

F. Hazardous Materials

The following section discusses hazardous materials issues associated with existing and past land uses at the project site, project construction, and proposed land uses. The discussion includes an evaluation of past chemical use and potential buildup of associated toxic substances in soil and groundwater due to past onsite and offsite storage and accidental release of petroleum products, potential hazardous material issues during project construction, and the potential for the project to generate and discharge hazardous materials and/or hazardous wastes. This section identifies potential project impacts and appropriate mitigation measures, as necessary, and describes the regulatory process for remediation of the site.

Introduction

Under federal and state laws, materials, including wastes, may be considered hazardous if they are specifically listed by statute as such or if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term “hazardous material” is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.¹ In some cases, past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Federal and state laws require that hazardous materials be specially managed and that excavated soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels, be specially managed, treated, transported, and/or disposed of as a hazardous waste. The California Code of Regulations, Title 22, Sections 66261.20-24 contain technical descriptions of characteristics that would cause a soil to be designated a hazardous waste. The California regulations comply with the federal regulations and in most cases, are more stringent.

Environmental Setting

Geology and Groundwater

Geologic maps of the project area indicate the project site is underlain by surficial alluvial fan and fluvial deposits of the Holocene (Graymer, 2000). More specifically, these deposits are Bay Mud deposits consisting of characteristically unconsolidated, dark plastic clay and silty clay (Mission Geoscience, Inc., 1999).

The project site is located within the East Bay Plain Subbasin of the greater Santa Clara Valley Groundwater Basin. The East Bay Plain is bounded by the San Pablo Bay to the north, Hayward to the south, San Francisco Bay to the west, and the Hayward Fault to the east (California Department of Water Resources, 2004). According to the San Francisco Bay Regional Water

¹ State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

Quality Control Board (SF Bay RWQCB) Groundwater Committee, current uses of groundwater produced from the East Bay Plain, by beneficial use designation category, are: municipal and domestic water supply, industrial/process water supply, and agricultural water supply (SF Bay RWQCB Groundwater Committee, 1999). The regional direction of groundwater flow is generally southwestward toward San Francisco Bay. Shallow groundwater beneath the project site is hydraulically connected to the Bay; its flow direction is highly variable due to its perched nature within Bay Muds, and tidal fluctuation. Approximate depth to groundwater in the project site vicinity is 10 feet (Mission Geoscience, Inc., 1999).

Existing Site Characteristics

The project site consists of 12 parcels totaling approximately 9.7 acres of land. The ground surface in and around the project site is generally level and slopes gently southwest towards the Tidal Canal (“the Estuary”) and San Francisco Bay. Existing structures at the project site are related to previous industrial and commercial land uses and include a self-storage facility, a commercial hardware store and lumber yard, a Caltrans South Oakland Maintenance Facility, and miscellaneous retail and commercial buildings. During a site reconnaissance conducted in February 2005, ESA staff observed the following:

- An above ground propane tank on the Tuffy’s Ace Hardware and Lumber site;
- An underground petroleum pipeline owned by Kinder Morgan runs along the southern boundary of the project site between the project site boundary and the railroad tracks, within the railroad right-of-way.
- A power pole with at least one transformer runs southwest-northeast across the center of the project site near the East 12th Street and 29th Avenue intersection (TEC Accutite, 2001).

Surrounding Land Use

Surrounding land uses include urban-residential uses, public schools (Lazear Elementary School to the south, Cesar Chavez Education Center to the north, and ASCEND school to the east), the Fruitvale BART Station and the Fruitvale Transit Village to the east, and Fruitvale Station Shopping Center to the south. The area also includes industrial uses, including an Oakland Housing Authority maintenance facility and a car repair shop; and a variety of smaller retail and commercial businesses along International Boulevard and throughout the vicinity.

Historical Land Uses

Historical land uses on a project site can be important indicators of whether hazardous materials were likely used at or near a site and whether these hazardous substances may be present in the subsurface soil and groundwater at that location. Historical land uses at the project site were determined through a review of historical aerial photographs, topographical maps, and Sanborn Fire Insurance Maps.

Historically, the project site and vicinity were part of the agricultural township of Fruit Vale. The railroad tracks that border the southern portion of the project site was constructed in 1903. A former Western Pacific Railroad easement existed along the northern portion of the project site between 28th Avenue and 29th Avenue, continued east approximately 200 feet below East 12th Street, and exited the project site at the eastern boundary. Historically, railways have been known to be impacted by oil and grease, diesel, lead, creosotes,² and polychlorinated byphenols (PCBs³) (TEC Accutite, 2001). In the early 1900s, apart from several residences located on either side of 26th Avenue, the project site was largely undeveloped. By the 1950s several industrial warehouses and storage buildings had been constructed on the project site. Historical aerial photographs and Sanborn Fire Insurance Maps indicate the project site has been used for commercial and industrial land uses from the 1950s to the present.

While it is difficult to ascertain if historical land uses and ancillary uses resulted in releases of chemicals of concern to soil and groundwater, typical activities associated with historical land uses can provide clues about the types of contaminants that could potentially be present. Previous tenants at the site have included: a waterproof clothing manufacturer; a stove manufacturing plant complete with a full metal shop; a metal foundry; automobile repair shops; machine retail and repair shops; a hay and fuel facility; and other miscellaneous warehouses and retail shops. Based on historical land uses, it is possible that the project site may contain residual levels of heavy metals and/or petroleum hydrocarbons. A history of known tenants and activities at the project site, derived from historical Sanborn Maps dated between 1906 and 1969, is presented below in **TableIV.F-1**.

Soil and Groundwater Contamination

A preliminary site assessment, commonly referred to as a “Phase I” investigation, seeks to identify the presence or likely presence of hazardous materials at a project site based on the likelihood of existing releases, past releases, or a material threat of the release of hazardous materials into structures on the site or into the ground, groundwater, or surface water of the site. During the Phase I investigation, environmental professionals, among other things, research the site history, perform a regulatory database review and conduct a site reconnaissance for the site and surrounding area. A Phase I generally includes a review of potential offsite sources of contamination that may be of potential environmental concern due to their proximity to the project site. A Phase I also assesses whether such conditions warrant further investigation, such as subsurface soil and groundwater sampling. Such subsurface sampling is often, referred to as a “Phase II” investigation.

