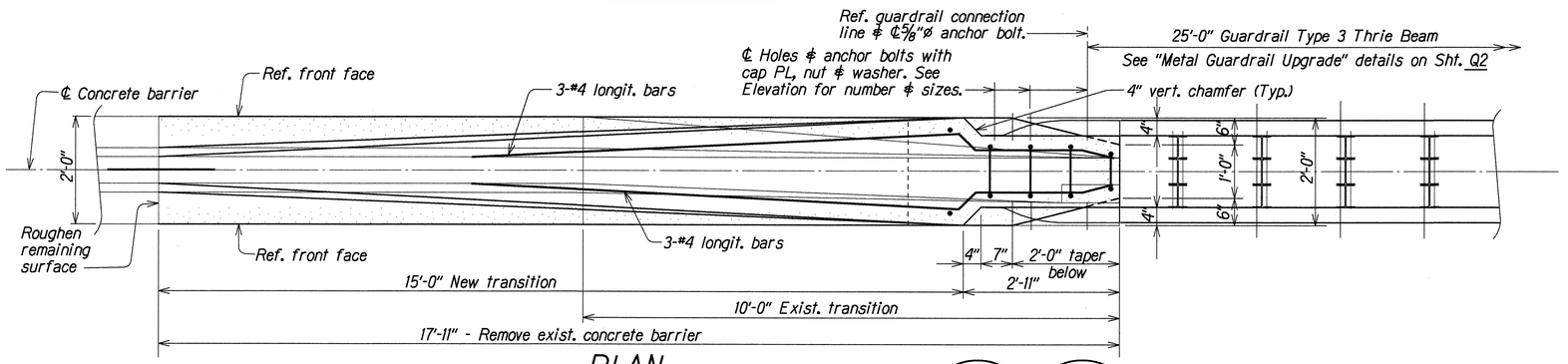
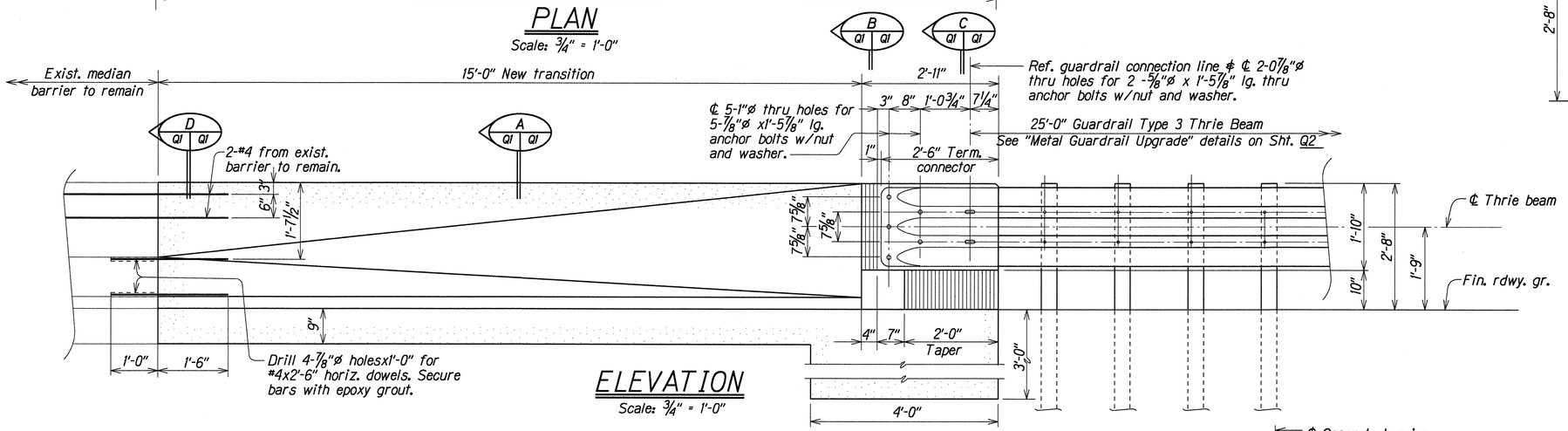
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-099-1(15)	1995	11	26

