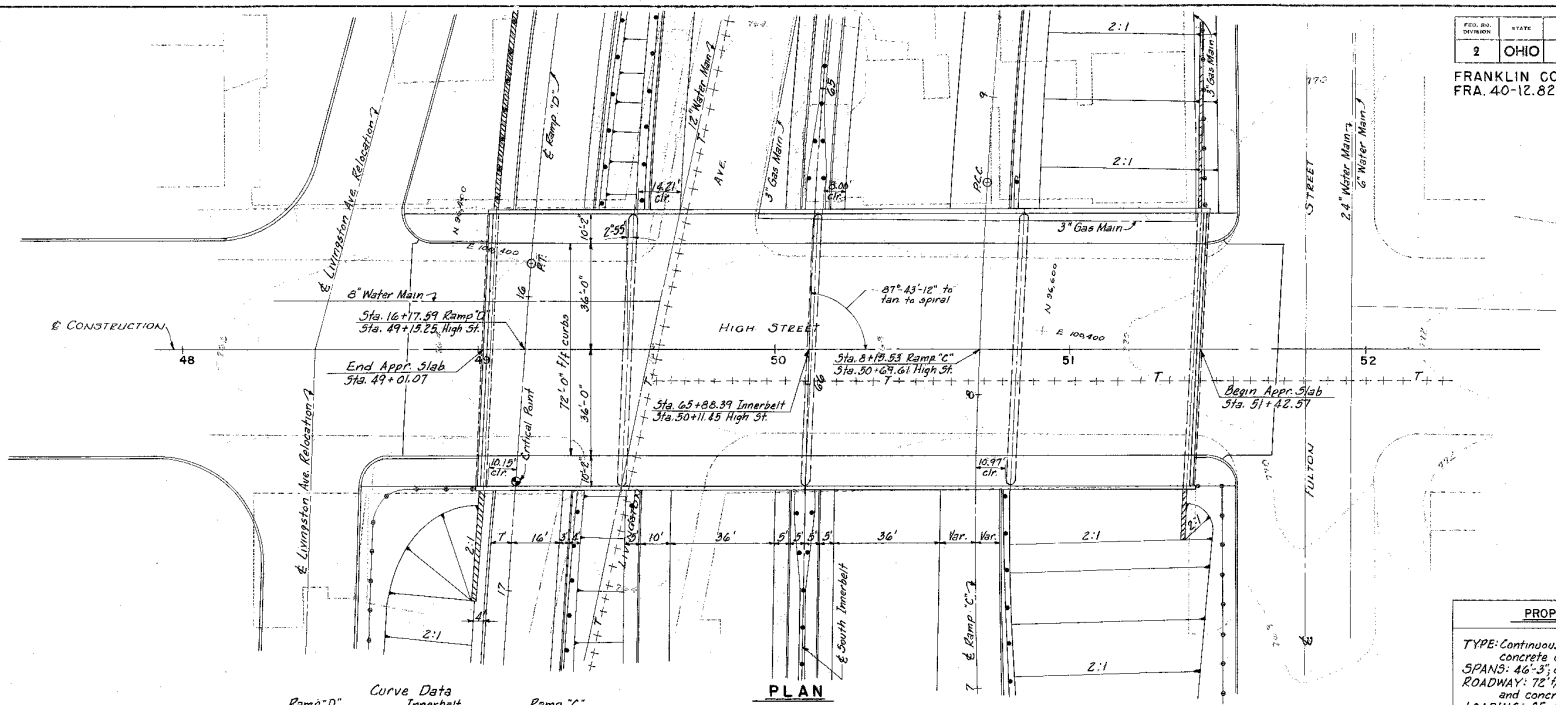
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

192
250

FRANKLIN COUNTY
FRA. 40-12.82



PLAN

Curve Data

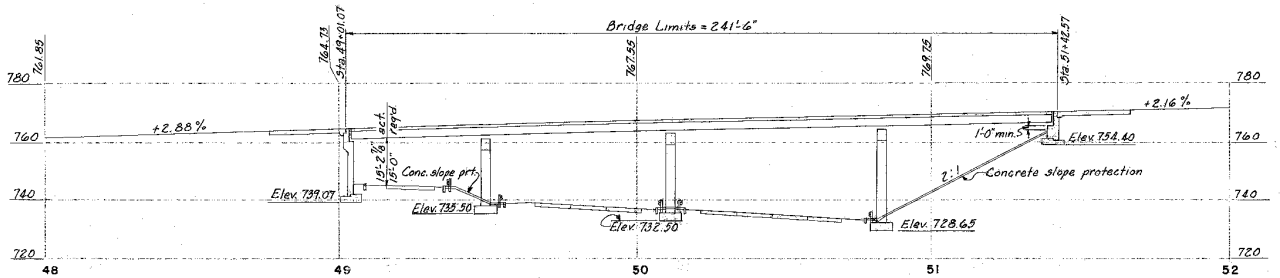
Ramp "D"
P.I. 14+21.38
Δ = 16°-53'-06"
D_c = 5°-00'-00"

Innerbelt
P.I. 63+13.69
Δ = 20°-35'-59"
D_c = 3°-00'-00"
L_s = 250'
θ_s = 3°-45'-00"

Ramp "C"
P.I. 6+57.04
Δ = 14°-02'-24"
D_c = 3°-15'-00"

High St.: P.V.I. 49+97.22
50' V.C.
Elev. 767.53
Corr. -0.04'
P.G. 767.49
G_1 = +2.88%, G_2 = +2.16%

Innerbelt: P.V.I. 67+28
350' V.C.
Elev. 740.09
Corr. -2.02'
P.G. 738.07
G_1 = +1.94%, G_2 = -1.00%



PROFILE
Along ℄ High St.

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure
SPANS: 46'-3"; 62'-3"; 71'-6"; 57'-0" ℄ brgs.
ROADWAY: 72' F/F curbs with 10'-2" sidewalks and concrete parapets with aloun railing
LOADING: CF-400 (1957)
WEARING SURFACE: 2½" asphaltic concrete
SKEW: 3°-55' Lt. Forward
ALIGNMENT: Tangent
APPROACH SLABS: 25'-0" long, see Sheet 193

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN
BRIDGE NO. FRA. 40-1310
SOUTH INNERBELT UNDER HIGH STREET

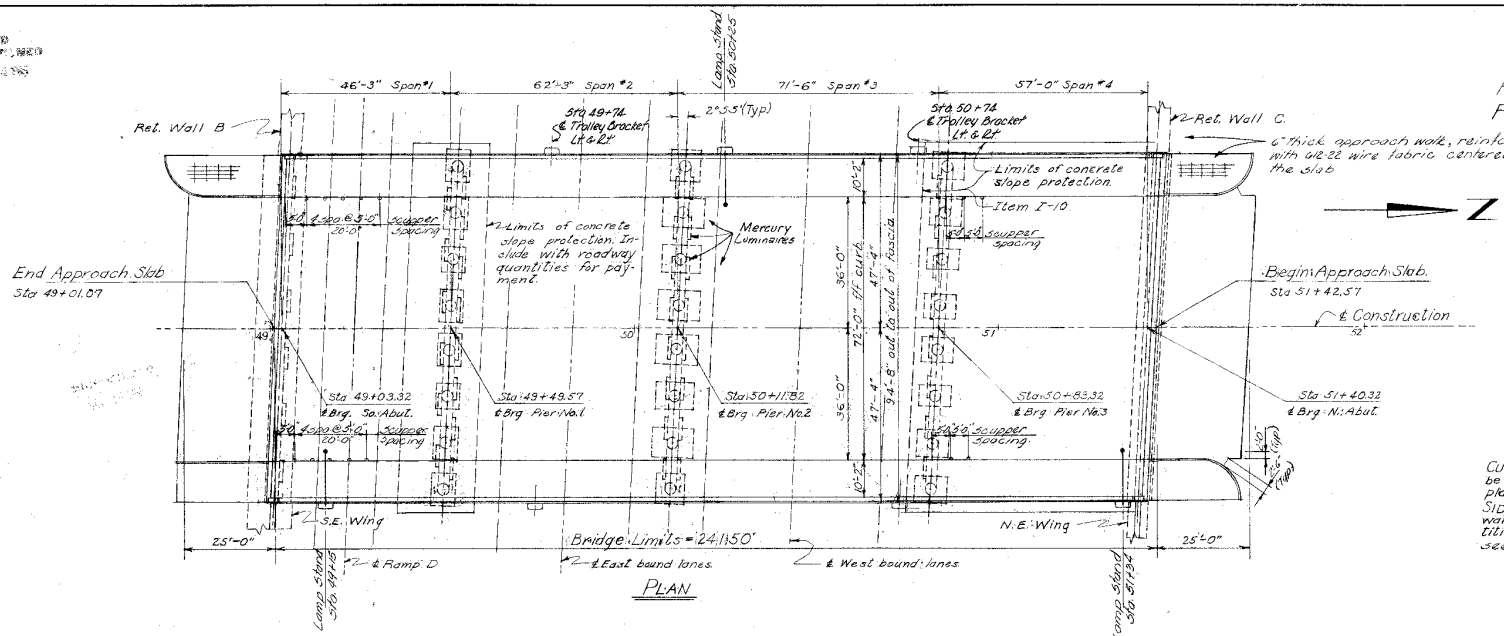
FRANKLIN COUNTY STA. 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	R.T.	E.D.A.	R.R.M.	F.L.J.	5-8-62	

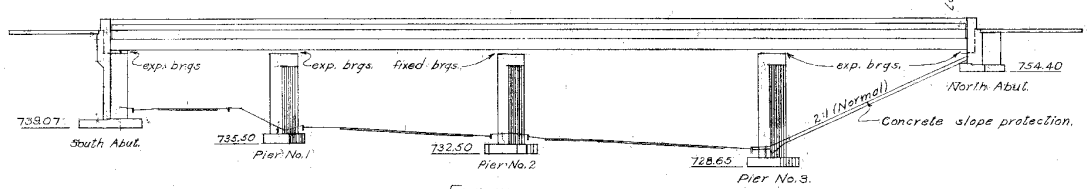
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

193
250

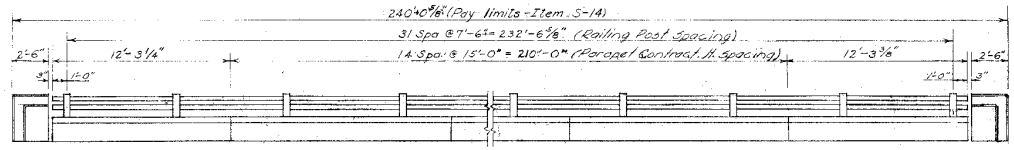
FRANKLIN COUNTY
FRA. 40-12.82



PLAN



ELEVATION



RAILING (Typical East and West)

NOTES

CURBS: The curbs on the approach slabs shall be transitioned to match the curbs on the roadway plans.

