SHORT TERM RISK MANAGEMENT PLAN
PROPOSED COMMERCIAL DEVELOPMENT
720 SECOND STREET & 229 CASTRO STREET
OAKLAND, CALIFORNIA

Project No. 044-00006
July 10, 2000

Prepared for:
MORTENSON
700 Meadow Lane North
Minneapolis, MN 55422

Prepared by:
Krazan & Associates, Inc.
545 Parrott Street
San Jose, California 95112
(408) 271-2200

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING AND INSPECTION

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1.0 INTRODUCTION

This report describes the Short Term Risk Management Plan (STRMP) for the property located at 720 Second Street and 229 Castro Street in Oakland, California (Site; Figures 1 & 2). The STRMP was prepared by Krazan & Associates, Inc. (Krazan), on behalf of Mortenson and the Port of Oakland. Krazan has completed a Phase I Environmental Site Assessment (ESA) for the Site and collected soil and groundwater samples at the Site as detailed in our investigation report *Soil and Groundwater Investigation, Proposed Commercial Development, 720 Second Street & 229 Castro Street, Oakland, California*, dated May 3, 2000. Mortenson will be responsible for implementing this plan during site development activities.

Krazan has also prepared a Conceptual Site Model and Risk Assessment (CSM/RA) for the Site describing , in detail, the proposed activities at the Site and evaluating the residual risks associated with contaminated soils remaining on the Site.

The purposes of this STRMP is to establish procedures to be employed during development activities to minimize or eliminate any risk to human health or the environment associated with the presence of contaminants of potential concern (COPC) at and beneath the Site. The STRMP includes requirements for a Health & Safety Plan for construction workers, provisions for the management of soil and groundwater during Site development, dust control measures to prevent the spread of soil from the Site, and a Storm Water Pollution Prevention Plan (SWPPP). / contingency plan

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, Sanborn Fire Insurance Maps (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, 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 six feet below the ground surface (BGS).

2.4 Project Description

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.

3.0 PROPOSED CONSTRUCTION WORK 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

3.1 Demolition of Current Structures

Initial project work will include establishing temporary erosion and sediment controls around the Site to maintain soils and debris on Site. A number of shallow well points will be installed for the purpose of de-watering at the Site. The de-watering activities will draw down the existing groundwater level at the Site to allow construction to occur above the groundwater table. While the excavation for the matt foundation is not anticipated to be below the current groundwater level, the dewatering is being conducted to insure that groundwater will not be encountered during excavation and to provide a solid working surface for equipment. Discharge of groundwater will occur in accordance with any applicable permit requirements to either the storm or sanitary sewer. Demolition is anticipated to begin on the western portion of the Site. During demolition, a licensed asbestos abatement contractor will conduct removal of asbestos materials within the warehouse at the east side of the site in accordance with applicable laws for such activities. Additionally, abatement of lead-based paint identified on structures at the subject site will be conducted if required. Demolition of the warehouse will follow the abatement. Demolition of the buildings 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.

3.2 Foundation Construction

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 and set aside to provide for placement of the matt foundation. Excavation will begin at the east property line and proceed westward. Excavated materials will be temporarily stockpiled

on and under plastic sheeting on the southern portion of the Site in the area of the future parking lot. It is estimated that approximately 9,000 cubic yards of soil will be excavated and temporarily stockpiled. The stockpile will be covered with plastic sheeting to minimize wind blown dust and sedimentation due to rain. 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 first floor concrete shear walls (floor 1 to 2) will begin.

3.3 Building Construction

The second floor concrete shear walls (floor 2 to 3) will be constructed after completion of first floor shear walls. Then, two floors of structural pre-cast structure will be erected. Concrete topping slabs will be placed over these pre-cast floors and construction of the next two floors of shear walls (floor 3 to 4 and 4 to roof) will occur. Again, once the shear walls are complete, structural pre-cast for these remaining structures will be erected and topped with a concrete slab. Once the structure is complete, work will begin to enclose the walls and roof of the building.

