

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	72B-02-02	2002	4	23

1. Location of HECO Facilities

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 verify in the field the locations of the facilities and shall exercise proper care in excavating and working in the area. Wherever connections of new utilities to existing utilities and utility crossings are shown, the Contractor shall expose the existing lines at the proposed connections and crossings to verify the depths prior to excavation for the new lines. The Contractor shall be responsible for any damages to HECO's facilities whether shown or not shown on the plans.

2. Compliance with Hawaii Occupational Safety and Health laws

The Contractor shall comply with the state of Hawaii's occupational safety and health laws and regulations, including without limitation, those related to working on or near exposed or energized electrical lines and equipment.

3. Excavation Permit

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 request number at that time.

4. Caution!!! Electrical Hazard!!!

If existing HECO overhead and underground lines are de-energized for the convenience of the Contractor, the Contractor shall conduct his work activities as if the lines are energized. Any damage to the lines will be repaired immediately by HECO. Only HECO personnel are to handle these energized lines and erect temporary guards to protect these lines from damage. The Contractor shall work cautiously at all times to avoid accidents and damage to existing HECO facilities, which can result in electrocution.

5. Overhead Lines

State law requires that a worker and the longest object he or she may contact cannot come closer than a minimum radial clearance of 10 feet when working close to or under any overhead lines rated 50kv and below. For each additional 1kv above 50kv, an additional 0.4-inch shall be added to the 10-foot clearance requirement. The preceding information on line clearance requirements is provided as a convenience and it is the Contractor's responsibility to be informed of and comply with any revisions or amendments to the law.

Should the Contractor anticipate that his work will result in the need to encroach within the minimum required clearance at any time, the Contractor shall notify HECO at least four (4) weeks prior to the planned encroachment so that, if feasible, the necessary protections (e.g. relocate, de-energize, or blanket HECO lines) can be put in place. HECO's cost of safeguarding its lines will be charged to the Contractor.

Contact HECO's customer installations department at 543-7846 for assistance in identifying and safeguarding overhead power lines.

HAWAIIAN ELECTRIC COMPANY NOTES

Refer to Section X of HECO's Electric Service Installation Manual for additional guidelines when working around HECO's facilities. A copy may be obtained from HECO's customer installations department.

6. Pole Bracing

A minimum clearance of 10 feet must be maintained when excavating around utility poles and/or their anchor system to prevent weakening or pole support failure. Should work require excavating within 10 feet of a pole and/or its anchor system, the Contractor shall protect, support, secure, and take all other precautions to prevent damage to or leaning of these poles. The Contractor is responsible for all associated costs to brace, repair, or straighten poles. All means of structural support for the pole proposed by the Contractor shall first be reviewed by HECO before implementation. For pole bracing instructions, the Contractor shall call the HECO Construction and Maintenance Dept., Customer & System Superintendent at 543-4223 a minimum of two (2) weeks in advance.

7. Underground Lines

The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines. HECO's existing electrical cables are energized and will remain energized during construction. Only HECO personnel are to break into existing HECO facilities, handle these cables, and erect temporary guards to protect these cables from damage. the cost of HECO's assistance in providing proper support and protection of its underground lines will be charged to the Contractor. Special precautions are required when excavating near HECO's 138kv underground lines (see HECO instructions to consultants/Contractors on "excavation near HECO's underground 138kv lines" for detailed requirements).

For verification of underground lines, the Contractor shall call HECO's underground division at 543-7049 a minimum of 72 hours in advance.

For assistance in providing proper support and protection of these lines, the Contractor shall call HECO's construction & maintenance dept., customer & system superintendent, at 543-4223, a minimum of two (2) weeks in advance.

8. Excavations

When trench excavation is adjacent to or beneath HECO's existing structures or facilities, the Contractor is responsible for:

- a) Sheeting and bracing the excavation and stabilizing the existing ground to render it safe and secure and to prevent possible slides, cave-ins, and settlements.
- b) Properly supporting existing structures or facilities with beams, struts, or under-pinnings to fully protect it from damage.
- c) Backfilling with proper backfill material including special thermal backfill where existing (refer to engineering department for thermal backfill specifications).

