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LONG TERM RISK MANAGEMENT PLAN
OAKLAND TELECOM ACCESS CENTER
SECOND STREET & BRUSH STREET
OAKLAND, CALIFORNIA

Project No. 044-00006
July 26, 2000

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GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

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1.0 INTRODUCTION

This report describes the Long Term Risk Management Plan (LTRMP) for the Oakland Telecom Access Center (OTAC) property located at Second Street and Brush Street in Oakland, California (Site; Figures 1 & 2). The LTRMP was prepared by Krazan & Associates, Inc. (Krazan), on behalf of Mortenson. Krazan has also completed a Phase I Environmental Site Assessment (ESA) summarized in Krazan's report *Phase I Environmental Site Assessment 720 Second Street & 229 Castro Street, Oakland, California*, dated February 16, 2000, and collected soil and groundwater samples at the Site as presented in our investigation report *Soil and Groundwater Investigation, Proposed Commercial Development, 720 Second Street & 229 Castro Street, Oakland, California*, dated May 3, 2000.

2.0 FACILITY DESCRIPTION

2.1 Site Setting

The Site consists of three parcels of land under contract to Mortenson for purchase. Two of the parcels are owned by the Port of Oakland (Port). The remaining parcel is owned by a private food distributor. The Site occupies a square block of land in the City of Oakland bound by 2nd and 3rd Streets and Castro and Brush Street. It measures approximate 300 feet by 200 feet and encompasses an approximate area of 1.4 acres. The Site is located in an area of Oakland currently utilized for industrial and commercial purposes. Businesses adjacent to the Site include a retail office supplies store, a plating shop, a self-storage business, warehouses, and Port of Oakland storage and administrative facilities. The nearest current residential neighborhood is located at least 1,500 feet north of the Site. It also appears that industrial work/loft spaces are being developed at the parcel located adjacent to the south of the Site across 2nd Street. Water and sewage disposal in the area of the Site is provided by the East Bay Municipal Utility District (EBMUD). Stormwater runoff is controlled by one catch basin within the Site and catch basins along the adjacent city

streets. Currently, the eastern one-third of the Site is used for shipping and warehousing and is completely occupied by a brick warehouse/office structure. The western two-thirds of the Site is used by the Port for maintenance and equipment storage. Evidence of an underground storage tank (UST) in the form of a fill port and vent pipe were observed near the north side of the warehouse. No information pertaining to the UST was present in the City of Oakland or Alameda County regulatory agency files. Two main structures and some smaller sheds and temporary storage containers are located on the western portion of the Site.

2.2 Historical Information

The historical information for the Site is based on Krazan's February 16, 2000 Phase I ESA, which included the review of historical aerial photographs, Sanborn Fire Insurance Maps (SFIMs), City of Oakland Building Department records, and business directories. The brick building on the eastern one-third of the Site appears to have been constructed prior to 1950 and has been used for warehousing purposes since that time. Prior to the construction of the warehouse, this portion of the Site was used for residential and commercial purposes. The two main structures, located on the western portion of the Site, were constructed in the late 1960s; other structures, interpreted to be industrial in nature, were present on-site prior to the late 1960s.

The western portion of the Site was used by Phoenix Iron Works (PIW) from circa 1951 to approximately 1972. None of the regulatory agency information reviewed pertained to the operation of PIW. However, SFIMs depict welding, pattern storage, foundry storage, flask yard, and other uses by PIW. The 1967 and 1970 SFIMs depict a paint dip tank and drying rack, which are no longer present, on the north side of the main structure (see Figure 2).

2.3 Regional Geology

The site is located in the eastern portion of the San Francisco Bay Area, approximately 1,500 feet north of the Oakland Inner Harbor and approximately 2.5 miles from the San Francisco Bay. The Site is at an elevation of approximately 10 feet above mean sea level with the topography in the area being relatively level with a gentle slope to the southwest. The nearest surface water bodies are the Oakland Inner Harbor to the south and Lake Merritt, which is located over a mile to the northeast.

The Site is located within the Coast Ranges Geomorphic Province of California, which is characterized by northwest-trending structural features, including faults and geologic units. Based on investigations conducted by

Krazan, the Site is underlain by approximately five feet of fill material which is underlain by beach and dune sand deposits of the Merritt Formation. The Merritt Formation is described as loose, well-sorted, fine- to medium-grained sand with silt and clay.

