Subsurface Consultants, Inc.

Consulting Engineers

FAX TRANSMISSION COVER SHEET

To: ACHCSA Receiver's Fax: 337-9335

Attention: Eva Chu

From: Tom Echols ☐ ***RUSH!*** Please Deliver Immediately

Date: 2/8/95 Pages Transmitted: 6

Project: 740.003 Subject: Work plan

☐ For Your Review and Comment ☒ As Requested

☒ Original Will Be Mailed ☐ Please Return an Executed Copy

☐ For Your Information ☐ _____

Copies have also been sent to: _____

Remarks: Work plan for 1345-1375 Grand Ave. in Piedmont. Drilling is scheduled for 2/23. Please call if you have any questions.

Tom Echols

Subsurface Consultants, Inc.
171 - 12th Street, Suite 201
Oakland, California 94607
510-268-0461 **FAX 510-268-0137**

see if there are rights nearby for GW flow direction

per Tom Echols, it is believed GW flow to south

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

February 8, 1995
SCI 740.003

Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94501

Work Plan
Groundwater Contamination Assessment
1345-1375 Grand Avenue
Piedmont, California

Dear Ms Chu:

Subsurface Consultants, Inc. (SCI) is pleased to present this work plan to conduct a groundwater contamination assessment for the referenced site. We understand that eight (8) underground tanks were removed from five (5) separate excavations in June 1986. Analytical test results indicated that total petroleum hydrocarbons quantified as waste oil was present in soil samples from one excavation and gasoline range contaminants were present in water within another excavation.

Proposed Scope of Services

The Alameda County Health Care Services Agency (ACHCSA) is requiring that additional investigation be performed in accordance with a proposed scope of services as outlined in a letter dated July 15, 1993 from the Alameda County District Attorney's Office. In this regard, SCI proposes to perform the following tasks:

Task 1 - Prepare a Work Plan which addresses proposed site activities.

Task 2 - Evaluate impacts to groundwater.

Task 3 - Prepare a report of field activities.

Details of each task are summarized below.

Task 1 - Prepare a Work Plan

SCI has prepared this work plan as required by the ACHCSA which addresses the scope of services presented herein. The Plan describes field investigation protocols, soil and groundwater sampling methods, and the analytical testing program.

Task 2 - Evaluate Impacts to Groundwater

Three temporary groundwater monitoring wells will be installed at the site to facilitate the collection of groundwater samples and to obtain groundwater level measurements. One well will be situated at the location of the former waste oil tank near the southwest corner of the site, the second well will be situated at the location of the former gasoline storage tank near the northeast corner of the site, and the third well will be situated along Grand Avenue to establish the local groundwater flow direction and gradient. Figure 1 shows the approximate locations of the proposed wells relative to existing and former site features.

The temporary wells will be constructed in test borings advanced using a hydraulically-driven sampling system to reduce the quantity of soil cuttings requiring disposal. Soil samples will be retained in 1.5-inch-diameter stainless steel tubes. SCI's field engineer/geologist will observe drilling operations and prepare logs of the soils encountered. An organic vapor meter will be used to check soil at each sampling interval for volatile organic vapors. Teflon sheeting will be placed over the ends of the soil samples and the liners will be capped and sealed. Soil samples will be labeled and placed in an ice chest and will remain under refrigeration until delivery to the analytical laboratory. Sample handling will be reported using Chain-of-Custody documents.

The wells will consist of a 1-inch-diameter Schedule 40 PVC well casing. The lower portion of each well will consist of machine-slotted well screen. The upper portion will consist of blank casing. The well will be developed and sampled using a disposable, precleaned bailer. Approximately three well volumes of water will be removed prior to sampling. The water sample will be placed in appropriate containers supplied by the laboratory and will be kept refrigerated until delivery to the laboratory.

Drilling and sampling equipment will be steam cleaned prior to each use. Steam cleaning water, soil cuttings and purge water generated during drilling will be left on site in a 55 gallon drum for later disposal by others. SCI will consult with you regarding appropriate disposal alternatives once the results of the analytical testing program have been reviewed. Additional analytical tests may be required beyond those discussed herein.

Selected soil and groundwater samples will be submitted to a State of California Department of Health Services certified analytical laboratory for testing. Sample handling will be recorded using Chain-of-Custody documents. For estimating purposes, SCI has assumed that one groundwater and one soil sample from each boring will be submitted for analyses. The testing program will include the following for the samples from the boring at the location of the former waste oil tank:

1. Total Volatile Hydrocarbons (TVH) as gasoline (EPA 5030/8015),

2. Total Extractable Hydrocarbons (TEH) as diesel and as motor oil (EPA 3550/8015),

3. Volatile organics (EPA 8240), and

4. Waste Oil Metals (Cd, Cr, Pb, Zn, Ni).

Samples will be put on hold at the laboratory pending analytical results. If TEH or waste oil metals are detected in either sample, the sample will be analyzed for semi-volatile organic chemicals (EPA 8270).

