

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	72C-01-97M	1997	ADD 3	6

GENERAL NOTES

REPAIR NOTES:

1. All deteriorated, damaged, cracked, spalled, honeycombed concrete or concrete over rusted reinforcing bars shall be removed as shown and repaired with hand-placed mortar. ~~or shotcrete.~~
2. Reinforcing bars that have rusted more than 25% of their original cross sectional area shall be cleaned and strengthened as shown on "Reinforcing Bar Repair Splice Detail", this sheet.
3. The Engineer shall determine all areas to be repaired and the limits of repair at each area.
4. Apply silane waterproofing to concrete jackets and spall repairs as approved by the Engineer. Application shall be according to the Manufacturer's recommendations.

INCIDENTAL ITEMS: The following items shall be considered incidental to the various pay items for repairs and will not be paid for separately:

1. Cleaning of all exposed, corroded reinforcing steel to sound metal.
2. Reinforcing bars for repair splice.
3. Furnishing and application of silane waterproofing material.

GENERAL:

1. All reinforcing steel to be ASTM A 615 Grade 40.
2. All welding shall be done in accordance with the current edition of the Reinforcing Steel Welding Code AWS D1.4.
3. Maintenance & control of traffic--See Special Provisions sub-section 104.04.
4. Install new Construction Warning Signs CW20-1Ad (Road Work Ahead) and CG20-1A (End Road Work) with posts (2-each). The Contractor shall erect the construction signs at the beginning and end of project at the location indicated by the Engineer. These signs shall become the property of the Contractor. Payment shall be made under Item No. 621.7100--Construction Sign with Posts.
5. The Contractor is reminded of Section 639--Water Pollution Control.

SYMBOLS AND ABBREVIATIONS:

Spall or unsound surface area.	Exposed reinf. bars	S.S. - Surface spall (Concrete)
		S.C. - Surface crack (Concrete)
		H.C. - Hairline crack
		S.F. or sq. ft. - Square feet
		C.Y. or cu. yd. - Cubic yard
		LF. - Linear feet

