



**U. S. Army Corps
of Engineers**

Honolulu District

Public Notice

Public Notice No.
POH-2004-1063

Date:
November 28, 2005

Reply to:
Regulatory Branch (CEPOH-EC-R)
U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440

Respond by:
December 28, 2005

POH-2004-1063

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
FOR MODIFICATION OF MANMADE DRAINAGE DITCH
AT KAPAKAHI STREAM,
HONOLULU, HAWAII**

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States, as described below and shown on the attached plans (Figures 1-6).

- 1. APPLICANT:** Suppa Corporation, 4950 Kahala Avenue, Honolulu, HI 96816
- 2. AGENT:** Mr. Raymond J. Suppa, 4950 Kahala Avenue, Honolulu, HI 96816
- 3. APPLICABLE STATUTORY AUTHORITY:** Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344)
- 4. LOCATION OF PROPOSED ACTIVITY:** The project site consists of a manmade drainage channel, or ditch, located in Kahala, Island of Oahu. The drainage ditch connects to Kapakahi Stream above Kahala Avenue, and both the stream and ditch are tidally influenced. The ditch, with an area of approximately 5,210 square feet (SF), comprises a portion of a 35,555 SF, multi-owner parcel (TMK 1-3-5-8: 27); the remainder of the parcel consists principally of a reach of Kapakahi Stream. The drainage ditch and stream both abut adjacent property owned by the applicant and located at 4950 Kahala Avenue, Honolulu, Hawaii (TMK 1-3-5-8: 41, 42).
- 5. BACKGROUND INFORMATION:** The drainage ditch is believed to have been constructed in 1926 at the time Kahala Avenue was extended from Isenberg Road (now Kealaolu Avenue) to what is now the beginning of the Waiālae County Club (WCC) parking lot. Information provided by the applicant indicates the original ditch was 15 feet wide and approximately 180 feet long, and had no retaining walls or lining so that subsequent tidal action caused erosion of its banks. Over time, the section closest to Kapakahi Stream eroded to over 40 feet in width, and eventually (probably during the 1950s) walls were constructed to prevent further erosion. At present, two storm drains discharge into the ditch: (1) an 18-inch RCP (reinforced concrete pipe) which connects to a catch basin in the WCC parking lot, with a small

drain line connecting to the catch basin from an unknown location, and (2) a 30-inch RCP which connects to storm drains in the private road portion of Kahala Avenue. An existing one-lane bridge provides access across the ditch from Kahala Avenue to the applicant's property near its WCC boundary.

6. PROJECT PURPOSE AND DESCRIPTION:

The purpose of the proposed project is to eliminate the accumulation of silt and debris in the manmade ditch, which creates a health and safety hazard because it builds up above the high water line and traps stagnant or polluted water and debris, providing a breeding ground for mosquitoes and rodents. The applicant proposes to reduce the width of the widest portion of the ditch to its original design in order to: (1) reduce backwash of silt and debris from the tidal actions into the manmade ditch and (2) enable regular maintenance clearing of the ditch from adjacent uplands. The applicant also proposes to construct a grouted rock bottom for the ditch and modify the area under the existing bridge to facilitate future cleaning. The proposed sequence of construction is as follows.

1. A temporary silt barrier wall approximately 3 feet wide and 40 feet long would be constructed across the opening of the ditch to isolate the work area from Kapakahi Stream. No excavation would be required. The temporary barrier would be constructed of filter fabric and approximately 18 cubic yards (CY) of blue rock (a type of basalt rock). As an alternative, a temporary row of sheet piles would be installed in lieu of the rock and filter fabric wall. The construction of the temporary barrier would be performed at low tide, when the work area is exposed.
2. A permanent CRM (concrete rubble masonry) wall approximately 140 feet in length would be constructed in order to reduce the width of wide portions of the ditch to 15 feet. The work would involve preparatory excavation of the substrate to a depth of 3 feet below mean sea level for construction of the 3-foot wide footing. The area of excavation would be 420 square feet (SF) and the volume of excavation would be approximately 47 CY; this material would be dewatered on adjacent uplands, with retention berms, and when dry would be disposed of at other upland sites. The CRM wall would consist of approximately 70 CY of blue rock and 14 CY of concrete. When the wall is complete, the area behind it (approximately 2000 SF) would be backfilled with approximately 88 CY of rock, soil and the material excavated for the footing of the wall.
3. Following construction and backfilling of the CRM wall, the remaining portion of the ditch would be cleaned. Silt, sediment and debris would be removed to a depth of approximately 2 feet below the high water line. The area to be dredged would be approximately 2,700 SF and the estimated volume of excavation would be approximately 300 CY; this material would be dewatered on adjacent uplands as described above at 2.
4. Following cleaning of the ditch, a grouted blue rock bottom would be constructed in the cleaned area. The lining would consist of approximately 100 CY of "one-man" sized rock and 20 CY of concrete.
5. A new 36-inch RCP, 16 feet in length, would be installed under the middle of the existing bridge, where maintenance cleaning is not presently feasible due to the clearance height and width of the bridge. This work would include excavation of approximately 5 CY from an area of 48 SF. After placement of the new RCP, the area