SIDEWALK & APPROACH SLAB: The approach walks and slabs are included with roadway quantities. For additional approach slab details see standard drawing BP-1.1-54.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION
BRIDGE NO. FRA 40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA 65+88.39

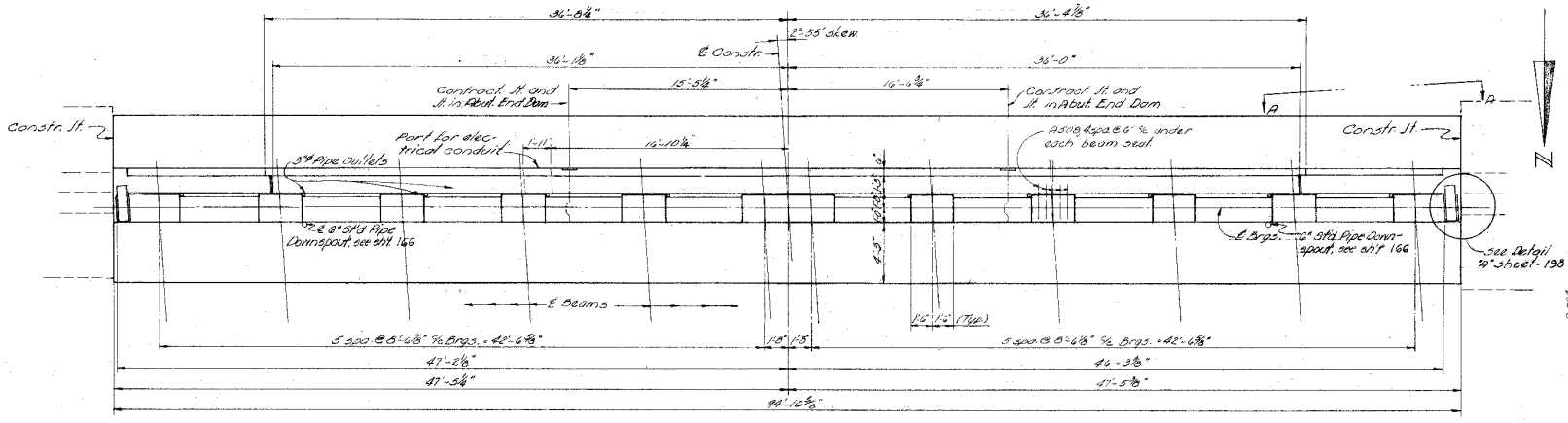
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.M.	P.M.		GETTIN	TLU	5-3-82	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

194 / 250

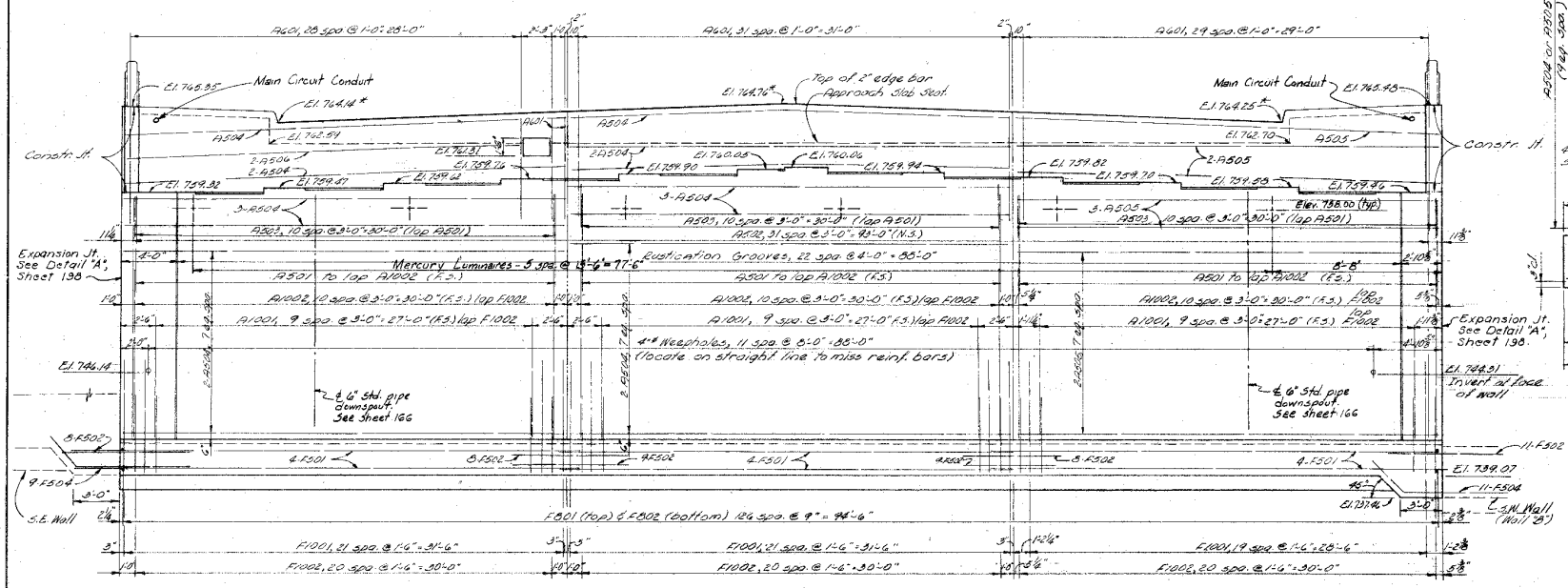
FRANKLIN COUNTY
FRA-40-12.82

Note: For additional details and notes see sheet-198

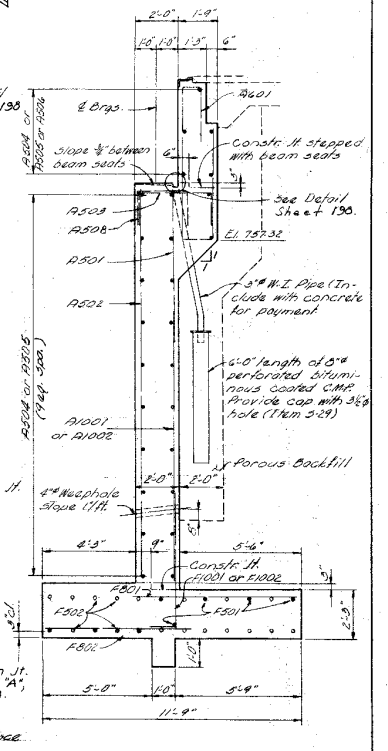


PLAN

*Note: Elevations marked with an asterisk are to top of 2" edge bar



ELEVATION



TYPICAL SECTION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

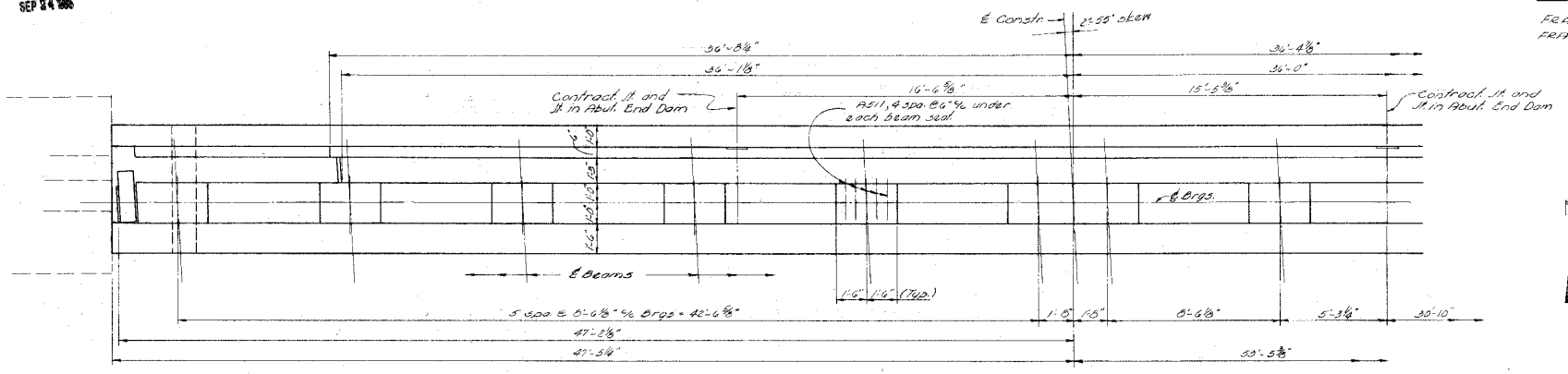
SOUTH ABUTMENT
BRIDGE No. FRA-40-1210
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY
STA-65+08.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		DETTIN	TLV	5-84	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

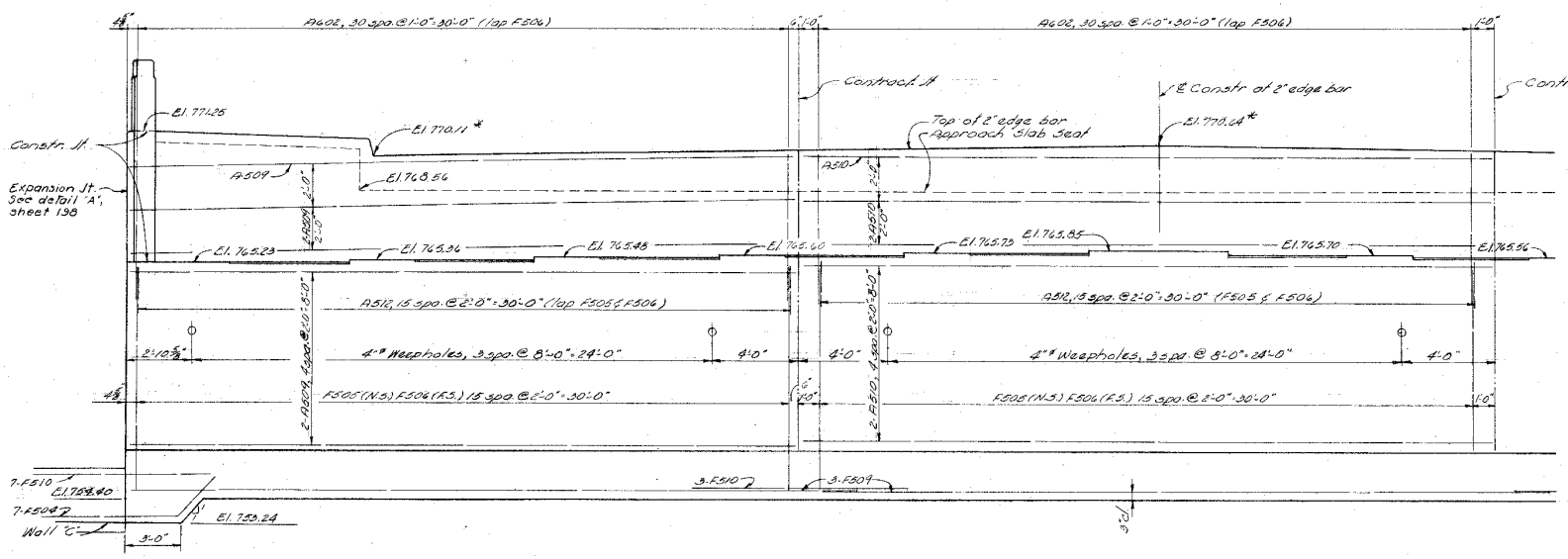
195
250

FRANKLIN COUNTY
FRA-40-12.82



PLAN

Note: For additional details and notes see sheets (196 & 198)
Elevations marked with an asterisk are to top of 2" edge bar.



