs of impacted soil]),**

Based on investigation findings, the extent of lead-impacted soil is approximately 90 feet by 150 feet for the proposed parking area and 40 feet by 70 feet for the proposed park area. For the purposes of the project, Fugro assumes that the depth of impacted soil is approximately 2 feet, subject to the results of total lead analyses on confirmation soil samples collected from that depth. Fugro will collect confirmation soil samples from the 2 feet deep excavation at those areas at a frequency of no less than 50 foot centers for a total of 6 samples from the parking area and 2 from the park area. If results of analyses indicate total lead concentrations exceeding 80 mg/kg, those areas will be over-excavated an additional 1 or 2 feet and additional confirmation samples will be collected as described above. We note that the proposed depth of the subterranean garage will be in the order of 5 to 13 feet below grade.

**d. Segregation of impacted from non-impacted soil,**

Lead-impacted soil excavated from the proposed parking area and park will be segregated during construction pending offsite disposal. In some cases, impacted soil may be loaded directly into trucks for direct offhaul. However, if impacted soil will be stockpiled, that soil will be placed on and covered by plastic sheeting to prevent cross-contamination at the Site. Fugro will document the stockpiling locations as part of our field activities, including photographs, site sketches, and field notes. Under no circumstances will soil from the un-impacted areas be mixed with soil from impacted areas.

**e. Appropriate stockpile tarping,**

Based on the assumptions listed above, the volume of impacted soil is approximately 1,200 cubic yards. As indicated above, all impacted soil that is stockpiled on the Site will be placed on and covered by plastic sheeting. The stockpile will be completely covered and the adjacent sheet will overlap by two feet. The plastic sheeting will be weighted and secured at the end of each day as a dust control and soil segregation measure.

**f. Establishing appropriateness of soil reuse either onsite or offsite through adherence to the draft SF RWQCB guidelines entitled *Characterization and Reuse of Petroleum Hydrocarbon Impacted Soil as Inert Waste*, dated October 20, 2006,**

Per the SGMP, soil excavated from the proposed parking area and park will be disposed at an appropriate permitted landfill. However, any consideration for soil reuse either on-site or off-site will comply with regulatory guidance and testing requirements from the DTSC, RWQCB, and the City of Emeryville, including but not limited to the draft guidance cited above by ACEH.



**g. Contaminated groundwater sampling, handling, and management procedures.**

If onsite excavations encounter groundwater, Fugro will coordinate with RCD's contractor to contain, sample, test, and discharge such groundwater in accordance with the appropriate NPDES or EBMUD permit requirements. Fugro will confirm that the Contractor stores the groundwater in containers of appropriate size and strength so that overflowing, leakage, or rupture does not occur. The contractor will install secondary containment as needed to protect against impacts to the Site. If any such impacts occur, the impacted soil will be excavated and tested to evaluate reuse or disposal options. The number of samples and the analytical suite for groundwater samples will be subject to the requirements of either the NPDES permit or those of EBMUD to accept discharge into their sanitary sewer system.

Fugro will observe and document the Contractor's activities as the water is pumped from the excavation to the containers and as it is transported or discharged from the Site. Fugro personnel will document the sampling, handling and management of the water in our field reports.

**2. Verifying proper decommissioning of Old MW-1**

During Site preparation and excavation activities, RCD's contractor will attempt to locate and uncover the Old MW-1 monitoring well. We note that Old MW-1 appears to be located within the proposed parking area so it should be encountered during the Site development. If encountered, Fugro will document the status of the well, wellhead, casing, grout, etc. If it appears that the Old MW-1 well was not properly decommissioned, namely was not overdrilled and/or pressure grouted leaving a vertical conduit at the Site, Fugro will coordinate with RCD, their contractor, and Alameda County Public Works Agency (ACPWA) to properly decommission Old MW-1 in accordance with ACPWA drilling permit requirements. Such decommissioning will probably involve confirming that the well casing is unobstructed to depths greater than the proposed bottom of the parking garage excavation, pressure grouting the casing with neat cement grout from the well bottom using the tremie method to grade, and removing the well casing to at least the depth of the parking garage excavation. Results of well decommissioning will be documented in a brief letter report to ACPWA.




### CLOSING STATEMENT

With this Addendum, Fugro believes we have adequately addressed your concerns and request your written concurrence that no further modifications are currently required.

On behalf of the Resources for Community Development, we thank you in advance for your timely review and approval of this Addendum to the Soil and Groundwater Management Plan. If you should have any questions or comments, please feel free to contact the undersigned at (510) 268-0461.

Sincerely,

FUGRO WEST, INC.



