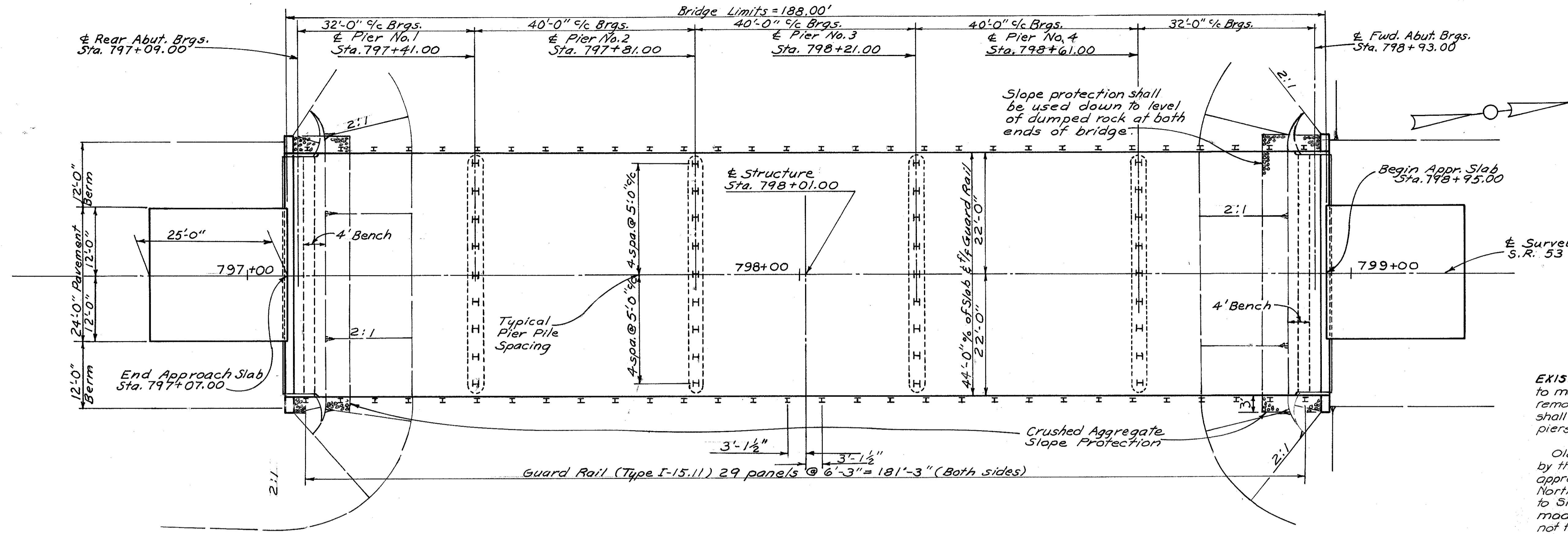


SAN-53-(13.34-14.18)
OTT-53-(0.00-2.41)

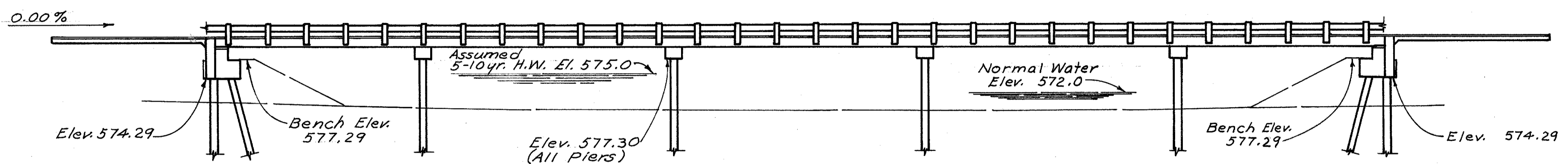


GENERAL PLAN
Note: Spacing of abutment piles is shown on sheet 145.

EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. The abutments of the existing structure shall be cut off in a straight line at Elev. 572.00. The piers shall be removed to Elev. 565.00.

Old Plans for the Muddy Creek structure replaced by the existing structure show substructures located approximately in the area of the North pier and North abutment of the proposed structure. (Refer to Site Plan for Drawing). A diligent attempt was made to locate these substructures but they were not found.

If, in the construction of the proposed structure, any substructures of prior bridges are encountered, the cost of removing these substructures shall be included in the lump sum bid for Item S-24, "Removal of Existing Structure."



ELEVATION

GENERAL NOTES

28 tons per pile using a 15000 ft. lb. or greater hammer
 *For the pier piles
 45 tons per pile using an 11000 ft. lb. hammer
 40 tons per pile using a 15000 ft. lb. or greater hammer.
 *A hammer with a rating of not less than 11,000 ft. lb. per blow shall be used.
 If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 28 tons per pile for the abutment piles and 38 tons per pile for the pier piles.

REFERENCE shall be made to Standard Drawings CS-1-54 revised 7-16-56 and P-1-54 revised 2-2-59.
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.

EXCAVATION QUANTITY includes the removal of fill material between the top of the earth bench and the bottom of the abutment footings.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:
 For the abutment piles
 36 tons per pile using a 7000 ft. lb. hammer
 28 tons per pile using an 11000 ft. lb. hammer

PIER PILE ENCASEMENT as shown on Std. Dwg. P-1-54 is not required. The painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

MACHINE FINISH: At the Contractor's option, the concrete bridge deck may be finished by the use of a finishing machine.

