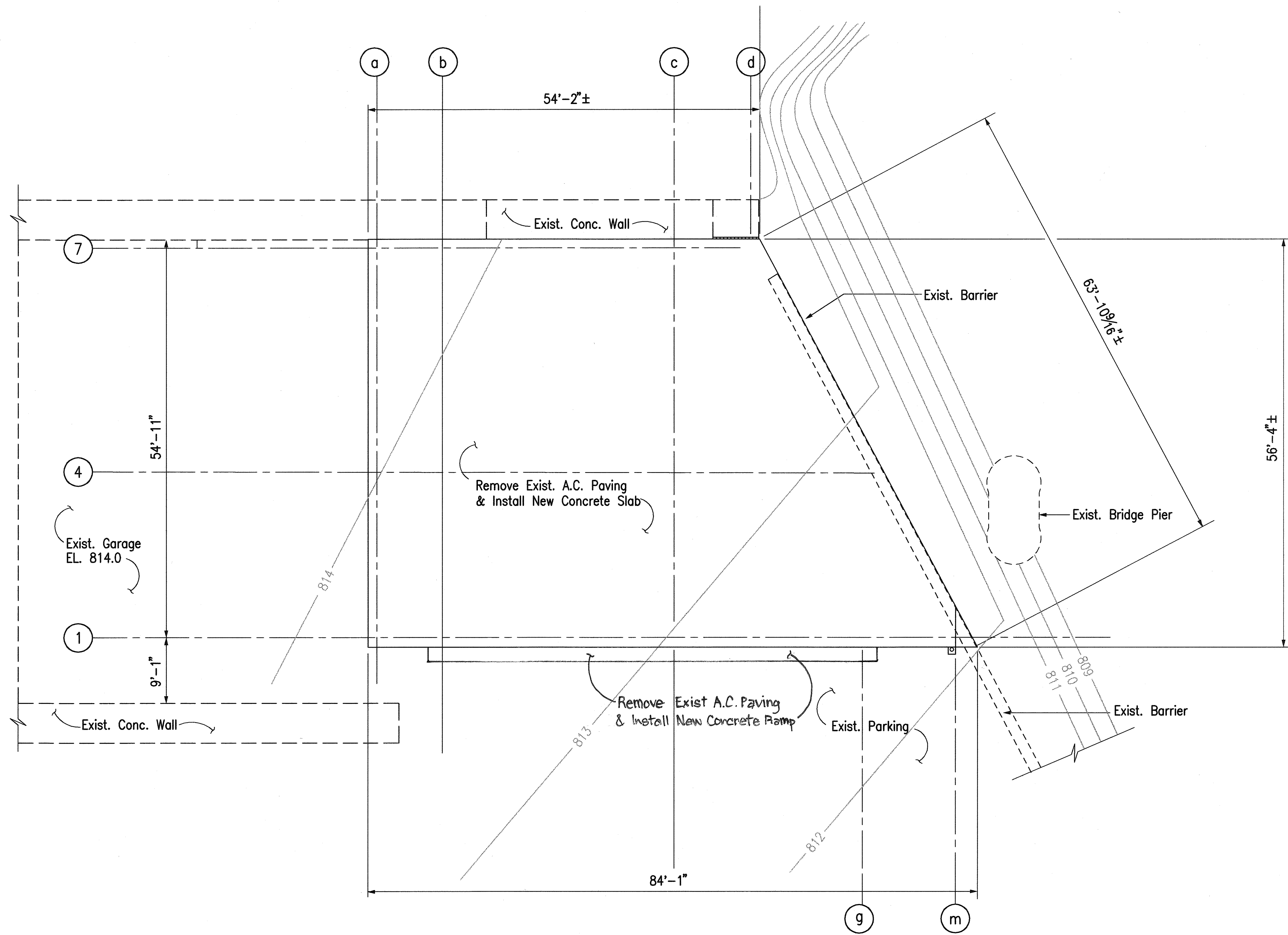


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	44	60



NOTE: All grades shown are existing.

ORIGINAL
PLAN
DRAWN BY
DATE
NOTE BOOK
DESIGNED BY
QUANTITIES BY
CHECKED BY
No.



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Harry M. Nakata

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TUNNEL MAINTENANCE
AREA MODIFICATION
PLOT PLAN**

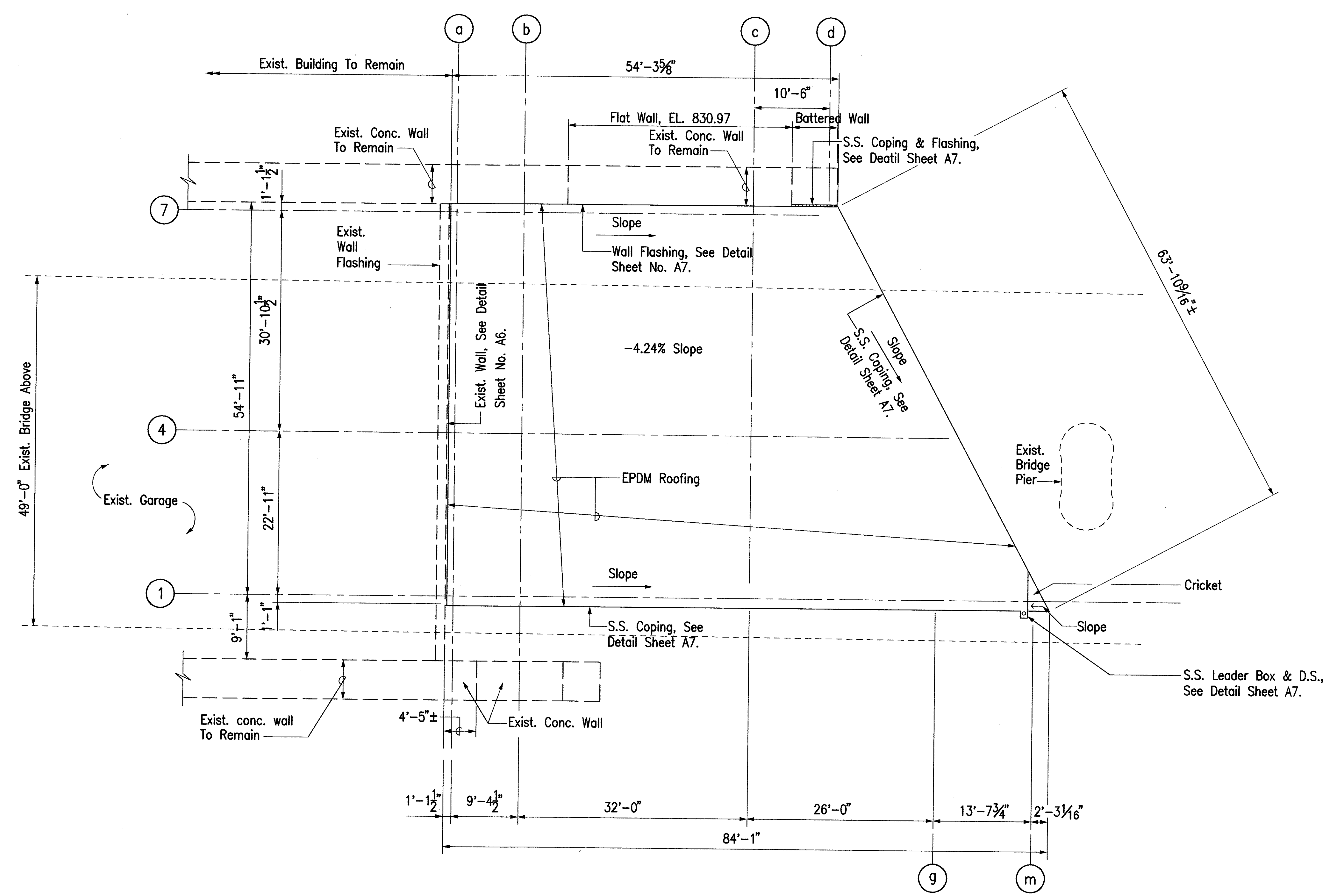
H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA

SCALE: 1/8"=1'-0" DATE: APRIL 2001

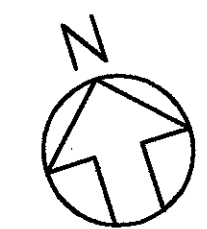
SHEET NO. A1 OF 7 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	45	60



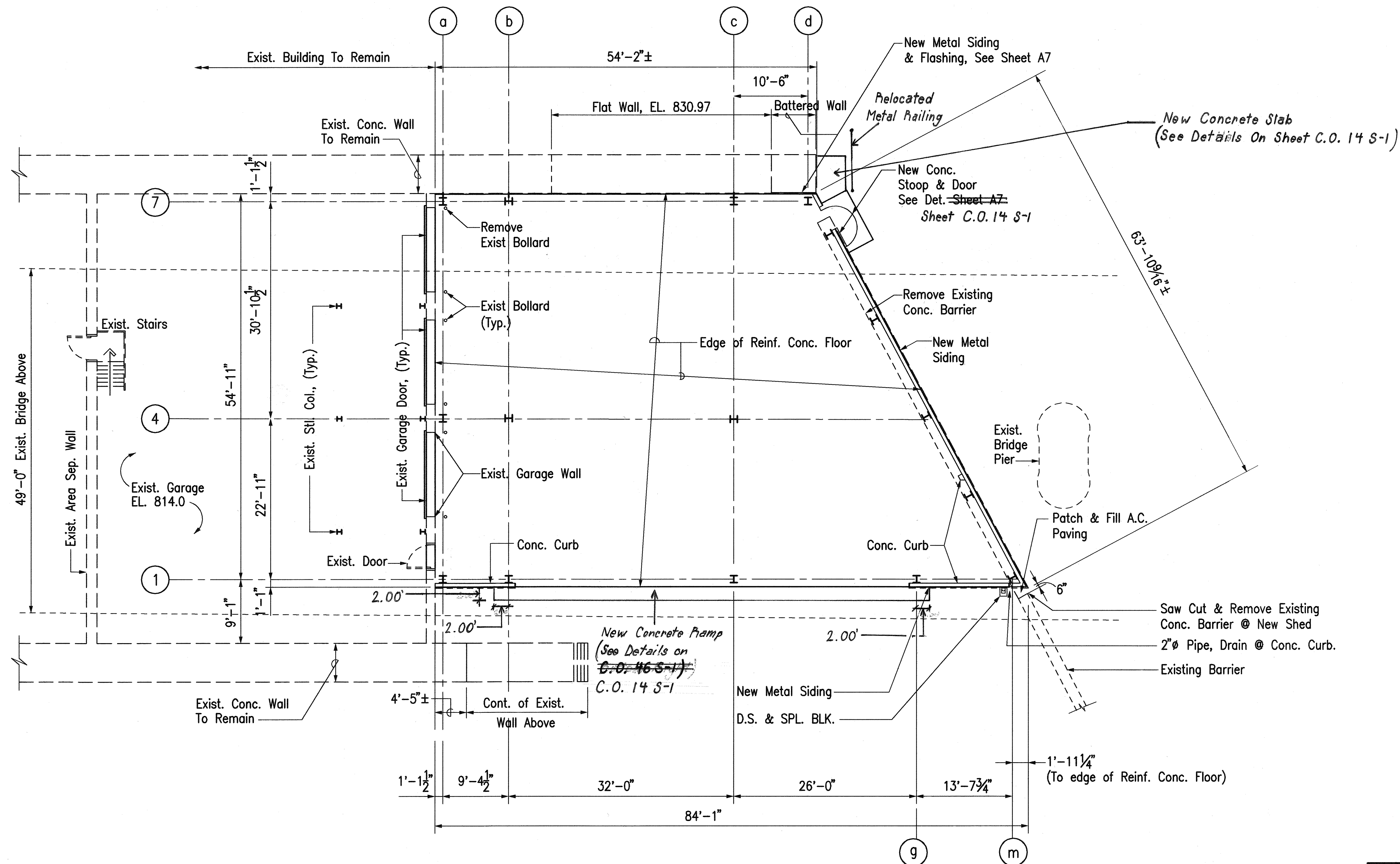
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TUNNEL MAINTENANCE
AREA MODIFICATION
ROOF PLAN
H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA
SCALE: 1/8"=1'-0" DATE: APRIL 2001
SHEET NO. A2 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	46	60



ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

CAD by E. DELA CRUZ, 95-52



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TUNNEL MAINTENANCE
AREA MODIFICATION
FLOOR PLAN**

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA

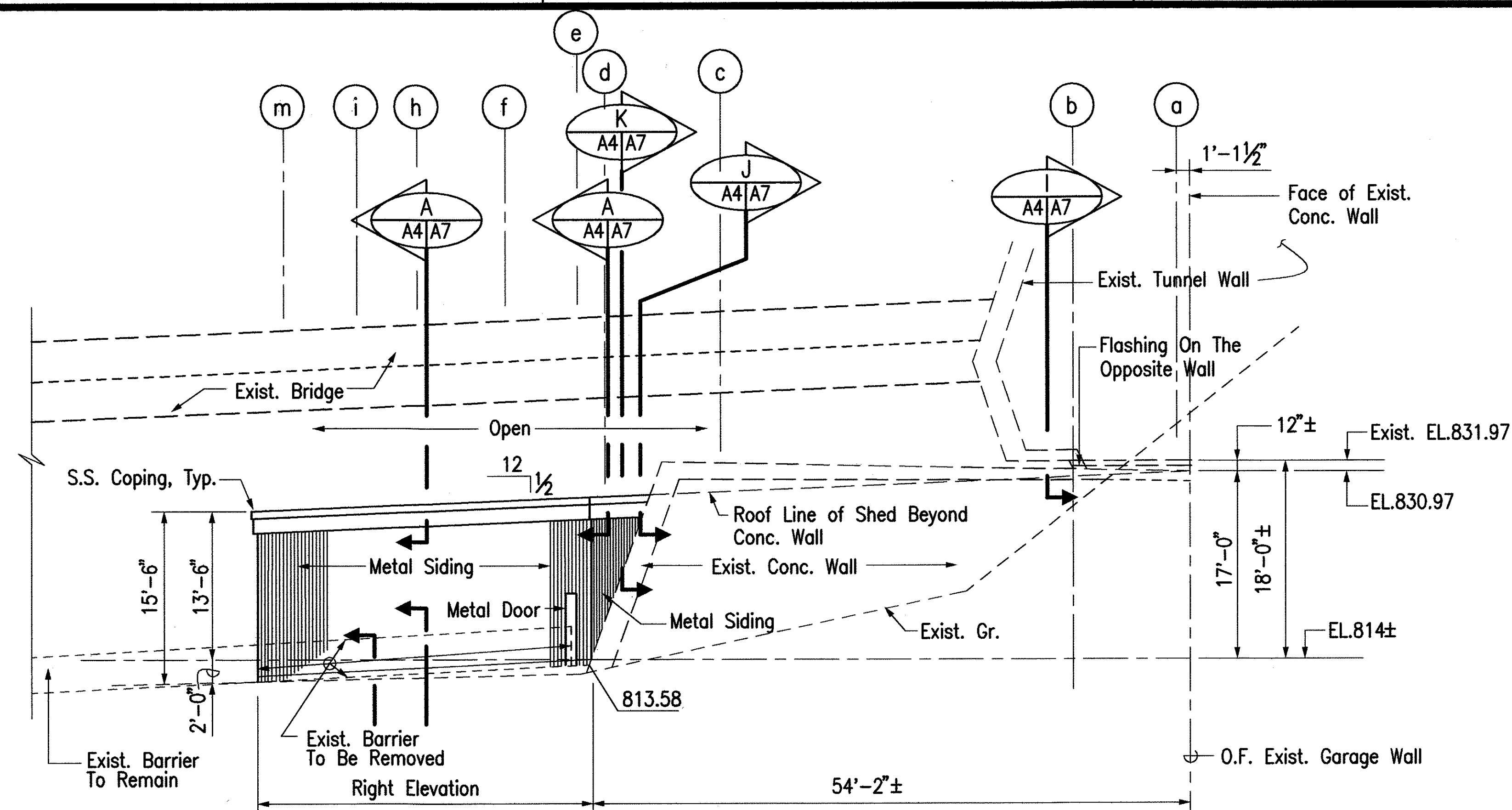
SCALE: 1/8"=1'-0" DATE: APRIL 2001

SHEET NO. A3 OF 7 SHEETS

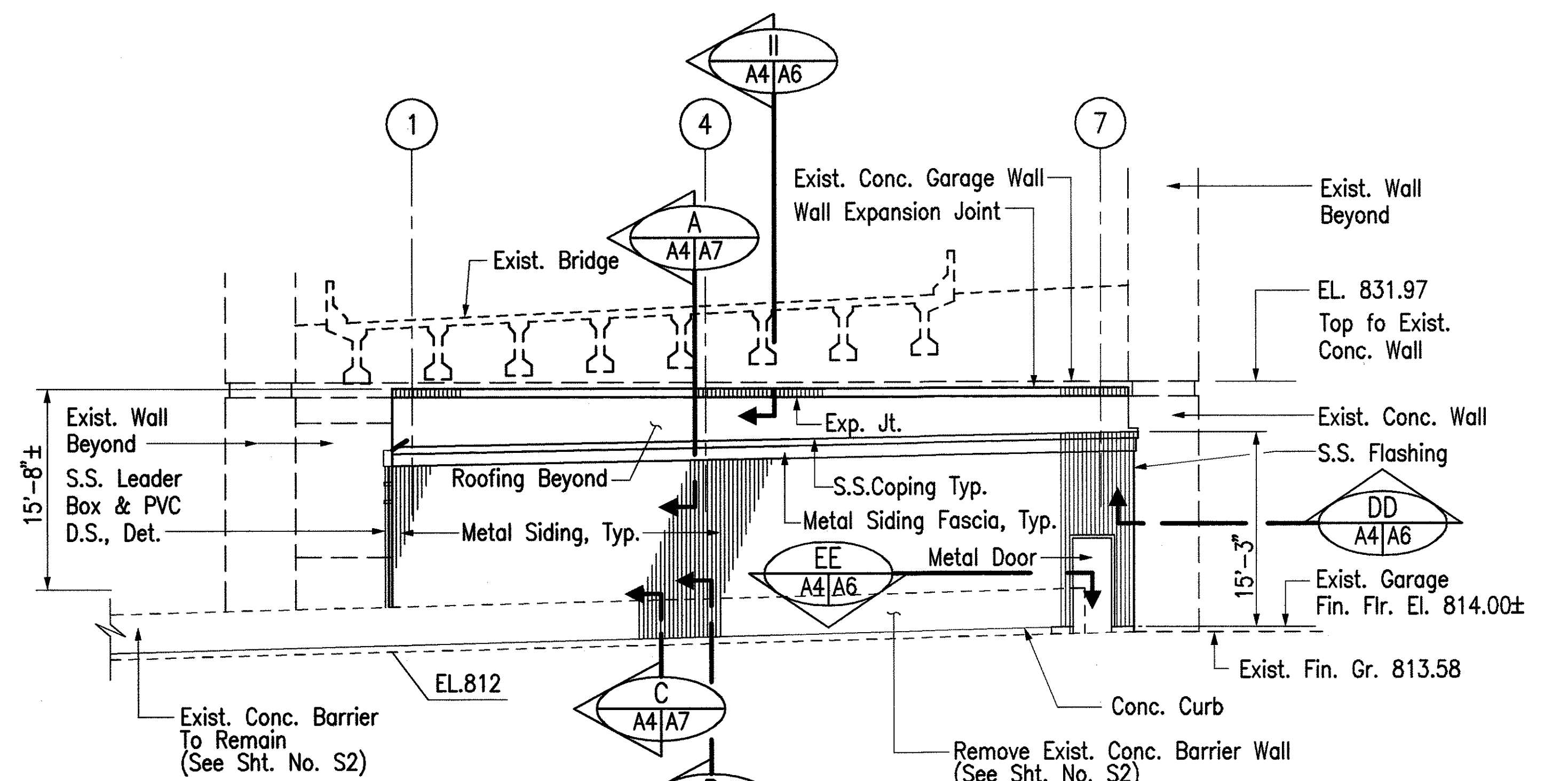
Last Saved: 4/13/03 08:44

"AS-BUILT"

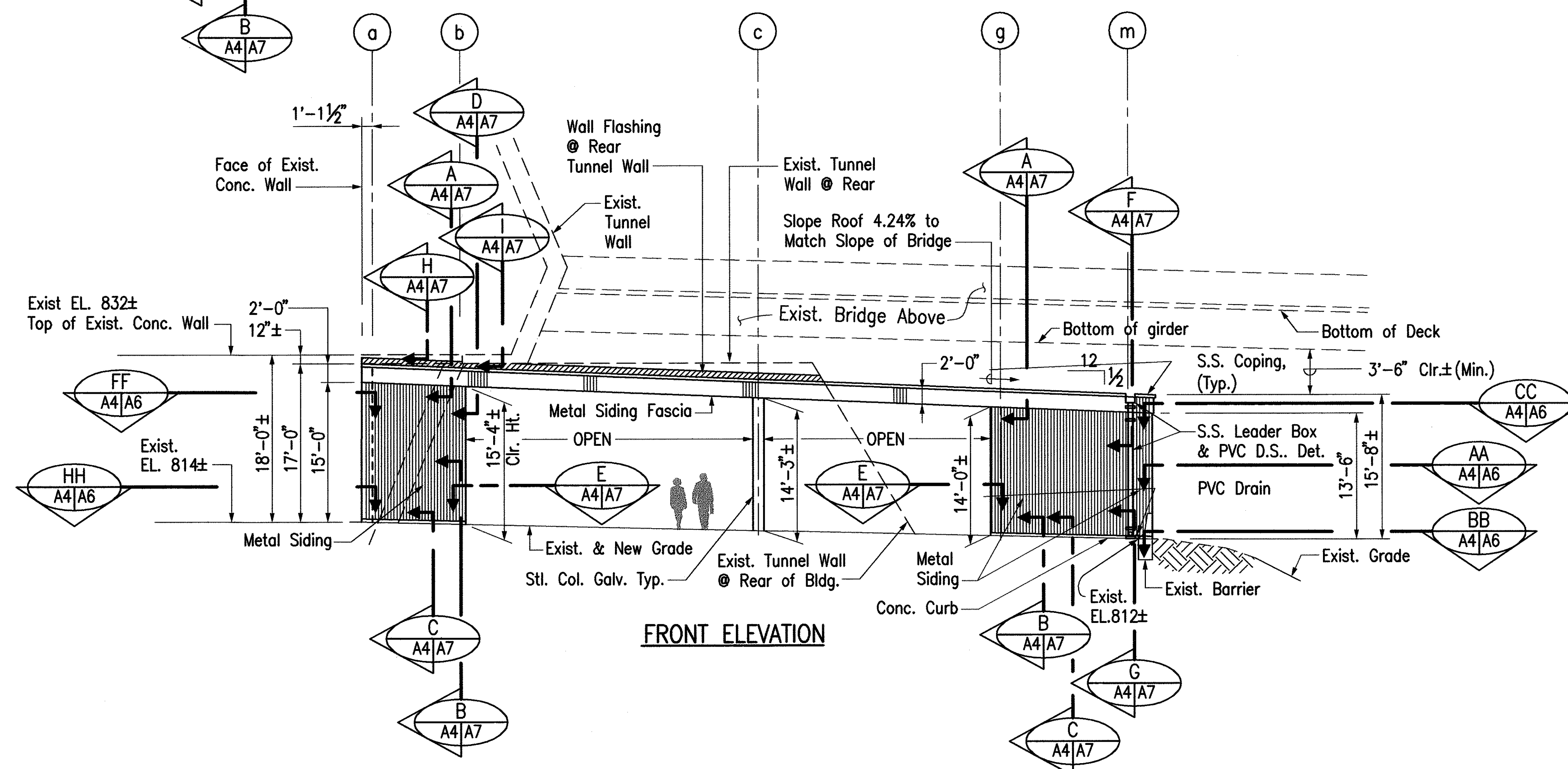
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	47	60



REAR ELEVATION



RIGHT ELEVATION



FRONT ELEVATION



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TUNNEL MAINTENANCE
AREA MODIFICATIONS
EXTERIOR ELEVATIONS**

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA

SCALE: 1/8"=1'-0"

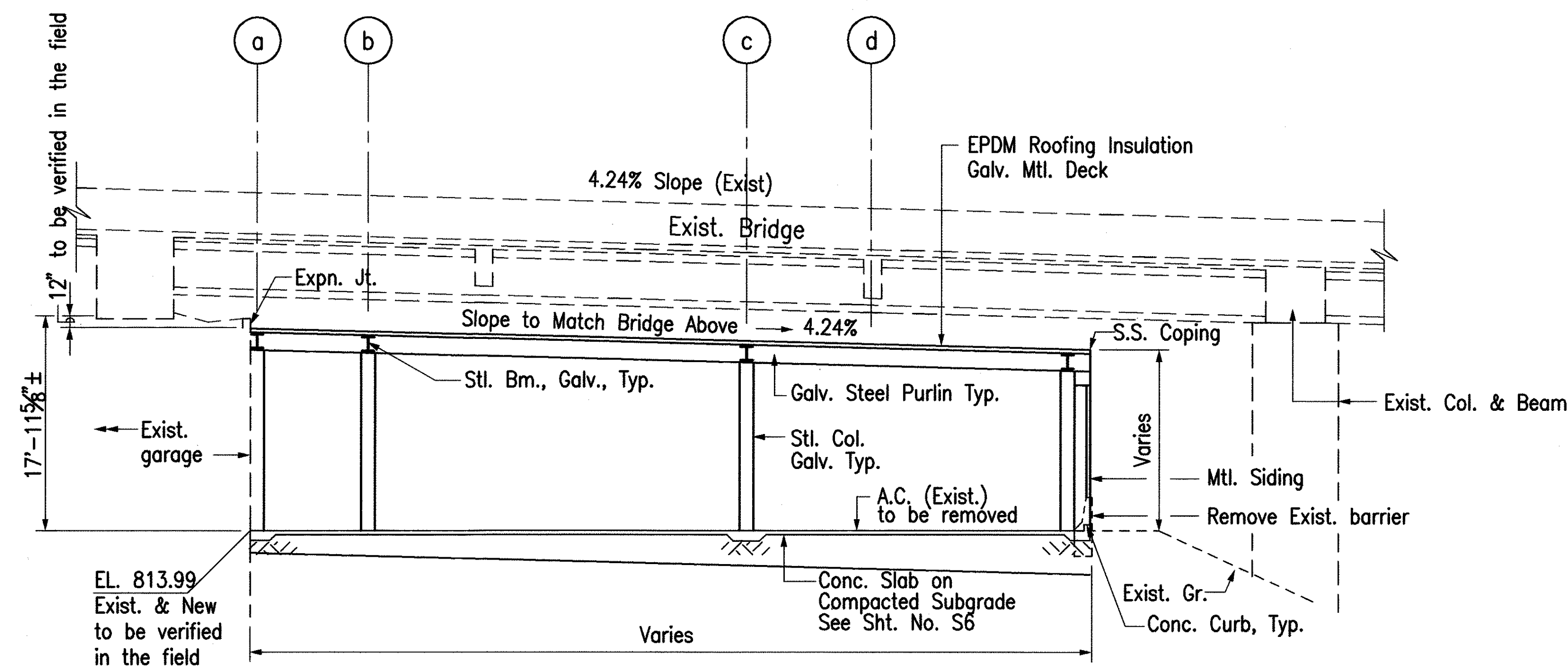
DATE: APRIL 2001

SHEET NO. A4 OF 7 SHEETS

ORIGINAL
PLAN
NOTE BOOK
DESIGNED BY
QUANTITIES BY
CHECKED BY

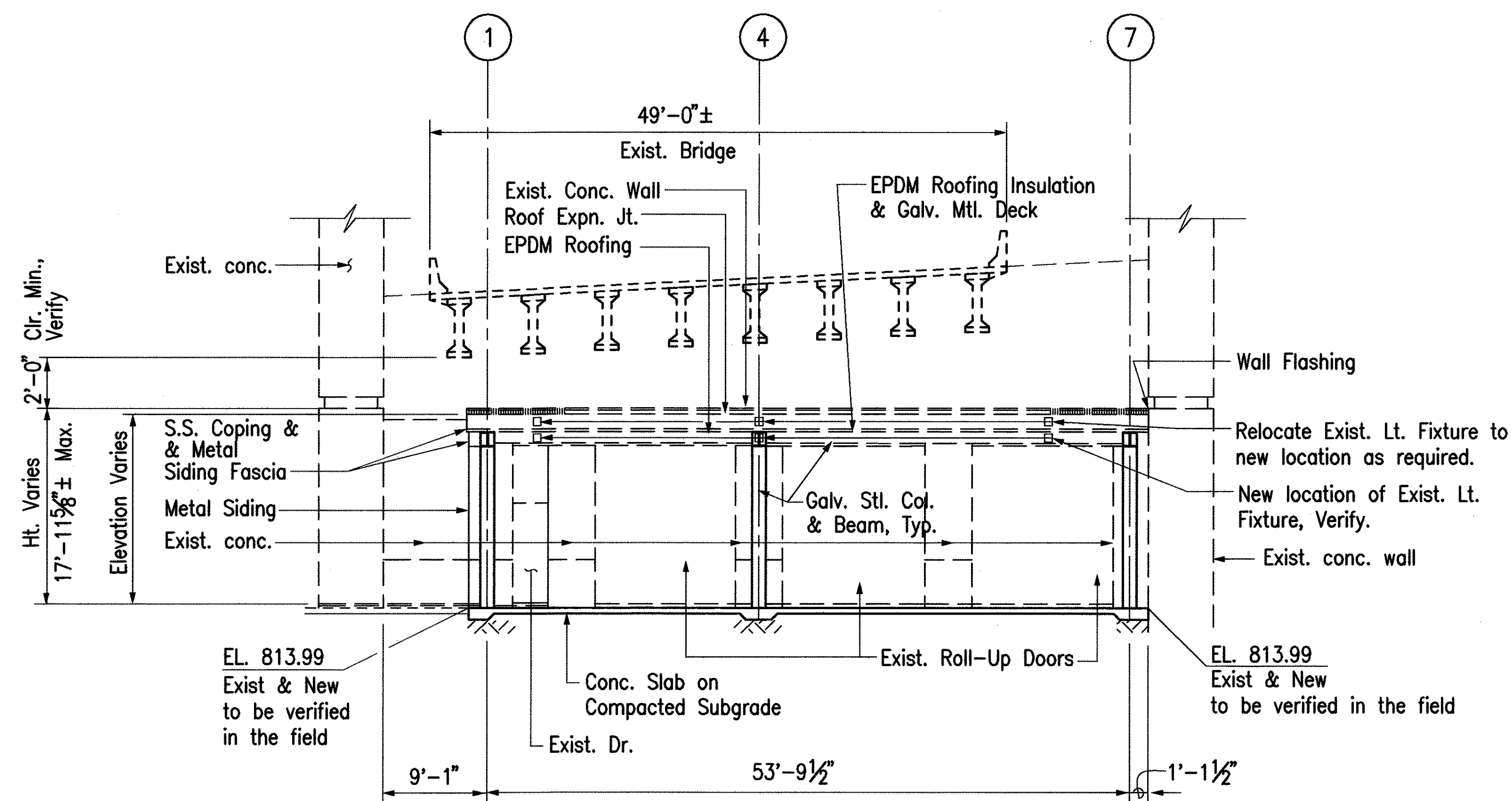
LAST SAVED: J:\H3RF\Rfu7\Tunnel\elelev.dwg 03/12/03 at 13:26