NOTE: For Structural Notes, see Sht. #Q2



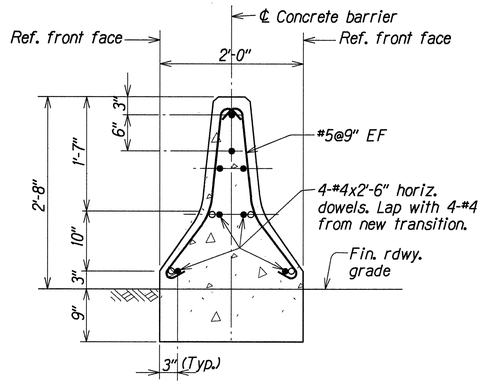
PLAN

Scale: 3/4" = 1'-0"



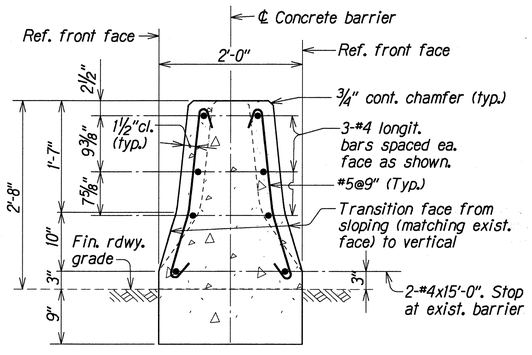
ELEVATION

Scale: 3/4" = 1'-0"



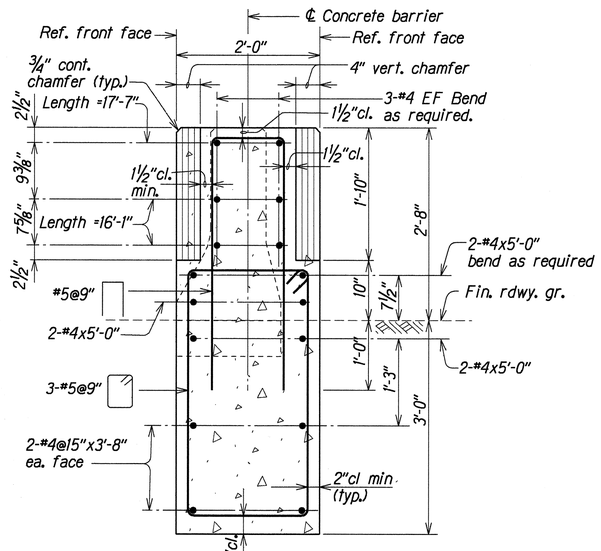
SECTION D Q1 Q1

Scale: 1"= 1'-0"



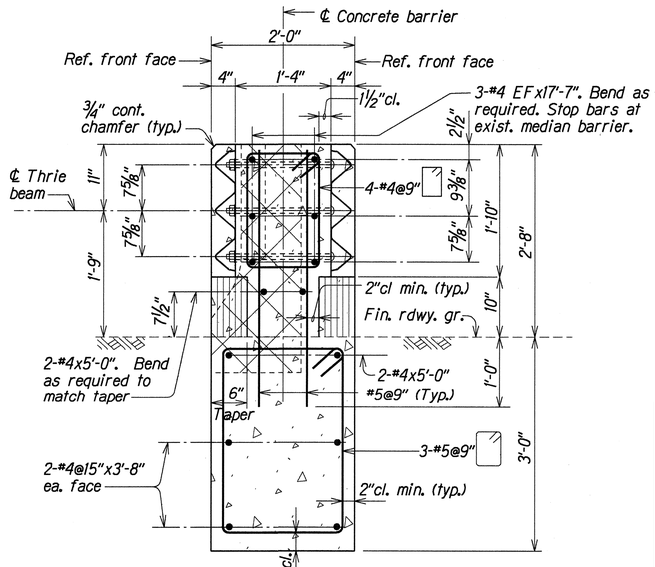
SECTION A Q1 Q1

Scale: 1"= 1'-0"