(*See Proposal Note.)

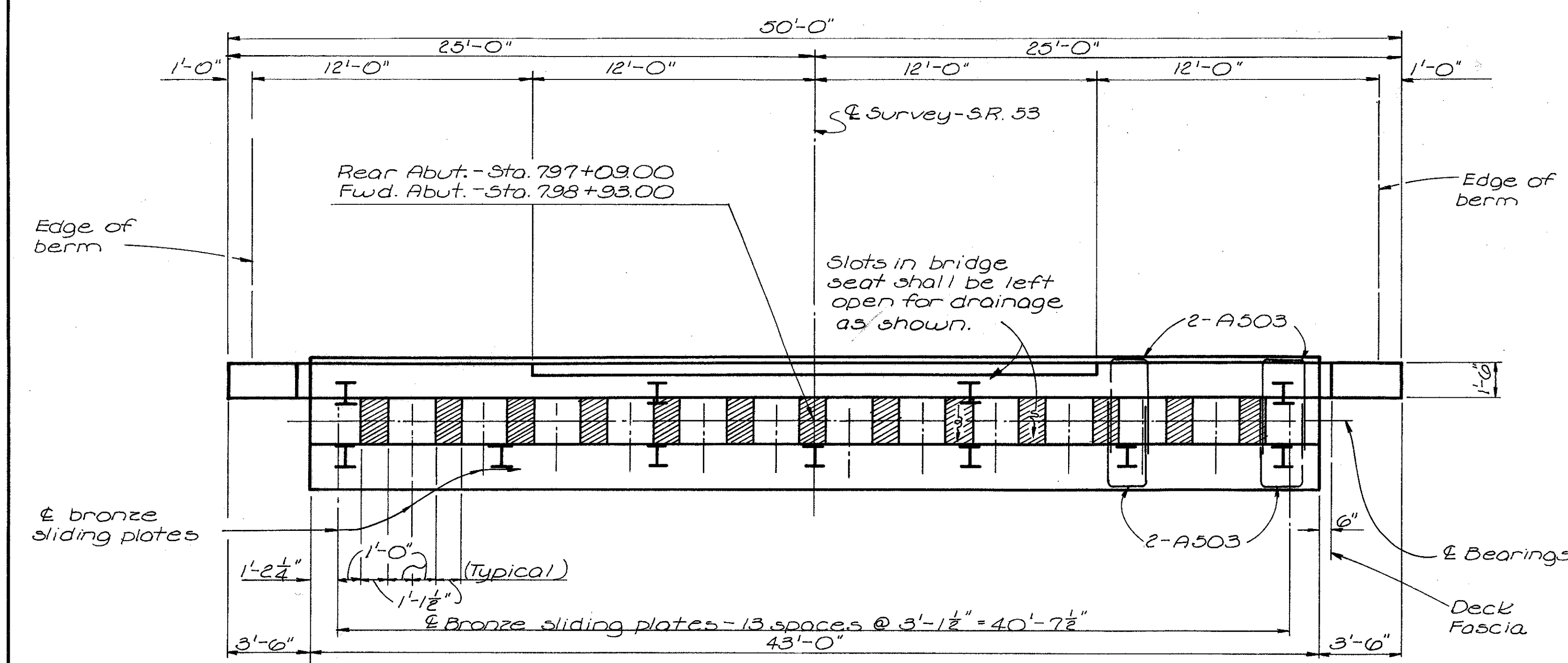
ESTIMATED QUANTITIES							
Item	Total	Unit	Description	Super.	Abut.	Piers	Gen'l. As-Built
E-2	83	Cu. yds.	Unclassified excavation		83		
S-1	445	Cu. yds.	Class "C" concrete, superstructure & pier caps	413		32	
S-1	88	Cu. yds.	Class "E" concrete, abutments		88		
S-4	111,252	Lbs.	Reinforcing steel	97,122	6,690	7,440	CO. 13-142 14,58
S-9	7,600	Lbs.	Structural steel expansion joints including all painting	7,600			
S-9	240	Lbs.	1/4" rolled phosphor bronze bearing plates	240			CO. 13-136 276
S-9	93	Sq. ft.	1/4" preformed expansion joint filler	93			
S-14	376	Lin. ft.	Railing (Type I-15.11 with galvanized steel posts and bolts)	376			
S-16	Lump	Sum	First test pile				Lump
S-18	2,610	Lin. ft.	Steel piles, 12BP53		990	1,620	CO. 7-413 2147
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	27	Cu. yds.	Porous backfill		27		
I-10	85	Sq. yds.	Crushed aggregate slope protection				85
I-10		Cu. yds.	Dumped rock fill				
*Special	445	Each	Water-reducing, set-retarding admixture	413		32	CO. 7-443 0

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GENERAL PLAN & ELEVATION, NOTES & QUANTITIES
 BRIDGE No. SAN-53-1748
 over MUDDY CREEK
 Sta. 797+07.00
 798+95.00
 SANDUSKY COUNTY

