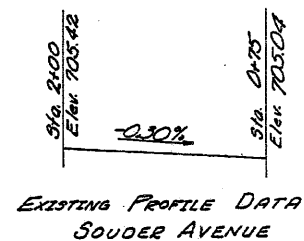
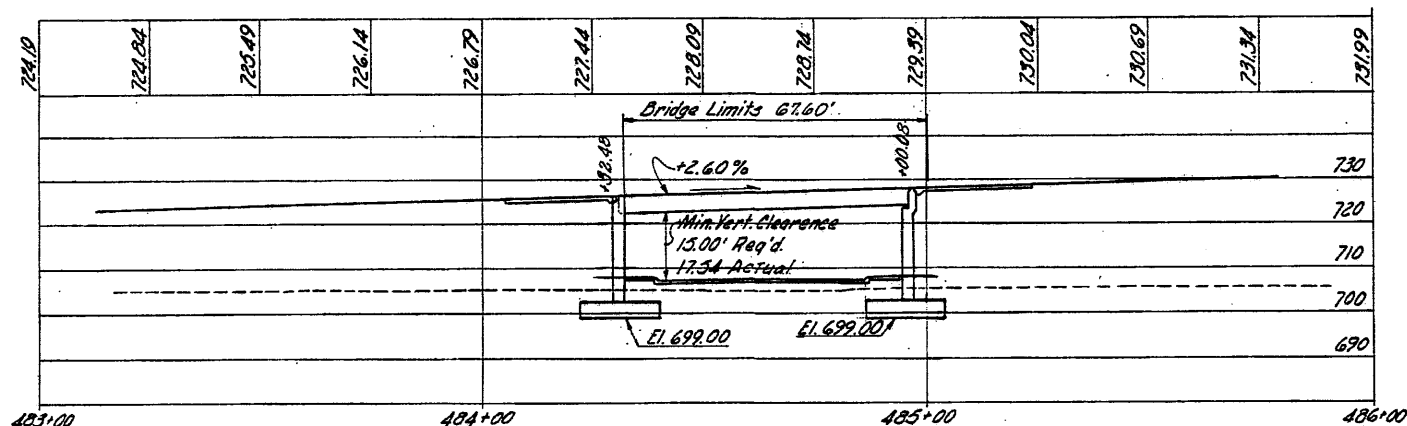


PLAN



NOTE: Earthwork Limits shown are schematic. Actual slopes shall conform to plan cross-sections.



PROFILE ALONG & SURVEY I.R. 70 W.B.

**PROPOSED STRUCTURE**  
 TYPE: Simple Prestressed Conc. I-Beams with Rein. Conc. Deck and Substructure.  
 SPAN: 64'-4" % Brg. along & Survey.  
 SKEN: 4'10"24" Left Forward  
 LOADING: HS-20-44 f Interstate alternate  
 WEARING SURFACE: 1" Monolithic Concrete  
 ROADWAY: Varies - Avg. = 77"74" fl parapet  
 ALIGNMENT: Tangent  
 APPROACH SLABS: Standard (30' Long)  
 SUPERELEVATION: None

E. S. PRESTON & ASSOCIATES, LIMITED 1/14  
 ENGINEERS  
 COLUMBUS, OHIO

**SITE PLAN**  
 BRIDGE NO. FRA-70-12875 (L)  
 I.R.-70 W.B OVER SOUDER AVENUE  
 FRANKLIN COUNTY  
 STA. 484+ 32.48 TO  
 STA. 485+00.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
E.J.	M.K.	E.A.	A.S.B.	7/14	

FRANKLIN COUNTY  
FRA-70-12.31 S

GENERAL NOTES

REFERENCE Shall be made to the following Standard Drawings:  
AS-1-67 revised 6-12-69  
BR-1-67 revised 10-15-71

AND to the following Supplemental Specifications:  
808 dated 1-1-71  
836 dated 1-1-71  
927 dated 1-1-71

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN LOADING: HS 20-44 and the Interstate Alternate Loading.

CONCRETE, CLASS "C": Unit Stress 1200 psi for superstructure.  
Unit Stress 1333 psi for substructure.

CONCRETE, PRESTRESSED: Min. strength at 28 days = 5500 psi.  
Min. strength at release of prestress = 4000 psi.

REINFORCING STEEL: ASTM A615, A616, A617-unit stress 20,000 p.s.i. If bars in accordance with ASTM A616 are provided they shall be subject to bend tests as per AASHTO designation M42-70.

MINIMUM COVER for all reinforcing steel in all footings shall be 3".

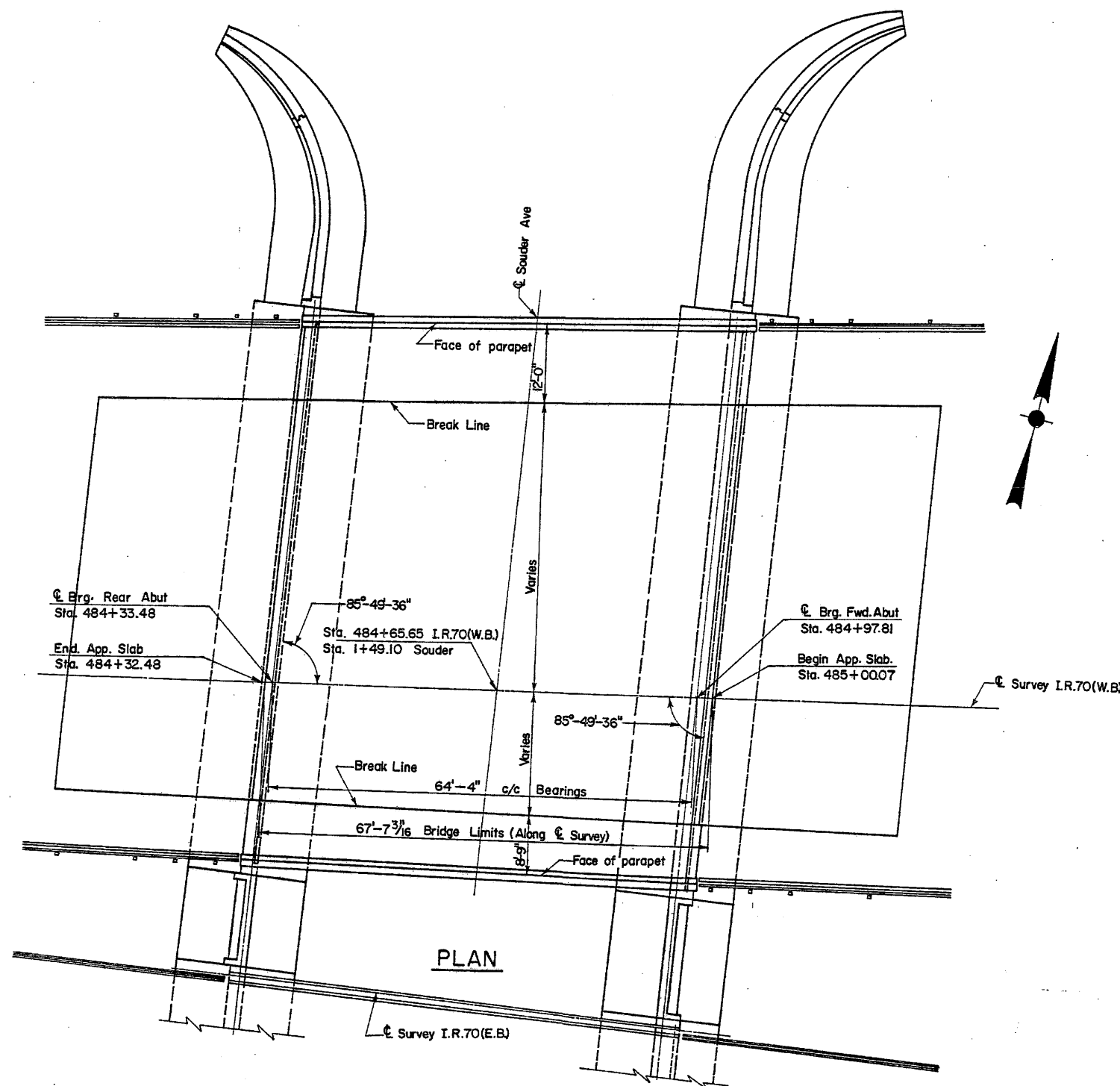
PRESTRESSING STRANDS are 7/16" uncoated seven wire stress relieved strand with an initial tension of 18,900 pound per strand.

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

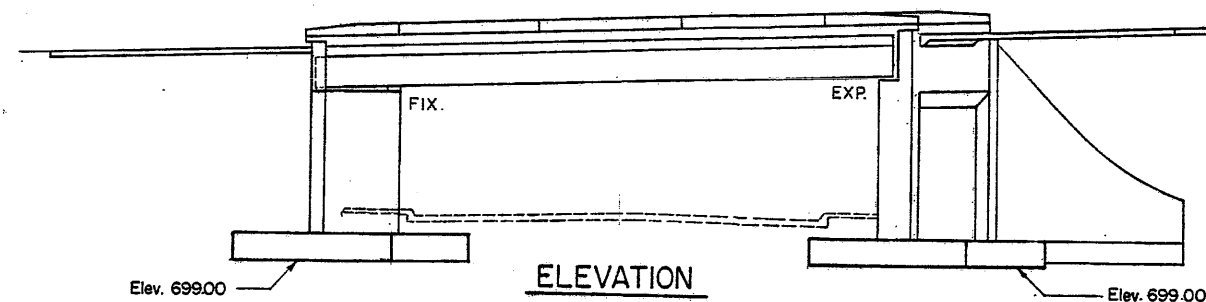
FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2.5 tons per sq.ft.

EMBANKMENT CONSTRUCTION: Before the backwall is constructed the embankment shall be constructed up to the level of the subgrade with a 1:1 slope from the bridge seat to the subgrade, for a minimum distance of 200 feet back of the abutment.

UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be born by the Owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.



PLAN



ELEVATION

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER	WALL GEN.
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING			
503	1,351	CUYDS.	UNCLASSIFIED EXCAVATION	848		503
509	139,385	LBS.	REINFORCING STEEL	64,283	48,829	26,273
511	205	CUYDS.	CLASS "C" CONCRETE, WALLS ABOVE FOOTINGS			205
511	604	CUYDS.	CLASS "C" CONCRETE, FOOTINGS	368		236
511	147	CUYDS.	CLASS "C" CONCRETE, SUPERSTRUCTURE		147	
511	353	CUYDS.	CLASS "C" CONCRETE, ABUTMENTS ABOVE FOOTINGS	353		
511	54	CUYDS.	DIAPHRAGMS FOR PRESTRESSED CONCRETE BRIDGE		54	
512	52	SQYDS.	TYPE B WATERPROOFING	27		25
512	209	LIN.FT.	PREMOLDED SEALING STRIP	92		117
515	852	LIN.FT.	PRESTRESSED CONCRETE BRIDGE MEMBERS (I-45)		852	
516	12	SQ.FT.	1/2" THICK ELASTOMERIC BEARING PADS		12	
516	13	EACH	BEARING ASSEMBLIES		13	
516	7583	LBS.	EXPANSION AND CONTRACTION JOINTS (STRUCTURAL)		7583	
516	200	SQ.FT.	1/2" PREFORMED EXPANSION JOINT FILLER	200		
518	24	LIN.FT.	8" PERFORATED C.M.P. (707.01) INCLUDING SPECIALS	24		
518	366	CUYDS.	POROUS BACKFILL	254		112
516	384	SQ.FT.	1" PREFORMED EXPANSION JOINT FILLER			384
808	147	UNITS	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D		147	
625			SEE SHEET 527 FOR LIGHTING SUMMARY			

NOTE:

For Parapet Details See Sheet 11/14

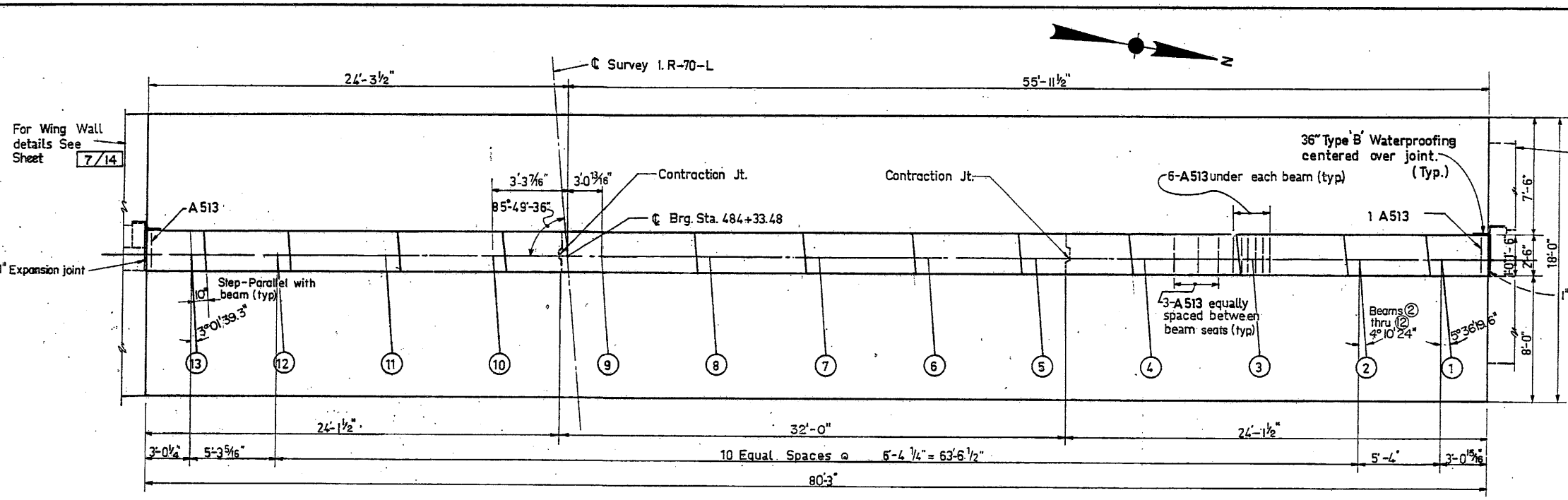
E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

GENERAL PLAN  
AND ELEVATION  
BRIDGE No. FRA-70-1287S (L)  
I.R-70 W.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY

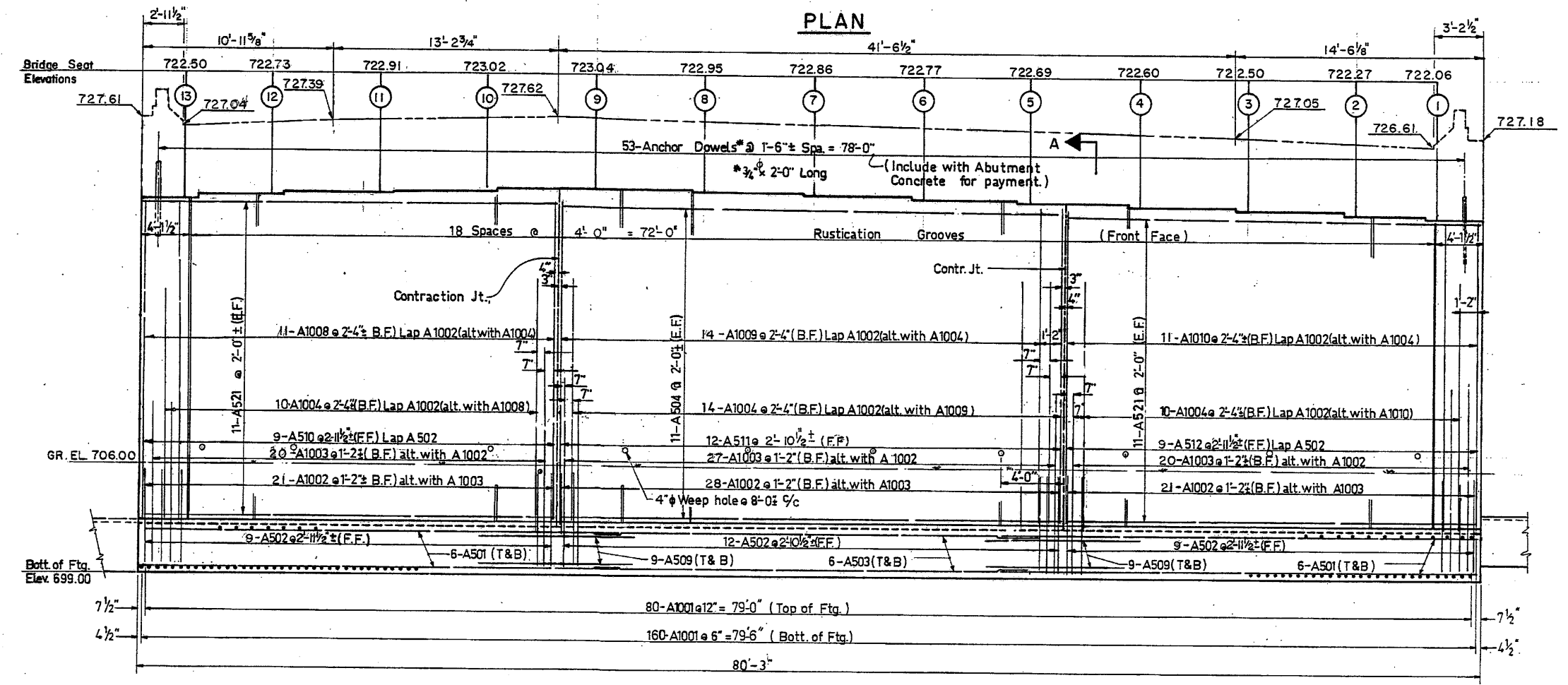
STA. 484+32.48 To  
STA. 485+00.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
2-1	N.N.	M.L.S.	A.S.B.	12/1/71	

FRANKLIN COUNTY  
FRA-70-12.31 S

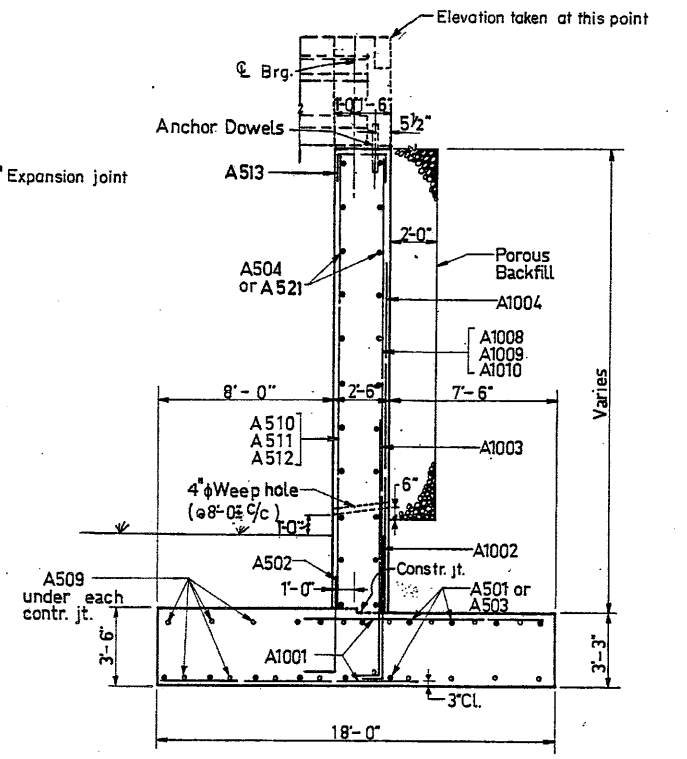


PLAN



ELEVATION

For Wing Wall details See Sheet 7/14



SECTION A-A

NOTES:

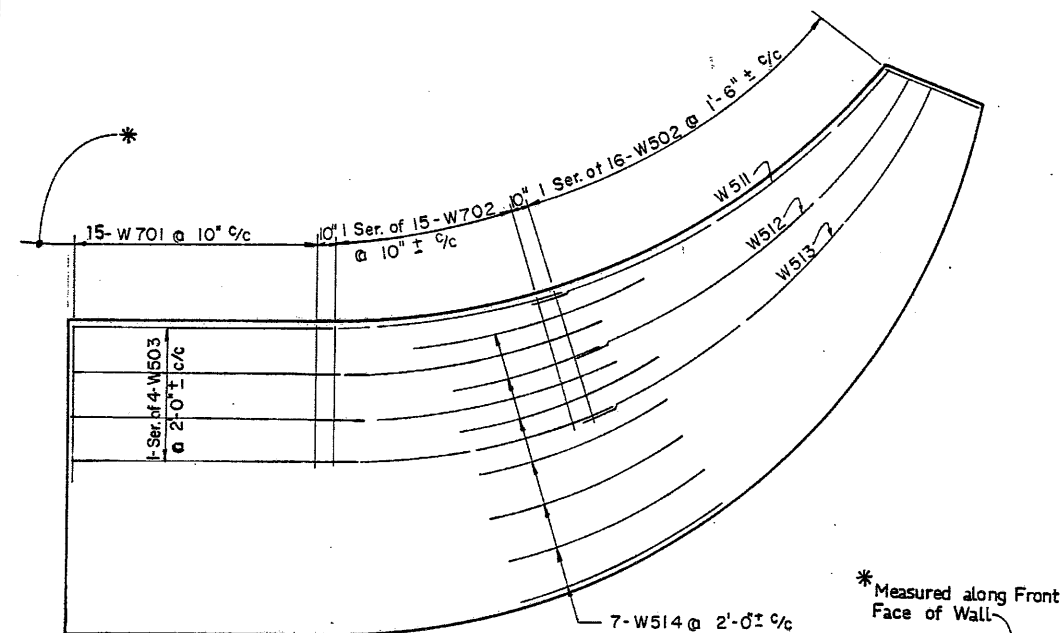
POROUS BACKFILL, 2 ft. thick full length of abutment and wings, shall extend up to the subgrade or to the finished ground surface.  
BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.

For General Notes See Sheet 2/14  
For Contraction Joint Detail See Sheet 7/14  
For Rustication Groove Detail See Sheet 7/14  
For Superstructure End Diaphragm See Sheet 9/14 and 10/14

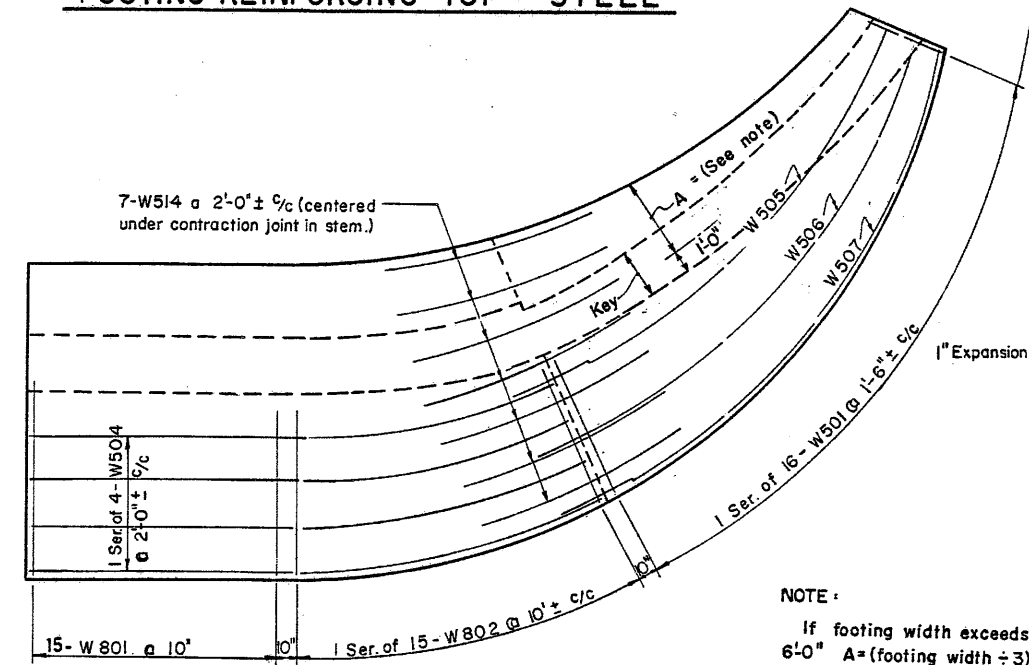
LEGEND:  
E.F. = Each Face  
F.F. = Front Face  
B.F. = Back Face  
T&B = Top and Bott.

E.S. PRESTON & ASSOCIATES, LIMITED		3 / 14
ENGINEERS COLUMBUS, OHIO		
<b>REAR ABUTMENT DETAILS</b>		
BRIDGE No. FRA-70-1287S (L)		
I.R-70 W.B. OVER SOUDER AVENUE		
FRANKLIN COUNTY		STA. 484+32.48 To STA. 485+00.08
DESIGNED	DRAWN	TRACED
AS.	R.L.	E.D.A.
CHECKED	REVIEWED DATE	REVISED
ASB	9/14	

FRANKLIN COUNTY  
FRA.-70-12.31 S



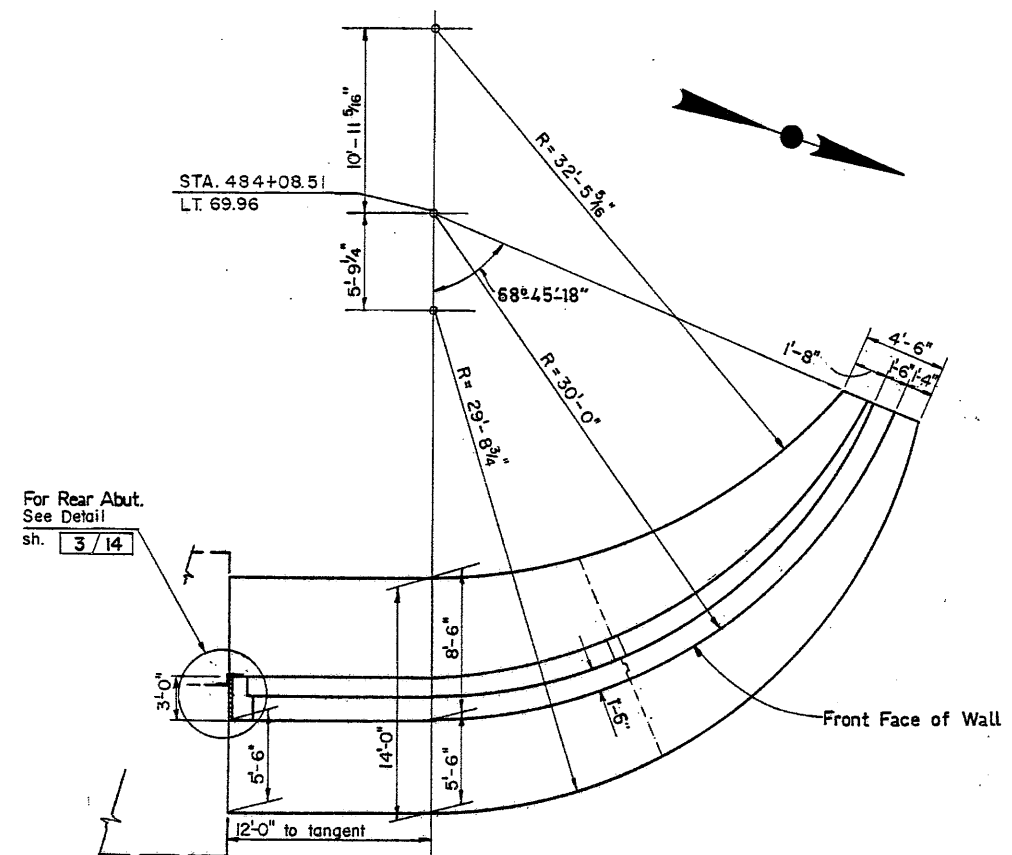
FOOTING REINFORCING TOP - STEEL



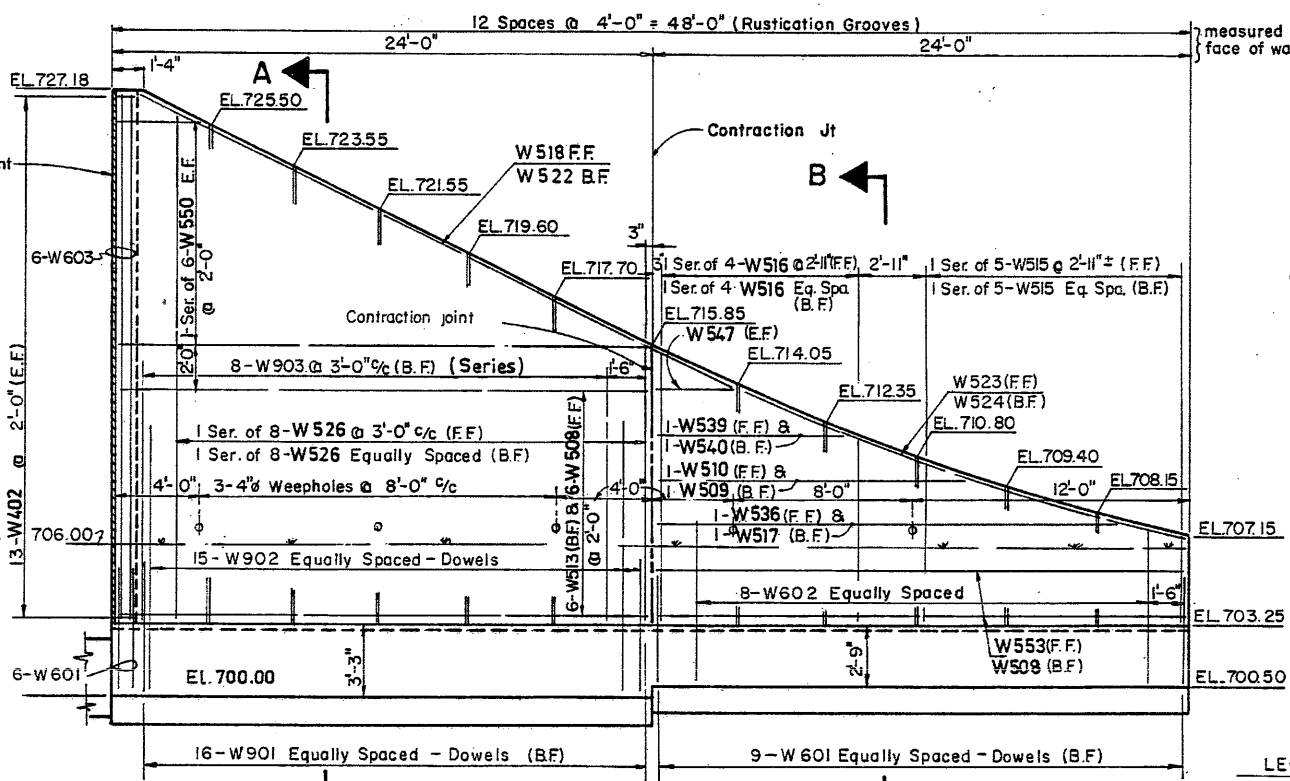
FOOTING REINFORCING BOTTOM - STEEL

NOTES:  
For Additional Details See Sh. 7/14  
For Additional Notes See Sh. 2/14

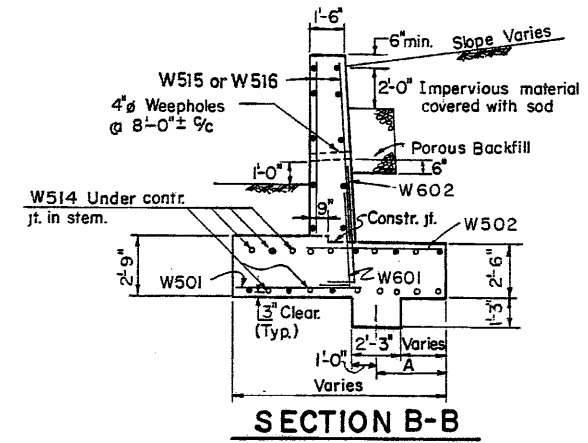
NOTE:  
If footing width exceeds 6'-0" A = (footing width ÷ 3) otherwise A = (ftg. width ÷ 2). Transition gradually.