3.4 Utilities and Final Site Work

Concurrent with the 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. Approximately 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 IDENTIFICATION AND MANAGEMENT OF POTENTIAL RISKS

4.1 Contaminants of Potential Concern

Based on Krazan's analysis of soil and groundwater samples from the Site, lead and polynuclear aromatic hydrocarbons (PAHs) were identified as contaminants of potential concern (COPC) in soil. No COPCs were present in groundwater at the Site. The Conceptual Site Model and Risk Assessment (CSM/RA) have demonstrated, however, that neither of these constituents represent a health risk to future occupants of the building or to the environment.

4.2 Health and Safety Plan

To ensure adequate protection for construction workers who may work in or around soil containing COPCs, the foundation construction aspect of Site development will be conducted pursuant to an approved Health and Safety Plan (HSP). A HSP for the project has been prepared by IHI Environmental, Inc. of Emeryville, California, Certified Industrial Hygienists. A copy of the document has been transmitted under separate cover. Mortenson will ensure that the development of the subject site follows the aspects of the HSP.

5.0 SOIL MANAGEMENT

As discussed in Section 3.0 of this STRMP, soil excavation will be conducted as part of the matt foundation construction. Based on previous site characterization work (discussed in Krazan's report *Soil and Groundwater Investigation, Proposed Commercial Development, 720 Second Street & 229 Castro*

Street, Oakland, California, dated May 3, 2000), the concentrations of the contaminants detected in soil at the Site were either individually below the established Environmental Protection Agency (EPA) Region IX Preliminary Remedial Goals (PRGs), or had an 80 percent upper confidence level (UCL) below the established PRG. As such and as further explained in the approved CSM/RA, the soil presents no appreciable risk in light of the proposed industrial land use. Therefore, soil will be re-used on Site where possible during development. Excavated materials will be temporarily stockpiled on the southern portion of the Site in the area of the future parking. It is estimated that approximately 9,000 cubic yards will be excavated and temporarily stockpiled. The stockpile will be on and covered with plastic sheeting to minimize wind blown dust and sedimentation due to rain. 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 activities associated with the foundation construction, dust control measures, included wetting exposed surfaces with water, will be implemented as needed.

6.0 GROUNDWATER MANAGEMENT PLAN

Based on groundwater samples collected from the Site, COPCs are not present within groundwater. The excavation for the foundation is not anticipated to occur below the current groundwater table. However, 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 also 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.

While the excavation for the foundation is not anticipated to occur below the current groundwater table, a number of shallow well points will be installed for the purposes of de-watering at the Site. The de-watering activities will draw down the existing groundwater level at the Site to insure construction to occur without being exposed to the groundwater and to provide a solid base for construction equipment.

It is estimated that approximately 9,000 gallons per hour of groundwater will be extracted and discharged during the grading activities at the subject site. Discharge of groundwater will occur in accordance with the requirements of EBMUD or the California Regional Water Quality Control Board depending on whether the groundwater is discharged to the sanitary or storm sewer.

7.0 STORMWATER POLLUTION PREVENTION PLAN

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Site to present the procedures to minimize impact from stormwater runoff. A copy of the SWPPP has been transmitted under separate cover. The SWPPP includes procedures and protocols to minimize impact from stormwater runoff including the establishment of erosion and sediment control measures, and other procedures for the stormwater management. The SWPPP was prepared by Brian Kanges Faulk, the State licensed civil engineer for the project.

