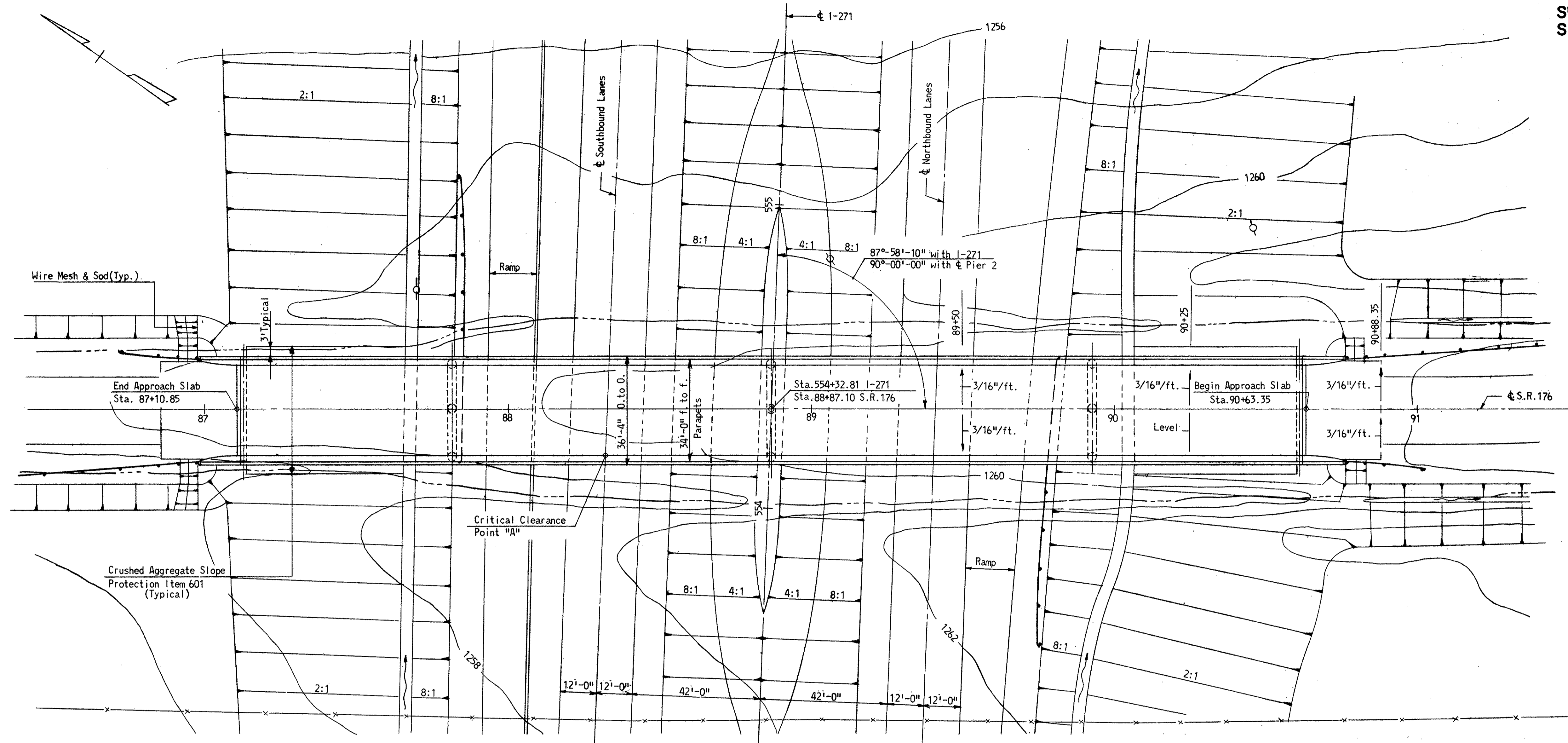
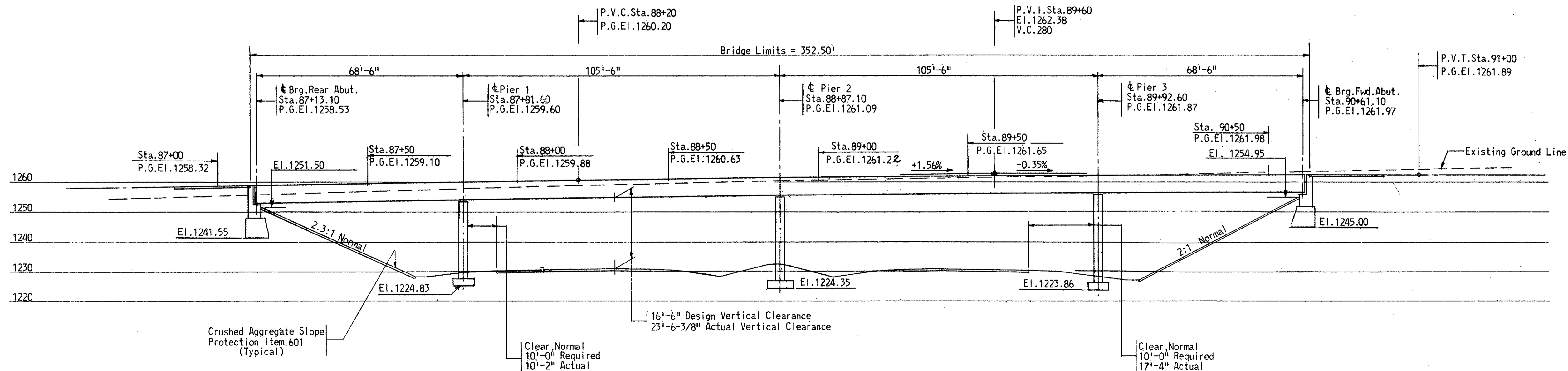


FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-271-6(15)229



PROPOSED STRUCTURE

TYPE: Continuous welded girders with reinforced concrete deck and substructure.
 SPANS: 68'-6"; 105'-6"; 105'-6"; 68'-6".
 ROADWAY: 30'-0" face to face of 2'-0" safety curbs.
 LOAD FREQUENCY: C.F. = 400(57).
 SKEW: 2°-06'-15.75"
 WEARING SURFACE: 1" Monolithic concrete.
 APPROACH SLABS: AS-1-54 (25' long).
 ALIGNMENT: Tangent.



