

FED. ROAD DIV. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CAL			1	

FLOOD RELIEF PROJECT NO'S 5-H4 AND 19-H12

SUTTER AND YUBA COUNTIES

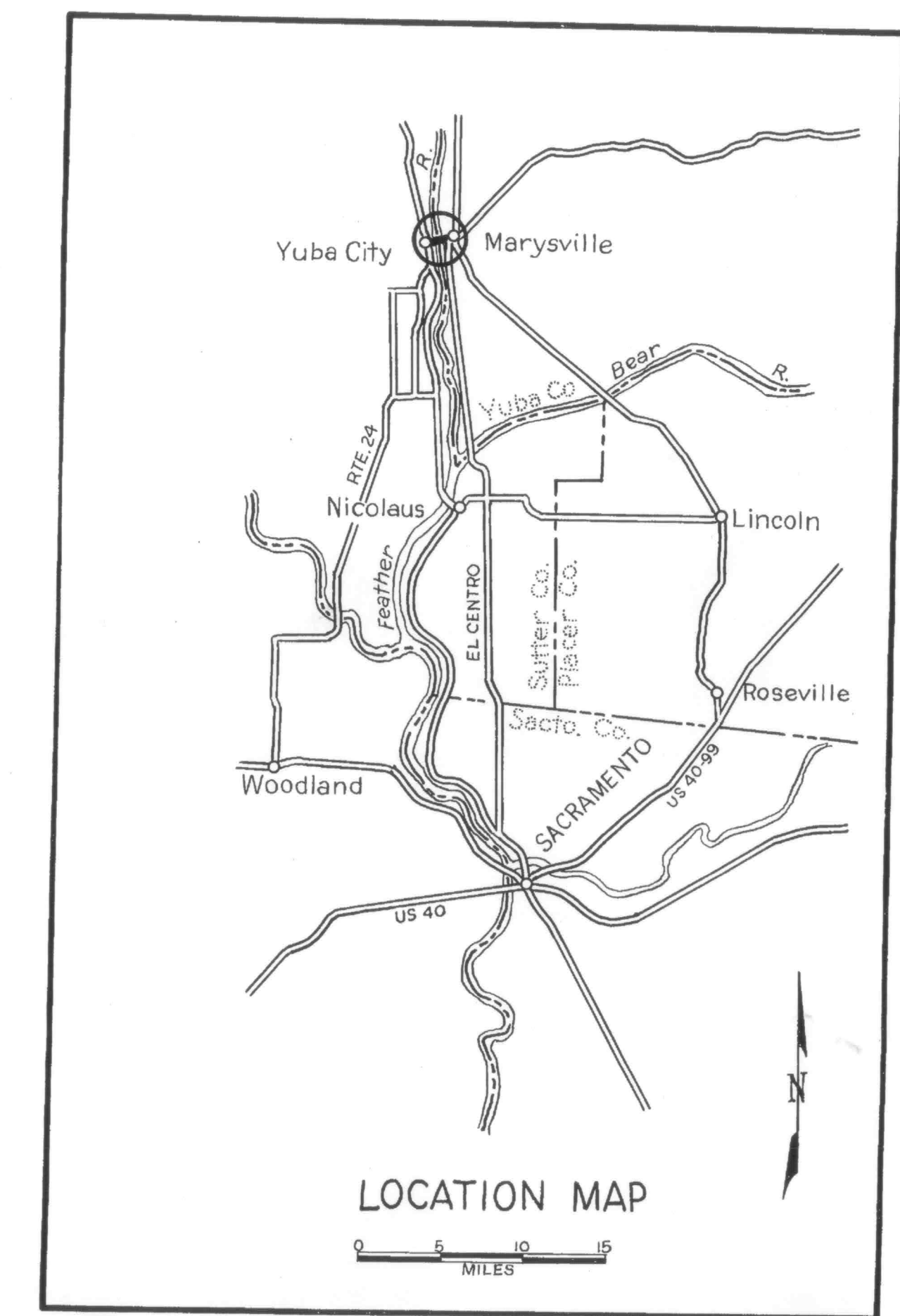
5TH STREET BRIDGE

Across Feather River, between Marysville and Yuba City

County-State Cooperative Agreements Numbers 5-H-4 and 19-H-12

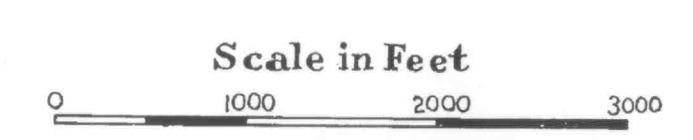
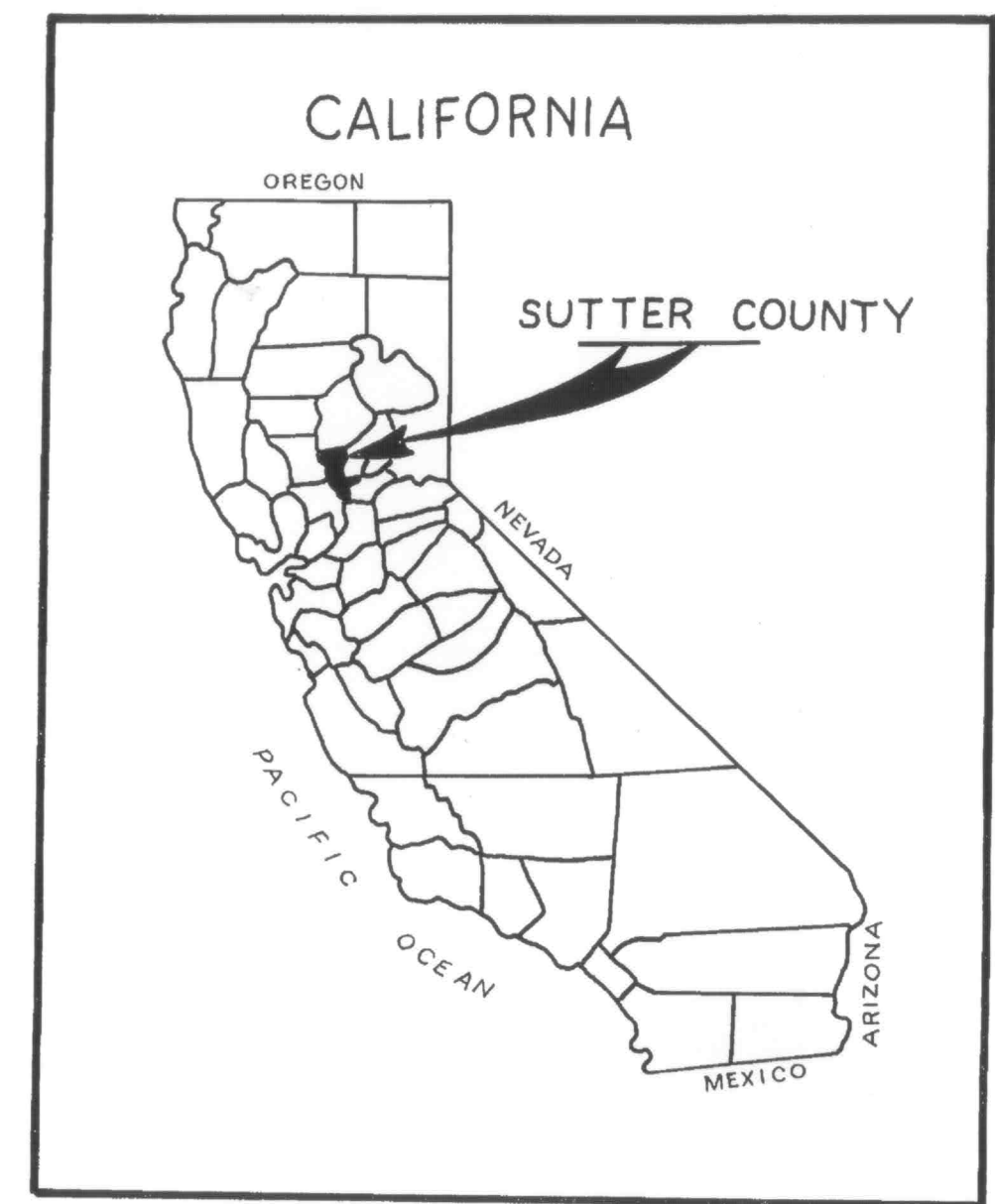
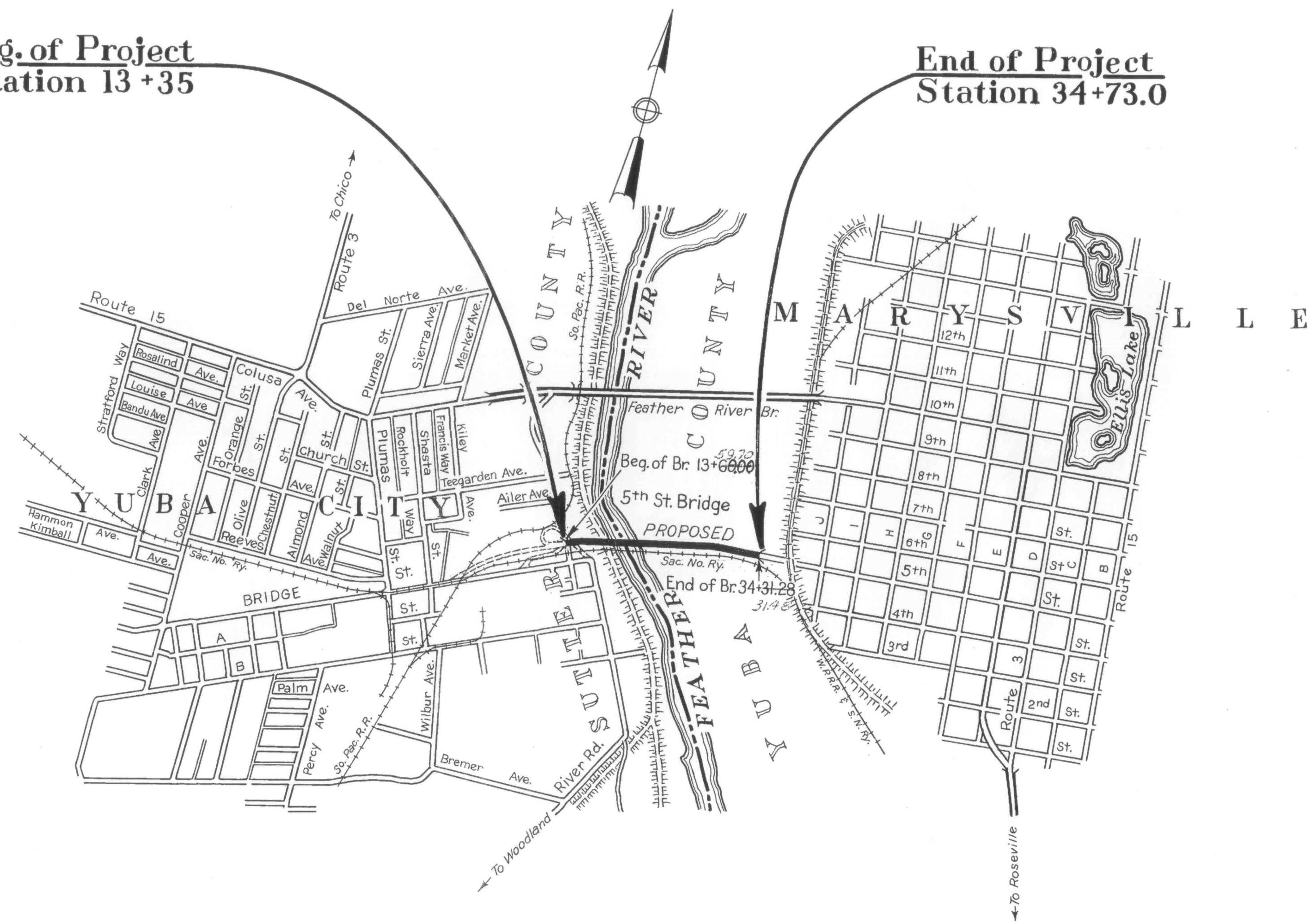
INDEX OF SHEETS

SHEET NO.	TITLE SHEET
1.	GENERAL PLAN
2.	FOUNDATION PLAN 1
3.	FOUNDATION PLAN 2
4.	PILE DETAIL
5.	PIER SCHEDULE
6.	ABUTMENT "A" PIER B DETAIL
7.	ABUTMENTS "C" AND "D" PIER D
8.	PIER 22 AND ABUTMENT 23
9.	MARYSVILLE APPROACH STRUCTURE
10.	BEARING PLATE ELEVATIONS
11.	PIER DETAILS, TYPE P, Q & R
12.	PIER DETAILS, TYPE T
13.	PIER DETAILS, TYPE S
14.	GIRDER DETAILS, TYPES I & II
15.	GIRDER, TYPES I, II & III AND TYPE III DIAPHRAM DETAILS
16.	GIRDER DETAILS, TYPE IV
17.	GIRDER, TYPE IV
18 & 19.	151 FOOT GIRDERS
20.	SLAB SPAN
21.	LIGHTING PLAN
22.	RAIL DETAIL
23.	SOIL PROFILE
24 & 25.	STAND LIGHTING DETAIL
B-1	GENERAL PLAN
B-2	DECK REINFORCEMENT
B-3	STEEL DETAILS NO. 1
B-4	STEEL DETAILS NO. 2
B-5	BEARING DETAILS
B-6	PIER CAP DETAILS



Begin of Project
Station 13+35

End of Project
Station 34+73.0



Length of project : 2138.00 ft.
Length of bridge : 2071.28 ft.

Corrected to "As Built" 5-13-58
Fred W. [Signature]
Resident Engineer

COUNTY OF SUTTER

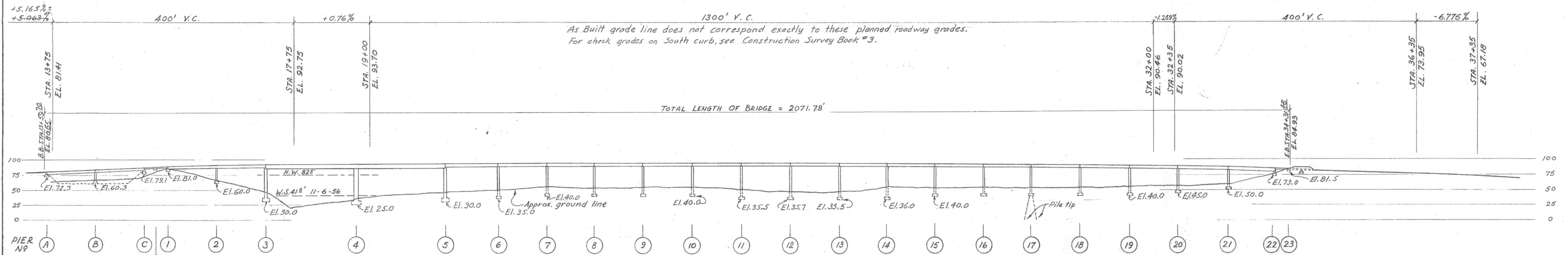
[Signature]
ROAD COMMISSIONER
CIVIL ENGINEER LICENSE NO. 5769

[Signature]
CHAIRMAN BOARD OF SUPERVISORS
SUTTER COUNTY

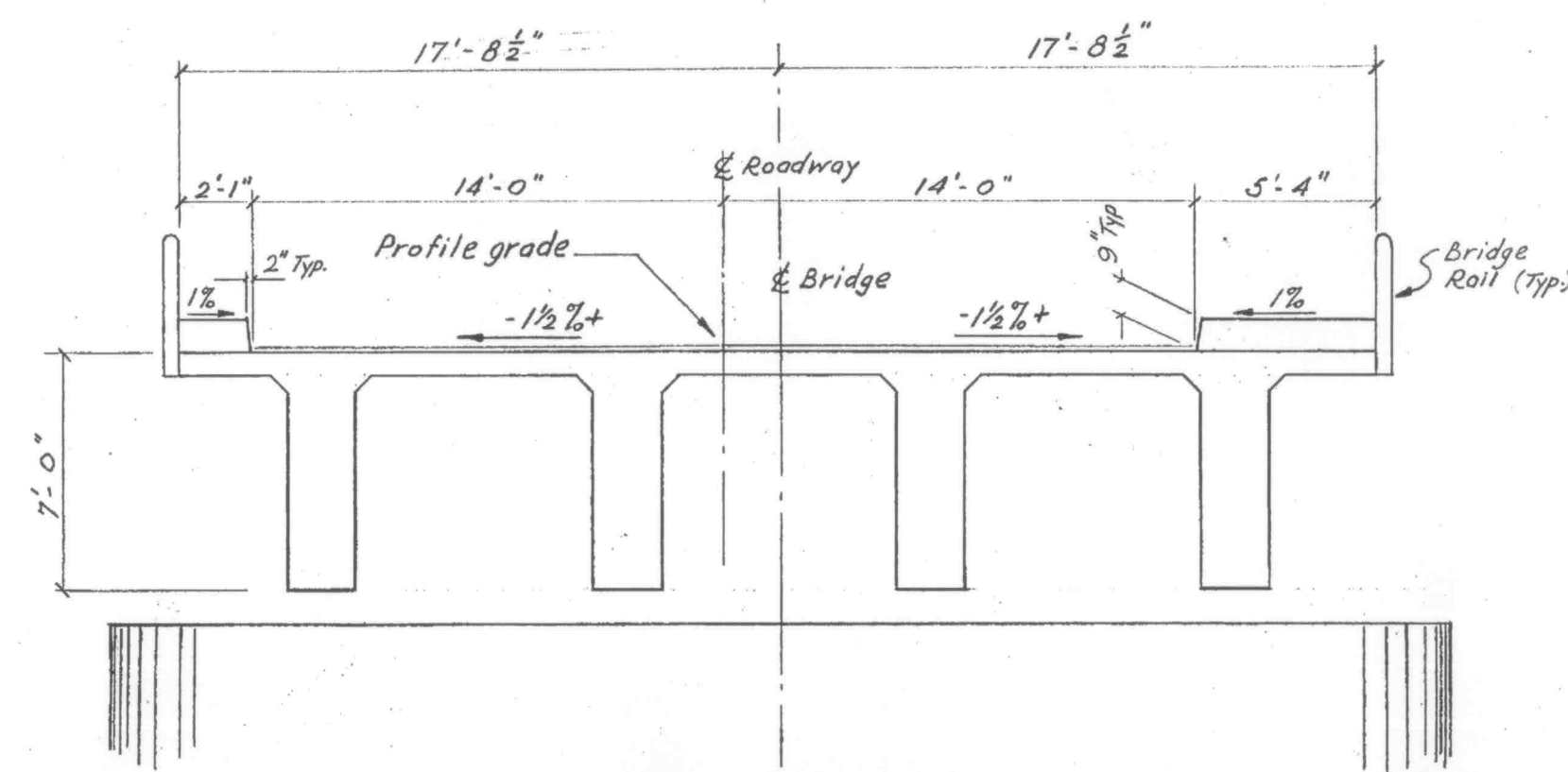
COUNTY OF YUBA
[Signature]
CHAIRMAN BOARD OF SUPERVISORS
YUBA COUNTY

April 5, 1957
STATE OF CALIFORNIA

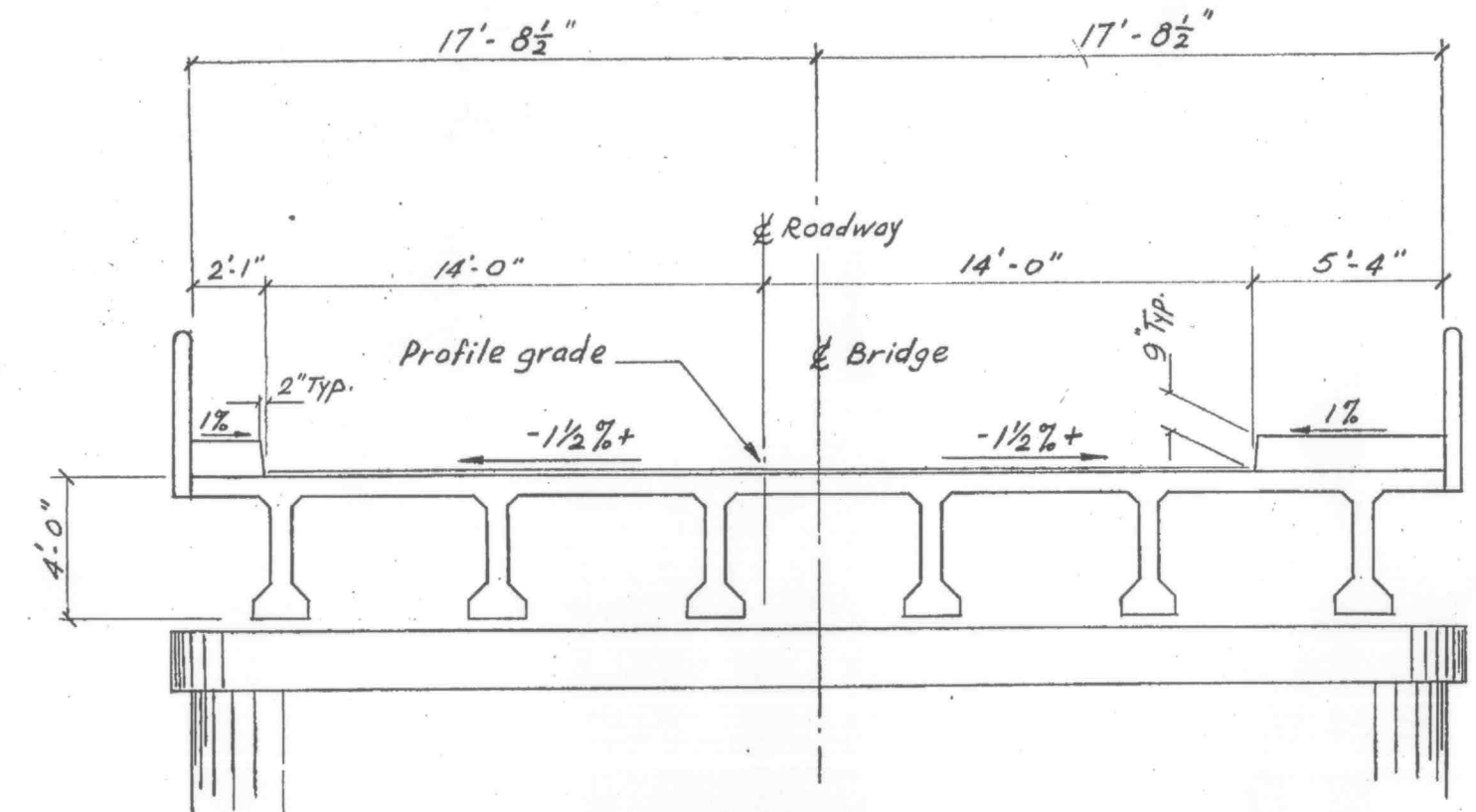
APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE #5769



ELEVATION
 1" = 80'-0"

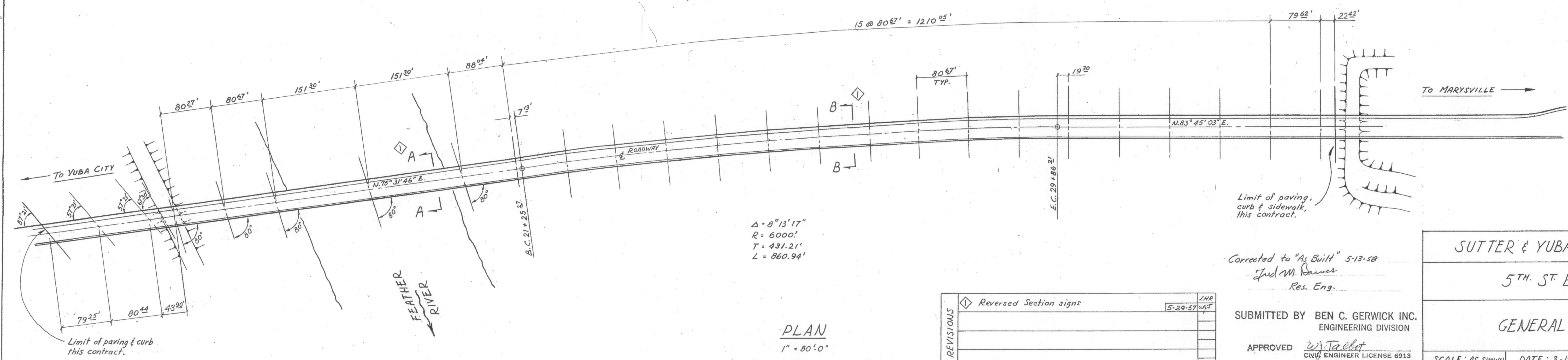


SECTION A-A
 151' GIRDERS
 3/16" = 1'-0"



SECTION B-B
 80' GIRDERS
 3/16" = 1'-0"

GENERAL NOTES
 1. Elevations based on U.S.E.D. Datum.
 2. Plan dimensions shown are to ϕ of pier or abutment measured at ϕ of roadway.



PLAN
 1" = 80'-0"

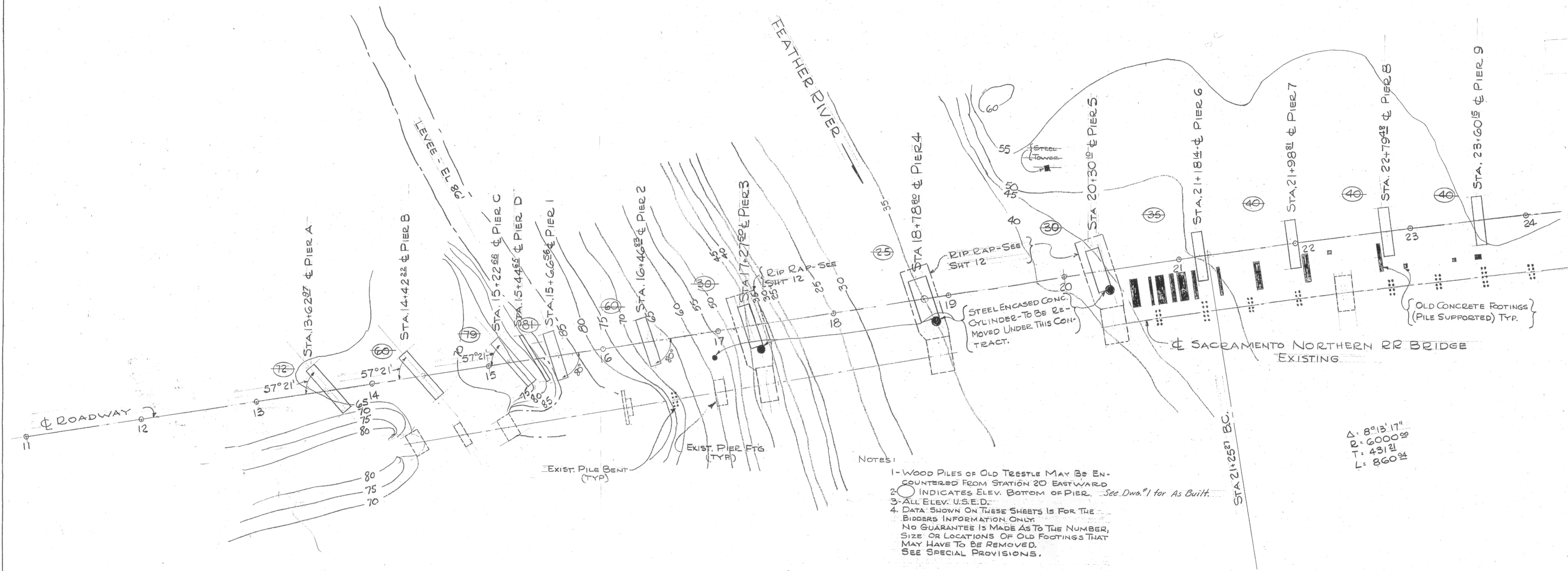
REVISIONS	DESCRIPTION	DATE	BY
1	Reversed Section signs	5-29-57	LHR

Corrected to "As Built" 5-13-58
 Fred M. Bannet
 Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5TH ST BRIDGE	
GENERAL PLAN	
SCALE: AS SHOWN	DATE: 3-19-57
DWG. 1	

APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE NO. 5769



- NOTES:
- 1- WOOD PILES OF OLD TREESTLE MAY BE ENCOUNTERED FROM STATION 20 EASTWARD.
 - 2- ○ INDICATES ELEV. BOTTOM OF PIER. See Dwg. #1 for As Built.
 - 3- ALL ELEV. U.S.E.D.
 - 4- DATA SHOWN ON THESE SHEETS IS FOR THE BIDDERS INFORMATION ONLY. NO GUARANTEE IS MADE AS TO THE NUMBER, SIZE OR LOCATIONS OF OLD FOOTINGS THAT MAY HAVE TO BE REMOVED. SEE SPECIAL PROVISIONS.

Δ = 8° 13' 17"
 P = 6000.88
 T = 431.21
 L = 860.94

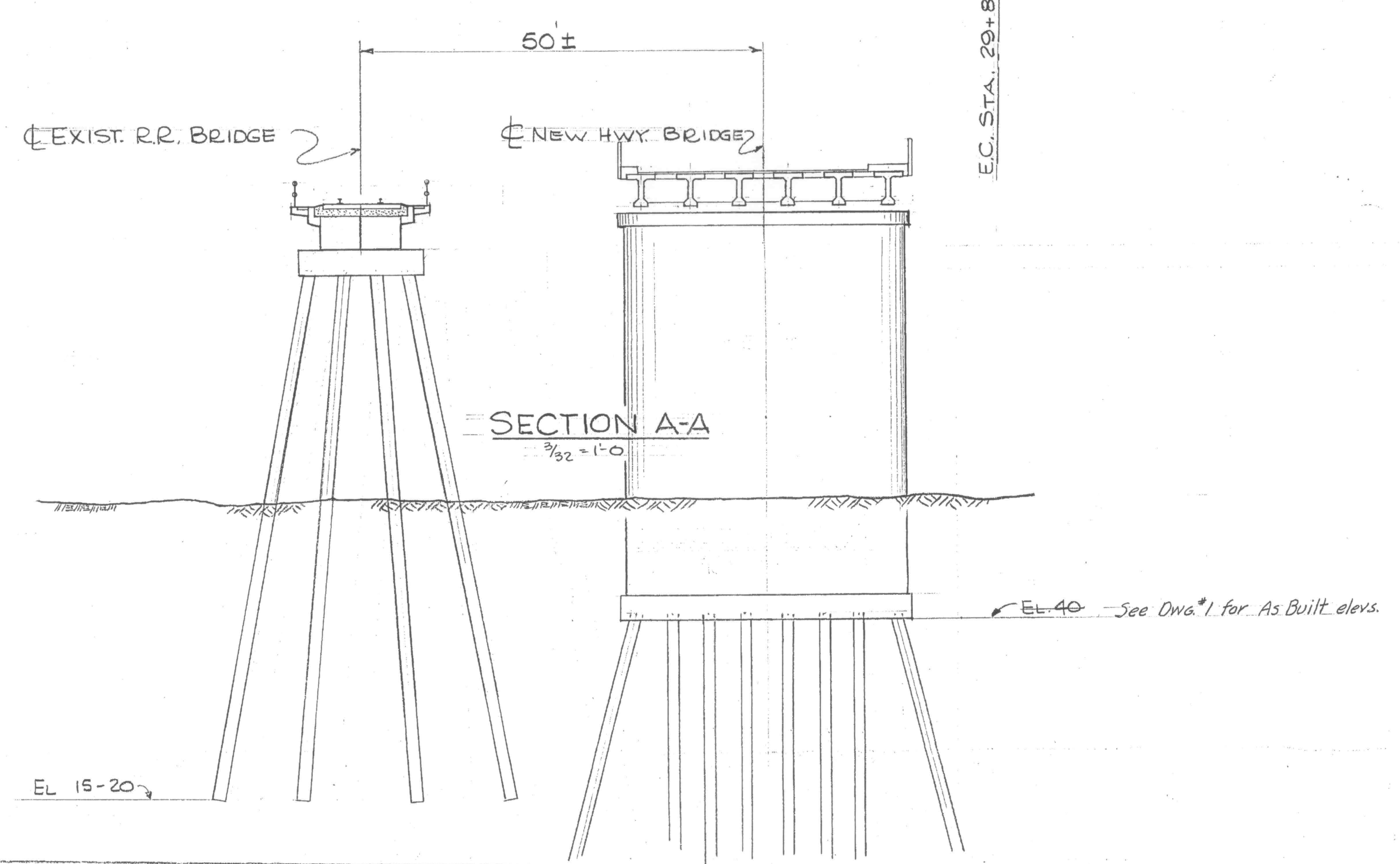
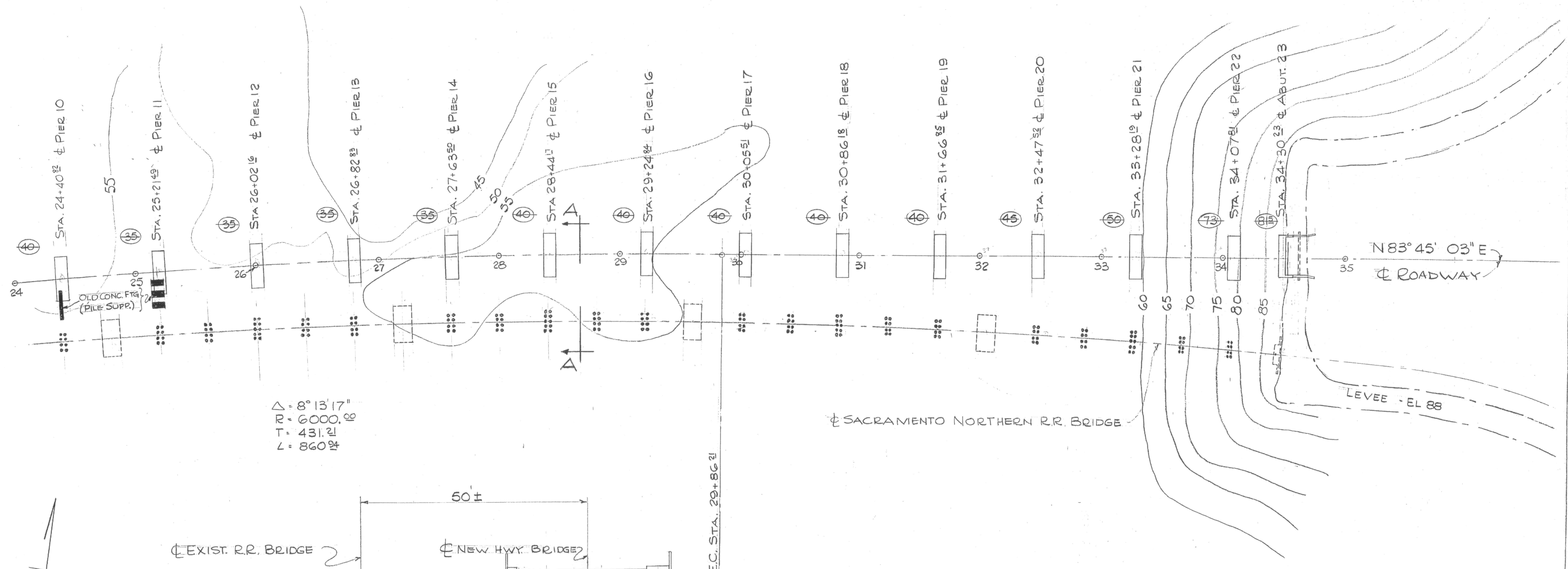
Corrected to As Built 5-13-58.
[Signature]
 Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION

APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5 TH ST. BRIDGE	
FOUNDATION PLAN I	
SCALE: 1" = 40'	DATE: 3-4-57 DWG: 2

APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE No. 5769



Corrected to As Built 5-13-58.
Fred M. Bawer
 Res. Eng.

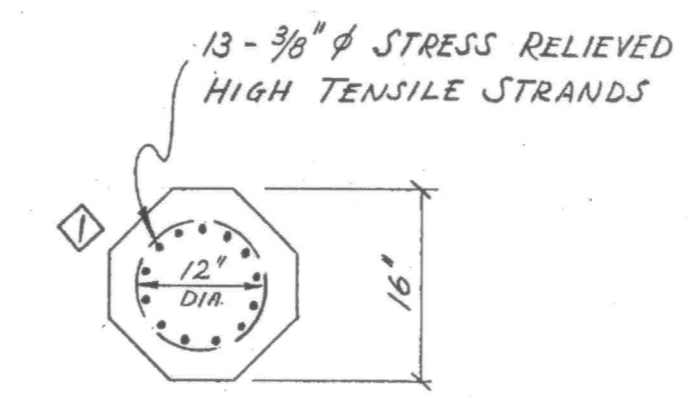
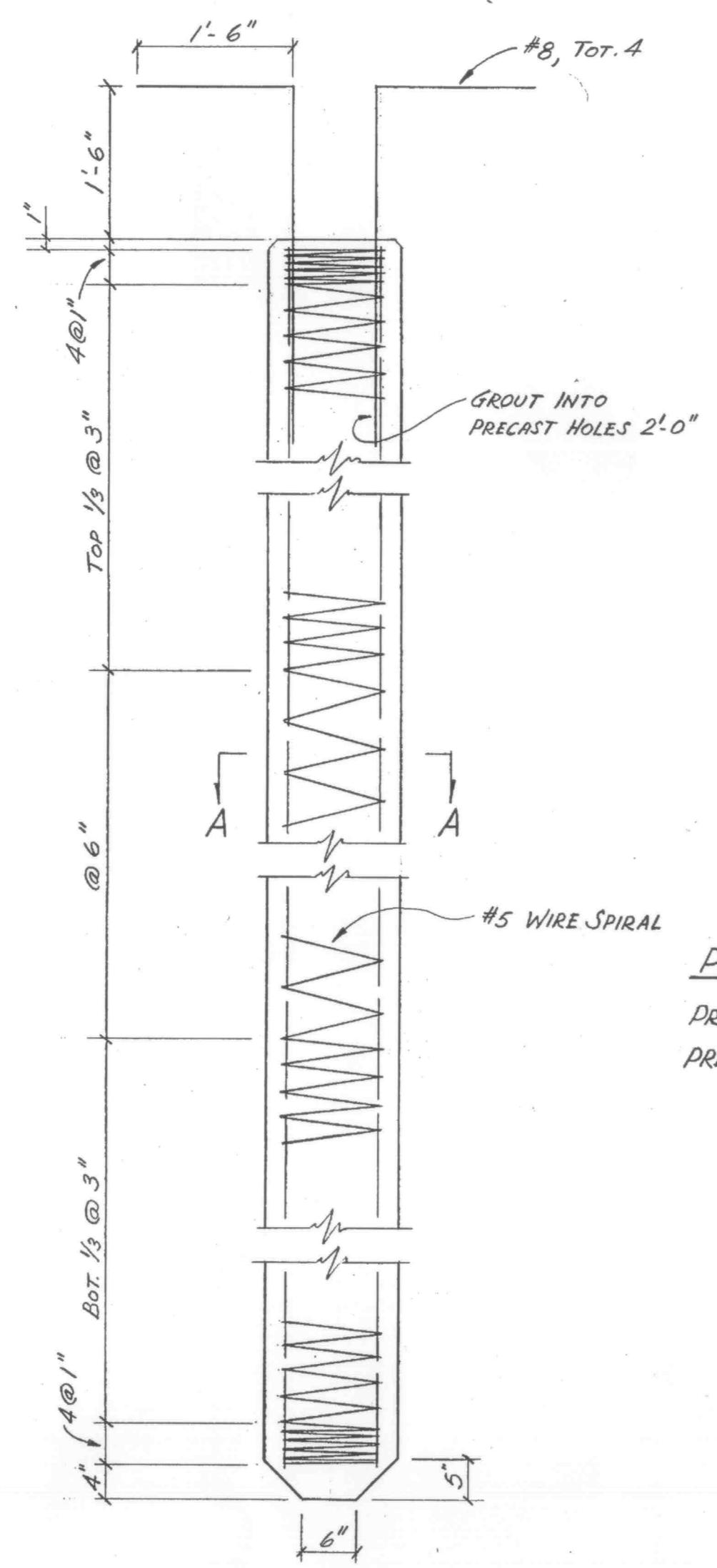
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 ENGINEERING DIVISION

APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5 TH ST. BRIDGE	
FOUNDATION PLAN II	
SCALE: 1" = 40'	DATE: 3-6-57 DWG: 3

EL 15-20

APPROVED *M. Westlund*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE #5769



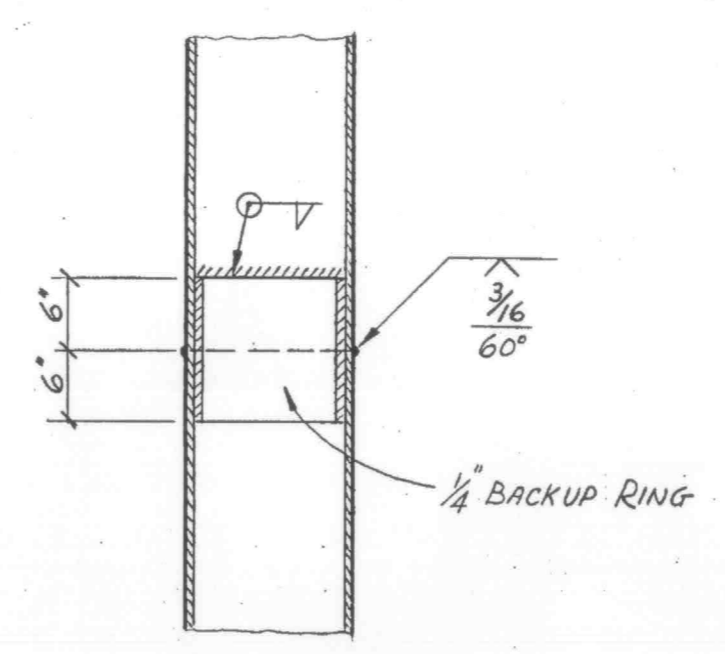
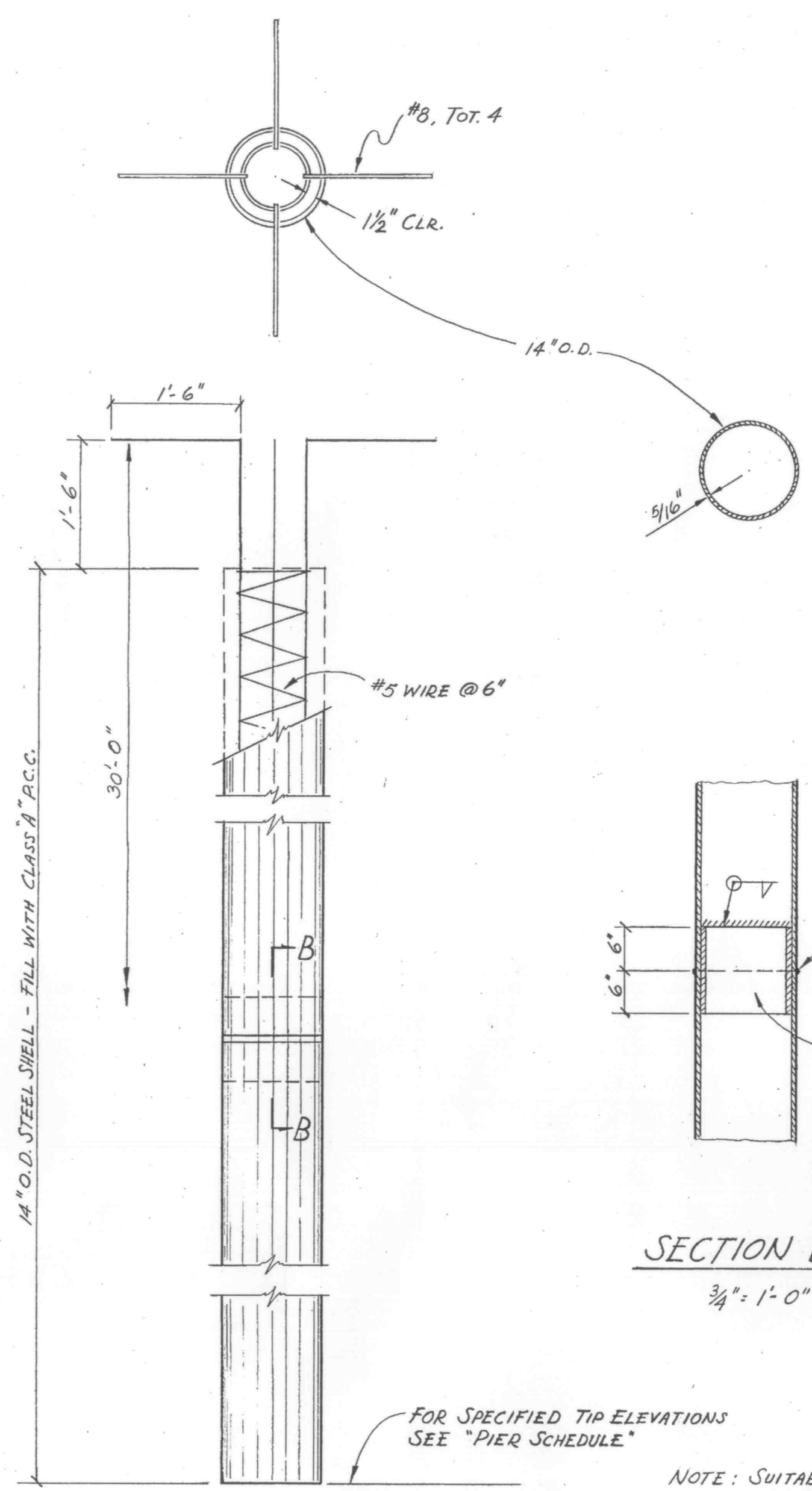
SECTION A-A
 3/4" = 1'-0"

PILE NOTES
 PRECAST CONCRETE: $f'_c = 5000$ PSI
 PRESTRESSING FORCE: WORKING FORCE = 151,000 #/ PILE.
 = FORCES AFTER LOSSES
 DUE TO CREEP AND
 SHRINKAGE OF CONCRETE
 AND CREEP OF STEEL
 ARE COMPLETED.
 LOSS OF STRESS IN PRESTRESSING STEEL SHALL BE
 ASSUMED TO BE 30,000 PSI.

PRECAST PRETENSIONED
 CONCRETE PILES
 3/4" = 1'-0"

This type used. 1 1/2" Jet pipe in each.

NOTE: DESIGN LOAD 55 TONS
 DRIVE TO 85 TON BEARING
 See "Pile Book" for driving results.



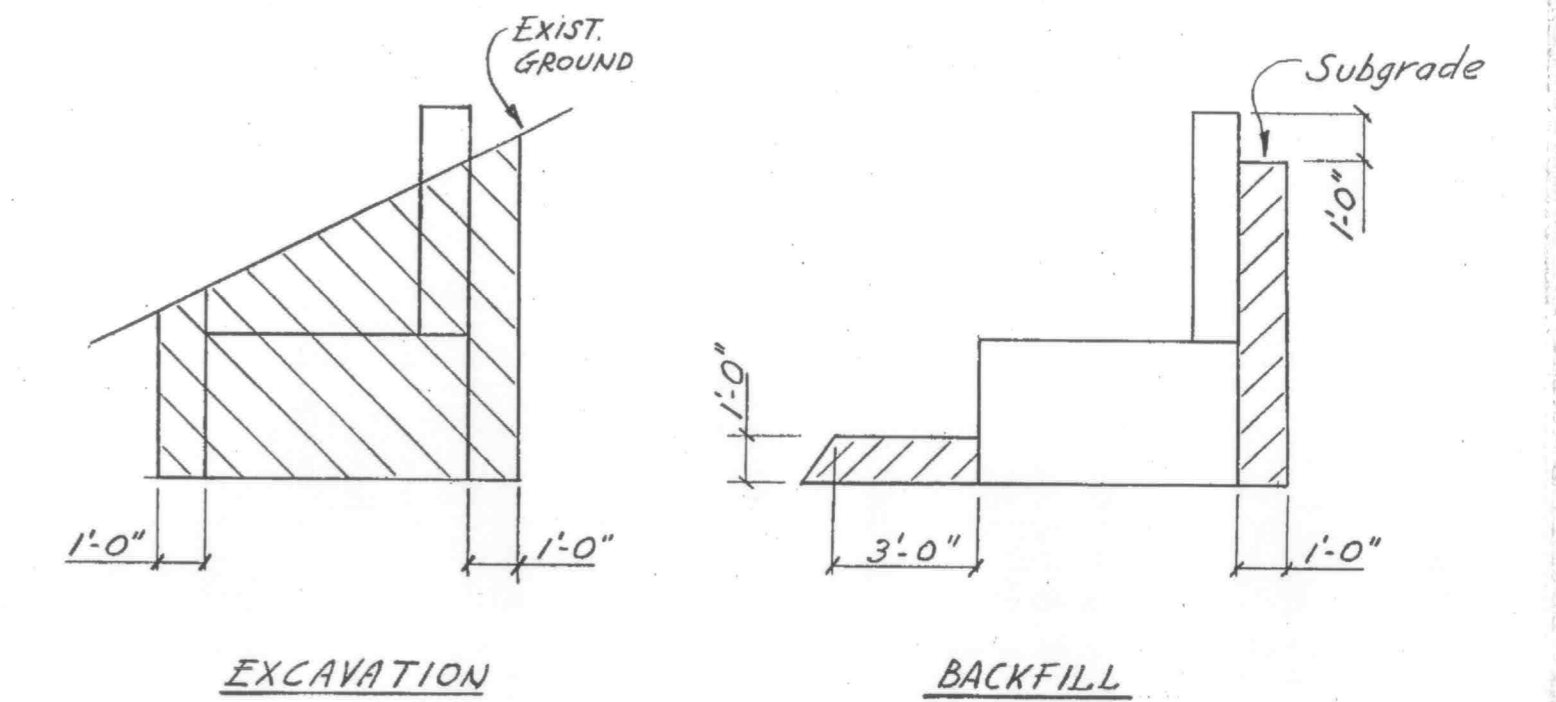
SECTION B-B
 3/4" = 1'-0"

14" O.D. STEEL SHELL - FILL WITH CLASS "A" CONC.

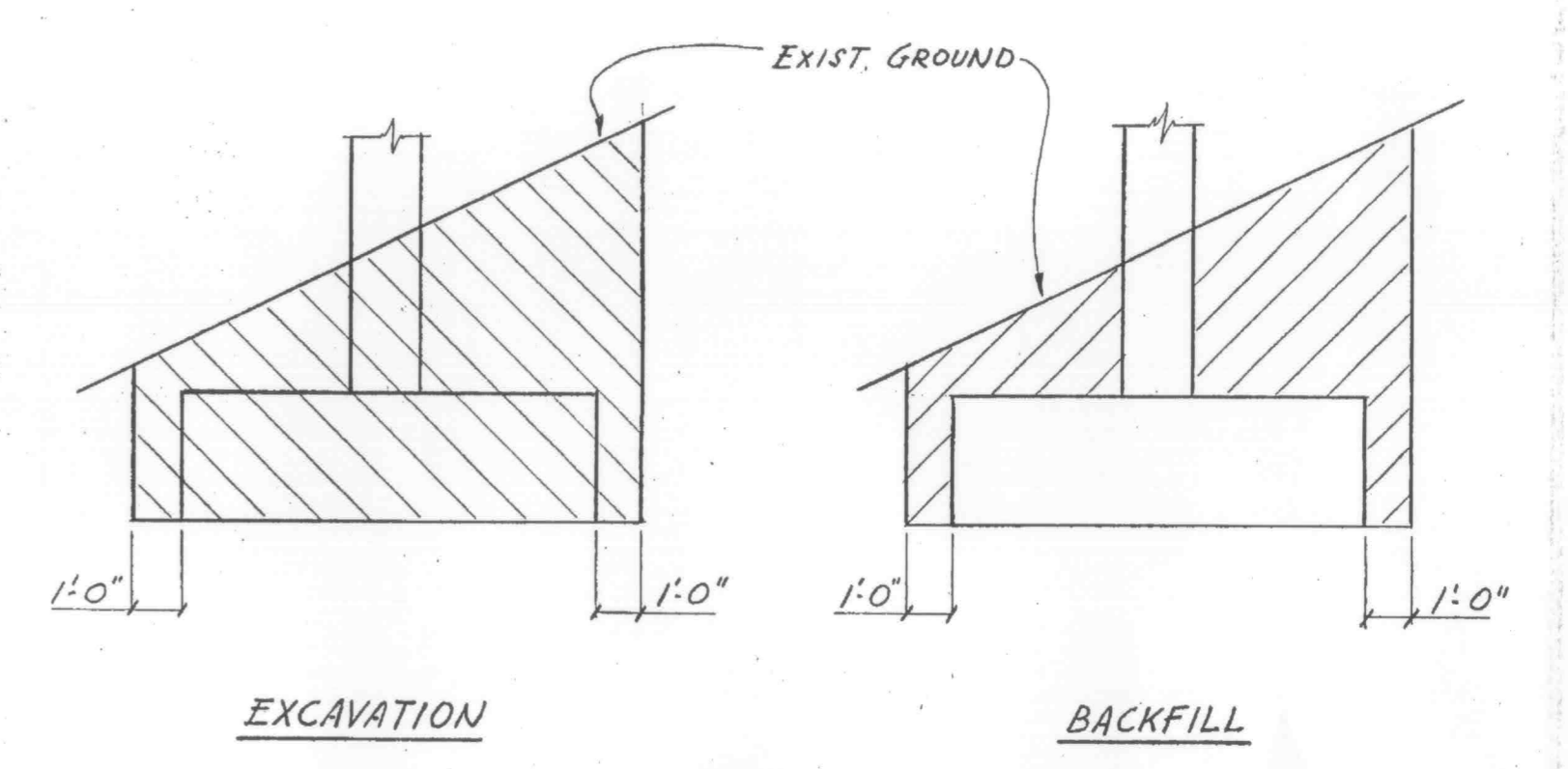
FOR SPECIFIED TIP ELEVATIONS
 SEE "PIER SCHEDULE"

NOTE: SUITABLE DRIVING SHOE
 MAY BE REQUIRED.
 SEE SPECIFICATION PROVISIONS.

PIPE PILE DETAILS
 3/4" = 1'-0"
 Not Used.



EXCAVATION BACKFILL
 ABUTMENTS
 1/4" = 1'-0"



EXCAVATION BACKFILL
 PIERS
 1/4" = 1'-0"

LIMITS OF PAYMENT FOR STRUCTURE
 EXCAVATION & STRUCTURE BACKFILL

NOTE: SEE SPECIAL PROVISIONS FOR
 PIERS 3, 4 & 5.
 NO PAYMENT FOR BACKFILL FOR PIERS 3 THROUGH 20.

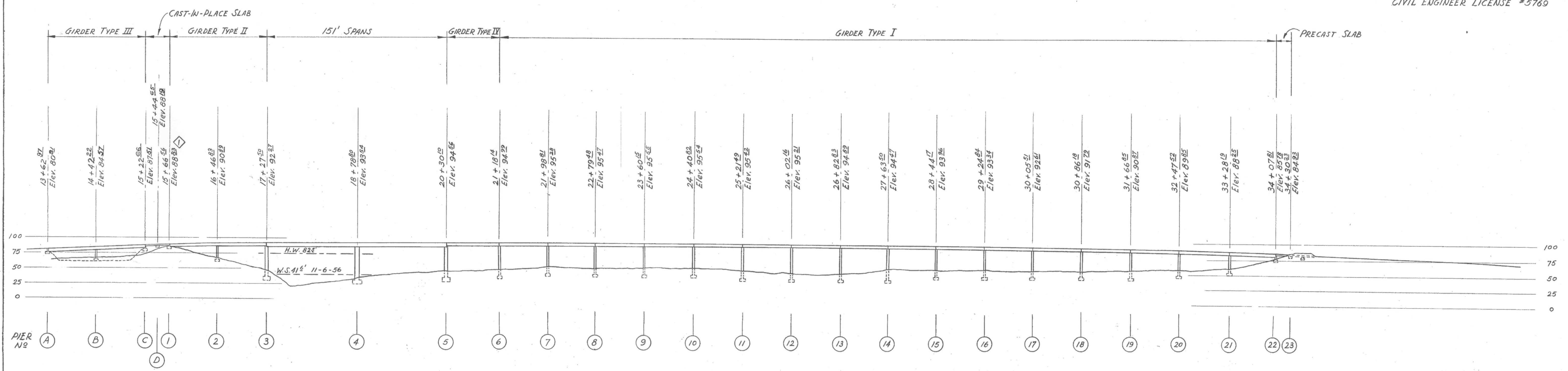
REVISIONS	DESCRIPTION	DATE	BY
1	Changed dimension of spiral dia. - Sec. A-A	5-31-57	WJ

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *W. J. Gerwick*
 CIVIL ENGINEER LICENSE 6913

Corrected to As Built 5-13-58.
Jud M. Sawyer
 Res. Eng.

SUTTER & YUBA COUNTIES
5 TH ST. BRIDGE
PILE DETAILS
SCALE: AS SHOWN DATE: 3-15-57 DWG. 4

APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE #5760



BEARING TYPE																							
E	F	F	E	-	E	F	E	F	E	F	F	E	F	E	F	E	F	E	F	E	F	E	F
PIER TYPE																							
ABUT. A	B	ABUT. C	D	ABUT. I	Q	T	S	T	R	P	P	P	P	R	R	R	R	P	P	P	P	Q	Q
72.3	60.3	79.1	84.54	81	60	30	25	30	35	40	40	40	40	35.5	35.7	35.5	36.0	40	40	40	40	45	50
9	12	9	5	9	12	22	42	22	22	18	18	18	18	20	20	20	20	18	18	18	18	16	14
SPECIFIED PILE TIP ELEV. See "Pile Book" for As Built elevs. which vary only slightly from these Specified.																							
+22	+10	+30	+30	+30	+15	-25	-25	-25	-20	-15	-10	-5	-5	-5	-5	-5	-5	0	0	0	0	0	+5

NOTE: Elevations based on U.S.E.D. Datum.

GENERAL NOTES

SPECIFICATIONS:
 DESIGN: A.A.S.H.O. Dated 1953 with subsequent revisions, and Bridge Department supplement dated 1953.
 CONSTRUCTION: Standard Specifications, Division of Highways, dated August 1954 and the Special Provisions.
 LIVE LOADING: H20-S16-44
 UNIT STRESSES:
 REINFORCED CONCRETE: $F_s = 20,000$ P.S.I., $N = 10$ ROADWAY SLAB: $F_c = 1000$ P.S.I.
 $F_c = 1,200$ P.S.I. (Except as noted)
 F_c for prestressed concrete see "Prestressed Girders"
 STRUCTURAL STEEL: $F_s = 18,000$ P.S.I.
 PILE DESIGN LOADING 55 TONS DRIVE TO 85 TON BEARING TYPE: Pipe or Prestressed Concrete
 REINFORCEMENT: Embedment is clear to outside of bar and is 2" to main reinforcement, except as noted. Backing for hooks is four diameters, except as noted.
 Where reinforcing bars are spliced they shall have a 20 diameter lap unless otherwise called for on the plans.

