

GENERAL NOTES

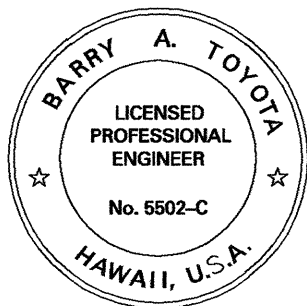
1. The scope of work for this project includes removing and replacing the existing Kawaikapu Bridge, widening and lining the existing stream channel, widening the existing roadway approaches to accomodate the new bridge, provide new A.C. pavement at roadway and affected driveways, installing drainline at specified driveway, relocation of the overhead and underground utilities, installing new guardrails and approach slabs, removing large trees, and removing and installing pavement markings and signs.
2. The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 104.04 - Maintenance of Traffic, Subsection 107.21-Contractor's Responsibility for Utility Property and Services, and Section 645-Traffic Control
3. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic. The Contractor shall be required to maintain one-lane traffic during non-working hours with proper signing and pavement striping.
4. 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 the 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.
5. The Contractor shall provide for access to and from all existing side streets and/or driveways at all times.
6. The Contractor shall ensure that the bridge and roadway are open to two-way one-lane traffic 24 hours a day, until the bridge and roadway are open to two-way two-lane traffic.
7. Contractor shall protect trees and shrubs not called for removal on the drawings and make provisions to restore and/or replace damaged trees at his own expense.
8. Except during actual working hours, all signs which do not pertain to the construction activity, such as "Men Working" and "Flagmen Ahead" shall be covered or laid down. However, all signs necessary for the safety of the public shall be maintained.
9. The Contractor shall employ a Hawaii Licensed Professional Surveyor to perform all construction stakeouts, utility pole location stakeouts (temporary and permanent), right-of-way stakeouts and all improvements, the cost of which shall be borne by the Contractor. Coordinate the work with the various utility companies.
10. The Contractor shall make his own arrangements for, and pay for all temporary utilities required for his work.
11. The Contractor is advised that in addition to other contractors working in the same areas, various utility companies or their contractors may be performing work within the project area. See Utility Agreement Numbers 1677, 1678, 1679 and 1697. All costs associated with this coordination shall be considered incidental to the various contract items.
12. The Contractor at his own expense, 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.
13. Removal and disposal of any debris shall be considered incidental to their respective bid items. The Contractor shall clean and remove any accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to the various contract items and will not be paid for separately. The disposal site shall be approved by the Engineer.
14. The stream shall remain functional at all times. The Contractor is to furnish materials, equipment, labor, tools, and incidentals necessary to maintain flow of stream.

15. No work equipment shall be located or take place within 10' of any MECO overhead wires. No excavation shall take place within 5' of any MECO utility pole. Any excavation near a utility pole shall require the approval of the Engineer and MECO.
16. The Contractor shall coordinate the work with MECO. The Contractor shall assist MECO personnel by clearing the site and providing access to the work area for vehicles and workers as required by MECO. This work shall be incidental to the various contract items.
17. The Contractor will immediately report damages discovered or caused by his work to the Engineer and Utility Companies.
18. Prior to pavement operations, the Contractor shall be responsible for locating, perserving and marking all utility and highway facilities that will require adjustments to the new finished pavement grade. Additionally, the Contractor shall submit to the Engineer a list of all items, including water, drainage, sewer, electrical, telephone and cable utilities to be adjusted to the new finished grade. This work shall be considered incidental to the various contract items.
19. Smooth riding connections shall be constructed at all limits of surfacing.
20. Contractor shall relocate existing mail boxes in the way of construction to an accessible location.
21. All saw cutting shall be considered incidental to the various contract items.
22. Trimming and dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from roadway excavation, including topsoil, and if necessary, additional materials from borrow outside the limits of the right of way. This work shall be paid under Clearing and Grubbing.
23. Excluding bridge, pavement, G.R.P., riprap, walls and stream channel, all surfaces within the project area shall be hydromulched, including slope stabilization areas.
24. Earth swales shall be graded to drain. This work shall be considered incidental to the various contract items.
25. After completion of paving, the Contractor and the Engineer will test for, and determine ponding areas (i.e. low spots within the paved area). It shall be the responsibility of the Contractor to correct and resurface and/or repair all such ponding areas.
26. See Section 649, PORTABLE CONCRETE BARRIERS and Section 672, RESET PORTABLE CONCRETE BARRIER SECTIONS of the Special Provisions for Transporting, placing, maintaining, relocating and removal of portable barriers.
27. See Section 649, PORTABLE CONCRETE BARRIERS and Section 672, RESET PORTABLE CONCRETE BARRIER SECTIONS of the Special Provisions for installing steady burn amber lamps on portable concrete barrier at 20.0' o.c. Installing, maintaining and changing batteries of the Portable Mounted Steady Burn Amber Lamps shall be considered incidental to the various items of work.
28. Ends of portable barriers shall be protected with Inertial Barrels as shown on plans.
29. Typical layout of inertial barrels will vary based on speed and manufacturer of system used. Installation shall conform to Manufacturer's recommendations and Roadside Design Guide. See Section 649, PORTABLE CONCRETE BARRIERS and Section 672, RESET PORTABLE CONCRETE BARRIER SECTIONS of the Special Provisions.
30. See Section 649, PORTABLE CONCRETE BARRIERS of the Special Provisions for transporting, placing, maintaining, relocating and removal of inertial barrels. Furnishing, installation and removing inertial barriers shall shall be considered incidental to the various items of work.