PART ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

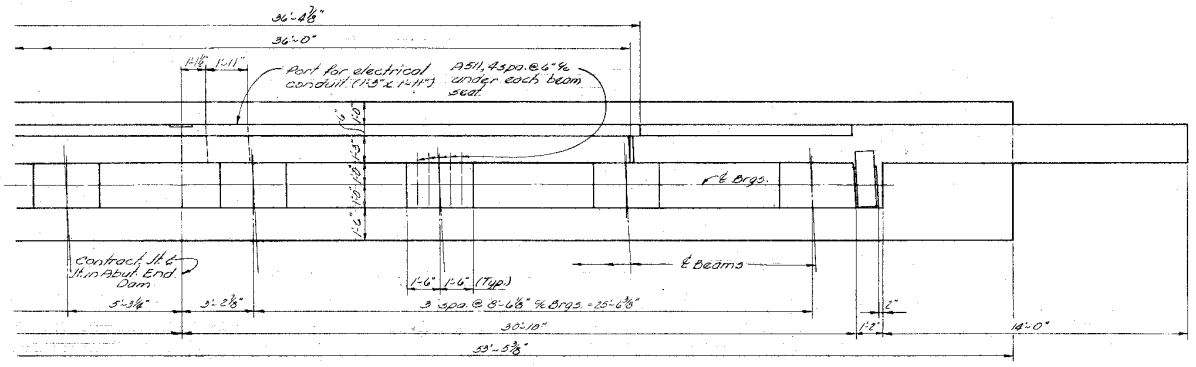
NORTH ABUTMENT
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST
FRANKLIN COUNTY
STA-65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		ETTIN	TLV	5-8-82	

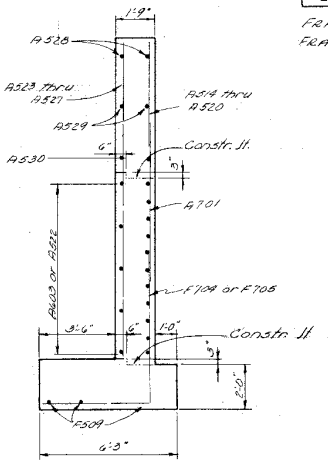
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

196/250

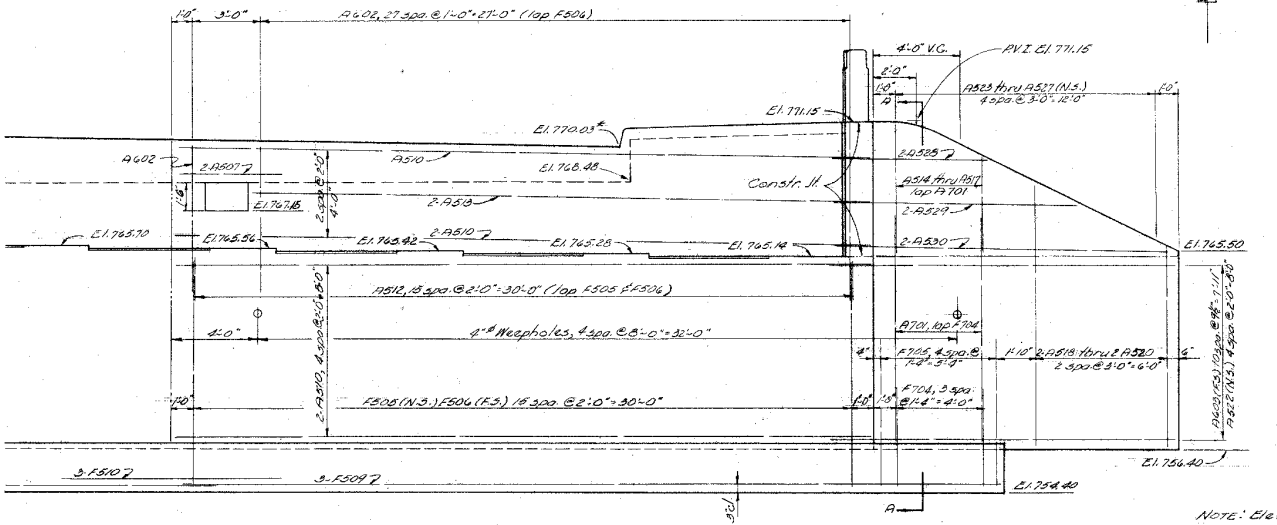
FRANKLIN COUNTY
FRA-40-12.52



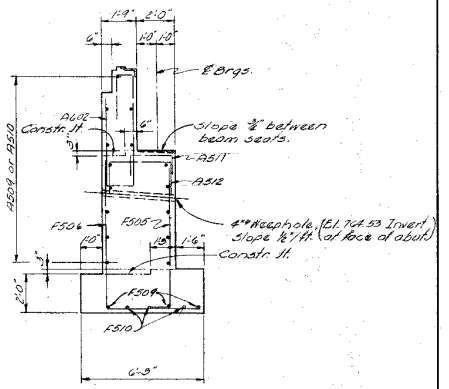
PLAN



SECTION A-A



PART ELEVATION



TYPICAL ABUTMENT SECTION

NOTE: Elevations marked with an asterisk are to the top of 2" edge bar.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

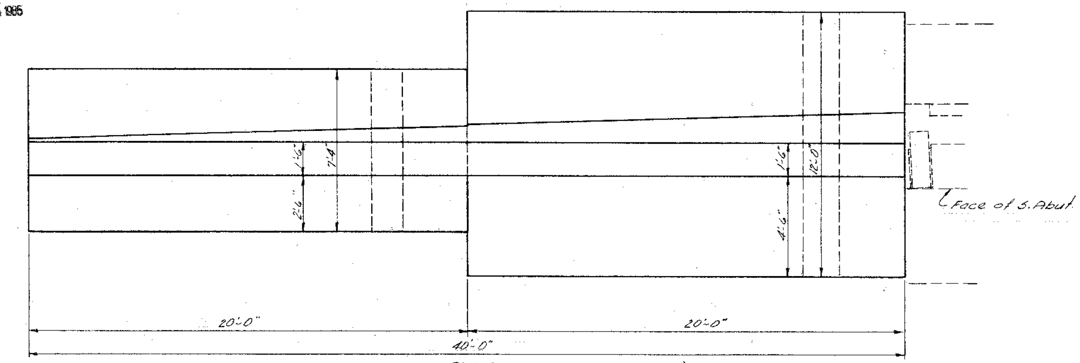
NORTH ABUTMENT
BRIDGE NO. FRA-40-1810
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY
STA. 65+93.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		GETTIN	TEU	5-8-62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

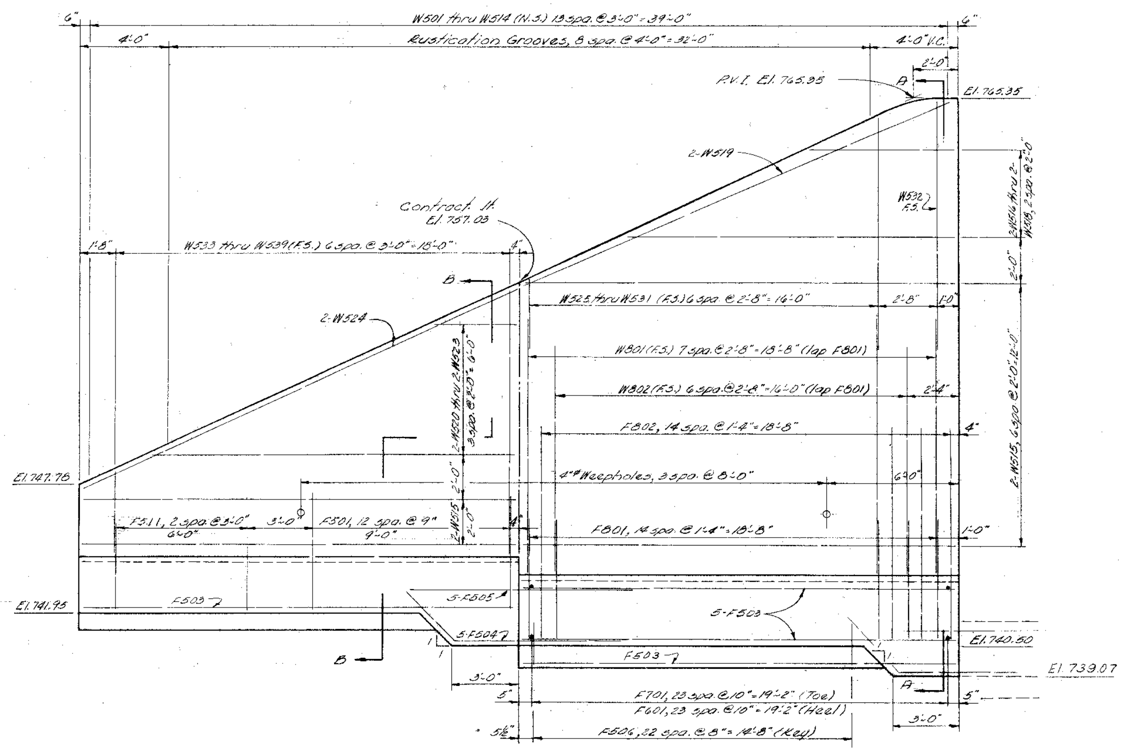
197/250

FRANKLIN COUNTY
FRA-40-12.82

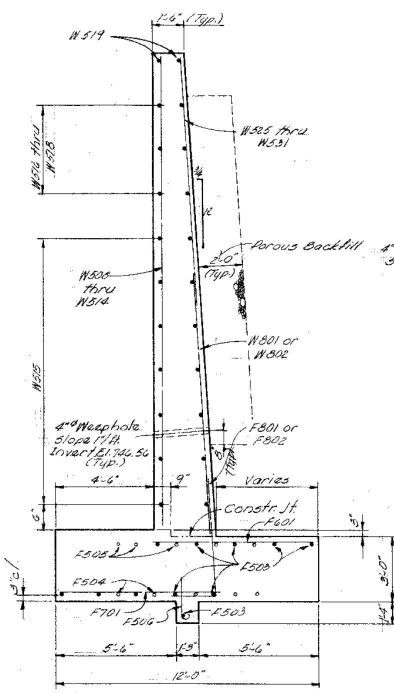


PLAN

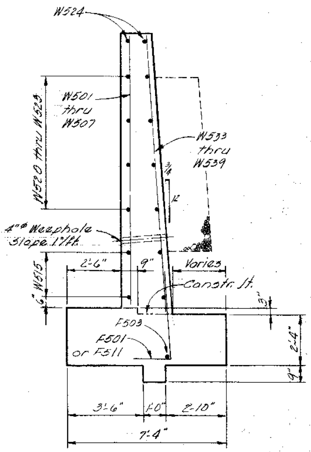
NOTE:
For common details and additional notes see sheet 198



