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7	KY.				

KENTUCKY DEPARTMENT OF HIGHWAYS

MAJOR ROUTE FOR EASTERN KENTUCKY
CAMPTON - HAZARD ROAD
PERRY COUNTY

ESTIMATE OF QUANTITIES

ITEM	SHEET NO.	CONCRETE CLASS "A" CU. YDS.	REINFORCEMENT LBS.	DRY STONE RIPRAP SLOPE PROTECTION SQ. YDS.	STRUCTURE EXCAVATION ITEM I COMMON	STRUCTURE EXCAVATION ITEM I SOLID ROCK	14" R.C. PRECAST PILES ⊕ALTERNATE B FURNISHING LIN. FT.	14" R.C. PRECAST PILES ⊕ALTERNATE B DRIVING LIN. FT.		① STRUCTURAL STEEL LUMP SUM	② SHEAR CONNECTORS LUMP SUM	6" DRAIN PIPE LIN. FT.	12" BP 53 STEEL PILES ⊕ALTERNATE A FURNISHING LIN. FT.	12" BP 53 STEEL PILES ⊕ALTERNATE A DRIVING LIN. FT.	METAL HANDRAIL Aluminum Alt "C" LIN. FT.	METAL HANDRAIL Galv. Steel Alt "D" LIN. FT.		PROTECTIVE COATING SQ. YDS.					
INDEX & QUANTITY SUMMARY	1																						
GENERAL PLAN	2			1290																			
BENTS 1 & 2	3 & 4	399.2	28,480				4025	4025					4025	4025									
PIER Nº 1	5	449.0	56,780		460	270																	
PIER Nº 2	6	478.5	60,671		250	445																	
PIERS Nº 1 & 2	7																						
SUPERSTRUCTURE	8 & 9	922.6	172,575																				
CONSTRUCTION ELEVATIONS	10											203											
STRUCTURAL STEEL	11-14																						
BEARINGS	15																						
EXPANSION DAMS	16																						
PILE RECORD	17																						
ANCHOR BOLT PLAN	18																						
LOG OF SOUNDINGS	19																						
METAL HAND RAIL	H110 or H114																						
14" R.C. PRECAST PILES	P2														905	905							
12 BP 53 STEEL PILES	P17																						
PROTECTIVE COATING	SPEC. PROV.																						
																		3812					
TOTALS		2249.3	318,506	1290	710	715	4025	4025	905	① LUMP SUM	② LUMP SUM	203	4025	4025	905	905		3812					

① NOTE: APPROXIMATELY 1,153,285 LBS. OF STRUCTURAL STEEL INCLUDED IN LUMP SUM BID FOR STRUCTURAL STEEL

② NOTE: APPROXIMATE WEIGHT OF SHEAR CONNECTORS
OPTION 1 3242 LBS., OPTION 2 2615 LBS., OPTION 3 3845 LBS.

SPECIFICATIONS: Kentucky Department of Highways, 1956 Standard with Amendments.

DESIGN LOAD: Bridge designed for H20-S16-44 loading as specified in 1961 AASHO specifications, or alternate loading of two 24 kip axles spaced 4 feet apart, whichever produces the greater stress. Slabs are designed for 16 kip wheel load.

DESIGN STRESSES: For reinforced concrete: fs = 20,000 psi, fc = 1,200 psi, f'c = 3,000 psi, u = 200 psi. for embedment, 300 psi for Σ.

FOUNDATION PRESSURE: Footings are designed for a maximum pressure of 24,000 psf. (Group I Loads)

CONCRETE: Class A concrete is to be used throughout except in piles. Class D concrete is to be used in piles.

REINFORCEMENT: Intermediate or hard grade reinforcement shall be used in accordance with ASTM A15-58T for billet steel or A16-58T for rail steel. Dimensions shown from face of concrete to bars are clear distances. Spacing of bars is from center to center of bars.

