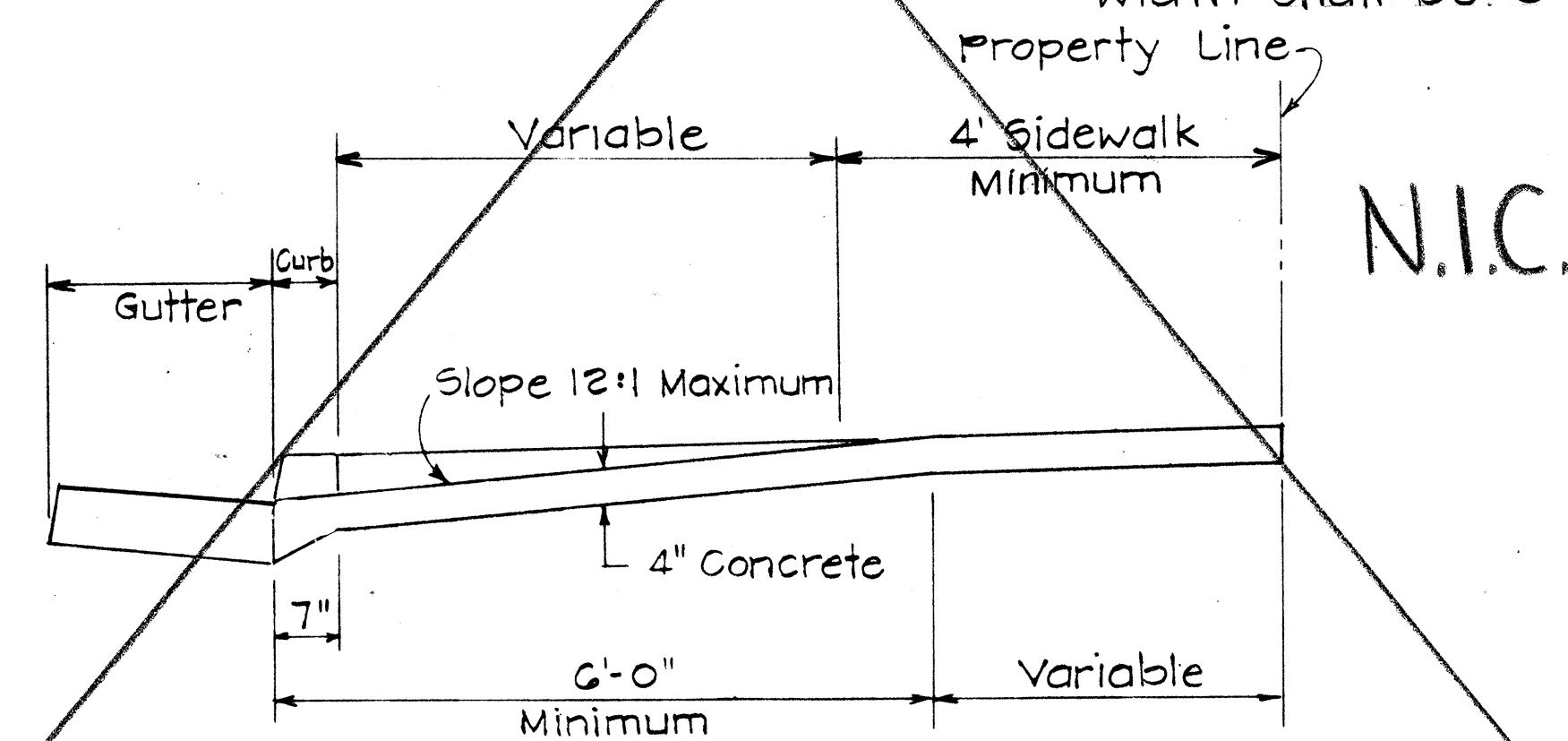
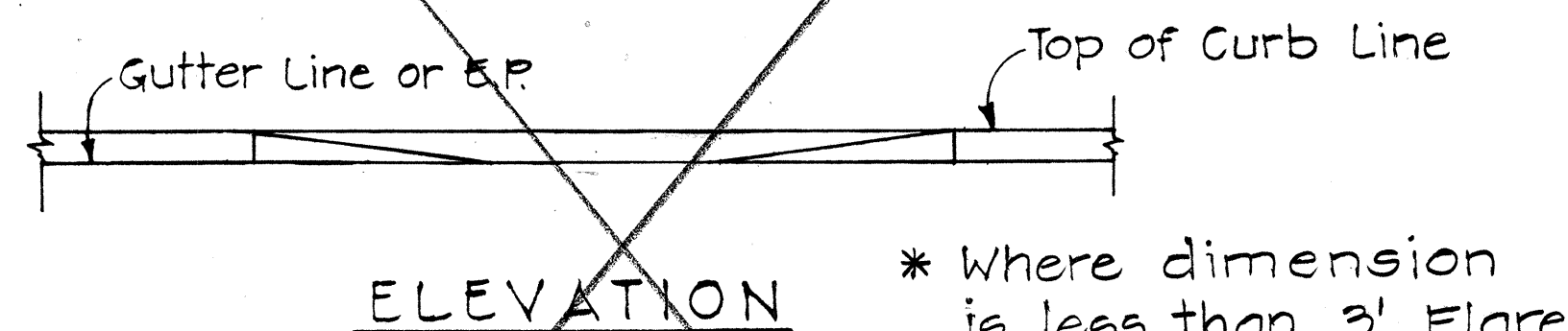
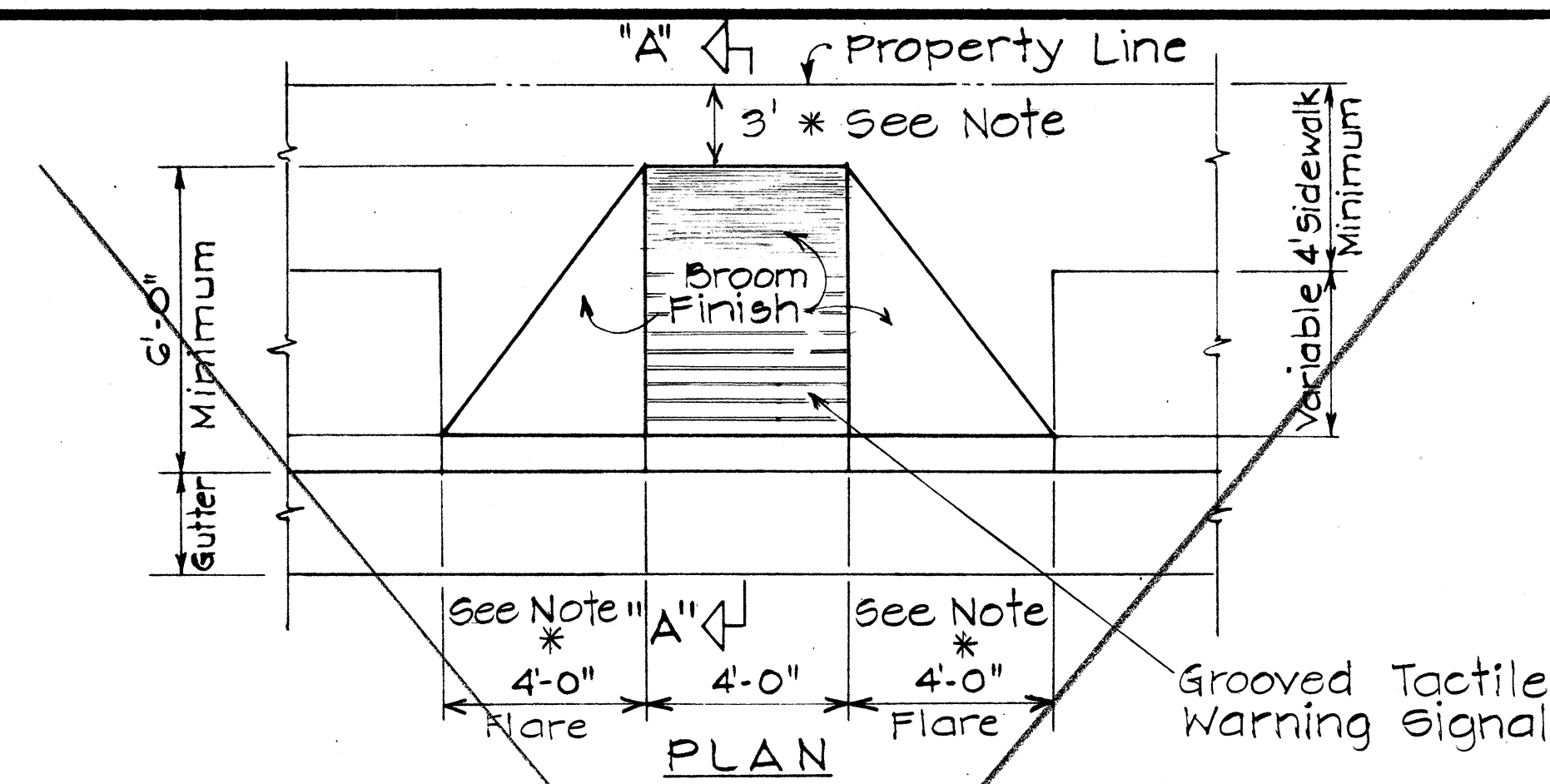
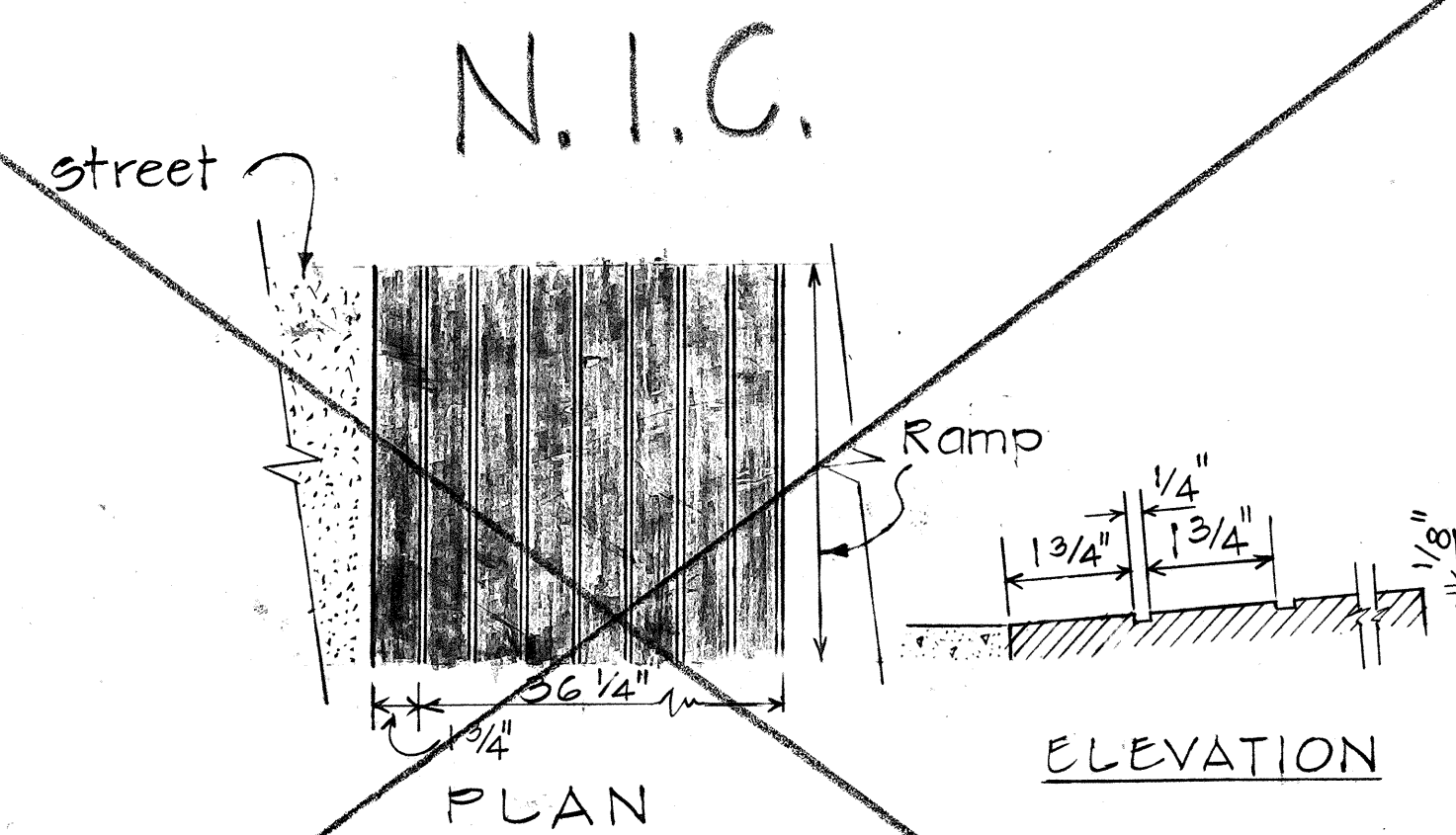


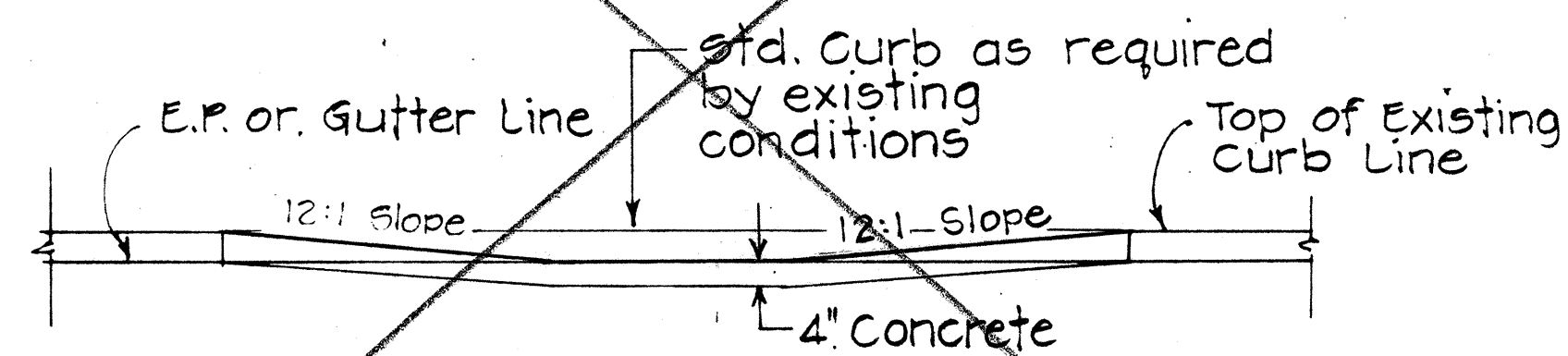
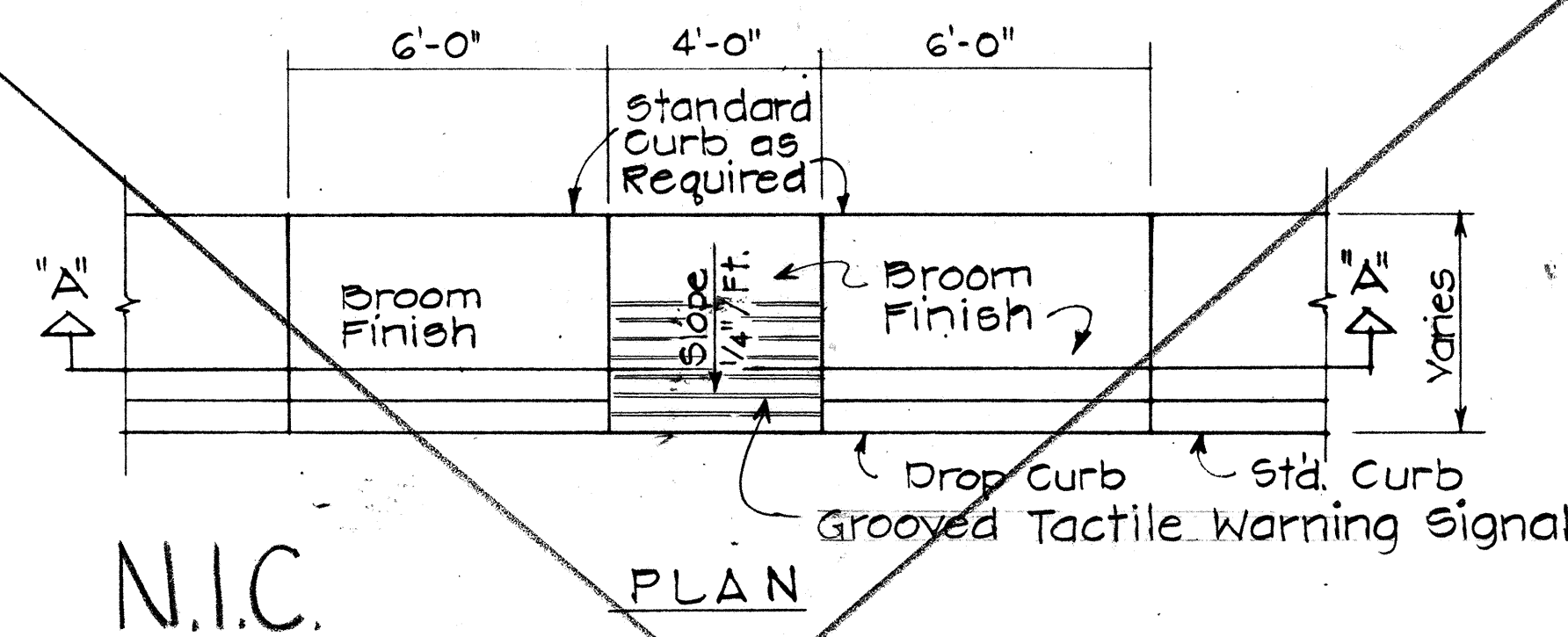
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1980	57	244



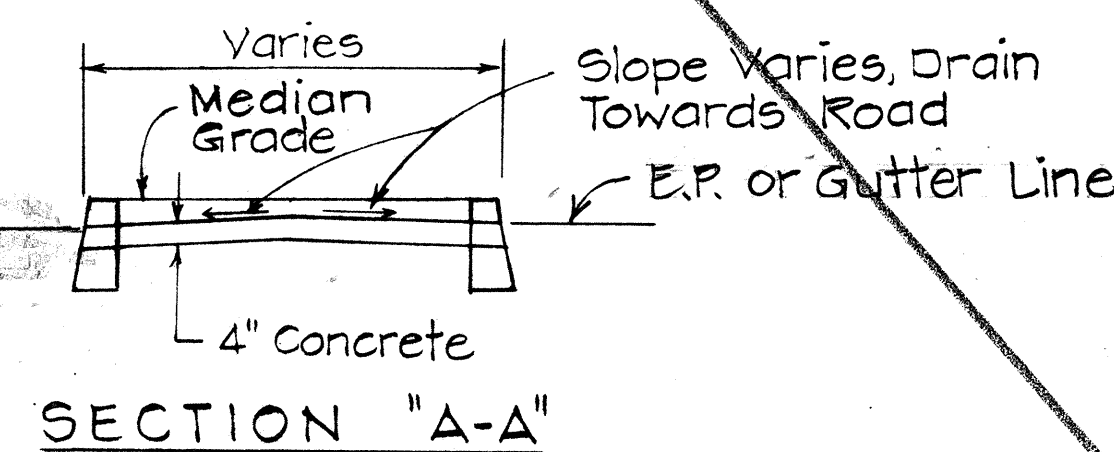
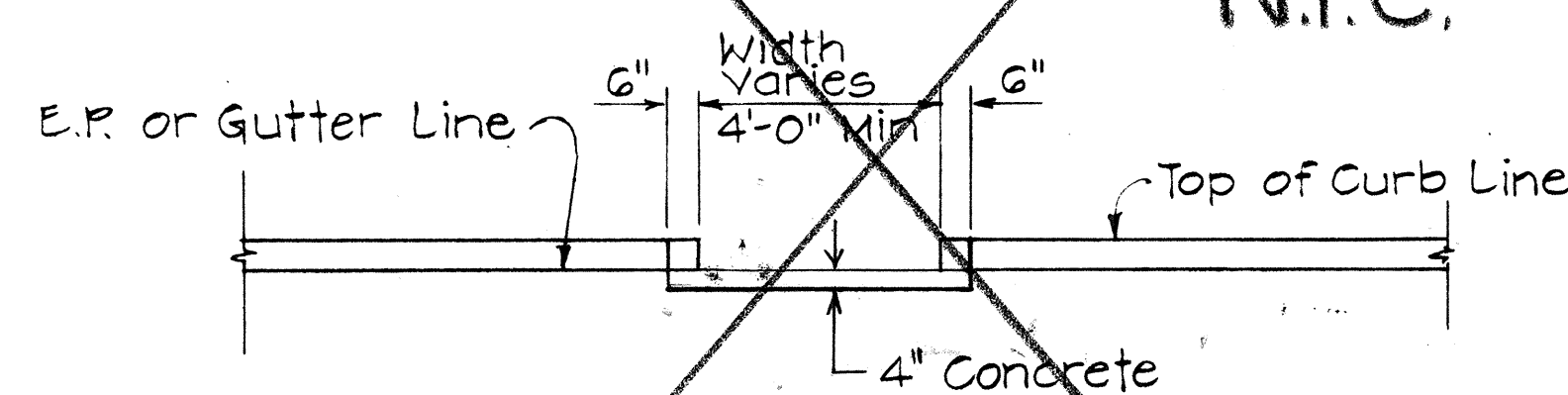
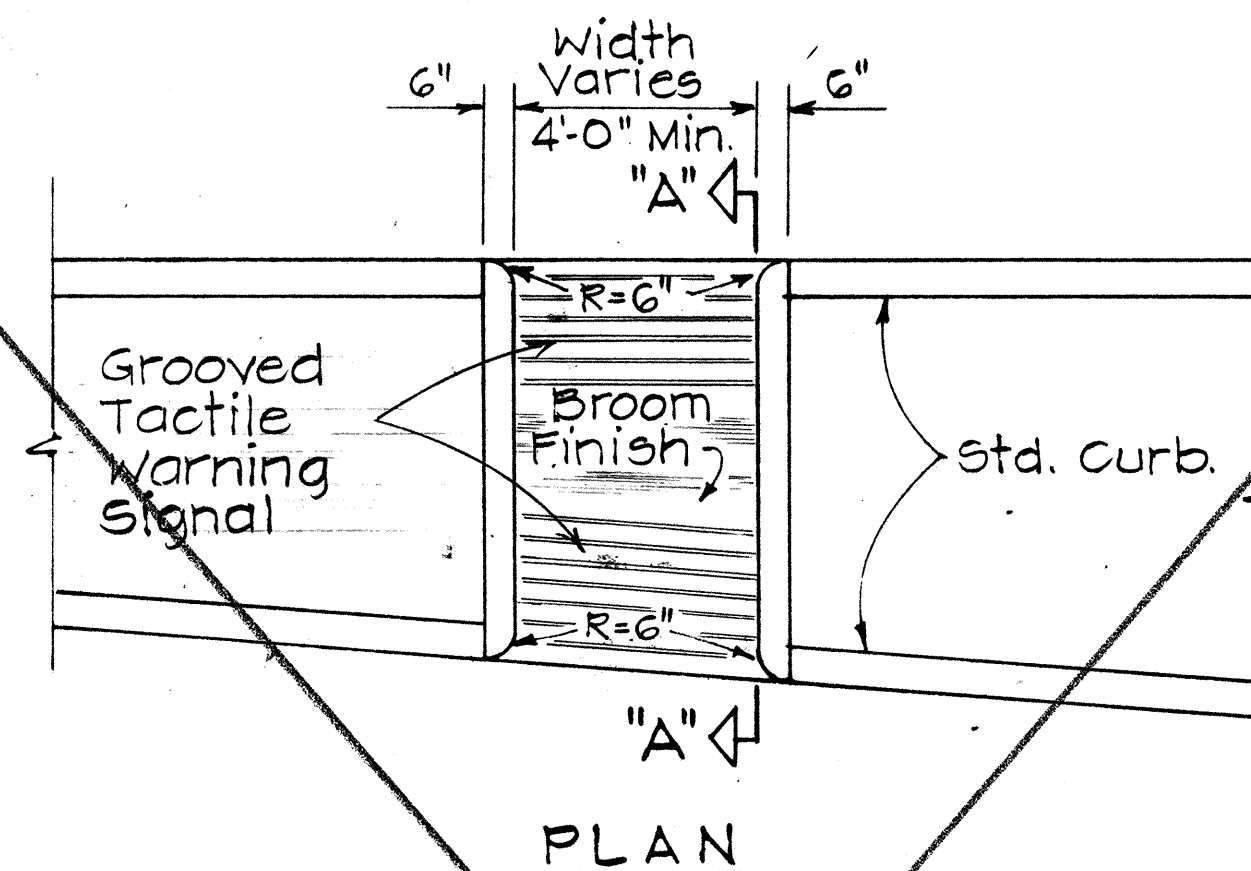
WHEELCHAIR RAMP - TYPE "A"
USE WHERE OBSTRUCTIONS EXIST



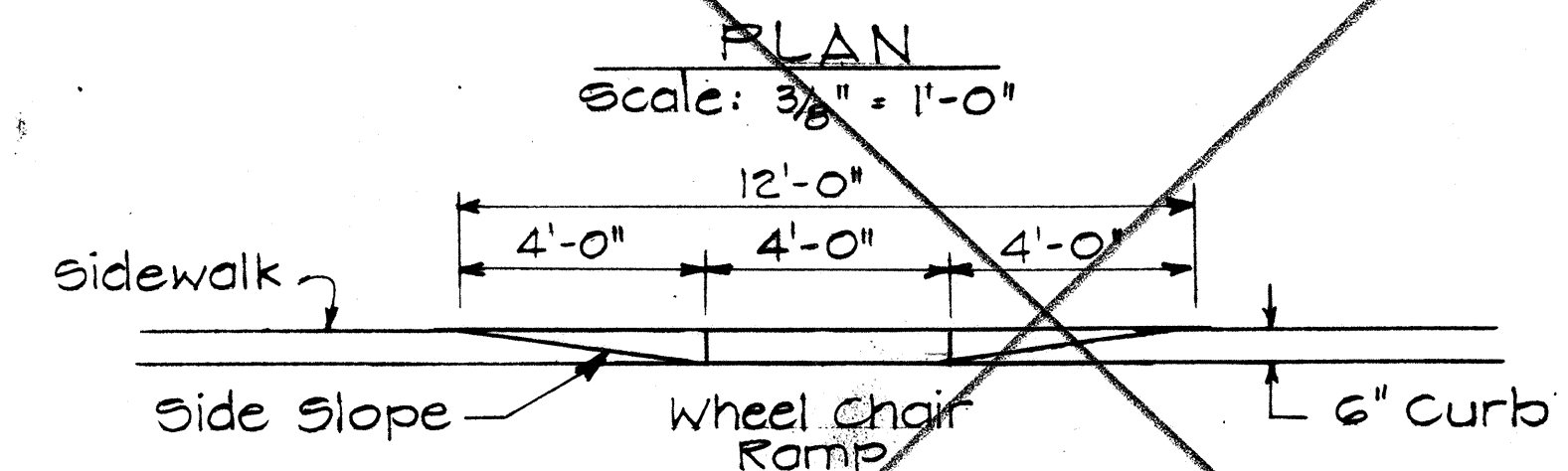
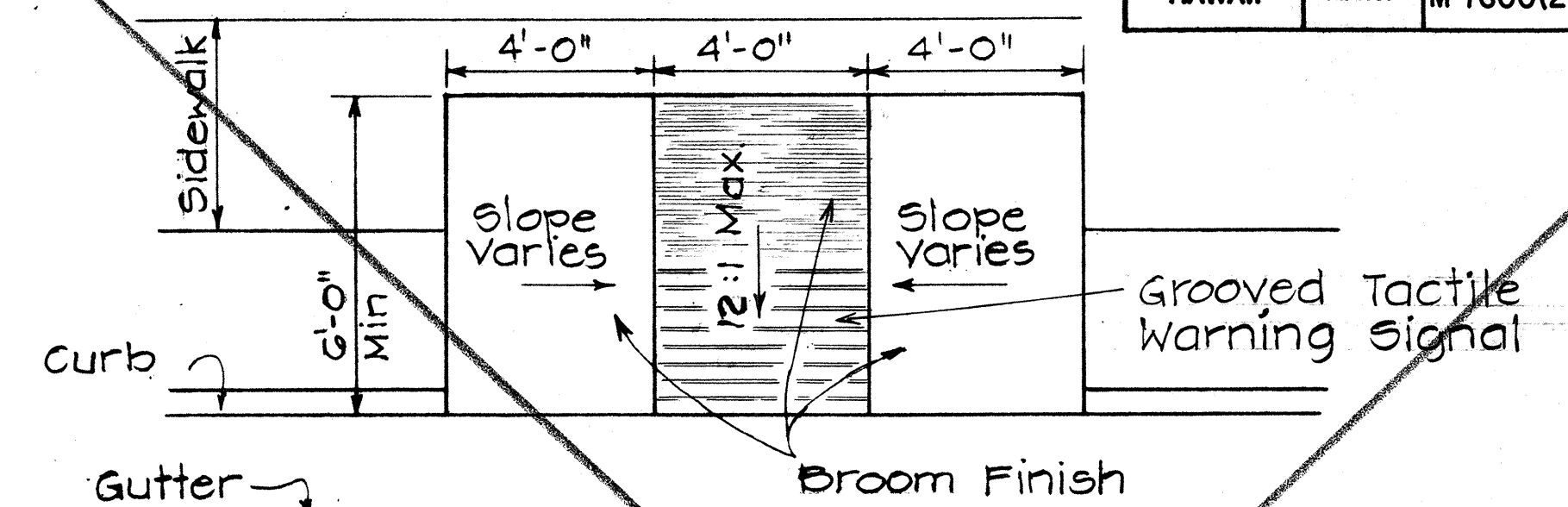
GROOVED TACTILE WARNING SIGNAL



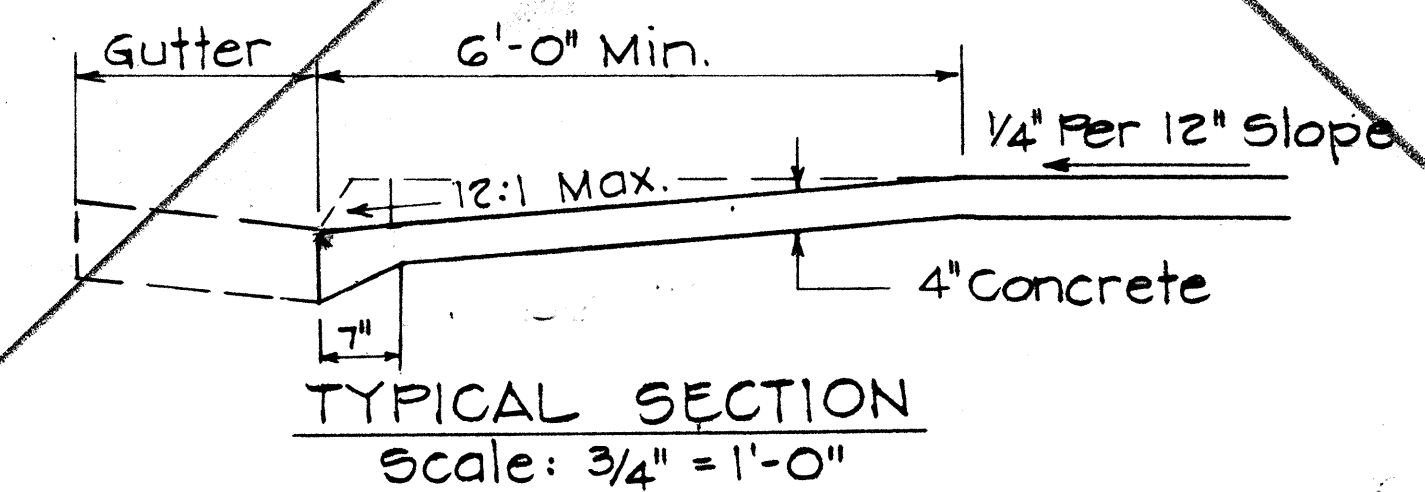
WHEELCHAIR RAMP - TYPE "B"
USE AT SIDEWALKS WITH LESS THAN 6'-0" WIDTH



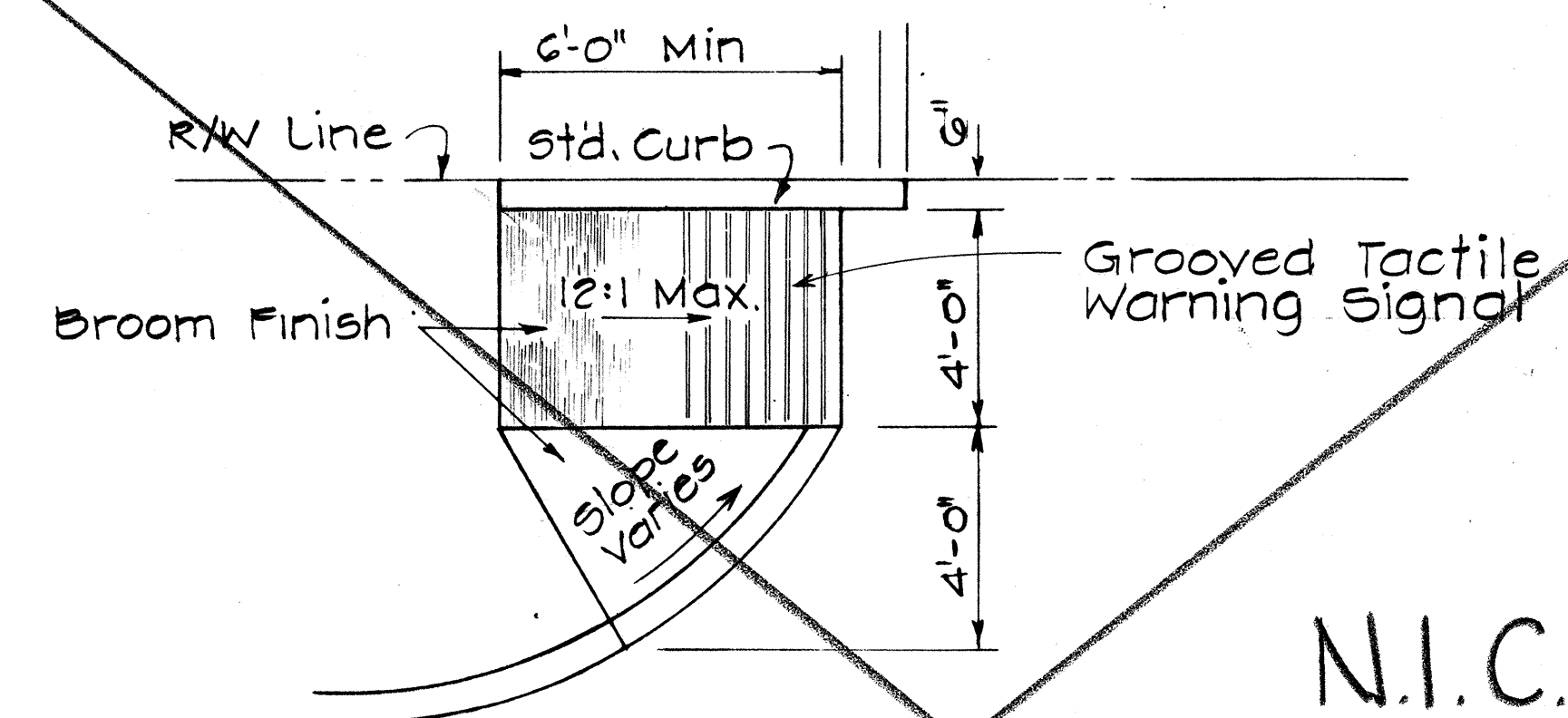
WHEELCHAIR RAMP - TYPE "C"
USE AT MEDIAN CROSSINGS, ISLANDS



Note:
Wheelchair Ramps to be paid for under Item 608.0100 Plain Concrete Sidewalk