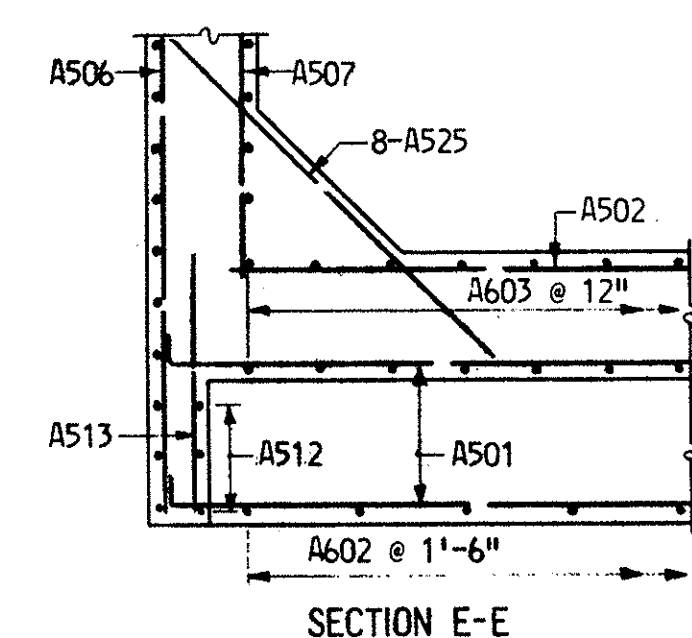
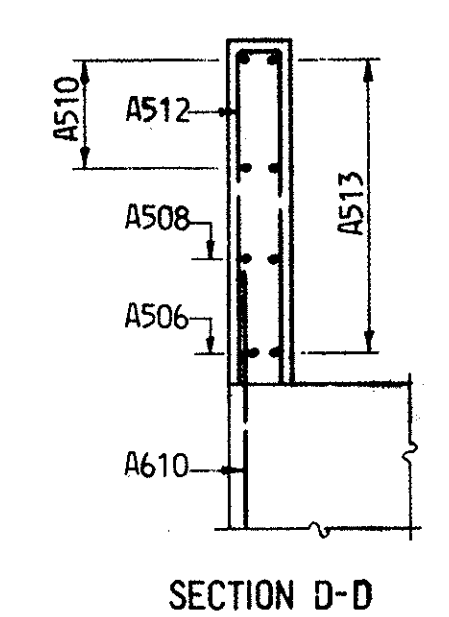
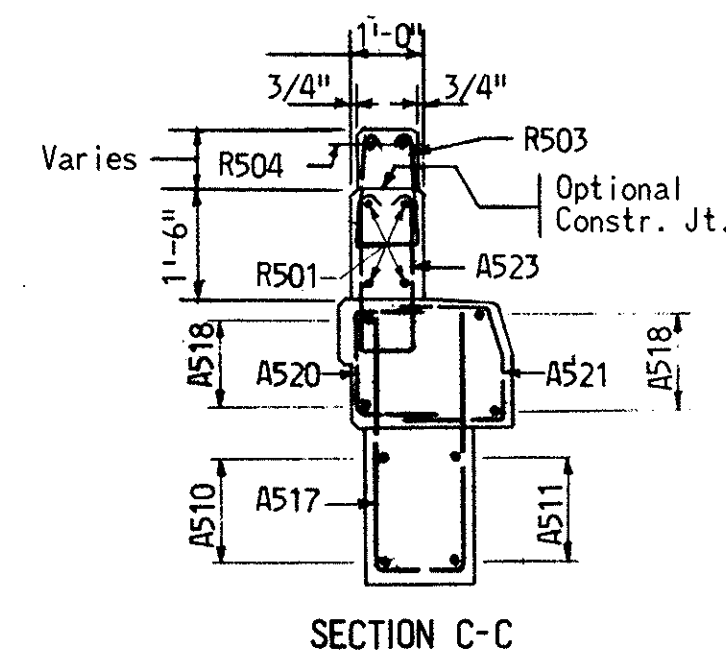
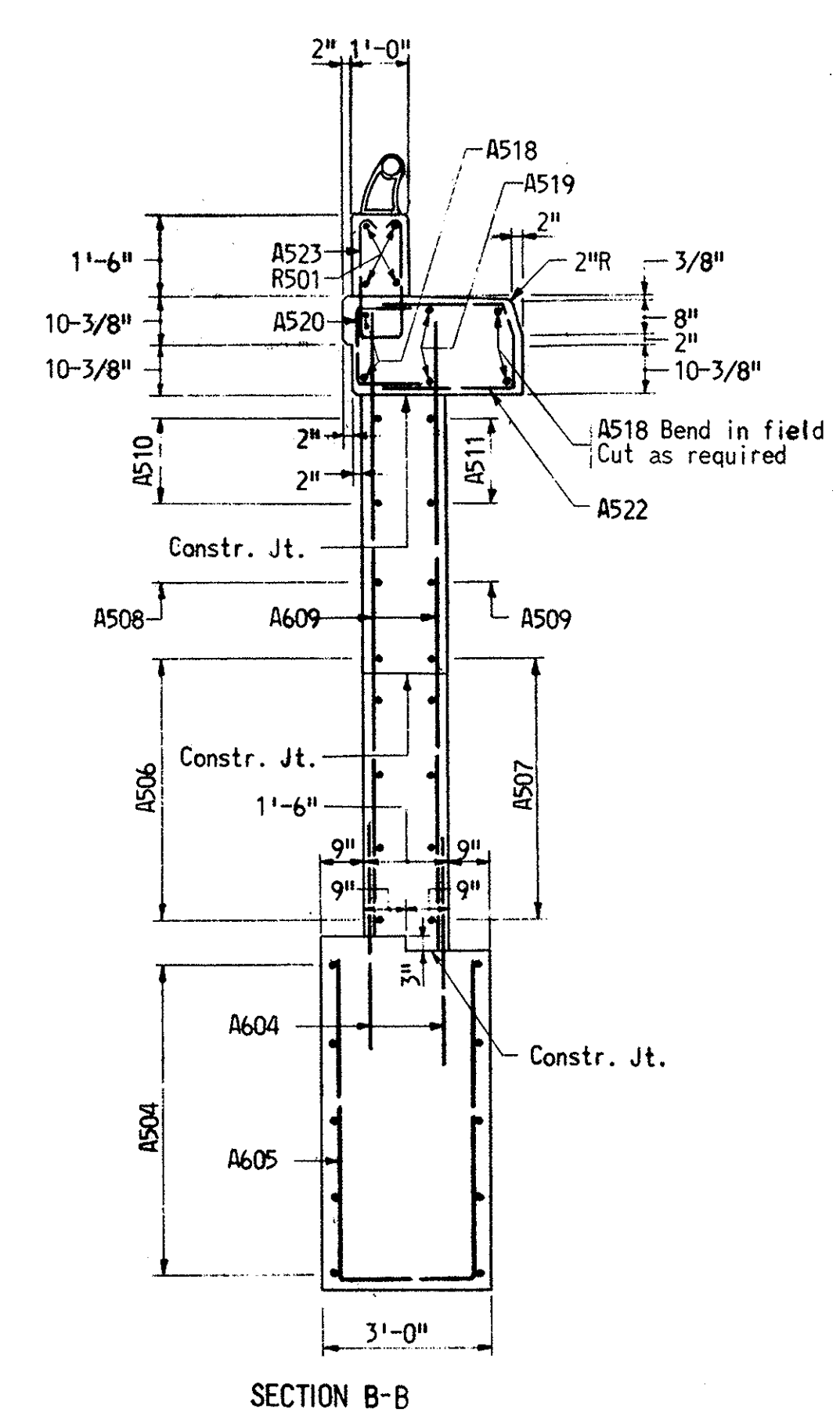
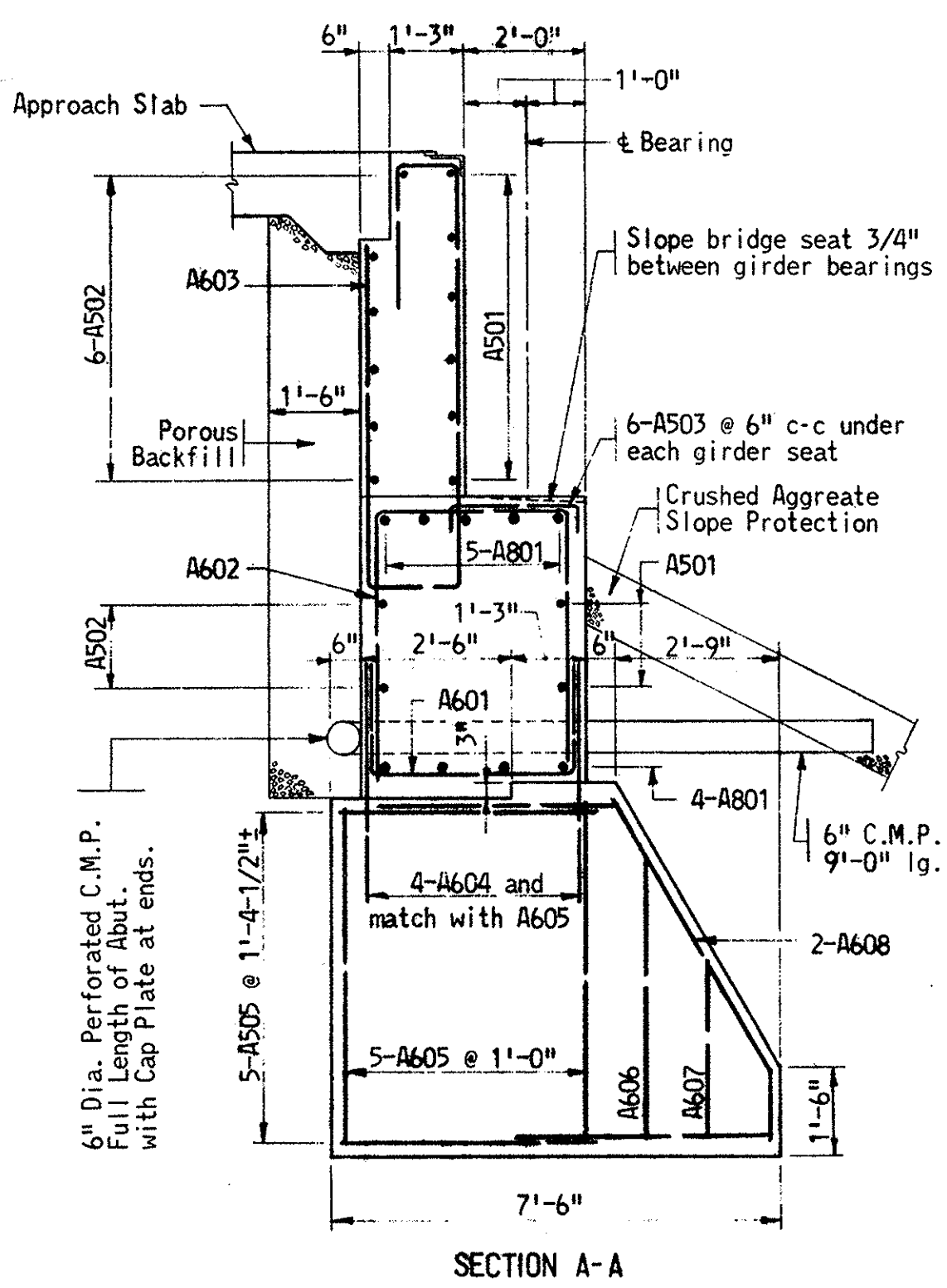
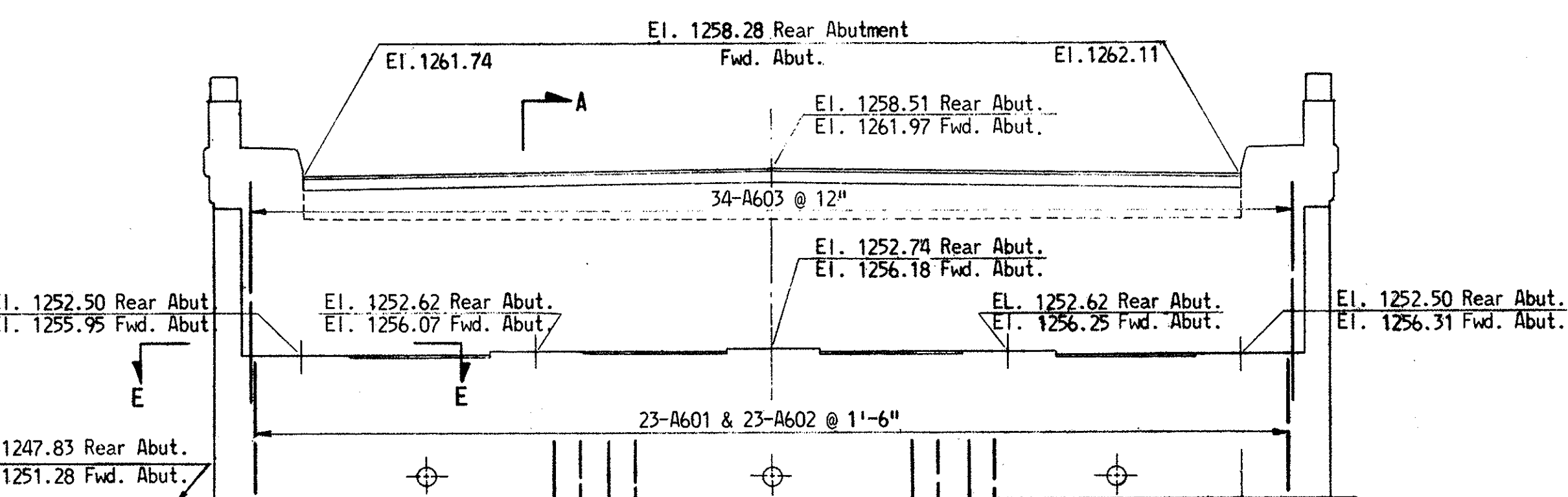
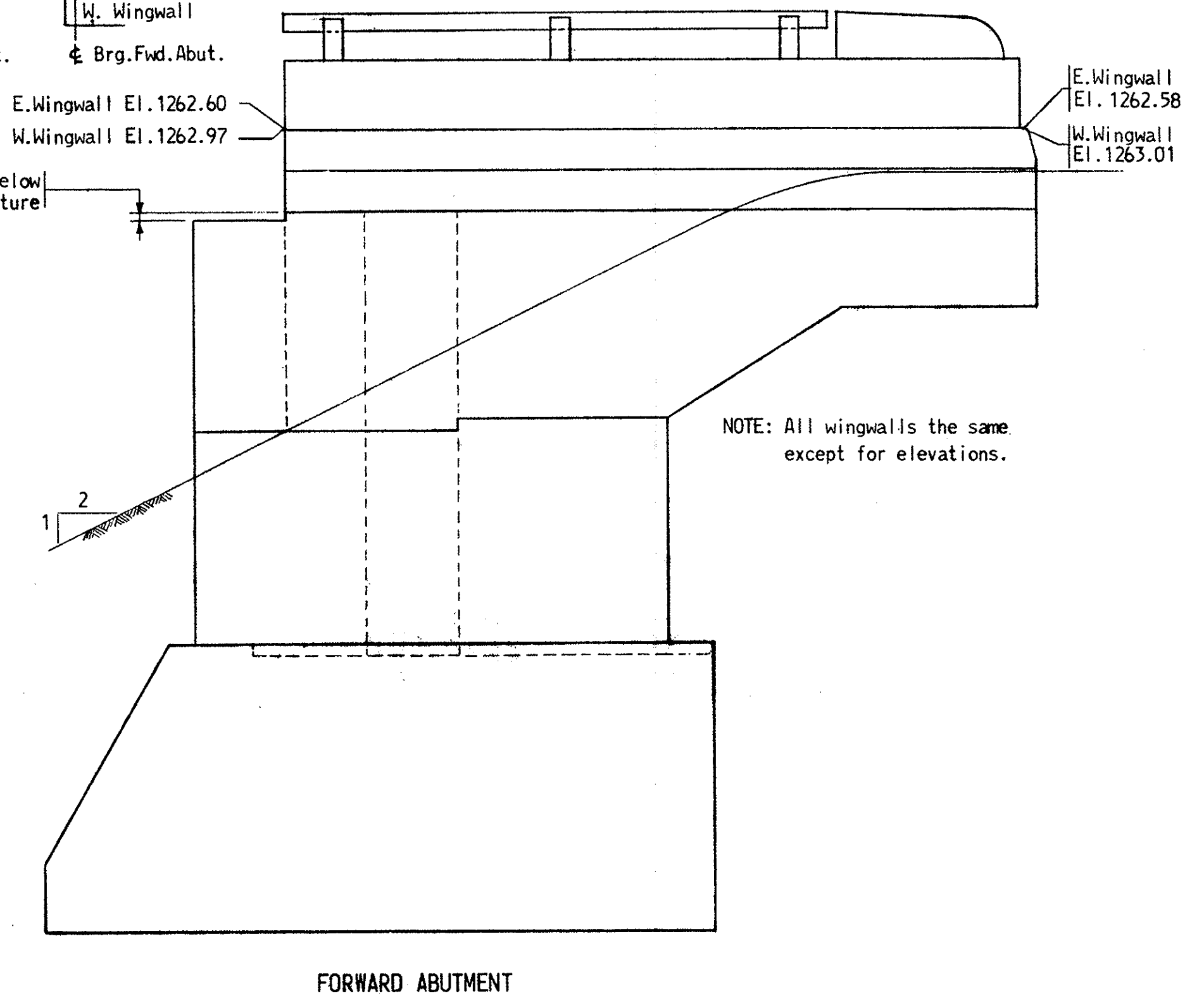
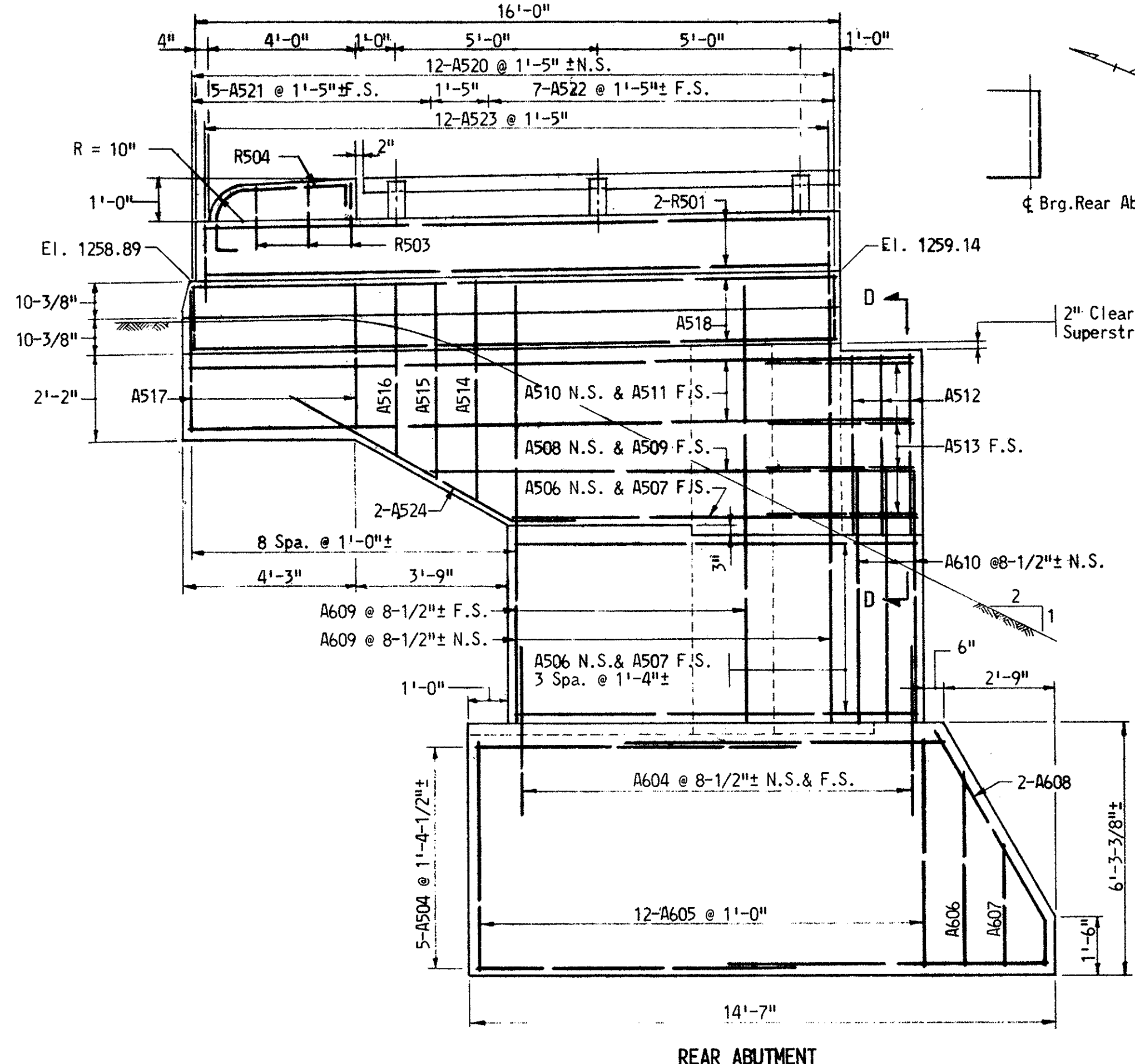
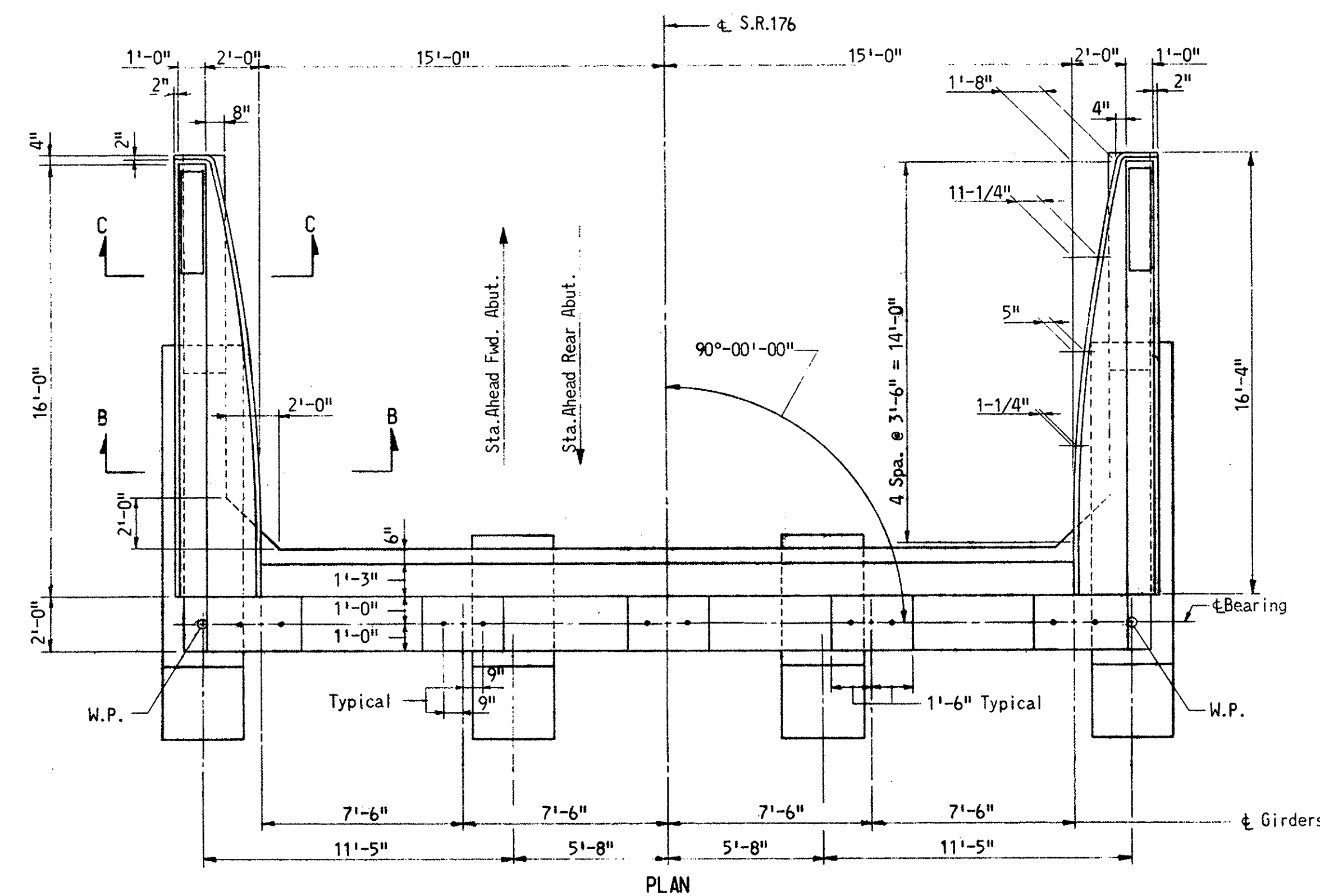
J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

