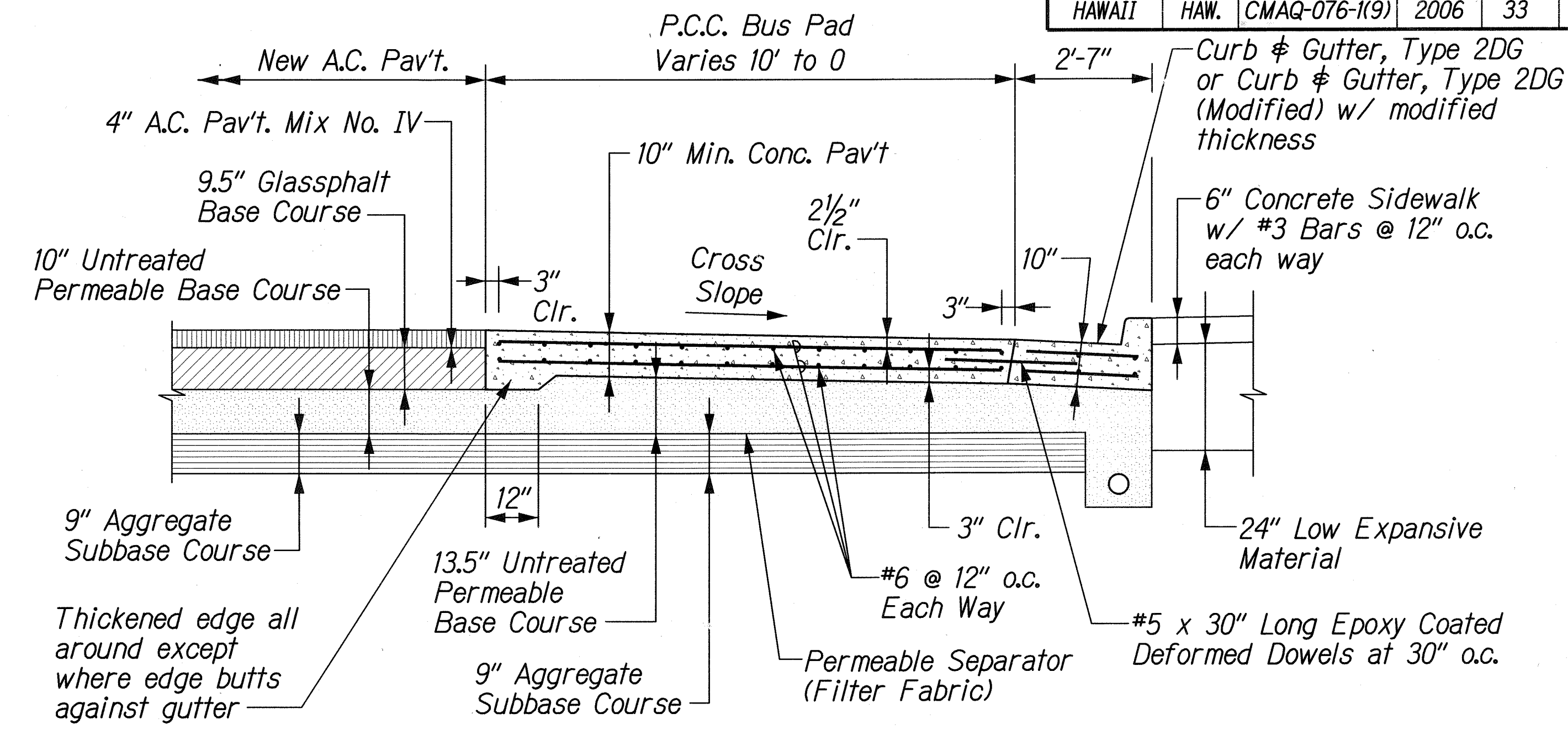
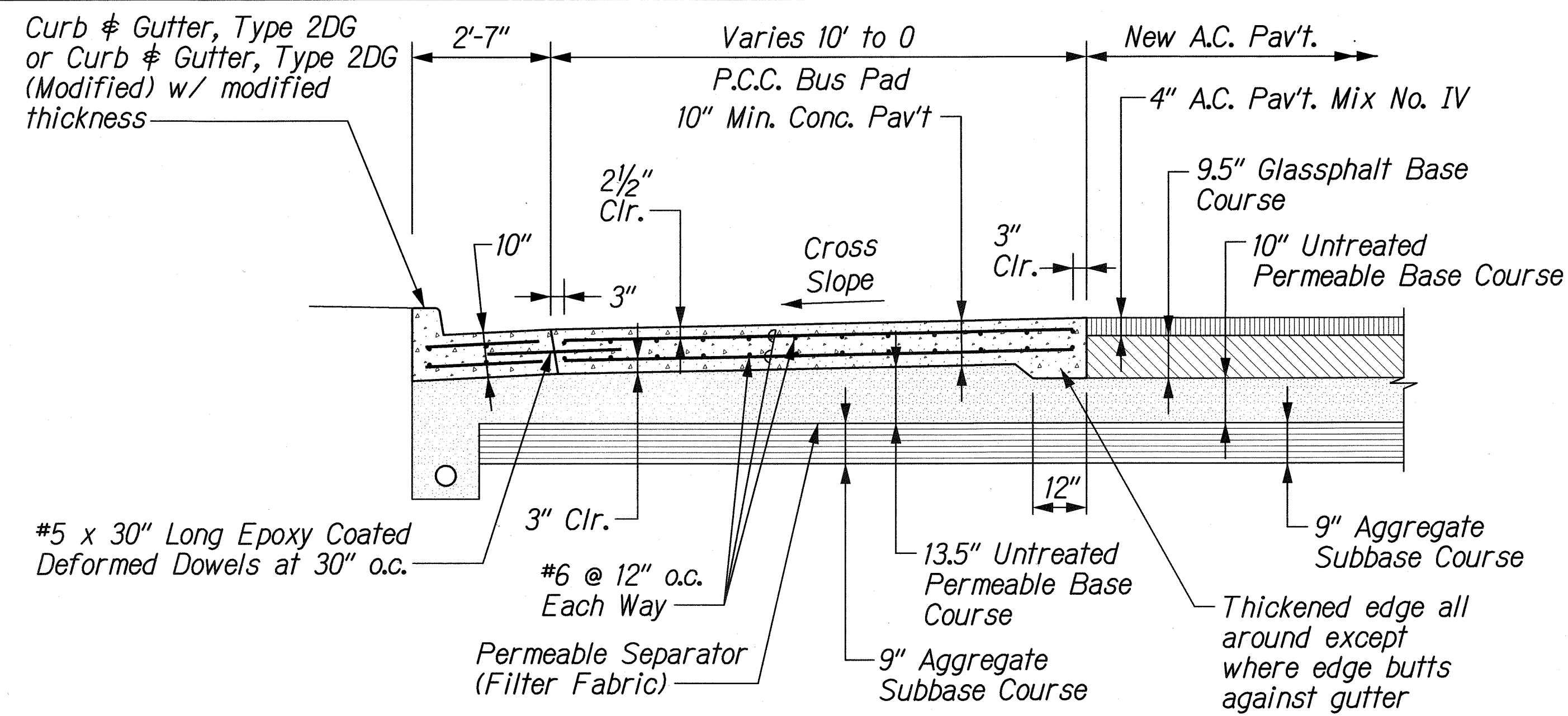
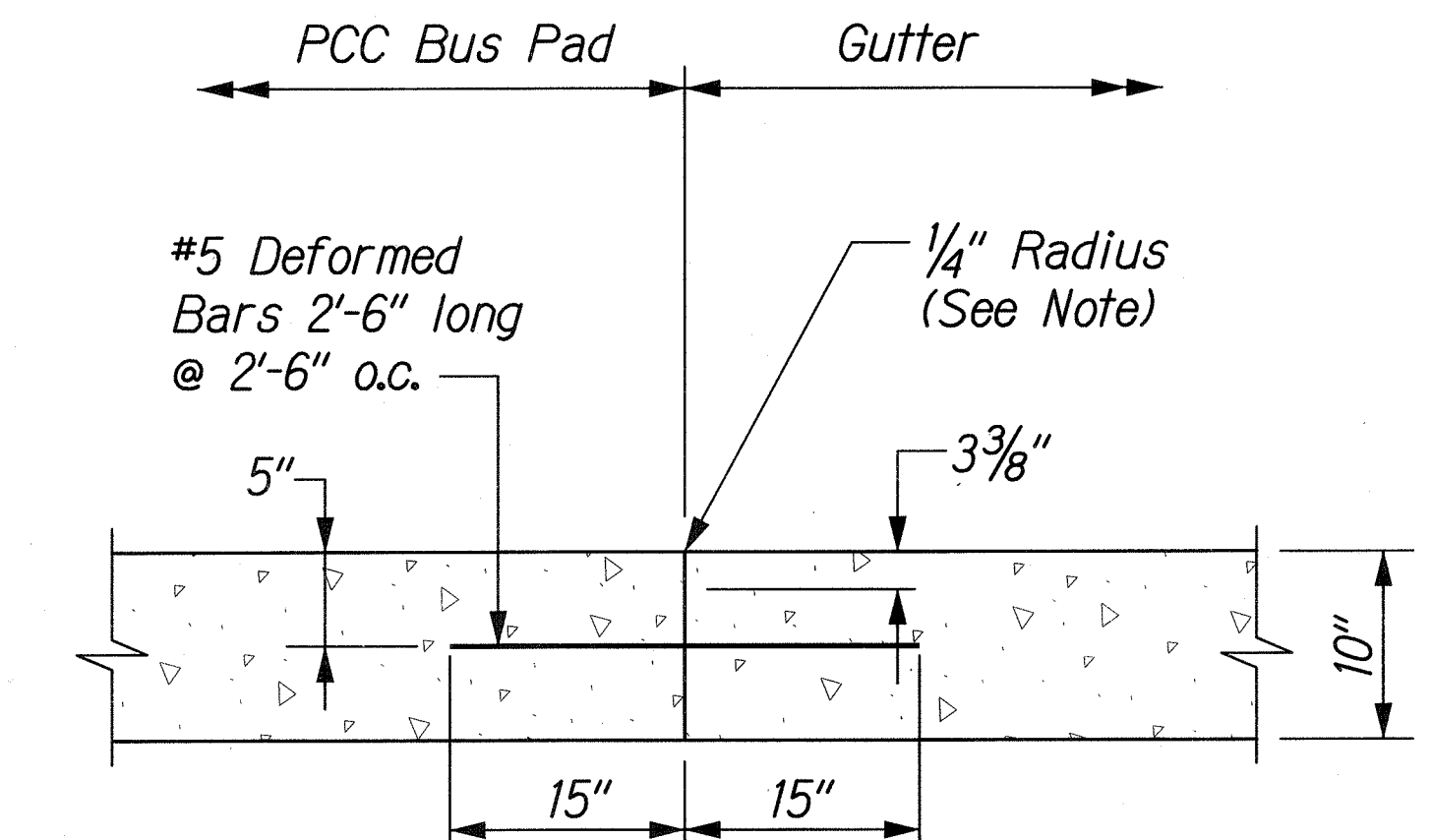
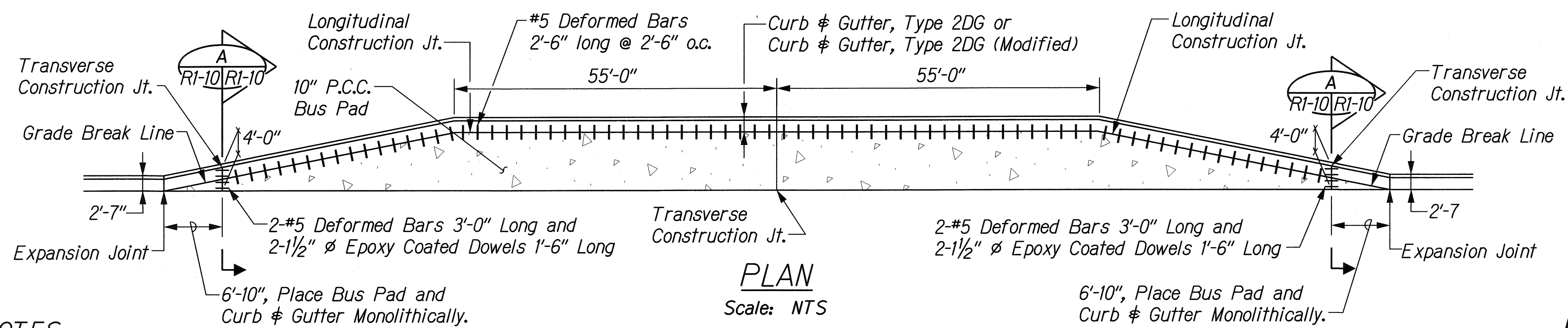