BEVELED EDGES: All exposed edges shall be beveled ¾" unless otherwise shown.

STRUCTURAL STEEL: "Lump Sum Bid" for structural steel shall be full payment for all structural steel, rivets, bolts, washers, steel pins, cast iron, lead plates, molten lead, wrought iron, iron plates, wrought iron pipe, welding and weld materials, floor drains, paint and all labor and materials necessary to erect the steel in accordance with the plans and specifications.

SLOPE PROTECTION: Slope protection shall be Dry Cyclopean Stone Riprap in accordance with section 6.3.3.E of the specifications.

STRUCTURE EXCAVATION: Item I applies to Piers I & II only

PROTECTIVE COATING: Protective coating shall be furnished and applied in accordance with the Special Provisions

GENERAL NOTES

PLACING FILLS: Embankment shall be placed in compacted layers to bottom of bent cap elevation before driving piles in any pile bent. Embankment shall be placed simultaneously in front of and in back of end bents and abutments in compacted layers and the 5 ft minimum berm provided as shown on the plans before erecting the end spans.

PILING: Piling shall be driven to solid rock or to refusal.
Test piles shall be driven where designated on the plans to determine the length required. All test piles shall be accurately located so that they may be used in the finished structure.

⊕ALTERNATE TYPES OF PILES: The contractor shall use one of the following types:
ALTERNATE A - 12BP53 Steel Piles, Std. Dwg. P17
ALTERNATE B - 14" R.C. Precast Piles, Std. Dwg. P2 See Sheet Nº 17

DRIVING R.C. PRECAST PILES: If R.C. Precast piles are used, cored holes thru the embankment will be required for starting piles.
The cost of this work is to be included in the unit price bid per linear foot for driving piles.

PAINT. See Sheet Nº 11 for painting requirements.

SHEAR CONNECTORS, MATERIALS, CONNECTIONS, MILL TEST REPORTS, STEEL FINISH, DIMENSIONS, SHOP PLANS, SHOP ASSEMBLY AND REAMING: See sheet no. 11 for these requirements.

REFERENCES:
H 110 OR H114
P 2
P 17
SPECIAL PROVISIONS
(Protective Coating)

COMBS
BRIDGE OVER N. FK. KY. RIVER & KY. 80 SHEET 1 OF 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2007+63 PROJECT NO. SPRY-132-

BRIDGE NUMBER EK 12-1-2 | SECTION NO. 12 | 15204

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	SHEET NO.	SHEETS	TOTAL SHEETS
7	KY.				

No Cantilever from Superstructure in Kentucky 80 Area.

Exp. | Field Splice (Typical) | Exp. | Fix | Exp.

Br. Seat El. 864.454 — El. 861.0 — El. 858.63

Ky. 80 Reloc. — 15'-0" Min. Clearance

Slope Protection Dry Cyclopean Stone Exp - Exp to Elev. 861.0

Alternate "B" 14" P.C. Precast Square Piles (Drive to Rock or Refusal) Alternate "A" 12 BP 53

BENT NO. 1

Approx. Pile Tip El. 816.0 Bent 1 (North)
Approx. Pile Tip El. 823.0 Bent 1 (South)

Approx. Rock Line

Rock Fill — 2:1 — 1½:1

36'-6" Ø 7'-0"

High Water (Head Water) El. 859.0 (Year 1957)

Br. Seat El. 863.942

-2.712%

Br. Seat El. 863.804

+6.00%

Sta. 2608+75.00
El. 860.30
1600' V.C.