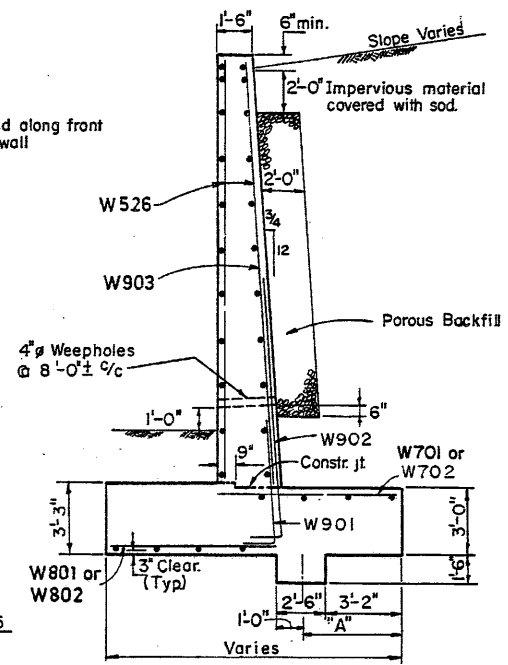
PLAN OF NORTHWEST WINGWALL



DEVELOPED ELEVATION OF NORTHWEST WINGWALL



SECTION B-B

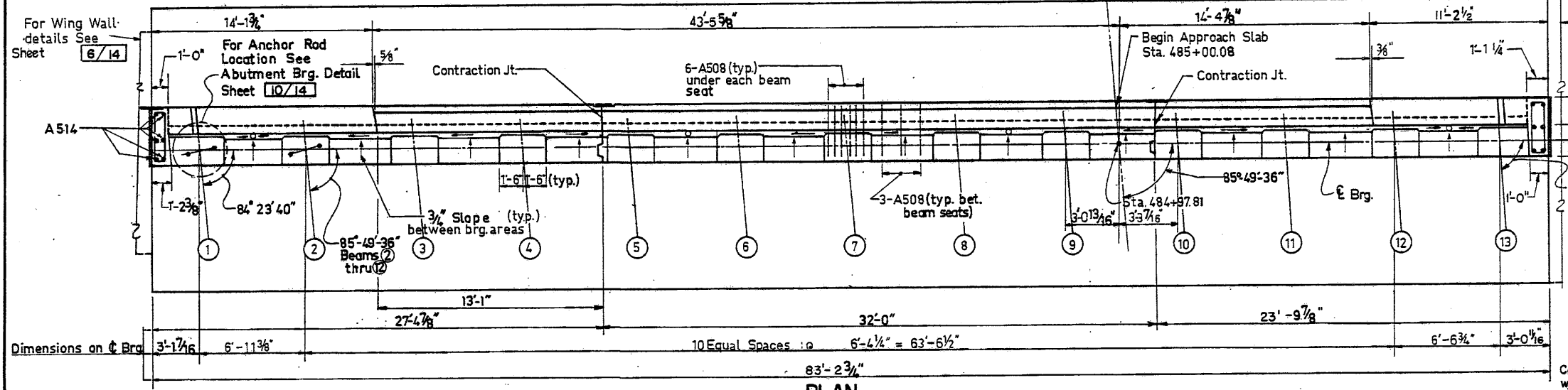


SECTION A-A

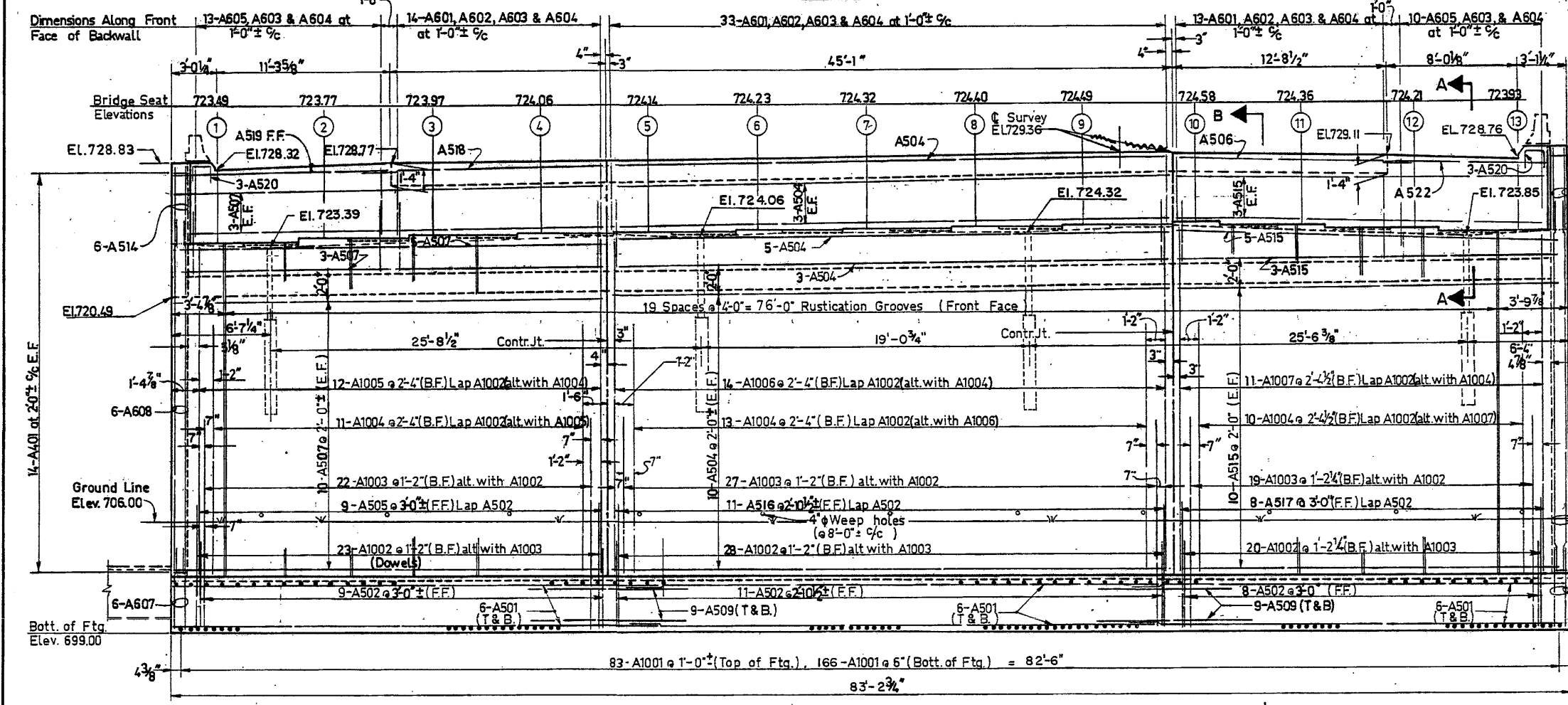
LEGEND:  
F.F = Front Face  
B.F = Back Face  
E.F = Each Face

E. S. PRESTON ASSOCIATES, INC. 4/14				
ENGINEERS COLUMBUS, OHIO				
<b>NORTHWEST WINGWALL</b>				
BRIDGE NO. FRA-70-1287 S (L)				
I.R.-70 W.B. OVER SOUDER AVENUE				
FRANKLIN COUNTY STA. 484+32.48 TO STA. 485+00.08				
Designed	Drawn	Traced	Checked	Reviewed Date
A.S.	R.L.	E.D.A.	A.S.B.	3/11/71

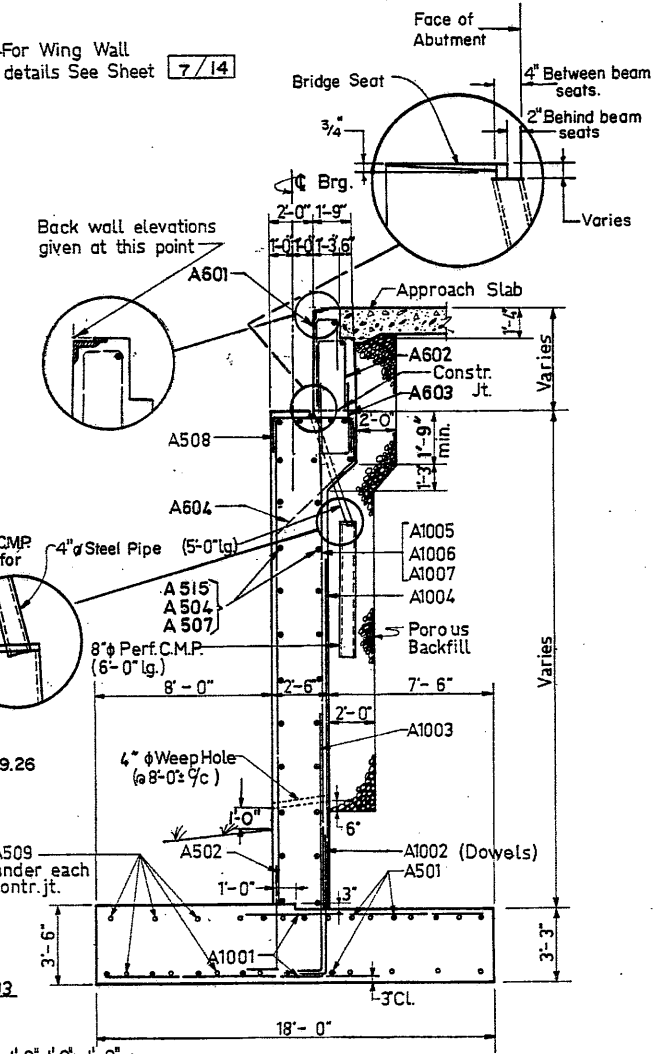
**FRANKLIN COUNTY  
FRA-70-12.31 S**



**PLAN**



**ELEVATION**



**SECTION B-B**

- NOTES**
- For General Notes See Sheet 2/14
  - For Abutment Notes See Sheet 3/14
  - For Contraction Joint Detail See Sheet 7/14
  - For Rustication Groove Detail See Sheet 7/14

**SECTION A-A**

- LEGEND:**
- E.F. = Each Face
  - F.F. = Front Face
  - B.F. = Back Face
  - T & B = Top and Bottom

E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

**FORWARD ABUTMENT DETAILS**

BRIDGE No. FRA-70-1287S( L )  
I.R-70 W.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY

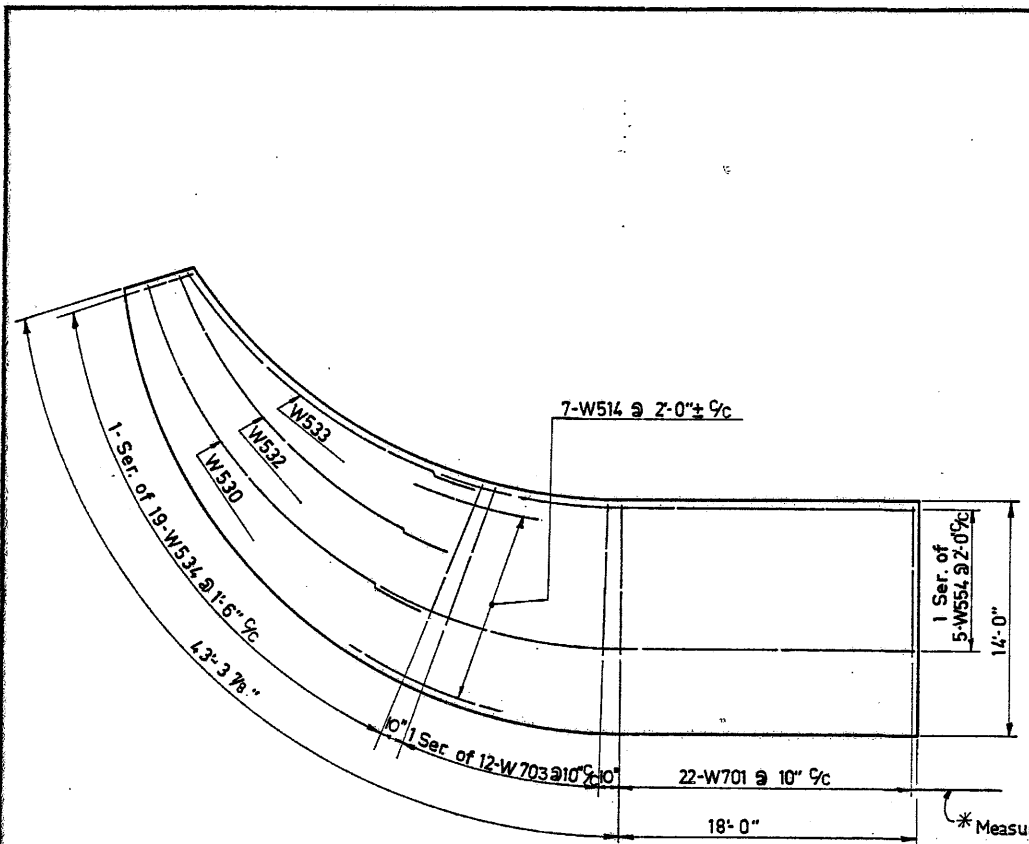
STA. 484+32.48 To  
STA. 485+00.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DK	AY	ML	MY		5-30-75

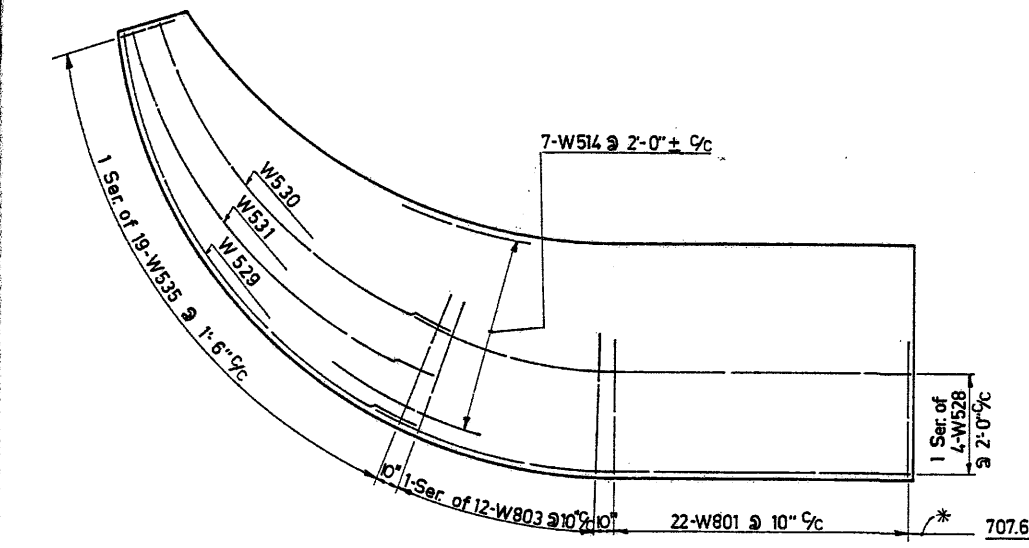
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

649

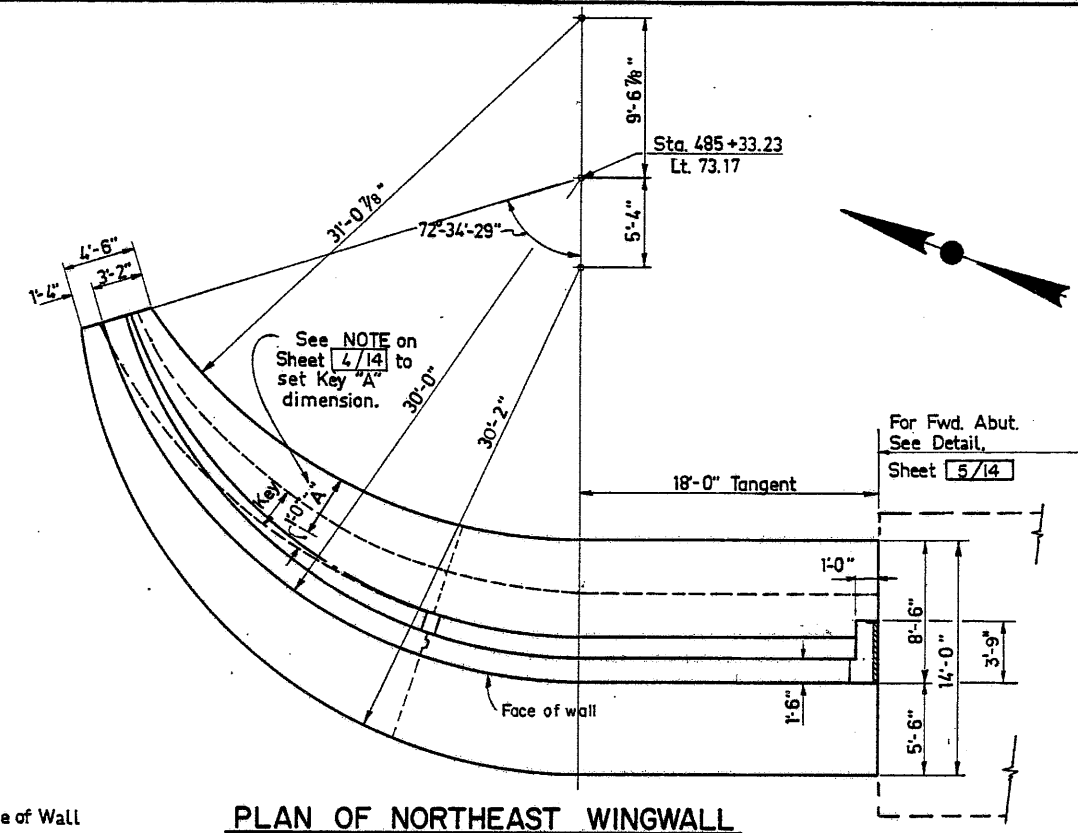
FRANKLIN COUNTY  
FRA-70-12.31 S



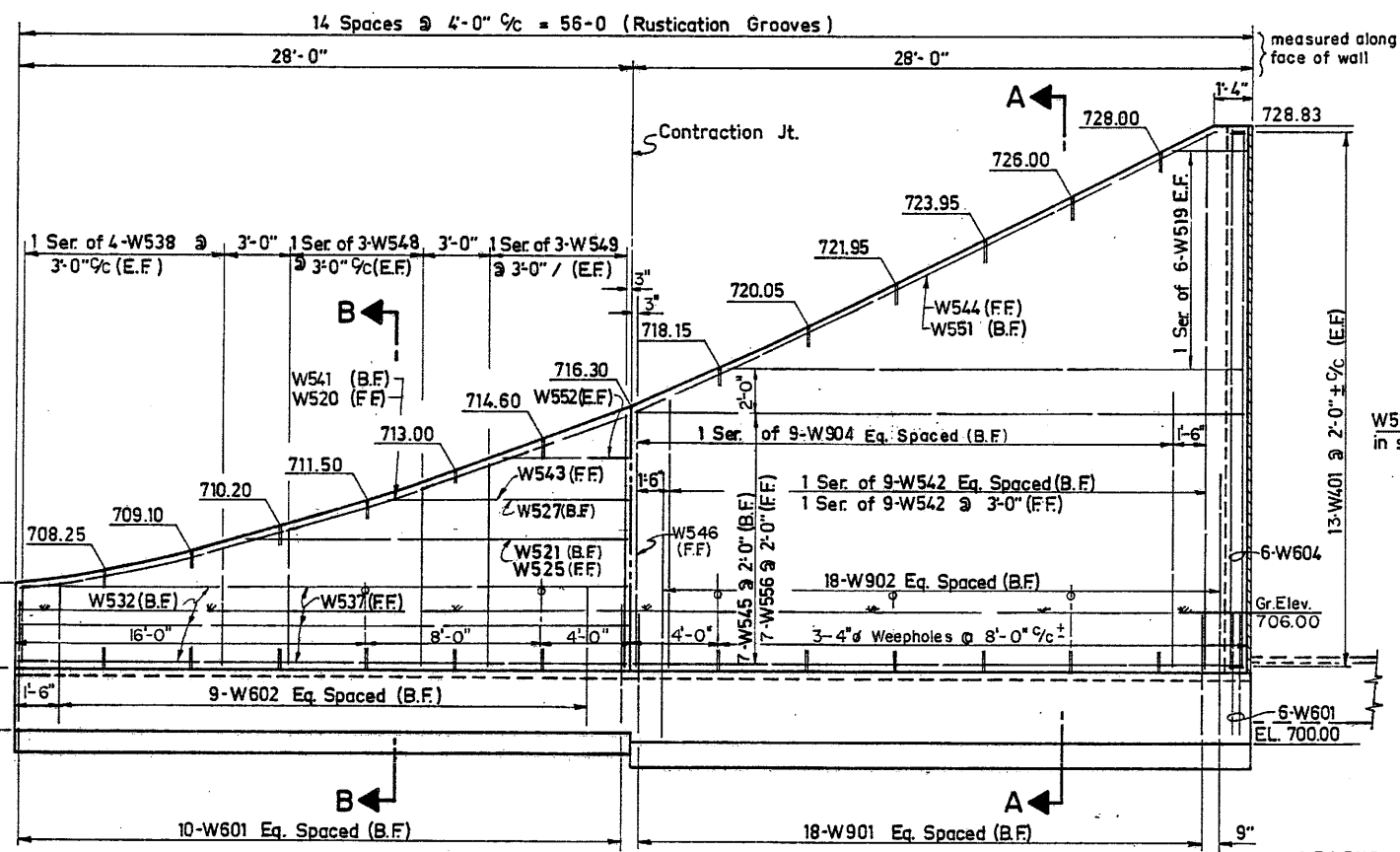
FOOTING REINFORCING-TOP STEEL



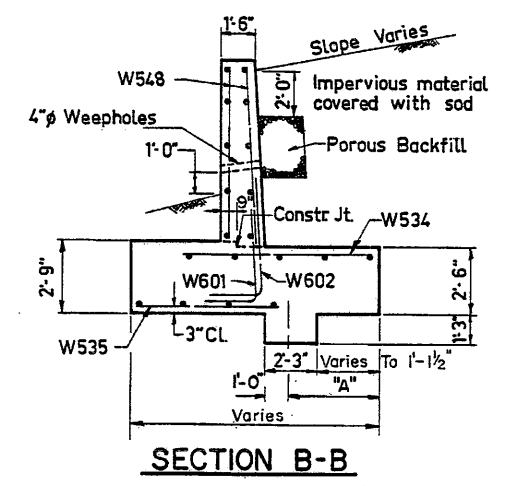
FOOTING REINFORCING-BOTTOM STEEL



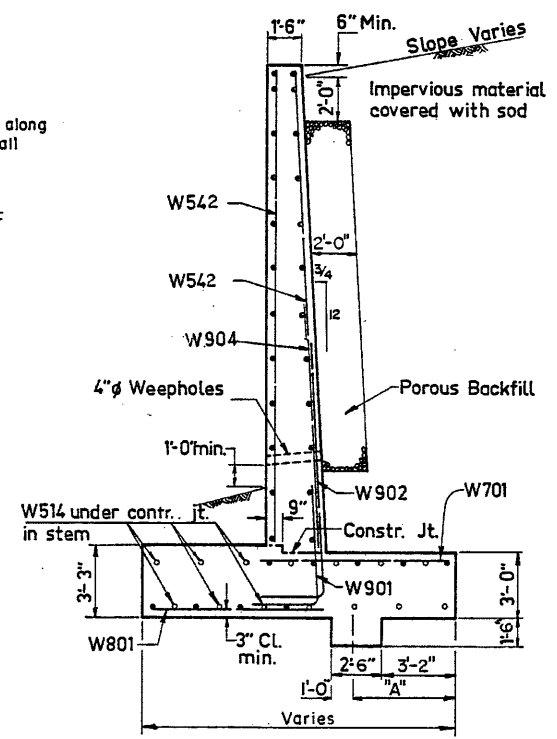
PLAN OF NORTHEAST WINGWALL



DEVELOPED ELEVATION NORTHEAST WINGWALL



SECTION B-B



SECTION A-A

NOTES:  
For Additional Details See Sh. 7/14  
For Additional Notes See Sh. 2/14

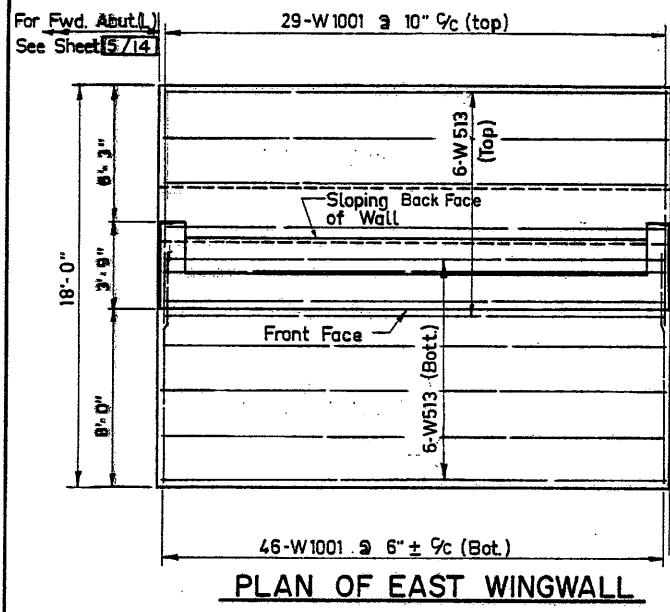
LEGEND  
FF = Front Face  
B.F = Back Face  
E.F = Each Face

E. S. PRESTON & ASSOCIATES, LIMITED		6/14
ENGINEERS		
COLUMBUS, OHIO		
<b>NORTHEAST WINGWALL</b>		
BRIDGE NO. FRA-70-1287S (L.)		
IR-70 WB. OVER SOUDER AVENUE		
FRANKLIN COUNTY STA. 484+32.48		
STA. 485+00.08		
DESIGNED	DRAWN	TRACED
A.S.	R.L.	E.D.A.
CHECKED	REVIEWED DATE	REVISION
A.S.B.		

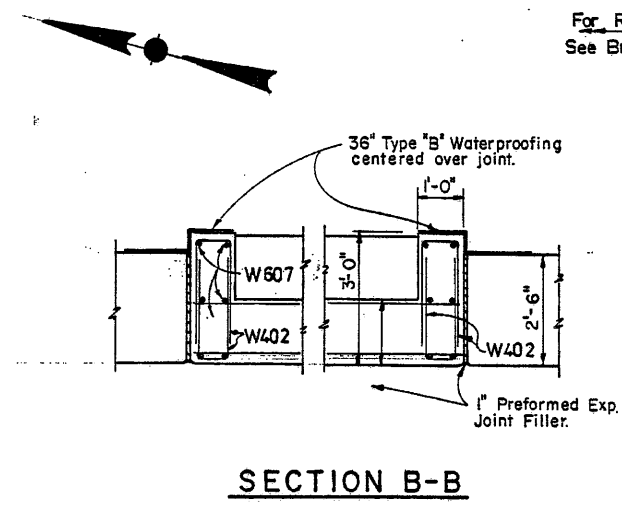
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