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	33	160



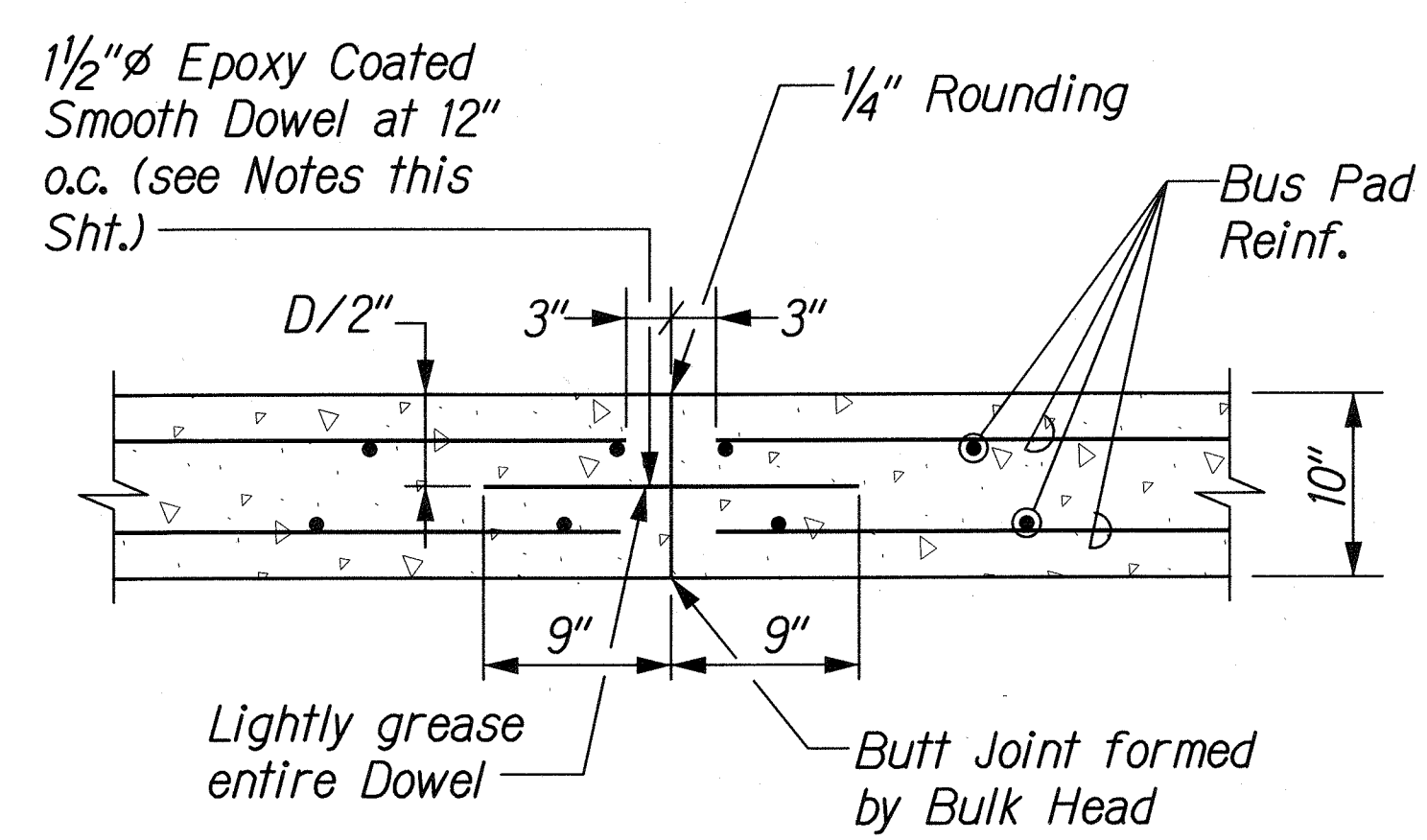
- NOTES:**
- INBOUND BUS STOP**
- Provide a constant grade on the new P.C.C. Bus Pad.
 - Provide continuously reinforced Bus Pad without transverse joints.
 - All surface corners shall be edged, $R=1/4"$.