² Creosote is a common wood preservative that is considered harmful to human health.

³ PCBs are persistent organic pollutants that have been used in capacitors and transformers, heat transfer fluids, hydraulic fluids, lubricating and cutting oils, and as additives in pesticides, paints, sealants, plastics, and retardants. PCBs were banned by the U.S. EPA in 1987 due to environmental and human health concerns.

**TABLE F-1
TENANT HISTORY**

Business Name	Relative Location on Project Site	Map Year(s) Indicated	Activities / Description of Structures
Southern Pacific RR	S boundary of the project site	1903, 1911, 1950, 1953, 1959, 1964, 1967, 1969	railroad tracks
Western Pacific RR	(1) Along the center of E 12 th St to 28 th Ave, then veering S below E 12 th St and parallel to E 12 th St; (2) 300 feet of RR spurs N and parallel to Southern Pacific RR at E portion of project site; (3) enters project site from the N between 28 th Ave and 29 th Ave and continues E approximately 200 ft below E 12 th St and exists the project site at the E boundary	(1) 1911 (2) 1950, 1953, 1959 (3) 1950, 1953	railroad tracks
Gold Medal Waterproofing Company	SW corner of project site, at the corner of 25 th Ave and Southern Pacific RR	1911	waterproof clothing manufacturing
Montgomery Ward & Co.	SE corner of 25 th Ave and E 12 th St (adjacent to project site)	1950, 1953	storage and warehousing operations
Park Stove Co.	(1) NW corner of 26 th Ave and Southern Pacific RR; (2) SW corner of 26 th Ave and E 12 th St; (3) SE corner of 26 th Ave and Southern Pacific RR; (4) S side of E 12 th St east of 27 th Ave	(1) 1950, 1953, 1959, 1964; (2) 1950, 1953, 1953; (3) 1950, 1953, 1959, 1964; (4) 1950, 1953, 1959, 1964	(1) stove and mat warehousing operations (2) crating and shipping operations, die making; (3) warehousing; (4) stove manufacturing, full metal shop, stamping, welding
Foundry (business name not identified)	S side of E 12 th St between 27 th Ave and 29 th Ave	1950, 1953	metal foundry
Caltrans Highway Commission	E end of project site, between 29 th Ave and Derby Ave, and between Southern Pacific RR and Western Pacific RR	1950, 1953, 1959, 1964, 1967, 1969	equipment yard and automobile maintenance, repair, and storage
Hay and fuel facility (business name not identified)	SE corner of E 12 th St and Derby Ave	1950	fuel and hay yard, presumably for local agricultural operations
Drug warehouse (business name not identified)	S side of E 12 th St opposite 30 th Ave	1953, 1959, 1964	presumably for the storage or distribution of pharmaceutical drugs
Wholesale Liquors	S side of E 12 th St west of 29 th Ave	1959	wholesale liquor
Machine sales and service	SW corner of E 12 th St and Derby Ave	1959, 1964, 1967	machine retail and service
Boat and auto service (business name not identified)	SW corner of 26 th Ave and E 12 th St	1964	storage facilities for boats and automobiles
Salvage Merchandise and Furniture	S side of E 12 th St W of 29 th Ave	1964	used furniture shop
Used auto shop (business name not identified)	SE corner of E 12 th St and 29 th Ave	1964	used automobile sales
Auto repair shop (business name not identified)	SW corner of E 12 th St and Derby Ave	1967, 1969	automobile repair

SOURCE: Sanborn Library, LLC, 1903, 1911, 1950, 1953, 1959, 1964, 1967, 1969.

One Phase I and three Phase II investigations have been conducted for portions of the project site, as follows:

- *Phase I Environmental Site Assessment for 1111 29th Avenue, Oakland, California* (TEC Accutite, 2001);
- *Report of Phase II Subsurface Investigation, Union Pacific Railroad Property Parcel 12, Fruitvale-Derby Avenues, Oakland, California* (Mission Geoscience, Inc., 1999); and
- *Phase II Limited Soil Sampling and Analysis, Tuffy's Ace Hardware and Lumber, 1111 29th Avenue, Oakland, California* (Advance Soil Technology, Inc., 2001).
- *Phase II Subsurface Investigation, 1111 29th Avenue, Oakland, California* (TEC Accutite, 2002).

1111 - 29th Avenue

A Phase I investigation was prepared for 1111 - 29th Avenue by TEC Accutite in June 18, 2001 for the purpose of a real estate transaction. This property, located at the southwest corner of 29th Avenue and land owned by Union Pacific Railroad, is part of the project site and was most recently leased and occupied by Tuffy's Ace Hardware and Lumber. The Phase I was based on a site visit, interviews with the property owner and occupant, an environmental file review, and a review of City and County files. The assessment did not include any survey of asbestos, lead-containing materials, or radon, nor soil or groundwater sampling. The environmental assessment recommended that soil sampling and analysis be conducted at the location of an onsite aboveground storage tank (AST) containing kerosene to determine if residual hydrocarbons exist in shallow soils. Tuffy's Ace Hardware and Lumber previously dispensed kerosene from a 55-gallon storage drum situated on a 4-foot by 8-foot plywood and concrete stand, where the kerosene concentration now exists. No additional characteristics regarding hazardous materials were identified at 1111 - 29th Avenue in the Phase I investigation (TEC Accutite, 2001).

Subsequent soil and groundwater sampling and laboratory analysis was conducted at 1111 - 29th Avenue as part of a Phase II investigation prepared by Advance Soil Technology, Inc. (2001). The investigation included drilling borings at the site, collection of the subsurface soil and groundwater samples, and subsequent laboratory analysis. The purpose of the evaluation was to determine the existing soil conditions with respect to total petroleum hydrocarbons (TPH⁴) Gas / BTEX⁵, TPH Diesel, Total Oil and Grease, volatile organic compounds (VOCs⁶), semi-volatile organic compounds (SVOCs), organochlorine pesticides,⁷ PCBs, metals (lead and arsenic), CAM

⁴ TPH is defined as the measurable amount of petroleum-based hydrocarbon in a given medium represents a mixture of individual petroleum-based hydrocarbons. The TPH is not used as a direct indicator of risk to humans or the environment.