Stephen J. Osborne, P.E., G.E.  
Principal Engineer



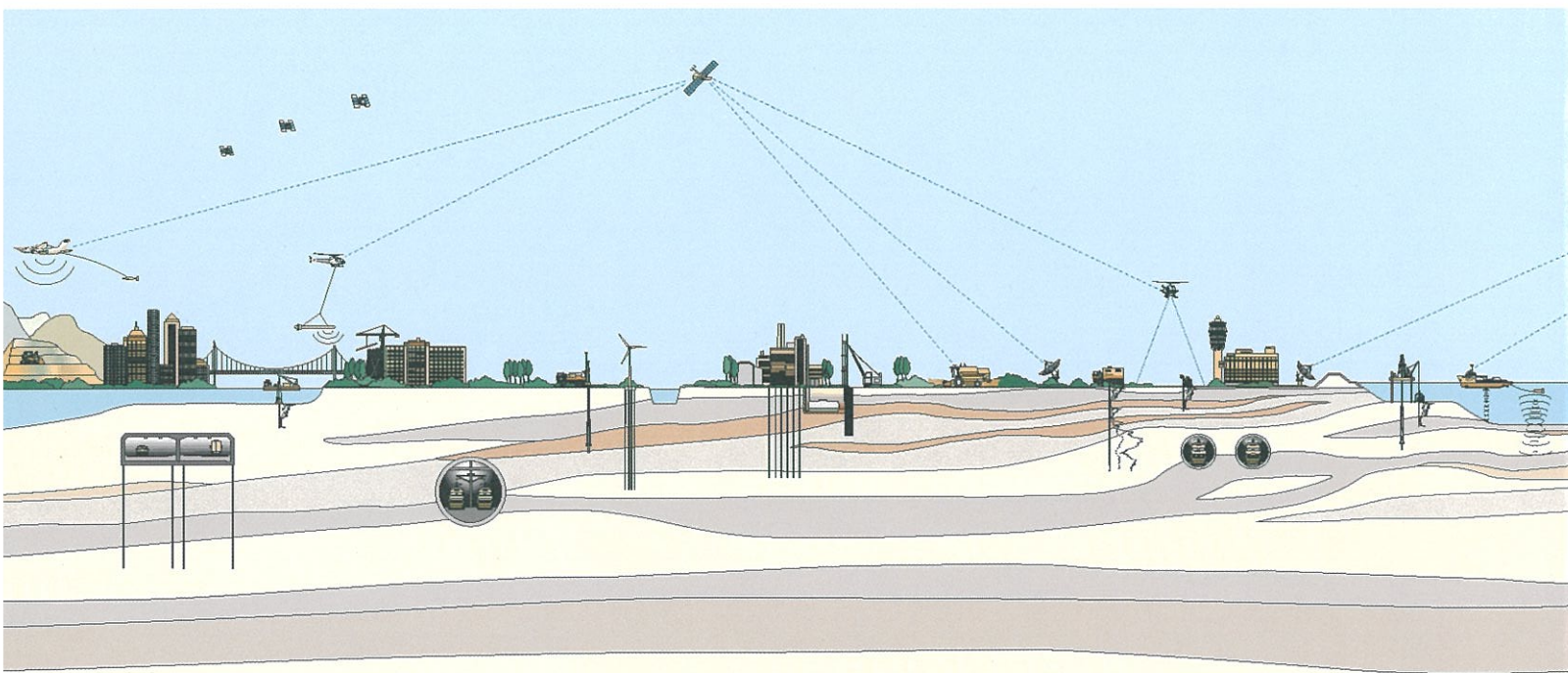
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Copies Submitted: (1 and PDF) Addressee  
(1 and PDF) Ms. Deni Adaniya, Resources for Community Development

**SOIL AND GROUNDWATER  
MANAGEMENT PLAN  
AMBASSADOR HOUSING  
1168 36<sup>TH</sup> STREET  
EMERYVILLE, CALIFORNIA**

Prepared for:  
RESOURCES FOR COMMUNITY DEVELOPMENT

January 2011  
Fugro Project No. 04.74100016





1000 Broadway, Suite 440  
Oakland, California 94607  
Tel: (510) 268-0461  
Fax: (510) 268-0545

January 6, 2011  
Project No. 04.74100016

Resources for Community Development  
2730 Telegraph Avenue  
Berkeley, California 94705

Attention: Ms. Deni Adaniya

Subject: Soil and Groundwater Management Plan, Ambassador Housing, 1168 36<sup>th</sup> Street,  
Emeryville, California

Dear Ms. Adaniya:

Fugro West Inc. has prepared this Soil and Groundwater Management Plan (SGMP) for Ambassador Housing at 1168 36<sup>th</sup> Street in Emeryville, California on behalf of Resources for Community Development. The purpose of the SGMP is to describe construction methods to excavate, handle, and dispose of soil and groundwater which may be generated during the redevelopment of the Site.

Fugro understands that this SGMP will be used to assist Resources for Community Development (RCD) and its Contractor for the planning and construction of the new facility.

If you have any questions, please call the undersigned at (510) 267-4411.

Sincerely,

FUGRO WEST, INC.

A handwritten signature in black ink, appearing to read "Stephen J. Osborne".

Stephen J. Osborne, P.E., G.E.  
Geotechnical Engineer



Copies Submitted: (3 + PDF on CD) Addressee







## CONTENTS

	Page
LIST OF ACRONYMS AND ABBREVIATIONS .....	III
1.0 INTRODUCTION.....	1
1.1 Site Description .....	1
1.2 Project Description .....	1
2.0 SUMMARY OF SUBSURFACE CONDITIONS.....	2
2.1 Hazardous Materials Conditions .....	2
2.2 Geotechnical Conditions .....	3
2.3 Summary of Anticipated Exposure Pathways .....	4
3.0 SOIL AND GROUNDWATER MANAGEMENT PRACTICES .....	5
3.1 Construction Activities .....	5
3.2 construction environmental oversight.....	6
3.3 Health and Safety Plan.....	7
3.4 Storm Water Pollution Prevention Plan .....	7
3.5 Dust Control .....	7
3.6 Soil Transportation and Disposal .....	8
3.7 Dewatering .....	8
3.8 Documentation .....	8
4.0 LIMITATIONS.....	8
5.0 REFERENCES.....	8

## TABLE

Conceptual Exposure Model for Human Health and Ecological Receptors .....	1
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## PLATES

	Plate
Site Plan.....	1
Site Plan - Proposed Redevelopment Plan.....	2
Grading Plan .....	3

