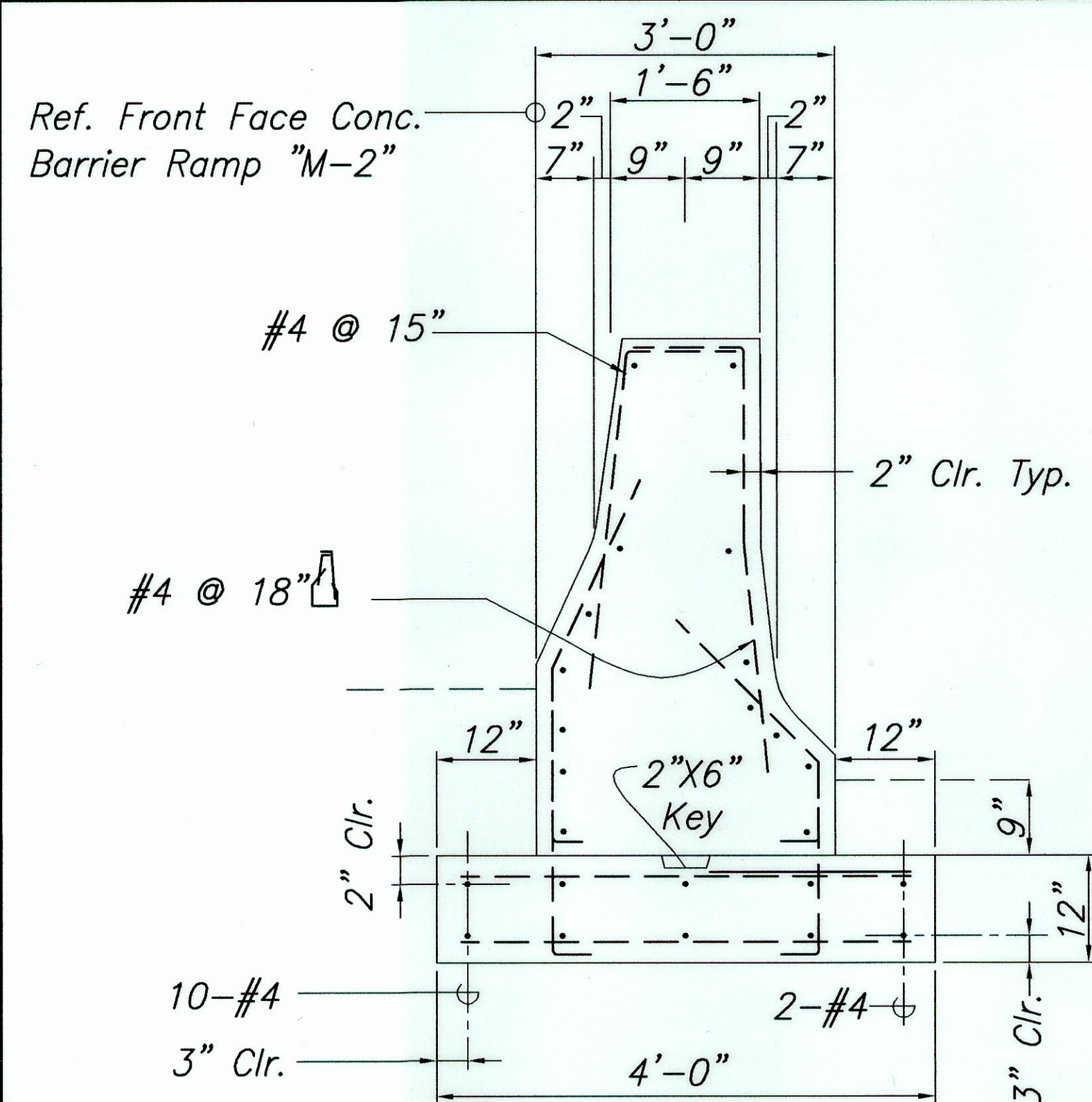
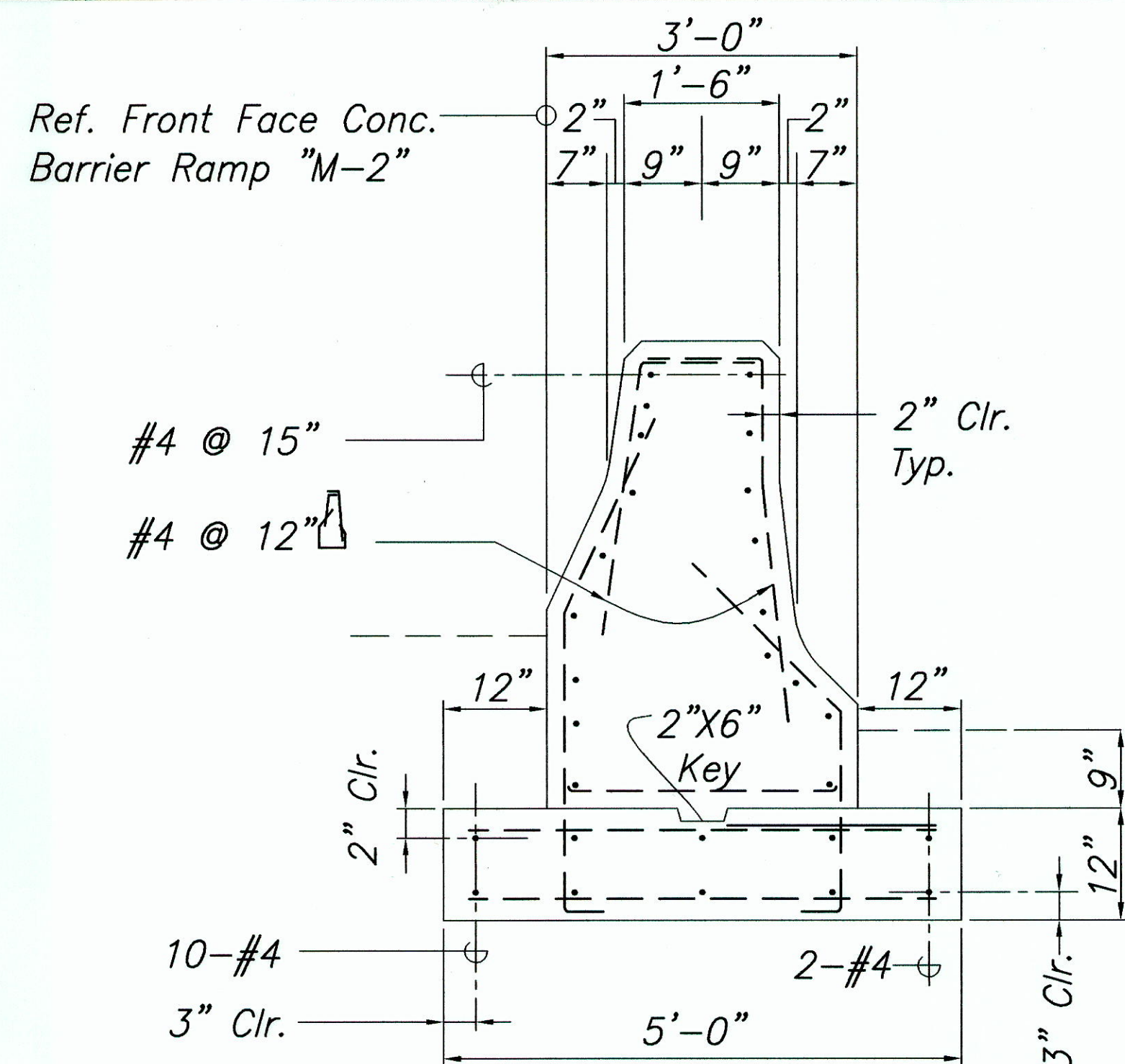


