



CWB NOI General Form for Appendix C

Previously assigned
NGPC File No
(for renewal NOI only): HI _____

Automatic
Coverage
(for New NOI
only)

I elect to **claim** automatic coverage
per HAR, Section 11-55-34.09(f).
I elect to **waive** automatic coverage
per HAR, Section 11-55-34.09(g).

1. Owner Information

Owner Legal Name State of Hawaii

Owner Department Department of Transportation

Owner Division Highways Division

Owner Mailing Address 869 Punchbowl Street

Owner Mailing City Honolulu Owner Mailing State HI Owner Mailing Zip+4 96813-5097

Owner Street Address 869 Punchbowl Street

Owner City Honolulu Owner State HI Owner Zip+4 96813-5097

Owner Contact Person First Name Glenn Owner Contact Person Last Name Yasui

Owner Contact Person Position Title Highways Division Administrator

Owner Phone No (808) 587-2220 Owner Fax No (808) 587-2340

Owner Contact Person Email glenn.yasui@hawaii.gov

2. Owner Type Municipal

Options for Owner Type:

Industrial - Private Facility or Project
Municipal - City, County, or State Government Facility or Project
Federal - Federal Government Facility or Project
MS4 - Municipal Separate Storm Sewer System

3. Operator or General Contractor Information

- ☒ For CWB-NOI Forms C, F, G, and I only
The general contractor information will be submitted at least 30 calendar days before the start of construction activities.

Operator Legal Name _____

Operator Department _____

Operator Division _____

Operator Mailing Address _____

Operator Mailing City _____ Oper. Mailing State HI Operator Mailing Zip+4 _____

Operator Street Address _____

Operator City _____ Operator State HI Operator Zip+4 _____

Operator Contact Person First Name _____ Oper. Contact Person Last Name _____

Operator Contact Person Position Title _____

Operator Phone No _____ Operator Fax No _____

Operator Contact Person Email _____

4. Facility or Project Information

Facility Legal Name Castle Hills Access Road, Drainage Improvements, Project No. HWY-O-04-98

Facility Mailing Address State of Hawaii, Department of Transportation, Highways Division, 601 Kamokila Blvd., Room 688

Facility Mailing City Kapolei Facility Mailing State HI Facility Mailing Zip+4 96707-2038

Facility Street Address Various (Refer to attached Figure 1 - Tax Map)

Facility City Kaneohe Facility State HI Facility Zip+4 00009-6734

Facility Contact Person First Name Karen Facility Contact Person Last Name Chun

Facility Contact Person Position Title Project Manager

Facility Phone No (808) 692-7552 Facility Fax No (808) 692-7555

Facility Contact Person Email Karen.chun@hawaii.gov

Island of Facility Oahu If there are multiple Plat and/or Parcel Numbers, please separate them with semi-colons.
If there are more Tax Map Keys (TMKs), please attach a separate sheet.

TMK Division	Zone	Section	Plat	Parcel or Lot
(1)	4	5	24	2, 3, 4, 5
(1)	4	5	108	68, 69, 70, 71, 72, 73, 74

5. Receiving State Water(s) Information

5.a. Number of Receiving State Waters 1

5.a.i. Receiving Waters Name Kapunahala Stream

Receiving Waters Classification 2

Latitude Degrees (N)	<u>021</u>	Latitude Minutes	<u>24</u>	Latitude Seconds	<u>13</u>
Longitude Degrees (W)	<u>157</u>	Longitude Minutes	<u>48</u>	Longitude Seconds	<u>34</u>

5.a.ii. Additional Receiving Waters Name _____

Receiving Waters Classification _____

Latitude Degrees (N)	_____	Latitude Minutes	_____	Latitude Seconds	_____
Longitude Degrees (W)	_____	Longitude Minutes	_____	Longitude Seconds	_____

5.a.iii. Additional Receiving Waters Name _____

Receiving Waters Classification _____

Latitude Degrees (N)	_____	Latitude Minutes	_____	Latitude Seconds	_____
Longitude Degrees (W)	_____	Longitude Minutes	_____	Longitude Seconds	_____

5.b. Receiving Separate Drainage System - Complete the following if the discharge from your facility or project first enters a separate storm drainage system (e.g., City and County of Honolulu Municipal Separate Storm Sewer System [MS4], etc.)

Separate Drainage System Owner Name _____

Latitude Degrees (N)	_____	Latitude Minutes	_____	Latitude Seconds	_____
Longitude Degrees (W)	_____	Longitude Minutes	_____	Longitude Seconds	_____

☐ Drainage System Owner Approval to Discharge is attached.

☐ The request to the Drainage System Owner for Approval to Discharge is attached. The Approval to Discharge will be submitted at least 30 calendar days before the start of construction activities or discharge, whichever is sooner.

6. Authorized Representative Information - Select authorization under A or B or C or A & C or D. Do not select A & B or B & C - this will cause a delay in the issuance of the NGPC.

- ☒ A. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to submit information/documents necessary to complete the CWB NOI Form for coverage under the NPDES general permit to discharge to State waters from the subject facility. The Owner hereby agrees to comply with and be responsible for all NGPC conditions.
- ☐ B. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to submit information/documents necessary to complete the CWB NOI Form for coverage under the NPDES general permit to discharge to State waters from the subject facility. Our representative is further authorized to submit information/documents for compliance with the NGPC conditions, except submittal of the CWB NOC Form. The Owner hereby agrees to comply with and be responsible for all NGPC conditions.

Representative Company/Organization Name ParEn, Inc. dba Park Engineering

Representative Department _____

Representative Division _____

Representative Mailing Address 711 Kapiolani Boulevard, Suite 1500

Rep. Mailing City Honolulu Rep. Mailing State HI Rep. Mailing Zip+4 96813-5237

Representative Street Address 711 Kapiolani Boulevard, Suite 1500

Representative City Honolulu Rep. State HI Representative Zip+4 96813-5237

Representative First Name Russell Representative Last Name Arakaki

Representative Position Title Project Manager

Representative Phone No (808) 593-1676 Representative Fax No (808) 593-1607

Representative Contact Person Email rarakaki@pareninc.com

- ☒ C. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to submit information/documents for compliance with the NGPC conditions, except submittal of the CWB NOC Form. The Owner hereby agrees to comply with and be responsible for all NGPC Conditions.
- ☐ D. A separate authorization statement is attached, specifying the limited authorization of the representative.

Representative Company/Organization Name State of Hawaii

Representative Department Department of Transportation

Representative Division Highways Division

Representative Mailing Address 869 Punchbowl Street

Rep. Mailing City Honolulu Rep. Mailing State HI Rep. Mailing Zip+4 96813-5097

Representative Street Address 869 Punchbowl Street

Representative City Honolulu Rep. State HI Representative Zip+4 96813-5097

Representative First Name Glenn Representative Last Name Yasui

Representative Position Title Highways Division Administrator

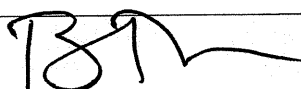
Representative Phone No (808) 587-2220 Representative Fax No (808) 587-2340

Representative Contact Person Email glenn.yasui@hawaii.gov

7. Certification - Alteration of this item will result in the invalidation of this CWB-NOI Form submittal. **The person certifying this CWB-NOI Form must meet one of the following descriptions and be employed by the owner or be an administrator of the sole proprietorship, trust, or LLC listed in Item 1.**

- ☒ I certify that for a state agency, I am a principal executive officer or ranking elected official.
- ☐ I certify that for a municipal agency, I am a principal executive officer or ranking elected official.
- ☐ I certify that for a non-federal public agency, I am a principal executive officer or ranking elected official.
- ☐ I certify that for a federal agency, I am the chief executive officer of the agency, or I am the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- ☐ I certify that I am a general partner for a partnership.
- ☐ I certify that for a corporation, I am the President, Vice President, Secretary, or Treasurer of the corporation and in charge of a principal business function, or I perform similar policy or decision-making functions for the corporation.
- ☐ I certify that I am the proprietor for a sole proprietorship.
- ☐ I certify that for a corporation, I am the Manager of one or more manufacturing, production, or operating facilities and am authorized to make management decisions which govern the operation of the regulated facility or facilities including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations. I can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements and authority to sign documents has been assigned or delegated to me in accordance with corporate procedures.
- ☐ I certify that for a trust, I am a trustee.
- ☐ I certify that for a limited liability company (LLC), I am the Manager or a Member authorized to make management decisions for the LLC and am in charge of a principal business function, or I perform similar policy or decision-making functions for the LLC.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature  Date Signed 4-20-25

Certifying Person First Name Brennon Certifying Person Last Name Morioka

Certifying Person Position Title Director

Certifying Person's Company or Agency State of Hawaii

Certifying Department Department of Transportation

Certifying Division _____

Certifying Phone No (808) 587-2150 Certifying Fax No (808) 587-2167

Certifying Person Email brennon.morioka@hawaii.gov

For facilities/projects on the island of Oahu, submit one (1) copy of the CWB NOI General Form, applicable discharge form (e.g., CWB NOI Form C), and supporting documents with the certifying person's original signature and \$500 Filing Fee.

For facilities/projects on the island of Hawaii, submit three (3) copies of the CWB NOI General Form, applicable discharge form (e.g., CWB NOI Form C), and supporting documents. One copy of the CWB NOI General Form shall include the certifying person's original signature and \$500 Filing Fee.

For facilities/projects located on islands other than Oahu and Hawaii, submit two (2) copies of the CWB NOI General Form, applicable discharge form (e.g., CWB NOI Form C), and supporting documents. One copy of the CWB NOI General Form shall include the certifying person's original signature and \$500 Filing Fee.

[Submit by Email](#)

[Print Form](#)

Notice of Intent for NPDES General Permit Coverage
 Authorizing **Discharge of Storm Water Associated
 with Construction Activities**
HAR, Chapter 11-55, Appendix C

Previously assigned
 NGPC File No

(for renewal NOI only): HI _____

C.1. Construction Site Area

- a. Total Area of the project site (in Acres) 2.04 Acres
- b. Disturbance Area (in Acres) 1.57 Acres
- c. Impervious Area of the project after construction is completed (in Acres) 0.03 Acres
- d. Area of each phase of a multi-phase construction project (Indicate Phase Number and Area in acres) 1 Phase - 2.04 Acres

C.2. Quantity of Storm Water Discharge - What is the quantity of storm water that may be discharged from the construction site?
 Provide the supporting calculations in an attachment.

5.65

units Cubic Feet per Second

C.3. Non-Storm Water Information - Indicate the non-storm water disposal method and location for the handling of the applicable non-storm waters. If the non-storm water is discharged to State waters, the construction activity may require a separate NPDES permit.

- a. Water for Dust control Minimize runoff and silt fences will be installed around downstream of disturbed areas and along the banks of Kapunahala Stream to capture pollutants before State waters.
- b. Concrete Truck Wash Water Wash water will be emptied into impermeable lined containers onsite. No wash water will be discharged to MS4 or State waters.
- c. Construction Exit Wash Water Wash water will flow to and be contained within temporary washdown containment areas.
- d. Irrigation Water None used.
- e. Hydrotesting Effluent N/A
- f. Dewatering Effluent See CWB-NOI Form G.
- g. Saw-cutting Slurry Saw-cutting will not be performed.
- h. Concrete Curing Water Concrete work will be contained within cofferdam. If used, any curing water will be pumped from cofferdam to the impermeable concrete wash water pit.
- i. Water-Jet Wash Water N/A
- j. Other (as identified) None

C.4. Location Map - Provide a map or maps showing the following and identify the map or figure number in the space provided.:

- a. Island on which the project is located Oahu (Refer to Figure 1 - Vicinity & Location Map)
- b. Vicinity of the project on the island Kaneohe (Refer to Figure 1 - Vicinity & Location Map)
- c. Legal boundaries of the project Refer to Figure 2 - Tax Map
- d. Topography of the project Refer to Figure 6 - General Layout
- e. Location and identification number of each of the project's existing and/or proposed outfalls or discharge points Refer to Figure 6 - General Layout
- f. Receiving State water(s) and receiving storm water drainage system(s), as applicable, identified and labelled Refer to Figure 6 - General Layout

C.5. Flow Chart or line drawing - Attach a flow chart showing the following (check each item).

- ☒ a. Storm water entering the project from off-site areas
- ☒ b. General route taken by storm water through the project (show the routes through different drainage areas)
- ☒ c. Treatment system(s) utilized for the reduction of sediment (e.g., silt fence, earth berm, detention basin, vegetated swale, etc.)
- ☒ d. Best Management Practices (BMPs) utilized to prevent erosion (e.g., erosion control mats, reduced open area, revegetation, etc.)
- ☒ e. Quantity of flow through each applicable route from upslope to the receiving State water
- ☒ f. Drainage system(s) receiving storm water from the project, as applicable (e.g., City and County of Honolulu Municipal Separate Storm Sewer System (MS4), etc.)
- ☒ g. State water name(s) receiving storm water from the project

Indicate which item(s) are not identified None

C.6. Existing or Pending Permits, Licenses, or Approvals for the project are listed by number for the following:

- a. Other NPDES Permit or NGPC File No. See "Attachment to CWB-NOI Form C"
- b. Department of the Army Permit (Section 404) See "Attachment to CWB-NOI Form C"
- c. Facility on SARA 313 List (identify SARA 313 chemicals on project site) See "Attachment to CWB-NOI Form C"
- d. RCRA Permit (Hazardous Wastes) See "Attachment to CWB-NOI Form C"
- e. Section 401 Water Quality Certification See "Attachment to CWB-NOI Form C"
- f. Department of Land and Natural Resources State Historic Preservation Division (attach a copy of the transmittal to or response from SHPD) See "Attachment to CWB-NOI Form C"
- g. Other(s) See "Attachment to CWB-NOI Form C"

C.7. Construction Site Characterization

C.7.a. Describe the history of the land use

The Kaneohe area was used for taro fields, hala, wauke, mai'a, 'uala, yams, olona and other plants. After the late 1800's, cattle ranching took place. The dominant crops were sugar and rice in the 1880's and pineapple between 1910 and 1925.

