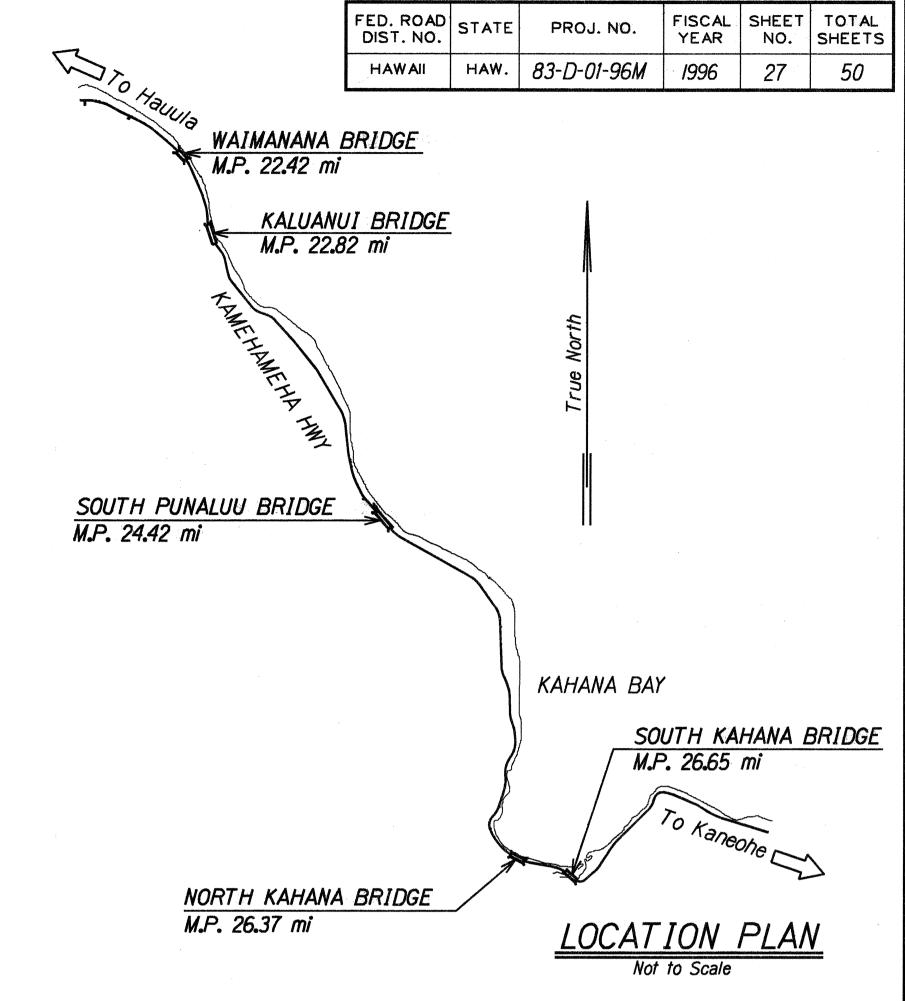
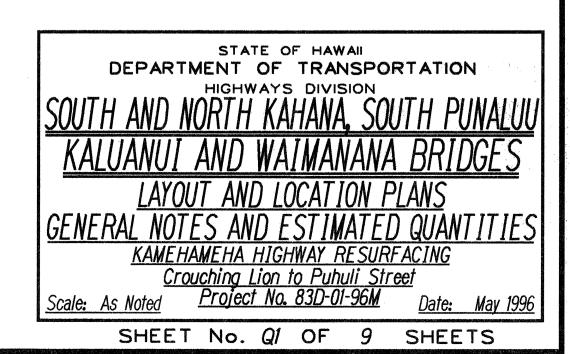


			ESTIMAT	ED QUAN	TITIES			
ITEM NO.	ITEM	UNIT	QUANTITIES					
			SOUTH KAHANA BRIDGE	NORTH KAHANA BRIDGE	SOUTH PUNALUU BRIDGE	KALUANUI BRIDGE	WAIMANANA BRIDGE	TOTAL
507.7610	Type "A" Upgrade	Ea.	2	***************************************			2	2
507.7620	Type "B" Upgrade	Ea.	2	2	2		***************************************	6
507.7630	Type "C" Upgrade	Ea.	MA DO GALLONIA ENTO AMA CON SECURI IN A DA ANA CANONIA	2		***************************************		2
507.7640	Type "D" Upgrade	Ea.	46-40-10-10-10-10-10-10-10-10-10-10-10-10-10		2		MANUFACTURE AND ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION	2
507.7650	Type "E" Upgrade	Ea.	Made of Control of Con			2	2	4
606.3112	Guardrail Type 3TG Thrie Beam Connection	Lin. ft.	100	100	100		50	350
677.1010	Sealing Cracks	Lin. ft.					6	6



## GENERAL NOTES:

- 1. See Standard Specifications for Road # Bridge Construction, (Hawaii, 1994) # Special Provisions.
- 2. See State of Hawaii, D.O.T. Standard Plans; Sht. #TE-57 for metal guardrail and "terminal connector" details.
- 3. All anchor bolts shall be high strength bolts conforming to the requirements of ASTM A 325. Heads of through bolts shall be placed on the traffic side of the rail.
- 4. "Terminal Connector" shall be fabricated from 10 gauge steel conforming to the requirements AASHTO M 180.
- 5. "Terminal Connector" including all anchor bolts, cap PL's, nuts and washers, shall be hot-dip galvanized after fabrication.
- 6. Anchor bolt length or embedment depth shall be such that a snug fit of the elements and full thread engagement plus 1/4" (max.) is attained.
  7. Large impacting or vibratory type of equipment will not be permitted in the removal operation of
- the designated items nor for drilling of holes.
- 8. Any damage to the existing structures due to the Contractor's operation shall be repaired at his expense, to the satisfaction of the Engineer.
- 9. The Contractor shall verify all dimensions in the field before commencing with work.
- 10. The Contractor shall verify the location of all existing utility lines near structures and notify their respective owners before commencing with work.
- 11. The work necessary to connect guardrail to concrete end post shall include all labor, materials, tools, equipment and incidentals necessary to complete the work and shall be incidental to the metal guardrail and will not be paid for separates.
- 12. Contract items will be paid for in units indicated in the Estimated Quantities.
- 13. Existing structure shown by hatched lines.



 ORIGINAL
 SURVEY PLOTTED BY
 LHMF
 DATE

 PLAN
 DRAWN BY
 LHMF
 .
 May 1996

 NOTE BOOK
 DESIGNED BY
 JFU
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 May 1996

 Inkamlhmf.dgn
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 May 1996
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 May 1996

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