ENSR

ENSR Consulting
and Engineering
1320 Harbor Bay Parkway
Alameda, CA 94501
(510) 865-1888
(510) 748-6799 FAX

Eva.
I talked about this project a few days ago. I will not have this inside the folder. I have already approved this. Ravi

SHD # 4101

February 21, 1992

Mr. Ravi Arulanantham
Alameda County Health Agency
Division of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Subject: Request for Approval of Workplan for Excavation of Contaminated Soil at Ballena Isle Marina, Alameda. 94501
1100 Ballena Blvd

Dear Mr. Arulanantham:

ENSR Consulting and Engineering is requesting approval from the Division of Environmental Health to proceed with the excavation of contaminated soil at the Ballena Isle Marina. ENSR has been retained by Ballena Isle Marina to assist with the general cleanup requirements as specified by the Alameda County Health Care Services Agency, Department of Environmental Health. Ballena Isle Marina is located at 1150 Ballena Boulevard in Alameda, California (Figure 1). The site contact is Mr. Jerry Green, dockmaster at Ballena Isle Marina.

A 250-gallon underground tank was excavated and removed from this site in 1991 by the owner (Figure 2). The tank was used to temporarily store waste oil from the engines of the boats that are docked at the marina. Analysis of soil samples collected during the tank removal revealed the presence of diesel, gasoline, xylene, ethylbenzene, toluene, and oil & grease, as well as chromium, lead, nickel, and zinc in the soil. Attached is our scope of work which describes our basic approach to investigate the extent of contaminated soil. Presently, the site of investigation consists of an open pit in a secured area. The pit is approximately 6 feet deep, and 6 to 7 feet in diameter. There is no groundwater in the bottom of the pit.

The two soil samples that will be collected will be analyzed for the following:

TPH (gasoline)	EPA Method 8015
TPH (diesel)	EPA Method 8015
Total Oil & Grease	EPA Method SMWW 5520
Volatile Organic Compounds	EPA Method 8240
Metals:	
Cadmium	
Chromium	
Lead	
Nickel	
Zinc	

ENSR

Excavation of soil will be accomplish with a backhoe. Soil samples will be collected from the bucket of the backhoe. The samples will be collected with thin-walled brass tubes. The tube ends will be capped with aluminum foil followed by plastic end caps. The end caps will be sealed with tape to ensure air-tightness. Soil samples for metals analysis will be collected with stainless steel hand trowels and placed into glass jars with screw-on lids.

Also attached is a site safety plan. The excavated soil will be stockpiled at the site. The stockpile will be placed on visquine sheets and covered by visquine while awaiting the laboratory results.

ENSR would like to proceed as soon as possible in as much as Ballena Isle Marina would like to install a new aboveground waste oil tank in the same location (as the pit area) as soon as possible.

We will call you within the week to seek approval of this workplan. If you have any questions or comments, please give me a call at (510) 865-1888.

Very truly yours,
ENSR Consulting and Engineering

Brian Ho
Project Geologist

Attachments

ENSR

Ballena Isle Marina
Scope of Work

- ENSR will provide a geologist to supervise the excavation of contaminated soils. The project will be supervised by a California-certified engineering geologist.

- The excavated soil will be monitored for volatile organic compounds (VOCs) using an HNu Photoionization Detector. When visually contaminated soil is no longer encountered, and the HNu readings of the residual soil approaches background levels, excavation will cease and 2 soil samples will be collected - one from the bottom of the excavation, and one from the side wall. The samples will be analyzed by a certified laboratory to verify that the contaminated soil has been removed both vertically and laterally.

- The soil samples will be placed in a cooled ice chest, and transported to a California-certified laboratory for analysis under chain-of-custody protocol. The samples will be analyzed as required by the Tri Regional Board Staff Recommendations (Regional Water Quality Control Board).

- If groundwater is encountered before the clean limits are met, excavation will cease. The need to evaluate the groundwater quality will be discussed with the Alameda County Department of Environmental Health after the results of the soil samples are obtained.

