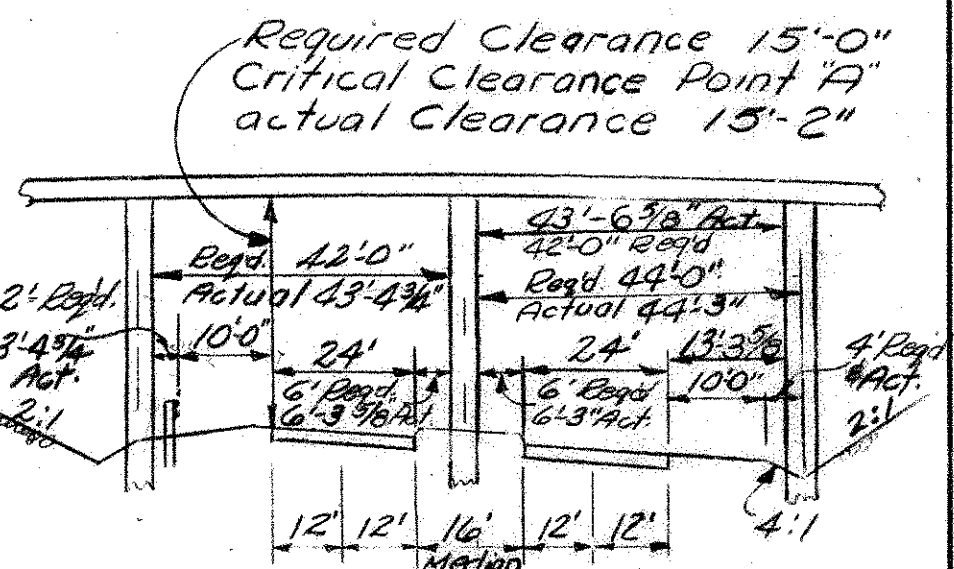


ROSS COUNTY ROS-35-19.93

PROPOSED BRIDGE DATA.

Type: Continuous Concrete Slab
Separate Structures
Span: 38'-0" - 47'-6" - 47'-6" - 38'-0" Brg
Roadway: 40'-0" Ht. of Parapets
Lt. Bridge - 58'-5 1/2" avg. Ht. of Parapets
Skew: 7°-07'-30" L.F.
Load: Frequency: C.F. 400 (57)
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25'-0" long) Special
Railing: Aluminum Rail and Supports
and Concrete Parapet
Alignment: Tangent

CLEARANCE DIAGRAM



SECTION LOOKING NORTH

FOUNDATION SOUNDINGS

Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

EMBANKMENT PROCEDURE

Embankment shall be completed to the elevation of the roadway subgrade for a distance of 200' beyond the bridge limits for a minimum of 30 days before any construction may begin on the abutments.

EXISTING SPIRAL DATA-US.23

$\Delta = 7^\circ - 38' - 30"$ $T_s = 455.2'$
 $D_c = 1^\circ - 30'$ $L_s = 400'$
 $E = 10.3'$ $L_c = 109.44'$

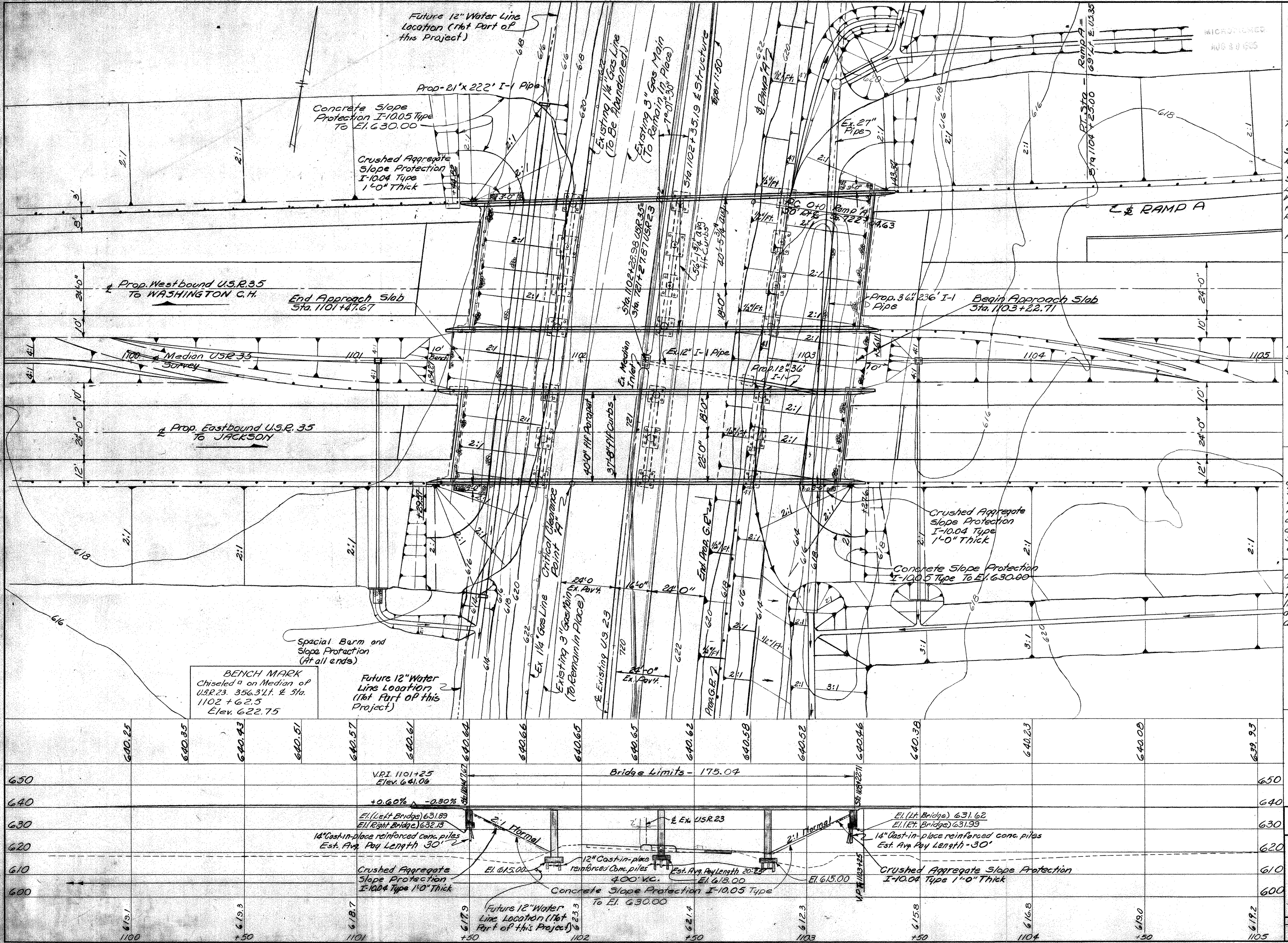
ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SITE PLAN

BRIDGE NO. ROS-35-2086 R&L
US.23 OVER EXISTING US.23

ROSS COUNTY
STA 1101+47.67 TO STA 1103+22.71

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D.	P.J.M.		D.M.	NK	11/24/62	



ROSS COUNTY
R05-35-19.93

GENERAL NOTES

REFERENCE shall be made to Standard Drawing AS-1-54 revised 7-5-62, and AR-1-57 revised 4-2-62 and 5-101 Supplemental Specification dated 7-12-62.
DESIGN SPECIFICATION: This structure conforms to the requirements of Design Specifications for Highway Structures of the State of Ohio, Department of Highways dated 9-1-57 together with the current revisions thereof.

CAMBER of $\frac{1}{800}$ of the span shall be provided in each span (in addition to any required for conformance with the profile of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for the deflection of falsework members.

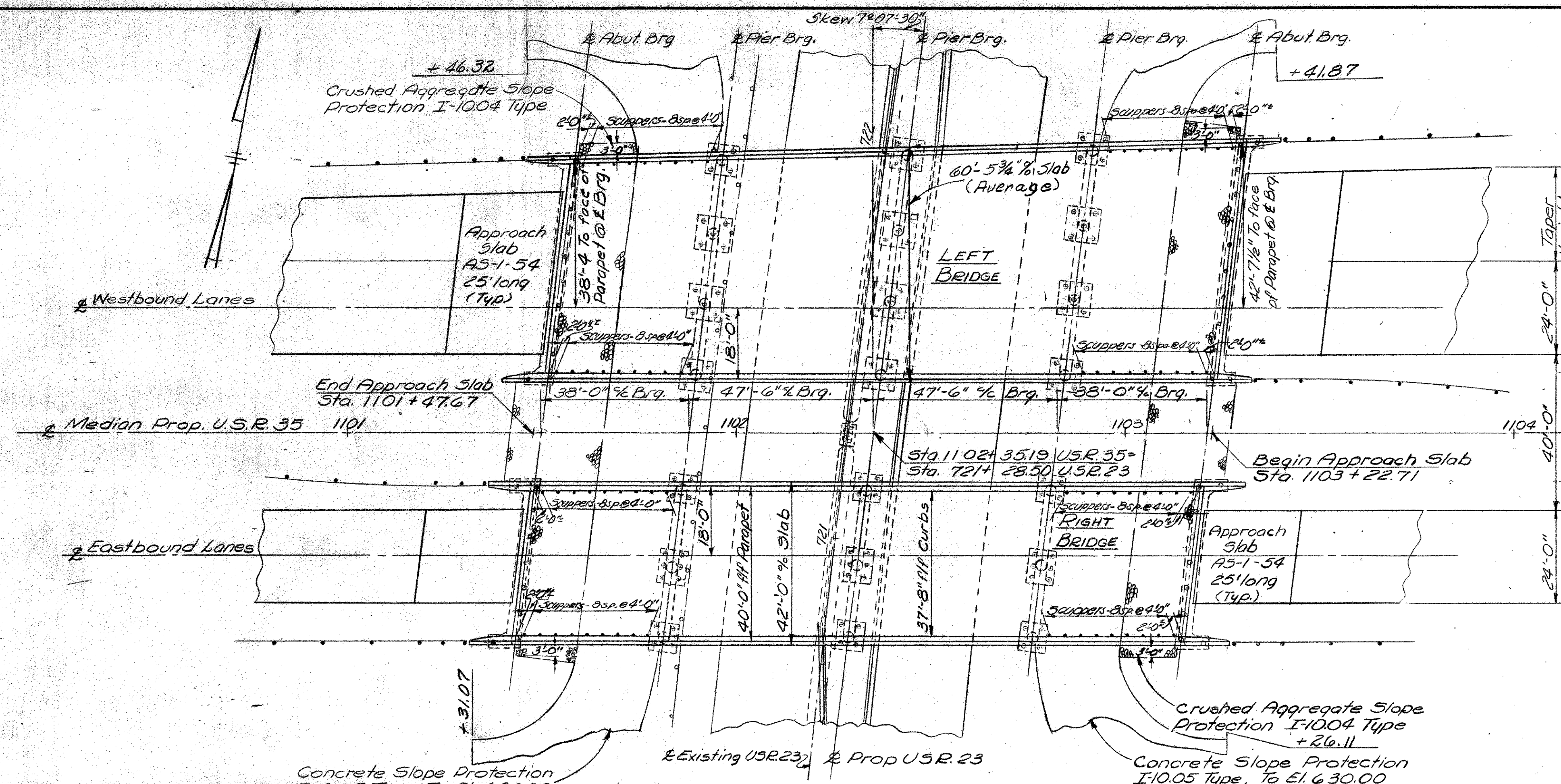
FIRST TEST PILE: Payment will be made for only one first test pile. It may be driven for either the Right or Left bridge.

SURFACE FINISH OF CONCRETE

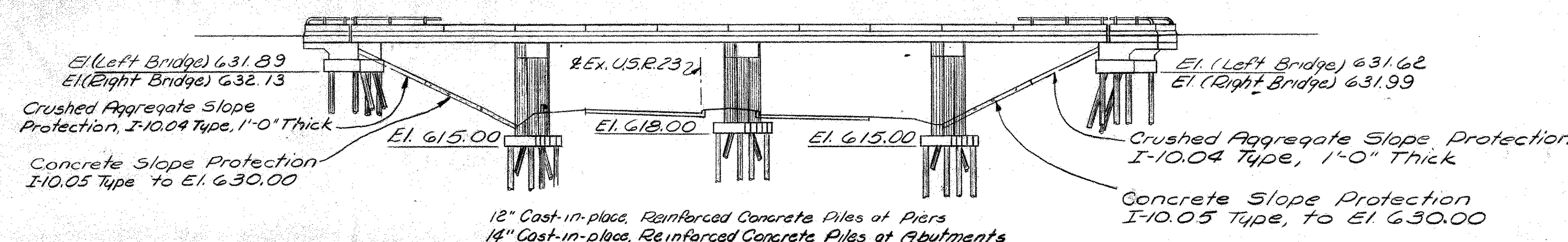
The requirements of Sec. 5-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

- The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
- The entire surface of piers and abutments except bridge seat and the face of spill-through abutments between the limits of the slab.

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments.



GENERAL PLAN



GENERAL ELEVATION

ESTIMATED QUANTITIES				RIGHT BRIDGE					LEFT BRIDGE				
ITEM	QUANTITY	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER	GENERAL	AS BUILT	ABUT.	PIERS	SUPER	GENERAL	AS BUILT
E-2	706	Cu. Yds.	Unclassified Excavation	139	159				167	241			
I-10	525	Sq. Yds.	Crushed Aggregate Slope Protection				234					291	
I-10	1364	Sq. Yds.	Concrete Slope Protection				645					719	
S-1	1188	Cu. Yds.	Class "C" Concrete, Superstructure			488					700		
S-1	208	Cu. Yds.	Class "C" Concrete, Pier Caps and Columns		87					121			
S-1	136	Cu. Yds.	Class "E" Concrete, Abutments above Footings	56					80				
S-1	232	Cu. Yds.	Class "E" Concrete, Footings	42	54				57	79			
S-3	9	Lin. Ft.	Waterproofing, premolded sealing strip						9				
S-4	367,062	Lbs.	Reinforcing steel	10,512	25,795	115,560			13,856	38,873	162,466		
S-9	647	Lbs.	1/4" Rolled Bronze Sliding Plates (Sec. M-7.10)	263					384				
S-9	207	Sq. Ft.	1/4" Preformed Expansion Joint Filler	84					123				
S-9	14,480	Lbs.	Structural Steel Expansion Joints, including all painting				5,762					8,718	
S-14	782.61	Lin. Ft.	Railings, Aluminum Rail and supports and Concrete Parapet (Type 'A')				391.06					391.55	
S-16	Lump Sum	Lump	First Test Pile (12" diameter)							Lump			
S-18	2,160	Lin. Ft.	12" Cast-in-place, Reinforced Concrete Piles		945					1,215			
S-18	1,260	Lin. Ft.	14" Cast-in-place, Reinforced Concrete Piles	540					720				
S-29	46	Cu. Yds.	Porous Backfill	20					26				
S-29	72	Each	Scuppers, 4" Diameter Wrought Iron Pipe				36					36	
S-101	1,188	Each	Water Reducing, Set-Retarding Admixture			488					700		

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio							
GENERAL PLAN AND ELEVATION, EST. QUANTITIES AND GEN. NOTES BRIDGE NO. R05-35-2086 R.E.L. U.S.R. 35 OVER EXISTING U.S.R. 23 ROSS COUNTY U.S.R. 35 STA. 1101+47.67 TO STA. 1103+22.71 SCALE DATE							
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED	
EER	W.O.J.		D.M.	W.K.	11/26/62		

ROSS COUNTY ROS-35-19.93

~ NOTES ~

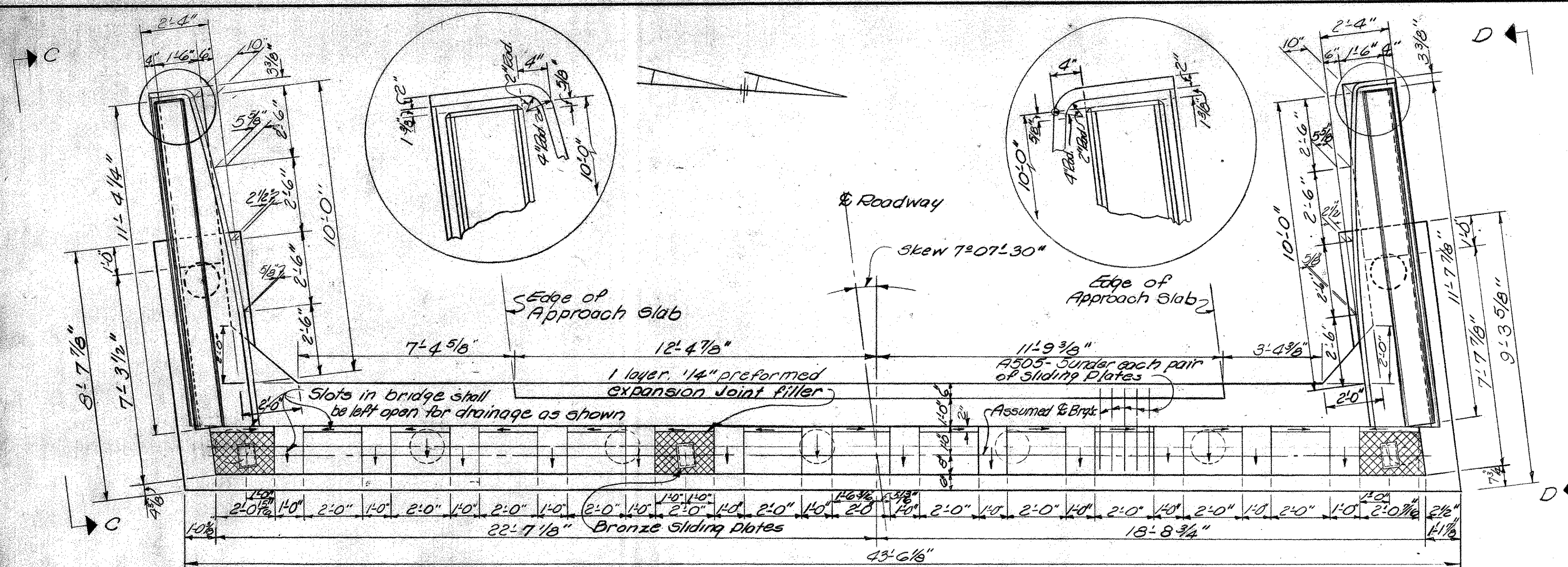
CONCRETE shall be Class "E"

POROUS BACKFILL shall extend upward to the approach slab and paved berms and outward to the abutment wings. Excavation therefor in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per Cu. Yd. paid for Porous Backfill.

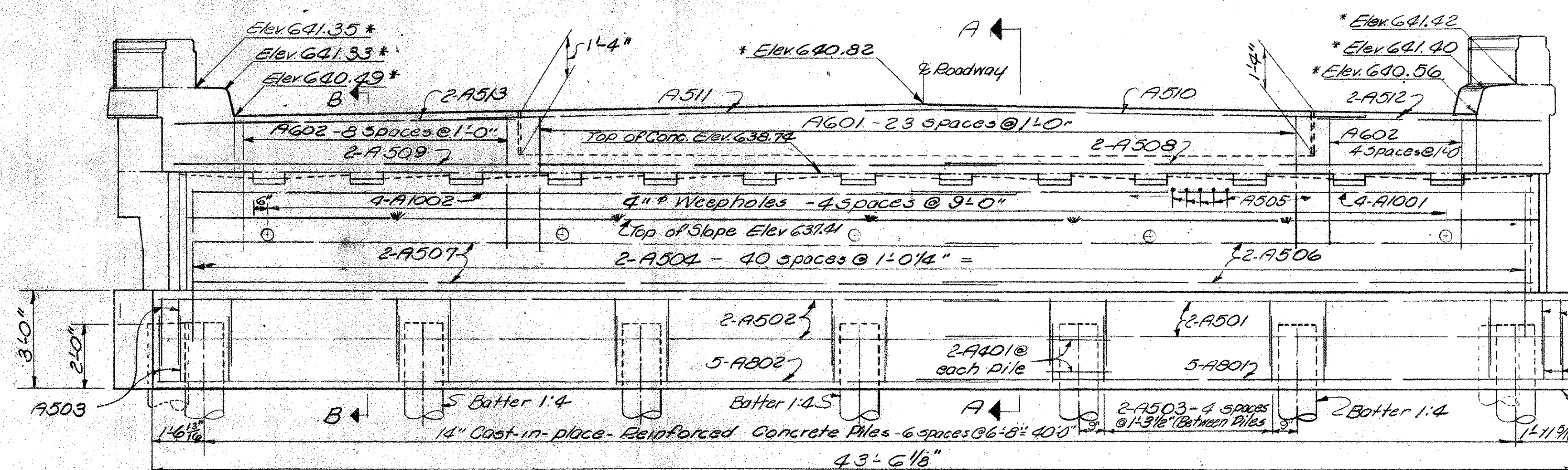
SLIDING PLATES and preformed expansion joint filler shall be at all raised portions of bridge seat

ELEVATIONS * are at face of backwall

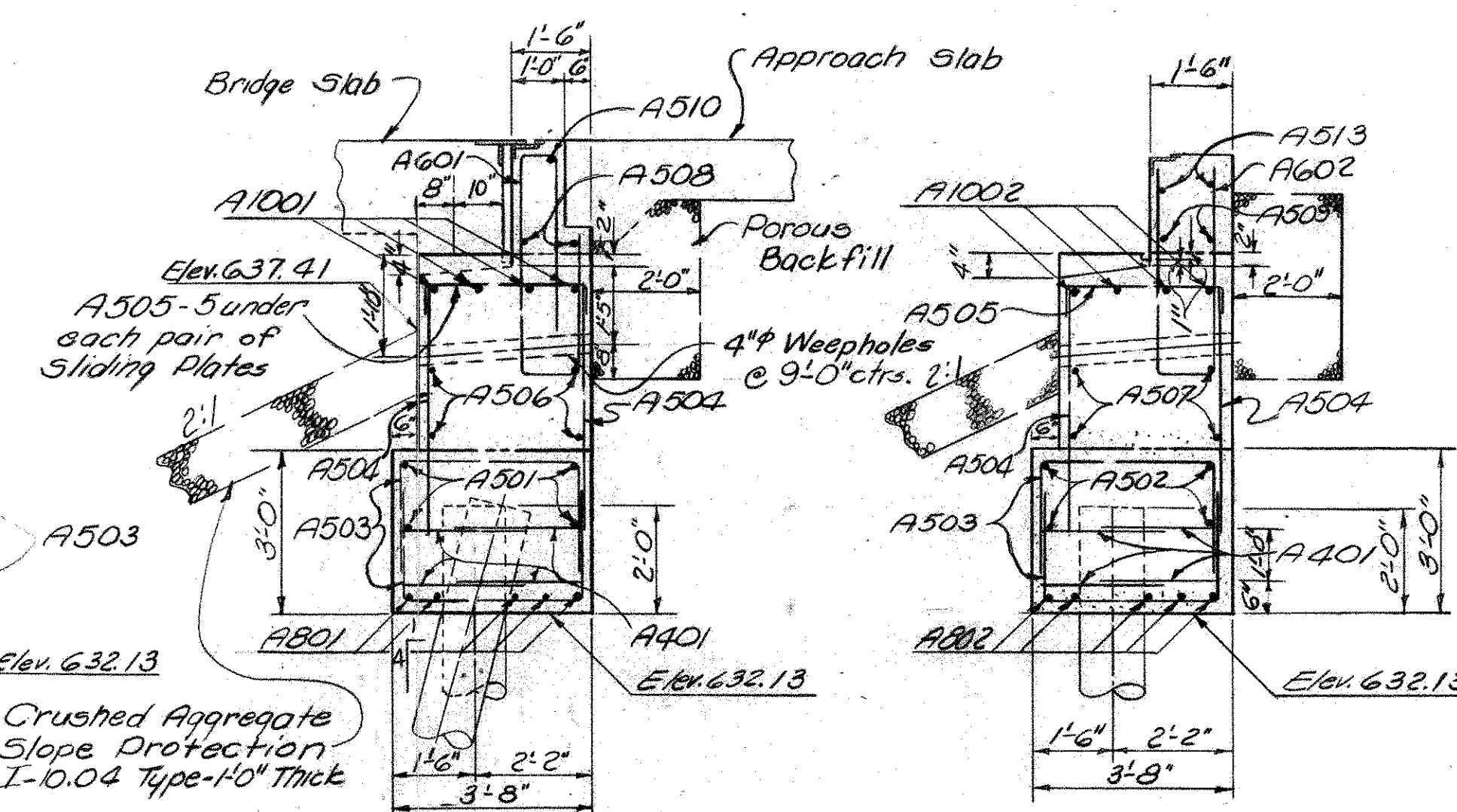
PILES shall be 14" Cast-in-place, reinforced concrete piles. The design load is 29 tons per pile