P.C.C. BUS PAD PAVEMENT SECTIONS
Scale: NTS

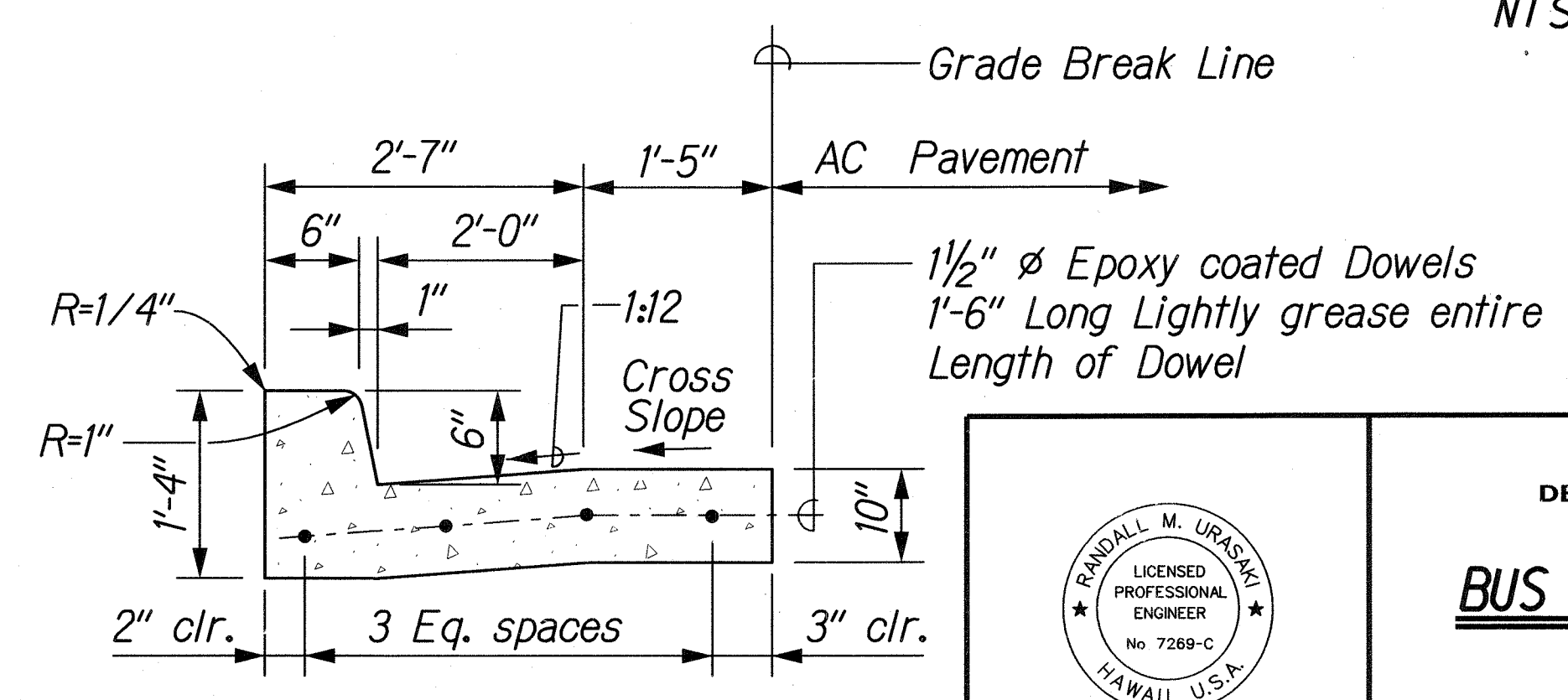


LONGITUDINAL CONSTRUCTION JOINT ALONG GUTTER
NTS

- NOTES:**
- Epoxy Coated Dowels and Deformed Bars shall conform to AASHTO M 284/M 284M/M-95 Grade 60.
 - The dowels shall be positioned parallel to centerline direction of traffic and within the plane of the roadway surface. The ends of the dowels shall not deviate more than 0.01' from the parallel in 9" length.
 - The Contractor shall not damage the epoxy coating on the dowels and deformed bars in any way during shipment, handling, or placement. Damaged epoxy coated dowels and deformed bars shall be replaced at no cost to the State.
 - Minimum Distance Deformed Bars are to be located from a Transverse Joint is 15 inches. Deformed Bars closer to the Transverse joint can interfere with Joint Movement.
 - Forms shall be used for the PCC Bus Pad.



TRANSVERSE CONSTRUCTION JOINT DETAIL
NTS



SECTION A
Scale: NTS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUS PAD PAVEMENT SECTION AND DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: None Date: Sept. 20, 2007

SHEET No RI-10 OF 39 SHEETS

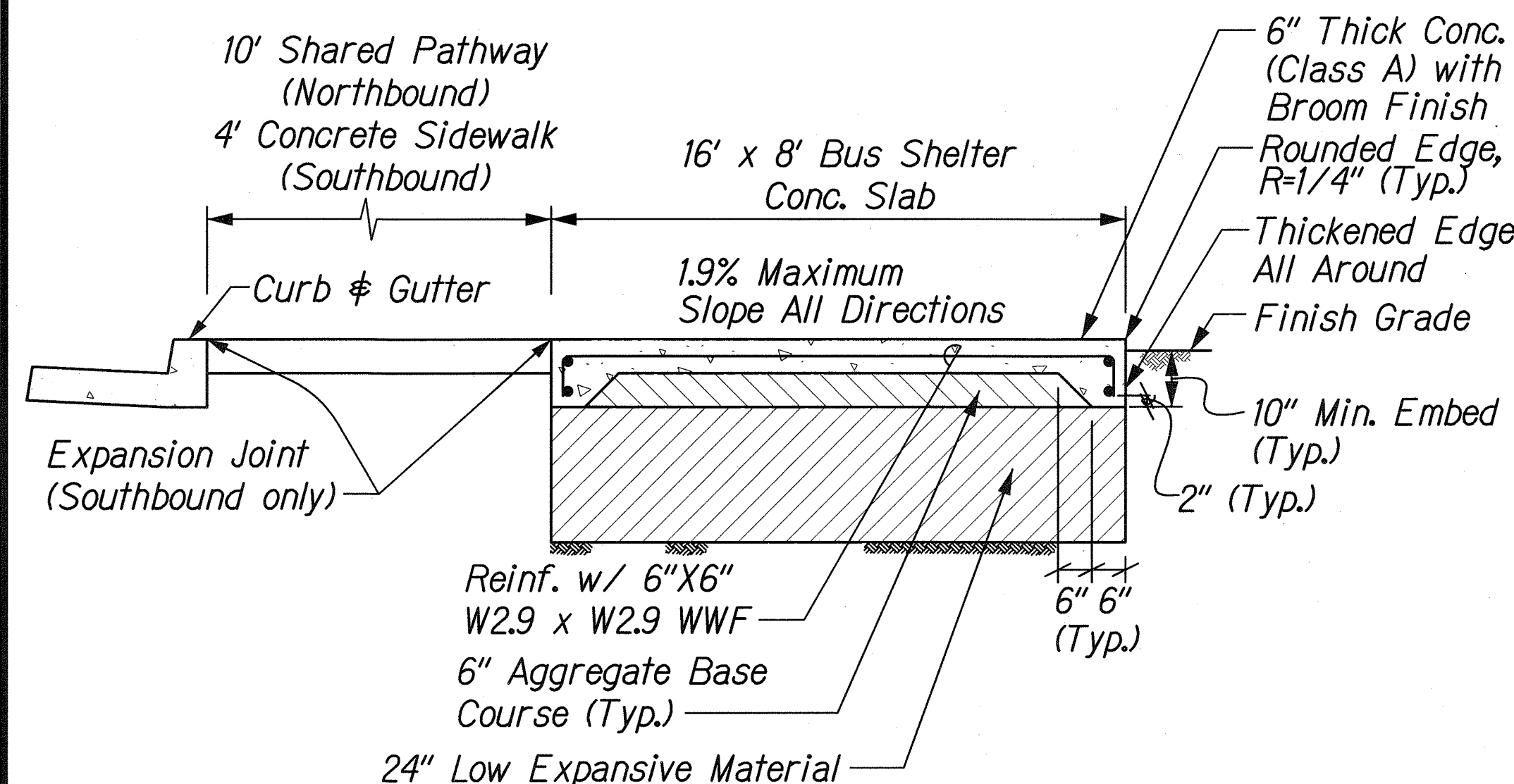
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

RANDALL M. URASAKI
LICENSED PROFESSIONAL ENGINEER
No. 7269-C
HAWAII, U.S.A.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
FILE NO.	

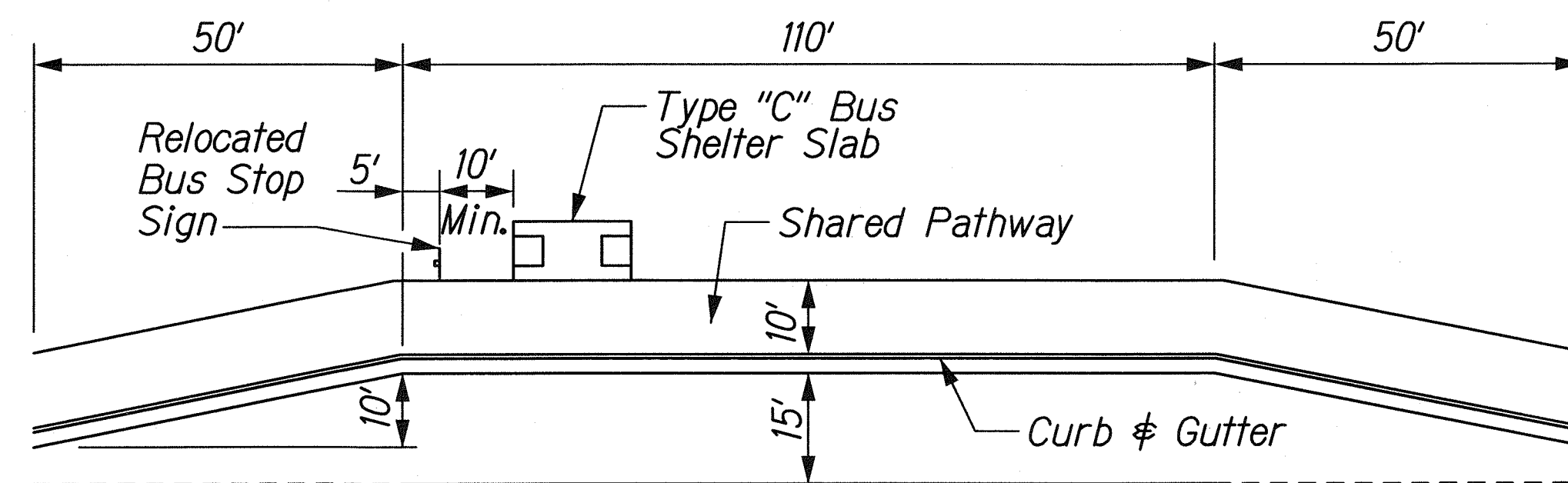
J:\FORT WEAVER ROAD\ROAD\BUSPAD\01.dgn

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	34	160



CONC. SLAB FOR BUS SHELTER TYPE "C"