ELEVATION



SECTION A-A



SECTION B-B

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

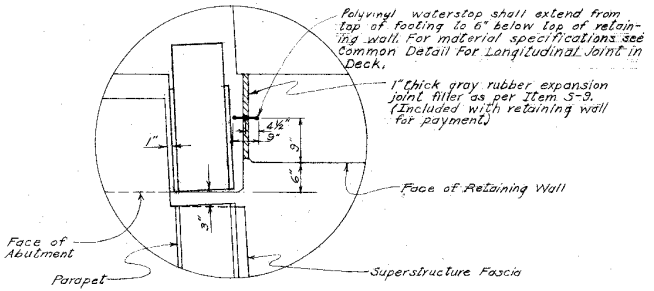
SOUTH EAST RETAINING WALL
BRIDGE No. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST
FRANKLIN COUNTY
STA. 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		BETTIN	TLU 5-8-62		

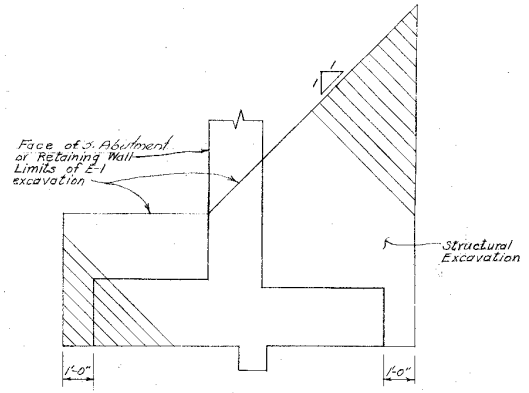
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

198
250

FRANKLIN COUNTY
FRA. 40-12.82



DETAIL A



EXCAVATION DETAIL

NOTES

Procedure:
Before the back wall of the South Abutment is placed, the backfill shall be placed and compacted up to the level of the subgrade with a 1:1 slope from bridge seat to the subgrade.

Concrete end posts:
Concrete end posts are included with Item S-14 for payment.

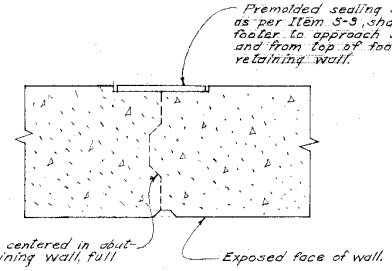
Porous Backfill (Abutments)
Porous backfill shall extend upward to the approach slab or sidewalk for the full length of the abutments.

Joints
A joint shall be provided in the abutment portion of the end dam at each contraction joint.

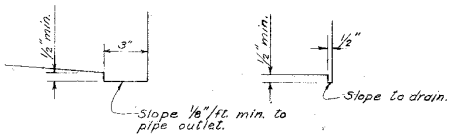
Footing Key:
The key under the S. Abutment & Southeast wingwall footing shall be placed in a carefully made trench against undisturbed earth.

Porous Backfill (Ret. Wall).
The top of porous backfill shall be 2'-0" below the top of the retaining wall.

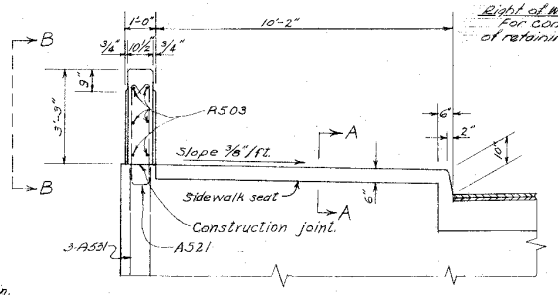
Right of Way Fence:
For connection of fence to end post, see details of retaining walls "B" & "C" and sheet 163



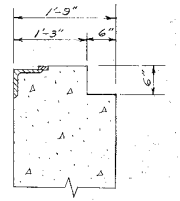
CONTRACTION JOINT DETAIL



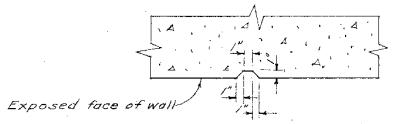
DRAINAGE GROOVE DETAILS



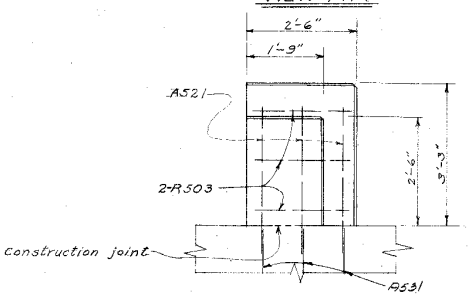
VIEW A-A



SECTION A-A



RUSTICATION GROOVE DETAIL



VIEW B-B

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

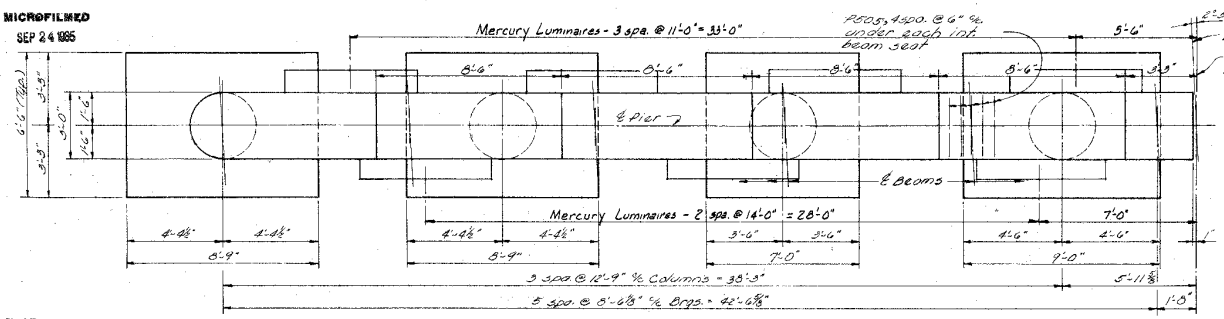
ABUTMENT & RETAINING WALL DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA. 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.M.	P.M.		BETTIN	TLV	8-9-82	

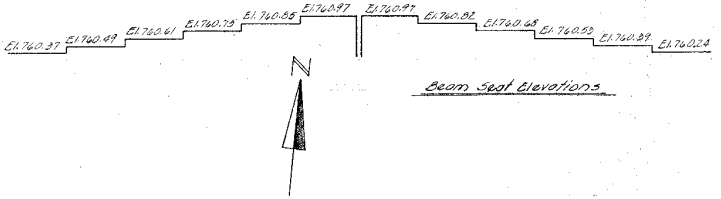
FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