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	48	60



LONGITUDINAL SECTION

Scale: 1/8" = 1'-0"



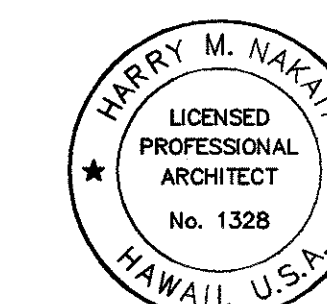
TYPICAL 'X' SECTION

Scale: 1/8" = 1'-0"

SURVEY PLOTTED BY	DATE
PLAN	
DESIGNED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

CAD by E. DELA CRUZ, 55-52

Last Saved: 4:33:07 PM 03/13/03 at 08:09



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

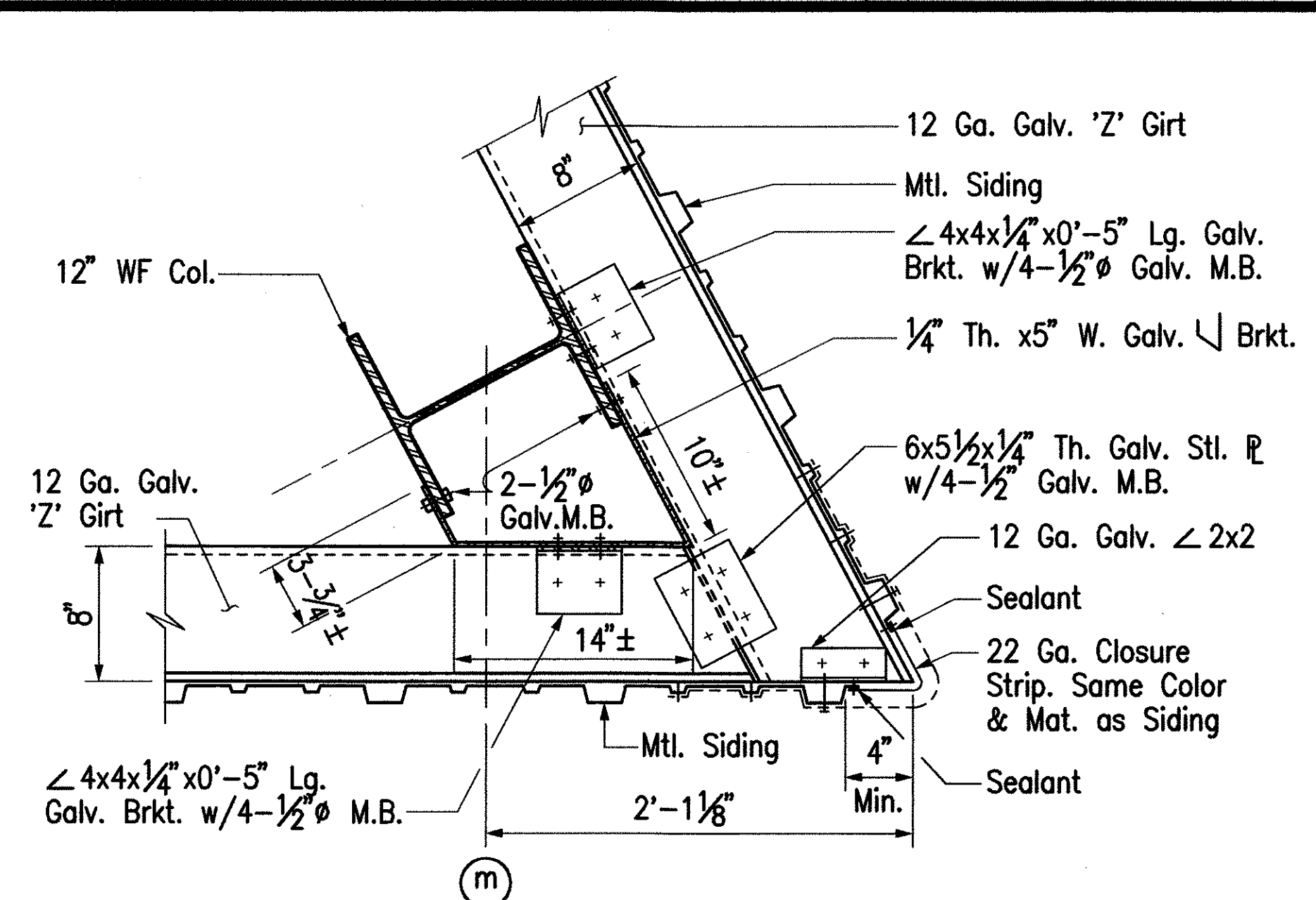
TUNNEL MAINTENANCE AREA MODIFICATIONS TYPICAL SECTION

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA

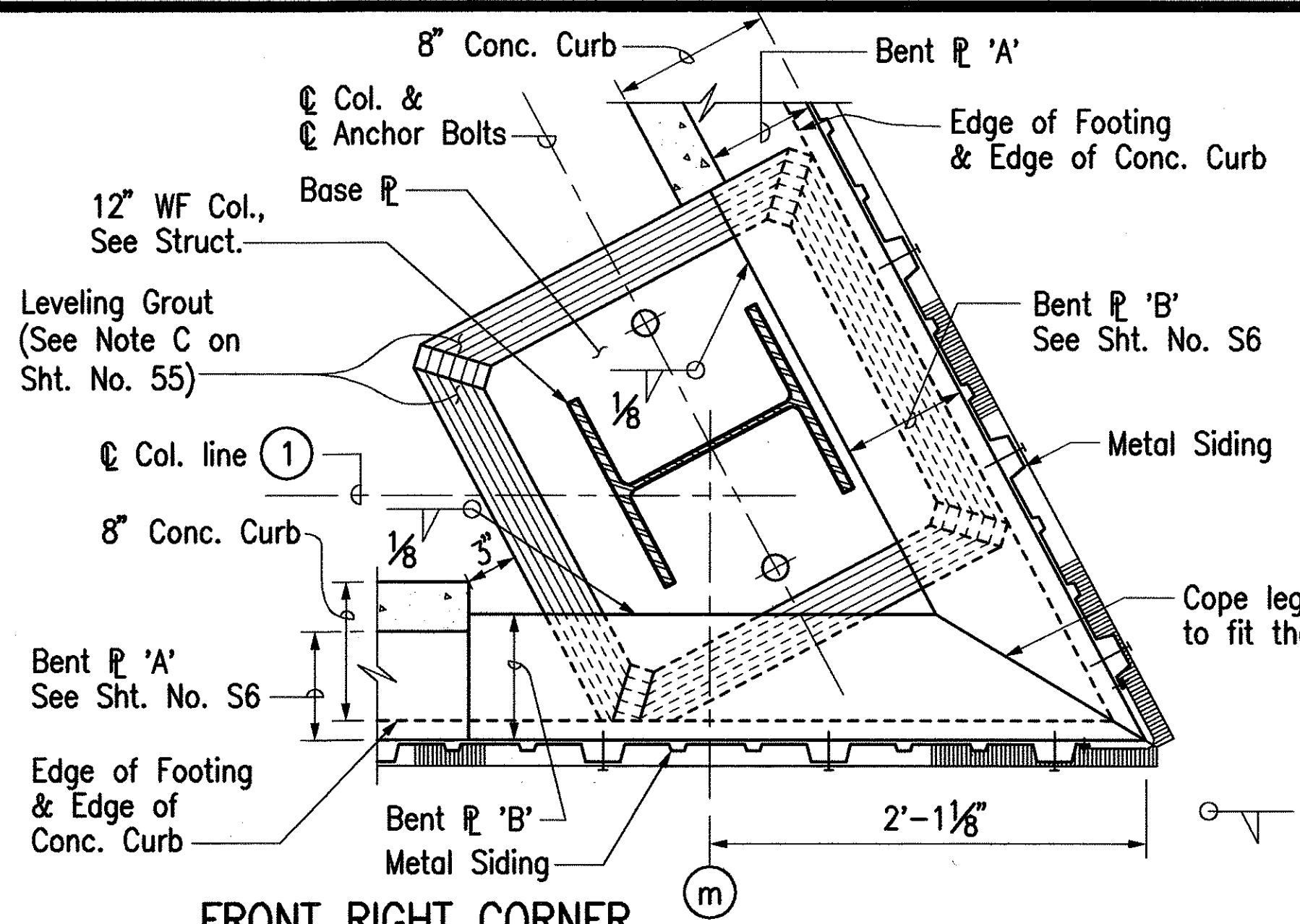
SCALE: 1/8"=1'-0" DATE: APRIL 2001

SHEET NO. A5 OF 7 SHEETS

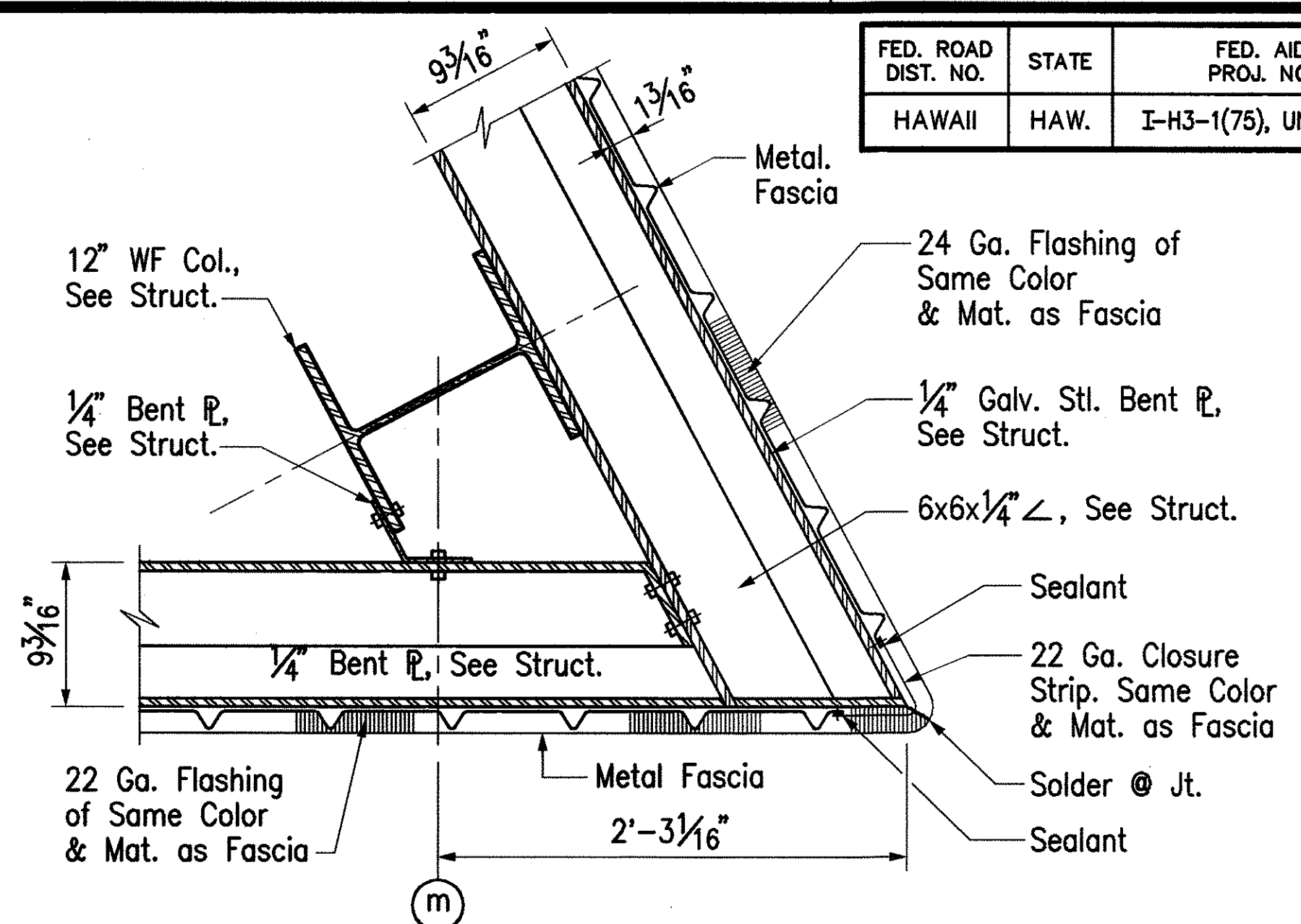
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	49	60



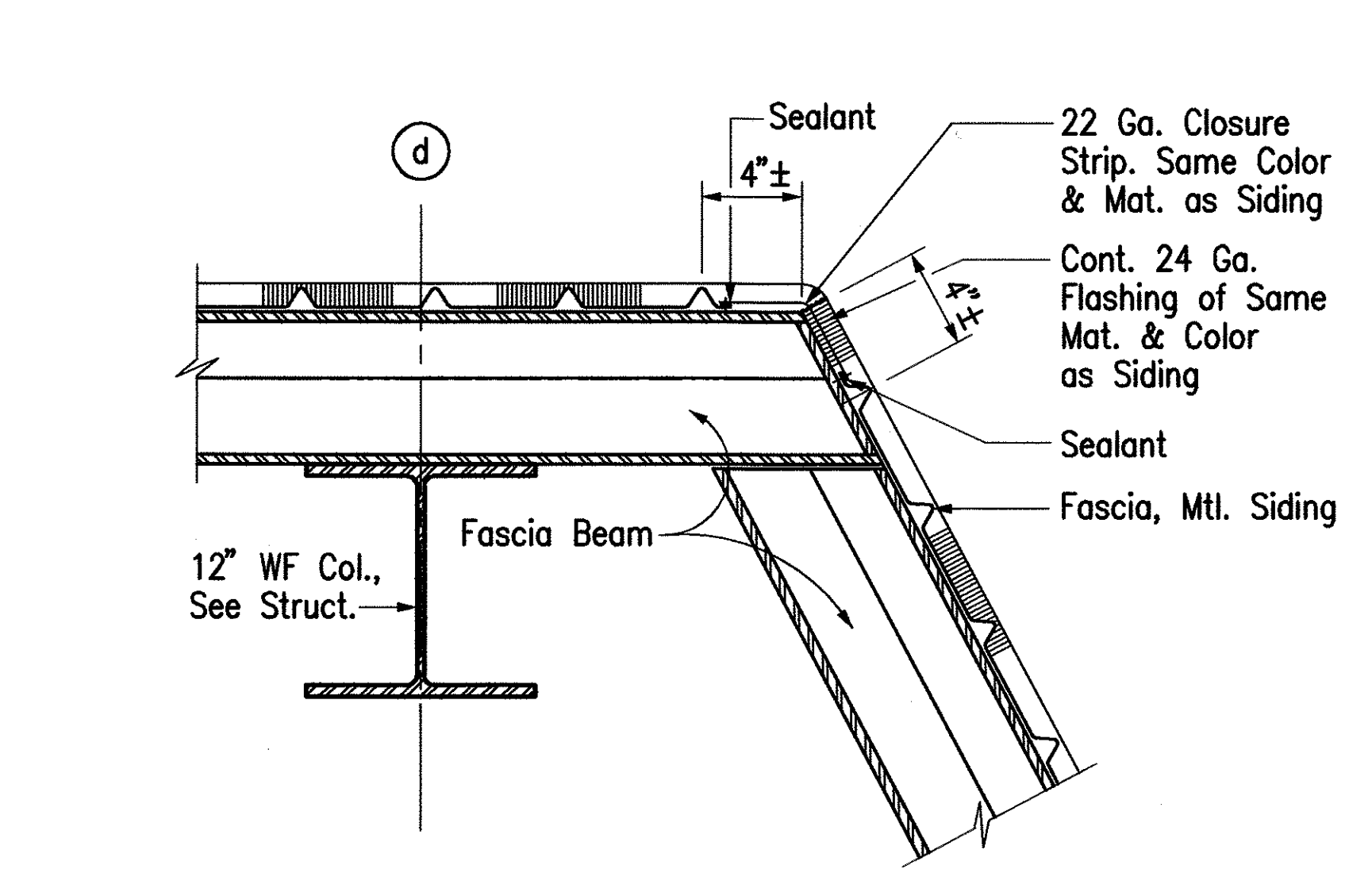
FRONT RIGHT CORNER, MTL. SIDING DETAIL AA
Scale: 1 1/2" = 1'-0"



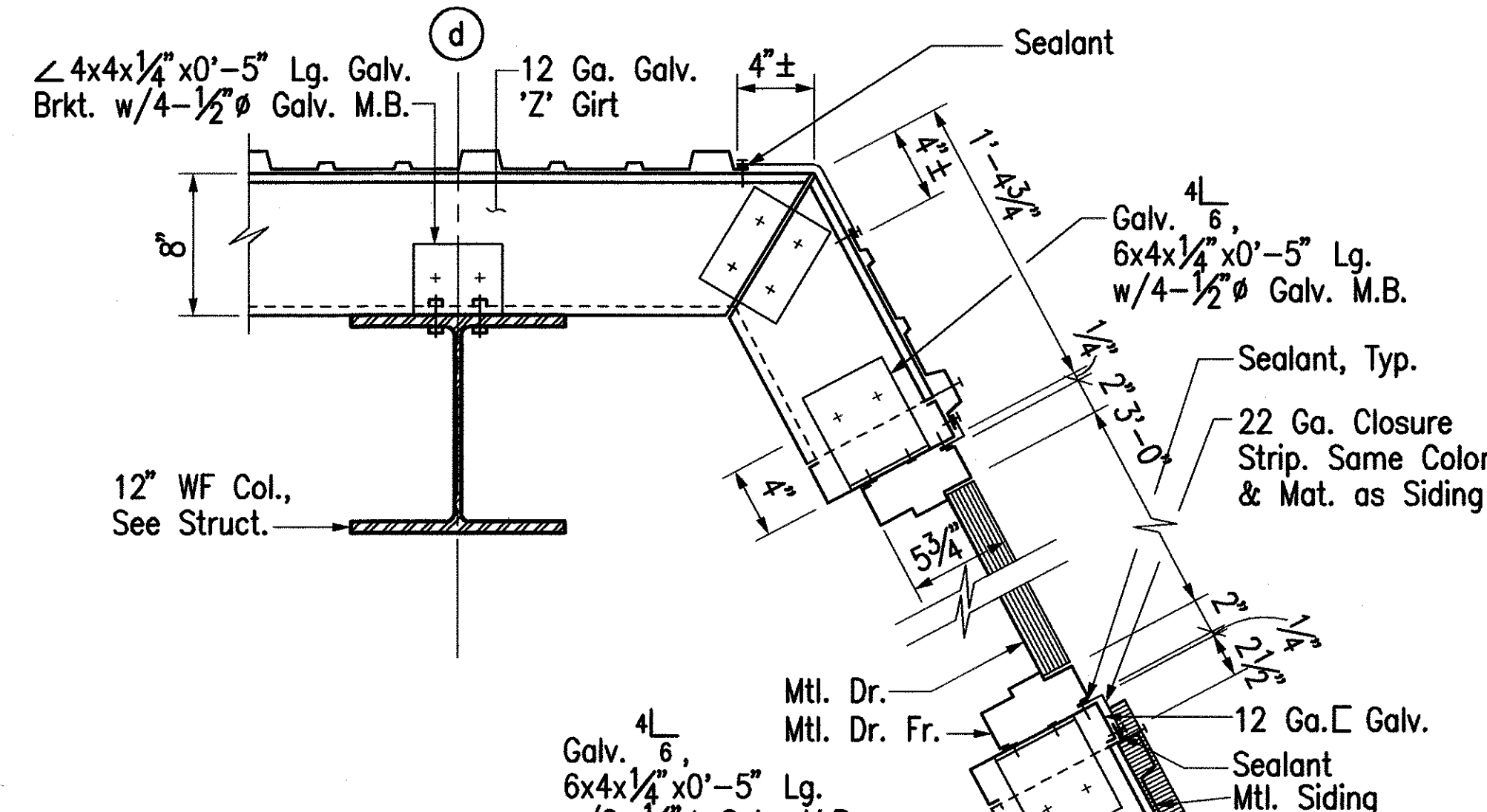
FRONT RIGHT CORNER, MTL. SIDING @ COLUMN BASE DETAIL BB
Scale: 1 1/2" = 1'-0"



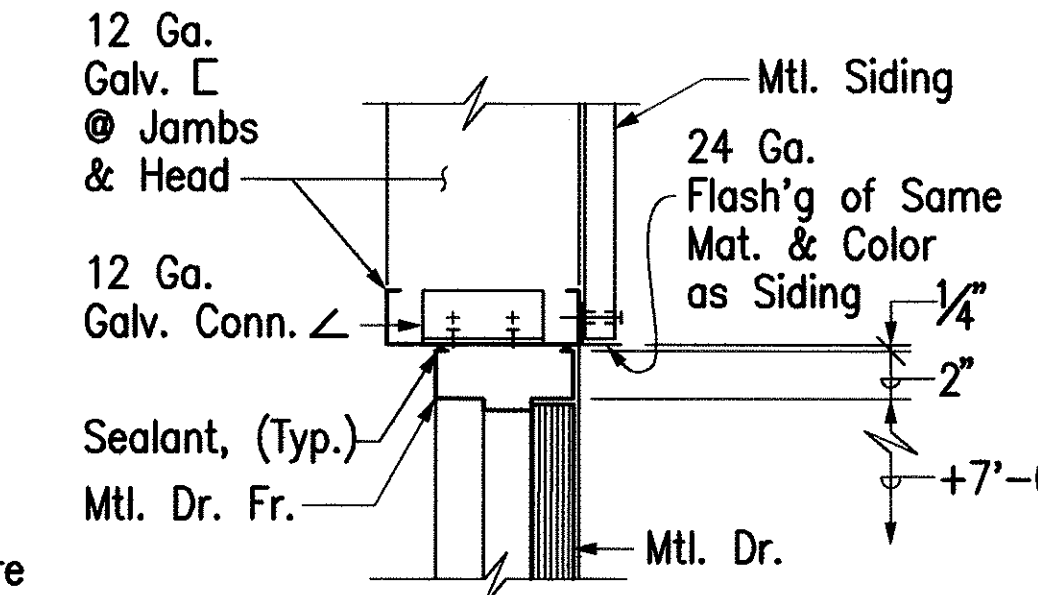
FRONT RIGHT CORNER, @ MTL. FASCIA CC
Scale: 1 1/2" = 1'-0"



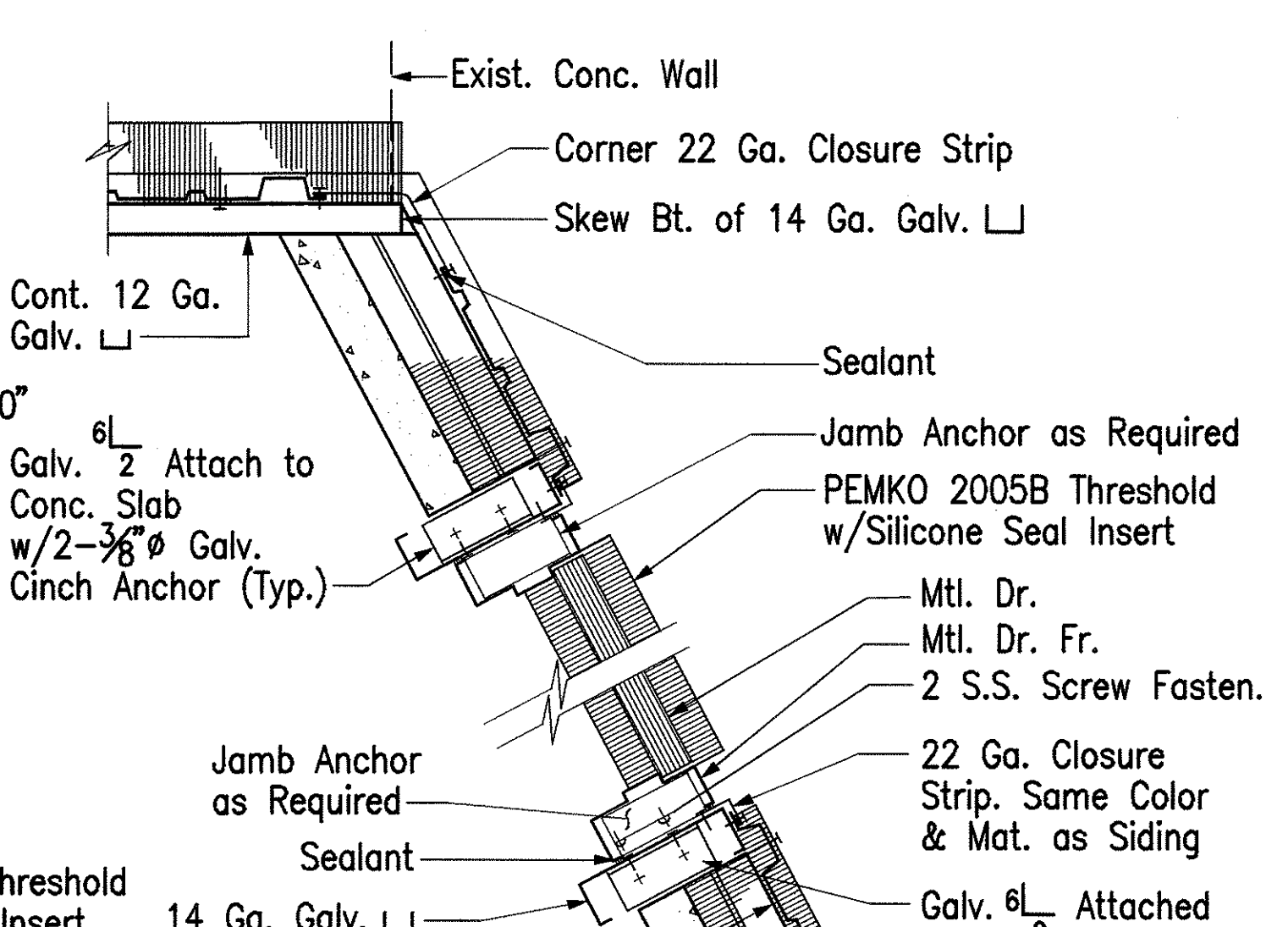
BACK RIGHT CORNER @ METAL FASCIA DD
Scale: 1 1/2" = 1'-0"