under the bridge would be filled in with approximately 3.5 CY of grouted rock. Installation of the larger diameter, 36-inch RCP under the bridge is intended to avoid constriction of any potential flows coming from the existing 30-inch RCP drain line (the second, 18-inch RCP storm drain outlet is located seaward of the bridge). The project would not obstruct the openings of the two existing drain lines which empty into the ditch.

6. The temporary silt barrier installed at the start of the project would be removed.

The applicant has considered the following alternatives to the proposed project.

1. Connect the two existing RCPs to a RCP Y-fitting and extend a new RCP to Kapakahi Stream, then backfill the ditch. Although this alternative appears to meet the applicant's stated purpose, it would involve discharging more fill into waters of the United States than the proposed project and would eliminate all open water area within the ditch.
2. Leave the ditch in its present configuration and perform regular maintenance clearing from the adjacent land areas. The applicant determined that this alternative is not feasible because of the logistics of the site; the large size of the equipment needed to reach across the ditch; the rapid buildup of debris and silt that is backwashed into the area by the eddy current created during the incoming tide due to the width of the ditch; the lack of a concrete or rock bottom to facilitate cleaning and water runoff; and the high cost associated with this alternative.

7. IMPACTS OF PROPOSED ACTIVITIES IF AUTHORIZED:

Construction activities within the ditch have the potential to cause temporary local increases in noise, dust, and turbidity. The applicant plans to install a temporary turbidity barrier at the connection to Kapakahi Stream in order to isolate the work area from the stream and coastal waters and to confine project-related turbidity to the project site. In order to prevent direct return flows from dewatering of dredged materials on adjacent upland areas, the applicant plans to construct temporary berms and silt screens between the material and the water. Dewatering activities can generate temporary local increases in dust, but with implementation of suitable control measures effects on air quality are expected to be minimal.

The completed project may have a positive long-term effect on water quality of the ditch and Kapakahi Stream by preventing the buildup of sediments, debris, and stagnant water in the ditch. The project may also help to insure that flows from the outlets of the existing RCP storm drains which open into the ditch remain unobstructed.

Sessile or slow-moving aquatic organisms occupying the project site may be destroyed or displaced during construction. Improved long-term water quality conditions within the lined ditch may enhance its biological community. New rock walls and rock linings may provide replacement benthic habitat for aquatic organisms.

The project would create permanent fast land in approximately 2,420 SF of the existing manmade ditch. It would also clear, and facilitate future maintenance clearing of, approximately 2,700 SF of the remaining water area of the ditch which has been effectively reduced over time due to sediment and debris buildup.

The project is intended to address conditions within the manmade ditch which appear to be related to the width of its opening into a tidally-influenced reach of Kapakahi Stream. The potential number of similar projects appears to be very limited and the proposed activity is not expected to have any significant cumulative impacts.

8. IMPACT ON HISTORIC PROPERTIES:

The Area of Potential Effect (APE) of the proposed activity consists of the areas to be excavated and filled for the project, and adjacent upland areas to be used for dewatering of dredged material. The Hawai'i and National Register of Historic Places does not list any historic properties within the APE for the undertaking.

Areas to be excavated and filled include the original ditch, which was approximately 15 feet wide and 180 feet long (2,700 SF), plus the additional area subsequently eroded by tidal action and now delimited by the existing walls which were constructed to stop the erosion (approximately 2,510 SF). Hence, the dredging and filling activities would occur in areas which have been extensively modified by previous work. The adjacent dewatering areas have also been previously modified. Based on the location and scope of the proposed work, it is likely that there are no historical properties which would be affected by the proposed undertaking.