8.0 CONTINGENCY PLAN

Even though Krazan has conducted an extensive review of the history associated with the Site and characterized the soil and groundwater at the Site, it is possible that subsurface features, including but not necessarily limited to USTs, and/or contaminated soil, could exist at the Site. If unanticipated subsurface features, or conditions were encountered at the Site, personnel will be instructed to leave the immediate area and the area will be cordoned off. The on-site environmental construction manager will evaluate the feature and determine the appropriate investigative and/or remedial options. If obviously contaminated soil (defined as soil exhibiting visual staining, odors, or debris) is encountered during grading, the soil will be stockpiled on top of visqueen and covered with visqueen. The soil will then be profiled by collecting samples for analyses. The results of the analyses will be compared to PRGs for industrial land use. If the constituents of concern are greater than the respective PRGs, the soil will be disposed of at an appropriate off-site disposal facility. If the COPCs are less than the respective PRGs, then the soil will be reused on-site with the other excavated soil from the Site. A flow chart illustrating the steps to be taken in the event unanticipated subsurface features or conditions are encountered is included as Figure 5 of this STRMP. Mortenson and the on-site construction manager will implement the Contingency Plan.

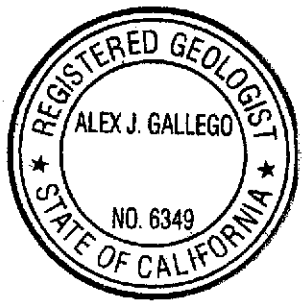
9.0 LIMITATIONS

The findings of this report were based upon the results of field and laboratory data, coupled with the interpretation of subsurface conditions, and future construction aspects proposed for the subject site. Therefore, the findings are accurate only to the degree implied by review of the collected data and by professional interpretation. Additionally, should new data become available or the proposed uses of the subject site change, Krazan's evaluation could be different that that presented in this report.

The findings presented herewith are based on professional interpretation using state-of-the art methods and equipment and a degree of conservatism deemed proper as of this report date. It is not warranted that such data cannot be superseded by future geotechnical, environmental, or technical developments.

This investigation and report were authorized by and prepared for the exclusive use of our client. Unauthorized use of or reliance on the information contained in this report without the expressed written consent of Krazan & Associates, Inc., is strictly prohibited.

If there are any questions or if we can be of further assistance, please do not hesitate to contact our office at (408) 271-2200.



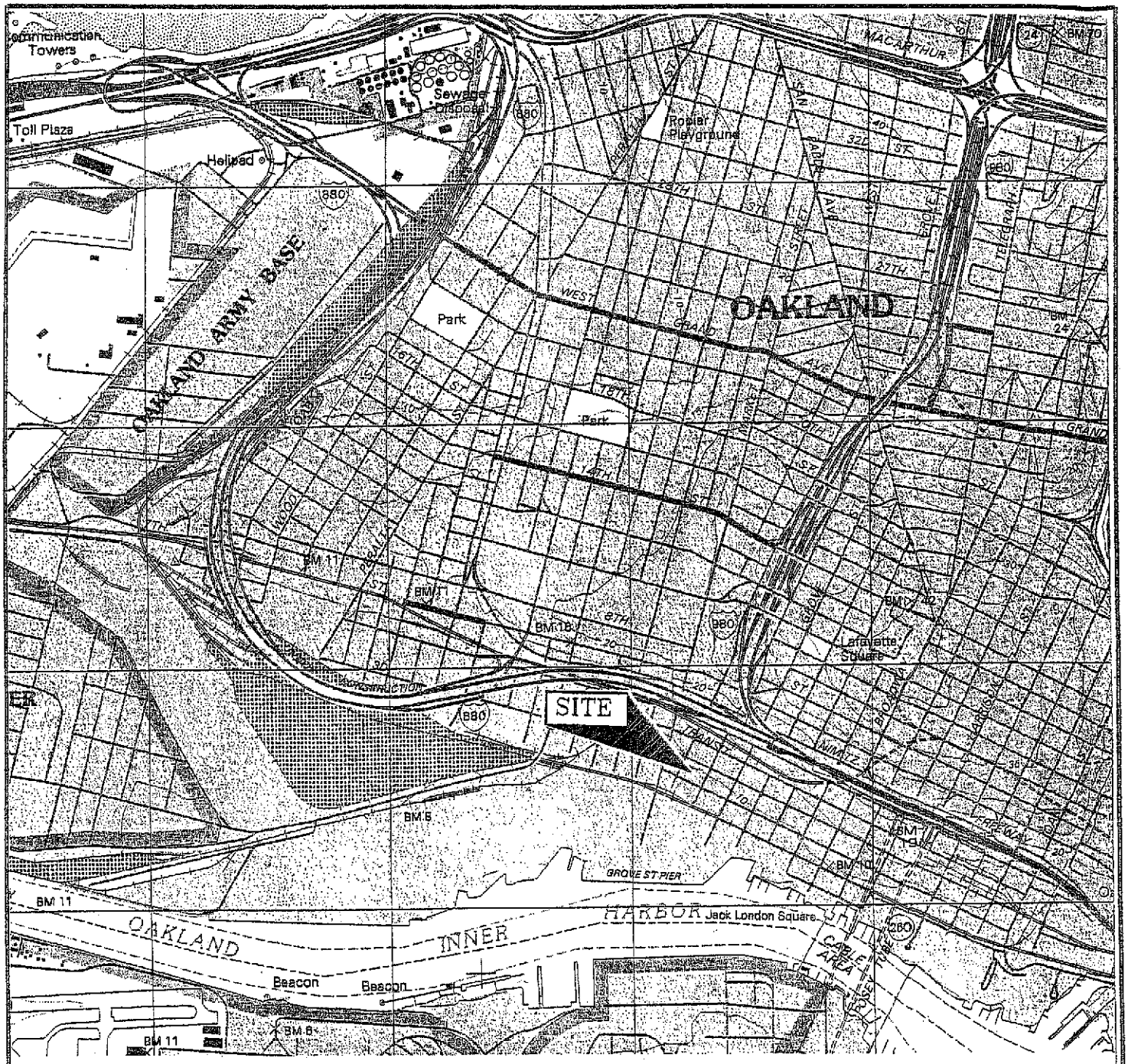
Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Alex J. Gallego, RG 6349
Director of Environmental Services