199
250

FRANKLIN COUNTY
FRA-40-12.82

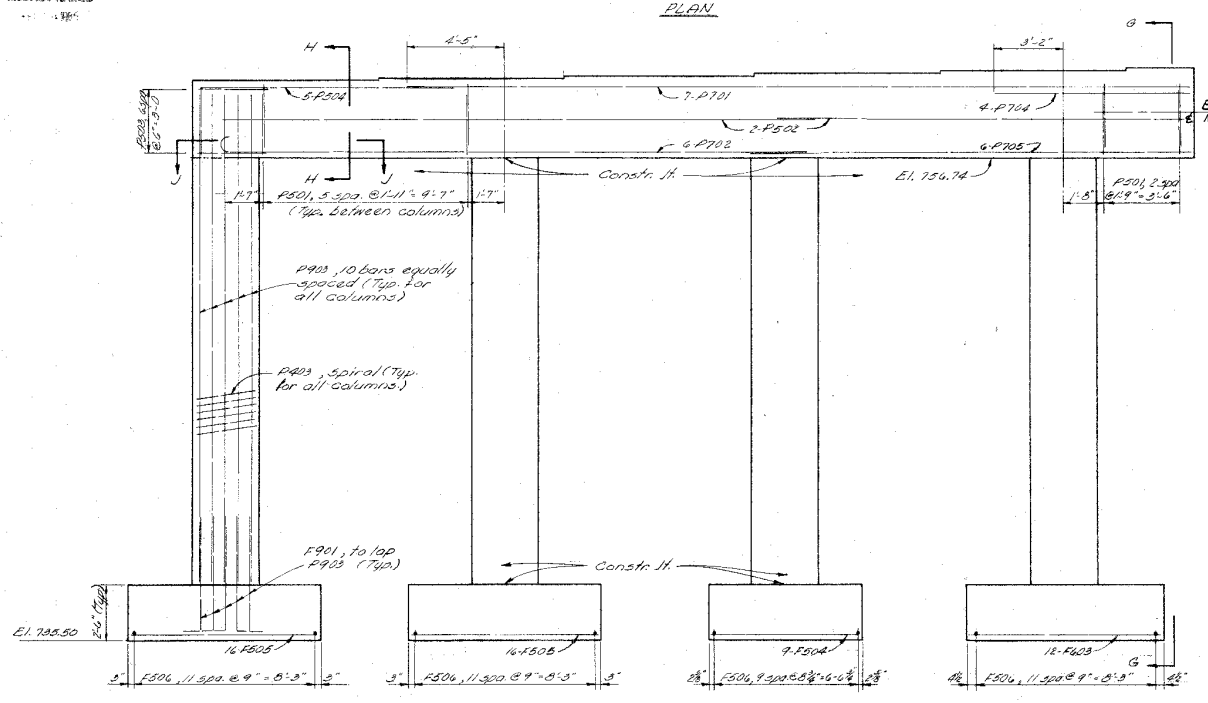


PLAN



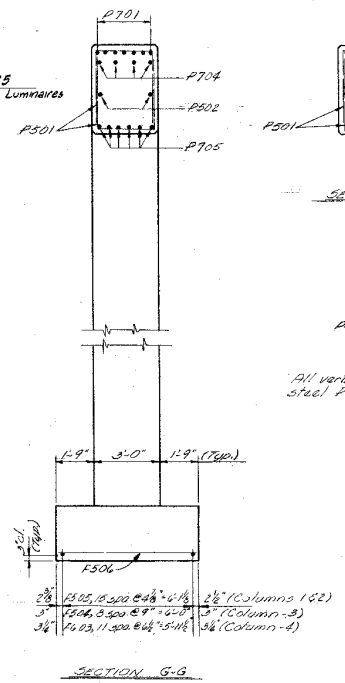
Beam Seat Elevations

MICROFILMED

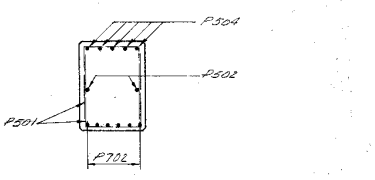


Column-1 Column-2 Column-3 Column-4

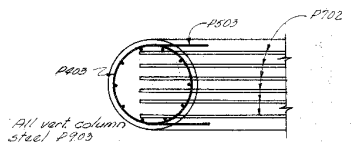
HALF ELEVATION



SECTION G-G



SECTION H-H



SECTION J-J

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

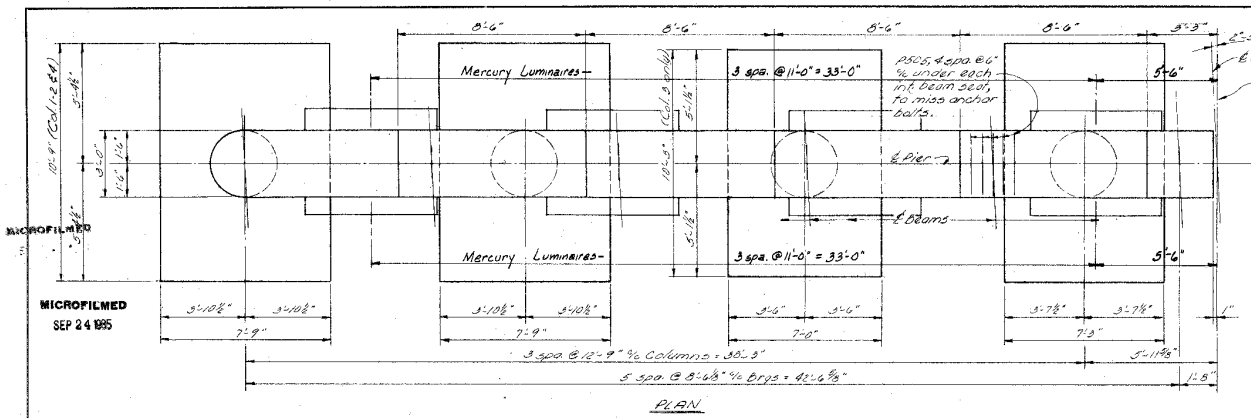
PIER-1 DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY
STA-65+88.39

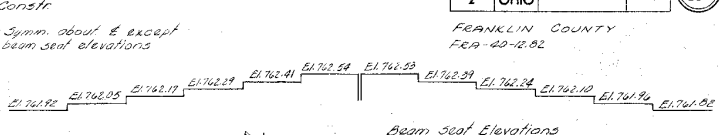
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.M.	BDB		BETTIN	TLV	5-8-82	

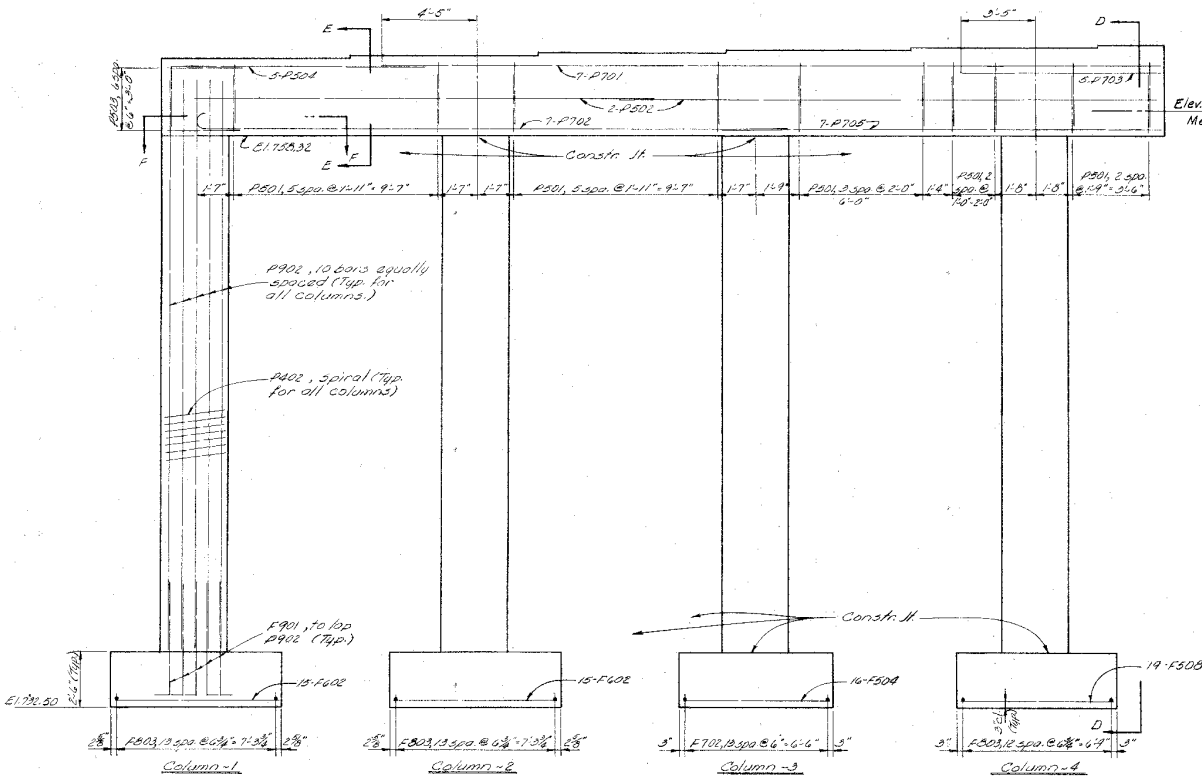
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

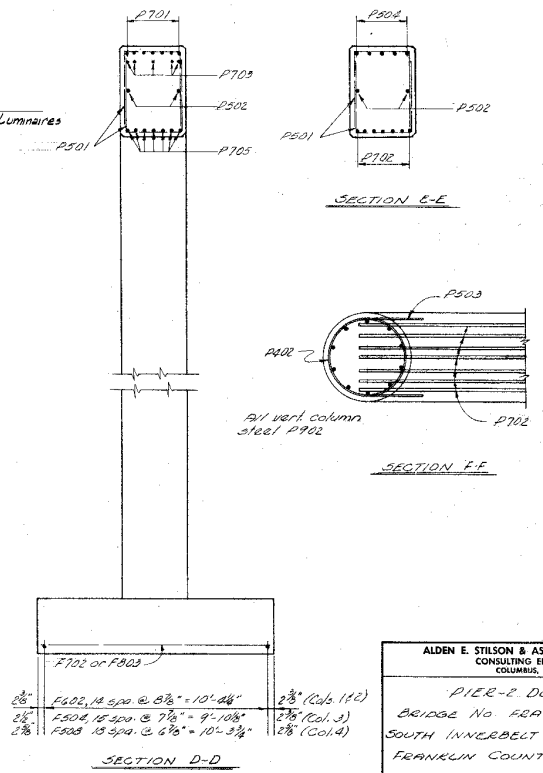
200
250

FRANKLIN COUNTY
FRA-40-12.82









ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER-2 DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY
STA. 65+80.39

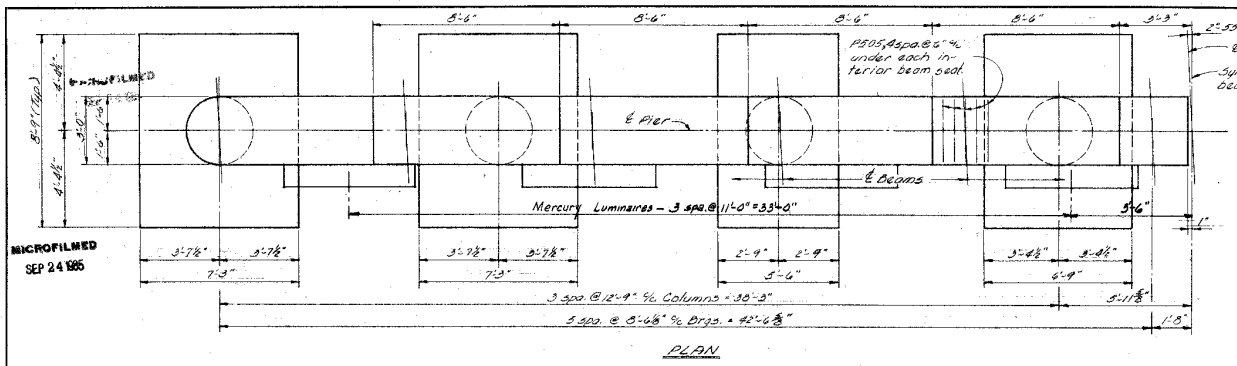
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.M.	BDB		DETTIN	TLV	5-8-62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

