

P.M.: BKM  
CURRENT OPR: mkf  
PREV. OPR:  
CURRENT TIME: Mar 25, 2002 - 9:40am  
LAST SAVED BY: rki  
LAST MODIFIED: Sun, 10 Mar 2002 - 10:41pm

PREFIX: G:\kai00-01\ACAD\  
FILE: KAI002.dwg  
BEGIN: 12/26/00  
SCALE: 1=1

SYNOPSIS	DATE
PLANNED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTES	
No.	

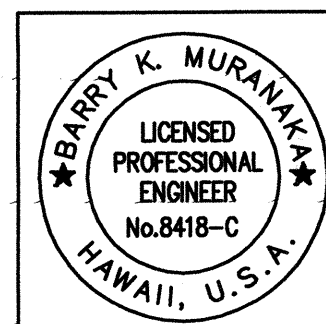
## GENERAL NOTES:

- The scope of work for this project includes the removal of existing bridge, asphalt concrete pavement and temporary detour road; grading; reconstruction of asphalt concrete roadway; construction of temporary detour road, bridge structure, and approach slabs; stabilizing stream banks with CRM wall, GRP, and riprap; installation of guardrails, pavement markings and signs; roadway realignment; and landscaping.
- The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 105.06 - Cooperation Between Contractor's; Subsection 107.21 - Contractor's Responsibility For Utility Property And Services; Subsection 108.03 - re: Incentive Provision; Subsection 108.08 - Liquidation Damages; and Section 645 - Traffic Control.
- Immediately after the Notice to Proceed, the Contractor shall perform a thorough topographic survey of the project site. See Section 203 of the Special Provisions.
- The Contractor shall survey and stake out the State Highway right-of-way and all improvements associated with the project.
- The Detour Road shall be open to traffic except at the times specified in Section 104 of the Special Provisions. Failure of the Contractor to open the Detour Road to traffic during the times specified shall result in assessment of liquidated damages as specified in Section 108.08 of the Special Provisions.
- The Contractor shall be responsible for the maintenance of the Detour Road during the length of the contract, including, but not limited to, any damage caused by excessive rains.
- 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 stream will remain 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 various contract items.
- The Contractor is advised that the following HDOT, Highways Division construction projects within the project area may be started while this project is in progress:
  - 1)Mamalaho Highway, Ford Crossing at M.P. 49.11;
  - 2)Mamalaho Highway, Kaalaala Stream Bridge Replacement;
  - 3)Mamalaho Highway, Keaiwa Stream Bridge Replacement.
- The Contractor shall be required to attend weekly meetings with the State and other Contractors to discuss construction coordination issues. All costs associated with the coordination meetings shall be considered incidental to the various contract items.

- 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. The Contractor shall coordinate with all the utility companies. All costs associated with this coordination shall be considered incidental to the various contract items.
- 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.
- The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from damages due to construction. Repairing any damage shall be the Contractor's own expense, and to the satisfaction of the Engineer.
- 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 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.
- No work or equipment shall be located or take place within 10' of any HELCO utility pole. Any excavation near a utility pole shall require the approval of the Engineer.
- The Contractor will immediately report damages discovered or caused by his work to the Engineer and Utility Companies.
- Prior to pavement operation, the Contractor shall be responsible for locating, preserving 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.
- All holes, depressions and wheel ruts shall be filled and compacted with asphalt concrete prior to resurfacing. This work shall be considered incidental to various contract items and will not be paid for separately.
- Smooth riding connections shall be constructed at all limits of surfacing.
- All saw cutting work shall be considered incidental to the various contract items.