## LIST OF ACRONYMS AND ABBREVIATIONS

ACEH	Alameda County Environmental Health
bgs	below ground surface
CY	cubic yards
EPA	U.S. Environmental Protection Agency
ESLs	Environmental Screening Levels
Fugro	Fugro West, Inc.
HSP	Health and Safety Plan
LUST	Leaking Underground Storage Tank
µg/g	micrograms per gram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
OSHA	Occupational Safety and Health Administration
OVM	Organic Vapor Meter
PPE	Personal Protective Equipment
ppm	parts per million
RCD	Resources for Community Development
RWQCB	Regional Water Quality Control Board
SGMP	Soil and Groundwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TPH	Total Petroleum Hydrocarbons
TPHg	Total Petroleum Hydrocarbons as gasoline
TPHd	Total Petroleum Hydrocarbons as diesel fuel
TPHmo	Total Petroleum Hydrocarbons as motor oil
USTs	Underground Storage Tanks
VOCs	Volatile Organic Compounds



## **1.0 INTRODUCTION**

Fugro West Inc. (Fugro) has prepared this Soil and Groundwater Management Plan (SGMP) on behalf of Resources for Community Development (RCD) for The Ambassador multifamily housing project located at 1168 36<sup>th</sup> Street (Site, Plate 1). RCD is currently negotiating the purchase of this property from the City of Emeryville. This SGMP describes general construction methods to excavate, handle, and dispose of soil and groundwater that may be generated during the construction of the affordable housing project. This SGMP also describes oversight and monitoring protocol and measures to be taken in the event of the discovery of unanticipated environmental conditions during excavation.

Fugro has used information from previous site investigations and remediation in preparation of this SGMP. These references are listed in Section 5.

### **1.1 SITE DESCRIPTION**

The Site encompasses approximately 0.9 acres and is currently a vacant lot with a billboard located on the western side of the property. The Site includes the sidewalk along the north side of 36<sup>th</sup> Street and the sidewalk at the corner of Magnolia Street and 36<sup>th</sup> Street. The irregularly shaped property occupies approximately two-thirds of an acre bounded to the north by residential development, to the west by Peralta Street, to the south by 36<sup>th</sup> Street, and to the east by Adeline Street. The Site includes two properties on Adeline Street, 3601 and 3623 Adeline. These three properties make up the Site. The eastern portion of the Site is occupied by two residential structures not part of the Site. The viaduct of Interstate 580 is immediately across 36<sup>th</sup> Street to the south. Plate 1 shows the limits of the affordable housing project and the neighboring structures.

### **1.2 PROJECT DESCRIPTION**

RCD is planning the construction of an affordable housing development with three structures. The largest structure will reach five stories with a garage that extends below and above the existing ground surface. The two remaining buildings are two story structures without garages or below ground structures. Buildings A, B, and C will provide 69 units of residential space with living areas that range from 550 to 1,180 square feet, see Plate 2. The development will include trees and landscaping along Peralta Street, 36<sup>th</sup> Street, and a park, landscaping and trees adjacent to Building B.

Preliminary designs of The Ambassador development include a multi-story live/work building with podium parking and residential units along with two smaller structures. These three structures will be of wood-frame construction with isolated or perimeter shallow footings and interior concrete slabs-on-grade. The podium structure will be supported on isolated spread footings and grade beams. The garage structure will be a partial basement. The two level garage will extend from approximately eight feet below grade and require the excavation and off-haul of approximately 4,400 cubic yards (CY) of soil.

## 2.0 SUMMARY OF SUBSURFACE CONDITIONS

### 2.1 HAZARDOUS MATERIALS CONDITIONS

An industrial laundry formerly occupied the majority of the Site between 1910 and the 1980s. Site operations may have lead to the storage and handling of regulated substances, such as solvents, spot removers, and other unknown products. In the mid 1980s, the land use at the Site changed to a mixed residential/commercial land-use. A house formerly was located at 1160 36th Street and two other houses occupied 3601 and 3623 Adeline Street. Businesses operating at the Site included a spa assembly, a commercial sign company, art studios, a bronze art foundry, a metal contractor, vehicle maintenance, and other commercial uses. All of the former buildings were removed by the end of 2005. The City authorized a series of hazardous materials investigations between 1994 and 2009 (Kleinfelder, 2008a, 2008b, 2009a, 2009b, 2009c, and 2009d) to identify the presence of buried structures, uncontrolled fill deposits, and soil and groundwater contamination.

Two underground storage tanks (USTs) were removed from the Site in 1994 and 1995, respectively. The USTs contained 8,000-gallons of gasoline and 2,500-gallons of heating oil. Alameda County Environmental Health (ACEH) granted Site Closure for one UST in 1995 and for the second UST in 1997.

The City authorized a geophysical investigation to search for additional USTs, and subsequently soil borings and groundwater analyses to assess the presence and magnitude of contamination. The geophysical investigation identified the presence of two sumps in 1995 and 1999. These sumps were removed along with the surrounding contaminated soils. A subsurface investigation was initiated following sump and tank removal. Methods and findings are described in the technical reports generated over the course of the study. In summary, 15 soil samples were analyzed for TPH as gasoline, TPH as Stoddard Solvent, TPH diesel, and TPH as motor oil in accordance with EPA Test Method 8015. The highest concentrations detected were 870, 630, 2,000, and 1,100 milligrams per kilogram (mg/kg). These petroleum hydrocarbon concentrations are all below the Environmental Screening Levels (ESLs) for construction/trench workers. The RWQCB has established the ESLs and has determined that concentrations below the ESLs do not pose a significant threat to human health or the environment. Analyses on grab groundwater samples in six wells detected no significant concentrations of volatile organic compounds (VOCs) and fuel oxygenates.