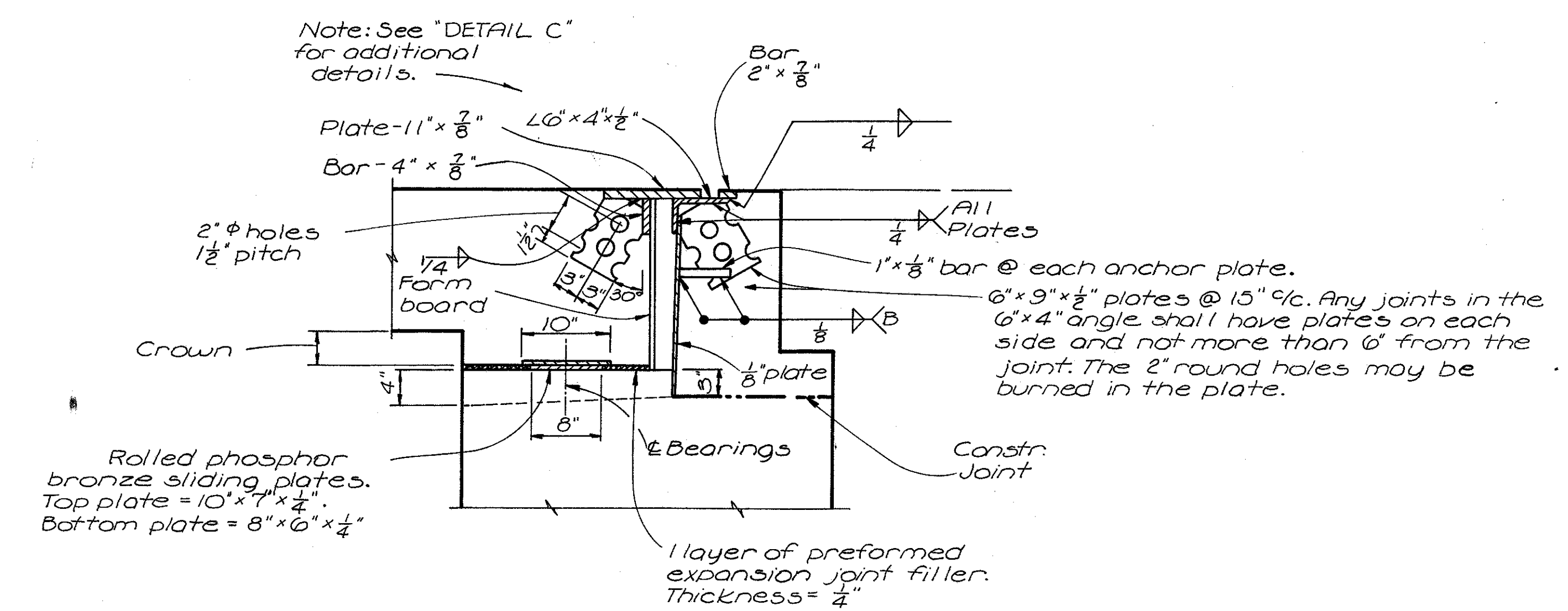
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	N.L.D.	MPB	BFG	9-27-61	

SAN-53-(13.34-14.18)
OTT-53-(0.00-2.41)



ABUTMENT PLAN

Embankment Procedure: The embankment shall be placed and compacted to the level of the earth bench after which excavation shall be made for the footing and the piles driven.