NOTES

For E Bearings, see Dwg. 15 & 18
 For F Bearings, see Dwg. 14 & 19
 For Pier Type Detail, Elevation B and Pile Layout, see Dwgs. 11, 12 & 13.
 SPAN REFERENCES REF DWG.
 Girder Type I - 14 & 15
 " " II - 14 & 15
 " " III - 15
 " " IV - 16 & 17
 Precast Slab - 20
 Cast-In-Place Slab - 7
 151' Spans - 18 & 19

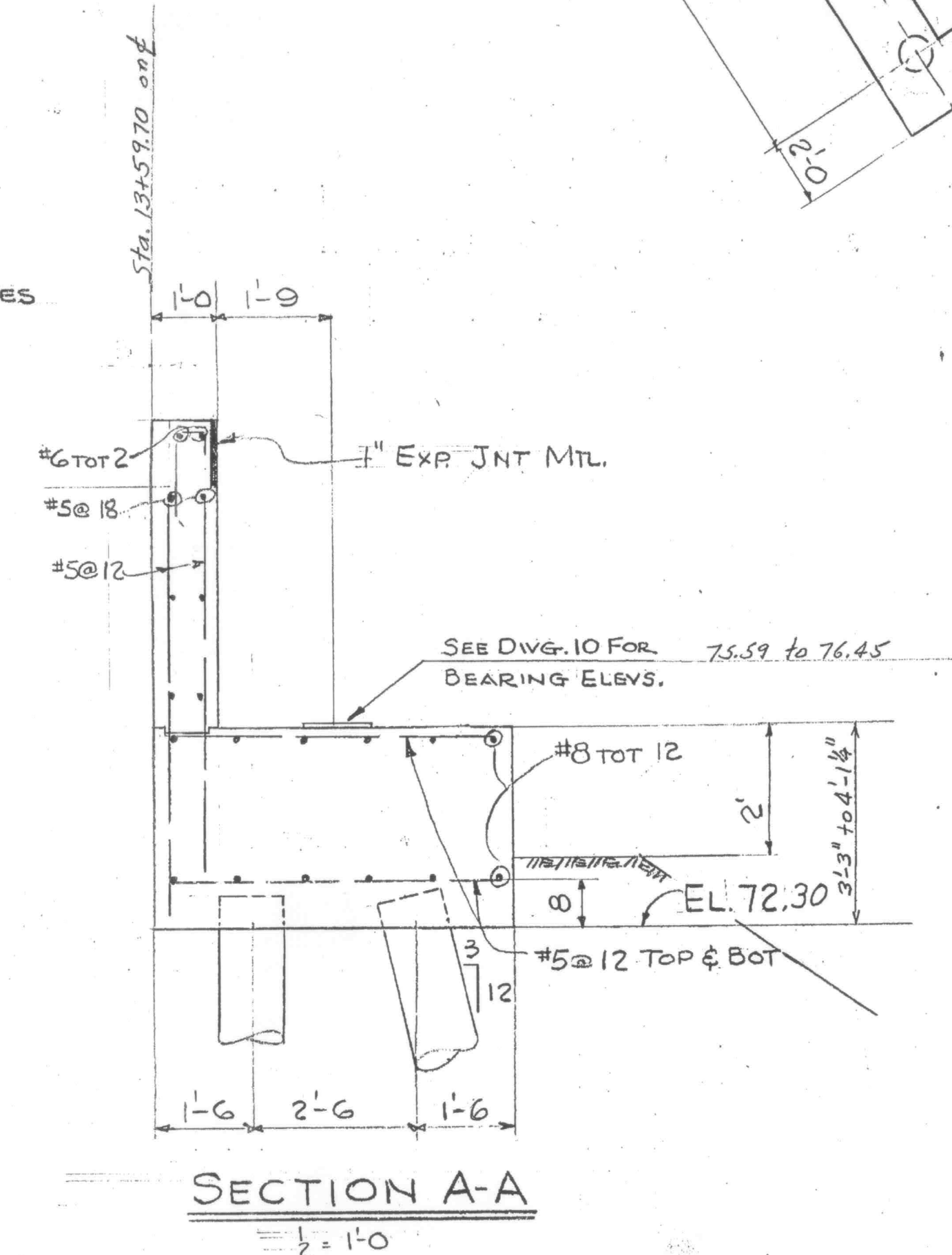
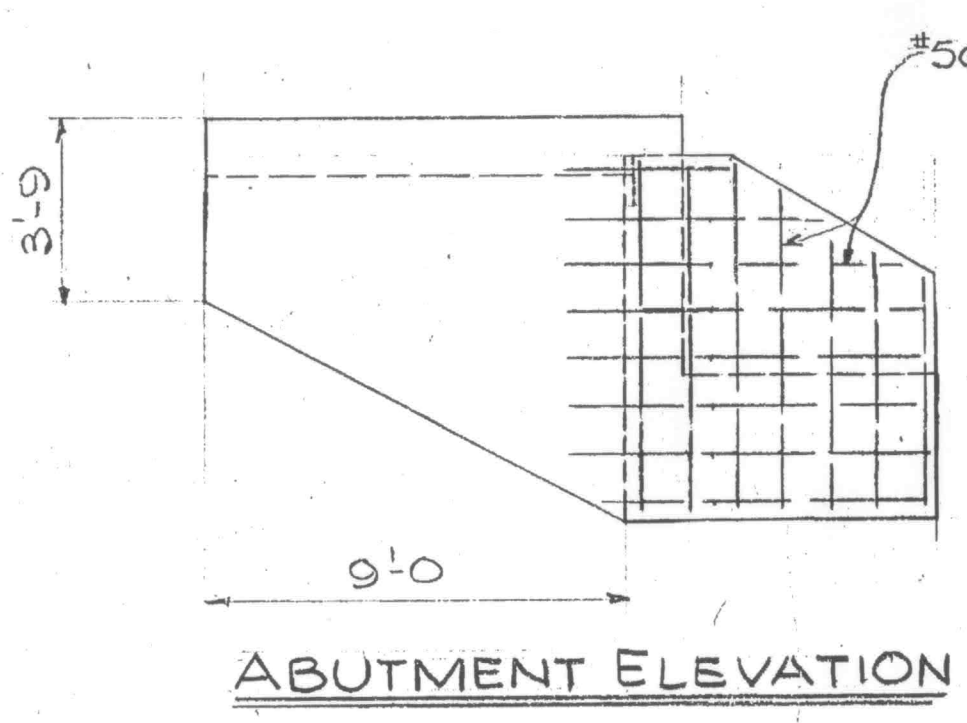
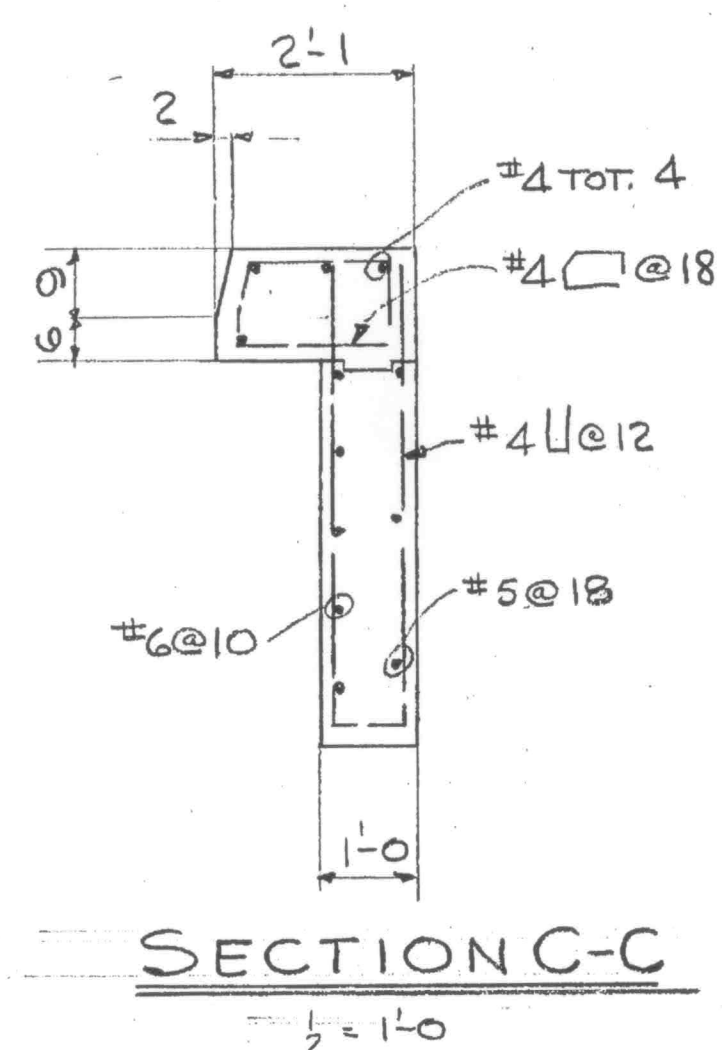
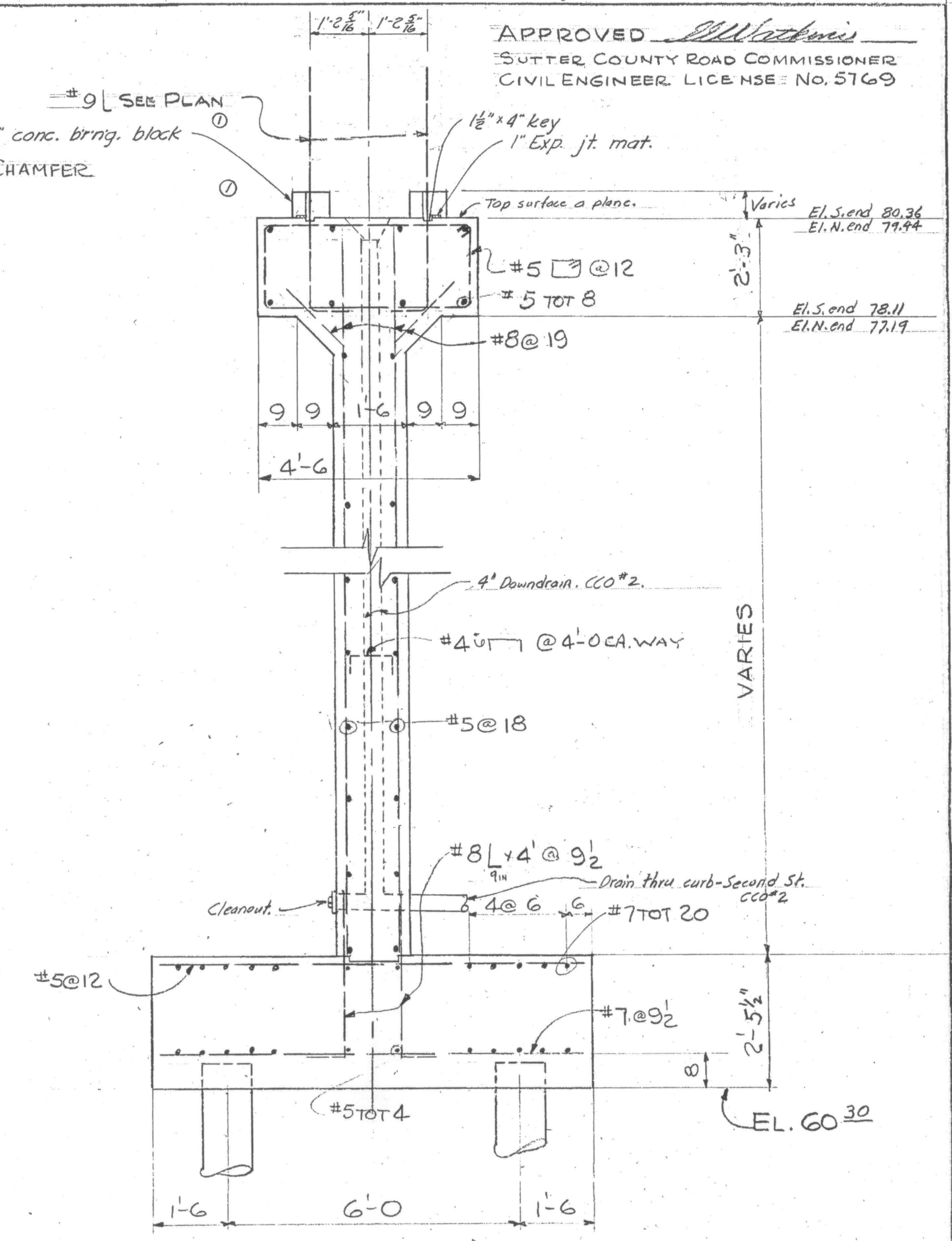
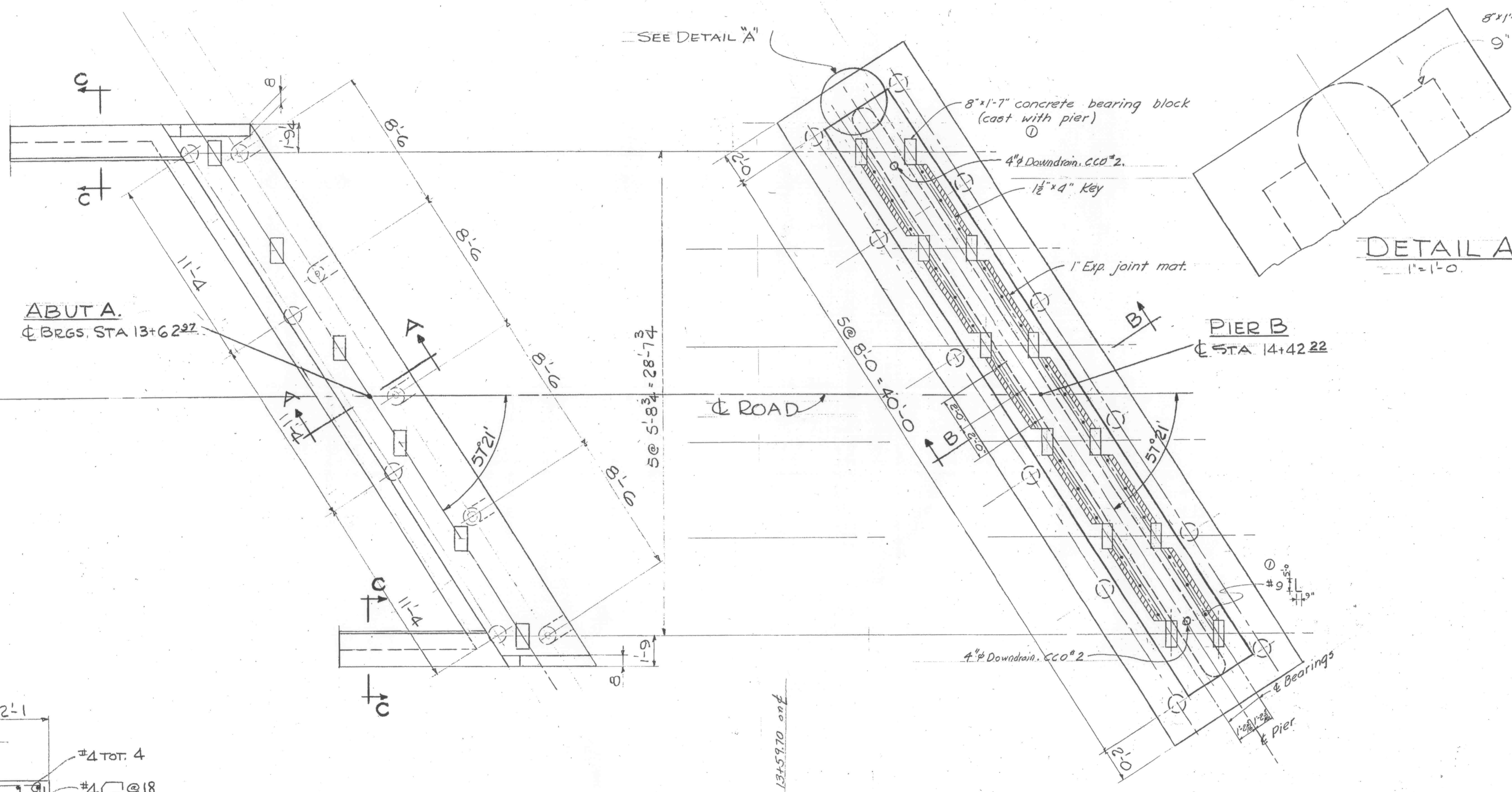
Corrected to As Built 5-13-58
[Signature]
 Res. Eng.

REVISIONS	◆ Changed Elev. @ 15+66.00 from 88.23 to 88.83	LMP
		WMS
		5-20-57

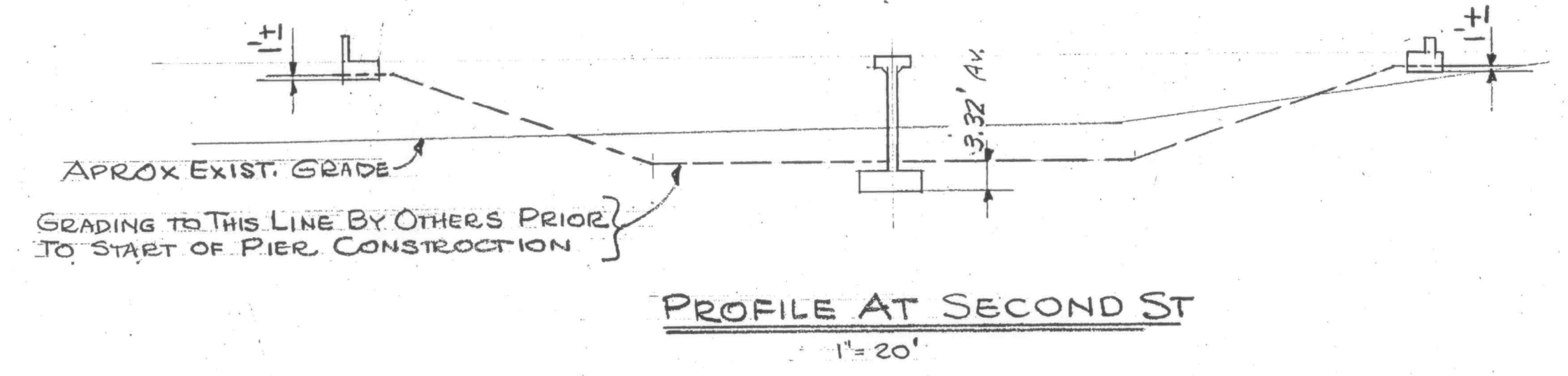
SUTTER & YUBA COUNTIES
 5TH ST. BRIDGE
 PIER SCHEDULE
 SCALE: 1" = 80'-0" DATE: 3-2-57 DWG. 5

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

APPROVED *W. J. ...*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER, LICENSE NO. 5769



SEE SHIT 7 FOR ABUT C.
 SEE SHITS 15 FOR GIRDER DETAILS

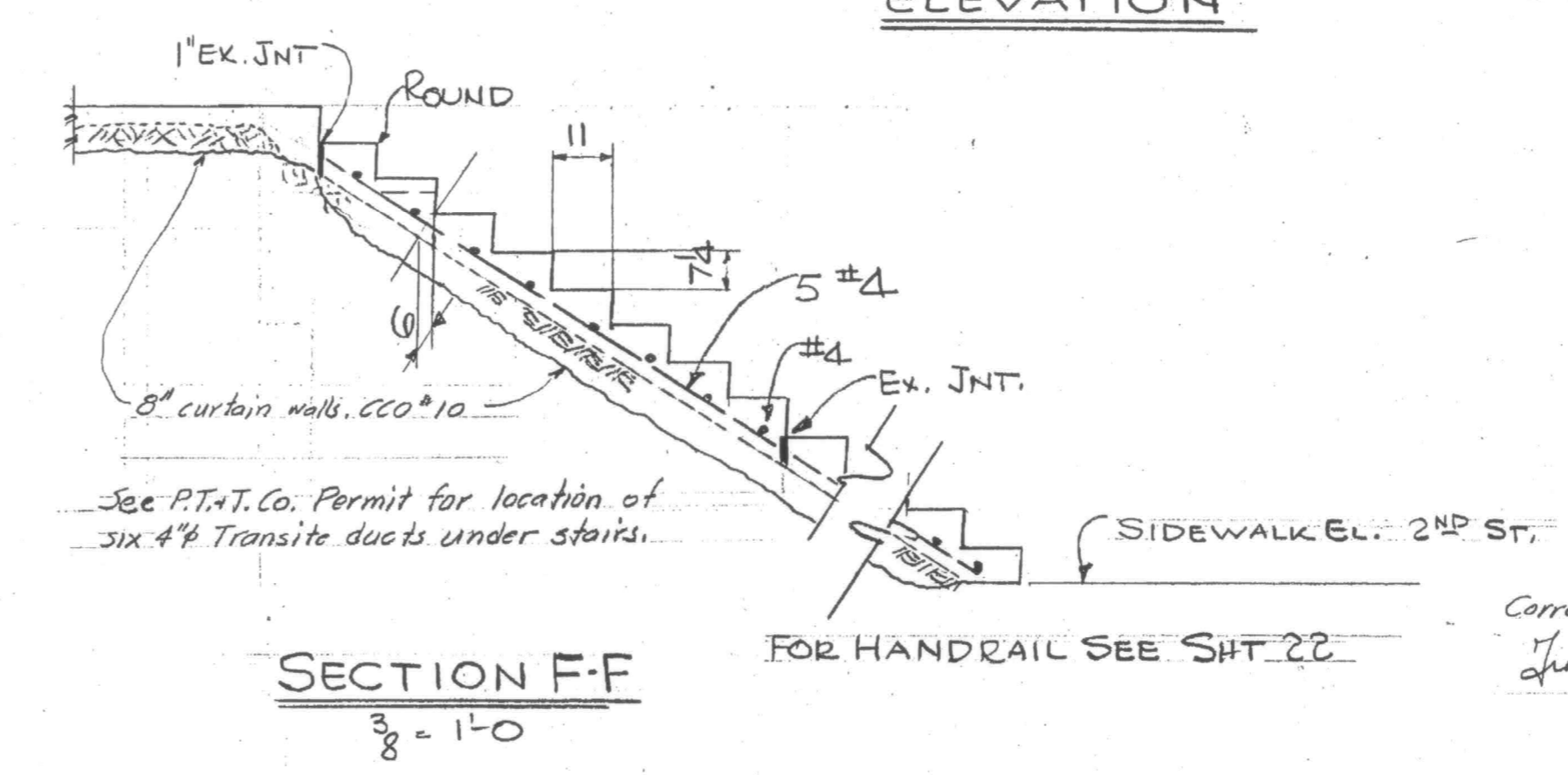
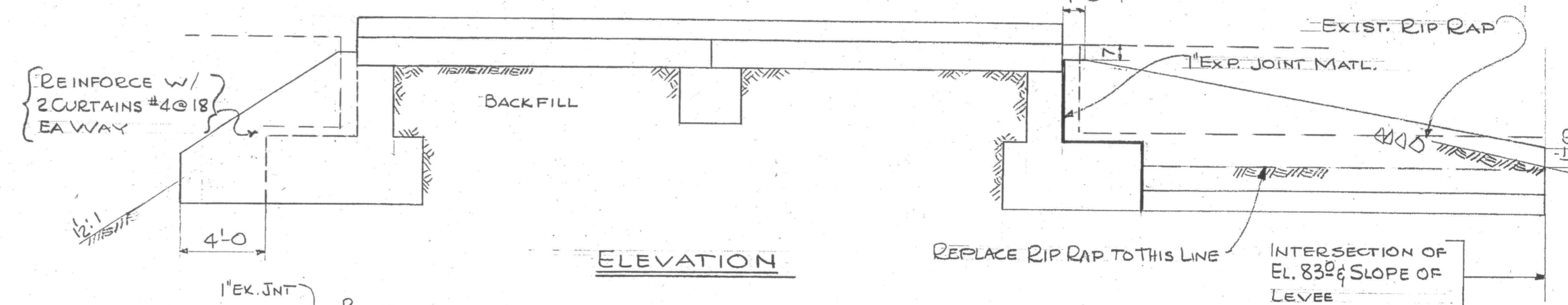
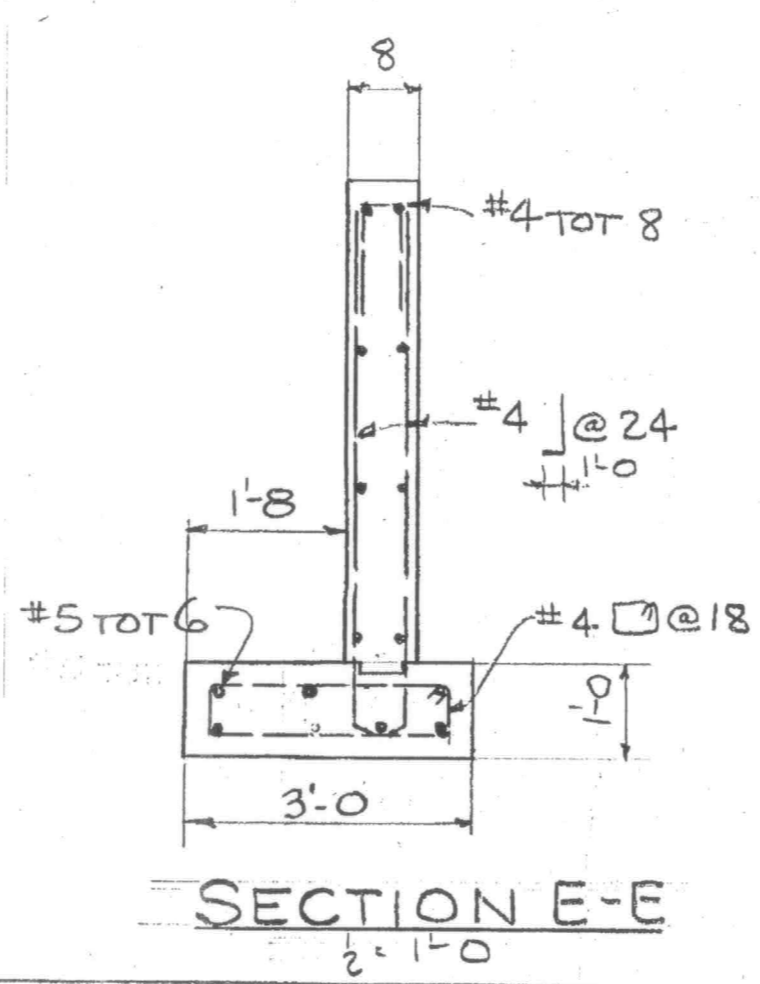
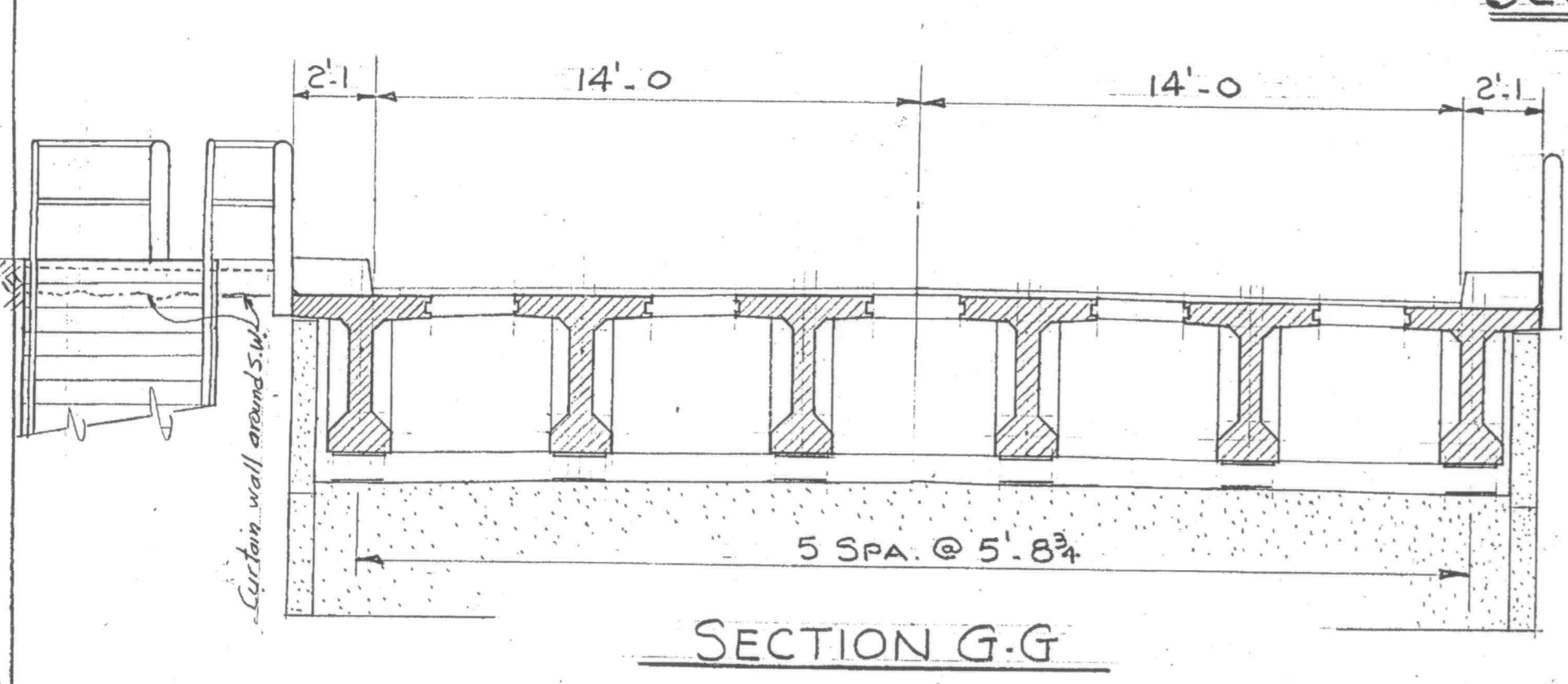
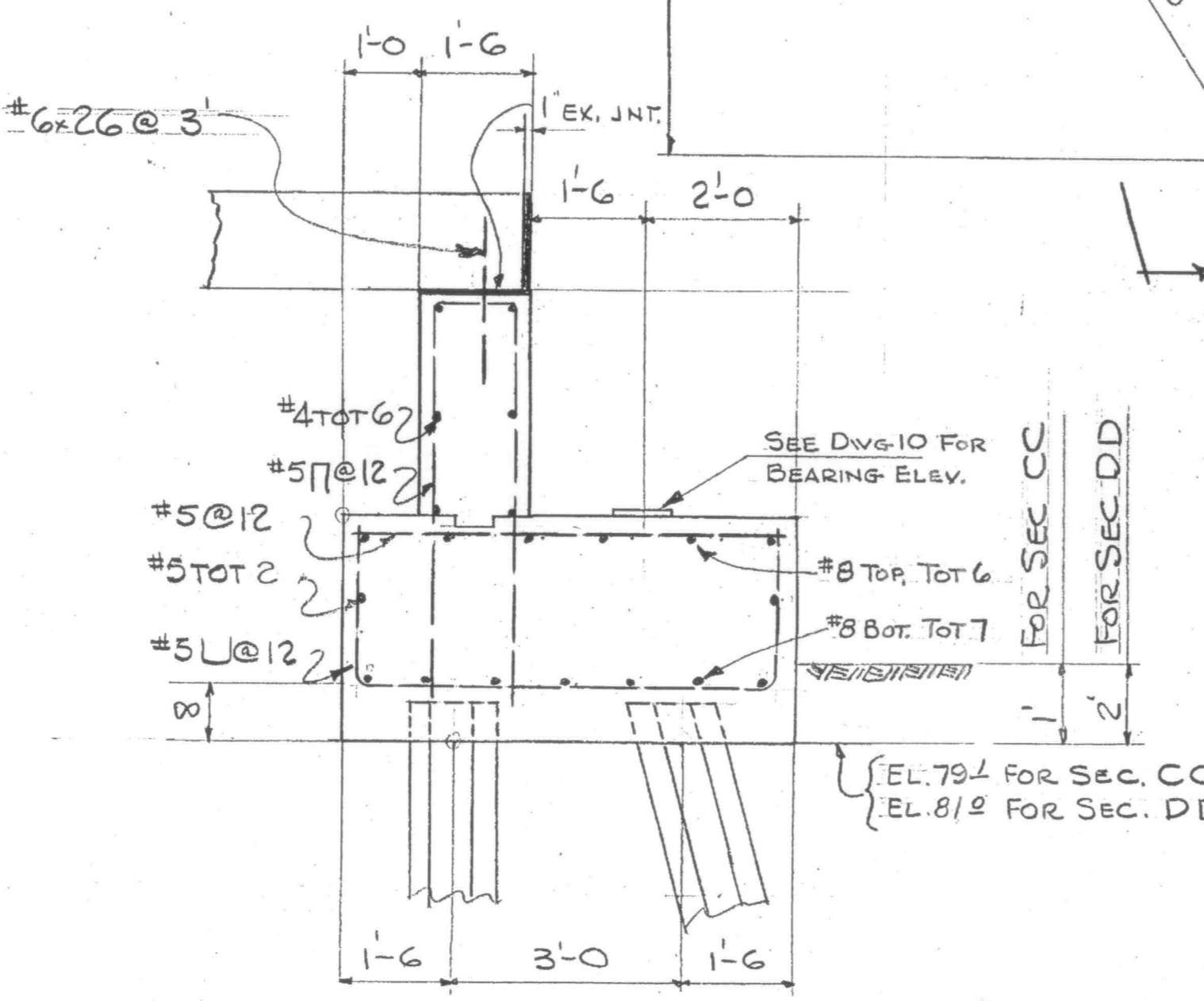
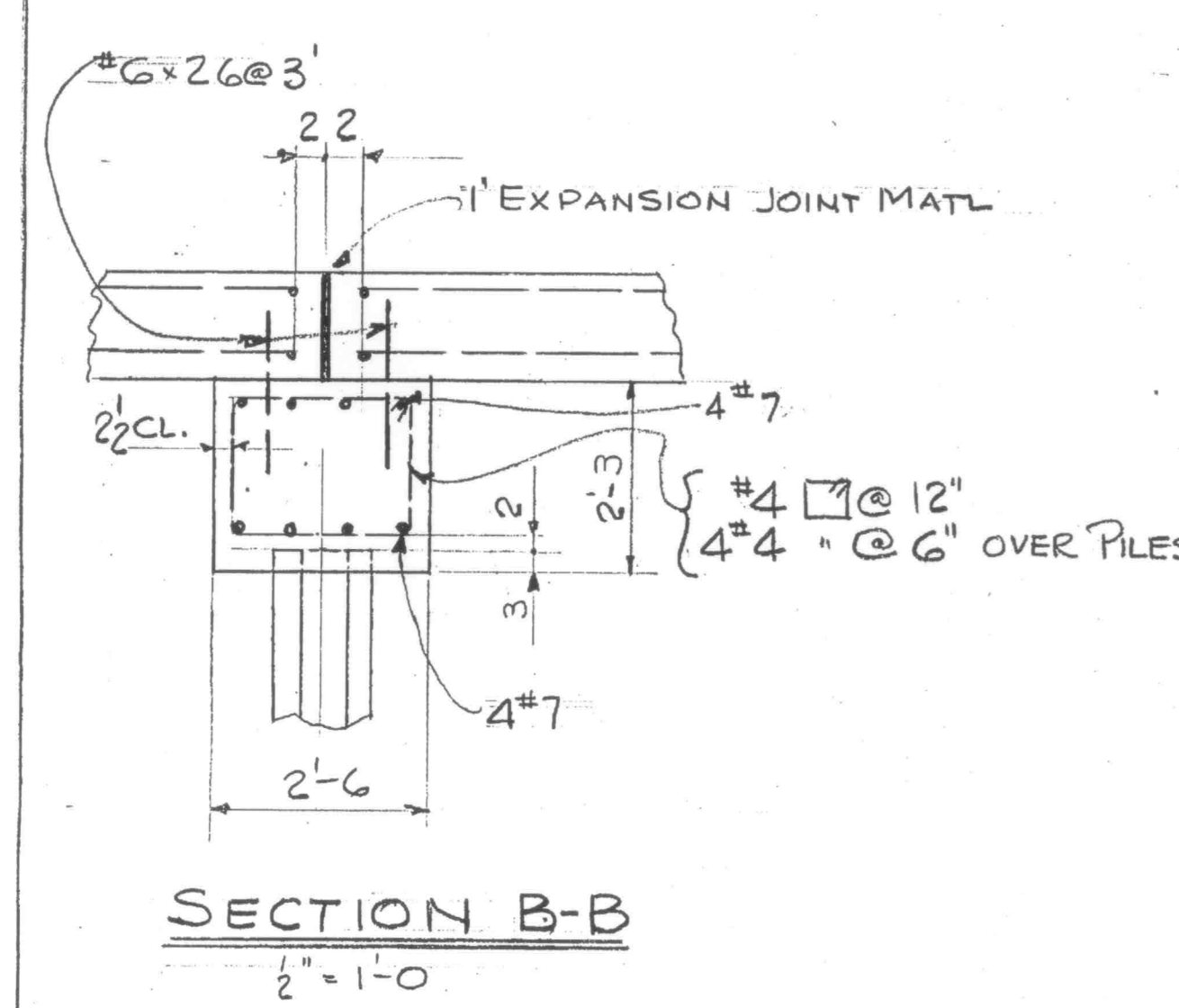
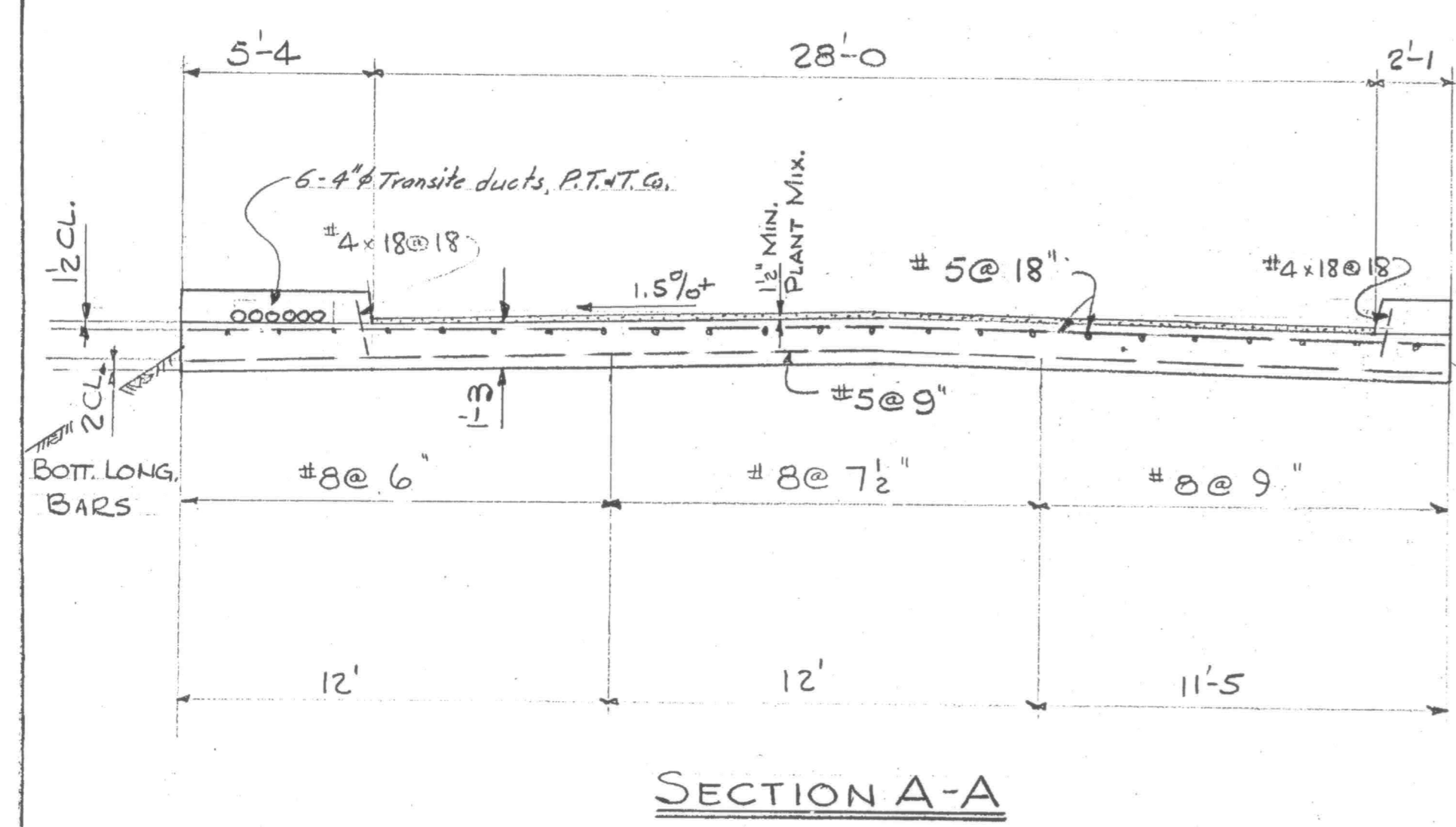
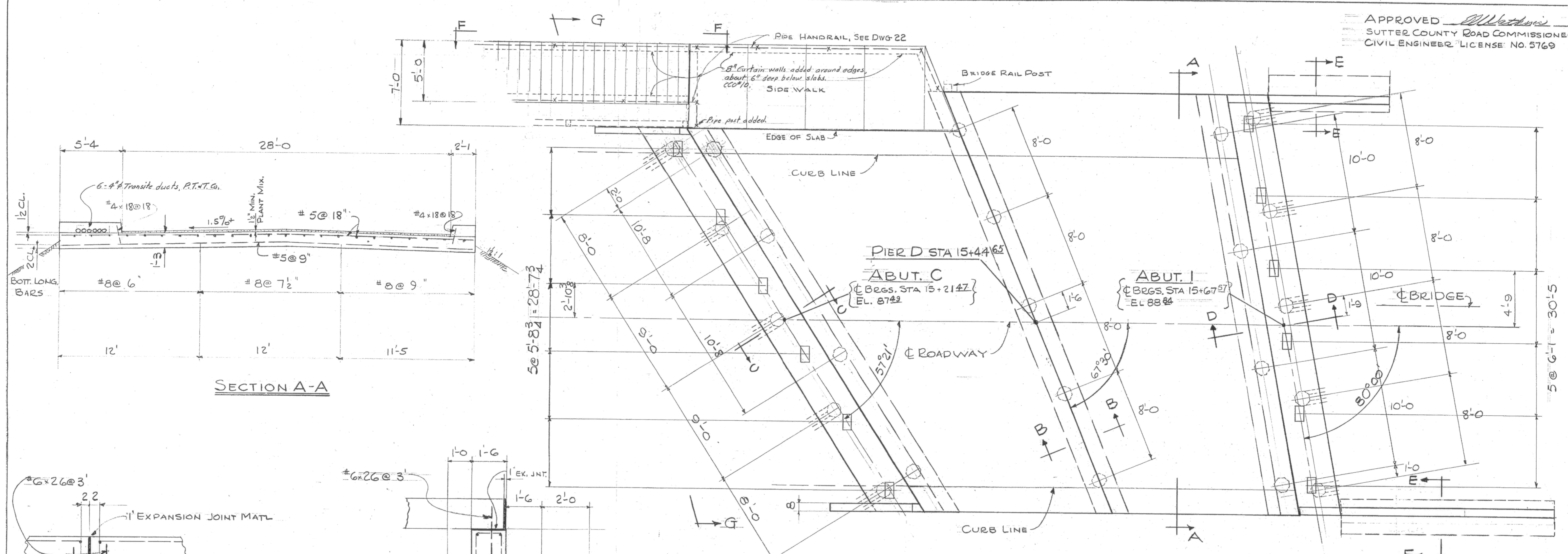


REVISIONS	DESCRIPTION	DATE	BY
1	Changed bearing details and dowl size on top of Pier.	6-18-57	CRF

Corrected to As Built. 5-13-58.
Ed. M. ...
 Res. Eng.
 SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *W. J. ...*
 CIVIL ENGINEER LICENSE 6913

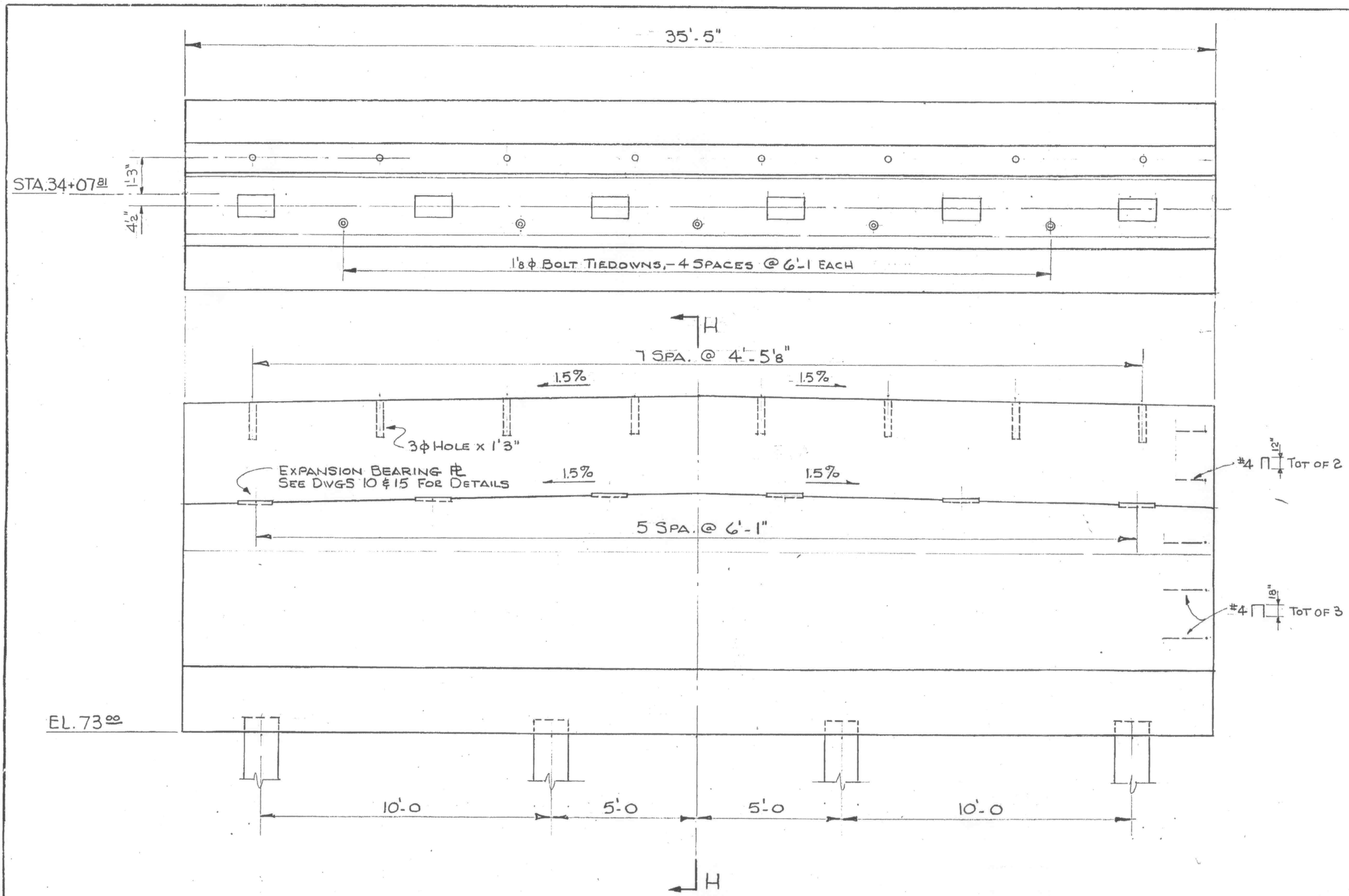
SUTTER & YUBA COUNTIES		
5th St. BRIDGE		
ABUTMENT A - PIER B DETAILS		
SCALE: 1/2" = 1'-0" UN.	DATE: 3-12-57	DRWG: 6

APPROVED *W. J. Taylor*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE NO. 5769

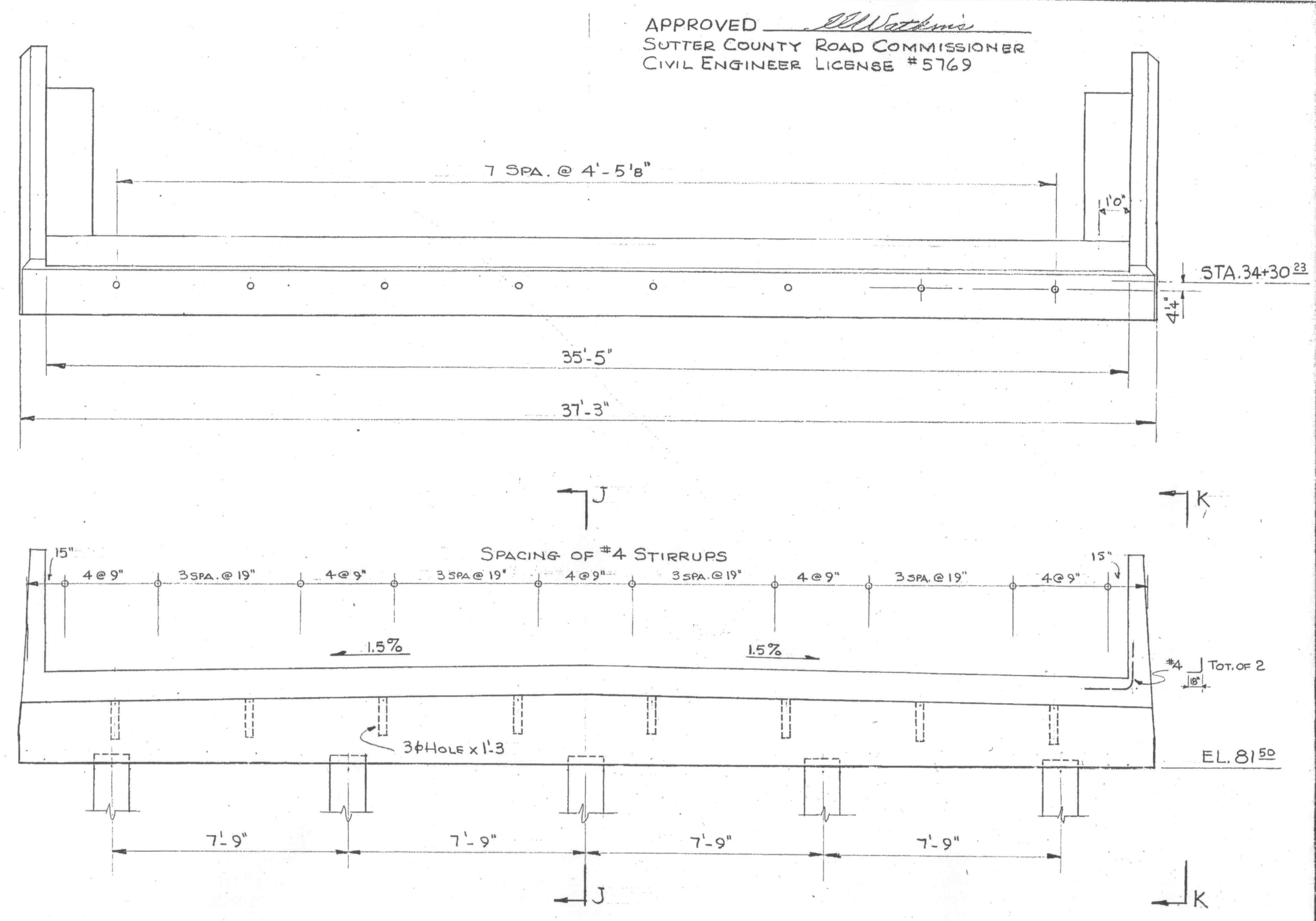


SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *W. J. Taylor*
 CIVIL ENGINEER LICENSE 6913

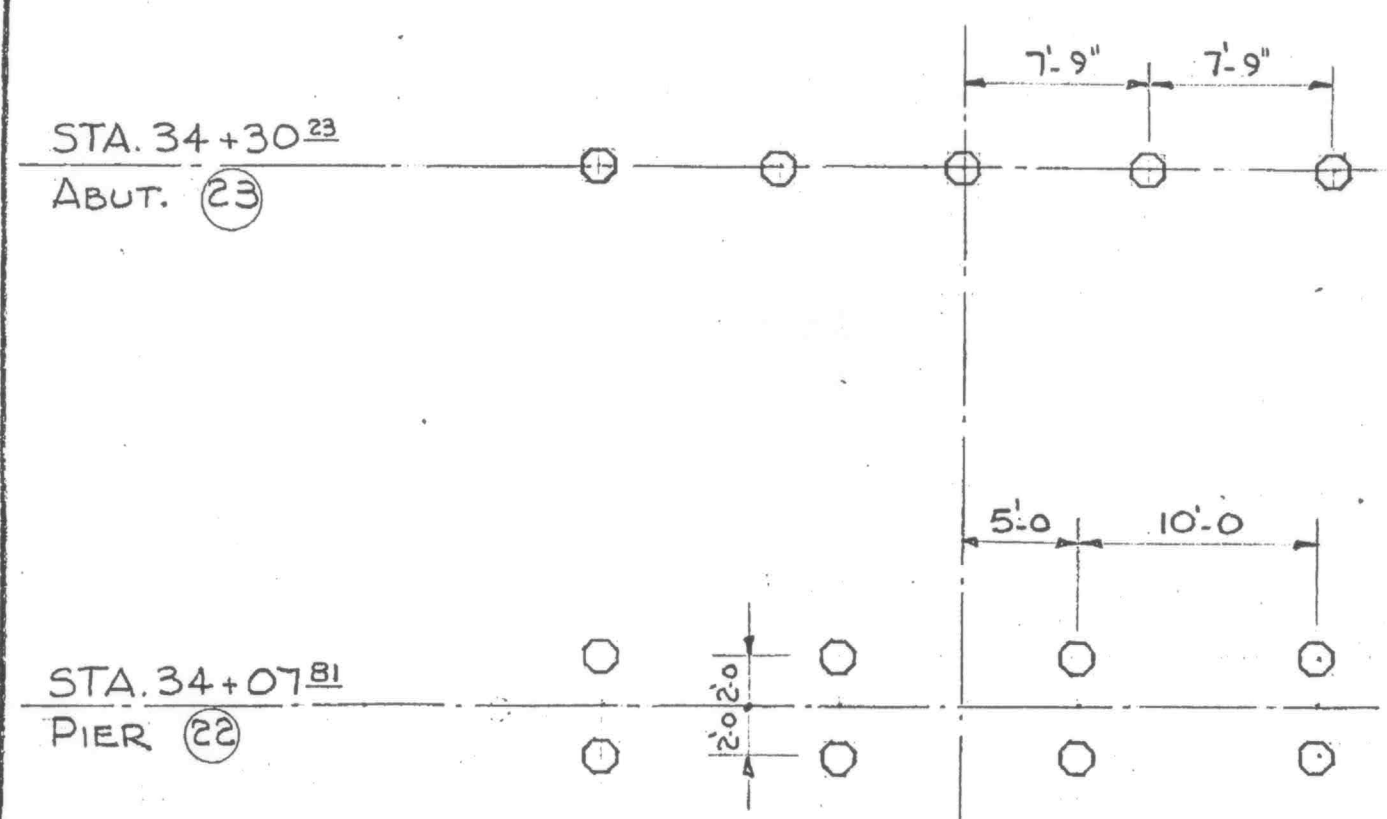
SUTTER & YUBA COUNTIES	
5 TH ST. BRIDGE	
ABUTMENTS C & I PIER D	
SCALE: 4"=10' UN.	DATE: 3-8-57 DWG: Z



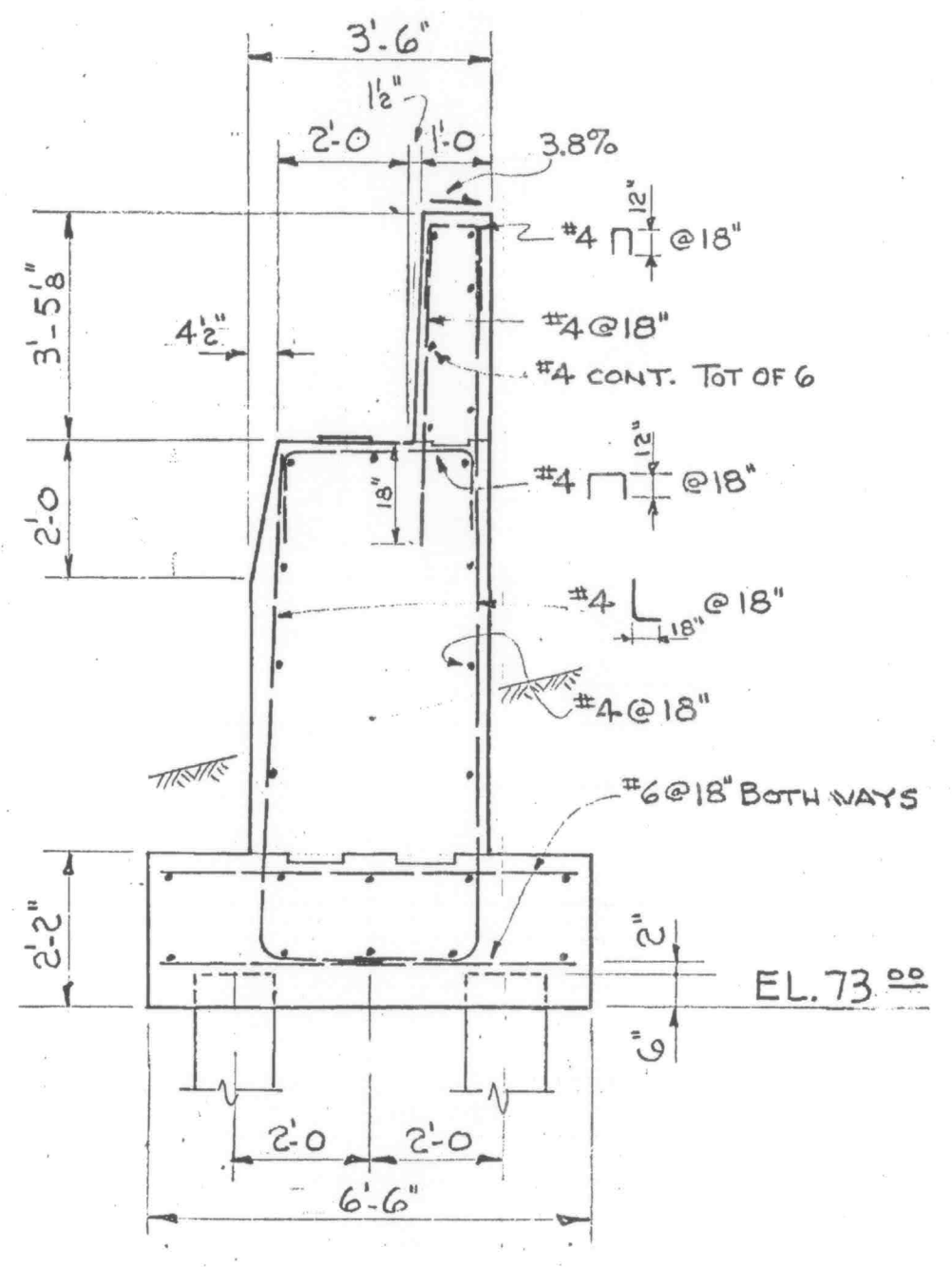
PIER 22, PLAN & ELEVATION
SCALE 3/8"-1'-0"



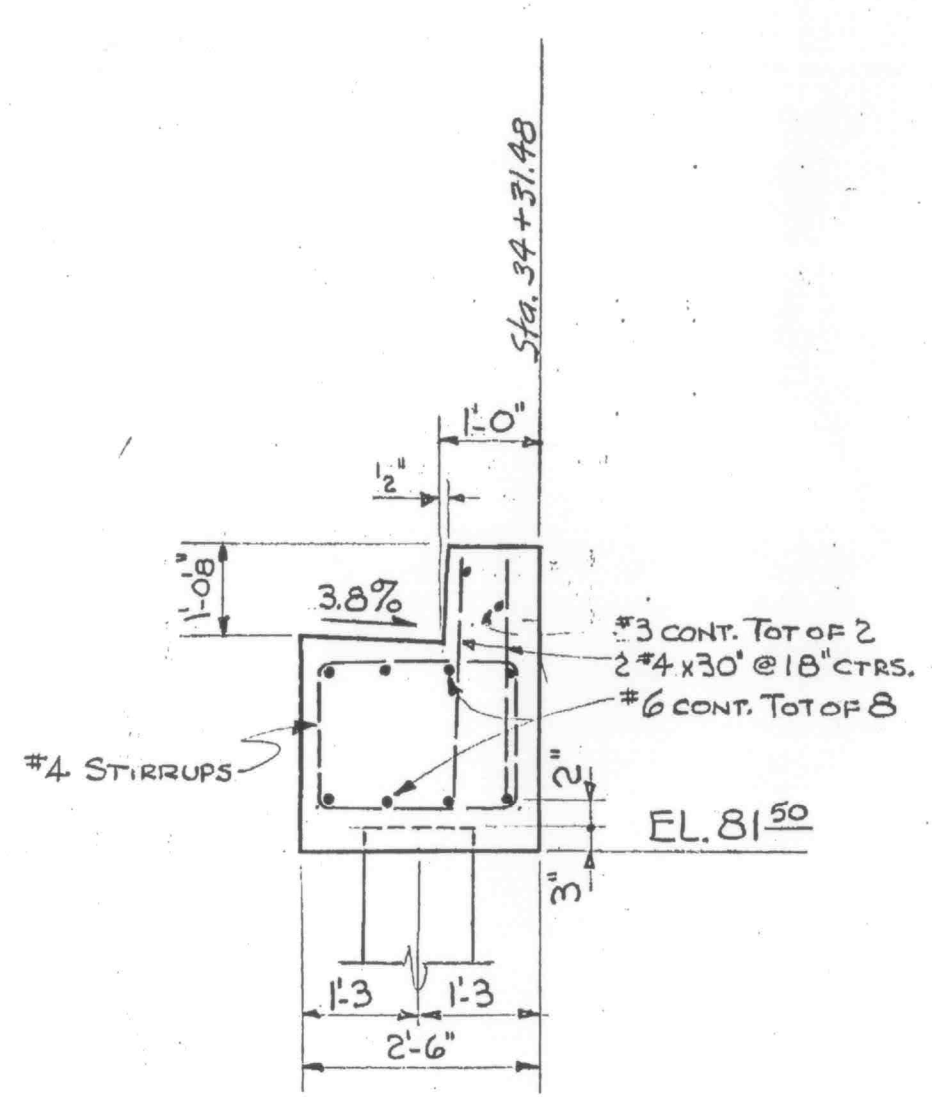
ABUTMENT 23, PLAN & ELEVATION
SCALE 3/8"-1'-0"