⁵ BTEX is an acronym for benzene, toluene, ethylbenzene, and xylene. This group of VOCs is found in petroleum hydrocarbons, such as gasoline, and other environmental contaminants.

⁶ VOCs are compounds that have a high vapor pressure and low water solubility. VOCs are common components of petroleum fuels, hydraulic fluids, paint thinners, and dry cleaning agents.

⁷ Organochlorine pesticides are insecticides that are persistent in the environment and in the body tissue of organisms long after exposure. Several commonly known organochlorine pesticides have been banned for use in the U.S. including DDT, aldrin, toxaphene, and heptachlor.

17 Metals⁸ and pH. Laboratory results revealed elevated levels of TPH Diesel (520 parts per million (ppm)) and Total Oil and Grease (590 ppm) in the vicinity of the aboveground kerosene drum. These levels exceed the typical regulatory agencies standard of less than (100 ppm) for soil.⁹ Additionally, soil samples from other locations at the subject site revealed the presence of CAM 17 metals, arsenic (1.3 to 6.0 ppm), and lead (6.8 to 8.1 ppm). However, while the levels of arsenic and lead contamination varied from location to location, all samples revealed concentrations below the Total Threshold Limit Concentration (TTLC¹⁰) of 500 ppm for arsenic and 1000 mg/kg for lead. Groundwater sampling revealed the presence of Tetrachloroethene¹¹ in groundwater at the subject site at detected concentrations of 12 ppb. The standard set forth by the US Environmental Protection Agency (US EPA) Drinking Water Standard for clean-up goals is 5 ppb.

Because TPH Diesel and Total Oil and Grease levels in site soils exceed typical regulatory agency standards of less than 100mg/kg for soil, the 2001 Phase II investigation by Advance Soil Technology, Inc. recommended further analysis of soils in the vicinity of the kerosene AST, as well as a delineation of the vertical and horizontal extent of arsenic and lead contamination (despite low concentrations revealed in initial soil samples), and the installation of a series of groundwater wells around the perimeter of the subject site to determine the source of Tetrachloroethene in groundwater.

As follow up on the recommendations its June 2001 Phase I investigation, TEC Accutite conducted a Phase II subsurface investigation in February 2002 to assess the extent of the soil impacts with kerosene. This Phase II, prepared subsequent to the 2001 Phase II conducted by Advance Soil Technology, Inc. (discussed above), also found noticeable kerosene concentrations within the approximately 32 square-foot area where the kerosene AST was located. The 2002 Phase II recommended excavation of approximately three 55-gallon drums of impacted soil surrounding the shed area housing the stand and tank, to be preceded by a demolition of the dispenser shed, and, if sales were to continue, construction of an impervious concrete pad to underlie the drums. Since Tuffy's Ace Hardware and Lumber subsequently ceased operation at the project site, the 2002 Phase II recommended only the demolition of the dispenser shed and soil remediation, and no new installation of an impervious concrete pad was made. On March 22 and April 2, 2002, TEC Accutite excavated the kerosene-impacted soil (approximately 60 cubic yards) from the AST dispensing site. To assure this removal corrected the condition to the fullest extent possible, TEC Accutite excavated to a depth of 12 feet below surface grade.

⁸ CAM 17 metals, also commonly referred to as Title 22 metals, is a list of heavy metals described in the California Code of Regulations and includes Arsenic (As), Chromium (Cr), Copper (Cu), Lead (Pb), and Mercury (Hg).

⁹ Many state and federal regulators routinely enforce a soil cleanup standard of 100 ppm TPH. The standard is based on a "medium" leaching potential of the soluble and toxic fraction of gasoline. BTEX compounds form the most soluble and toxic fraction of gasoline.

¹⁰ TTLC refers to the soil concentration limits used for the quantification of metals as defined in Title 22 of the California Code of Regulations.

¹¹ Tetrachloroethene, also known as Perchlor, Perc, Perchloroethylene, or PCE, is a manmade substance utilized as a de-greasing agent for metals and fabrics.

TEC Accutite prepared the “Report on the Excavation and Disposal of the Kerosene-Impacted Soil at 1111-29th Avenue in Oakland, CA” in April 2002, which reported that soil samples conducted after excavation showed “non-detect to non-significant concentrations of kerosene as well as BTEX and MTBE” (TEC Accutite, April, 2002). All concentrations were below the risk levels for the projection of the receptors onsite and the groundwater. The soil excavation was effective in removing the kerosene-impacted soils from the site, and the Report concluded that no further excavation would be needed at the site

A file review conducted by ESA at the City of Oakland Fire Department on February 23, 2006 and at the Alameda County Environmental Health Department (ACEHD) on March 2, 2006 and June 9, 2006, did not reveal any identifiable spills or hazardous material releases at this property.

Union Pacific Railroad Property Parcel 12

A Phase II subsurface investigation was prepared by Mission Geoscience, Inc. at the former Western Pacific Depot facility, located within the southern portion of the Union Pacific Railroad Parcel 12 along East 12th Street and bounded by Fruitvale Avenue and Derby Avenue. This parcel was acquired by Bay Area Rapid Transit (BART) and is now used as a parking lot. While this property is not part of the project site, it is located immediately east of the project site across Derby Avenue. Historic operations of the former train depot may have included areas for general maintenance and storage where hazardous substances (e.g. solvents, PCB-bearing hydraulic or cooling oils; petroleum hydrocarbon products) were utilized. As part of the investigation, 21 shallow soil samples from seven soil borings were analyzed for the presence and distribution of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH) within the vicinity of the former train depot facility.

