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4 September 1992
Project 1736.12

Mr. Kevin Tinsley
Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Subject: Stockpiled Soil Relocation Work Plan
Parcel H
Marina Village Development
Alameda, California

Dear Mr. Tinsley:

On behalf of Alameda Real Estate Investments (AREI), Geomatrix Consultants, Inc. (Geomatrix), has prepared for your review the subject work plan to relocate about 9,000 cubic yards of petroleum hydrocarbon-containing soil stockpiled at Parcel H within the Marina Village Development in Alameda, California (Figure 1). AREI plans to relocate the stockpiled soil to Parcel C, located at the northwest corner of Marina Village as shown on Figure 2, so that Parcel H can be prepared for construction and development by October of this year.

In a meeting with you and Mr. Lester Feldman of the Regional Water Quality Control Board (RWQCB) on 19 May 1992, Mr. Feldman verbally approved relocation of the stockpile to Parcel C provided that the stockpile be protected against soil erosion into the nearby Oakland Inner Harbor. The following plan describes present site conditions, describes procedures for preparing Parcel C and transporting the soil from Parcel H to Parcel C, presents our proposed design of a soil storage area at Parcel C, and recommends erosion control measures for the stockpile.

EXISTING SITE CONDITIONS

Parcel H

2 tank removals
Toluene .013 .018 ppm

As described in our letter to you dated 13 May 1992 providing background information on soil conditions at Parcel H, about 5,000 cubic yards of soil containing petroleum hydrocarbons are presently stockpiled on Parcel H. The stockpile was generated in 1988 during removal of soil containing weathered petroleum hydrocarbons, mostly heavy diesel fuels, from a nearby site. Additionally, original fill soil at the parcel was found to contain asphalt-like petroleum hydrocarbons. The diesel-containing stockpile and some of the original fill material has been used to surcharge a portion of Parcel H in preparation for proposed development. To reach final grades of the proposed development, it is planned to remove the 5,000 cubic yards of diesel-containing soil and 4,000 cubic yards of asphalt-containing soil from the parcel and store it on Parcel C.

Parcel C = Parcel 5 = Northwest Area

GEOMATRIX

Parcel C

Parcel C is a vacant lot at the northwest corner of the Marina Village Development adjacent to the Oakland Inner Harbor; Figure 2 shows the layout of Parcel C. Environmental investigations performed by Levine-Fricke, Inc., in 1988 and 1989 identified the presence of petroleum hydrocarbons in near-surface soil beneath Parcel C, as reported in their 1988 and 1989 reports, entitled "Investigation of Northwest Area, Marina Village, Alameda, California" and "Continued Soil and Groundwater Investigation of Parcel 5, Marina Village, Alameda, California," respectively. The reports were submitted to ACHCSA in 1988 and 1989. Because the near-surface soil contains significantly higher concentrations of petroleum hydrocarbons than the soil to be relocated from Parcel H, it is our understanding that the RWQCB will not require that the relocated soil be separated from the underlying soil by a physical barrier.

TRANSPORT AND SOIL STORAGE AREA CONSTRUCTION

AREI will retain O.C. Jones & Sons, a licensed earthwork contractor from Berkeley, California, to transport and stockpile the soil and perform site clearing and grading work. Geomatrix will provide oversight services to observe transport and placement activities.

Site Preparation

Surface vegetation will be stripped (except trees) and debris removed from the proposed storage pile area on Parcel C. The area will be lightly regraded to create a smooth, even surface before soil is placed.

Soil Transportation

The haul route between Parcels H and C will be along the backside of a parking lot adjacent to Parcel H and nearby railroad tracks, and along a 200-foot stretch of Marina Village Parkway, within Marina Village Development boundaries, as shown on Figures 1 and 2. The contractor will use 10-wheel end-dump trucks to transport the soil and an excavator and bulldozer to load and spread the soil. So that soil is not tracked onto the haul route, the contractor will sweep the loose dirt from all equipment, including tires, each time the equipment leaves either of the two sites during stockpile relocation activities. Dust control measures during loading and unloading activities will include spraying the soil with water, as needed.

SOIL STORAGE AREA DESIGN

Layout

The proposed layout of the soil storage area at Parcel C is shown on Figure 2. The soil storage area will parallel the Oakland Inner Harbor shoreline on one side as shown on Figure 2. Based on an estimated 9000 cubic yards of soil to be relocated, the height of the pile will be 3 to 5 feet. Side slopes of the soil pile will be 3:1 (three feet horizontal to one foot vertical). A "V"-shaped swale will be constructed at the base of the slopes along

the perimeter of the storage area to collect rain or surface water draining from the storage pile and route it to an existing storm drain near the southern corner of the storage area (Figure 2). Additionally, the top of the soil pile will be graded to a 1 percent slope away from the shoreline so that surface water runoff will flow into the swale along the southwest edge of the pile. A cross section of the proposed soil pile and drainage configuration is shown on Figure 3.

