EAST BAY ASIAN LOCAL DEVELOPMENT CORPORATION
BUILDING HEALTHY AND VIBRANT NEIGHBORHOODS SINCE 1975

July 7, 2015

Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502
karel.detterman@acgov.org

RE: Work Plan, Additional Subsurface Investigation, Properties at 760 22nd Street and 2201 Brush Street, Oakland, California 94612

Dear Alameda County Environmental Health:

Please find attached for your review the following document:

- Results of supplemental geophysical survey, 760 22nd Street Site, Oakland, California. (ACEH Document No. RO3153_MISC_R_2012-06-06)

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please call Everett Cleveland Jr., Senior Project Manager at (510) 287-5353 ext. 339 if you have any questions.

Sincerely,

Jason Vargas
Associate Director, Real Estate Development

CC: Nik Lahari, Esseltek

PES Environmental, Inc.
Engineering & Environmental Services

June 6, 2012

1284.001.02.005

East Bay Asian Local Development Corporation
310 8th Street, Suite 200
Oakland, CA 94607

Attention: Mr. Kevin Kawashita

RESULTS OF SUPPLEMENTAL GEOPHYSICAL SURVEY
760 22nd STREET SITE
OAKLAND, CALIFORNIA

Dear Mr. Kawashita:

This report presents a results of a supplemental geophysical survey conducted at 760 22nd Street in Oakland, California (site or subject property; Plates 1 and 2). The investigation was performed by PES Environmental, Inc. (PES) in accordance with our proposal to East Bay Asian Local Development Corporation (EBALDC) dated November 4, 2011. It is PES' understanding that EBALDC owns the subject property and that redevelopment plans for the site include excavation of soil to approximately 10 to 12 feet below ground surface (bgs) in preparation for site redevelopment for residential purposes.

As you are aware, PES' subcontractor, C. Cruz Sub-Surface Locators, Inc. (C. Cruz), conducted a geophysical survey on October 20, 2011 to evaluate the presence of unknown subsurface metallic features potentially located beneath the site. With the exception of the interior area of the oil change building and a 5-foot wide strip along the exterior perimeter of the building, the survey was performed on a 5-foot by 5-foot grid over accessible areas of the site using geophysical instruments. The oil change building was not accessible on the day of the survey. The results of that geophysical survey reported to EBALDC in our report dated November 9, 2011[1]. The geophysical survey located the following features:

- Water lines;
- A sewer line;

[1] PES, 2011. *Results of Geophysical Survey and Additional Subsurface Investigation, 760 22nd Street Site, Oakland, California*. November 9.

- An electrical line;
- Three horizontal steel pipes;
- A 1.5 inch diameter steel pipe located just north of the former pump island, which was protruding about 2 feet above the ground surface. This pipe could not be traced in the subsurface, which suggests that it may have been cut near the location of the former pump island; and
- A triangular shaped metallic anomaly located approximately 10 feet west of the former pump island.

Because the interior of the oil change building was not accessible it could not be determined whether the two steel pipes found on the eastern side of this building extended into it. Also, although the metallic anomaly is not rectangular shaped like an underground storage tank (UST), additional investigation would be required to further evaluate this feature. Therefore, to further assess the site for the presence of subsurface features, PES recommended performing a supplemental geophysical survey of the two steel pipes, the metallic anomaly, and the interior of the oil change building using a combination of total field magnetic intensity, hand-held metal detection, and ground penetrating radar (GPR) methods. The results of the supplemental geophysical survey are discussed below.

SUPPLEMENTAL GEOPHYSICAL SURVEY

To evaluate the presence of subsurface features potentially located beneath the site, PES' subcontractor, JR Associates of San Jose, California, performed a geophysical survey on April 3, 2012. Survey activities were performed under PES' oversight. JR Associates performed the geophysical survey using a combination of the following instrumentation:

- A Radiodetection pipe and cable locator was used to look for buried utilities;
- A Geometrics Model 856 proton precession magnetometer was used to collect magnetic gradient data; and
- A SIR-3 GPR system was used to collect ground penetrating radar data.

