

PLAN

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: Southbound bridge; 38'-0", 50'-4", 52'-6", 42'-3"
 Northbound bridge; 37'-8", 42'-10", 52'-0", 41'-10"

ROADWAY:
 Southbound: 50'-0" f/p Parapet with 1'-2" Curbs.
 Northbound: 40'-0" f/p Parapet with 1'-2" Curbs.

LOAD FREQUENCY: C.F. 400 (57)

SKEW: Southbound bridge, 36°-20' R.F.
 Northbound bridge, 35°-33' R.F.

WEARING SURFACE: 1" monolithic concrete

APPROACH SLABS: AS-1-54 (25'-0" Long)

ALIGNMENT: Southbound bridge tangent
 Northbound bridge partially on 0°-15' curve

MICROFILMED
 OCT 31 1985

FED. RD. DIVISION	STATE	PROJECT
	OHIO	

BUTLER COUNTY BUT-63-0-00

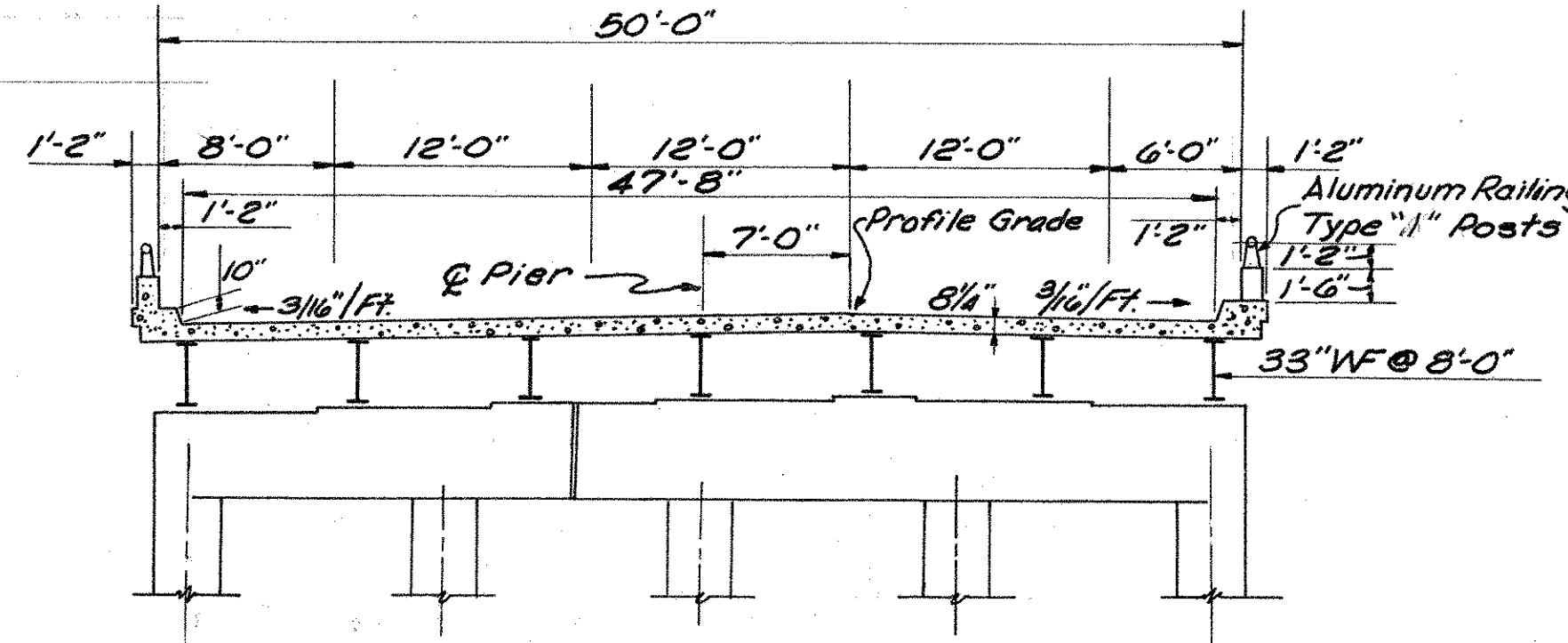
FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information, the accuracy of which the State does not guarantee, may be examined in the office of the Bureau of Bridges in Columbus or in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

AVERAGE DAILY TRAFFIC on S.R. 4 - 1980

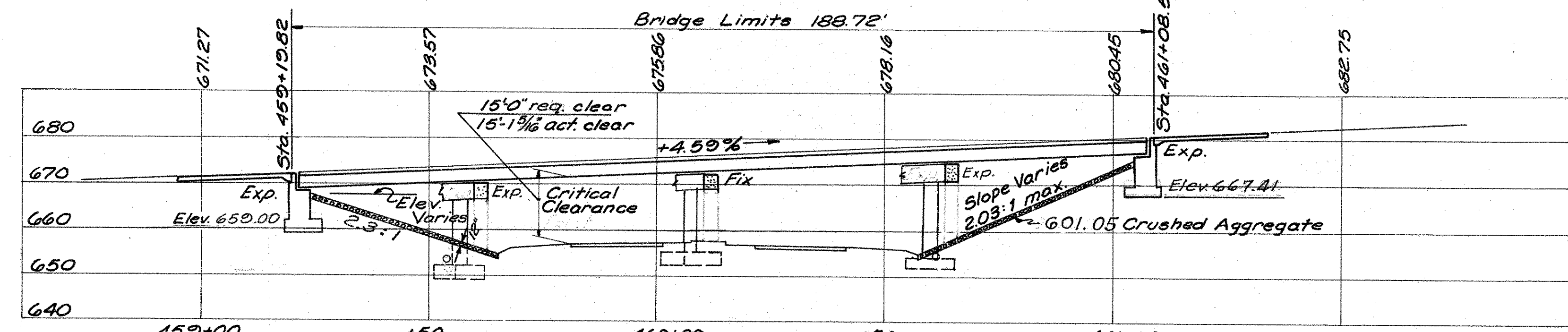
Passenger Cars	18600
Type A Vehicles	1410
Type B Vehicles	900
Type C Vehicles	1060

Based on 1960 Traffic Survey Report, Division of Planning and Programming, Ohio Dept. of Highways.

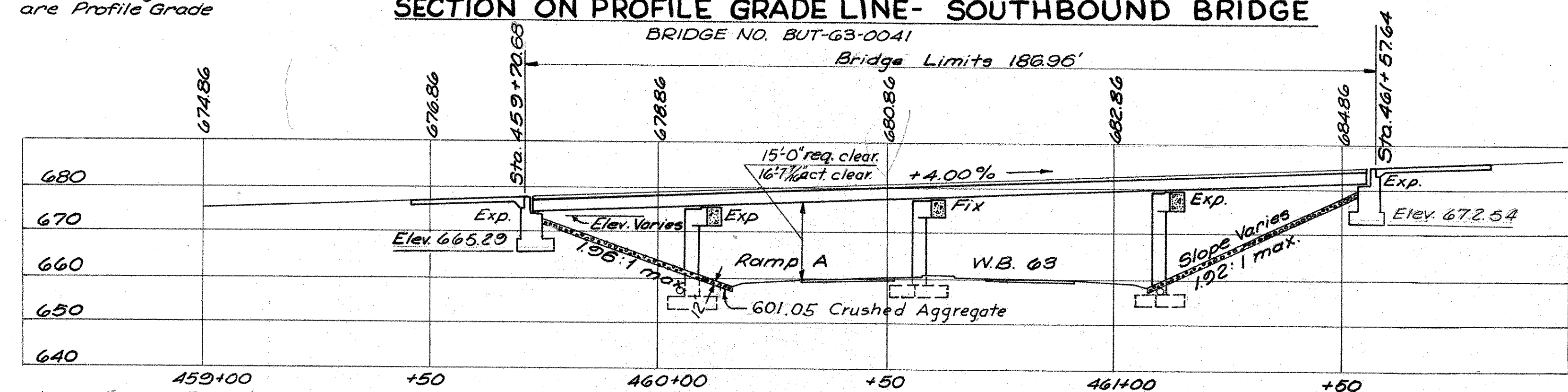
B.M. Elev. 687.20
 RR Spike in N.W. Quadrant of S.R. 4, Dozey Drive Intersection.



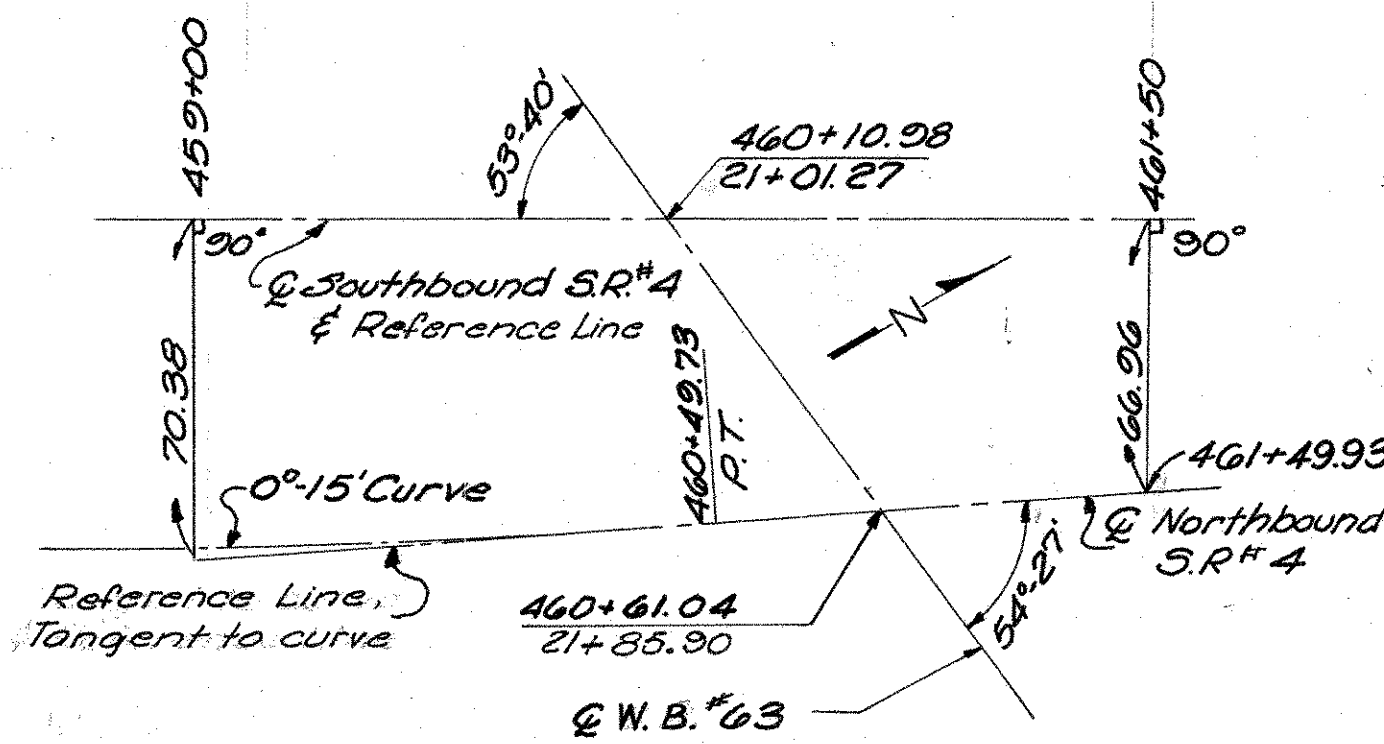
SECTION SOUTHBOUND BRIDGE LOOKING NORTH
 BRIDGE NO. BUT-63-0041



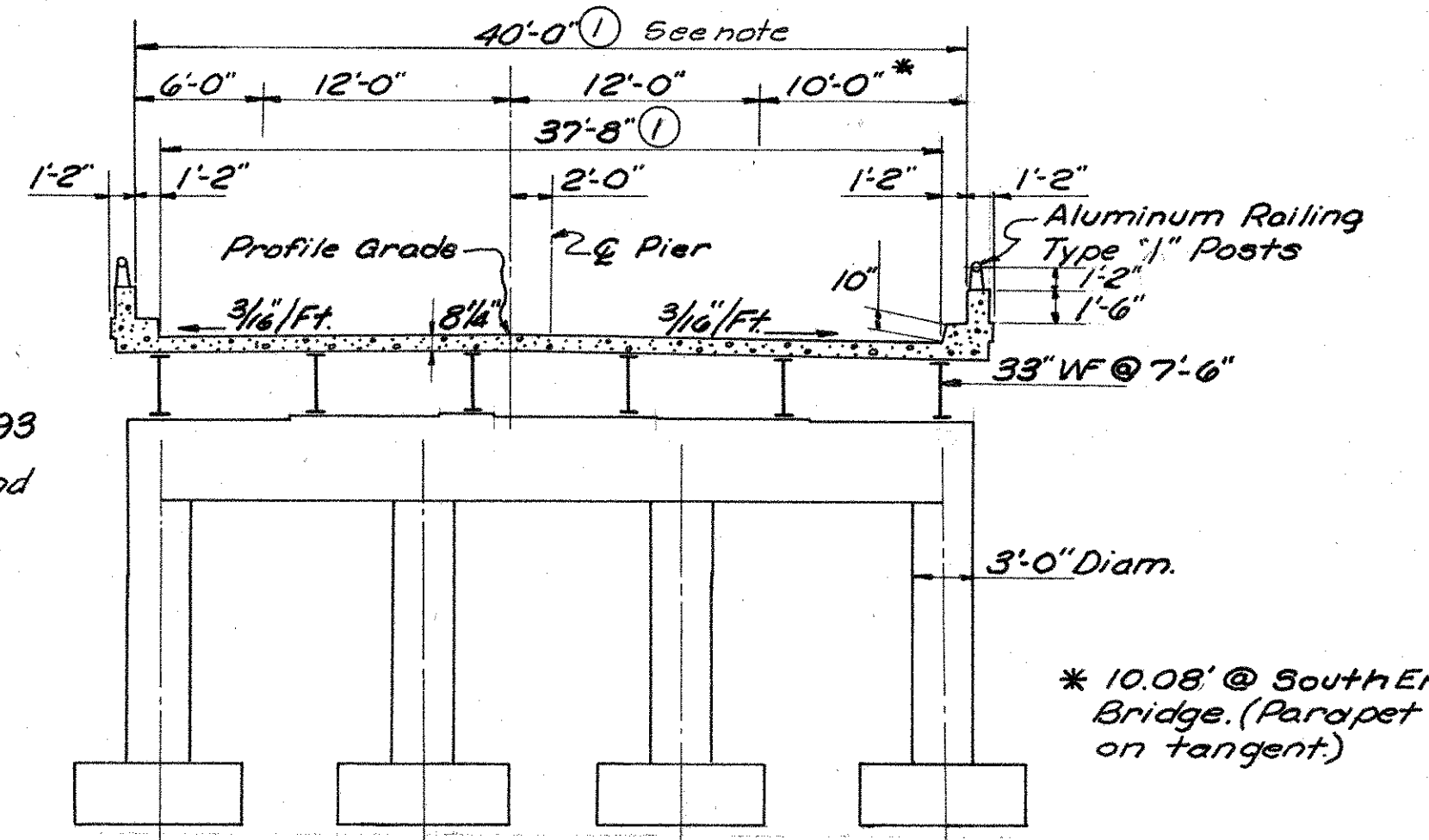
SECTION ON PROFILE GRADE LINE - SOUTHBOUND BRIDGE
 BRIDGE NO. BUT-63-0041



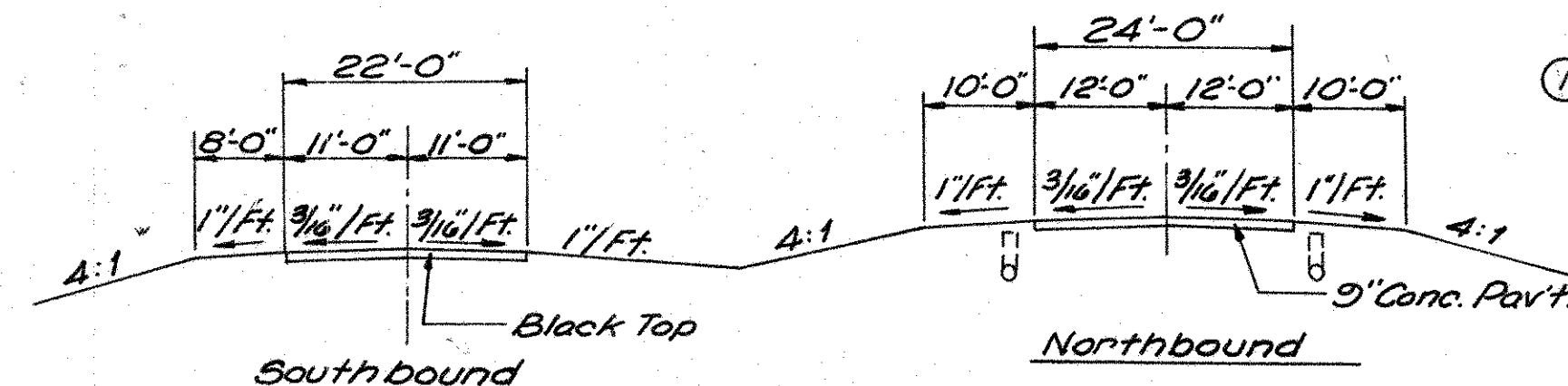
SECTION ON PROFILE GRADE - NORTHBOUND BRIDGE
 BRIDGE NO. BUT-63-0043



SKETCH SHOWING LINE AND SKEW OF BRIDGES



SECTION NORTHBOUND BRIDGE LOOKING NORTH
 BRIDGE NO. BUT-63-0043



EXISTING PAVEMENT - S.R. 4 - Sta. 460+00

① These dimensions are from Sta. 460+49.73 to North end of Bridge only.

SHAW, LENZ & ASSOCIATES ENGINEERS
 CINCINNATI OHIO

SITE PLAN
 BRIDGE NO. BUT-63-0041 & 0043
 S.R. 63 RELOCATED
 UNDER S.R. 4
 BUTLER COUNTY STA. 21+01.27
 STA. 21+85.90

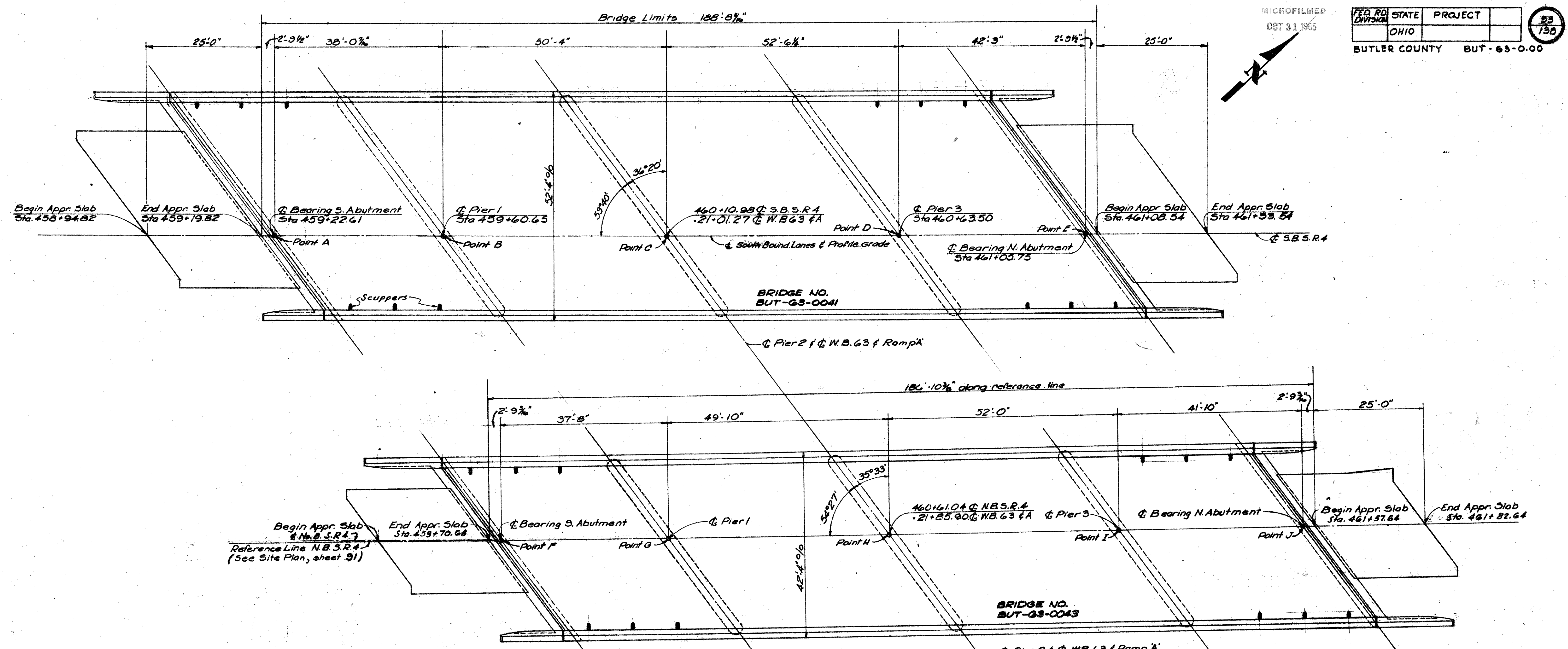
PRESENT TOPO	PROPOSED WORK
SURVEYOR R.L.B.	DRAWN W.J.B.
DESIGN'D R.J.L.	DRAWN W.J.B.
CHECK'D E.R.B.	REVISED

Notes: Foundation soundings to be set off - type of footing is determined

MICROFILMED
OCT 31 1965

FED. RD. DIVISION	STATE	PROJECT	
	OHIO		
BUTLER COUNTY		BUT-63-0-00	

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GENERAL NOTES

REFERENCE shall be made to Standard Drawing SD-1-63 Sheets 2,3 and 4, dated 11-12-63 SD-2-64, dated 11-25-64, FSB-1-62, rev. 1-15-63, BR-1-65 Sheet 1, revised 11-24-65 & Supplemental Specifications No. 808 dated 2-7-66, 811 dated 3-29-65, 825 dated 4-22-65, and 828 dated 3-21-66.