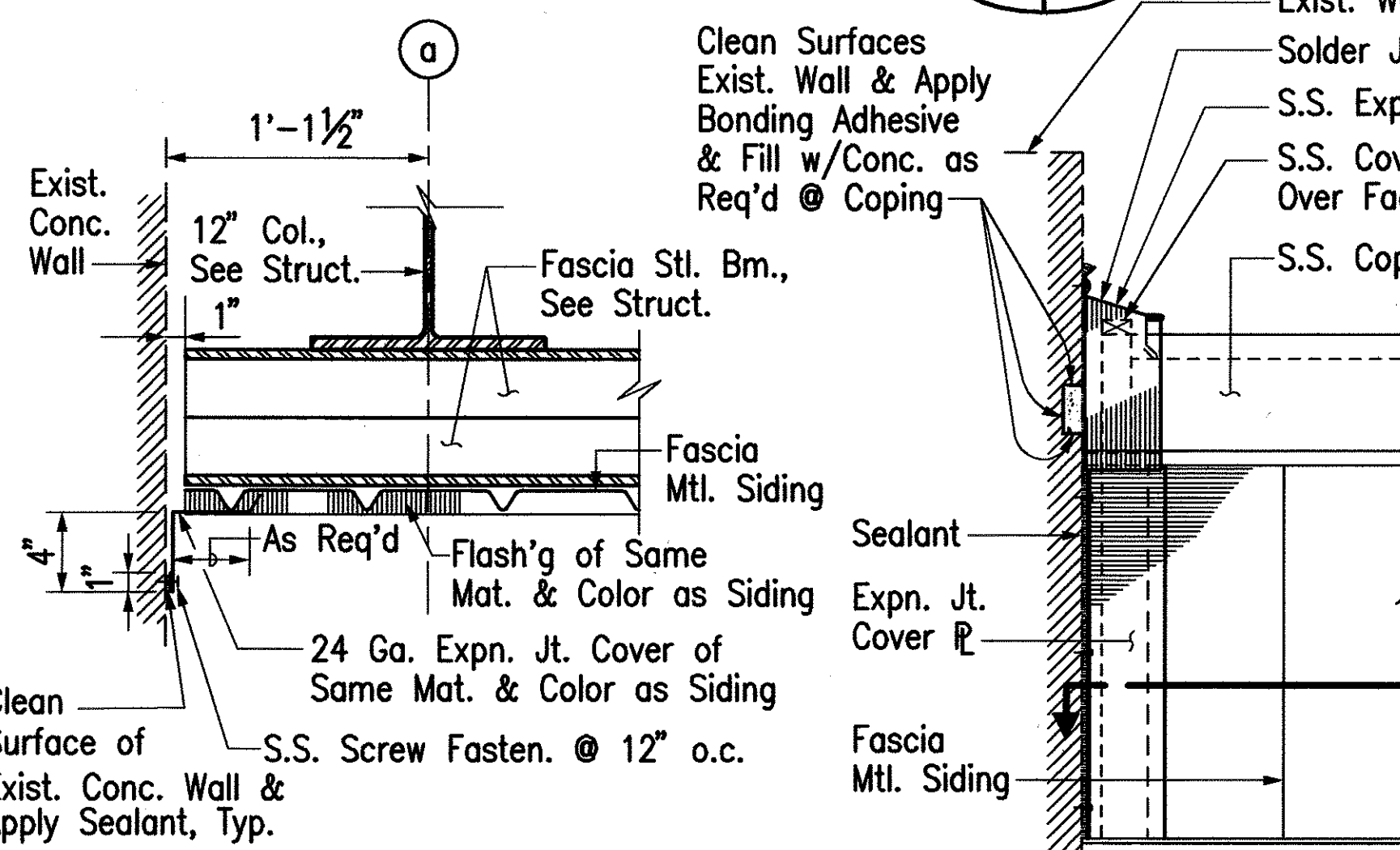
DOOR JAMB EE
Scale: 1 1/2" = 1'-0"



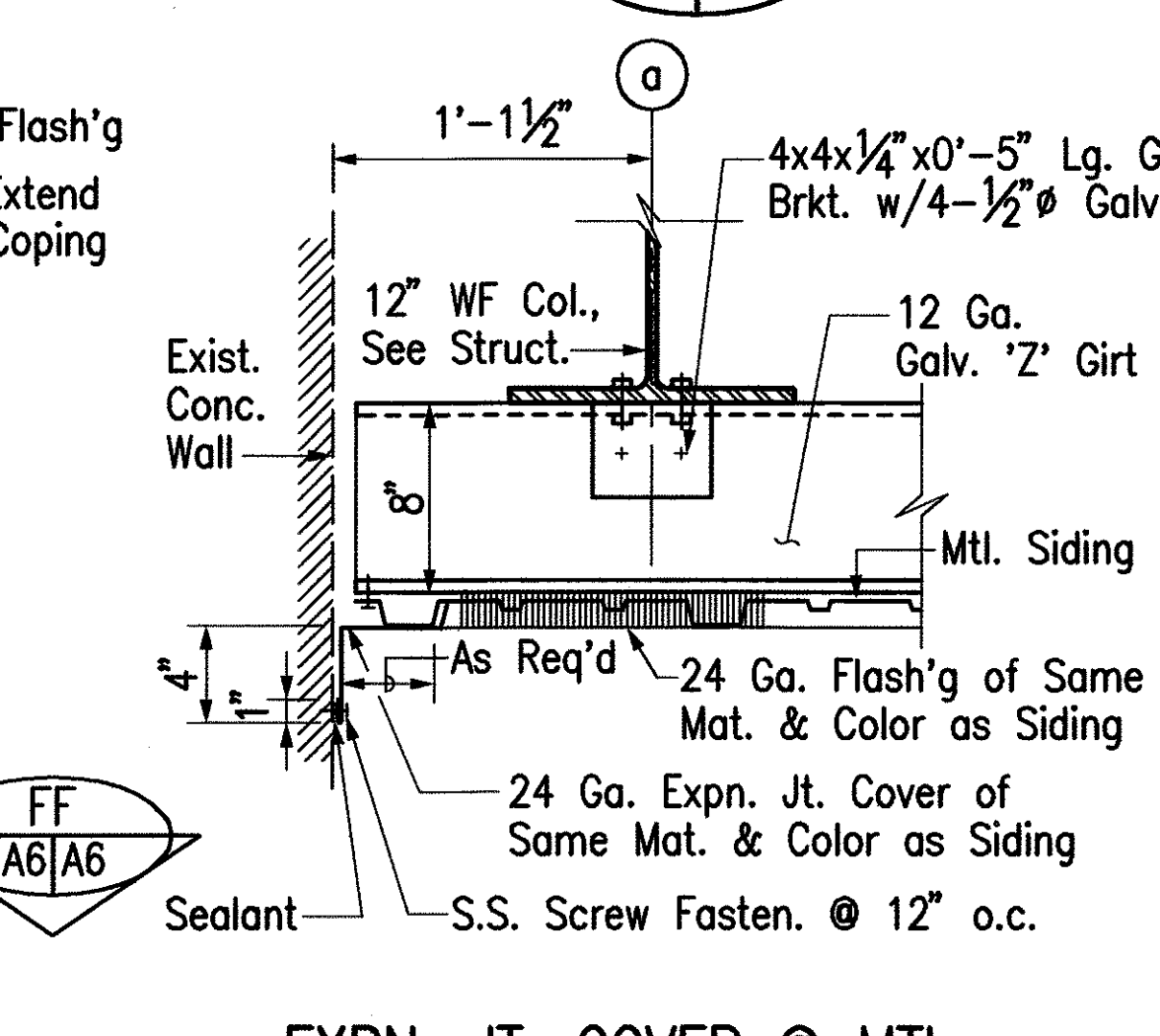
DOOR HEAD FF
Scale: 1 1/2" = 1'-0"



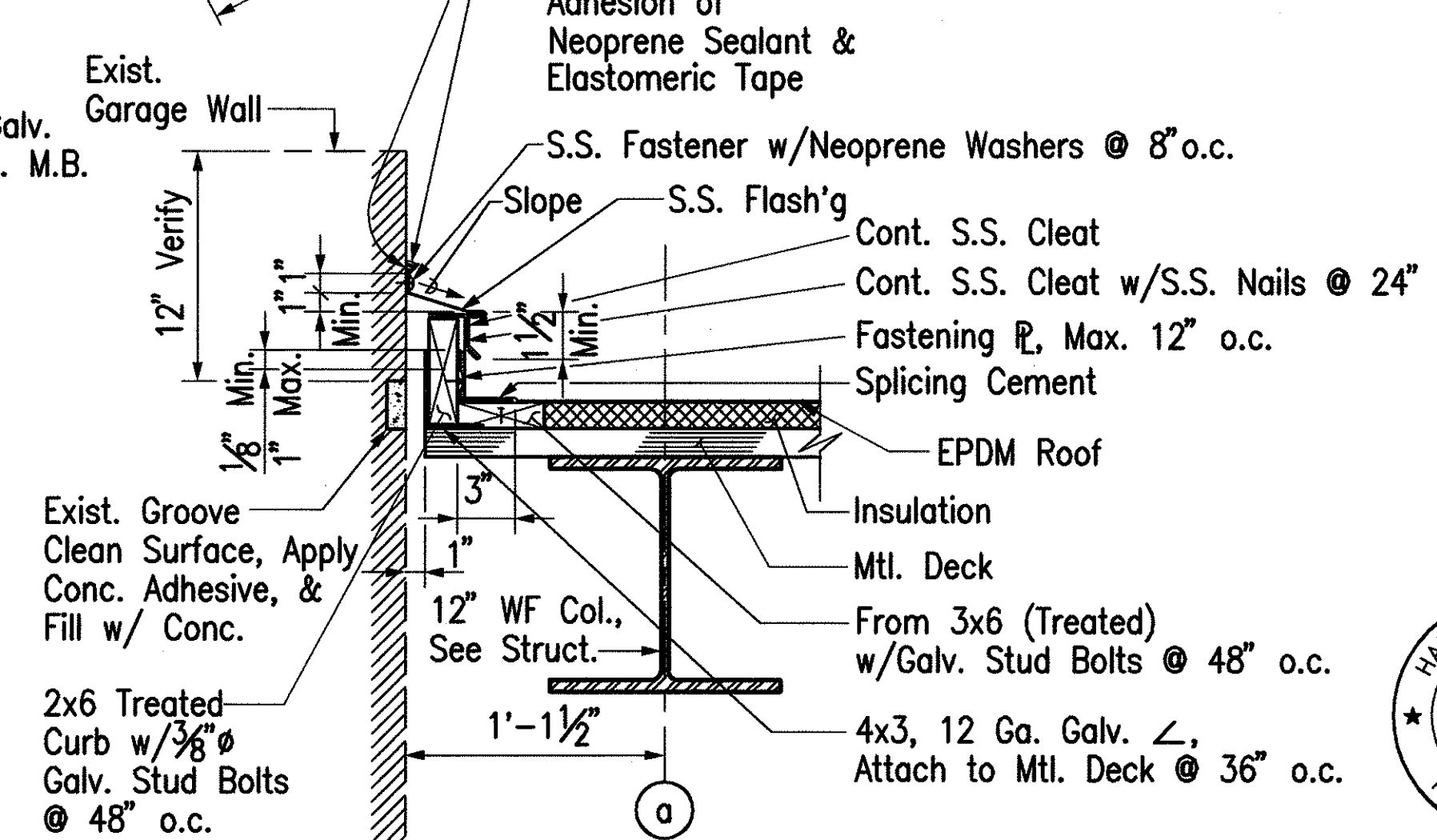
DOOR SILL GG
Scale: 1 1/2" = 1'-0"



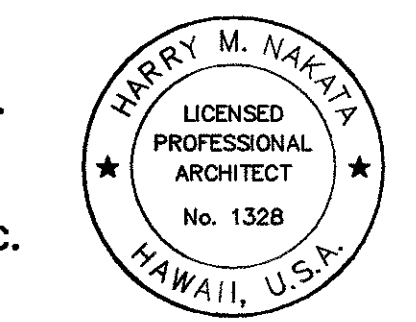
EXP. JT. COVER @ FASCIA & EXIST. CONC. WALL FF
Scale: 1 1/2" = 1'-0"



EXP. JT. COVER @ MTL. SIDING & EXIST. CONC. WALL HH
Scale: 1 1/2" = 1'-0"



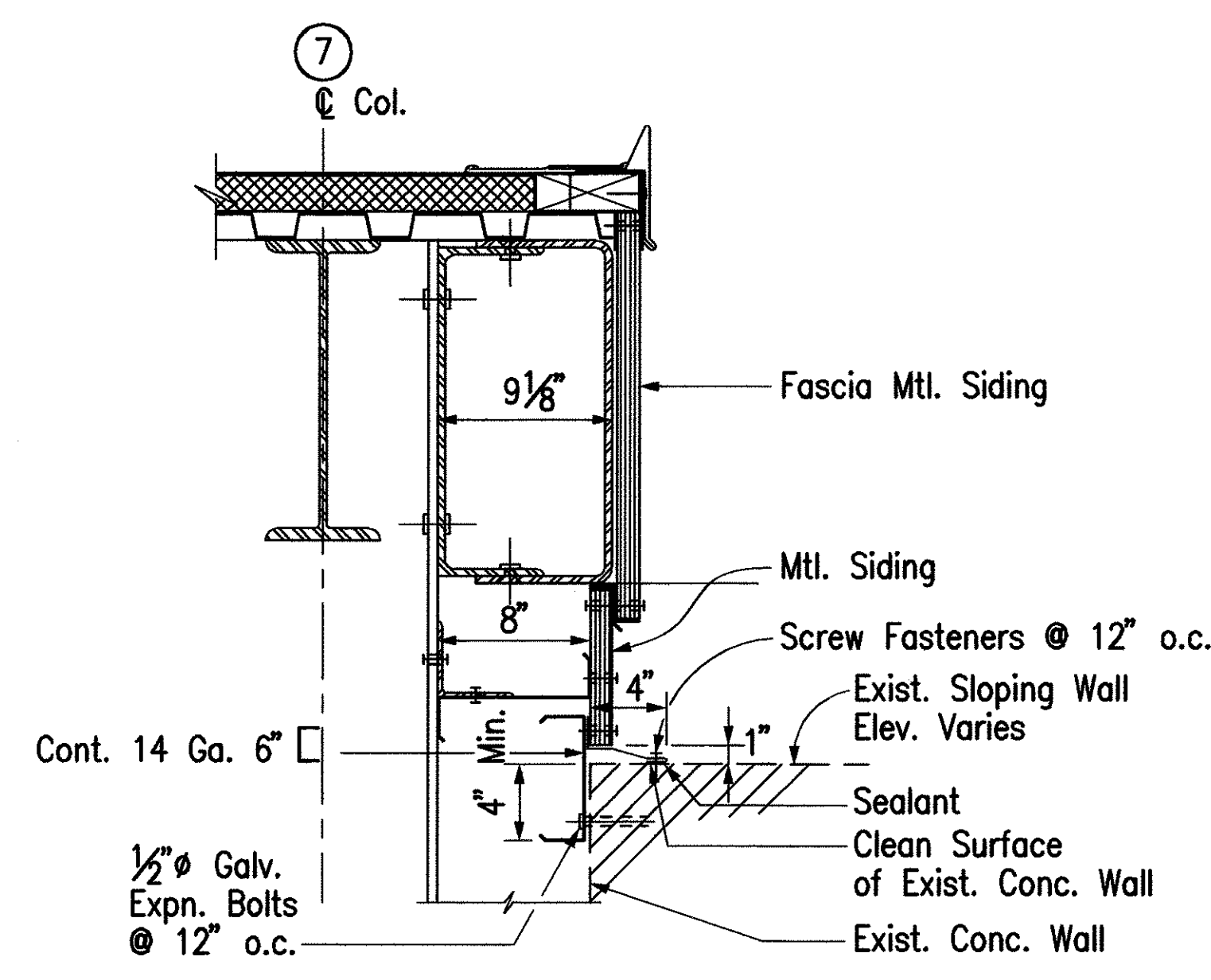
EXP. JT. @ MTL. SIDING & EXIST. CONC. WALL II
Scale: 1 1/2" = 1'-0"



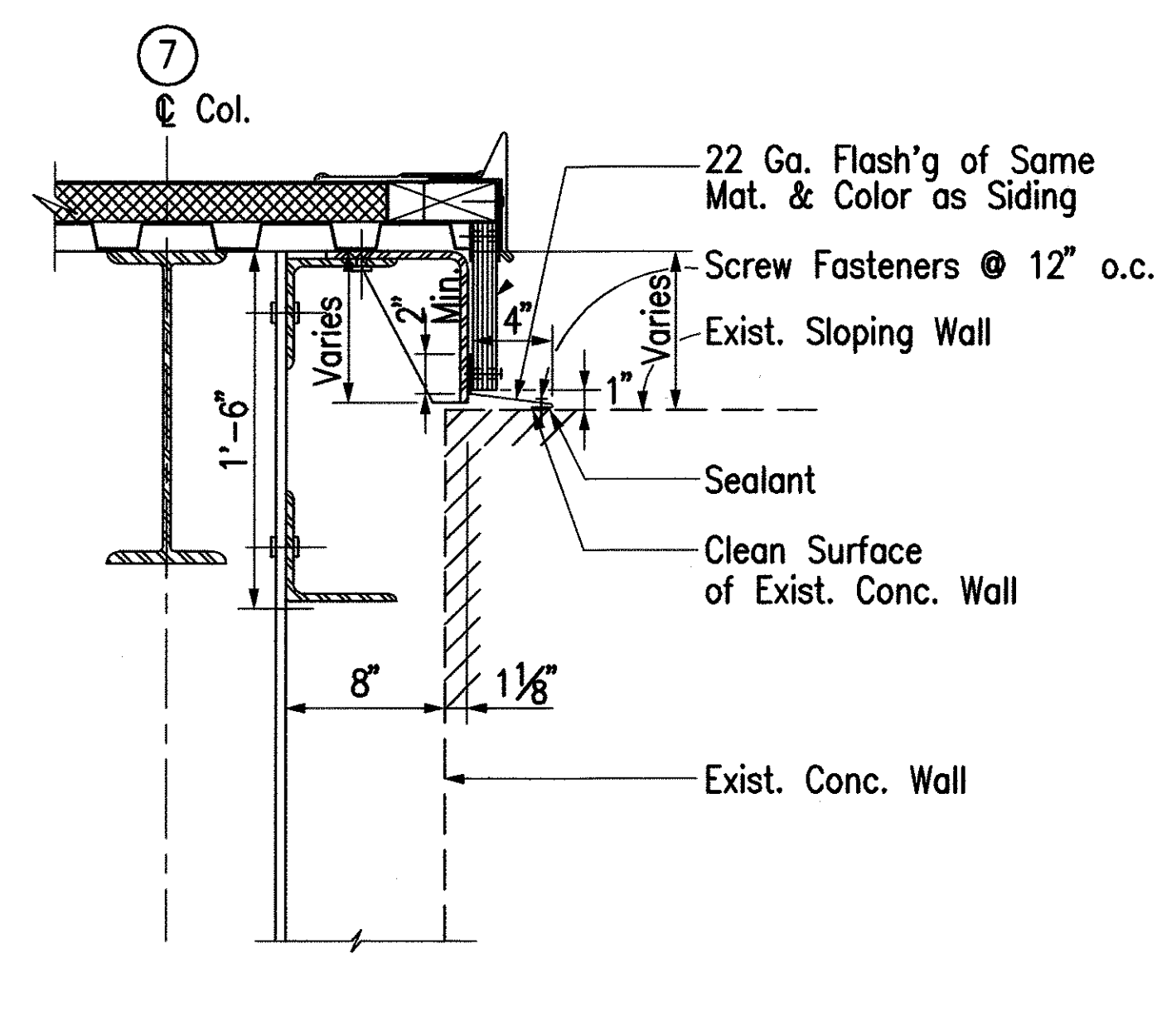
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Harry M. Nakata

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TUNNEL MAINTENANCE
AREA MODIFICATIONS
ARCHITECTURAL DETAILS-1
H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA
SCALE: 1-1/2" = 1'-0" DATE: APRIL 2001
SHEET NO. A6 OF 7 SHEETS

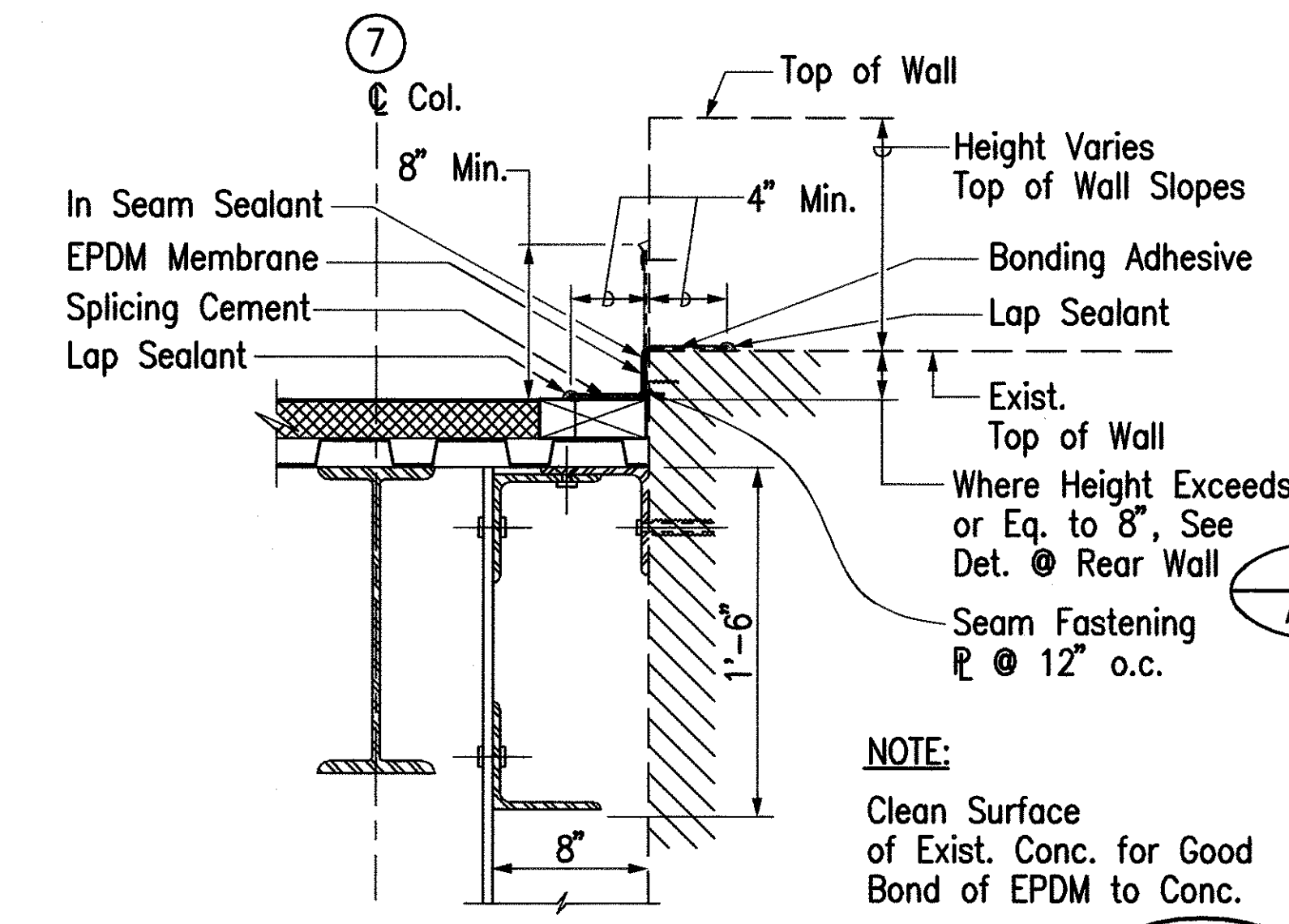
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	50	60



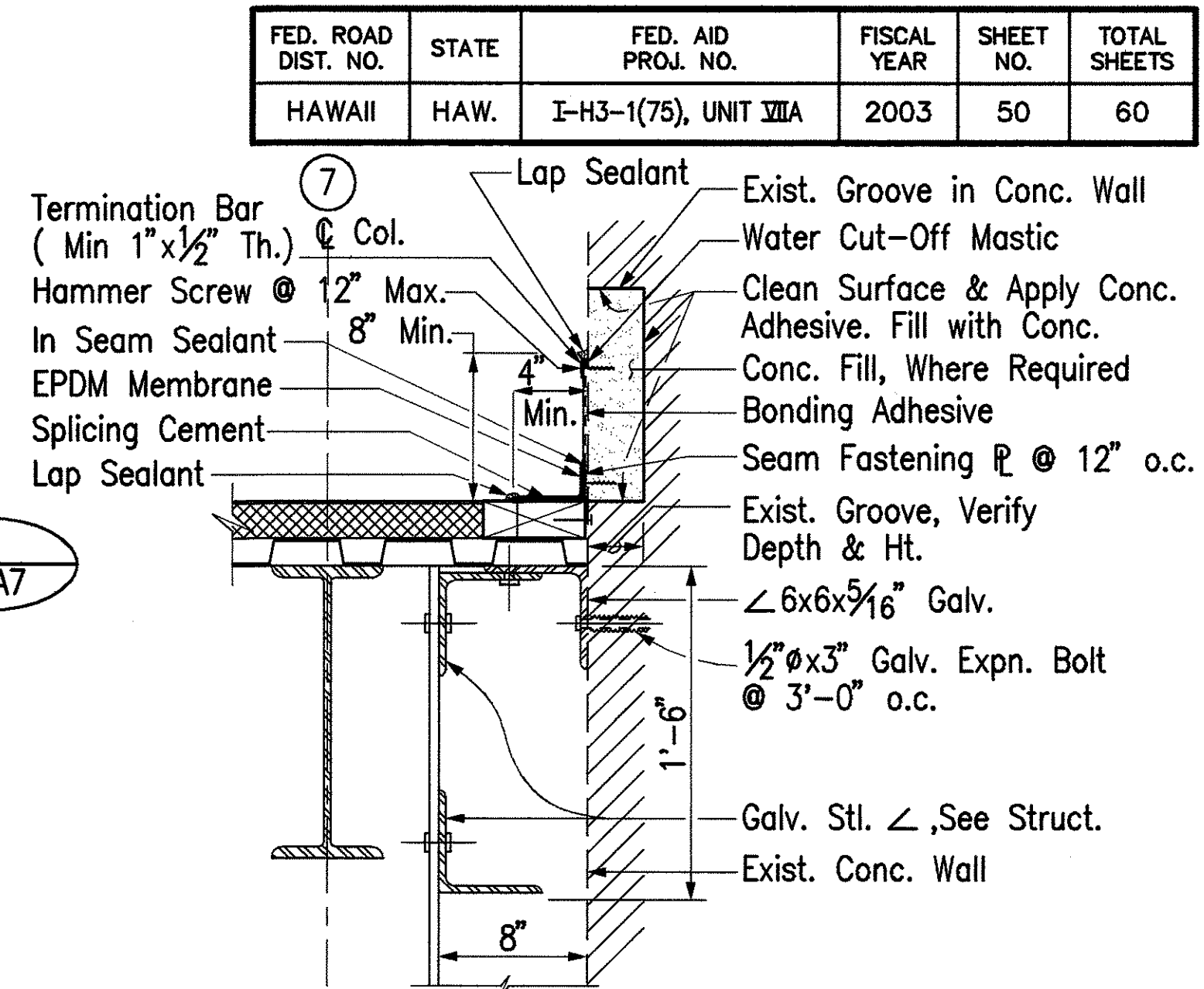
FLASH'G @ REAR SLOPING WALL (K)
Scale: 1 1/2" = 1'-0"



