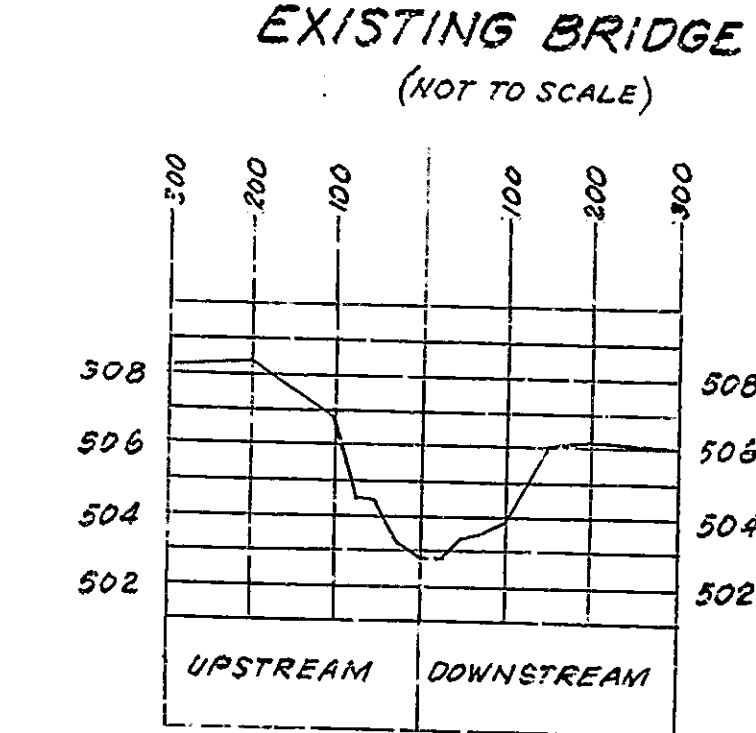
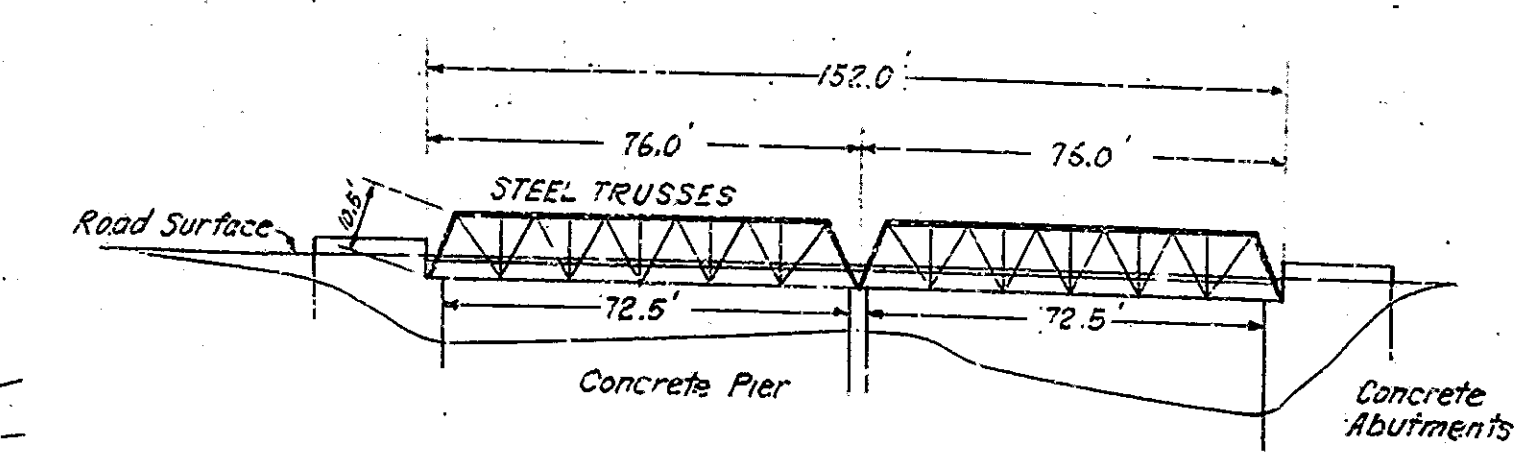


UTILITY OWNERS

BELL TELEPHONE CO.  
PUBLIC SERVICE CO. OF INDIANA, INC.