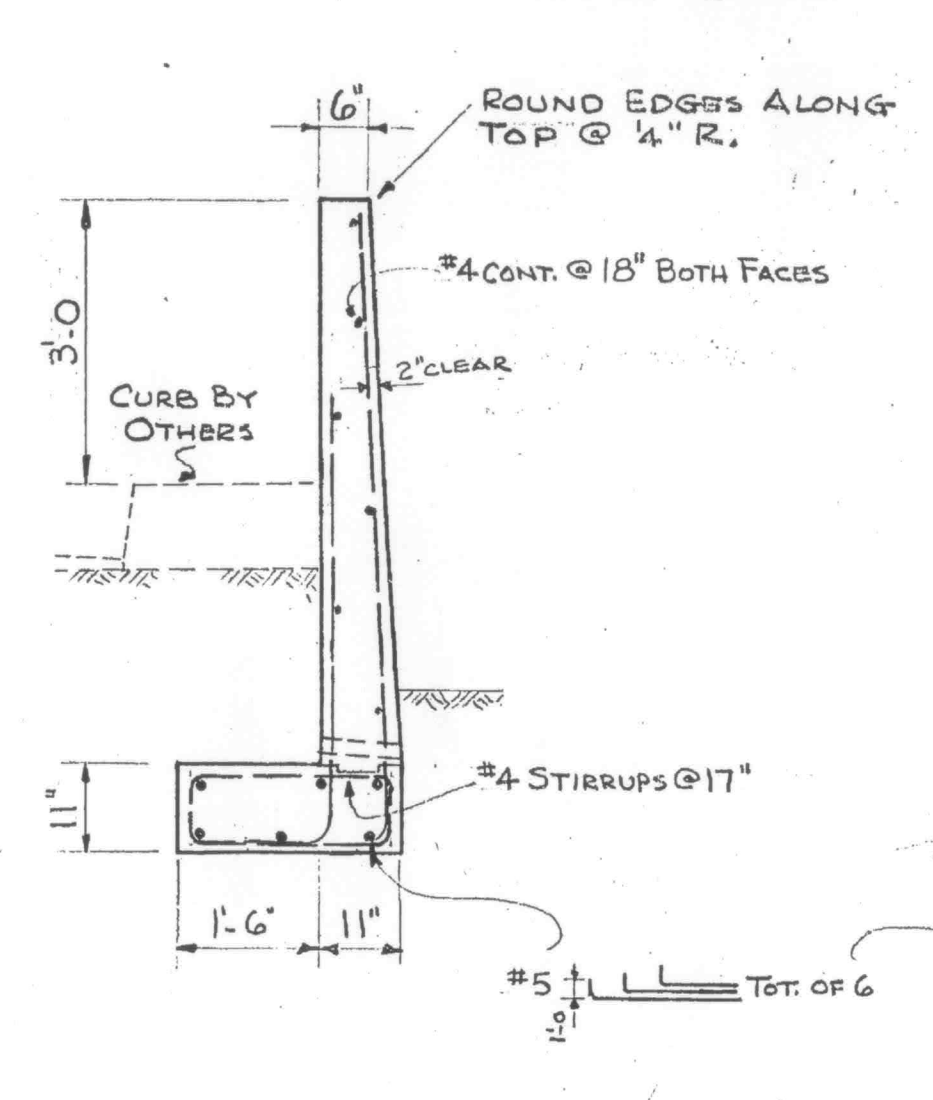
PILE LAYOUT
SCALE 1/8"-1'-0"



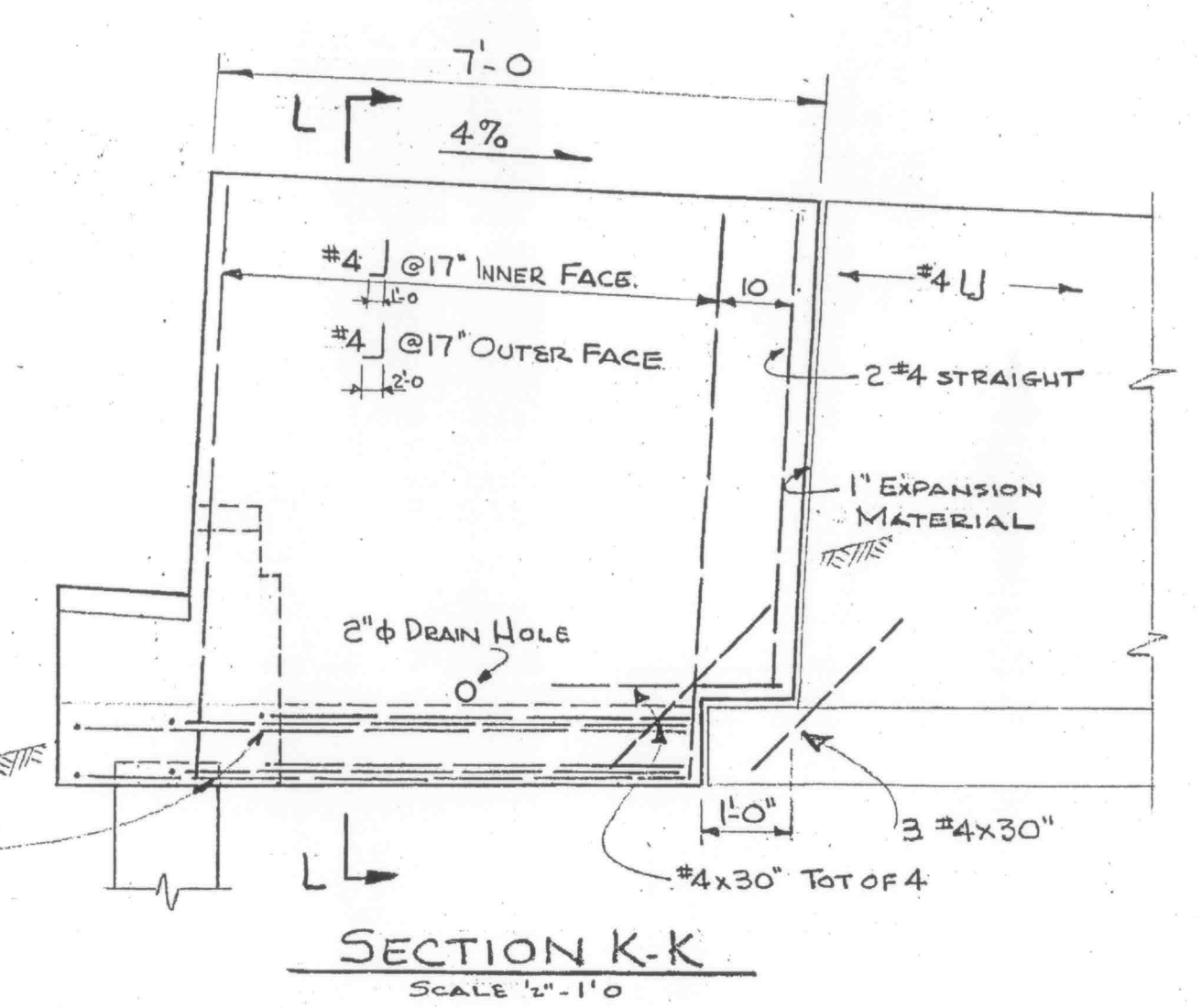
SECTION H-H
SCALE 3/8"-1'-0"



SECTION J-J
SCALE 1/2"-1'-0"



SECTION L-L
SCALE 1/2"-1'-0"



SECTION K-K
SCALE 1/2"-1'-0"

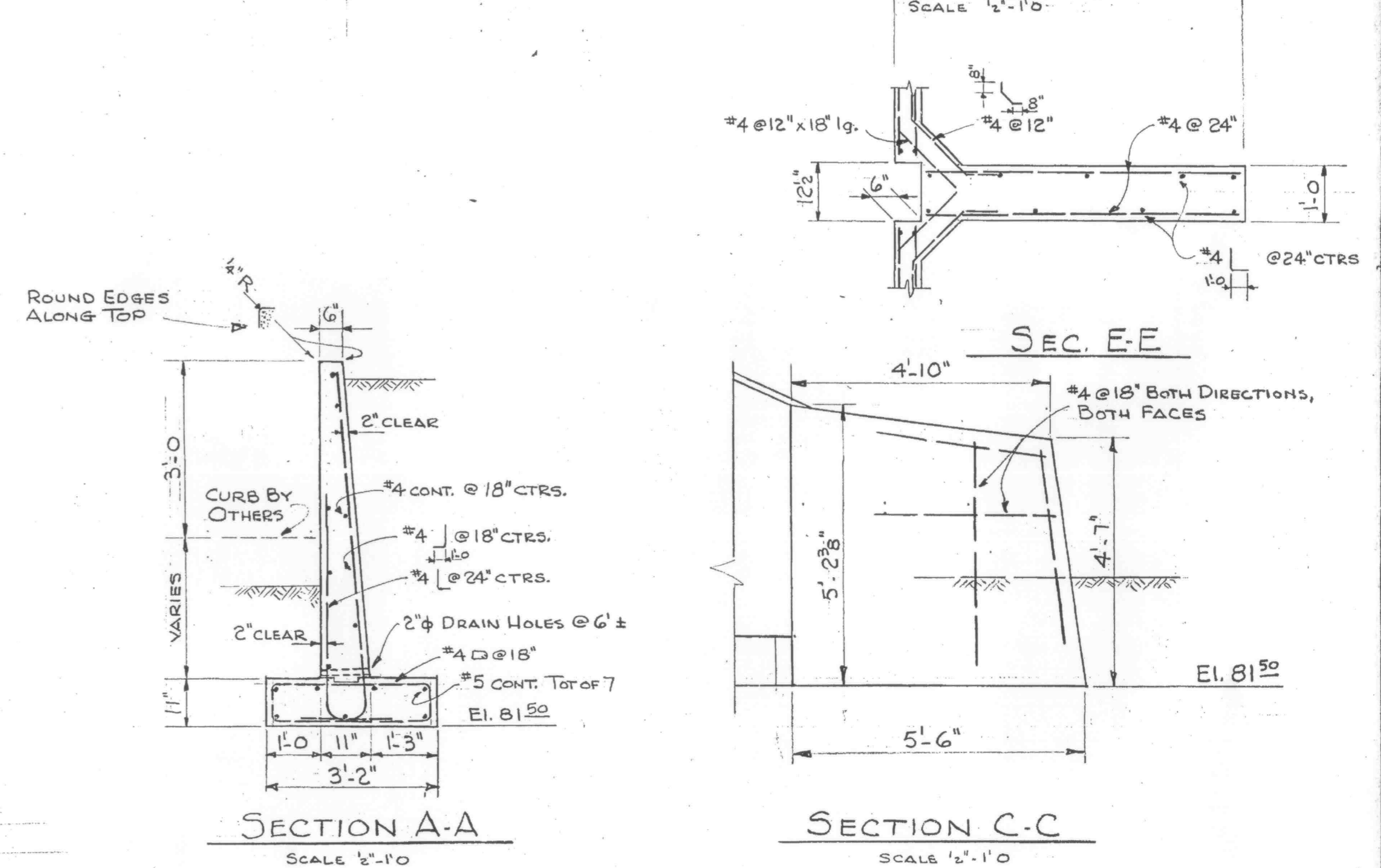
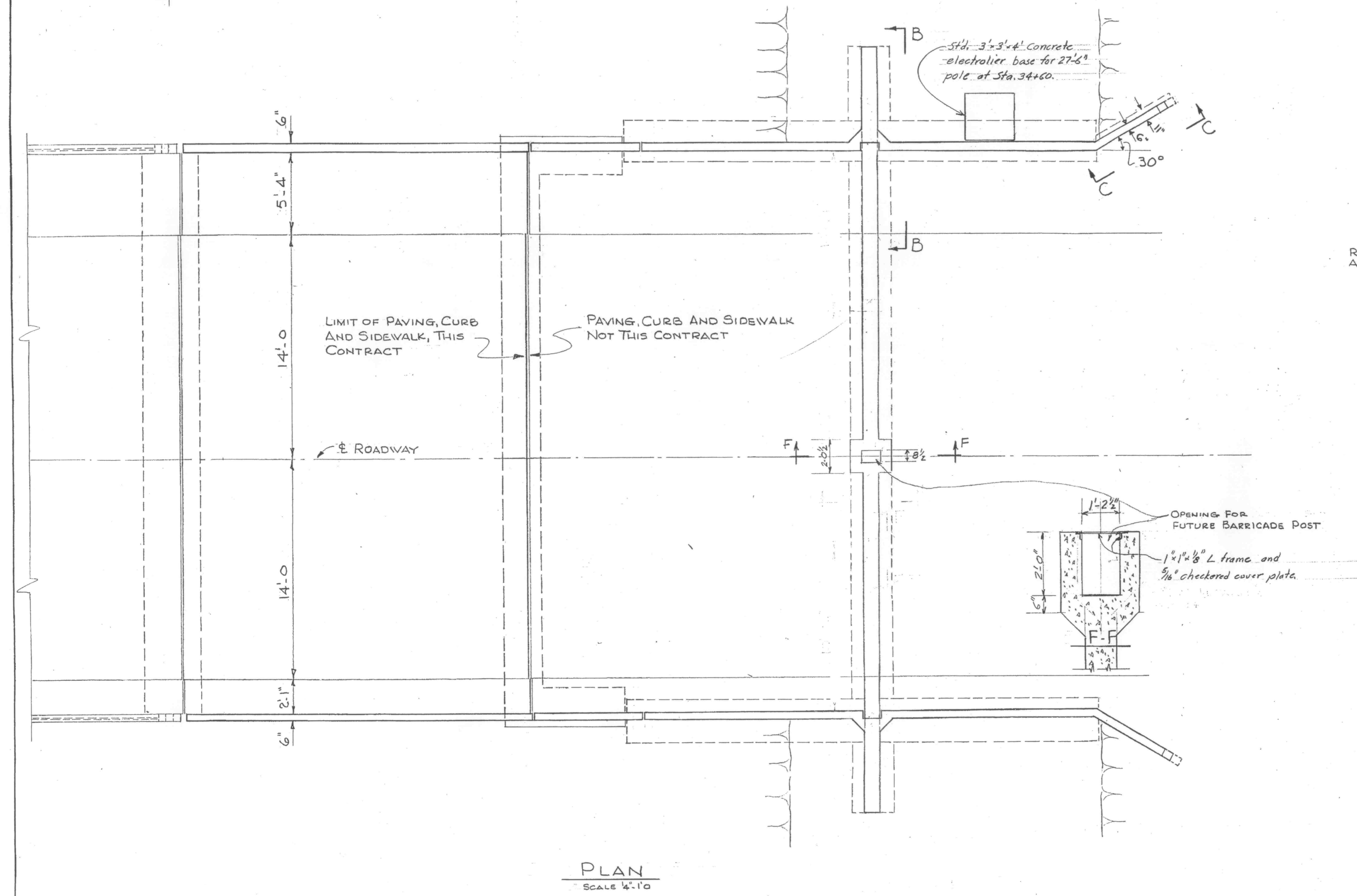
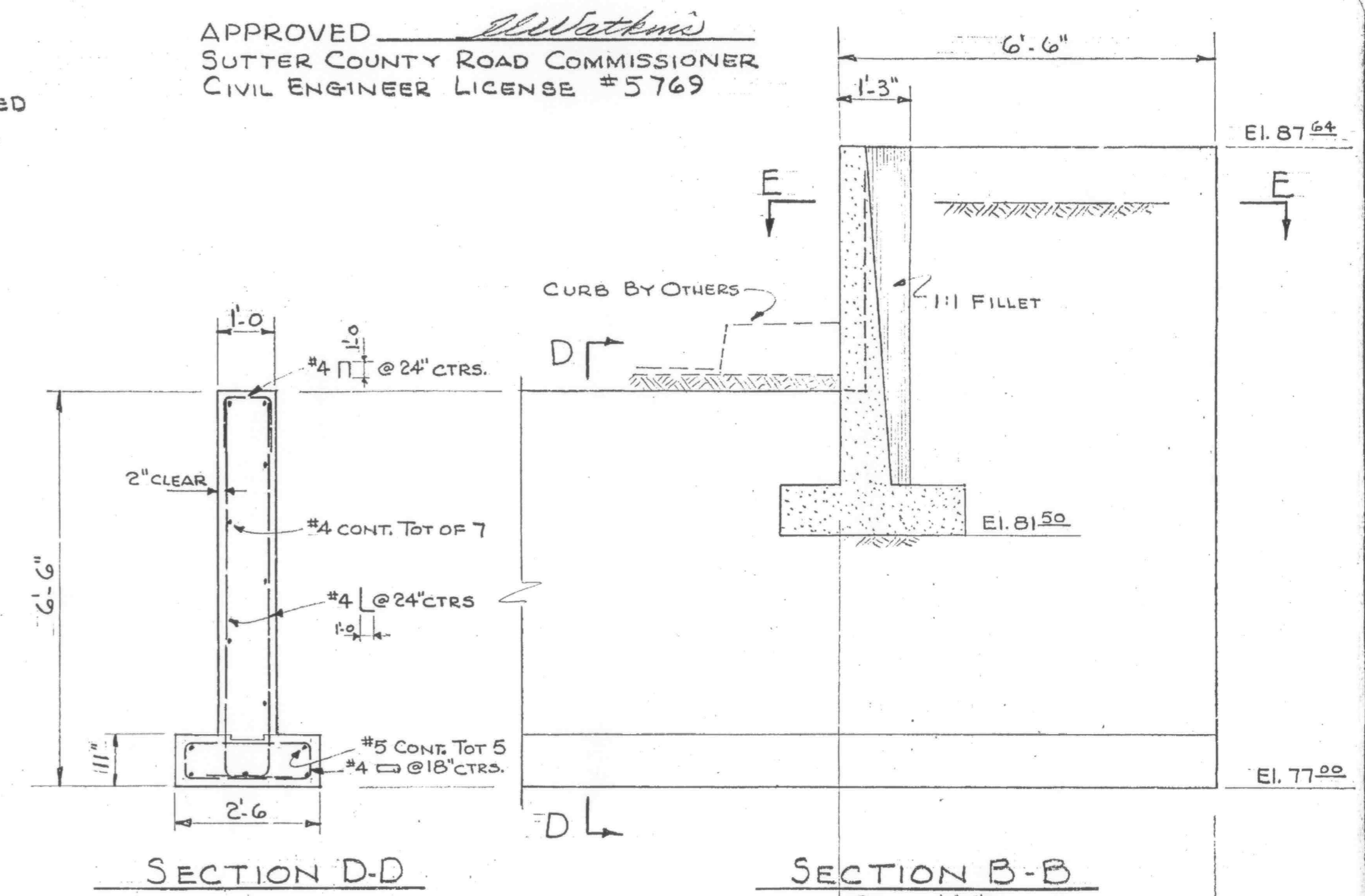
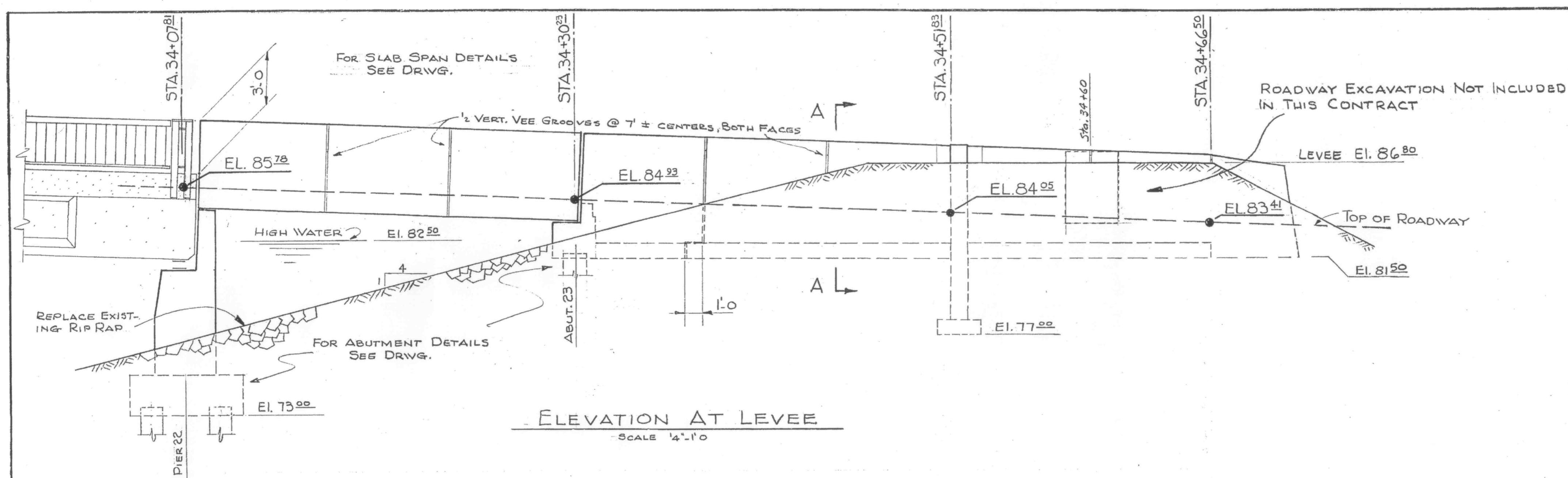
APPROVED *John W. ...*
SUTTER COUNTY ROAD COMMISSIONER
CIVIL ENGINEER LICENSE #5769

Corrected to As Built 5-13-58
Fred M. ...
Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
ENGINEERING DIVISION

APPROVED *W. J. Talbot*
CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5th St. Bridge	
PIER 22 & ABUTMENT 23	
SCALE AS SHOWN	DATE 3-8-57 DWG. 8



Corrected to As Built, 5-13-58.
Ed. M. Barrett
 Res. Eng.

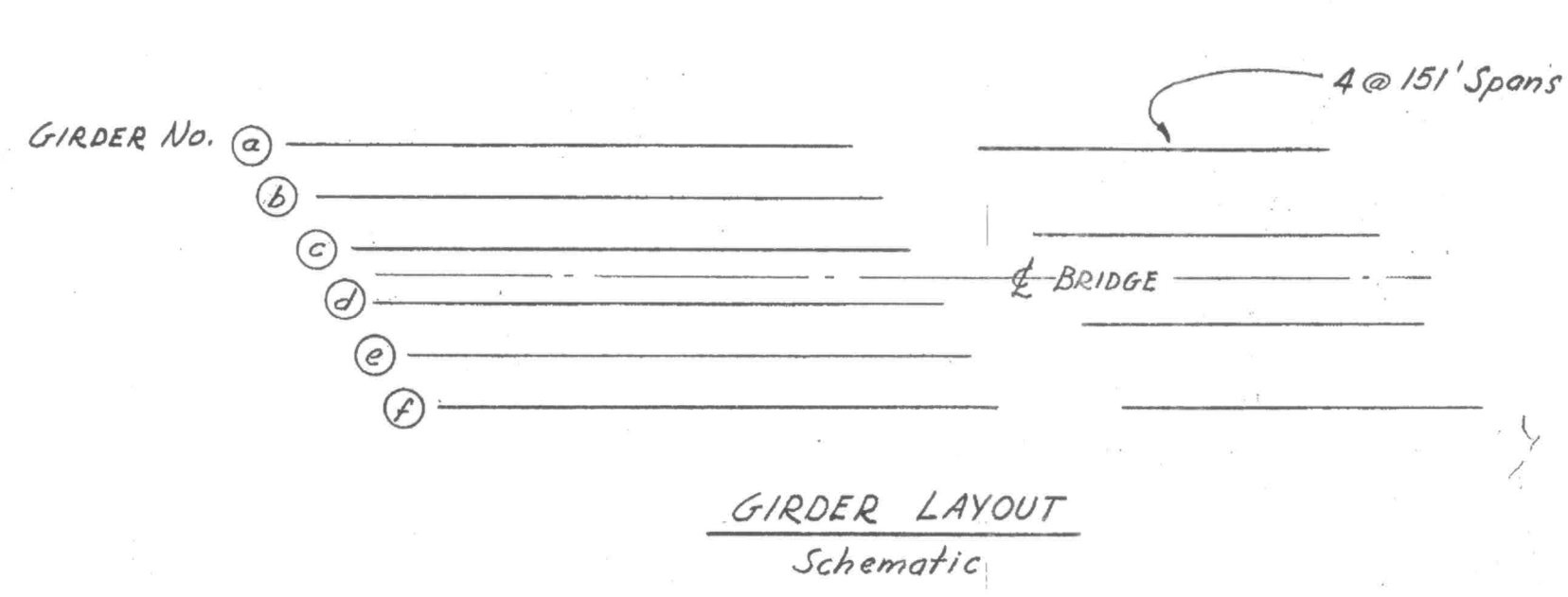
SUTTER & YUBA COUNTIES
 5TH ST. BRIDGE
 MARYSVILLE APPROACH STRUCTURE

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *W. J. Jacob*
 CIVIL ENGINEER LICENSE 6913

SCALE AS SHOWN DATE 3-5-57 DIVG. 9

APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE #5769

PIER No BEARING TYPE	A		B		C		D		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23	
	E	F	F	E			E	F	E	F	E	F	E	F	FIXED	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F									
(a)	-	75.59	79.74	79.83	82.40	-	-	-	83.96	86.37	86.03	87.80	83.97	86.16	86.27	88.58	88.61	90.58	90.44	90.85	90.63	91.04	90.72	91.13	90.71	91.12	90.59	91.00	90.37	90.77	90.07	90.46	89.65	90.04	89.14	89.53	88.52	88.91	87.79	88.18	86.97	87.35	86.06	86.43	85.04	85.40	83.45	83.79	80.96	-	-	-		
(b)	-	75.85	79.98	80.07	82.60	-	-	-	84.08	86.49	86.14	87.89				88.68	88.70	90.67	90.53	90.94	90.72	91.13	90.81	91.22	90.80	91.21	90.68	91.09	90.46	90.86	90.16	90.55	89.74	90.13	89.23	89.62	88.61	89.00	87.88	88.27	87.06	87.44	86.15	86.52	85.13	85.49	83.54	83.88	81.05	-	-	-		
(c)	-	76.11	80.23	80.32	82.80	-	-	-	84.19	86.61	86.26	88.00	84.12	86.31	86.41	88.78	88.79	90.76	90.62	91.03	90.81	91.22	90.90	91.31	90.89	91.30	90.77	91.18	90.55	90.95	90.25	90.64	89.83	90.22	89.32	89.71	88.70	89.09	87.97	88.36	87.15	87.53	86.24	86.61	85.22	85.58	83.63	83.97	81.14	-	-	-		
(d)	-	76.29	80.39	80.48	82.90	-	-	-	84.22	86.63	86.27	88.01	84.18	86.37	86.47	88.78	88.79	90.75	90.63	91.03	90.81	91.22	90.90	91.31	90.89	91.30	90.77	91.18	90.55	90.96	90.24	90.64	89.83	90.22	89.32	89.71	88.70	89.09	87.97	88.36	87.15	87.53	86.24	86.61	85.22	85.58	83.63	83.97	81.14	-	-	-		
(e)	-	76.37	80.46	80.55	82.92	-	-	-	84.16	86.56	86.20	87.94				88.70	88.70	90.66	90.54	90.94	90.72	91.13	90.81	91.22	90.80	91.21	90.68	91.09	90.46	90.87	90.15	90.55	89.74	90.13	89.23	89.62	88.61	89.00	87.88	88.27	87.06	87.44	86.15	86.52	85.13	85.49	83.54	83.88	81.05	-	-	-		
(f)	-	76.45	80.52	80.61	82.94	-	-	-	84.10	86.49	86.14	87.87	84.06	86.25	86.35	88.62	88.61	90.57	90.45	90.85	90.63	91.04	90.72	91.13	90.71	91.12	90.59	91.00	90.37	90.78	90.06	90.46	89.65	90.04	89.14	89.53	88.52	88.91	87.79	88.18	86.97	87.35	86.06	86.43	85.04	85.40	83.45	83.79	80.96	-	-	-		



REVISIONS	Changed elevations	DATE	BY
1	Changed elevations	5-29-57	LHR

Corrected to As Built 5-13-58.
[Signature]
 Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

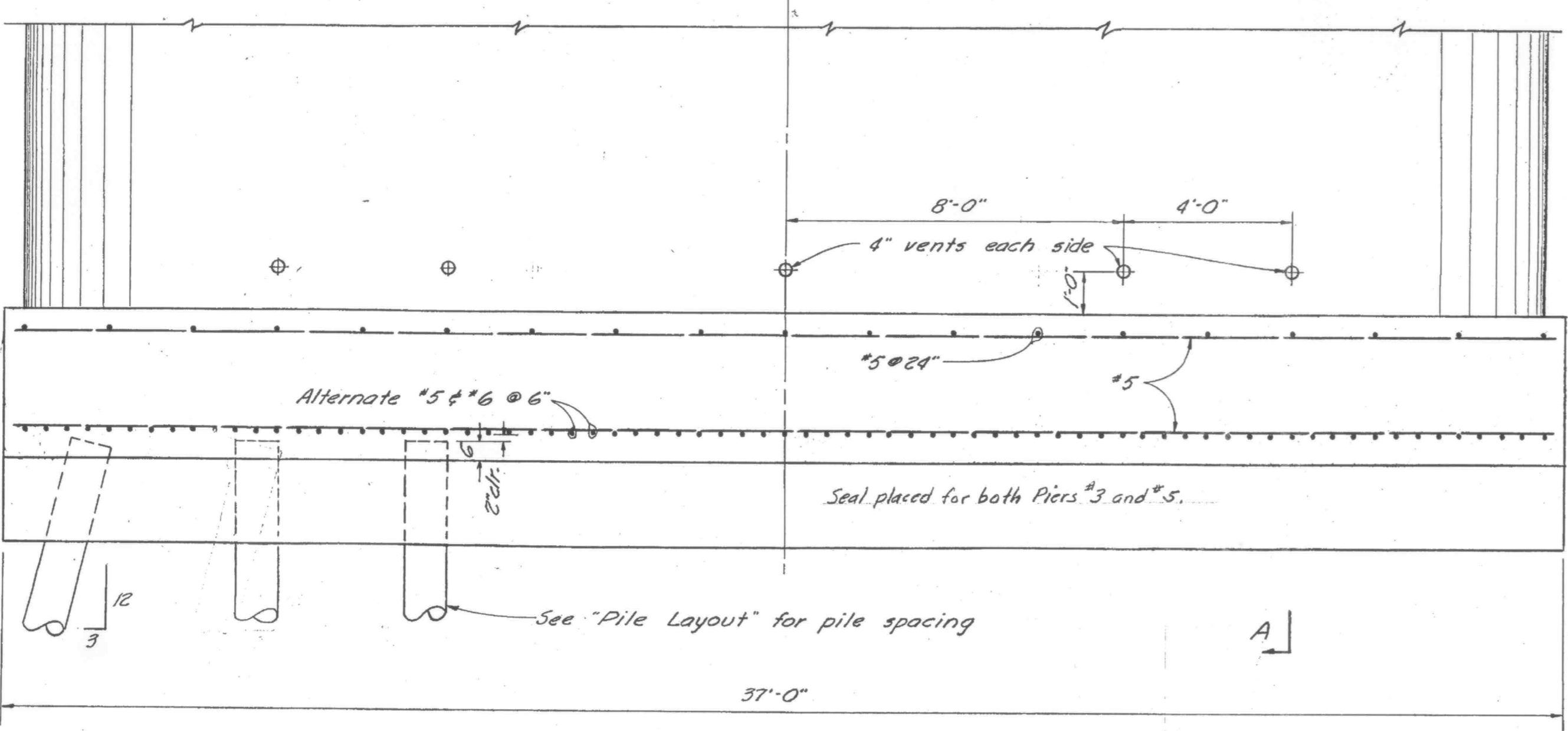
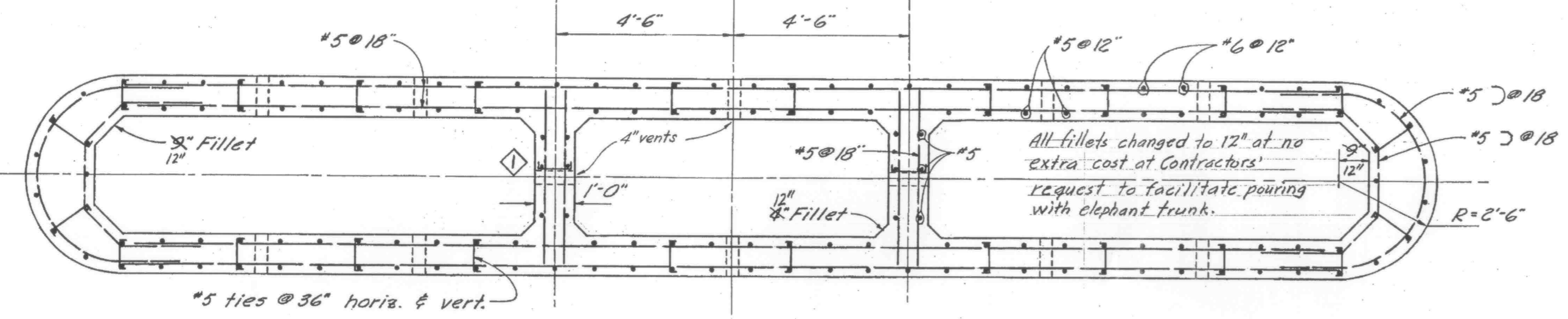
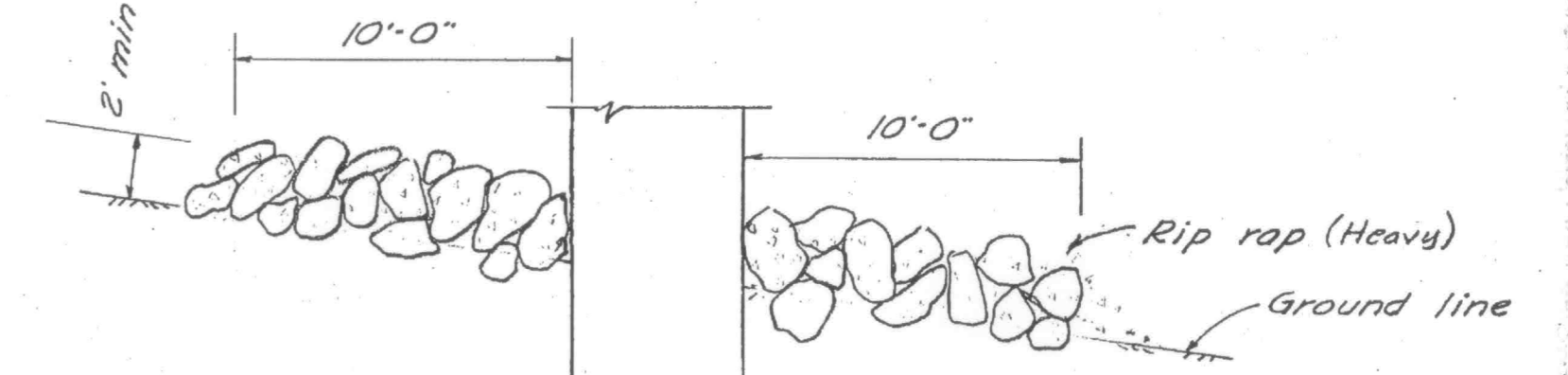
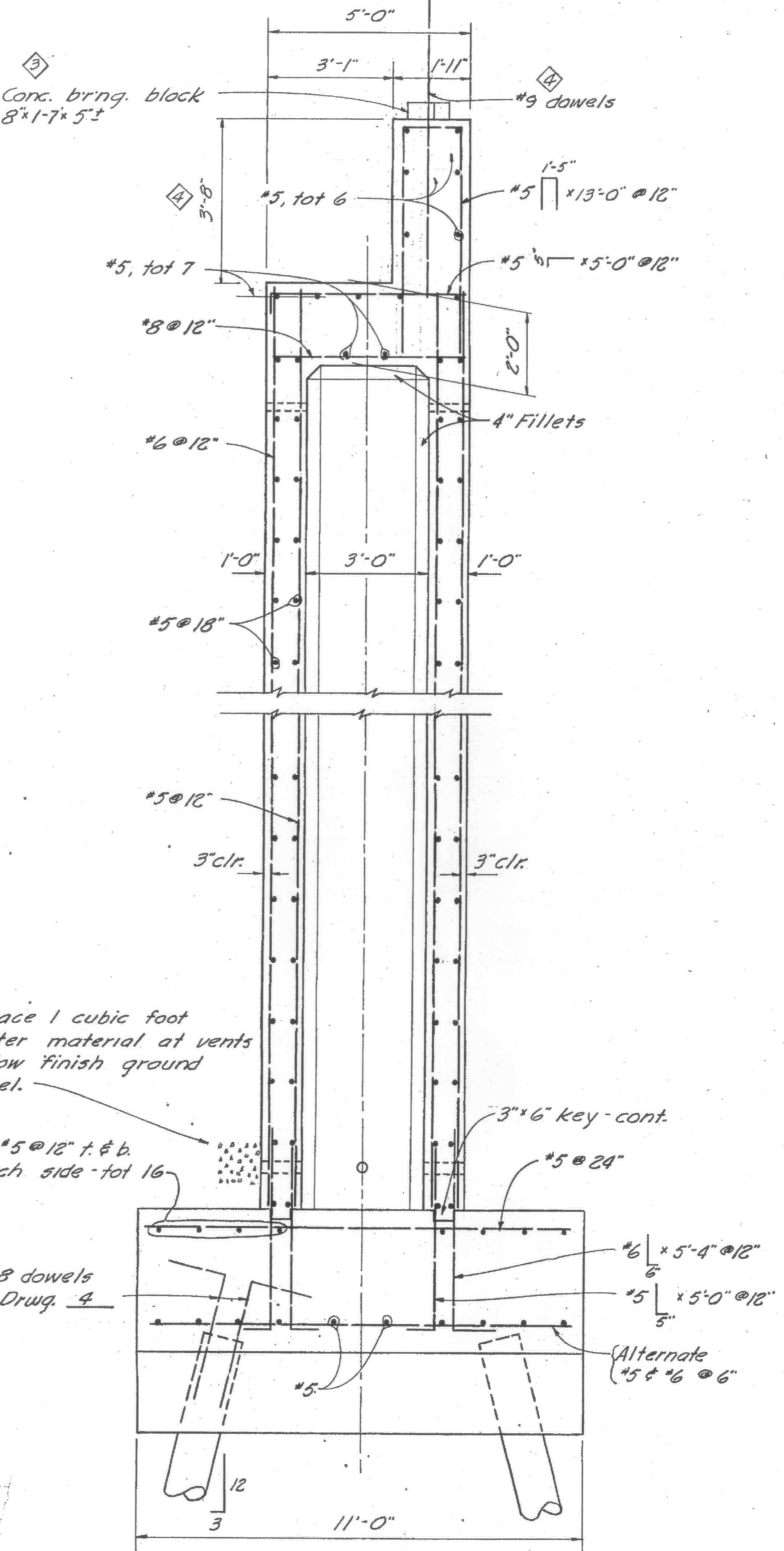
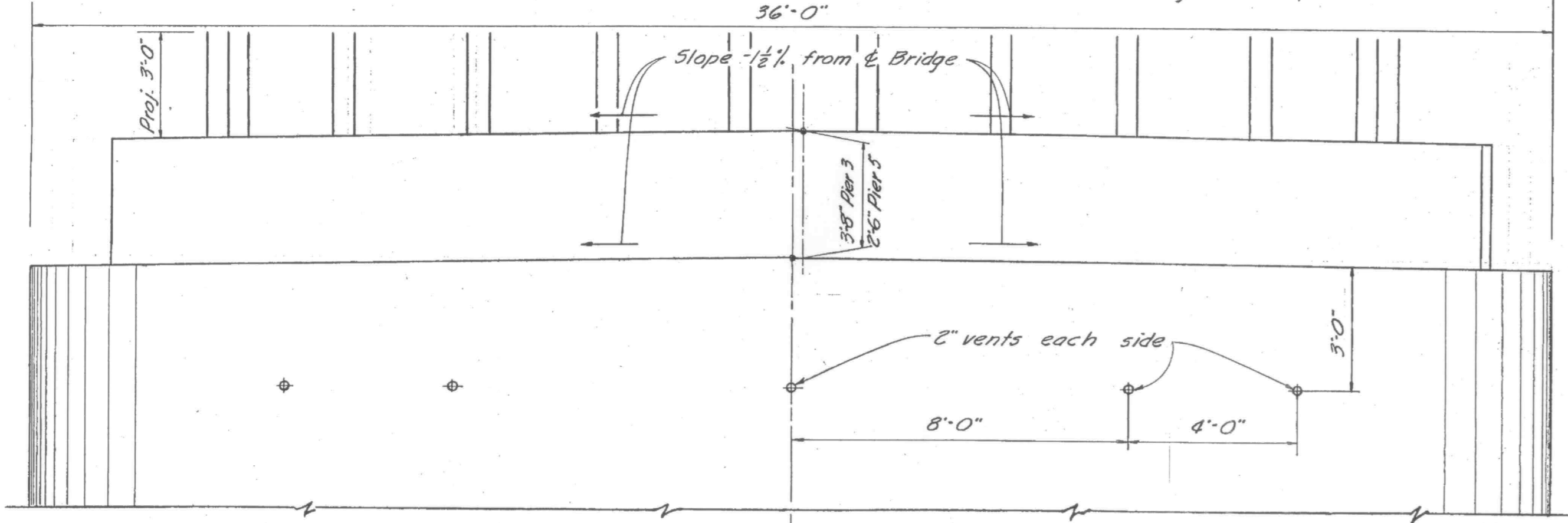
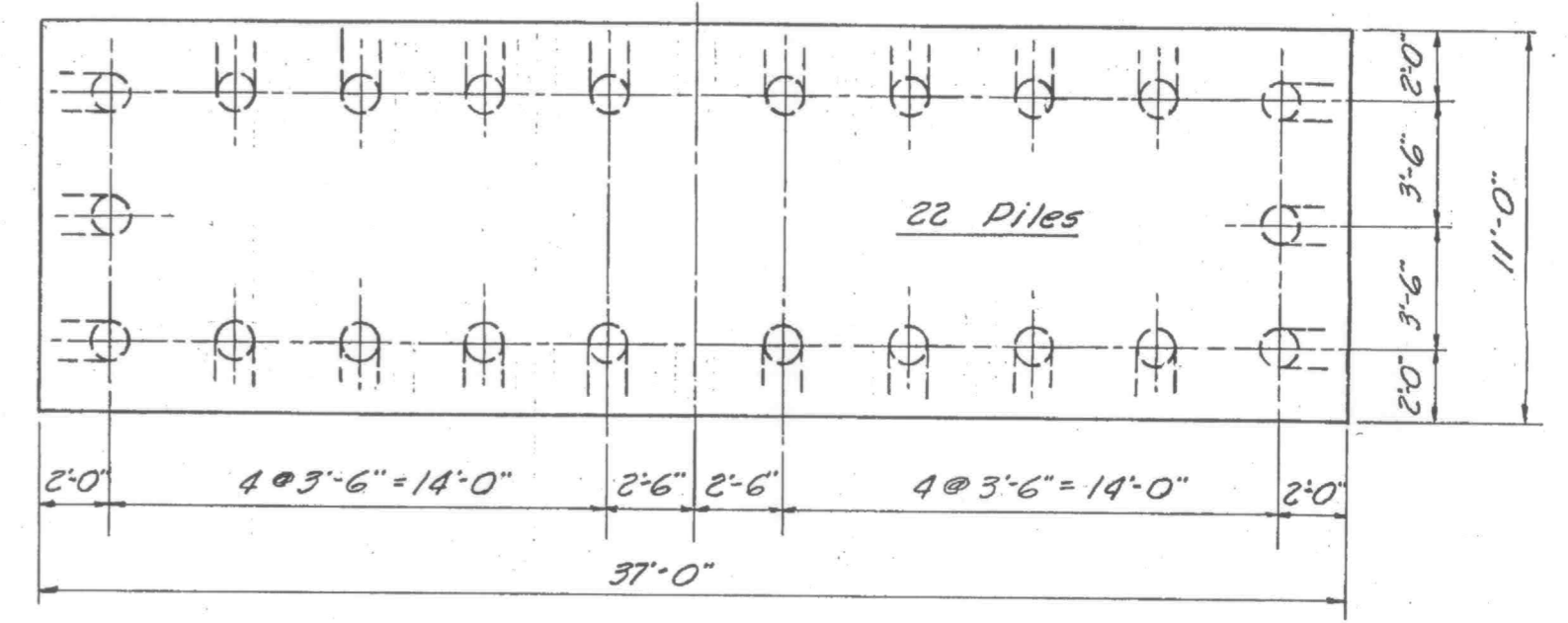
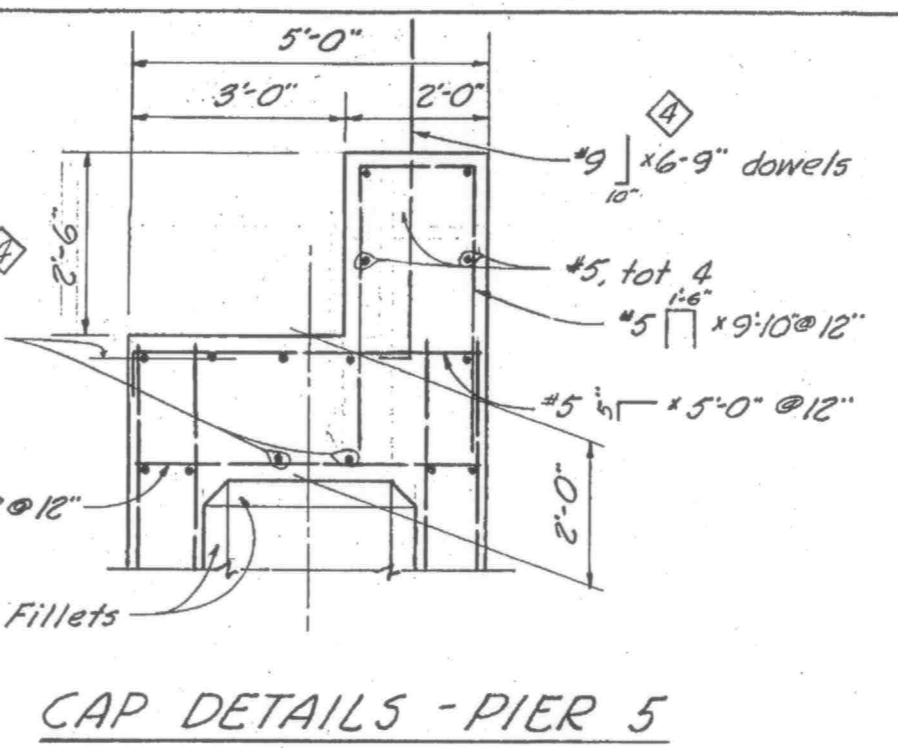
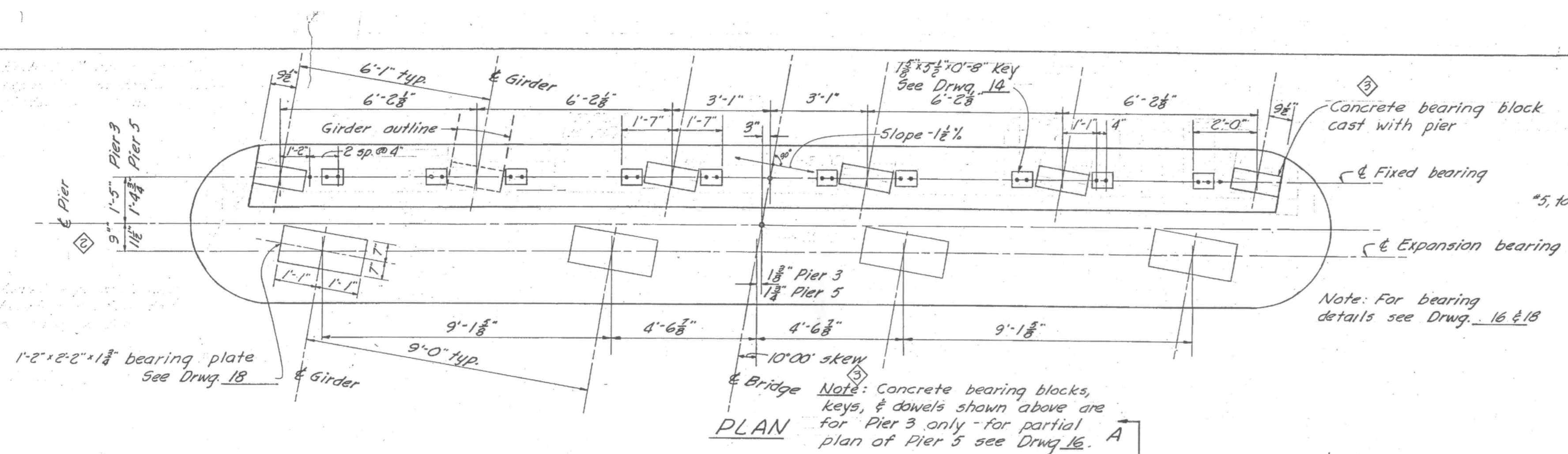
SUTTER & YUBA COUNTIES

5TH ST. BRIDGE

BEARING PLATE ELEV.

SCALE: NONE DATE: 4-9-57 DWG: 10

Approved *E.W. Gerwick*
Sutter County Road Commissioner
Civil Engineer License No. 5769



REVISIONS	DESCRIPTION	DATE	BY
1	Inserted 4" vents in Pier Diaphragms.	5-29-57	ZHR
2	Changed bearing R dimensions	6-17-57	CRF
3	Added brng blocks, keys, & dowels for Pier 3. Refer Drwg. 16 for Pier 5	6-21-57	CRF
4	Changed dims to #9. Changed pedestal heights.	6-21-57	WSP

Place 1 cubic foot filter material at vents below finish ground level.

Note: Contractor may precast pier walls and lift into place at no additional cost to the County. Plans for precasting walls and erection shall be submitted to the Engineer for approval.

Corrected to As. Built. 5-13-58.
Jed M. Bauer
Res. Eng.

SUTTER & YUBA COUNTIES

5TH ST. BRIDGE

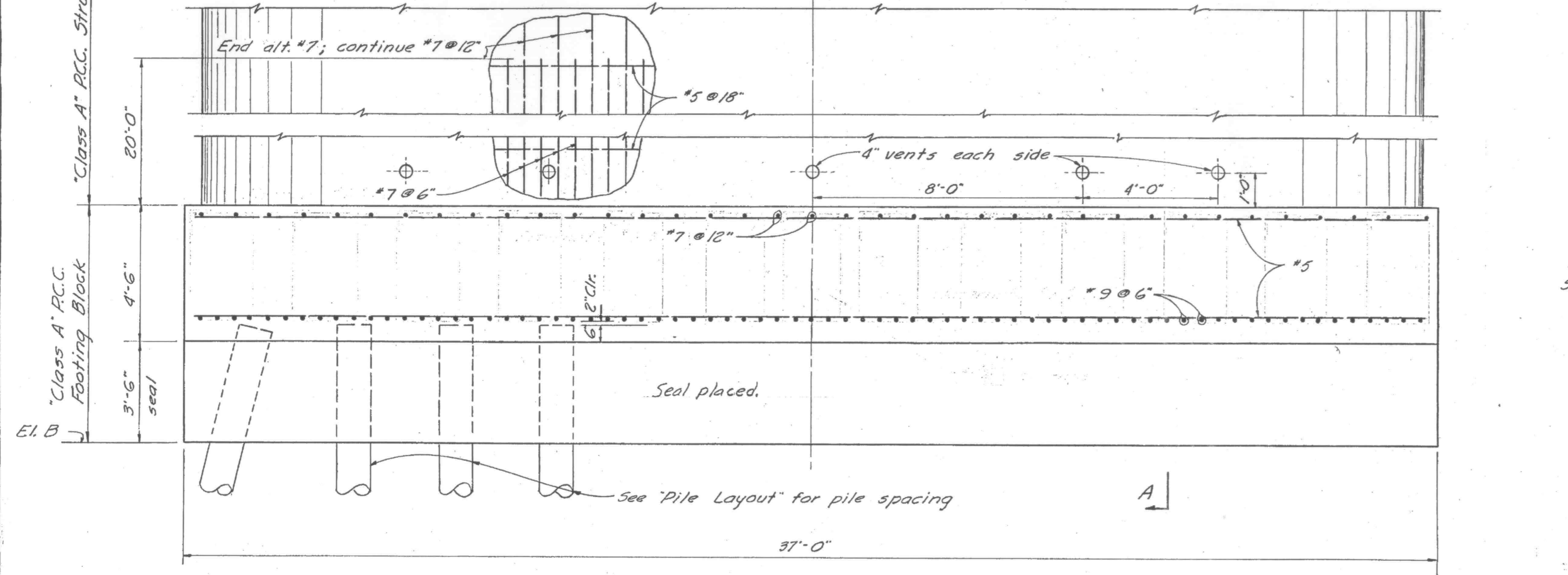
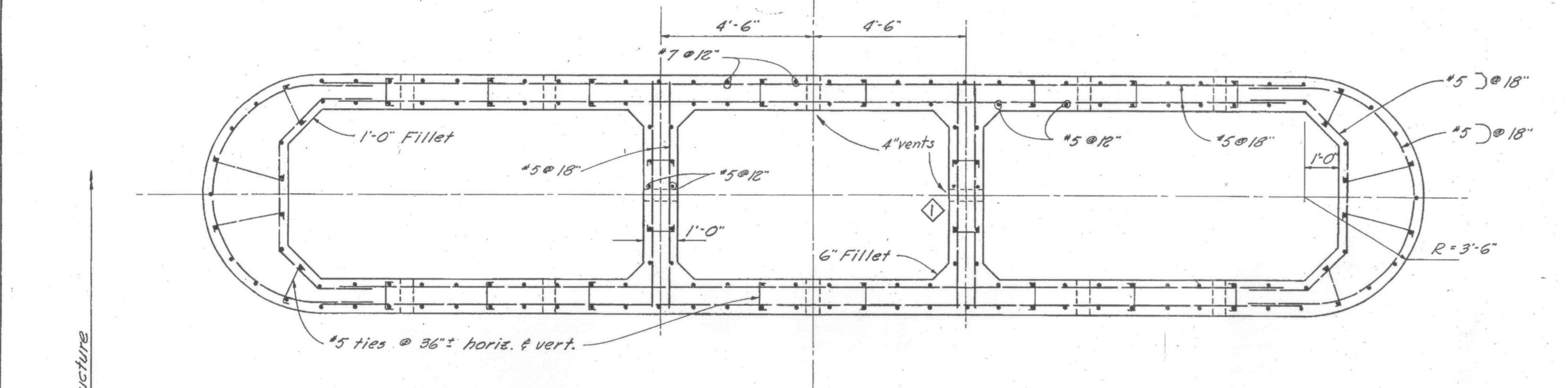
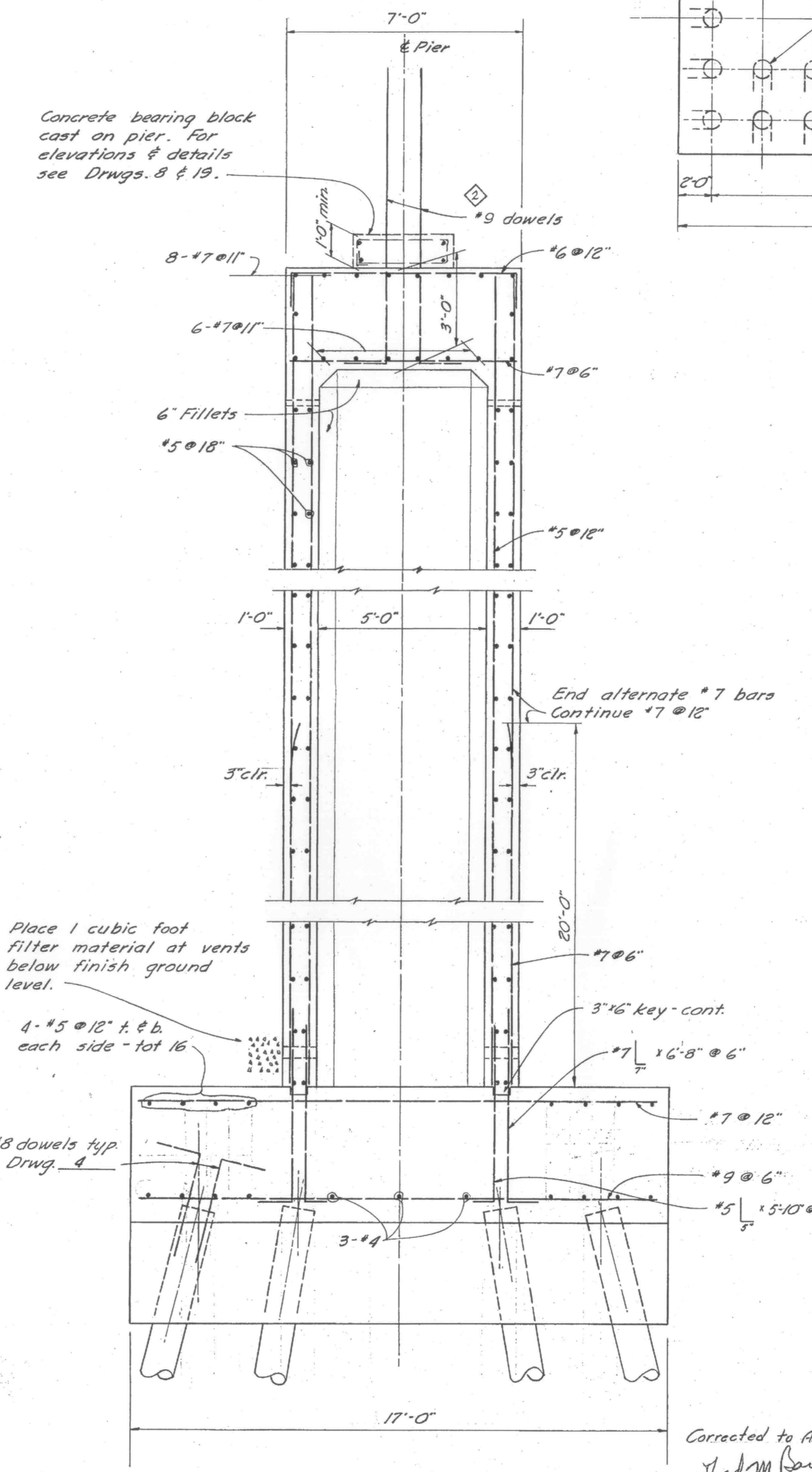
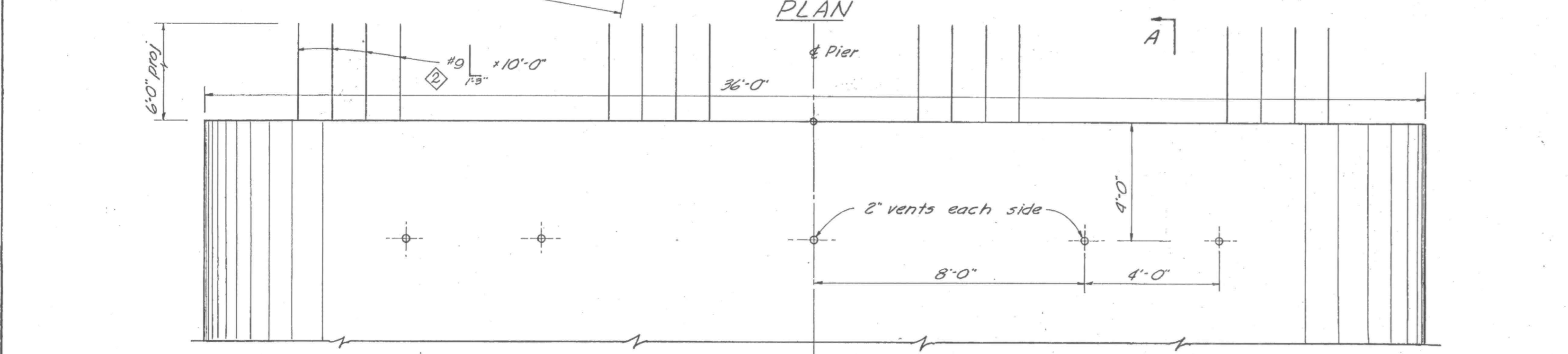
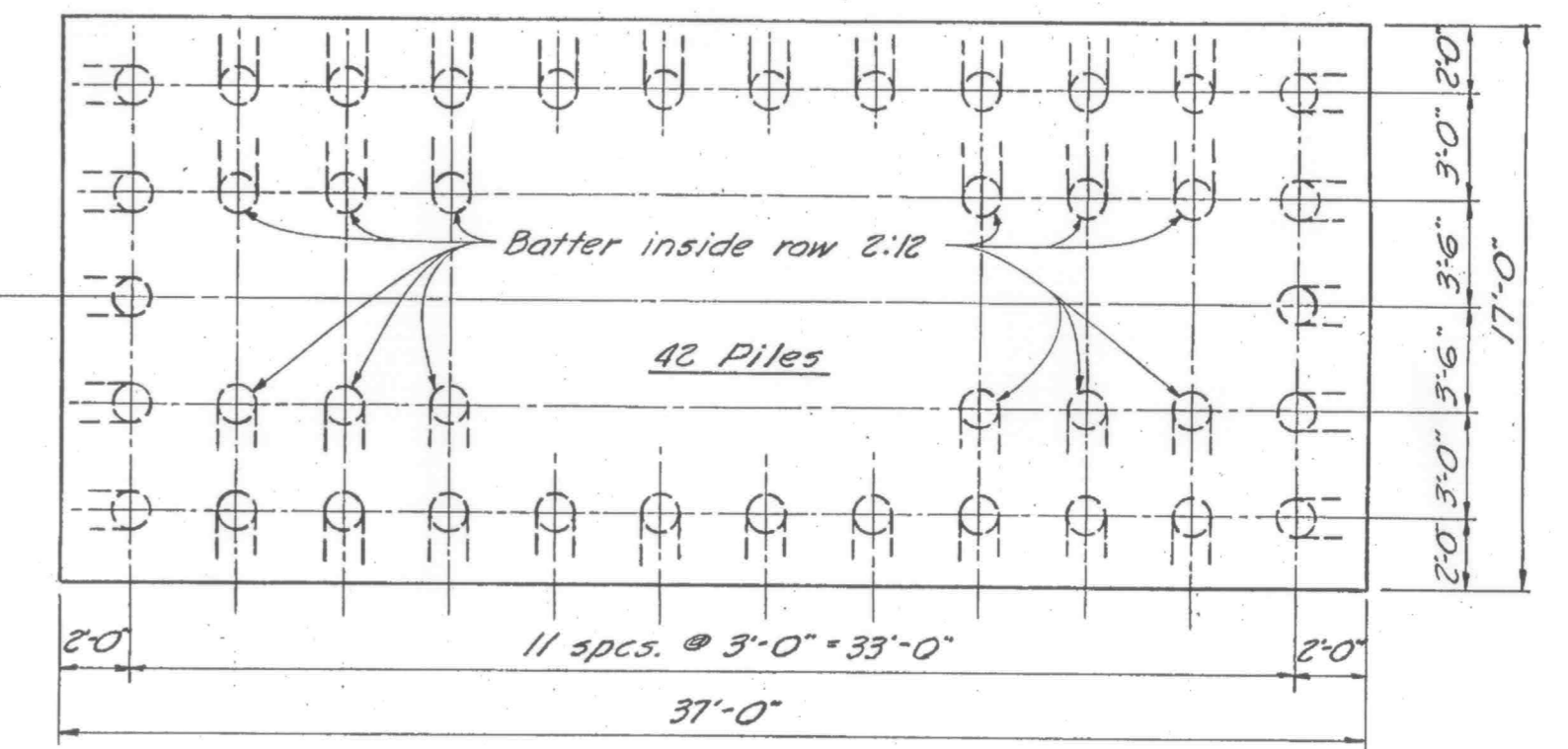
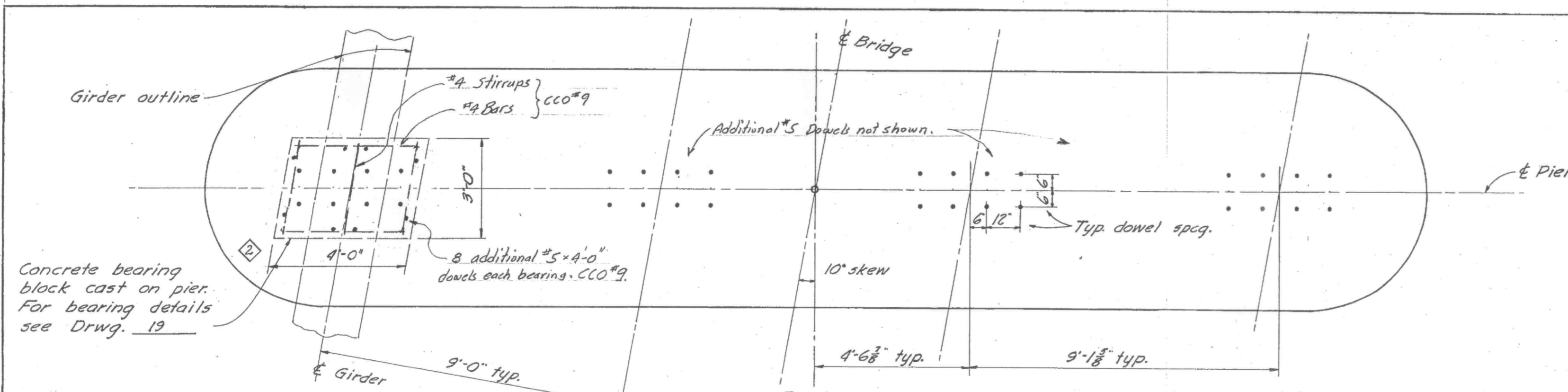
PIER DETAILS
TYPE T

SUBMITTED BY BEN C. GERWICK INC.
ENGINEERING DIVISION

APPROVED *W. J. Talbot*
CIVIL ENGINEER LICENSE 6913

Scale: 3/8" = 1'-0" except as noted Date 3-16-57 Drwg. 12

Approved *Walter Hines*
 Sutter County Road Commissioner
 Civil Engineer License No. 5769



REVISIONS	DESCRIPTION	DATE	BY
1	Inserted 4" vents in Pier Diaphragms	5-29-57	ZHR
2	Changed dowel size @ top of Pier. Changed Bearing Block size.	6-21-57	WST

Note: See Drwg. 12 for rip rap details.