In the most recent monitoring report, the City's consultant concluded that the source of detected petroleum hydrocarbons has been removed, and the impacts to groundwater are low and biodegrading in place. Accordingly, Kleinfelder recommended that the City request closure of the Leaking Underground Storage Tank designation for the Site from ACEH. We understand that the City and ACEH are currently negotiating regulatory case closure for the Site (Kleinfelder 2009b).

Because of the past industrial uses and the demolition of the prior facilities, Fugro completed additional testing of ten near surface soils for lead and asbestos. Analyses detected no asbestos. Lead was detected in all ten samples analyzed at concentrations ranging from 25 milligrams per kilogram (mg/kg) to 370 mg/kg. All detected lead concentrations were below the

ESL for a construction worker direct exposure scenario of 750 mg/kg. All the detected lead concentrations were below the ESL screening criteria for a construction worker direct exposure scenario of 750 mg/kg. Based on the current conceptual design, construction for a subterranean garage will remove the upper 5.0 to 8 feet of soil in the central portion of the Site. This excavation will remove soil represented by Samples S-3 (200 mg/kg), S-5 (370 mg/kg), and S-8 (240 mg/kg). The upper 2.0 feet of soil from the proposed park area will be excavated and confirmation samples from the proposed park will be collected to confirm that lead concentrations at the park surface are less than the residential CHHSL of 80 mg/kg. The remainder of the Site will be almost entirely hardscaped.

## **2.2 GEOTECHNICAL CONDITIONS**

Fugro performed a geotechnical investigation for the Site in 2003 (Fugro, 2003) and an update to the report in 2009 (Fugro, 2009). We summarize below the main findings and conclusions of these reports:

- The monitoring wells on-site should be abandoned in accordance with Alameda County Public Works Agency permit requirements. The demolition of the existing billboard should include the removal of foundations to below the grade of the proposed Ambassador Housing foundation elements. The near-surface sod should be stripped from the Site. Strippings may be used as fill in landscape areas, but may not be used as fill beneath buildings, pavements, or exterior flatwork improvements.
- The 2008 Kleinfelder report indicates that backfill for the most recent UST removal (2007) consisted of aggregate base import material compacted to 90 percent relative compaction. Documentation of backfill for prior UST and sump removal operations was not available. Site clearing and stripping operations could encounter soft spots, poorly compacted backfill materials, and/or other buried structures.
- Considering the varied backfill history at the site, and the possibility of encountering buried structures during construction, adequate site preparation is critical for uniform support of the development. Soft spots or poorly compacted backfill materials identified during demolition or stripping operations should be removed to expose firm, native soils. Undocumented fill should be removed and backfilled with engineered fill. To avoid differential settlement of varying fill thicknesses, small areas of fill greater than five feet thick should be backfilled with controlled low strength material (CLSM) or neat cement slurry.
- Earthwork scheduled for the wet season should consider the possibility of saturated near-surface soils, difficult compaction of soils above the optimum moisture content, and the possibility of chemical stabilization or drying of site soils.
- Excavation will be required to construct the garage, to install utilities, to rework undocumented fill and to remove locally weak or unsuitable soils, if encountered. Conceptual plans for the development will extend to the limits of the property and that the depth of the structures will extend below the foundation influence of nearby structures.

- Underpinning or shoring will be required to minimize damage to the adjacent structures. The shoring system must be designed to resist loads from foundations of neighboring structures. The contractor should conduct floor level or other surveys of existing neighboring improvement before and after the excavation to document their conditions.
- Depending on the excavation depth and providing adequate distance from the existing structures, sloping of excavation side walls may be a viable alternative to shoring. Site excavations that do not influence adjacent developments or on-site improvements, that will be deeper than five feet, and that will be entered by workers should be shored or sloped for safety in accordance with Occupational Safety and Health Administration (OSHA) standards. For the purposes of the excavations, the native, clayey soils above the groundwater table may be categorized as Type B. All other soils (fills, and soils below groundwater) should be considered Type C.
- Groundwater was observed to vary significantly in the borings logs and monitoring wells. The excavation for the garage is anticipated to extend to 8 feet below ground surface; from technical data groundwater is not expected to be encountered at this depth. Should a deeper excavation be required or should groundwater be encountered shallower than anticipated, dewatering will consider the potential for residual hydrocarbon contamination.
- The performance of the shoring and dewatering systems are highly dependent on the construction methods and procedures employed. The design of the necessary shoring and dewatering systems, as well as the protection of existing facilities, site improvements and utilities should be the responsibility of the contractor. The project geotechnical and structural engineers should review the proposed shoring or underpinning, and dewatering systems prior to installation.

### **2.3 SUMMARY OF ANTICIPATED EXPOSURE PATHWAYS**

The Site is currently vacant and zoned for residential/commercial use. The known sources of contamination have been removed from the Site. Initial grading plans for the Ambassador Development indicate that the Site will be hardscaped with building foundations, and concrete and asphalt pavement covering most of the property. The upper two feet of soil that covers the park and landscape areas will consist of material whose concentrations are below the ESLs or background concentrations. The residents will not be exposed to groundwater or storm water from the completed project. Plate 2 shows the landscape areas and the park.

The exposure pathways that are potentially complete and which are addressed by this SGMP are those pertaining to construction workers (Table 1). The Contractor will prepare a site-specific Health and Safety Plan (HSP) in order to protect his work force from exposure to chemicals in the soil and groundwater that exceed the ESLs or background concentrations, see Section 3.2.



### 3.0 SOIL AND GROUNDWATER MANAGEMENT PRACTICES

This Chapter describes the anticipated subsurface construction practices that the Contractor will incorporate into his planning.