DESIGN SPECIFICATIONS. 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 current revisions thereof.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 1.7 Tons per sq. ft. Pier footings are designed for a maximum bearing pressure of 2.5 Tons per sq. ft.

DESIGN DATA:
Design Loading - CF 400 (57).
Concrete Class C - basic unit stress 1,333 psi.
Concrete Class E - basic unit stress 1,133 psi.
Structural Steel - ASTM A36 - basic unit stress 20,000 psi.
(ASTM A7 and A373 steel not permitted)
Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate, or Hard Grade. Basic unit stress 20,000 psi. Except, spiral reinforcement may be plain, Structural Gage with basic unit stress of 18,000 psi.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress up grade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

UTILITY LINES
All expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

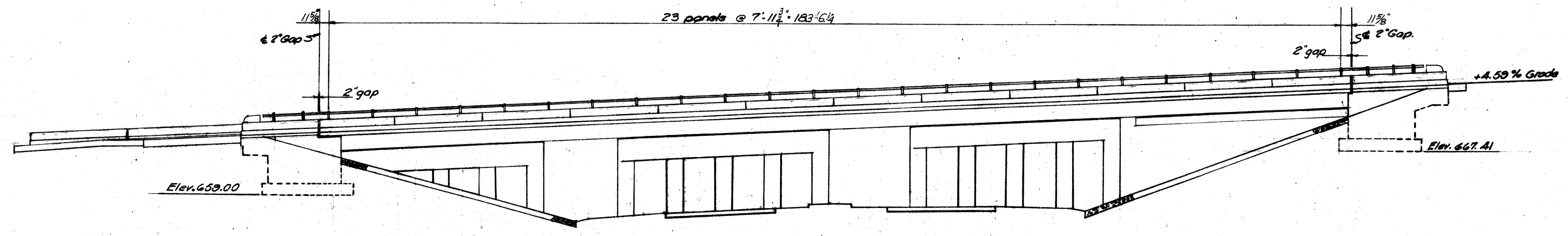
FOOTINGS on rock shall extend to a minimum of 3" into the undisturbed rock, or to the elevation shown, whichever is lower.

SHAW, LENZ & ASSOCIATES		ENGINEERS		OHIO	
CINCINNATI					
GENERAL PLAN & GENERAL NOTES					
BRIDGE NO. BUT-63-0041 & 0043					
S.R. 63 RELOCATED					
UNDER S.R. 4					
BUTLER COUNTY				Sta. 21+01.27	
				Sta. 21+85.90	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
ERB	DDS	DDS	ERB	R.J.L.	7-25-62

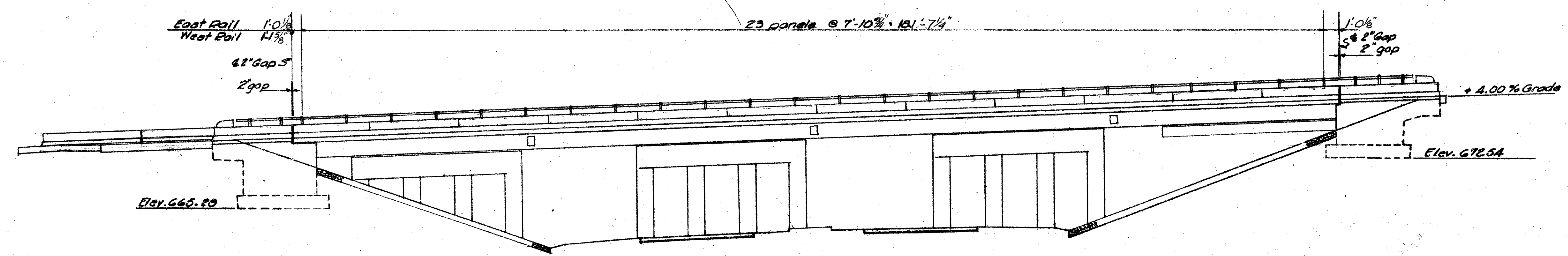
MICROFILMED
OCT 31 1985

FED. RD. DIVISION	STATE	PROJECT
	OHIO	
BUTLER COUNTY BUT-65-0.00		

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ELEVATION
SOUTHBOUND BRIDGE
BRIDGE NO. BUT-63-0041



ELEVATION
NORTHBOUND BRIDGE
BRIDGE NO. BUT-63-0043

ESTIMATED QUANTITIES										
Item	Total	Unit	Description	NORTHBOUND BRIDGE			SOUTHBOUND BRIDGE			GENERAL
				Super.	Abuts.	Pier	Super.	Abuts.	Pier	
503	348	Cu.Yds.	Unclassified Excavation		382			466		
503	282	Cu.Yds.	Rock Excavation			145		197		
511	499	Cu.Yds.	Class "C" Concrete, Superstructure	225			274			
511	253.5	Cu.Yds.	Class "C" Concrete, Pier Caps and Columns			115.1		140.4		
511	319.3	Cu.Yds.	Class "C" Concrete, Abutments above footings		139.0			180.3		
511	349.2	Cu.Yds.	Class "E" Concrete, Footings		61.2	99.6		73.5	114.9	
808	499	Units	Water reducing Set retarding admixture	225			274			
512	9.7	Lin. Ft.	Premolded Sealing Strip					9.7		
509	235,922	Lbs.	Reinforcing Steel	63596	9916	31,900	81134	11,973	37,803	
513	404,500	Lbs.	Structural Steel	183,500			221,000			
514	404,500	Lbs.	Field Painting of Structural Steel	183,500			221,000			
517	846.3	Lin. Ft.	Bridge Railing (Type 1, with concrete parapets and posts)	367.4	64.0		370.9	54.0		
518	69	Cu.Yds.	Porous Backfill		30			39		
518	24	Each	Scupper, including supports	12			12			
601	1550	Sq. Yds.	Crushed aggregate slope protection						1550	
825	2,128	Sq. Yds.	Concrete surface treatment	932	23		1145	28		
828	211	Lin. Ft.	Joint sealer (end dam)	93			118			

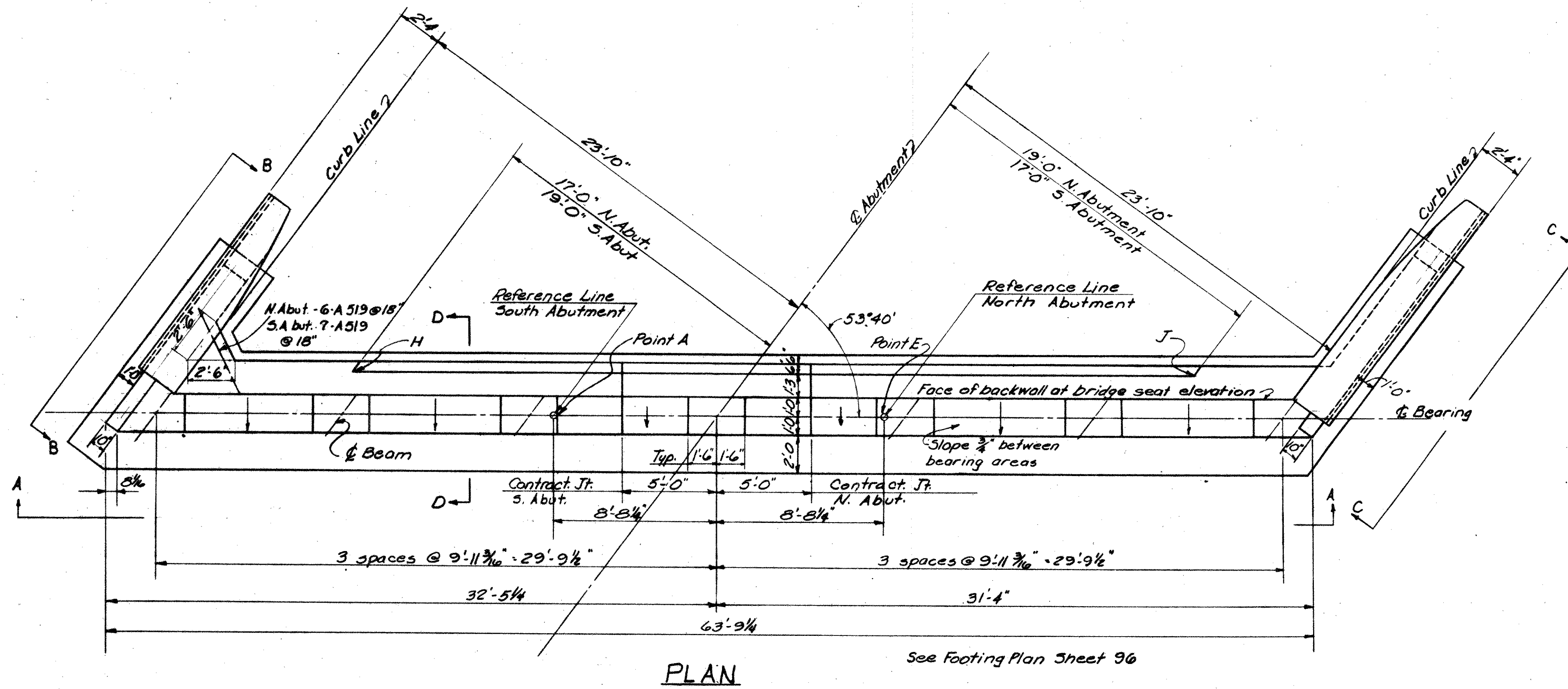
Approach Slab quantities not included

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ENGINEERS
CINCINNATI OHIO

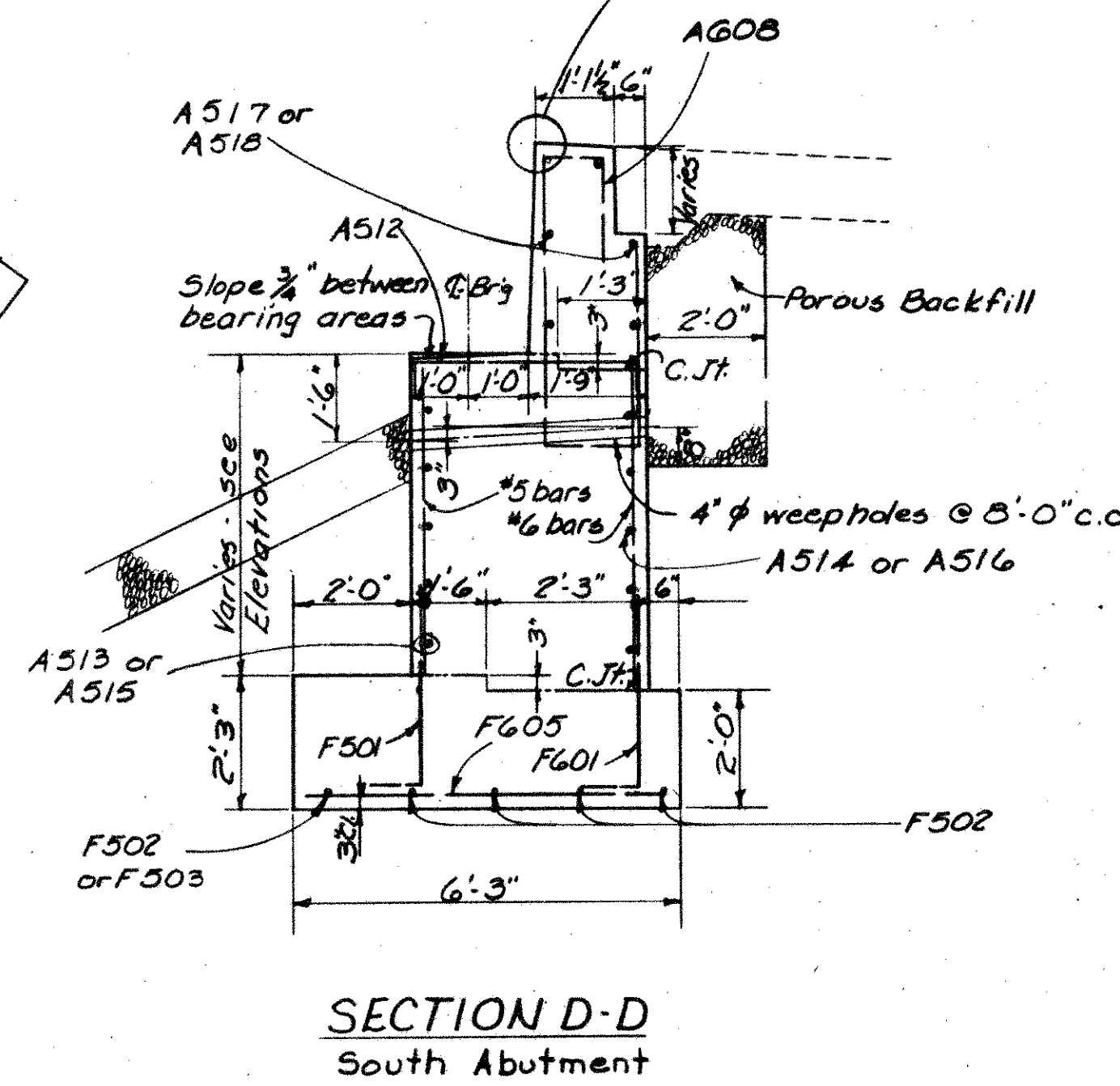
ELEVATION & ESTIMATED QUANTITIES
BRIDGE NO. BUT-63-0041 & 0043
S.R. 63 RELOCATED
UNDER S.R. 4

BUTLER COUNTY Sta. 21+01.27
Sta. 21+65.90

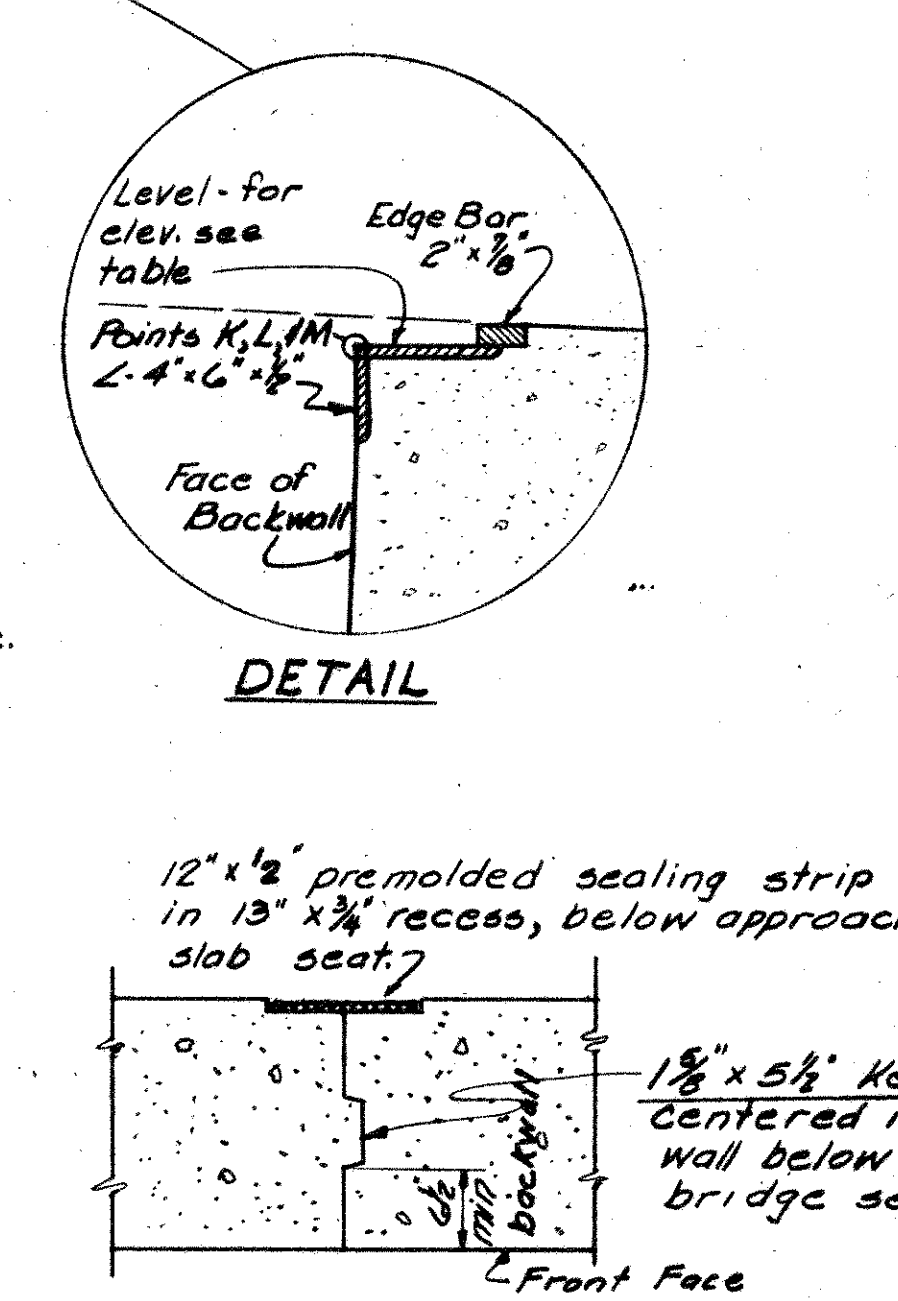
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
ERS	DDS	DDS	ERS	RJL	7-25-62	



