



**KAPREALIAN ENGINEERING, INC.**  
**Consulting Engineers**

P.O. BOX 996 • BENICIA, CA 94510  
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581

**RECEIVED**

2:39 pm, Apr 23, 2009

Alameda County  
Environmental Health

February 9, 1990

Mr. James Chu  
Alameda County Public Works  
399 Elmhurst Street  
Hayward, CA 94544

RE: Application for Encroachment Permit  
Castro Valley Blvd. & Strobridge Avenue  
Adjacent to Unocal Service Station #3072  
2445 Castro Valley Blvd.  
Castro Valley, California

Dear Mr. Chu:

At your request, we have prepared this letter describing our proposed work at the subject site. We have enclosed a portion of our Work Plan submitted to the Alameda County Health Care Services dated January 8, 1990, including a copy of the Location Map and Site Plan.

Due to the presence of known soil and ground water contamination at the subject service station, and at the request of the Alameda County Health Care Services (contact Mr. Scott Seery at (415) 271-4320) Kaprealian Engineering, Inc. (KEI) has proposed to install eight exploratory borings to further evaluate the extent of any soil and/or ground water contamination. Two soil borings (EB7 and EB8) are proposed to be drilled on Castro Valley Blvd., one soil boring (EB5) is proposed to be drilled on Strobridge Avenue, and one soil boring (EB6) is proposed to be drilled at the intersection of Strobridge Avenue and Castro Valley Blvd.

We understand that both Castro Valley Blvd. and Strobridge Avenue are under joint jurisdiction of Alameda County and the California Department of Transportation (CalTrans). KEI is in the process of filing for an encroachment permit with CalTrans at this time. Also, we understand that if an encroachment permit is issued for the proposed work, severe time limitations may be imposed and that drilling activities may be limited to the time period

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Alameda County Public Works

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between 10:00 a.m. and 3:00 p.m. due to heavy vehicular traffic  
in this area.

Should you have any questions regarding this matter, please do  
not hesitate to call me at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.



Don R. Braun  
Certified Engineering Geologist

License No. 1310  
Exp. Date 6/30/90

DRB:jad\JC

Enc.

cc: Tim Ross, Unocal Corporation ✓  
Scott Seery, Alameda County Health Care Services

## WORK PLAN FOR EXPLORATORY BORINGS

### II. SITE DESCRIPTION

#### A. Vicinity Description and Hydrogeologic Setting

The subject site is developed and contains a Union 76 Service Station and auto care facility. The former underground tanks at the station have been recently removed resulting in a relatively large excavation.

The site is located adjacent to and south of Castro Valley Blvd. and west of Strobridge Avenue in Castro Valley, California. In addition, the site is located approximately 400 feet north of Highway 580.

The immediate vicinity of the subject property is generally developed with commercial facilities.

The hydrogeologic setting of the site is anticipated to be complex due to the close proximity of the Hayward and East Chabot Faults, which typically can form ground water barriers. The depth to ground water, based on standing water level in the tank pit, is approximately 13 feet below grade. However, the depth to water in the existing monitoring wells at the site is about 9 to 9-1/2 feet below grade. Ground water gradient is approximately .023, and direction of flow at the service station is approximately due south.

#### B. & C. Vicinity Map

A Site Location Map and Site Plan, Figure 4 are attached to this work plan. No wells are known to KEI to be located on or near the site, except for three monitoring wells installed on-site in January, 1990.

### III. PLAN FOR DETERMINING EXTENT OF SOIL CONTAMINATION ON-SITE AND ADJACENT AREAS

- B. 2. KEI proposes the installation of soil borings to determine the extent of soil contamination.
  - a. The locations of eight exploratory soil borings, designated as EB1 through EB8, are shown on the attached Site Plan, Figure 4.
  - b. The soil borings will be extended until ground water or auger refusal is encountered, whichever occurs first.

c. & d.

The soil borings will be drilled using a truck mounted hollow stem auger drill rig.

Soil samples will be collected at 5 foot intervals, changes in lithology, and obvious areas of contamination, beginning at a depth of 5 feet. Sampling will continue until the first water table is encountered. Classification of soil will be done using the Unified Soil Classification System (USCS) by KEI's field engineer or geologist. Samples will be collected in a California modified split-spoon sampler with two-inch diameter brass liners. The sampler will be advanced ahead of the drilling augers at designated depths by dropping a 140 pound hammer 30 inches. Blow counts will be recorded. The samples will be removed from the sampler, retained in the brass liners, and sealed with aluminum foil, plastic caps and tape. They will be labeled and stored in a cooler on ice for delivery to a state certified laboratory.