This notice has been sent to the State Historic Preservation Officer and the Federal Secretary of the Interior for review. Any comments they have regarding historic properties and cultural resources will be considered before a final decision is made on the permit.

9. IMPACT ON ENDANGERED SPECIES:

Federally protected sea turtles and Hawaiian monk seals are known to be present in the coastal waters of Oahu; however, the project area is not known to be used by these species. Based on the location and nature of the proposed work, the project is not likely to affect these or other species, or any designated critical habitat, protected under the Endangered Species Act of 1973, as amended.

This notice has been sent to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service in accordance with Section 7 of the Endangered Species Act. Any comments they have concerning the proposed project's effects on listed species or designated critical habitat will be considered before a final decision is made on the permit.

10. IMPACT ON ESSENTIAL FISH HABITAT:

The project will not adversely affect any Essential Fish Habitat (EFH) identified pursuant to the Magnuson-Stevens Fishery and Management Act (MSFCMA). This notice has been sent to the National Marine Fisheries Service pursuant to coordination requirements of the MSFCMA. Any conservation recommendations they make concerning EFH will be considered before a final decision is made on the permit.

11. OTHER GOVERNMENT AUTHORIZATIONS/CERTIFICATIONS:

Prior to the issuance of a Department of Army (DA) permit for the proposed work, the applicant is required to obtain a Section 401 Water Quality Certification (or waiver thereof) from the State of Hawaii Department of Health, Clean Water Branch and a Hawaii Coastal Zone Management (CZM) Program consistency determination, waiver, or exemption from the State of Hawaii Office of Planning.

12. EVALUATION FACTORS:

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof: among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

13. COMMENTS AND INQUIRIES:

Interested parties may submit in writing any comments that they have on the proposed permit. Comments should be forwarded so as to reach this District no later than the response date indicated on the first page of this notice. Mailed comments should cite this notice and should be sent to: Regulatory Branch (CEPOH-EC-R/P. Galloway); U.S. Army Engineer District, Honolulu; Building 230; Fort Shafter, Hawaii 96858-5440. Alternatively, comments may be submitted via e-mail to CEPOH-EC-R@usace.army.mil or may be faxed to the following number: (808) 438-4060. If needed, further information concerning this notice may be obtained from Peter Galloway via telephone at (808) 438-8416. This notice is also available at the Honolulu District web site (www.poh.usace.army.mil).

Corps of Engineers regulations direct that, at the earliest practicable time, substantive comments will be furnished to the applicant for the applicant's information and any views the applicant may wish to offer. A summary of the comments, the actual letters or portions thereof, or representative comment letters may be furnished to the applicant. The Corps alone is responsible for reaching a decision on the merits of any application.

14. REQUEST FOR PUBLIC HEARING:

Any person may request, in writing, within 30 days from the date of this notice, that the U.S. Army Corps of Engineers, Honolulu District, hold a public hearing to consider this Department of the Army permit application. Requests for public hearing shall specifically state the reasons and rationale for wanting to hold a public hearing.

Attachments:

Figure 1. Location map

Figure 2. Site plan – existing drainage ditch, with locations of proposed temporary silt barrier and new 36-inch RCP indicated