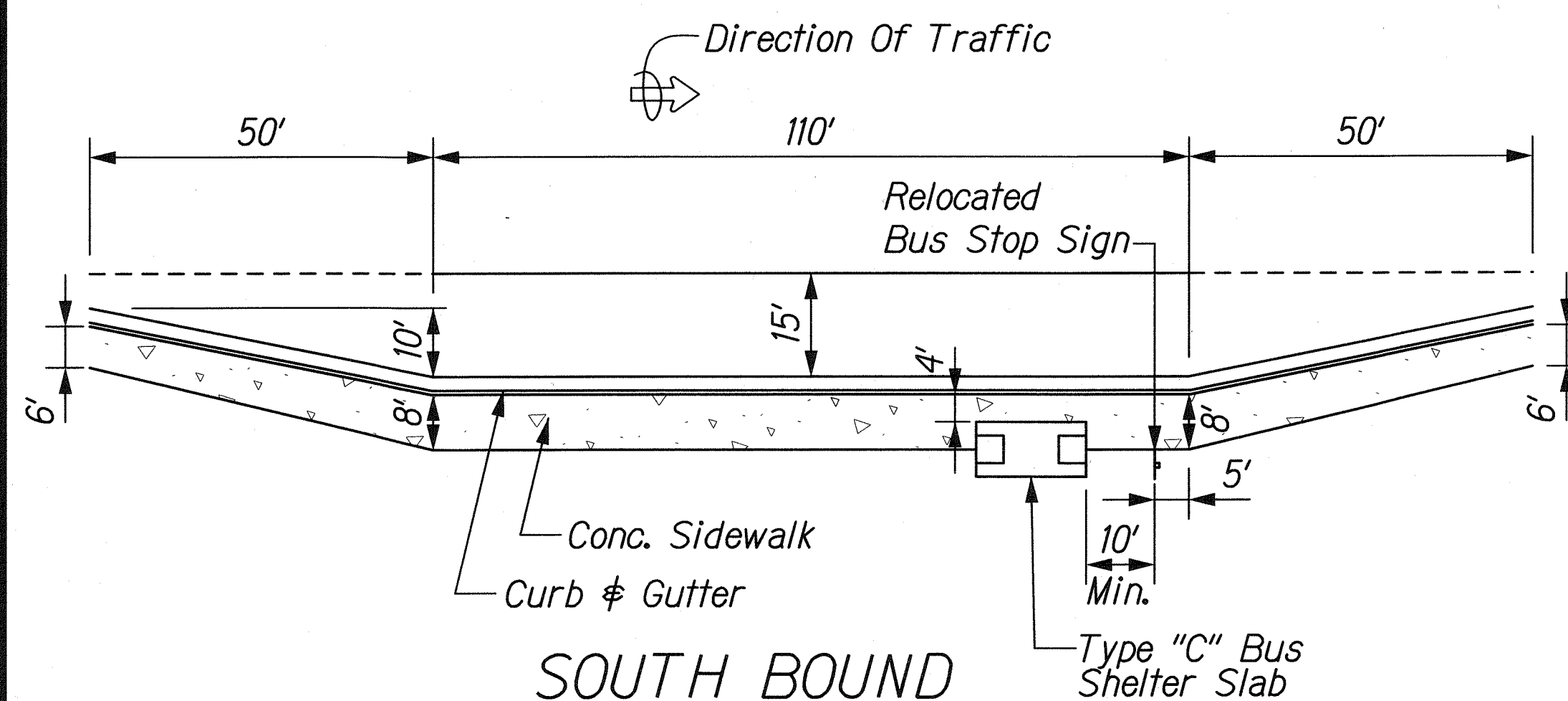
Scale: 1/2"=1'-0"



NORTH BOUND

TYPICAL BUS SHELTER TYPE "C" LOCATION

Scale: 1" = 20'



SOUTH BOUND

TYPICAL BUS SHELTER TYPE "C" LOCATION

Scale: 1" = 20'

BUS STOP GENERAL NOTES

A. ARCHITECTURAL NOTES:

1. Carpentry
 - a. Recycled Plastic Lumber: High density polyethylene plastic lumber product- 'Durawood' by Eaglebrook Companies, distributed by Janus et Cie ph. 800 245-2687 (or approved equal), in sizes as indicated for side panels, in square edge profile, in "Weathered Redwood" integral color finish and fasten with stainless steel/flat head screws.
 - b. Roof sheathing: 5/8" T-11 plywood, Ruf-Sawn Douglas Fir, with grooved pattern @ 4" o.c.
2. Roofing
 - a. Metal Panel Roof: Through fastened sheet metal panels, "Maxi-Rib" profile as manufactured by Jorgensen Steel & Aluminum (or approved equal), 24 Ga. steel with factory applied pre-painted exterior color finish- "Maile Green" coating, with stainless steel screw/washers fasteners. Accessories (ridge cap, dutch gutter, eave flashings, etc.) of galv. steel with matching "Maile Green" factory applied pre-painted exterior color coating.
 - b. Wood Shingle Roof: Red cedar shingles, No. 1, hand split and re-sawn, finished with 2 coats of Thompson's Water Seal. Roof accessories (dutch gutter, eave flashings, etc.) shall be of galv. steel with factory applied exterior color-finish- "Kiawe Brown" as manufactured by Jorgensen Steel and Aluminum or approved equal, with stainless steel hardware fasteners.
3. Painting
 - a. Wood: All exposed surfaces - 1 coat base tannin bleed primer and 2 coats Cabot O.V.T. Solid Color Stain (or approved equal.) - Field color - 'Dune Gray' - 67. - Roof fascia trims to match recycled plastic lumber "Weathered Redwood".
 - b. Exposed Metals and Fasteners: 1st coat Ameron Galvaprep primer, 2nd coat Ameron Amerlock 400, 5.0 mils DFT, 3rd coat PSX Polysiloxane Epoxy, 5.0 mils MDF. Shop painted with spray application to achieve specified mil thickness of 5.0 except fasteners to be field painted (or approved equal), to match Cabot's 'Dune Gray' - 67, except diagonal steel bracket at type A to match recycled plastic lumber "Weathered Redwood" color.

B. STRUCTURAL NOTES:

1. Design Loads:
 - Roof Live Load: 20 psf
 - Wind Velocity: 80 mps, exposure D per UBC 1994
 - Seismic: Zone 2A, per UBC 1994

2. Foundations:

- a. All footings shall bear on firm, recompact in-site soils.
 - b. Slabs on grade shall bear on 4" of #3B Fine (ASTM C33, No. 67 gradation) at over compacted subbase. If soft or expansive soil is encountered, the soil shall be removed and replaced with non-expansive structural fill and compacted to 90% of maximum relative density in accordance with ASTM D-1557. Thickened slab edges shall be embedded at least 8" below lowest adjacent grade.
 - c. Allowable soil bearing pressure shall be 2000 psf.
- ### 3. Reinforced Concrete
- a. Concrete for footings and slab on grade shall have minimum 28 days compressive strength f'c=3000 psi with maximum w/c ratio=0.55. The delivery tickets shall state the amount of water that may be added to the concrete at the jobsite.
 - b. Notify Dept. of Transportation Services, Contracting officer 3 days prior to pouring footings and slabs.
 - c. Contractor shall submit concrete mix designs to contracting officer for review.
- ### 4. Reinforcing Steel
- a. Reinforcing bars shall conform to ASTM A615, Grade 60. Provide 43 diameter (2'-0" minimum) lap splice at all splices, intersections, and corners.
 - b. The following minimum cover shall be provided for reinforcement:
 - Concrete cast against and permanently Exposed to earth: 3"
 - Formed concrete exposed to earth: 2"
 - Concrete exposed to the weather: 1-1/2"

5. Timber Members

- a. All wood members shall be Douglas Fir-Larch, Hi-Bor treated. All timber shall be stamped S-dry, KD or MC15. Treat all cut ends as required by code.
- b. All wood beams and posts shall be No. 2 Grade or better; roof rafters shall be No. 2 Grade or better.
- c. Plywood Nailing Schedule:
 1. Roof plywood (5/8" thick, C-D exterior, Hi-Bor treated)
 - 8d @ 4" at panel edges
 - 8d @ 10" at intermediate framing members
 2. Plywood shall be laid perpendicular to framing members.

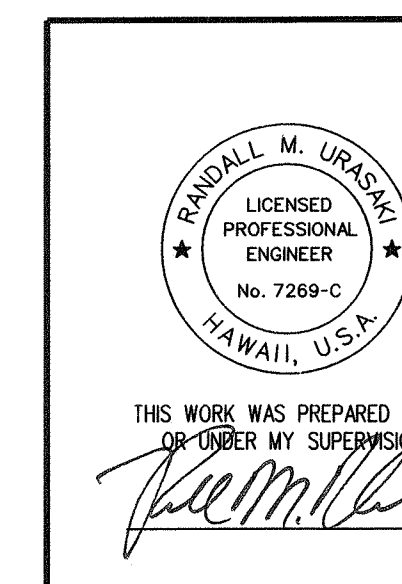
- d. Unless otherwise shown, the nailing schedule Table 23-I-Q in the 1994 UBC shall be followed. Common galvanized nails shall be used.

- e. Provide and install 1/4" diameter x 5" long screws at each rafter support. Connect beam to post with 3/4" diameter x 12 lag bolt.
- f. Provide and install 30# paper separation between wood and concrete.
6. Structural Steel
 - a. All structural steel plates and shapes shall conform to ASTM A36 and shall be hot-dipped galvanized.
 - b. Bolts and anchor bolts shall conform to ASTM A307, and shall be hot-dipped galvanized.
 - c. Simpson Light-Gage Connectors shall be used where shown.
7. Items required to be specially inspected by UBC Sect. 1701:
 - a. Straps used to resist uplift and hold-downs.
8. All dimensions (including heights) shall be verified by the Contractor. If there are discrepancies, the contracting officer shall be notified immediately. As a minimum, all construction shall conform to the requirements of all applicable codes and regulations and of standards referenced above. Features of construction shown are typical and they shall apply generally throughout for similar conditions. Modify typical details as directed to meet special conditions. The Contractor is responsible for providing temporary erection required for structural stability of the structure during all phases of construction.

9. Contractor shall submit in writing any request for modification to the plans and specifications. Unless changes are submitted in writing and approved by the Dept. of Transportation Services, changes or modifications to the plans and specifications before the responsibility of the person initiating such changes.