#### 3.1 CONSTRUCTION ACTIVITIES

On the basis of our experience on similar projects, we anticipate that RCD's Contractor will implement the following activities in support of intrusive excavation and soil handling activities at the Site:

Procurement of Permits: Obtain all permits and make all notifications to perform all aspects of the work, including a notification to the Bay Area Air Quality Control District, and permits from the City of Emeryville and the ACEH. This notification and these permits will require a commitment by the Contractor to implement standard dust control methods and to minimize tracking soil offsite.

Monitoring Well Abandonment: All monitoring wells will be properly abandoned prior to the commencement of excavation. As requested by the ACEH, care will be taken during excavation to identify the presence of the former monitoring well MW-1. In the event inspection finds the well to not have been properly abandoned, measures for abandonment will be taken. If the well is located, ACEH will be notified and the plan for its abandonment discussed prior to removal. It is anticipated that excavation equipment will be used to remove the well. Well abandonment will be conducted in accordance with County permit requirements.

Mass excavation of the below ground portion of the garage: The Contractor will use excavators, scrapers, or other standard earth moving equipment to remove and stockpile the soils. The Civil Engineer for the Ambassador Development, Luk and Associates, estimated the volume of cut for the parking garage will be 4,400 CY. The Contractor will shore the excavation as he extends the excavation of the garage to the design depth.

The Contractor will stockpile the soil and implement erosion control and storm water protection measures in accordance with the Storm Water Pollution Prevention Plan (SWPPP). All soil and/or groundwater sampling will be completed using standard industry practices for worker health and safety, equipment decontamination, sample collection and labeling, chain-of-custody documentation, and sample transport to a State-certified laboratory for analyses.

Chemical testing of the excavated soils: Soil excavated from the Site will likely be suitable for disposal at a Class 2 or Class 3 landfill subject to additional testing and approval of the results from the landfill. Chemical testing will be performed to confirm offsite reuse and disposal options. Chemical testing will include collecting four (4) discrete soil samples for each 500 to 1,000 CY of soil to be generated by excavation work, depending on the landfill's requirements. Soil samples will be collected by Fugro prior to or during the soil excavation. At a minimum, Fugro will collect four discrete soil samples from each 1,000 CY of stockpiled soil and submit those samples under chain-



of-custody documentation to a State-certified laboratory. The laboratory will be instructed to composite the samples prior to analyses.

Based on previous site investigations, soil samples will be tested for the following compounds of potential concern (COPC) include:

- Total petroleum hydrocarbons as gasoline, diesel, and motor oil in accordance with EPA Test Method 8015
- Benzene, toluene, ethylbenzene, and xylenes in accordance with EPA Test Method 8020, and
- The 17 heavy metals in accordance with EPA Test Method 6100/7000 series.

Results of analyses will be used to coordinate offsite reuse or disposal by the Contractor. The Contractor will maintain copies of manifests or bills-of-lading for soil and groundwater removed from the Site during the course of the project. Copies of these documents will be provided to RCD upon request.

In order to gain landfill acceptance of the waste, the landfill may require additional analyses that include polychlorinated bi-phenyls (EPA Test Method 8082), organochlorine pesticides (EPA Test Method 8081), semi-volatile organic compounds (EPA Test Method 8270), and organochlorine herbicides (EPA Test Method 8151). Depending on the concentrations of metals in the soils, the disposal facility may also require soluble analyses of selected metals.

Excavate trenches for utilities: The Contractor will excavate soils to install the subsurface utilities at the Site and provide shoring for all trench excavations that extend deeper than five feet below grade. The Contractor will shore trench excavations in accordance with OSHA requirements. These excavations may also encounter USTs or contaminated soils, and the Contractor will proceed to formally close any UST or product piping that he encounters and to profile the soils excavated.

Backfill and compaction of trench excavations: The Contractor will backfill all excavations with either material excavated from the trenches or clean import fill material. The selection of the fill material and the placement and compaction of the material will conform to the project plans and specifications, particularly the geotechnical requirements, and to the soil re-use requirements of the Regional Water Quality Control Board (RWQCB).

### **3.2 CONSTRUCTION ENVIRONMENTAL OVERSIGHT**

The mass excavation may encounter unidentified underground storage tanks (USTs) or sumps. If encountered, they must be removed and off-hauled in accordance with the requirements of the ACEH and the City of Emeryville Fire Department. The removal and disposal process will require field sampling and chemical testing. In addition, some of the excavated soil will likely contain petroleum hydrocarbons. The Contractor will coordinate with RCD and Fugro to profile that soil prior to disposal. The closure of additional USTs and product





lines may require separate shoring within the excavation. All shoring must meet the requirements of OSHA.

Fugro staff will monitor activities during the excavation of potentially contaminated soil. The ACEH and RCD will be notified in the event obviously contaminated soil is encountered outside the areas of the former UST and sumps or if other identifiable environmental conditions posing a potential risk to health, safety, or the environment are encountered. The Contractor will immediately implement any provisions of the HSP that may be triggered by encountering these conditions. In coordination with ACEH and RCD, Fugro will determine the need and scope of any additional Site Control measures, sampling and analysis that may be warranted, and make recommendations for addressing the conditions so that construction can proceed. If encountered, the Contractor will obtain appropriate permits and decommission wells and/or USTs accordingly. The Contractor, RCD, or Fugro will forward results of chemical analyses to the ACEH.

### **3.3 HEALTH AND SAFETY PLAN**

The Contractor will prepare and implement a site-specific HSP to notify and protect workers during construction activities at the Site. The HSP will be prepared in accordance with state and federal OSHA requirements (29 CFR 1910.120). The HSP should include provisions for appropriate personal protective equipment (PPE) for construction workers in the event that contaminated materials are encountered during construction. Copies of the HSP should be made available to RCD for review and approval as well as to appropriate Site construction workers as part of their site orientation and/or regular health and safety meetings.

