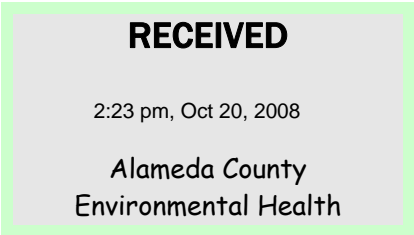


June 1, 2006
Work Plan 0387.W1

Inspector Jesse Kupers
City of Oakland Fire Department -
Hazmat Division
250 Frank Ogawa Plaza, Suite 3341
Oakland, CA 94612



SUBJECT: SUBSURFACE INVESTIGATION WORK PLAN (B3 THROUGH B17)
Brandywine Realty Trust
2100 Franklin Street
Oakland, California

Dear Mr. Kupers:

RGA Environmental, Inc. (RGA) is pleased to present this work plan for hand augering boreholes B3 through B6 to collect soil samples for characterization of petroleum hydrocarbons in soil surrounding the UST pit, hand augering boreholes B7 through B12 for onsite collection of groundwater grab samples, and drilling oversight for boreholes B13 through B17 for offsite subsurface material characterization using soil conductivity logging and groundwater sample collection. This work plan is prepared in response to a request for further investigation in a letter from the City of Oakland Fire Department Hazmat Division dated May 25, 2006.

Soil conductivity will be evaluated at each location to a depth of 50 feet using a soil conductivity probe. In addition, borehole B13 will be continuously cored to a depth of 50 feet for correlation of the soil conductivity log and the subsurface soil types. Depth-discrete groundwater grab samples will be collected using a Hydropunch at a depth of 30 and 50 feet in each borehole to evaluate the horizontal and vertical extent of petroleum hydrocarbons in groundwater.

A Site Location Map (Figure 1), a Site Plan showing the proposed drilling locations (Figure 2) and a Site Plan Detail showing the proposed drilling locations in the vicinity of the former UST pit are attached with this work plan.

All work will be performed under the direct supervision of an appropriately registered professional. This work plan is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991 and California Code of Regulations Title 23 Sections 2720-2728.

BACKGROUND

The subject site is presently being excavated for construction of a high-rise office building. During excavation at the site, an UST was discovered on May 12, 2006 at a depth of approximately 8 feet below the ground surface. Inspection of the UST showed that the UST had been previously filled with concrete. The UST was measured to be approximately four feet four inches in diameter and

June 1, 2006
Work Plan 0387.W1

approximately 12 feet in length. The UST was removed from the UST pit and demolished on site on May 23, 2006. At the time of UST removal, soil samples were collected from directly beneath the UST. In addition, groundwater was encountered in borehole B1 which was hand augered beneath the UST at a depth of approximately five feet beneath the UST. Petroleum hydrocarbons were detected in both soil and groundwater beneath the UST. The UST and concrete that was inside the UST were removed from the site on 5/31/06.

Borehole B2 was hand augered near the UST pit (see Figure 3). Although discolored soil was encountered at a depth of approximately three feet below the bottom of the UST, the discoloration is interpreted to be related to horizontal movement of petroleum hydrocarbons in groundwater and associated capillary fringe wicking of petroleum hydrocarbons. Documentation of the UST demolition and disposal are presented in RGA's May 25, 2006 Underground Storage Tank Removal Report (document 0387.R1).

After the UST was demolished, soil at the site was removed to a depth of approximately 12 feet below the ground surface. This depth is approximately the same depth as the depth of the bottom of the UST.

Although Lake Merritt is located to the east and southeast of the site, review of Figure 1 shows that local topography suggests that the groundwater flow direction at the site could be to the west or southwest.

SCOPE OF WORK

To investigate the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former UST, RGA will perform the following tasks:

- Obtain encroachment and drilling permits.
- Mark proposed drilling locations, notify Underground Service Alert, and prepare a health and safety plan.
- Hand augering boreholes B3 through B6 to collect soil samples for characterization of petroleum hydrocarbons in soil surrounding the UST pit, hand augering boreholes B7 through B12 for onsite collection of groundwater grab samples, and drilling oversight for boreholes B13 through B17 for offsite subsurface material characterization using soil conductivity logging and groundwater sample collection.
- Arrange for sample analysis.
- Prepare a report documenting soil and groundwater sample collection and the laboratory analytical results.

Each of these is discussed below in detail.

