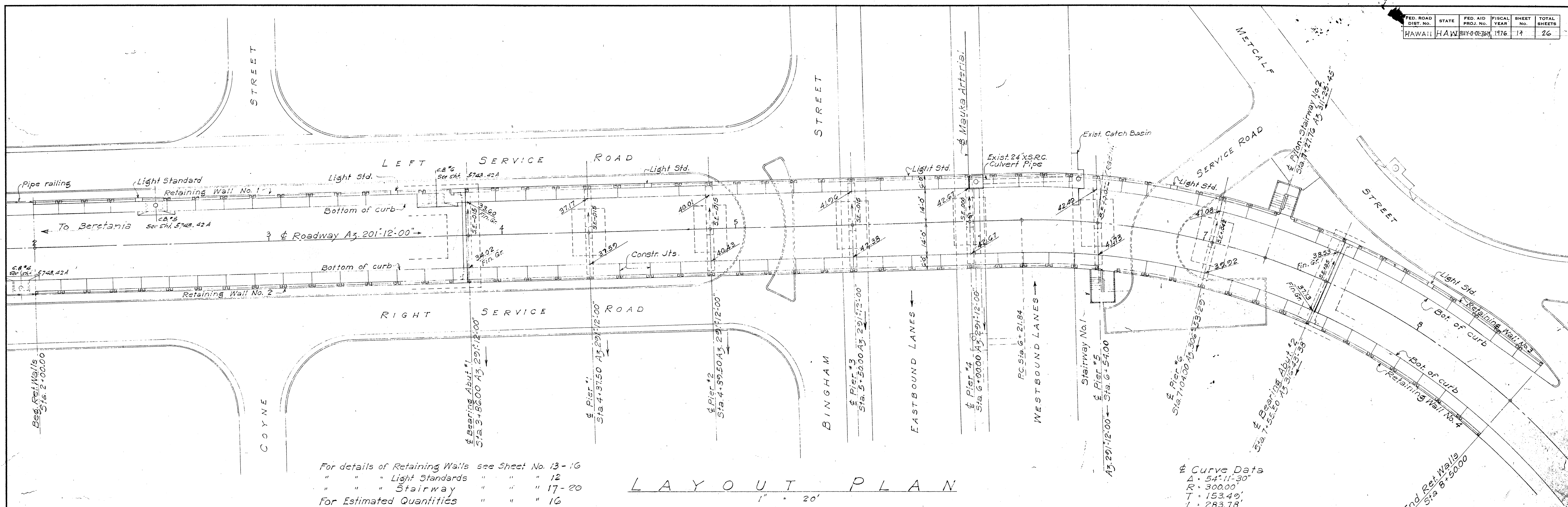
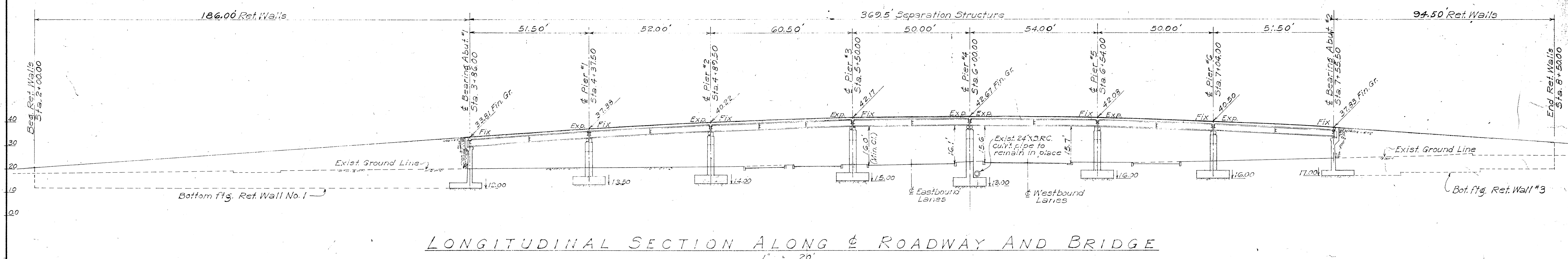




For details of Retaining Walls see Sheet No. 13-16
 " " " Light Standards " " " 12
 " " " Stairway " " " 17-20
 For Estimated Quantities " " " 16

LAYOUT PLAN
 1" = 20'

Curve Data
 A = 54°11'30"
 R = 300.00'
 T = 153.49'
 L = 283.78'



LONGITUDINAL SECTION ALONG ROADWAY AND BRIDGE
 1" = 20'

CONSTRUCTION METHODS

- Backfill at Abutments:
Backfill at abutments shall be complete in place prior to placing of superstructure.
- Welding:
All welding shall conform to the latest specifications for Welded Highway and Railway Bridges, Design, Construction, and Repair of the American Welding Society.
- Release of falsework for railing pour:
See Section 65.3(c) of the Std. Specifications.
- Concrete Finish:
All surfaces of railings, railing posts, and end posts, lamp standard bases, surfaces of deck as seen in elevation, all surfaces of pylon, stairway and landing excepting

- cont.
that portion where the 'Aloxide' finish is specified, pier caps, pier shafts above ground line, exposed surfaces of abutments, and retaining walls, and face of bridge curbs shall receive Class 2 Rubbed Finish.
- Painting of Structural Steel:
See Special Provisions.
- Metal Railing:
See Special Provisions.
- Treatment of Stairway and Landing:
Top surface of stairway and landing shall have a rough wearing surface produced by sprinkling 4 lbs. per sq. ft. of 'B' 'Aloxide' or equal on fresh concrete and finishing

- cont.
it with a wood trowel. This item is incidental to Class A-1 concrete and will not be paid for separately.

THIS PLAN TO BE USED IN CONJUNCTION WITH
 PAINTING FOR STRUCTURE
 PROJECT NO. HWY-0-01-76M

GENERAL NOTES

MATERIALS:
 Concrete: All concrete Class A-1
 Structural Steel:
 Structural steel shall be structural carbon steel, A.S.T.M. Designation A-7.

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII

McCULLY SEPARATION
 Sta. 3+83.67 to Sta. 7+57.83

MAUKA ARTERIAL U59(8)

