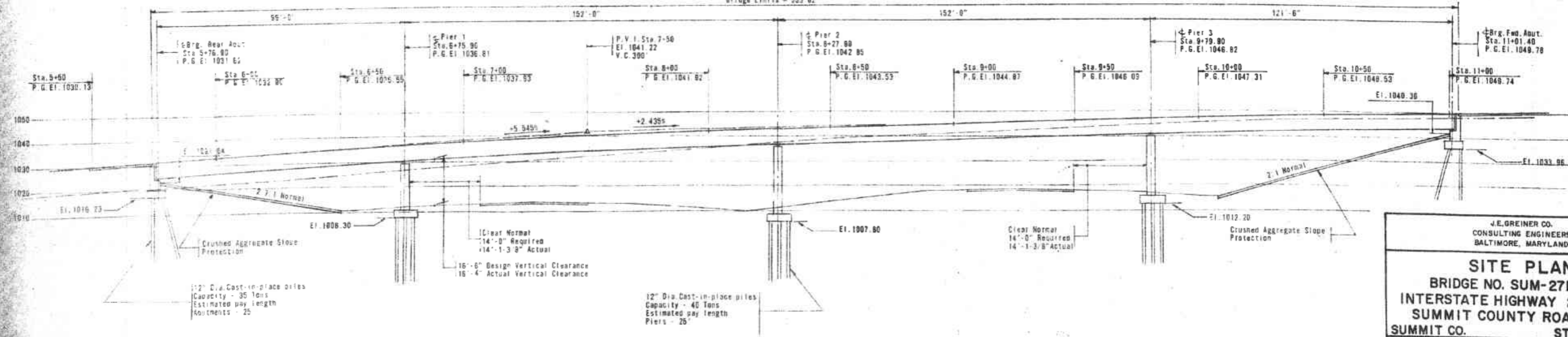


For details of temporary run-around road, See Sh. 117

PROPOSED STRUCTURE
 TYPE: Continuous welded girders with reinforced concrete deck and substructure.
 SPANS: 99'-0"; 152'-0"; 152'-0"; 121'-6"
 ROADWAY: 24'-0" face to face of 2'-0" Safety Curbs
 LOAD FREQUENCY: C.F. = 130(57)
 SKER: 57°-31'-30" (L.F.)
 WEARING SURFACE: 1" Monolithic concrete
 APPROACH SLABS: AS-1-54 (25' long)
 ALIGNMENT: Tangent
 TRAFFIC VOLUME: 10,410 - ADT - 1975, I-271
 833 - DDHV - 1975, I-271
 550 - ADT - 1975, C.R.47

Bridge Limits = 533.82'



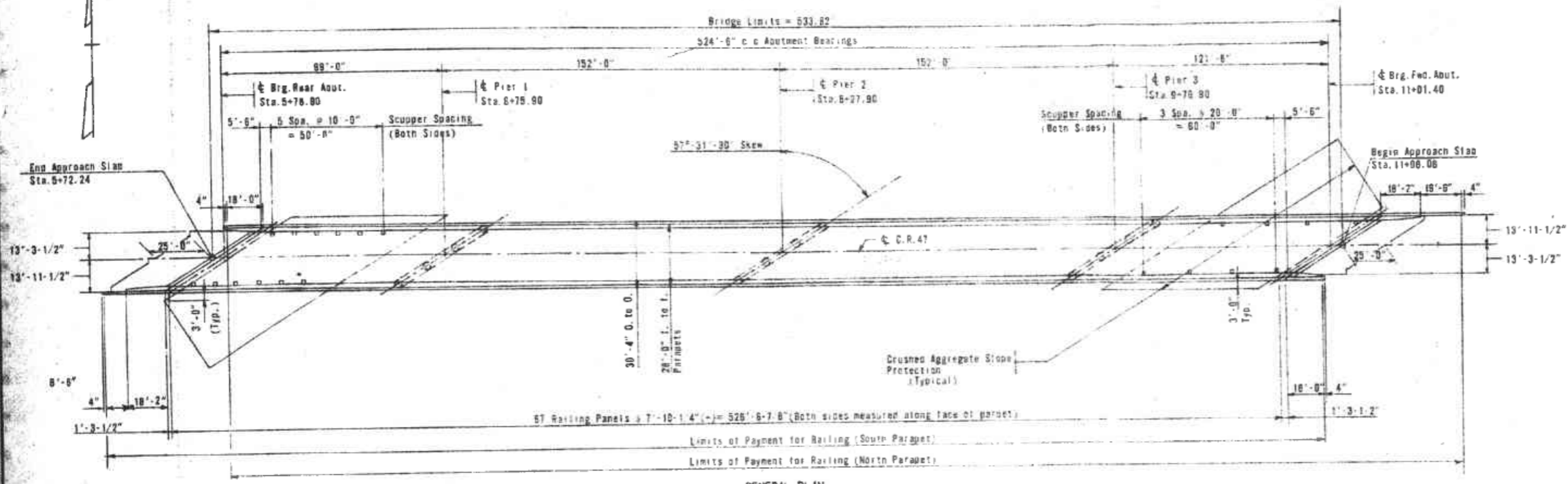
12" Dia. Cast-in-place piles
 Capacity - 35 Tons
 Estimated pile length
 Spacings - 25'

12" Dia. Cast-in-place piles
 Capacity - 40 Tons
 Estimated pile length
 Piers - 25'

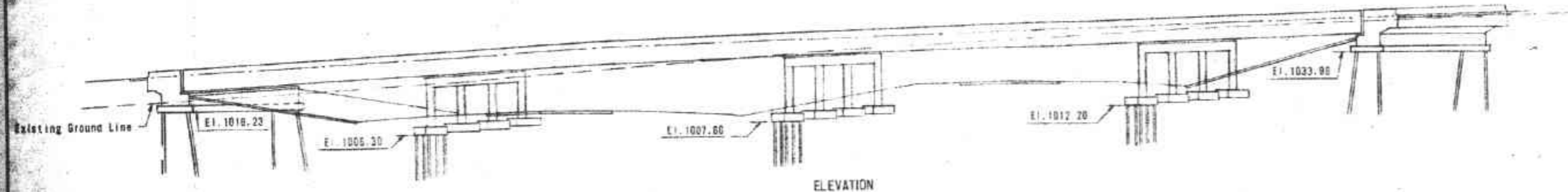
J.E. GREINER CO.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

SITE PLAN
 BRIDGE NO. SUM-271-1
 INTERSTATE HIGHWAY 2'
 SUMMIT COUNTY ROAD

PRESENT TOPOGRAPHY		PROPOSED	
SURVEYED	DRAWN	DESIGNED	DRAWN
HENRY	AIR SURVEY CORP.	SHERMAN	BERGER



GENERAL PLAN



ELEVATION

GENERAL NOTES

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.

REFERENCE should be made to:
Standard Drawing FSB-1-62, revised 1-15-63 and AS-1-54, revised 8-10-65
SD-1-63, Sheets 2, 3 & 4, dated 11-12-63
BR-1-65, Type 1, Sheet 1, dated 2-1-65

Supplemental Specifications:
808 dated 7-14-65
811 dated 3-29-65
825 " 4-22-65

EXCAVATION QUANTITY includes the removal of fill material between the surface of the proposed embankment and the bottom of the abutment.

PILES shall be driven to a minimum capacity of 35 tons per pile for the abutments and 40 tons per pile for the piers.

ESTIMATED QUANTITIES

Item	Total	Unit	DESCRIPTION	Super.	Abuts.	Piers	General
505	1,098	Cu. Yds.	Unclassified excavation		835	263	
511	307	Cu. Yds.	Class "C" concrete, superstructure	507			
511	127	Cu. Yds.	Class "C" concrete, piers above footings			127	
511	191	Cu. Yds.	Class "E" concrete, abutments above footings		191		
511	260	Cu. Yds.	Class "E" concrete, footings		125	135	
509	203,346	Lbs.	Reinforcing Steel	124,886	22,075	56,405	
513	760,790	Lbs.	Structural Steel	760,790			
514	760,790	Lbs.	Field painting of structural steel	760,790			
519	1,158.64	Lin. Ft.	Railing Type I	1,058.31	100.33		
525	Lump	Sum	First Test Pile				Lump Sum
507	4,800	Lin. Ft.	12" Cast-in-place reinforced concrete piles		1,500	2,500	
518	88	Lin. Ft.	6" Helical perforated CMP 70706 including specials		88		
518	88	Lin. Ft.	6" Helical CMP 70706 non-perforated		88		
518	20	Each	Scuppers, including supports	20			
518	87	Cu. Yds.	Perous backfill		87		
808	507	Each	Water-reducing, set-retarding admixture	507			
601	686	Sq. Yds.	Crushed aggregate slope protection				686
825	2200	Sq. Yds.	Concrete Surface Treatment				2200

Design Loading - CF(130)57
Concrete Class "C" - basic unit stress 1333 p.s.i.
Concrete Class "E" - basic unit stress 1333 p.s.i.
Structural Steel - ASTM A36 - basic unit stress 20,000 p.s.i.
Reinforcing Steel - ASTM A15, A16 Also, Deformed, Intermediate or Hard Grade - basic unit stress 20,000 p.s.i.
Except, spiral reinforcement may be plain.
Structural Grade with basic unit stress of 18,000 p.s.i.