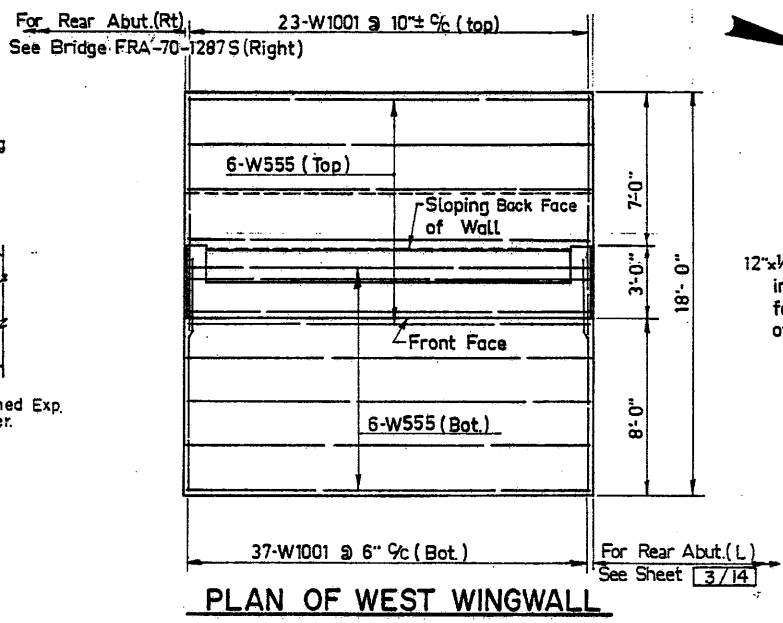
FRANKLIN COUNTY  
FRA-70-12.31 S



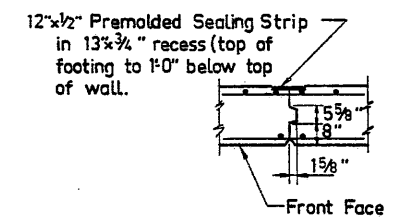
PLAN OF EAST WINGWALL



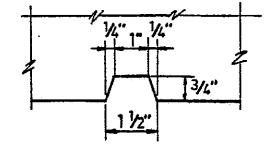
SECTION B-B



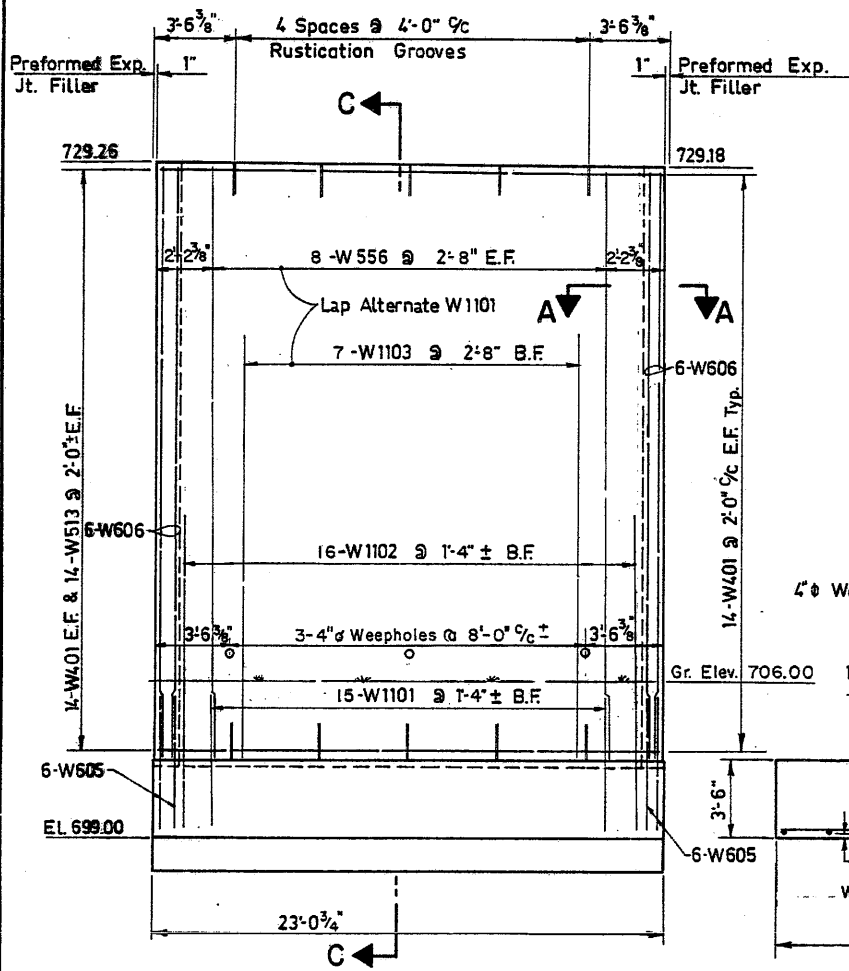
PLAN OF WEST WINGWALL



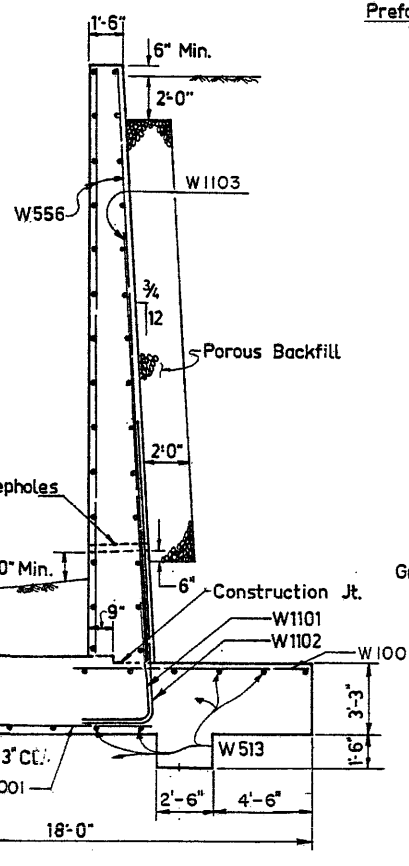
CONTRACTION JOINT DETAIL



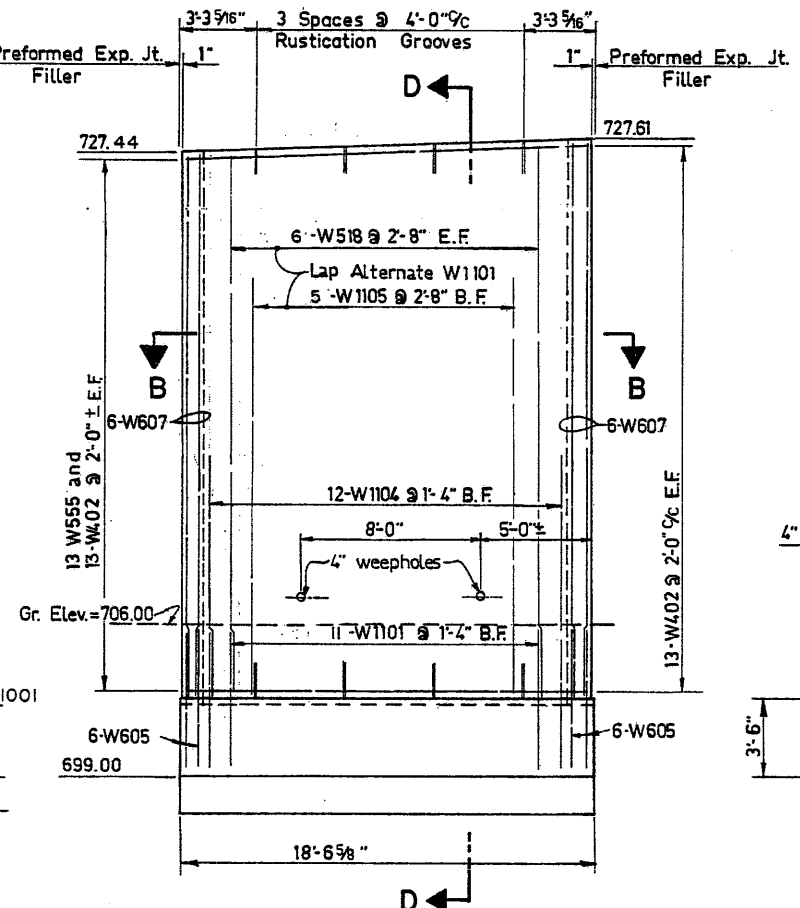
VERTICAL RUSTICATION GROOVE



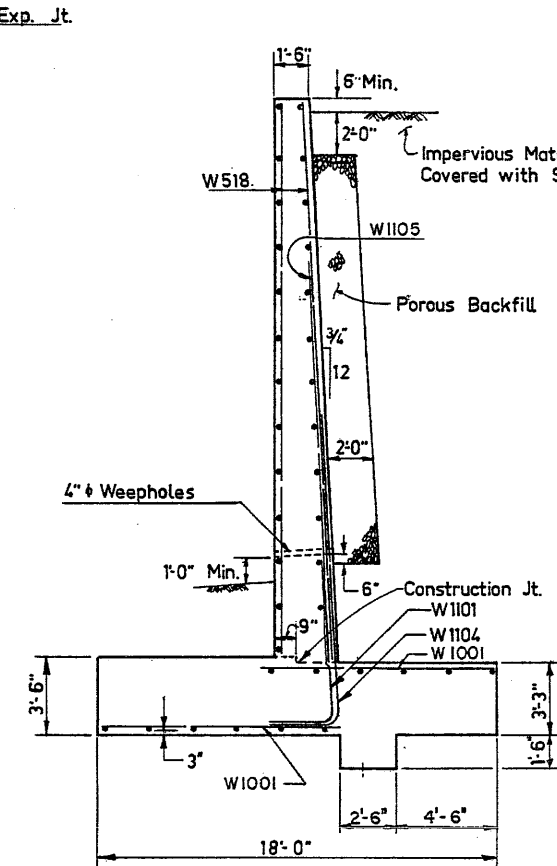
ELEVATION OF EAST WINGWALL



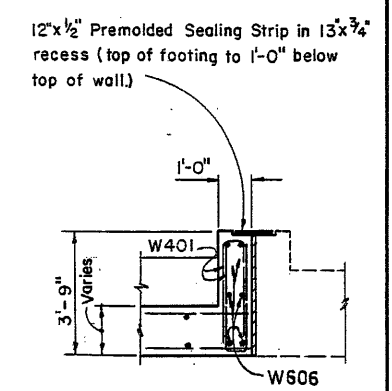
SECTION C-C



ELEVATION OF WEST WINGWALL



SECTION D-D



SECTION A-A

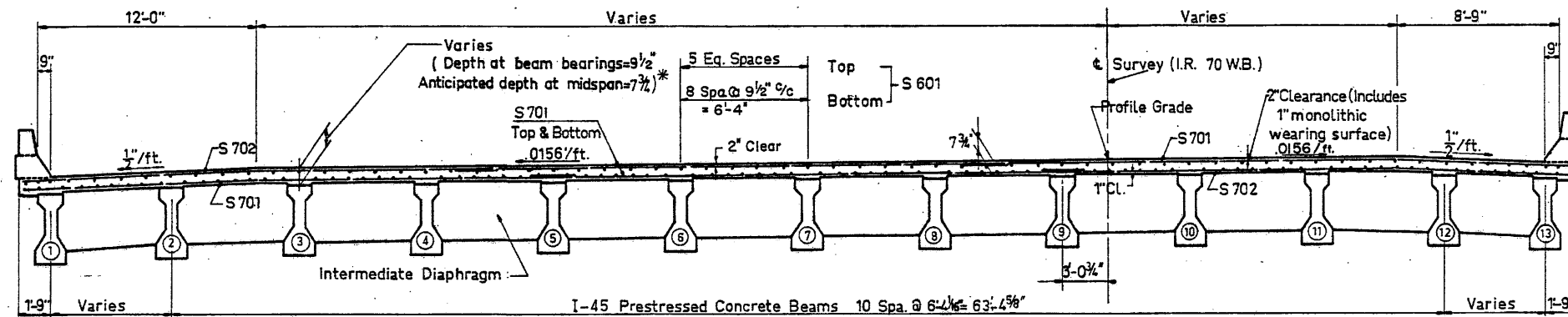
NOTES  
For General Notes, see sheet 2/14

LEGEND  
E.F. = Each Face  
F.F. = Front Face  
B.F. = Back Face

E. S. PRESTON ASSOCIATES, INC. 7/14					
ENGINEERS COLUMBUS, OHIO					
<b>WINGWALL DETAILS</b>					
BRIDGE NO. FRA-70-1287 S (L)					
I.R.-70.W.B.OVER SOUDER AVENUE					
FRANKLIN COUNTY STA. 484+32.48 TO					
STA. 485+00.08					
Designed	Drawn	Traced	Checked	Reviewed Date	Revised
D.K.	A.Y.	E.A.	M.K.	11/14	

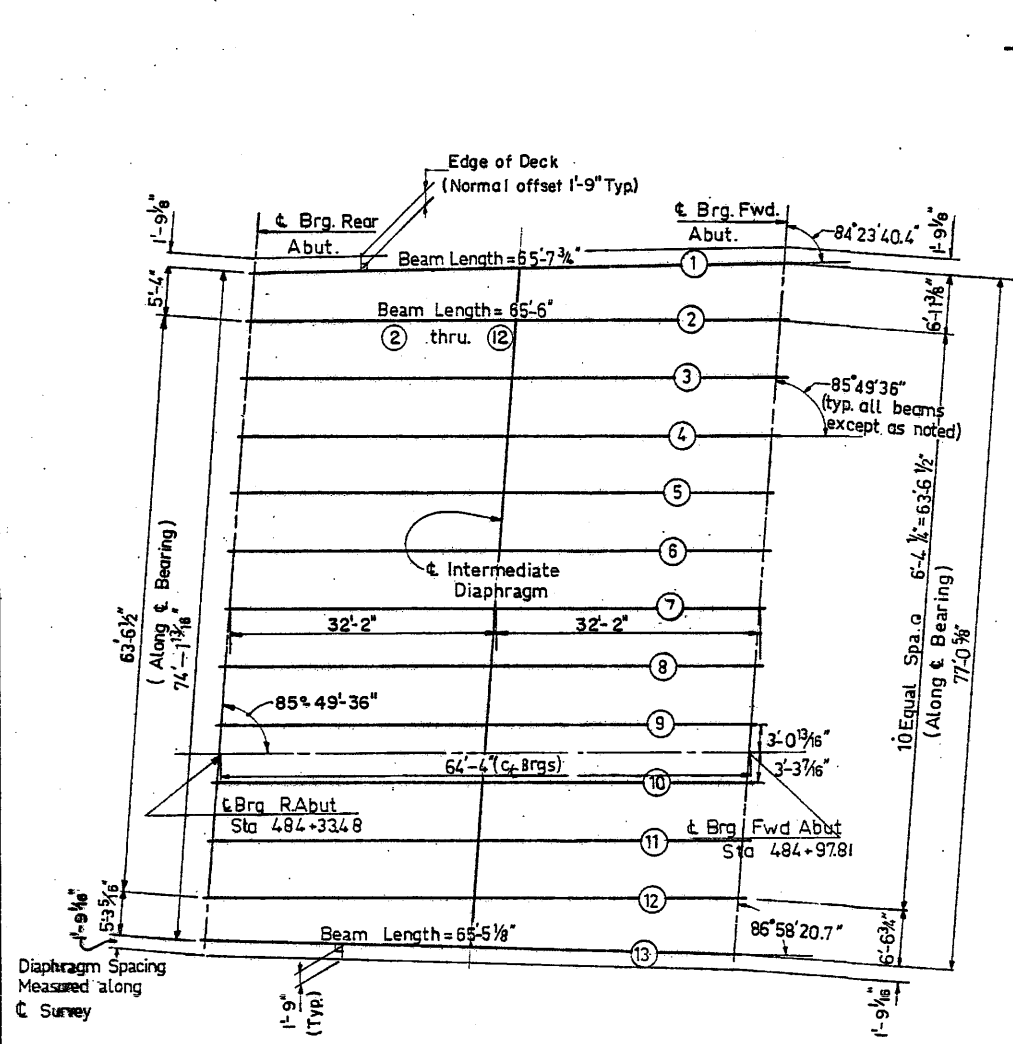
FED. RD. DIVISION	STATE	PROJECT	651
2	OHIO		

FRANKLIN COUNTY  
FRA.-70-12.31 S

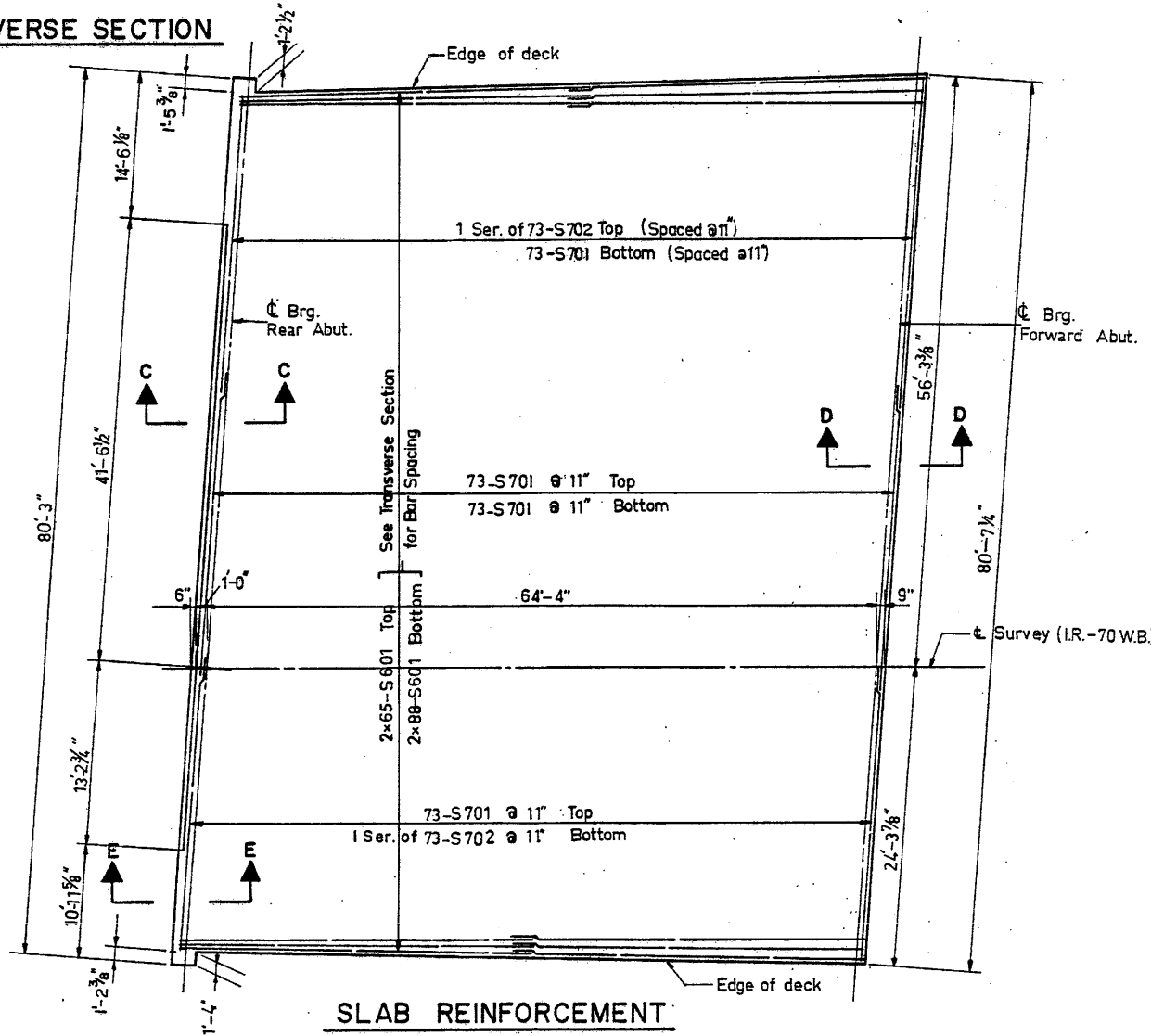


\* This is the nominal dimension. The pay quantity of that portion of the deck concrete over the beams shall be based on the average of this dimension and the depth at beam bearings even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design; i.e. 2.32". The camber of beams shall be measured in the field before the deck is placed. The actual depth at mid-span shall be 10.07" minus the measured camber.

**TRANSVERSE SECTION**



**BEAM & DIAPHRAGM LAYOUT**



**SLAB REINFORCEMENT**



- NOTES:**
- For General Notes See Sheet **2/14**
  - For Intermediate Diaphragm See Sheet **9/14**
  - For Sections C-C & E-E See Sheet **9/14**
  - For Parapet Details See Sheet **11/14**
  - For End Dam Details at Fwd. Abut. See Sheet **12/14**
  - For Section D-D See Sheet **10/14**

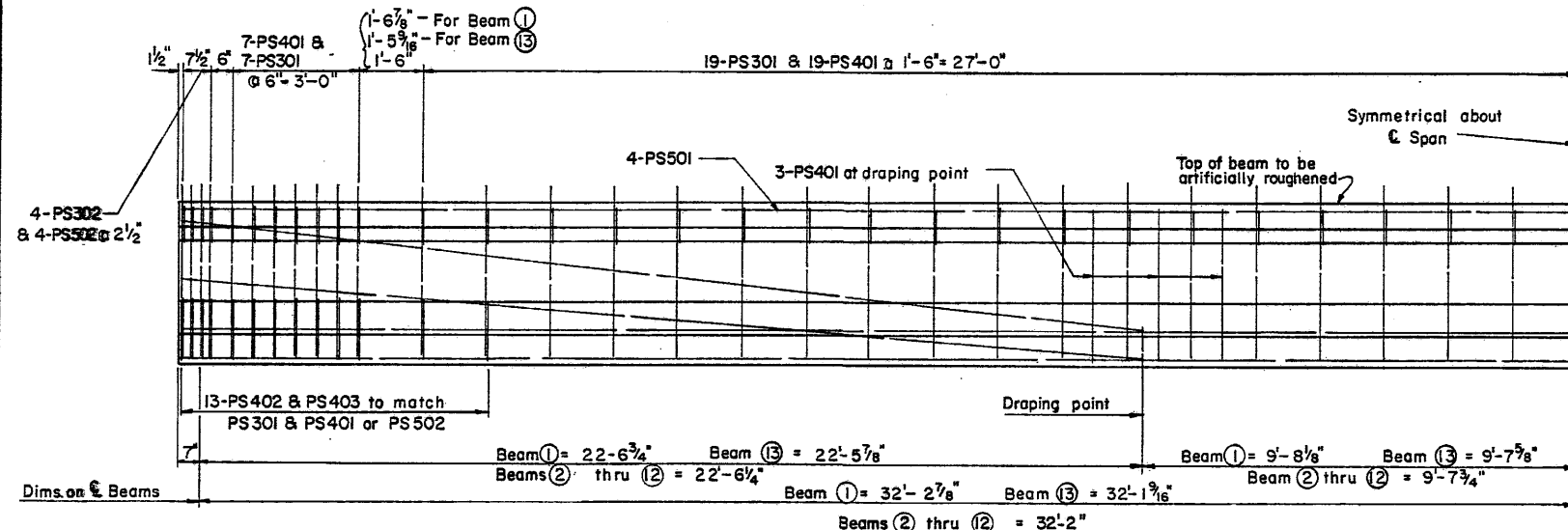
E. S. PRESTON & ASSOCIATES, LIMITED 8/14  
ENGINEERS  
COLUMBUS, OHIO

**SUPERSTRUCTURE DETAILS**

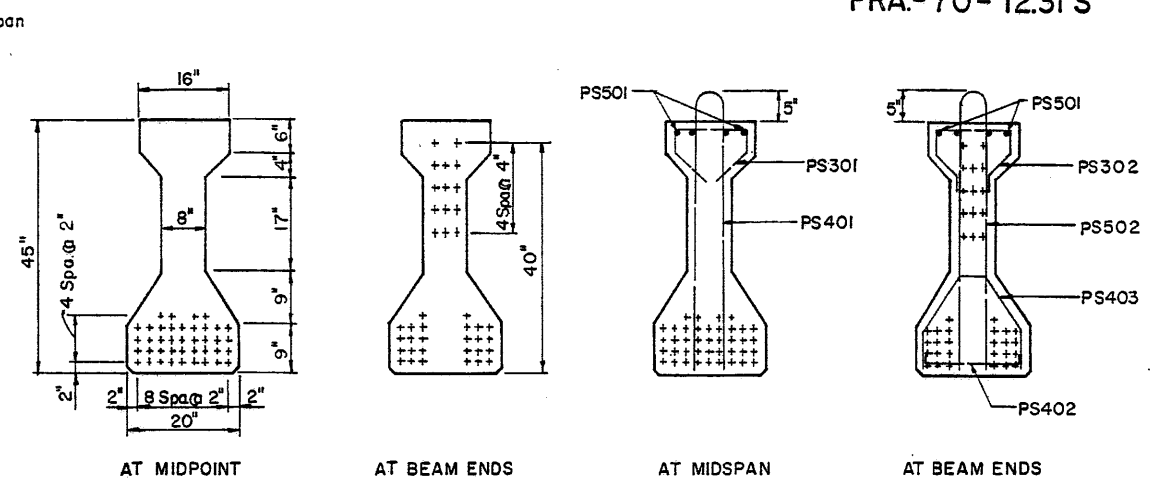
BRIDGE No. FRA-70-1287S ( L )  
I.R.-70 W.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY  
STA. 484+32.48 To  
STA. 485+00.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DK	AY	E.A.	HK		





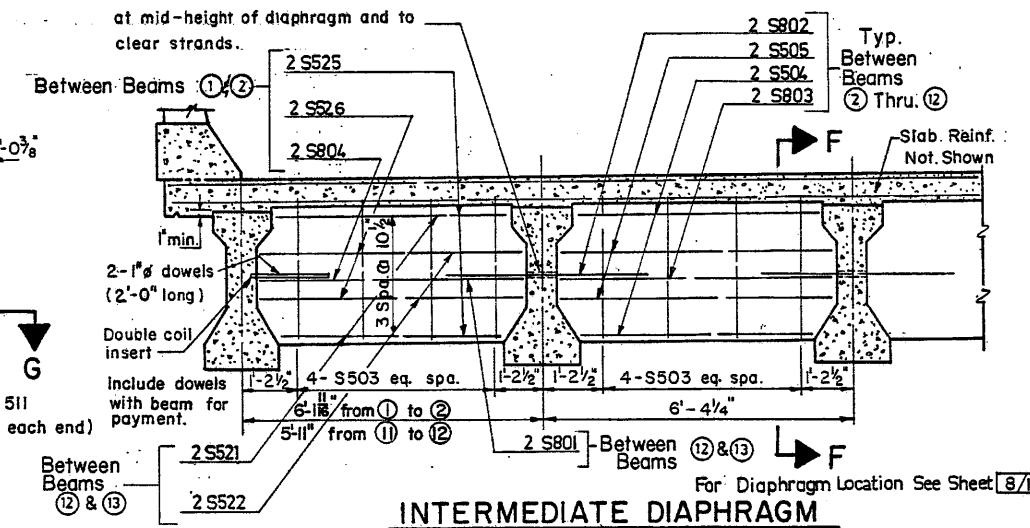
HALF BEAM ELEVATION



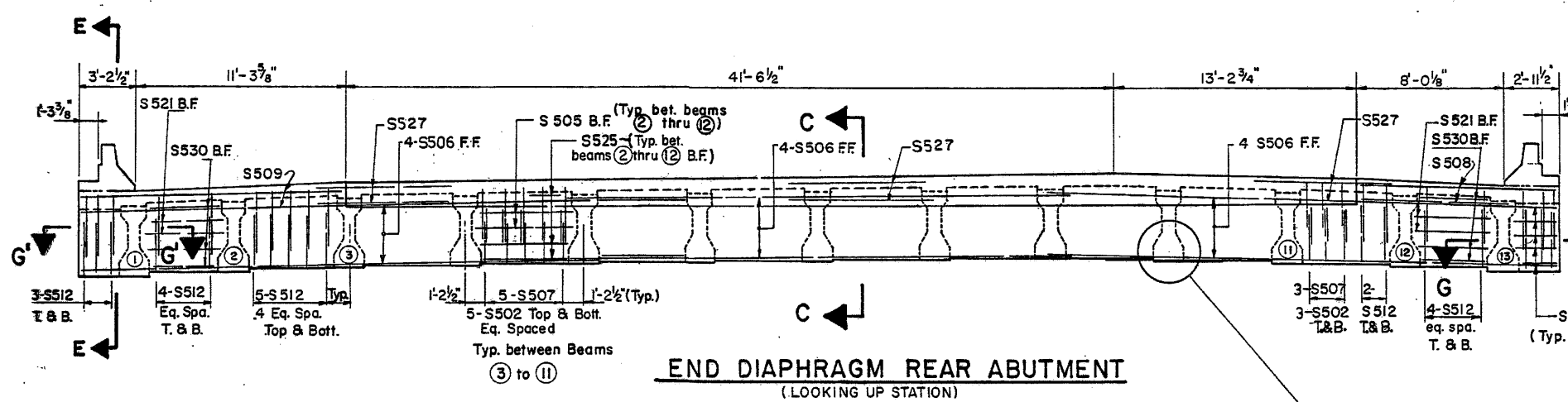
TYPICAL STRAND PATTERN IN BEAMS

MILD STEEL REINFORCEMENT IN BEAMS

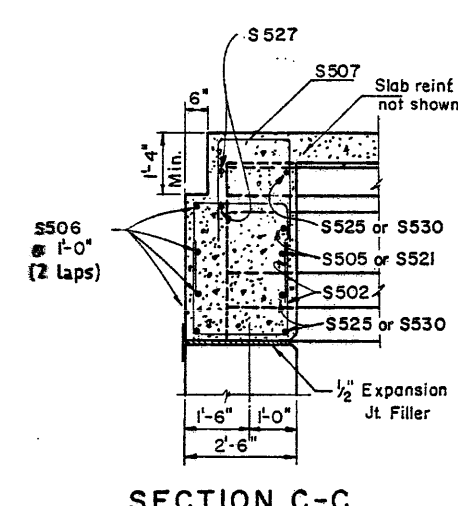
NOTE: 2"  $\phi$  holes in beam located approximately at mid-height of diaphragm and to clear strands.



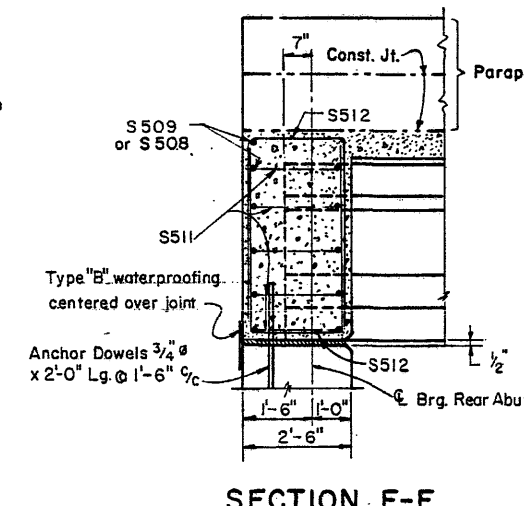
INTERMEDIATE DIAPHRAGM



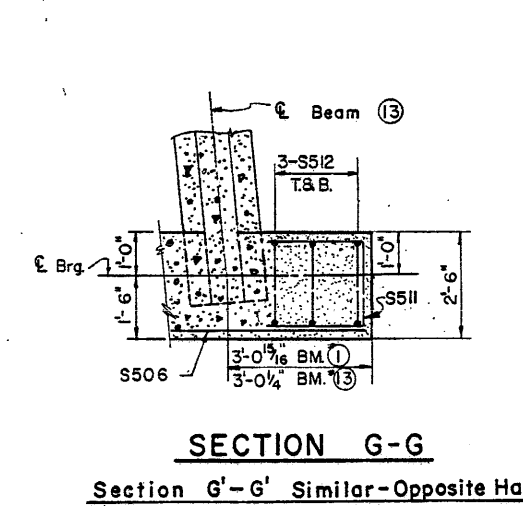
END DIAPHRAGM REAR ABUTMENT (LOOKING UP STATION)



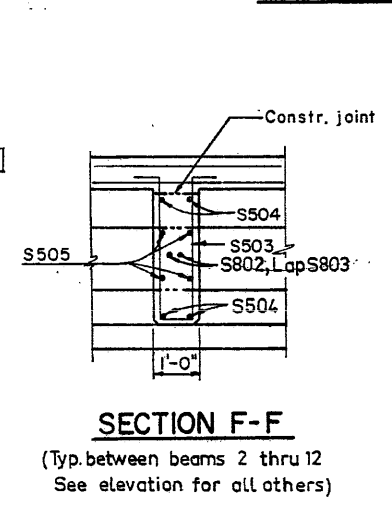
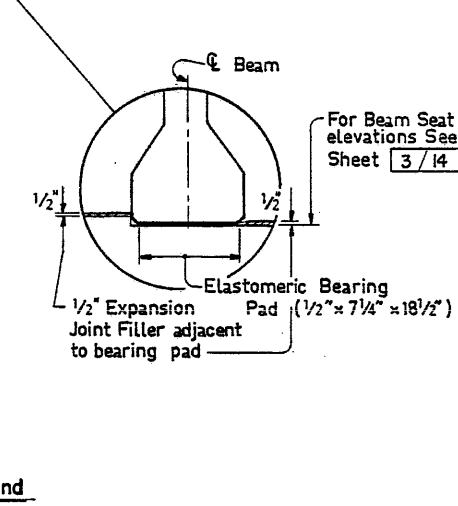
SECTION C-C



SECTION E-E



SECTION G-G Section G'-G' Similar - Opposite Hand



SECTION F-F (Typ. between beams 2 thru 12 See elevation for all others)

**LEGEND**

FF = Front Face  
B.F = Back Face  
E.F = Each Face  
T. & B. = Top and Bottom

E. S. PRESTON ASSOCIATES, INC. 9/14  
ENGINEERS  
COLUMBUS, OHIO

**SUPERSTRUCTURE DETAILS**  
BRIDGE NO. FRA-70-1287S (L)  
IR-70 W.B. OVER SOUDER AVENUE

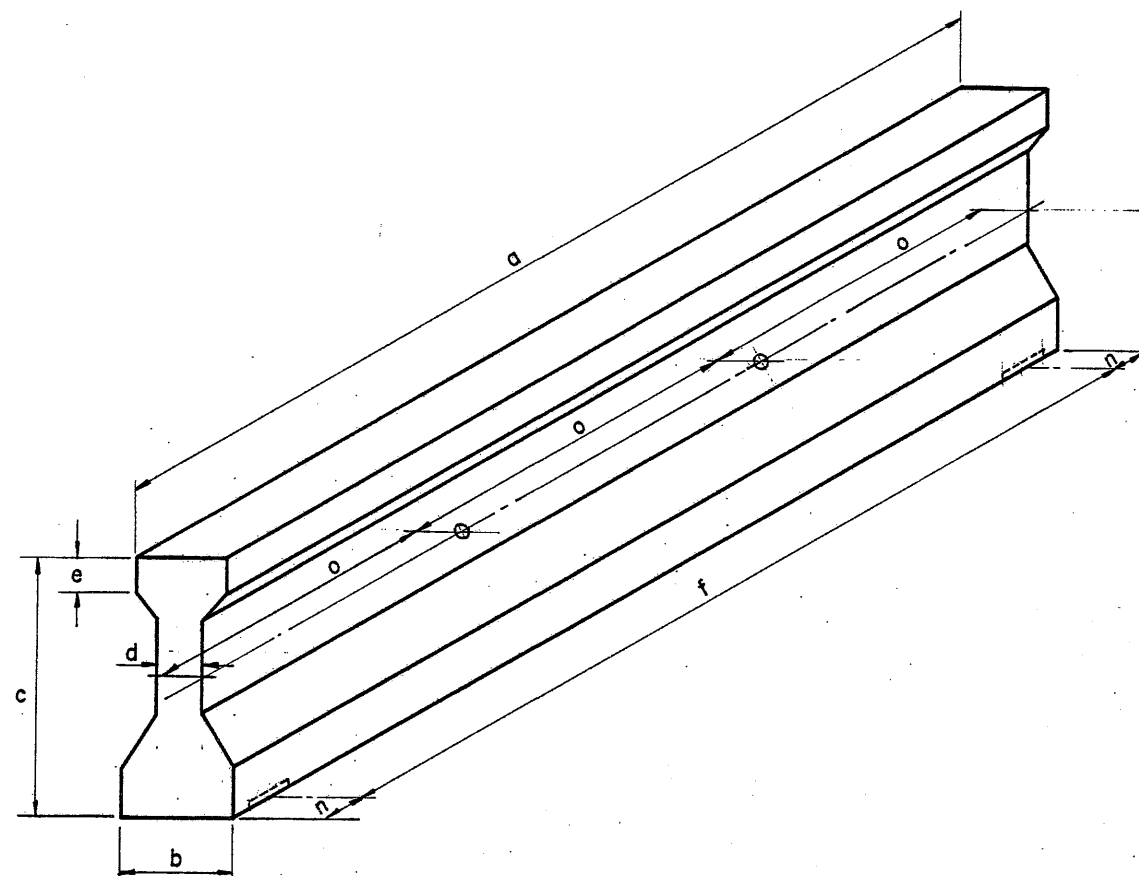
FRANKLIN COUNTY STA. 484+32.48 TO STA. 485+00.08

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
D.K.	A.Y.	E.D.A.	M.K.	6/1/11	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



FRANKLIN COUNTY  
FRA-70-12.31 S



- a. Length of Beam  $\pm \frac{1}{8}$ " per 10' but not greater than  $\frac{3}{4}$ "
- b. Width (Flanges and Fillets)  $+ \frac{3}{8}$ " -  $\frac{1}{4}$ "
- c. Depth (Over-all)  $+ \frac{1}{2}$ " -  $\frac{1}{4}$ "
- d. Width (Web)  $+ \frac{3}{8}$ " -  $\frac{1}{4}$ "
- e. Depth (Flanges, Web and Fillets)  $\pm \frac{1}{4}$ "
- f. Bearing Plates (ℓ to ℓ)  $\pm \frac{1}{8}$ " per 10' but not greater than  $\frac{3}{4}$ "
- g. Horizontal Alignment  $\frac{1}{2}$ " up to 40' lengths.  
Deviation from a Straight Line  $\frac{3}{4}$ " 40' to 60' lengths.  
Parallel to Centerline of Member 1" greater than 60' lengths.
- h. Camber-Differential from design camber  $\pm \frac{1}{8}$ " per 10' but not greater than  $\frac{1}{2}$ "
- i. Camber Differential Between Adjacent Beams  $\frac{1}{8}$ " per 10' of span.  
but not greater than 1".
- j. Stirrup Bars - Projection Above Top of Beam  $\pm \frac{3}{4}$ "
- k. Tendon Position  $\pm \frac{1}{4}$ " C G of strand group and individual tendons.
- l. Position of Deflection Points for Deflected Strands  $\pm 12$ "
- m. Position of Handling Devices  $\pm 6$ "
- n. Bearing Plates (ℓ to End of Beam)  $\pm \frac{1}{2}$ "
- o. Side Inserts (ℓ to ℓ and ℓ to End)  $\pm \frac{1}{2}$ "
- p. Exposed Beam Ends Deviation from Square or Designated Skew  
Horizontal  $\pm \frac{1}{4}$ "  
Vertical  $\pm \frac{1}{8}$ " per ft. of beam ht.