Dean Alexander
Geotechnical Engineer
RGE #002051/RCE #34274

AJG/DA/ljk

FIGURES



MAP SOURCE:
USGS QUADRANGLE, 7.5-MINUTE (TOPOGRAPHIC)
OAKLAND WEST (DATED 1993)

0 2,000 4,000
SCALE IN FEET (±)

VICINITY MAP

City Block Bound By:
Second, Third, Castro, &
Brush Streets
Oakland, California

Scale: AS SHOWN	Date: 2/00
Drawn by: AJG	Approved by: AJG
Project No. 044-00006	Figure No. 1

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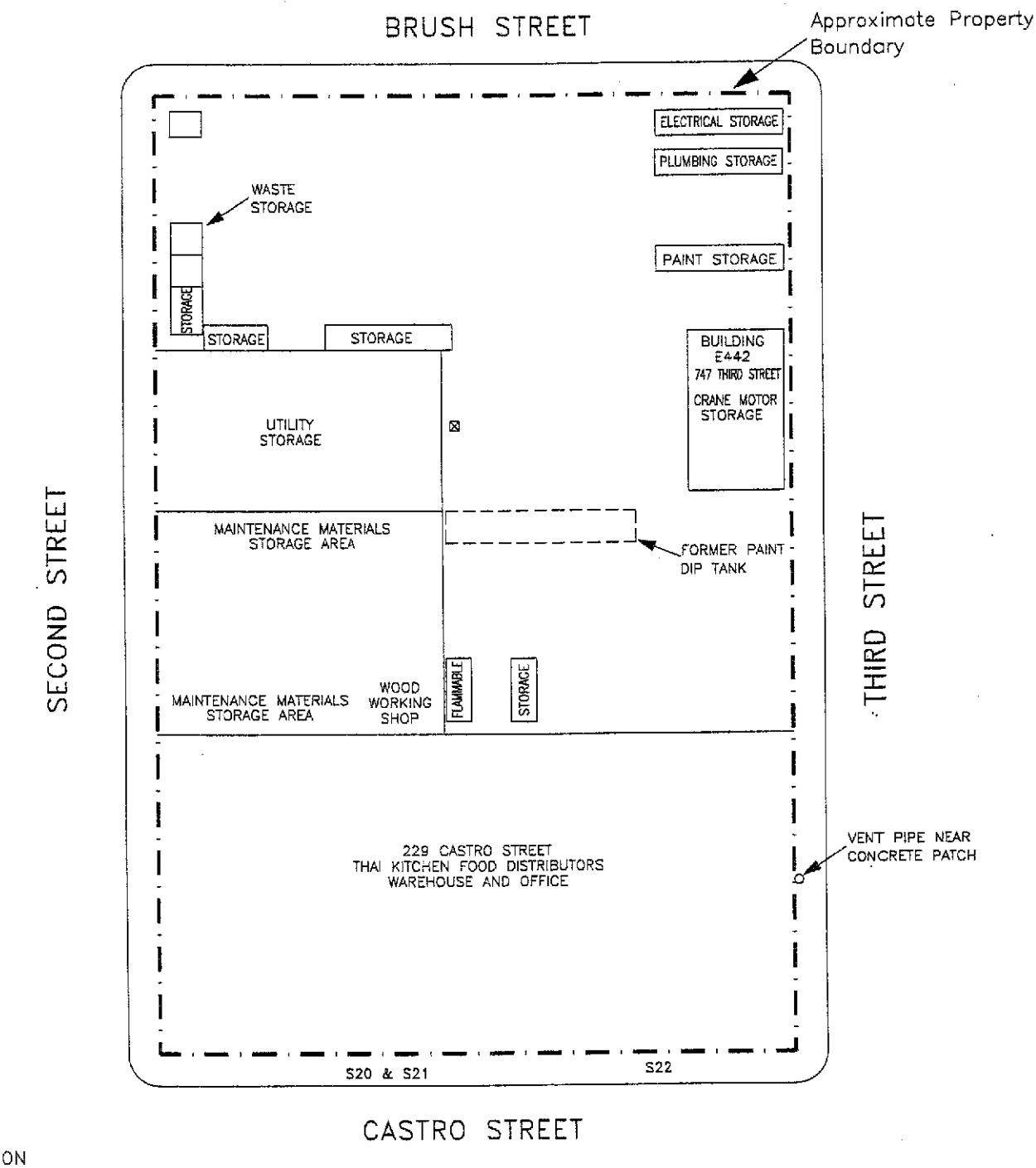

EXPLANATION

⊠ STORM DRAIN

NORTH

0 50 100

SCALE IN FEET (±)

NOTES:
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. BASE MAP FROM FIELD MEASUREMENTS AND SANBORN MAPS

SOIL BORING AND MONITORING WELL LOCATION MAP City Block Bound By: Second, Third, Castro, & Brush Streets Oakland, California	Scale: AS SHOWN	Date: 06/00
	Drawn by: AJG	Approved by: AJG
	Project No. 044-00006	Figure No. 2