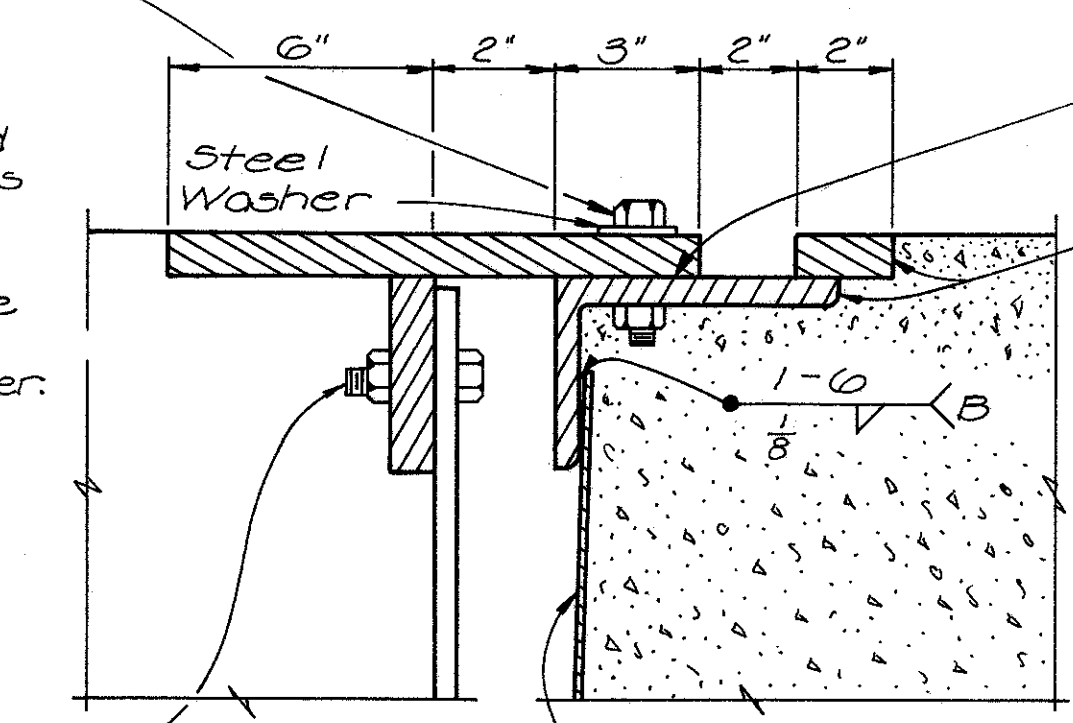


END FINISH DETAILS

Abutment bearing plates are shown

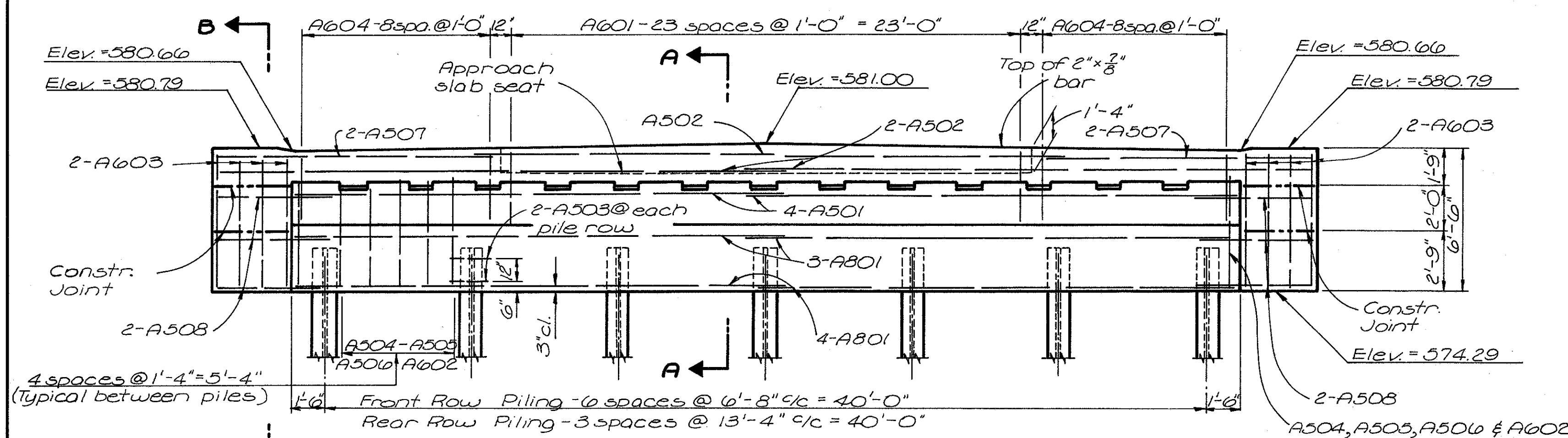
Bolts ($\frac{5}{8}$ " x 2") @ 2'-0" c/c with nuts welded to under side of angle. Remove the bolts within 2 hours after back-wall concrete is placed and fill the holes with bituminous material. The bolts shall be centered in $\frac{1}{16}$ " round holes in the plate and angle. Flake graphite shall be applied between the plate and washer. Turn bolt tight and release one-half turn.

This contact surface shall not be painted but shall be lubricated with flake graphite prior to placing of backwall concrete.

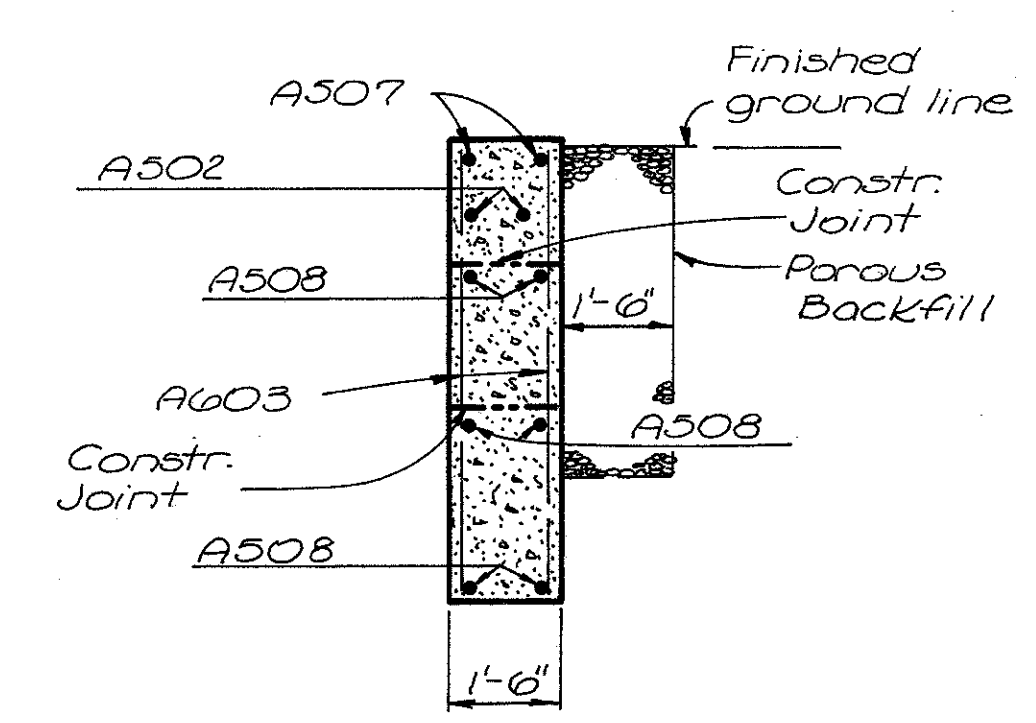


Bolts ($\frac{5}{8}$ " x 2 1/2") @ 1'-6" c/c, with nuts welded to bar, shall serve as a temporary support for the end finish during placing of the slab concrete. Remove bolts with forms.