31. See Section 645, TRAFFIC CONTROL DEVICES of the Special Provisions for maintenance of traffic control for working and non-working hours.
32. All traffic control devices including cones, barricades, etc. shall comply with the "Statewide Guideline for Work Zone Traffic Control Devices" dated September 13, 2000.
33. All existing speed limit signs covered during the lane closure period shall be uncovered upon the removal of the lane closure including construction warning/regulatory signs.
34. All guardrail layouts shall be performed by the Contractor but shall be approved by the Engineer before construction.
35. No section of incomplete guardrail, footing and/or excavation shall be left unshielded at the end of each work day. Open sections shall be shielded by portable physical barriers. Furnishing, placing, maintaining, relocating and removal of physical barriers shall be considered incidental to the various contract itmes.
36. During working hours, open sections shall be delineated by placing Type II barricades with flashers @ 40' o.c. and traffic cones @ 10' o.c. between barricades. Furnishing, placing and maintaining barricades and cones shall be considered incidental to other contract items.

LEGEND

	Existing C.B./MH or SDM		Existing Water MH
	Existing Drain Inlet		Existing Water Meter
	Existing Elec. Box or HECO. Box		Existing Water Valve
	Existing Fire Hydrant		Existing Traffic Sign
	Existing Guardrail		New Traffic Sign
	New Single Metal Guardrail		Existing Edge Shoulder
	Existing Guy Wire		New Edge Shoulder
	Existing Hose Bib		Existing Edge Pavement
	Existing HECO. Box		New Edge Pavement
	Existing Lamp Pole		Existing Highway Right of Way
	Existing Residential Mailbox		New Highway Right of Way
	Existing Sewer MH		Existing Tree
	Existing Street Light		Slope Direction Lines
	Existing Street Light Box		
	Existing Utiltiy Pole w/ Street Light		



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
*Barry A. Toyota*  
SIGNATURE  
April 30, 2004  
Expiration Date of the License

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
NOTES & LEGEND	
KAMEHAMEHA V HIGHWAY EMERGENCY REPLACEMENT OF KAWAIKAPU BRIDGE FEDERAL AID PROJECT NO. ER-12(4)	
Scale: None	Date: November 25, 2002
SHEET No. C1 OF 46 SHEETS	



WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(4)	2003	5	76

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 Mangement 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:

1. 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 are followed.

2. Hazardous Waste

All hazardous waste materials shall be disposed of in the manner specified by local or State regulations 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.

3. 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. The bottom of the silt screen shall be inspected and verified that it is buried a minimum of 6 inches below the existing 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.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan

- 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
Tar	Wood
	Masonry Block

- 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.
- 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.
- Products shall be kept in their original containers with the original manufacturer's label.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, a product shall be used up completely before disposing of the container.
- Manufacturer's recommendations for proper use and disposal shall be followed.
- The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

- Products shall be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets (MSDS) shall be retained.
- 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.

2) Fertilizers:

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.

3) Paints:

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.

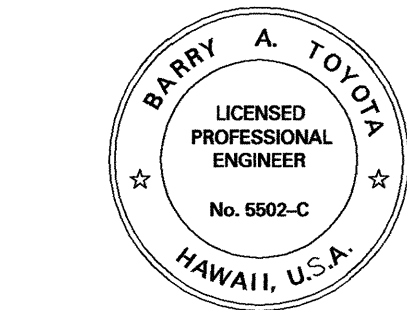
4) Concrete Trucks:

Concrete trucks shall be allowed to wash out or drum wash water only at a designated site. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

b. Offsite Vehicle Tracking:

A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
ORIGINAL PLAN	_____



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
*[Signature]*  
SIGNATURE  
April 30, 2004  
Expiration Date of the License

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
NOTES	
KAMEHAMEHA V. HIGHWAY EMERGENCY REPLACEMENT OF KAWAIKAPU BRIDGE FEDERAL AID PROJECT NO. ER-12(4)	
Scale: None	Date: November 25, 2002



WATER POLLUTION AND  
EROSION CONTROL NOTES (CONTINUED):

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES (CONT'D):

4. Spill Control Plan

- a. A spill prevention plan shall be posted to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.
- c. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- e. All spills shall be cleaned up immediately after discovery.
- f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Spills of toxic hazardous material shall be reported to the appropriate State of local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

- 1. The Contractor shall use the BMP provided in the Plans and Specifications.