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H1H-01-00M	2003	C.O. 118	234



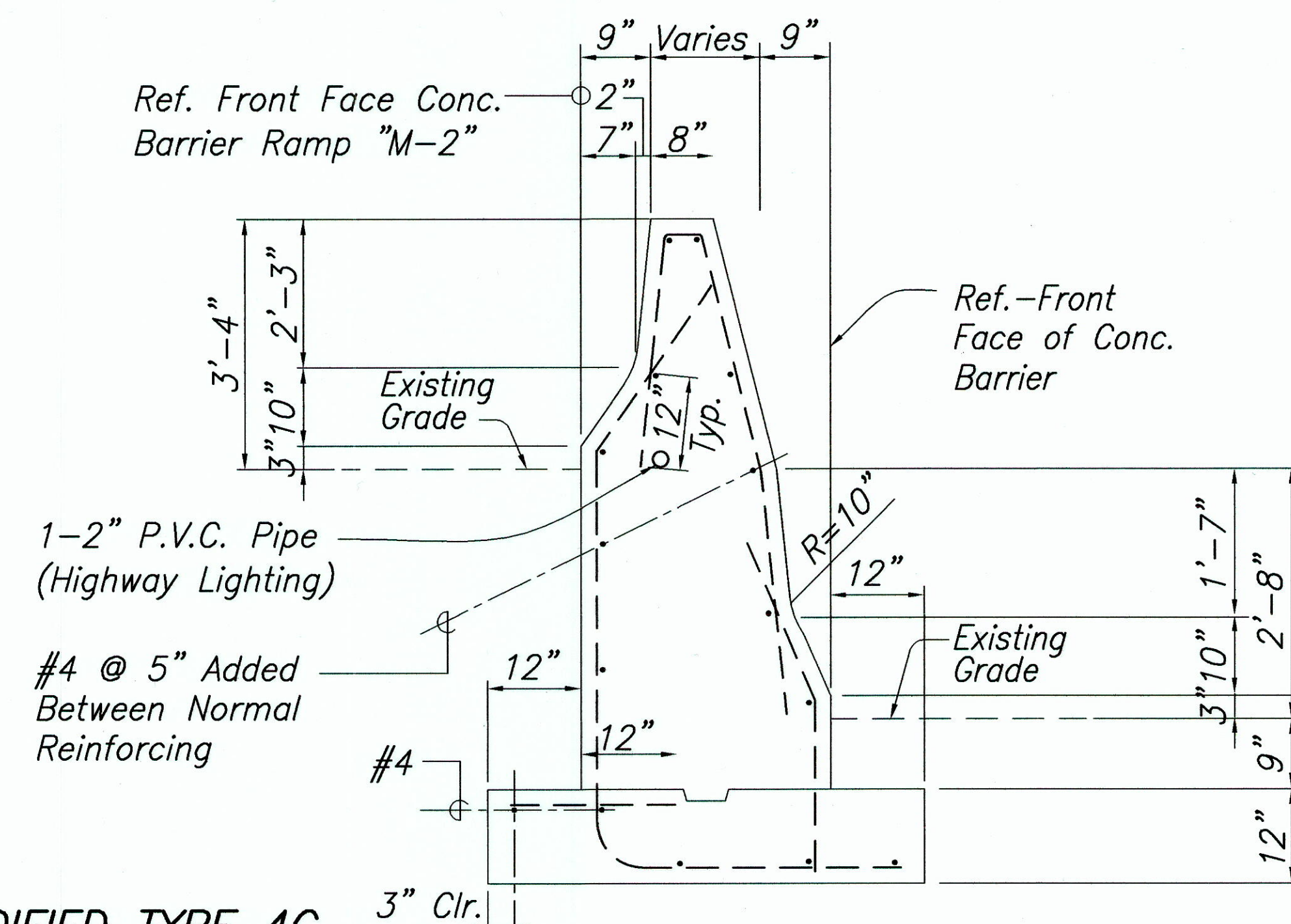
SECTION "B-B" AT LIGHT STANDARD GUARDRAIL TYPE 4C
@ Sta. 17+67 to @ Sta. 24+34

SCALE 3/4" = 1'-0"



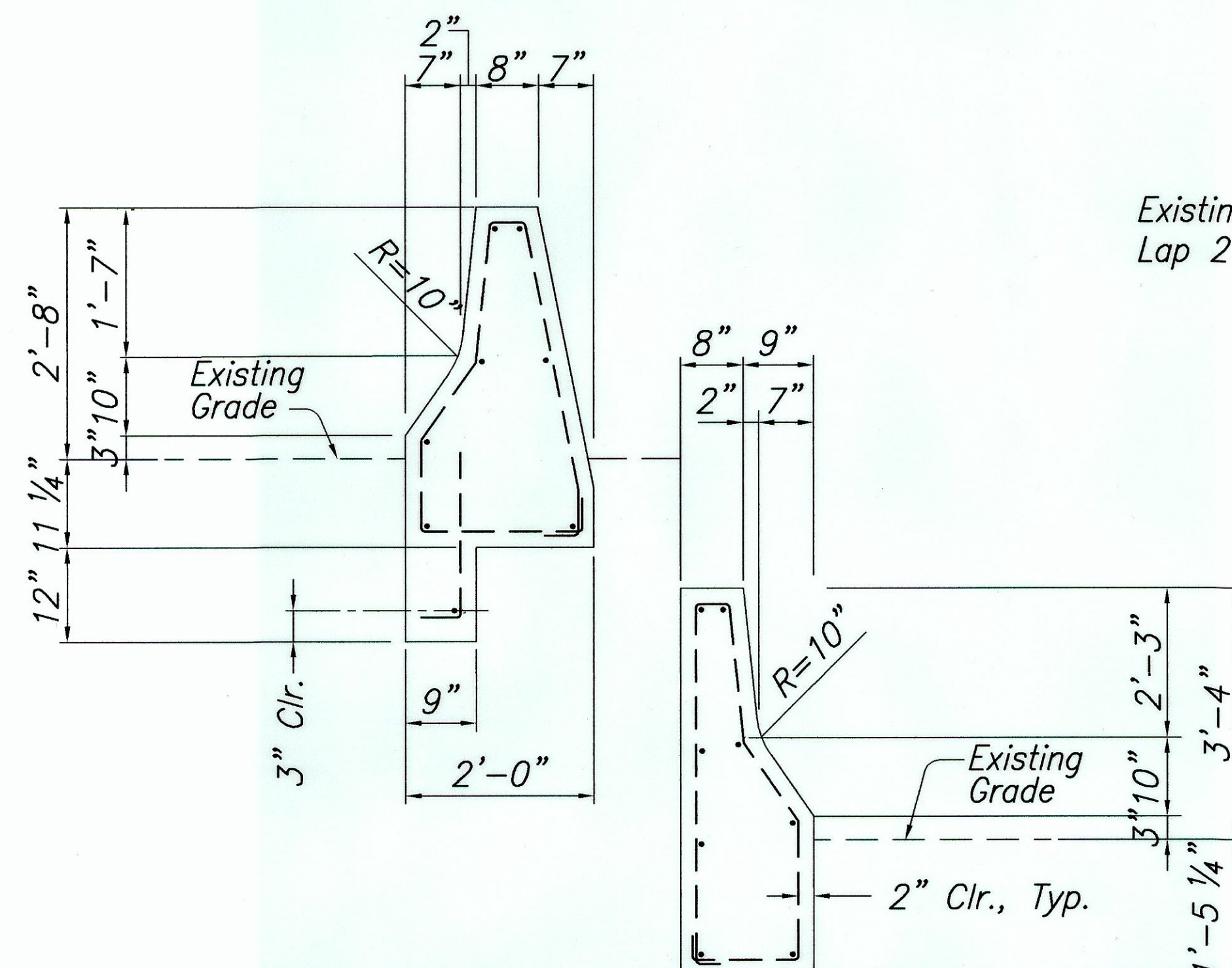
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@ Sta. 17+32 to @ Sta. 17+67