SITE PLAN
BRIDGE NO. SUM-271-0276
INTERSTATE HIGHWAY *271 UNDER
STATE ROUTE NO. 176

SUMMIT CO. STA. 554+32.81

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
HENRY	AIR SURVEY CORP.	PAHL	WALTER	SHERMAN	MUDD

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-271-6(15)229



FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 5 Tons per Sq.Ft.

CLEARANCE of reinforcing steel from face of concrete shall be 3" in bottom of footing, 1-1/2" in parapet and safety curb and 2" elsewhere.

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders and outward to the wingwalls. Excavation therefore, in excess of that required for the construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.

PROCEDURE: After the pedestals have been constructed the earth fill shall be placed and compacted up to the height of the earth bench or finished spill-thru slope and to the level of the subgrade after which excavation shall be made for the crossbeam.

Abutment backwalls above the bridge seat shall not be placed until all steel is erected. Abutment backwalls shall be completed prior to placing bridge deck slab.

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.

CONCRETE shall be Class E.

LEGEND:
N.S. - Near Side
F.S. - Far Side

For details of roadway end finish see Standard Drawing SD-1-65

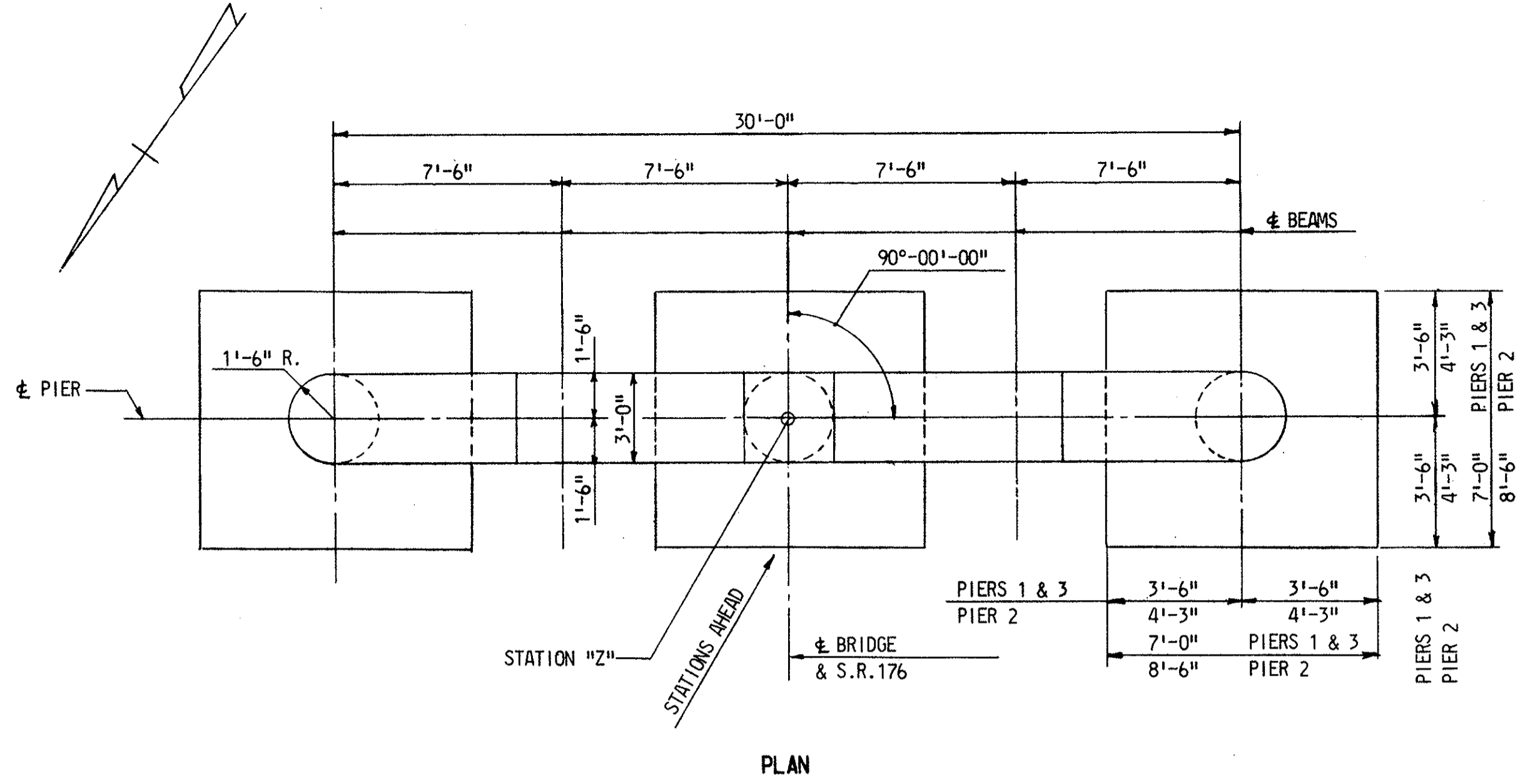
J.E. GREINER COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

