

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	72B-02-02	2002	3	23

GENERAL NOTES

1. The scope of work for this project consists of removal of loose debris from existing slope areas by scaling; removal of rock outcrops from designated areas by controlled blasting; disposal of removed debris; and installation of grouted rock anchors, wire rope, wire mesh and chain link fence and gates.
2. Construction and restoration of all existing highway facilities within the State's right-of-way shall be done in accordance with all applicable sections of the current Standard Specifications for Road, Bridge and Public Works Construction, and the Specifications for Installation of Miscellaneous Improvements Within State Highways, of the State Highways Division.
3. The hours in which work may be performed depends on the phase and type of work being performed. In general, work may be performed during the hours of 8:30 a.m. and 3:30 p.m. everyday, except as otherwise noted. During the scaling preparation phase, night work is allowed between 9:00 p.m. to 5:00 a.m., Sunday to Thursday. The Contractor shall refer to the Specifications and other parts of these construction drawings for the exact hours in which work may be performed.

During work hours, total road closure and one lane closures will be allowed depending on the type of work being performed. The Contractor shall refer to the specifications and other parts of these construction drawings for the hours in which road closures are allowed.

4. The Contractor shall provide, install, and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take all necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Director of Transportation, and the current U.S. Federal Highways Administration "Manual on Uniform Traffic Control Devices, Part VI - Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations".
5. No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way, except at locations designated in writing and approved by the Engineer.
6. Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or ductline.
7. Existing drainage systems shall be functional at all times.
8. The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the Engineer.
9. All regulatory, guide, and construction signs and barricades shall have a high-intensity reflective background. Portable concrete barriers shall have steady burn lamps at 20' o.c. and shall be considered incidental to the concrete barriers and will not be paid for separately.
10. Driveways shall be kept open unless the owners of the properties using these rights-of-way are otherwise provided for satisfactorily.

11. The Contractor shall reference, to the satisfaction of the Engineer, all existing traffic signs, posts, and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts, and pavement markings disturbed by his activities, at his expense, unless directed otherwise by the Engineer or his representative.
12. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to the existing facilities shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.
13. The Contractor shall notify Oahu Transit Services, Inc. (OTS), Road Supervision Office, 811 Middle Street, Honolulu, Hi., 96819, Phone No. 848-4571 seven (7) days prior to any paving operations. The Contractor shall inform OTS of the location and scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stop.
14. 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. Damages to the existing facilities shall be immediately reported to the respective utility companies, City or State agency. The repair work shall be done at the Contractor's expense.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Glenn K. Ikeda
P.E., Inc.
dba: PARK ENGINEERING

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
<u>Kalaniana'ole Highway</u> <u>Rock Scaling at Makapuu</u> <u>Project No. 72B-02-02</u>	
Scale: None	Date: April 2002
SHEET No. 1 OF 2 SHEETS	

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:

- 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.
- Properly supporting existing structures or facilities with beams, struts, or under-pinnings to fully protect it from damage.
- 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