Initially, JR Associates used the Radiodetection pipe and cable locator to trace out known or suspected utilities in the areas of interest. Following the use of this instrument, the magnetometer and GPR system were used to collect data in the: (1) accessible portion of the

Oil Change Building (see Plate 2 for portions of building that could not be accessed[2]); and (2) approximately 40 by 90 foot area shown on JR Associate's Total Field Magnetic Contour Map included in Appendix A, which included the areas where the two steel pipes on the eastern side of this building and the metallic anomaly were found during the initial geophysical survey. This 40 by 90 foot area was surveyed with these instruments on a series of traverses, which were oriented parallel to Brush Street. The magnetometer and GPR system traverses were spaced 5 and 7 feet apart, respectively.

The results of the geophysical survey are shown on Total Field Magnetic Contour Map (map) and GPR images included in Appendix A. As indicated on these figures, the survey located the following features:

- Two pipelines on the eastern side of the Oil Change Building, both of which extended into it. The southernmost line is interpreted to be water and the second line is interpreted to be electrical (note that that the electrical line runs toward the building from a power pole near Brush Street). As shown on the map in Appendix A, the water line makes a 90 degree turn near the property boundary to the north in a sub-parallel direction to Brush Street;

- An electric line that runs sub-parallel to Brush Street;

- Two tank vent pipes near the former fuel island; and

- A metallic anomaly located in the same location as the metallic anomaly found during the initial geophysical survey. As shown on the GPR images included in Appendix A, the metallic anomaly appears to be a near surface feature. JR Associates indicated that the metallic anomaly is very shallow and does not extend down vertically and does not appear to be a UST-related feature.

CONCLUSIONS AND RECOMMENDATIONS

The results of the supplemental geophysical survey do not suggest that a UST(s) or similar metallic feature is present beneath or in the vicinity of the irregularly-shaped metallic anomaly found during both geophysical investigations. Based on the results of the supplemental geophysical survey, JR Associates indicated that the metallic anomaly is very shallow and does not extend vertically significantly beyond the ground surface. In addition, the results of this investigation do not suggest that a UST or similar metallic feature is present beneath the building. The two lines eastern side of the Oil Change Building, both of which extended

[2] Portions of the building that could not be accessed were either being used for storage or partitioned off with secured, plywood structures.

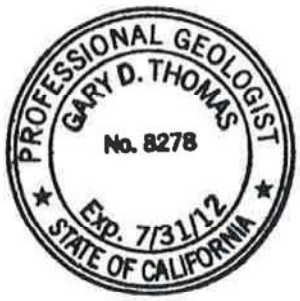
into it, were interpreted by JR Associates to be water and electrical lines. In additio no evidence such as vent pipes or other piping potentially associated with former US was found within accessible portions of the building or in the vicinity of this building during the supplemental geophysical survey.

Based on the results of the supplemental geophysical survey, no addition work is recommended.

We trust this report satisfies the EBALDC's requirements at this time. Please contac (415) 899-1600 with any questions.