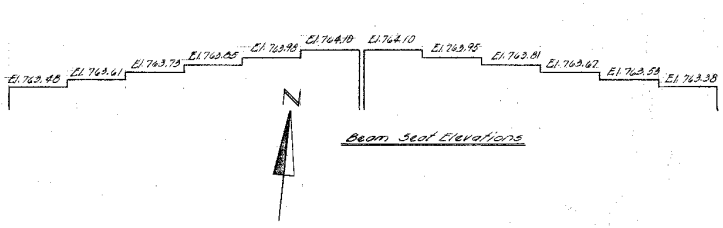
201
250

FRANKLIN COUNTY
FRA-40-12.82

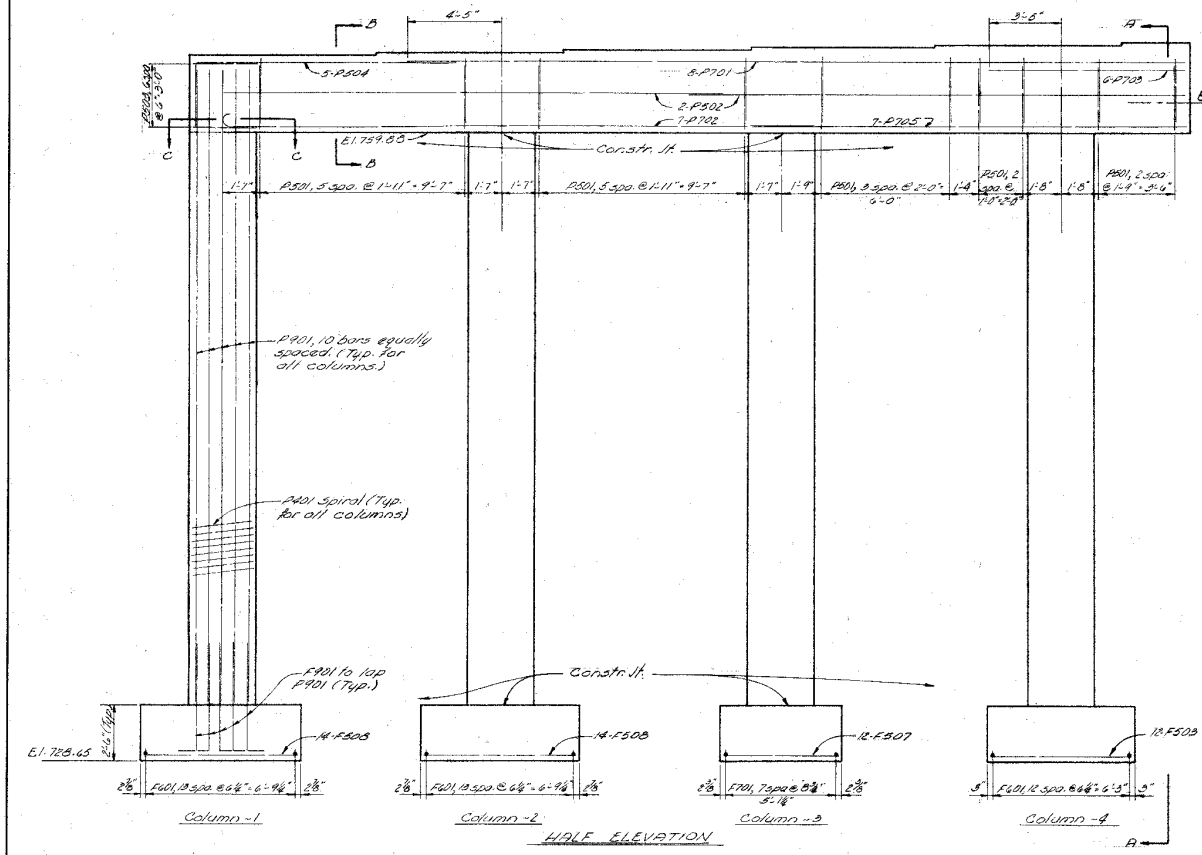
MICROFILMED
SEP 24 1985



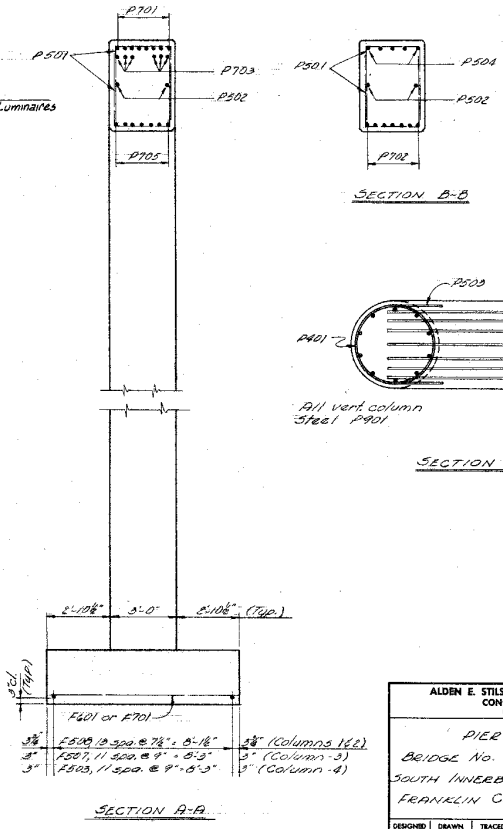
PLAN



Beam Seat Elevations



HALF ELEVATION



SECTION B-B

SECTION C-C

SECTION A-A

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

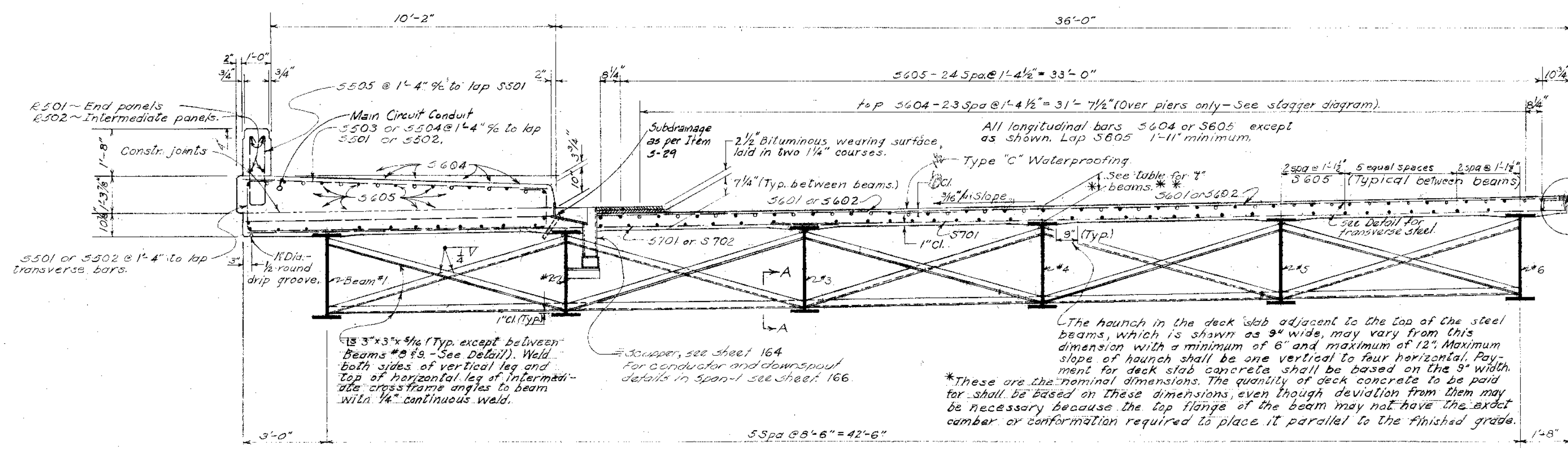
PIER-3 DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA-

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		BETTIN	TLU	5-8-82	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

222/250

FRANKLIN COUNTY
FRA 40-12.82

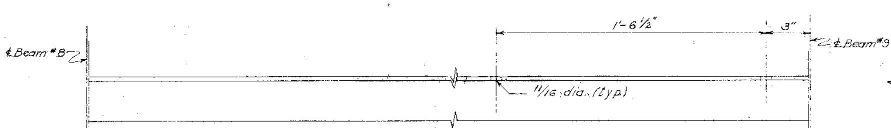


TRANSVERSE HALF SECTION

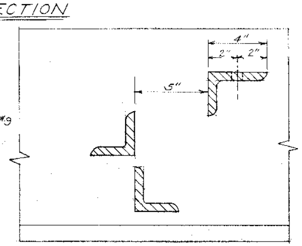
NOTES:

Concrete parapets are included with Item 5-14 for payment.

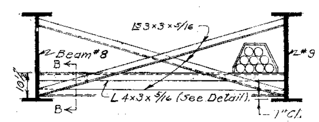
Subdrainage as per Item 5-29 shall be placed at the face of sidewalk curb.



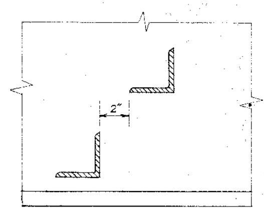
DETAIL OF L 4×3×5/16



SECTION B-B



CROSSFRAME & CONDUIT DETAIL BETWEEN BEAMS #8 & 9.



SECTION A-A

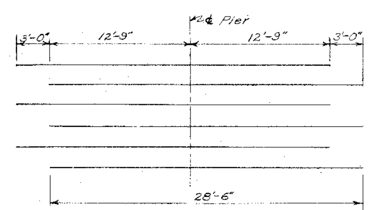
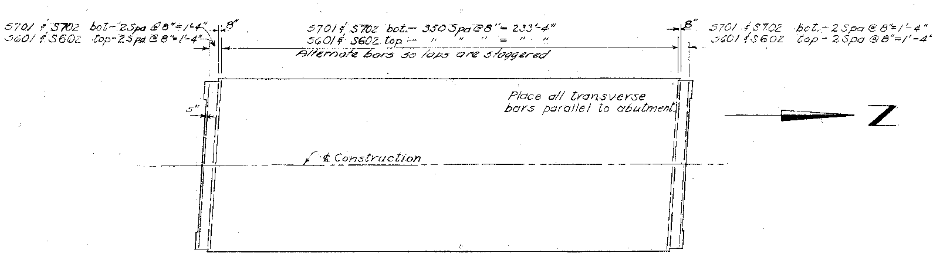


DIAGRAM SHOWING STAGGER OF S604 BARS OVER PIERS

SPAN	*
1	7⅞"
2	7⅞"
3	7¼"
4	7⅜"

** DECK "t" OVER BEAMS



PLACEMENT OF TRANSVERSE BARS

DEFLECTION AND CAMBER

LOCATION	Beam Rows 1 & 12				Beam Rows 2 & 11				Rows 3, 4, 5, 8, 9 & 10				Rows 6 & 7			
	Span 1	2	3	4	Span 1	2	3	4	Span 1	2	3	4	Span 1	2	3	4
Defl. from wt. of beam	0	0	1/8	1/16	0	0	1/8	1/16	0	0	1/8	1/16	0	0	1/8	1/16
Defl. from remaining D.L.	3/16	5/16	9/16	3/8	1/8	5/16	1/2	5/16	1/8	3/16	3/8	1/4	1/16	1/8	1/4	3/16
Defl. from Ver. Curve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deflection	3/16	5/16	11/16	7/16	1/8	5/16	5/8	3/8	1/8	3/16	1/2	5/16	1/16	1/8	3/8	1/4
Camber	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

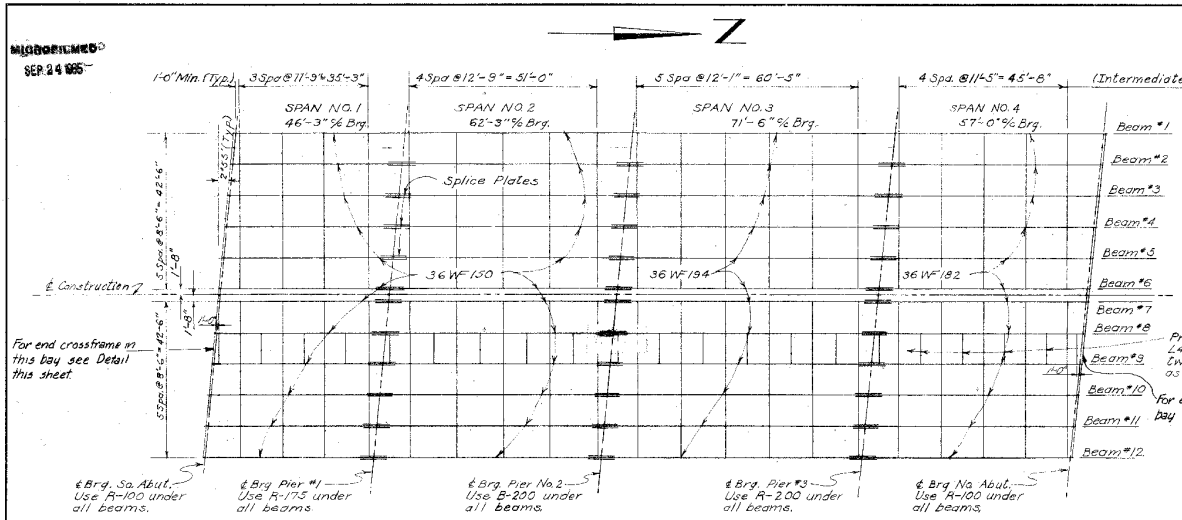
SUPERSTRUCTURE DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	PM		HETTIN	TLU	5-8-62	7-9-65