DATE	_____
DESIGNED BY	_____
TRACED BY	_____
NOTE BOOK	_____
QUANTITIES BY	_____
CHECKED BY	_____

4-FORT WEAVER ROAD/ROAD/BUSDET02.dgn



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUS STOP DETAILS AND NOTES

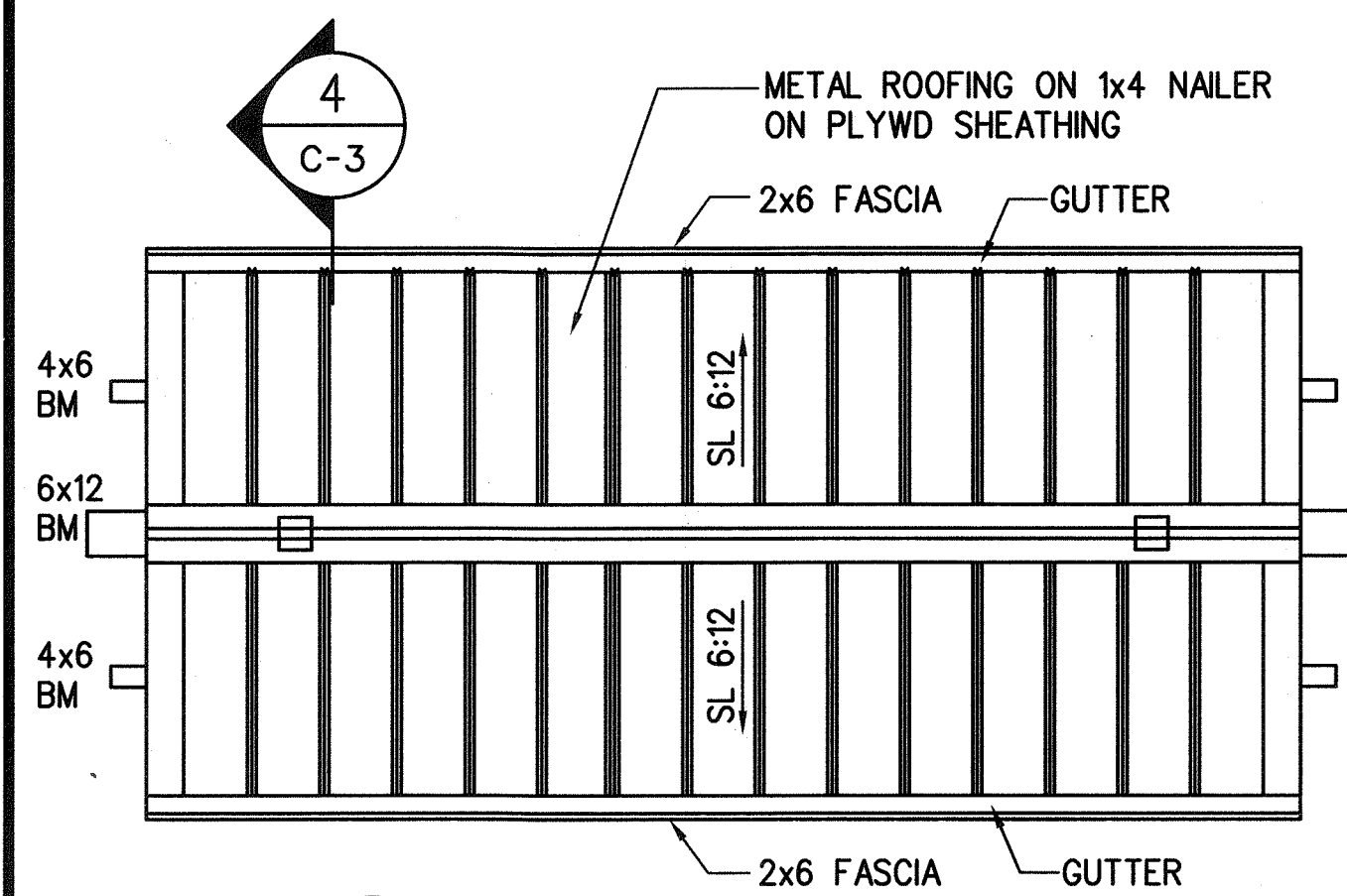
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: None

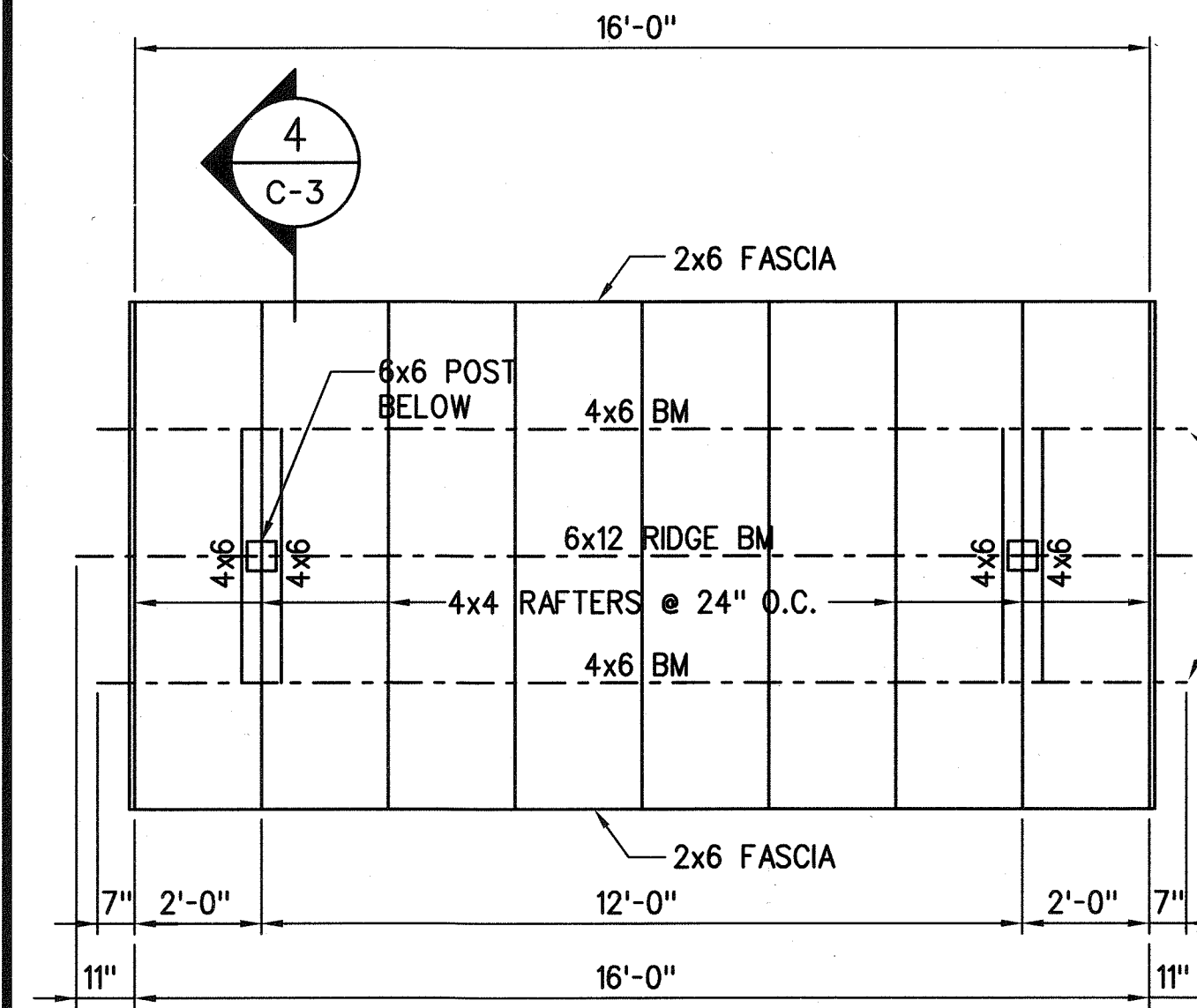
Date: Sept. 20, 2007

SHEET No. RI-II OF 39 SHEETS

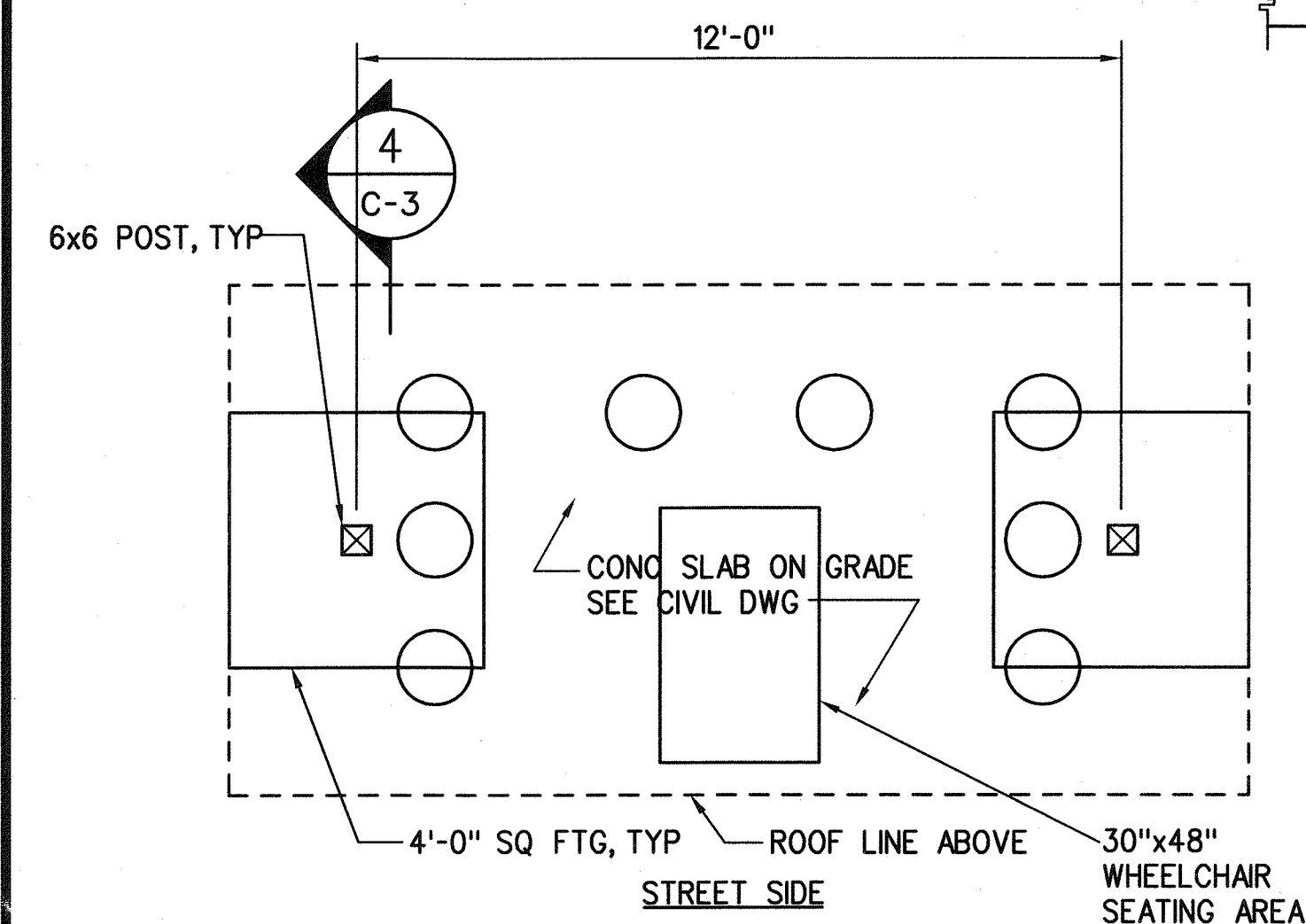
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	35	160