PLAN - REAR ABUTMENT - RIGHT BRIDGE



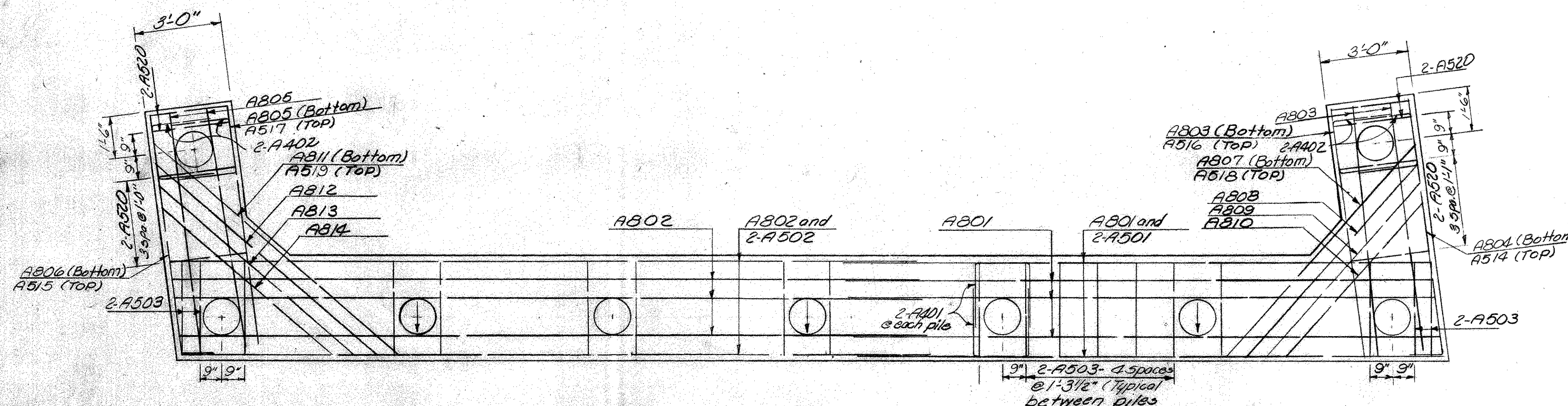
ELEVATION - REAR ABUTMENT - RIGHT BRIDGE



SECTION A-A

SECTION B-B

Denotes battered pile

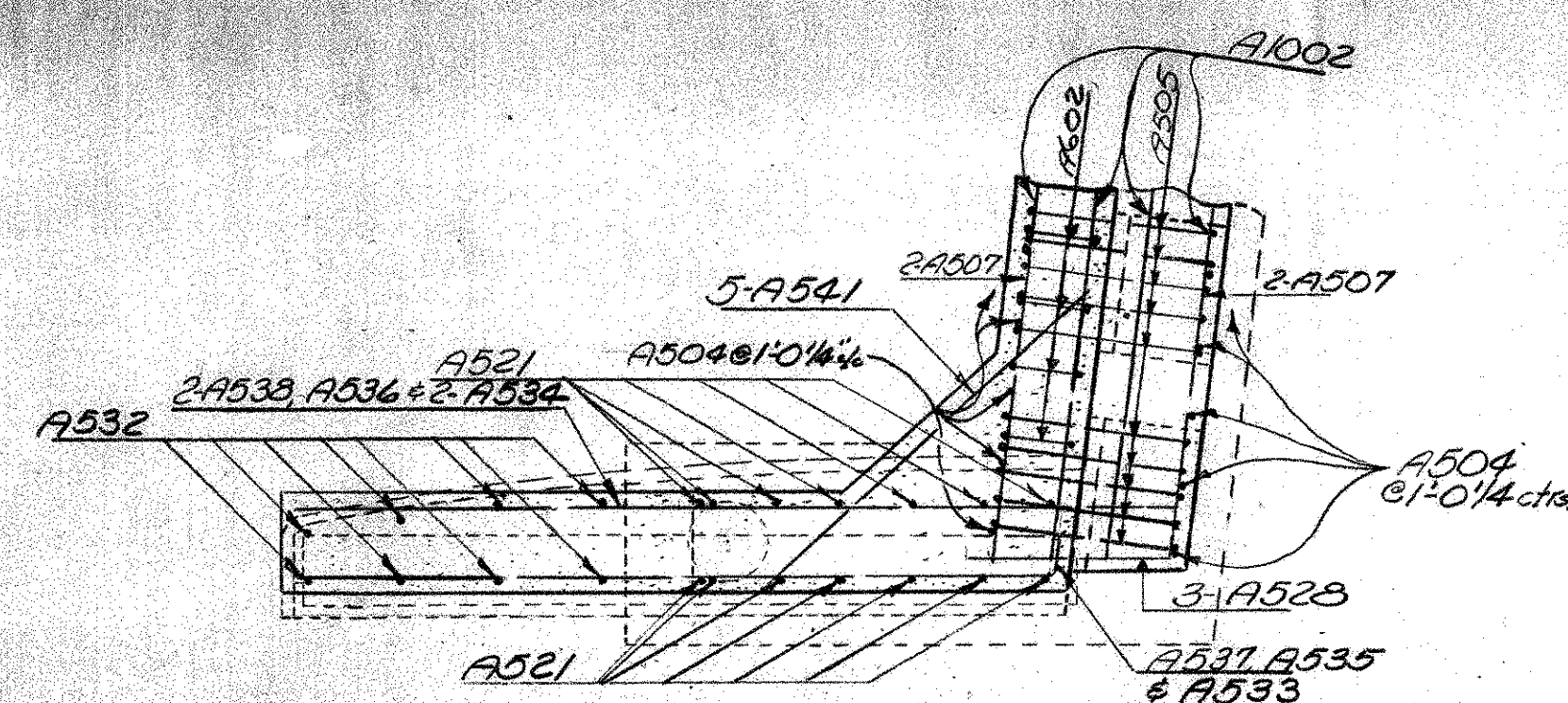


FOOTING PLAN

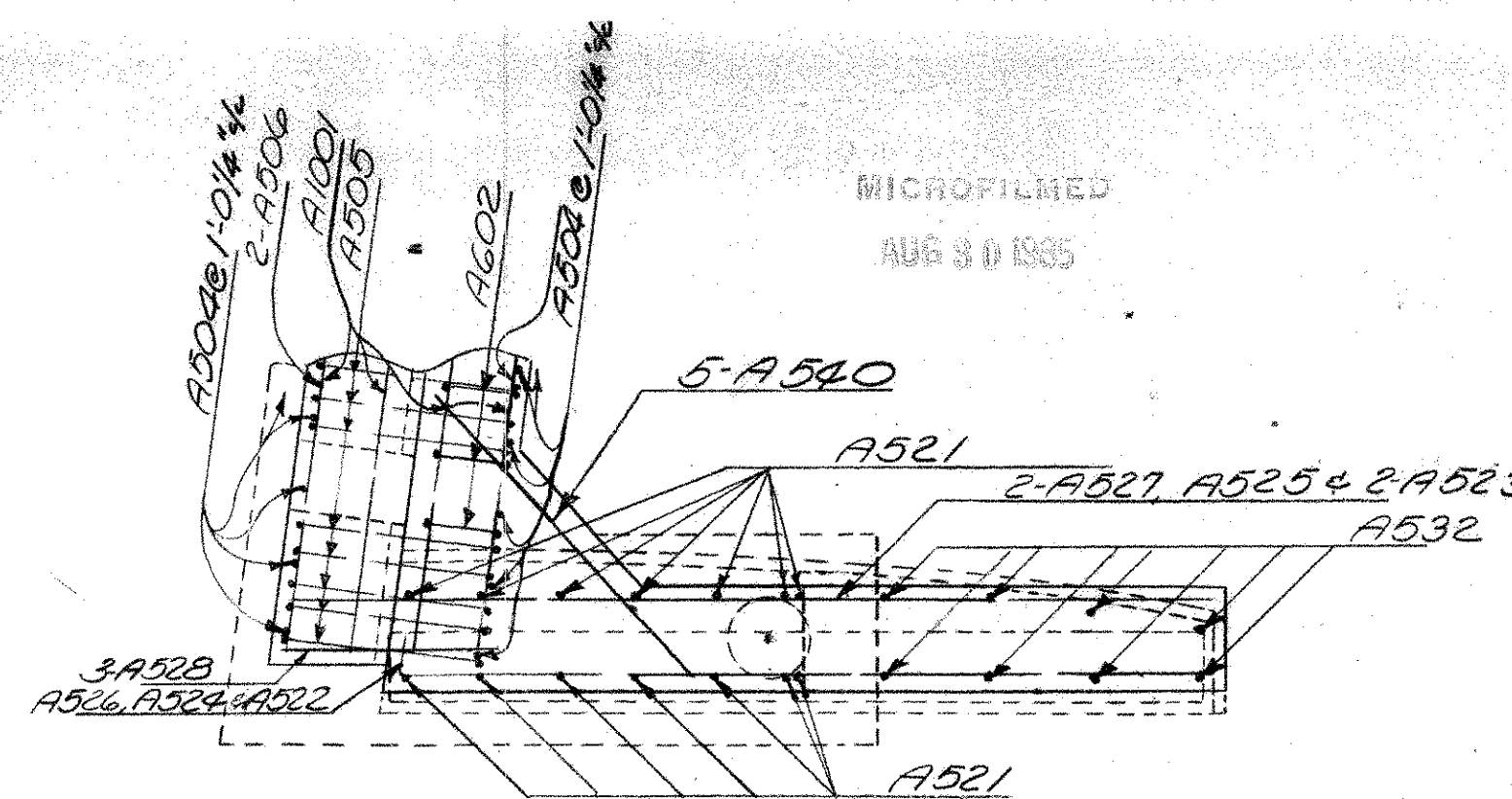
ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio					
REAR ABUTMENT DETAILS RIGHT BRIDGE					
BRIDGE NO. ROS-35-2086 R & L.					
U.S.R. 35 OVER EXISTING U.S.R. 23					
ROSS COUNTY U.S.R. 35					
STA. 1101+47.67 TO STA. 1103+22.71					
SCALE	DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
EER	PJM		D.M.	JK	11/26/62