Should the Contractor elect to discharge effluent from dewatering activities into waters of the United States, the Contractor shall obtain a NPDES Activity Dewatering Permit from the Department of Health, Clean Water Branch, at his expense with no adjustment to contract time.

The Contractor shall comply with all applicable State and Federal Permit conditions.

- 3. Permits may include but are not limited to the following:
  - a. NPDES Permit for Construction Activities
  - b. NPDES Permit for Construction Dewatering
  - c. NPDES Permit for Hydrotesting Waters
  - d. Water Quality Certification
  - e. Stream Channel Alteration Permit (Exempted)
  - f. Section 404 Army Corps of Engineer Permit

WATER SYSTEM NOTES

- 1. The Contractor shall notify the Department of Water Supply (DWS), in writing, one (1) week prior to commencement of work.
- 2. All materials used and method of construction of water system facilities shall be in accordance with the latest revisions of DWS standards. Contractor shall obtain the latest revisions of the DWS Standard Details before commencing construction.
- 3. The exact depth and location of existing waterlines, service laterals and other utilities are not known. It shall be the Contractor's responsibility to locate same prior to trenching for the new waterline. The cost of lowering, relocating or adjusting existing waterlines, service laterals and other utilities shall be considered incidental to the cost of the new waterline, unless noted otherwise, and will not be paid for separately.
- 4. Concrete for reaction blocks and anchor blocks shall be DWS Class 2500.

WATER SYSTEM NOTES (CONTINUED):

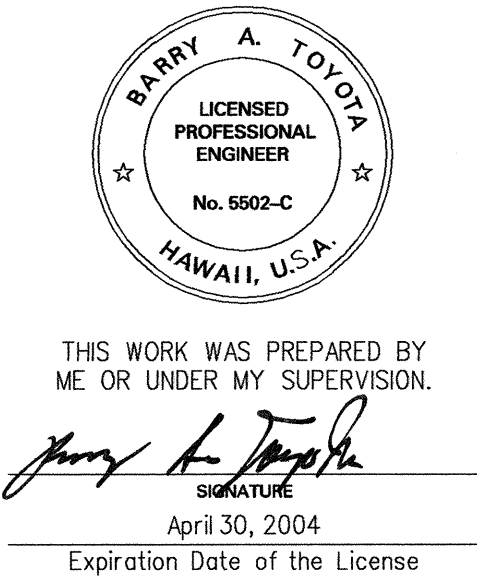
- 5. The maximum distance between valve nut and top of manhole cover shall be three (3) feet.
- 6. The Contractor shall submit a materials list to DWS for approval prior to construction.
- 7. Connection to DWS system:
  - A. The Contractor shall verify the exact location, depth, type and condition of the existing line before ordering materials for the hook-up. He shall, however, check with DWS before excavating for verification purposes. He shall be responsible for furnishing all necessary fittings and other materials required for the hook-up.
  - B. Whenever feasible, mechanical joint fittings shall be used.
  - C. Authorized DWS personnel will make the final connection to existing line. The Contractor shall be responsible for all costs incurred by DWS for said work, including the cost of pressure testing.
  - D. The Contractor shall be responsible for furnishing all material, equipment and labor for chlorination, trench excavation, backfilling, paving and other work necessary to complete the hook-up, as directed by and to the satisfaction of DWS.
- 8. The State shall submit a cost list along with an affidavit for the water system prior to acceptance.
- 9. The Contractor shall submit record drawings via a Consultant prior to acceptance of the water system.
- 10. Minimum cover over water main, 6" diameter or larger, shall be 3'-0".
- 11. The Contractor shall paint and number the Fire Hydrant. Numbering to be furnished by DWS.
- 12. All buried metals shall be wrapped with poly-wrap. For ductile iron pipe installation, poly-wrap shall be required.
- 13. All nuts and bolts shall be painted with asphaltic paint.
- 14. Lubricate hydrant nozzle threads with non-toxic grease.
- 15. Water mains and appurtenances shall be subject to hydrostatic testing in accordance with the latest revision of AWWA C600, under the "Hydrostatic Testing" section, to a pressure of at least 1.5 times the working pressure. Unless otherwise stated in the construction documents or limited by the pressure rating of equipment, the pressure test and leakage test shall be performed at 225 pounds per square inch pressure.
- 16. Water meter relocation shall be done by DWS and paid for by the Contractor. This cost shall be incidental to the work.
- 17. Contractor shall notify users of water shutoff a minimum of 7 days prior to actual shutoff. Notices can be mailed, but not placed in mail boxes by Contractor.
- 18. Contractor shall limit water shutoff to night time hours to minimize the inconvenience to users.
- 19. Contractor shall coordinate water shutoff with DWS and shall pay for any DWS costs required to do the final connection. Cost shall be incidental to the work.
- 20. Construction meter and water shall be paid for by Contractor. Contractor shall coordinate location of meter and standpipe with DWS.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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CHLORINATION OF WATER SYSTEMS