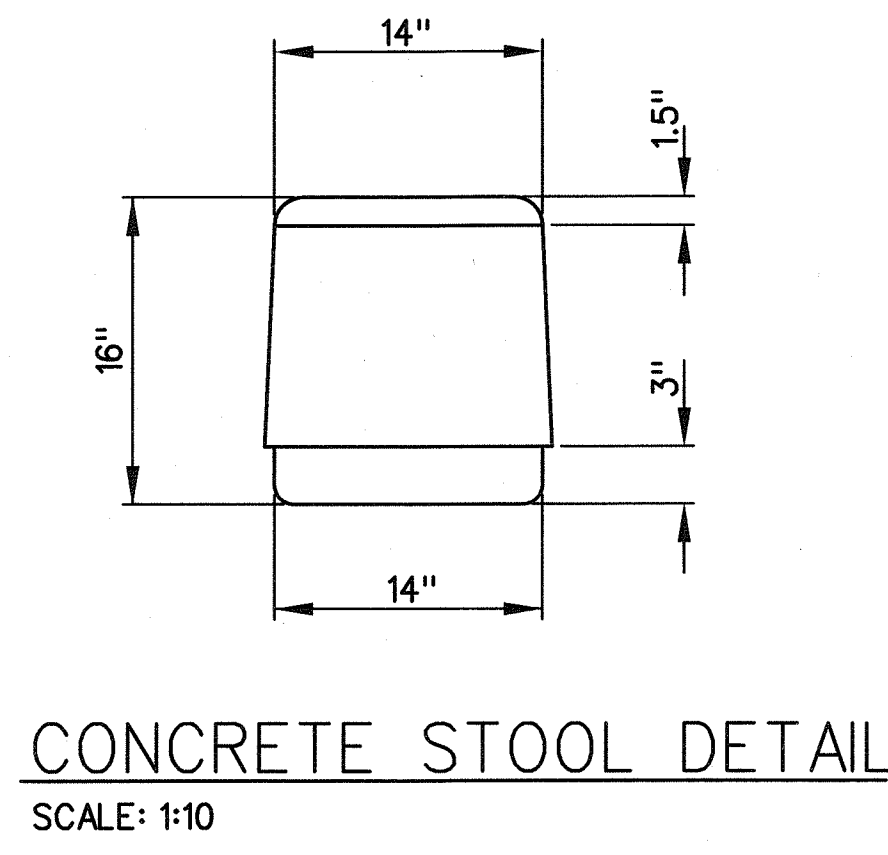
3 ROOF PLAN
C-3 SCALE: 3/8"=1'-0"



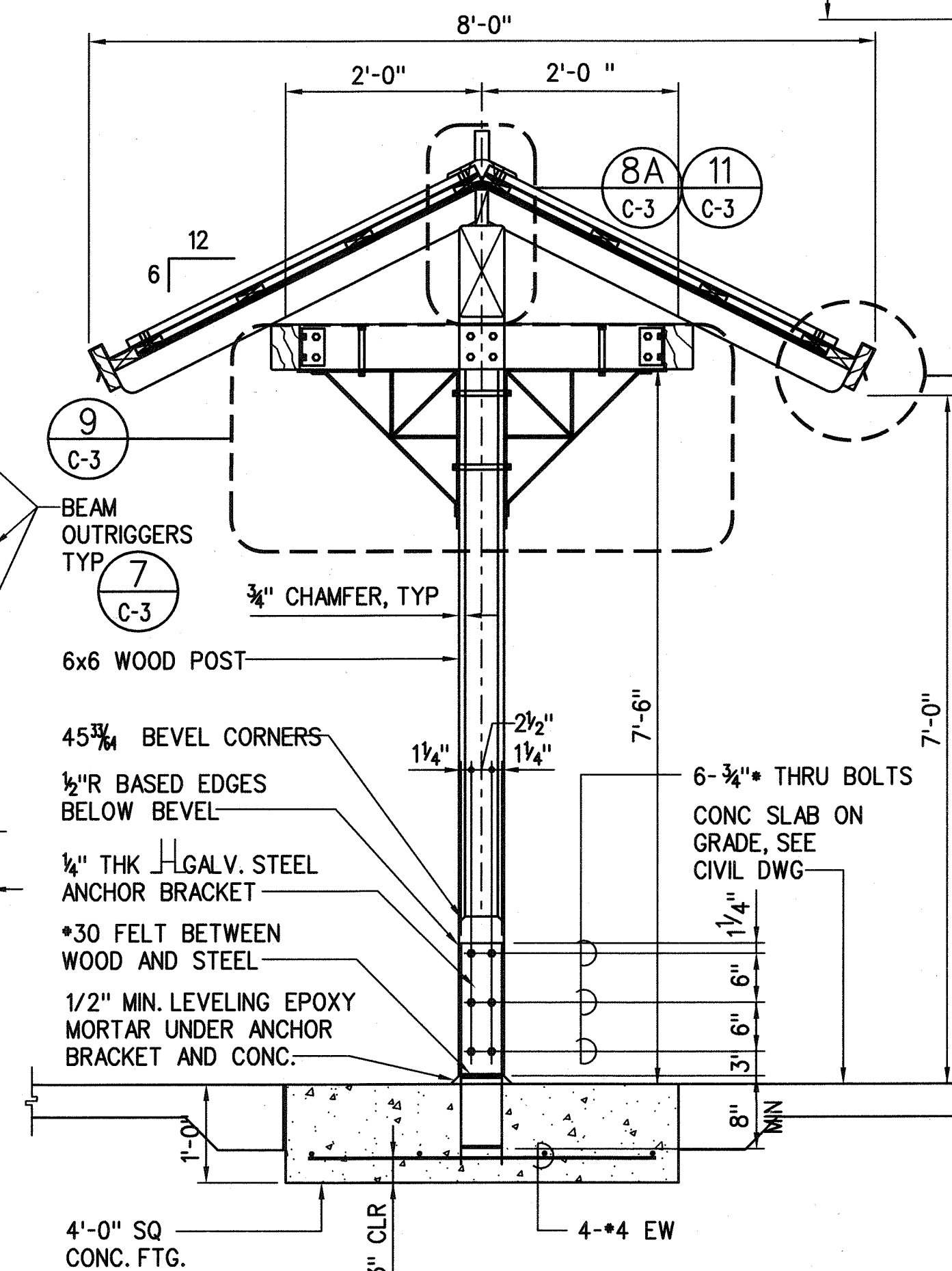
2 ROOF FRAMING PLAN
C-3 SCALE: 3/8"=1'-0"



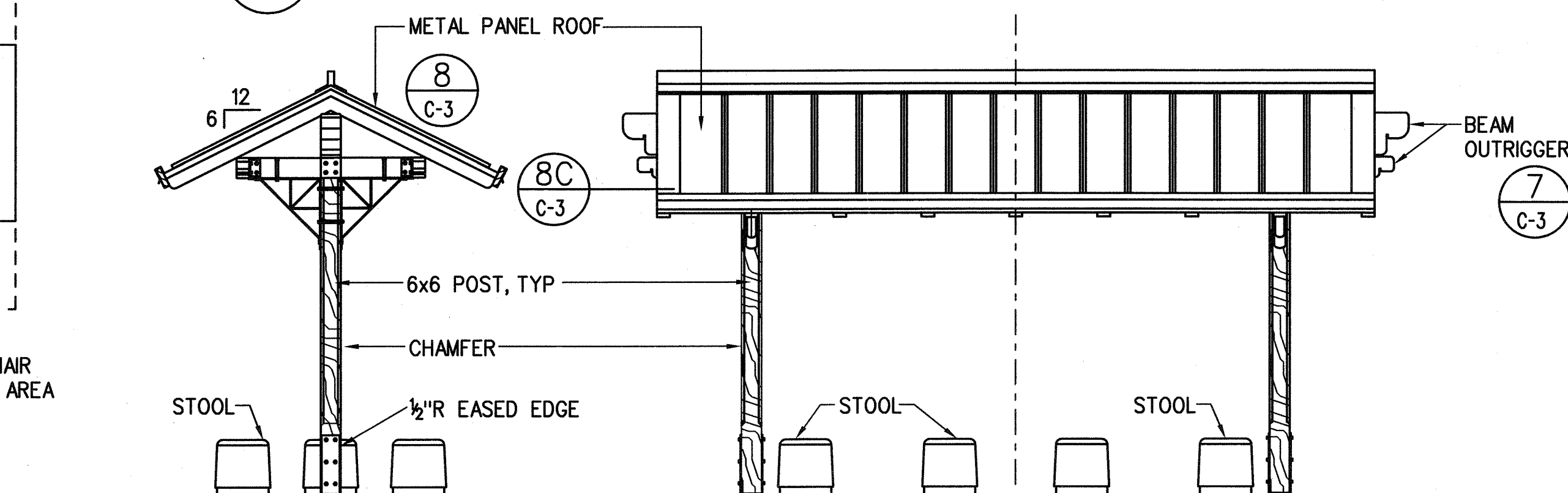
1 FLOOR PLAN
C-3 SCALE: 3/8"=1'-0"