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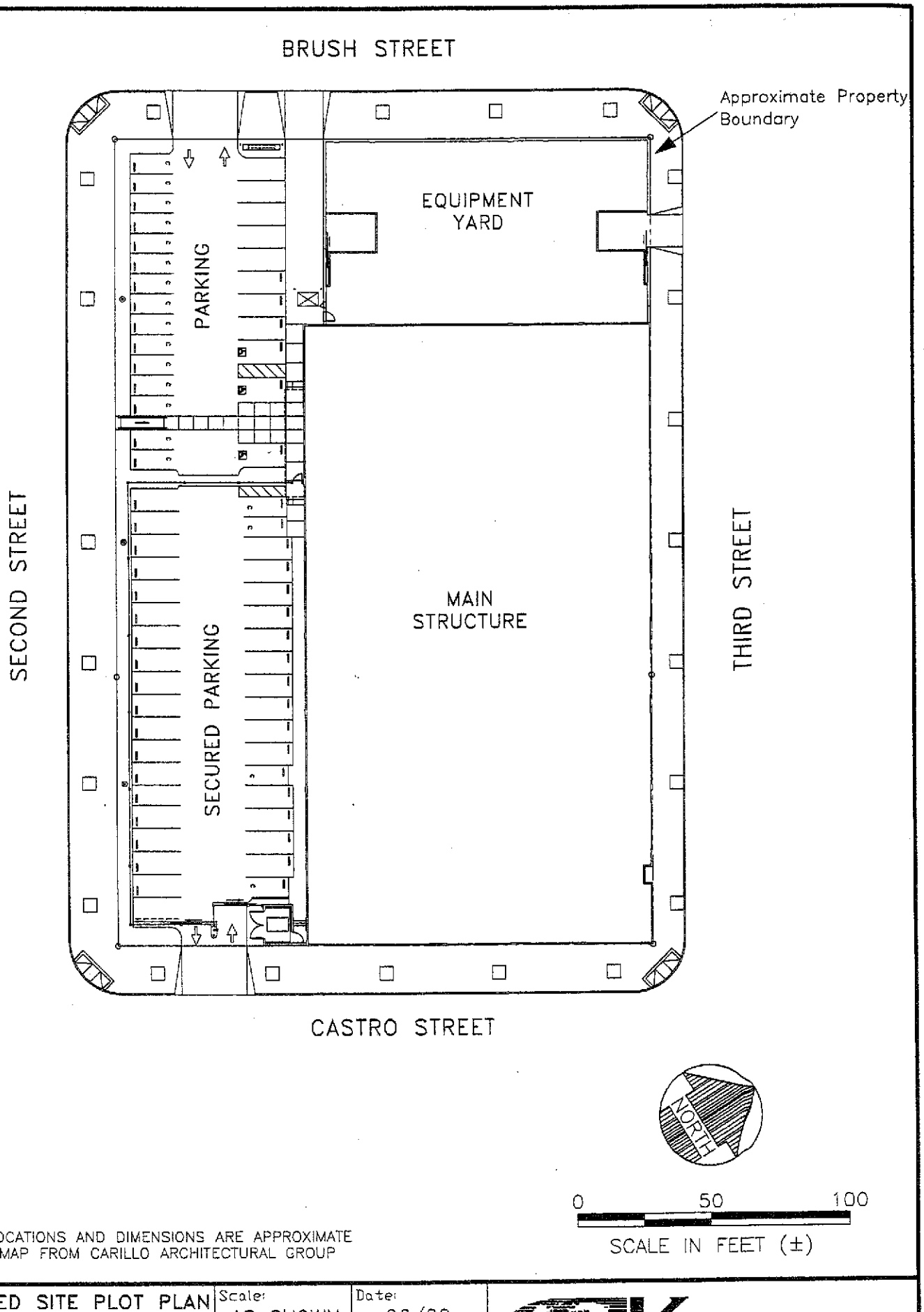

NOTES:
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. BASE MAP FROM CARILLO ARCHITECTURAL GROUP

PROPOSED SITE PLOT PLAN

City Block Bound By:
Second, Third, Castro, & Brush Streets
Oakland, California

Scale:	Date:
AS SHOWN	06/00
Drawn by:	Approved by:
AJG	AJG
Project No.	Figure No.
044-00006	3

