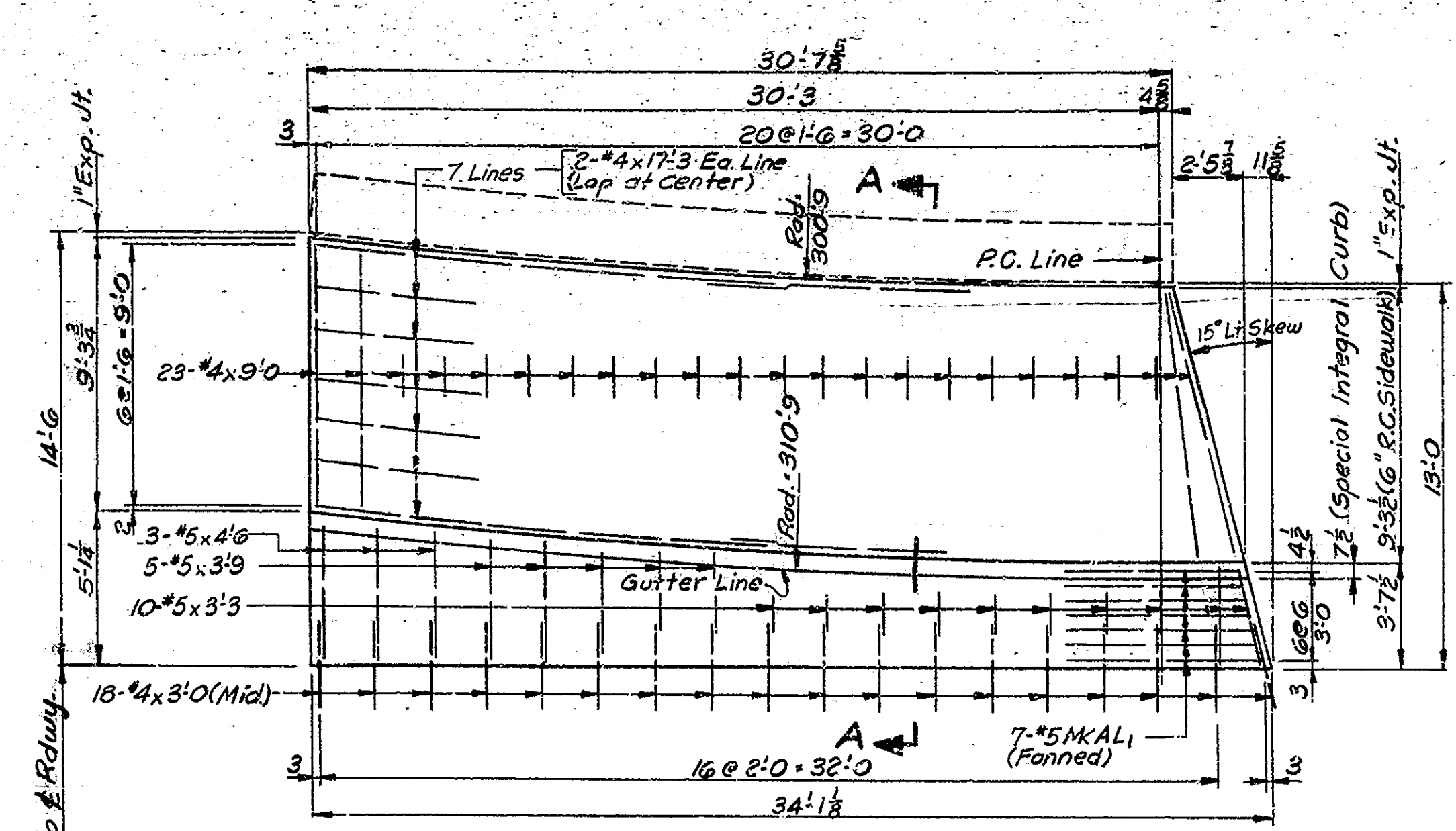


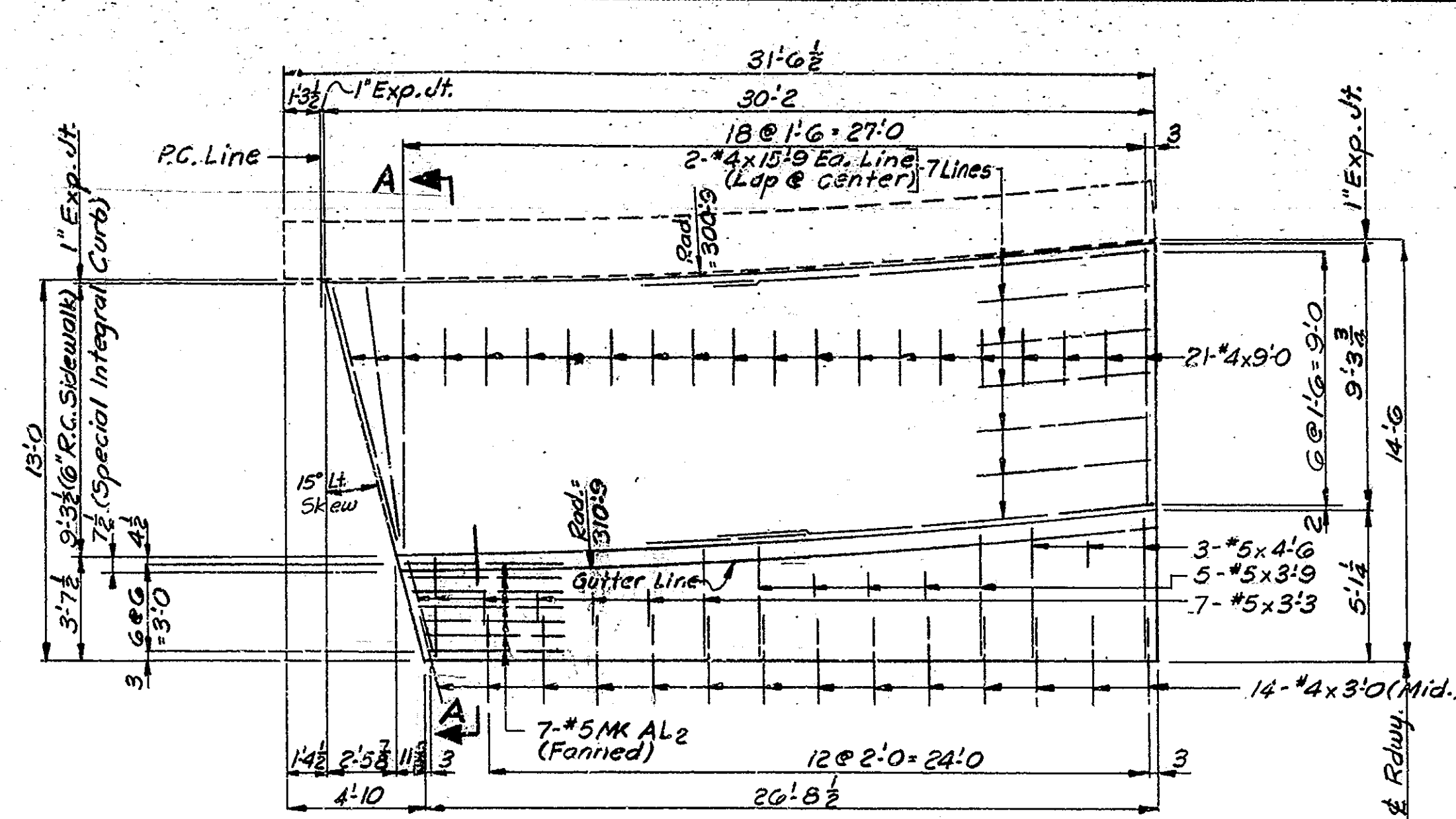
BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	U-724(16)	1963	32

BILL OF MATERIALS
WIDENED RC BRIDGE APPROACH

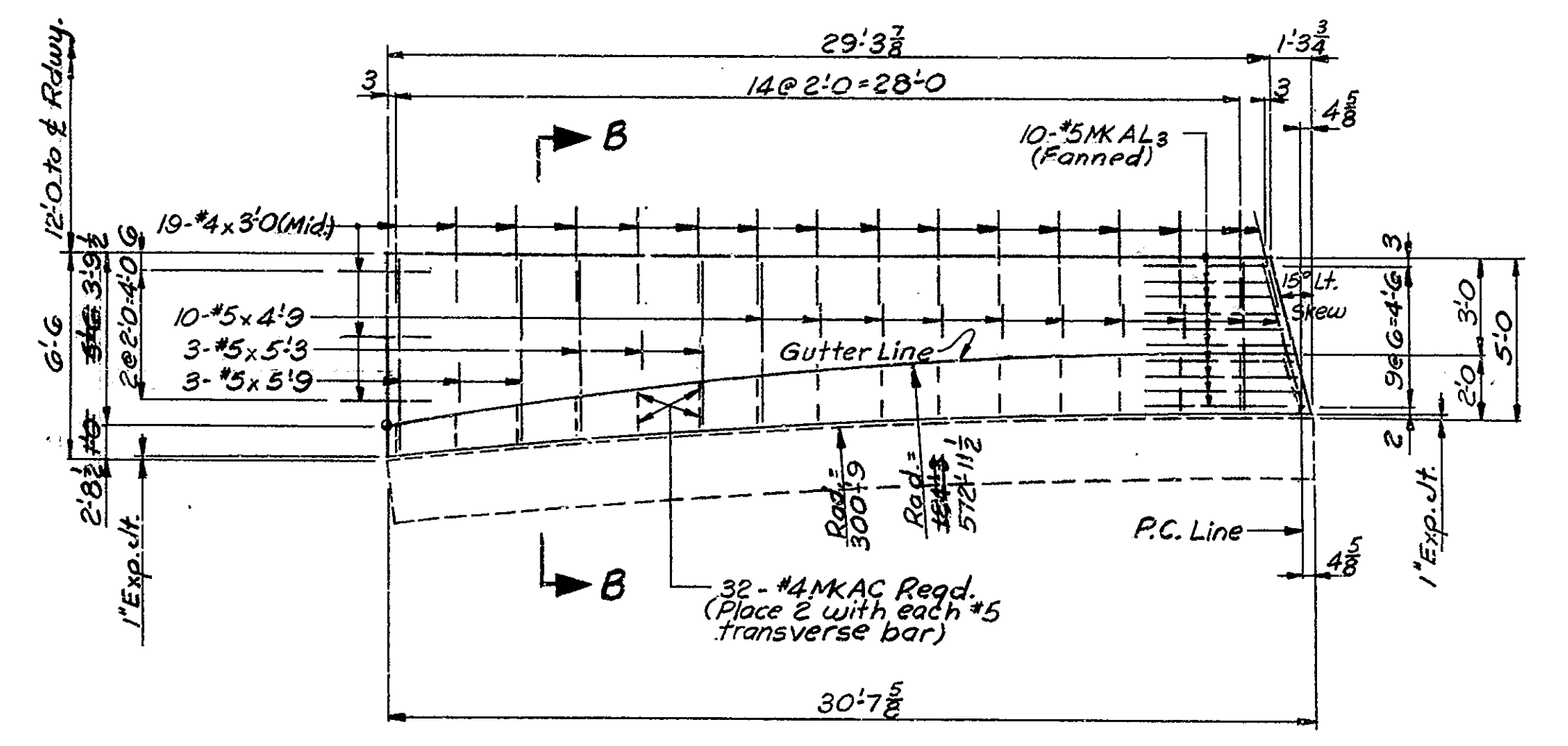
REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
#5KAL1	7	33'-4"	
#5KAL2	7	26'-10"	
#5KAL3	10	29'-4"	
#5KAL4	10	30'-4"	
#5	6	5'-9"	
#5	6	5'-3"	
#5	21	4'-9"	
#5	6	4'-6"	
#5	10	3'-9"	
#5	17	3'-3"	
Total #5			1359#
#4KAC	6	2'-3"	
#4	14	17'-3"	
#4	14	15'-9"	
#4	14	9'-0"	
#4	6	3'-0"	
Total #4			809#
TOTAL STEEL			2168#
MISCELLANEOUS			
R.C.C. Pavement (6")	61	Sq. Yds	
6" Conc. Sidewalk	64	Sq. Yds	
Special Integral Conc. Curb	61	Lin. Ft.	
Integral Curb Walk	61	Lin. Ft.	



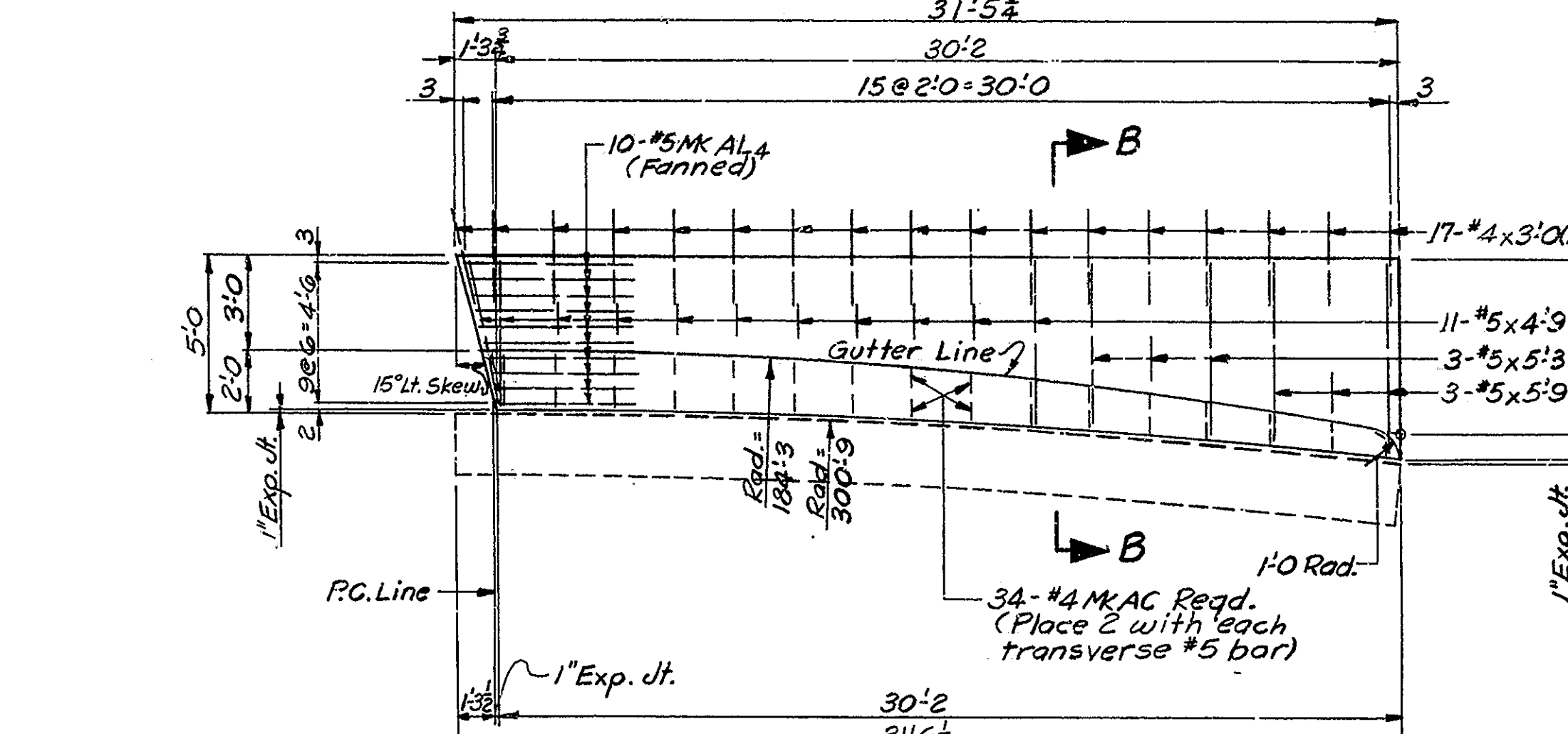
WING A DETAIL



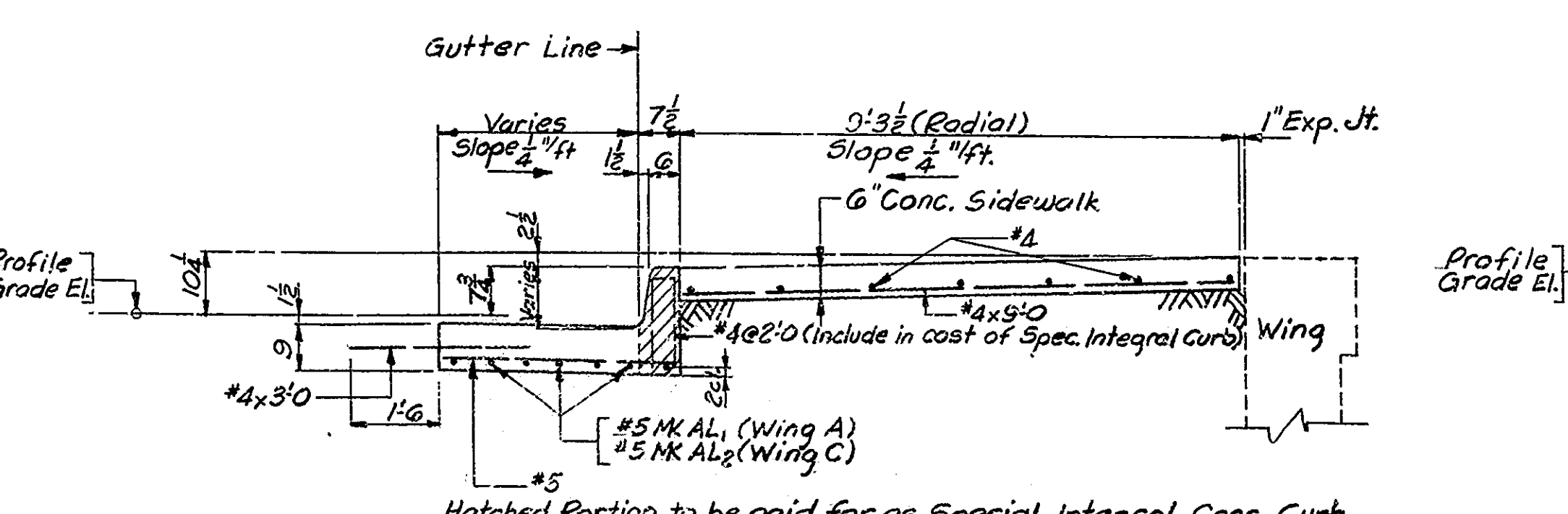
WING C DETAIL



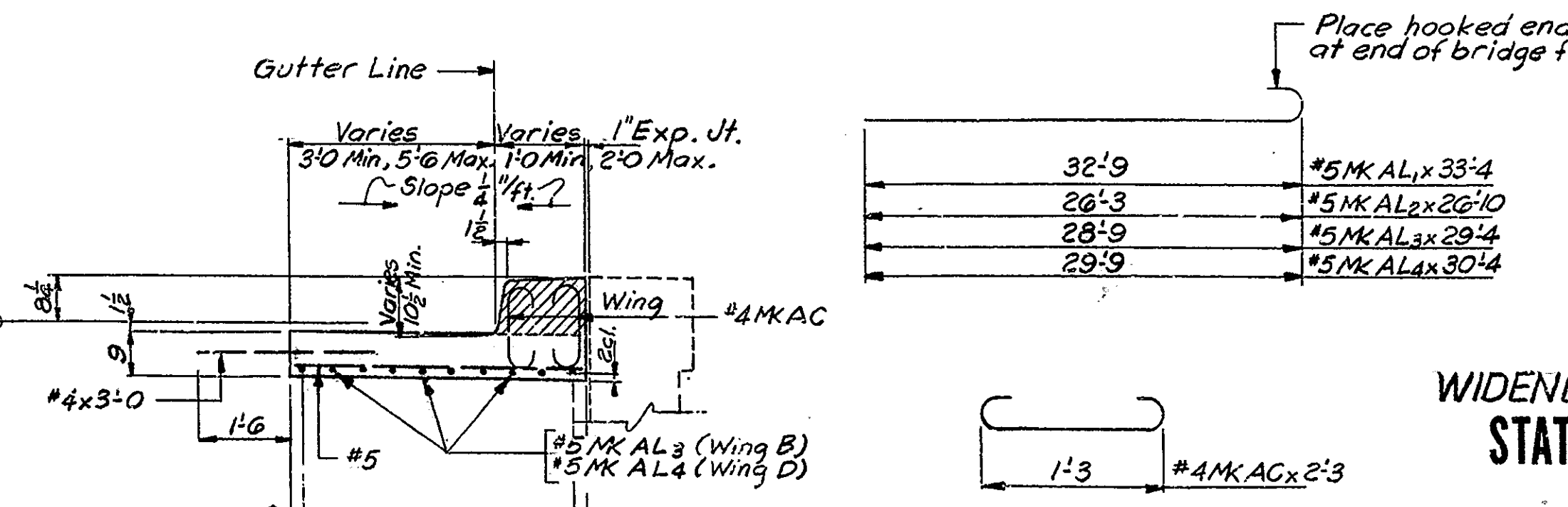
WING B DETAIL



WING D DETAIL



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



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

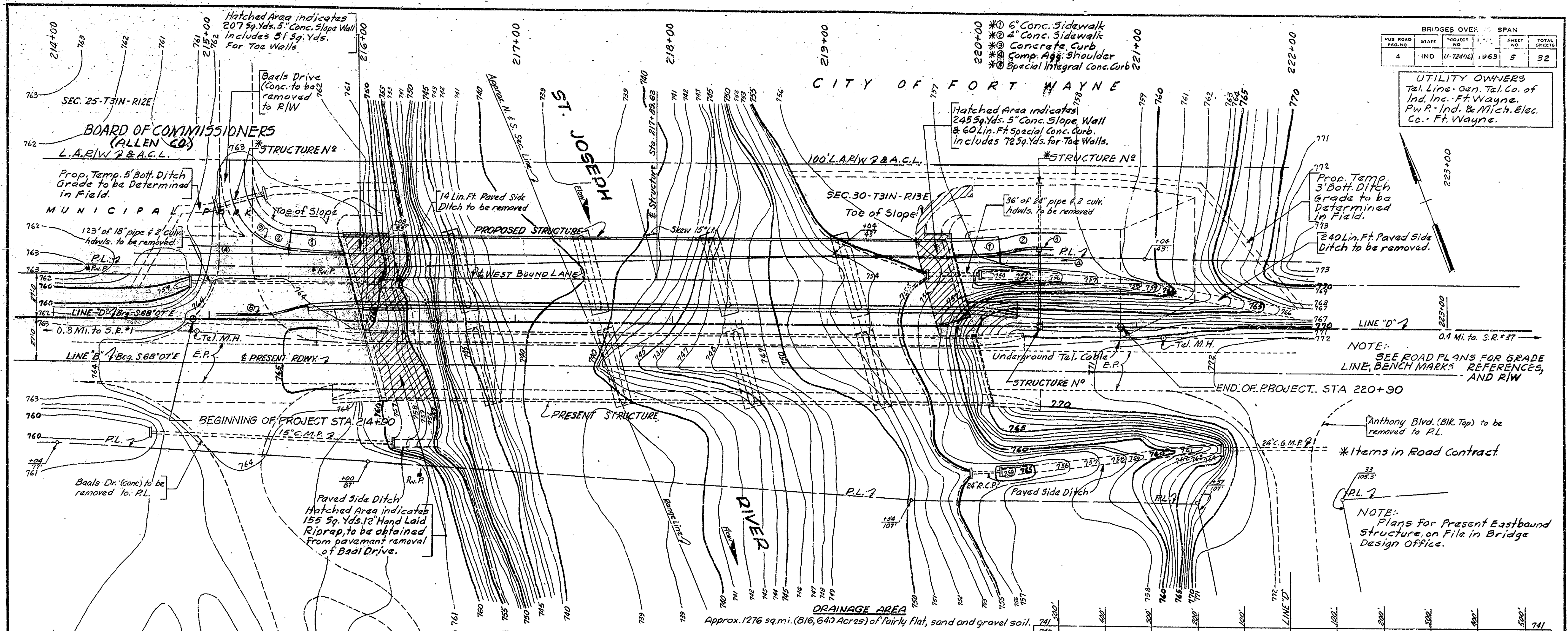
NOTES:
For Reinforcing Bar Notes see Br. Std. G.
For additional details of Special Integral Conc. Curb and Integral Curb Walk see Br. Std. M2.
For additional details of R.C. Bridge Approach see Br. Std. M3.
Integral Curb Walk to be Class "F" concrete.

WIDENED RC BRIDGE APPROACH DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1/4" = 1'-0" Unless noted. AUGUST 21, 1962

RECOMMENDED FOR APPROVAL: [Signature]

DRAWING: OF PROJECT: U-724(16) BRIDGE CONTRACT NO. 5752



BRIDGES OVER:		SPAN	
PUB. ROAD REG. NO.	STATE	PROJECT NO.	TOTAL SHEETS
4	IND	U-724(16)	32

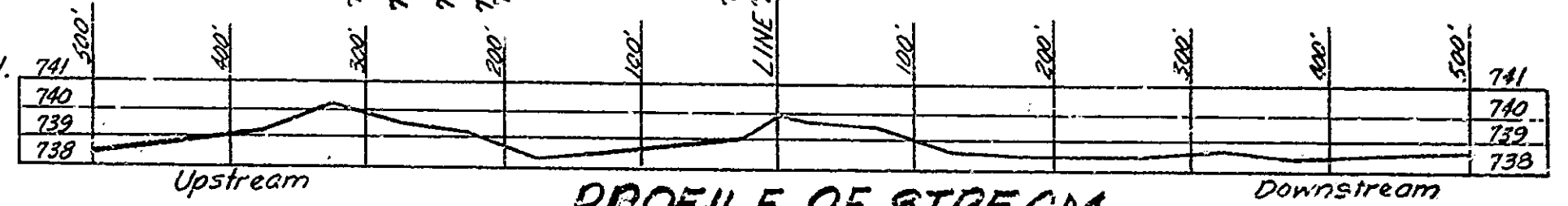
UTILITY OWNERS
Tel. Line - Gen. Tel. Co. of Ind. Inc. - Ft. Wayne.
P.W. - Ind. & Mich. Elec. Co. - Ft. Wayne.

NOTE:
SEE ROAD PLANS FOR GRADE LINE, BENCH MARKS, REFERENCES, AND R/W

*Items in Road Contract

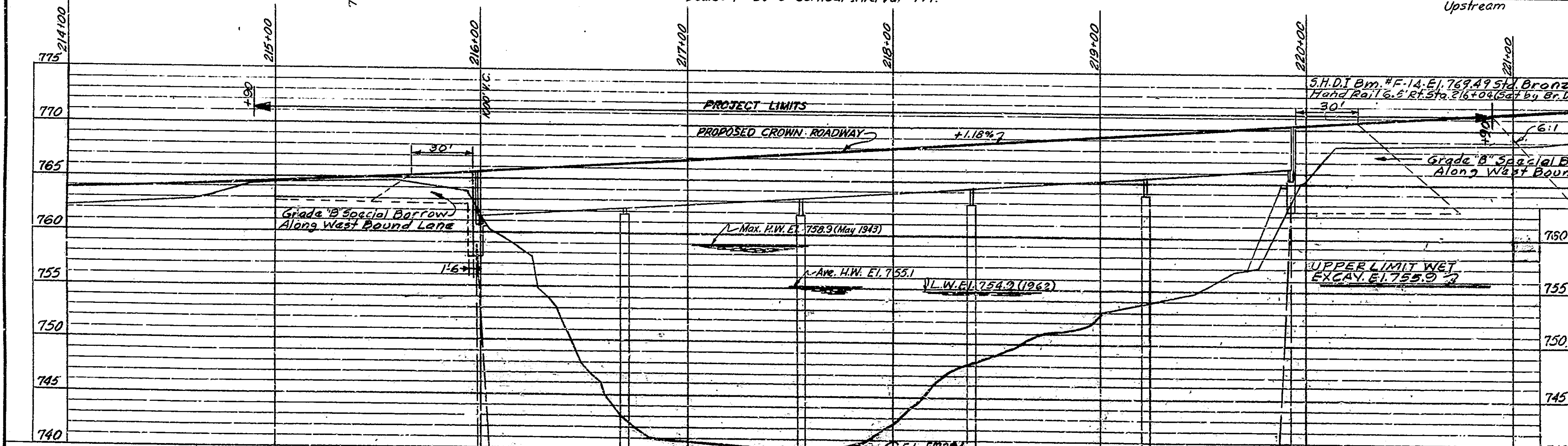
NOTE:
Plans for Present Eastbound Structure on File in Bridge Design Office.

SITUATION PLAN
Scale: 1" = 30'-0" Contour Interval = 1 FT.



PROFILE OF STREAM
Scales: Horiz. 1" = 100'-0" Vert. 1" = 5'-0"

EARTHWORK QUANTITIES
FILL + 20% = 2015 CU. YDS.
COMMON EXCAV. = 440 " "
SURPLUS EXCAV. = 350 " "
SPECIAL BORROW = 1225 " "



PROFILE ON PROPOSED WESTBOUND LANE
Scales: Horiz. 1" = 30'-0" Vert. 1" = 6'-0"

LAYOUT
CONTINUOUS STEEL BEAM BRIDGE
5 SPANS 70'-0", 3x34'-0", 10'-0"
30'-0" ROADWAY
1'-2" & 1'-10" WALKS
OVER ST. JOSEPH RIVER
ON STATE ROAD: 30-NN

STATE HIGHWAY DEPARTMENT OF INDIANA
ALLEN COUNTY

SCALE: - AS NOTED
AUGUST 15, 1962

RECOMMENDED FOR APPROVAL: *C.R. Rimmer*
ENGINEER OF BRIDGE SECTION

DRAWING: 51 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NN-3376J

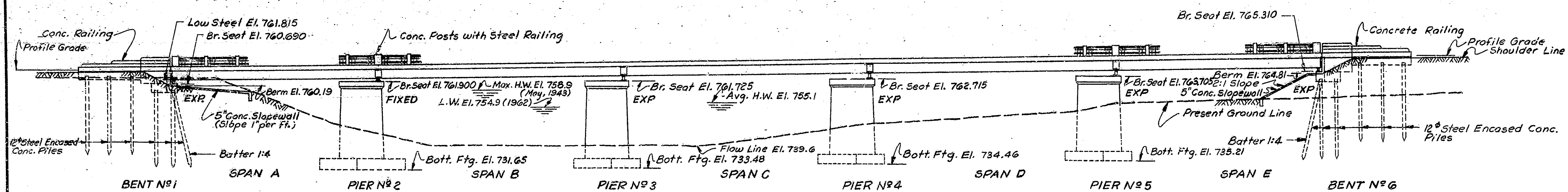
RD BOOKS - N° 8655L & 8656T
FIELD NOTES: BR. BOOK - N° 1136 D 65

Rev. 8-27-62 F.L. & Plan

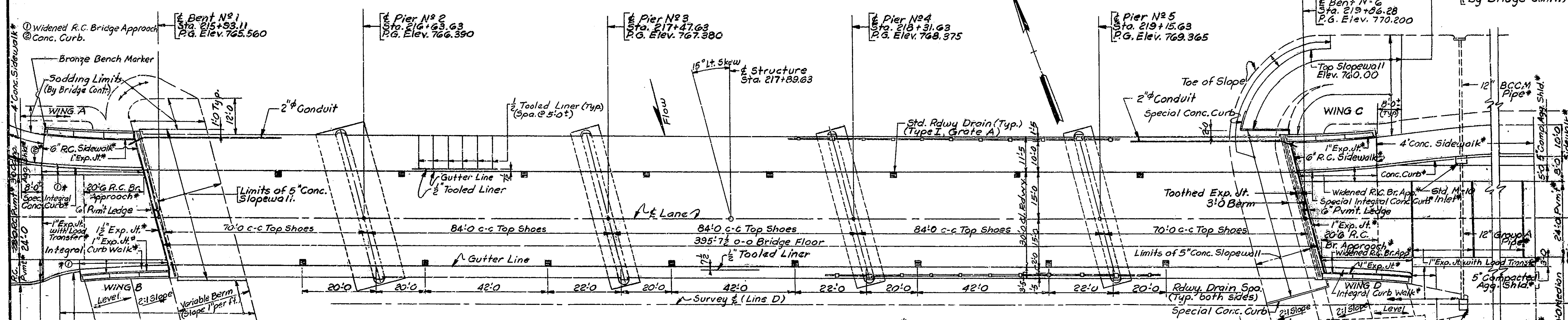
DESIGNED: CKD
DRAWN: R.W. 3-14-62 CKD
TRACED: CKD

NOTE: STRUCTURE TO BE BUILT TO A 1000' V.C. AND A +1.18% GRADE

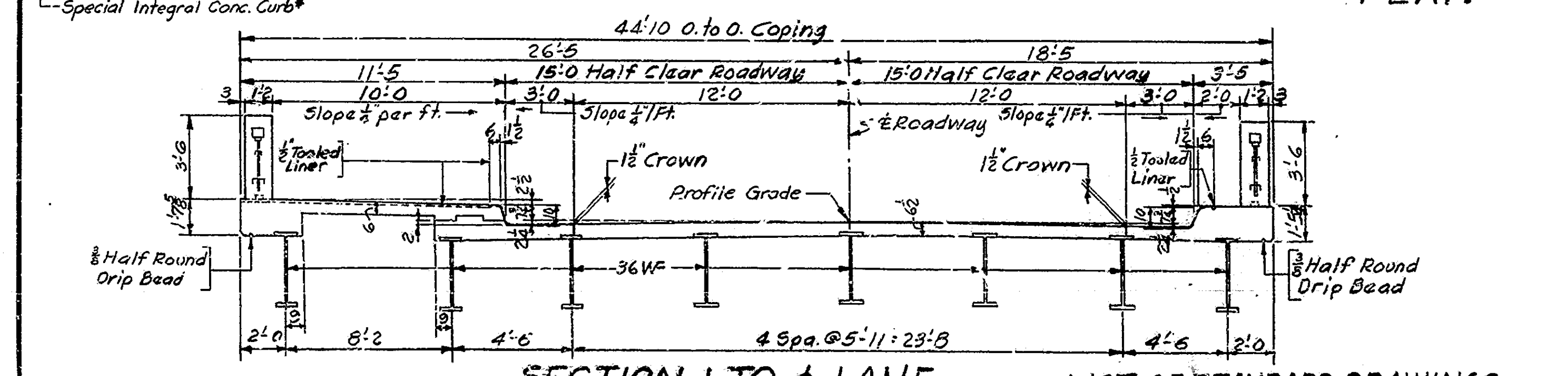
BRIDGES OVER 20' SPAN					
PUR. ROAD REGION	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	G	32



ELEVATION



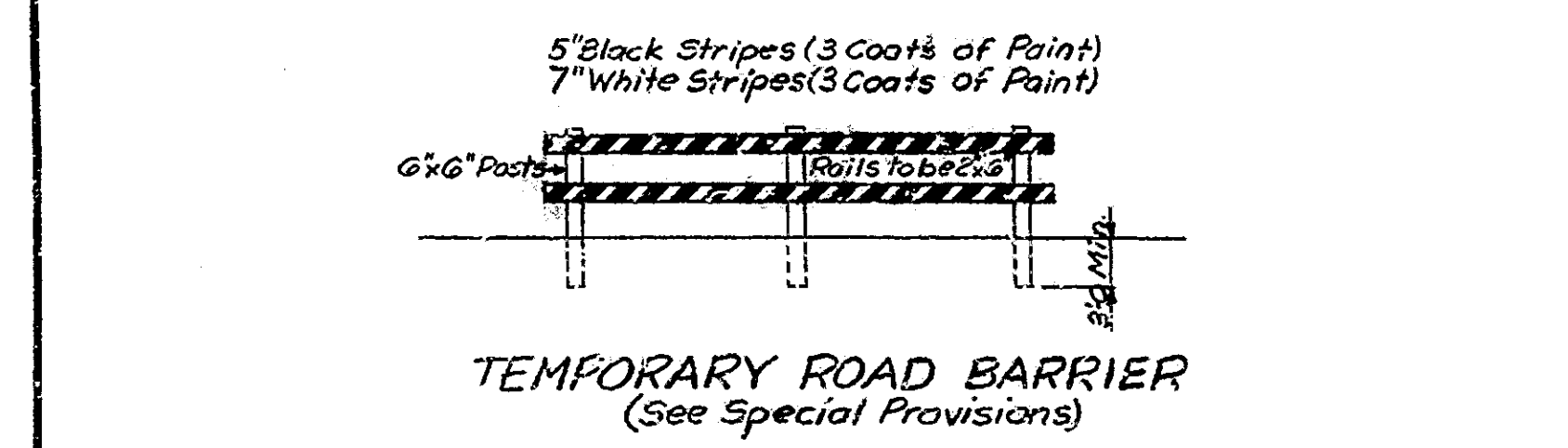
PLAN



SECTION L TO E & LANE

LIST OF STANDARD DRAWINGS

NO.	DESCRIPTION	PURPOSE
1	Typical Beam Guard Rail Details	Guard Rail
2	Beam Guard Rail	Guard Rail
3	Reinf. Bar Notes, 1" Exp. Jt., Notch in Slop. Splicing Pile Shells	Reinforcement
4	Standard Roadway Drain (Type I, Grate A)	Drainage
5	Pavement Offsets, 5/8" Markers, Sodding Detail	Pavement
6	Conc. Curb, Integral Curb Walk, Integral Conc. Curb	Curb
7	E.C. Bridge Approach	Approach
8	Slopewall Details	Slopewall
9	Pavement Joints	Pavement
10	Sidewalk Paving Edge Transitions	Sidewalk
11	Mc Type 7 Earth Ditch Casting	Ditch
12	Mc Type 10 Casting	Ditch
13	Mc Type E Inlet	Inlet
14	Mc Type M Inlet	Inlet
15	Mc Headwalls, Faced Side Ditch	Headwall
16	MP Pipe for Surface Drainage	Drainage
17	Standard Detour Signs	Signage
18	Standard Detour Signs	Signage
19	Standard Detour Signs	Signage
20	Standard Detour Signs	Signage



TEMPORARY ROAD BARRIER (See Special Provisions)

GENERAL NOTES

Plans for E.B. Structure are on file in central office. Depth of footings to be extended if found necessary. See Art. B 403.2(d) of the Specifications. Piles shall be driven to the elevation necessary to obtain the minimum bearing value shown on detail drawings. Determine pile lengths by Art. F203 of Specifications. For details of steel encased concrete piles see Br. Std. C1, the Special Provisions and applicable articles in the Specifications. Reinforcing steel covering shall be 1" min. in floor slabs, 3 inches in footing except bottom steel which shall be 4 inches, and 2 inches in all other parts unless noted. Concrete in footings and pier stems to bottom of coping to be Class E. Concrete in superstructure, including railings, and bents, top of piers above bottom of coping, to be Class F. Concrete in structure not noted above, in steel encased concrete piles and concrete slopewall to be Class D. Continuous concrete pours shall be required between construction joints as shown on detail plans. Waterproof back of end bents and wingwalls in accordance with Specifications. Bevel forms 1/4" under copings; and chamfer exposed edges 1 inch unless noted. 16 standard Type I, Grate A roadway drains to be placed as shown on this drawing; and 12" hand-laid riprap slopewall at locations as shown on Layout. Tolerance in position of pile heads maximum 2 inches. Three 1 inch expansion joints with Load Transfer to be placed in the Approach Pavement. See Br. Std. M3. All railings to be constructed perpendicular to grade. See special provisions for items included in this contract. Concrete in integral curb walk to be Class F.

DESIGN DATA
Designed for H20-S16-44 Loading in accordance with 1961 AASHTO Specifications.

TYPICAL CROSS SECTION
For Typical Cross Section, see Sheet N22

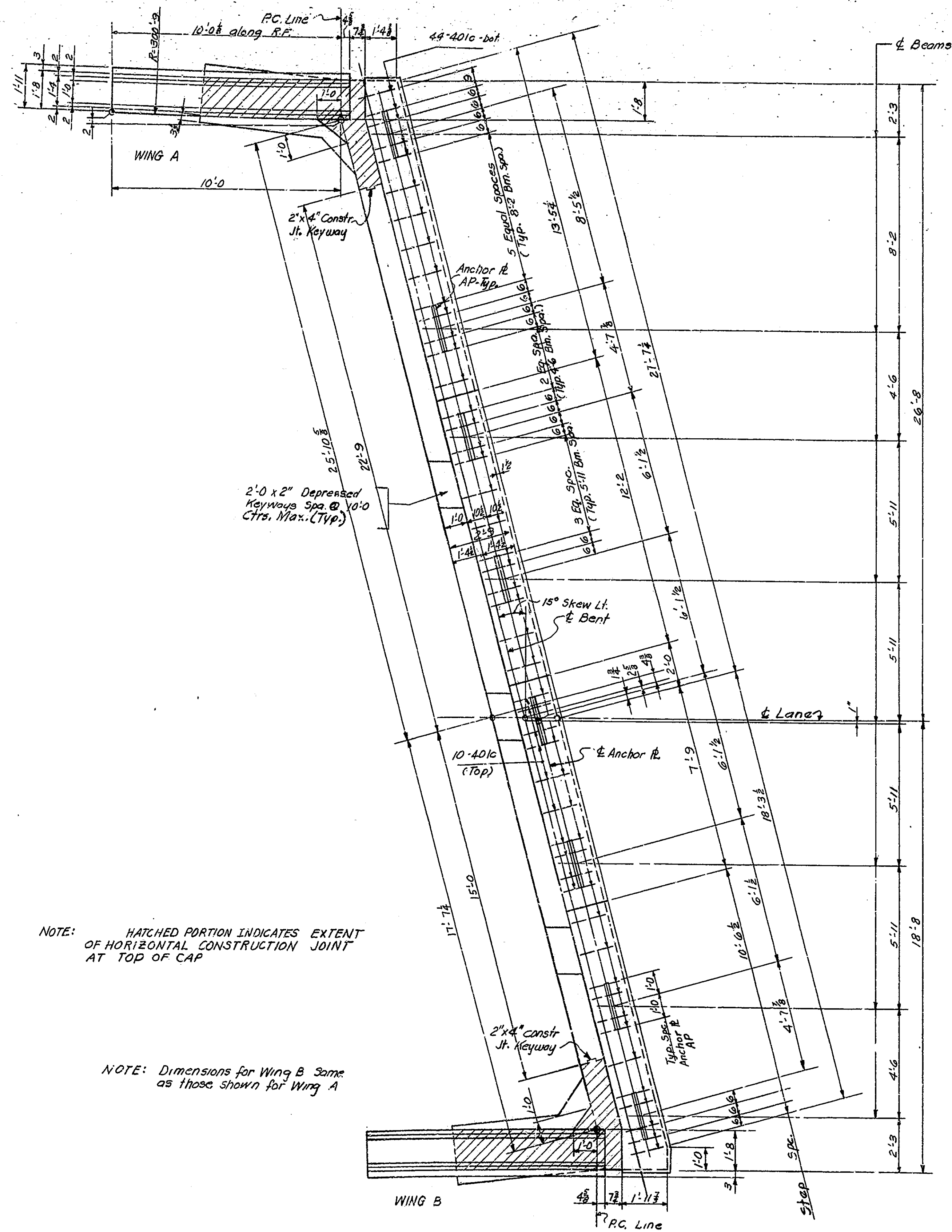
JOINT LEGEND
See Br. Std. C1 for details of 1" Exp. Jt., 1/2" Exp. Jt. Same as 1" except for width.

GENERAL PLAN
CONTINUOUS STEEL BEAM BRIDGE
5 SPANS: 70'-0", 3x84'-0", 70'-0", 5K-15'LT, 30'-0" RDWY, 1-2' & 1-10' WALKS
OVER SAINT JOSEPH RIVER ON STATE ROAD: 30-NW
STATE HIGHWAY DEPARTMENT OF INDIANA
ALLEN COUNTY

SCALE: 1/4" = 1'-0" (UNLESS NOTED) AUGUST 15 1962

RECOMMENDED FOR APPROVAL: [Signature]
DRAWING: 52 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NW-227611
STRUCTURE STATION: 217+89.63

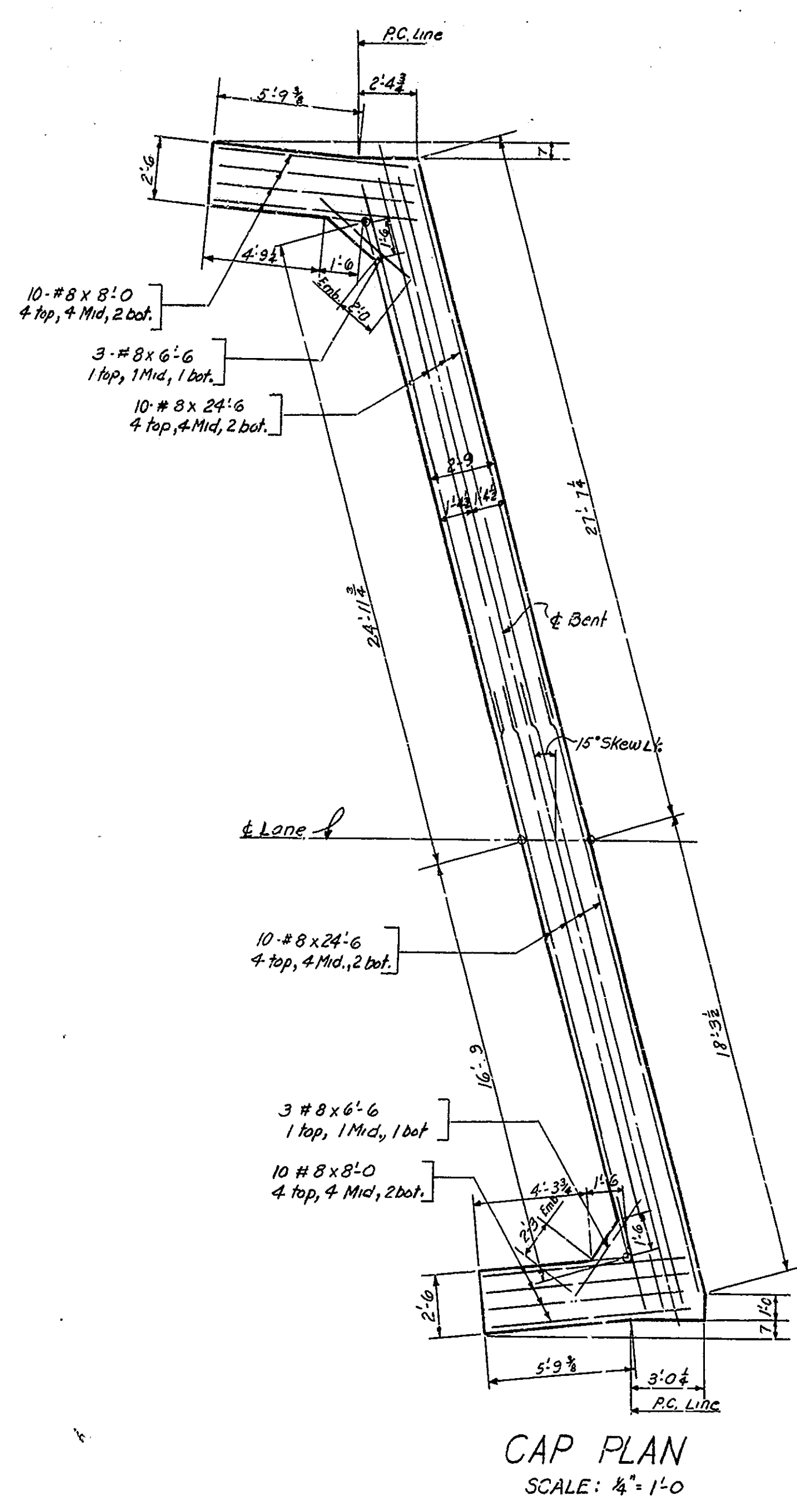
BRIDGES OVER 20' SPAN					
PUB. ROAD NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	7	32



NOTE: HATCHED PORTION INDICATES EXTENT OF HORIZONTAL CONSTRUCTION JOINT AT TOP OF CAP

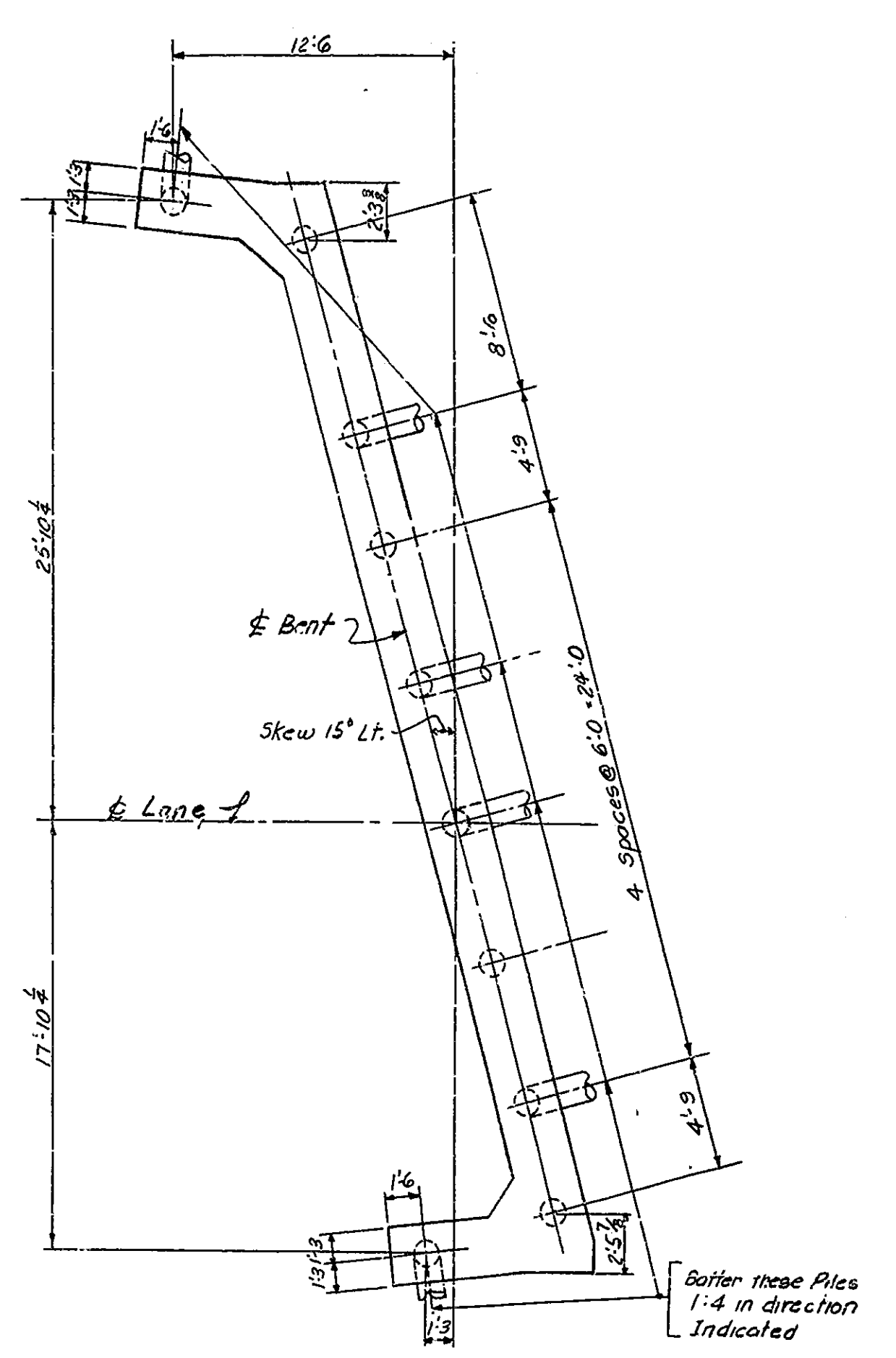
NOTE: Dimensions for Wing B Same as those shown for Wing A

PLAN BENT NO. 1
SCALE: 3/8" = 1'-0"



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

NOTES:
For Reinf. bar notes see Br. Std. C1
For additional notes & details see Dwg. S4 and S5
Anchor R MKAP to be preset in concrete for details of Anchor R, see Dwg. S6
Bent Cap not to be poured until after fill has been completed up to approximate elevation of bottom of Cap.



PILING PLAN
SCALE: 1/8" = 1'-0"

PILES: 10-12" x 7 Ga. Steel encased concrete
Piles to be driven to 35 Tons Min. bearing

BENT NO. 1 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED
AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *C.R. Rimmer*
ENGINEER OF BRIDGE DESIGN

DRAWING: 63 OF 20
PROJECT: U-724 (16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NN-3376 J

DESIGNED: R.E.W. C.V.D. E.L.D.
DRAWN: F.L.D. C.V.D. R.S.W. R.H.-62
TRACED: C.V.D.