CONCRETE STOOL DETAIL
SCALE: 1:10

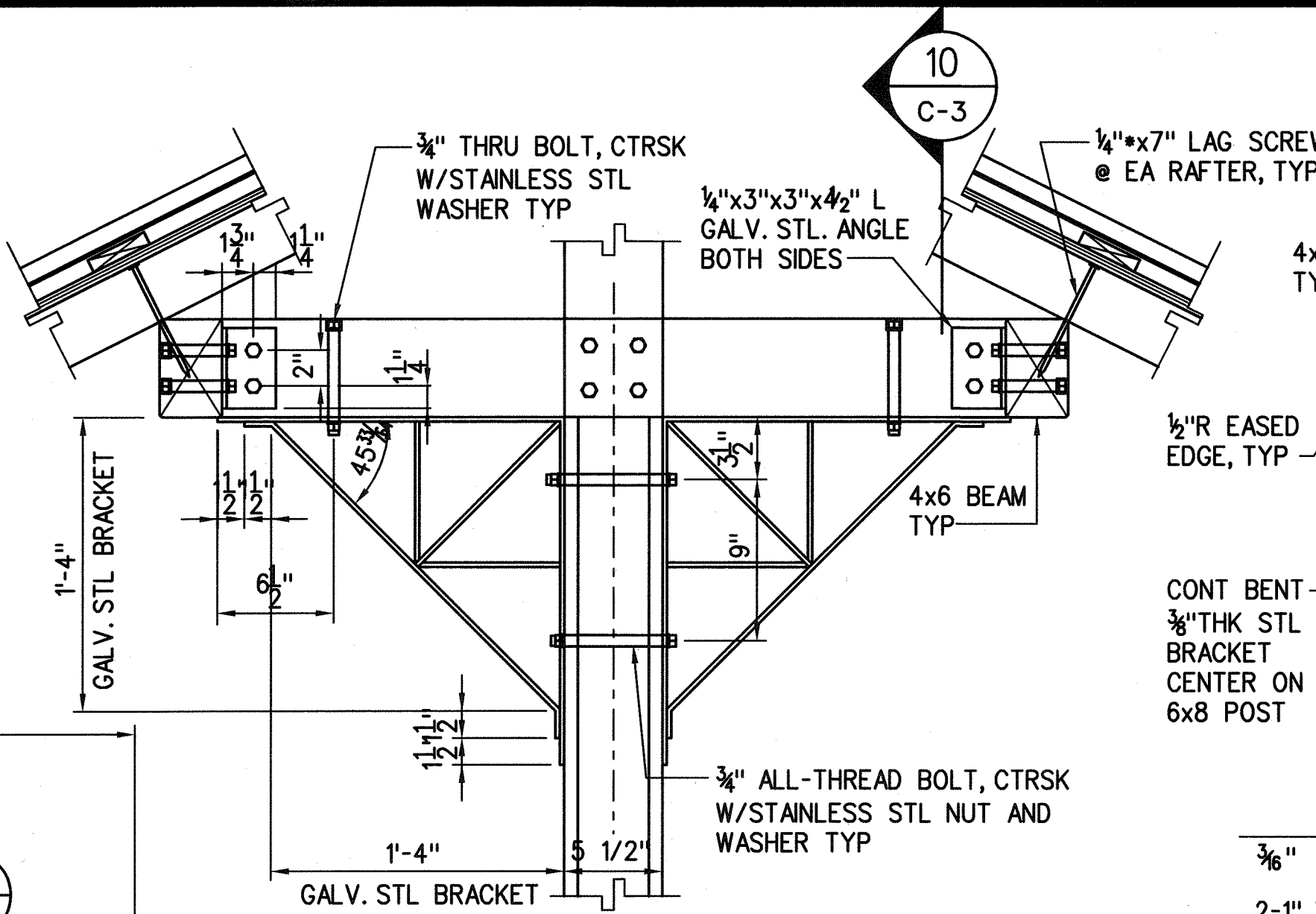


4 TYPICAL SECTION
C-3 SCALE: 3/4"=1'-0"

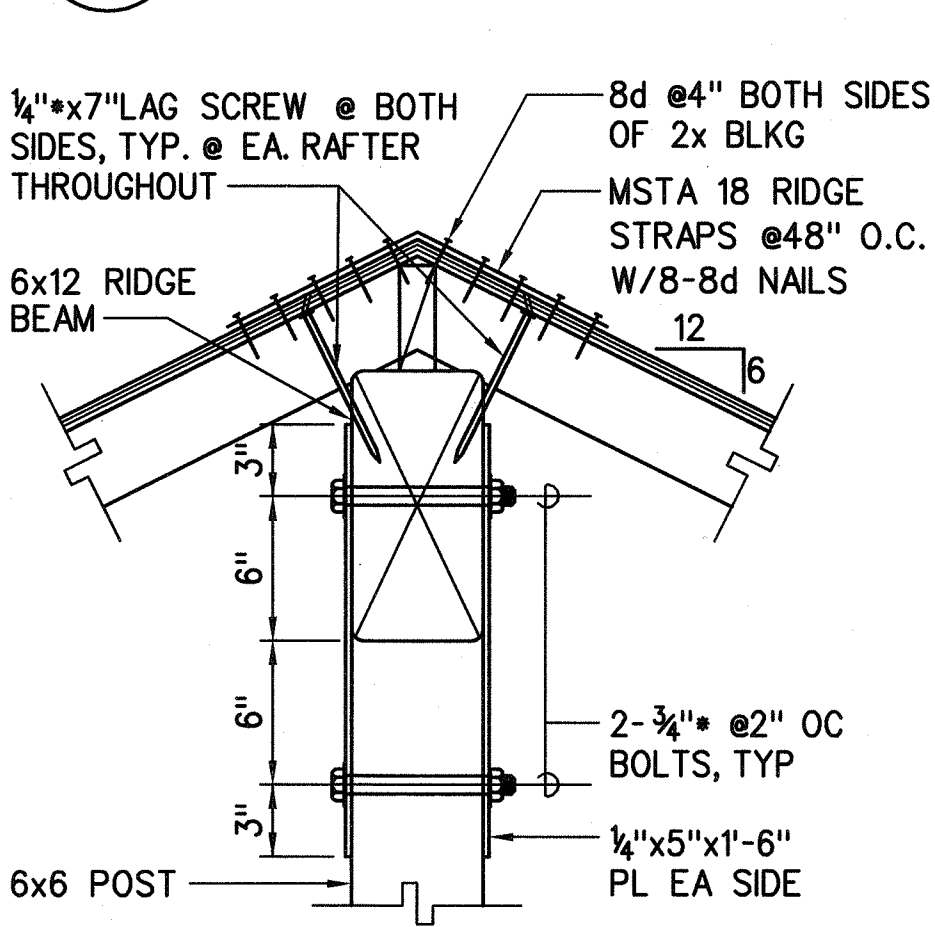


5 LEFT/RIGHT ELEVATION
C-3 SCALE: 3/8"=1'-0"

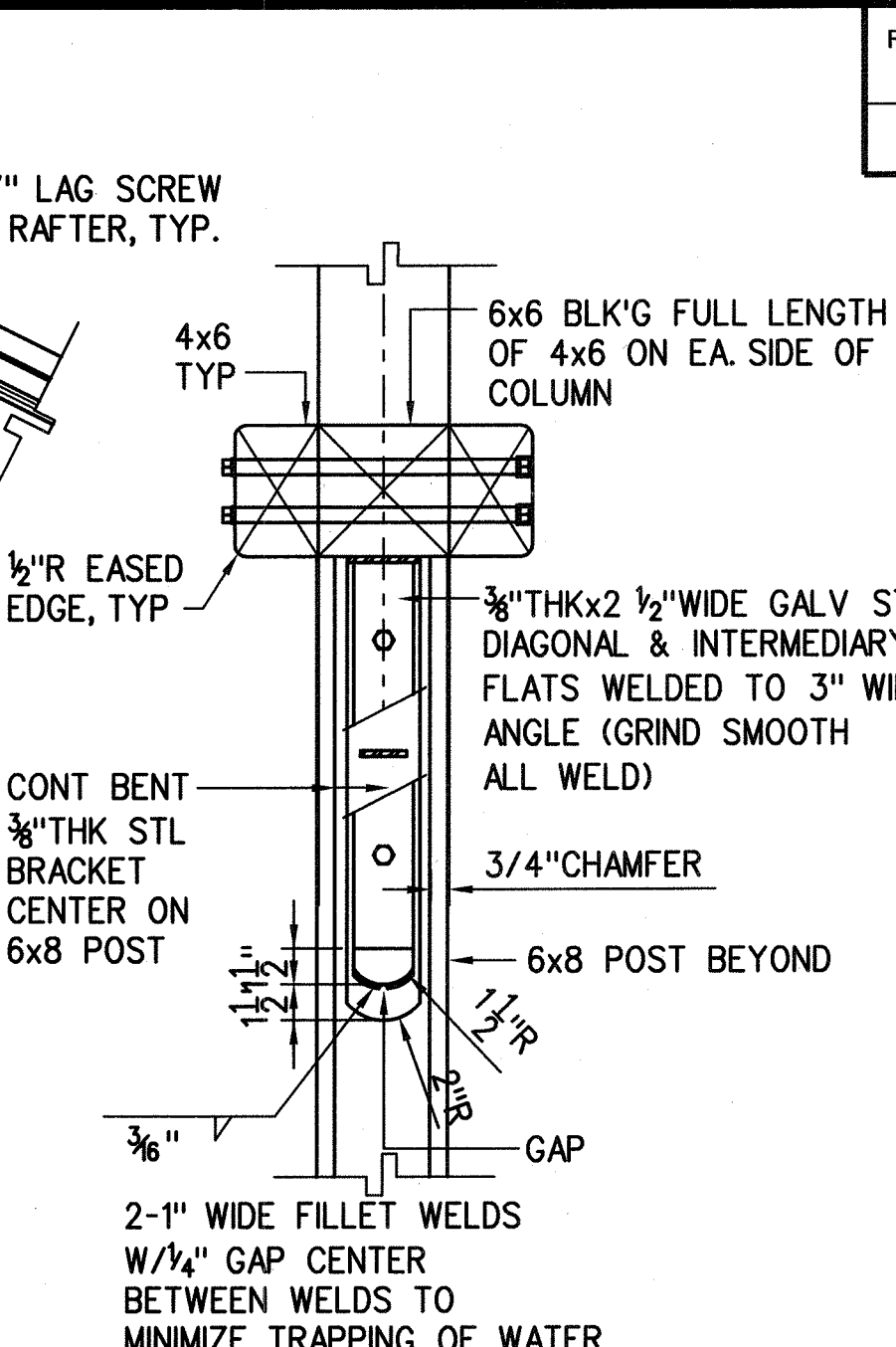
6 FRONT/REAR ELEVATION
C-3 SCALE: 3/8"=1'-0"



