



Public Notice

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

Public Notice No.
POH-2007-159

Date:
May 10, 2007

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

Respond by:
June 9, 2007

POH-2007-159

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT:
PAGO PAGO VILLAGE FLOOD HAZARD MITIGATION PROJECT AT VAIPITO
AND LAOLAO STREAMS, TUTUILA, AMERICAN SAMOA**

- 1. APPLICANT:** Territorial Emergency Management Coordinating Office (TEMCO); c/o Ms. Evelyn Stevens, SHMO; P.O. Box 5252; Pago Pago, American Samoa 96799
- 2. AGENT:** Mr. Philip Wendt, Project Engineer; c/o PPG Consultants; P.O. Box 5252; Pago Pago, American Samoa 96799
- 3. APPLICABLE STATUTORY AUTHORITY:** Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- 4. LOCATION OF PROPOSED ACTIVITY:** The project site encompasses portions of Vaipito and Laolao Streams at Pago Pago, Tutuila, American Samoa (Figure 1).
- 5. PURPOSE AND DESCRIPTION OF PROJECT:**

The purpose of the project is to reduce the existing flood hazard in Pago Pago Village at Vaipito Stream. The application notes that during the federally declared disaster event of May 2003, over-bank flooding of Vaipito Stream in Pago Pago caused considerable damage to roads and private and commercial properties; that main arterial road that connects east and west sides of the island was blocked for two days; that access to major government, communication, police, fire-fighting and other emergency services facilities and to the only hospital on the island was blocked for east-side residents until the road was cleared; that schools and a power generation plant remain at risk of flooding; and that the American Samoa Hazard Mitigation Council has determined the need to reduce flood hazard on Vaipito Stream to be one of its highest priorities.

To provide the desired flood hazard reduction, the applicant proposes to construct approximately 2,900 lineal feet of new and modified stream channel designed to contain a 100-year flood event. The modified channel would re-route flows from Vaipito Stream to Laolao Stream, intercepting

flows from smaller tributary channels and sheet flow from surrounding mountain slopes, before eventually re-joining Vaipito Stream (Figure 2). The Federal Emergency Management Agency (FEMA) issued a Draft Environmental Assessment (EA) for the project on October 14, 2004, and a Final EA and Finding of No Significant Impact on November 29, 2004.

From the planned diversion point of Vaipito Stream, a new channel excavated out of uplands (approximately 400 feet in length) would carry the diverted Vaipito Stream flows to Laolao Stream, a tributary of Vaipito Stream. The Laolao Stream channel would be modified to convey the flows about 1800 feet to its juncture with the lower Vaipito Stream channel, approximately 700 feet upstream from Pago Pago Harbor. The planned improvements would follow the typical sections shown in the attached drawings (Figure 3), except that the applicant has informed the Corps that a low-flow channel will be integrated into the construction of these channels to facilitate movement of stream organisms to and from the ocean.

The existing Laolao Stream channel (labeled Smaller Channel Section in Figures 2 and 3) would be widened from a typical width of approximately 8 feet to a finished channel width of 30 feet by excavation of adjacent uplands, with minimal shaping of the existing streambed. The widened channel, and the newly created upland channel connecting it to the diversion point at Vaipito Stream, would be flanked by new CRM (concrete rubble masonry) flood walls constructed in uplands (and thus not within the Corps' jurisdiction). The entire length (approximately 2,200 feet) of this channel would be lined with a 1.0-foot thick base course of rock material (maximum size 3 inches), followed by a 1.5-foot thick layer of PVC-coated gabion mattress.

The existing Vaipito Stream lower channel (labeled Larger Channel Section in Figures 2 and 3), presently about 80 feet in width and 700 feet in length (of which the applicant states that only the seaward 100 feet are tidal), would be excavated as needed to enable lining of the area between new floodwalls, constructed in adjacent uplands, with a 1.0-foot thick base course of rock material (maximum size 3 inches), followed by a 1.5-foot thick layer of PVC-coated gabion mattress. The finished channel width would be 80 feet.

The total area of fill in waters of the U.S. would be approximately 70,560 square feet (1.62 acres). The total volume of fill in waters of the U.S. would be approximately 6,530 cubic yards, including approximately 2,607 cubic yards of base course material, 3,911 cubic yards of gabion mattress, and an estimated 12 cubic yards of CRM (or other material) for the Vaipito Stream diversion structure.

During the channel modification work, silt curtains would be deployed at the lower end of the project and at other work sections as needed to minimize downstream movement of project-related suspended materials. Because construction of the connecting channel between Vaipito Stream and Laolao Stream would involve cutting across uplands, the applicant anticipates that the tie-in to Vaipito Stream shall be done as a final phase of the project; i.e., all construction of the channel shall be completed before it is connected to Vaipito Stream.