Very truly yours,

PES ENVIRONMENTAL, INC

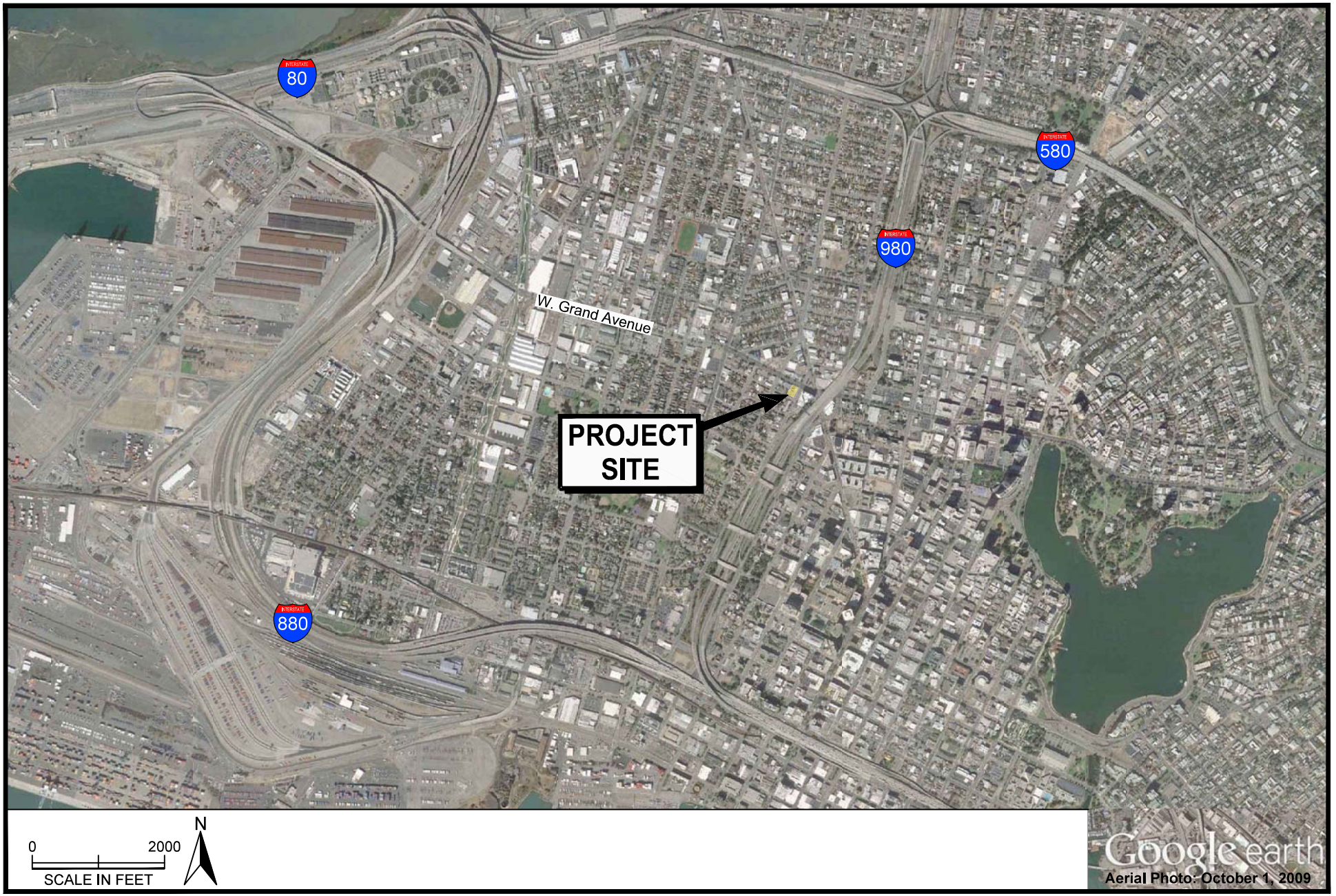


Gary D. Thomas, P.G. 8278
Senior Geologist

Kyle S. Flory, P.G. 6472
Principal Geologist

Attachments: Plate 1 – Site Location Map
Plate 2 – Site Plan
Appendix A – JR Associate's Total Field Magnetic Contour Map and Ground Penetrating Radar Results

