

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93B-02-91	1994	4	122

WATER NOTES

- 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, AND THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, dated 1985, and all subsequent amendments and additions.
- 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 or the encountering of other obstacles during the course of the work. The contractor shall be responsible and shall pay for all damages to existing utilities.
- Prior to installation, the Contractor shall submit for approval by Board of Water Supply, the manufacturer's certification that all cast iron (gray or ductile) fittings for the project conform in all respects to the Water System Standards, dated 1985.
- Polygon shape for mechanical joint glands as described in AWWA Standard C111 shall be "straight-sided" or an approved equal on a job to job basis.
- Re-approval shall be required if this project is not under construction within a period of two years.
- Test pressure shall be one of the following:
  - Prevailing line pressure, joints left exposed for 24 hours to check for leaks prior to backfill.
  - 150 psi.
- The Contractor shall chlorinate the entire inside surface of each pipe and fitting with disinfection solution of 5 ounces of sodium hypochlorite mixed with 10 gallons of water.
- Contractor shall cut and plug all existing unused laterals at the main whether or not shown on the plans. Meter and valve boxes to be or already abandoned shall be demolished or removed and properly disposed of. The damaged area shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the Contractor.

- The Contractor shall be responsible for the protection of all waterlines during construction. The Contractor shall be especially careful when excavating behind waterlines, tees and bends wherever there is a possibility of waterline movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the waterlines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- All waterline construction requiring shutdown shall be scheduled as follows:
  - Relocation of 6", 8" and 16" waterlines, six (6) hours maximum down time during normal working hours.
  - Relocation of 24" waterline, twelve (12) hours maximum down time during normal working hours.
  - Connections which interrupt service to Waianae High School or major condominium complex, six (6) hours maximum down time after normal working hours.
- 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.
- After installation of tapping sleeve and valve prior to actual tapping operations, the assembly shall be tested at 150 psi on both sides of the valve.
- The Contractor/Developer shall obtain a NPDES permit prior chlorination and/or dewatering. A copy of the permit shall be submitted to the Board of Water Supply, Planning and Engineering Division, Construction Section.

SEWER NOTES

- All sewer construction shall be performed in accordance with City's standard specifications, Sept. 1986, the Department of Public Works standard details, Sept. 1984, current city practices and Revised Ordinances of Honolulu, 1990, as amended, and the Design Standards of the Department of Wastewater Management Vol. 1, July. 1993.
- In the event that any change in alignment or grade for the proposed sewers are required due to unforeseen conflict with other utilities, the engineer in charge or the maker of the plans shall be responsible for the required changes which are to be presented to the Department of Wastewater Management for approval.

- The Contractor shall notify the Construction Section, Department of Wastewater Management at 527-5820 or 523-4345 to arrange for inspection services and submit four sets of approved construction plans seven days prior to commencement of sewer work.
- Crushed rock cradle is permitted where soil is stable. In areas of unstable soil, the maker of the plans and the construction engineer will determine the pipe support required.
- Trees in the road right-of-way shall be situated a minimum of 6'-0" from the city's sewer lines.
- The underground pipes, cables or ductlines known to exist by the engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavating the area.
- Sewer lateral location measured along the front property line shall be 6'-0" from the property corner unless otherwise noted on the plans and should not straddle electrical transformer pad.
- Slope for sewer laterals shall be 1.00% unless otherwise noted.
- Building plumbing facilities shall be controlled by sewer lateral inverts.
- The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- Sewer connection may be denied depending on action taken by the EPA or DOH for non-compliance by the City of the National Pollutant Discharge Elimination System (NPDES) Permit Requirements. See Special Notice to Applicant for Sewer Connection which is available at the Public Service Section (first floor), Department of Wastewater Management.
- The consulting engineer shall submit to the Department of Wastewater Management mylar "as-built" tracings of the construction plans as actually constructed, showing all changes from original plans.
- The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures.
- The Contractor shall install "Rainstopper" manhole inserts in all sewer manholes with Type "SA" frame and cover.

T.M.K.	
8-4-01	8-5-02
-03	-14 to -18
-11	-24
-13	-25
	-28

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>UTILITY NOTES</b>	
<b>FARRINGTON HIGHWAY WIDENING</b>	
<b>Ala Hema Street towards Jade Street</b>	
<b>Project No. 93B-02-91</b>	
Scale: As Shown	Date: Sept., 1992
SHEET No. 1 OF 1 SHEETS	

APPROVED:

*A. M. ...*  
CHIEF, PLANNING & ENG. B.W.S.