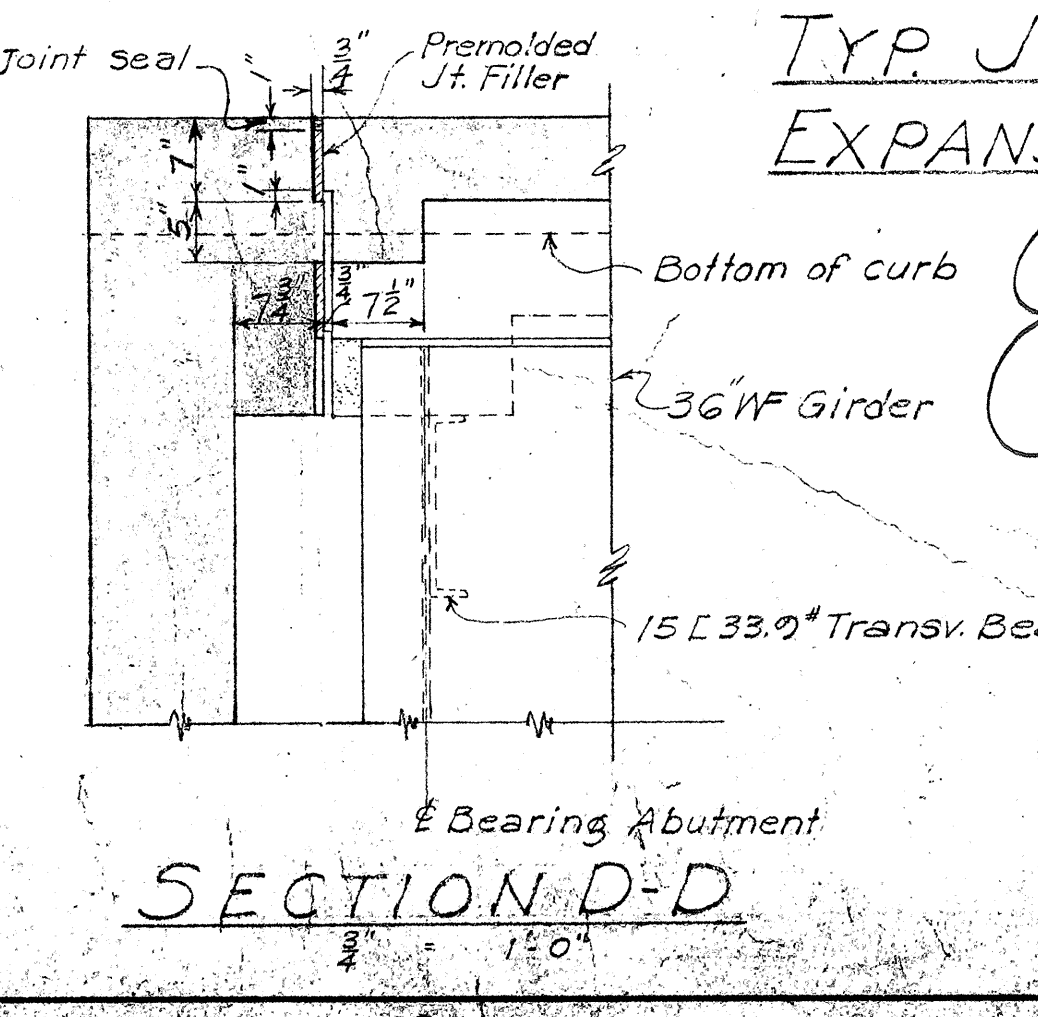
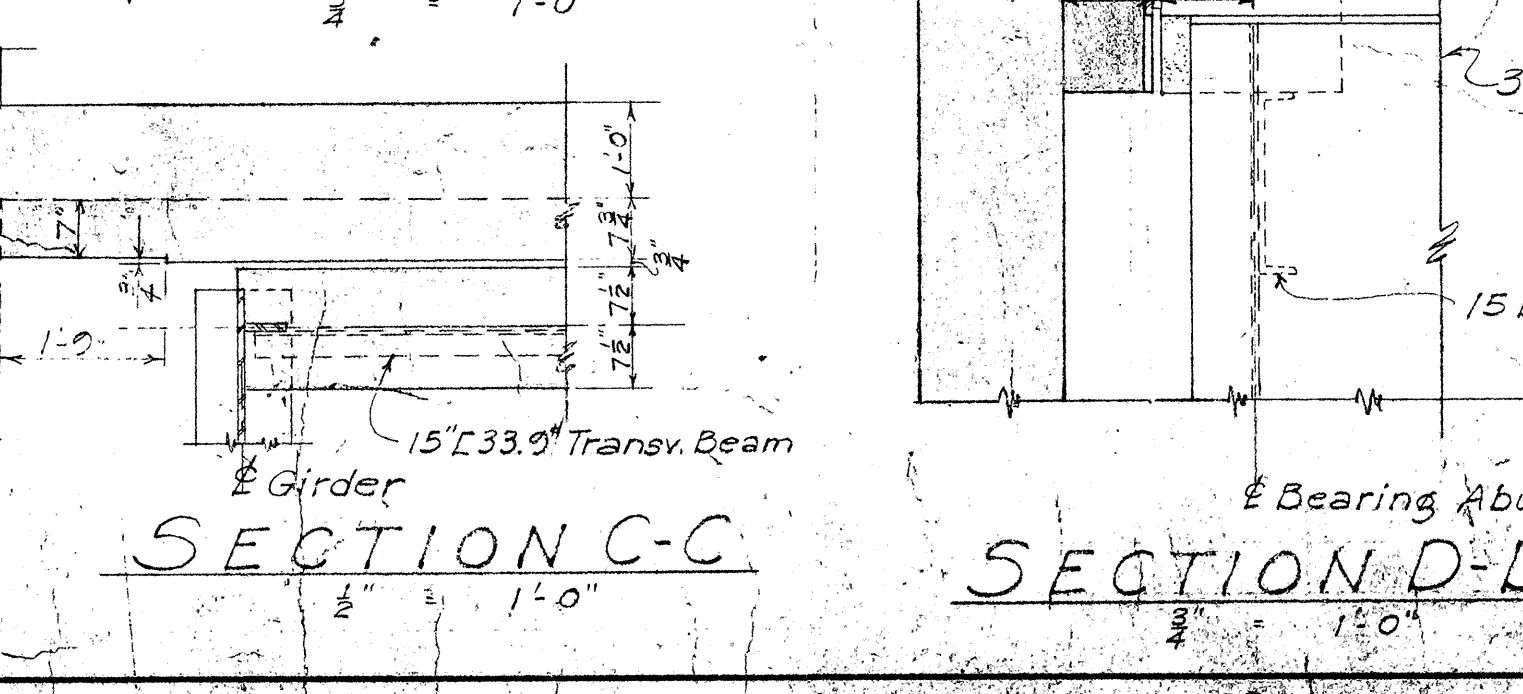
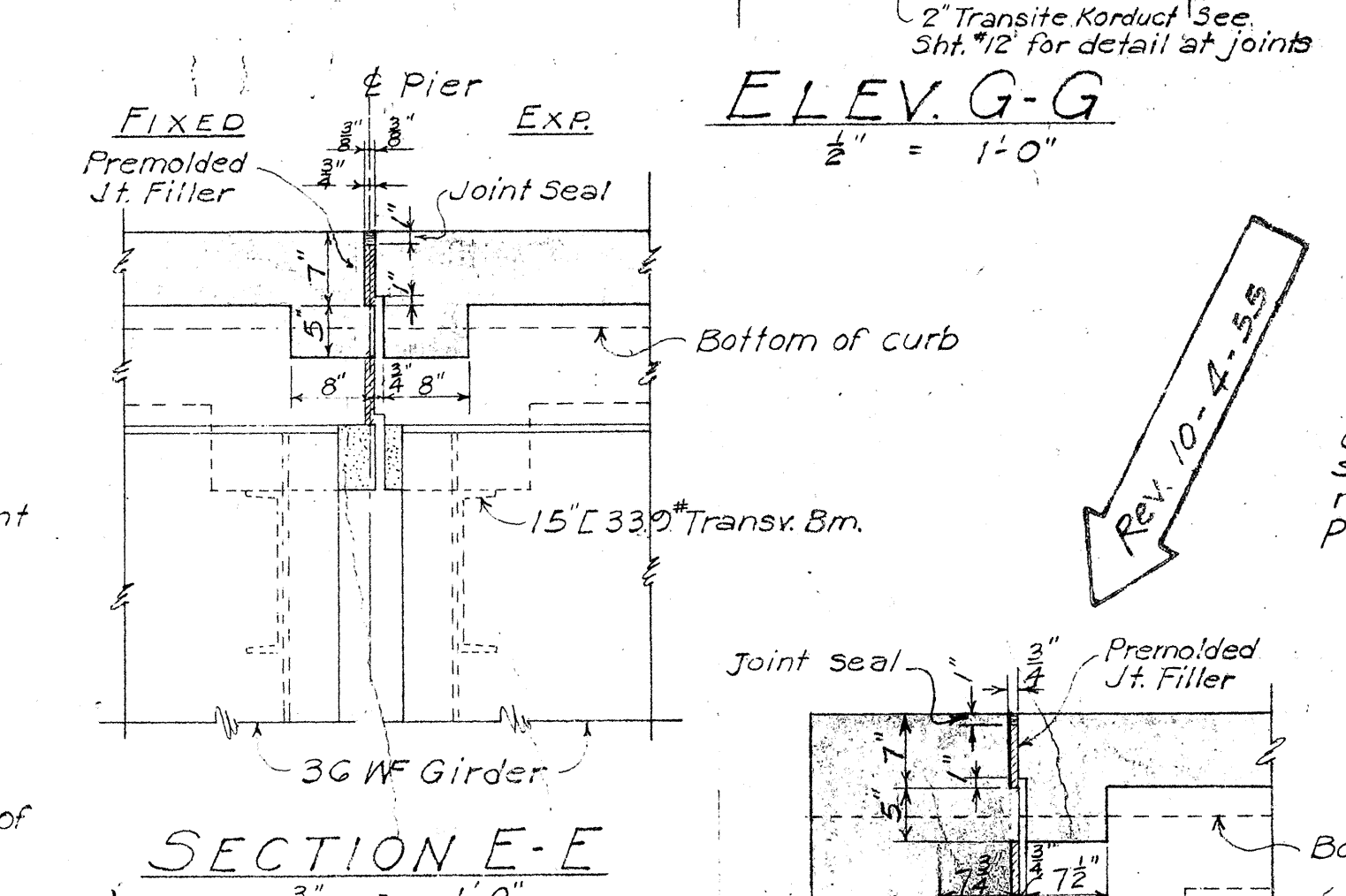
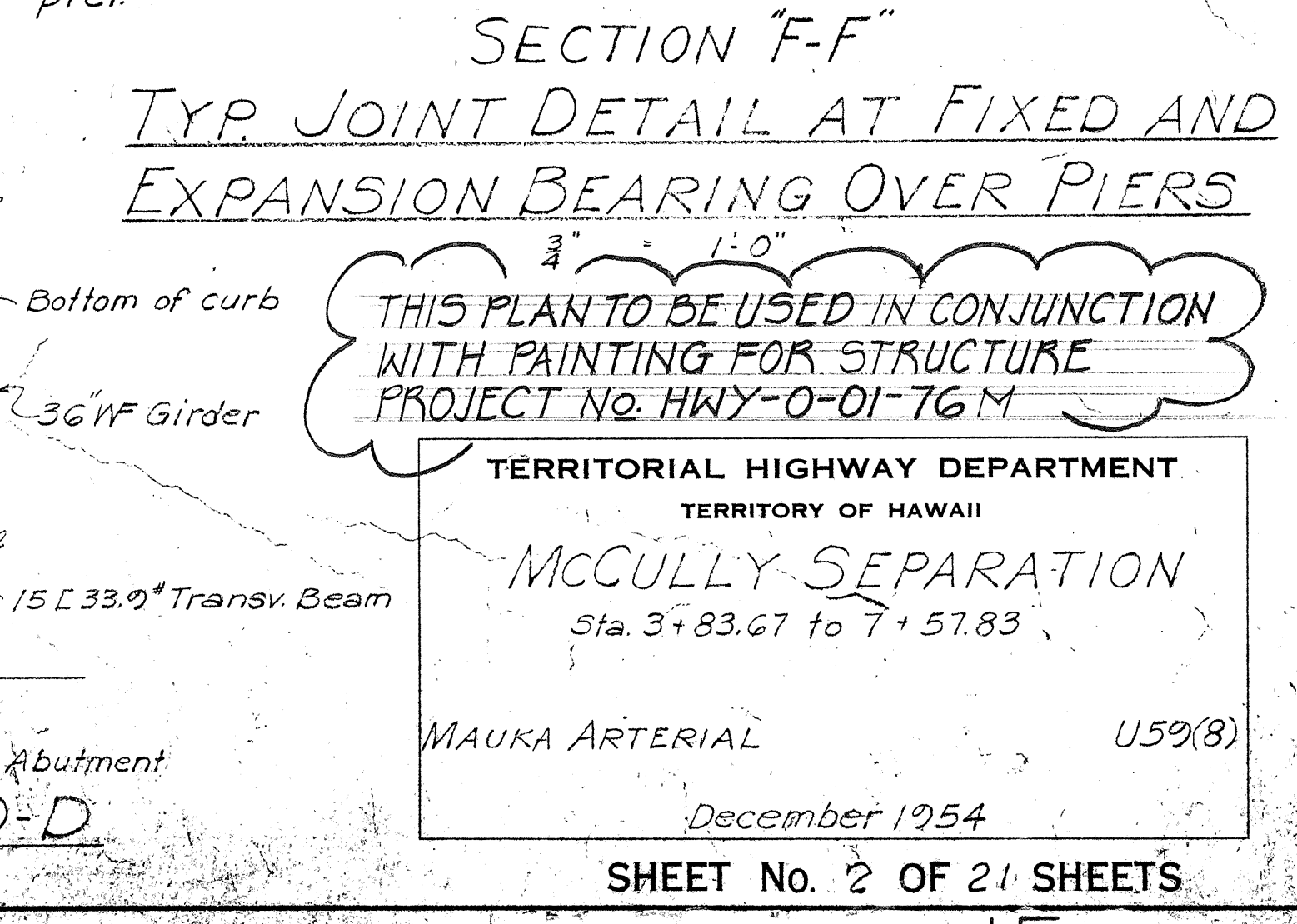
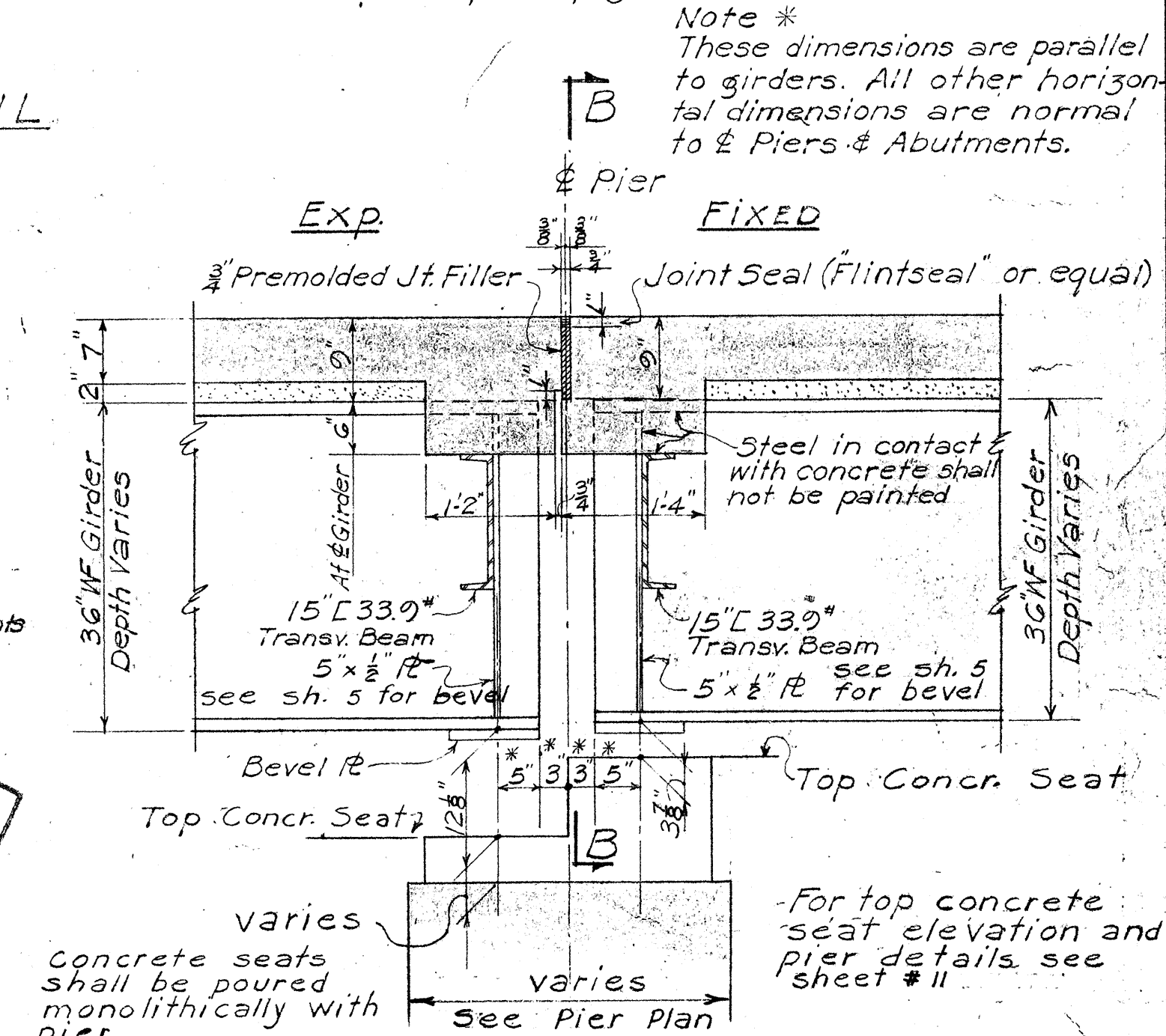
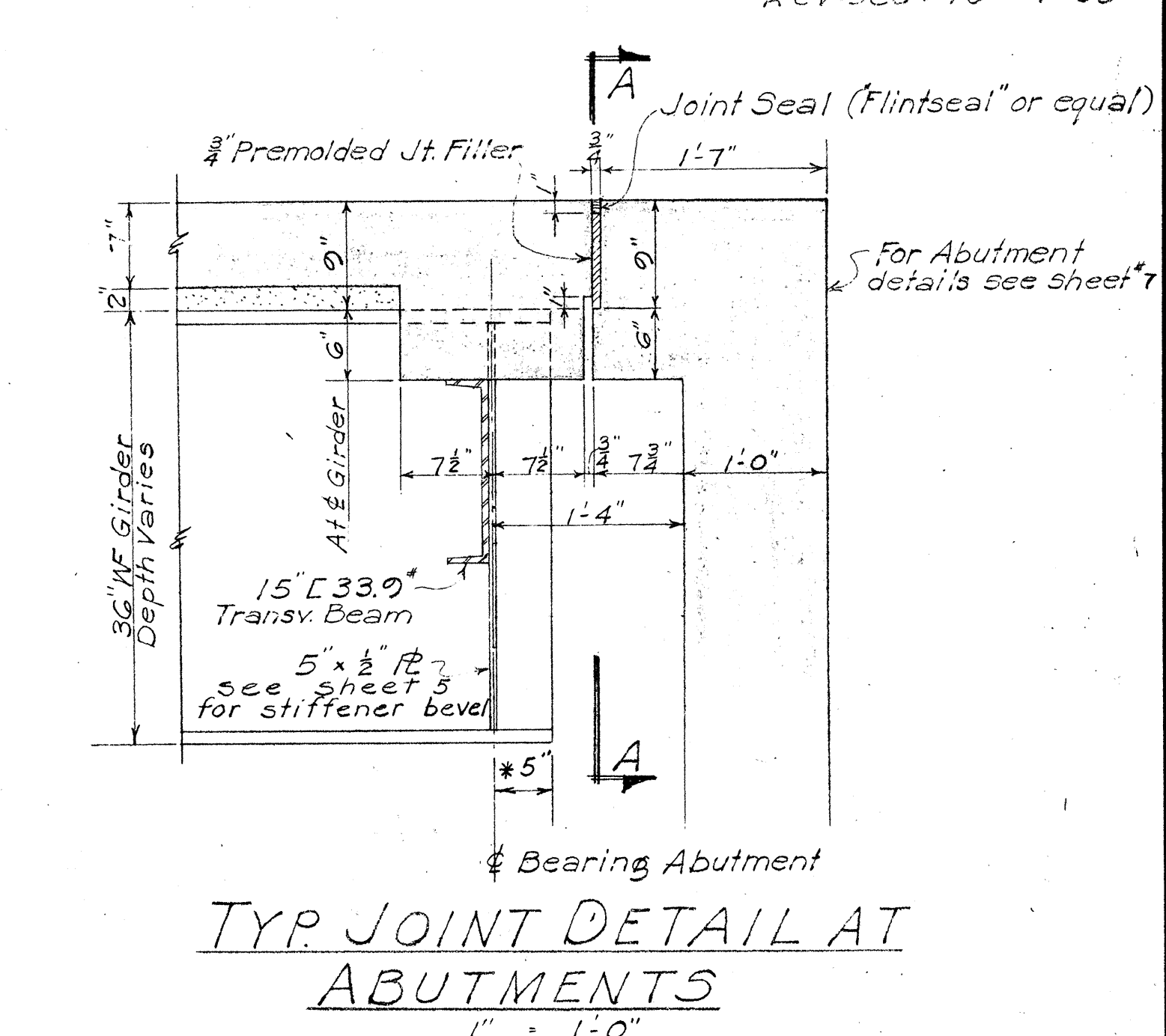
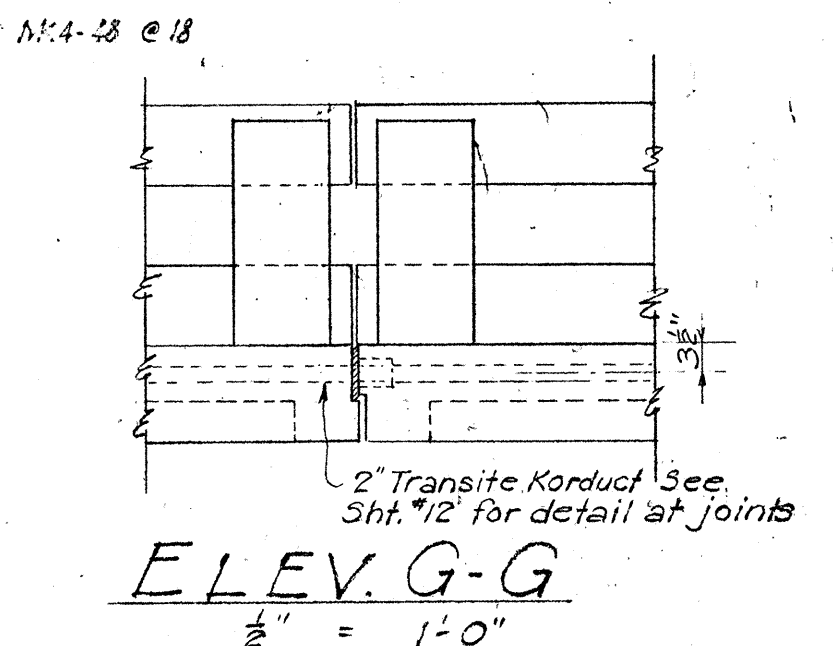
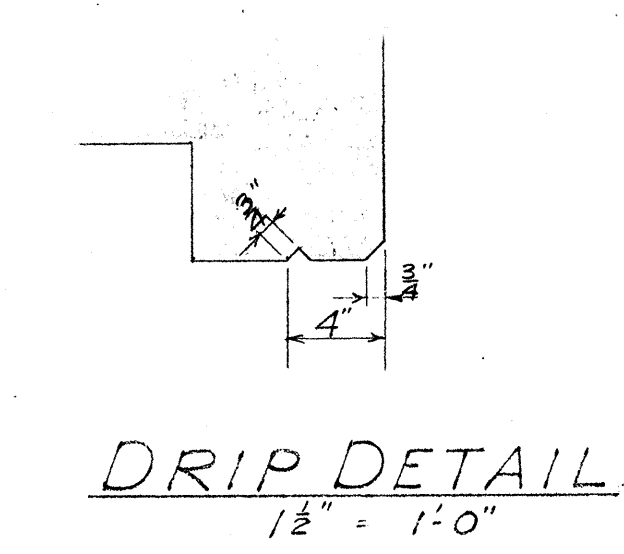
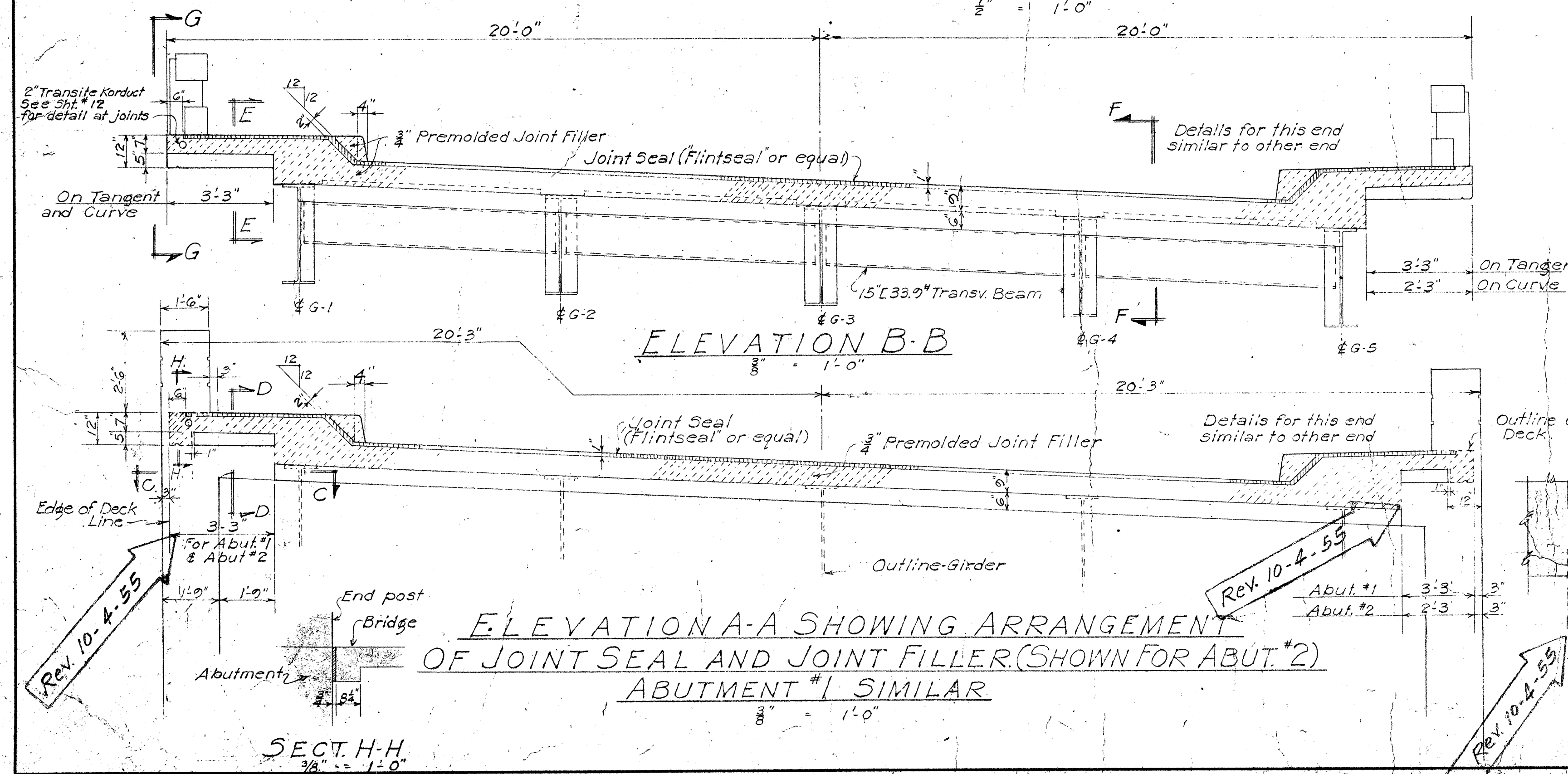
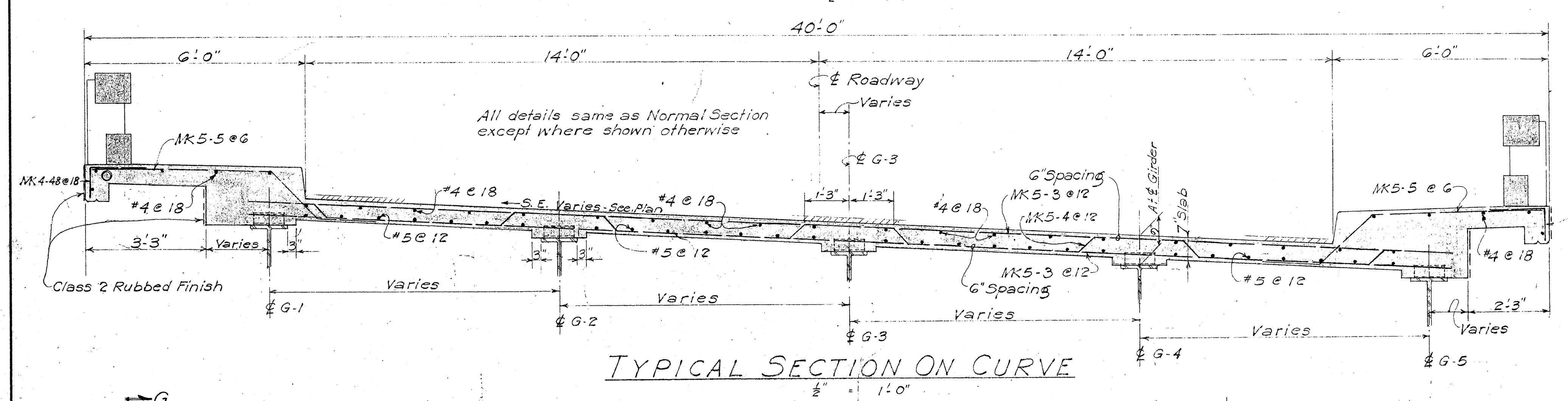
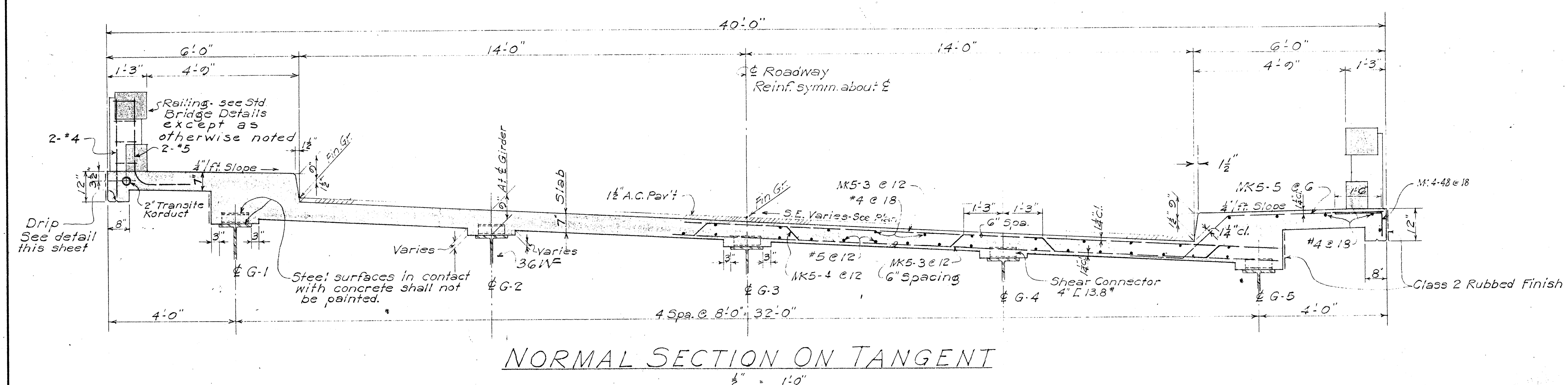
December, 1954.