The testing program for the samples from the other two borings will include:

1. Total petroleum hydrocarbons (TVH) as gasoline (EPA 5030/8015), and

2. Benzene, toluene, ethylbenzene and xylenes (BTXE) (EPA 8020).

After well installation, SCI will perform a level survey of the tops of the casings using an assumed elevation datum. SCI will periodically measure the groundwater level in the wells and based on the data, will evaluate the direction and gradient of groundwater flow at the site.

Task 3 - <u>Report of Field Activities</u>

Based on the results of the study SCI will develop conclusions and recommendations regarding:

1. Subsurface conditions;

2. Groundwater gradient and flow direction;

3. The presence of contaminants in the samples tested;

4. The significance of contaminant levels with respect to local and state criteria; and

5. The scope of future investigation, if necessary.

Drilling is tentatively scheduled for February 23, 1995. SCI will submit the conclusions and recommendations in a written report approximately 4 weeks after completion of field activities. The report will include boring logs, analytical test data, and Chain-of-Custody documents.

If you have questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

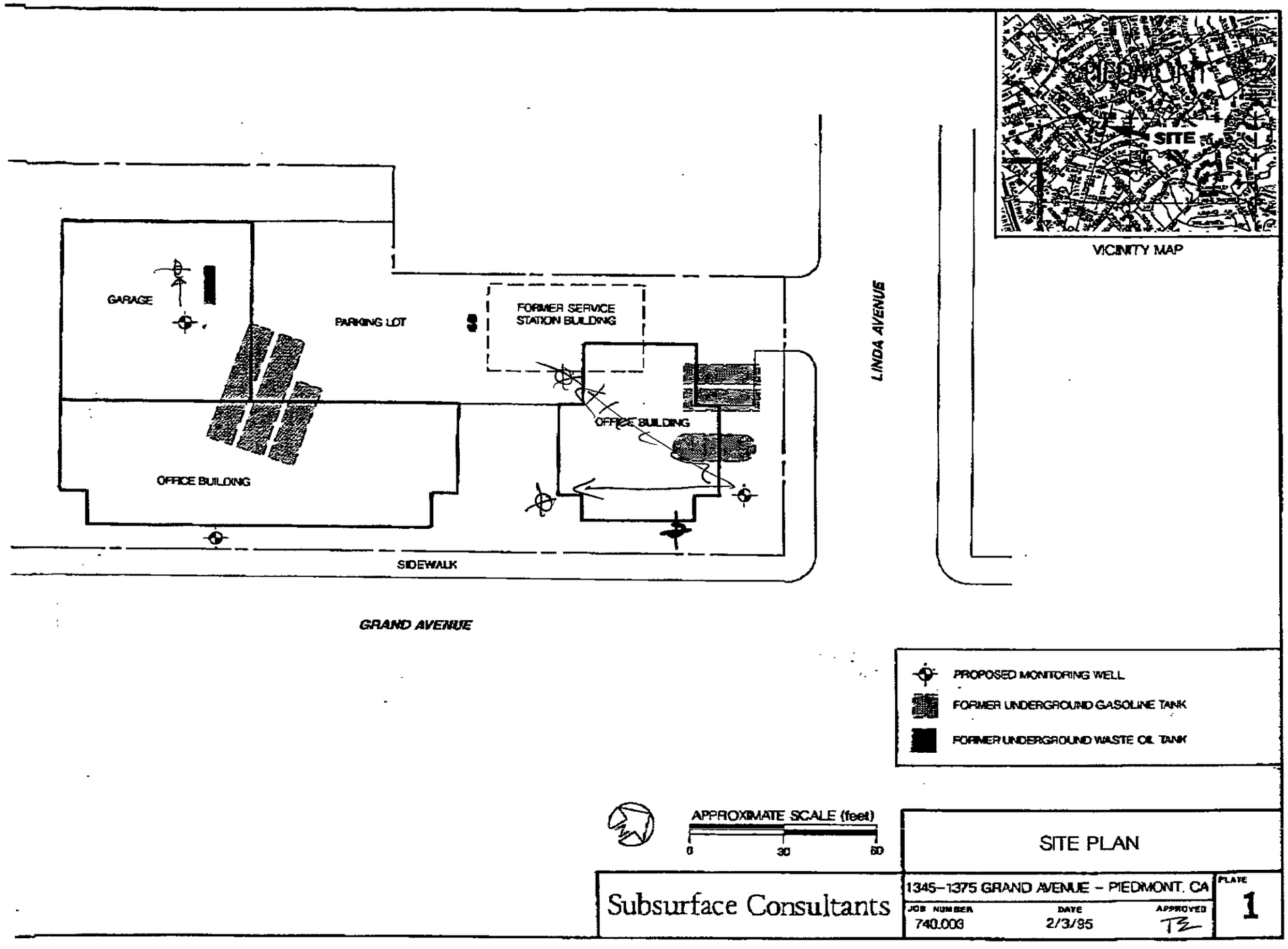
Thomas J. Echols, RG
Associate

TJE:RWR:sld

Attachments: Plate 1

1 copy submitted

cc: Mr. Patrick Ellwood



SITE PLAN

Subsurface Consultants

1345–1375 GRAND AVENUE – PIEDMONT, CA

JOB NUMBER	DATE	APPROVED
740.003	2/3/95	TE

PLATE 1