Laboratory results revealed that soil samples collected at a depth of 2 feet below ground surface (bgs) and 5 feet bgs, depths appropriate to the target compounds, did not contain any of the target VOCs at concentrations equal to or exceeding the detection limits.¹² Therefore, there is no analytical evidence that the shallow soils at the former train depot have been impacted by VOCs. TPH was reported at concentrations ranging from 17 ppm at a depth of 5 feet bgs, to 550 ppm at a depth of 2 feet bgs. Because the TPH was observed in shallow soils, it is likely that these occurrences are attributed to small-volume leaks of motor oils or other lubricating oils from repair or maintenance of vehicles and/or hydraulic equipment. Laboratory results for one soil sample tested for PCBs indicated a concentration of 67 ppb. However, this concentration is below the current Region 9 EPA and the California EPA (Cal EPA) residential and industrial human health-risk-based Preliminary Remediation Goals (PRGs¹³) for both cancer and non-cancer toxicology endpoints and thus, is not considered to represent a significant risk to human health or the

¹² Collection of soil samples at depths less than 2 feet is appropriate for target compounds that are commonly found at the surface and shallow depths, such as pesticides.

¹³ Preliminary Remediation Goals (PRGs) are risk-based concentrations of contaminants used for evaluating and cleaning up contaminated sites. They are intended to assist risk assessors and others in initial screening-level evaluations.

environment. The Phase II did not recommend further soil or groundwater investigations (Mission Geoscience, Inc., 1999).¹⁴

In late 1999, the project sponsor acquired land from Union Pacific Railroad; that land included Parcels 12, 13, 14, and 15 (from Fruitvale Avenue (west edge) to 23rd Avenue (eastern edge)). Parcel 12 was the western-most portion of the acquired land. Mission Geosciences investigated and prepared a Phase I environmental assessment report for all four parcels. That Phase I indicated a Phase II was warranted for Parcel 12, but was not necessarily for parcels 13, 14, and 15.

Site and Area Regulatory History

A regulatory file search was conducted to identify any reported hazardous materials storage, disposal, or spills/releases on or in the vicinity of the project site. An electronic file search was conducted that encompassed all mapped hazardous and potentially hazardous sites within one mile of the project site. The database search did not identify any potential or confirmed state or federal Superfund¹⁵ sites located on or within one mile of the project site. However, the electronic database search did reveal 18 sites, including the project site, with reported violations within ¼ mile of the project site. Properties listed in the electronic file search do not necessarily represent a potential risk to the project site unless otherwise noted. Listed sites within ¼ mile of the project site with a record of violation are listed in **Table IV.F-2**. Of these 18 sites, 11 sites are listed as “closed cases,” indicating that remediation activities have been completed and thus, these sites are not considered to pose a risk to the project site. The seven remaining sites are discussed below. Any additional information derived during subsequent file reviews conducted at the City of Oakland Fire Department on February 23, 2006 and at ACEHD on March 2, 2006 and June 9, 2006 is included in the discussion.

Caltrans South Oakland Maintenance Facility, 1112 - 29th Avenue

The Caltrans South Oakland Maintenance Facility is part of the project site. This property is bound by 29th Avenue to the west, Derby Avenue to the east, the former Western Pacific Railroad easement to the north, and the railroad tracks to the south. This site is the location of groundwater contamination by gasoline associated with the removal of a 4,000-gallon diesel fuel tank classified as a leaking underground storage tank (LUST) and a 2,000 gallon gasoline LUST. The leaks, discovered during closure and removal of the tanks in 1996, are reported as having affected

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15 A Superfund site is a site that has been contaminated by hazardous waste and identified by the U.S. EPA as a priority for cleanup due to risks to human health and/or the environment.

**TABLE F-2
 SITE AND AREA REGULATORY HISTORY**

Distance/ Direction from Project Site	Site Name	Address	Databases	Comments	Potential Threat to Project Site?
Onsite	Caltrans South Oakland Maintenance Facility	1112 - 29th Ave	FINDS, HAZNET, LUST, Cortese, RCRA-LQG, CS, SWEEPS UST	Former LUST site, resulted in groundwater contamination, MTBE and benzene plume, remedial activities still underway.	Yes
1/8 - 1/4 mi N	St. Joseph Professional Center	2647 E 14th St	HAZNET, CS, Cortese, LUST	Case closed.	No
1/8 - 1/4 mi N	Tri City Cleaners	2560 E 14th St	Cortese, LUST, Cleaners, CS, FINDS, EMI	Case closed.	No
1/8 - 1/4 mi N	Delaware Development Company	2530 E 14th St	LUST, Cortese	Case closed.	No
1/8 - 1/4 mi N	Standard Brands Paint	2442 E 14th St, 2445 E 14th St	HIST UST, LUST, Cortese, CA FID, SWEEPS UST	Case closed.	No
1/8 - 1/4 mi NE	Goodwill Industries	1301 30th Ave	LUST, Cortese, SWRCY, CS	Case closed.	No
1/8 - 1/4 mi E	Oil Changer #616	3132 E 12th St	LUST, Cortese, CS	Case closed.	No
1/8 - 1/4 mi E	Melrose Ford	3050 E 14th St	RCA-SQG, FINDS, HAZNET, HIST UST, SWEEPS UST, CA FID UST, LUST, Cortese, CS	Case closed.	No
1/8 - 1/4 mi SW	Eandi Metal Works, Inc	976 - 23rd Ave	HAZNET, LUST, Cortese, CA FID UST, EMI, SWEEPS UST, CS	Downgradient of project site.	No
1/8 - 1/4 mi SW	Kilpatrick's Bakery Inc Garage	955 Kennedy St	HAZNET, CHMIRS, Cortese, LUST, CA WDS, CS	Case closed.	No
1/4 mi N	Taxi Taxi Inc	2345 E 14th St	LUST, CS	Soil contamination only, unlikely for contaminated soil to migrate to project site.	No
1/8 mi NW	23rd Avenue Partners, Heitz Trucking	1125 Miller Ave	LUST, CA FID UST, CHMIRS, HIST UST, SWEEPS UST, HAZNET, CS	ACEHD does not require further groundwater monitoring or sampling.	No
1/8 - 1/4 mi NW	Mel Senna Brake Service Inc	2301 E 12th St	LUST, CS	Soil contamination only, unlikely for contaminated soil to migrate to project site.	No
<1/8 mi NW	Contractors Equipment Rental, Action Rentals	2250 E 12th St	LUST, CS, CA FID UST, SWEEPS UST	Case closed.	No

