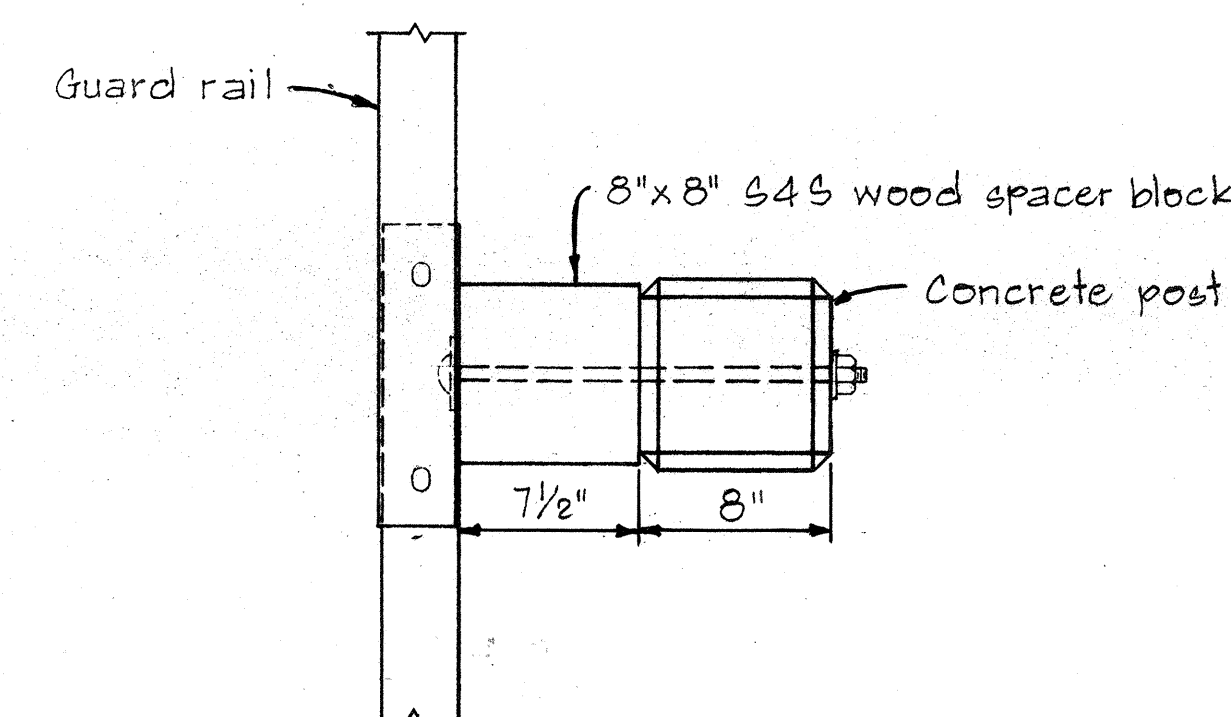
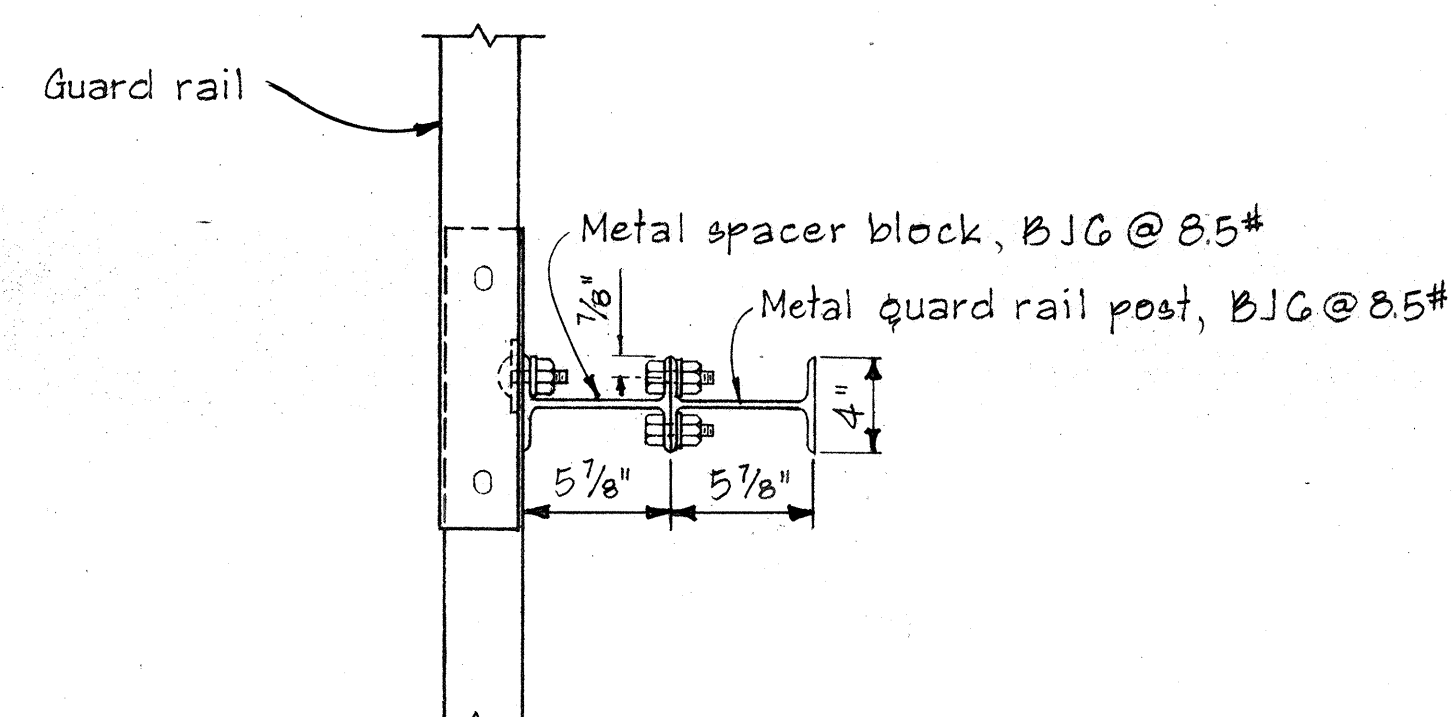


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61B-09-70	1969	5	11

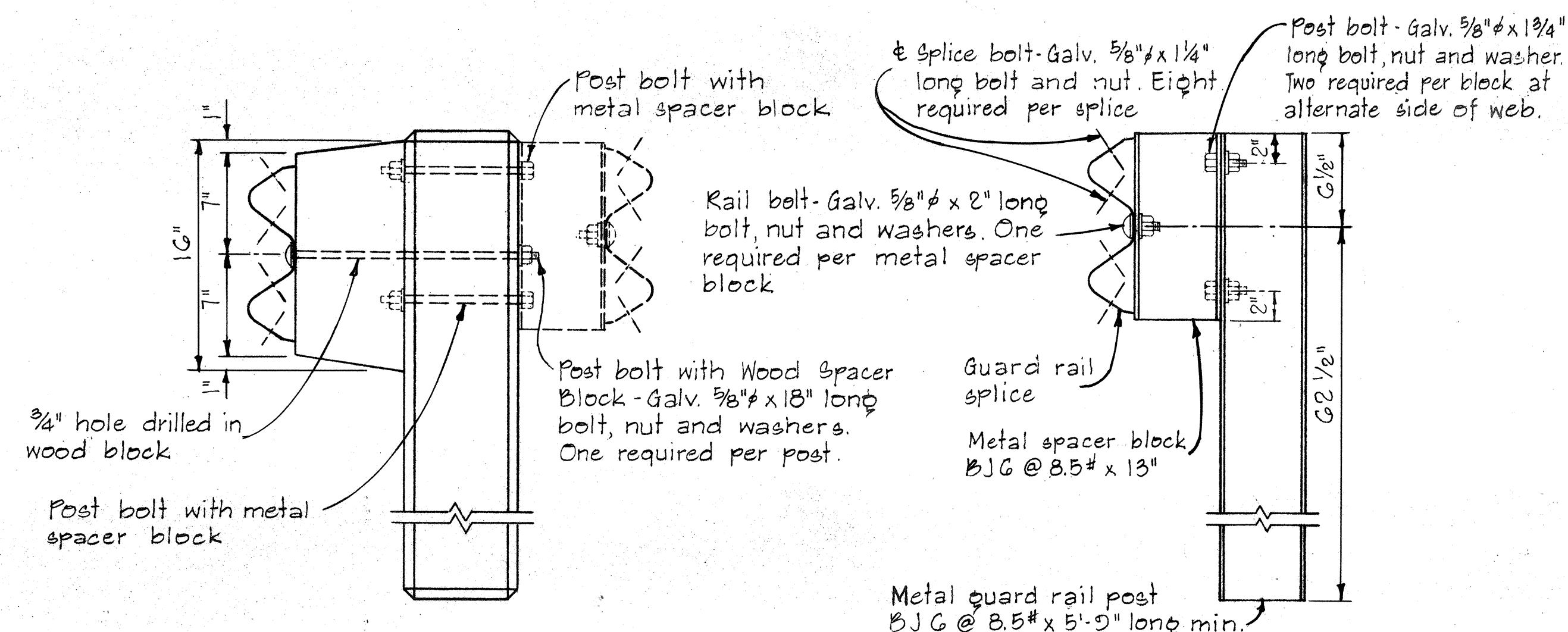
REVISED: 12-11-68
REVISED: 2-26-69



PLAN

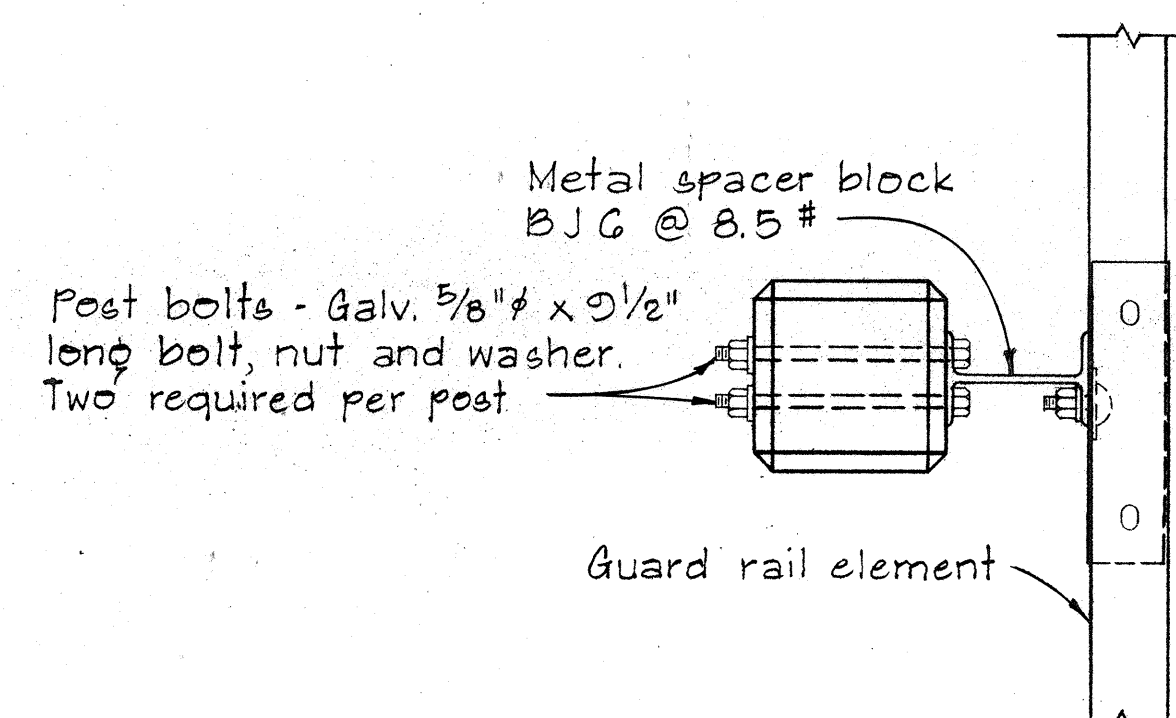


PLAN



SINGLE METAL GUARD RAIL ON METAL POST
WITH METAL SPACER BLOCK

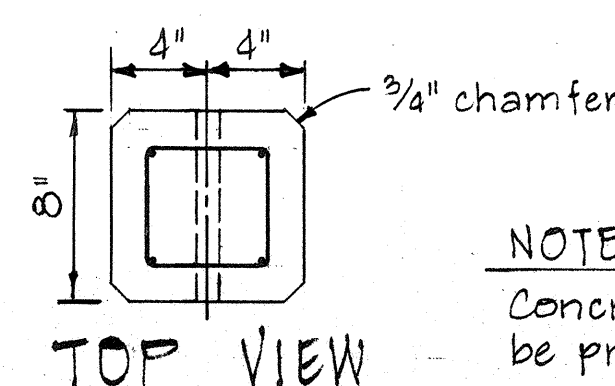
SCALE: 1 1/2" = 1'-0"