ROSS COUNTY
ROS-35-19.93

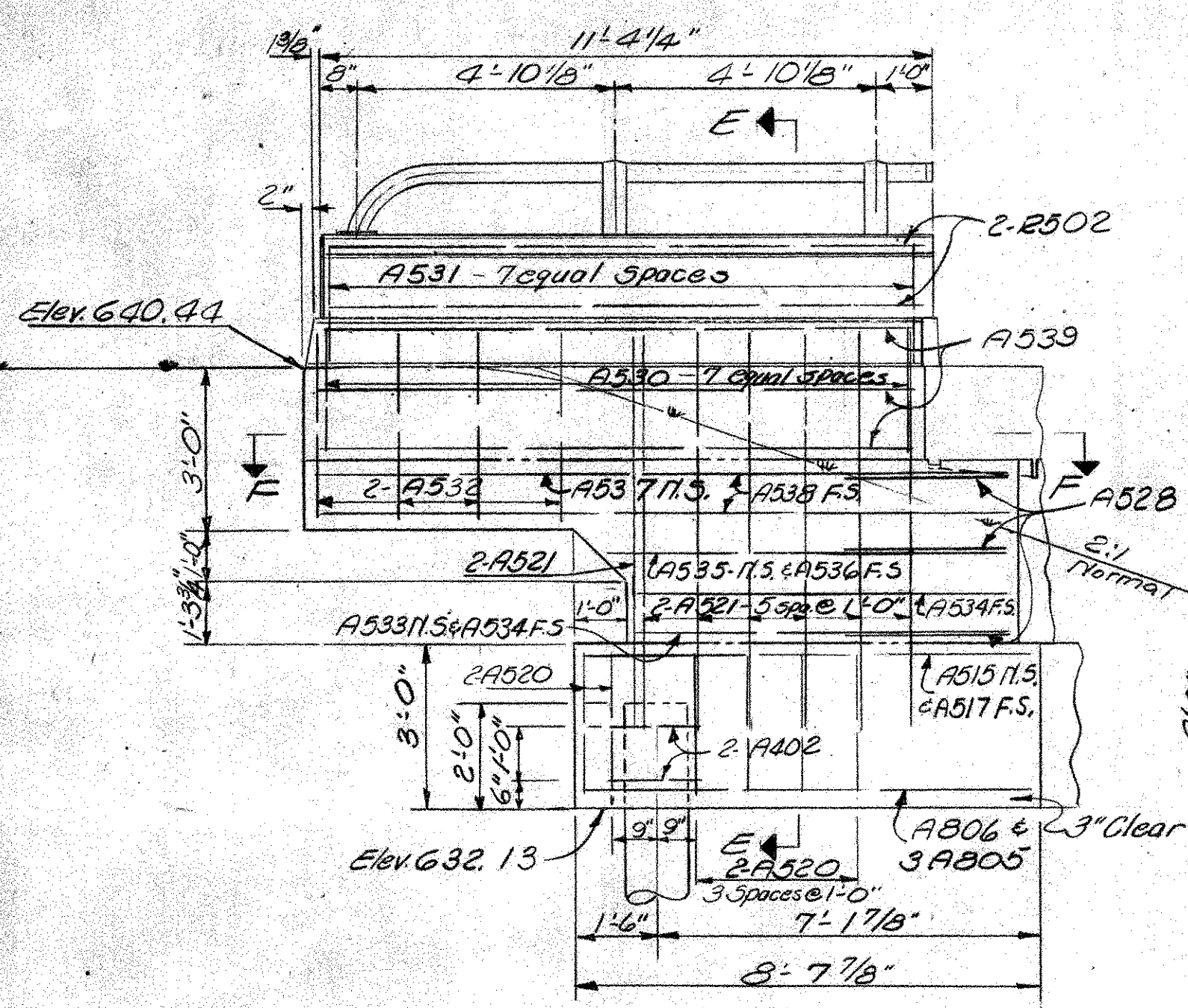
MICROFILMED
AUG 30 1985



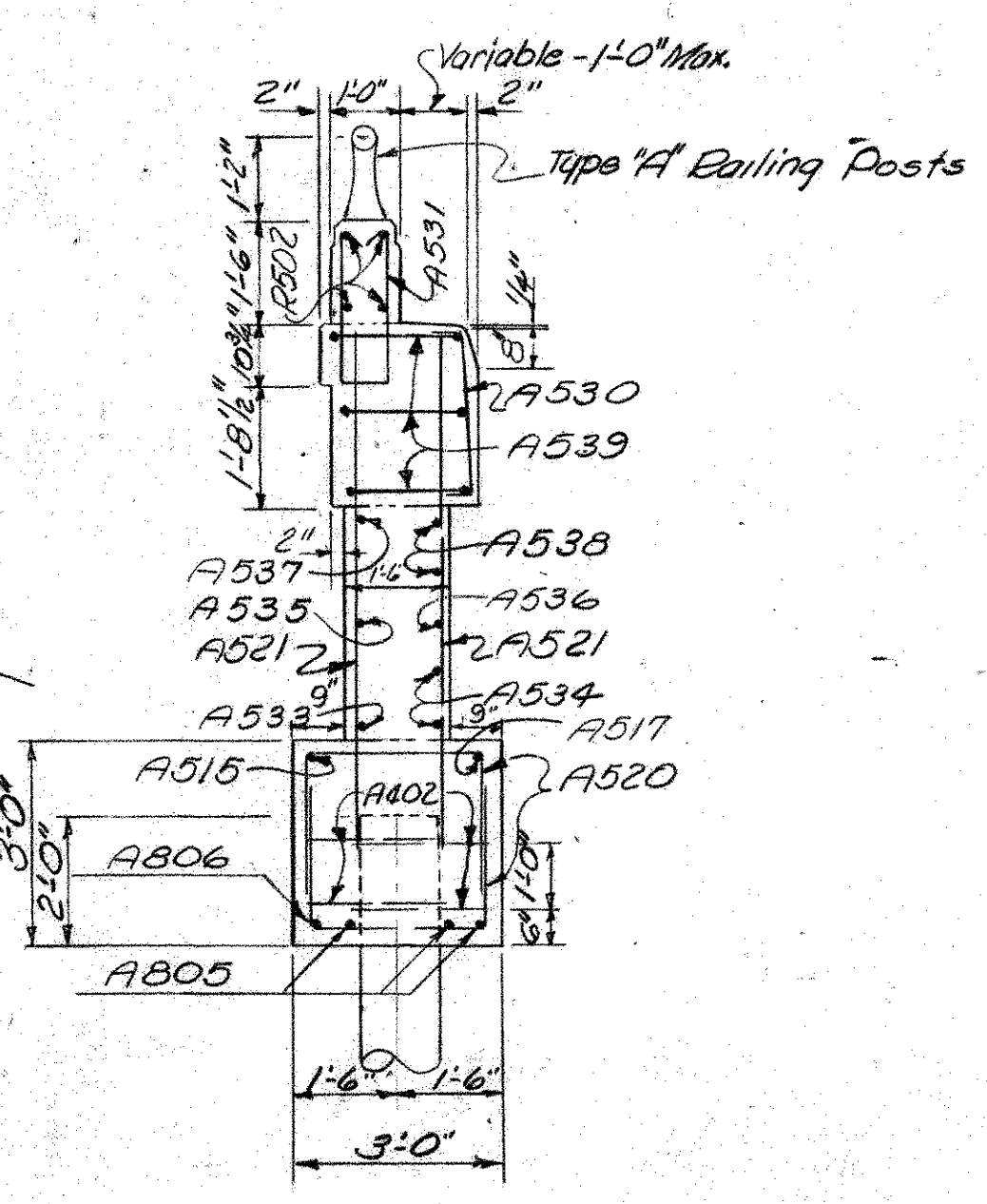
SECTION F-F



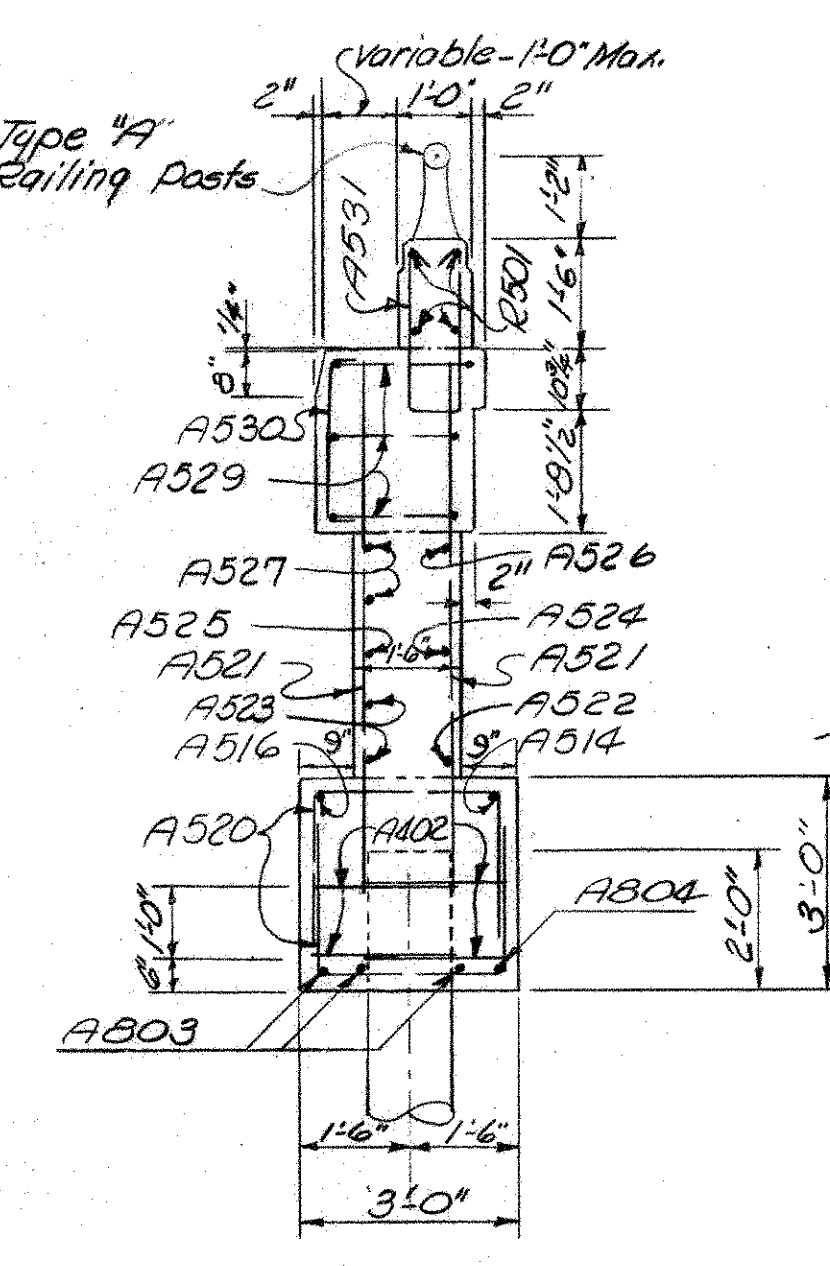
SECTION H-H



VIEW C-C

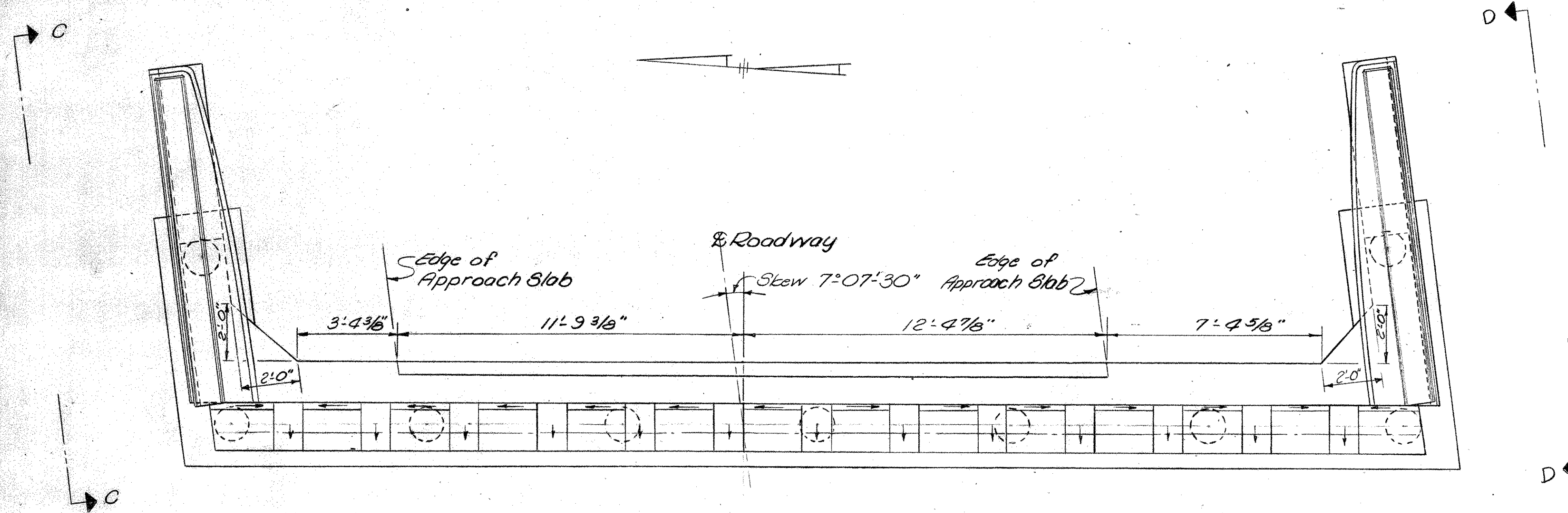


SECTION E-E

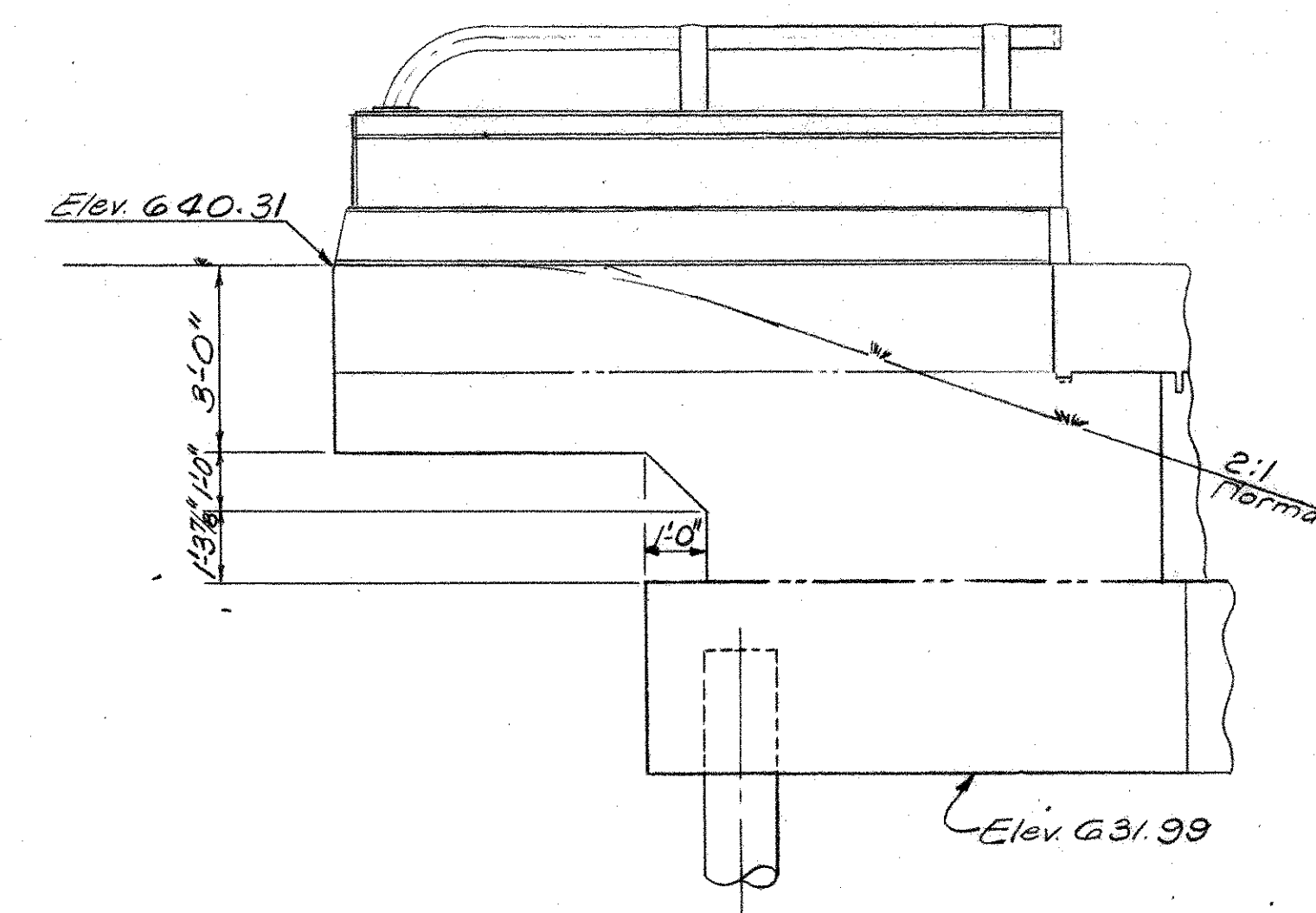


ROSS COUNTY
ROS-35-19.93

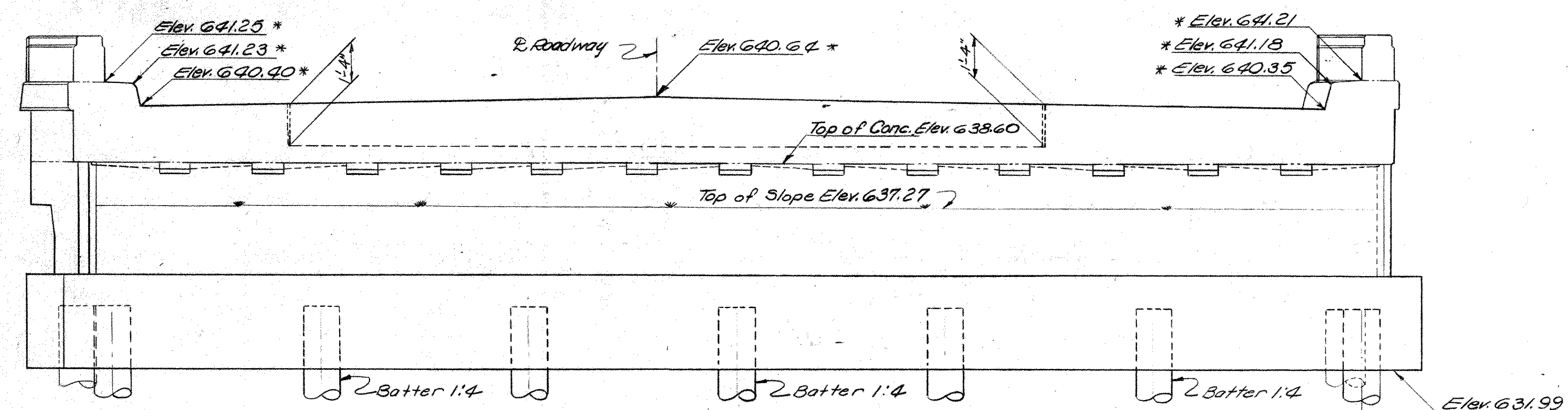
MICROFILMED
AUG 30 1985



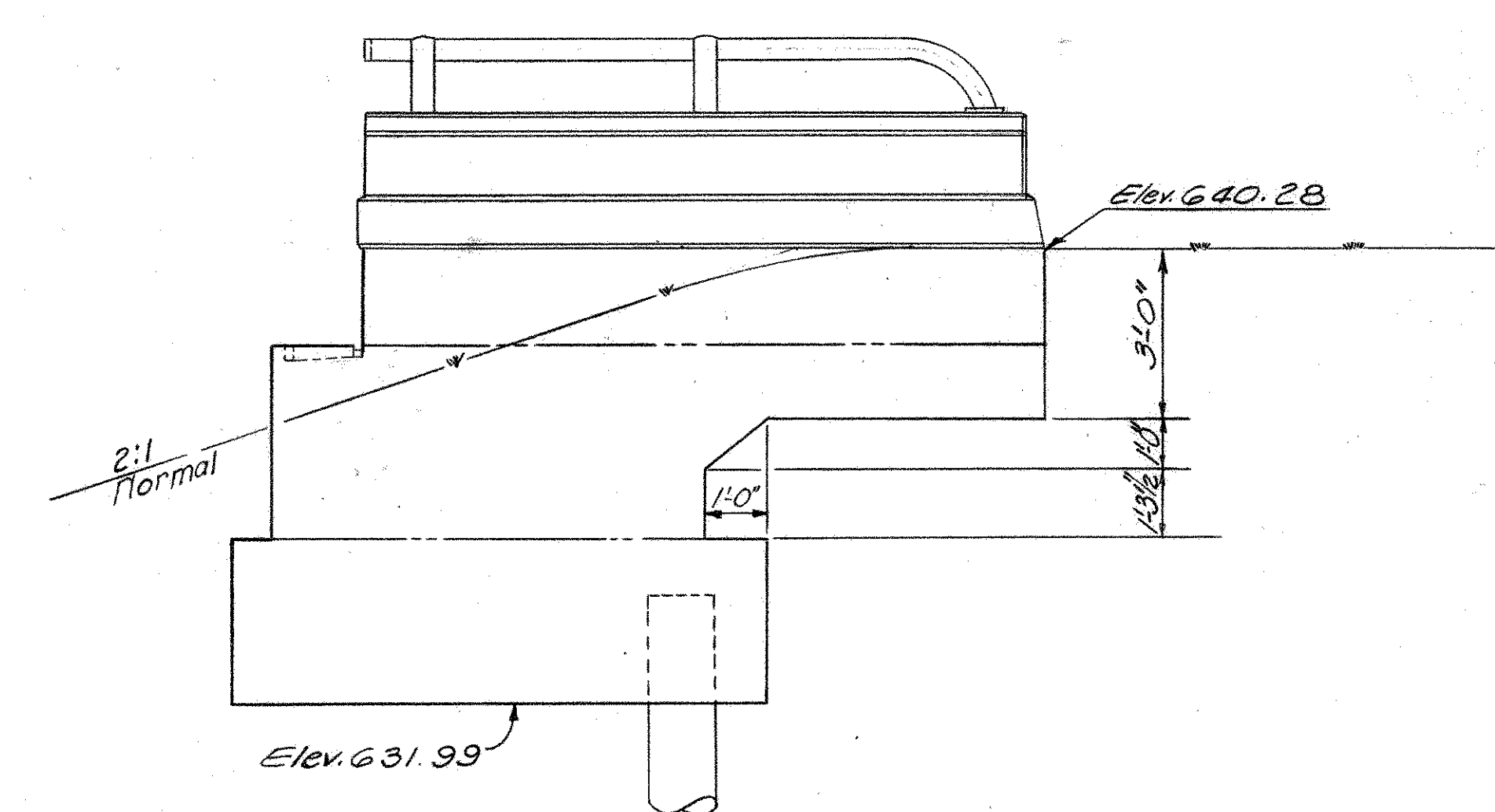
PLAN-FORWARD ABUTMENT-RIGHT BRIDGE



VIEW C-C



ELEVATION-FORWARD ABUTMENT-RIGHT BRIDGE



VIEW D-D

NOTE:
All dimensions, details and reinforcing steel not shown are identical to Rear Abutment Right Bridge.

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio							
FORWARD ABUTMENT DETAILS RIGHT BRIDGE							
BRIDGE NO. ROS-35-2086 R. & L. U.S.R. 35 OVER EXISTING U.S.R. 23 ROSS COUNTY U.S.R. 35 STA. 1101+47.67 TO STA. 1103+22.71							
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED	
E.E.R.	P.J.M.		D.M.	W.L.	11/26/62		

JUL 10 1965



* **NOTE:** For placement of "C" bars, "View D-D" and "B" bars, "View C-C," see Sections J-J, H-H, I-I and G-G of this sheet. For example "B" bars as shown in Sections J-J and H-H are "C" bars in Sections J-J and H-H for View D-D. "C" bars in Sections I-I and G-G are "B" bars in Sections I-I and G-G for View C-C.



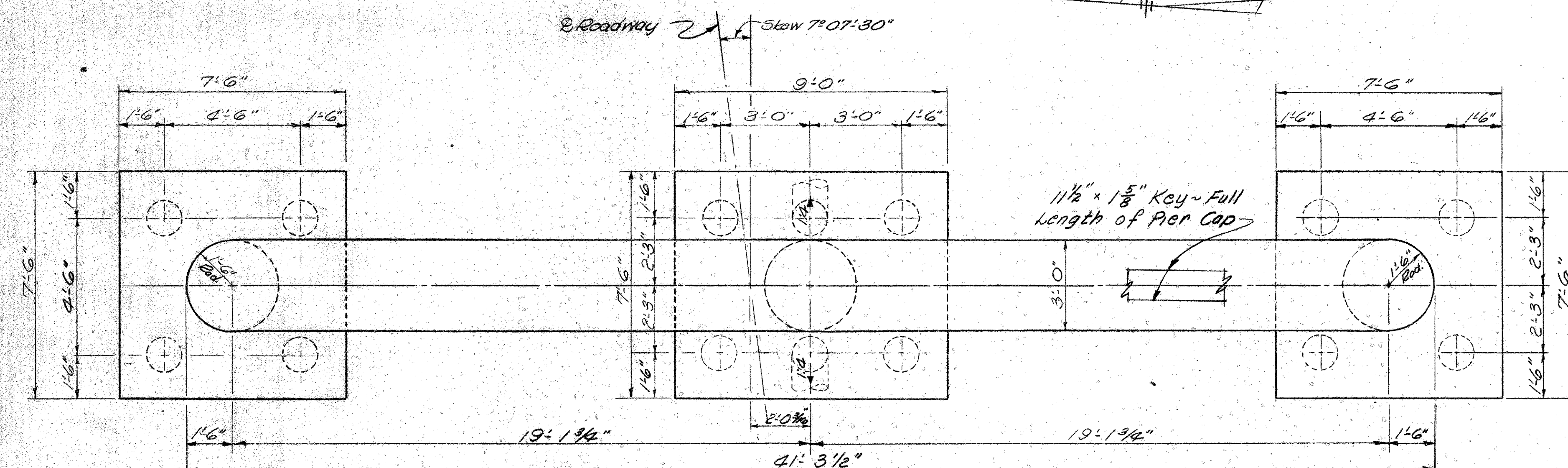
ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street
Chillicothe, Ohio

ABUTMENT DETAILS
LEFT BRIDGE

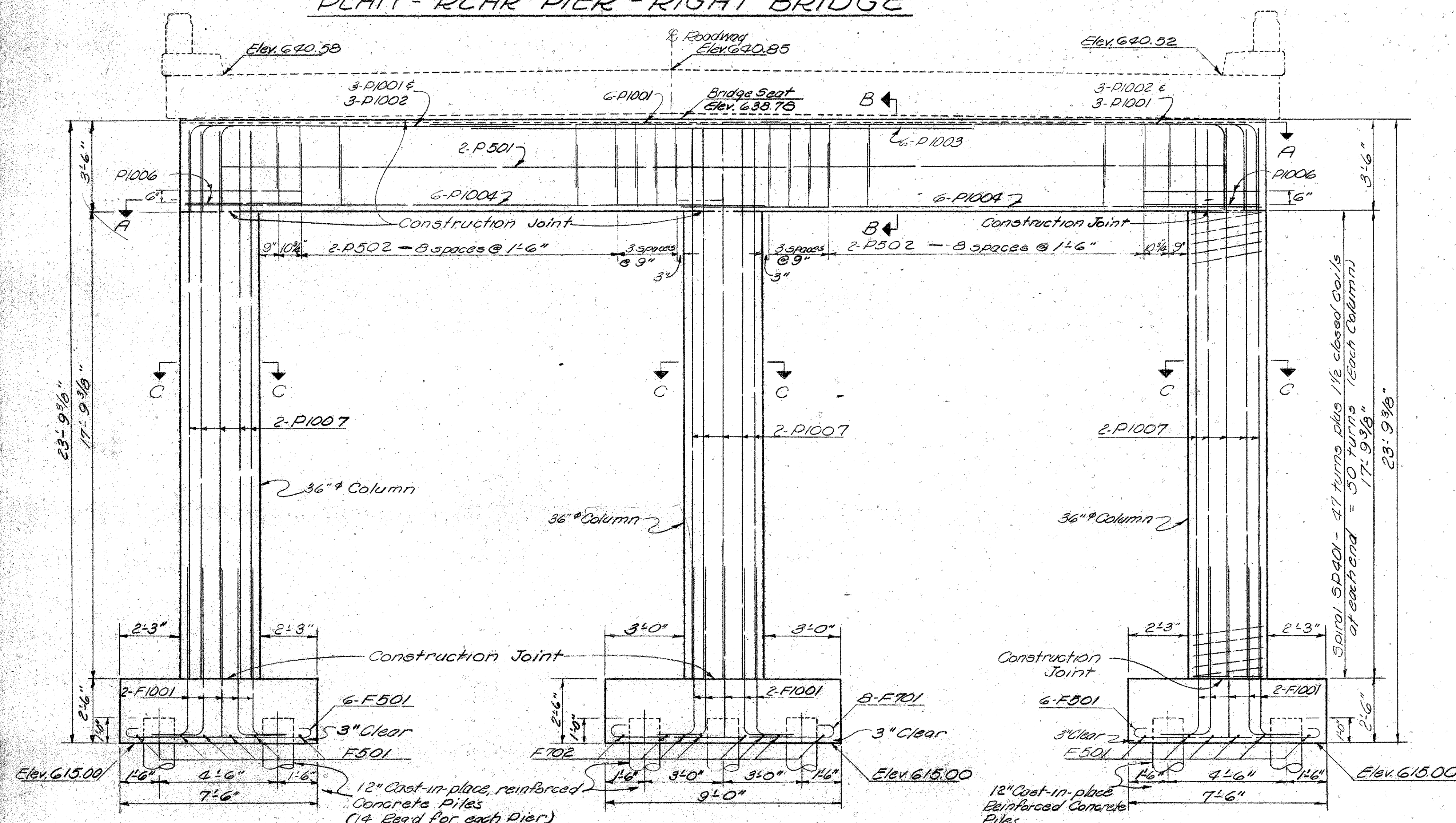
BRIDGE NO 205-35-2086 R/L
U.S.R. 35 OVER EXISTING U.S.R.2
ROSS COUNTY U.S.R. 3
STA. 1101+47.67 TO STA. 1103+22.71
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVIS
E.E.R.	R.D.M.		D.M.	7/16	11/26/62	

ROSS COUNTY
ROS-35-19.93



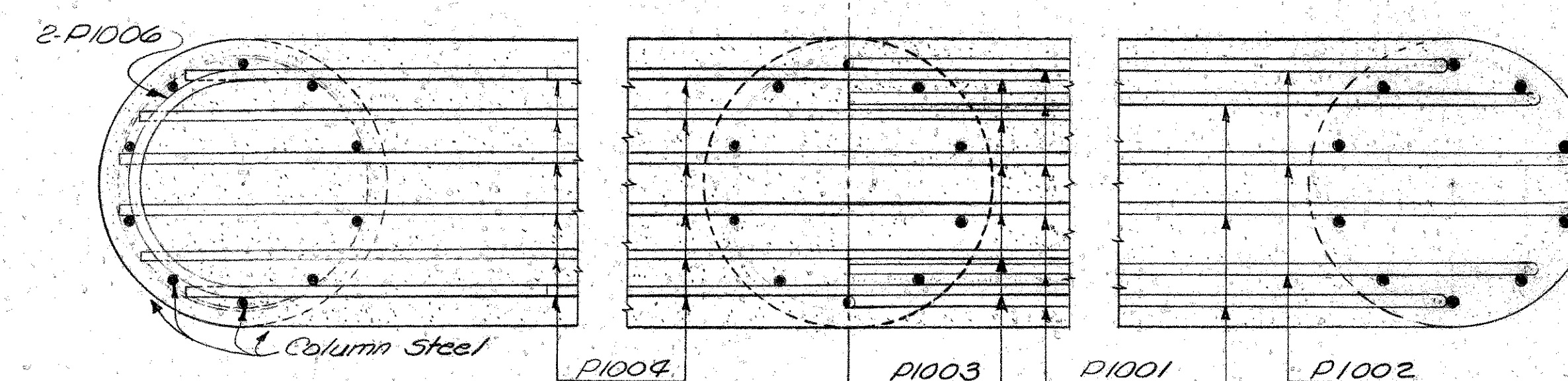
PLAN - REAR PIER - RIGHT BRIDGE



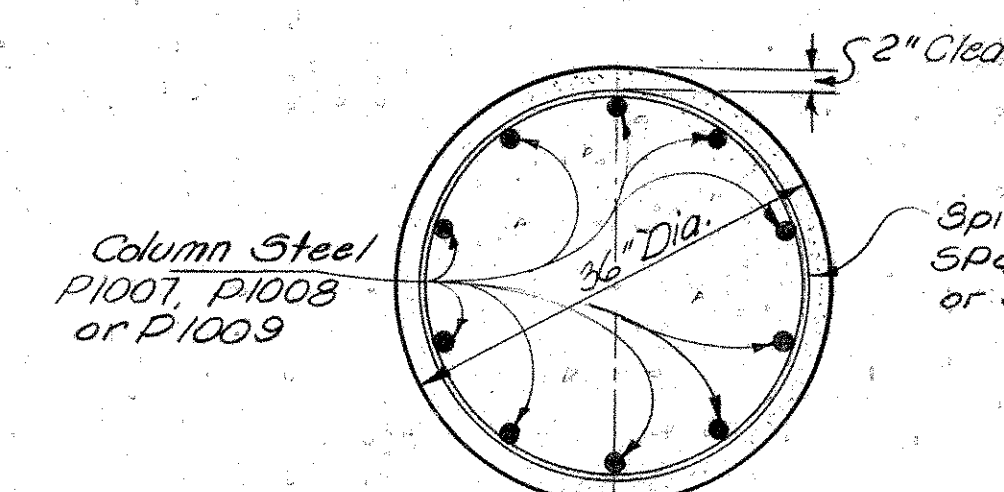
ELEVATION - REAR PIER - RIGHT BRIDGE



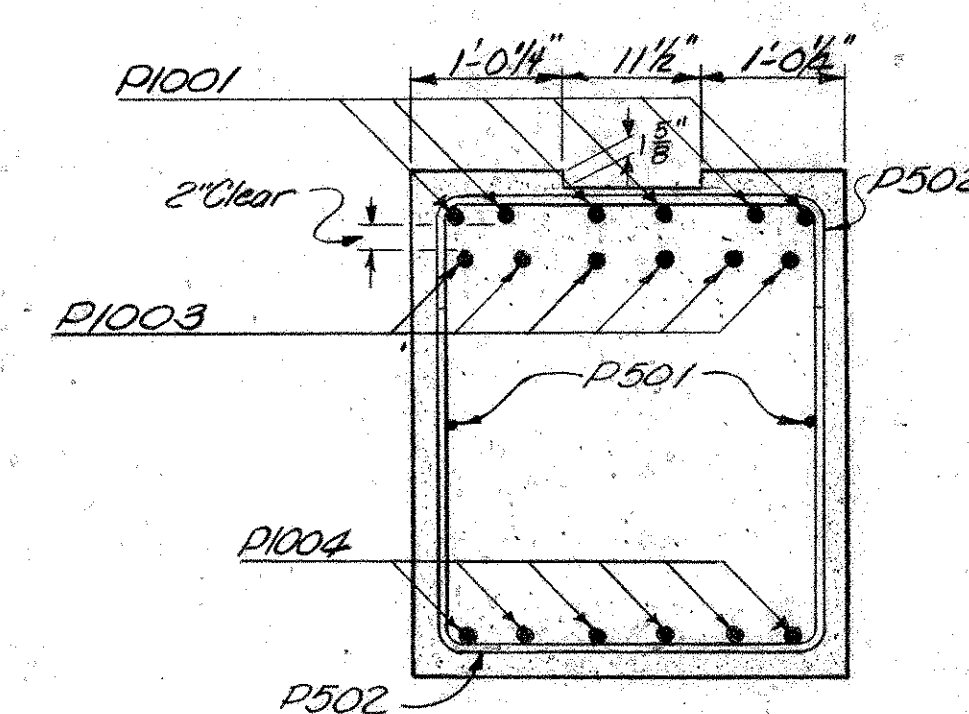
PLACEMENT DIAGRAM FOR P1001 AND P1002 IN TOP OF CAP