C.7.b. Describe any existing pollution source(s) - Check the following items for historical sources of pollution, as applicable.

- ☐ i. DOH, Solid and Hazardous Waste Branch - Hawaii Underground Storage Tank - Leaking Underground Storage Tank database
- ☐ ii. DOH, Hazard Evaluation and Emergency Response Office records
- ☐ iii. Phase I and/or Phase II Environmental Site Assessments, as applicable
- ☒ iv. Recent site inspections
- ☒ v. Past land use history
- ☐ vi. Soil sampling data, if available
- ☒ vii. Other (specify)

C.7.c. Pollution Sources Corrective Measures:

Describe any corrective measures that have been undertaken for the historical pollution source(s) checked above.

See "Attachment to CWB-NOI Form C"

C.8. Construction Best Management Practices (BMPs) Plan

C.8.a. Project Site Map(s)

C.8.a.i. Phasing Map(s) - The construction will be done in one (1) phase.

- ☒ (1) A phasing map is not required for this single-phase construction project.
- ☐ (2) A phasing map identifying each phase of the multi-phase construction project and the boundaries of each phase is attached.
- ☐ (3) A phasing map identifying each phase of the multi-phase construction project and the boundaries of each phase will be submitted at least 30 calendar days before the start of construction of each phase of the project.

C.8.a.ii. - Construction Plan(s) - Hard copies of the project construction plans which show the following information are attached. Identify the map name and/or number or "n/a" (for not applicable) in the space to the right of the listed item. Items (1) through (5) shall be submitted with the NOI. If Items (6) through (10) are not available at the time of NOI submittal, the information may be submitted at least 30 calendar days before the start of construction activities (please indicate as such).

(1) Approximate slopes anticipated after major grading activities and pre-construction, during-construction, and post-construction drainage patterns;	Refer to Figures 8 and 9 - Grading Plan
(2) Areas of soil disturbance;	Refer to Figures 8 and 9 - Grading Plan
(3) Location(s) of impervious structures (including buildings, roads, parking lots, etc.) after construction is completed;	Refer to Figure 6 - General Layout
(4) Wetlands and other State water(s);	Refer to Figures 6, 8, 9, 10 and 14
(5) Boundaries of 100-year flood plans;	Refer to Figures 15 and 16 - 100-year Flood Limits
(6) Construction Baseyard and/or staging areas;	To be submitted 30 days prior to construction
(7) Areas used for the storage of soils, construction materials, or wastes and areas for the disposal of wash water from washing down of construction equipment and vehicles, concrete truck drum wash water, treated dewatering effluent, hydrotesting effluent discharge, etc.;	Refer to Figures 10 - Erosion Control Plan
(8) Location(s) where stabilization practices are expected to occur;	Refer to Figure 10 - Erosion Control Plan
(9) Location(s) and descriptions of all structural controls including those that will be used to divert the offsite storm water from flowing into the constructions site and;	Refer to Figure 14 - Temporary Stream Diversion Plan
(10) Areas where vegetative practices are to be implemented.	Refer to Figure 10 - Erosion Control Plan

C.8.b. Construction BMPs Plan - Please select only one of the following. The construction BMPs plan shall provide information requested by describing methods to minimize erosion of soil and discharge of other pollutants into State waters and, after completion of the construction activity, removal procedures for the construction site BMPs.

- ☐ Responses for the construction BMPs plan are provided in this form (no electronic attachments accepted at this time).
- ☒ The construction BMPs plan is attached on separate sheets with reference to this Item number.

C.8.b.i. Construction Activity - Describe the nature of the construction activity.

(1) What is to be constructed (e.g., the entire scope of the construction activity)?	See "Attachment to CWB-NOI Form C"
(2) If the project is a multi-phase construction project, include a list of each phase.	See "Attachment to CWB-NOI Form C"
(3) What type of materials and heavy equipment will be used for the construction activity?	See "Attachment to CWB-NOI Form C"

C.8.b.ii. Quality of Discharge - Describe the nature of the fill material to be used and existing data describing the soil or the quality of any discharge from the project site.

See "Attachment to CWB-NOI Form C"

C.8.b.iii. Potential Pollutant(s) - Identify the proposed control measures or treatment measures for all potential pollutant(s), other than those listed in Item C.3., that will be generated by the proposed construction activities.

(1) Construction debris, removed vegetation; See "Attachment to CWB-NOI Form C"

(2) Discharges associated with the operation and maintenance of the equipment, such as oil, fuel and hydraulic fluid leakage; See "Attachment to CWB-NOI Form C"

(3) Soil erosion from the disturbed areas and stockpile areas; See "Attachment to CWB-NOI Form C"

(4) Location(s) of oil, fuel or any hazardous material storage site(s) and containment structure(s); See "Attachment to CWB-NOI Form C"

(5) Discharges associated with emulsified asphalt or prime/tack coat; See "Attachment to CWB-NOI Form C"

(6) Discharges associated with painting and paint wash solvent/water; See "Attachment to CWB-NOI Form C"

(7) Industrial chemicals, fertilizers, and/or pesticides; and See "Attachment to CWB-NOI Form C"

(8) Other Sources. See "Attachment to CWB-NOI Form C"

C.8.b.iv. Controls for Land Disturbances - The owner and/or general contractor shall check the box to indicate that at a minimum, they will comply with all conditions as stated below from HAR, Chapter 11-55, Appendix C, under Special Conditions for Land Disturbances. It may be amended to be site-specific (i.e., type of cover to be used).

- ☒ (a) **Construction Management Techniques**
- (1) Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation.
 - (2) Construction shall be sequenced to minimize the exposure time of the cleared surface area.
 - (3) Construction shall be staged or phased for large projects. Areas of one phase shall be stabilized before another phase is initiated. Stabilization shall be accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.
 - (4) Erosion and sediment control measures shall be in place and functional before earth moving operations begin. These measures shall be properly constructed and maintained throughout the construction period.
 - (5) All control measures shall be checked and repaired as necessary, for example, weekly in dry periods and within twenty-four hours after any rainfall of 0.5 inches or greater within a 24-hour period. During prolonged rainfall, daily checking is necessary. The permittee shall maintain records of checks and repairs.
 - (6) The permittee shall maintain records of the duration and estimated volume of storm water discharge(s).
 - (7) A specific individual shall be designated to be responsible for erosion and sediment controls on each project site.
- (b) **Vegetation Controls**
- (1) Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than twenty calendar days prior to land disturbance.
 - (2) Temporary soil stabilization with appropriate vegetation shall be applied on areas that will remain unfinished for more than thirty calendar days.
 - (3) Permanent soil stabilization with perennial vegetation or pavement shall be applied as soon as practical after final grading. Irrigation and maintenance of the perennial vegetation shall be provided for thirty calendar days or until the vegetation takes root, whichever is shorter.
- (c) **Structural Controls**
- (1) Storm water flowing toward the construction area shall be diverted by using appropriate control measures, as practical.
 - (2) Erosion control measures shall be designed according to the size of disturbed or drainage areas to detain runoff and trap sediment.
 - (3) Water must be discharged in a manner that the discharge shall not cause or contribute to a violation of the basic water quality criteria as specified in HAR, Chapter 11-54, Section 11-54-4.

Additional and/or Site-Specific Controls for the Project As described in the Construction Plans, various sections of this form and in the "Attachment to CWB-NOI Form C"

C..8.b.v. Erosion and Sediment Control Requirements - Please select only one of the following.

- ☐ i. The county-approved erosion and sediment control plan and/or grading permit , where applicable, as appropriate for the activity and a schedule for implementing each control is attached to the NOI.
- ☒ ii. The county-approved erosion and sediment control plan and/or grading permit , where applicable, as appropriate for the activity and a schedule for implementing each control will be submitted at least 30 calendar days before the start of construction activities.
- ☐ iii. The county-approved erosion and sediment control plan and/or grading permit , where applicable, is not required. The written determination is attached or the contact information is as follows:

Date of Letter or

Name, Department, Phone Number, and Date Contacted _____

C.8.b.vi. Construction Schedule - Attach the proposed construction schedule which shall include, at a minimum:

- (1) The date when erosion control measures will be implemented. See "Attachment to CWB-NOI Fo
- (2) The date when the general contractor will begin the site disturbance. See "Attachment to CWB-NOI Fo
- (3) The date when major construction activities begin. See "Attachment to CWB-NOI Fo
- (4) The proposed timetable for major activities. See "Attachment to CWB-NOI Form C"
- (5) The date when major construction activities end. See "Attachment to CWB-NOI Fo
- (6) The date when the general contractor will end the site disturbance. See "Attachment to CWB-NOI Fo
- (7) The date when erosion control measures will be removed. See "Attachment to CWB-NOI F

C.8.c. The Site-Specific Construction BMPs Plan - Please select one.

- ☐ The Site-Specific Construction BMPs Plan is attached to the NOI. Responses and attachments for all of Items C.8.a. and C.8.b. are provided and are site-specific to the construction project.
- ☒ The Site-Specific Construction BMPs Plan will be submitted at least 30 calendar days before the start of construction activities.

C.9. Post-Construction Pollutant Control Measures - Please insert the requested information in the space provided or select one of the following choices. The description of measures that will minimize the discharge of pollutants via storm water discharge after construction operations have been completed are as follows:

See "Attachment to CWB-NOI Form C"

- ☒ The description of measures that will minimize the discharge of pollutants via storm water discharge after construction operations have been completed are attached.
- ☐ The description of measures that will minimize the discharge of pollutants via storm water discharge after construction operations have been completed will be submitted at least 30 calendar days before the start of construction activities.

C.10. Additional Information

Final Environmental Assessment (EA), Hazardous Materials Survey Reports and Drainage Report will be included.

Print Form

Submit by Email

ATTACHMENT to CWB-NOI FORM C

SUPPORTING DOCUMENTS (dated April 2009)

C.2. QUANTITY OF STORM WATER DISCHARGE

Based on the total project area, including undisturbed areas within the project limits, the volume of stormwater discharge is calculated using the Rational Method and guidelines in the City and County, Department of Planning and Permitting, "Rules Relating to Storm Drainage Standards", dated January 2000.

Runoff Coefficient, C	=	0.6	Table 2
10-year 1-hour Rainfall, i	=	2.5	Plate 1
Site Area	=	0.55 ac	(North of Stream)
	=	0.83 ac	(South of Stream)
	=	0.19 ac	(South of Stream, to Kupohu St.)
		<u>1.57 ac</u>	(Total Area)
Time of Concentration, T _c	=	9 min.	Plate 3
Correction Factor, CF	=	2.4	Plate 4
Flow, Q	=	C x I x CF x A	
	=	0.6(2.5)(2.4)(0.55) = 1.98 cfs (North)	
	=	0.6(2.5)(2.4)(0.83) = 2.99cfs (South)	
	=	0.6(2.5)(2.4)(0.19) = <u>0.68 cfs (Kupohu)</u>	
			5.65 cfs (Total)

C.5. FLOW CHART

Refer to Figure 7 – Flow Chart.

C.6. EXISTING OR PENDING PERMITS, LICENSES OR APPROVALS

A. Other NPDES Permit or NGPC File No.:

CWB-NOI Form G will be submitted. Permit number pending.

B. Department of the Army Permit (Section 404):

Department of the Army Nationwide Permit will be submitted. Permit number pending.

C. Facility on SARA 313 List (identify SARA 313 chemicals on project site):

N/A

D. RCRA Permit (Hazardous Wastes):

N/A

E. Section 401 Water Quality Certification:

Section 401 Water Quality Certification will be submitted. Permit number pending.

F. Department of Land and Natural Resources State Historic Preservation Division:

To be submitted at a later date.

G. Others:

SCAP will be prepared. Permit number pending.

C.7.b.(vii) DESCRIBE ANY EXISTING POLLUTION SOURCE(S)

Lead-based paint and asbestos containing building materials were determined to be present in three (3) of the existing residential structures to be demolished and removed. The residential structures are located at 45-720 Pilina Way (TMK 4-5-24:5), 45-714 Pilina Way (TMK 4-5-24:3) and 45-708 Pilina Way (TMK 4-5-24:2).

C.7.c. POLLUTION SOURCES CORRECTIVE MEASURES:

Lead-based paint, if needed, will be removed by a qualified lead abatement contractor. Handling and disposal of lead-based paint will be according to the Occupational Safety and Health Administration (OSHA) and Hawaii Occupational Safety and Health Division (HIOSH) lead standard requirements and in compliance with 29 CFR 1926.2.

Asbestos containing materials will be removed and disposed of by a qualified asbestos abatement contractor. Removal activities will comply with applicable Environmental Protection Agency (EPA), OSHA and HIOSH regulations pertaining to the handling of asbestos containing material.

C.8.b. CONSTRUCTION BMPs PLAN

Refer to Figure 10 – Erosion Control Plan.

C.8.b.i. CONSTRUCTION ACTIVITY

- (1) What is to be constructed (e.g., the entire scope of the construction activity)?

The nature of the construction activity consists of stream and streambank stabilization measures. The project will consist of the construction of drainage improvements within a portion of Kapunahala Stream. Existing residential structures will be demolished and removed.

- (2) If the project is a multi-phase construction project, include a list of each phase.

N/A - One phase only

- (3) What type of materials and heavy equipment will be used for the construction activity?