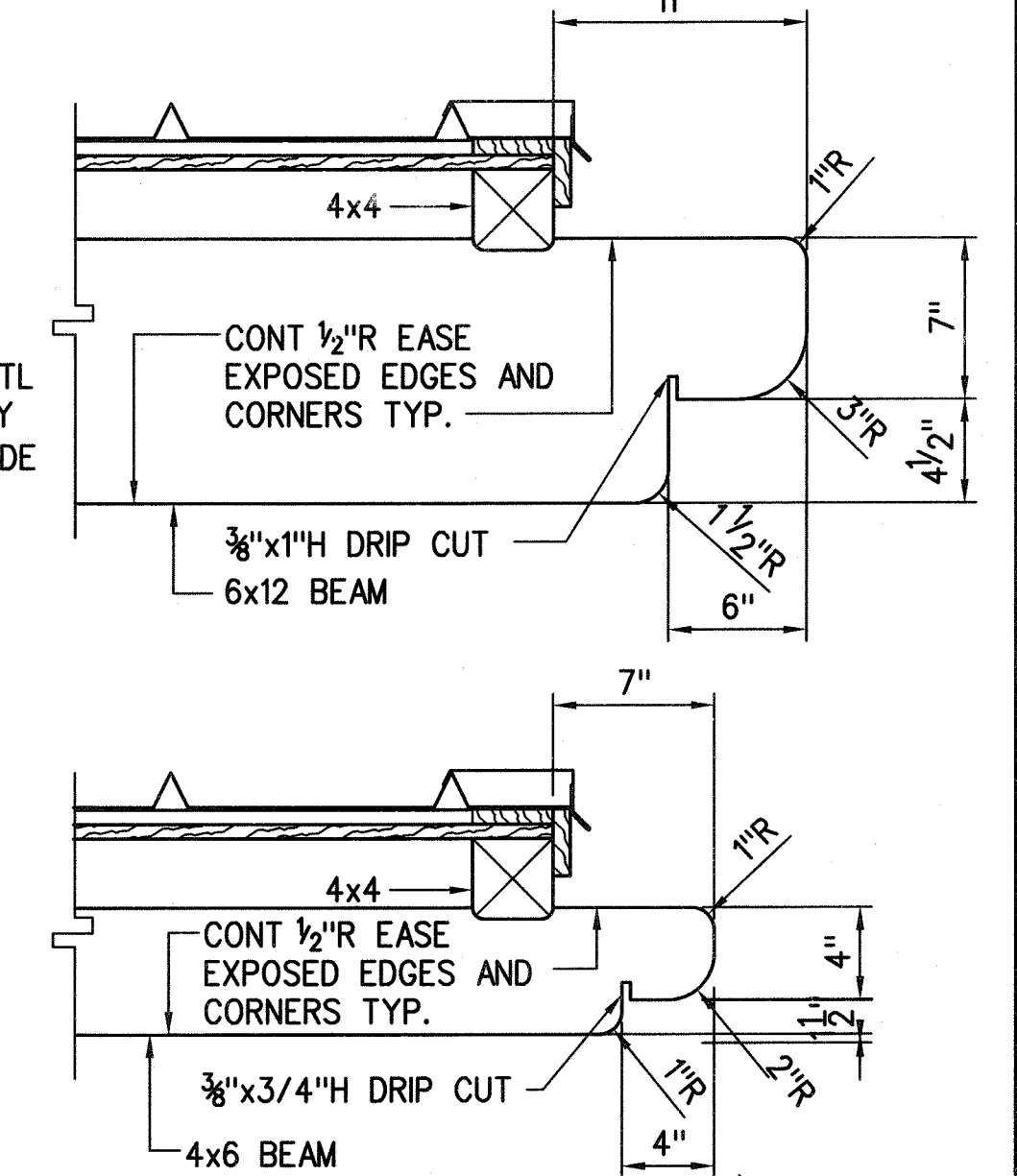
9 DETAIL
C-3 SCALE: 1 1/2"=1'-0"



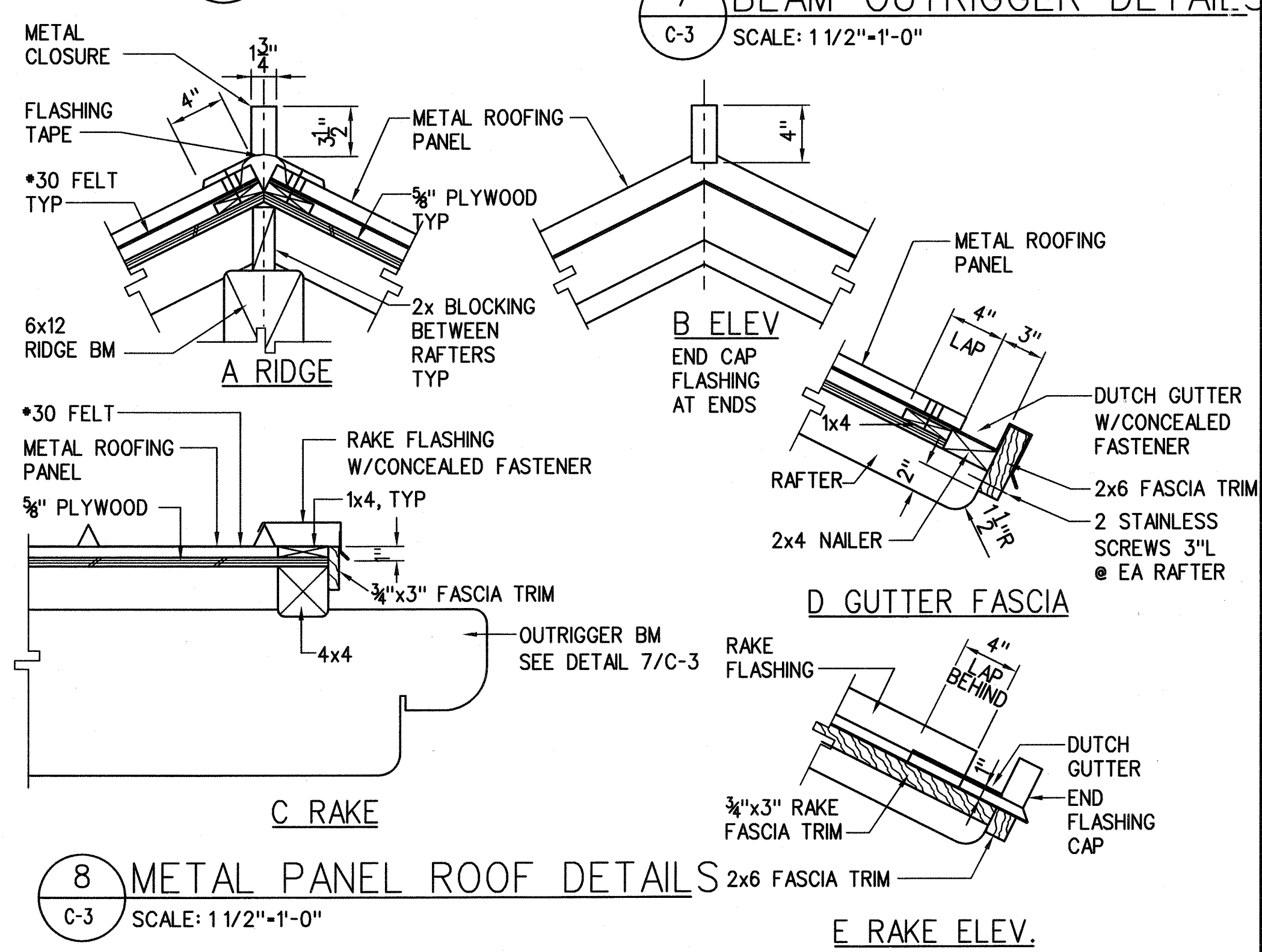
11 RIDGE ANCHORING
C-3 SCALE: 1 1/2"=1'-0"



10 DETAIL
C-3 SCALE: 1 1/2"=1'-0"



7 BEAM OUTRIGGER DETAILS
C-3 SCALE: 1 1/2"=1'-0"



8 METAL PANEL ROOF DETAILS
C-3 SCALE: 1 1/2"=1'-0"

7 BEAM OUTRIGGER DETAILS
C-3 SCALE: 1 1/2"=1'-0"

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
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NOTE BOOK	_____
QUANTITIES BY	_____
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE "C" BUS SHELTER

FORT WEAVER ROAD WIDENING
VICINITY OF AWA DRIVE TO GEIGER ROAD

Scale: As Noted Date: Sept. 20, 2007

SHEET No. RI-12 OF 39 SHEETS