### **3.4 STORM WATER POLLUTION PREVENTION PLAN**

The Contractor will be required to provide for storm water protection consistent with a SWPPP. The SWPPP will have to comply with the most recent local, state and federal regulations. This SGMP is provided to supplement the various construction plans, including the SWPPP. The SWPPP will indicate that all storm water runoff in the immediate vicinity will be diverted around or contained within the Site. The SWPPP will stipulate the containment, sampling, chemical testing, and potential treatment of storm water prior to discharge from the Site.

### **3.5 DUST CONTROL**

The Contractor will implement standard dust control practices to prevent the generation of dust during soil handling activities. Dust control measures may include, but are not limited to, using water spray to mitigate dust during excavation, loading, and hauling. In general, stockpiled soil should be covered with plastic sheeting when not in use as a dust prevention measure. If visible dust is observed leaving the Site, the Contractor should implement additional dust mitigation measures. The Contractor will minimize the tracking of soil from the Site by cleaning wheels upon leaving the Site and sweeping the exit area as needed.



### **3.6 SOIL TRANSPORTATION AND DISPOSAL**

The Contractor will remove soil from the Site in compliance with California Department of Transportation (DOT) and other applicable state and local regulations. The Contractor will minimize the tracking of soil from the Site by cleaning wheels upon leaving the Site and sweeping the exit area as needed. Chemical testing of soil may be required depending on where the soil is disposed or reused. The Contractor will coordinate with the receiving party to confirm the scope of analyses required, if any.

### **3.7 DEWATERING**

No dewatering activities are currently planned. However, in the event that proposed development plans change or dewatering is required, the Contractor will be responsible to obtain appropriate permits from EBMUD or the RWQCB prior to discharge. The Contractor will monitor and sample the discharge groundwater to confirm compliance with permit requirements. The discharge of groundwater generated from the Site will likely require treatment, and confirmation sampling and analyses as a condition of the permit to discharge groundwater to the sanitary sewer and/or storm drain. The site-specific HSP will describe the PPE that the Contractor should use when in contact with water at the Site. The need and scope of such activities will be evaluated by RCD, its Contractor, and Fugro if groundwater dewatering is required.

### **3.8 DOCUMENTATION**

The Contractor will maintain a daily log of all construction activities. The Contractor will also maintain copies of manifests or bills-of-lading for soil and groundwater removed from the Site during the course of the project. Copies of these documents will be provided to RCD upon request.

## **4.0 LIMITATIONS**

This Plan was prepared for the sole use of Resources for Community Development, their Contractors, the ACEH and Fugro. Fugro has prepared this Plan in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Fugro shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the Plan was prepared. Fugro also notes that the facts and conditions referenced in this Plan may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this Plan. Fugro believes that conclusions stated herein to be factual, but no guarantee is made or implied.

## **5.0 REFERENCES**

Bureau Veritas, Environmental Consulting Services for Sump Closure, Former Ambassador Laundry, 36<sup>th</sup> Street and Adeline, Emeryville, California



Fugro, Phase I Environmental Site Assessment, 1160-1168 36<sup>th</sup> Street and 3601 and 3623 Adeline Street, Emeryville, California, dated October 2009.

Fugro, 2010a, Geotechnical Report Update, 1168 36<sup>th</sup> Street, Emeryville, California, dated February 19, 2010.

Kleinfelder 2008a, *Former Ambassador Laundry Subsurface Investigation, Underground Storage Tank Removal and Remediation Report, City of Emeryville, Alameda County, California*, dated March 11, 2008.

Kleinfelder West, 2008b, Post Remediation Evaluation Workplan, Former Ambassador Laundry, Emeryville, September 12, 2008

Kleinfelder West, 2009a, Post Remediation Subsurface Investigation and First Groundwater Monitoring Report, June 17, 2009

Kleinfelder West, Inc. 2009b, *Former Ambassador Laundry, Post Remediation Subsurface Investigation and First Groundwater Monitoring Report, City of Emeryville, Alameda County, California*, dated June 17, 2009

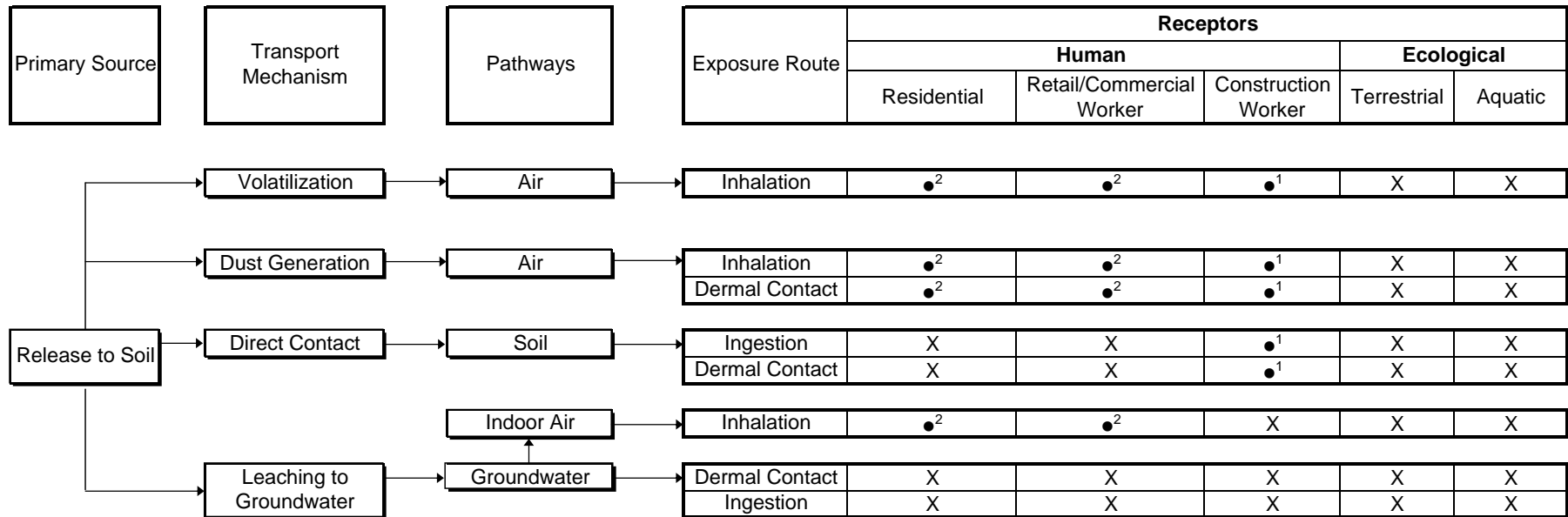
Kleinfelder West, Inc., 2009c, *Former Ambassador Laundry, Second Quarter 2009 Groundwater Monitoring Report, City of Emeryville, Alameda County, California*, dated August 14, 2009

