

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-99	2000	3	10

GENERAL NOTES

- The scope of work for this project consists of; excavating, installing culvert and underdrain systems, constructing grated drop inlets, constructing concrete gutters, backfilling, and connecting new culvert to existing box culvert.
- The Contractor is reminded of the requirements of Subsection 108.01 - Subletting of Contract, which requires him to perform work amounting to not less than 50 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
- The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 107.13 - Public Convenience and Safety; Subsection 107.21 - Contractor's Responsibility For Utility Property And Services; and Section 645 -Traffic Control.
- The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- When constructing concrete gutter, dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to Contract Item No. 609.2614.
- Earth swale shall be graded to drain. This work shall be considered incidental to Contract Item No. 206.2020.
- The contractor shall provide for access to and from all existing side streets at all times.
- All saw cutting work shall be considered incidental to Gutter, Type 2(61614).
- Install 6 each Construction Sign with Two Posts along Kahekili Highway and Hui Iwa Street approximately 500 feet beyond the project limits.
The 6 signs are:
3 ea. ROAD WORK AHEAD, CW20-1AD, 48"x48"
3 ea. END ROAD WORK, CG20-2A, 48"x24"
Payment will be made under construction sign pay item.

WATER NOTES

- Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, dated 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's "WATER SYSTEM STANDARDS" VOLUME 1, DATED 1985, THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, DATED 1985, AND THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, and all subsequent amendments and additions. (1)
- All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
- The Contractor shall notify BWS Planning and Engineering Division, Construction Section, one week prior to commencing work on the water system.
- The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy of encountering other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
- Re-approval shall be required if this project is not under construction within a period of two years.
- The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tee, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.

DRAINAGE NOTES

- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various Contract Items.
- The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- For Culvert Trench and Backfill Detail, see Sheet No. H7.
- Concrete shall be Class A unless otherwise noted.
- Cut & plug existing abandoned-in-place telephone duct line in vicinity of Sta. 154+25 o/s 54' Lt. The cost shall be incidental to Contract Item No. 206.2020.

LEGEND

- e— Existing Electrical Line
- t— Existing Telephone Line
- w-12— Existing 12" Water Line
- W-42— Future 42" Water Line
- o_{wmh} Existing Water Manhole
- o_{wrv} Existing Water Valve Box
- s— Existing Sewer Line
- o_{smh} Existing Sewer Manhole
- d--24-- Existing 24" Drain Line
- 24" Culvert New 24" Culvert
- o_{sdmh} Existing Storm Drain Manhole
- sfm— Existing Sewer Force Main

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

APPROVED:

Michael J. H.
CHIEF, PLANNING AND ENGINEERING, B.W.S.
CITY AND COUNTY OF HONOLULU

2/21/20
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES AND LEGEND

KAHEKILI HIGHWAY DRAINAGE IMPROVEMENTS

Vicinity of Hui Iwa Street

Project No. 83F-02-99

Scale: XX

Date: Jan., 1999

SHEET No. H1 OF 8 SHEETS

1. The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.
2. The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
3. The Contractor shall obtain an excavation permit from HECO's Technical Division (543-5654) located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to our HECO Work Order No. CE003197 at that time.
4. For verification of underground lines or for assistance in supporting and protecting these lines, the Contractor shall call HECO's Underground Division at 543-7871 a minimum of 72 hours in advance.
5. When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:
 - a) Sheet piling and bracing the excavation to prevent slides, cave-ins, and settlements.
 - b) Protecting existing structures or facilities with beams, struts, or under-pinnings.
6. For pole bracing instructions, the Contractor shall call the HECO District Superintendent at (Koolau 261-6084, Waiuku 543-4223, Ward 543-7745) a minimum of 72 hours in advance.
7. Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for possible costs if applicable.
8. Should it become necessary to temporarily relocate any of HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs borne by the Contractor.
9. Any unforeseen conflict that would result in the redesign or relocation (either temporary or permanent) of HECO's electrical facilities may be cause for lengthy delays. To avoid such delays, the contractor must notify HECO of the conflict a minimum of 30 days prior to the start of construction.
10. Any damage to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 548-7961.
11. All HECO overhead and underground facilities shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.
12. The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortious acts caused or contributed to by Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability based upon the sole negligence of HECO.

1. The Contractor shall tone and locate existing telephone line crossing the project area. Previous investigation showed the telephone line is not in use. In the event the line IS in use, the Contractor shall notify GTE Hawaiian Telephone Company's inspector or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of GTE Hawaiian Telephone Company's structures or facilities.
2. The locations of existing utilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of GTE Hawaiian Telephone Company facilities. The Contractor shall verify their locations and shall be liable for any damages to GTE Hawaiian Telephone Company facilities. Any damages shall be reported immediately to GTE Hawaiian Telephone Company's repair section at #611 (24 hours) or to the excavation permit section at 840-1444 (normal working hours, Monday through Friday, except holidays). As a result of his operations, adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.
3. The Contractor shall take necessary precaution not to damage existing cables or ducts. A GTE Hawaiian Telephone Inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain GTE Hawaiian Telephone facilities. Temporary cable and duct supports shall be provided wherever necessary.

ITEM NO.		206. 2020	503. 1001	503. 0010	603. 1010	604. 5100	604. 5101	604. 5102	605. 0006	609. 2614	
UNIT USED		CY	EA	CY	LF	EA	EA	EA	LF	LF	
FROM (@ Sta.)	TO (@ Sta.)	Structure Excavation for Drainage Systems	Culvert Connection to Existing Concrete Box Culvert	Bedcourse Material for Culverts	24-Inch ASPR, 10-0.105" or 24-Inch GCE, Class III or 24-Inch HDPE #400P, Type S	Type 1211214P GDI, 4.00 feet to 4.99 feet	Type 61614P GDI, 4.00 feet to 4.99 feet	Type "A" Storm Drain Manhole, 7.00 feet to 7.99 feet	6-Inch Perforated Underdrain Pipe	Gutter, Type 2161614)	
152+68	155+64	67		23						300	
152+73 o/s 55' Lt.		146		29	157	1			153		
154+25 o/s 54' Lt.		142		28	151	1			152		
155+64	156+07 o/s 55'± Lt.	63		13	68		1				
155+75 o/s 56' Lt.		28		6	30	1					
156+07 o/s 55'± Lt.		10		2	6			1			
156+15 o/s 55'± Lt.			1								
	TOTAL	456	1	101	412	3	1	1	305	300	

SHEET No. *H2* OF *8* SHEETS