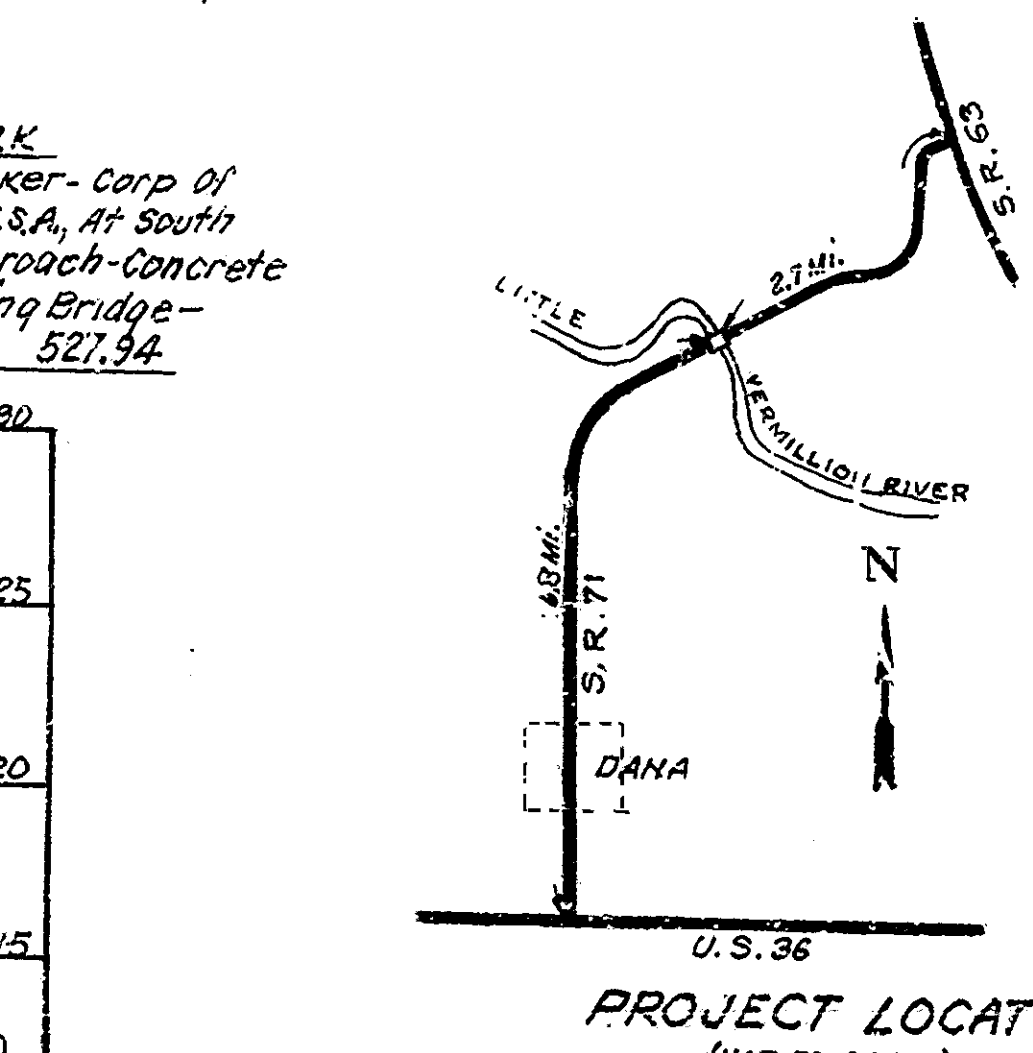
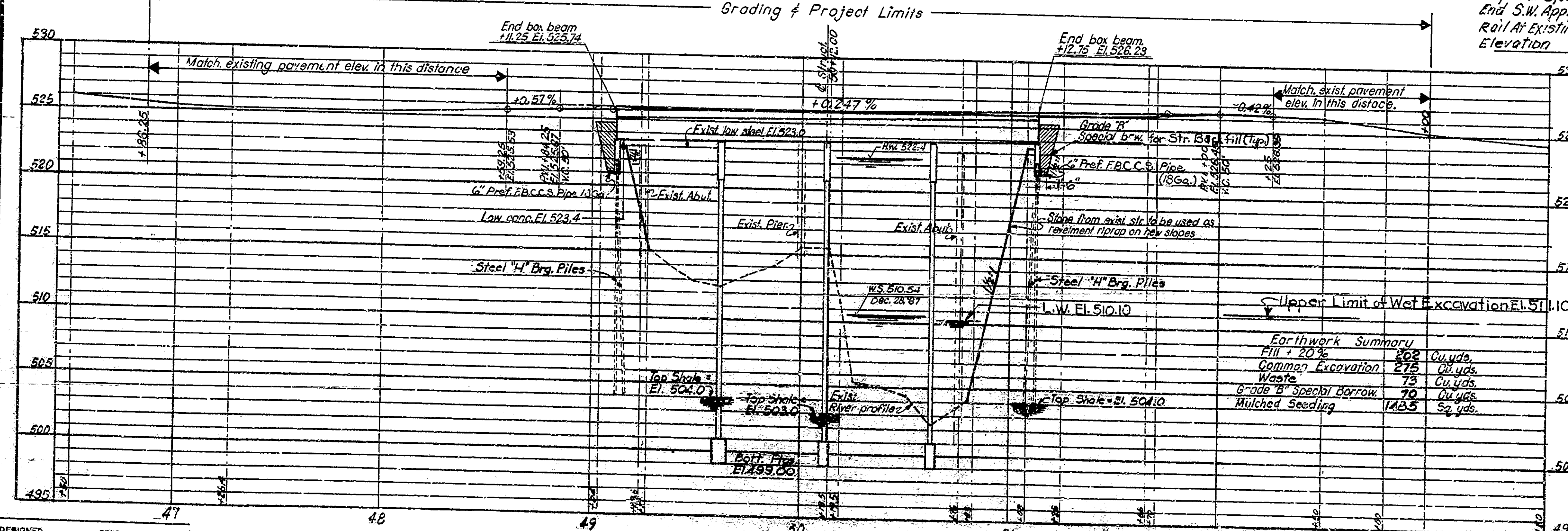
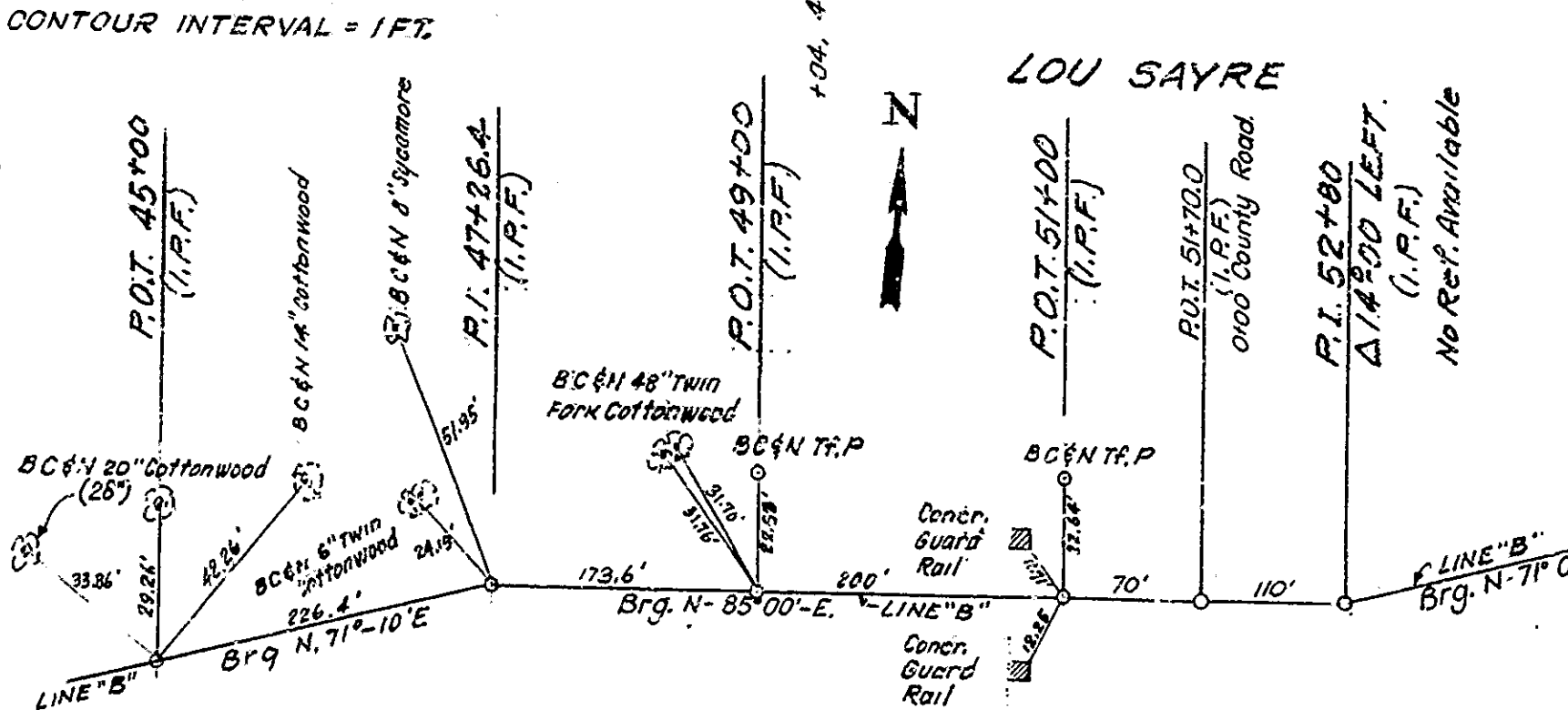
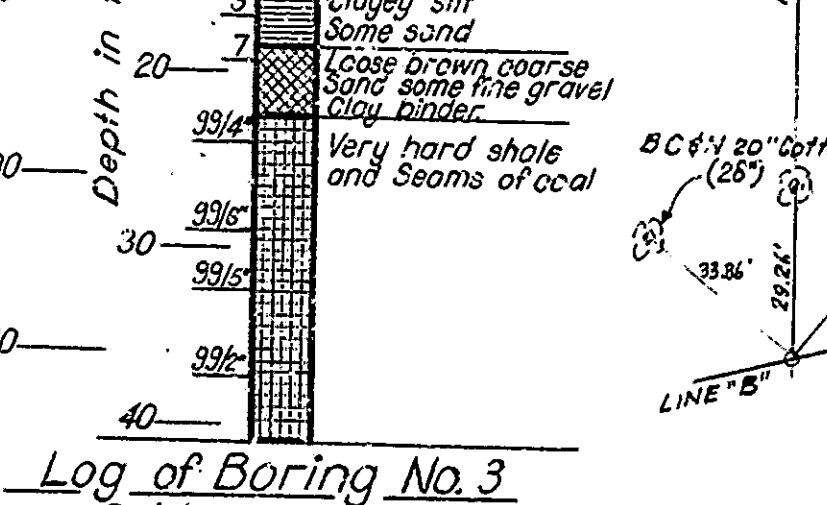
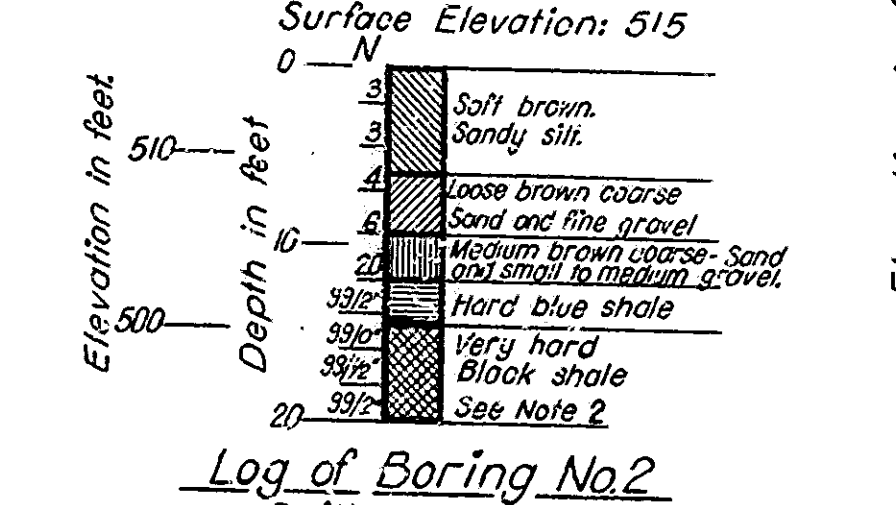
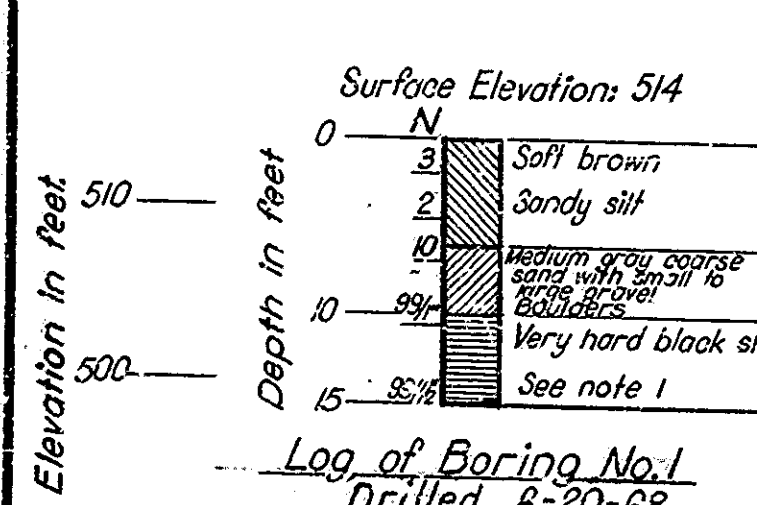
BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.		1968	2 24



DRAINAGE AREA  
220.7 Sq. Mi. = 141,248 Acres

Note 1: Cored 3' 6" from 10' to 13' 6" Recovery 7"  
Second run from 13' 6" to 15' 0" No Recovery  
Tried to pick up split spoon sample at 15' 0"

Note 2: Cored 1st run from 14' 2" to 16' 2"  
No Recovery Lost split spoon sample at 16' 2"  
2nd run from 16' 2" to 18' 2" No Recovery Lost sample at 18' 2" to 20' 2" No Recovery Lost split spoon sample at 20' 2"



LAYOUT  
PRESTRESSED REINF. CONC. SLAB BRIDGE (COMPOSITE)  
4 SPANS 49'-9" - 50'-6" - 50'-6" - 49'-9" 28' ROADWAY, 3' CURBS  
OVER LITTLE VERMILLION RIVER ON S.R. NO. 71

INDIANA STATE HIGHWAY COMMISSION  
VERMILLION COUNTY

SCALE: AS NOTED  
July 25, 1968

SUBMITTED FOR APPROVAL:

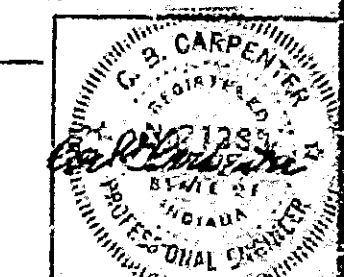
DRAWING: 0-1 OF 6  
PROJECT: BRIDGE CONTRACT NO. 8-8126  
BRIDGE FILE: 71-83-5836

DESIGNED: K.O. CKD. B.A.B.  
DRAWN: K.O. CKD. B.A.B.  
TRACED: CKD.

PROFILE ON PROPOSED ROADWAY  
SCALE: HORIZ. 1"=30 FT. VERT. 1"=5 FT.