- 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 considered incidental to various contract items.
- Excluding bridge, pavement, G.R.P., riprap, walls and stream channel, all surfaces within the project area shall be hydromulched.
- Earth swales shall be graded to drain. This work shall be considered incidental to the various contract items.
- Adjustments of manhole valve box, street monument, frames and covers, etc., shall not be measured for payment but shall be considered incidental to various items of work in the proposal.
- 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.
- Demolition of the Detour Road will occur as follows:
  - Demolition will begin at the end opposite the disposal site and progress towards the disposal site with the Detour Road serving as its own haul road.
  - Using a hoe ram, the pavement will be broken into particles as large as practical for loading into a truck.
  - The hoe ram will demolish embankment slopes armoured with Class D concrete. The particles will be as large as practical to avoid creating excess dust.
  - A backhoe will load the embankment rock onto a truck.
  - Rock lodged in crevices (probably 10% - 20% of the embankment material) will be removed manually.
  - Any fine material generated will be swept up and disposed after large particles have been removed at the end of each work day.
- The Engineer will permit the Contractor to close only one lane of traffic on the detour road between the hours of 8:30 A.M. to 3:30 P.M. Exceptions to these hours shall require the Engineer's acceptance in writing. See Sheet 44 for additional Traffic Control Notes.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(3)	2002	3	107



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

## GENERAL NOTES

MAMALAHOA HIGHWAY  
EMERGENCY REPLACEMENT OF PAAUUAU STREAM BRIDGE,  
IMPROVEMENTS AT KAMANI STREET, AND  
REHABILITATION OF VARIOUS BRIDGES  
FEDERAL AID PROJECT NO. ER-12(3)

Scale: As shown Date: Jan. 2002

SHEET NO. 1 OF 2 SHEETS

1. All work shall conform to the D.W.S., "Water System Standards", Volumes 1 and 2, dated 1985, as amended.
2. The Contractor shall inform the D.W.S. Engineer 72 hours prior to the beginning of any waterline work and one week prior to any connection, chlorination, shut-off or relocation work.
3. The Contractor shall pay for all work, equipment, and materials furnished by the D.W.S.
4. All existing waterlines, waterline appurtenances and other utility locations shown on the plans are obtained from the latest reliable sources. The Contractor shall be responsible to verify the exact location of all utilities in the field and shall bear all cost for damages done during the contract period.
5. All connections to existing waterlines shall be done by the D.W.S. The Contractor shall provide all excavation, backfill, road repair, traffic control, and provide equipment necessary to complete the connection.
6. Where water shut-off of more than 3-hours becomes necessary, the Contractor, at his own cost, shall provide a temporary by-pass line. The D.W.S. Engineer shall determine the by-pass line size. If necessary, the D.W.S. Engineer may require a by-pass line, regardless of the expected water shut-off period.
7. Minimum horizontal clearance shall between waterlines and other utilities shall be 8 feet unless otherwise specified. Minimum vertical clearance between waterlines and other utilities shall be 12 inches provided concrete jackets are used and 18 inches if no concrete jackets are used. In all applicable instances, the waterline shall be at a grade higher than other utilities.
8. All fittings (Class 250) and gate valves (Class 200) shall be cast iron, with mechanical joints unless otherwise noted.
9. All pipelines, 4" and larger in diameter, shall be Ductile Iron, Push On Joints Class 52, and all pipelines smaller than 4" in diameter shall be soft copper, Type K; unless otherwise specified.
10. Relocation of existing meter shall be done under D.W.S. supervision. The Contractor shall do relocation of customer service lines to relocated meters. Materials used to connect customer lines to relocated meters shall be new 3/4" copper Type "K". All work and materials required shall be provided by the Contractor and considered incidental to the various bid items. Existing meter boxes damaged by the Contractor shall be replaced at the Contractor's cost. A dielectric union shall be used to connect the copper pipe to the customer's G.I. pipe.
11. The water line shall be tested at a minimum of 225 psi, at the low point under D.W.S. supervision.
12. The Contractor shall be responsible for chlorination of the water system and shall bear all cost. The persons engaged to do the chlorination work must be licensed by the State of Hawaii and approved by the Department of Health.

- SURVEY NOTES:

- LEGEND

- P.M.: BKM  
CURRENT OPR: mkf  
PREV. OPR:  
CURRENT TIME: Mar 25, 2002 -- 9:49am  
LAST SAVED BY: rki  
LAST MODIFIED: Mon, 07 Jan 2002 -- 11:02am

PREFIX: G:\Kai00-01\ACAD\  
FILE: KAI0015.dwg  
BEGIN: 12/26/00  
SCALE: 1=1

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTEBOOK	DRAWN BY _____	_____
	TRACED BY _____	_____
	DESIGNED BY _____	_____
	QUANTITIES BY _____	_____
No. _____	CHECKED BY _____	_____