Materials:

Concrete, reinforcing steel, asphalt concrete, galvanized steel wire, rock, rip-rap, crushed rock, cushion material, geotextile fabric, polyvinyl chloride (PVC) pipes, vinyl fencing and gates, and fence posts

Heavy Equipment to be used:

Backhoe, front-end loader, concrete truck, compactor, dump truck, fork-lift, drill rig, crane, paving equipment, grader

C.8.b.iii. QUALITY OF DISCHARGE

The fill material will consist of reinforced concrete, gabions (galvanized wire baskets and rocks), grouted rip-rap, crushed rock, cushion material, micropiles, polyvinyl chloride (PVC) pipes, geotextile fabric and topsoil. The existing soil consists of Hanalei silty clay, which has a slow runoff and a slight erosion hazard.

C.8.b.iii.

POTENTIAL POLLUTANT(S) & PROPOSED CONTROL MEASURES

Activity / Pollutants	Proposed Control Measures
Construction debris, removed vegetation	<ul style="list-style-type: none"> • Covered waste dumpsters that meet City and State waste management regulations will be used for discarded construction debris and non-hazardous wastes. The waste dumpsters shall be emptied at an approved landfill site, periodically or when they become full. Hazardous materials shall be handled, tested and disposed of in accordance with City and State regulations. • Onsite storage areas shall be designated for the stockpiling of removed vegetation. The vegetative matter shall be taken to and discarded at an approved green waste recycling facility.
Discharges associated with the operation and maintenance of the equipment, such as oil, fuel and hydraulic fluid leakage	<ul style="list-style-type: none"> • All equipment, machinery and vehicles used onsite shall be monitored and inspected for leaks. Any equipment, machinery or vehicle exhibiting signs of leakage shall be immediately repaired or taken offsite for repairs before being allowed to continue work onsite. • Any oil, fuel or other fluid needed for the operation of equipment, machinery or vehicles shall be kept in leak-proof vessels suited for the intended purpose and liquid being contained. The liquids shall be temporarily stored in a covered area according to the manufacturer's requirements and only in limited quantities necessary for daily operation of the equipment, machinery or vehicle. No liquids shall be allowed to be stored onsite overnight.
Soil erosion from the disturbed areas and stockpile areas	<ul style="list-style-type: none"> • Site disturbance activities shall comply with the conditions of HAR, Chapter 11-55, Appendix C, under Special Conditions for Land Disturbance (also stated in C.8.b.iv. of this permit application). • Measures to control erosion and other pollutants shall be in place before soil disturbance is initiated. The measures shall be properly constructed and maintained throughout the construction duration. Refer to "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999. • Check and repair all erosion control measures as necessary • All temporary measures are to remain in place until permanent measures are in-place and established.
Location(s) of oil, fuel or any hazardous material storage site(s) and containment structure(s)	<ul style="list-style-type: none"> • Oil and fuel will be stored at the Contractor's facility and brought to the project site only when, and in the amount needed. • Oil and fuel shall be kept in a secure area protected from stormwater while onsite. • Unused oil and fuel shall be returned to the Contractor's storage area at the end of the workday.
Discharges associated with emulsified asphalt or prime/tack coat	<ul style="list-style-type: none"> • Emulsified asphalt shall be used according to the manufacturer's instructions and shall not be applied during or when inclement weather is imminent. Only the amount needed to complete the job being performed shall be used. • In the event of spillage, clean up immediately according to manufacturer's instructions and to the Spill Control Plan described in the Construction Drawings.

Discharges associated with painting and paint wash solvent/water	<ul style="list-style-type: none"> • N/A, no work of this nature is anticipated.
Industrial chemicals, fertilizers, and/or pesticides	<ul style="list-style-type: none"> • The products, if needed, will be stored at the Contractor's facility and brought to the project only when needed. • The products will be stored in a secure area protected from stormwater while onsite. • Good housekeeping practices will be followed and shall include: following the manufacturer's recommendations for proper use and disposal; using only the minimum amounts recommended; keeping products tightly sealed in their original containers with original manufacturer's label.
Other Sources	<ul style="list-style-type: none"> • N/A, no other apparent sources.

C.8.b.vi. CONSTRUCTION SCHEDULE

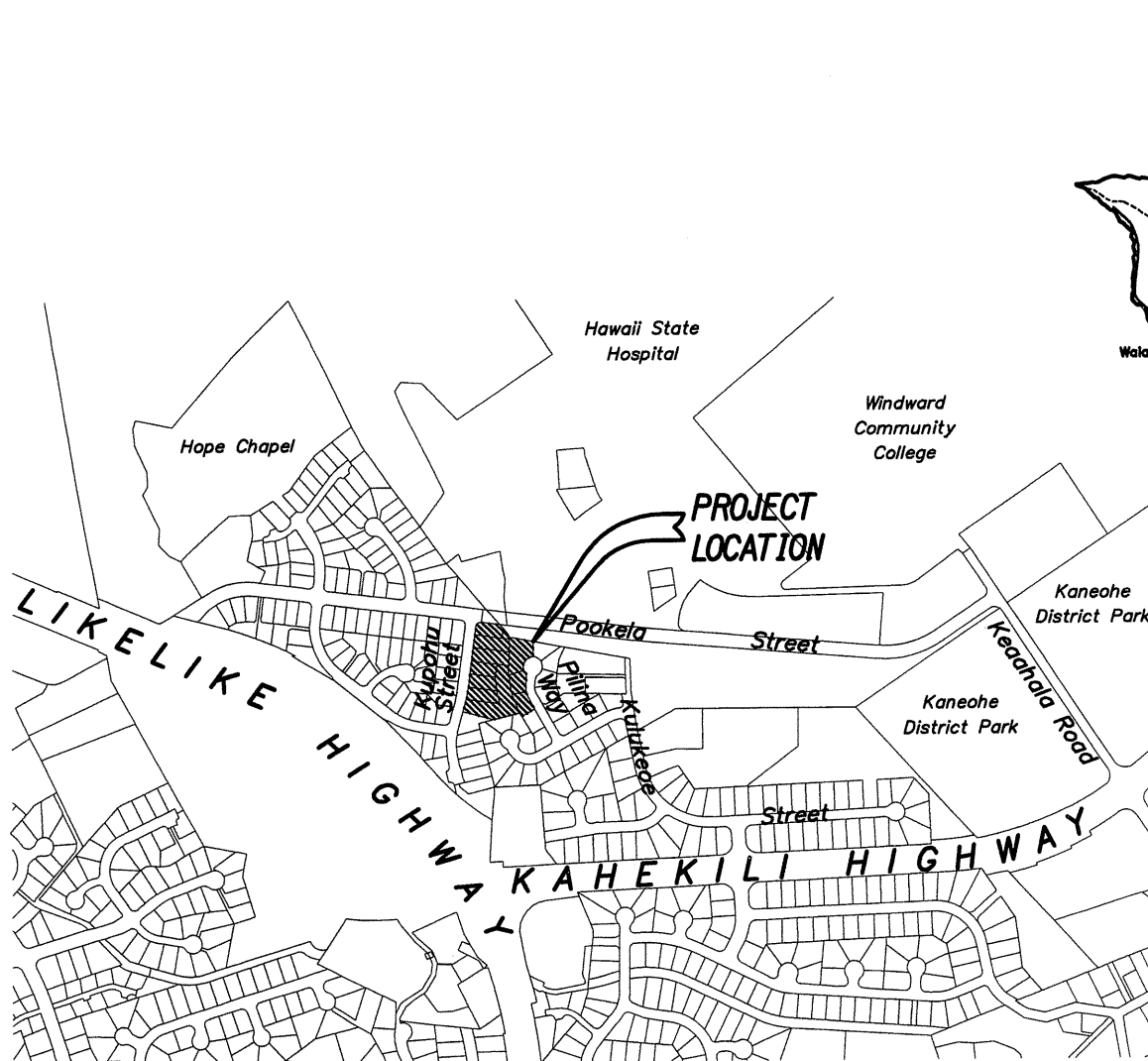
Refer to Figure 17 – Castle Hills Access Road, Drainage Improvements Tentative Construction Schedule for specific dates for the various construction activities listed in items (1) through (7).

C.9. POST-CONSTRUCTION POLLUTANT CONTROL MEASURES

Generally, most of the existing impermeable areas within the project limits will be removed as part of the work. Impermeable areas include ten (10) homes, and their associated paved driveways, and walkways. All areas disturbed by construction activity will be hydromulch seeded as soon as practicable. These areas, once fully established, will provide better pollutant mitigation than the previously removed hardscapes.

The installation of a new concrete drainage outlet with gabion walls at the outlet apron and along the stream banks will also be included as part of the work. These new structures will provide permanent erosion control and slope stability to the bank and stream areas.

Long-term erosion from the project site will be reduced as a result of the decreased impermeable surfaces, increased permeable grassed areas, proposed drainage outlet improvements, proposed landscape improvements and bank stabilization measures.