Kleinfelder West, Inc., 2009d, *Former Ambassador Laundry, Third Quarter 2009 Groundwater Monitoring Report, City of Emeryville, Alameda County, California*, dated December 15, 2009

SEMCO, Tank Removal Report, 3623 Adeline Street, Emeryville, California dated December, 1994

## TABLE

**Table 1**  
**Conceptual Exposure Model for Human Health and Ecological Receptors**  
**Ambassador Housing**  
**1168 36th Street**  
**Emeryville, California**



**LEGEND**

- Pathway potentially complete, but potentially insignificant.
- X Pathway is not complete.

<sup>1</sup> Limited to future construction worker scenario.

<sup>2</sup> Limited to future construction of the Site (Future Site Redevelopment). Site will be hardscaped and two feet of clean soil will cap all park and landscaped areas.

## PLATES

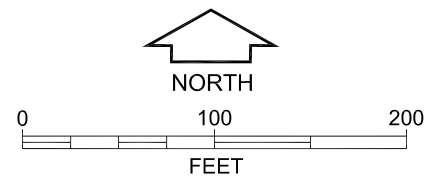
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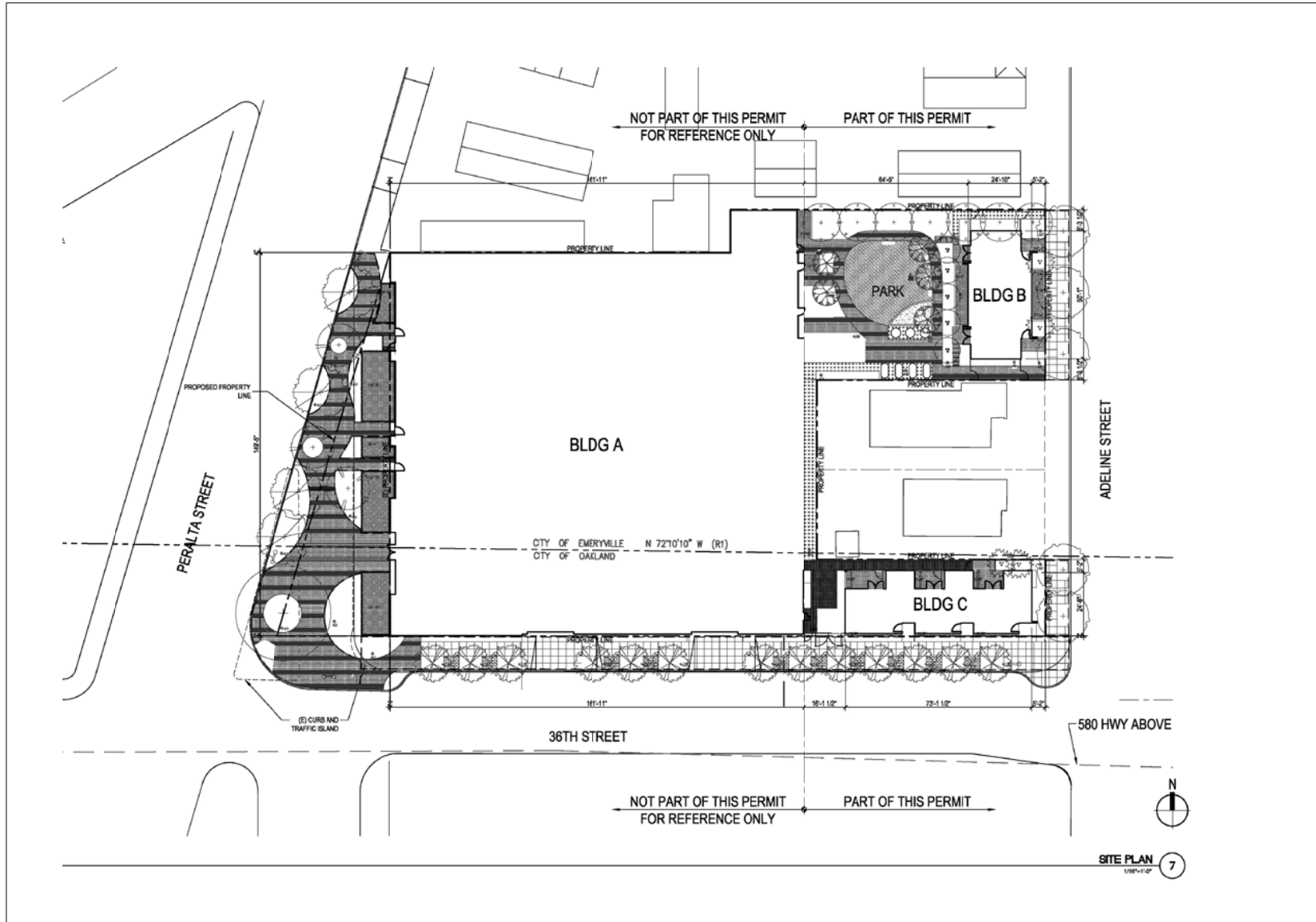
**SOURCE:** This aerial photo obtained from Google Earth Pro.