J.E. GREINER COMPANY
CONSULTING ENGINEER
BALTIMORE, MARYLAND

GENERAL PLAN AND ELEVATION NOTES & ESTIMATED QUANTITIES
BRIDGE NO. SUM-271
I.R. 271 UNDER SUMMIT CC

SUMMIT CO. STA. 271

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
SHEERMAN	BERGER	WALTER	PAHL	MUDD

REINFORCING STEEL LIST											
MARK	NO	LENGTH	WEIGHT	SHP	MARK	NO	LENGTH	WEIGHT	SHP	BENDING DIAGRAMS	
ABUTMENTS											
A501	74	6'-0"	502	B	A562	8	7'-11"	74	B		
A502	68	9'-1"	844	B	A563	8	17'-10"	149	S		
A503	8	5'-2"	32	B	A564	71	5'-7"	413	B		
A504	4	7'-1"	30	B	A565	71	3'-2"	235	B		
A505	44	11'-11"	547	B	A566	39	3'-6"	142	B		
A506	4	23'-0"	96	S	A567	36	5'-8"	207	B		
A507	1	22'-6"	23	B	A568	4	15'-6"	65	S		
A508	10	16'-6"	172	S	A569	4	11'-9"	48	S		
A509	1	3'-11"	4	S	A570	4	20'-0"	83	S		
A510	5	4'-4"	23	S	A571	10	5'-2"	54	S		
A511	1	4'-10"	5	B	A572	10	6'-9"	76	S		
A512	34	9'-11"	352	B	A573	5	12'-11"	97	B		
A513	34	10'-11"	387	B	A574	12	13'-7"	170	B		
A514	46	28'-0"	1351	S	A575	7	13'-3"	97	B		
A515	48	3'-10"	192	B	A576	5	4'-1"	21	S		
A516	6	26'-6"	178	S	A577	5	4'-4"	23	S		
A517	46	28'-1"	1347	B	A578	10	7'-7"	79	B		
A518	24	5'-0"	125	S	A579	30	18'-0"	407	S		
A519	7	13'-5"	88	S	A580	27	7'-8"	216	B		
A520	7	9'-9"	71	S	A581	27	5'-4"	190	B		
A521	13	14'-9"	200	S	A582	16	16'-11"	282	B		
A522	13	6'-6"	88	S							
A523	7	21'-7"	156	S	A601	68	14'-8"	1498	B		
A524	8	17'-11"	148	S	A602	104	24'-1"	2782	B		
A525	1	14'-3"	15	S	A603	6	7'-4"	86	B		
A526	1	14'-9"	15	S	A604	4	9'-0"	54	B		
A527	1	11'-1"	12	S	A605	8	8'-9"	79	B		
A528	4	10'-3"	43	B	A606	13	17'-0"	332	B		
A529	1	20'-3"	21	S	A607	16	10'-9"	258	B		
A530	1	16'-7"	17	S	A608	5	21'-9"	183	B		
A531	2	7'-9"	16	S	A609	5	10'-8"	36	B		
A532	4	22'-10"	95	S	A610	13	20'-10"	407	B		
A533	4	14'-10"	82	S	A611	16	9'-9"	234	B		
A534	1	17'-0"	18	S	A612	5	18'-0"	146	B		
A535	1	8'-9"	9	S							
A536	1	16'-0"	17	S	A801	24	30'-5"	1948	S		
A537	1	7'-9"	8	S	A802	4	28'-3"	302	B		
A538	31	9'-0"	259	S	A803	4	17'-8"	190	S		
A539	46	8'-7"	412	S	A804	12	11'-9"	378	S		
A540	19	7'-8"	152	S	A805	12	12'-8"	400	S		
A541	1	11'-5"	12	B	A806	4	16'-8"	176	S		
A542	2	11'-11"	25	B							
A543	1	12'-5"	13	B	A401	13	7'-8"	67	S		
A544	1	12'-11"	13	B	A402	14	7'-5"	69	S		
A545	1	13'-5"	14	B							
A546	1	13'-11"	15	B							
A547	1	14'-5"	15	B							
A548	1	14'-11"	16	B							
A549	1	15'-7"	16	B							
A550	1	16'-1"	17	B							
A551	1	16'-7"	17	B							
A552	1	17'-1"	18	B							
A553	1	17'-7"	18	B							
A554	1	18'-1"	19	B							
A555	1	18'-7"	19	B							
A556	1	19'-1"	20	B							
A557	1	8'-9"	9	B							
A558	2	9'-11"	21	B							
A559	2	10'-11"	23	B							
A560	1	8'-11"	9	B							
A561	14	8'-6"	124	S							
PIERS											
P501	78	8'-1"	739	B	S501	1816	2'-0"	3782	B		
P502	78	8'-5"	685	B	S502	808	3'-6"	2950	B		
P503	78	1'-0"	630	B	S503	808	5'-7"	4705	B		
P504	6	31'-4"	196	S							
P505	24	23'-0"	576	S	S601	578	28'-0"	25800	S		
P506	21	7'-3"	159	B	S602	816	34'-0"	42,581	S		
					S603	57	45'-0"	3,853	S		
P901	6	20'-8"	418	B	S604	4	28'-0"	188	S		
P902	6	21'-6"	430	B	S605	20	5'-8"	173	S		
P903	6	21'-9"	444	B	S606	2	5ec	6'-1"			
P904	3	21'-10"	223	B	to	of	to	2,228	S		
P905	12	18'-0"	734	S	S648	43	28'-5"				
P906	6	20'-0"	408	B							
P907	6	21'-0"	428	B	S701	578	28'-0"	35,110	S		
P908	6	21'-3"	434	B	S702	4	28'-0"	228	S		
P909	3	21'-4"	218	B	S703	20	5'-9"	235	S		
P910	4	7'-3"	99	B	S704	2	5ec	6'-1"			
P911	4	7'-8"	104	B	to	of	to	3,052	S		
P912	2	7'-0"	53	B	S747	43	28'-5"				
SUPERSTRUCTURE											
P1001	12	24'-0"	1239	S							
P1002	12	27'-2"	1403	B							
P1003	12	27'-2"	1403	B							
P1004	6	10'-6"	271	B							
P1005	54	18'-3"	5026	S							
P1006	54	22'-10"	6288	S							
F1401	64	22'-11"	11220	S							
F1001	128	6'-4"	3488	B							
F1002	128	12'-6"	6895	B							
F1003	80	13'-0"	4475	B							
PARAPET RAILING											
R501	18	17'-8"		S							
R502	16	4'-8"		S							
R503	12	4'-2"		B							
R504	8	5'-4"		B							
R505	264	15'-5"		S							
R506	4	8'-2"		S							
R507	4	19'-2"		S							
REPLACEMENT BARS											
RE401	1	5'-3"		B							
RE501	2	5'-7"		S							
RE601	5	5'-11"		S							
RE701	2	6'-2"		S							
RE801	1	6'-6"		S							
RE901	1	6'-10"		S							
RE1001	2	7'-2"		S							
RE1401	1	8'-3"		S							
SPIRAL BARS											
SP401	4	32"	14'-8"	4-1/2"	42	1081					
SP402	4	32"	19'-2"	4-1/2"	54	1420					
SP403	4	32"	10'-1"	4-1/2"	54	1414					

REINFORCING BARS NO. 14S (P1401 & F1401) shall be of intermediate or hard grade conforming to ASTM-A-408. (Basic unit stress 20,000 p.s.i.).

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 Item 509 1-1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.88 lb. per 1 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 0.88 lb. per lin. ft., will be paid for as reinforcing steel and is included in tabulated quantity of spiral bars.

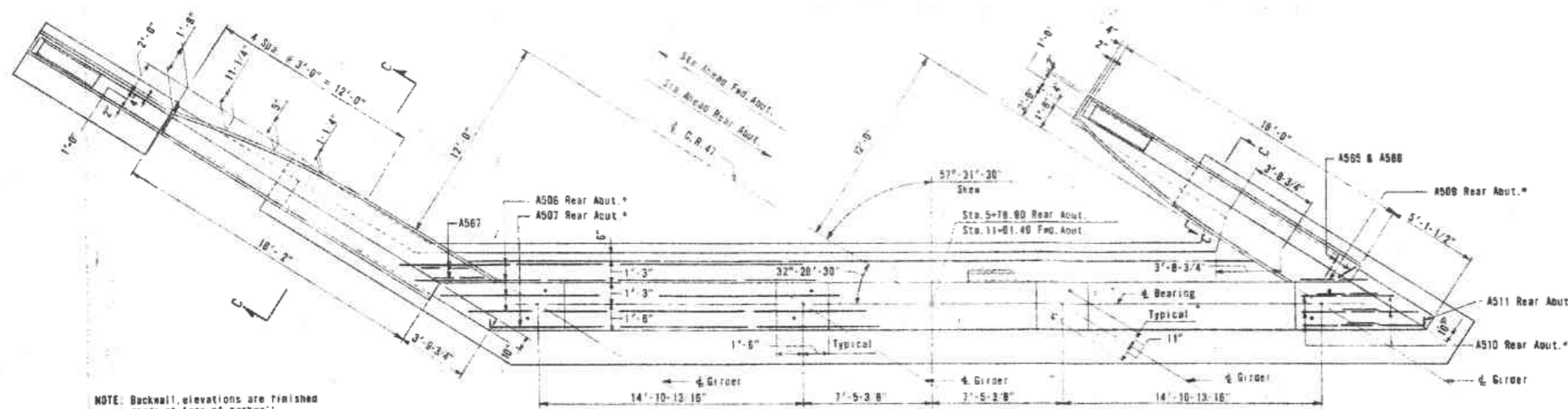
BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A701 is a No. 7 size bar and P1002 is a No. 10 size bar.

Cost of field bending and cutting to be included with Item 509 for payment.