WHEELCHAIR RAMP - TYPE "D"
USE WHEN IDEAL CONDITIONS EXIST

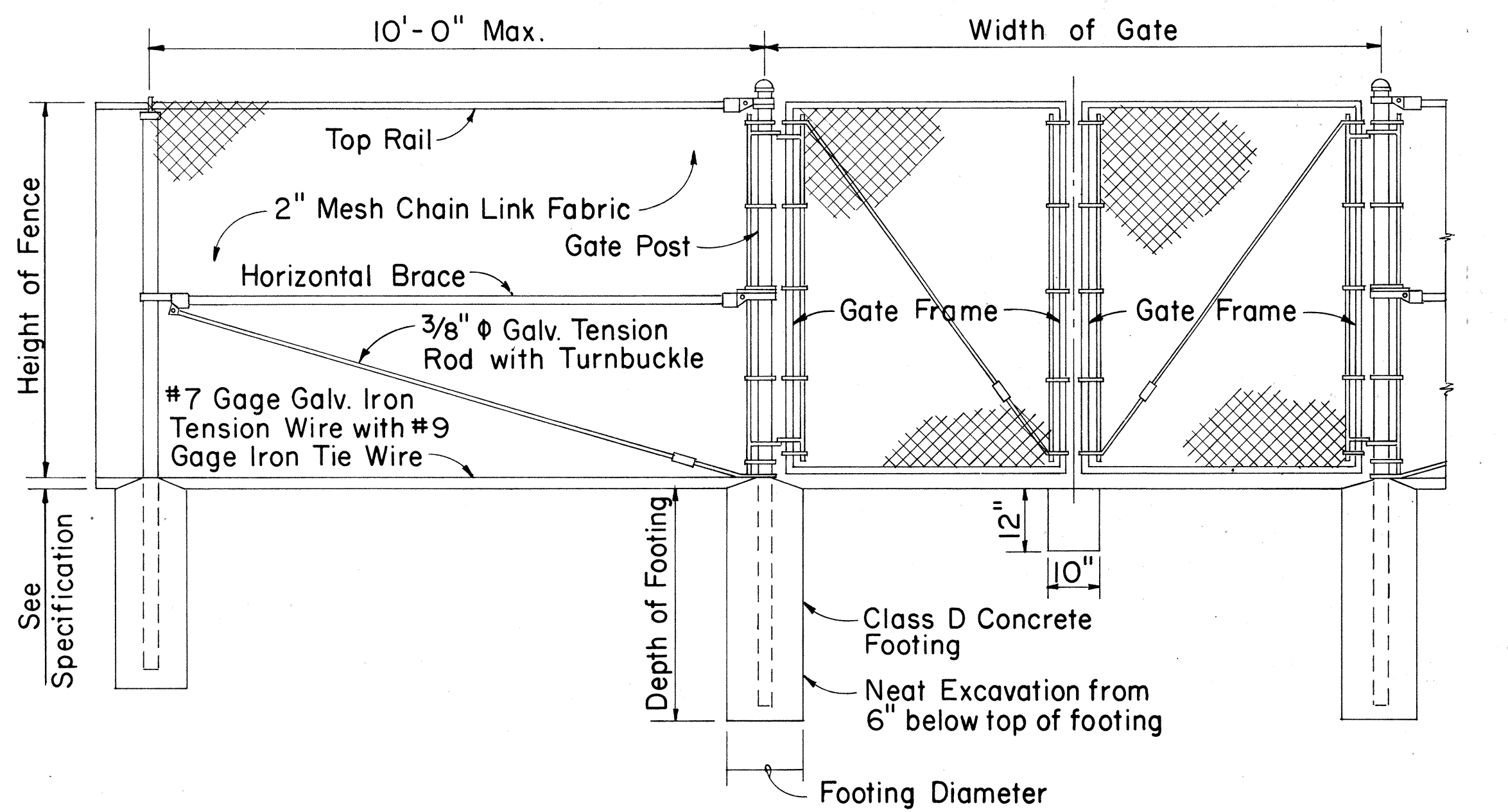


WHEELCHAIR RAMP - TYPE "E"
USE AT CURBED DRIVEWAYS
Scale: 3/8" = 1'-0"

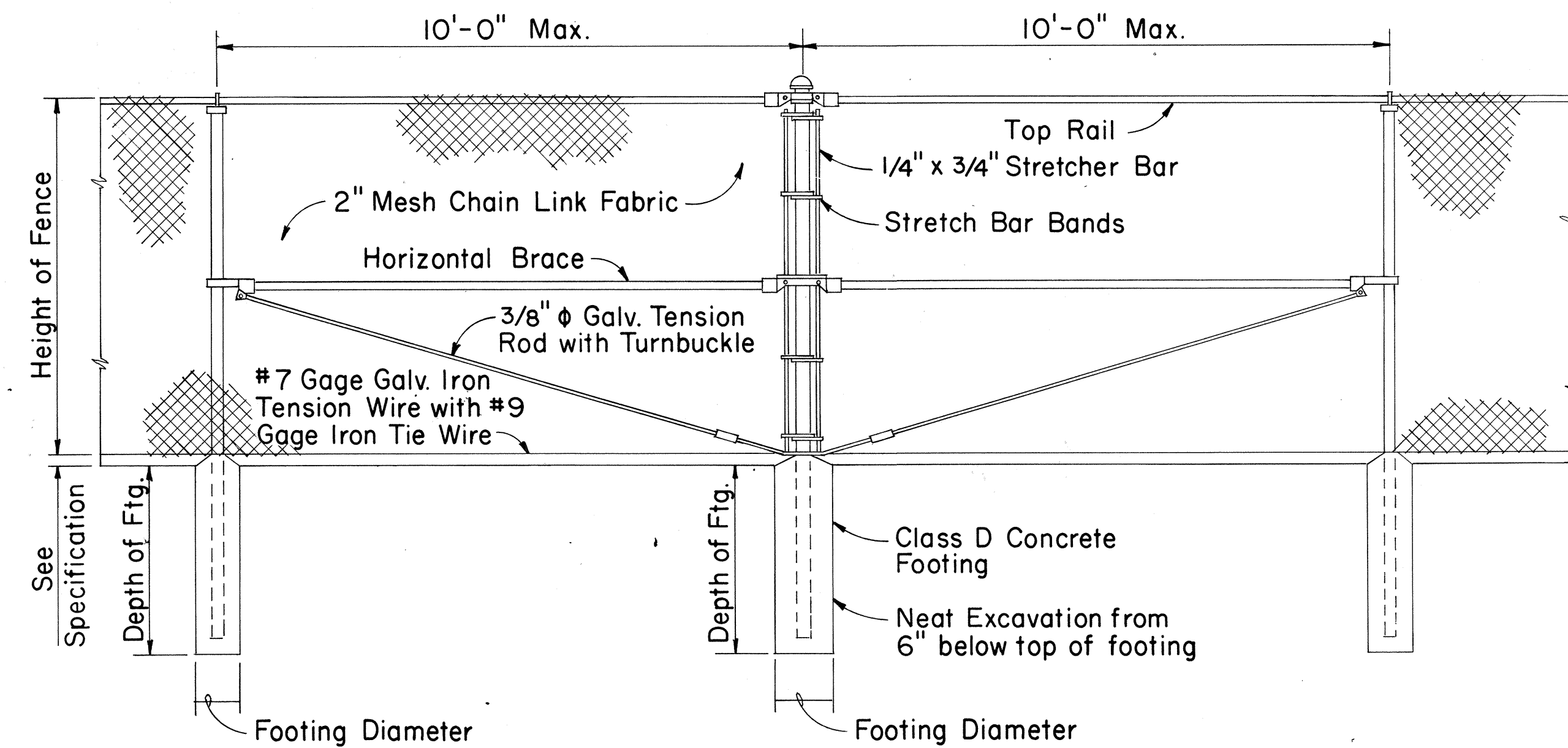
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL DETAILS OF
WHEEL CHAIR RAMPS**

Scale: As Shown May, 1978
SHEET NO. 1 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1980	58	244

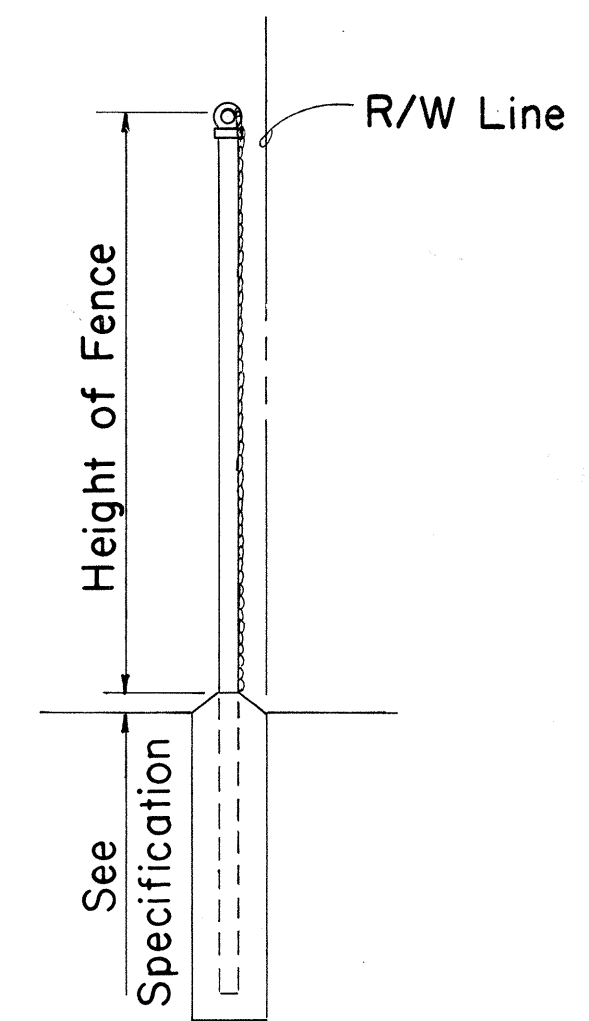


LINE POST GATE POST GATE POST



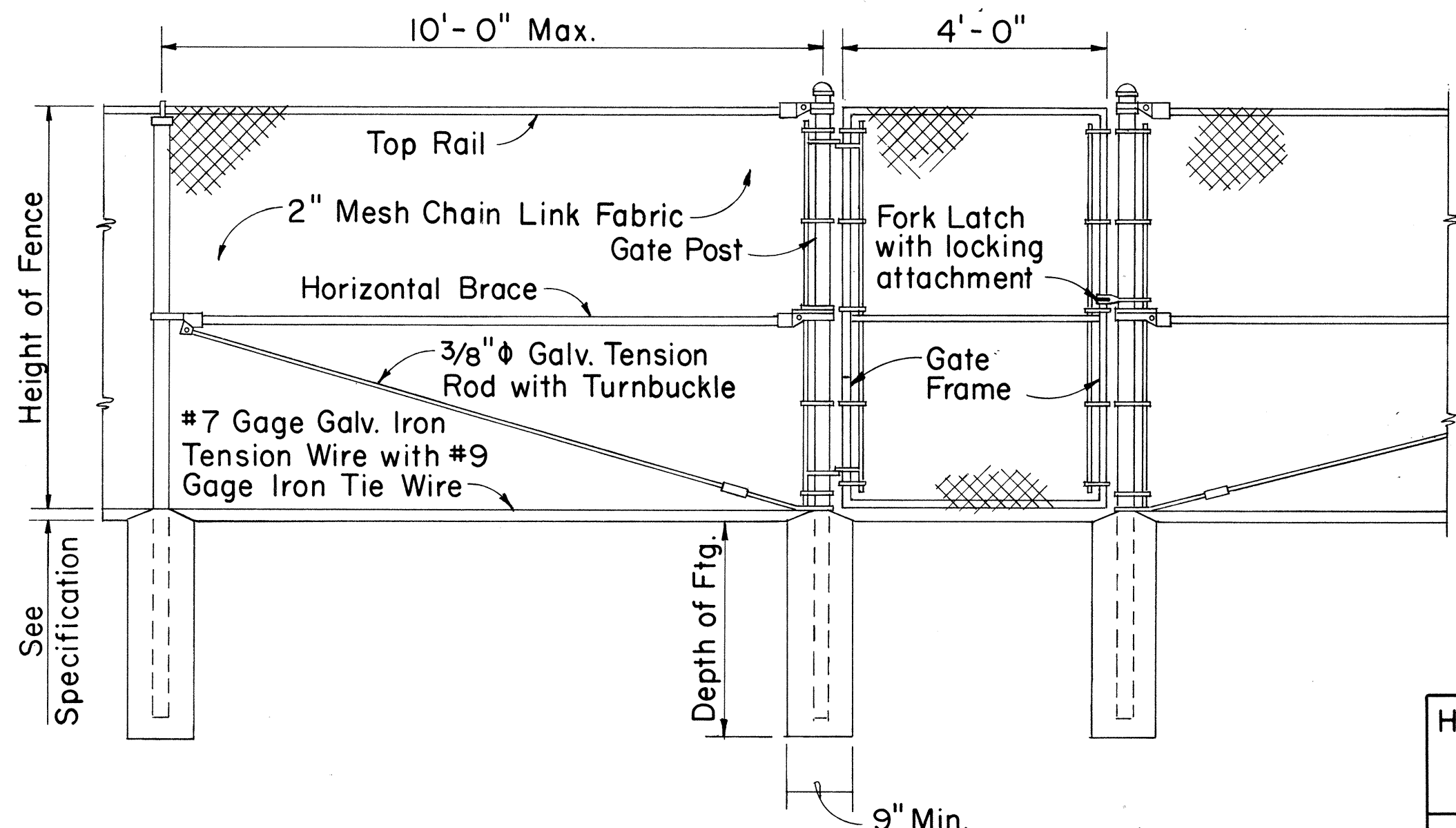
LINE POST PULL POST LINE POST

TYPICAL SECTION
(WITH CONCRETE FOOTING)



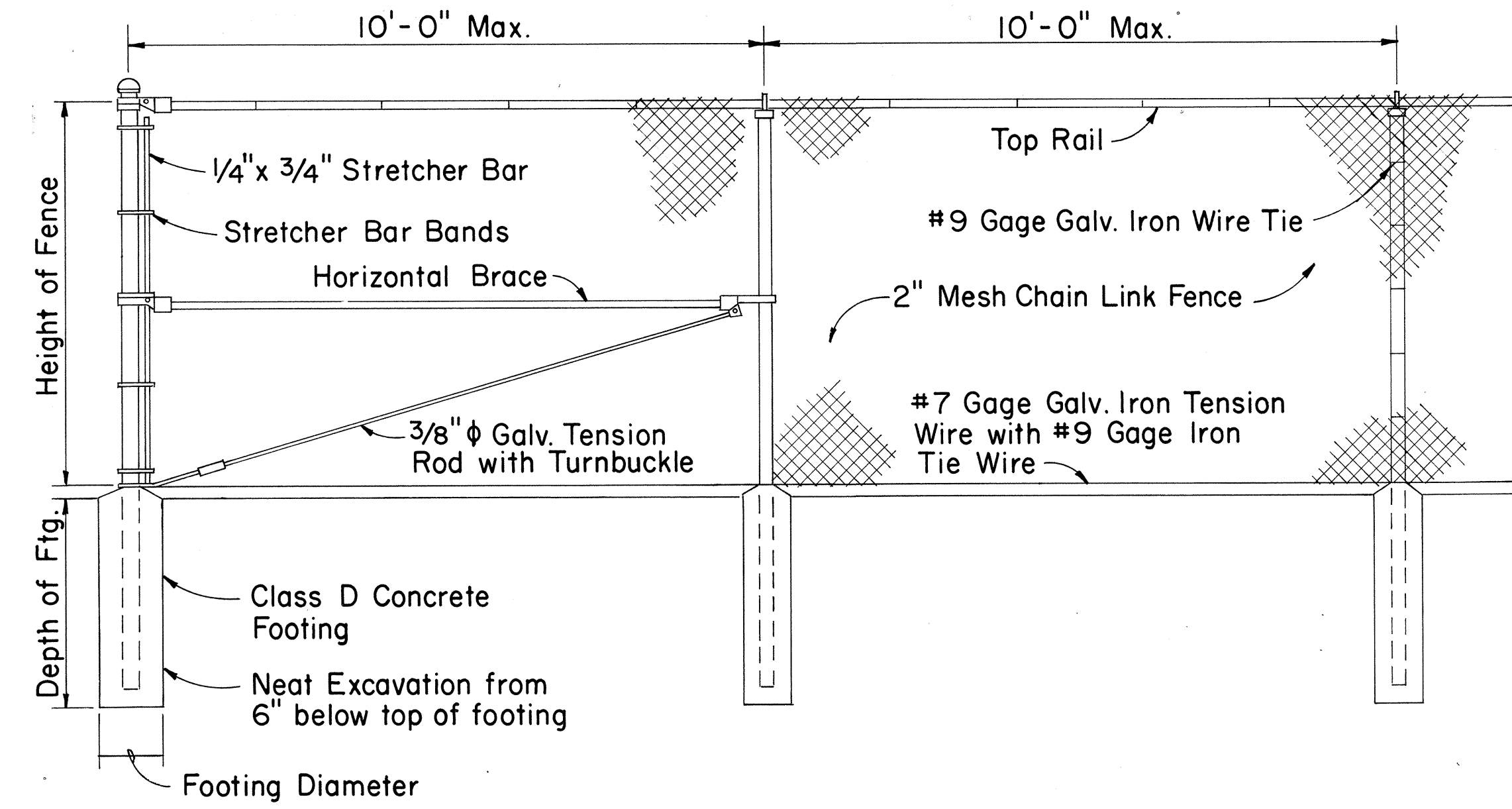
DETAIL OF CHAIN LINK GATE

- NOTE: 1. Gate fork latch and lock, flush plate and anchor, and plunger shall be installed with Gates, and shall be considered as incidental to Chain Link Fence Gate.
2. Gate frames shall be mitered and welded at corners.
3. Fence detail not shown shall be in accordance with the Standard Specifications.

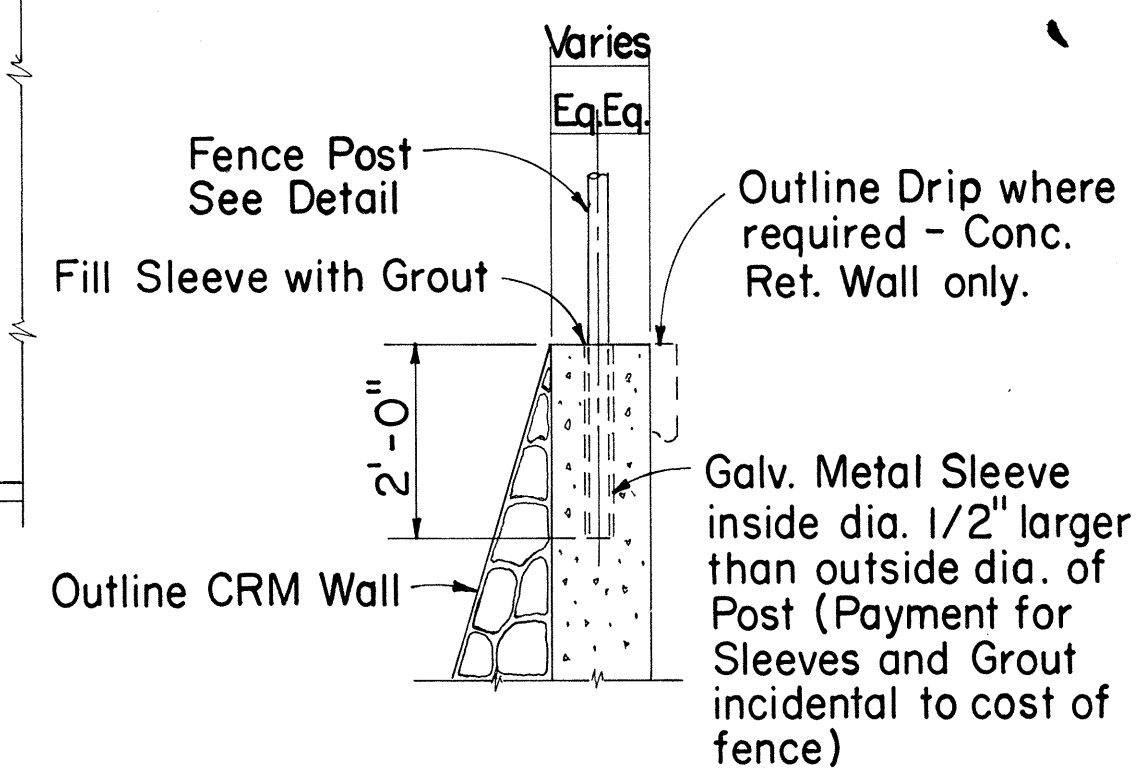


LINE POST GATE POST GATE POST

DETAIL OF 4 FT. CHAIN LINK GATE



END POST LINE POST LINE POST



TYPICAL SECTION
(ON CRM & CONC. RET. WALL)

CHAIN LINK FENCE DETAILS

Height of Fence	Minimum Depth of Footing		Minimum Footing Diameter	
	Line Post	Corner, Pull, End and Gate Posts	Line Post	Corner, Pull and End Posts
3'	2'-0"	2'-6"	8"	8"
4'	2'-6"	2'-6"	8"	8"
5'	3'-0"	3'-0"	8"	8"
6'	3'-0"	3'-0"	8"	9"

APPROVAL, RECOMMENDED:
M. H. Hagan 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED:
Arthur R. Solari 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

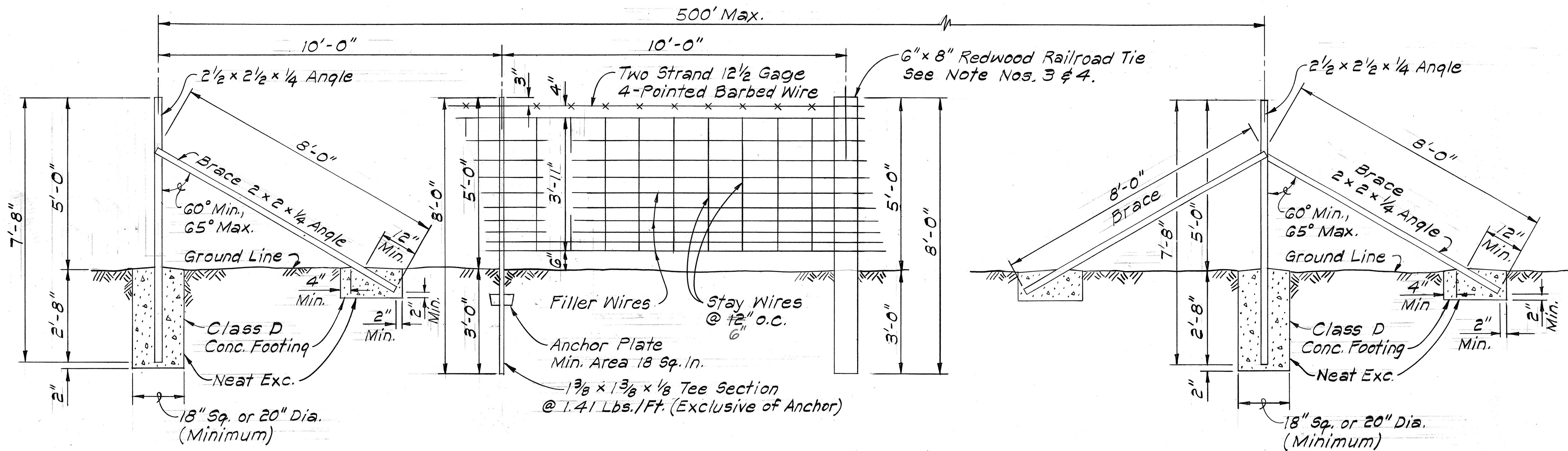
NO	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CHAIN LINK FENCE
(WITH TOPRAIL)

Scale: 1/2" = 1'-0" Date: SEPT 1979

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1981	59	244



- NOTES:
1. Filler Wires at Graduated Spacing of 3" (Bottom) to 8" Top.
 2. Top and Bottom Filler Wires shall be 10 Gauge. Intermediate and Stay Wires shall be 12-1/2 Gauge.
 3. Every Third Line Post shall be Wood. End, Corner and Intermediate Anchor Posts shall be Metal. (Type I Fence only).
 4. Type II Fence same as Type I Fence, except that all posts shall be metal.
 5. Wood posts shall be thoroughly coated with two coats of hot creosote oil or creosote dipped.

END OR CORNER POST

LINE POST

INTERMEDIATE ANCHOR POST

WOVEN WIRE FENCE, TYPE I

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

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

11/7/80	Supersedes "Woven Wire Fence with Metal Posts" details, dated Sept, 1979
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

WOVEN WIRE FENCE
DETAILS

FORT WEAVER ROAD
SOUTH OF FARRINGTON HIGHWAY
TO THE VICINITY OF RENTON ROAD

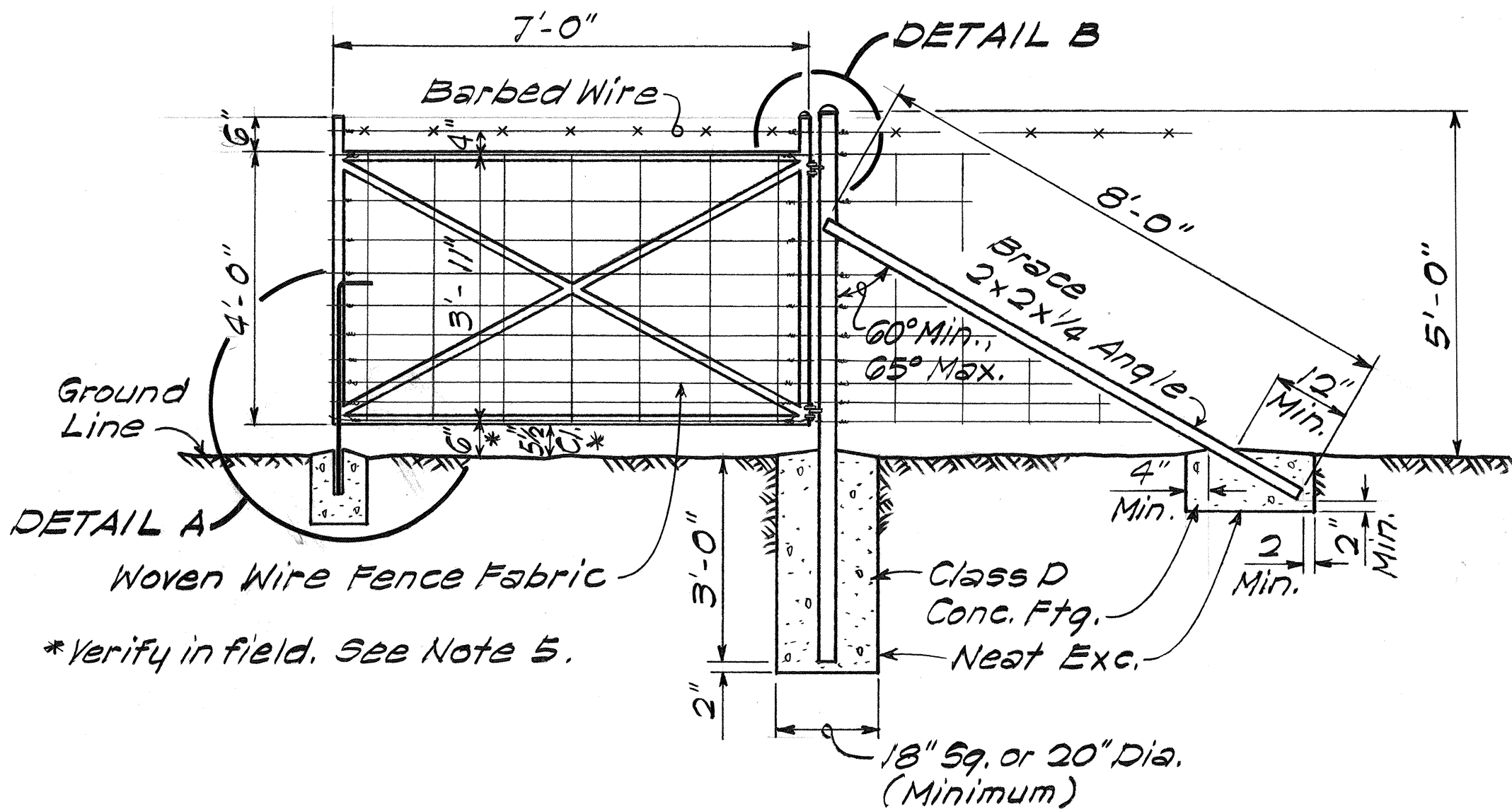
Scale: As Shown Date: Nov. 1980

SHEET No. 3 OF 15 SHEETS

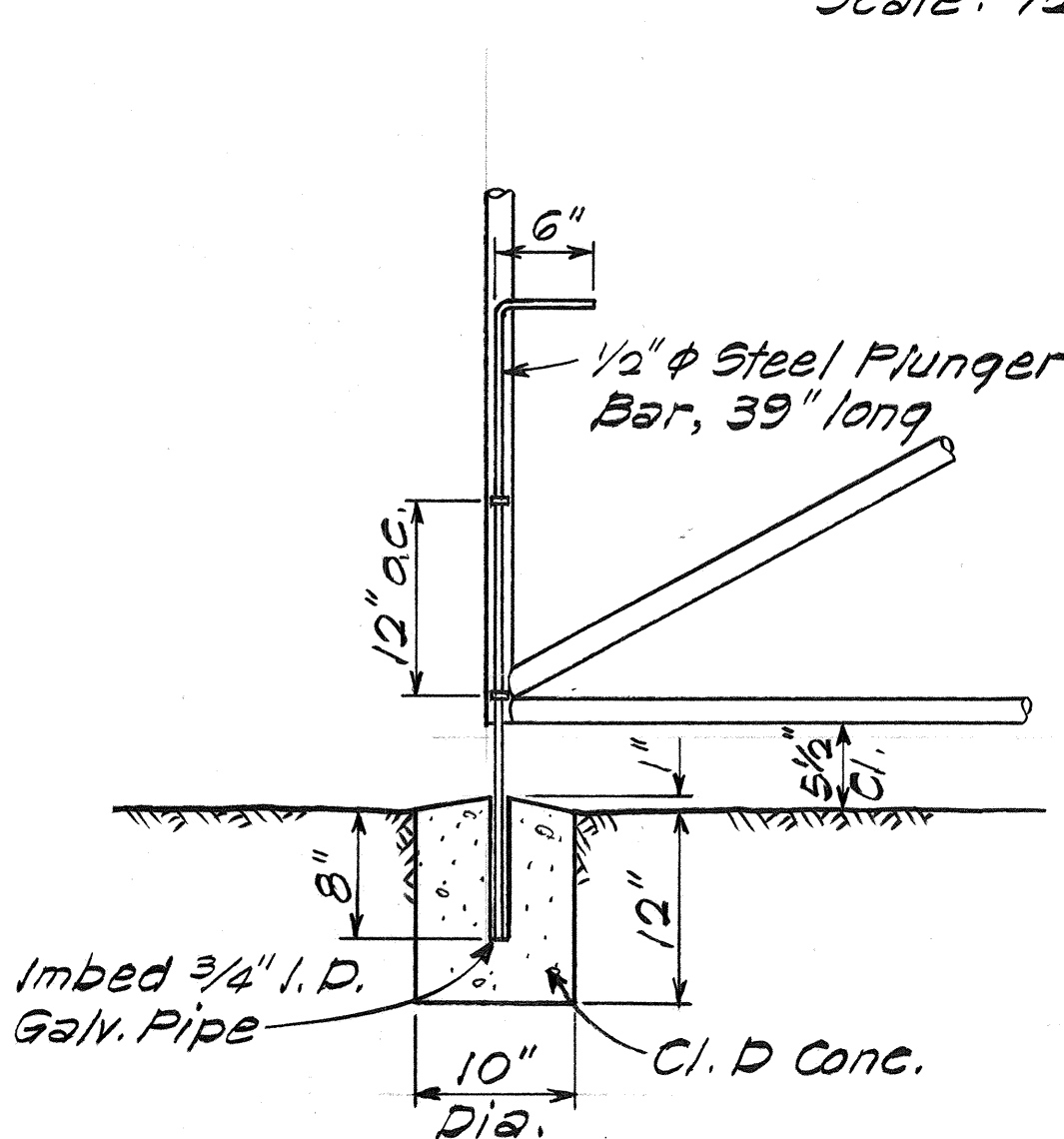
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1981	C.O.5951	244

NOTES

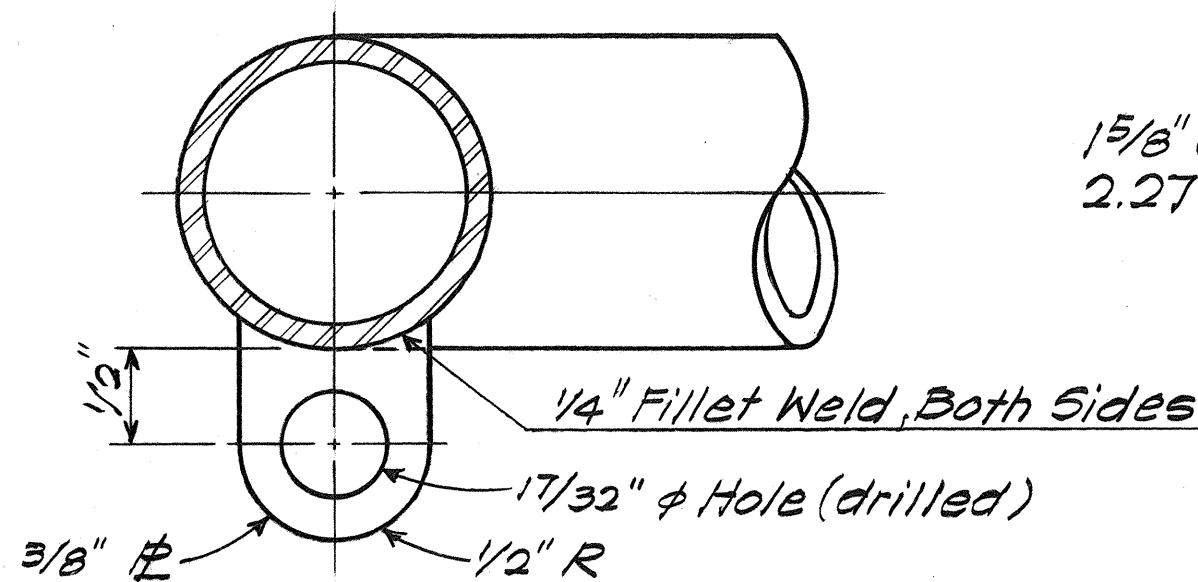
1. Gate Hinge Blades and Plunger Bar Guides shall be chamfered $\frac{1}{32}$ " all around and as required to prevent conflict between moving parts.
2. One Plunger Bar required per set of Double-Hung Gates.
3. All holes shall be reamed as necessary to admit Hinge Bolts or Plunger Bars.
4. All parts of Gates shall be galvanized after fabrication.
5. Gate Panels shall be strung with Woven Wire Fence Fabric and Barbed Wire. Materials and height of mounting shall match that of adjacent fence.