ABUTMENT DETAILS
BRIDGE NO. SUM-271-0276
I.R.#271 UNDER S.R. 176

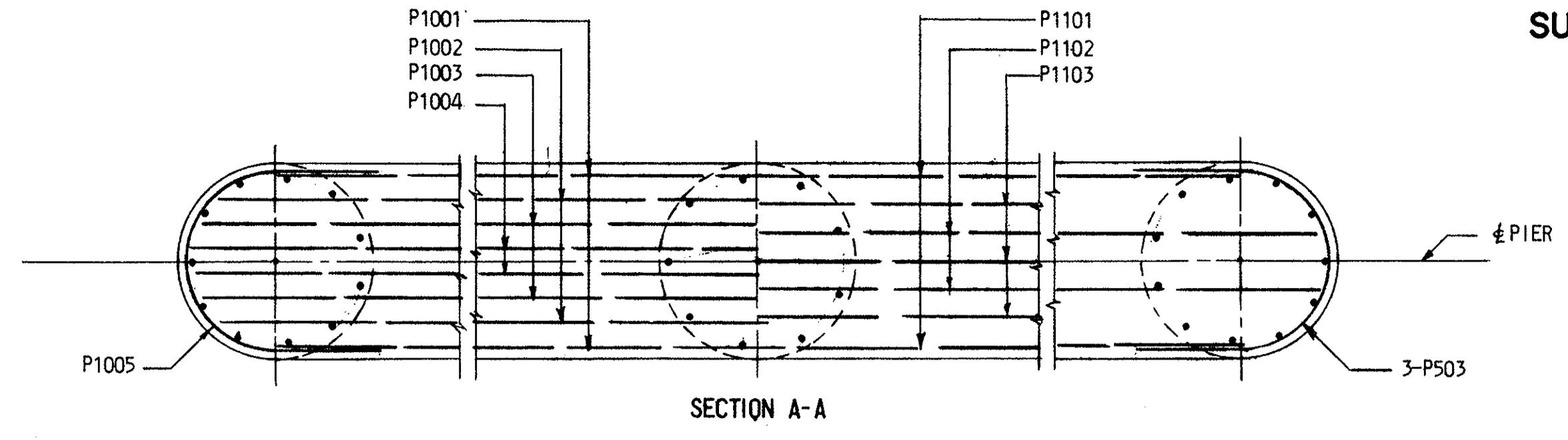
SUMMIT CO. STA. 554+32.81

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HJANG	GREIMAN	GREIMAN	SHERMAN	MUDD	4-15-66	

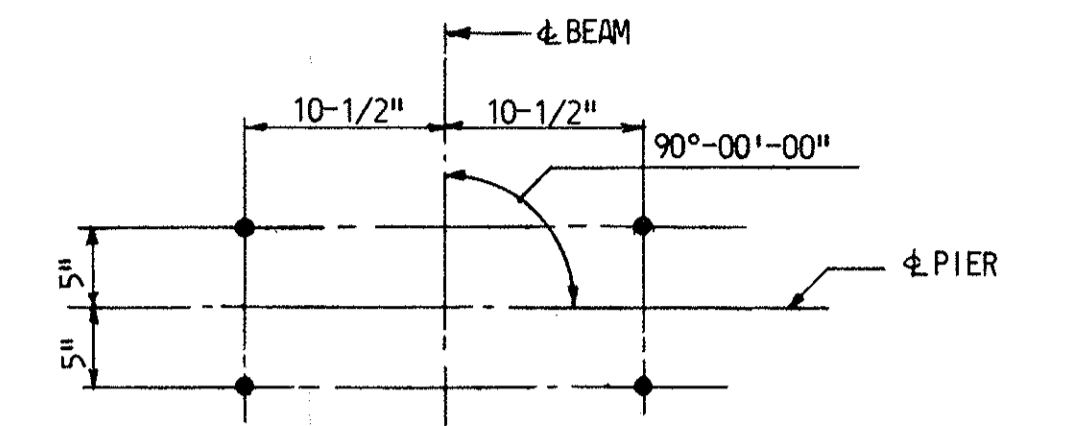
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-271-6(15)229



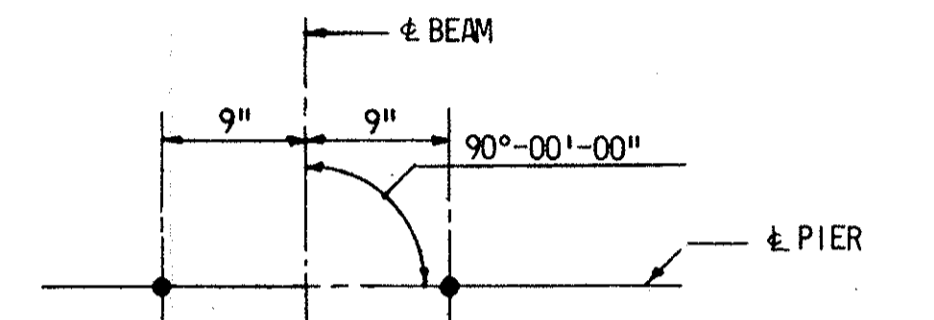
PLAN



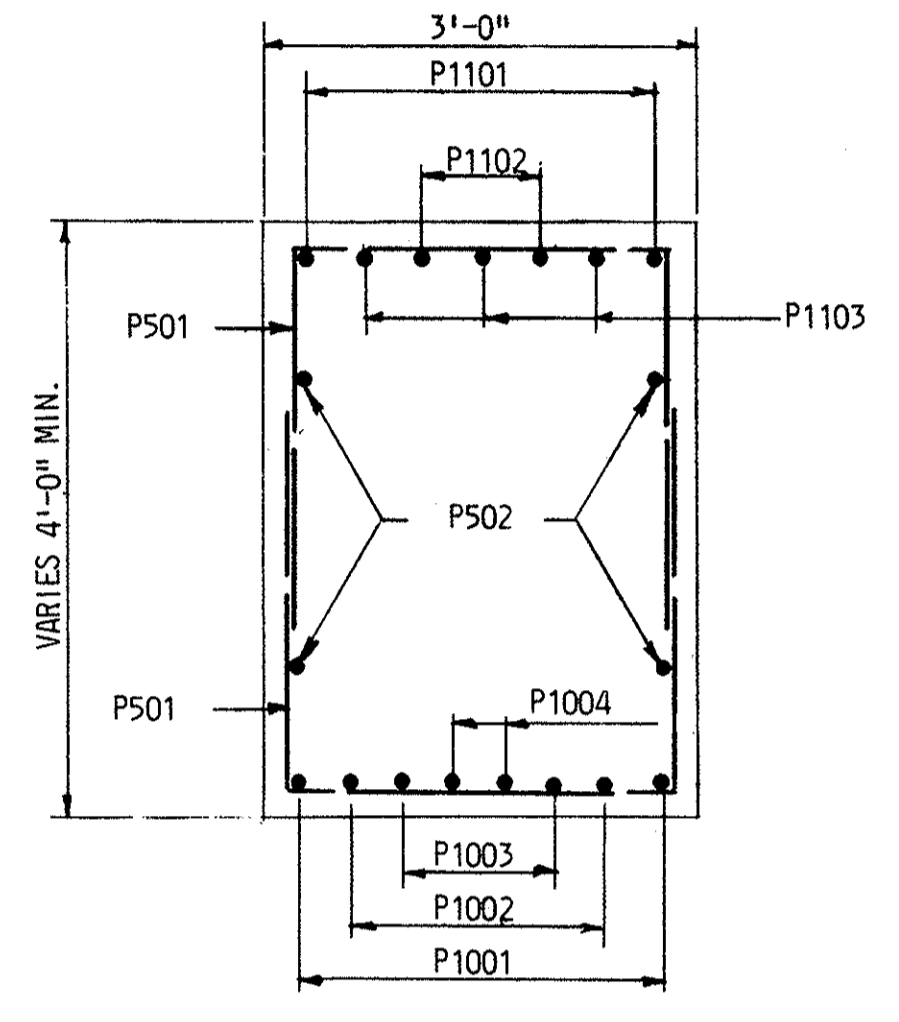
SECTION A-A



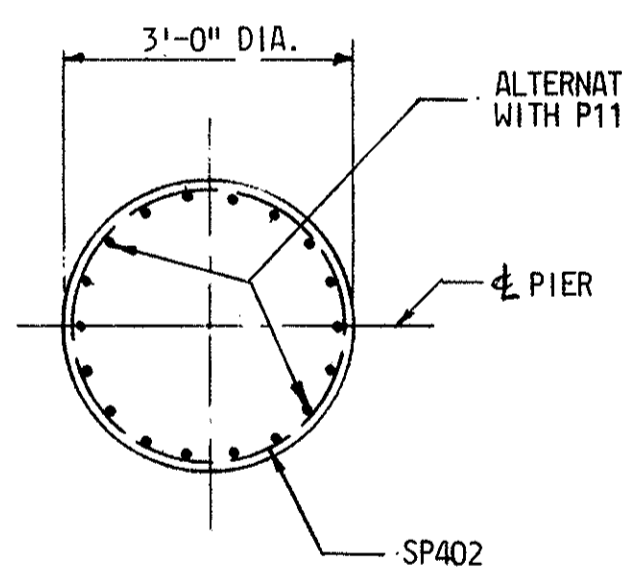
LOCATION OF ANCHOR RODS
FIXED BEARING F-300
PIER 2



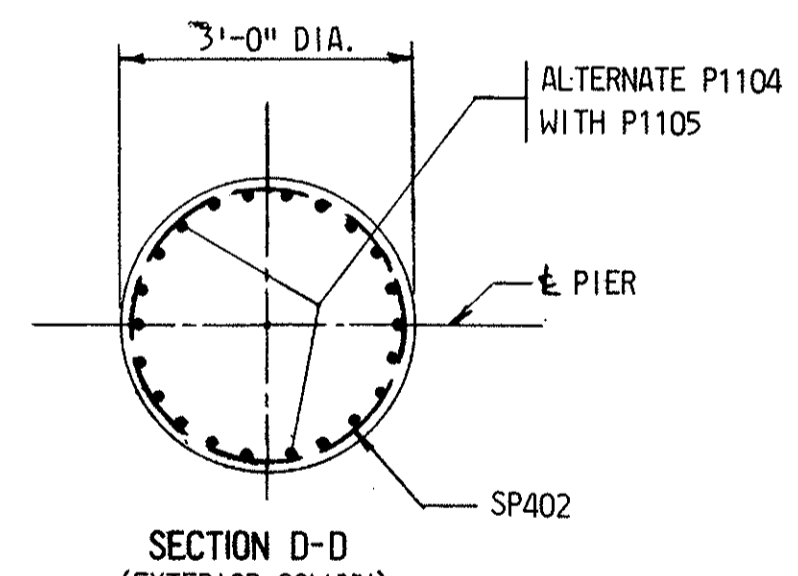
LOCATION OF ANCHOR RODS
EXPANSION BEARING E-250
PIERS 1 & 3