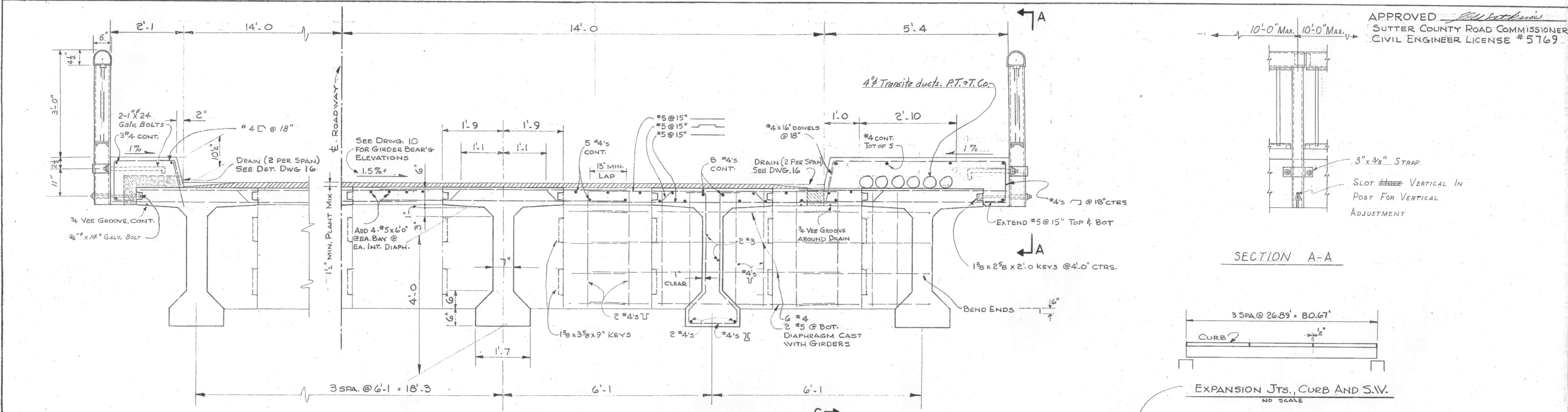
SUTTER & YUBA COUNTIES
 5TH ST. BRIDGE
 PIER DETAILS
 TYPE 5

Scale 3/8" = 1'-0" except as noted Date 3-21-57 Drwg 13

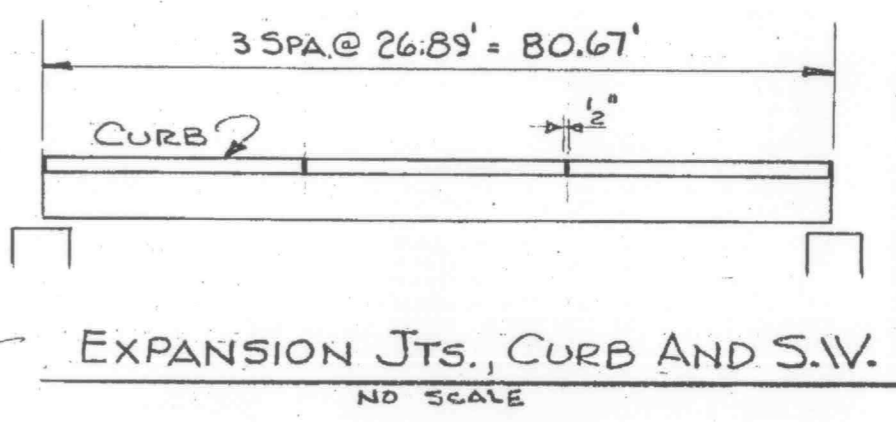
SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *W. J. [Signature]*
 CIVIL ENGINEER LICENSE 6913

Corrected to As Built. 5-14-58.
Jed M. Rowet
 Res. Eng.

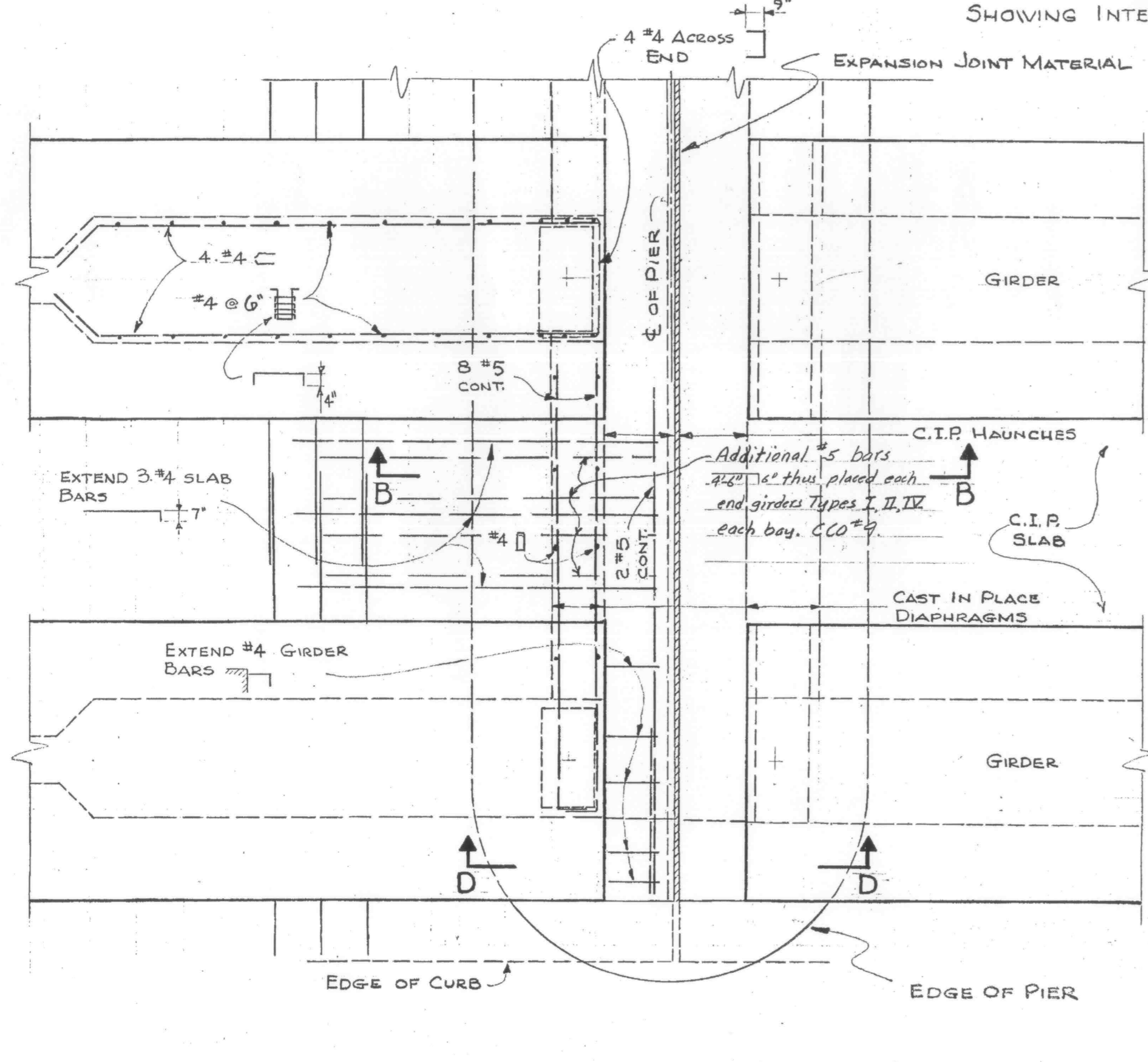
APPROVED *[Signature]*
SUTTER COUNTY ROAD COMMISSIONER
CIVIL ENGINEER LICENSE # 5769



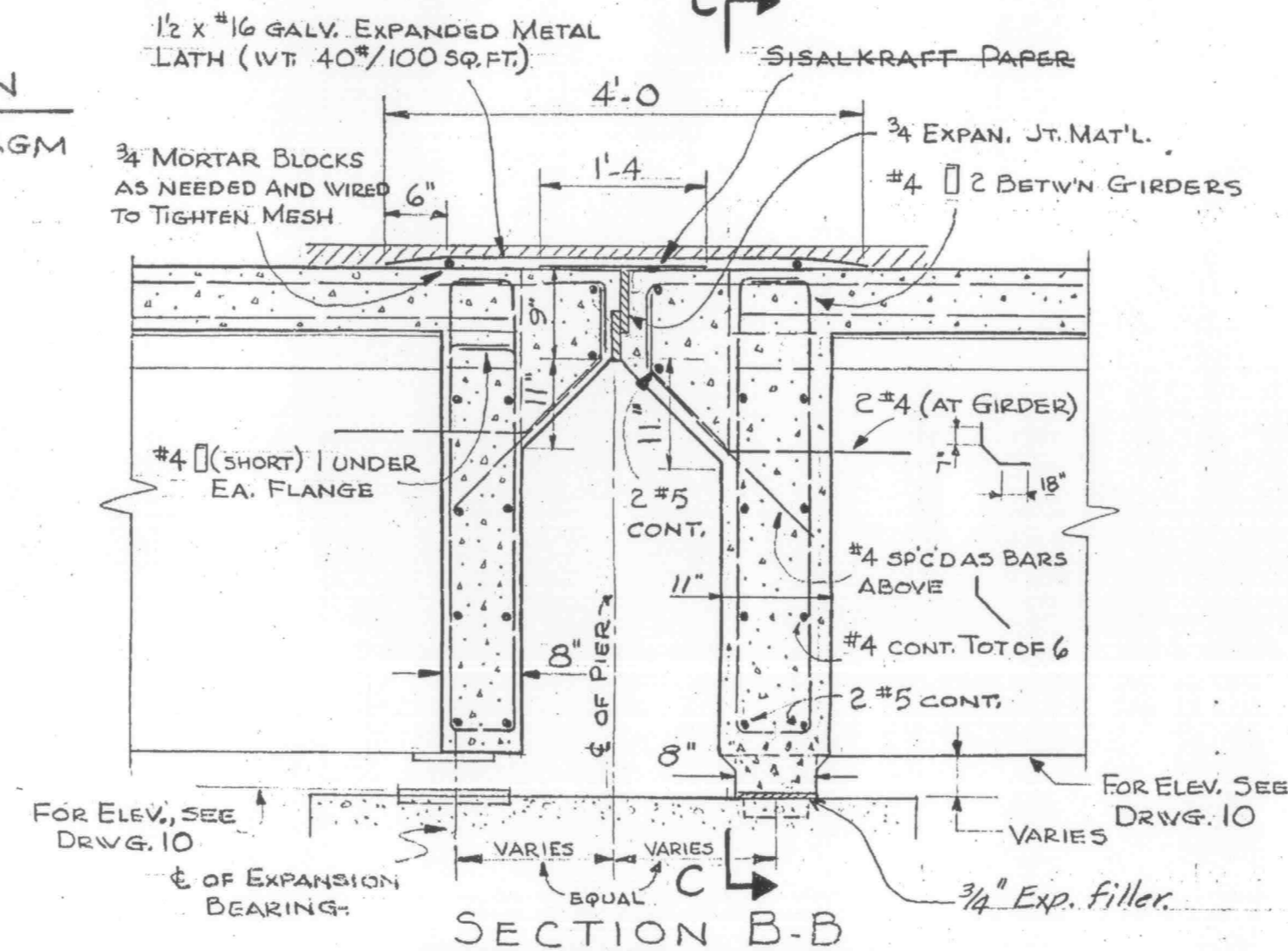
SECTION A-A



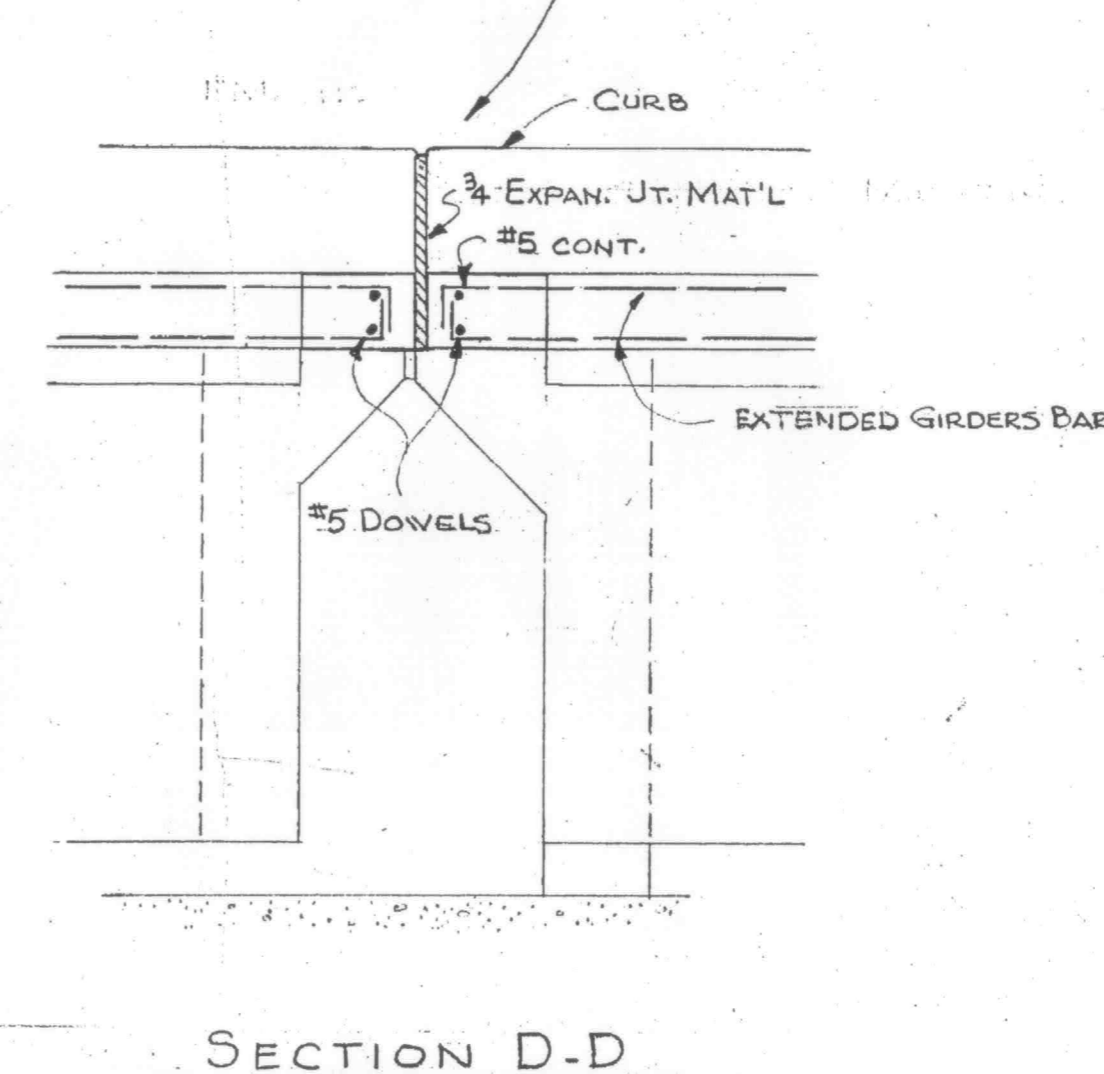
TYPICAL SECTION
SHOWING INTERMEDIATE DIAPHRAGM



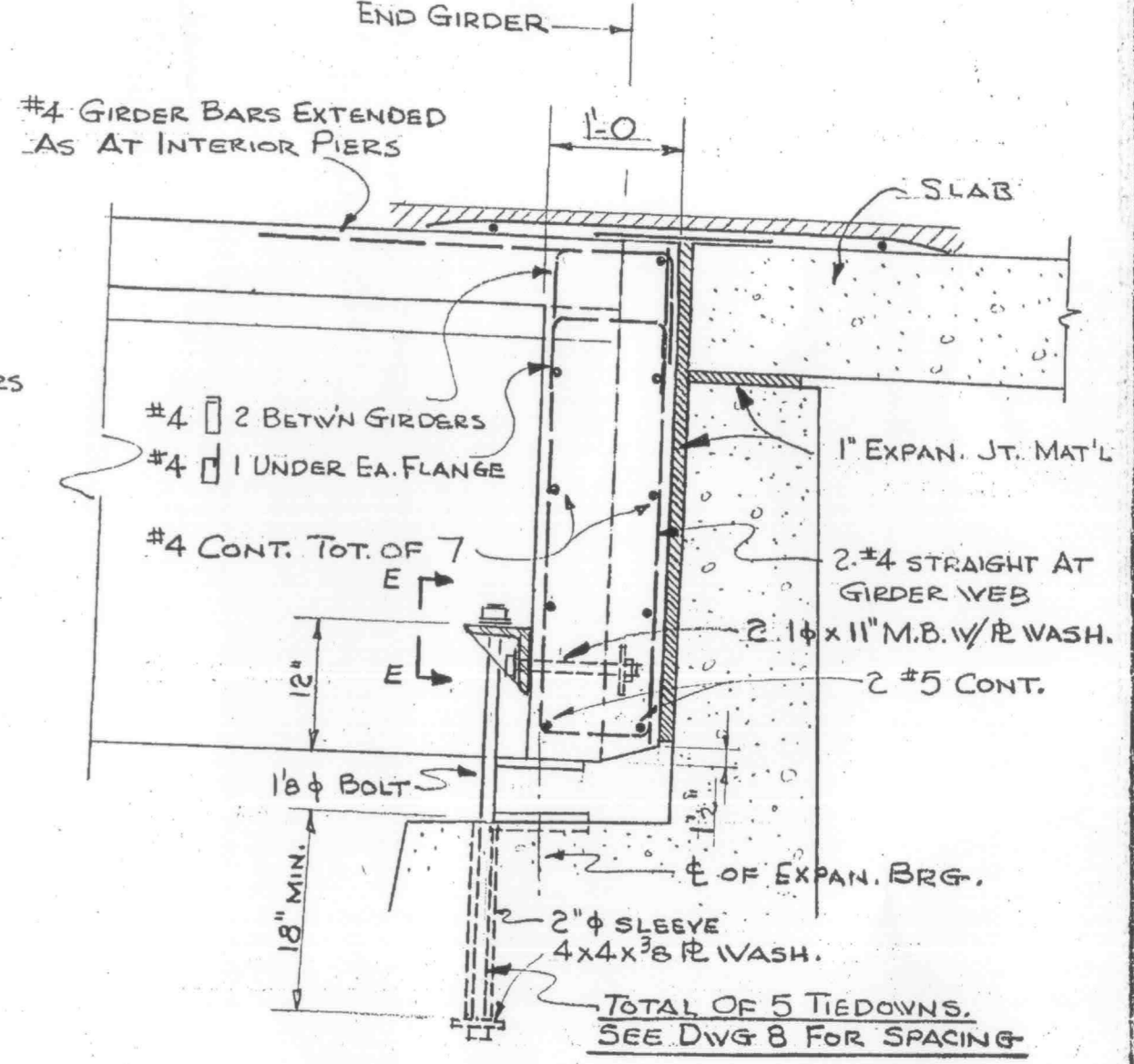
PARTIAL PLAN AT PIER



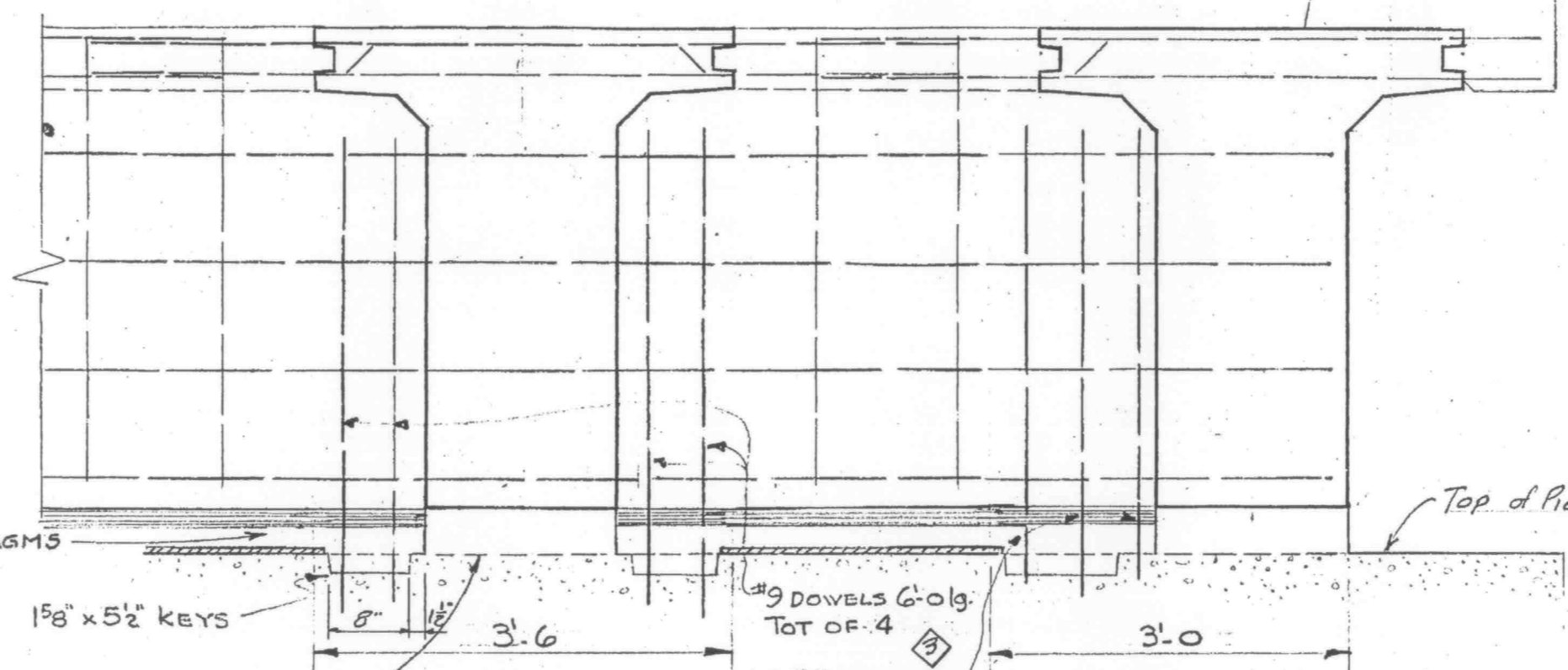
SECTION B-B



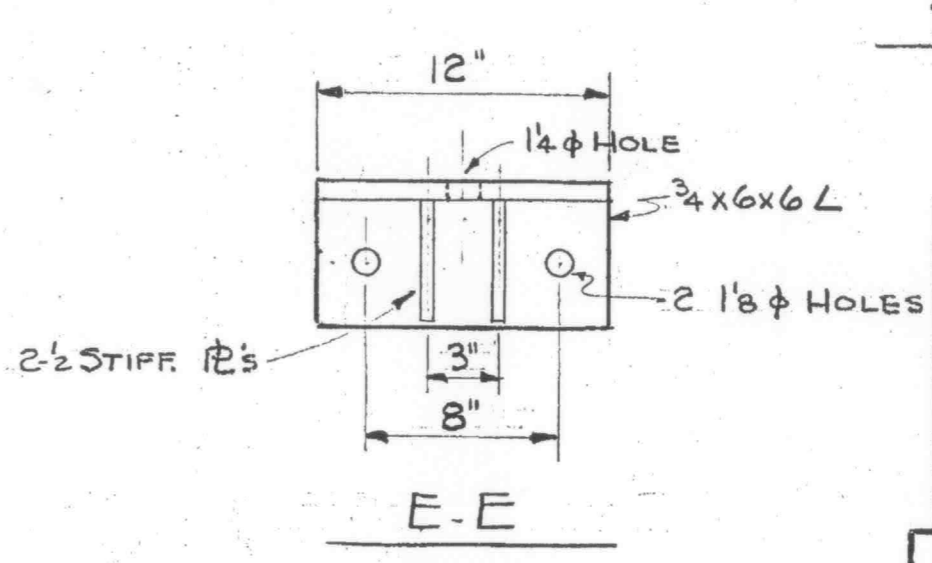
SECTION D-D



SECTION THRU END DIAPHRAGM
AT PIER 22



SECTION C-C



E-E

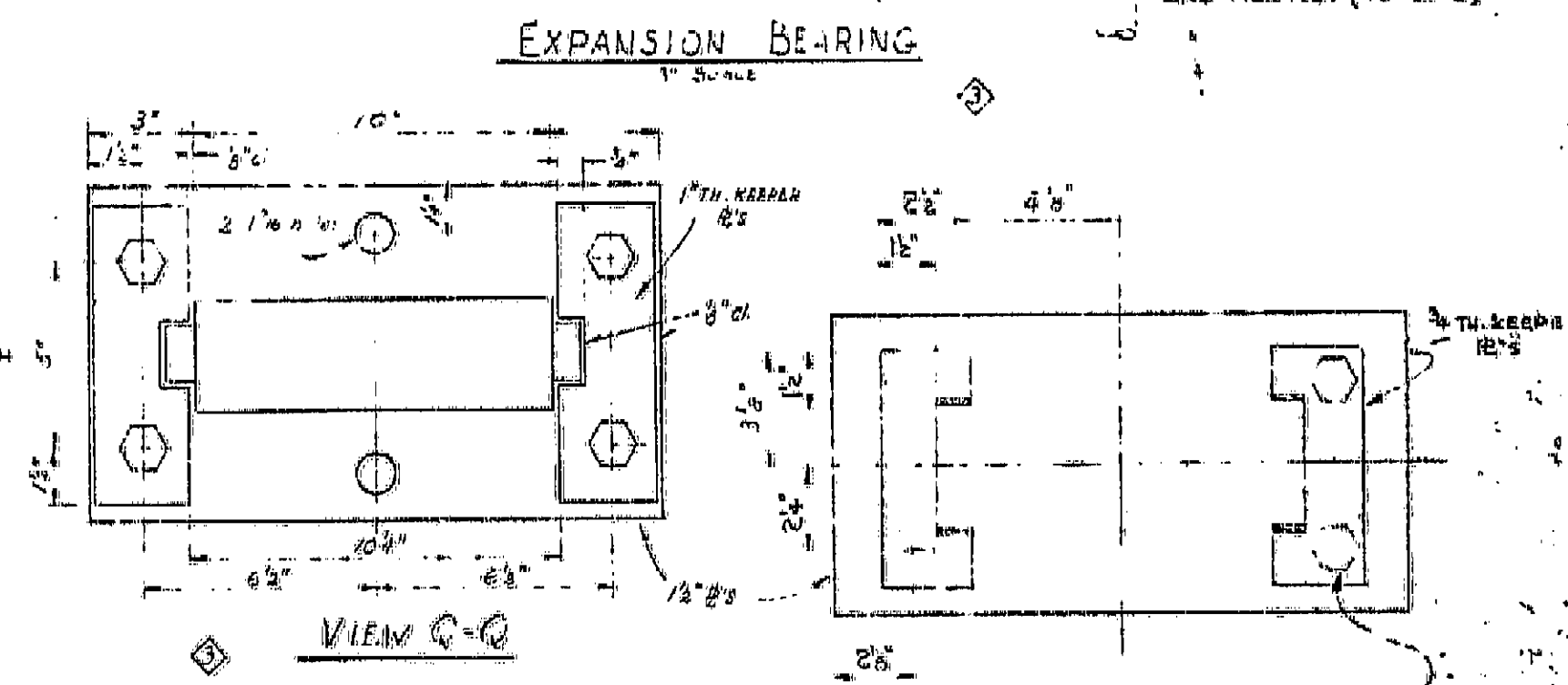
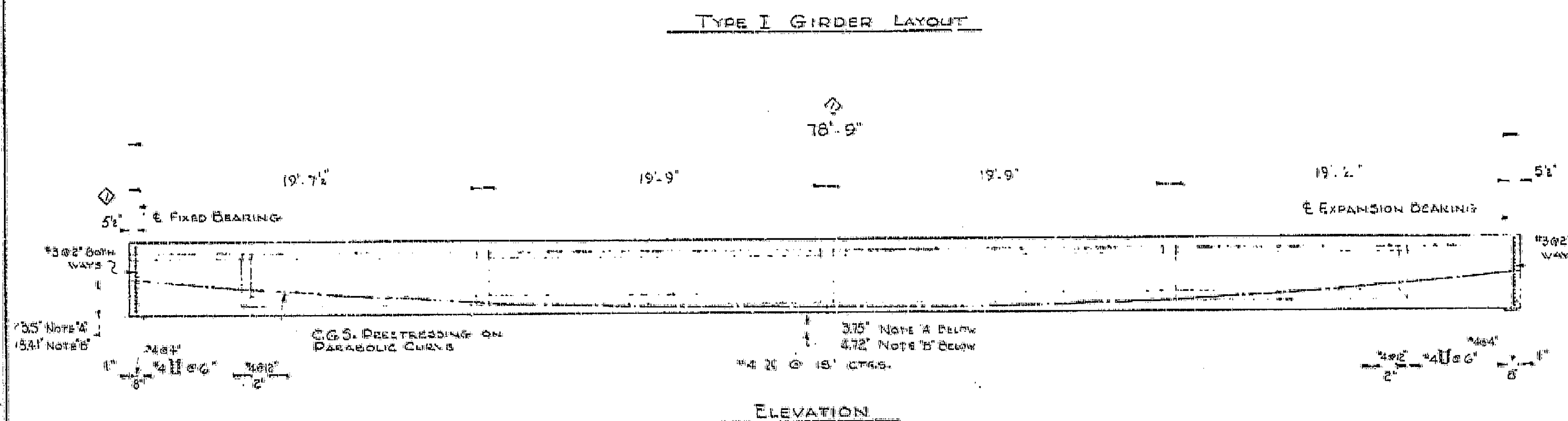
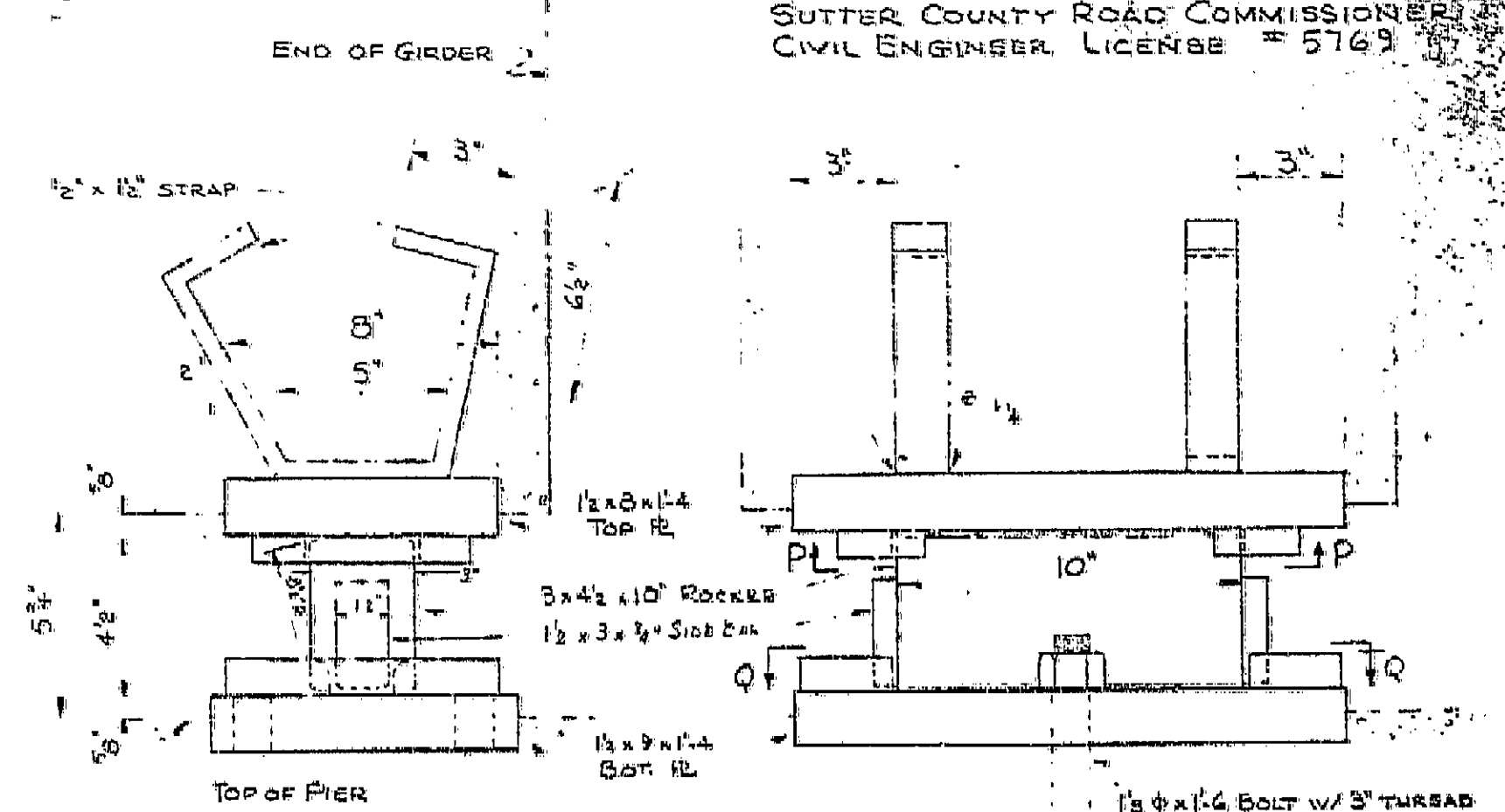
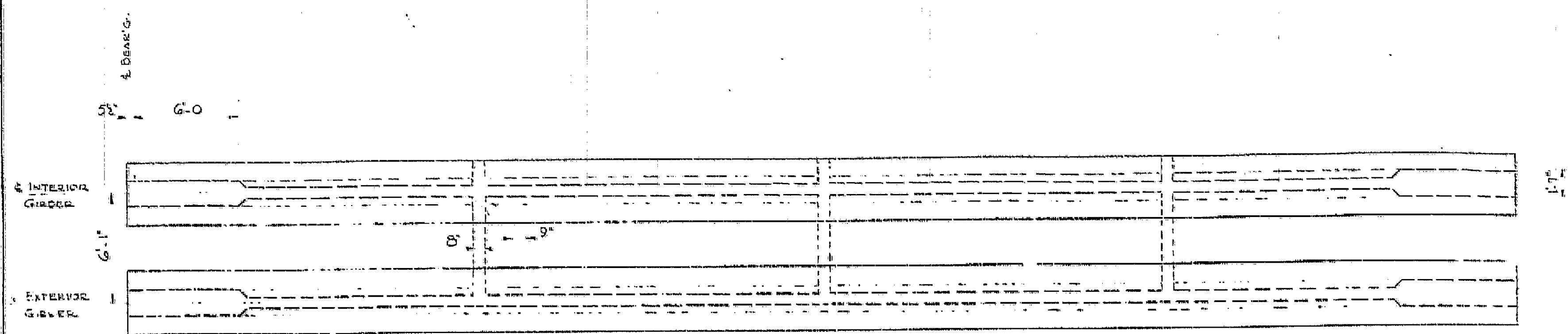
REVISIONS	DESCRIPTION	DATE	BY
1	Chgd end diaphragm width, bearing block details & key layout	6-11-57	CRF
2	Changed size & number of dowels in top of pier	6-21-57	CRF WGT

BLOCK CAST WITH PIER. FINISH EVEN. PLACE NEAT CEMENT SEAT JUST BEFORE GIRDER IS SET.

SUBMITTED BY BEN C. GERWICK INC. ENGINEERING DIVISION
APPROVED *[Signature]*
CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES
5th St. BRIDGE
GIRDER DETAILS TYPES I & II
SCALE 3/4" = 1'-0" DATE 2-6-57 DWG. 14

APPROVED
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE # 5769



PRESTRESSING NOTES

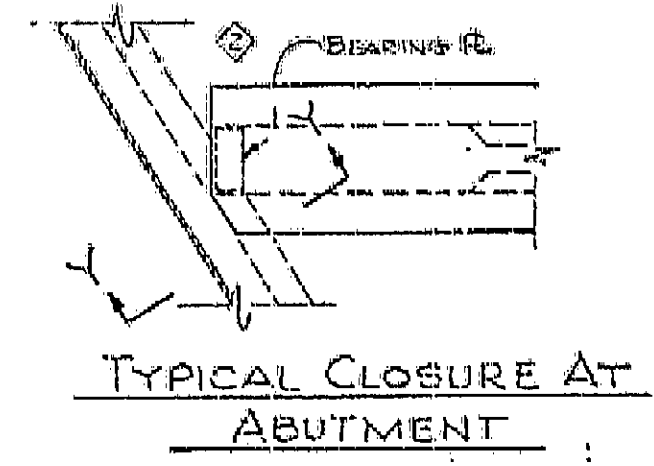
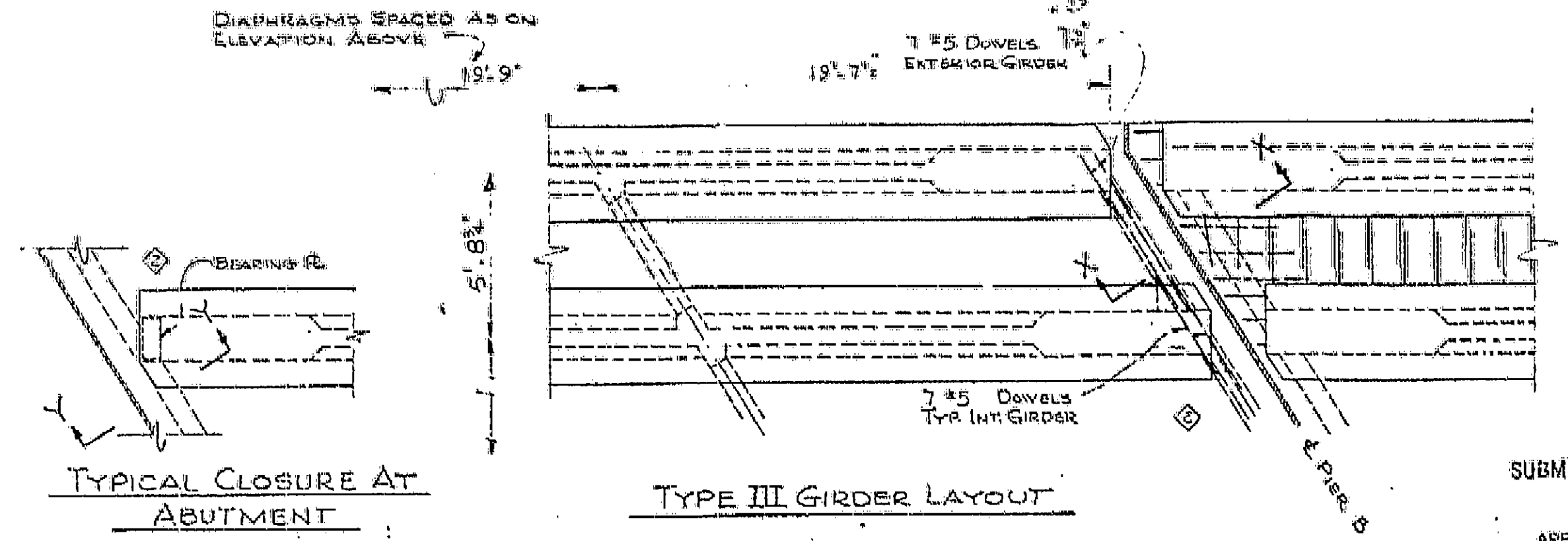
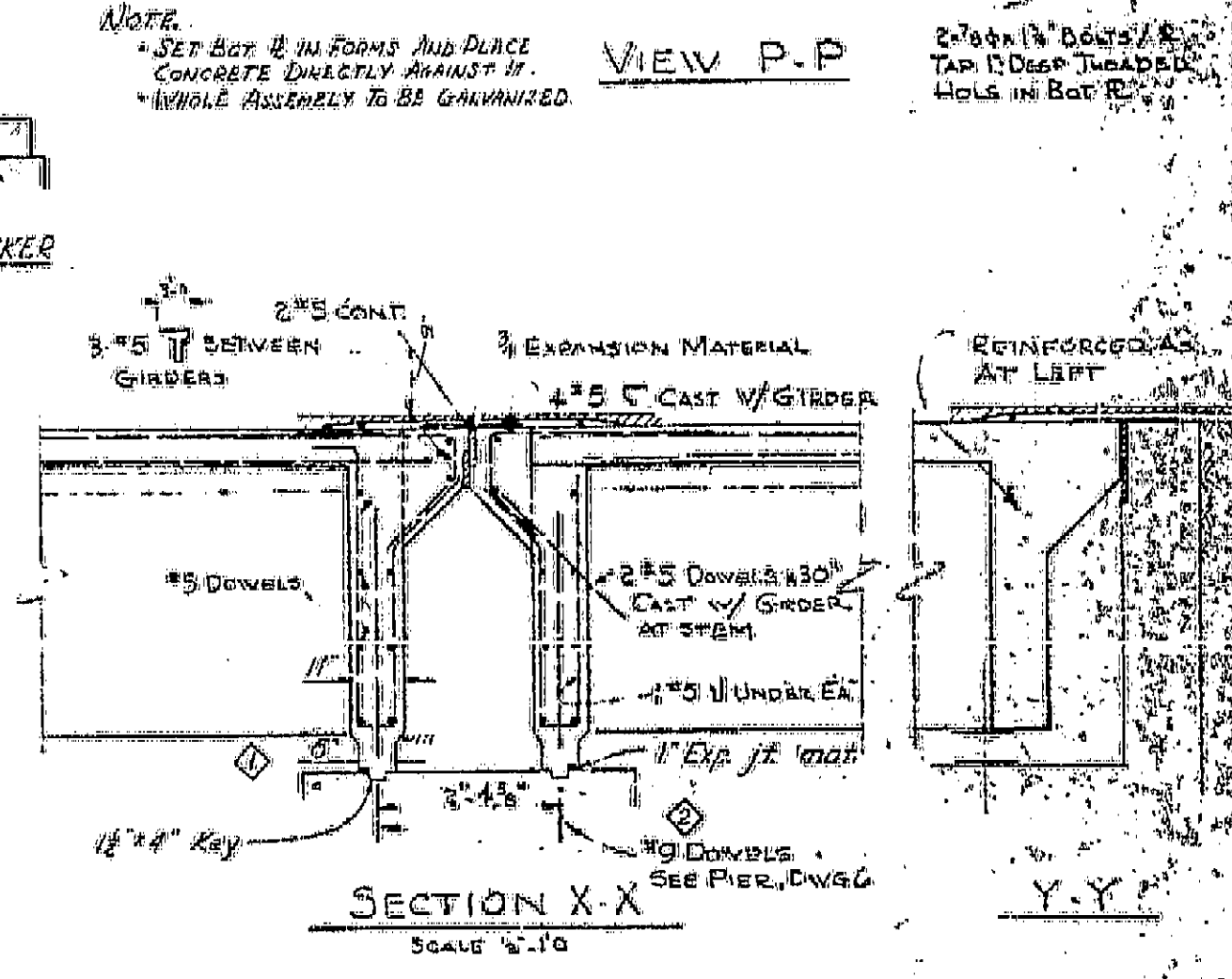
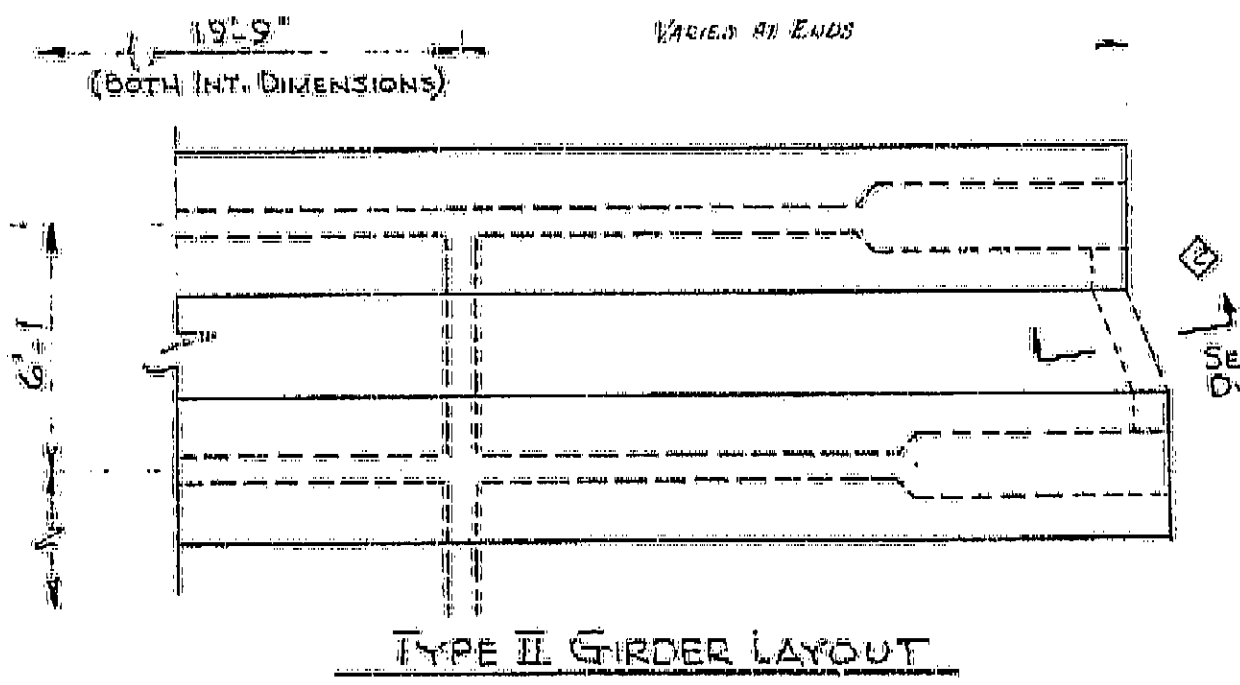
NOTE "A": For Posttensioning Systems, Design Force, After All Losses, = 557,000 LBS.

NOTE "B": For Posttensioning Systems, Design Force, After All Losses, = 567,000 LBS.

* THE LOSS IN PRESTRESS DUE TO SWELLAGE, SHRINK, AND SEQUENCE STRESSING SHALL BE ASSIGNED TO BE \$24,000 PER POSTTENSIONING SYSTEM (30,000 PER POSTTENSIONING SYSTEM).

* IN ADDITION TO ABOVE LOSSES, PROVISION SHALL BE MADE FOR FRICTION LOSSES, ANCHORAGE LAGS, AND ANY OTHER LOSSES PERTAINING TO THE POSTTENSIONING SYSTEM USED.

CONCRETE * F_c 5000 PSI @ 28 DAYS
 PRESTRESSING STEEL: SEE SPECIAL PROVISIONS

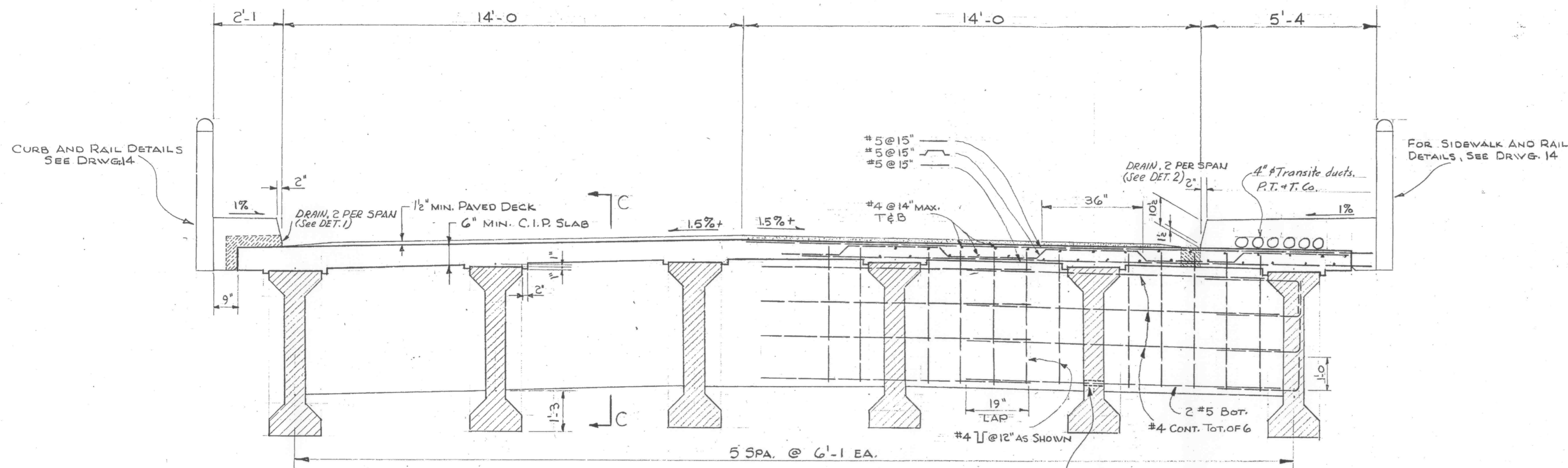


REVISIONS	DESCRIPTION	DATE
1	Changed girder length - widened diaphragm at pier and changed brg. blocks	6-19-54
2	Changed shape of end of girder	6-19-54
3	Changed diaphragm size on top of pier	6-19-54
4	Rearranged Expansion Bearing Details Along Pier	8-21-57

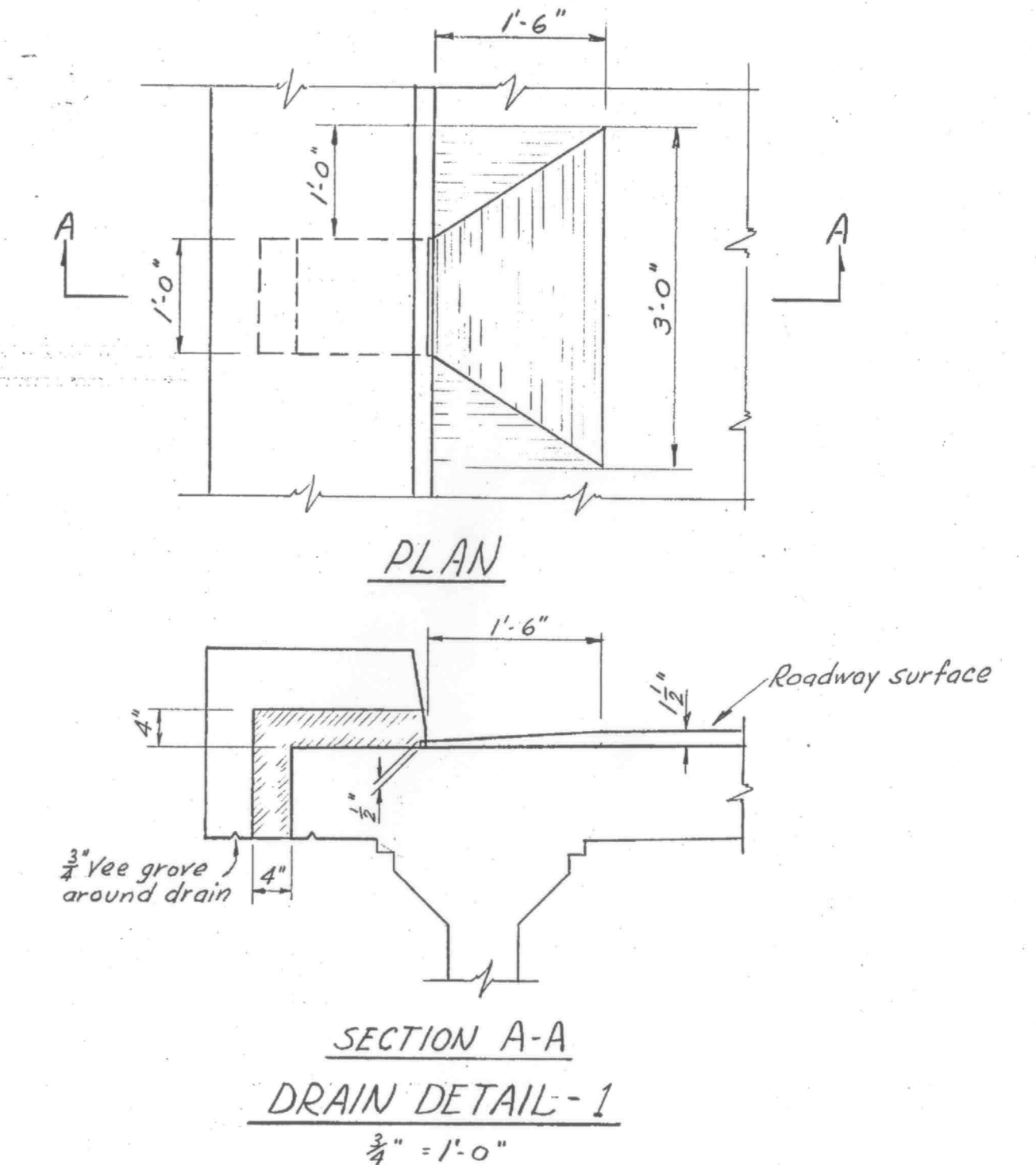
BR# RC-12
 SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED
 CIVIL ENGINEER LICENSE 6912

SUTTER & YUBA COUNTIES
 5th St. BRIDGE
 GIRDER TYPES I, II & III
 TYPE III DIAPHRAGM DETAILS
 SCALE 1/2" = 1'-0" DATE 1-30-57 DWG.