PLATES

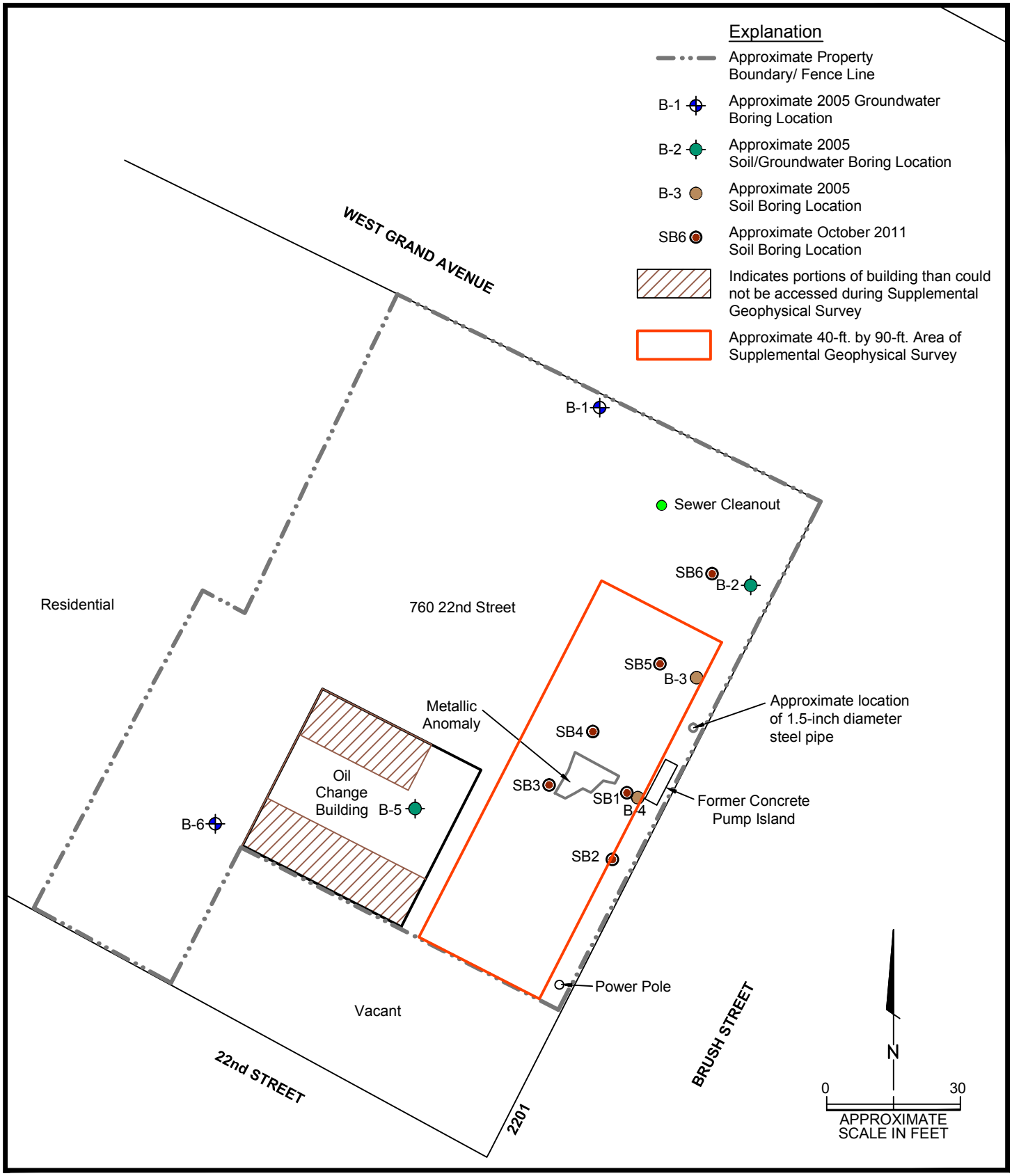


PES Environmental, Inc.
Engineering & Environmental Services

Site Location Map
Supplemental Geophysical Survey Report
760 22nd Street
Oakland, California

PLATE
1

1284.001.02.005	128400102005_1	GDT	6/12
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