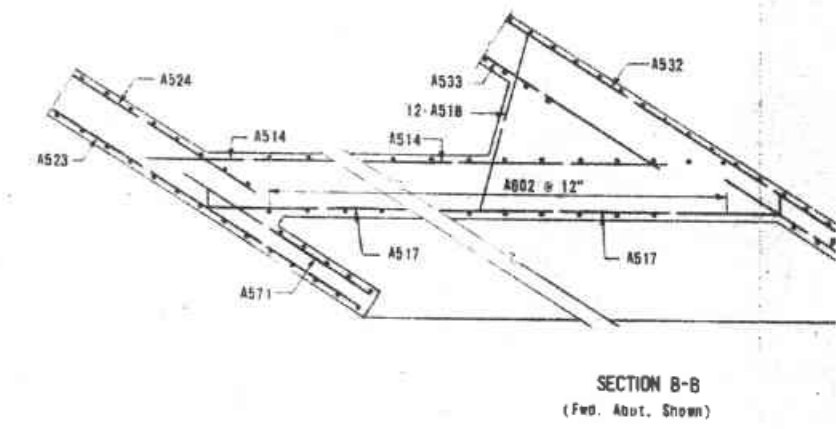
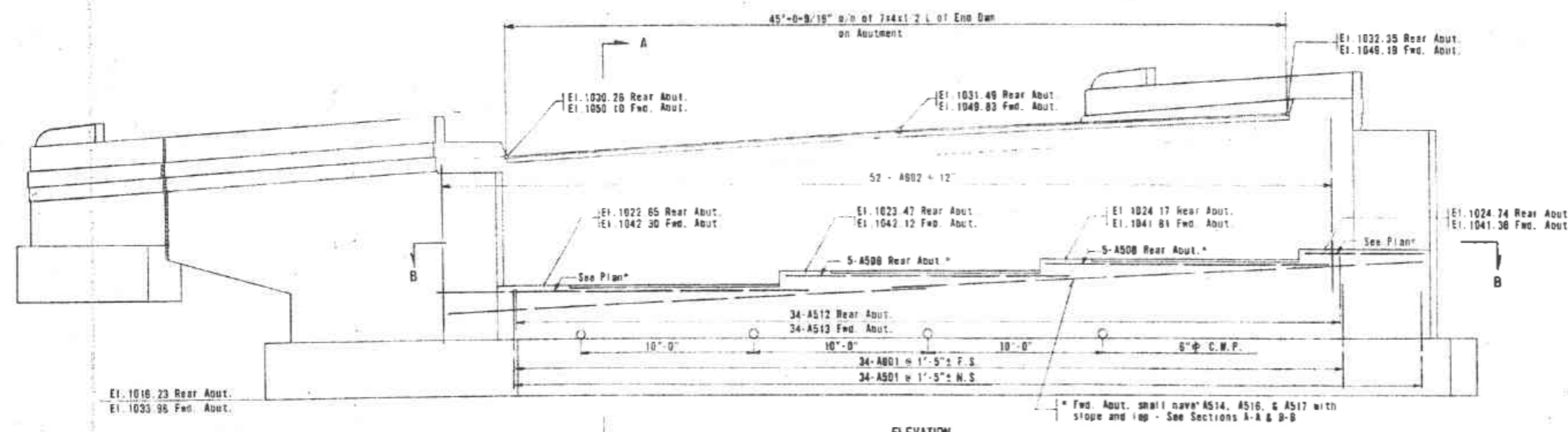
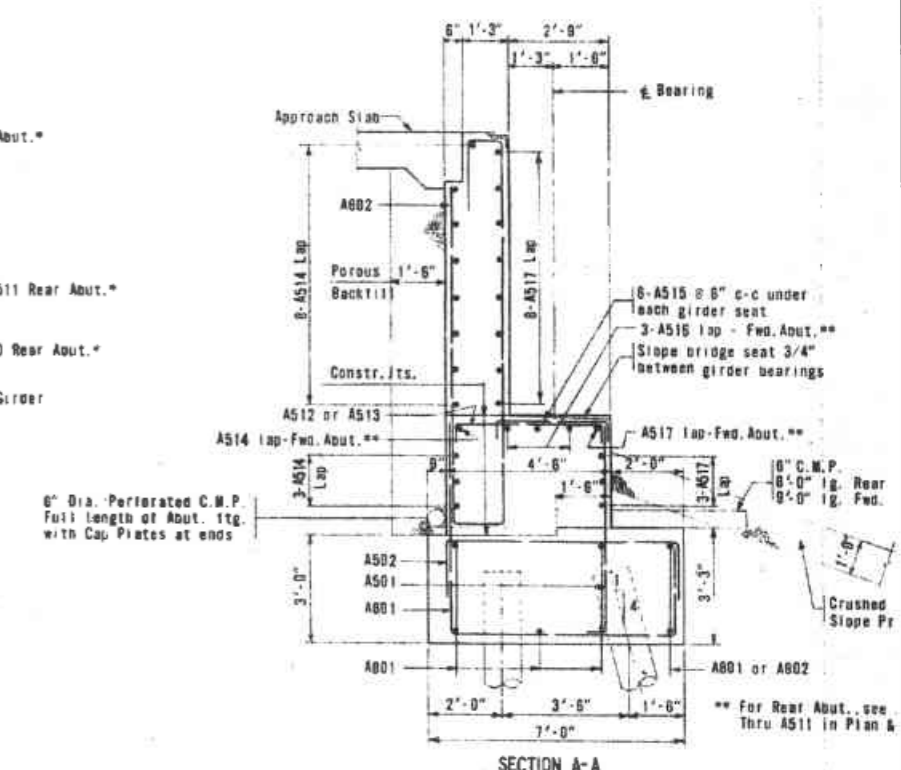
J.E. GREINER COMPANY
CONSULTING ENGINEER
BALTIMORE, MARYLAND

REINFORCING STEEL
BRIDGE NO. SUM-271
I.R. 271 UNDER SUMMIT C

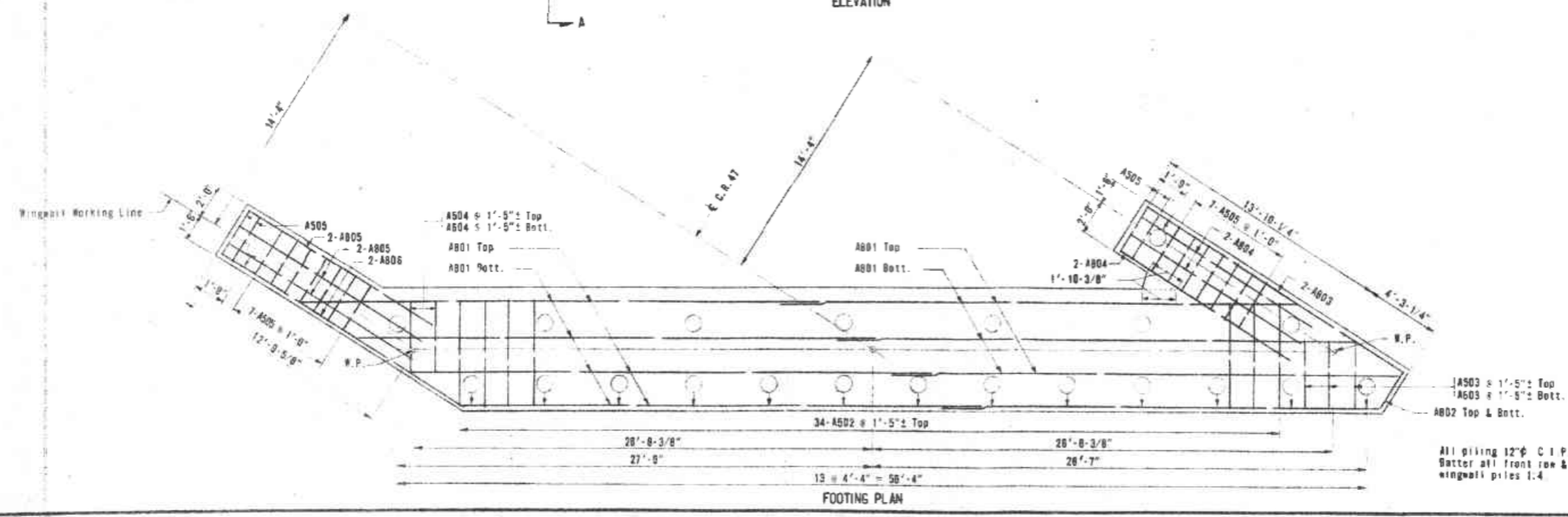
SUMMIT CO. ST.
DESIGNED DRAWN TRACED CHECKED REVIEWED
SHERMAN WALTER WALTER PAHL MUDI



NOTE: Backwall elevations are finished grade at face of backwall.



For abutment notes, see Sheet No. 147.



All piling 12" C.I.P.
Setter all front row & wingwall piles 1:4

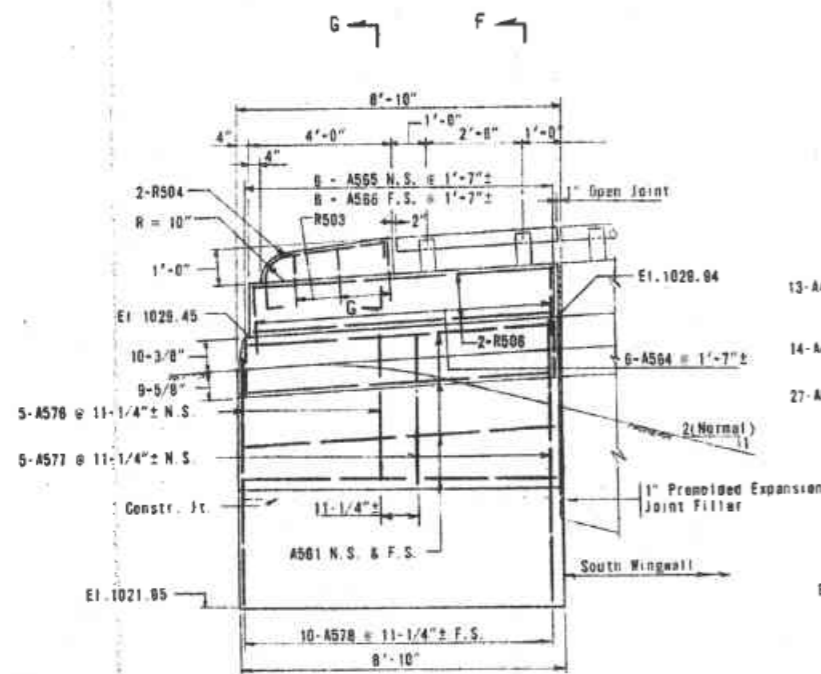
J.E. GREINER COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

ABUTMENT DATA
BRIDGE NO. SUM-27
I.R. 271 UNDER SUMMIT C

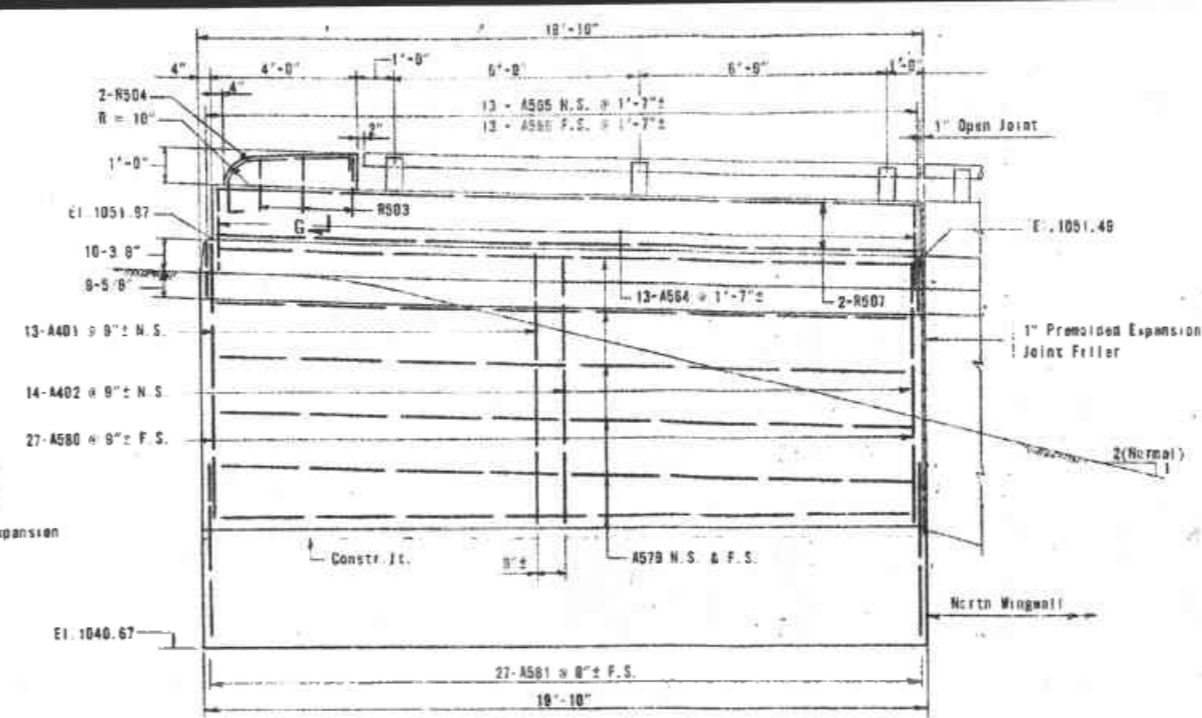
SUMMIT CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
ROBINSON	GREINER	GREINER	KOHLER	MUDD

