

BOARD OF WATER SUPPLY (BWS) NOTES

1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with 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, THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, and all subsequent amendments and additions.
2. 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.
3. 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 or the encountering of 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.
4. Re-approval shall be required if this project is not under construction within a period of two years.
5. The Contractor shall notify BWS Planning and Engineering Division, Construction Section at 527-5205, one week prior to commencing work on the water system
6. The Contractor shall verify all existing service lateral locations whether shown or not shown on plans prior to commencing with any of the work and shall not assume that where no services are shown none exist.
7. The Contractor shall adjust all manhole frames/valve boxes within the resurfaced area. Prior to resurfacing, BWS will initially locate all water manholes/valve boxes that will require adjustments. The Contractor shall then be responsible for "referencing" these manholes/valve boxes to facilitate the adjustments. The cost for adjustments shall be made at their respective unit prices in the Bid based on the actual number adjusted. Cost for referencing shall be incidental and shall not be paid for directly. Any additional request to BWS to again locate the manholes/valve boxes shall be done at the expense of the Contractor. (BWS will charge and bill the Contractor for all cost for said additional work.)
8. Any adjustments to the existing water system required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.
9. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.

ORIGINAL PLAN	DATE 12-30-98
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HAWAIIAN ELECTRIC COMPANY (HECO) NOTES

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 Mapping and Records Division located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to our Request No. 231333 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 543-7345 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, Waiau 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 of HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 543-7874.
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 save and hold harmless, indemnify and defend HECO, its officers, employees, agents and any contractor employed by HECO in connection with this project, from and against any and all suits, actions and claims of every nature and kind which may be brought for or on account of any injury, death or damage, arising or growing solely out of the negligence of the Contractor.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-072-1(45)	1999	4	33

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**BWS AND HECO NOTES**

KALANIANA'OLE HIGHWAY  
SHOULDER IMPROVEMENTS  
Makapuu Lookout to Kealahou Street  
Fed. Aid Project No. STP-072-1(45)

Date: August, 1997

SHEET No. 1 OF 1 SHEETS