SHEET No. 1 OF 21 SHEETS

Revision: 10-4-55
 Abut. back wall revised

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-76M	1954	15	20

Revised: 10-4-55

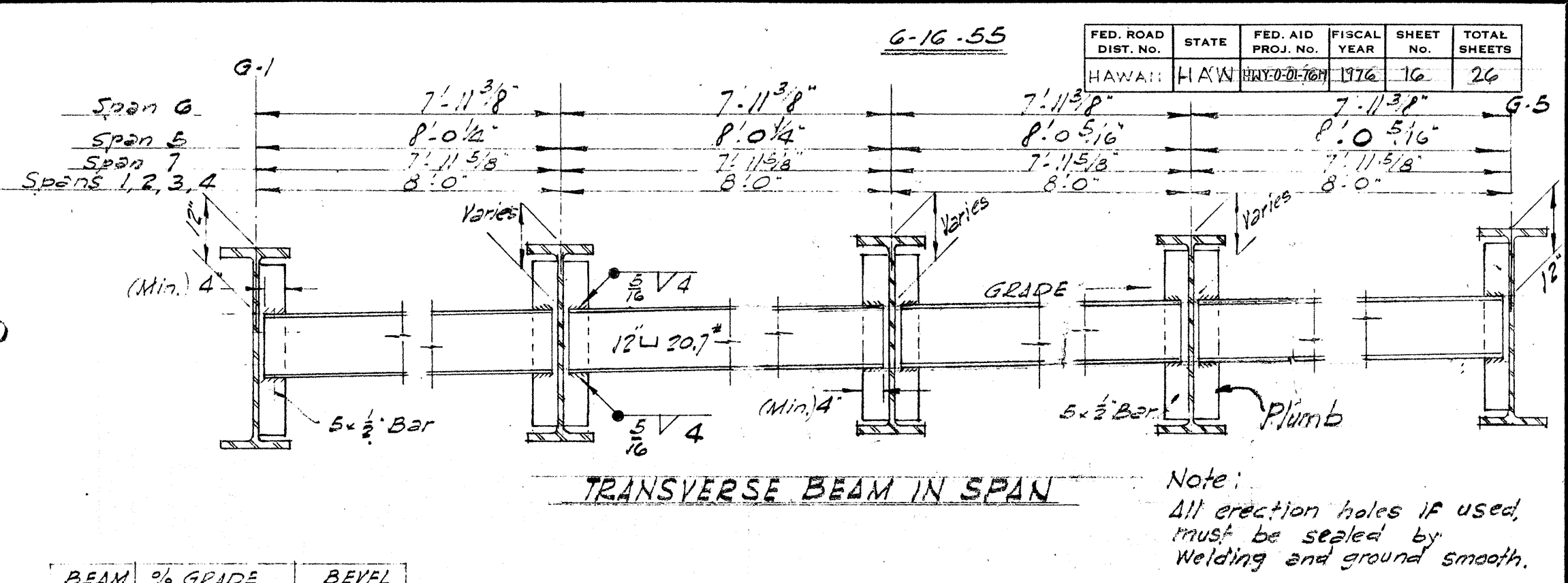
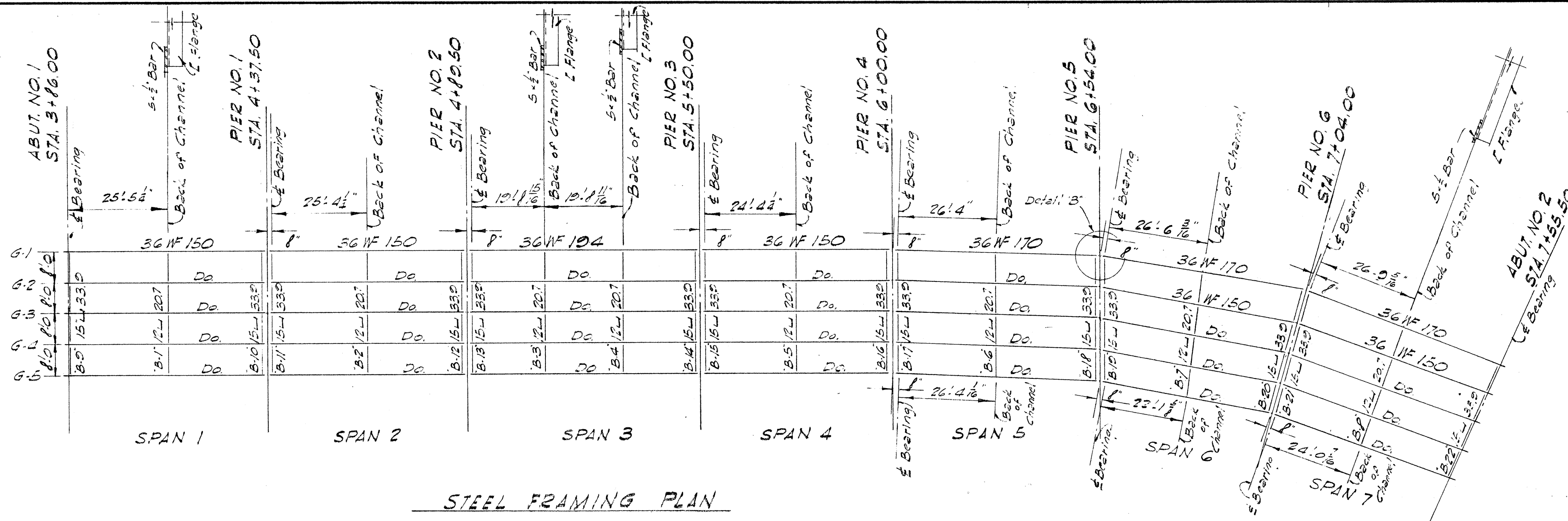


DESIGNED BY: M. R. ...
 CHECKED BY: ...
 DATE: ...

THIS PLAN TO BE USED IN CONJUNCTION WITH PAINTING FOR STRUCTURE PROJECT NO. HWY-0-01-76M

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
MCCULLY SEPARATION
 Sta. 3+83.67 to 7+57.83
 MAUKA ARTERIAL U59(B)
 December 1954
 SHEET No. 2 OF 21 SHEETS

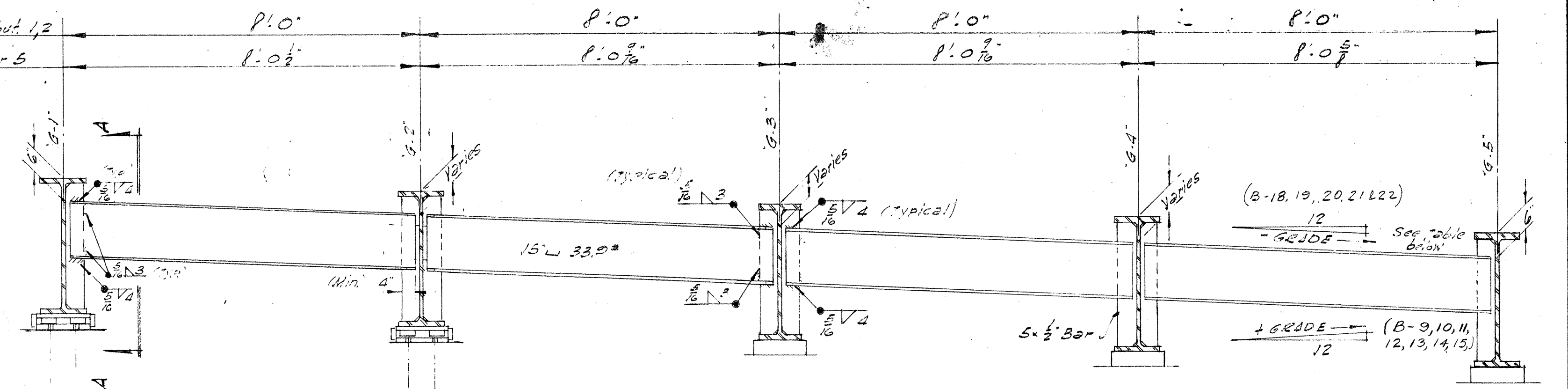
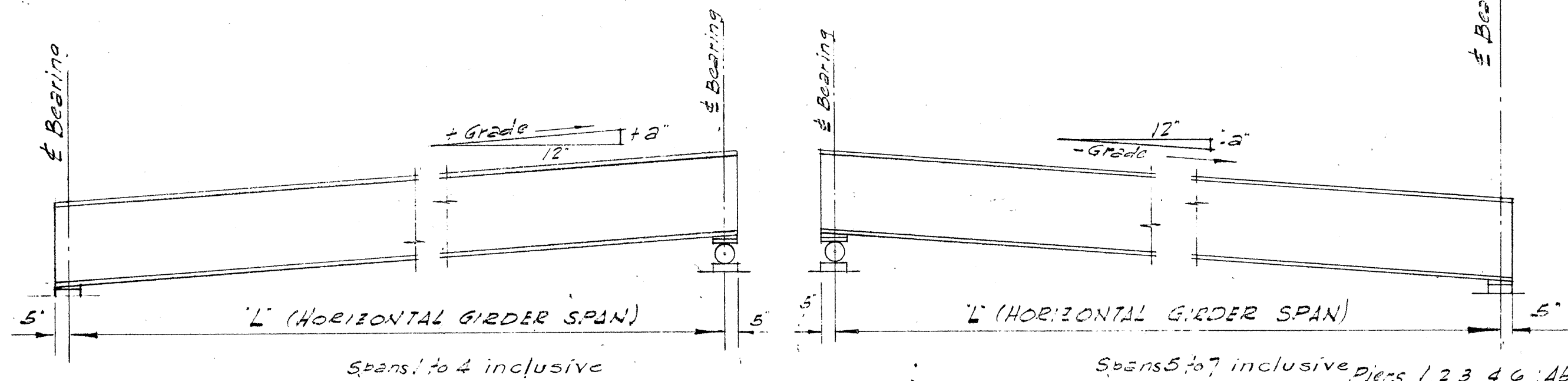
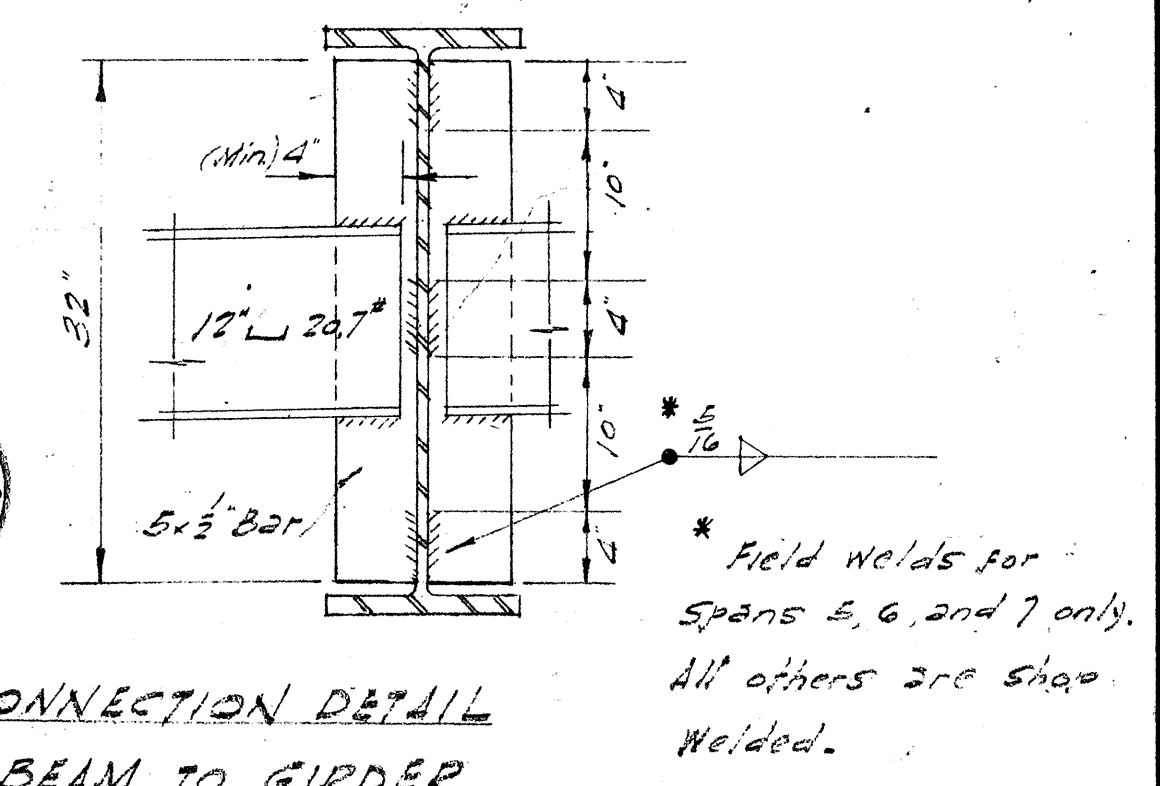
DATE: 12/15/54
 DESIGNED BY: W. B. 12/15/54
 TRACED BY: W. B. 12/15/54
 QUANTITIES BY: W. B. 12/15/54
 CHECKED BY: W. B. 12/15/54
 NO. 1



BEAM	% GRADE	BEVEL
B-1	+1.500000	0 1/16" 12
B-2	+1.500000	0 3/16" 12
B-3	+1.500000	0 5/16" 12
B-4	+1.500000	0 7/16" 12
B-5	+1.000000	0 1/8" 12
B-6	-1.111638	-0 1/8" 12
B-7	-3.334151	-0 3/8" 12
B-8	-4.211250	-0 5/8" 12

GRADES FOR TRANSVERSE BEAMS IN SPAN

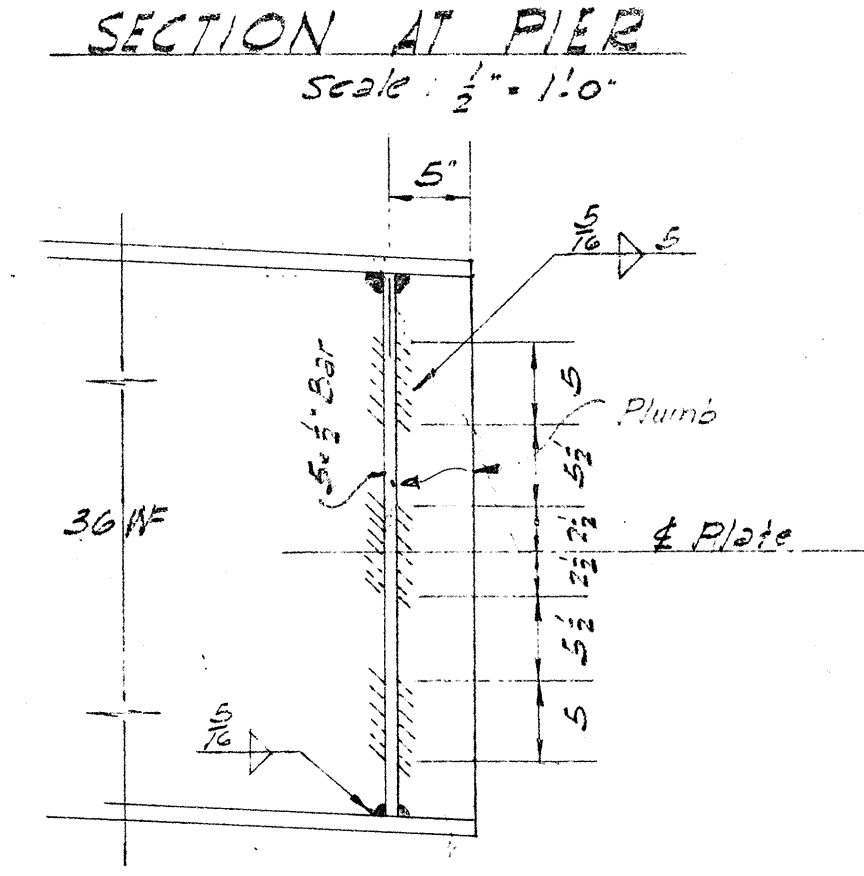
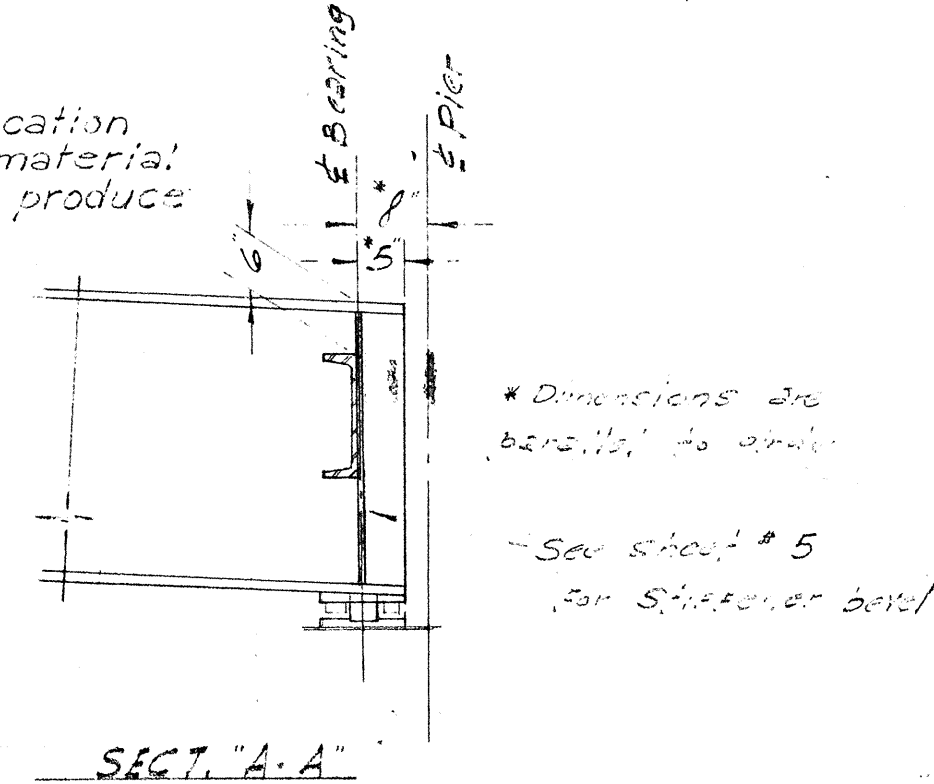
THIS PLAN TO BE USED IN CONJUNCTION WITH PAINTING FOR STRUCTURE PROJECT NO. HWY-0-01-76M



FIELD WELDS:
 Surfaces within 2" of any weld location shall be free of any paint or other material that would prevent proper welding or produce objectionable fumes while welding.