ESTIMATED QUANTITIES

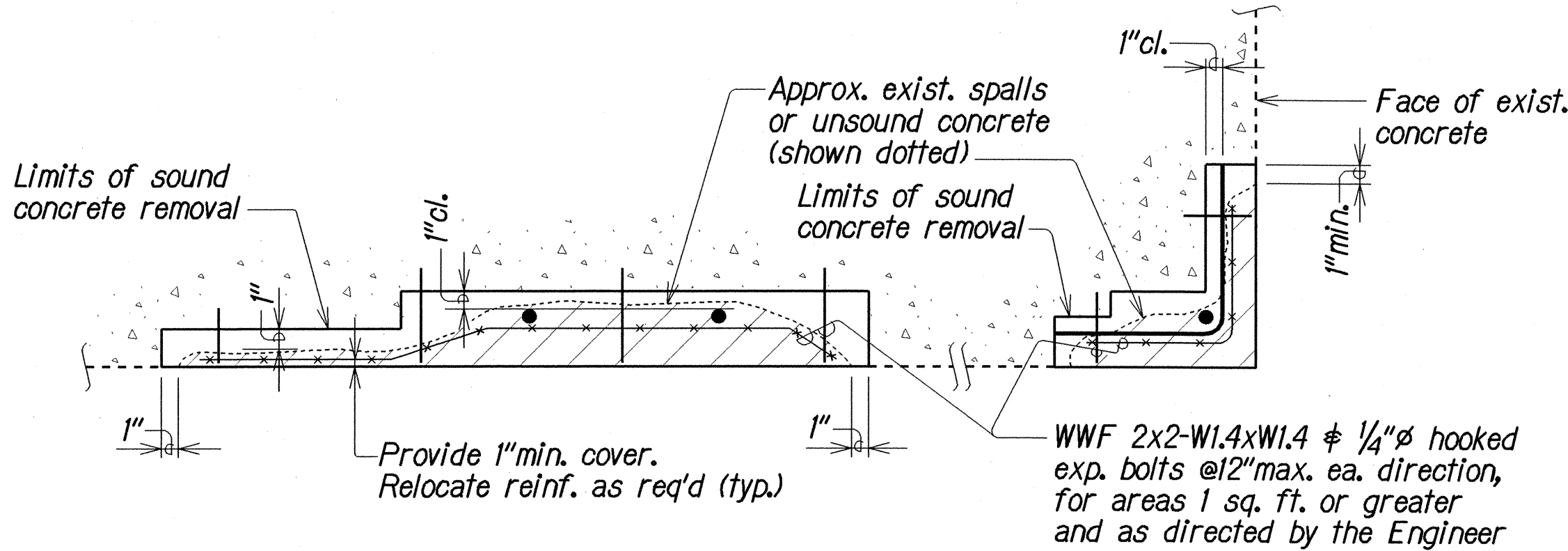
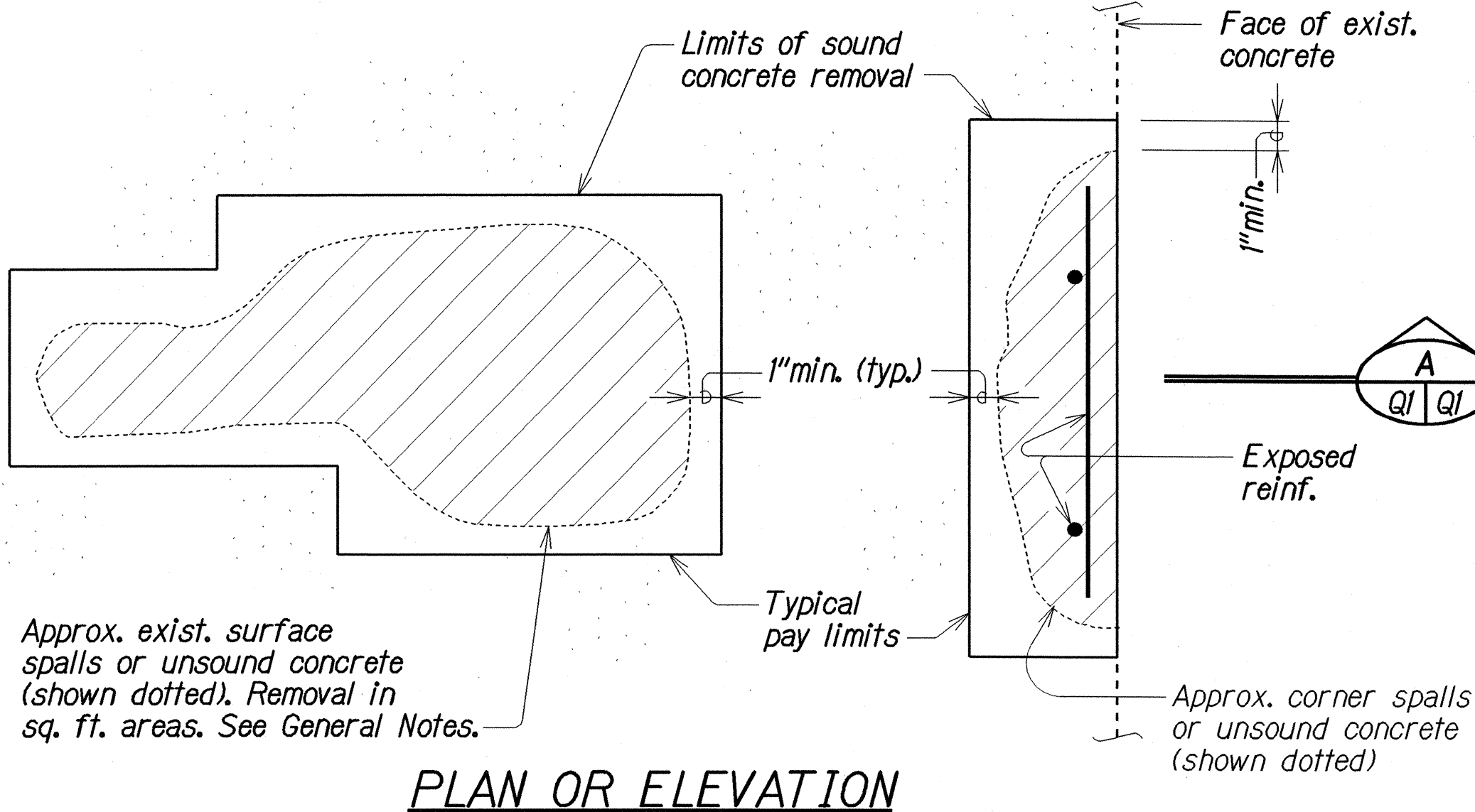
ITEM NO.	ITEM	UNIT	QUANTITY
503.1000	Concrete Jacket - Hawaii Kai Marina Bridge	cu. yd.	22 *
676.1000	Spall Repair - Hawaii Kai Marina Bridge	sq. ft.	100 *

* Includes estimated overrun.