Rev. 8-27-62 Note

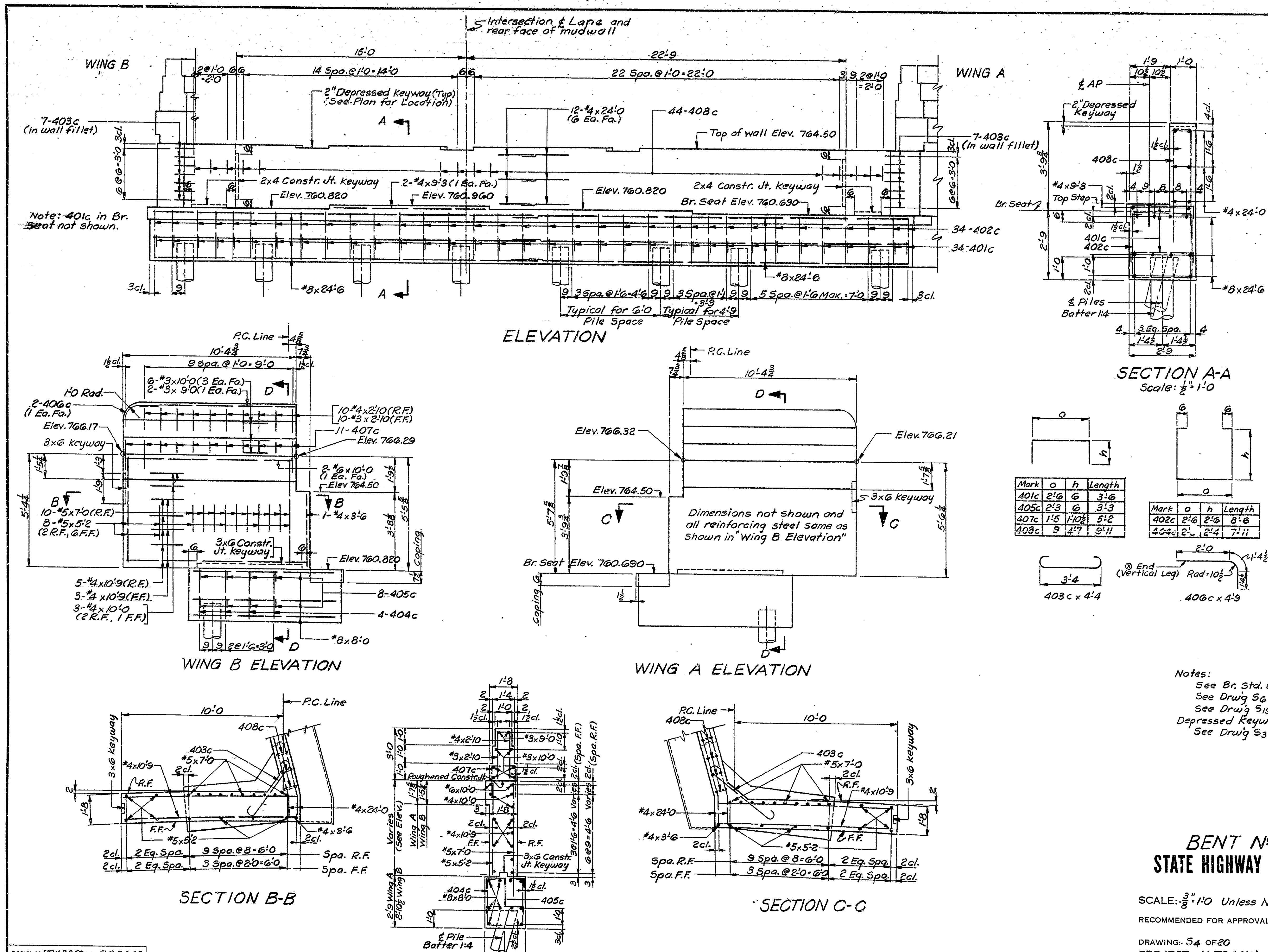
BRIDGES OVER 20' SPAN						
FWR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL	
NO.	NO.	NO.	YEAR	NO.	SHEETS	
4	IND.	U-724(16)	1969	8	82	

**BILL OF MATERIALS
BENT No 1**

REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
#8	20	24'6"	
#8	20	8'0"	
#8	6	6'6"	
Total	#8		1840#
#6	4	10'0"	60#
#5	20	7'0"	
#5	16	5'2"	
Total	#5		232#
401c	88	3'6"	
402c	34	8'6"	
403c	14	4'4"	
404c	8	7'11"	
405c	16	3'3"	
406c	4	4'9"	
407c	2	5'2"	
408c	44	9'11"	
#4	12	24'0"	
#4	16	10'9"	
#4	6	10'0"	
#4	2	9'3"	
#4	2	3'6"	
#4	20	2'10"	
Total	#4		1299#
#3	12	10'0"	
#3	4	9'0"	
#3	20	2'10"	
Total	#3		80#
Total Steel			3511#

CONCRETE

Class F	
Cap & Mudwall between	22.4 Cu. Yds.
Vertical Constr. Jts. Wing A & Mudwall	4.8 Cu. Yds.
Wing B Mudwall	4.8 Cu. Yds.
TOTAL CLASS F	31.0 Cu. Yds.
Railing Conc.	
@ 1.55 Cu. Yds.	3.1 Cu. Yds.
MISCELLANEOUS	
Anchor Plates MK-AP	8 Each
10" x 12" x 1/2" Steel	
Encased Concrete	
Piles x 25'0"	250 Lin. Ft.



Notes:
See Br. Std. C1 for Reinforcing Bar Notes.
See Drawg S6 for details of Anchor Plate MK-AP
See Drawg S15 for additional details of 2" Depressed Keyways in mudwall.
See Drawg S3 for additional notes and details.

**BENT No 1 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: 3/8" = 1'-0" Unless Noted
RECOMMENDED FOR APPROVAL: AUGUST 15, 1962

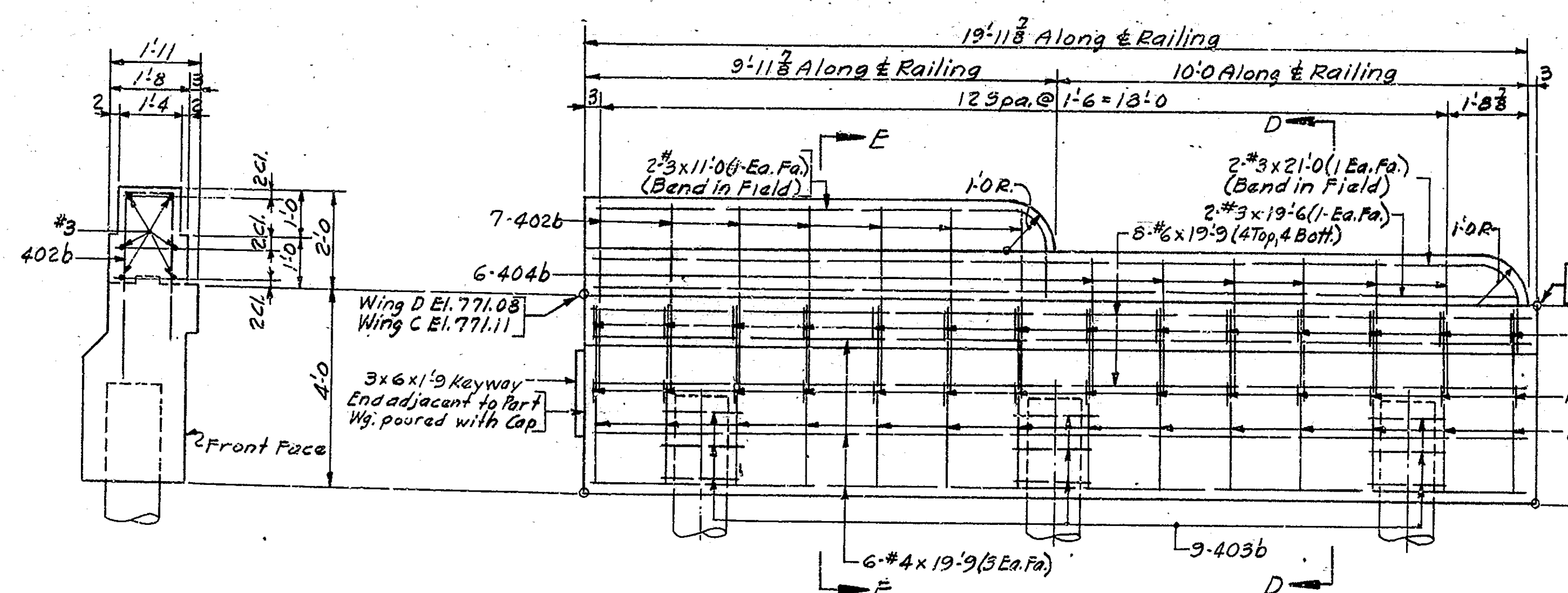
DRAWING: 54 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752

DESIGNED: PEN. B. 368 W.D. ELD. R. 1. 62
DRAWN: W. B. 10-322 W.D. FLD
TRACED: CKD

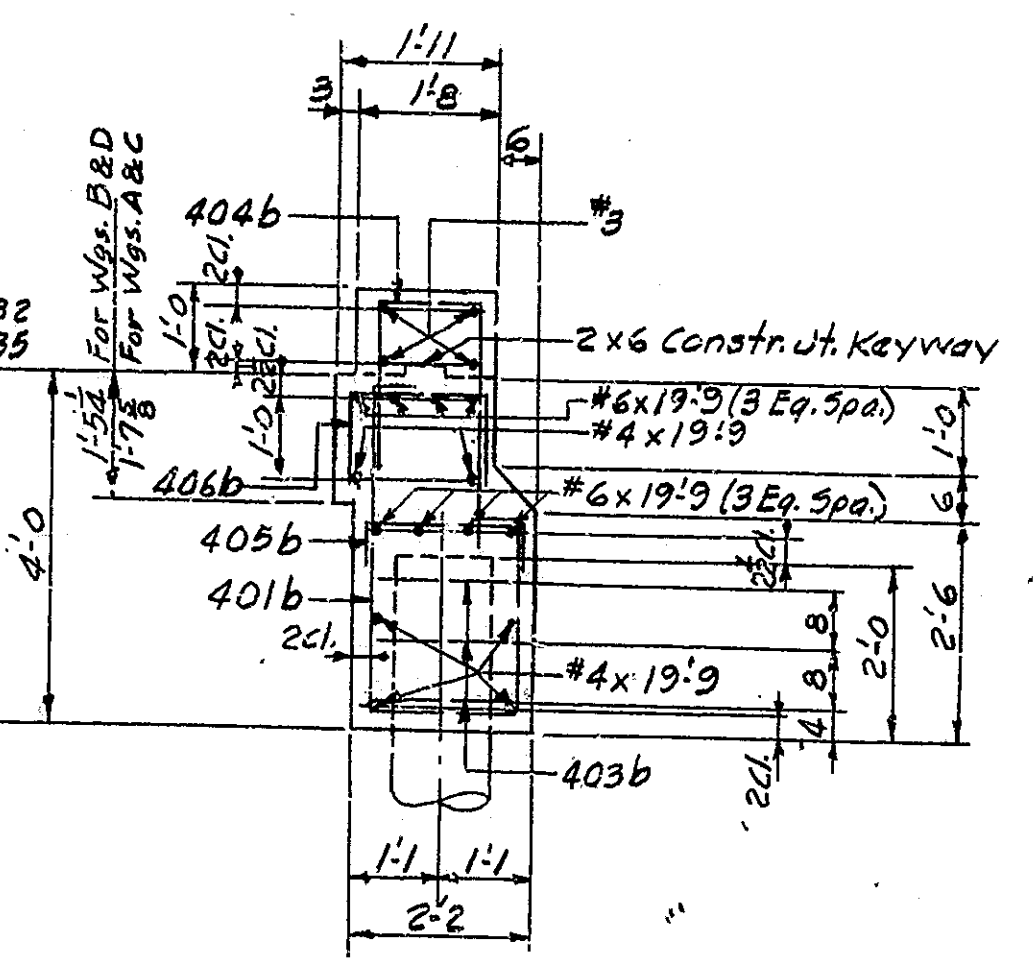
BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	9	92

BILL OF MATERIALS
BENT NO. 6
BENT NO. 1 SAME (EXCEPT AS NOTED)

REINFORCING STEEL			
SIZE	No. BARS	LENGTH	WEIGHT
#6	16	19'-9"	475#
401b	28	8'-0"	
402b	14	8'-0"	
403b	8	7'-9"	
404b	12	6'-0"	
405b	28	2'-10"	
406b	28	3'-9"	
#4	12	19'-9"	
Total #4			663#
#3	4	2'-10"	
#3	4	19'-6"	
#3	4	11'-0"	
Total #3			77#
TOTAL STEEL			1215#
CONCRETE			
Class "A" Wall		12.4 cu. Yds.	
Railing Conc.		3.4 cu. Yds.	
MISCELLANEOUS			
BENT NO. 6			
3-12" x 20'-0" #76a			
Steel Encased Conc.			
Piles in Wing C		60 Lin. Ft.	
3-12" x 10'-0" #76a			
Steel Encased Conc. Piles in Wing D		30 Lin. Ft.	
Total			90 Lin. Ft.
BENT NO. 1			
6-12" x 10'-0" #76a			
Steel Encased Conc. Piles		60 Lin. Ft.	

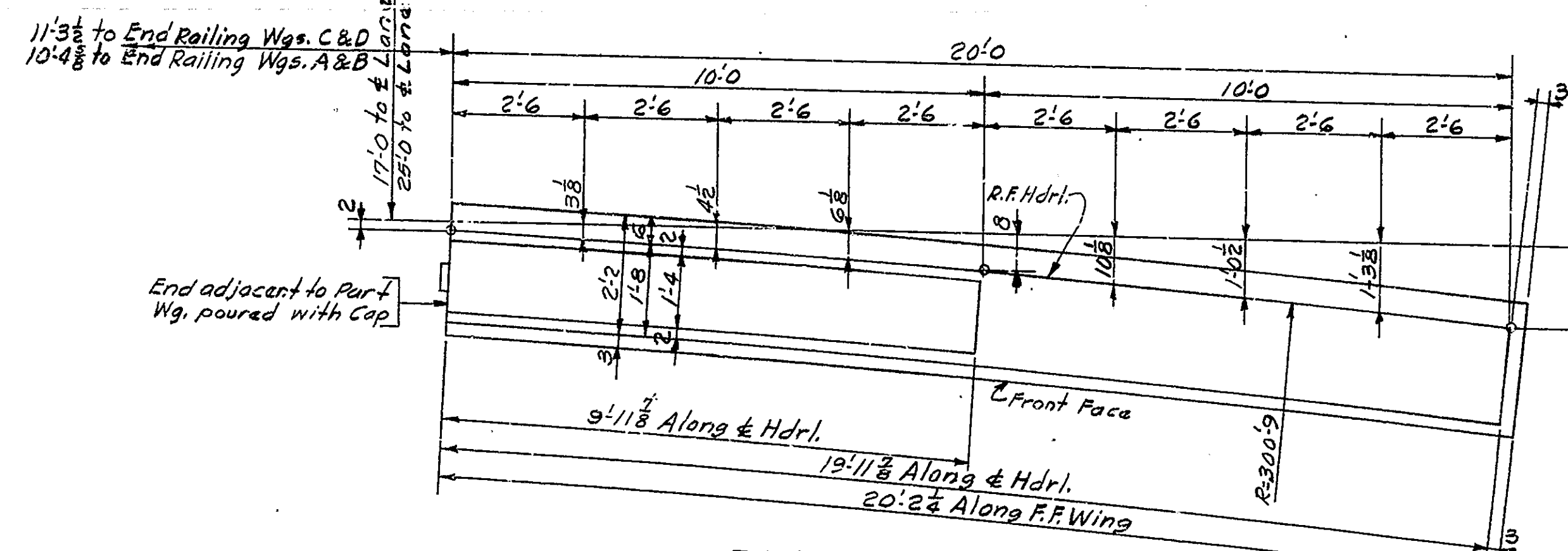


PART WING D ELEVATION
WING C OPPOSITE HAND

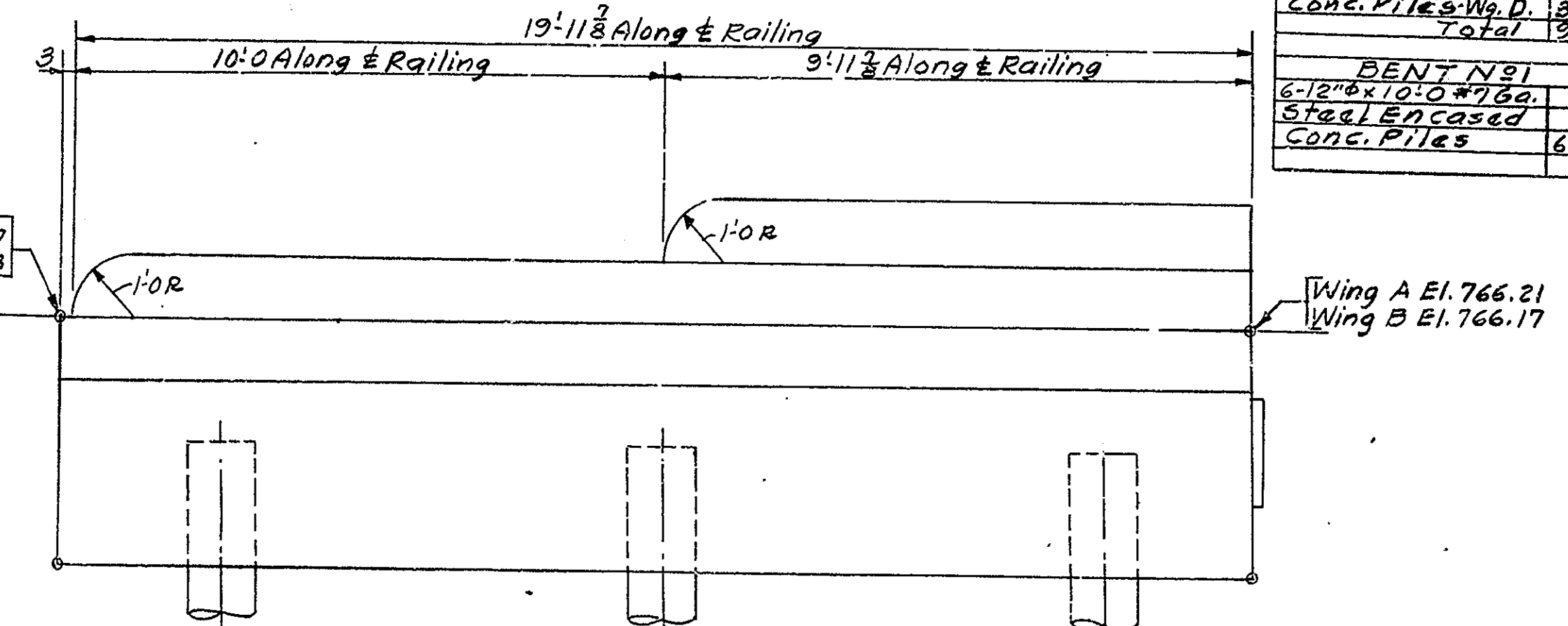


SECTION D-D

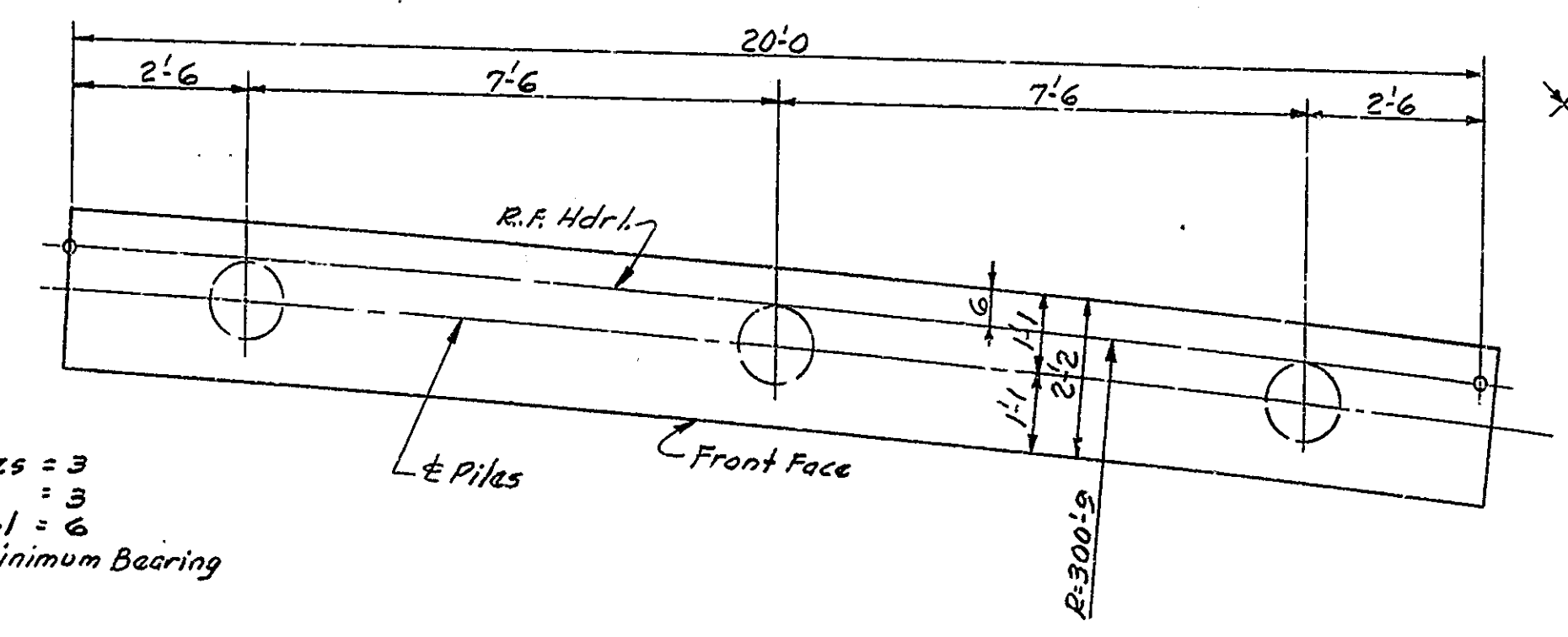
SECTION E-E
For Dimensions & Steel
Not shown see Section D-D



PART WING D PLAN

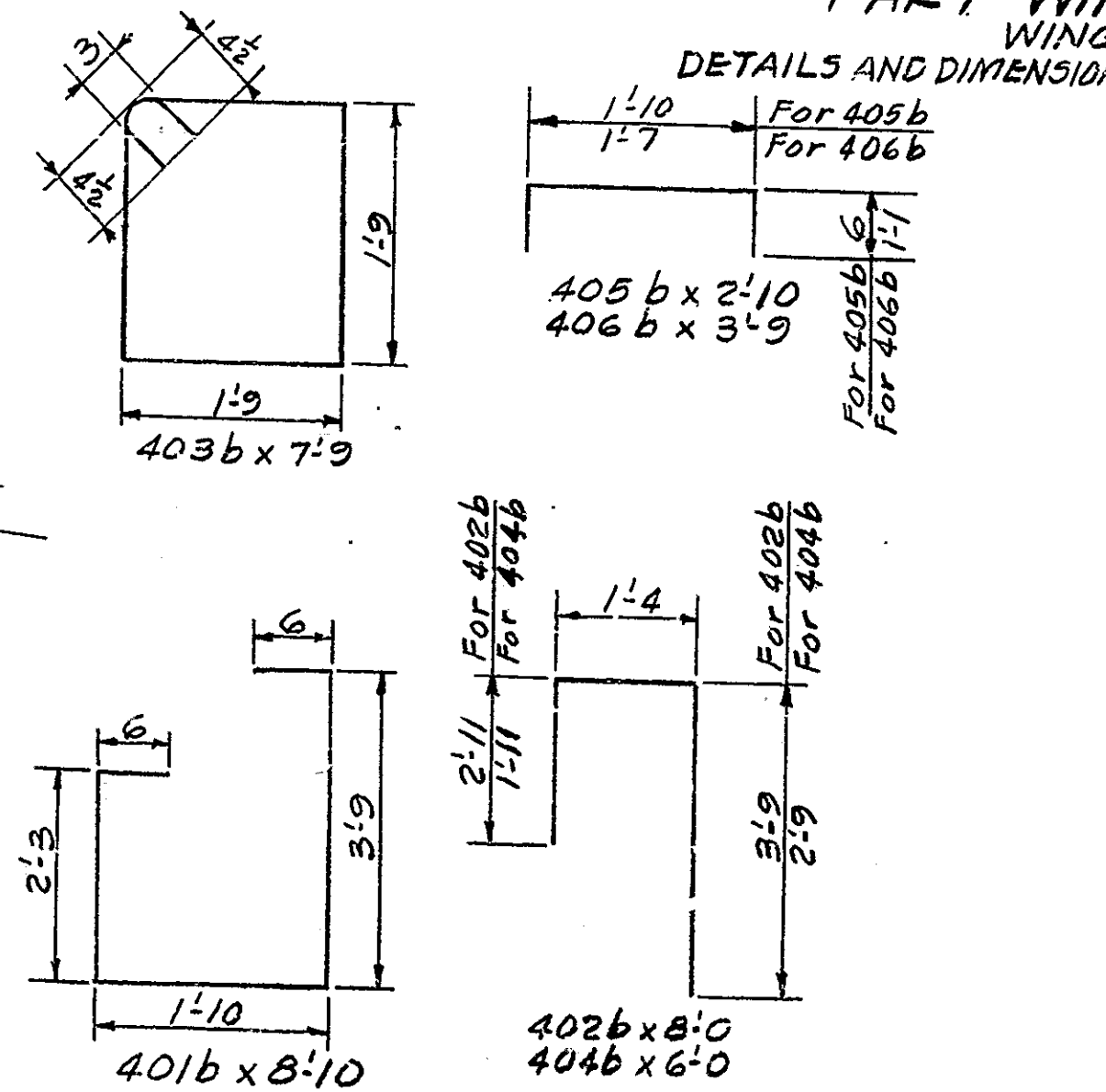


PART WING B ELEVATION
WING A OPPOSITE HAND



PART WING D PLAN SHOWING PILING

PILING
WING C-12" Steel Encased Conc. Piles = 3
WING D-12" " " " " " " " " = 3
Total = 6
All piles to be driven to 10 Ton Minimum Bearing



NOTE 5:-
For Reinforcing Bar Notes see Br. Std. C1.

BENT 1 & BENT 6 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: - 1/2" = 1'-0"
RECOMMENDED FOR APPROVAL: [Signature]
August 15 1962

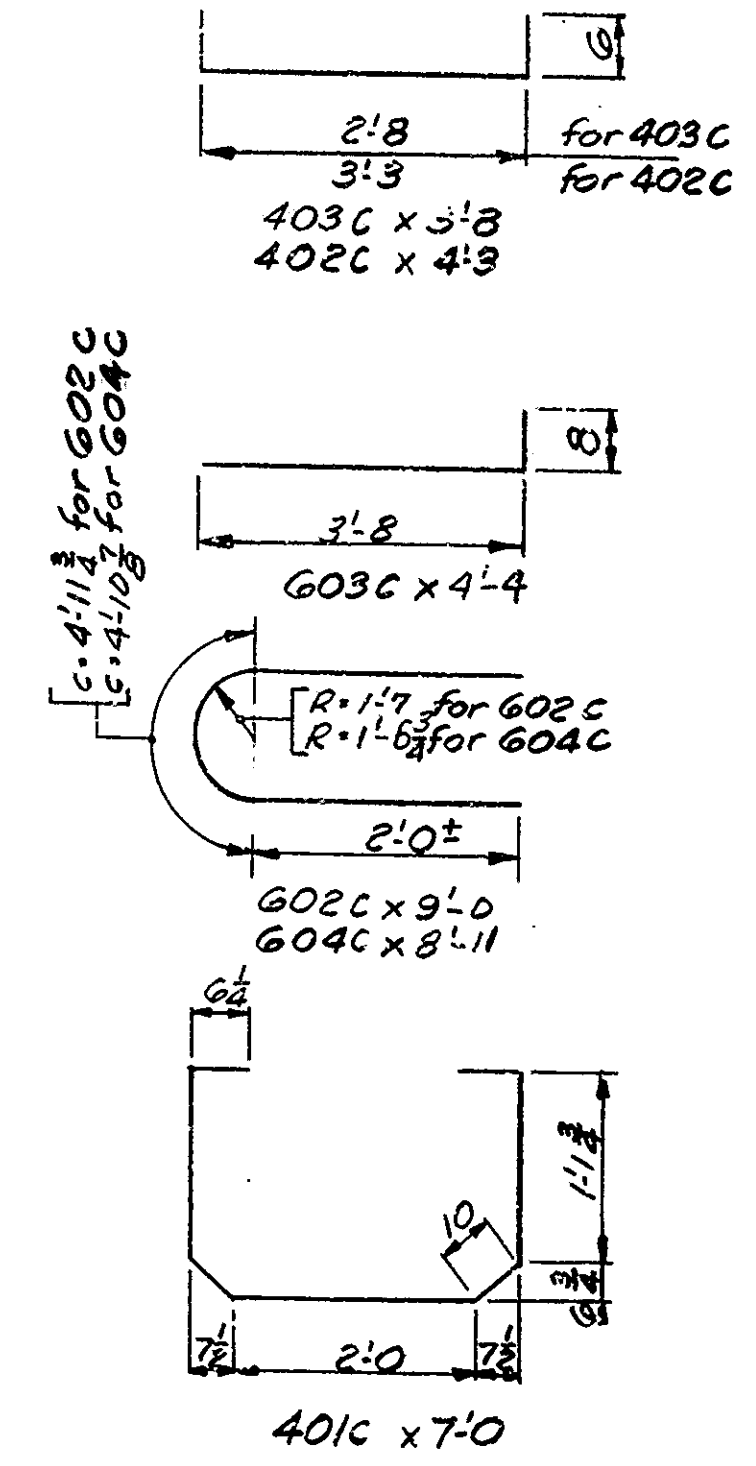
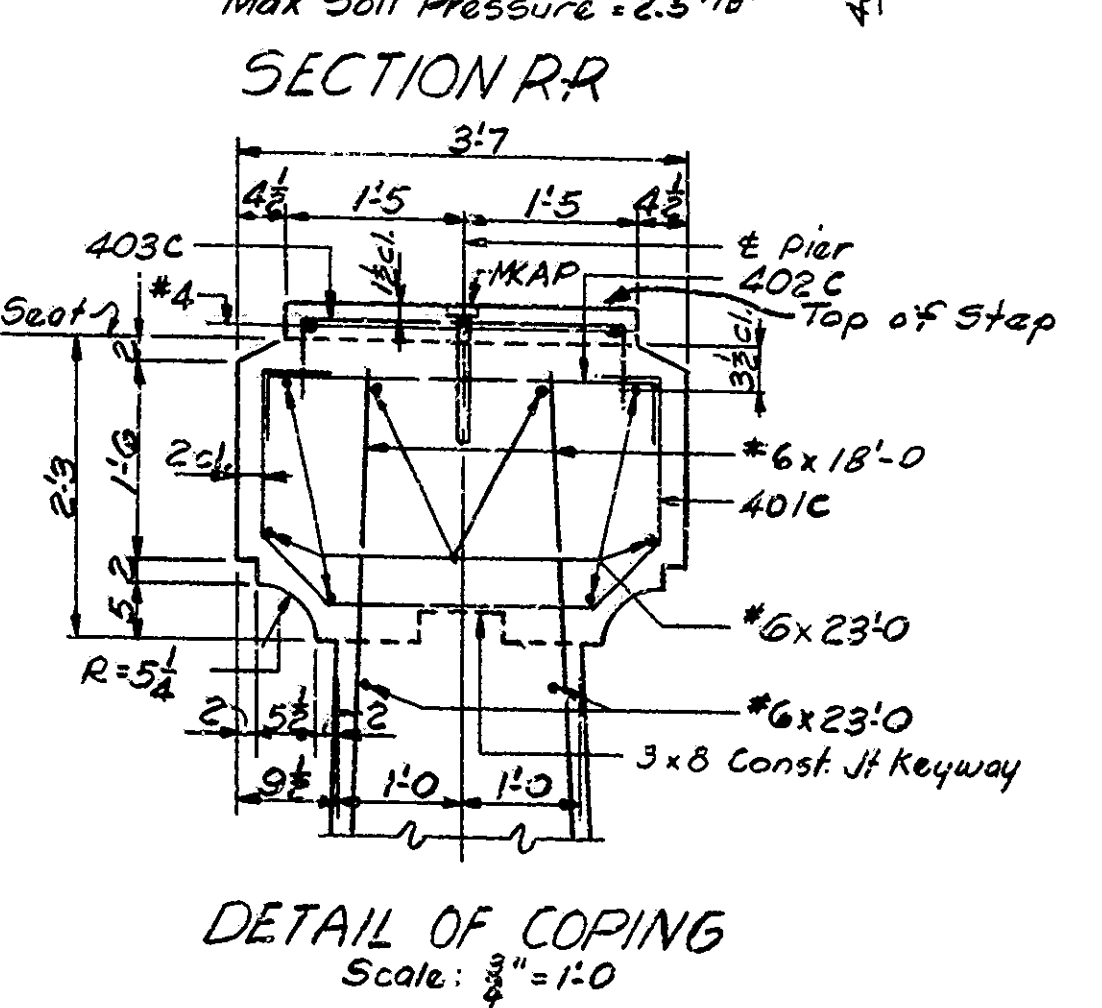
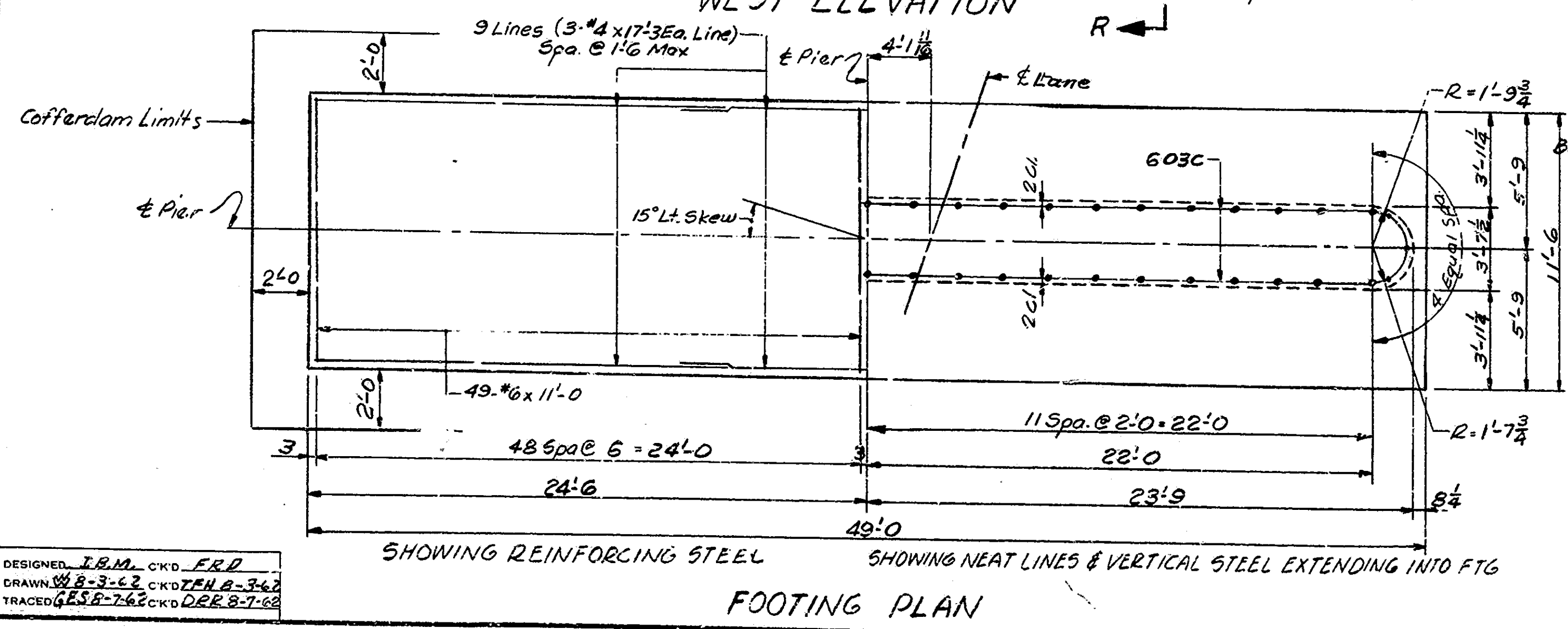
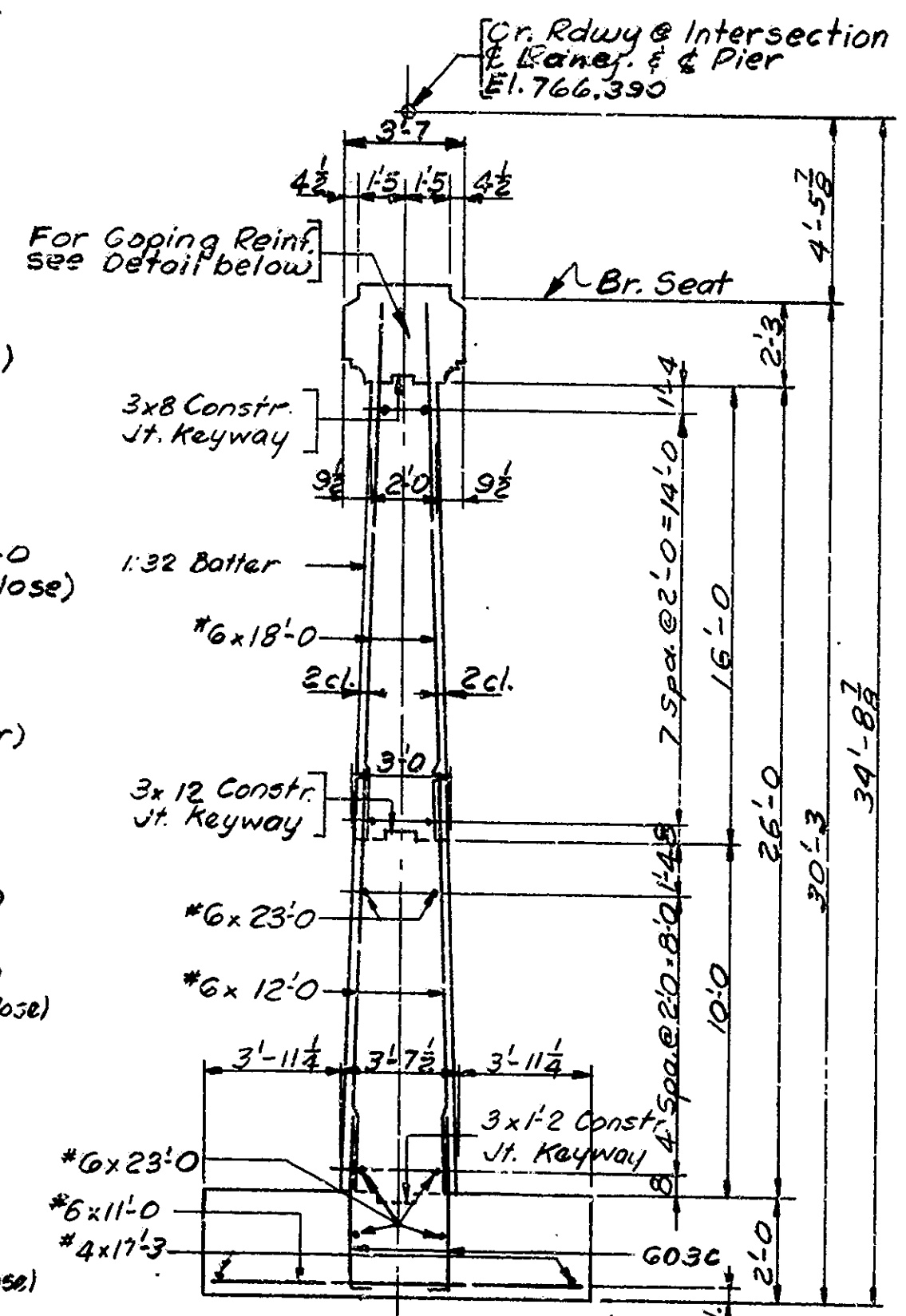
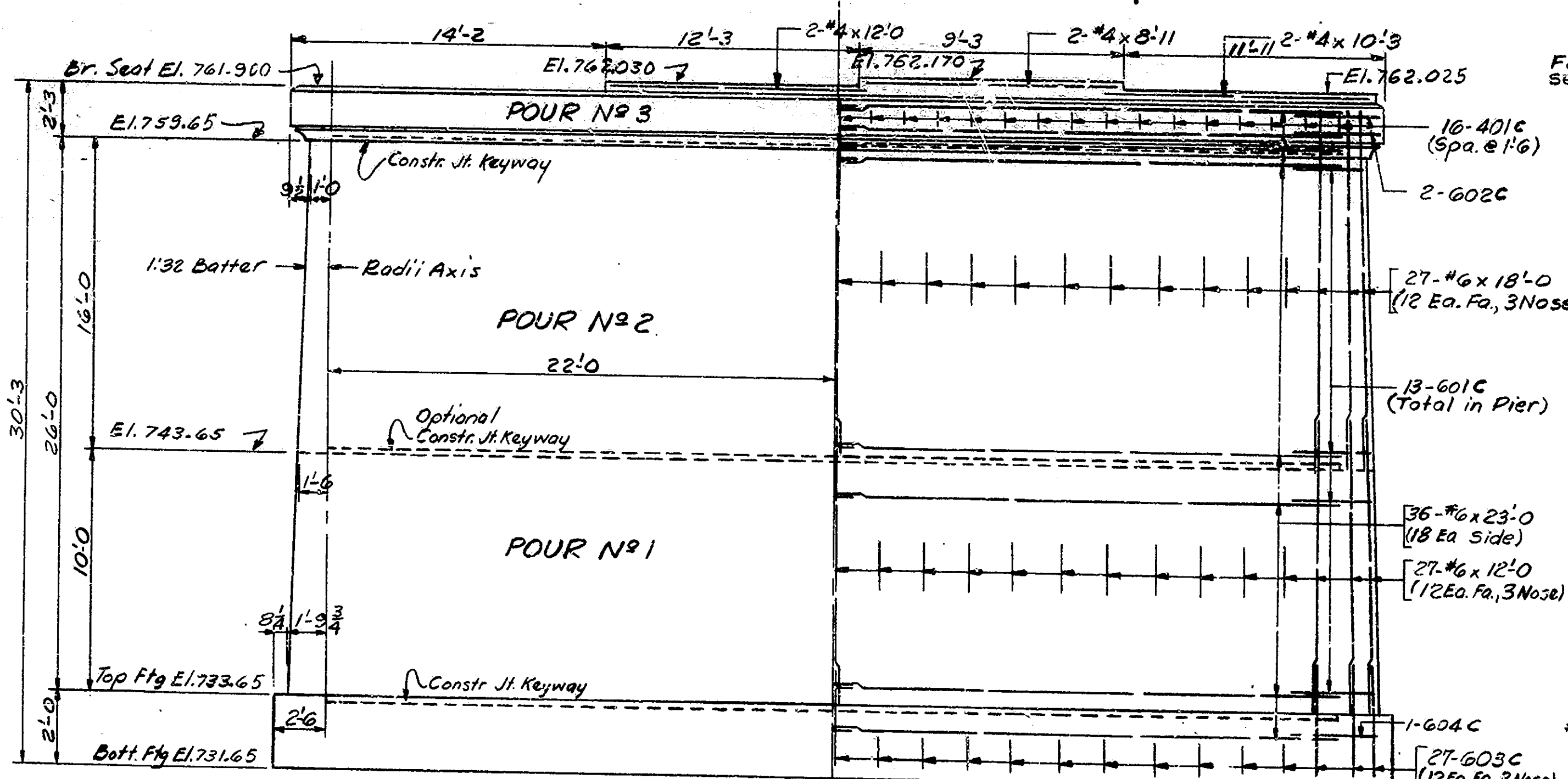
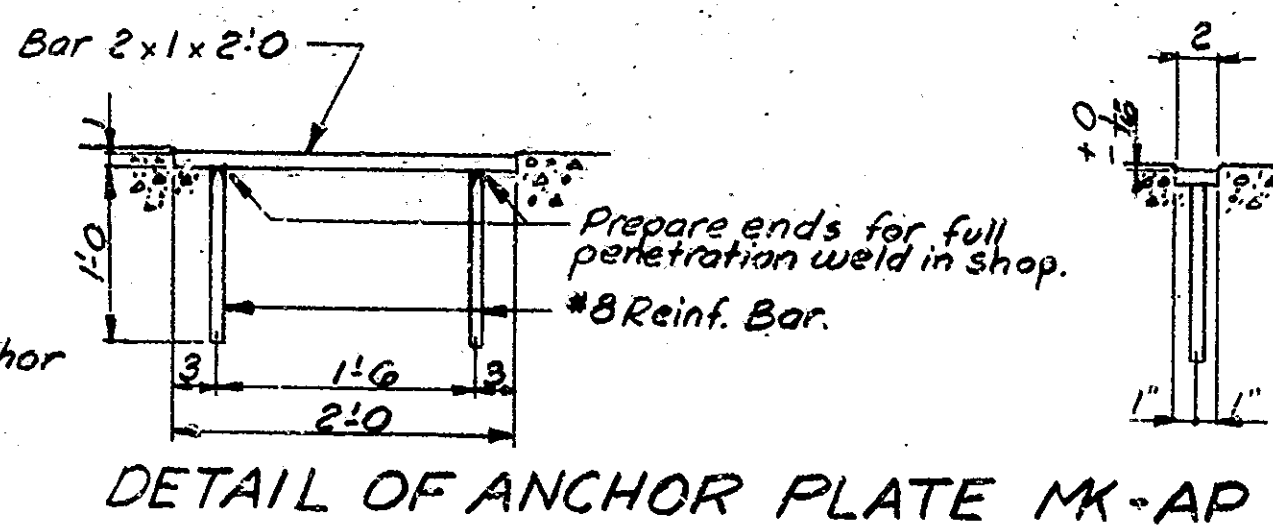
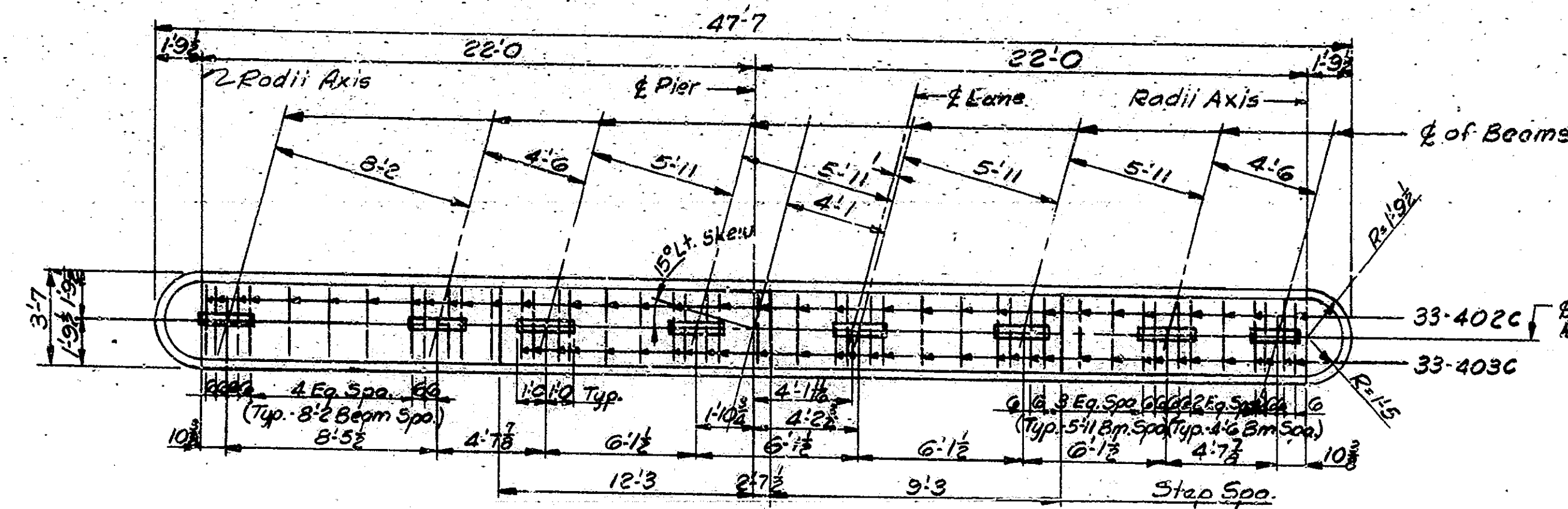
DRAWING: 5 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752

DESIGNED:	C.K.D.
DRAWN:	J.T.B. 8-7-62 C.K.D. B.E.N. R.H.G.
TRACED:	C.K.D.

BRIDGES OVER 20' SPAN					
PROJ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	10	52

**BILL OF MATERIALS
PIER N^o 2**

REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
601C	13	15'-6"	
602C	4	9'-0"	
603C	52	4'-4"	
604C	2	2'-11"	
#6	72	23'-0"	
#4	52	12'-0"	
#4	98	11'-0"	
Total	266		7171*
401C	31	7'-0"	
402C	33	4'-3"	
403C	33	3'-8"	
#4	27	17'-3"	
#4	2	12'-0"	
#4	2	10'-3"	
#4	2	2'-11"	
Total	164		672*
Total Steel			7843*
CONCRETE			
Class "F" Gorp			13.7 Cu. Yds.
Class "F" Above Fly. Pour N ^o 1			5.72 Cu. Yds.
Class "F" Above Fly. Pour N ^o 2			6.81 Cu. Yds.
Total Class "F" Above Fly.			13.53 Cu. Yds.
Class "E" 1st Fly.			4.17 Cu. Yds.
MISCELLANEOUS			
Anchor PL MK-AP			8 Ea.



NOTES:
See Br. Std. C1 for Reinf. Bar Notes.
Anchor Plates MK-AP are to be preset in the concrete.