TABLE OF LENGTH, CAMBER AND BEVEL OF GIRDERS

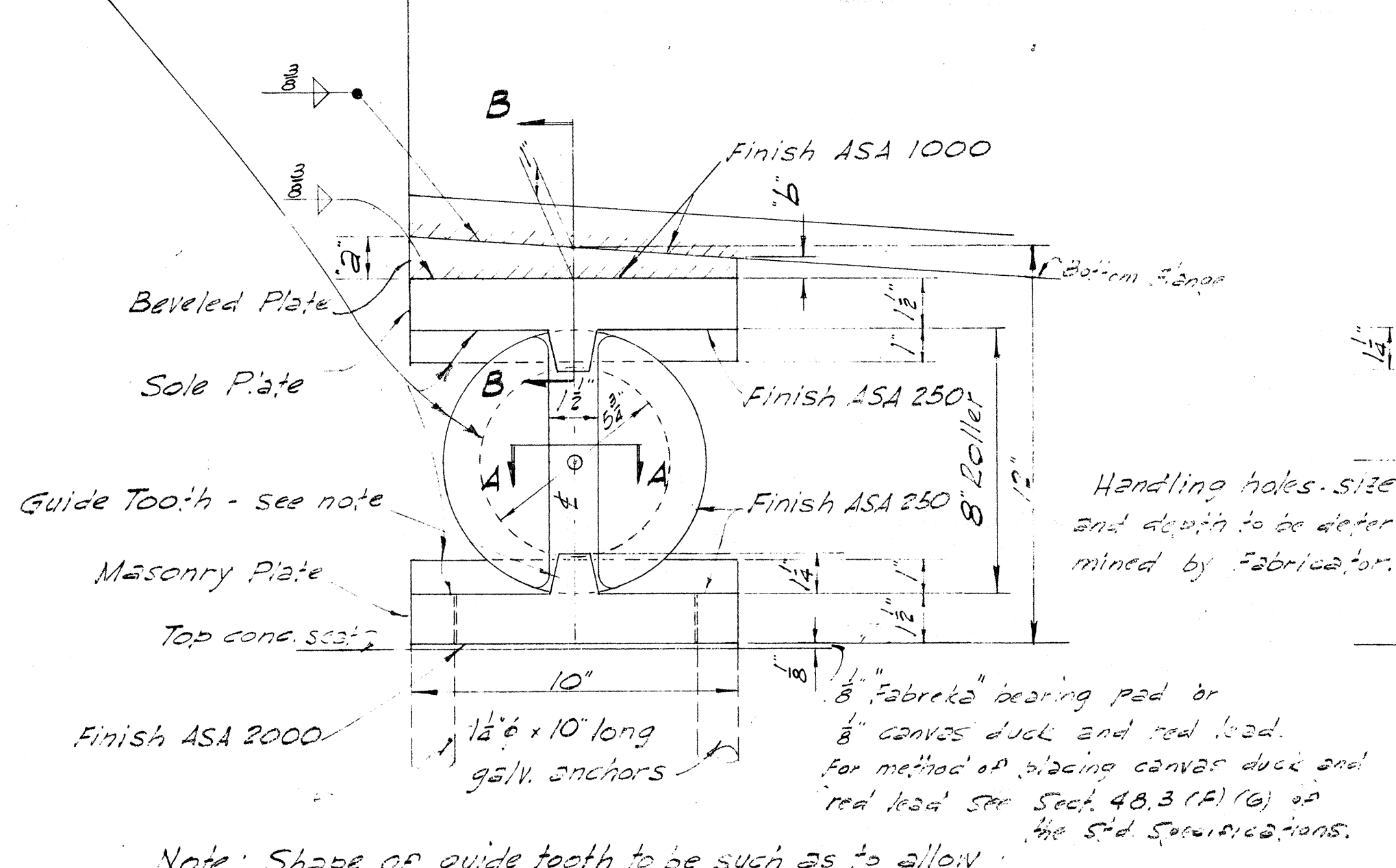
SPAN	MEMBER	SIZE	HOR. SPAN	CAMBER	BEVEL	SPAN	MEMBER	SIZE	HOR. SPAN	CAMBER	BEVEL
1	G-1	36 WF 150	50' 10"	1 1/2"	+0 1/8"	6	G-1	36 WF 170	52' 11 1/2"	2"	-0 1/8"
	G-2	36 WF 150	50' 10"	1 1/2"	+0 1/8"		G-2	36 WF 150	50' 0 1/2"	1 1/2"	-0 1/8"
	G-3	36 WF 150	50' 10"	1 1/2"	+0 1/8"		G-3	36 WF 150	46' 7 1/2"	1 1/2"	-0 1/8"
	G-4	36 WF 150	50' 10"	1 1/2"	+0 1/8"		G-4	36 WF 150	46' 5"	1 1/2"	-0 1/8"
	G-5	36 WF 150	50' 10"	1 1/2"	+0 1/8"		G-5	36 WF 150	44' 2 1/2"	1 1/2"	-0 1/8"
2	G-1	36 WF 150	50' 1'	2 1/2"	+0 1/8"	7	G-1	36 WF 170	53' 6 1/2"	2 1/2"	-0 1/8"
	G-2	36 WF 150	50' 1'	2"	+0 1/8"		G-2	36 WF 150	52' 1 1/2"	1 1/2"	-0 1/8"
	G-3	36 WF 150	50' 1'	2"	+0 1/8"		G-3	36 WF 150	50' 1 1/2"	1 1/2"	-0 1/8"
	G-4	36 WF 150	50' 1'	2"	+0 1/8"		G-4	36 WF 150	48' 4 1/2"	1 1/2"	-0 1/8"
	G-5	36 WF 150	50' 1'	2 1/2"	+0 1/8"		G-5	36 WF 150	48' 0 1/2"	1 1/2"	-0 1/8"
3	G-1	36 WF 150	50' 1 1/2"	2 1/2"	+0 1/8"	4	G-1	36 WF 150	48' 8"	1 1/2"	+0 1/8"
	G-2	36 WF 150	50' 1 1/2"	2 1/2"	+0 1/8"		G-2	36 WF 150	47' 8"	1 1/2"	+0 1/8"
	G-3	36 WF 150	50' 1 1/2"	2 1/2"	+0 1/8"		G-3	36 WF 150	47' 8"	1 1/2"	+0 1/8"
	G-4	36 WF 150	50' 1 1/2"	2 1/2"	+0 1/8"		G-4	36 WF 150	47' 8"	1 1/2"	+0 1/8"
	G-5	36 WF 150	50' 1 1/2"	2 1/2"	+0 1/8"		G-5	36 WF 150	47' 8"	1 1/2"	+0 1/8"
4	G-1	36 WF 150	48' 8"	1 1/2"	+0 1/8"	5	G-1	36 WF 170	52' 7 1/2"	2 1/2"	-0 1/8"
	G-2	36 WF 150	47' 8"	1 1/2"	+0 1/8"		G-2	36 WF 170	52' 7 1/2"	2 1/2"	-0 1/8"
	G-3	36 WF 150	47' 8"	1 1/2"	+0 1/8"		G-3	36 WF 170	52' 7 1/2"	2 1/2"	-0 1/8"
	G-4	36 WF 150	47' 8"	1 1/2"	+0 1/8"		G-4	36 WF 170	52' 7 1/2"	2 1/2"	-0 1/8"
	G-5	36 WF 150	47' 8"	1 1/2"	+0 1/8"		G-5	36 WF 170	52' 7 1/2"	2 1/2"	-0 1/8"



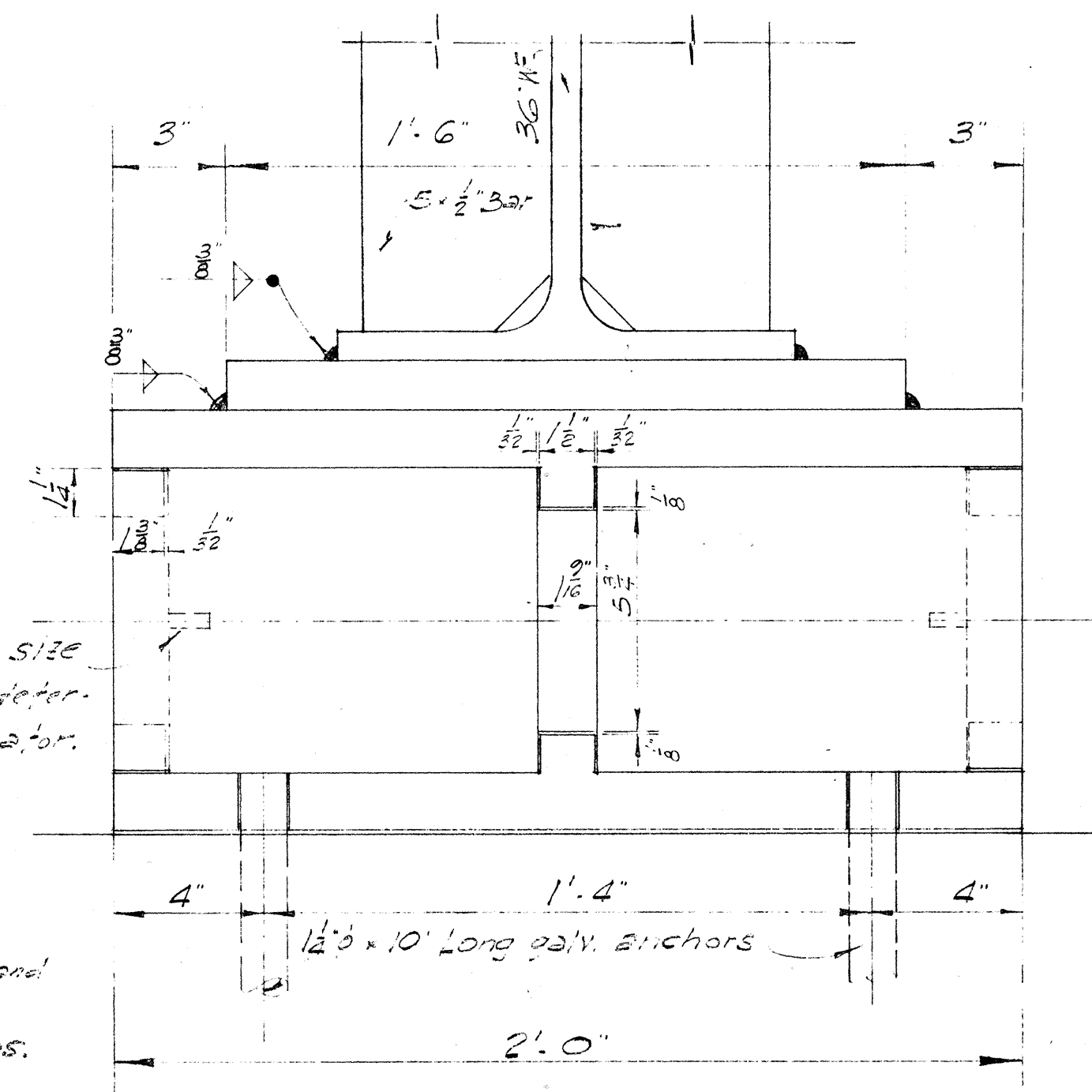
BEAM	BEVEL	BEAM	BEVEL
B-9	+0 1/8" 12	B-16	0" 12 (Level)
B-10	+0 1/8" 12	B-17	0" 12 (Level)
B-11	+0 1/8" 12	B-18	-0 1/8" 12
B-12	+0 1/8" 12	B-19	-0 1/8" 12
B-13	+0 1/8" 12	B-20	-0 1/8" 12
B-14	+0 1/8" 12	B-21	-0 1/8" 12
B-15	+0 1/8" 12	B-22	-0 1/8" 12

BEVEL TABLE
 TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 McCULLY SEPARATION
 Sta. 3+83.67 to Sta. 7+57.83
 MAUKA ARTERIAL U59(8)
 December 1954
 SHEET No. 4 OF 21 SHEETS

Bottom face of sole plate, top face of masonry plate and curved surface of roller shall be coated with a hot mixture of white lead and tallow in the shop. In the field a heavy coat of No. 5X-10-A Special or equal shall be applied to the same surfaces. All other surfaces shall be painted. See special provisions.



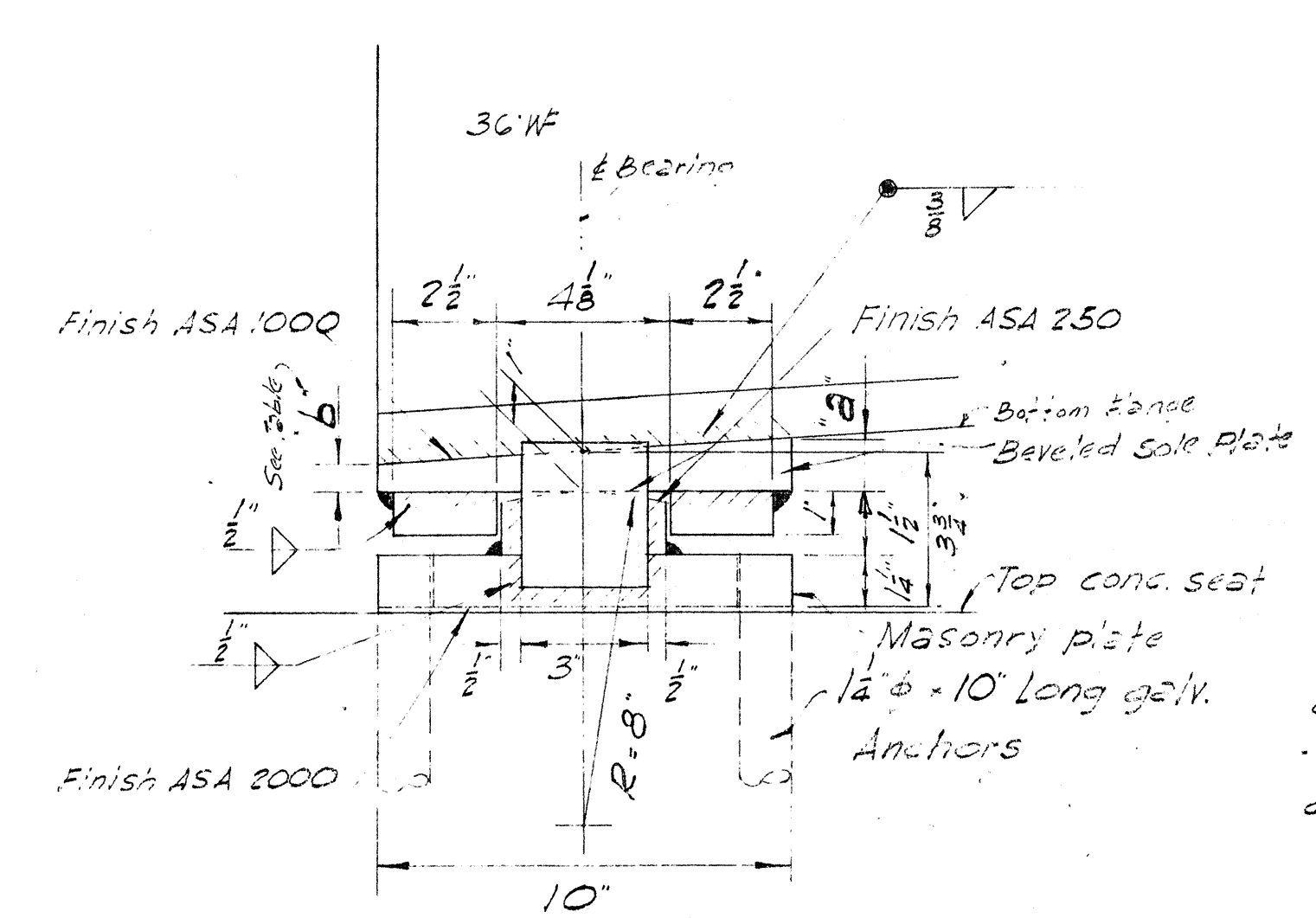
SIDE ELEVATION



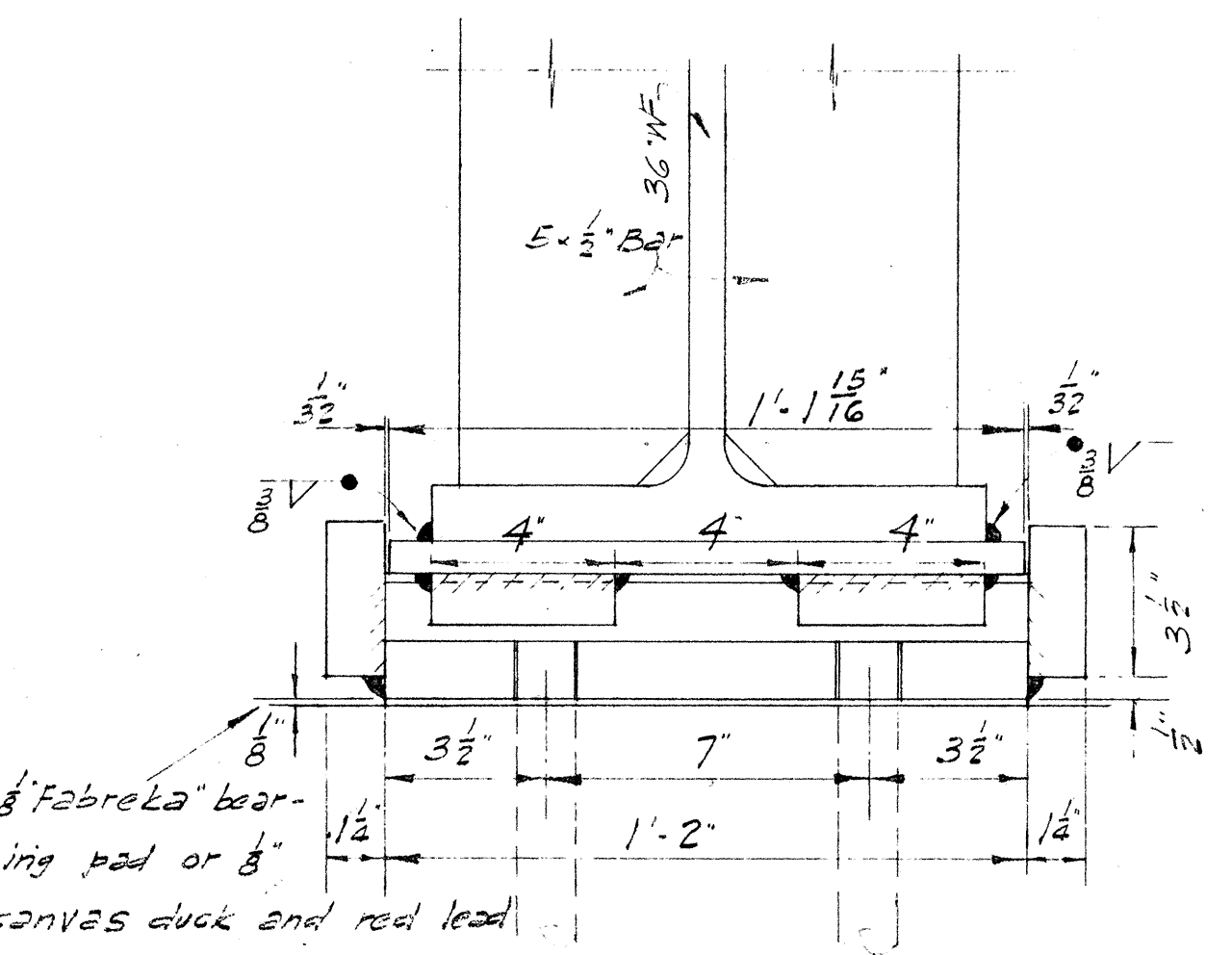
END ELEVATION

FIXED BEARINGS

Bottom face of sole plate and top face of masonry plate shall receive white lead and tallow and No. 5X-10-A Special as specified for expansion bearings. All other surfaces shall be painted. See special provisions.