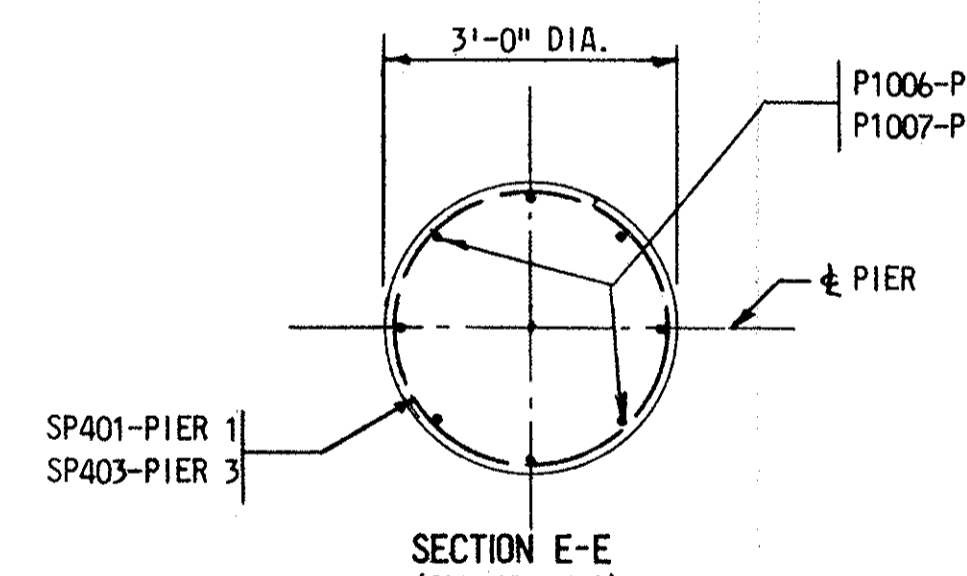
SECTION B-B



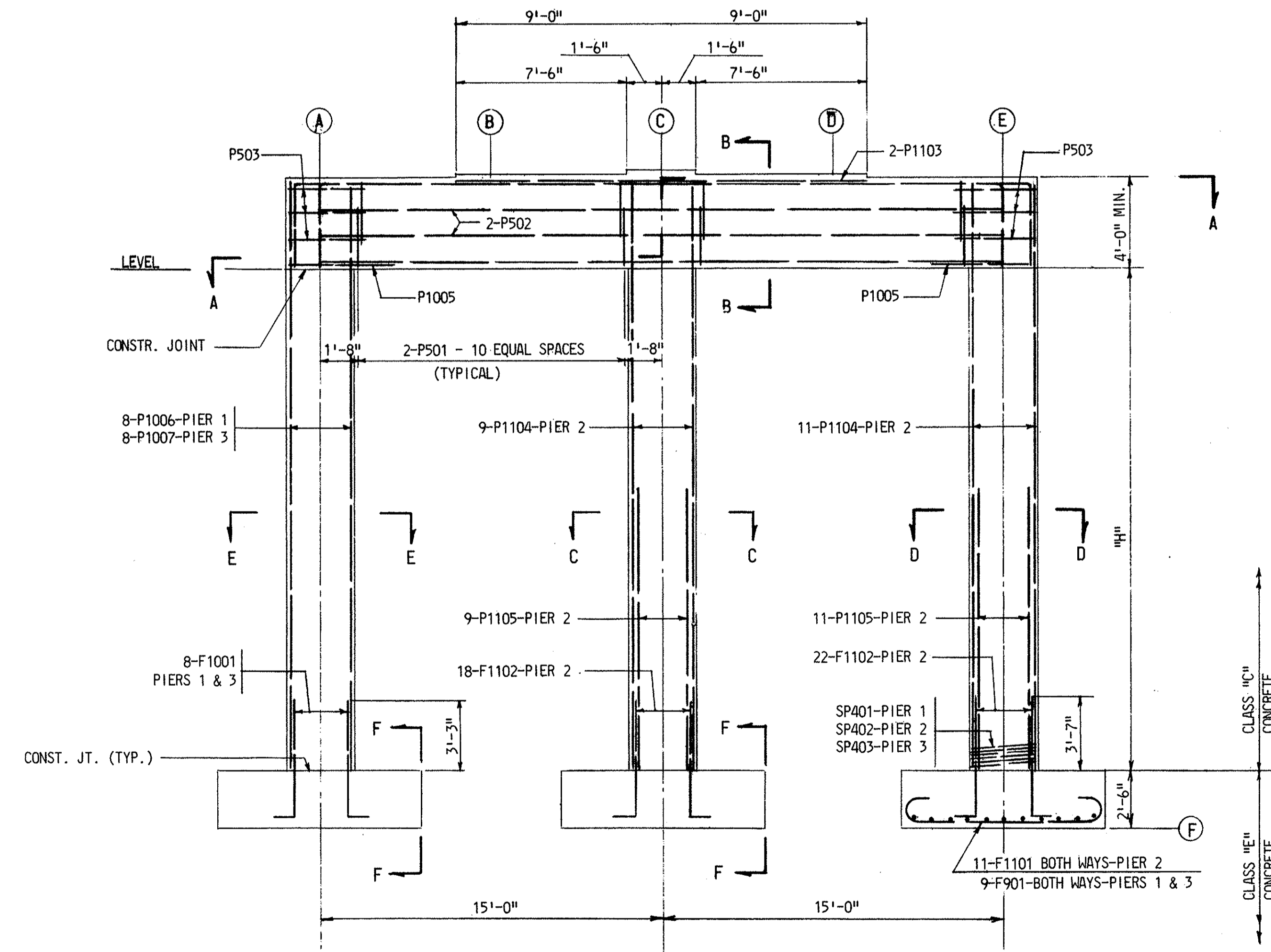
SECTION C-C
(INTERIOR COLUMN)



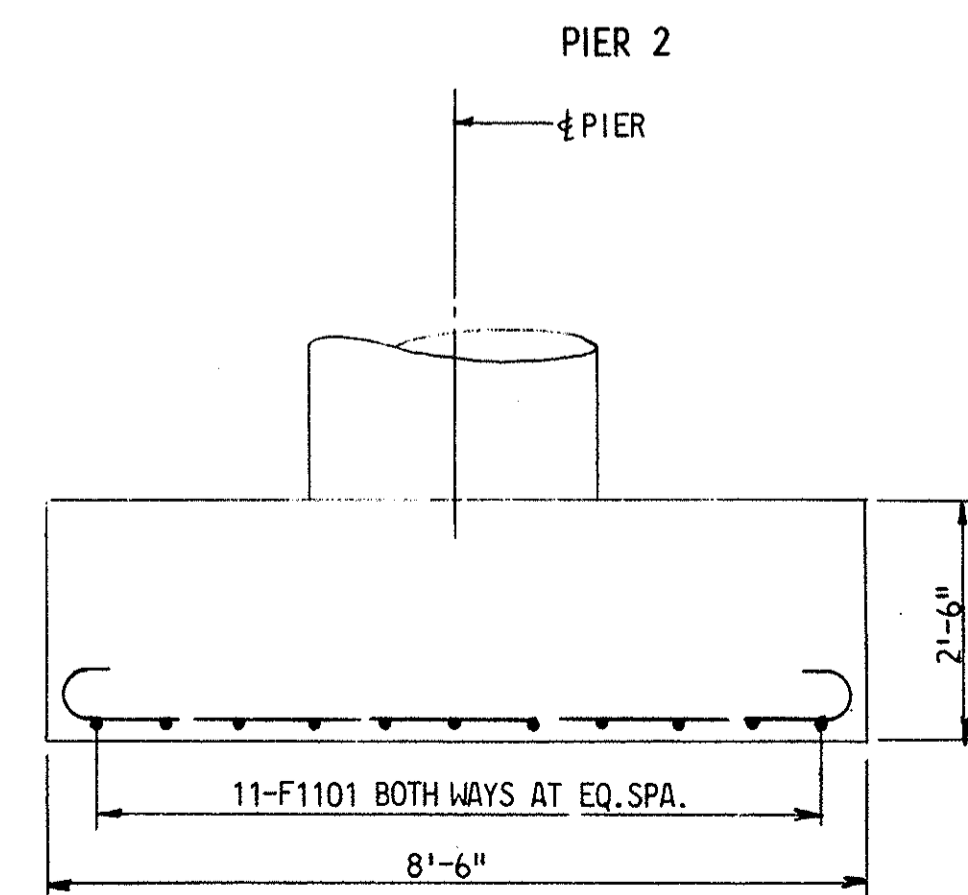
SECTION D-D
(EXTERIOR COLUMN)



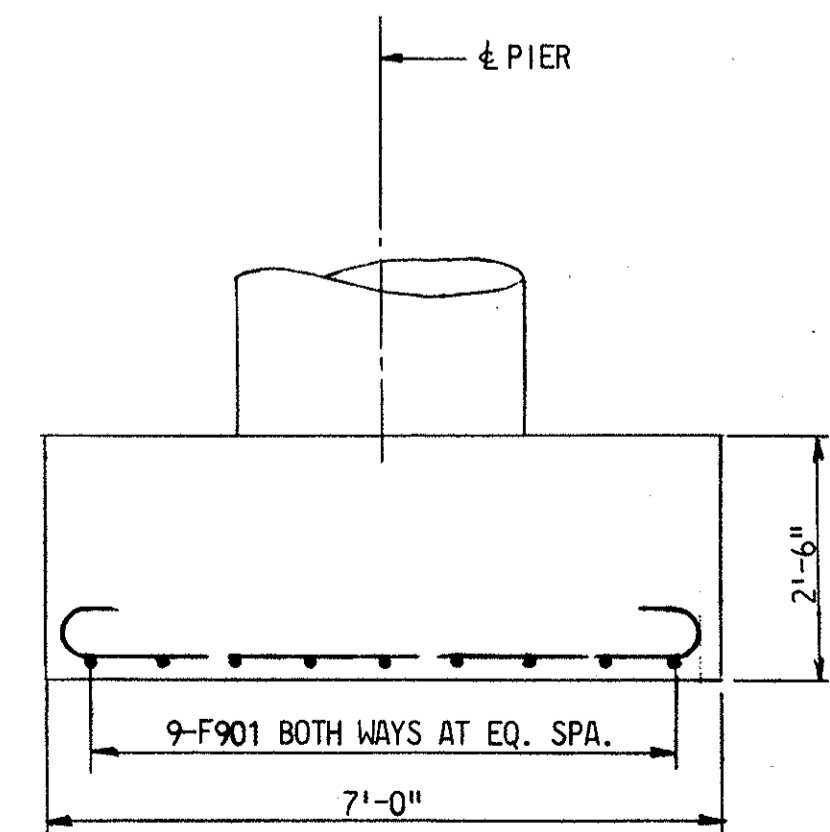
SECTION E-E
(ALL COLUMNS)
PIERS 1 & 3



ELEVATION



SECTION F-F
PIER 2



SECTION F-F
PIERS 1 & 3

PIER NOTES

FOUNDATION BEARING PRESSURE: Pier Footings are designed for a maximum bearing pressure of 8 Tons per Sq.Ft.
CLEARANCE of reinforcing steel from face of concrete shall be 3" in bottom of footings and 2" elsewhere.
For details of Fixed and Sliding Bearings see Std.Dwg. No.FSB-1-62.
CONCRETE shall be Class E in Footings and Class C above Footings.
BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.