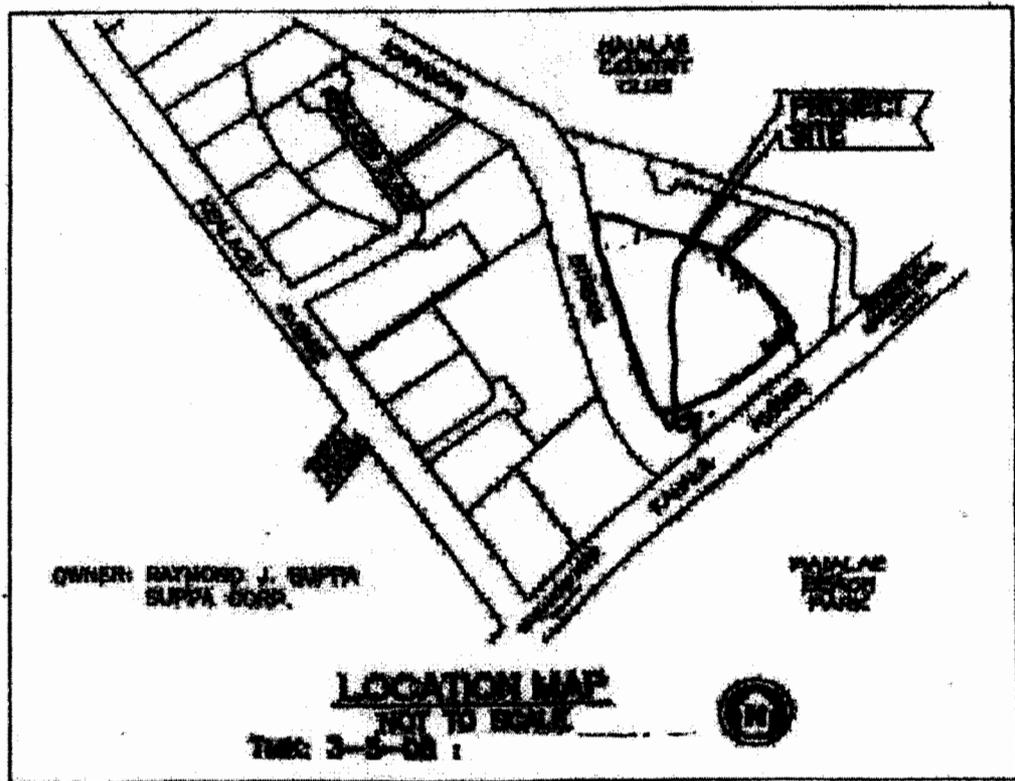
Figure 3. Site plan – new rock wall and drainage ditch