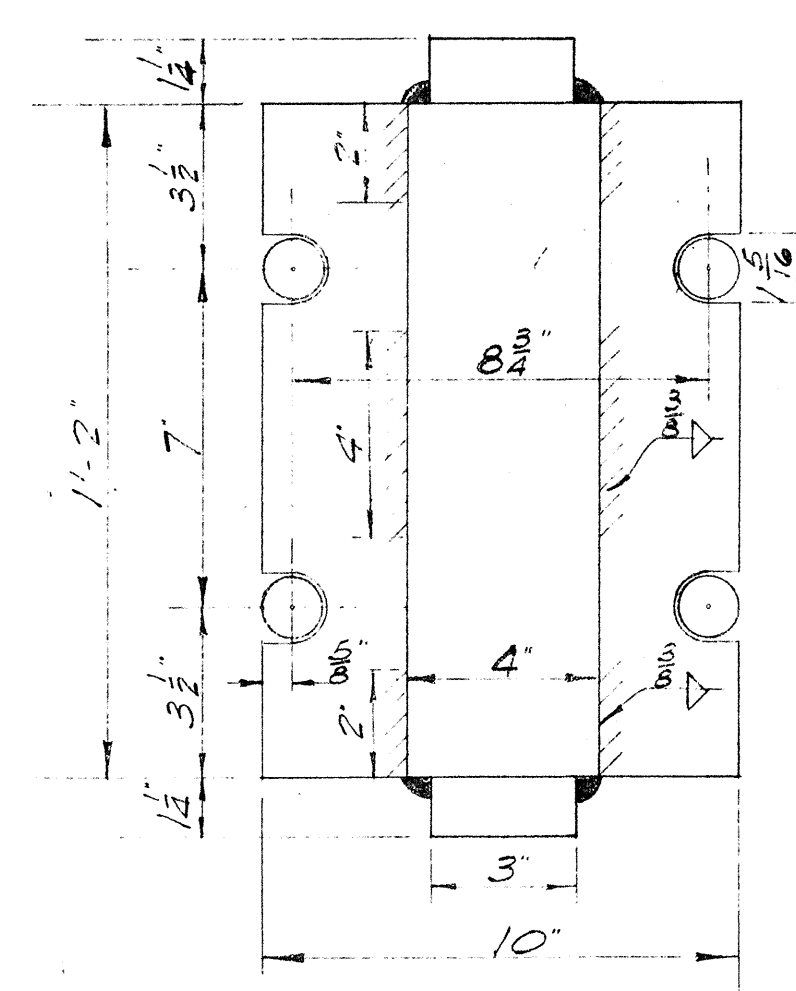
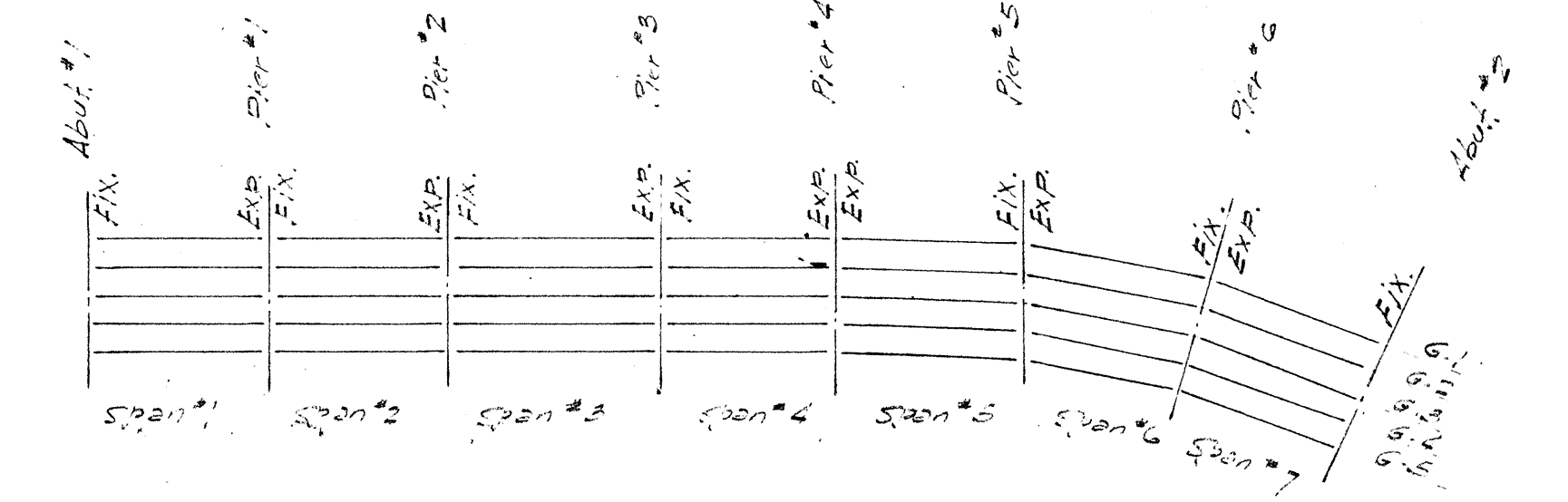
SIDE ELEVATION



END ELEVATION

DETAILS OF FIXED BEARINGS

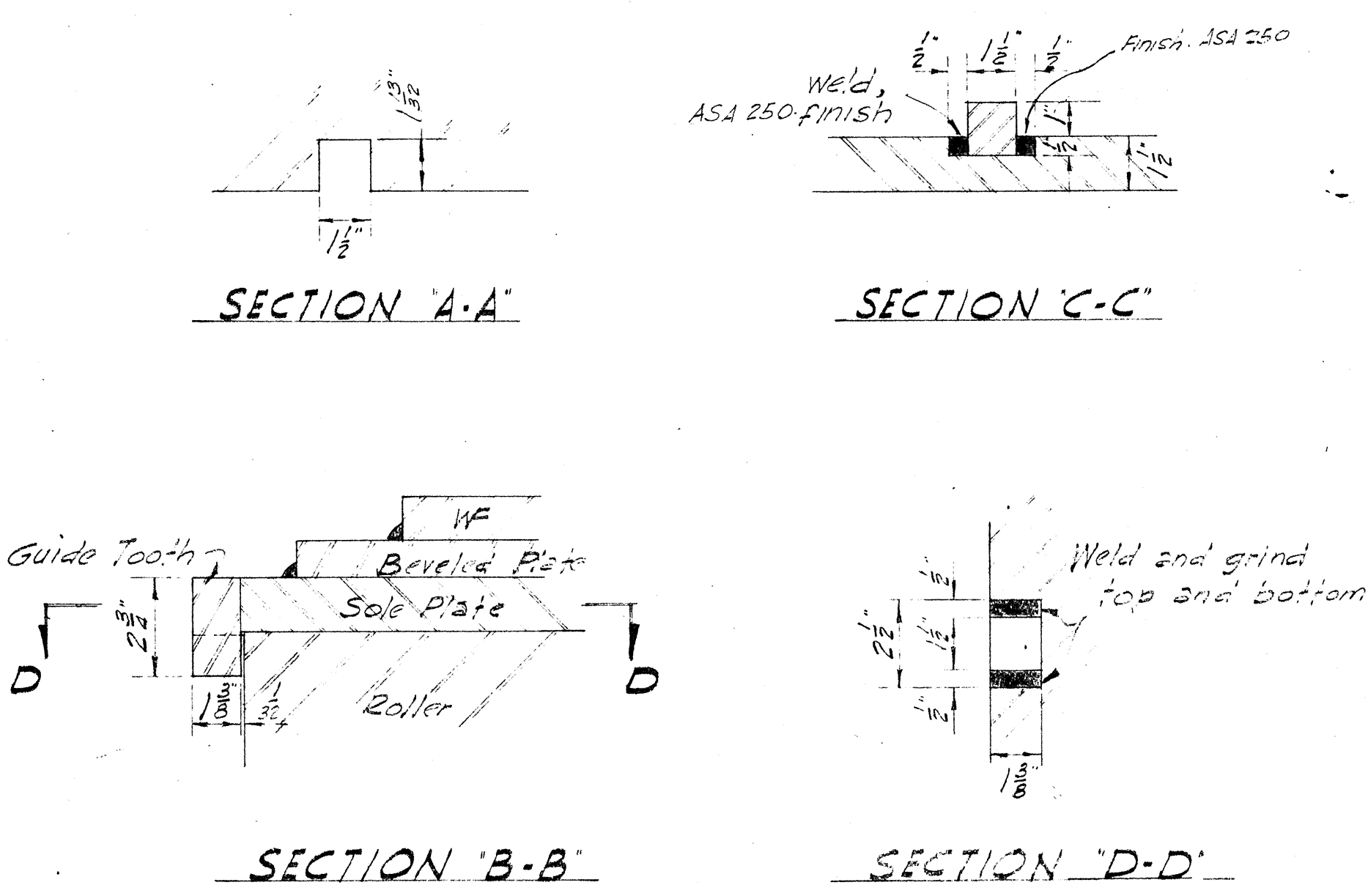
Scale: 3"=1'-0"



PLAN OF MASONRY PLATE

SPAN	GIRDER G-1	GIRDER G-2	GIRDER G-3	GIRDER G-4	GIRDER G-5
1	1 3/8 0 5/8	1 3/8 0 5/8	1 3/8 0 5/8	1 3/8 0 5/8	1 3/8 0 5/8
2	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4
3	1 3/10 0 3/10	1 3/10 0 3/10	1 3/10 0 3/10	1 3/10 0 3/10	1 3/10 0 3/10
4	1 1/10 0 1/10	1 1/10 0 1/10	1 1/10 0 1/10	1 1/10 0 1/10	1 1/10 0 1/10
5	1 0	1 0	1 0	1 0	1 0
6	1 1/8 0 3/8	1 1/8 0 3/8	1 1/8 0 3/8	1 1/8 0 3/8	1 1/8 0 3/8
7	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4	1 1/4 0 3/4

BEVELED PLATE DIMENSIONS



DETAILS OF EXPANSION BEARINGS

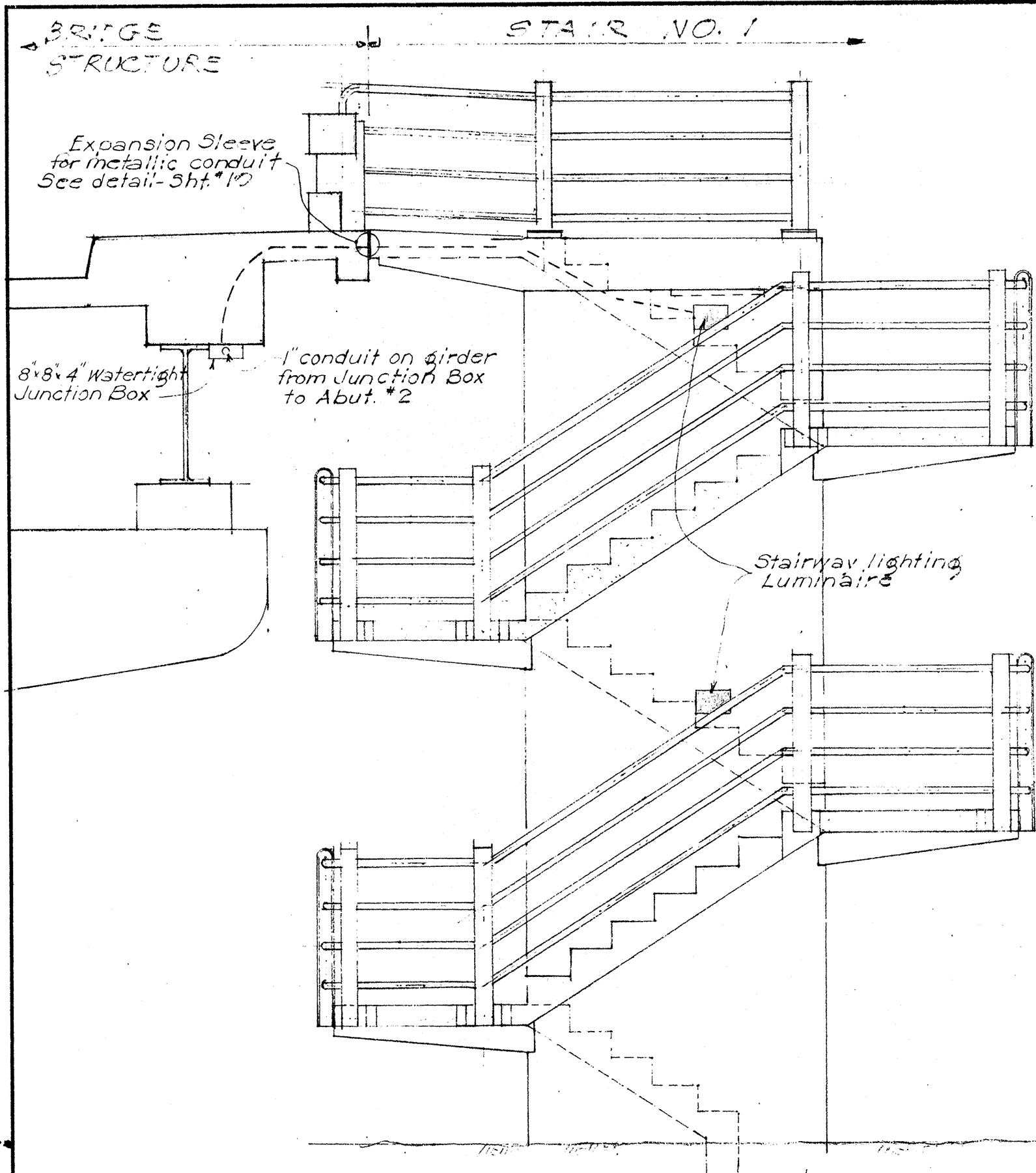
Scale: 3"=1'-0"

MATERIALS: All plates to be of structural carbon steel, A.S.T.M. Designation A-7. Rollers shall be structural carbon steel, A.S.T.M. Designation A-228 (Class A).
WORKMANSHIP: Rollers shall be forged and annealed prior to machining. They shall be accurately turned to the dimensions shown and shall be straight, smooth and free from flaws. The contractor shall order pumpkins for on-stopping and the S-14-1000-5728 so they can be turned to the dimensions given without showing any form marks. Any roller showing form marks shall be rejected.
WELDS: All welds to be 3/8" fillet unless noted otherwise.

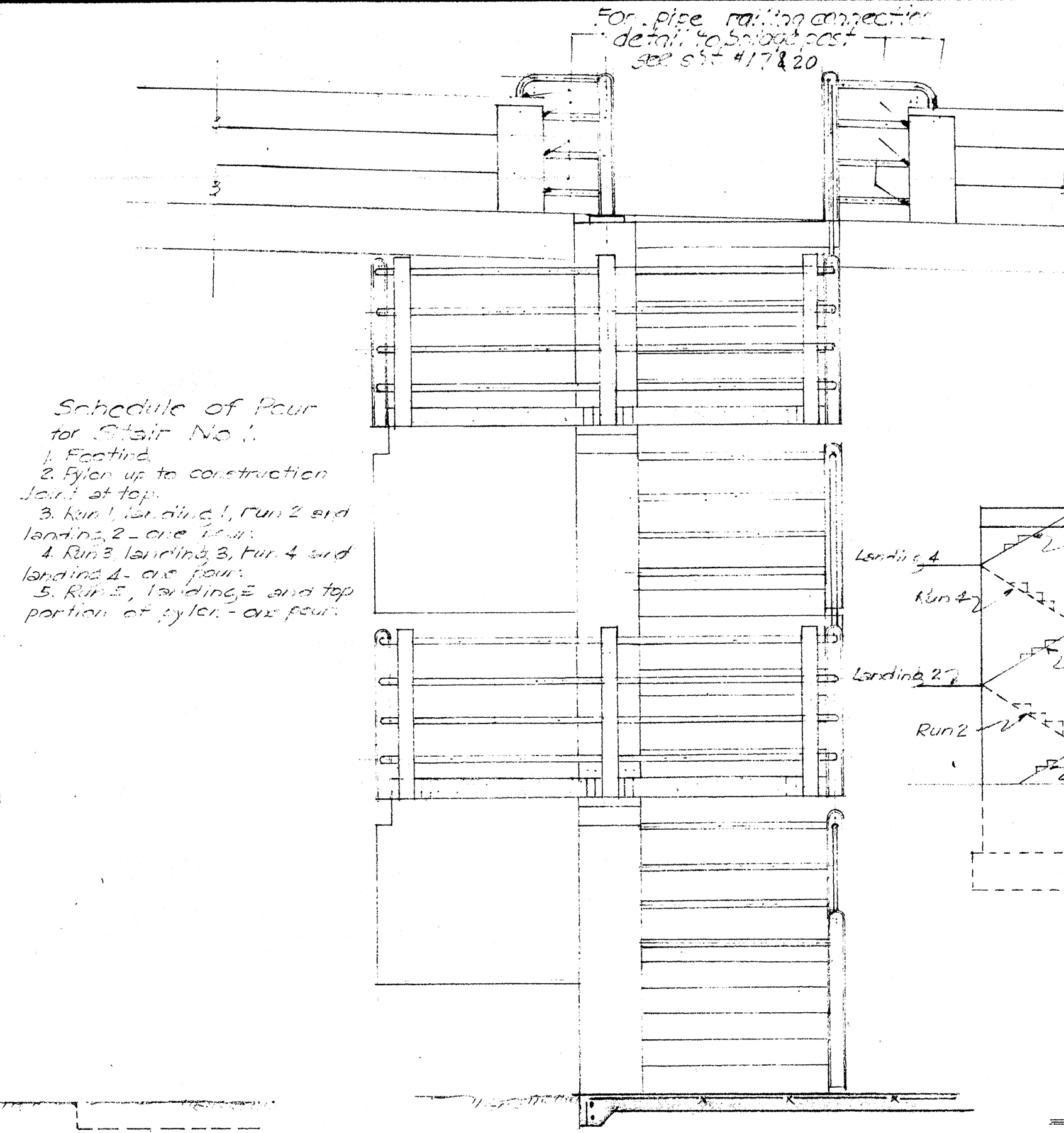
THIS PLAN TO BE USED IN CONJUNCTION WITH PAINTING FOR STRUCTURE PROJECT No. HWY-0-01-76M

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
MCCULLY SEPARATION
 Sta. 3+83.67 to Sta. 7+57.83
 MAUKA ARTERIAL U59(B)
 December 1954
SHEET No. 6 OF 21 SHEETS

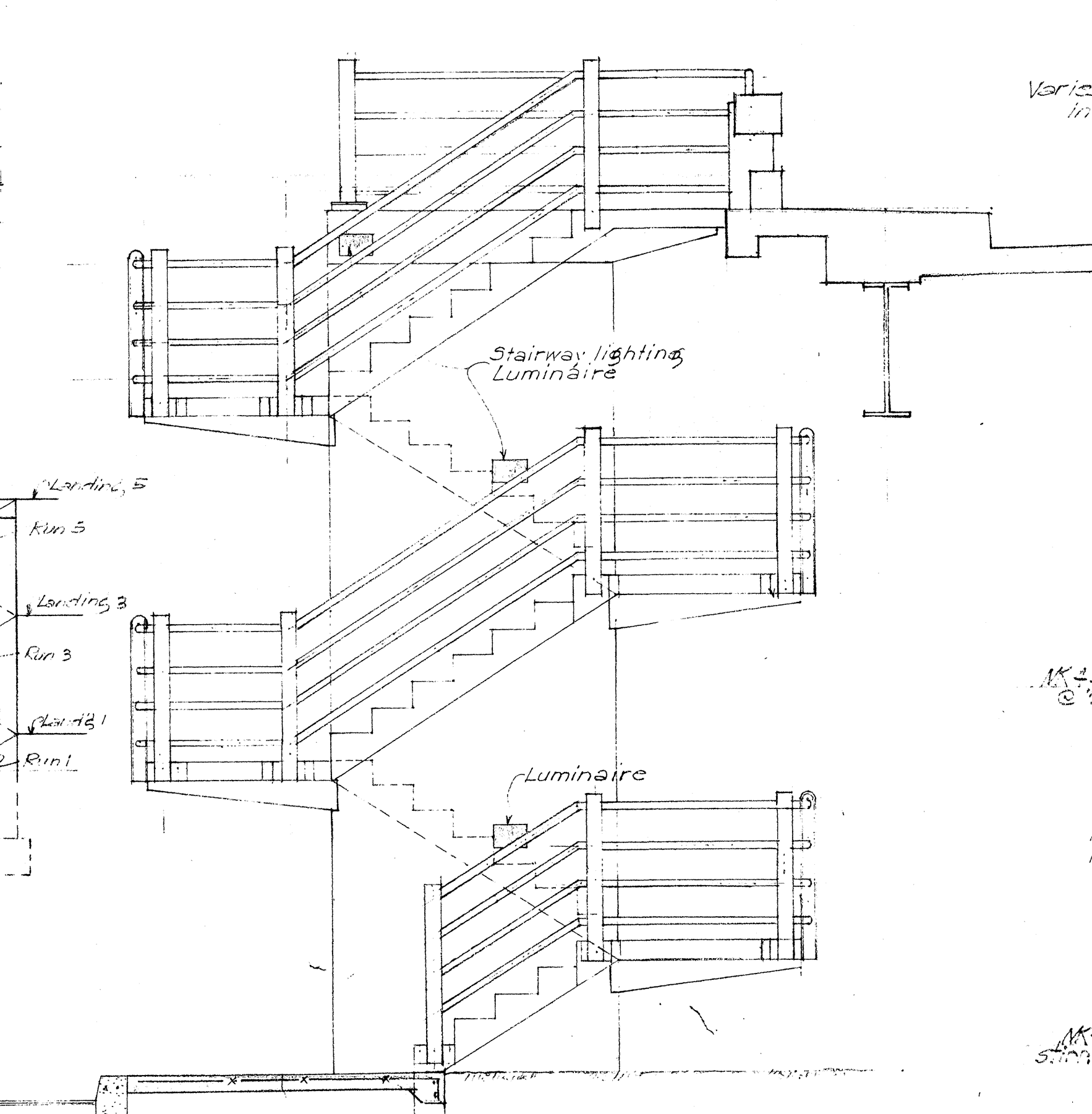
DESIGNED BY: J. B. Bartels
 DRAWN BY: L. L. Lum
 QUANTITIES BY: L. L. Lum
 NOTE BOOK NO. 55
 CHECKED BY: J. B. Bartels
 DATE: Dec. 54