6. IMPACTS OF PROPOSED ACTIVITIES IF AUTHORIZED:

Vaipito Stream is a primary drainage that receives flows from various tributary streams (including Gagamoe, Laolao, Pago, Leau, Vaima, Utumoa, and Aga Streams) before its discharge

into Pago Pago Harbor; its total drainage area is approximately 1.36 square miles (American Samoa Watershed Protection Plan, Watershed 24, Pago Pago). The proposed construction activities have the potential to cause a temporary increase in downstream turbidity and potential effects on the marine environment, but these potential impacts are expected to be minimized due to the applicant's planned deployment of silt curtains during construction and completion of the connecting diversion channel prior to diverting Vaipito Stream. With implementation of appropriate best management practices (BMPs), downstream movement of materials and their effects on the aquatic environment, including the marine environment, can be avoided or minimized. Stream organisms would be disrupted by construction activities, but the completed gabion mattress lining (in contrast to a smooth concrete lining) may provide new interstitial habitat for stream organisms. Project construction may cause temporary, localized increases in dust and noise.

The proposed project is expected to help reduce future soil erosion and downstream transport of sediments during flood events. It is intended to improve flood protection, and is not expected to have any significant long-term adverse impacts. The proposed project is designed to address the specific flood hazard conditions at Pago Pago Village and cumulative effects are not considered to be significant.

7. IMPACT ON HISTORIC PROPERTIES:

FEMA's FEA states that its consultant, URS Corporation, conducted a pedestrian archaeological reconnaissance of the project area on May 12, 2004 and that the survey was negative for any prehistoric or historic archaeological or built-environment cultural resources. The FEA also notes that no properties eligible for (listing in) the National Register of Historic Places were identified through a literature review or the pedestrian survey, although there is a potential for subsurface cultural deposits associated with the previously demolished CCCAS church or earlier settlements. The FEA indicates that FEMA determined the proposed action would not affect historic properties, but that FEMA would require TEMCO to retain a qualified archaeological monitor during any project-related construction activity that would result in new ground disturbance in the area where the channel would cross within or immediately adjacent to the demolished CCCAS church. The FEA also describes actions to be taken in the event of the discovery of previously unidentified archaeological resources. The FEA notes that FEMA transmitted its determination and proposal for treatment of any unanticipated discovery to the American Samoa Historic Preservation Office (ASHPO) via letter on June 2, 2004, and assumed ASHPO's concurrence with the FEMA determination at the time of subsequent production of the FEA.

The Area of Potential Effect (APE) of the proposed project includes all areas involving excavation of the existing substrate. With inclusion of FEMA's requirement for archaeological monitoring at the CCCAS church site as part of the project, and with inclusion of suitable conditions to insure appropriate actions in the event of discovery of previously unidentified resources, it appears that there would be "no properties affected" by the proposed undertaking. This notice has been sent to the ASHPO. Any additional comments ASHPO may have concerning archaeological or historic resources that may be lost or destroyed by work under the present project will be considered before a final decision is made on the permit application.

8. IMPACT ON ENDANGERED SPECIES:

No federally protected species is known to occur within the project site, although federally protected sea turtles are known to occur in the marine waters surrounding American Samoa, including the endangered leatherback sea turtle (*Dermochelys coriacea*), endangered hawksbill sea turtle (*Eretmochelys imbricata*), threatened loggerhead sea turtle (*Caretta caretta*), and threatened green sea turtle (*Chelonia mydas*). No suitable nesting habitat is present near the outlet of Vaipito Stream and, with the inclusion of BMPs such as installing silt fences there is likely to be minimal temporary disturbance to sea turtle foraging opportunities.

Based on the location and nature of the proposed work, the lack of turtle nesting habitat near the outlet of the stream, and the potential for only minimal disturbance to sea turtle foraging opportunities, it appears the project “may affect, but is not likely to adversely affect” sea turtles or other species listed as threatened or endangered under the Endangered Species Act. 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 on endangered or threatened species, or their critical habitat, will be considered before a final decision is made on the permit.

9. IMPACT ON ESSENTIAL FISH HABITAT (EFH):

The project site does not include any designated EFH. Although the biological resources of Vaipito Stream have not been recently documented, surveys conducted by representatives of the U.S. Fish and Wildlife Service in 1978 and the Corps of Engineers in 1980 are summarized in the American Samoa Stream Inventory (USACE, July 1981), which reported, for the lower reach of Vaipito Stream, five species of goby fishes as well as various other fishes and crustaceans. Although the project reaches of the streams would be disrupted during construction, the completed new gabion mattress would be un-grouted, will include a low-flow channel, and is expected to be compatible with the long-term need to maintain the normal movement (migration) requirements of diadromous species, as well as providing rock surfaces upon which algae and other food organisms may settle.