400 0 200 400
SCALE IN FEET
LAYOUT PLAN

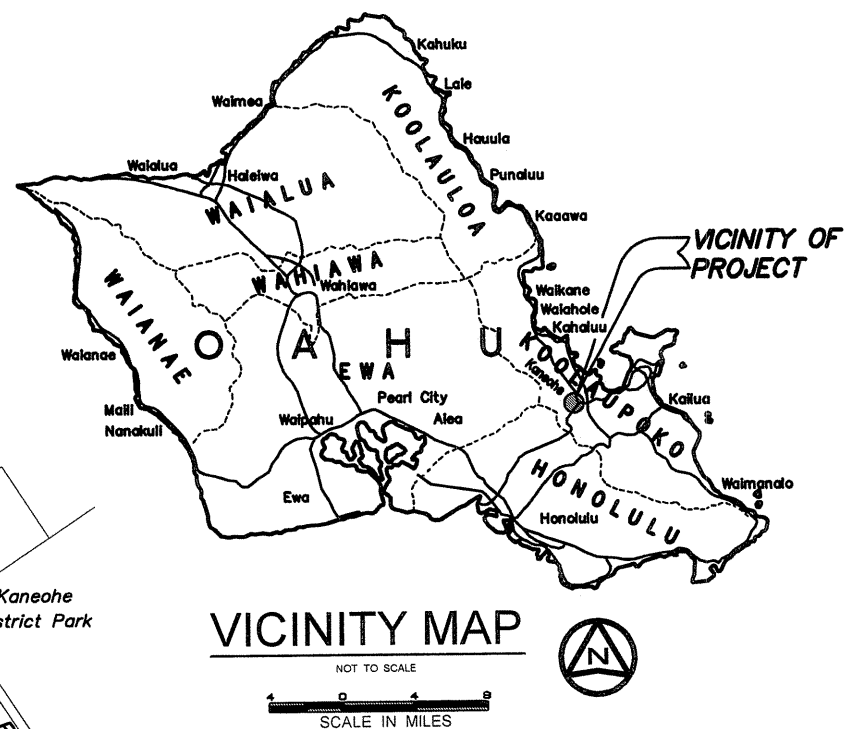


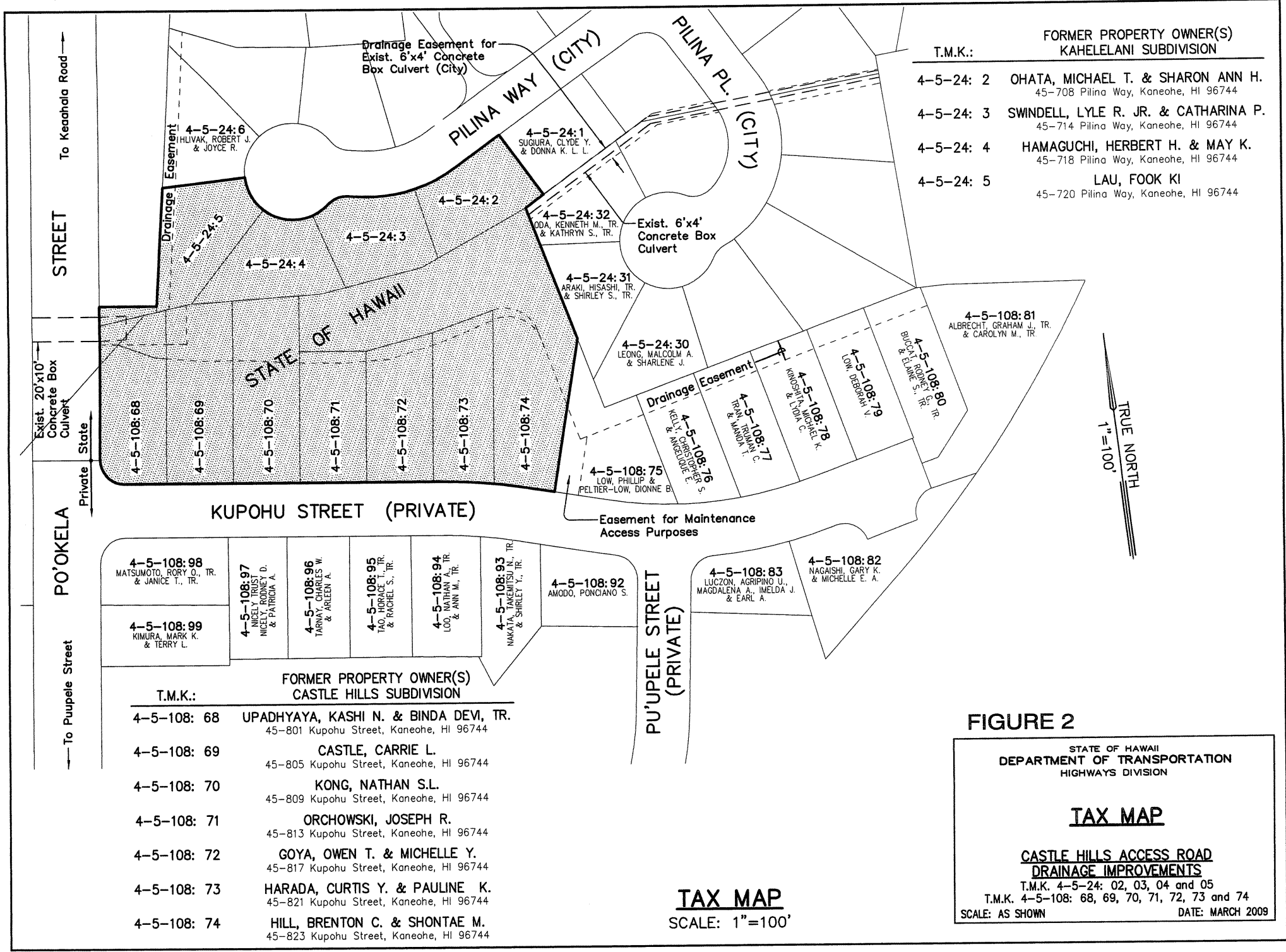
FIGURE 1

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VICINITY & LOCATION MAP

**CASTLE HILLS ACCESS ROAD
DRAINAGE IMPROVEMENTS**

T.M.K. 4-5-24: 02, 03, 04 and 05
T.M.K. 4-5-108: 68, 69, 70, 71, 72, 73 and 74
SCALE: AS SHOWN DATE: MARCH 2009



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

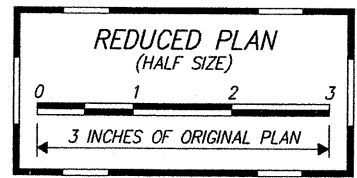
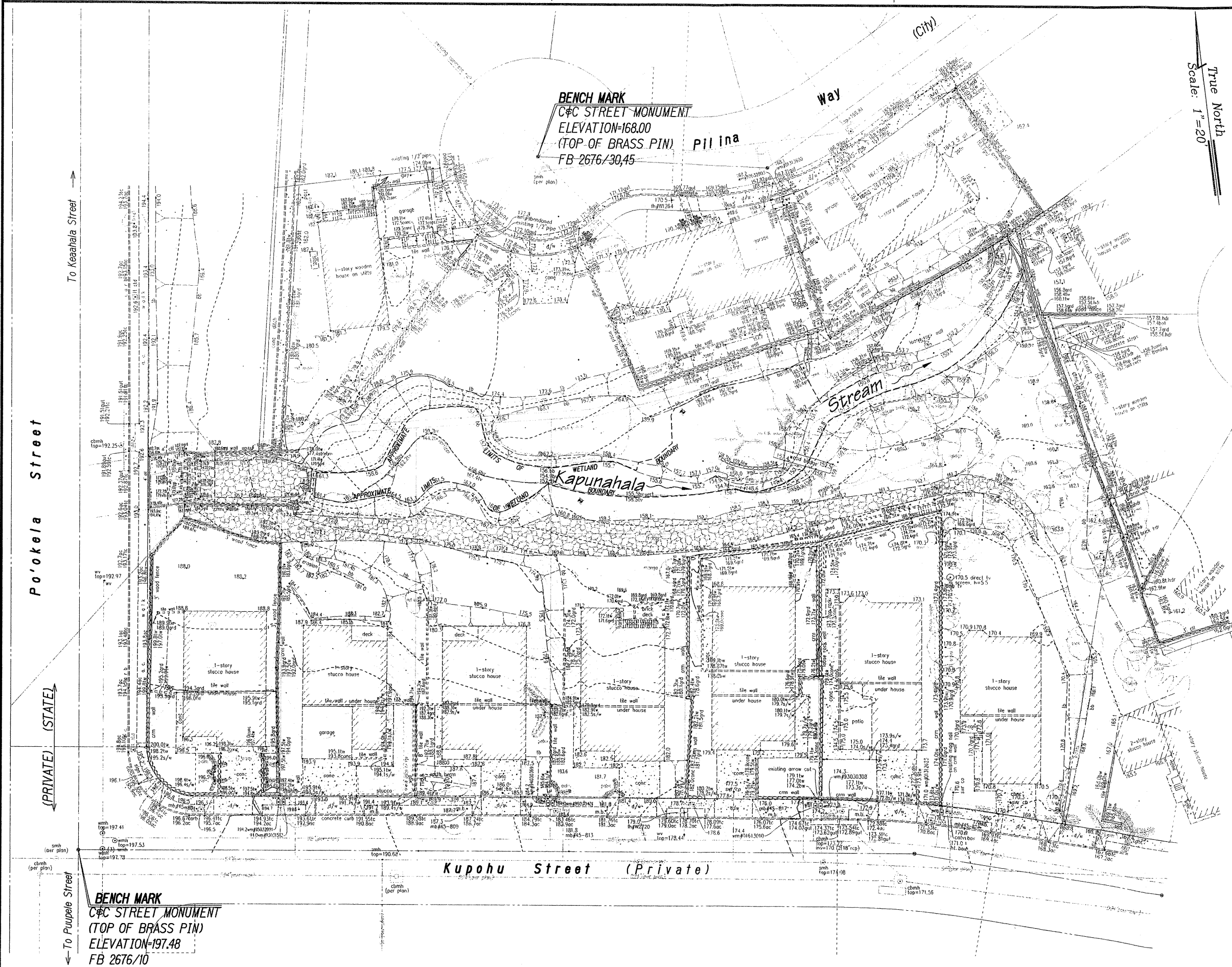


FIGURE 3

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXISTING CONDITIONS

CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. 1 OF 1 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

Legend:

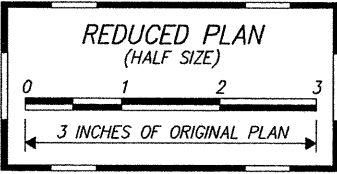
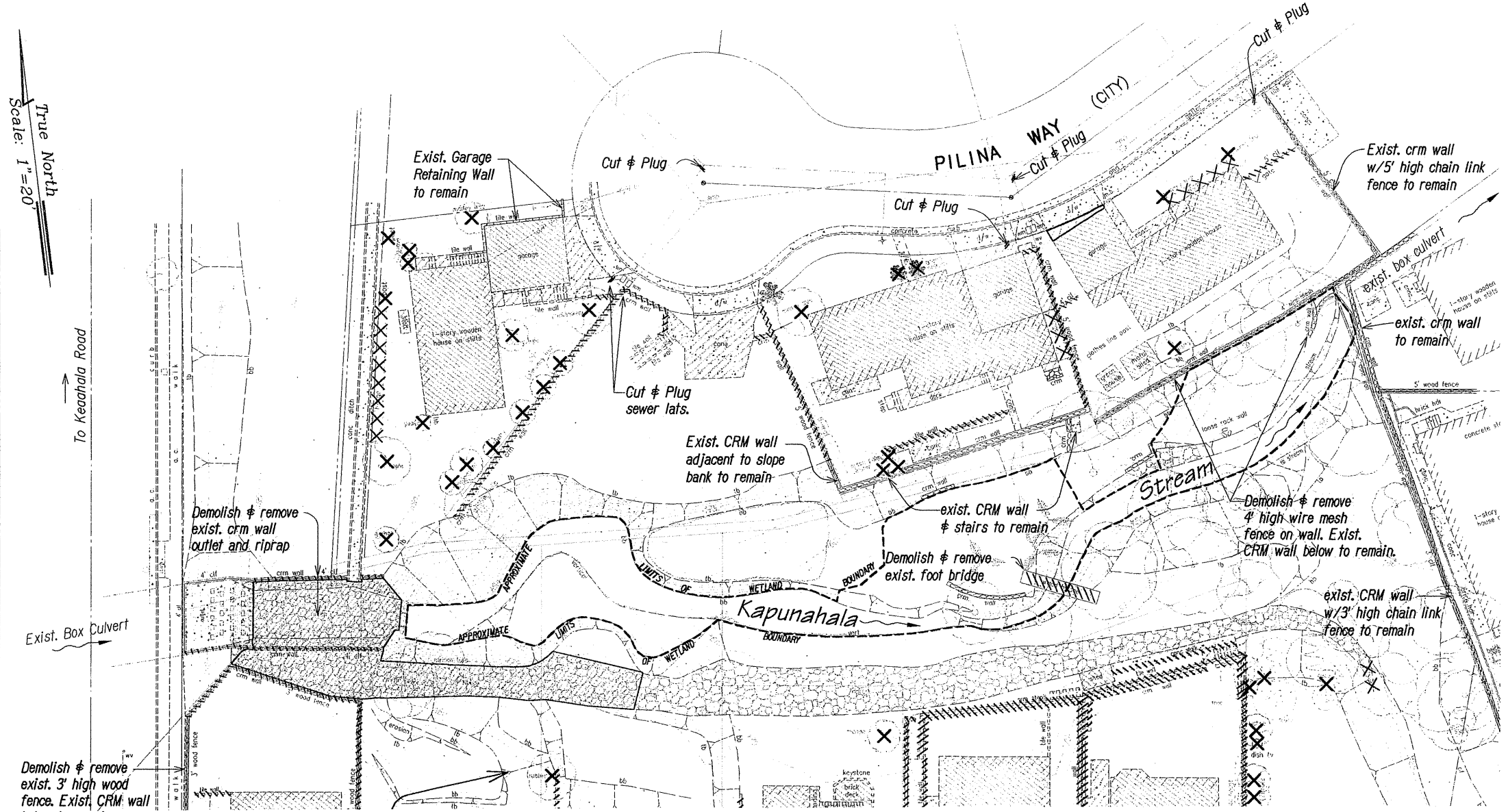
- Existing structure to be demolished and removed.
- Existing pavement to be demolished and removed.
- Existing cmu wall to be demolished and removed, including fencing where applicable.
- Existing cmu wall to be demolished and removed, including fencing where applicable.
- Existing foot bridge to be demolished and removed
- Existing hedge to be demolished and removed.
- Existing tree to be demolished and removed.
- Existing tree to be demolished and removed.
- Existing tree to be demolished and removed.

General Demolition Notes:

- The Contractor shall verify existing conditions prior to bidding. Any discrepancies shall be brought to the attention of Engineer for clarification.
- The Contractor shall bring any conflicts and/or questions to the attention of the Engineer prior to the start of demolition. Any remedial work resulting from the Contractor's failure to do so shall be paid by the Contractor at no cost to the State. All restoration work shall be paid for by the Contractor.
- All existing improvements and utilities that are to remain within the demolition and construction areas shall be protected and maintained by the Contractor during his operations, unless otherwise noted. Any remedial work resulting from the Contractor's failure to do so shall be paid for by the Contractor at no cost to the State.
- Backfill and compact all voids and depressions caused by demolition operations.
- The Contractor shall properly remove and dispose offsite of all demolition materials at no additional cost to the State.
- After completion of the demolition work, the Contractor shall clean the project limits of all demolished materials, rubbish and all other debris which shall then be transported to a legal offsite disposal site.
- All temporary erosion control measures shall be installed prior to demolition work as shown on the erosion control plan, dwg.
- Existing utility lines shown are based on best available as-built drawings on file with the City and County of Honolulu.
- Prior to excavation near or around the existing utilities, the Contractor shall restrain all existing pipes, water valves, concrete block, concrete jackets, etc., as required to ensure the existing utilities are not disturbed.

Notes:

- Contractor to cut and plug existing unused water laterals at the main. Meter and valve boxes shall be demolished and removed. The damaged areas shall be repaired to an equal or better condition than the surrounding area.
- Contractor to cut and plug existing unused sewer laterals at the property line. Existing sewer cleanouts, whether or not shown on the plans shall be demolished and removed. The existing holes shall be backfilled and compacted with aggregate based course.
- Contractor to locate, cap, cut and plug, and abandon all existing unused electric telephone and cable conduits at the property line after removal of conductors.
- Salvage clean and reuse rock for the new CRM Walls and grouted riprap paving (grp) slope protection.



DEMOLITION PLAN - NORTH OF STREAM
SCALE: 1"=20'

FIGURE 4

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DEMOLITION PLAN
NORTH OF STREAM
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98





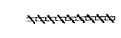




Scale: As Shown Date: March 2009
SHEET No. DP1 OF DP2 SHEETS

DATE	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

D:\Projects\Kaneohe\Castle Hills\WPDS\Figure 4 - Demolition.dwg

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

Legend:

-  Existing structure to be demolished and removed.
-  Existing pavement to be demolished and removed.
-  Existing crm wall to be demolished and removed,
including fencing where applicable.
-  Existing cmu wall to be demolished and removed,
including fencing where applicable.
-  Existing foot bridge to be demolished and removed
-  Existing hedge to be demolished and removed.
-  Existing tree to be demolished and removed.
-  Existing tree to be demolished and removed.
-  Existing tree to be demolished and removed.