**PIER N^o 2 DETAILS
INDIANA STATE HIGHWAY COMMISSION**

SCALE: No Scale
RECOMMENDED FOR APPROVAL: *C.R. Rummier*
August 15 1962

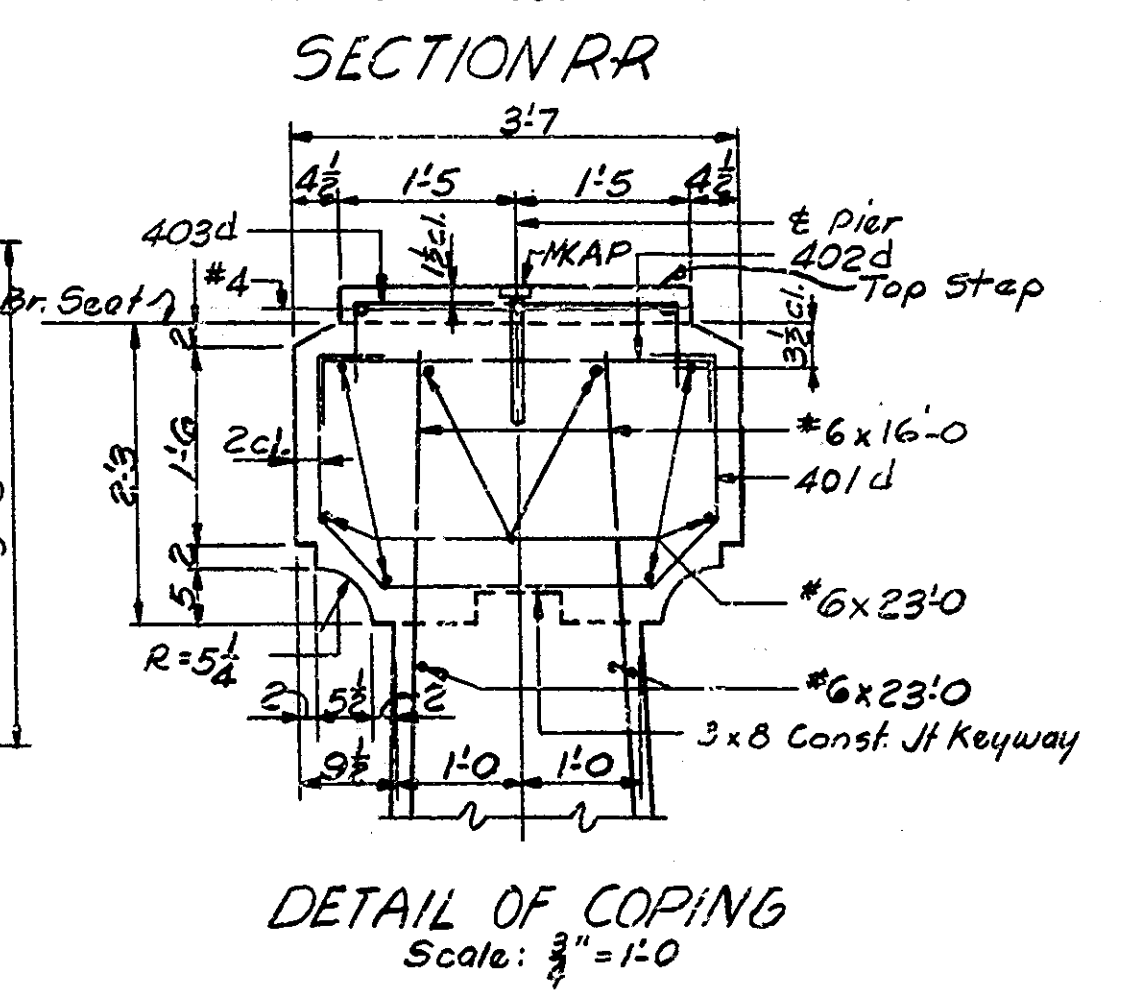
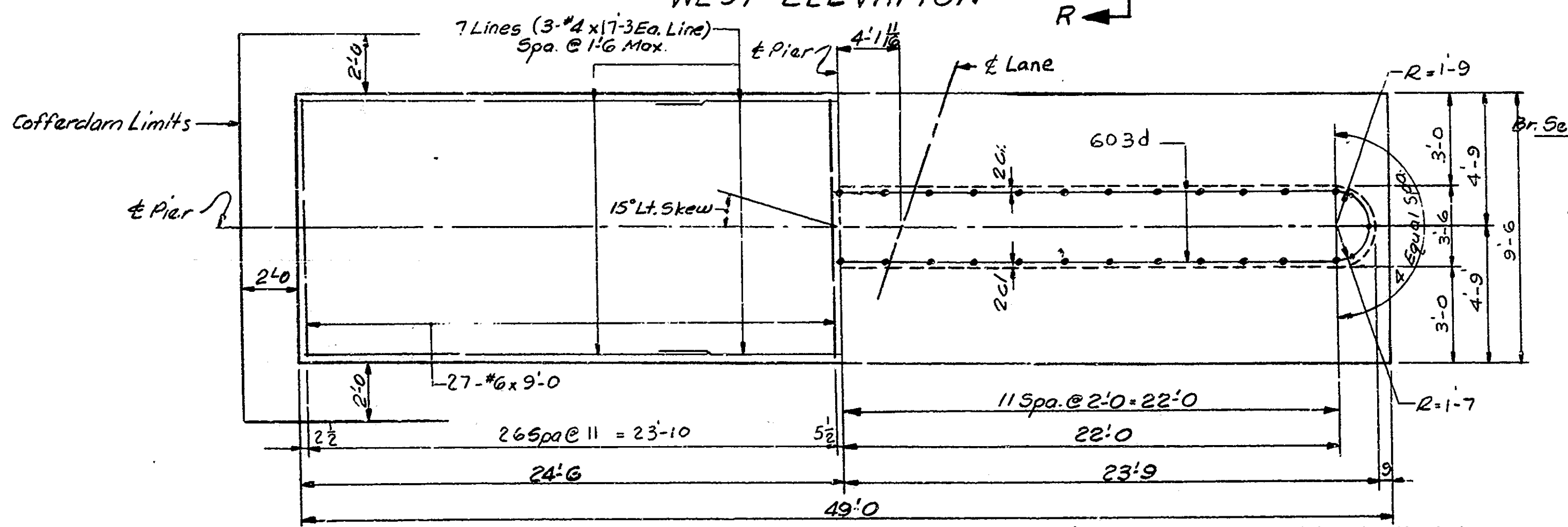
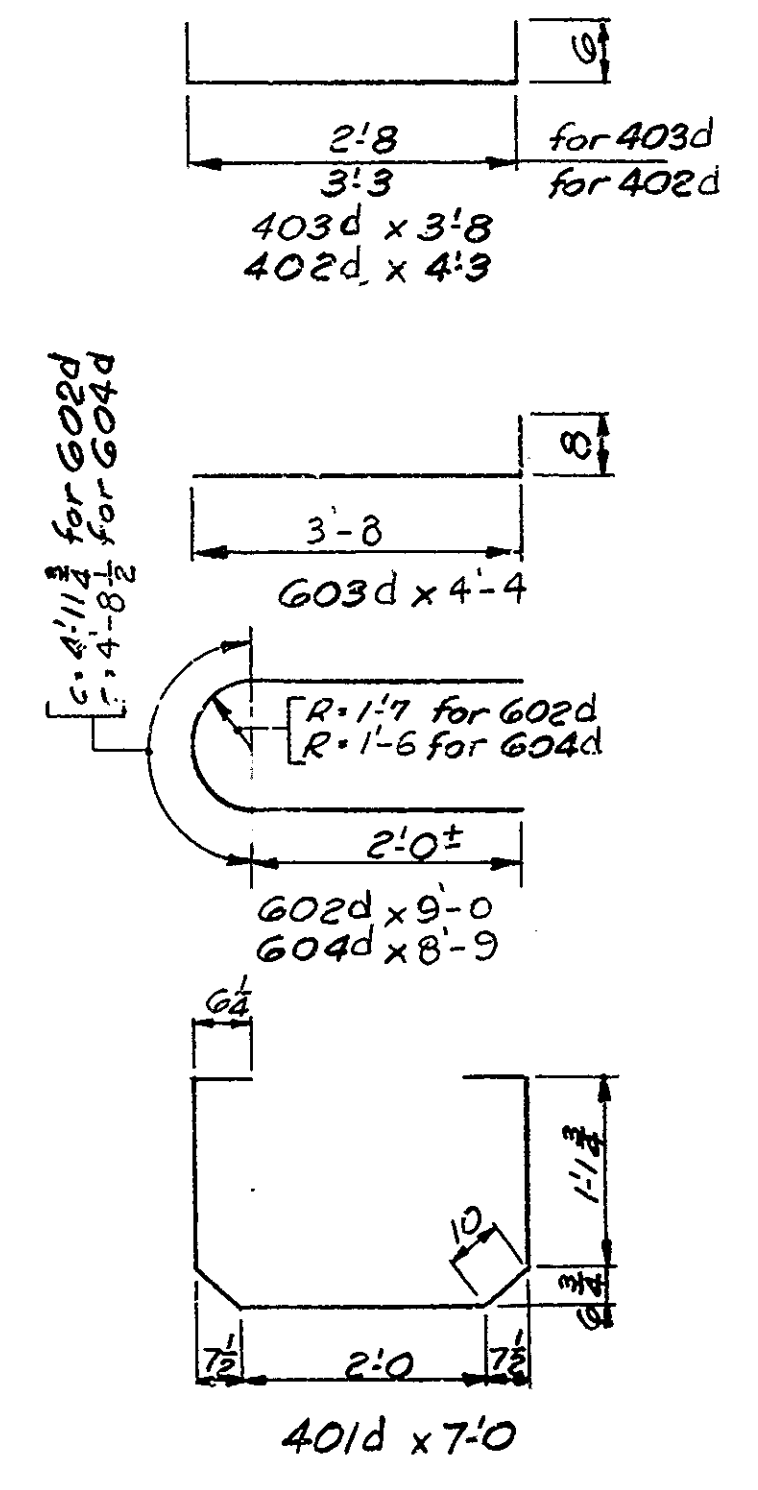
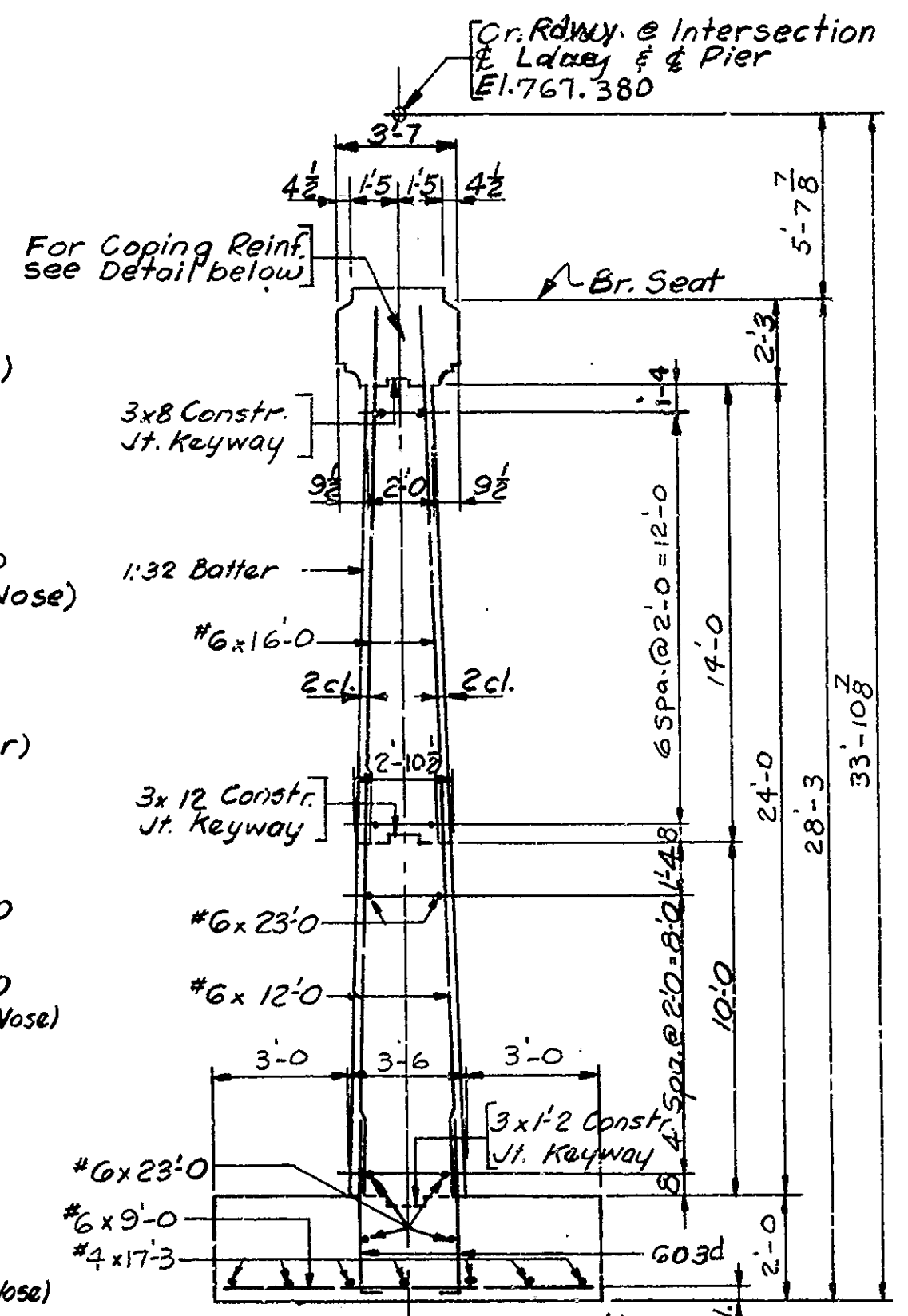
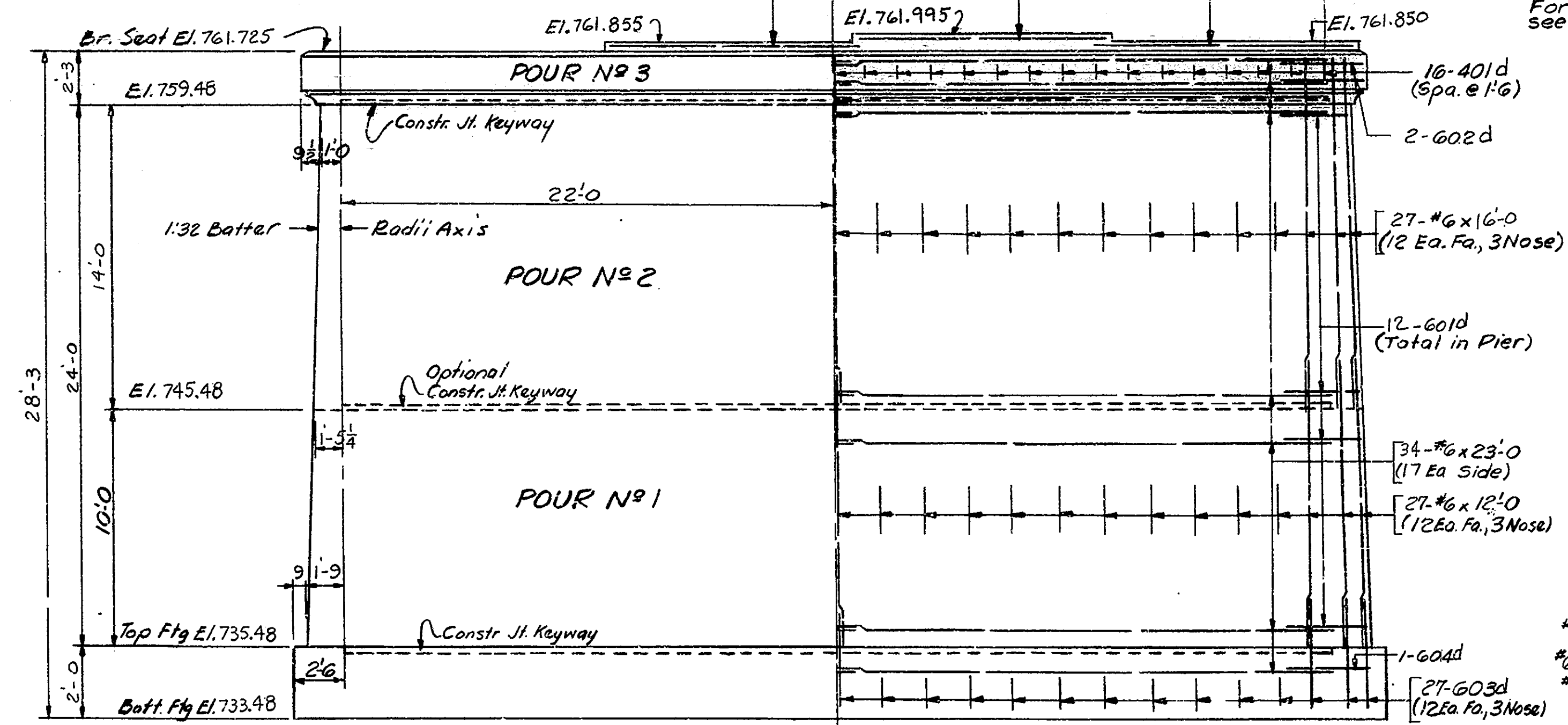
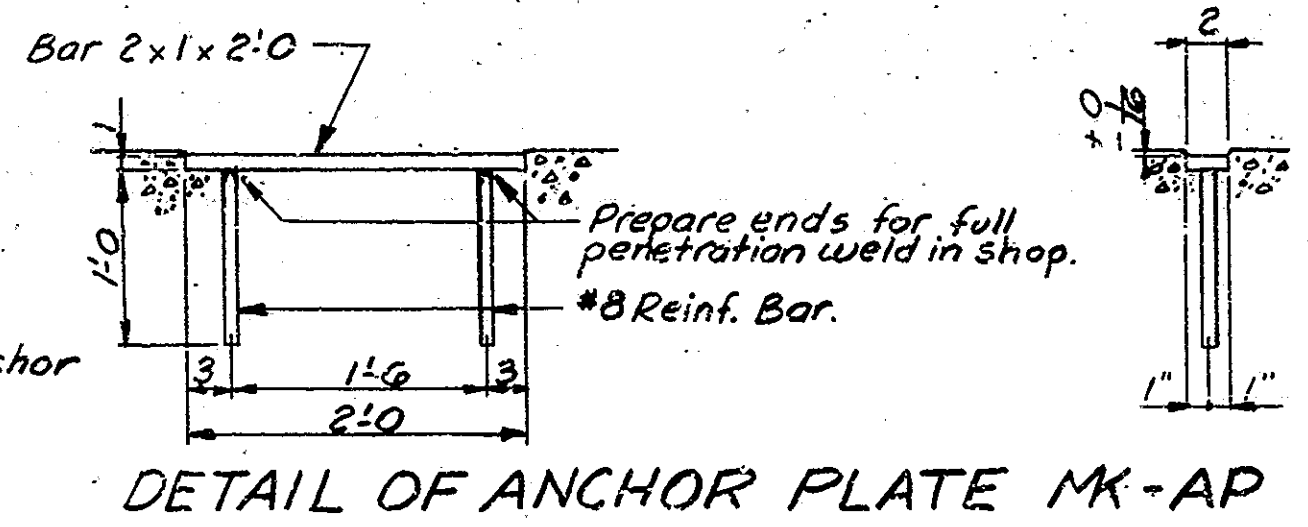
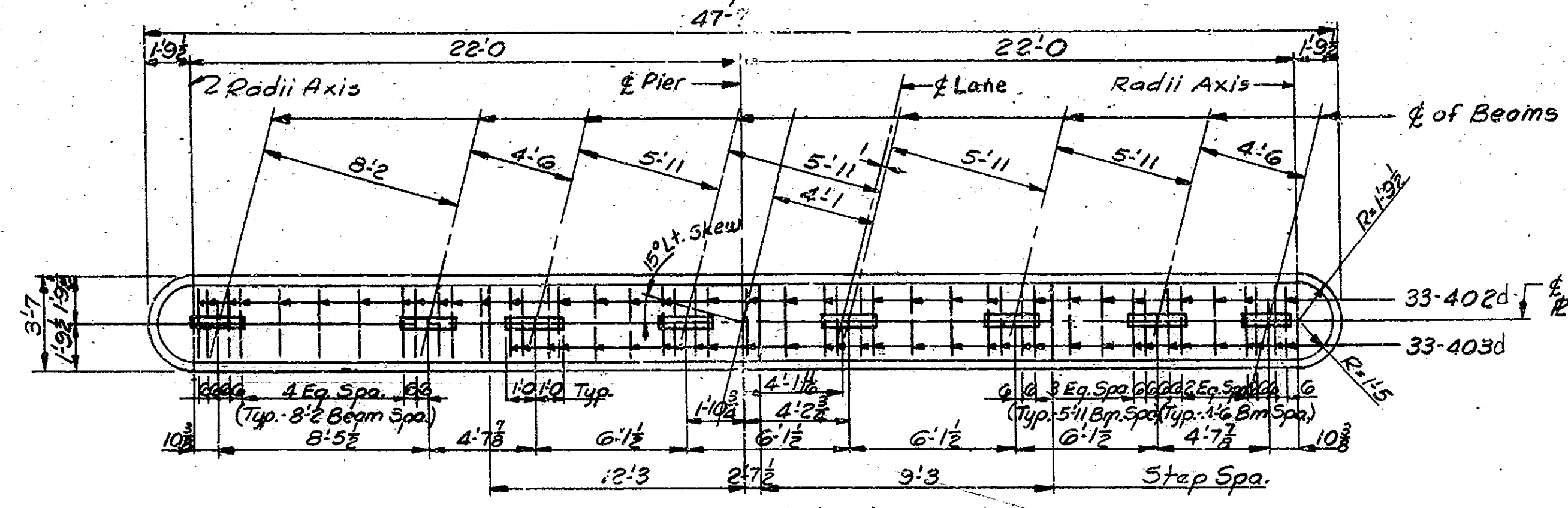
DRAWING: 56 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NN-3272.1

DESIGNED: J.R.M. CKD: F.R.D.
DRAWN: B.S. CKD: F.R.D.
TRACED: G.S.F. CKD: D.R.K.

BRIDGES OVER 20' SPAN				
PUR. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	U-724(16)	1963	32

**BILL OF MATERIALS
PIER N° 3**

REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
401d	12	15'-4"	
402d	4	9'-0"	
403d	52	4'-4"	
404d	2	8'-9"	
#6	68	23'-0"	
#6	52	16'-0"	
#6	52	12'-0"	
#6	54	9'-0"	
Total #6			5961#
401d	31	7'-0"	
402d	33	4'-3"	
403d	33	3'-8"	
#4	21	17'-3"	
#4	2	12'-0"	
#4	2	10'-3"	
#4	2	8'-11"	
Total #4			603#
Total Steel			6564#
CONCRETE			
Class "F" in cap (Pour N° 3)			
Class "E" Above Ftg.			
Pour N° 1			
Pour N° 2			
Total Class "E" Above Ftg.			
Class "E" in Ftg.			
Miscellaneous			
Anchor Pl. MK-AP			



NOTES:
See Br. Std. C1 for Reinf. Bar Notes.
Anchor Plates MK-AP are to be preset in the concrete.
Pier N° 3 and Pier N° 4 alike except Elevations.

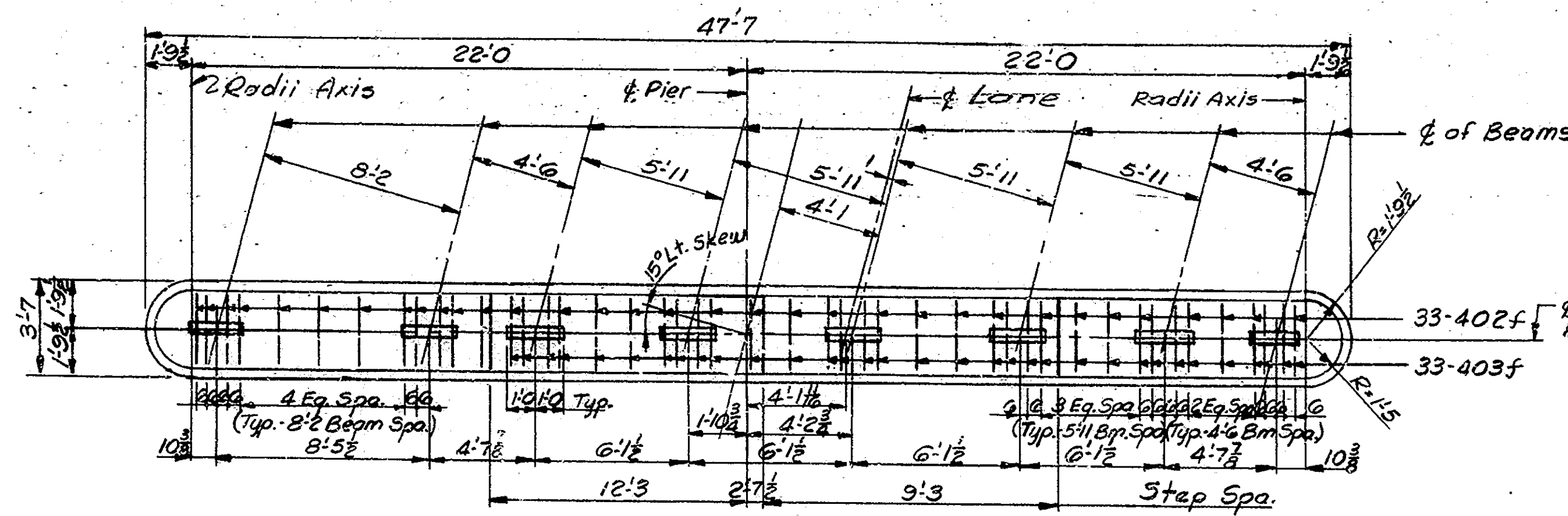
**PIER N° 3 DETAILS
INDIANA STATE HIGHWAY COMMISSION**

SCALE: No Scale
RECOMMENDED FOR APPROVAL: *C.R. Rummel*
DRAWING: 57 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NN-3376J
AUGUST 15 1962

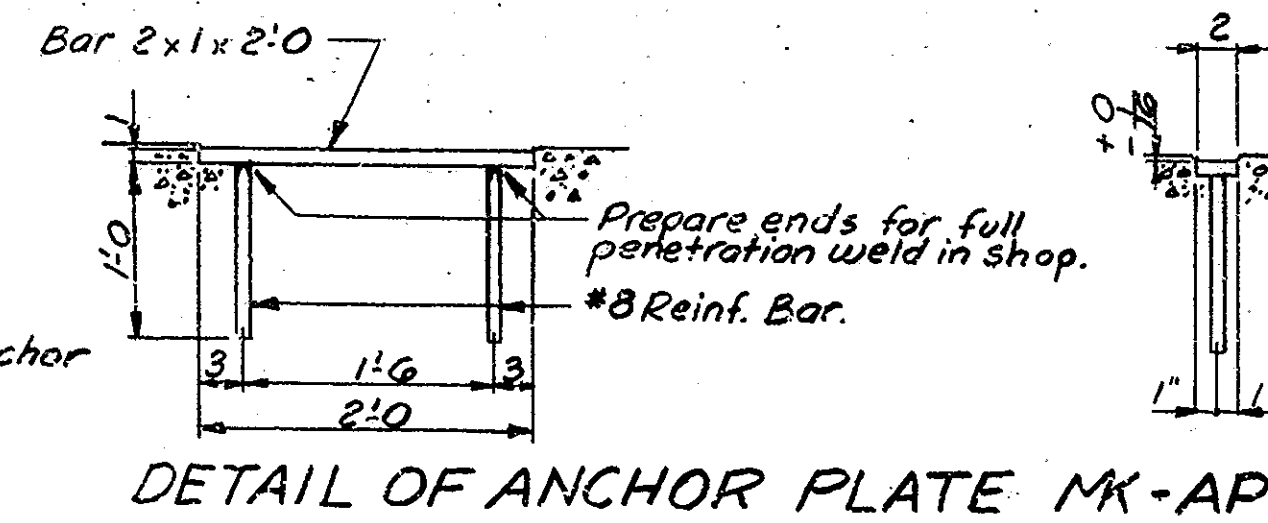
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	12	32

**BILL OF MATERIALS
PIER N^o 4**

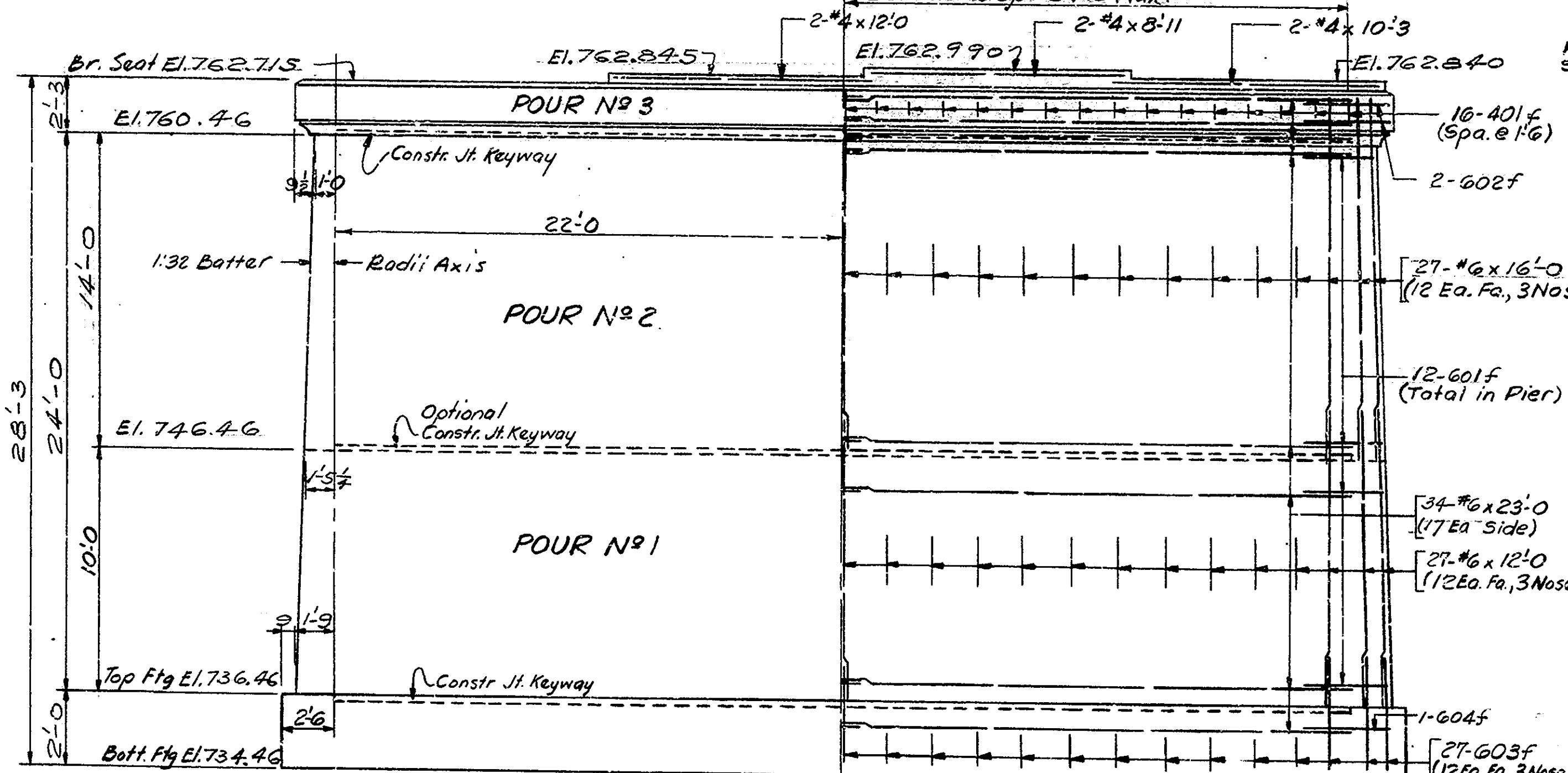
REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
#6	12	15'-4"	
#6	2	9'-0"	
#6	52	27'-2"	
#6	2	23'-0"	
#6	52	18'-0"	
#6	52	12'-0"	
#6	54	9'-0"	
Total #6			5961#
#4	31	7'-0"	
#4	33	4'-5"	
#4	39	3'-9"	
#4	21	17'-3"	
#4	2	12'-0"	
#4	2	10'-3"	
#4	2	8'-7"	
Total #4			603#
Total			6564#
CONCRETE			
CLASS #1			
CAP (POUR N ^o 3)			
CLASS #1 ALUM. FLY			
POUR N ^o 1			
POUR N ^o 2			
POUR N ^o 3			
Total Concrete			
MISCELLANEOUS			
Anchor Plate MK-AP			



SHOWING CONG. DIMENSIONS & 402f & 403f IN CAP
CAP PLAN

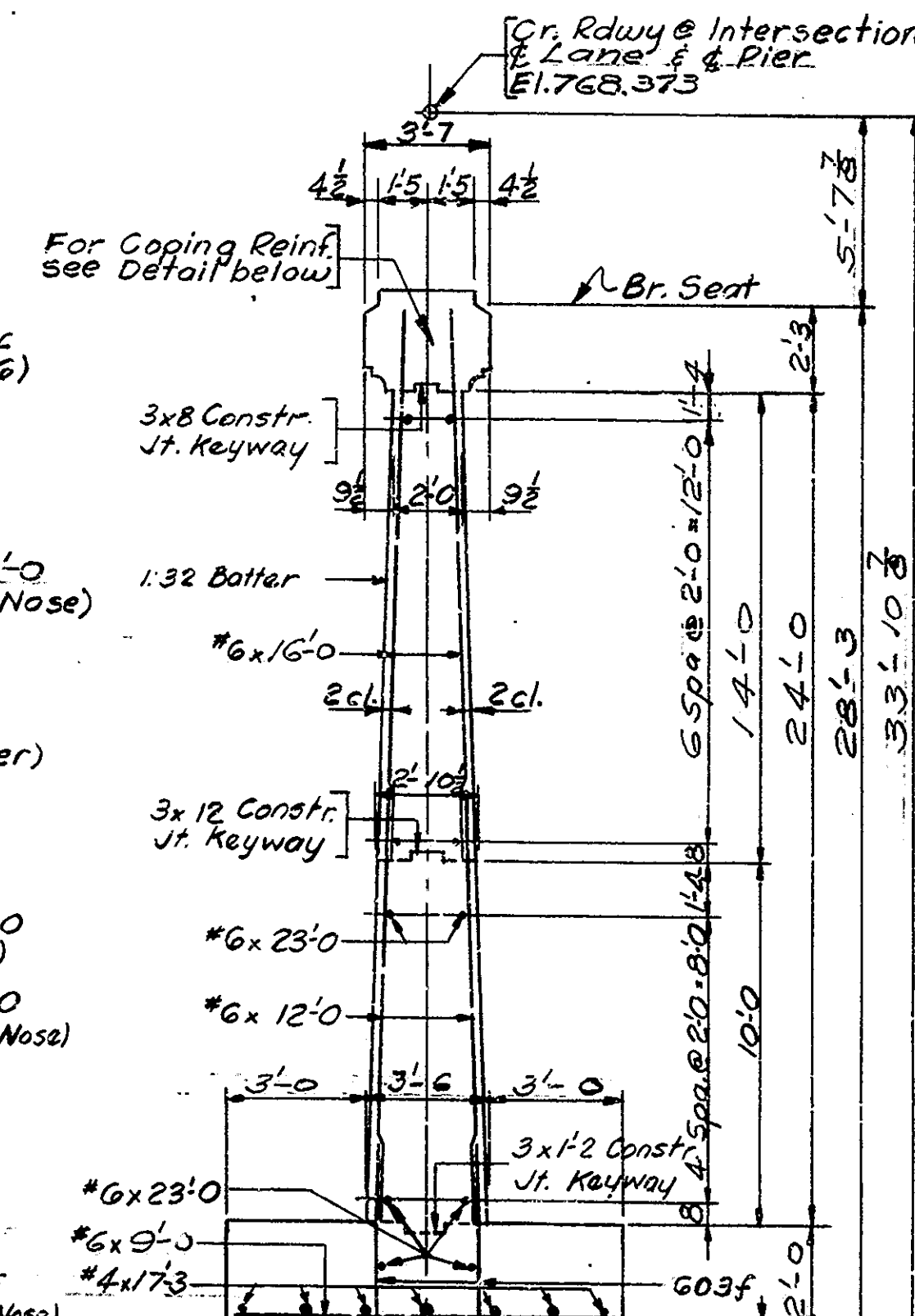


DETAIL OF ANCHOR PLATE MK-AP

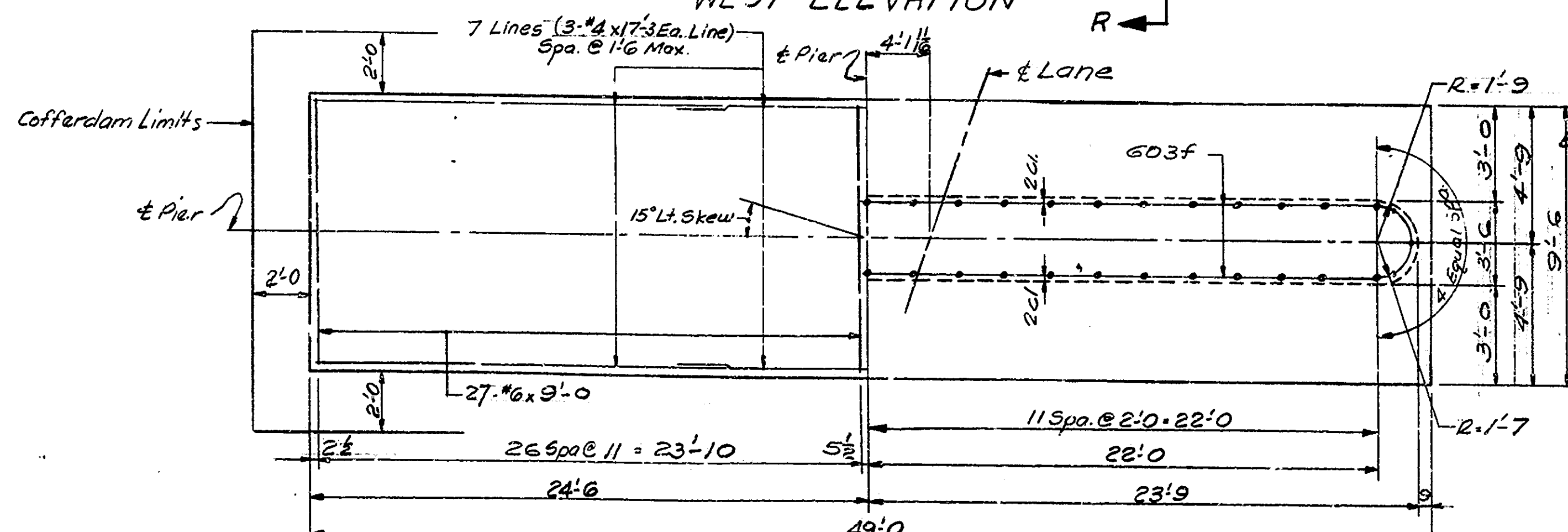


SHOWING CONCRETE DIMENSIONS

SHOWING REINFORCING STEEL (402f & 403f in Cap not shown)

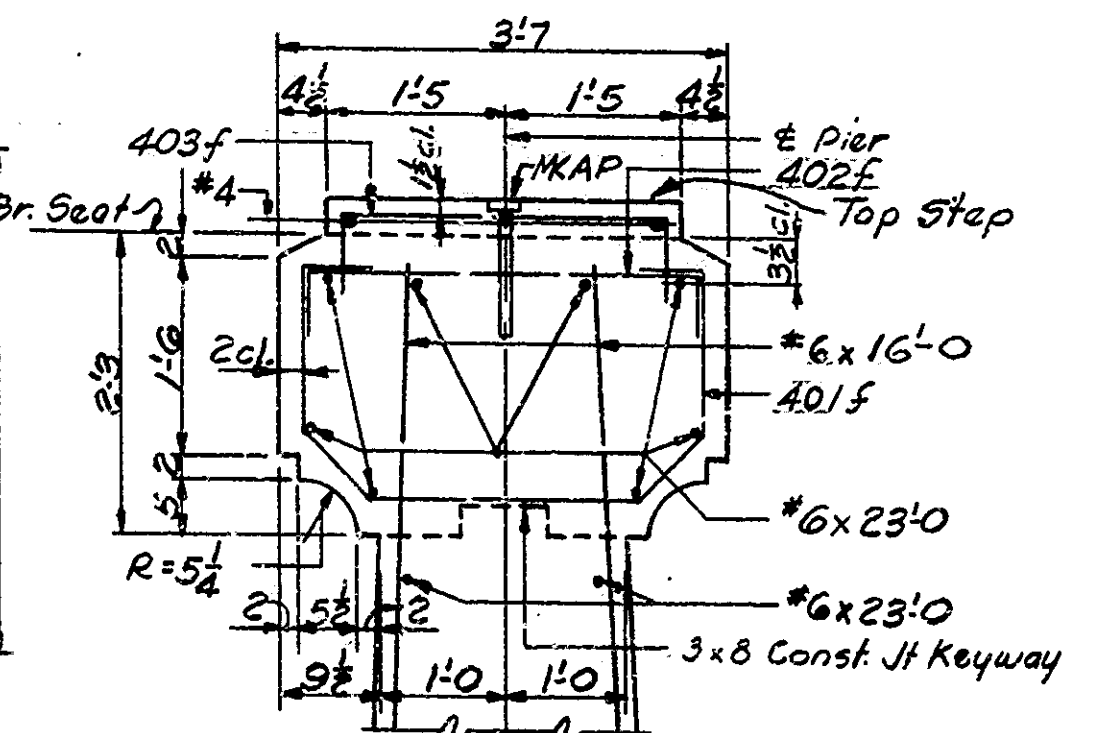


SECTION RR

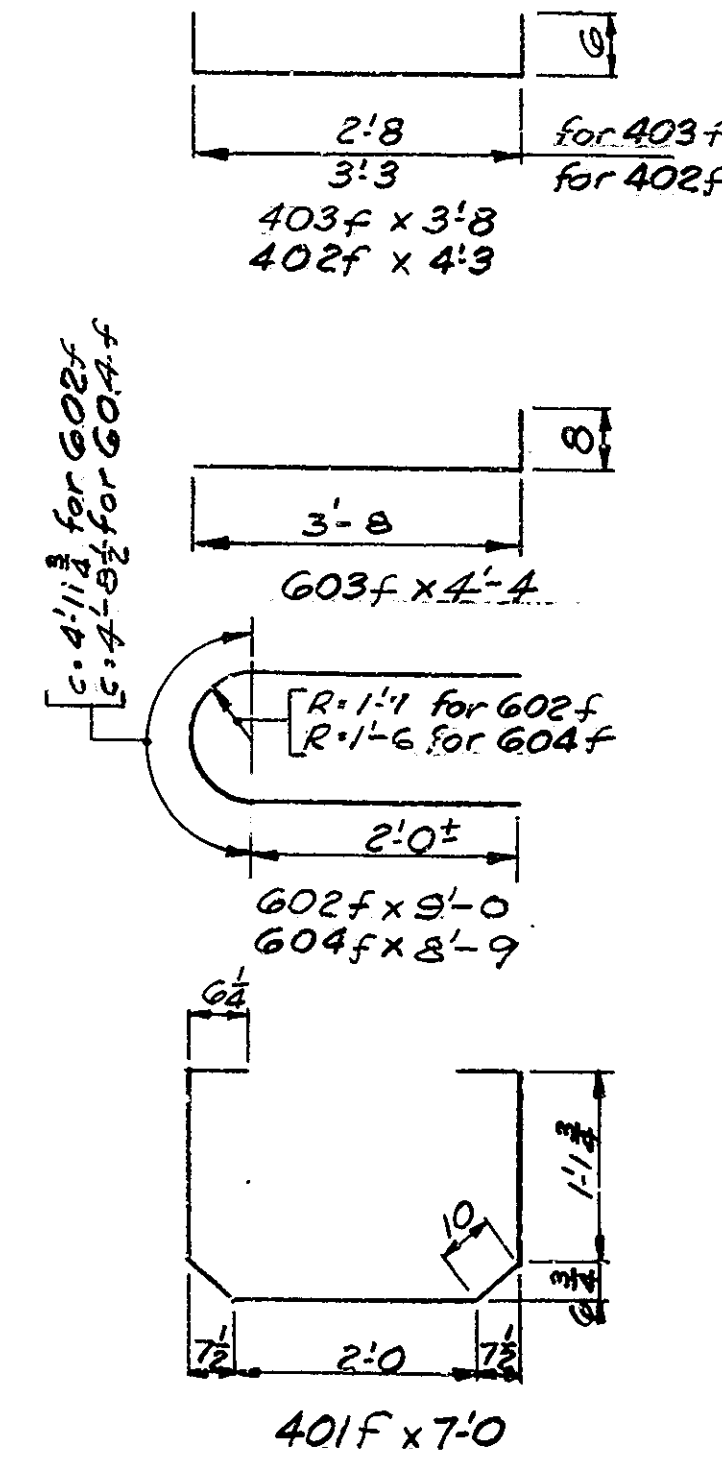


SHOWING REINFORCING STEEL

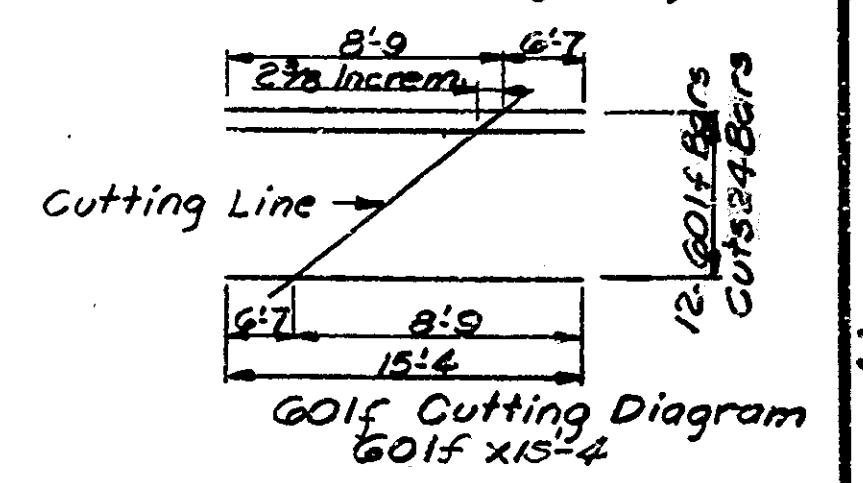
SHOWING NEAT LINES & VERTICAL STEEL EXTENDING INTO FTG



DETAIL OF COPING
Scale: 3/4" = 1'-0"



r varies 3/8" to 1'-6 1/2" in 3/8" increments
c varies 2'-0" to 8'-0" in 2'-0" increments
GOLF Bending Diagram



GOLF Cutting Diagram
601f x 15'-4"

NOTES:
See Br. Std. C₁ for Reinf. Bar Notes.
Anchor Plates MK-AP are to be preset in the concrete.
Pier N^o 4 and Pier N^o 3 alike except for elevations.

**PIER N^o 4 DETAILS
INDIANA STATE HIGHWAY COMMISSION**

SCALE: No Scale
AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *C. R. Runnion*

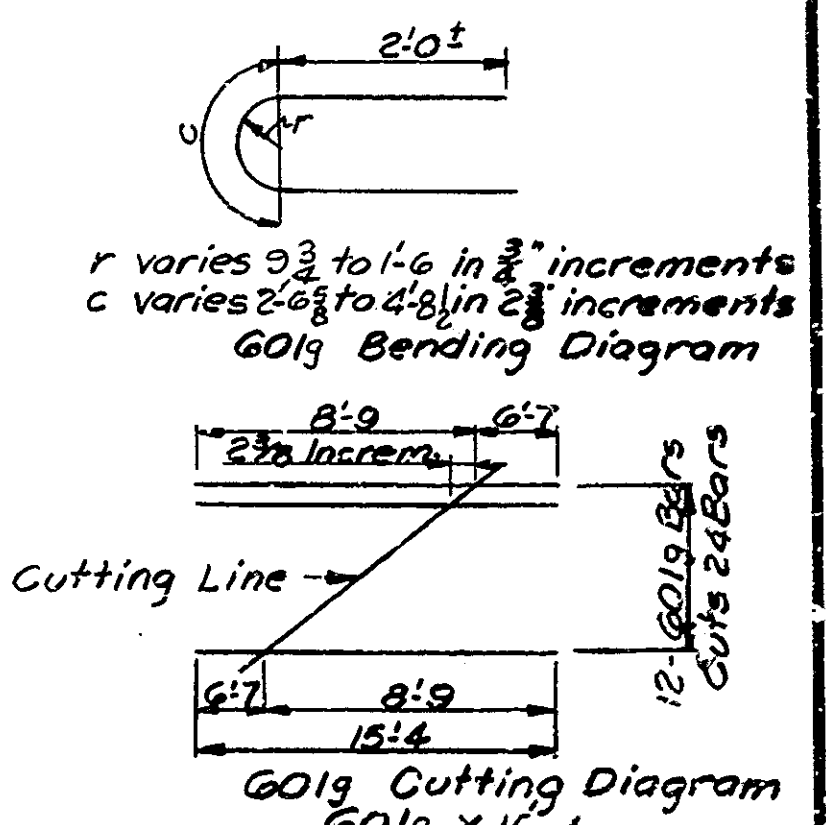
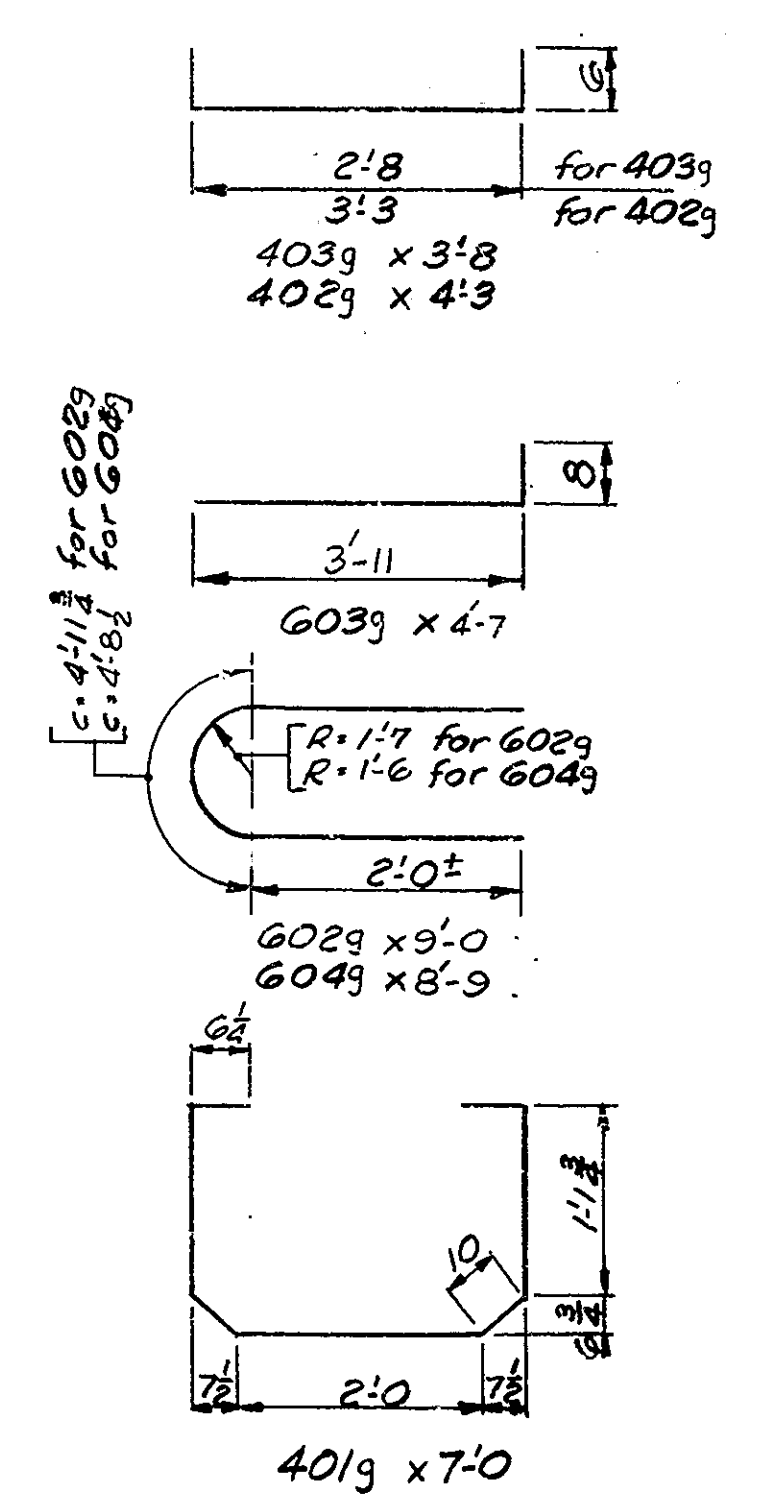
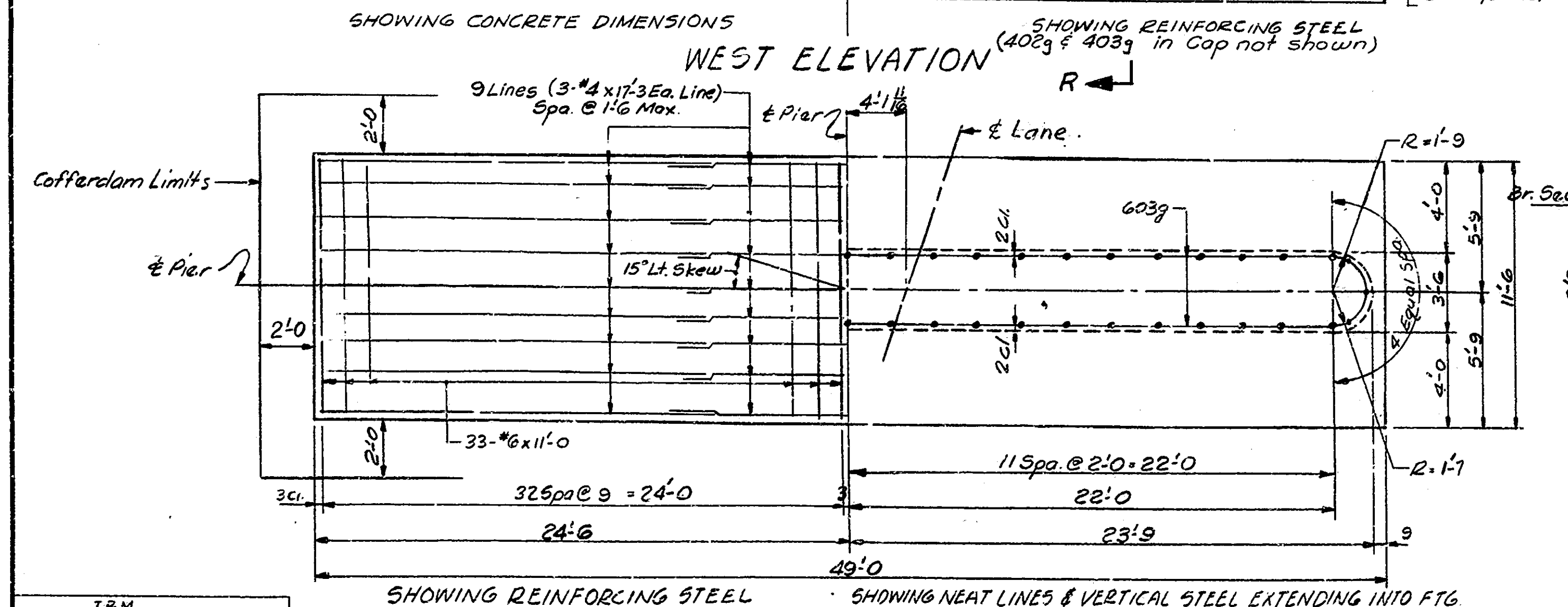
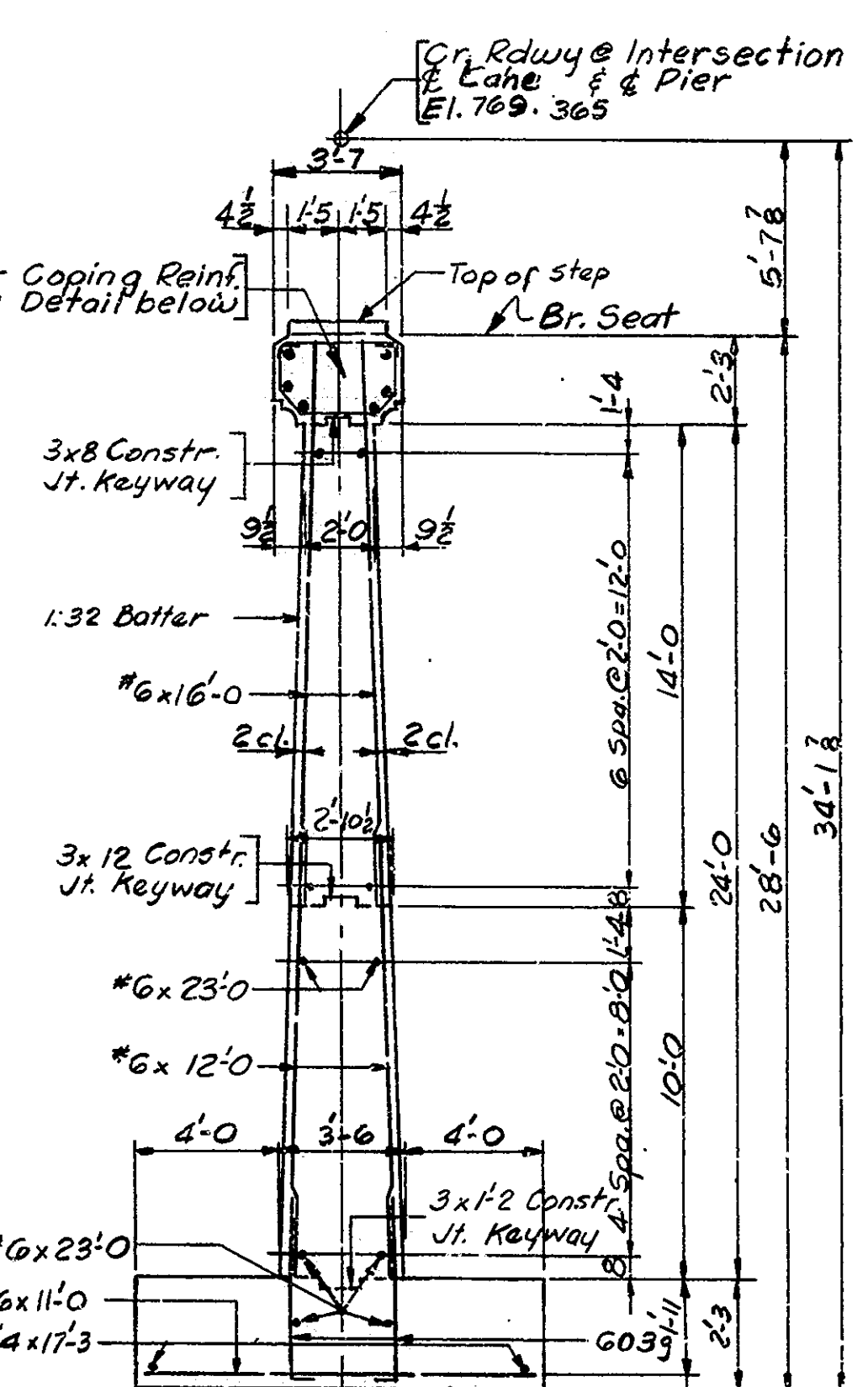
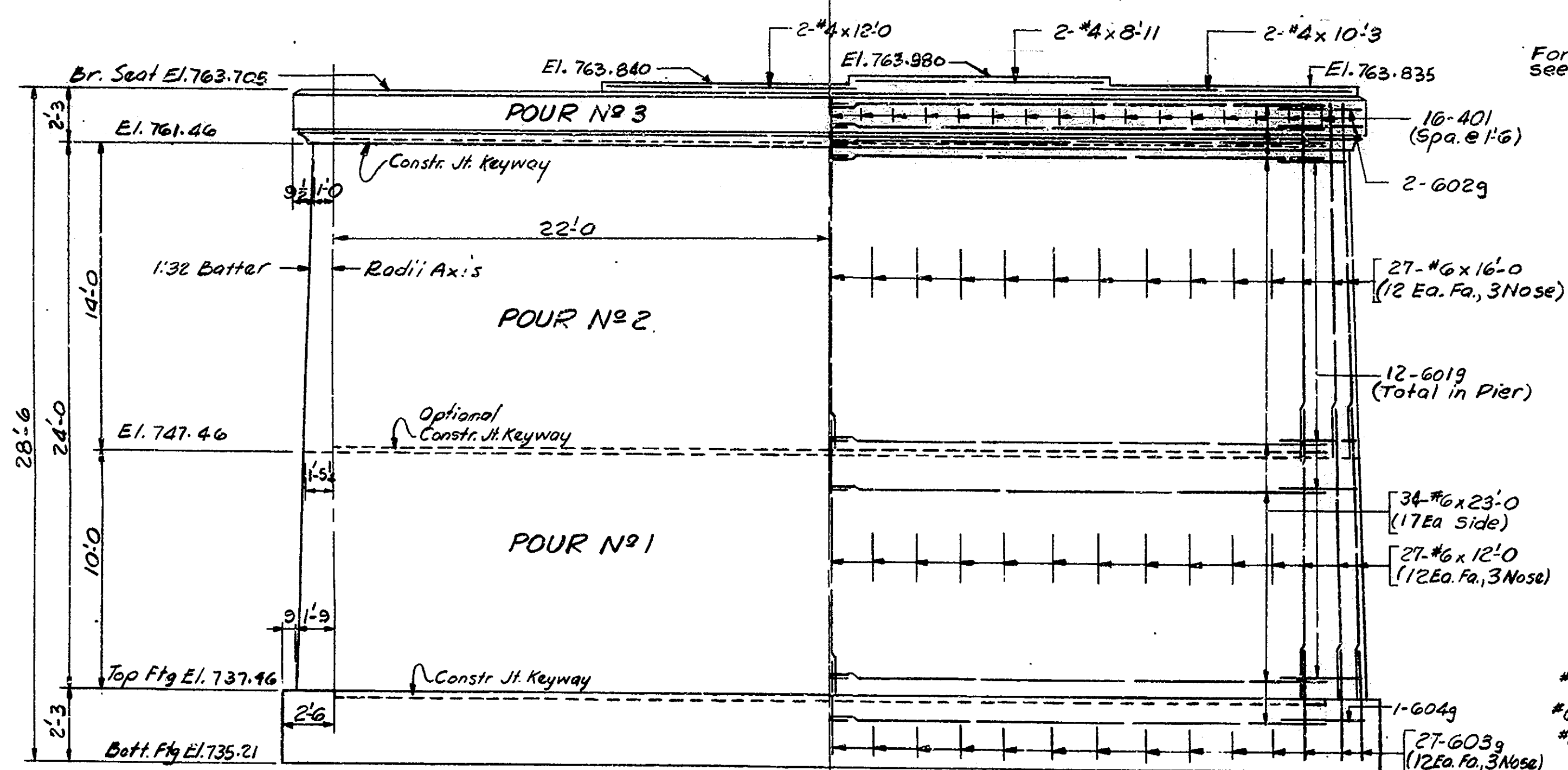
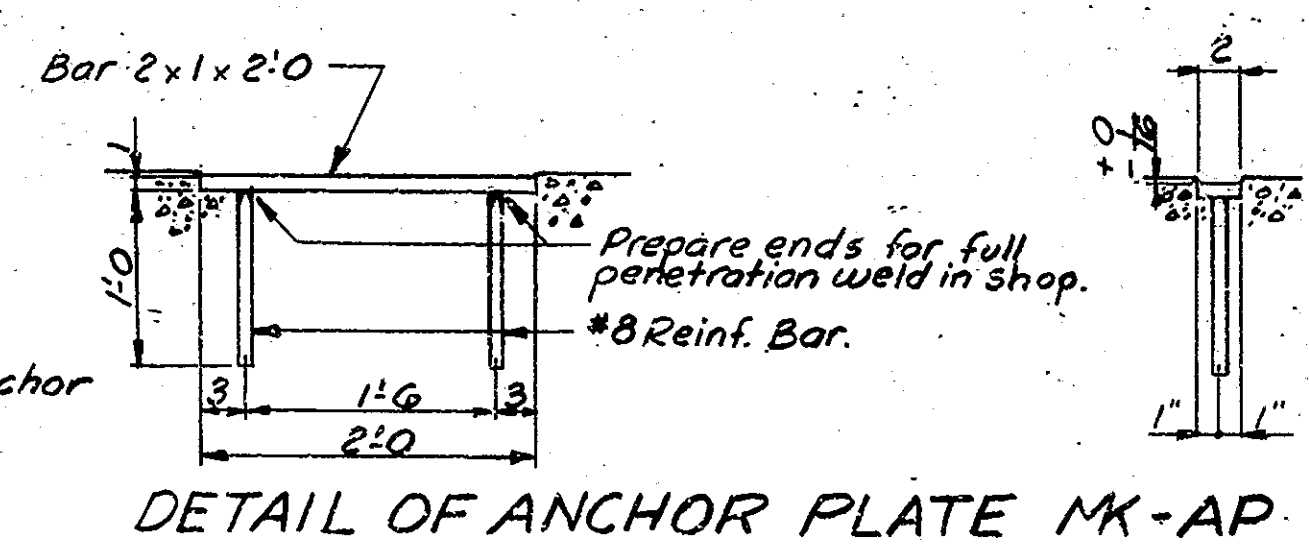
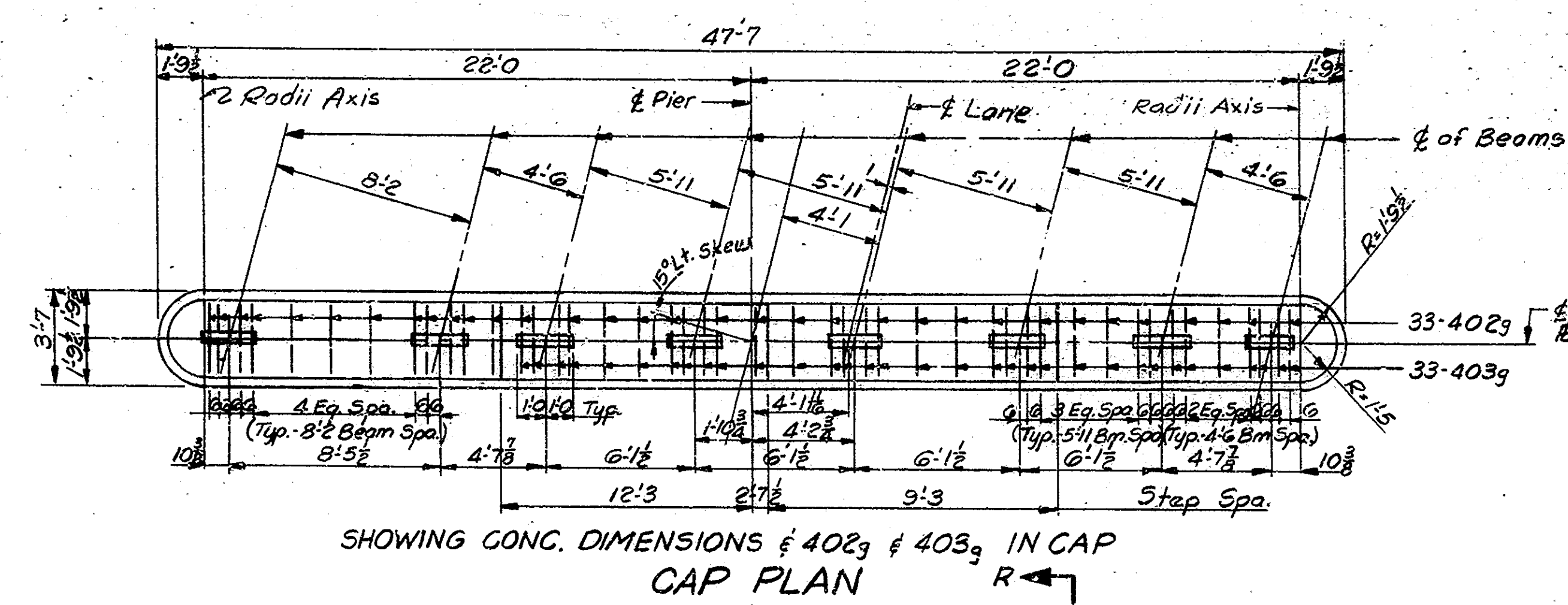
DRAWING: 58 of 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NN-3376.1

DESIGNED: J. B. McK
DRAWN: W. W. 7-3-62 CKD: J. E. H. 7-31-62
TRACED: E. B. 7-18-62 CKD: D. R. 8-18-62

BRIDGES OVER 20' SPAN					
PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	13	32

**BILL OF MATERIALS
PIER NO 5**

REINFORCING STEEL			
SIZE MARK	NO. BARS	LENGTH	WEIGHT
601g	12	13'-4"	
602g	4	9'-0"	
603g	52	4'-7"	
604g	2	8'-9"	
#6	68	23'-0"	
#6	52	16'-0"	
#6	52	12'-0"	
#6	66	11'-0"	
Total #6			634.1 #
401g	31	7'-0"	
402g	33	4'-3"	
403g	33	3'-8"	
#4	27	11'-3"	
#4	3	12'-2"	
#4	2	8'-11"	
#4	2	10'-3"	
Total #4			672.4 #
Total Reinf. Steel			7,013.4 #
CONCRETE			
Class F in Cap (Pour Nos.)	13.7 cys.		
Pour No. 1	54.8 "		
Pour No. 2	39.0 "		
Class F above Ft. 1	112.8 "		
Class F in Ftg.	47.0 "		
MISCELLANEOUS			
Anchor Pls. MK-AP	8 Ea.		