Based on a review of the USGS topographic map for the area and file information for investigations conducted in the vicinity of the Site, the direction of groundwater flow is approximately south-southwest. Based on the investigations conducted by Krazan, groundwater is present at approximately 6 feet below the ground surface (BGS).

2.4 Site Characterization

Krazan first conducted extensive environmental review for the Site, the results of which are summarized in Krazan's ESA. The historical use of the western portion of the Site as a steel company, and the former existence of a paint dip tank at the property, suggested the need for additional investigation to determine whether the subsurface had been impacted by hazardous materials. Krazan therefore conducted a characterization of soil and groundwater at the Site in accordance with procedures and guidelines established in the U.S. Environmental Protection Agency *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846).* The results of the characterization are described in the report by Krazan titled *Soil and Groundwater Investigation, Proposed Commercial Development, 720 Second Street & 229 Castro Street, Oakland, California,* dated May 3, 2000, and the results of are summarized below.

Based on the previous uses of the Site as identified in the environmental review of the ESA, the chemicals of potential concern (COPCs) for the Site included metals, petroleum hydrocarbons, volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs).

As part of Krazan's characterization of the Site, Krazan drilled 28 soil borings from which we collected 40 soil samples and eight groundwater samples. In addition, Krazan installed three groundwater monitoring wells. Soil borings were advanced in the vicinity of the paint dip tank and UST, the only potential point sources identified in Krazan's investigation. The remaining borings were selected based on procedures and guidelines for site characterization established in the U.S. Environmental Protection Agency *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846).*

Based on the results of the characterization, no point source areas of contamination were identified, with the exception of the UST, which will be properly removed and documented separately. Elevated concentrations of lead were detected in some of the samples from in the historical fill soils at depths between one and five feet BGS beneath the western approximately two-thirds of the Site. In addition, one isolated detection of PAHs was obtained in that area. As such, the area of concern at the Site is identified as the fill soil beneath the western two thirds of the Site.

The groundwater samples collected from the borings did not contain COPC. The three groundwater monitoring wells located at the Site were sampled on June 27, 2000 and the samples were analyzed for total lead. Lead was not detected in groundwater at the reporting limit of 0.015 milligrams per liter (mg/l). As such, with the exception of the area near the UST, the groundwater at the Site has not been impacted by any COPC.

3.0 PROPOSED FUTURE USE

The Site is proposed for redevelopment as the Oakland Telecom Access Center (OTAC), an advanced, four-story facility designed to meet the unique requirements of the telecommunications industry. The 120,000 square foot building design includes pre-cast and concrete structural capacity of up to 250 pounds per square foot to accommodate the heavy loads of telecommunications equipment. The foundation of the structure will be a solid concrete matt foundation. The roof and parapet have been designed to accommodate antennas for wireless communications. An equipment yard provides space for back-up generators giving the facility the ability to operate 24 hours per day even in the event of a power failure. The general layout of the proposed building is presented in Figure 3.

3.1 Proposed Construction Plan

The proposed project construction plan includes the removal of existing structures, construction of a matt foundation, which involves the excavation of soils to a depth of approximately five feet below the current grade, and final construction of the building and associated parking and landscaping. A detailed description of the proposed construction plan is presented in the Short Term Risk Management Plan (STRMP) prepared for the Site by Krazan dated July 10, 2000. This brief description is presented to provide an understanding of the conditions of the site following development.

Demolition of the buildings at the Site will include removal of all foundations and concrete slabs at and below grade. Removal of the identified UST and any affected soils will then occur. The Site will then consists of relatively level unpaved soil.

During the demolition phase, some of the on-site underground utilities that are to be located in or through the future parking area may be installed.

The proposed building has been designed to sit two (2) feet above existing grade to minimize excavation and interface of the foundation with existing groundwater. Subsequent to the demolition phase, soil at the Site will be excavated to a depth of approximately five feet below current grade (seven feet below proposed grade) and set aside to provide for placement of the matt foundation. It is estimated that approximately 6,700 cubic yards will be returned to areas on top of the matt and beneath the slab-on-grade building at the Site. Remaining overburden soil will be exported and disposed of off-site in accordance with applicable laws.

During the excavation work, two shafts will be drilled approximately 55 feet below the ground surface for the elevators. The shafts will be approximately two feet in diameter and will be double walled, in accordance with manufacturer specifications, to prevent infiltration of groundwater. The drilling of the shafts will not impact groundwater quality because the drilling will be conducted following the excavation of fill, and will only encounter the Merritt Formation. Also, the sealing of the shafts will prevent migration of groundwater from the shallow to deeper zones.