The toe of the soil pile will be at least 25 feet away from the top of the shoreline slope along the northeast perimeter. Along the southwest perimeter, the toe of the soil pile will be at least 15 feet from the parcel boundary to allow vehicle access.

Erosion Control Measures

Erosion of the soil pile will be controlled by several methods:

- grading the pile to direct surface-water runoff to an existing storm drain, as described above;
- compacting the side slopes to keep gullies from forming;
- hydroseeding the pile to create an erosion-resistant vegetative cover; and
- maintaining the integrity of the pile and erosion control mechanisms.

After the first rains of the season, the pile will be visually monitored and surface runoff will be observed to determine if sediment is being transported into the storm drain inlet. If sediment transport is observed, additional control measures, such as silt fencing, will be installed within the perimeter swale or along the pile sideslopes to resist further erosion. Visual monitoring of the erosion control mechanisms will be performed periodically thereafter.

If you have any questions regarding this plan, please call either of the undersigned at (415) 434-9400. We would appreciate your prompt review of this plan.

Sincerely,

GEOMATRIX CONSULTANTS, INC.

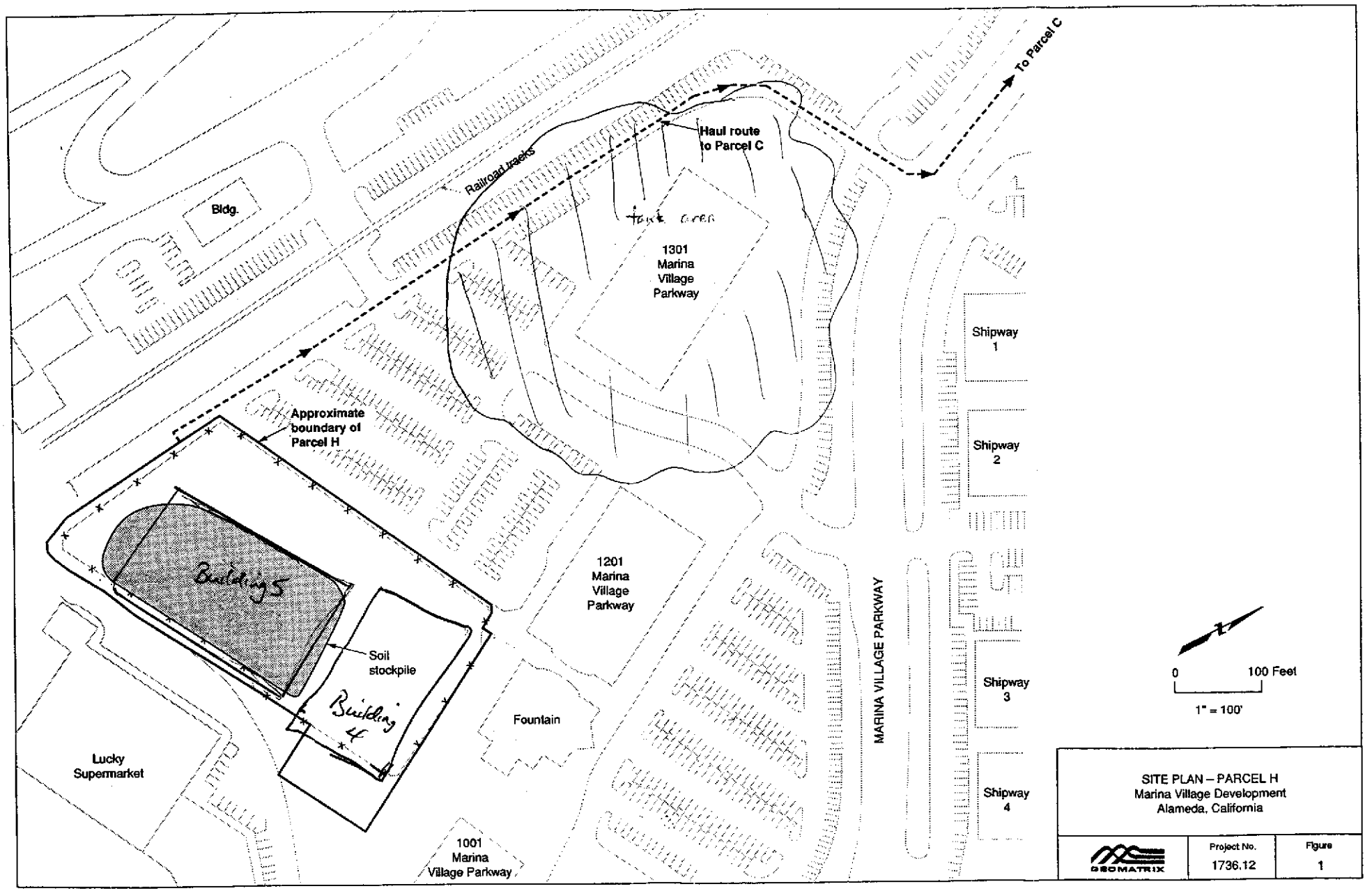
Steven H. Sanders, P.E.
Senior Staff Engineer