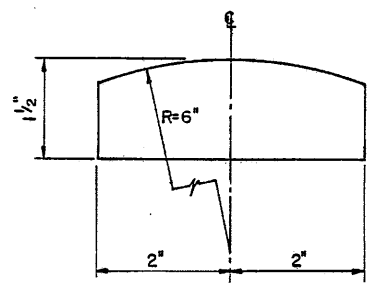
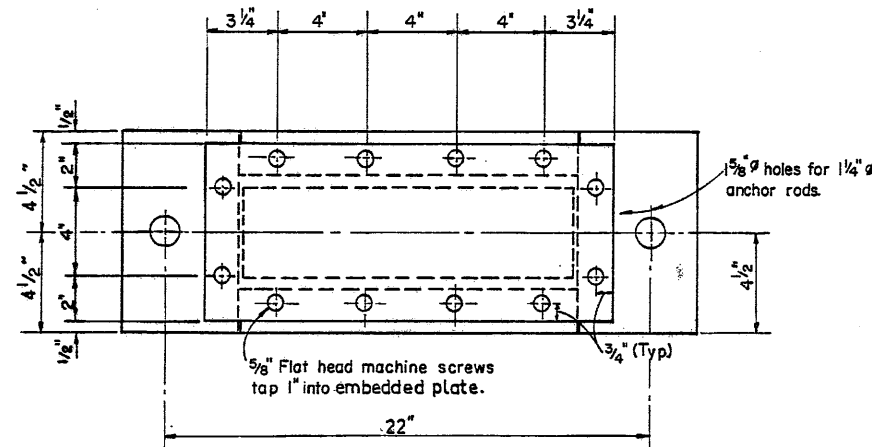
TOLERANCES FOR PRESTRESSED I-BEAMS

E. S. PRESTON ASSOCIATES, INC.				9/1/74	
ENGINEERS				COLUMBUS, OHIO	
<b>SUPERSTRUCTURE DETAILS</b>					
BRIDGE NO. FRA-70-1287S (L)					
I.R.-70 W.B. OVER SOUDER AVENUE					
FRANKLIN COUNTY					
				STA. 484+32.48 TO STA. 485+00.08	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.J.	EDA.	E.D.A.	A.S.B.		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

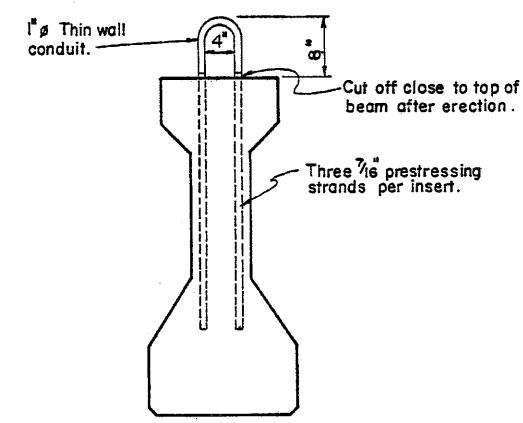
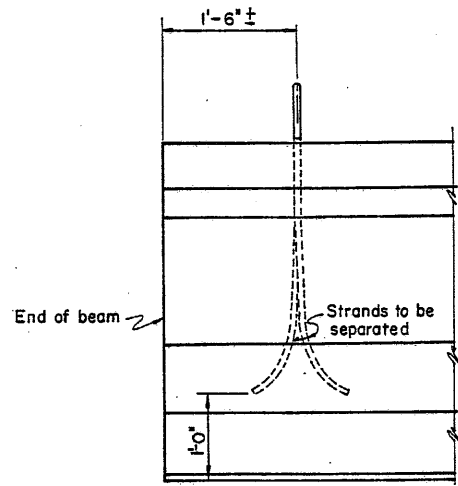


FRANKLIN COUNTY  
FRA-70-12.31 S



**SELF-LUBRICATING RADIAL BRONZE PLATE DETAIL**  
NOTE: Reference Shall Be Made To Supplemental Specification 927 Dated 1-1-71.

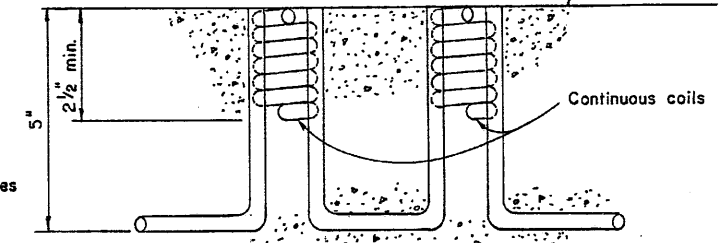
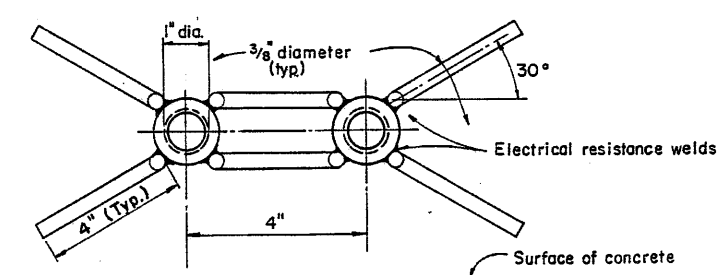
Welded stud shear connectors of 3/4" diameter and of equivalent length may be substituted for the 1 1/2" x 3/8" anchor bars.



Position of lifting insert may be shifted slightly where necessary to clear reinforcing steel.

NOTE: Lifting inserts of the Contractor's design may be used if approved by the director.

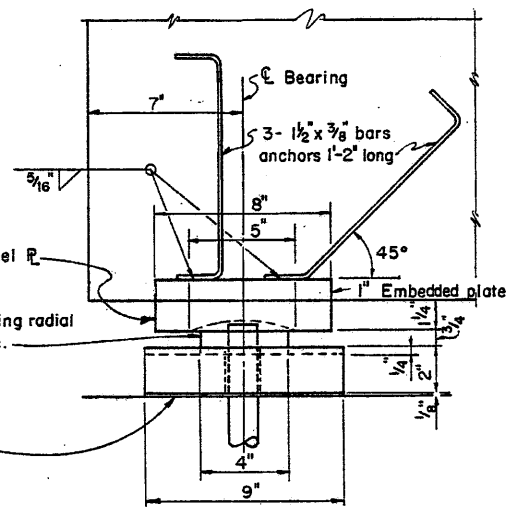
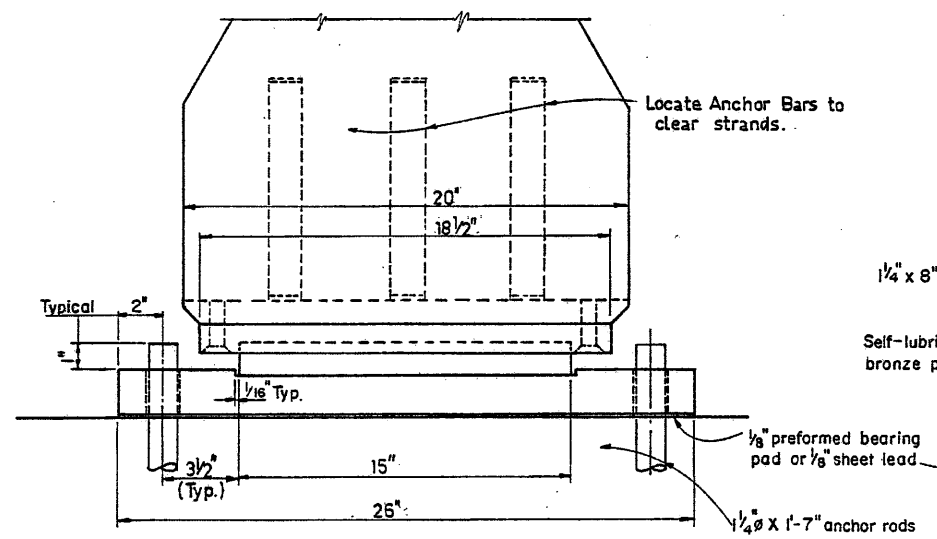
**BEAM LIFTING INSERT**



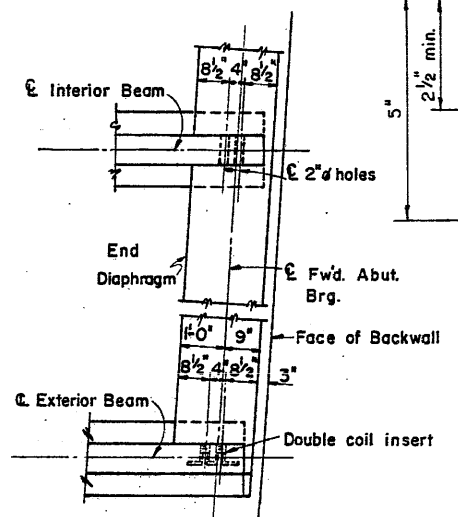
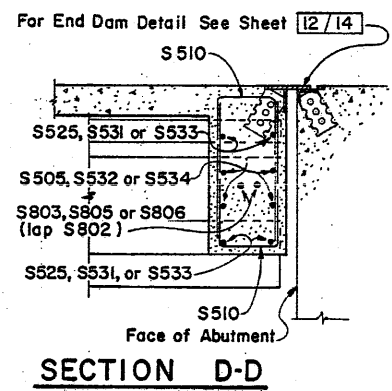
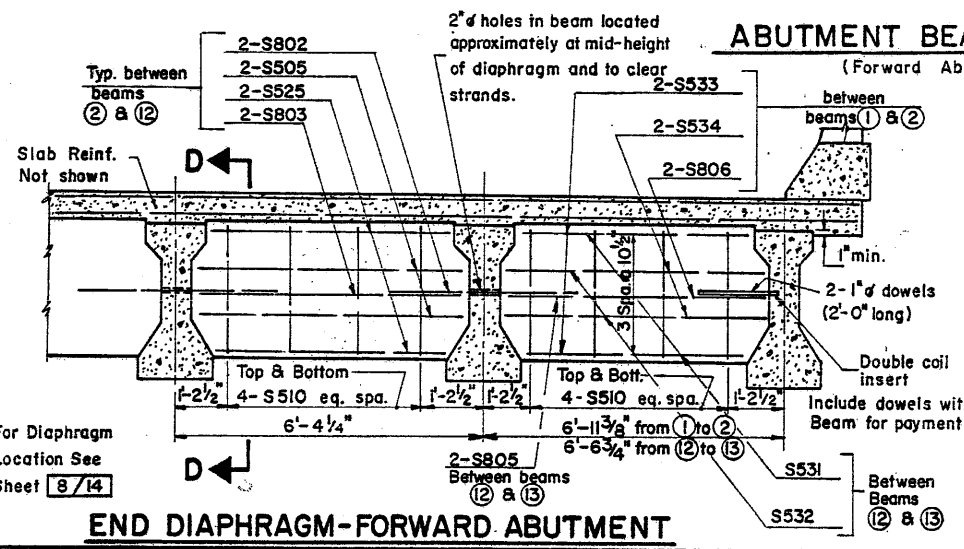
**DOUBLE COIL INSERT**

NOTE: Location of holes and inserts shall be adjusted as necessary to avoid interference with reinforcement. Special caution should be used in the area of prestressed strand draping. Vertical location of holes and inserts in adjacent beams shall be approximately the same to facilitate lapping of No. 8 bars and 1 inch dowels. Diaphragm concrete shall be Class "C". Slab concrete shall not be placed until at least 48 hrs. after placement of diaphragm concrete.

E. S. PRESTON ASSOCIATES, INC.		10/14	
ENGINEERS COLUMBUS, OHIO			
<b>SUPERSTRUCTURE DETAILS</b>			
BRIDGE NO. FRA-70-12.31 S (L)			
I.R.-70 W.B. OVER SOUDER AVENUE			
FRANKLIN COUNTY		STA. 484+32.48 TO STA. 485+00.08	
Designed	Drawn	Traced	Checked
D.K.	AY.	E.D.A.	M.K.
Reviewed Date		Revised	
11/10			



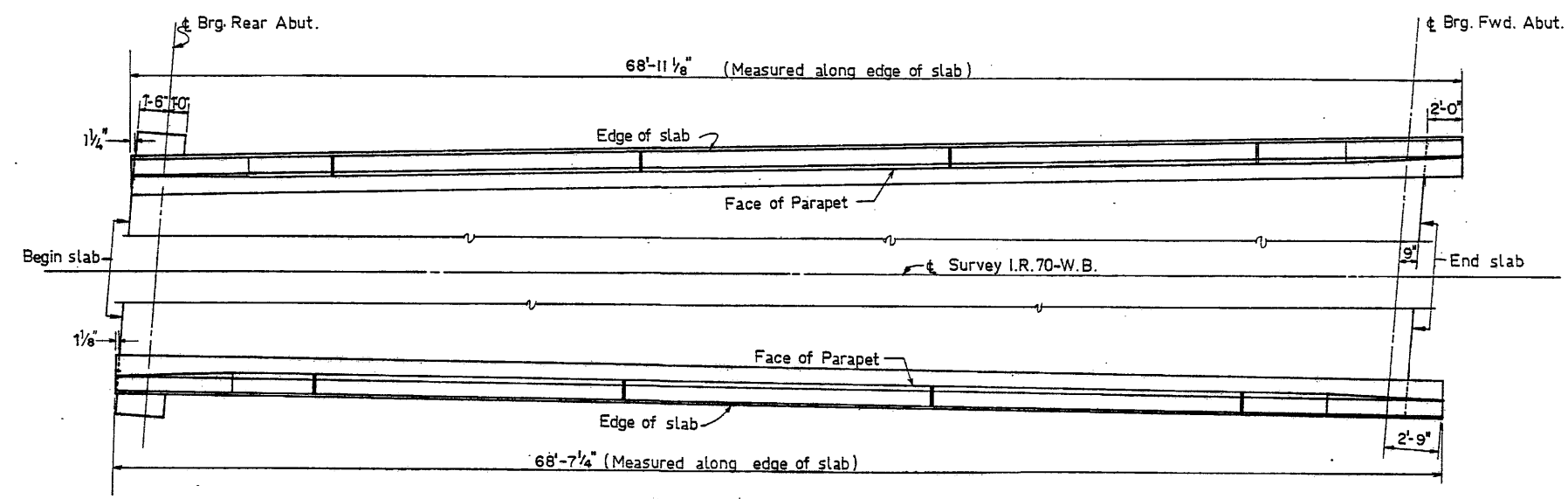
**ABUTMENT BEARING DETAILS**



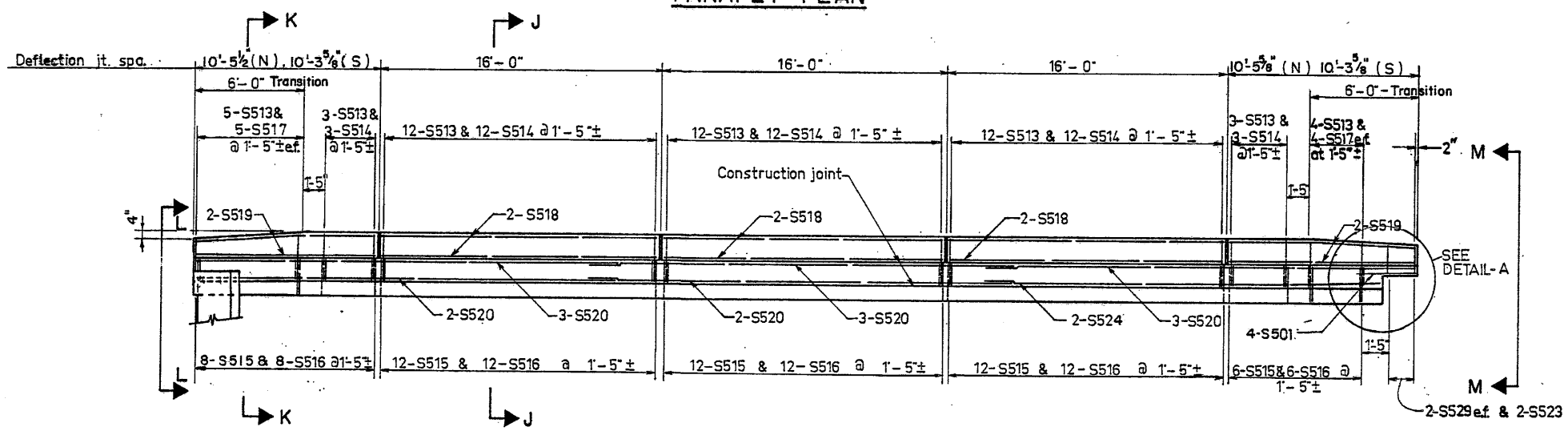
**FORWARD END DIAPHRAGM PART PLAN**

FED. RD. DIVISION	STATE	PROJECT	654
2	OHIO		

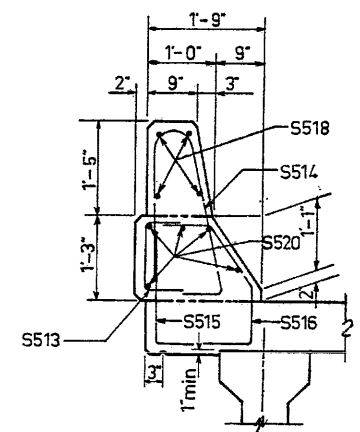
FRANKLIN COUNTY  
FRA-70-12.31S



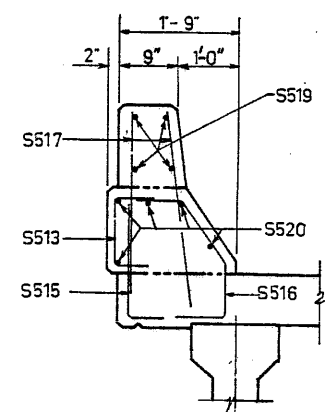
PARAPET PLAN



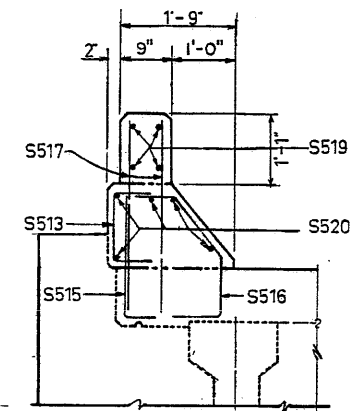
ELEVATION



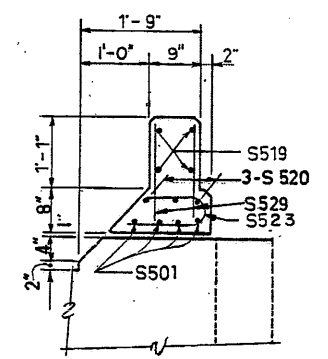
SECTION J-J



SECTION K-K

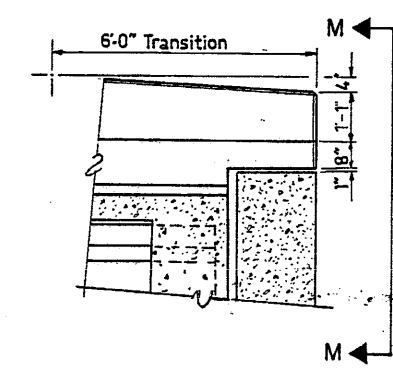


VIEW L-L



For further detail see Section A-A, Sheet 12/14

VIEW M-M



DETAIL - A

NOTES:  
For General Notes See Sheet 2/14  
For Diaphragm at Fwd. Abutment See Sheet 10/14  
For Expansion Joint Detail See Sheet 12/14

E. S. PRESTON & ASSOCIATES, LIMITED 11/14  
ENGINEERS  
COLUMBUS, OHIO

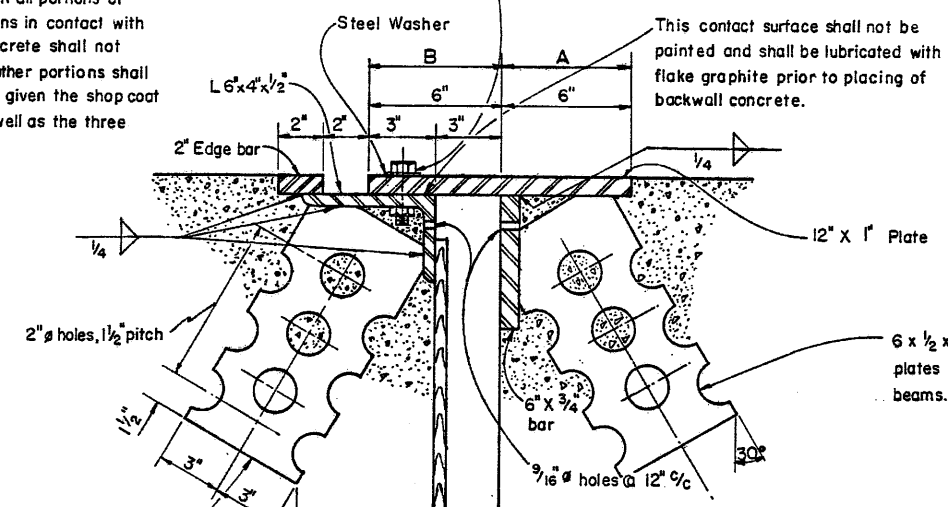
SUPERSTRUCTURE DETAILS  
BRIDGE No. FRA-70-1287S (L)  
I.R-70 W.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY STA. 484+32.48 To STA. 485+00.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DK	AV	E.A.	MR		7/11	

A welded butt joint in end dam, along the centerline of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with one of the joints at the apex of the crown. These shall be closely butted but shall not be welded.

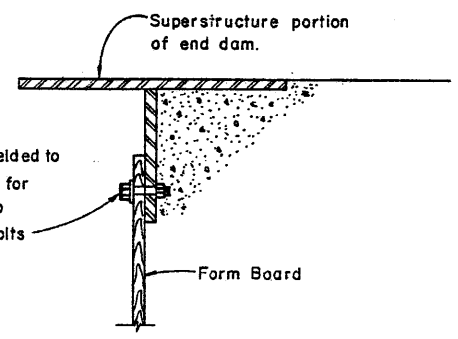
$\frac{5}{8}$ " x 2" bolts at not more than 2'-0" c/c with nuts tack-welded to under side of angle.  $\frac{1}{16}$ " holes in plate. Center  $\frac{5}{8}$ " bolts in  $\frac{1}{16}$ " holes. Apply flake graphite between washers and plate. Turn bolt tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.

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

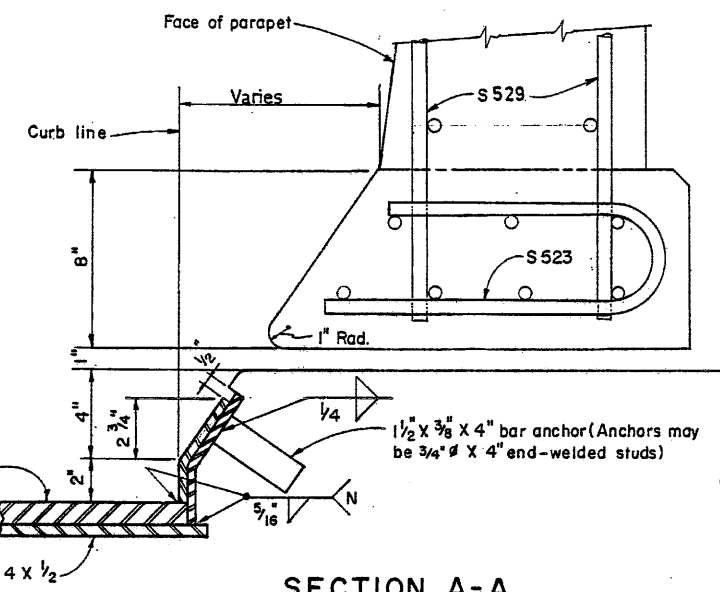


**SECTION THRU END DAM**

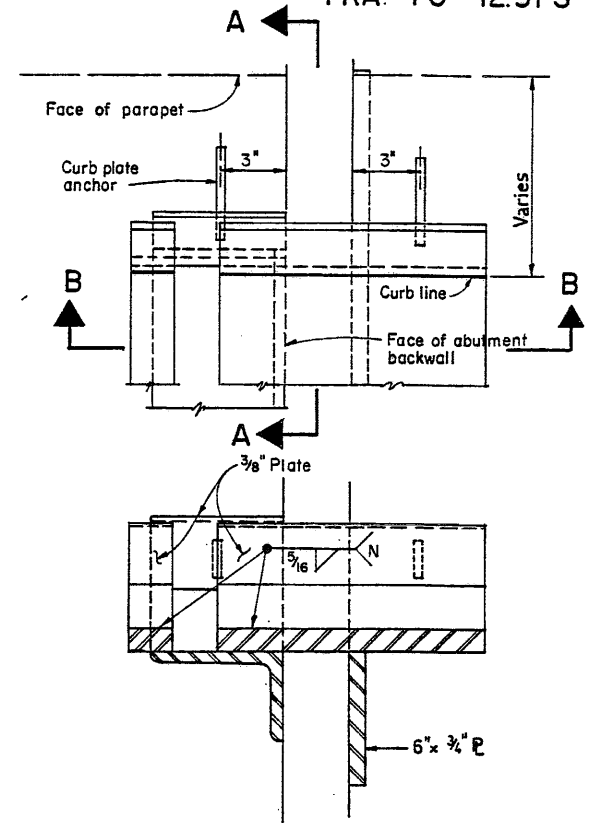
6" x 1/2" x 12" plates, spaced at approximately 15" c/c except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes may be burned in the plate.