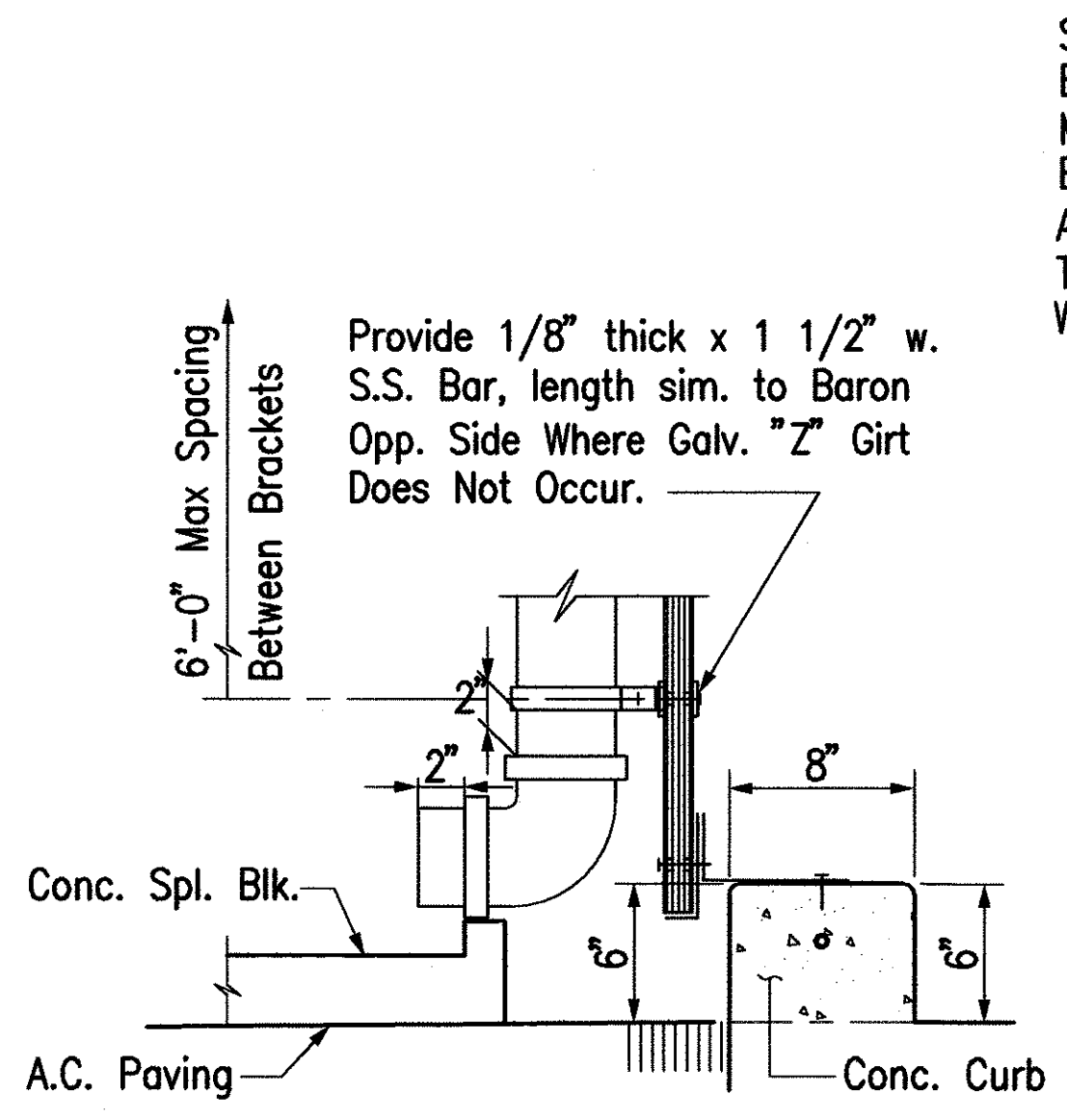
FLASH'G @ REAR SLOPING WALL (J)
Scale: 1 1/2" = 1'-0"



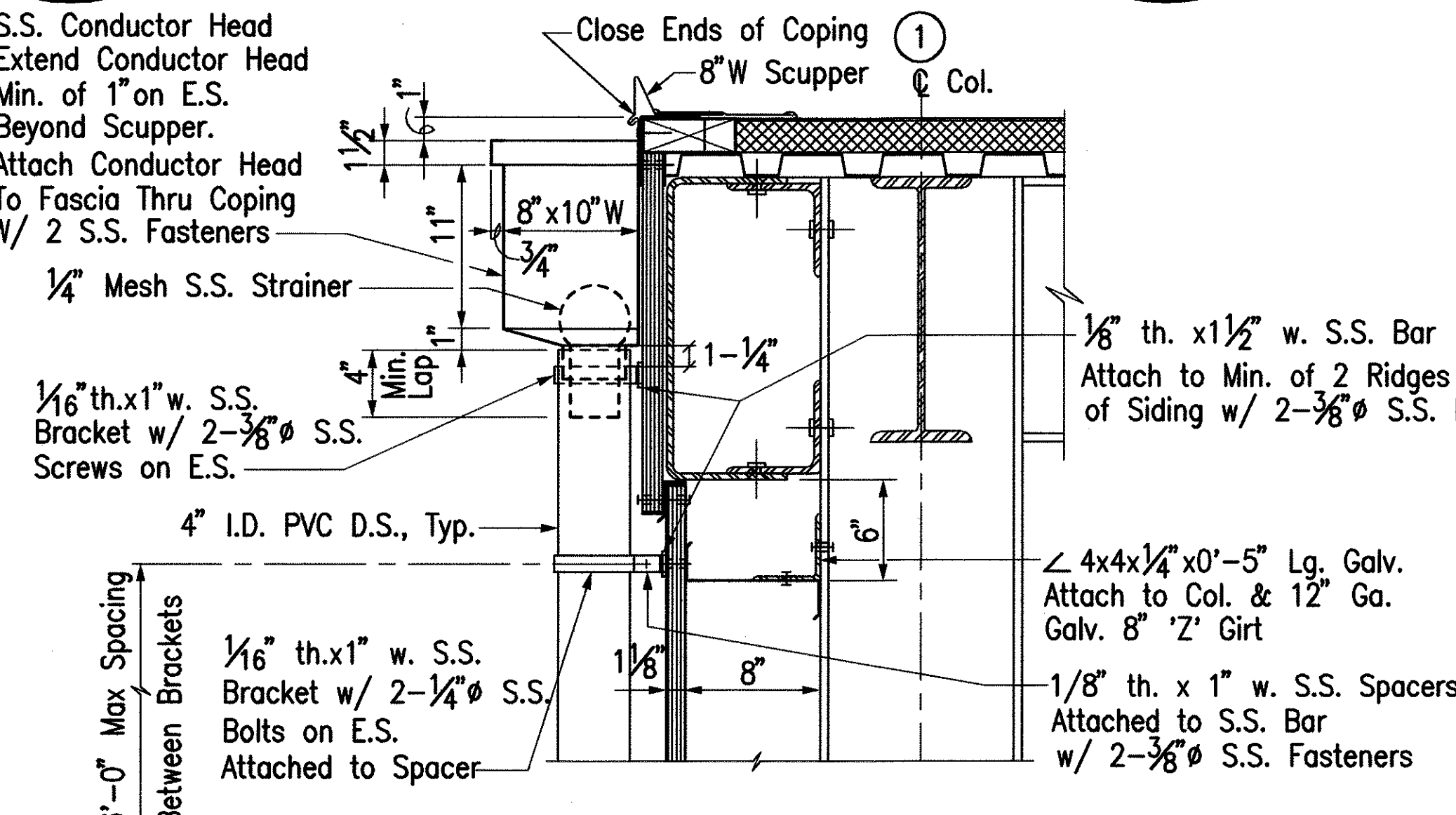
FLASH'G DETAIL @ REAR WALL - TOP OF WALL (I)
Scale: 1 1/2" = 1'-0"



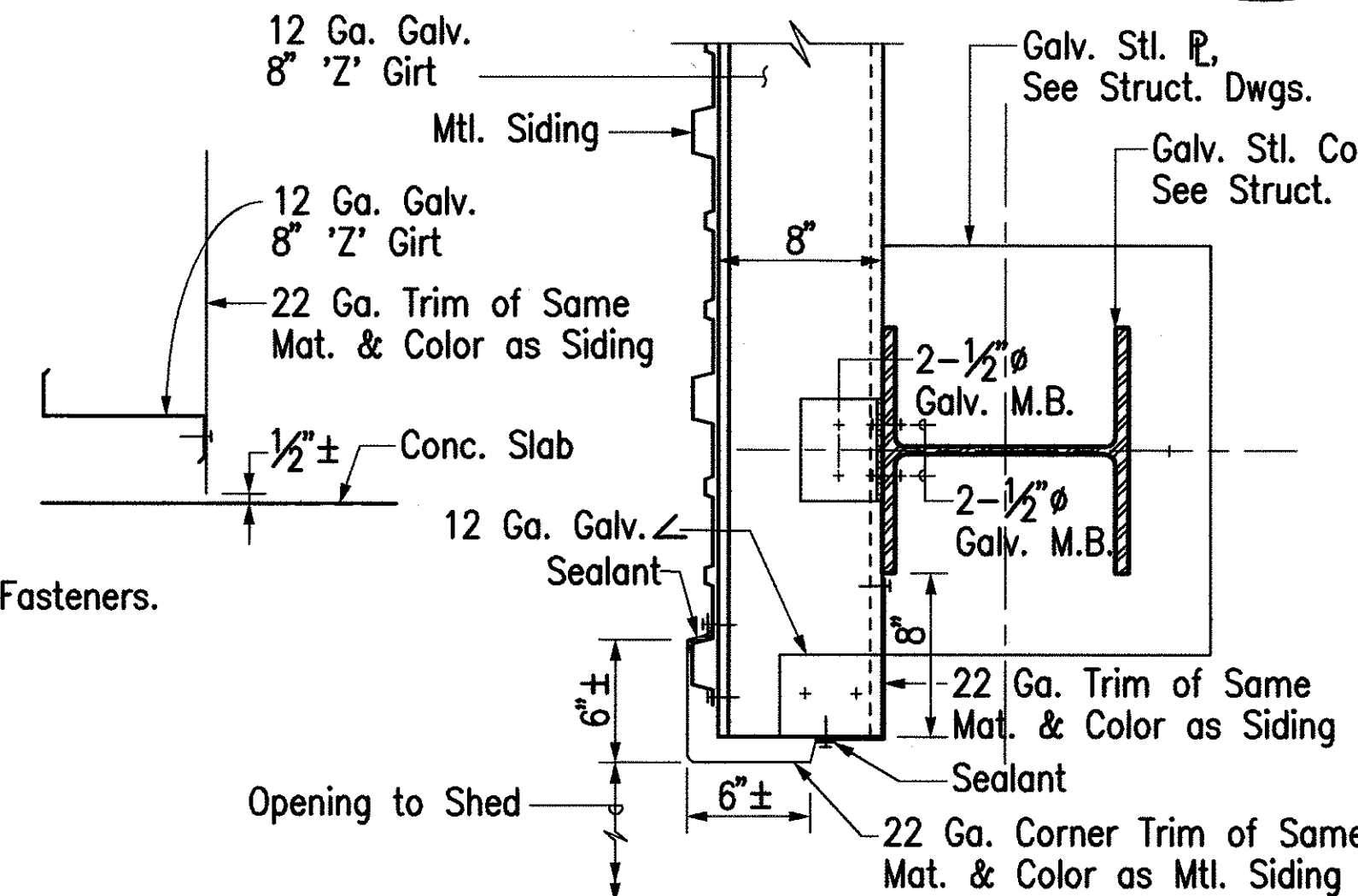
FLASH'G DETAIL @ REAR WALL (H)
Scale: 1 1/2" = 1'-0"



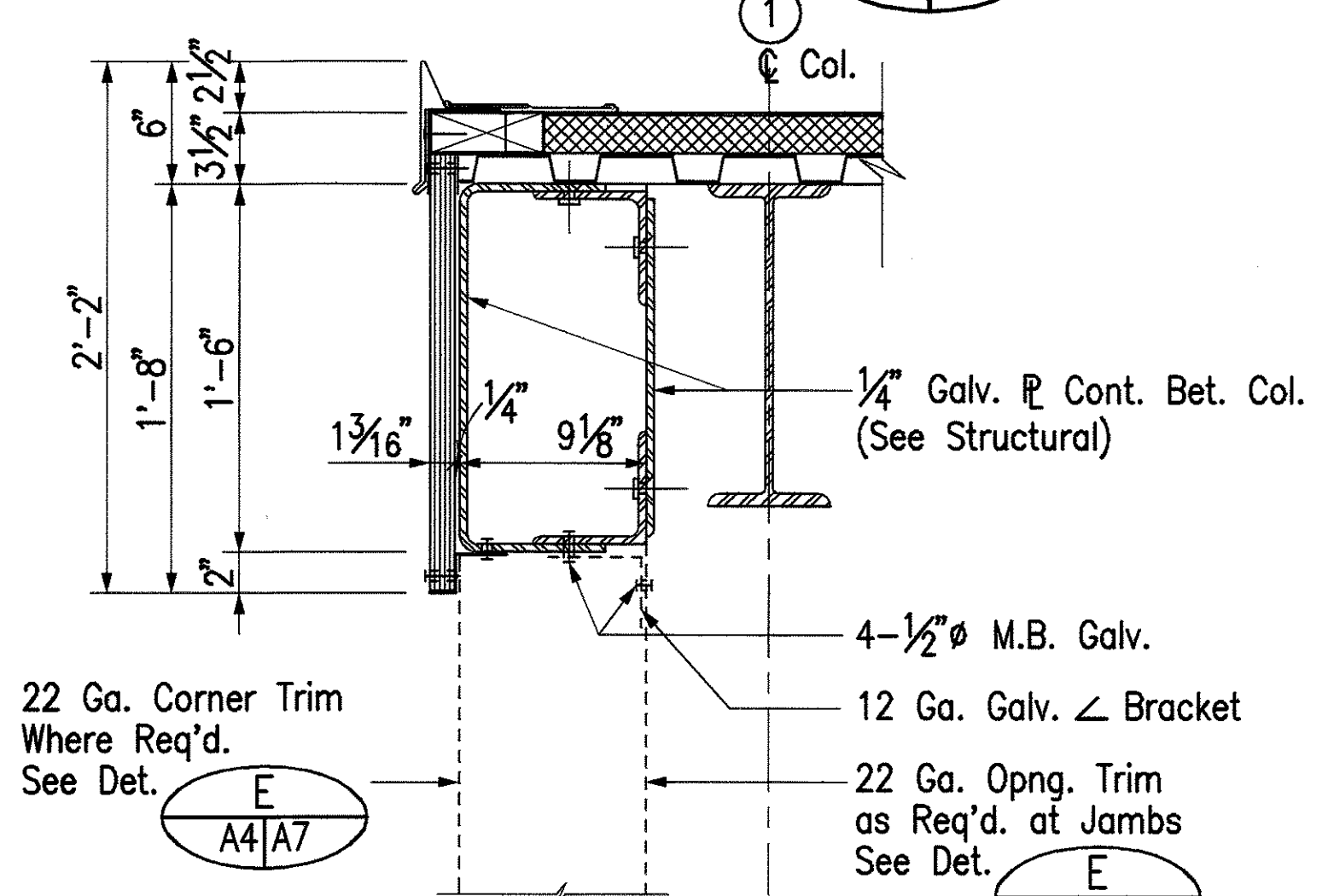
DOWNSPOUT @ SPILL BLOCK (G)
Scale: 1 1/2" = 1'-0"



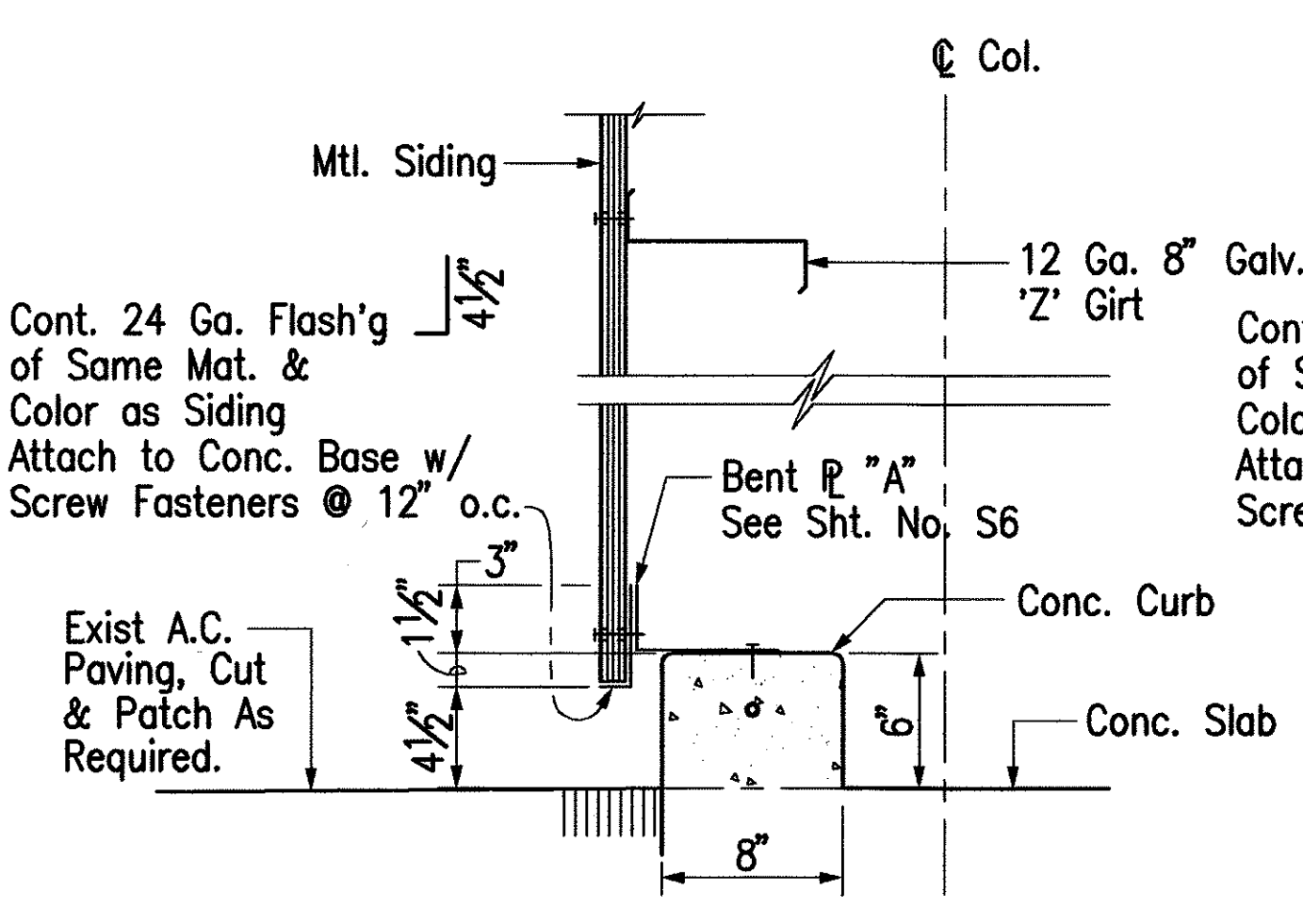
TYP. S.S. LEADER BOX & PVC D.S. (F)
Scale: 1 1/2" = 1'-0"



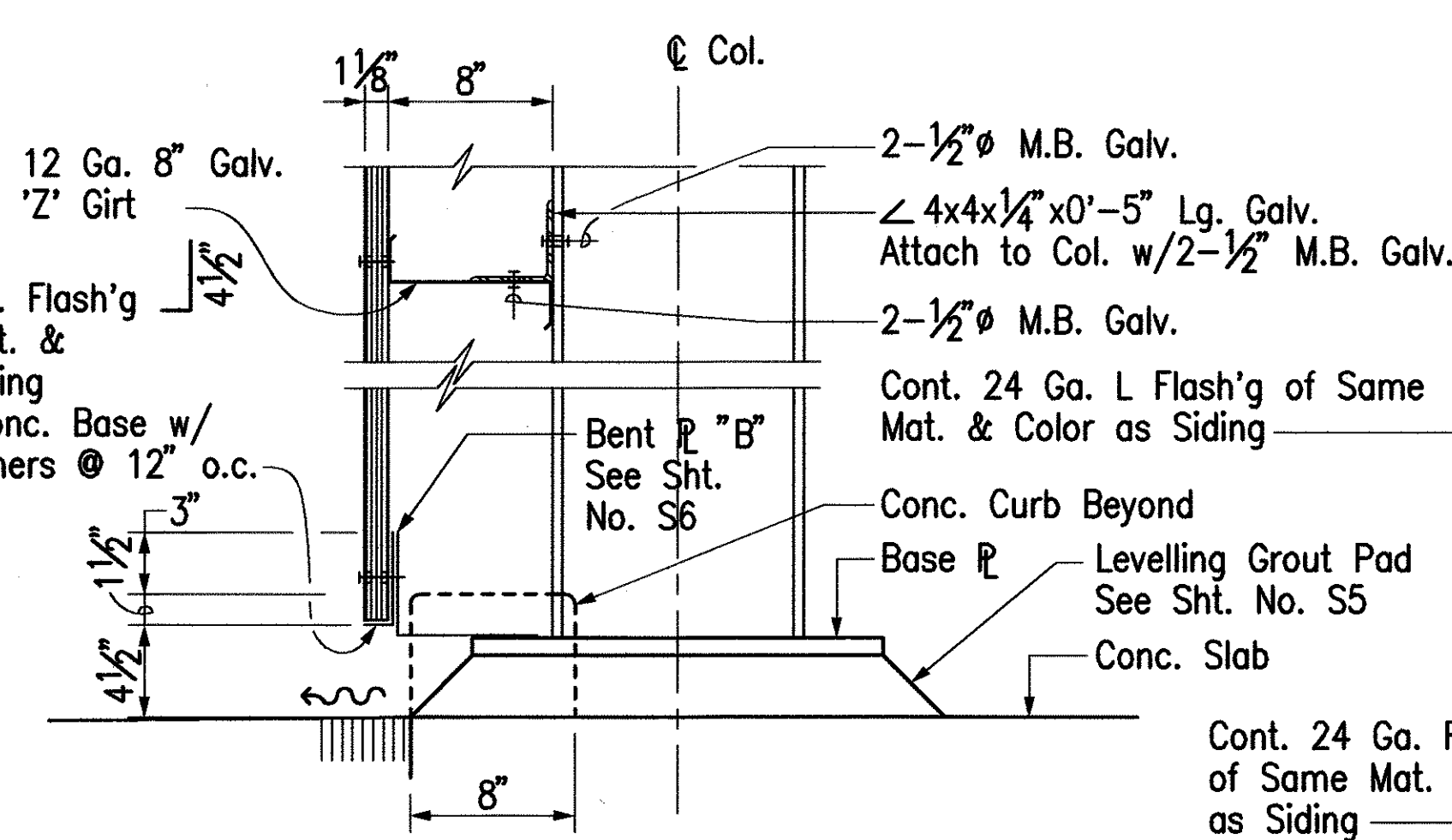
PLAN SECTION (JAMB) @ OPENING (E)
Scale: 1 1/2" = 1'-0"



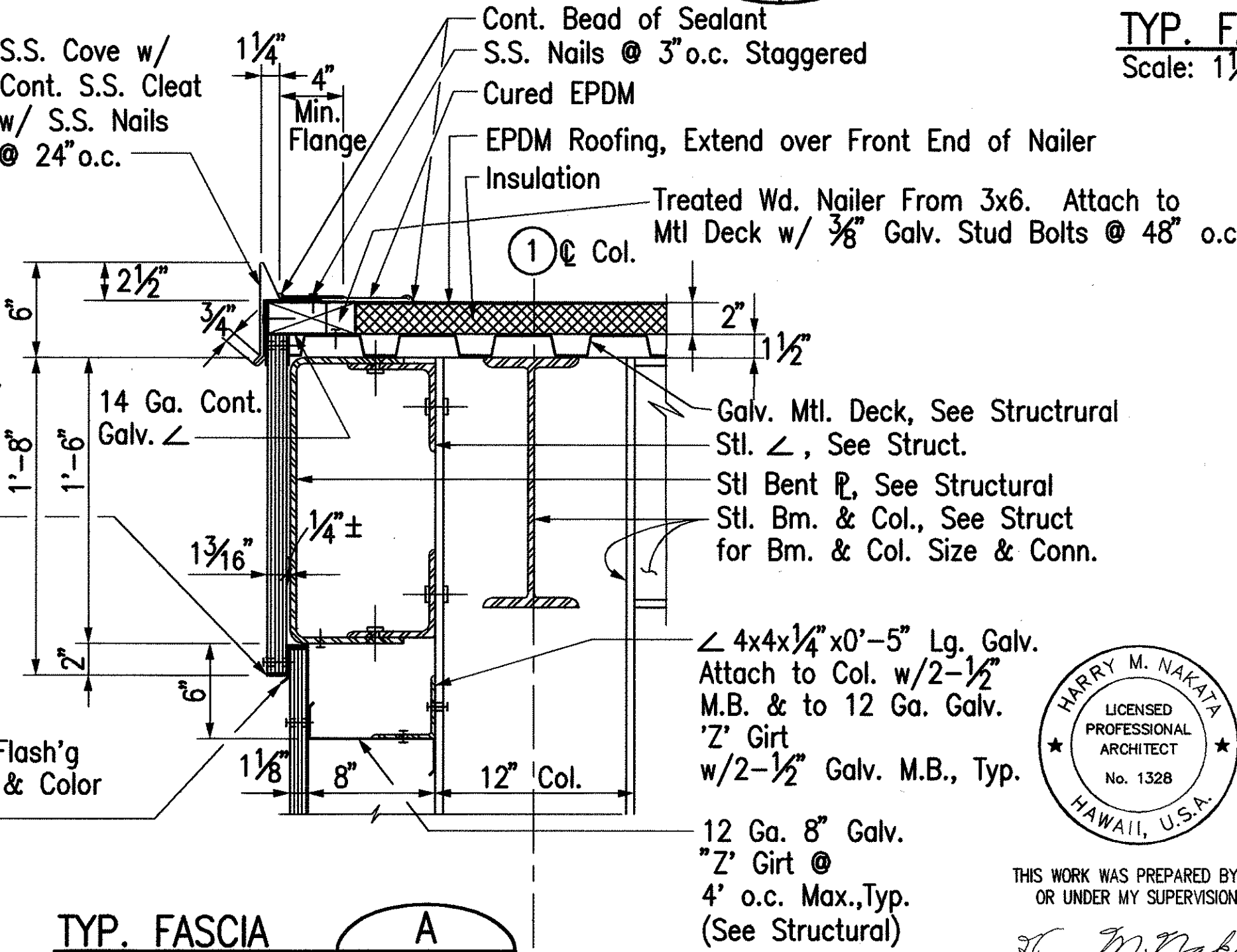
TYP. FASCIA @ OPENING (D)
Scale: 1 1/2" = 1'-0"



TYP. CONC. CURB - & MTL. SIDING (C)
Scale: 1 1/2" = 1'-0"



SIDING @ TYP. COL. & CONC. CURB (B)
Scale: 1 1/2" = 1'-0"
For Corner Detail for Column m1 See Sht. No. A6



TYP. FASCIA (A)
Scale: 1 1/2" = 1'-0"

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Harry M. Nakata
HARRY M. NAKATA
LICENSED PROFESSIONAL ARCHITECT
No. 1328
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TUNNEL MAINTENANCE
AREA MODIFICATIONS
ARCHITECTURAL DETAILS-2**
H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA
SCALE: 1-1/2" = 1'-0" DATE: APRIL 2001
SHEET NO. A7 OF 7 SHEETS

DATE _____
SURVEY PLOTTED BY _____
ORIGINAL PLAN _____
NOTE BOOK DESIGNED BY _____
QUANTITIES BY _____
CHECKED BY _____
No. _____

CAD by E. DELA CRUZ, 05-02

General Specifications: State of Hawaii, Department of Transportation Standard Specifications for Road and Bridge Construction, 1994, and Special Provisions prepared for this contract.