NOTES:
See Br. Std. C1 for Reinf. Bar Notes.
Anchor Plates MK-AP are to be preset in the concrete.

**PIER NO 5 DETAILS
INDIANA STATE HIGHWAY COMMISSION**

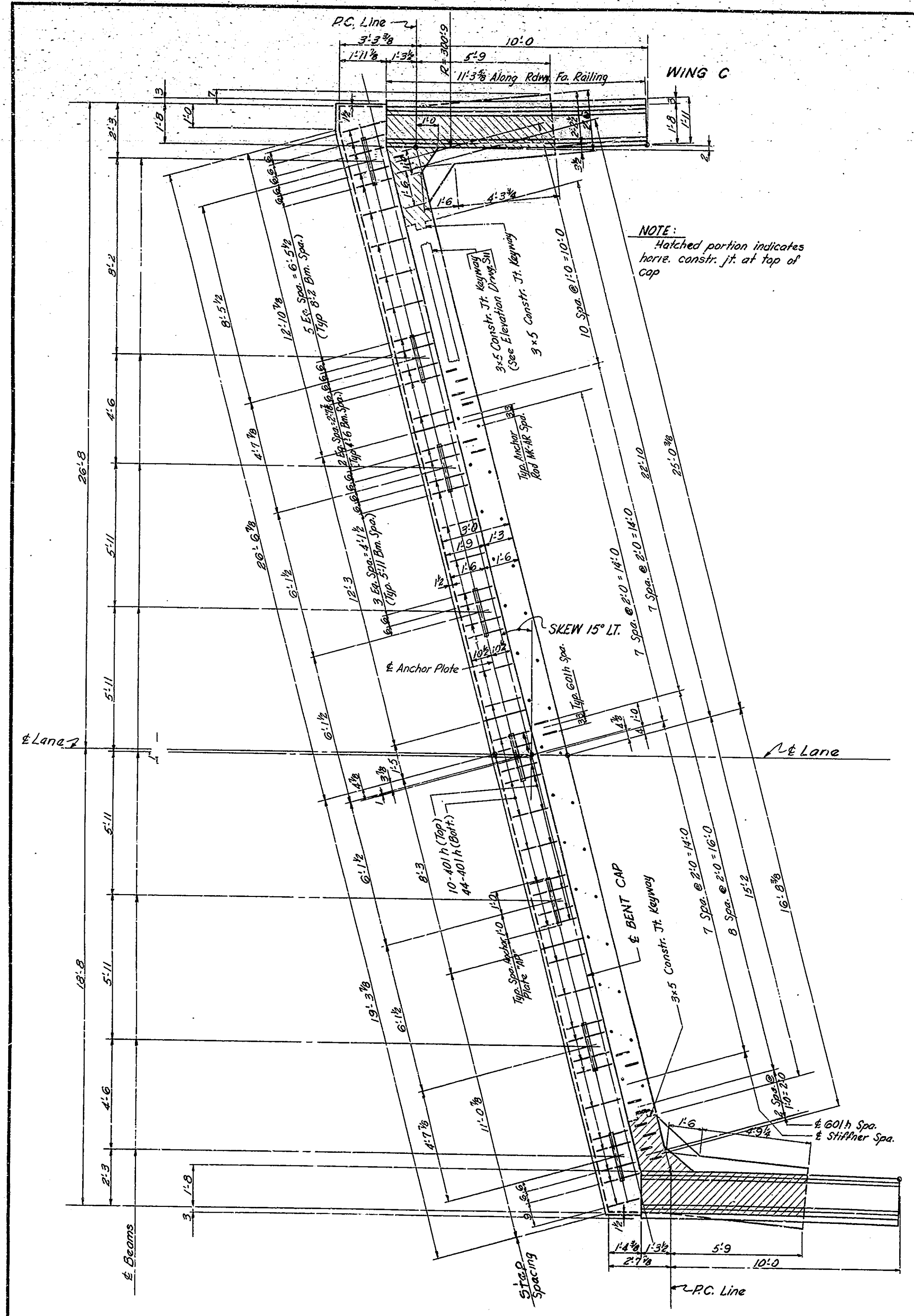
SCALE: No Scale August 15 1962

RECOMMENDED FOR APPROVAL: *C. R. Rimmer*

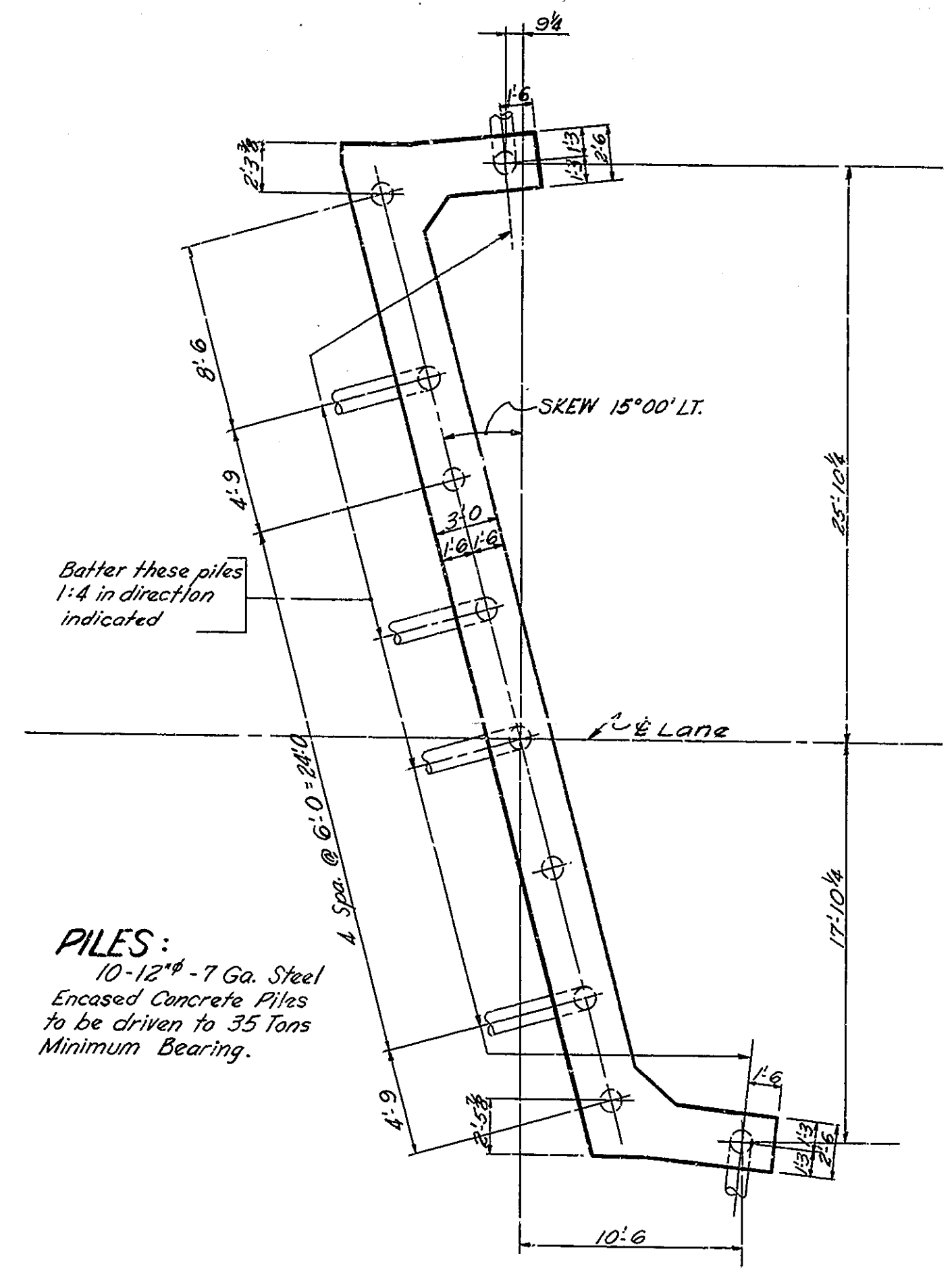
DRAWING: 59 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 20 MAY 2070

DESIGNED: IBM CND
DRAWN: W. W. 7-20-C2 NO. 2 F. H. 7/1/62
TRACED: G. N. 8-1-62 CND E. B. 8/16/62

BRIDGES OVER 20' SPAN				
PLS. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	U-724(16)	1963	32



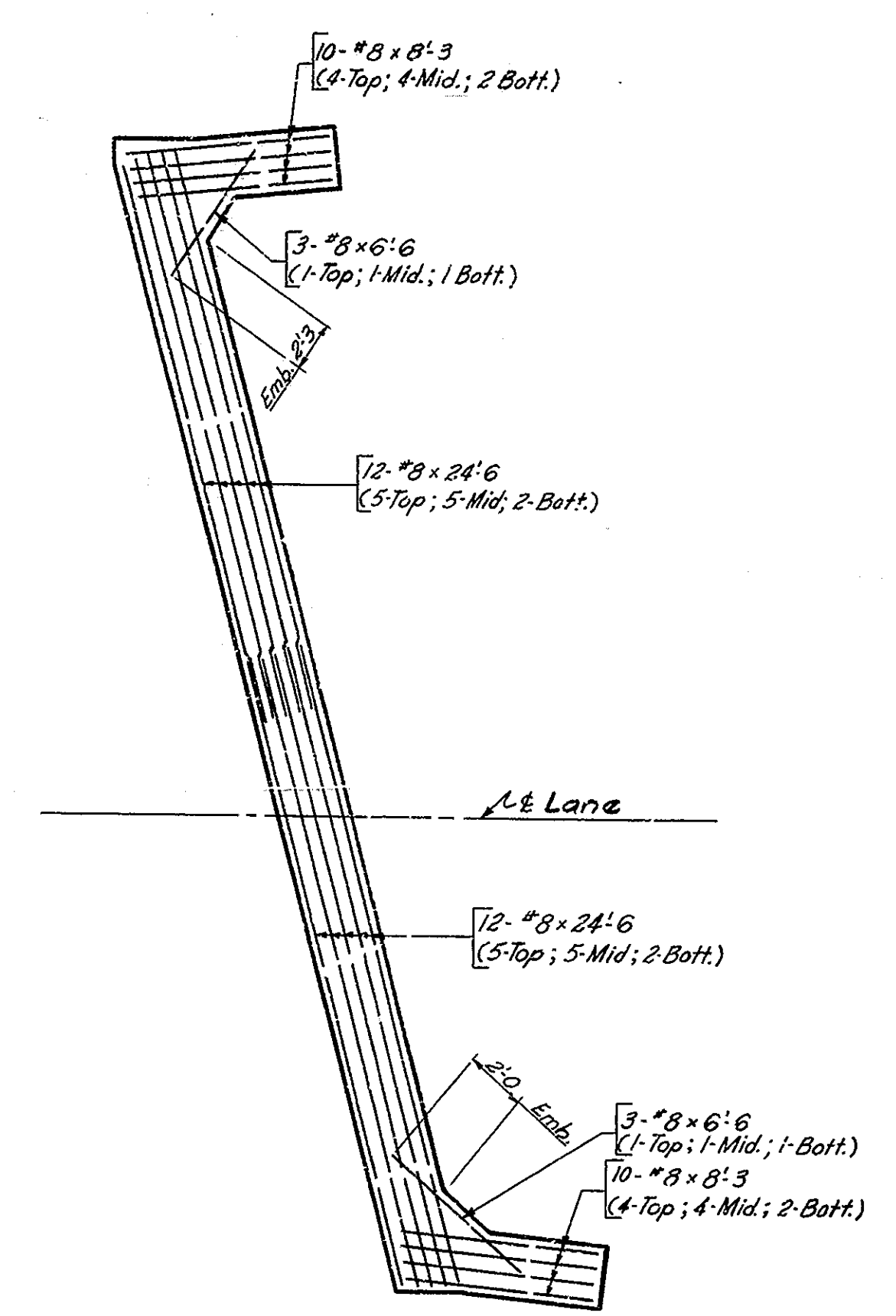
PLAN
SHOWING CONCRETE DIMENSIONS & 4014 IN BR. SEAT
SCALE: 3/16" = 1'-0"



PILES:
10-12" - 7 Ga. Steel Encased Concrete Piles to be driven to 35 Tons Minimum Bearing.

PILING PLAN
SCALE: 3/16" = 1'-0"

NOTES:
For reinforcing bar notes, see Br. Std. C.I. Anchor Rods MK-AR (Exp. Jt.) and Anchor Plates MK-AP to be present in concrete. For details of Anchor Plate, See Drwg. S6.
CAP NOT TO BE POURED UNTIL FILL HAS BEEN COMPLETED TO APPROXIMATELY THE ELEVATION OF THE BOTTOM OF CAP.
For additional details see Drwgs. S11 & S5



CAP PLAN
SHOWING CAP LONGITUDINAL REINFORCING STEEL
SCALE: 3/16" = 1'-0"

BENT NO. 6 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

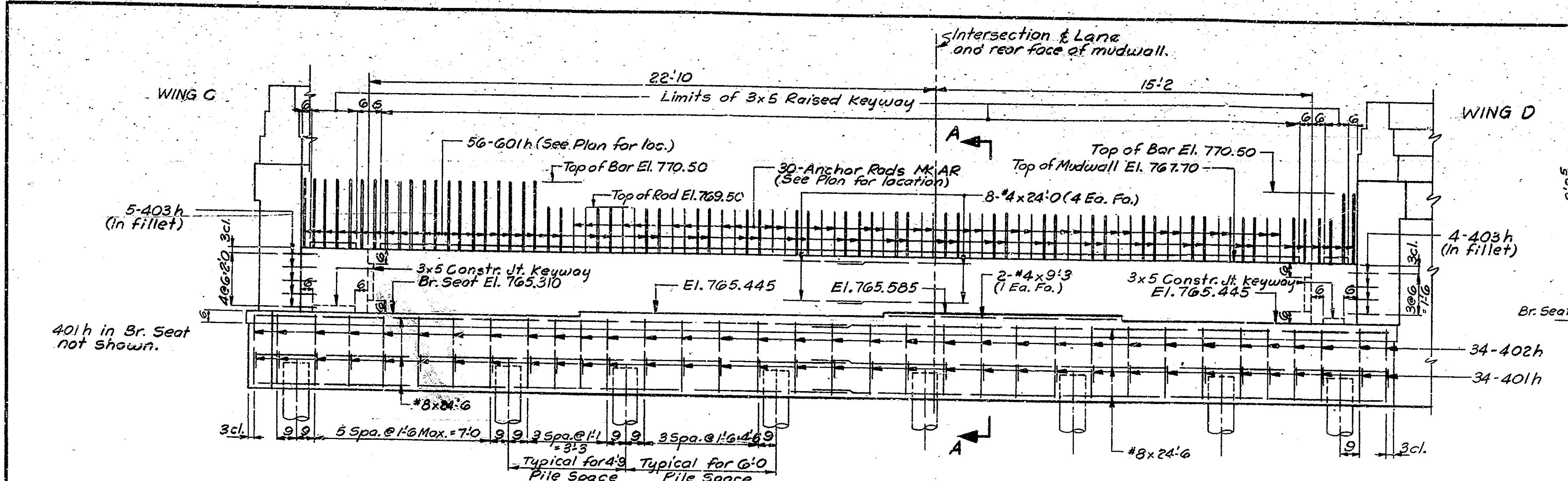
SCALE: AS NOTED
AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *C.R. Runnner*
ENGINEER OF BRIDGE DESIGN

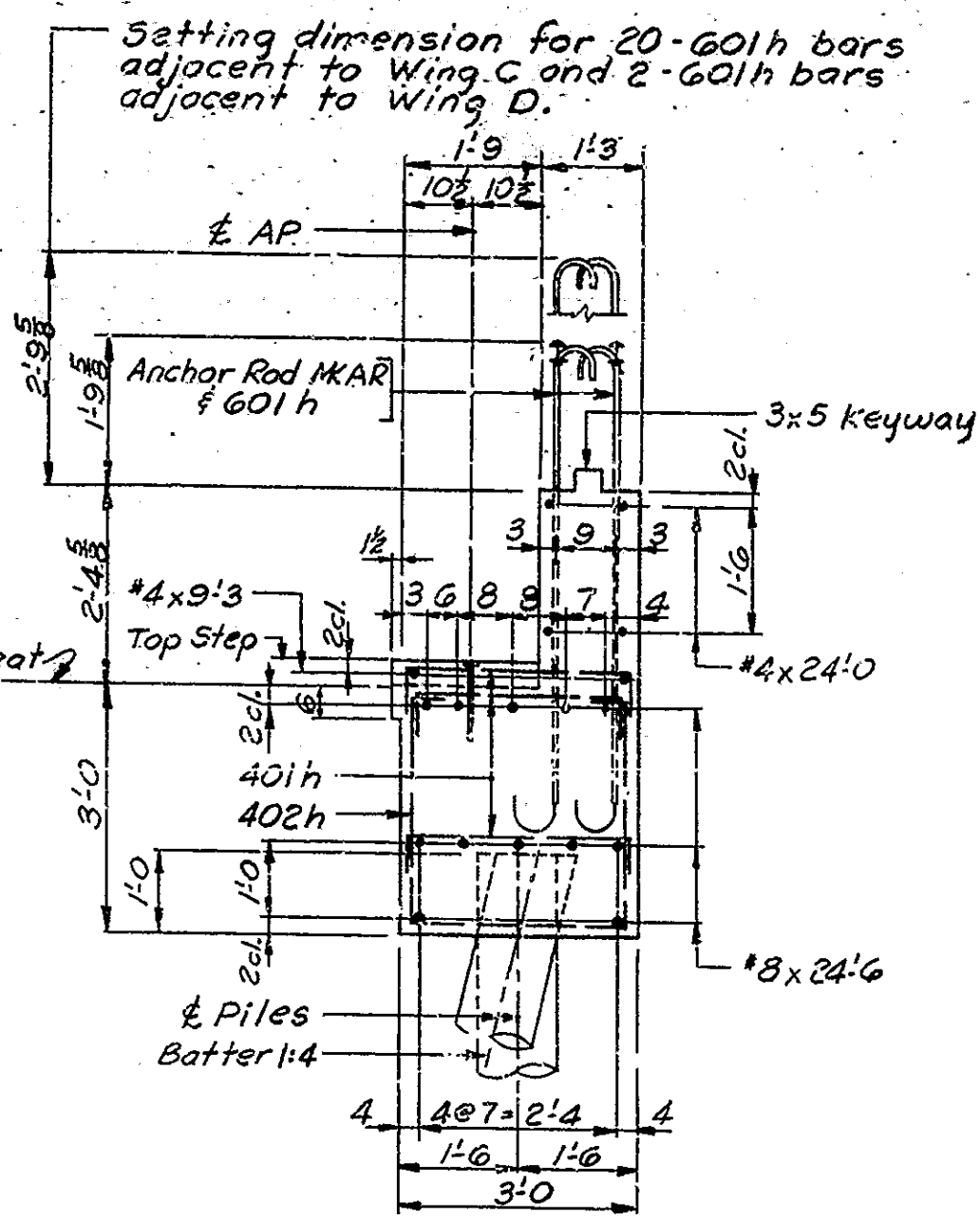
DRAWING: S10 OF 20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE No. 20-111-5752

DESIGNED BY: B.S. 62 CKD. E.L.D. 8-4-62
DRAWN BY: B.S. 62 CKD. E.L.D. 8-10-62
TRACED: CKD.

BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	U-724(16)	1963	32



ELEVATION



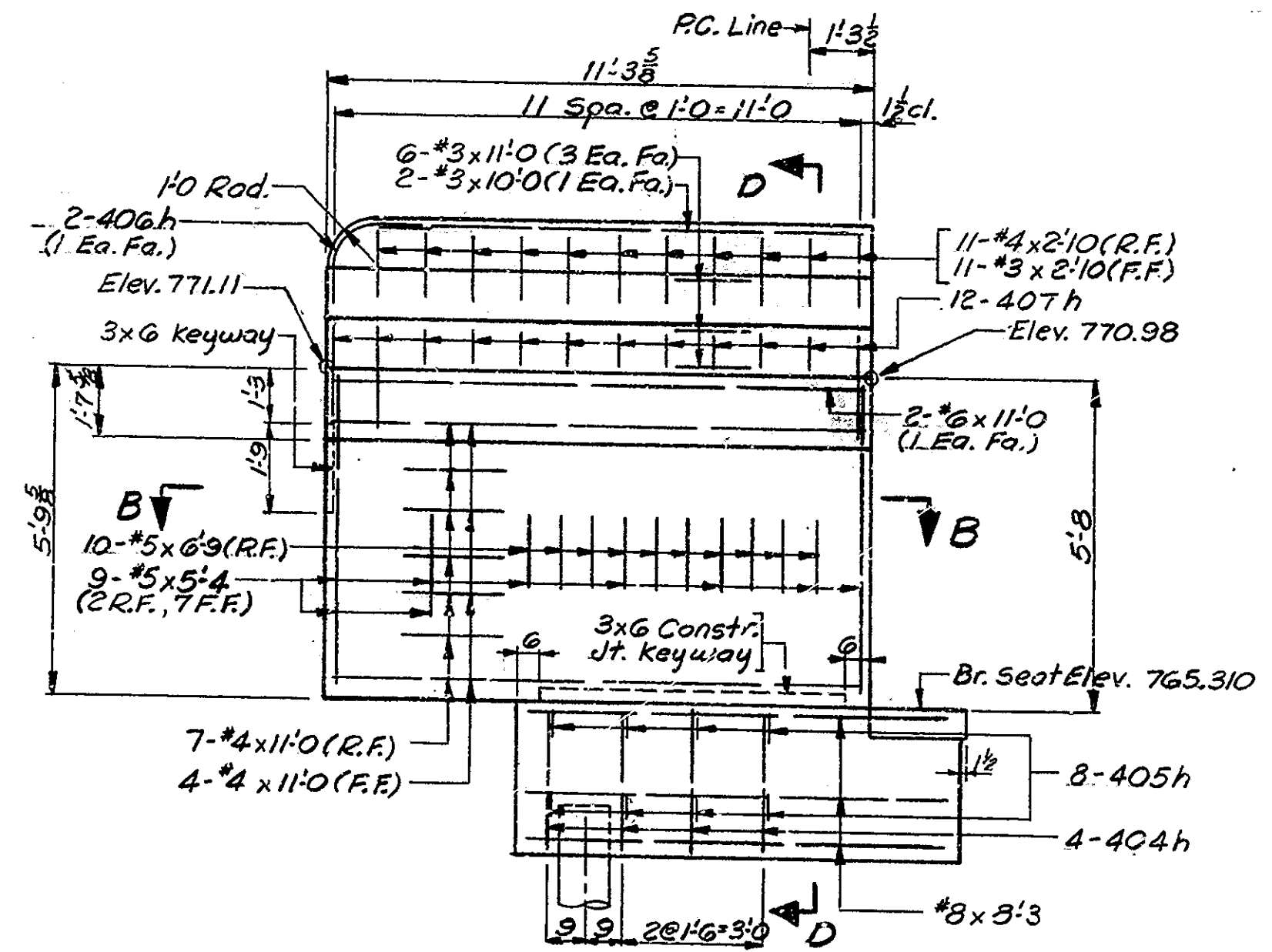
SECTION A-A
Scale: 1/2" = 1'-0"

BILL OF MATERIALS
BENT NO. 6

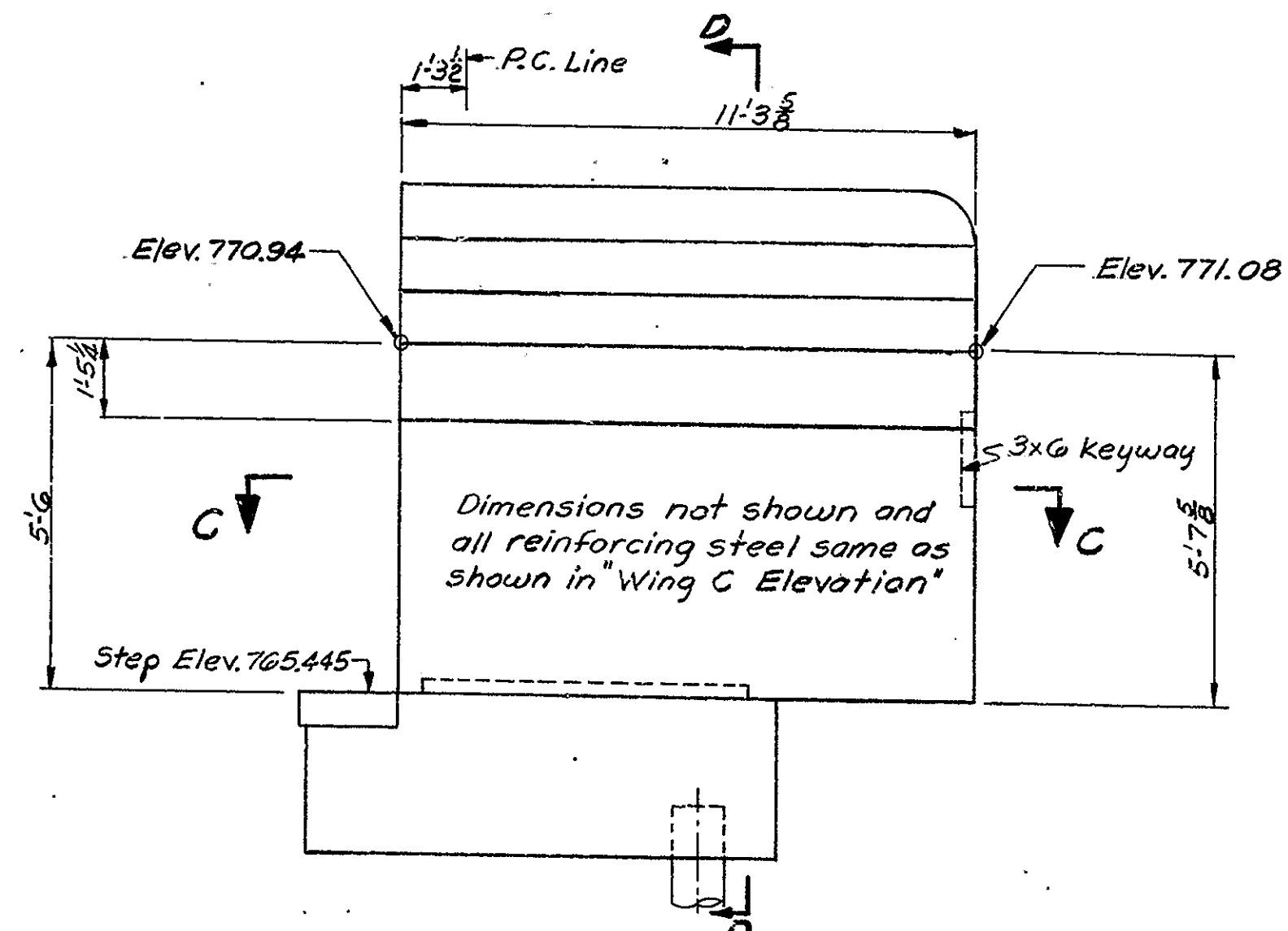
REINFORCING STEEL			
SIZE	NO.	LENGTH	WEIGHT
601h	56	7'-5"	
#6	4	11'-0"	
Total #6			690 #
#5	20	6'-9"	
#5	18	5'-4"	
Total #5			241 #
401h	88	3'-9"	
402h	24	9'-3"	
403h	9	3'-3"	
404h	8	3'-5"	
405h	16	3'-3"	
406h	4	4'-0"	
407h	24	5'-2"	
#4	8	24'-0"	
#4	22	11'-0"	
#4	2	9'-3"	
#4	22	2'-10"	
Total #4			981 #
#3	12	11'-0"	
#3	4	10'-0"	
#3	22	2'-10"	
Total #3			38 #
TOTAL STEEL			4,115 #

CONCRETE	
Class #7	
Cap & Mudwall Between	
Vert. Conc. Jts.	24.1 cys.
Wing C Mudwall to Vert. Conc. Jt.	4.6
Wing D Mudwall to Vert. Conc. Jt.	4.3
TOTAL CLASS #7	33.0 cys.
Railing Conc. (2x1.65)	3.3 cys.

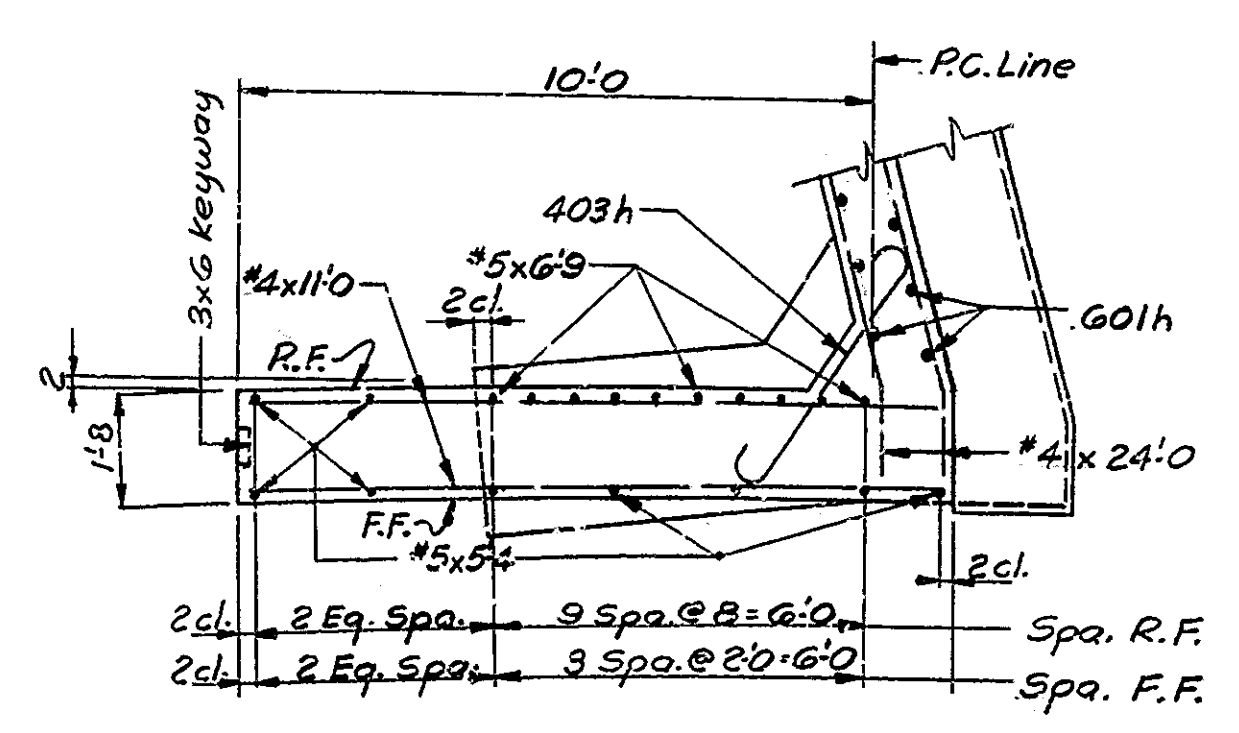
MISCELLANEOUS	
Anchor Plates MKAP	8 Ea.
Anchor Rods MKAR (2 Hex Nuts, 2 Cut Wa. ea.)	30 Ea.
10-1/2" Dia. Steel Encased Conc. Piles @ 2'-25"	250 Lin. Ft.



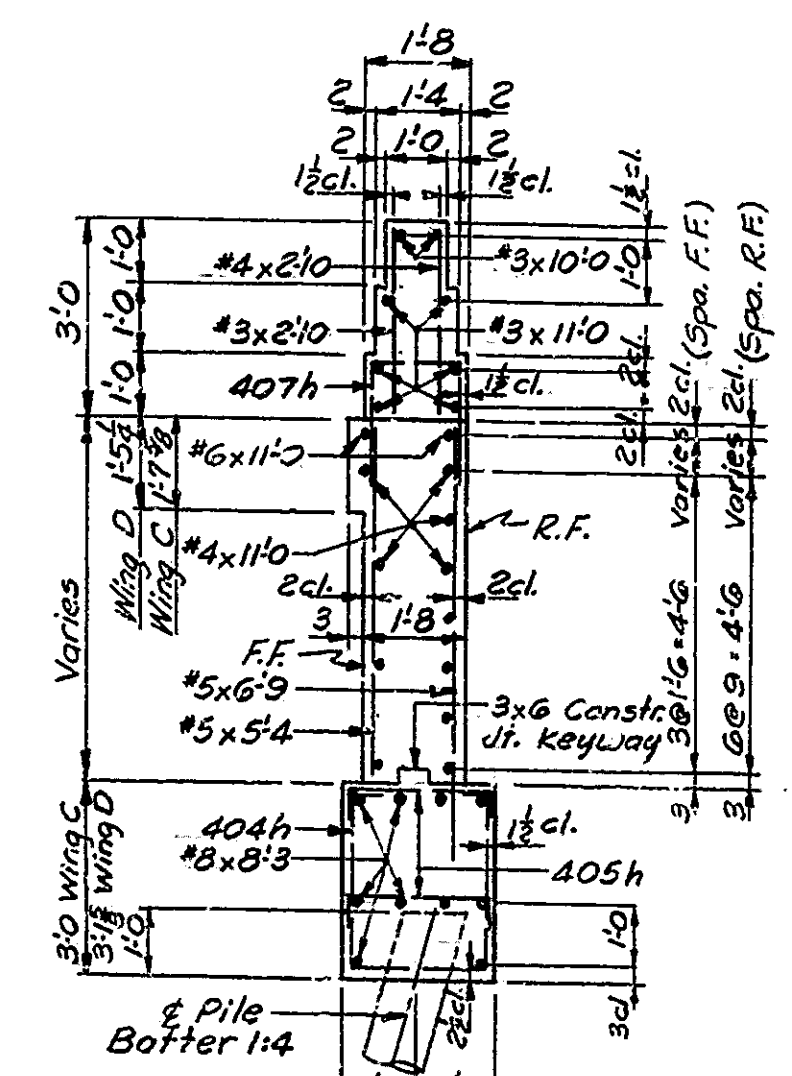
WING C ELEVATION



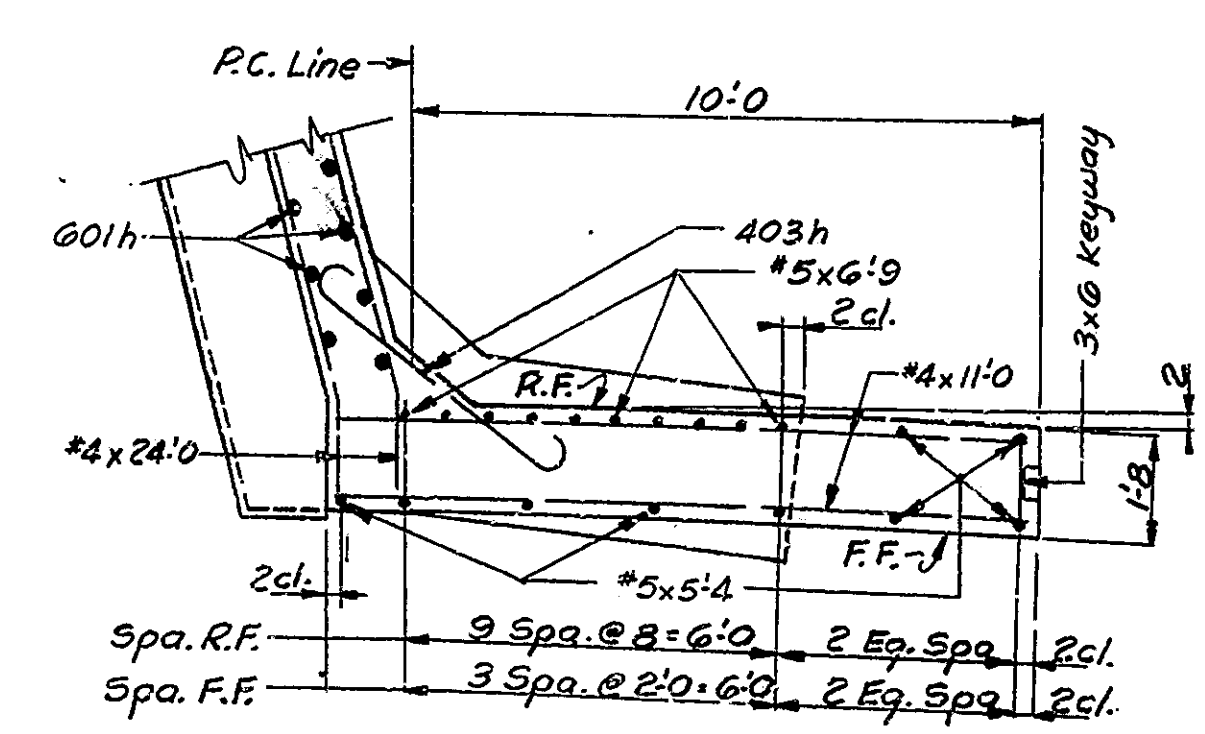
WING D ELEVATION



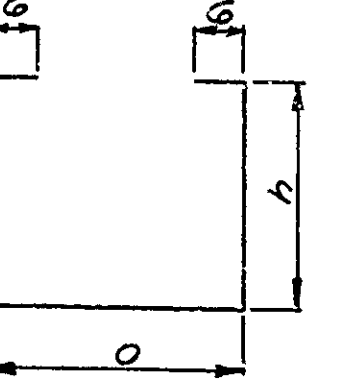
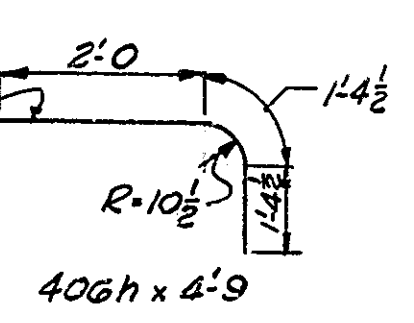
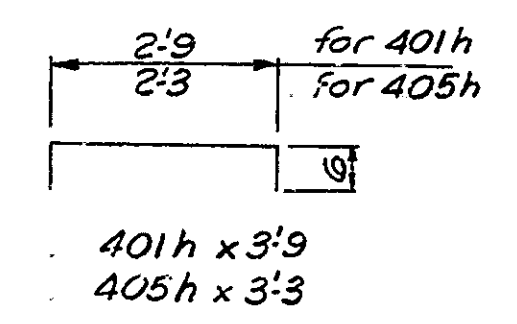
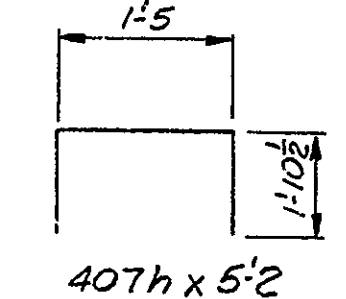
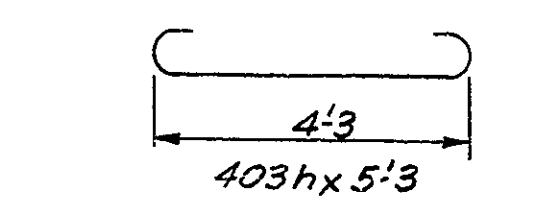
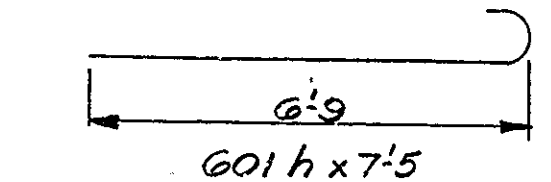
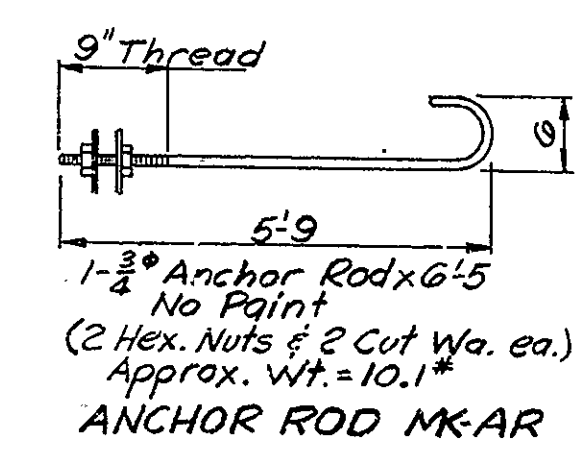
SECTION B-B



SECTION D-D



SECTION C-C



NOTES:
See Br. Std. G1 for Reinforcing Bar Notes.
Anchor Rods MKAR and Anchor Plates MKAP are to be preset in concrete.
For details of Anchor Plate see Drwg S6
For additional details see Drwg S10

BENT NO. 6 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 3/8" = 1'-0" Unless Noted. AUGUST 15, 1962

RECOMMENDED FOR APPROVAL: *C.R. Rummel*
ENGINEER OF BRIDGE DESIGN

DRAWING: S11 OF 20
PROJECT: U-724 (16)
BRIDGE CONTRACT NO. 57-52
BRIDGE FILE: 20-A111-2276.1

Mark	h	o	Length
402h	2'-9"	2'-9"	9'-9"
404h	2'-7"	2'-3"	8'-5"

DESIGNED: REW: B-3-C-R: E.L.D. 2-24-62
DRAWN: W.B.: B-3-C-R: E.E.H. 11-10-62
TRACED: C.K.D.

Rev. 2-7-67 & 1-1-68

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724 (16)	1963	16	32

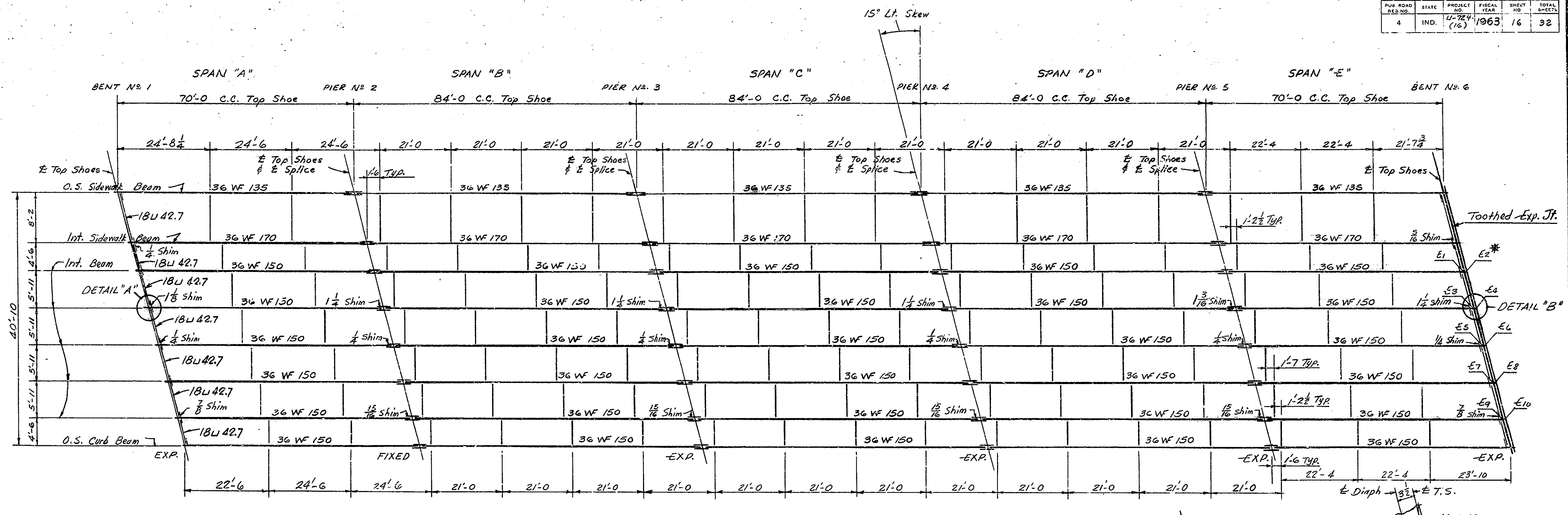


TABLE OF MOMENTS

	Moment at .4 Span "A" in Ft. Kips				Moment at .5 Span "B" in Ft. Kips				Moment at .5 Span "C" in Ft. Kips				Neg. Mom. at R2 in Ft. Kips		Neg. Mom. at R3 in Ft. Kips					
	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.				
Dead Load	414.4	385.2	304.6	426.5	381.0	576.1	303.7	396.7	396.3	388.9	313.5	47.7	639.8	536.4	407.1	646.3	609.2	510.8	387.7	615.4
Live Load	-	317.2	417.3	317.2	-	304.3	400.4	304.3	-	305.0	401.1	305.0	-	314.6	413.9	314.6	-	331.8	436.4	331.8
S.W. L.L.	144.2	159.4	-	148.2	163.8	-	156.5	173.0	-	220.7	244.0	-	220.7	244.0	-	236.9	261.9	-	-	-
Impact	-	81.3	107.0	81.3	-	72.8	95.8	72.8	-	73.0	96.0	73.0	-	77.9	102.4	77.9	-	79.4	104.4	79.4
TOTAL	558.6	943.1	828.9	825.0	529.2	917.0	799.9	773.8	552.8	939.9	810.6	790.1	860.5	1172.9	923.4	1038.7	846.1	1183.6	928.5	1026.2

TABLE OF REACTIONS

	Reaction at R1 in Kips				Reaction at R2 in Kips				Reaction at R3 in Kips			
	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.	O.S. S.W. Bm.	INT. S.W. Bm.	INT. CURB Bm.	O.S. CURB Bm.
Dead Load	30.76	28.04	22.07	31.55	97.28	86.51	67.27	99.31	95.40	85.37	66.55	97.49
Live Load	-	15.29	36.21	15.29	-	28.02	49.94	28.02	-	28.85	51.03	28.85
S.W. L.L.	9.14	10.10	-	-	27.10	29.95	-	-	28.00	30.95	-	-
Impact	-	3.92	9.29	3.92	-	6.93	12.36	6.93	-	6.90	12.21	6.90
TOTAL	39.90	57.35	67.57	50.76	124.38	151.41	129.57	134.26	123.40	152.01	129.79	133.24

DATA USED FOR DESIGN AND DETAILS

LIVE LOADS: H20-516-44 loading with impact and distribution of loads in accordance with 1961 AASHTO Specifications.

DEAD LOADS: Actual weight plus 35 pounds per sq. ft. of roadway to provide for future wearing surface.

SLAB Designed for 16,000 lb. wheel plus impact, and with 1/2" monolithic wearing surface.

UNIT STRESSES

Structural Steel Banding (Tension) ----- 20,000 #/sq. in.
 Shear on Rivets ----- 13,500 #/sq. in.
 Structural Steel Bearing (Including Rivets) ----- 27,000 #/sq. in.
 Bearing Steel on Concrete (Including Overturning and Eccentric Loading) ----- 1,000 #/sq. in.
 Reinforcing Steel (Tension) ----- 20,000 #/sq. in.
 Concrete (Compression) ----- 1,200 #/sq. in.

* Note: All Structural Steel to be ASTM A-36 Carbon Steel Unless Noted.