Figure 4. Site plan – dewatering areas

Figure 5. Section – temporary silt barrier

Figure 6. Section – CRM wall

HONOLULU, HAWAII



lot # 27

Figure 1

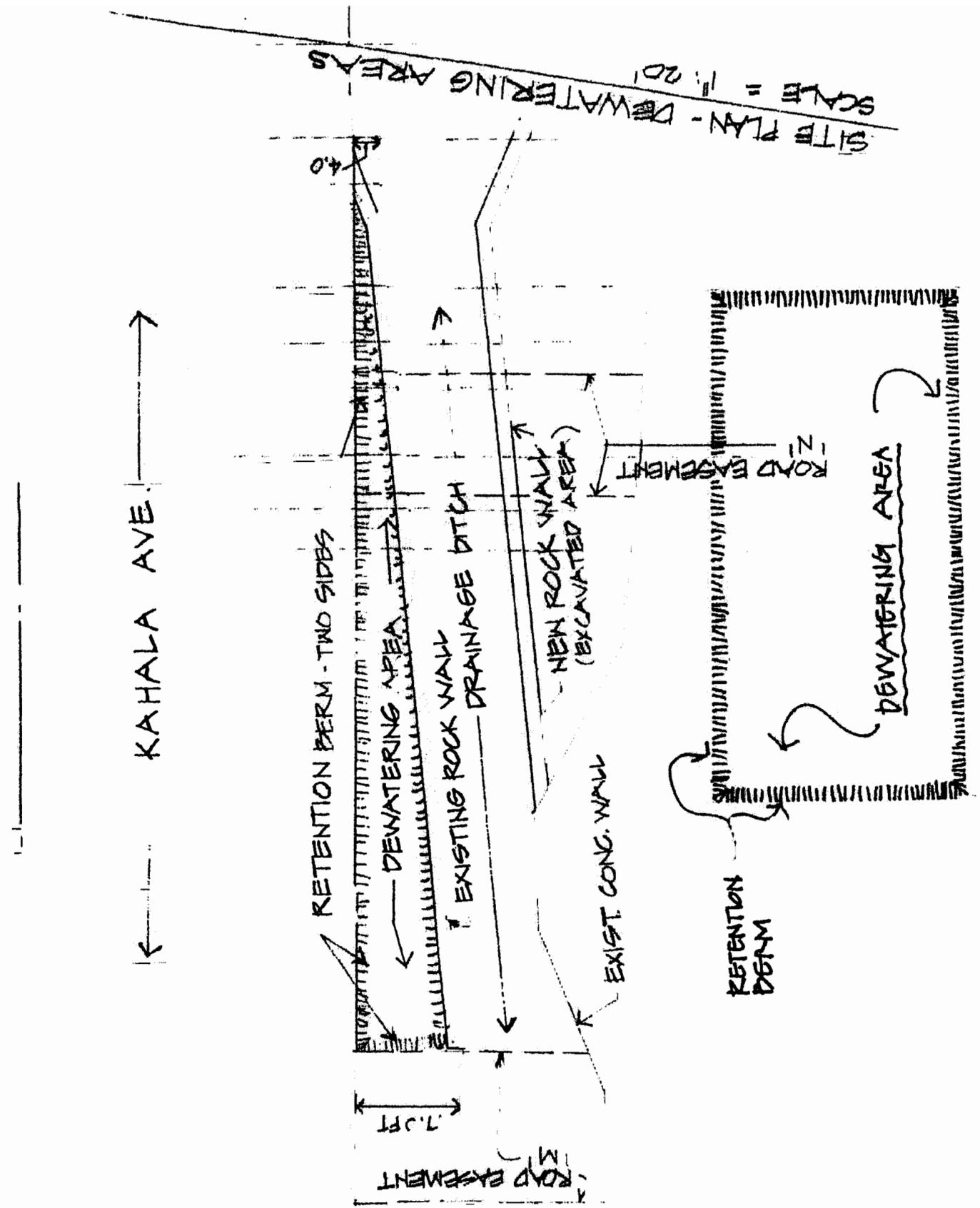