	STATION Z	ELEVATIONS						DIMENSION H
		A	B	C	D	E	F	
PIER 1	87+81.60	1253.44	1253.55	1253.67	1253.55	1253.44	1224.83	22'-1-5/16"
PIER 2	88+87.10	1254.50	1254.62	1254.73	1254.62	1254.50	1224.35	23'-7-13/16"
PIER 3	89+92.60	1255.71	1255.83	1255.95	1255.89	1255.84	1223.86	25'-4-3/16"

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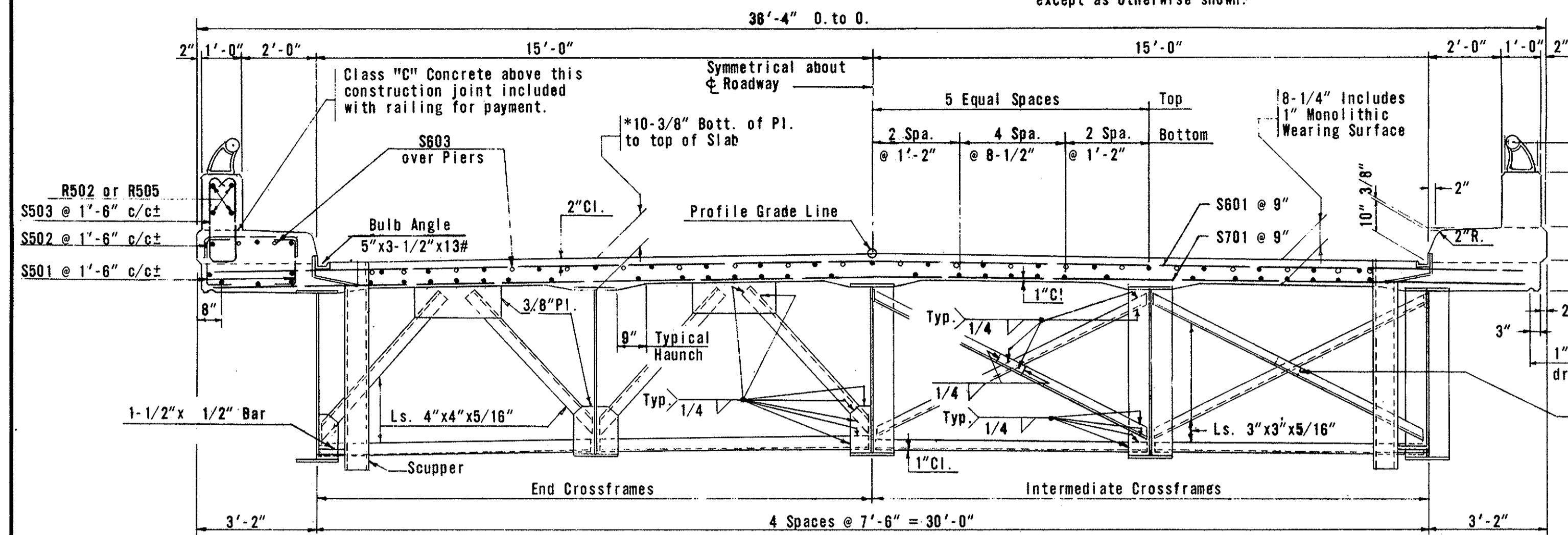
PIER DETAILS
BRIDGE NO. SUM-271-0276
I.R.#271 UNDER S.R. 176

SUMMIT CO. STA. 554+32.81

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RYNA-RZEWSKI	WALTER	WALTER	PAHL	MUDD	4-15-66	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-271-6(15)229

All longitudinal reinforcing S602 except as otherwise shown.



A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

TRANSVERSE SECTION

*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.19 of the Construction and Material Specifications.

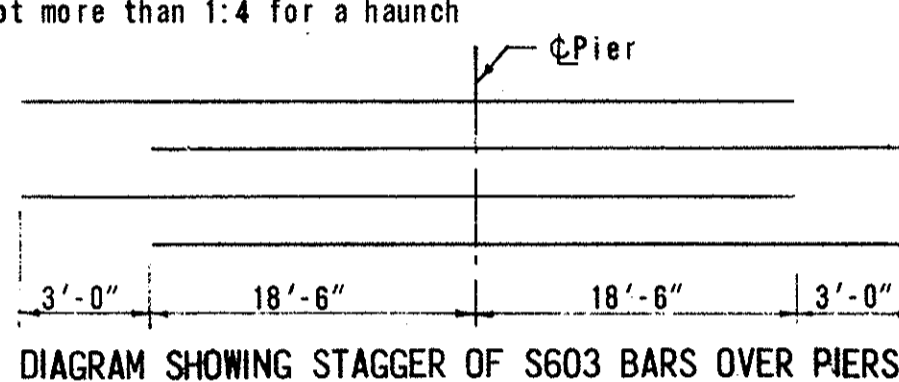
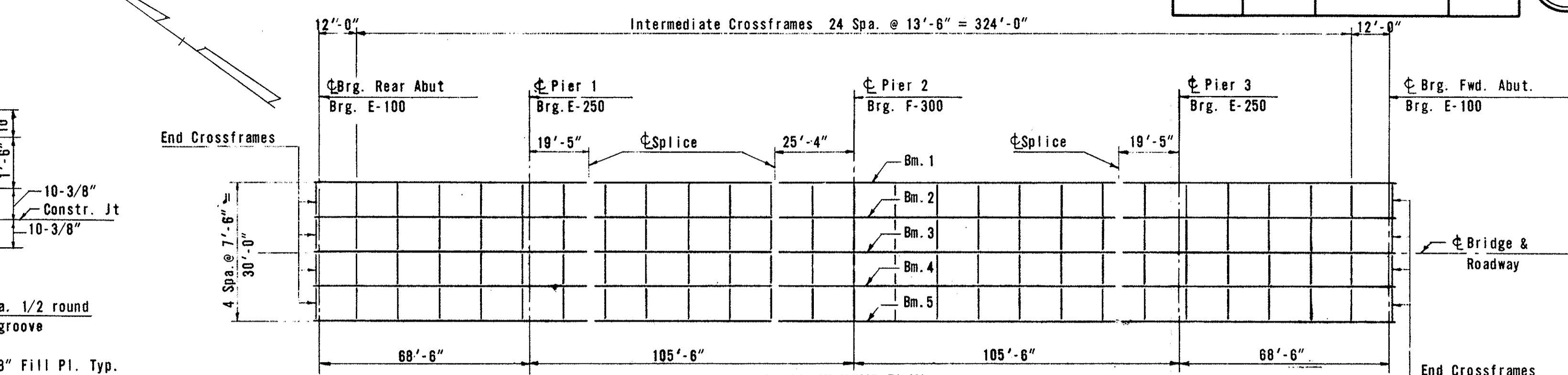
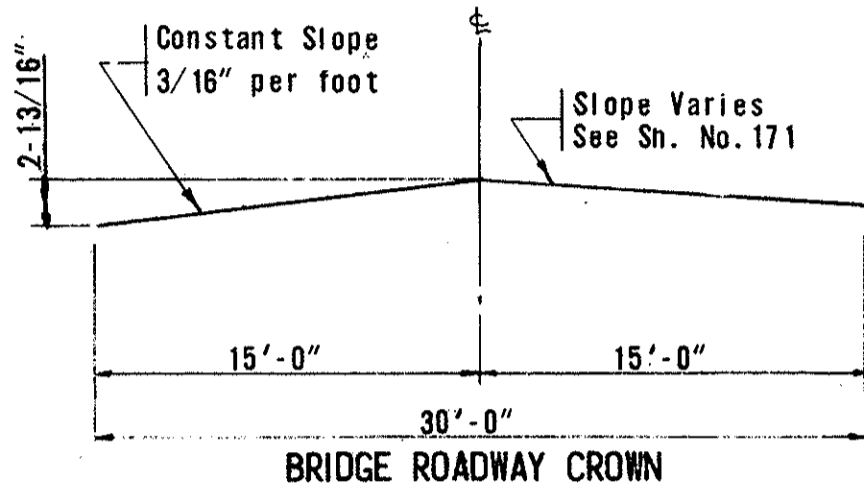


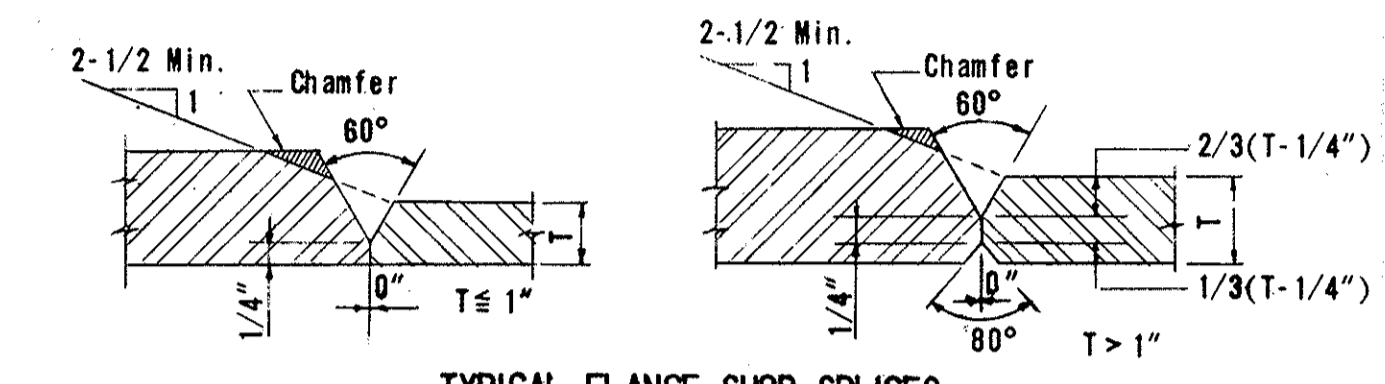
DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



STEEL FRAMING PLAN

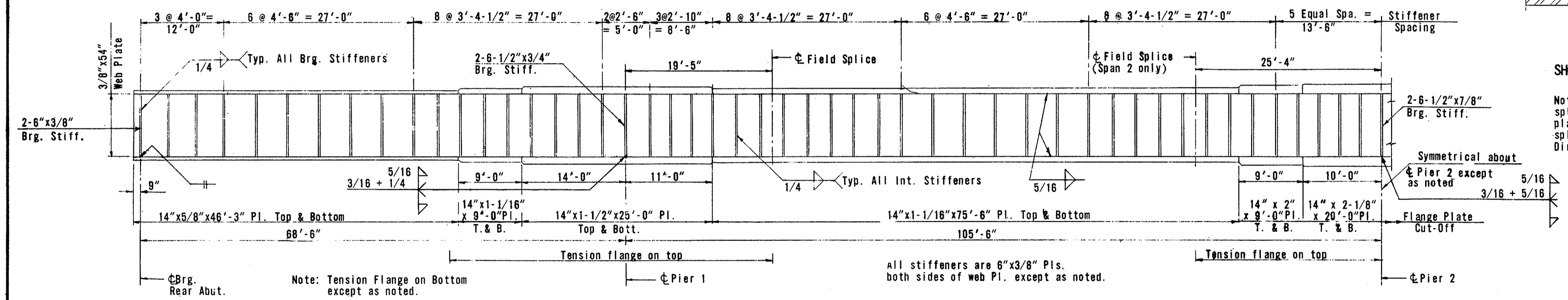


BRIDGE ROADWAY CROWN



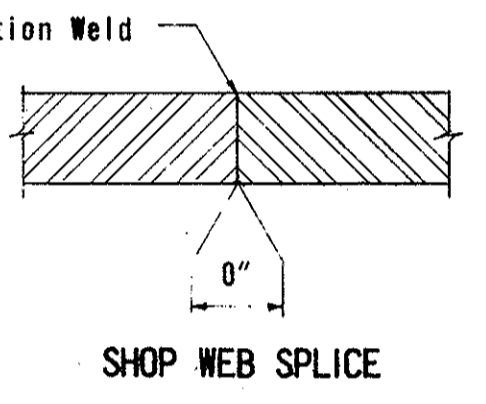
TYPICAL FLANGE SHOP SPLICES

All full penetration welds shall be back-gouged and welded after welding far side. Butt welds on beam and girder flange and web plates shall be ground flush, the finish grinding being parallel to the direction of stress.