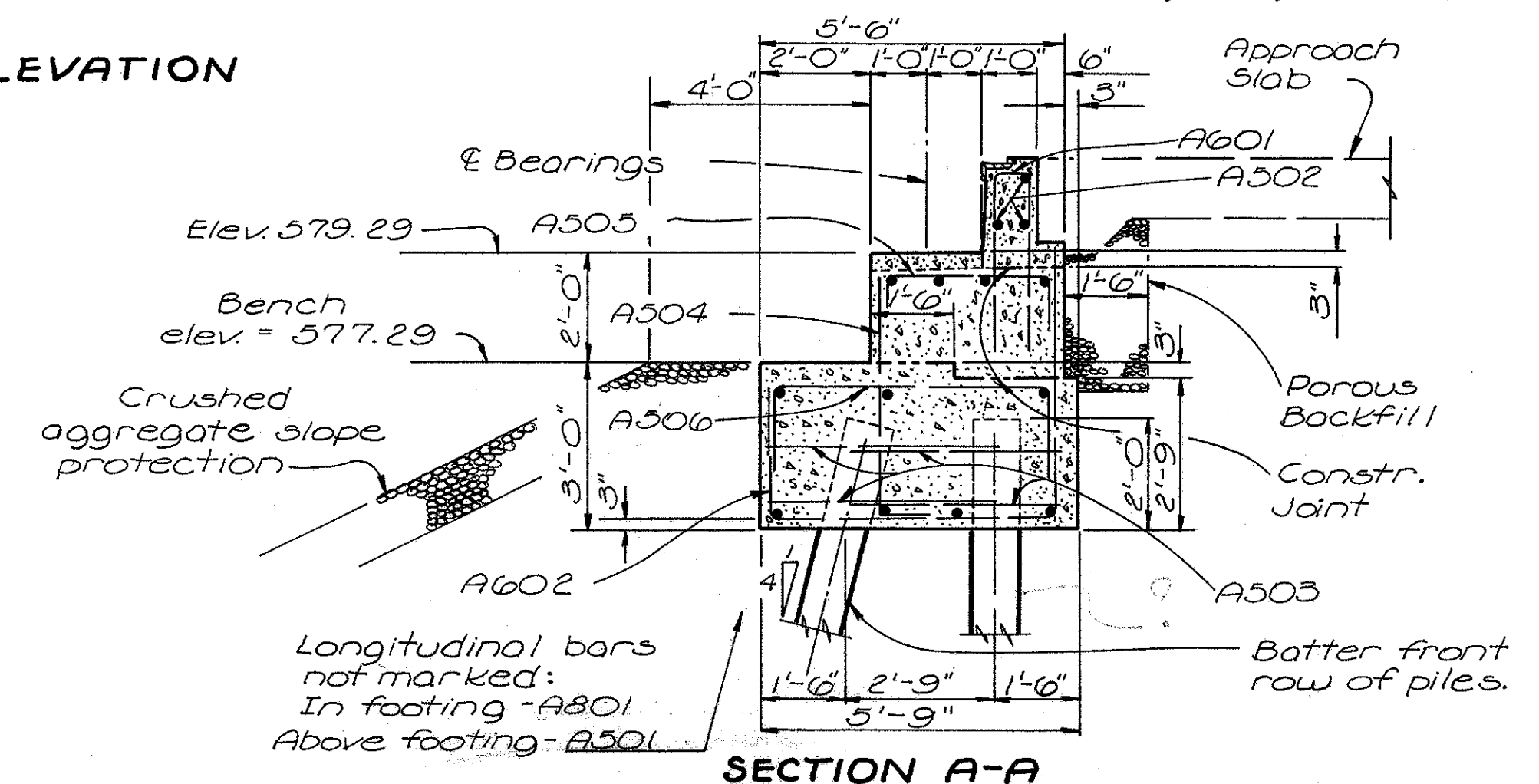
1/4" Backwall form plate shall be furnished in lengths not to exceed 6'-0". The joints in the plate shall be tightly butted and shall not be placed opposite drainage slots in the bridge seat. The plates shall be notched to fit around the anchor plates.