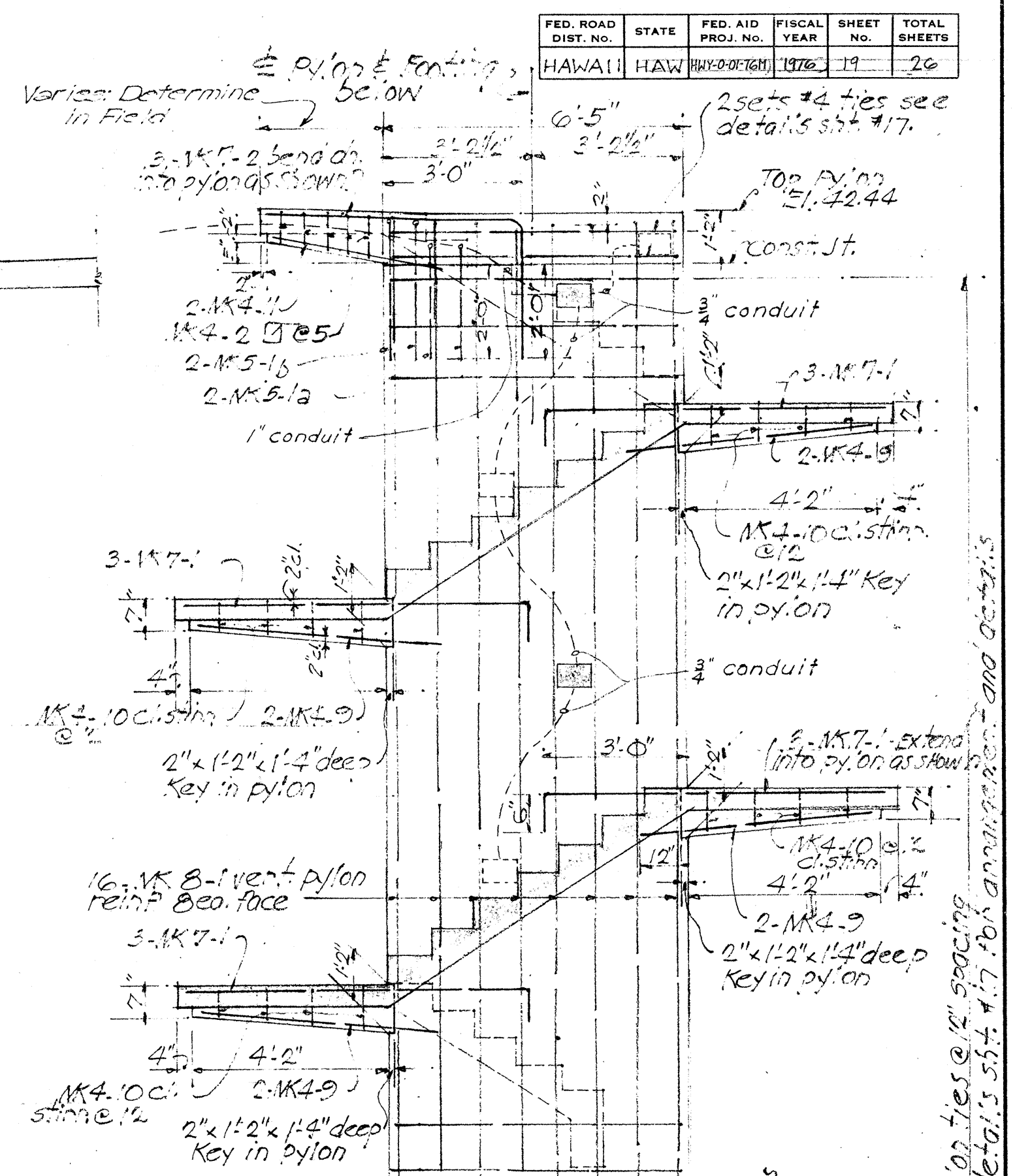
ELEVATION "A-A" SCALE: 3/8"=1'-0"



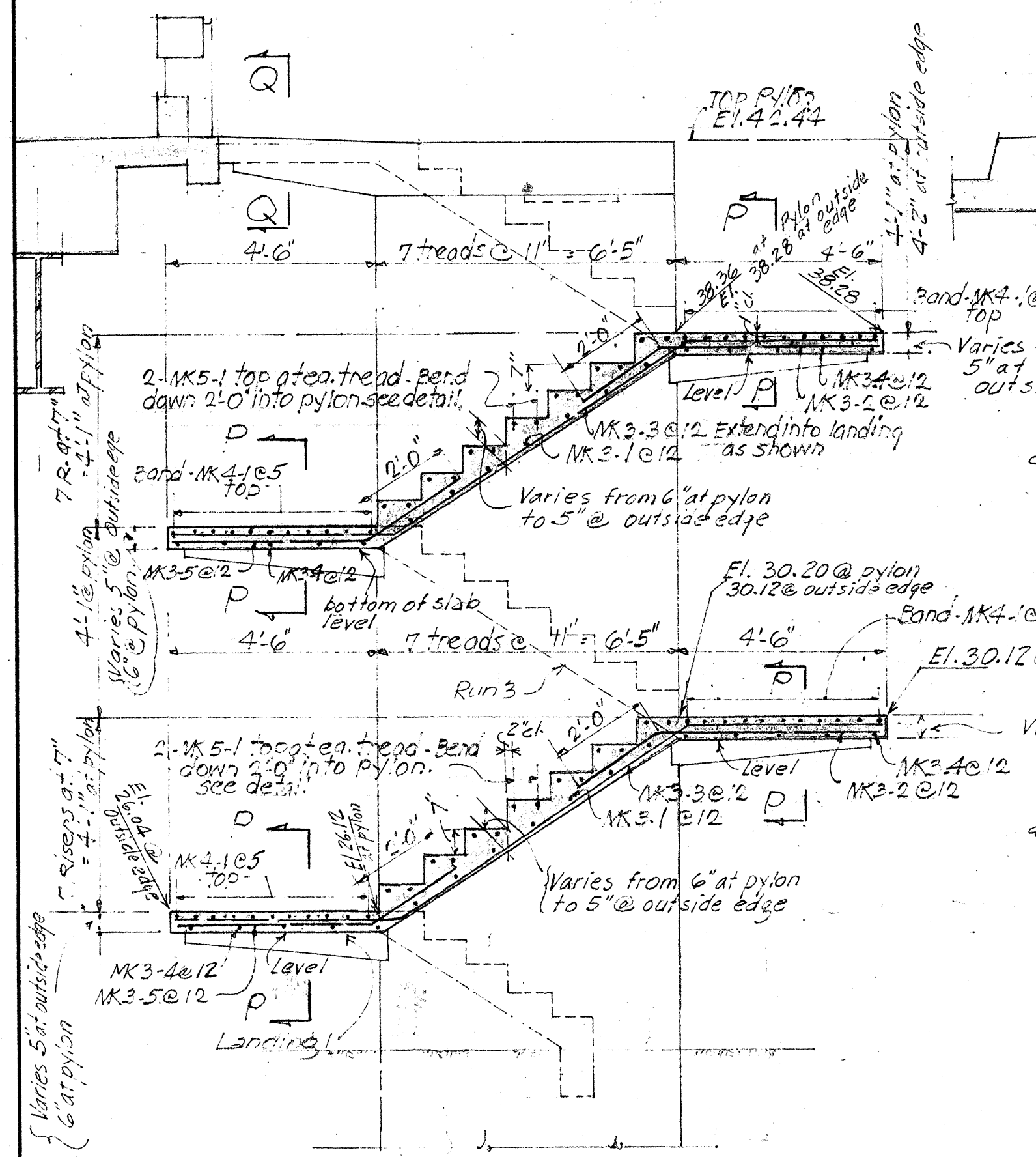
ELEVATION "B-B" SCALE: 3/8"=1'-0"



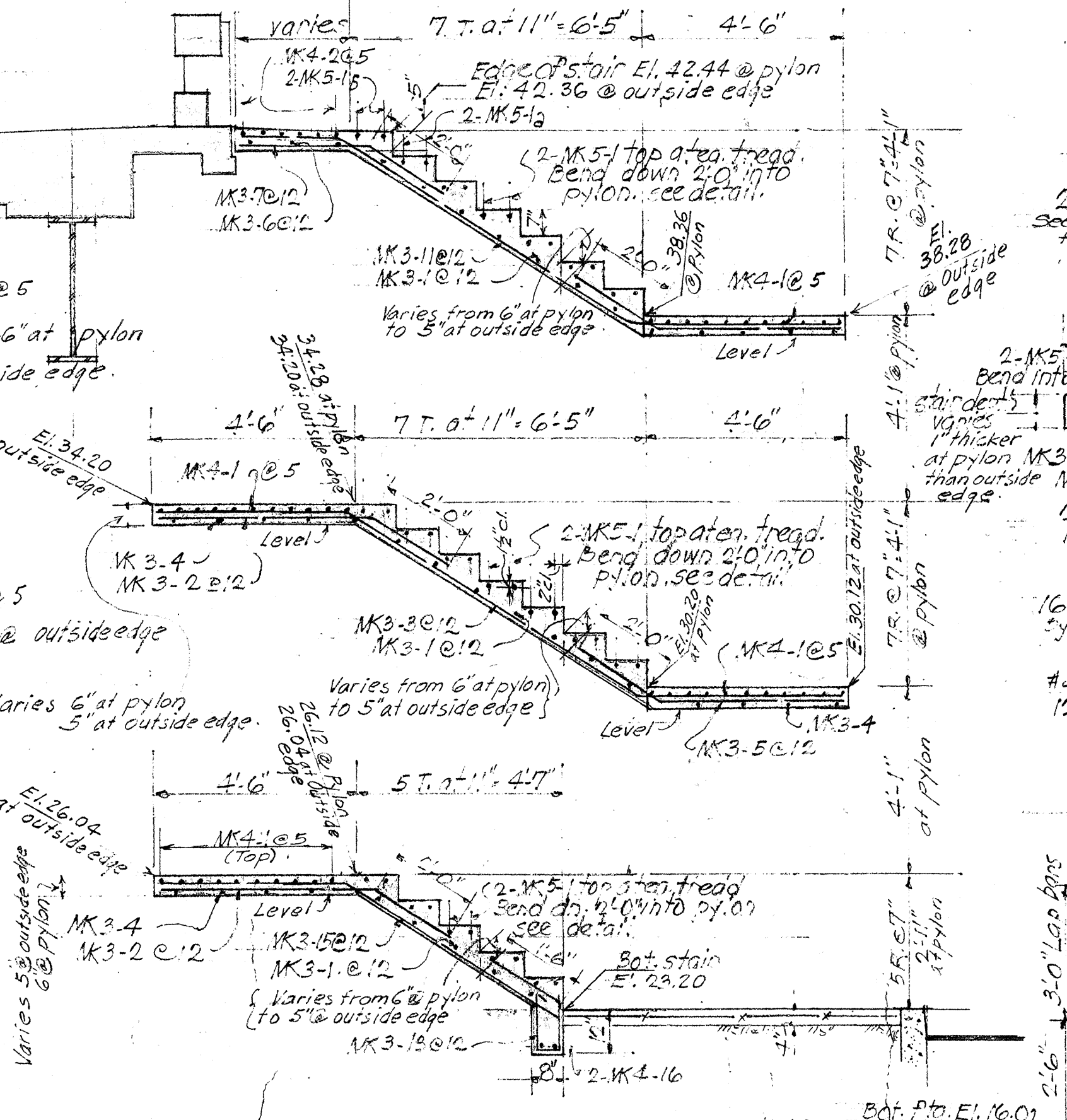
ELEVATION "C-C" SCALE: 3/8"=1'-0"



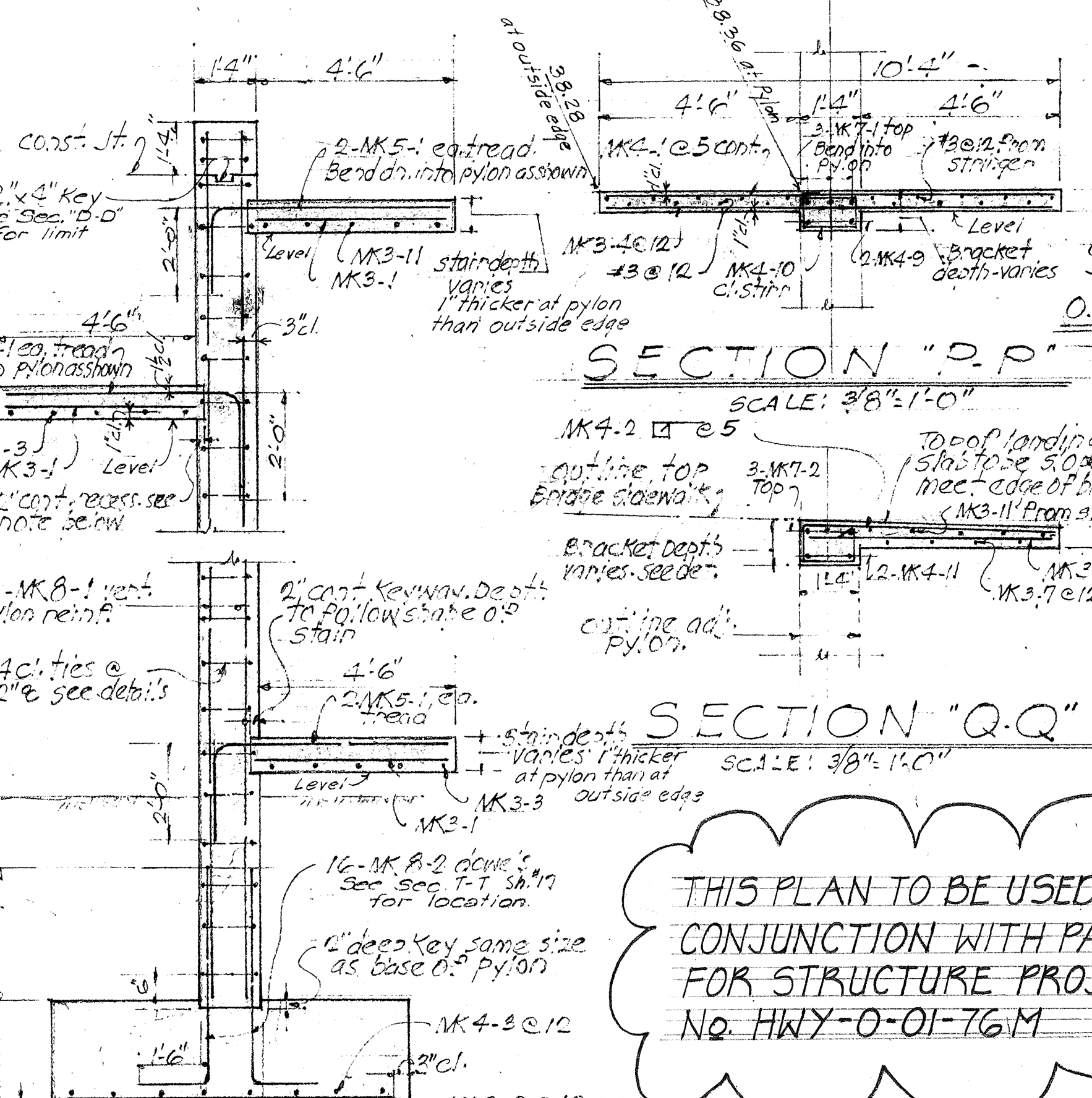
ELEVATION "D-D" SCALE: 3/8"=1'-0"



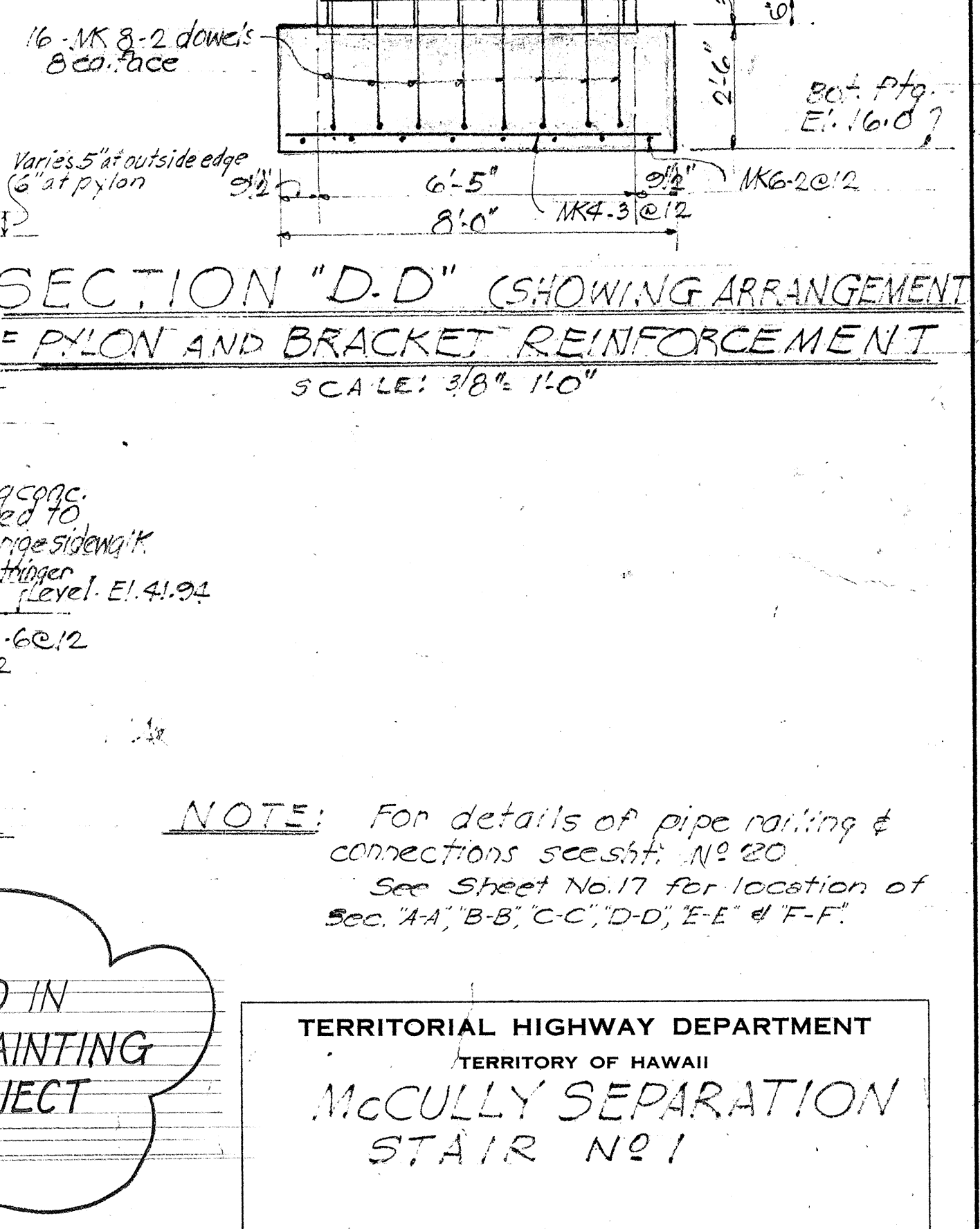
SECTION "D-D" SCALE: 3/8"=1'-0"