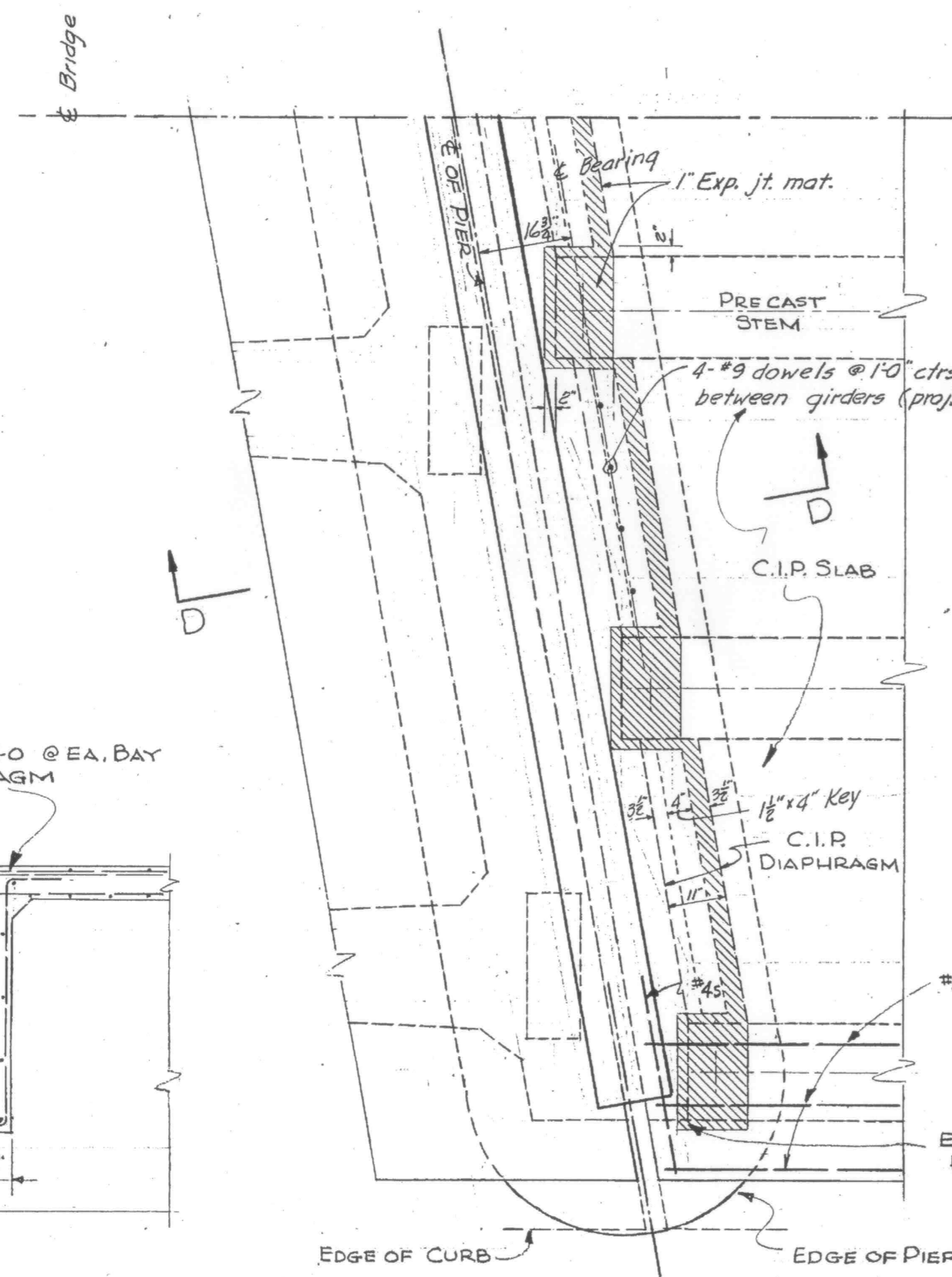
APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE # 5769



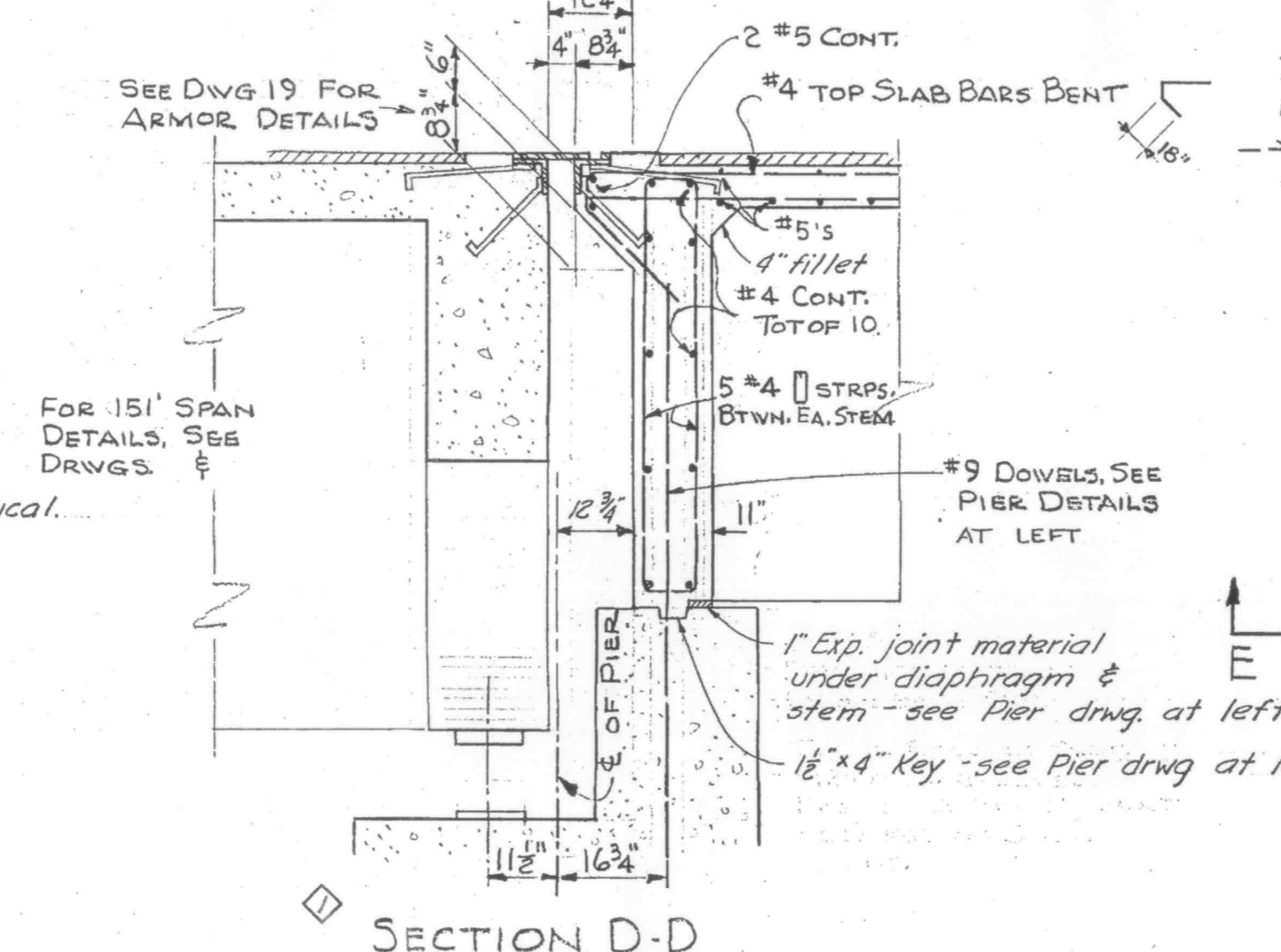
SECTION THRU 88' SPAN
 SHOWING INTERMEDIATE DIAPHRAGM



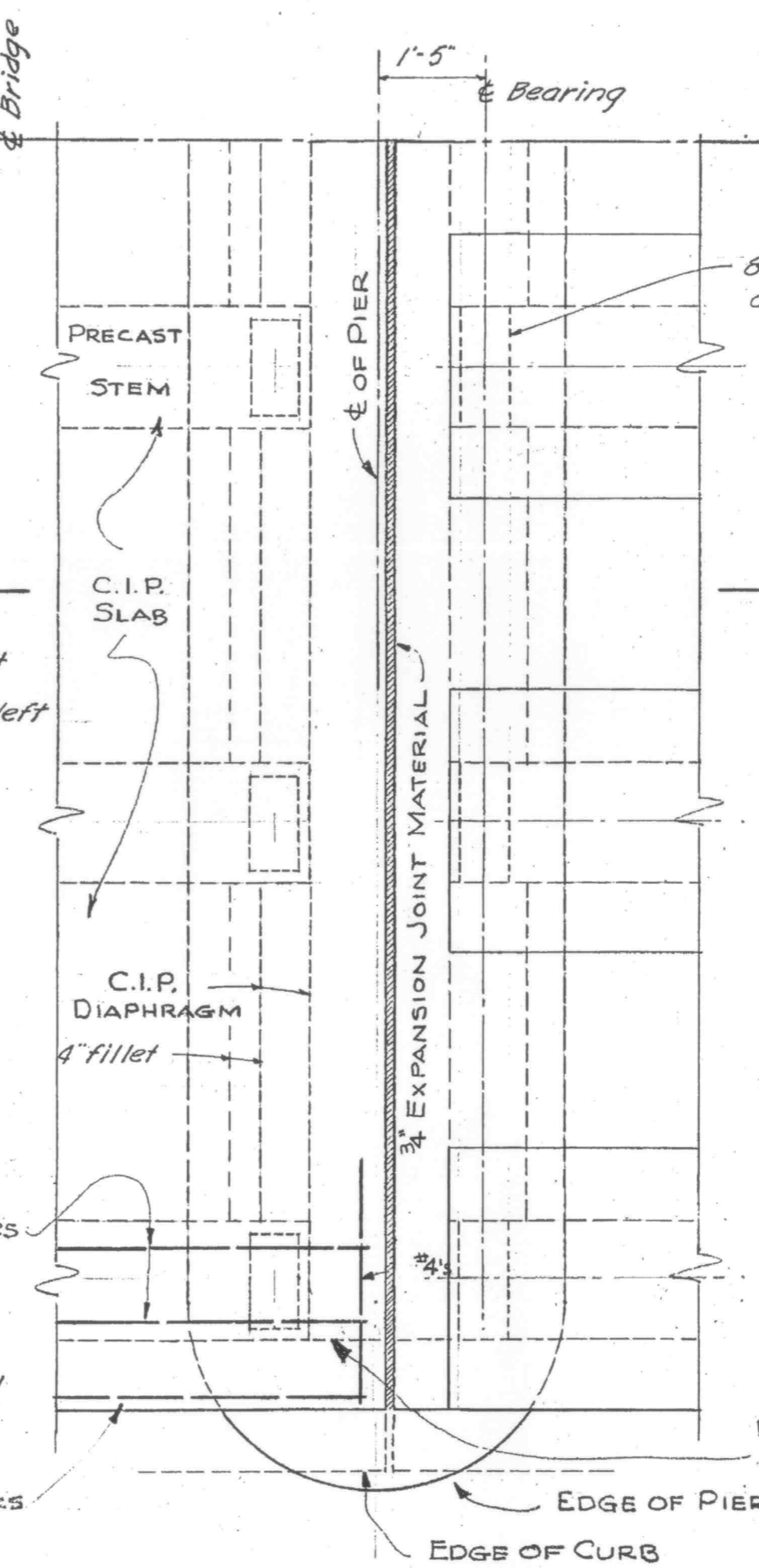
SECTION A-A
 DRAIN DETAIL - 1
 1/2" = 1'-0"



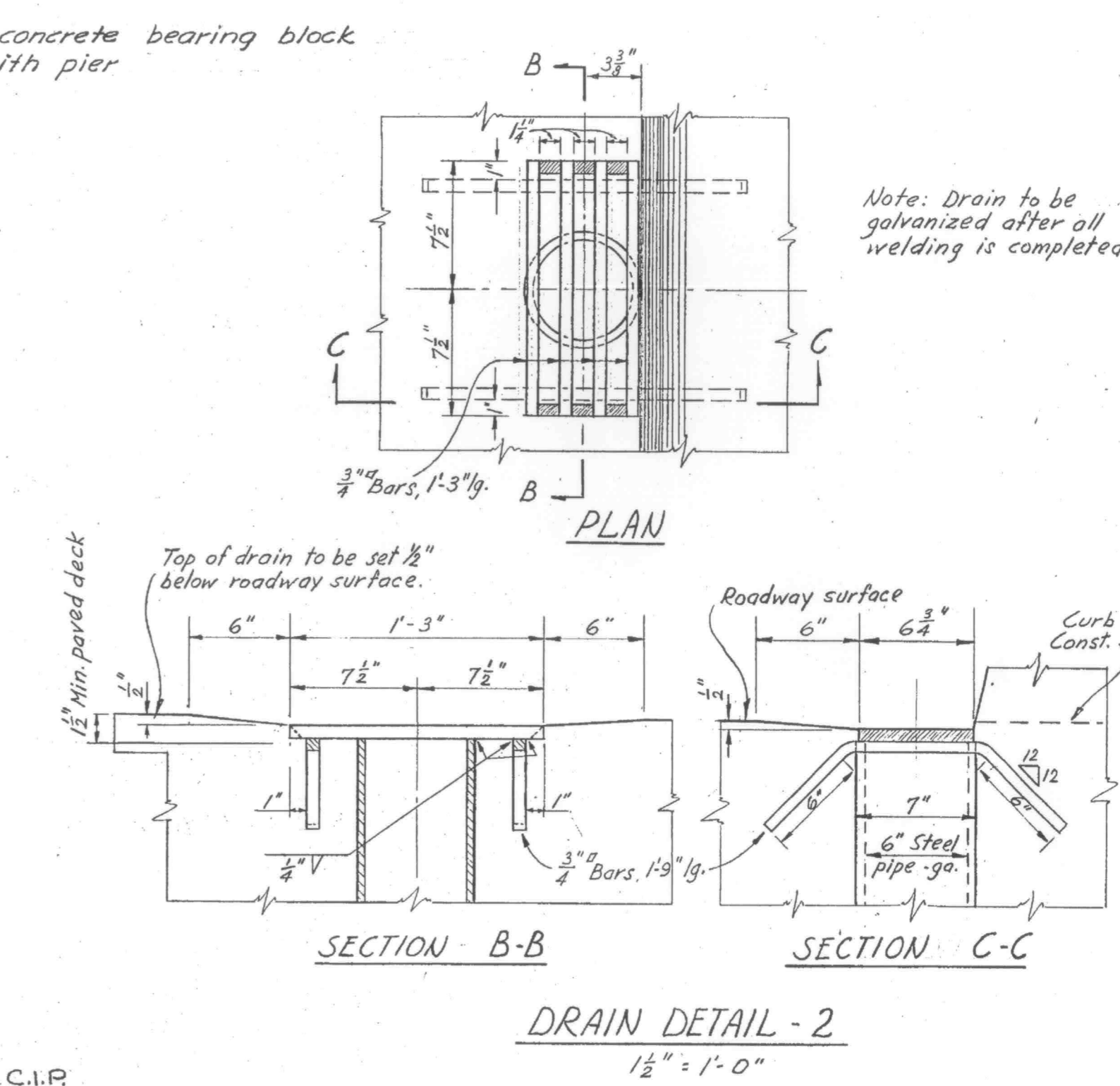
PARTIAL PLAN AT PIER 5



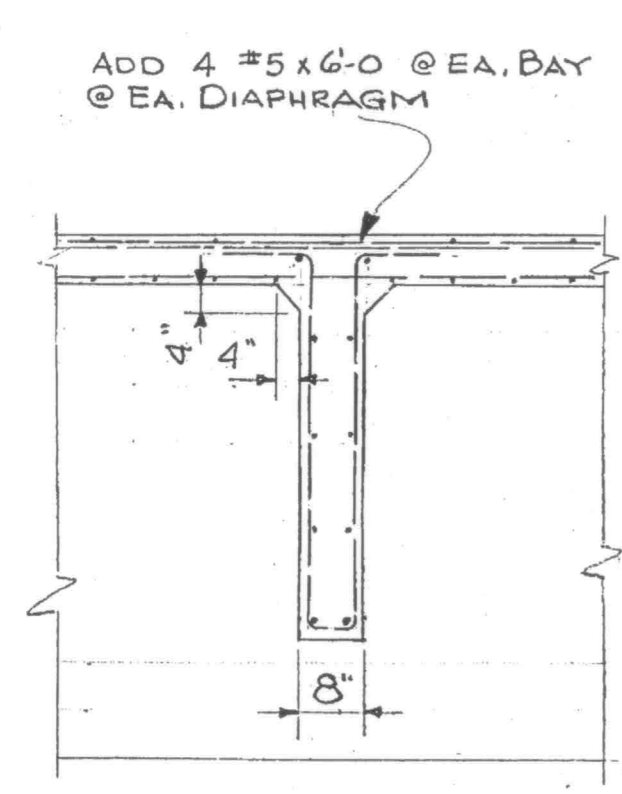
SECTION D-D



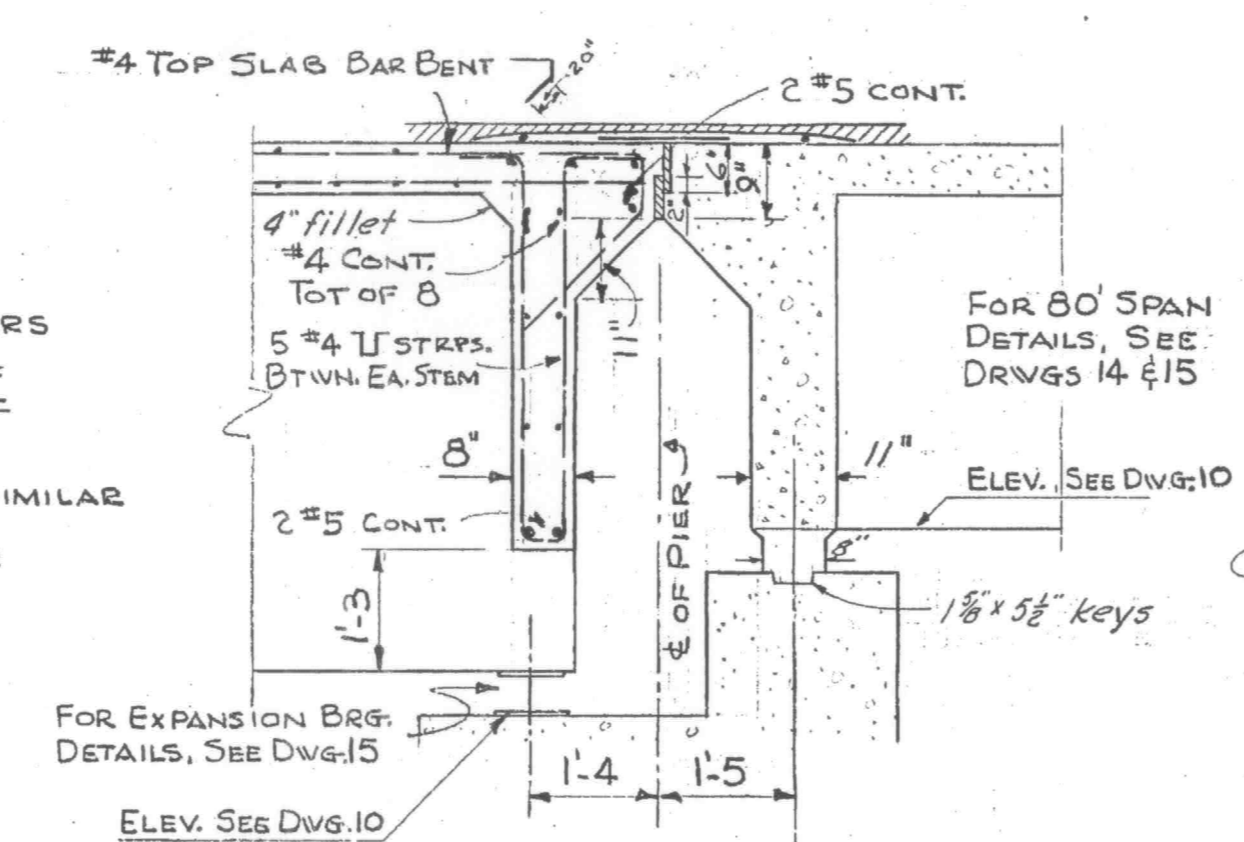
PARTIAL PLAN AT PIER 6



SECTION B-B
 SECTION C-C
 DRAIN DETAIL - 2
 1/2" = 1'-0"



SECTION C-C



SECTION E-E

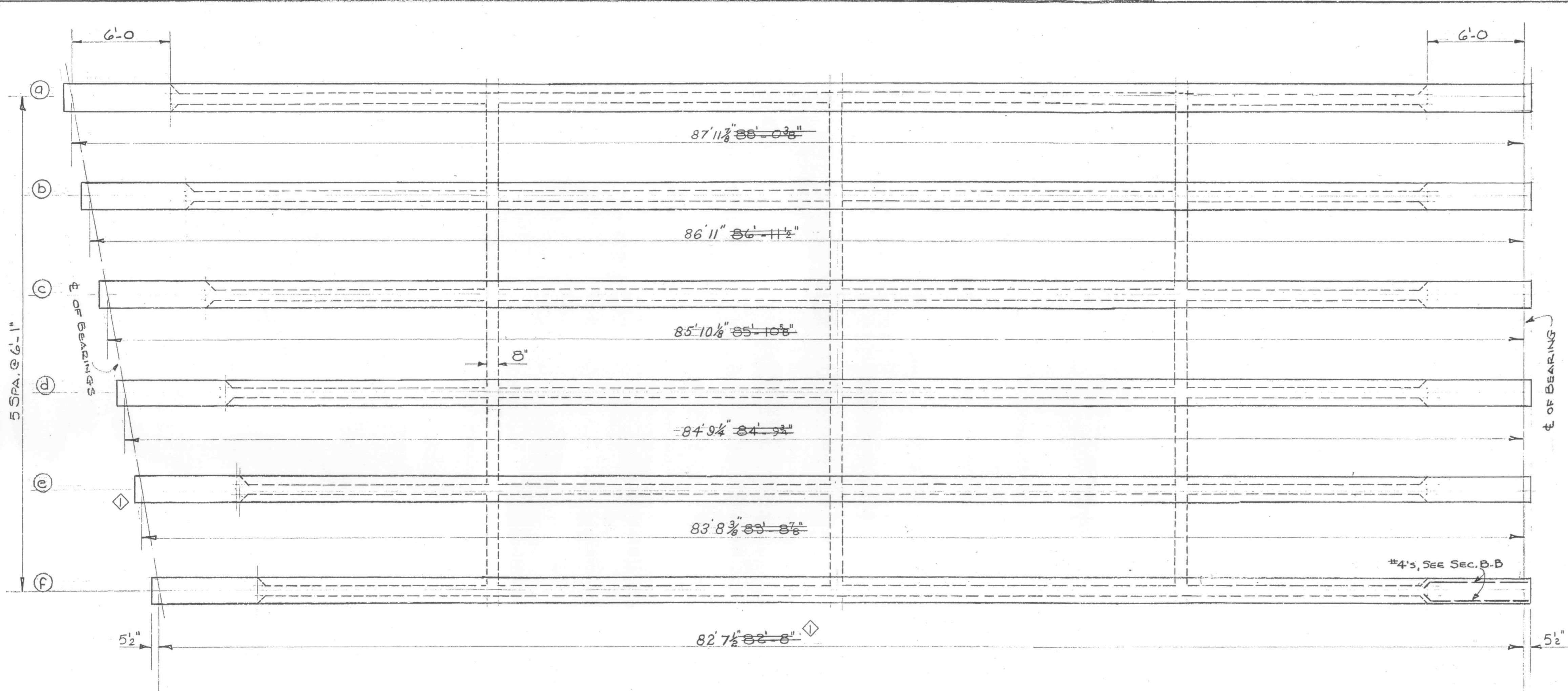
Corrected to As Built, 5-14-58.
[Signature]
 Res. Eng.

REVISIONS	DESCRIPTION	DATE	BY
1	Changed bearing details	6-11-57	CRF
2	Changed end diaphragms added fillets	6-21-57	CRF WST

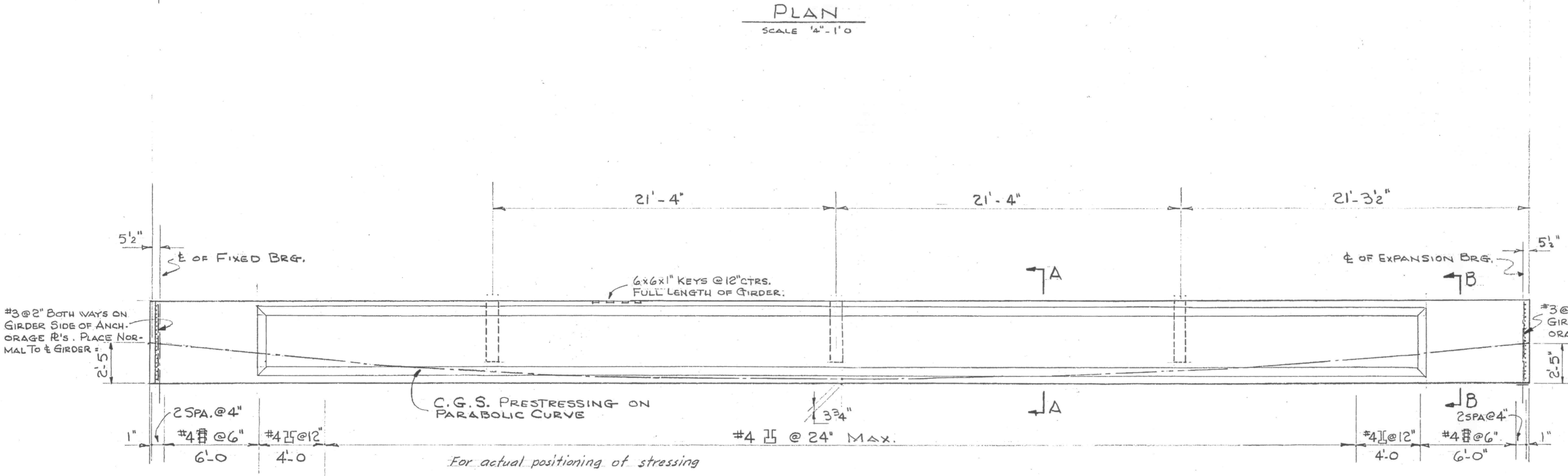
SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5TH ST. BRIDGE	
GIRDER DETAILS TYPE IV	
SCALE 1/2"=1'-0"	DATE 3-16-56 DRWG 16

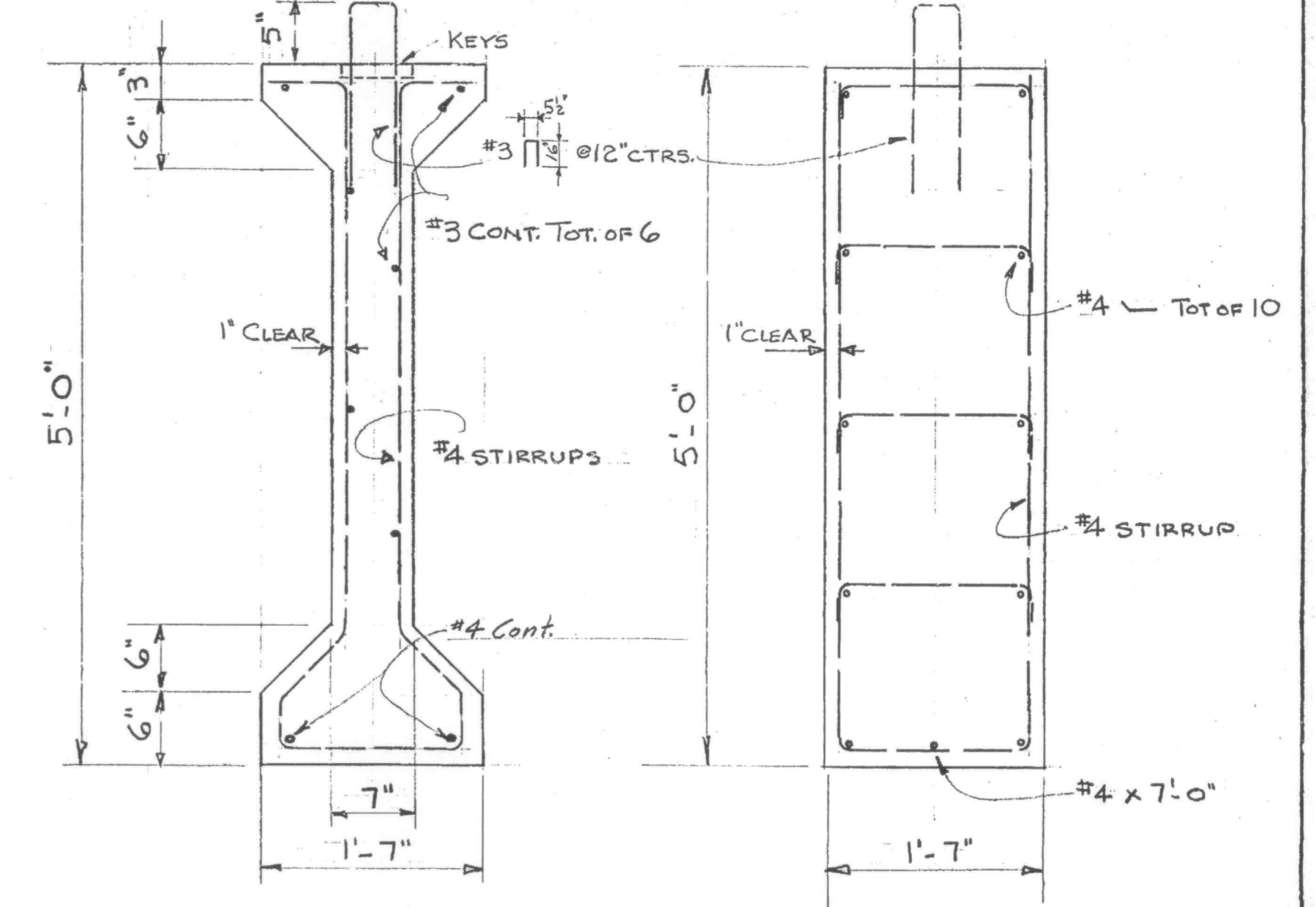
APPROVED *[Signature]*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE # 5769



PLAN
 SCALE 1/4"=1'-0"



ELEVATION



SECTION A-A
 SCALE 1"=1'-0"

SECTION B-B
 SCALE 1"=1'-0"

PRESTRESSING NOTES

- PRESTRESSING : FOR GIRDERS (A) (B) & (C)
 DESIGN FORCE, AFTER ALL LOSSES = 579,000 LBS.
- FOR GIRDERS (D) (E) & (F)
 DESIGN FORCE, AFTER ALL LOSSES = 553,000 LBS.
- THE LOSS IN PRESTRESS DUE TO SHRINKAGE, CREEP, AND SEQUENCE STRESSING SHALL BE ASSUMED TO BE 24,000 P.S.I. FOR POST-TENSIONING SYSTEMS.
 30,000 P.S.I. " PRETENSIONING "
- IN ADDITION TO ABOVE LOSSES, PROVISION SHALL BE MADE FOR FRICTION LOSSES, ANCHORAGE TAKSUP, AND ANY OTHER LOSSES PECULIAR TO THE PRESTRESSING SYSTEM USED.
- CONCRETE : $f'_c = 5000$ P.S.I.
- PRESTRESSING STEEL : SEE SPECIAL PROVISIONS.

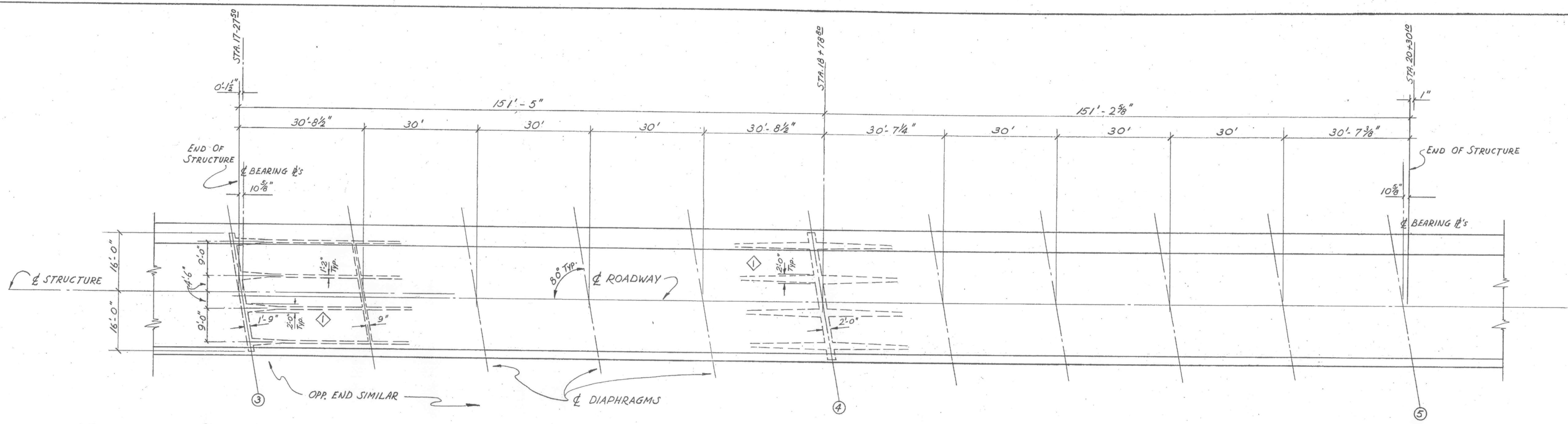
Corrected to As Built. 5-14-58.
[Signature] Res. Eng.

SUTTER & YUBA COUNTIES	
5TH ST. BRIDGE	
GIRDER TYPE IV	
SCALE AS SHOWN	DATE 3-13-57
DWG.	17

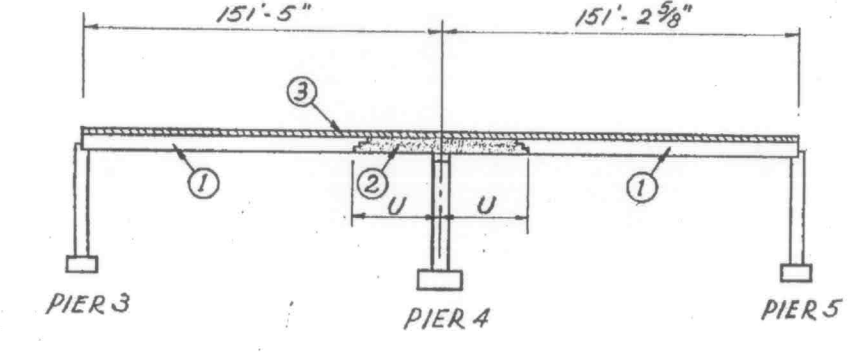
SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION
 APPROVED *[Signature]*
 CIVIL ENGINEER LICENSE 6913

REVISIONS	Increased all girder lengths by 1/8". Squared off girder ends. 6-21-57	LHR WJT

APPROVED *M. Sutter*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE #5769



PLAN
 1/16" = 1'-0"

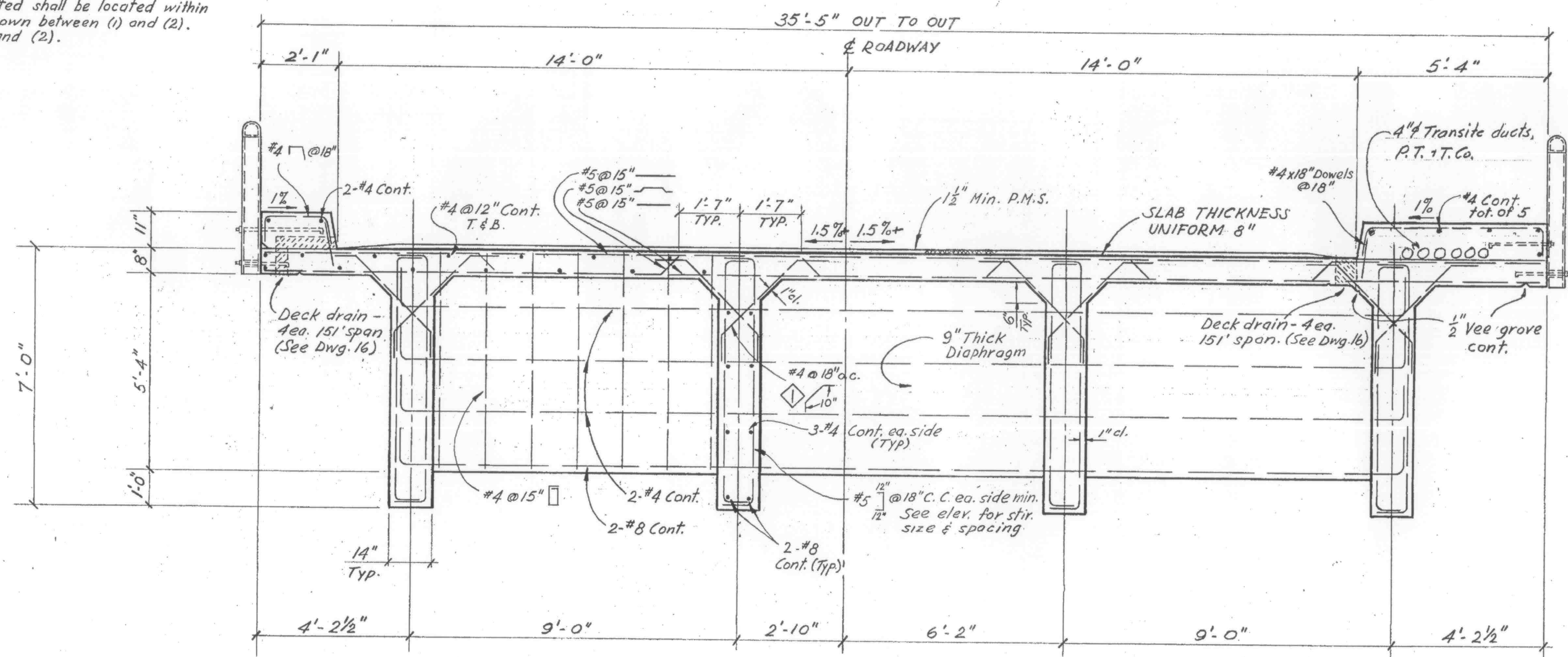


SUPERSTRUCTURE PLACING DIAGRAM

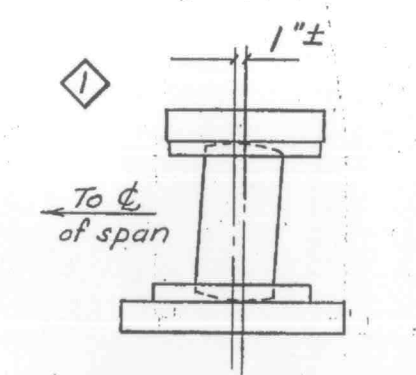
Numbers (1) and (2) indicate sequence of placing girder stem concrete. (2) may be placed simultaneously with (1) when approved by the Engineer, and provided that the (1) sections are placed in adjoining spans. Top slab concrete (3) may be placed separately from (1) and (2), but the only joints permitted shall be located within 2'-0" of the girder joints shown between (1) and (2). (3) may be placed with (1) and (2).
 U = 74 span length.

ACTUAL PLACING SCHEDULE

(1) and (2) placed together Oct. 14, 1957.
 (3) placed Oct. 18, 1957.

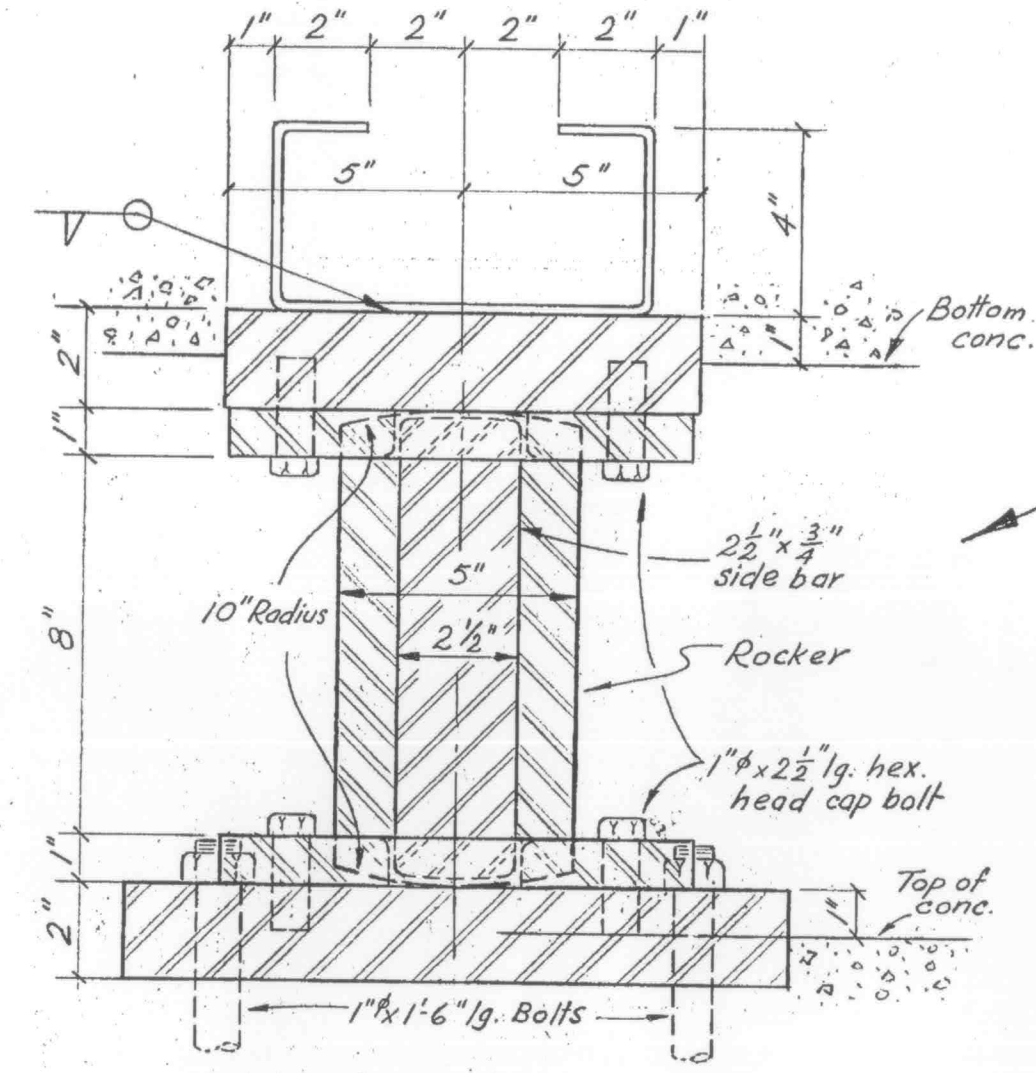


TYPICAL MIDSPAN SECTION
 3/8" = 1'-0"

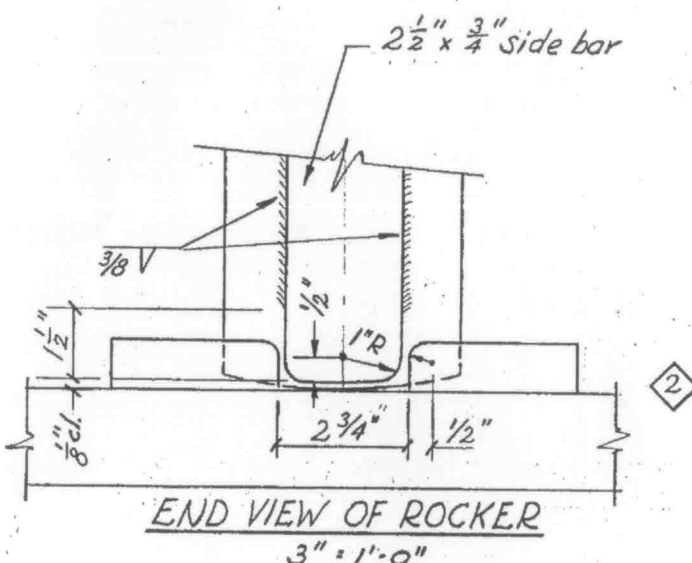


ROCKER SETTING

Rocker to be set 1" ± off vertical before shrinkage, elastic shortening & ultimate creep.



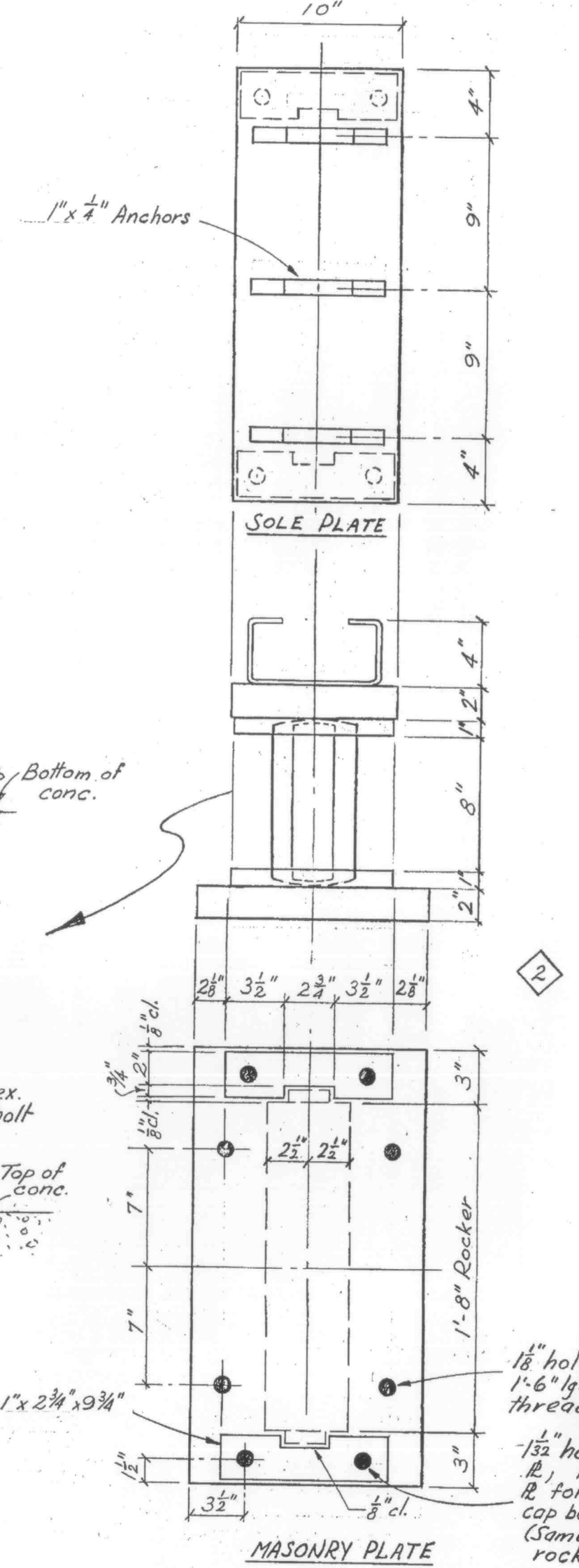
SECTION - EXPANSION BEARING
 3" = 1'-0"



END VIEW OF ROCKER
 3" = 1'-0"

PRESTRESSING NOTES

Use 32 - 1 1/8" φ strands
 Working force = 208 %strand
 Total design force, after all losses = 6,656,000 lbs.
 CONCRETE: f_c' = 5000 P.S.I. @ 28 days
 PRESTRESSING STEEL: See special provisions.



EXPANSION BEARING PIER
 1 1/2" = 1'-0"

REVISIONS	DESCRIPTION	DATE	BY
1	Added Rocker Setting Detail, End girder stem dimensions. Added #4 Bars each stem.	5-29-57	WJH
2	Rearranged Expansion Bearing Details & added Rocker End View Det.	6-20-57	WJH

SUTTER & YUBA COUNTIES

5TH ST. BRIDGE

151 FT. GIRDERS

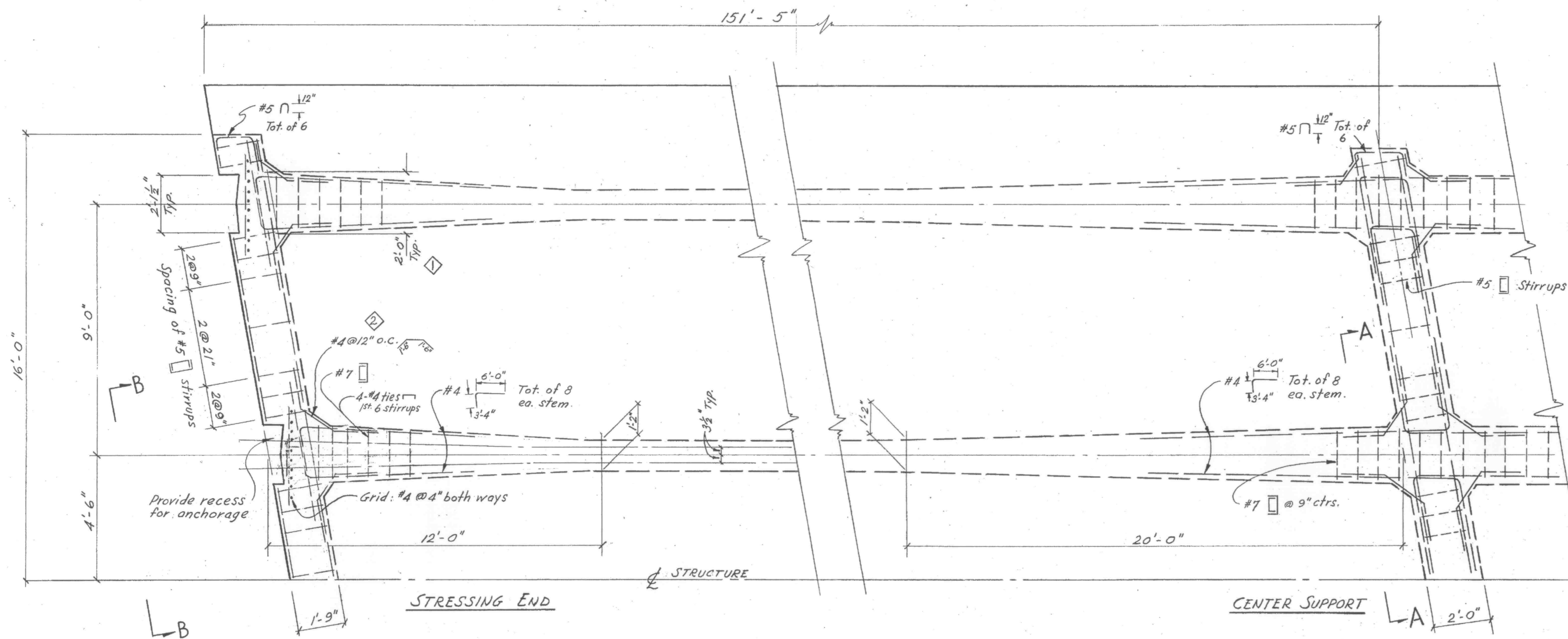
SCALE: AS SHOWN DATE: 3-12-57 DWG. 18

APPROVED *T.Y. Liu*

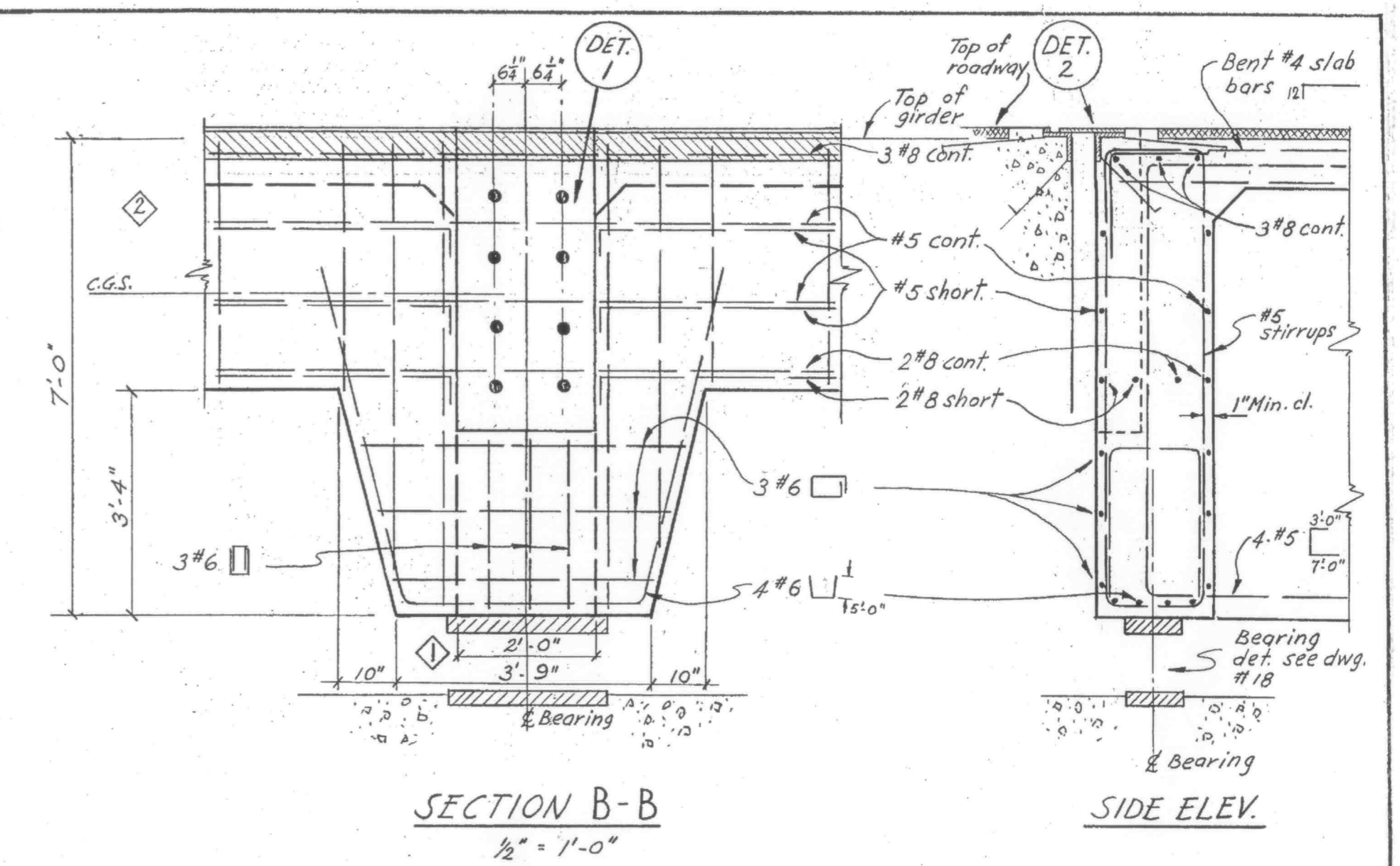
SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION

APPROVED *W.J. H. H. H.*
 CIVIL ENGINEER LICENSE 6913

Corrected to As Built 5-14-58.
Lead M. Asner
 Res. Eng.

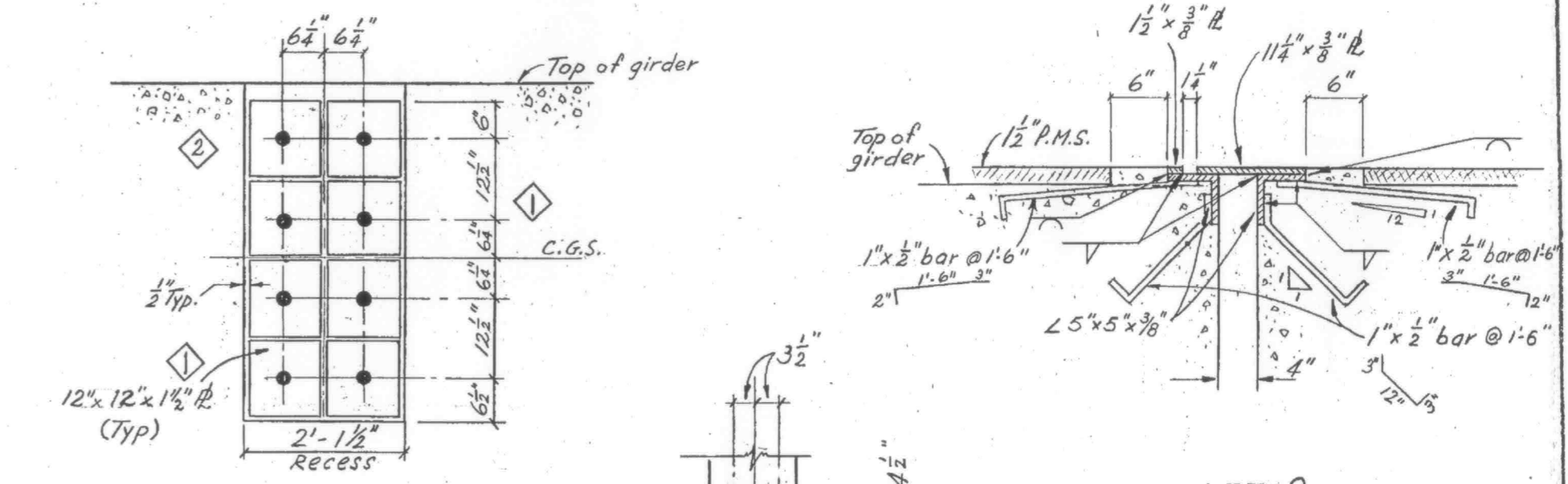


PLAN
3/8" = 1'-0"



SECTION B-B
1/2" = 1'-0"

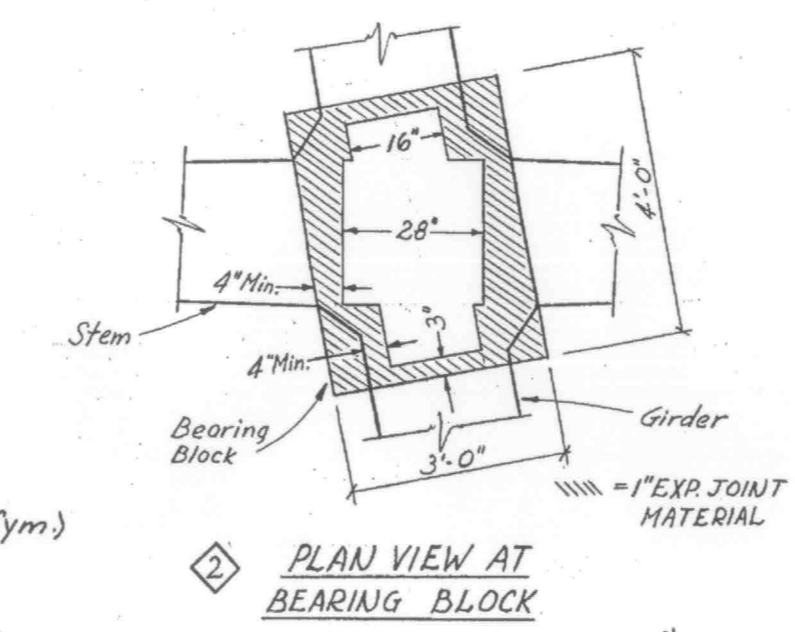
SIDE ELEV.