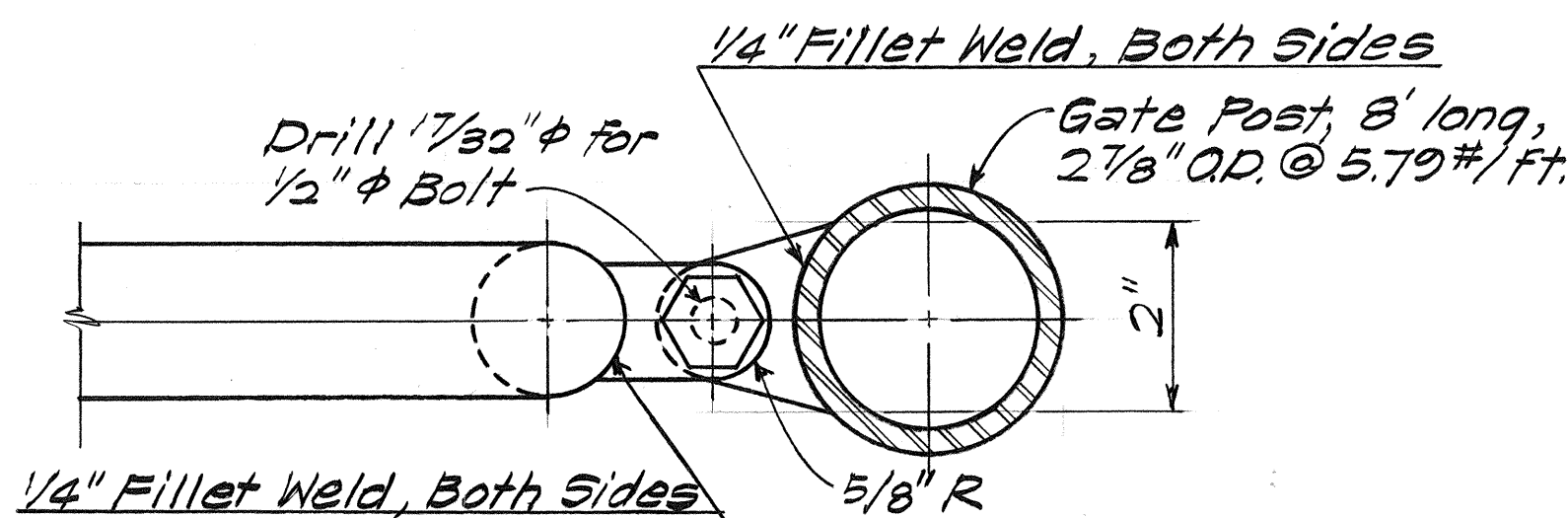
HALF-VIEW ~ DOUBLE HUNG GATES
Scale: $\frac{1}{2}$ " = 1'-0"



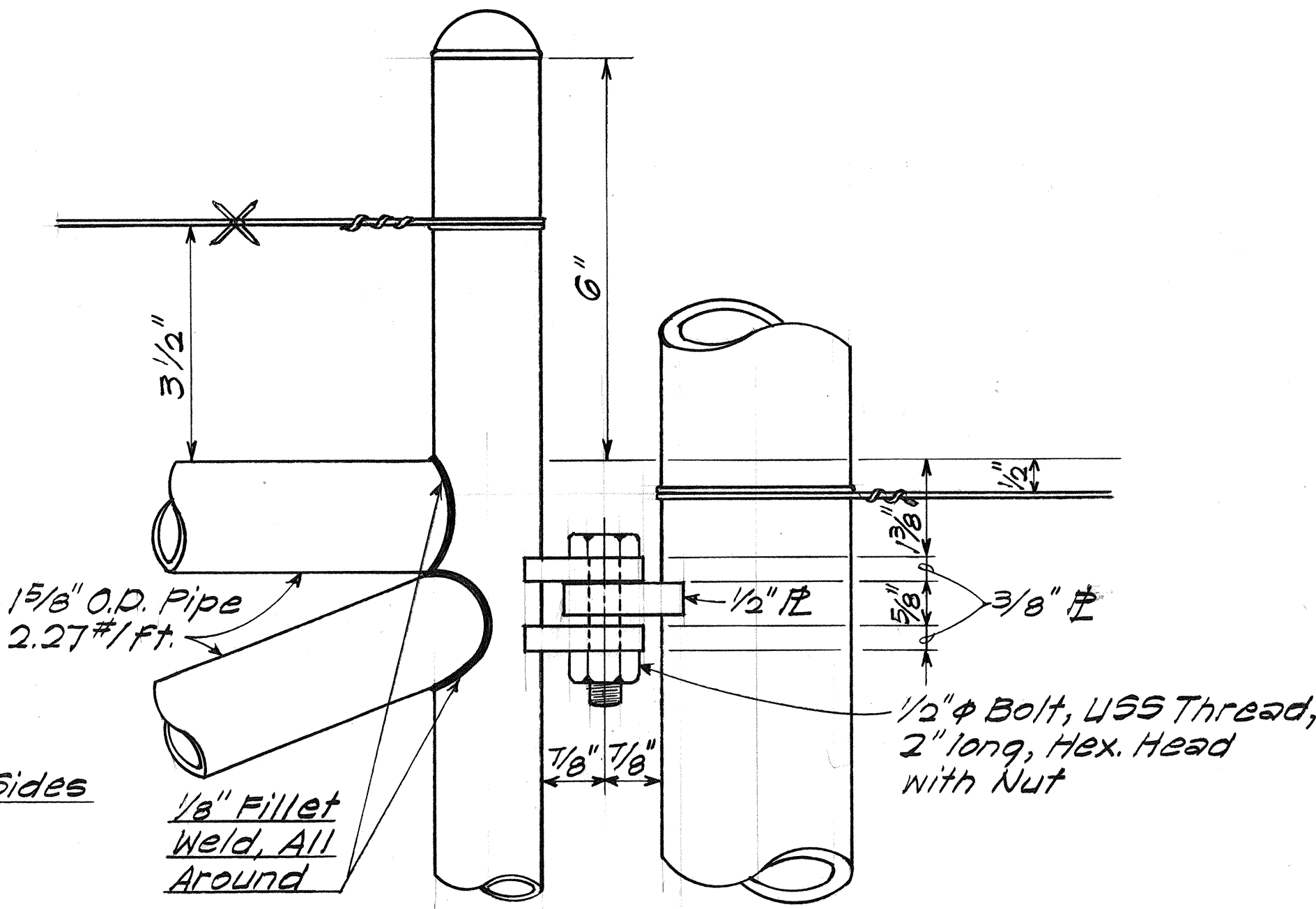
DETAIL A
Scale: 1" = 1'-0"



GUIDE FOR PLUNGER BAR
Scale: Full Size



TOP VIEW



SIDE VIEW

DETAIL B
Not to Scale

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

LAND TRANSPORTATION FACILITIES DIVISION

DOUBLE HUNG GATE

DETAILS

FORT WEAVER ROAD

SOUTH OF FARRINGTON HIGHWAY

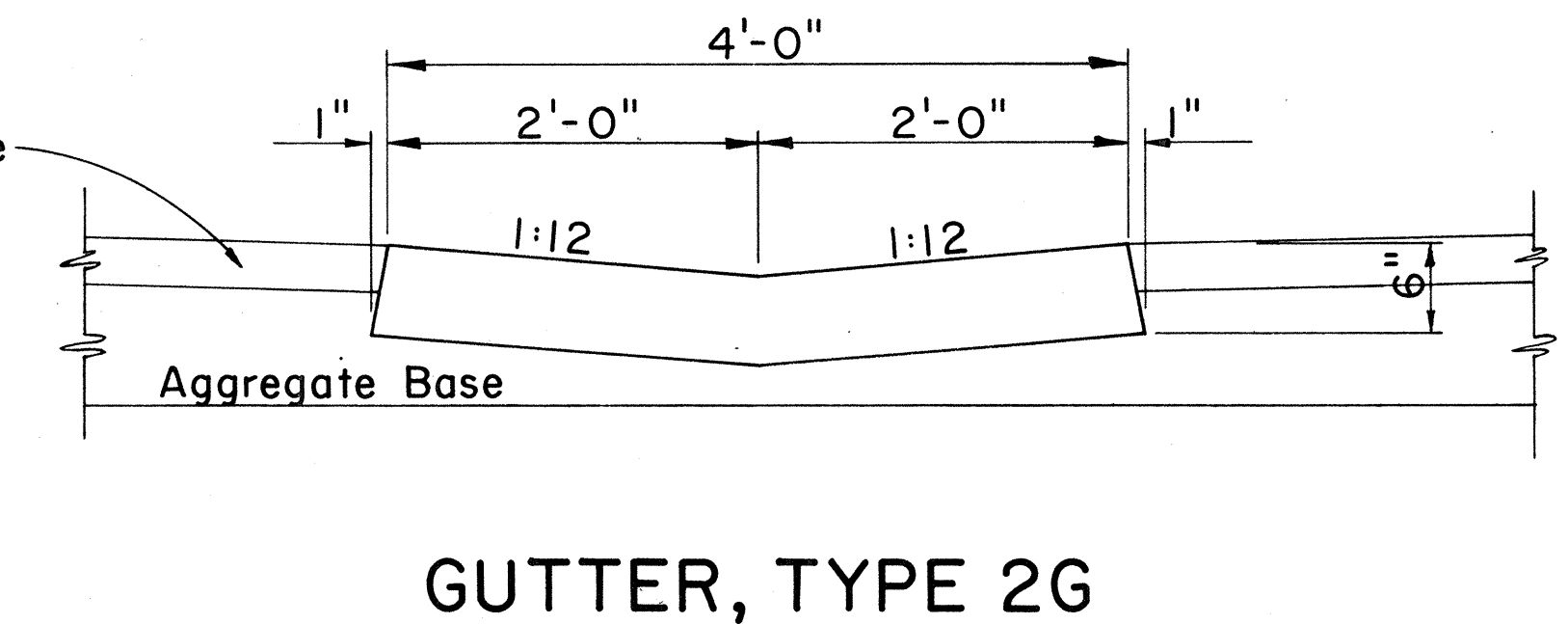
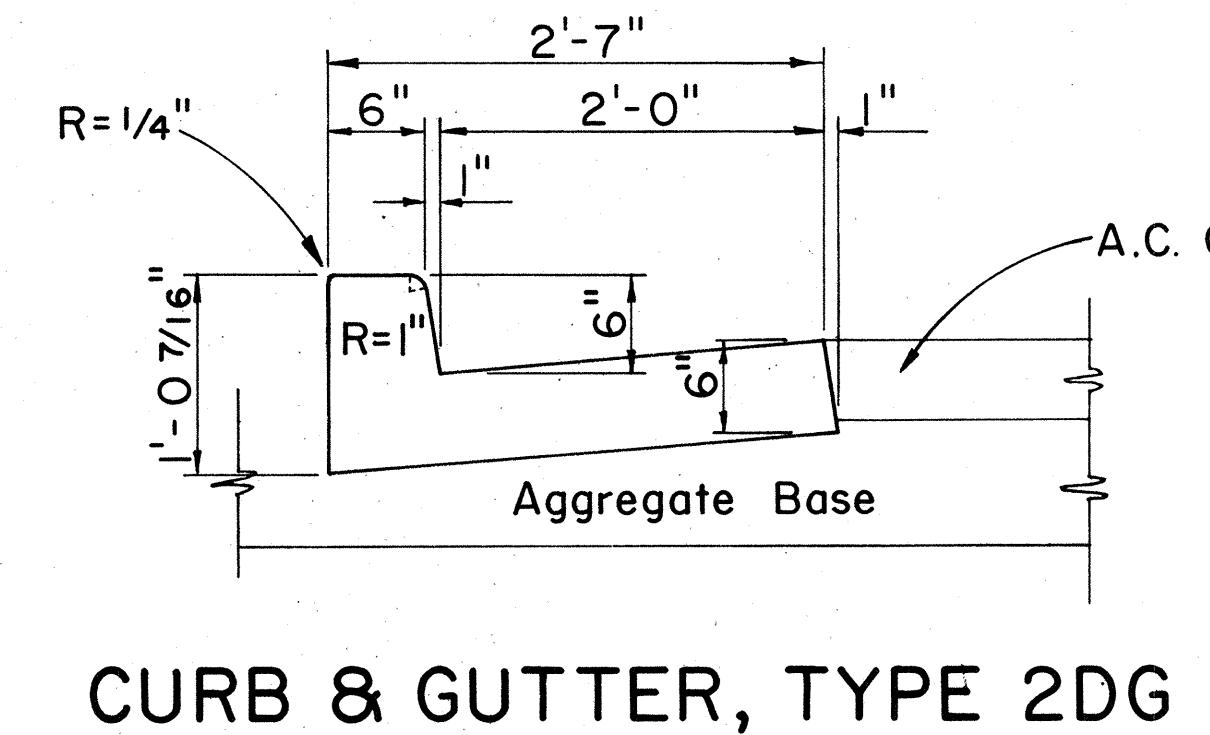
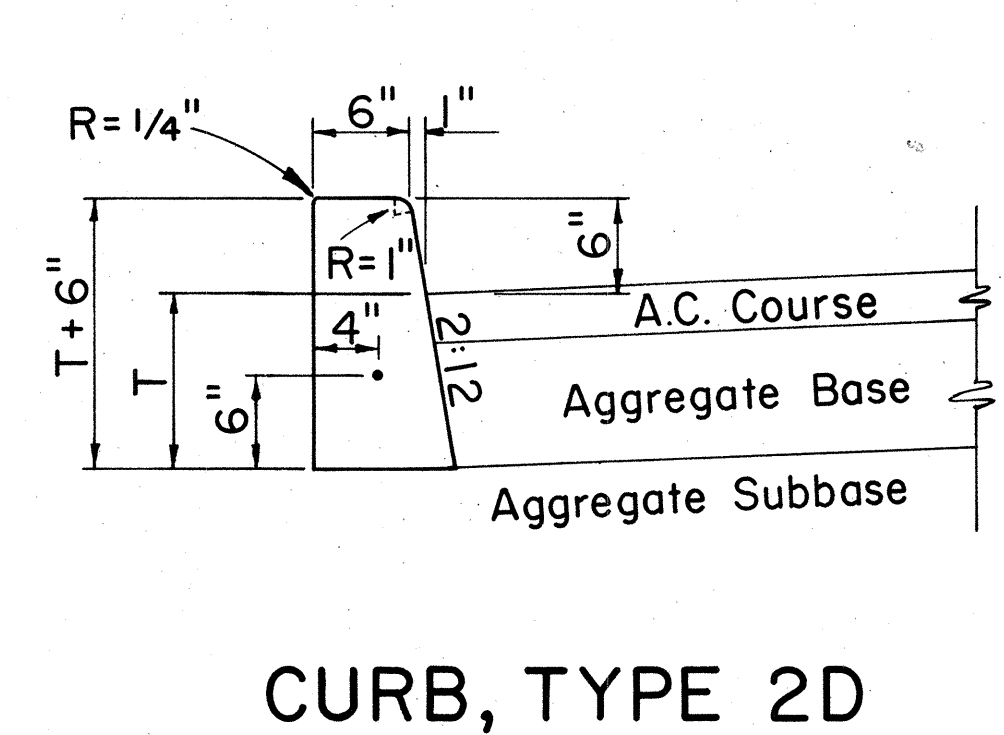
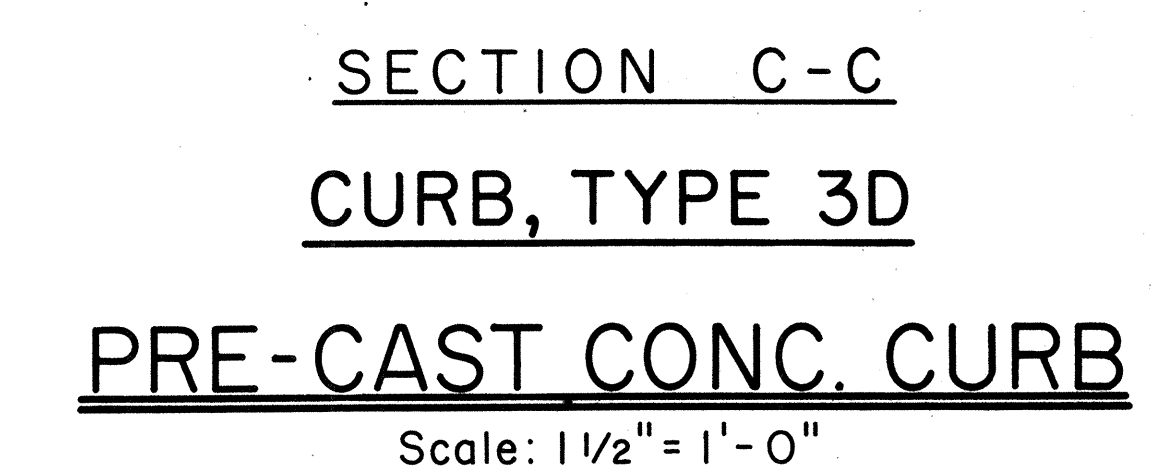
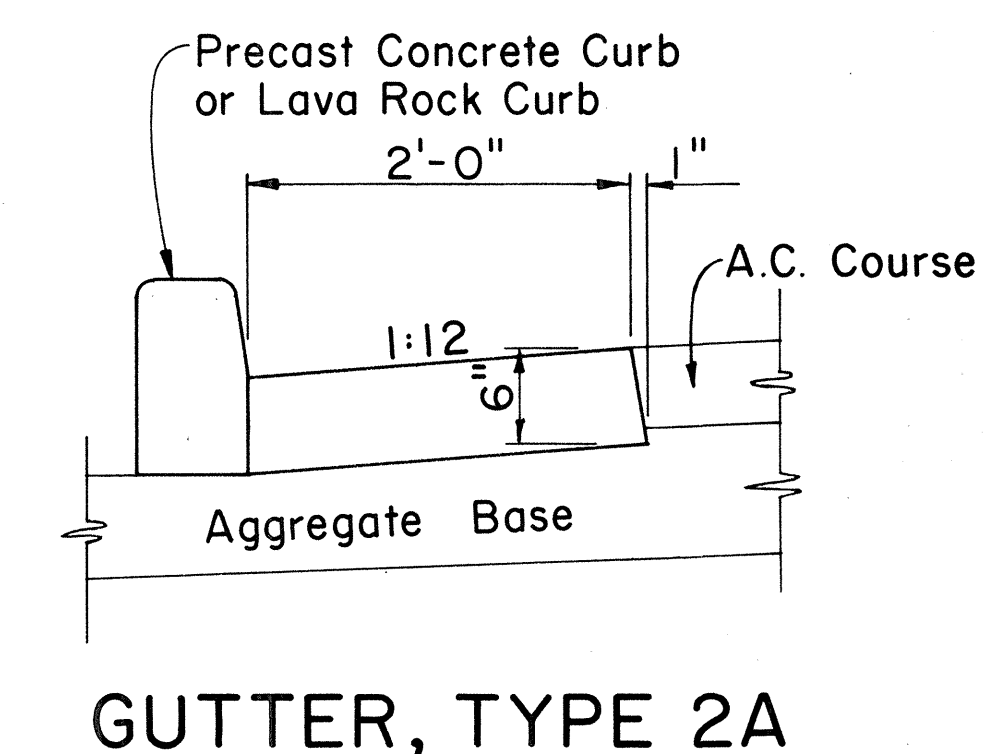
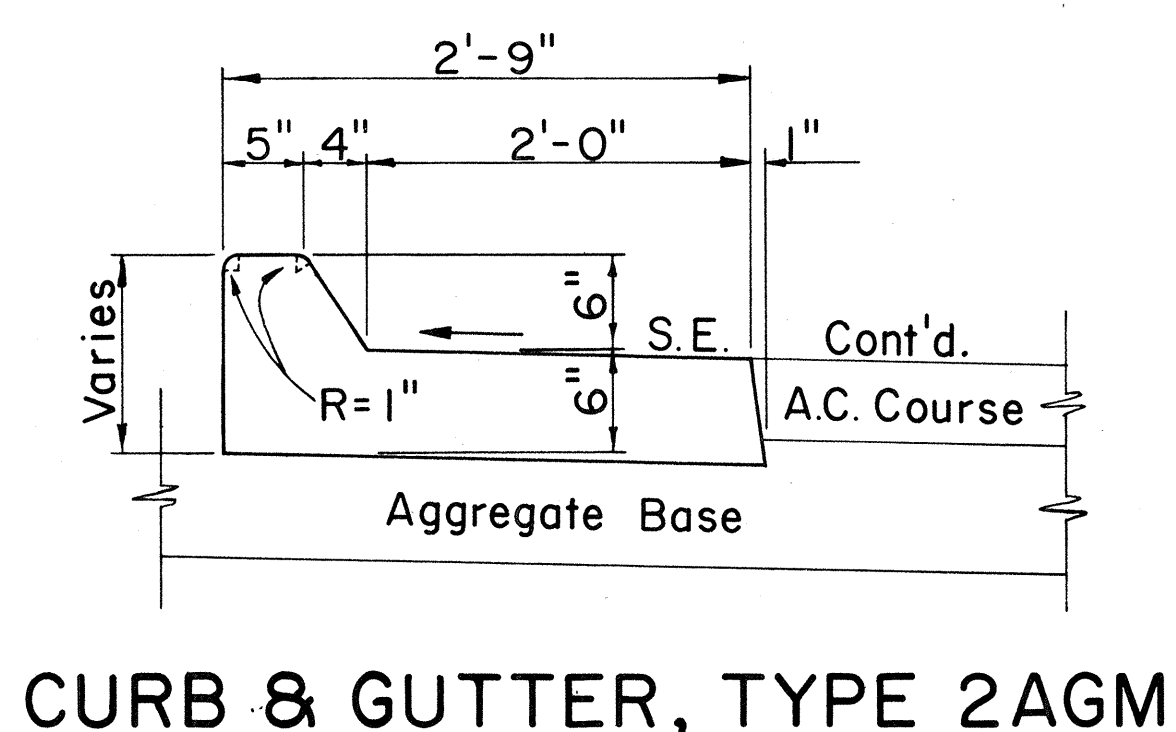
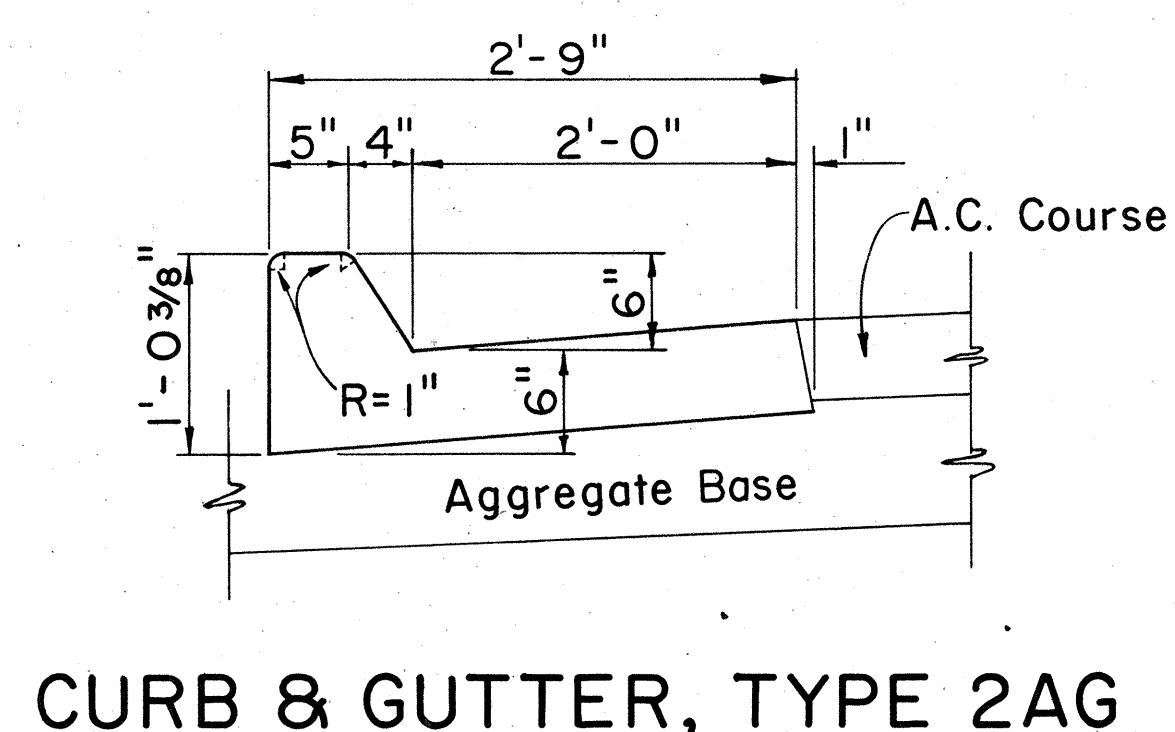
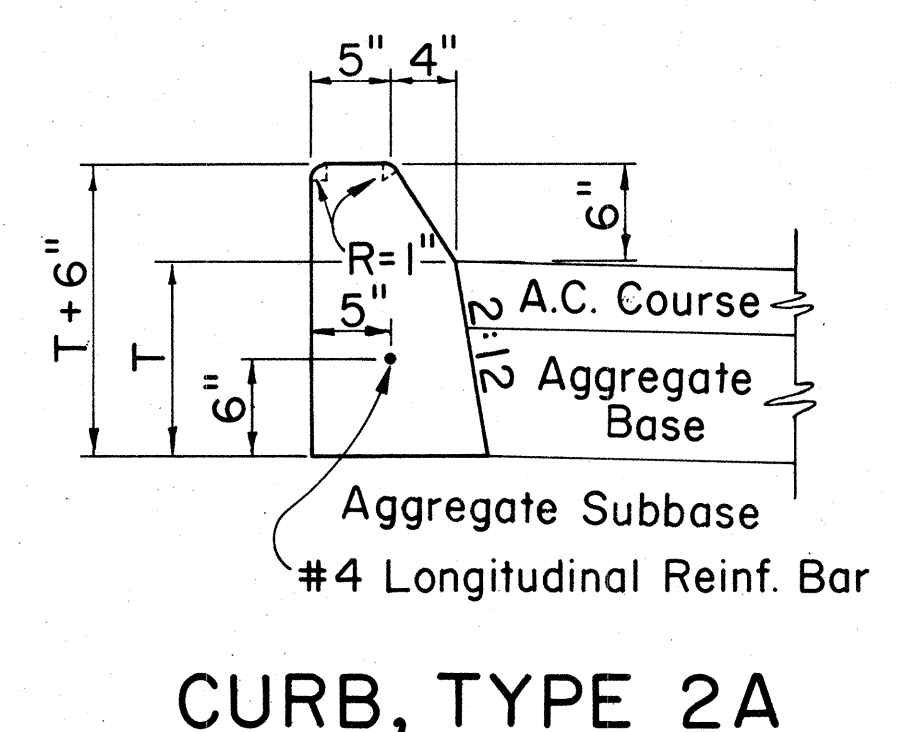
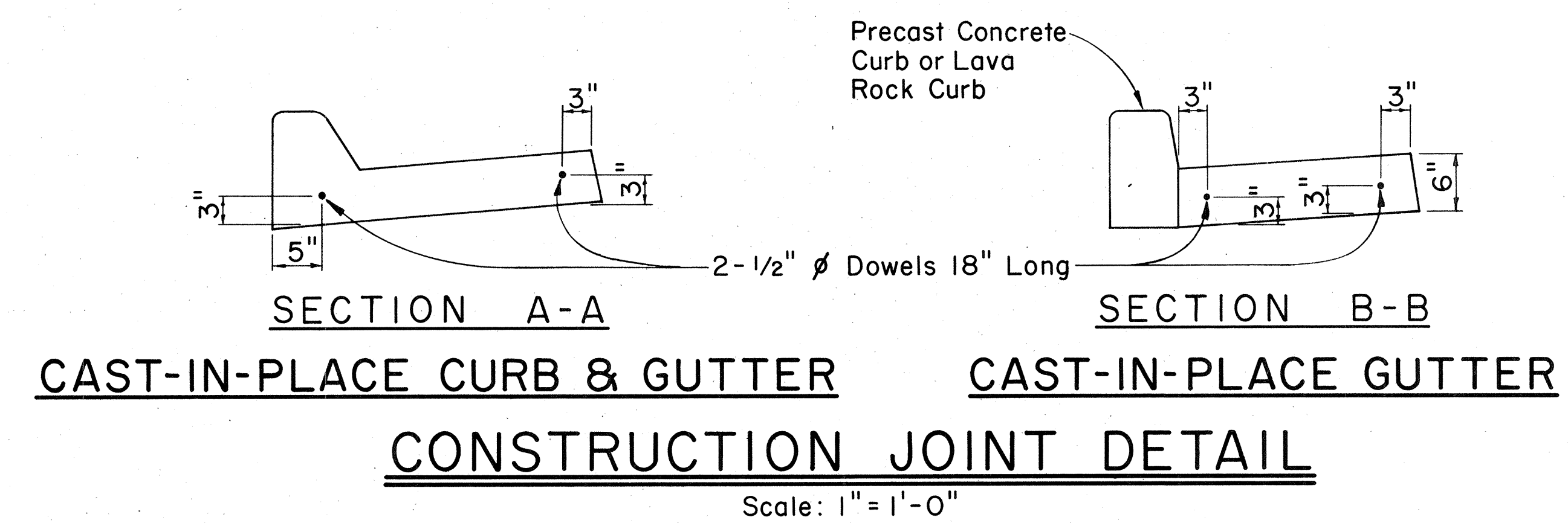
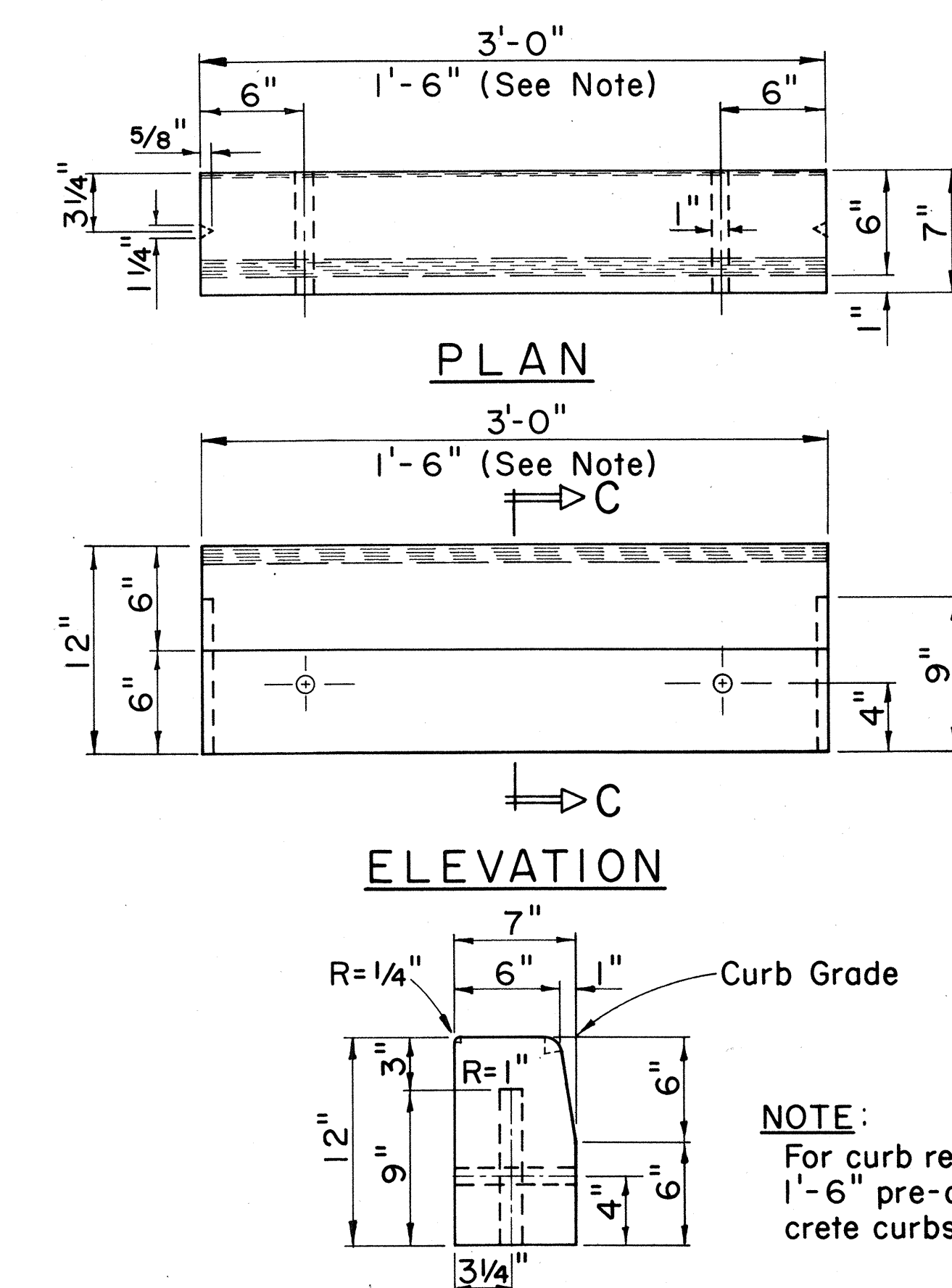
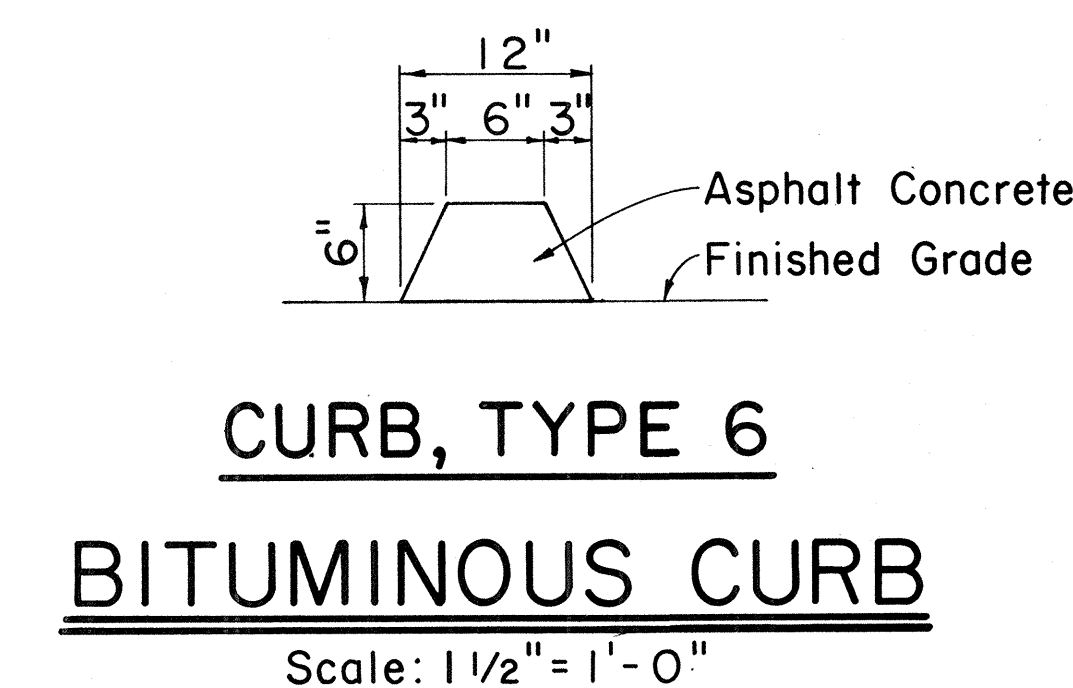
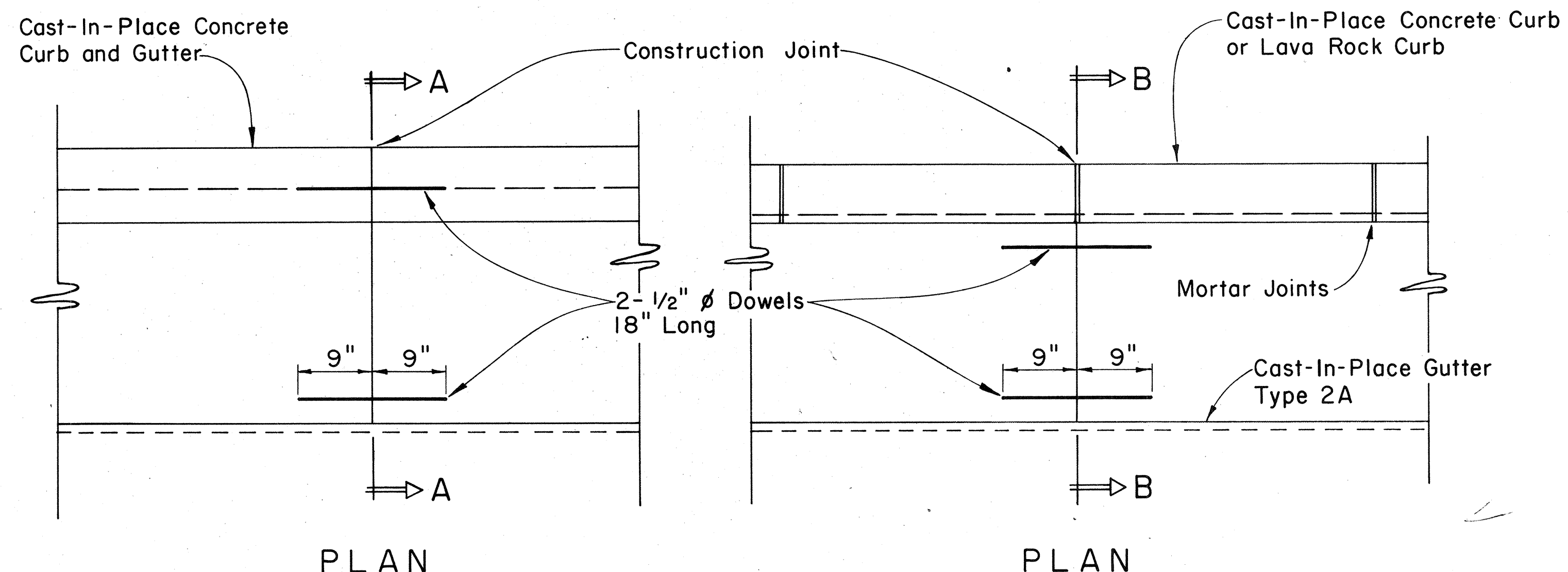
TO THE VICINITY OF RENTON ROAD

Scale: As Shown Date: Nov. 1980

SHEET NO. 3A OF 15 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	60	244



CAST-IN-PLACE CONCRETE CURBS AND/OR GUTTERS

Scale: 1" = 1'-0"

APPROVAL RECOMMENDED:

M. J. J. J. 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED:

R. J. J. J. 12-10-59
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

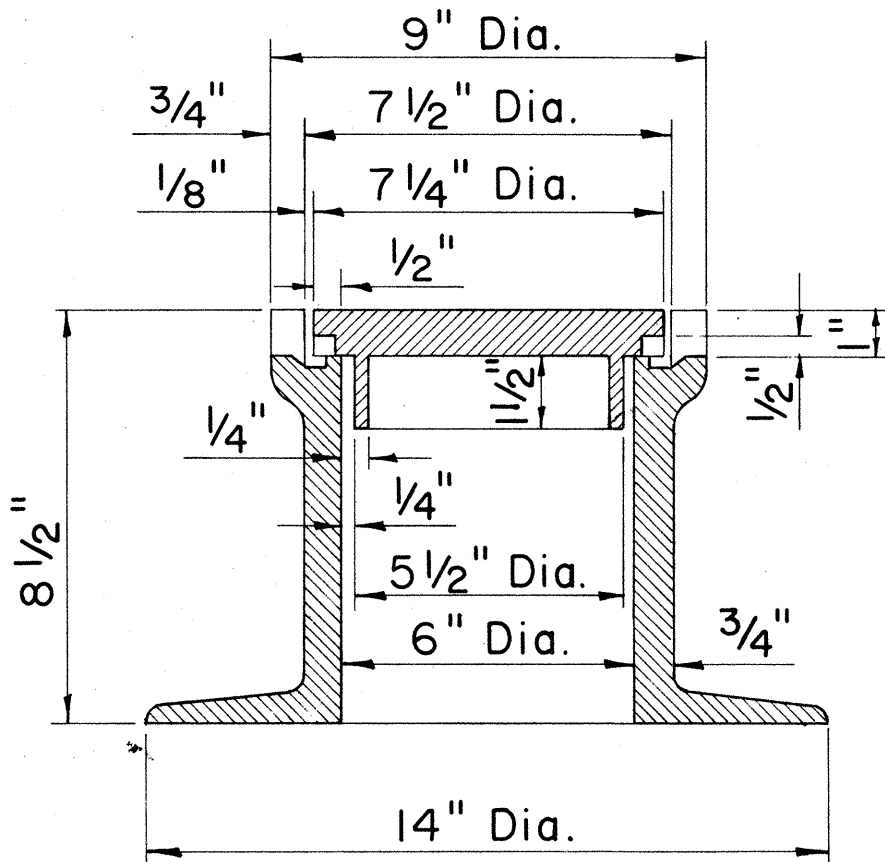
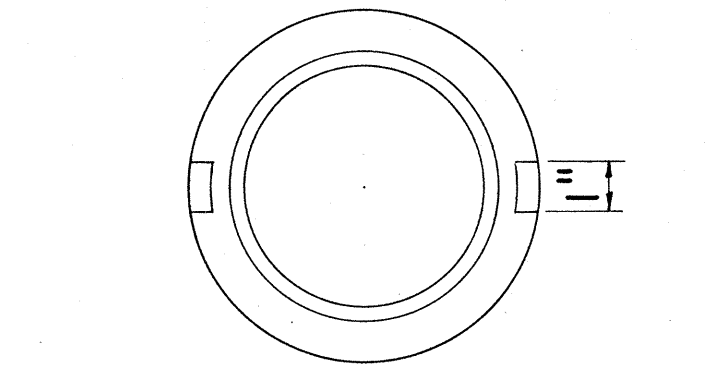
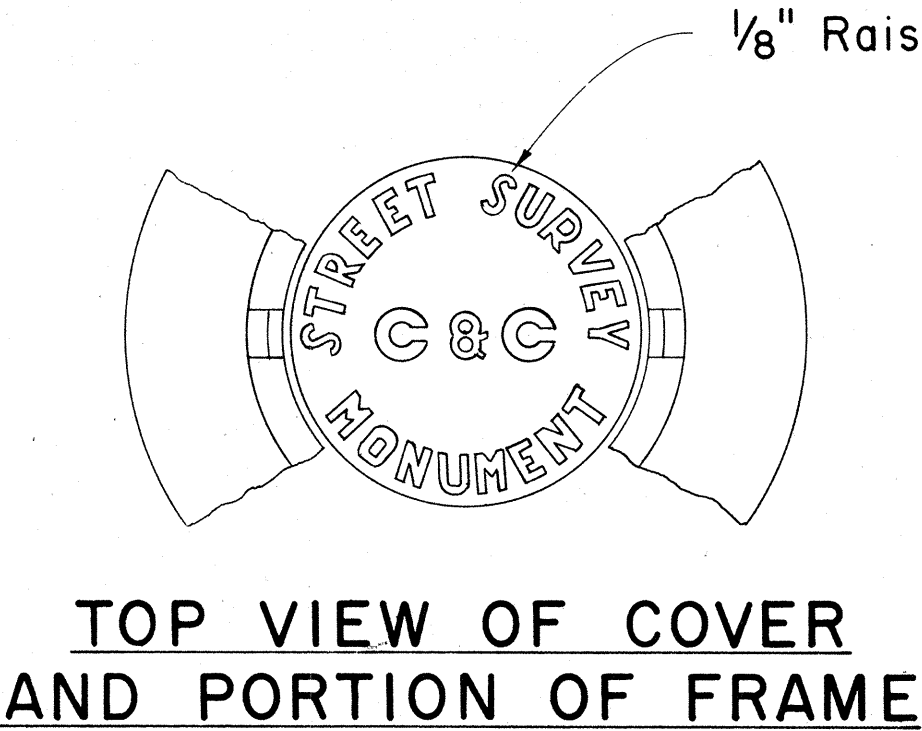
STANDARD DETAILS

TYPICAL DETAILS OF CURB AND/OR GUTTERS

Scale: As Shown

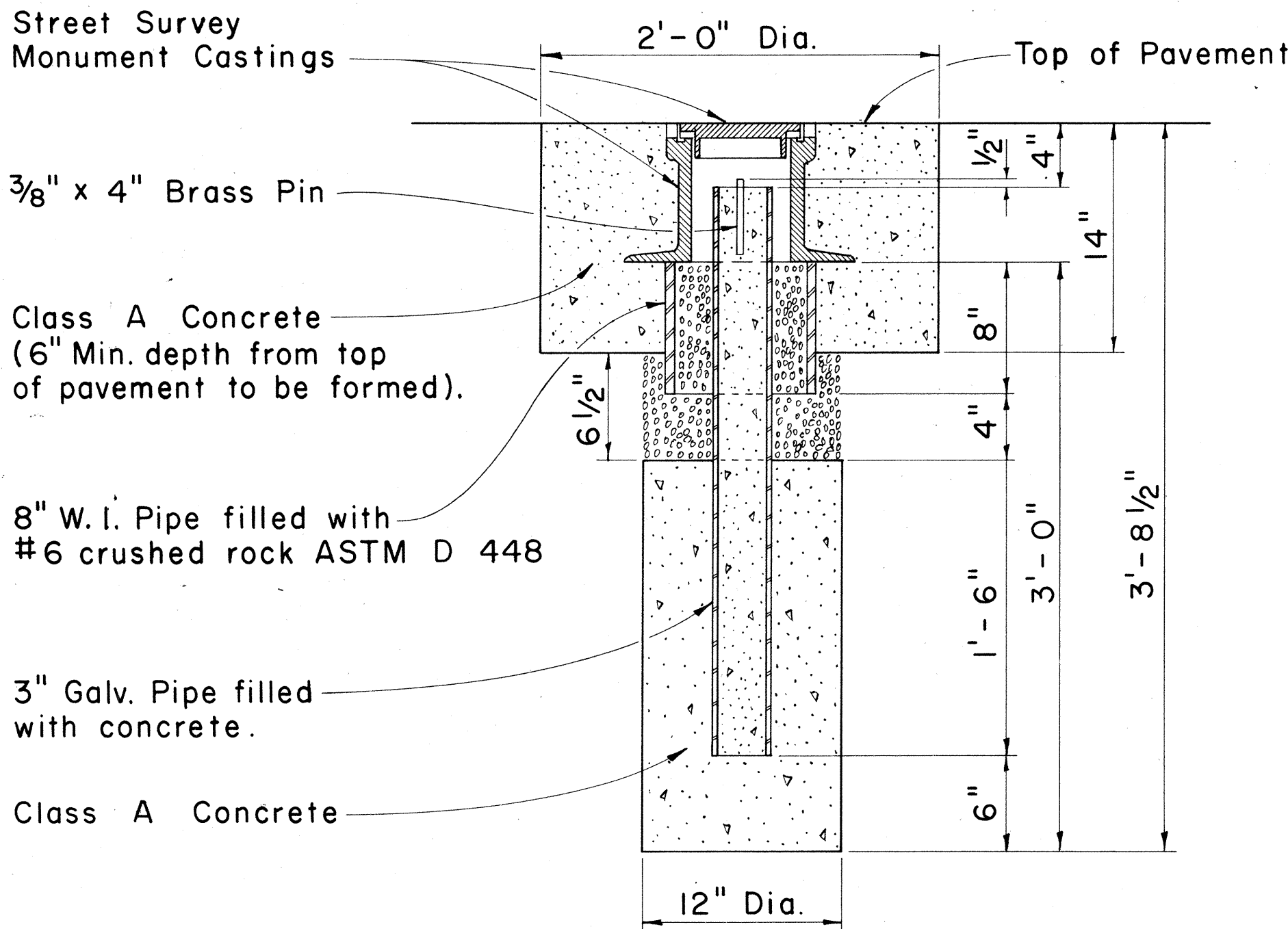
SHEET No. 4 OF 15 SHEETS DD 609.1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	61	244



STREET SURVEY MONUMENT CASTINGS

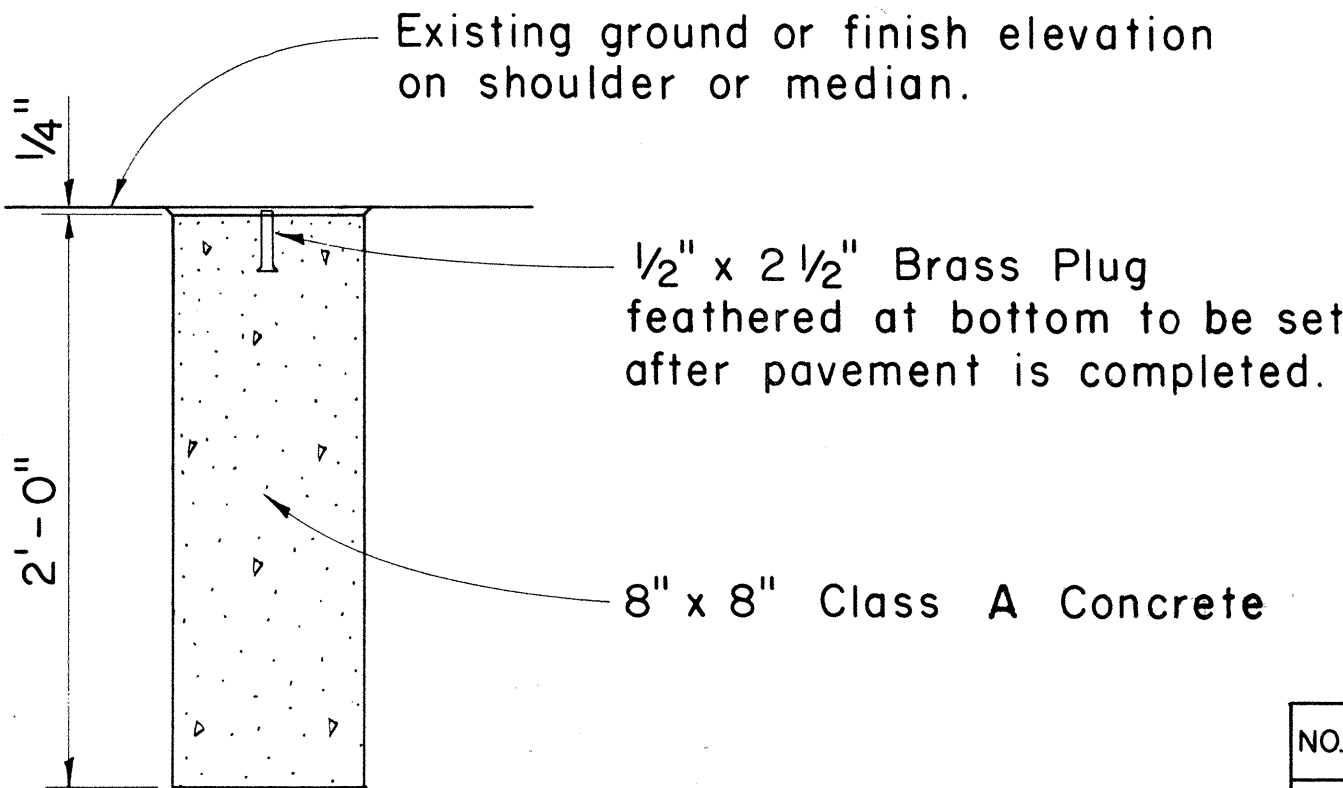
Scale: 3" = 1'-0"



NOTE:
Where the excavation extends into solid rock the depth may be decreased if approved by the Engineer.

STREET SURVEY MONUMENT

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



DETAIL FOR C AND REFERENCE SURVEY MONUMENT

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

APPROVAL RECOMMENDED:
M. Hironaka
HIGHWAY DESIGN ENGINEER 12-4-69
DATE

APPROVED:
W. J. Salsbery
ASSISTANT CHIEF, ENGINEERING 12-10-69
DATE

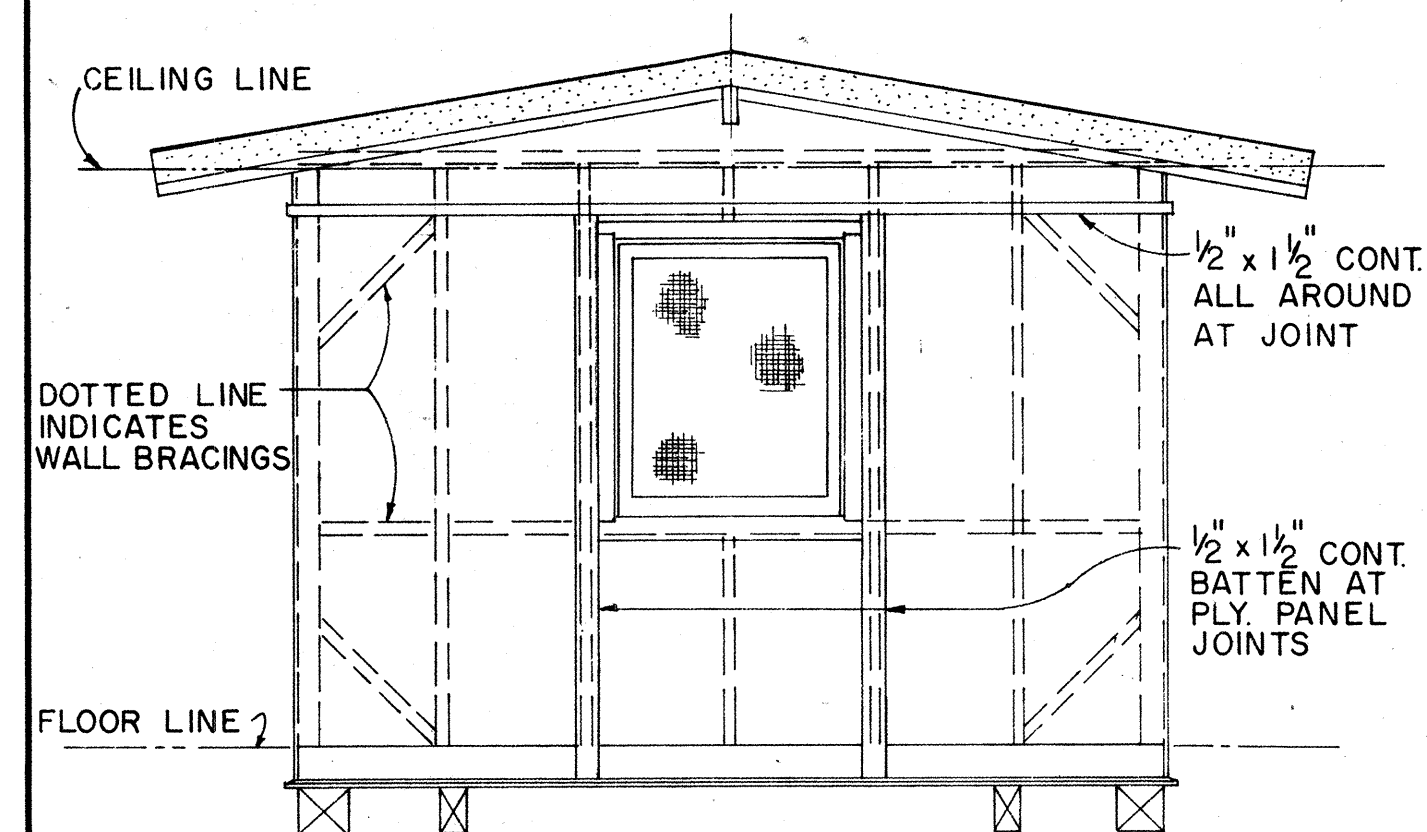
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

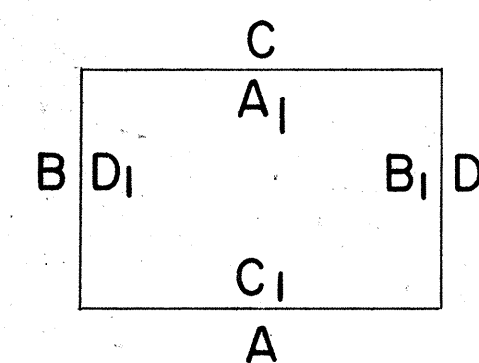
STANDARD DETAILS
CENTERLINE, REFERENCE SURVEY
AND C & C STREET SURVEY
MONUMENTS

Scale: As Shown

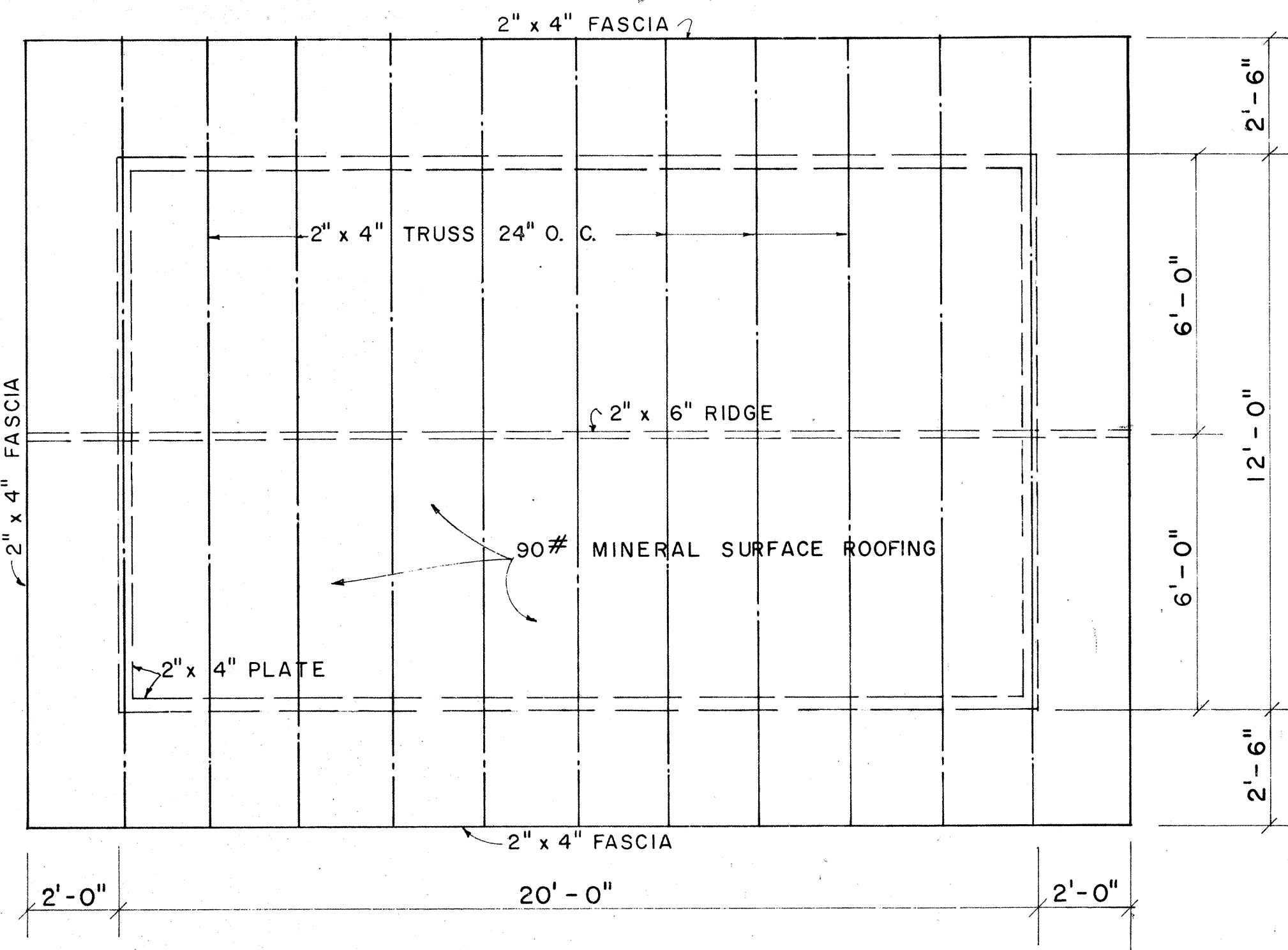
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	M-7600 (2)	1980	62	244



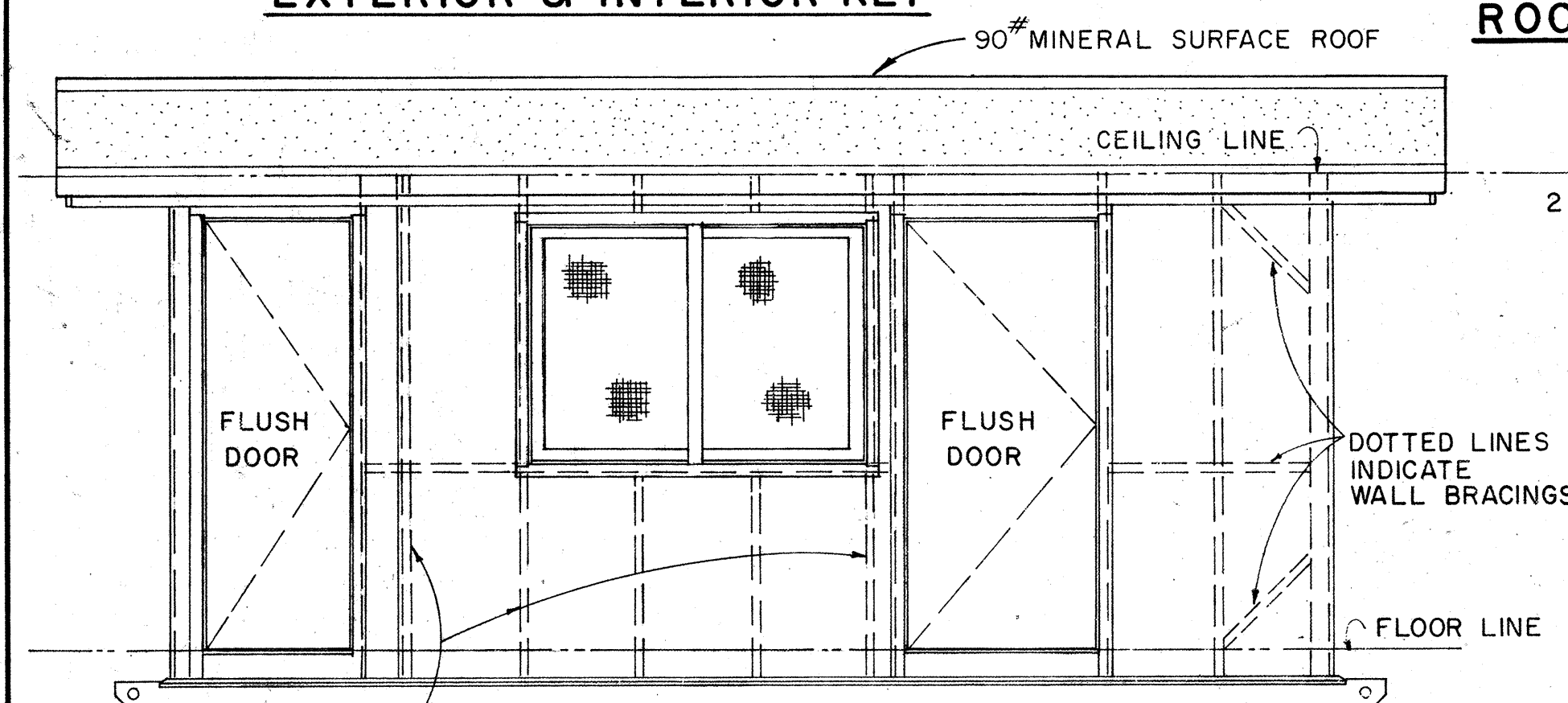
ELEVATION (B)
ELEVATION (D) SIMILAR
SCALE: $\frac{3}{8}" = 1"-0"$



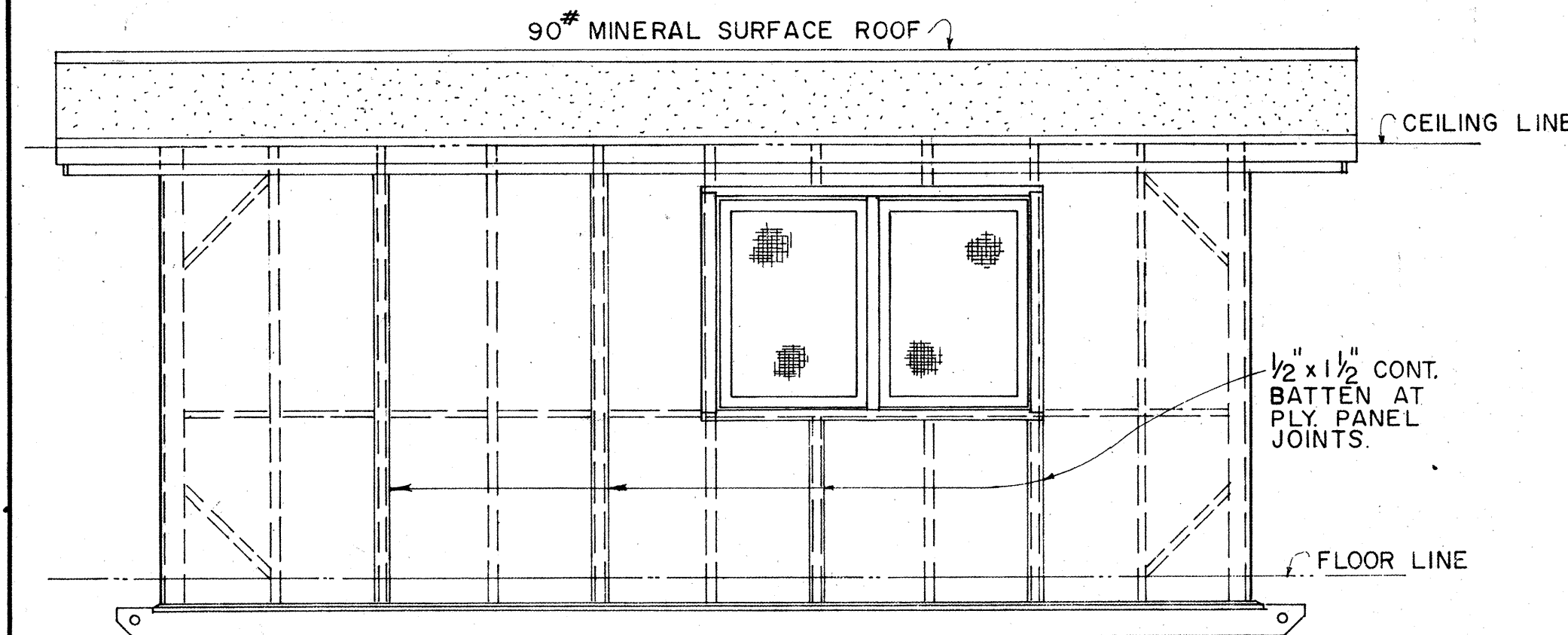
EXTERIOR & INTERIOR KEY



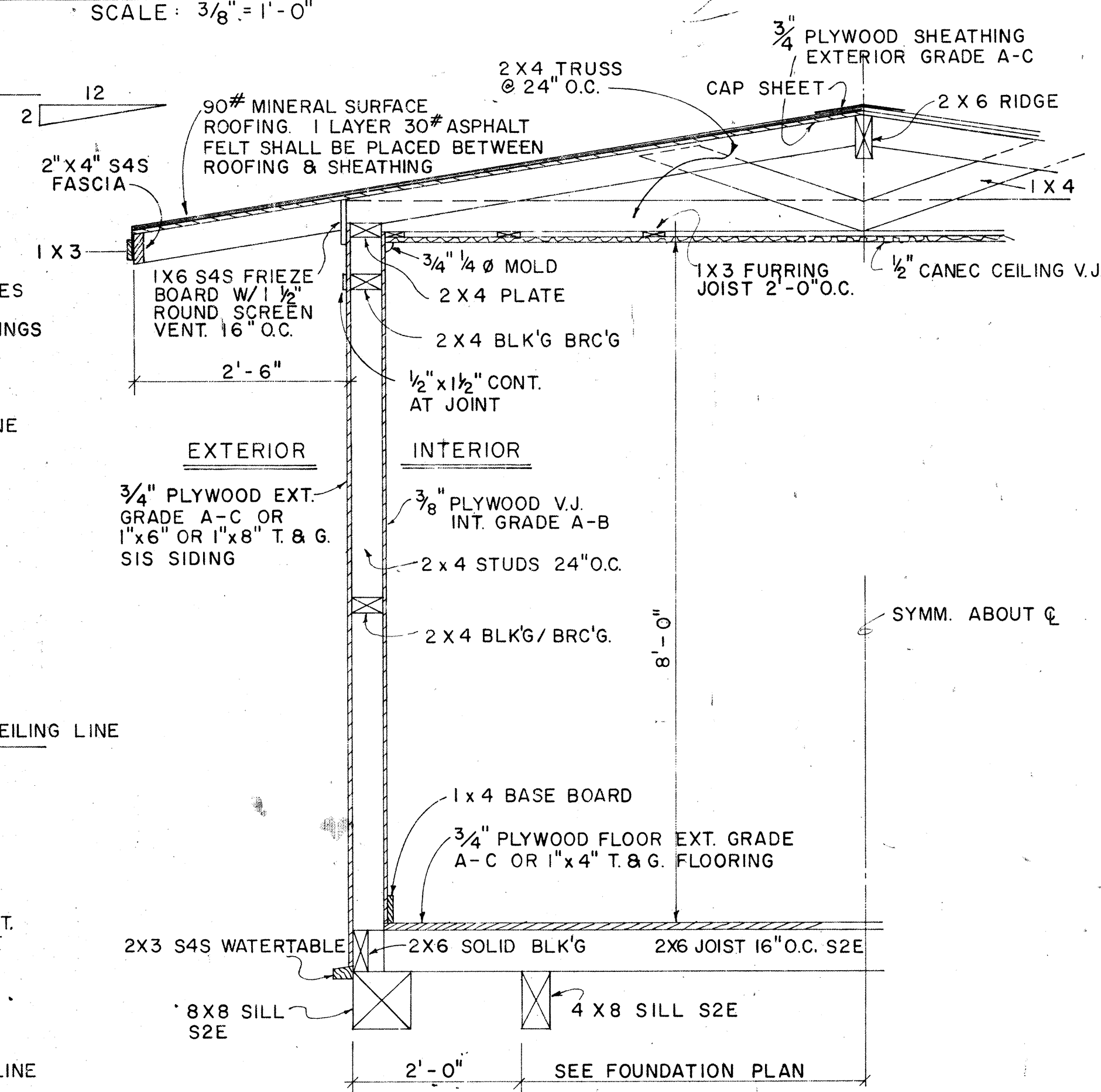
ROOF FRAMING PLAN
SCALE: $\frac{3}{8}" = 1'-0"$



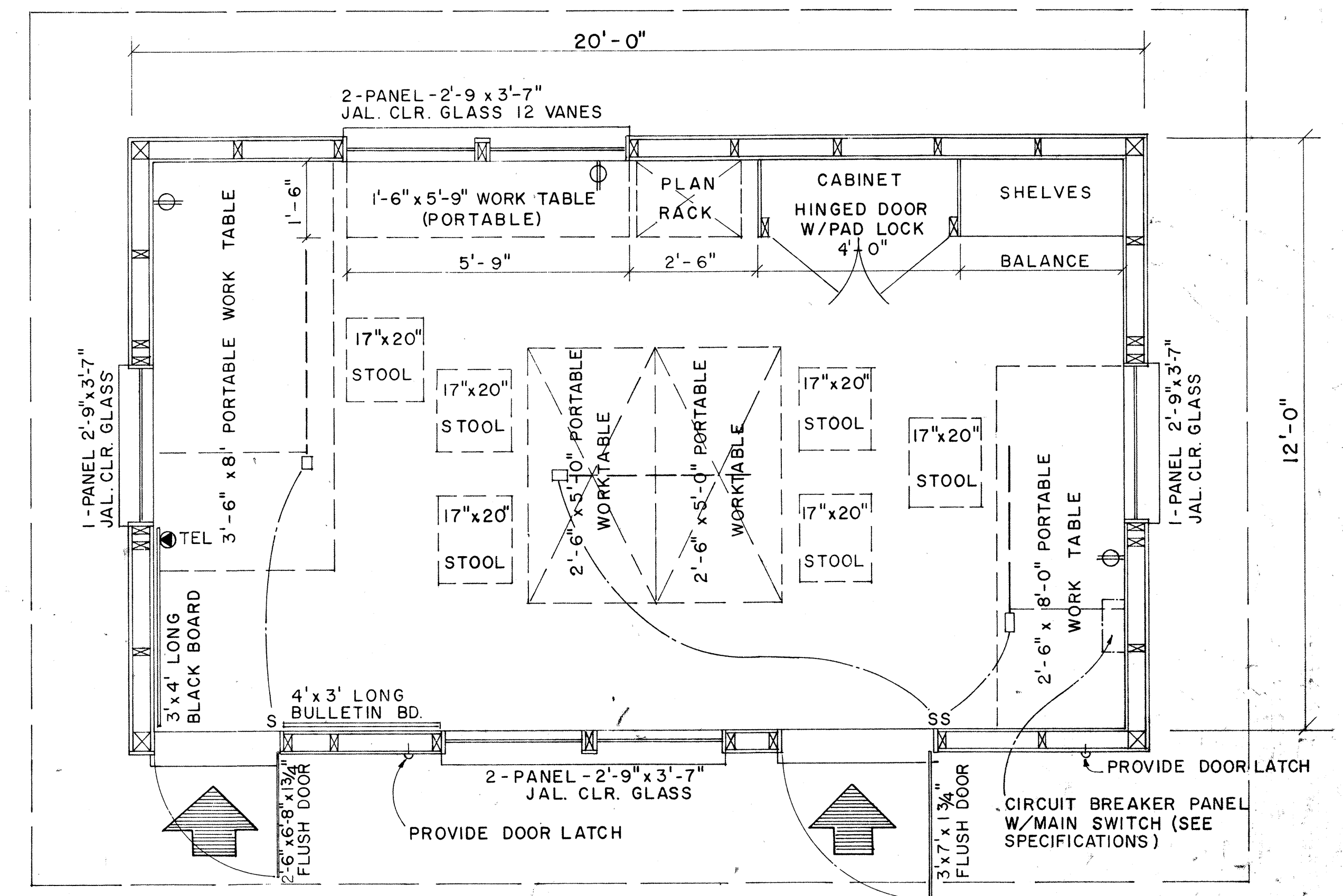
ELEVATION **(A)**
SCALE: $\frac{3}{8}" = 1' - 0"$



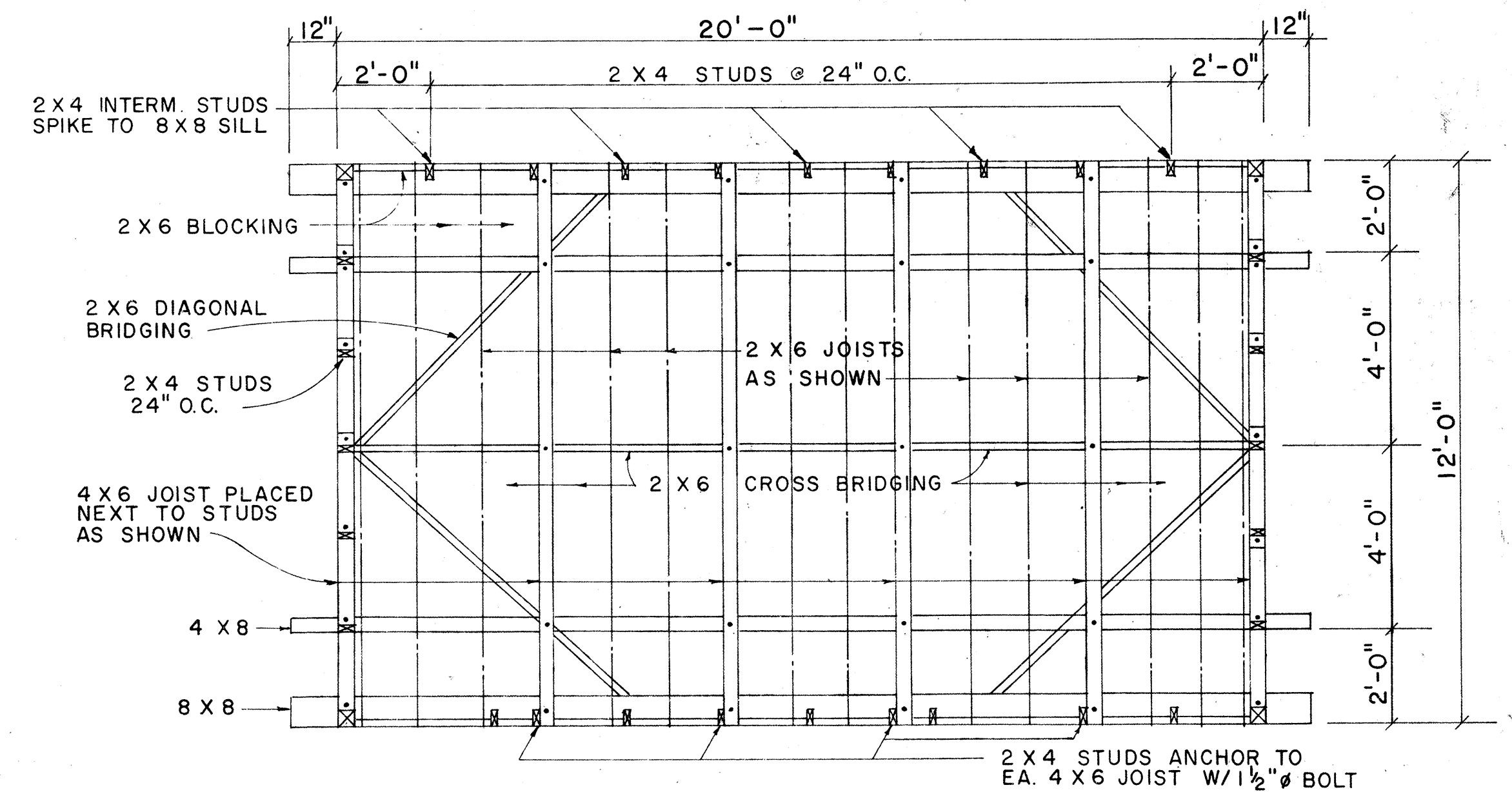
ELEVATION (C)
SCALE: $\frac{3}{8}" = 1' - 0"$