FED. NO. DIVISION	STATE	PROJECT
2	OHIO	1-271-6(14)224

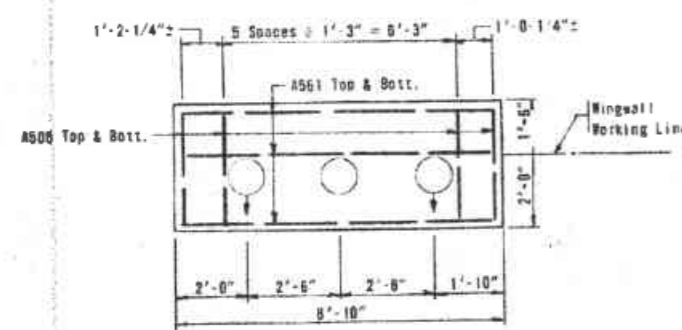


RETAINING WALL - REAR ABUTMENT ELEVATION

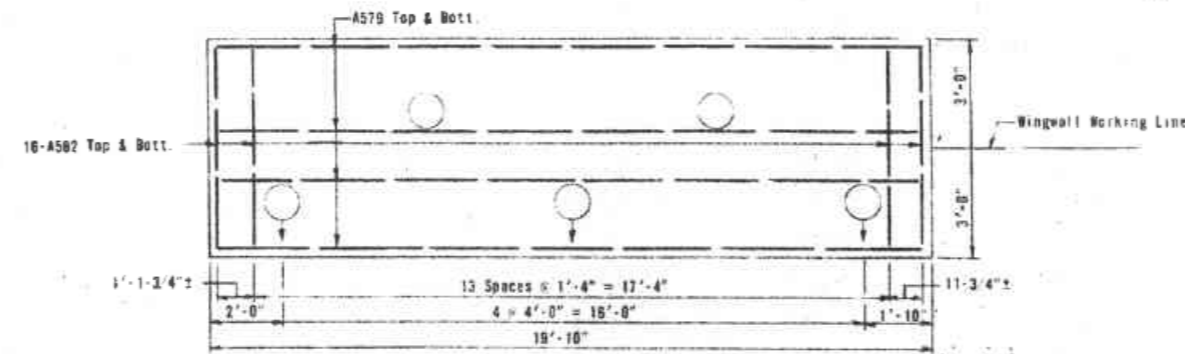


RETAINING WALL - FORWARD ABUTMENT ELEVATION

Notes: Gray sponge rubber preformed expansion joint filler meeting the requirements of Sec. ARS-C 1103 shall be used in the 1'-0" parapet, and shall be included with item 517 for payment.
1" Preformed expansion joint filler from top of curb to bottom of abutment wingwalls shall meet the requirements of ARS-C 1103 and shall be included with item 511 "Class E Concrete, Abutments above Footings" for payment.

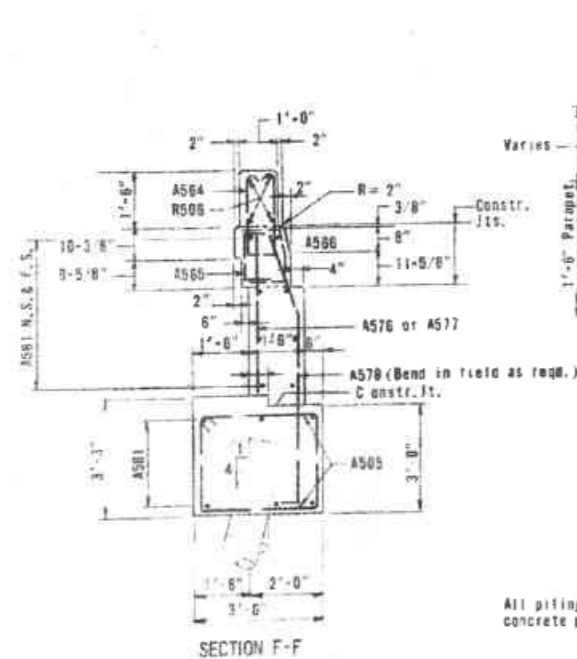


RETAINING WALL - REAR ABUTMENT FOOTING PLAN



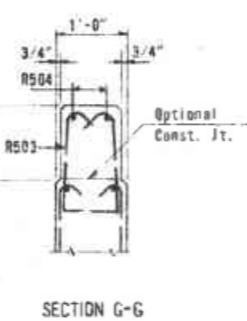
RETAINING WALL - FORWARD ABUTMENT FOOTING PLAN

All piling 12" C.I.P. reinforced concrete piles.

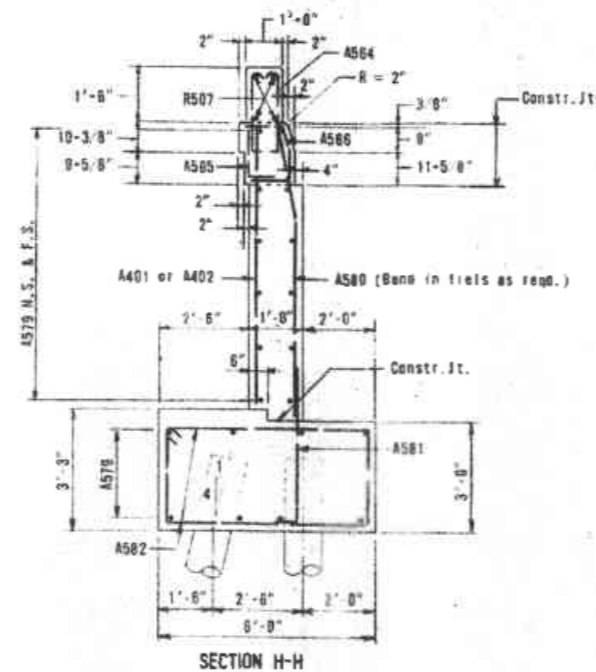


SECTION F-F

All piling 12" C.I.P. reinforced concrete piles.



SECTION G-G



SECTION H-H

CLEARANCE of reinforcing steel from face of concrete shall be as follows: 1-1/2" in parapet and safety curb and 2" elsewhere. POROUS BACKFILL shall extend upward to the approach slab and wingwalls. Excavation therefore, in excess of that required for the abutment, shall be considered as paid for in the bid and paid for porous backfill.

PROCEDURE: The embankment shall be placed and compacted up to spill-thru slope and to the level of the subgrade for a distance of the rear abutment, after which excavation shall be made for abutments and piles driven.

Abutment backwalls above the bridge seat shall not be placed in place. Abutment backwalls shall be completed prior to placing deck slab.

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

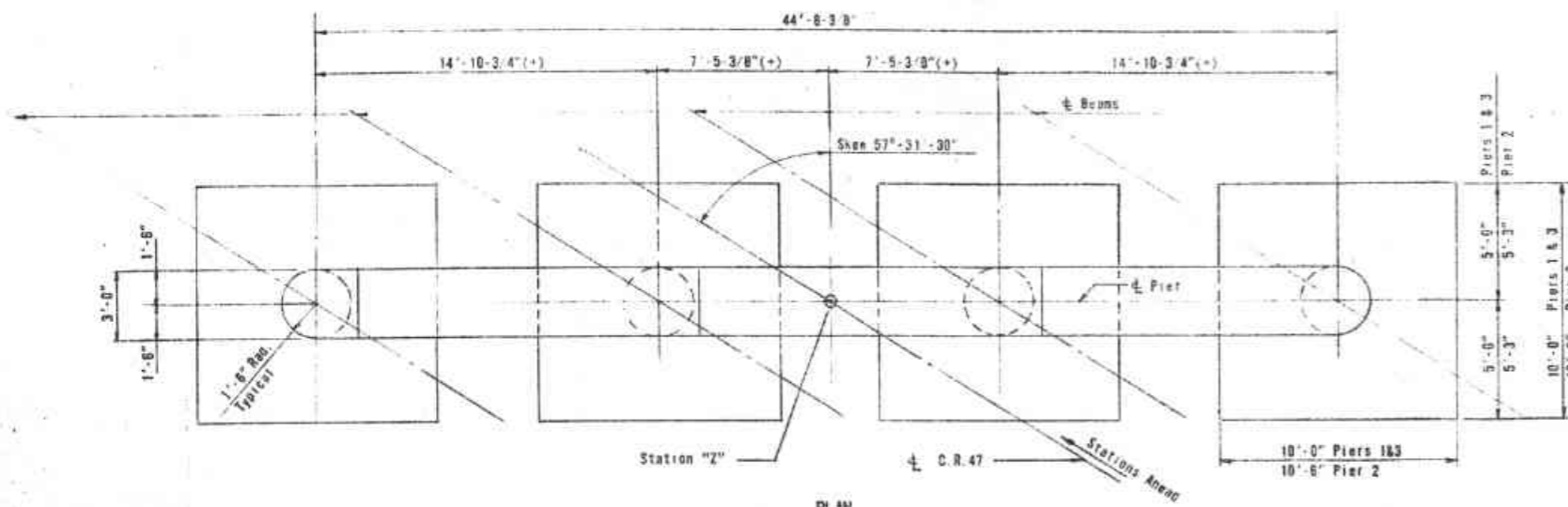
CONCRETE shall be Class E.