ABUTMENT ELEVATION



SECTION B-B



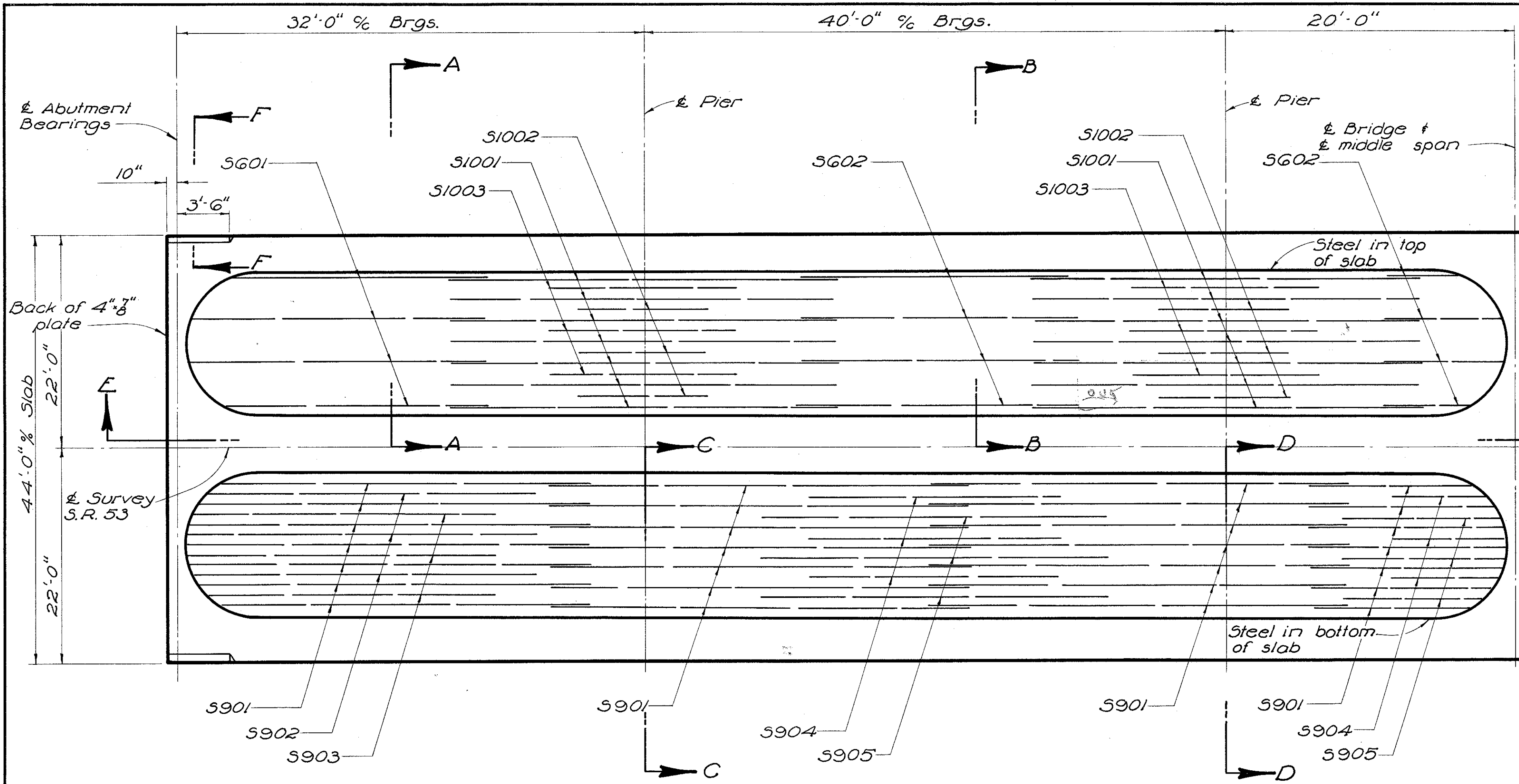
SECTION A-A

DETAIL C

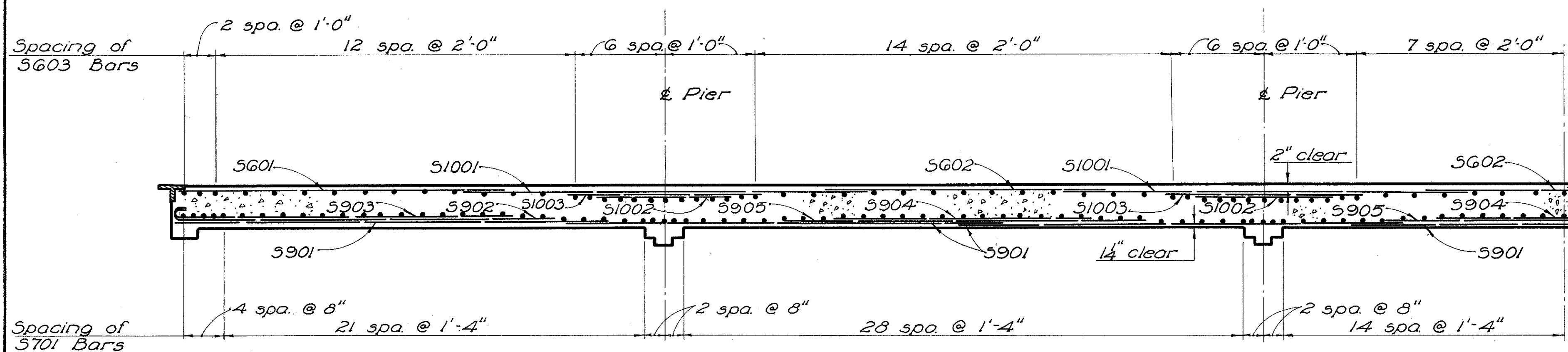
Note: Omit shop coat on all portions of end finish. Portions in contact with steel or concrete shall not be painted. All other surfaces shall be cleaned and given two shop coats in the field as well as the two field coats.