**LEGEND**

- ① Residential Buildings
- ② Community Garden
- ③ TRW - US Spring
- ④ 3605 Adeline Street
- ⑤ 3609 Adeline Street
- Site Location
- Approximate city limits



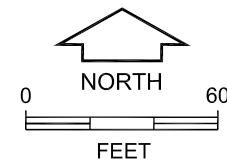
**SITE MAP**  
 1160-1168 36th Street, 3601 and 3623 Adeline Street  
 Emeryville, California



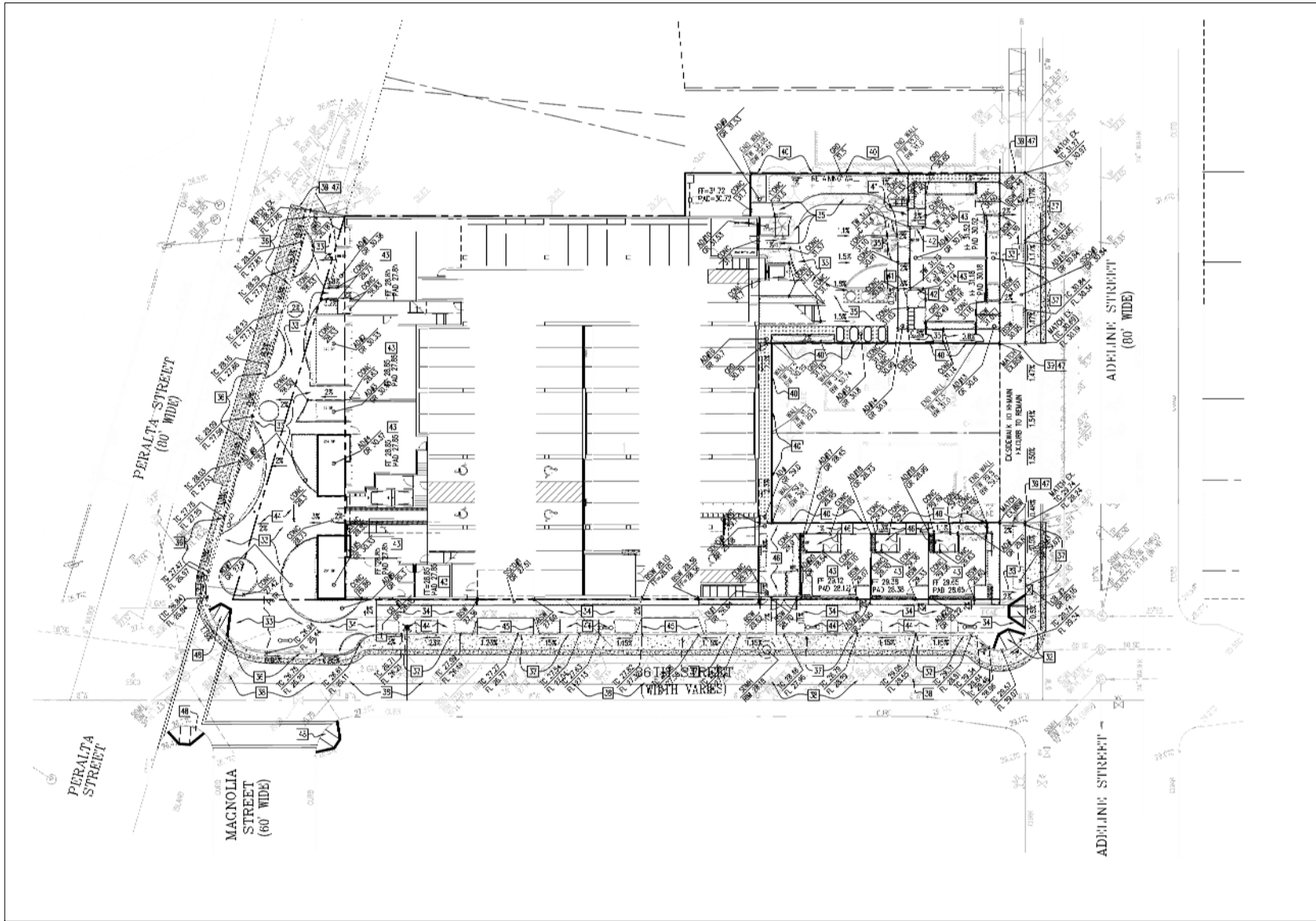
**BASE MAP SOURCE:** Site Plan, Ambassador Housing, 1168 36th Street, Emeryville, CA  
Kava Massih Architects (Sheet A1.00).

### SITE PLAN

Proposed Redevelopment Plan  
Emeryville, California







**BASE MAP SOURCE:** Grading Plan, Ambassador Housing, 1168 36th Street, Emeryville, CA  
Kava Massih Architects (Sheet C-4).

**GRADING PLAN**  
Ambassador Housing  
Emeryville, California