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



FLOOR PLAN
SCALE: $\frac{1}{2}" = 1' - 0"$



FOUNDATION FRAMING PLAN
SCALE: $\frac{3}{8}" = 1' - 0"$

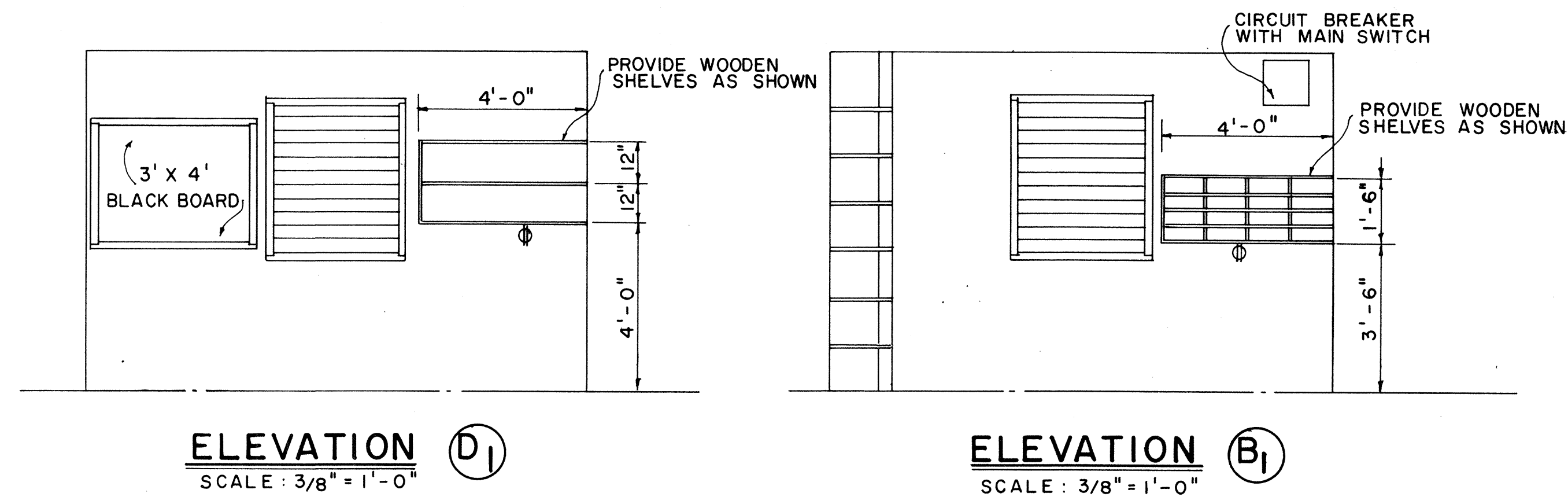
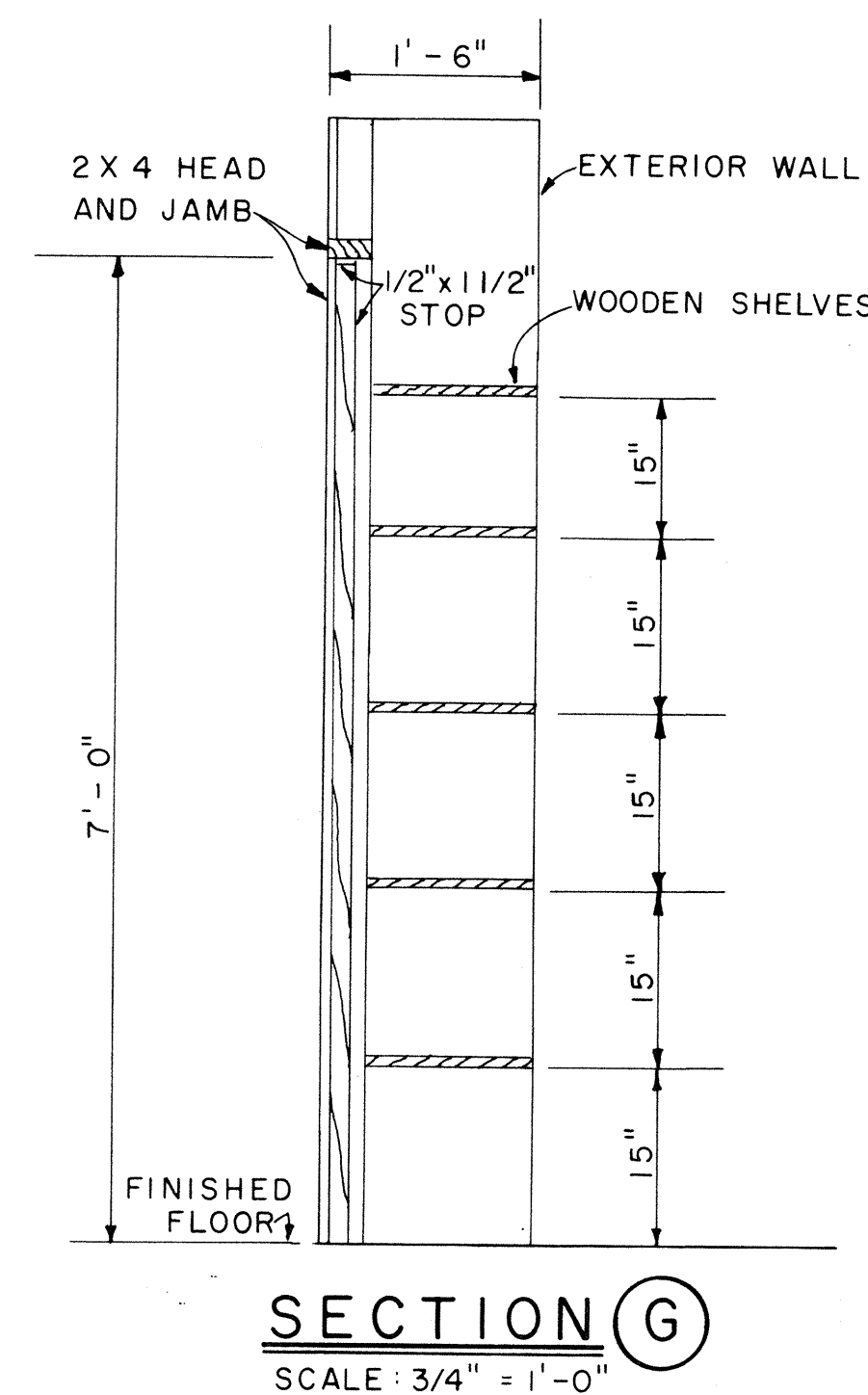
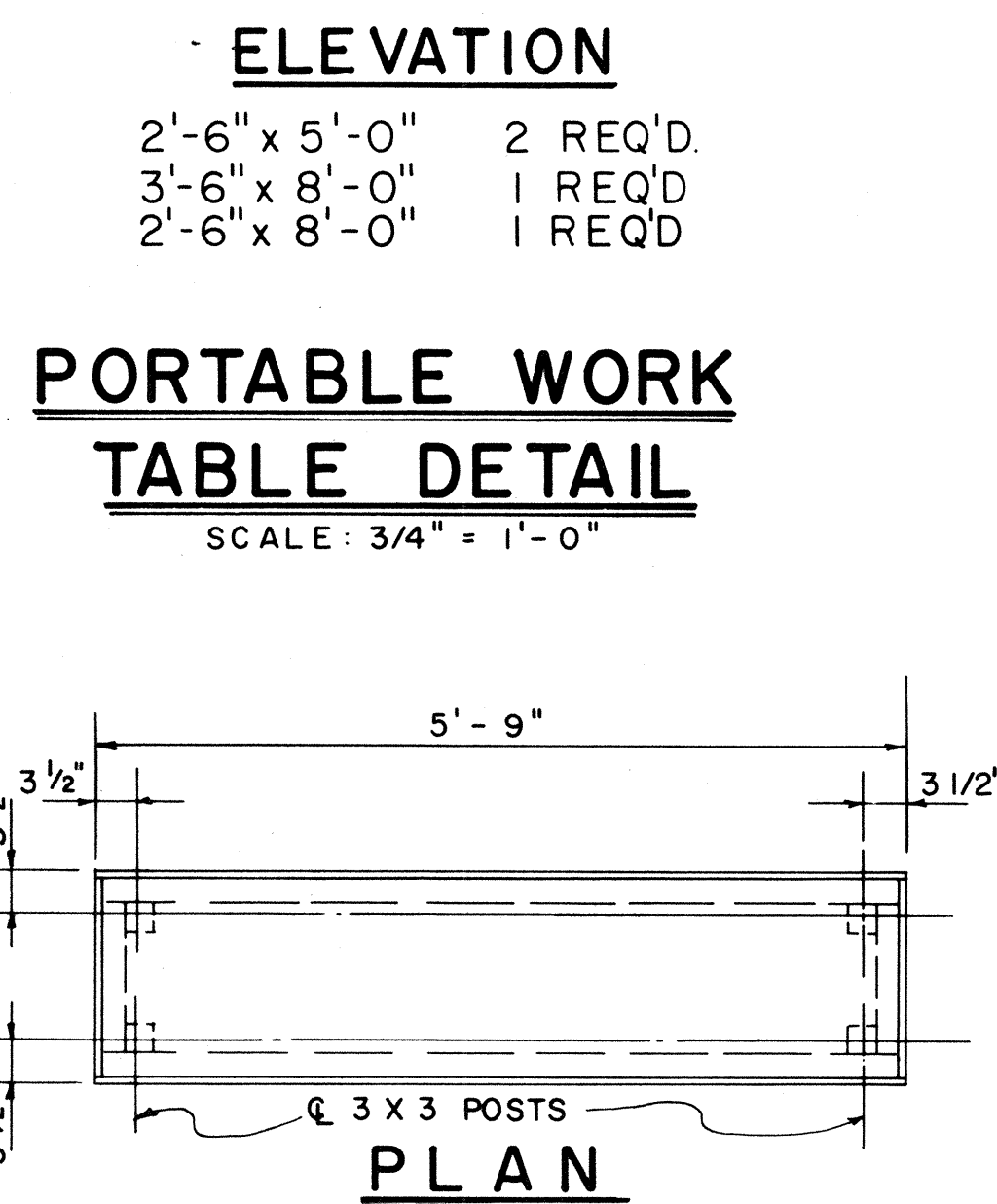
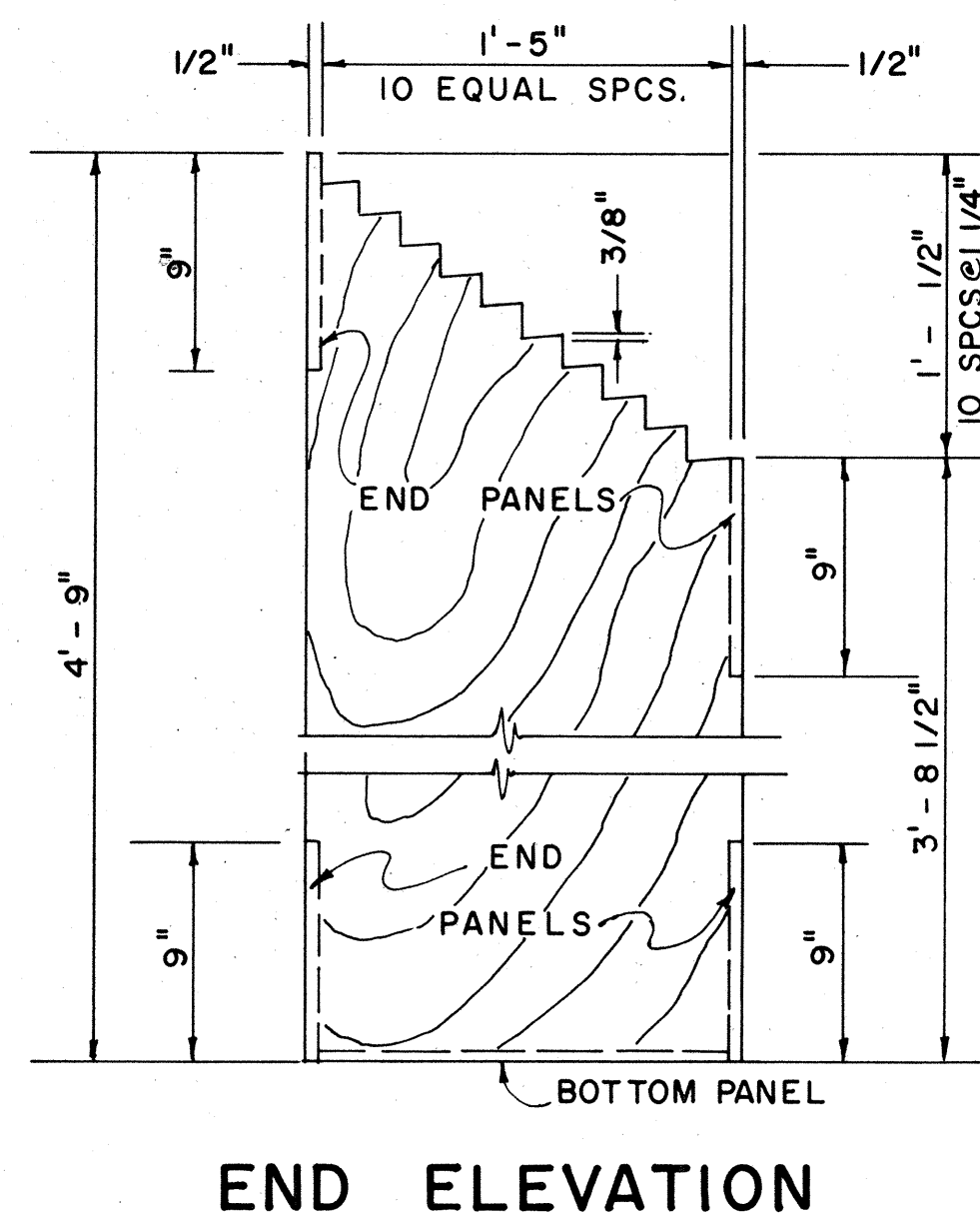
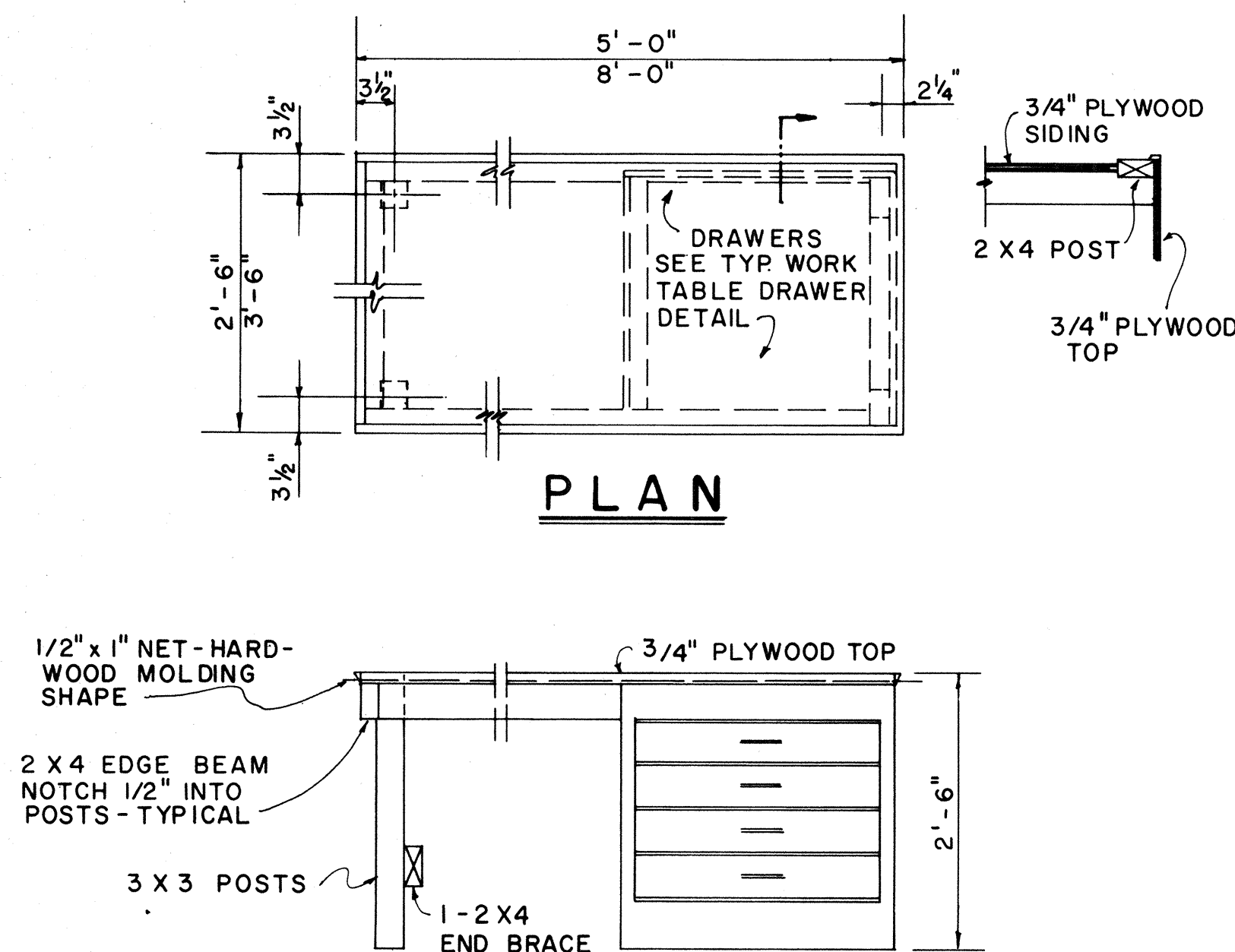
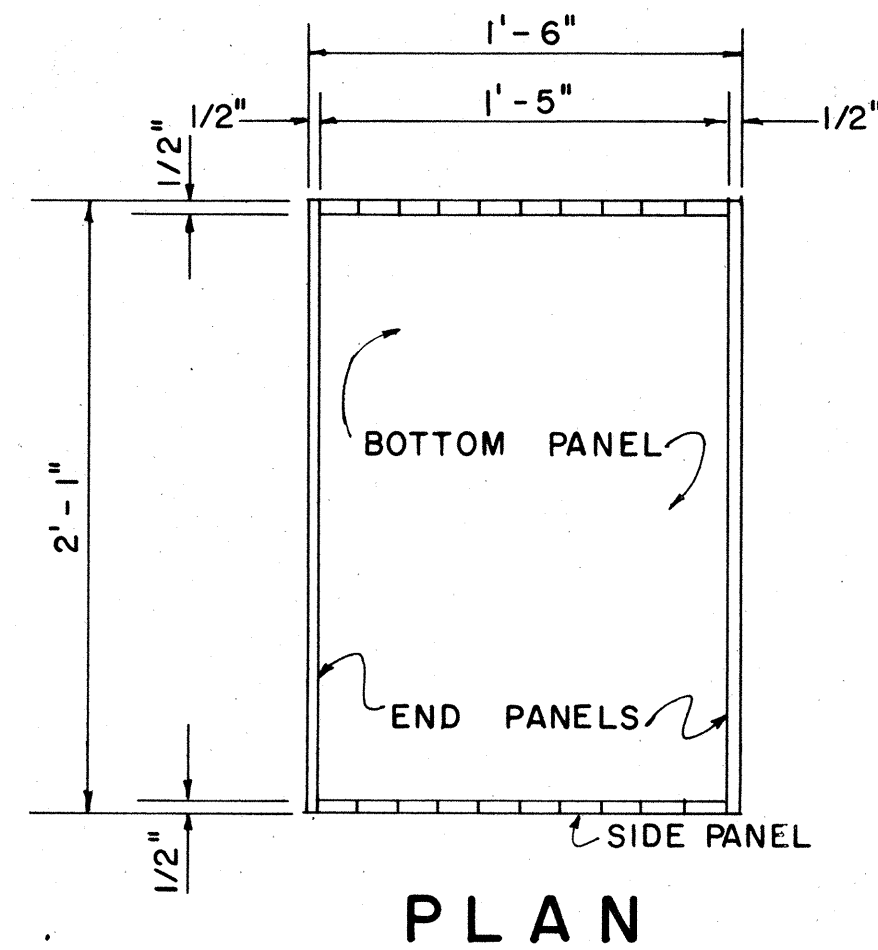
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
FIELD OFFICE

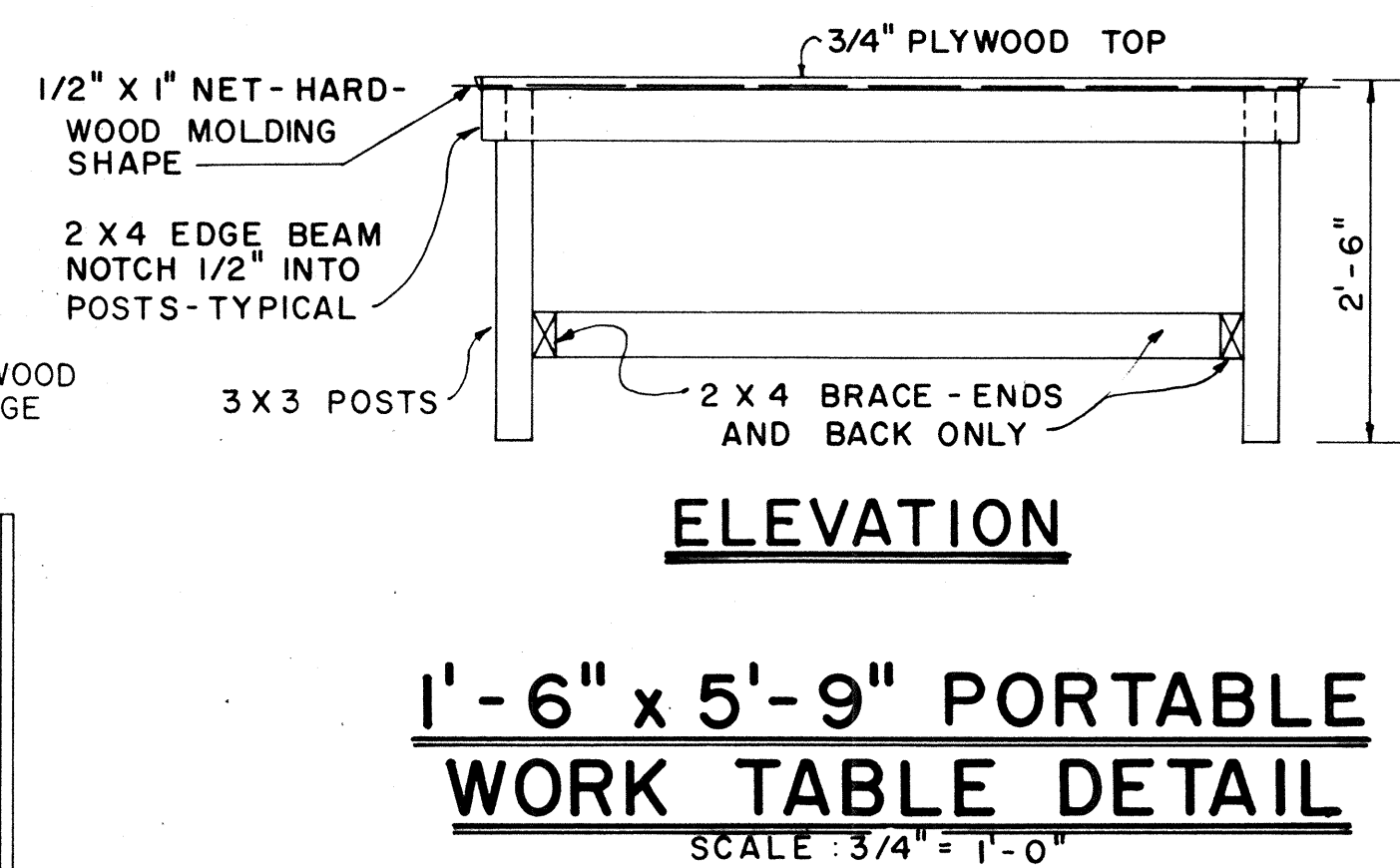
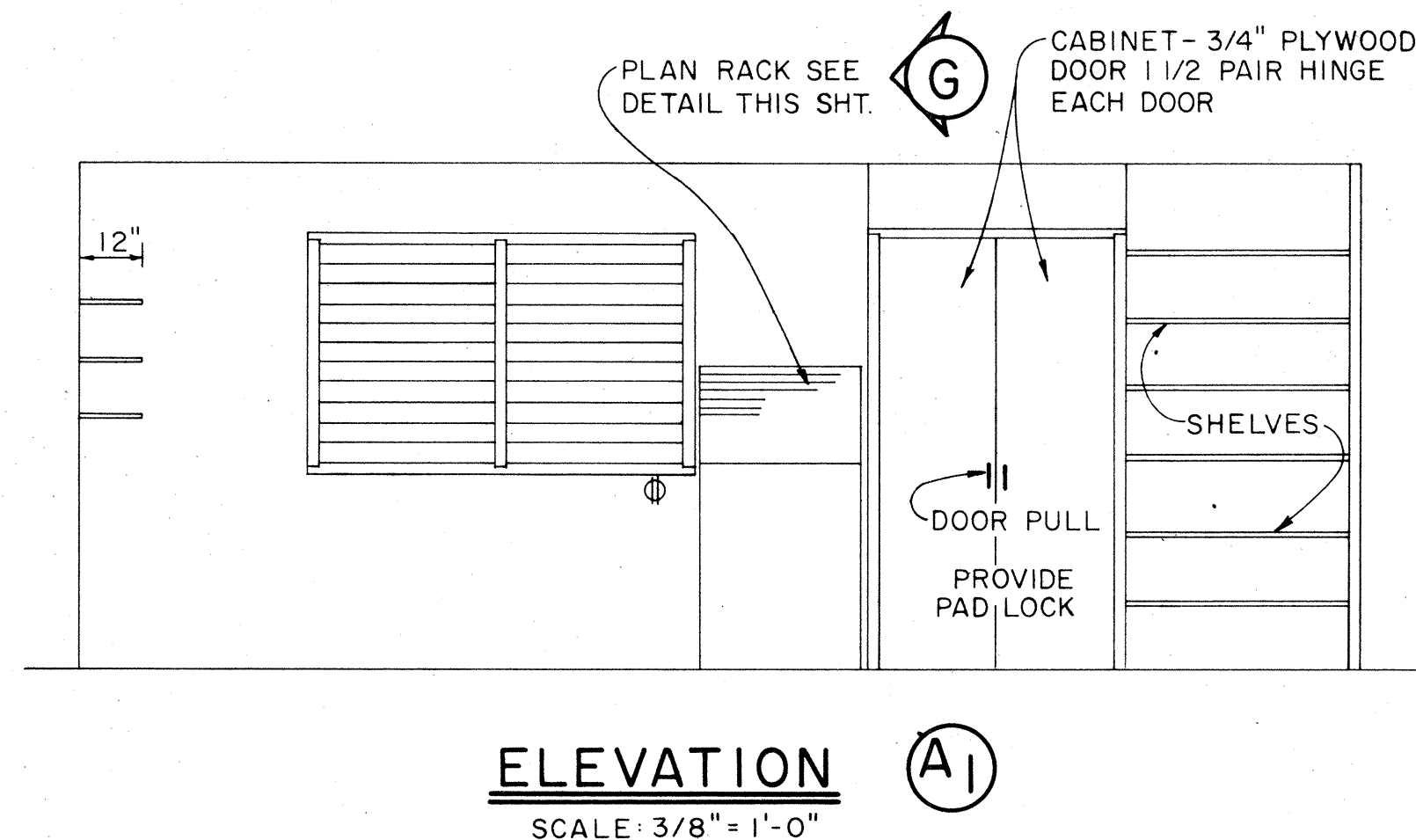
Scale : As Noted

SHEET NO 6 OF 15 SHEETS DD 636.1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	M-7600 (2)	1980	63	244



PLAN RACK DETAIL
SCALE: 1 1/2" = 1'-0"
(ONE REQUIRED)



APPROVAL RECOMMENDED:

HIGHWAY DESIGN ENGINEER 12-4-69
DATE

APPROVED:

ASSISTANT CHIEF, ENGINEERING 12-10-69
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION DIVISION

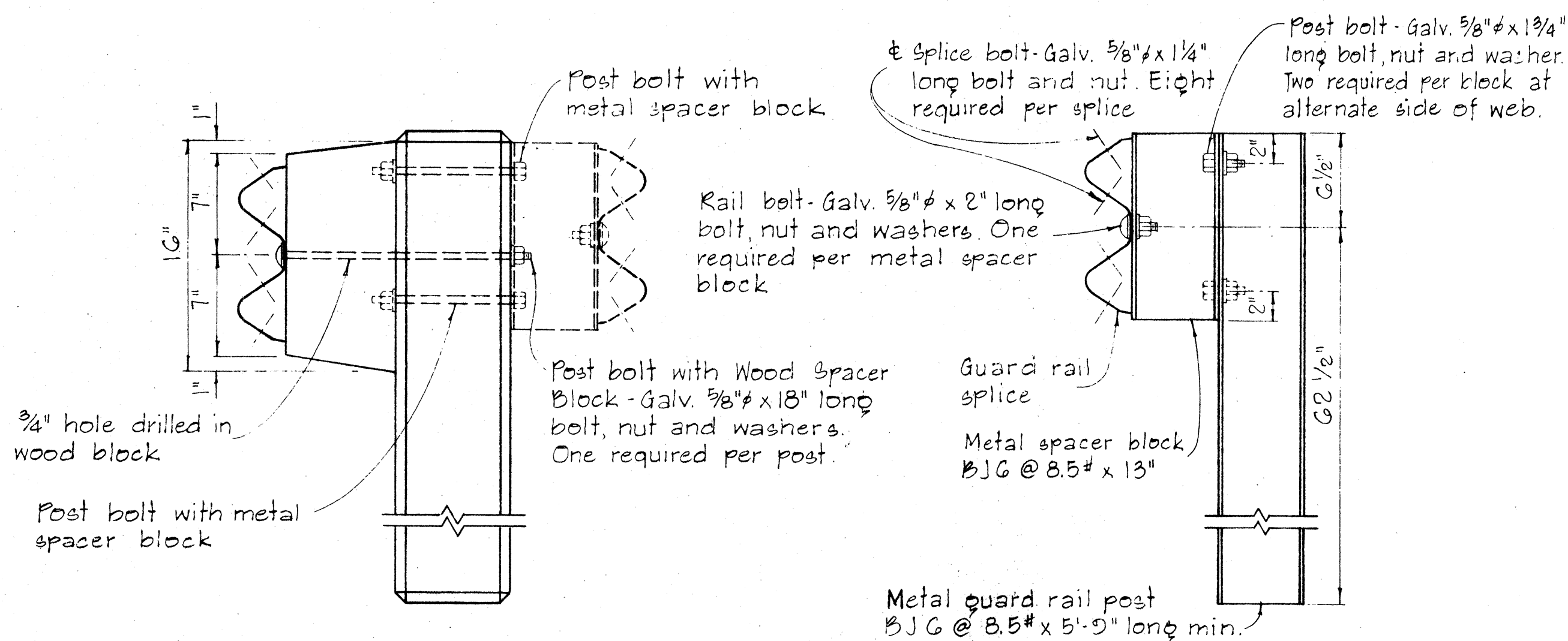
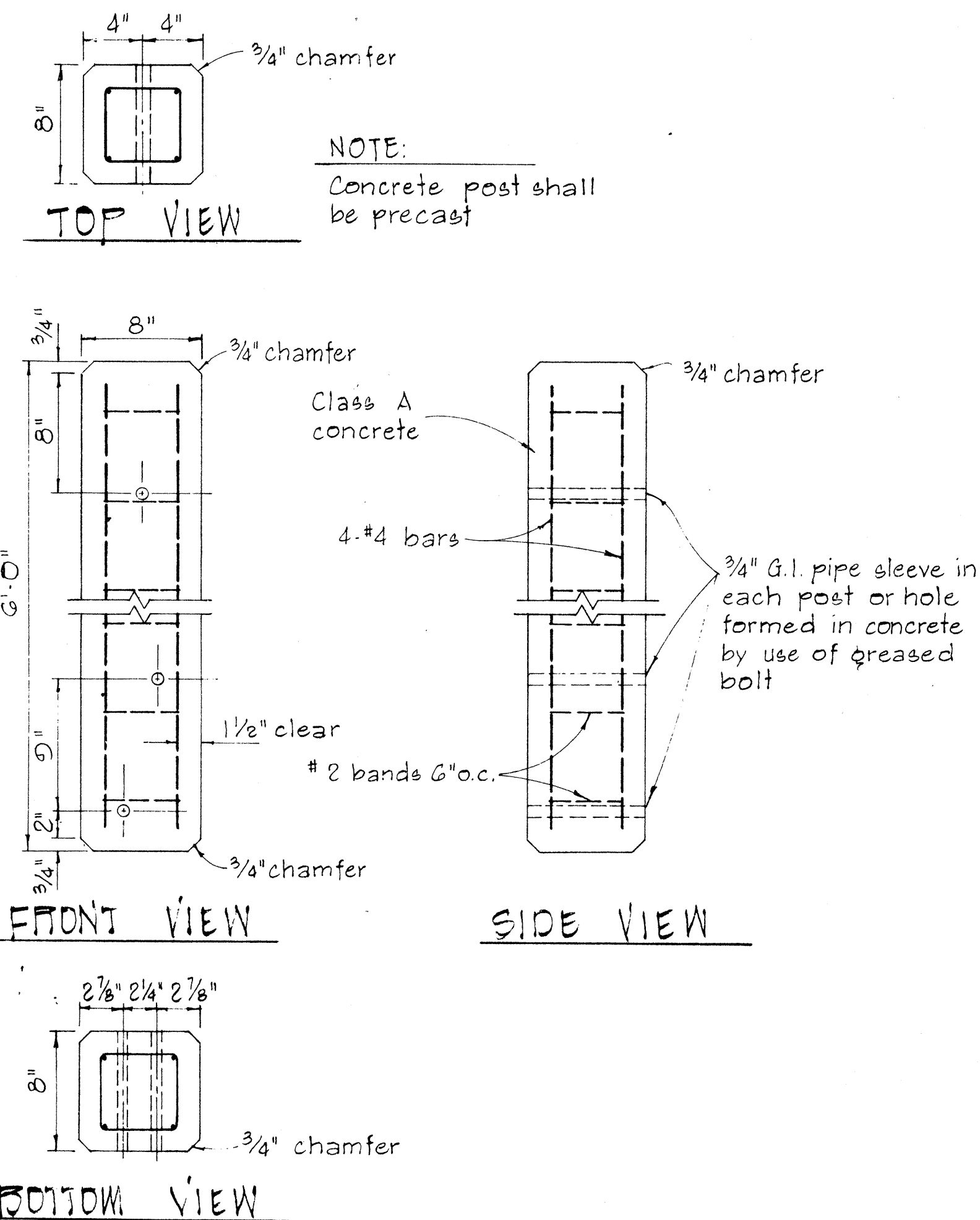
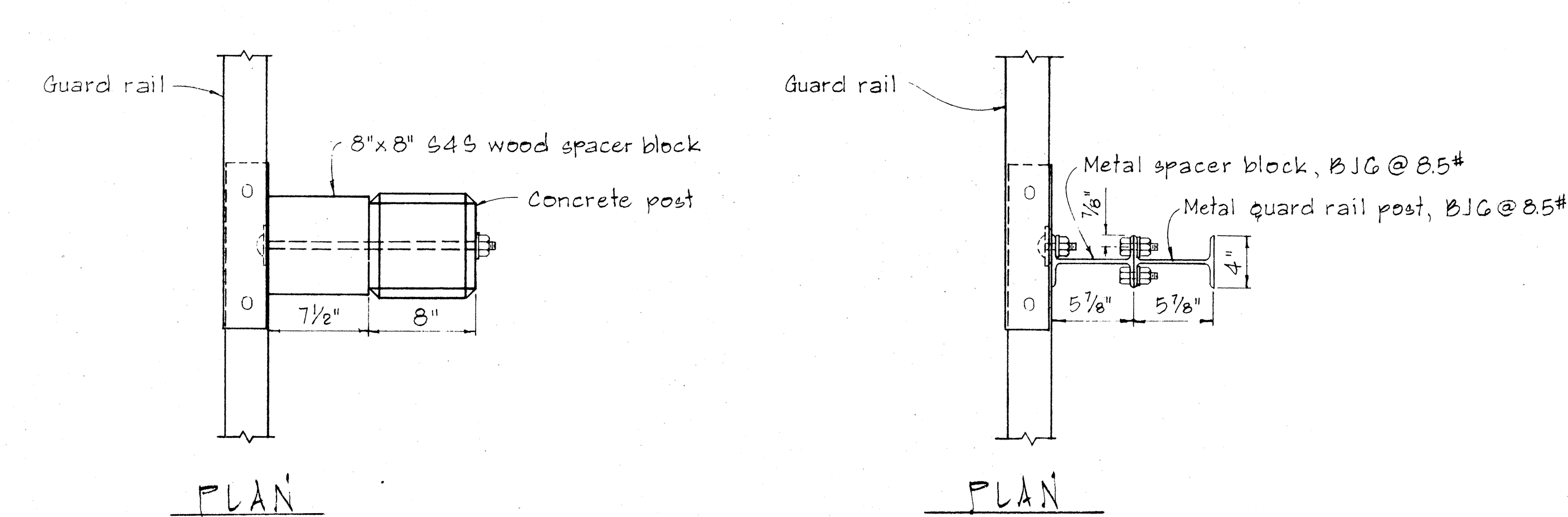
FIELD OFFICE