SECTION "E-E" SCALE: 3/8"=1'-0"



SECTION "F-F" SCALE: 3/8"=1'-0"



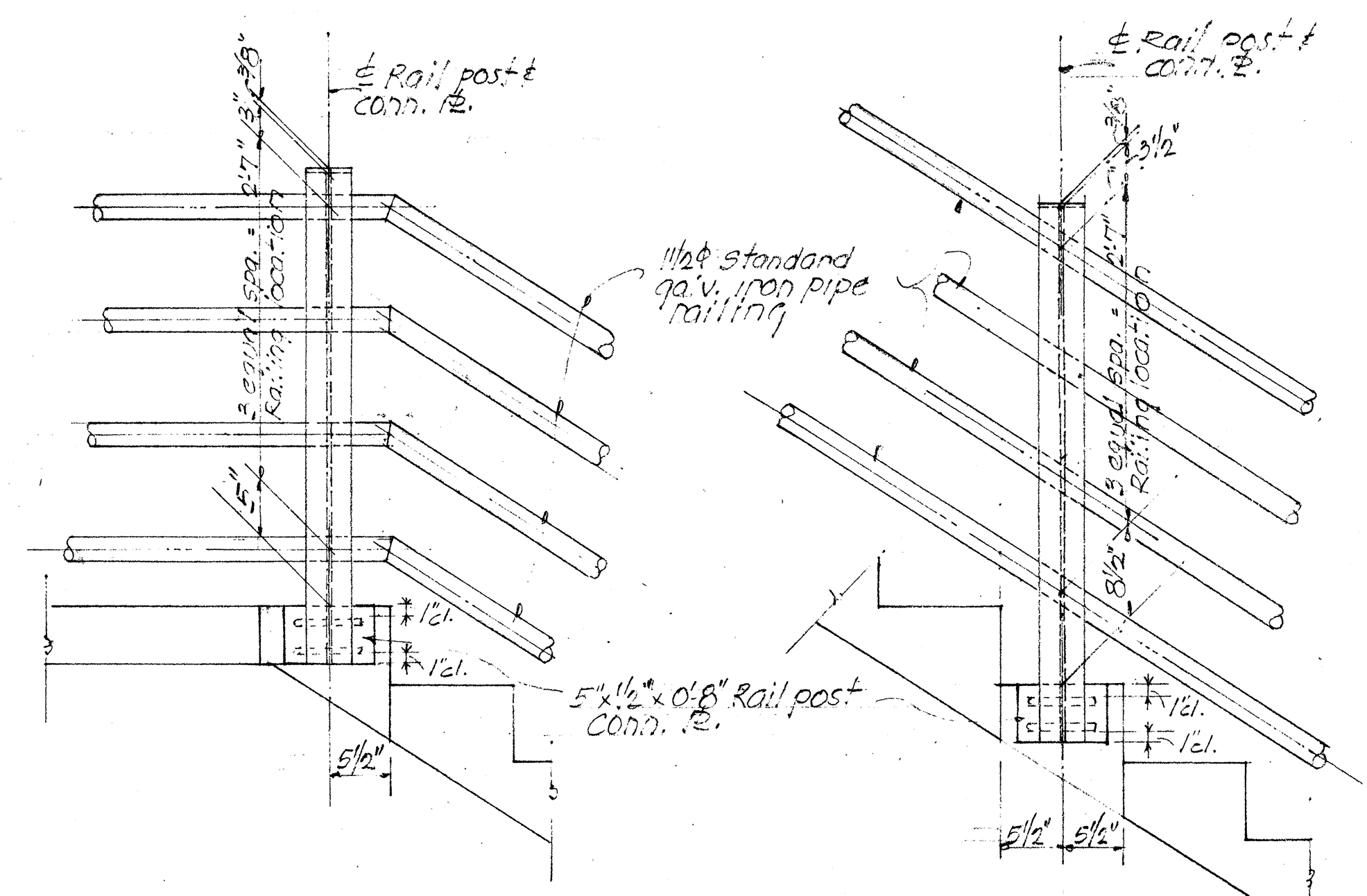
THIS PLAN TO BE USED IN CONJUNCTION WITH PAINTING FOR STRUCTURE PROJECT No. HWY-0-01-76M

NOTE: For details of pipe railing & connections see sheet 17-80. See Sheet No. 17 for location of Sec. A-A, B-B, C-C, D-D, E-E & F-F.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
McCULLY SEPARATION
STAIR NO. 1

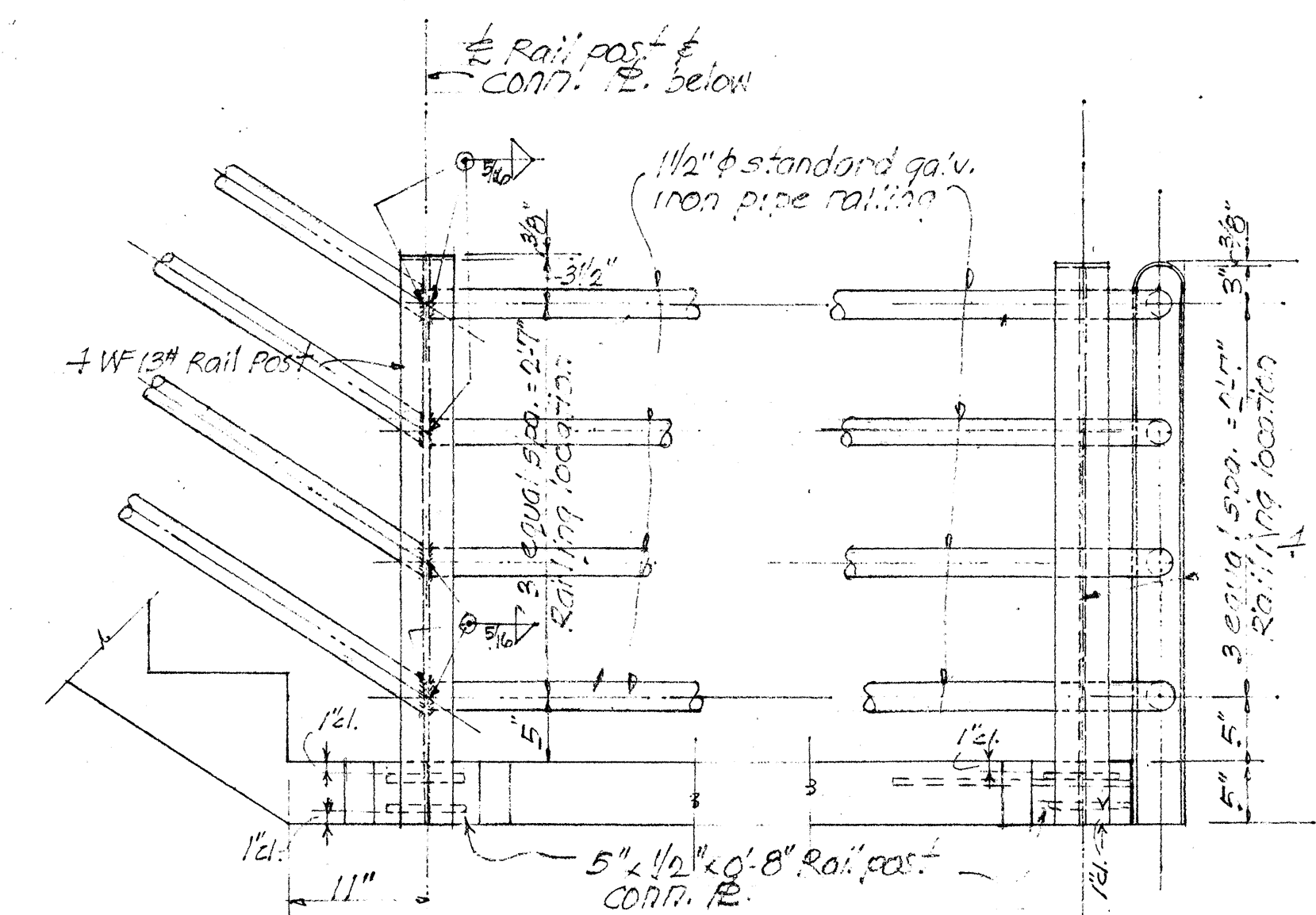
MAUKA ARTERIAL U59 (8)
FEBRUARY 1954
SHEET No. 18 OF 21 SHEETS

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



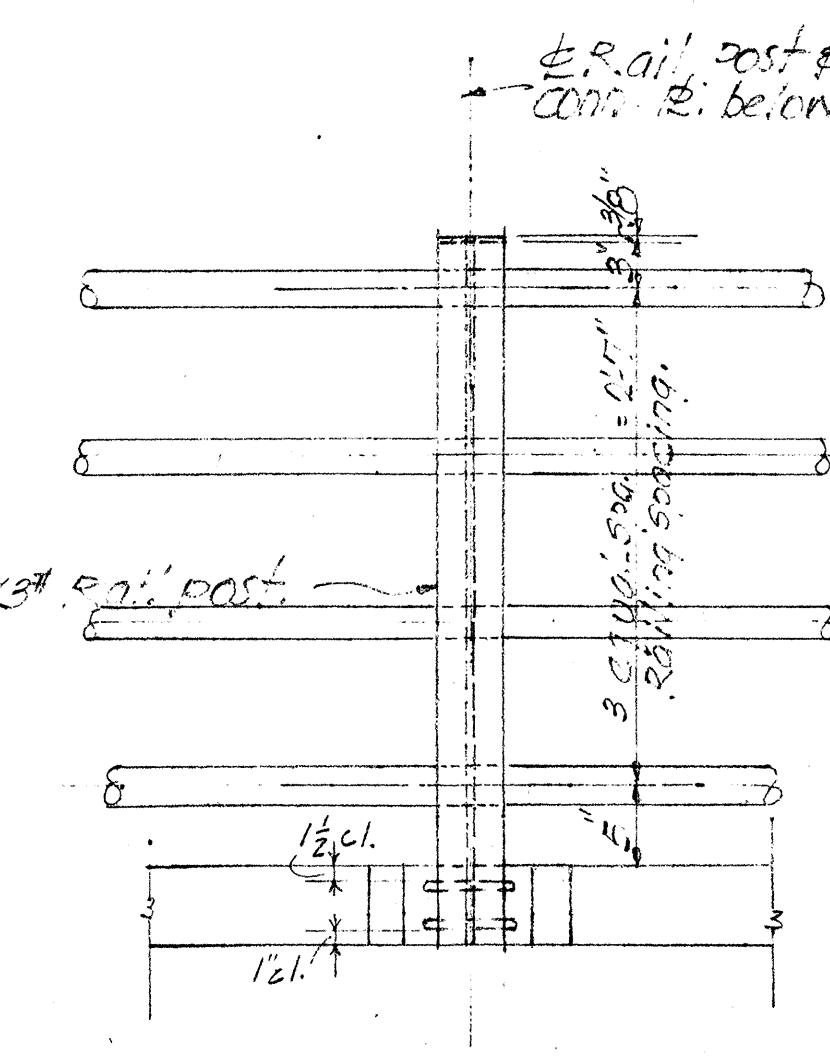
ELEVATION

ELEVATION

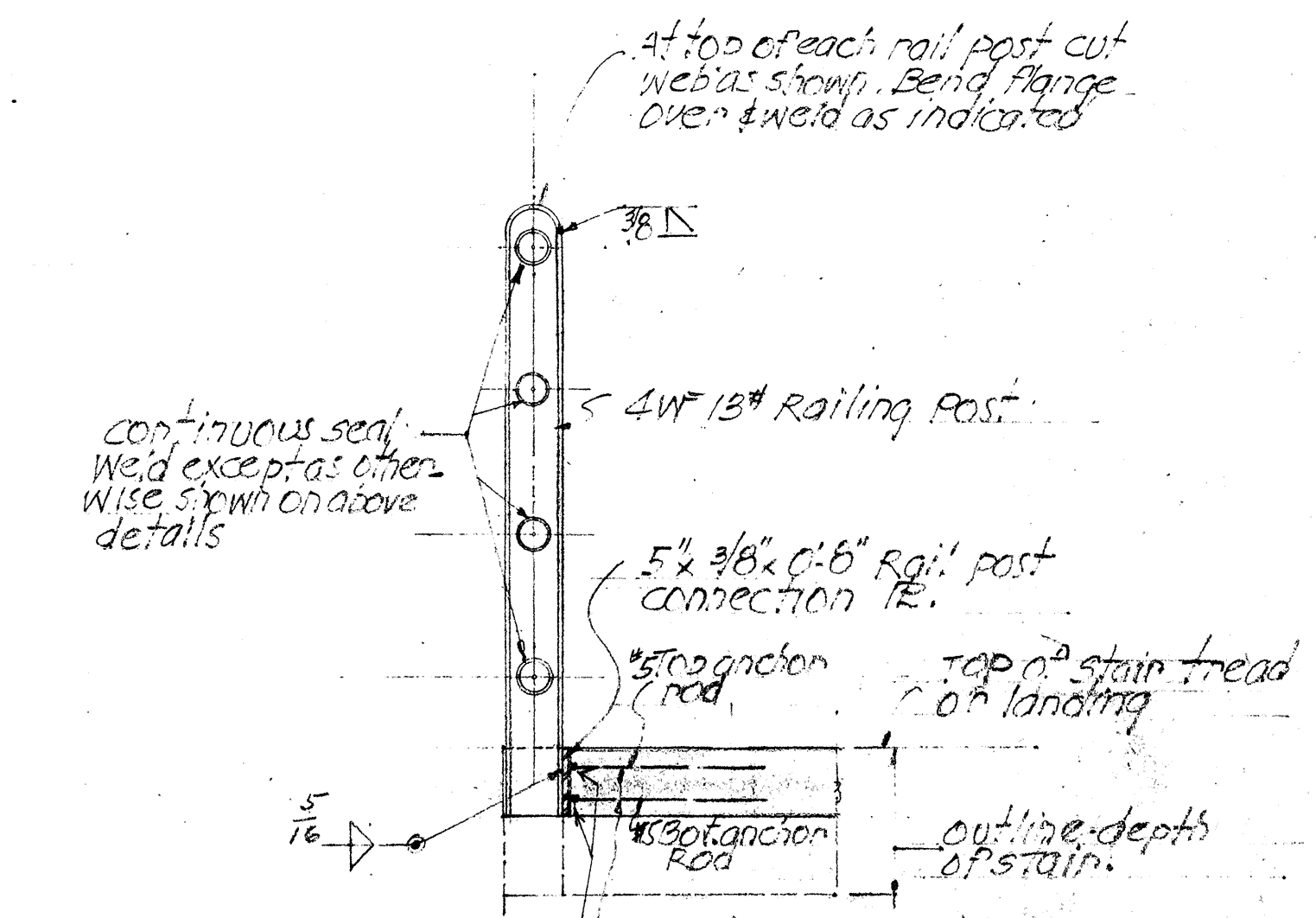


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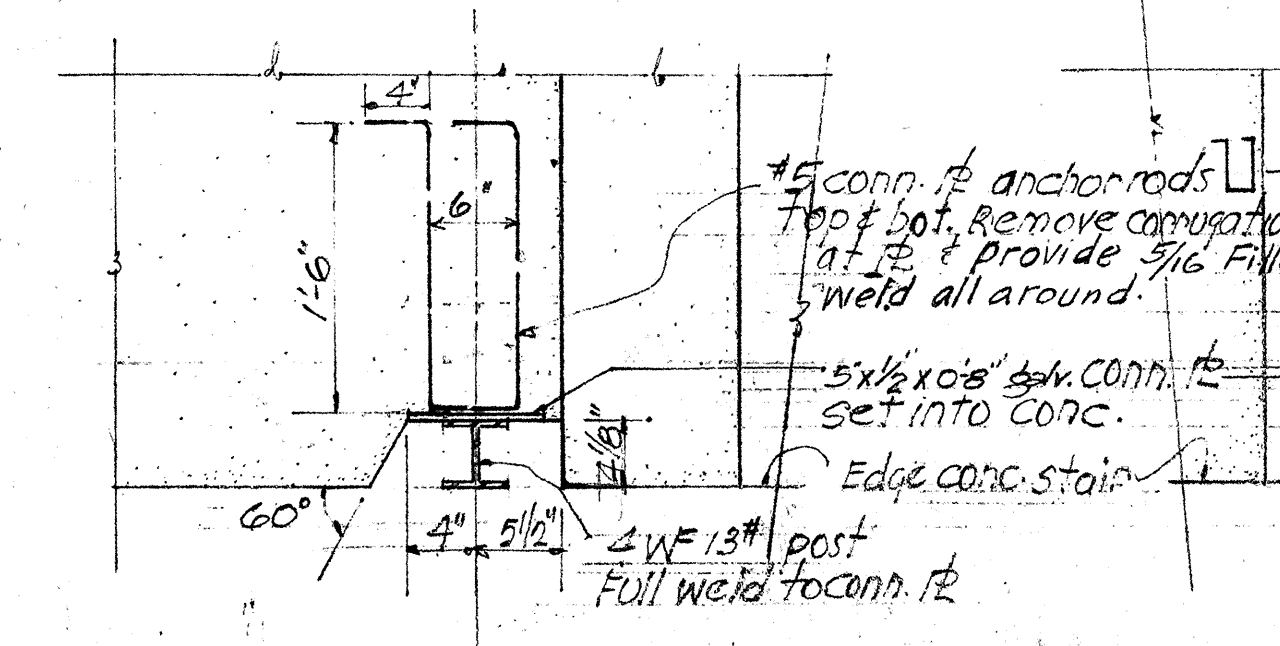
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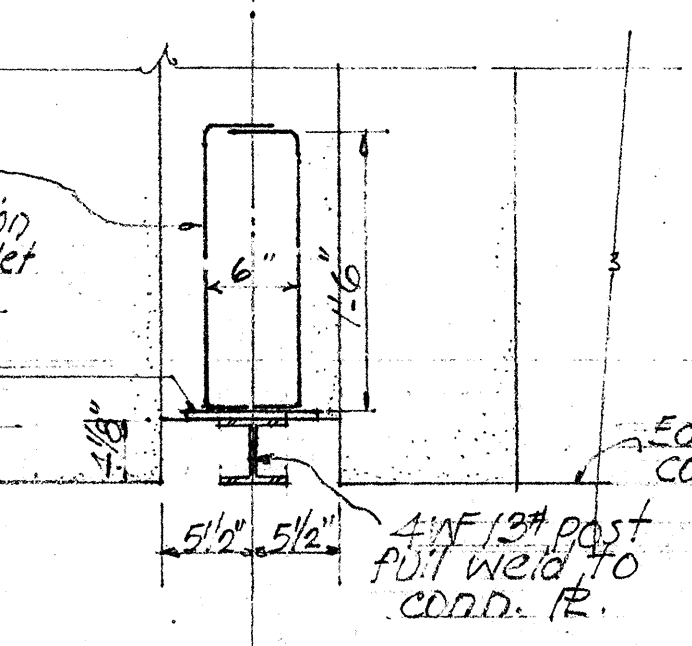
ELEVATION