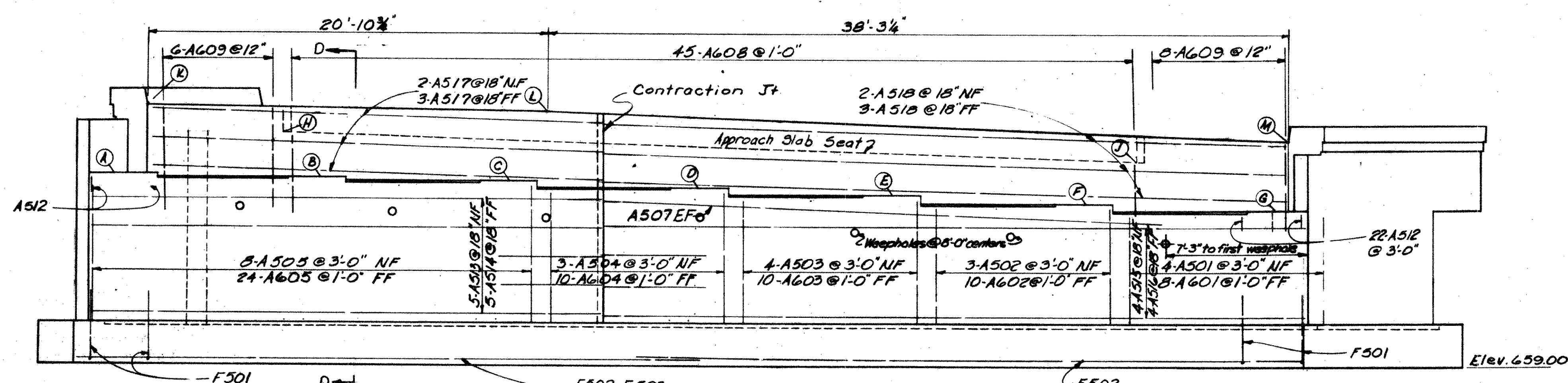
PLAN See Footing Plan Sheet 96



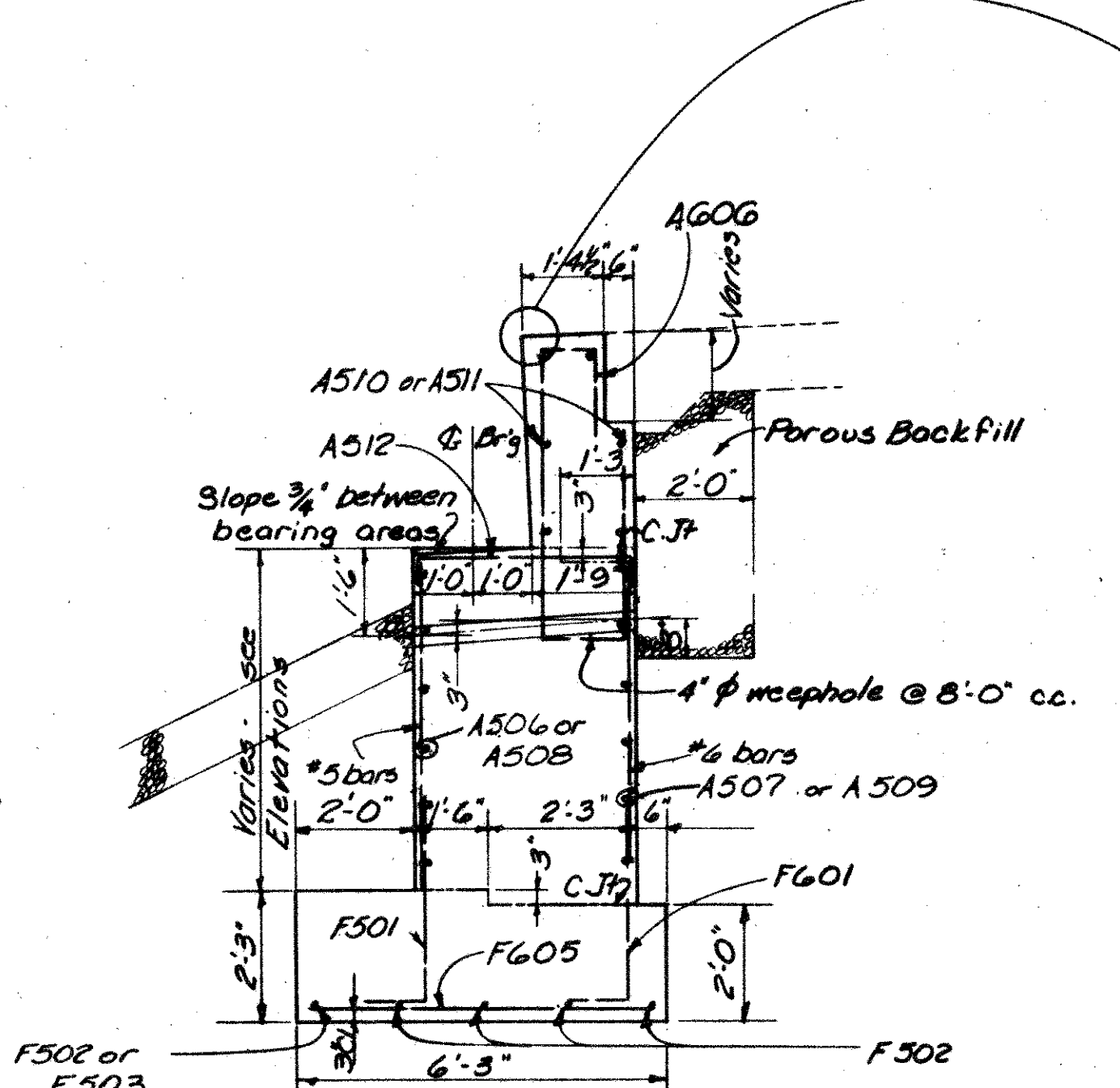
SECTION D-D South Abutment



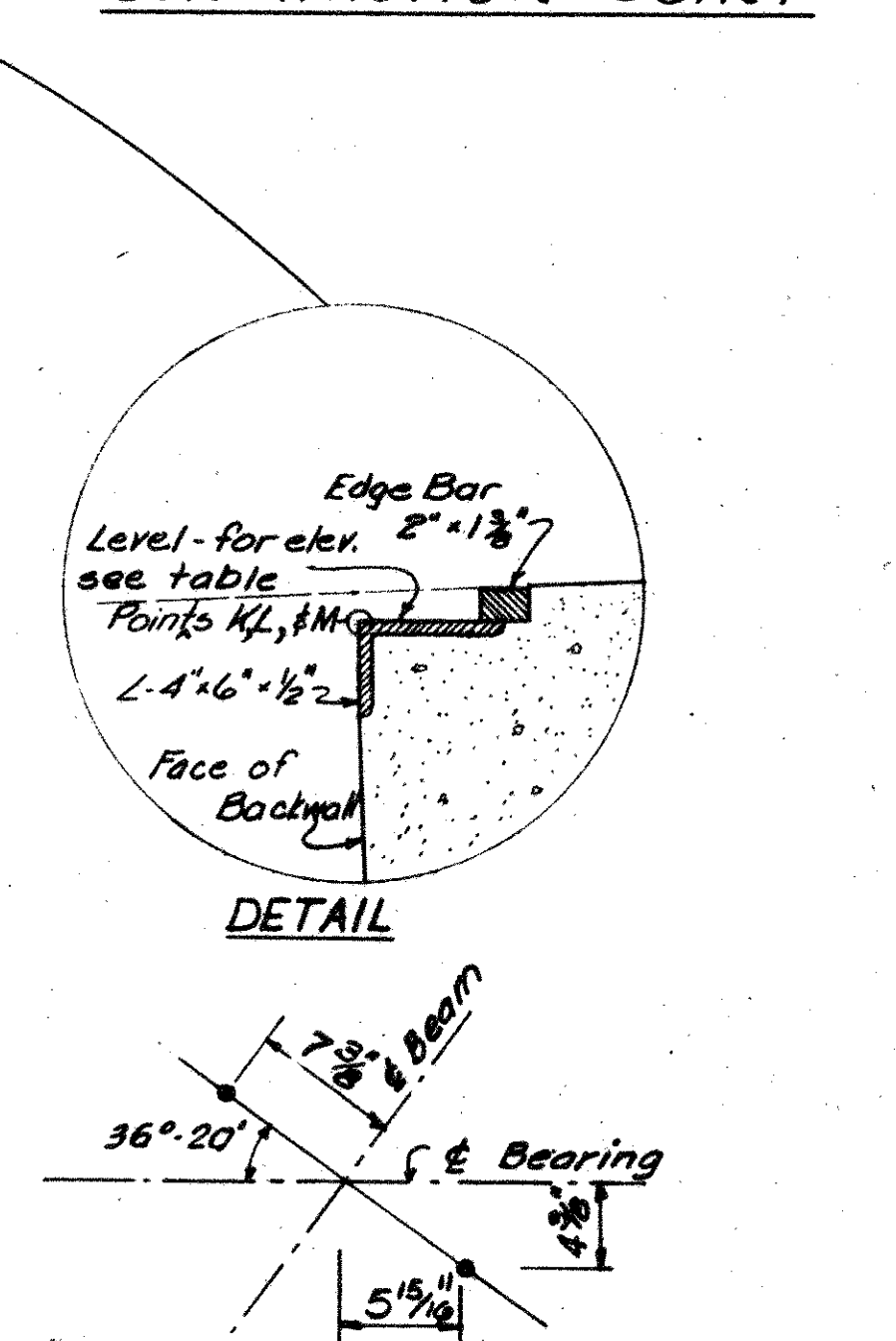
CONTRACTION JOINT



ELEVATION A-A South Abutment



SECTION D-D North Abutment



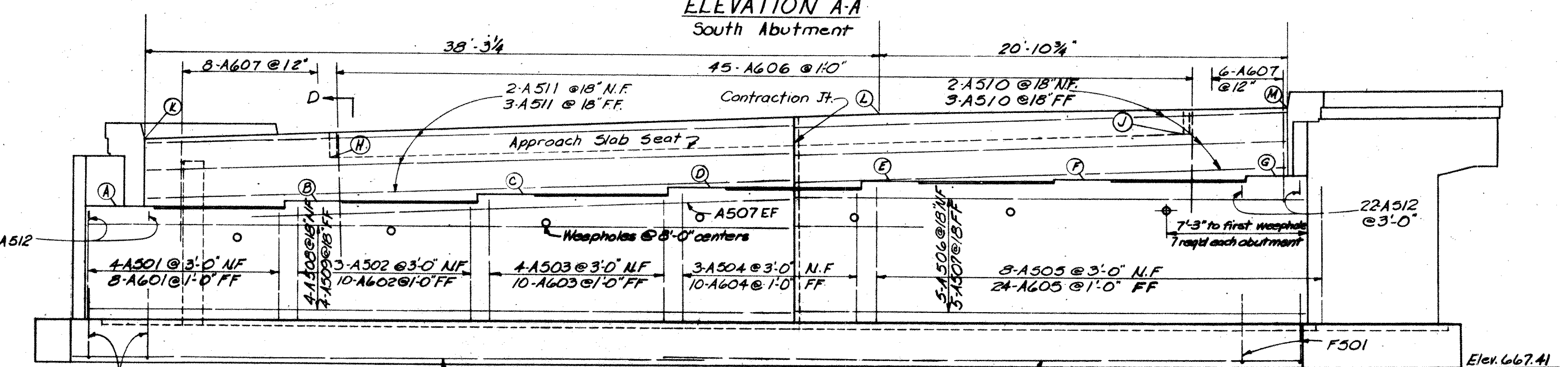
ANCHOR BAR LAYOUT

For curb and parapet dimensions see sheet 96

Note:
 All reinforcing steel to have 2" min. cover unless otherwise noted.
 For Bridge Roadway Crown see sheet 103
 For End Finish Details see sheet 102
 For Bridge Railing Details see Std. Dwg. BR-1-65
 For Elevations BB & CC see sheet 96.

NF indicates Near Face
 FF indicates Far Face
 EF indicates Each Face

Note: Special care shall be taken in placing reinforcing steel in the bridge seat so as to avoid interference with the drilling of anchor bar holes



ELEVATION A-A North Abutment

TABLE OF ELEVATIONS

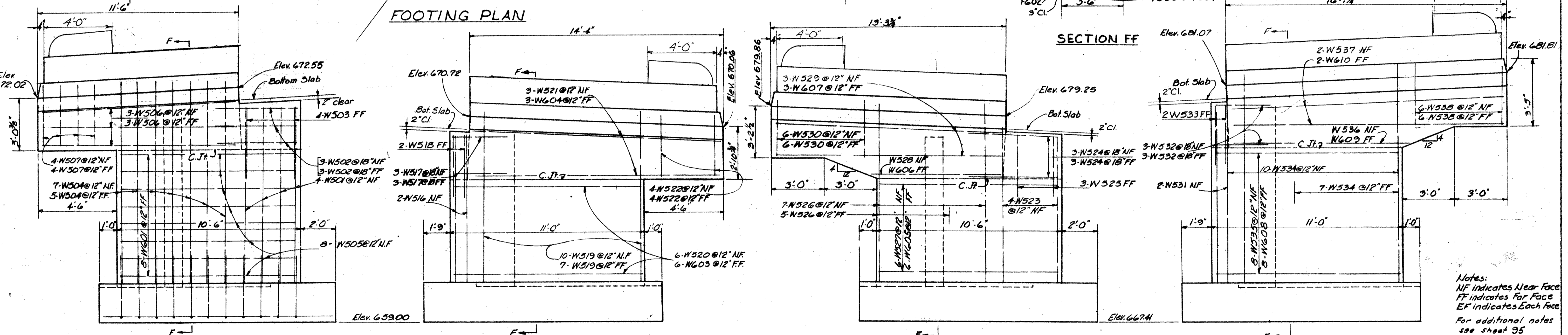
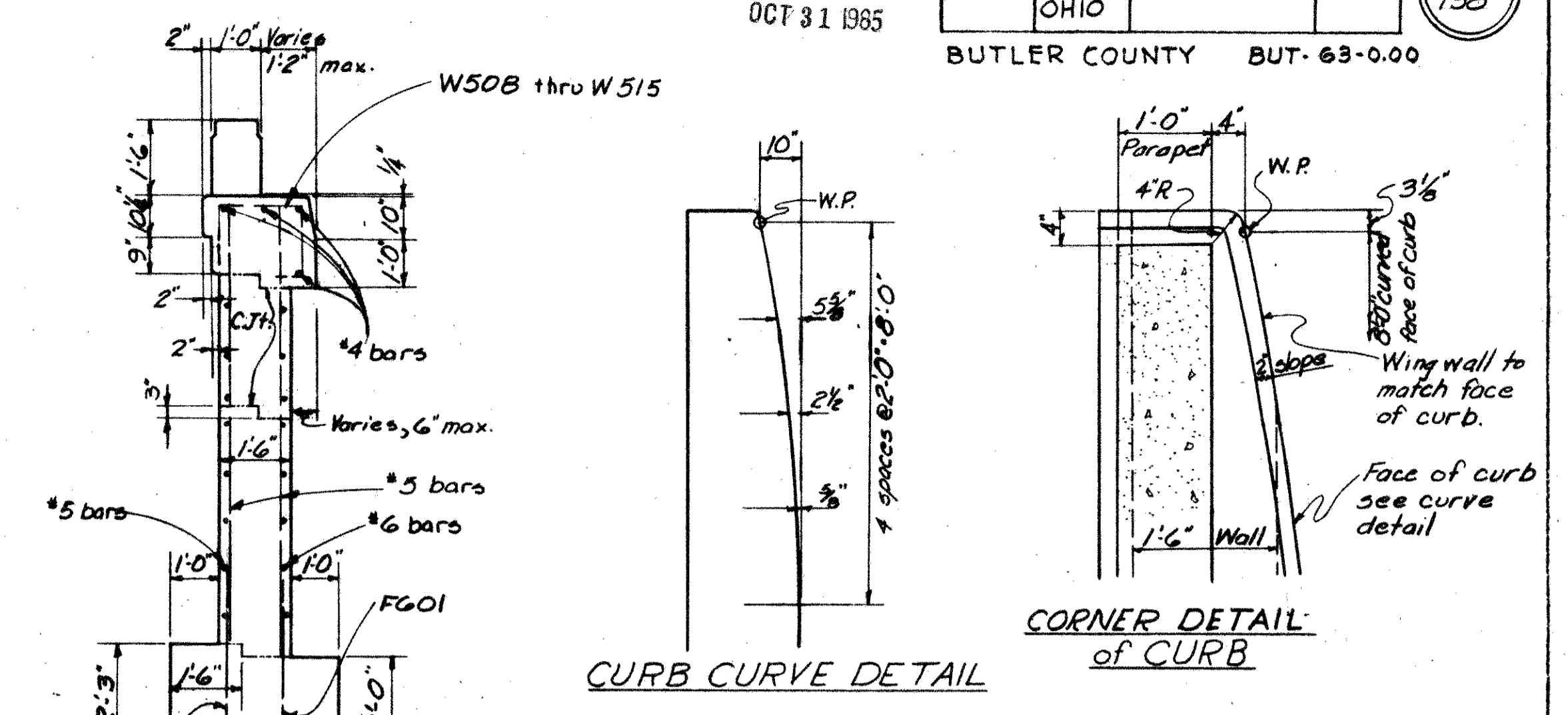
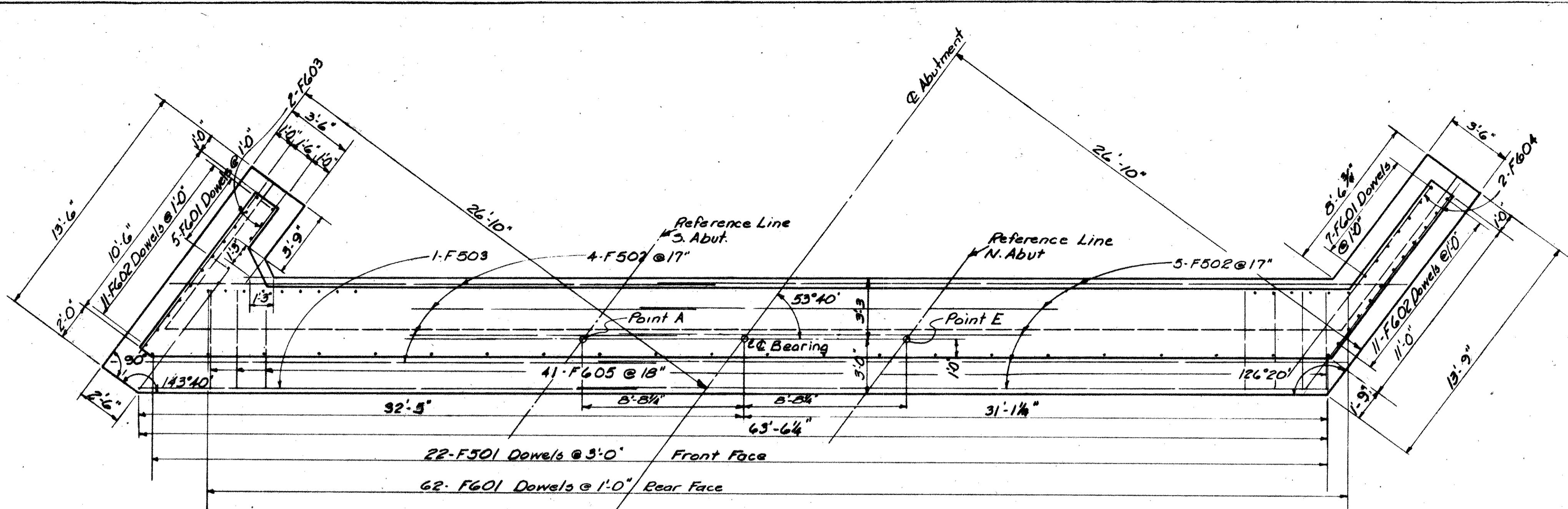
	A	B	C	D	E	F	G	H	J	K	L	M
North Abutment	675.36	675.76	676.15	676.55	676.91	677.05	677.20	678.67	679.85	679.15	680.67	680.98
South Abutment	668.80	668.85	668.50	668.14	667.74	667.35	666.96	671.19	670.01	672.45	672.14	670.62

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SOUTHBOUND BRIDGE ABUTMENT DETAILS
 BRIDGE NO. BUT-63-0041
 S.R. 63 RELOCATED UNDER S.R. 4

BUTLER COUNTY
 316.2140.27#21485.90

DESIGNED DRAWN CHECKED REVISIONS
 ERB DDS DDS RJB R.J.L. 7-25-62



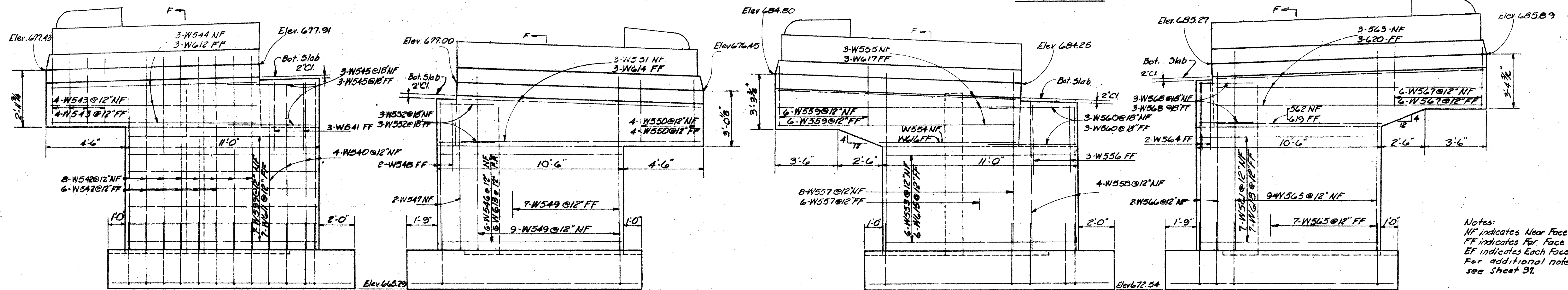
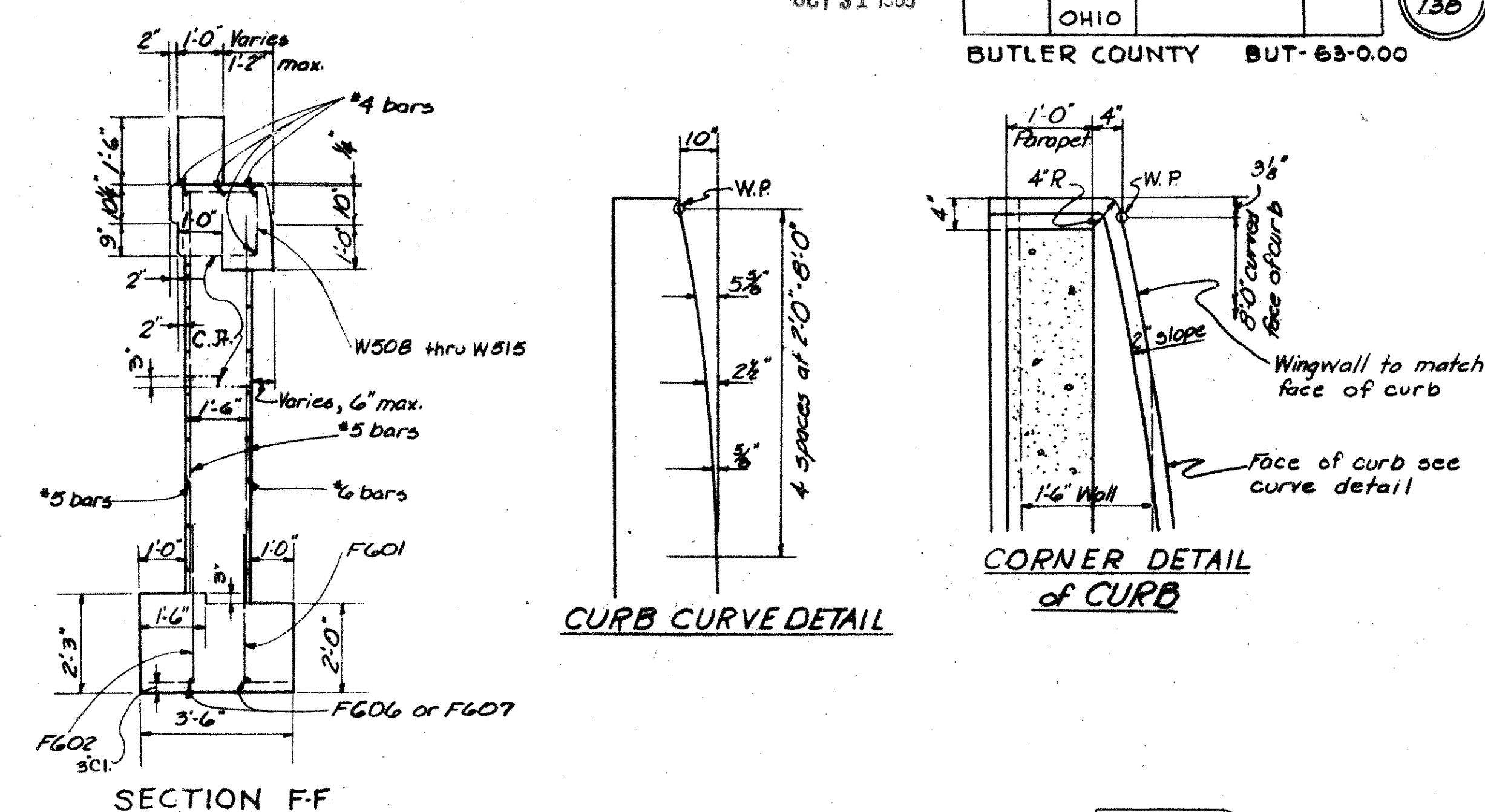
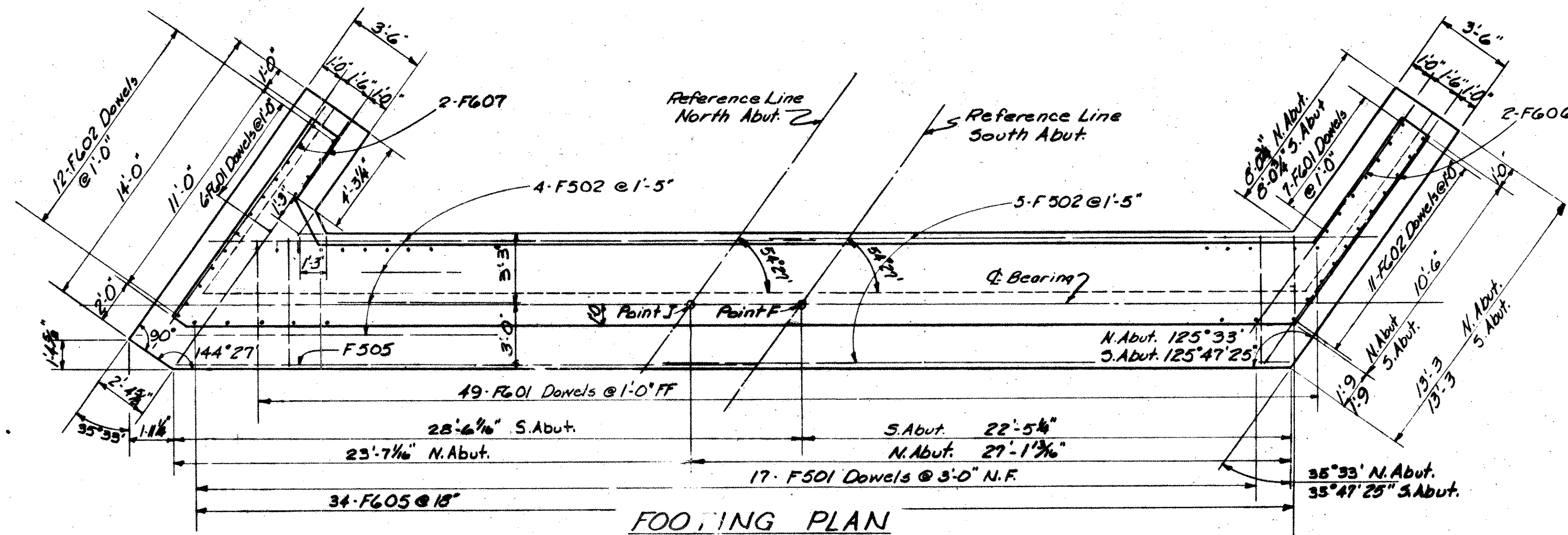
Notes:
 NF indicates Near Face
 FF indicates Far Face
 EF indicates Each Face
 For additional notes see sheet 95