SCALE 3/4" = 1'-0"



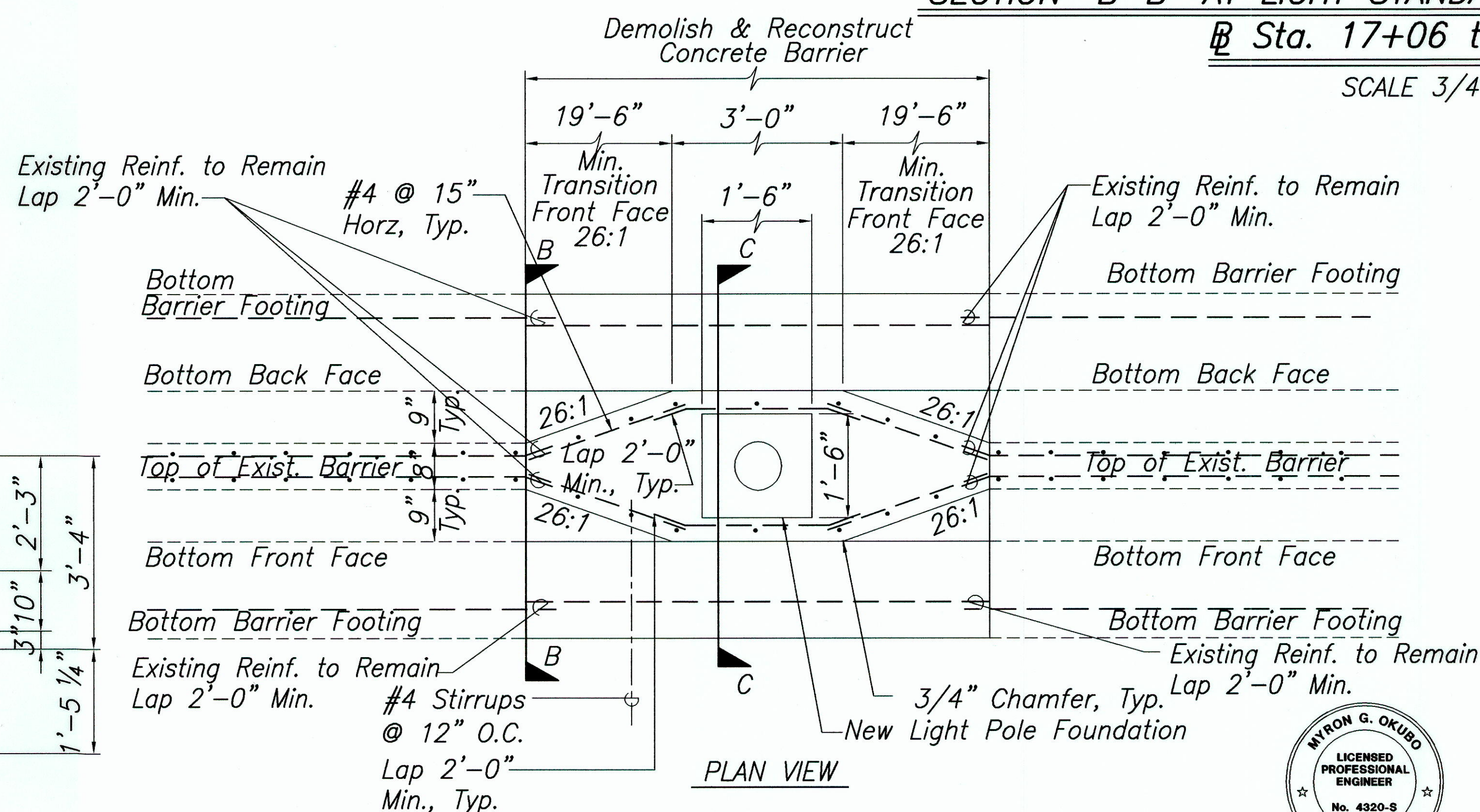
SECTION "B-B" AT LIGHT STANDARD GUARDRAIL MODIFIED TYPE 4C
@ Sta. 17+06 to @ Sta. 17+32

SCALE 3/4" = 1'-0"



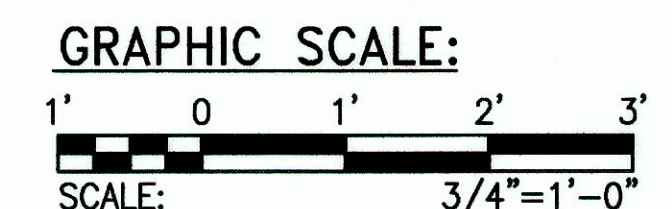
SECTION "B-B" AT LIGHT STANDARD GUARDRAIL MODIFIED TYPE 4F
@ Sta. 15+36 to @ Sta. 17+06

SCALE 3/4" = 1'-0"



CONC. BARRIER TRANSITION @ LIGHT POLE LOCATIONS
@ STA. 17+06 to @ STA. 24+61

Not To Scale



NOTE:
 For Section "A-A" and "C-C",
 See Sheet C.O. 118 S-1.