Although the project site itself does not include any designated EFH, the marine environment lying seaward of the stream mouth includes coral reef EFH, consisting of typical fringing reef components which contribute to maintenance of fisheries. The magnitude of potential impacts of the proposed project on EFH are thus dependent on the degree of downstream movement of sediments or other materials disturbed during project construction. With the incorporation of suitable BMPs to control downstream effects of the construction, the proposed project is not expected to adversely affect any Essential Fish Habitat (EFH) identified pursuant to the Magnuson-Stevens Fishery and Management Act.

10. OTHER GOVERNMENT AUTHORIZATIONS/CERTIFICATIONS:

Before a DA permit can be issued, the applicant must first obtain an American Samoa Coastal Management Program federal consistency certification issued by the Department of Commerce and a Section 401 Water Quality Certification issued by the American Samoa Environmental Protection Agency.

11. EVALUATION FACTORS:

The decision whether to issue the requested 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.

12. 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 transmitted via e-mail to CEPOH-EC-R@usace.army.mil or faxed to (808) 438-4060. If needed, further information 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).

13. REQUEST FOR PUBLIC HEARING:

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the proposed permit. Requests for public hearing shall specifically state the reasons for holding a public hearing.

Attachments:

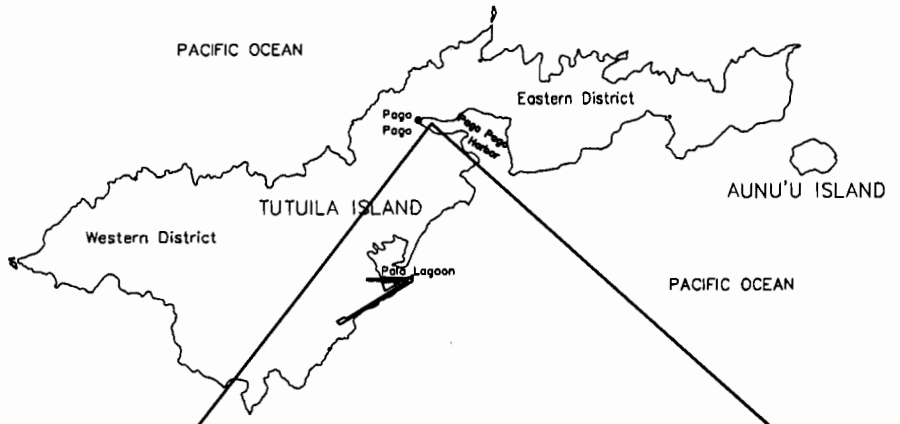
Figure 1. Project Location Map

Figure 2. Project Elements (plan view)

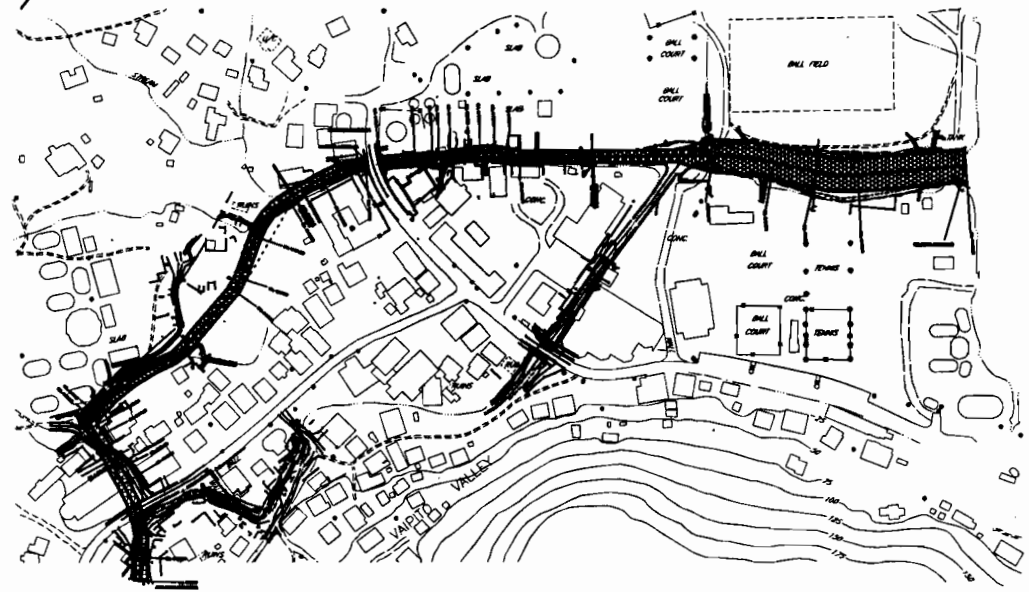
Figure 3. Channel Sections (typical)