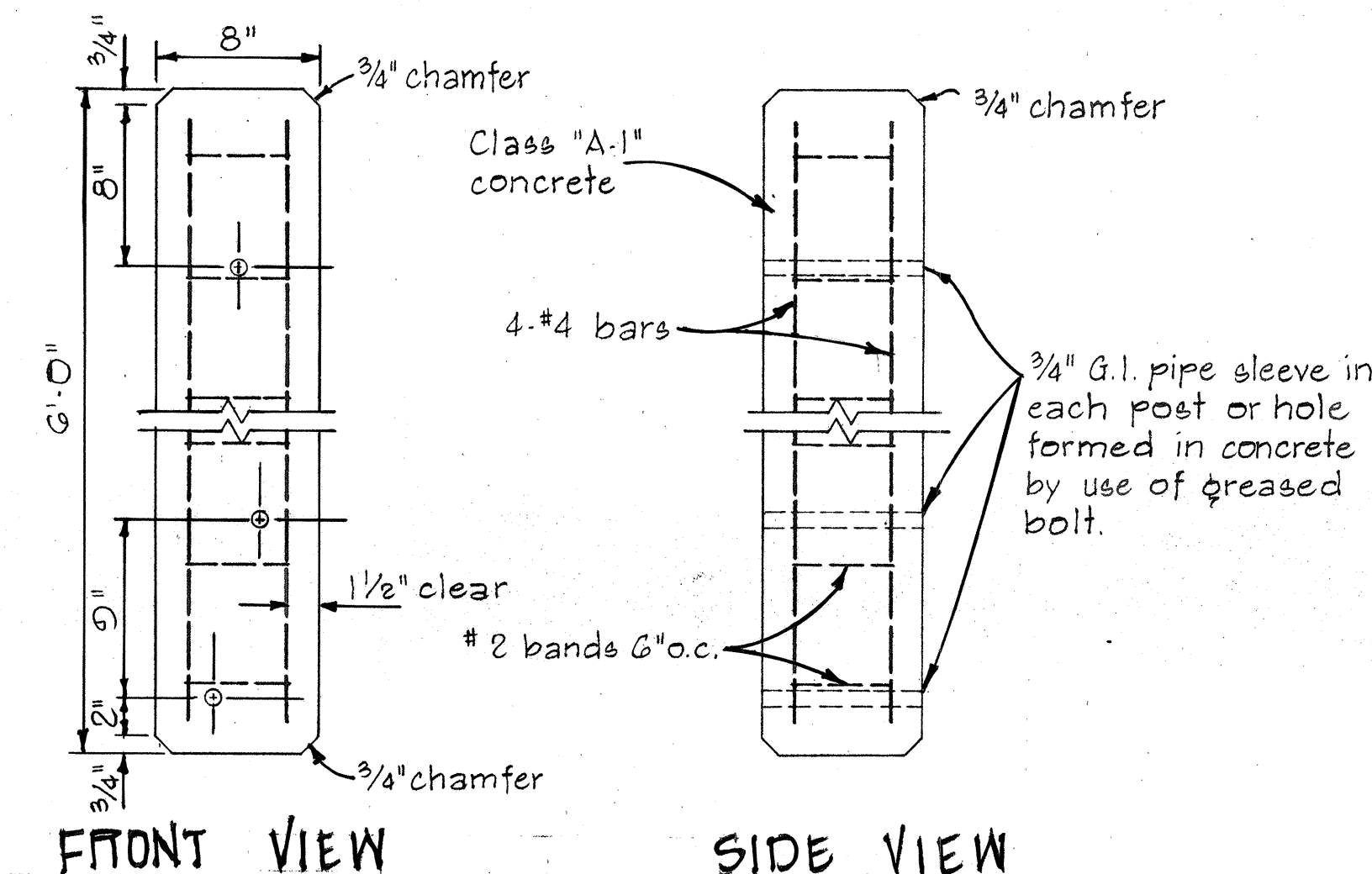
PLAN

SINGLE METAL GUARD RAIL ON PRECAST
CONCRETE POST WITH WOOD OR METAL SPACER BLOCK

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

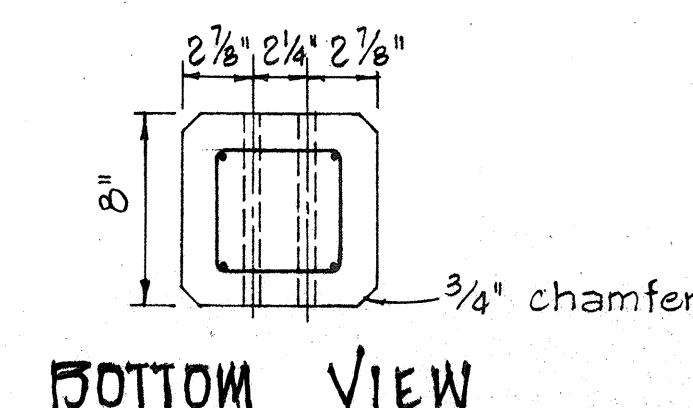


TOP VIEW



FRONT VIEW

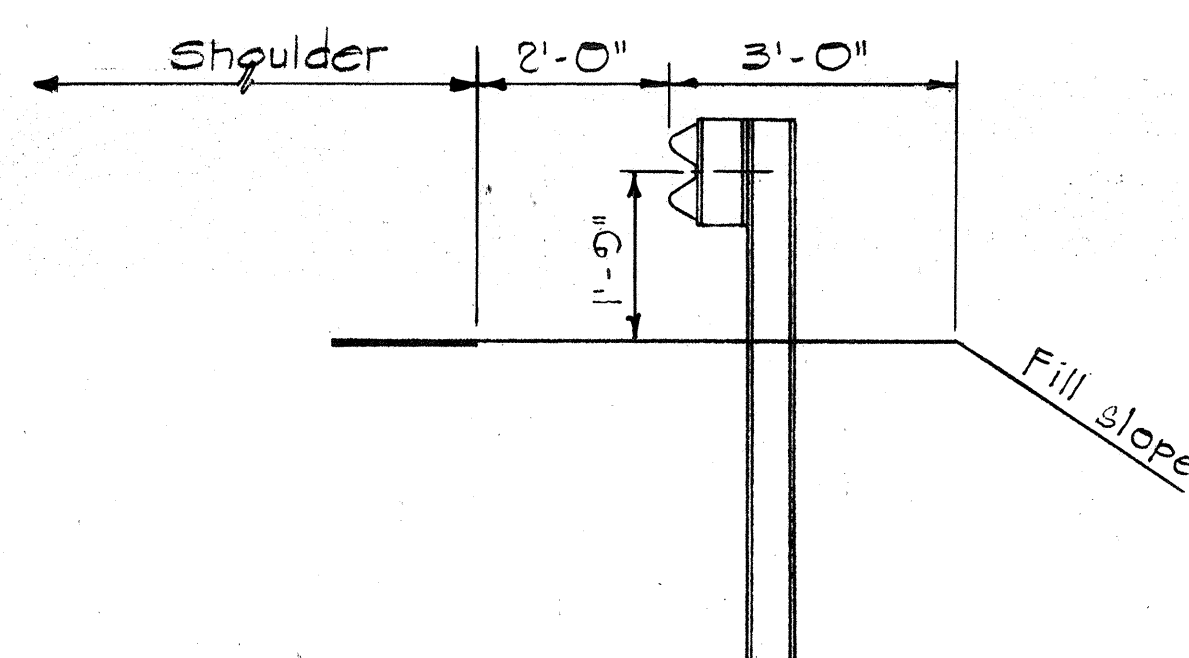
SIDE VIEW



BOTTOM VIEW

DETAIL OF CONCRETE POST

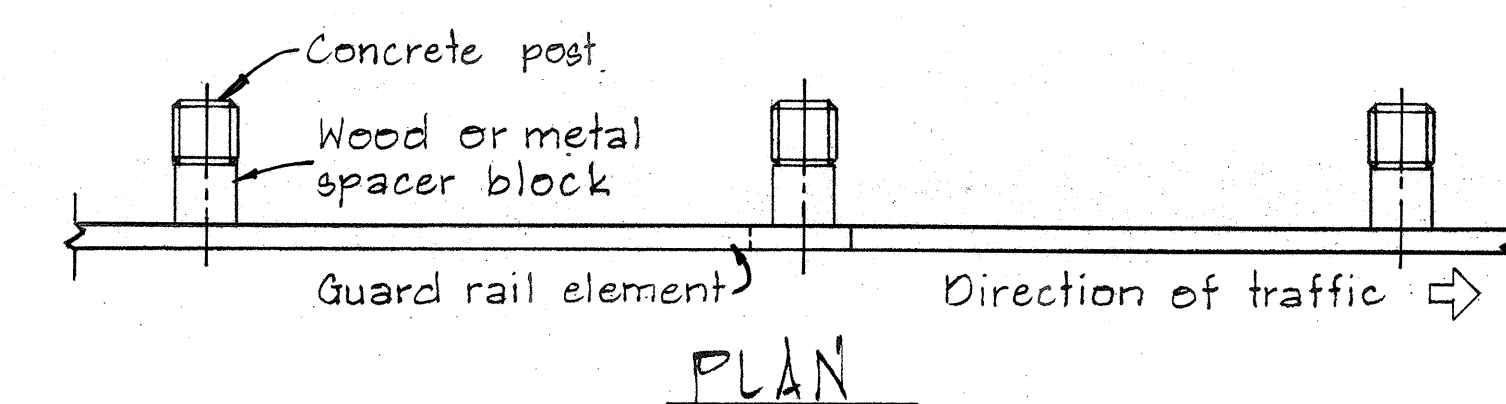
SCALE: 1 1/2" = 1'-0"



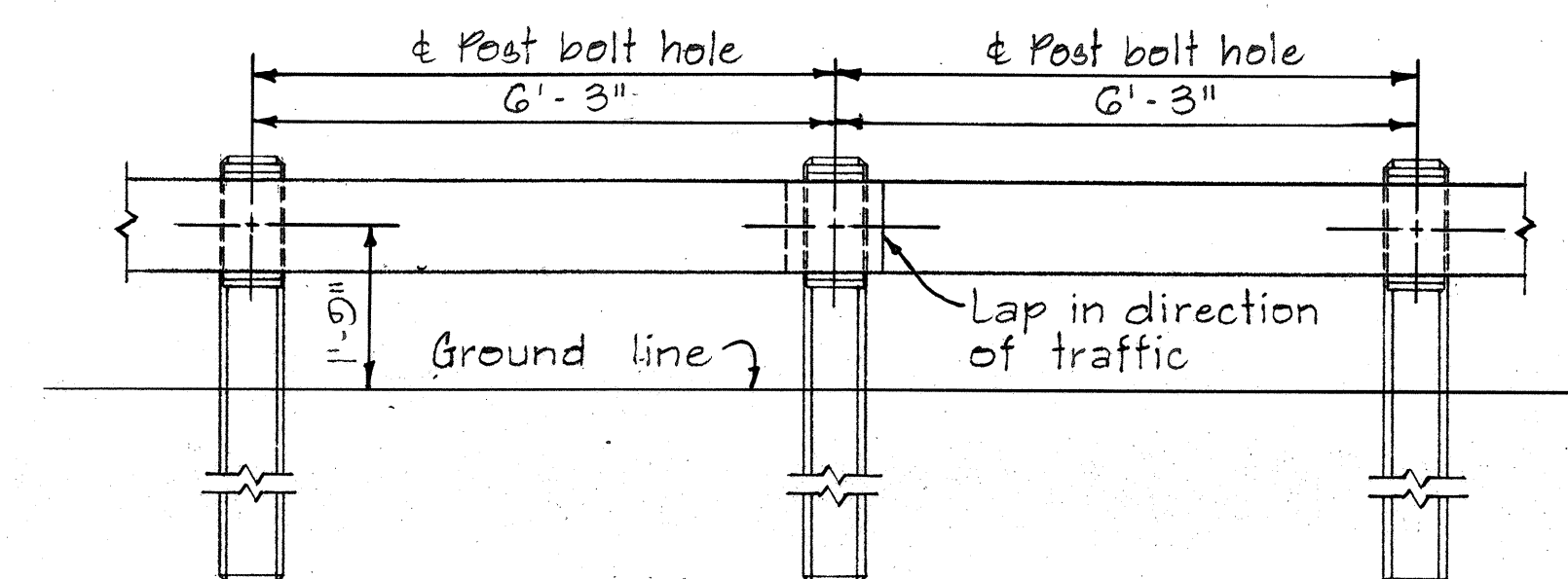
AT SHOULDER SECTION

TYPICAL METAL GUARD RAIL DETAIL

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



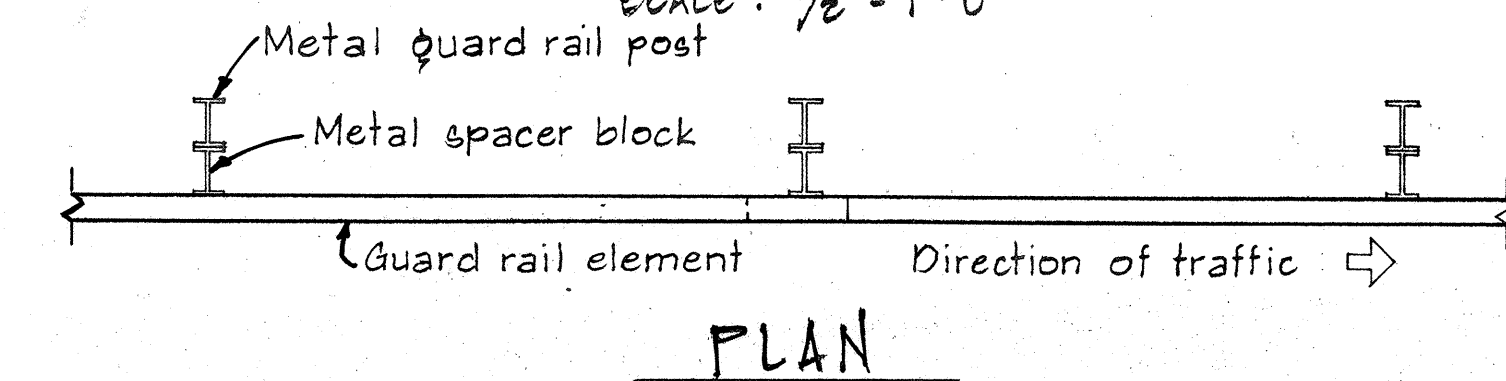
PLAN



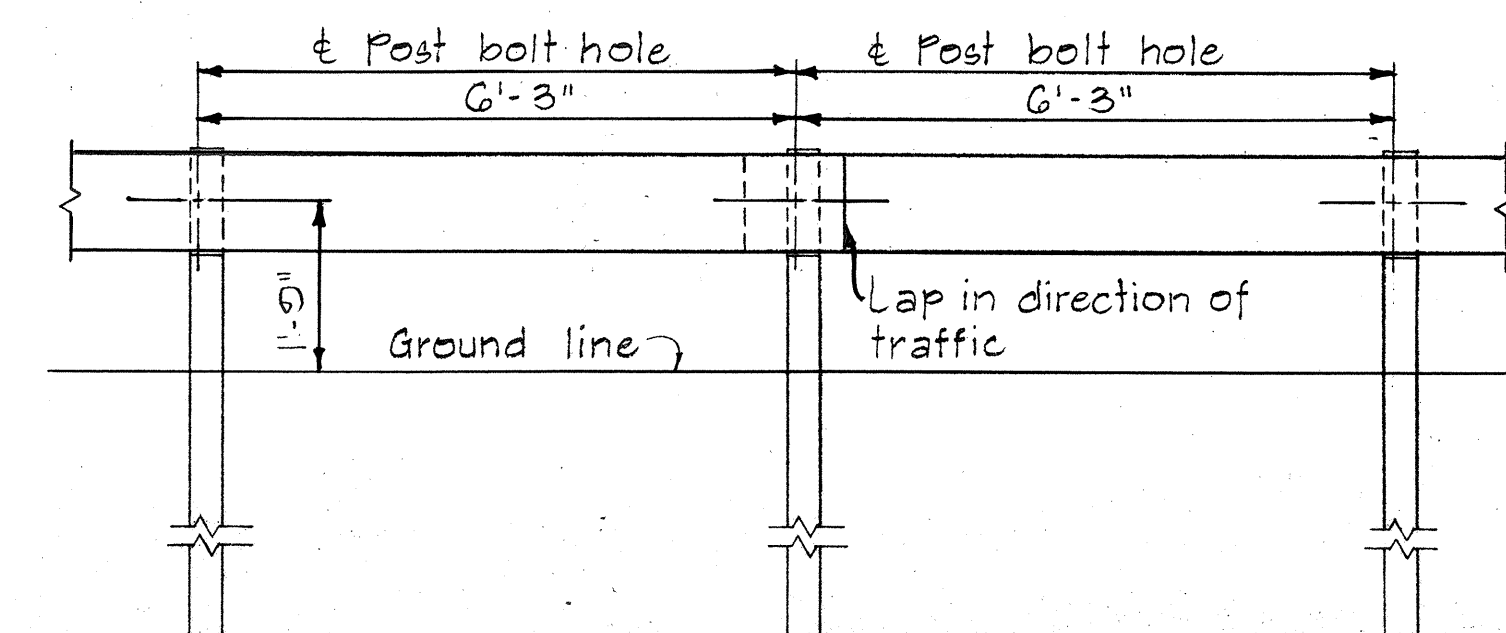
ELEVATION

METAL GUARD RAIL ON CONCRETE POST
WITH WOOD OR METAL SPACER BLOCK

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



PLAN



ELEVATION

METAL GUARD RAIL ON METAL POST
WITH METAL SPACER BLOCK

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

SCALE: AS SHOWN

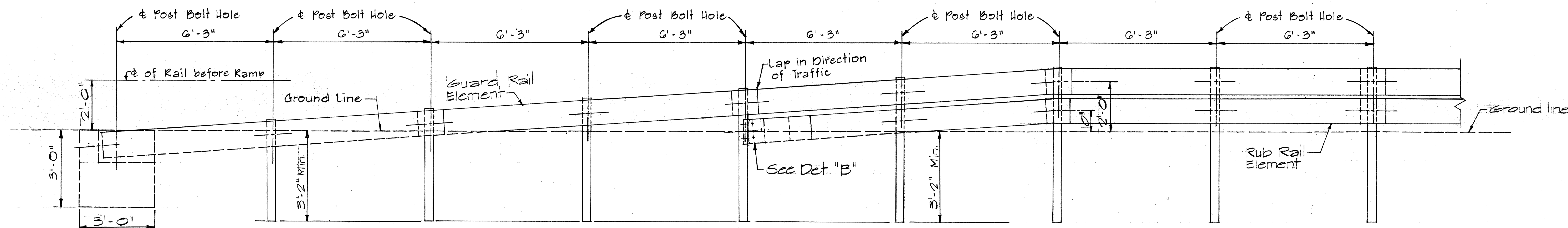
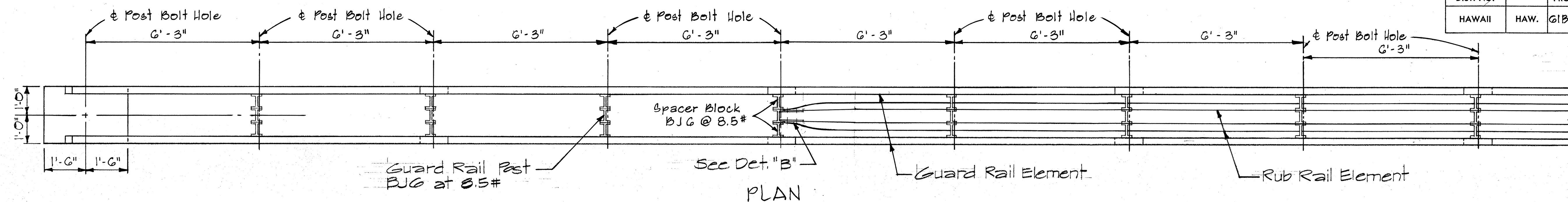
NOV. 1968