California modified split-spoon samplers and brass tubes will be decontaminated prior to each use with a trisodium phosphate solution wash followed by a clean water rinse. Hollow stem augers will be steam cleaned prior to each use. Steam cleaning will be performed on visqueen. Water from the steam cleaning will be contained on the visqueen and placed in DOT-approved 55-gallon drums, pending appropriate disposal.

e. Soil borings will be filled to the surface using a neat cement grout.

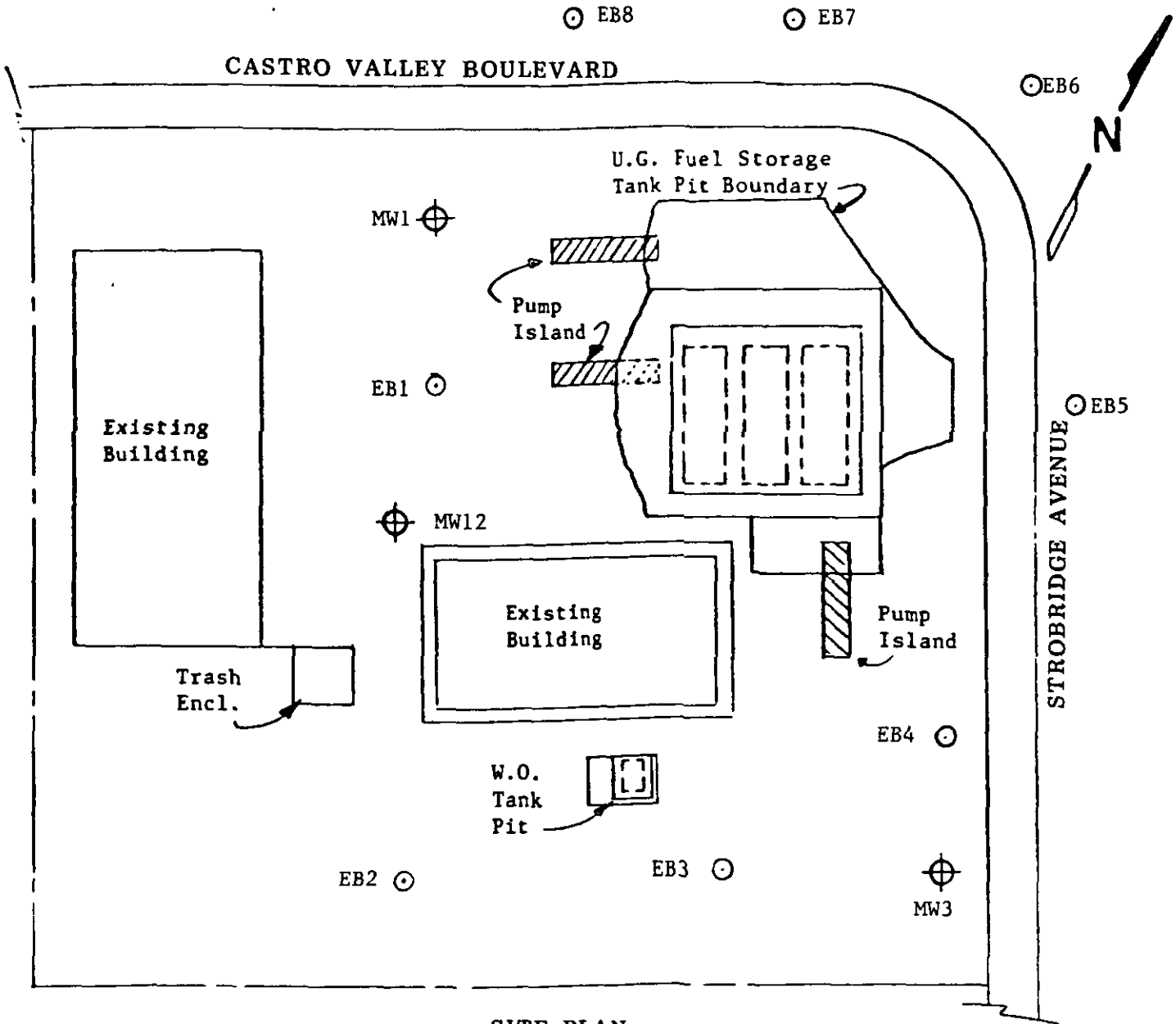
C. Soil excavated during subsurface investigation will be collected in DOT-approved 17H drums, and stockpiled and covered with visqueen on-site at the Unocal Service Station. All soil from the drilling operations will be removed from Castro Valley Blvd. and Strobridge Avenue prior to termination of drilling activities each day. Composite samples will be collected to determine appropriate disposal.