IV. Environmental Setting, Impacts, and Mitigation Measures

F. Hazardous Materials

Distance/ Direction from Project Site	Site Name	Address	Databases	Comments	Potential Threat to Project Site?
1/4 - 1/2 mi S	Sav On Drug 3714, Del Monte Plant 37/237	3100 E 9th St	RCRA-SQG, FINDS, LUST, Cortese	Case closed.	No
<1/8 mi S	Roadway Express	1125 27th Ave	CA STATE SLIC	Personal communication with RWQCB indicates case is inactive.	No
<1/8 mi NW	Ernie's Automotive	2400 E 14th St	CS	Case closed.	No
1/4 mi NW	Exxon Mobil C/O Environmental R	2200 E 12th St	HAZNET, EMI, CS, SWEEPS UST	Downgradient of project site.	No

SOURCE: EDR, 2006.

groundwater, with benzene and Methyl tert-Butyl Ether¹⁶ (MTBE) being the primary contaminants (EDR, 2006). Remediation activities have consisted of excavation of the contaminated soil and ongoing groundwater monitoring. The results of the groundwater monitoring are submitted on a quarterly basis to ACEHD. Because the case is still active, the extent of the groundwater plume has not yet been defined, and because groundwater monitoring has not confirmed that the plume is stable or diminishing, contamination issues at 1112 - 29th Avenue represent a potential threat to future land uses at the project site (ESA, 2006a and 2006b).

Eandi Metal Works, Inc., 976 - 23rd Avenue

This site, located about 550 feet southwest of the project site, is listed as the location of groundwater contamination associated with a gasoline from a former LUST. Remedial activities consisted of excavation and disposal of contaminated soil (EDR, 2006). Although this case is listed as active, it is not expected to pose a threat to the project site due to general groundwater flow direction away from the project site to the southwest and elevation relative to the project site.

Taxi Taxi, Inc., 2345 East 14th Street

This site, located approximately 700 feet north of the project site, is the location of soil contamination from gasoline associated with a LUST (EDR, 2006). Because the accidental release is classified as having affected soil only and not groundwater, and because it is unlikely that soil from this site would migrate to the project site, this site is not expected to present pose a threat to future land uses at the project site.

23rd Avenue Partners, 1125 Miller Avenue

This site, located roughly 300 feet west of the project site, is the location of a leaking 5,000-gallon LUST containing diesel fuel. This accidental release contaminated the drinking water aquifer (EDR, 2006). A subsurface investigation report was prepared by Clearwater Environmental Services and submitted to ACEHD in February 2006. The results of the subsurface investigation revealed soil concentrations of TPHd¹⁷ ranging from 5.8 mg/kg to 1,200 mg/kg and concentrations of TPHd in groundwater at 890 micrograms per liter. Based on the results of the soil and groundwater analysis, the subsurface investigation recommended the preparation of a workplan that included the installation of at least three groundwater monitoring wells and the implementation of a groundwater monitoring program for a minimum of one year to further evaluate the subject site (Clearwater Environmental Services, 2006a). ACEHD has since stated that the installation of a groundwater monitoring network and/or additional grab groundwater samples was not required by ACEHD (ACEHD, 2006). As of May 31, 2006, the potential for residual product in shallow soil to create nuisance odors inside buildings or pose potential human health risks via indoor vapor intrusion is being analyzed for the subject site (Clearwater Environmental Services, 2006b). Because ACEHD is not requesting further

¹⁶ MTBE is a VOC commonly used as an additive for unleaded gasoline to achieve more efficient burning.

¹⁷ The US EPA Region 9 has not established Preliminary Remediation Goals (PRGs) for Total Petroleum Hydrocarbons as diesel.

groundwater monitoring or remediation, it is unlikely that this site presents a potential risk to the project site.

Roadway Express, 1125 - 27th Avenue

This site, located about 300 feet south of the project site, is listed on the CA State Spills, Leaks, Investigation, and Cleanup (SLIC) database (EDR, 2006). The CA State SLIC database contains data acquired from the Regional Water Quality Control Board (RWQCB) regarding the cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the State's waters but not covered by another program. The RWQCB was contacted to find out more information regarding the nature of the release of hazardous materials at this site. Based on the information available for this site, this site is considered inactive and is not expected to pose a threat to the project site (Wolfenden, 2006¹⁸).

Exxon Mobil C/O Environmental R, 2200 East 12th Street

This site is located approximately 1,300 feet northwest of the project site, and is listed as the location of a LUST containing gasoline. The accidental release is reported as having affected groundwater. Remediation activities consisted of excavation and disposal of contaminated soil and groundwater monitoring and extraction (EDR, 2006). However, as indicated in a groundwater monitoring report prepared for the subject site in January 2006, groundwater flow in the vicinity of this site is to the west and thus, away from the project site (ESA, 2006c). Therefore, it is unlikely that this site presents a potential risk to future land uses at the project site.

Regulatory Framework

Hazardous Materials and Waste Handling

The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans, such as Hazard Communication Plans and Hazardous Materials Business Plans. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous materials management requirements, including DTSC, RWQCB and ACEHD.

In Alameda County, a Hazardous Materials Management Plan must be prepared and submitted to the County by businesses that use or store certain quantities of hazardous materials. The Federal Resource Conservation and Recovery Act of 1976 (RCRA) established a "cradle-to-grave" regulatory program for governing the generation, transportation, treatment, storage and disposal of hazardous waste. Under RCRA, individual states may implement their own hazardous waste

¹⁸ Wolfenden, John, 2006. Senior Water Resources Control Engineer at SF Bay Regional Water Quality Control Board. Personal telephone conversation with Kelly White of ESA. 13 March 2006.

programs in lieu of RCRA as long as the state program is at least as stringent as Federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The United States Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Alameda County, remediation of contaminated sites is generally performed under the oversight of DTSC, RWQCB, and/or ACEHD. At sites where contamination is suspected or known to have occurred, a project sponsor is required to perform a site investigation and draw up a remediation plan, if necessary. For typical development and redevelopment projects, site remediation is completed either before or during the construction phase of the project.

The proposed project would likely necessitate some level of environmental cleanup at the project site. The cleanup would be required to be performed under the oversight of a lead oversight agency. It is anticipated that DTSC would serve as the lead agency pursuant to California Health and Safety Code Section 25395.60, et seq., the California Land Reuse and Revitalization Act (CLRRRA). Under CLLRA, a project proponent would enter into a contractual agreement with DTSC to complete an environmental assessment of the project site and to clean up the property in accordance with all applicable laws and regulations.

