

## HAWAIIAN ELECTRIC COMPANY NOTES

- The existence and location of HECO's overhead and underground facilities as shown on the plans are from existing records of varying degrees of accuracy and are not guaranteed as shown. Therefore, the Contractor is to exercise extreme caution when the excavation and construction crosses or is in close proximity of underground electrical facilities & maintain adequate clearance for his equipment while working close to and/or under the overhead facilities.
- The Contractor is to comply with the directions of the State of Hawaii Occupational Safety and Health Law ( OSH ).
- The Contractor is to obtain a clearance to excavate from HECO Mapping and Record Division, 4th floor, 820 Ward Avenue two weeks prior to start of construction.
- For verifying the location of underground duct lines and for assistance in providing proper support and protection of the underground duct lines, the Contractor is to contact HECO Underground Division at 548-7395 a minimum of 72 hours in advance.
- The Contractor shall be liable for any damages to HECO's facilities.
- The Contractor shall report any damages to HECO's facilities to the HECO Trouble Dispatcher at Phone No. 548-7961.

## HAWAIIAN TELEPHONE COMPANY NOTES

- Prior to excavation work in the highway right-of-way, the Contractor shall request the Hawaiian 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 Company Inspector or his representative.
- Should it become necessary, any work required to relocate underground or overhead facilities shall be done by HECO and paid for by the Contractor. The Contractor shall be responsible for all coordination.
- For field location of HECO facilities, contact HECO, phone no. 834-6214, Outside Plant Engineering Section, a minimum of 72 hours in advance, prior to start of excavation.
- The Contractor shall exercise extreme caution when the excavation and construction crosses or is in close proximity of underground telephone and signal cable facilities and maintain adequate clearance for his equipment while working close to and/or under the overhead facilities. Any damage to the existing underground facilities shall be repaired and paid for by the Contractor.

## ADDITIONAL WATER NOTES

- Contractor shall design and furnish reaction block drawings prior to installation. Reaction blocks for connection to existing mains shall be designed by the Board of Water Supply.

## CONSTRUCTION NOTES FOR GAS FACILITIES

- The Gasco, Inc. gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
- Prior written clearance must be obtained from Gasco, Inc. at least five working days before starting excavation near these gas lines.  
  
Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call Gasco, Inc. a minimum of 48 hours before starting excavation to arrange for field location of existing gas lines. The telephone number is 547-3575 during business hours, and 526-0066 after hours.
- For relocation of any gas pipeline, the Contractor shall notify Gasco, Inc. five working days before starting work. The Contractor shall provide the necessary excavation and backfill, arrange for traffic permits, and restore sidewalk, pavement or other facilities. Any relocation of gas facilities shall be done by Gasco, Inc. and paid for by the Contractor.
- The Contractor shall notify Gasco, Inc. immediately after any damage has been caused to existing gas pipelines, their coatings or their cathodic protection devices. Repair work on this damage shall be done by Gasco, Inc. with payment for this work to be borne by the Contractor.
- Minimum vertical or horizontal clearance between gas pipelines and other pipelines, conduits, or ductlines shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided and approved by Gasco, Inc.
- The Contractor shall work in an expeditious manner in order to keep uncovered gas pipelines exposed for as short a period of time as possible.

## 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 1976, as amended, of the Hawaii Highways Division, Department of Transportation.
- The BWS Standard Details, Figures 1 to G2 inclusive, bound in the "Water System Standards" of the BWS, dated March 1977, as amended, are applicable to this project.
- Prior to excavating for new drain, sewer, and other utility lines, the Contractor shall verify in the field the location of existing water mains and appurtenances.  
  
Where the installation of new drain, sewer, or other utility lines are to cross over or under existing water mains, the Contractor shall expose the existing water mains prior to trenching. Excavation around water mains shall be done by hand.
- Items indicated as "relocate" on the plans shall be removed, cleaned, painted, and reinstalled at the new location by the Contractor unless otherwise specified.
- Approval by the Board of Water Supply is based solely on the adequacy of the water supply.  
  