9-23-04	Added/Revise Light Pole Connection Details.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LIGHT STANDARD CONNECTION DETAILS	
INTERSTATE ROUTE H-1 REHABILITATION OLA LANE TO KALIHI STREET PROJECT NO. H1H-01-00M	
Scale: As Noted	Date: October 31, 2002
SHEET No. C-49 OF C-59 SHEETS	



[Signature]
 SIGNATURE APR 30, 2006 EXPIRATION DATE

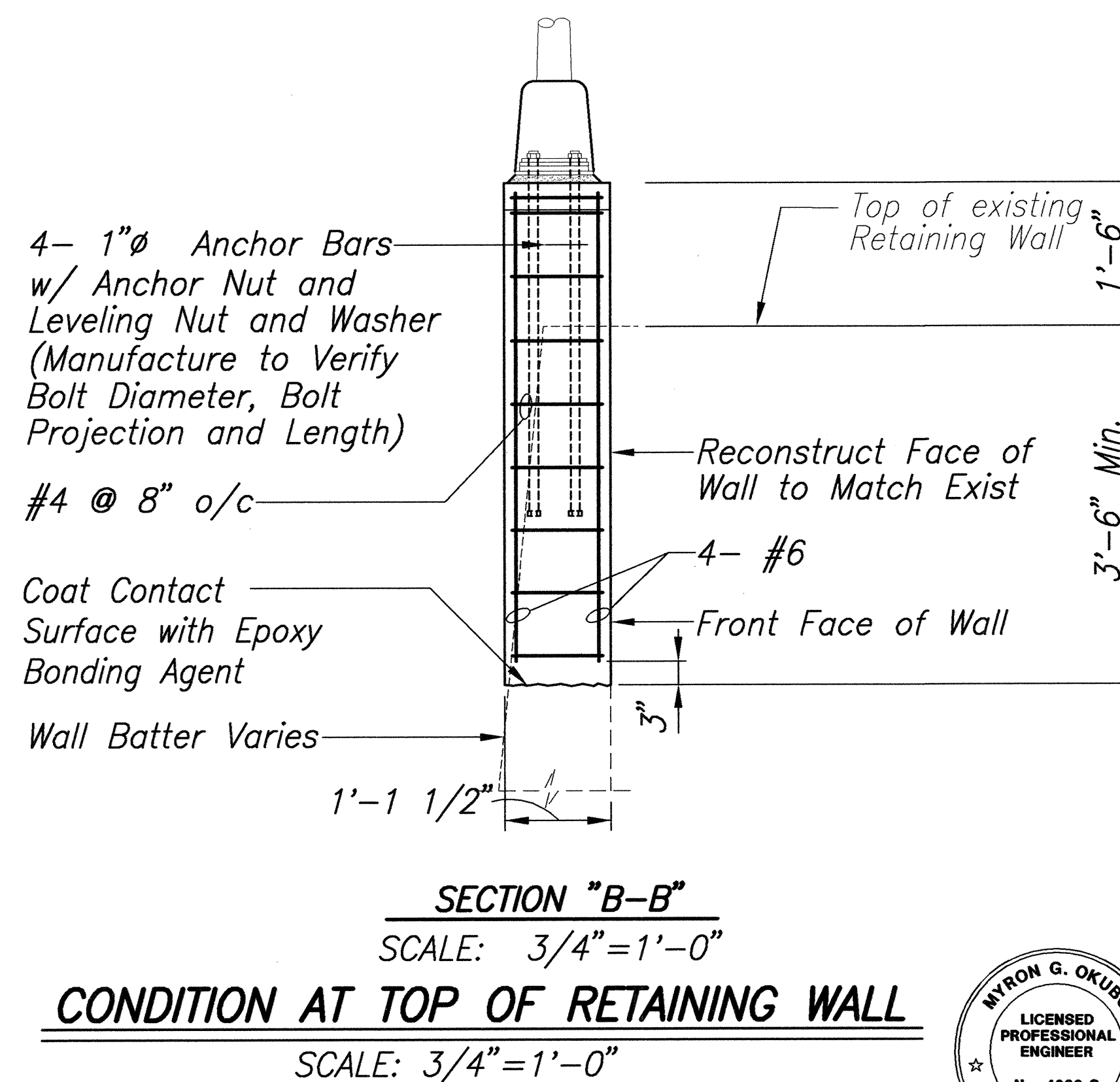