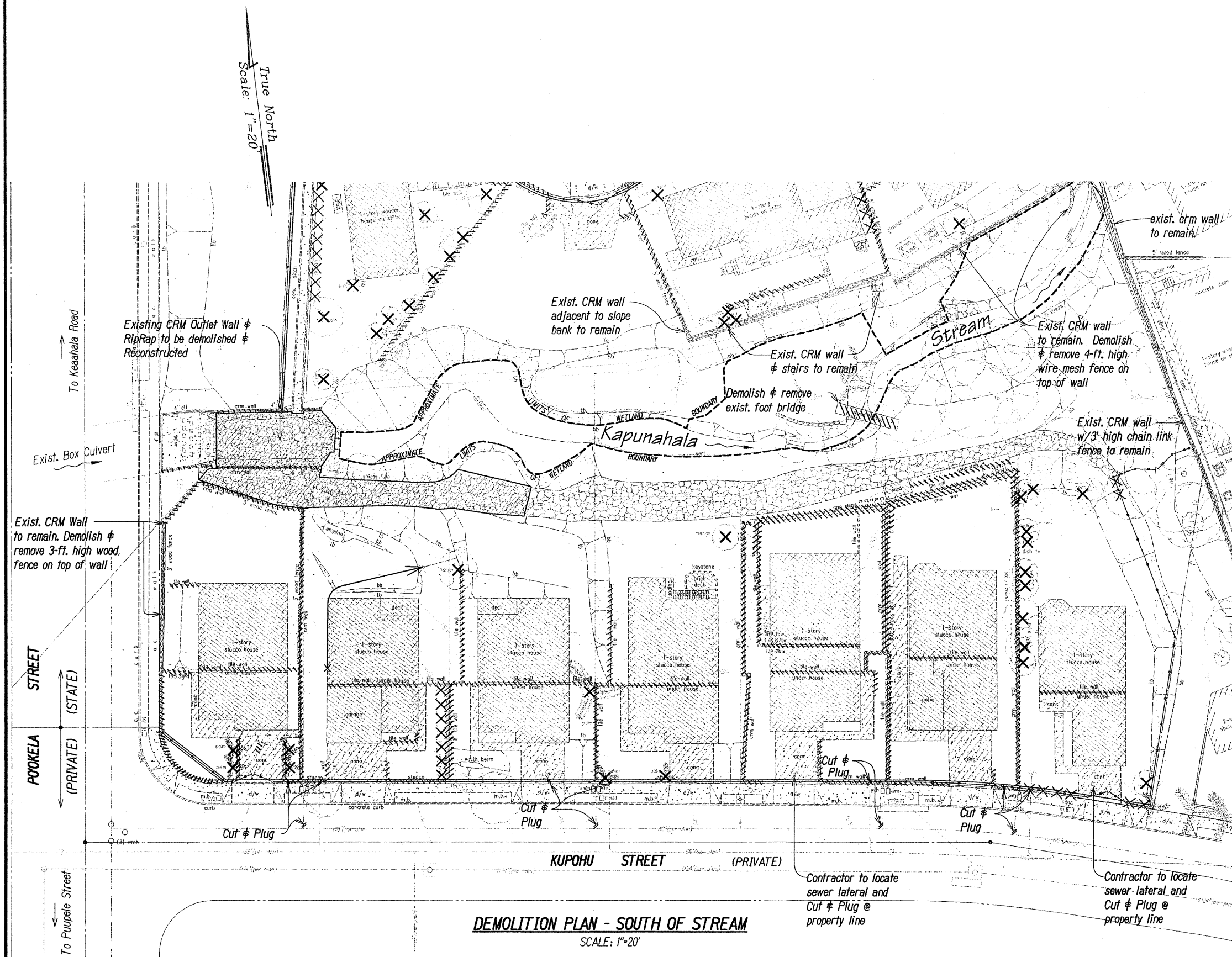


FIGURE 5

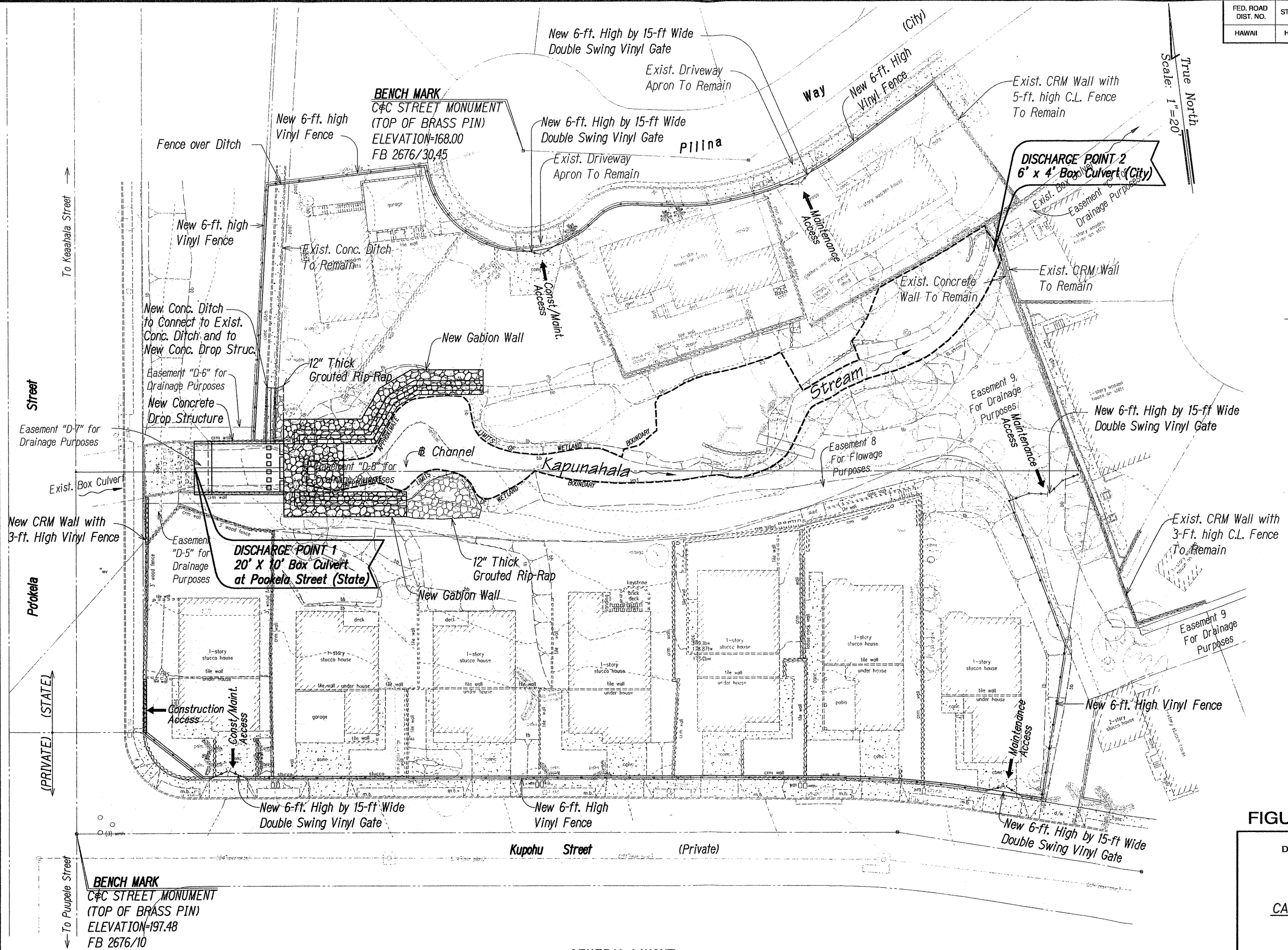
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DEMOLITION PLAN
SOUTH OF STREAM
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. DP2 OF DP2 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	" "
	TRACED BY _____	" "
	DESIGNED BY _____	" "
	QUANTITIES BY _____	" "
No. _____	CHECKED BY _____	" "

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X



- Legend:**
- Gabion Wall
 - Grouted Rip-Rap
 - 6-ft High Vinyl Fence w/ Conc. Mow Strip
 - 6-ft. High by 15-ft Wide Double Swing Vinyl Gate



FIGURE 6

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL LAYOUT

CASTLE HILLS ACCESS ROAD

Drainage Improvements

Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. C1 OF C1 SHEETS

DATE	BY
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	

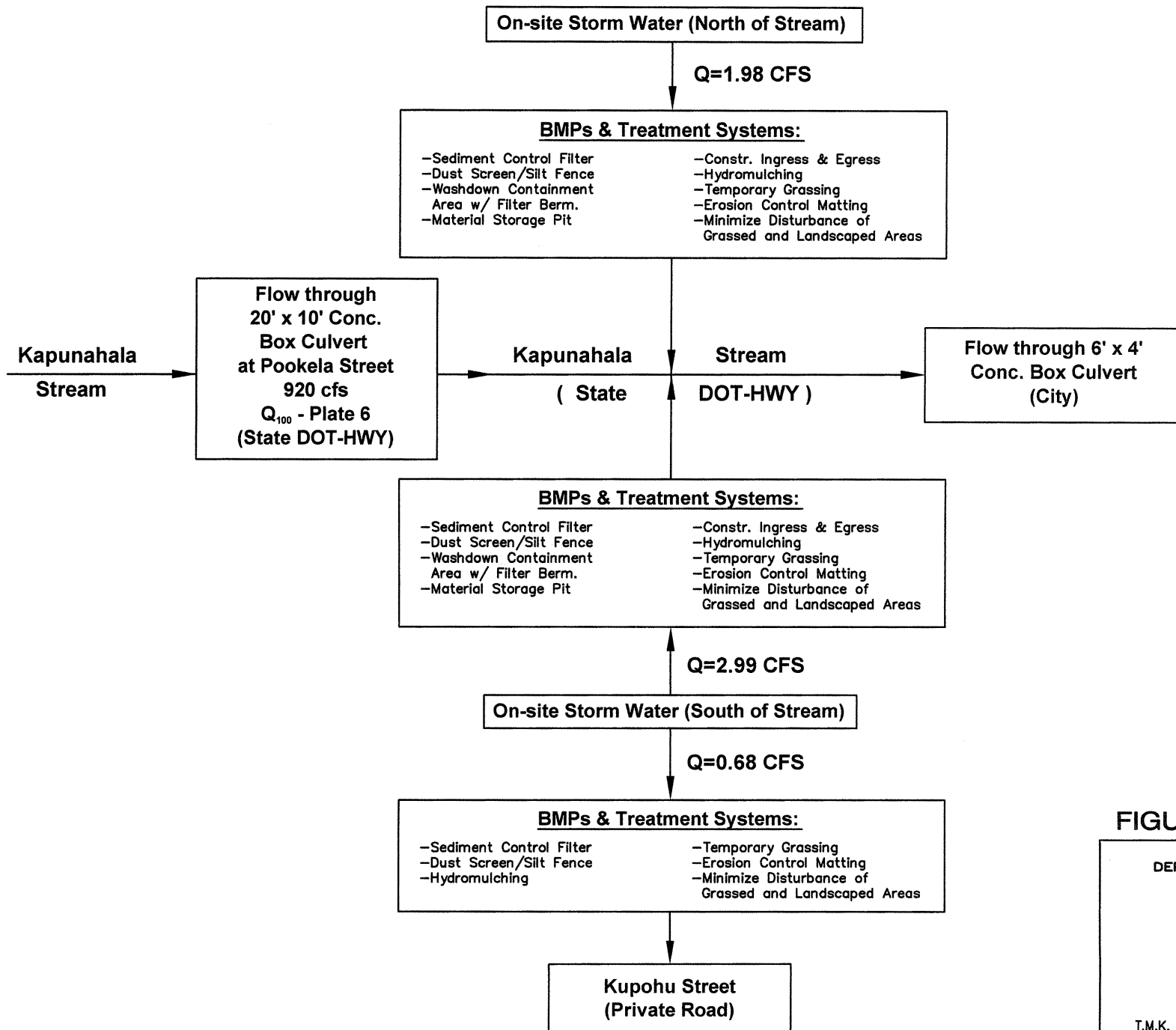


FIGURE 7

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FLOW CHART

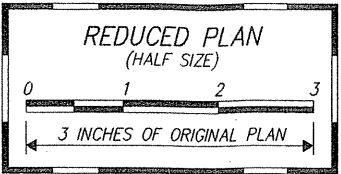
**CASTLE HILLS ACCESS ROAD
DRAINAGE IMPROVEMENTS**

T.M.K. 4-5-24: 02, 03, 04 and 05
T.M.K. 4-5-108: 68, 69, 70, 71, 72, 73 and 74
SCALE: AS SHOWN DATE: MARCH 2009

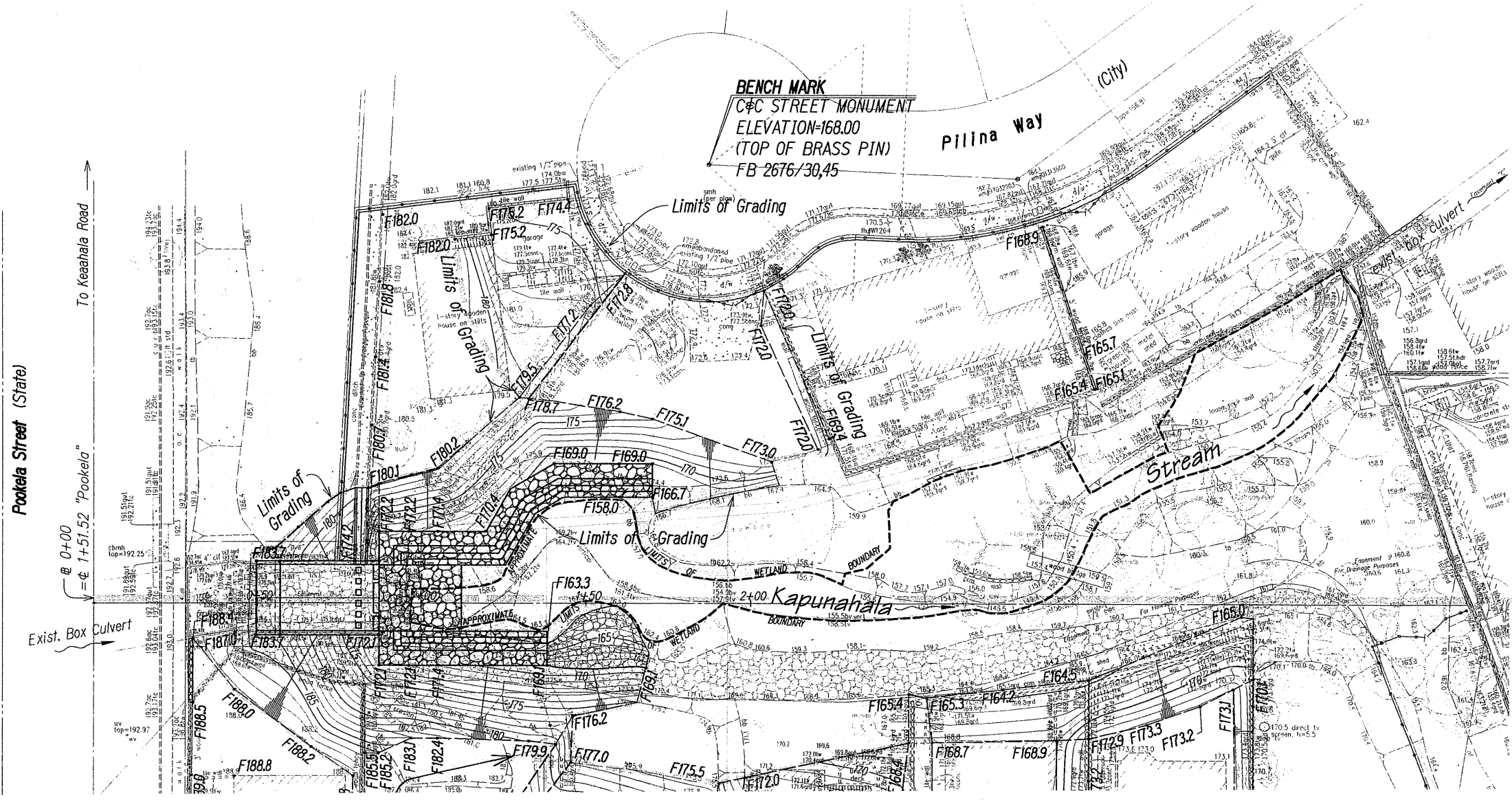
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