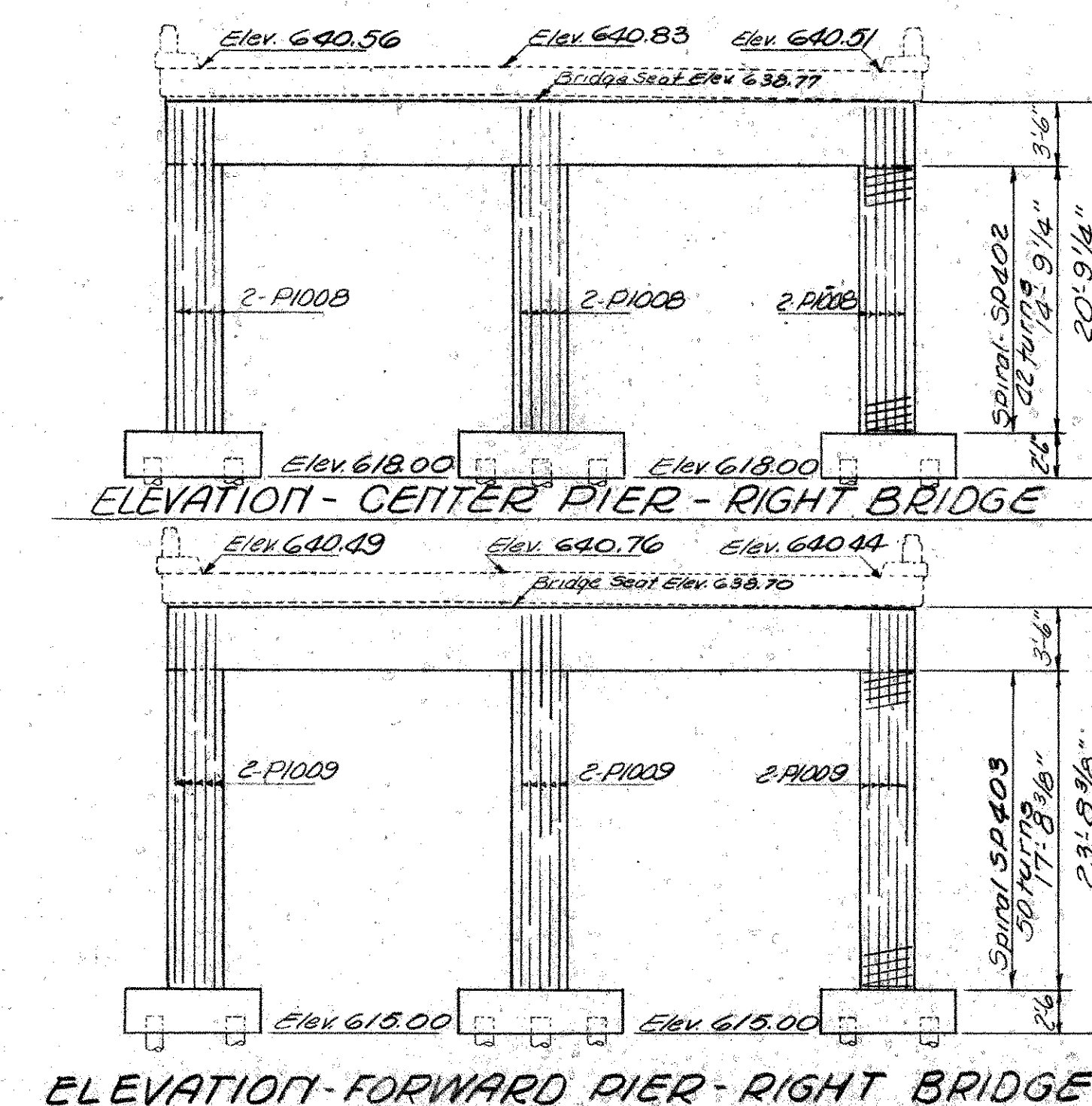
SECTION A-A



SECTION C-C



SECTION B-B



ELEVATION - FORWARD PIER - RIGHT BRIDGE

~ NOTES ~

CONCRETE shall be Class "C" in Caps and Columns and Class "E" in Footings.
ALL DIMENSIONS, Details and Reinforcing Steel not shown are identical to Rear Pier Right Bridge.
REINFORCING STEEL in Cap (P1001, P1002 & P1004) must be lapped vertically so that it will clear Column Steel.
PILES shall be 12" Cast-in-Place Reinforced Concrete Piles. The design load is 40 tons per pile.

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio					
PIER DETAILS - RIGHT BRIDGE BRIDGE NO. ROS-35-2086 L&R U.S.R. 35 OVER EXISTING U.S.R. 23 ROSS COUNTY U.S.R. 23 STA. 1101+47.67 TO STA. 1103+22.71					
SCALE	DATE	DESIGNED	DRAWN	TRACED	CHECKED
E.E.R.	P.U.M.		D.M.	7/11	11/24/62

ROSS COUNTY
R05-35-19.93

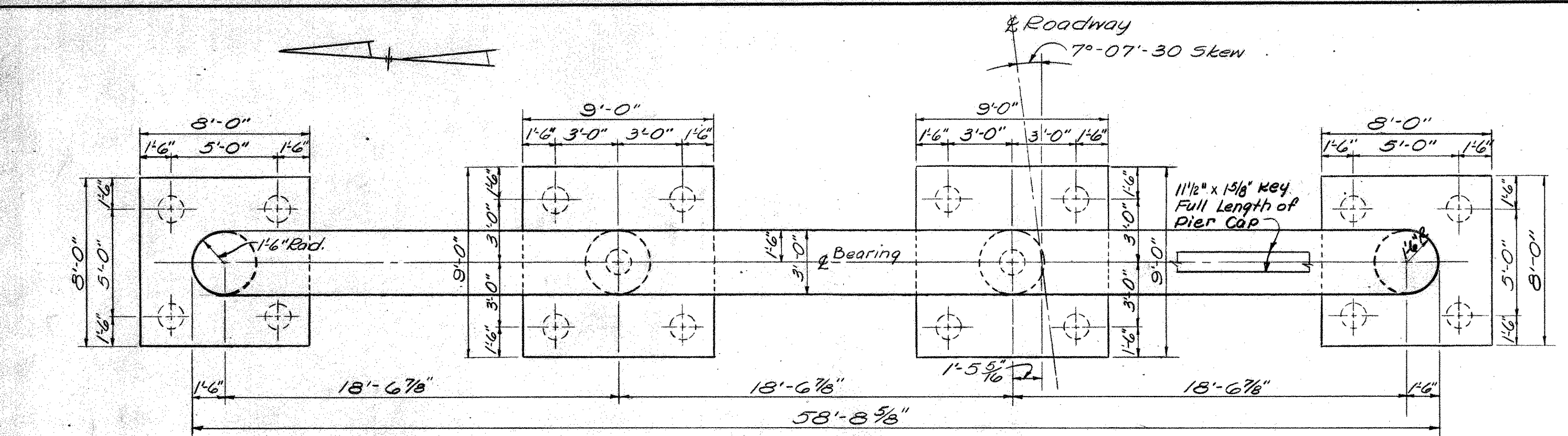
~NOTES~

CONCRETE shall be Class "C" in Caps and Columns and Class "E" in Footings.

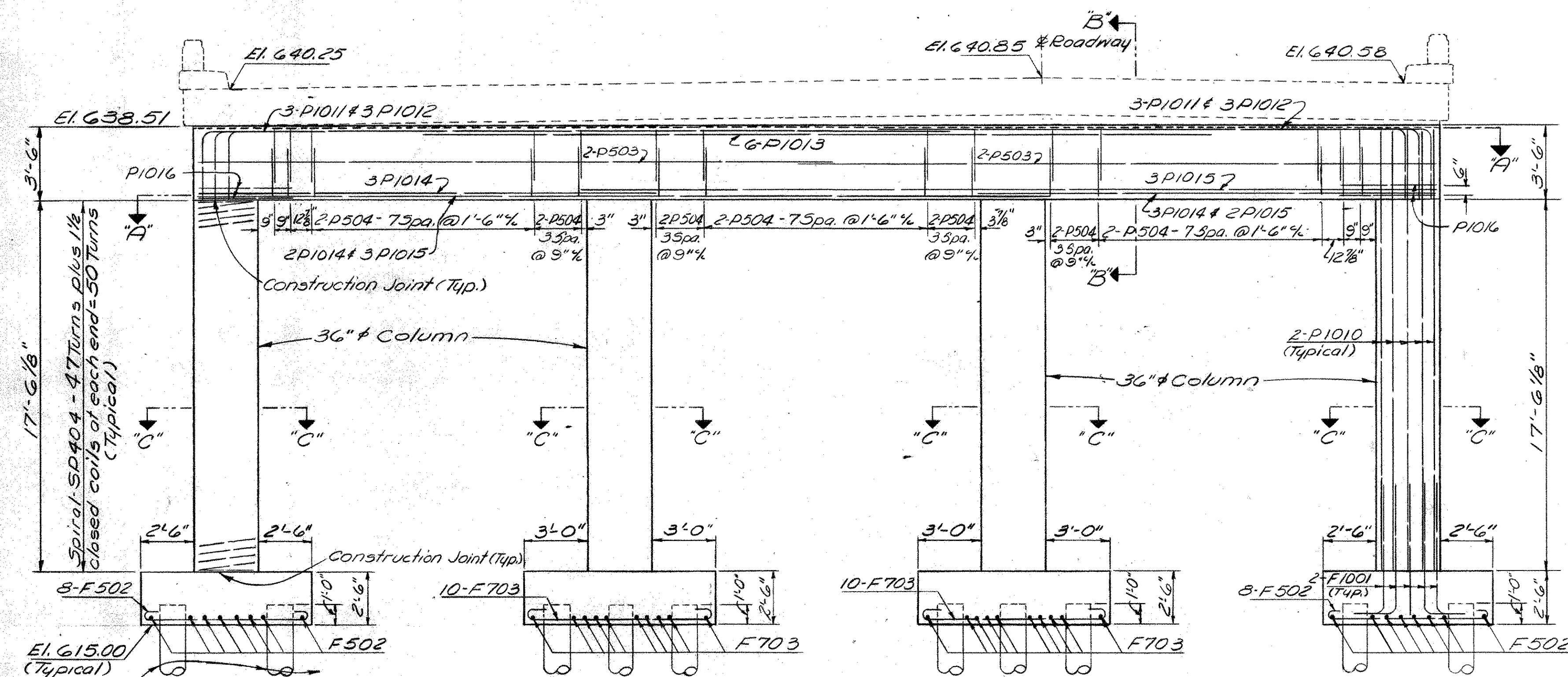
PILES shall be 12" Cast-in-Place Reinforced Concrete Piles.

DESIGN LOAD is 40 tons per pile.

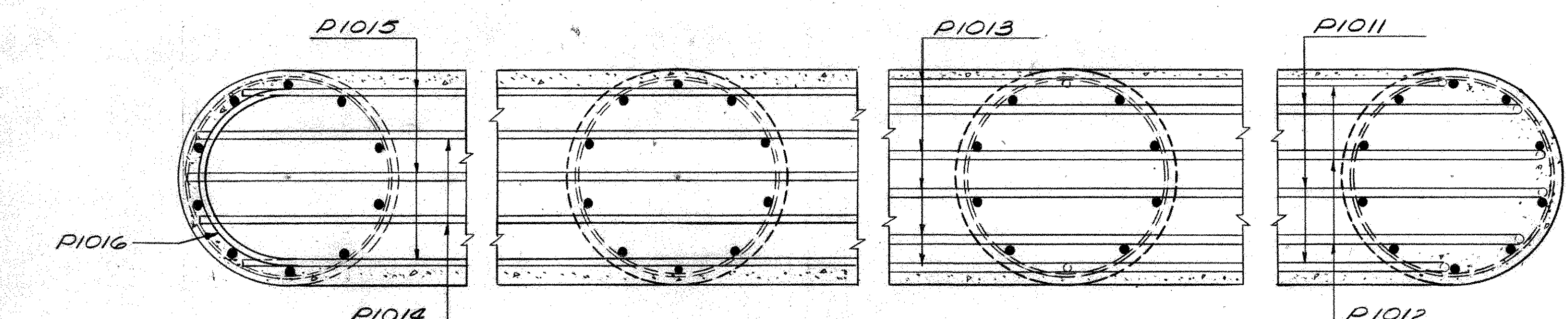
REINFORCING Steel in Cap (P1011, P1012, and P1013) must be lapped vertically so that it will clear Column Steel.



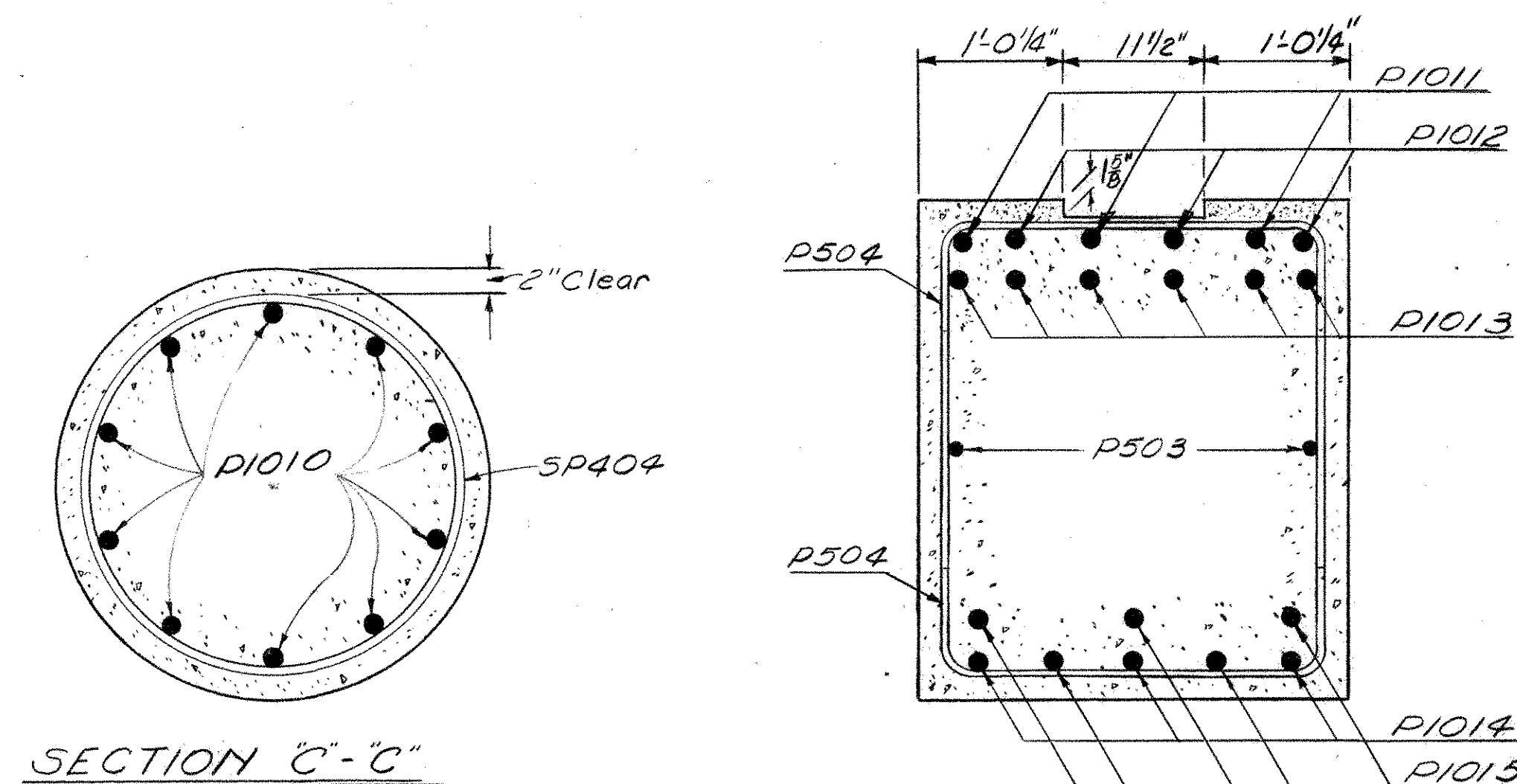
PIER PLAN
REAR PIER - LEFT BRIDGE



PIER ELEVATION
REAR PIER - LEFT BRIDGE

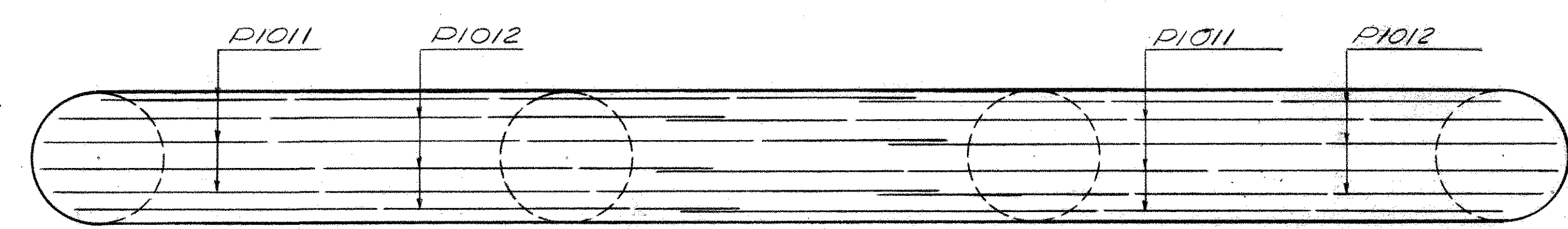


SECTION "A"-A"

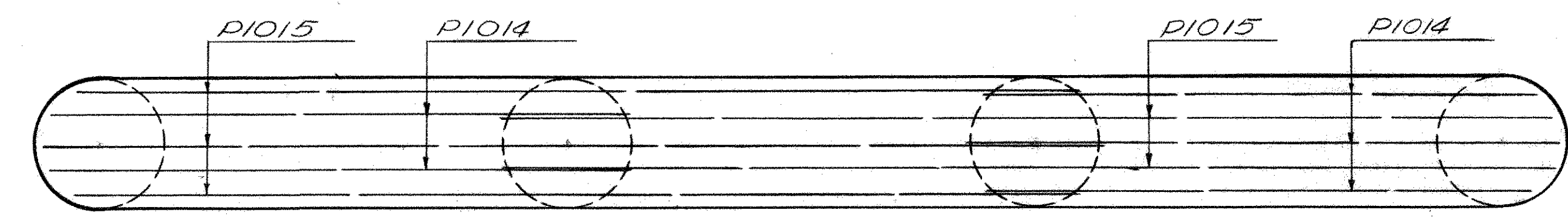


SECTION "C"-C"

SECTION "B"-B"



PLACEMENT DIAGRAM FOR P1011 AND P1012
IN TOP OF PIER CAP



PLACEMENT DIAGRAM FOR P1014 AND P1015
IN BOTTOM OF PIER CAP

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio					
PIER DETAILS - LEFT BRIDGE					
BRIDGE NO. R05-35-2086 L&R					
U.S.R. 35 OVER EXISTING U.S.R. 23					
ROSS COUNTY U.S.R. 23					
STA. 1101+47.67 TO STA. 1103+22.71					
SCALE	DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
EER	WOU		D.M.	NK	11/24/62

ROSS COUNTY
R05-35-19.93

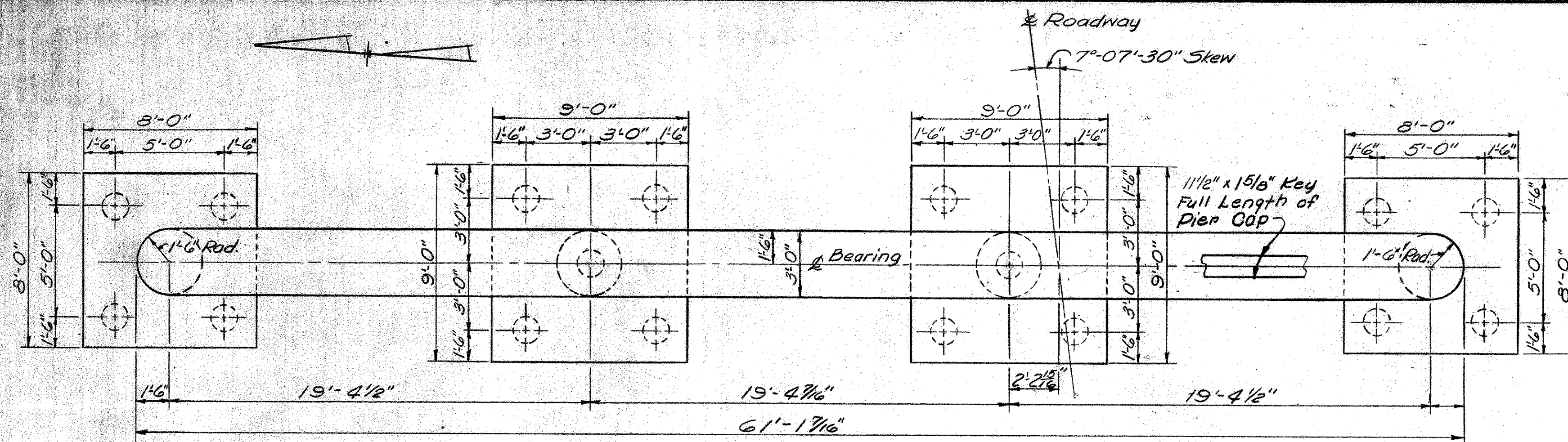
~NOTES~

CONCRETE shall be Class "C" in Caps and Columns and Class "E" in Footings.

