

Scale In Miles

FED. ROAD STATE FED. AID PROJ. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS HAWAII HAW. HWY-0-02-89 1990

## GENERAL NOTES

- See Standard Specifications for Road \$ Bridge Construction, (Hawaii, 1985) \$ Special Provisions.
   See sheet #S8 for Terminal Connection and Guardrail Type 3
   Thrie Beam details and information.
   All "Terminal Connector" and metal spacers, including all anchor bolts, cap plates, filler bars, templates, nuts and washers, shall be hot-dip galvanized after fabrication.
   H. S. anchor bolt for guardrail post on 10'x5' Concrete Box Culvert shall conform to ASTM A 193 Grade B8, Class 2 with nuts and washers conforming to A 194 Grade 8A. These bolts, nuts \$ washers shall not be galvanized. galvanizeď.

- 5. Large impacting or vibratory type of equipment will not be permitted for drilling.
  6. Drilling of thru holes shall be done in such a manner as to prevent cone puncturing of the daylighting end.
  7. The work necessary to connect guardrail to concrete and post shall include all labor, materials, tools, equipment and incidentals necessary to complete the work. This work will be measured and paid for in units of one.
- 8. The Contractor shall verify all dimensions in field before commencing with work.
  9. The Contractor shall verify the location of all existing utility lines near structures and notify their respective owners before
- commencing with work.

  10. The Contractor shall be responsible for the maintenance of the roadway prism and the protection of the adjacent property, utilities, and existing and new structures from damage due to his operation, and shall repair any damage at his expense, to the satisfaction of the Engineer.

ESTIMATED QUANTIIES			
ITEM NO.	<u>ITEM</u>	<u>UNIT</u>	QUANTITY
606.3000	Guardrail Type 3 Thrie Beam At Bridge End Post	L.F.	2,563
606.8000	Connection Type "A"	Ea.	8
	Connection Type "B"	Ea.	40
- 1	Connection Type "C"	Ea.	34
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10/22/90 10'x5' box culvert extension @ M.P. 23.14 was deleted. General Note no. 11 was deleted per negotiation with low bidder. REVISION STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

GUARDRAIL AND SHOULDER IMPROVEMENTS AT VARIOUS LOCATIONS ON OAHU

Proj. No. HWY-0-02-89

<u> Date: Nov. 1989</u> SHEET No. SI OF 8 SHEETS