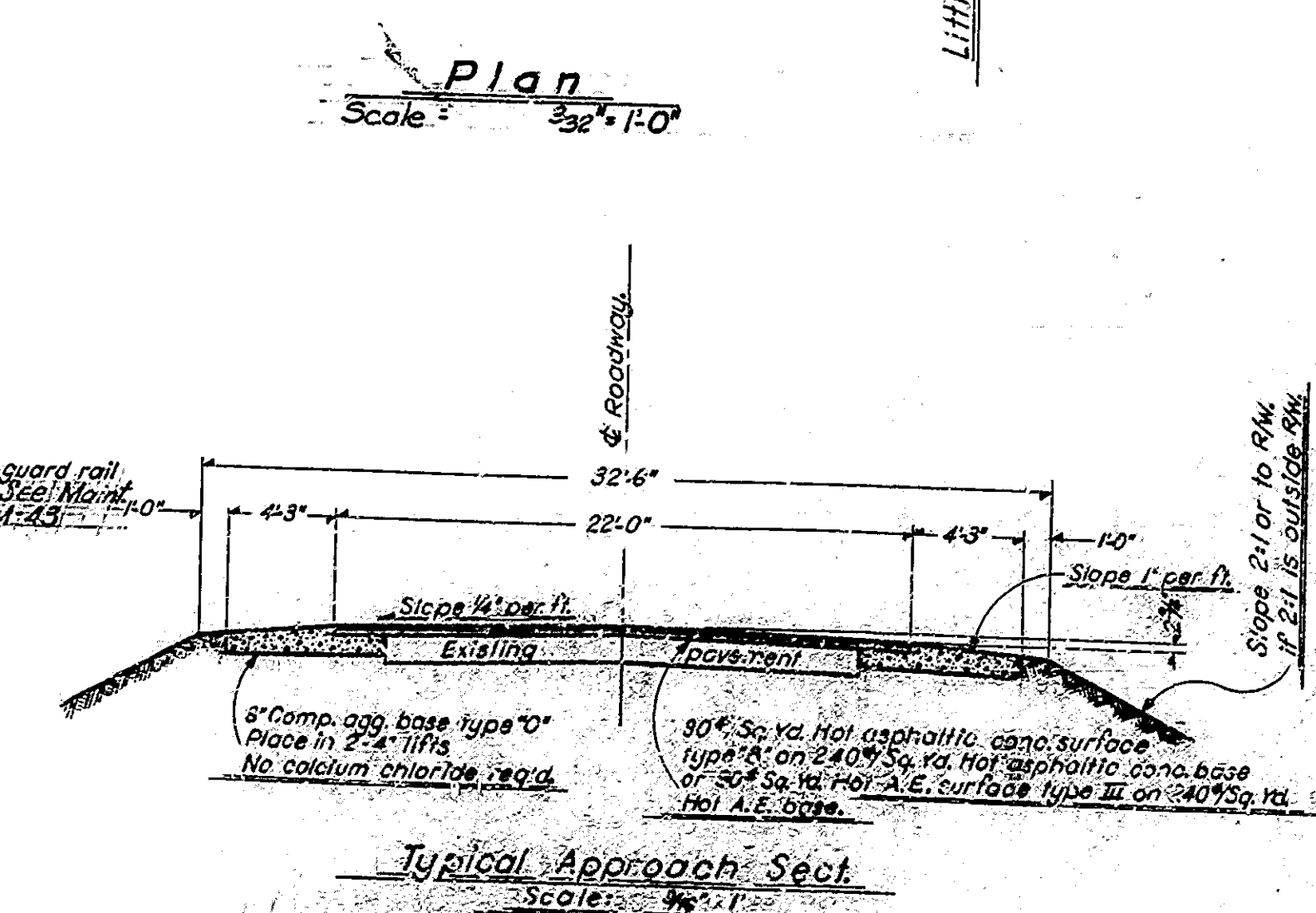
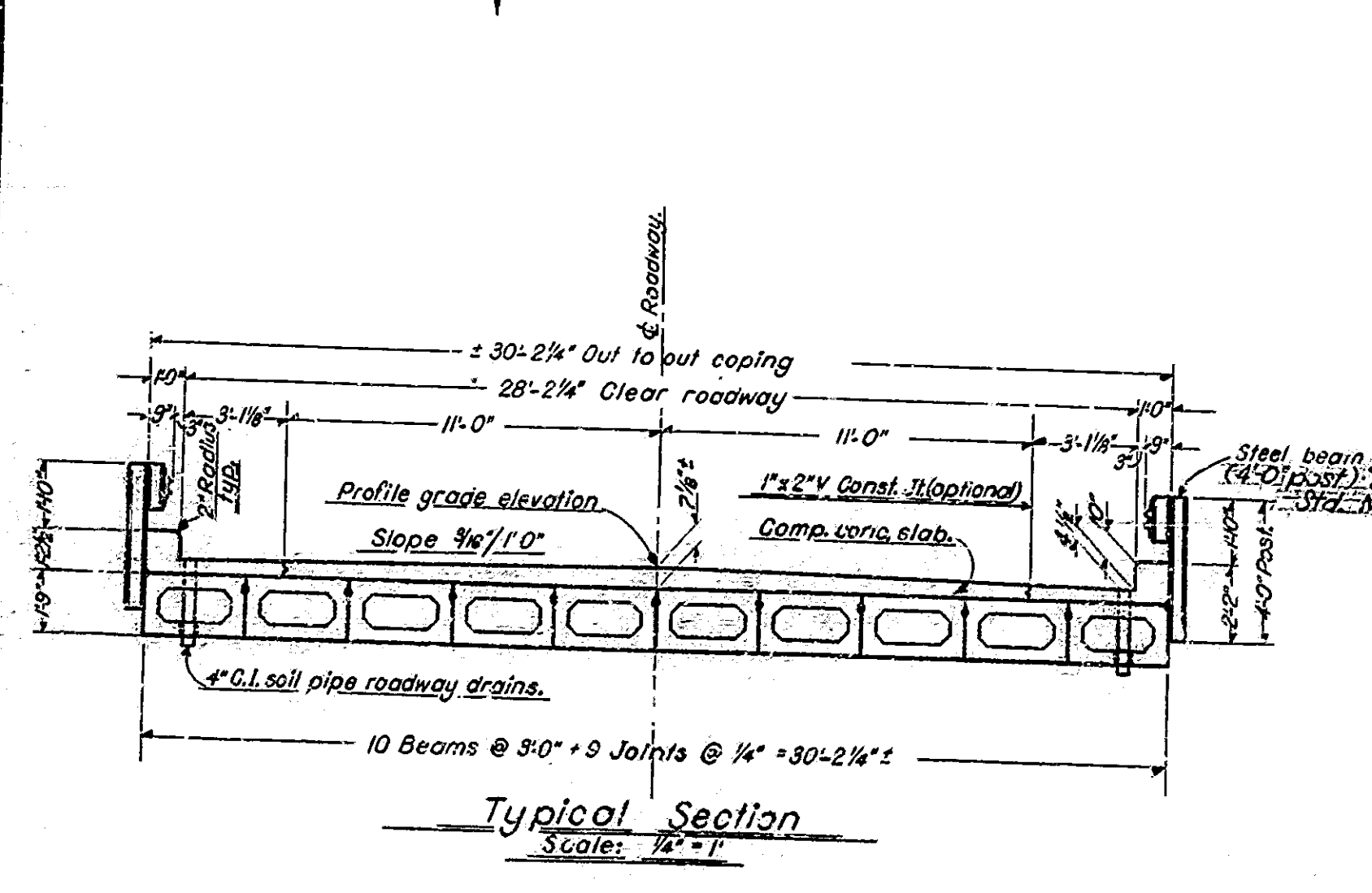
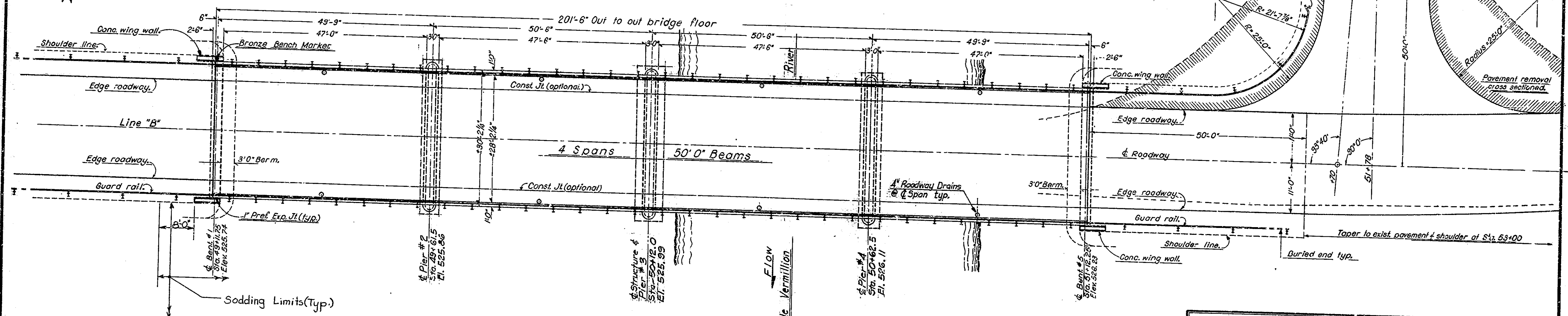
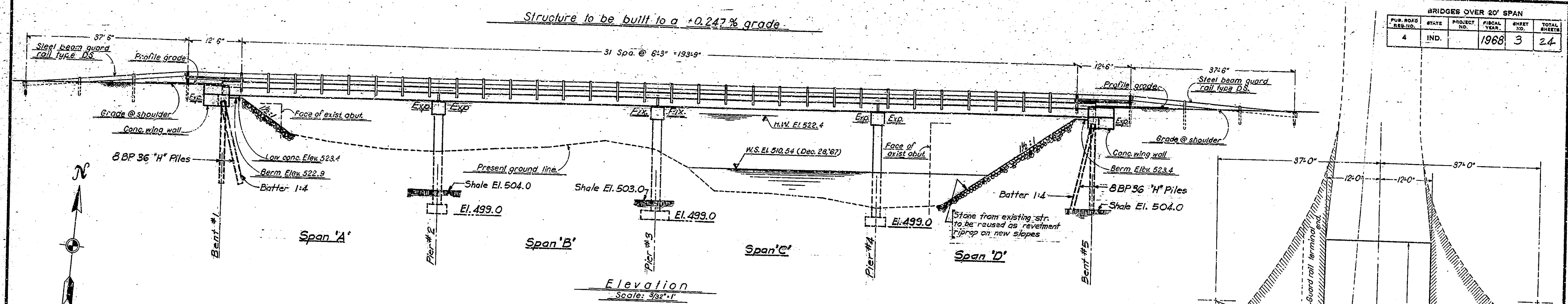
NOTE: SEE ART. 4-403 OF THE SPECIFICATIONS REGARDING TEST PIT DATA

Rev. 5-28-69 Gravel's B' Spec. Borrow.  
Rev. 5-9-69 Exc. Note & Limit of Wet Exc.





BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.		1968	3	24



Standard Drawings			
Mount. Std.	BR. Std.	R.D. Std.	Purpose
	CI		Rein. bar notes, Bar bending details
	PB 6		Prestressed box beams
	PB 9 D		Prestressed composite box beams
	PB 10		Tolerances for prestressed box beams
	PB 11		Elastomeric bearing pad details
	SI		Guard rail type 'Ds' (Structure mounted)
M-43	GR 8		Guard rail type 'Ds' (Structure mounted)
	SH 2		Delour signs
	SH 3		Delour signs
			Special signs NW-14 & XR-4

**General Notes**

For details of piles, see Br. Std. C-1 and applicable articles in the specifications.

Piles shall be driven to approximate refusal. Determine pile lengths by Art. F-205 of specifications.

Tolerance in position of the pile head maximum 2 inches.

Reinforcing steel covering shall be 2 inches unless noted otherwise.

Riprap slope walls at end bents as shown on plans.

Concrete in footings and pier stems to be Class "E".

Concrete in superstructure, pier caps, bent caps, & wing walls - Class "F".

Continuous conc. pours shall be required between construction joints as indicated on detail plans.

Bent forms "W" under copings; and chamfer exposed edges 1" unless noted otherwise.

Waterproof back of end bents, wings and beams at end of structure in accordance with specifications.

All callings to be constructed perpendicular to grade.

5-Roadway Drains to be placed as indicated on this drawing.

See special provisions for items included in this contract.

**Design Data**

Designed for HS20-44 loading in accordance with 1985 AASHTO specifications.

**GENERAL PLAN**

Prestressed Reinf. Conc. Slab Bridge (Composite)

4 Spans + 49'-9" - 50'-6" - 50'-6" - 49'-9" 28' Rdwy. 3" Curbs.

Over Little Vermillion River on S.R. No. 71

**INDIANA STATE HIGHWAY COMMISSION**

Vermillion County

SCALE: As noted.