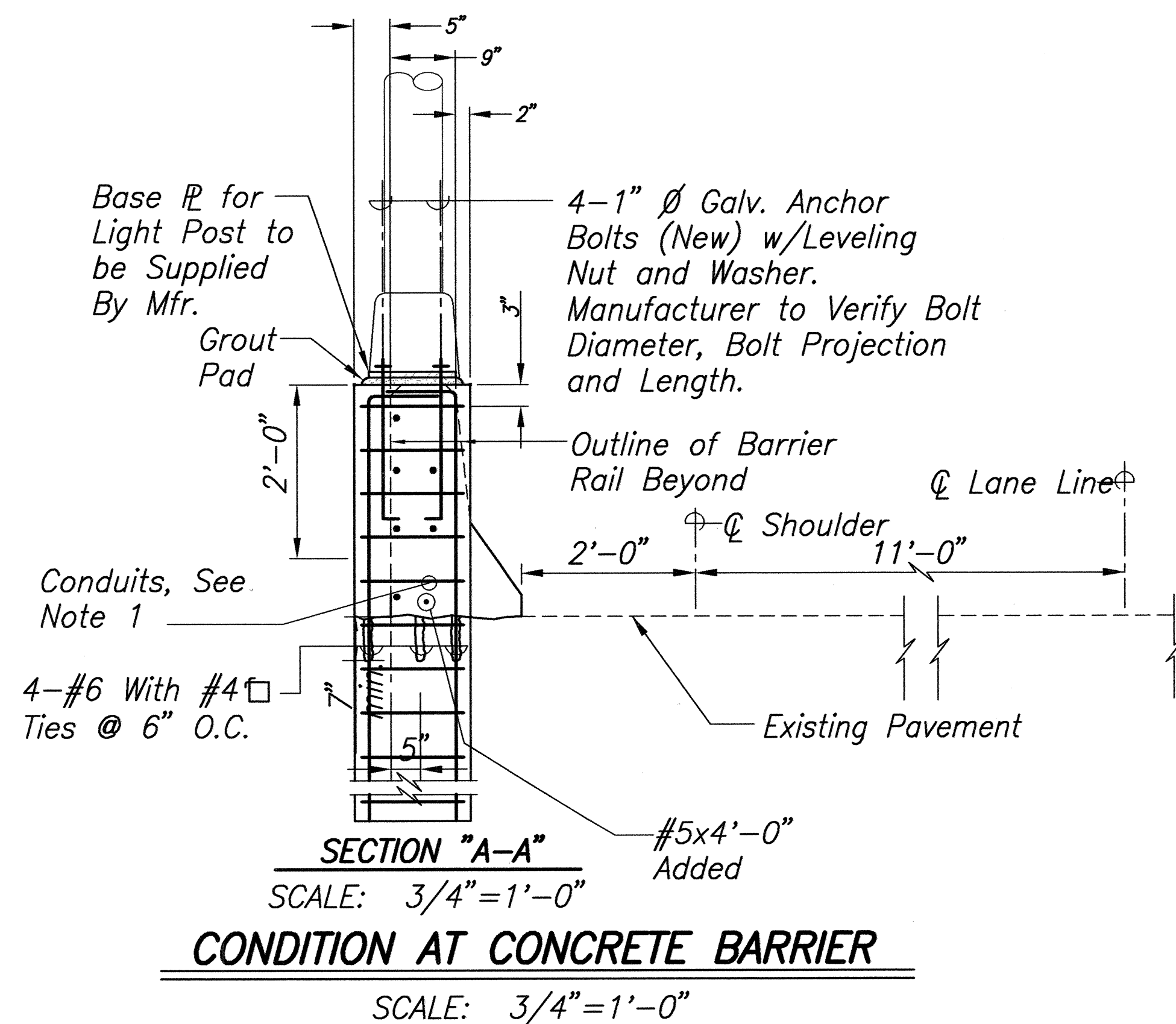
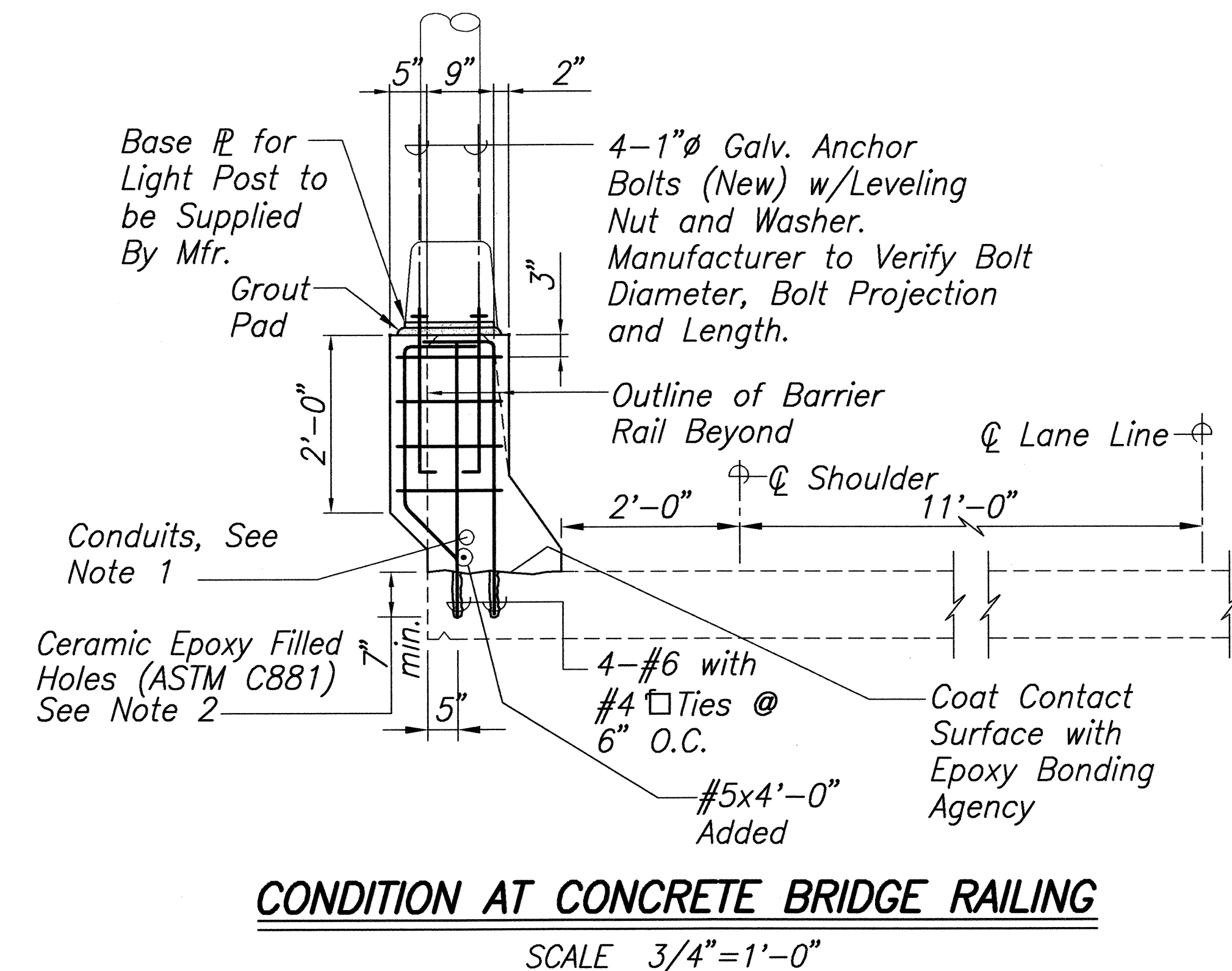
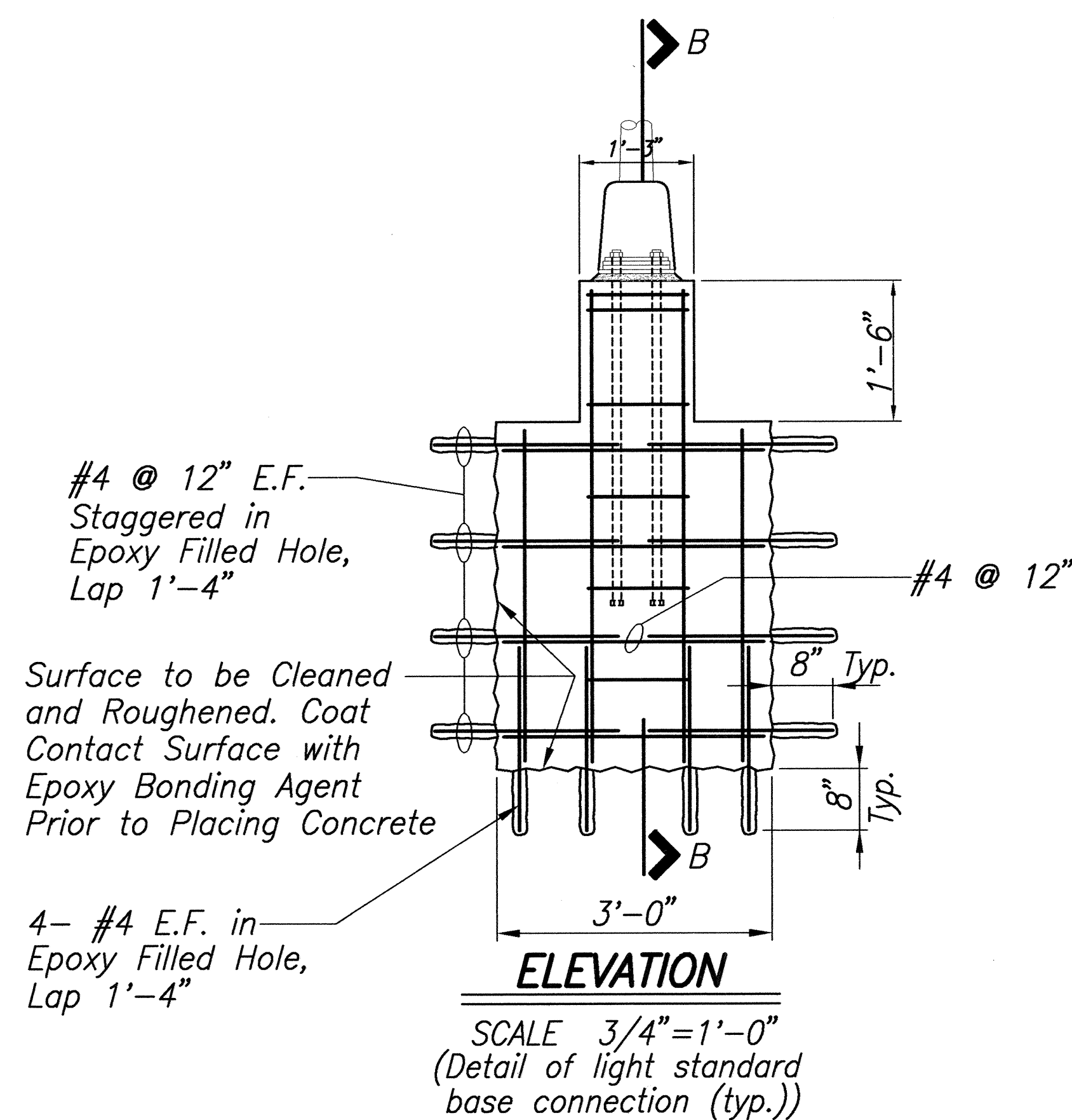
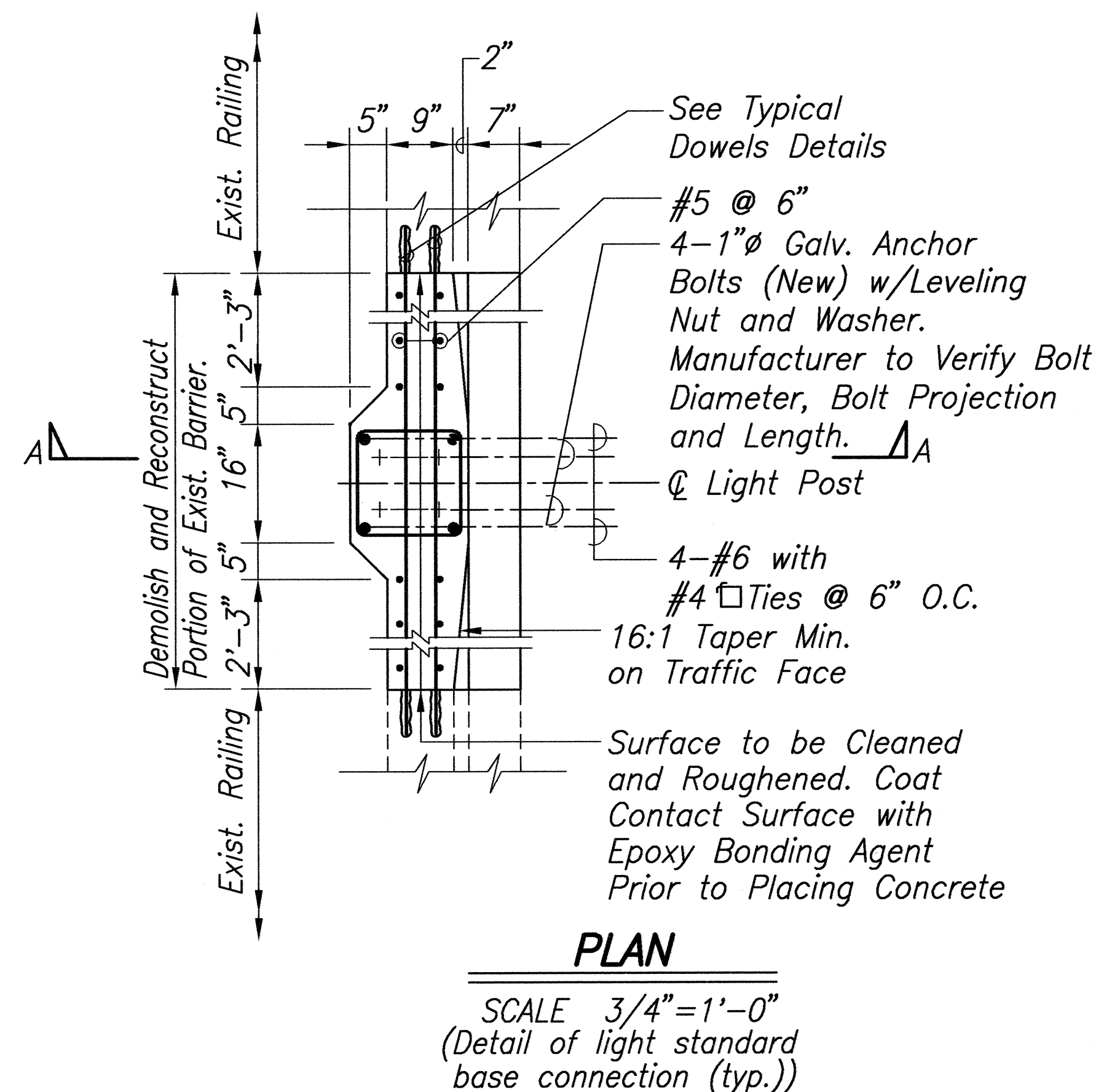
"AS-BUILT"