Legend:

- 180 Finish 5-ft Contour
- 180 Finish 1-ft Contour
- Existing 5-ft Contour
- Existing 1-ft Contour
- Limits of Grading
- F179.9 Finish Grade Elevation
- 182.0 Existing Ground Elevation
- Grade Bank



True North
Scale: 1"=20'



GRADING PLAN - NORTH OF STREAM
SCALE: 1"=20'

FIGURE 8

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GRADING PLAN
NORTH OF STREAM
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009
SHEET No. GP1 OF GP2 SHEETS

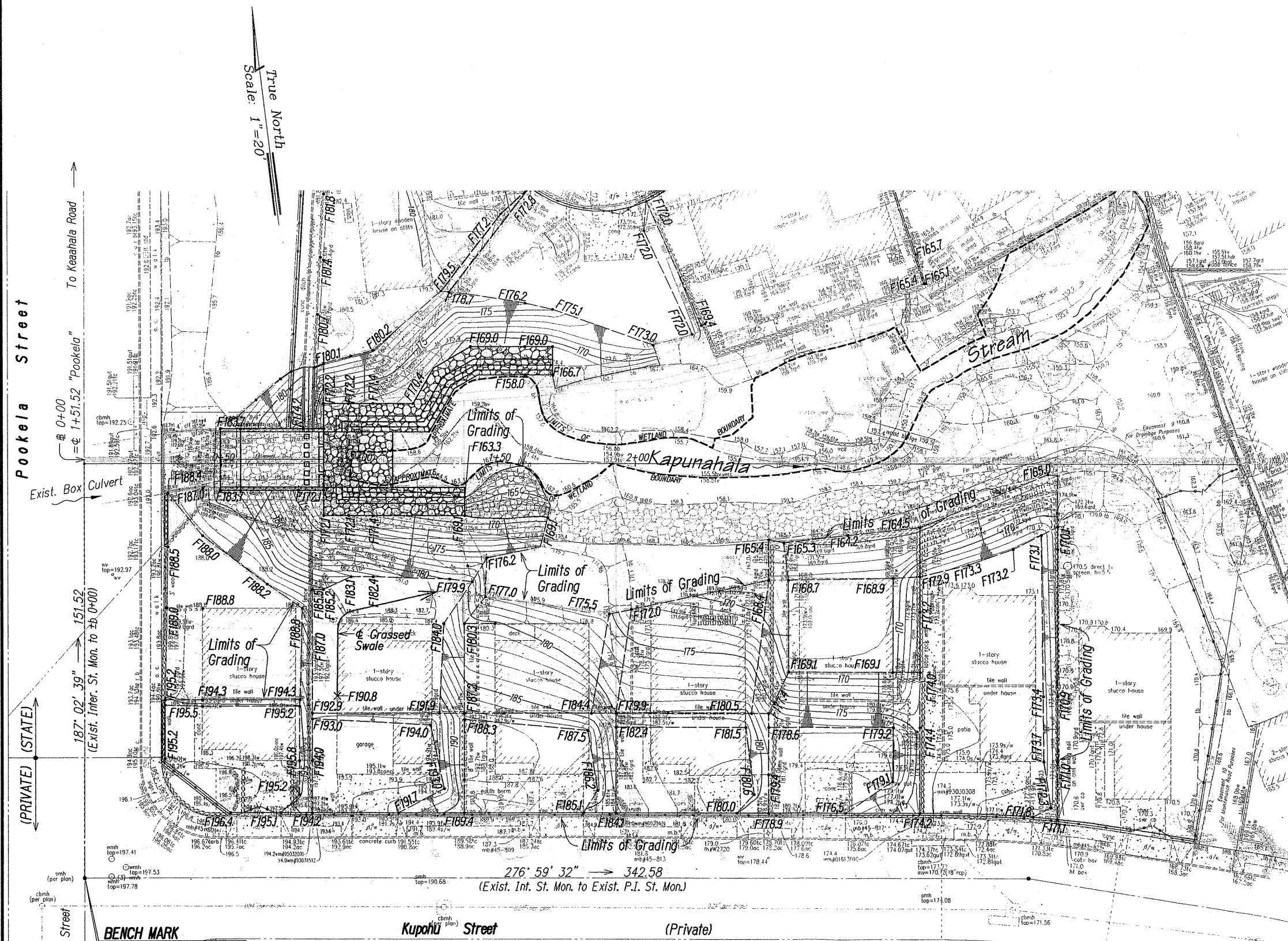
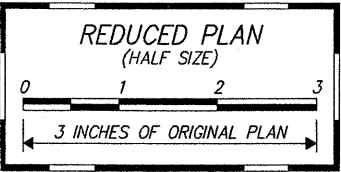
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	No.
NOTE BOOK	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

Legend:

- 180 Finish 5-ft Contour
- 182.0 Finish 1-ft Contour
- Existing 5-ft Contour
- Existing 1-ft Contour
- Limits of Grading
- F179.9 Finish Grade Elevation
- 182.0 Existing Ground Elevation
- Grade Bank

Match Line
(See Sheet *)



BENCH MARK
C&C STREET MONUMENT
(TOP OF BRASS PIN)
ELEVATION=197.48
FB 2676/10

GRADING PLAN - SOUTH OF STREAM
SCALE: 1"=20'

FIGURE 9

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GRADING PLAN
SOUTH OF STREAM
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. GP2 OF GP2 SHEETS

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

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U:\Projects\Castle Hills\NPDES\Figure 9 - Grad_South.dwg

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

Legend:

— · — · — Silt Fence
———— Dust Screen/Silt Fence

REDUCED PLAN
(HALF SIZE)

FIGURE 10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

CASTLE HILLS ACCESS ROAD

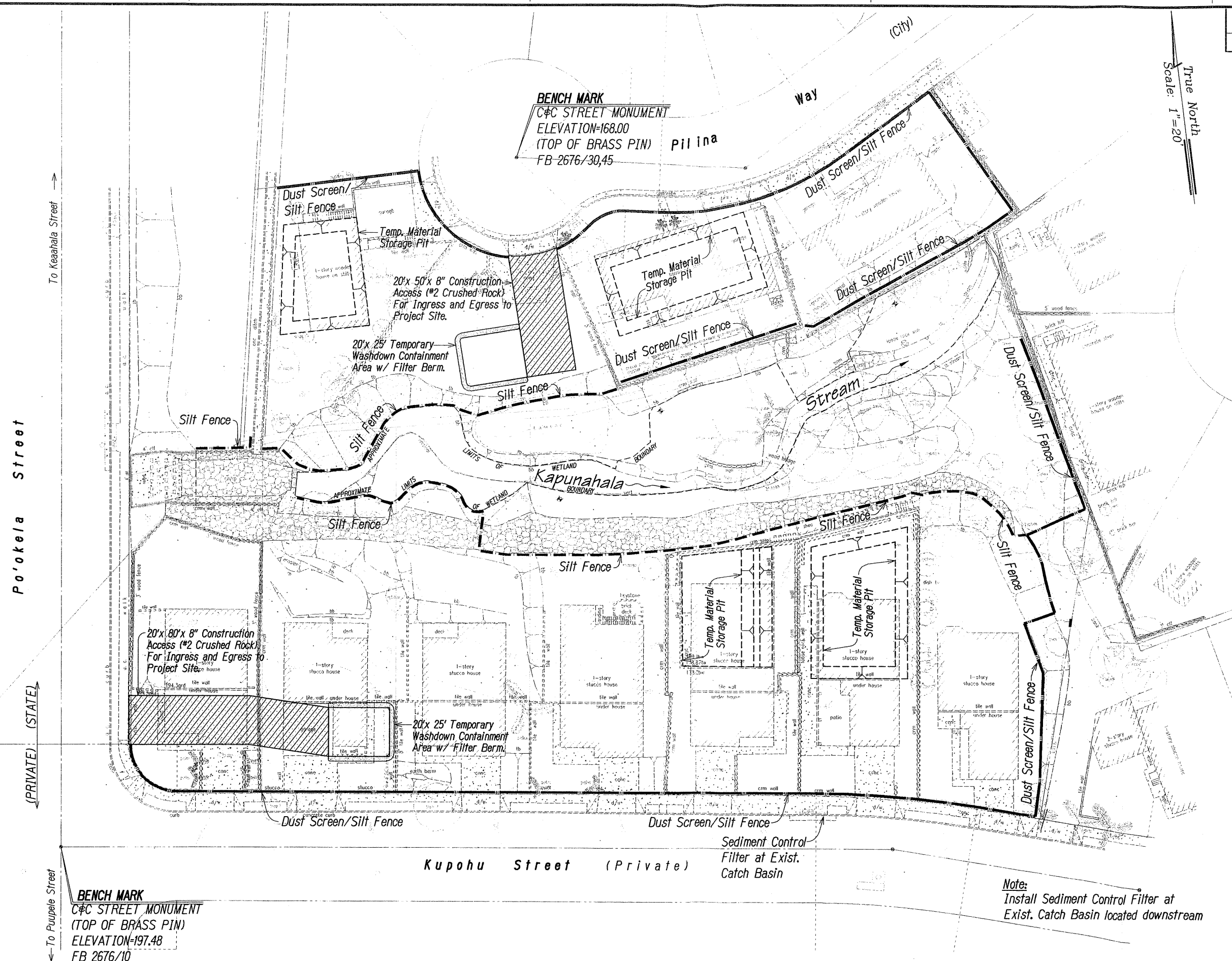
Drainage Improvements

Project No. HWY-0-04-98

Scale: As Shown

Date: March 2009

SHEET No. *EC1* OF *EC4* SHEETS



EROSION CONTROL PLAN

SCALE: 1"=20'

Note:
Install Sediment Control Filter at
Exist. Catch Basin located downstream

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	" _____
	TRACED BY _____	" _____
	DESIGNED BY _____	" _____
	QUANTITIES BY _____	" _____
No. _____	CHECKED BY _____	" _____

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

1. The Contractor is reminded of the requirements of Section 209 - Temporary Water Pollution, Dust, and Erosion Control, in the Special Provisions. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
2. The Contractor shall follow the guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
3. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
4. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
5. For projects that require a NPDES Permit from the Dept. of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the rain gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

B. WASTE DISPOSAL:

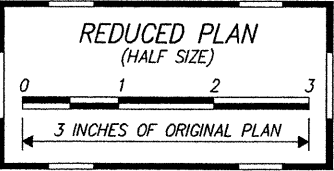
1. Waste Materials:
All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as is deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.
2. Hazardous Waste:
All hazardous waste materials shall be disposed of in the manner specified by local or State regulation or by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.
3. Sanitary Waste:
All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

C. EROSION & SEDIMENT CONTROL INSPECTION & MAINTENANCE PRACTICES:

1. All control measures shall be inspected at least once each week and within 24 hours following any rainfall event of 0.5 inches or greater. Submit a copy of the inspection report to the Engineer, no later than 1 week from date of inspection.
2. All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
3. Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
4. Silt screen or fence shall be inspected for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground.
5. Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
6. A maintenance inspection report shall be made promptly after each inspection by the Contractor.
7. The Contractor shall select a minimum of three personnel who shall be responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
8. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
9. The Contractor shall contain, remove and dispose of slurry generated from sawcutting activities. Payment for containing, removing and disposing of slurry from sawcutting activities will be considered incidental to the various items.
2. Hazardous Material Pollution Prevention Plan
- a. Products shall be kept in original containers unless they are not resealable.
- b. Original labels and material safety data sheets (MSDS) shall be retained.
- c. Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.
3. Onsite and Offsite Product Specific Plan
- a. The following product specific practices shall be followed onsite:
- 1) Petroleum Based Products: All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendation.
- 2) Fertilizers: Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.
- 3) Paints: All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.
- 4) Concrete Trucks: Concrete trucks shall be allowed to wash out or drum wash water only at designated sites. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan
- a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.
- | | |
|---------------------------|--------------------------|
| Concrete | Fertilizers |
| Detergents | Petroleum Based Products |
| Paints (enamel and latex) | Cleaning Solvents |
| Metal Studs | Wood |
| Tar | Masonry Block |
- b. Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.
- c. All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Products shall be kept in their original containers with the original manufacturer's label.