July 25 1968

SUBMITTED FOR APPROVAL:

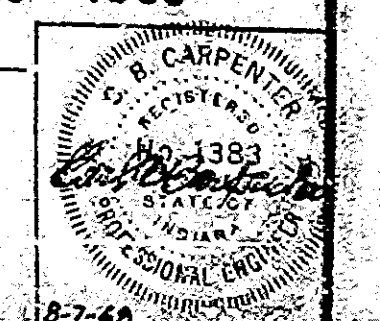
DRAWING: C-2 OF 6

PROJECT: BRIDGE CONTRACT NO. B-8126

BRIDGE FILE: No. 71-83-5336

DESIGNED: K.O. CKD  
 DRAWN: B.A.B. CKD  
 TRACED: CKD

Rev. 5-9-69 Sodding Limits.







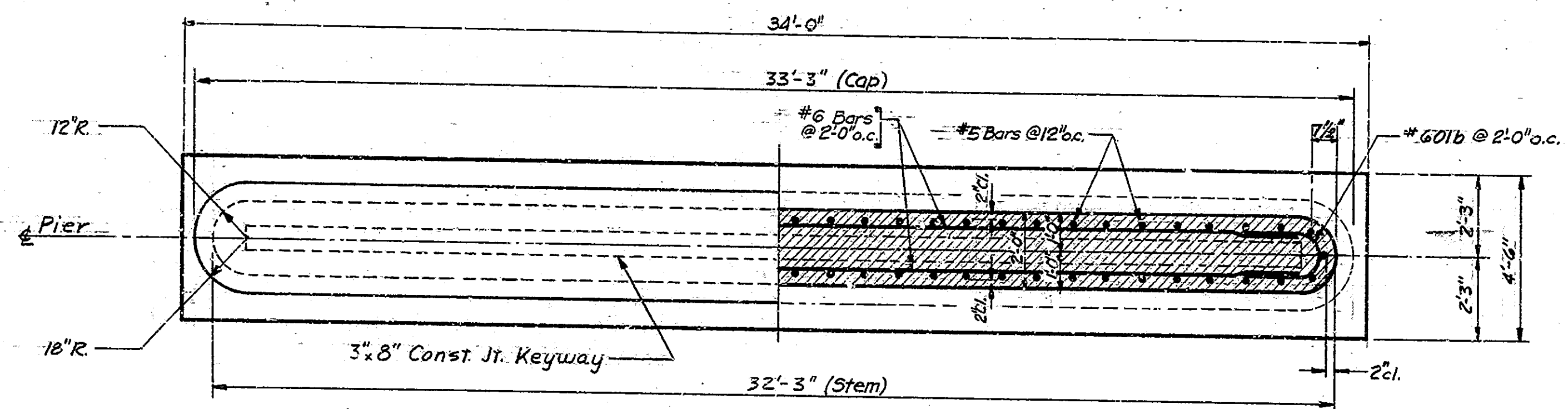


BRIDGES OVER 20' SPAN				
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.		1968	5 24

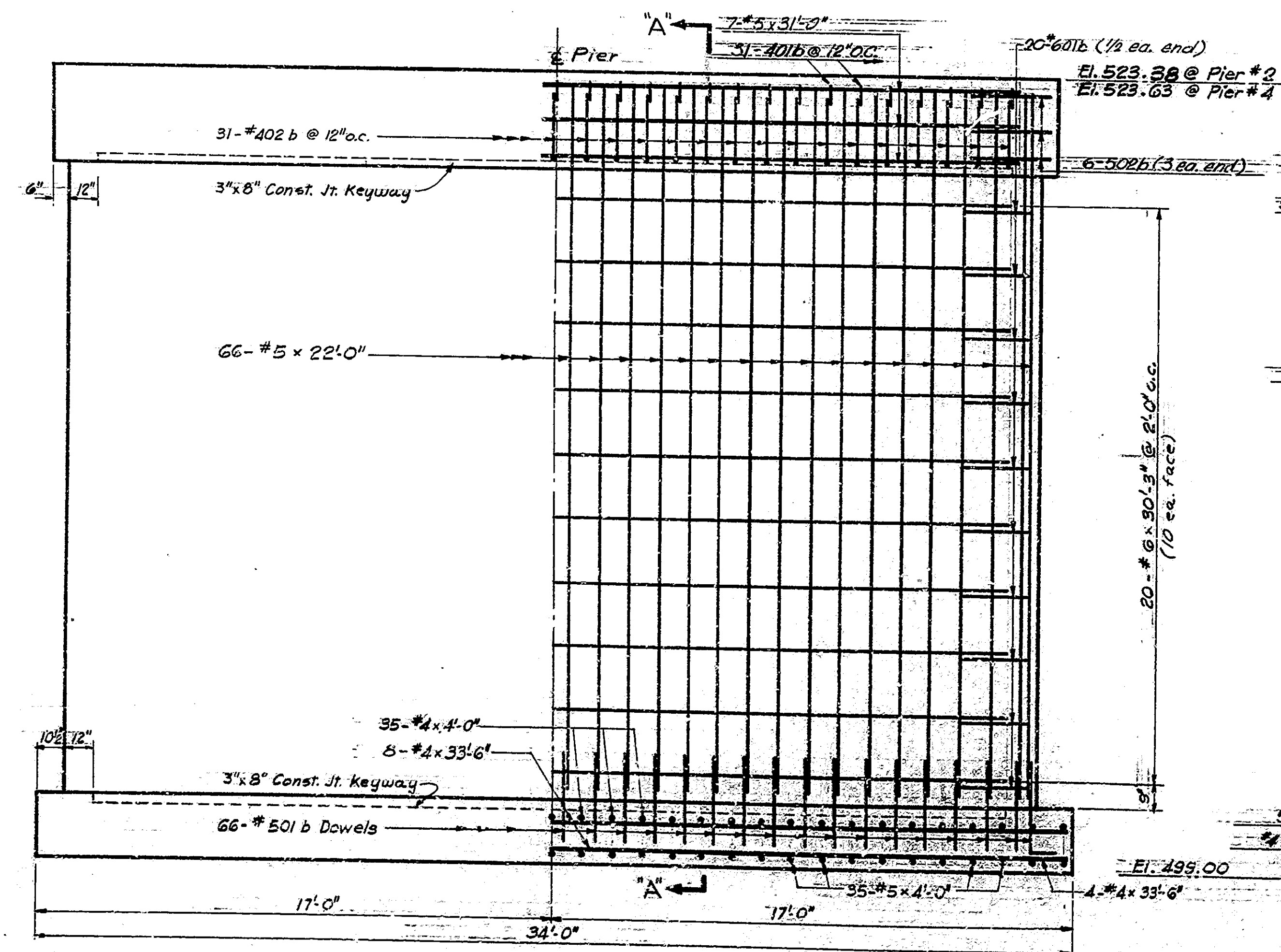
**BILL OF MATERIALS**  
PIER # 2 (PIER # 4 SAME)

Reinforcing Steel			
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT LBS.
#6	20	30'-3"	910
601b	20	5'-5"	163
TOTAL			1073
#5	7	31'-0"	227
5	66	22'-0"	1515
5	35	4'-0"	146
501b	66	4'-3"	293
502b	6	7'-0"	44
TOTAL			2225
#4	35	4'-0"	94
401b	31	3'-8"	76
402b	31	7'-8"	159
#4	8	33'-6"	179
TOTAL			508
TOTAL STEEL			3806

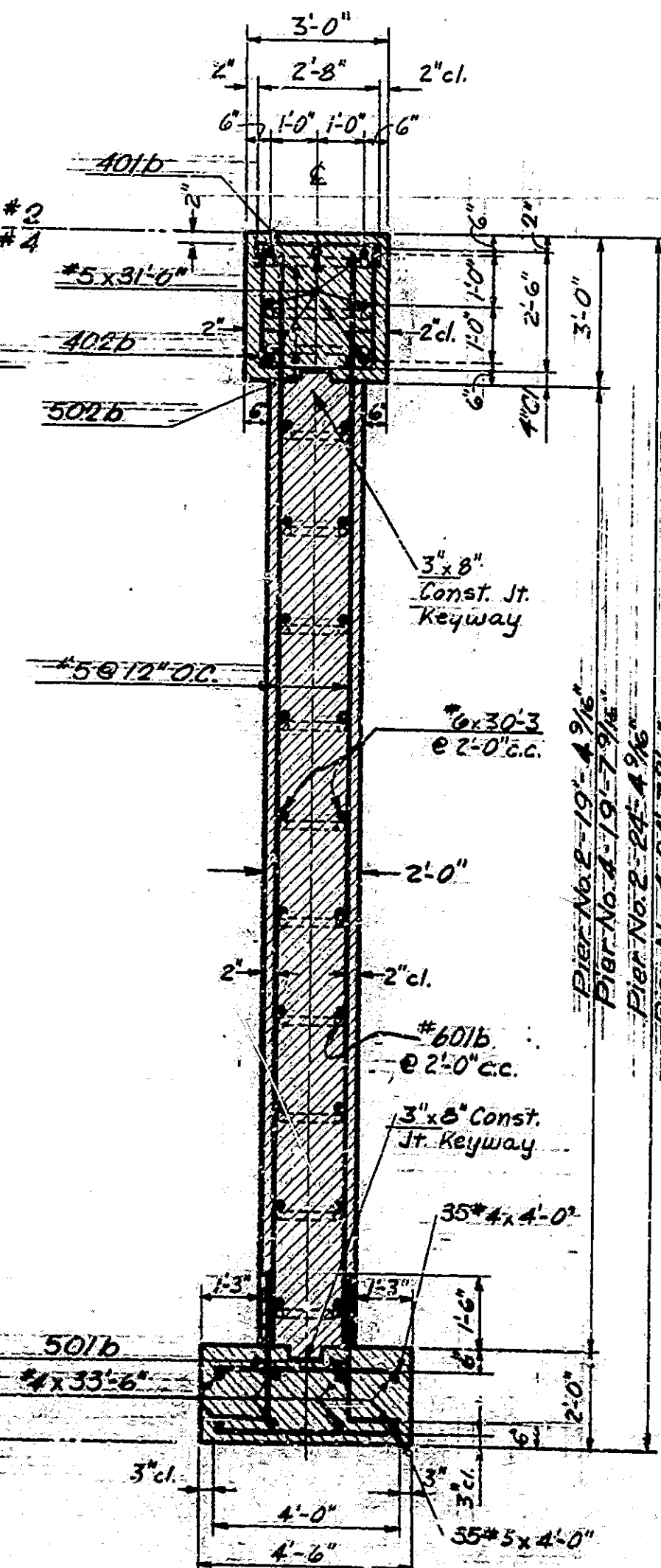
Concrete		
PIER	#2	#4
CLASS "E" FOOTING	11.3 CY.	11.3 CY.
" " PIER STEM	45.9 CY.	46.3 CY.
TOTAL CLASS "E"	57.2 CY.	57.6 CY.
CLASS "F" PIER CAP	10.9 CY.	10.9 CY.
TOTAL CLASS "F"	10.9 CY.	10.9 CY.



