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Alameda County  
Environmental Health

October 22, 2008

Mr. Ignacio Dayrit  
City of Emeryville  
1333 Park Avenue  
Emeryville, CA 94608

Subject: Conditional Approval of Remediation Work Plan  
64<sup>th</sup> Street and Christie Avenue, Emeryville

Attached to this letter is the City of Emeryville's Conditional Approval of the draft Remediation Work Plan (RWP) prepared by PES Environmental, Inc. dated October 21, 2008 for the two parcels, 6340 and 6390 Christie Avenue, located at the corner of 64<sup>th</sup> Street and Christie Avenue in Emeryville. This Conditional Approval summarizes the site background, proposed redevelopment plan, subsurface investigations, remedial goals, remedial plan, and conditions and recommendations.

The Conditional Approval is based on the data submitted to date for the property and with the provision that data and information provided to the City are accurate and representative of Site conditions. If additional information or data indicate that the data included herein are not representative of Site conditions, additional mitigation measures may be required. This Conditional Approval applies only to the RWP and planned use of the Site included herein and not to any other site development.

Sincerely,



Susan G. Colman,  
Site Manager for City of Emeryville

cc: Denise Pinkston, TMG  
Mike Biddle, Emeryville  
Robert Creps, PES

Nicholas Targ, Holland & Knight  
William Mast, PES

## **CONDITIONAL APPROVAL OF REMEDIATION WORK PLAN FOR 64<sup>TH</sup> STREET AND CHRISTIE AVENUE, EMERYVILLE**

### **BACKGROUND**

The draft Remediation Work Plan (RWP) prepared by PES Environmental, Inc. (October 2008) is for the two parcels, 6340 and 6390 Christie Avenue, located at the corner of 64<sup>th</sup> Street and Christie Avenue in Emeryville (the Site). The RWP summarizes the historical uses of the Site and the results of soil and groundwater investigations, and describes the planned remedial activities. This Conditional Approval refers to tables, figures, and appendices to the RWP.

The Site is located at the corner of 64<sup>th</sup> Street and Christie Avenue in the City of Emeryville, California (Plates 1 and 2 in the RWP). The Site is bounded by the Bay Center Apartments on the north across 64<sup>th</sup> Street, a theater on the east, a parking lot for the Emery Bay Marketplace on the south, and the Avenue64 multi-family residential development on the east across Christie Street. The Site is approximately 1.2 acres and is located in a neighborhood consisting of commercial and residential properties (PES, 2008). An approximately 14,400-square foot commercial building and parking lot is located on the 6340 Christie parcel, and an approximately 12,000-square foot commercial building and parking lot is located on the 6390 Christie parcel.

The Site is currently owned by Rockwood Christie LLC and the development manager is TMG Partners. Previous occupants of 6340 Christie Avenue included industrial machinery warehousing in the 1960s and Lerer Brothers Transmission Service from 1980 through 1998 (PES, 2008). In 1988, a 2,000-gallon gasoline underground storage tank was removed from the southeast corner of the parcel (Plate 4 in the RWP). The former tank is under the jurisdiction of the Alameda County Department of Environmental Health.

Previous occupants in the western portion of the building at 6390 Christie Avenue included a tool warehouse (dates unknown), Sybase (1989 to 1994), and Inter-Tel Technologies (1994 to present) (PES, 2008). Previous occupants in the eastern portion of the building included a photo lab, an advertising firm, Dictaphone, and a software developer (PES, 2008).

### **PROPOSED REDEVELOPMENT PLAN**

Redevelopment plans consist of demolition of the existing structures and removal of all existing pavement, and construction of a new seven-story reinforced concrete and steel building that will cover nearly the total area of the Site (Plate 3 in the RWP) (PES, 2008). The lowest level will be a partially subgrade parking garage, the second level will consist of additional parking, perimeter retail shops, and the lobby for the five floors of residential units, which will be above the parking/retail levels (PES, 2008).