Elizabeth Nixon
Project Manager

EAN/SHS/slr
CONTR\1736TINS.LTR

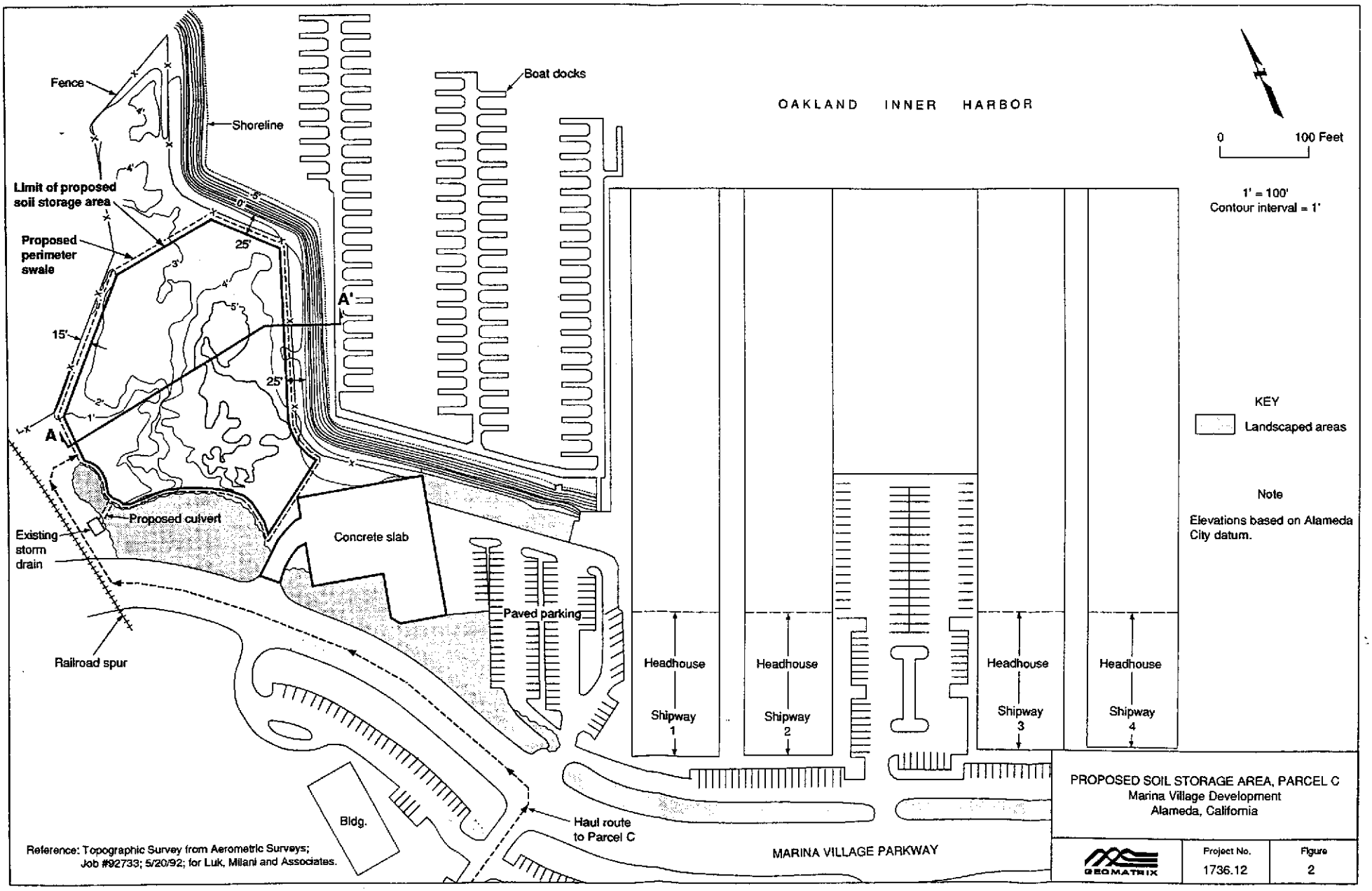
cc: Rahn Verhaeghe - AREI

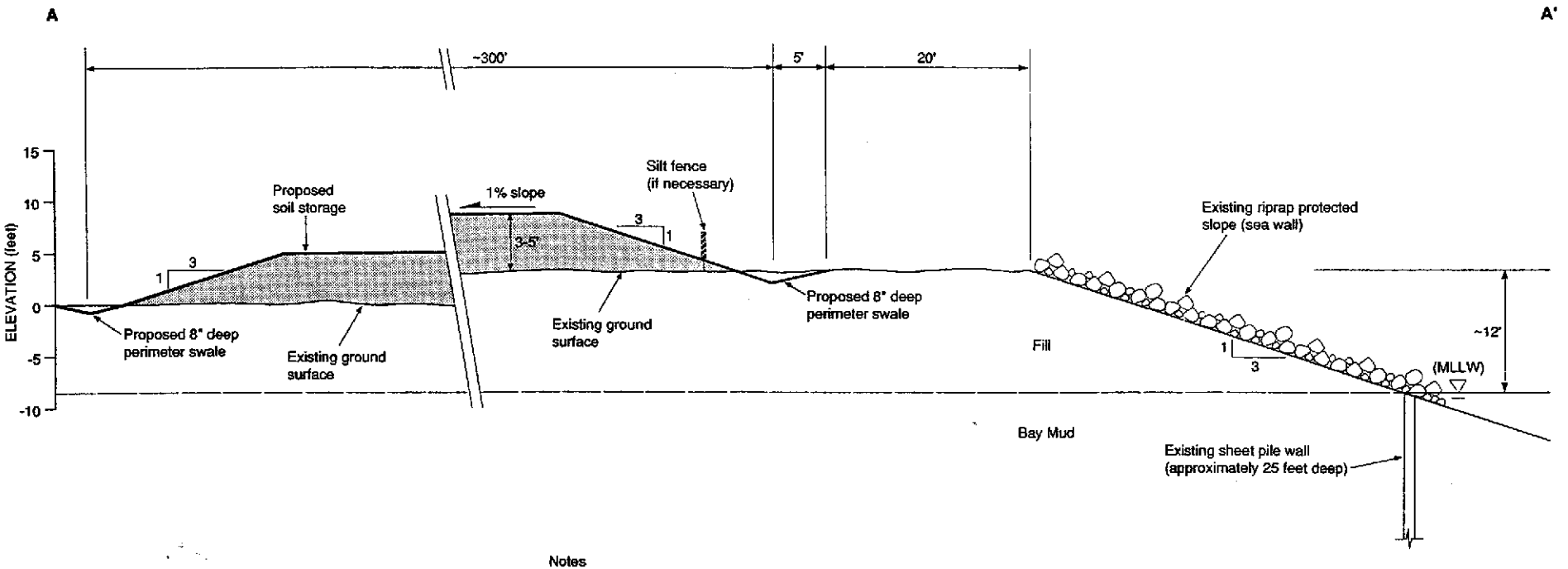
Attachments: Figures 1, 2, and 3



SITE PLAN – PARCEL H
Marina Village Development
Alameda, California

GEOMATRIX	Project No. 1736.12	Figure 1


Fence
Shoreline
Limit of proposed soil storage area
Proposed perimeter swale
Boat docks
OAKLAND INNER HARBOR
0
100 Feet
1' = 100'
Contour interval = 1'
A
A'
15'
25'
25'
4'
3'
2'
1'
0'
3'
4'
5'
Proposed culvert
Existing storm drain
Concrete slab
Paved parking
Railroad spur
Headhouse
Shipway 1
Headhouse
Shipway 2
Headhouse
Shipway 3
Headhouse
Shipway 4
KEY
Landscaped areas
Note
Elevations based on Alameda City datum.
Bldg.
Haul route to Parcel C
MARINA VILLAGE PARKWAY
Reference: Topographic Survey from Aerometric Surveys; Job #92733; 5/20/92; for Luk, Milani and Associates.
PROPOSED SOIL STORAGE AREA, PARCEL C
Marina Village Development
Alameda, California
GEOMATRIX
Project No.
1736.12
Figure
2



Notes

1. Surface elevations and distances referenced from topographic survey map, dated 20 May 1992 by Aerometric Surveys, for Luk, Milani and Associates.
2. Elevations based on Alameda City datum.
3. Sheet pile location and sea wall slope configuration adapted from the Aerometric Surveys topographic map and original proposed construction drawings provided by AREI.
4. Fill and Bay Mud interface is presented for illustrative purposes only and was interpolated from 26 June 1989 Levine-Fricke, Inc., report "Continued Soil and Groundwater Investigation, Parcel 5, Marina Village, Alameda, California."

0 10 Feet

1" = 10'

SECTION A - A'
Marina Village Development
Alameda, California

GEOMATRIX	Project No. 1736.12	Figure 3