Note: For reinforcing and other details of railing end post see Dwg. B.R.-1-65.
RAILING, PARAPET & CURB

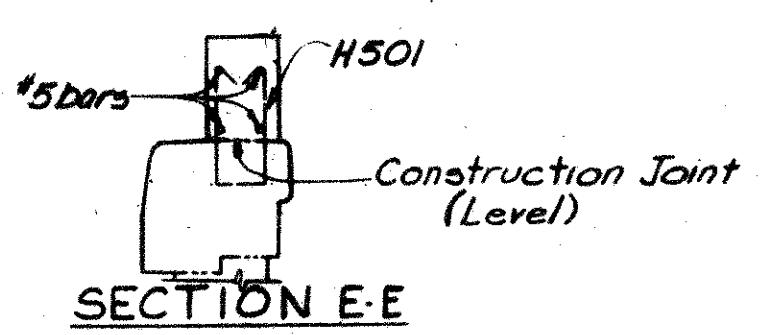
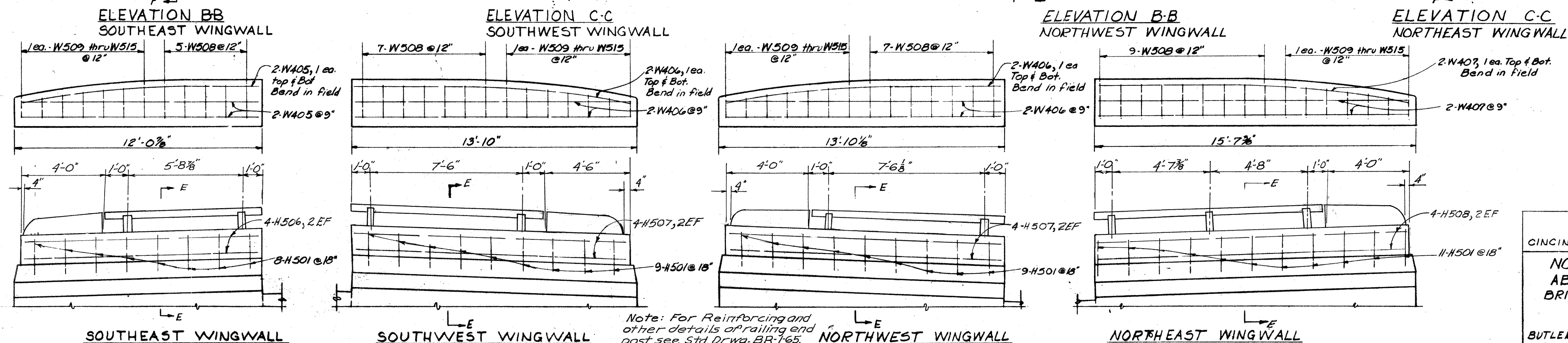
SHAW, LENZ & ASSOCIATES ENGINEERS CINCINNATI OHIO

SOUTHBOUND BRIDGE ABUTMENT DETAILS
 BRIDGE NO. BUT-63-004
 S.B. 63 RELOCATED UNDER S.R. 4
 BUTLER COUNTY Sta. 21+01.27 to 21+85.90

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
ERB	DDS	DDS	ERS	R.J.L.	7-25-62	



Notes:
NF indicates Near Face
FF indicates Far Face
EF indicates Each Face
For additional notes see Sheet 31.

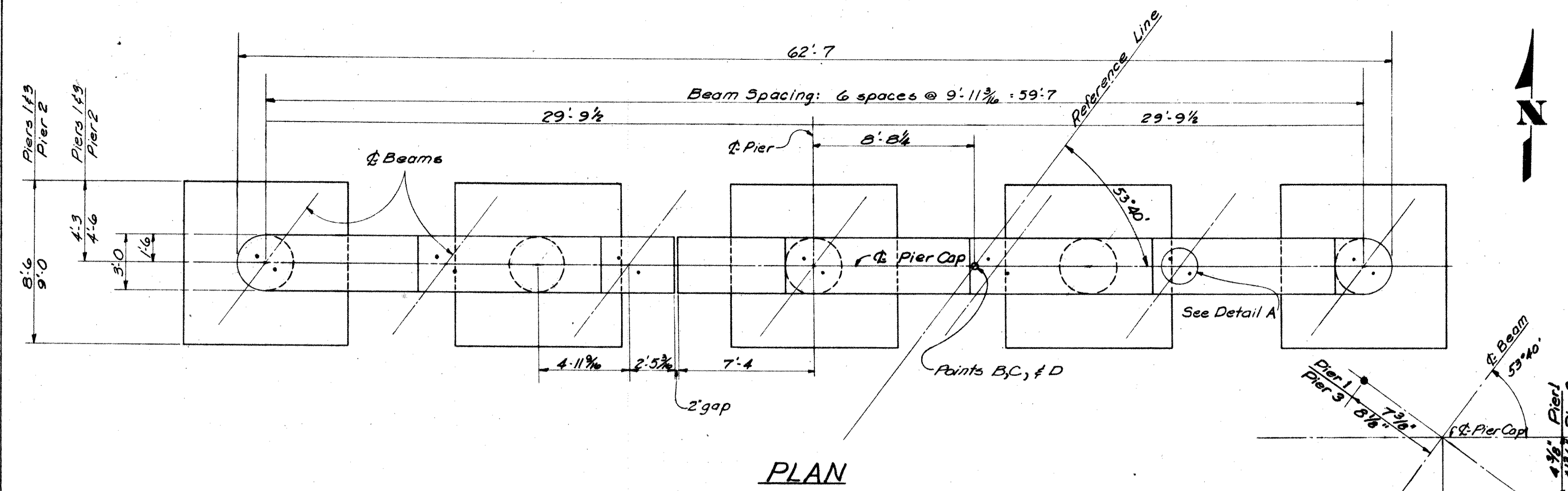


Note: For Reinforcing and other details of railing end post see Std. Drwg. BR-165.

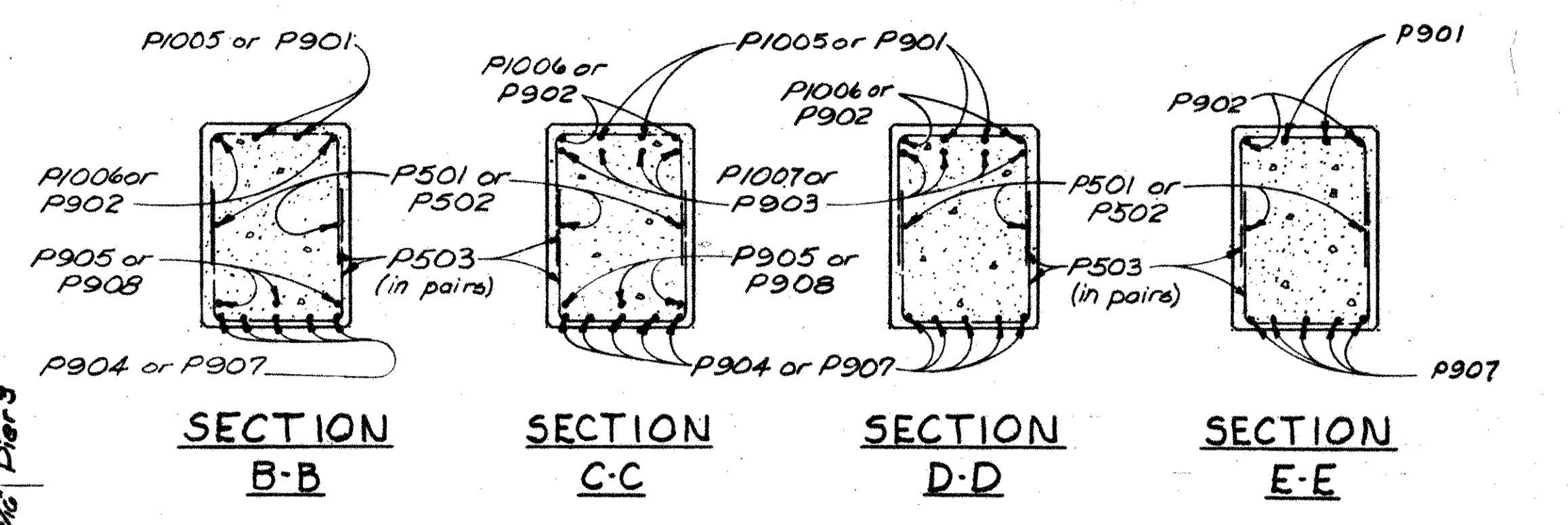
SHAW, LENZ & ASSOCIATES ENGINEERS
CINCINNATI OHIO

NORTHBOUND BRIDGE ABUTMENT DETAILS
BRIDGE NO. BUT-63-0043
S.R. 63 RELOCATED UNDER S.R. 4
BUTLER COUNTY Sta. 21+01.27 to 21+55.90

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
ERB	DDS	DDS	ERB	R.J.L.	7-25-62	

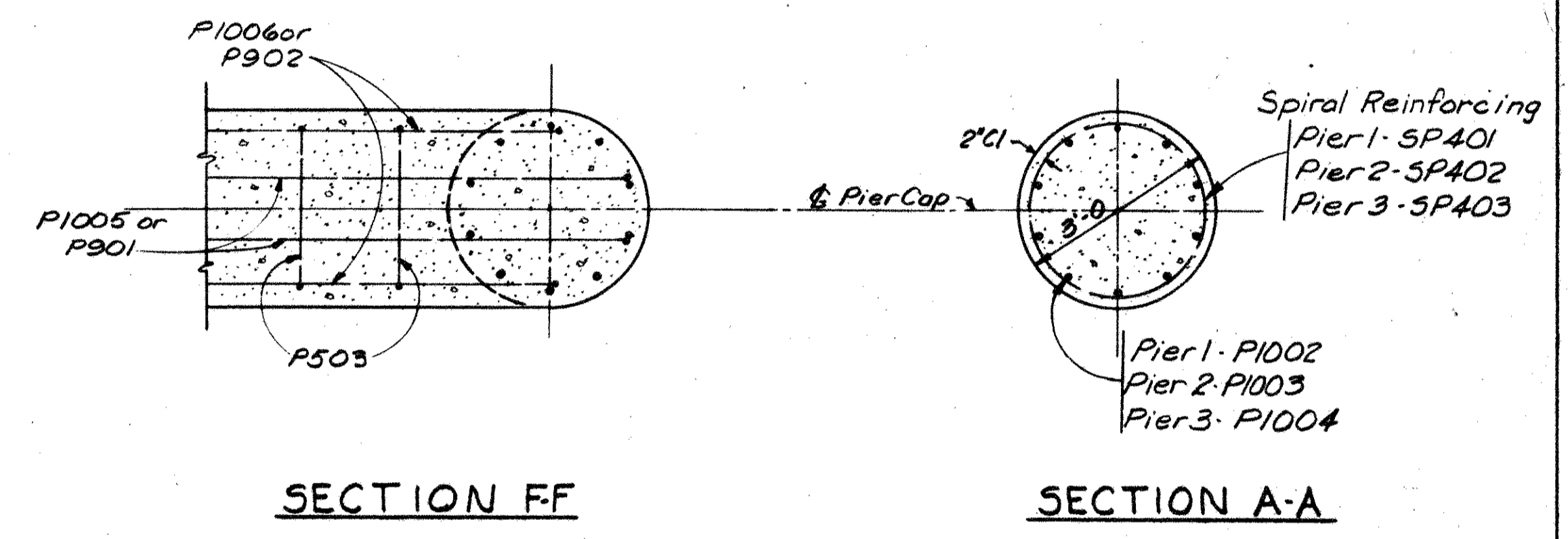


PLAN

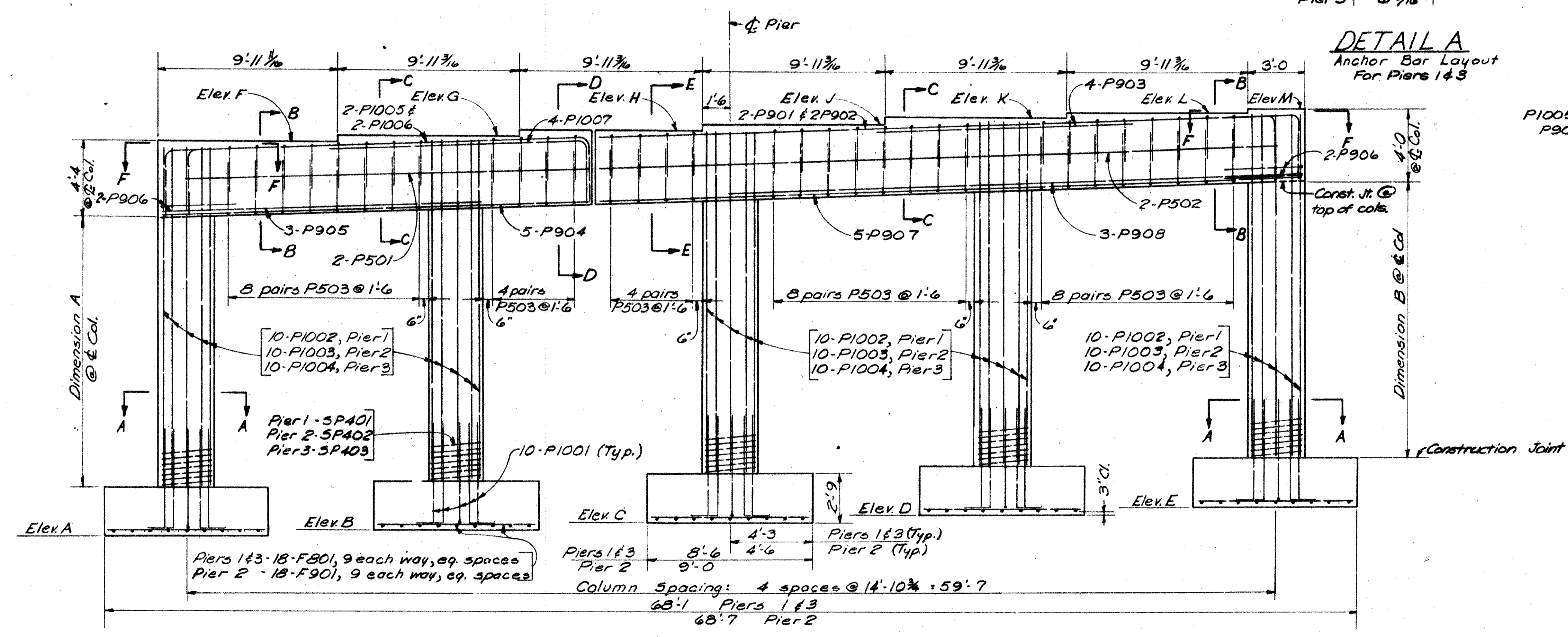


SECTION B-B SECTION C-C SECTION D-D SECTION E-E

DETAIL A
Anchor Bar Layout
For Piers 1 & 3



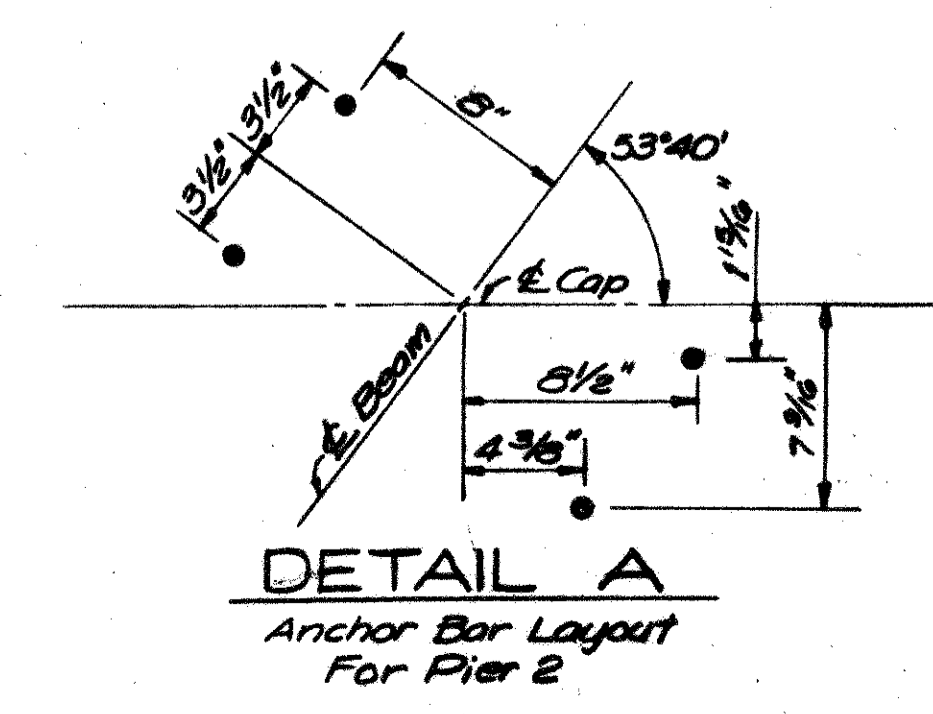
SECTION F-F SECTION A-A



ELEVATION (LOOKING NORTH)

Notes:
For Reference Line and Points B, C, & D see sheet 2.
All reinforcing steel shall have 2" minimum cover unless otherwise noted.
Special care shall be taken in placing reinforcing steel in the pier caps so as to avoid interfering with the anchor bars.