The partially subgrade parking level will be constructed with the floor at approximately 6 feet below ground surface (bgs) (PES, 2008). The footprint of the subgrade parking

level will encompass the majority of the Site (Plate 3 in the RWP). To construct the parking at 6 feet bgs, soil will be excavated to approximately 7 feet bgs across the Site. Based on the proposed depth of development and shallow groundwater conditions found at the Site, the concrete floor slab and subgrade walls will have a water-proofing barrier (PES, 2008).

The preliminary building design indicates that the structure will be supported on reinforced concrete piles. Each pile will be topped with a pile cap, which will support above grade structural columns (PES, 2008). The construction of these caps will require the removal of approximately 2 to 3 feet of additional soil below the base of the subgrade garage level excavation; therefore, soil will be excavated to a total depth up to 10 feet bgs at the pile locations (Plate 8 in the RWP) (PES, 2008).

### **SOIL AND GROUNDWATER INVESTIGATIONS**

Soil and groundwater investigation activities were conducted from 1988 through 1999 pertaining to the former underground storage tank at the 6340 Christie parcel, and soil, groundwater, and soil gas samples were collected by PES in 2004. Sampling locations are shown on Plate 4 and constituents of potential concern in soil, groundwater, and soil gas are shown on Plates 5a, 5b, and 5c, respectively, in the RWP.

#### **Screening Criteria**

For screening purposes, concentrations of constituents in soil are compared to the Water Board Environmental Screening Levels (ESLs; updated May 2008) for direct exposure to soil under a residential exposure scenario (Table K-1; hazard quotient [HQ] = 1 for non-carcinogens), leaching ESLs for drinking water and non-drinking water (ESL Table G), California Human Health Screening Levels (CHHSLs), and U.S. EPA Region IX residential screening levels (updated September 2008). Concentrations of constituents in groundwater are compared to ceiling level ESLs for drinking water and non-drinking water (Tables I-1 and I-2), drinking water ESLs based on toxicity (Table F-3), ESLs for the evaluation of vapor intrusion concerns (ESL Table E-1), and California and federal maximum contaminant levels (MCLs). The screening criteria are included in Tables 1 through 4 in the RWP (PES, 2008).

#### **Results of Soil Sampling**

Table 1 in the RWP presents the analytical results in soil for total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tert-butyl ether (MTBE), volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs). Samples were collected from approximately 2 to 7 feet bgs. The results for five metals (cadmium, total chromium, lead, nickel, and zinc) are presented in Table 2 in the RWP.

TPH as diesel (TPH<sub>d</sub>), MTBE, VOCs, and PCBs were not detected in soil samples collected at either of the two parcels. TPH as motor oil (TPH<sub>mo</sub>), TPH as gasoline (TPH<sub>g</sub>), toluene, ethylbenzene, xylenes, cadmium, and lead exceeded the ESLs in a few soil samples collected at the Site (Tables 1 and 2 in the RWP).

### **Results of Groundwater Sampling**

The analytical results for groundwater samples are presented in Table 3 in the RWP. The sampling consisted of collecting grab groundwater samples (in 1998, 1999, and 2004) and collecting samples from developed monitoring wells (five times in 1999). Concentrations of TPHg and BTEX decreased significantly in groundwater samples collected from 1998 to 2004. In the 2004 samples, only TPHd, TPHmo, TPHg, and benzene exceeded one or more of the ESLs (Table 3 in the RWP).

### **Results of Soil Gas Sampling**

VOC and TPH concentrations exceeded the ESLs for the evaluation of vapor intrusion concerns (Table 4 in the RWP) in several samples collected at the 6340 Christie parcel, but not at the 6390 Christie parcel.

### **Methane**

In 2004, nine shallow soil vapor samples were collected outside the buildings at depths of approximately 2 to 3 feet bgs. Methane concentrations ranged from 0.2 to 85 percent (PES, 2008). The origin of the methane may be due to the breakdown of marsh vegetation and petroleum hydrocarbons in soil and groundwater (PCE, 2008). In Emeryville, mitigation of methane is addressed during construction planning and design with the oversight of the City Building and Fire Departments. As such, mitigation of methane is not part of the remediation work plan.