- 1. Liquid Chlorine of Calcium Hypochlorite conforming to AWWA Standards shall be used for chlorination of the water system.
- 2. Prior to chlorination, the water system shall be thoroughly flushed.
- 3. The interior surfaces of the project shall be exposed to the chlorinating solution for a minimum of 24 hours and the chlorine residual shall not be less than 10 ppm after such time.
- 4. Should Calcium Hypochlorite be used, no solid and/or undissolved portion of the compound shall be introduced into any section of the project to be chlorinated.
- 5. At the end of the 24-hour disinfection period, representative samples shall be taken and analyzed to assure a chlorine residual of at least 10 ppm.
- 6. Should the results indicate adequate chlorination, the project shall be thoroughly flushed and filled with water from the existing system and again tested for chlorine residual. The flushing shall be considered adequate if the test results indicate that the water in the project has a comparable chlorine residual as the water in the existing system.
- 7. Following the acceptable flushing of the project, two consecutive sets of acceptable samples, taken at least 24 hours apart, from representative points in the project shall be taken and subjected to microbiological tests. At least one set of samples shall be collected from every 1,200 feet of the new water main, plus one from the end of the line and at least one set from each branch. Positive results will not be acceptable and the process will be repeated.
- 8. Analysis for residual chlorine shall be made in accordance with "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 20th Edition.
- 9. Microbiological tests shall be made in accordance with "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 20th Edition.
- 10. All measurements for chlorine residual and microbiological tests shall be performed by a laboratory approved by the Director.
- 11. The Contractor shall be responsible for all costs associated with all of the foregoing.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	
NOTE BOOK	QUANTITIES BY	
	CHECKED BY	
	IN	



DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
NOTES	
KAMEHAMEHA V HIGHWAY EMERGENCY REPLACEMENT OF KAWAIKAPU BRIDGE FEDERAL AID PROJECT NO. ER-12(4)	
Scale: None	Date: November 25, 2002
SHEET No. C3 OF 46 SHEETS	



MECO NOTES

- MECO and/or its Contractor shall obtain a construction permit from the State's Highway District Engineer at the Kahului office prior to the commencement of work within State Highway Right-of-Way.
- Construction and restoration of all existing highway facilities within State Right-of-Way shall be done in accordance with all applicable sections of the current Standard Specifications for Road and Bridge Construction and the Specification for Installation of Miscellaneous Improvements within State Highways, of the State Highways Division.
- MECO and/or its 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 and for the 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 Highway Administration manual on Uniform Traffic Control Devices for Streets and Highways, Part VI, Traffic Controls for Highway Construction and Maintenance Operations". If lane closures are required during construction, a traffic control plan shall be incorporated into the construction plans and must be approved by the Division prior to the issuance of the permit.
- Approval of permit construction plans shall be valid for a period of one year thereof from the date of notification of approval to the applicant. In the event construction does not commence within this one-year period, the applicant will be required to resubmit his construction plans for Division's review and approval.
- All regulatory guide and construction signs and barricades shall be of high intensity reflective sheeting.
- No material and/or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations designated in writing and approved by the District Engineer.
- Maui Electric Company will not be responsible for any tree trimming required by this relocation. Contractor shall clear all corridors for Maui Electric Company relocation. Should the required corridor not be suitable for Maui Electric Company Construction crews to begin work for the subject relocation, Maui Electric Company will not be held responsible for any extended cost due to this delay.
- The Contractor will provide Maui Electric Company proper assistance in establishing correct locations of new poles at the project site.
- The Contractor shall provide Maui Electric Company truck access to all temporary and permanent pole locations. The access roads shall be at least 10 feet wide and capable of handling Maui Electric Company truckloads of up to 17 tons for the installation, removal, and maintenance of Maui Electric Company facilities.