SHEET No. 1 OF 7 SHEETS PT 500

85

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61B-0570	1969	7	11

REVISED: 12-11-68
REVISED: 2-24-69

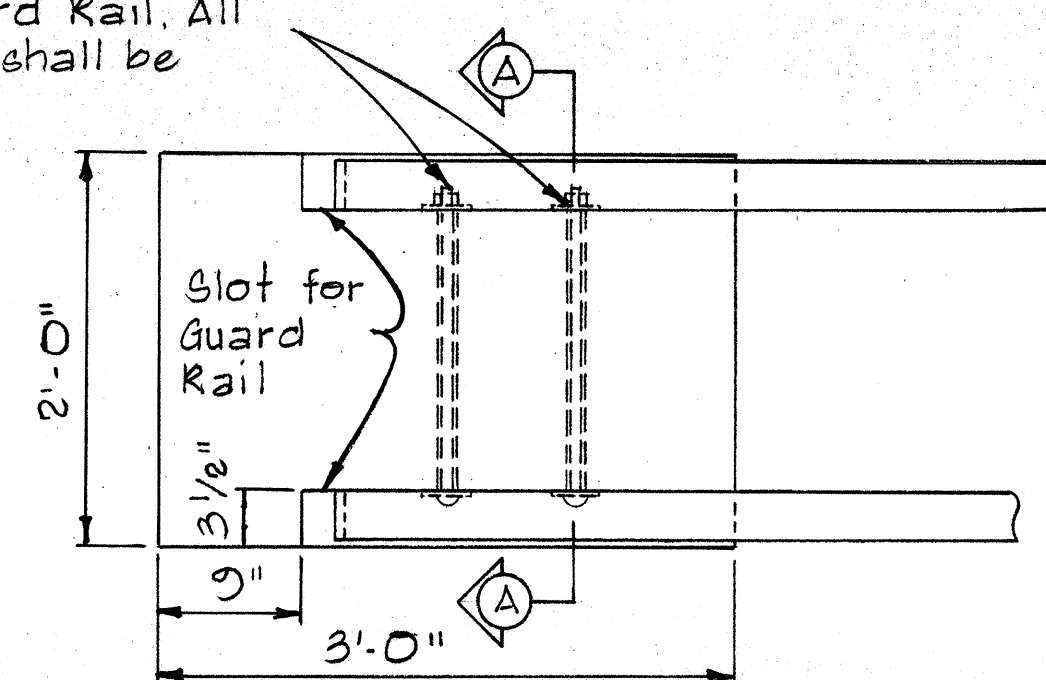


ELEVATION

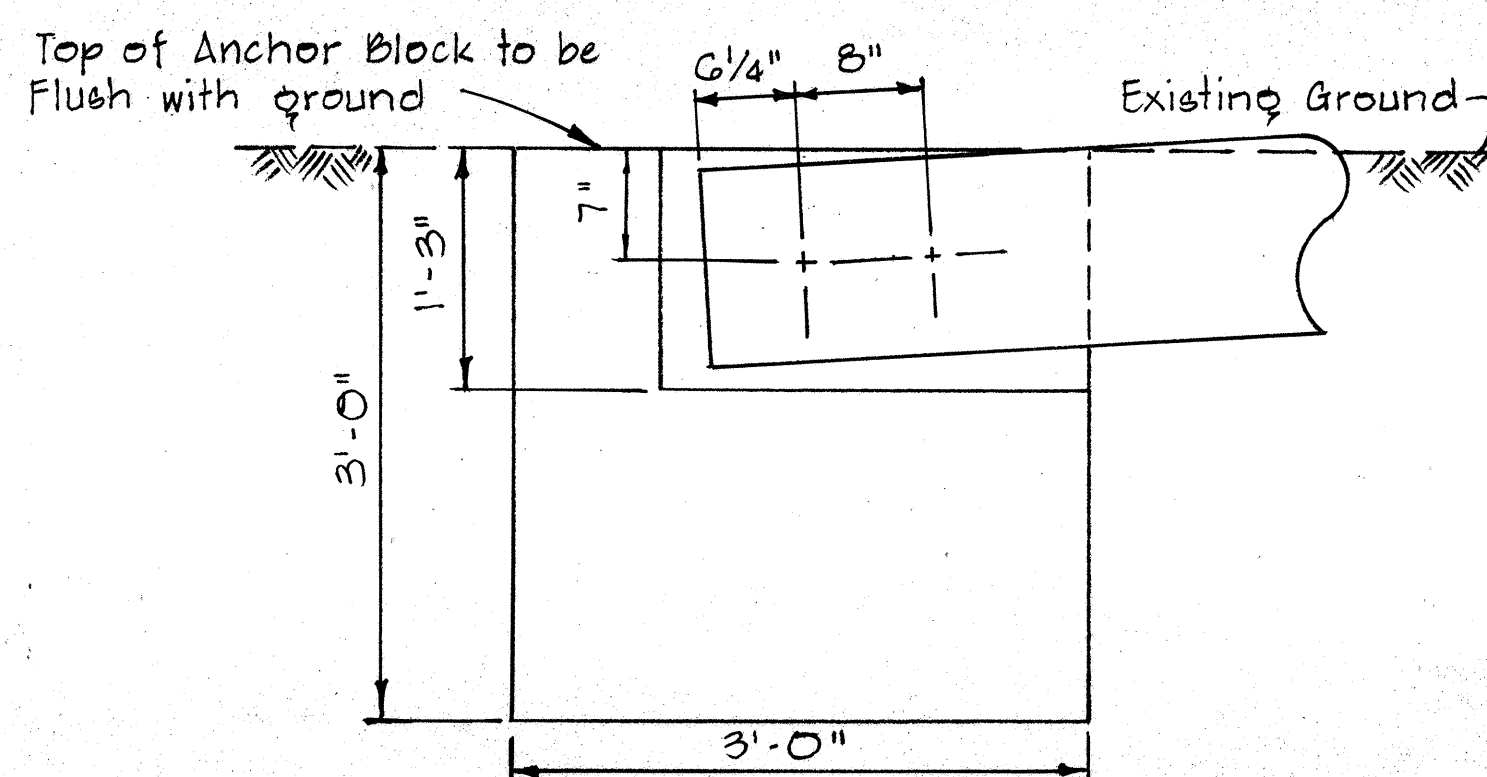
STRAIGHT APPROACH - RAMP END ANCHORAGE (MEDIAN)

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

5/8" Bolts with 3/4" G.I. Pipe Sleeve in each hole. Incidental to Metal Guard Rail. All Metal Pieces shall be Galvanized.



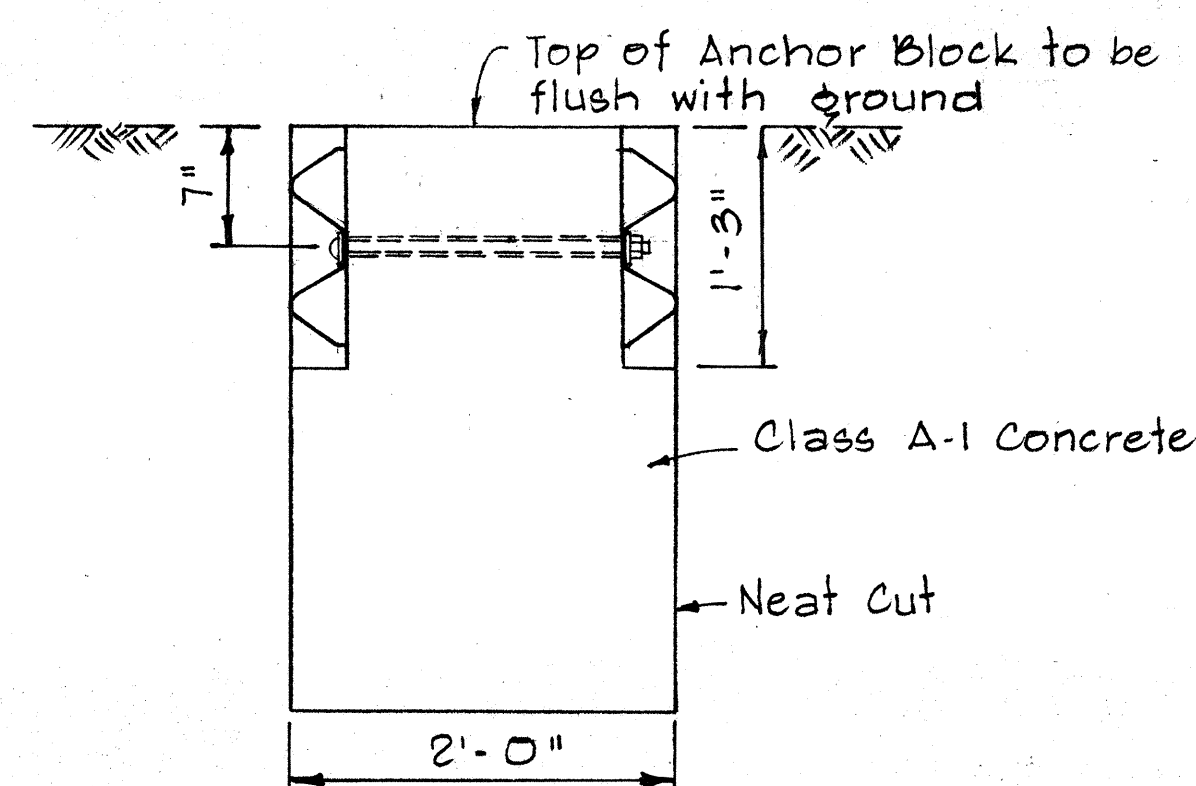
PLAN



ELEVATION

CONCRETE ANCHOR BLOCK FOR RAMP END

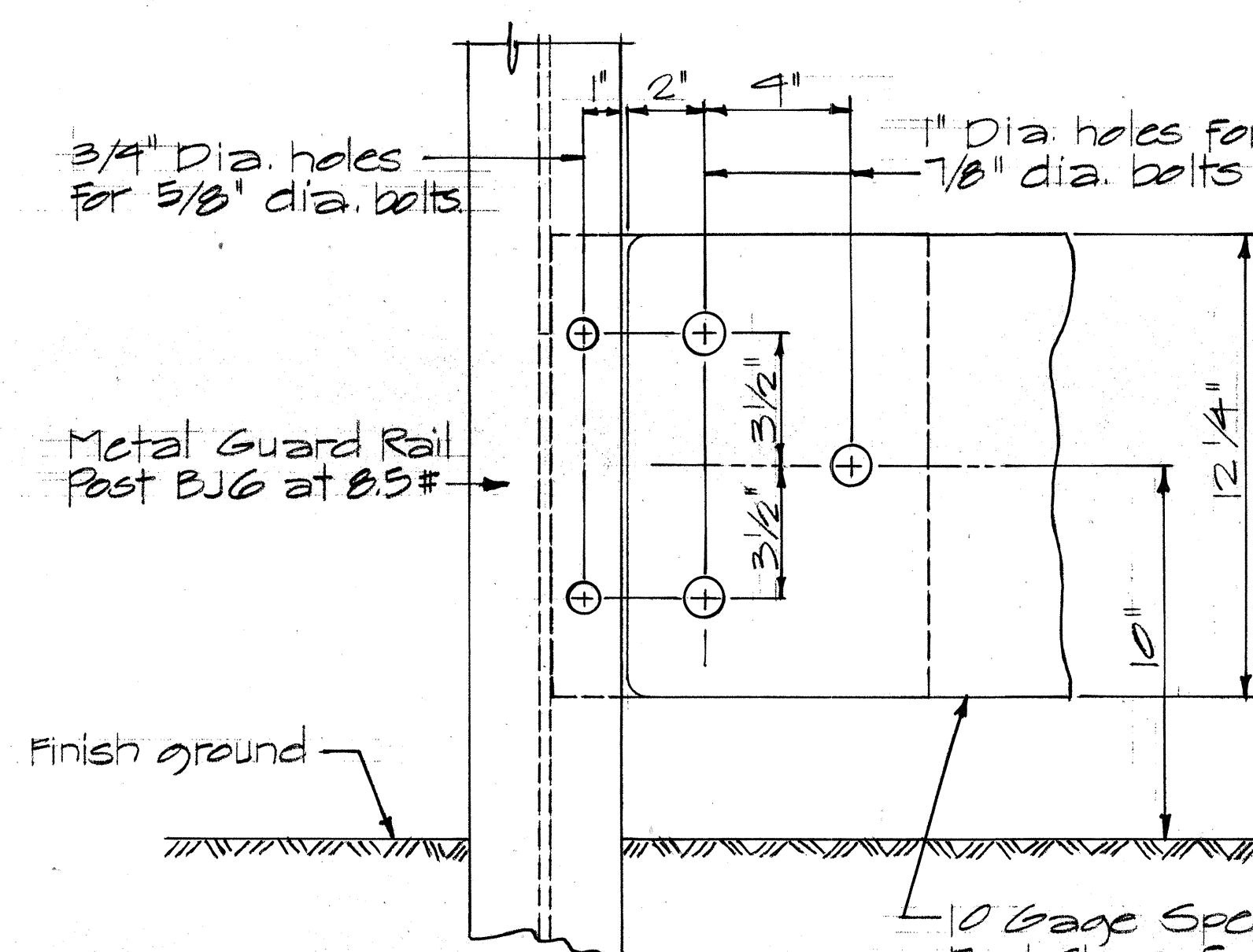
Scale: 1" = 1'-0"



SECTION A-A

NOTE:

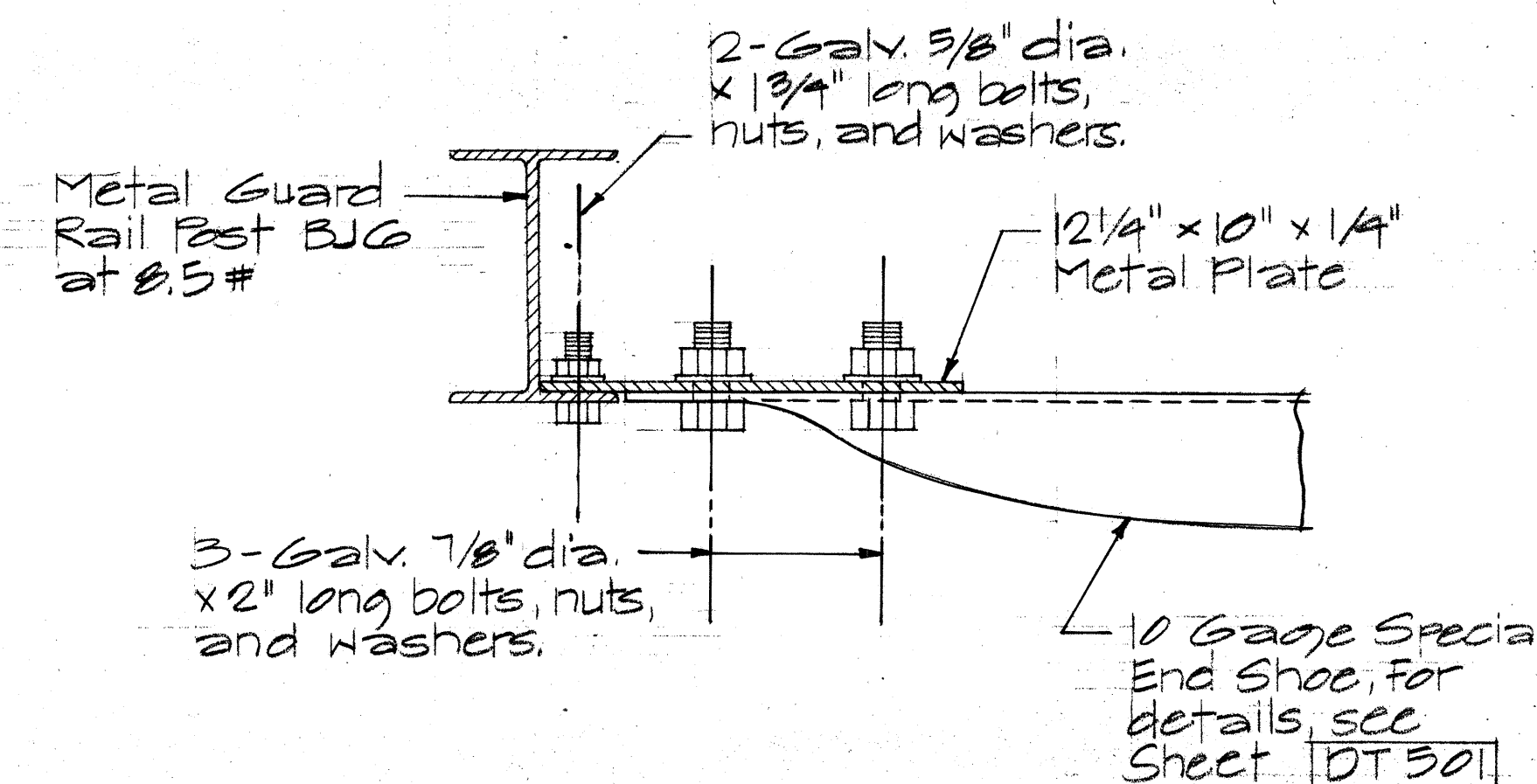
Concrete, Excavation, and Miscellaneous Appurtenances necessary to anchor the Guard Rail Ends, shall be incidental to the Metal Guard Rail.