1	Revised Repair Note 1.
5/2/97	
DATE	REVISION
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
TYPICAL CONCRETE REPAIRS, GENERAL NOTES AND ESTIMATED QUANTITIES	
KALANIANA'OLE HIGHWAY Repair Spalls at Soffit, Piles and Pier Caps on Hawaii Kai Marina Bridge Proj. No. 72C-01-97M	
Scale: As Noted	Date: Mar. 1997

SHEET No. 01 OF 4 SHEETS

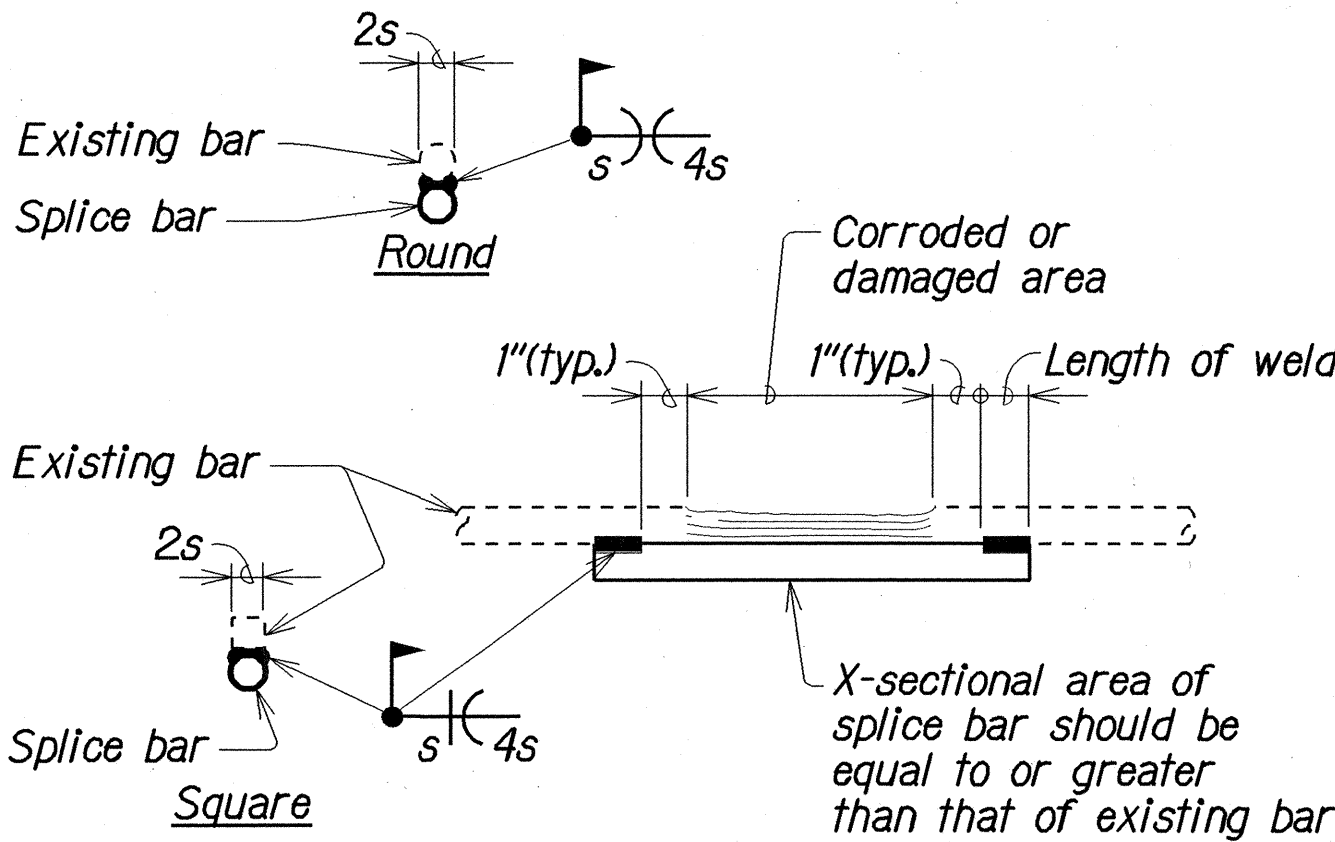
ADD3



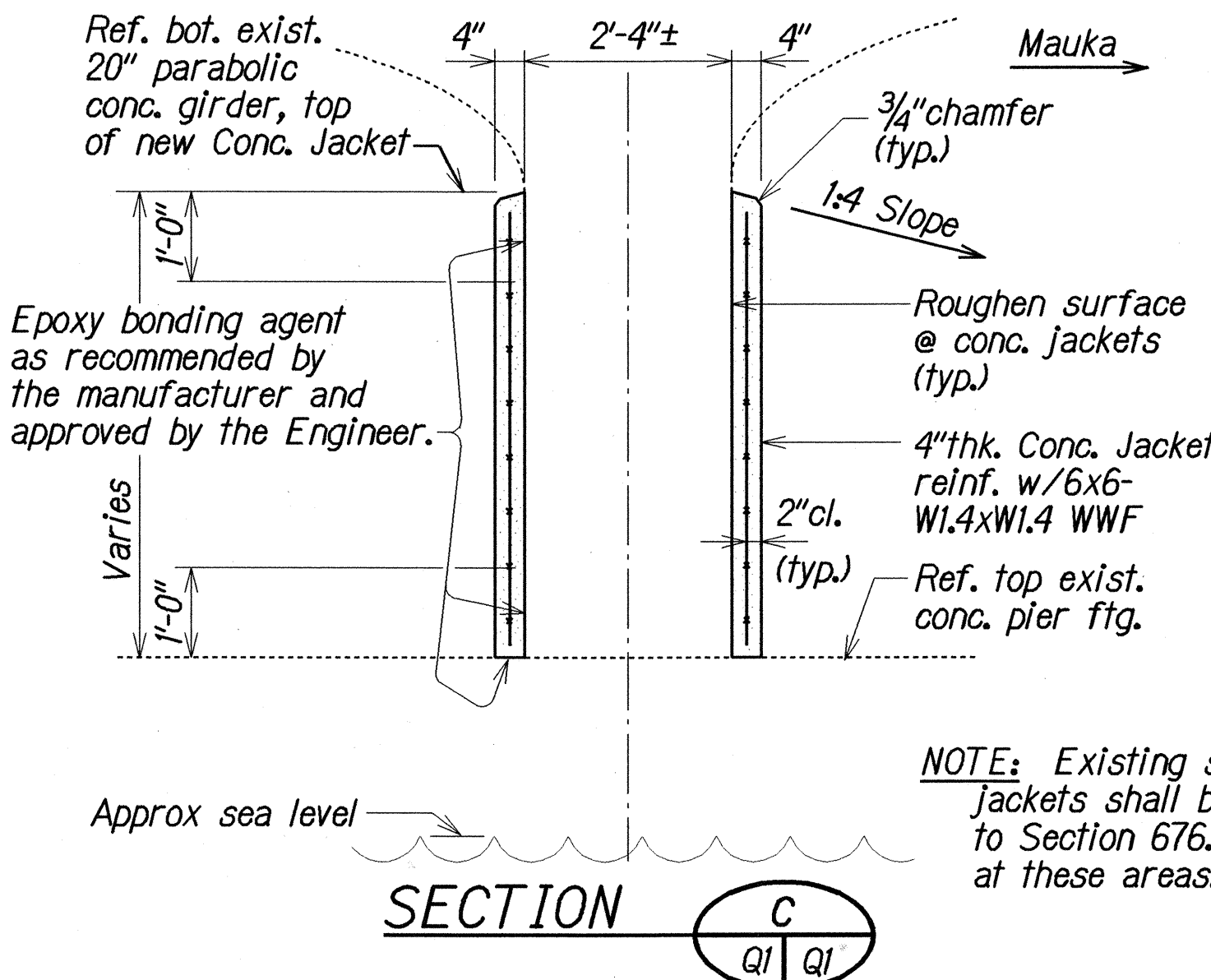