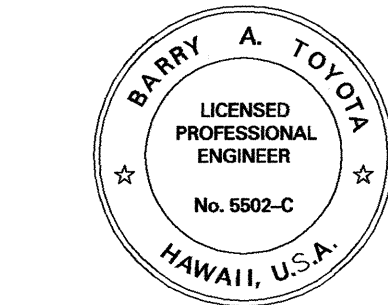
VERIZON HAWAII INC. NOTES

- The Contractor shall procure and pay for all licenses and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.
- The Contractor shall obtain an excavation permit and toning request from Verizon Hawaii, Inc. Excavation Permit Section, located at 60 South Church Street, Wailuku Maui 96793, two weeks prior to the start of construction. Hours of business are 7:00 a.m. to 3:45 p.m. Monday through Friday, except holidays. Phone No. (808) 242-5101, Fax. No. (808) 242-8899.
- Prior to the excavation of the ductline, the Contractor shall request the Verizon Hawaii, Inc. to locate existing ductline wherever required. For underground cable locating and marking, five (5) working days advance notice is required. three (3) working days advance notice is required for any inspection by a designated representative.
- The locations of existing utilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of Verizon Hawaii, Inc. facilities. The Contractor shall verify their locations shall be liable for any damages to Verizon Hawaii, Inc. facilities. Any damages shall be reported immediately to Verizon Hawaii, Inc. Repair Section at #611 (24 hours) or to the excavation Permit Section at (808) 242-5102 (normal working hours, Monday through Friday, except holidays). 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 take necessary precaution not to damage existing cables or ducts. A Verizon Hawaii, Inc. inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Verizon Hawaii, Inc. facilities. Temporary cable and duct supports shall be provided whenever necessary.
- The Contractor shall notify Verizon Hawaii, Inc. inspector or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of Verizon Hawaii, Inc. structures or facilities.
- All applicable construction work shall be done in accordance with the "Verizon Hawaii, Inc. Standard Specifications for Placing Underground Telephone Systems" dated march 1999. all subsequent amendments and additions, and all other pertinent standards for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.
- When excavation is adjacent to or beneath Verizon Hawaii, Inc. existing structures or facilities, the Contractor shall:  
A) Sheet and/or brace the excavation to prevent slides, cave-ins, or settlements to ensure no movement to Verizon Hawaii, Inc. structures or facilities.  
B) Protect existing structures and/or facilities with beams, struts, or underpinning while excavating beneath them to ensure no movement to Verizon Hawaii, Inc. structures or facilities.
- The Contractor shall brace all poles or light standards near the new ductline, manhole, or handhole during his operations.
- The Contractor shall saw-cut a.c. pavement and concrete gutter wherever new manholes, handholes, or ductlines are to be placed and shall restore to existing condition or better.

- 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 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.
- 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.
- The Contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The cost for supplementary measure, which will be required by the State, shall be borne by the Contractor.
- The Contractor shall pump all manholes dry during final inspection.
- The Contractor shall notify the Verizon Hawaii, Inc. inspector 24 hours prior to the pouring of concrete or backfilling.
- 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.
- 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.
- Minimum concrete strength shall be: for ductline 2500 psi at 28 days for manhole 3000 psi at 28 days or as specified in design notes
- Bends in the duct alignment, due to changes in the grade shall have a minimum radius of 25 feet. All 90 degree C-Bends at a pole or at the building floor slab penetration, shall have a bend radius of ten times the diameter of the duct or greater.
- After ductline has been completed, a mandrel with a square front not less than 12" long and having a diameter of 1/4 " less than the inside diameter of the duct, shall be pulled through each duct after which a brush with stiff bristle shall be pulled through to make certain that no particles of earth, sand, or gravel have been left inside. Ducts shall be completely dry and clean.
- All ducts and conduits shall have an 1800# Polyester Mule-Tape (NEPTCO, WP1800P, Verizon Hawaii material code no. 571154) installed throughout its entire length. All ducts shall be capped to prevent entry of foreign material during construction and at the completion of installation.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(4)	2003	7	76

ORIGINAL PLAN	SERIAL PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
Signature: [Signature]  
Date: April 30, 2004  
Expiration Date of the License

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
NOTES	
KAMEHAMEHA V. HIGHWAY EMERGENCY REPLACEMENT OF KAWAIKAPU BRIDGE FEDERAL AID PROJECT NO. ER-12(4)	
Scale: None	Date: November 25, 2002