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009	5	X

- b. Offsite Vehicle Tracking: A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.
4. Spill Control Plan
- a. A spill prevention plan shall be posted and adjusted to include a description and cause of each spill, measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.
- c. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- e. All spills shall be cleaned up immediately after discovery.
- f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of one (1) acre or more, the Contractor shall submit to the Engineer, six sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.04 of the specifications.
2. The Contractor shall comply with all applicable State and Federal Permit conditions. Permit may include but are not limited to the following:
NPDES Permit for Construction Activities

FIGURE 11

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

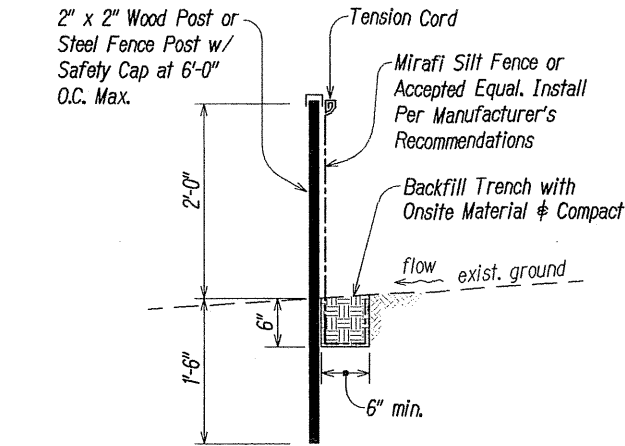
WATER POLLUTION AND
EROSION CONTROL NOTES
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009
SHEET No. ECP 2 OF ECP 4 SHEETS

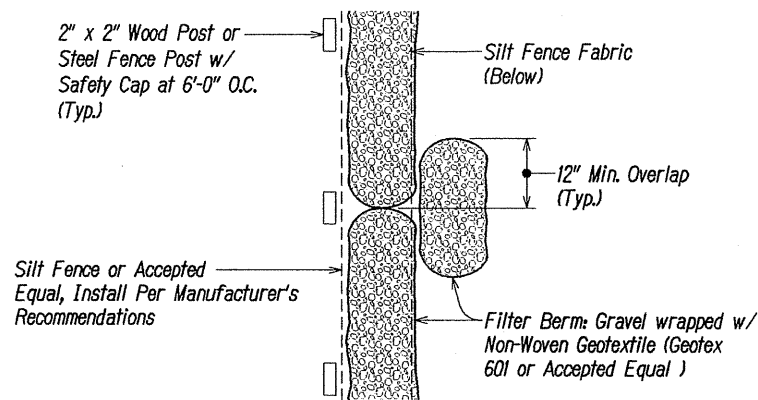
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

BEST MANAGEMENT PRACTICES (BMP's) NOTES:

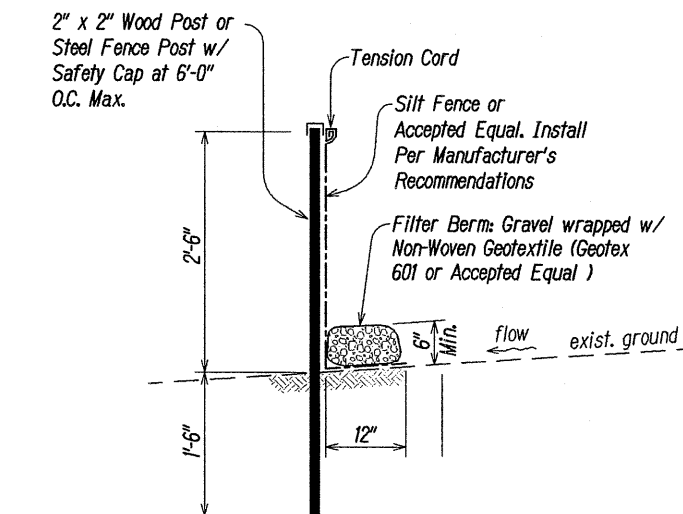
- The Contractor shall install the erosion control measures at the locations shown, or as directed by the Engineer, as soon practicable.
- The construction ingress and egress shall be constructed with 8" thick crushed rock (#2 coarse) layer over geotextile fabric (Geotex 250ST or accepted equal) to the dimensions and at the locations shown on the phasing plans. Should the Contractor require an ingress and egress other than what is shown on the plans, the Contractor shall be responsible to obtain all necessary approvals, including relocating the crushed rock area as required.
- Slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading has been completed. Grading to final grade shall be continuous and any area within which work has been interrupted or delayed shall be planted.
- All Best Management Practices (BMP's) shall not be removed until all permanent erosion control controls are in place and established.
- The Contractor shall cover the openings to all existing and proposed storm drain inlets with a filter system until permanent ground cover is established. Maintenance of inlet filters by the Contractor shall be included for the duration of the project.
- At the ending of grading operations, existing storm drain inlets and manholes surrounding the project site shall be inspected and any accumulated sediment and debris found in the drain structures shall be removed. Flushing into the inlets and manholes is prohibited.



SECTION (FOR NON-ROCK AREAS)



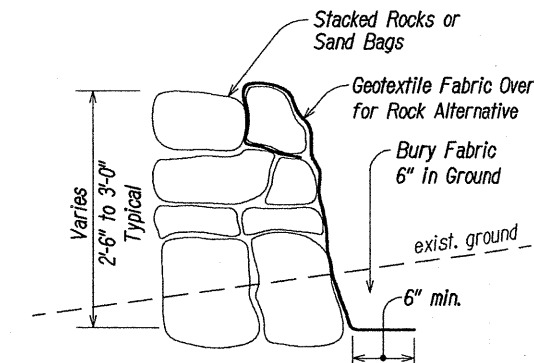
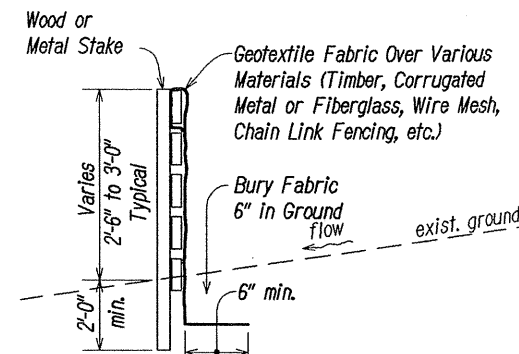
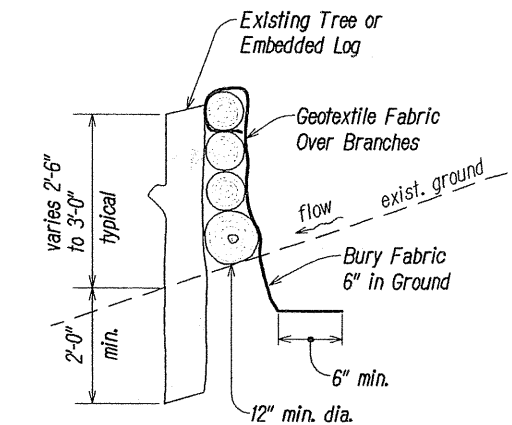
PLAN (FOR ROCK AREAS ONLY)



SECTION (FOR ROCK AREAS ONLY)

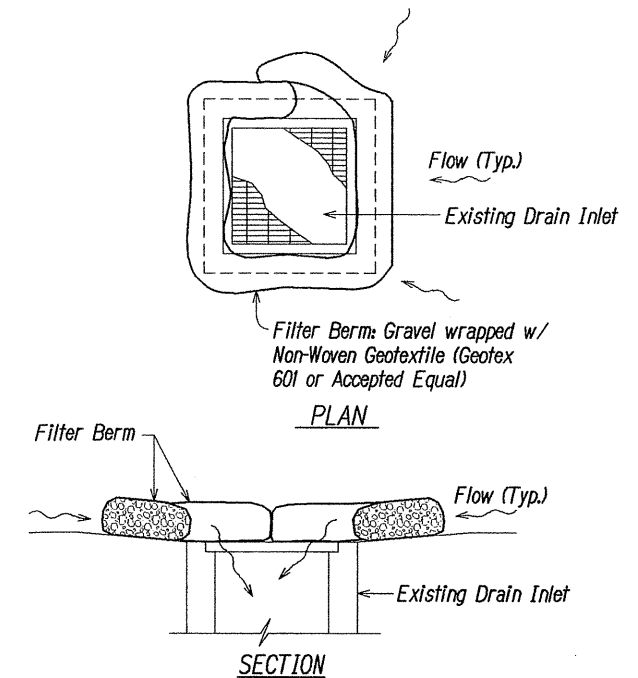
TYPICAL SILT FENCE DETAIL

Not to Scale



SEDIMENT CONTROL DEVICES
AND/OR ENERGY DISSIPATOR

Not to Scale



TYPICAL FILTER BERM DETAIL

Not to Scale



FIGURE 12

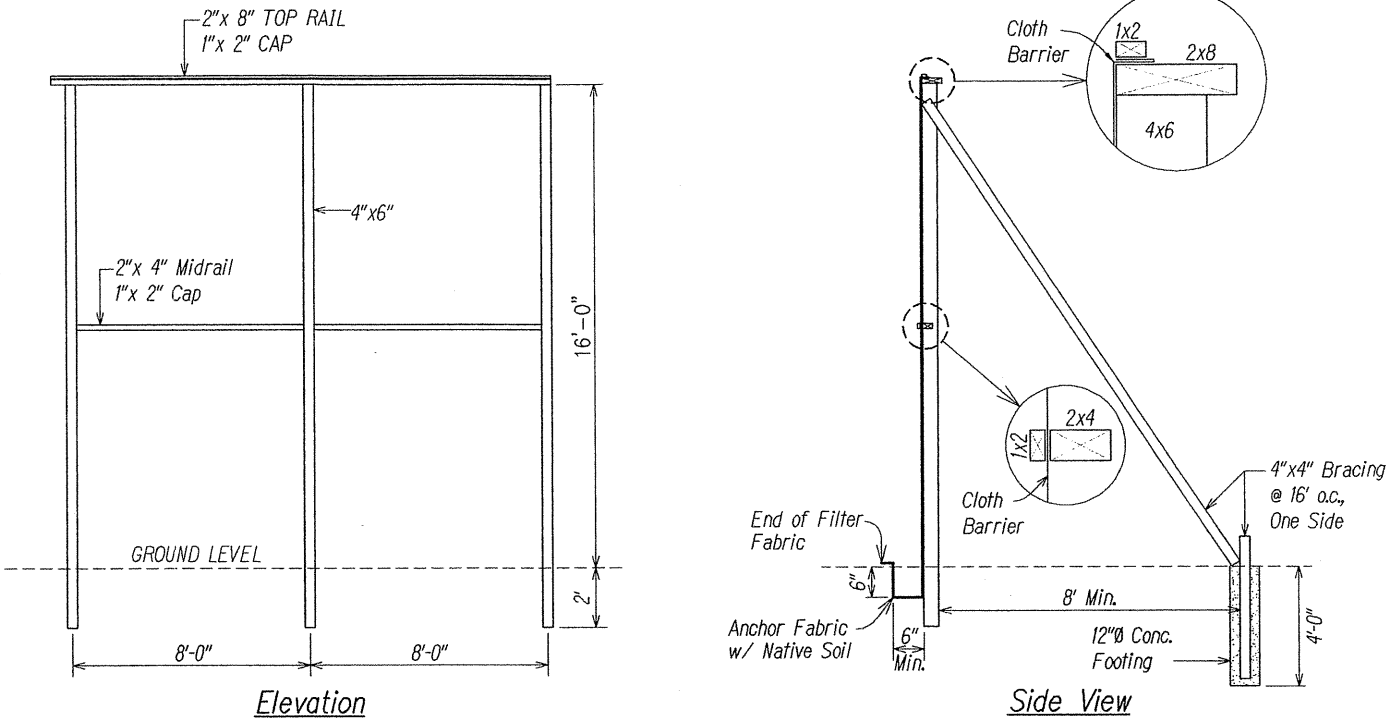
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
EROSION CONTROL
NOTES AND DETAILS
CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. EC3 OF EC4 SHEETS

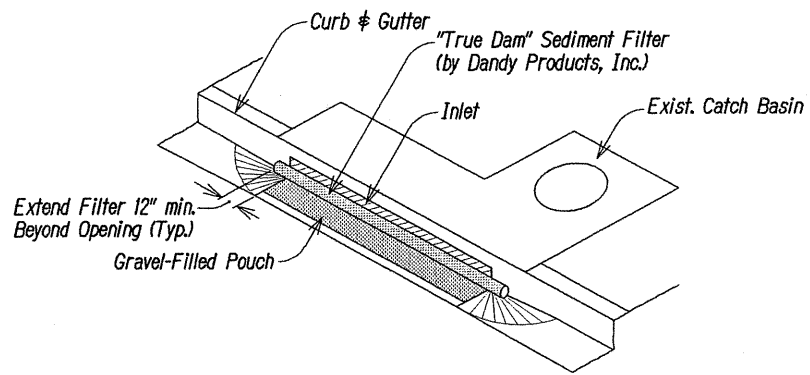
ORIGINAL PLAN	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
APPROVED BY	
DATE	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X



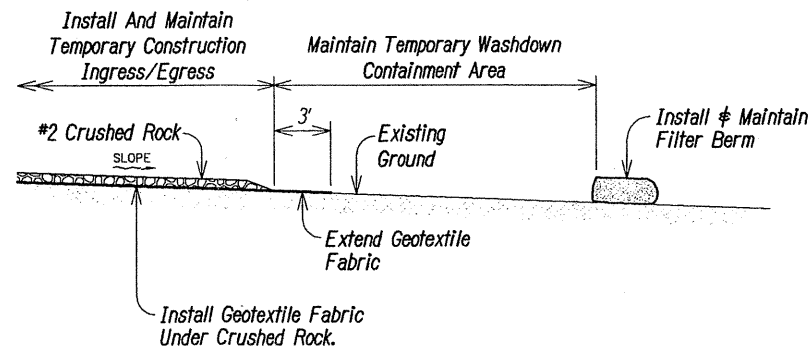
DUST SCREEN DETAIL
Not to Scale

- DUST SCREEN NOTES:**
1. The information provided is for the contractor's guidance as to the materials and overall dimensions required. The Contractor shall be responsible for the structural adequacy, maintenance and repair of the site barrier fence for the duration of the project.
 2. Cloth barrier not shown in elevation view for clarity.
 3. Cloth barrier shall be a "geotextile" or "nursery shade". Burlap is not an acceptable cloth barrier material.
 4. Silt Fence may be combined with the dust barrier provided the bottom 2-ft. of the dust barrier including anchoring, is constructed with Mirafi Silt Fence or Accepted Equal and installed per manufacturer's recommendations.
 5. Bury base of cloth barrier to indicated dimension, as shown.
 6. 1x2 cloth barrier caps to be nailed 12" o.c.
 7. Cloth to have no horizontal seams.
 8. Vertical seams to be made over uprights only.
 9. All seams to be capped with minimum of 1x2.
 10. All joints to be securely fastened by mechanical means.