ELEVATION

DETAIL "B"

Scale: 3/4" = 1'-0"



PLAN

NOTE:

All Shoe Assembly, including anchor bolts, nuts, and washers, shall be galvanized

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAIL GUARD RAIL RAMP END ANCHORAGE

Scale: as Noted

August, 1968

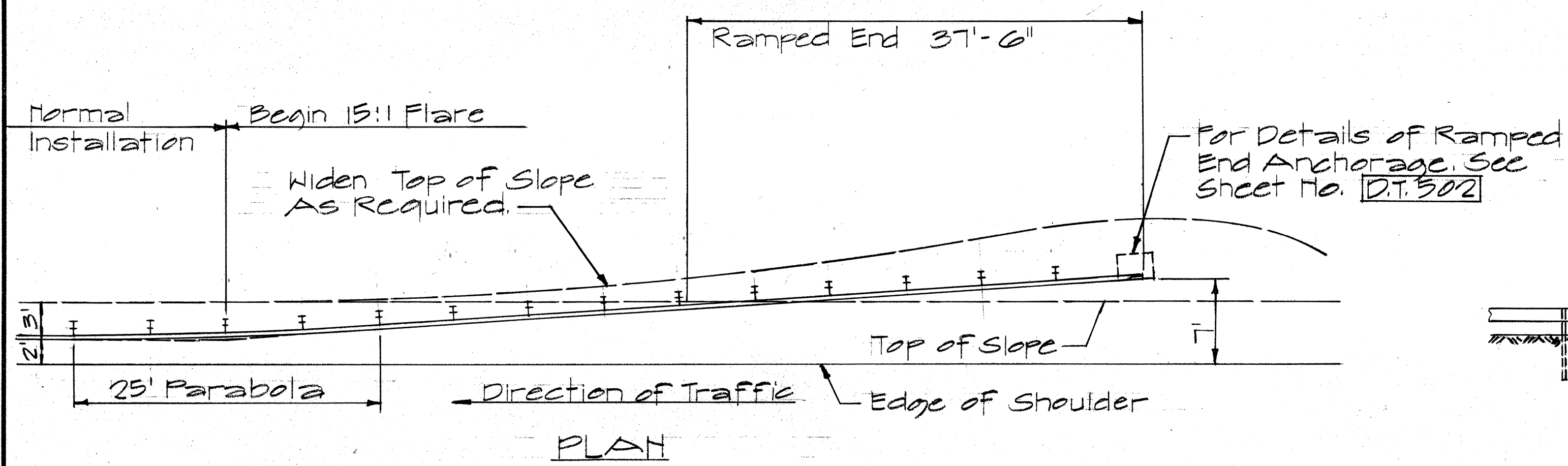
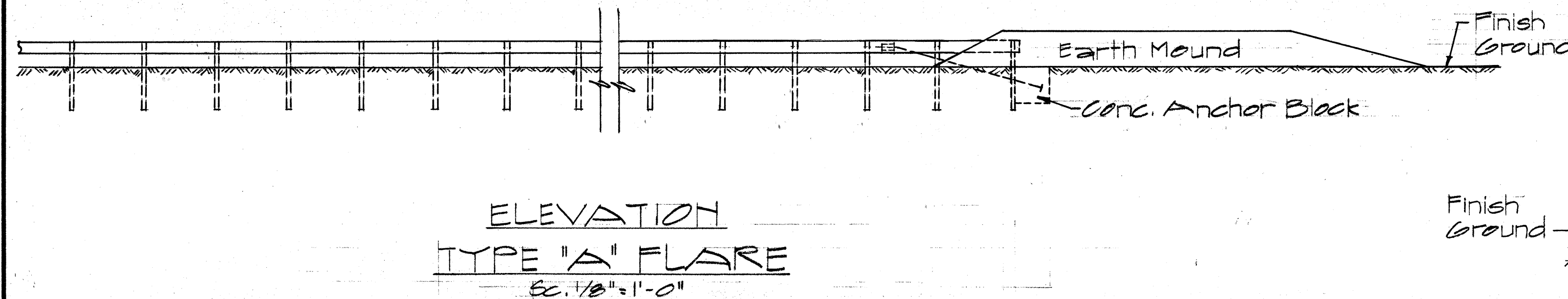
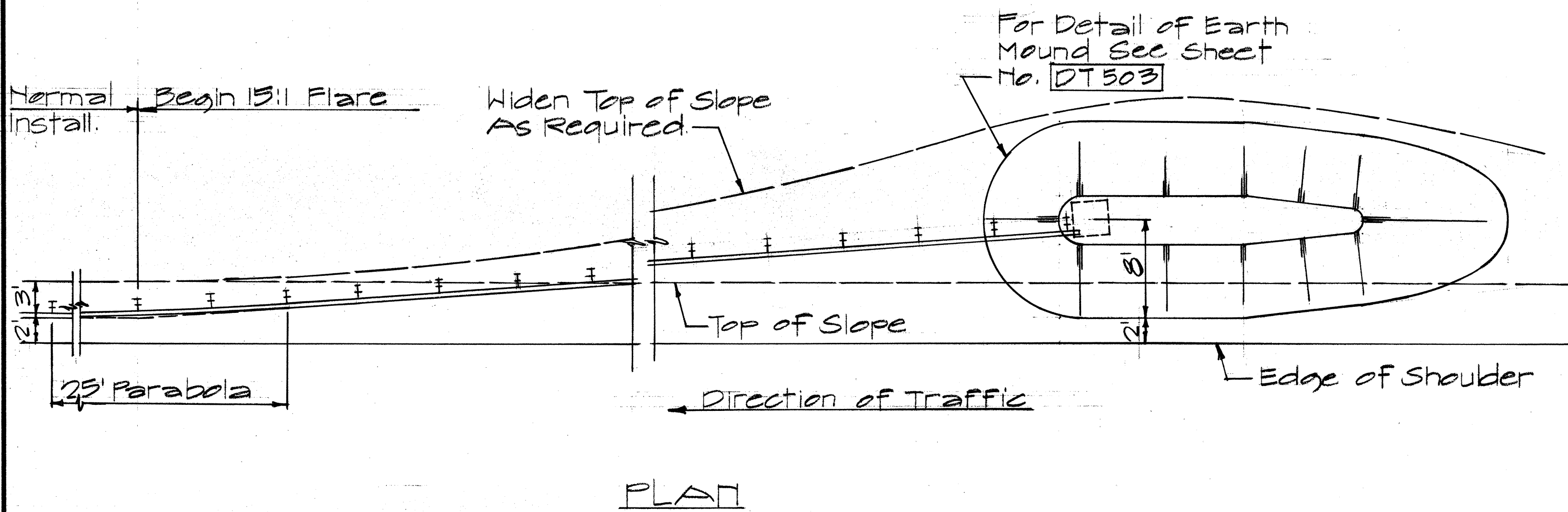
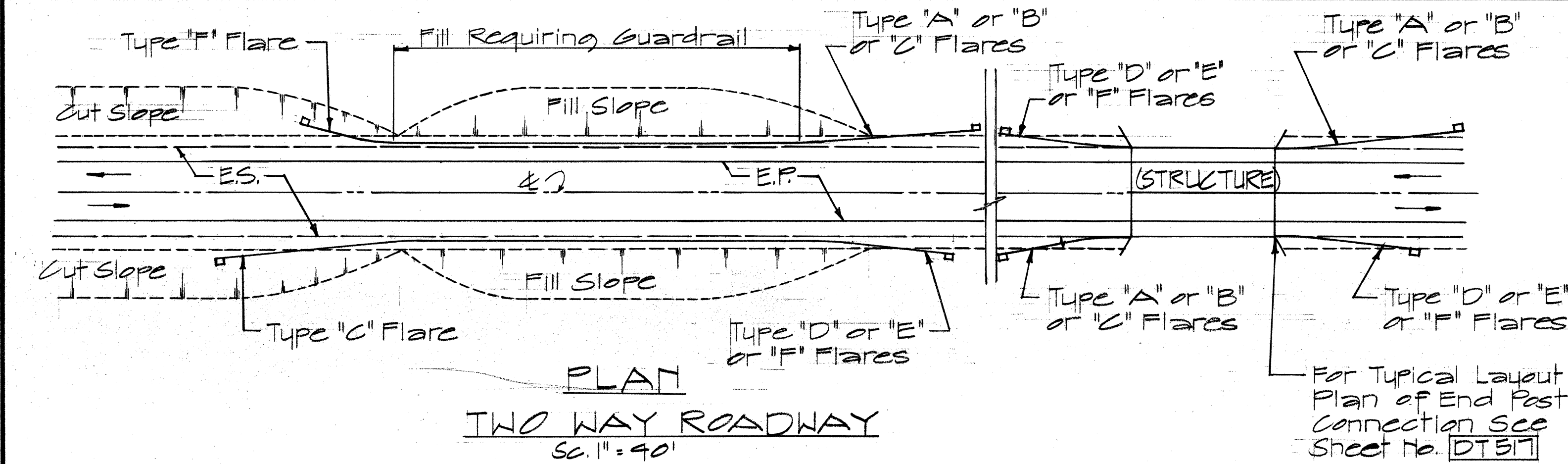
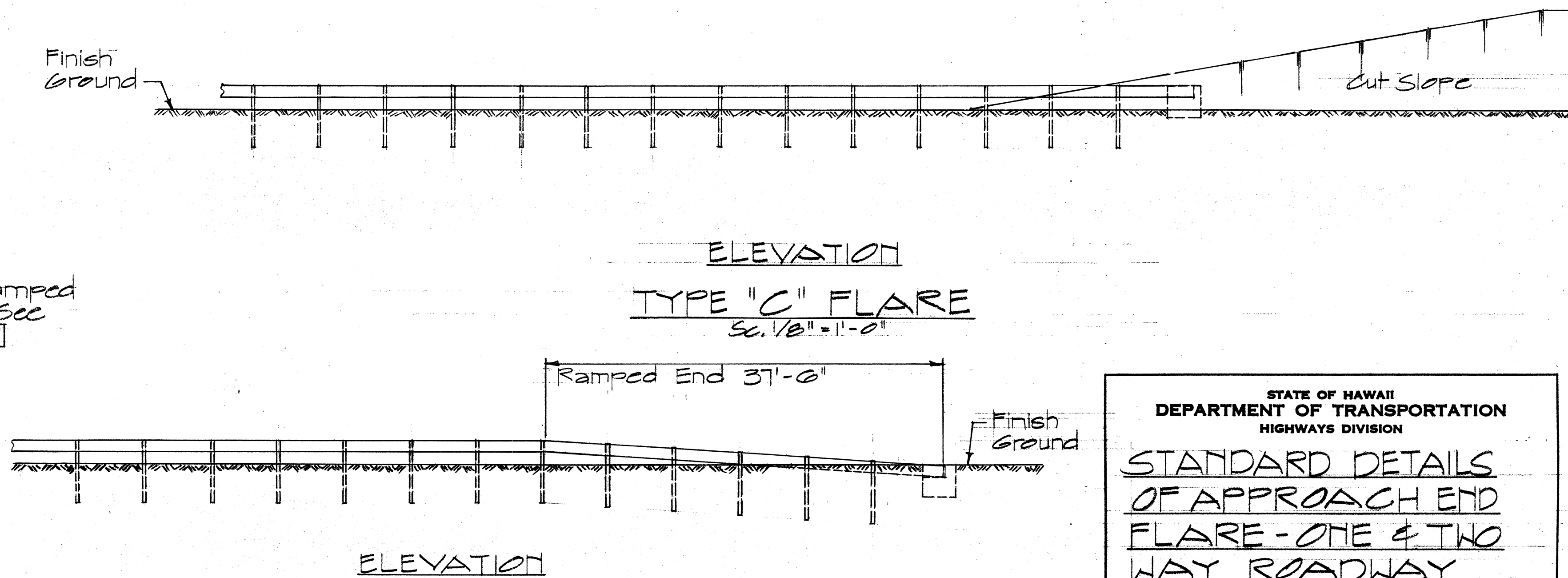
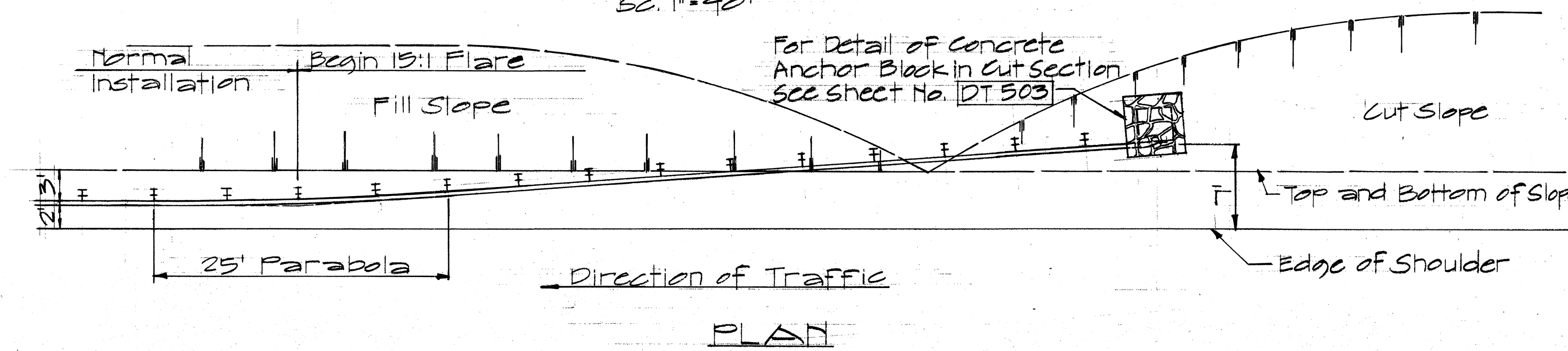
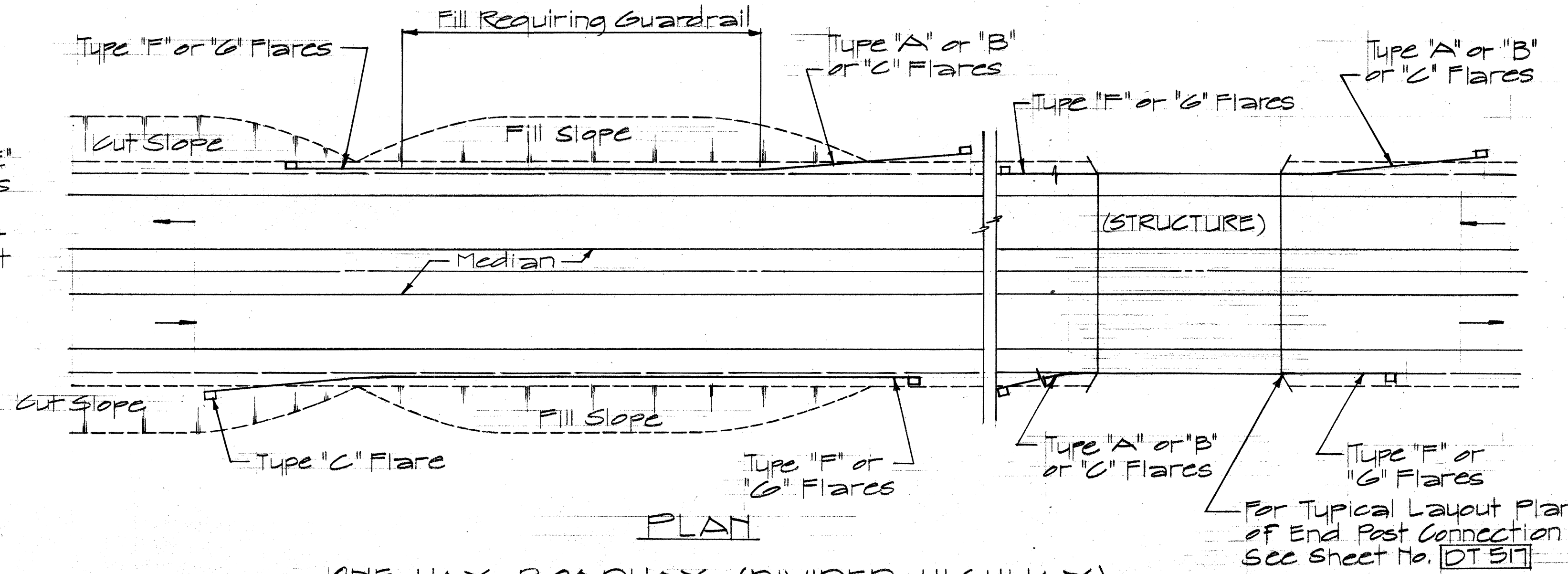
SHEET No. 3 OF 7 SHEETS DT 502

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61B-05-70	1967	8	11

NOTE:

Metal guard rail connection to structures requires End Post Connection. See structure plans.