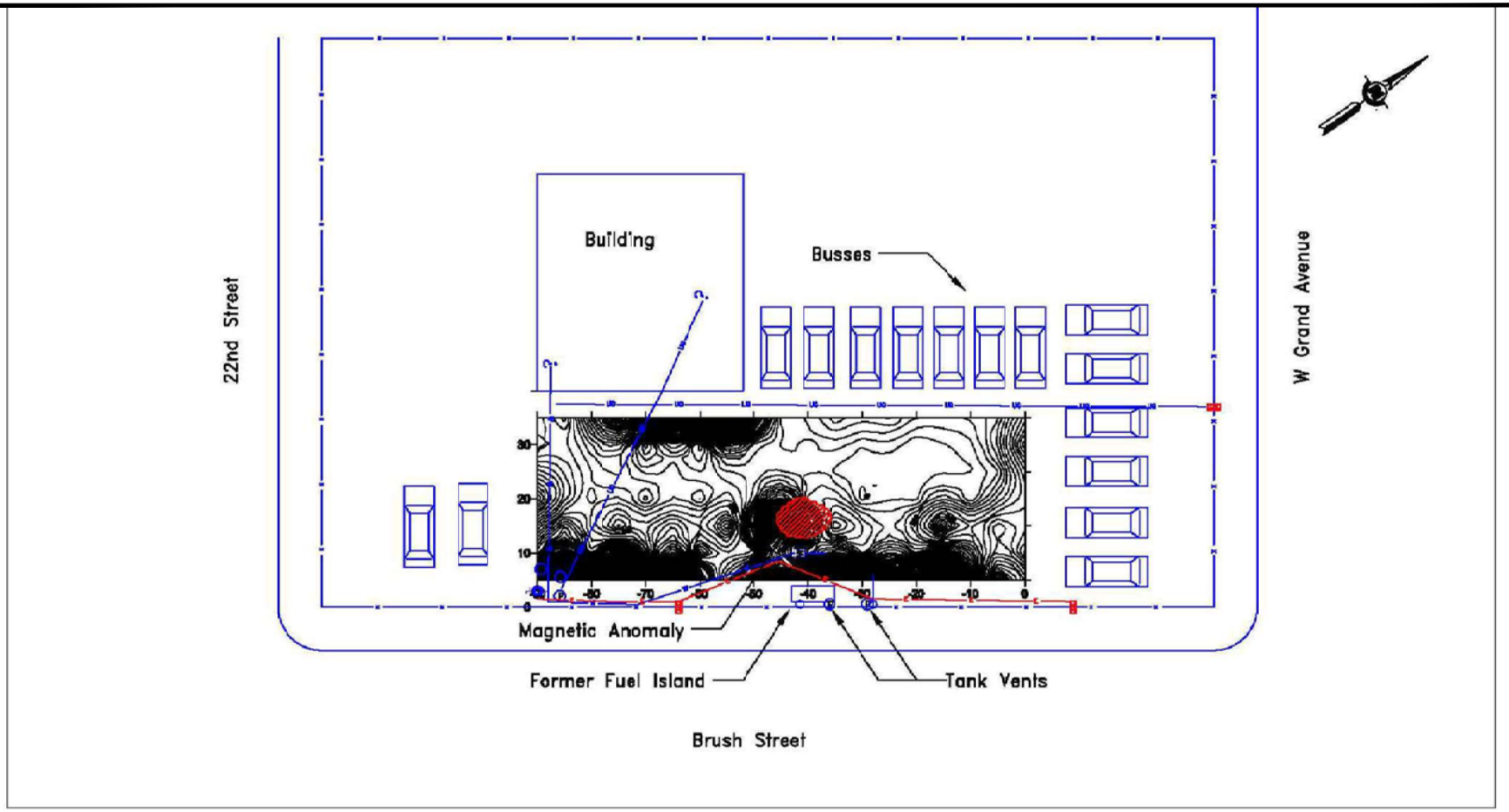
Site Plan
Supplemental Geophysical Survey Report
760 22nd Street
Oakland, California

PLATE
2

1284.001.02.005	128400102005_2	GDT	6/12
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX A