SECTION B Q1 Q1

Scale: 1"= 1'-0"



SECTION C Q1 Q1

Scale: 1"= 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	LHM, TKM	DATE MAY 1995
	DRAWN BY	. . . .	. . . .
	TRACED BY	. . . .	. . . .
NOTE BOOK	DESIGNED BY	JFU	MAY 1995
	QUANTITIES BY	JFU	MAY 1995
No.	CHECKED BY	DOS, JFU	MAY 1995

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MEDIAN CONCRETE BARRIER

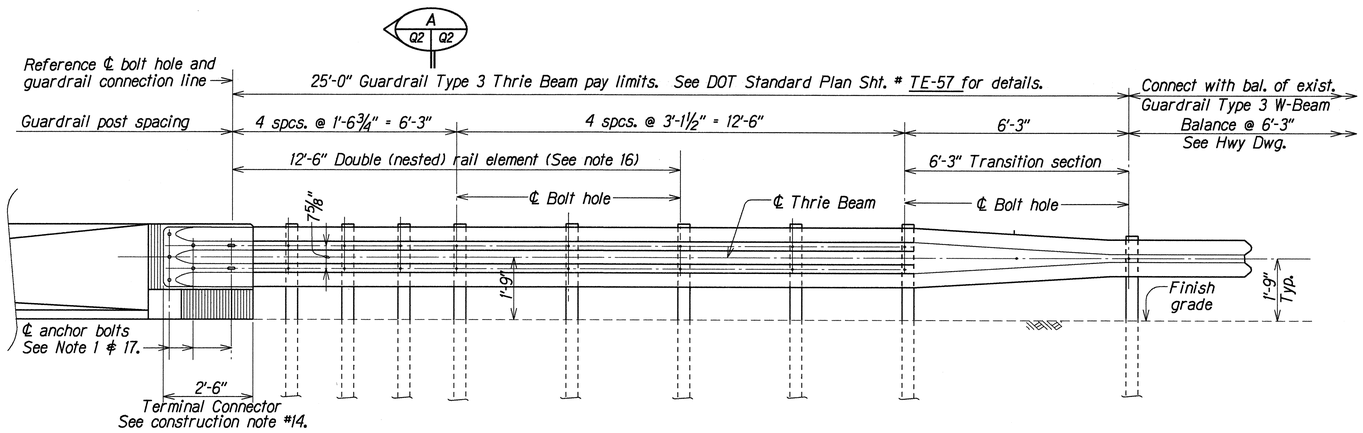
CONCRETE BARRIER UPGRADE

KAMEHAMEHA HIGHWAY RESURFACING
Vicinity of Honomanu Street to Halawa Drive
Fed. Aid Project No. STP-099-1(15)

Scale: As Noted Date: June 1995

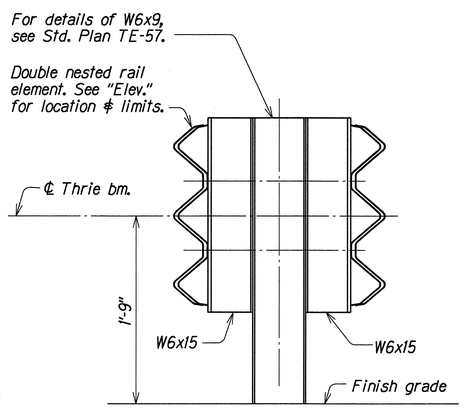
SHEET No. Q1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-099-1(15)	1995	12	26



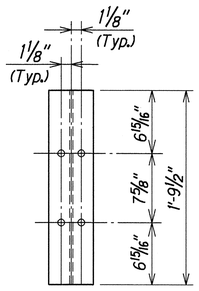
TYPICAL METAL GUARDRAIL UPGRADE

Scale: ½"=1'-0"