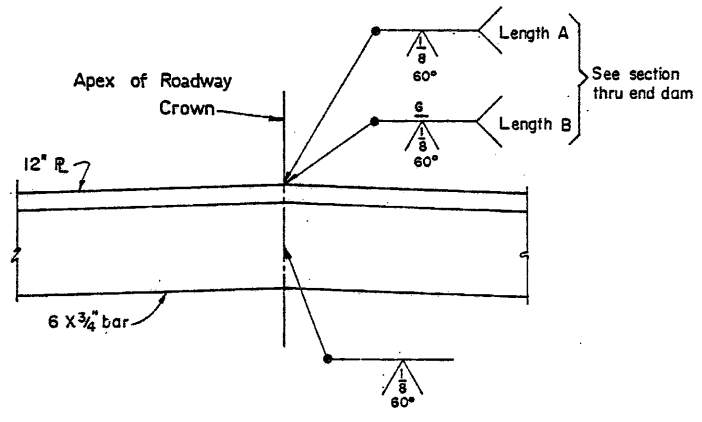
**TEMPORARY SUPPORT FOR END DAM**



**SECTION A-A**



**SECTION B-B**



**BUTT JOINT IN SUPERSTRUCTURE END DAM**

E. S. PRESTON ASSOCIATES, INC. 12/14					
ENGINEERS COLUMBUS, OHIO					
<b>SUPERSTRUCTURE DETAILS</b>					
BRIDGE NO. FRA-70-1287S(L)					
I.R. 70 W.B. OVER SOUDER AVENUE					
FRANKLIN COUNTY STA. 484+29.80 TO STA. 484+97.30					
Designed	Drawn	Traced	Checked	Reviewed Date	Revised
D.K.	AY	EDA.	M.K.	7/1/77	



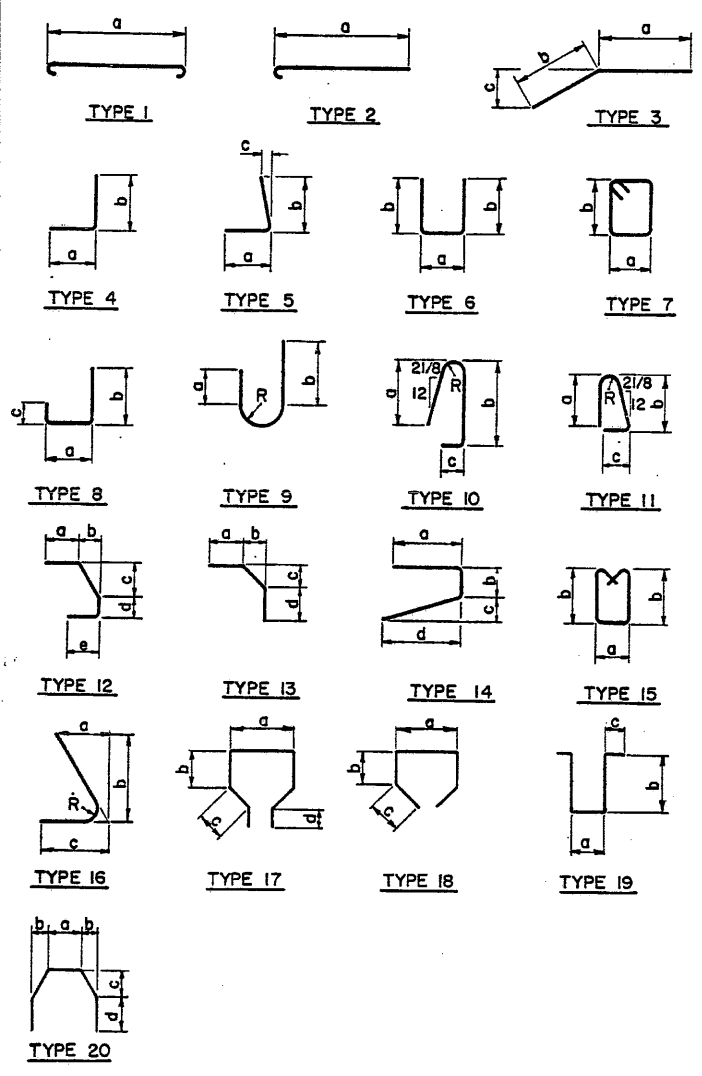
FRANKLIN COUNTY  
FRA-70-12.31S

### REINFORCING STEEL SCHEDULE

MARK	NO.	LENGTH	TYPE	DIMENSION						WEIGHT
				A	B	C	D	E	RAD. INC.	
SUPERSTRUCTURE										
S801	2	5'-11"	ST							27
S802	44	4'-4"	ST							509
S803	40	5'-6"	ST							587
S804	2	5'-3"	ST							28
S805	2	5'-8"	ST							30
S806	2	6'-11"	ST							32
S701	292	30'-0"	ST							17905
S702	2 SER OF 73	24'-9" TO 24'-9"	ST						0 1/2"	6344
S601	306	34'-0"	ST							15627
S501	8	3'-9"	ST							31
S502	86	6'-11"	6	2'-2"	2'-6"					620
S503	48	8'-0"	19	8"	3'-3"	8"				401
S504	80	4'-10"	ST							403
S505	100	5'-6"	ST							574
S506	12	27'-9"	ST							347
S507	43	7'-5"	6	1'-8"	3'-0"					333
S508	2	10'-7"	ST							22
S509	2	14'-2"	ST							30
S510	96	7'-8"	6	1'-5"	3'-3"					768
S511	10	5'-9"	6	2'-2"	1'-11"					60
S512	42	8'-7"	6	2'-2"	3'-4"					376
S513	102	2'-4"	6	1'-0"	8"					222
S514	84	5'-4"	11	2'-2"	2'-5"	7 1/2"			2 1/4"	467
S515	100	2'-4"	4	8"	1'-8"					243
S516	100	3'-1"	12	9"	9"	11 1/2"	9"	7 1/2"		322
S517	36	3'-0"	ST							113
S518	24	15'-8"	ST							392
S519	16	10'-0"	ST							167
S520	26	23'-11"	ST							649
S521	8	4'-5"	ST							37
S522	4	5'-1"	ST							21
S523	4	2'-4"	9	9"	1'-0"				2 1/4"	10
S524	4	22'-0"	ST							92
S525	34	4'-7"	ST							163
S526	4	5'-3"	ST							22
S527	6	20'-6"	ST							128
S528	0		ST							0
S529	8	1'-5"	ST							12
S530	6	3'-6"	ST							22
S531	4	5'-0"	ST							21
S532	4	5'-8"	ST							24
S533	4	5'-5"	ST							23
S534	4	6'-11"	ST							25

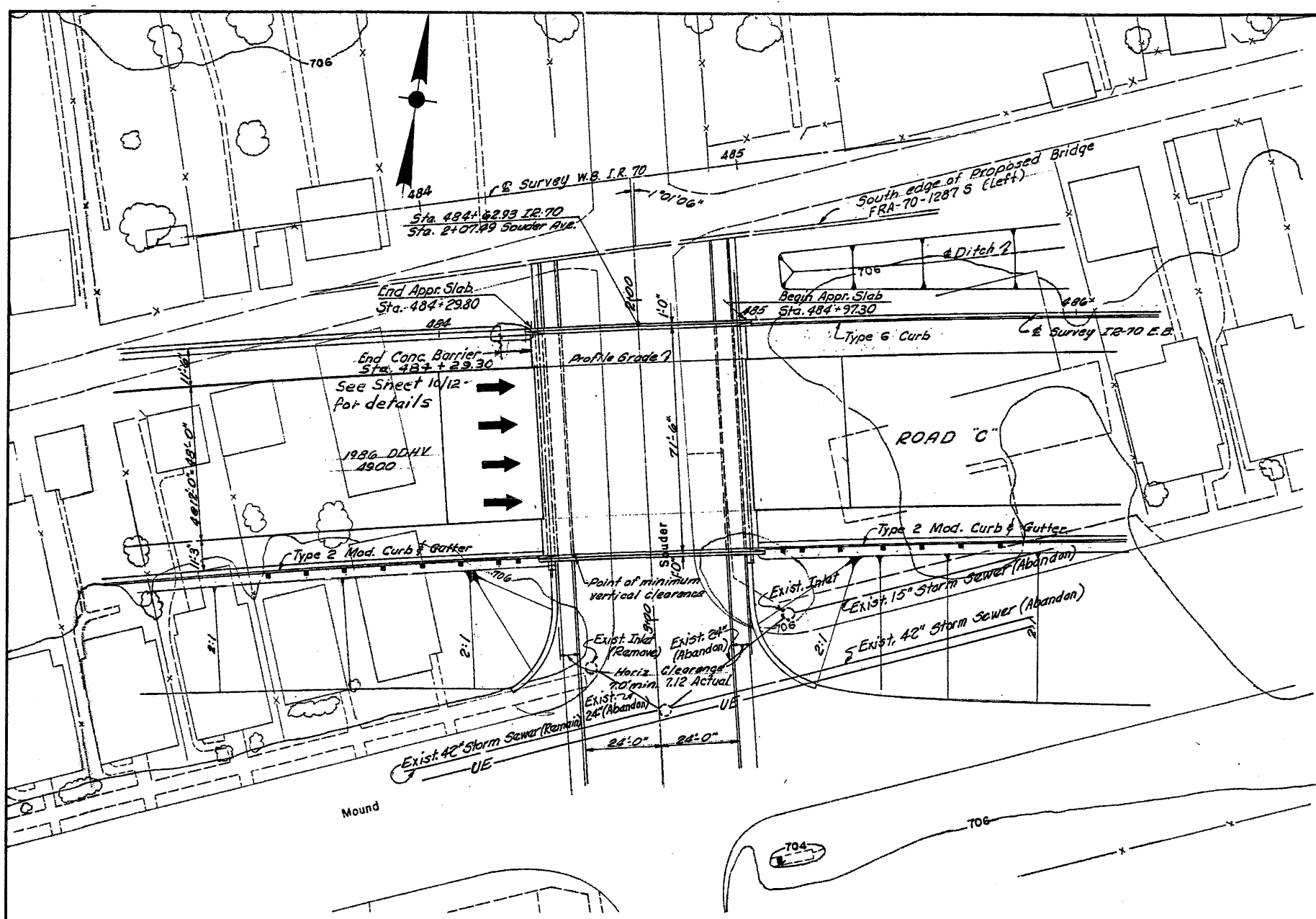
MARK	NO.	LENGTH	TYPE	DIMENSION						WEIGHT
				A	B	C	D	E	RAD. INC.	
PRESTRESSED BARS										
PS501	104	33'-4"	ST							
PS502	104	8'-0"	9	3'-8"	3'-8"				2 1/2"	Mild Reinforcement
PS401	741	8'-0"	9	3'-8"	3'-8"				2 1/2"	Concrete Beams to be included with beam for Payment
PS402	338	1'-9"	6	1'-4"	4"					
PS403	338	3'-2"	ST	5"	5 1/2"	9"	6"			
PS301	741	2'-10"	ST	1'-0"	4"	8"				
PS302	104	1'-10"	17	1'-0"	4"	6"	3"			
REPLACEMENT BARS										
RE1101	1	8'-6"	ST							
RE1001	3	8'-2"	ST							
RE901	1	7'-10"	ST							
RE801	1	7'-6"	ST							
RE701	2	7'-2"	ST							
RE601	2	6'-11"	ST							
RE501	2	6'-7"	ST							
RE401	1	6'-3"	ST							



NOTES:  
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A700 IS A NO. 7 SIZE AND A1014 IS A NO. 10 SIZE.

E.S. PRESTON ASSOCIATES, INC. [14 / 14] ENGINEERS COLUMBUS, OHIO					
<b>REINFORCING STEEL LIST</b>					
BRIDGE NO. FRA-70-12.87S (L)					
I.R. 70 W.B. OVER SOUDER AVENUE					
FRANKLIN COUNTY					
				STA. 484+32.48	
				STA. 485+00.08	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED

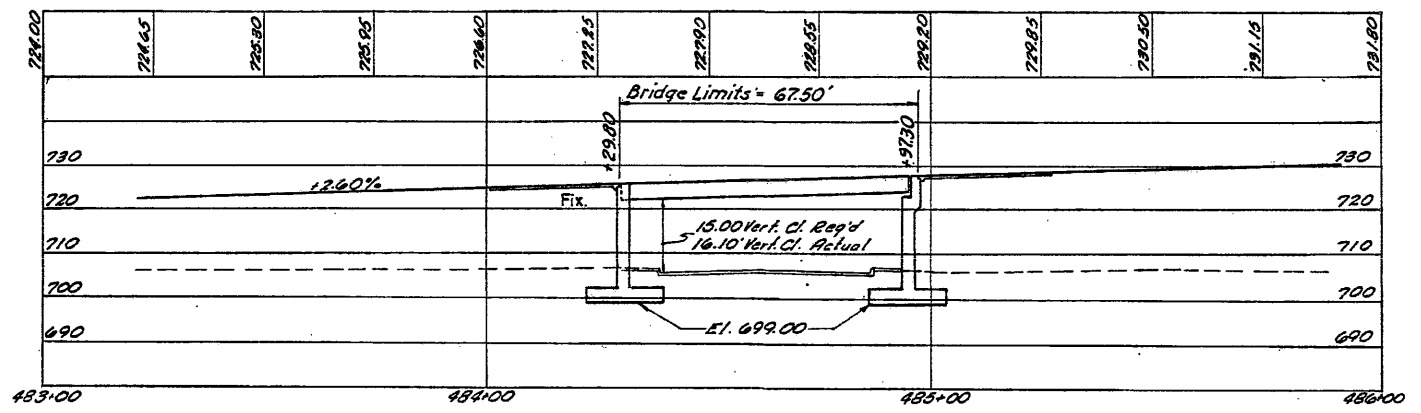
FRANKLIN COUNTY  
FRA.-70-12.31 S



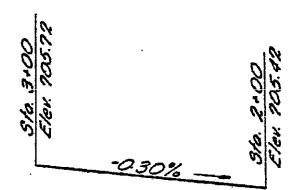
PLAN

NOTE:  
EARTHWORK Limits shown are schematic. Actual slopes shall conform to plan cross-sections.

**PROPOSED STRUCTURE**  
 Type: Simple Prestressed Concrete I-Beams with reinf. Conc. Deck & Substructure  
 SPANS: 1 Span 64'-3" bearings along tangent  
 SKEW: 1°01'06" Rt. Forward  
 LOADING: HS-20-44 and Interstate Alternate  
 WEARING SURFACE: 1" Monolithic Conc.  
 ROADWAY: 70'-9" face to face parapets.  
 ALIGNMENT: 1°00'00" Rt.  
 APPROACH SLABS: Standard (30' Long)  
 SUPERELEVATION: .024 #/ft.



PROFILE ALONG E SURVEY IR 70 E.B.



VERTICAL CURVE DATA  
Souder Ave.

PI: Sta. 484+95.46  
 A = 11°00' Rt.  
 D = 1°00'  
 R = 5729.58'  
 T = 551.696'  
 L = 1100.00'

HORIZONTAL CURVE DATA  
IR-70

E. S. PRESTON & ASSOCIATES, LIMITED 1/12  
 ENGINEERS  
 COLUMBUS, OHIO

SITE PLAN  
 BRIDGE NO. FRA - 70-1287S (R)  
 I.R. 70 EAST BOUND OVER SOUDER

FRANKLIN COUNTY STA. 484+29.80 TO STA. 484+97.30

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
R.V.	H.H.	M.L.S.	A.S.B.	12-7-72	



GENERAL NOTES

REFERENCE Shall be made to the following Standard Drawings:  
AS-1-67 revised 6-12-69  
BR-1-67 revised 10-15-71

AND to the following Supplemental Specifications:

808 dated 1-1-71  
836 dated 1-1-71  
927 dated 1-1-71

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN LOADING: HS 20-44 and the Interstate Alternate Loading.

CONCRETE, CLASS "C": Unit Stress 1200 psi for superstructure.  
Unit Stress 1333 psi for substructure.

CONCRETE, PRESTRESSED: Min. strength at 28 days=5500 psi.  
Min. strength at release of prestress = 4000 psi.

MINIMUM COVER for all reinforcing steel in all footings shall be 3".

REINFORCING STEEL: ASTM A615, A616 or A617-unit stress 20,000 p.s.i. If bars in accordance with ASTM A616 are provided they shall be subject to bend tests as per AASHTO designation M42-70  
PRESTRESSING STRANDS are 7/16" uncoated seven wire stress relieved strand with an initial tension of 18,900 pound per strand.

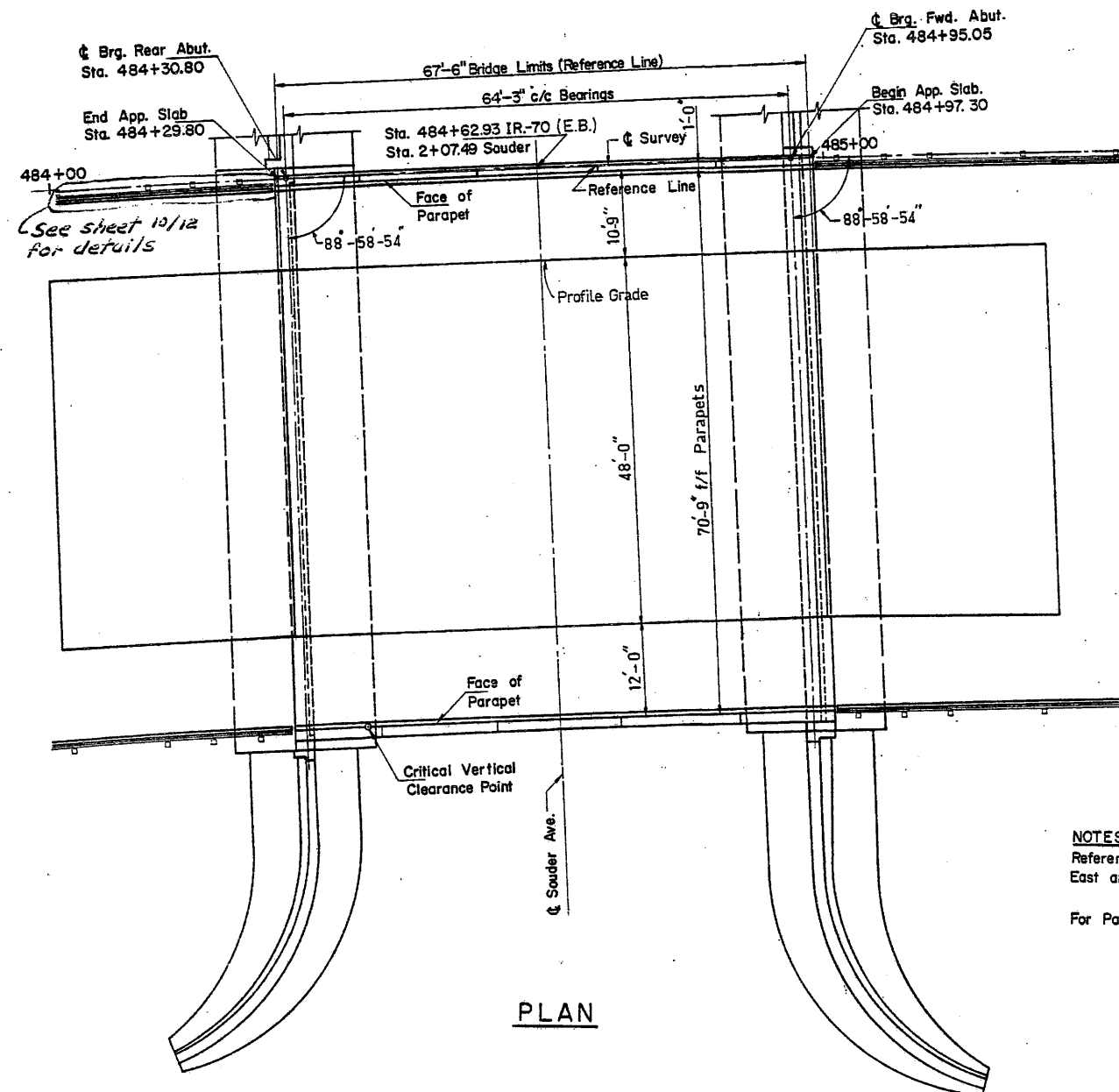
EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments.

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

EMBANKMENT CONSTRUCTION: Before the backwall is constructed the embankment shall be constructed up to the level of the subgrade with a 1:1 slope from the bridge seat to the subgrade, for a minimum distance of 200 feet back of the abutment.

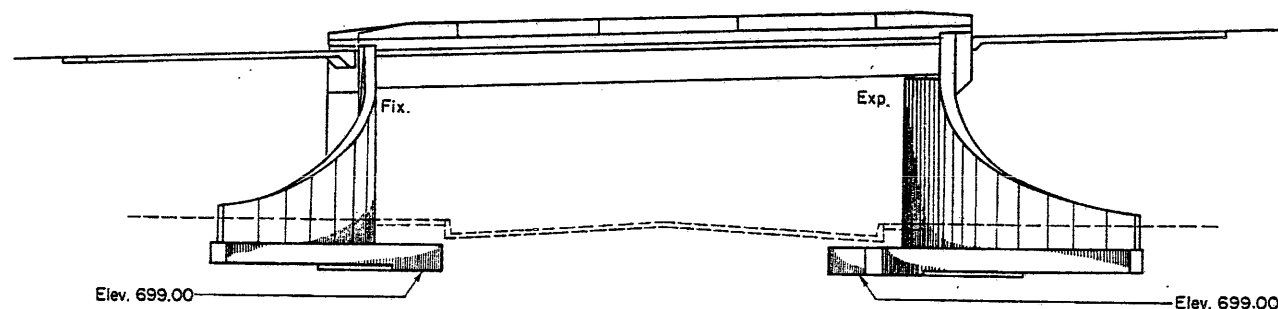
UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be borne by the Owner(s). The Contractor and Owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

PRESTRESSED I-BEAM TOLERANCES: See Sheet 652-A



PLAN

NOTES:  
Reference Line: Reference chord between East and West Abutment Bearings  
For Parapet Details See Sheet 10/12



ELEVATION

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER	WALLS GEN.
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING			LUMP
503	1,085	CU.YDS.	UNCLASSIFIED EXCAVATION	779		306
509	111,853	LBS.	REINFORCING STEEL	57,363	43,558	10,932
511	107	CU.YDS.	CLASS "C" CONCRETE, WALLS ABOVE FOOTINGS			107
511	136	CU.YDS.	CLASS "C" CONCRETE, SUPERSTRUCTURE		136	
511	320	CU.YDS.	CLASS "C" CONCRETE, ABUTMENTS ABOVE FOOTINGS	320		
511	475	CU.YDS.	CLASS "C" CONCRETE, FOOTINGS	338		137
511	48	CU.YDS.	DIAPHRAGMS FOR PRESTRESSED CONCRETE BRIDGE		48	
512	146	LIN.FT.	PREMOLDED SEALING STRIP	88		58
512	32	SQ.YD.	TYPE B WATERPROOFING	25		7
515	720	LIN.FT.	PRESTRESSED CONCRETE BRIDGE MEMBERS (I 45)		720	
516	11	EACH	BEARING ASSEMBLIES		11	
516	10	SQ.FT.	1/2" THICK ELASTOMERIC BEARING PADS		10	
516	6,674	LBS.	STRUCTURAL EXPANSION AND CONTRACTION JOINTS		6,674	
516	188	SQ.FT.	1/2" PREFORMED EXPANSION JOINT FILLER.	188		
518	24	LIN.FT.	8" PERFORATED C.M.P. (707.0) INCLUDING SPECIALS.	24		
518	244	CU.YDS.	POROUS BACKFILL	190		54
516	258	SQ.FT.	1" PREFORMED EXPANSION JOINT FILLER			258
808	136	UNITS	CHEMICAL ADMIXTURE FOR CONCRETE TYPE A, B OR D		136	
625			SEE SHEET 527 FOR LIGHTING SUMMARY			

E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO 2/12

GENERAL PLAN AND ELEVATION  
BRIDGE No. FRA-70-1287S (R)  
I.R-70 E.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY STA. 484+29.80 To STA. 484+97.30

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.C.	M.M.	M.S.	A.S.B.	12-1-72	

**FRANKLIN COUNTY**  
FRA-70-12.31 S

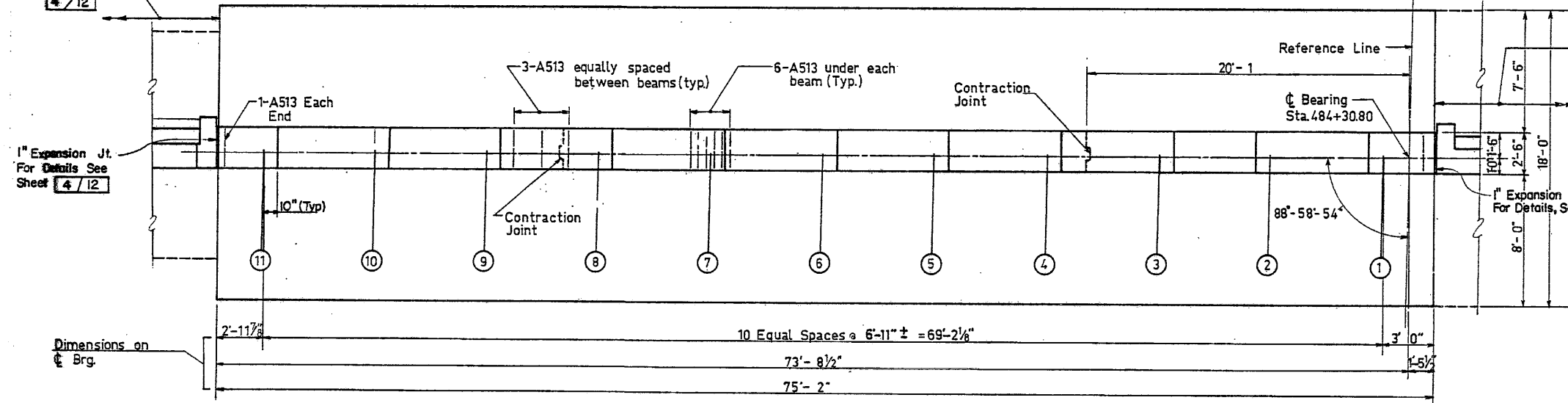


For Wing Wall Details See Sheet **4/12**

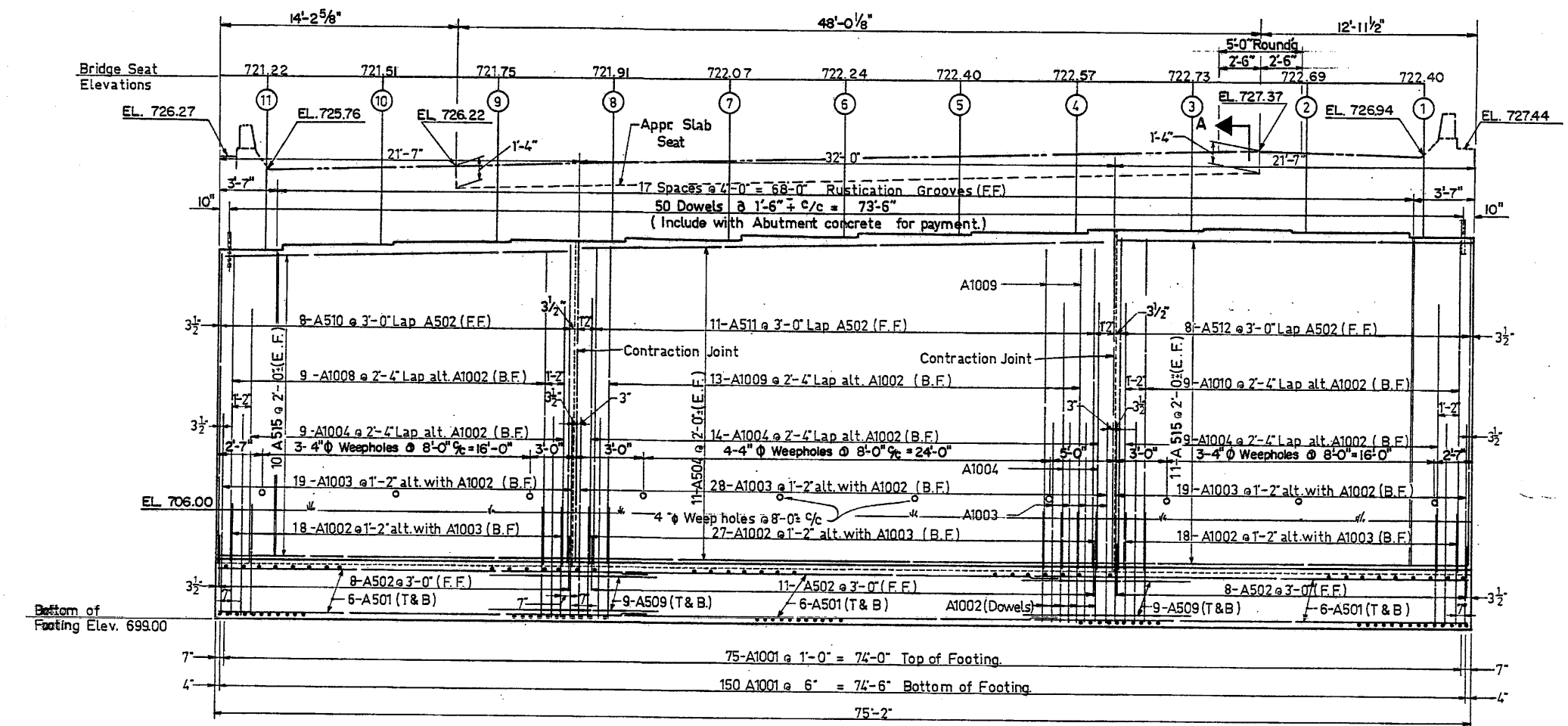
1" Expansion Jt. For Details See Sheet **4/12**

Wall included with FRA-70-1287S (L)

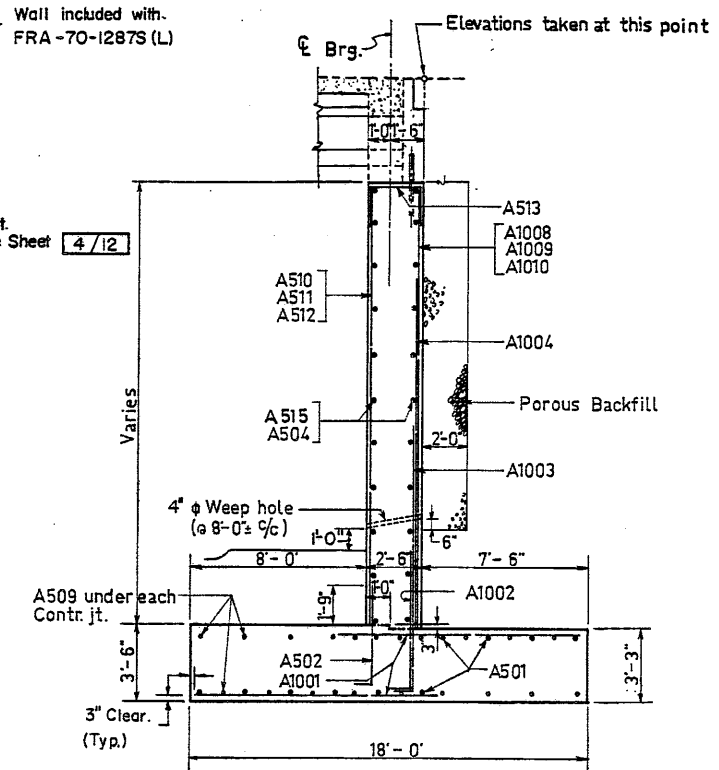
Elevations taken at this point



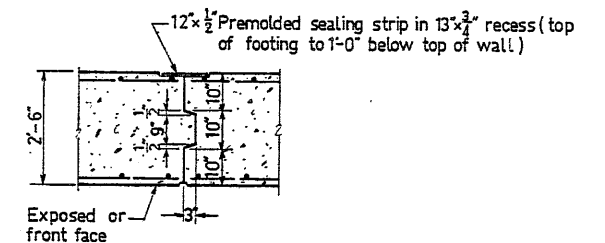
**PLAN**



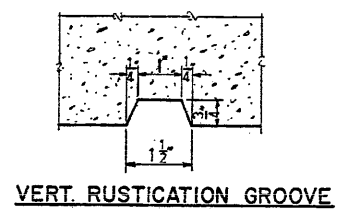
**ELEVATION**



**SECTION A-A**



**CONTRACTION JT. DET.**



**VERT. RUSTICATION GROOVE**

**NOTES:**  
For General Notes See Sheet **2/12**

**LEGEND:**  
E.F. = Each Face  
F.F. = Front Face  
B.F. = Back Face  
T & B = Top and Bottom

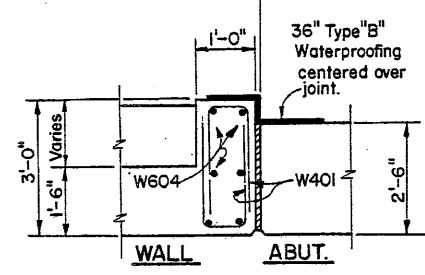
E. S. PRESTON & ASSOCIATES, LIMITED					3/12
ENGINEERS					
COLUMBUS, OHIO					
<b>REAR ABUTMENT DETAILS</b>					
BRIDGE No. FRA-70-1287S ( R )					
I.R-70 E.B. OVER SOUDER AVENUE					
FRANKLIN COUNTY					
					STA. 484+29.80 To
					STA. 484+97.30
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DK	AY	MLS	MY		