Permitting and Traffic Plan Preparation

A permit will be obtained from Alameda County Public Works Agency, and encroachment and excavation permits will be obtained from the City of Oakland.

Health and Safety Plan Preparation

A copy of the health and safety plan for this proposed scope of work is being submitted to the City of Oakland Fire Department under separate cover for review. The offsite drilling locations will be marked with white paint and Underground Service Alert will be notified for underground utility location. In addition, a report prepared by Subtronics that identifies the locations of underground buried utilities will be reviewed.

Soil Boring Oversight and Groundwater Sample Collection

A total of four soil borings, designated as boreholes B3 through B6, will each be hand augered at locations shown on Figure 3 to evaluate the horizontal extent of petroleum hydrocarbons in soil in the vicinity of the former UST. The boreholes will be hand augered to a total depth of two feet below the bottom of the UST using a 3.5-inch outside diameter stainless steel hand auger. One soil sample will be collected from each borehole between the depths of 2.0 and 2.5 feet below the bottom of the UST by driving a stainless steel sampler lined with a 2-inch diameter, 6-inch long stainless steel tube into the bottom of the borehole with a slide hammer. The tube will be removed from the sampler, the ends of the tube will be evaluated to verify that no head space is present, and the ends of the tube will then be sequentially covered with aluminum foil and plastic end caps. The tube will be labeled and placed in a cooler with ice pending delivery to a State-accredited hazardous waste testing laboratory. Chain of custody procedures will be observed for all sample handling.

Boreholes B7 through B12 will be hand augered at locations shown in Figure 2 to evaluate the onsite horizontal extent of petroleum hydrocarbons in groundwater in the vicinity of the former UST. The boreholes will each be hand augered to a total depth of five feet below the bottom of the UST (approximately 17 feet below grade) using a 3.5-inch outside diameter stainless steel hand auger. Groundwater has been consistently encountered at the site at a depth of approximately 17 feet below grade, and the water level has consistently risen in the boreholes several feet after initially being encountered.

After waiting for water to enter the boreholes, one groundwater grab sample will be collected from each of boreholes B7 through B12 with a Teflon bailer. The presence of odors, sheen and separate phase layers of petroleum hydrocarbons will be recorded if observed for any of the water from any of the boreholes. All water samples will be transferred to one-liter amber bottles and 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative, which will be sealed with Teflon-lined screw caps. The VOAs will be overturned and tapped to ensure that air bubbles are not present. The samples will be labeled and then placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures will be observed for all sample handling.

Boreholes B13 through B17 will be drilled at locations shown in Figure 2 to evaluate offsite subsurface materials using soil conductivity logging and to evaluate the horizontal and vertical extent of petroleum hydrocarbon impact to groundwater. All drilling will be performed using GeoProbe push technology. Subsurface materials will be evaluated using soil conductivity to a total depth of 50 feet below the ground surface at each location. At B13 (adjacent to the UST) a continuous core will be collected to a total depth of 50 feet below the ground surface for the purposes of correlating the soil conductivity logs with the subsurface materials encountered in the

continuous core. The continuous core will be collected into 2-inch diameter cellulose acetate tubes measuring approximately 4 feet in length using a 3.5-inch outside diameter GeoProbe Macrocore sampler. Depth-discrete groundwater samples will be collected from boreholes drilled adjacent to each of the soil conductivity boreholes using a GeoProbe Hydropunch. The groundwater samples will be collected at depths of 20 and 50 feet with the exception of borehole B13, where groundwater samples will be collected at depths of 35 and 50 feet. Prior to retracting the Hydropunch rods for groundwater sample collection, the interior of the rods will be evaluated for the presence of water to ensure that the rods have not leaked. The groundwater samples will be collected from the Hydropunch rods using polyethylene tubing with a stainless steel footvalve. The water samples will be transferred into containers as described above. New tubing will be used for collection of each groundwater sample.

Following completion of sample collection activities, the boreholes will be filled with neat cement grout. All hand augering, drilling, and sampling equipment will be cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. All soil and water generated during subsurface investigation will be stored in 55-gallon drums at the site and labeled pending characterization and proper disposal.