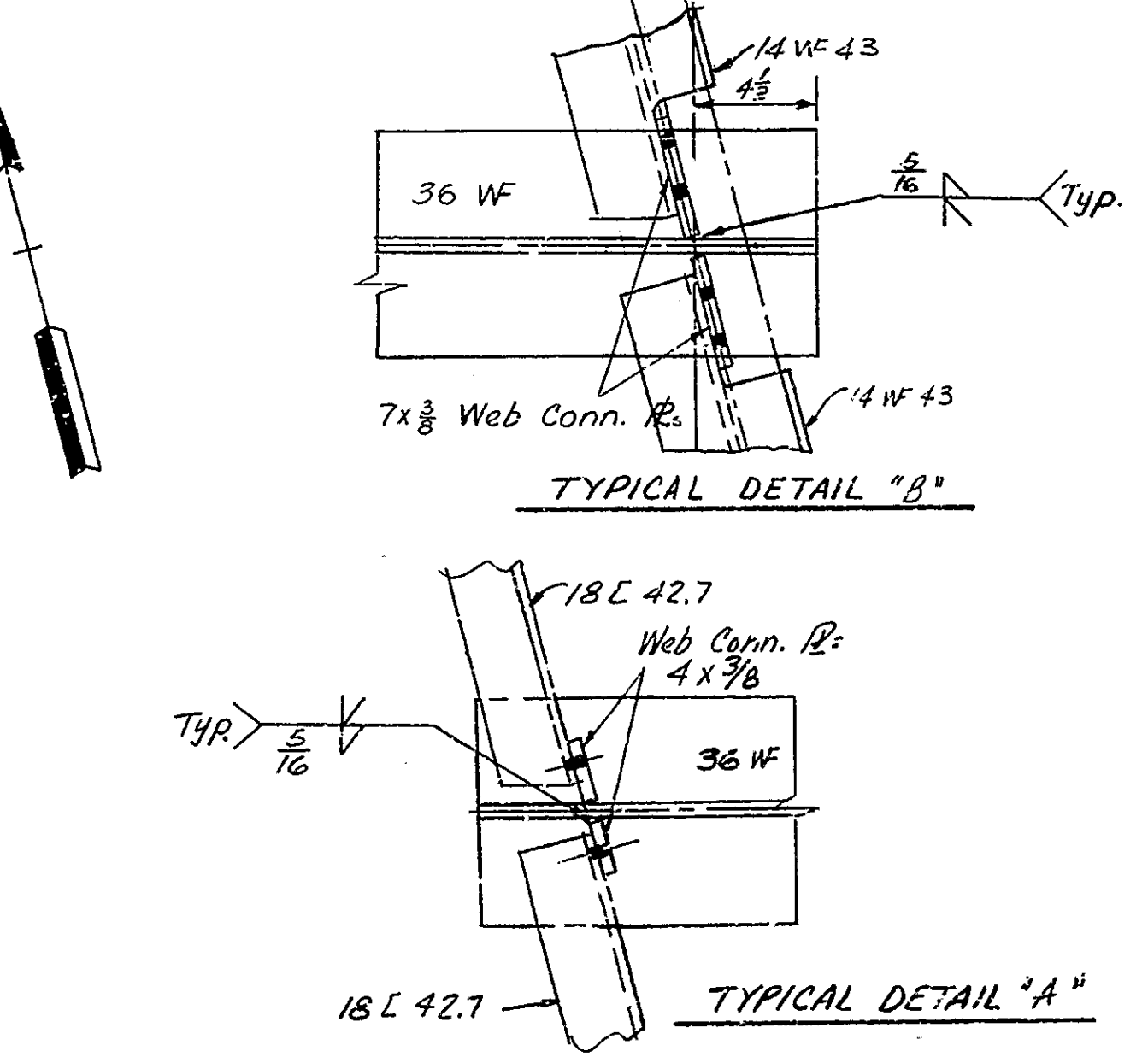
FRAMING PLAN
Scale: 1/8" = 1'-0"

GENERAL NOTES

* For Elevations E1, E2, etc. See Drawg. S13

Rivets 7/8"
 Open Holes 1 9/16"
 All paint shall be in accordance with current State Highway Specifications
 Shop Paint: One Coat Red Lead, Type I or II - Except Noted.
 Field Paint: 2 Coats of Aluminum
 Beams must be cambered to a smooth curve. Camber must be checked while beams are supported in such a way as to have no bending moment in direction of camber.

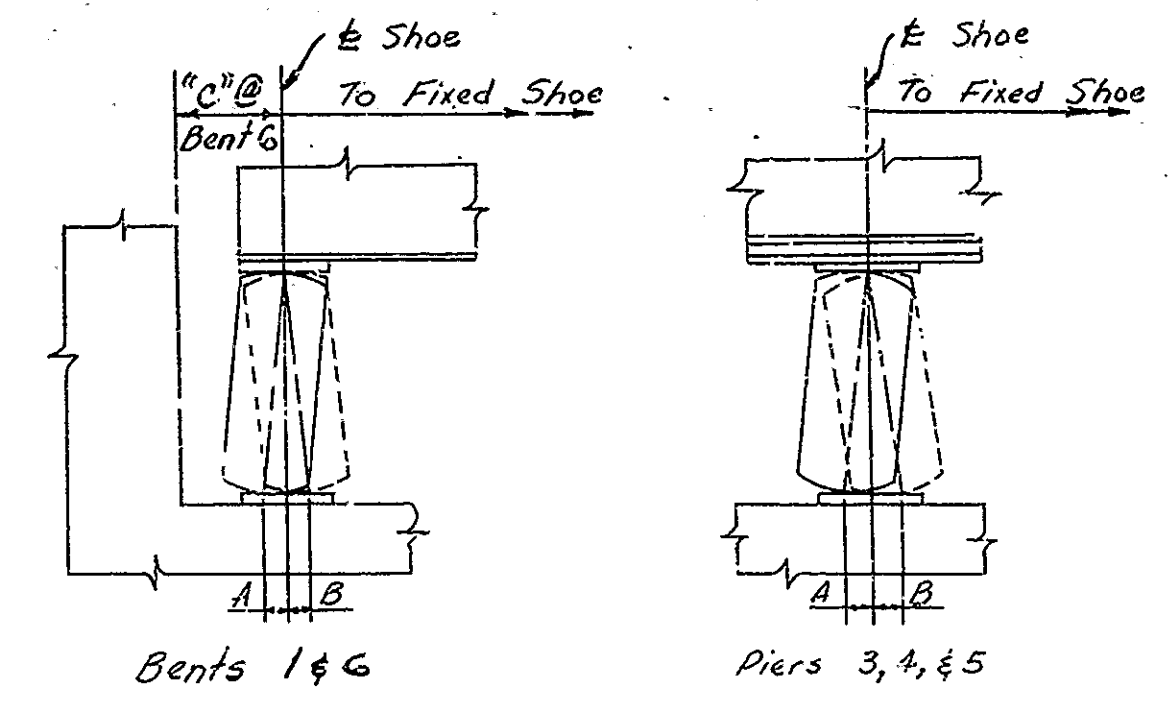
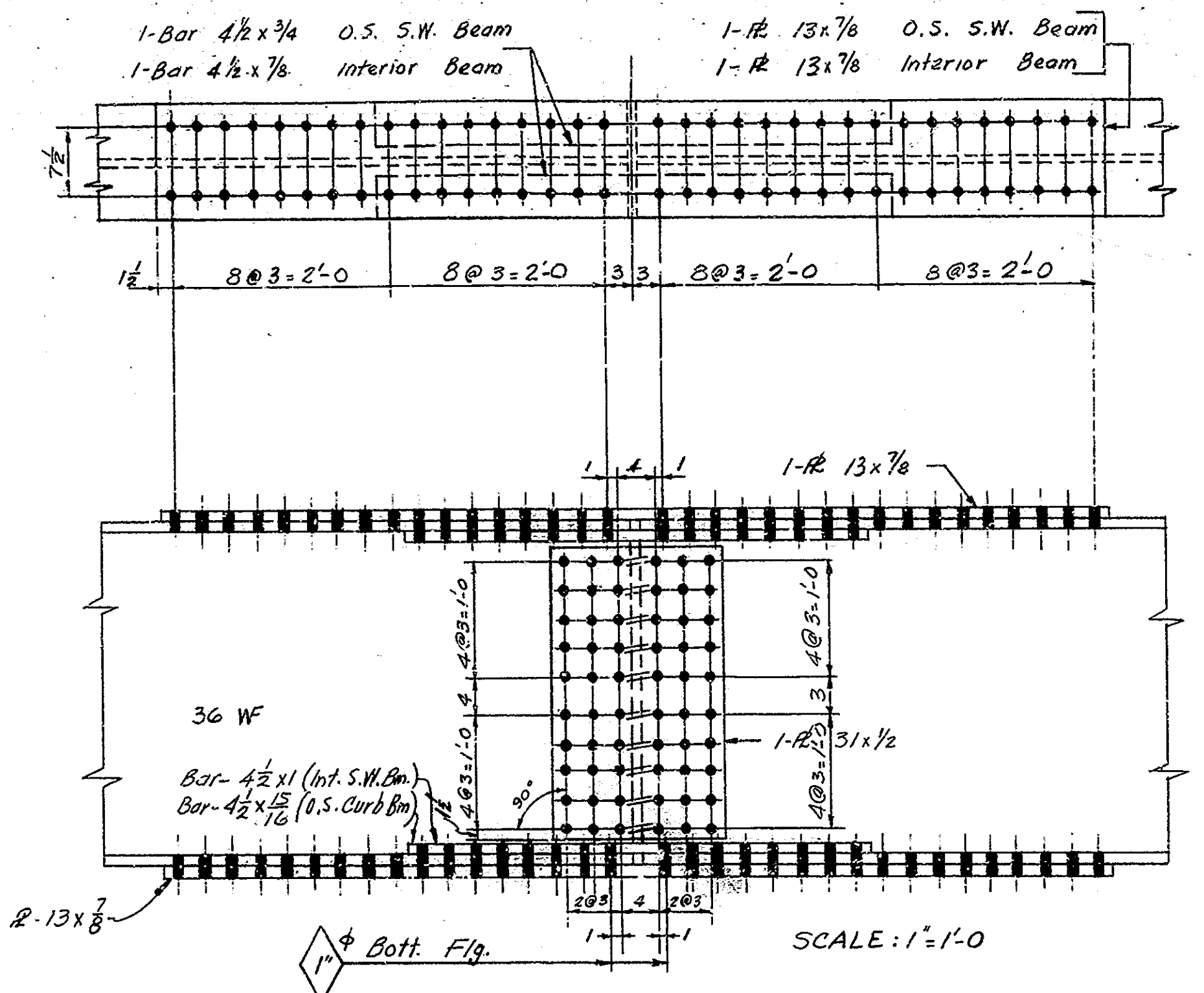
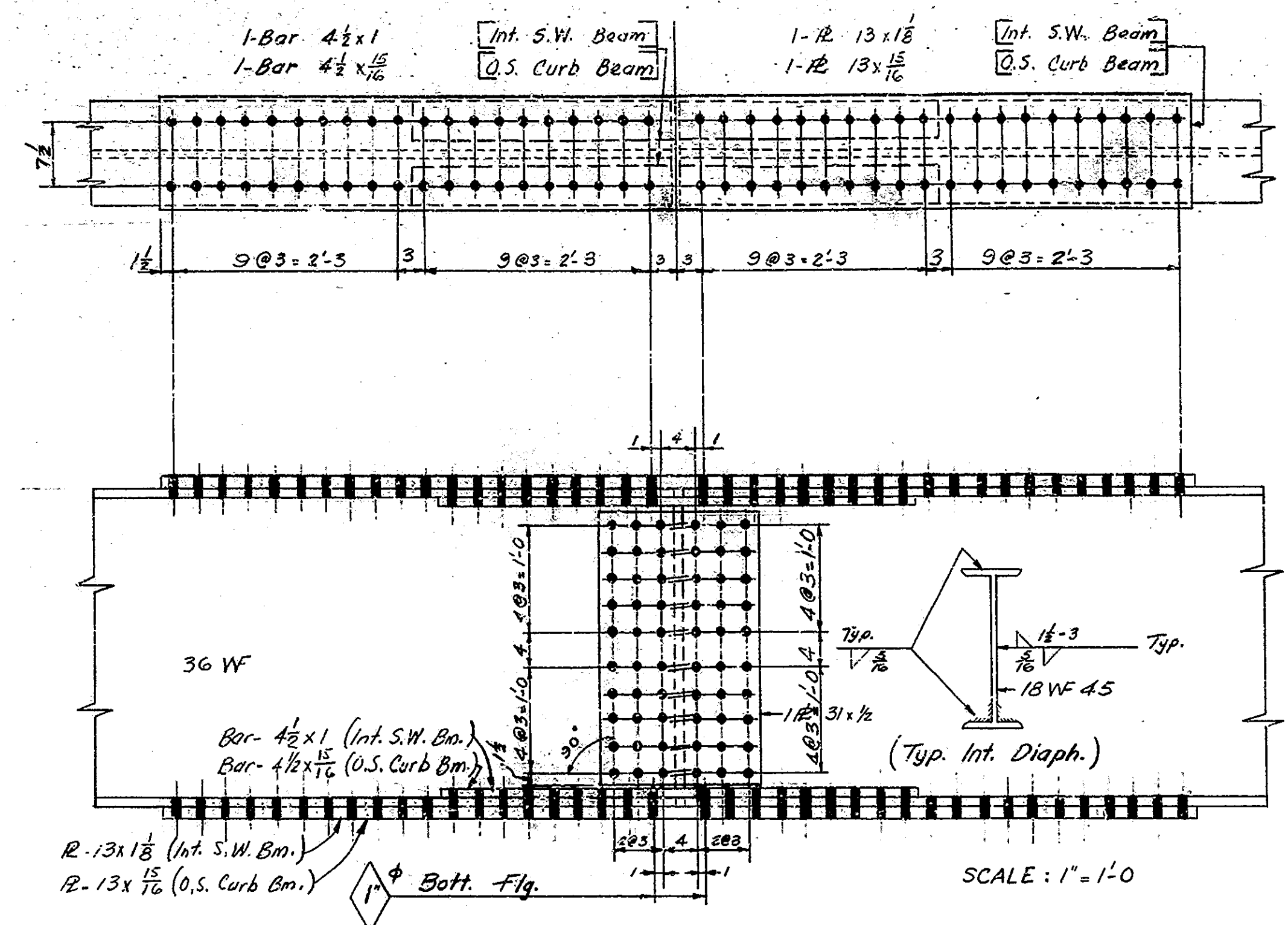
Notes for beam splices shall be subpunched or subdrilled and reamed to size while assembled. See Art. E-1103:18(d) of the specifications.
 The shop plans shall indicate whether reaming is to be done in shop or field. If shop reaming or drilling is used, the beams may be reamed with the webs either in a horizontal or vertical position. If beams are reamed with webs vertical, they shall be supported relative to their final erection position. If they are reamed with the webs horizontal, a minimum of one line of beams shall be shop assembled with webs vertical and inspected for fit.
 Flange splice bars shall have planed or rolled edges and holes in bars shall be subdrilled and reamed or drilled full size while assembled.
 All structural steel shall be erected and beams adjusted to relative elevation before driving rivets in beam splices.
 The contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect, and construct all parts of the work in conformity with the Engineer's drawings and specifications and shall submit four (4) copies of these to the Engineer. See Art. E-1103:2 of the specifications.
 Diameter of holes in all material connecting top shoes to beam flanges shall be 1 1/8".
 Bolts connecting beam flange to top shoe shall extend in to top shoe a minimum of 1".
 Shims between beams and top shoes may be built up.
 No shim shall be less than 3/8 inch in thickness.
 As soon as the Engineer has approved the field welds, all welds and any surface from which the shop coat has been omitted or becomes worn off or has otherwise become defective, shall be thoroughly cleaned of all charred paint or any foreign matter and completely covered with one coat of shop paint.
 The shop details shall show a plan of match marking for all reamed pieces.
 All splice plates to be removed, cleaned, and painted after reaming. Splice plates shall not extend beyond the end of the beam after bolting for shipment.
 Structural Steel Weight (Estimated) ----- 609,500 lb
 (Includes 27,000 lb for Structural Steel Paving and 8500 lb for Structural Steel Expansion Joint)



FRAMING PLAN
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED
 AUGUST 15 1962
 RECOMMENDED FOR APPROVAL: *C.R. Rimmer*
 ENGINEER OF BRIDGE DESIGN
 DRAWING: S12 OF 20
 PROJECT: U-724 (16)
 BRIDGE CONTRACT NO. 5752
 BRIDGE FILE: 30-NN-3376 J

BRIDGES OVER 20' SPAN						
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL	
NO.		NO.	YEAR	NO.	SHEETS	
4	IND.	U 724 (16)	1963	17	32	



TEMP.	DIMENSION "A"										"B"	
	0'	20'	40'	60'	80'	100'	120'	80'	100'	120'		
± T.S. Bent 1	7/8	3/4	5/8	1/2	3/8	1/4	1/8	-	-	-	-	-
Pier 3	3/8	1/4	1/8	0	-	-	-	1/8	1/4	3/8		
Pier 4	3/4	1/2	1/4	0	-	-	-	1/4	1/2	3/4		
Pier 5	1 1/4	13/16	7/16	0	-	-	-	7/16	13/16	1 1/4		
Bent 6	2 1/8	1 1/2	1	1/2	0	-	-	0	1/2	1 1/8		

TABLE I

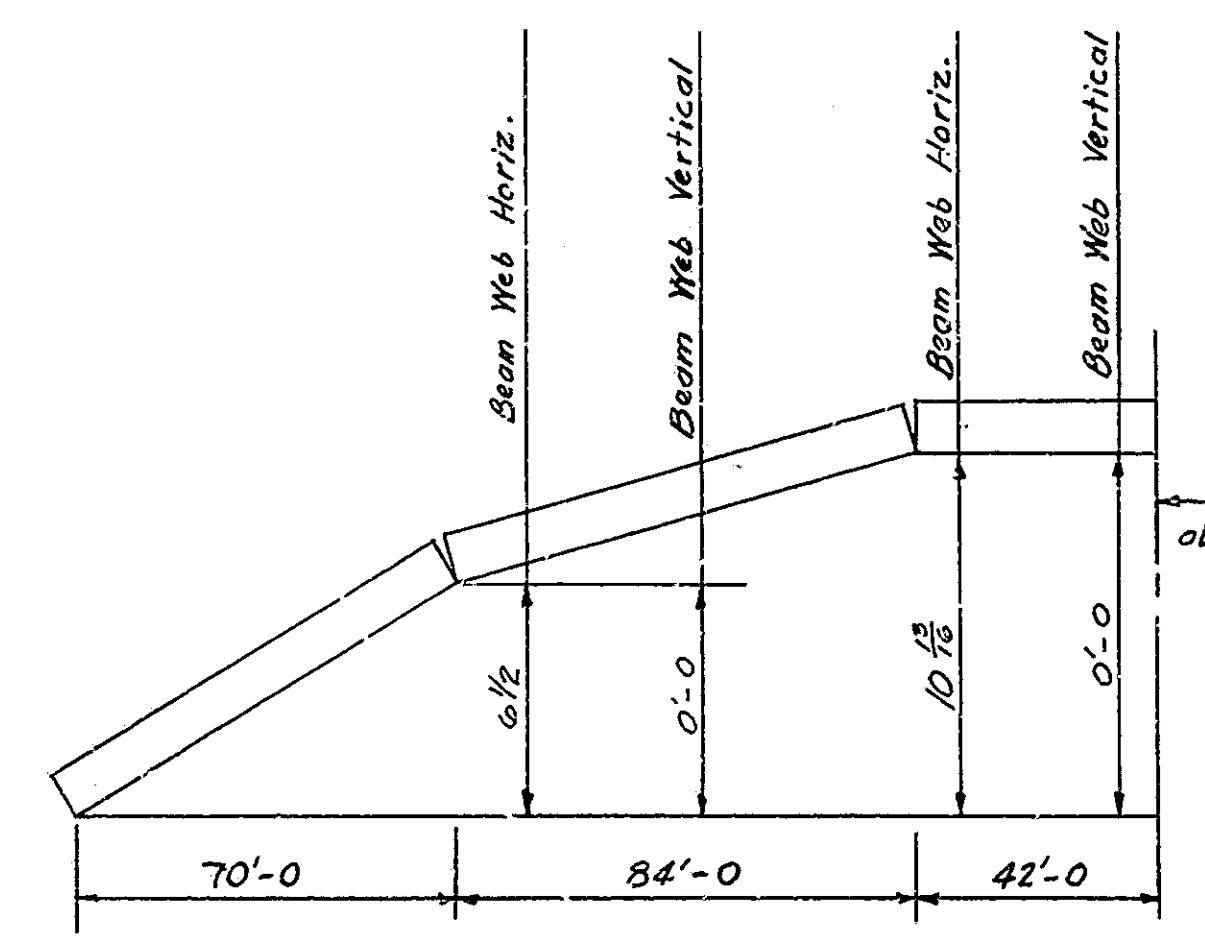
SPLICE FOR INTERIOR SIDEWALK BEAM AND FOR OUTSIDE CURB BEAM

SPLICE FOR OUTSIDE SIDEWALK BEAM AND FOR INTERIOR BEAMS

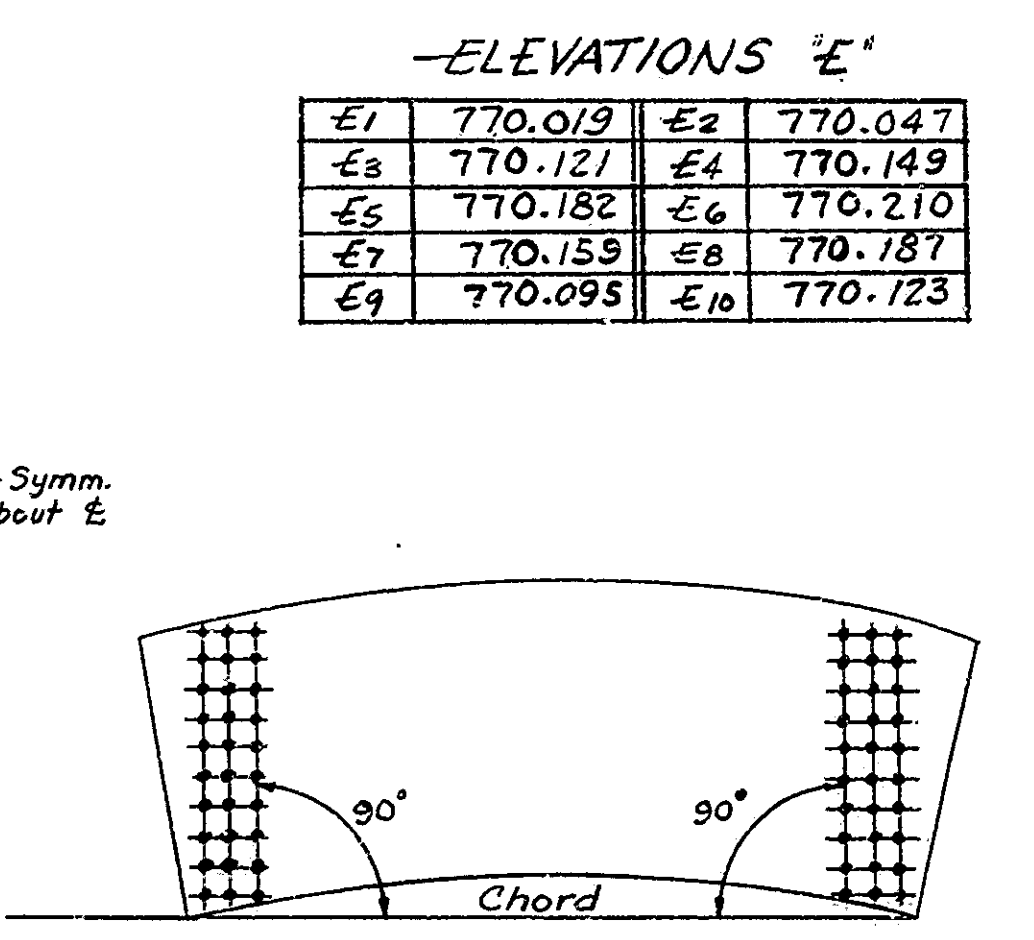
GENERAL PROCEDURE

- After all rivets have been driven, adjust the superstructure longitudinally so that dimension "C" at Bent 6 = dimension "C" in Table II for the prevailing temperature.
- With the superstructure in the adjusted position called for in No. 1, weld fixed shoes to the Anchor Plates at Pier No. 2.
- Adjust the expansion plates under each expansion shoe in accordance with dimensions "A" or "B" in Table I for the prevailing temperature. Note that dimension "A" is always the distance from a vertical line through the E of the top shoe in a direction away from the fixed shoes. Weld expansion plates to the anchor plates.
- Set steel expansion joint and adjust it to elevation using the double nuts for adjustment.
- Adjust steel expansion joint transversely to make openings "f" between nuts equal and longitudinally so that openings "D" correspond to the dimensions "D" shown in Table II for the prevailing temperature. Dimension "D" may vary 1" from tabulated value if required for fit.
- Screed elevations shall be determined by adding the Concrete Dead Load Deflections to the required final concrete elevations at all screed points. Take elevations at all screed points on top of beam adjacent to screed point. Subtract these elevations from the elevations corrected for deflection, and use the resulting dimension as the height for setting the screed or coping form above that point. This dimension remains constant regardless of how much or in what order the concrete is poured. Do not set screeds by leveling.
- No concrete in the floor is to be poured until the above operations are complete.

NOTE: Rivets 7/8" unless noted
Open Holes 1 1/16" unless noted
See Drwg 512 for General Notes
See Drwgs 512 and 513 for location of Elev. E



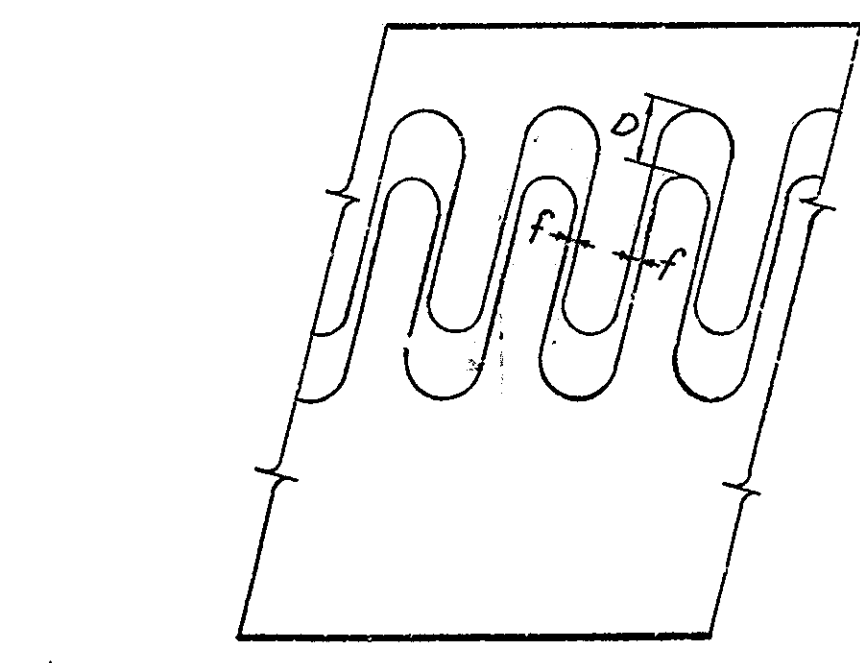
BLOCKING DIAGRAM
No Scale



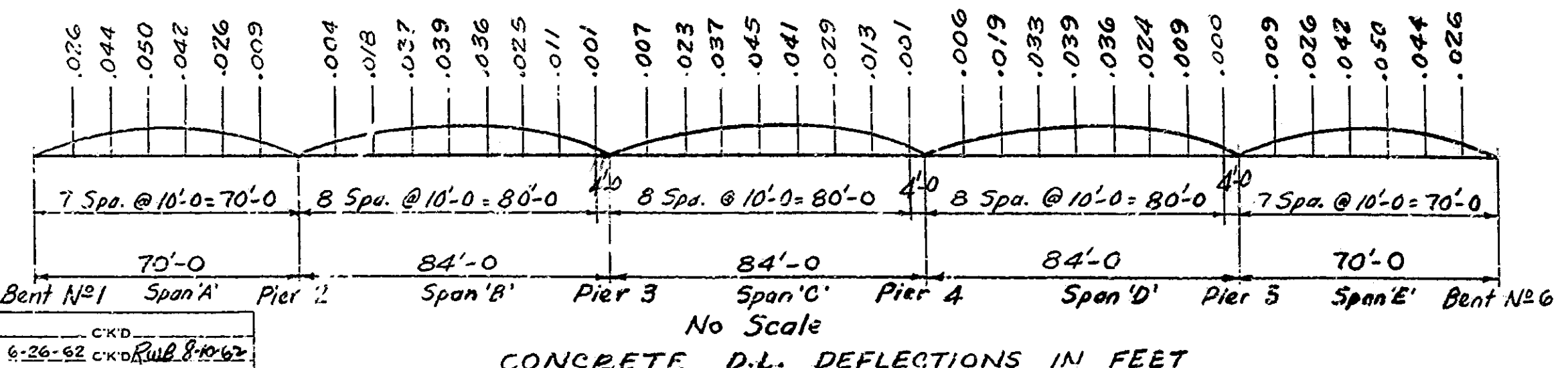
SKETCH SHOWING PUNCHING OF BEAM WEB
No Scale

-ELEVATIONS "E"

E1	770.019	E2	770.047
E3	770.121	E4	770.149
E5	770.182	E6	770.210
E7	770.159	E8	770.187
E9	770.095	E10	770.123



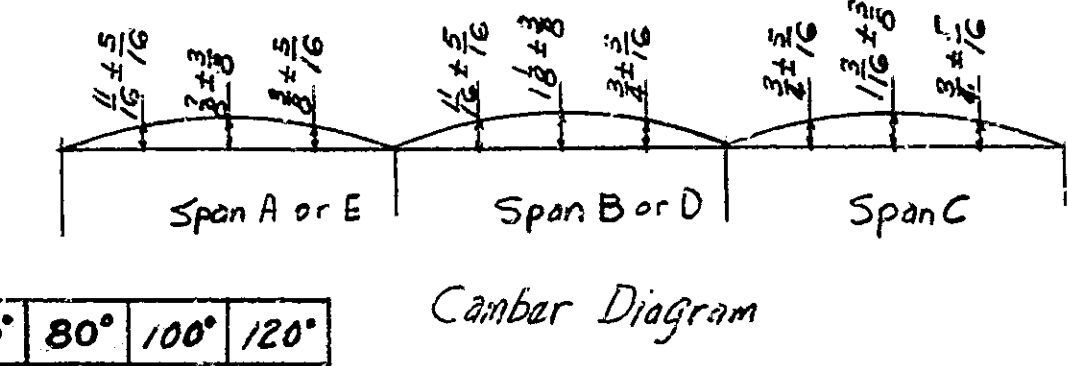
PART PLAN TOOTHED EXPANSION PLATE
No Scale



CONCRETE D.L. DEFLECTIONS IN FEET

TABLE II

TEMPERATURE	0°	20°	40°	60°	80°	100°	120°
Dim. "C" Bent No. 6	1-0 1/2	11 7/8	11 3/4	10 7/8	10 5/8	9 7/8	9 1/4
Dim. "D" Bent No. 1	5 1/2	4 7/8	4 3/8	3 7/8	3 3/8	2 7/8	2 1/4



Camber Diagram

STEEL DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED August 15 1962

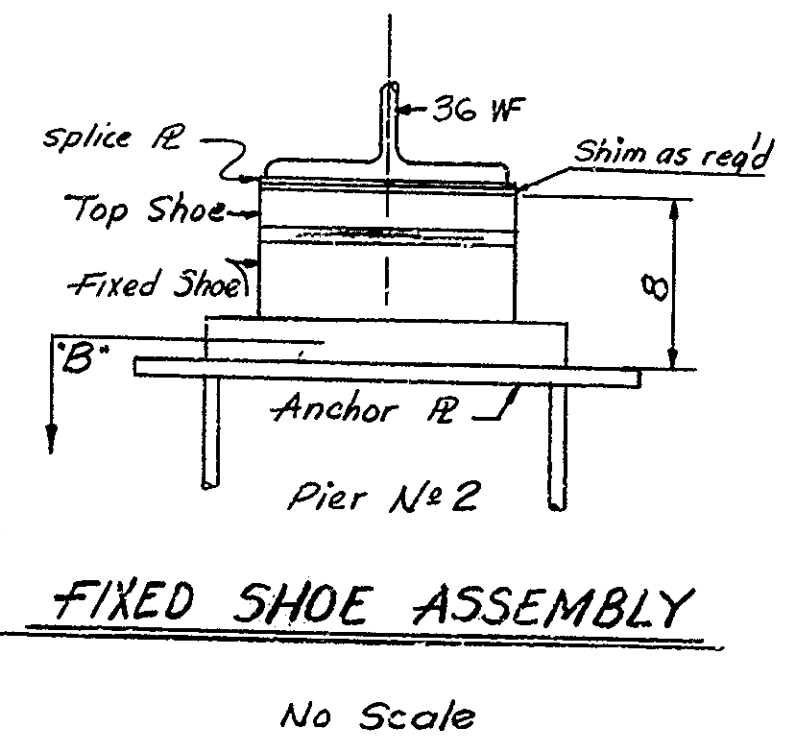
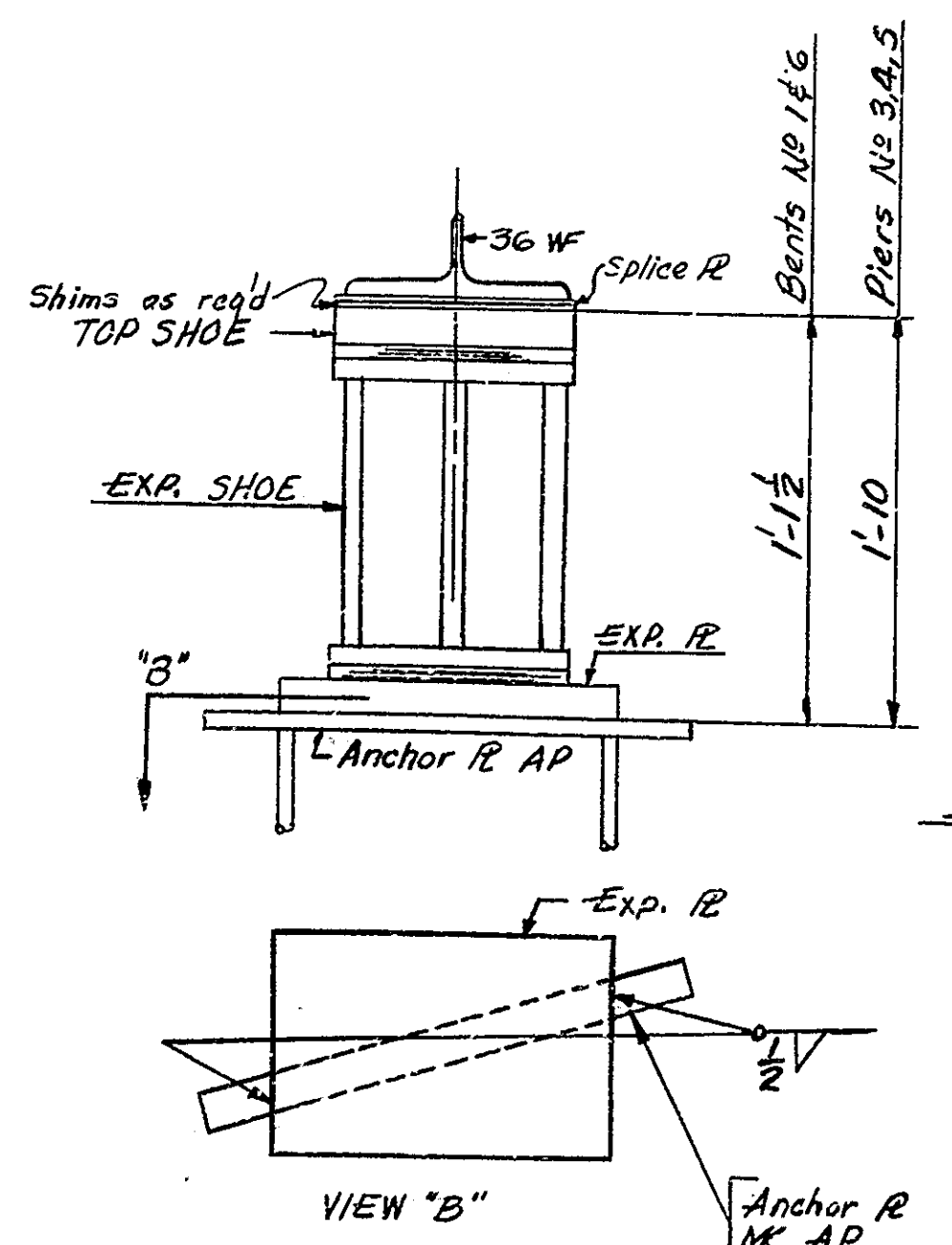
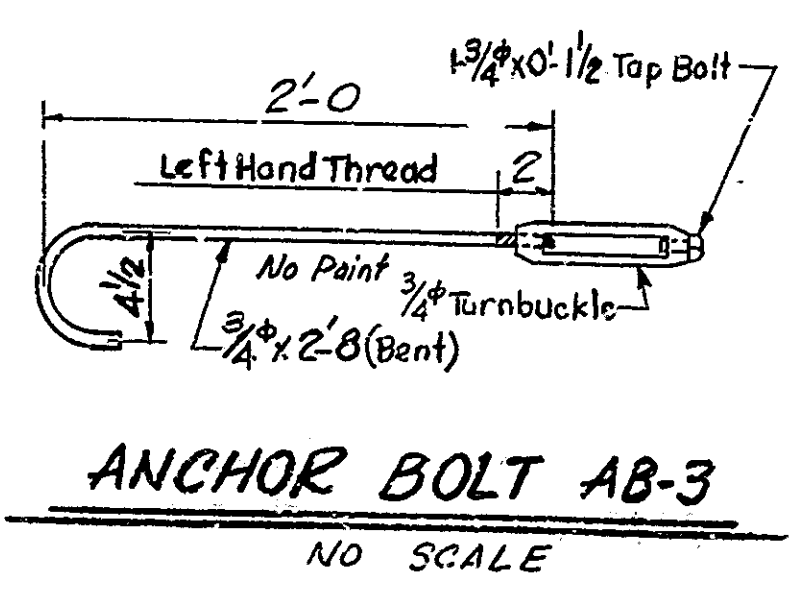
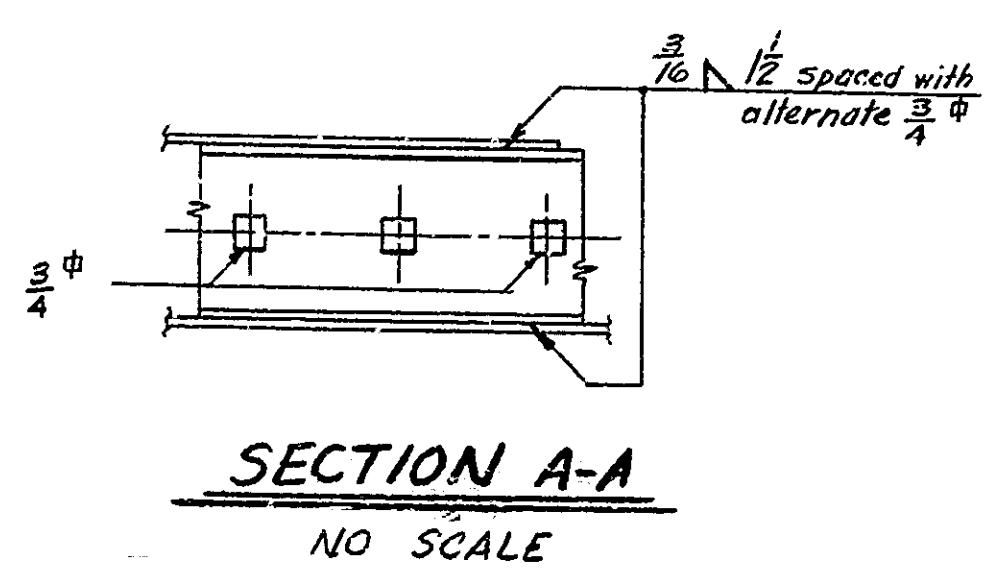
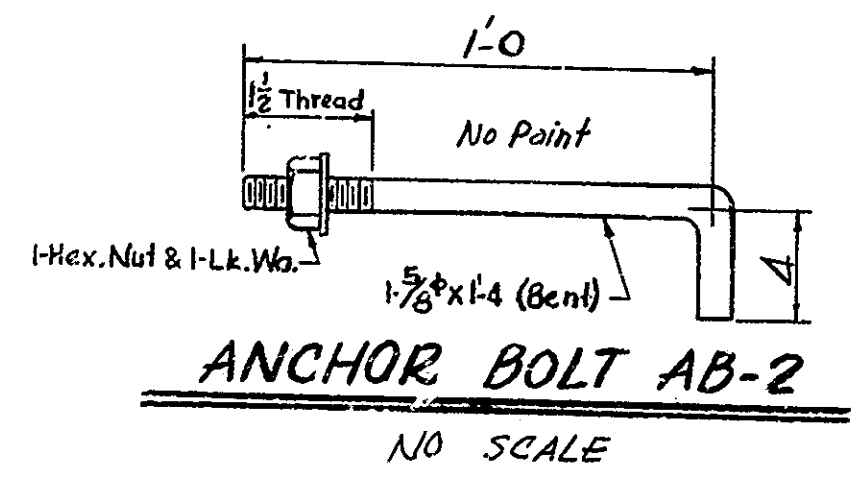
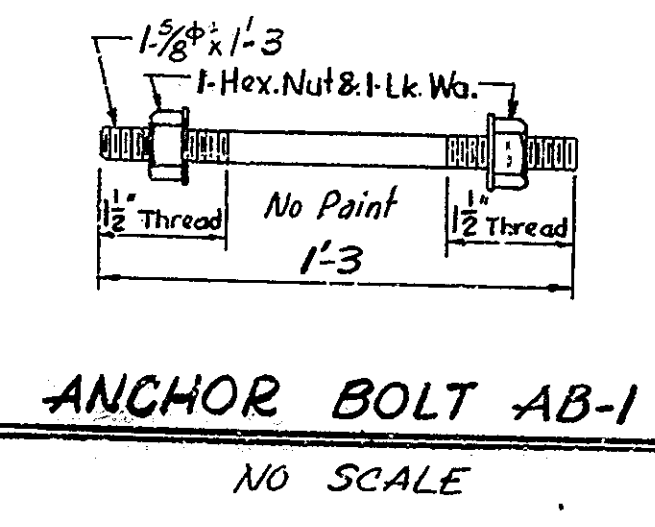
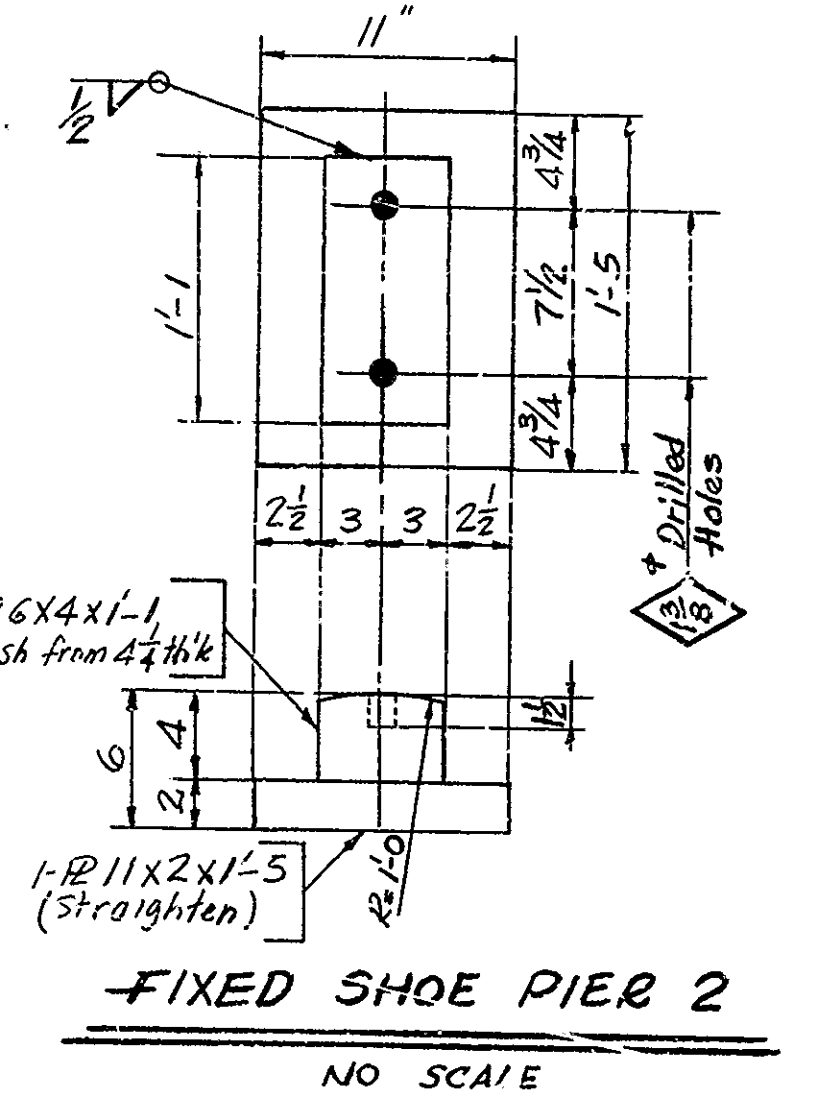
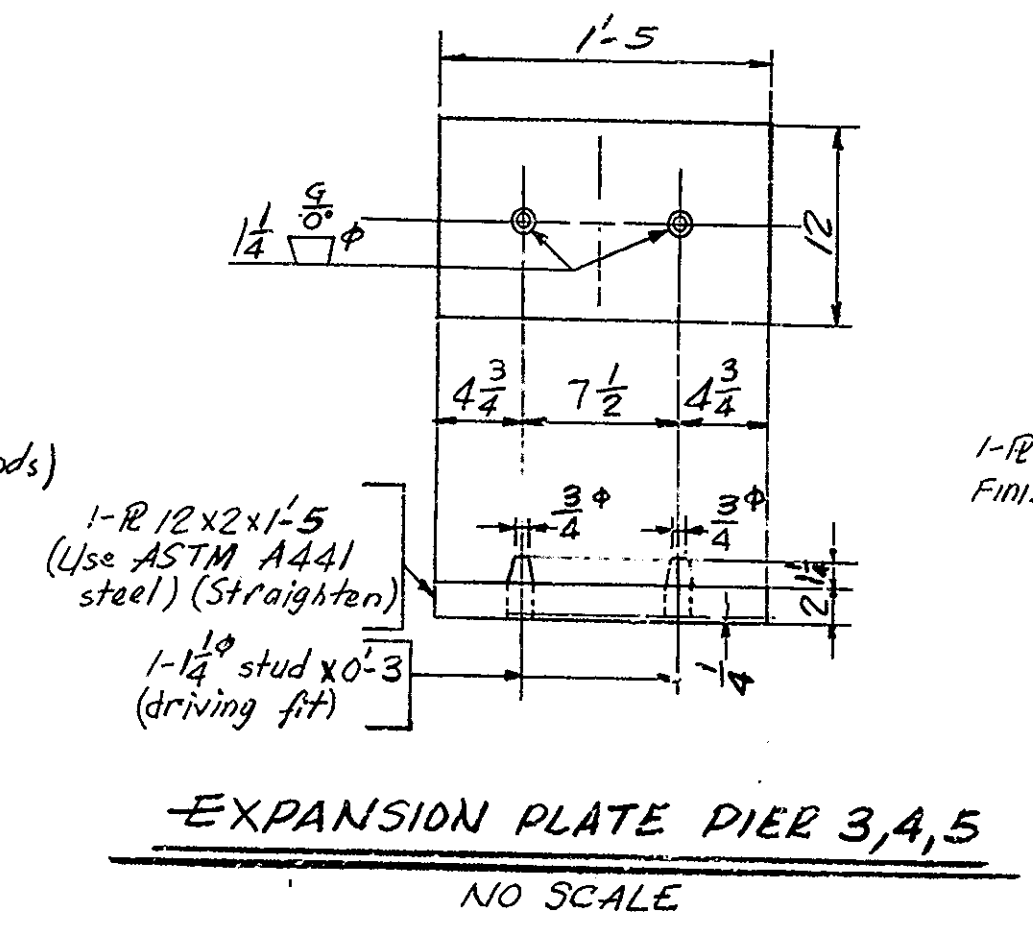
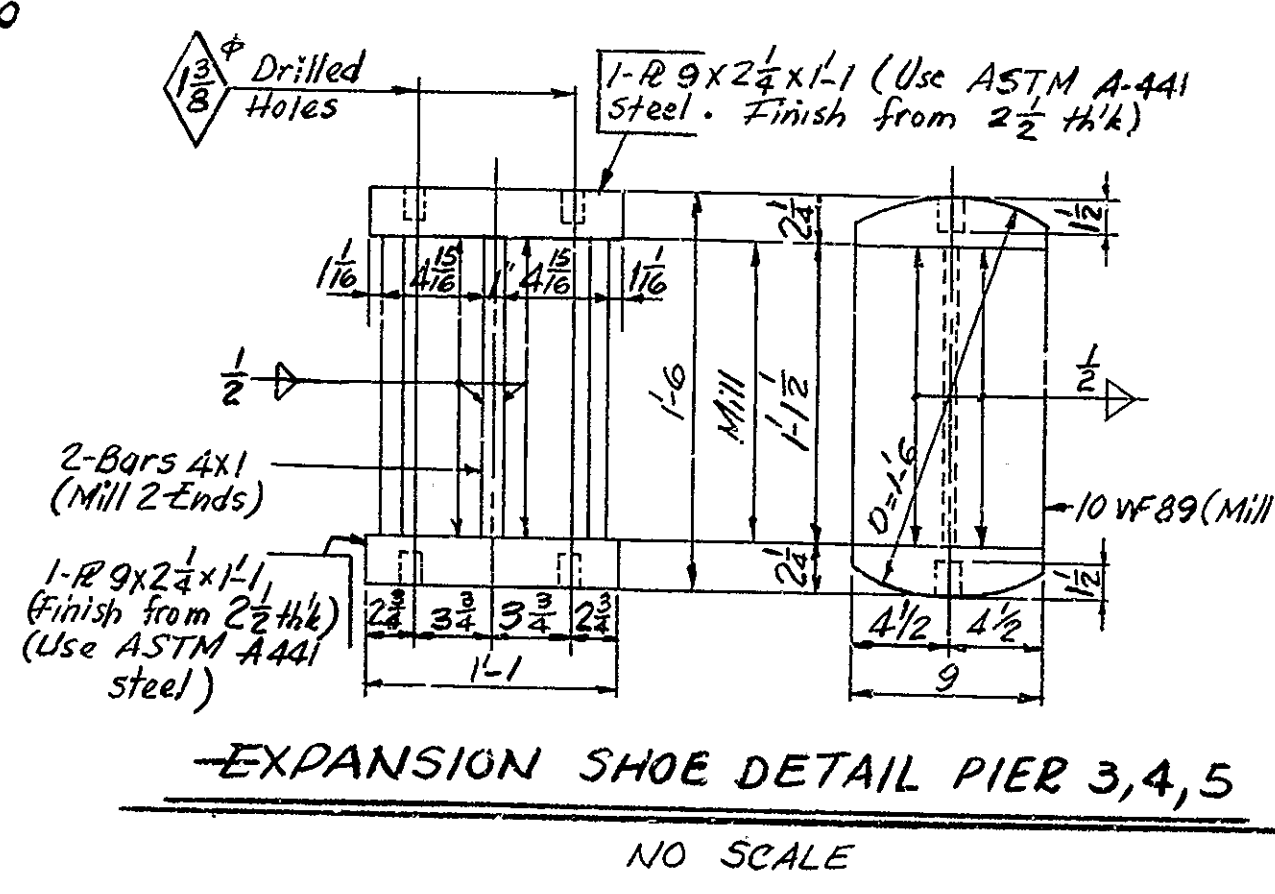
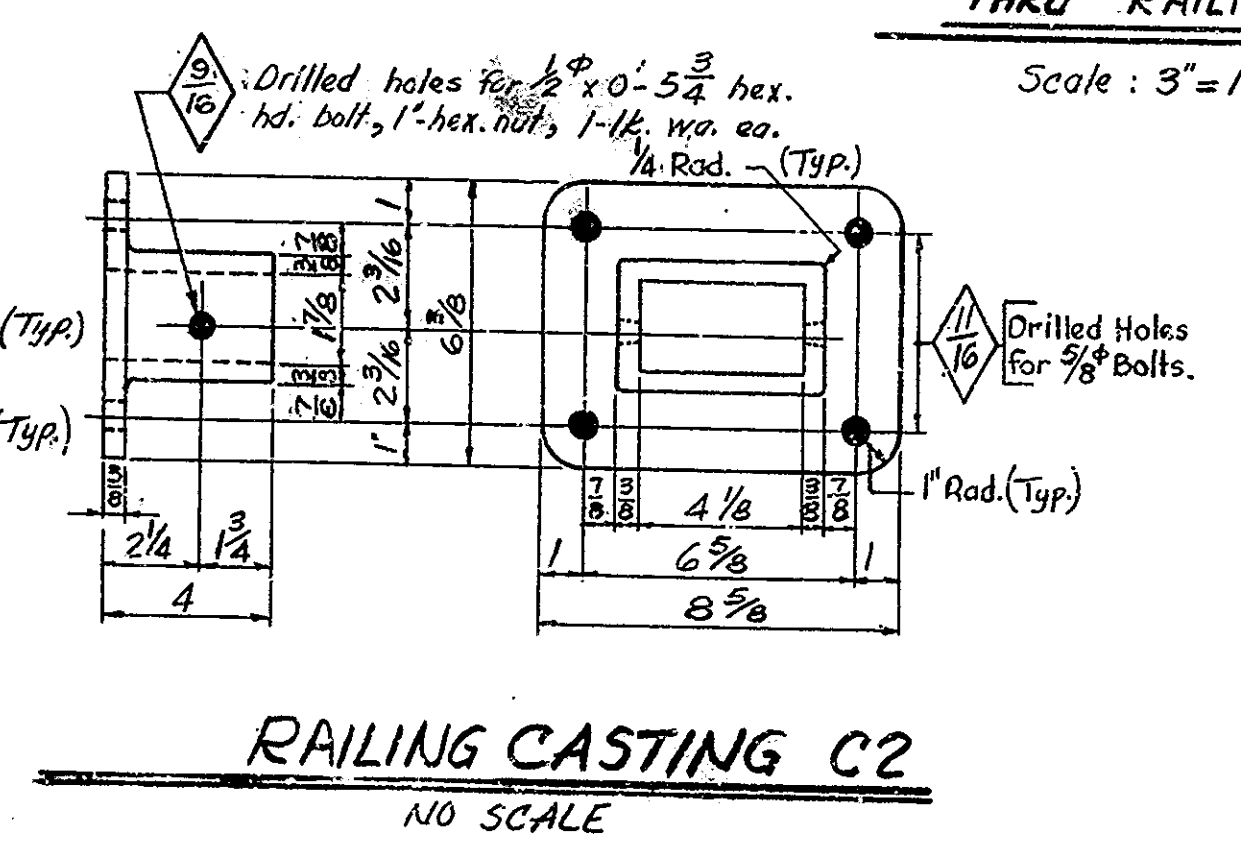
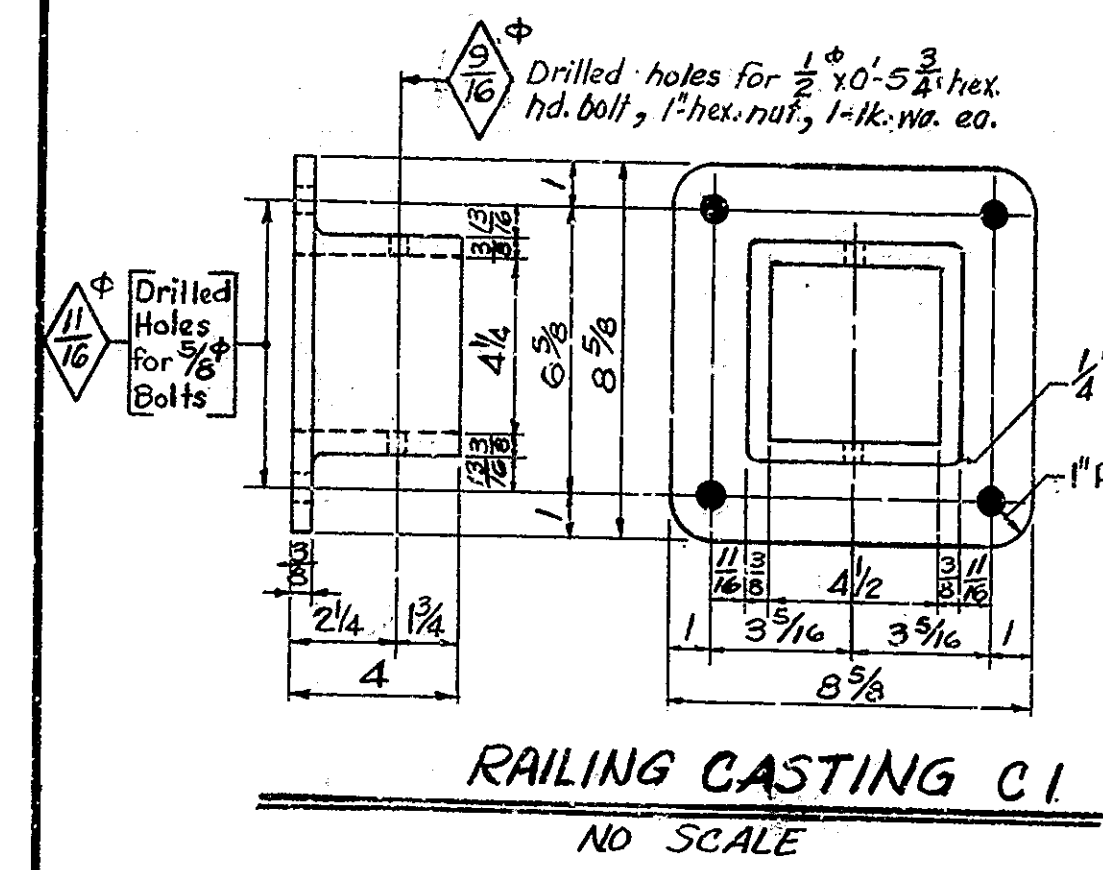
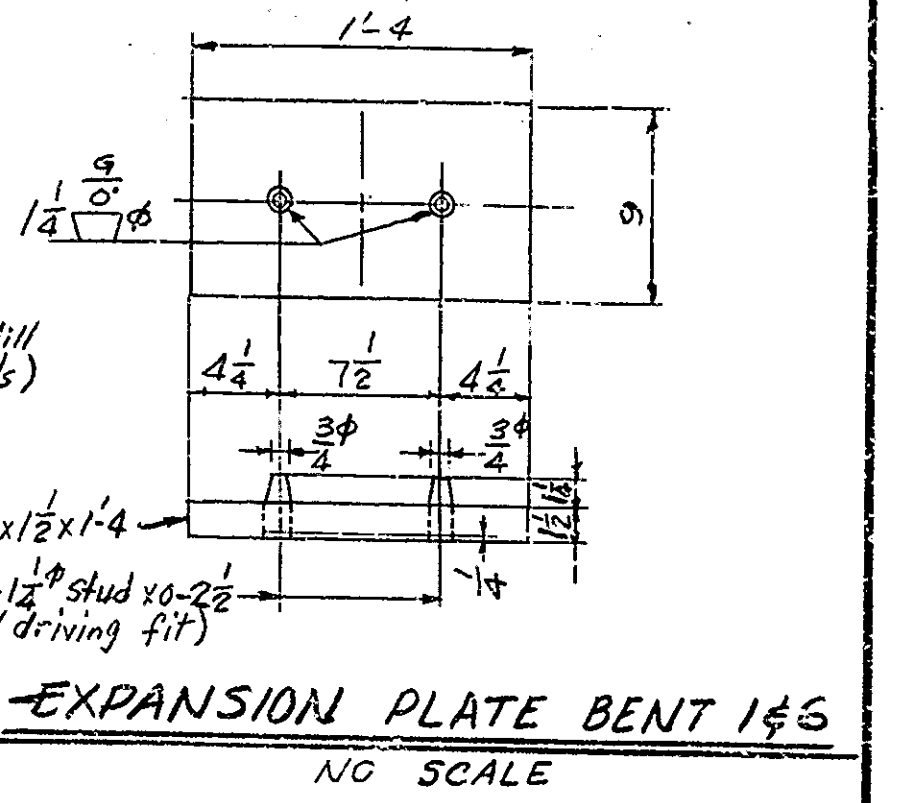
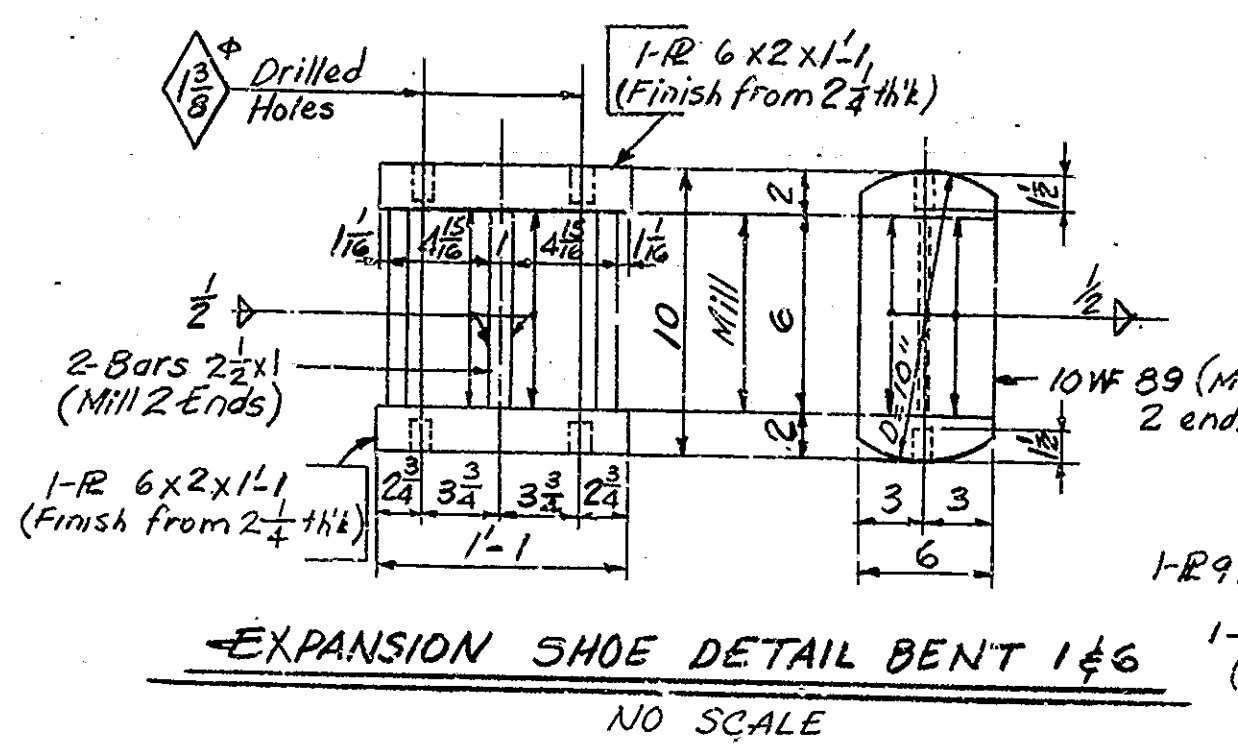
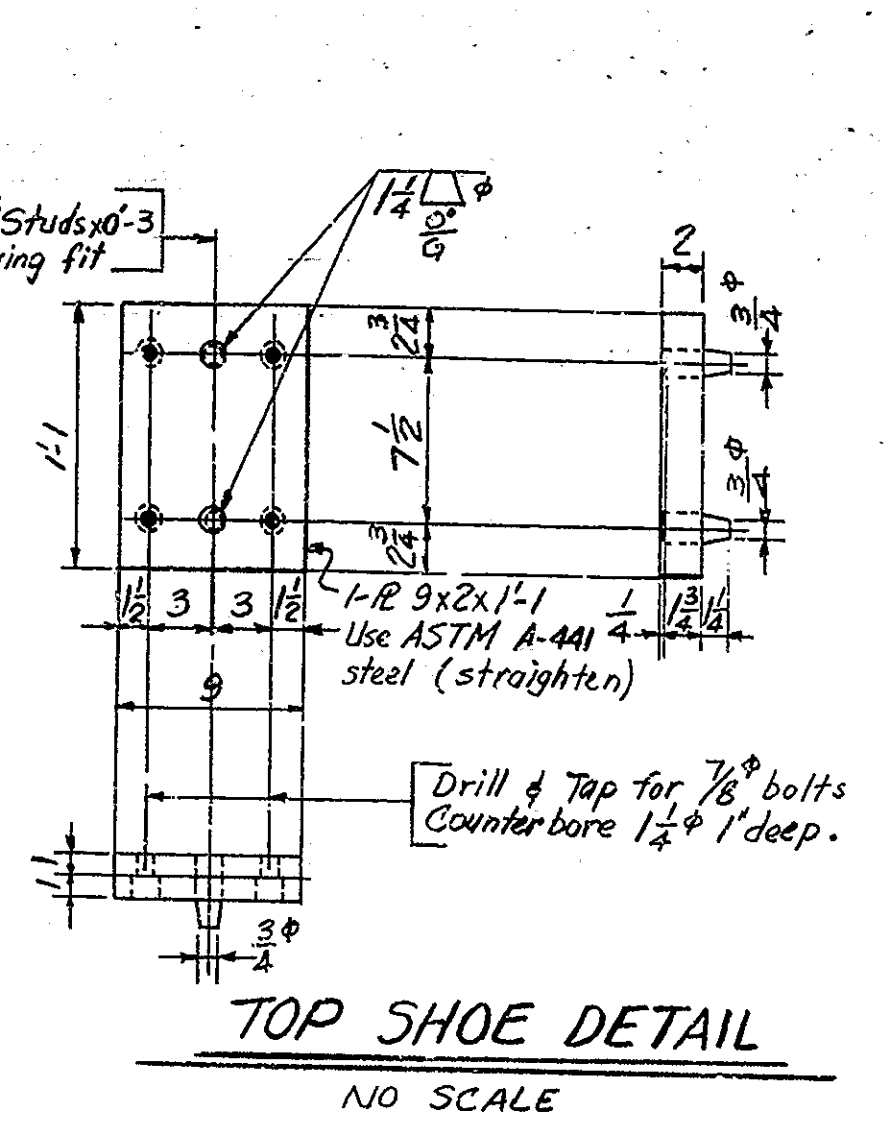
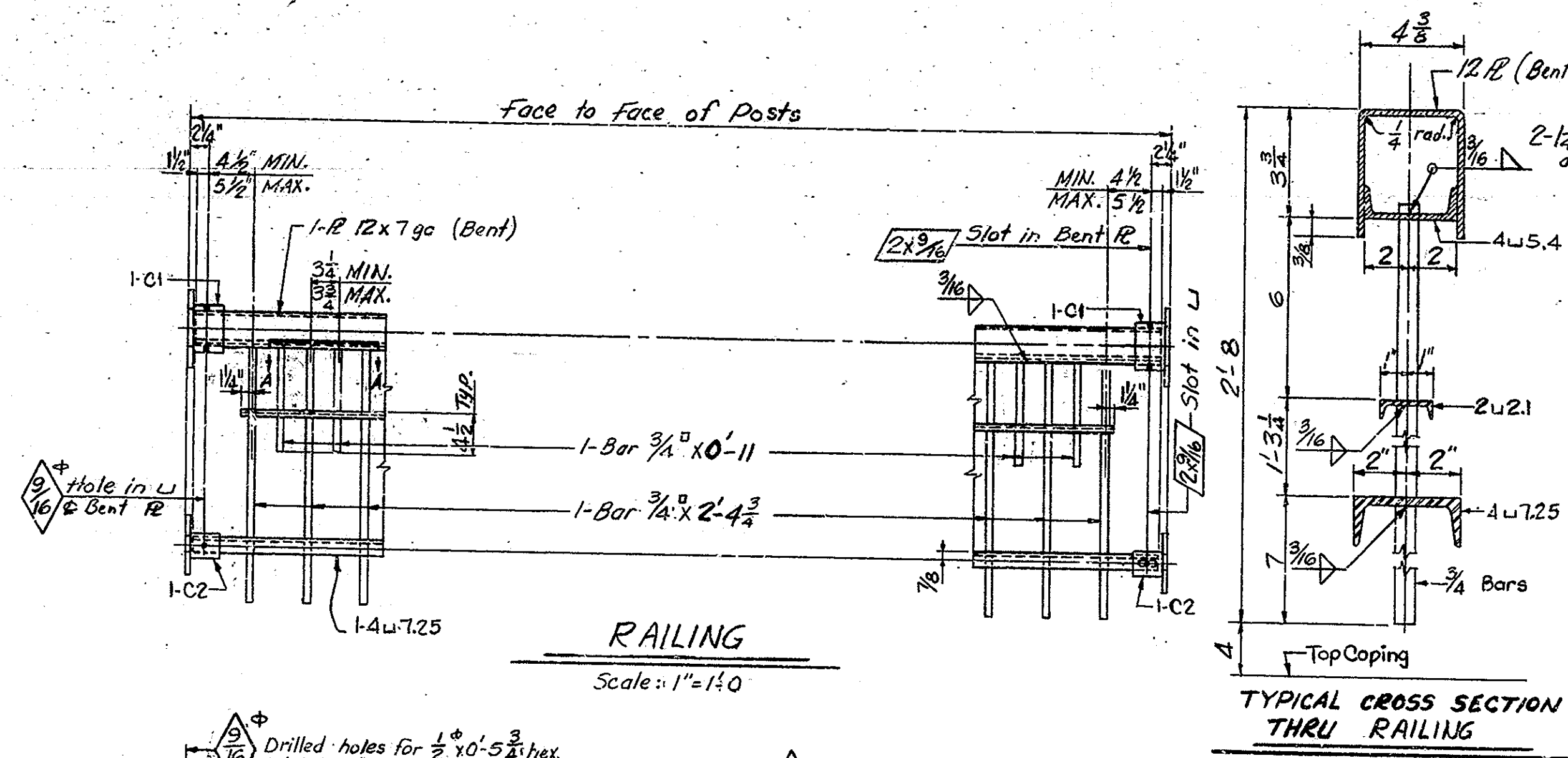
RECOMMENDED FOR APPROVAL: [Signature]