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

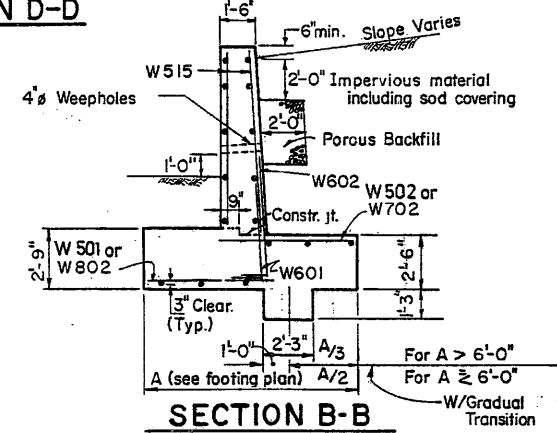


FRANKLIN COUNTY  
FRA-70-12.31 S

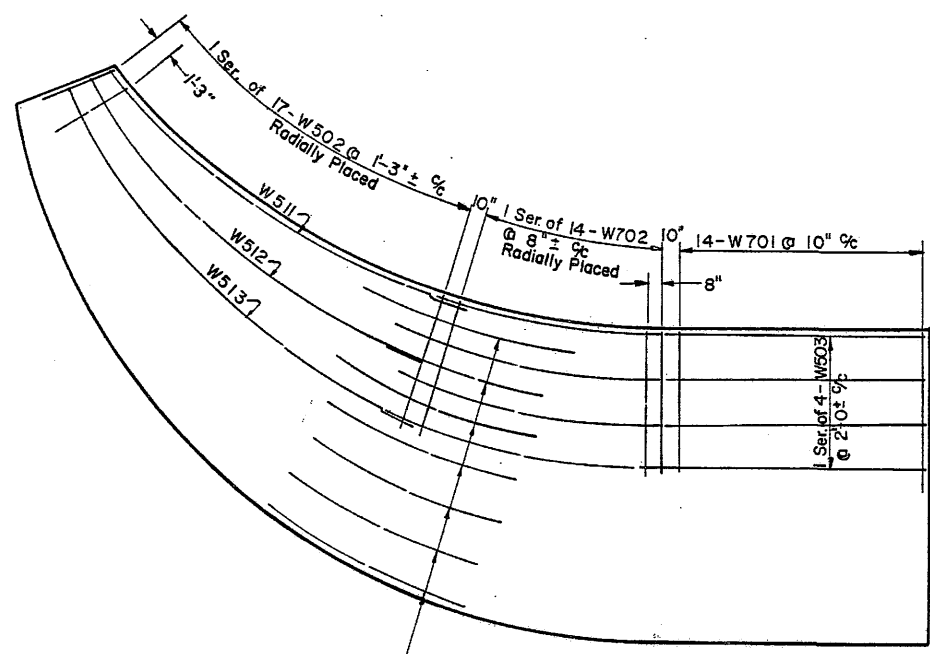
For Rear Abutment see sheet 3/12



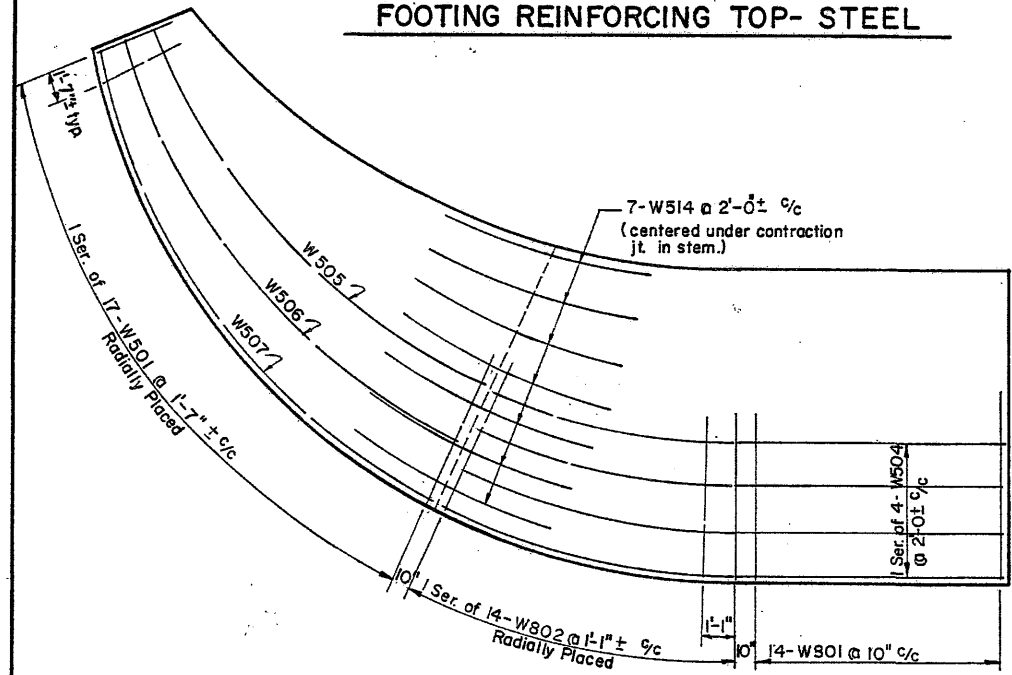
SECTION D-D



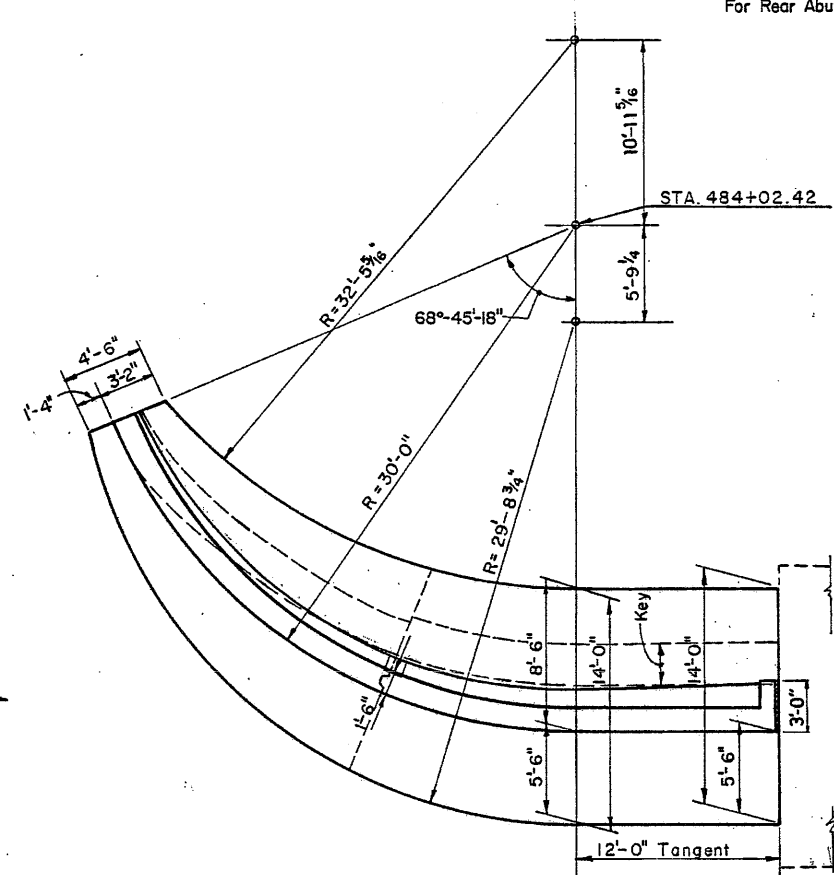
SECTION B-B



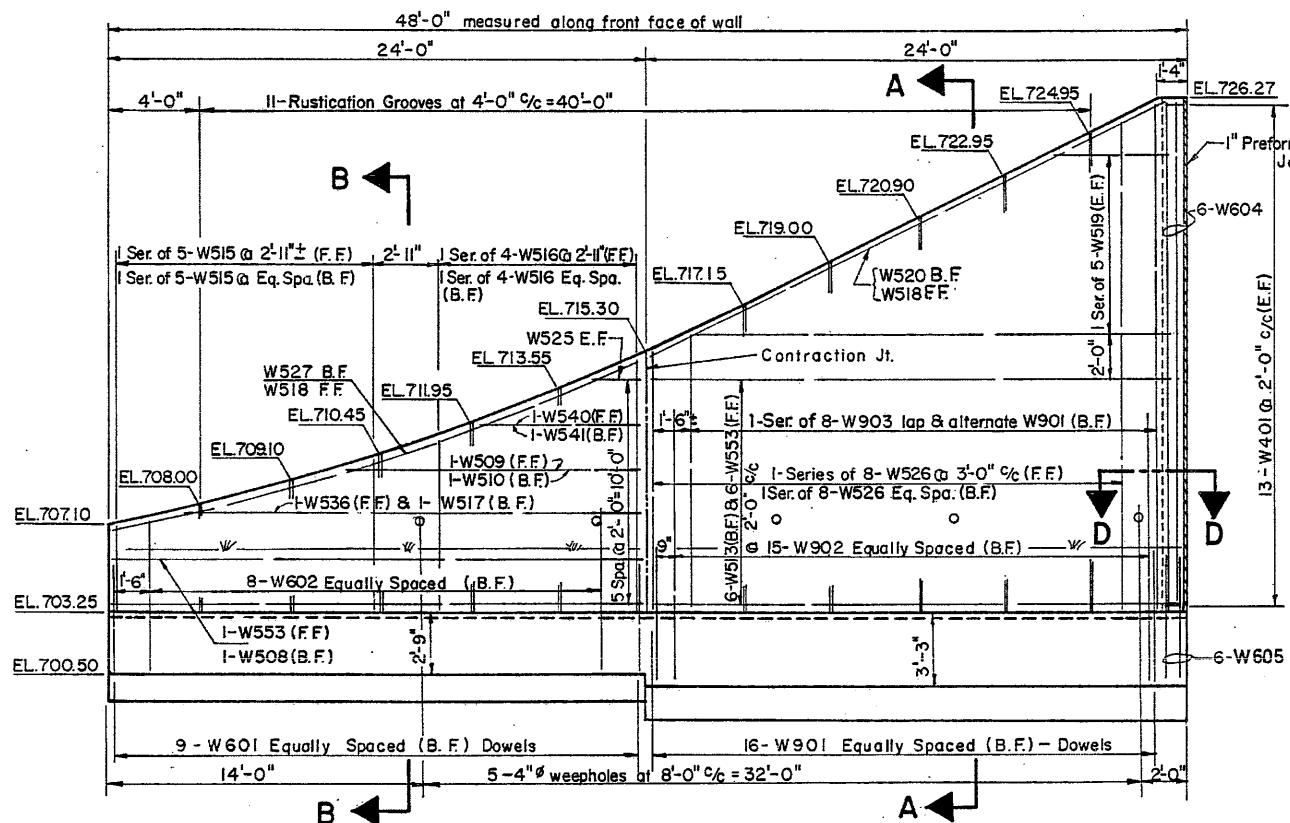
FOOTING REINFORCING TOP-STEEL



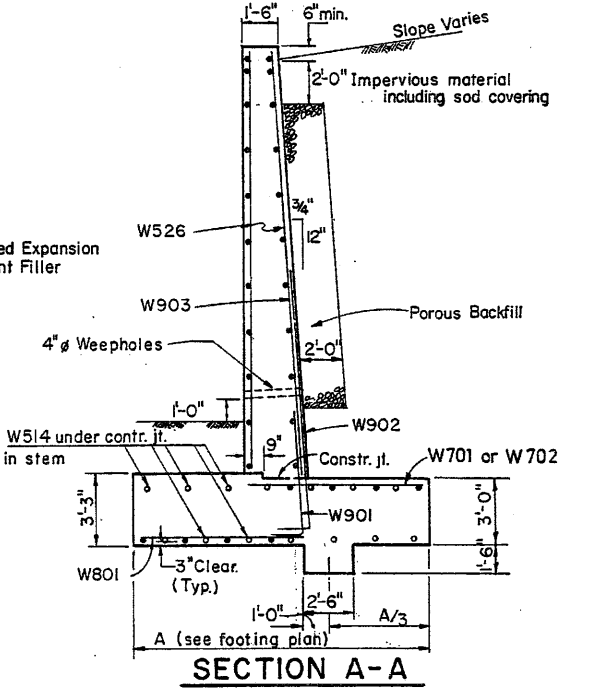
FOOTING REINFORCING BOTTOM-STEEL



PLAN OF SOUTHWEST WINGWALL



DEVELOPED ELEVATION OF SOUTHWEST WINGWALL

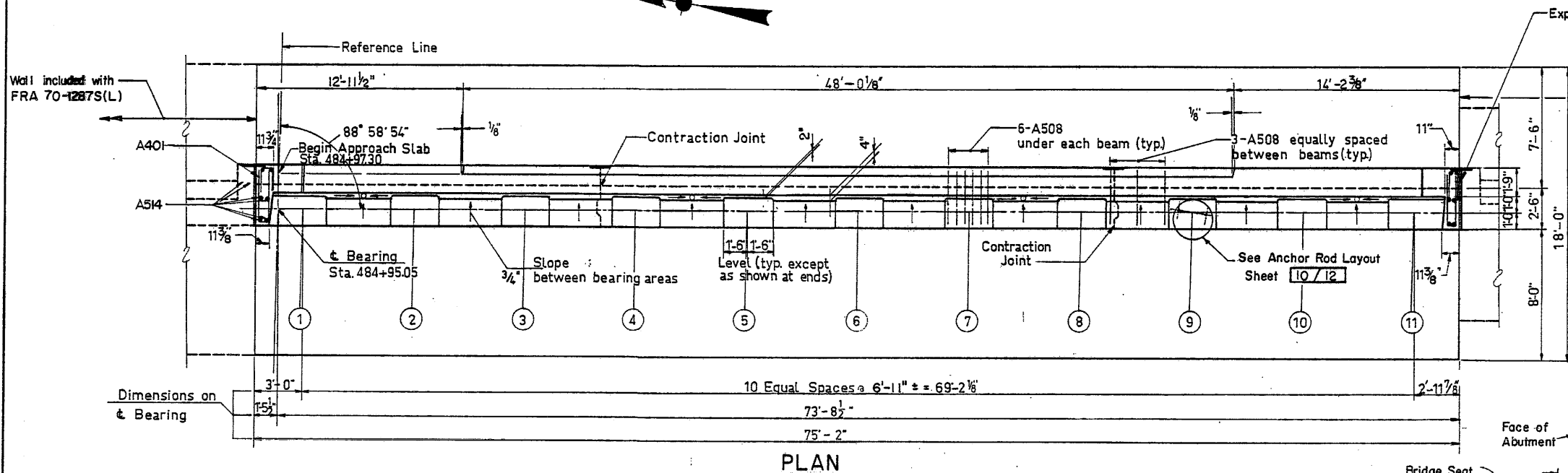


SECTION A-A

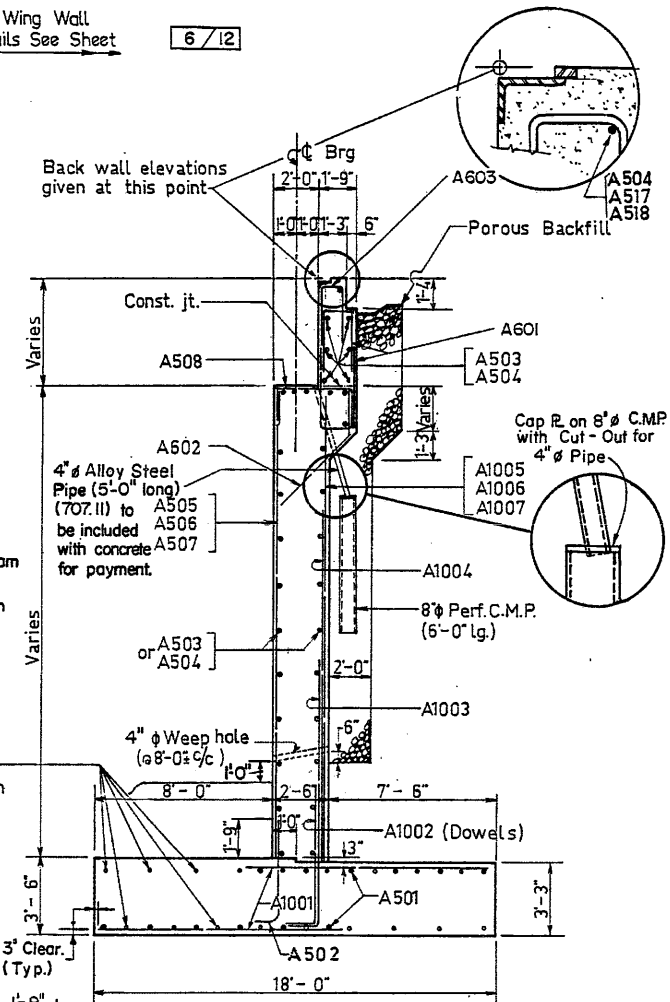
LEGEND:  
E.F = Each Face  
F.F = Front Face  
B.F = Back Face

E. S. PRESTON ASSOCIATES, INC. 4/12					
ENGINEERS COLUMBUS, OHIO					
<b>SOUTHWEST WINGWALL</b>					
BRIDGE NO. FRA-70-1287 S (R) I.R-70 E.B. OVER SOUDER AVENUE					
FRANKLIN COUNTY					
STA. 484+29.80 TO STA. 484+97.30					
Designed	Drawn	Traced	Checked	Reviewed Date	Revised
AS	R.L.	E.D.A.	ASB		

**FRANKLIN COUNTY  
FRA-70-1231 S**

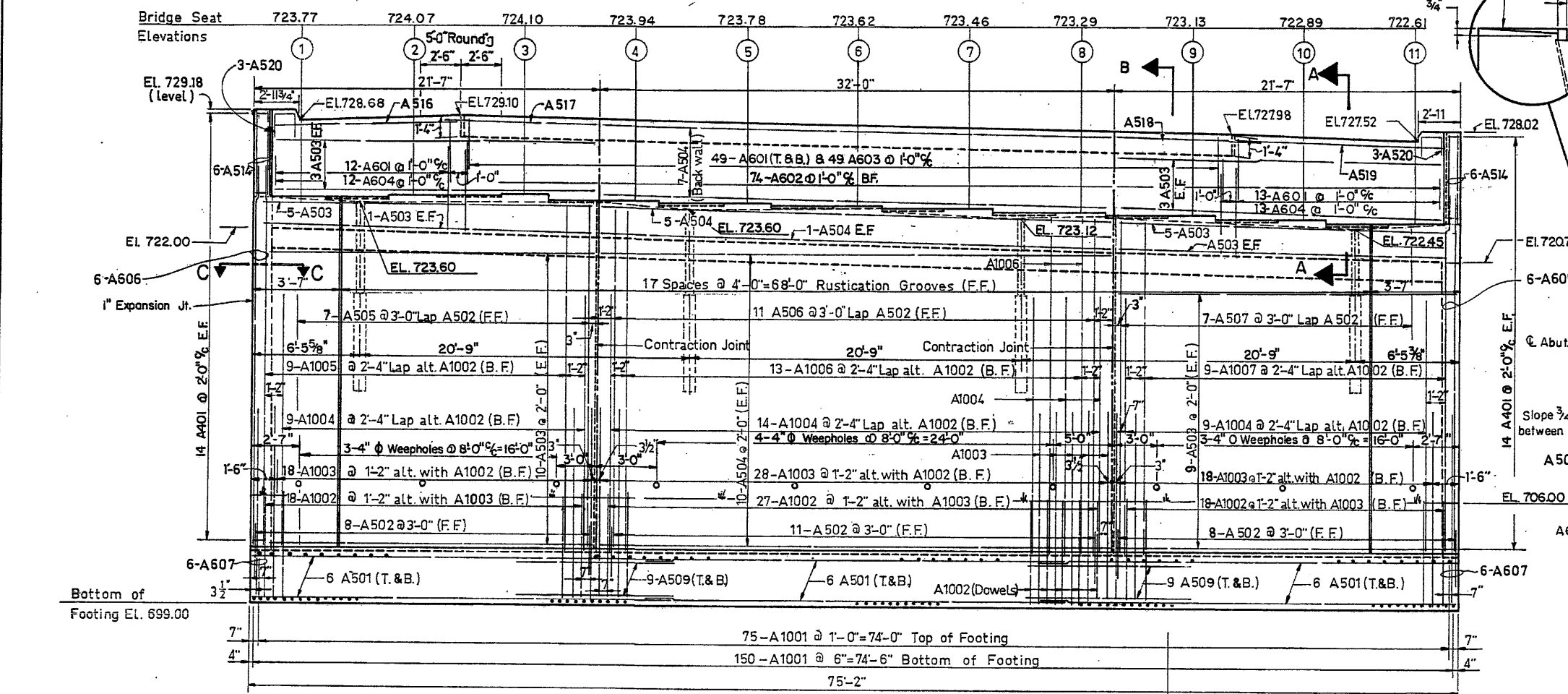


**PLAN**

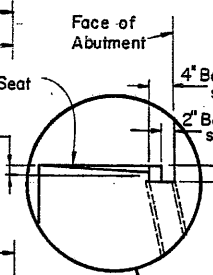


**SECTION B-B**

**NOTES:**  
 For Expansion Joint Detail See Sheet 11/12  
 For General Notes See Sheet 2/12  
 For Additional Notes and Details See Sheet 6/12



**ELEVATION**

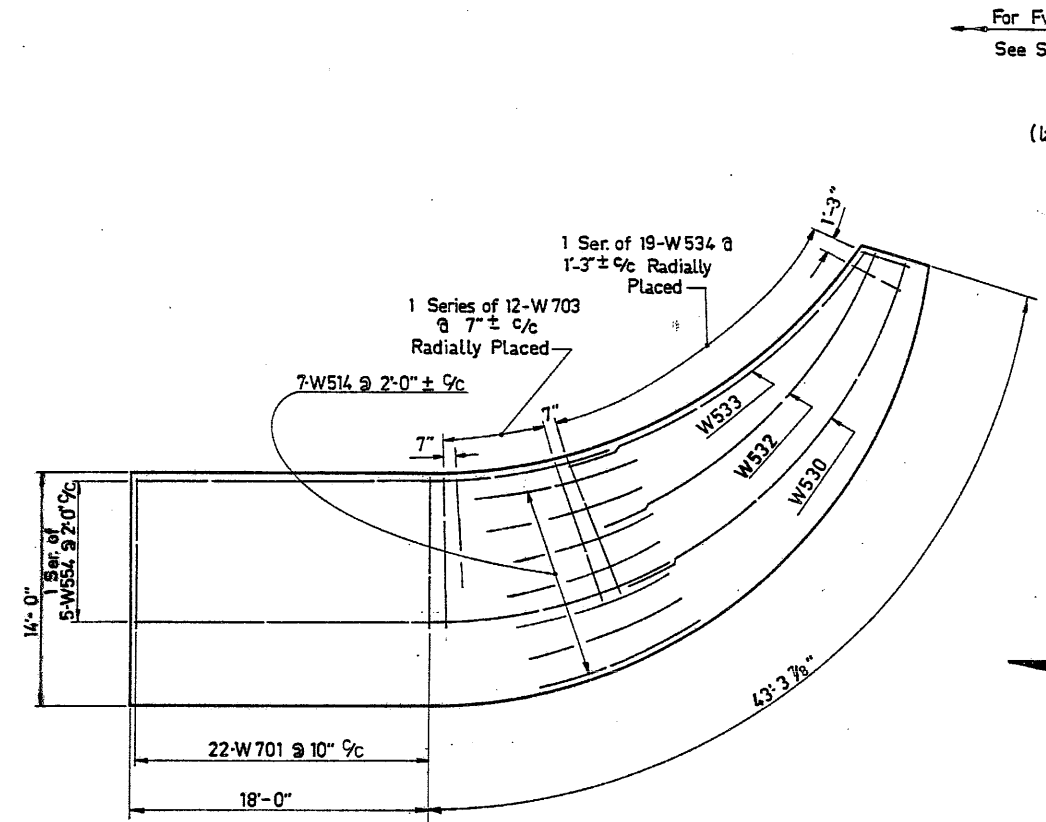


**SECTION A-A**

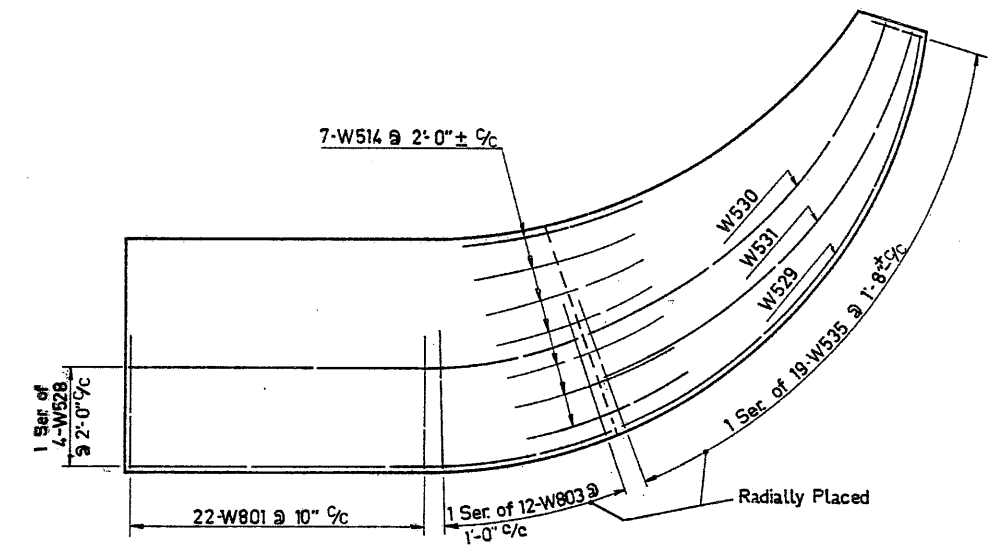
**LEGEND:**  
 E.F. = Each Face  
 F.F. = Front Face  
 B.F. = Back Face  
 T&B = Top and Bottom

E. S. PRESTON & ASSOCIATES, LIMITED		5/12
ENGINEERS COLUMBUS, OHIO		
<b>FORWARD ABUTMENT DETAILS</b>		
BRIDGE No. FRA-70-1287S (R)		
I.R-70 E.B. OVER SOUDER AVENUE		
FRANKLIN COUNTY		
STA. 484+29.80 To	STA. 484+97.30	
DESIGNED	DRAWN	TRACED
REVISED	DATE	
R.O.	M.M.	M.L.S.
A.S.B.		

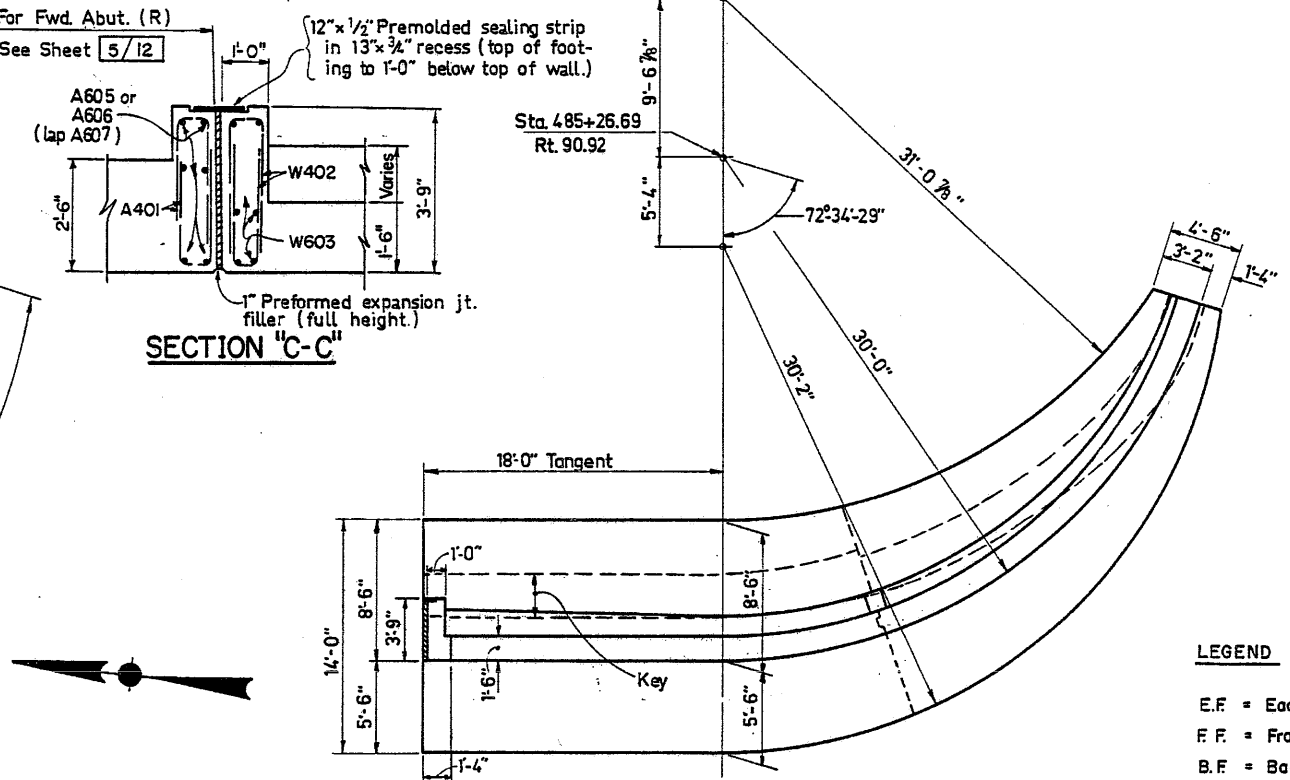
**FRANKLIN COUNTY**  
**FRA-70-12.31 S**



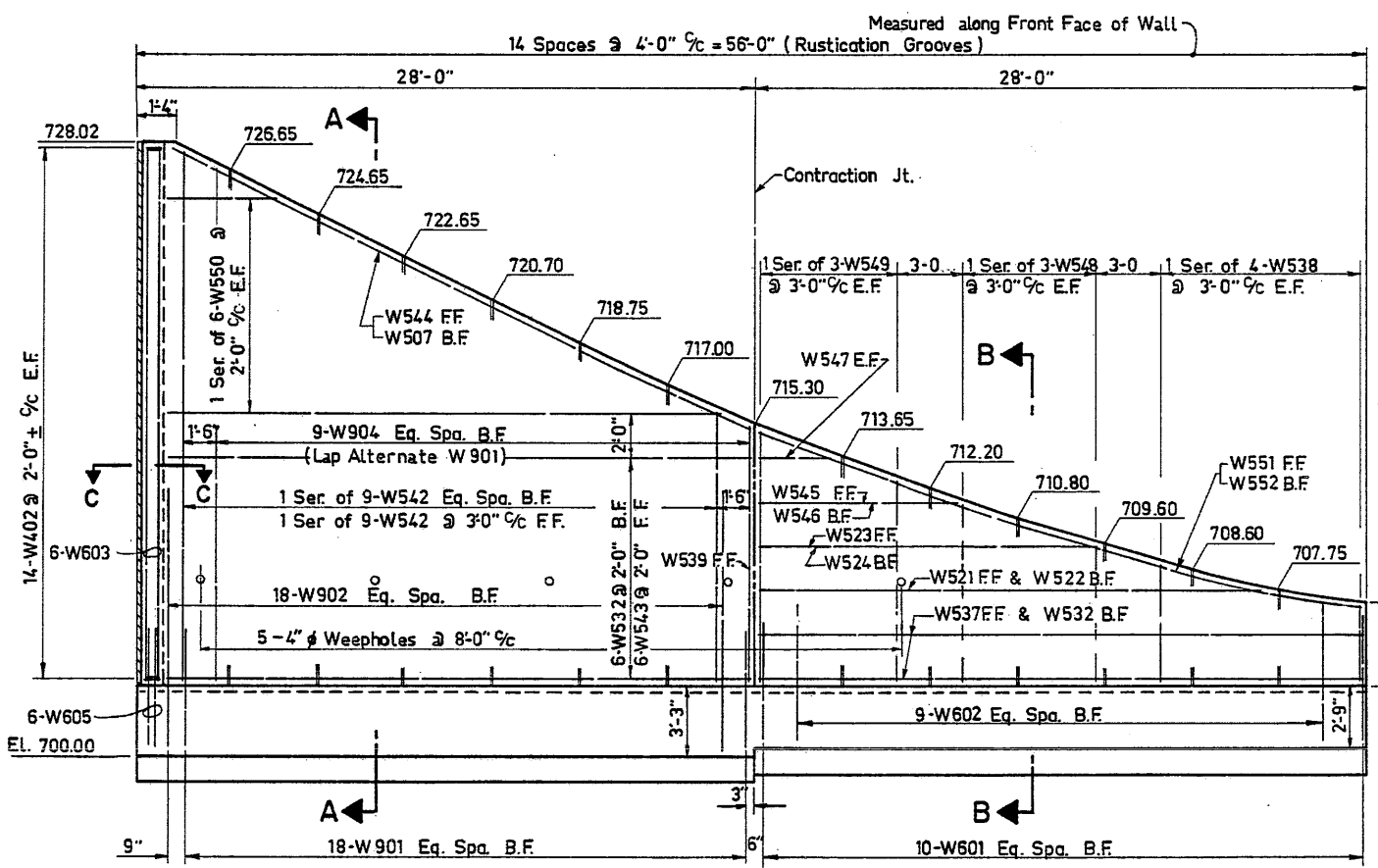
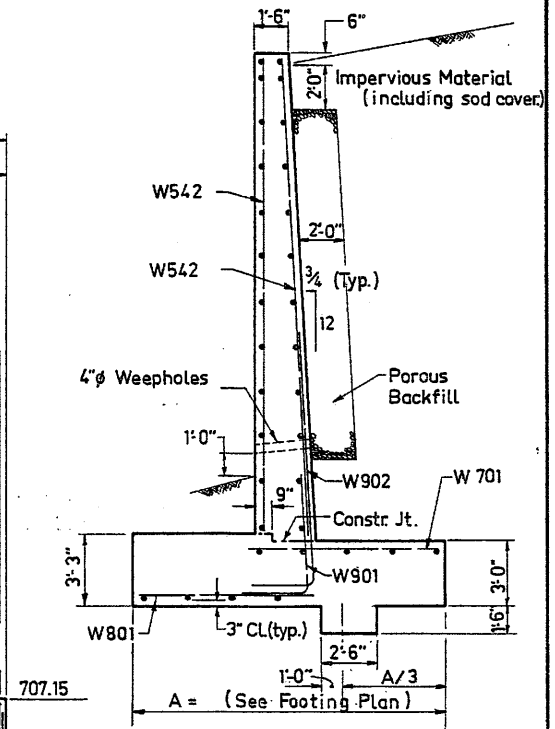
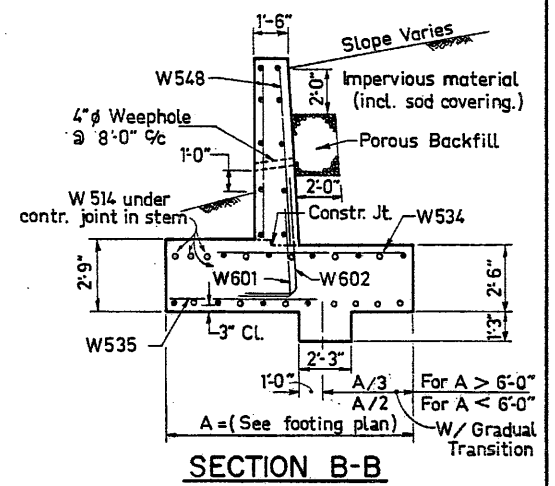
**FOOTING REINFORCING-TOP STEEL**