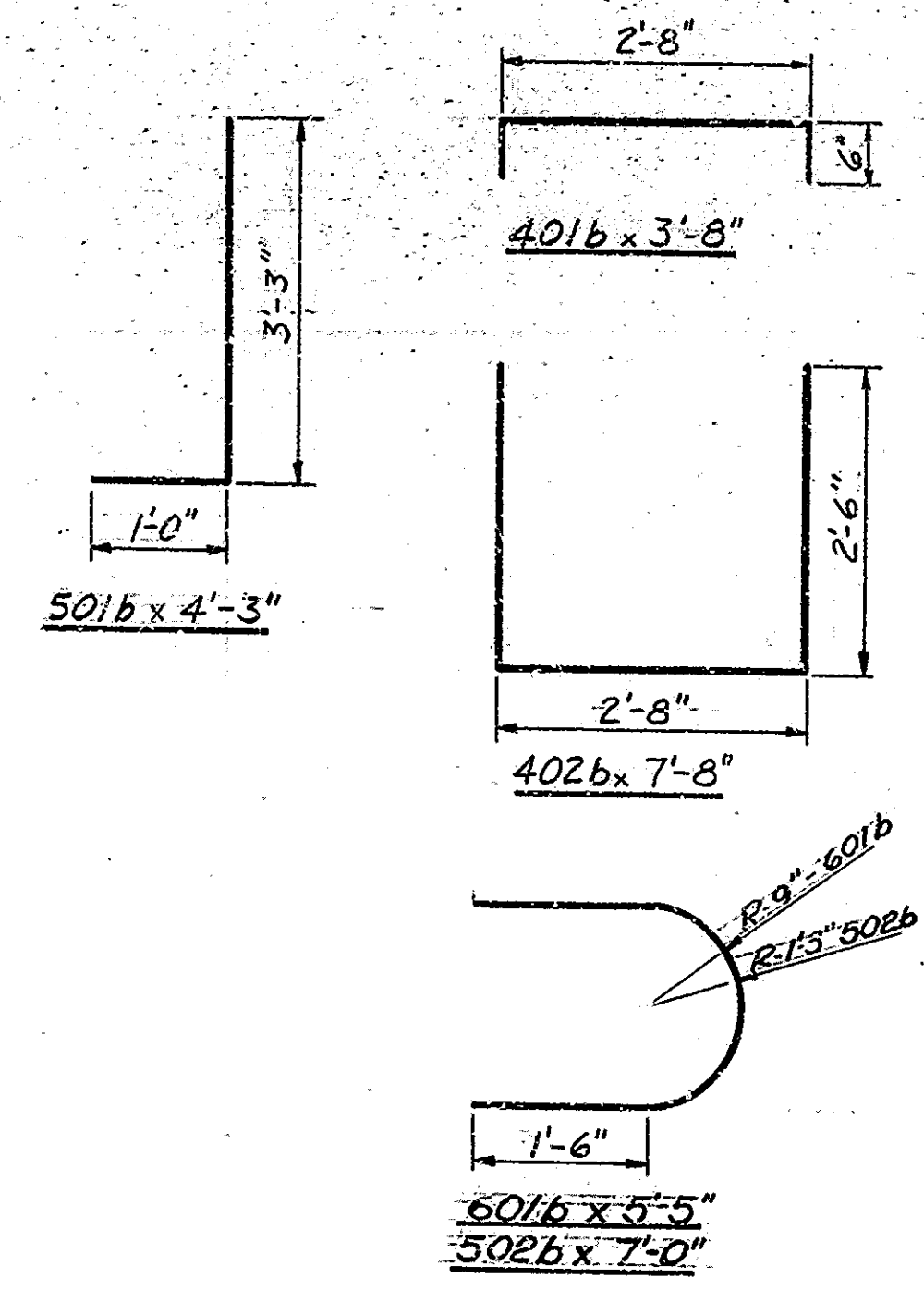
**Pier Plan**  
Scale: 3/8"=1'-0"



**Elevation**  
Scale: 3/8"=1'-0"



**Section A-A**  
Scale: 3/8"=1'-0"



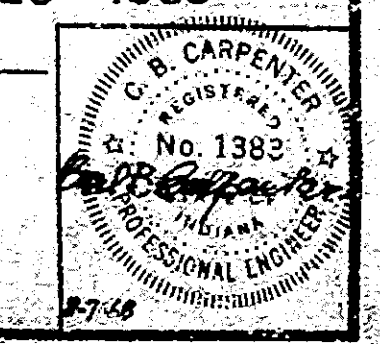
NOTE: See Brg. Std. C-1 for Reinforcing bar notes.

Details - Pier # 2 & #4  
Prestressed Reinf. Conc. Slab Bridge (Composite)  
4 Spans: 49'-9"-50'-6"-50'-6"-49'-9" 28' Roadway 3" Curbs  
Over Little Vermillion River on S.R. No. 71

**INDIANA STATE HIGHWAY COMMISSION**

Vermillion County July 25 1968

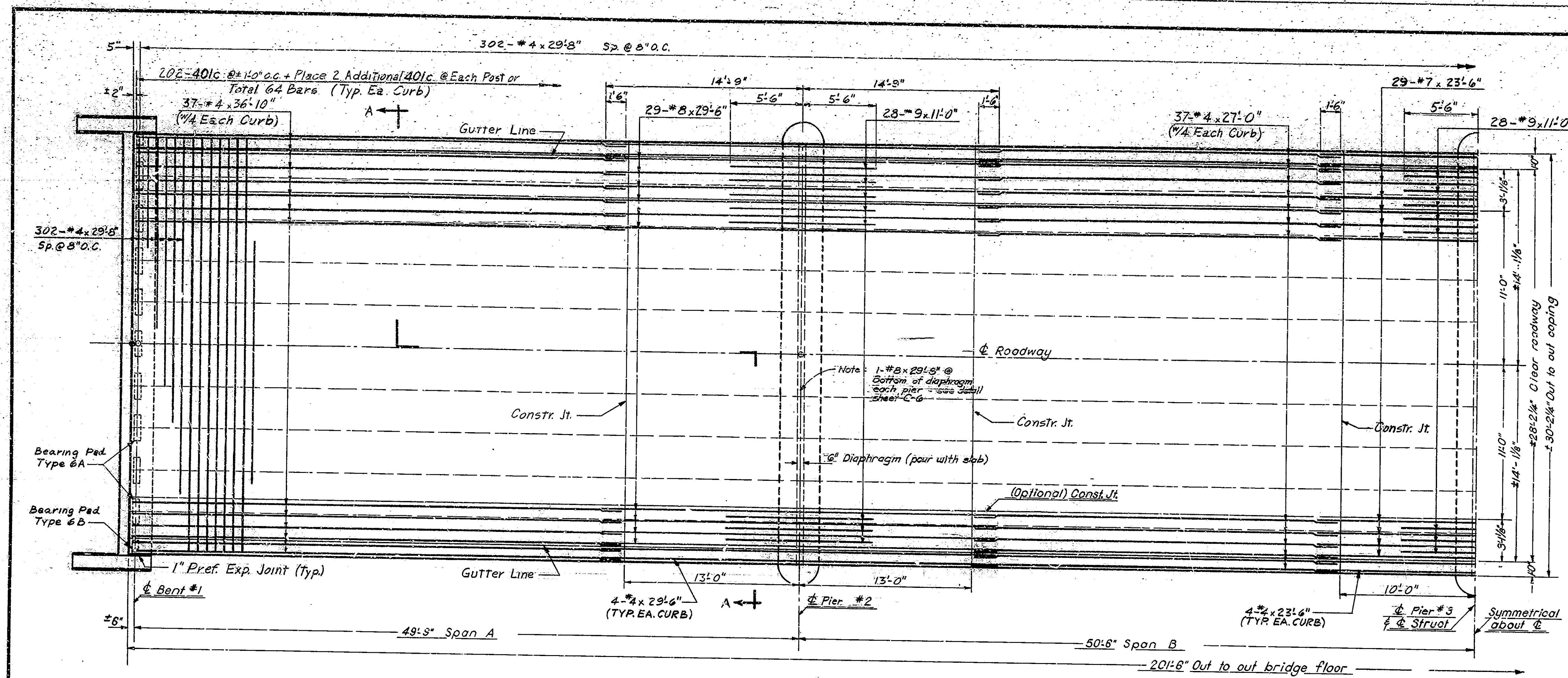
SCALE: As noted  
SUBMITTED FOR APPROVAL:  
DRAWING: C-4 of 6  
PROJECT:  
BRIDGE CONTRACT NO. B-8126  
BRIDGE FILE: No. 71-83-5436



DESIGNED: PHH CKD  
DRAWN: A.B. CKD, R.A.B.  
TRACED: CKD

Max. Soil Pressure: 3.5 tons/sq. ft.