	ELEVATION											DIMENSION		
	A	B	C	D	E	F	G	H	J	K	L	M	A	B
Pier 1	648.31	645.86	649.33	649.85	650.39	668.70	669.10	669.49	669.89	670.24	670.39	670.54	13'-3 1/8"	13'-4 1/8"
Pier 2	651.27	651.80	652.35	652.94	653.54	670.76	671.16	671.55	671.95	672.31	672.45	672.60	12'-4 1/8"	12'-3 3/8"
Pier 3	651.14	651.73	652.33	652.92	653.48	673.38	673.78	674.17	674.57	674.93	675.07	675.22	15'-1 7/8"	14'-11 7/8"



DETAIL A
Anchor Bar Layout
For Pier 2

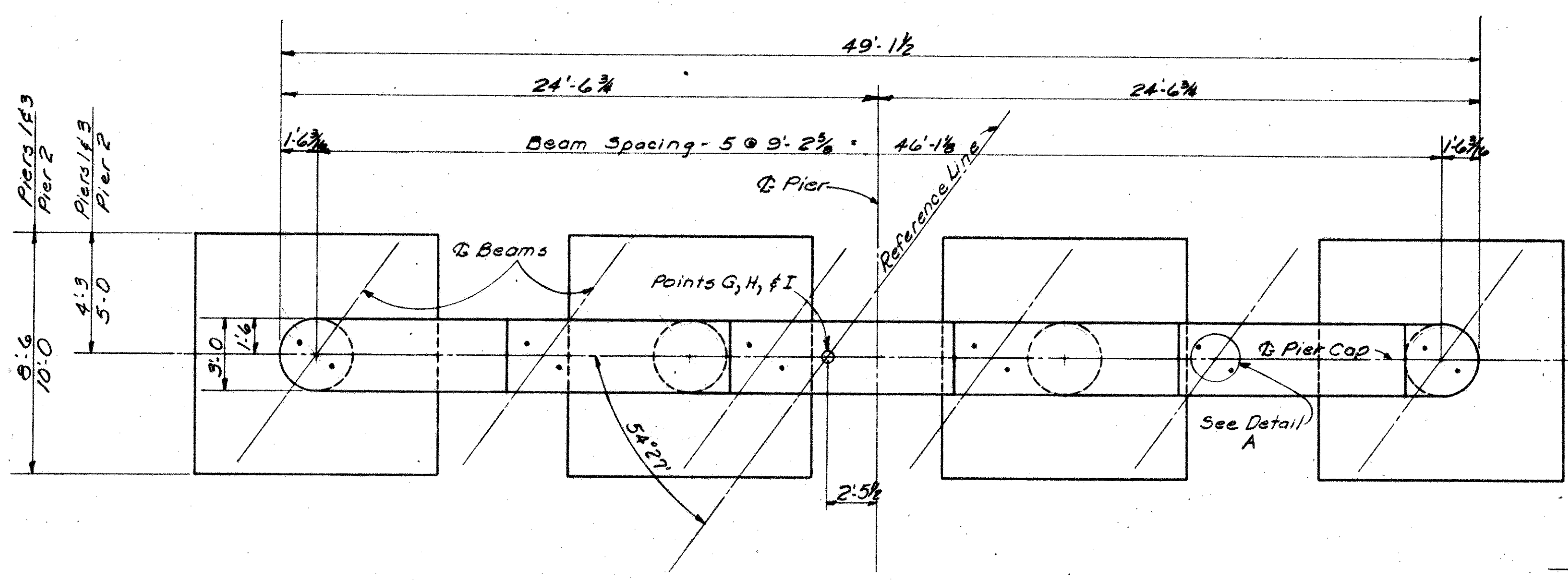
SHAW, LENZ & ASSOCIATES
ENGINEERS

CINCINNATI OHIO

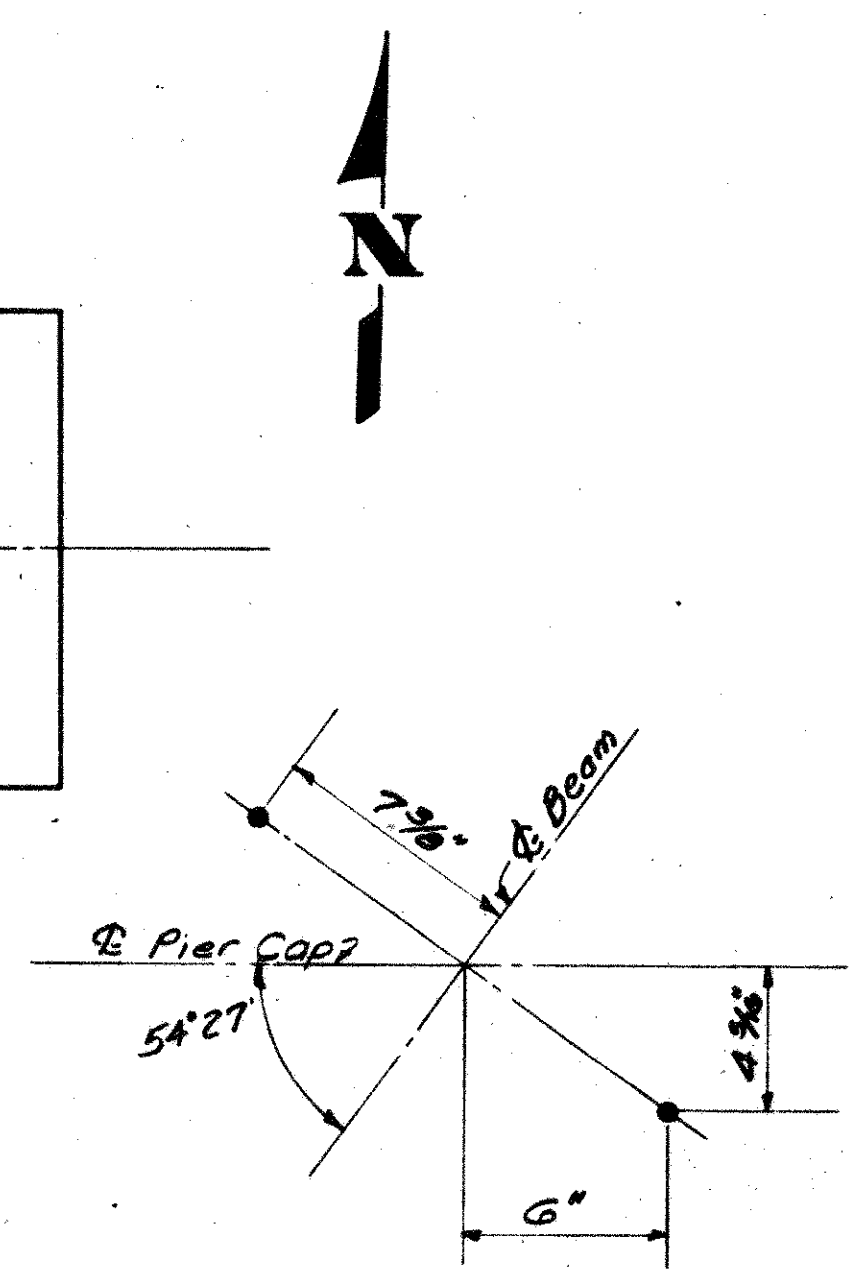
PIERS SOUTHBOUND BRIDGE
BRIDGE NO. BUT-63-0041
S.R. 63 RELOCATED
UNDER S.R. 4

BUTLER CO. STA. 21+01.27
STA. 21+85.90

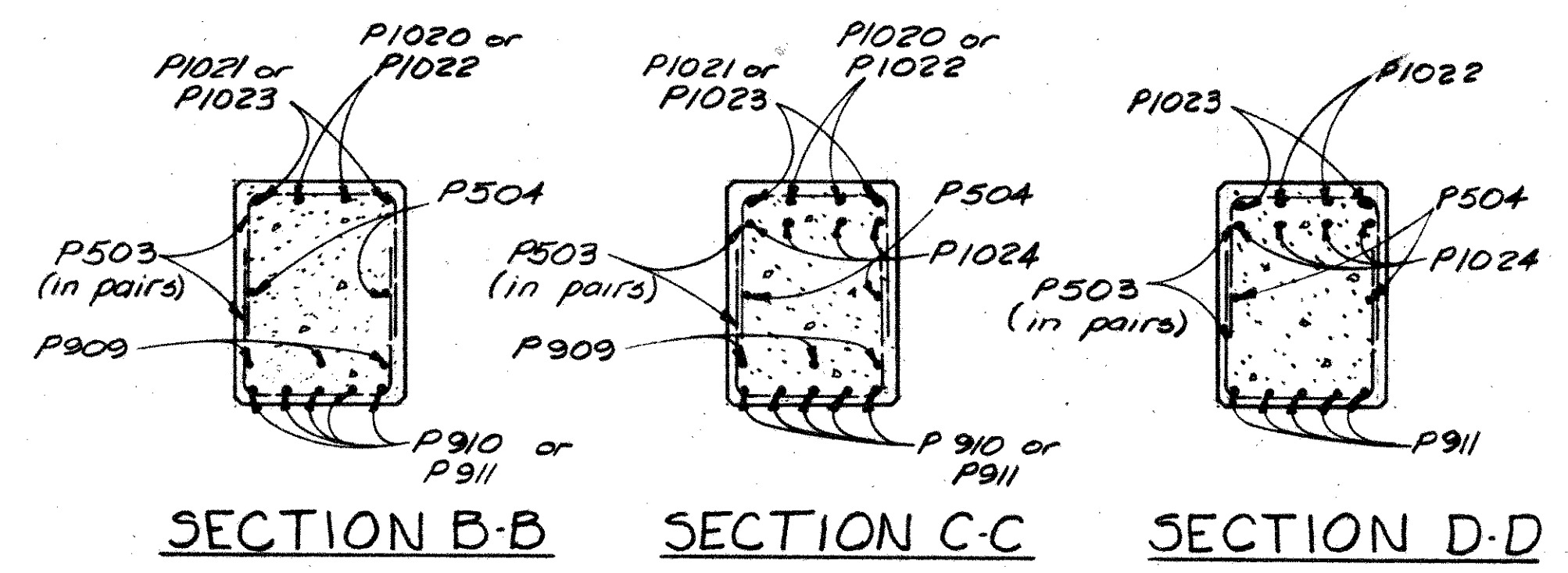
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E.R.B. D.D.S. D.D.S. R.J.L. R.J.L. 7-25-62



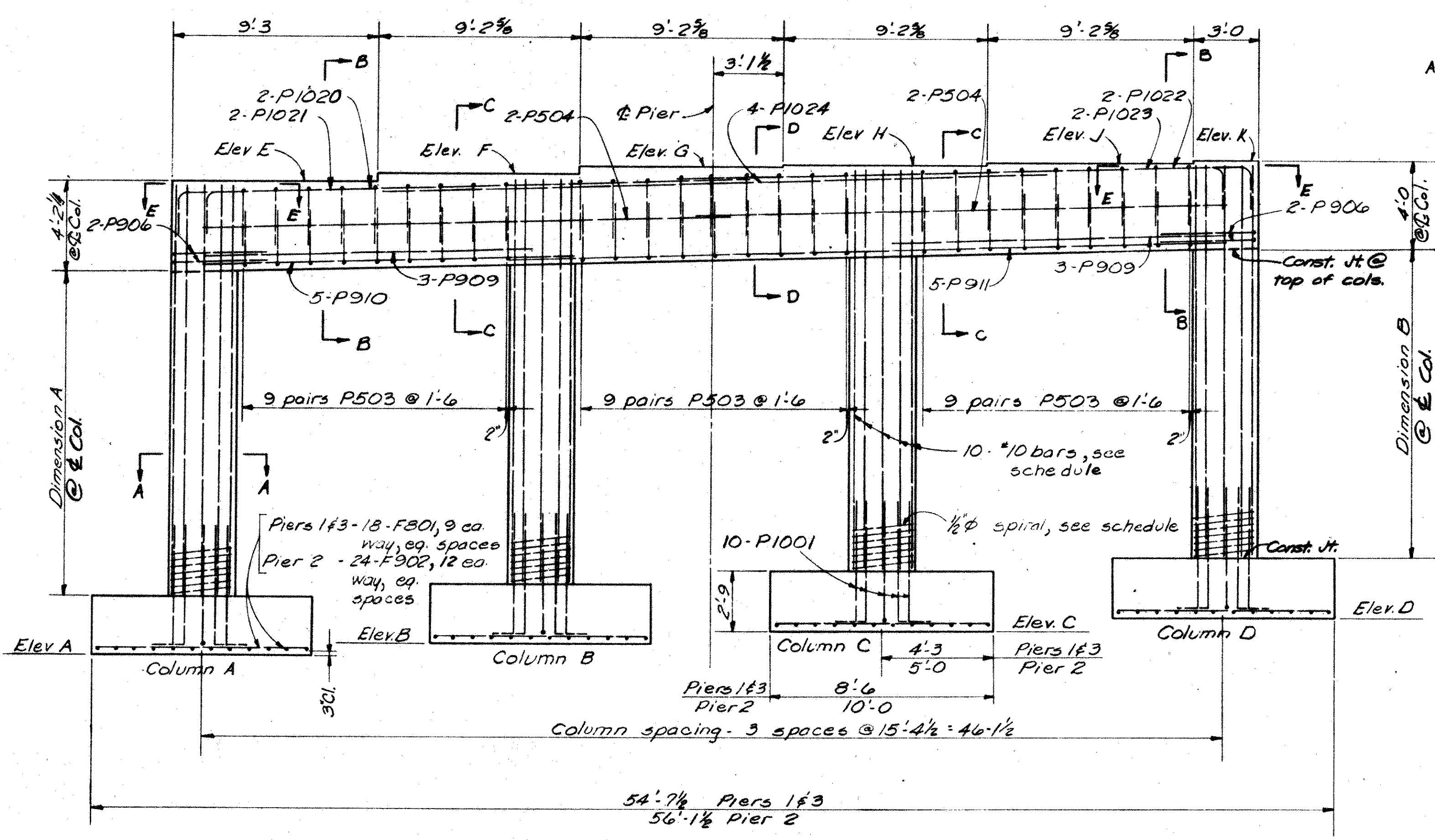
PLAN



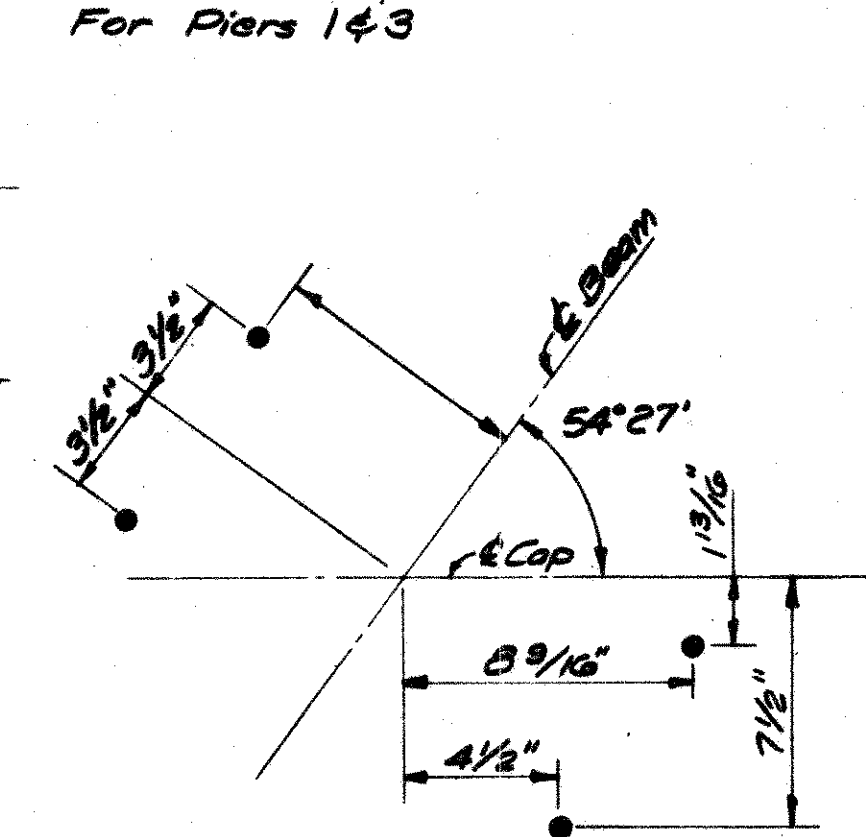
DETAIL A
Anchor Bar Layout
For Piers 1&3



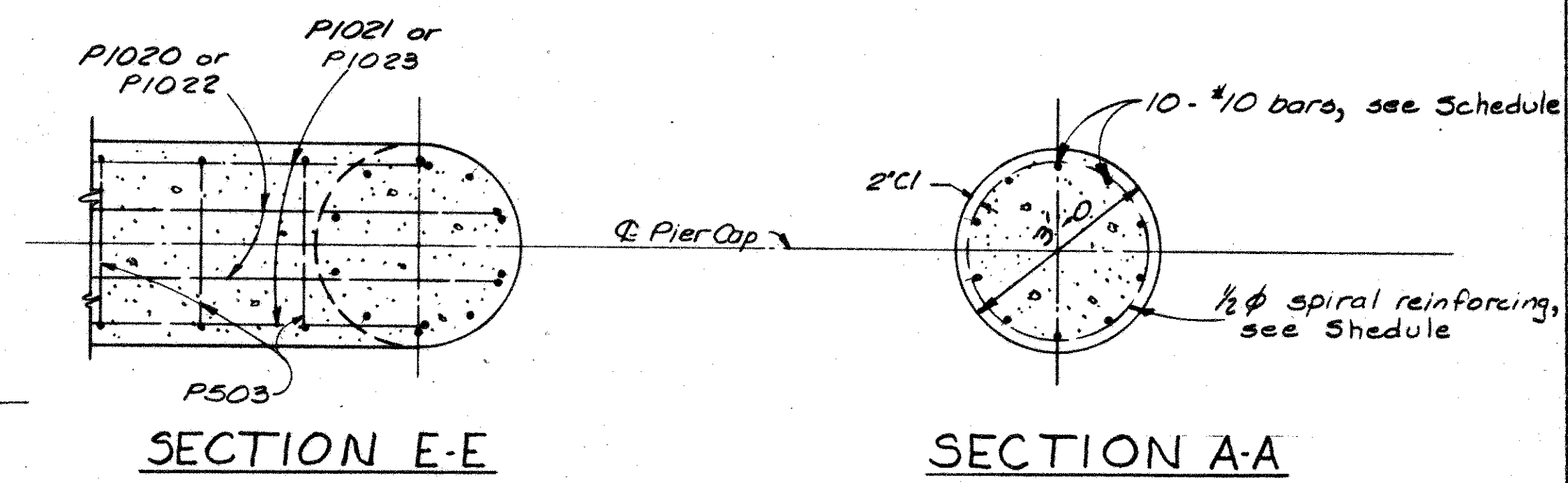
SECTION B-B SECTION C-C SECTION D-D



ELEVATION (LOOKING NORTH)



DETAIL A
Anchor Bar Layout
For Pier 2



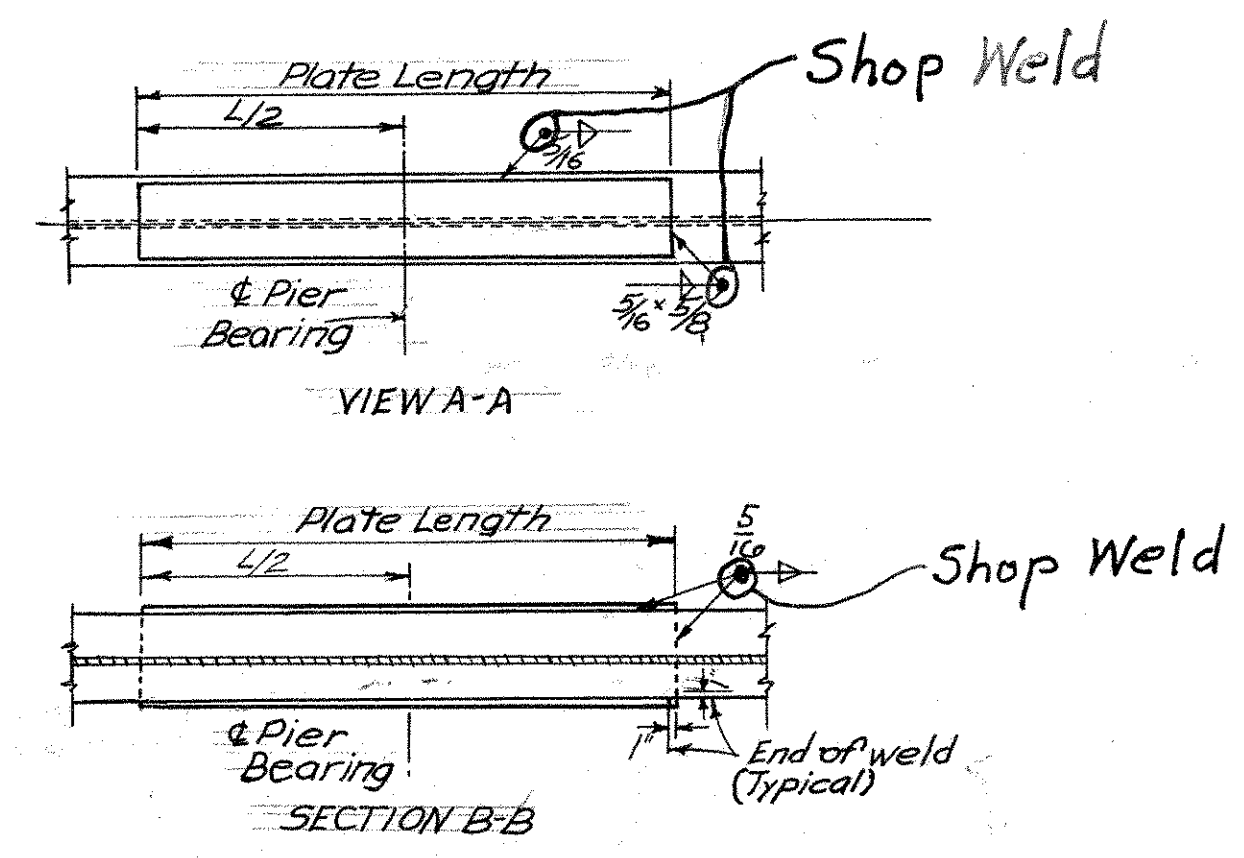
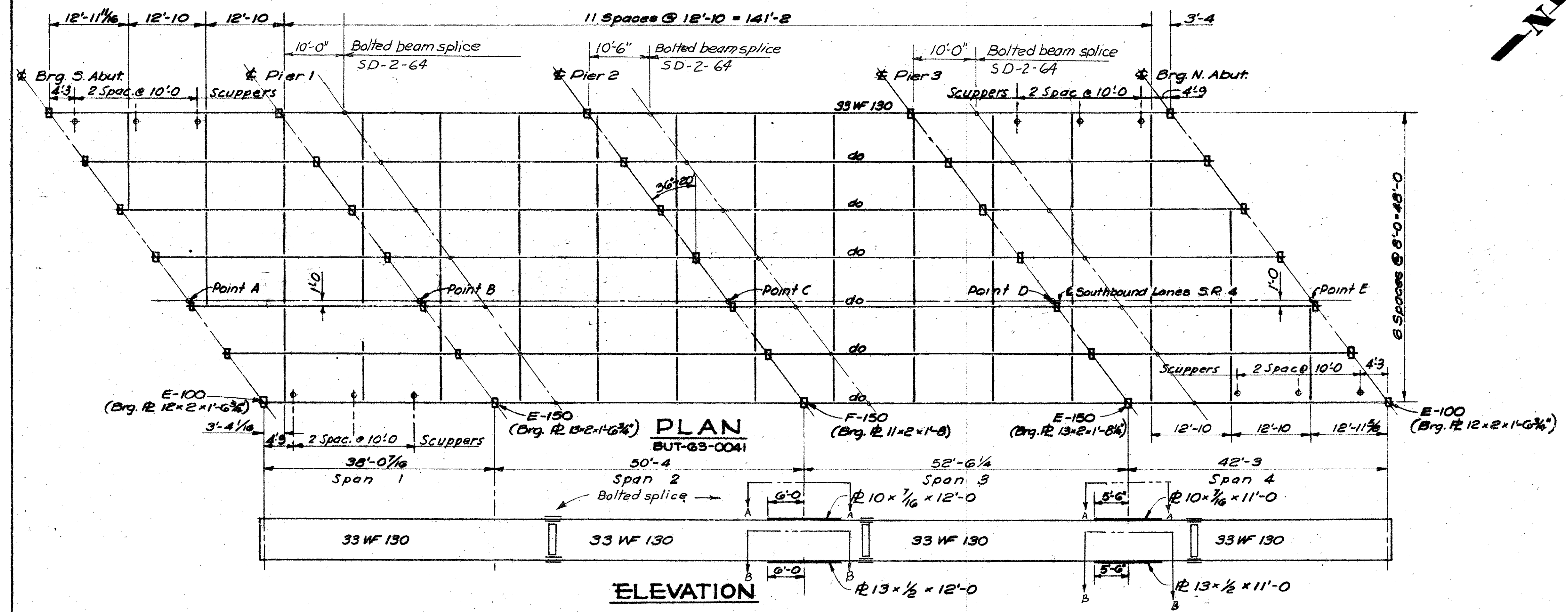
SECTION E-E SECTION A-A

Notes:
 All reinforcing steel shall have 2" minimum cover unless otherwise noted.
 For Points G, H, & I see Sheet 2
 Special care shall be taken in placing the reinforcing steel in the pier caps so as to avoid interfering with the anchor bars.