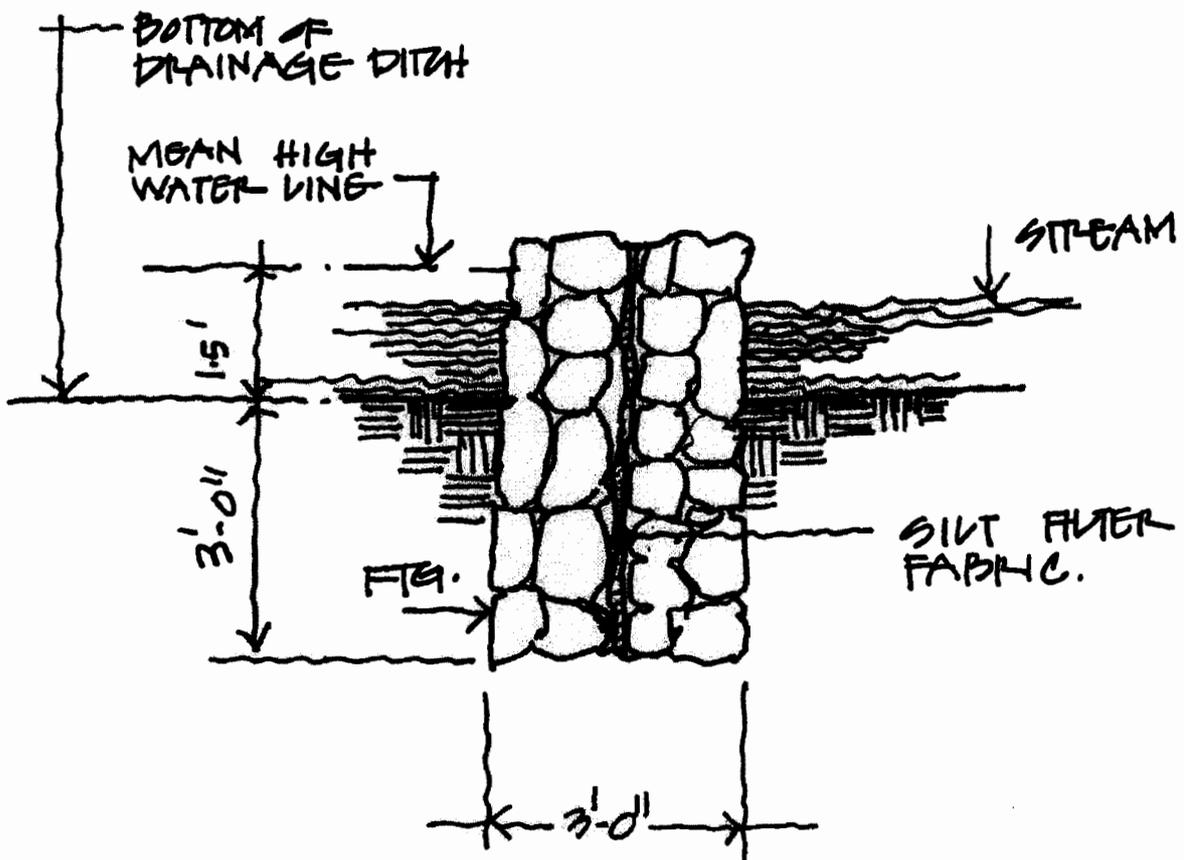
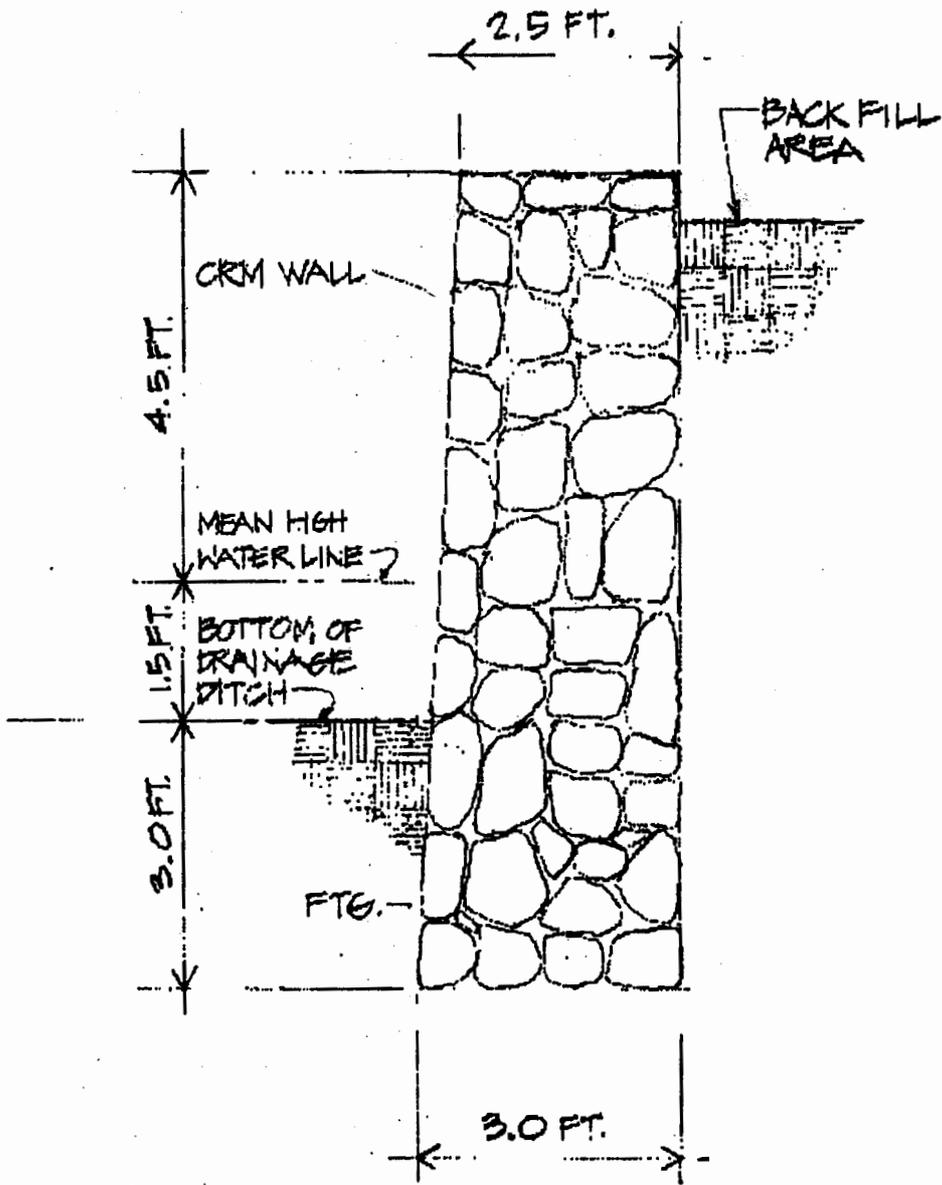


Figure 4



SECTION - TEMP. SILT BARRIER
 $\frac{1}{2}'' = 1'-0''$

Figure 5



SECTION - CRM WALL

$1/2" = 1'-0"$

Figure 6