C.O. 118

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	DRAWN BY	
CHECKED BY	NOTED BY	
QUANTITIES BY		

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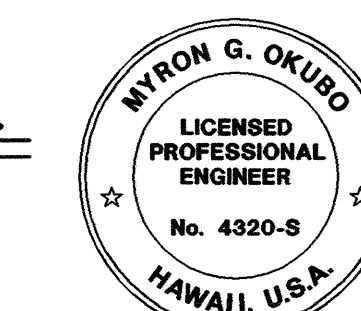
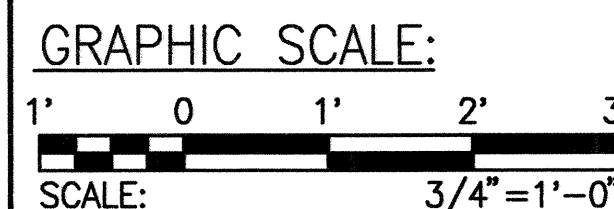
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H1H-01-00M	2003	ADD.119	234



Notes:

- For Locations And Details Of Conduits And Pullboxes, See Electrical Plans

ORIGINAL PLAN	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
No.	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Myron G. Okubo
SIGNATURE

APRIL 30, 2004
EXPIRATION DATE



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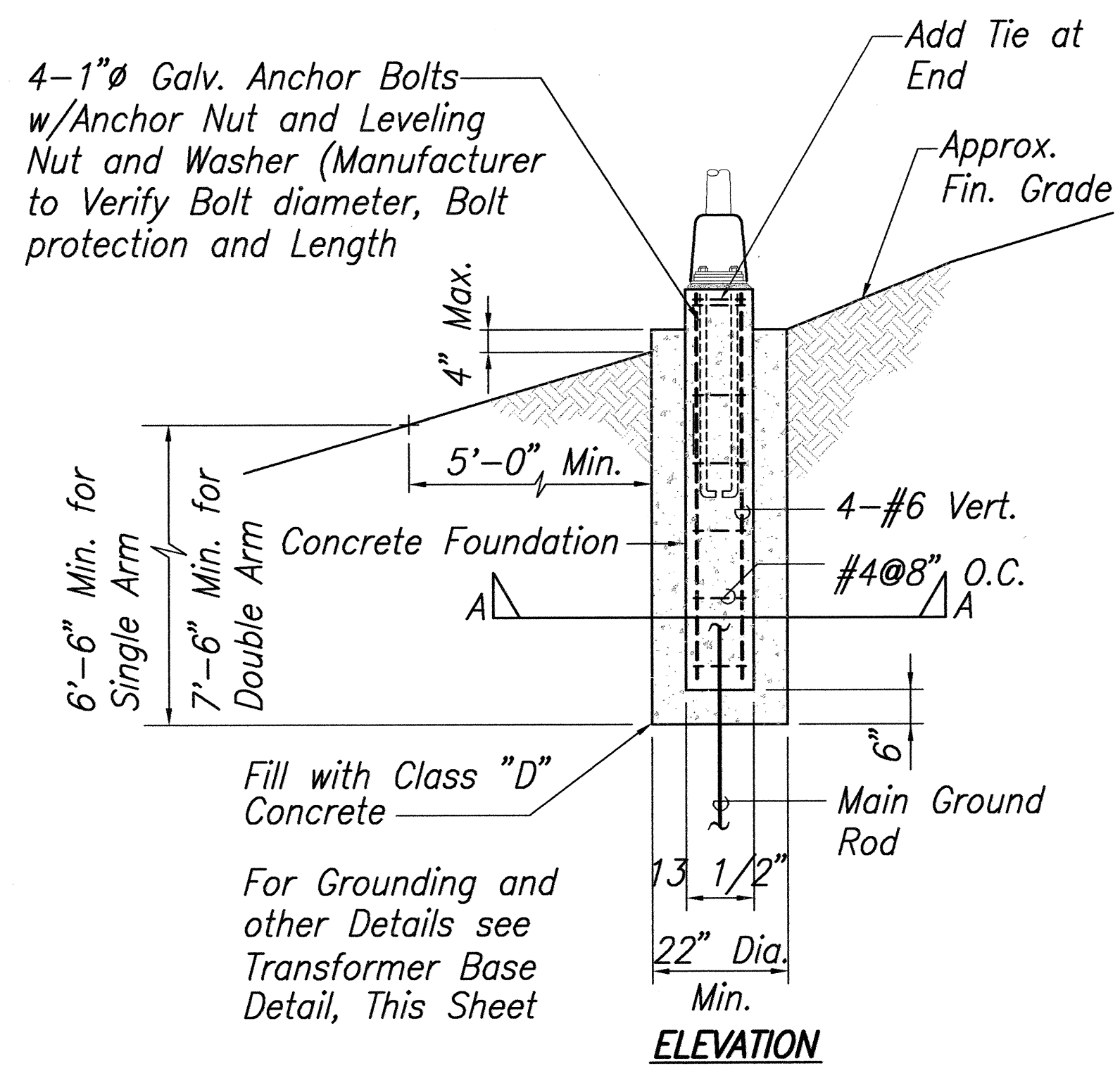
Lance S. Oyama
SIGNATURE

APRIL 30, 2004
EXPIRATION DATE

6-18-03	Added Condition at Concrete Bridge Railing Detail
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LIGHT STANDARD CONNECTION DETAILS	
INTERSTATE ROUTE H-1 REHABILITATION OLA LANE TO KALIHI STREET PROJECT NO. H1H-01-00M	
Scale: As Noted	Date: October 31, 2002

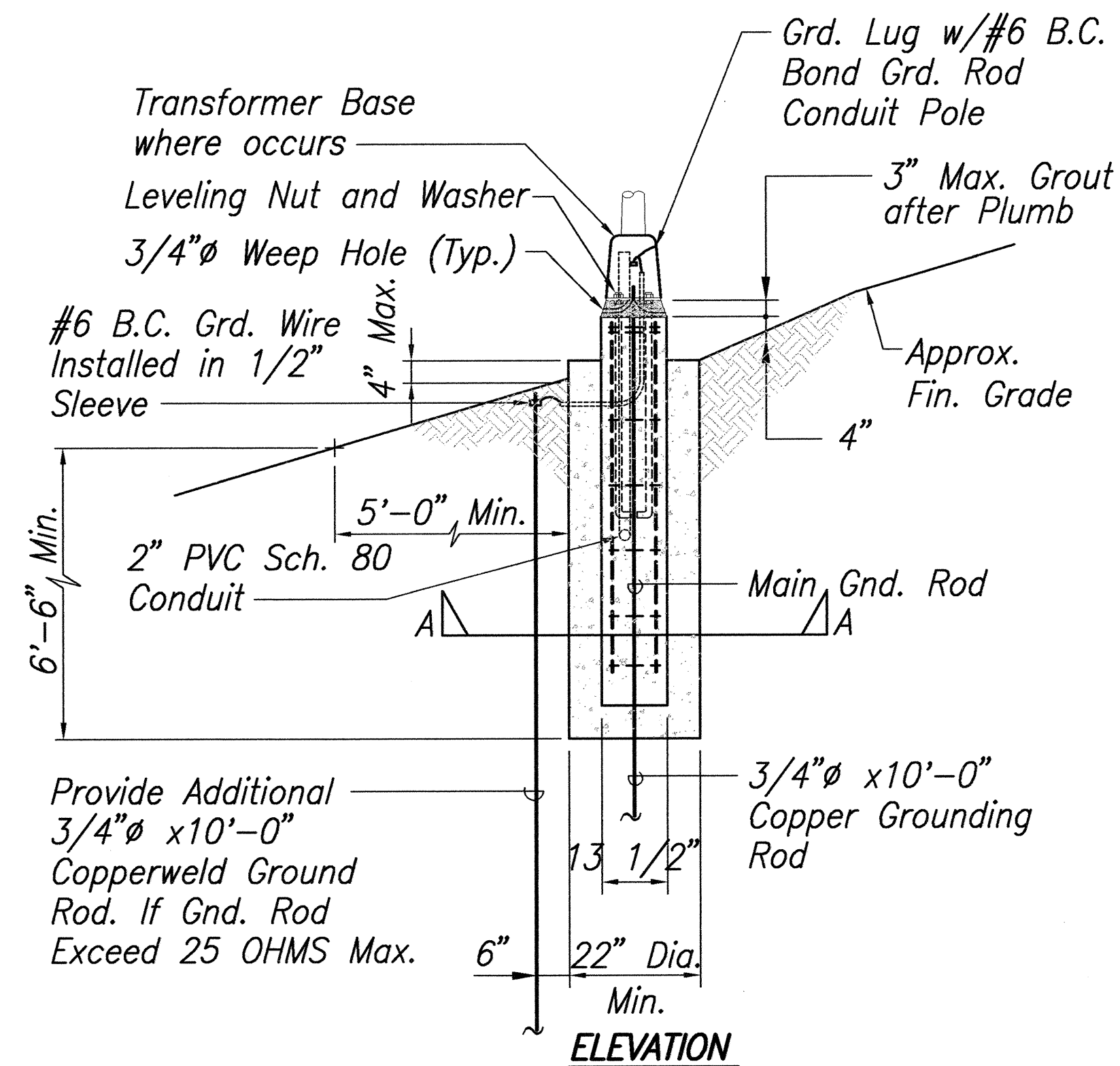
SHEET No. C-50 OF C-59 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H1H-01-00M	2003	ADD. 120	234