Scale: As Noted

SHEET No. 7 OF 15 SHEETS DD 636.2

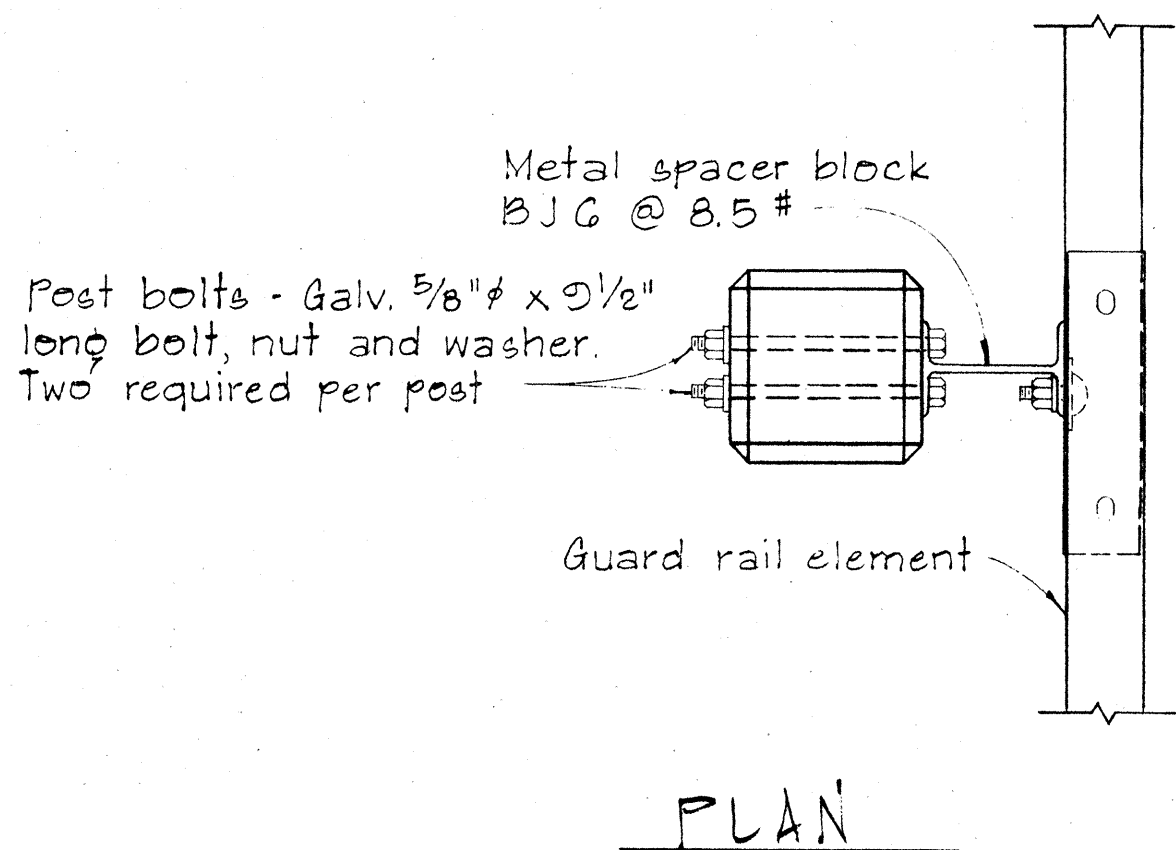
ORIGINAL PLAN	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	65	244

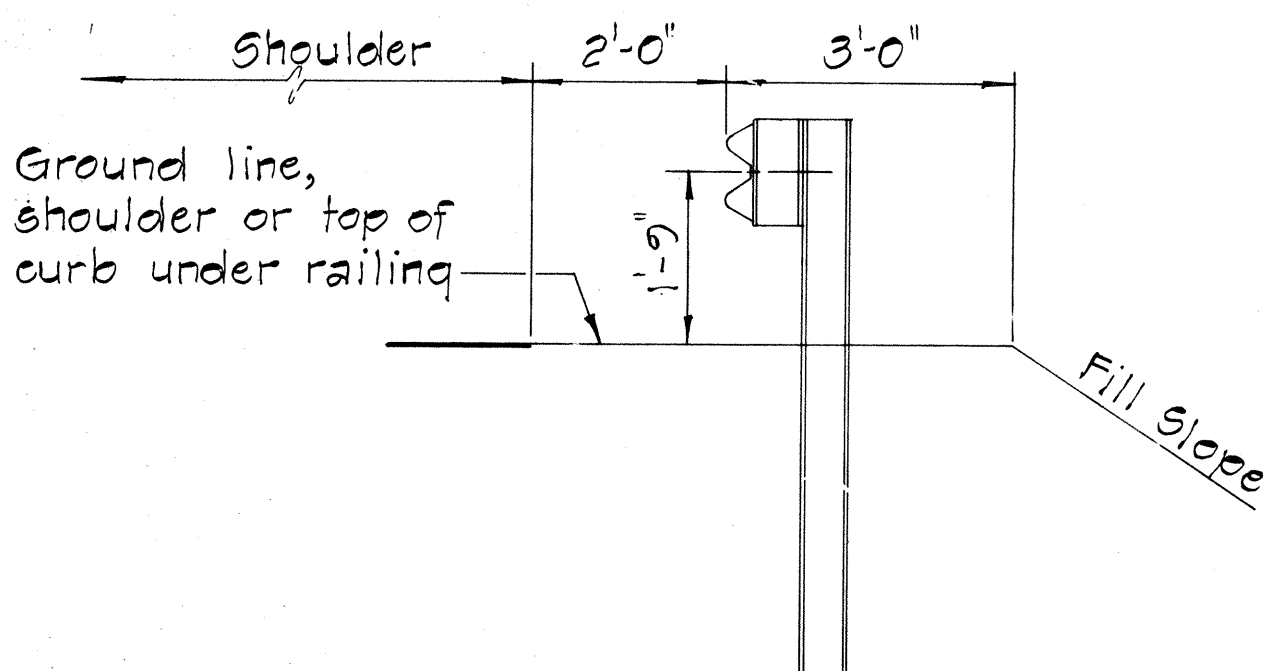


SINGLE METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK
SCALE: 1 1/2" = 1'-0"

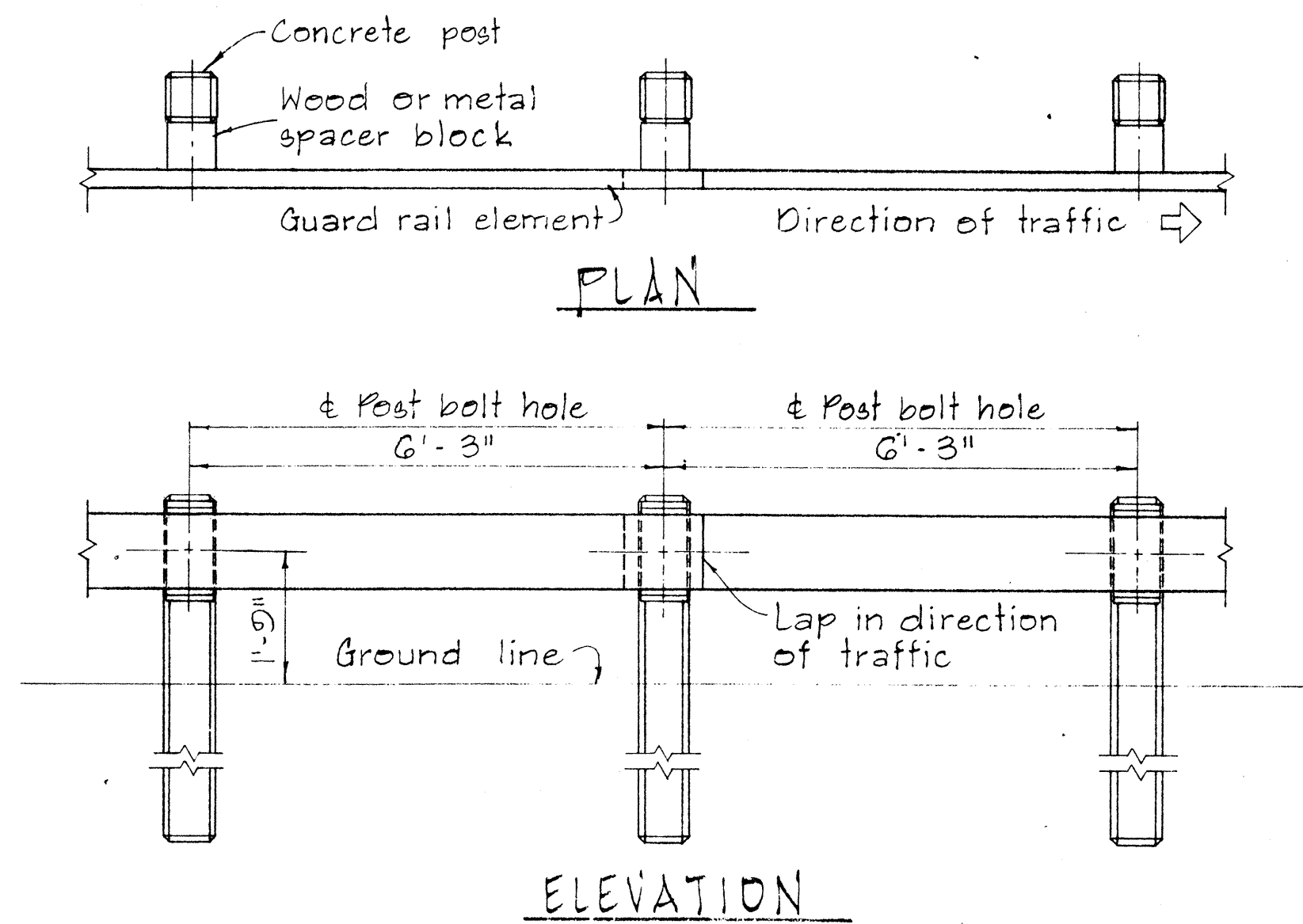
DETAIL OF CONCRETE POST
SCALE: 1 1/2" = 1'-0"



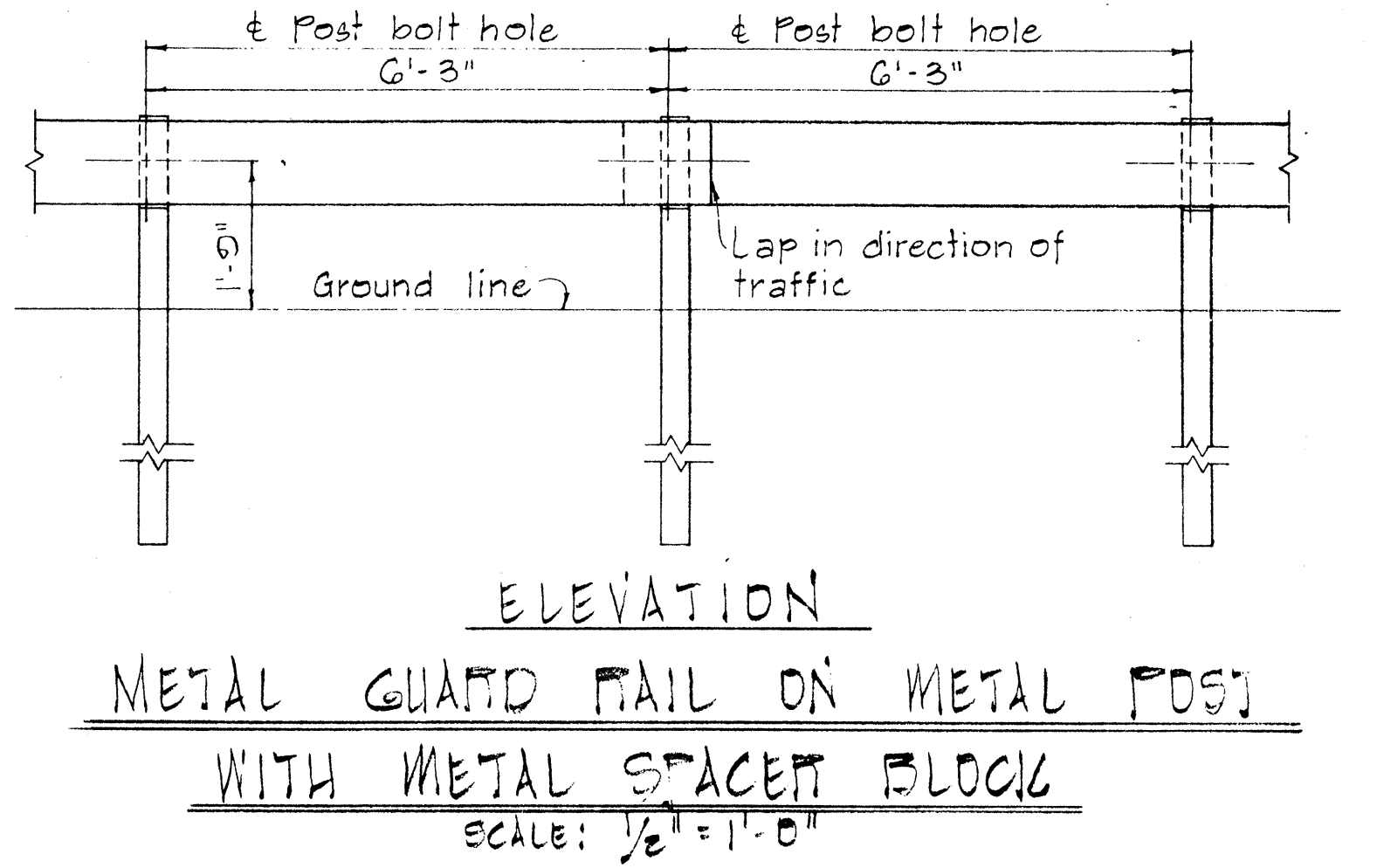
SINGLE METAL GUARD RAIL ON PRECAST CONCRETE POST WITH WOOD OR METAL SPACER BLOCK
SCALE: 1 1/2" = 1'-0"



AT SHOULDER SECTION
TYPICAL METAL GUARD RAIL DETAIL
SCALE: 1/2" = 1'-0"



METAL GUARD RAIL ON CONCRETE POST WITH WOOD OR METAL SPACER BLOCK
SCALE: 1/2" = 1'-0"



METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK
SCALE: 1/2" = 1'-0"

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eugene Tanaka
TRAFFIC ENGINEER 12/29/69
DATE

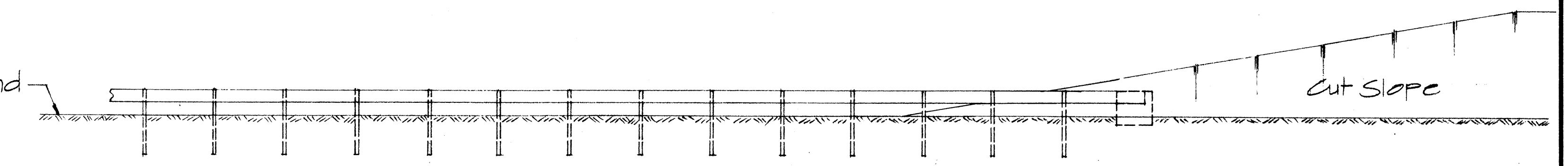
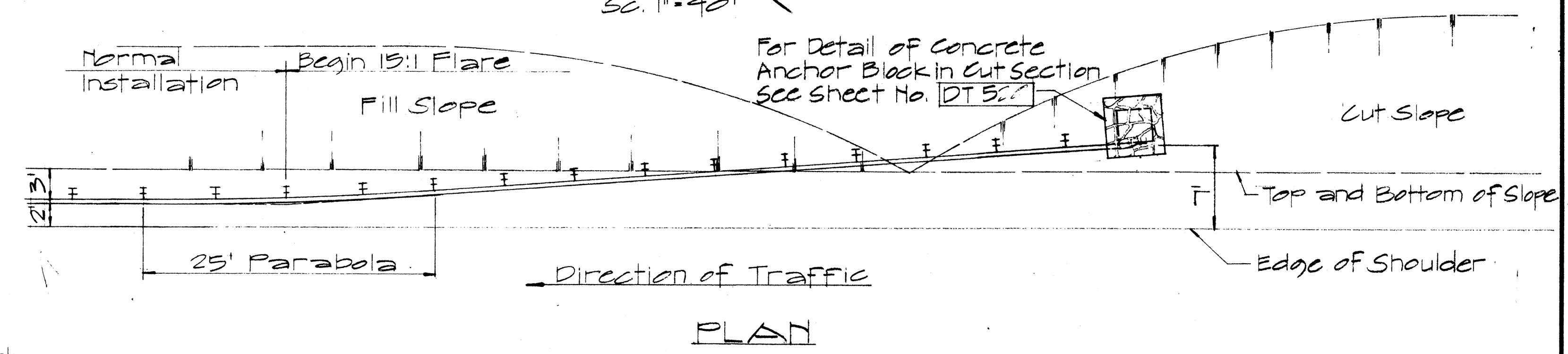
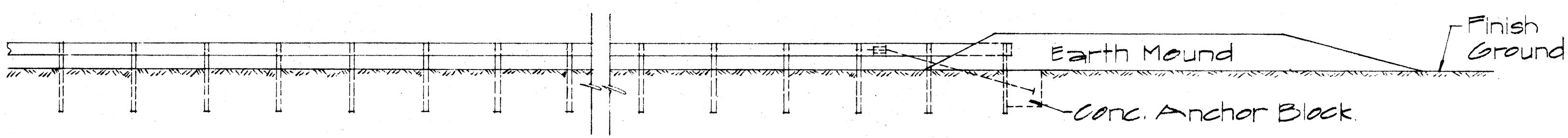
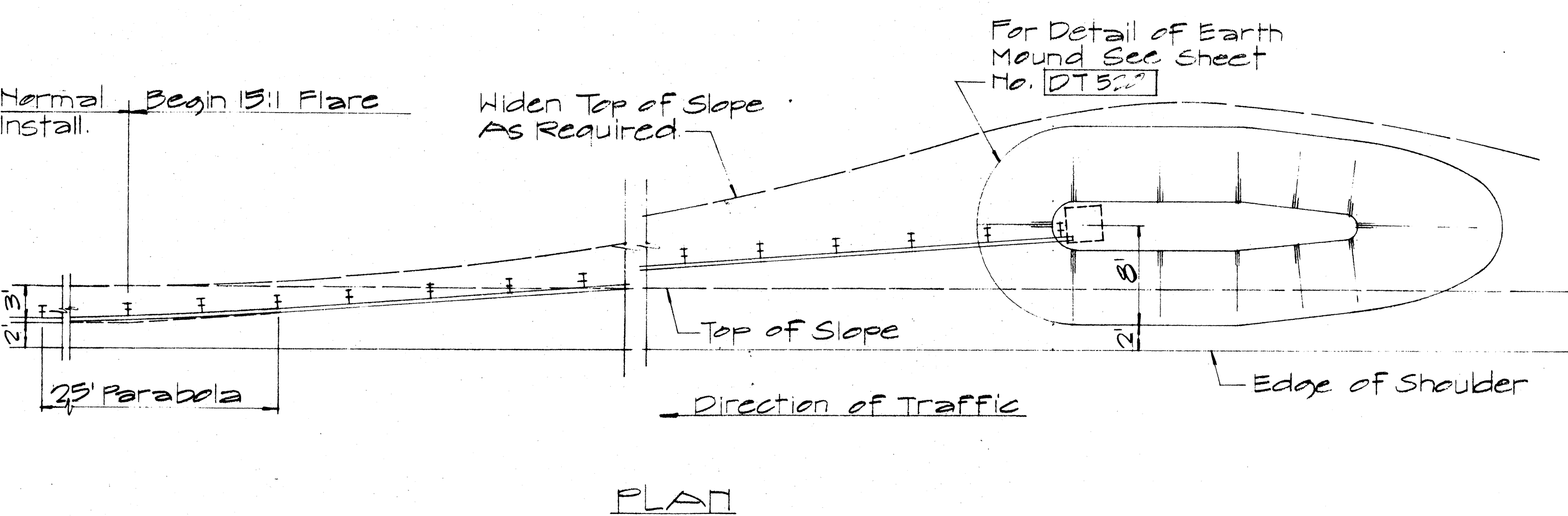
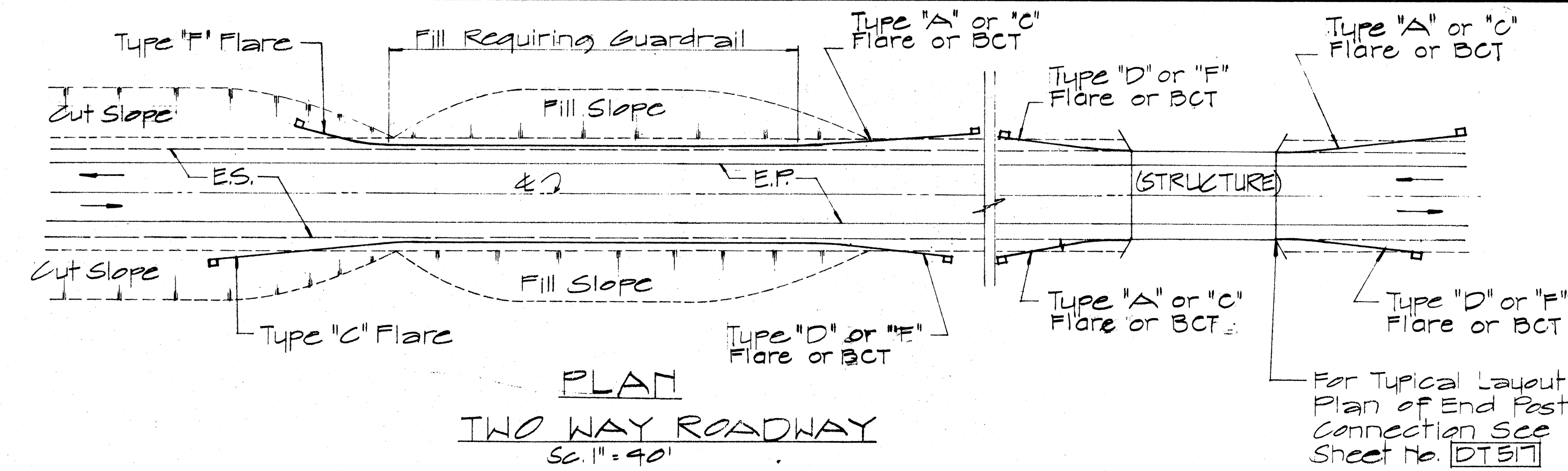
APPROVED:
Hubert J. Delaney
ASSISTANT CHIEF, ENGINEERING 12-30-69
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
METAL GUARD RAIL
SCALE: AS SHOWN NOV. 1968

SHEET No. 9 OF 15 SHEETS DT 500

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	67	244

NOTE:
 1. Metal guard rail connection to structures requires End Post Connection. See structure plans.
 2. For detail of Breakaway Cable Terminal (BCT) See Sheet No. DT 519



APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/69
 TRAFFIC ENGINEER DATE

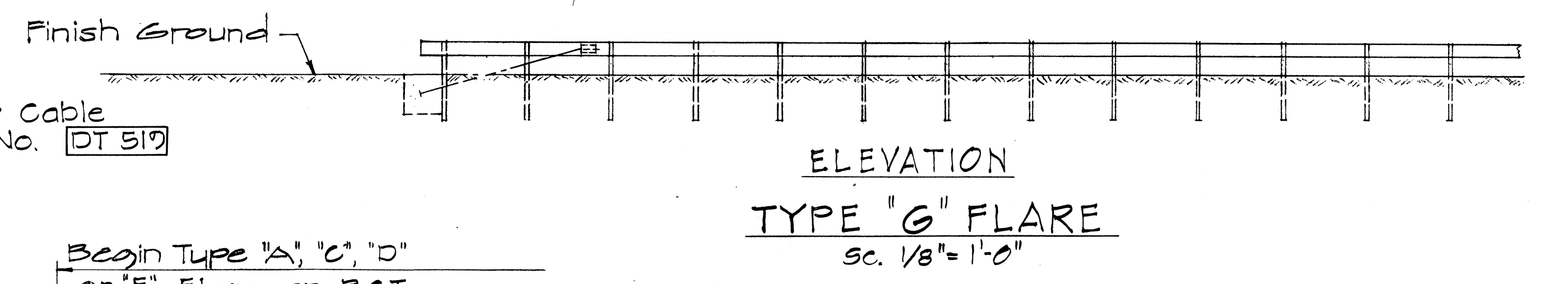
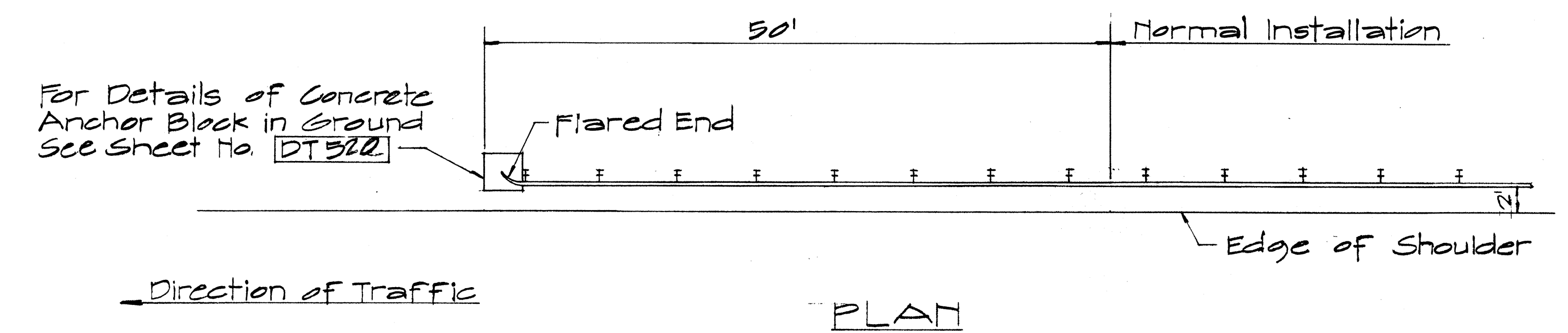
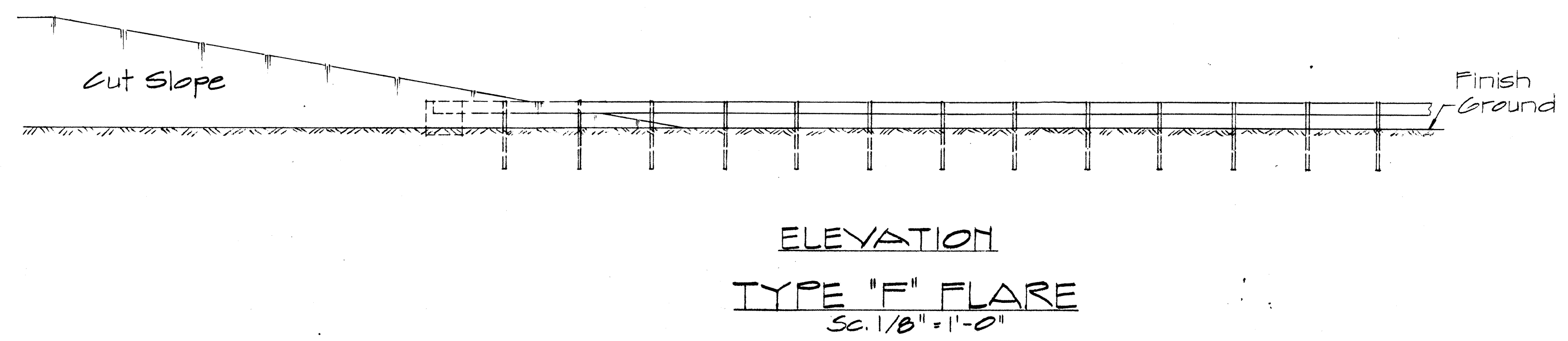
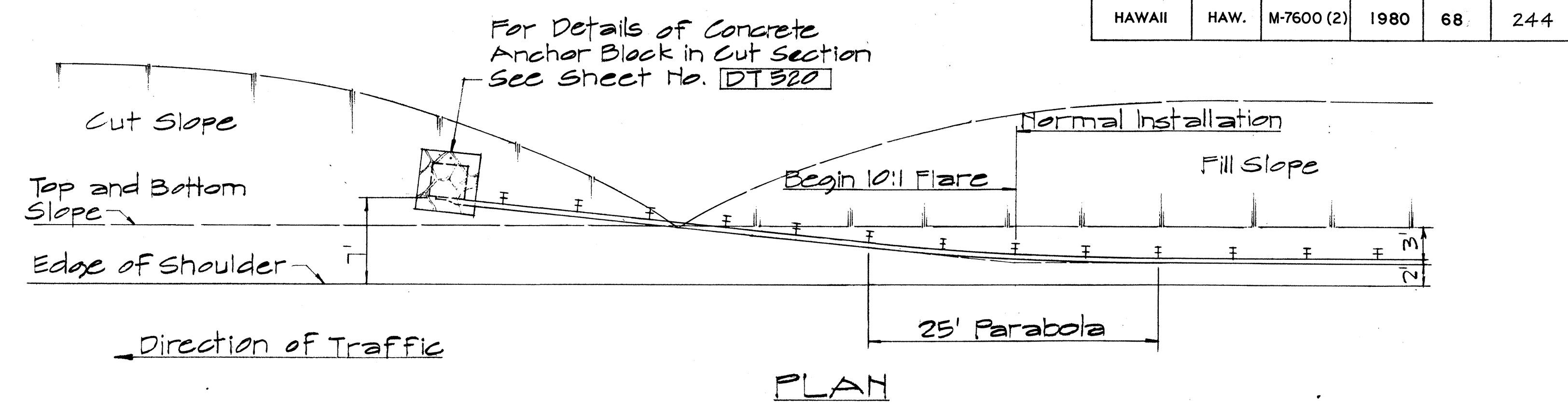
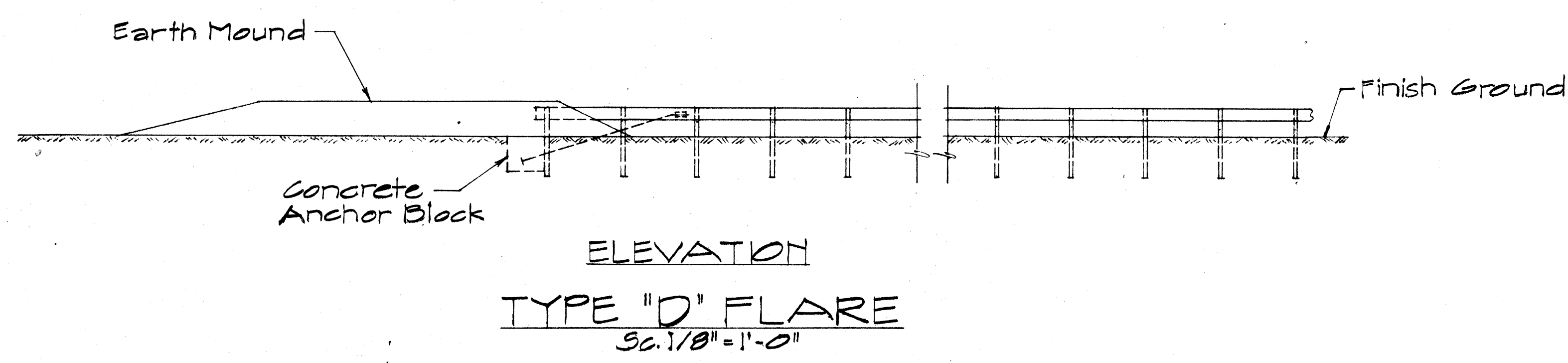
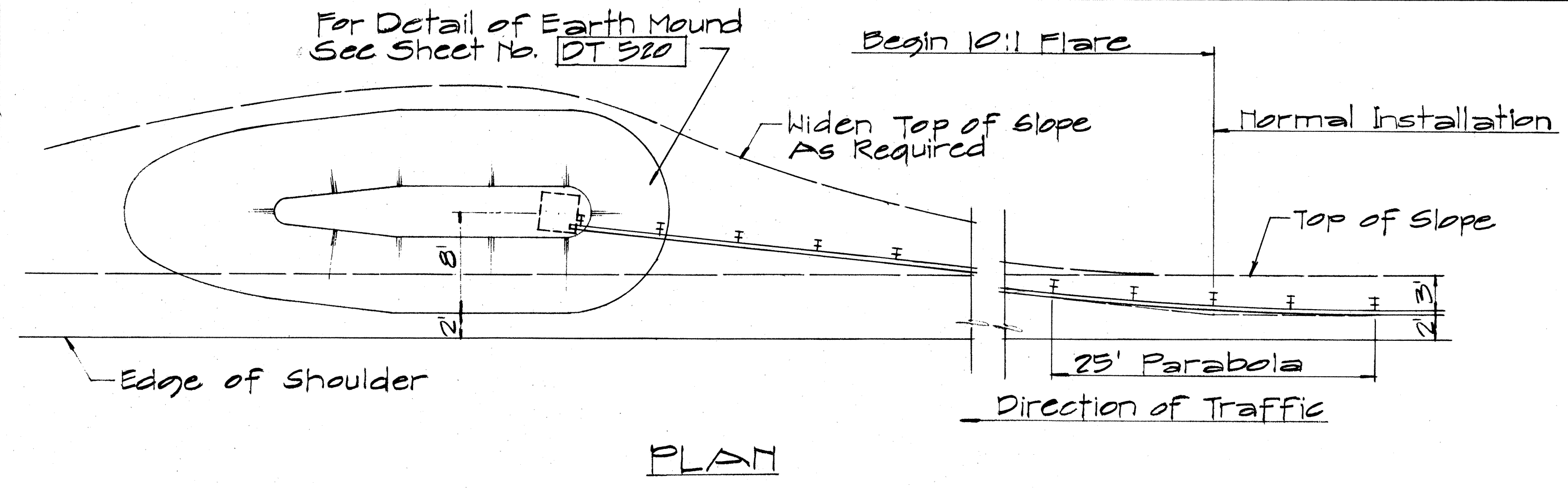
APPROVED:
W. S. S. S. 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Delete Type "B" Flare and Type "E" Flare	H.T.	6/15/83

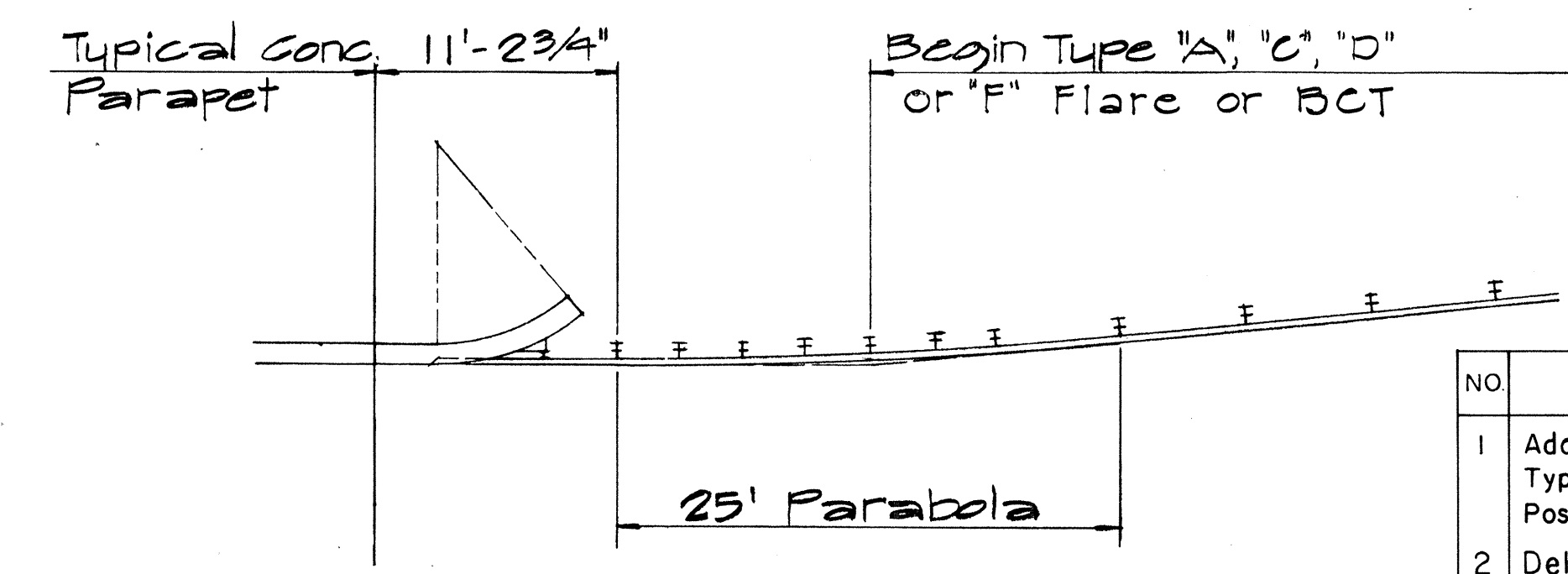
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
**STANDARD DETAILS
 OF APPROACH END
 FLARE - ONE & TWO
 WAY ROADWAY**
 Sc. As Noted April 1969
 SHEET No. 11 OF 15 SHEETS DT 516

DATE	_____
DESIGNED BY	_____
TRACED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	68	244