LEGEND:

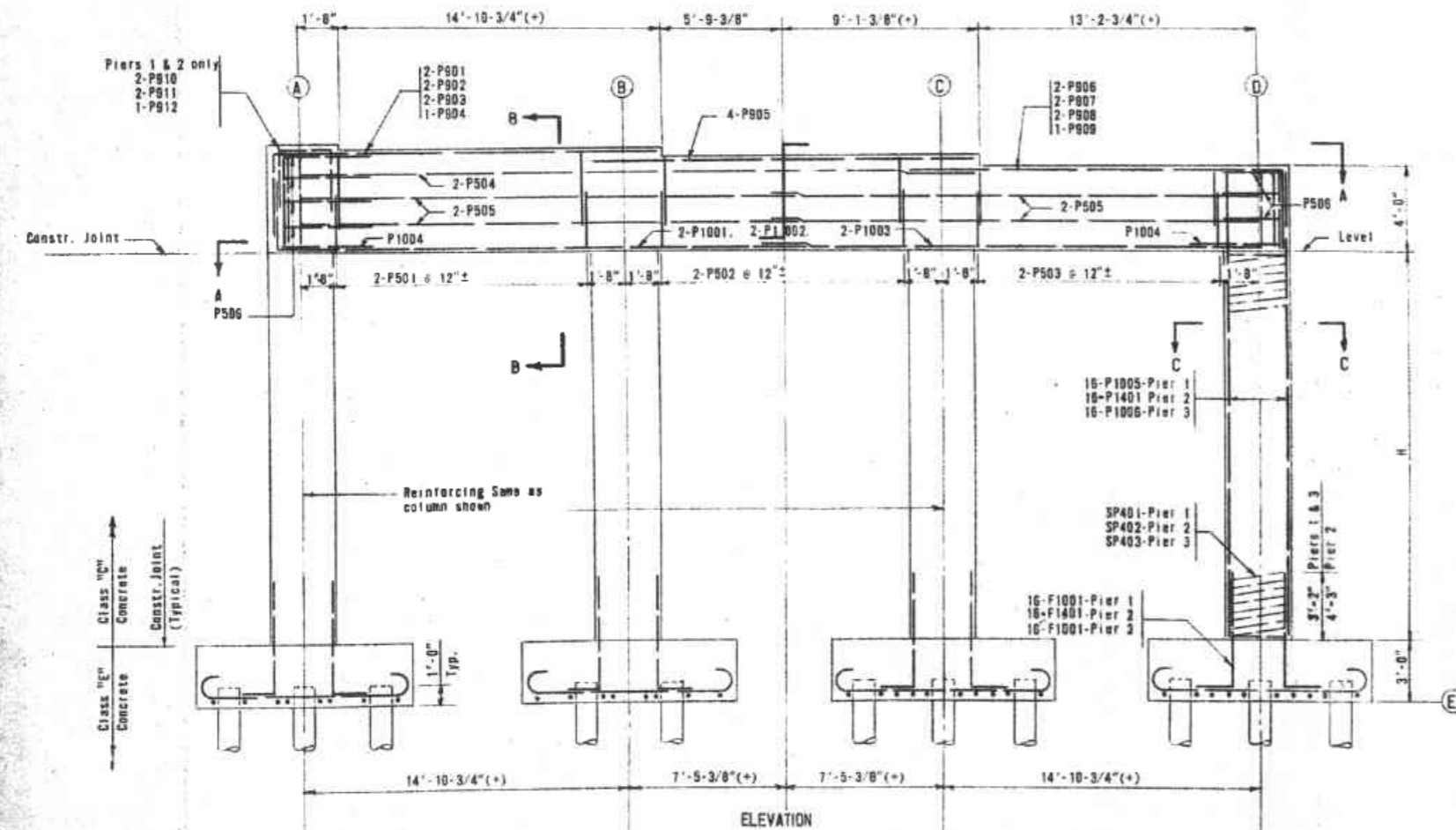
N.S. - Near Side
F.S. - Far Side

For details of roadway end finish see Standard Drawing SD-1-6

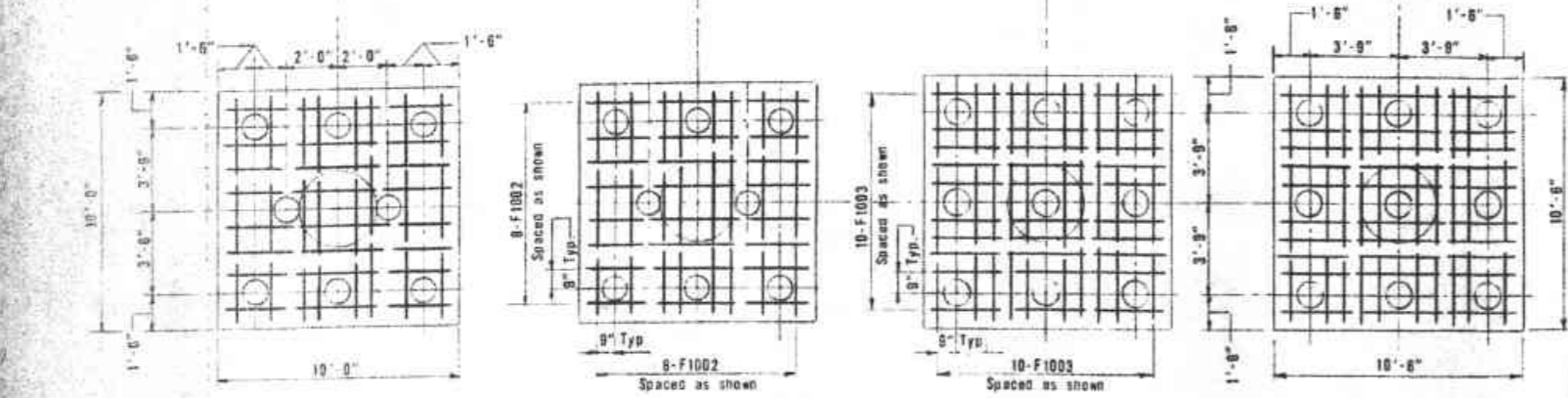
J.E. GREINER COMPANY CONSULTING ENGINEER BALTIMORE, MARYLAND				
ABUTMENT DETAIL				
BRIDGE NO. SUM-2				
I.R. 271 UNDER SUMMIT				
SUMMIT CO.				
DESIGNED	DRAWN	TRACED	CHECKED	REVISED
ROBINSON	GREIMANN	GREIMANN	KOHLER	MUDI



PLAN



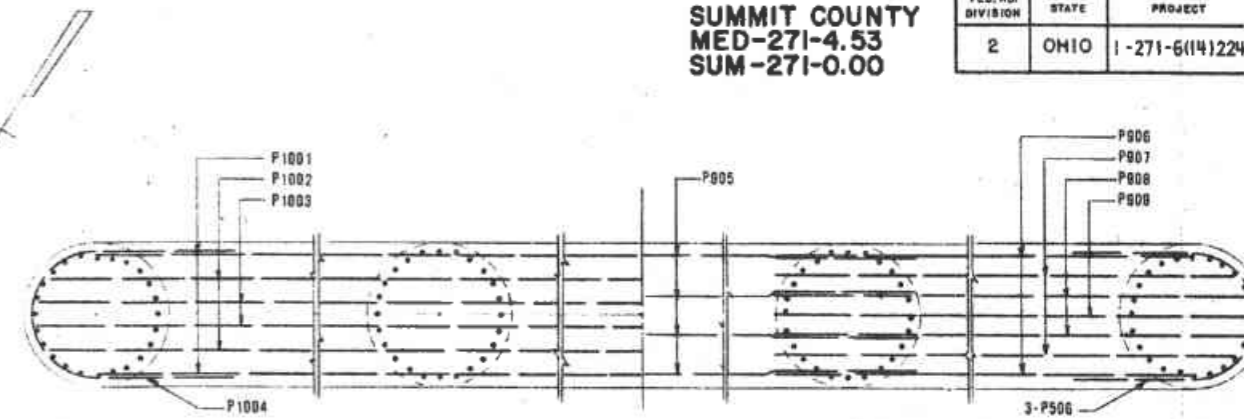
ELEVATION



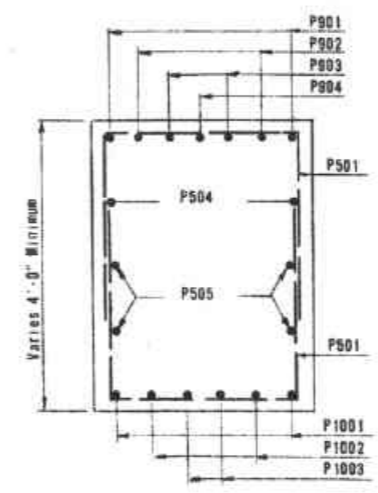
FOOTING PLAN - PIERS 1 & 3

FOOTING PLAN - PIER 2

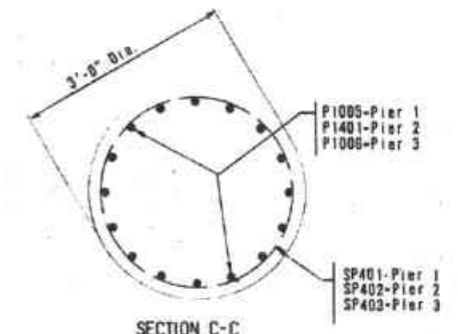
All piling for all piers - 12" x cast-in-place reinforced concrete driven to a minimum bearing capacity of 40 tons/pile.



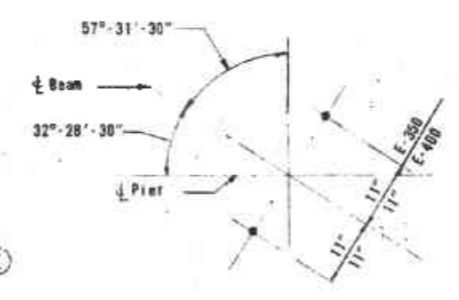
SECTION A-A



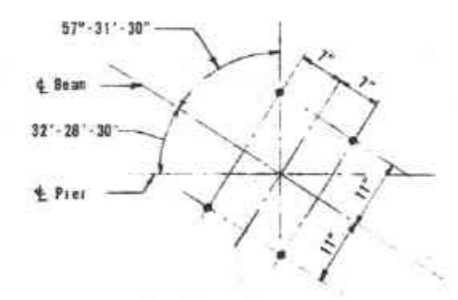
SECTION B-B



SECTION C-C



LOCATION OF ANCHOR RODS
EXPANSION BEARING E-350 (PIER 1)
EXPANSION BEARING E-400 (PIER 3)



LOCATION OF ANCHOR RODS
FIXED BEARING F-400
PIER 2

CLEARANCE of reinforcing steel from face of shall be 3" in bottom of footings and 2" at top.