63'-6"

Br. Seat El. 869.368
El. 866.0

El. 868.37

Alternate "B" 14" P.C. Precast Square Piles (Drive to Rock or Refusal) Alternate "A" 12 BP 53

2:1 — 2 Min. (Typ.) — 3 — 12

Slope Protection Dry Cyclopean Stone Exp - Exp to Elev. 864.0

Approx. Ground Line

NORTH FORK KENTUCKY RIVER

Water El. 820.7 (4-21-60)

BENT NO. 2

Approx. Pile Tip El. 820.0

El. 807.42 North Footings

El. 802.94 South Footings

El. 802.30

PIER NO. 1

ELEVATION

139.75.0'
SPAN 1

457.500'
178.200'
SPAN 2

139.75.0'
SPAN 3

Limits of Slope Protection (Typ.)

Shoulder Line

℄ Brg

3:3

5'-0" Berm

Toe of Slope

℄ Ky. 80 Reloc. ℄

North Footings

℄ Pier No. 1
Sta. 2606+94.00

℄ Pier No. 2
Sta. 2608+72.00

60° Typical

BEARING S 54°-40'-17" E

℄ Construction & Survey ℄

Flow 30°

℄ Brg

South Footings

℄ Brg

Toe of Slope

15'-0" (Typ.)

Shoulder Line ℄

℄ Brg

3:3

End of Bridge
Back Face Bent 2
Sta. 2610+11.75

TO HAZARD

5'-0" Berm

7:0 Typ.

39'-0"

Shoulder Line

TO JACKSON

End of Bridge
Back Face Bent 1
Sta. 2605+54.25

Sta. 2606+28.00 Survey ℄
Sta. 14+20.00 Ky. 80 Reloc. ℄

10'-0" Shoulder — 12'-0" — 12'-0" Roadway — 12'-0" — 12'-0" Shoulder

Shoulder Line ℄

(See Bent #4 for Limits of Slope Protection.)

PLAN

SUPERSTRUCTURE REMOVED
136'-178'-136' Continuous Plate Girder Spans
H 20-S16-44 Loading with Military Alternate
2-28' Roadways, 4' Median, 2-4' Walks
78° Shoulders @ Bridge, 2:1 Fill Slopes
30° Skew Left

See Sheet #1 for General Notes

35'-0"
10½" 4'-1½" — 27'-0" — 3'-0"
1'-0" 2'-0"

Symmetrical about ℄ of Structure

Std. Metal Handrail, H-110 or H-114

Drain Castings spaced as required

Profile Grade

½" / Ft. — ½" / Ft. — 2'-2" (Typ.)

¾" Drip

1'-0" — 2'-5" — 8'-0" Web

1" Open Joint

⅝" Web (Typ.)

Horz. Stiffeners in Compression Areas only

4'-0" — 9'-0" — 9'-0" — 9'-0" — 4'-0"

*Use Composite Construction for Live Load only in areas of Positive Moment.

HALF SECTION

*Design to provide for alternate type Shear Connectors (⅞"Ø x 4" Studs, 4 @ 1'-3" or ⅞" x 2" Spiral).

Foundation Pressure - 12 Tons / Sq. Ft. (Group I Loading) on Sandstone

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 — SHEET 8 OF 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+83 — PROJECT NO. SP 97-162

BRIDGE NUMBER EK 12-1-2 — SECTION NO. 12 — No. 15204

LAYOUT

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	SHEET NO.	SHEET TOTAL	REMARKS
7	KY.				