TYPE "B" FLARE
SC. 1/8" = 1'-0"

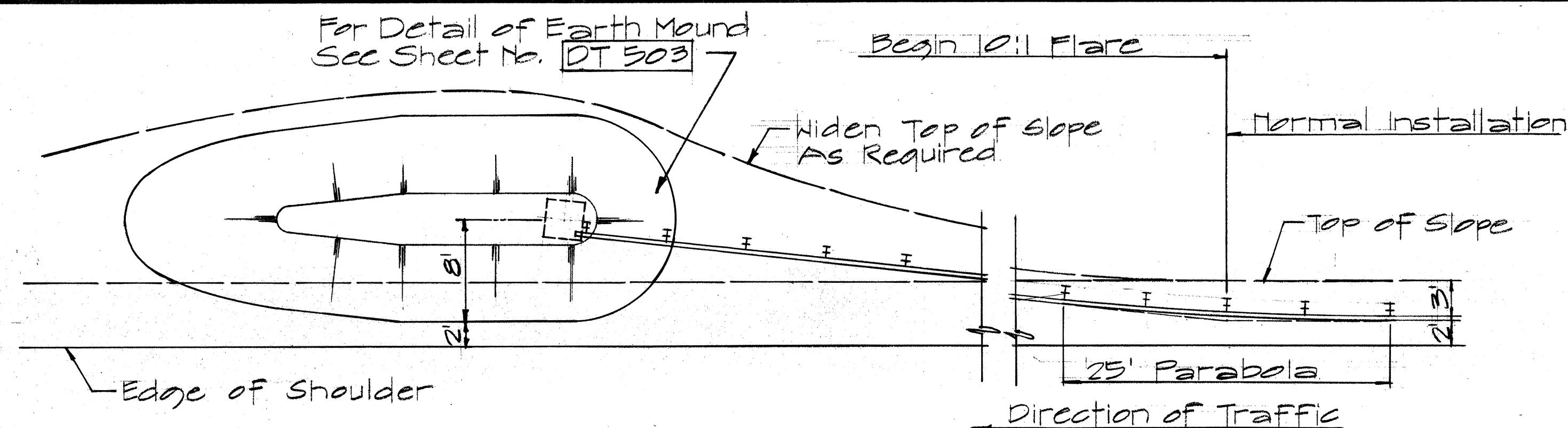
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STANDARD DETAILS
OF APPROACH END
FLARE - ONE & TWO
WAY ROADWAY**

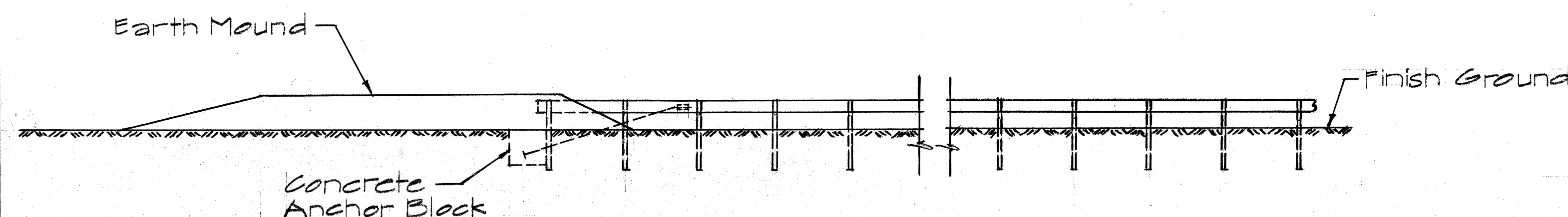
SC. As Noted April 1967
SHEET No. 4 OF 7 SHEETS [DT 516]

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
NOTES 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.	618-05-70	1967	9	11



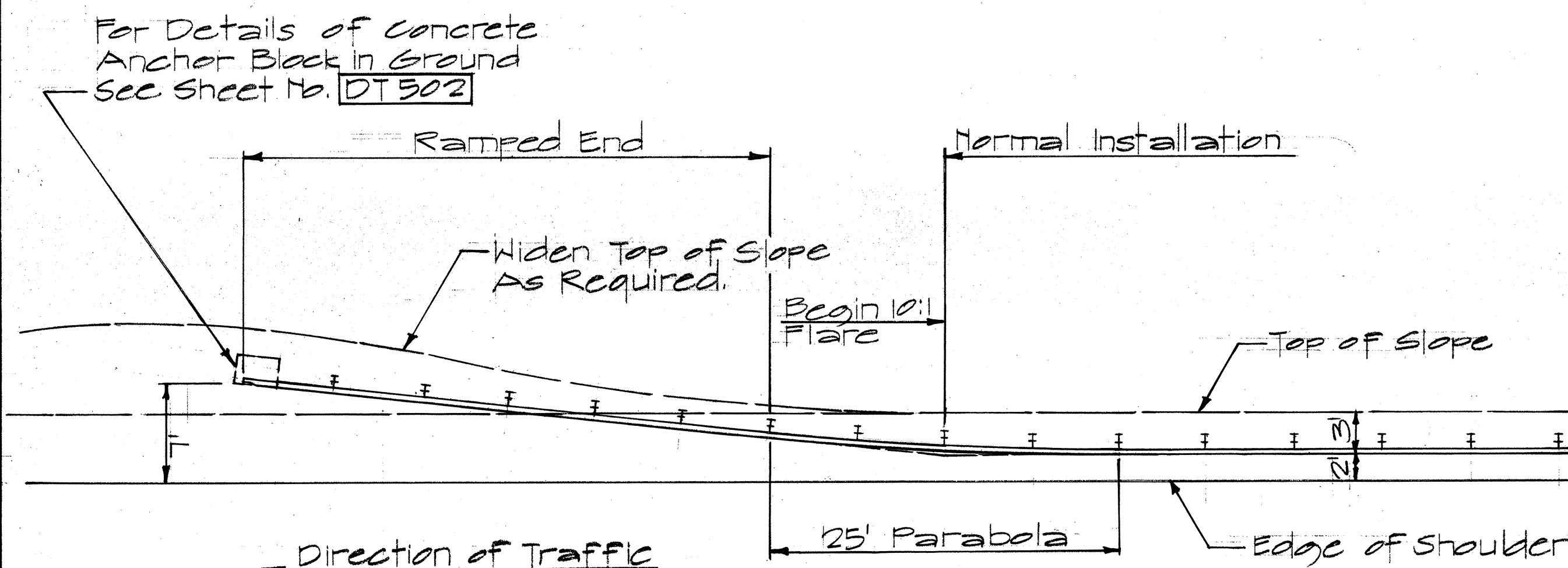
PLAN



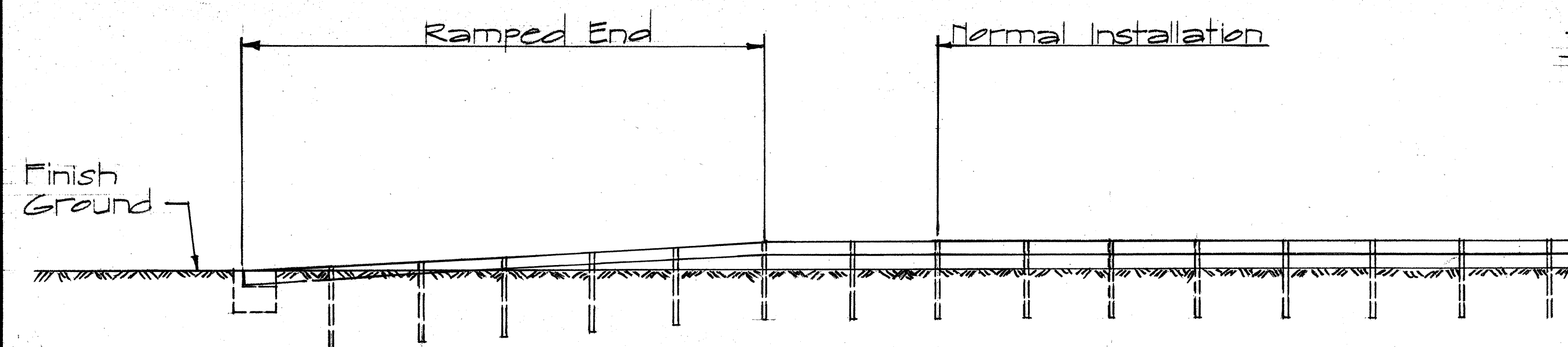
ELEVATION

TYPE "D" FLARE

Sc. 1/8" = 1'-0"



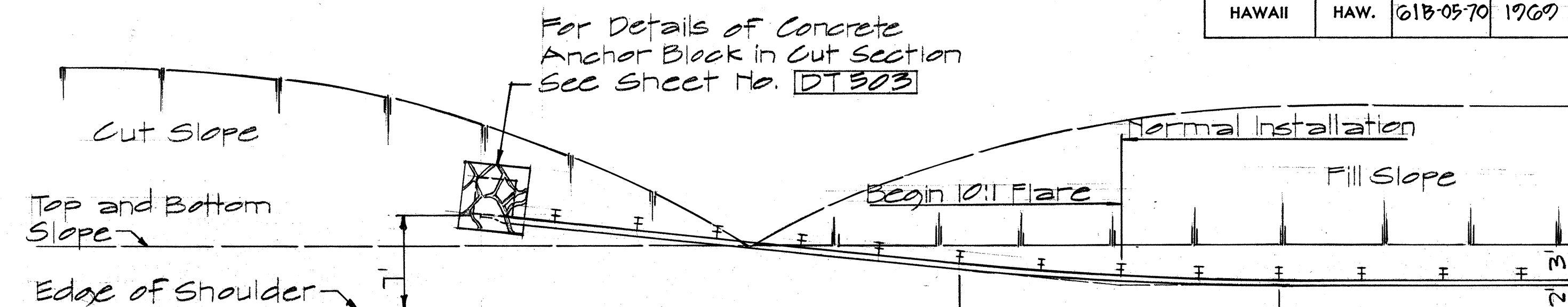
PLAN



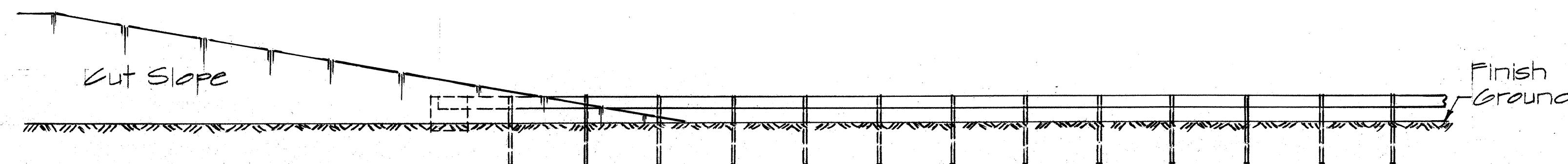
ELEVATION

TYPE "E" FLARE

Sc. 1/8" = 1'-0"



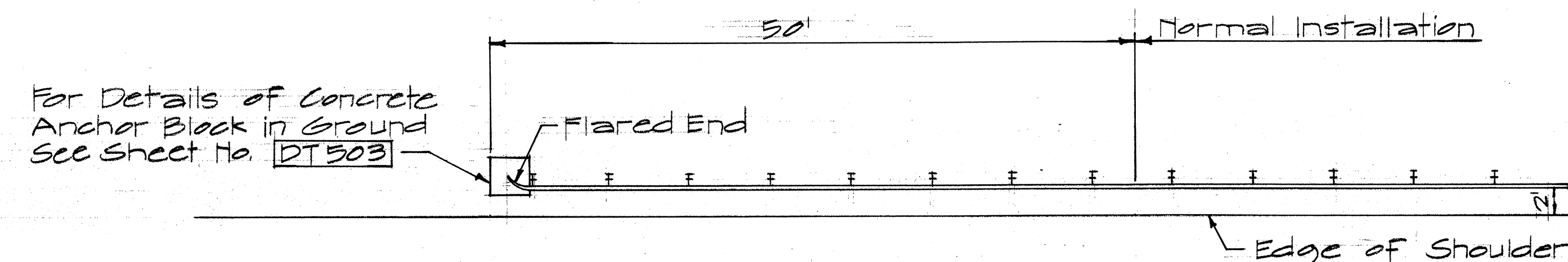
PLAN



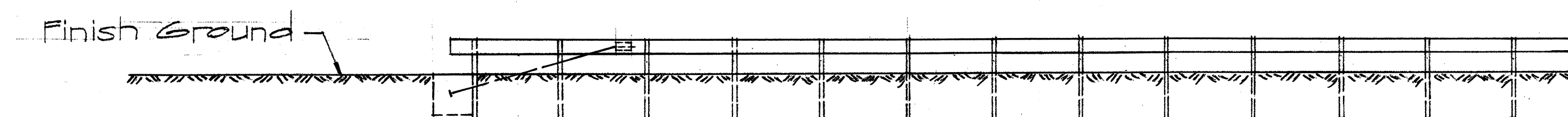
ELEVATION

TYPE "F" FLARE

Sc. 1/8" = 1'-0"



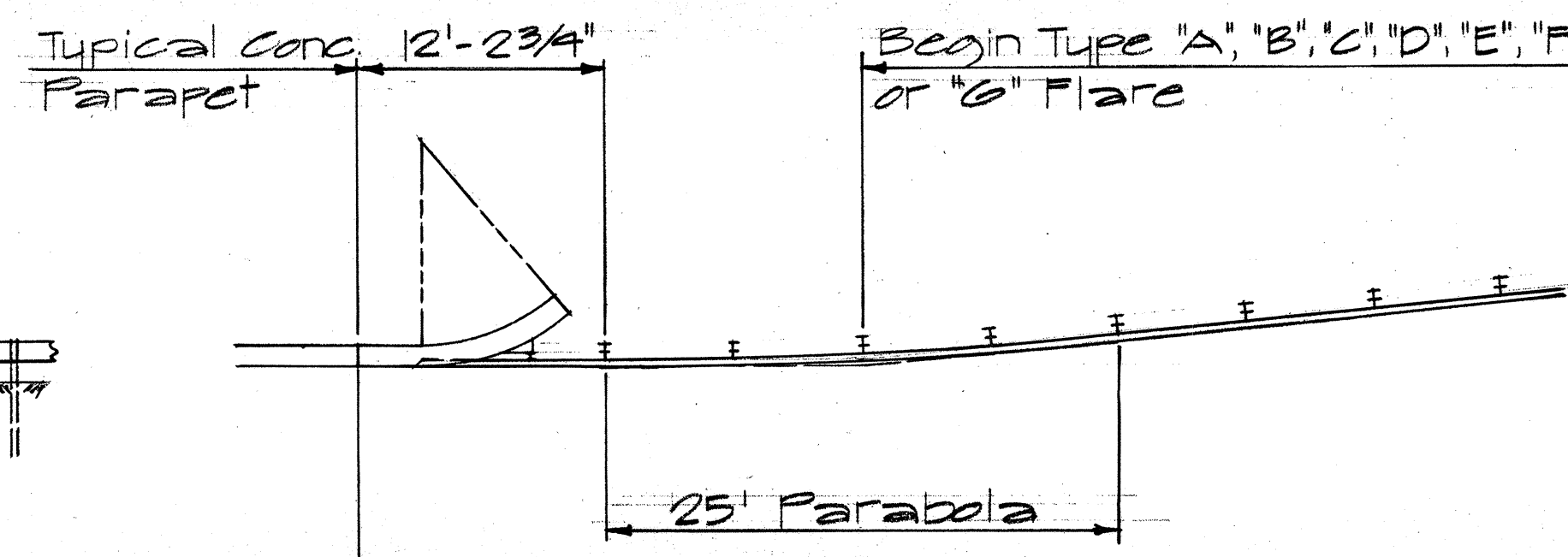
PLAN



ELEVATION

TYPE "G" FLARE

Sc. 1/8" = 1'-0"