CONCRETE shall be Class E in Footings and above Footings.

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

STATION	ELEVATIONS					DIMENSION
	A	B	C	D	E	
Pier 1	8+75.90	1029.65	1029.18	1028.59	1027.86	14'-6-3/4"
Pier 2	8+27.80	1034.97	1034.71	1034.31	1033.77	19'-2-1/16"
Pier 3	8+79.80	1038.21	1038.03	1038.73	1038.30	19'-1-3/16"

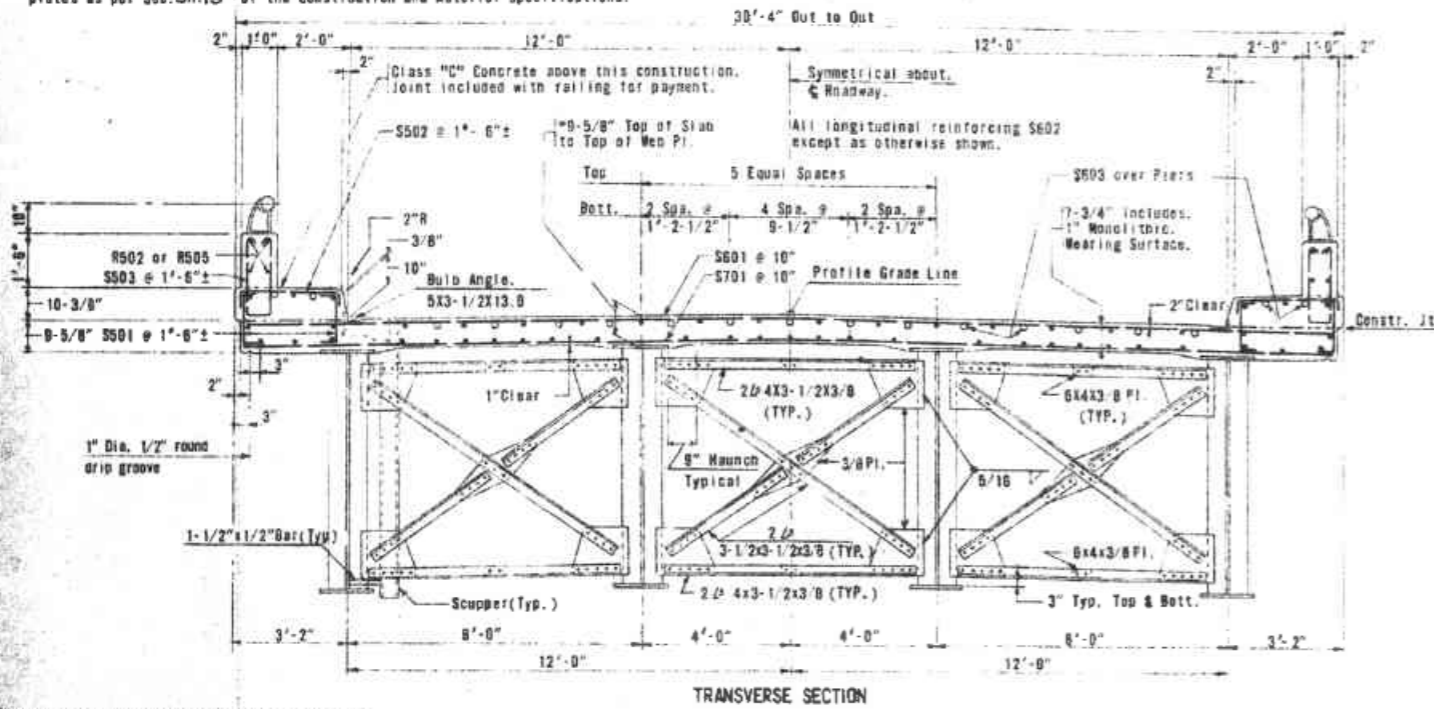
J.E. GREINER COMPANY
CONSULTING ENGINEER
BALTIMORE, MARYLAND

PIER DETAIL
BRIDGE NO. SUM 2'
I.R. 271 UNDER SUMMIT C

DESIGNED	DRAWN	TRACED	CHECKED	REVIEW
WEISER	RYLAR-ZEWSKI	RYLAR-ZEWSKI	KOHLER	MUDI

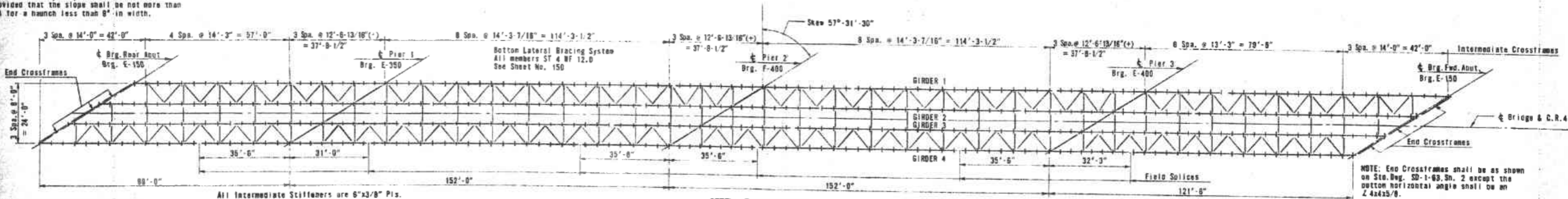
SUMMIT CO. ST

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. 511.12 of the Construction and Material Specifications.



TRANSVERSE SECTION

A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 8" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 8" in width.

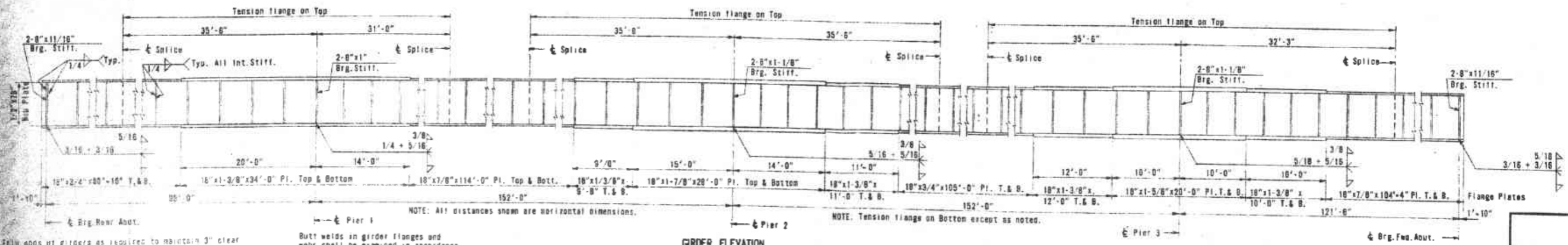


STEEL FRAMING PLAN

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.

All intermediate stiffeners are 6"x3/8" PIs. both sides of Web Pl. placed at each Crossframe location and two stiffeners equally spaced between each Crossframe as shown. Move stiffener to clear field splices when necessary.

NOTE: End Crossframes shall be as shown on Std. Dwg. SD-1-63, Sn. 2 except the bottom horizontal angle shall be an 2 1/2"x3/8".



GIRDER ELEVATION

Butt welds in girder flanges and webs shall be examined in accordance with the provisions of Supplemental Specification 511

NOTE: Tension flange on Bottom except as noted.

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

SUPERSTRUCTURE NOTES

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 shall be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the field splices of any span.

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

For details of end crossframes, roadway end-finish, beam cutoff at backwall, and welded butt joint in end finish angles at centerline of roadway, see Standard Drawing SD-1-63, Sheet 2.

For details of scuppers, curb plates, and gutter supports, see Standard Drawing SD-1-63, Sheets 3 & 4.

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. 143

REINFORCING STEEL shall be 1-1/2" clear of surfaces in piers and safety curbs. Place transverse reinforcing normal to centerline of roadway.

INTERMEDIATE STIFFENERS of welded built-up girders shall have contact bearing with the compression flange, but may have a clearance of not more than 1/8 inch from the tension flange. In shop painting, care shall be taken to make certain that paint is forced through from one side to the other of the 1/8" opening.

**SUMMIT COUNTY
MED-271-4.53
SUM-271-0.00**

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	1-271-6(14)

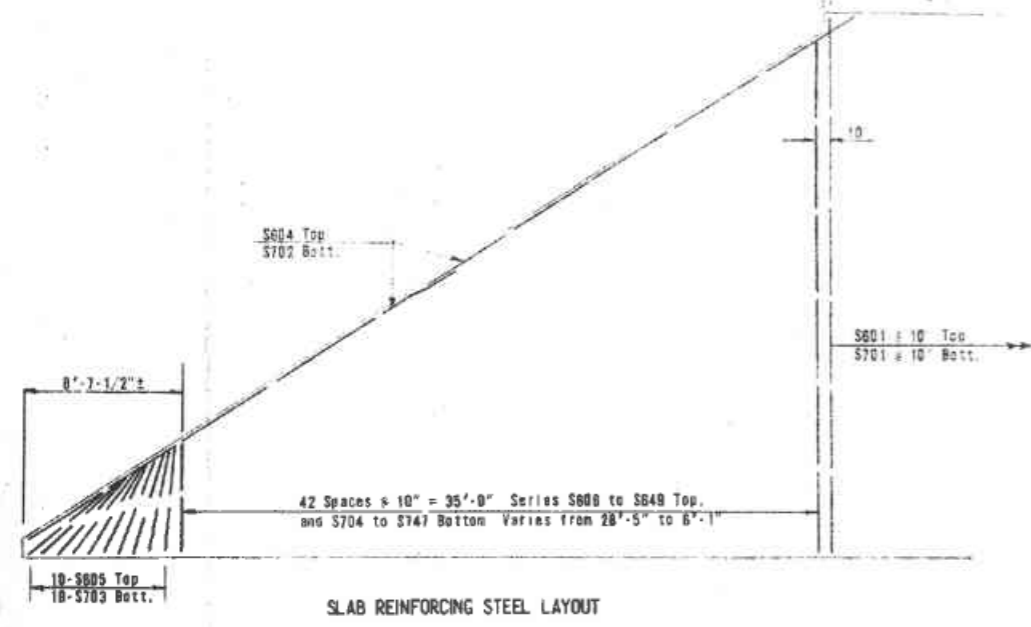
CROSSFRAMES shall be erected with temporary 3/4" dia with 1" dia. holes and brought to a snug tight fit. The deck has been placed and cured the temporary shall be removed the next morning and 7/8" dia. H. installed to a snug tight fit. After all H. S. bolts stalled the bolts shall be tightened completely by a wrench or by the turn-of-nut method. The cost of installing and removing the 3/4" dia. temporary bolt remains of the holes shall be included in the Contractor's Structural Steel.