	Column A		Column B		Column C		Column D	
	Vertical Reinforcing	Spiral Reinforcing	Vertical Reinforcing	Spiral Reinforcing	Vertical Reinforcing	Spiral Reinforcing	Vertical Reinforcing	Spiral Reinforcing
Pier 1	10-P1008	1-SP404	10-P1009	1-SP405	10-P1010	1-SP406	10-P1011	1-SP407
Pier 2	10-P1012	1-SP408	10-P1013	1-SP409	10-P1014	1-SP410	10-P1015	1-SP411
Pier 3	10-P1016	1-SP412	10-P1017	1-SP413	10-P1018	1-SP414	10-P1019	1-SP415

	ELEVATION										DIMENSION	
	A	B	C	D	E	F	G	H	J	K	A	B
Pier 1	652.14	652.75	653.37	653.98	674.75	675.08	675.41	675.56	675.66	675.76	15'-8 1/8"	15'-0 1/8"
Pier 2	655.25	655.87	656.48	657.10	676.49	676.82	677.15	677.30	677.40	677.50	14'-3 3/8"	13'-7 3/8"
Pier 3	655.19	656.81	656.42	657.04	678.82	679.15	679.48	679.63	679.73	679.83	16'-8 3/8"	16'-0 1/2"

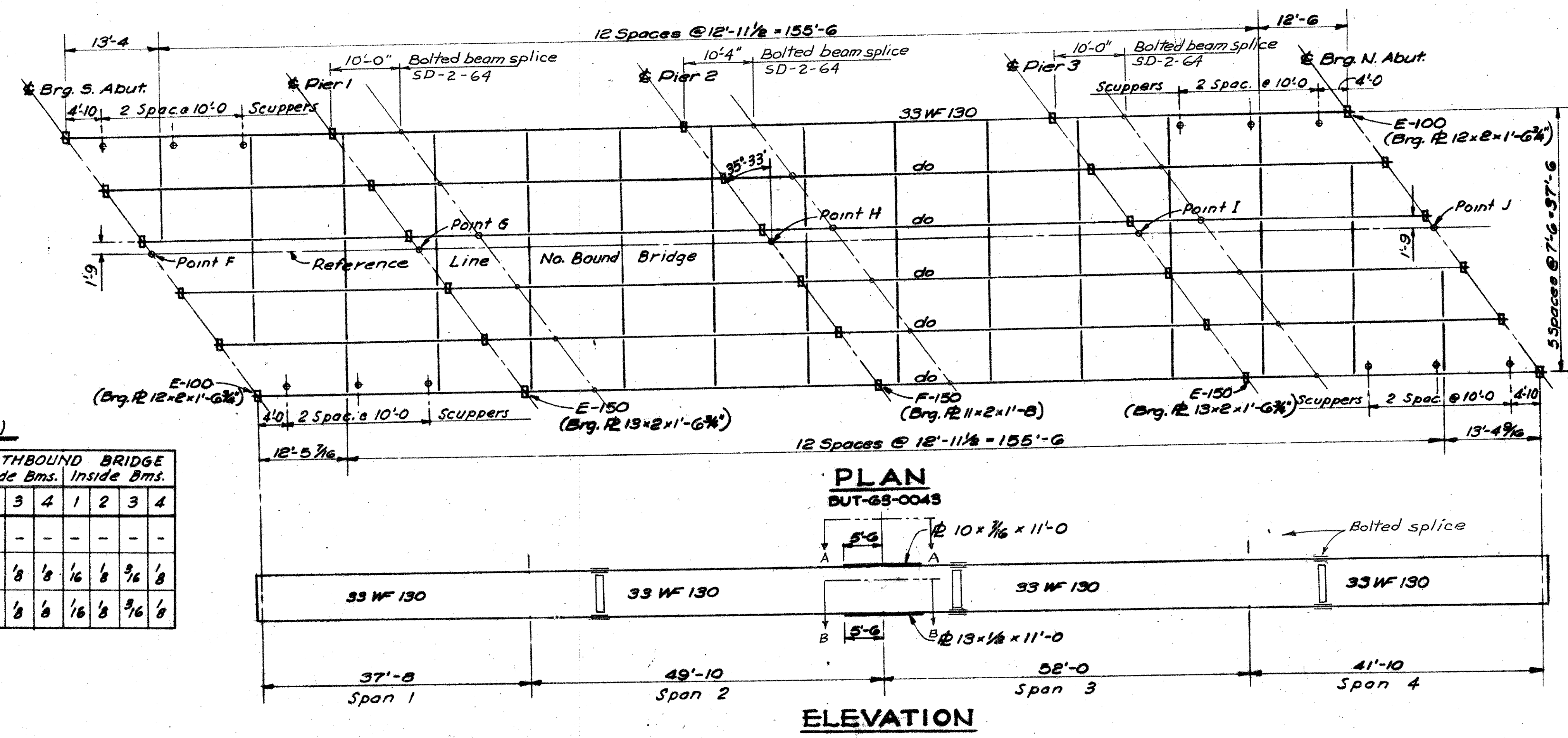
SHAW, LENZ & ASSOCIATES ENGINEERS
 CINCINNATI OHIO
PIERS NORTHBOUND BRIDGE
 BRIDGE NO. BUT-63-0043
 SR 63 RELOCATED
 UNDER SR. 4
 BUTLER CO. STA 21+01.27
 STA 21+85.90
 DESIGNED DRAWN TRACED CHECKED REVISIONS
 E.R.B. D.D.S. D.D.S. E.R.B. R.J.L. R.J.L. 7-25-62



Notes:
 For Bolted Beam Splice Details see Std. Dwg. SD-2-64
 For Fixed and Sliding Bearing plate details, see Std. Dwg. FSB-1-62.
 For End Crossframe Details See Sh. 102.
 For details of Intermediate Crossframes See Sheets 103 and 104.
 All piers and abutments are parallel
 For Bulb Angle Gutter and Scupper Details see Std. Dwg. SD-1-63.

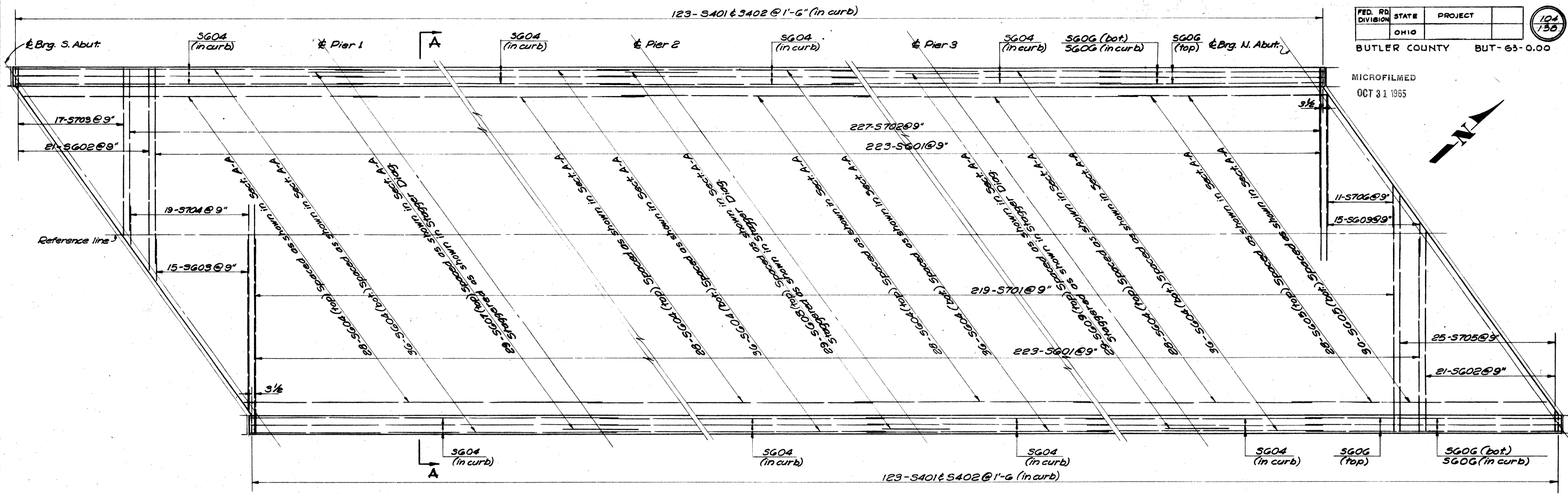
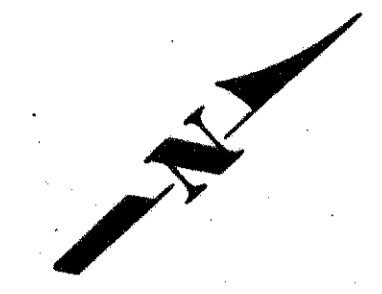
DEFLECTION TABLE (Inches)

Span	SOUTHBOUND BRIDGE				NORTHBOUND BRIDGE							
	Outside Bms.	Inside Bms.	Outside Bms.	Inside Bms.	Outside Bms.	Inside Bms.	Outside Bms.	Inside Bms.				
Deflection due to Weight of steel	-	-	-	-	-	-	-	-	-	-	-	-
Deflection due to remaining dead load	1/16	1/8	3/16	1/8	1/16	1/8	3/16	1/8	1/16	1/8	3/16	1/8
Total Deflection	1/16	1/8	3/16	1/8	1/16	1/8	3/16	1/8	1/16	1/8	3/16	1/8

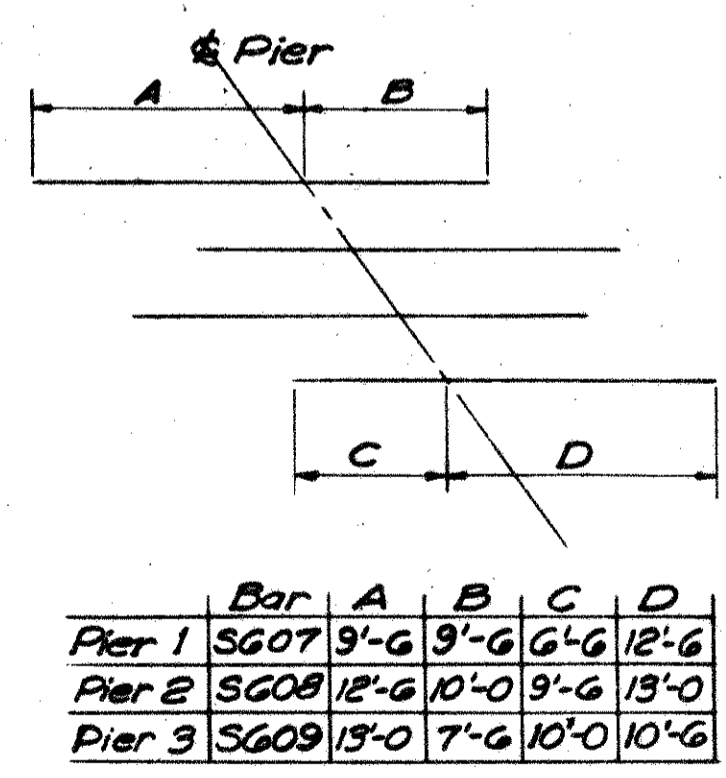


SHAW, LENZ & ASSOCIATES ENGINEERS
 CINCINNATI OHIO
STEEL FRAMING PLAN
 BRIDGE NO. BUT-63-0041 & 0043
 S.R. 63 RELOCATED UNDER S.R. 4
 BUTLER CO. STA. 21+01.27
 STA. 21+85.90
 DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED
 E.R.B. R.R.L. R.R.L. E.R.B. R.J.L. 7-25-62 8/25/66

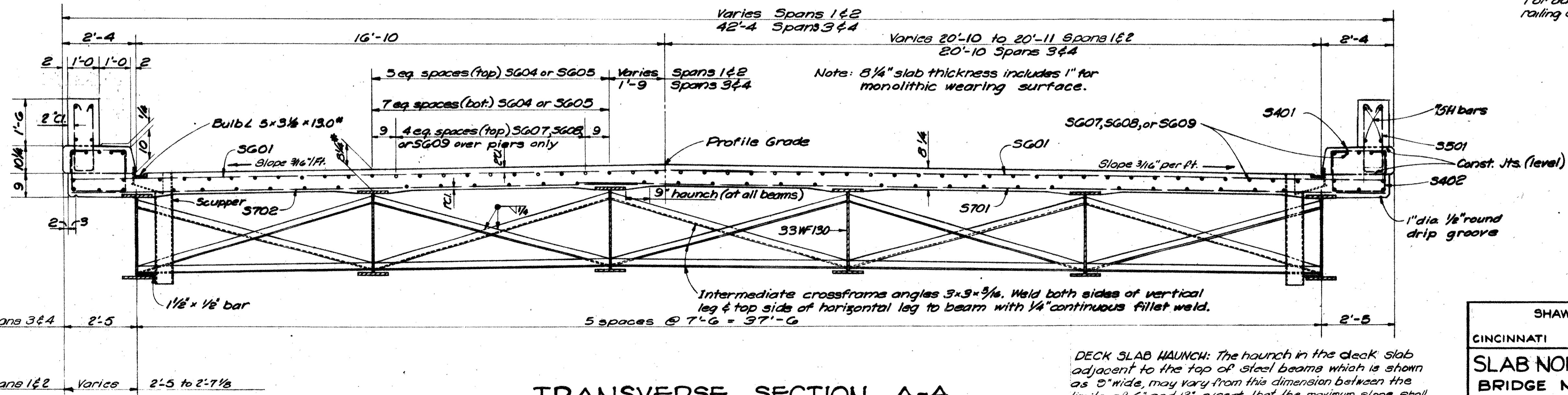
MICROFILMED
OCT 31 1985



PLAN



STAGGER DIAGRAM SHOWING LOCATION OF ADDITIONAL TOP BARS AT PIERS



TRANSVERSE SECTION A-A

Notes:
Lap reinf. bars 30 diam.
For additional slab and railing details see sheet 105.

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of steel beams which is shown as 8" wide, may vary from this dimension between the limits of 6" and 12", except that the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 8" width.

*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

SHAW, LENZ & ASSOCIATES ENGINEERS		OHIO
CINCINNATI		
SLAB NORTHBOUND BRIDGE		
BRIDGE NO. BUT-63-0043		
S.R. 63 RELOCATED UNDER S.R. 4		
BUTLER CO.	STA. 21+01.27	
	STA. 21+85.90	
DESIGNED	DRAWN	TRACED
CHECKED	REVIEWED	DATE
REVIS	REVIS	REVIS
E.R.B.	R.L.L.	R.J.L. 1-25-62

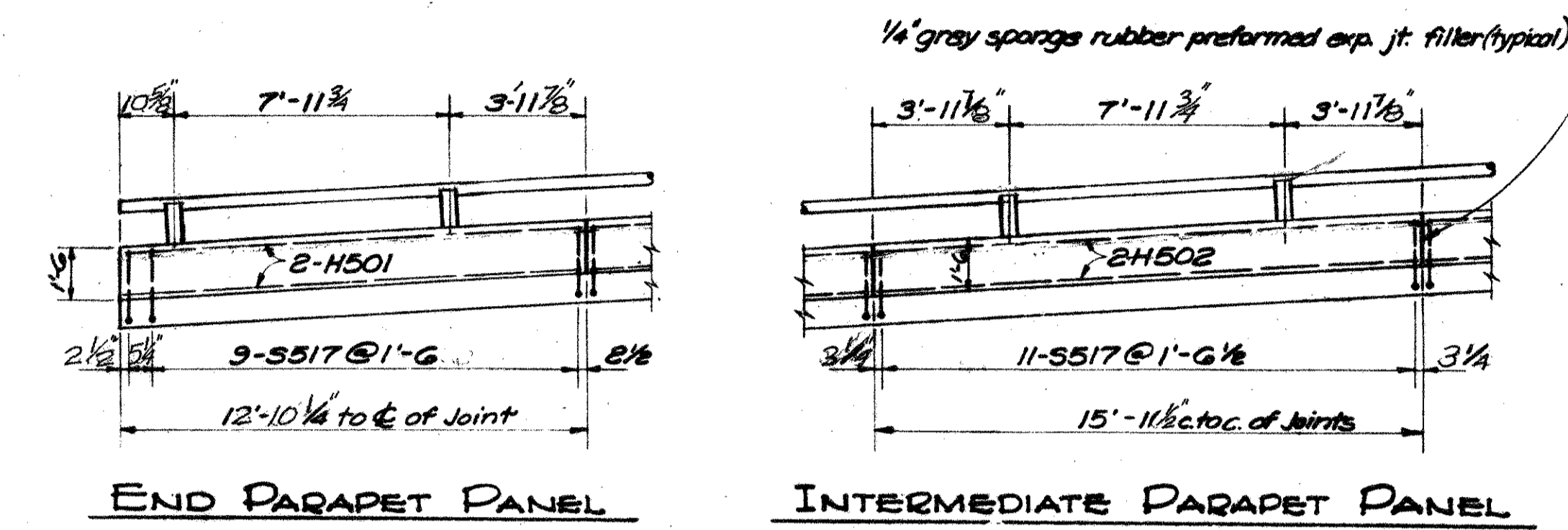
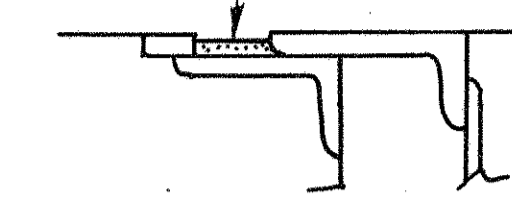
MICROFILMED
OCT 31 1985

FED. RD. DIVISION	STATE	PROJECT
	OHIO	

105
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BUTLER COUNTY BUT 63-0.00

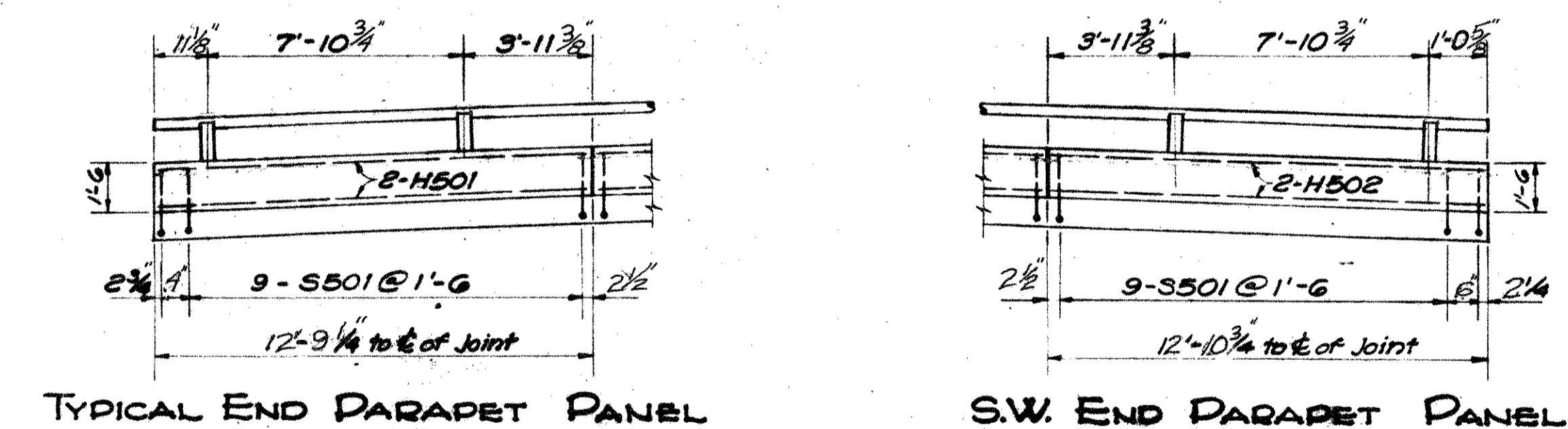
Item 828 Joint Sealer, including bond breaker for the bottom only.