DRAWING: 513 OF 20
PROJECT: U 724 (16)
BRIDGE CONTRACT NO 5752
BRIDGE FILE: 30-NN-3376 J

DESIGNED: CKD
DRAWN: CKD
CHECKED: CKD
TRACED: CKD

Rev. 8-27-62 Camber Diagram

BRIDGES OVER 20' SPAN						
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
4	IND.	U-724 (16)	1963	18	32	



NOTES

Open Holes as noted

Castings C1 and C2 to be fastened to railings with 1-1/2\"/>

For General Notes see Drwg. S 12

For Location of Anchor Bolts AB1, AB2, & AB3 See Drwg. S.10

All Welding on Railing to be neatly done. Rough edges sharp corners to be ground smooth.

RAILING AND SHOE DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

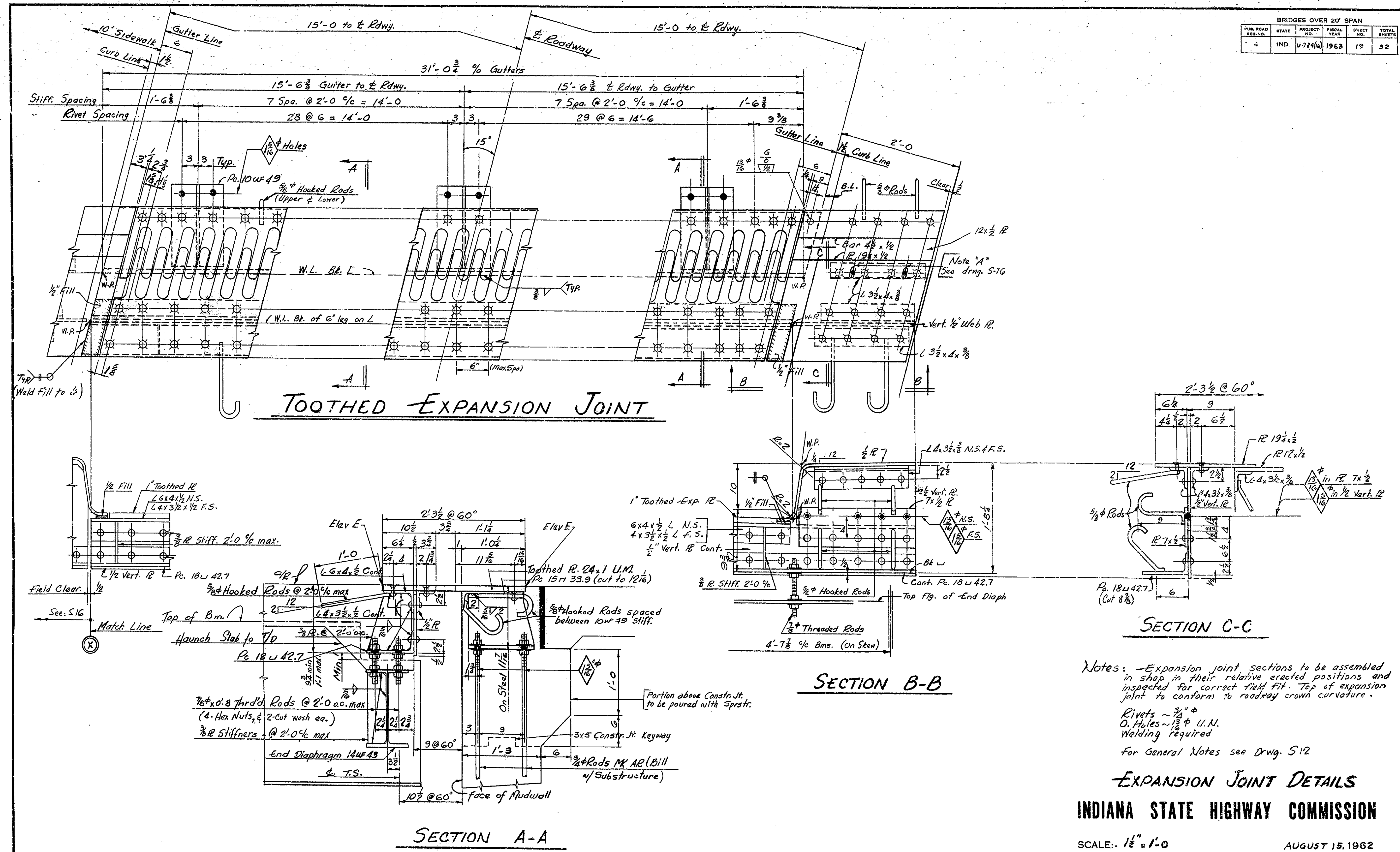
SCALE: AS NOTED
AUGUST 15, 1962

RECOMMENDED FOR APPROVAL: *CR Rimmer*
CHIEF OF ROAD DISTRICT

DRAWING: S 14 OF 20
PROJECT: U-724 (16)
BRIDGE CONTRACT NO. 5752

DESIGNED: *SN B9-62*
DRAWN: *SN B9-62*
TRACED: *SN B9-62*

BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	U-724(16)	1963	19 32



Notes: Expansion joint sections to be assembled in shop in their relative erected positions and inspected for correct field fit. Top of expansion joint to conform to roadway crown curvature.

Rivets - $\frac{3}{4}$ "
 O. Holes - $\frac{1}{16}$ " U.N.
 Welding required

For General Notes see Drwg. S12

EXPANSION JOINT DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: $\frac{1}{2}$ " = 1'-0
 AUGUST 15, 1962

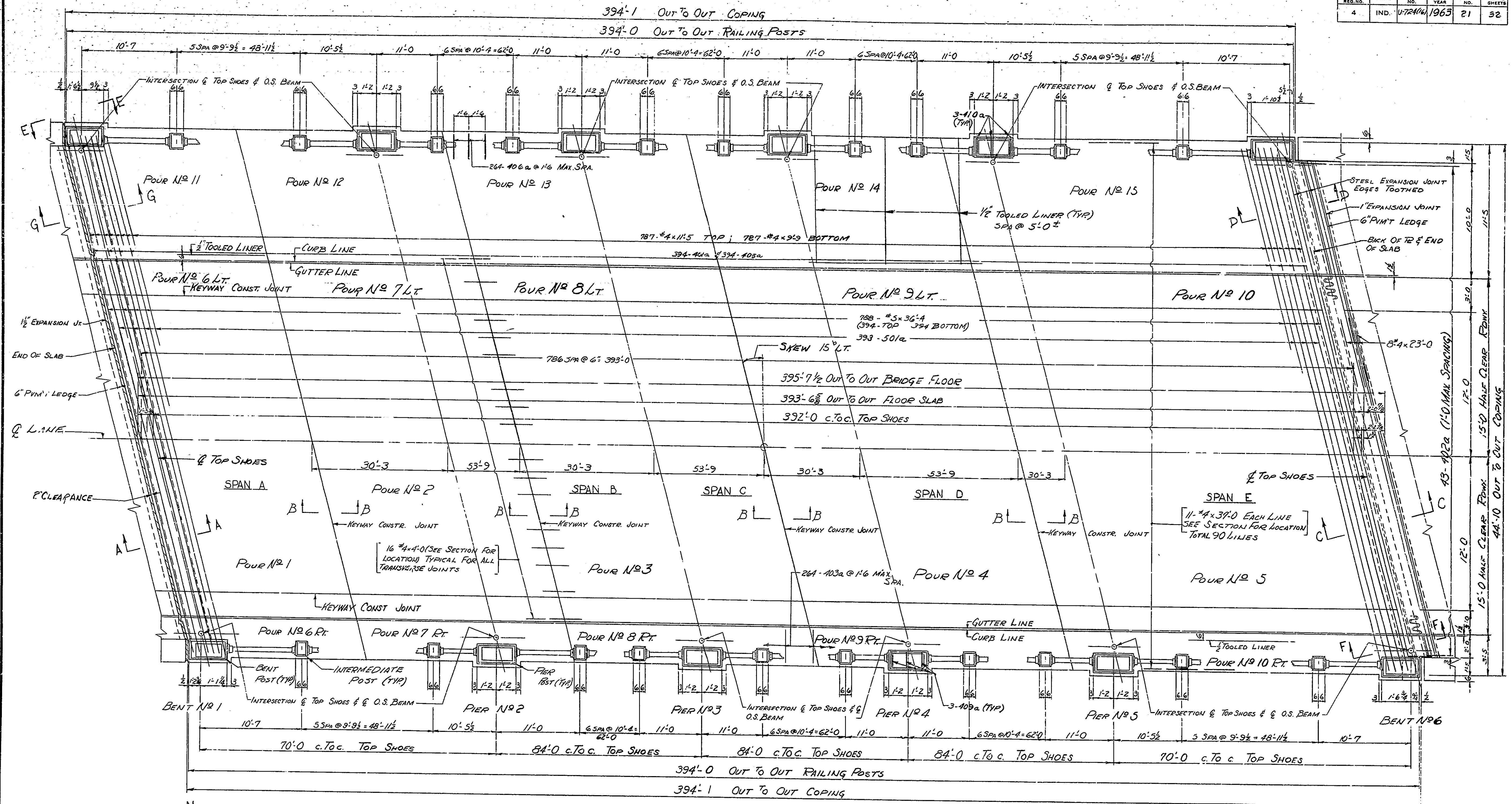
RECOMMENDED FOR APPROVAL: *C. R. Hummer*
 ENGINEER OF BRIDGE DESIGN

DRAWING: S15 OF 20
 PROJECT: U-724(16)
 BRIDGE CONTRACT NO. 5752
 BRIDGE FILE: 30-NW-3376 J

DESIGNED: D.P.R. CKD
 DRAWN: S.N. 7-11-52 CKD
 TRACED: CKD

Rev. 8-27-62 Notes, Keyway.

BRIDGES OVER 20' SPAN					
PUR. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	21	52



NOTES:

FOR SECTIONS: A-A, B-B, C-C, D-D, F-F, G-G, L TO Q, ROADWAY & VIEW E-E SEE DRWG. S13 & S20
 FOR REINFORCING BAR NOTES SEE BRIDGE STANDARD C1.
 AFTER STRUCTURAL STEEL HAS BEEN ERECTED, CONCRETE FORMS SHALL NOT BE BLOKED AGAINST THE EXPANSION END OF THE STEEL IN MAKING ANY POURS ADJACENT TO STEEL SPANS.
 SEQUENCE OF POURS TO BE MADE IN ORDER OF POUR NUMBERS.
 TRANSVERSE CONSTRUCTION JOINTS ARE OPTIONAL AND POURS MAY BE MADE CONTINUOUS PROVIDED THE POUR TERMINATES AT A CONSTRUCTION JOINT INDICATED ON THE PLAN.
 FOR RAILING POST DETAILS SEE DRWG. S18
 FOR RAILING DETAILS SEE DRWG. S14

PLAN

FLOOR DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: - NO SCALE
 AUGUST 15 1962

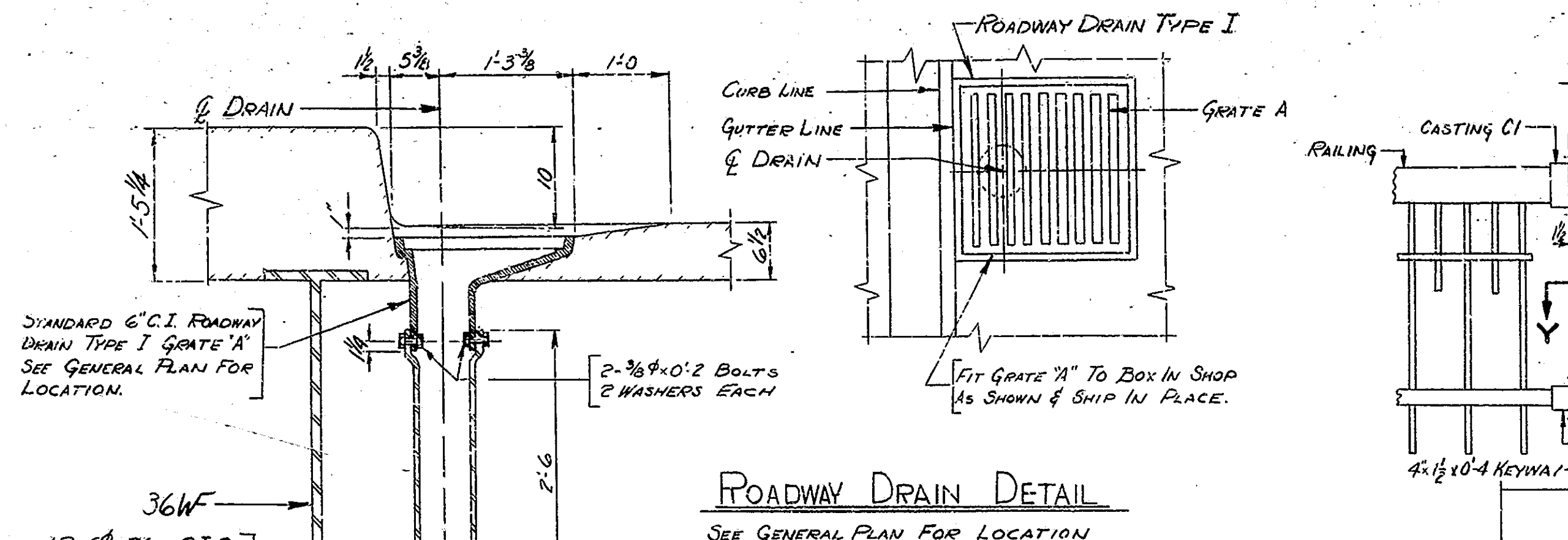
RECOMMENDED FOR APPROVAL: *[Signature]*
 ENGINEER OF BRIDGE DESIGN

DRAWING: S17 OF 20
 PROJECT: U-724(16)
 BRIDGE CONTRACT NO. 5752
 BRIDGE FILE: 30-111-3376J

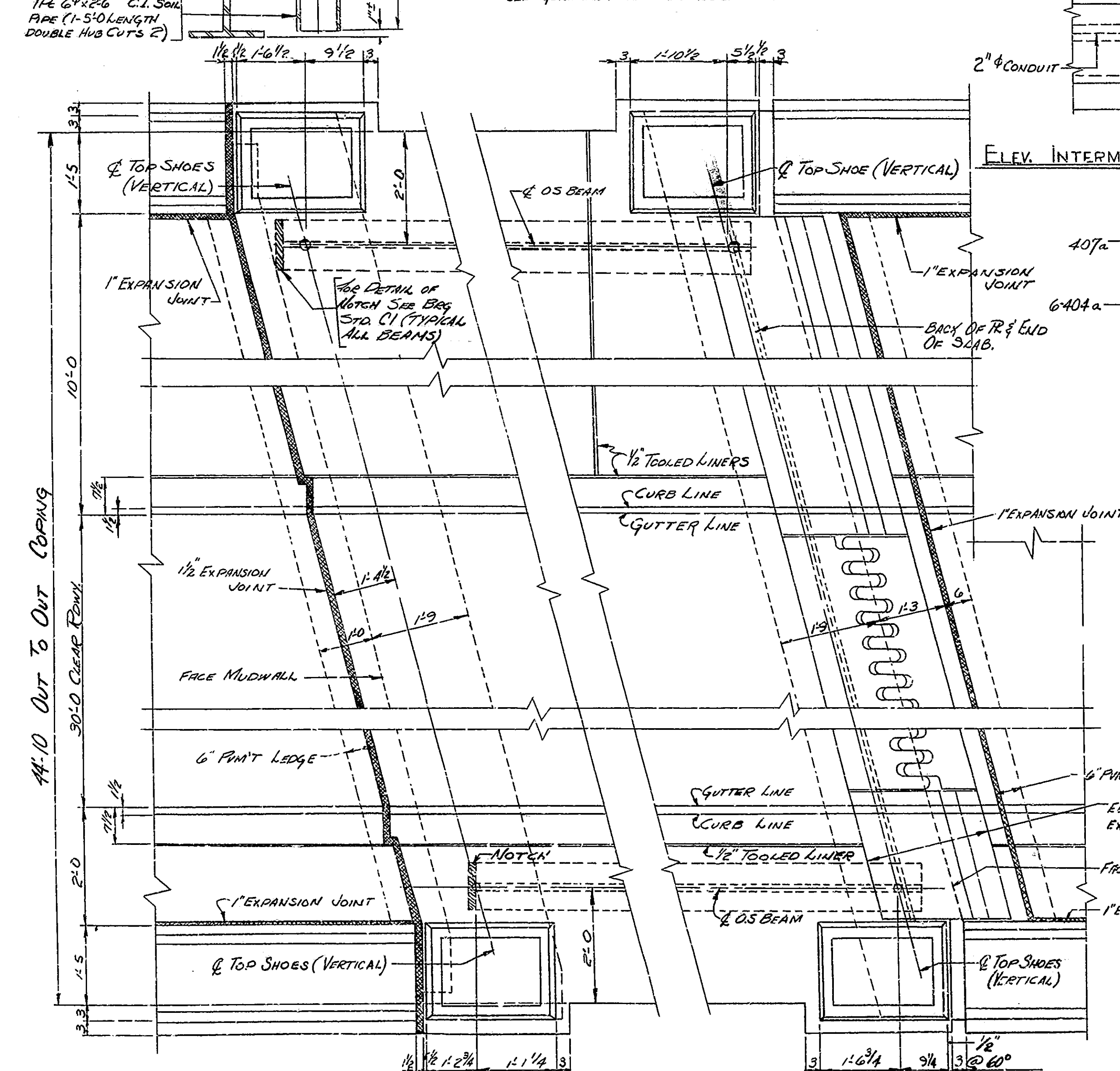
DESIGNED: CKD
 DRAWN: *[Signature]*
 TRACED: CKD

REVISED 8-27-62 CHANGE LONG. REIN.

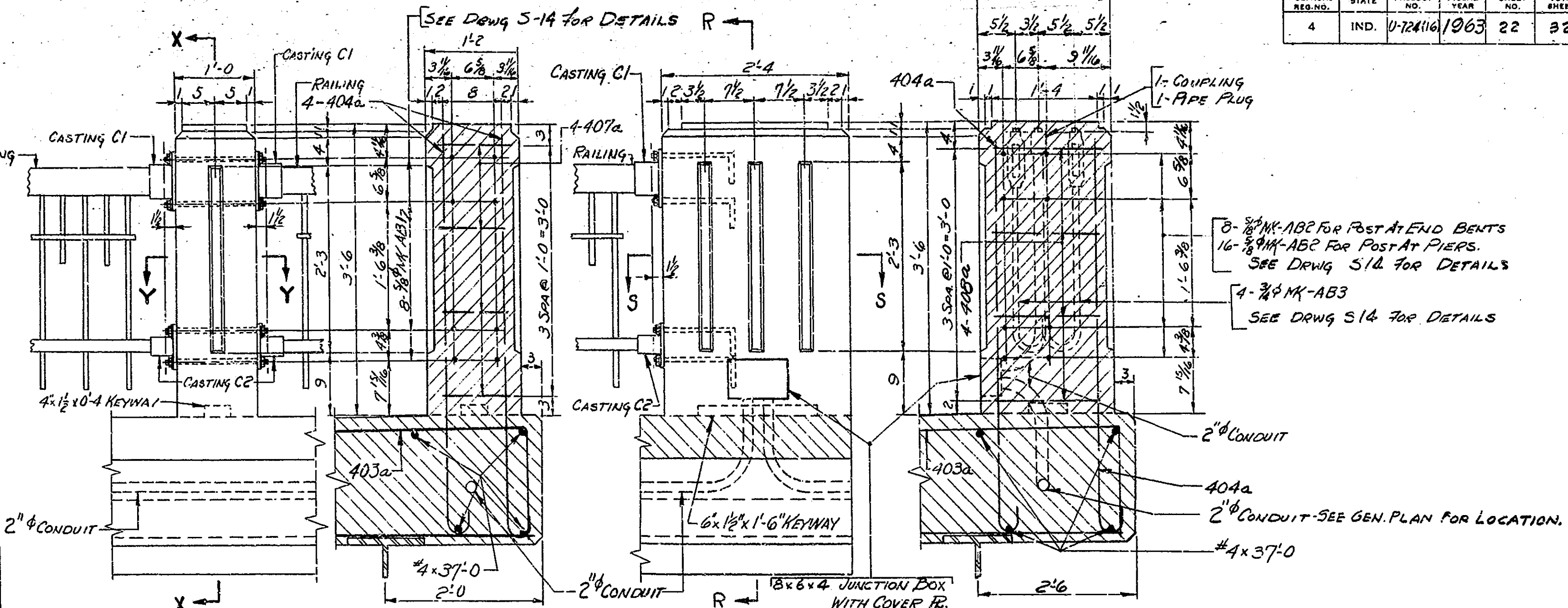
BRIDGES OVER 20' SPAN					
RUR. ROAD NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	22	32



ROADWAY DRAIN DETAIL
SEE GENERAL PLAN FOR LOCATION



CORNER DETAILS
Not To Scale

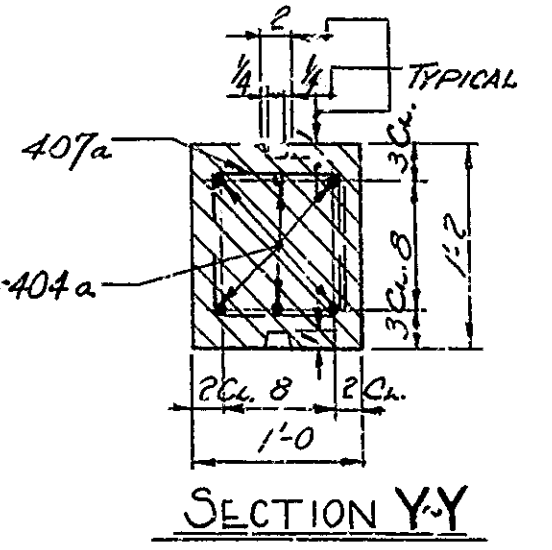


ELEV. INTERMEDIATE POST

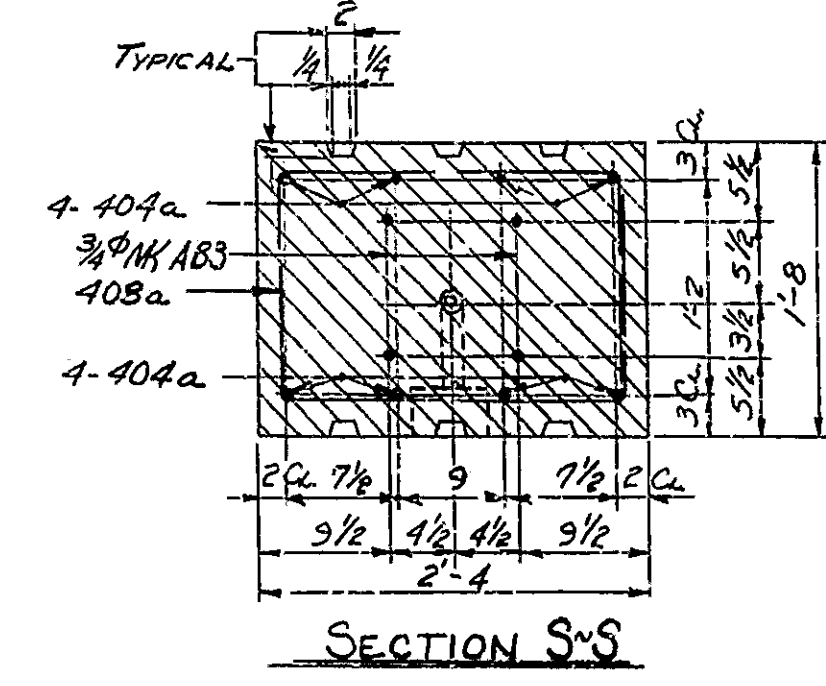
SECTION X-X

ELEV. BENT POST

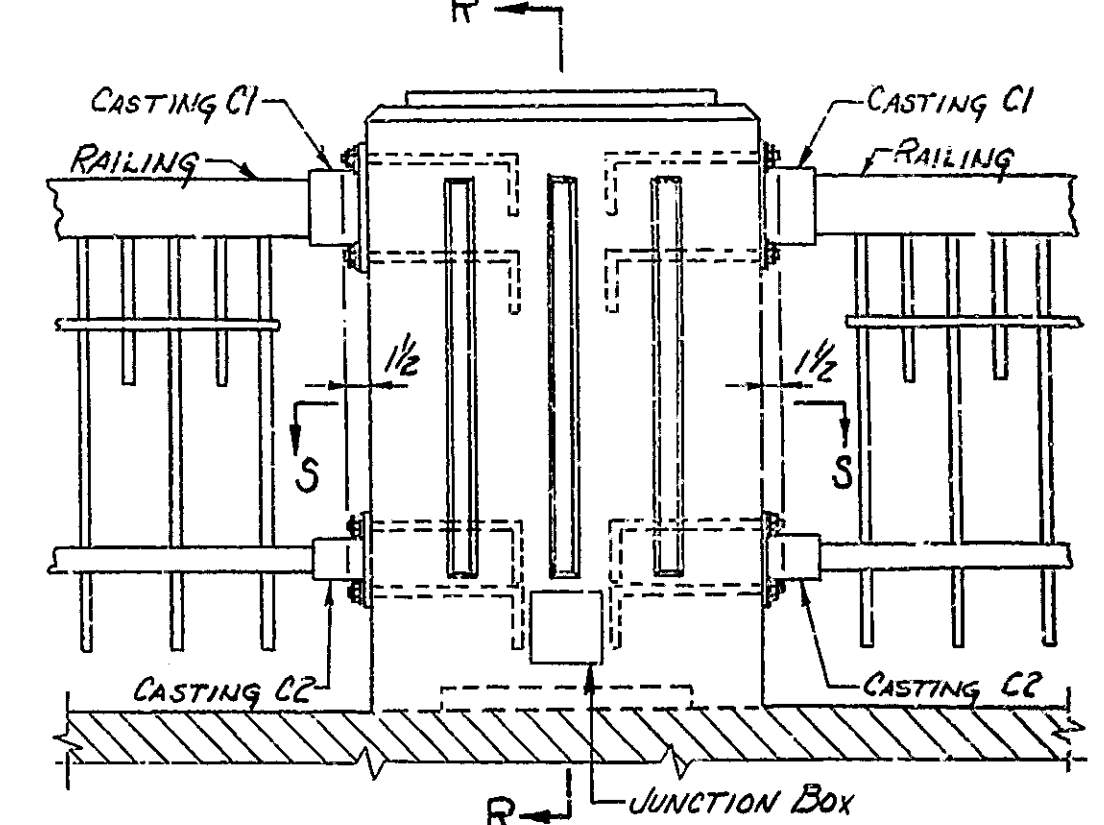
SECTION P-R



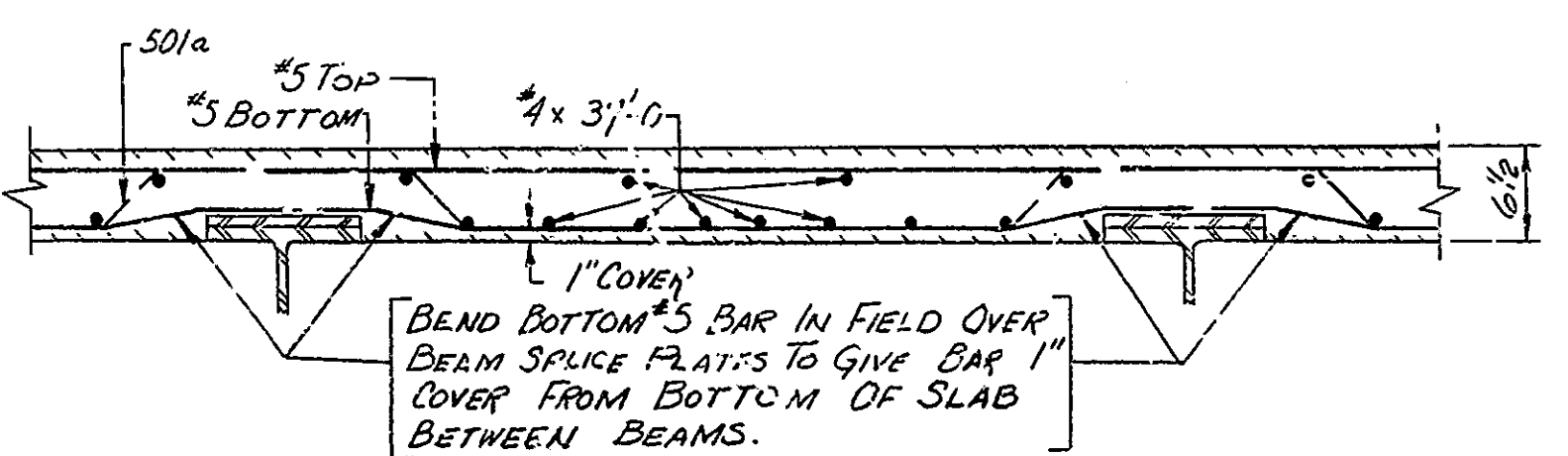
SECTION Y-Y



SECTION S-S



ELEV. PIER POST
DETAILS NOT SHOWN - SAME AS BENT POST



FIELD BEND REQUIRED ON BOTTOM BARS OVER BEAM SPLICE
Not To Scale

NOTES:
FOR REINFORCING BAR NOTES SEE BRIDGE STD. C1
ANCHOR BOLTS AB1, AB2, AB3; 2\"/>

DESIGNED: CKD
DRAWN: RLB
TRACED: CKD

REVISED 3-27-62 FLOODED POST FEEL.

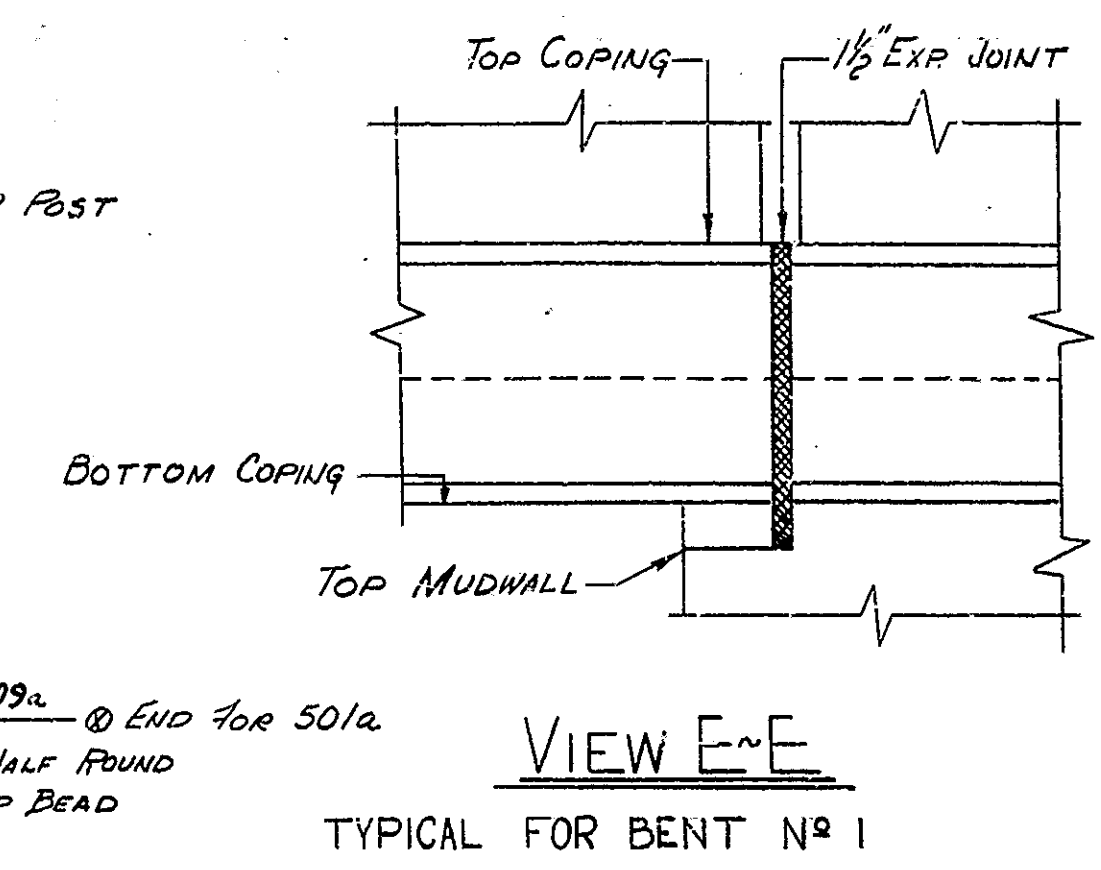
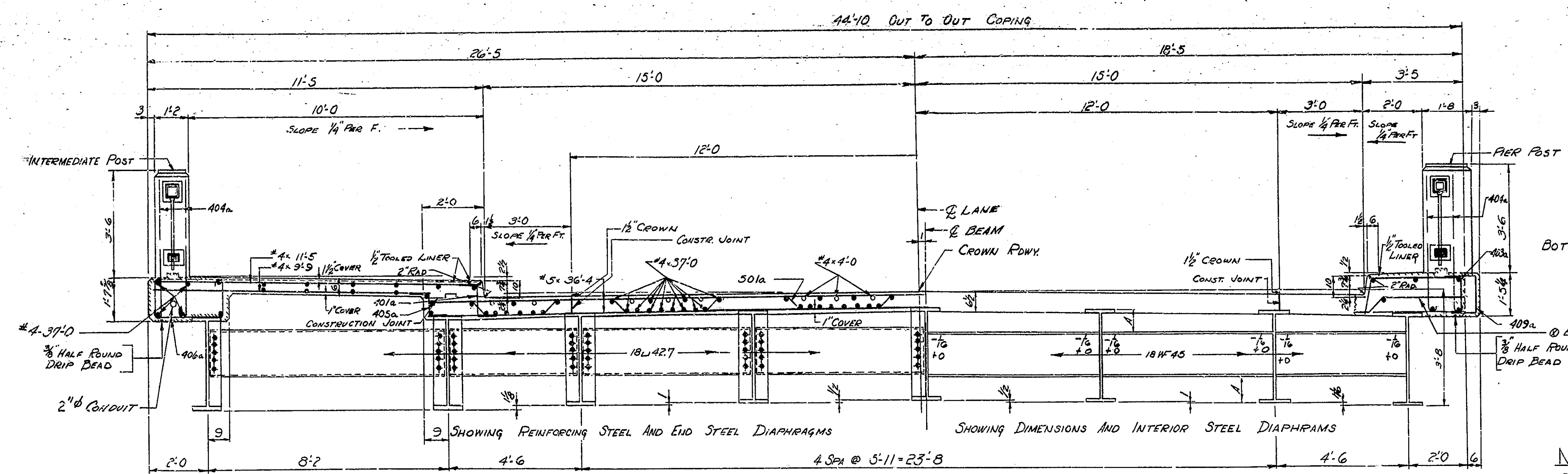
SCALE: 1" = 1'-0", UNLESS NOTED
AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *[Signature]*
ENGINEER OF BRIDGE DIVISION

DRAWING: S18 OF 20
PROJECT: U-724 (16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NH-3376J

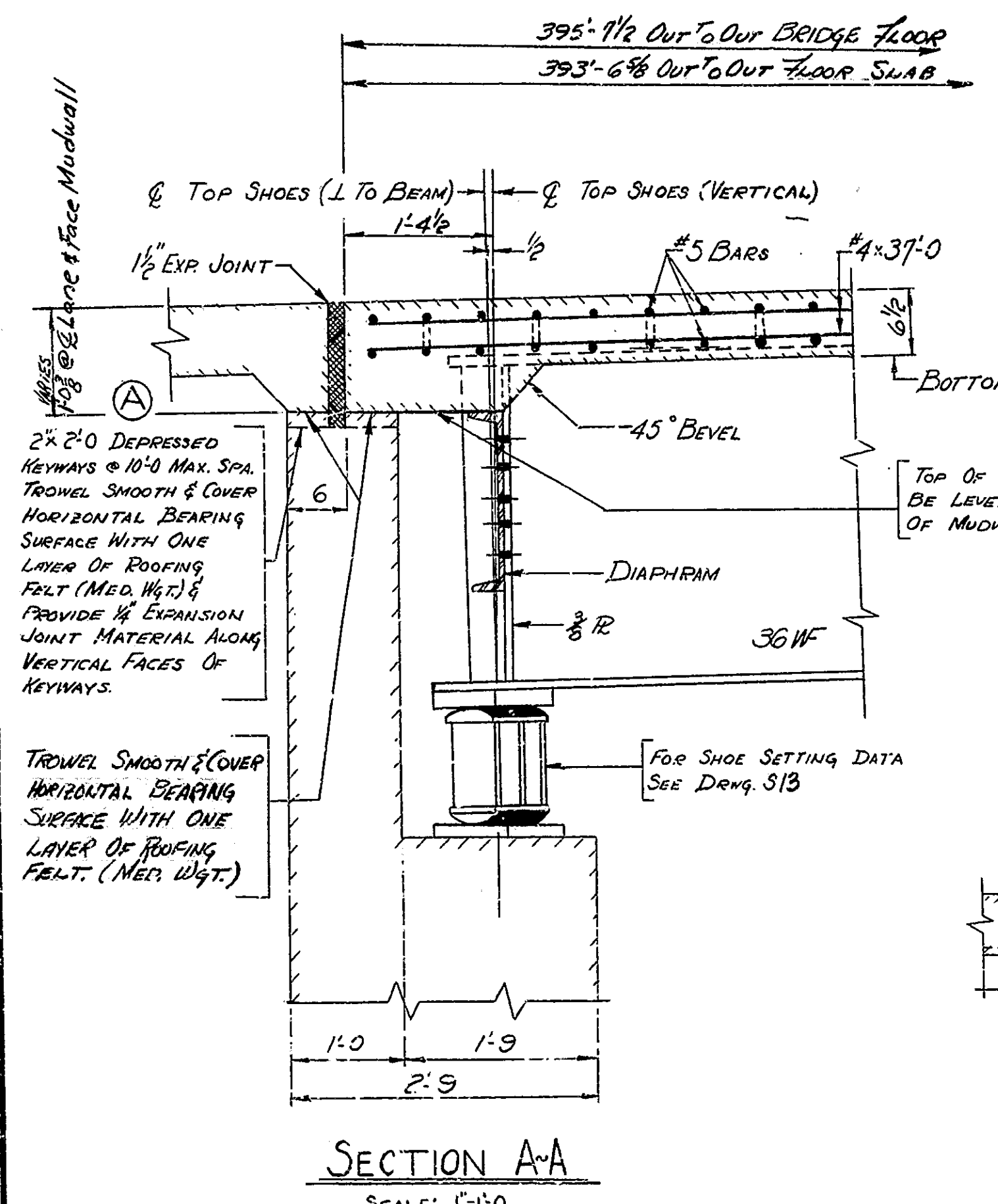
FLOOR DETAILS
INDIANA STATE HIGHWAY COMMISSION

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	29	32

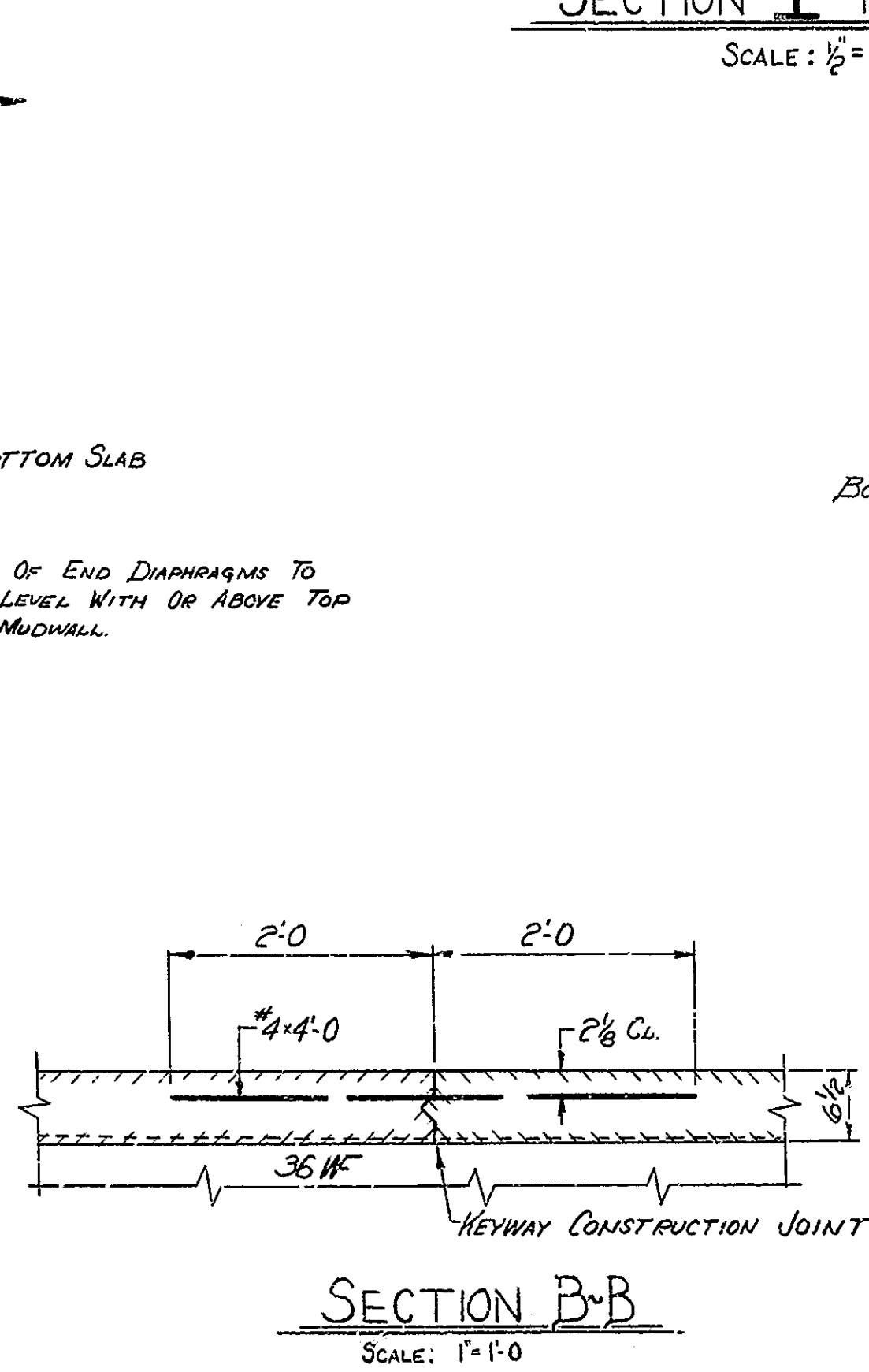


NOTES:
 FOR LOCATION OF SECTION: A-A, B-B, C-C, D-D, I TO @ LANE
 SEE DRAWG. S17
 FOR REINFORCING BAR NOTES SEE BRIDGE STD. C1.
 FOR DETAILS OF NOTCH AT ENDS OF BEAMS SEE BRIDGE STD. C1.