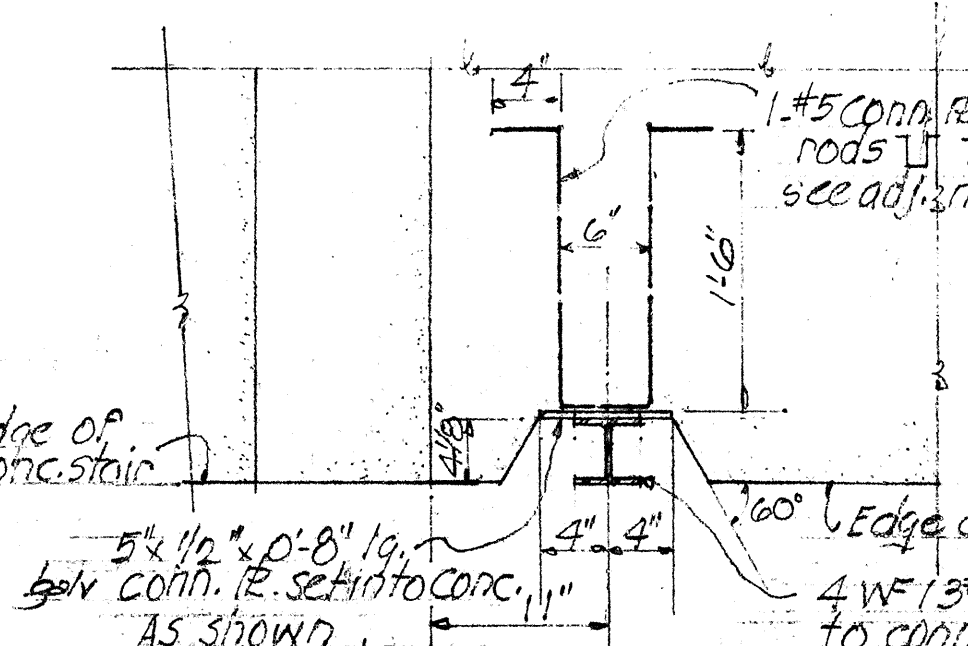
TYPICAL SECTION THRU HAND RAIL



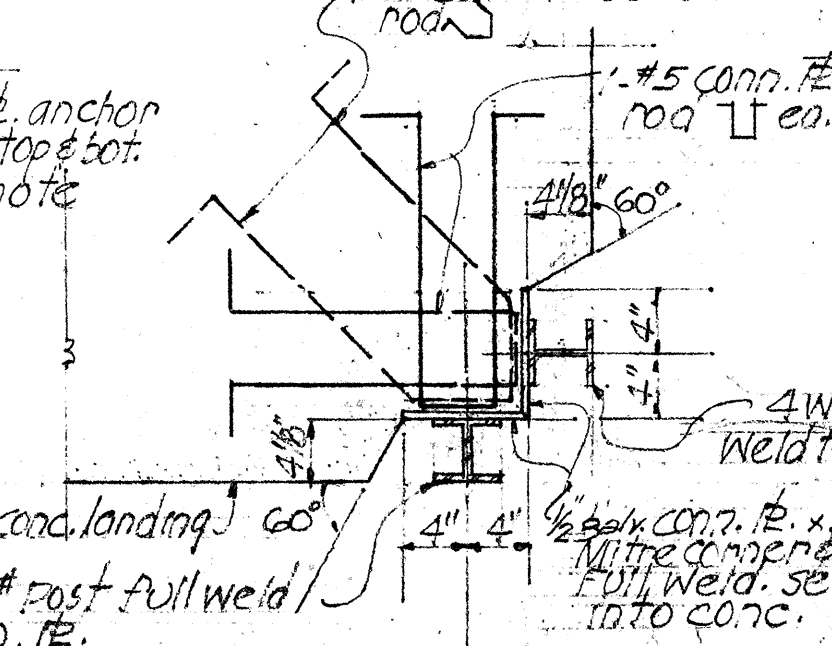
PLAN AT BASE



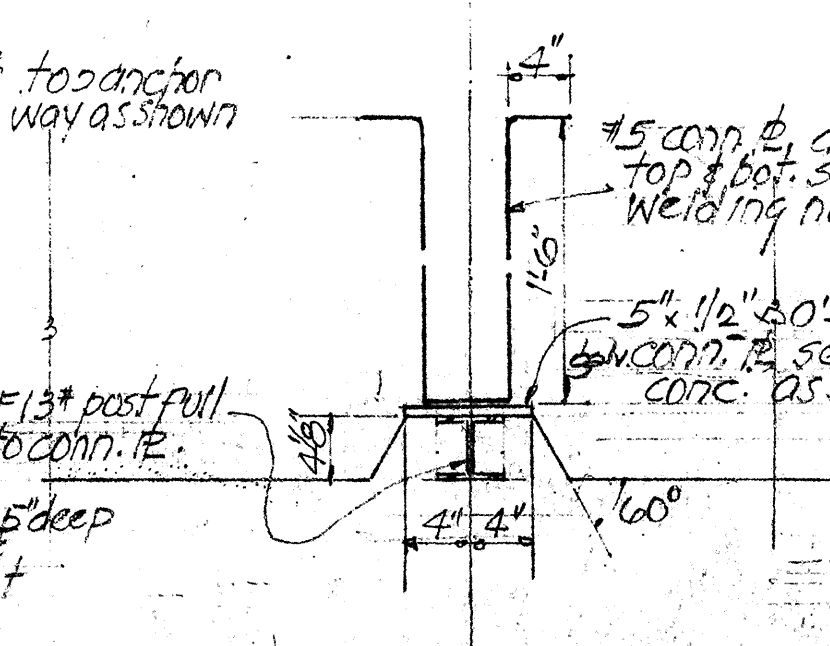
PLAN AT BASE



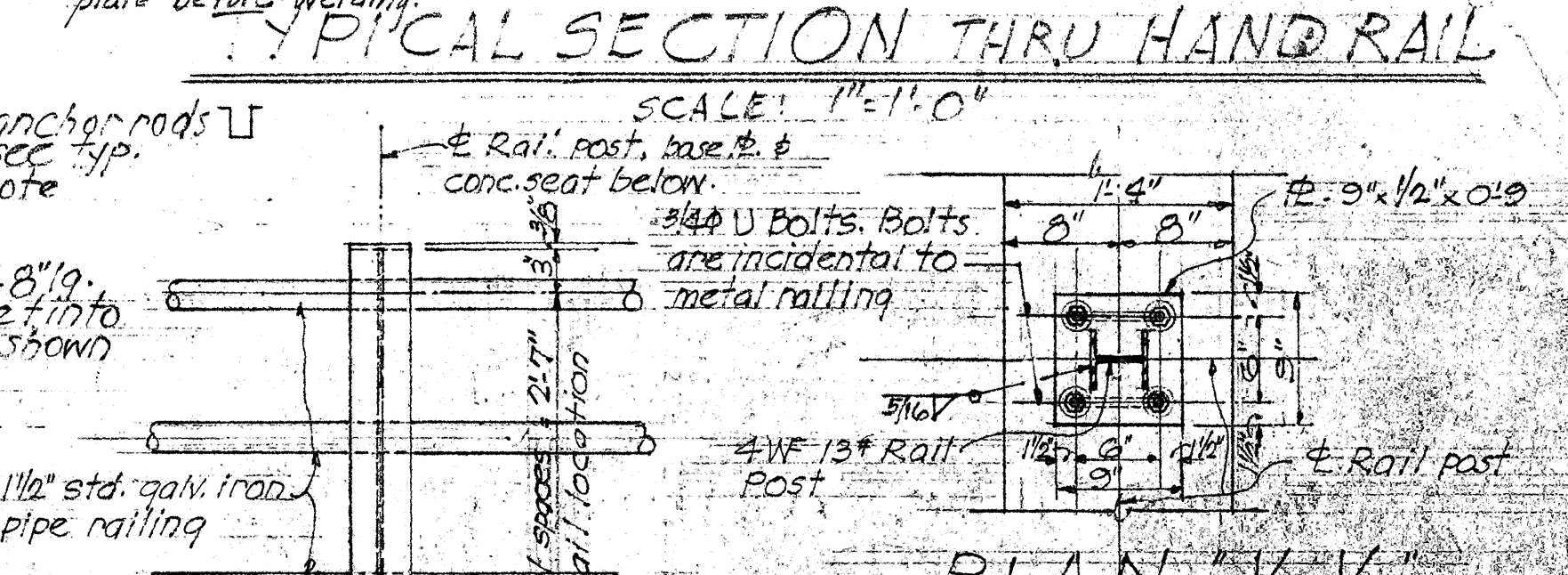
PLAN AT BASE



PLAN AT BASE



PLAN AT BASE



PLAN "V-V"

AT TOP OF STAIRS

AT INTERMEDIATE POST ON STAIR

AT INTERMEDIATE LANDING

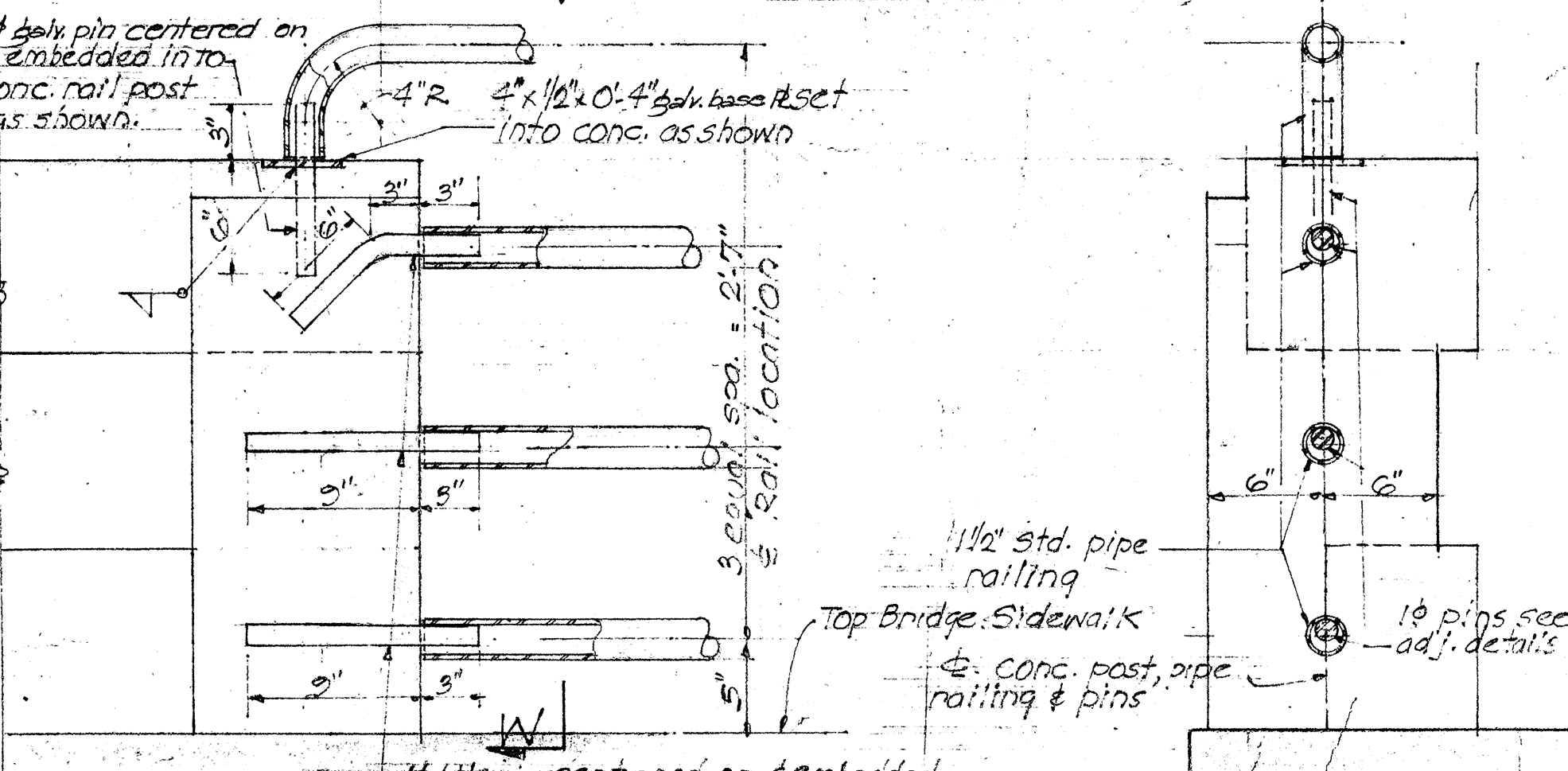
AT CORNER OF INTERMEDIATE LANDING

AT INTERMEDIATE POST ON LANDING

TYPICAL STAIR HANDRAIL DETAILS

SCALE: 1"=1'-0"

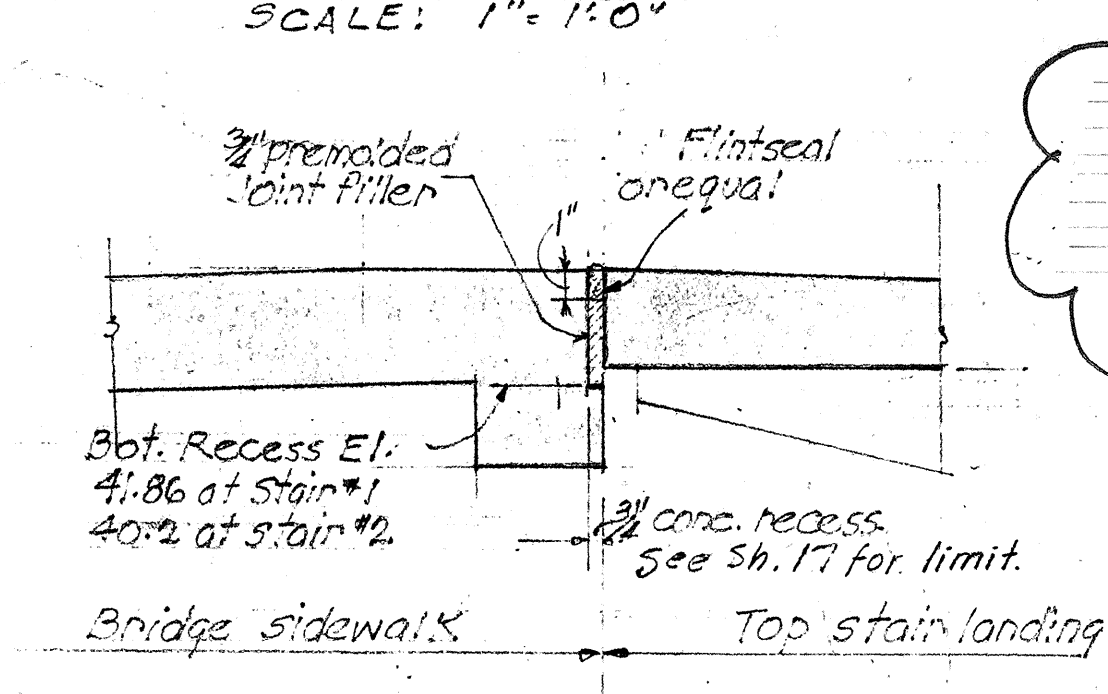
THIS PLAN TO BE USED IN CONJUNCTION WITH PAINTING FOR STRUCTURE PROJECT No. HWY-0-01-76M



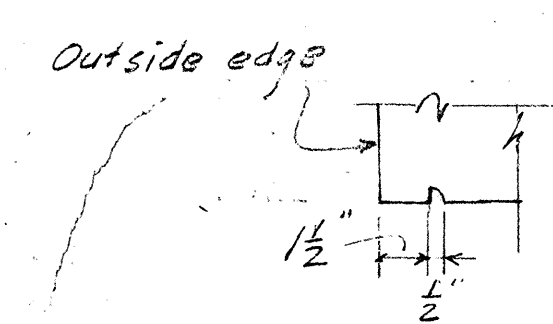
ELEVATION

SECTION "W-W"

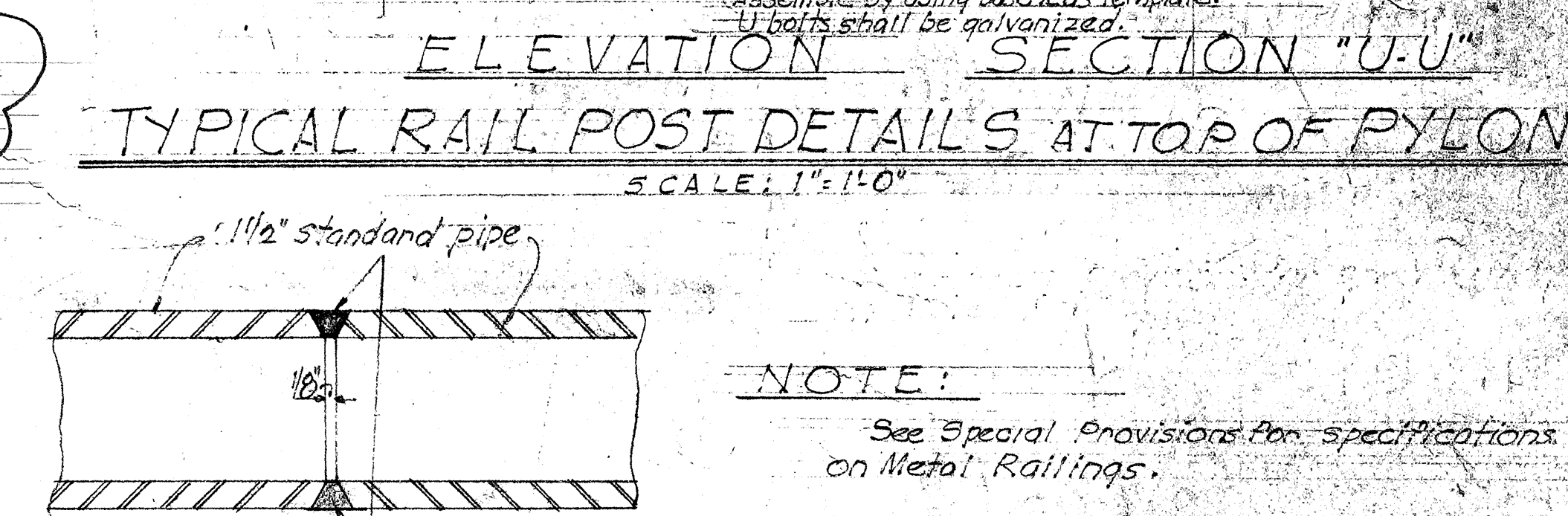
TYPICAL PIPE RAILING CONNECTION TO CONCRETE BRIDGE RAILING - SCALE: 1 1/2"=1'-0"



TYPICAL SECTION "X-X" (TOP STAIR LANDING DETAIL AT SIDEWALK) SCALE: 1"=1'-0"



TYPICAL DRIP DETAIL Provide continuous drip on underside of steps and landing.



TYPICAL SPLICE DETAIL (CONTINUOUS TOP AND BOTTOM PIPE RAILING) - HALF SIZE

NOTE: See Special Provisions for specifications on Metal Railings.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
McCULLY SEPARATION
STAIR NOS 1 & 2
MAUKA ARTERIAL U59(8)
FEBRUARY 1974

SHEET No. 20 OF 21 SHEETS