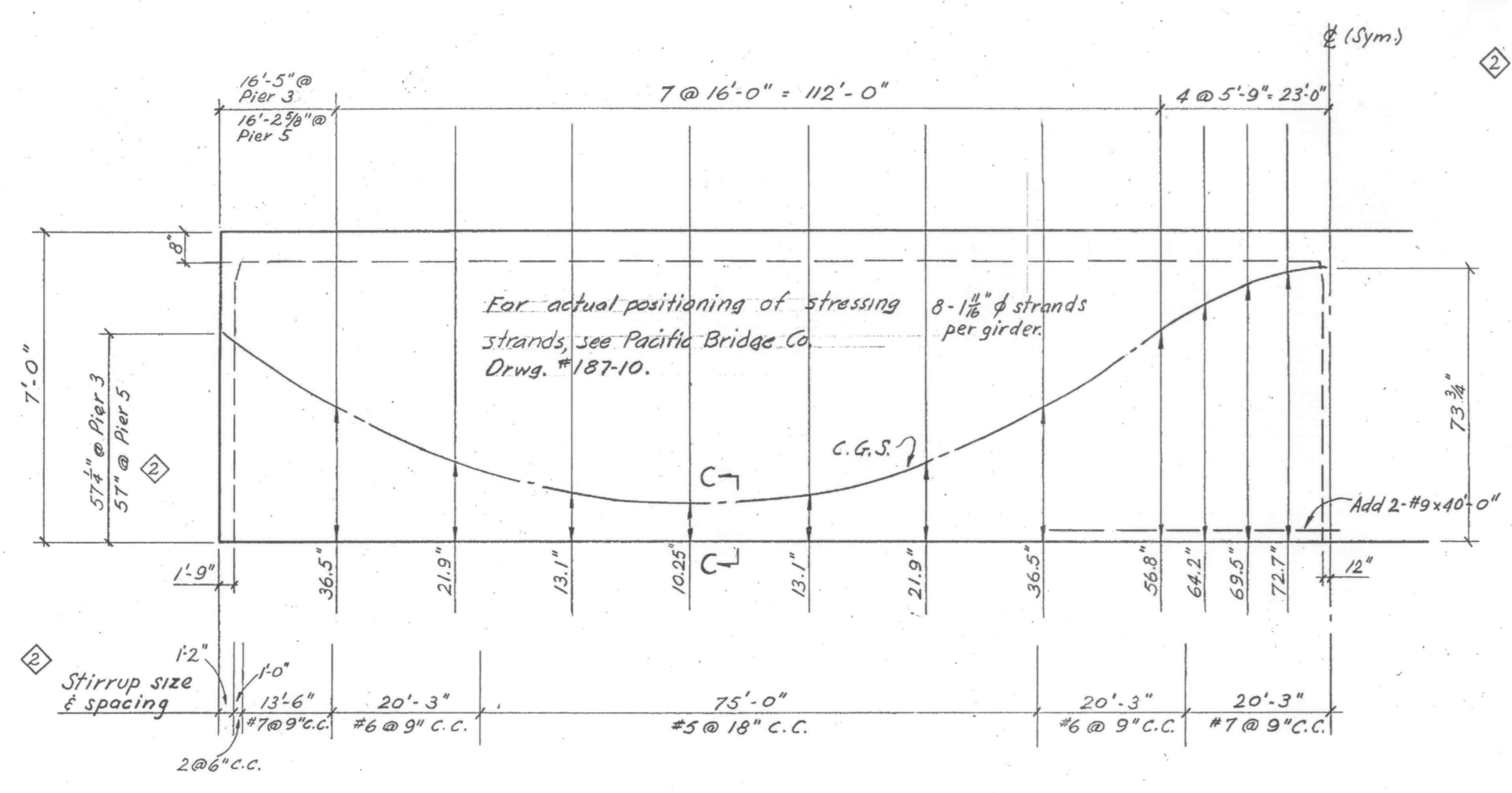
DET. 1
RECESS FOR ANCHORAGE
1/2" = 1'-0"

DET. 2
3/4" = 1'-0"

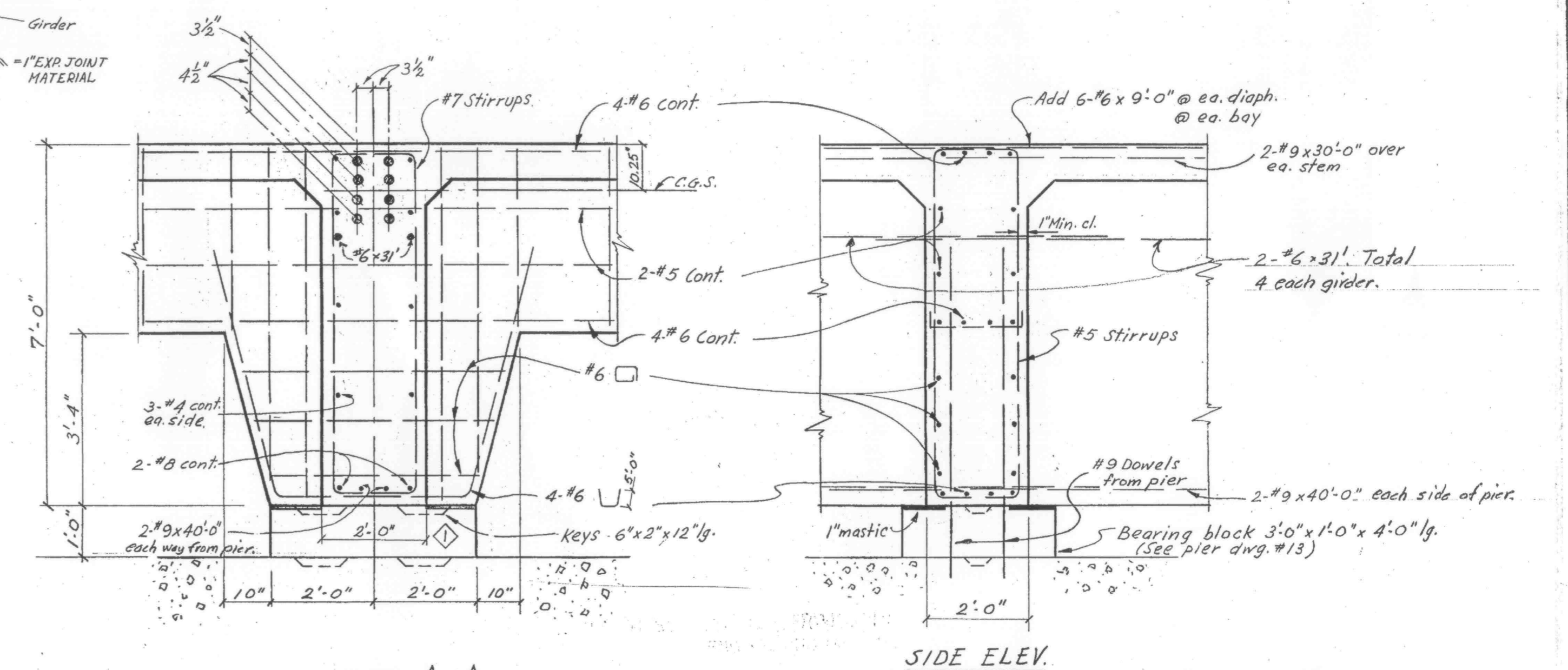
SECTION C-C
1/2" = 1'-0"



PLAN VIEW AT BEARING BLOCK



ELEV.
No Scale



SECTION A-A
1/2" = 1'-0"

SIDE ELEV.

Corrected to As Built 5-14-58.
J. M. Barrett
Res. Eng.

APPROVED
SUTTER COUNTY ROAD COMMISSIONER
CIVIL ENGINEER LICENSE #5769

APPROVED J. Y. Liu

REVISIONS	DESCRIPTION	DATE	BY
1	Changed R sizes & strand spacing - Det. 1. Enl'd stem dim. Sec. A-A, Sec. B-B & Plan.	5-29-57	LHR
2	Changed Stirrup Spacing - Elev. Added #4 Rein. bars - Plan	6-20-57	LHR
3	Removed C.G.S. dim. - Sec. B-B & Det. 1. Enl'd Bearing Block Def.	6-20-57	WTT

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ENGINEERING DIVISION

APPROVED J. M. Barrett
CIVIL ENGINEER LICENSE 6913

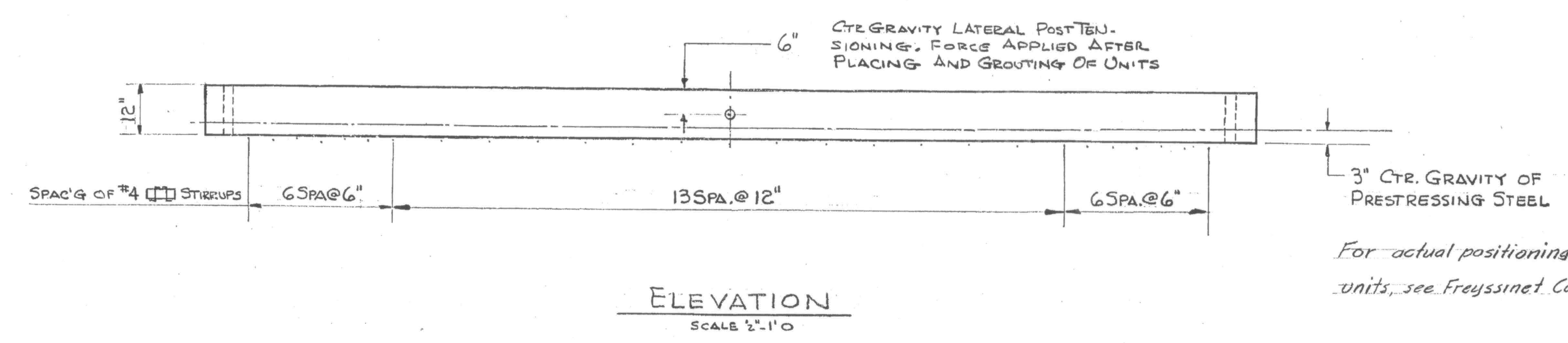
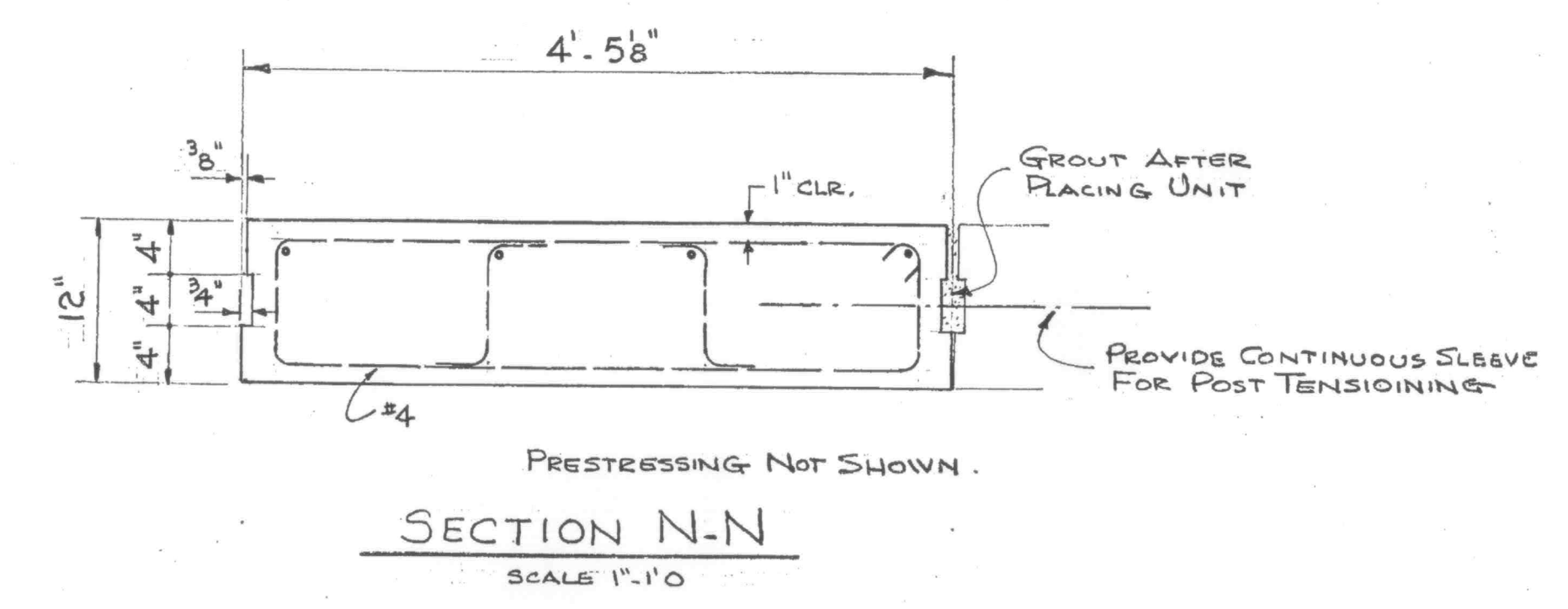
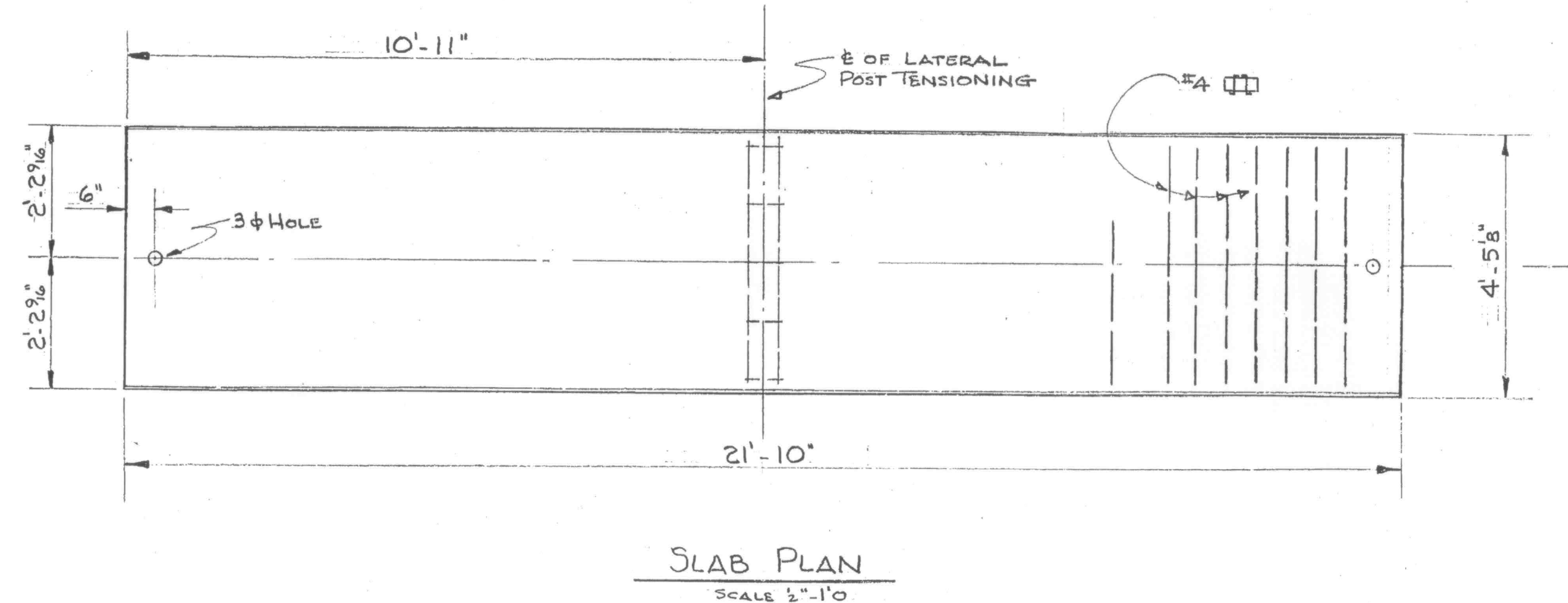
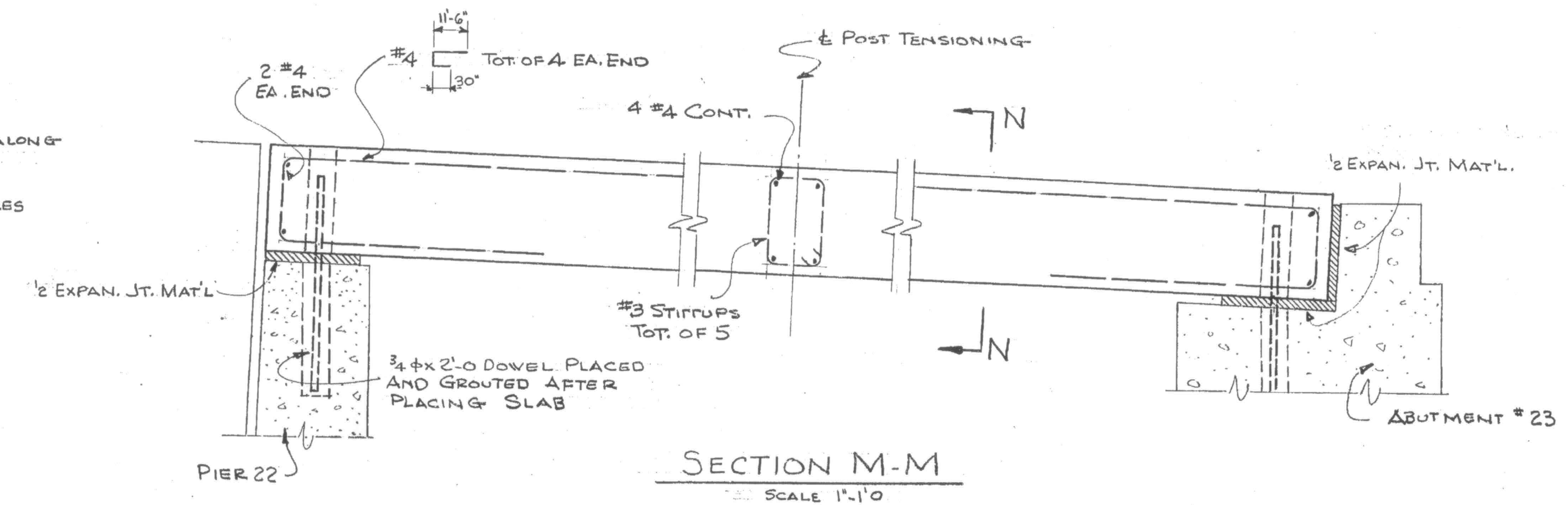
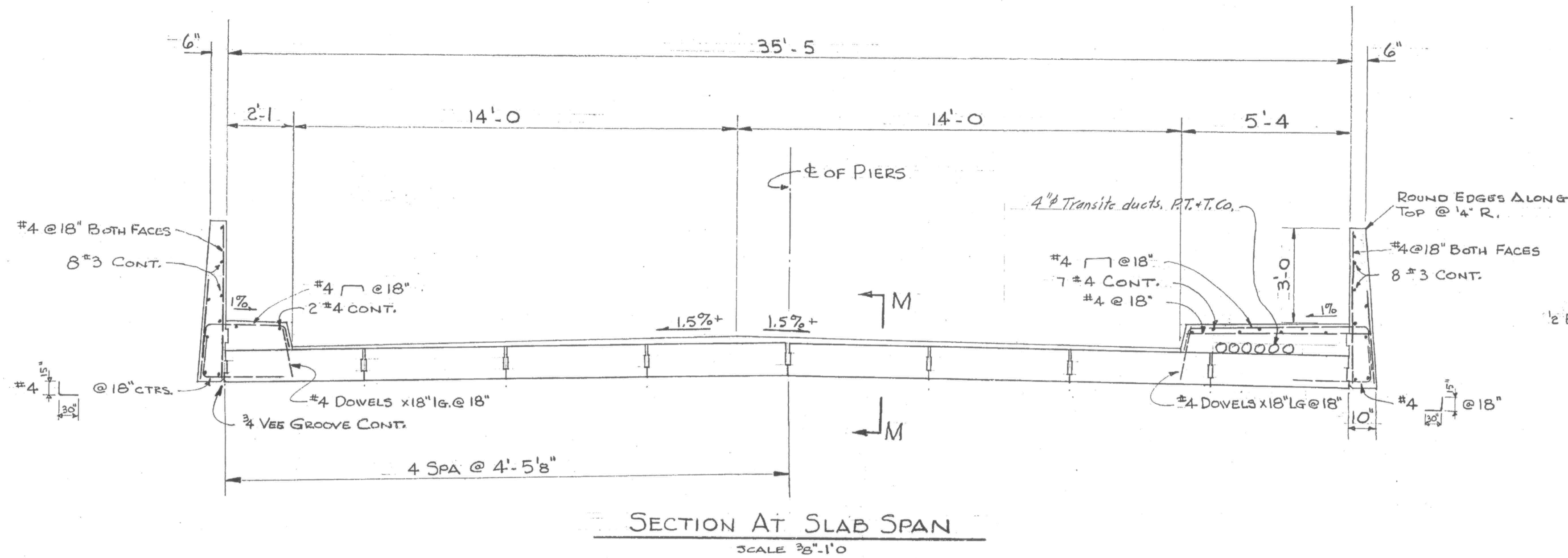
SUTTER & YUBA COUNTIES

5TH ST BRIDGE

151 FT GIRDERS

SCALE: AS SHOWN DATE: 3-26-57 DWG: 19

APPROVED *Edl. Watzman*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE # 5769



PRESTRESSING NOTES:

CONCRETE : $f'_c = 4500$ p.s.i.

PRESTRESSING STEEL : SEE SPECIAL PROVISIONS.

PRESTRESSING FORCE : DESIGN FORCE, AFTER ALL LOSSES, = 365,000[#]/UNIT.

THE LOSS IN PRESTRESS DUE TO SHRINKAGE AND CREEP OF CONCRETE AND CREEP OF STEEL SHALL BE ASSUMED TO BE 124,000 P.S.I. (POST-TENSIONING SYSTEM) 130,000 P.S.I. (PRESTENSIONING SYSTEM)

POST-TENSIONING FORCE : DESIGN FORCE, AFTER ALL LOSSES = 45,000[#]

THE LOSS IN PRESTRESS SHALL BE ASSUMED TO BE 22,000 P.S.I.

UNIT WEIGHT : 7 TONS ±

NO UNITS REQUIRED : 8

For actual positioning of stressing units, see Freyssinet Co. Drwg. #2.

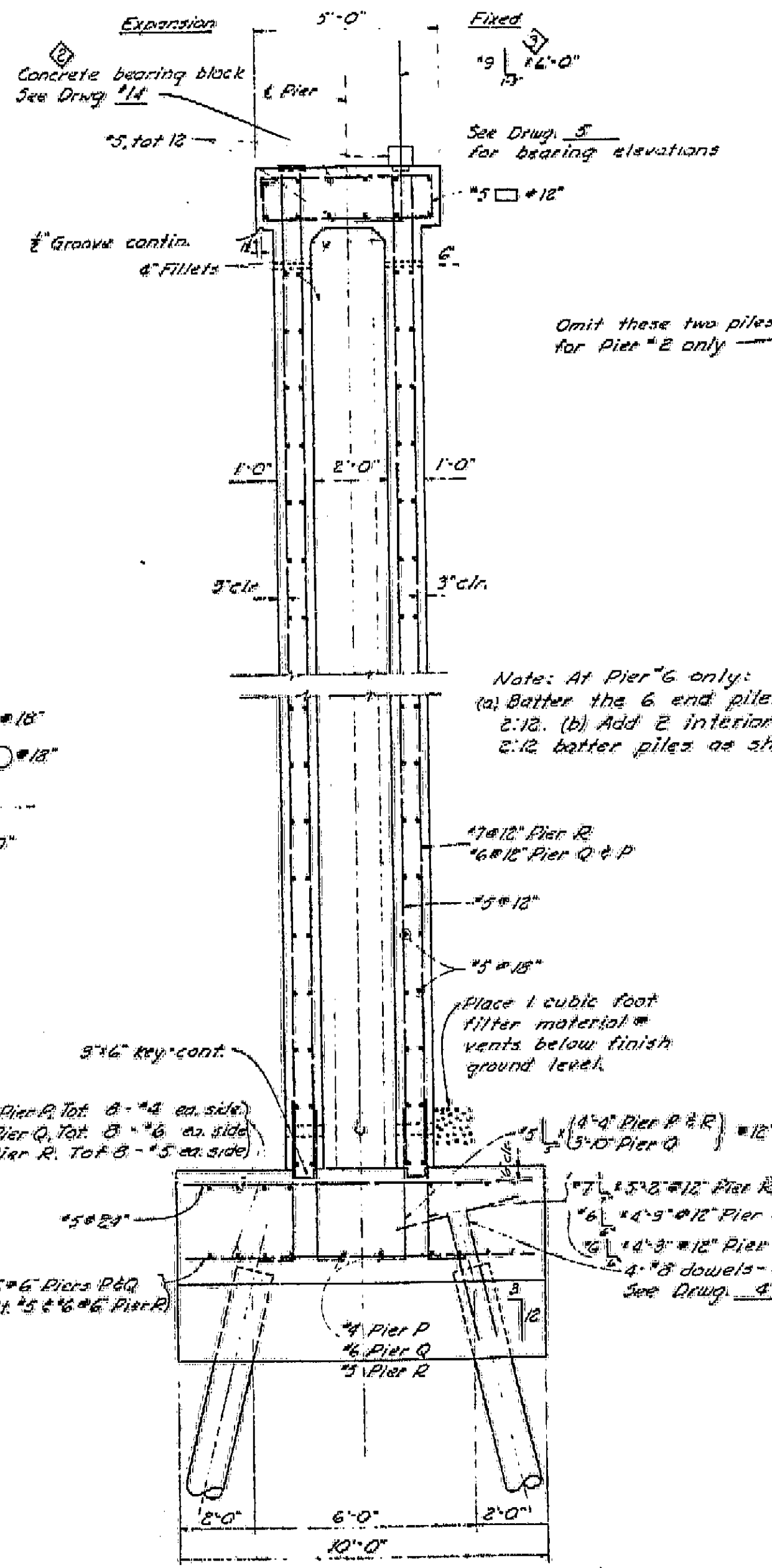
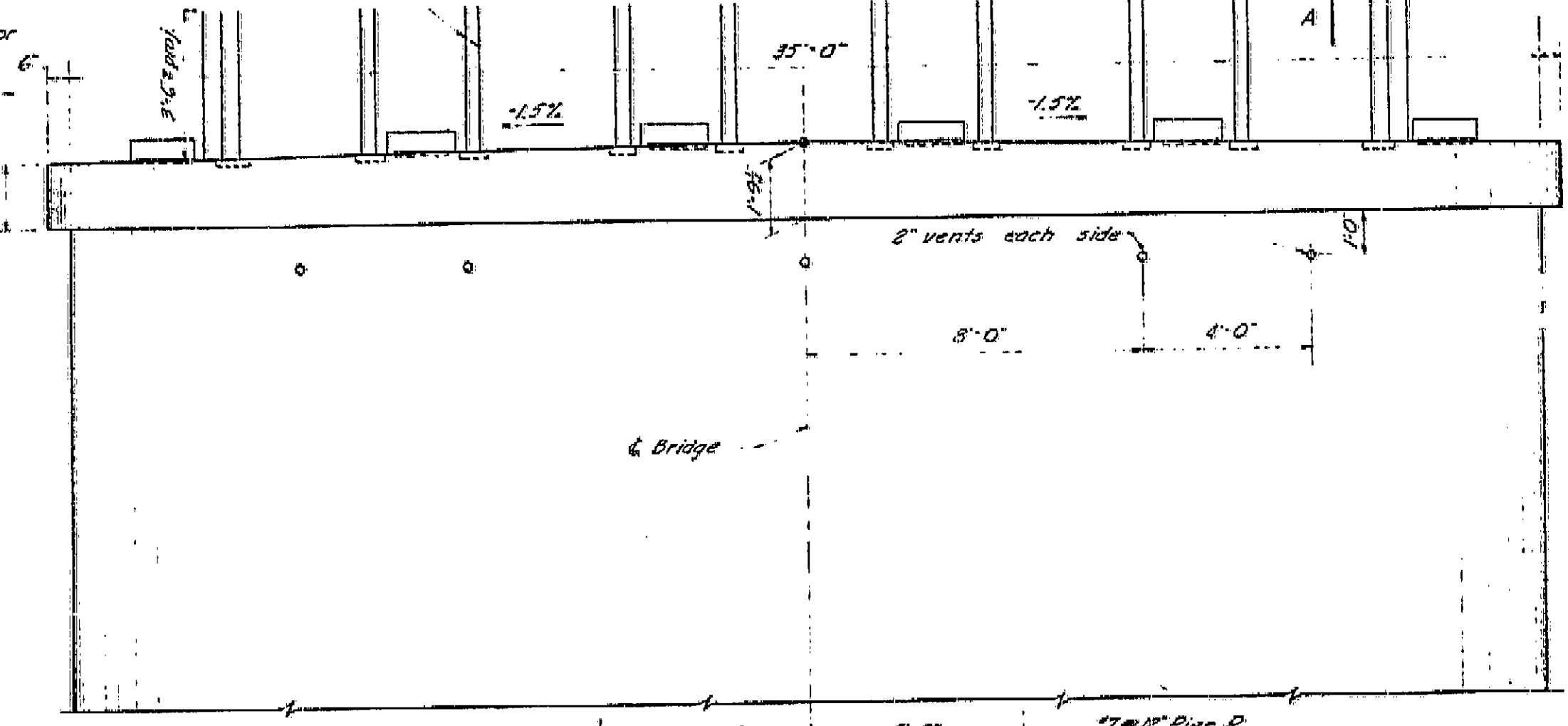
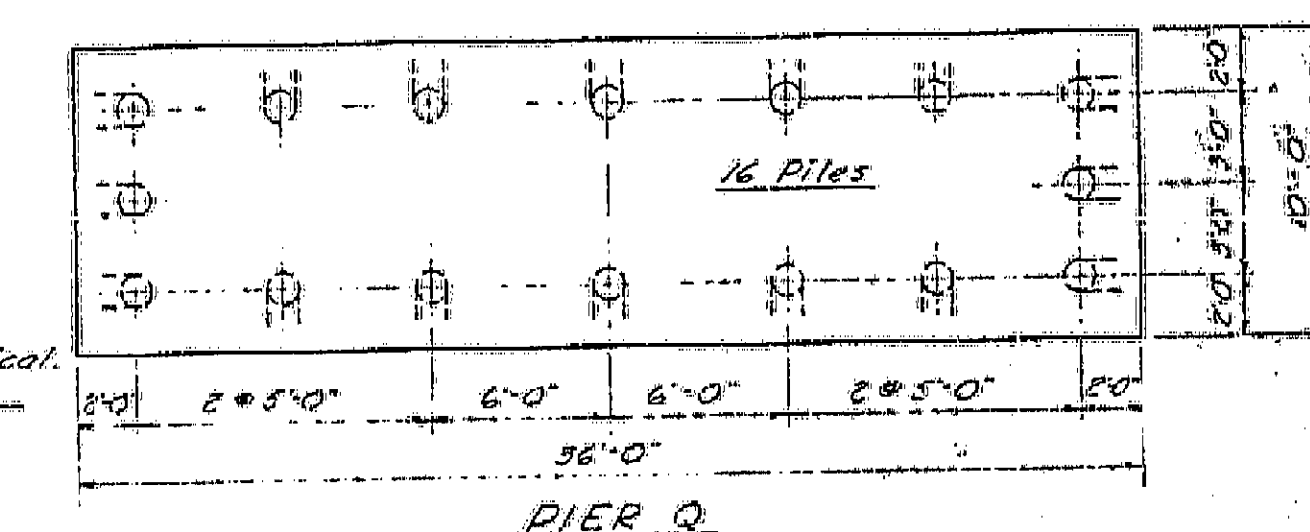
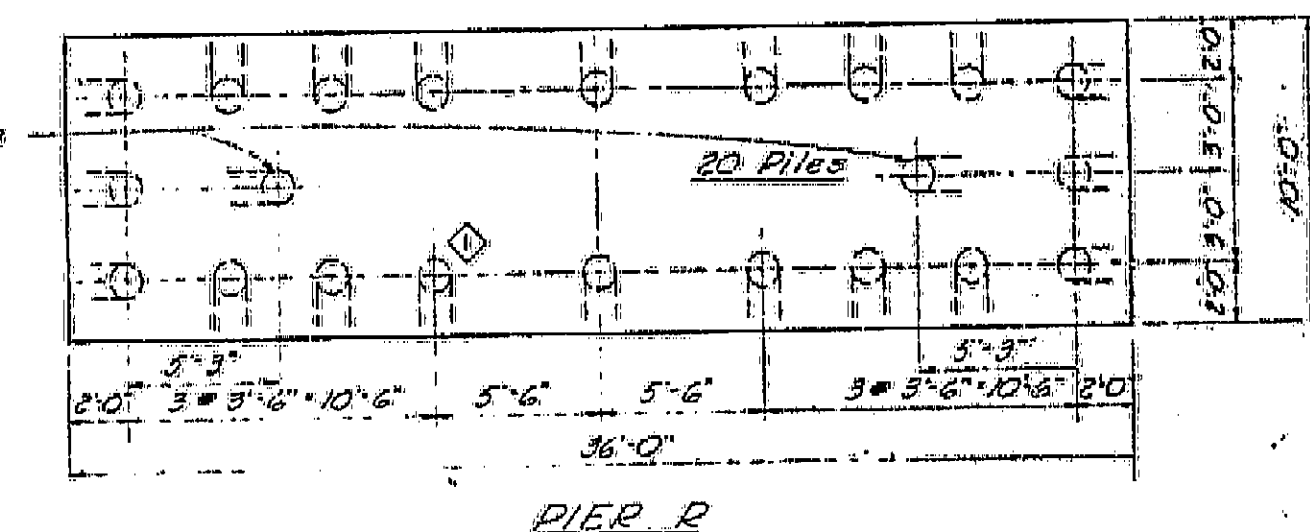
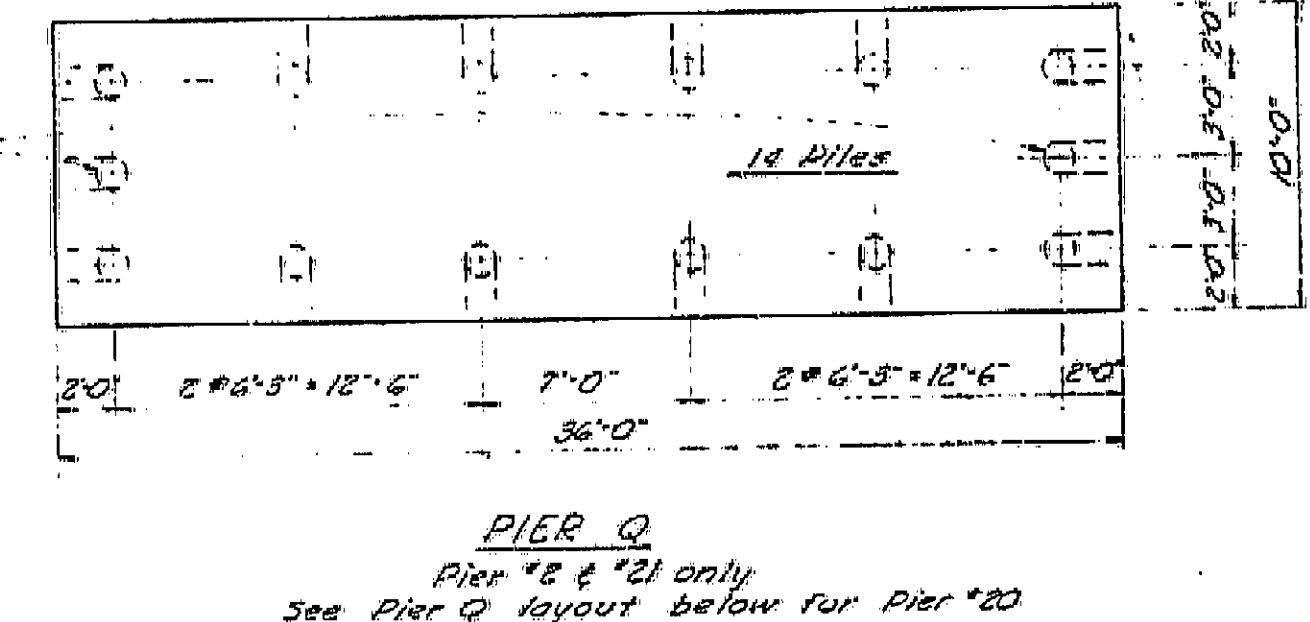
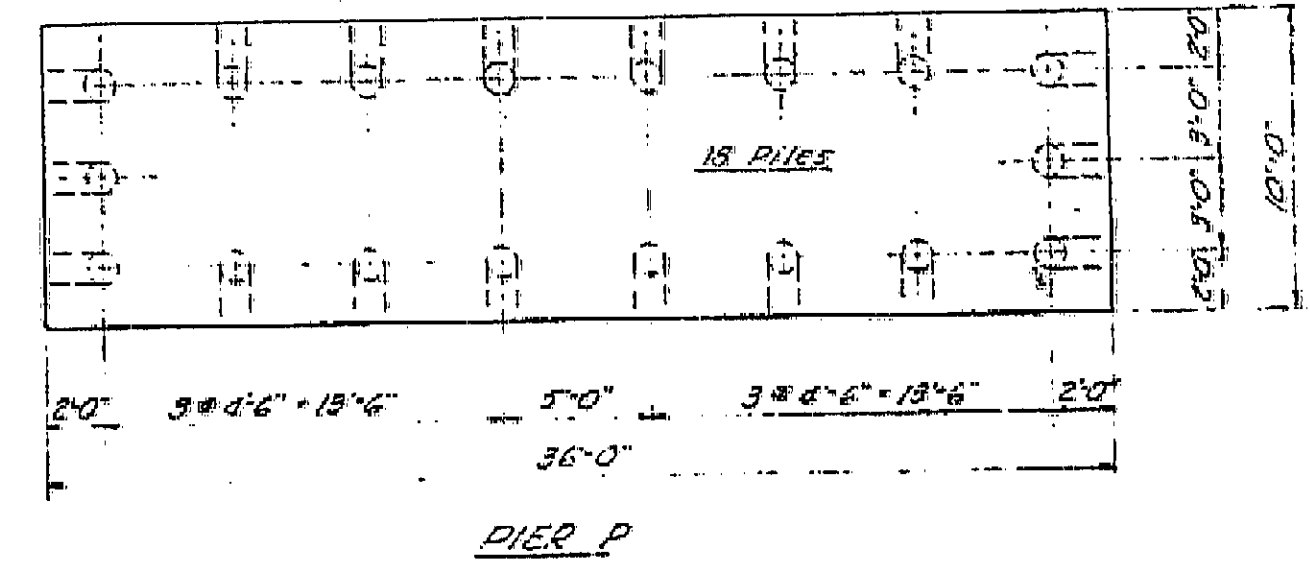
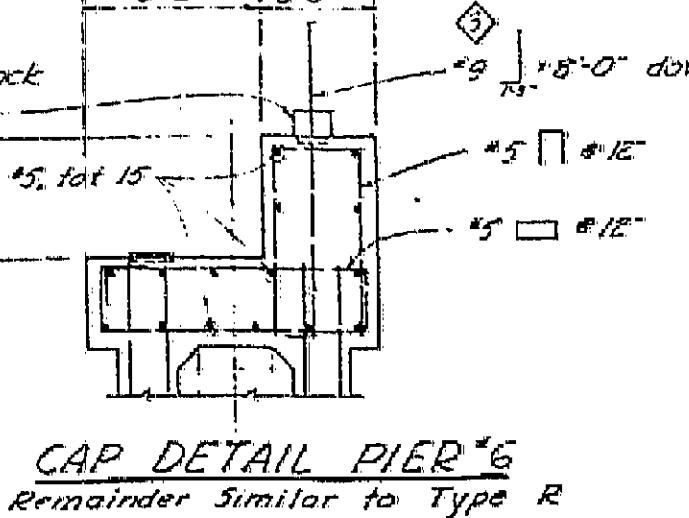
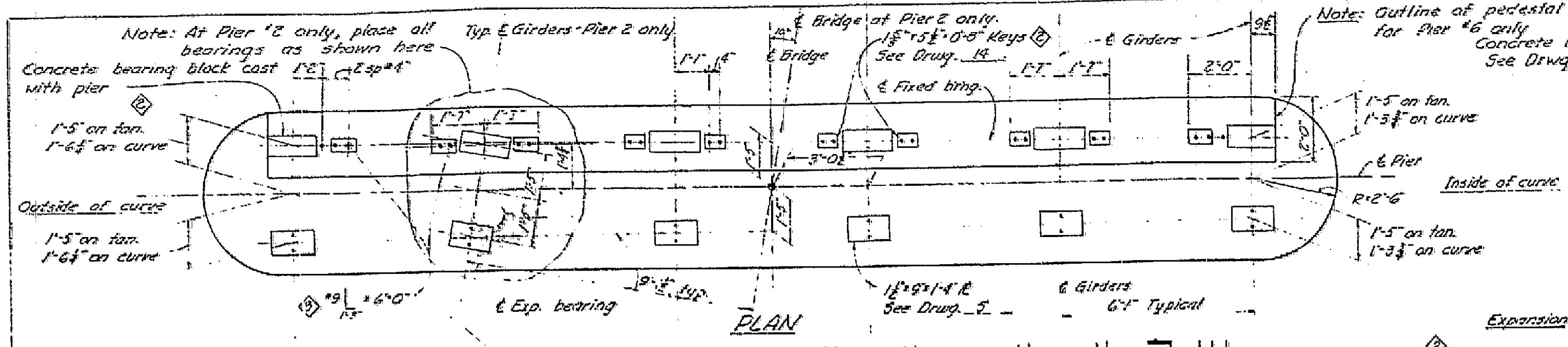
Corrected to As Built. 5-14-58.
Fred M. Danvers
 Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION

APPROVED *W. J. [Signature]*
 CIVIL ENGINEER LICENSE 6913

SUTTER & YUBA COUNTIES	
5 TH ST. BRIDGE	
SLAB SPAN	
SCALE AS SHOWN	DATE 13-11-56 DVG. 20

Approved: *[Signature]*
 Sutter County Road Commissioner
 Civil Engineer License No. 5769



PILE LAYOUTS
 All Piles Battered 3:12 Except as Noted
 Scale 3/8" = 1'-0"

SUTTER & YUBA COUNTIES

5th ST. BRIDGE

PIER DETAILS
 TYPES P, Q & R

SUBMITTED BY: Ben C. Gerwick Inc.
 ENGINEERING DIVISION

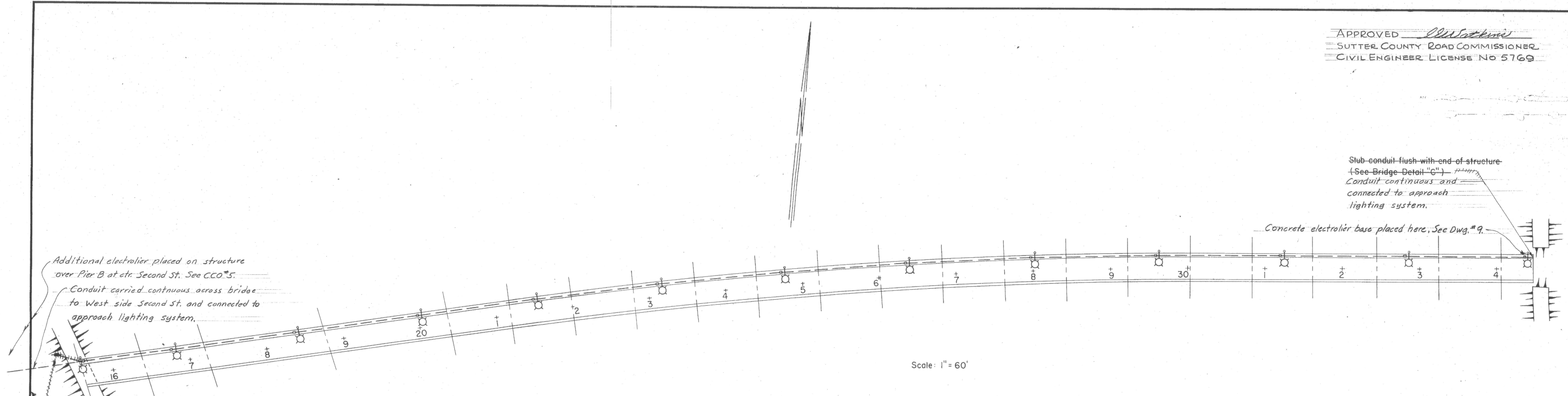
APPROVED: *[Signature]*
 CIVIL ENGINEER LICENSE 6913

REVISIONS	DESCRIPTION	DATE
1	Changed Cap Dimension - Pier #6 Det. 1'-11 1/2" to 1'-9"	1-22-57
2	Inserted 4 vents in Pier Diaphragms. 14 piles battered 2:12 - Pier R	5-22-57
3	Changed key wire - added bearing blocks	6-18-57
4	Changed 13 dowels to #5	6-21-57

Scale 3/8" = 1'-0" except as noted Date: 2-15-57 DWG

NOTE: Seal to be placed only when ordered by the Engineer. Seal thickness shown for estimating purposes only. The thickness to be used will be determined in the field by the Engineer. When seal is not used, the bottom of the reinforced footing shall be placed at the elevation shown for bottom of seal.

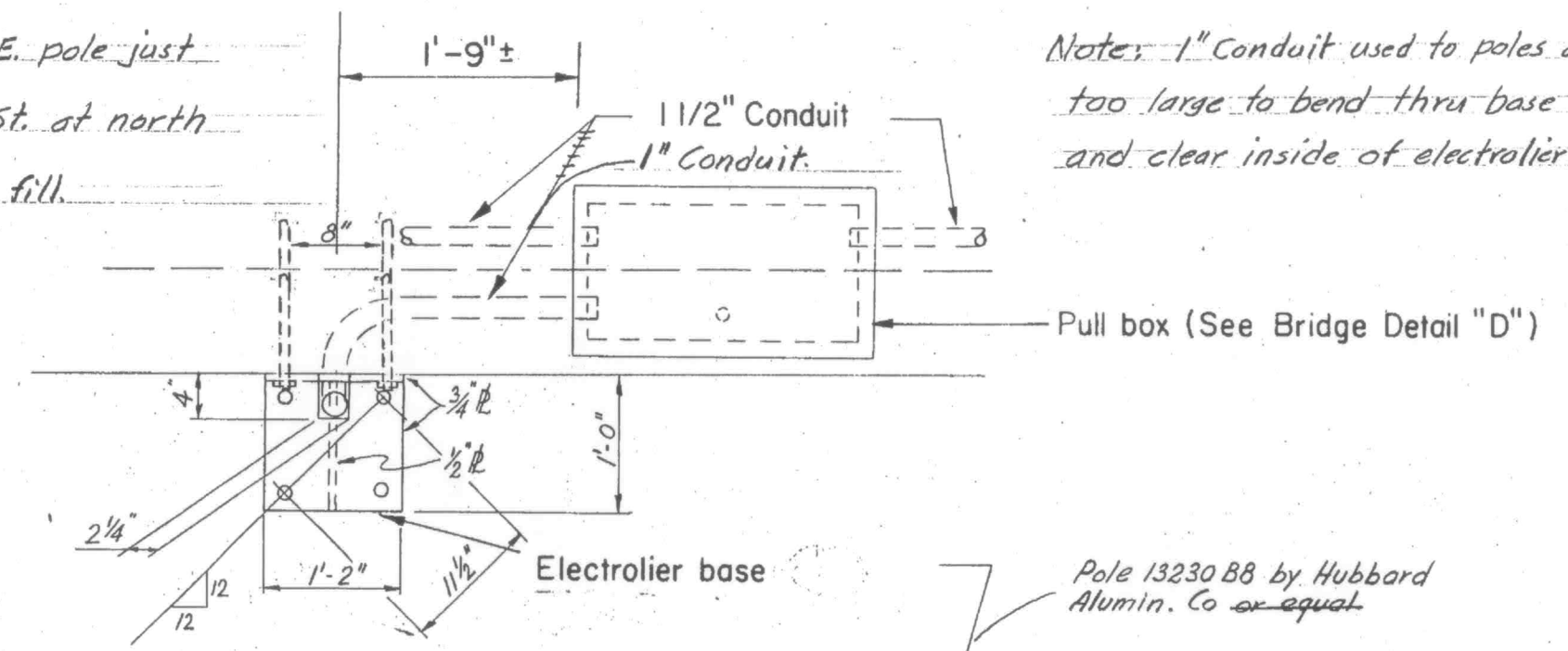
APPROVED *Bill Sattin*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE NO 5769



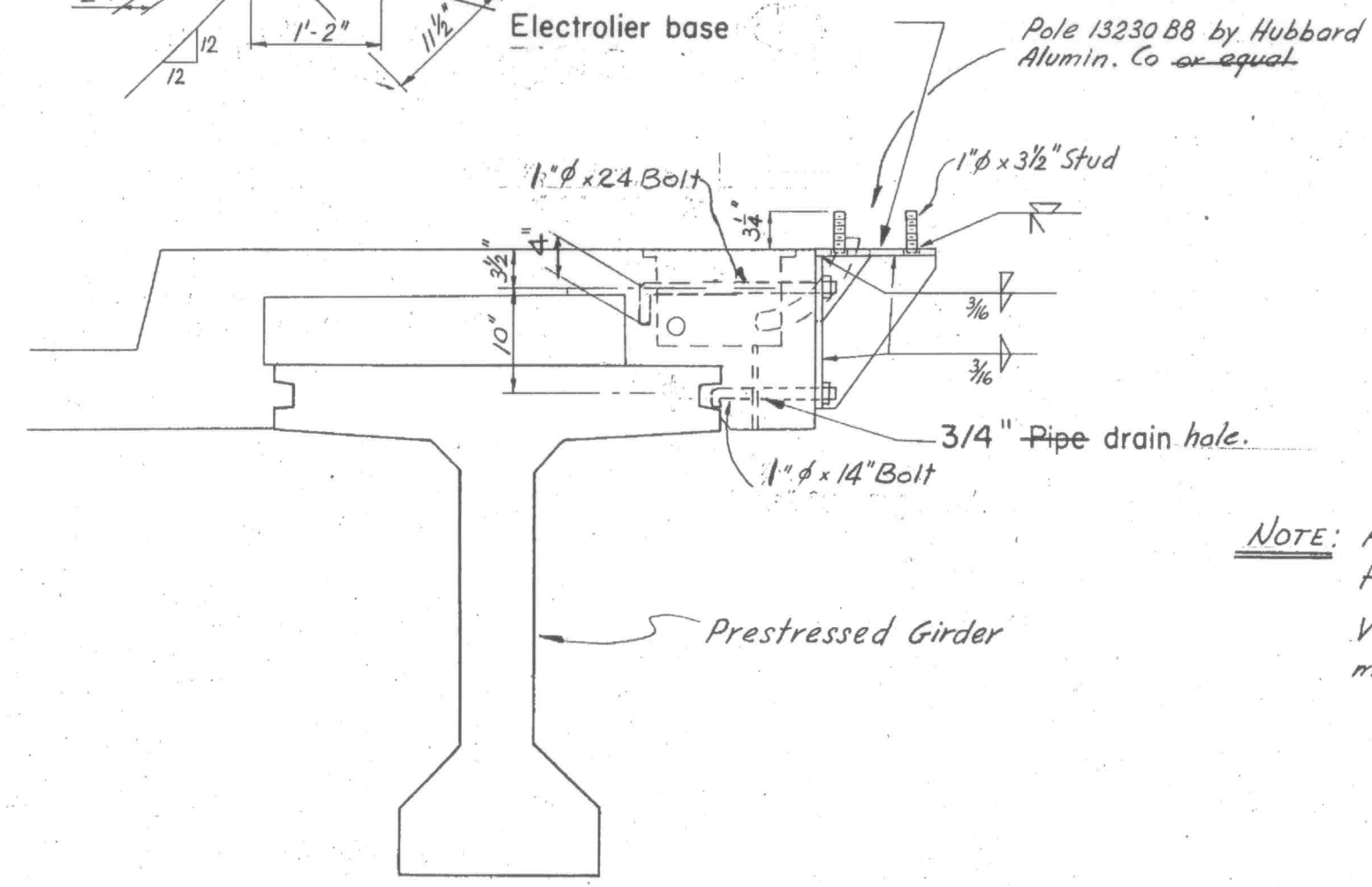
Additional electrolier placed on structure over Pier B at etc. Second St. See CCO#5.

Conduit carried continuous across bridge to West side Second St. and connected to approach lighting system.

Service Point
 6.6 Amp. Series
 Located at P.G. & E. pole just west of Second St. at north toe of approach fill.



Note: 1" Conduit used to poles as 1 1/2" too large to bend thru base opening and clear inside of electrolier flange.



TYPICAL ELECTROLIER BASE AND PULL BOX INSTALLATION
 Scale: 3/4"=1'

NOTE: All parts to be galvanized after fabrication. Verify anchor bolt dimensions to match mfg. specifications.

Scale: 1" = 60'

GENERAL NOTES

Expansion joint fittings shall be installed in conduit at all structure expansion joints.
 Mercury Vapor Lamp Ballasts shall be for operation from 6.6 Amp. Series Street Lighting Circuit.

LOCATION OF ELECTROLIERS & PULL BOXES (NORTH EDGE OF BRIDGE)

ELECTROLIER STATION	
15+60	Additional at 14+32. CCO#5.
16+86	
18+46	
20+07	
21+58	
23+18.47	
24+80	
26+41.35	
28+02.44	
29+64	
31+25.76	
32+87	
34+60	

* Use STANDARD Type II Base - See Plans.

LEGEND

- 30' Aluminum standard equipped with 20,000 Lumen Mercury Vapor Light mounted on 8-foot mast arm.
- Pull box, Bridge Detail "D" unless otherwise noted.
- Conduit, 1 1/2" unless otherwise noted.
- Power pole.

Corrected to As Built. 5-14-58.

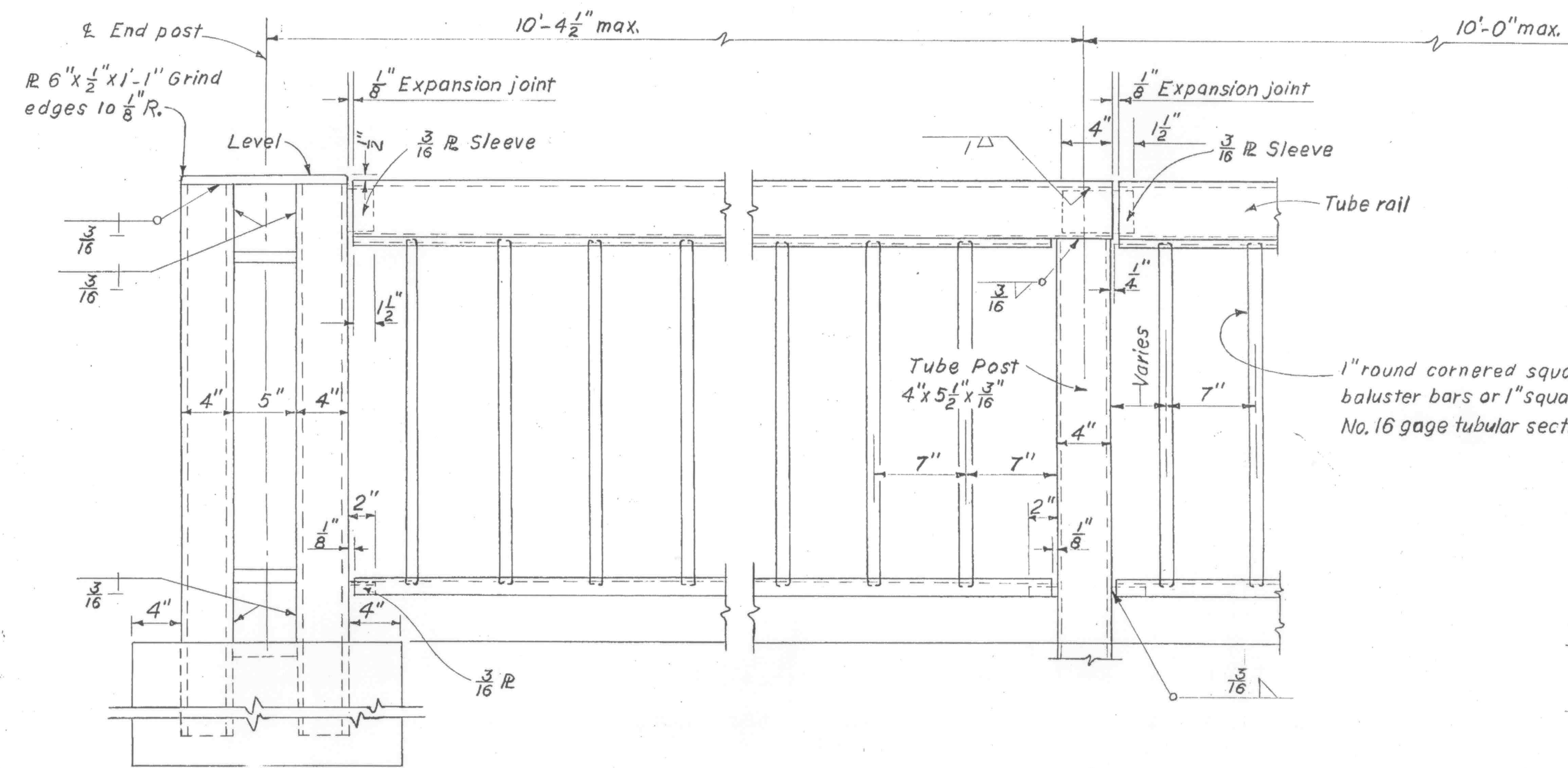
Shed M. Hammer
 Res. Eng.