### **REMEDIAL GOALS**

TPHd, TPHg, toluene, ethylbenzene, xylenes, cadmium, and lead exceeded the ESLs in a few soil samples (Tables 1 and 2 in the RWP). Groundwater was encountered between 4 and 7 feet bgs across the Site. Because 7 to 10 feet of soil will be excavated from the entire footprint of the Site to construct the sub-grade parking garage, all vadose-zone soil will be removed from the Site. As such, remedial goals for soil were not developed because no vadose-zone soil will remain on site. However, if groundwater levels are lower at the time of construction resulting in the presence of vadose-zone soil, the remedial goals will be the residential ESLs. If this is the case, a full suite of constituents will be analyzed for in the confirmation samples because many of the constituents were not analyzed for in previous soil samples.

Concentrations of TPHd, TPHmo, TPHg, and benzene in grab groundwater samples collected in 2004 exceeded one or more of the ESLs (Table 3 in the RWP). However, the extent of impacts has not been fully defined. Therefore, a pre-excavation investigation will be conducted and shallow groundwater remedial goals for the protection of human health will be developed, as appropriate, using the results of the pre-excavation investigation. The development of remedial goals will be conducted in conjunction with City and Water Board representatives. Future remedial goals for groundwater, if any, will be protective assuming an unrestricted residential use scenario.

### **REMEDIAL PLAN**

The remedial plan consists of excavation of 7 to 10 feet of soil and disposing of the soil in appropriate off-site landfills or re-used off-site. In addition, a sub-grade parking

garage will be constructed using a podium design in conformance with ASTM E 2600-08 for intrinsically-safe designs to mitigate for vapor intrusion, and with a water-proof barrier to mitigate for groundwater infiltration.

Prior to implementation of the remediation, a pre-excavation investigation will be conducted to collect soil data to pre-profile the soil for appropriate disposal or off-site re-use, and characterize shallow groundwater conditions.

The RWP lists the permits that will be obtained prior to implementation of remediation, outlines the storm water pollution prevention plan, and provides a site health and safety plan.

The soil excavation activities are described in the RWP, including general excavation equipment and procedures, loading, dust control procedures, decontamination, stockpiling if necessary, soil classification and management, soil hauling, and off-site disposal. In addition, the frequency of verification sampling is presented in case soil remains in place due to lower groundwater elevations at the time of remediation.

#### **SUMMARY, CONDITIONS, AND RECOMMENDATION**

Several constituents exceeded ESLs in soil at the Site. Therefore, soil remediation will be implemented by excavation and off-site disposal. In addition to the work outlined in the RWP, the following conditions have been established by the City as part of this Conditional Approval:

1. Remediation work will be scheduled with the City to allow periodic Site visits.
2. The Site contractor shall notify the City immediately of discovery of any unexpected hazardous materials found during remediation activities and during construction of the development and shall provide procedures for sampling, analysis, and removal, if warranted.
3. If any impacted soil or groundwater remains on site, final soil and groundwater data and a site map will be submitted to the City in electronic format to be entered into the City's OSIRIS database after the completion of the remediation activities.

This Conditional Approval is based on the data submitted to date for the Site and with the provision that the information and data provided to the City are accurate and representative of Site conditions. If this assumption is determined to be erroneous at some point in the future or additional information indicates that the data included herein are not representative of Site conditions, the City, Water Board, DTSC, or other appropriate regulatory agency may reopen the Site for regulatory review and action, including requiring additional mitigation measures, as warranted. This Conditional Approval applies only to the RWP and the planned use of the Site included herein and not to any other site development.

Prior to implementation, a fact sheet will be mailed to residents and businesses within at least 300 feet of the Site and a notification will be published in the Oakland Tribune of the availability of the Conditional Approval and RWP for review and comment. A 30-day public comment period will be provided, and a public meeting will be held.

#### **REFERENCES**

California Regional Water Quality Control Board, San Francisco Region, 1999, East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Final Report, July.

California Regional Water Quality Control Board, San Francisco Region, 2008, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, Environmental Screening Levels Surfer, Interim-Final, May.

PES Environmental, Inc., 2008, Draft Remediation Work Plan, Proposed 64<sup>th</sup> and Christie Building, 6340 and 6390 Christie Avenue, Emeryville, California, October 21.