Design Specifications:

International Conference of Building Officials, Uniform Building Code (UBC), 1997 Edition.
American Concrete Institute, Building Code Requirements for Reinforced Concrete (ACI 318—Current Edition).
American Institute of Steel Construction (AISC), Manual of Steel Construction, Current Edition.
American Welding Society, Structural Welding Code, AWS D1.1—Current Edition.

Design Live Loads

Roof Framing: 20 psf uniform or 2000 lb concentrated load
Wind — Basic: Wind Speed 80 mph
Seismic: Zone 2A

Materials:

A. Concrete shall be normal weight (160 pcf) with ultimate compressive strength of 4000 psi at 28 days ($f'_c = 4000$ psi).
B. Reinforcing steel shall be ASTM A615 deformed bars, Grade 60 ($f_y = 60$ ksi).
C. Structural Steel shall be ASTM A36 material unless noted otherwise. Hot-dipped galvanized after fabrication.
D. Anchor bolts shall be A193/A193M Class 1B, Grade B8MN.
Anchor bolt nuts shall be ASTM A194/ A194M Grade 8MNA. Anchor bolt washers shall be ASTM A240 Type 316.
E. Grout under column base plates shall be non-shrink grout with ultimate compressive strength of 4000 psi at 28 days.
F. Metal roof deck panels shall be 22 gauge x $1\frac{1}{2}$ inch rib depth, cold rolled from galvanized steel sheet conforming to Note 7A.
G. Bolted connections shall be made using 1" diameter high strength bolts conforming to ASTM A325, slip critical type connections unless noted otherwise.
H. Welded connections shall be made using electrodes conforming to AWS A5.1 or A5.5, E70XX.

Concrete and Reinforcing Steel Notes:

A. Reinforcing steel lap splices shall be Class C.
B. Prior to placing concrete, verify placement of conduits, pipes, pullboxes, junction boxes, and other embedded items shown on civil, mechanical, architectural, electrical, and system plans.

Structural steel notes:

A. After fabrication, and hot-dipped galvanization, structural steel members shall receive two shop coats of modified alkyd rust-inhibitive primer, each coat not less than 2 mils in dry film thickness, except at contact areas of bolted connections.
B. After erection, touch-up paint shall be applied to all abrasions, bolt heads, and surfaces left unpainted for bolting.

Metal roof deck notes:

A. All roof deck units shall conform with ASTM A653/A653M Structural Steel (SS) Grade 33, Coating Designation G90.
B. All roof deck units shall span a minimum of 3 spans (over 4 supports).
C. All roof deck units shall be fastened to the steel framework at ends of units and at intermediate supports by $\frac{1}{4}$ " self tapping stainless steel screws, spaced not more than 12 inches across the width of the unit. Where two units abut, each unit shall be fastened to the steel framing.
D. Side laps of adjacent roof deck units shall be fastened at intervals not exceeding 1'-0", by an approved button clinching tool, or by any other method approved by united laboratories for the specific materials and material strengths used.
E. In all locations where roof decking rests upon or terminates against girders, the side laps of adjacent units shall be fastened between supports at intervals not exceeding 1'-6" with $\frac{1}{4}$ " self tapping stainless steel screws.

Dimensions of Columns:

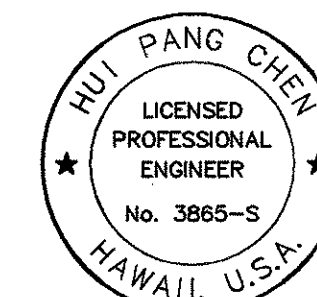
Column Designation	Size	Length (Along C of Column)	
a1	W12x26	16'-4 $\frac{7}{16}$ "	See Note 1 ↑ ↓ See Note 1
a4	W12x40	16'-4 $\frac{5}{16}$ "	
a7	W12x40	16'-4 $\frac{3}{16}$ "	
b1	W12x53	15'-3 $\frac{3}{8}$ "	
b4	W12x65	15'-2 $\frac{13}{16}$ "	
b7	W12x65	15'-1 $\frac{1}{2}$ "	
c1	W12x65	14'-8 $\frac{1}{8}$ "	
c4	W12x65	14'-5 $\frac{3}{8}$ "	
c7	W12x65	13'-11 $\frac{5}{8}$ "	
d7	W12x26	14'-6 $\frac{7}{16}$ "	
e	W12x26	14'-6 $\frac{9}{16}$ "	
f	W12x26	14'-7 $\frac{1}{4}$ "	
g1	W12x53	14'-2 $\frac{1}{8}$ "	
h4	W12x26	14'-8 $\frac{5}{16}$ "	
i	W12x26	14'-8 $\frac{3}{4}$ "	
m1	W12x26	14'-9 $\frac{3}{4}$ "	

Beam Designation	Size	Length
BM 1	W10x33	16' - 7 5/8"
BM 2	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 3 13/16"
BM 3	W10x22 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 3 3/4"
BM 4	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 3 13/16"
BM 5	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	21' - 9 7/8"
BM 6	W10x39 w/ 1-Beveled Shim PL 3/8" (max)x4"	30' - 3 1/4"
BM 7	W10x33 w/ 1-Beveled Shim PL 3/8" (max)x4"	30' - 9 1/8"
BM 8	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	29' - 9 1/2"
BM 9	W10x19	18' - 11 1/2"
BM 10	W10x33	38' - 11 1/2"
BM 11	W10x19	5' - 9 5/8"
BM 12	W10x45	31' - 10 1 1/16"
BM 13	W10x22	21' - 11 1/2"
BM 14	W10x33	14' - 3 5/8"
BM 15	W10x33	15' - 5 1/8"
BM 16	W10x19	21' - 11 1/2"
BM 17	W10x33	14' - 3 5/8"
S 1	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	11' - 6 1/16"
S 2	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 9 1 1/16"
S 3	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 9 3/4"
S 4	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	22' - 9 3/4"
S 5	W10x12 w/ 1-Beveled Shim PL 3/8" (max)x4"	13' - 10 1/4"
S 6	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	26' - 0 1/4"
S 7	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	30' - 9 3/16"
S 8	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	30' - 9 1/4"
S 9	W10x19 w/ 1-Beveled Shim PL 3/8" (max)x4"	30' - 9 3/16"
S 10	W10x12	13' - 0 9/16"
S 11	W10x12	12' - 8 3/4"
S 12	W10x12	15' - 8 9/16"
S 13	W10x12	13' - 8 5/16"
S 14	W10x12	5' - 0 13/16"
S 15	1- L6"x6"x5/16" (Upper Angle)	15' - 5 3/4"
S 16	1- L6"x6"x5/16" (Upper Angle)	21' - 11 1/2"
Fascia Beam S17	1- Bent PL 1/8"x30" & 2-L6"x6"x5/16"	17' - 2 5/16"
Fascia Beam S18	1- Bent PL 1/8"x30" & 2-L6"x6"x5/16"	6' - 11 3/4"
Fascia Beam S19	1- Bent PL 1/8"x30" & 2-L6"x6"x5/16"	38' - 11 1/2"
Fascia Beam S20	1- Bent PL 1/8"x30" & 2-L6"x6"x5/16"	18' - 11 1/2"
Fascia Beam S21	1- Bent PL 1/8"x30" & 2-L6"x6"x5/16"	18' - 5 9/16"
Fascia Beam S 22	1- Bent PL 1/8"x30" & 2- L6"x6"x5/16" with 1- Beveled Shim PL 3/8" (Max) x4"	15' - 6 3/8"
Fascia Beam S 23	1- Bent PL 1/8"x30" & 2- L6"x6"x5/16" with 1- Beveled Shim PL 3/8" (Max) x4"	12' - 9 1/2"
Fascia Beam S 24	1- Bent PL 1/8"x30" & 2- L6"x6"x5/16" with 1- Beveled Shim PL 3/8" (Max) x4"	15' - 9 5/16"
Fascia Beam S 25	1- Bent PL 1/8"x30" & 2- L6"x6"x5/16" with 1- Beveled Shim PL 3/8" (Max) x4"	13' - 9 1/16"
Fascia Beam S 26	1- Bent PL 1/8"x30" & 2- L6"x6"x5/16" with 1- Beveled Shim PL 3/8" (Max) x4"	5' - 4 5/16"
S27	1- L3"x3"x5/16"	7' - 10"
S28	1- L3"x3"x5/16"	6' - 4"
S29	1- L3"x3"x5/16"	4' - 6 1/4"
S30	1- L3"x3"x5/16"	6' - 10"
S31	1- L3"x3"x5/16"	3' - 6 7/8"
S32	1- L3"x3"x5/16"	4' - 5 1/8"
S33	1- L3"x3"x5/16"	4' - 7 1/2"
S34	1- L3"x3"x5/16"	4' - 6 5/16"

10. Foundation: Allowable soil bearing pressure under dead load and live load = 2500 psf. Coefficient of sliding friction = 0.35

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	51	60

ITEM NO.	ITEM	UNIT	QUANTITIES
501.0300	Structural Steel For Tunnel Maintenance Area Modifications	L.S.	(38,000 lbs.)
503.0100	Concrete For Tunnel Maintenance Area Modifications (Fc'=4000 psi)	L.S.	(106 CY)
	Structure Excavation For Tunnel Maintenance Area Modifications	--	(106 CY)
	Reinforcing Steel For Tunnel Maintenance Area Modifications	--	(5,900 lbs.)
903.0100	Preformed Metal Siding For Tunnel Maintenance Area Modifications	L.S.	(1,500 sq. ft.)
941.0100	Metal Roof Deck For Tunnel Maintenance Area Modifications	L.S.	(4,000 sq. ft.)



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

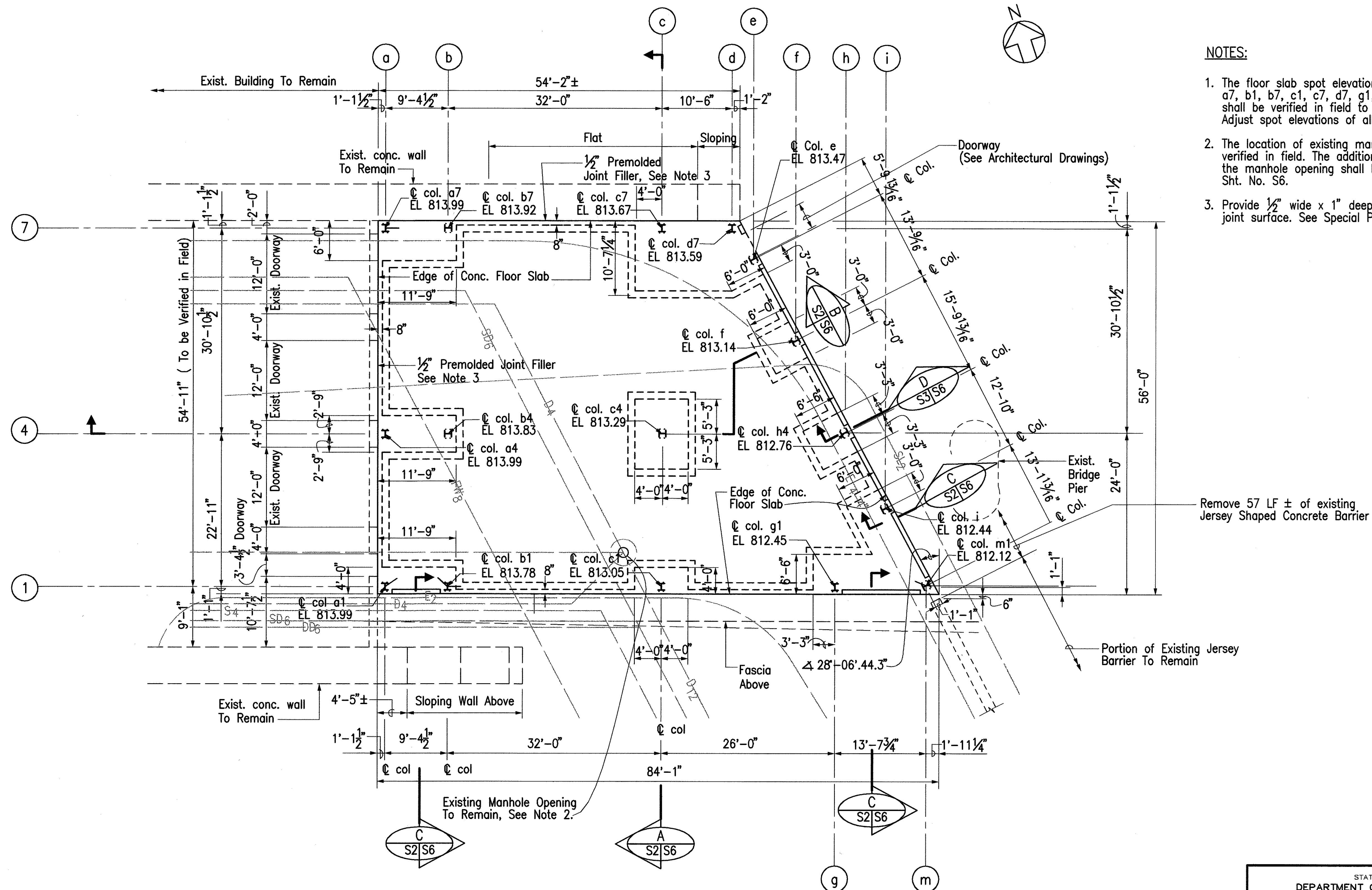
TUNNEL MAINTENANCE AREA
MODIFICATIONS, GENERAL NOTES
AND ESTIMATED QUANTITIES

H-3 FINISH (UNIT VITA)
FAIP NO. I-H3-1(75), UNIT VITA

SCALE: AS SHOWN DATE: APRIL 2001

SHEET NO. S1 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT VIIA	2003	52	60



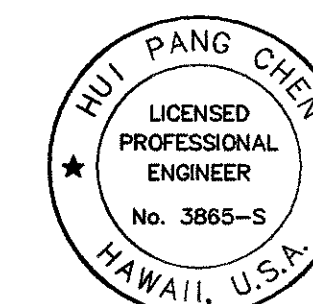
NOTES:

1. The floor slab spot elevations at columns a1, a4, a7, b1, b7, c1, c7, d7, g1, e, f, h4, i and m1 shall be verified in field to meet the existing grade. Adjust spot elevations of all columns accordingly.
2. The location of existing manhole opening shall be verified in field. The additional reinforcement around the manhole opening shall be provided as shown on Sht. No. S6.
3. Provide 1/2" wide x 1" deep of Elastomeric Sealant at joint surface. See Special Provisions.

Remove 57 LF ± of existing Jersey Shaped Concrete Barrier

Portion of Existing Jersey Barrier To Remain

FLOOR SLAB FOUNDATION PLAN



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL MAINTENANCE AREA MODIFICATIONS FOUNDATION PLAN

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-1(75), UNIT VIIA

SCALE: 1/8"=1'-0"

DATE: APRIL 2001

SHEET NO. S2 OF 6 SHEETS

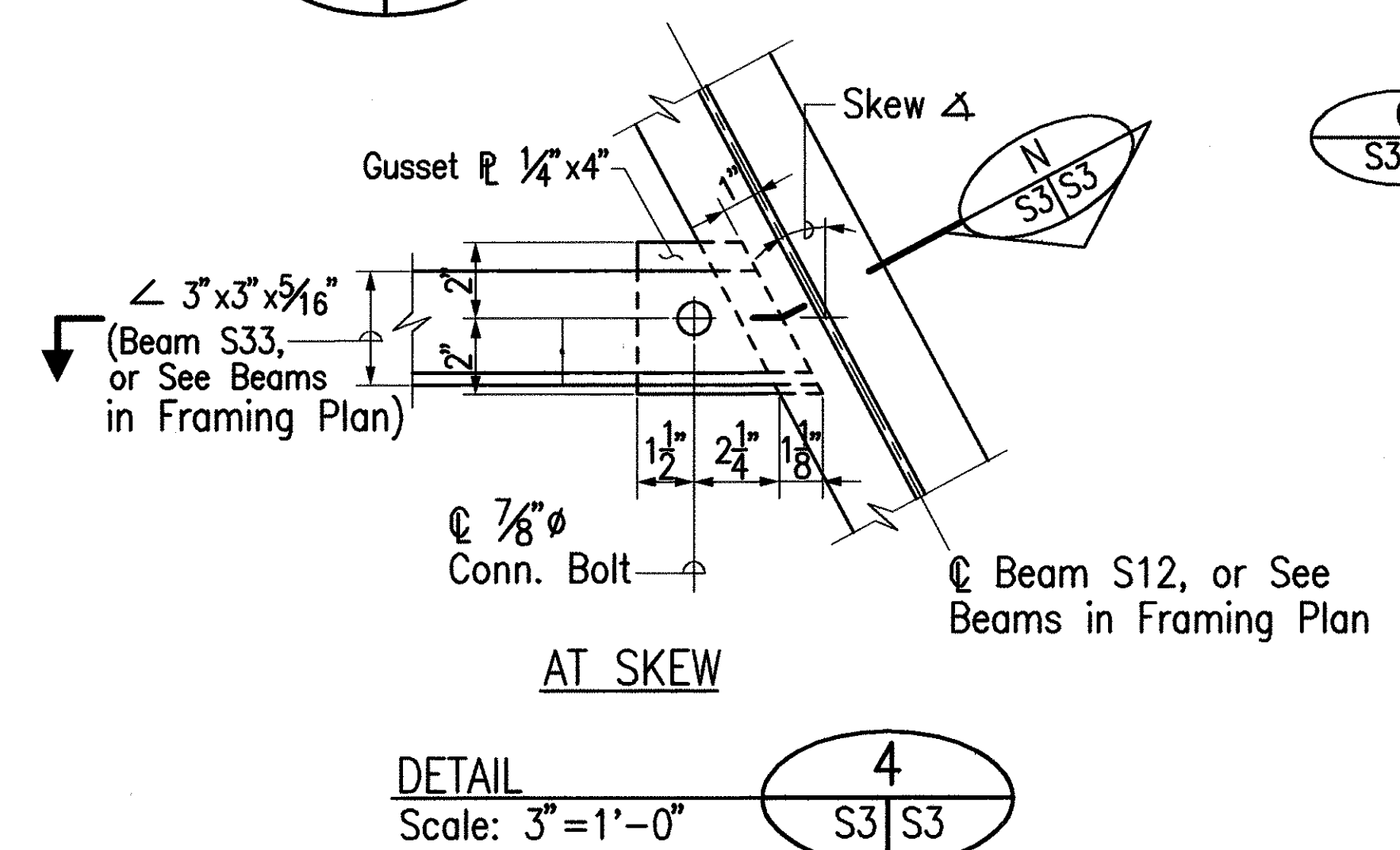
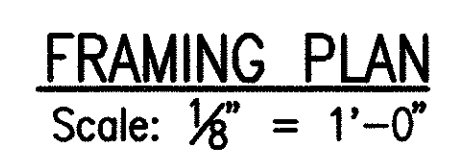
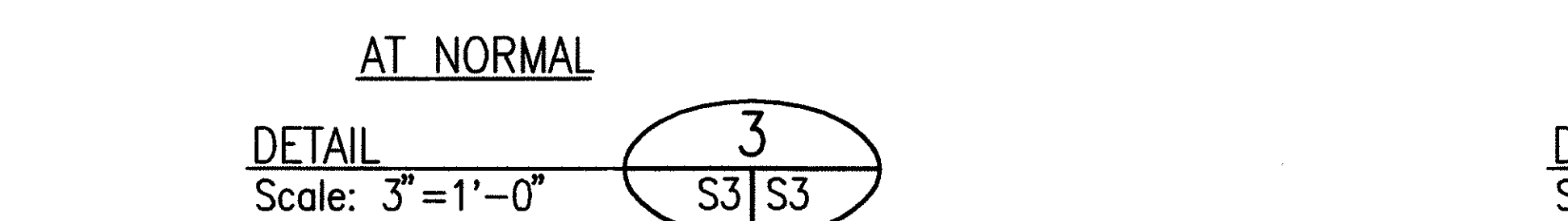
LEGEND:

(H) Denotes hinge splice in the beam.

BM10
S10 } Denotes Beam Designation

NOTES:

1. See Note 1 on Sht. No. S2 and adjust column lengths accordingly.
2. For Dimensions of Columns & Beams; See Notes 8 & 9 on Sht. No. S1.