SUBMITTED BY BEN C. GERWICK INC.
 ENGINEERING DIVISION

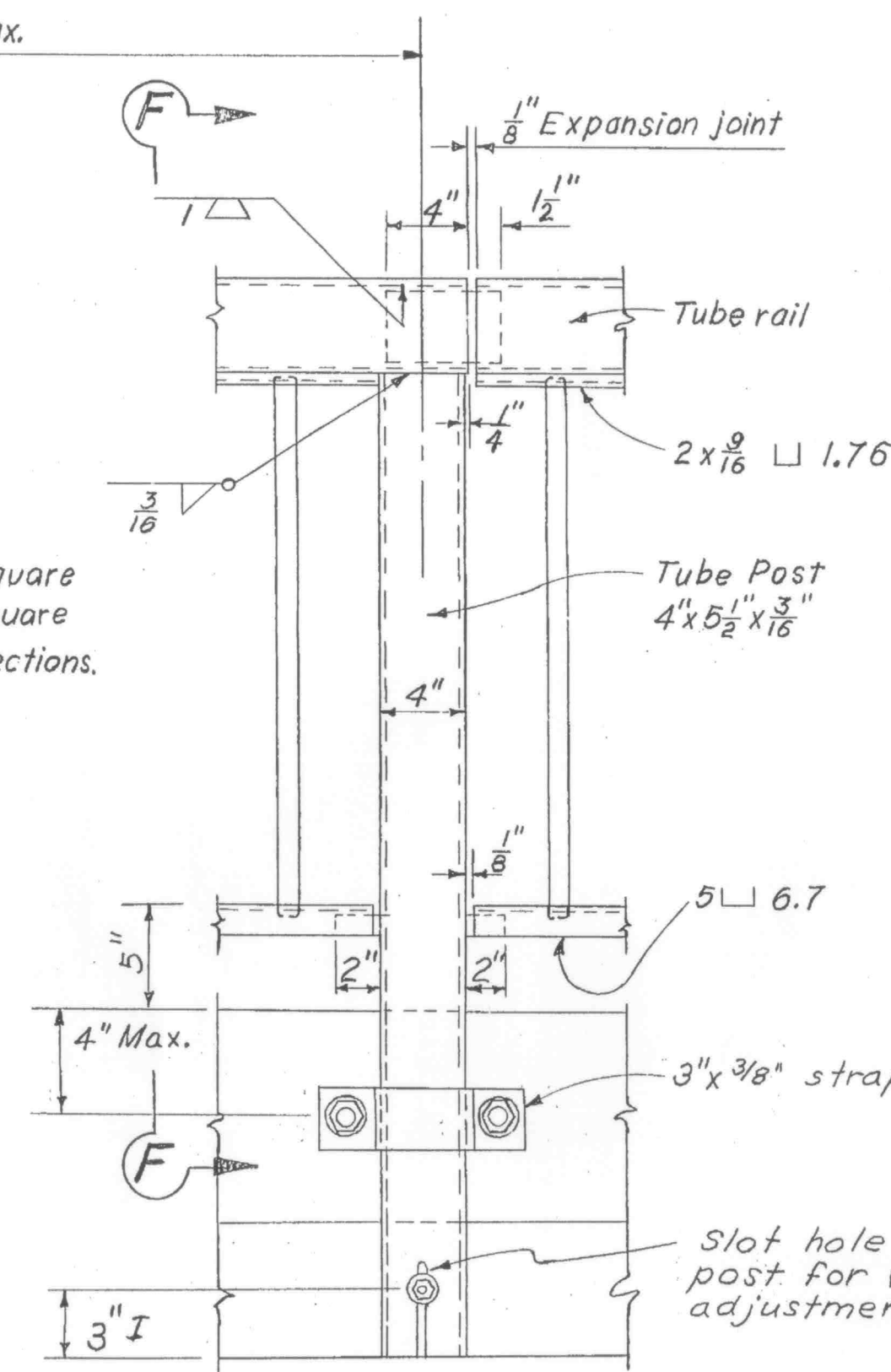
APPROVED *W. Talbot*
 CIVIL ENGINEER LICENSE 6913

SUTTER AND YUBA COUNTIES		
FIFTH STREET BRIDGE		
LIGHTING PLAN		
Scale: As Shown	Date: 4-5-57	Dwg.: 2/

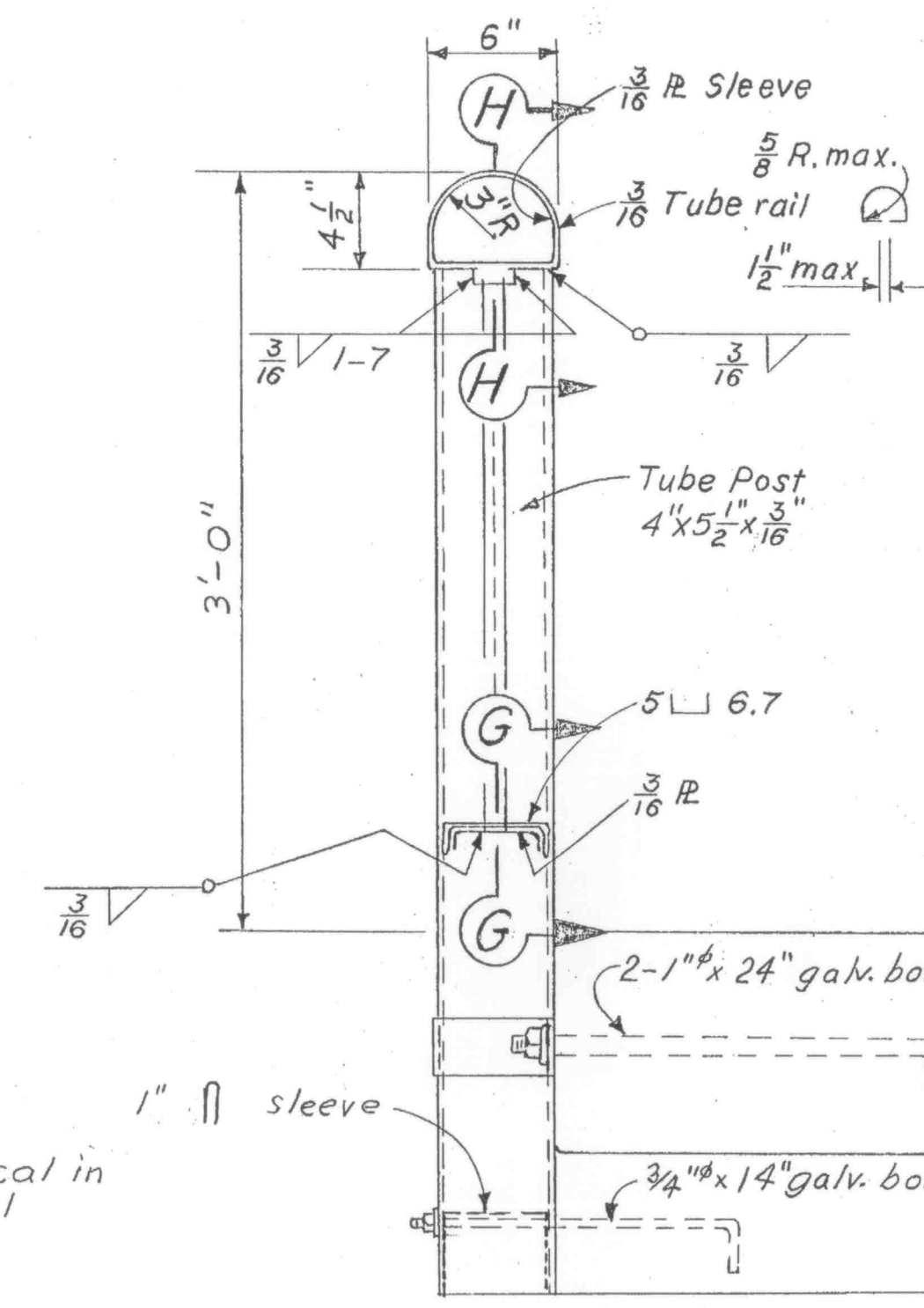
APPROVED *W. J. Talbot*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE NO. 5769



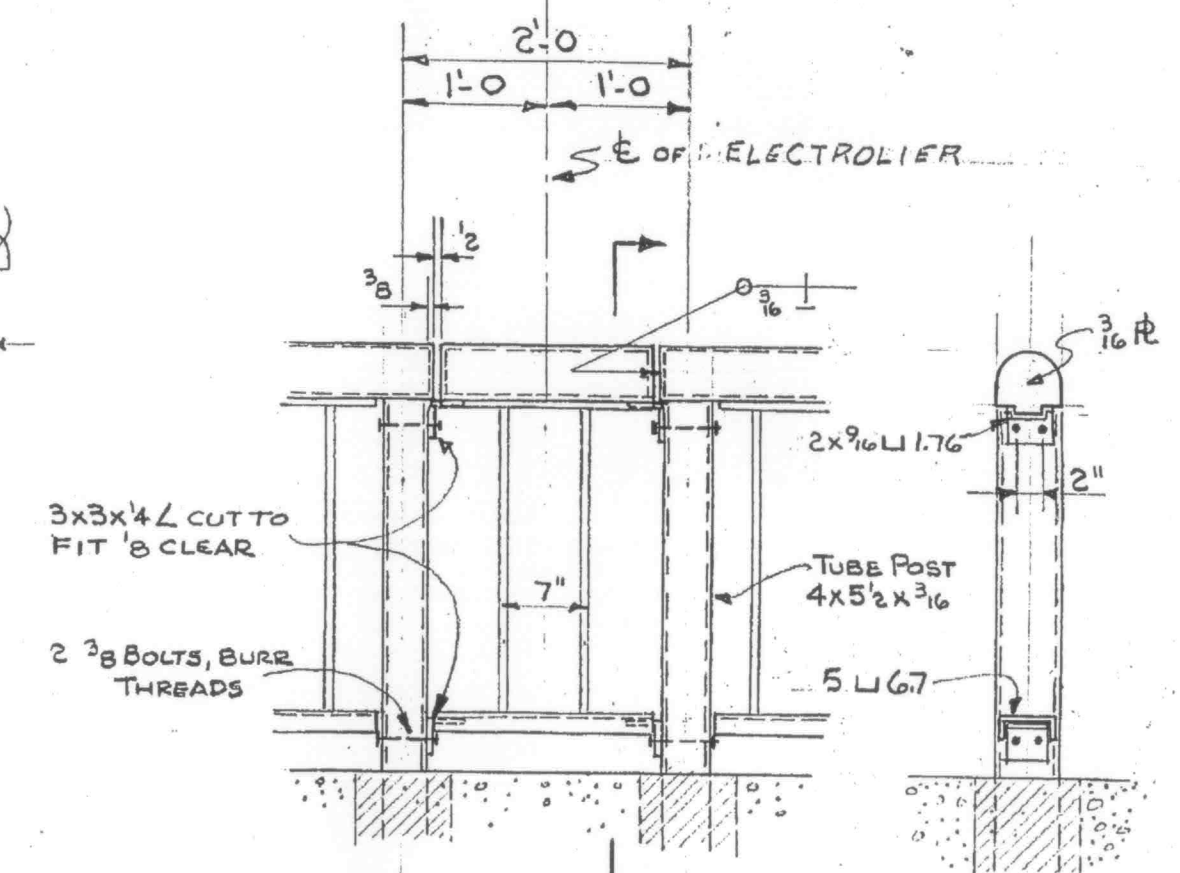
DOUBLE END POST



INTERMEDIATE POST

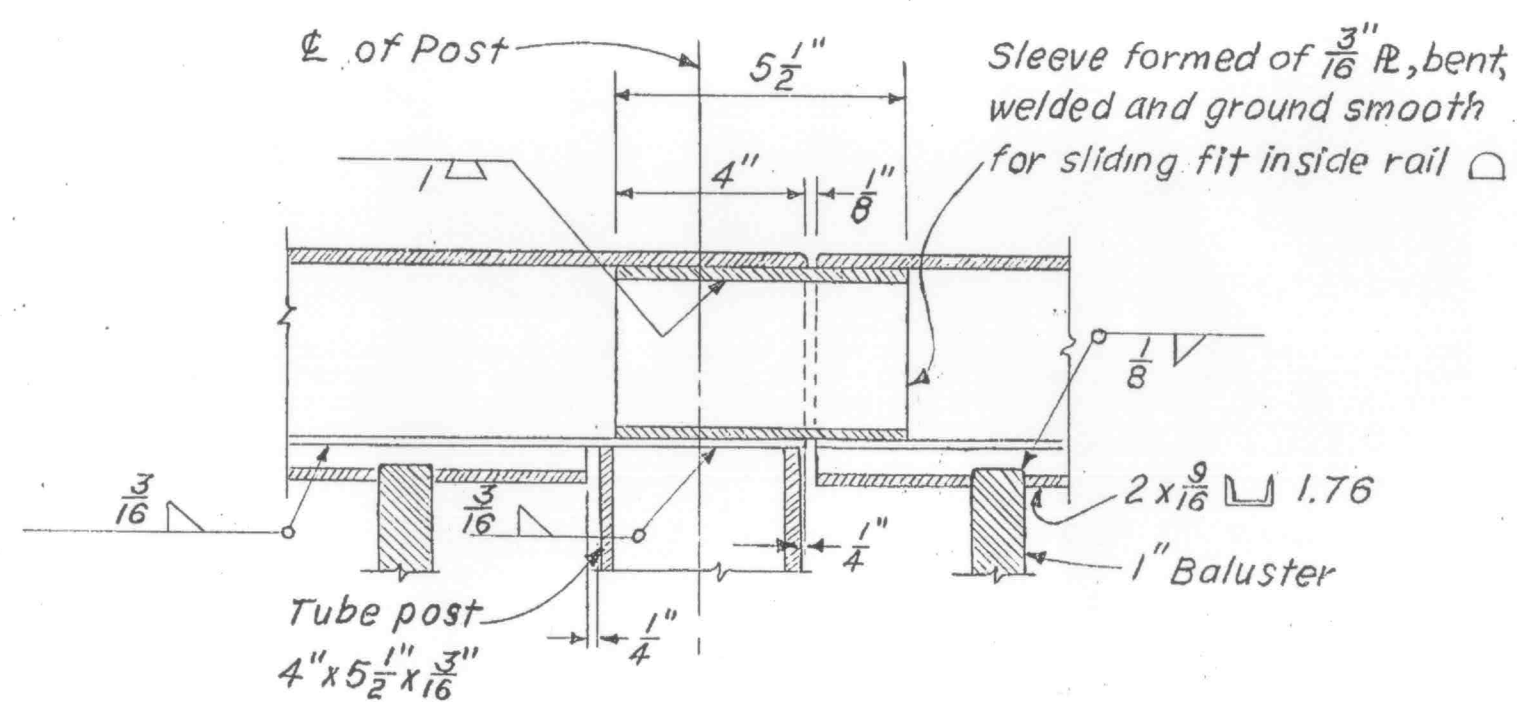


SECTION F-F

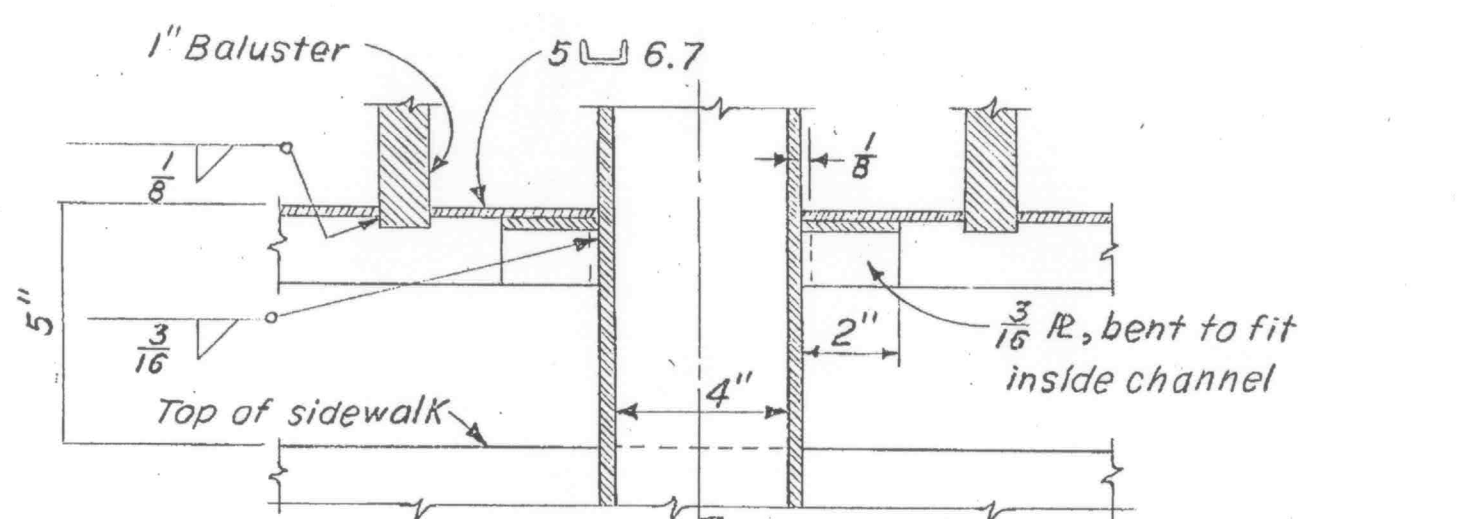


RAILING AT ELECTROLIER
 SCALE 3/4\"/>

This section omitted. Electrolier location prevented its use.



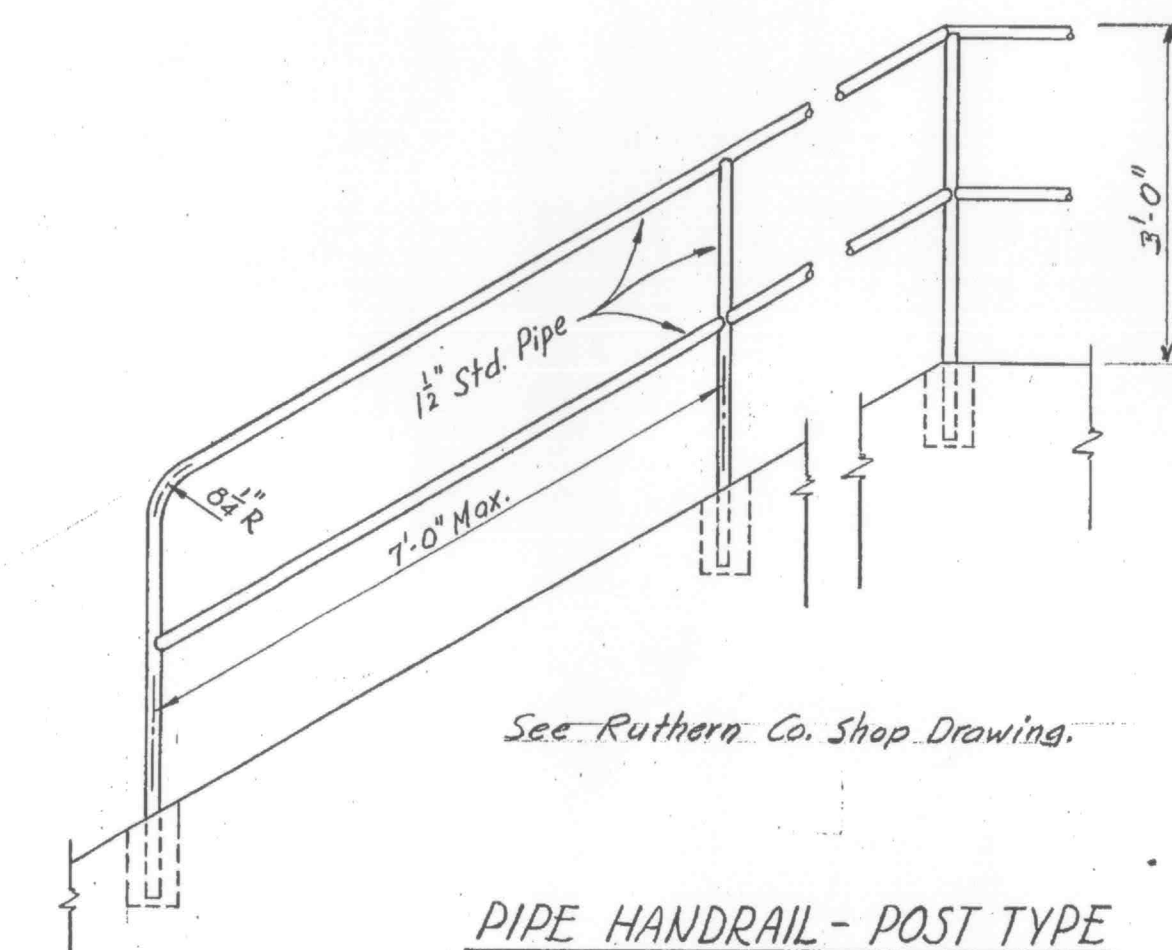
SECTION H-H
 Scale: 3\"/>



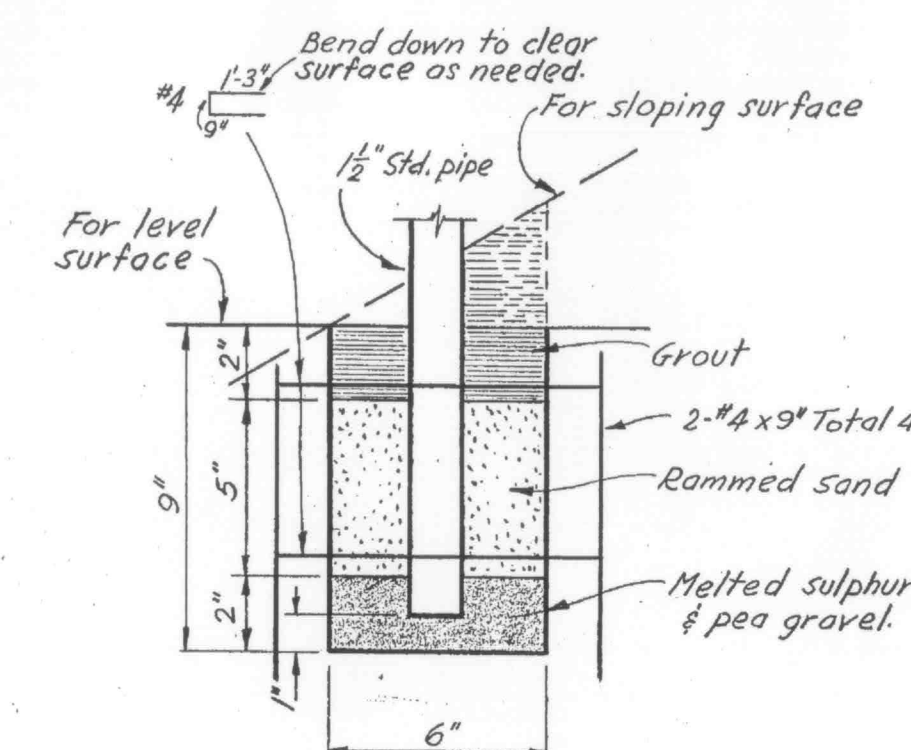
SECTION G-G
 Scale: 3\"/>

NOTES:

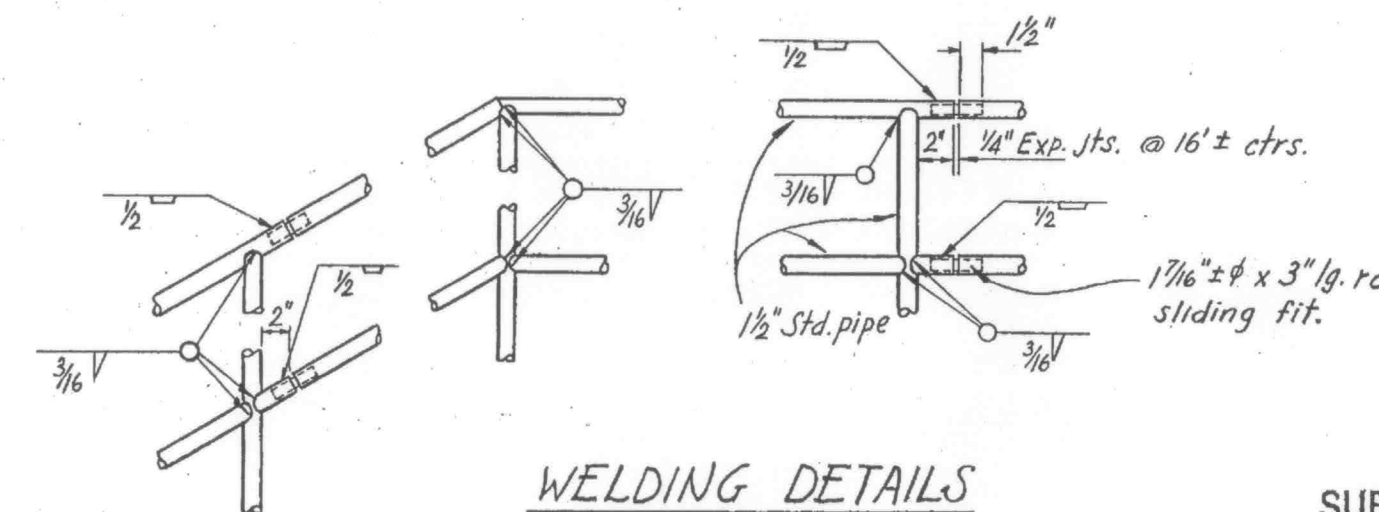
- Space posts to clear expansion joints by 9" min. to ϕ of post.
- Exact post locations are to be determined from approved railing shop plans.
- Railing shall conform to horizontal and vertical alignment. Posts and balusters shall be vertical with a maximum deviation not to exceed that represented by a rise of $\frac{1}{4}$ " in one panel.
- At expansion joints in deck, rail joints shall be increased to same size, with corresponding increase in length of sleeves.
- Railing and all parts to be galvanized after fabrication. For further requirements see special provisions.
- For fabrication details see Waterbury Co. Shop Plans.



PIPE HANDRAIL - POST TYPE
 1/2" = 1'-0"



ANCHORAGE DETAIL
 No scale



WELDING DETAILS
 No scale

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 ENGINEERING DIVISION

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 CIVIL ENGINEER LICENSE 6913

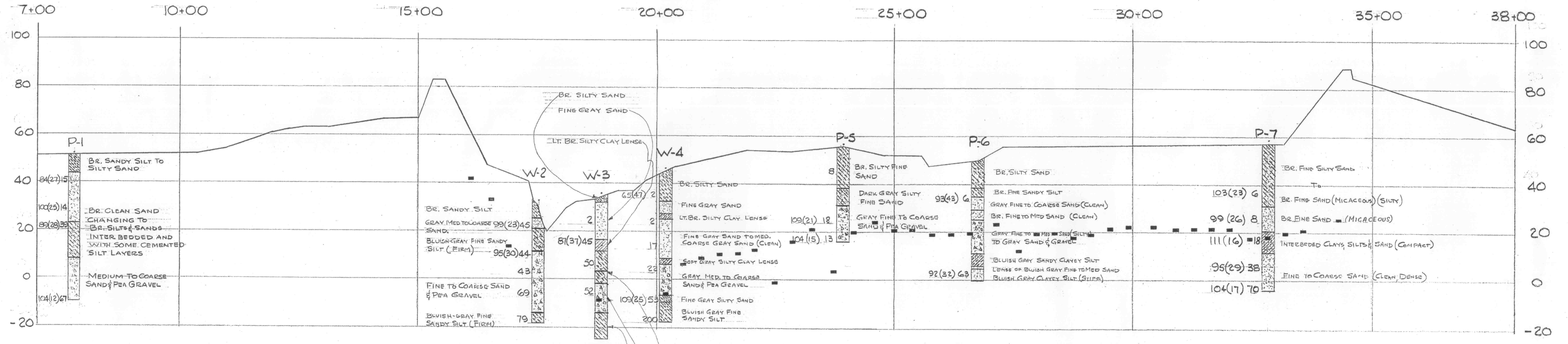
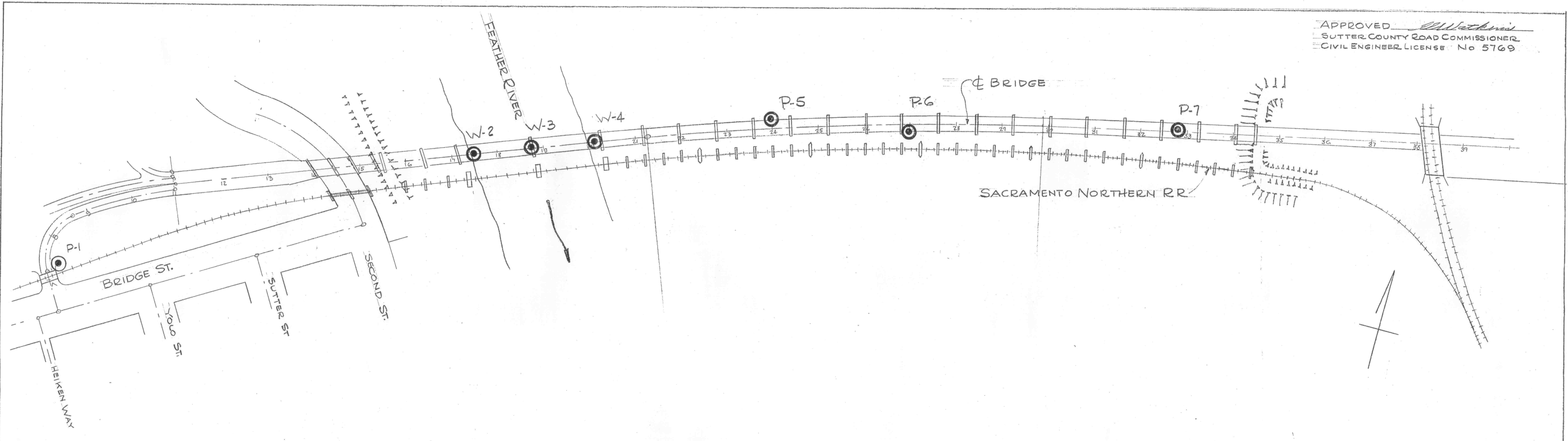
SUTTER & YUBA COUNTIES

5 TH ST. BRIDGE

RAILING DETAILS

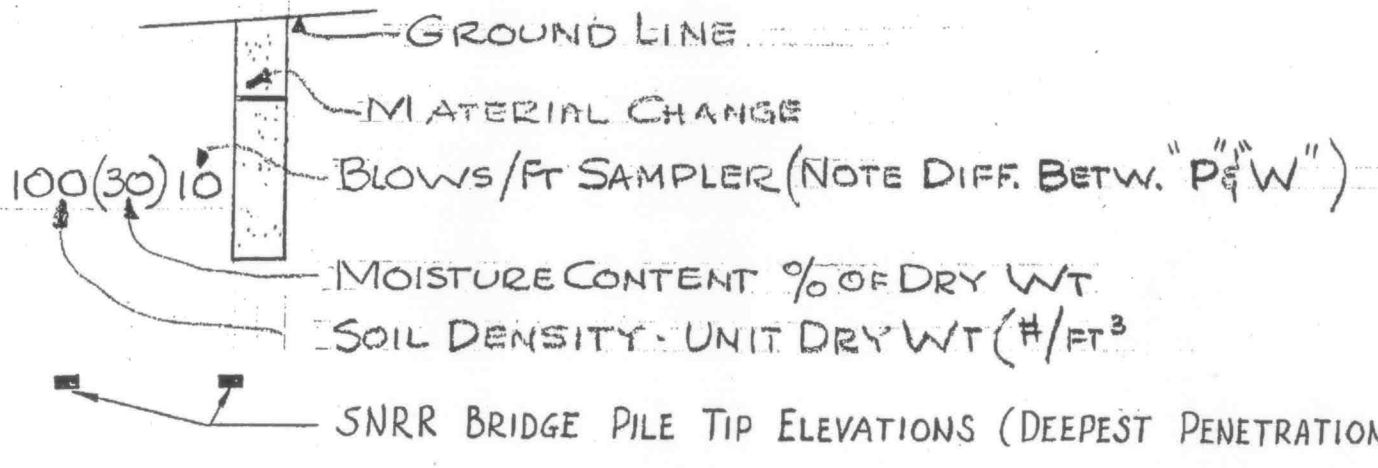
1/2" = 1'-0" EXCEPT DATE 1-30-57 DWG 22
 SCALE AS SHOWN

APPROVED *W. J. Salbot*
 SUTTER COUNTY ROAD COMMISSIONER
 CIVIL ENGINEER LICENSE No 5769



LEGEND

W INDICATES WASH BORING TO SAMPLE DEPTH - 2" SPIT SPOON 30" STROKE 140# HAMMER
 P INDICATES PORTER RETRACTABLE PISTON TYPE SAMPLER - DRIVEN CONTINUOUSLY - 30" STR. - 500# HAMMER



BLuish GRAY FINE SANDY SILT (STIFF)
 MED. GRAY SAND WITH SOME PEA GRAVEL
 BLuish GRAY SILTY FINE SAND TO FINE SANDY SILT (FIRM)

ELEVATIONS BASED ON U.S.D. DATUM

INFORMATION CONTAINED HEREIN OBTAINED FROM A SOIL REPORT BY PORTER, URQUHART, McCREARY & O'BRIEN DATED 10 JAN. 1957

NOTES

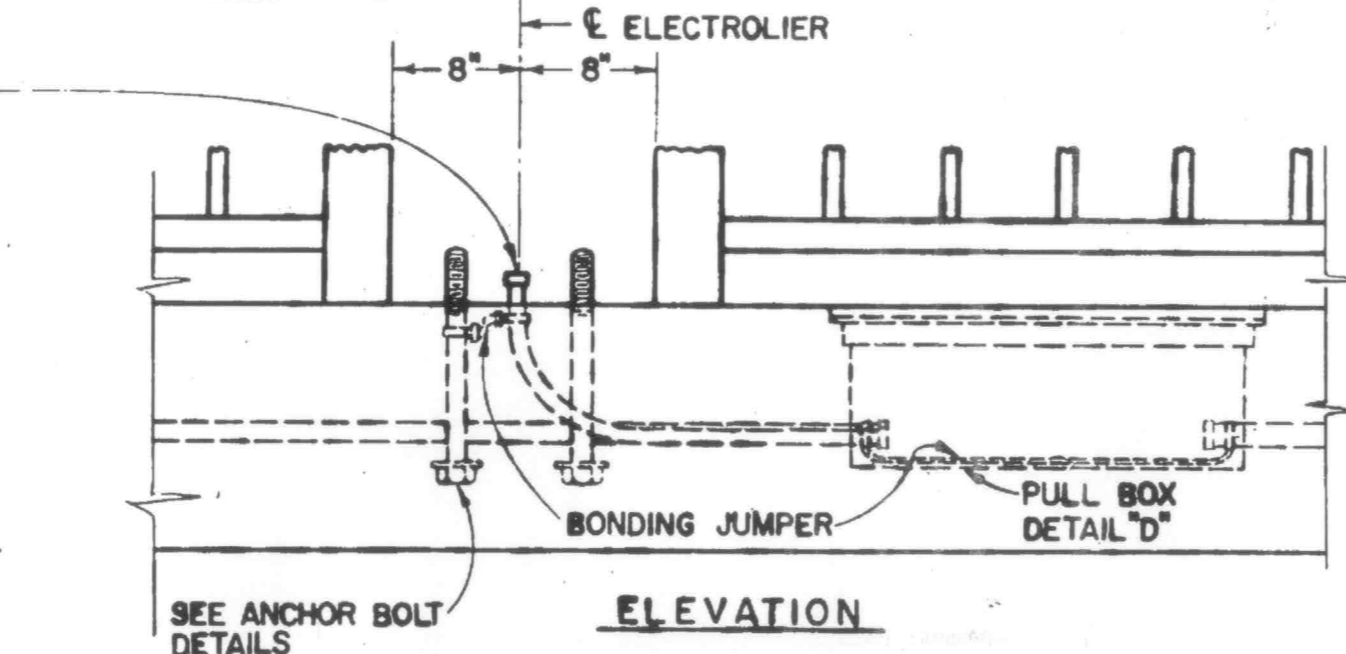
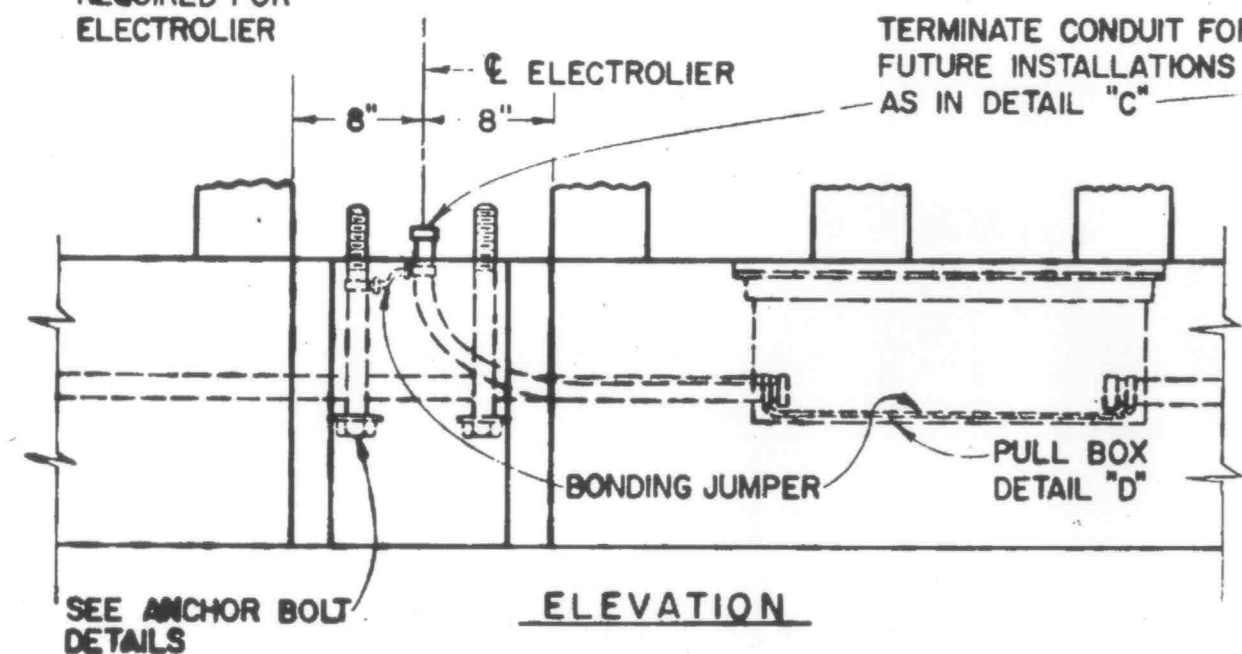
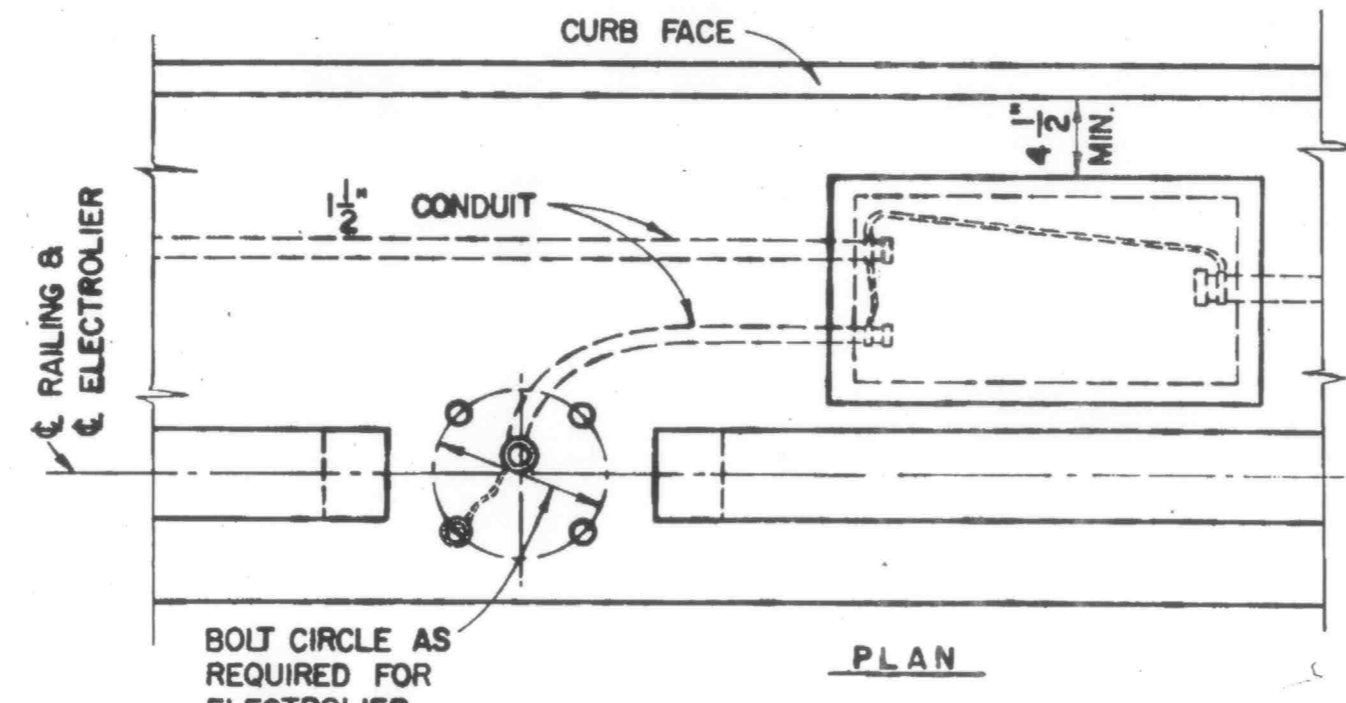
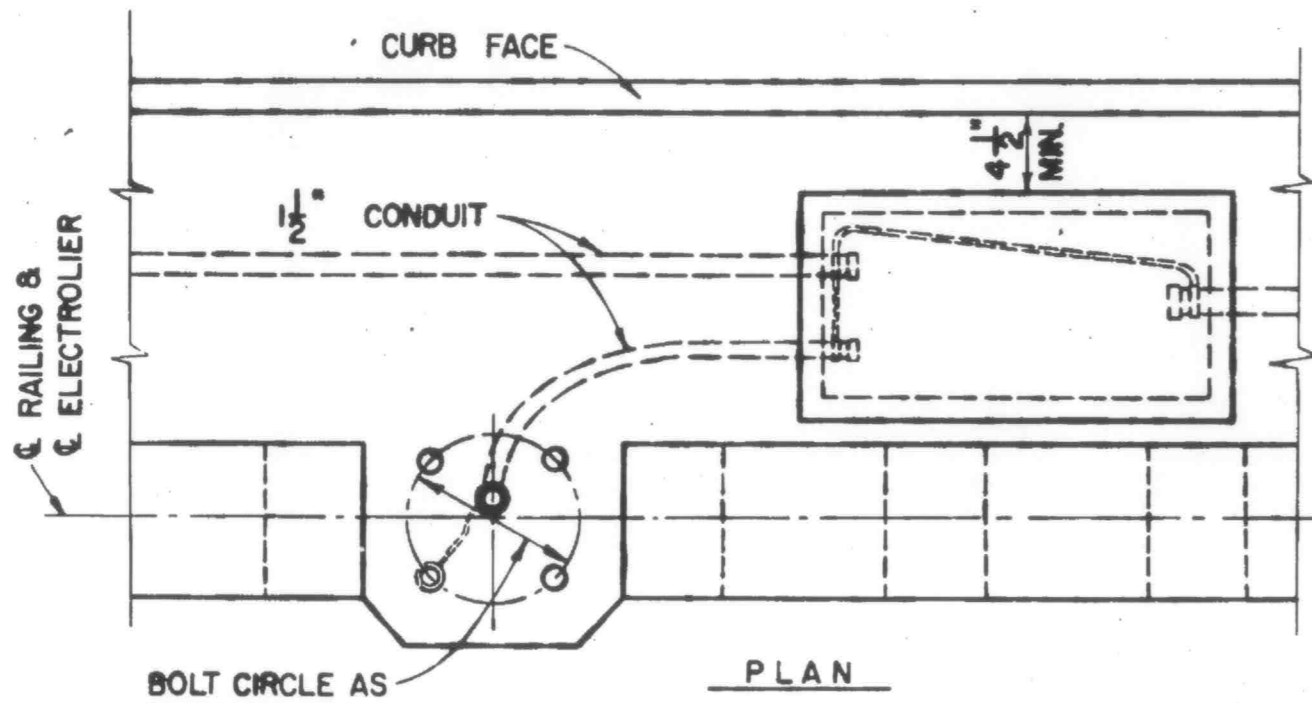
The contractor's attention is directed to Section 2, article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

SUBMITTED BY BEN C. GERWICK INC. ENGINEERING DIVISION

APPROVED *W. J. Salbot* CIVIL ENGINEER LICENSE 6913

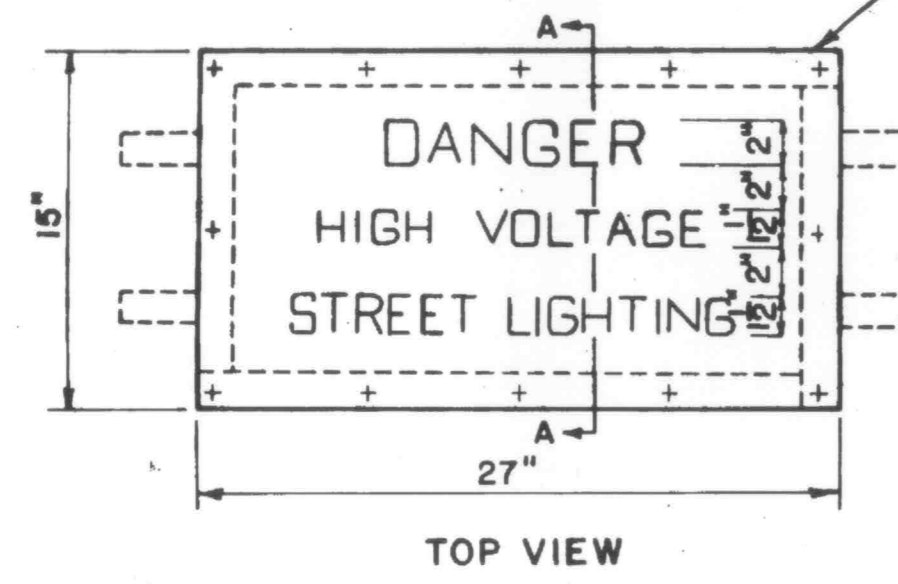
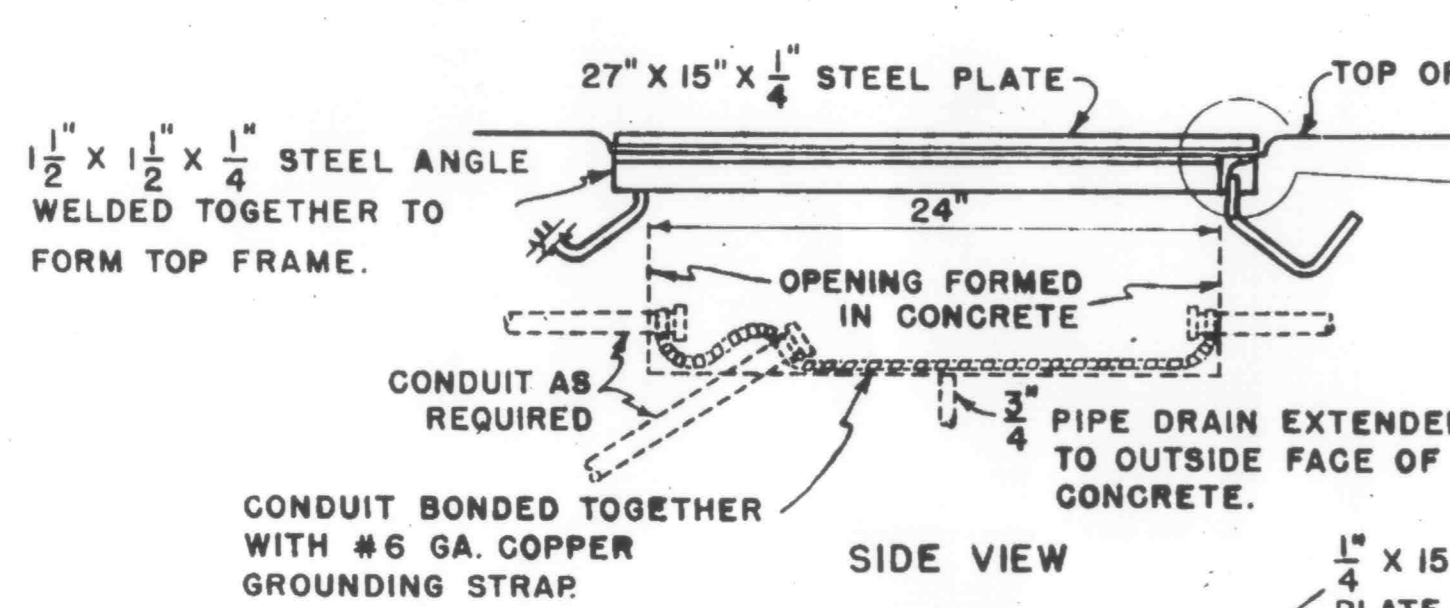
SUTTER & YUBA COUNTIES	
5 TH ST. BRIDGE	
SOIL PROFILE	
SCALE: NONE	DATE: 1-30-57 DWG: 23

APPROVED: *[Signature]*
 TRAFFIC ENGINEER
 CIVIL ENGINEER LICENSE NO. 5429
 To Assembly Plans Detail



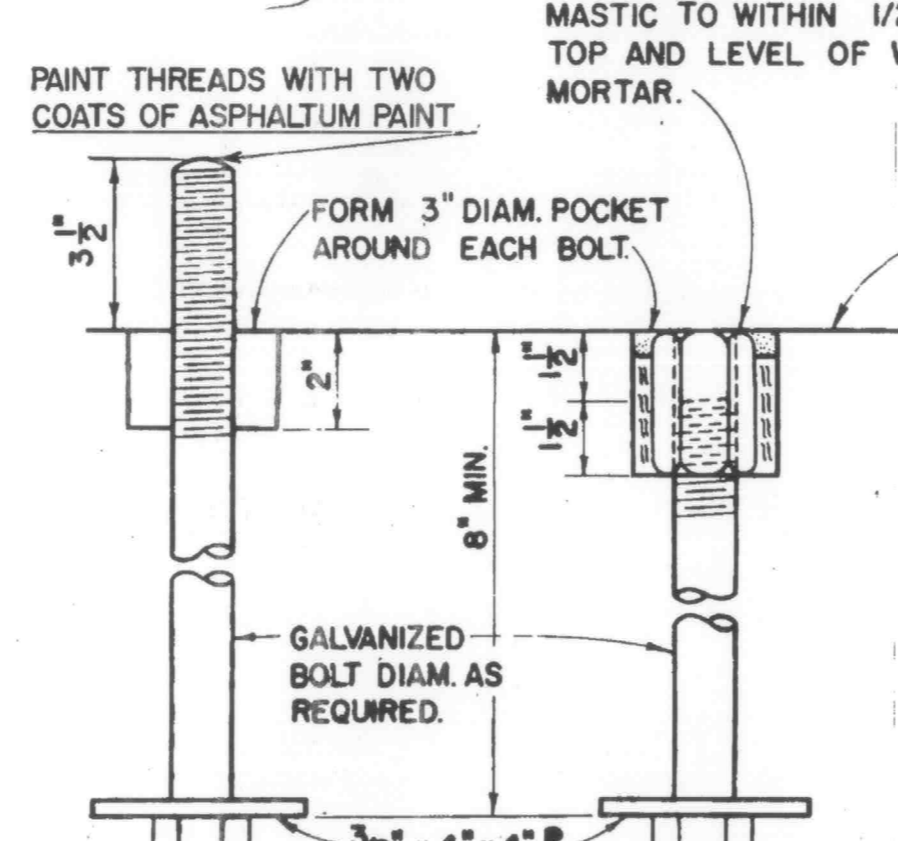
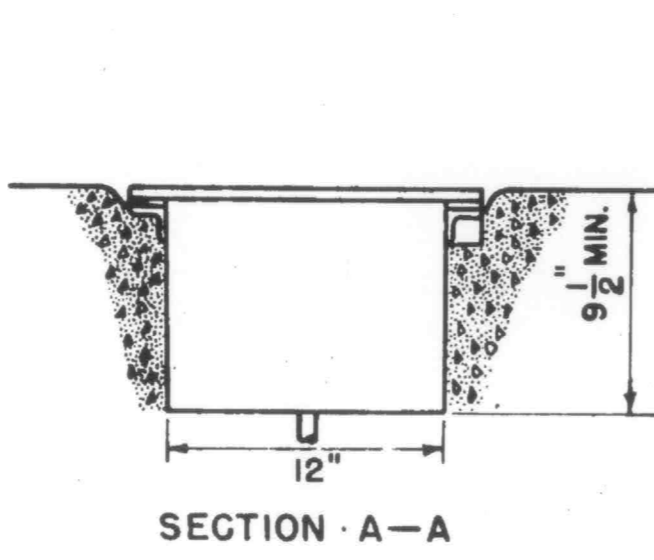
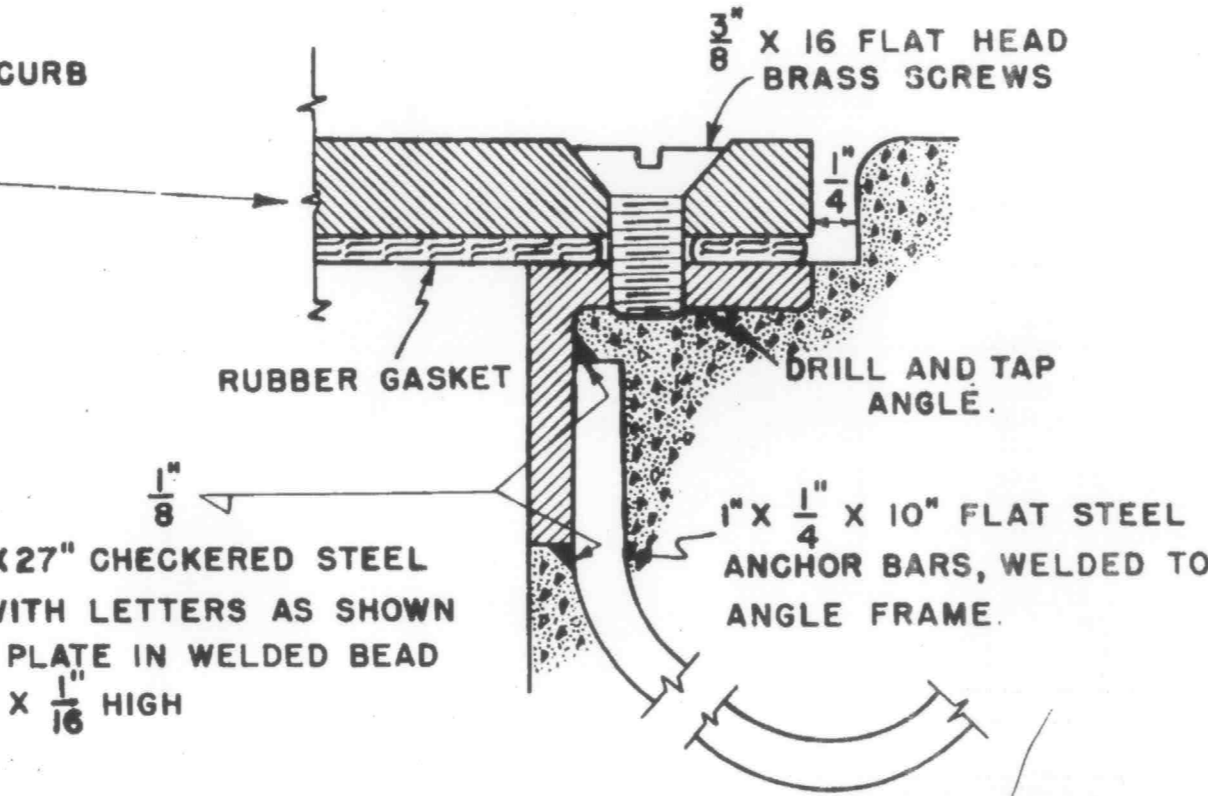
TYPICAL ELECTROLIER BASE-DETAIL "A"
 SCALE: 1" = 1'-0"
 CONCRETE RAILING STRUCTURE

TYPICAL ELECTROLIER BASE-DETAIL "B"
 SCALE: 1" = 1'-0"
 STEEL RAILING STRUCTURE



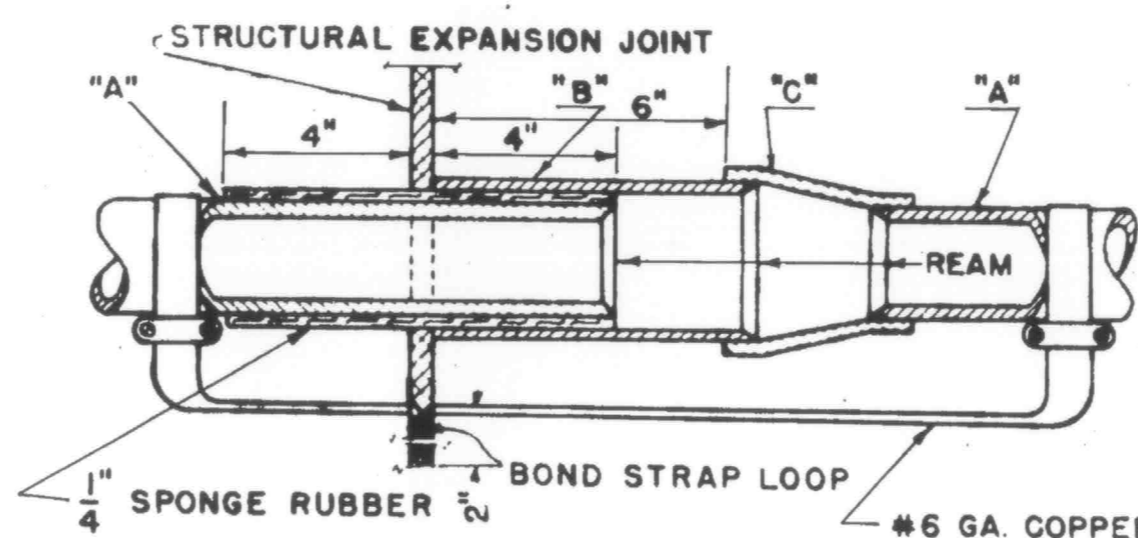
TYPICAL BRIDGE PULL BOX-DETAIL "D"
 SCALE: 1 1/2" = 1'-0"

NOTE: FRAME AND COVER TO BE GALVANIZED AFTER FABRICATION.