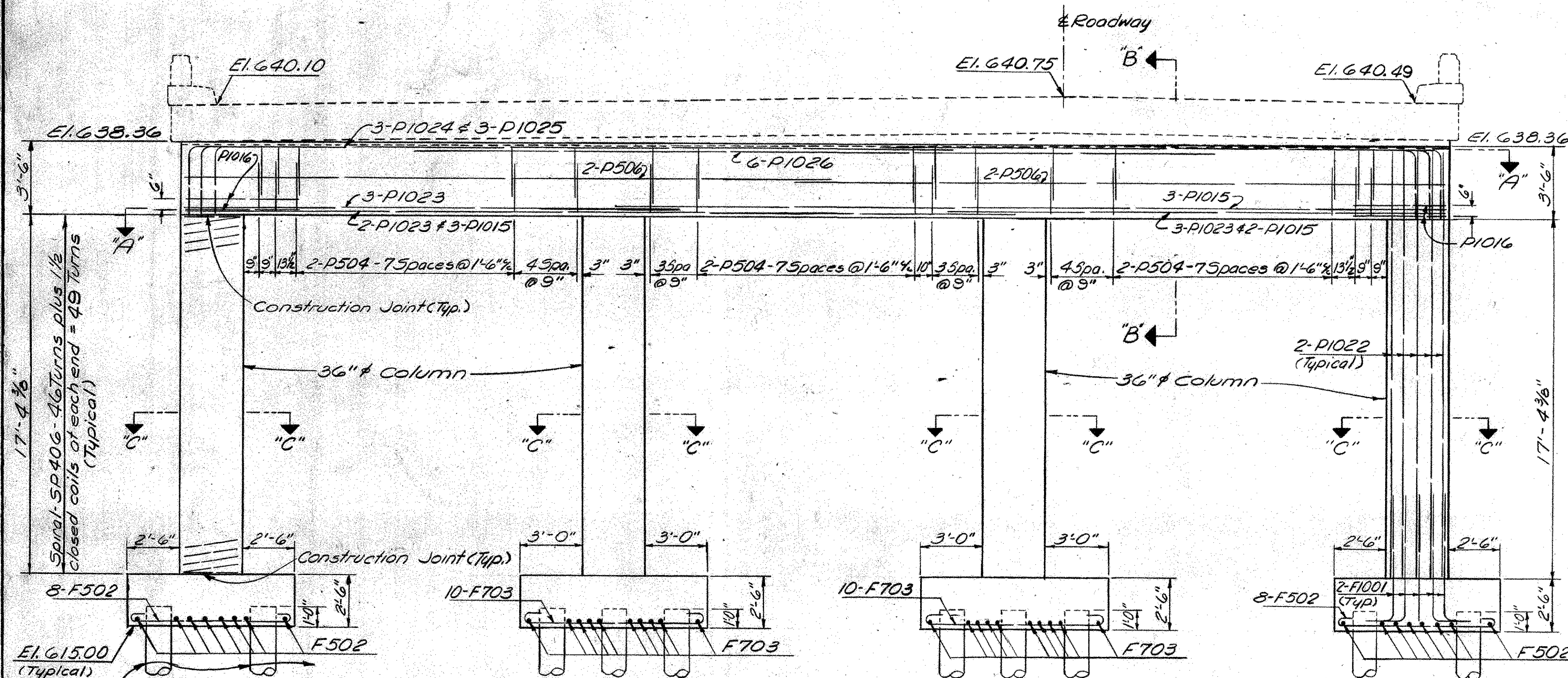
PILES shall be 12" Cast-in-Place Reinforced Concrete Piles.

DESIGN LOAD is 40 tons per pile.

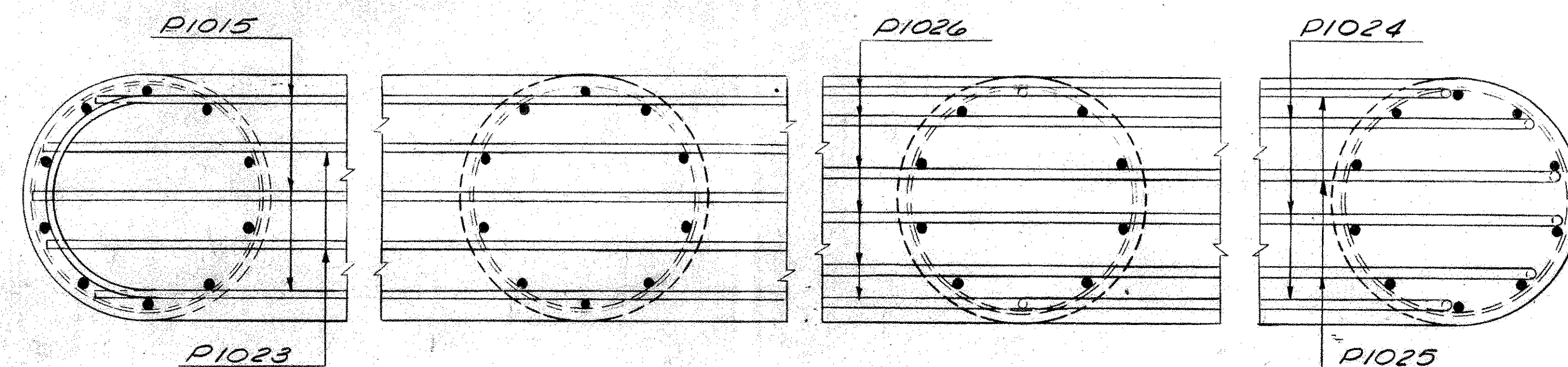
REINFORCING Steel in Cap (P1024, P1025, and P1026) must be lapped vertically so that it will clear Column Steel.



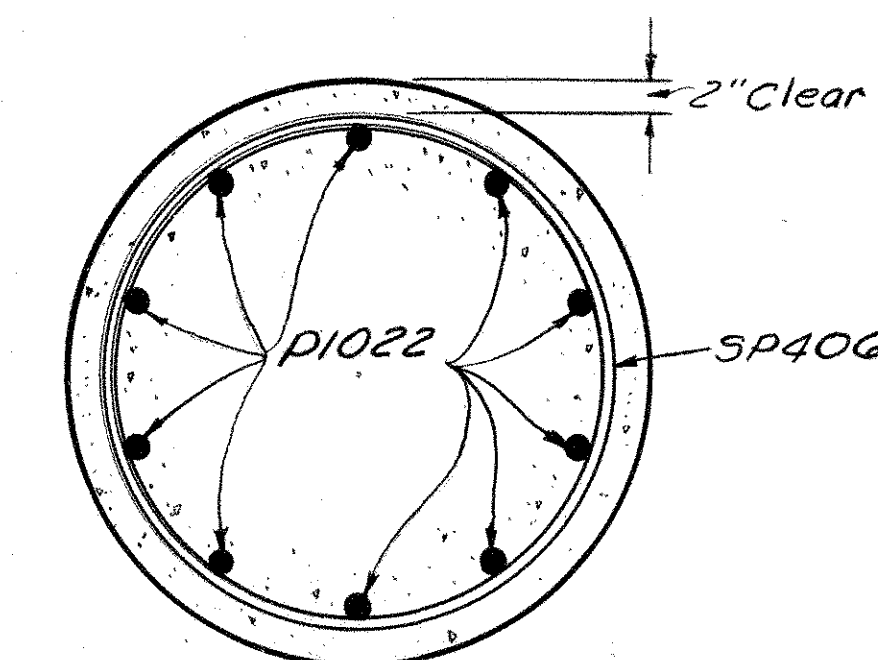
PIER PLAN
FORWARD PIER - LEFT BRIDGE



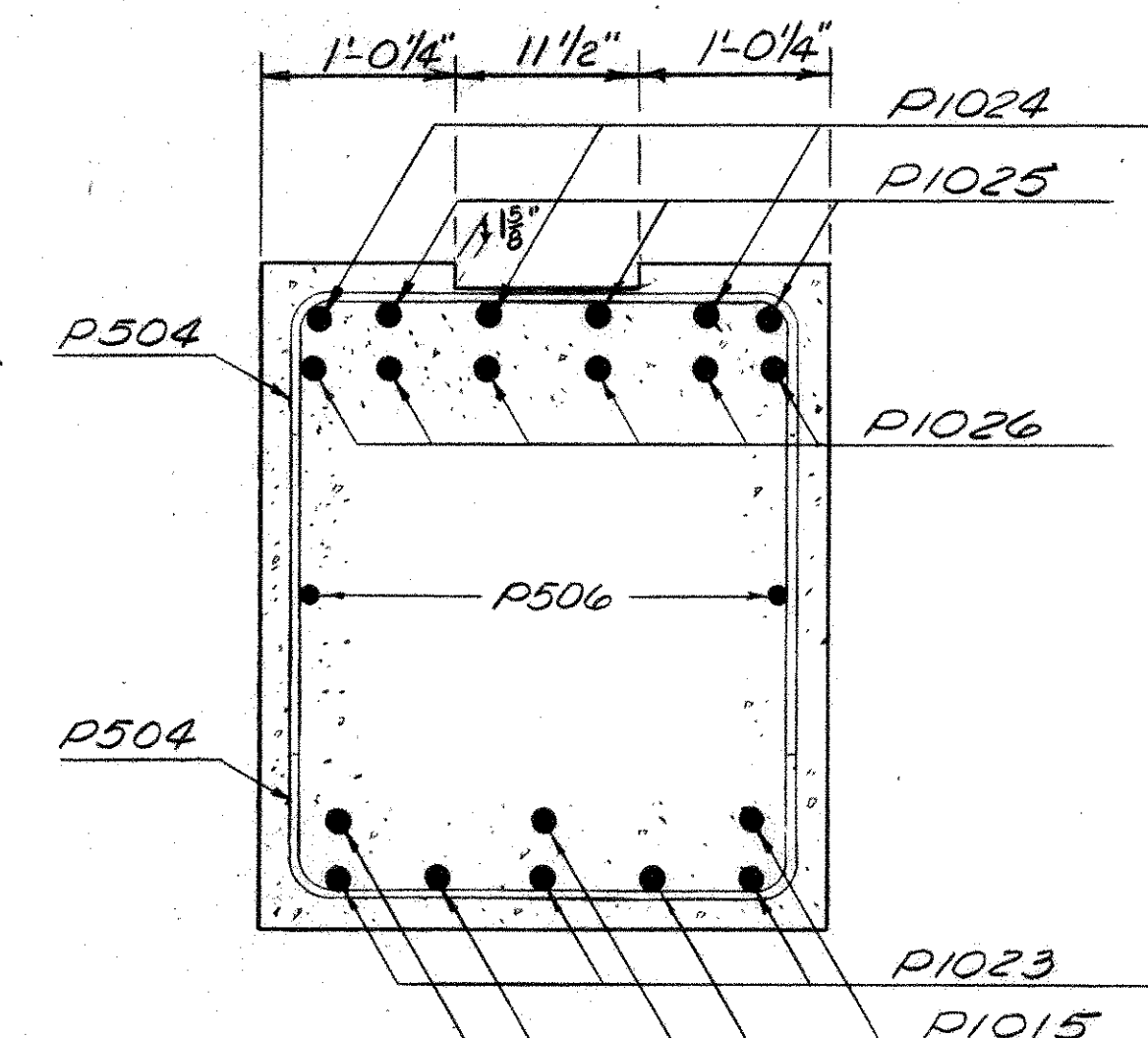
PIER ELEVATION
FORWARD PIER - LEFT BRIDGE



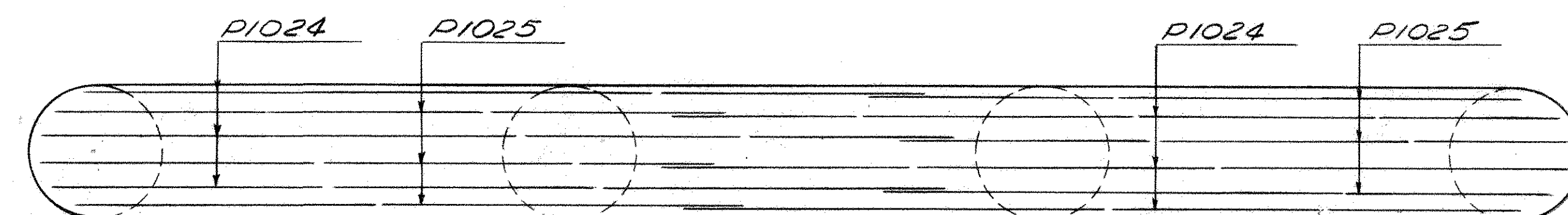
SECTION "A"-A"



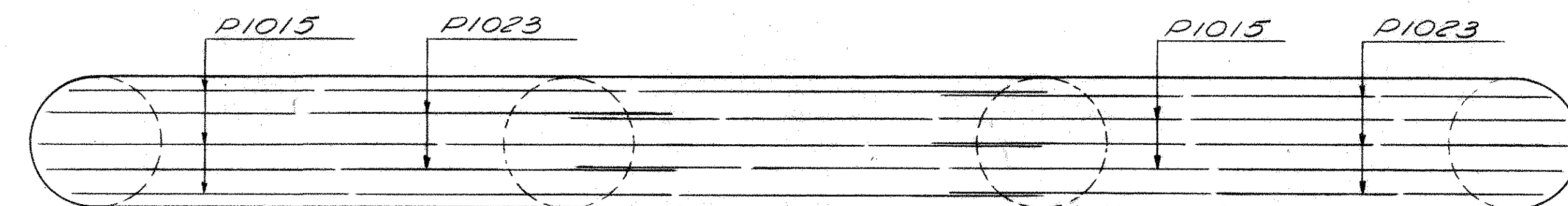
SECTION "C"-C"



SECTION "B"-B"



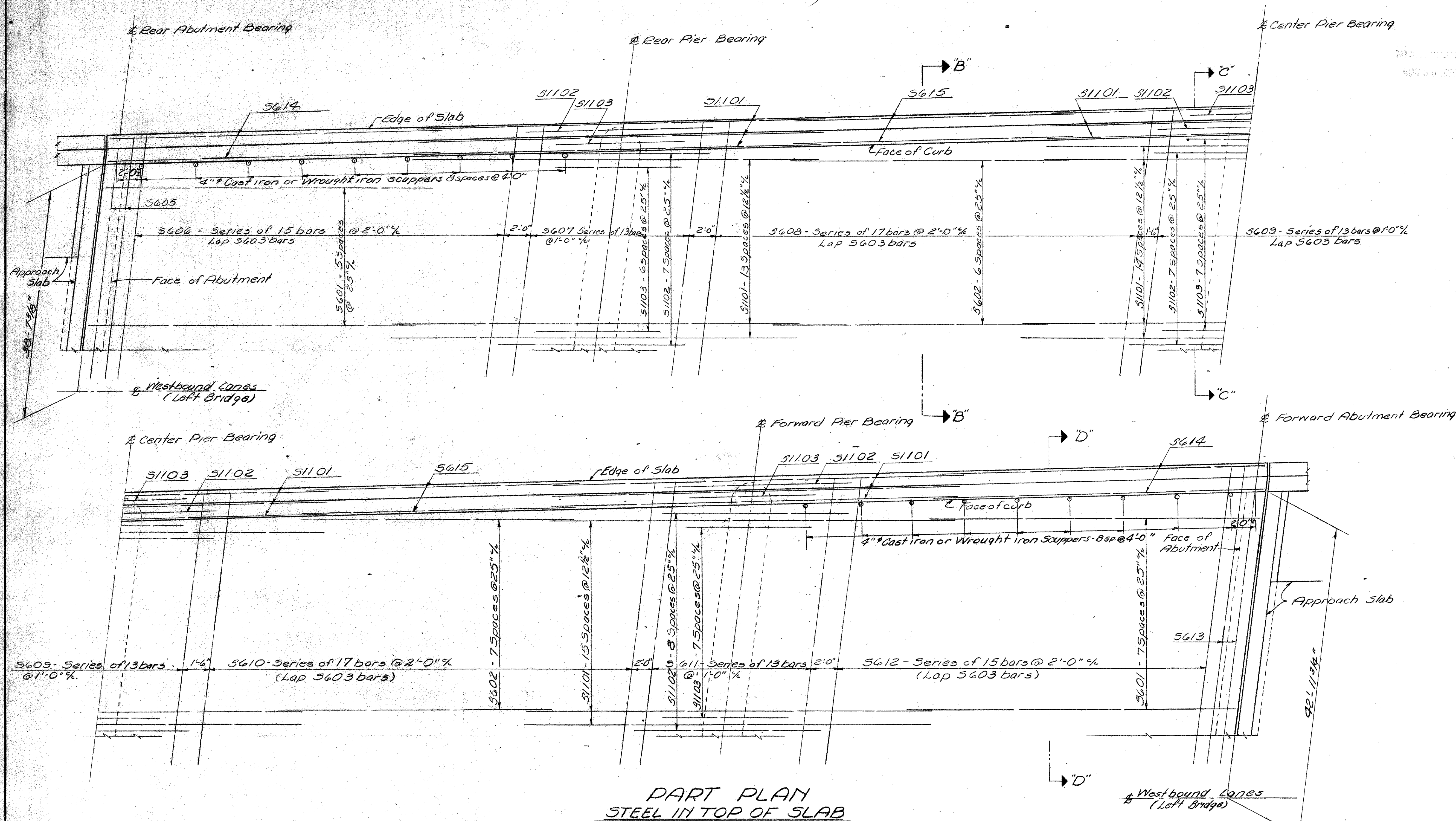
PLACEMENT DIAGRAM FOR P1024 AND P1025
IN TOP OF PIER CAP



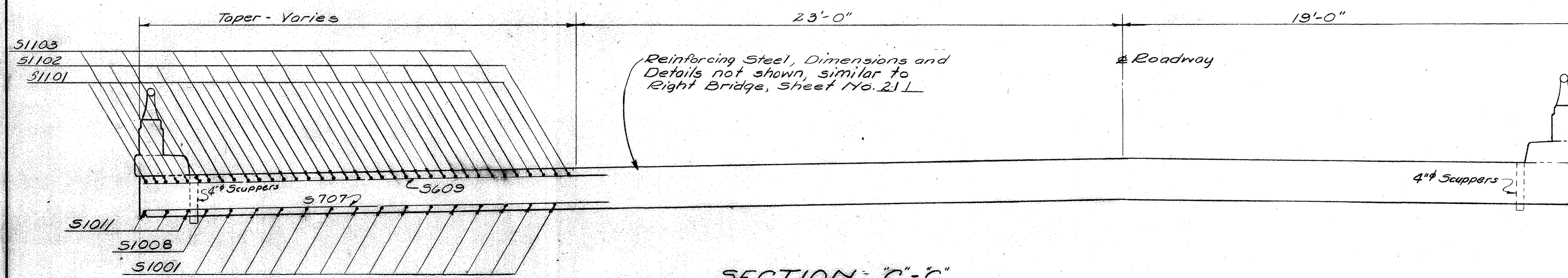
PLACEMENT DIAGRAM FOR P1015 AND P1023
IN BOTTOM OF PIER CAP

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio					
PIER DETAILS - LEFT BRIDGE					
BRIDGE NO. R05-35-2086 L&R					
U.S.R. 35 OVER EXISTING U.S.R. 23					
ROSS COUNTY U.S.R. 23					
STA 1101+47.67 TO STA 1103+22.71					
SCALE	DATE	DESIGNED	DRAWN	TRACED	CHECKED
EER	WOU	D.M.	WK	11/26/62	