NOTE:
For detail of Breakaway Cable Terminal (BCT) See Sheet No. DT 519



TYPICAL LAYOUT PLAN OF END POST CONNECTION
Sc. 1/8" = 1'-0"

NO.	REVISION	APPROVED BY	DATE
1	Additional Posts Added to Typical Layout Plan Of End Post Connection	H.C.	4-12-12
2	Delete Type "B" Flare and Type "E" Flare	H.C.	6-15-18

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/63
TRAFFIC ENGINEER DATE

APPROVED:
John J. J. J. 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
TRAILING END
FLARE - ONE & TWO
WAY ROADWAY

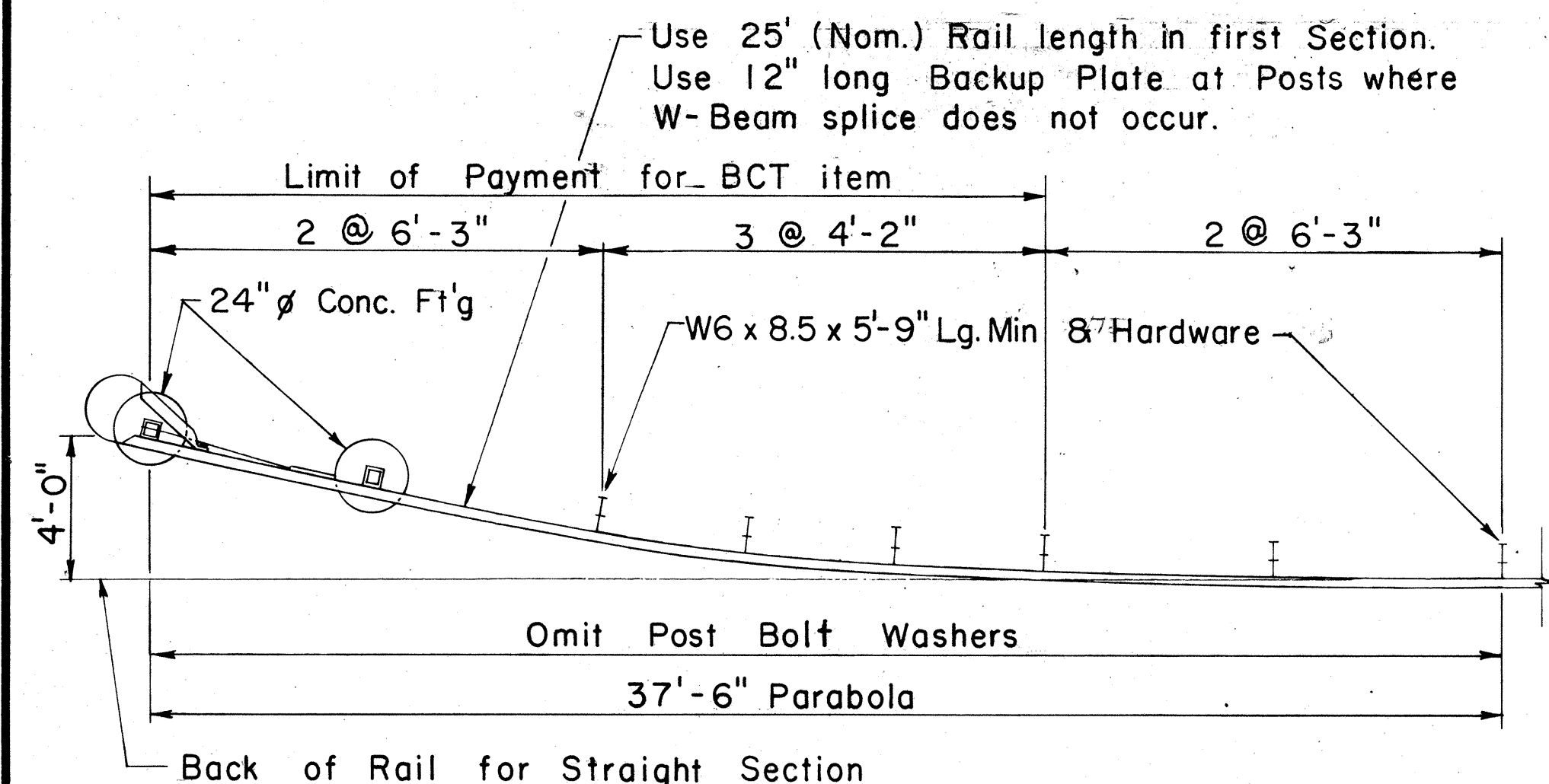
Scale: As Noted April 1969

SHEET No. 12 OF 15 SHEETS DT 517

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	69	244

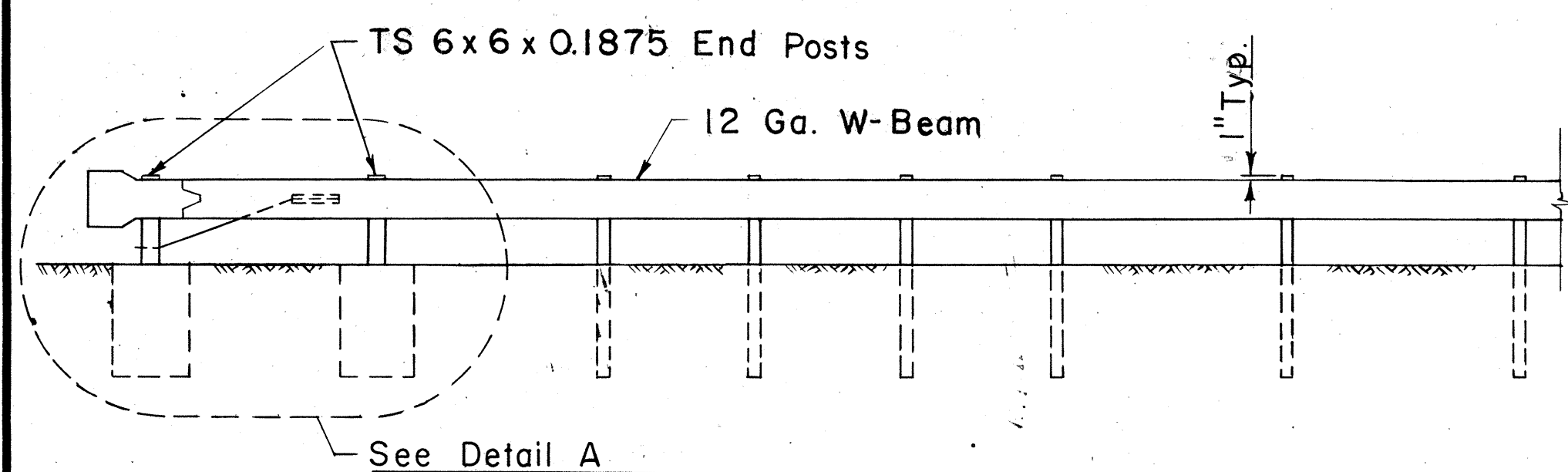
NOTES:

1. Anchor Plate and Anchor Cable Assembly (Standard Swaged Fitting and Stud). See Standard Detail Sheet No. DT 520.
2. Other Anchor Cable Assemblies may be used. Minimum breaking strength of assembly should be 40,000 lbs.
3. Second Terminal Post does not require holes to accommodate Anchor Cable.
4. Slip Base Load shall be controlled with a Calibrated Torque Wrench - Torque 155 - 170 ft. lbs.
5. Concrete shall be Class A.



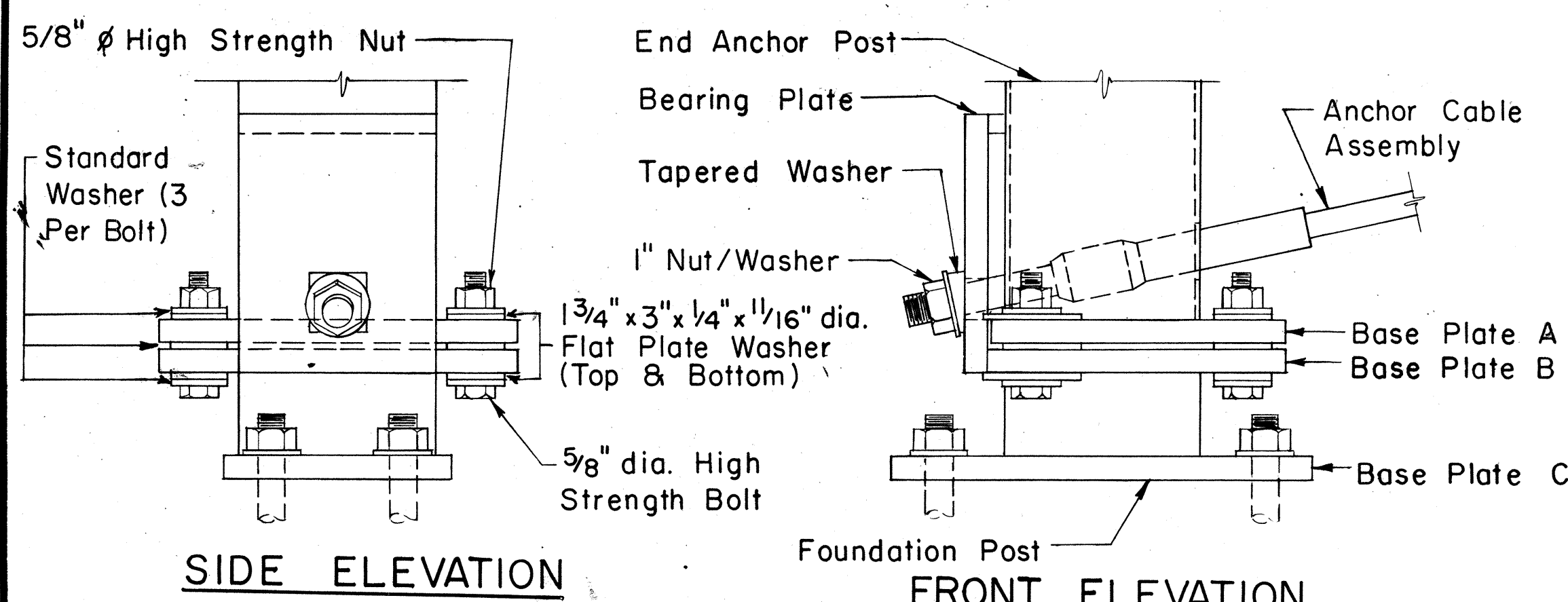
PLAN

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



ELEVATION

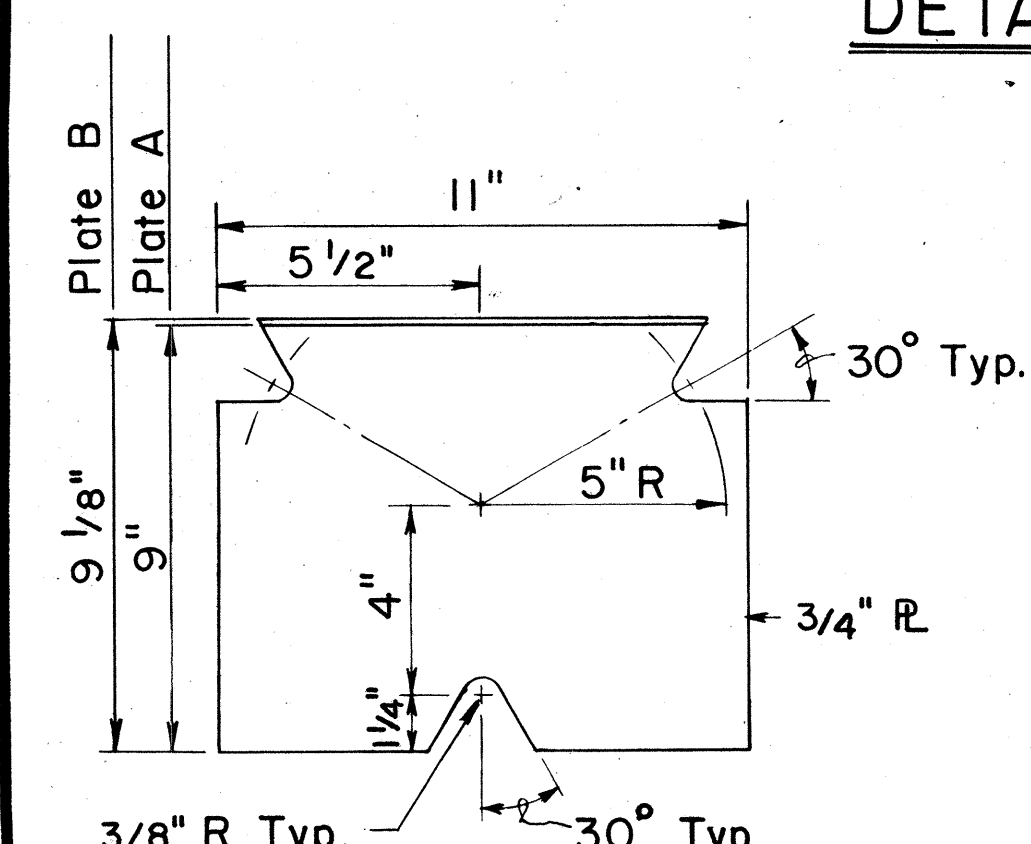
Scale: 1/4" = 1'-0"



SIDE ELEVATION

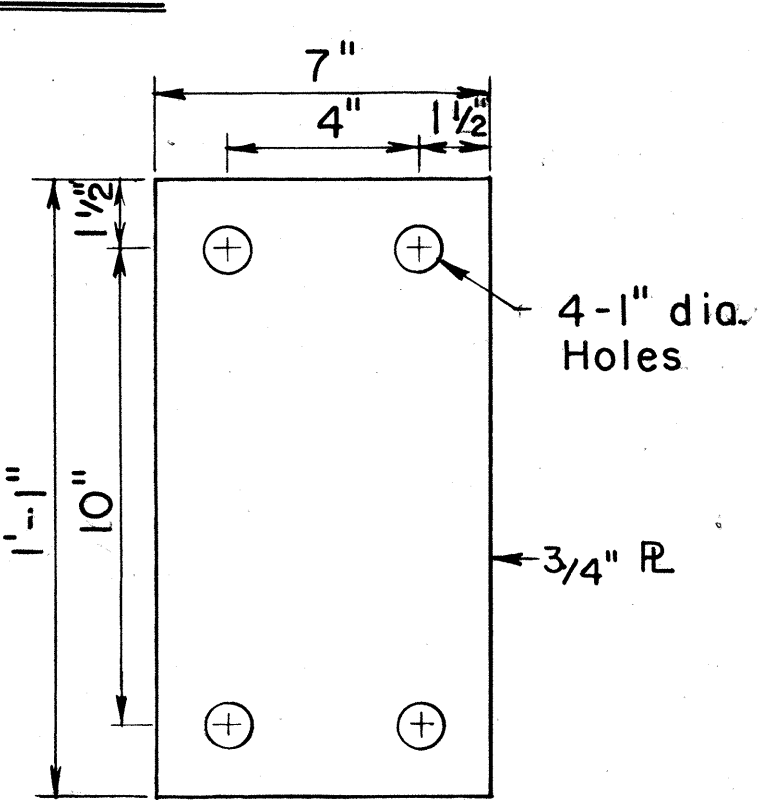
DETAIL B

FRONT ELEVATION



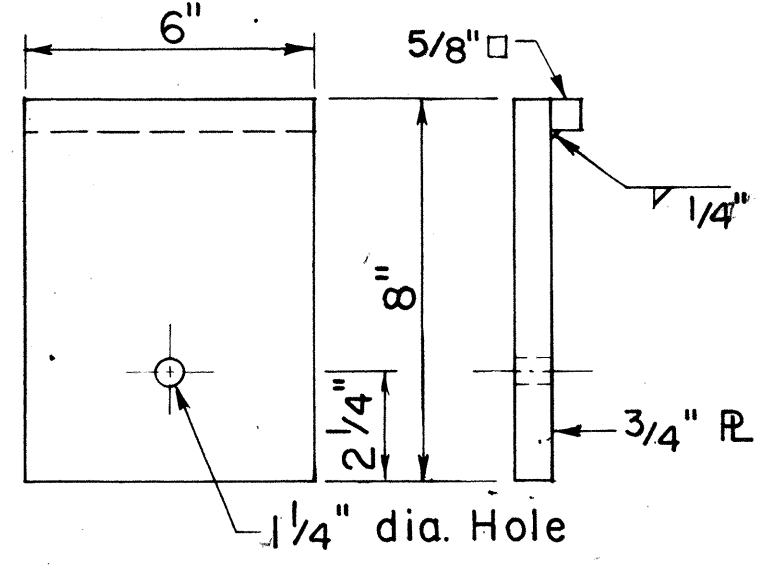
BASE PLATES A & B

Scale: 3" = 1'-0"



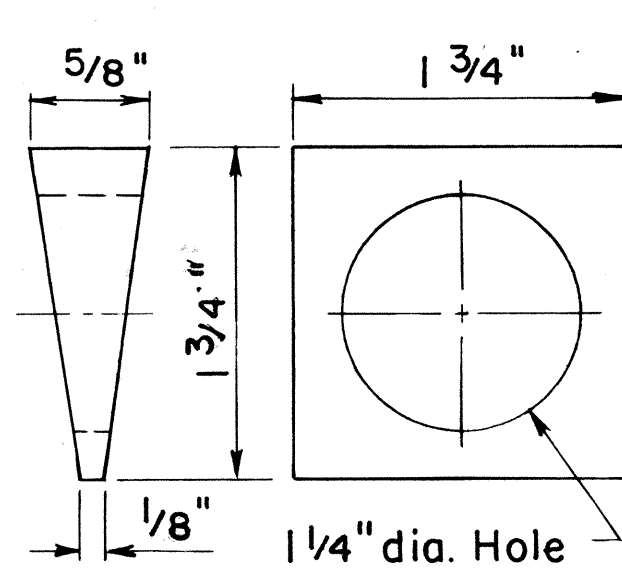
BASE PLATE C

Scale: 3" = 1'-0"



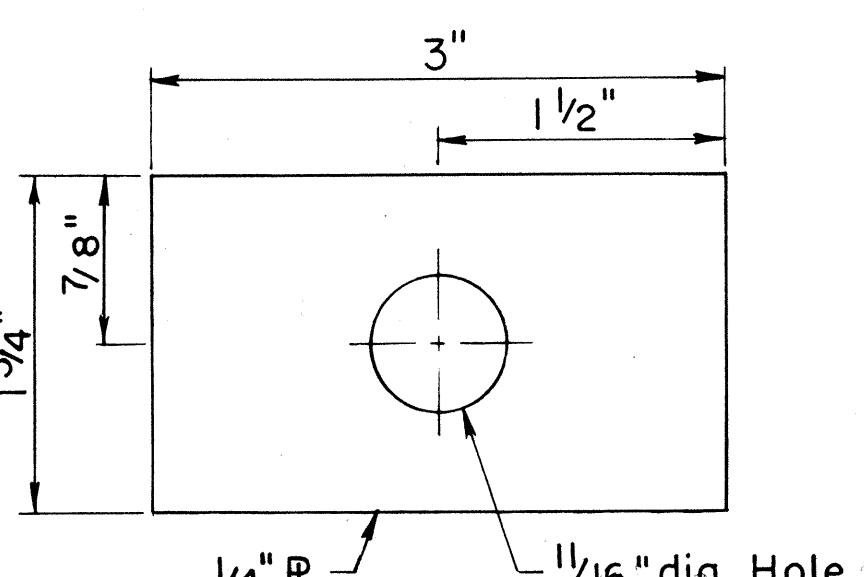
BEARING PLATE

Scale: 3" = 1'-0"



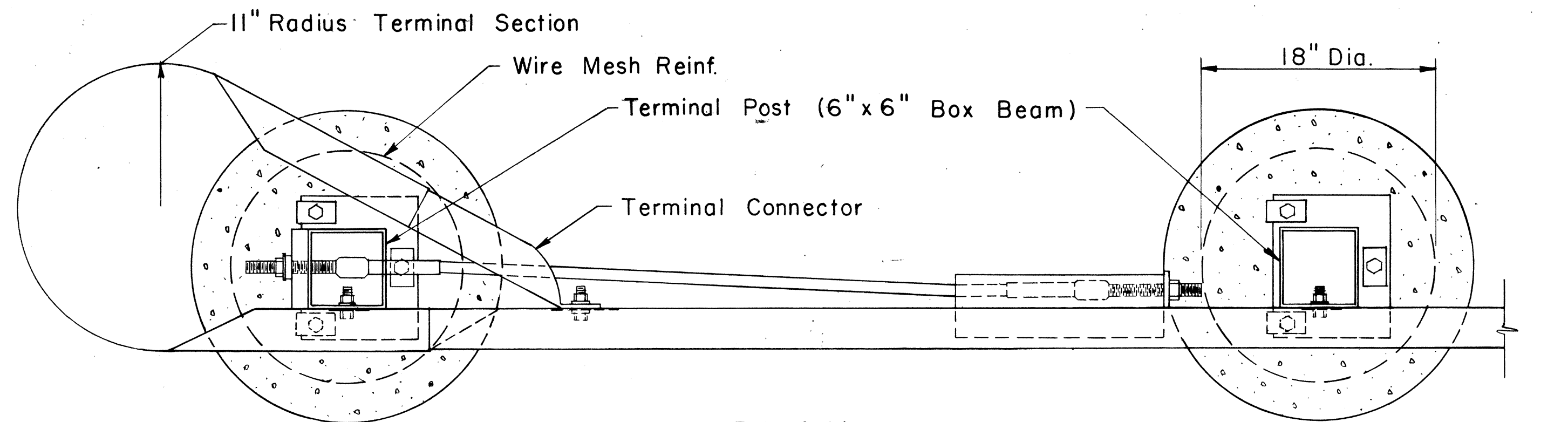
TAPERED WASHER

Scale: Full Size

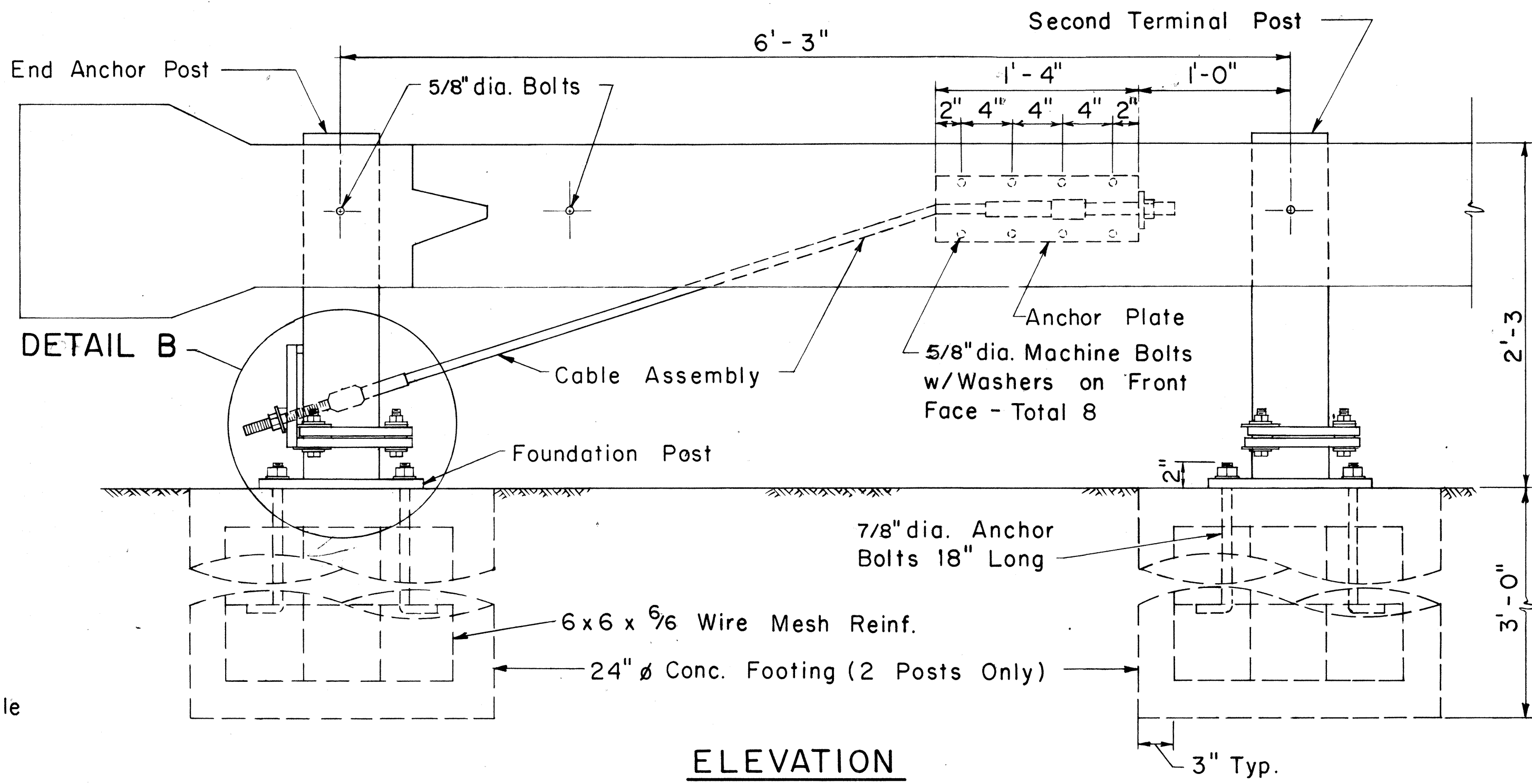


FLAT PLATE WASHER

Scale: Full Size



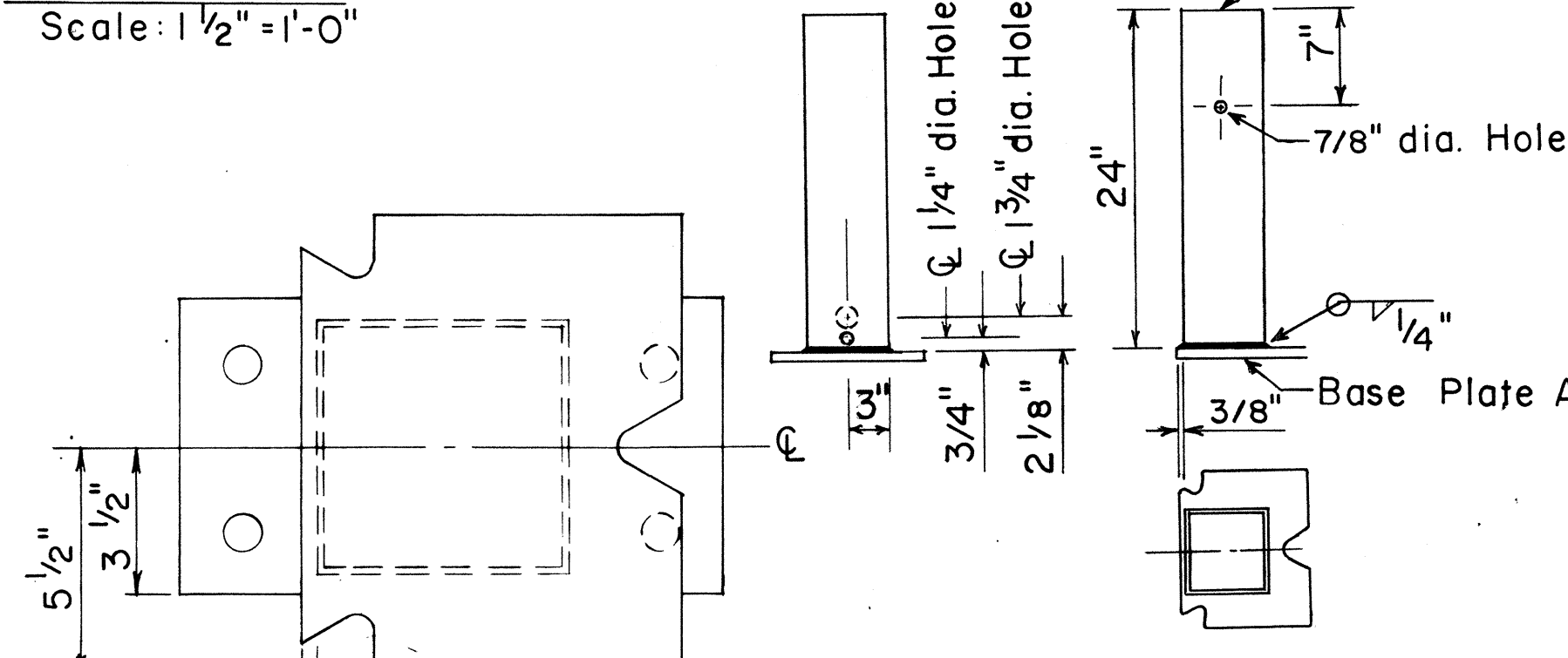
PLAN



ELEVATION

DETAIL A

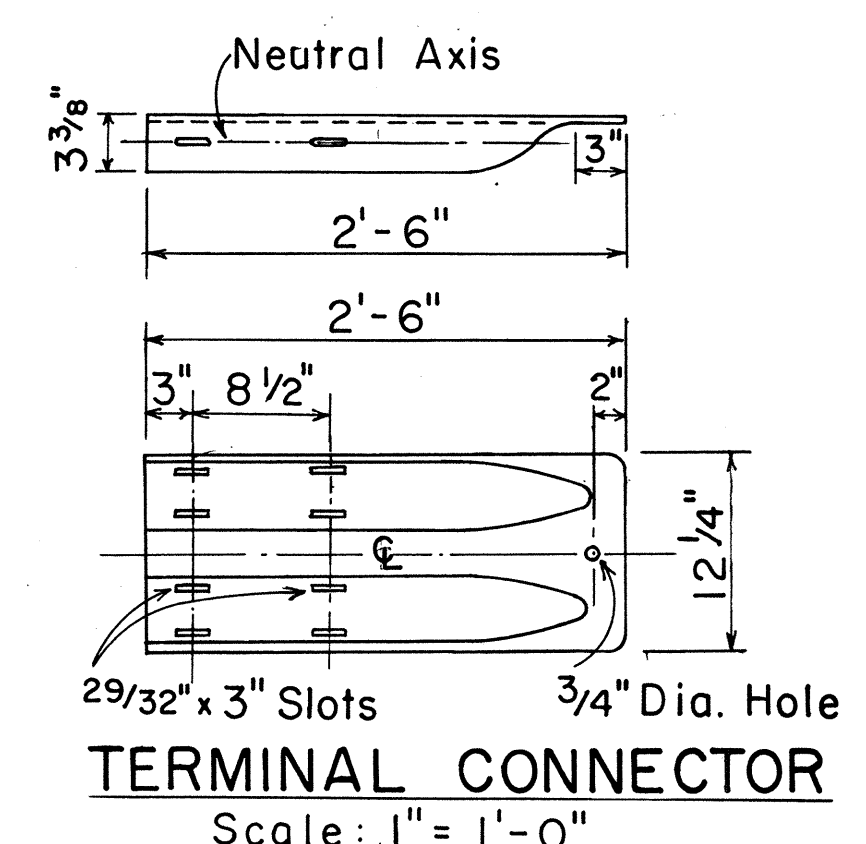
Scale: 1 1/2" = 1'-0"



TERMINAL POST

Scale: 1" = 1'-0"

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 519 Approved 12/30/69	H.T.	6/15/78



TERMINAL CONNECTOR

Scale: 1" = 1'-0"

APPROVAL RECOMMENDED:

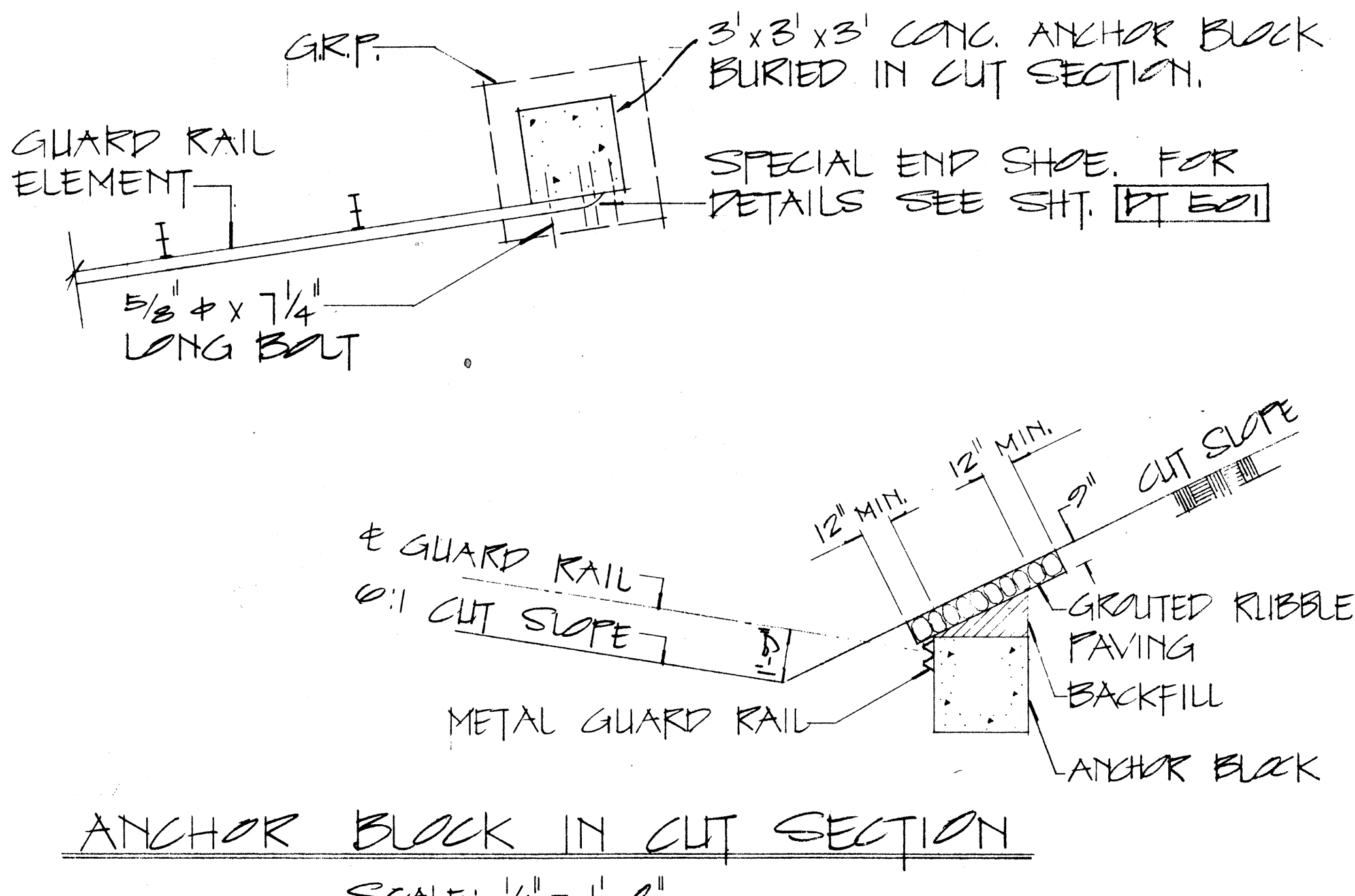
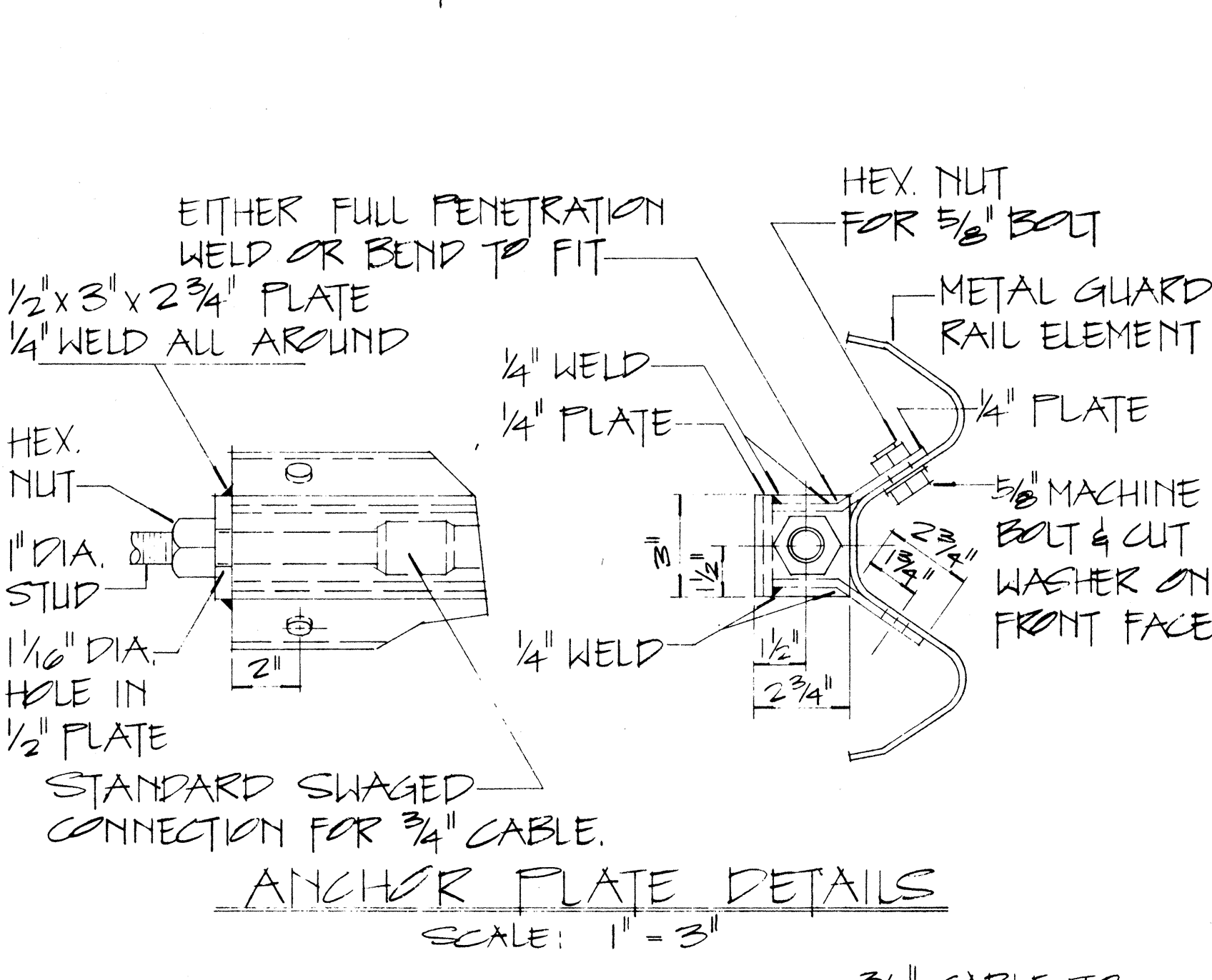
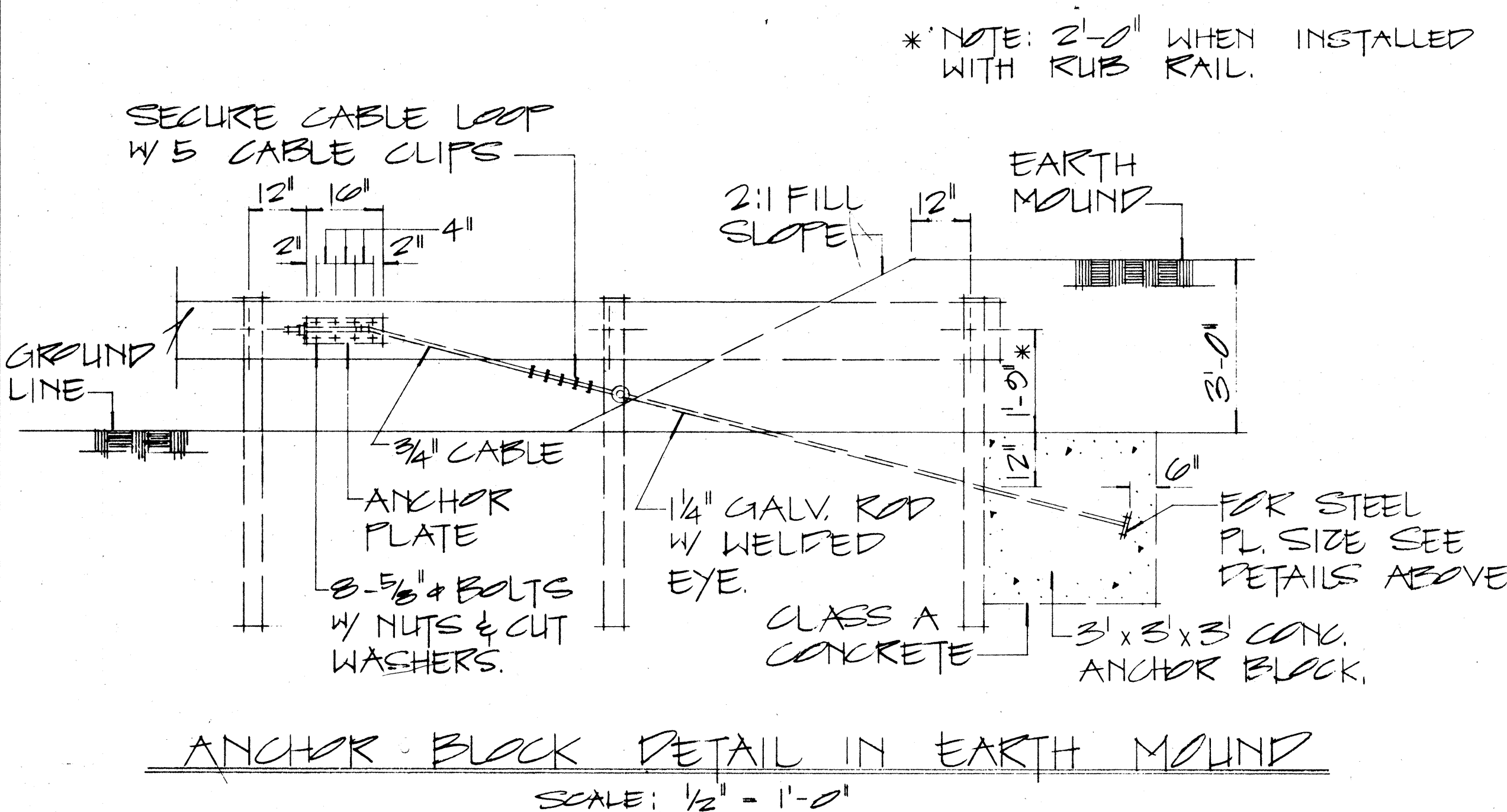
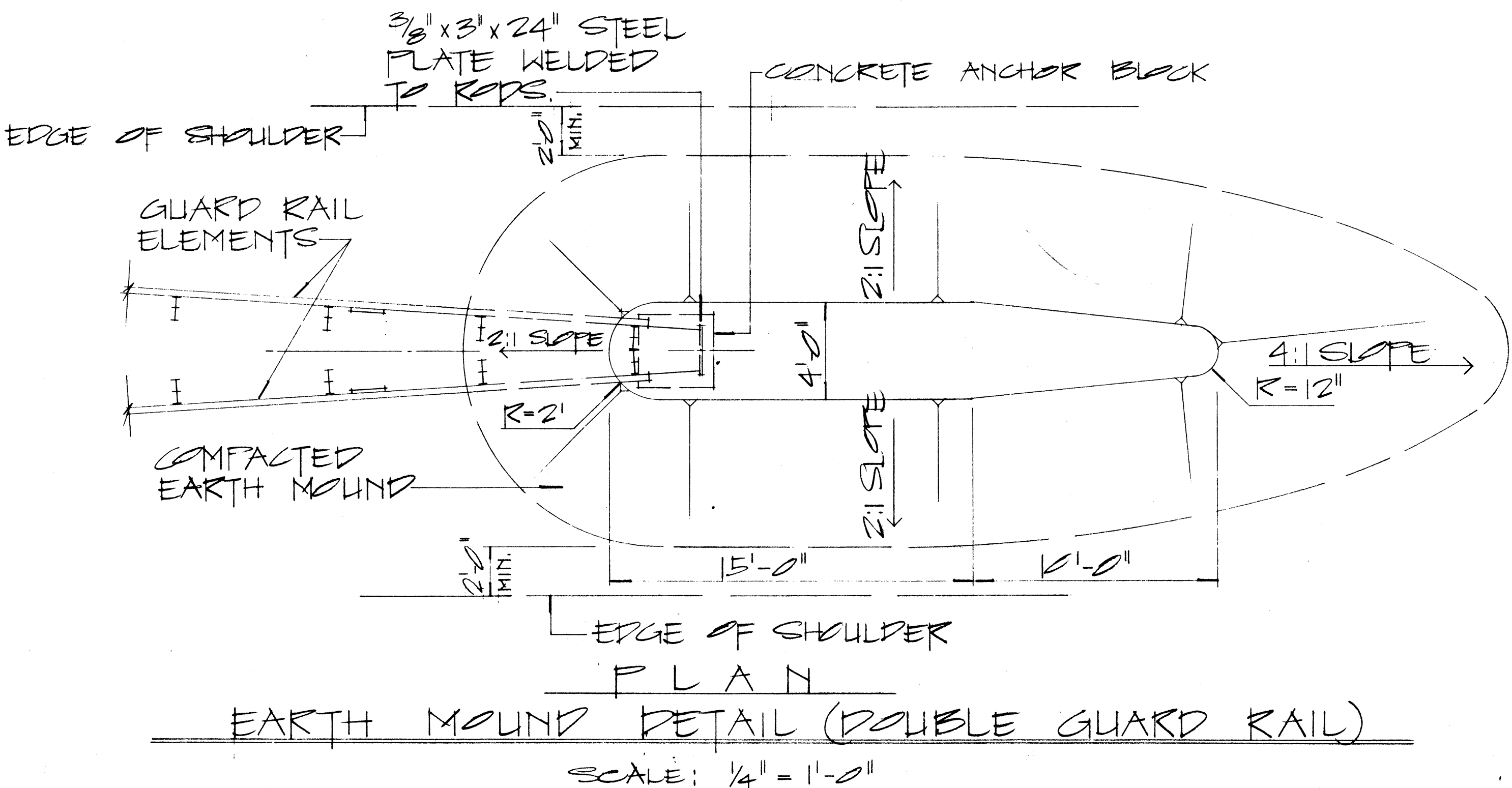
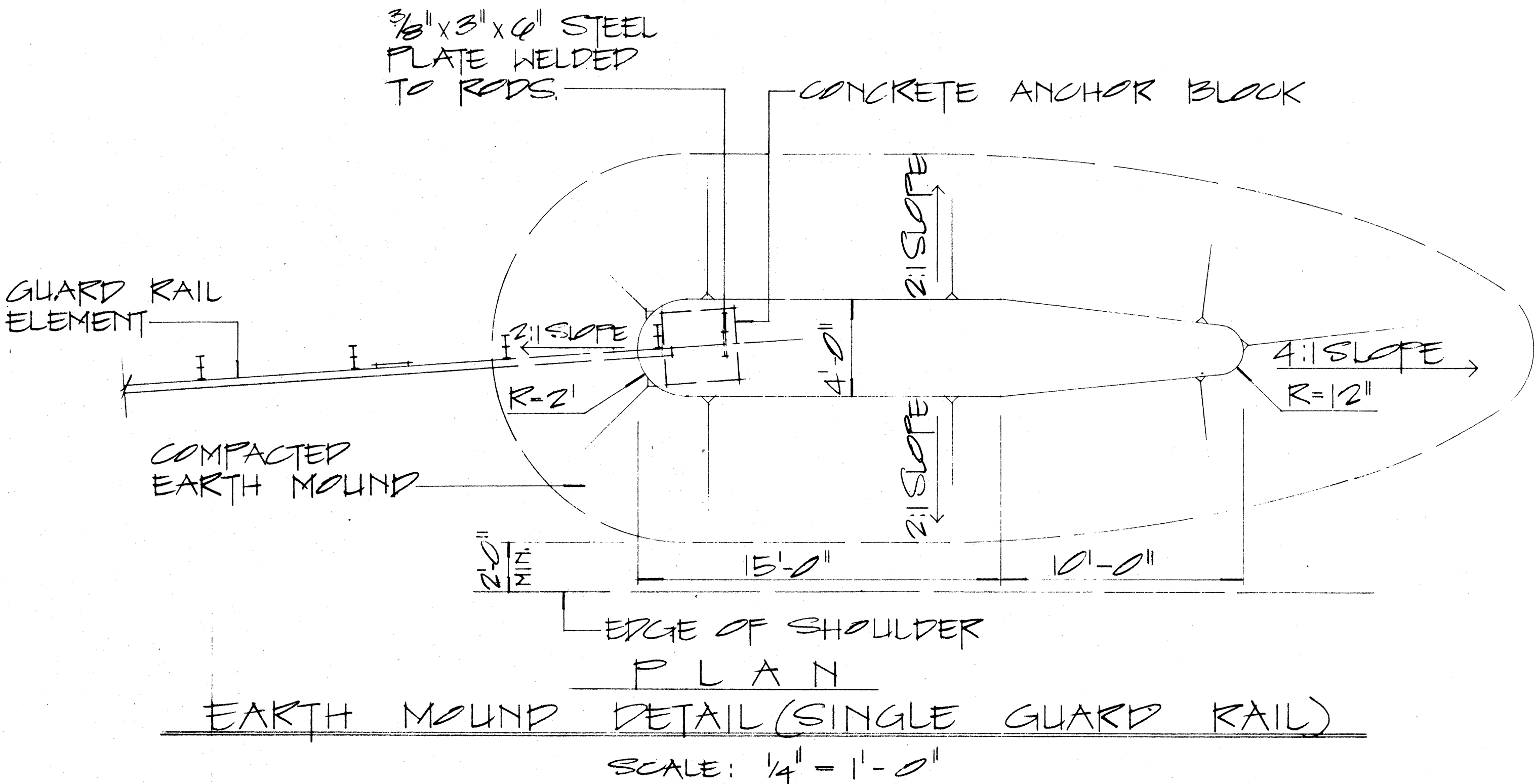
Eiichi Tanaka
TRAFFIC ENGINEER 6/14/78
DATE

APPROVED:

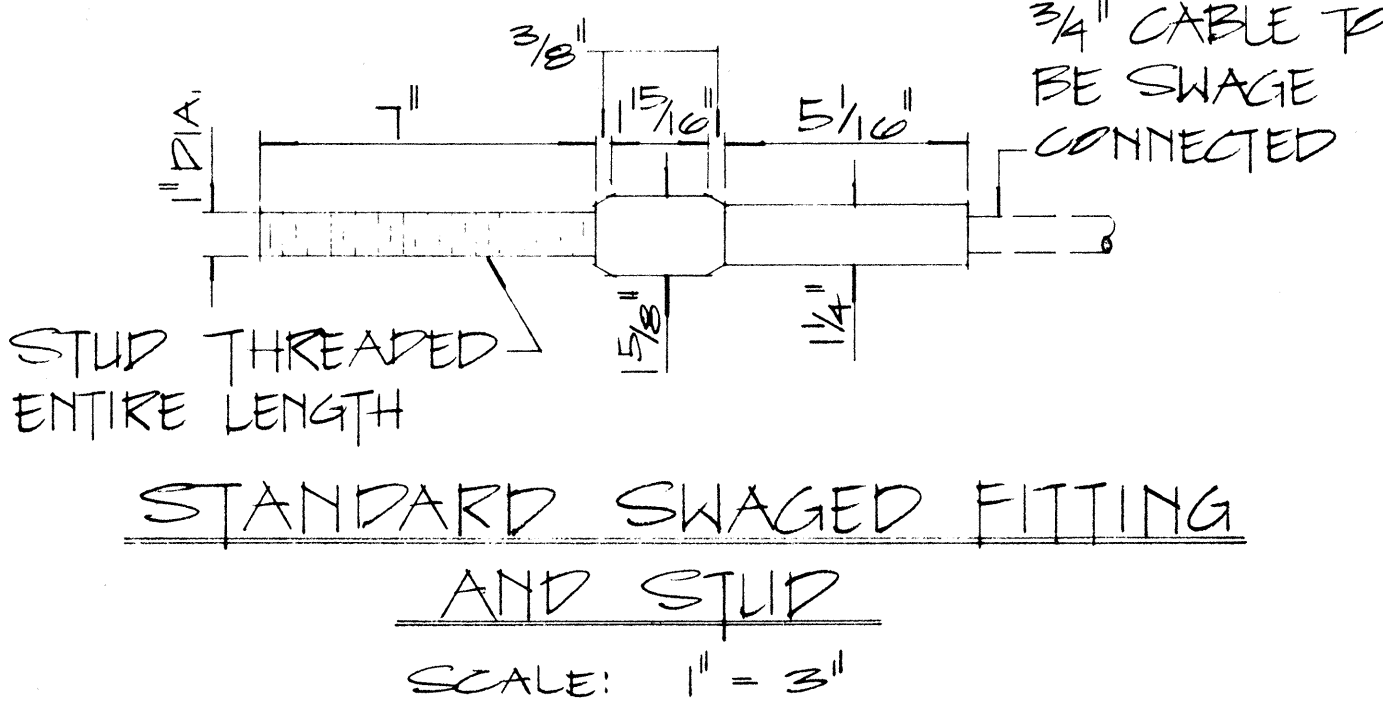
Harbor Zakeishi
ASSISTANT CHIEF, ENGINEERING 6/15/78
DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAIL
BREAKAWAY CABLE TERMINAL (BCT)
Scale: As Shown Date: June 1978
SHEET No. 13 OF 15 SHEETS DT 519

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600 (2)	1980	70	244



- NOTE:**
1. GALVANIZED ANCHOR ROD, METAL GUARD RAIL AND POST BURIED IN GROUND SHALL BE COVERED WITH A MIN. 20-MIL THICKNESS OF COAL TAR ENAMEL, CONFORMING TO AWWA STANDARD: C 203
 2. CONCRETE, G.R.P., EXCAVATION, EARTH MOUND, ANCHOR RODS AND MISCELLANEOUS APPURTENANCES NECESSARY TO ANCHOR THE GUARD RAIL ENDS SHALL BE INCIDENTAL TO THE METAL GUARD RAIL.



APPROVAL RECOMMENDED:
Euske Tanaka 12/23/62
 TRAFFIC ENGINEER DATE

APPROVED:
W. J. O'Sullivan 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

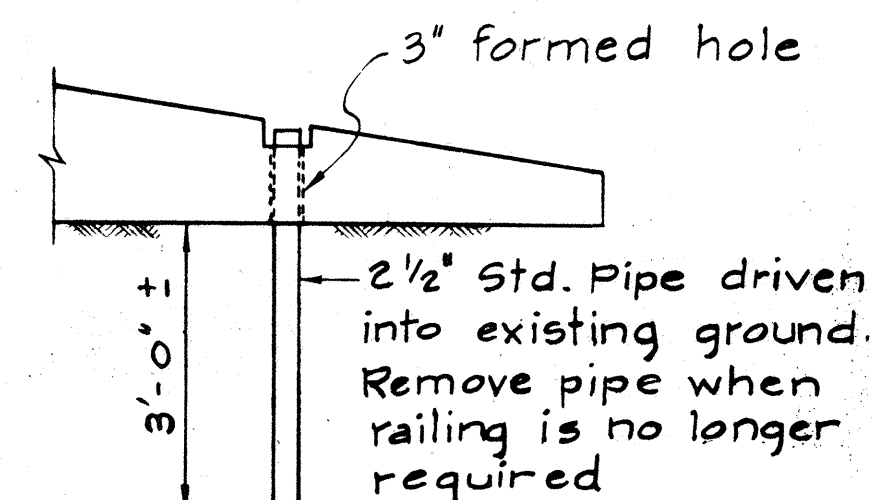
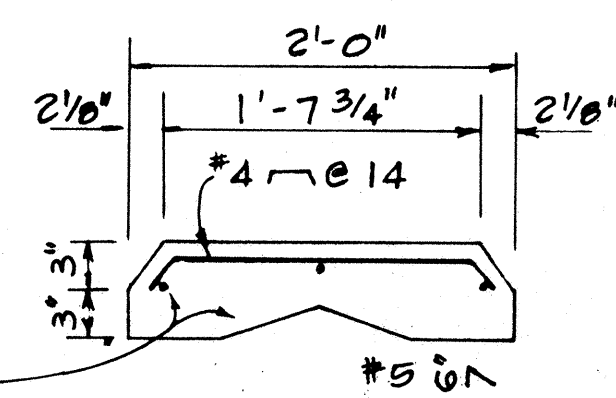
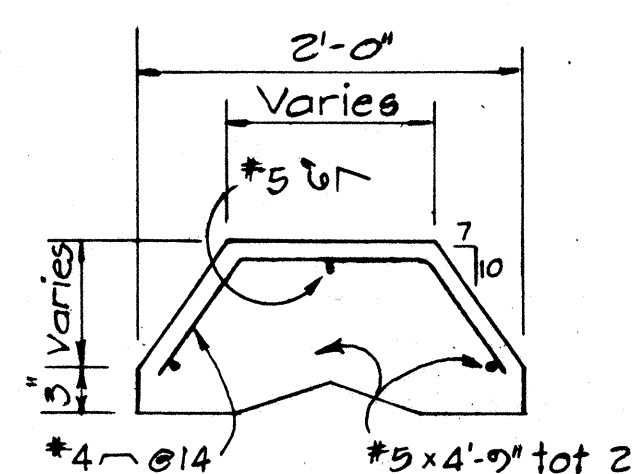
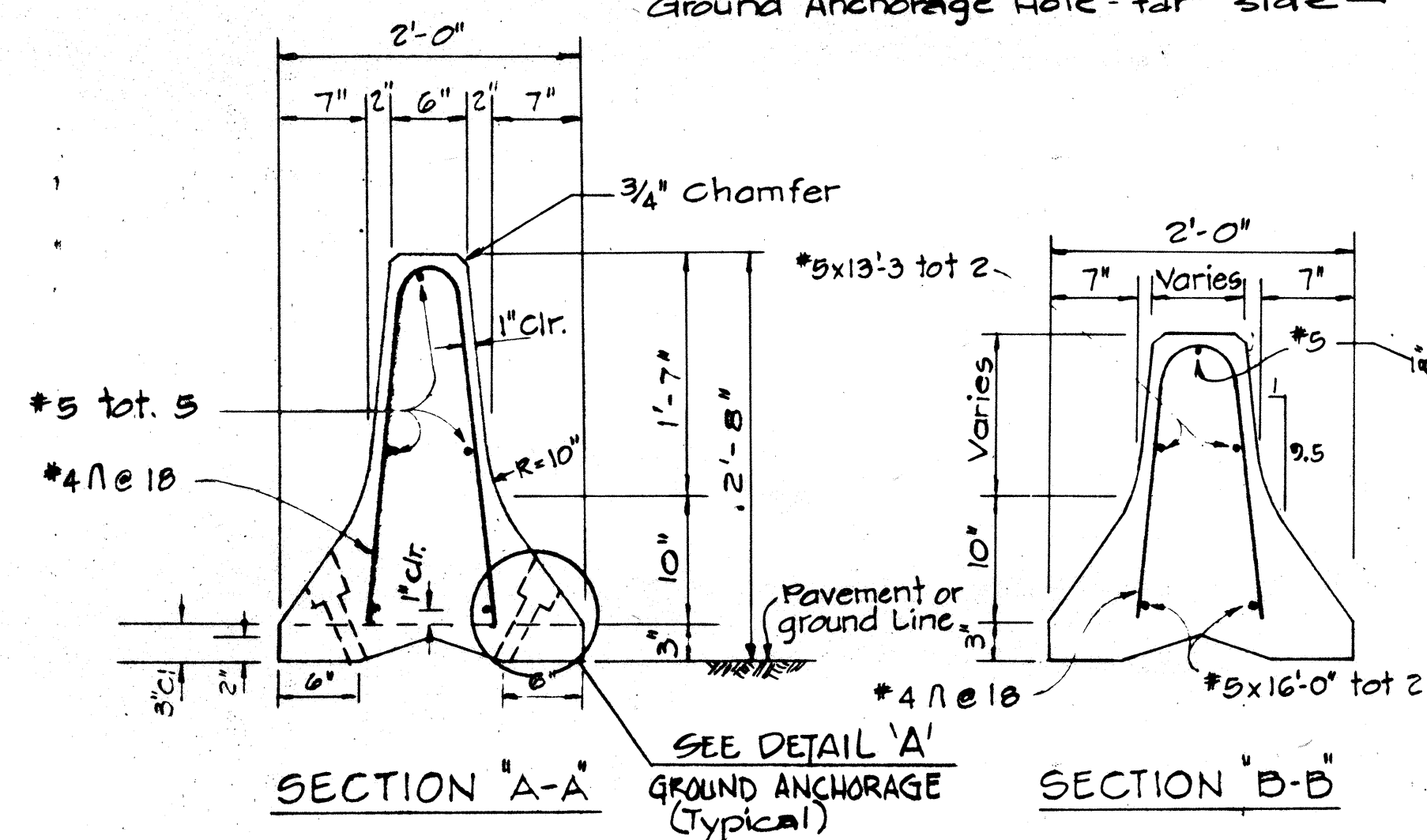
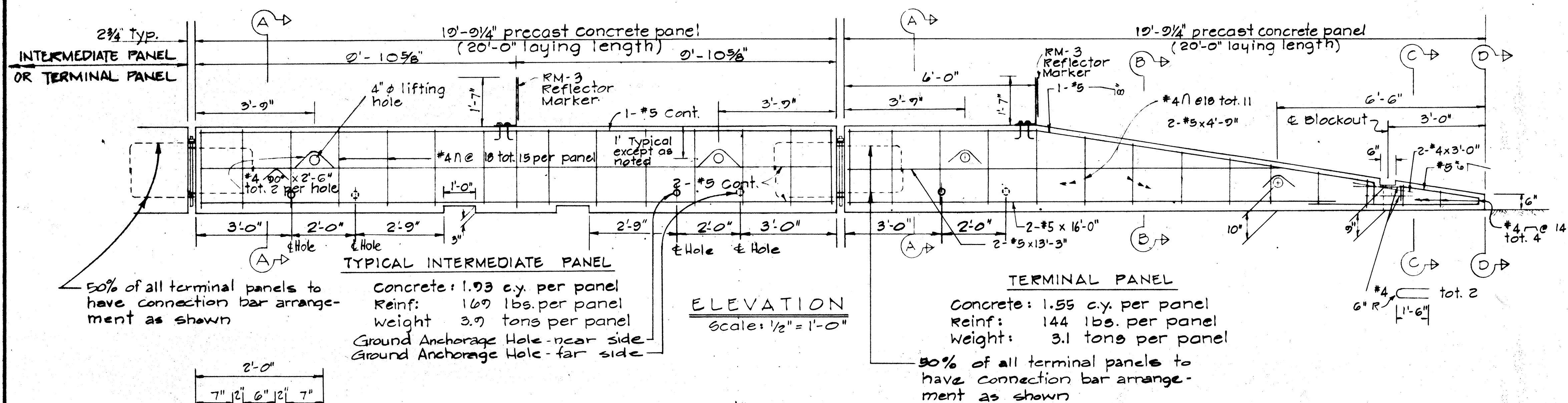
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
EARTH MOUND AND ANCHOR BLOCK DETAILS

SCALE: AS SHOWN OCT 1969
 SHEET No. 14 OF 15 SHEETS PT 520

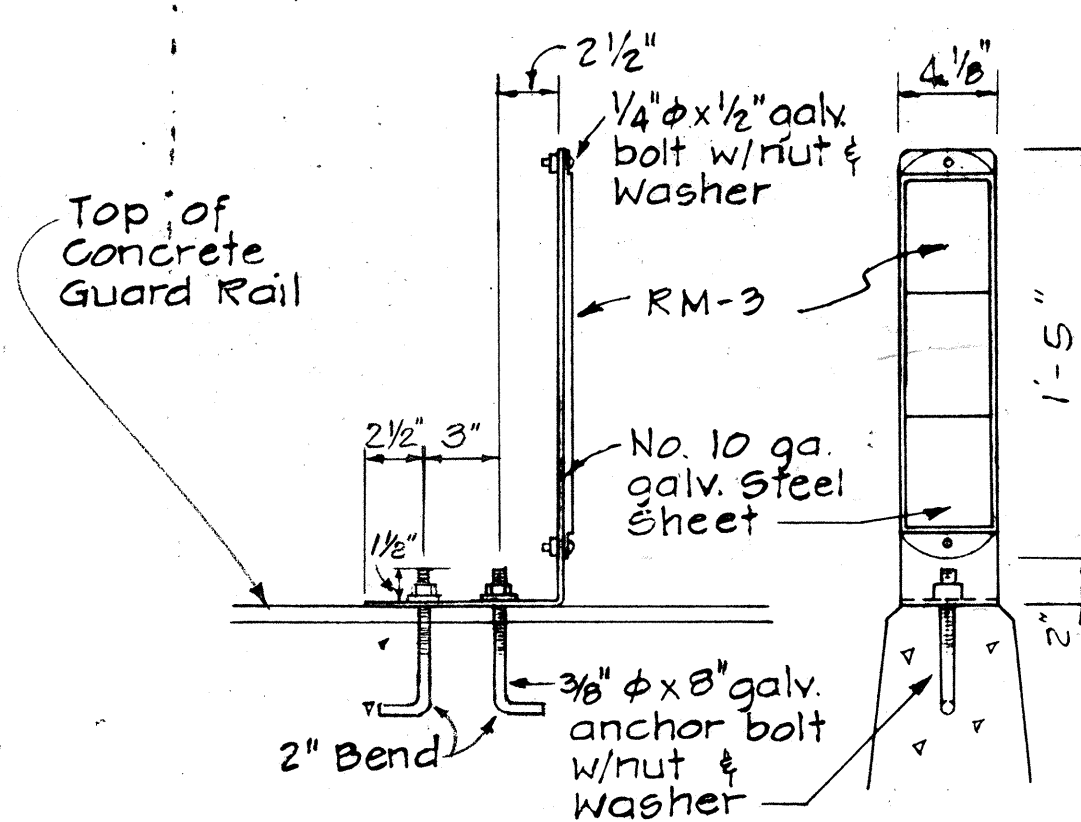
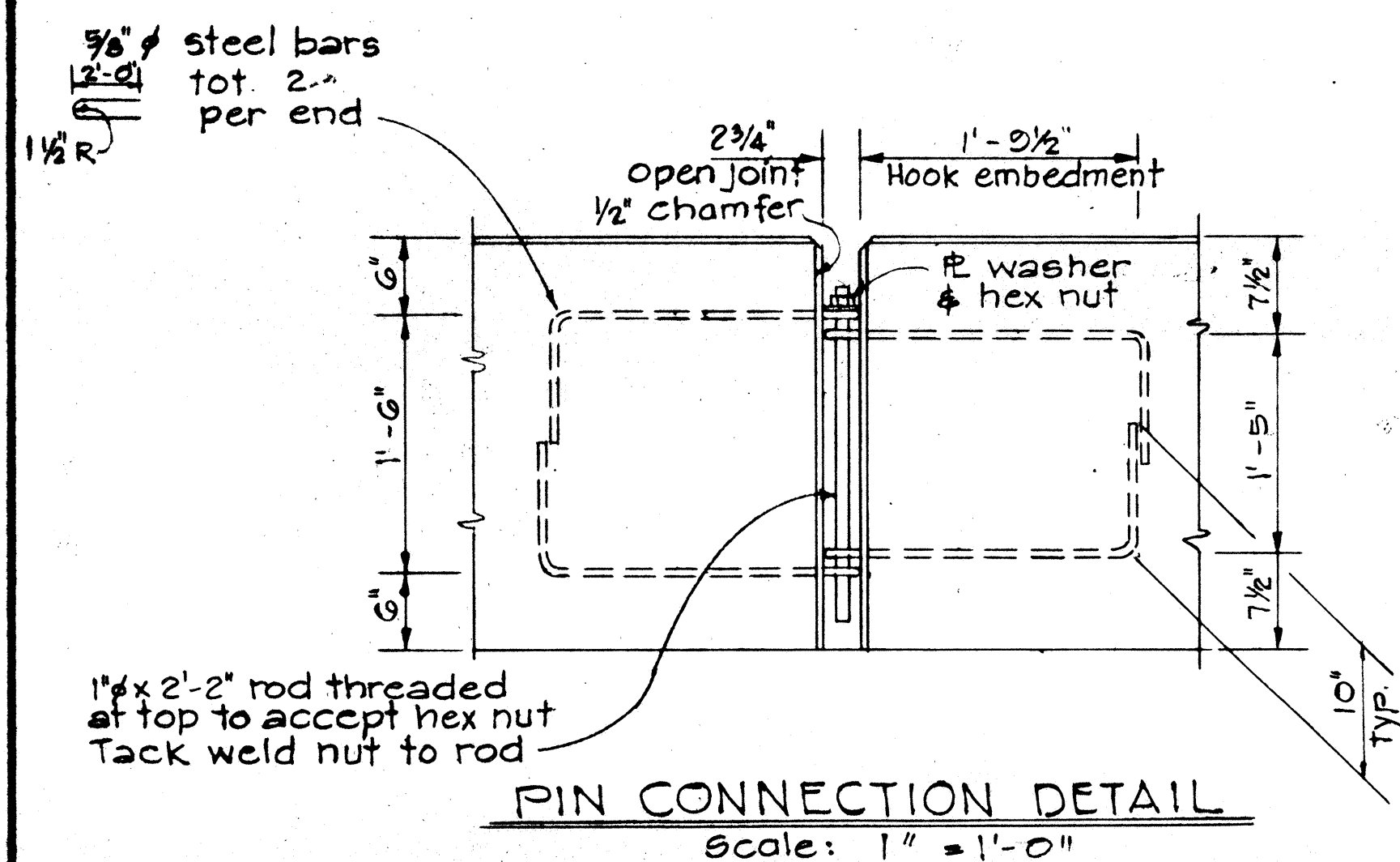
DATE	
SURVEY PLATTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1980	71	244



GROUND ANCHORAGE FOR
RAMPED END OF TERMINAL PANEL
Scale: $\frac{1}{2}" = 1' = 0"$

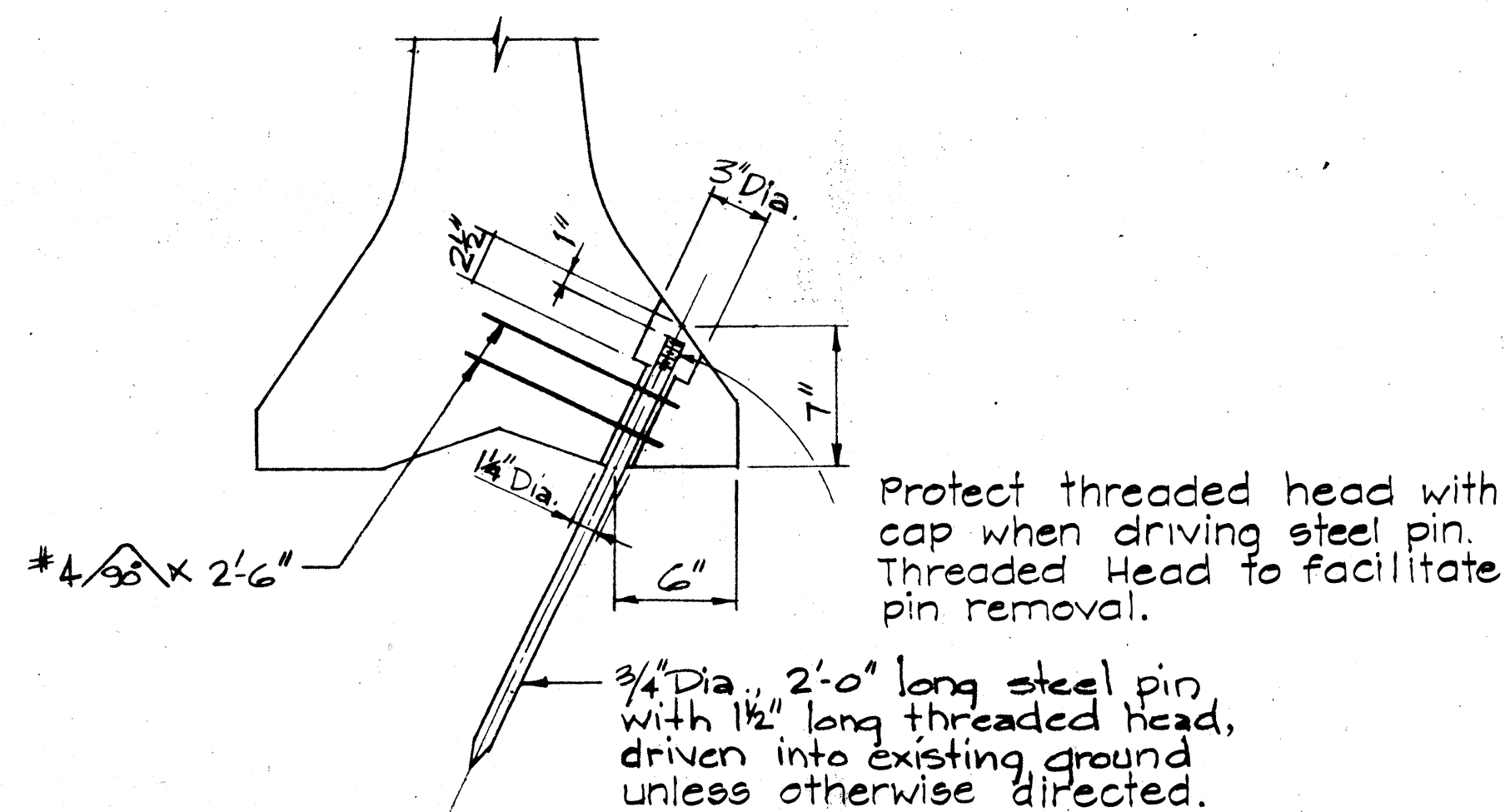
SECTIONS
Scale: 1" = 1'-0"



SIDE FRONT

REFLECTOR MARKER
MOUNTING DETAIL

Scale: $1\frac{1}{2}" = 1'-0"$



DETAIL A - GROUND ANCHORAGE
scale: $1\frac{1}{2}" = 1'-0"$

NOTES

1. For details not shown in Sections BB, C-C, & D-D, see Section A-A
2. Reflector Marker shall not be paid for separately but shall be considered incidental to "Portable Concrete Guard Rail."
3. Concrete shall be Class "A".
4. All bolts to have cut washers unless otherwise noted.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PORTABLE CONCRETE GUARD
RAIL TYPICAL DETAILS

WIDENING MAKAHANA

Scale: As Noted Date: SEPT 1979

SHEET No. 15 OF 15 SHEETS