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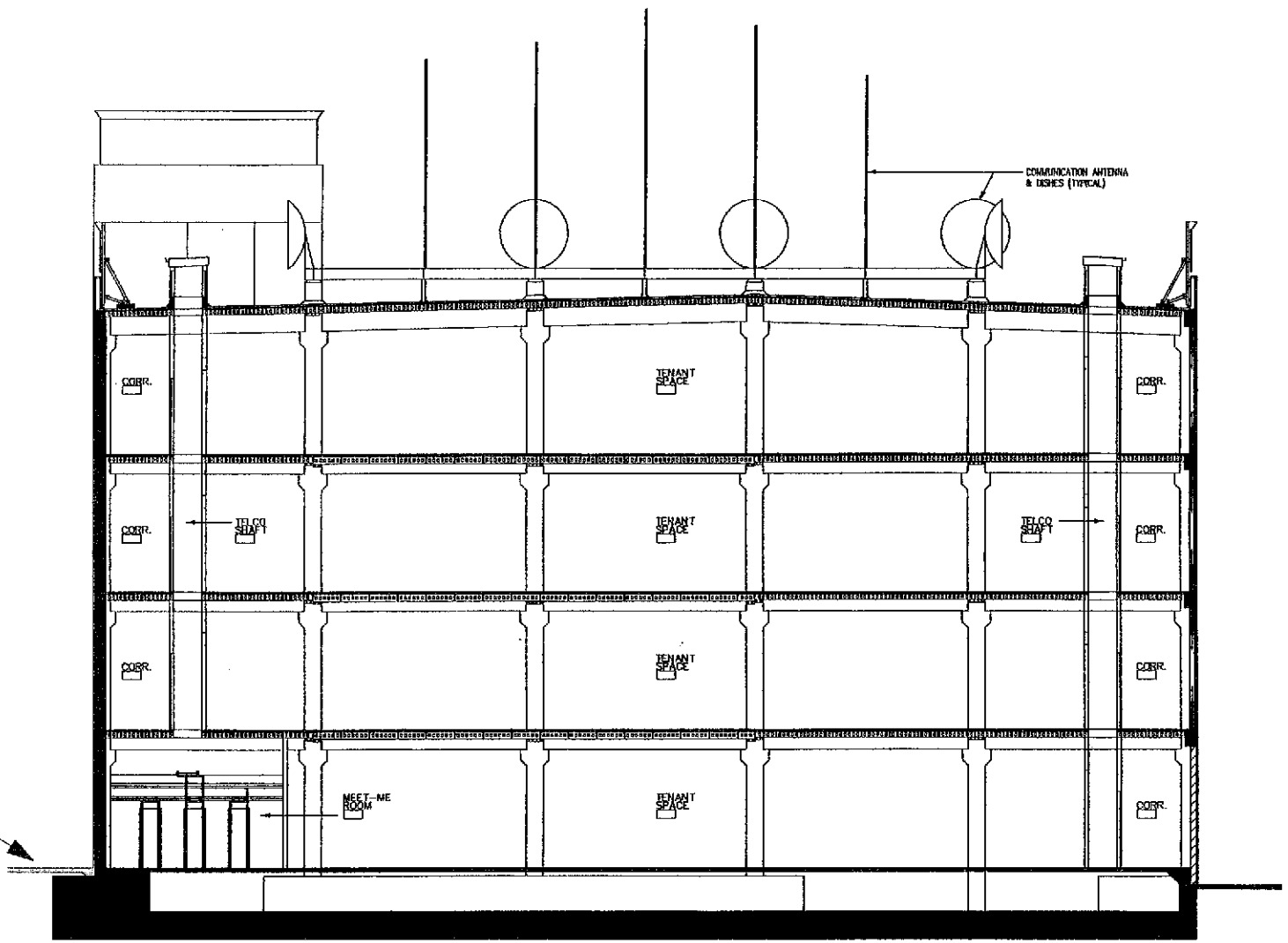

NOTES:
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. BASE MAP FROM CARILLO ARCHITECTURAL GROUP

CONCEPTUAL FOUNDATION CUTAWAY PLAN	Scale: NONE	Date: 06/00
City Block Bound By: Second, Third, Castro, & Brush Streets Oakland, California	Drawn by: AJG	Approved by: AJG
	Project No. 044-00006	Figure No. 4