POROUS BACKFILL shall extend upward to the approach slab, or to the surface of the earth shoulders, and outward to the surface of the embankment slopes. The bottom of the porous backfill shall vary from elev. 576.7 at the centerline of abutment to elev. 575.7 at the wing extremities. Excavation, in excess of that required for construction of the footing, shall be considered as paid for in the unit price bid for porous backfill.

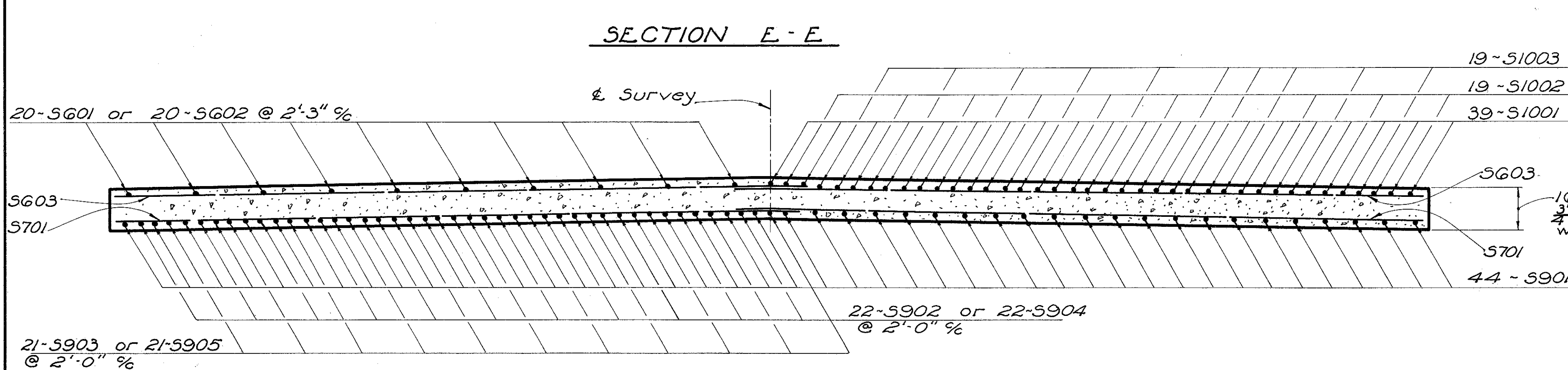
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
ABUTMENT DETAILS					
BRIDGE No SAN-53-1748 over MUDDY CREEK					
Sandusky County				Sta. 797+07.00 Sta. 798+93.00	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
E.J.S.	E.J.S.	MKH	MPB	BFG	9/27-26



HALF PLAN OF DECK
Longitudinal reinforcing steel shown



SECTION E-E



SECTIONS A-A & B-B **SECTIONS C-C & D-D**
(Number of bars given is for full width of slab)

REFERENCE shall be made to Standard Drawing C3-1-54 for all details not specifically shown on this sheet.

CONSTRUCTION JOINTS: One construction joint, as shown on Standard Drawing C3-1-54, may be placed on the transverse centerline of each interior span or 1'-0" ± off the transverse centerline if necessary to clear railing posts or reinforcing bars. One longitudinal construction joint will be permitted on the centerline of survey.

REINFORCING STEEL: All reinforcing bars shown are symmetrical about the centerline of the middle span.

FED. RD. DIVISION	STATE	PROJECT	150 174
2	OHIO		

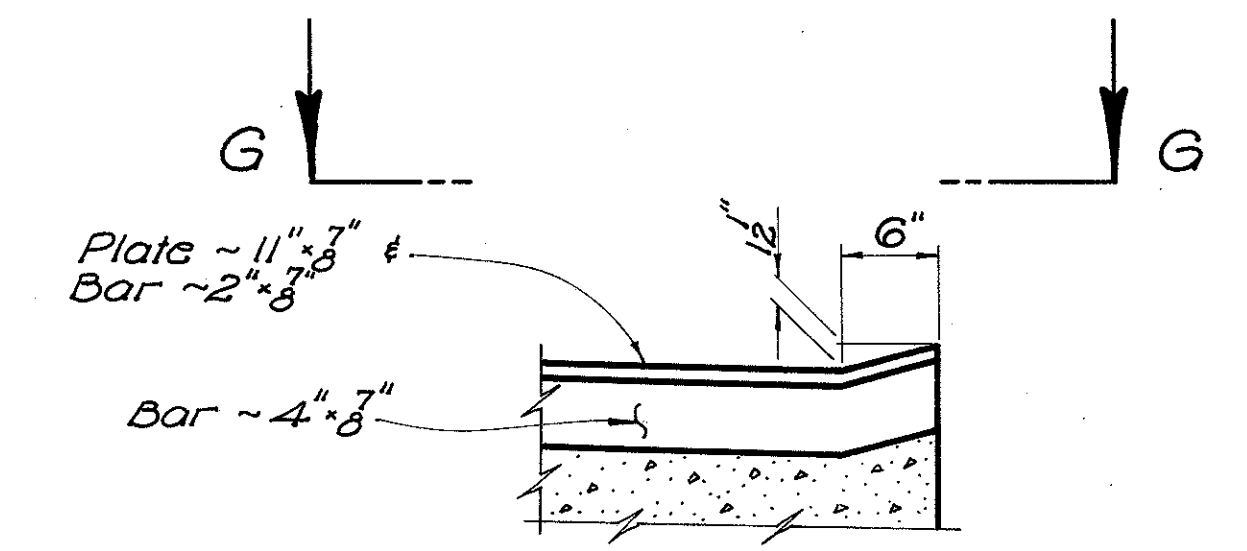
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OTT-53-(0.00-2.41)