TYPICAL RAILING DETAILS

SOUTHBOUND BRIDGE

BUT-63-0041



TYPICAL RAILING DETAILS

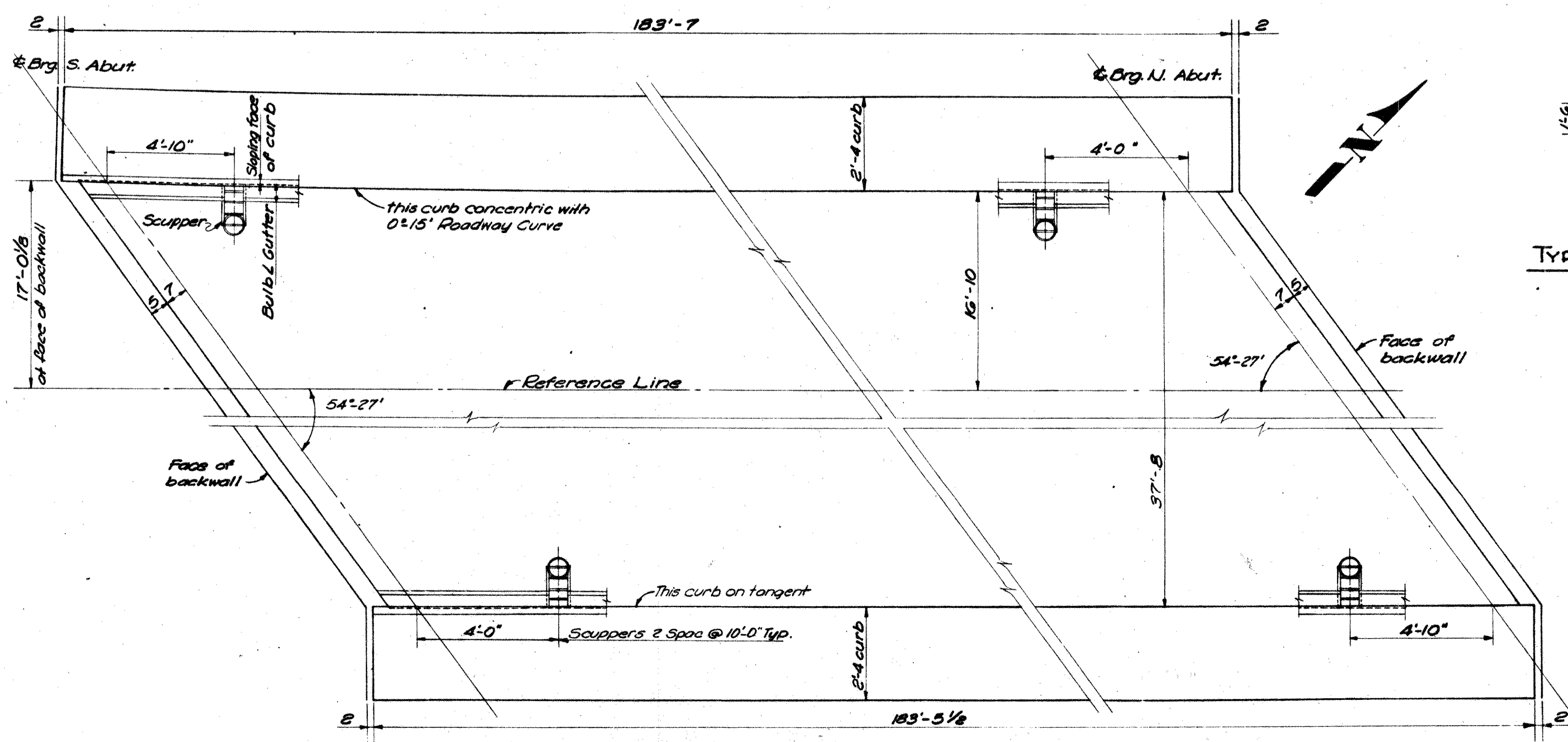
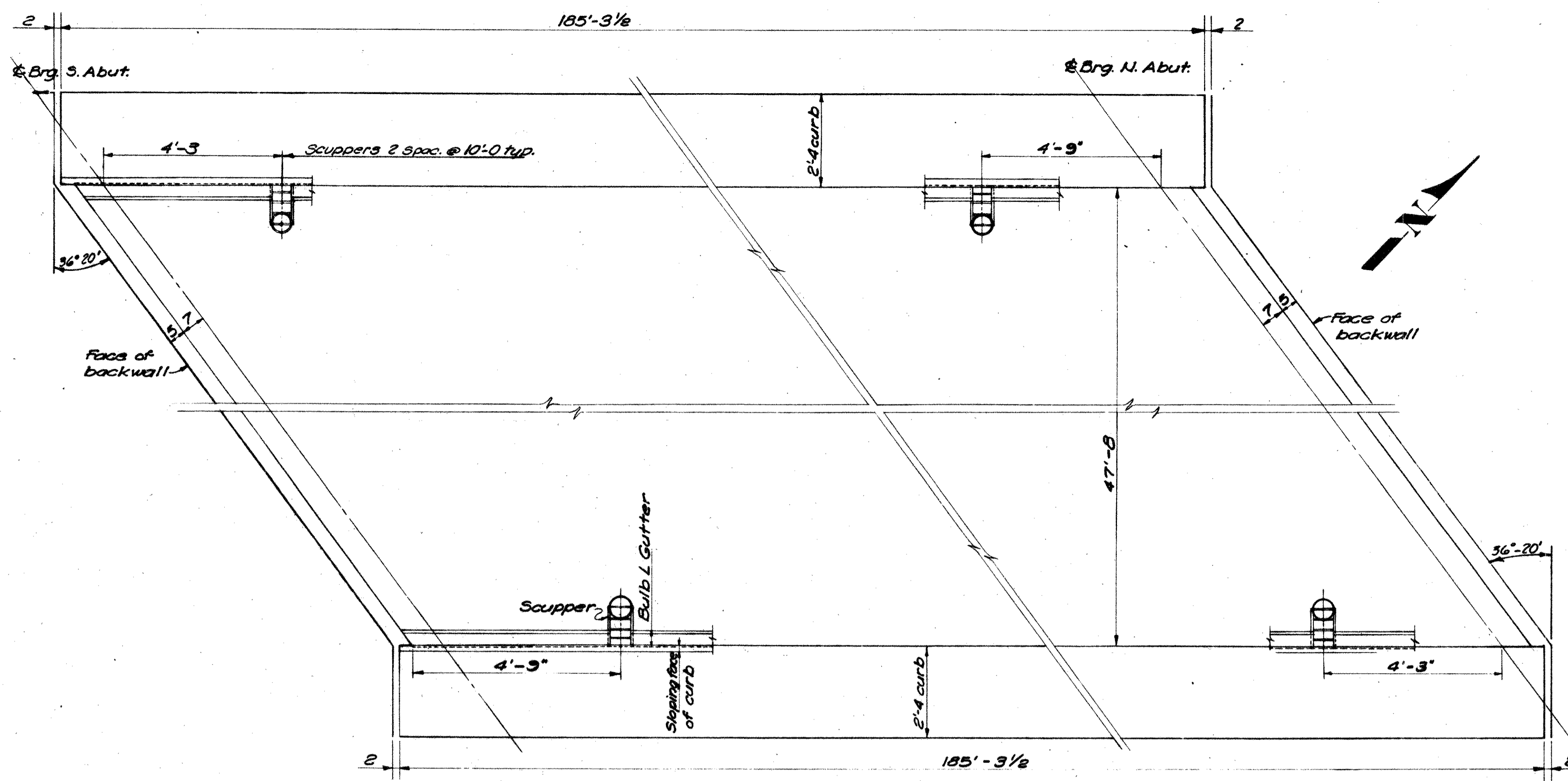
TYPICAL RAILING DETAILS

NORTHBOUND BRIDGE

BUT-63-0043

Notes:

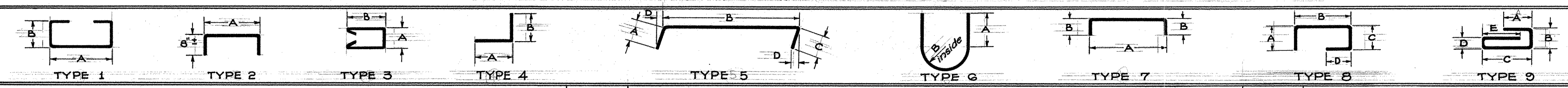
RAILING: Bridge Railing Type 1, with concrete parapet. For details see Std. Dwg. BR-1-65 Sheet 1, dtd. 2-1-65
For Bulb Angle Gutter and Scuppers See Std. Dwg. 150-1-63



SHAW, LENZ & ASSOCIATES ENGINEERS					
CINCINNATI			OHIO		
SLAB & RAILING DETAILS					
BRIDGE NO. BUT-63-0041 & 0043					
S.R. 63 RELOCATED					
UNDER S.R. 4					
BUTLER CO.			STA. 21+01.27		
			STA. 21+85.00		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
E.R.B.	R.R.L.	R.R.L.	E.R.B.	R.J.L.	7-25-62

REINFORCING STEEL BAR SCHEDULE

MICROFILMED
OCT 31 1965



SUPERSTRUCTURE									
MARK	NO.	LENGTH	TYPE	A	B	C	D	WEIGHT	LOCATION
S401	248	4'-11"	1	1'-8"	1'-4"			815	
S402	248	2'-9"	2	1'-8"				456	
S501	324	30'-8"	Str.					10363	
S502	335	22'-8"						7920	
S503	22	2'-5" to 2'-1"		Vary 2 each by 8"				132	
S504	22	2'-11" to 16'-7"		" " " "				304	
S505	11	17'-5" to 24'-1"		Vary 1 each by 8"				238	
S506	12	24'-1" to 32'-3"		" " " "				358	
S507	25	4'-1" to 20'-1"		" " " "				315	
S508	12	17'-5" to 24'-9"		" " " "				264	
S509	19	4'-7" to 16'-7"		" " " "				210	
S510	17	17'-5" to 28'-1"		Vary 1 each by 8"				403	
S511	220	40'-0"						3178	
S512	45	30'-7"						1435	
S513	10	31'-3"						326	
S514	52	19'-0"						1030	
S515	52	22'-6"						1220	
S516	52	20'-6"	Str.					1112	
S517	256	5'-9"	3	0'-8"	2'-2"			1535	
H501*	16	12'-6"	Str.						
H502*	80	15'-7"	Str.						
S601	318	34'-10"	Str.					16,638	
S602	341	18'-10"						2646	
S603	22	2'-5" to 3'-1"		Vary 2 each by 8"				190	
S604	22	9'-1" to 16'-7"		" " " "				438	
S605	11	17'-5" to 24'-1"		Vary 1 each by 8"				343	
S606	12	24'-1" to 32'-3"		" " " "				515	
S607	6	32'-8" to 36'-0"		" " " "				309	
S608	19	4'-3" to 16'-3"		" " " "				293	
S609	6	17'-5" to 20'-9"		" " " "				172	
S610	22	4'-8" to 18'-8"		" " " "				386	
S611	20	10'-7" to 32'-3"		Vary 1 each by 8"				748	
S612	192	40'-0"						11,535	
S613	42	31'-11"						2013	
S614	6	32'-7"	Str.					294	
Total Weight								81,134	

PIERS									
MARK	NO.	LENGTH	TYPE	A	B	C	D	WEIGHT	LOCATION
P501	6	22'-1"	Str.					138	Pier Cap
P502	6	37'-0"						232	Pier Cap
P503	192	7'-8"	7	2'-8"	2'-8"			1535	Pier Cap Stirrups
F801	180	8'-2"	Str.					3925	Footings-Piers 1 & 3
F901	30	8'-8"	Str.					2652	Footings-Pier 2
P901	6	41'-6"	5	38'-2"	3'-9"	1 7/8"		847	All Top of Cap
P902	6	40'-4"	5	37'-0"	3'-9"	1 7/8"		823	All Top of Cap
P903	12	14'-0"	Str.					571	Top of Cap
P904	15	22'-1"	Str.					1126	Bottom of Cap
P905	9	15'-2"	Str.					464	
P906	12	8'-5"	6	2'-6"	1'-1"			343	
P907	15	37'-0"	Str.					1887	
P908	9	29'-10"	Str.					913	Bottom of Cap
P1001	150	6'-4"	4	0'-11"	5'-7 1/2"			4088	All Piers-Dowels
P1002	50	16'-11"	Str.					3640	Pier 1 - Columns
P1003	50	15'-10"	Str.					3407	Pier 2 - Columns
P1004	50	18'-6"	Str.					3980	Pier 3 - Columns
P1005	6	30'-3"	5	3'-9"	23'-3"	3'-9"	1 7/8"	781	All Top of Cap
P1006	6	29'-1"	5	3'-9"	22'-1"	3'-9"	1 7/8"	751	All Top of Cap
P1007	12	17'-3"	5		14'-0"	3'-9"	1 7/8"	891	Top of Cap
Total Weight								33,049	

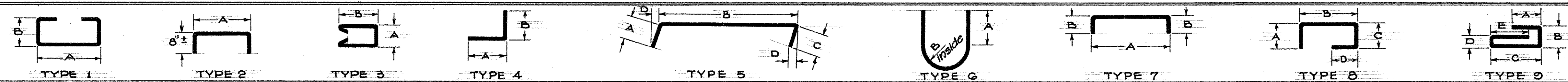
ABUTMENTS										
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT	LOCATION
F501	44	4'-7"	4	3'-8"	1'-0"				210	Abutment Dowels
F502	18	33'-10"	Str.						635	Abutment Steel
F503	2	30'-9"	Str.						64	Abutment Steel
F601	144	4'-6"	4	3'-8"	1'-0"				973	Abutment Dowels
F602	44	4'-9"	4	3'-11"	1'-0"				314	Wing Dowels (NE or SW)
F603	4	13'-0"	Str.						78	Wing Steel (NW or SE)
F604	4	14'-0"	"						84	Wing Steel (NE or SW)
F605	82	5'-9"	Str.						708	Abutment Steel
A501	8	5'-7"	Str.						47	Abutment Wall
A502	6	5'-11"							37	
A503	8	6'-4"							53	
A504	6	6'-9"							42	
A505	16	7'-1"							118	
A506	5	26'-0"							136	
A507	9	28'-6"							268	
A508	4	36'-1"							151	
A509	4	34'-6"							144	
A510	5	26'-4"							137	
A511	5	32'-10"	Str.						171	
A512	44	5'-2"	7	3'-5"	1'-0"				237	
A513	5	26'-3"	Str.						137	
A514	5	24'-8"							129	
A515	4	36'-0"							150	
A516	4	38'-6"							161	
A517	5	23'-0"							120	
A518	5	34'-9"							181	
A519	13	5'-0"	Str.						68	Abutment Wall
AG01	16	5'-7"	Str.						134	Abutment Wall
AG02	20	5'-11"							178	
AG03	20	6'-4"							190	
AG04	20	6'-9"							203	
AG05	48	7'-1"	Str.						510	Abutment Wall
AG06	45	12'-1"	9	3'-5"	1'-5"	5'-0"	0'-11"	2'-0"	817	Backwall
AG07	14	12'-8"	9	5'-0"	1'-5"	5'-0"	1'-5"	0'-6"	266	
AG08	45	11'-9"	9	3'-5"	1'-3"	5'-0"	0'-9"	2'-0"	794	
AG09	14	12'-4"	9	5'-0"	1'-3"	5'-0"	1'-3"	0'-6"	259	Backwall
W401	4	11'-0"	Str.						29	Curb
W402	4	13'-10"							37	
W403	4	12'-10"							34	
W404	4	15'-8"	Str.						42	Curb
W501	4	10'-2"	Str.						42	Wingwall
W502	6	5'-0"	Str.						31	
W503	4	4'-0"							17	
W504	12	11'-8"							146	
W505	8	10'-2"							85	
W506	3	11'-2"							35	
W507	8	3'-5"	Str.						29	Wingwall
W508	29	4'-9"	8	1'-3"	1'-8"	1'-6"	8 1/2"		144	Curb
W509	4	4'-8"	8	1'-3"	1'-7 1/2"	1'-6"	0'-8"		19	
W510	4	4'-6"	8	1'-3"	1'-6 1/2"	1'-6"	0'-7"		19	
W511	4	4'-4"	8	1'-3"	1'-5 1/2"	1'-6"	0'-6"		18	
W512	4	3'-10"	8	1'-3"	1'-4"	1'-6"			16	
W513	4	3'-9"	8	1'-3"	1'-2 1/2"	1'-6"			16	
W514	4	3'-7"	8	1'-3"	1'-0 1/2"	1'-6"			15	
W515	4	3'-4"	8	1'-3"	0'-10"	1'-6"			14	Curb
W516	2	8'-4"	Str.						17	Wingwall
W517	6	2'-7"							16	
W518	2	4'-0"							8	
W519	17	9'-8"							171	
W520	6	10'-8"							67	
W521	3	14'-0"	Str.						44	Wingwall

ABUTMENTS										
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT	LOCATION
W522	8	3'-5"	Str.						29	Wingwall
W523	4	8'-6"							35	
W524	6	5'-0"							31	
W525	3	4'-2"							13	
W526	12	10'-3"							128	
W527	6	10'-2"							64	
W528	1	7'-5"							8	
W529	3	12'-10"							40	
W530	12	3'-6"							44	
W531	2	10'-4"							22	
W532	6	2'-7"							16	
W533	2	4'-2"							9	
W534	17	12'-1"							214	
W535	8	10'-8"							89	
W536	1	10'-2"							11	
W537	2	15'-8"							33	
W538	12	3'-8"	Str.						46	Wingwall
W601	8	4'-8"	Str.						56	Wingwall
W602	3	9'-2"							41	
W603	6	9'-0"							81	
W604	3	13'-6"							61	
W605	6	4'-8"							42	
W606	1	7'-5"							11	

REINFORCING STEEL BAR SCHEDULE

MICROFILMED
OCT 31 1985

FED. RD. DIVISION	STATE	PROJECT	107 138
	OHIO		
BUTLER COUNTY BUT-63-0.00			



SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	A	B	C	D	WEIGHT	LOCATION
S401	246	2'-9"	1					452	
S402	246	4'-11"	2					808	
S501	256	5'-7"	3					1491	
H501*	12	12'-5"	Str.						
H502*	4	12'-7"							
H503*	80	15'-5"	Str.						
S601	446	22'-0"	Str.					14738	
S602	42	2'-3" to 23'-1"		Vary 2 each by 12 1/2"				799	
S603	30	4'-9" to 19'-4"		Vary 2 each by 12 1/2"				543	
S604	280	40'-0"						16822	
S605	58	30'-1"						2621	
S606	16	30'-9"						739	
S607	29	19'-0"						828	
S608	29	22'-6"						960	
S609	29	20'-6"	Str.					893	
S701	219	25'-9"	Str.					11527	
S702	227	18'-3"						8468	
S703	17	2'-3" to 18'-11"		Vary 1 each by 12 1/2"				368	
S704	19	4'-4" to 23'-1"		Vary 1 each by 12 1/2"				532	
S705	25	2'-3" to 27'-3"		Vary 1 each by 12 1/2"				754	
S706	11	5'-2" to 15'-7"	Str.	Vary 1 each by 12 1/2"				233	
Total Weight								63596	

PIERS

MARK	NO.	LENGTH	TYPE	A	B	C	D	WEIGHT	LOCATION
P503	162	7'-8"	7	2'-8"	2'-8"			1295	Cap Stirrups
P504	12	23'-11"	Str.					299	Pier Cap
F801	144	8'-2"	Str.					3140	Footing-Pier 1 & 3
F902	96	9'-8"	Str.					3155	Footing-Pier 2
P906	12	8'-5"	6	2'-6"	1'-1"			343	Bottom of Cap
P909	18	15'-0"	Str.					918	
P910	15	16'-10"	Str.					659	
P911	15	32'-2"	Str.					1640	Bottom of Cap
P1001	120	6'-4"	4	0'-11"	5'-7 1/2"			3270	All Piers-Dowels
P1008	10	19'-4"	Str.					832	Pier 1-Columns
P1009	10	19'-1"						821	
P1010	10	18'-11"						814	
P1011	10	18'-8"						803	Pier 1-Columns
P1012	10	17'-11"						771	Pier 2-Columns
P1013	10	17'-8"						760	
P1014	10	17'-6"						753	
P1015	10	17'-4"						746	Pier 2-Columns
P1016	10	20'-4"						875	Pier 3-Columns
P1017	10	20'-1"						864	
P1018	10	19'-11"						857	
P1019	10	19'-8"	Str.					846	Pier 3-Columns
P1020	6	29'-4"	5	3'-9"	25'-10"		1 5/8"	757	Top of Cap
P1021	6	28'-2"	5	3'-9"	24'-8"		1 5/8"	727	
P1022	6	29'-4"	5		25'-10"	3'-9"	1 5/8"	757	
P1023	6	28'-2"	5		24'-8"	3'-9"	1 5/8"	727	Top of Cap
Total Weight								27,684	

PIER	MARK	NO. REQ'D	CORE DIA. O to O	LENGTH	PITCH	NO. OF TURNS	TOTAL WEIGHT
1	SP404	1	32"	15'-8 1/8"	3/2"	57	362
1	SP405	1	32"	15'-5 3/4"	3/2"	56	356
1	SP406	1	32"	15'-2 3/4"	3/2"	55	349
1	SP407	1	32"	15'-0 3/8"	3/2"	55	349
2	SP408	1	32"	14'-3 5/8"	3/2"	52	330
2	SP409	1	32"	14'-1 3/8"	3/2"	51	324
2	SP410	1	32"	13'-10 3/8"	3/2"	51	324
2	SP411	1	32"	13'-7 7/8"	3/2"	50	317
3	SP412	1	32"	16'-8 3/8"	3/2"	60	381
3	SP413	1	32"	16'-5 3/8"	3/2"	60	381
3	SP414	1	32"	16'-3"	3/2"	59	374
3	SP415	1	32"	16'-0 1/2"	3/2"	58	369

Total Weight Spirals 4,216 lbs.