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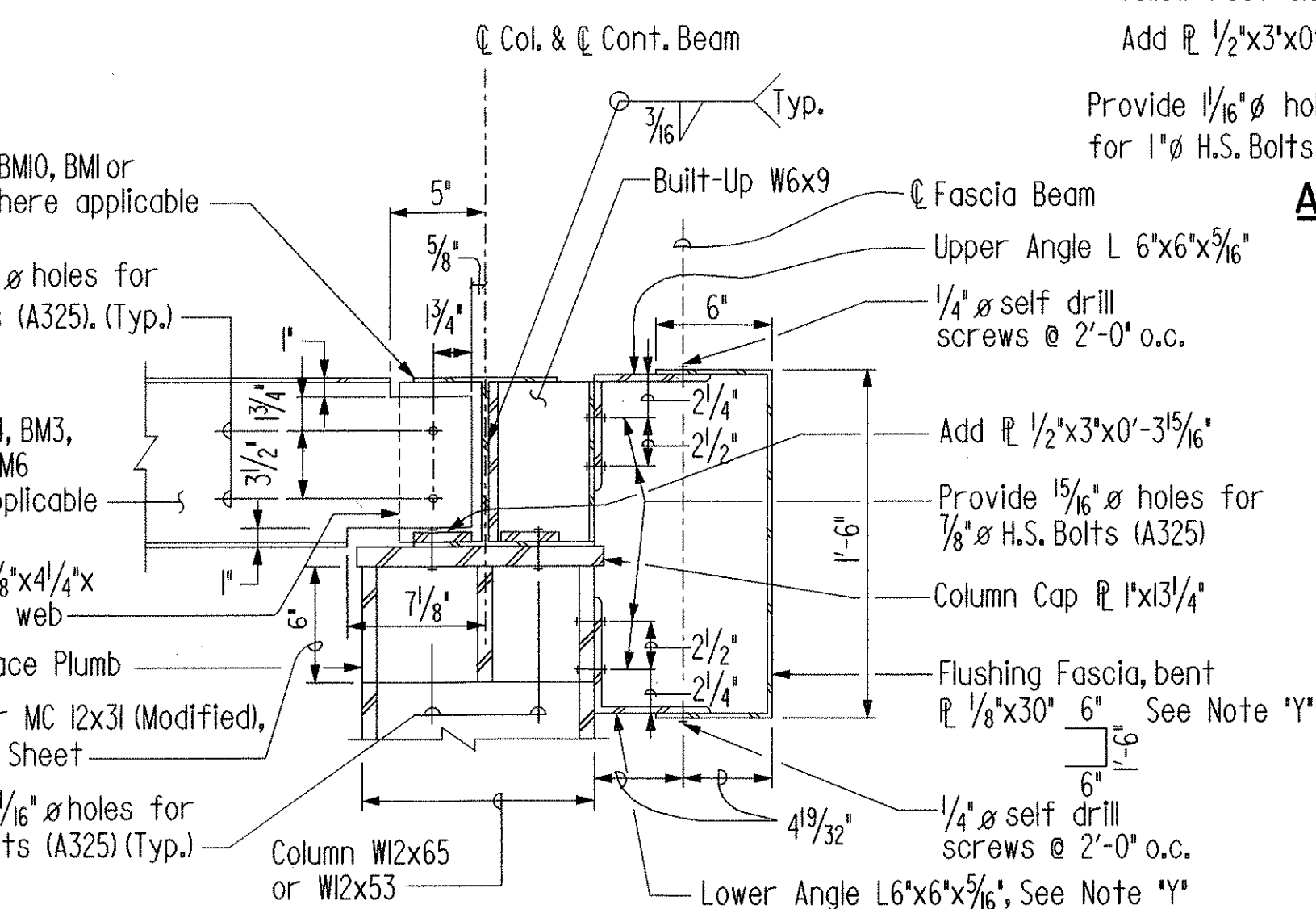
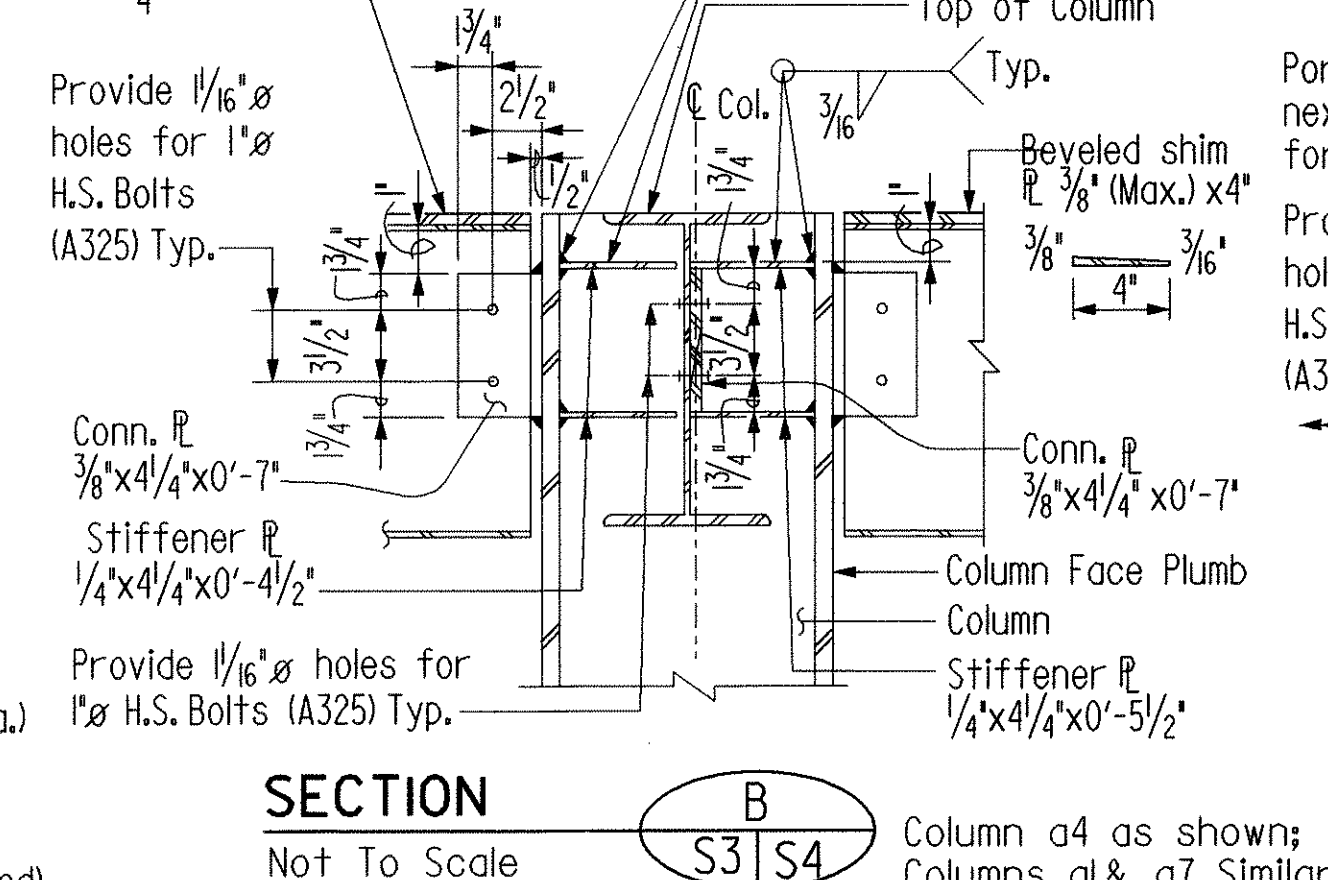
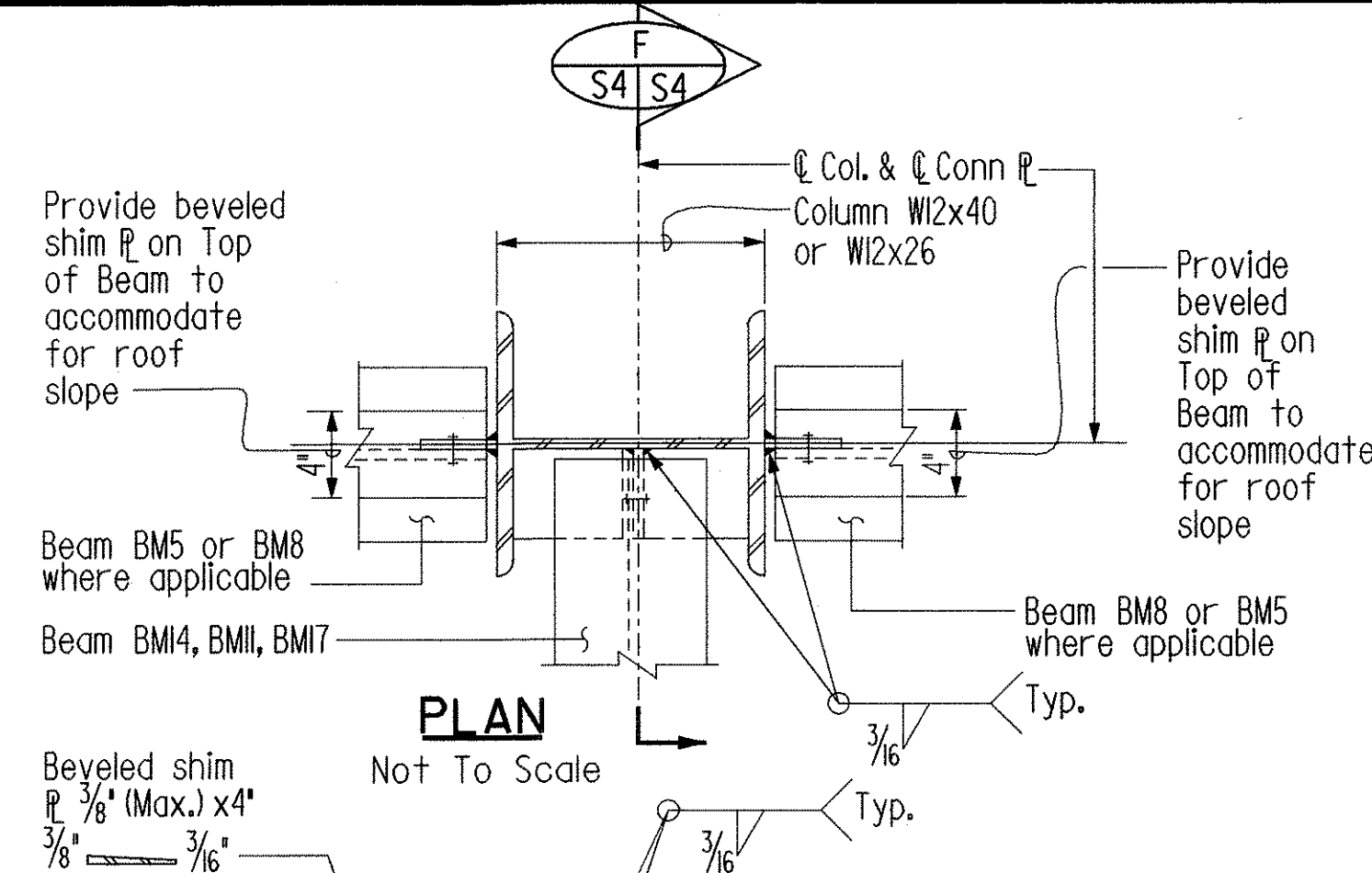
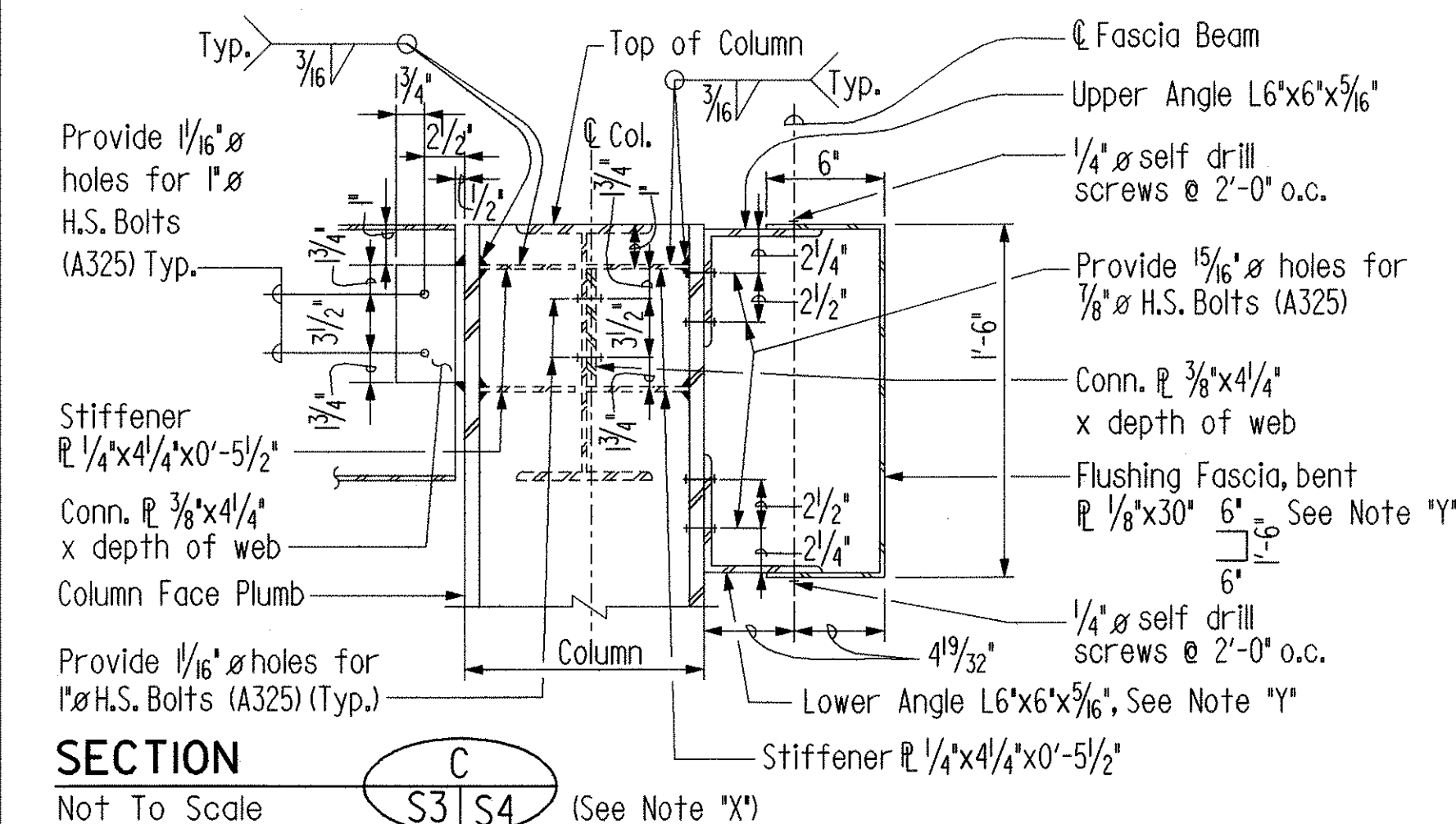
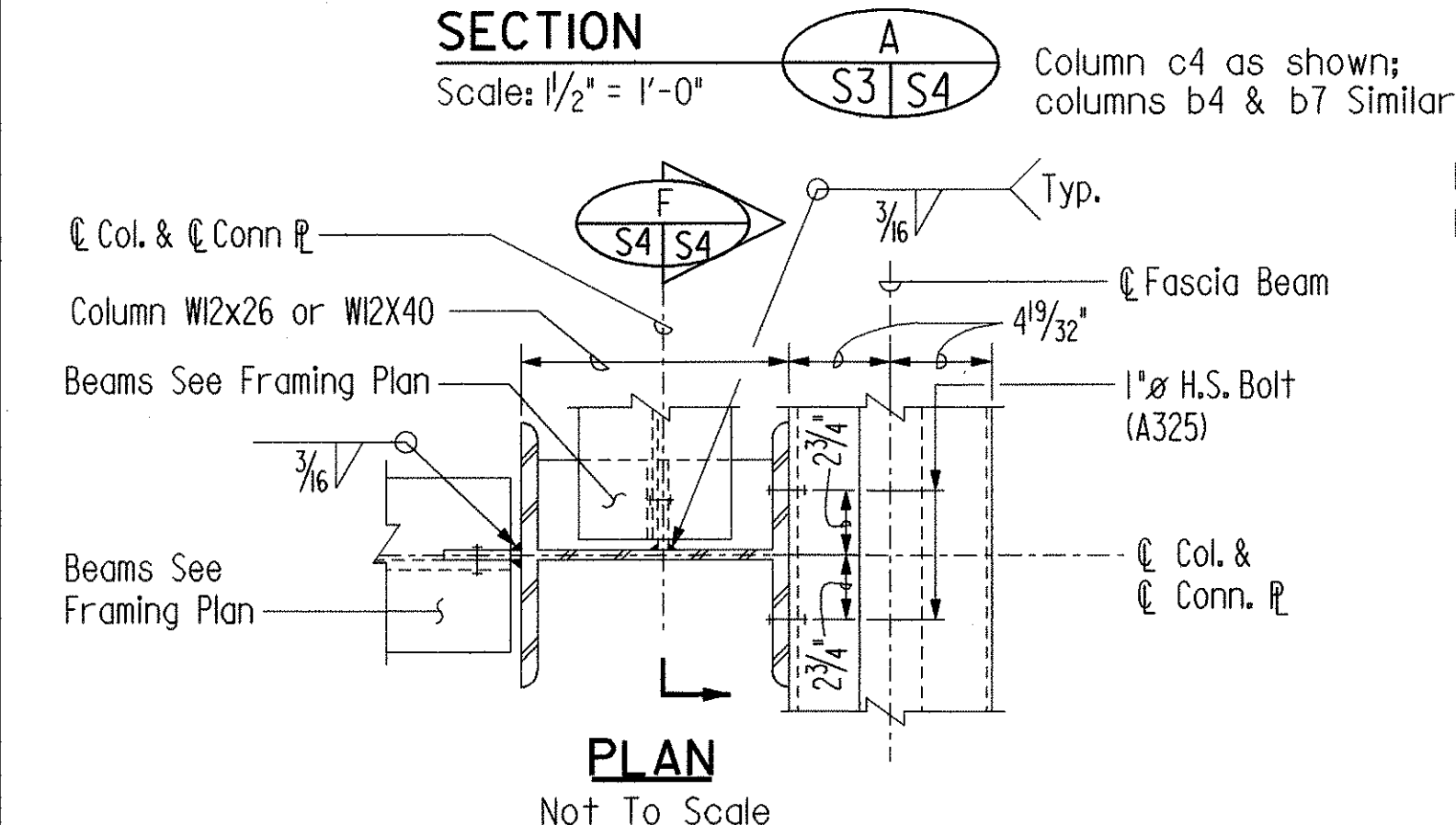
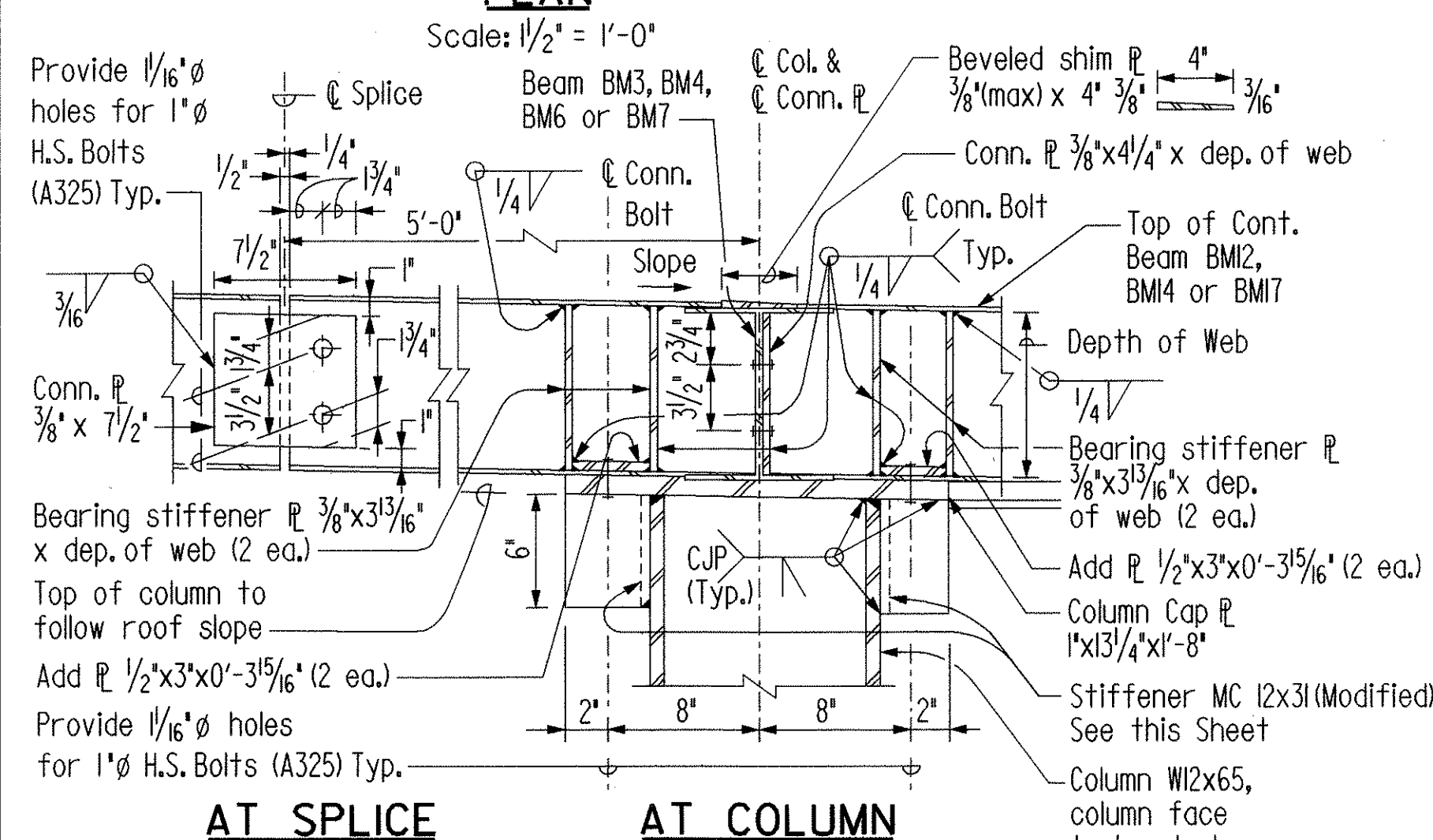
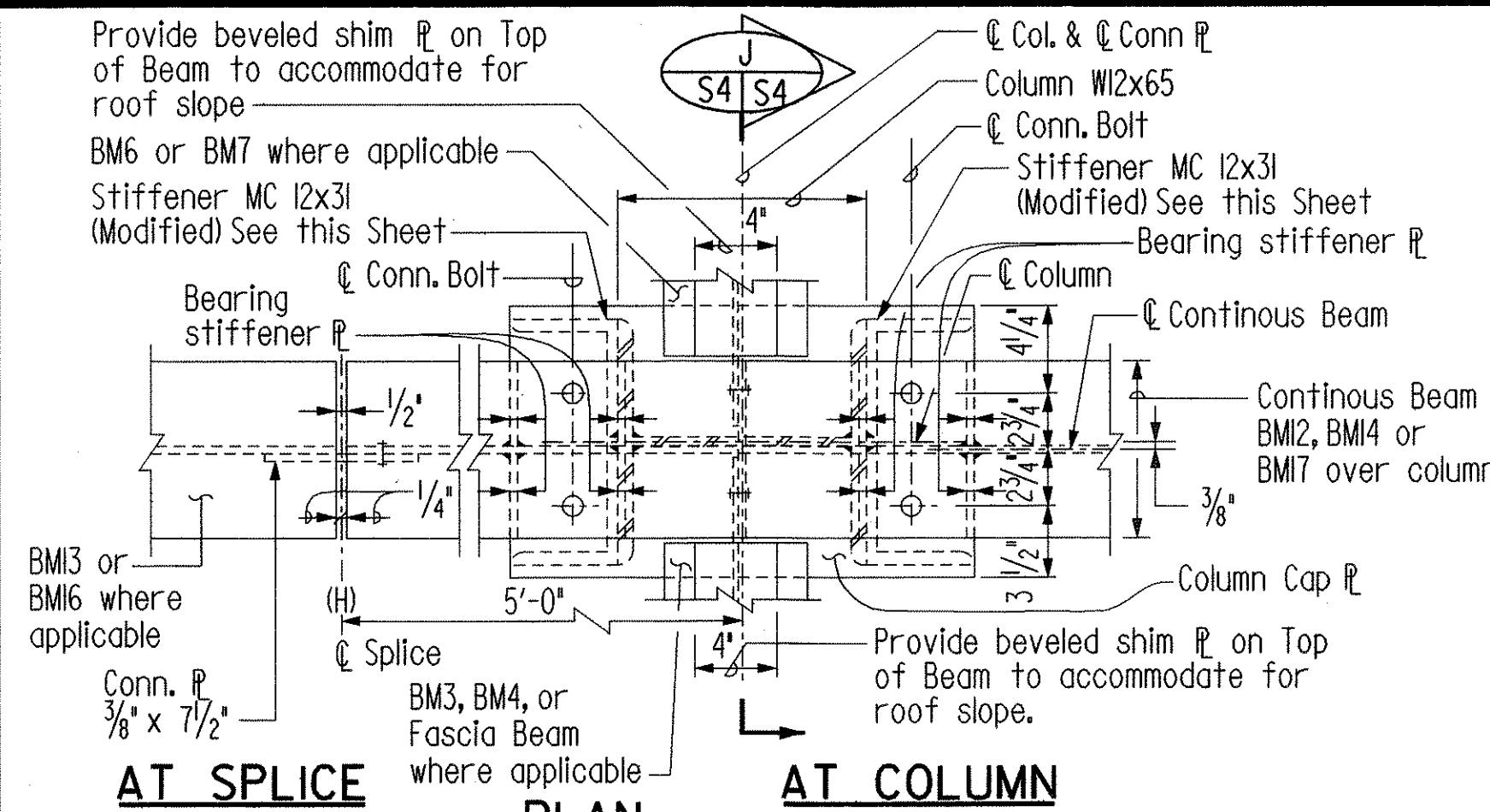
TUNNEL MAINTENANCE
AREA MODIFICATIONS
FRAMING PLAN

H-3 FINISH (UNIT VIIA)
FAIP NO. T-H3-1(75), UNIT VIIA

SCALE: As Shown DATE: APRIL 2001

SHEET NO. S3 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	I-H3-K75), UNIT <u>VIA</u>	2003	54	60



Notes:

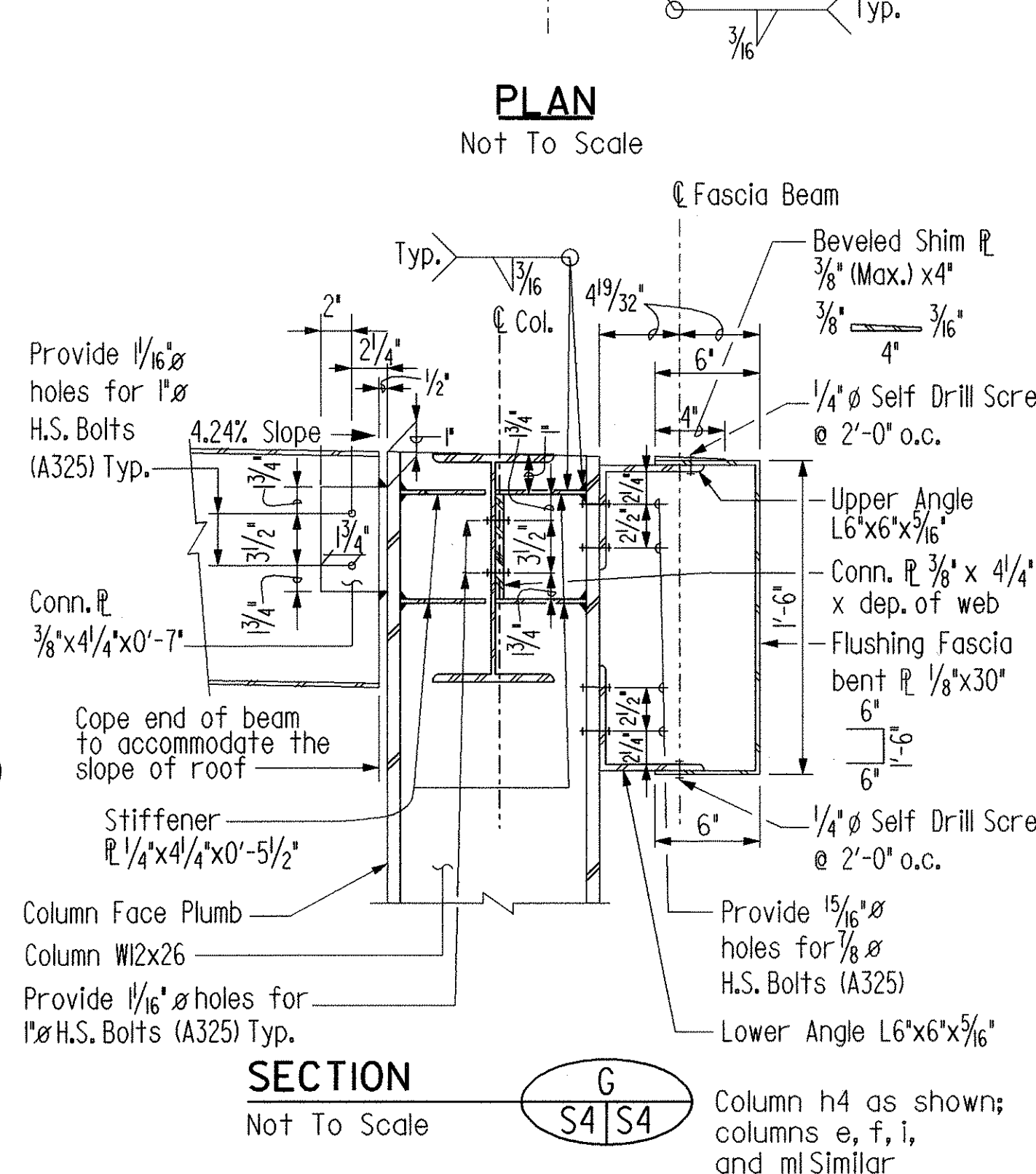
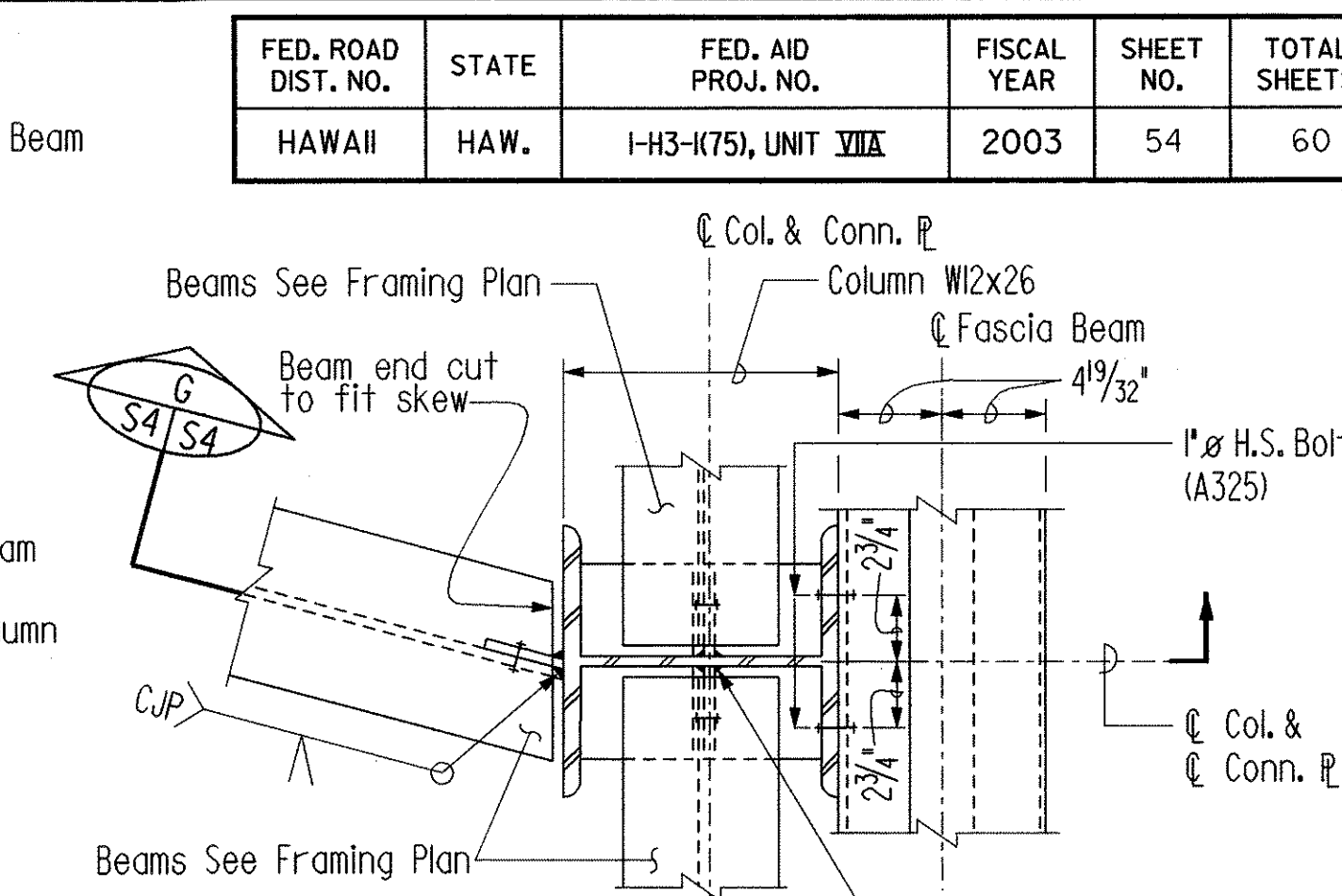
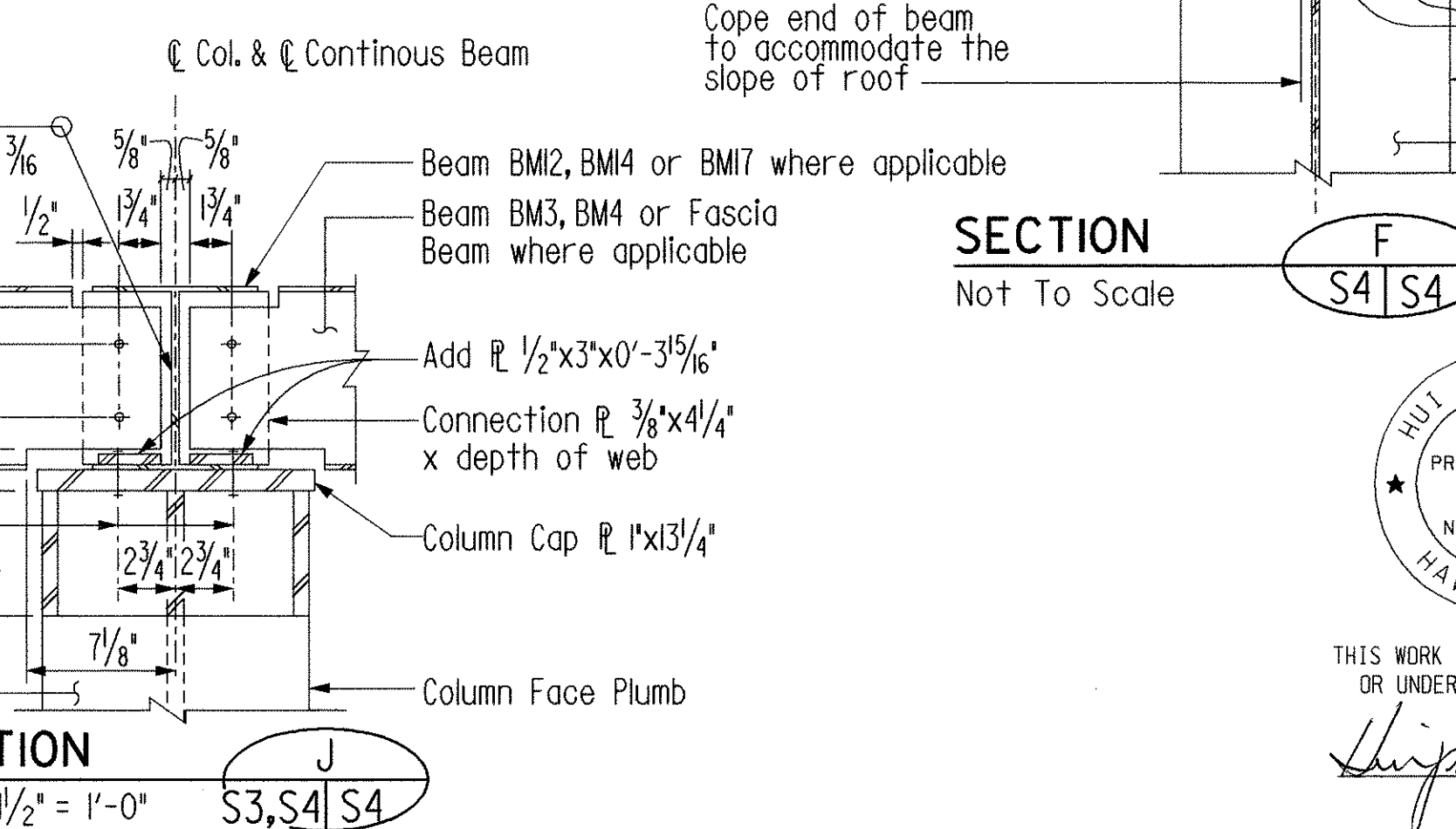
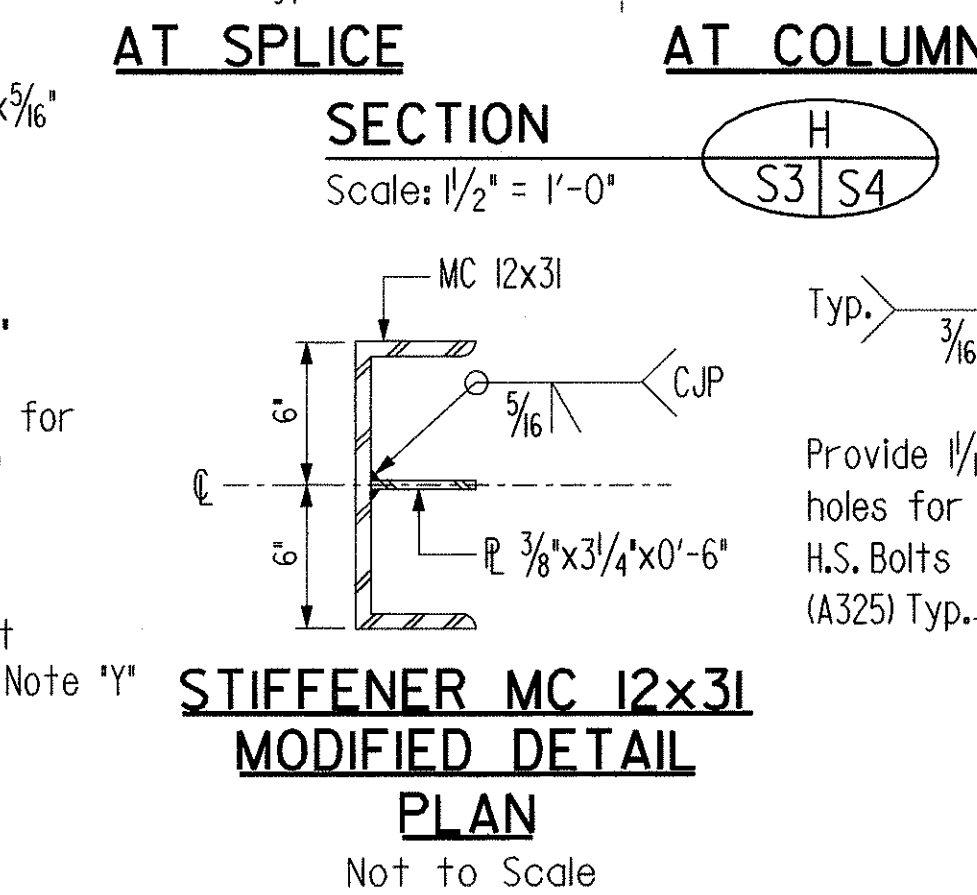
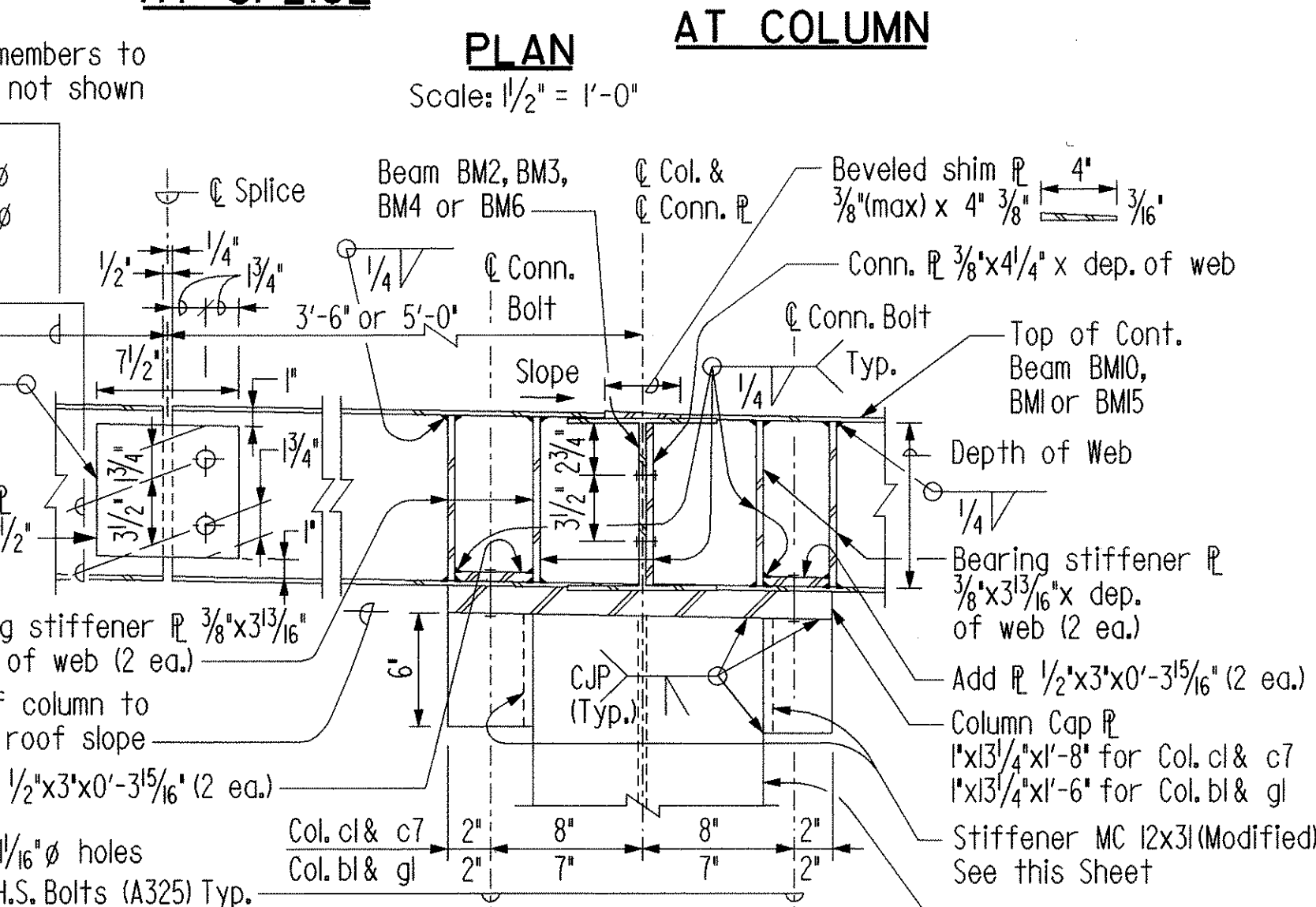
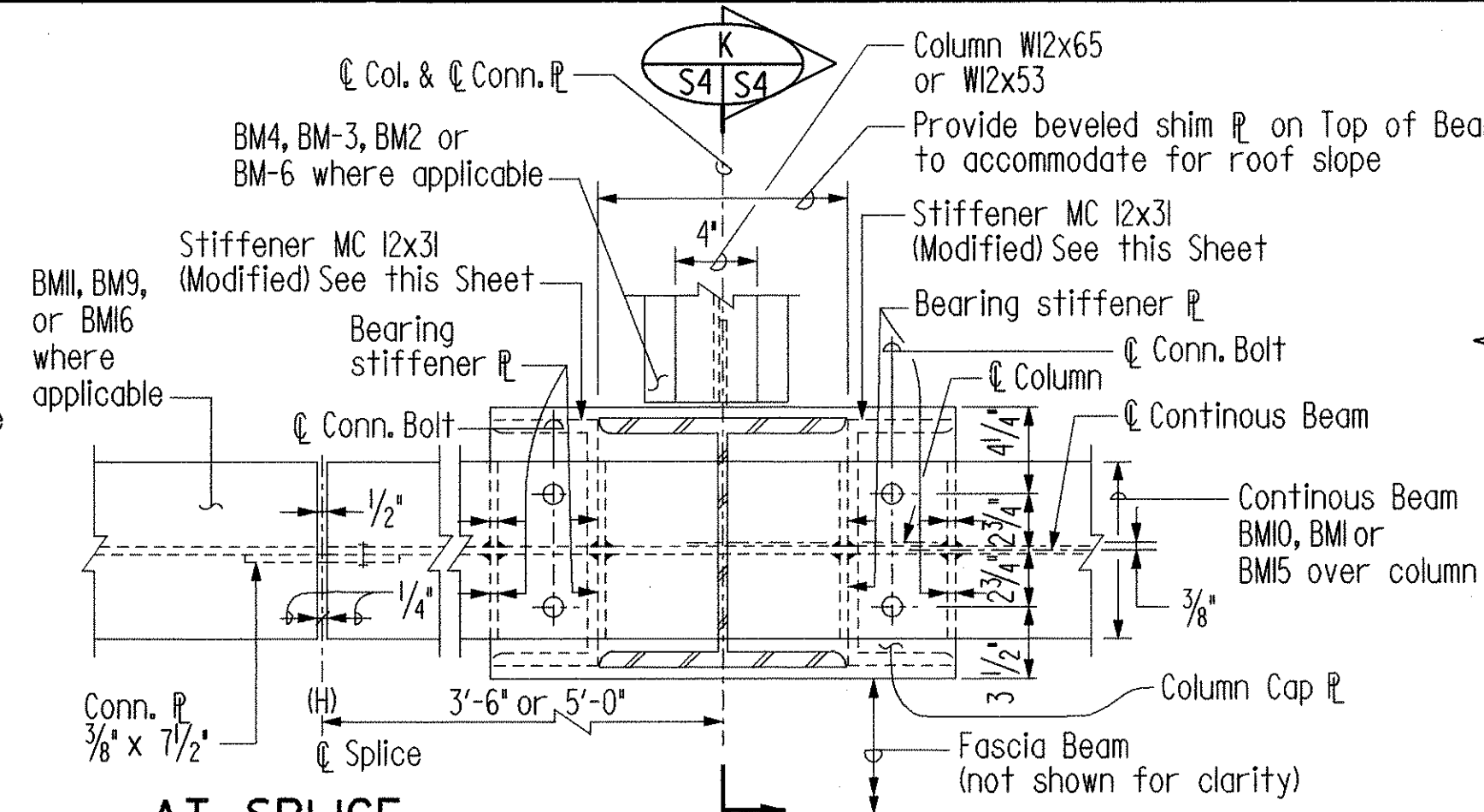
1. MetalRoof Deck not shown for clarity.
For details, See Architectural Plans
and Note 7 on Sheet No. SI.
2. Preformed MetalSiding not shown for clarity.
For details, See Architectural Plans.

Note 'X'.

Column a1 as shown; Columns
a7 and d7 Similar. See Note "Y"

Note "Y":

Eliminate lower angle L6"x6"x $\frac{5}{16}$ "
and bent $\angle \frac{1}{8}$ " x 30" at location of fascia
beam between columns a7 & c7 shown on Detail



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HIGHWAYS DIVISION

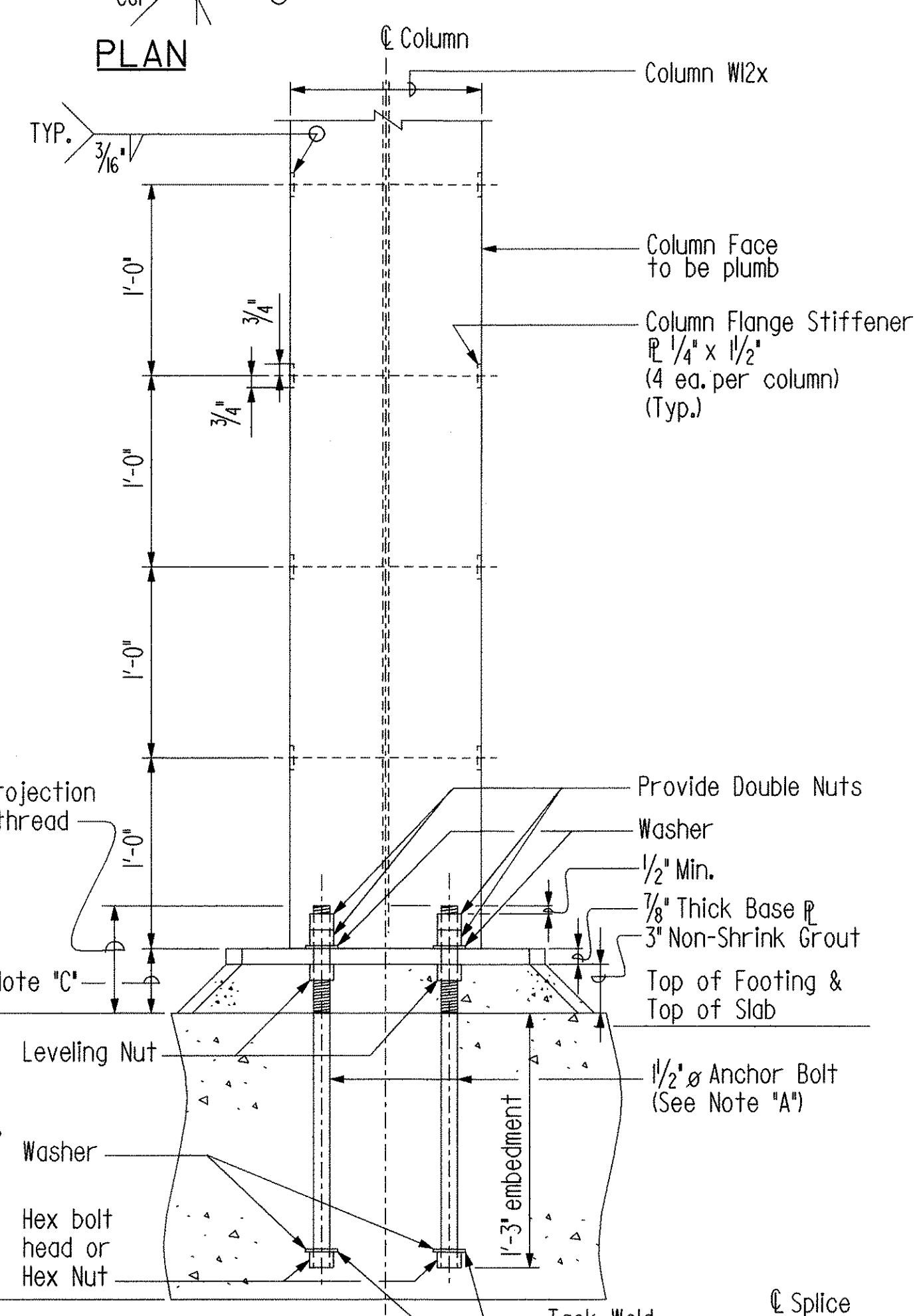
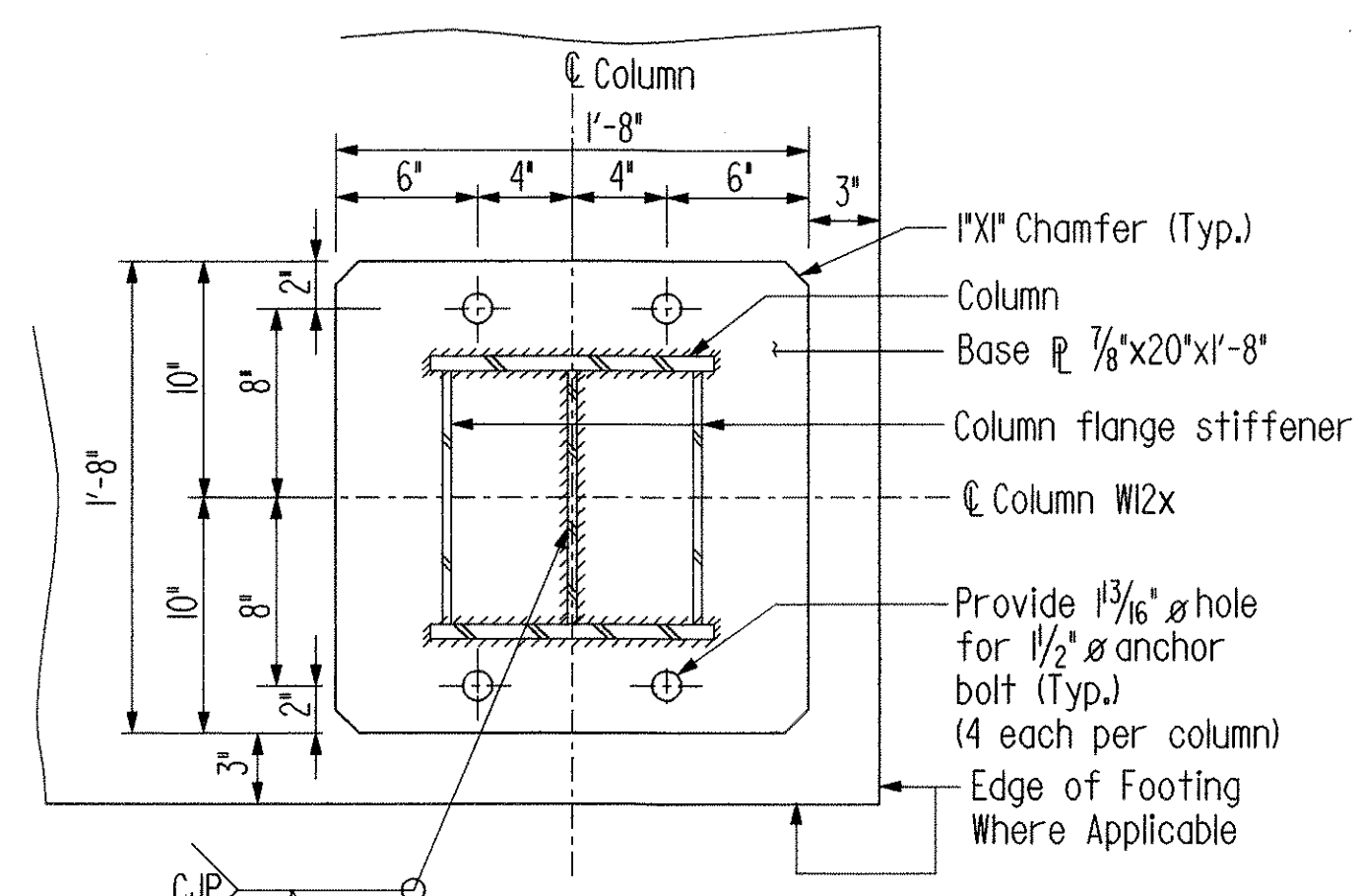
TUNNEL MAINTENANCE AREA MODIFICATIONS STRUCTURAL DETAILS

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-I(75), UNIT VII

SCALE: AS SHOWN DATE: APRIL 2001

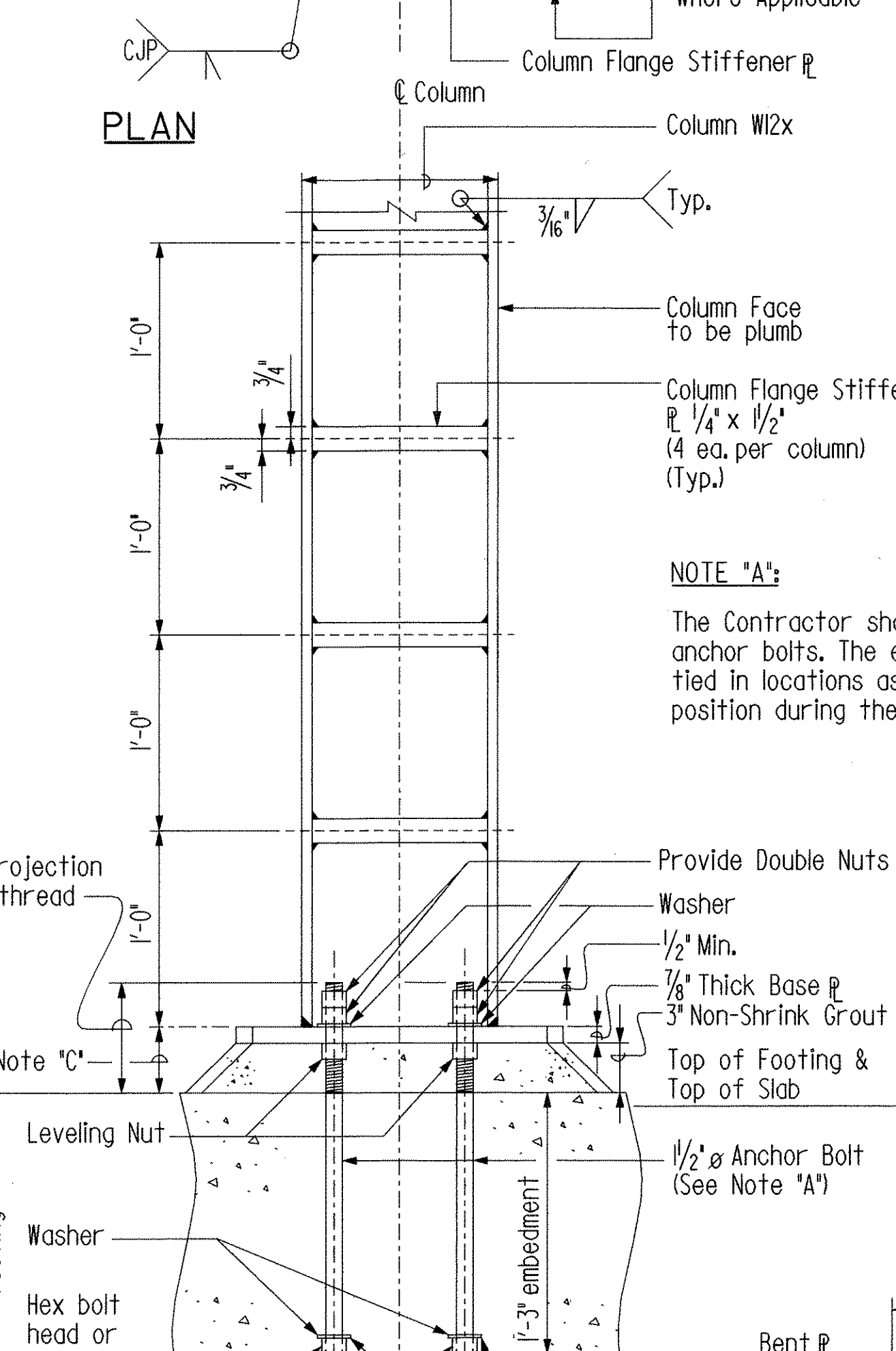
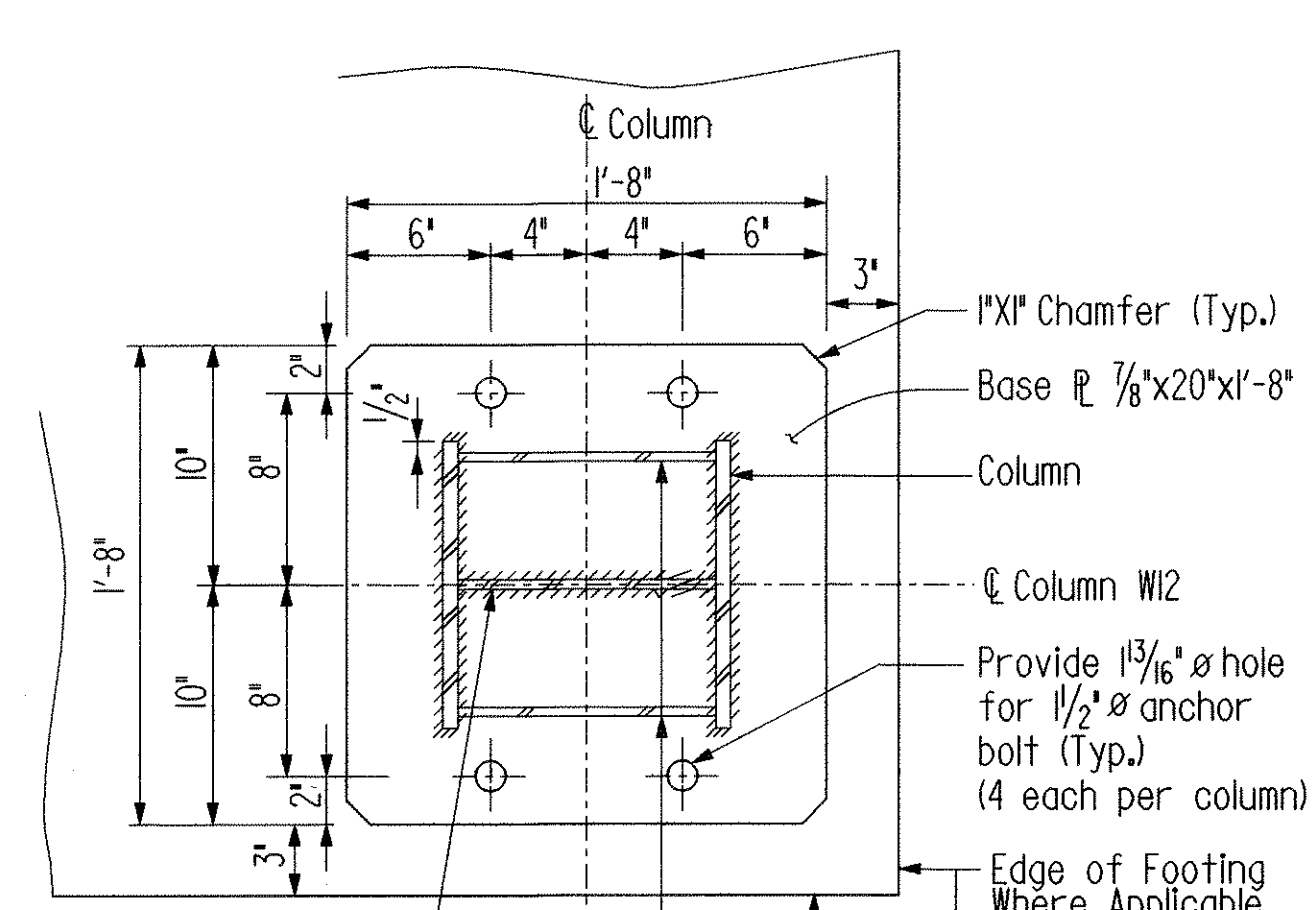
SHEET NO. S4 OF 6 SHEET