The walls of the equipment yard will be supported by drilled piers. Drilling will occur in a similar manner as discussed for the elevator shafts. The piers will be two feet in diameter, drilled to approximately 12 to 15 feet BGS. The soil generated as part of this activity will be managed similarly to other excavated soil at the Site.

After excavation is completed in an area, the reinforcing steel and formwork will be installed for the matt foundation and the concrete matt will be placed. At this point, the stockpiled soil will be replaced around and over the matt for fill to slab-on-grade level. Simultaneously, the construction of the concrete shear walls will begin with the first floor and continue upward. Structural pre-cast floors will be erected. Concrete topping slabs will be placed over these pre-cast floors and construction of the next floors of shear

walls will occur. This will continue until the structure is complete and work will begin to enclose the walls and roof of the building.

Concurrent with final stages of building construction work, installation will proceed on the utilities that will be located over the matt foundation. It is anticipated that all of the utility installations (water, storm sewer, electrical, sanitary sewer, fiber, etc.) will occur above the existing groundwater table. When these utilities are complete, a concrete slab-on-grade will cap the utility/fill area (Figure 4). Remaining soils stockpiled in the parking/drive areas will be graded to meet the grades required as a result of raising the building. Then a 4-inch thick asphalt topping or concrete walks/paving will cap the parking area. More than 96 percent of the Site, including all occupied areas, will be capped with hardscape. At landscaped areas, the existing soils will be removed and lawfully disposed of to a depth of two feet, and replaced with a cap of two feet of imported clean soils. At this point, the entire Site will be capped.

4.0 FUTURE RISK MANAGEMENT

4.1 Subsurface Soils

Based on the proposed construction plan, soil which may contain lead and PAHs will be present from final grade to approximately 5 to 6 feet below final grade. Krazan prepared a Conceptual Site Model and Risk Assessment (CSM/RA) dated July 31, 2000 for the Site that demonstrated that the presence of these constituents in soil in the identified concentrations do not present a risk to future occupants of the building or to the environment. The grading activities performed during Site construction will be done in accordance with a Health & Safety Plan to minimize and/or eliminate the exposure of construction workers to these constituents. Sanitary sewer and storm sewer lines would be placed in trench(es) within the parking lot area; these trench(es) would be backfilled with clean imported fill. The telecommunications building proposed for the Site has been constructed with several redundancy considerations that will further reduce the risk to future construction workers. These considerations include the ability to expand utility service and conduits without subsurface trenching and construction, thus minimizing the need to expose soil which may contain lead and PAHs. However, in the event that future work at the site will require trenching and removal of soil, then the following procedures will be implemented to minimize the likelihood that workers will be exposed to soil containing lead and PAHs.

The potential future construction work will follow the guidelines established in the Health & Safety Plan (HSP). A copy of the HSP has been transmitted under separate cover. Dust control measures, including

wetting of the soil to prevent wind blown particulate, will be implemented throughout the entire construction process. Excavated materials from potential future excavation will be temporarily stockpiled on and covered with plastic sheeting to minimize wind blown dust and sedimentation due to rain. Soil will be returned to the excavation. If excavated soil is to be removed from the Site for disposal, characterization of the soil pursuant to the requirements of the selected disposal facility will be conducted.

If future excavation work at the site involves removal of soil below the groundwater table, measures to prevent introduction of fill soil beneath the water table shall be conducted. This will include, at a minimum, segregation of fill and native soil. If dewatering activities are to occur, discharge of groundwater will occur in accordance with all applicable permit requirements.

4.2 Cap Inspection

To minimize indirect exposures of subsurface fill soil, the owner of the Site will conduct inspections of all caps at the Site at least every two years. This inspection shall include all concrete and asphalt surface, seams, and landscape areas. Areas of these surfaces judged during the inspections to be deteriorated, or have the potential to exposure underlying soil, will be repaired in such a manner to be restored as near as possible to original construction.

4.3 Deed Restriction/Notification

Because the CSM/RA assumed an industrial land use for the Site, a deed restriction/notification will be ~~filed~~ recorded for the Site to prevent any residential use of the Site without the prior approval of appropriate regulatory agencies. The deed restriction/notification will inform potential future owners of conditions of the Site and requirements of this LTRM plan. ~~A copy of the deed restriction/notification is included in Appendix A.~~