REINFORCING STEEL LIST

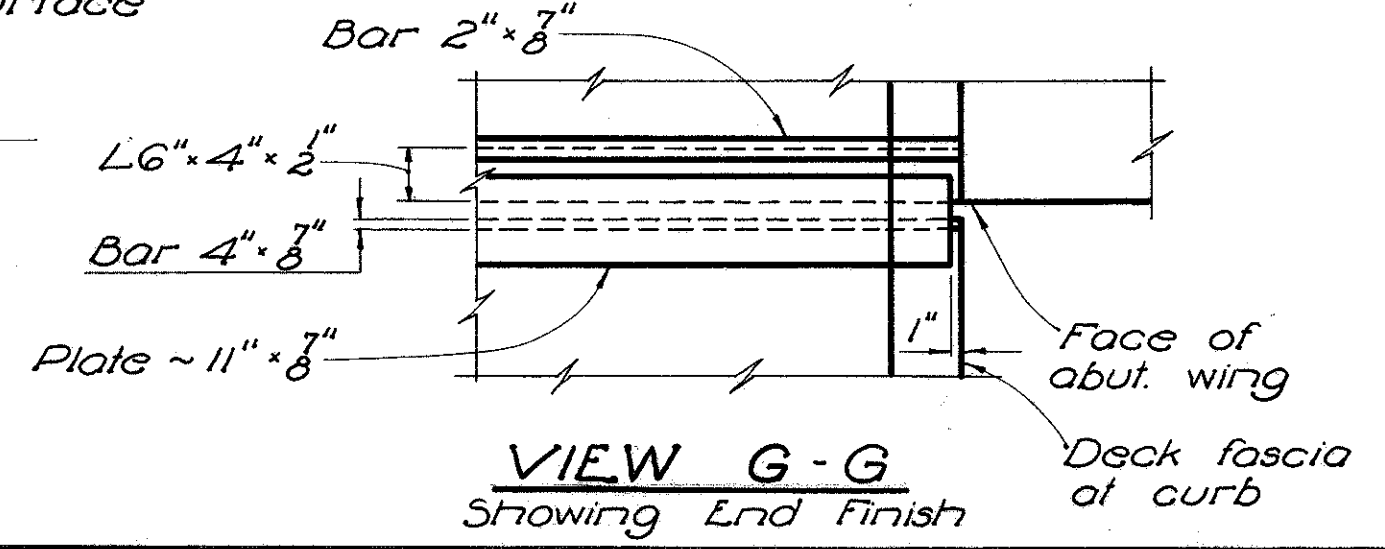
SUPERSTRUCTURE					BLENDING DIAGRAMS					PIERS				
MARK	NO.	LENGTH	WEIGHT	SHR						MARK	NO.	LENGTH	WEIGHT	SHR
S1001	156	26'-8"	17,901	S						P1001	16	43'-6"	2,995	S
S1002	76	9'-0"	2,943	S						P901	16	40'-6"	2,203	S
S1003	76	13'-0"	4,251	S						P501	8	40'-6"	338	S
S901	308	28'-11"	30,282	S						P502	136	9'-0"	1,277	B
S902	44	26'-5"	3,952	B						P503	16	6'-4"	106	B
S903	42	23'-7"	3,368	B						P401	144	5'-5"	521	B
S904	66	17'-2"	3,852	S						REPLACEMENT BARS RE1001 2 7'-2" - S RE901 3 6'-10" - S RE801 1 6'-6" - S RE701 1 6'-2" - S RE601 1 5'-11" - S RE501 1 5'-7" - S RE401 1 5'-5" - B				
S905	63	24'-0"	5,141	S										
S701	302	22'-11"	14,146	S										
S601	40	22'-6"	1,352	S										
S602	60	19'-8"	1,772	S										
S603	238	22'-10"	8,162	S										
ABUTMENTS														
A801	28	22'-6"	1,682	S										
A601	48	7'-2"	517	B										
A602	64	12'-3"	1,178	B										
A603	32	6'-1"	292	S										
A604	36	7'-4"	397	B										
A501	16	22'-2"	370	S										
A502	10	25'-8"	268	S										
A503	56	8'-6"	496	B										
A504	64	4'-9"	317	B										
A505	64	6'-1"	406	B										
A506	64	8'-0"	534	B										
A507	8	12'-6"	104	S										
A508	24	5'-2"	129	S										

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, A801 is a No. 8 size bar and S1001 is a No. 10 size.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-4.02 need not be furnished and replacement bars will not be required.



SECTION F-F



VIEW G-G
Showing End Finish

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
SUPERSTRUCTURE DETAILS REINFORCING STEEL LIST					
BRIDGE NO. SAN-53-174B OVER MUDDY CREEK					
Sandusky			Sta. 797 + 07.00		
County			Sta. 798 + 95.00		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
E.J.S.	E.J.S.	G.P.G.	MPB	BFG	7-27-61