Under CLLRA, the environmental assessment of the site must include:

- a) Characterization of the hazardous materials released or threatened to be released at or from the site;
- b) Available information about the site;
- c) A risk assessment, if appropriate, that evaluates the risk posed by any hazardous materials released or threatened to be released at or from the site;
- d) Information regarding "reasonably anticipated foreseeable uses of the site based on current and projected land use and zoning designations"; and

- e) If the release has impacted groundwater, "reasonable characterization of underlying groundwater," including present and anticipated beneficial uses of the water.

For cleanup, CLLRA requires that the project proponent submit to the lead agency and agree to implement a response plan to clean up the property. The response plan must include:

- a) Identification of the releases or threatened releases at the site;
- b) Documentation that the plan is based on adequate characterization of the site;
- c) Identification of the response plan's objectives and the proposed remedy;
- d) Identification of the current and reasonably anticipated future land use of the site, including confirmation regarding such projections for the city or county in which the site is located;
- e) A description of activities that will be used to control any endangerment that may occur during the response action;
- f) A description of any land use control that is part of the response action;
- g) A description of wastes other than hazardous materials at the site and how such wastes will be managed during the response action;
- h) Provisions for the removal of containment vessels and other sources of contamination, including soil and free product, that cause an unreasonable risk;
- i) Provisions for the agency to require further response actions based on the discovery of hazardous materials that pose an unreasonable risk to human health or the environment during the response action or subsequent development of the site; and
- j) Any other information required by the lead agency. Prior to approval by the lead agency or implementation by the project proponent, CLLRA further requires that, the response plan be subject to meaningful public notice and comment to permit the community and other state and local agencies to obtain information about and express their views regarding the proposed cleanup.

Site remediation or development may also be subject to regulation by other agencies. For example, if dewatering of a hazardous waste site were required during construction, subsequent discharge to the sewer system could require a permit from the East Bay Municipal Utility District (EBMUD), and discharge to the storm water collection system could require a National Pollutant Discharge Elimination System (NPDES) permit from the RWQCB.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace.

Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan to minimize worker safety risks must be prepared and submitted to Cal OSHA. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, the Department of Fish and Game, the RWQCB, and the local fire department. The Oakland Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within or near the project area.

Structural and Building Components

Asbestos

Similar to federal laws, state laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials the greatest health threat. These existing laws and regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos. Due to the age of the buildings on the project site, it is likely that asbestos-containing building materials are present.

Polychlorinated Biphenyls (PCBs)

PCBs are organic oils that were formerly placed in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects, and that PCBs are highly persistent in the environment.

In 1979, US EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act, 15 U.S.C. Section 2601 *et seq.*(TSCA). TSCA and its implementing regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed in disposal of such items.

It is not known whether the transformers located near the East 12th Street and 29th Avenue intersection contain PCBs. Additionally, PCBs could be found in existing and former railroad easements at and adjacent to the project site.

Lead and Lead-Based Paint

Pursuant to California Code of Regulations, Title 22 Section 66261.24, waste soil containing lead is classified as hazardous if the lead exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm.

Underground Storage Tanks

State laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. Generally speaking, the ACEHD is the local agency designated to permit and inspect USTs and to implement applicable regulations. The ACDEH Local Oversight Program and the Oakland Fire Department also have regulatory authority for removal of USTs. A closure plan for each UST to be removed must be prepared and submitted to the County prior to tank removal. Upon approval of the UST closure plan by the County, the Oakland Fire Department would issue a permit for removal. The Oakland Fire Department Hazardous Materials Unit oversees the removal of USTs and the subsequent collection of subsurface soil samples beneath a removed UST.

Impacts and Mitigation Measures

Introduction

Hazardous materials and hazardous wastes, if mishandled, could pose risks to the public. Potential health and safety impacts can stem from interactions of construction workers, the public and/or future occupants with hazardous materials and wastes encountered or generated during project construction activities or project operations.

Significance Criteria

A hazardous materials impact would be considered significant if it would result in any of the following:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or

4. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a significant hazard to the public or the environment;
5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
6. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area;
7. Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area;
8. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
9. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Approach to the Analysis

This impact analysis focused on potential effects of hazardous materials or waste associated with the project site. The evaluation was made in light of project plans, baseline conditions at the project site, applicable regulations and guidelines, and previous environmental investigations.

Hazardous Materials Impacts

Impact HAZ-1: Historical uses at and in the vicinity of the project site have impacted soil and groundwater at the project site. Contaminated soil and groundwater could pose risks to human health and the environment. (Potentially Significant)

Historical uses at the project site consist primarily of industrial and commercial uses. The results of the Phase I and Phase II conducted at 1111 - 29th Avenue (former site of Tuffy's Ace Hardware and Lumber) and subsurface investigations and monitoring conducted at 1112 - 29th Avenue (Caltrans South Oakland Maintenance Facility) indicate that soil and groundwater quality at portions of the site have the potential to cause risks to human health and ecological receptors¹⁹. While contaminants have been identified at the 1111 - 29th Avenue and 1112 - 29th Avenue sites, soil and groundwater sampling has not been evaluated in other portions of the project site. Although no direct evidence of soil or groundwater contamination has been revealed at the locations of the former Western Pacific Railroad easement along the northern boundary of the project site and areas adjacent to the existing Southern Pacific Railroad easement along the southern boundary of the project site, there is a potential for soil and/or groundwater contamination in these areas.

¹⁹ Ecological receptors include terrestrial organisms such as invertebrates, birds, reptiles, and mammals.

Implementation of the proposed project would result in the eventual demolition of all existing structures and buildings of the project site. Construction activities would also include excavation of subsurface soils for installation of project-related utilities, building foundations, and underground parking garages. Soil disturbance at the project site during construction could disperse existing contamination into the environment and expose construction workers or the public to contaminants. Contaminated soil requiring offsite disposal could be generated from the project either as part of excavation activities associated with the construction or potentially as part of remediation activities. If significant levels of hazardous materials in excavated soils should go undetected, health and safety risks to workers and the public could occur. Exposure to hazardous materials could cause various short-term and/or long-term health effects. Possible health effects could be acute (immediate, or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Acute effects, often resulting from a single exposure, could result in a range of effects from minor to major, such as nausea, vomiting, headache, dizziness, or burns. Chronic exposure could result in systemic damage or damage to organs, such as the lungs, liver, or kidneys. Health effects would be specific to each hazardous material. Implementation of Standard Conditions HAZ-1a through HAZ-1f would reduce potential impacts associated with contamination from historical land uses to less than significant.