GIRDER ELEVATION

Trim ends of girders as required to maintain 3" clear between girder and face of abutment backwall.

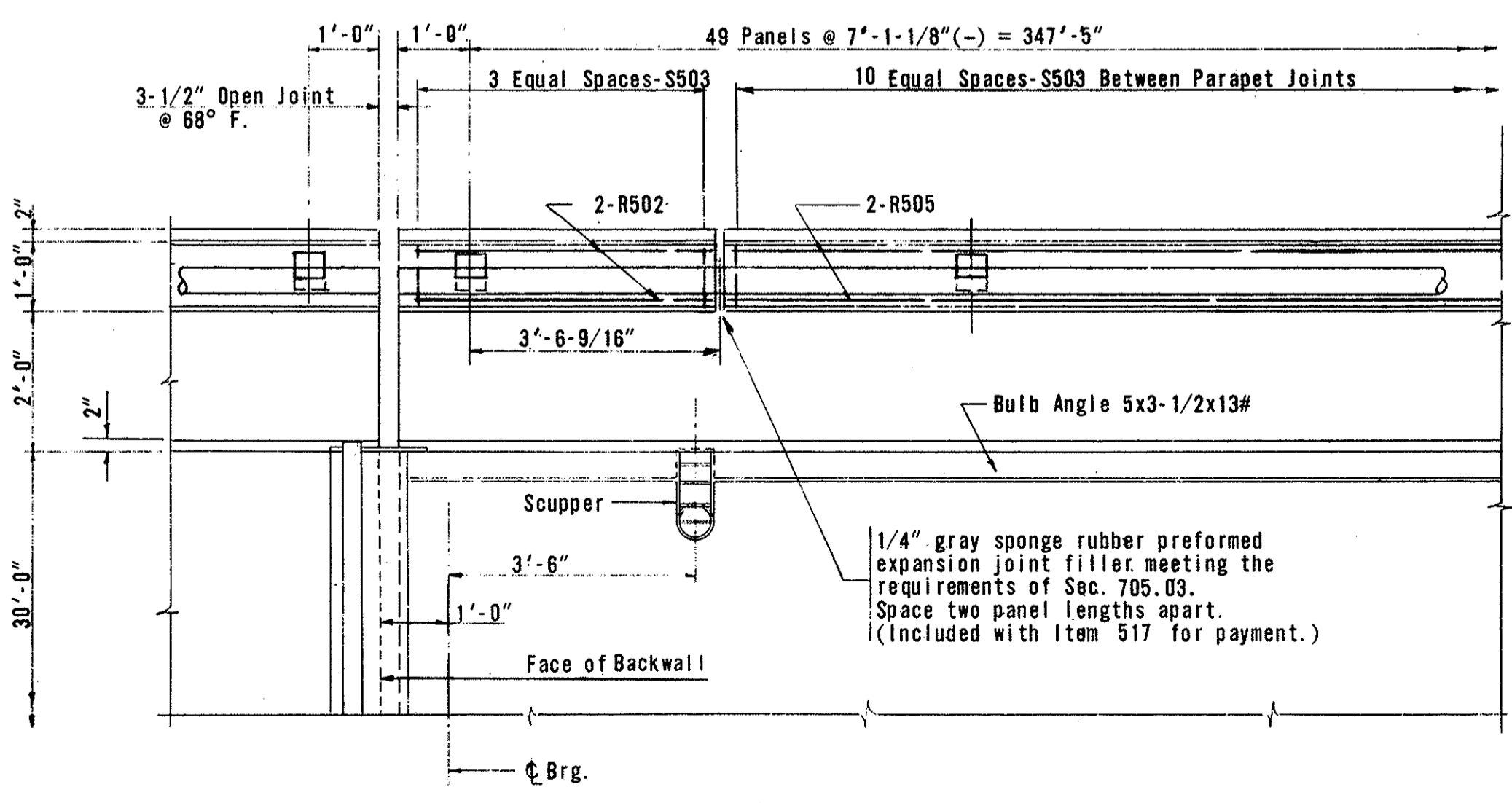


SHOP WEB SPLICE

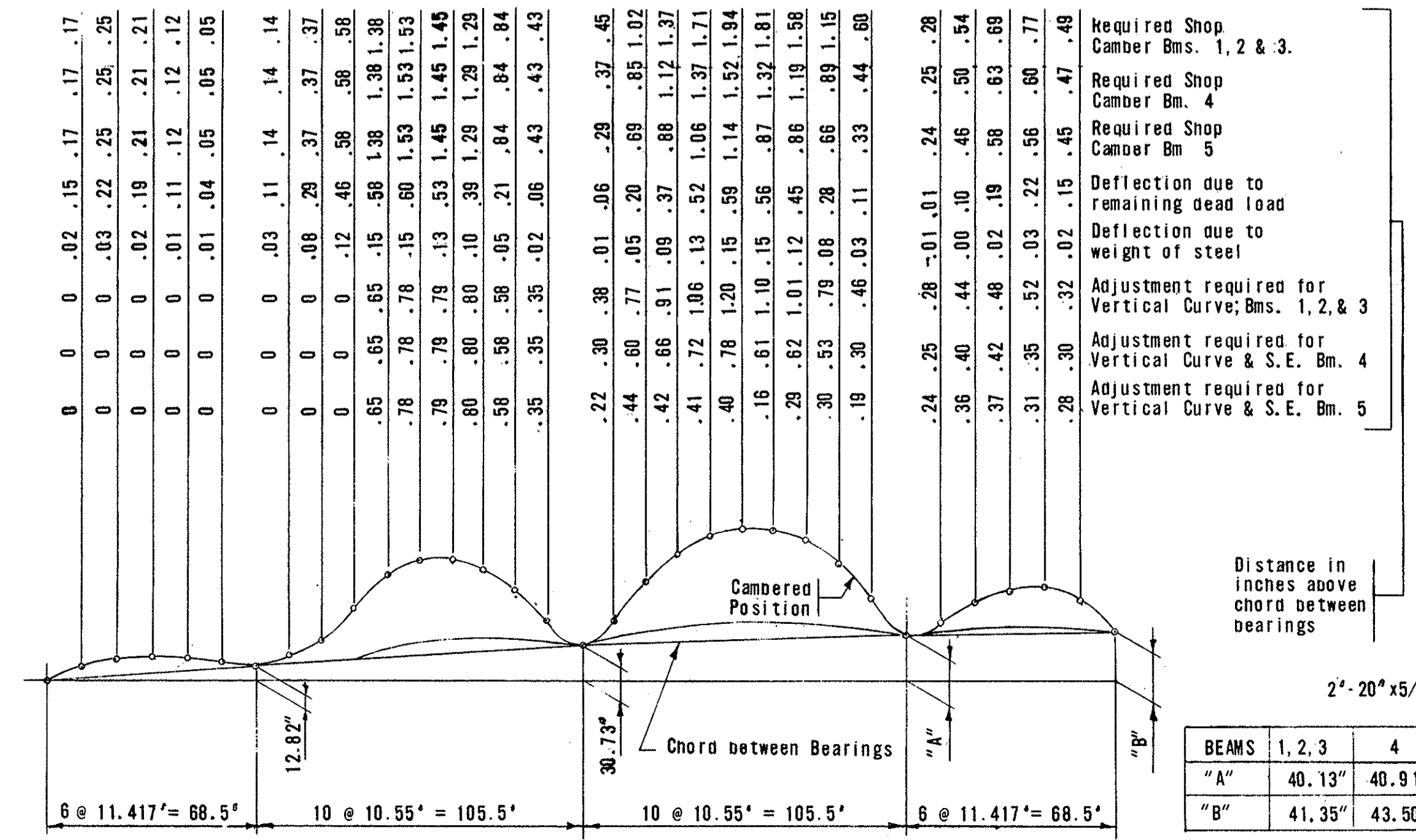
Note: Girder web plates may be shop spliced as required by lengths of plates obtainable. Location of shop splices shall be submitted to the Director for approval.

SUPERSTRUCTURE NOTES

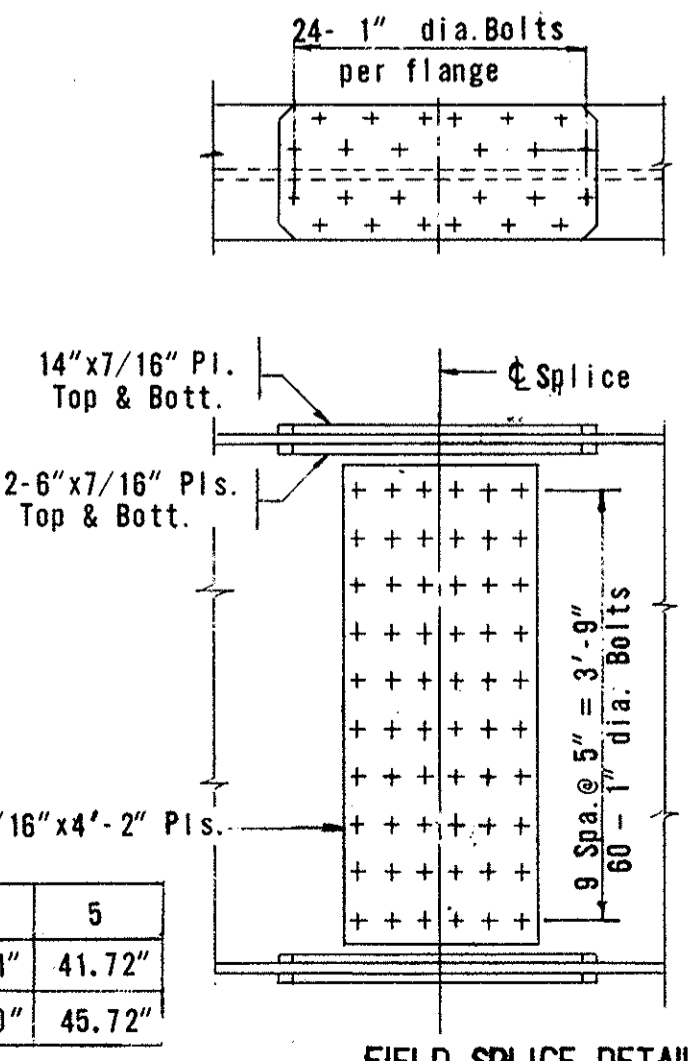
- MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.
- For details of roadway end-finish, beam cutoff at backwall, and welded butt joint in end finish angles at centerline of roadway, see Standard Drawing SD-1-65.
- For details of scuppers, curb plates and gutter supports see Standard Drawing SD-1-65.
- For details of fixed and sliding bearings see Standard Drawing FSB-1-62.
- For details of aluminum railing see Standard Drawing BR-1-65, Type 1.
- For Scupper spacing see Sheet No. 172.
- REINFORCING STEEL shall be 1-1/2" clear of surfaces in parapets and safety curbs. Place transverse reinforcing normal to center line of roadway.
- PROCEDURE: The Contractor shall submit to the Director, for approval, 3 prints showing his proposed erection procedure for plate girders.
- 1" Dia. High-strength bolts shall be used for all Field Splices.