ABUTMENTS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT	LOCATION
F501	34	4'-7"	4	3'-8"	1'-0"				163	Footing
F504	18	27'-6"	Str.						516	Footing
F505	2	25'-0"	Str.						52	Footing
F601	124	4'-6"	4	3'-8"	1'-0"				838	Footing
F602	46	4'-9"	4	3'-11"	1'-0"				328	
F605	68	5'-9"	Str.						587	
F606	4	12'-9"	Str.						77	
F607	4	13'-6"	Str.						81	Footing
A512	34	5'-2"	7	3'-5"	1'-0"				183	Abutment Wall
A519	10	5'-0"	Str.						52	
A520	13	5'-6"							75	
A521	21	6'-2"							135	
A522	20	26'-0"							542	
A523	10	25'-3"							263	
A524	20	26'-1"							544	
A525	10	25'-4"	Str.						264	Abutment Wall
A606	29	12'-1"	9	3'-5"	1'-5"	5'-0"	0'-11"	2'-0"	526	Abutment Wall
A607	17	12'-8"	9	5'-0"	1'-5"	5'-0"	1'-5"	0'-6"	323	
A608	29	11'-9"	9	3'-5"	1'-3"	5'-0"	0'-9"	2'-0"	512	
A609	17	12'-4"	9	5'-0"	1'-3"	5'-0"	1'-3"	0'-6"	315	
AG10	36	5'-6"	Str.						298	
AG11	62	6'-2"	Str.						574	Abutment Wall
W405	4	11'-7"	Str.						31	Curb
W406	8	13'-4"	Str.						71	Curb
W407	4	15'-1"	Str.						40	Curb
W508	28	4'-9"	8	1'-3"	1'-8"	1'-6"	0'-8 1/2"		139	Curb
W509	4	4'-8"	8	1'-3"	1'-7 1/2"	1'-6"	0'-8"		19	
W510	4	4'-6"	8	1'-3"	1'-6 1/2"	1'-6"	0'-7"		19	
W511	4	4'-4"	8	1'-3"	1'-5 1/2"	1'-6"	0'-6"		18	
W512	4	3'-10"	8	1'-3"	1'-4"	1'-6"			16	
W513	4	3'-9"	8	1'-3"	1'-2 1/2"	1'-6"			16	
W514	4	3'-7"	8	1'-3"	1'-0 1/2"	1'-6"			15	
W515	4	3'-4"	8	1'-3"	0'-10"	1'-6"			14	Curb
W539	7	10'-8"	Str.						78	Wingwall
W540	4	9'-1"							38	
W541	3	4'-0"							13	
W542	14	10'-9"							157	
W543	8	3'-6"							29	
W544	3	11'-8"							37	
W545	6	5'-0"							31	
W546	6	10'-2"							64	
W547	2	8'-2"							17	
W548	2	3'-10"							8	
W549	16	9'-9"							163	
W550	8	3'-6"							29	
W551	3	13'-6"							42	
W552	6	3'-0"							19	
W553	6	10'-8"							67	
W554	1	7'-8"							8	
W555	3	13'-4"							42	
W556	3	3'-10"							12	
W557	14	10'-2"							148	
W558	4	8'-3"							34	
W559	12	3'-7"							45	
W560	6	5'-0"							31	
W561	7	10'-2"							74	
W562	1	9'-6"							10	
W563	3	15'-2"							47	
W564	2	4'-1"							9	
W565	16	11'-2"							186	
W566	2	9'-2"							19	
W567	12	3'-9"							47	
W568	6	3'-0"	Str.						19	Wingwall

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 "No. of Turns" shown is the "Length" divided by the pitch, plus 3 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 509. 1 1/2 closed coils shall be provided at 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.

REPLACEMENT BARS		
MARK	NUMBER	LENGTH
RE401	1	5'-3"
RE501	4	5'-7"
REG01	5	5'-11"
RE701	2	6'-3"
RE801	1	6'-6"
RE901	1	6'-10"
RE1001	2	7'-3"

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A100 is No. 7 size bar and A1014 is a No. 10 size.

Bar bending dimensions are out to out.
* Refer to Std. Dwg. BR-1-65 for Bending Diagram
* Included in unit price bid for Item 517.

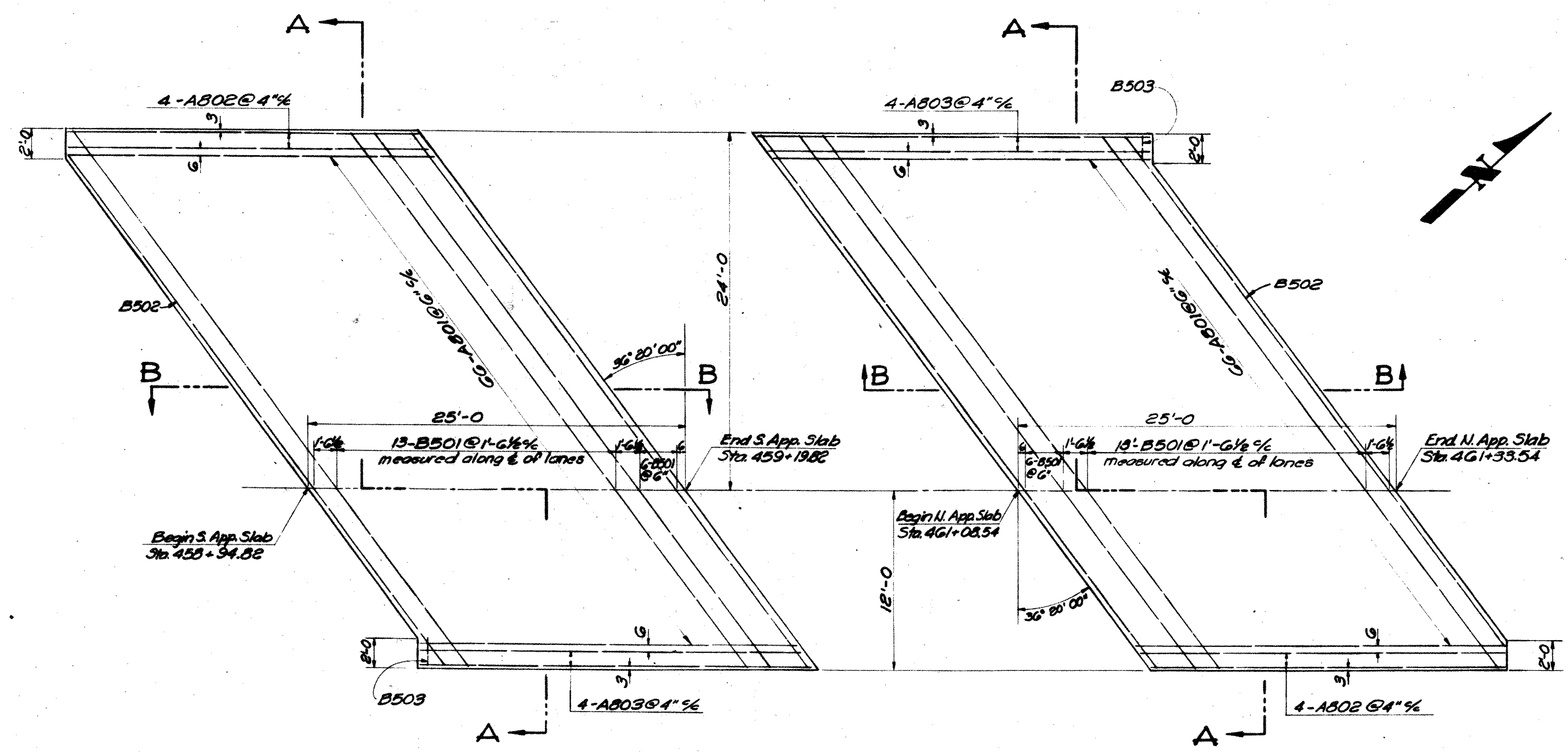
Total weight of reinforcing steel Northbound Bridge: 105,412 lbs.

SHAW LENZ & ASSOCIATES
ENGINEERS
CINCINNATI OHIO

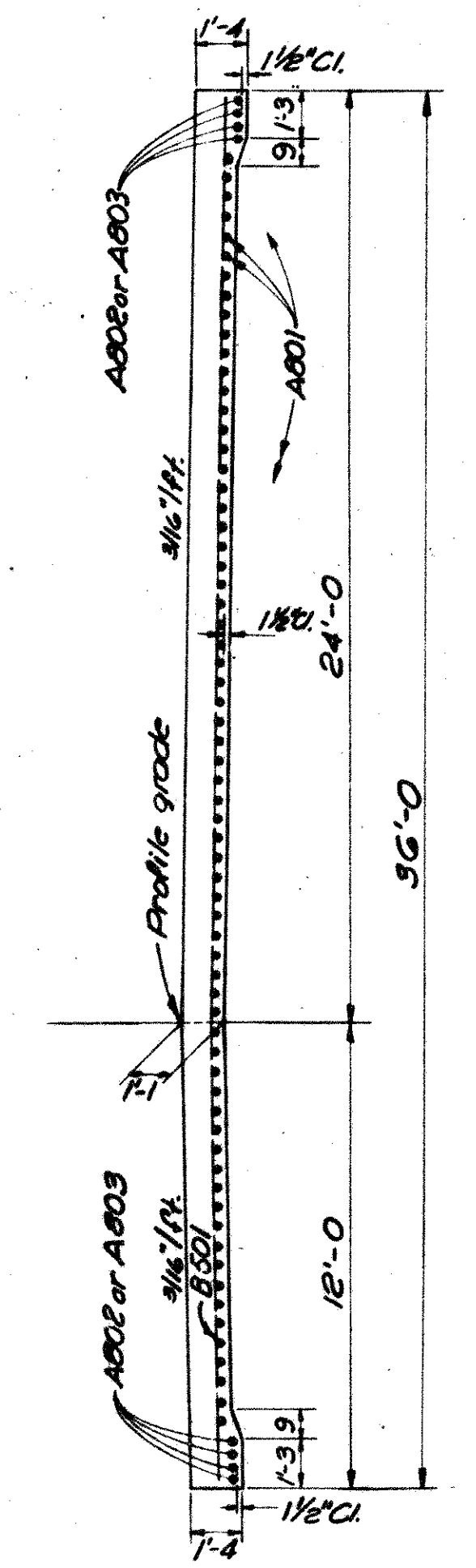
REINFORCING STEEL
NORTHBOUND BRIDGE
BRIDGE NO. BUT-63-0043
S. R. G3 RELOCATED
UNDER S.R. 4

BUTLER COUNTY STA. 21+01.27 STA. 21+85.90

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
ERB	SJB	SJB	ERB	RJL	7-25-62	

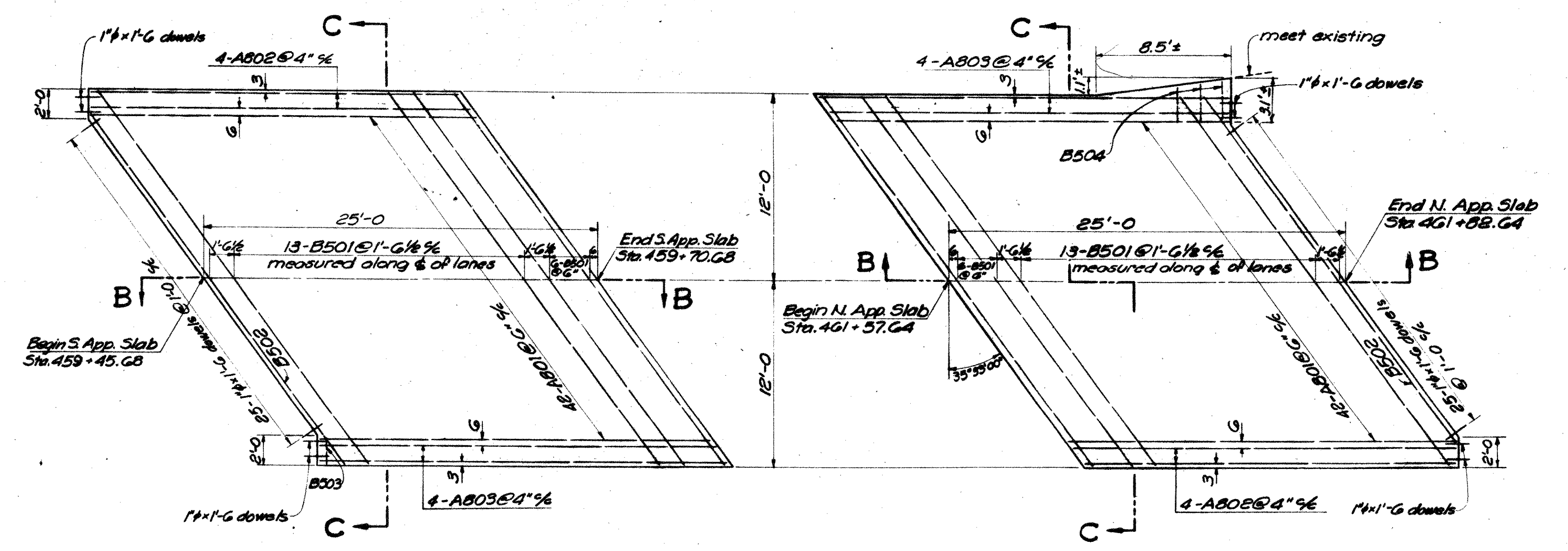


PLAN SOUTHBOUND
BUT-63-0041

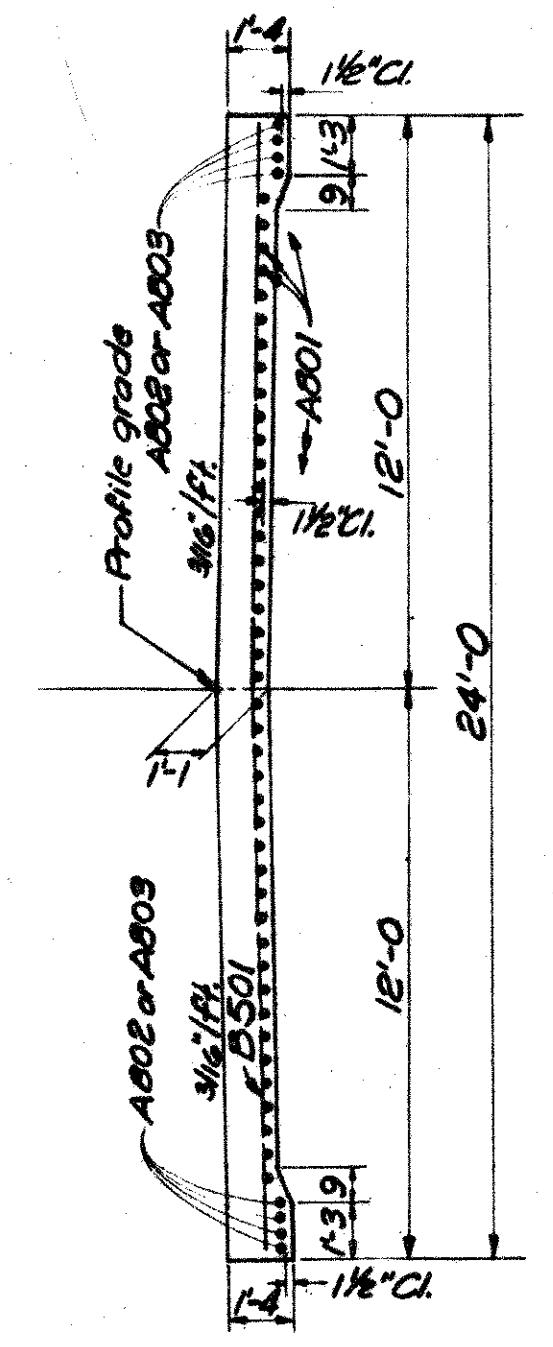


SECTION A-A

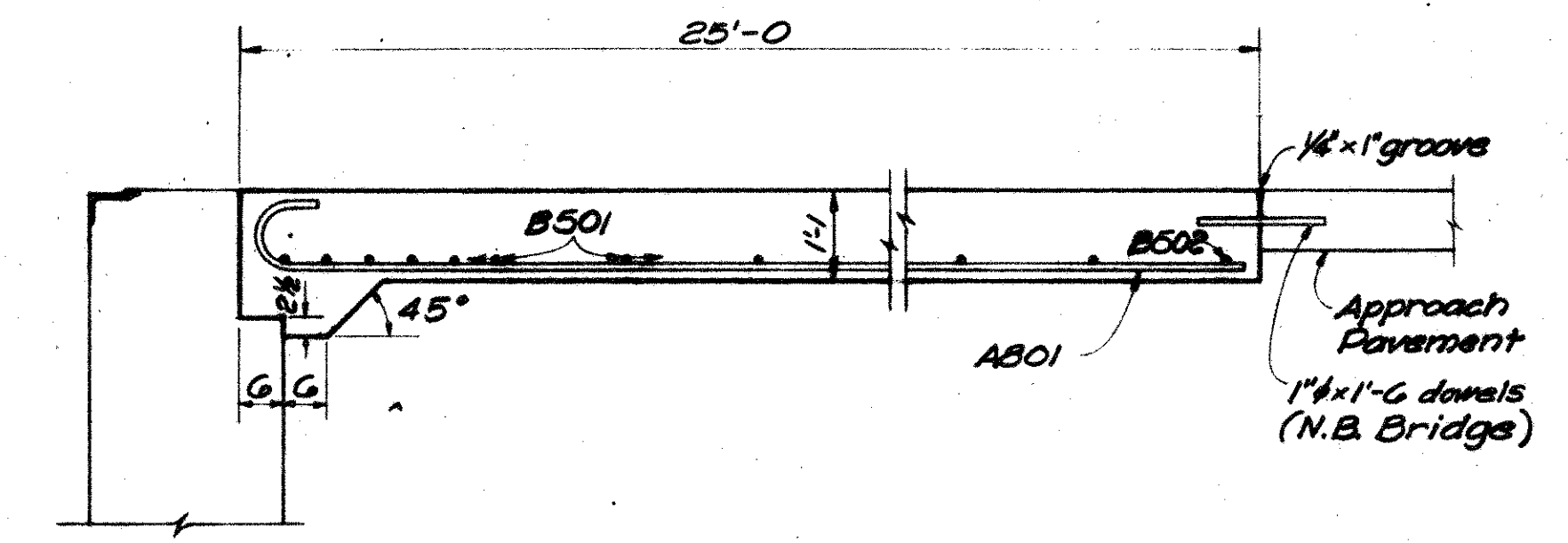
REINFORCING STEEL				
MARK NO.	LENGTH	SHAPE	BENDING	
SOUTHBOUND				
A801	132	25'-7"	Bt.	A801
A802	8	24'-6"	Bt.	A802
A803	8	24'-6"	Bt.	A803
B501	38	44'-1"	Str.	B501
B502	2	42'-1"	Str.	B502
B503	2	2'-0"	Str.	B503
NORTHBOUND				
A801	54	25'-7"	Bt.	A801
A802	8	24'-6"	Bt.	A802
A803	8	24'-6"	Bt.	A803
B501	38	28'-11"	Str.	B501
B502	2	26'-11"	Str.	B502
B503	1	2'-0"	Str.	B503
B504	3	2'-0"	Str.	B504
58 - 1" x 1'-G dowels				



PLAN NORTHBOUND
BUT-63-0043



SECTION C-C



SECTION B-B

SHAW, LENZ & ASSOCIATES
ENGINEERS
CINCINNATI OHIO

APPROACH SLABS
BRIDGE NO. BUT 63-0041&0043
S.R. 63 RELOCATED
UNDER S.R. 4
BUTLER CO. STA. 21+01.27
STA. 21+85.90

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.R.B.	R.L.L.	R.L.L.	R.J.L.	R.J.L.	7-25-62	