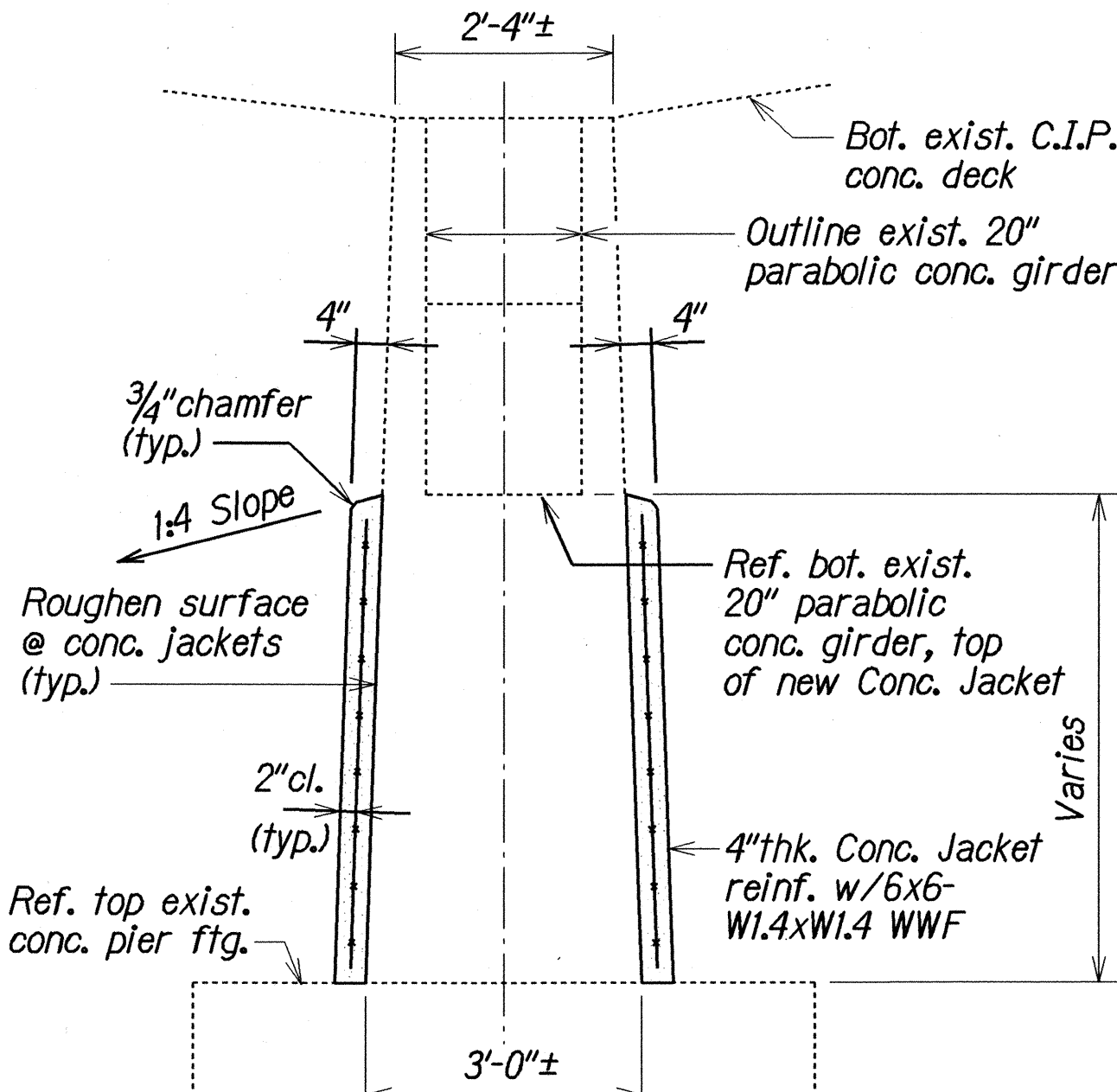
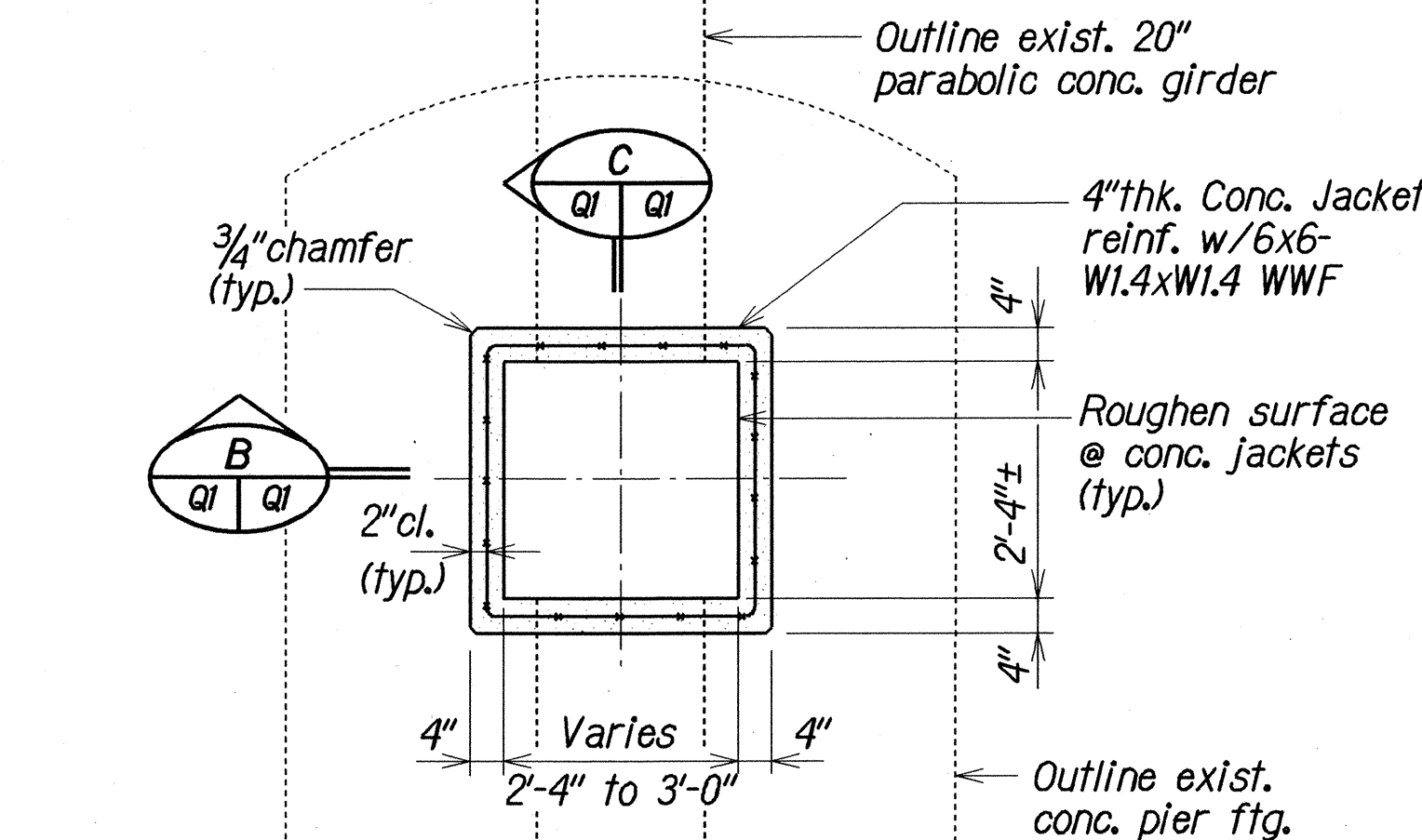
TYPICAL SECTIONS

TYPICAL CONCRETE REPAIRS

Not to Scale



Not to Scale



NOTE: Existing spalls at concrete jackets shall be prepared according to Section 676. WWF not required at these areas.

TYPICAL CONCRETE JACKET DETAILS

Not to Scale

ORIGINAL PLAN	DATE	5/2/97
DRAWN BY	KSG	
NOTED BY	KBY	
DESIGNED BY	KBY	
QUANTITIES BY	DDO	
APPROVED BY		