**FOOTING REINFORCING - BOTTOM STEEL**



**PLAN OF SOUTHEAST WINGWALL**

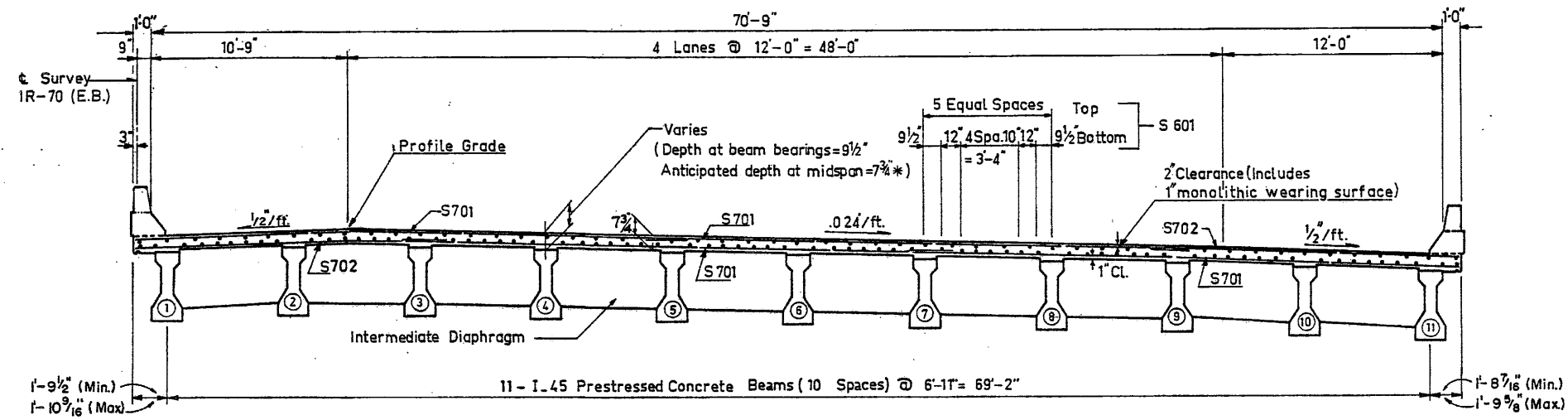


**DEVELOPED ELEVATION SOUTHEAST WINGWALL**

E. S. PRESTON ASSOCIATES, INC. 6/12					
ENGINEERS COLUMBUS, OHIO					
<b>SOUTHEAST WINGWALL</b>					
BRIDGE NO. FRA-70-1287 S R					
I.R.-70 OVER SOUDER AVENUE					
FRANKLIN COUNTY				STA. 484+29.80 TO STA. 484+97.30	
Designed	Drawn	Traced	Checked	Reviewed Date	Revised
R.V.	N.W.	M.L.S.	A.S.B.	1/11/71	

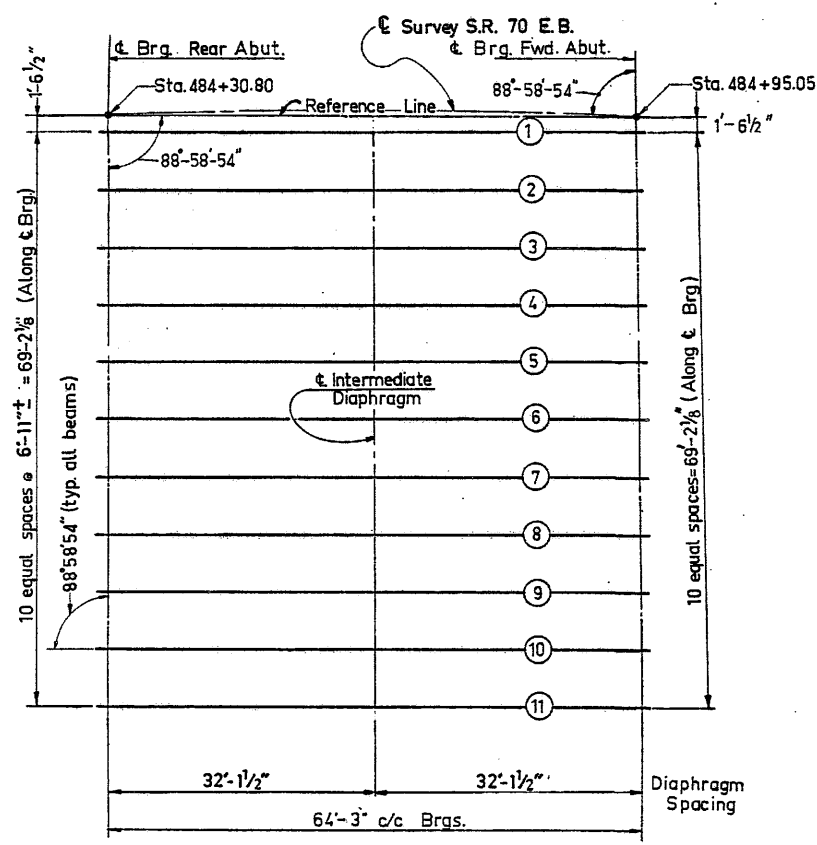
FED. RD. DIVISION	STATE	PROJECT	664
2	OHIO		

FRANKLIN COUNTY  
FRA-70-12.31 S

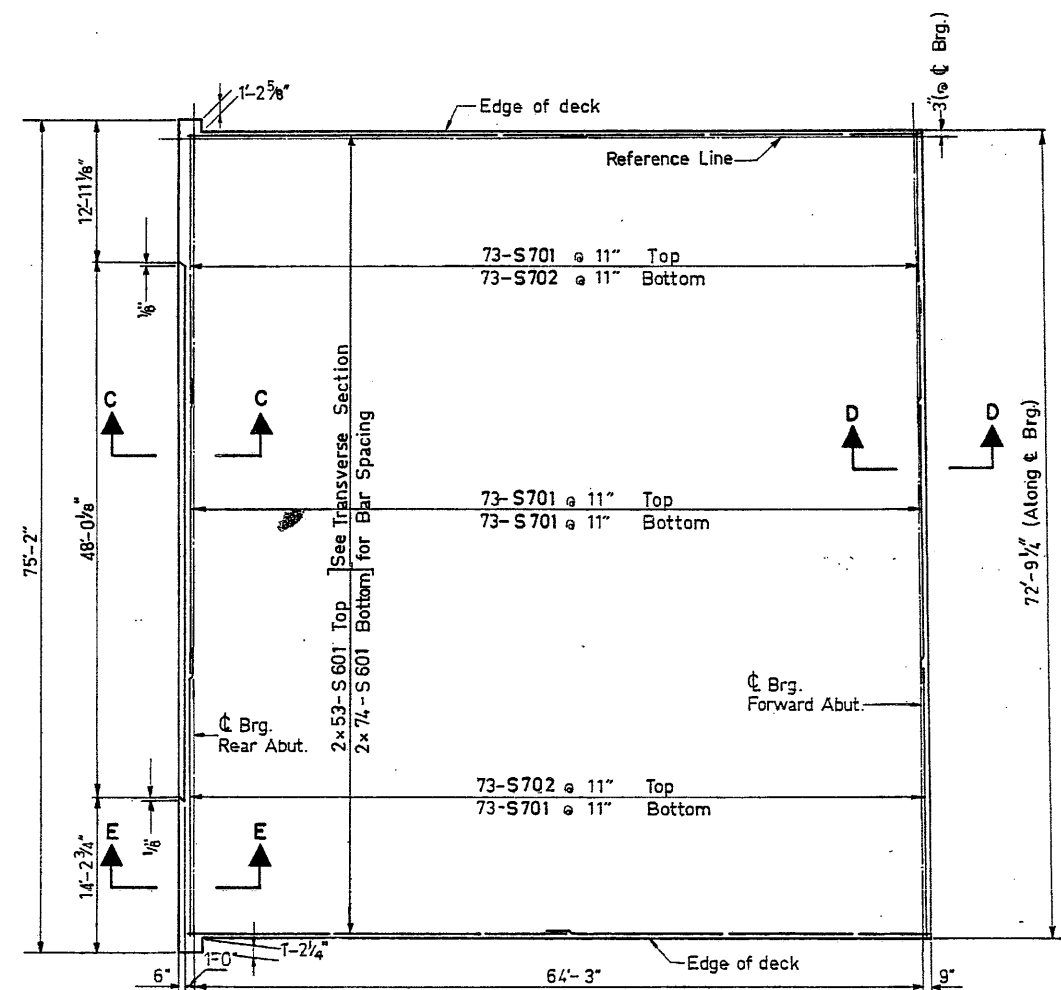


**TRANSVERSE SECTION**

\* This is the nominal dimension. The pay quantity of that portion of the deck concrete over the beams shall be based on the average of this dimension and the depth at beam bearings even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design; i.e. 2.32". The camber of beams shall be measured in the field before the deck is placed. The actual depth at mid-span shall be 10.07" minus the measured camber.



**BEAM & DIAPHRAGM LAYOUT**



**SLAB REINFORCEMENT**



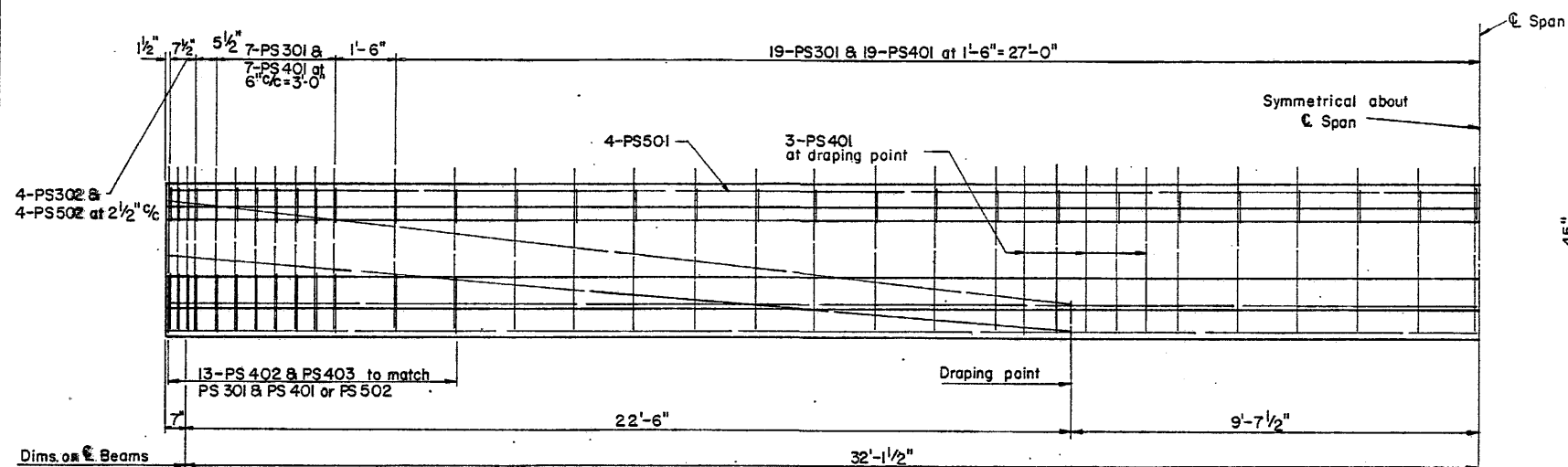
- NOTES:**
- For General Notes See Sheet 2/12
  - For End Diaphragm at Rear Abutment See Sheet 8/12
  - For Intermediate Diaphragm See Sheet 8/12
  - For Sections C-C, D-D & E-E See Sheet 8/12
  - For Parapet Details See Sheet 10/12
  - For End Diaphragm at Fwd. Abutment See Sheet 9/12

E. S. PRESTON & ASSOCIATES, LIMITED		7/12	
ENGINEERS COLUMBUS, OHIO			
<b>SUPERSTRUCTURE DETAILS</b>			
BRIDGE No. FRA-70-1287S ( R ) I.R.-70 E.B. OVER SOUDER AVENUE			
FRANKLIN COUNTY		STA. 484+29.80 To STA. 484+97.30	
DESIGNED	DRAWN	TRACED	CHECKED
DK	AY	M.L.S.	MK
REVIEWED DATE		REVISION	
11/27/71		1	

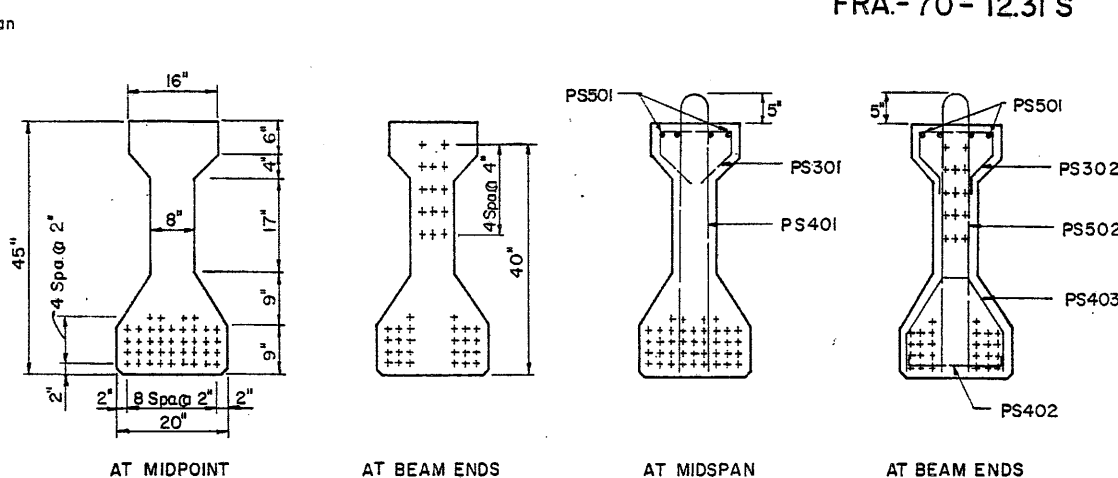
FED. RD. DISTRICT	STATE	PROJECT
2	OHIO	



FRANKLIN COUNTY  
FRA-70-1231 S

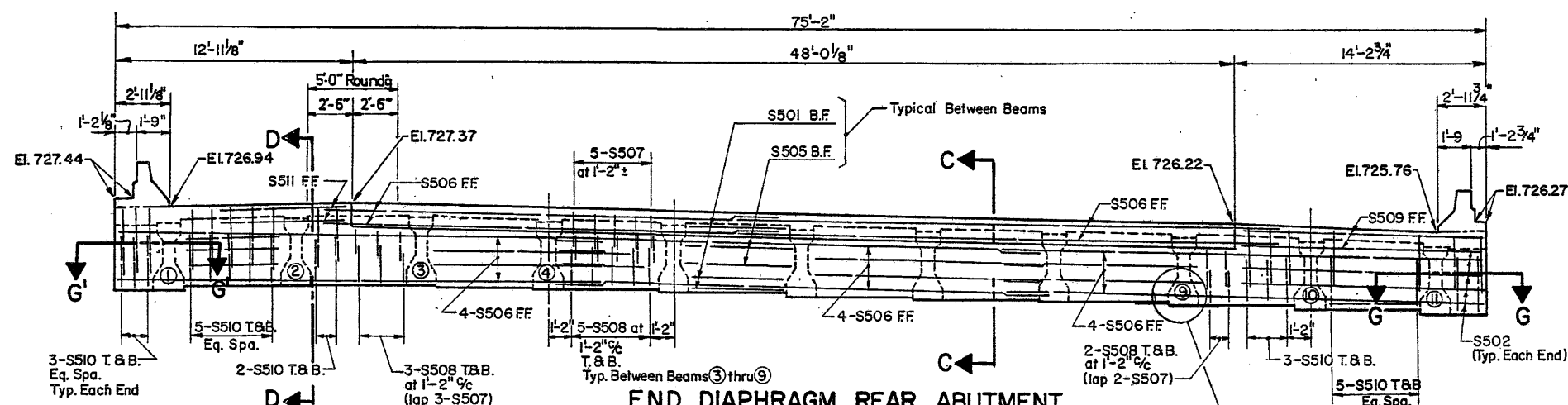


HALF BEAM ELEVATION

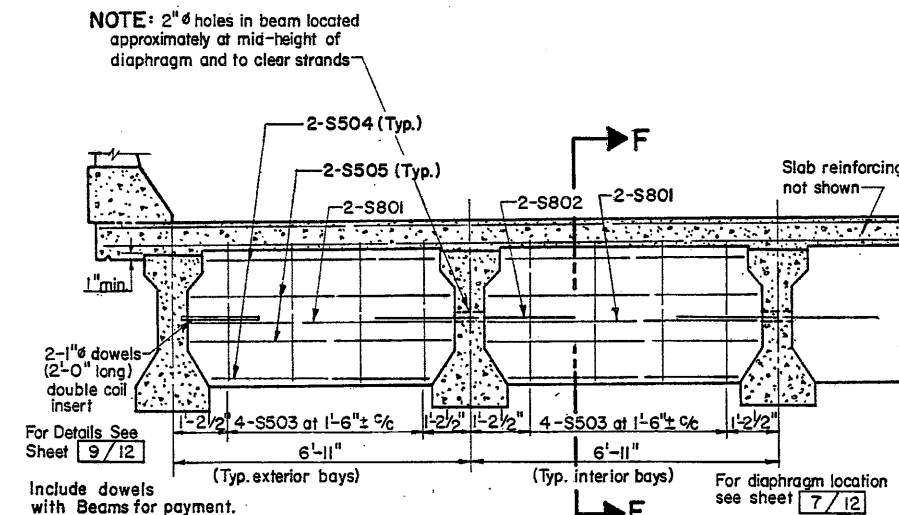


TYPICAL STRAND PATTERN  
IN BEAMS

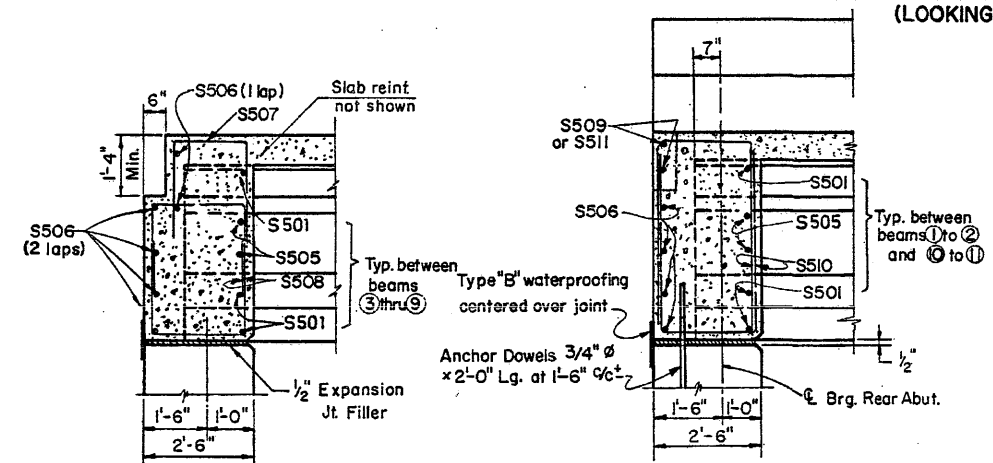
MILD STEEL REINFORCEMENT  
IN BEAMS



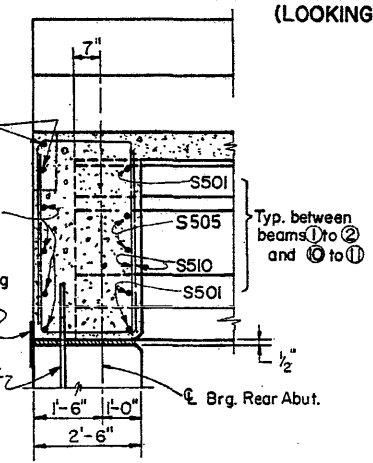
END DIAPHRAGM REAR ABUTMENT  
(LOOKING UP STATION)



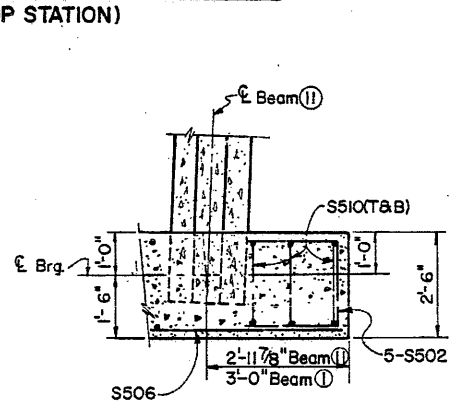
INTERMEDIATE DIAPHRAGM



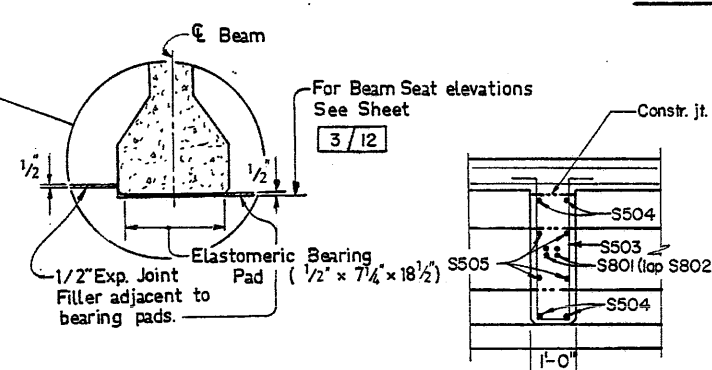
SECTION C-C



SECTION D-D



SECTION G-G  
Section G'-G' Similar - Opposite Hand



SECTION F-F

NOTE: Diaphragm concrete shall be Class "C".  
Slab concrete shall not be placed until at least 48 hrs. after placement of diaphragm concrete.

E. S. PRESTON ASSOCIATES, INC. 8/12  
ENGINEERS  
COLUMBUS, OHIO

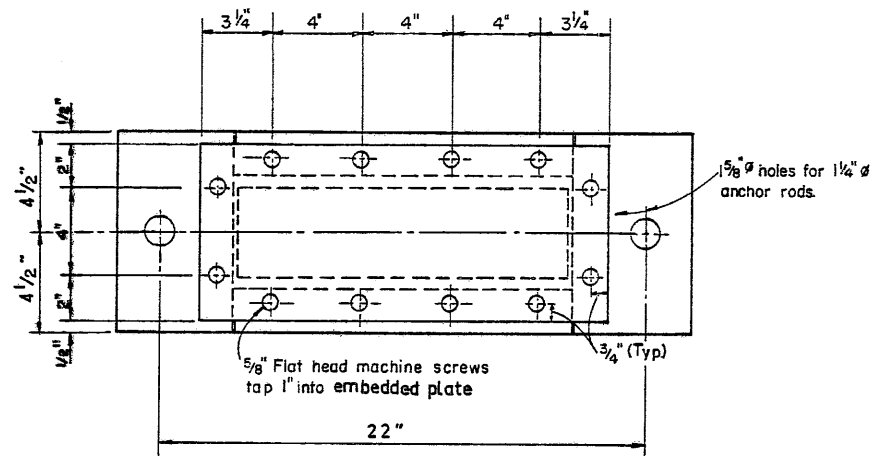
SUPERSTRUCTURE DETAILS  
BRIDGE NO. FRA-70-1287S (R)  
LR. 70 EAST BOUND OVER SOUDER  
FRANKLIN COUNTY

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
R.V.	M.N.	E.D.A.	M.L.S.	1/6 7/72	

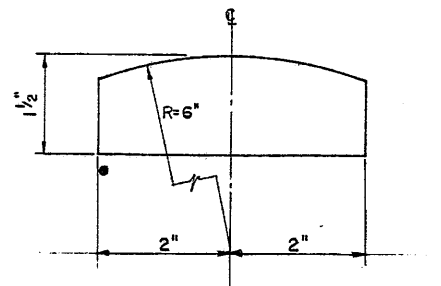
FED. NO. DIVISION	STATE	PROJECT
2	OHIO	



FRANKLIN COUNTY  
FRA-70-12.31 S

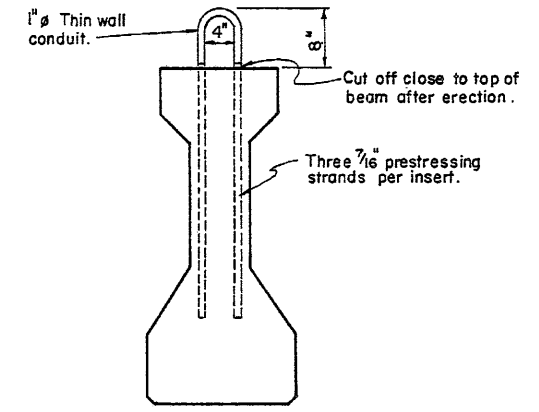
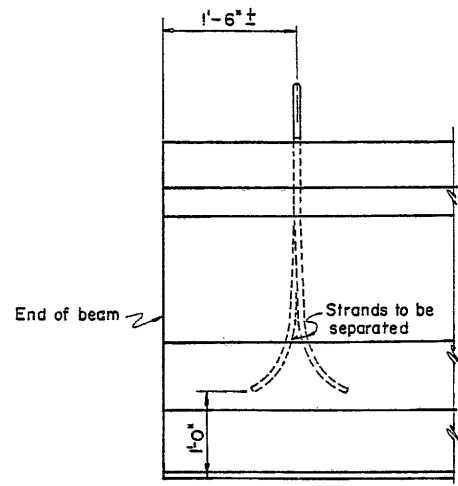


Welded stud shear connectors of 3/4" diameter and of equivalent length may be substituted for the 1 1/2" x 3/8" anchor bars.



**SELF-LUBRICATING RADIAL BRONZE PLATE DETAIL**

NOTE: Reference Shall Be Made To Supplemental Specification 927 Dated 1-1-71.

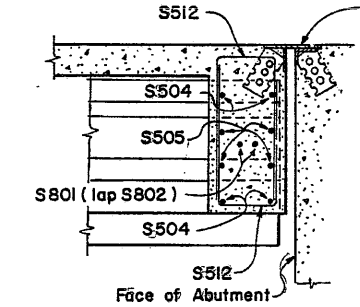


Position of lifting insert may be shifted slightly where necessary to clear reinforcing steel.

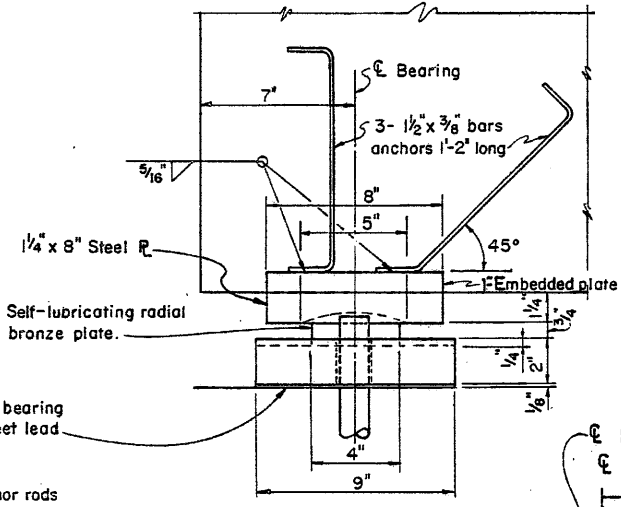
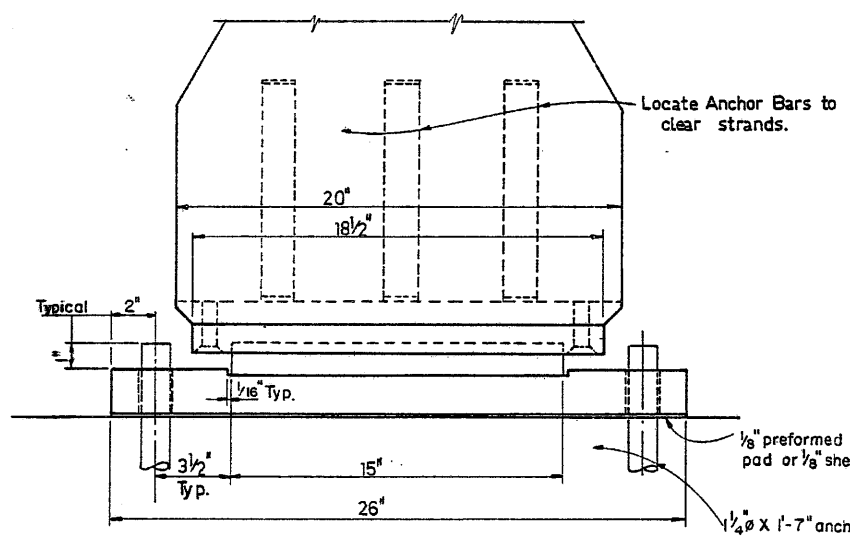
NOTE: Lifting inserts of the Contractor's design may be used if approved by the director.