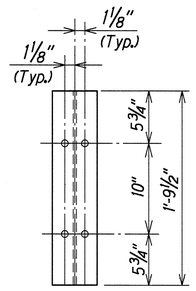


SECTION A Q2 Q2

Scale: 1½"=1'-0"



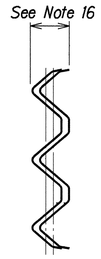
FRONT



REAR

TYPICAL W6X15 SPACER DETAIL

Scale: 1½"=1'-0"



DOUBLE

SINGLE

SECTION THRU RAIL ELEMENT

Scale: 1½"=1'-0"

STRUCTURAL NOTES:

MATERIALS:

1. Concrete shall be Class A unless noted otherwise.
2. All reinforcing steel shall be ASTM A 615, grade 40 unless noted otherwise.
3. All structural steel shall be ASTM A 36 hot-dip galvanized, unless noted otherwise.
4. All anchor bolts, washers and nuts shall be ASTM A 325, hot-dip galvanized after fabrication, unless noted otherwise.

CONSTRUCTION NOTES:

1. The Contractor shall verify all existing conditions as specified on the plans prior to commencing with the work.
2. All vertical dimensions are measured plumb unless noted otherwise.
3. All items noted incidental will not be paid for separately.
4. Existing structure shown by hatched lines to remain.
5. Limits of concrete removal of existing structure shown by x-hatched lines.
6. Saw cut 1" deep along cut line of existing structure.
7. Removal shall be done in such a manner as to preclude any damage to the existing structures.
8. Large vibratory type of equipment will not be permitted in the removal operation, nor for drilling of holes.
9. Only small vibratory hand tools approved by the Engineer will be allowed.
10. Any damage to the existing structure due to the Contractor's operation or negligence shall be repaired by the Contractor at his expense to the satisfaction of the Engineer, with no additional cost to the State.
11. All existing reinforcing and anchor bolts that can be incorporated in the new work shall be bent or cut as required and cleaned before being utilized in the new work.
12. All existing concrete face, receiving new concrete in the finish product, shall be roughened and cleaned prior to placement of new pour, unless indicated otherwise or as directed by the Engineer.
13. Drilling of thru holes shall be done in such a manner as to prevent cone puncturing of the daylighting end.
14. See "DOT Standard Plan" Sht. #TE-57 for guardrail Type 3 thrie beam details and Sht. #TE-50 and #TE-51 for W-beam metal guardrail details. Lap terminal connector and rail element in direction of traffic to prevent snagging.
15. 12" Backup Plate is not required where double nested guardrail occurs.
16. Double (nest 1st panel) thrie beam elements at median barrier connection, except on highways with one-way traffic pattern. Use single thrie beam elements at trailing end only.
17. Drilled holes for anchor bolts shall be filled with mastic prior to placement of anchor bolts unless otherwise noted.
18. Structural excavation for concrete barrier shall be incidental to Type "B" Concrete Barrier and Guardrail Connection Upgrade.

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
606.4115	Type "B" Concrete Barrier and Guardrail Connection Upgrade	EA	1 EA
606.3112	Guardrail Type 3 Thrie Beam	LF	50

ORIGINAL PLAN	SURVEY PLOTTED BY	LHM, TKM	MAY 1995
	DRAWN BY		
	TRACED BY		
NOTE BOOK	DESIGNED BY	JFU	MAY 1995
	QUANTITIES BY	JFU	May 1995
No.	CHECKED BY	DGO, JFU	MAY 1995

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MEDIAN CONCRETE BARRIER
METAL GUARDRAIL UPGRADE DETAIL

KAMEHAMEHA HIGHWAY RESURFACING
Vicinity of Honomanu Street to Halawa Drive
Fed. Aid Project No. STP-099-1(15)

Scale: As Noted Date: June 1995

SHEET No. Q2 OF 2 SHEETS