PART PLAN AT ABUTMENTS



CAMBER DIAGRAM



FIELD SPLICE DETAIL

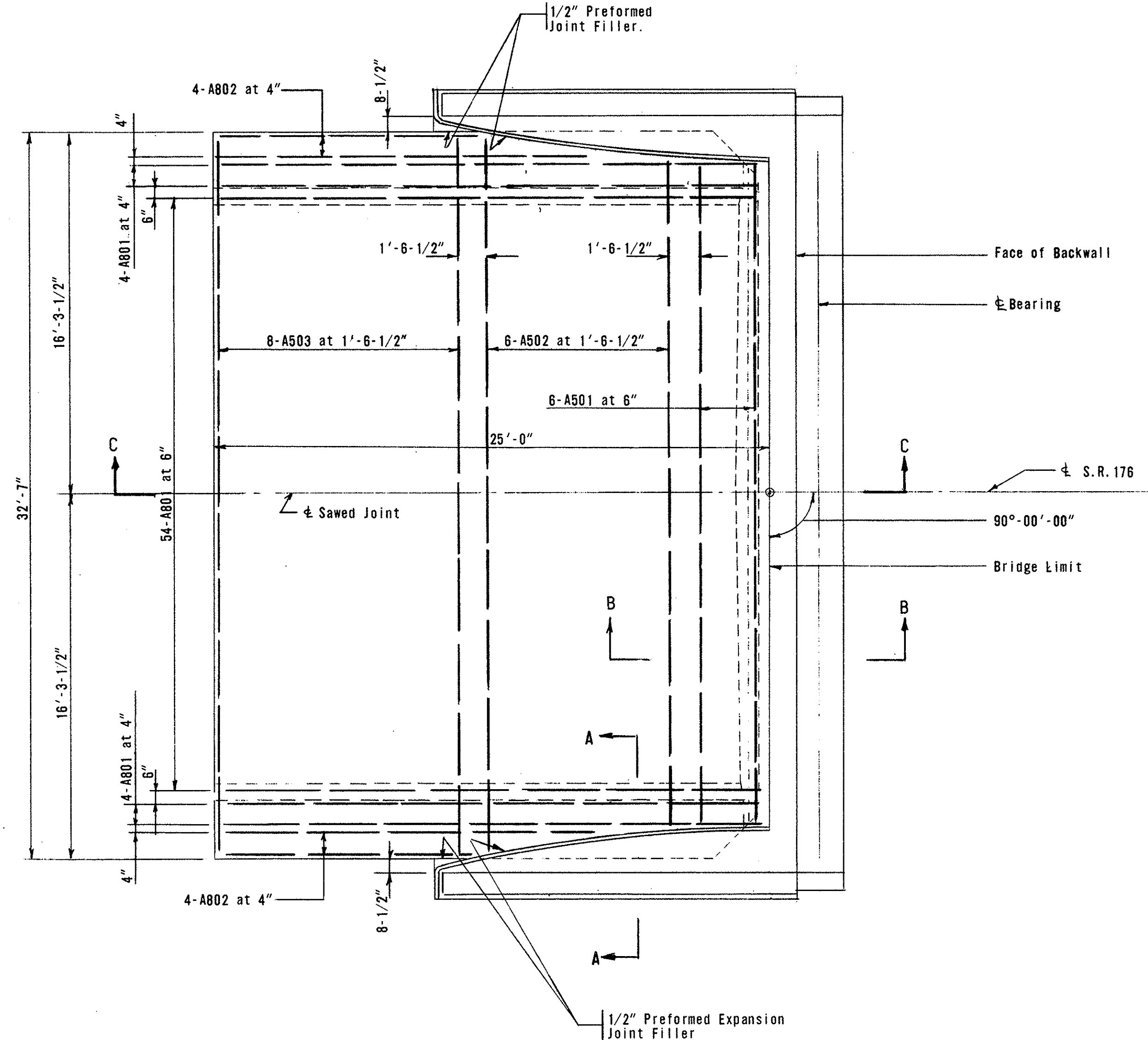
J.E. GREINER COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

SUPERSTRUCTURE DETAILS
BRIDGE NO. SUM-271-0276
I.R.#271 UNDER S.R. 176

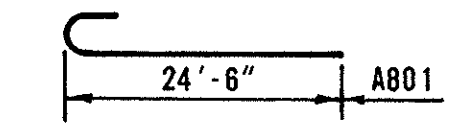
SUMMIT CO. STA. 554+32.81

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PAHL	HUANG	WALTER	SHERMAN	MUDD	4-15-66	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-271-6(15)229

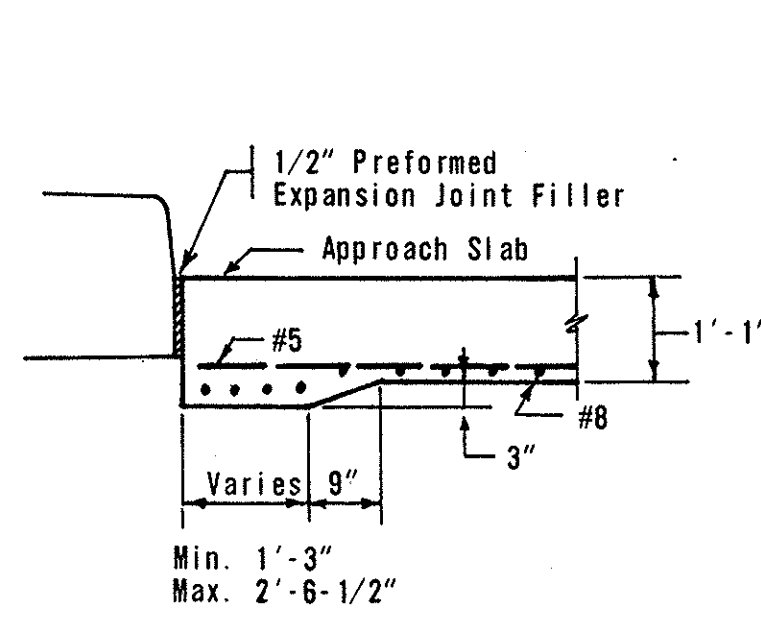


REINFORCING STEEL LIST				
MARK	NO	LENGTH	WEIGHT	SHP.
A801	124	25'-7"	8470	B
A802	4 Series of 4 Bars to 2'-0" Incr.	10'-9" to 16'-9"	587	S
A501	12	29'-6"	389	S
A502	2 Series of 6 Bars to 6" Incr.	29'-10" to 32'-4"	389	S
A503	16	32'-1"	535	S

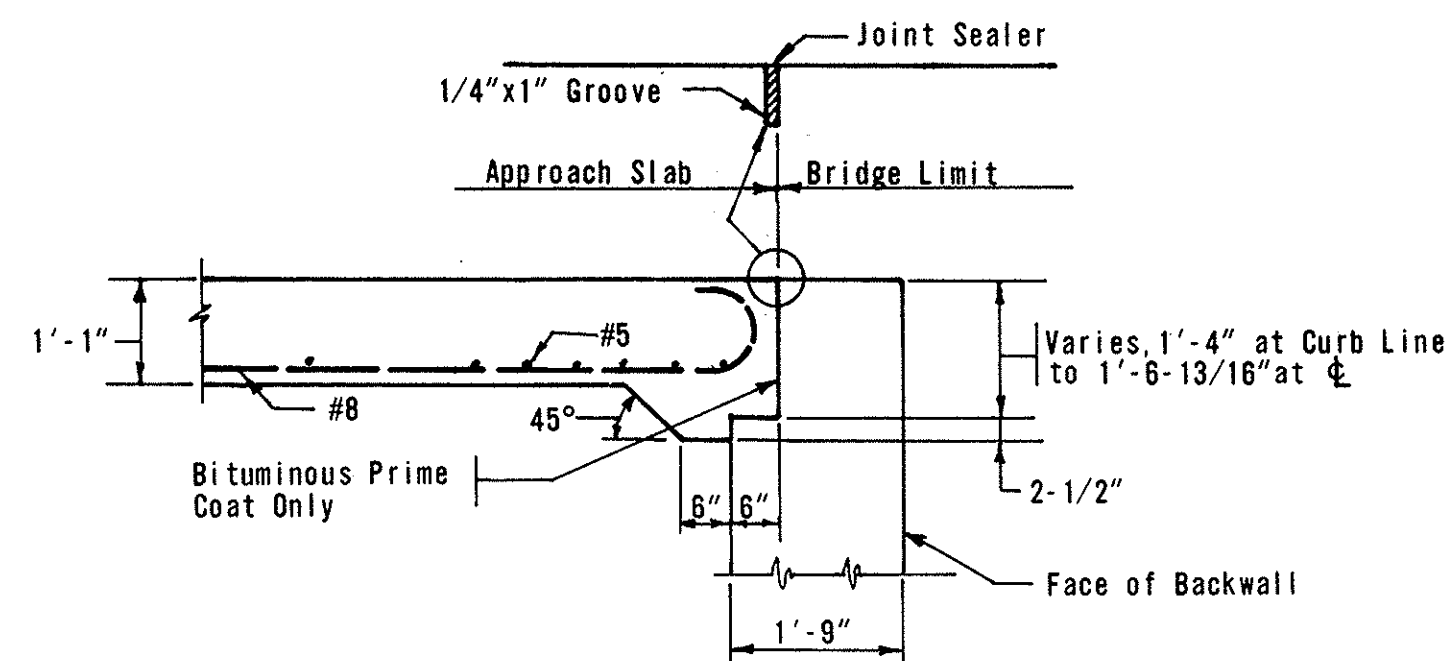


Quantities are for 2 Approach Slabs

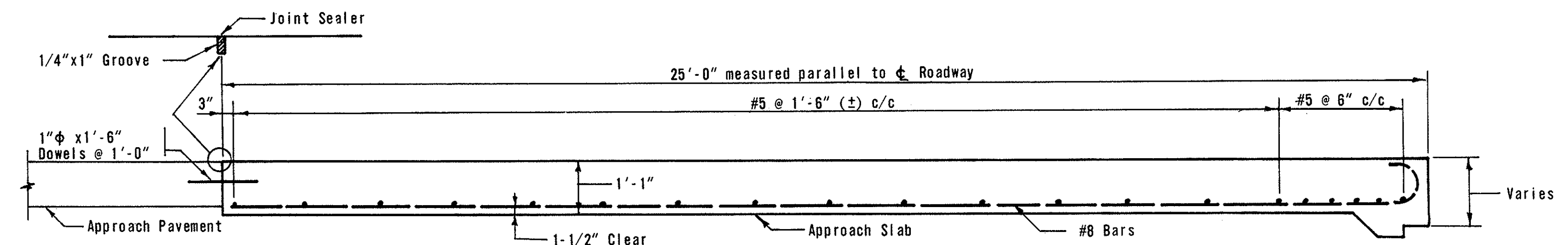
NOTES:
1/2" Preformed Expansion Joint Filler shall be included in Item 611 "Reinforced Concrete Approach Slab" for payment.
Bar Size is indicated in the Bar Mark. The first digit indicates the Bar Size Number. For example: A801 is a No. 8 Bar Size.
Work this sheet with Standard Drawing No. AS-1-54
Concrete in Approach Slabs shall be Class C.



SECTION A-A



SECTION B-B



SECTION C-C

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BALTIMORE, MARYLAND

APPROACH SLAB DETAILS
BRIDGE NO. SUM-271-0276
I.R.*271 UNDER S.R. 176

SUMMIT CO. STA. 554+32.81

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RYNA-RZEWSKI	RYNA-RZEWSKI	RYNA-RZEWSKI	SHERMAN	MUDD	4-15-66	