Standard Condition HAZ-1a: Same as Standard Condition AIR-1a.

Standard Condition HAZ-1b: Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

Standard Condition HAZ-1c: The project applicant shall submit a comprehensive assessment report, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

Standard Condition HAZ-1d: If the environmental site assessment reports recommend remedial action, the project applicant shall:

- a) **Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.**

- b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.
- c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

Standard Condition HAZ-1e: Natural Asbestos in Soils – To minimize the release of naturally occurring asbestos in the soil during construction, the project sponsor shall require the construction contractor to demonstrate compliance with BAAQMD’s Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying and Surface Mining Operations (implementing CCR section 93105) for activities that disturb the soil, such as grading, etc.

Minimum Requirements where area to be disturbed with Construction Operations is More than 1 acre

Administrative (Prior to the start of work)

- a) Asbestos Dust Minimization Plan submitted to BAAQMD and approved prior to engaging in the any construction or grading operation.
- b) The Asbestos Dust Minimization Plan provisions shall be implemented at the beginning and maintained throughout the duration of the construction or grading activity.

Dust Control Requirements

The Asbestos Dust Minimization Plan shall include one or more provisions to address the following topics:

- c) Control for traffic on on-site unpaved roads, parking lots, and staging areas shall include: limiting vehicle speed to less than 15 mph, and one or more of the following: watering every two hours of active operations or sufficiently often to keep area wetted; applying chemical dust suppressants to consistent with manufacturer’s directions; maintaining gravel cover with a silt content less than 5% and asbestos content less than .25% as determined using the asbestos bulk test method; or any other measure as effective as those listed above.
- d) Control for earthmoving activities shall include one or more of the following: pre-wetting the ground to the depth of the anticipated cuts; suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line despite

applicable of dust measures; application of water prior to any land clearing; or any other measure as effective.

- e) **Storage piles kept adequately wetted, or covered with tarps when the material is not being added or removed.**
- f) **Storage piles must be stabilized when inactive for more than 7 days by implementing one or more of the following: adequately wetting the site, establishing and maintaining surface crusting material, chemical dust suppressant or stabilizer, covering with tarps or vegetative cover, installation of wind barriers of 50% porosity around three sides of the pile areas, or any measure as effective.**
- g) **Equipment must be washed down before moving from the property onto paved roadway.**
- h) **Track-out prevention and control measures shall include**
 - i) **Removal of visible track-out on paved public road at any location where vehicles exit the work site using wet sweeping or High Efficiency Particulate Air (HEPA) filter equipped vacuum device at least one time per day.**
 - ii) **Installation of one or more of the following track-out prevention devices: gravel pad, tire shaker, wheel wash system, not less than 50 feet of pavement extending from intersection with paved public road, or other measure as effective.**
- i) **Control for offsite-transport shall include the following: maintenance of trucks such that no spillage can occur from holes or openings in cargo compartments; loads are adequately wetted; and either covered with tarps or loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6" from the top and that at no point of the load extends above the top of the cargo compartment.**
- j) **Post project stabilization of disturbed surfaces using one or more of the following: establishing vegetative cover; placement of at least 3" of non-asbestos-containing material, paving, or other measure deemed sufficient to prevent 10 mph winds from causing visible emissions.**

Administrative (After completion of work)

- k) **If required by the BAAQMD's APCO, the plan must include an air-monitoring component which shall specify the following: type of air sampling device; siting of the device; sampling of the device; sampling duration and frequency; and analytical method.**

- l) **The plan shall state the frequency with which the information will be reported to BAAQMD.**
- m) **The owner/operator shall keep maintain the following records for at least 7 years following completion of the project: results of any required air monitoring; documentation for any geologic evaluation conducted for the purposes of obtaining an exemption; and results of any bulk sampling conducted by the owner/operator to document applicability done or at the request of APCO.**

(Also see Standard Condition AIR-1b.)

Standard Condition HAZ-1f: The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Services, Hazardous Materials Units. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following:

- a) **The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.**
- b) **The location of such hazardous materials.**
- c) **An emergency response plan including employee training information**
- d) **A plan that describes the manner in which these materials are handled, transported and disposed**

At the time of this EIR, it is not known when the Caltrans South Oakland Maintenance Facility will receive case closure for historical releases associated with USTs. Prior to residential redevelopment of any portion of the project site that has not obtained regulatory site closure for previous hazardous material releases, the project sponsor shall demonstrate to the City and ACEHD that a sufficient level of investigation has been completed by preparing a comprehensive summary report that details each of the past soil and groundwater studies. Depending on the response of the ACEHD and its position regarding the project site, the project sponsor could be required to perform additional studies to fill any outstanding data gaps, including a health-based risk assessment. The risk assessment shall establish appropriate site-specific cleanup levels for petroleum hydrocarbons, VOCs, and other contaminants in soil or groundwater. If development of the project site requires the removal of existing groundwater monitoring wells at the Caltrans South Oakland Maintenance Facility, the project sponsor shall obtain well destruction permits from ACEHD and destroy the wells in accordance with Alameda County and DWR standards.

Significance after Implementation of Standard Conditions: Less than Significant.

Impact HAZ-2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, and USTs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. (Potentially Significant)

Asbestos

Surveys for asbestos-containing building material and lead-based paint have not been conducted for existing buildings on the project site. Asbestos could be encountered during demolition of the existing buildings and may require containment and disposal. Affected buildings would need appropriate abatement of identified asbestos prior to demolition or renovation. Asbestos-containing material is regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. The renovation or demolition of buildings containing asbestos would require retaining contractors who are licensed to conduct asbestos abatement work and notifying the Bay Area Air Quality Management District (BAAQMD) ten days prior to initiating construction and demolition activities.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Potential exposure to asbestos, and its related chronic adverse health effects, is possible throughout demolition and renovation if materials that contain asbestos are present during operations.