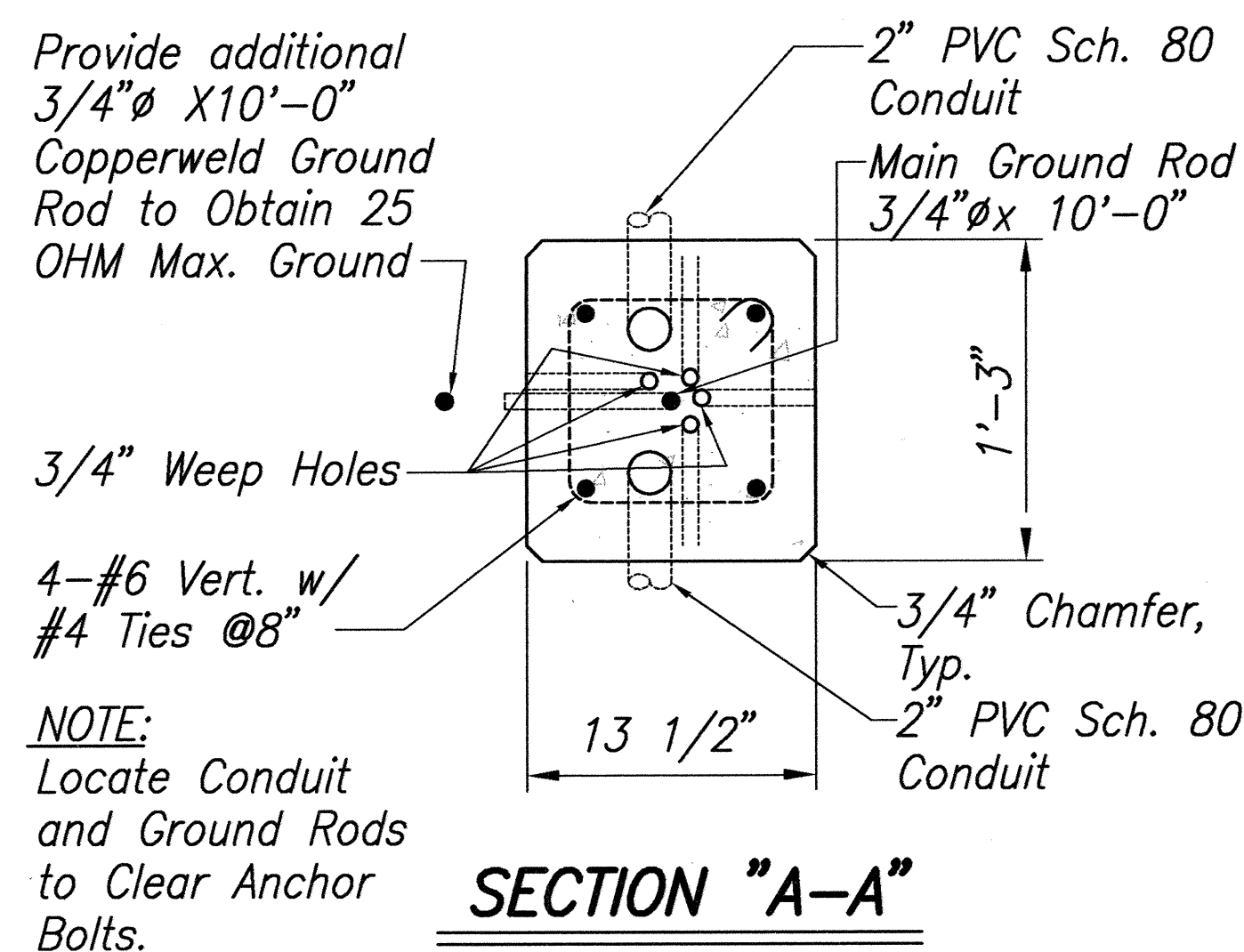
**CONCRETE BASE AND POLE
ANCHOR DETAILS FOR SINGLE AND
DOUBLE ARM LIGHT STANDARD**

SCALE: 1/2"=1'-0"



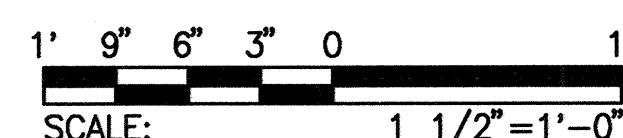
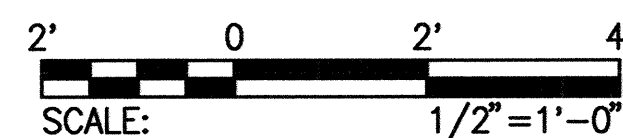
**TYPICAL CONCRETE BASE AND POLE
MOUNTING DETAIL TRANSFORMER BASE**

SCALE: 1/2"=1'-0"



SCALE: 1 1/2"=1'-0"

GRAPHIC SCALES:



NOTE:
Details Represent Typical Components with Various Mast Arm Configurations.

GENERAL NOTES:

DESIGN SPECIFICATIONS:

AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (2001), 4th Edition.

GENERAL SPECIFICATIONS:

Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 1994.

DESIGN WIND LOAD: 105 mph Wind Velocity.

MATERIALS:

Reinforced Concrete: Class A unless noted otherwise.
Reinforced Steel: ASTM A615, Grade 60 unless otherwise noted.

Anchor Bolts: ASTM A36 Hot Dip Galvanized

SOIL DESIGN VALUES:

Assumed Allowable Foundation Pressure 2000 psf
Assumed Lateral Bearing Pressure 200 #/sf/ft

REINFORCEMENT:

- The minimum clear cover measured from the surface of the Concrete to the face of any Reinforcing Bar shall be as follows, except as otherwise noted.
 - Concrete exposed to Earth or Weather: Primary Reinforcement 2" and Stirrups 1 1/2"
 - Concrete cast against and permanently exposed to Earth = 3"
- Reinforcing shall be detailed in accordance with the latest editions of CRSI "Placing Reinforcing Bars" and ACI "Manual of Strandard Practice" and the "Detailing Manual" unless noted otherwise.
- All dimensions relating to Reinforcing (e.g. spacing of bars) are to center of bars unless noted otherwise.

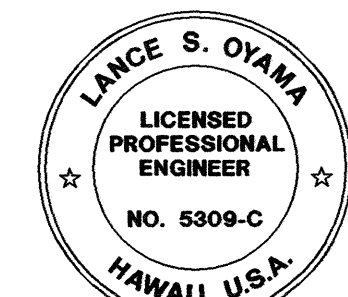
CONSTRUCTION METHODS:

- Hawaii Standard Specifications for Road, Bridge, and Public Works Construction 1994 and Special Provisions.
- Except as otherwise noted, all vertical dimensions are measured plumb.
- Pole Foundations shall be excavated and poured neat against undisturbed ground. In case of over excavation, space between foundation and ground shall be filled with Concrete at the Contractors' expense and as directed by the Engineer. The minimum quality of the fill Concrete shall be Class B.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY		
DESIGNED BY		
CHECKED BY		
NO.		



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Signature: Myron G. Okubo
APRIL 30, 2004
EXPIRATION DATE



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Signature: Lance S. Oyama
APRIL 30, 2004
EXPIRATION DATE

6-18-03	Revised Light Standard Footing Depth Dimension
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LIGHT STANDARD CONNECTION DETAILS	
INTERSTATE ROUTE H-1 REHABILITATION OLA LANE TO KALIHI STREET PROJECT NO. H1H-01-00M	
Scale: As Noted	Date: October 31, 2002

SHEET NO. C-51 OF C-59 SHEETS