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

203
250

FRANKLIN COUNTY
FRA-40-12.82



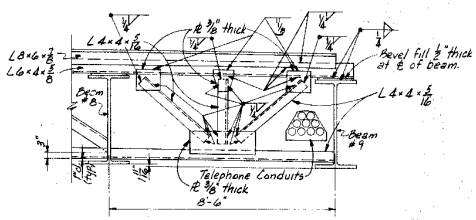
STEEL FRAMING PLAN

SPLICE PLATE DATA

LOCATION	Top Plate Size	Bot. Plate Size	Length So. ℄ Pier	Length No. ℄ Pier
Pier #1	10 1/8" x 3/4" x 15'-5"	13 1/2" x 1/2" x 15'-5"	7'-9"	7'-8"
Pier #2	10 1/8" x 3/4" x 20'-5"	13 5/8" x 3/8" x 20'-5"	11'-5"	9'-0"
Pier #3	10 1/8" x 3/4" x 13'-4"	13 5/8" x 1/2" x 13'-4"	3'-6"	9'-10"

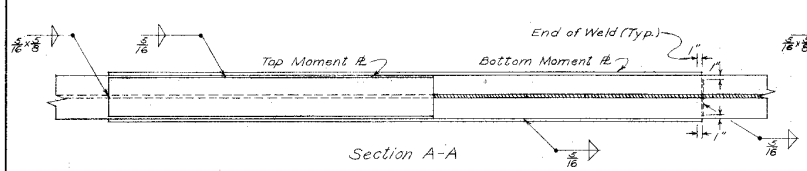
BEAM SPLICE WELDING PROCEDURE

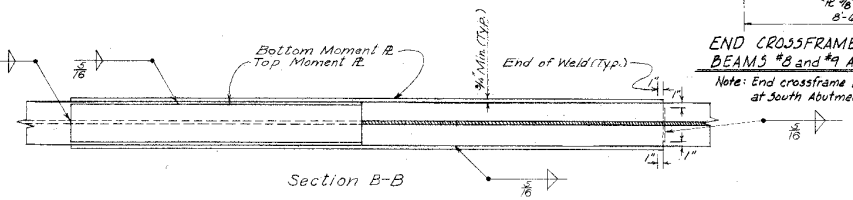
1. Raise end of beam at Pier #2 7/8".
2. Butt weld beam flanges and web at Pier #1 using the following sequence: Make one pass on each flange, then two on the web; repeat using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Pier #1.
4. Lower end of beam at Pier #2.
5. Make splice at Piers #2 and #3 in the same manner, raising the end of the beam at Pier #3 1 7/8" and at the North Abutment 1/8".

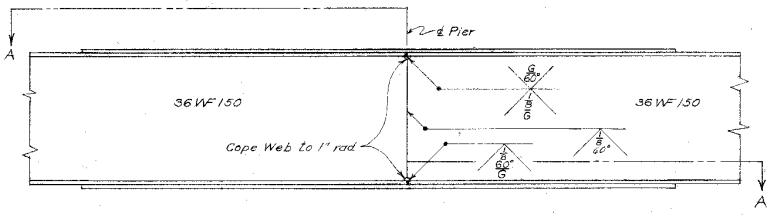


END CROSSFRAME DETAIL BETWEEN BEAMS #8 and #9 AT NORTH ABUTMENT

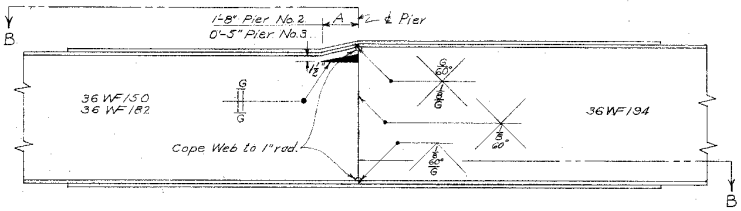
Note: End crossframe between Beams #8 and #9 at South Abutment is similar.







Pier No. 1



Piers No. 2 & 3

BEAM SPLICE DETAILS

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. FRA-40-1310
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	PM		GE TTIN	JLU	5-8-62	

DIST. NO. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

204
250

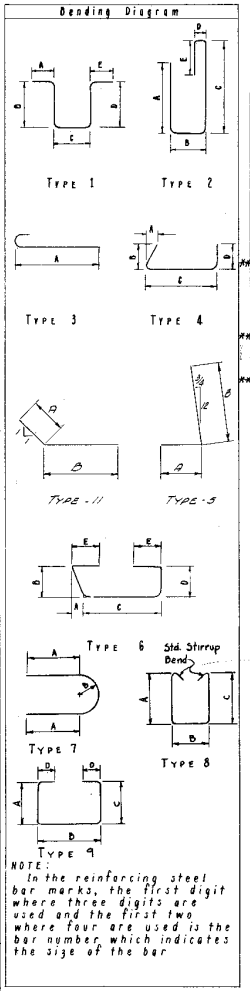
FRANKLIN COUNTY
FRA-40-12.82

REINFORCING STEEL LIST

Mark	Nº	Length	Weight		Shp
		Superstructure			
S503	362	10'-8	3916		sf
S504	8	9'-7	80		sf
S601	714	32'-10	35211		sf
S602	714	15'-11	17070		sf
S604	192	28'-6	8219		sf
S605	1120	35'-8	40001		sf
S701	714	20'-3	29553		sf
S702	714	28'-9	41958		sf
	North Abutment				
A701	4	11'-0	90		sf
A907	2	5'-0	10		sf
A909	15	30'-6	477		sf
A910	28	31'-8	925		sf
A913	2	28'-9	60		sf
A914	1	5'-8	6		sf
A915	1	5'-5	6		sf
A916	1	5'-0	5		sf
A917	1	4'-5	5		sf
A918	1	11'-10	12		sf
A919	1	10'-5	11		sf
A920	1	9'-0	9		sf
A922	5	15'-6	81		sf
A923	1	14'-4			
Thru	Varby	1'-3½	61		sf
A927	1	9'-2			
A928	2	7'-1	15		sf
A929	2	11'-3	23		sf
A930	2	15'-5	32		sf
A603	11	15'-9	260		sf
F509	9	34'-7	324		sf
F510	13	10'-0	196		sf
South Abutment					
A901	33	8'-0	275		sf
A902	32	17'-7	587		sf
A904	52	31'-8	1718		sf
A905	27	30'-7	861		sf
A906	2	28'-5	59		sf
A1001	30	9'-9	1130		sf
A1002	33	12'-2	1728		sf
F501	24	34'-8	868		sf
F502	93	10'-0	559		sf
F301	127	7'-4	2487		sf
F302	127	7'-3	2458		sf
S.E. Retaining Wall					
W501	1	3'-3			
Thru	Varby	1'-6⅞	54		sf
W507	1	11'-6¾			
W508	1	13'-8			
Thru	Varby	1'-3	107		sf
W514	1	21'-2			
W515	18	19'-8	369		sf
W516	2	16'-5	34		sf
W517	2	12'-1	25		sf
W518	2	7'-9	16		sf
W519	2	21'-3	44		sf
W520	2	17'-6			
Thru	Varby	4'-4	46		sf
W523	2	4'-6			
W524	2	21'-8	45		sf
W525	1	1'-9			
Thru	Varby	1'-3	40		sf
W531	1	9'-3			
W532	1	10'-0	10		sf

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp
					Superstructure Cont.					
S501	332	14'-3	5231	9	1'-10	10'-8	1'-3	0'-6		bf
S502	8	13'-0	109	9	1'-9	9'-7	1'-3	0'-6		bf
S505	352	6'-8	2448	8	2'-9	0'-7	2'-9			bf
					North Abutment Cont.					
A511	60	3'-1	193	1		0'-8	2'-0	0'-8		bf
A512	48	4'-6	225	1		0'-8	3'-5	0'-8		bf
A921	6	9'-6	59	8		4'-2	0'-7	4'-2		bf
A602	91	16'-7	1993	2	4'-4	1'-5	5'-10	0'-11	2'-9	bf
F504	7	11'-2	82	11	3'-3	8'-0				bf
F505	48	10'-9	538	1		10'-3	0'-8			bf
F506	48	15'-0	751	1		10'-3	4'-11			bf
F704	4	4'-6	37	1		4'-2	0'-4			bf
F705	5	11'-4	116	1		6'-9	4'-9			bf
A921	6	14'-1	88	1		6'-10	0'-8	6'-10		bf
		South Abutment Cont.								
A903	33	4'-6	155	1		0'-8	3'-5	0'-8		bf
A508	60	3'-1	193	1		0'-8	2'-0	0'-8		bf
A521	6	9'-6	59	8		4'-2	0'-7	4'-2		bf
A601	93	15'-10	2212	2	4'-5	1'-5	6'-5	0'-11	3'-4	bf
F504	9	11'-2	105	11	3'-3	8'-0				bf
F1001	64	9'-0	2479	1	1'-7	7'-9				bf
F1002	63	6'-8	1739	1	1'-7	5'-2				bf
F931	6	14'-1	88	1		6'-10	0'-8	6'-10		bf
S.E. Retaining Wall Cont.										
W533	1	4'-1								
Thru	Varby	1'-4⅞	60							sf
W539	1	12'-4¾								
W801	8	13'-8	285							sf
W802	7	10'-5	195							sf
F501	18	6'-2	86	5	0'-8	5'-8				bf
F511	3	4'-2	13	5	0'-8	3'-8				bf
F503	12	19'-8	246							sf
F504	5	11'-2	58	11	3'-3	8'-0				bf
F505	5	10'-0	52							sf
F506	23	2'-11	70	3	2'-4					bf
F401	24	7'-2	258							sf
F701	24	7'-8	376							sf
F801	13	6'-2	247	5	1'-2	5'-3				bf
F802	15	10'-4	414	5	1'-2	9'-5				bf
					Pier-1					
F501	84	8'-7	752	1		3'-1	2'-8	3'-1		bf
P502	8	22'-10	191							sf
P503	14	7'-6	109	7	1'-8	1'-4				bf
P504	10	14'-1	147	1		11'-3	3'-0			bf
P505	50	3'-5	178	1		0'-6	2'-8	0'-6		bf
P701	14	35'-8	1021							sf
P702	14	27'-5	795	11	26'-7					bf
P703	10	9'-2	187							sf
P705	14	19'-6	550							sf
P902	80	26'-4	7163							sf
F504	32	6'-8	223							sf
F508	38	6'-11	274							sf
F602	60	7'-3	668							sf
F702	28	9'-11	568							sf
F808	82	10'-5	2281							sf
F901	80	6'-0	1632	1		5'-0	1'-3			bf
					Pier-3					
P501	88	8'-7	788	1		3'-1	2'-8	3'-1		bf
P502	8	22'-10	191							sf
P503	14	7'-6	110	7	1'-8	1'-4				bf
P504	10	14'-1	147	1		11'-3	3'-0			bf
P505	50	3'-5	178	1		0'-6	2'-8	0'-6		bf
P701	14	35'-8	1146							sf
P702	14	27'-5	795	11	26'-7					bf
P703	12	9'-2	225							sf
P705	14	19'-6	568							sf
P901	80	21'-9	8686							sf
F503	24	6'-5	161							sf
F507	24	5'-2	129							sf
F508	56	6'-11	404							sf
F401	82	8'-5	1086							sf
F701	14	8'-5	275							sf
F901	80	6'-0	1632	1		5'-0	1'-3			bf
					Parapet					
R501	14	11'-11	*							sf
R502	112	16'-7	*							sf
R503	28	2'-2	*							sf
					Replacement Steel for Spiral					
RE401	1	5'-3	7		1'-3½					bf
					Replacement Steel					
RE501	2	5'-7								sf
RE601	7	5'-11								sf
RE701	5	6'-3								sf
RE801	1	6'-6								sf
RE901	2	6'-10								sf
RE1001	1	7'-2								sf