1" Dia. High Strength bolts shall be used for all F.P. PROCEDURE: The Contractor shall submit to the Director approval, 3 prints showing his proposed erection plan plate girders.

J.E. GREINER COMP
CONSULTING ENGINE
BALTIMORE, MARYLA

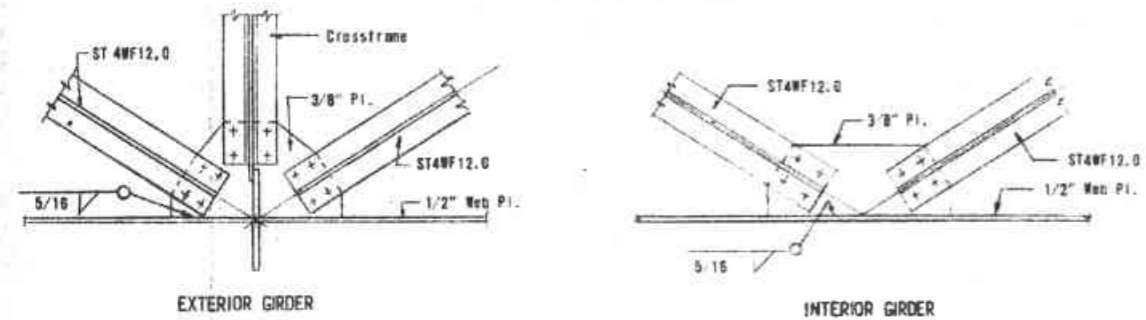
SUPERSTRUCTURE (
BRIDGE NO. SUM-2
I.R.271 UNDER SUMMIT (

SUMMIT CO.				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEW
RODEMANN	ALKEMA	ALKEMA	WEISER	MUD

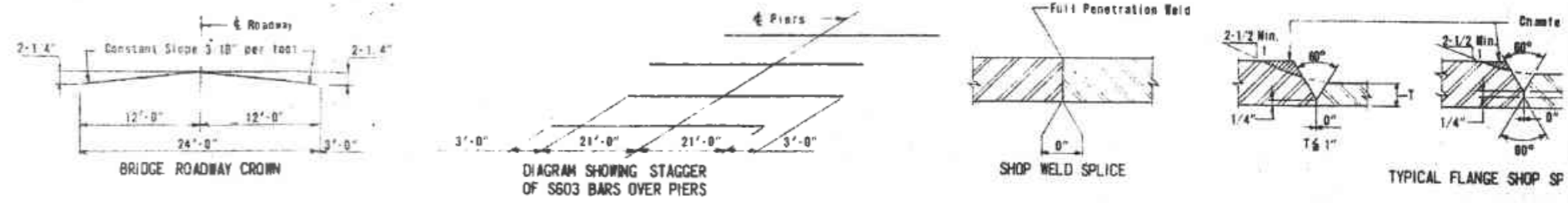


SLAB REINFORCING STEEL LAYOUT

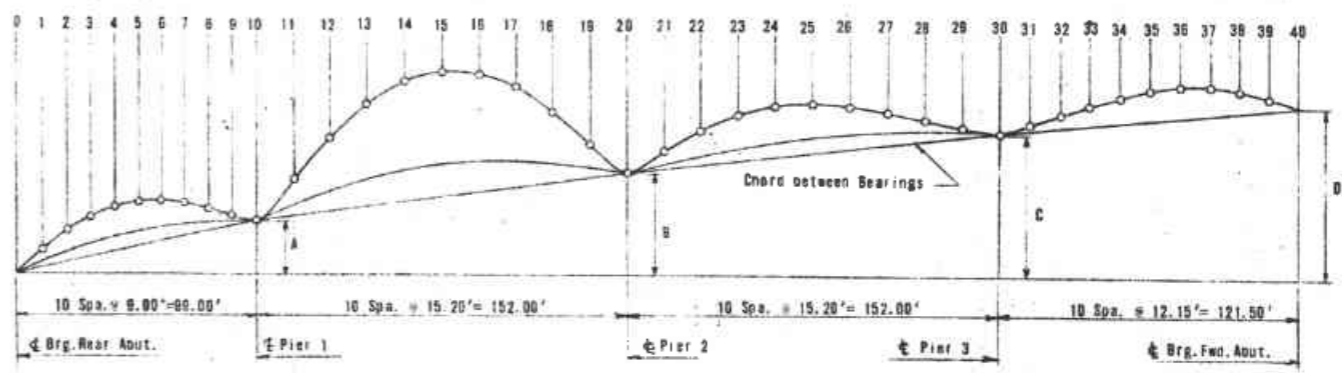
NOTE: All Bolts for Lateral Bracing shall be 7/8" dia. H.S. Bolts.



TYPICAL LATERAL BRACING DETAILS



All of full penetration we gaged and welded after we Butt welds on beam and gir plates shall be ground flu ing being parallel to the



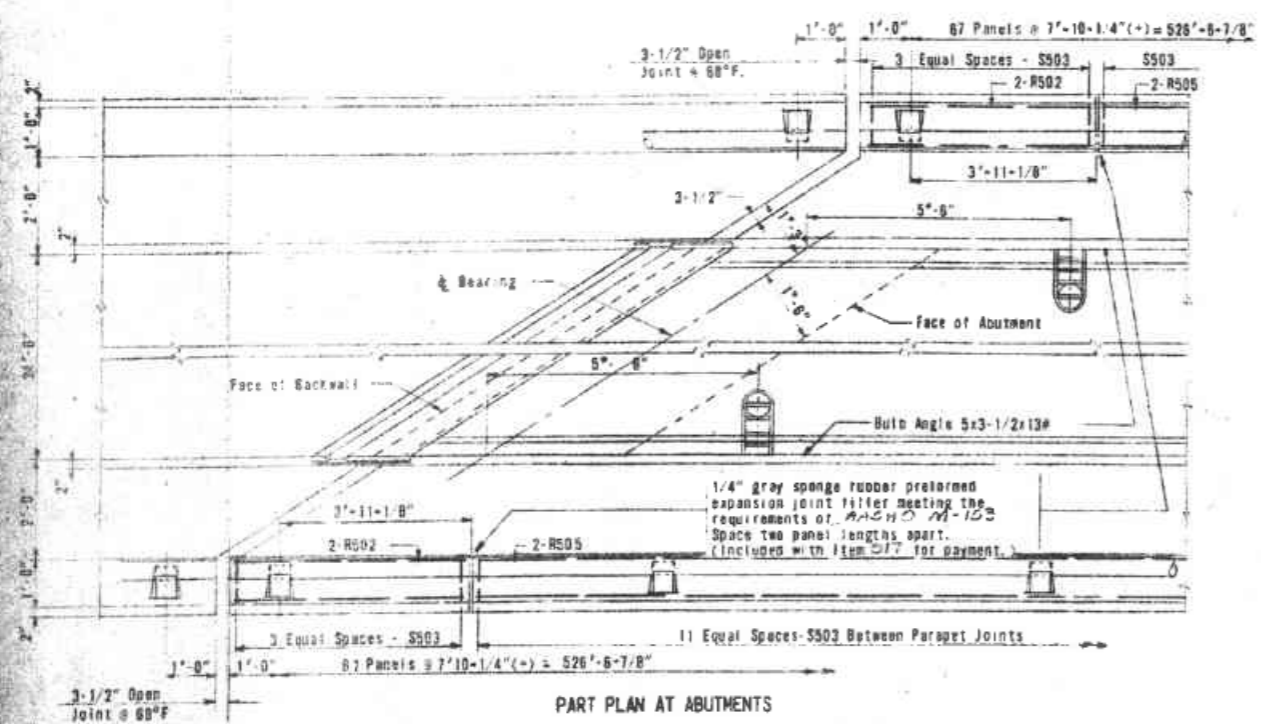
DEFLECTION AND CAMBER

	A	B
Girder 1	5.924	10.76
Girder 2	5.140	11.07
Girder 3	5.238	11.37
Girder 4	5.321	11.85