REFERENCE: USGS 7.5 MINUTE SERIES
OAKLAND WEST QUADRANGLE

CONTOUR INTERVAL: 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
PHOTOREVISED 1980

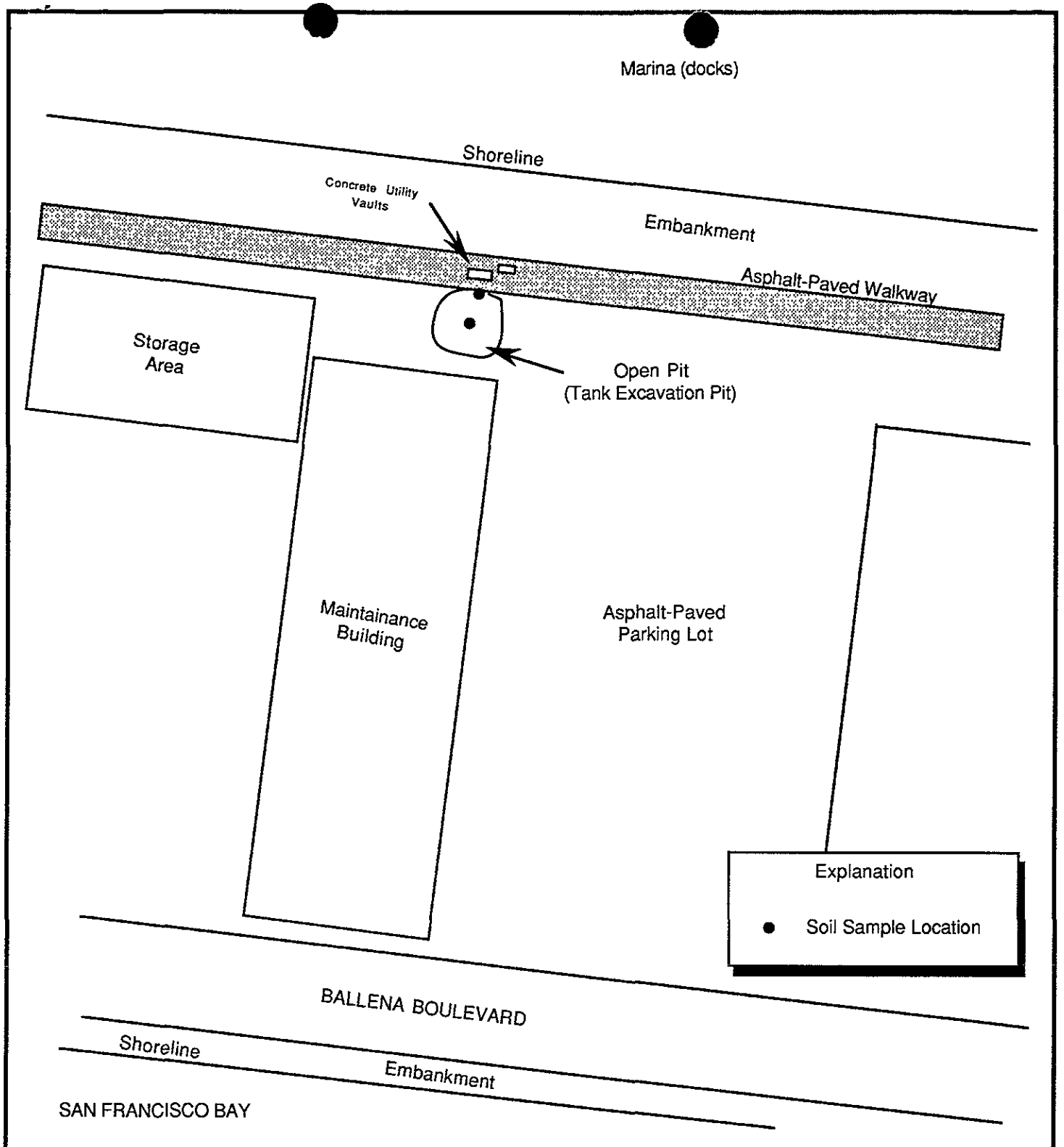
0 2000 Feet
Scale

N

ENSR

SITE LOCATION MAP
BALLENA ISLE MARINA
1150BALLENA BOULEVARD, ALAMEDA, CALIFORNIA

DRAWN BY: BRIAN HO	DATE: 2/19/92	PROJECT NO.
CHK BY:	REVISED:	FIGURE NO.: 1



Not to Scale

N

ENSR

SITE PLAN
BALLENA ISLE MARINA
1150 BALLENA BOULEVARD, ALAMEDA, CALIFORNIA

DRAWN BY: BRIAN HO	DATE: 2/19/92	PROJECT NO.
CH'K BY:	REVISED:	FIGURE NO.: 2