JR ASSOCIATE'S TOTAL FIELD MAGNETIC CONTOUR MAP AND GROUND PENETRATING RADAR RESULTS



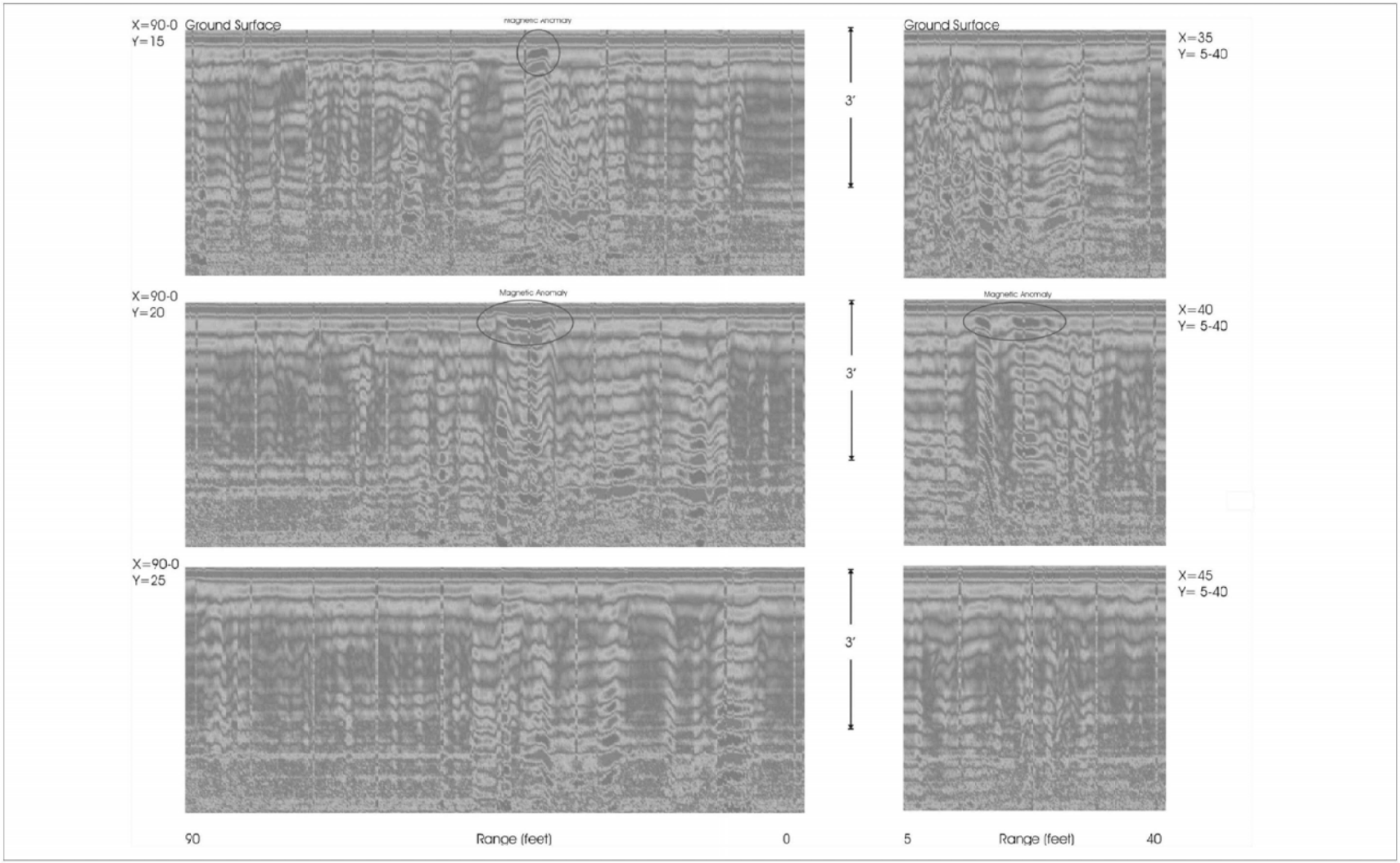
50 nT/m Contour Interval

EXPLANATION:

- UG — BURIED PIPE
- E — BURIED ELECTRIC
- W — BURIED WATER
- POWER POLE
- VENT OR POST
- ELECTRICAL OUTLET
- VEHICLE

NOTE: THIS DRAWING SHOWS THE APPROXIMATE LOCATIONS OF UTILITIES FOUND DURING OUR INVESTIGATION. THERE MAY BE ADDITIONAL UTILITIES AND PIPES THAT WERE NOT DETECTED DURING OUR INVESTIGATION AND ARE NOT SHOWN ON THIS DRAWING.

J R Associates Civil and Environmental Geophysics
1886 Emory Street, San Jose, CA (408) 293-7390



GPR Images

J R Associates Civil and Environmental Geophysics
1886 Emory Street, San Jose, CA (408) 293-7390