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175), UNIT VIIA	2003	55	60



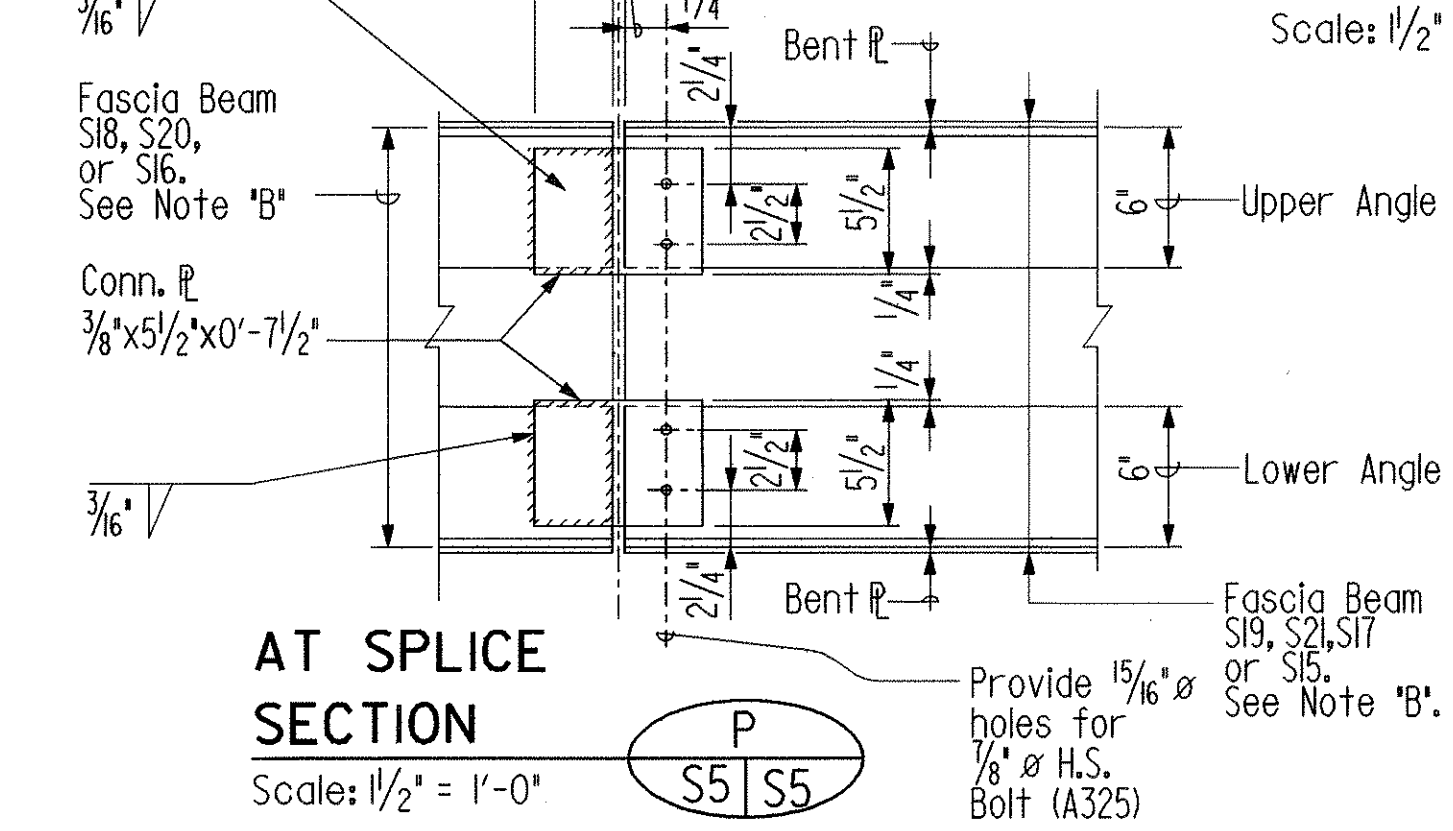
ELEVATION
COLUMN a4, a7, b1, c1, d7, & g1
COLUMN BASE DETAIL
Scale: 1/2" = 1'-0"

NOTE "C":
The projecting surfaces of grout and column base plate shall be painted with yellow stripes for safety

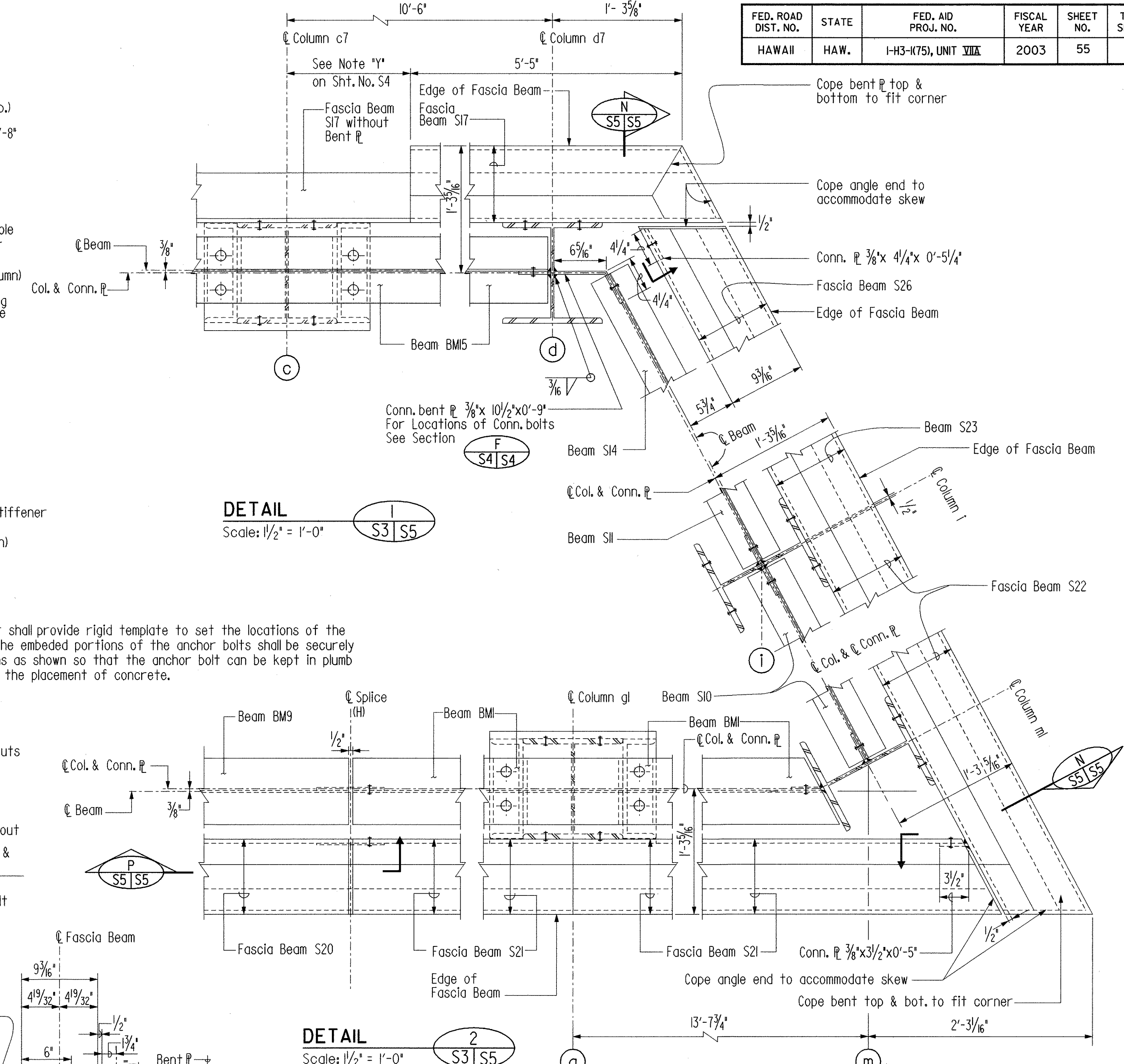


ELEVATION
COLUMN b4, b7, c4, e, f, h4, i, & m1
COLUMN BASE DETAIL
Scale: 1/2" = 1'-0"

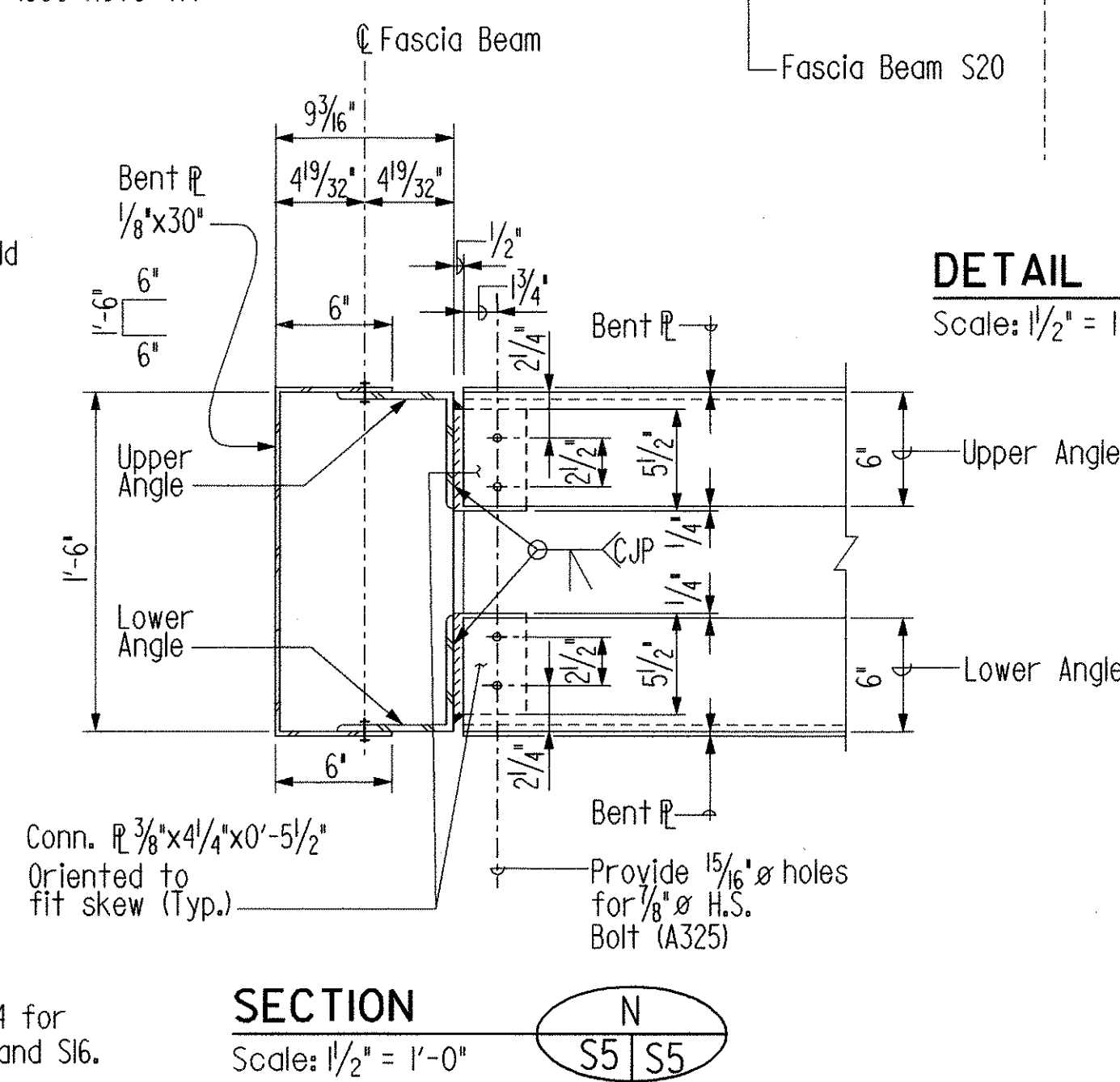
NOTE "B":
See Note "Y" in Sht. No. S4 for Beam Splice in Beam S15 and S16.



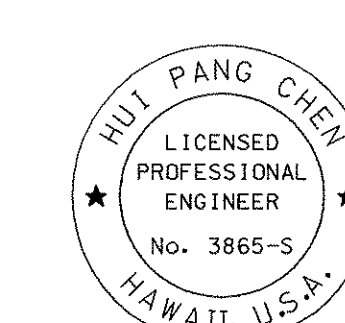
AT SPLICE SECTION
Scale: 1/2" = 1'-0"



DETAIL
Scale: 1/2" = 1'-0"



SECTION
Scale: 1/2" = 1'-0"



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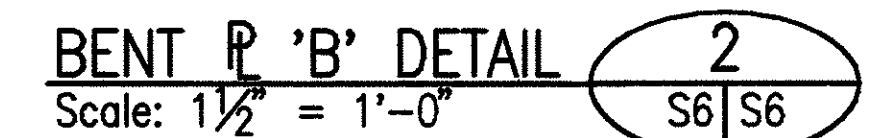
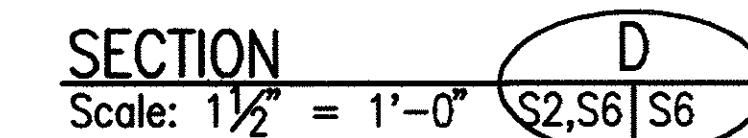
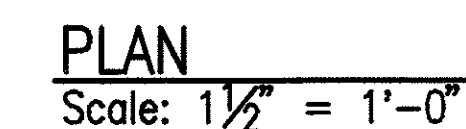
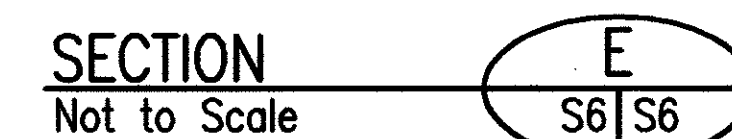
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL MAINTENANCE
AREA MODIFICATIONS
STRUCTURAL DETAILS-2

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-(175), UNIT VIIA

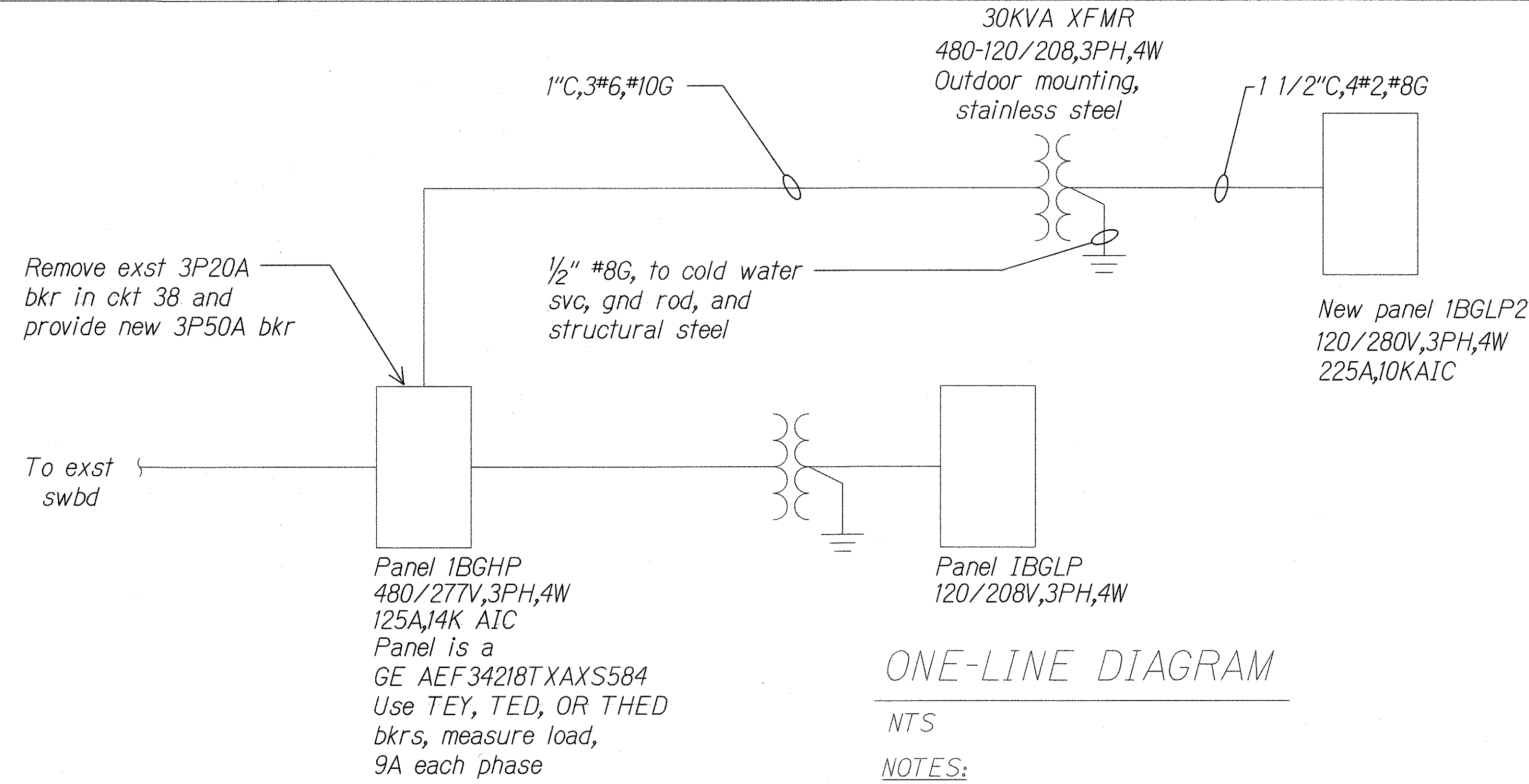
SCALE: 1/2" = 1'-0" DATE: APRIL 2001
SHEET NO. S5 OF 6 SHEETS

SECTION	B	
Not To Scale	S2,S6	S6



56

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-K75, UNIT VIIA	2003	57	60



ONE-LINE DIAGRAM

- NTS
- NOTES:
- Light lines denote existing condition
 - Bold lines denote new work

LIGHT FIXTURE SCHEDULE

Type	Lamp	Description/Manufacturer/Catalog number	Mounting
A	2-F32T8 3500°K	Heavy die formed aluminum, impact resistant acrylic, baked white enamel, polypropylene latches, acrylic diffuser, U.L. listed for damp locations, fully gasketed & sealed, electronic ballast. COLUMBIA LU4-2 SERIES OR EQUIVALENT	Pendant Mounted +12'-0"
B	1-150W HPS	Outdoor fixture, bronze die cast aluminum, clear prismatic polycarbonate housing, diffuser, U.L. listed for wet locations, stainless steel hardware, integral photocell	Surface Mounted +12'-0"

NOTE: Electronic ballasts shall be fully solid state electronic, 95% minimum power factor, less than 20% total harmonic distortion, less than 3% flicker, 25kHz operating frequency, rapid start, sound rating of "A", Class P and 1.7 crest factor. Ballasts shall have rated life of 20 years and have a minimum 3 year warranty. Provide ballast for the specific quantity and rating of lamps.

ELECTRICAL SYMBOLS

- Panel, +6'-6" to top
- Fluorescent light fixture
- Barred letter in or adjacent to lgt fixture
Symbol indicates fixture type
- Duplex receptacle - 20A, 120V, +18" AFF UON
- Junction box
- Duplex receptacle with GFI protection, +18" AFF UON
- 2P20A Special outlet, +18" AFF
- Cable Reel, stainless steel, +9'-0", with 40' of
2#12, #12G, 20A recpt, see specs
- Light fixture - wall mounted
- Single pole switch - 3 = 3 way - 20A, 277V
4 = 4 way, D = Dimmer, M = Manual motor
starter, P = Pilot, F = Fan controller,
K = Key operator, +48" AFF
- Fire alarm heat detector
- Transformer
- Fire alarm audio/visual signal, +80' AFF
- WP Weatherproof
- UON Unless otherwise noted
- Conduit & wiring exposed

Minimum conduit size shall be 3/4".
Any circuit w/ no further designation
indicates a two (2) wire circuit.
Circuits w/ additional wires are
indicated as follows: ---3 wires,
---4 wires, etc. Minimum conductor
size shall be #12. Although not indicated
A separate green ground conductor sized
Per the N.E.C. Shall be installed in all
branch circuit conduits.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

PAUL K. UYEDA
LICENSED PROFESSIONAL ENGINEER
No. 7646-E
HAWAII, U.S.A.

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Paul K. Uyeda 1/16/03
MK ENGINEERS, LTD.

STATE OF HAWAII
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HIGHWAYS DIVISION

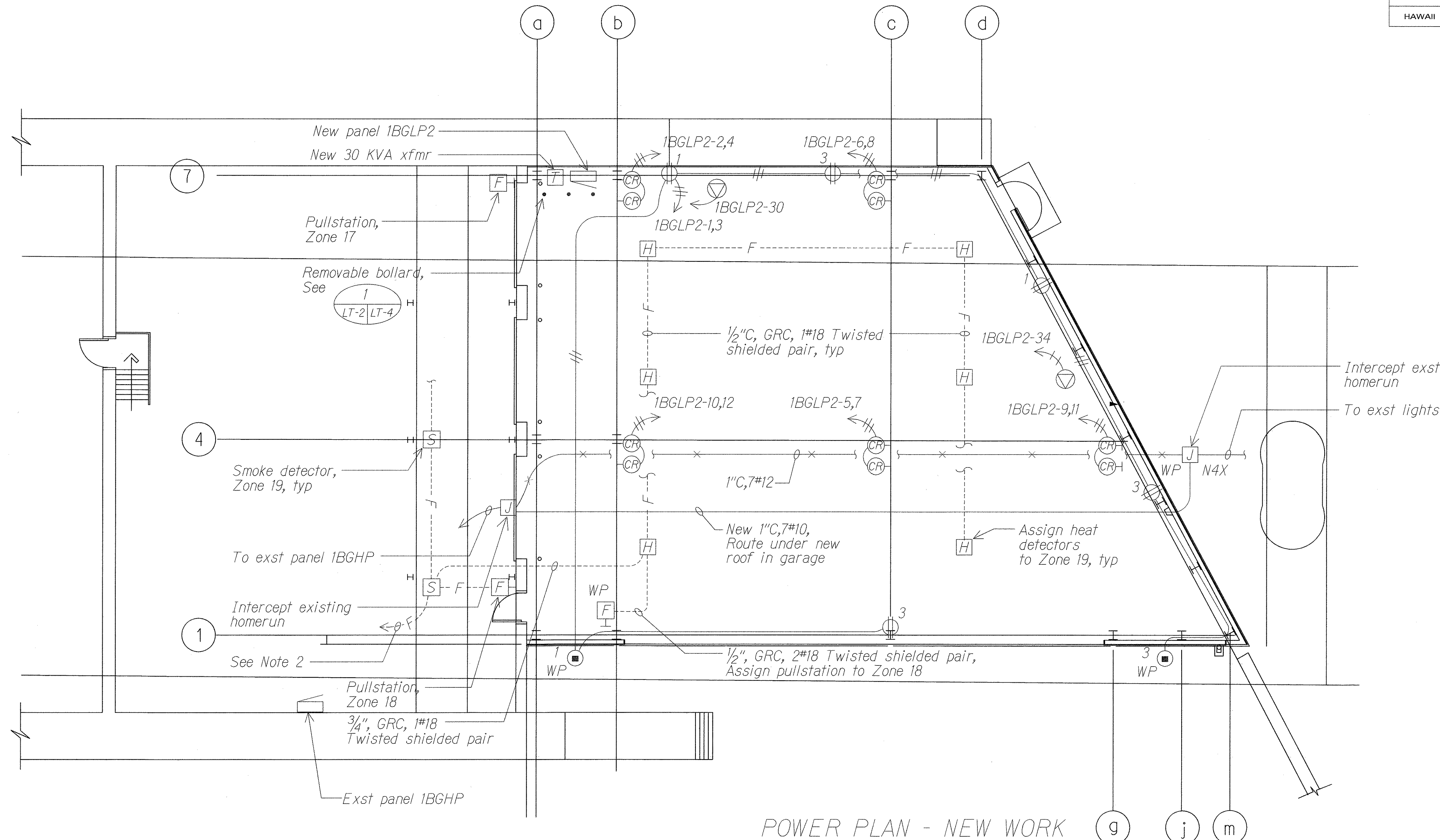
TUNNEL MAINTENANCE AREA
MODIFICATIONS, ELECTRICAL SYMBOLS &
ONE-LINE DIAGRAM

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-K75, UNIT VIIA

Scale: As Noted
Date: January, 2003

SHEET No.LT-1 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-K75, UNIT VIIA	2003	58	60



POWER PLAN - NEW WORK

Scale: 1/8" = 1'-0"

NOTES:

- Light lines indicate existing condition.
Bold lines indicate new work.
"X" Indicates removal work
- To existing fire alarm control panel at level 2. Panel is an Edwards Systems Technology, addressable panel. Provide necessary programming for new devies.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
N.	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>Paul K. Uyeda</i> 1/9/03 MK ENGINEERS, LTD.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TUNNEL MAINTENANCE AREA MODIFICATIONS, POWER PLAN - NEW WORK H-3 FINISH (UNIT VIIA) FAIP NO. I-H3-K75, UNIT VIIA
	Scale: As Noted
	Date: January, 2003
	SHEET No. LT-2 OF 4 SHEETS
	58

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1. The pipe that is to be replaced directly in front of the doors shall not be filled with concrete. The pipe shall be capped and the welded nuts are for screwing bolts to act as "handles" for lifting. The bolts are to be removed after installation.

Voltage:	120/208V,3PH,4W	Main bkr:	3P100A	Equipment ground bus:	Yes
Bus:	Copper	Type:	Bolt-on	Isolated ground bus:	No
Bus rating:	225A	Mount:	Surface	Feed thru lugs:	No
AIC:	10,000A	Enclosure:	NEMA X	U.L. listed as service	
			Stainless steel	entrance equipment:	No

Total KVA	19.4
Demand factor	0.8
Demand KVA	16.0
Demand Amps	43A @ 208V



PAUL K. UYEDA
LICENSED
PROFESSIONAL
ENGINEER
No. 7648-E
HAWAII, U.S.A.

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Paul K. Uyeda 1/1/03
MK ENGINEERS, LTD.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL MAINTENANCE AREA
MODIFICATIONS, PANEL SCHEDULE
AND DETAIL

H-3 FINISH (UNIT VIIA)
FAIP NO. I-H3-K75, UNIT VIIA

Scale: As Noted
Date: January, 2003