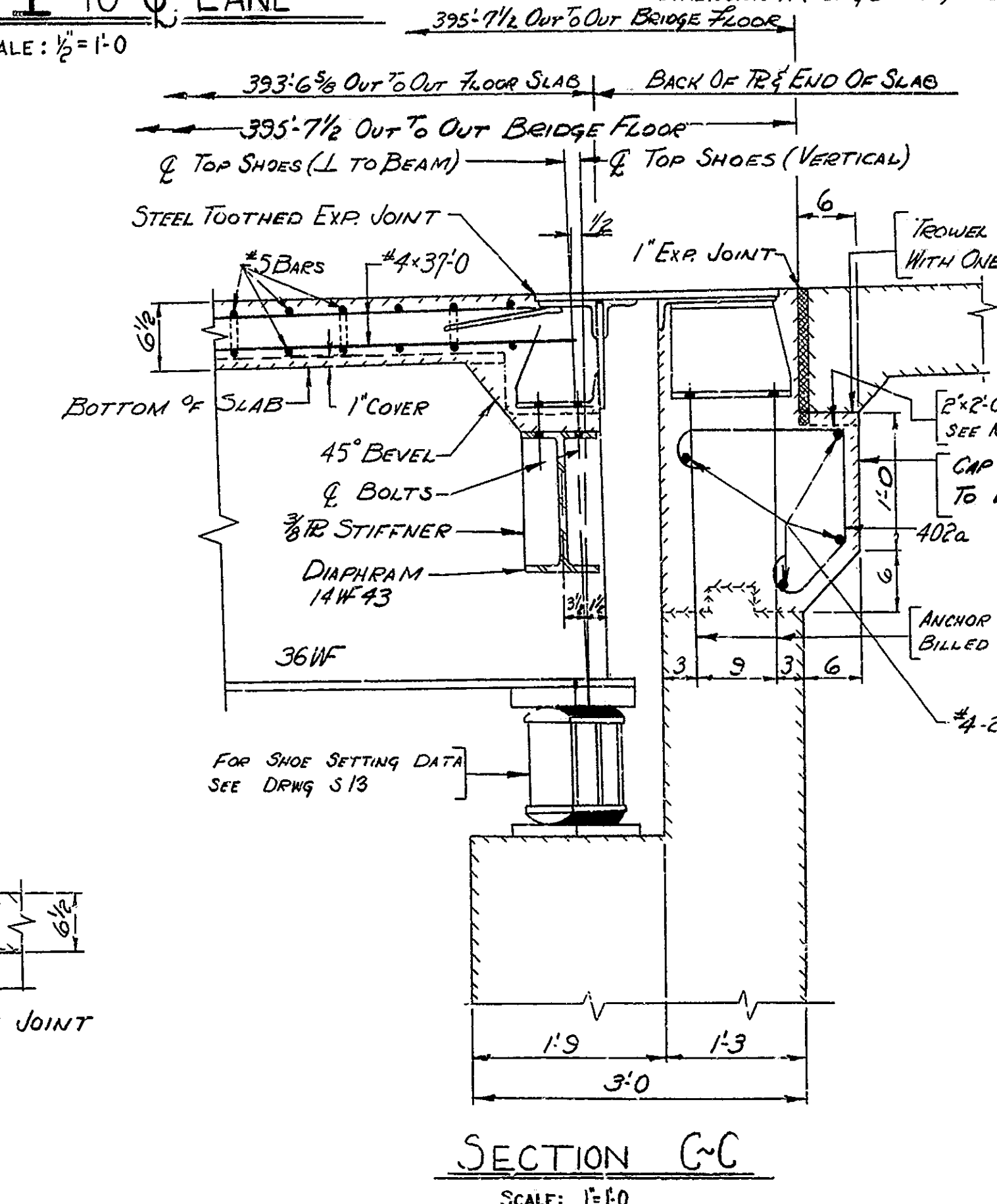
SECTION I TO C LANE
 SCALE: 1/2" = 1'-0"



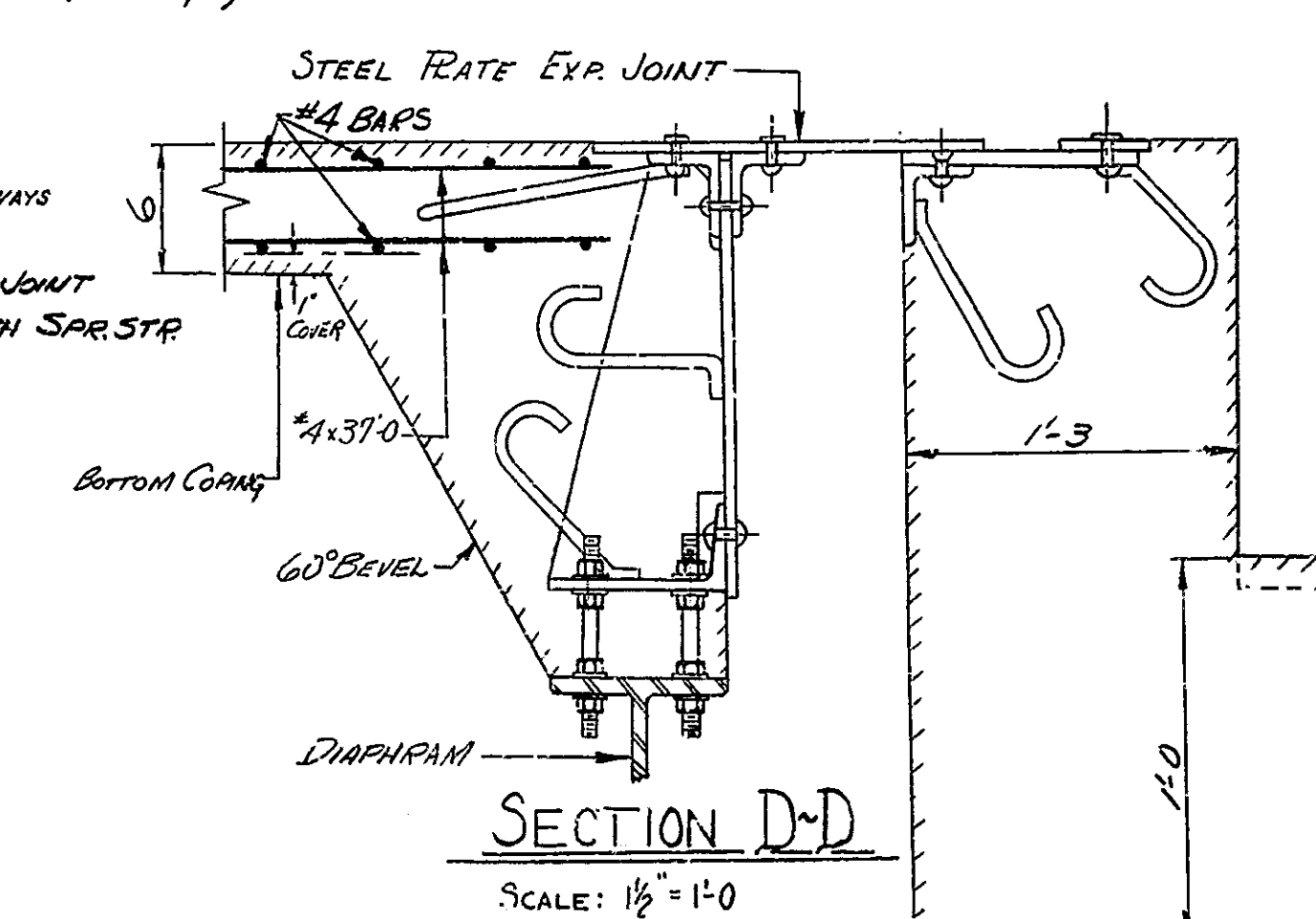
SECTION A-A
 SCALE: 1" = 1'-0"



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



SECTION C-C
 SCALE: 1" = 1'-0"



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

FLOOR DETAILS
 INDIANA STATE HIGHWAY COMMISSION

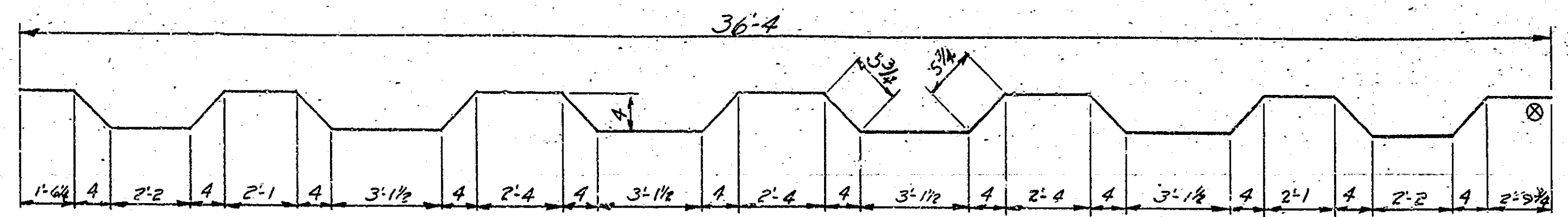
SCALE: AS NOTED
 AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *C.R. ...*
 ENGINEER OF BRIDGE DESIGN

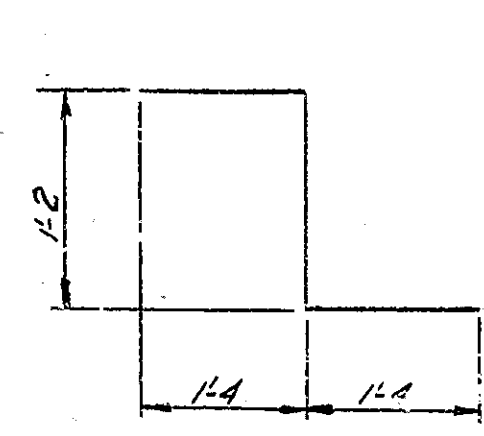
DRAWING: S19 OF 20
 PROJECT: U-724(16)
 BRIDGE CONTRACT NO. 5752
 BRIDGE FILE: 30-NM-3376 U

DESIGNED: C.K.O.
 DRAWN: E.H.K. 7-11-62
 TRACED: C.K.O.
 E.B. 9/7/62

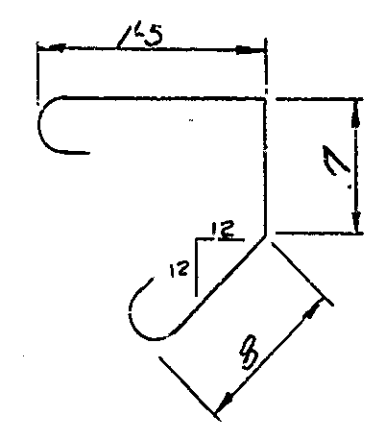
REVISED 8-27-62 COMPLETE SEC. D-D



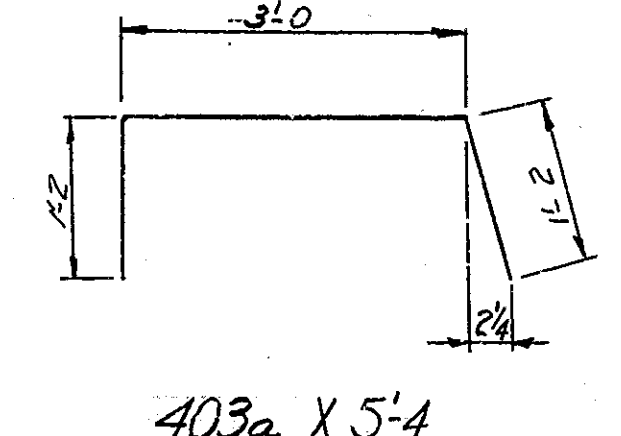
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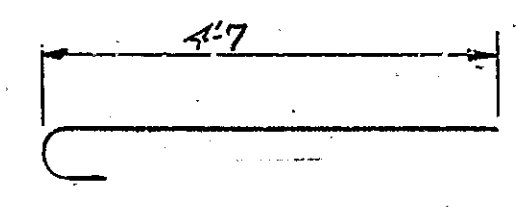
401a X 3'-10



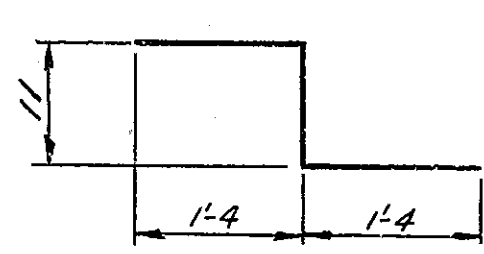
402a X 3'-8



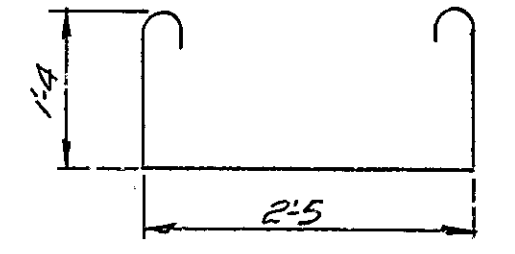
403a X 5'-4



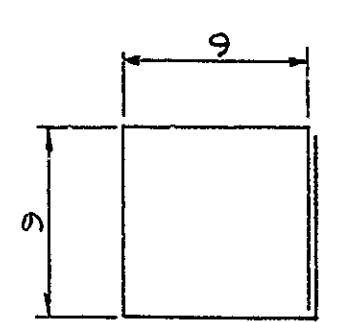
404a X 5'-1



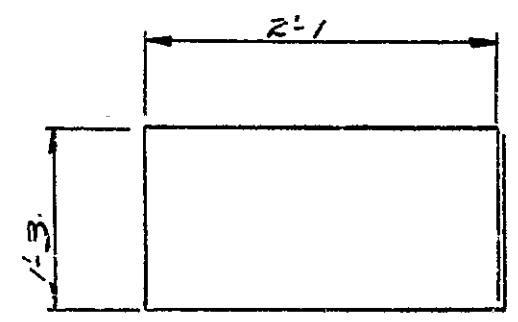
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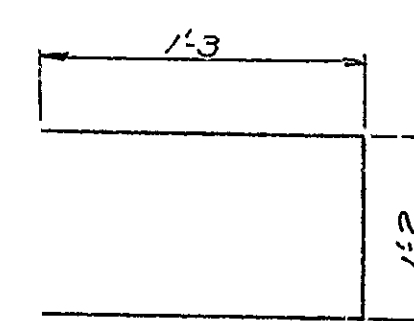
406a X 6'-1



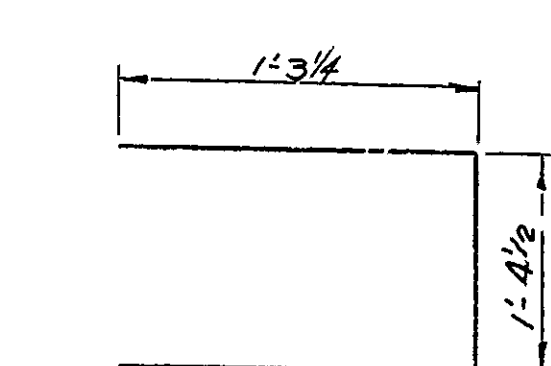
407a X 3'-9



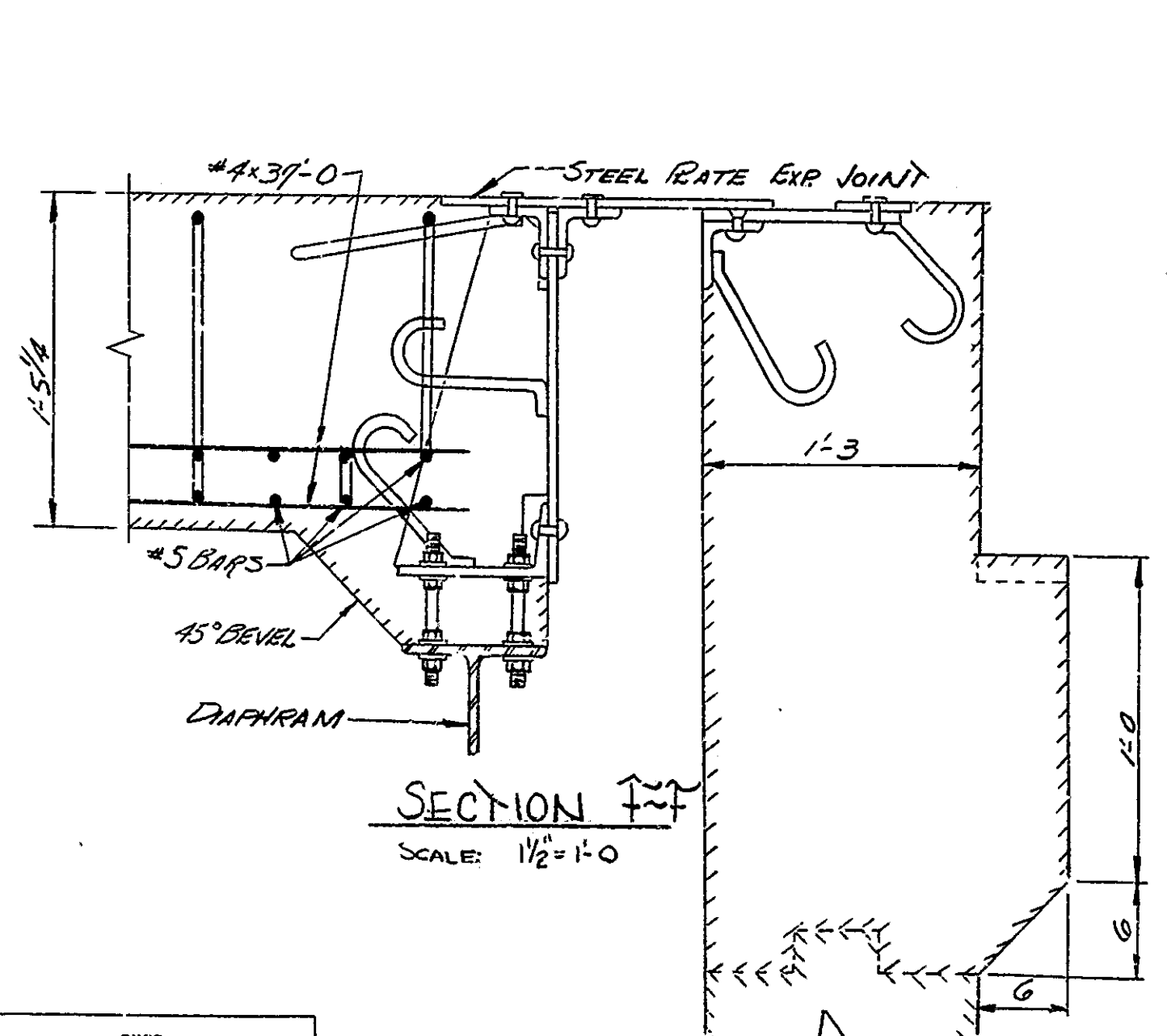
408a X 7'-11



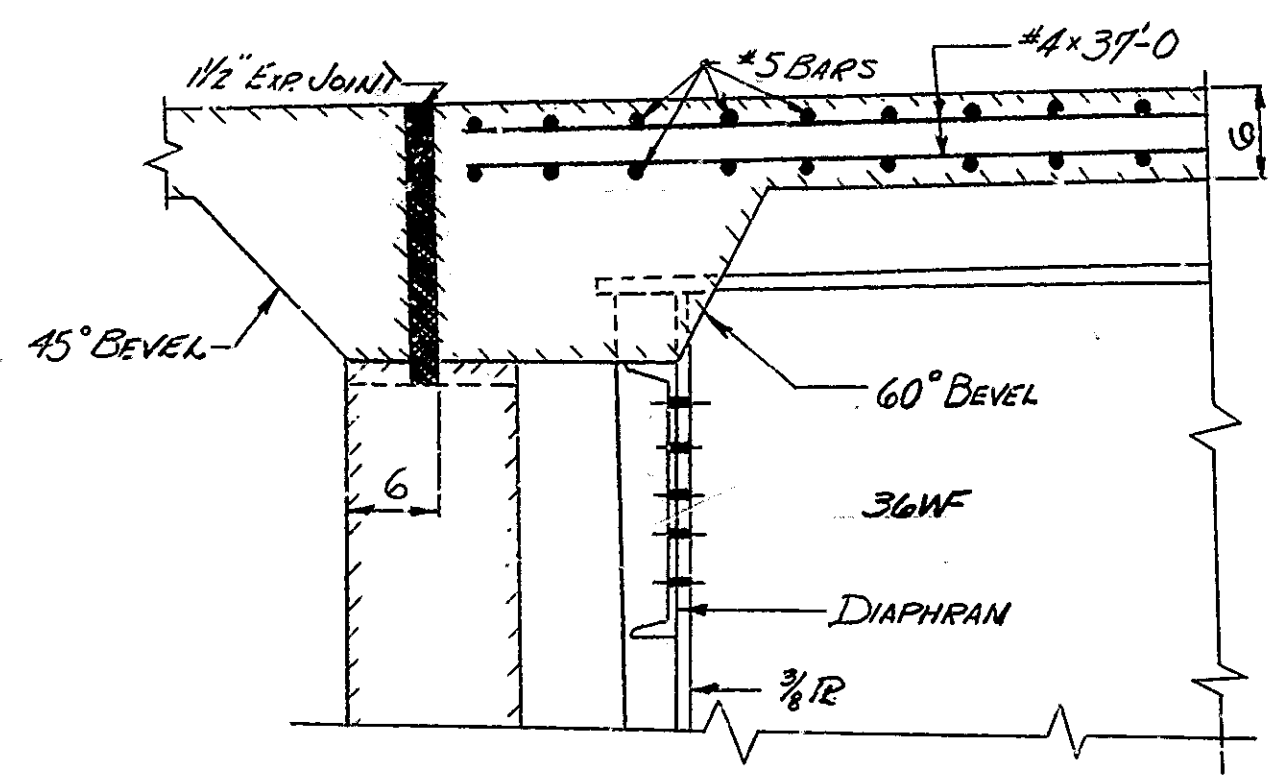
409a X 3'-8



410a X 3'-11



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



SECTION G-G
SCALE: 1" = 1'-0"

NOTES:
FOR LOCATION OF SECTIONS F-F & G-G SEE DRAWG 517

BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	U-724(16)	1963	24	52

BILL OF MATERIALS

REINFORCING STEEL			
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT
501a	358	38'-1	
#5	788	36'-4	
TOTAL #5 STEEL			45,472
401a	354	3'-10	
402a	43	3'-8	
403a	264	5'-4	
404a	492	5'-1	
405a	394	3'-7	
406a	264	6'-1	
407a	264	3'-9	
408a	48	7'-11	
409a	18	3'-8	
410a	18	3'-11	
#4	990	37'-0	
#4	8	23'-0	
#4	787	11'-5	
#4	787	3'-9	
#4	64	4'-0	
TOTAL #4 STEEL			42,638
TOTAL STEEL			88,110
CONCRETE			
CLASS 'C' SUPERSTRUCTURE			
FOUR #1			139 cu yd.
FOUR #2			39.2 cu yd.
FOUR #3			39.2 cu yd.
FOUR #4			39.2 cu yd.
FOUR #5			41.5 cu yd.
FOUR #6 (L.F.P.)			139 cu yd.
FOUR #7 (L.F.P.)			219 cu yd.
FOUR #8 (L.F.P.)			219 cu yd.
FOUR #9 (L.F.P.)			219 cu yd.
FOUR #10 (L.F.P.)			33.6 cu yd.
FOUR #11 (L.F.P.)			14.6 cu yd.
FOUR #12			29.0 cu yd.
FOUR #13			29.0 cu yd.
FOUR #14			29.0 cu yd.
FOUR #15			34.3 cu yd.
CAP			6.2 cu yd.
TOTAL CLASS 'C'			158.8 cu yd.
RAILING CONCRETE			15.8 cu yd.
MISCELLANEOUS			
16" x 30" x 6" C.I. ROWW			
CHANNEL TYPE 'E'			
GRAVEL #1			3072 #
8" x 8" x 2" G. C.I. SOIL			
PIPE (OUTSIDE DIA. 6")			800 #
1/2" (OUTSIDE DIA.)			
32" x 38" x 1/2" (GEN. ENG.)			6 #
TOTAL CAST IRON			3878 #
MK-103 ANCHOR BOLTS			24 EACH
2" CONDUIT			435 L.F.T.

REINFORCING STEEL & BILL OF MATERIAL
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: - AS NOTED
AUGUST 15 1962

RECOMMENDED FOR APPROVAL: *C.R. Dummer*
ENGINEER OF BRIDGE DESIGN

DRAWING: S200F20
PROJECT: U-724(16)
BRIDGE CONTRACT NO. 5752
BRIDGE FILE: 30-NKI-39764

REVISED 8-27-62 COMPLETE SEC F-F

DESIGNED: CKD
DRAWN: J. H. G. CKD E. B. 9/7/62
TRACED: CKD

ITEM	STRUCTURE QUANTITIES																** STRUCTURAL STEEL	CAST IRON	STEEL ENCASED CONC. PILES	ANCHOR PLATES MK-AP	ANCHOR RODS MK-AB3	ANCHOR RODS MK-AR						
	CONCRETE				RAILING CONCRETE		REINFORCING STEEL (1934 STD. WTS.)																TOTALS					
	CLASS F	CLASS D	CLASS E ABOVE FTG.	CLASS E FTG.	CLASS F	CLASS F	*11(1/2")	*10(1/8")	*9(1")	*8(1/4")	*7(3/8")	*6(1/2")	*5(5/8")	*4(1/2")	*3(5/8")	*2(1/2")												
	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	LINE FT.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.												
SUBSTRUCTURE																												
BENT N°1	43.6				6.5					1840	535	232	1962	157			4726			16	210	8						
PIER N°2	13.7		125.3	41.7									7171	672			7843					8						
PIER N°3	13.7		112.8	34.5									5961	603			6564					8						
PIER N°4	13.7		112.8	34.5									5961	603			6564					8						
PIER N°5	13.7		112.8	47.0									6341	672			7013					8						
BENT N°6	43.6				6.7					2115	1165	241	1644	165			5330			16	340	8				30		
SUPERSTRUCTURE																												
SPANS A, B, C, D & E	458.8				15.8												45472	42638									24	
SPLICE BARS																												
										23	45	35	20				123											
TOTALS																												
	602.8		463.7	157.7	29.0					3978	27,170	45,980	44,914	322			126,273	603,500	3878	32	650	48		24		30		

Reinf. Steel from Approach Structures column
 Reinf. Steel for R.C. Bridge Approach
 Reinf. Steel for Lip, Gutter, Paved, Tapers, etc.

BILL OF SPLICE BARS				
REINFORCING STEEL				
Size	Number	Pieces	Length	Weight
#8	1		8'-9"	23#
#6	4		7'-6"	45#
#5	5		6'-9"	35#
#4	5		6'-0"	20#
			Total	123#

BILL OF MATERIALS FOR R.C. BRIDGE APPROACH				
REINFORCING STEEL				
Size	Mark	N° Pos.	Length	Weight

Note: For Test Bar Samples see Dr. Std. "C."

APPROACH STRUCTURES								
STRUCT. N°	LOCATION	DESCRIPTION			CL. D. CONC. IN ST. WTS. CU. YDS.	REINF. STEEL LBS.	CAST IRON LBS.	REMARKS
		SIZE	KIND	LENGTH				
TOTALS								Total of Reinf. Steel carried to "Structure Quantities"

BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS			
ITEM	UNIT	QUANTITY	ASSEMBLY
TYPICAL SIGN STANDARDS	Each	3	Signs XW-1
			" XM-2
			" W-4B, W-35A
			" XW-3
STD. BARRICADES (TYPE A)	Each	2	Torches
			Barricades (Type A)
			Signs XR-1
			" M-20A
STD. SIGNS	Each	1	Lanterns
			Signs
BRIDGE (SUITABLE) BARRIERS	Each	2	Suitable Barriers
			Lanterns or Torches
STD. BARRICADES (TYPE B)	Each	1	Barricades (Type B)
			Signs
CONSTR. IDENTIFIC. SIGNS	Each	2	Lanterns or Torches
			Signs XM-6
			" XM-7
			" XM-8

* Not a pay item.
 * Not a pay item, and to be placed as directed by the Engineer.
 NOTE: Where sign standards are used in unpaved areas, the Contractor may use two posts set (3) three feet in the ground.
 ** The weight shown for Structural Steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.

SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
1	Class F Concrete	Cu. Yds.	602.8
2	Class D Concrete	Cu. Yds.	
3	Class E Concrete above Footings	Cu. Yds.	463.7
4	Class E Concrete in Footings	Cu. Yds.	157.7
5	Railing Concrete	Lin. Ft.	
6	Reinforcing Steel	Lbs.	126,273
7	Structural Steel	Lbs.	
8	Cast Iron	Lbs.	3878
9	Untreated Timber Piles Furnished	Lin. Ft.	
10	Untreated Timber Piles Driven	Lin. Ft.	
11	Furnishing Equipment for Driving Piles	Lump Sum	1
12	Well Excavation	Cu. Yds.	14.77
13	Waterway Excavation	Cu. Yds.	
14	Common Excavation	Cu. Yds.	4.40
15	Special Borrow	Cu. Yds.	12.25
16	Grade B Special Borrow	Cu. Yds.	10.45
17	Sodding	Sq. Yds.	2.70
18	Mulched Seeding	Sq. Yds.	
19	Cement Concrete Pavement	Sq. Yds.	
20	Reinforced Cement Concrete Pavement	Sq. Yds.	
21	Thickened Reinf. Cement Concrete Pavement	Sq. Yds.	
22	Aggregate for Compacted Aggregate Base	Tons	
23	Removal Present Structure	Lump Sum	
24	Temporary Bridge and Approaches	Lump Sum	
25	Warning Signs	Each	
26	Std. Barricades (Type A)	Each	2
27	Class D Concrete in Structures	Cu. Yds.	
28	R/W Markers	Each	
29	Steel Pile Shells Furnished	Lin. Ft.	650
30	Steel Pile Shells Driven (12")	Lin. Ft.	650
31	2" Conduit	Lin. Ft.	435
32	Structural Steel**	Lump Sum	1
33	Railing Concrete	Cu. Yds.	29.0
34	Anchor Plates MK-AP	Each	48
35	Anchor Rods MK-AB3	Each	24
36	Anchor Rods MK-AR	Each	30
37	Concrete Slope Wall (5")	Sq. Yds.	452
38	Typical Sign Standards	Each	9
39	Cofferdam Pier N° 2	Lump Sum	1
40	Cofferdam Pier N° 3	Lump Sum	1
41	Cofferdam Pier N° 4	Lump Sum	1
42	Cofferdam Pier N° 5	Lump Sum	1
43	Pavement Removal	Sq. Yds.	375
44	Temporary Road Barrier	Lump Sum	1
45	Paved Side Ditch Removal	Lin. Ft.	254
46	Placing Hand-Laid Riprap	Sq. Yds.	155
47	Special Concrete Curb	Lin. Ft.	60
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			

SUMMARY
 STATE HIGHWAY DEPARTMENT OF INDIANA

AUGUST 15, 1962

RECOMMENDED FOR APPROVAL: *C.R. Rimmer*
 ENGINEER OF BRIDGE DESIGN

PROJECT - U-724(16)
 BRIDGE CONTRACT N° 5752
 BRIDGE FILE - 30-NAV-3376J

REVISED 8-28-62 CHANGE FROM QUANTITY

CONTRACT No. B-9870

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
ST-724 C	30-02-3376 JA	DECK RECONSTRUCTION AND OVERLAY	5 SPANS 70', 3 @ 84' 70'; Sk. 15° Lt.	ST. JOSEPH RIVER	217 + 89.63
SHEET NO.	SHEET DESIGNATION	SUBJECT			F.H.W.A. APPROVAL
1		INDEX - TITLE SHEET			
2		TRAFFIC MAINTENANCE DETAILS			
3	D 1	GENERAL PLAN			
4	D 2	TYPE S.R. 4 EXPANSION JOINT DETAILS			
5	D 3	DETAILS			
6	D 4	DETAILS AND SUMMARY			

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS

FOR SPANS OVER 20 FEET

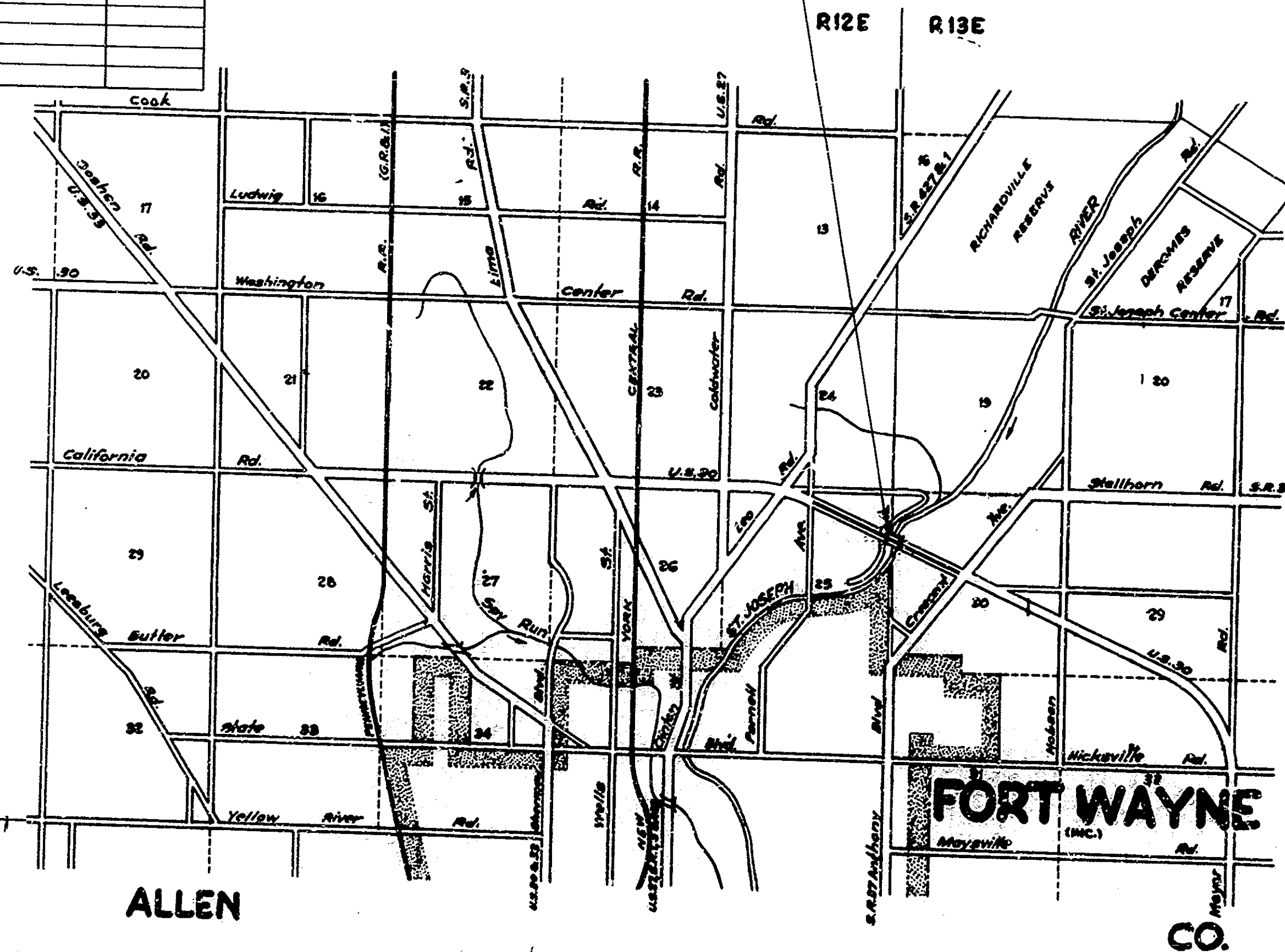
ON

STATE ROAD NO. 30

PROJECT NO. ST-724 C () CONST.

DECK OVERLAY FOR PRESENT STRUCTURE ON U.S. 30 OVER ST. JOSEPH RIVER. LOCATED IN THE CITY OF FORT WAYNE, SECTION 25-30—T. 31 N., R. 13 E. & R. 12 E.; ALLEN COUNTY.

DECK OVERLAY for
STRUCTURE 30-02-3376 JA
5 Spans: 70', 3 @ 84', 70'; Sk. 15° Lt.



FEDERAL ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST-724 C	1972	1	12

INDEX CONTINUED STANDARD DRAWINGS					
SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	ADOPTED REVISION	
BRIDGE STD. BR1		ALUMINUM BRIDGE RAILING			
BRIDGE STD. BR2		ALUMINUM BRIDGE RAILING DETAILS			
BRIDGE STD. BR3		STEEL BRIDGE RAILING			
BRIDGE STD. BR4		STEEL BRIDGE RAILING DETAILS			
BRIDGE STD. C1		MISCELLANEOUS DETAILS			
BRIDGE STD. C2		MISCELLANEOUS DETAILS			
BRIDGE STD. C3		MISCELLANEOUS DETAILS			
BRIDGE STD. O		CASTING DETAILS ROADWAY DRAINS			
BRIDGE STD. PB		PRESTRESSED CONCRETE TYPE I-BEAMS			
BRIDGE STD. PB		PRESTRESSED CONCRETE TYPE I-BEAMS			
BRIDGE STD. PB6		PRESTRESSED BOX BEAMS			
BRIDGE STD. PB		PRESTRESSED COMPOSITE BOX BEAMS WIDE			
BRIDGE STD. PB10		PRESTRESSED COMPOSITE BOX BEAMS WIDE			
BRIDGE STD. PB11		TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS			
BRIDGE STD. PB11		ELASTOMERIC BEARING PAD DETAILS			
BRIDGE STD. R2A		BRIDGE LIGHTING DETAILS			
BRIDGE STD. SH1		MISCELLANEOUS DETAILS			
BRIDGE STD. T SHEET A		STEEL SHOE DETAILS			
BRIDGE STD. T SHEET B		STANDARD TEMPORARY BRIDGE			
BRIDGE STD. T SHEET B		STANDARD TEMPORARY BRIDGE			
BRIDGE STD.					
BRIDGE STD.					
ROAD STD. SHEET Aconc		STANDARD CONT. REINF. CONC. PAVEMENT			
ROAD STD. SHEET Bconc		STANDARD CONT. REINF. CONC. PAVEMENT			
ROAD STD. SHEET Cconc		STANDARD CONT. REINF. CONC. PAVEMENT			
ROAD STD. SHEET A		STANDARD PAVEMENT JOINTS			
ROAD STD. SHEET MA		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MA		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MB		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MB2		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MC		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MC1		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MD		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MD		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MD		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET ME		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET ME		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MH		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MH		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MH		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET ML		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MN		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MP		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MQ		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MR		MISCELLANEOUS STANDARDS			
ROAD STD. SHEET		MISCELLANEOUS STANDARDS			
ROAD STD.		STANDARD REINF. CONC. BOX CULVERTS			
ROAD STD.		STANDARD REINF. CONC. CULVERTS			
ROAD STD.					
ROAD STD. SHEET GR		GUARD RAIL CLASS			
ROAD STD. SHEET GR4		GUARD RAIL CLASS GA OR GST			
ROAD STD. SHEET GR5		ALUMINUM GUARD RAIL DETAILS			
ROAD STD. SHEET GR 6		STEEL TUBE GUARD RAIL DETAILS			
ROAD STD. SHEET GR					
ROAD STD. SHEET GR10		GUARD RAIL BURRED ENDS			
ROAD STD. SHEET J DETOURS		STANDARD DETOUR SIGNS			
ROAD STD. SHEET J DETOURS		STANDARD DETOUR SIGNS			
ROAD STD. SHEET J DETOURS		STANDARD DETOUR SIGNS			
ROAD STD. SHEET 2 DETOURS		STANDARD DETOUR SIGNS			
ROAD STD. SHEET 3 DETOURS		STANDARD DETOUR SIGNS			
ROAD STD. SHEET 4 DETOURS		STANDARD DETOUR SIGNS			
ROAD STD.		SPECIAL SIGNS			
ROAD STD. SHEET I		CONSTRUCTION IDENTIFICATION SIGNS			
ROAD STD.		SPECIAL SIGNS			

TRAFFIC DATA	
A.D.T. (1973)	30,000 V.P.D.
A.D.T. (1993 PROJECTED)	60,000 V.P.D.
D.H.V. (19 PROJECTED)	V.P.D.
TRUCKS	DHV. 5% ADT. 12%
DESIGN SPEED	50 M.P.H.
ACCESS CONTROL	NONE

BRIDGE LENGTH: 0.074 MI.
ROADWAY LENGTH: 0.000 MI.
TOTAL LENGTH: 0.074 MI.
MAX. GRADE: 1.18 %

APPROVED 7-30-74
G. W. Hall
CHIEF HIGHWAY ENGINEER - INDIANA STATE HIGHWAY COMMISSION

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1974
TO BE USED WITH THESE PLANS.

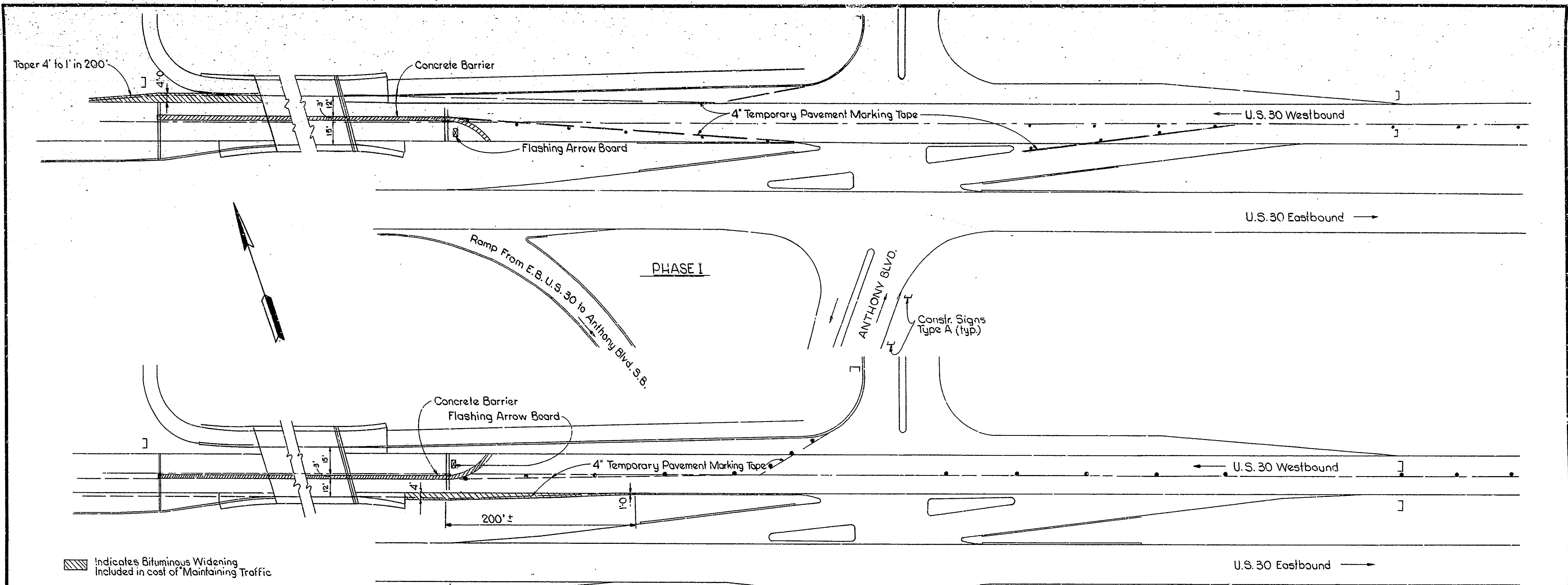
REVISIONS	
DATE	SHEET NO.
8-16-74	1, 3, 5 & 6
9-6-74	3

RECOMMENDED FOR APPROVAL 7-29-74
E. W. Walker
ENGINEER OF BRIDGE DESIGN, INDIANA STATE HIGHWAY COMMISSION

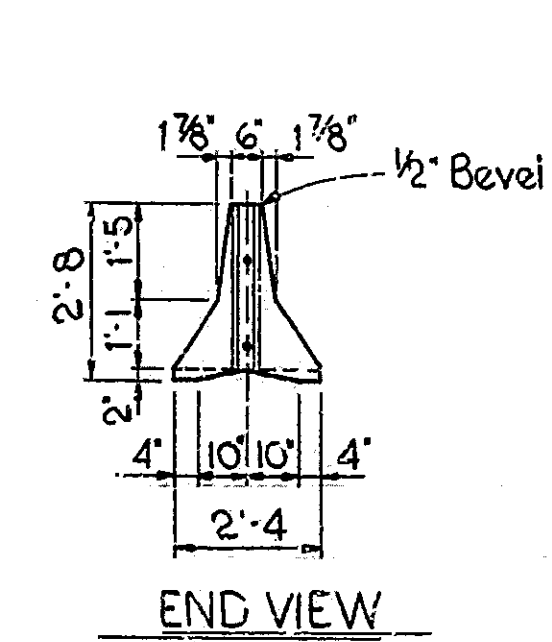
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED: _____
DIVISION ENGINEER DATE

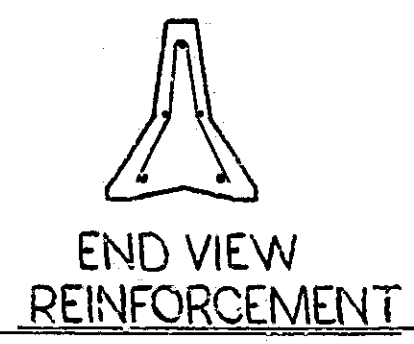
BRIDGE FILE NO. 30-02-3376 JA



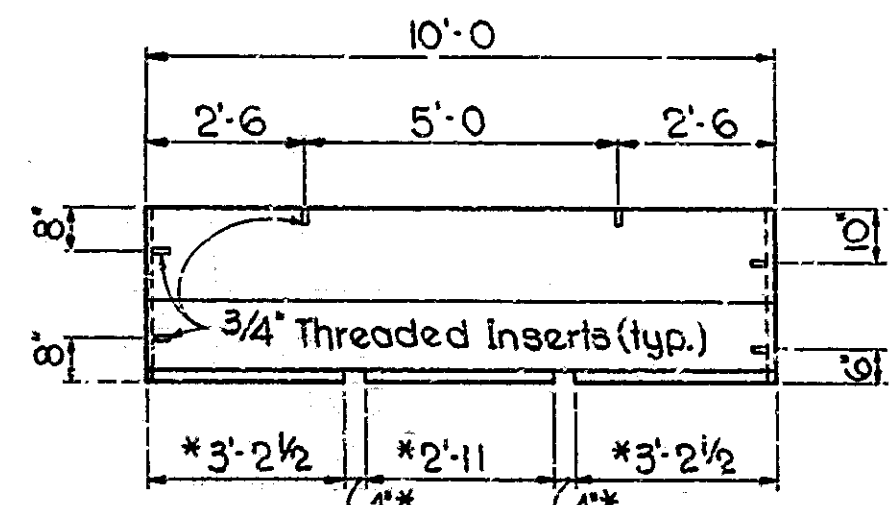
▨ Indicates Bituminous Widening Included in cost of Maintaining Traffic



END VIEW

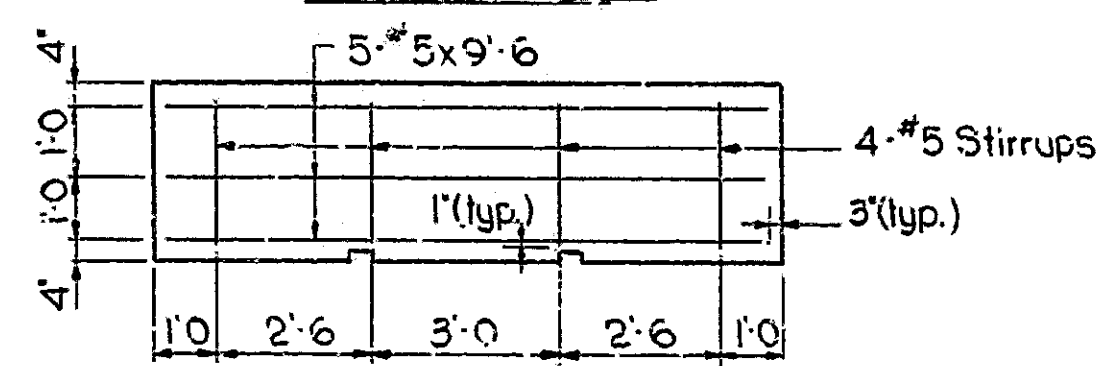


END VIEW REINFORCEMENT

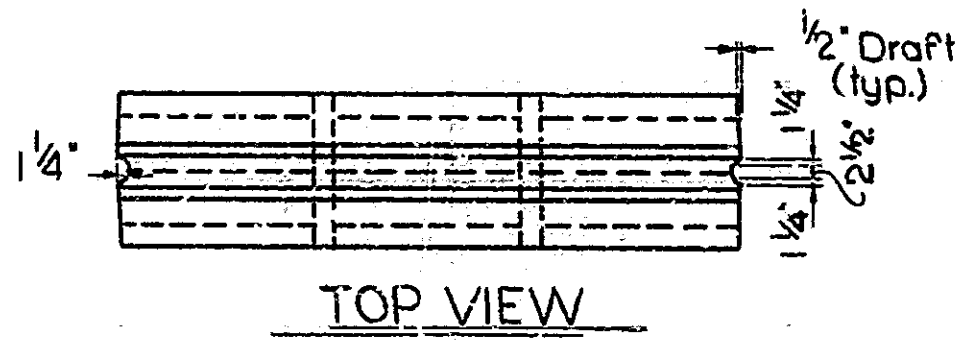


ELEVATION

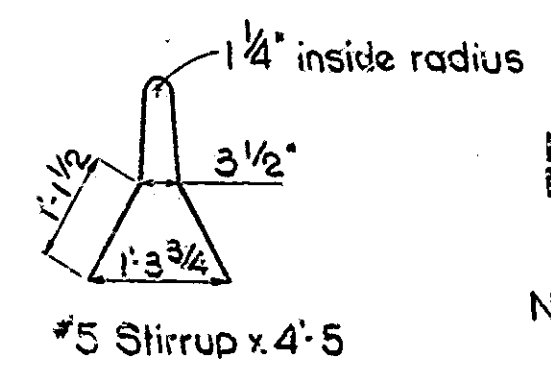
*Note: Dimensions subject to adjustment to accommodate handling equipment.