TYPICAL LAYOUT PLAN OF END POST CONNECTION

Sc. 1/8" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

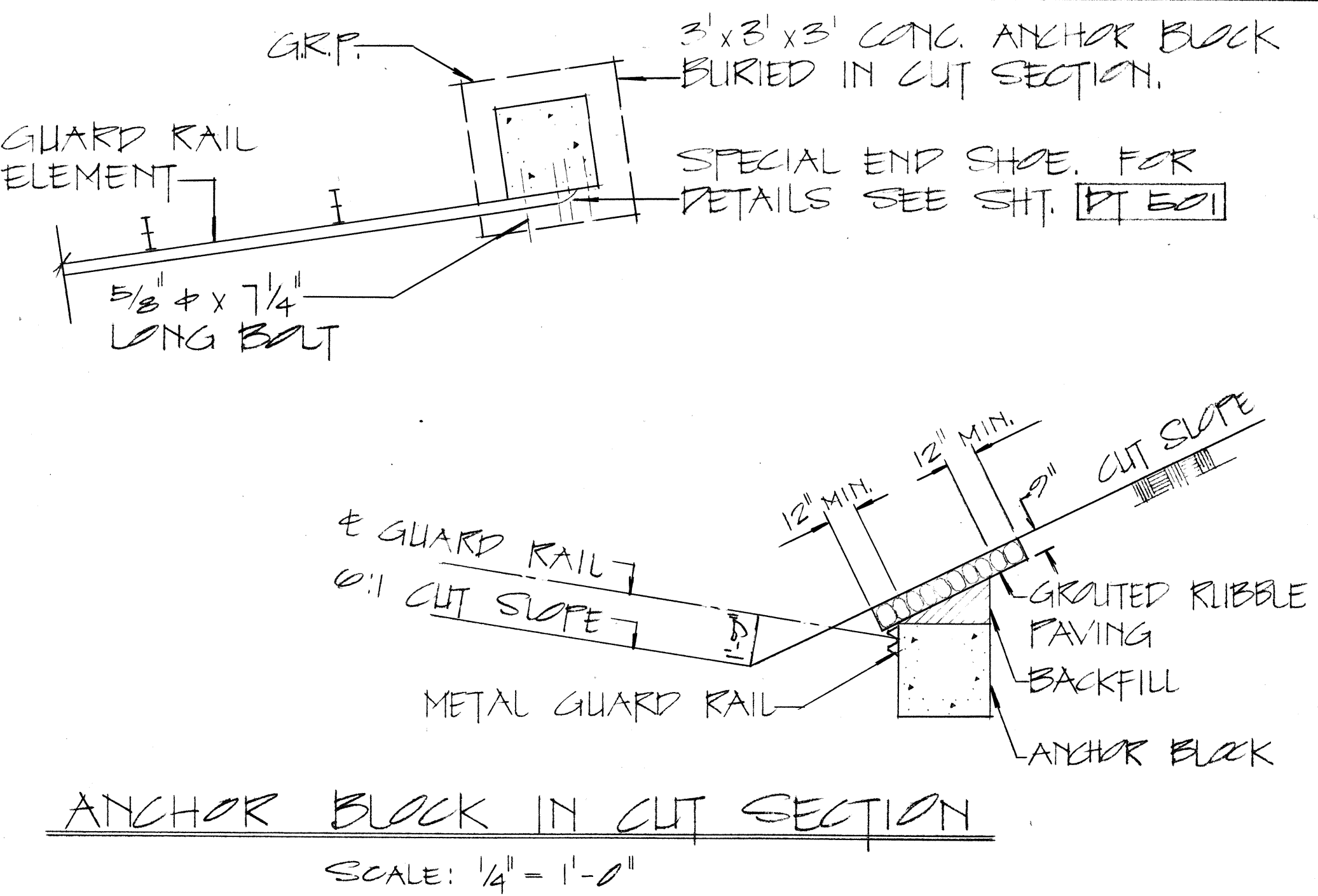
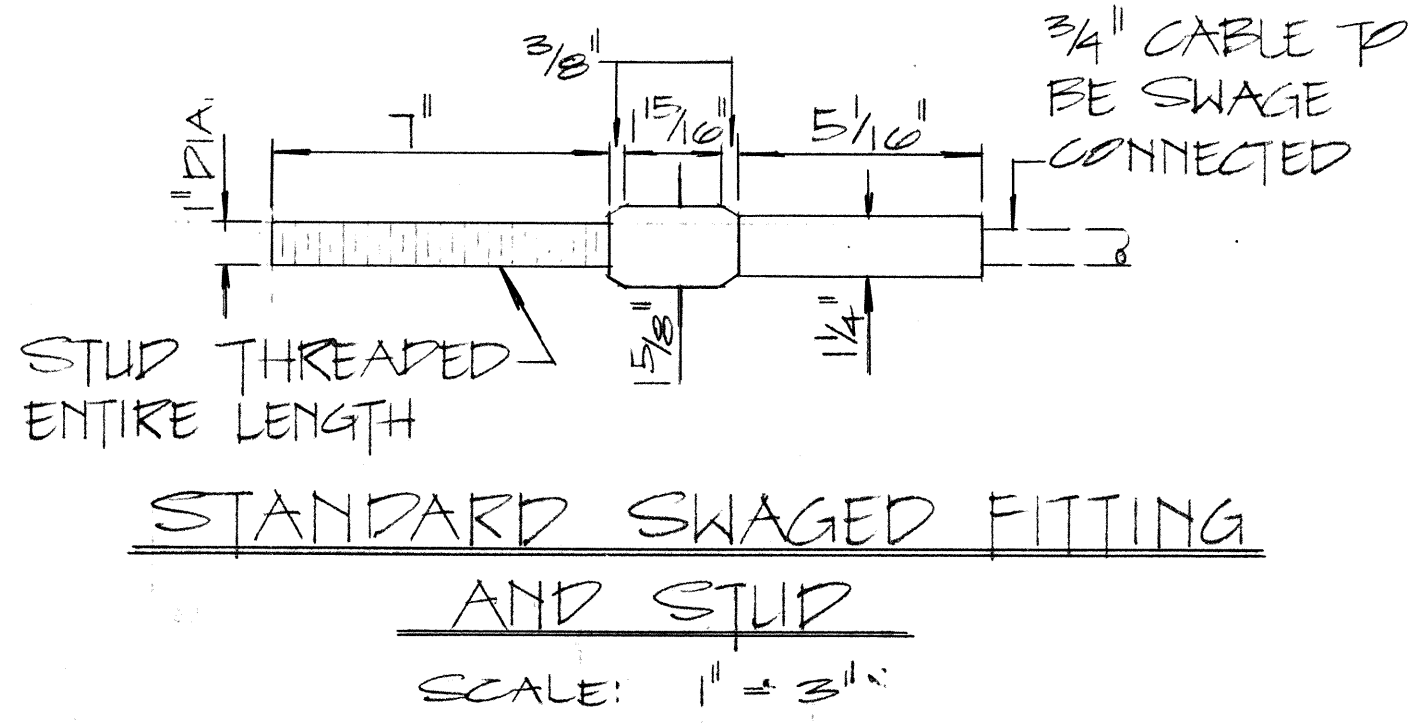
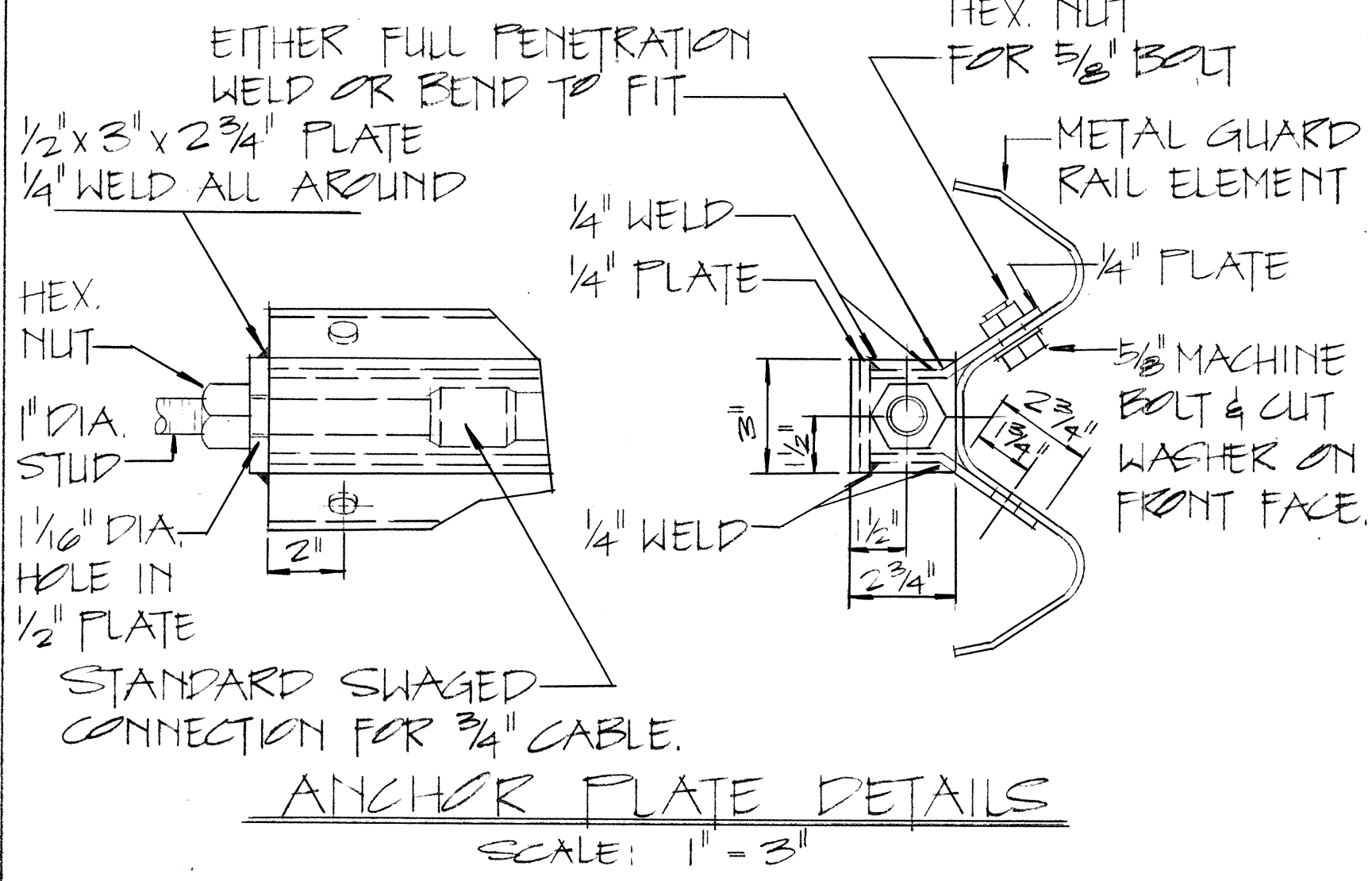
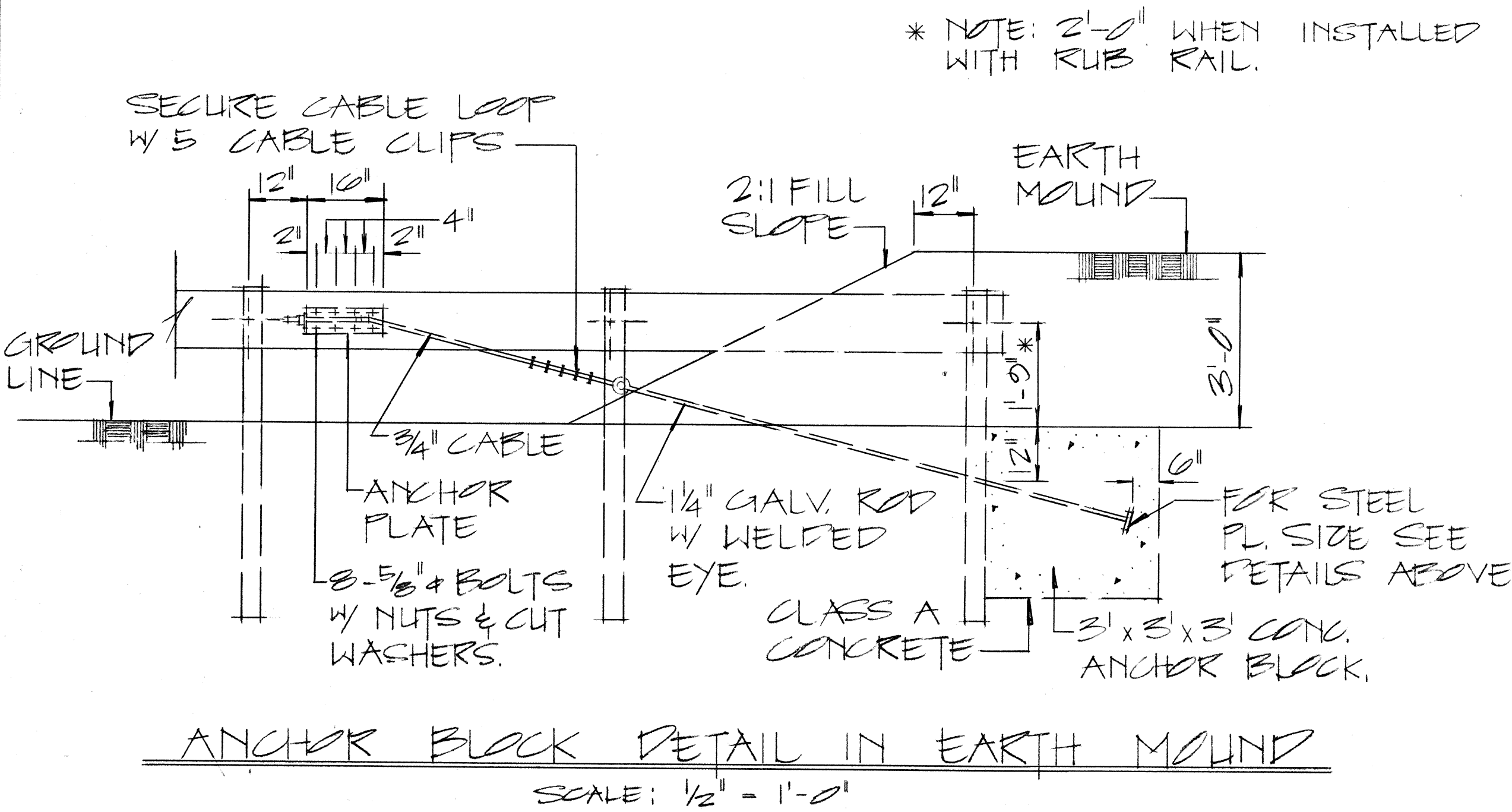
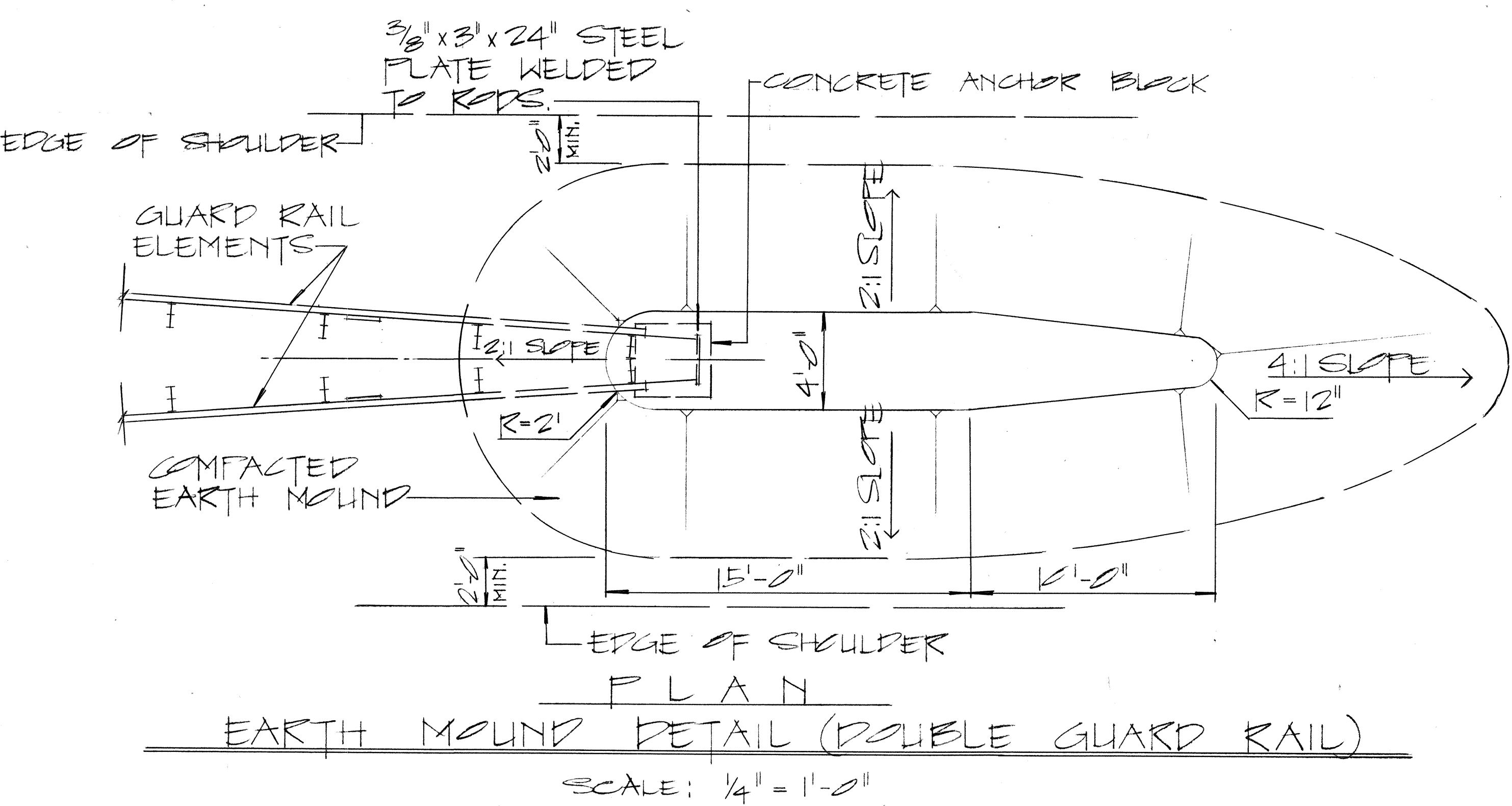
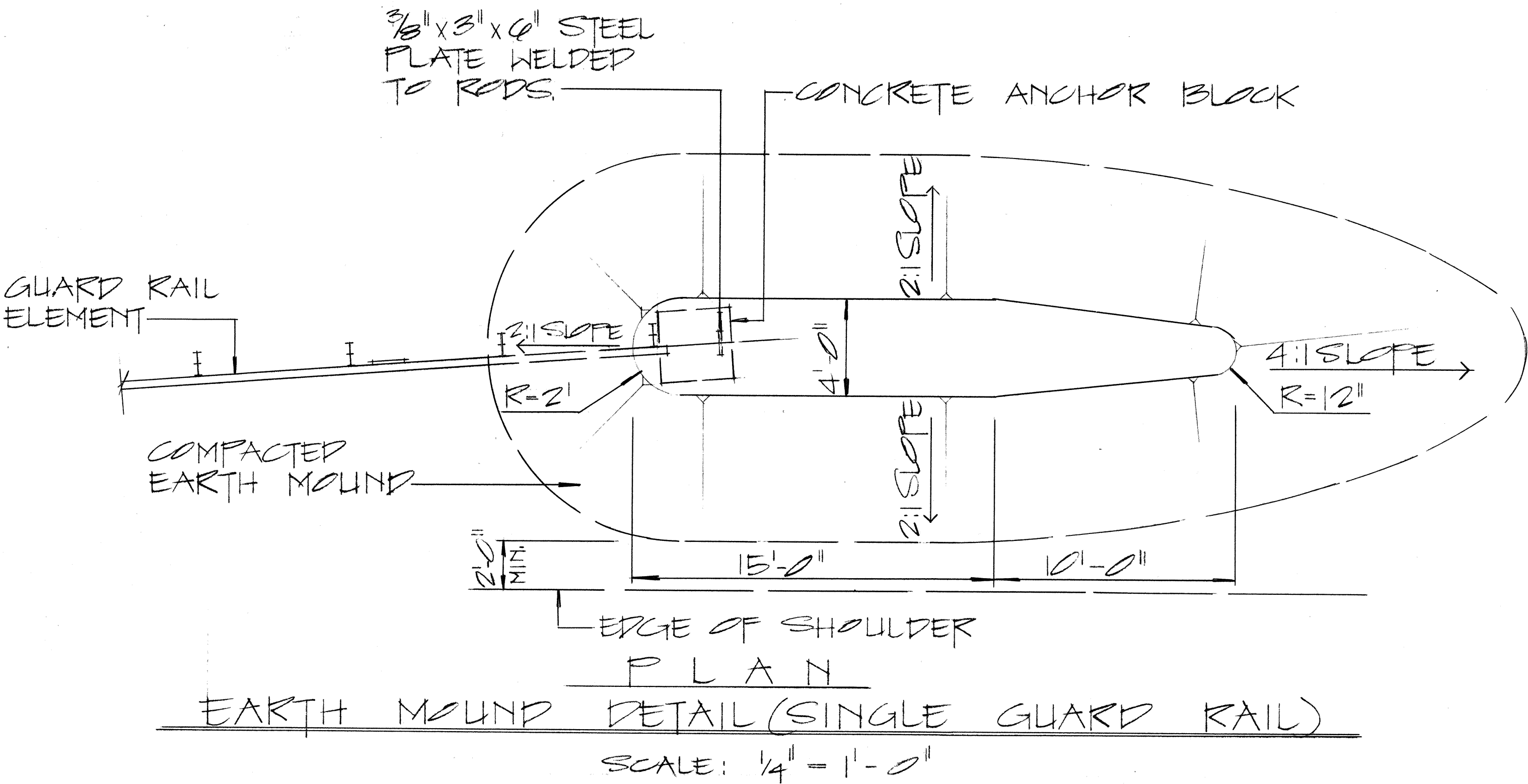
STANDARD DETAILS
OF TRAILING END
FLARE - ONE & TWO
WAY ROADWAY