9. Relocation of HECO Facilities

Any work required to relocate or modify HECO facilities shall be done by HECO, or by the Contractor under HECO's supervision. The Contractor shall be responsible for all coordination, and shall provide necessary support for HECO's work, which may include, but not be limited to, excavation and backfill, permits and traffic control, barricading, and restoration of pavement, sidewalks, and other facilities.

All costs associated with any relocation or modification (either temporary or permanent) for the convenience of the Contractor, or to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations shall be borne by the Contractor.

10. Conflicts

Any redesign or relocation of HECO's facilities not shown on the plans may be cause for lengthy delays. The Contractor acknowledges that HECO is not responsible for any delay or damage that may arise as a result of any conflicts discovered or identified with respect to the location or construction of HECO's electrical facilities in the field, regardless of whether the Contractor has met the requested minimum advance notices. In order to minimize any delay or impact arising from such conflicts, HECO should be notified immediately upon discovery or identification of such conflict.

11. Damage to HECO Facilities

The Contractor shall be responsible for the protection of all HECO surface and subsurface utilities and shall be responsible for any damages to HECO's facilities as a result of his operations. The Contractor shall immediately report such damages to HECO's trouble dispatcher at 548-7961. Repair work shall be done immediately by HECO or by the Contractor under HECO's supervision. Costs for damages to HECO's facilities shall be borne by the Contractor.

12. HECO Stand-by Personnel

The Contractor may request HECO to provide an inspector to stand-by during construction near HECO's facilities. The cost of such inspection will be charged to the Contractor.

The Contractor shall call the HECO construction and maintenance dept., customer & system superintendent at 543-4223 a minimum of 5 working days in advance to arrange for HECO stand-by personnel.

4. Caution!!! Electrical Hazard!!!

13. Indemnity

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.

14. Arranging for De-energizing of HECO's Lines

The Contractor shall notify HECO's engineer at 543-7785 at least four (4) weeks prior to requiring HECO's existing overhead lines to be de-energized and grounded. HECO's cost of de-energizing and grounding its lines, as well as the inspection cost to insure that the line remains intact while de-energized, will be charged to the State.

For this project only, HECO will keep the existing electrical lines in the area de-energized for the duration of the project. In the event of an emergency, and with limited notice, HECO may need to re-energize its lines to pickup service to its customers. The Contractor shall immediately allow HECO to re-energize its lines at any time and shall comply with all requirements when working near energized lines. The Contractor acknowledges that HECO is not responsible for any delay or damage (including any costs associated with re-scheduling their work) that may occur as a result of any conflicts that may arise.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Glenn K. Ikeda
Ikeda, Inc.
dba PARK ENGINEERING

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAWAIIAN ELECTRIC COMPANY NOTES

*Kalaniana'ole Highway
Rock Scaling at Makapuu
Project No. 72B-02-02*

Scale: As Noted Date: April 2002
SHEET No. 2 OF 2 SHEETS

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

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

- The Contractor is reminded of the requirements of Section 209 – Water Pollution and Erosion Control, in the "Hawaii Standard Specifications for Road, Bridge and Public Works Construction". 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.
- 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.
- The Engineer may assess liquidated damages of up to \$25,000 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.
- 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.

B. WASTE DISPOSAL:

- 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 far followed.
- 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.
- Sanitary Waste**
All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- All control measures shall be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- 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.
- Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- A maintenance inspection report shall be made promptly after each inspection by the Contractor.

- 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.
- 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.
- Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.

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.

e. Substances shall not be mixed with one another unless recommended by the manufacturer.

f. Whenever possible, a product shall be used up completely before disposing of the container.

g. Manufacturer's recommendations for proper use and disposal shall be followed.

h. The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

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.

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



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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dba PARK ENGINEERING

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WATER POLLUTION AND EROSION CONTROL NOTES	
Kalanianaʻole Highway Rock Scaling at Makapuu Project No. 72B-02-02	
Scale: None	Date: April 2002
SHEET No. 1 OF 2 SHEETS	