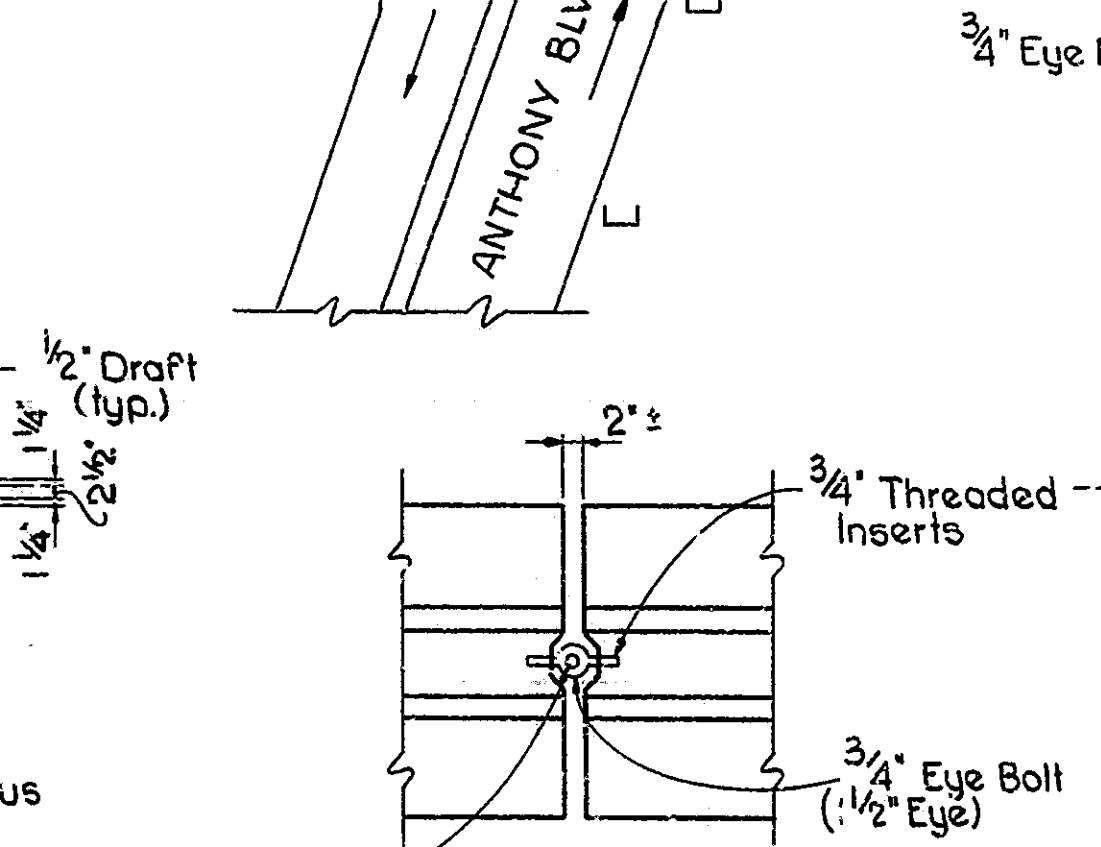
ELEVATION REINFORCEMENT



TOP VIEW

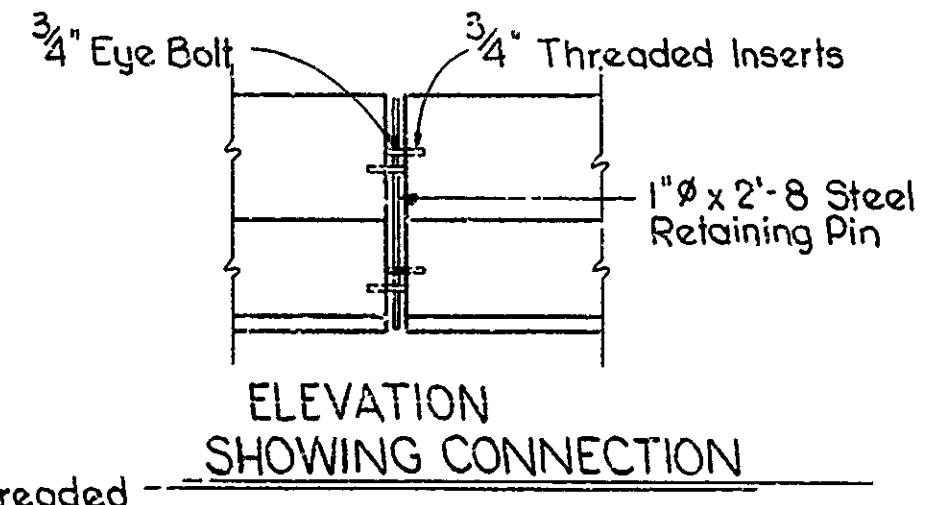


#5 Stirrup x.4'-5



PLAN SHOWING CONNECTION

Note: Minimum 28 day concrete compressive strength = 6000 #/sq Steel form finish



ELEVATION SHOWING CONNECTION

CONCRETE BARRIER DETAILS

TRAFFIC MAINTENANCE DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: - NO SCALE DATE: - FEBRUARY 27, 1974

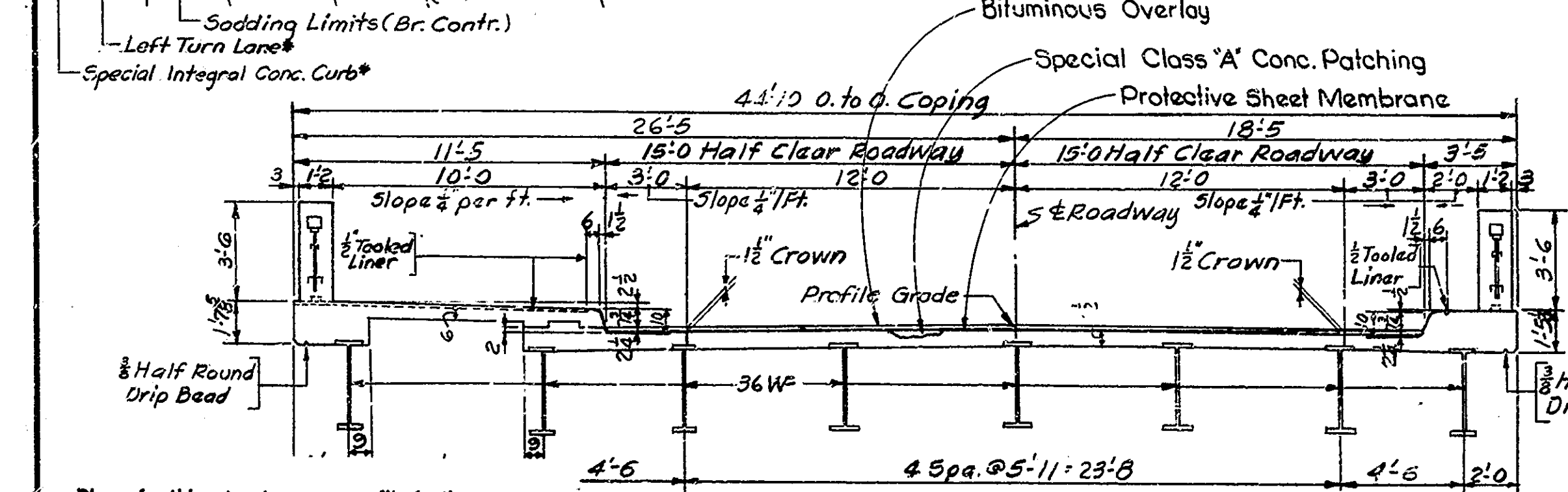
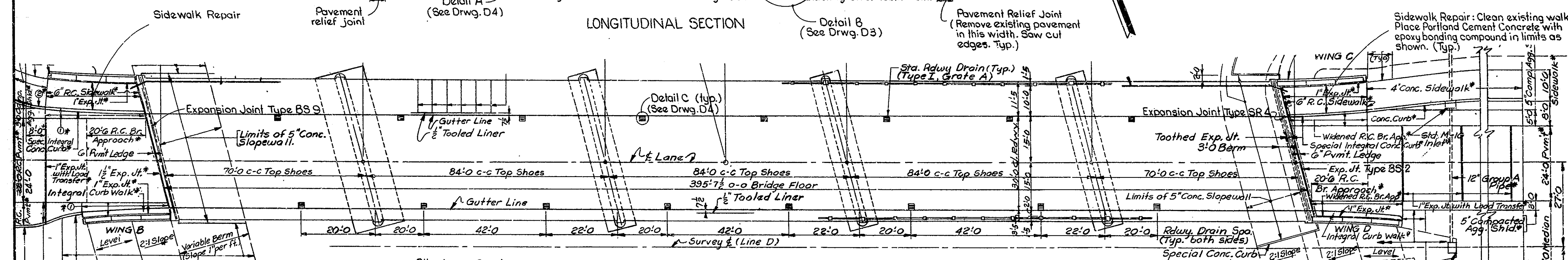
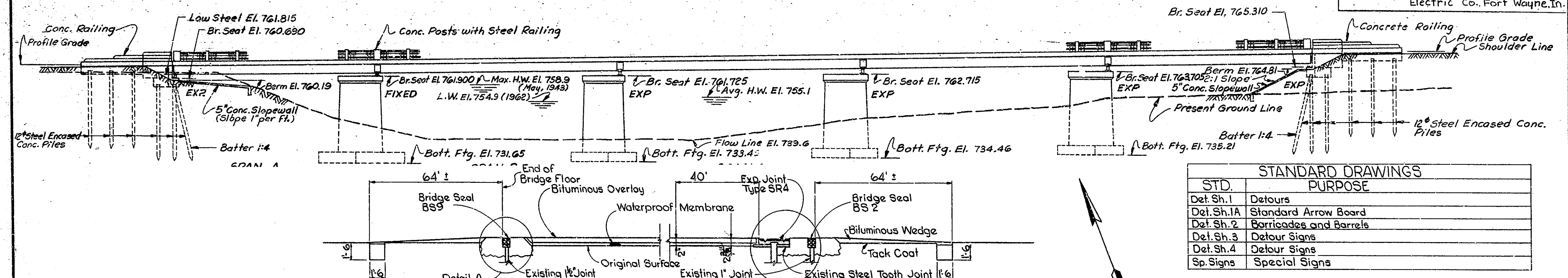
DRAWING: OF SHEET: 2 OF 12
PROJECT: - ST-724 C
CONTRACT NO. B-2270

William B. Atter
REGISTERED PROFESSIONAL ENGINEER OF BRIDGE DESIGN



NOTE: STRUCTURE TO BE BUILT TO A 1000' V.C. AND A +1.18% GRADE

UTILITY OWNER
 Telephone: General Telephone Co.
 Fort Wayne, In.
 Electricity: Indiana & Michigan
 Electric Co., Fort Wayne, In.



SECTION L TO & LANE
 Scale: 1/8" = 1'-0"

GENERAL NOTES

* Denote items to be built by Road Contractor.

The boundaries of all deck removal areas shall be saw cut. All saw cuts for removals shall be made to a minimum depth of 1 inch below original surface or to the top of reinforcing if cover is less than 1 inch, unless noted.

Concrete in overlay dams and patches for deteriorated concrete areas to original surface to be special Class 'A' Concrete bonded with epoxy bonding compound, unless noted. See the Special Provisions.

All bituminous material required in this contract to be included in the pay item 'Bituminous Mixture for Approaches', unless noted.

See the Special Provisions for items included in this contract.

MATERIAL NOTES

BITUMINOUS OVERLAY: 165 lbs./sq.yd. Hot Asphaltic Concrete Surface Type 'B' OVER 50 lbs./sq.yd. Hot Asphaltic Concrete Surface Type 'D'

OR

165 lbs./sq.yd. Hot Asphaltic Emulsion Surface Type III OVER 50 lbs./sq.yd. Hot Asphaltic Emulsion Surface Type IV

BITUMINOUS WEDGE: Hot Asphaltic Concrete Surface Type 'B'

OR

Hot Asphaltic Emulsion Surface Type III

PAVEMENT RELIEF JOINT: 90 lbs./sq.yd. Hot Asphaltic Concrete Surface Type 'B' OVER 1890 lbs./sq.yd. Hot Asphaltic Concrete Base

OR

90 lbs./sq.yd. Hot Asphaltic Emulsion Surface Type III OVER 1890 lbs./sq.yd. Hot Asphaltic Emulsion Base

BITUMINOUS WIDENING: 990 lbs./sq.yd. Hot Asphaltic Concrete Base #53B

OR

990 lbs./sq.yd. Hot Asphaltic Emulsion Base #53B

DECK RECONSTRUCTION AND OVERLAY

GENERAL PLAN

CONTINUOUS STEEL BEAM BRIDGE

5 SPANS: 70'-0", 38'-8", 70'-0", 5K, 15' LT, 30'-0" RDWY, 1'-2" & 1'-10" WALKS OVER SAINT JOSEPH RIVER ON STATE ROAD: 30-NN

STATE HIGHWAY DEPARTMENT OF INDIANA

ALLEN COUNTY

SCALE: 1/16" = 1'-0" (UNLESS NOTED) DATE: FEBRUARY 27, 1974

RECOMMENDED FOR APPROVAL: *William B. West*

DRAWING: D1 OF 4 SHEET 3 OF 12

PROJECT: ST-724 C

BRIDGE CONTRACT NO. B-9870

BRIDGE FILE: 30-02-3376d4

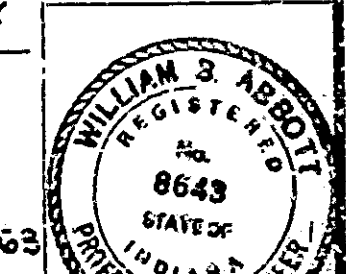
Structure Station: 217+89.63

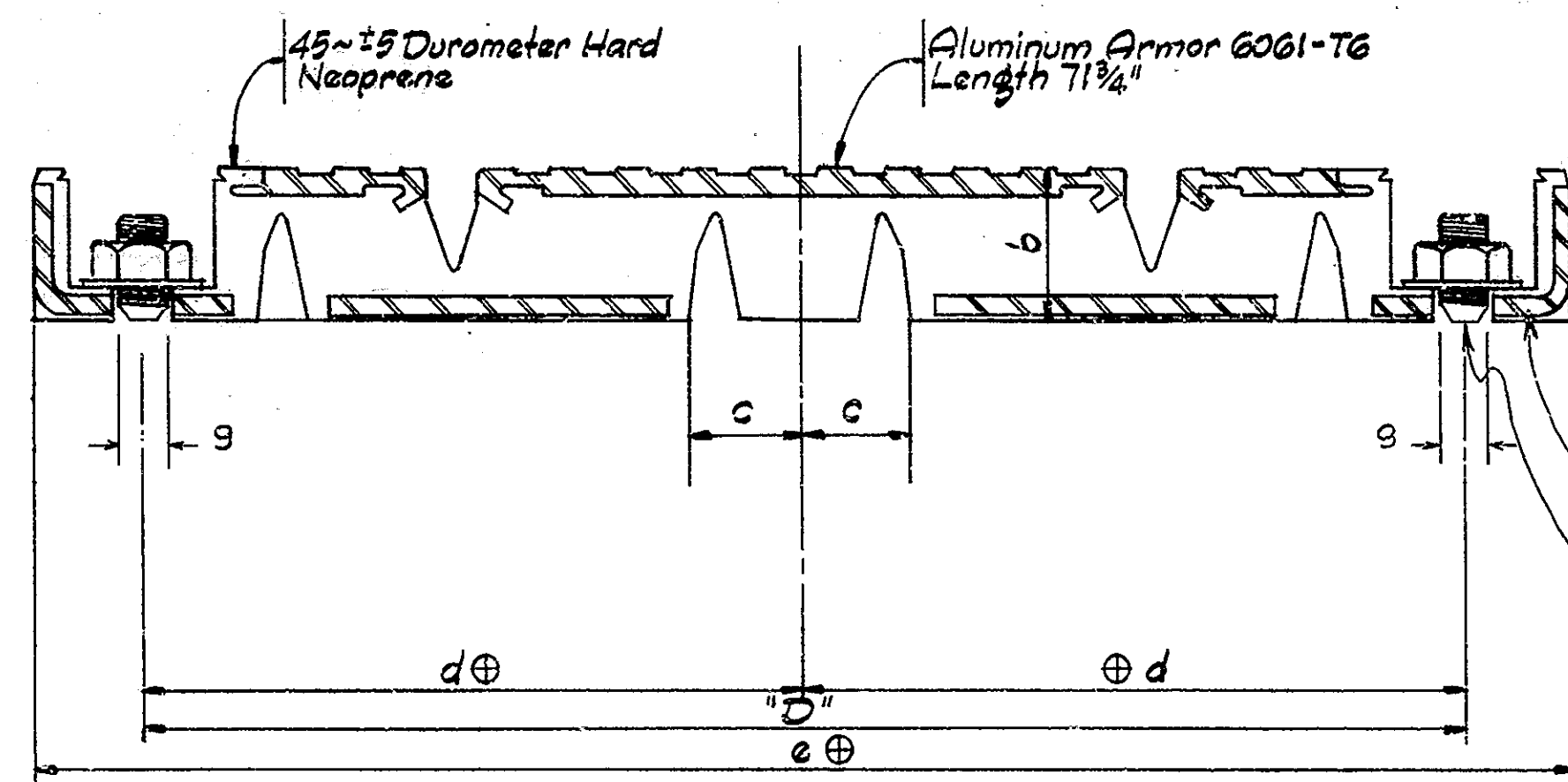
Plans for this structure are on file in the Central Office as Bridge File 30-NN-3376J and are available on request.

Where new work is to be fitted to old work the contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of the new part to the old.

The hand chipping and cleaning of deteriorated deck areas shall be as directed by the Engineer. It is the intent of these plans that all such deteriorated concrete be removed and should there be any doubt as to the quality of the concrete the removal shall continue until PERFECTLY SOUND concrete is exposed.

Rev. 9-6-74. Utility Note.
 Rev. 8-16-74. Sheet Membrane





SECTION A-A

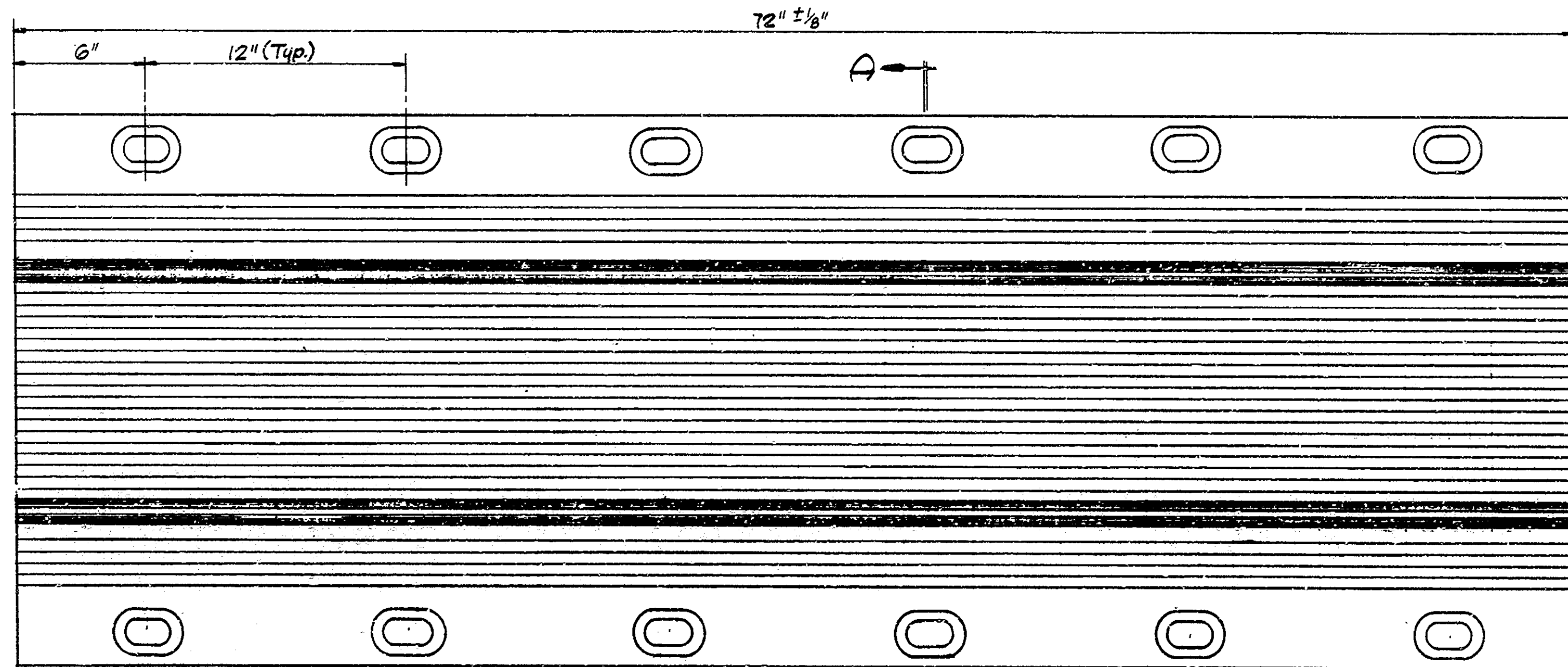
⊕ Dimension when temperature is 40°F

Prepare ends of threaded studs
For full penetration field weld
unless automatically welded studs
are used.

DETAIL A
NO SCALE

1/4" A-36 Steel 72 x 7 1/4"
Anchor Studs (As an alternate, field drill and tap anchor plate for 3/4" bolts. Bolts must extend a minimum of 3/4" into the anchor plate and must miss any existing rivets by at least 1 1/2")

Notes:
Rubber ~ 45 ± 5 Durometer Hardness
Steel ~ A.S.T.M. A36
Anchors ~ Welded threaded studs and nuts or bolts extending into tapped holes in anchor plate shall be stainless steel conforming to ASTM A276 (Type 304)



PLAN

Temperature at time studs are set	Dimension "D"			
	Type SR4	Type SR6.5	Type SR9	Type SR13
100°F	17 1/4"	20 1/4"	25 3/4"	35"
90°F	18 1/8"	21 1/8"	26 3/8"	36 1/4"
80°F	18 1/2"	21 1/2"	27 1/2"	37 1/2"
70°F	18 3/4"	22 3/8"	28 3/8"	38 3/8"
60°F	19 1/4"	23"	29 1/2"	40"
50°F	19 5/8"	23 3/8"	30 1/2"	41 1/2"
40°F	20"	24 1/2"	31"	42 1/2"

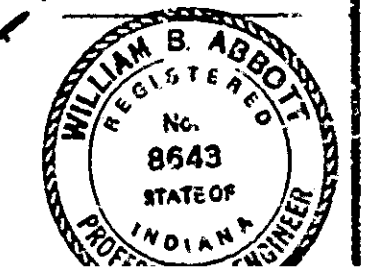
Pt.	Type SR4	Type SR6.5	Type SR9	Type SR13
a	23 1/4"	28 1/4"	35 3/8"	47 1/2"
b	2 1/8"	3"	3 3/4"	5"
c	2"	2 3/8"	3 1/8"	4 1/4"
d	10"	12 1/8"	16 1/2"	21 1/4"
e	22 3/4"	28"	34 3/8"	47"
f	2 3/8"	3 1/4"	4"	5 1/4"
g	3/4"	1 1/8"	1 1/2"	1 7/8"

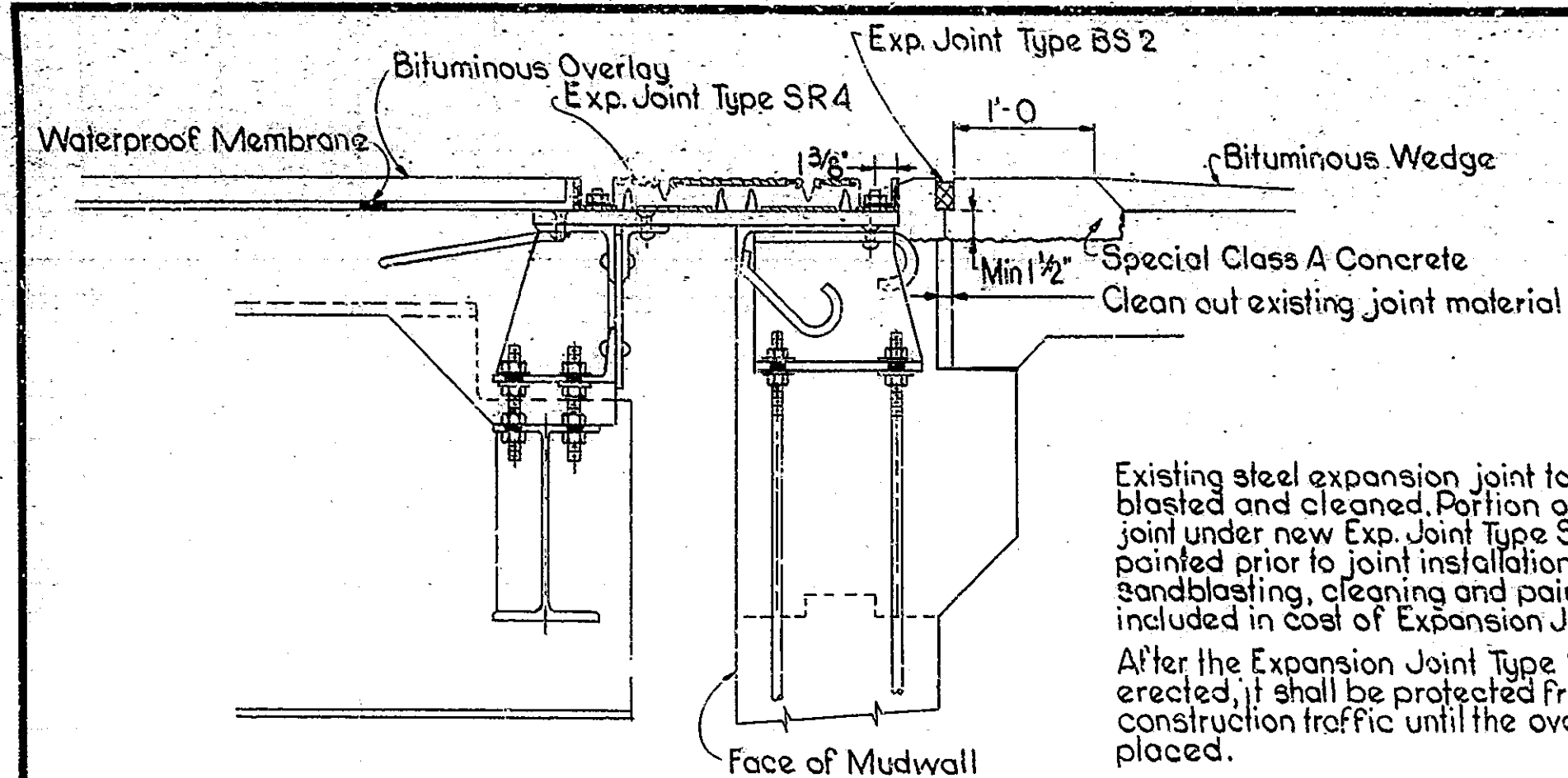
**TYPE SR4, SR6.5, SR9 AND SR13
EXPANSION JOINT DETAILS
INDIANA STATE HIGHWAY COMMISSION**

SCALE: - NONE DATE: - FEBRUARY 27, 1974

RECOMMENDED FOR APPROVAL: *William B. Abbott*

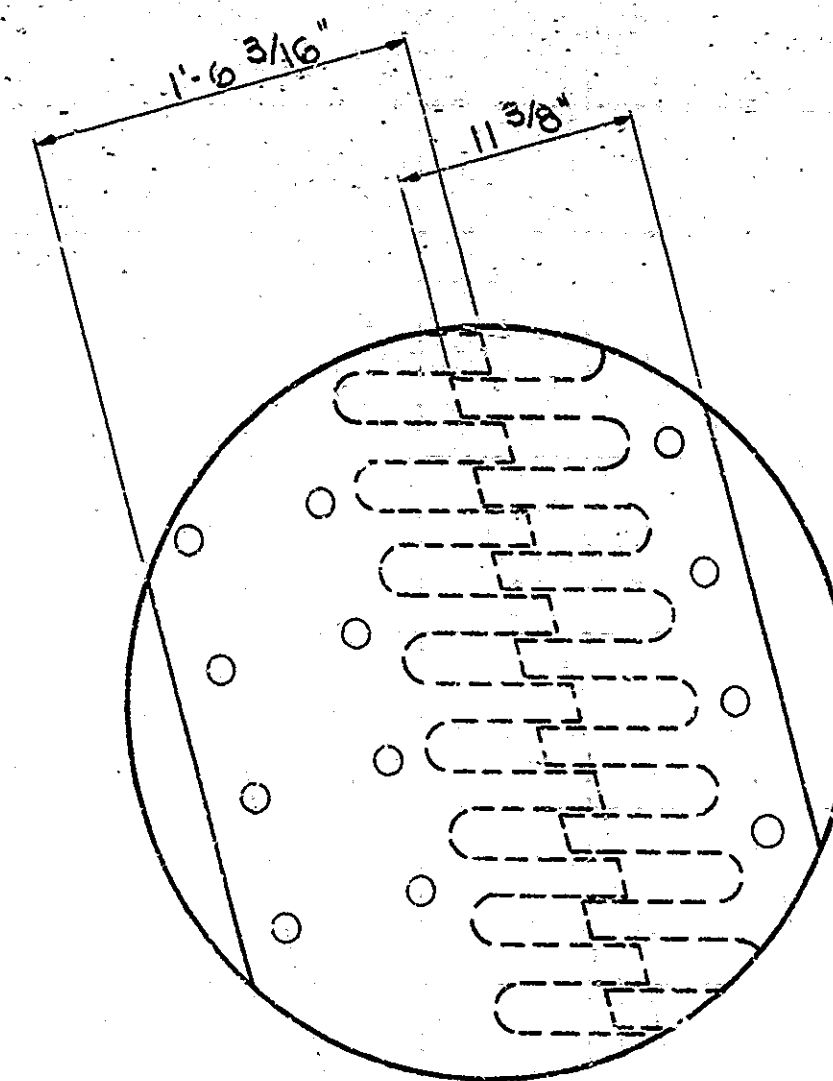
DRAWING: D₂ OF 4 SHEET 4 OF 12
PROJECT: - 5T-724 C
CONTRACT NO. B-9870





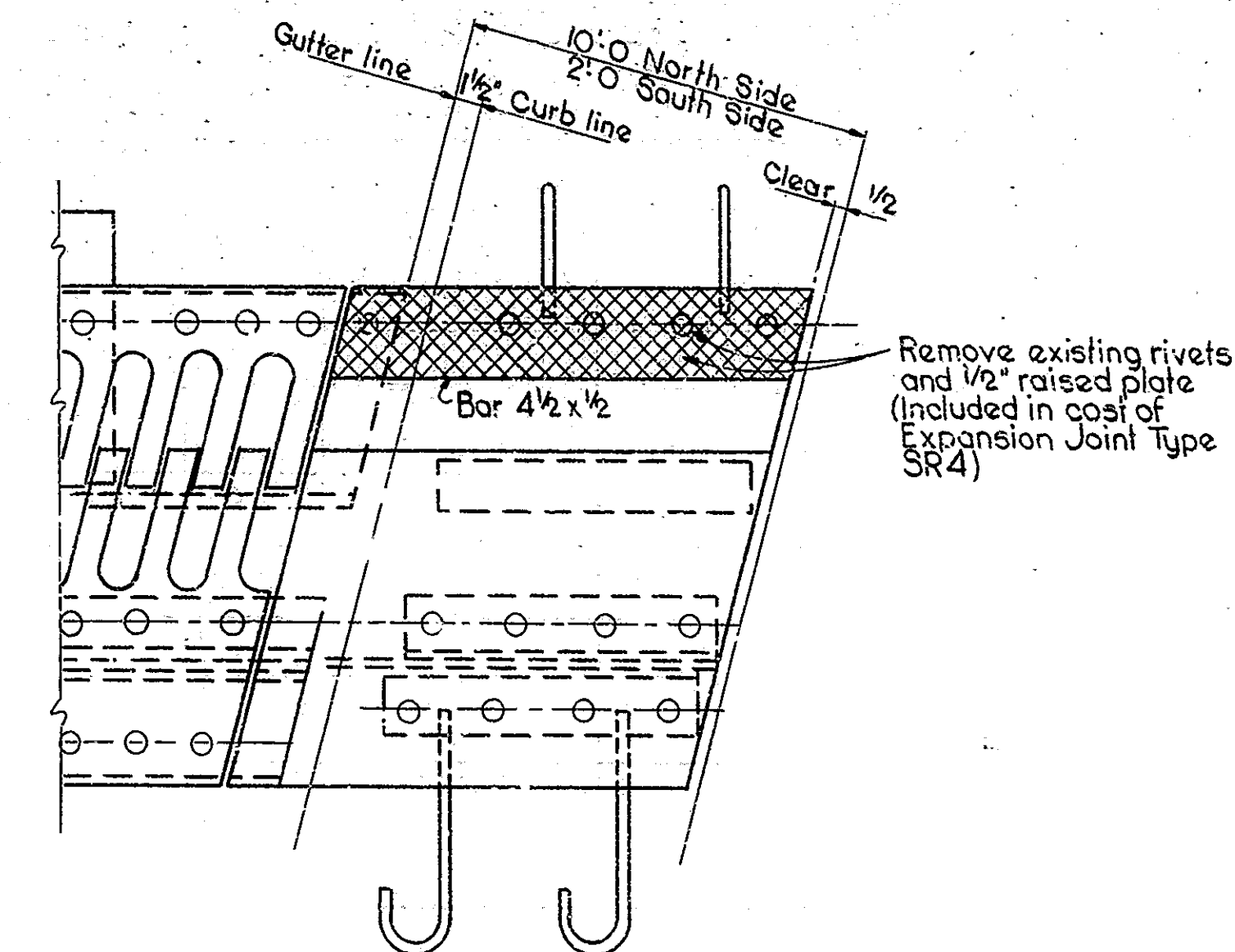
DETAIL B
(See Drwg. D1)

Existing steel expansion joint to be sand-blasted and cleaned. Portion of existing joint under new Exp. Joint Type SR4 to be painted prior to joint installation. Cost of sandblasting, cleaning and painting to be included in cost of Expansion Joint Type SR4.
After the Expansion Joint Type SR4 has been erected, it shall be protected from damage by construction traffic until the overlay has been placed.



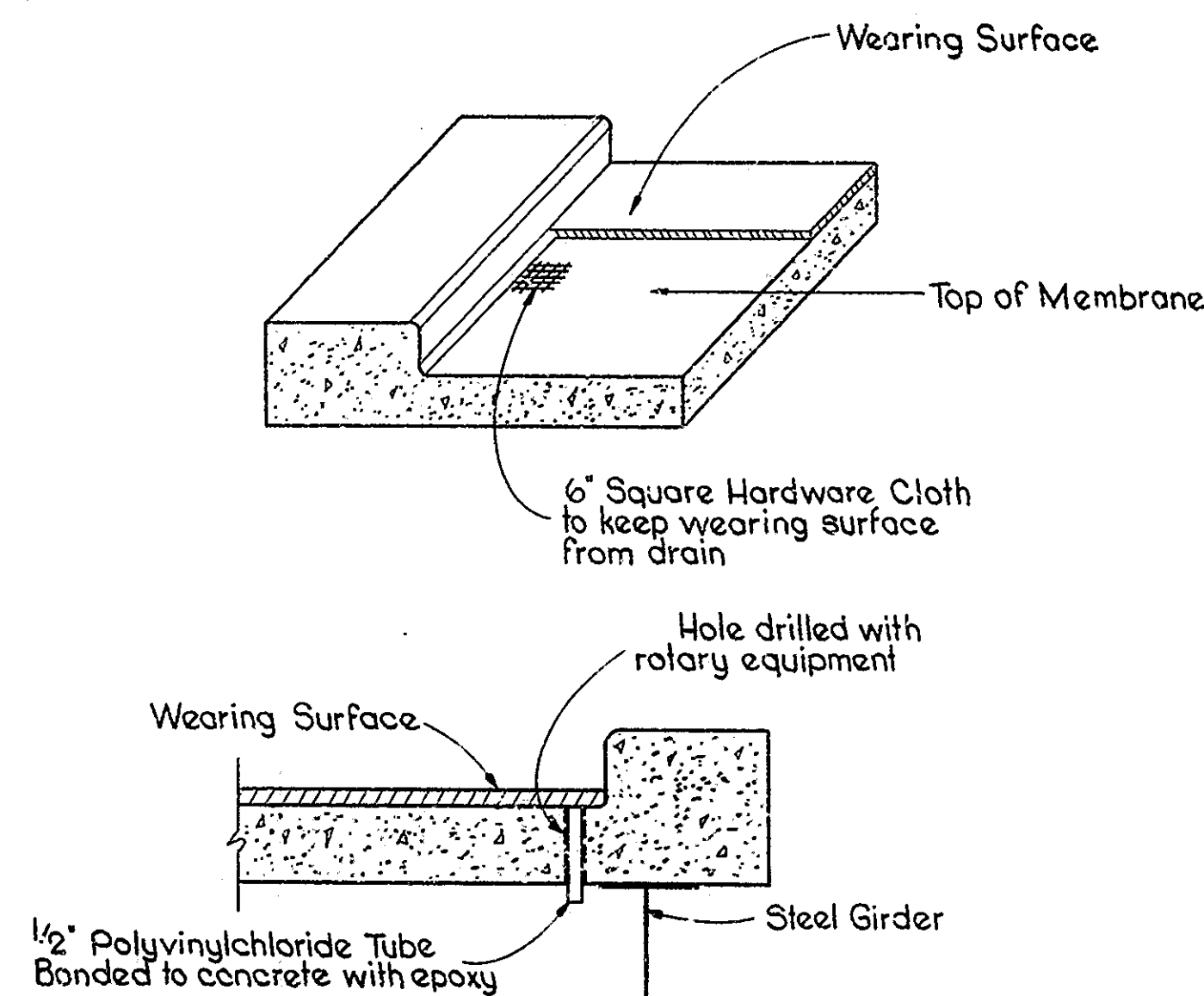
EXPANSION JOINT TOOTH
CUTTING DETAIL

(Cost of cutting teeth to be included in the cost of Expansion Joint Type SR4.)



EXPANSION JOINT DETAIL AT CURBS

For General Notes and Material Notes see the General Plan.



DECK DRAIN DETAILS

(Place adjacent to overlay dams at 20' maximum spacing along gutter lines)

CONSTRUCTION PROCEDURE

1. Construct the Temporary Barrier Railing, Signs and other traffic control devices to divert traffic to the right hand lane (Phase I)
2. Remove all deteriorated concrete from all spalled areas of the bridge floor and around all exposed reinforcing as directed by the Engineer and in accordance with the Special Provisions.
3. Place Special Class A Concrete bonded with epoxy in the areas to be patched. Finish smooth to level of adjacent concrete.
4. Construct Special Class A Concrete overlay dams at locations shown on the plans. Install expansion joints and deck drains.
5. Fill all existing voids and irregularities in the bridge floor with a neat cement paste or a mortar of two parts sand to one part cement.
6. Clean and restore the North sidewalk at the structure ends by applying Portland Cement Concrete bonded with Epoxy Bonding Compound to original surface.
7. Apply the sheet membrane to the bridge floor and for a distance of two inches up the face of curbs and place the bituminous overlay.
8. Clean and seal the roadway face and tops of curbs, concrete railing post and the tops of overlay dams and walks.
9. Construct pavement relief joints, bituminous wedges, and all other work shown on the plans.
10. Reset traffic control devices to divert traffic to the completed lane (Phase II) and repeat steps 2 thru 5 and 7 thru 9. When all work is completed open structure to traffic.

The numbers do not necessarily indicate the sequence of operations. Pneumatic hammers 30 lbs. maximum weight to be used for removals.

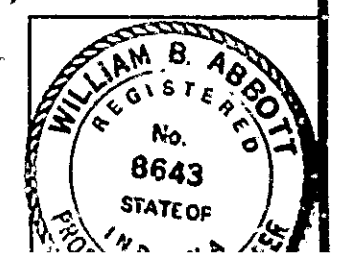
DETAILS

INDIANA STATE HIGHWAY COMMISSION

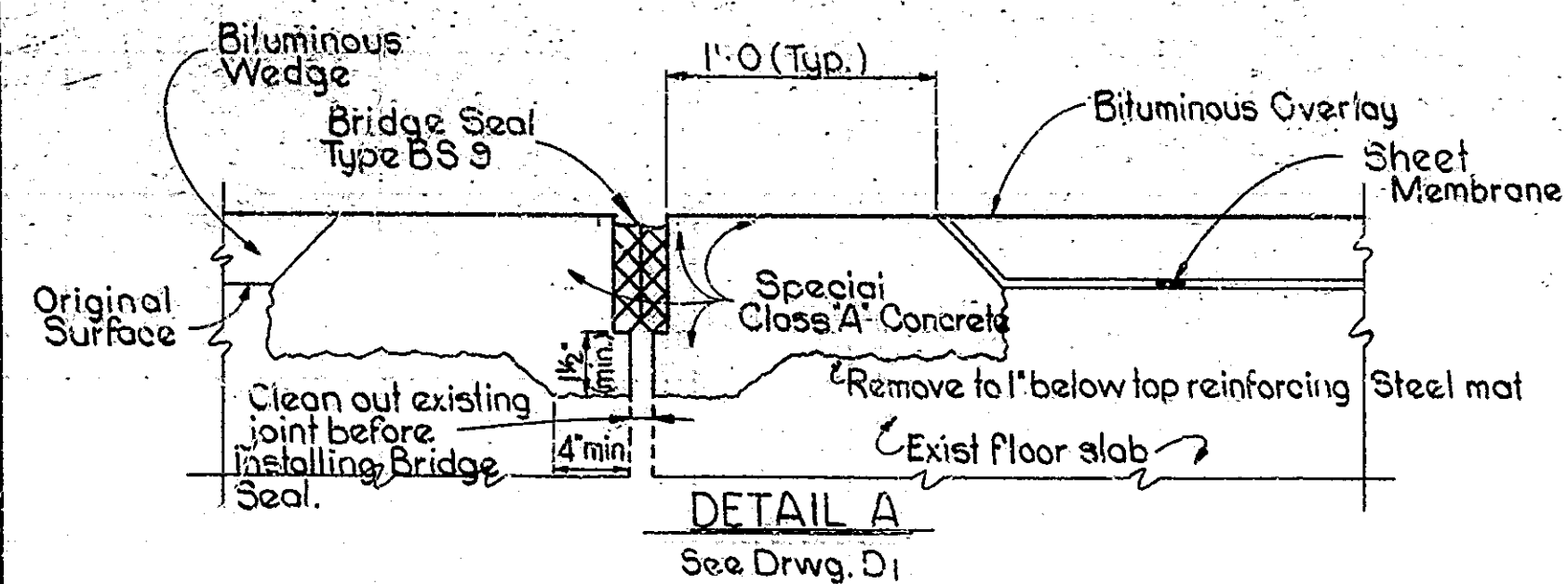
SCALE:- NO SCALE

DATE:- FEBRUARY 27, 1974

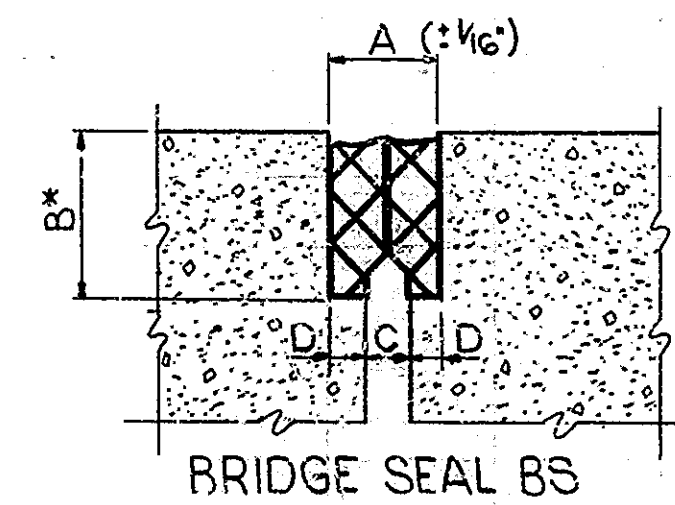
DRAWING: D 3 OF 4 SHEET: 5 OF 12
PROJECT: ST-724 C
CONTRACT NO. B-9870



DESIGNED: C.K.D.
DRAWN: J.H. C.K.D. N.B.S.

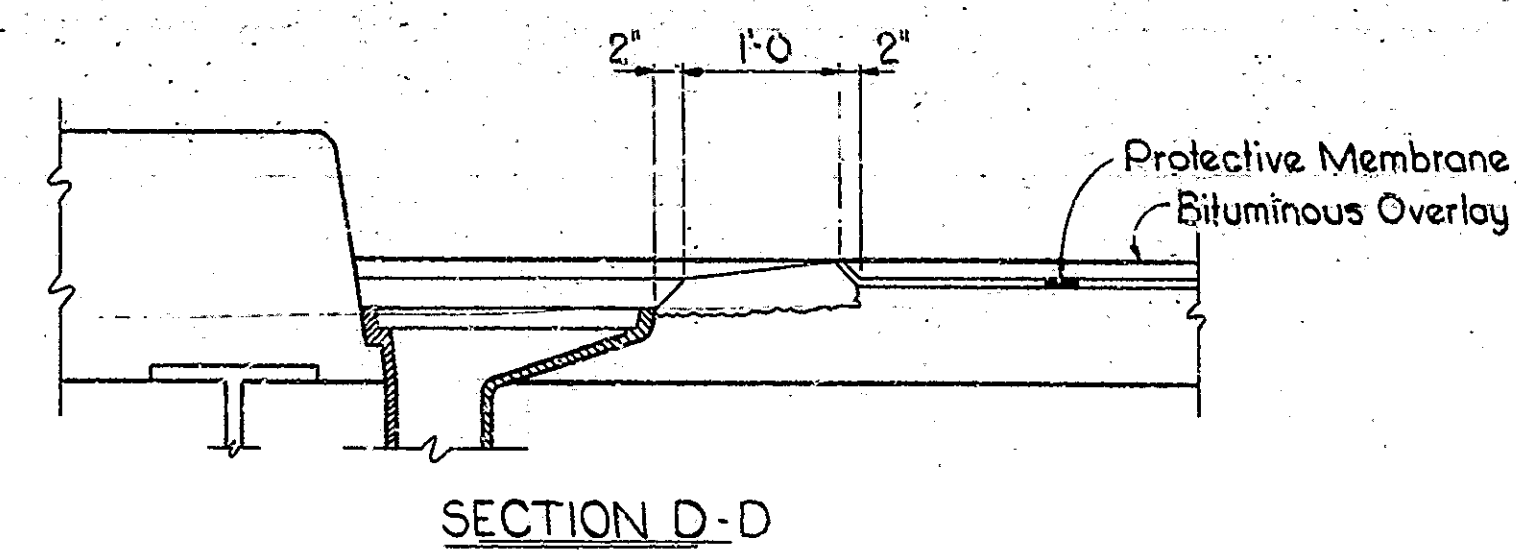


DETAIL A
See Drwg. D1

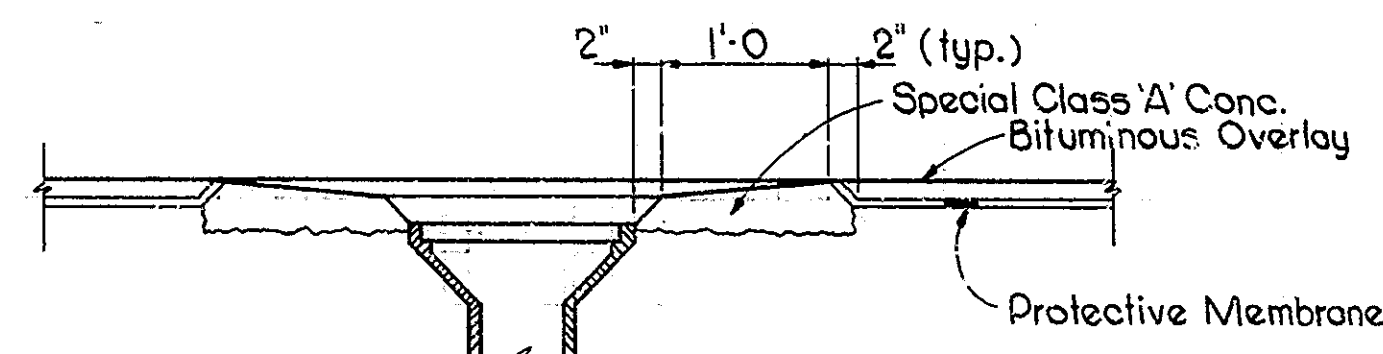


*To be determined in the field, see the Special Provisions.

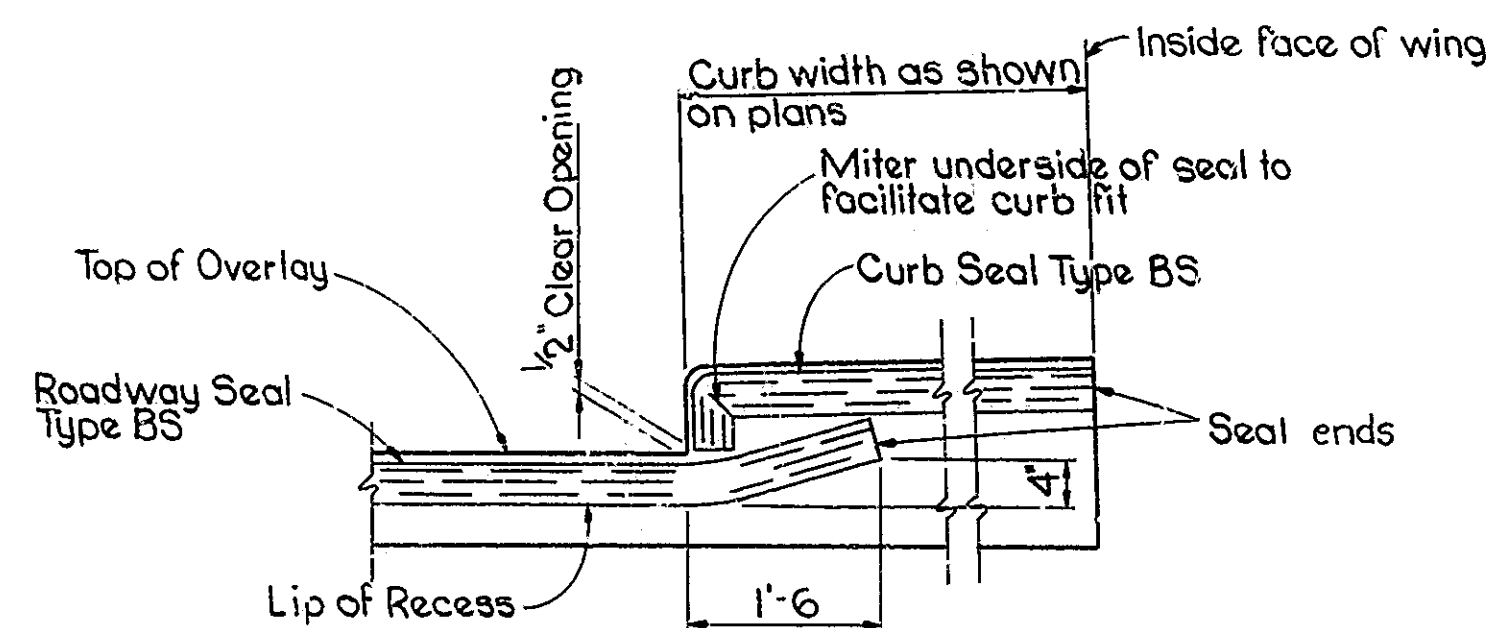
Bridge Seal	A	B	C	D
BS 2	1"	*	0"	1/2"
BS 9	2 5/8"	*	1 5/8"	1/2"



SECTION D-D

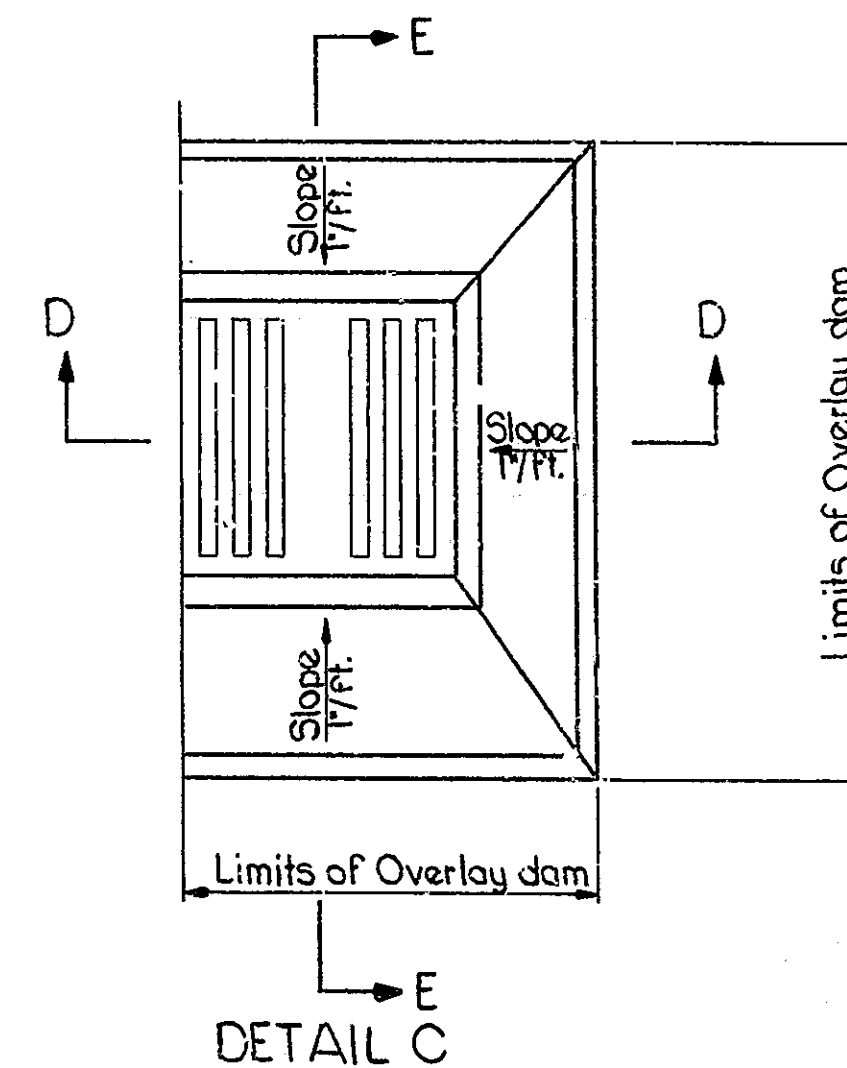


SECTION E-E



TYP. BS JOINT INSTALLATION AT CURBS

Clean out and rebuild existing curb and walk joints to accommodate joint seal. Such work to be included in cost of Expansion Joint Type BS.
For General Notes and Material Notes see the General Plan.



DETAIL C

SUMMARY

Description	Unit	Quantity
(a) Special Class 'A' Concrete	Sq. Ft.	2600
Bituminous Mixture for Approaches	Tons	180
Removal of Pavement	Sq. Yds.	13
(b) Expansion Joint Type BS 2	Lin. Ft.	49.5
(b) Expansion Joint Type BS 9	Lin. Ft.	49.5
Expansion Joint Type SR 4	Lin. Ft.	31.0
Deck Drains	Each	42
Surface Seal	Sq. Ft.	8860
(c) Maintaining Traffic	L.S.	1
Construction Signs Type 'A'	Each	24
Temporary Pavement Marking Tape	Lin. Ft.	1000
(c) Sidewalk Repair	L.S.	1
(d) Sheet Applied Membrane	L.S.	1
Flashing Arrow Board	Each	1

- (a) Includes concrete removal, sawcuts, cleaning reinforcing, and Epoxy Bonding Compound.
- (b) Includes preparation of walks and curbs.
- (c) Includes cleaning surface, Portland Cement Concrete, and Epoxy Bonding Compound. Estimated Portland Cement Concrete quantity = 62.4 sq. yds.
- (d) Estimated quantity = 11,865 Sq. Ft.
- (e) Includes 544 Lft. of Temporary Barrier Railing and 75 Tons of Bituminous Base # 53B

DETAILS AND SUMMARY INDIANA STATE HIGHWAY COMMISSION

SCALE:- NO SCALE

DATE:- FEBRUARY 27, 1974

William B. O'Neil
REGISTERED PROFESSIONAL ENGINEER OF BRIDGE DESIGN

DRAWING: D4 OF 4 SHEET: 6 OF 12

PROJECT:- 5T-724 C

CONTRACT NO. B-9870

BRIDGE FILE: 30-02-2376 1A

DESIGNED	CKD
DRAWN	JH CKD/DLE
TRACED	CKD