Bending Diagram



NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abut.	Pier	Supers.	General	Ret. Walls
E-2	Lump	Sum	Cofferdams, cribs and sheeting				Lump	
E2	1282	Cu.Yd.	Unclassified Excavation	695	468			119
S-1	755	Cu.Yd.	Class "C" concrete, superstructure			755		
S-1	261	Cu.Yd.	Class "C" concrete, pier caps and columns		261			
S-1	334	Cu.Yd.	Class "E" concrete, abutments above footings	334				
S-1	337	Cu.Yd.	Class "E" concrete, footings	149	142			46
S-1	39	Cu.Yd.	Class "E" concrete, walls above footings					39
** S-1	1.6	Cu.Yd.	Class "C" Concrete, Trolley Bracket			1.6		
S-3	1906	Sq.Yd.	Type "C" waterproofing			1906		
S-3	82	Lin.Ft.	Waterproofing, premolded sealing strip	69				13
S-4	289881	Lbs.	Reinforcing Steel	26384	56303	204026		3468
** S-4	308	Lbs.	Reinforcing Steel, Trolley Bracket			308		
S-7	64,200	Lbs.	Structural Steel			64,200		
S-7	1488	Lbs.	Structural Steel, electrical conduit supports			1488		
** S-7	336	Lbs.	Structural Steel, Trolley Anchor Rods			336		
S-8	65,880	Lbs.	Field painting of structural steel.				65,888	
S-9	36	Sq.Ft.	1" gray sponge rubber preformed exp.jt. filler	36				
S-14	490	Lin.Ft.	Railing, alum. rail, supports, conc. parapet & endposts			490		
S-29	46	Lin.Ft.	Drainage conductors including supports				46	
S-29	199	Cu.Yd.	Porous backfill	168				31
S-29	476	Lin.Ft.	Subdrainage for wearing surface course.			476		
S-29	60	Lin.Ft.	8"ø Perforated bit. coated CMP and cap	60				
S-29	33	Lin.Ft.	6" Std. pipe downspout galv. steel or wrought iron, incl. spec.				33	
S-29	14	Each	Scuppers, including supports			14		
T-10	780	Sq.Yd.	Concrete Slope Protection				780	
T-35	132	C.Yd.	Asphaltic conc. surface course, Type "C" (60-70)			132		
S-25	Lump	Sum	Electric Grounding System				Lump	
Spec.	239	Lin.Ft.	Polyvinyl waterstop in deck joint			239		
Spec.	22	Lin.Ft.	Polyvinyl waterstop in abutment joint	22				
S-101	755	Each	Water-reducing, set-retarding admixture			755		
S-25	3	Each	Lamp Standards				3	
S-25	3	Each	Mercury Vapor Luminaires				3	
S-25	44	Each	Mercury Underpass Luminaires				44	
S-25	246	Lin.Ft.	Pole and Bracket Cable (single conductor)				246	
S-25	804	Lin.Ft.	Main Circuit Cable (single conductor)				804	
S-25	402	Lin.Ft.	Main Circuit Conduit & Fittings, 2"ø				402	
S-25	1778	Lin.Ft.	Mercury Underpass Cable (single conductor)				1778	
S-25	450	Lin.Ft.	Mercury Underpass Conduit				450	

** Non-participating by State of Ohio and Bureau of Public Roads

LAMP STANDARD REINFORCING

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp
L570	12	1'-10	24							st
L571	6	1'-4	9							st
L572	9	4'-1	39	1		0'-8	3'-0	0'-8		bt
L573	9	5'-1	48	1		1'-2	3'-0	1'-2		bt
L574	6	3'-10	24	1		0'-8	2'-9	0'-8		bt
L575	6	4'-10	30	1		1'-2	2'-9	1'-2		bt
L576	9	3'-10	36	1	1'-10	2'-2				bt
L577	6	3'-7	21	1	1'-7	2'-2				bt

TROLLEY BRACKET REINFORCING

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp
L570	16	1'-10	32							st
L571	8	1'-4	12							st
L572	12	4'-1	52	1		0'-8	3'-0	0'-8		bt
L573	12	5'-1	64	1		1'-2	3'-0	1'-2		bt
L574	8	3'-10	32	1		0'-8	2'-9	0'-8		bt
L575	8	4'-10	40	1		1'-2	2'-9	1'-2		bt
L576	12	3'-10	46	1	1'-10	2'-2				bt
L577	8	3'-7	28	1	1'-7	2'-2				bt

SPIRALS - HOT ROLLED

Mark	Nº	Length	Core	Pitch	Turns	Spacers	Weight
P401	8	28'-9	32	4½	80	32	4155
P402	8	23'-4	32	4½	65	32	3376
P403	8	18'-9	32	4½	53	32	2746

SPIRALS
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 IN THE STEEL LIST FOR THE SPIRAL BARS 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 S-4
1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT
FOUR STEEL CHANNEL , TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 lb PER Lin.Ft. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT, THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 lb. PER Lin.Ft. WILL BE PAID FOR AS REINFORCING STEEL , AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS

* HORIZONTAL PARAPET REINFORCING
THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

REINFORCING STEEL LIST AND ESTIMATED QUANTITIES
BRIDGE No. FRA-40-13.10
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA. 65+88.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PM	BDB		DETTIN	TLV	5-8-62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
7	OHIO		

205
250

Franklin County
FRA-40-12.82

REFERENCES:

Standard Drawings:

End Dam and End Cross Frame Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Scupper Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Railing Details Type C	- AR-1-57,	Revised 4-2-62
Rocker and Bolster Details	- RB-1-55,	Revised 2-2-59
Approach Slab Details	- AS-1-54,	Revised 7-5-62
Supplemental Specification	- 5-101	Dated 7-12-62

Common Details:

Downspout and Conductor Details	- Sheet 166
Lighting Details	- Sheet 165
Railing Details	- Sheet 163
Concrete Slope Protection Details	- Sheet 163
End Dam Details	- Sheet 163
R/W Fence Details	- Sheet 163
Sidewalk End Dam Details	- Sheet 164
Scupper Details	- Sheet 164
Longitudinal Deck Joint	- Sheet 166

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 revisions thereof dated 2-21-58.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division office, but the State assumes no responsibility for the accuracy thereof.

WELDING of structural steel shall be Class "A" except as otherwise shown. Any welds shown as field welds may be, at the option of the contractor, made in the shop. Class "B" welding shown thus:

B)—

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

CONCRETE SLOPE PROTECTION shall be provided under the structure as indicated on the General Plan.

BEARING SURFACES: The concrete surface under all rockers and bolsters shall be placed a minimum of 1/4-inch above the required elevation and accurately ground to the final elevation. Cost shall be included with the pertinent concrete Item S-1.

TRAFFIC MAINTENANCE: For details of traffic maintenance, see Roadway Plans.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 3 tons per square foot and abutment footings for 3 tons per square foot for South Abutment and 2 tons per square foot for North Abutment.

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

WIRING DETAILS: For details and notes for wiring, see Roadway Plans.

ELECTRICAL GROUNDS: A stranded No. 1/0 AWG bare copper wire electrical ground shall be embedded in the outside column on each side of the structure at pier No. 2. The lower ends of the wires shall terminate in a 25-foot length coil placed under the footing and separated from the concrete by two layers of tar paper and the upper ends shall extend sufficiently above the top of the concrete to provide for an exothermic welded connection to outside beam of the superstructure. Ground each light pole and trolley bracket with a No. 1/0 AWG stranded bare copper cable. Exothermic weld one end of cable to an anchor bolt and the other end to the top flange of the outside beam.

CURING: Deck concrete shall be cured in accordance with Sec. S-1.21 Method (a) using a continuous application of water. Plastic coated burlap or mats shall not be used.

GRAVEL, if used as the coarse aggregate, shall be in accordance with Sec. M-3.93 instead of M-3.92 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Sec. M-3.93 also may be used for other concrete in this structure.

SHOP PAINTING STEEL: The surface preparation of all steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

SHEET LEAD shall conform to the requirements of ASTM Designation B29 without restriction to the Common Desilverized type.

CONTINUOUS BEAM SPLICES: If beams having depths differing by more than 1/8" are to be spliced by butt welding, the depth of the smaller depth beam shall be increased by splitting the web longitudinally at a distance of 1-1/2" below the bottom of the top flange and for a distance sufficient to allow the flange to be bent up at a slope of not more than 3/8" per foot, after which the split in the web shall be completely welded with full depth penetration and ground flush.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of roadways and sidewalks.

b. All surfaces of piers and abutments which will be exposed upon completion of the construction except bridge seats, backwalls, and the face of spill-thru abutment between outside beams.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES

BRIDGE NO. FRA-40-13.10
SOUTH INNERBELT UNDER HIGH ST.
FRANKLIN COUNTY STA. 65+85.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	5-18-62	