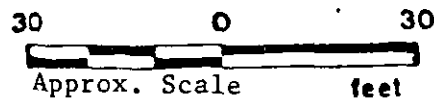
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**SITE PLAN**  
Figure 4



### LEGEND

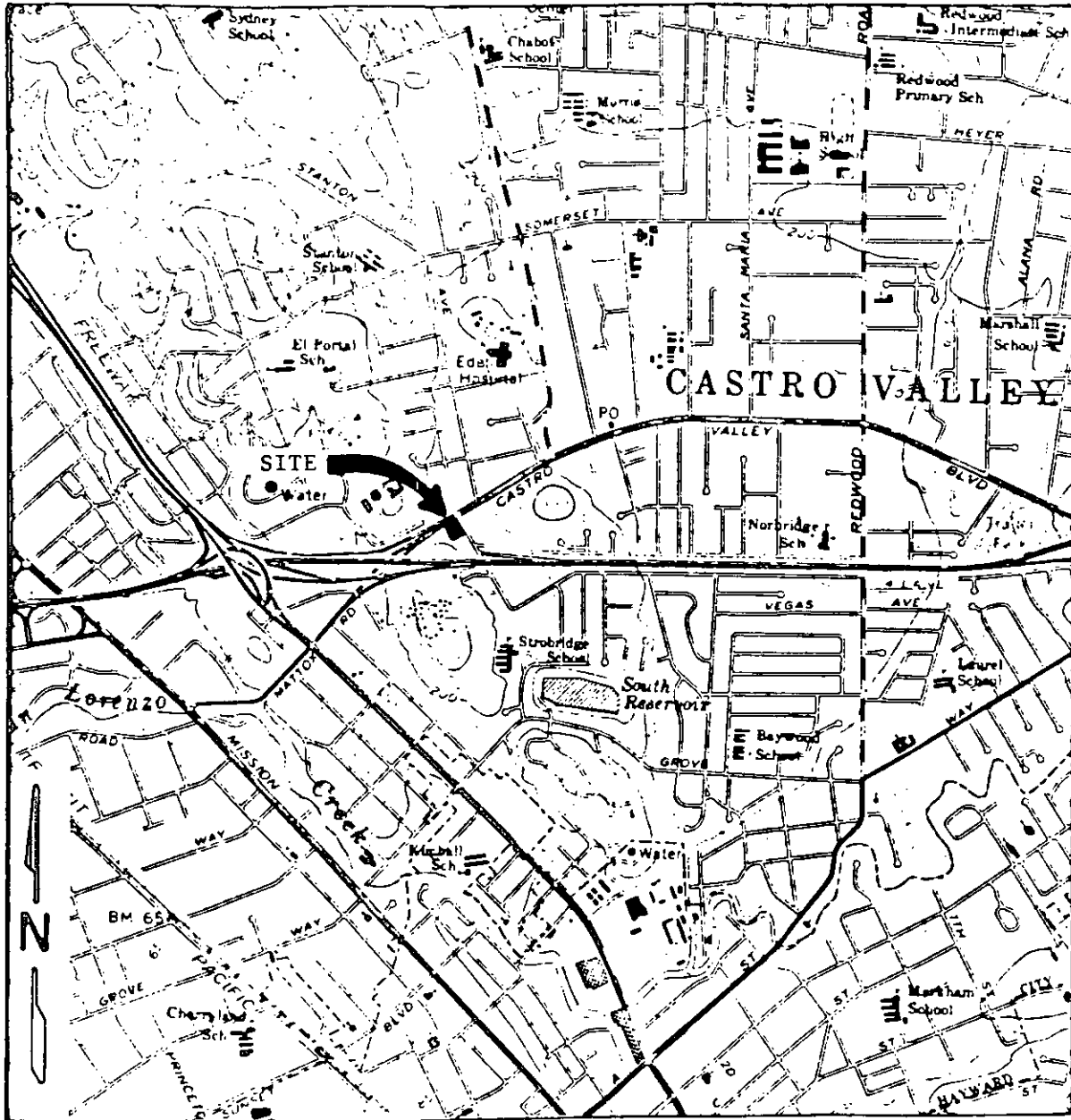
- Proposed Soil Boring
- ⊕ Existing Monitoring Well

Unocal S/S #3072  
2445 Castro Valley Blvd.  
Castro Valley, CA



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LOCATION MAP

Unocal Service Station #3072  
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Castro Valley, California