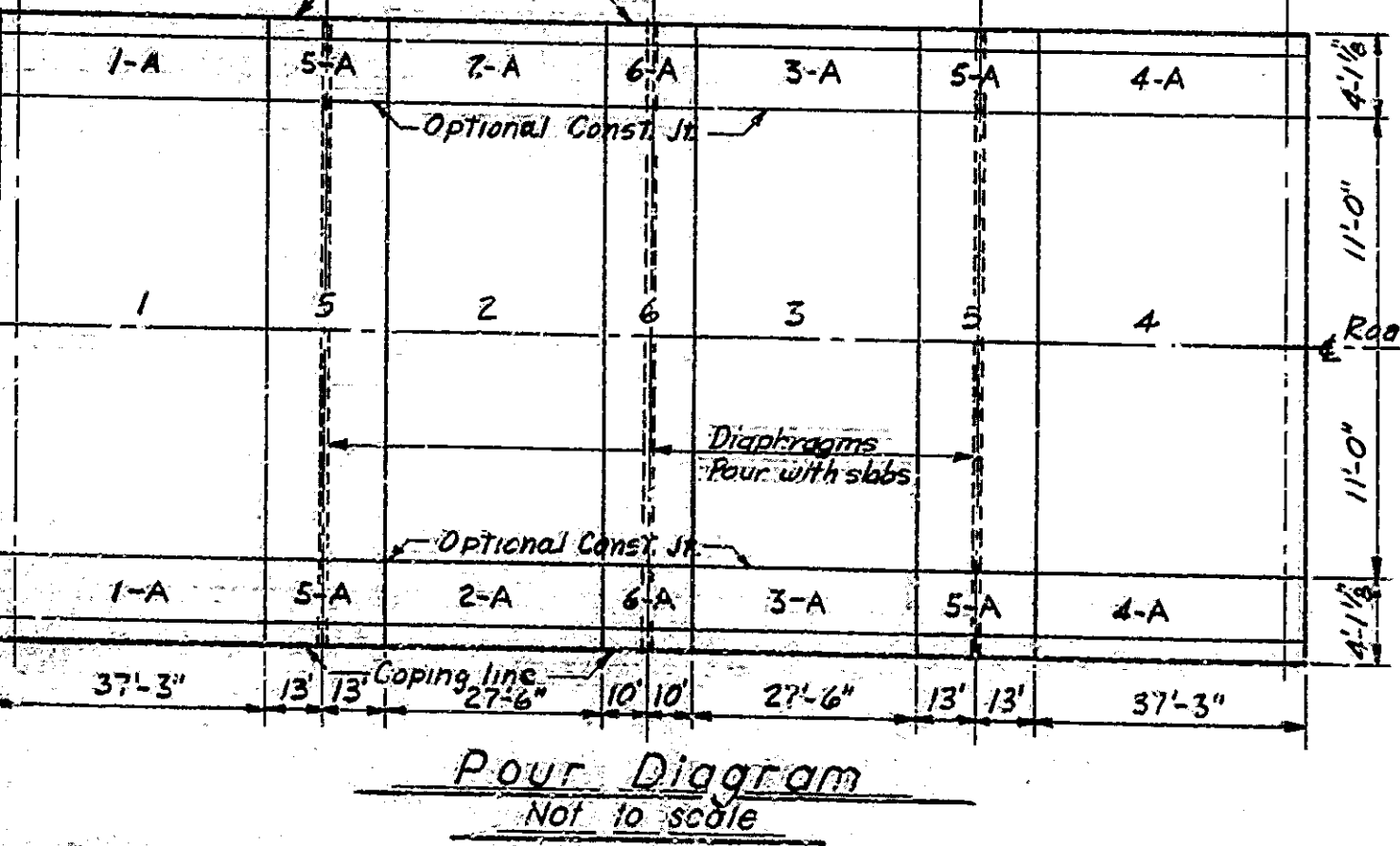
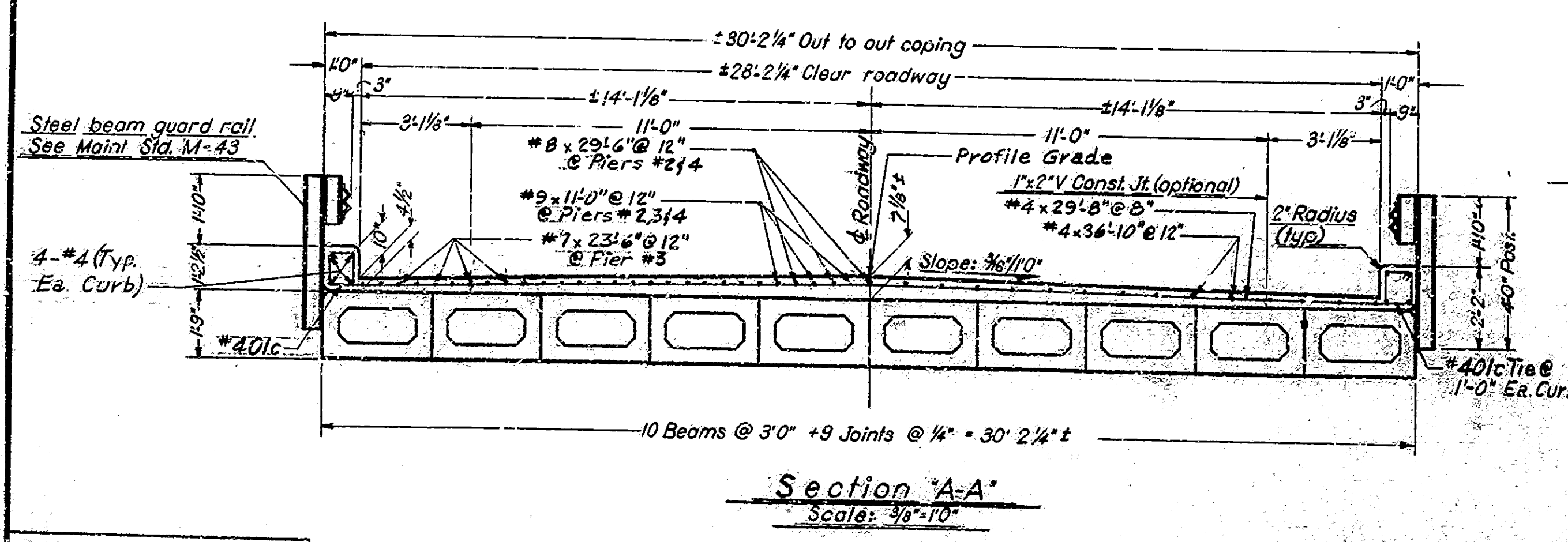
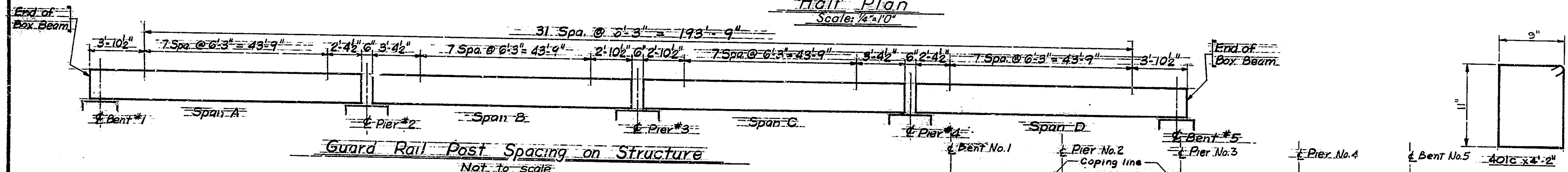


BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.		1968	6	24

**Bill of Materials Superstructure**

Reinforcing Steel				
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT	
#9	64	11'-0"	3,142	
		TOTAL	3,142	
#8	3	29'-8"	238	
#8	58	29'-6"	4,568	
		TOTAL	4,806	
#7	29	23'-6"	1,393	
		TOTAL	1,535	
#4	74	36'-10"	1,821	
#4	302	29'-8"	5,985	
#4	16	29'-6"	315	
#4	74	27'-0"	1,335	
#4	8	23'-6"	126	
#401c	532	4'-2"	1,481	
		TOTAL	11,025	
TOTAL STEEL 20,404				

Concrete		
Class "F"	Cys.	
POUR 1	1 @ 15.5 CYS	15.5
1-A	2 @ 3.4 "	6.7
2	1 @ 11.4 "	11.4
2-A	2 @ 2.5 "	5.0
3	1 @ 11.4 "	11.4
3-A	2 @ 2.5 "	5.0
4	1 @ 15.5 "	15.5
4-A	2 @ 3.4 "	6.8
5	2 @ 11.5 "	23.0
5-A	4 @ 2.5 "	10.0
6	1 @ 9.0 "	9.0
6-A	2 @ 1.9 "	3.9
TOTAL CLASS "F" CONC.		123.2 CYS.
Miscellaneous		
Total Steel Bm. Guard Rail on str. = 387'-6" 11/16" Ft.		

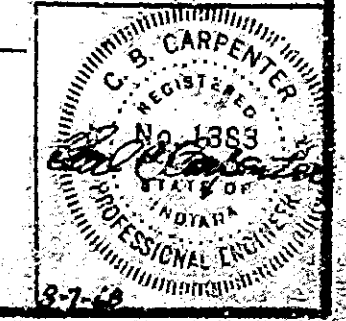


**Design Notes**  
 UNIT Stresses:  $f_s = 20,000 \text{ psi}$ ,  $f_c = 1,200 \text{ psi}$   
 Live Load: HS 20-44 with impact and distribution of loads in accordance with 1965 A.A.S.H.O. specs.  
 Dead Load: Includes  $35 \text{ lb/ft}^2$  of roadway for future wearing surface.  
 Slab designed with 1" wearing surface.

**Superstructure Details**  
 Prestressed Reinf. Conc. Slab Bridge (Composite)  
 4 Spans: 49'-9" - 50'-6" - 50'-6" - 49'-9" 28' Roadway, 3" Curbs  
 Over Little Vermillion River on S.R. No. 71  
**INDIANA STATE HIGHWAY COMMISSION**  
 Vermillion County  
 SCALE: As noted July 25 1968

DESIGNED: CKD  
 DRAWN: K.O. CKD, D.A.P.  
 TRACED: CKD

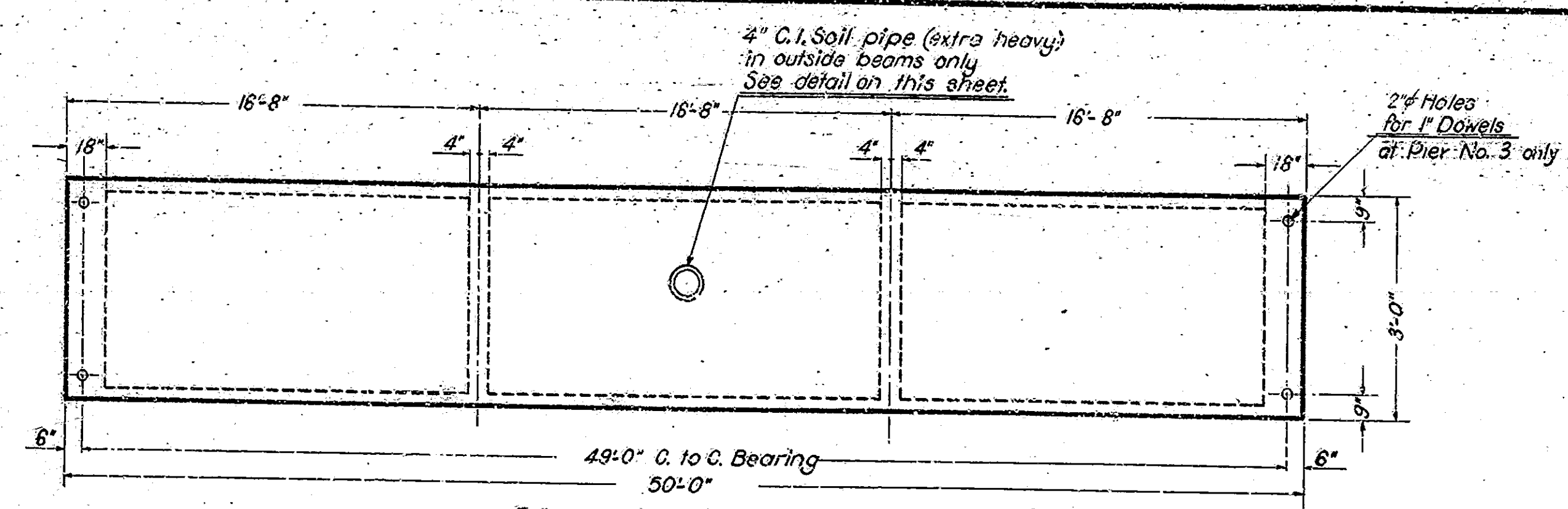
**Note**  
 Pour numbers indicate sequence of pours. Pours over interior supports to be made last to reduce the effect of the slab dead load in the negative moment area.