Lead and Lead-based Paint

Surveys for lead-based paint have not been conducted at the project site. Lead-based paint could be separated from building materials during the demolition process. Separated paint can be classified as a hazardous waste if the lead content exceeds 1,000 parts per million and would need to be disposed of accordingly. Additionally, lead-based paint chips can pose a hazard to workers and adjacent sensitive land uses. Both the US and California OSHAs regulate all worker exposure during construction activities that impact lead-based paint. The Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolitions, removal, surface preparation for re-painting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training, etc.

Dust generating activities that include removal of walls, sanding, welding, and material disposal could produce airborne quantities of lead-laden material. These materials could expose workers

and persons in close proximity, including occupants of offsite locations. The project site could contain buildings with painted surfaces, such as drywall, ceilings, and exterior stucco, which could contain lead-based paint (LBP).

PCB-Containing Transformers

The presence of PCB-containing material may be present within existing structures on the project site. Demolition of these structures could disturb these materials and expose workers or the public to adverse effects. Also, it is unknown whether the transformers located on the site contain PCBs.

Underground Storage Tanks

Prior to UST regulations that were established in the 1980s, USTs were commonly installed without any documented record. Therefore, additional undocumented USTs may be encountered during demolition and grading activities. If encountered, adverse effects to workers, the public, and the environment could result. This would be a significant impact.

Accordingly, the project sponsor shall implement the City of Oakland's standard conditions of approval, which, together, would reduce impacts associated with potentially hazardous building materials to less than significant.

Standard Condition HAZ-2a: If asbestos is found to be present in building materials to be removed, demolition and disposal is required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of Bay Area Air Quality Management District (BAAQMD) regulations, as may be amended.

Standard Condition HAZ-2b: If lead-based paint is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.

Standard Condition HAZ-2c: If asbestos-containing materials (ACM) are present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.

Standard Condition HAZ-2d: If other building materials or stored materials classified as hazardous waste by State or federal law is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, written

confirmation that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

Standard Condition HAZ-2e: If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall, prior to issuance of any demolition, grading or building permit, create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

Significance after Implementation of Standard Conditions: Less than Significant.

Impact HAZ-3: Hazardous materials used onsite during construction activities (i.e. solvents, paints, fuels, and glues) could be released to the environment through improper handling or storage. (Potentially Significant)

Hazardous materials, such as fuels, oils, solvents, and glues, would be used at the project site during construction. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. However, the onsite storage and/or use of quantities of materials capable of significantly impacting soil and groundwater are not typically required for a project of the proposed size and type. Implementation of Standard Condition HAZ-3 would reduce the potential for the accidental release of hazardous substances during construction to less than significant.

Standard Condition HAZ-3: The project applicant and construction contractor shall ensure that construction best management practices are implemented as part of construction to minimize the potential negative effects to groundwater and soils, prior to commencement of demolition, grading, or construction. These shall include the following:

- a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;**
- b) Avoid overtopping construction equipment fuel gas tanks;**
- c) During routine maintenance of construction equipment, properly contain and remove grease and oils;**
- d) Properly dispose of discarded containers of fuels and other chemicals.**
- e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would**

potentially affect a particular development or building. The applicant is responsible to avoid, eliminate delays with the unexpected discovery of contaminated soils with hazardous materials.

Significance after Implementation of Standard Condition: Less than Significant.

Impact HAZ-4: Accidental rupture of the petroleum pipeline located along the southern boundary of the site could result in adverse impacts to workers, the public, and the environment. (Potentially Significant)

A petroleum pipeline owned and operated by Kinder Morgan is located between the southern boundary of the site and the adjacent railroad tracks. Utility trenching or subsurface excavation in the vicinity of this pipeline, or other existing subsurface utility lines could result in inadvertent damage to these lines; and could endanger the health and safety of construction workers and the public. Implementation of Mitigation Measure HAZ-4 would reduce risks associated with the petroleum pipeline and other underground utilities encountered during construction to a less than significant level.

Mitigation Measure HAZ-4: Forty-eight hours prior to initiation of subsurface excavation, the City of Oakland shall require the project sponsor to delineate the proposed excavation area and notify Underground Surface Alert (USA). In addition to USA notification, the project Sponsor shall provide Kinder Morgan a 48-hour notice of excavation proposed within five feet of the pipeline. Engineering and construction drawings shall clearly delineate the location and path of the petroleum pipeline.

Significance after Implementation of Mitigation Measure: Less than Significant.

Impact HAZ-5: Project operations would generate and involve the handling of general commercial and household hazardous waste in small quantities, and therefore would not cause an adverse effect on the environment. (Less than Significant)

Proposed land uses at the project site consist of residential and commercial land uses. Commercial and building support activities would use hazardous chemicals common in other commercial and support settings. These chemicals would include familiar materials such as toners, correction fluid, paints, lubricants, kitchen and restroom cleaners, pesticides and other maintenance materials. These common consumer products would be used for the same purposes as in any commercial or support setting. Because general commercial and household hazardous materials are generally handled and transported in small quantities and because the health effects associated with them are generally not as serious as industrial uses, implementation of the project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of household hazardous materials generated from proposed uses. In fact, in general the project

would likely result in an overall decrease in the use, storage and disposal of hazardous materials and wastes and therefore the impact would be considered less than significant.

Mitigation: None Required.

Cumulative Impacts

Impact HAZ-6: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, would not result in cumulative hazardous materials impacts. (Less than Significant)

Development of the project site, with implementation of the identified mitigation measures above, would have a less than significant hazardous materials impact to the public or the environment within the vicinity of the project area. Other foreseeable development within the area, although likely increasing the potential to disturb existing contamination and the handling of hazardous materials, would be required to comply with the same regulatory framework as the project. This includes federal and state regulatory requirements for transporting (Cal EPA and Caltrans) hazardous materials or cargo (including fuel and other materials used in all motor vehicles) on public roads, or disposing of hazardous materials (Cal EPA, DTSC, ACEHD). Therefore, the effect of the project on hazardous materials, in combination with other foreseeable projects, would not be significant.

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