Arrange for Sample Analysis

All of the soil and groundwater samples will be analyzed on a normal (five working day) turn around basis at McCampbell Analytical, Inc. in Pacheco, California for TPH MultiRange (Gasoline, Diesel and Oil-range petroleum hydrocarbons) using EPA Method 5030/3550 in conjunction with Modified EPA Method 8015, and for MBTEX by EPA Method 8021B. McCampbell Analytical, Inc. is a State-accredited hazardous waste testing laboratory.

Report Preparation

Upon receipt of the laboratory analytical results, a report will be prepared. The report will document soil and groundwater sample collection procedures and sample results. The report will include a site vicinity map showing the drilling locations, boring logs, tables summarizing the sample results, isoconcentration contour maps, geologic cross-sections, recommendations for any necessary additional investigation or remedial actions based on the sample results, and the stamp of an appropriately registered professional.

June 1, 2006
Work Plan 0387.W1

Should you have any questions, please do not hesitate to contact us at (510) 658-4363.

Sincerely,

RGA Environmental, Inc.

*Dan Finner
for*

Kenneth Pilgrim
Project Manager

Paul H. King

Paul H. King
Professional Geologist #5901
Expires: 12/31/07

Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Site Plan Detail

Cc: Ms. Kaki Coleman, Brandywine Realty Trust

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0387.W1

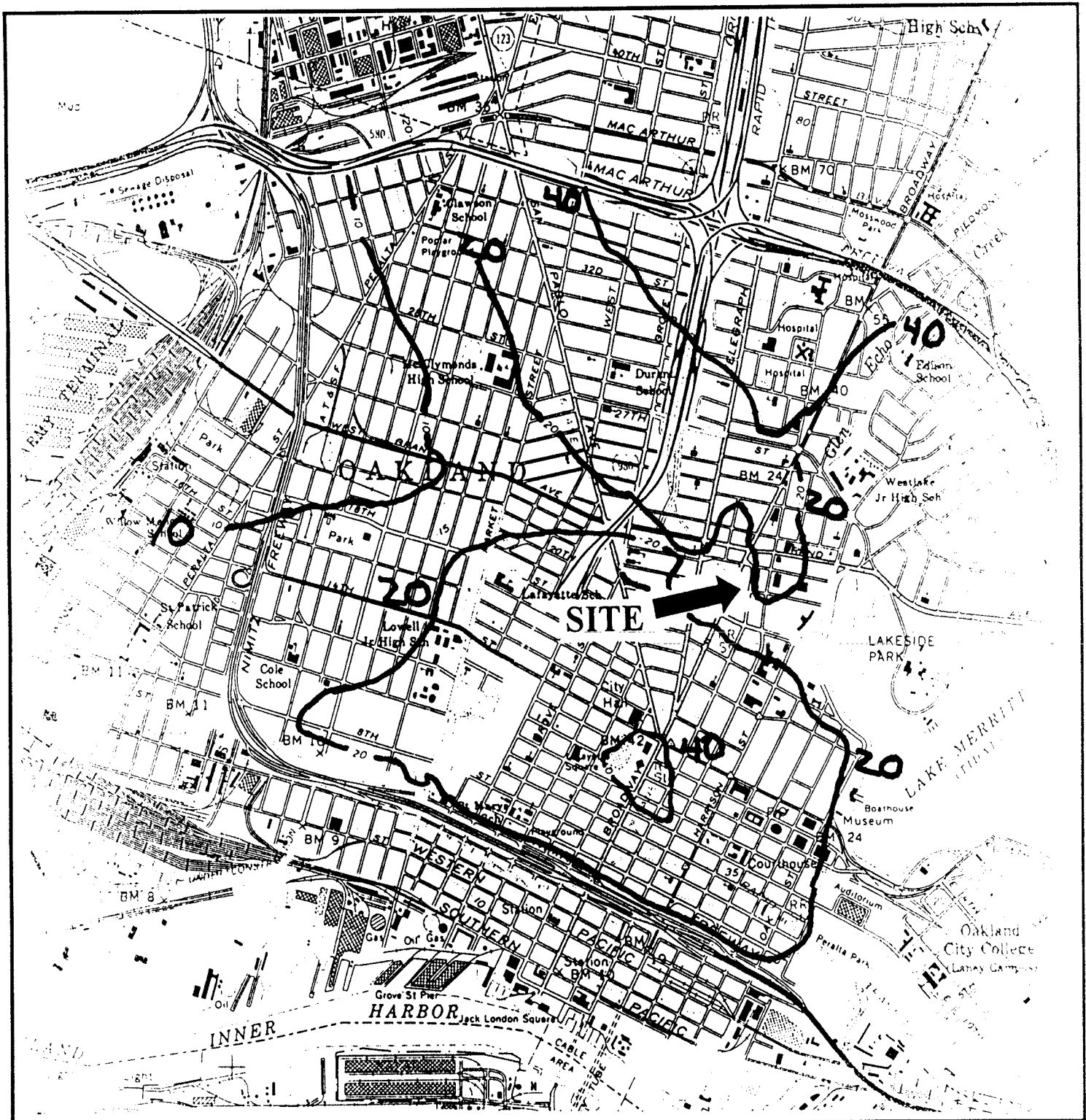
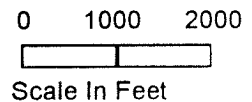