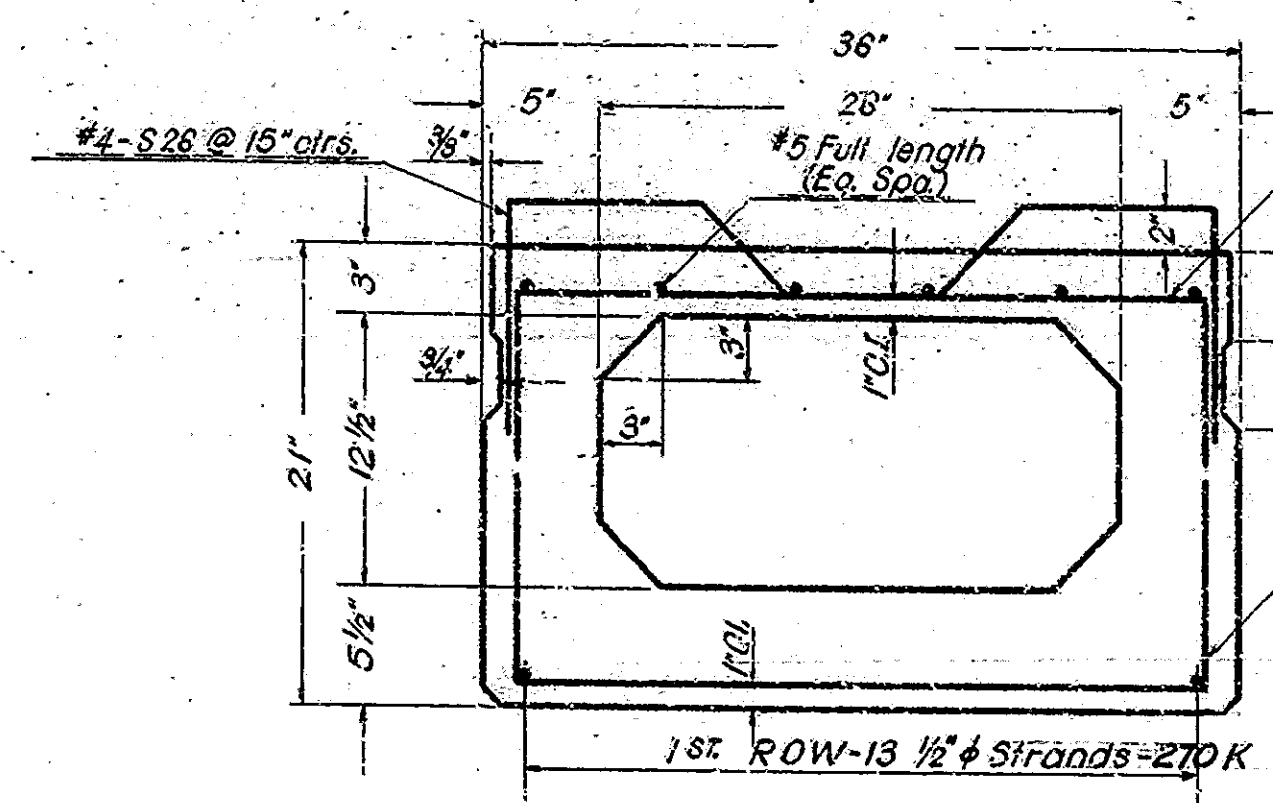
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	DATE
		6	24	



BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.		1968	7	24



**Plan Typical Beam**  
 Not to scale  
 Computed Beam Camber as Erected +0.7343"  
 D.L. Deflection of Beam Due to D.L. of Slab -0.2697"  
 Residual Beam Camber with Slab in Place +0.4646"

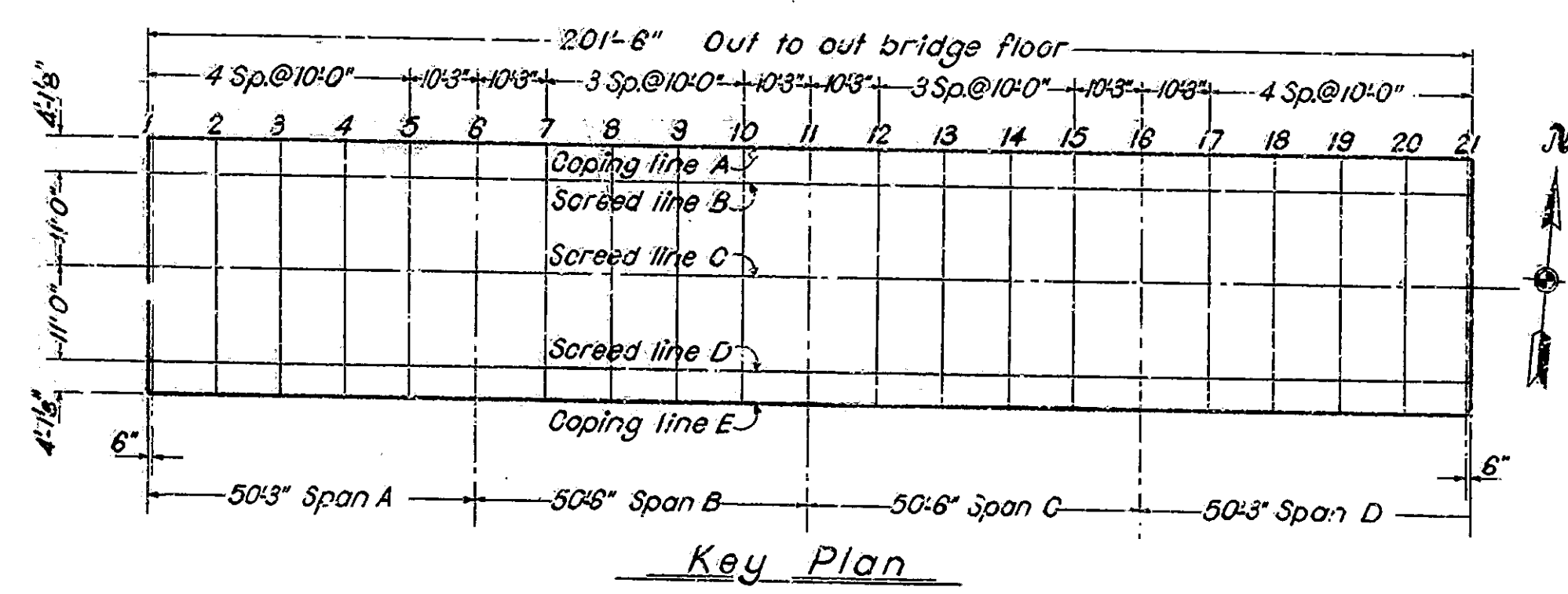


Note: Break Bond 3'-0" on 3 Strands.

**Beam Section**  
 Scale: 1/2"=1'-0"

**NOTE** - The outside face of outside beams shall be rubbed by the fabricator in the shop and final rub in the field according to Art E-103.9b except rubbing to be done within 18 hours after concrete is poured. The material and labor for the manufacture, transporting, and erection of the beams, including elastomeric bearing pads, dowels, dowel holes, grout and or mastic, lifting devices, rubbing, and shop drawings shall be included in the Lump Sum bid price for "Structural Members".  
 The beam Manufacturer shall furnish the Engineer, thru the Contractor, 5 sets of shop drawings for his approval prior to the casting of the beams.

- Notes**
- 1- Strands to be 1/2" dia - High Strength 270 K.
  - 2- See Brg. Std. PB 6 for cable Pattern, General Notes, Design Data, etc., except as noted.
  - 3- Elastomeric Brg. pads to be 50 Durometer Hardness.
  - 4- Reinforcing steel in prestressed beams; included in cost of beams.

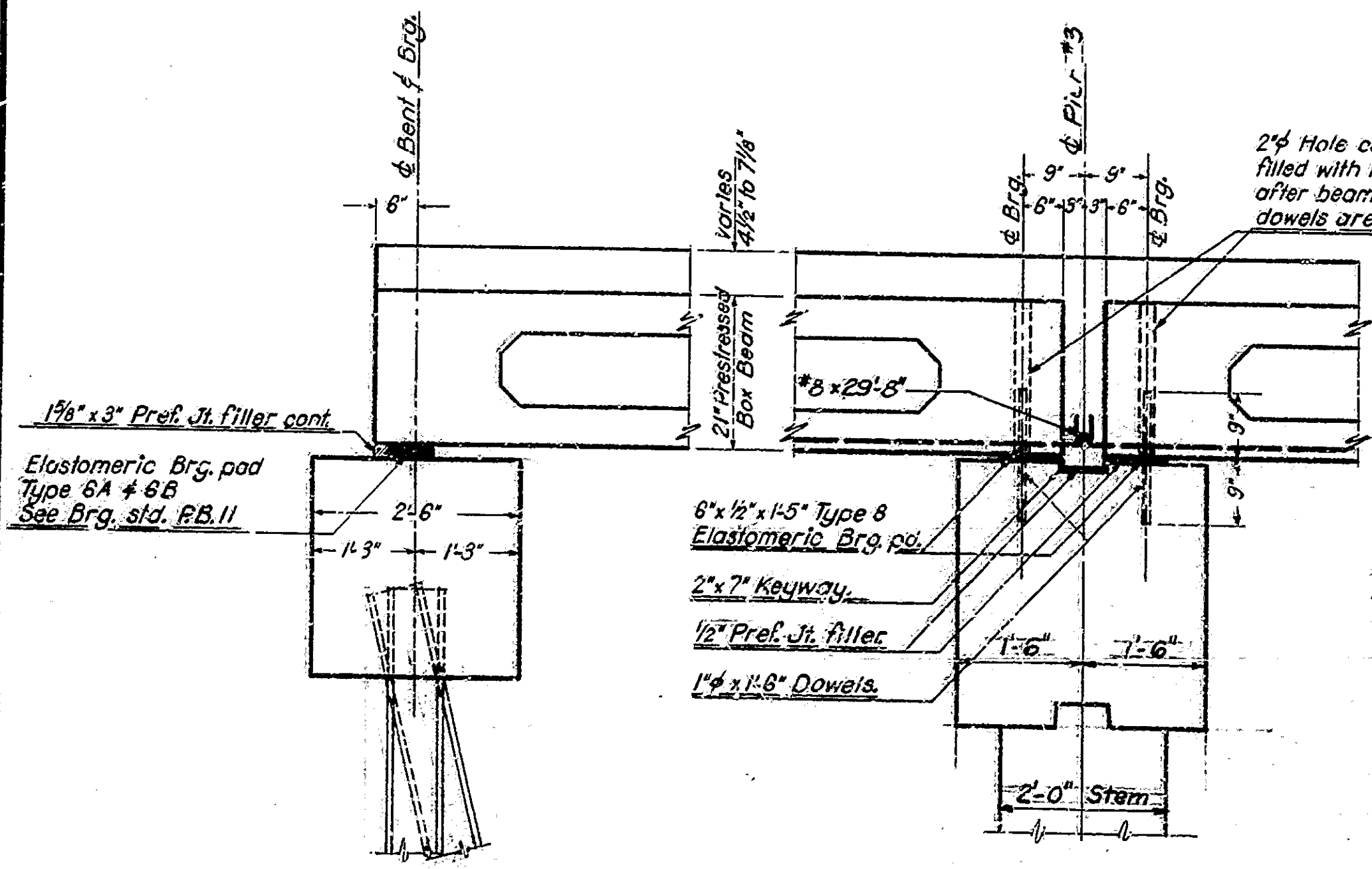


**Key Plan**

Table of Elevations		Lines A, B, C, D, E																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
A	El. Top of Coping form	526.351	526.381	526.420	526.445	526.462	526.475	526.512	526.545	526.570	526.586	526.600	526.637	526.670	526.694	526.711	526.724	526.762	526.794	526.819	526.836	526.846
	Dist. Top of Beam to top of Cop																					
B	El. Top of Beam	525.565	525.601	525.634	525.659	525.676	525.689	525.726	525.759	525.784	525.800	525.814	525.851	525.884	525.908	525.925	525.938	525.976	526.008	526.033	526.050	526.052
	Dist. Top of Beam to top of Scr																					
C	El. Top of Beam	526.737	526.772	526.806	526.831	526.849	526.861	526.898	526.931	526.956	526.972	526.986	526.023	526.056	526.080	526.097	526.110	526.148	526.180	526.205	526.222	526.224
	Dist. Top of Beam to top of Scr																					
D	El. Top of Beam	525.565	525.601	525.634	525.659	525.676	525.689	525.726	525.759	525.784	525.800	525.814	525.851	525.884	525.908	525.925	525.938	525.976	526.008	526.033	526.050	526.052
	Dist. Top of Beam to top of Scr																					
E	El. Top of Coping form	526.351	526.381	526.420	526.445	526.462	526.475	526.512	526.545	526.570	526.586	526.600	526.637	526.670	526.694	526.711	526.724	526.762	526.794	526.819	526.836	526.846
	Dist. Top of Beam to top of Cop																					