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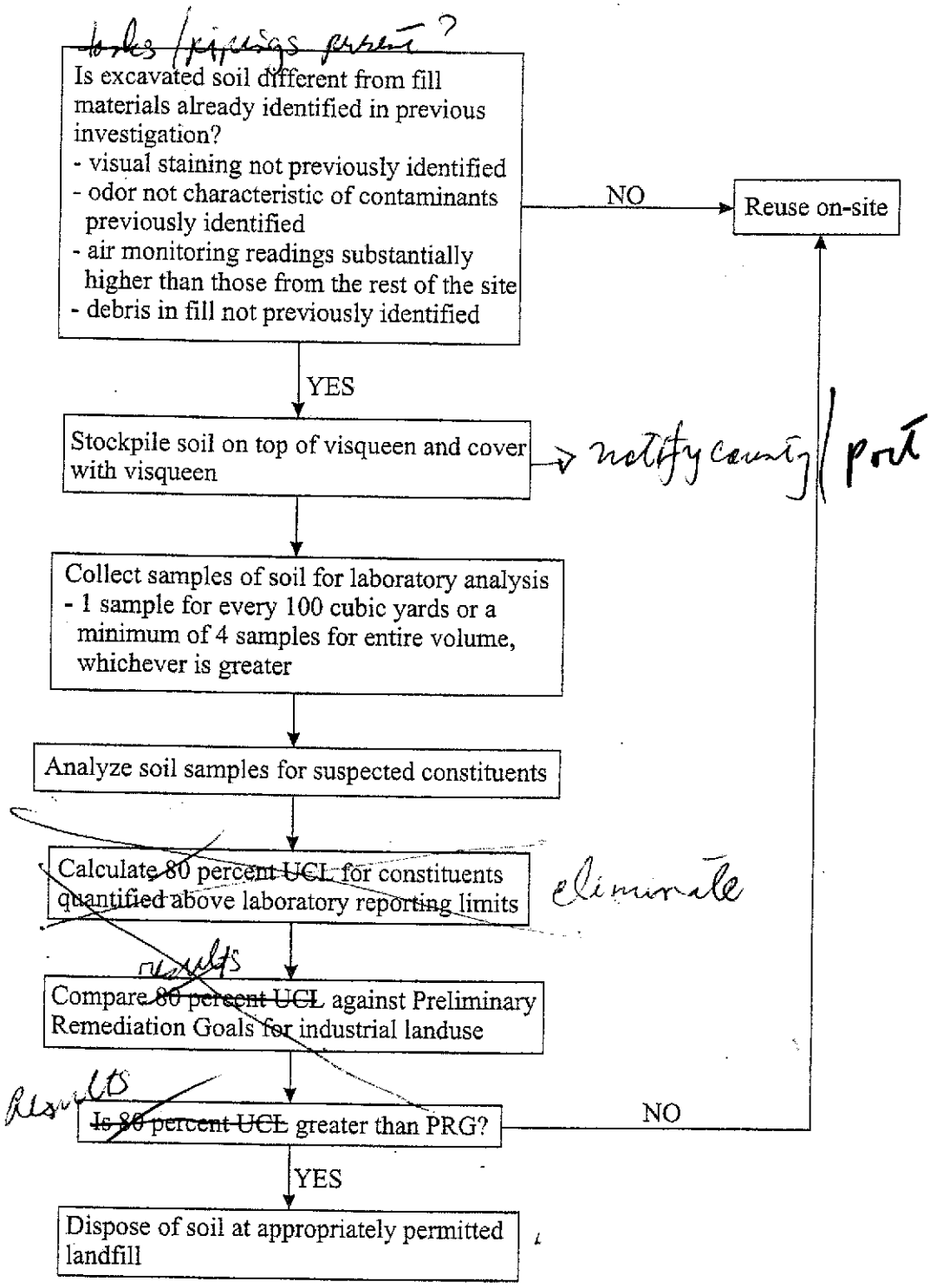

NOTES:
1. FROM BASELINE ENVIRONMENTAL CONSULTING AND THE PORT OF OAKLAND.

CONTINGENCY PLAN FLOW CHART City Block Bound By: Second, Third, Castro, & Brush Streets Oakland, California	Scale: AS SHOWN	Date: 07/00
	Drawn by: AJG	Approved by: AJG
	Project No. 044-00006	Figure No. 5

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