- NOTES:**
1. Sediment control filters shall be constructed and maintained at all designated existing catch basins at the project site. It shall also be installed at catch basin downstream of the projects site on Pillina Way.
 2. The contractor shall remove filters at times of Above normal rainfall events and replace them When the event has passed.

SEDIMENT FILTER CONTROL
Not to Scale



TEMPORARY WASHDOWN CONTAINMENT AREA
Not to Scale

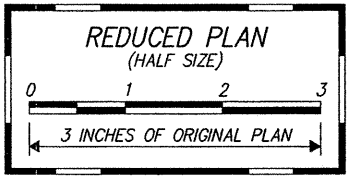


FIGURE 13

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL DETAILS

CASTLE HILLS ACCESS ROAD
Drainage Improvements
Project No. HWY-0-04-98

Scale: As Shown Date: March 2009

SHEET No. ECP4 OF ECP4 SHEETS

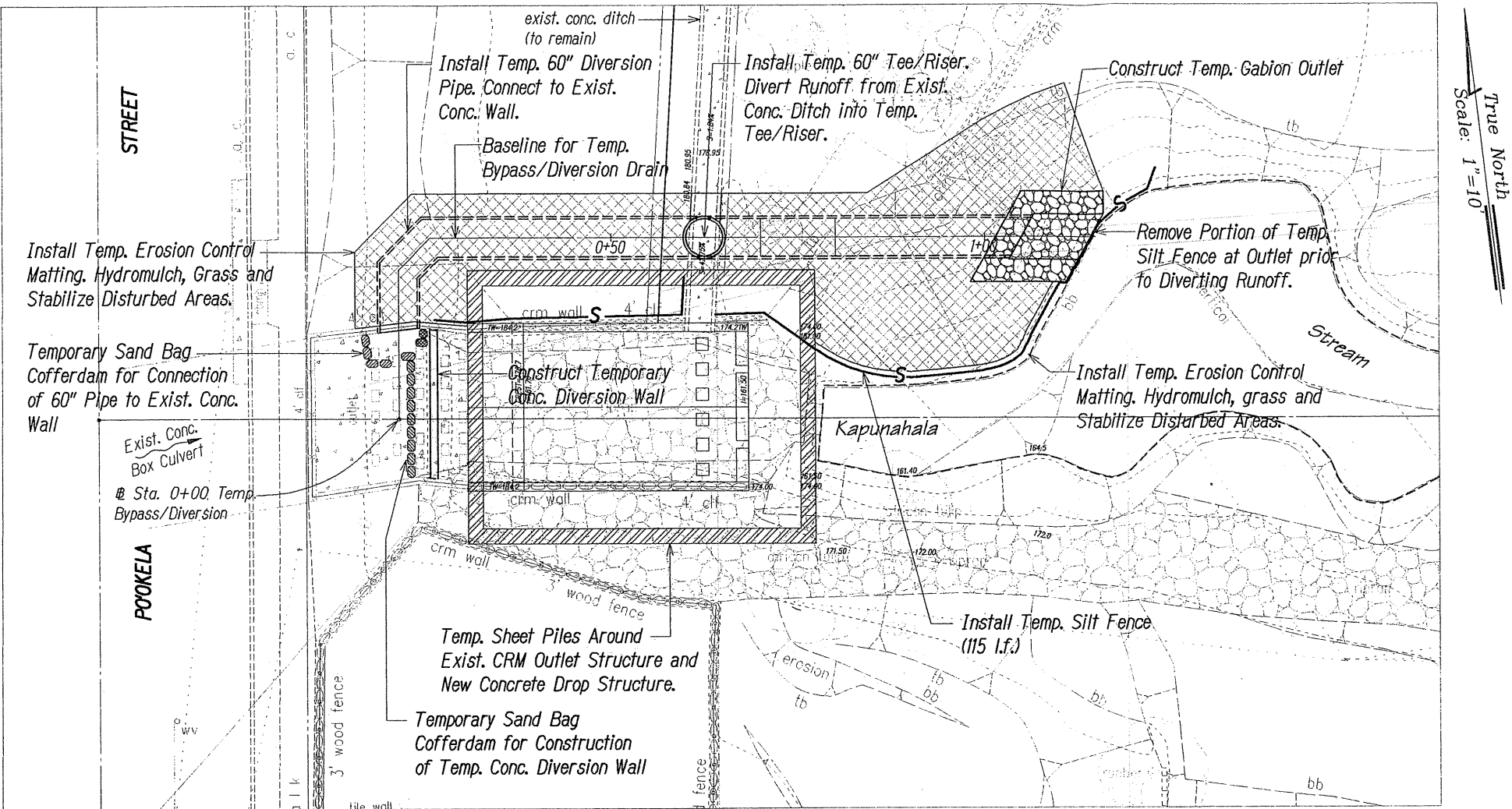
Wed, 01 Apr 2009 - 8:42am
D:\Projects\Kaneho\Castle Hills\WPDES\Figure 13 - ECP4 Notes\Details.dwg

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-04-98	2009		X

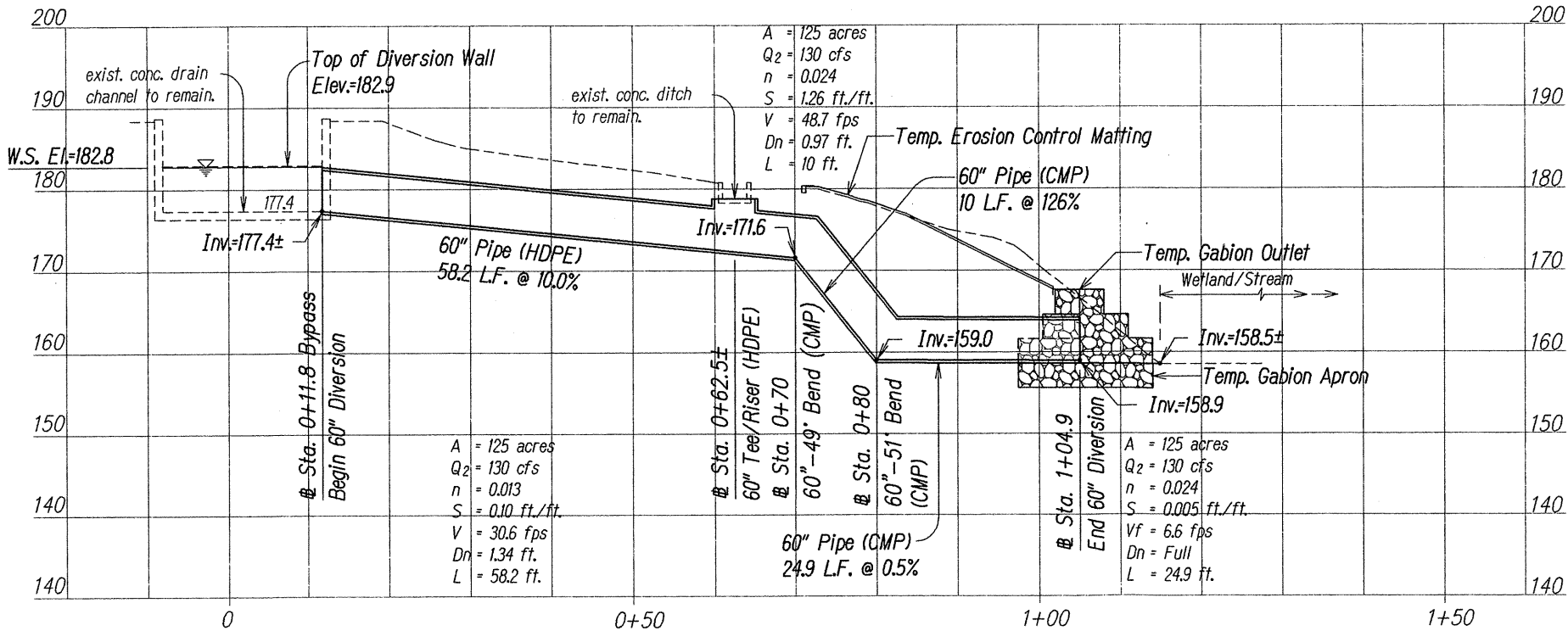
CONSTRUCTION SEQUENCE FOR TEMP. BYPASS/DIVERSION DRAIN

1. Install temporary silt fence at gabion outlet, along stream, stream bank, exist. crm and concrete walls, and concrete ditch.
2. Construct temporary gabion outlet.
3. Install 60" bypass/diversion drain from temporary gabion outlet to exist. concrete wall.
4. Remove temporary silt fence at gabion outlet and divert runoff from concrete lined ditch into the 60" bypass/diversion pipe.
5. Install sand bag cofferdam at existing concrete wall for connection of the 60" bypass/diversion pipe.
6. Demolish exist. concrete headwall as required for connection of the 60" bypass/diversion pipe.
7. Connect the 60" bypass/diversion pipe to exist. concrete headwall.
8. Remove temporary sand bag cofferdam at exist. conc. headwall.
9. Install temporary sand bag cofferdam for construction of the temporary concrete diversion wall and divert stream to 60" pipe.
10. Construct temporary concrete diversion wall.
11. Remove sand bag cofferdam at temporary concrete diversion wall and divert the flow into the 60" bypass/diversion pipe.
12. Install temporary erosion control matting over trench backfill and other disturbed areas, then hydromulch, grass and stabilize disturbed areas.



PLAN - TEMPORARY BYPASS/DIVERSION DRAIN

SCALE: 1"=10'



PROFILE - TEMPORARY BYPASS/DIVERSION DRAIN

Scale: 1"=10' (Bothways)

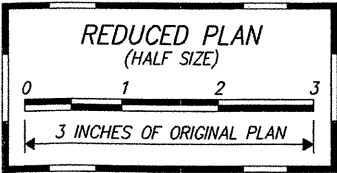


FIGURE 14

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TEMPORARY STREAM

DIVERSION PLAN

CASTLE HILLS ACCESS ROAD

Drainage Improvements

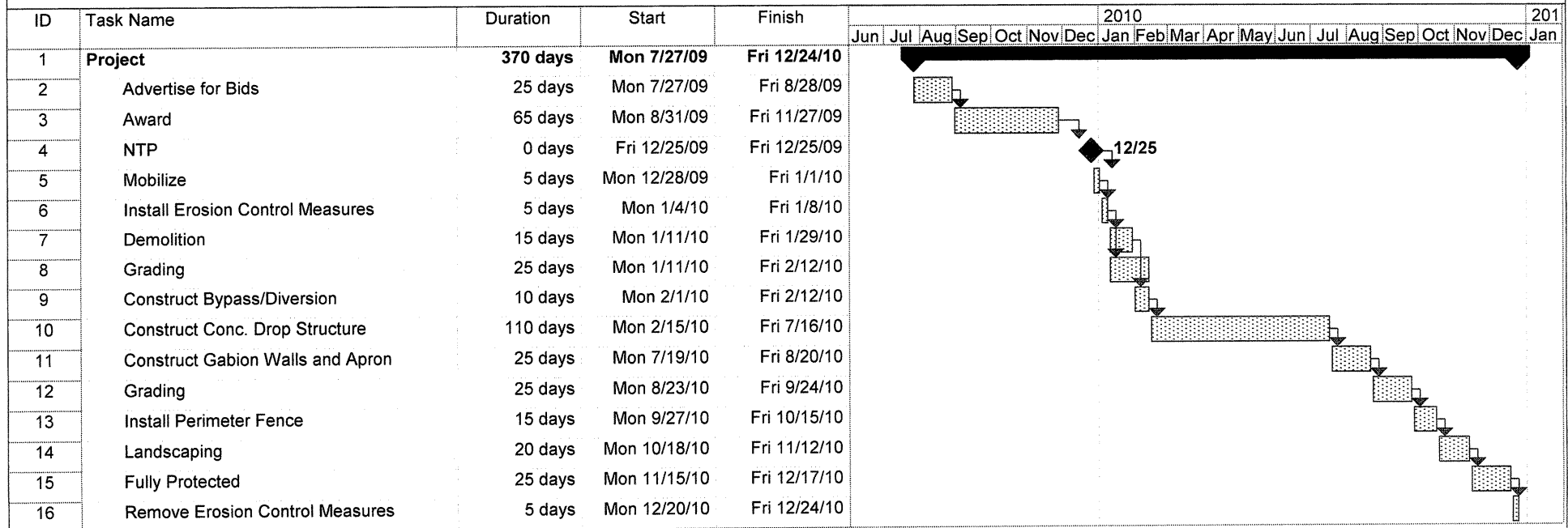
Project No. HWY-0-04-98

Scale: As Shown

Date: March 2009

SHEET No. D2 OF D2 SHEETS

**Castle Hills Access Road, Drainage Improvements
Tentative Construction Schedule**



Project: CHAR Construction Schedule
Date: Wed 4/1/09

Task



Milestone



External Tasks



Split



Summary



External Milestone



Progress



Project Summary



Deadline