Discrepancies, if any, of alignments, grades, fittings, etc. shall not be the responsibility of the Board of Water Supply.
- 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.
- 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.
- Unless otherwise specified, connections to existing water mains shall be done by the Contractor, with the BWS Inspector coordinating the work. For details, contact BWS Planning and Engineering Division, Engineering Branch, Construction Section.
- All meter boxes & valve boxes/manholes including frames and covers shall be furnished, installed and paid for by the Contractor.
- Test pressure shall be 150 psi for the new 16-inch waterline. Test pressure shall be prevailing line pressure for the new 8-inch waterline, joints left exposed for 24 hours to check for leaks prior to backfill.
- 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.
- The Contractor shall notify BWS Planning and Engineering Division, Construction Section, one week prior to commencing work on the water system.
- In the event that pipes other than ductile iron are to be used, the plans shall be resubmitted for approval.
- Valve I.D. tags shall be affixed on the underside of all new manholes and valve box covers. See details.
- For the relocation of the 16" Water, the maximum down time of the existing 16" Water is two (2) weeks. See Sheet 22.
- 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. C.I. frames and covers shall be cleaned and salvaged and delivered to the appropriate BWS corporation yard. The damaged areas shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the Contractor.
- Contractor shall furnish and install additional fittings if necessary to meet field conditions.
- All cast iron (gray and ductile) water pipes, fittings, and valves shall be enclosed in plastic material in accordance with ANSI Specifications A21.5-1972 or AWWA Specifications C105-72 Polyethylene encasement for gray and ductile cast iron piping for water and other liquids.
- Reapproval shall be required if this project is not under construction within a period of one year. (See Rules & Regulations of the Board of Water Supply)
- All BWS overtime charges shall be borne by the Contractor.

## SEWER NOTES

- All sewer construction shall be performed in accordance with the "Standard Details for Public Works Construction", August 1976, as amended, & the "Standard Specifications for Public Works Construction", May 1975, of the Department of Public Works, City & County of Honolulu, current City practices and the Revised Ordinances of Honolulu, 1978, as amended.
- The Contractor shall notify the Division of Wastewater Management 7 days prior to the commencement of work and submit 4 sets of approved construction plans.
- The Contractor shall be responsible to maintain existing sewage flow conditions until work on the sewer system is completed.

## TRAFFIC NOTES

- A permit shall be obtained from the Department of Transportation Services before work is started on any portion of a public street or highway.
- The Contractor shall provide, install, and maintain all necessary signs & other protective facilities, which shall conform with the "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites On or Adjacent to Public Streets & Highways in the State of Hawaii", adopted by the Highway Safety Coordinator, & the Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets & Highways", Part VI, "Traffic Controls for Street & Highway Construction and Maintenance Operations".
- Work on any City street area may be performed only between the hours of 8:30am. to 3:30 pm. Unless otherwise permitted by the Dept. of Transportation Services.
- During non-work hours all lanes shall be open and all excavations on City and County roads shall be covered with a safe, non-skid bridging material.
- The Contractor shall provide safe access to all driveways during work & non-work hours or make other arrangements to the satisfaction of the affected residents.
- Construction activities will not be permitted on City streets during weekends and holidays without prior approval from the Director, Dept. of Transportation Services.
- During work hours, the Contractor shall maintain a roadway suitable for two-way traffic.
- The Contractor shall notify MTL, Richard Tom or Clark McArthur at 533-1388, two weeks prior to construction, informing them of location, scope of work, proposed closure of any street or traffic lanes and the need to relocate any bus stops.

## GENERAL CONSTRUCTION NOTES (For Work in C & C Right-of Way)

- All construction shall be performed in accordance with the "Standard Details for Public Works Construction", August 1976, as amended, & the "Standard Specifications for Public Works Construction", May 1975, of the Department of Public Works, City & County of Honolulu.
- Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines prior to excavation of the main trenches to verify their locations and depths.
- All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor unless specified on the plans to be abandoned.
- The Contractor shall notify the Department of Public Works, Division of Engineering, Construction Branch, seven (7) days prior to commencing construction.

## GRADING NOTES

- All grading grading work shall be done in accordance with Chapter 23, Grading, Soil Erosion & Sediment Control, of the Revised Ordinances of Honolulu, 1978, as amended (Ordinance No. 81-13).
- All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control & Water Quality Standards contained in the Public Health Regulations, State Department of Health, on Water Pollution Control and Water Quality Standards.
- The Contractor shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the air pollution control standards and regulations of the State Department of Health.
- 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 location and depth 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.

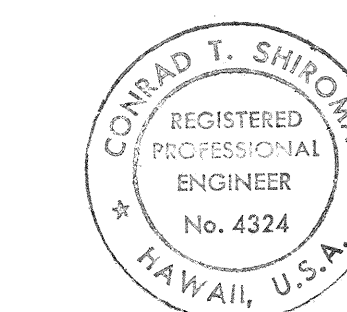
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1(16)	1984	3	156

REAPPROVAL: R. Uagato 7-16-86  
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_

Michael J. Glum 2/8/84  
DIRECTOR AND CHIEF ENGINEER  
DEPARTMENT OF PUBLIC WORKS DATE

R. Uagato 1-30-84  
CHIEF, PLANNING & ENGINEERING, BWS DATE

George M. Uyema 2/3/84  
CHIEF, DIVISION OF WASTEWATER MANAGEMENT, DPW DATE



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
Conrad T. Shiroma  
Signature

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
LIKELIKE HIGHWAY IMPROVEMENTS (VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)	
PROJECT NO. F-063-1(16)	

SHEET NO. OF SHEETS