Site Location Map

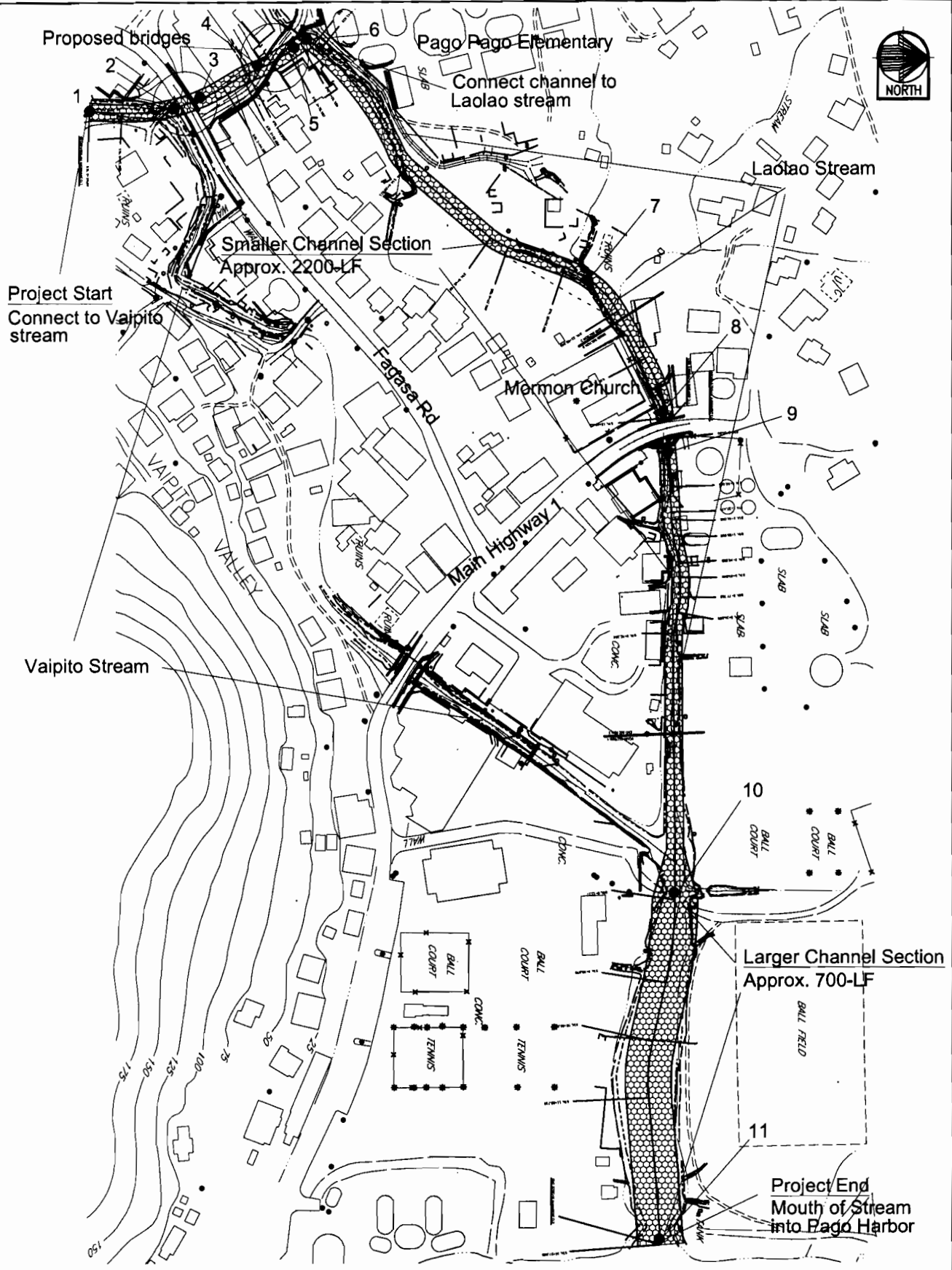


Site Vicinity Map



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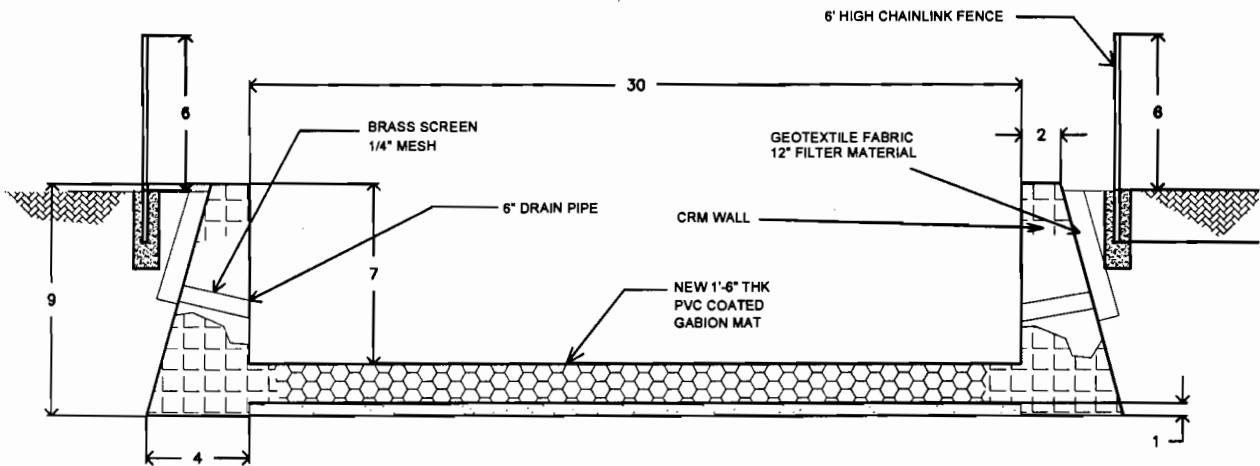
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| Pago Pago Stream Upgrade | Figure 1 |
| Project Location Map | |
| Prepared by: PW, PPG Consultants | |
| Applying Agency: TEMCO | |
| Amerika Samoa Government | |



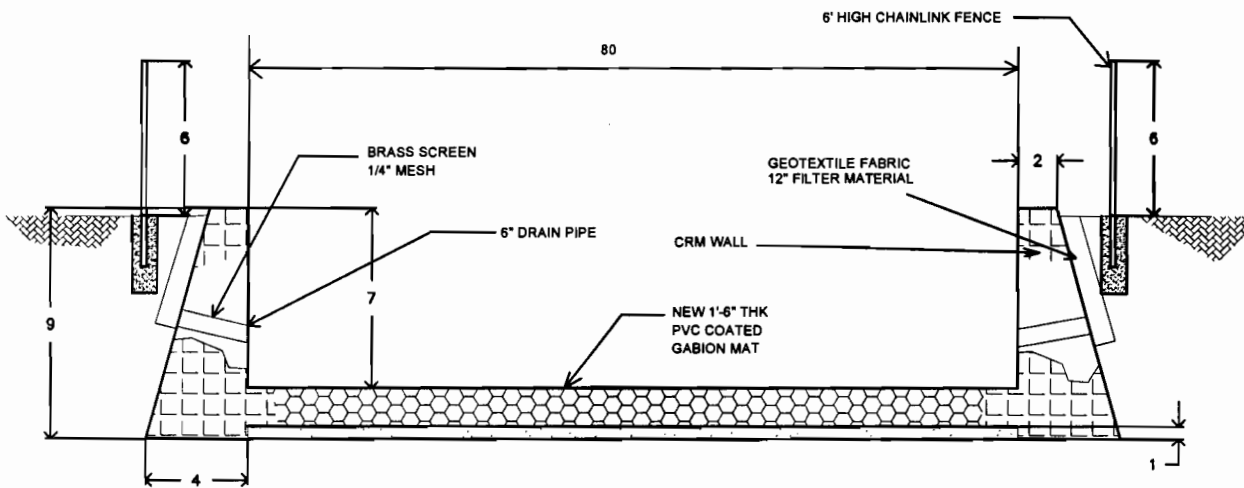
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| Pago Pago Stream Upgrade | Figure 2 |
| Project Elements | |
| Prepared by: PW, PPG Consultants | |
| Applying Agency: TEMCO | |
| Amerika Samoa Government | |



SMALLER IMPROVED CHANNEL SECTION (TYP)



LARGER IMPROVED CHANNEL SECTION (TYP)

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|----------------------------------|----------|
| Pago Pago Stream Upgrade | Figure 3 |
| Channel Sections (Typ.) | |
| Prepared by: PW, PPG Consultants | |
| Applying Agency: TEMCO | |
| Amerika Samoa Government | |