ROSS COUNTY
R05-35-19.93

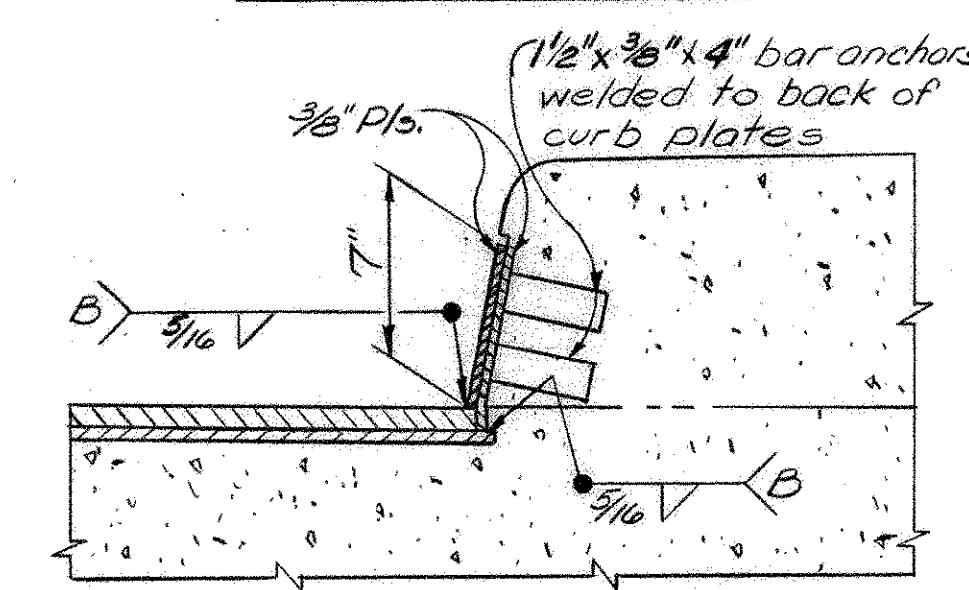
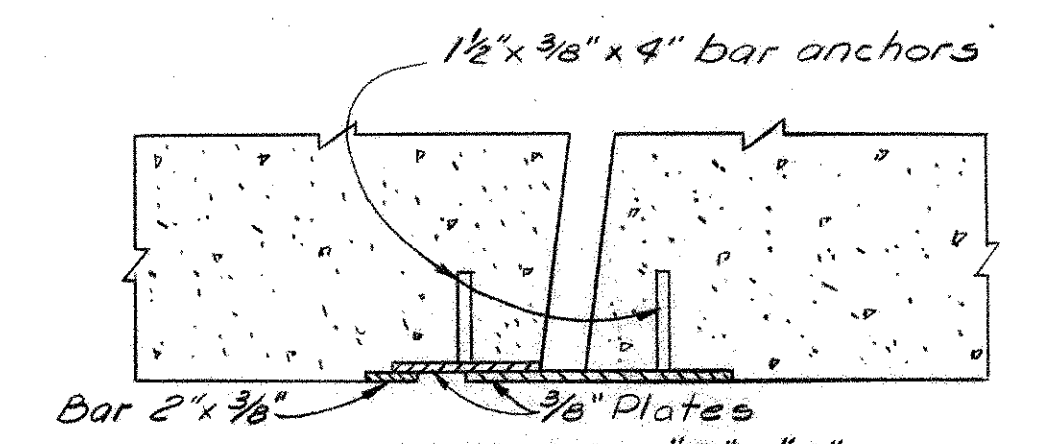
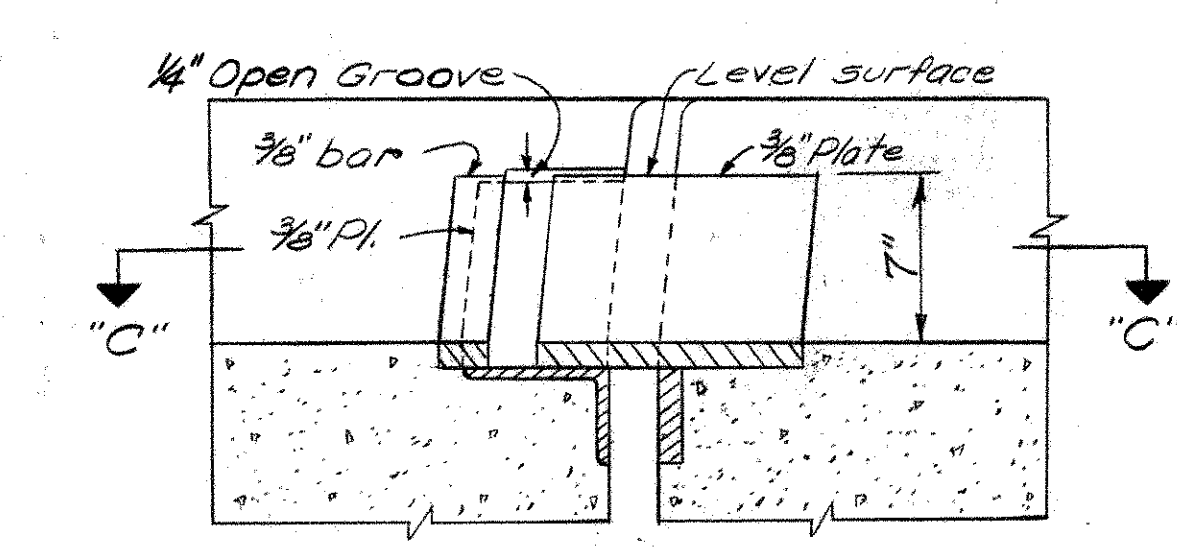
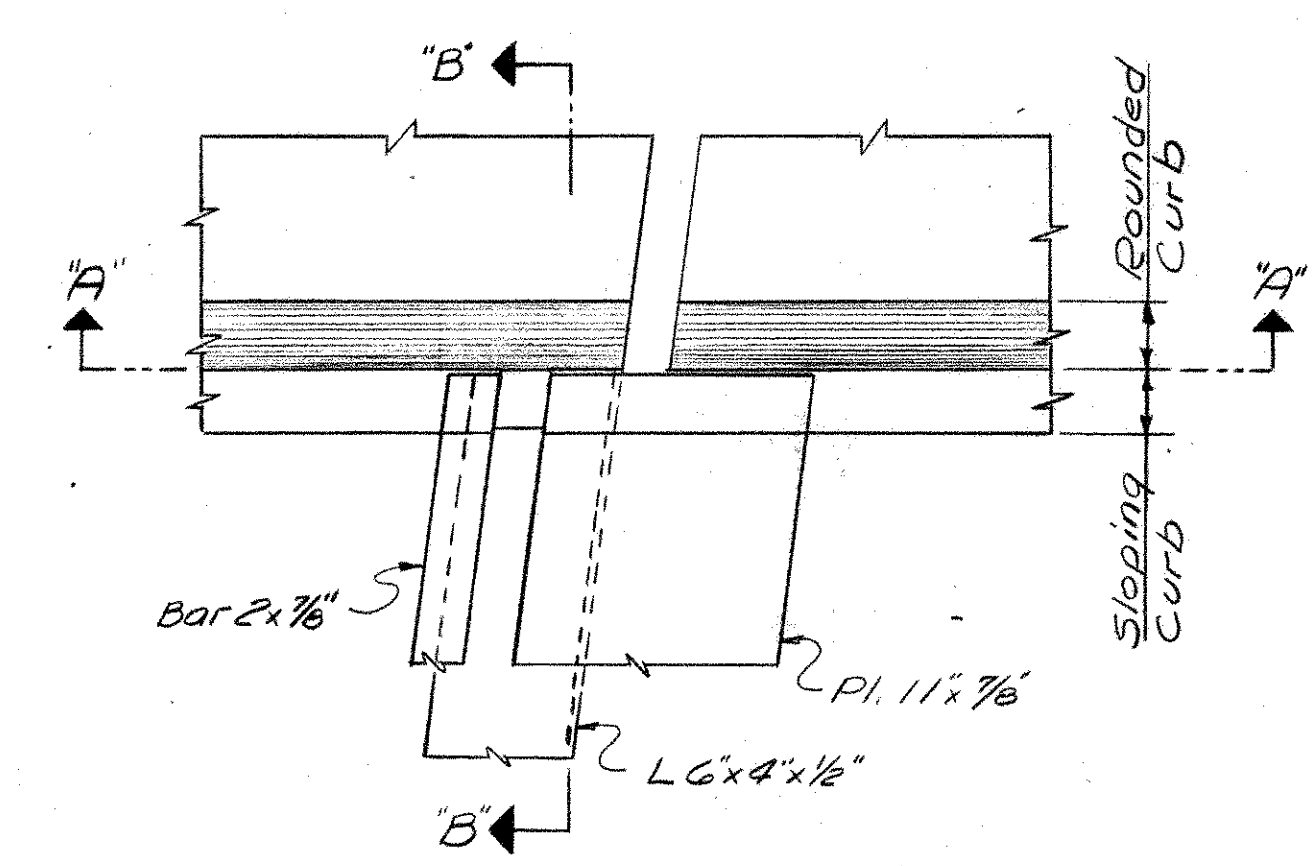
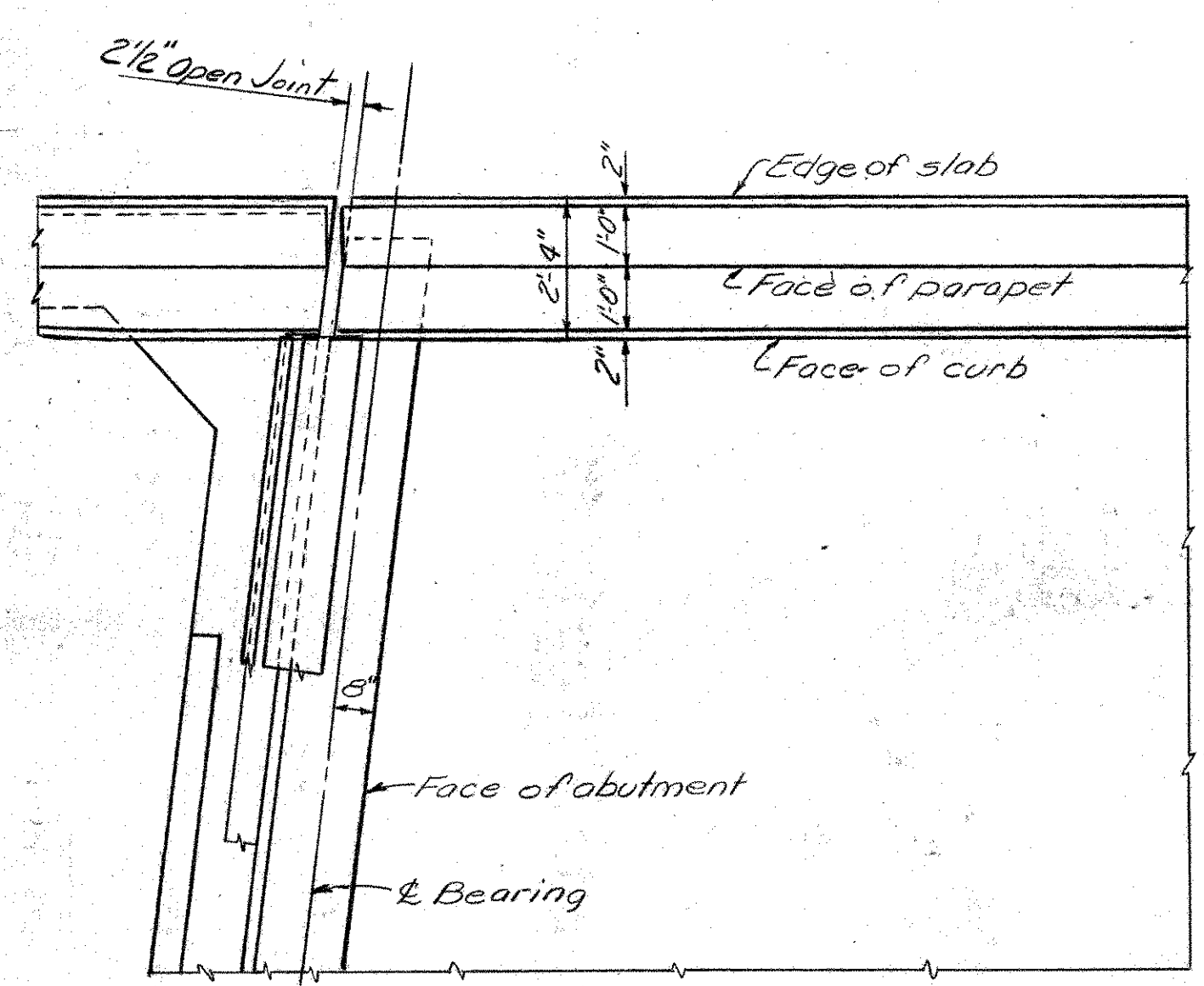
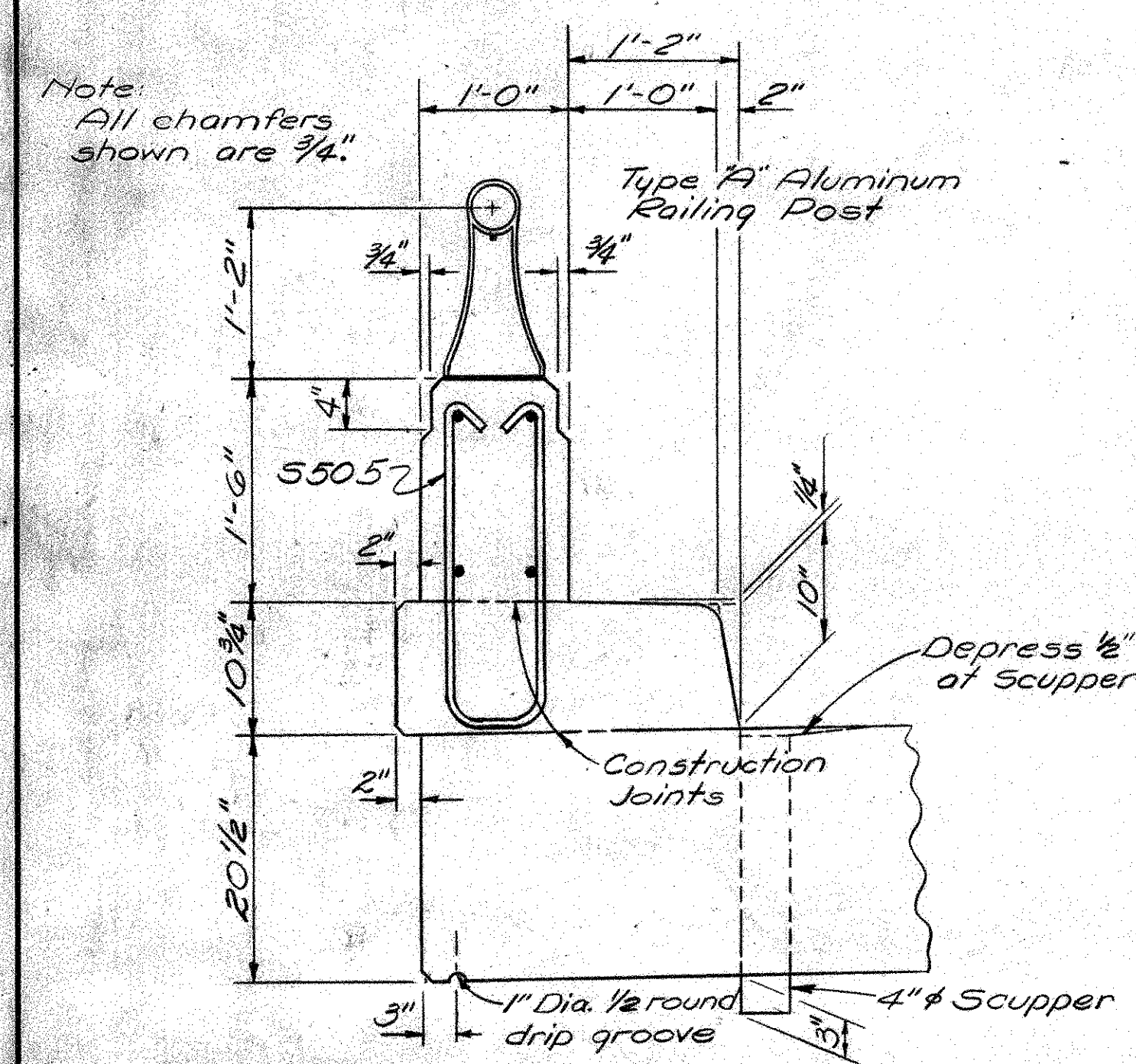
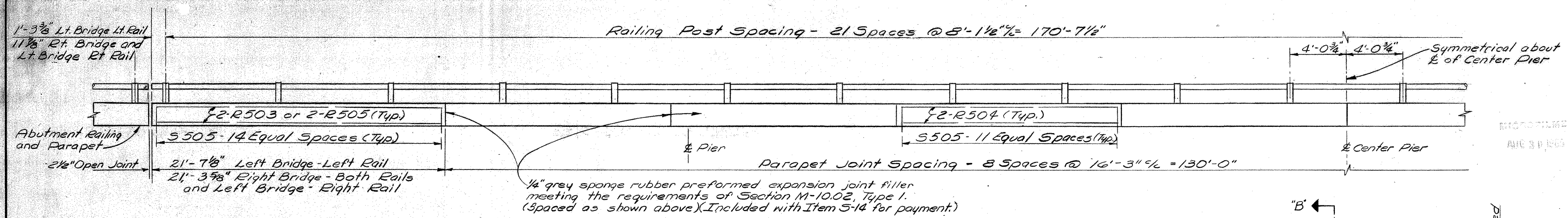


PART PLAN
STEEL IN TOP OF SLAB

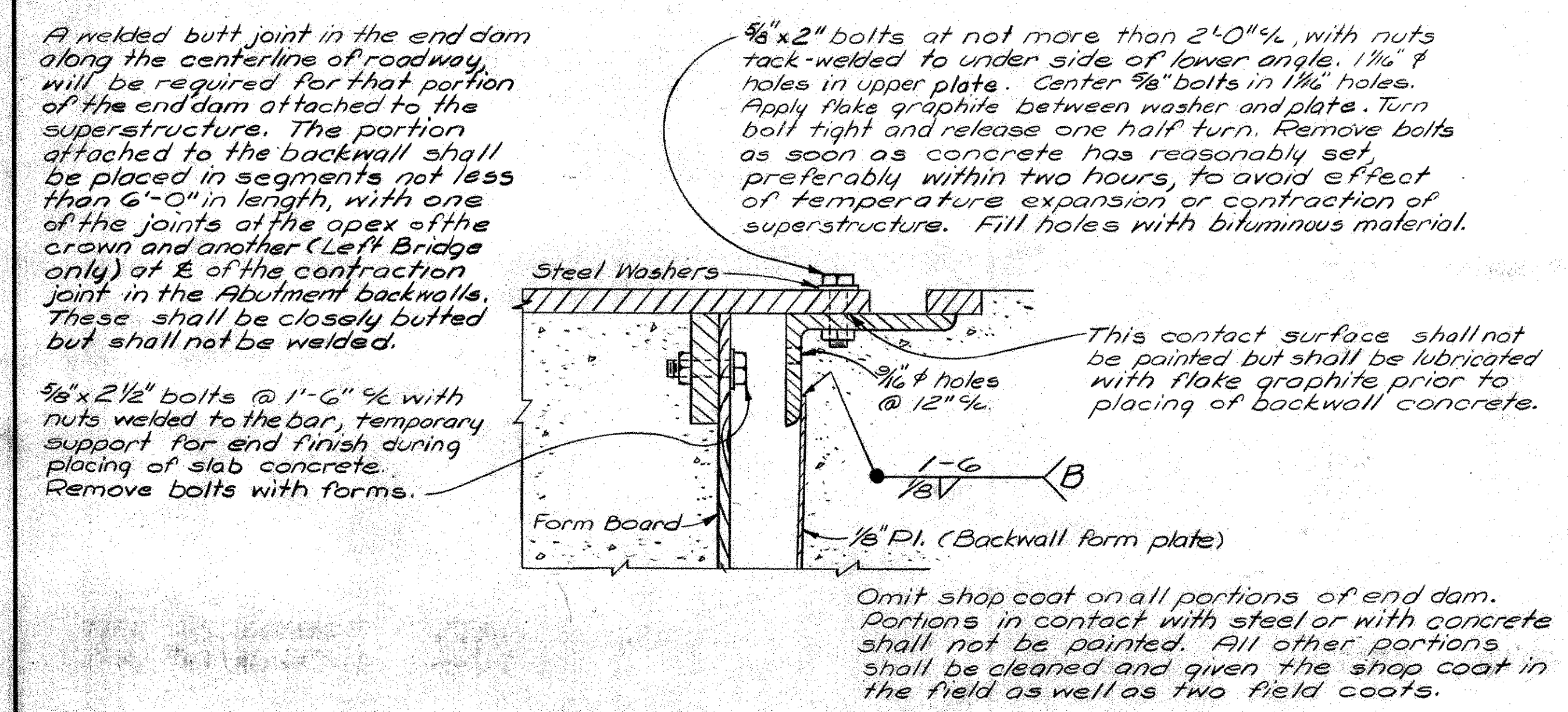
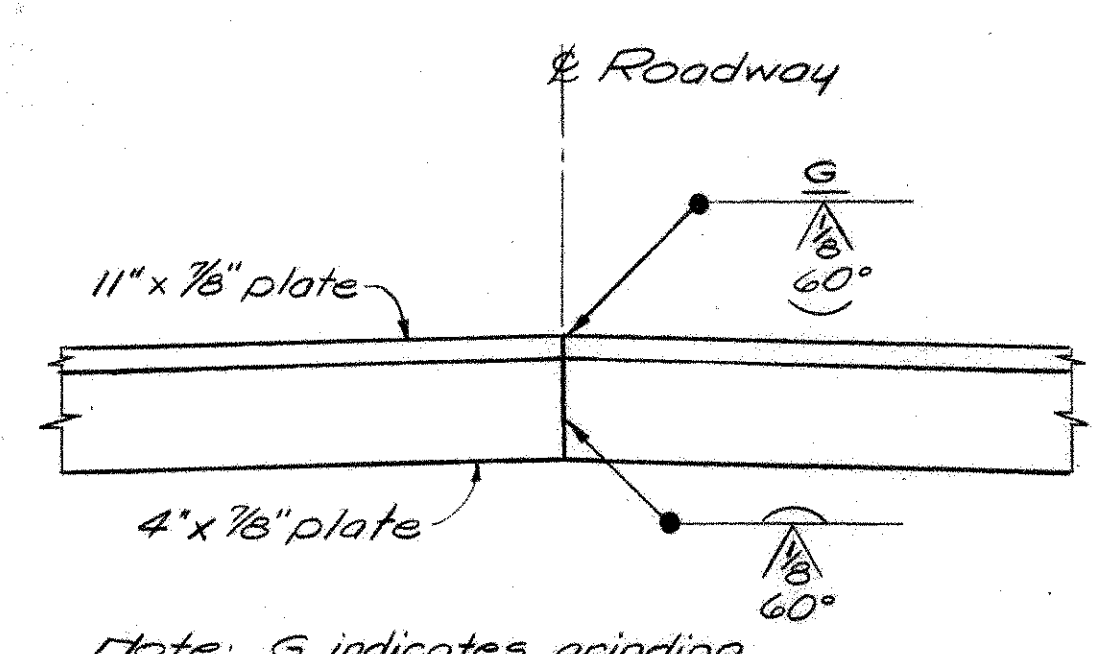
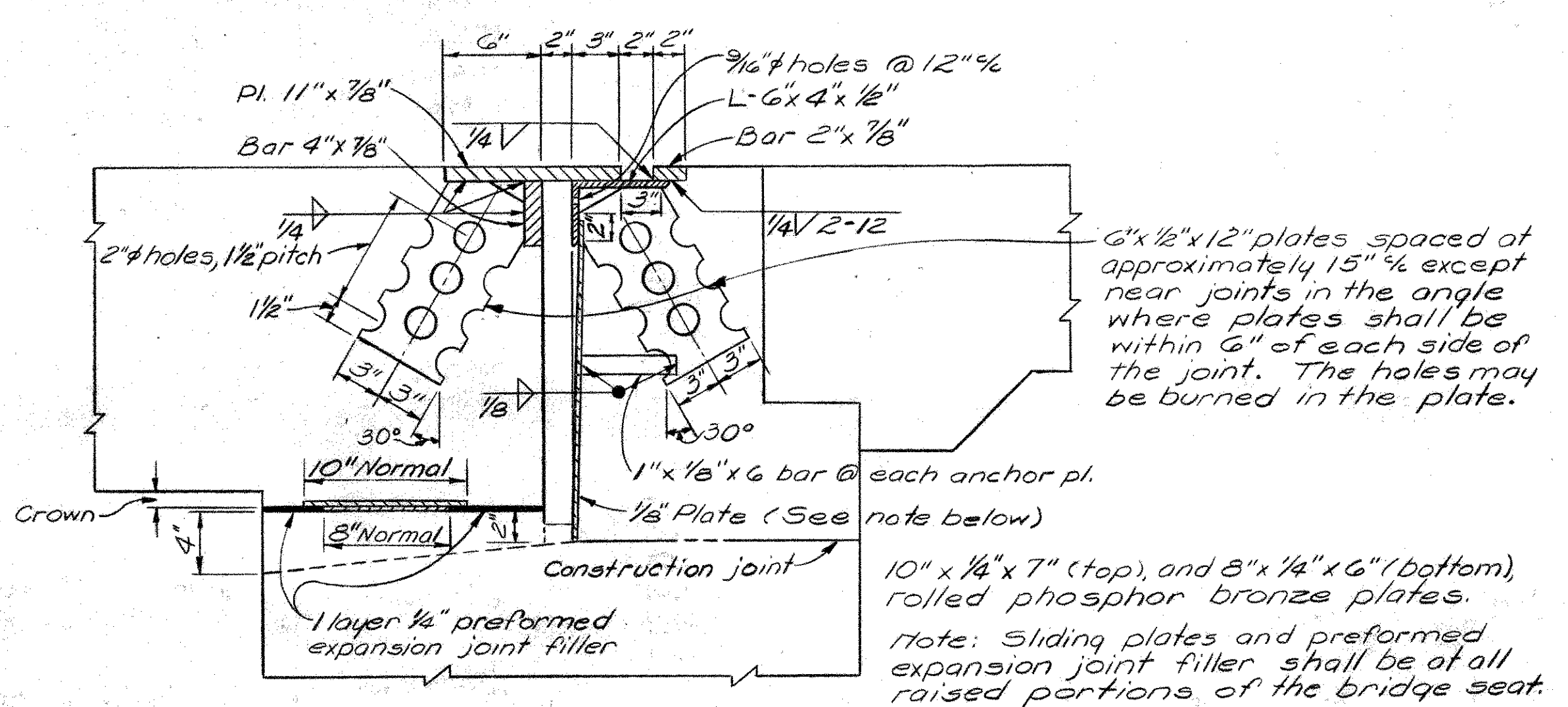


SECTION "C"-C

ELMER S. BARRETT ASSOCIATES Consulting Engineers 245-249 S. Paint Street Chillicothe, Ohio							
SUPERSTRUCTURE DETAILS LEFT BRIDGE							
BRIDGE NO. R05-35-2086 R&L U.S.R. 35 OVER EXISTING U.S.R. 23							
ROSS COUNTY U.S.R. 35							
STA. 1101+47.67 TO STA. 1103+22.71							
SCALE DATE							
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION	
E.E.R.	W.D.J.		D.M.	W.K.	11/26/62		



CURB PLATE DETAILS



NOTE: 1/8" Backwall form plate shall be provided in lengths not to exceed 6'-0", joints between lengths shall be tightly butted and no joints shall be placed opposite drainage slots in bridge seat; plates shall be notched to fit around anchor plates.