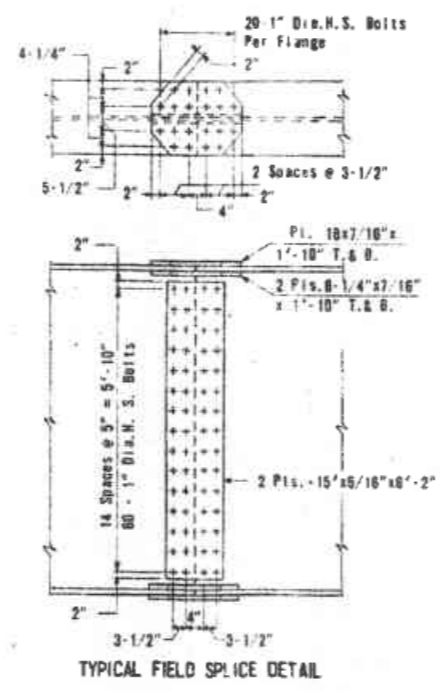
NOTE: ABOVE DIMENSIONS ARE

	SPAN 1									SPAN 2									SPAN 3									SPAN 4						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Deflect. due to weight of Steel - All Girders	0.03	0.05	0.05	0.05	0.04	0.02	0	-0.02	-0.02	0.07	0.17	0.28	0.32	0.34	0.30	0.23	0.13	0.04	0.01	0.07	0.15	0.21	0.24	0.22	0.17	0.10	0.02	0.02	0.07	0.14	0.20	0.24		
Deflect. due to remaining Dead Load - All Girders	0.14	0.25	0.31	0.37	0.27	0.18	0.06	-0.01	-0.05	0.23	0.58	0.95	1.19	1.26	1.13	0.84	0.48	0.15	0.06	0.25	0.56	0.87	0.92	0.88	0.84	0.76	0.10	0.10	0.31	0.58	0.82	0.96		
Vert Curve Adjust. - Girder 1	0.94	0.97	1.77	1.46	1.52	1.46	1.28	0.97	0.55	1.29	2.30	3.02	3.45	3.59	3.45	3.02	2.30	1.29	0.89	1.05	1.20	1.05	0.68	0.70	0.53	0.35	0.19	0.03	0.18	0.33	0.48	0.51		
Vert Curve Adjust. - Girder 2	0.42	0.84	1.16	1.36	1.44	1.39	1.23	0.94	0.53	0.86	1.63	2.01	2.10	1.91	1.53	1.15	0.78	0.39	0.83	1.38	1.63	1.60	1.35	1.08	0.81	0.54	0.27	0.03	0.18	0.33	0.48	0.51		
Vert Curve Adjust. - Girder 3	0.30	0.60	0.90	1.14	1.26	1.25	1.12	0.87	0.49	0.86	1.63	2.01	2.10	1.91	1.53	1.15	0.78	0.39	0.83	1.38	1.63	1.60	1.35	1.08	0.81	0.54	0.27	0.03	0.18	0.33	0.48	0.51		
Vert Curve Adjust. - Girder 4	0.28	0.40	0.61	0.81	0.98	1.03	0.95	0.76	0.44	0.86	1.63	2.01	2.10	1.91	1.53	1.15	0.78	0.39	0.83	1.38	1.63	1.60	1.35	1.08	0.81	0.54	0.27	0.03	0.18	0.33	0.48	0.51		
Req. Shop Camber - Girder 1	0.71	1.27	1.63	1.83	1.83	1.68	1.38	0.94	0.48	1.50	3.05	4.23	4.96	5.19	4.88	4.19	2.91	1.48	0.76	1.45	1.83	2.08	2.04	1.78	1.34	0.80	0.31	0.12	0.38	0.72	1.02	1.22		
Req. Shop Camber - Girder 2	0.58	1.14	1.52	1.73	1.75	1.59	1.31	0.91	0.46	1.50	3.05	4.23	4.96	5.19	4.88	4.19	2.91	1.48	0.90	1.74	2.38	2.63	2.51	2.16	1.62	0.99	0.40	0.12	0.38	0.72	1.02	1.22		
Req. Shop Camber - Girder 3	0.47	0.90	1.28	1.51	1.57	1.45	1.20	0.84	0.43	1.50	3.05	4.23	4.96	5.19	4.88	4.19	2.91	1.48	1.03	1.99	2.74	3.13	3.07	2.61	1.86	1.21	0.51	0.12	0.38	0.72	1.02	1.22		
Req. Shop Camber - Girder 4	0.37	0.70	0.97	1.18	1.20	1.23	1.03	0.73	0.37	1.50	3.05	4.23	4.96	5.19	4.88	4.19	2.91	1.48	1.13	2.20	3.05	3.55	3.50	3.14	2.35	1.48	0.64	0.12	0.38	0.72	1.02	1.22		

NOTE: ABOVE DIMENSIONS ARE IN INCHES



PART PLAN AT ABUTMENTS

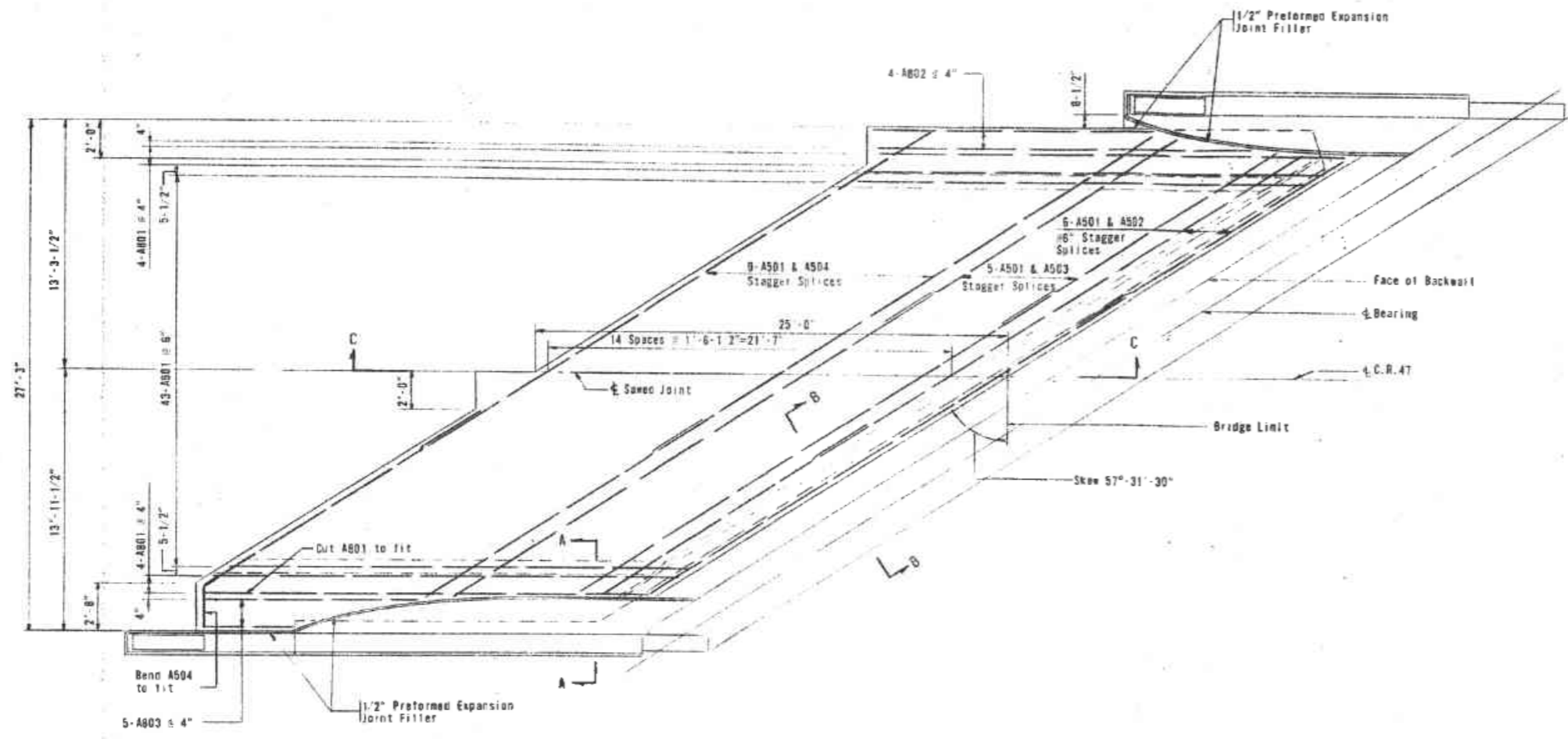


TYPICAL FIELD SPLICE DETAIL

J.E. GREINER COMPANY
CONSULTING ENGINEER
BALTIMORE, MARYLAND

**SUPERSTRUCTURE OF
BRIDGE NO. SUM-271
I.R. 271 UNDER SUMMIT C**

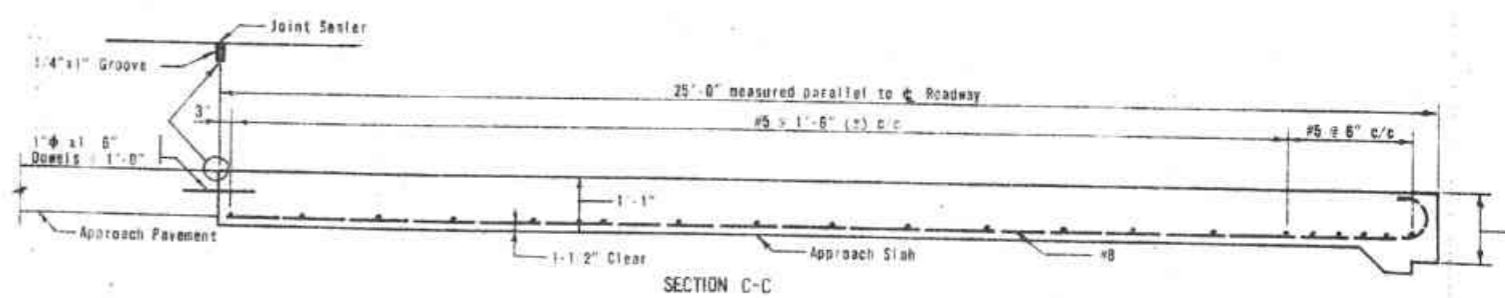
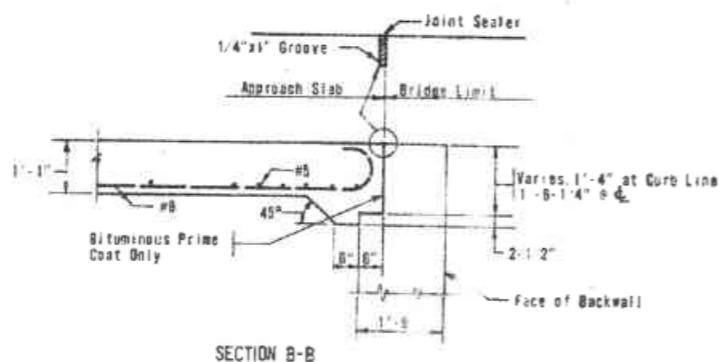
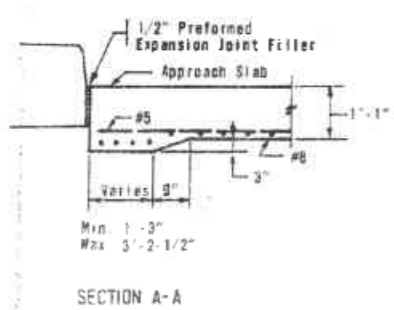
SUMMIT CO. ST
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SHERMAN ALKEMA ALKEMA PAHL MUDD



REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHP.
A801	102	25'-7"	6667	B
A802	2 Series of 4 Bars 1'-3" Incr.	15'-0" to 18'-8"	360	S
A803	2 Series of 5 Bars 1'-3" Incr.	4'-6" to 8'-6"	187	S
A501	40	30'-7"	1252	S
A502	12	15'-7"	185	S
A503	10	17'-3"	180	S
A504	18	21'-8"	407	S

Quantities are for two (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 (Revised 8-10-53)
 Concrete in Approach Slabs shall be Class C.



J.E. GREINER COMPANY
 CONSULTING ENGINEER
 BALTIMORE, MARYLAND

APPROACH SLAB DI
BRIDGE NO. SUM-27
I.R. 271 UNDER SUMMIT CI

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
SHERMAN	RYNA-RZEWSKI	RYNA-RZEWSKI	PAHL	MUDD