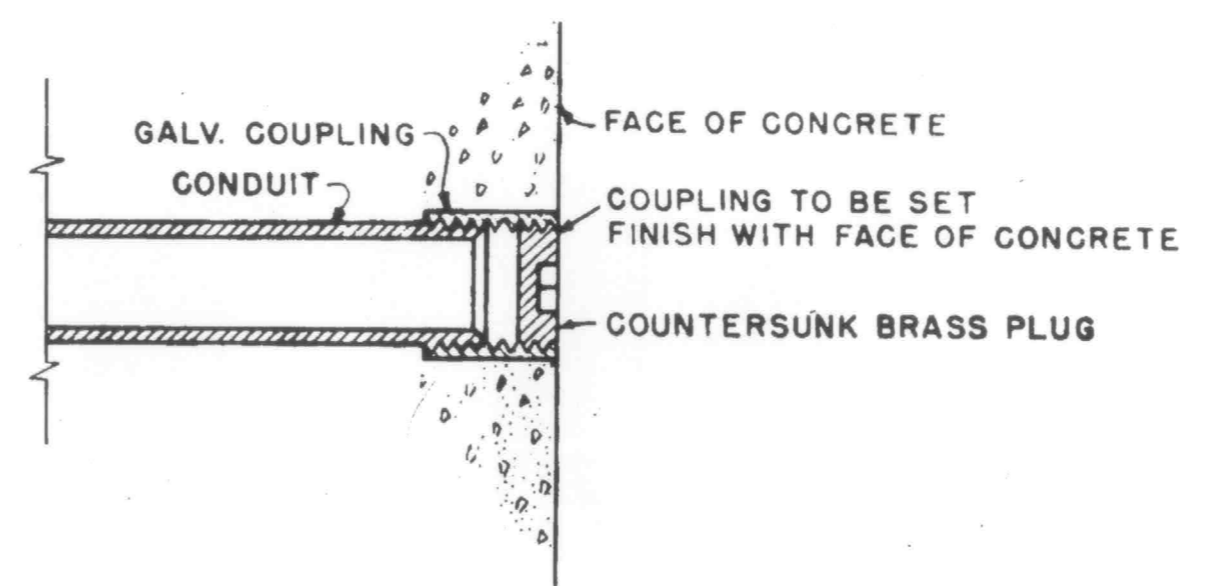
ANCHOR BOLT ARRANGEMENT
 SCALE: 3" = 1'-0"

A	B	C
1 1/2"	2 1/2"	2 1/2" - 1 1/2"
2"	3"	3" - 2"

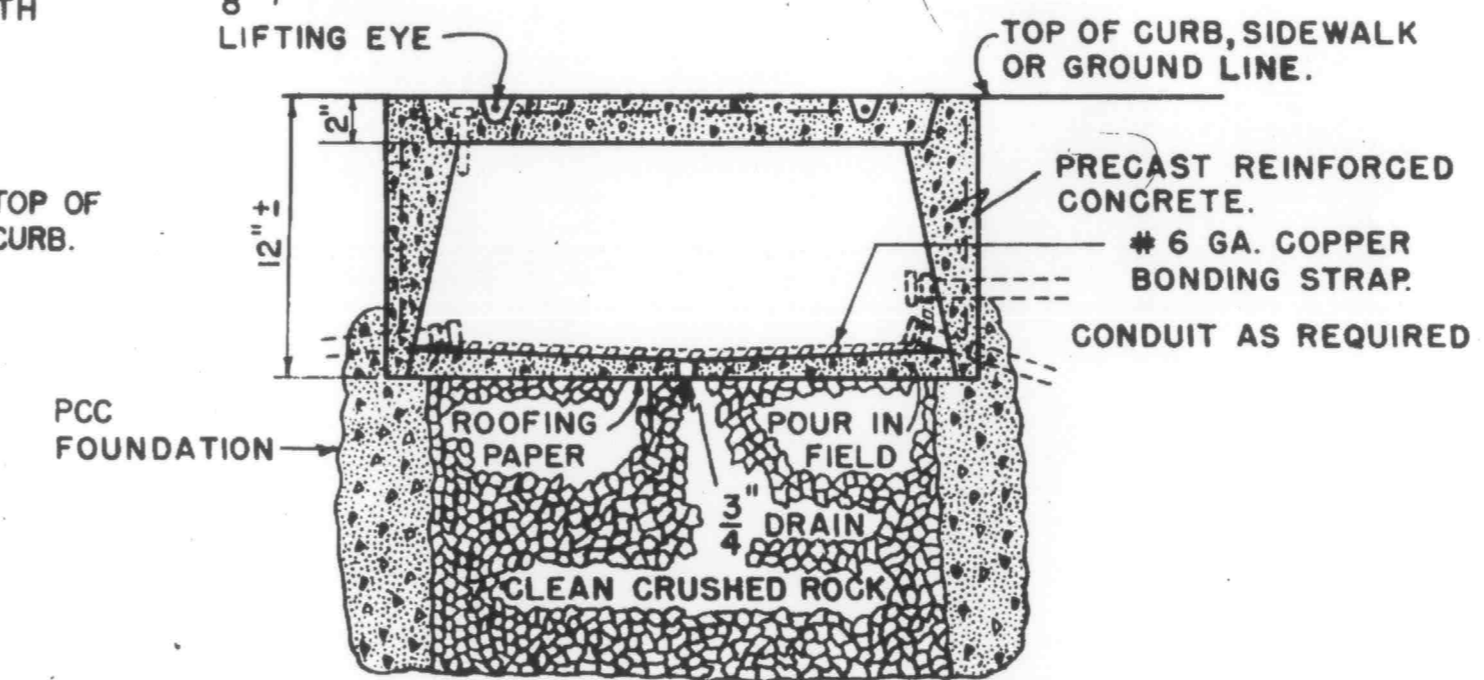
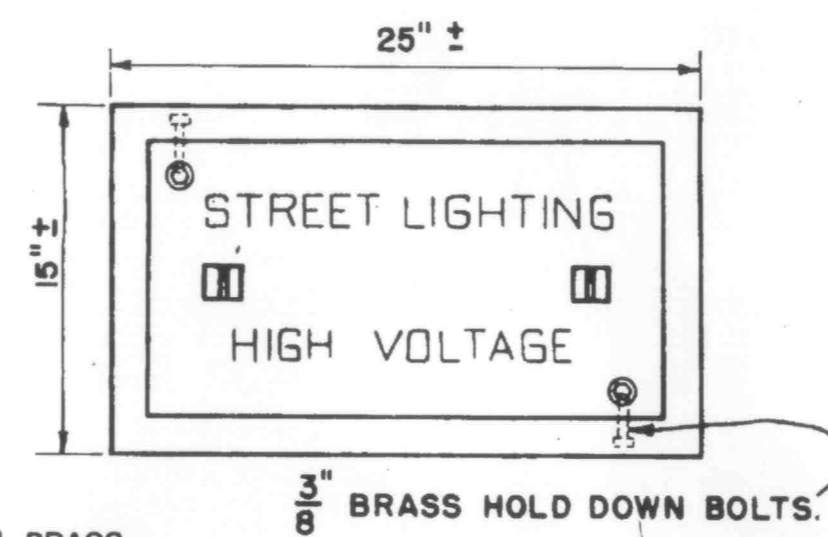


EXPANSION JOINT FITTING-DETAIL "Y"
 SCALE: 3" = 1'

2" CONDUIT SHOWN. CONSTRUCTION SIMILAR FOR OTHER SIZE CONDUIT. GALVANIZE FITTING AFTER FABRICATION

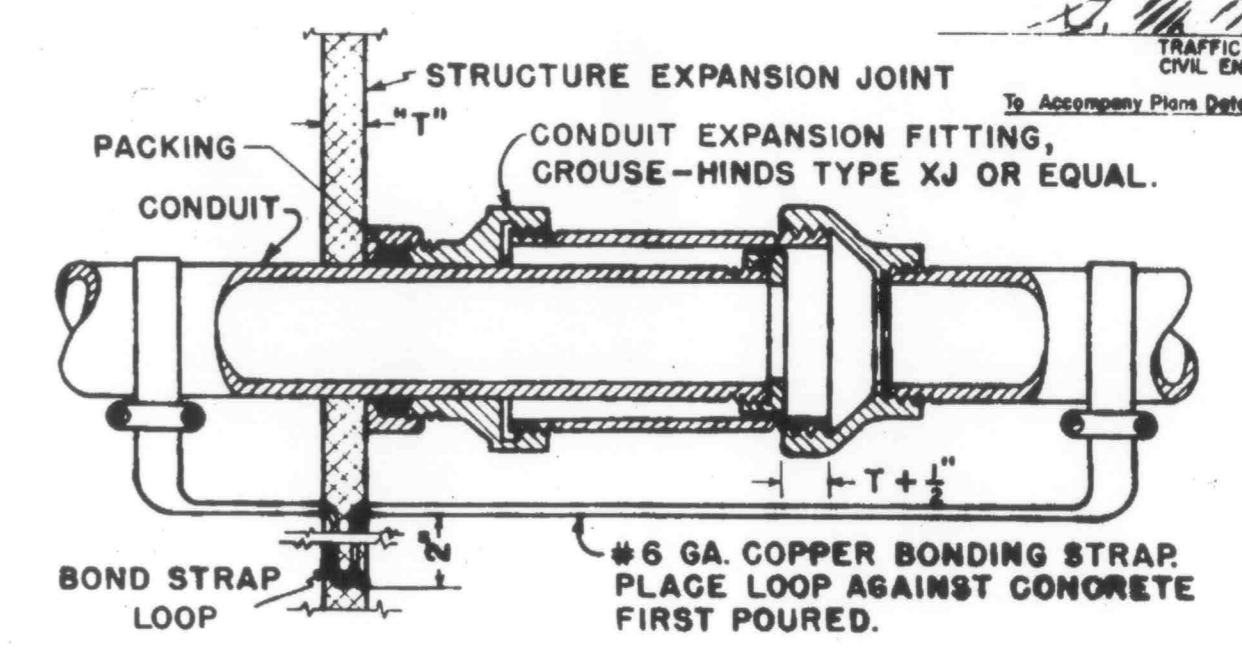


CONDUIT STUB-DETAIL "C"
 NOT TO SCALE

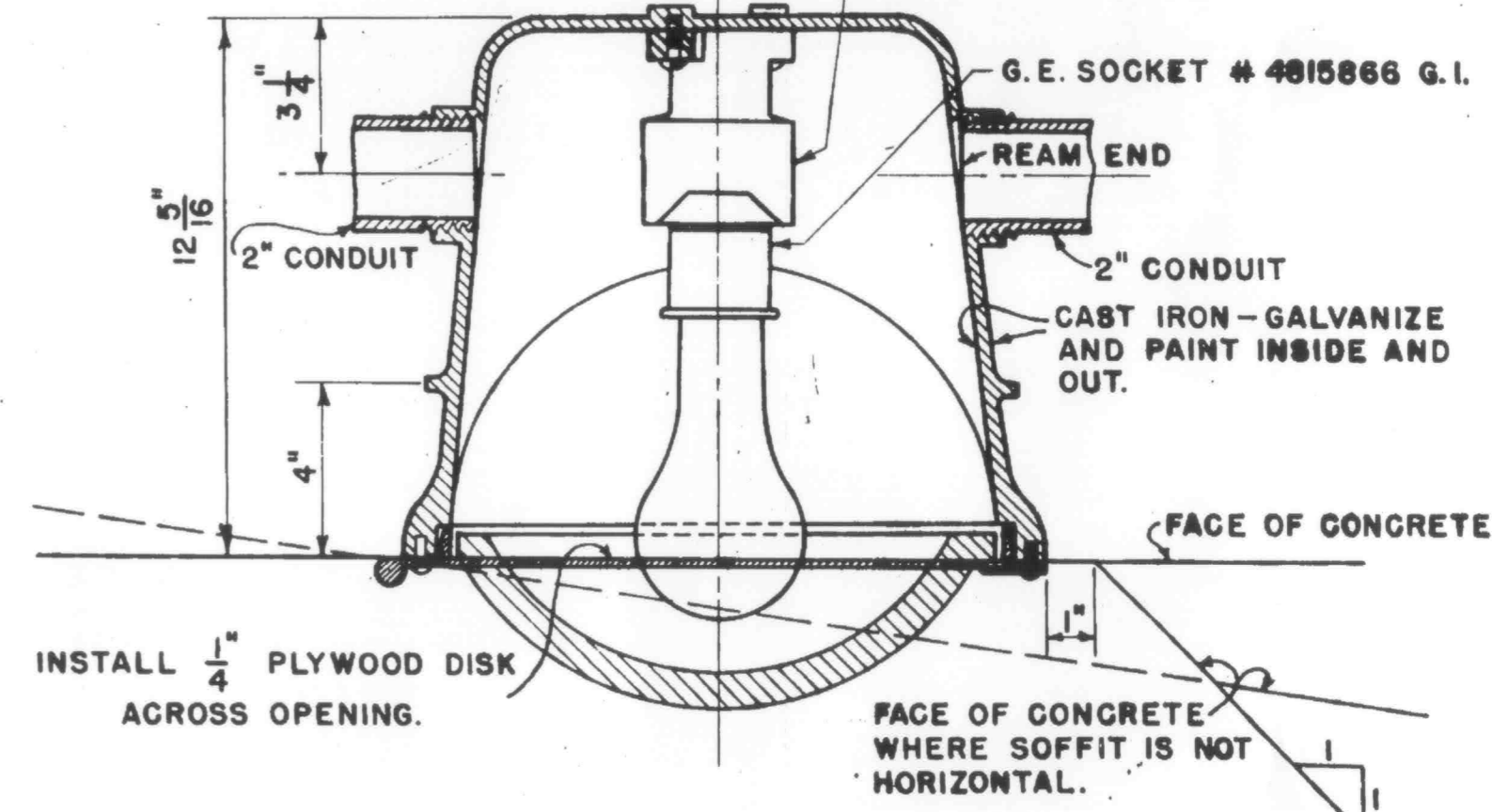
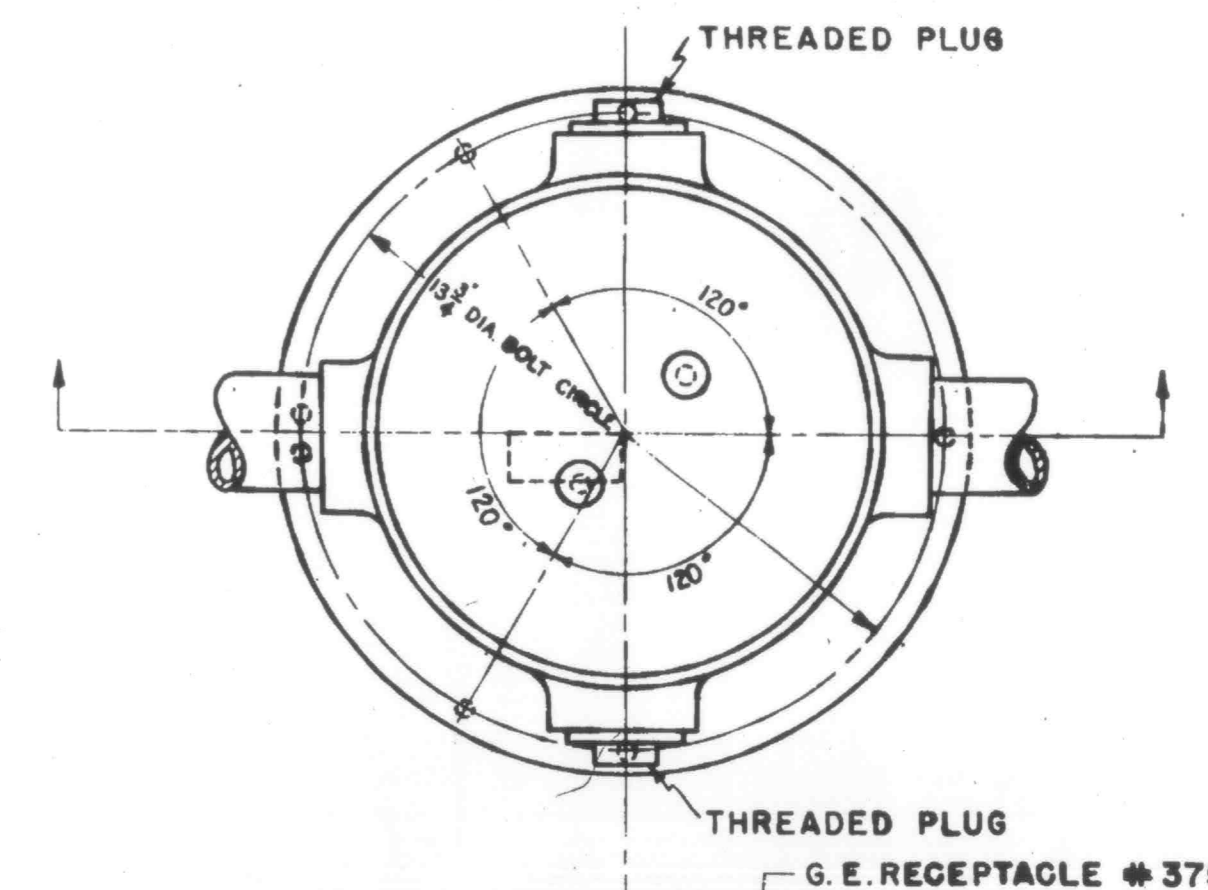


PULL BOX-DETAIL "B"

PRECAST CONCRETE BOX AND COVER SHALL BE FRAZER CEMENT PRODUCTS CO. CONCRETE PULL BOX OR EQUAL.



CONDUIT EXPANSION FITTING-DETAIL "X"



RECESS SOFFIT LIGHT-DETAIL "E"

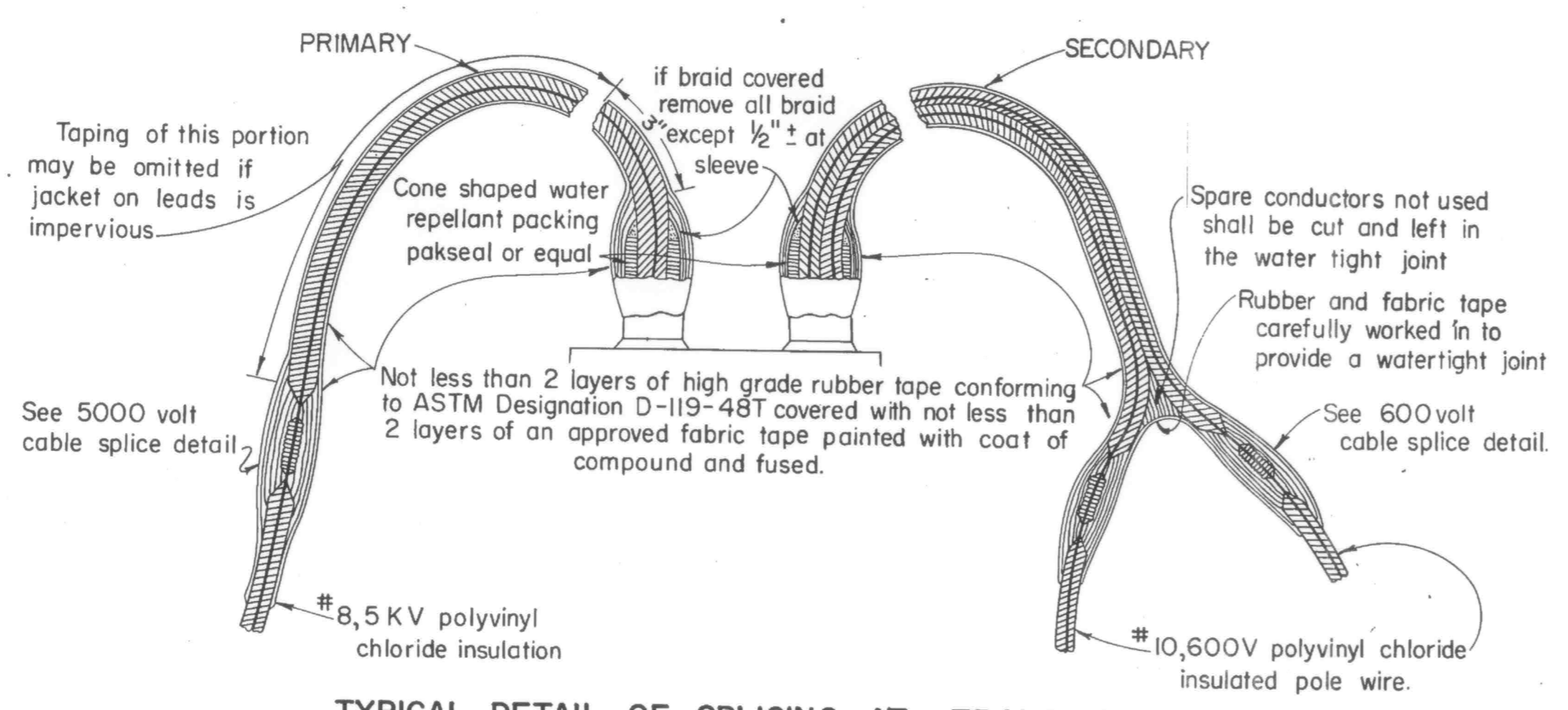
SCALE: 1/4" = 1"
 HOLOPHANE #15545 UNLESS OTHERWISE SPECIFIED. FIXTURE TO BE INSTALLED WITH AXIS VERTICAL AND LIGHT DIRECTED TOWARDS CENTER OF ROADWAY.

BRIDGE DEPARTMENT

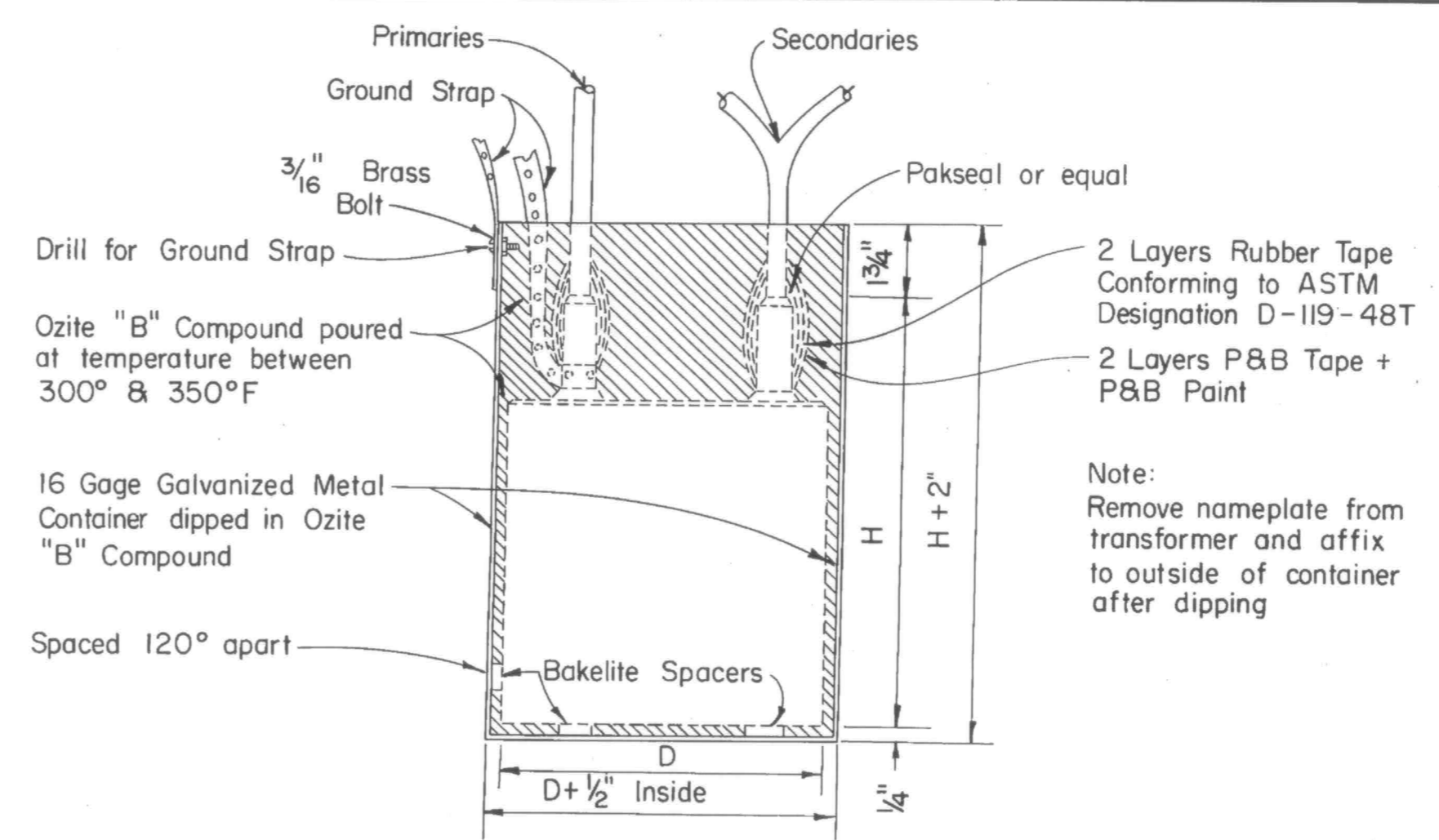
DESIGNED BY	Checked
DETAILS	Checked
QUANTITIES	Checked
SPECIFICATIONS	Checked
Approved by	Checked

APPROVED *March 1, 1956*
E. M. [Signature]
 TRAFFIC ENGINEER, CIVIL ENGINEER LICENSE NO. 5429

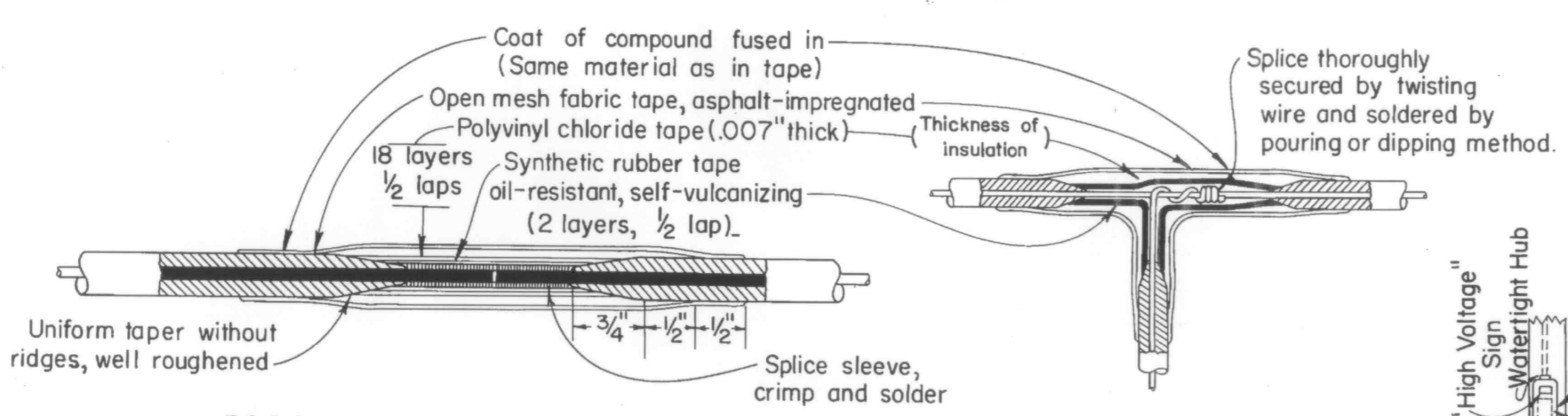
TO ACCOMPANY PLANS DATED _____



TYPICAL DETAIL OF SPLICING AT TRANSFORMER



ALTERNATE ISOLATING TRANSFORMER AND BALLAST PROTECTION IN LIEU OF NEOPRENE ENCASED EQUIPMENT

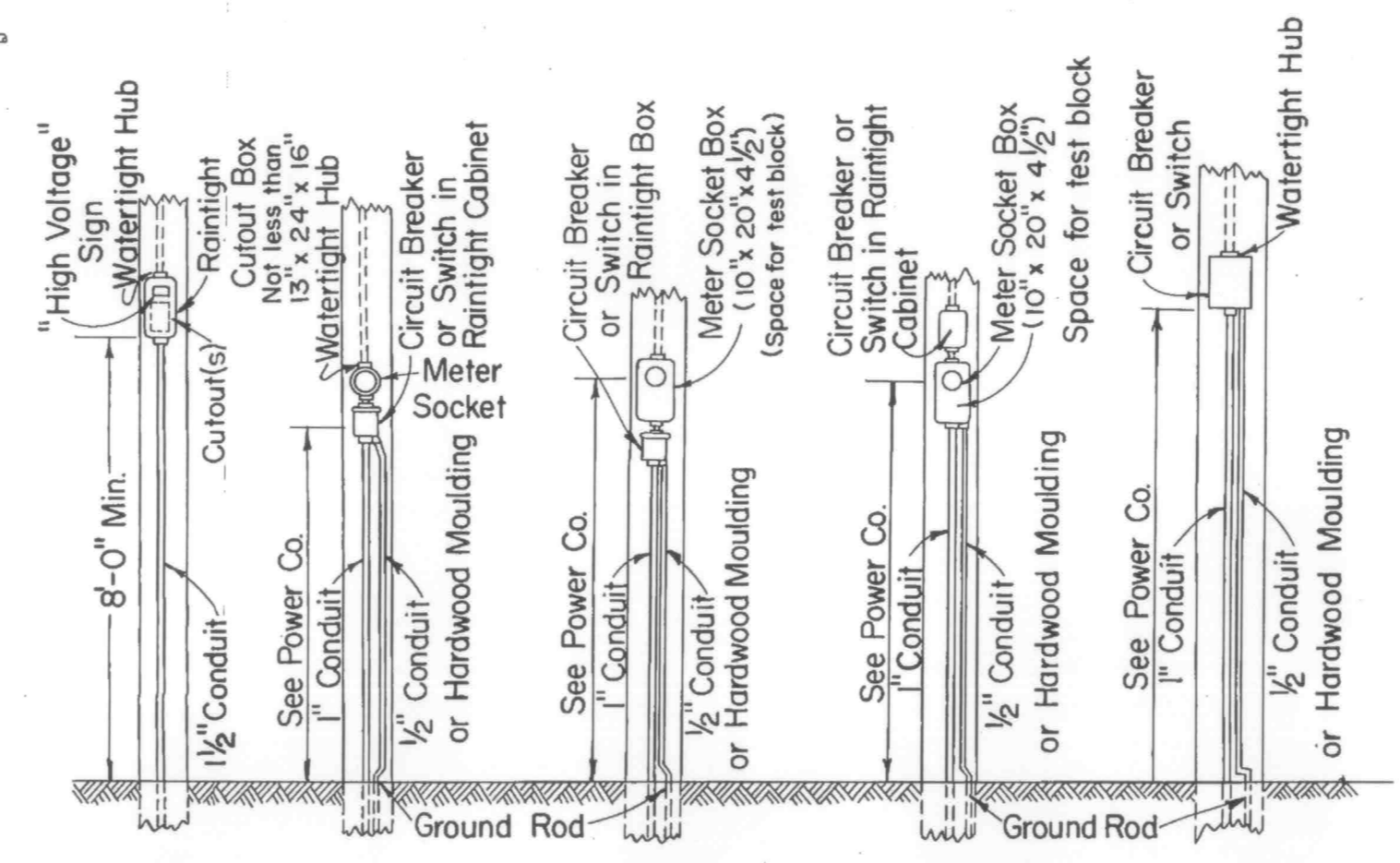


5000 VOLT CABLE SPLICE and 600 VOLT CABLE SPLICE (T SPLICE)

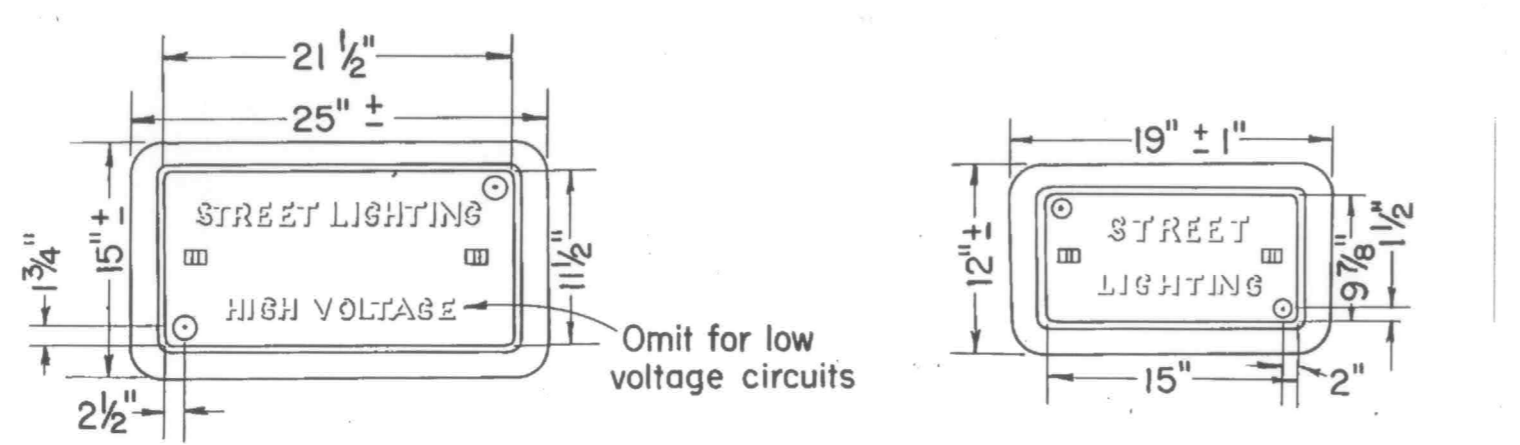
CABLE SPLICING DETAIL

SYMBOLS

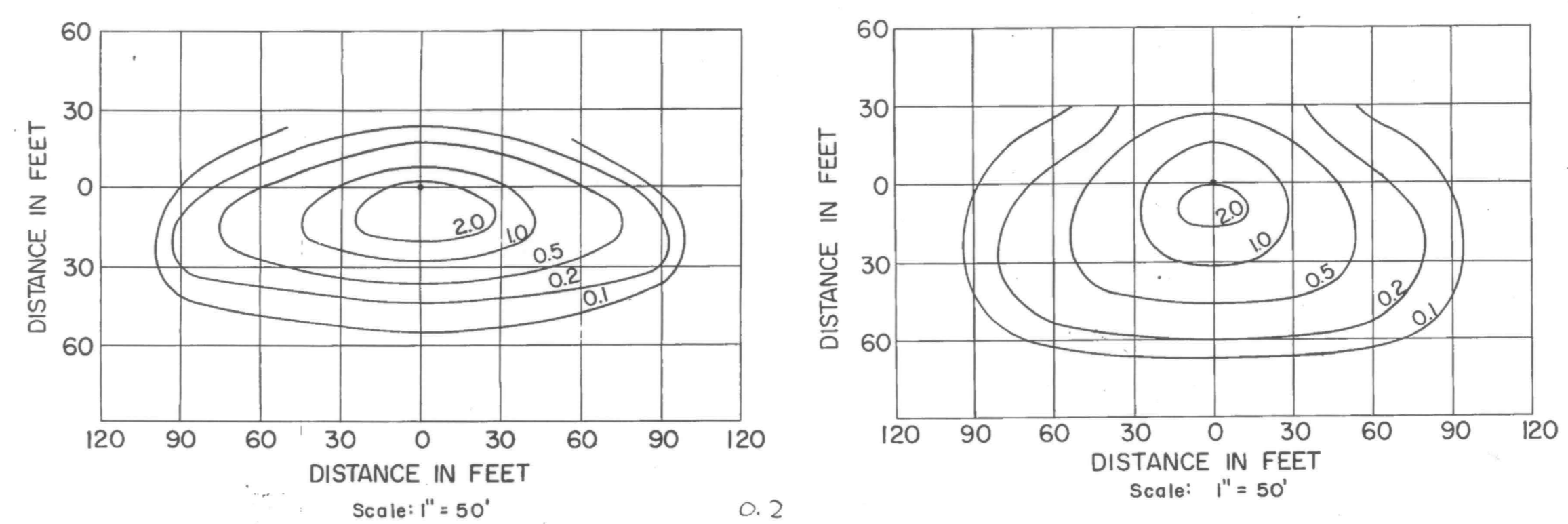
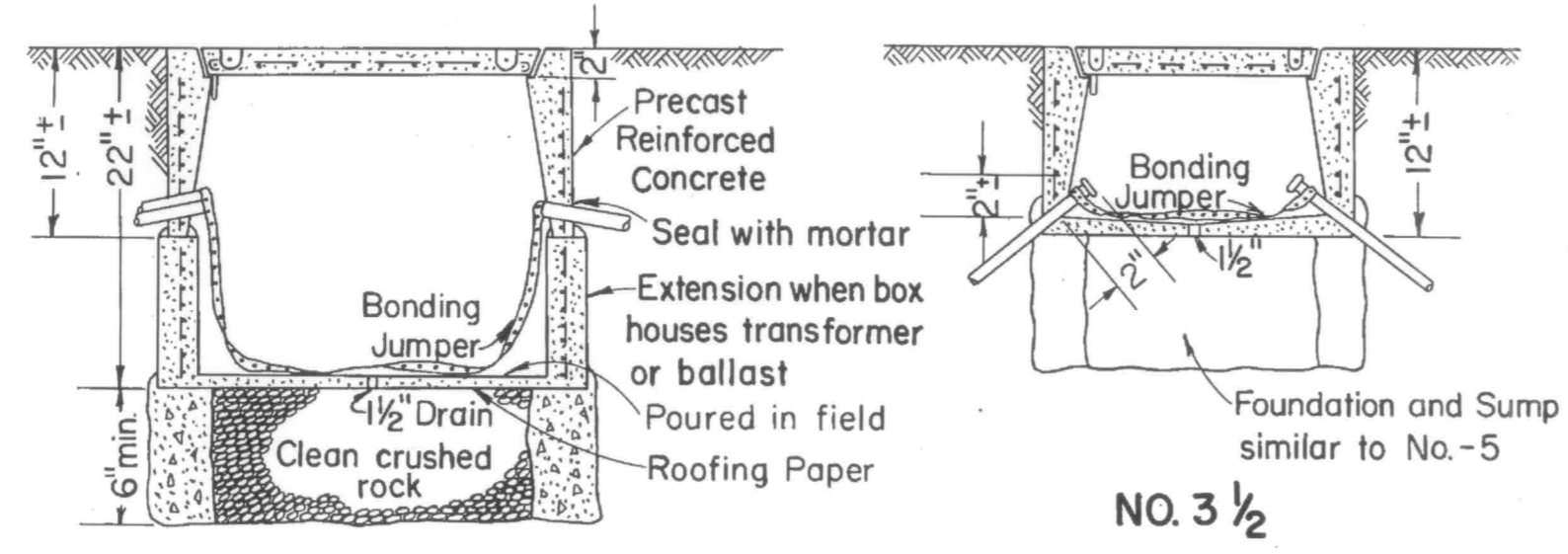
PROPOSED	EXISTING	
---	---	Signal conduit
---	---	Lighting conduit
□	□	Pull box
○	○	Electroliner, mast arm type (Type X standard)
⊙	⊙	Electroliner, upright type
●	○	Power pole
●	○	Telephone pole
●	○	Fire hydrant
---	---	Overhead conductor



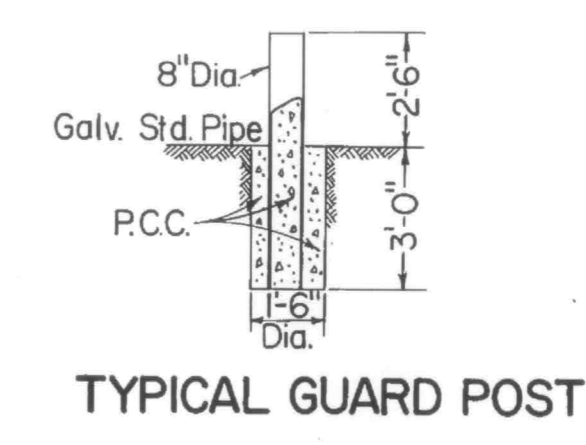
SERIES LIGHTING TYPE G, MULTIPLE SYSTEMS TYPE A, MULTIPLE SYSTEMS TYPE C, MULTIPLE SYSTEMS TYPE E, MULTIPLE SYSTEMS TYPE F



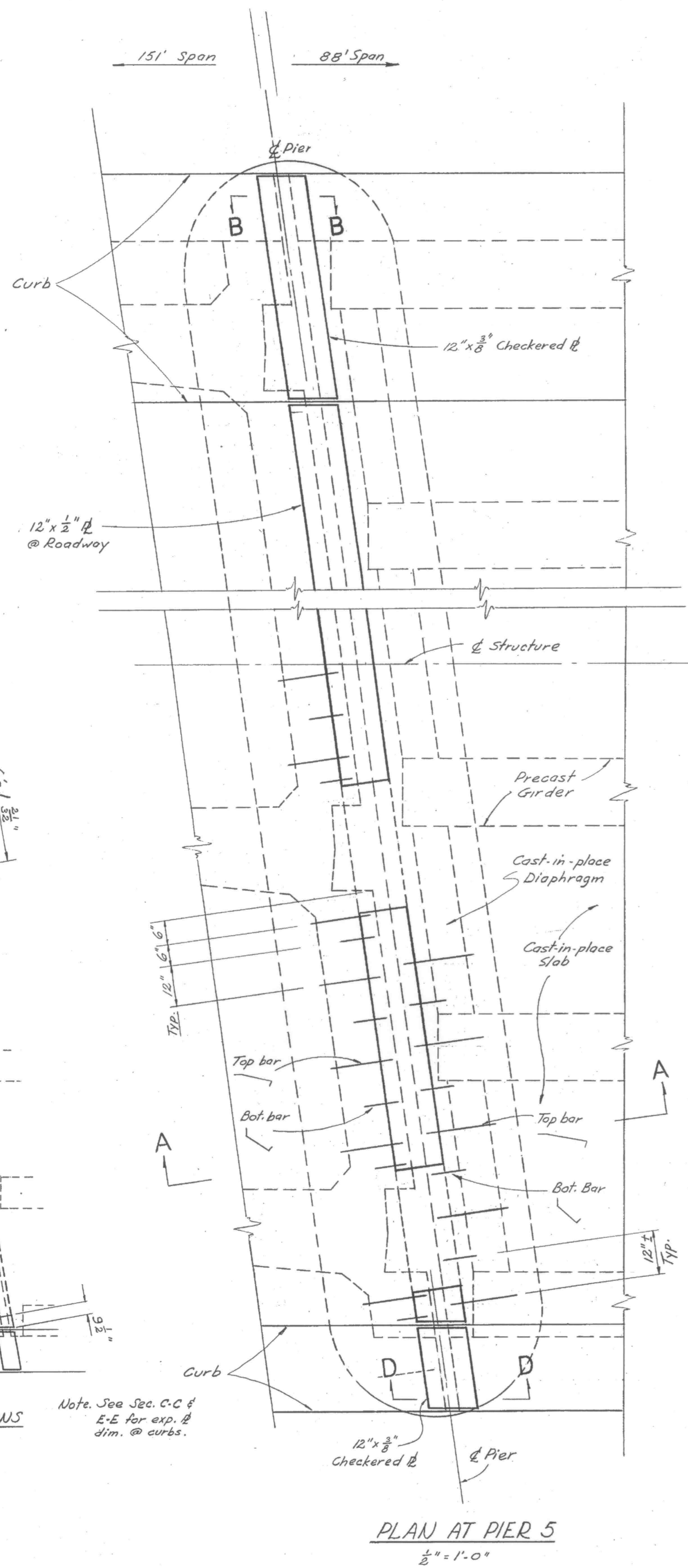
NO. 5 and NO. 3 1/2 PULL BOXES



TYPE II and TYPE III ISOLUX LINES OF MINIMUM HORIZONTAL FOOT CANDLES SHIELDED HIGHWAY LIGHTING LUMINAIRE 30' MOUNTING HEIGHT, 20,000 LUMEN MERCURY VAPOR LAMP

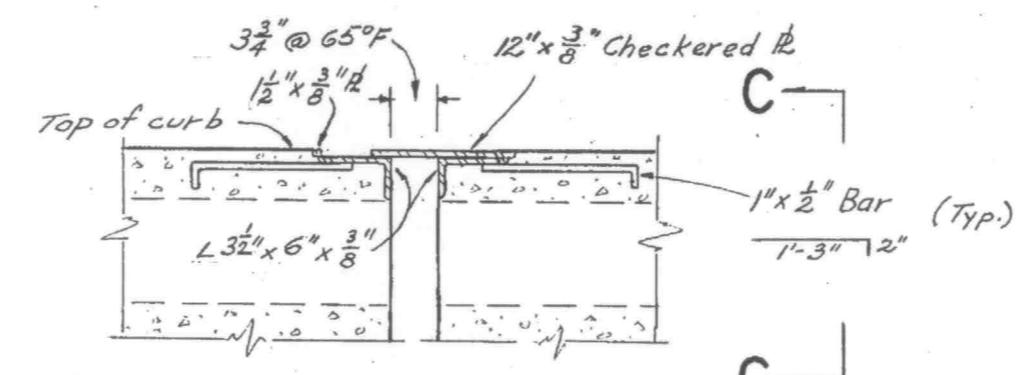


TYPICAL GUARD POST

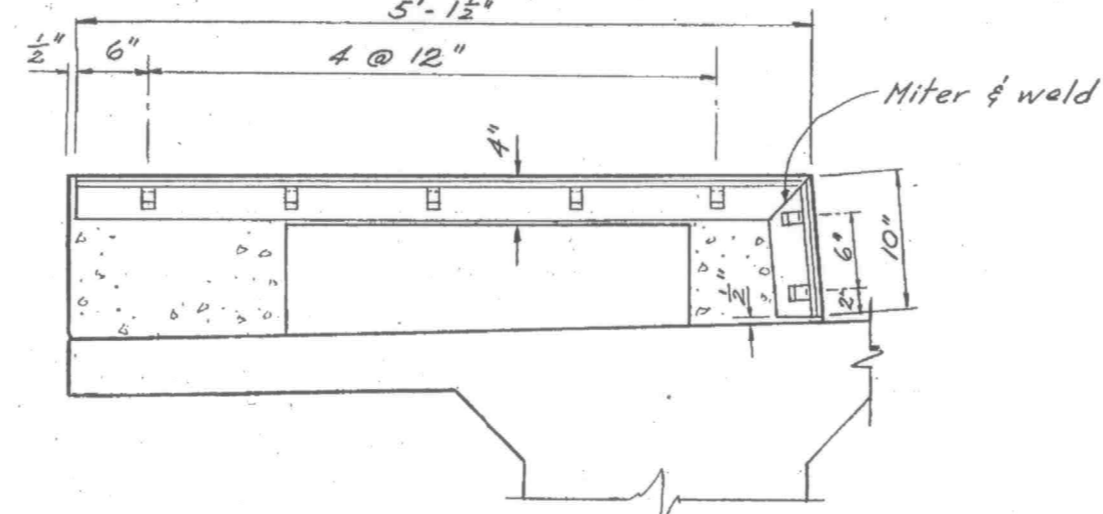


EXP. DIMENSIONS
1/4" = 1'-0"

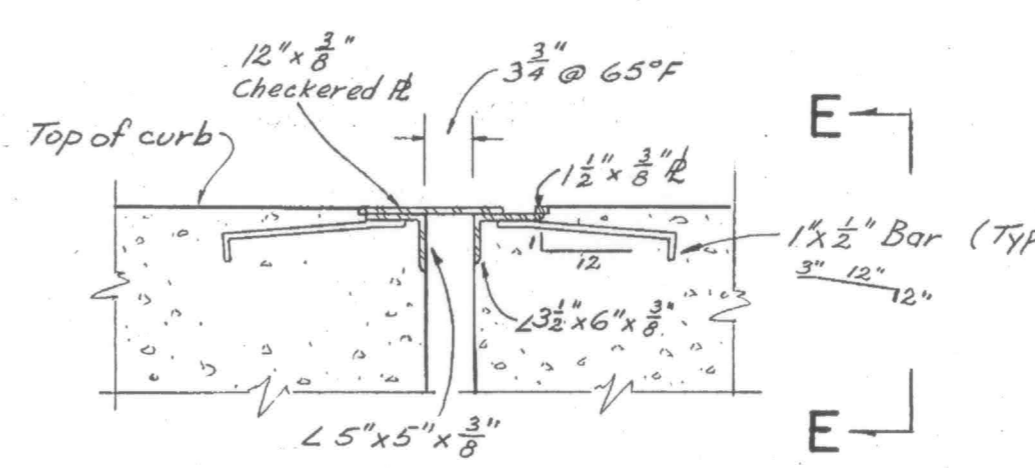
Note: See Sec. C-C & E-E for exp. dim. @ curbs.



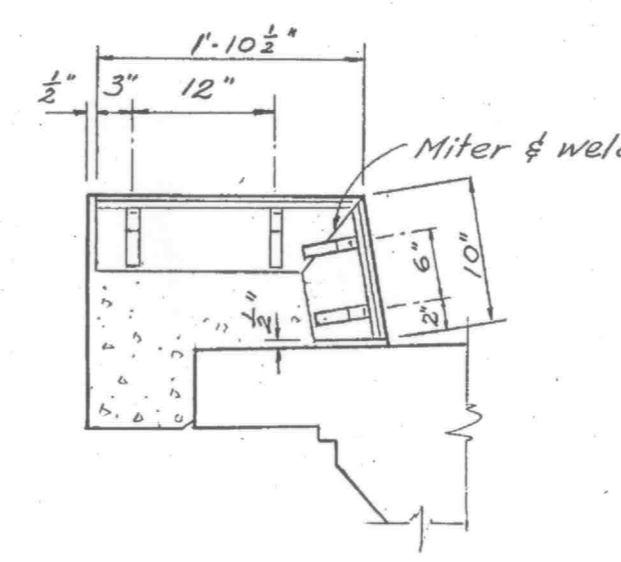
SECTION B-B
3/4" = 1'-0"



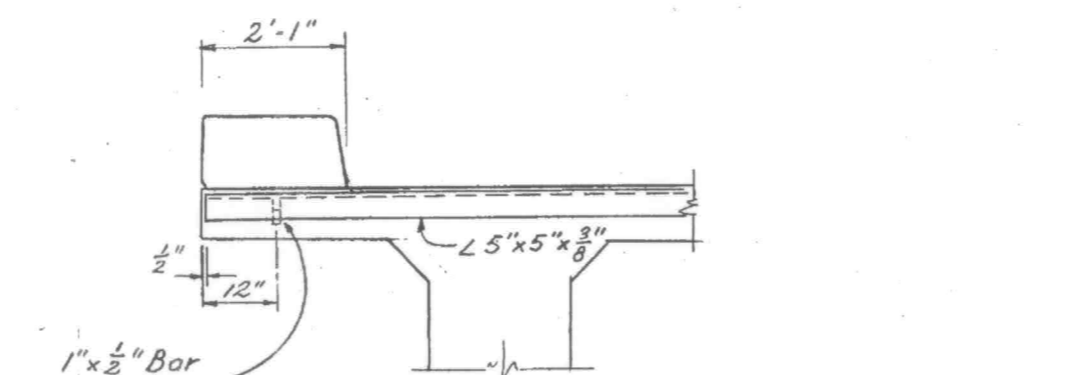
SECTION C-C
3/4" = 1'-0"



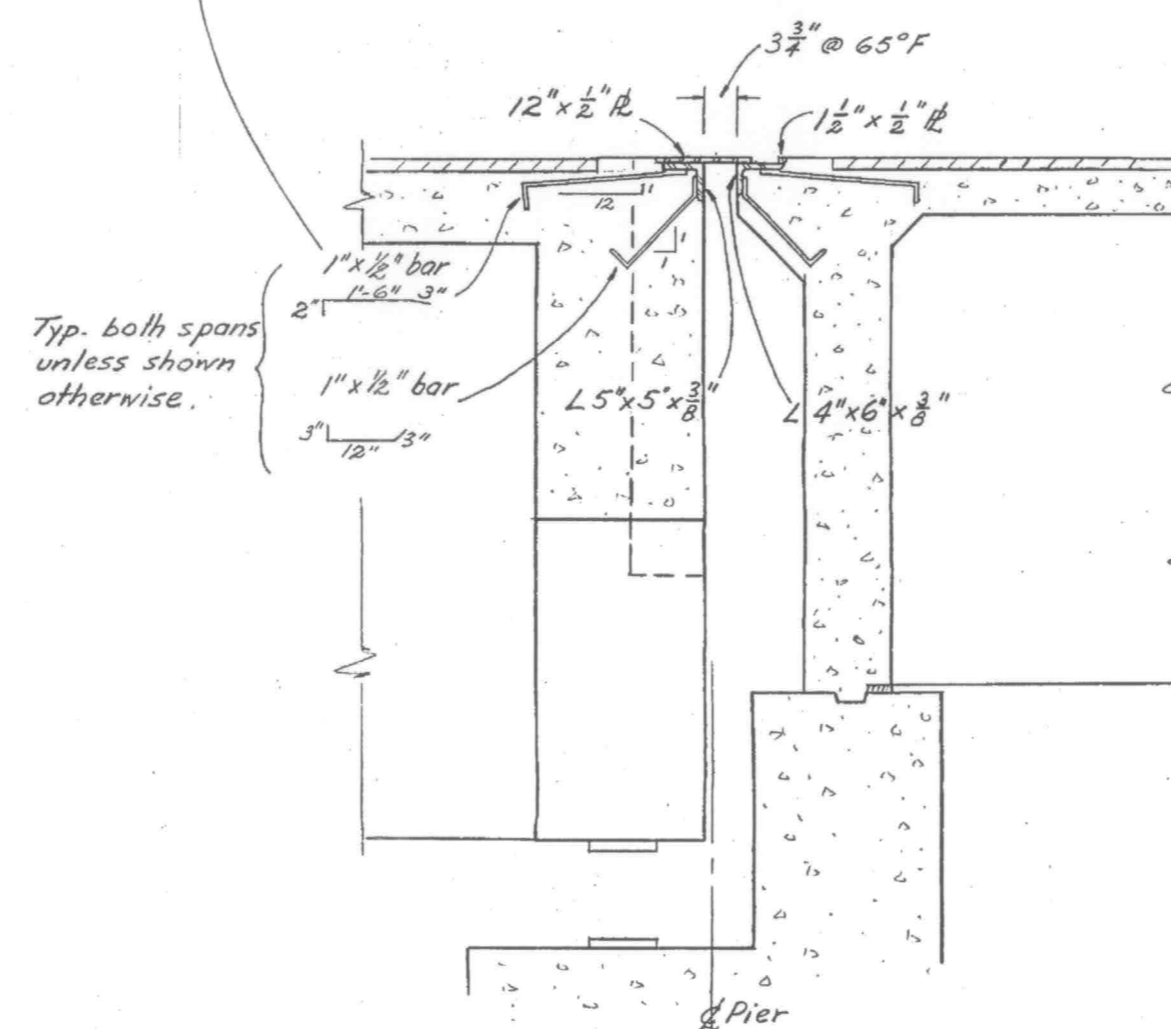
SECTION D-D
3/4" = 1'-0"



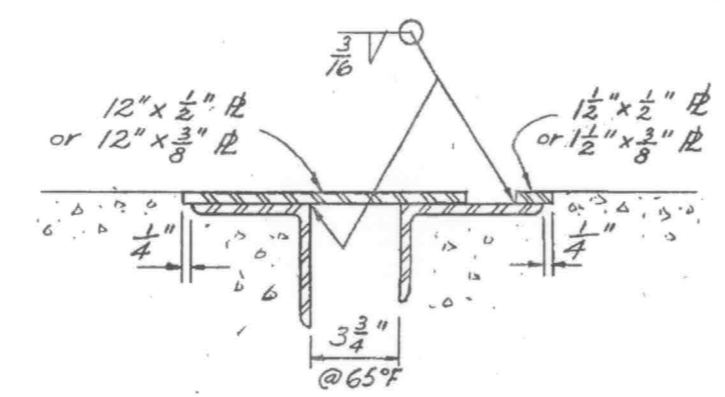
SECTION E-E
3/4" = 1'-0"



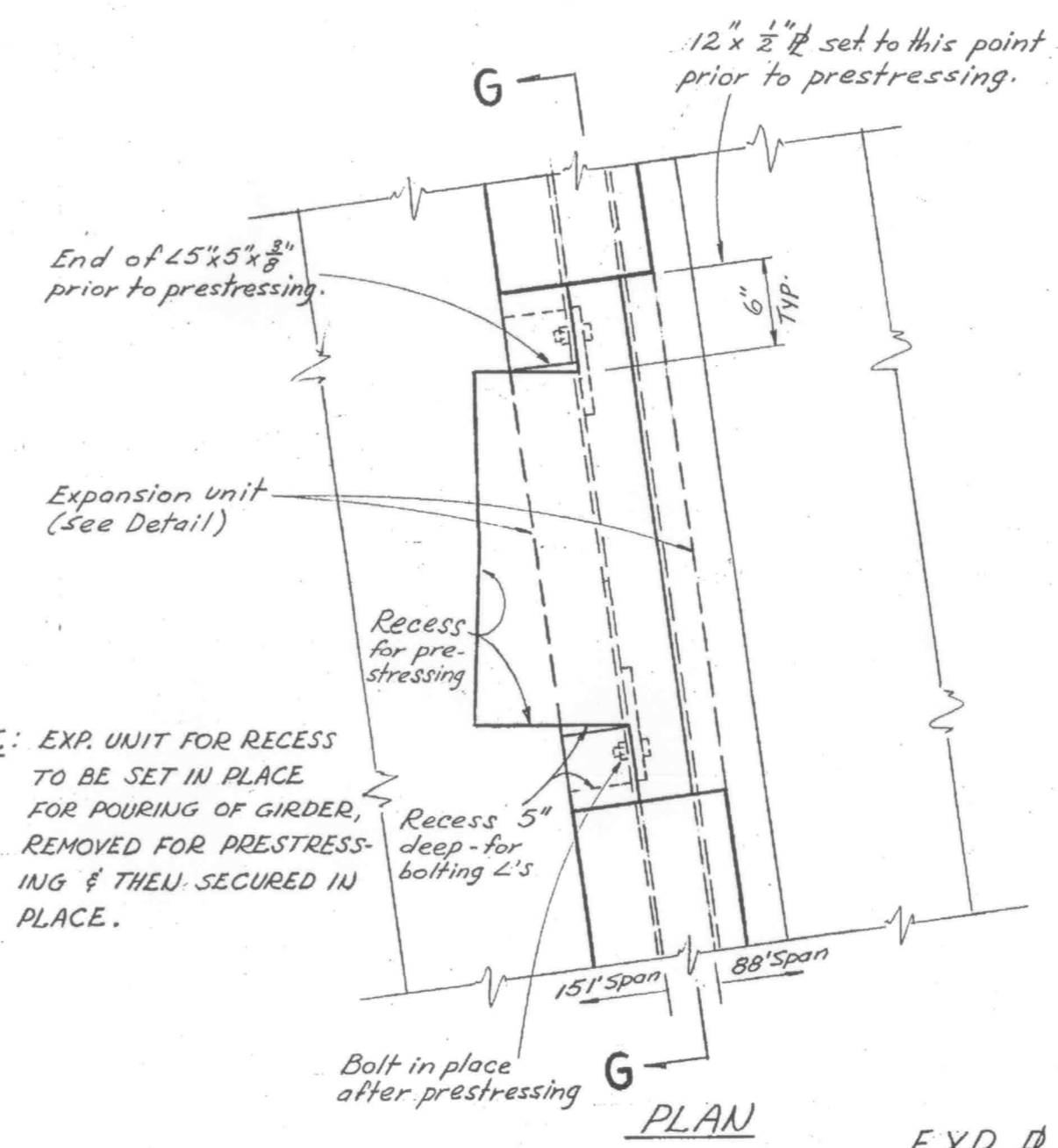
SECTION SHOWING EXTENSION OF DECK ANGLE UNDER SMALLER CURB ONLY (151' GIRDER)



SECTION A-A
1/2" = 1'-0"



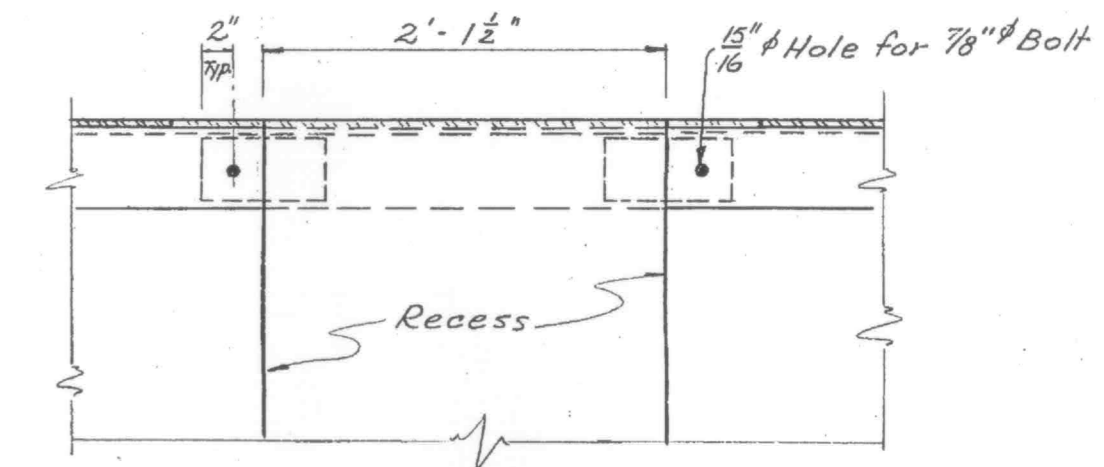
TYP. TO ANGLE SPACING
1/2" = 1'-0"



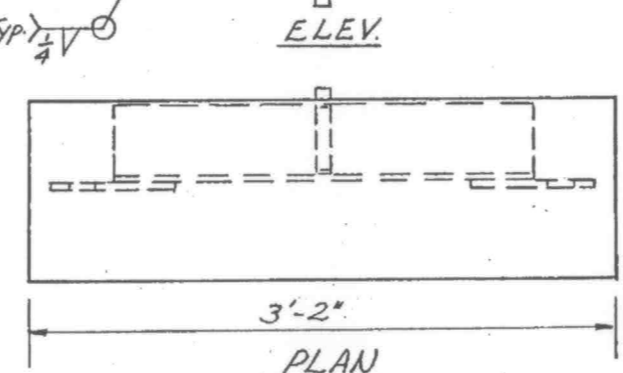
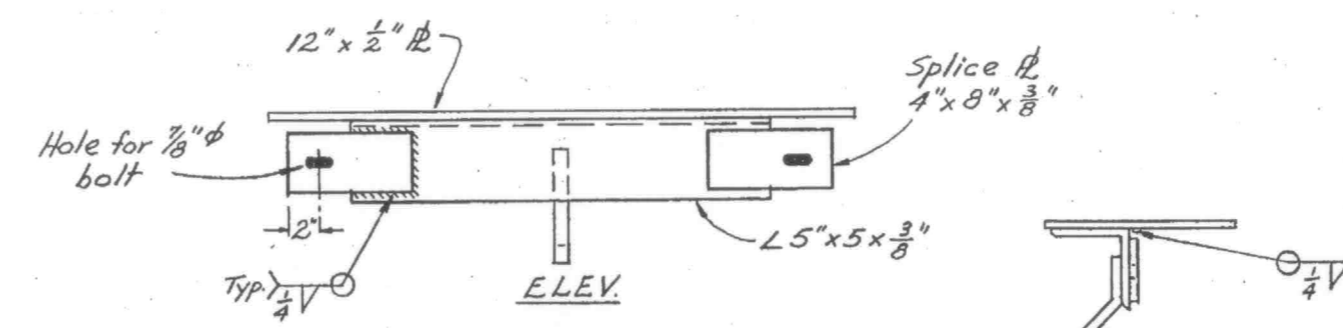
NOTE: EXP. UNIT FOR RECESS TO BE SET IN PLACE FOR POURING OF GIRDER, REMOVED FOR PRESTRESSING & THEN SECURED IN PLACE.

PLAN

EXP. RE DETAILS AT ANCHOR RECESS
1" = 1'-0"



SECTION G-G



EXP. UNIT FOR PLACING AT ANCHOR RECESS
1" = 1'-0"

SUBMITTED BY BEN C. GERWICK INC. ENGINEERING DIVISION
APPROVED W. Talbot CIVIL ENGINEER LICENSE 6913

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	Changes to exp. B & bar details etc. Sec. BB - Side elev. & Def. 2 - Dwg. 19	LHR	9-16-57

BEN C. GERWICK INC. CONTRACTORS 417 MARKET STREET SAN FRANCISCO, CALIF.
SUTTER & YUBA COUNTIES
5TH ST. BRIDGE EXPANSION PLATE DETAIL AT PI.
SCALE As shown DATE 9-7-57 DRWG. NO.