ELMER S. BARRETT ASSOCIATES					
Consulting Engineers					
245-249 S. Paint Street			Chillicothe, Ohio		
SUPERSTRUCTURE DETAILS					
BRIDGE NO. ROS-35-2086 R&L.					
U.S.R. 35 OVER EXISTING U.S.R. 23					
ROSS COUNTY			U.S.R. 35		
STA. 1101+47.67 TO STA. 1103+22.71					
SCALE			DATE		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
EER	W.D.J.		D.M.	JK	11/26/62

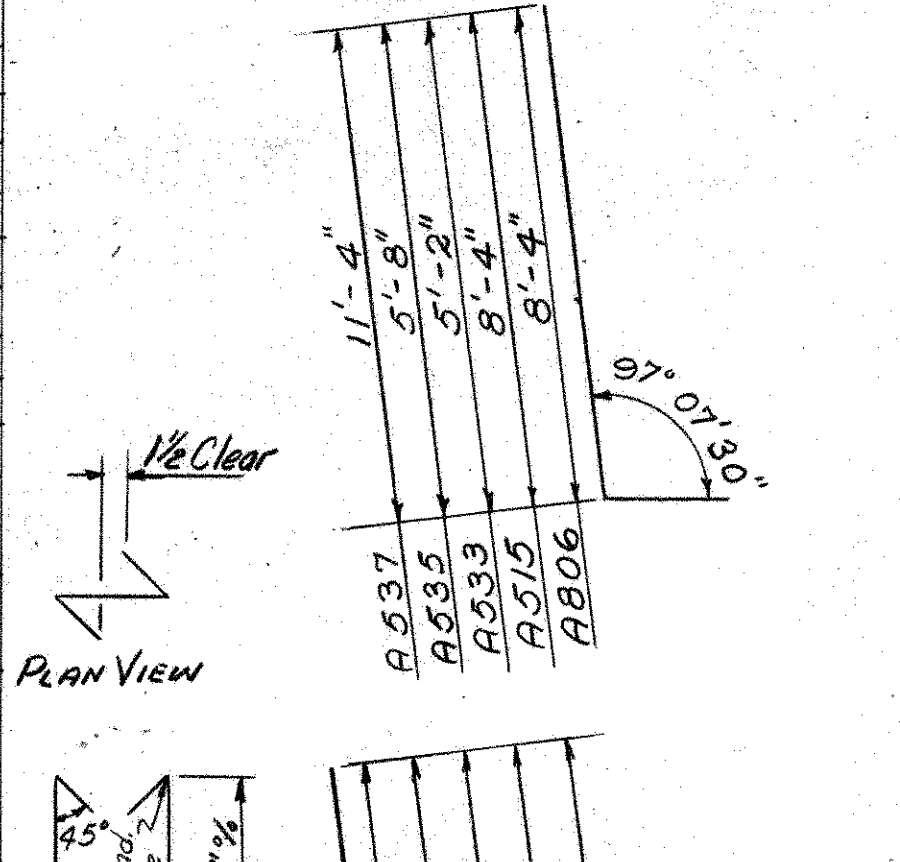
ROSS COUNTY
ROS-35-19.93

REINFORCING STEEL LIST

Bar Number Length Shape Weight

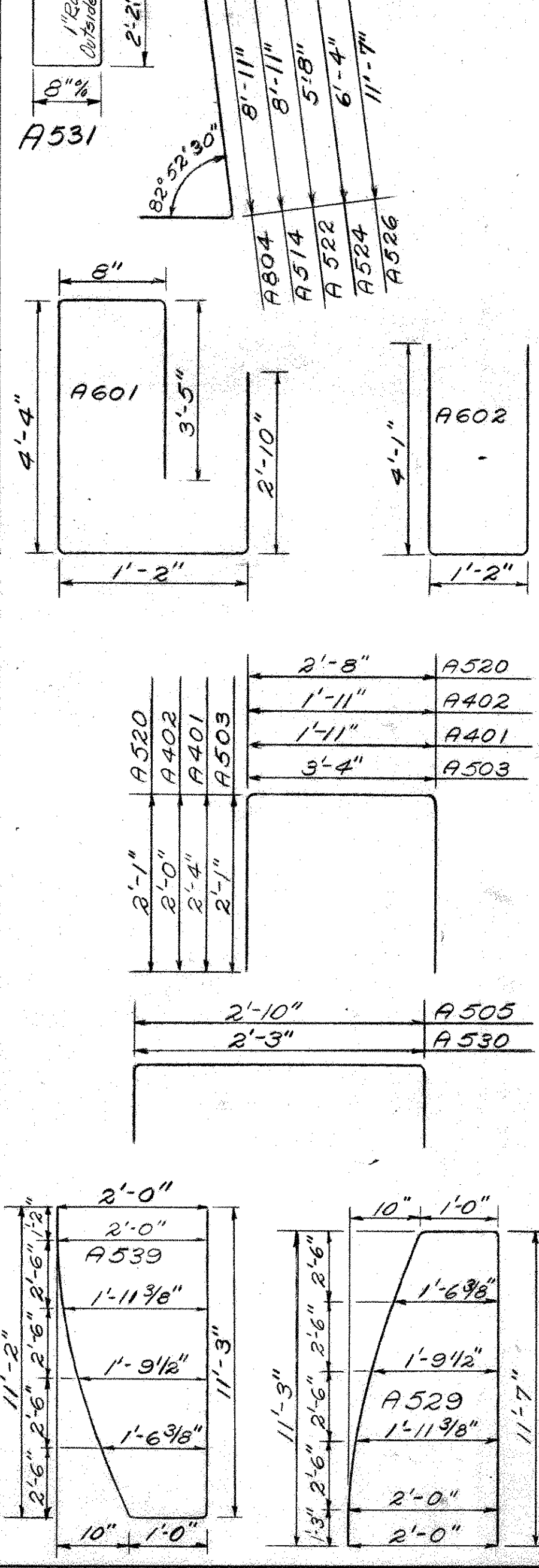
ABUTMENTS-RIGHT BRIDGE

A1001	4	19'-1"		328
A1002	4	25'-1"		432
A801	5	20'-1"		268
A802	5	25'-7"		342
A803	3	8'-8"		69
A804	1	9'-10"		26
A805	3	8'-4"		67
A806	1	9'-3"		25
A807	1	9'-11"		26
A808	1	9'-0"		24
A809	1	8'-0"		21
A810	1	7'-2"		19
A811	1	11'-6"		31
A812	1	10'-3"		27
A813	1	9'-2"		24
A814	1	8'-0"		21



A601	24	11'-9"		424
A602	14	9'-0"		189

A501	4	19'-2"		80
A502	4	25'-7"		107
A503	68	7'-3"		514
A504	82	4'-7"		392
A505	70	3'-10"		280
A506	4	18'-0"		75
A507	4	24'-7"		103
A508	2	18'-6"		39
A509	2	25'-1"		52
A510	1	12'-9"		13
A511	1	16'-3"		17
A512	2	6'-9"		14
A513	2	10'-4"		22
A514	1	9'-5"		10
A515	1	8'-10"		9
A516	1	8'-8"		9
A517	1	8'-4"		9
A518	1	9'-11"		10
A519	1	11'-6"		12
A520	24	6'-7"		165
A521	28	7'-8"		224
A522	1	6'-2"		6
A523	2	7'-3"		15
A524	1	6'-10"		7
A525	1	7'-8"		8
A526	1	12'-1"		13
A527	2	13'-1"		27
A528	6	3'-1"		19
A529	3	23'-10"		75
A530	16	3'-3"		54
A531	16	5'-7"		93
A532	16	3'-6"		58
A533	1	5'-8"		6
A534	2	7'-0"		15
A535	1	6'-2"		6
A536	1	7'-6"		8
A537	1	11'-10"		12
A538	2	13'-0"		27
A539	3	23'-5"		73
A540	5	5'-8"		30
A541	5	6'-7"		34

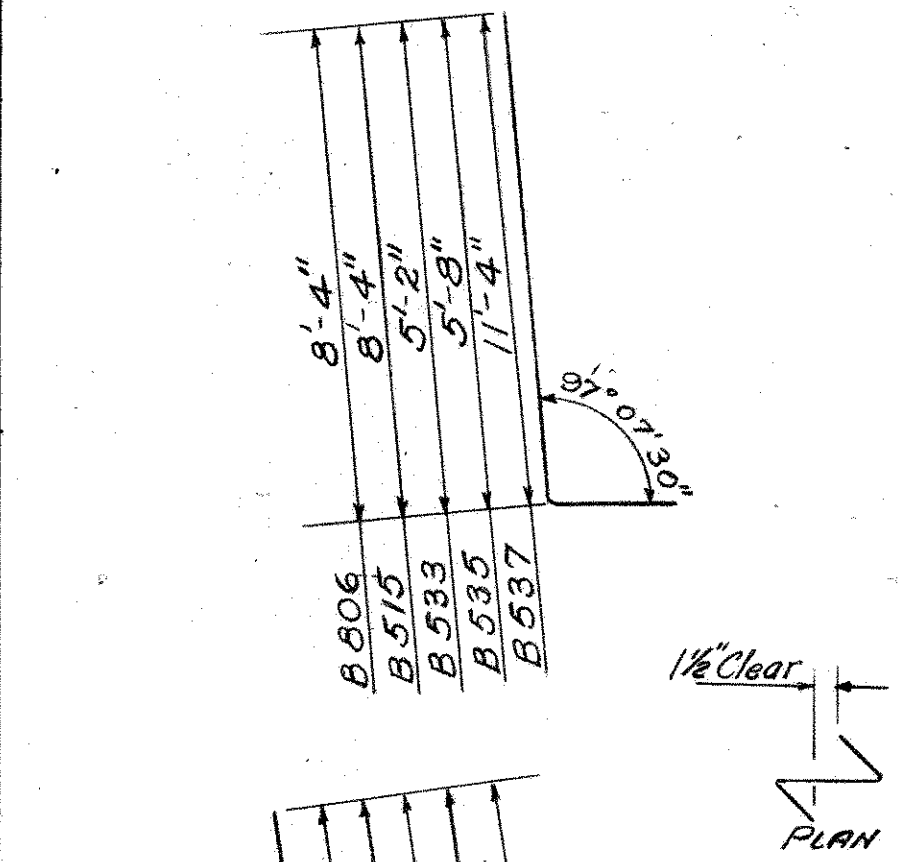


A401	28	6'-5"		120
A402	8	5'-9"		31
TOTAL ONE ABUTMENT				5256
TOTAL TWO ABUTMENTS				10,512

Bar Number Length Shape Weight

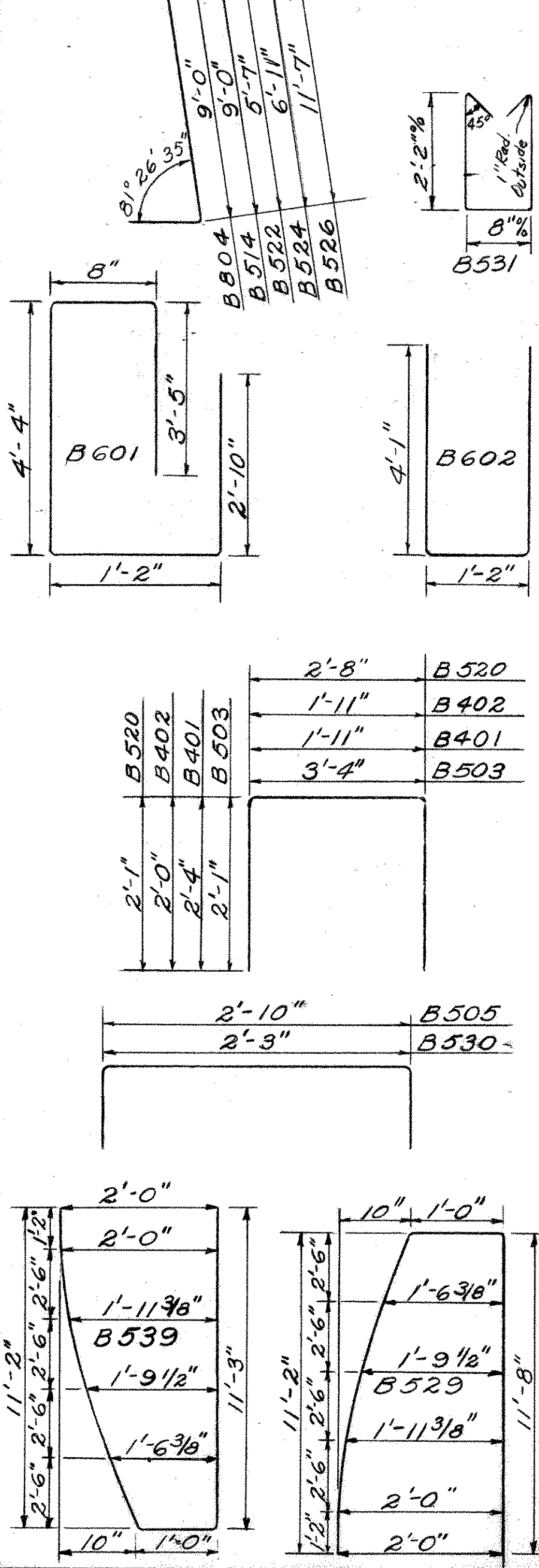
REAR ABUTMENT- LEFT BRIDGE

B1001	4	28'-3"		486
B1002	4	28'-5"		489
B801	5	25'-3"		337
B802	5	36'-11"		493
B803	3	8'-7"		69
B804	1	9'-11"		26
B805	3	8'-4"		67
B806	1	9'-3"		25
B807	1	9'-8"		26
B808	1	8'-10"		24
B809	1	8'-0"		21
B810	1	7'-2"		19
B811	1	11'-5"		30
B812	1	10'-3"		27
B813	1	9'-1"		24
B814	1	7'-11"		21



B601	43	11'-9"		759
B602	12	9'-0"		162
B603	2	10'-0"		30

B501	4	24'-10"		104
B502	4	36'-6"		152
B503	98	7'-3"		741
B504	116	4'-8"		565
B505	100	3'-10"		400
B506	4	28'-3"		118
B507	4	28'-5"		119
B508	2	28'-8"		60
B509	2	28'-11"		60
B510	1	21'-7"		23
B511	1	24'-0"		25
B512	2	8'-6"		18
B513	2	6'-5"		13
B514	1	9'-6"		10
B515	1	8'-10"		9
B516	1	8'-7"		9
B517	1	8'-4"		9
B518	1	9'-8"		10
B519	1	11'-5"		12
B520	24	6'-7"		165
B521	28	7'-10"		229
B522	1	6'-1"		6
B523	2	7'-3"		15
B524	1	7'-5"		8
B525	1	7'-9"		8
B526	1	12'-1"		13
B527	2	13'-2"		27
B528	6	3'-1"		19
B529	3	23'-10"		75
B530	16	3'-3"		54
B531	16	5'-7"		93
B532	16	3'-6"		58
B533	1	5'-8"		6
B534	2	7'-0"		15
B535	1	6'-2"		6
B536	1	7'-6"		8
B537	1	11'-10"		12
B538	2	13'-0"		27
B539	3	23'-5"		73
B540	5	5'-8"		30
B541	5	6'-7"		34

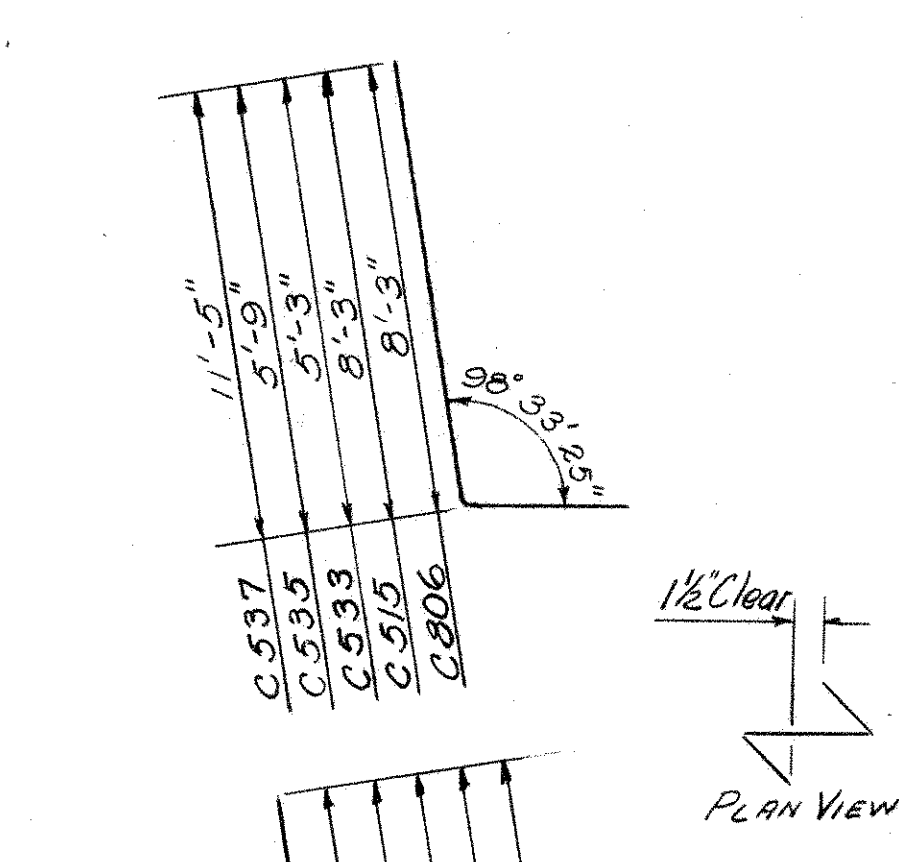


B401	40	6'-5"		171
B402	8	5'-9"		31
TOTAL				6775

Bar Number Length Shape Weight

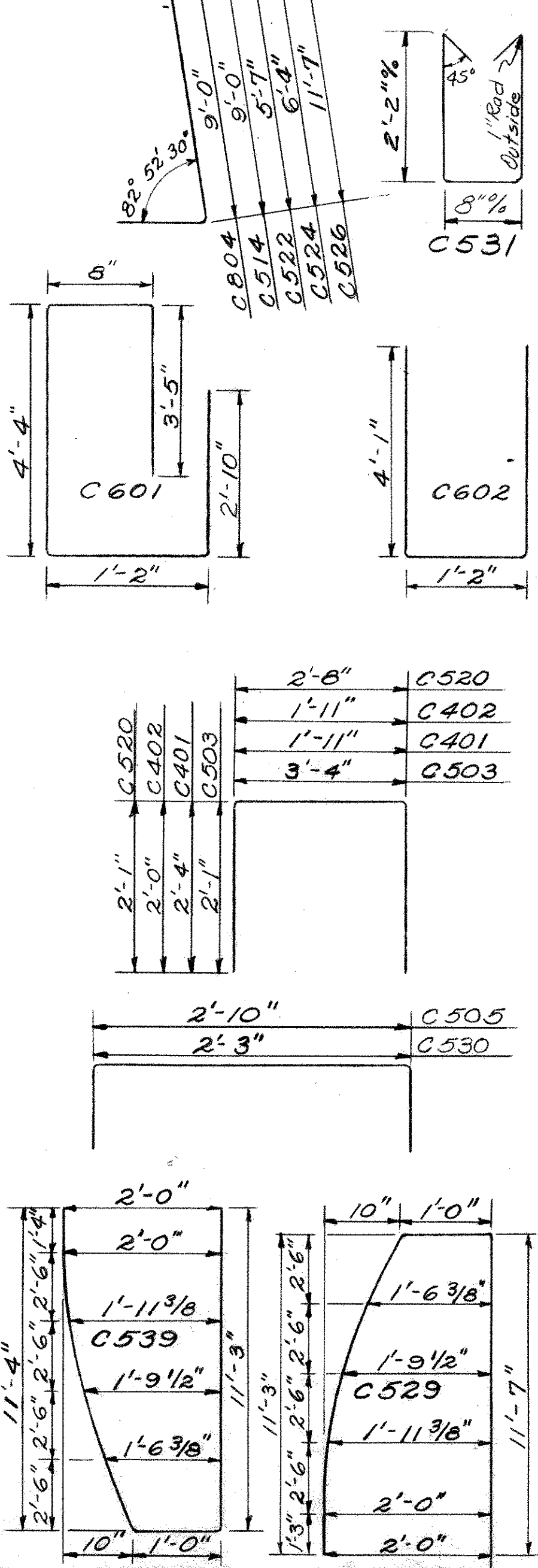
FORWARD ABUTMENT- LEFT BRIDGE

C1001	4	30'-8"		528
C1002	4	30'-6"		525
C801	5	40'-0"		534
C802	5	26'-6"		354
C803	3	8'-8"		69
C804	1	9'-11"		26
C805	3	8'-5"		67
C806	1	9'-2"		24
C807	1	10'-0"		27
C808	1	9'-1"		24
C809	1	8'-2"		22
C810	1	7'-3"		19
C811	1	11'-7"		31
C812	1	10'-4"		28
C813	1	9'-2"		24
C814	1	8'-0"		21



C601	47	11'-9"		829
C602	12	9'-0"		162
C603	2	10'-0"		30

C501	4	39'-7"		165
C502	4	26'-0"		108
C503	98	7'-3"		741
C504	124	4'-7"		593
C505	105	3'-10"		420
C506	4	30'-8"		128
C507	4	30'-6"		127
C508	2	30'-1"		64
C509	2	30'-9"		64
C510	1	25'-7"		27
C511	1	24'-2"		25
C512	2	6'-7"		14
C513	2	8'-9"		18
C514	1	9'-6"		10
C515	1	8'-9"		9
C516	1	8'-8"		9
C517	1	8'-5"		9
C518	1	10'-0"		10
C519	1	11'-7"		12
C520	24	6'-7"		165
C521	28	7'-10"		229
C522	1	6'-1"		6
C523	2	7'-3"		15
C524	1	6'-10"		7
C525	1	7'-8"		8
C526	1	12'-1"		13
C527	2	13'-1"		27
C528	6	3'-1"		19
C529	3	23'-10"		75
C530	16	3'-3"		54
C531	16	5'-7"		93
C532	16	3'-6"		58
C533	1	5'-9"		6
C534	2	7'-1"		15
C535	1	6'-3"		7
C536	1	7'-7"		8
C537	1	11'-11"		12
C538	2	13'-1"		27
C539	3	23'-7"		74
C540	5	5'-8"		30
C541	5	6'-7"		34



C401	40	6'-5"		171
C402	8	5'-9"		31
TOTAL				7081
TOTAL LEFT BRIDGE				13,856

ROSS COUNTY
ROS-35-19.93

MITCHELL & ASSOCIATES
AUG 30 1965

REINFORCING STEEL LIST

Bar Number	Number Required	Length	Shape	Weight	Bending Diagrams
RIGHT BRIDGE THREE PIERS					
P1001	18	34'-6"		2672	
P1002	18	15'-5"		1194	
P1003	18	19'-2"		1485	
P1004	36	22'-1"		3421	
P1006	12	10'-6"		542	
P1007	30	20'-11"		2700	
P1008	30	17'-11"		2313	
P1009	30	20'-10"		2689	
P501	6	38'-4"		240	
P502	156	7'-3"		1180	
F1001	90	7'-10"	L	3034	
F701	24	10'-4"	C	507	
F702	24	8'-10"	C	433	
F501	72	8'-4"	C	626	
SUB-TOTAL THREE PIERS				23,036	