FIGURE 1
Site Location Map
 2100 Franklin Street
 Oakland, California



Base Map From:
 United States Geological Survey
 Oakland West, Calif. Quadrangle Map
 Photorevised 1980

RGA Environmental, Inc
 1466 66th Street
 Emeryville, CA 94608



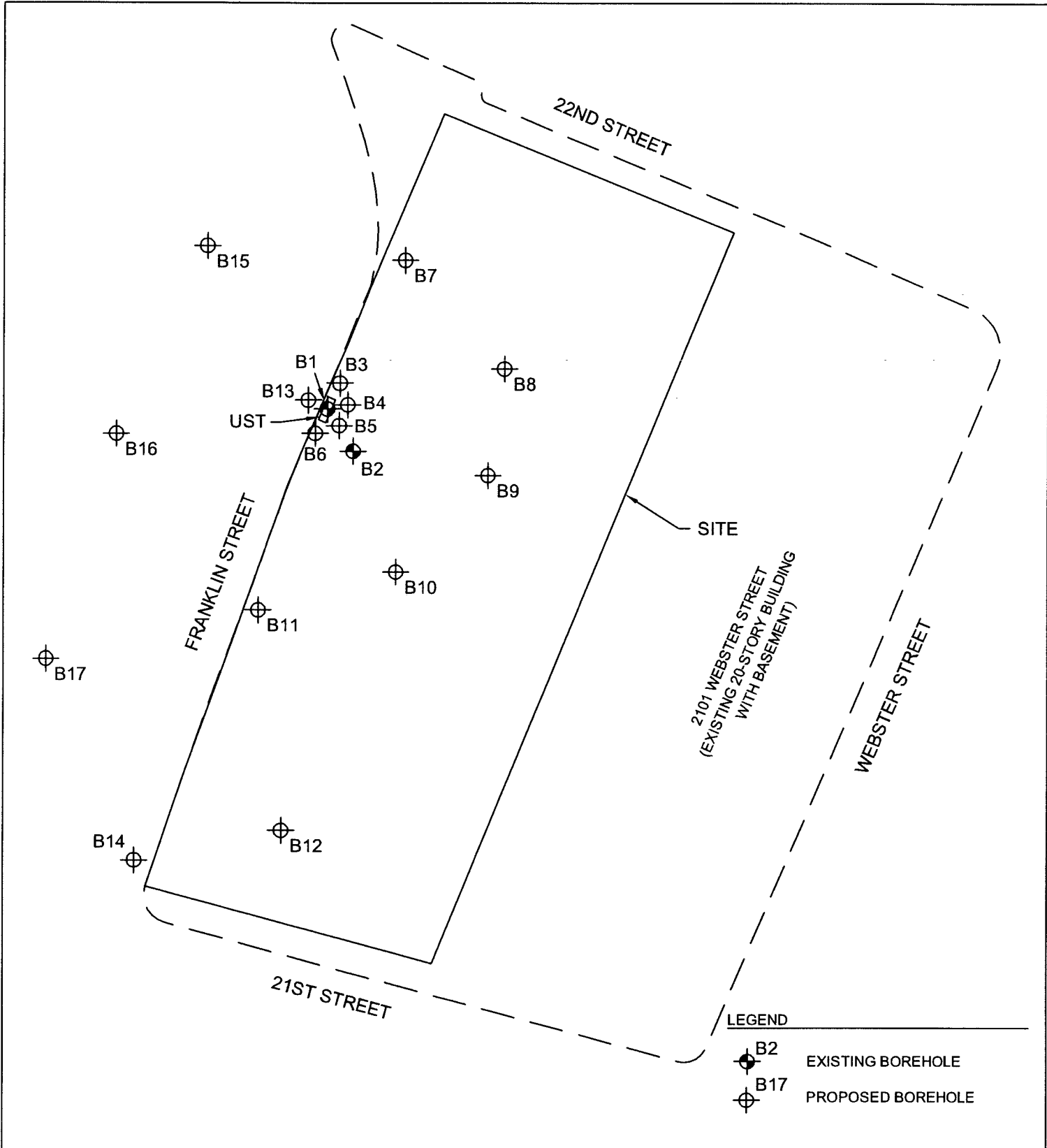


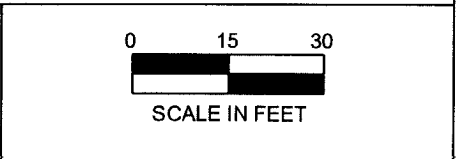
Figure 2
 Site Plan
 2100 Franklin Street
 Oakland, California

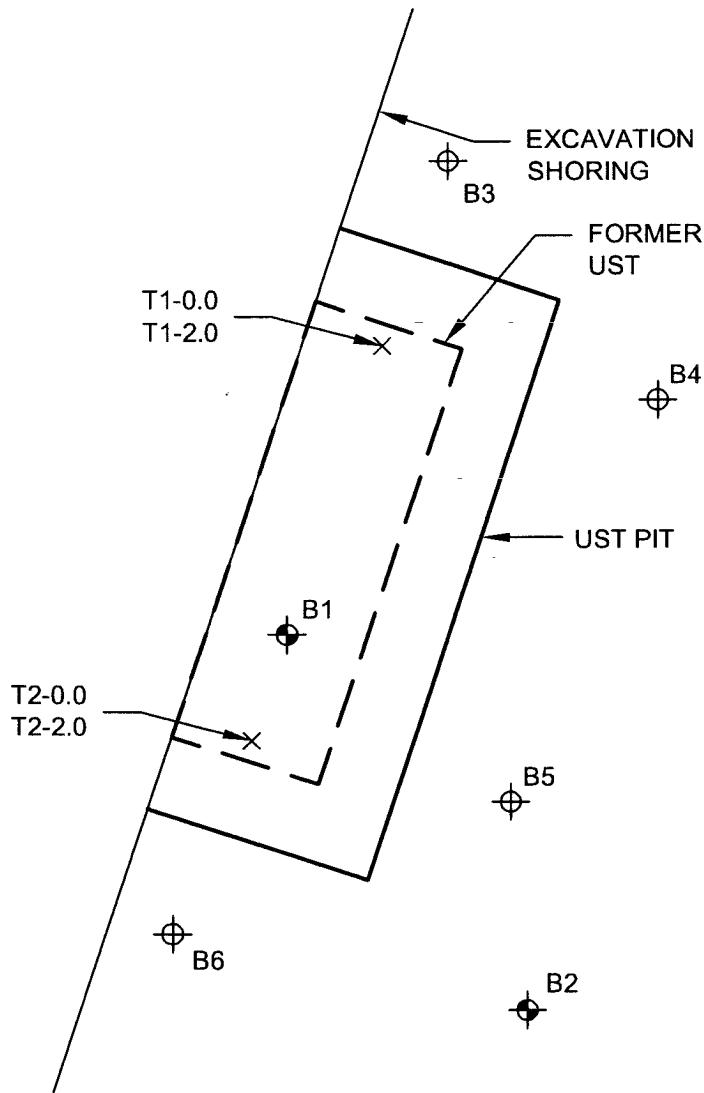


LEGEND	
	B2 EXISTING BOREHOLE
	B17 PROPOSED BOREHOLE

Base Map prepared by:
 Treadwell & Rollo, 8/5/05

RGA Environmental, Inc.
 1466 66th St.
 Emeryville, CA 94608





LEGEND

- × SOIL SAMPLE COLLECTION LOCATION
- B2 EXISTING BOREHOLE LOCATION
- ⊕ B6 PROPOSED BOREHOLE LOCATION

Figure 3
 Site Plan Detail
 2100 Franklin Street
 Oakland, California



Base Map prepared by:
 RGA Environmental, Inc.
 5/23/03

RGA Environmental, Inc.
 1466 66th St.
 Emeryville, CA 94608