Sc. As Noted APRIL 1967

SHEET No. 5 OF 7 SHEETS DT 517

SURVEY PLOTTED BY	DATE
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.	618-05-70	1969	10	11



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
EARTH MOUND AND
ANCHOR BLOCK DETAILS

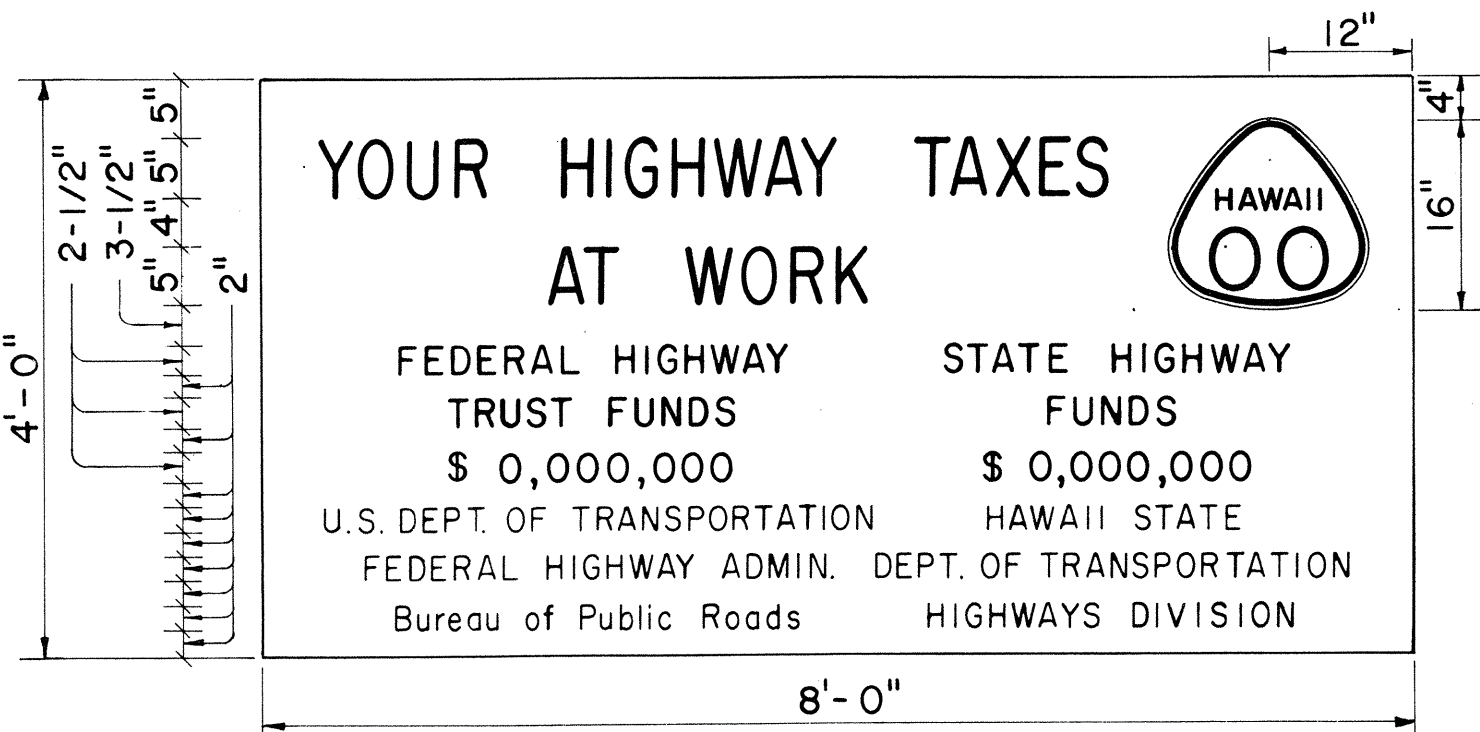
SCALE: AS SHOWN OCT 1969

SHEET No. 6 OF 7 SHEETS PT 520

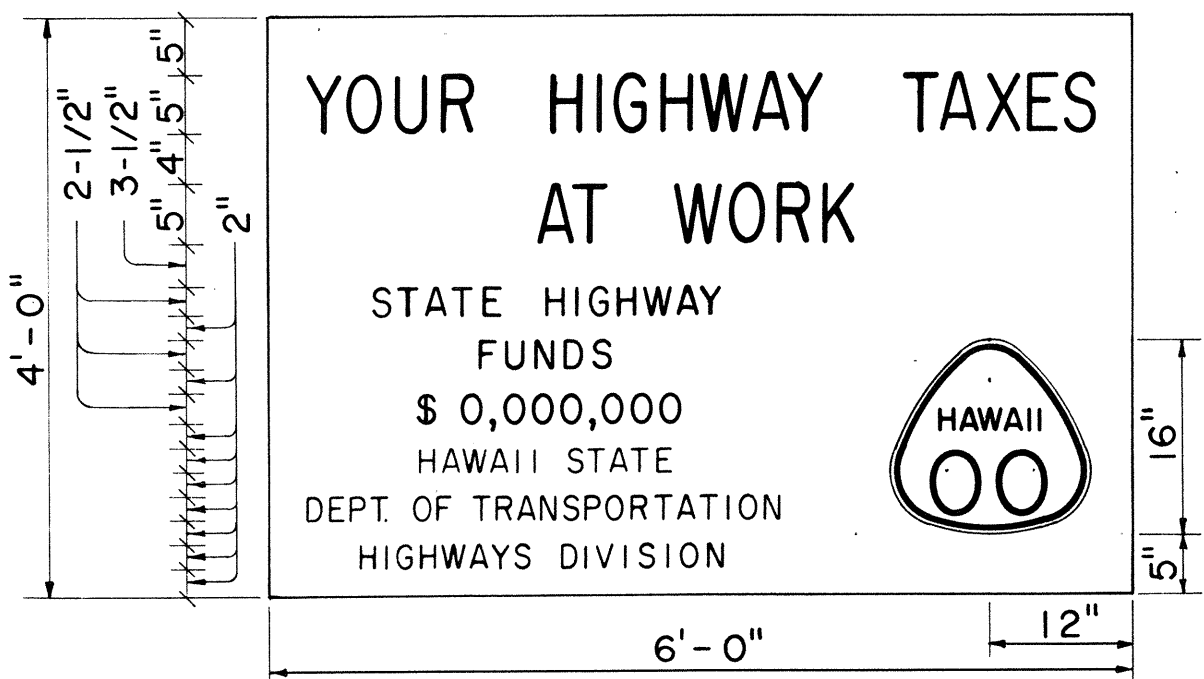
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

- NOTE:
1. GALVANIZED ANCHOR ROD, METAL GUARD RAIL AND POST BURIED IN GROUND SHALL BE COVERED WITH COAT OF COAL TAR ENAMEL.
 2. CONCRETE, GRP, EXCAVATION, EARTH MOUND, ANCHOR RODS AND MISCELLANEOUS APPURTENANCES NECESSARY TO ANCHOR THE GUARD RAIL ENDS SHALL BE INCIDENTAL TO THE METAL GUARD RAIL.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61B-05-70	1969	11	11



SIGN PANEL
PRIMARY AND SECONDARY SYSTEMS
Scale: 3/4" = 1'-0"



SIGN PANEL
NON-FEDERAL AID PROJECT
Scale: 3/4" = 1'-0"

GENERAL NOTES

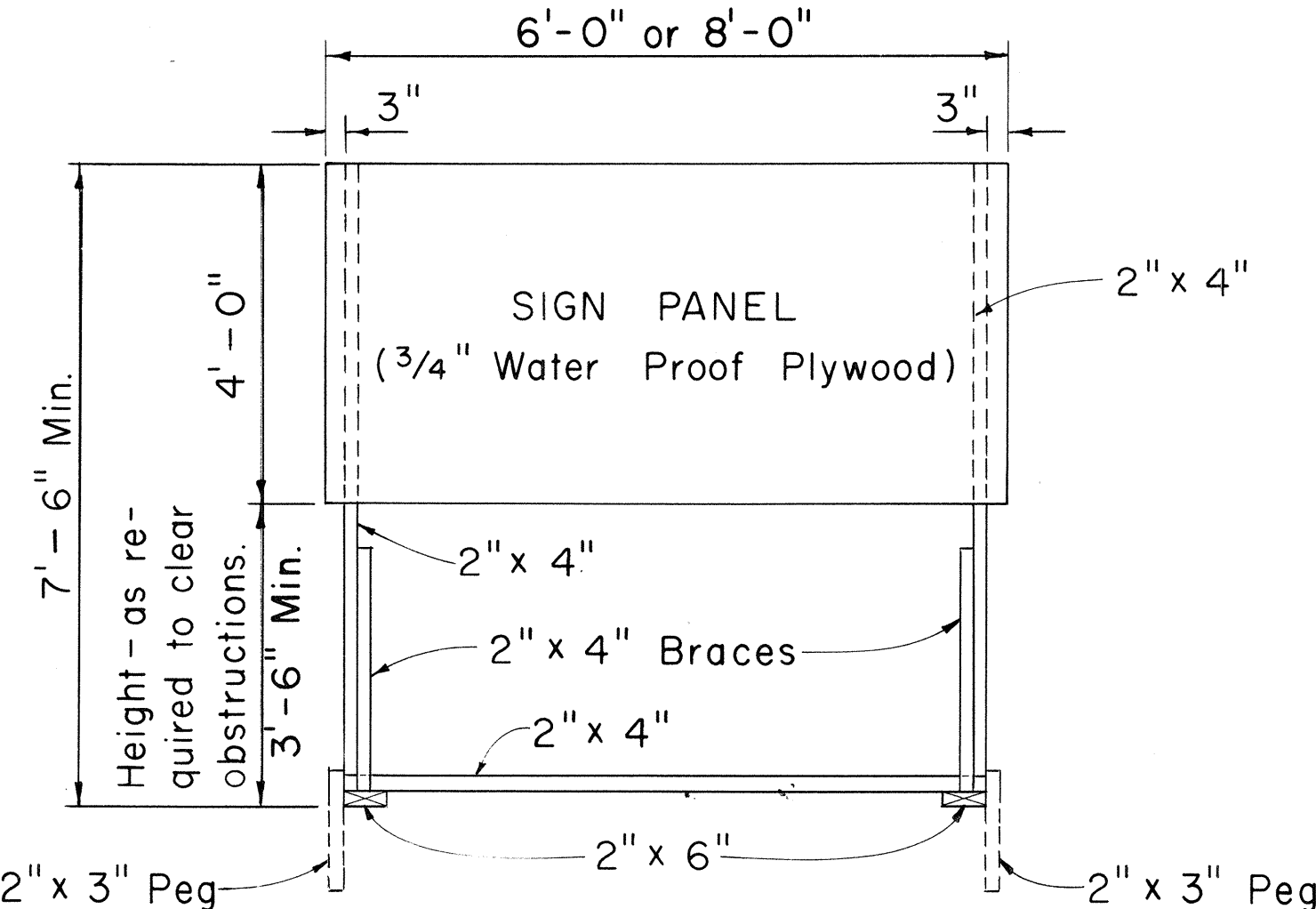
- The sign legend shall be black on white background.
- The Contractor shall construct, install and maintain the project signs at the locations shown on the plans and as ordered by the Engineer.
- Letters shall be Series "C" of the sizes shown on the plan and shall conform with the "Standard Alphabet for Highway Signs", Bureau of Public Roads, 1966
- The Contractor shall fill in the proper numerals in place of ciphers as ordered by the Engineer.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

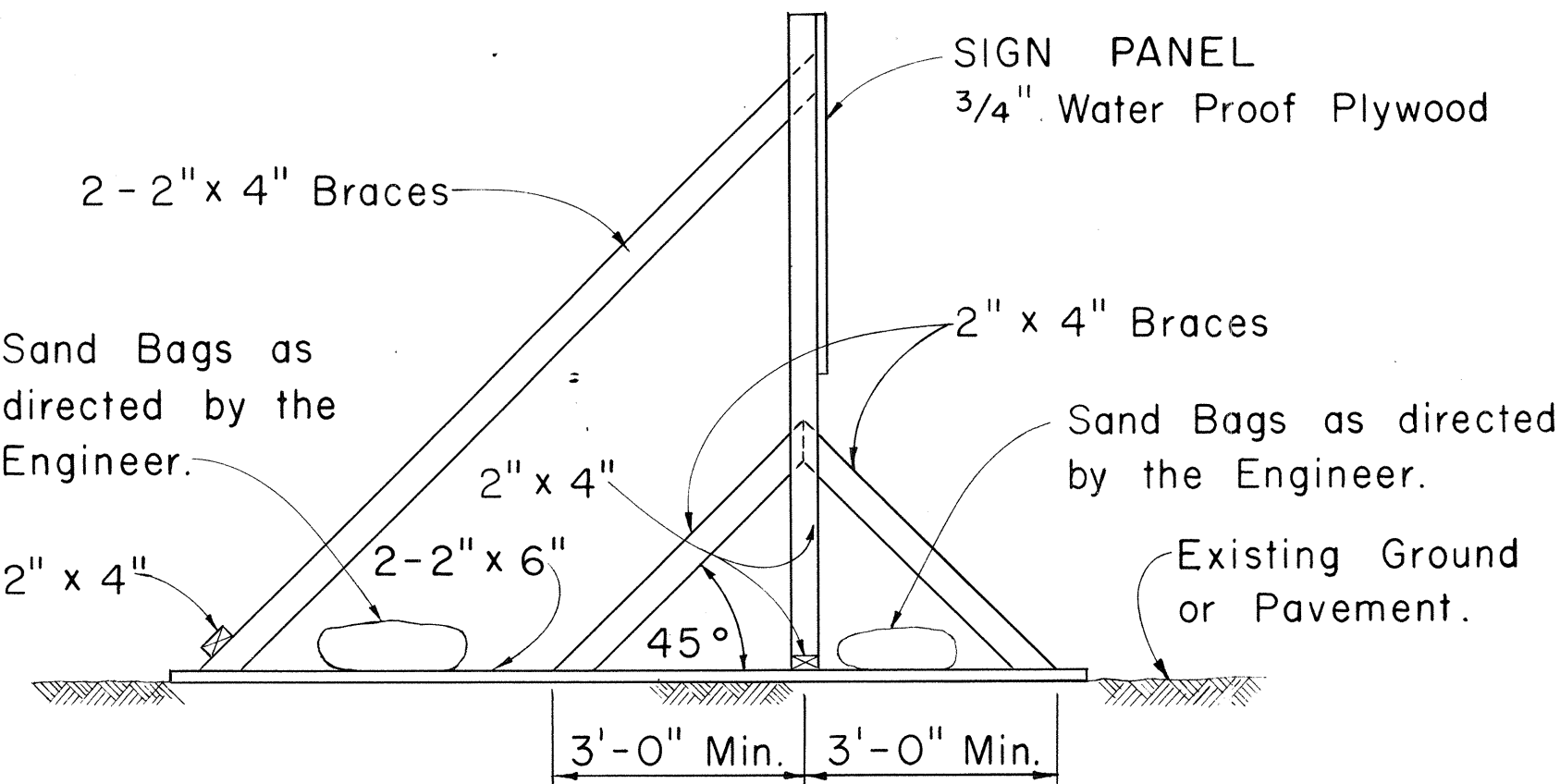
TYPICAL DETAILS
CONSTRUCTION IDENTIFICATION SIGN
AND
WOOD BARRICADES

Scale: As Shown
Date:

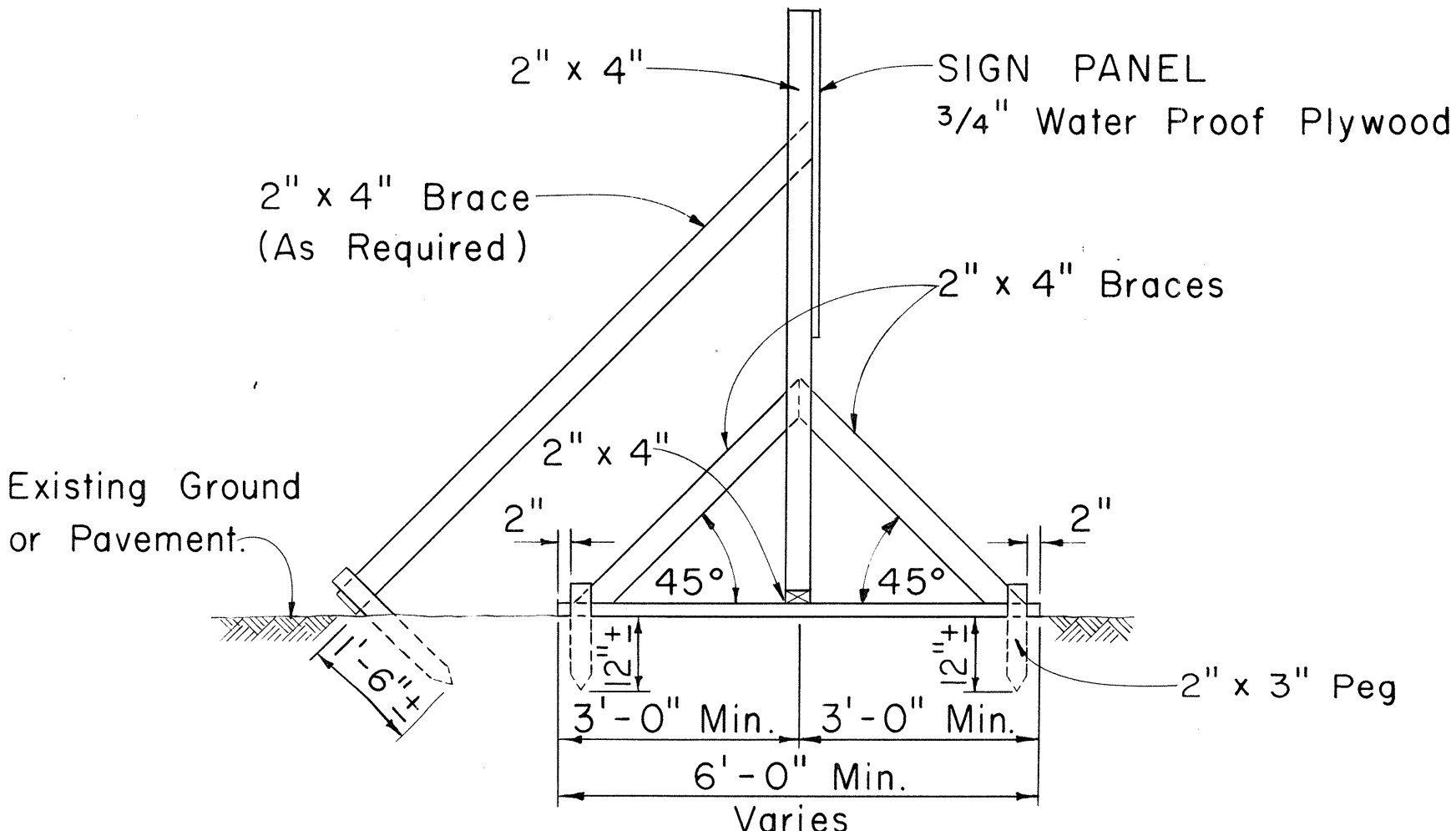
SHEET No. 7 OF 7 SHEETS



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



SIDE VIEW
(SIGN FRAME WEIGHTED DOWN)
Scale: 1/2" = 1'-0"

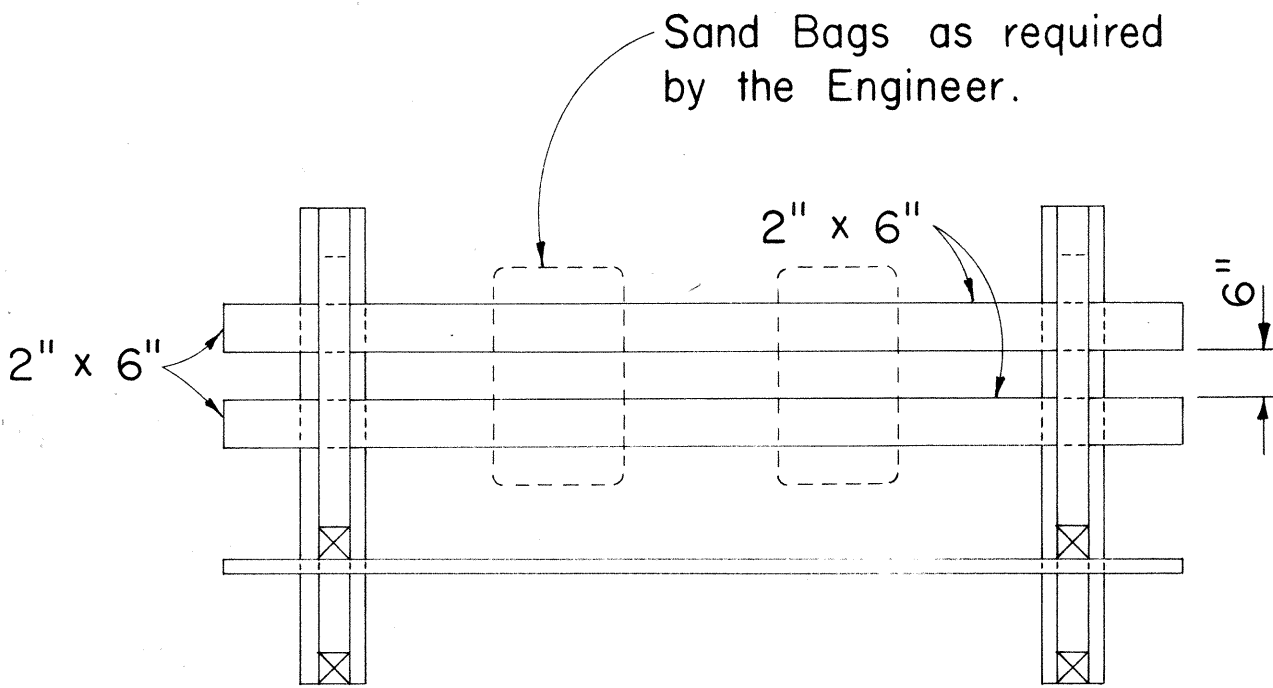


SIDE VIEW
(SIGN FRAME ANCHORED IN GROUND)
Scale: 1/2" = 1'-0"

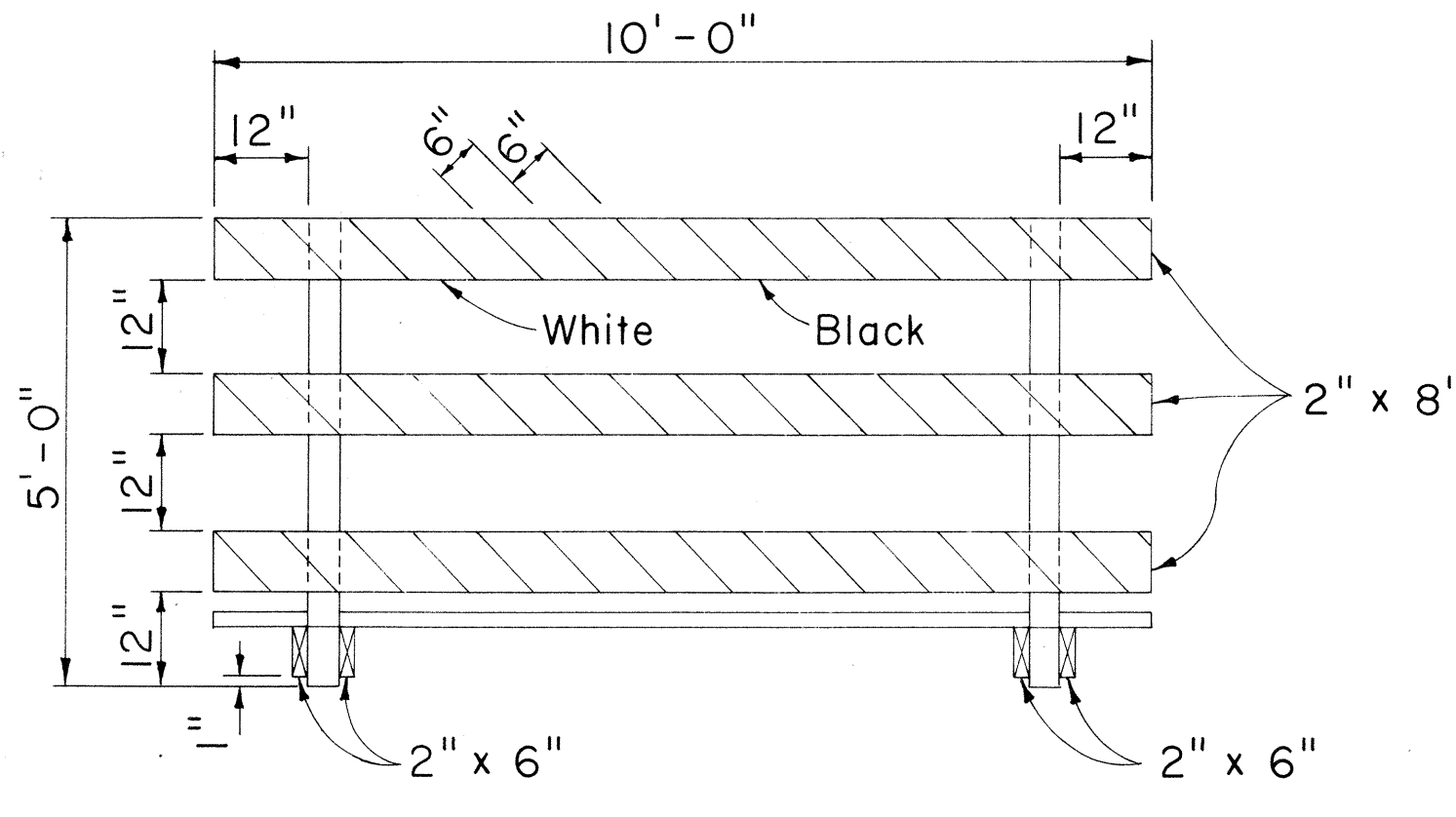
CONSTRUCTION IDENTIFICATION SIGN
Scale: As Shown

GENERAL NOTES

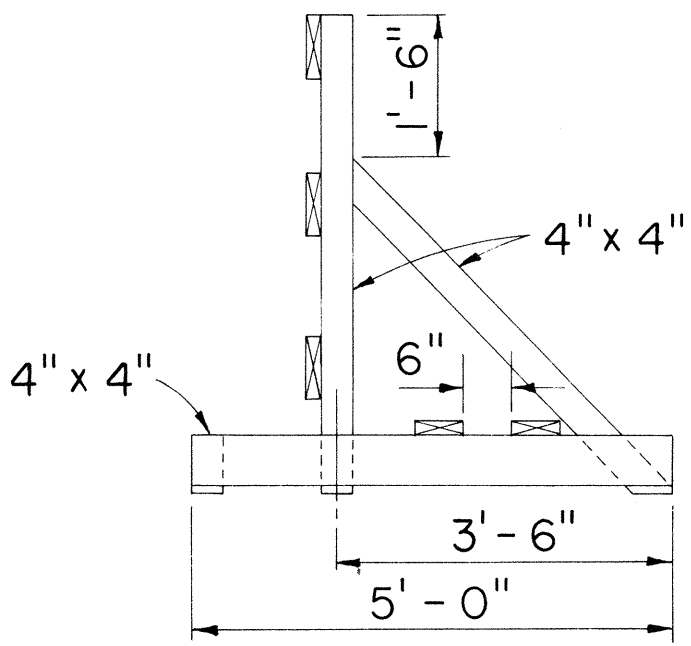
- The Contractor shall construct, install and maintain the wood barricades at the locations shown on the Plans.
- The permanent wood barricades shall be left in place or relocated upon completion of the project as ordered by the Engineer and are to become State property.



PLAN VIEW

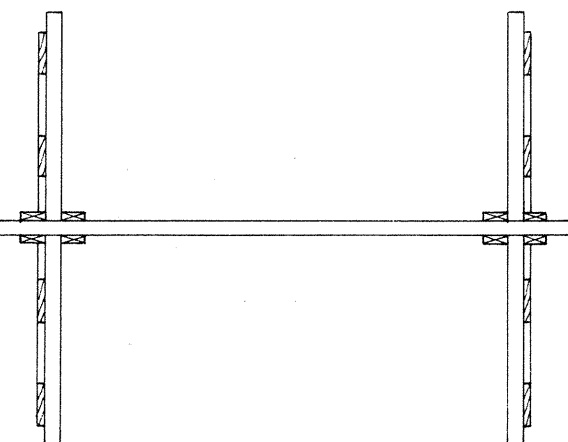


FRONT VIEW

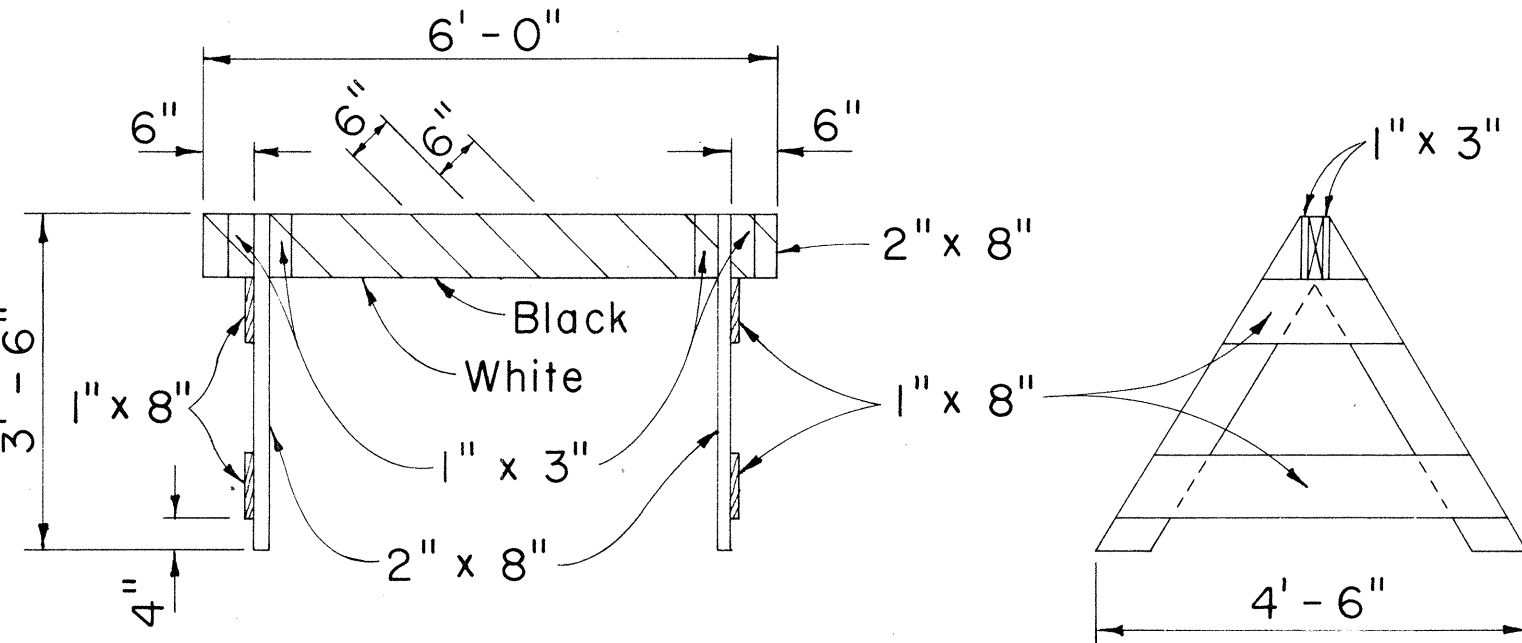


END VIEW

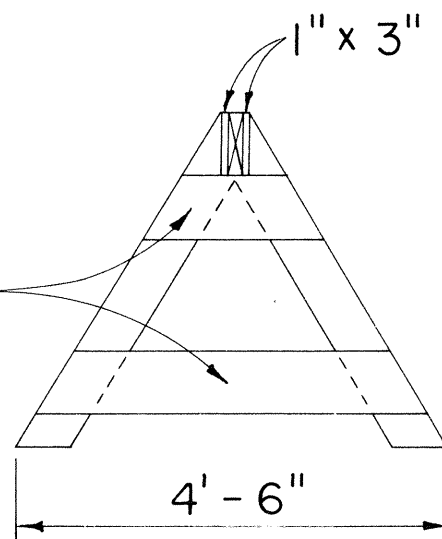
CLASS I BARRICADE
Scale: 1/2" = 1'-0"



PLAN VIEW



FRONT VIEW



END VIEW

CLASS II BARRICADE
Scale: 1/2" = 1'-0"

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