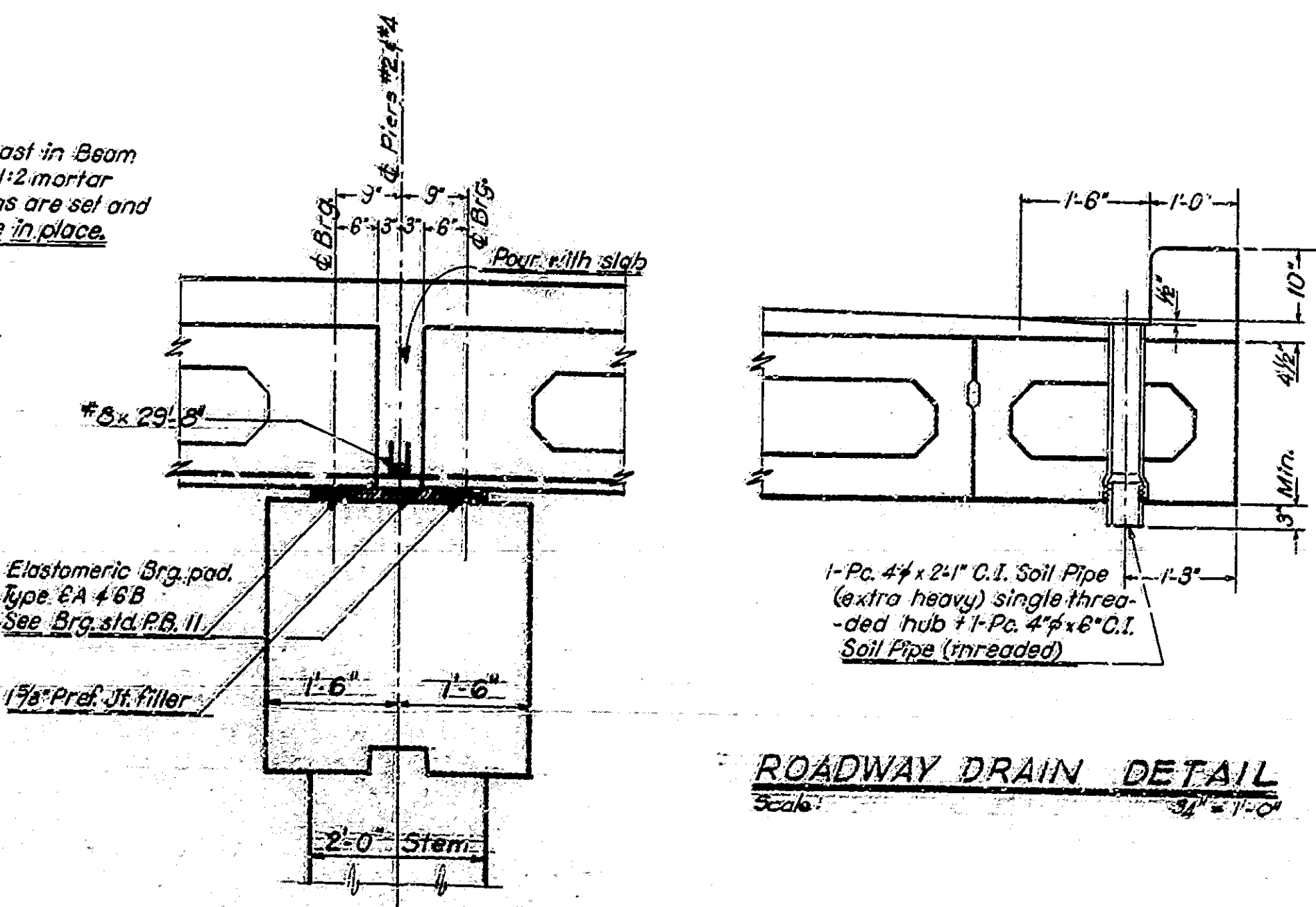
Note: Elevations in table above are theoretical grade elevations adjusted for Dead Load deflection due to weight of conc. slab.

**Design Data**  
 Prestressed Beams  
 Unit Stresses: f<sub>s</sub> - 270,000 psi  
 f<sub>c</sub> - 5,000 psi  
 Designed in accordance with recommendations of ACI-ASCE, Jt. Committee 323 J-1965 AASHTO. Specifications for Highway Bridges.  
 Slab designed with 1" wearing surface and D.L. increased 35% for future wearing surface.  
 Loading HS-20-44 with impact and distribution of Loads in accordance with 1965 AASHTO Specifications.



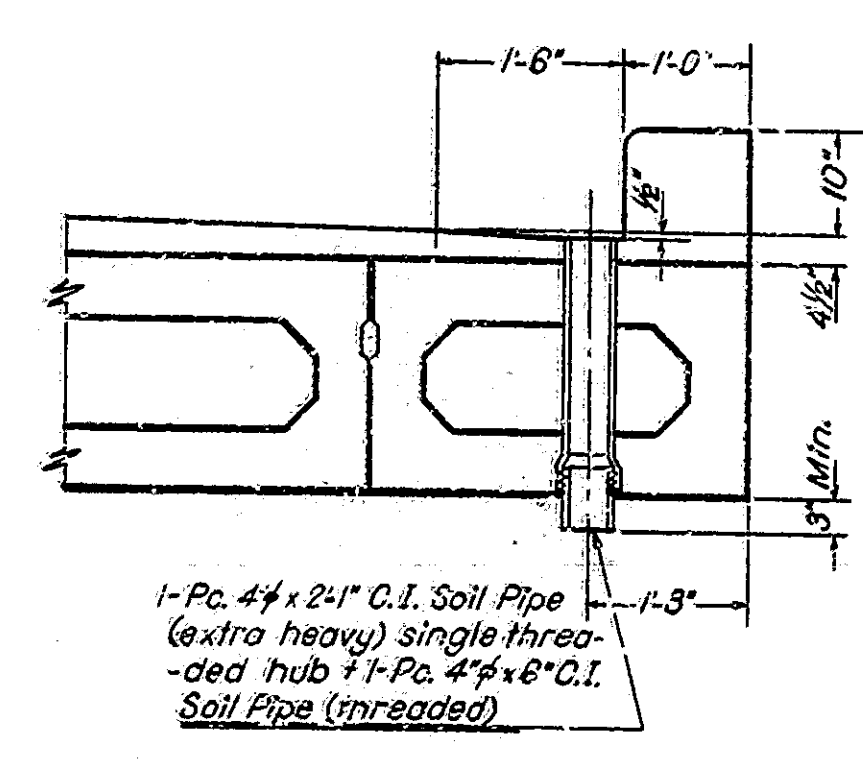
**SECTION @ BENTS NO. 1 & NO. 5**  
 Scale: 1/2"=1'-0"

DESIGNED: K.G. CKD: B.A.B. (Expansion)  
 DRAWN: K.G. CKD: B.A.B.  
 TRACED: CKD

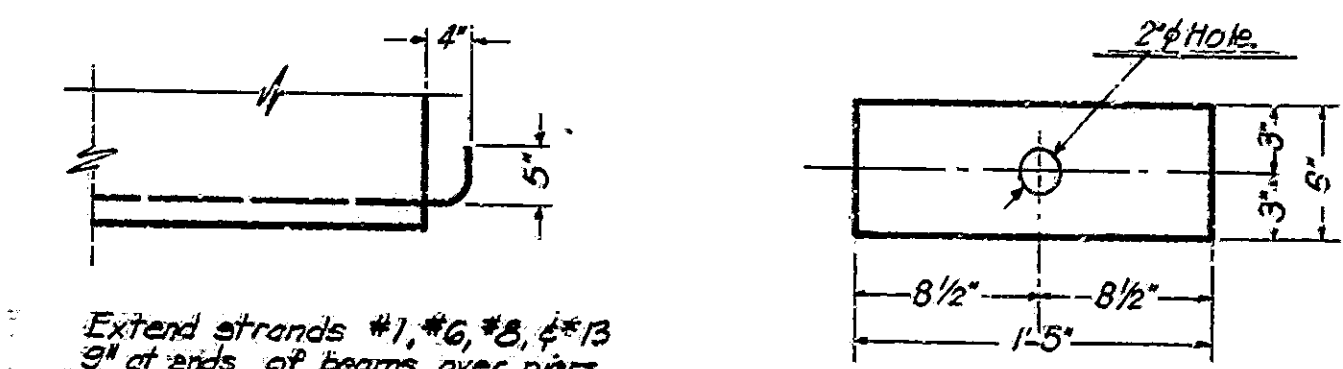


**SECTION @ PIERS NO. 2 & NO. 4**  
 Scale: 1/2"=1'-0"

DESIGNED: K.G. CKD: B.A.B. (Expansion)  
 DRAWN: K.G. CKD: B.A.B.  
 TRACED: CKD



**ROADWAY DRAIN DETAIL**  
 Scale: 1/2"=1'-0"



**BEAM END DETAIL**  
 No Scale

**TYPE 8 PAD**  
 1/2" Thick  
 50 Durometer Hardness

**Superstructure Details**  
 Prestressed Reinf. Conc. Slab Bridge (Composite)  
 4 Spans: 49'-9" - 50'-6" - 50'-6" - 49'-9" 28" Roadway 3" Curbs  
 Over Little Vermillion River on S.R. No. 71  
**INDIANA STATE HIGHWAY COMMISSION**  
 Vermillion County

SCALE: -As noted. July 25 1968

SUBMITTED FOR APPROVAL:  
 DRAWING: C-6 OF 6  
 PROJECT:  
 BRIDGE CONTRACT NO. 8-5126  
 BRIDGE FILE: No. 71-83-5836