SPIRAL REINFORCING STEEL						
Bar Number	Number Required	Core Dia.	Length	Pitch	Number of Turns	Weight
SP401	3	32"	17'-9 3/8"	4 1/2"	50	972
SP402	3	32"	14'-9 1/4"	4 1/2"	42	815
SP403	3	32"	17'-8 3/8"	4 1/2"	50	972
TOTAL SPIRAL						2759
TOTAL THREE PIERS (RIGHT BRIDGE)						25,795

REAR PIER - LEFT BRIDGE					
P503	4	28'-7"		119	
P504	80	7'-3"		605	
P1010	40	20'-9"		3,571	
P1011	6	38'-4"		990	
P1012	6	29'-1"		751	
P1013	6	37'-2"		960	
P1014	8	21'-8"		746	
P1015	8	40'-0"		1,377	
P1016	4	10'-6"		181	
F502	32	8'-10"	C	295	
F703	40	10'-4"	C	845	
F1001	40	7'-10"	L	1,348	
SUB-TOTAL REAR PIER					11,788

SPIRAL REINFORCING STEEL						
Bar Number	Number Required	Core Dia.	Length	Pitch	Number of Turns	Weight
SP404	4	32"	17'-6 1/8"	4 1/2"	50	1,294
TOTAL SPIRAL						1,294
TOTAL PIER						13,082

Bar Number	Number Required	Length	Shape	Weight	Bending Diagrams
CENTER PIER					
P504	90	7'-3"		681	
P505	4	29'-3"		122	
P1015	8	40'-0"		1,377	
P1016	4	10'-6"		181	
P1017	40	17'-8"		3,041	
P1018	8	22'-10"		786	
P1019	6	39'-2"		1,011	
P1020	6	29'-8"		766	
P1021	6	38'-0"		981	
F502	32	8'-10"	C	295	
F703	40	10'-4"	C	845	
F1001	40	7'-10"	L	1,348	
SUB-TOTAL CENTER PIER				11,434	

SPIRAL REINFORCING STEEL						
Bar Number	Number Required	Core Dia.	Length	Pitch	Number of Turns	Weight
SP405	4	32"	14'-5 1/2"	4 1/2"	42	1,083
TOTAL SPIRAL						1,083
TOTAL PIER						12,517

FORWARD PIER					
P504	86	7'-3"		650	
P506	4	29'-11"		125	
P1015	8	40'-0"		1,377	
P1016	4	10'-6"		181	
P1022	40	20'-7"		3,543	
P1023	8	24'-3"		835	
P1024	6	39'-9"		1,026	
P1025	6	30'-2"		779	
P1026	6	38'-9"		1,000	
F502	32	8'-10"	C	295	
F703	40	10'-4"	C	845	
F1001	40	7'-10"	L	1,348	
SUB-TOTAL FORWARD PIER					12,004

SPIRAL REINFORCING STEEL						
Bar Number	Number Required	Core Dia.	Length	Pitch	Number of Turns	Weight
SP406	4	32"	17'-4 3/8"	4 1/2"	49	1,270
TOTAL SPIRAL						1,270
TOTAL PIER						13,274
TOTAL THREE PIERS (LEFT BRIDGE)						33,873

- NOTES -

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size. For example, A501 is a No. 5 size bar and P1001 is a No. 10 size bar.

RAILING STEEL in the parapet wall is included with Item S-14 Railing for payment.

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "Number of Turns" shown is the "Length" divided by the pitch plus three turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4. 1 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers based on 0.68 lb. per lin. ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

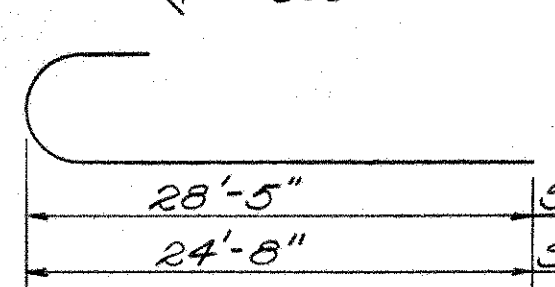
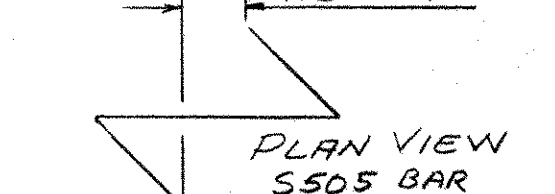
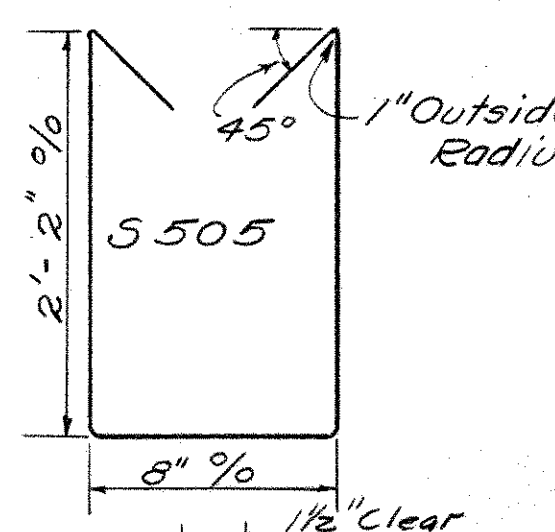
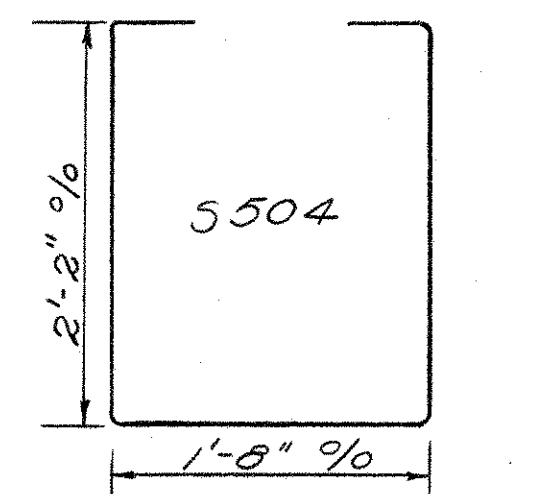
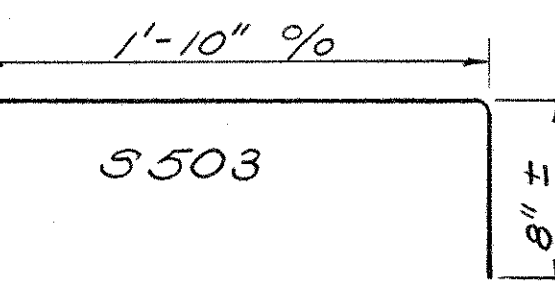
ROSS COUNTY
ROS-35-19.93

REINFORCING STEEL LIST

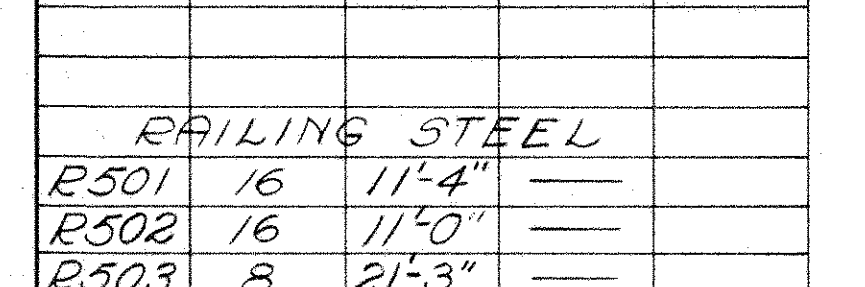
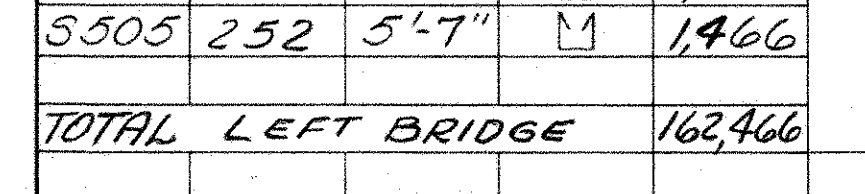
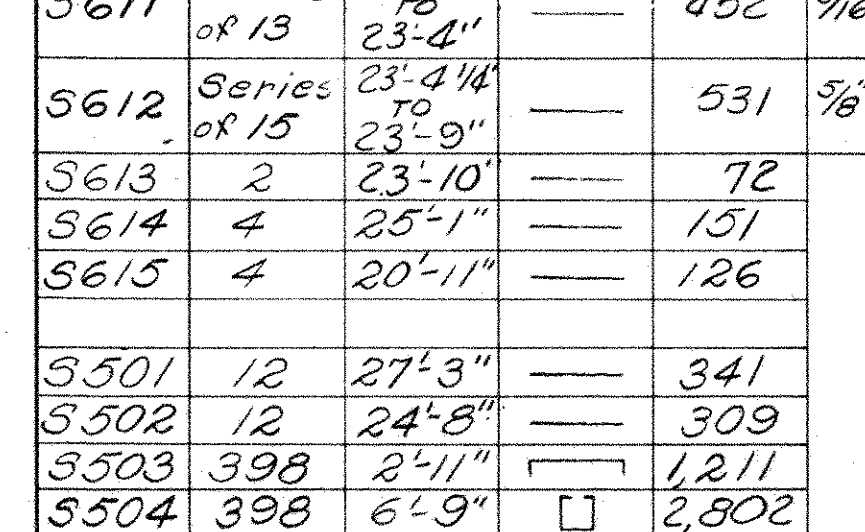
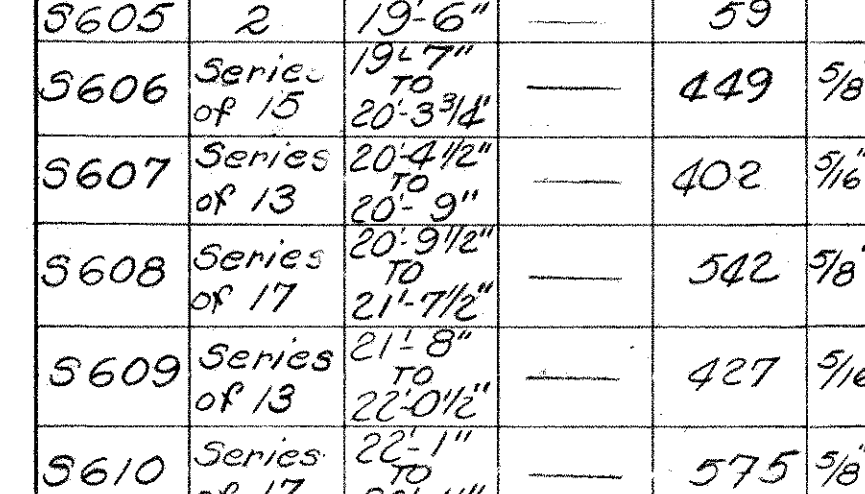
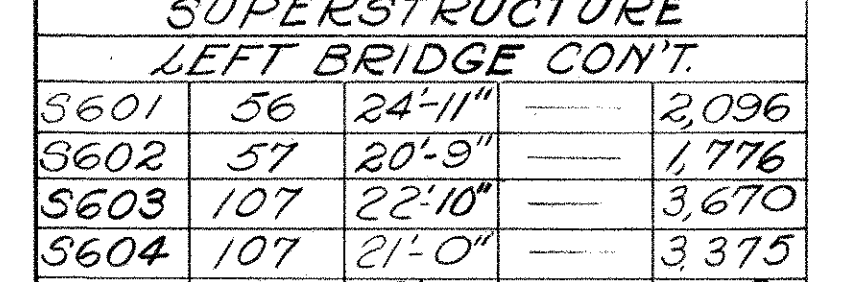
Bar Number	Number Required	Length	Shape	Weight
SUPERSTRUCTURE RIGHT BRIDGE				
S1101	123	30'-10"		20,150
S1102	60	14'-2"		4,516
S1103	60	9'-6"		3,028
S1001	180	45'-5"		35,177
S1002	40	29'-10"	C	5,135
S1003	40	26'-1"	C	4,439
S1004	40	28'-6"		4,905
S1005	40	20'-10"		3,586
S1006	30	26'-2"		3,378
S701	169	22'-10"		7,887
S702	169	21'-0"		7,254
S601	42	24'-11"		1,572
S602	42	20'-9"		1,309
S603	107	22'-10"		3,670
S604	107	21'-0"		3,375
S501	12	27'-3"		341
S502	12	24'-8"		309
S503	398	2'-11"		1,211
S504	398	6'-9"		2,802
S505	252	5'-7"	M	1,466
TOTAL RIGHT BRIDGE				113,560
SUPERSTRUCTURE LEFT BRIDGE				
S1101	177	30'-10"		28,996
S1102	88	14'-2"		6,624
S1103	86	9'-6"		4,341
S1001	238	45'-5"		46,512
S1002	58	29'-10"	C	7,446
S1003	58	26'-1"	C	6,510
S1004	58	28'-6"		7,113
S1005	57	20'-10"		5,110
S1006	30	26'-2"		3,378
S1007	1	28'-6"		123
S1008	1	31'-1"		134
S1009	1	35'-0"		151
S1010	1	32'-0"		138
S1011	12	45'-8"		2,358
S701	169	22'-10"		7,887
S702	169	21'-0"		7,254
S703	5	19'-9"		202
S704	Series of 31	19'-10" to 20'-7 3/4"		1,282 9/16"
S705	5	20'-9"		212
S706	Series of 41	20'-9 1/4" to 21'-10"		1,785 9/16"
S707	5	21'-11"		224
S708	Series of 41	21'-11 1/4" to 23'-0"		1,883 9/16"
S709	5	23'-1"		236
S710	Series of 31	23'-1 1/4" to 23'-11"		1,490 9/16"
S711	5	24'-0"		245

Inc.

Bending Diagrams



Bending Diagrams



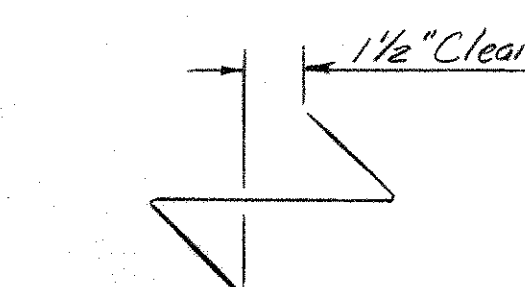
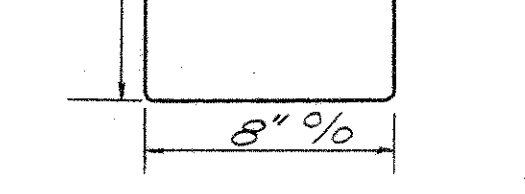
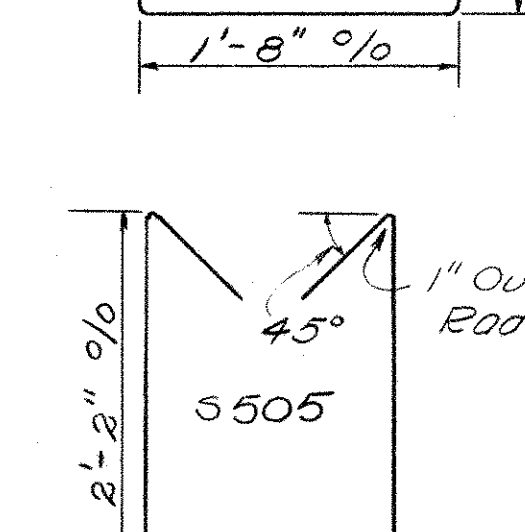
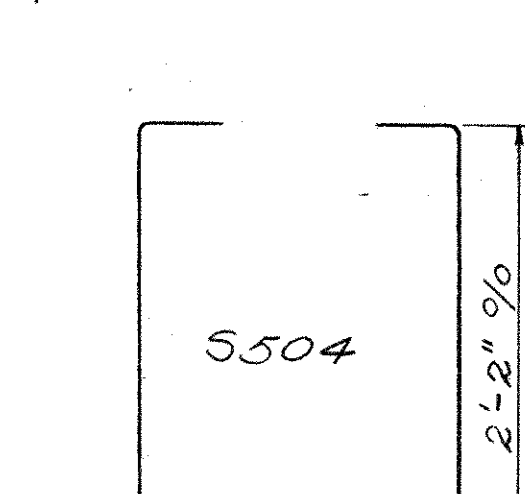
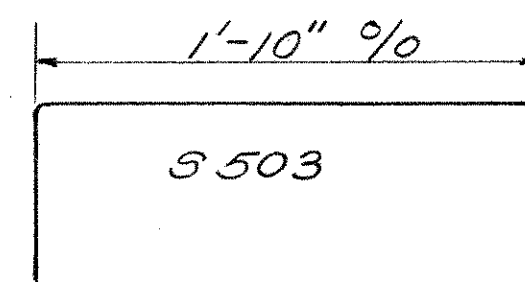
RAILING STEEL

R501	16	11'-4"	
R502	16	11'-0"	
R503	8	21'-3"	
R504	128	15'-11"	
R505	24	20'-11"	

REPLACEMENT STEEL

RE101	4	7'-6"	
RE1001	10	7'-2"	
RE801	1	6'-6"	
RE701	3	6'-2"	
RE601	2	5'-11"	
RE501	2	5'-7"	
RE401	1	5'-9"	

Bending Diagrams



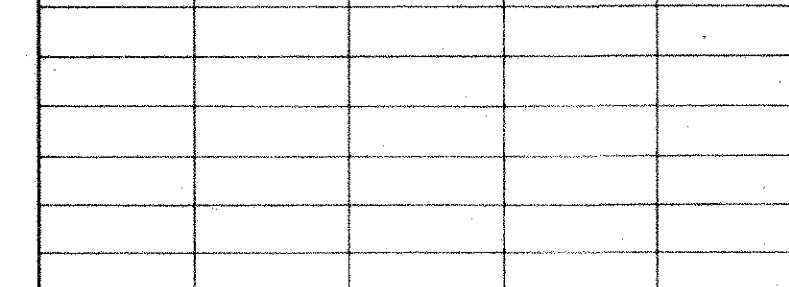
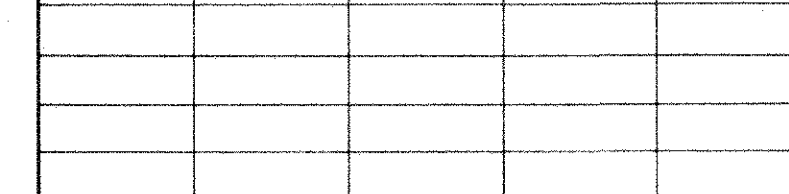
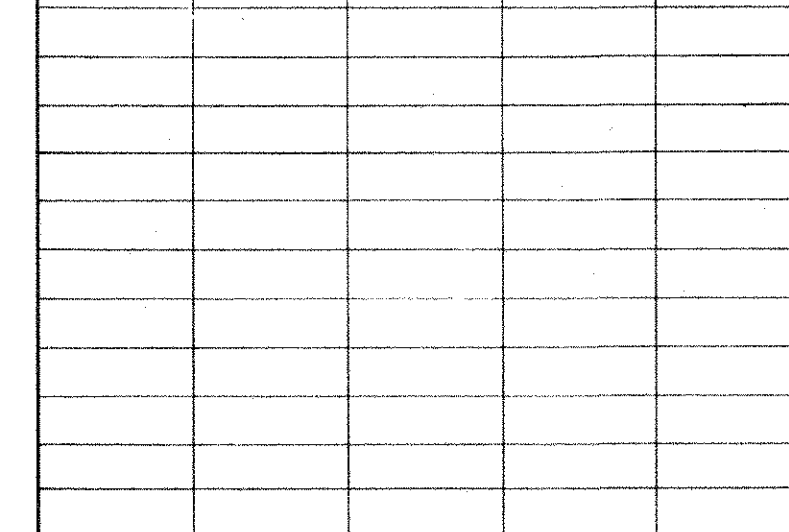
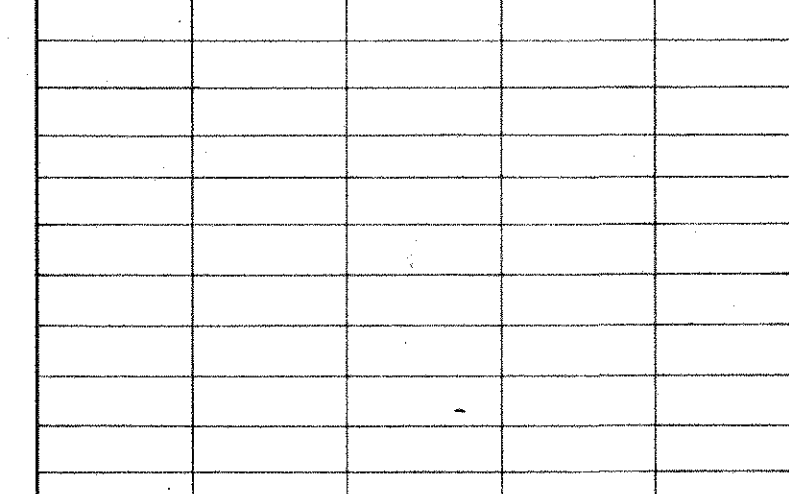
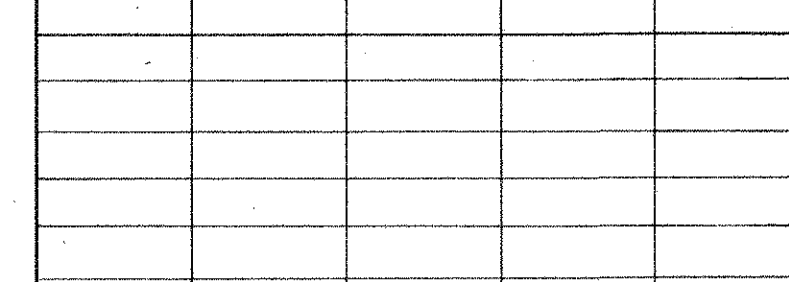
RAILING STEEL

R501	16	11'-4"	
R502	16	11'-0"	
R503	8	21'-3"	
R504	128	15'-11"	
R505	24	20'-11"	

REPLACEMENT STEEL

RE101	4	7'-6"	
RE1001	10	7'-2"	
RE801	1	6'-6"	
RE701	3	6'-2"	
RE601	2	5'-11"	
RE501	2	5'-7"	
RE401	1	5'-9"	

Bending Diagrams



RAILING STEEL

R501	16	11'-4"	
R502	16	11'-0"	
R503	8	21'-3"	
R504	128	15'-11"	
R505	24	20'-11"	

REPLACEMENT STEEL

RE101	4	7'-6"	
RE1001	10	7'-2"	
RE801	1	6'-6"	
RE701	3	6'-2"	
RE601	2	5'-11"	
RE501	2	5'-7"	
RE401	1	5'-9"	

MICROFILMED
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