**BEAM LIFTING INSERT**

For End Dam Details See Sheet 11/12

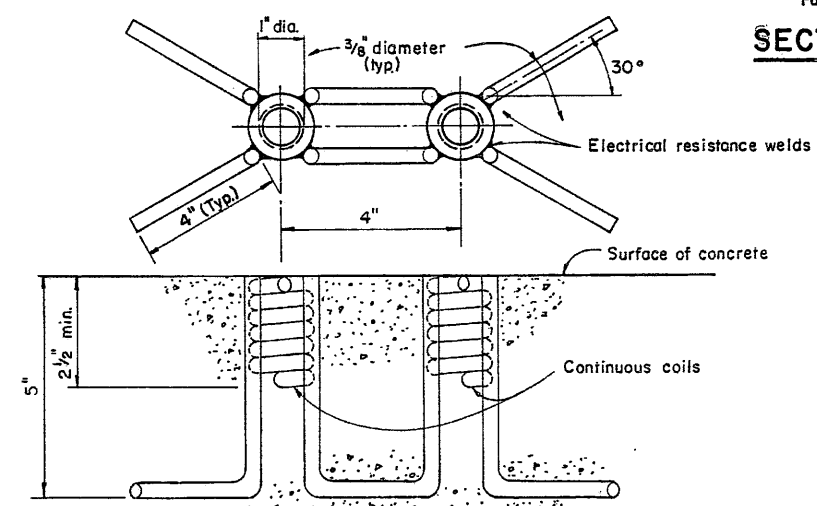


**SECTION D-D**



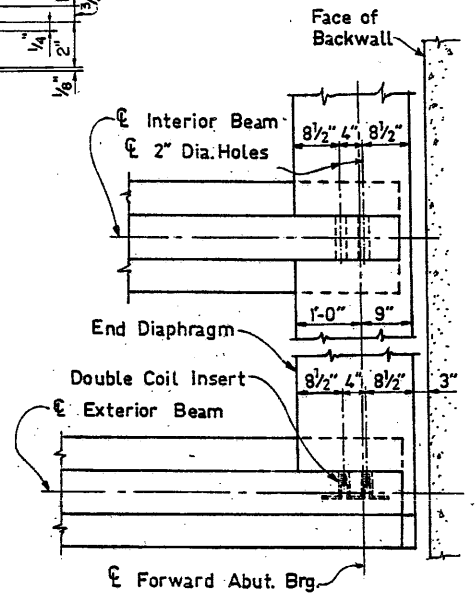
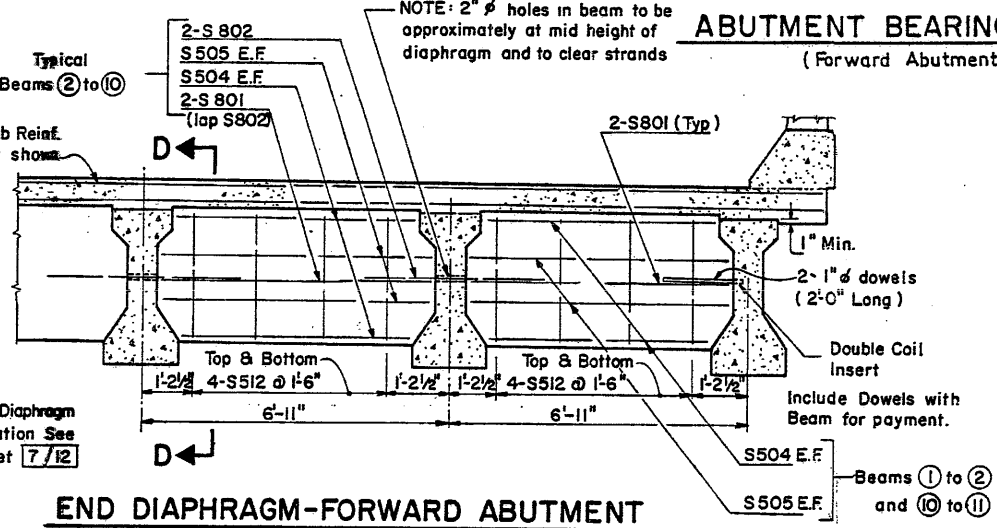
**ABUTMENT BEARING DETAILS (Forward Abutment)**

NOTE: 2" holes in beam to be approximately at mid height of diaphragm and to clear strands



**DOUBLE COIL INSERT**

NOTE: Location of holes and inserts shall be adjusted as necessary to avoid interference with reinforcement. Special caution should be used in the area of prestressing strand draping. Vertical location of holes and inserts in adjacent beams shall be approximately the same to facilitate lapping of No. 8 bars and 1" dowels. Diaphragm concrete shall be Class "C". Slab concrete shall not be placed until at least 48 hrs. after placement of diaphragm concrete.



**FORWARD END DIAPHRAGM PART PLAN**

E. S. PRESTON ASSOCIATES, INC. 9/12  
ENGINEERS  
COLUMBUS, OHIO

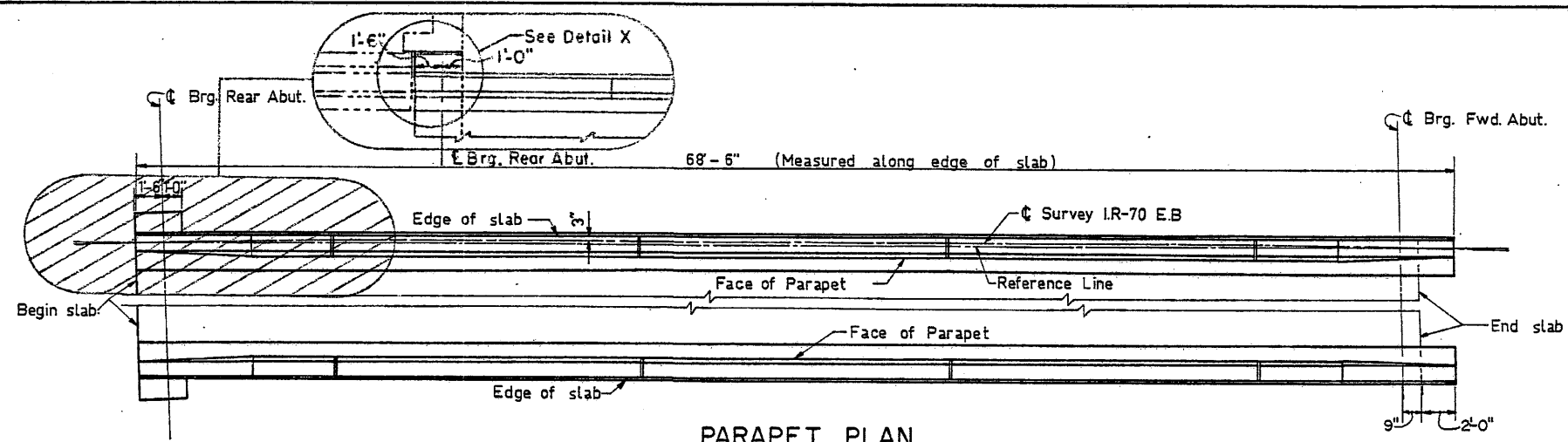
**SUPERSTRUCTURE DETAILS**  
BRIDGE NO. FRA-70-1287S (R)  
I.R.-70 E.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY STA 484+29.80 TO STA 484+97.30

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
R.D.	M.M.	E.D.A.	M.S.	1/6 7/11/71	

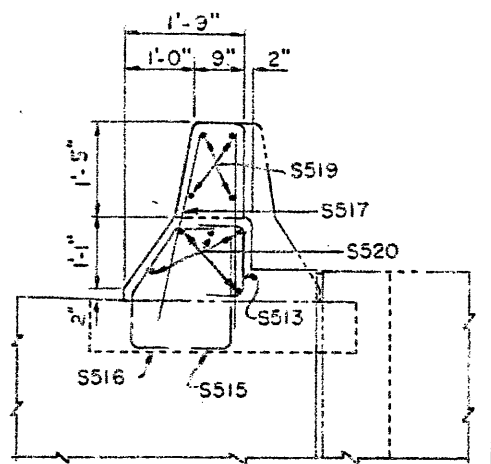
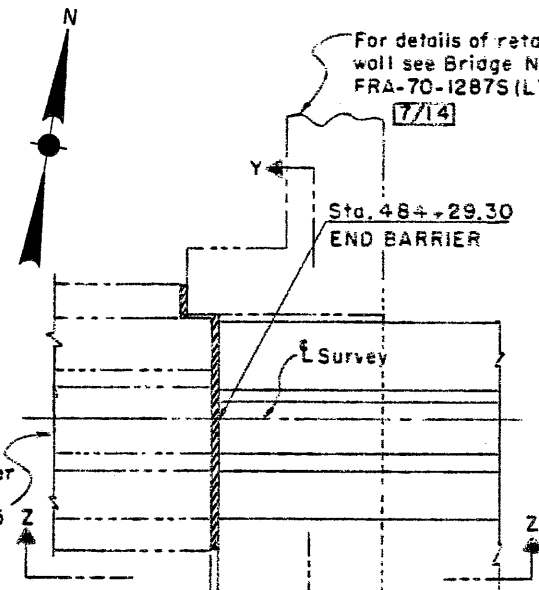


FED. RD. DIVISION	STATE	PROJECT	UGI
2	OHIO		

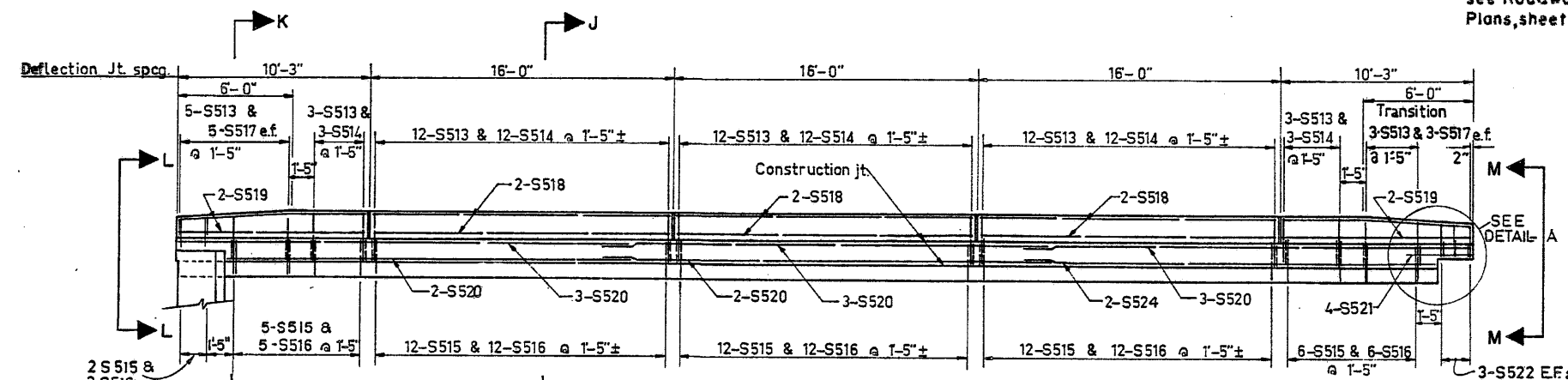
FRANKLIN COUNTY  
FRA-70-12.31 S



PARAPET PLAN



SECTION Y-Y

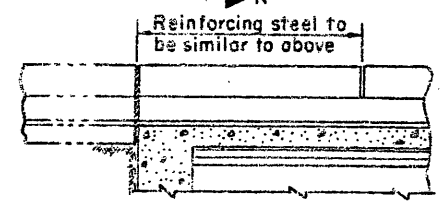


ELEVATION

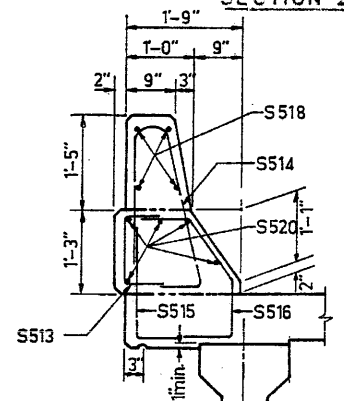
For details of concrete barrier see Roadway Plans, sheet 45

SEE DETAIL-A

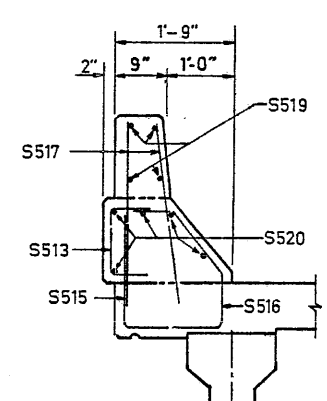
SEE DETAIL-A



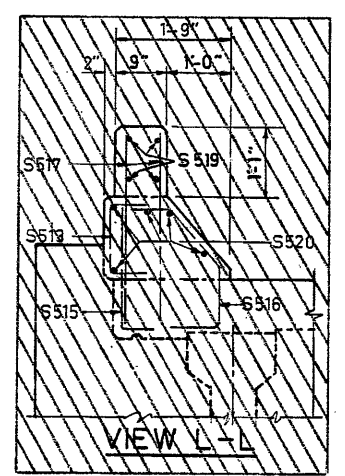
SECTION Z-Z



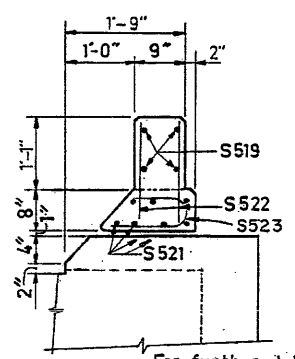
SECTION J-J



SECTION K-K

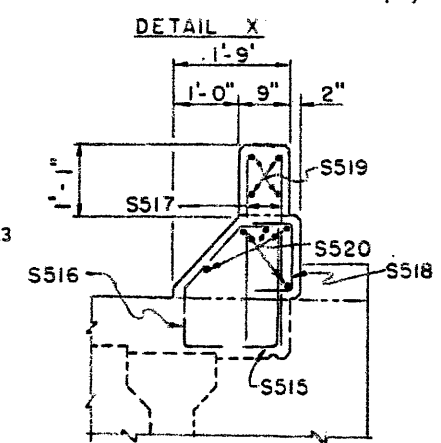


VIEW L-L

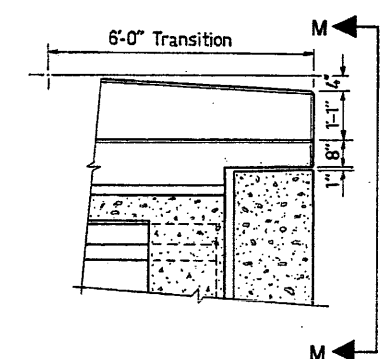


VIEW M-M

For further detail see Section A-A, Sheet 11/12



VIEW L-L



DETAIL-A

For details of retaining wall see Bridge No. FRA-70-1287S (L) sheet 7/14

DETAIL X

NOTES:

- For General Notes See Sheet 2/12
- For Diaphragm at Fwd. Abutment See Sheet 8/12
- For Expansion Joint Detail See Sheet 11/12

E.S. PRESTON & ASSOCIATES, LIMITED 10/12  
ENGINEERS  
COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE No. FRA-70-1287S ( R )  
I.R-70 E.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY STA. 484+29.80 To STA. 484+97.30

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.C.	N.W.	M.S.	A.S.P.	11/11	

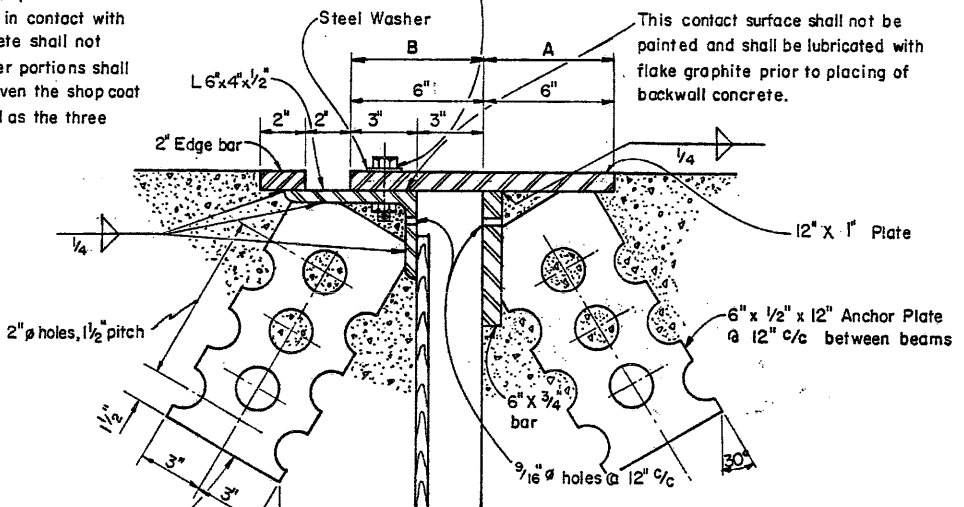
FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

FRANKLIN COUNTY  
FRA-70-12.31 S

A welded butt joint in end dam, along the centerline of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with one of the joints at the apex of the crown. These shall be closely butted but shall not be welded.

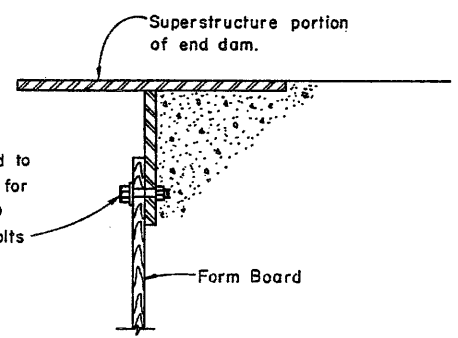
$\frac{5}{8}$ " x 2" bolts at not more than 2'-0" c/c with nuts tack-welded to under side of angle.  $\frac{1}{16}$ " holes in plate. Center  $\frac{5}{8}$ " bolts in  $\frac{1}{16}$ " holes. Apply flake graphite between washers and plate. Turn bolt tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.

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

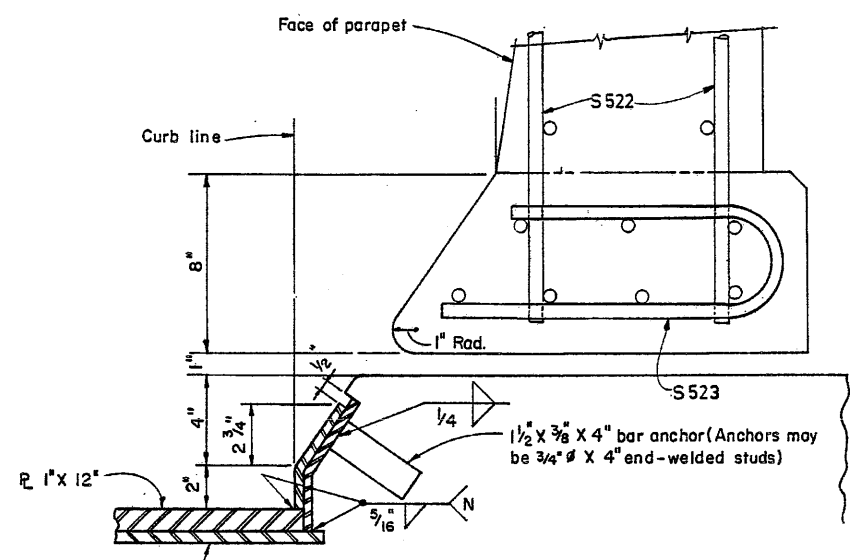


**SECTION THRU END DAM**

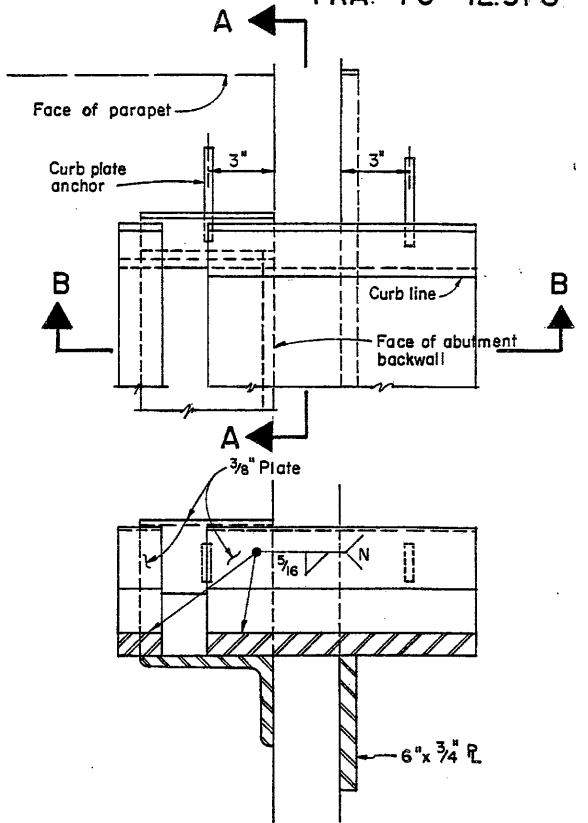
6" x 1/2" x 12" plates, spaced at approximately 15" c/c except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes may be burned in the plate.



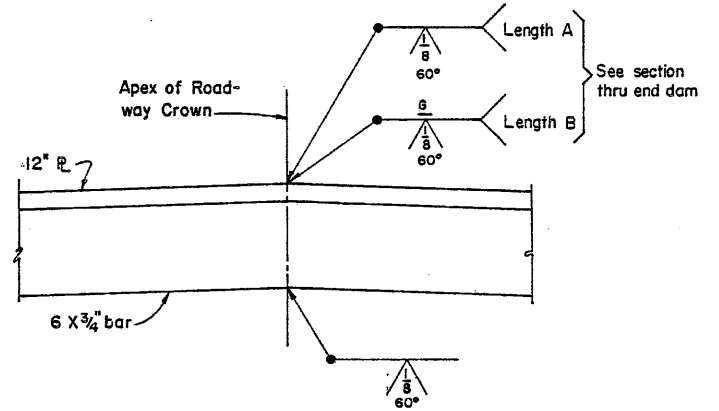
**TEMPORARY SUPPORT FOR END DAM**



**SECTION A-A**



**SECTION B-B**



**BUTT JOINT IN SUPERSTRUCTURE END DAM**

E. S. PRESTON ASSOCIATES, INC. 11/12 ENGINEERS COLUMBUS, OHIO						
<b>SUPERSTRUCTURE DETAILS</b>						
BRIDGE NO. FRA-70-1287S (R)						
I.R. 70 EAST BOUND OVER SOUDER						
FRANKLIN COUNTY						
					STA. 484+29.80 TO	
					STA. 484+97.30	
Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
D.K.	A.Y.	EDA	A.S.B.		7/1/11	

REINFORCING STEEL SCHEDULE

MARK	NO.	LENGTH	TYPE	DIMENSION						WEIGHT
				A	B	C	D	E	RAD.	
ABUTMENTS										
A1001	450	11'0"	ST							21300
A1002	126	7'11"	4	1'6"	6'8"					4292
A1003	130	15'3"	4	3'6"	12'0"					8531
A1004	64	15'9"	ST							4337
A1005	9	21'8"	ST							839
A1006	13	21'2"	ST							1184
A1007	9	20'5"	ST							791
A1008	9	18'9"	ST							726
A1009	13	19'5"	ST							1086
A1010	9	20'0"	ST							775
A601	123	8'5"	6	1'5"	3'8"					1555
A602	74	6'5"	3	4'10"	1'7"	1'1 1/2"				713
A603	48	7'1"	6	11"	3'3"					521
A604	25	10'1"	6	1'5"	4'6"					379
A605	6	21'5"	ST							193
A606	6	22'7"	ST							204
A607	12	5'8"	4	5'0"	10"					102
A501	72	26'0"	ST							1952
A502	54	5'6"	4	7 1/2"	5'0"					310
A503	64	20'6"	ST							1368
A504	56	31'8"	ST							1850
A505	7	21'5"	ST							156
A506	11	20'11"	ST							240
A507	7	20'2"	ST							147
A508	96	6'8"	6	3'5"	1'9"					668
A509	72	10'0"	ST							751
A510	8	18'9"	ST							156
A511	11	19'5"	ST							223
A512	8	20'0"	ST							167
A513	98	5'5"	6	2'2"	1'9"					554
A514	12	6'9"	ST							84
A515	42	21'1"	ST							924
A516	1	11'6"	ST							12
A517	2	9'8"	ST							20
A518	2	8'8"	ST							18
A519	1	13'0"	ST							14
A520	6	2'11"	6	1'2"	1'0"					18
A401	56	5'5"	6	8"	2'6"					203
WINGWALLS										
W301	34	8'1"	5	2'10"	5'6"	4 1/8"				934
W302	33	14'5"	5	2'10"	11'10"	8 1/8"				1618
W303	1 SER	12'10" TO	ST						1'5"	484
		OF 8	22'9"							
W304	1 SER	11'10" TO	ST						1'6 1/4"	549
		OF 9	24'0"							
W601	36	7'9"	ST							745
W602	1 SER	6'9" TO	ST						0 7/8"	271
		OF 14	7'9"							
W603	1 SER	8'2" TO	ST						0 1/4"	266
		OF 12	8'5"							
W701	36	8'4"	ST							613
W702	1 SER	7'9" TO	ST						0 1/2"	290
		OF 14	8'4"							
W703	1 SER	8'2" TO	ST						0 1/4"	203
		OF 12	8'5"							
W601	19	6'0"	5	1'11"	4'3"	3 1/8"				171
W602	17	8'3"	5	1'11"	6'5"	4 1/8"				211
W603	6	24'3"	ST							219
W604	6	22'8"	ST							204
W605	12	6'0"	4	1'11"	4'3"					108
W501	1 SER	3'0" TO	ST						2 7/8"	86
		OF 17	6'9"							
W502	1 SER	3'5" TO	ST						2 7/8"	95
		OF 17	7'3"							
W503	1 SER	22'0" TO	ST						10"	97
		OF 4	24'6"							
W504	1 SER	22'10" TO	ST						10 3/8"	101
		OF 4	25'6"							
W505	1	23'9"	ST							25
W506	1	26'3"	ST							27
W507	2	28'9"	ST							60
W508	2	21'11"	ST							46
W509	1	19'5"	ST							14
W510	1	12'9"	ST							13
W511	1	20'0"	ST							21
W512	1	21'0"	ST							22
W513	7	22'6"	ST							164
W514	28	10'0"	ST							292
W515	2 SER	3'8" TO	ST						10"	56
		OF 5	7'0"							
W516	2 SER	7'10" TO	ST						1'2"	80
		OF 4	11'4"							
W517	1	19'0"	ST							20
W518	2	24'10"	ST							52
W519	2 SER	5'3" TO	ST						4'2 1/4"	142
		OF 5	22'0"							
W520	1	24'2"	ST							25
W521	1	23'0"	ST							24
W522	1	22'0"	ST							23
W523	1	15'6"	ST							16
W524	1	15'0"	ST							16
W525	2	2'6"	ST							5
W526	2 SER	11'9" TO	ST						1'4 5/8"	277
		OF 8	21'5"							
W527	1	23'8"	ST							25
W528	1 SER	27'0" TO	ST						9 7/8"	118
		OF 4	29'4"							
W529	1	30'8"	ST							32
W530	2	28'2"	ST							59
W531	1	29'5"	ST							31
W532	6	26'2"	ST							164
W533	1	24'1"	ST							25
W534	1 SER	3'5" TO	ST						3 1/8"	115
		OF 19	8'2"							
W535	1 SER	2'8" TO	ST						3 1/4"	101
		OF 19	7'6"							
W536	1	20'3"	ST							21

FOR BAR TYPE LIST SEE SHEET 12 / 12

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A700 IS A NO. 7 SIZE AND A1014 IS A NO. 10 SIZE.

E.S. PRESTON ASSOCIATES, INC. 12a / 12  
ENGINEERS  
COLUMBUS, OHIO

**REINFORCING STEEL LIST**

BRIDGE No. FRA-70-1287S (R)  
I.R.-70 E.B. OVER SOUDER AVENUE  
FRANKLIN COUNTY STA. 484+29.80  
STA. 484+97.30

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
D.K.	E.A.	R.J.B.	M.K.	N.N.	

FED. RD. DIVISION	STATE	PROJECT	670
2	OHIO		

REINFORCING STEEL SCHEDULE

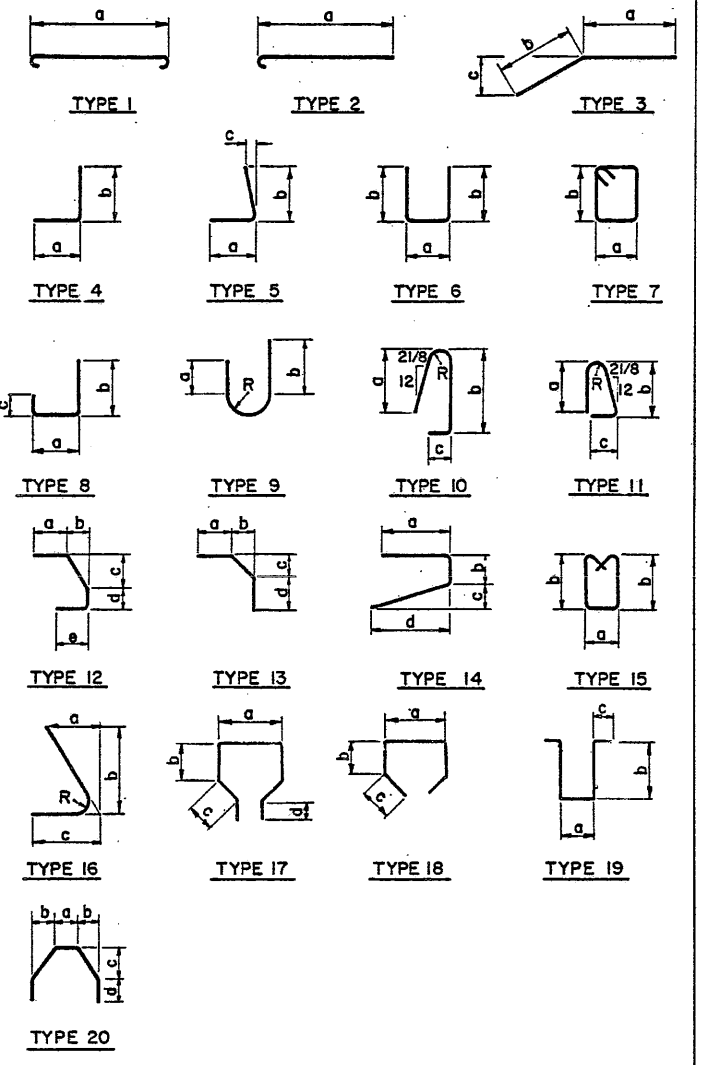
SUPERSTRUCTURE											
MARK	NO.	LENGTH	TYPE	DIMENSION					RAD.	INC.	WEIGHT
				A	B	C	D	E			
S801	40	6'0"	ST							641	
S802	36	4'4"	ST							417	
S701	292	30'0"	ST							17905	
S702	146	16'9"	ST							4998	
S601	254	34'0"	ST							12971	
SS01	30	5'1"	ST							159	
SS02	10	5'9"	6	2'2"	1'11"					60	
SS03	40	8'0"	19	8"	3'3"	8"				334	
SS04	80	5'5"	ST							452	
SS05	100	6'0"	ST							626	
SS06	16	26'0"	ST							434	
SS07	35	7'5"	6	1'8"	3'0"					271	
SS08	70	6'11"	6	2'2"	2'6"					505	
SS09	2	13'10"	ST							29	
SS10	42	8'11"	6	2'2"	3'6"					391	
SS11	2	12'7"	ST							26	
SS12	80	7'8"	6	1'5"	3'3"					640	
SS13	100	2'1"	6	1'0"	8"					217	
SS14	84	5'4"	11	2'2"	2'5"	7 1/2"			2 1/4"	468	
SS15	98	2'4"	4	8"	1'9"					238	
SS16	98	3'1"	12	9"	9"	11 1/2"	9"	7 1/2"		316	
SS17	32	3'0"	ST							100	
SS18	24	15'8"	ST							392	
SS19	16	9'11"	ST							165	
SS20	26	23'10"	ST							646	
SS21	8	4'0"	ST							33	
SS22	12	1'5"	ST							18	
SS23	6	2'4"	9	9"	1'0"				2 1/4"	15	
SS24	4	21'10"	ST							91	

PRESTRESSED BEAMS											
MARK	NO.	LENGTH	TYPE	DIMENSION					RAD.	INC.	WEIGHT
				A	B	C	D	E			
PS501	88	33'-6"	ST							Mild Steel	
PS502	88	8'-0"	9	3'-8"	3'-8"					2 1/2" Reinforcement	
PS401	627	8'-0"	9	3'-0"	3'-8"					2 1/2"	
PS402	286	1'9"	6	1'-4"	4"					in	
PS403	286	3'2"	20	5"	5 1/2"	9"	6"			Prestressed Concrete	
PS301	627	2'10"	18	1'-0"	4"	8"				Beam to be included with beam for payment.	
PS302	88	3'-0"	17	1'-0"	4"	6"	3"				

REPLACEMENT BAR											
MARK	NO.	LENGTH	TYPE	DIMENSION					RAD.	INC.	WEIGHT
				A	B	C	D	E			
RE1001	3	8'2"	ST								
RE901	1	7'10"	ST								
RE801	1	7'5"	ST								
RE701	2	7'2"	ST								
RE601	1	6'11"	ST								
RE501	22	6'7"	ST								
RE401	1	6'3"	ST								
RE301	1	5'11"	ST								



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DESIGNED: D.K. DRAWN: E.A. TRACED: R.U.B. CHECKED: M.K. REVIEWED DATE: W.N.