*[Signature]*  
DATE

*[Signature]*  
DIRECTOR, DEPT. OF WASTEWATER MGT.

2/7/94

DATE



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HAWAIIAN TELEPHONE COMPANY NOTES

- The Contractor shall procure and pay for all licences and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.
- The locations of existing utilities are approximate only. The Contractor shall verify their locations and shall be responsible for any damages to these utilities as a result of his operations. Adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.
- The Contractor shall brace all poles or light standards near the new ductline or manhole during his operations.
- The Contractor shall saw-cut A.C. pavement and concrete gutter wherever new manholes or ductlines are to be placed and shall restore to existing condition or better.
- The Contractor shall comply with the policy adopted by the Department of Public Works, City and County of Honolulu, concerning the replacement of concrete sidewalks after excavation work.
- The underground pipes, cables or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.
- The Contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The cost for supplementary measures which will be required by the City and County shall be borne by the Contractor.
- Prior to the excavation of the ductline, the Contractor shall request the Hawaiian Telephone Company to locate existing Telephone Company to locate existing ductline wherever required.
- The Contractor shall take necessary precaution not to damage existing cables or ducts. Any work involving existing cables or ducts shall be done in the presence of the Hawaiian Telephone Inspector or his representative. Temporary cable and duct supports shall be provided wherever necessary.
- The Contractor shall pump all manholes dry during final inspection.
- The Contractor shall notify the Hawaiian Telephone Company Inspector 48 hours prior to pouring of concrete or backfilling.
- Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines prior to excavation shall expose the existing lines prior to excavation of the main trenches to verify their locations and depths.
- The Contractor shall provide all materials and furnish all labor and equipment necessary to install the ductline in place complete.
- When connecting to manhole walls, all existing reinforcing bars shall be left intact. Ducts shall be adjusted in the field in order to clear reinforcing.
- All applicable construction work shall be done in accordance with the "Hawaiian Telephone Company Standard Specifications For Placing Underground Telephone Systems" dated June 1989.

- The Contractor shall be responsible for laying out all required lines and grades and shall preserve all bench marks and working points necessary to lay out the work correctly. The new ductline shall be adjusted by the Contractor to suit the existing conditions and the details as described in the plans

HAWAIIAN ELECTRIC COMPANY NOTES

- The location of HECO's overhead and/or 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 to underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.
- The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
- 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.
- 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.
- When trench excavation is adjacent to or beneath HECO's existing structures or facilities, the Contractor is responsible for:
  - Sheeting and bracing the excavation to prevent slides, cave-ins and settlements.
  - Protecting existing structures or facilities with beams, struts or under-pinning.
- For pole bracing instructions, the Contractor shall call the HECO District Construction Superintendent for Waiau at 455-6223 a minimum of 72 hours in advance.
- Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for costs if applicable.
- Should it become necessary to temporarily relocate any HECO facilities to enable the contractor to perform his work in a safe and expeditious manner to fulfill his contractual obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs being borne by the Contractor.
- Any damages to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at Ph. 543-7874.
- All HECO overhead and underground facilities shown on these plans or whose approximate locations within the project boundaries have been made known by any reasonable means at any time to the Contractor shall by protected at all times by the Contractor during construction. Costs for damages to HECO facilities may be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.
- The Contractor shall give HECO forty (40) working days notice to proceed with its portion of the work.
- The Contractor shall notify HECO's Inspection Division (Phone 543-7763) 48 hours prior to working on any HECO facility.

AT&T COMPANY NOTES

- The locations of AT&T facilities are from records of varying degrees of accuracy and are not guaranteed as shown.
- The Contractor shall be extremely careful when working on or near AT&T facilities. Any damages to AT&T facilities will be repaired at the Contractor's expense and any subsequent assessments will be borne by the Contractor.
- The Contractor shall notify Russell Au of AT&T at 455-1010 at least 48 hours prior to commencing any construction activities around AT&T cable.

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

UTILITY NOTES

FARRINGTON HIGHWAY WIDENING  
Ala Hema Street towards Jade Street  
Project No. 93B-02-91

Scale: NoneDate: Sept., 1993

SHEET No. 1 OF 1 SHEETS