Shoulder Line
Fascia Line
Gutter Line
Bent No 1
Bent No 2
27'-0" Roadway
32'-6½"
Sta. 2605+54.25 @ Bent No 1
Sta. 2610+11.75 @ Bent No 2
3'-0" Median
60°00'-00"
11-E87 Bars Spaced as shown in Section H-H Sheet No.4
2-E46 Bars
6-E65 Bars
60°00'00" Typ @ Bms.
℄ Bearing
Field Bend E3 Bars
8" Recess for Details see Sh. 4
Note: For View M-M (Wingwall Elevation) see Sheet No. 4.
Note: For View N-N (Wingwall Elevation) see Sheet No. 4.
For Anchor Bolt Location see Anchor Bolt Plan Sheet No. 18.
7'-0" @ Bent #1
9'-0" @ Bent #2
14'-0" @ Bent #1
16'-0" @ Bent #2
12'-4" @ Bent #1
18'-7" @ Bent #2
10'-2¾" to 10'-7¾" Bent #1
10'-2¾" to 11'-4¾" Bent #2
Note: For Detail 'A' see Sheet No. 4.
Detail 'A'
Const. Jt. 2"x5" Key
E3 Bars N.E.F.F.
E2 Bars N.E.F.F.
E4 Bars
E5 Bars
E44
E1
E53
2" Rock (See Notes)
Top of Conc. Pile
Reinforcement
1'-0" Top of Pile
14" R.C. Precast Piles
SECTION A-A
(Spacing & embedment of Piles identical for Alt. B)
CAP PLAN
See Detail Sheet No.4
2 E3 Bars
Const. Jt. 2"x5" Key
El. 875.59 @ #1
El. 880.37 @ #2
El. 875.61 @ #1
El. 881.23 @ #2
106 Spa. @ 9" = 79'-6"
7-E53 Bars N.E.F.F.
3 E44 Bar
91 E4 Bars ; 91 E5 Bars
3 E44 Bars
16 E77 Bars
El. 864.634 @ #1
El. 869.368 @ #2
El. 864.758 @ #1
El. 869.612 @ #2
El. 864.900 @ #1
El. 865.043 @ #1
El. 865.043 @ #1
El. 870.213 @ #2
El. 864.912 @ #1
El. 870.213 @ #2
El. 864.779 @ #1
El. 870.213 @ #2
3 E44 Bars
El. 869.873 @ #2
El. 870.134 @ #2
3 E44 Bars
3-E44 Bars Bent 2 only
El. 864.654 @ #1
El. 870.213 @ #2
67 Spaces @ 1'-0" 68-E53 Bars Bent No. 2
59 Spaces @ 1'-0" 60-E53 Bars Bent No. 1
5 Spa. @ 1'-3½" = 6'-2½" E2 Bars N.E.F.F.
6 Spa. @ 1'-3½" = 6'-7½" E3 Bars N.E.F.F.
Indicates 1:4 Batter (Typ.)
El Bars Place to Miss Anchor Bolts
ELEVATION
7'-0"
3 Spa. @ 1'-6" = 6'-0"
4 E64 Bars
6-E63 Bars (Bott. & Top)
2-E66 Bars (Top & Bott.)
SECTION D-D
Indicates Test Pile Location
Typ. Spacing of El Bars
Field Bend
7 Spa. @ 4'-0" = 28'-0
8-14" R.C. Precast Piles
17 E2 Bars
Sta. 2605+54.25 - Bent No.1
Sta. 2610+11.75 - Bent No.2
10 Spa. @ 4'-0" = 40'-0"
11-14" R.C. Precast Piles
78 El Bars Spaced as Shown
8 Spa. @ 4'-0" = 32'-0"
9-14" R.C. Precast Piles
94'-2⅝" c. to c. Footing
FOOTING PLAN
NOTES:
Dress subgrade to 2" below plan elevation for bottom of cap. Add a 2" layer of #6 crushed stone or gravel and tamp this layer into the subgrade. Place 1:2 cement mortar up to the bottom of cap elevation. Side forms for cap may be placed as soon as mortar has set sufficient time to support mem & forms without being disturbed.
This method is to be used instead of bottom of cap forms, and the cost of this work shall be incidental to and shall be included in the unit price bid for Concrete, Class 'A'.
Top of Cap bars are to be accurately located in accordance with the plans so that they do not interfere with drilling of anchor bolt holes.
NOTES:
Do not backfill above bridge seat until superstructure is in place.
See Sheet No. 4 for Bill of Reinforcement & Estimate of Quantities.
14" R.C. Precast Piles are to be driven to elevation and Brg. Capacity shown on Sh. No. 2.
For Sections E-E & B-B, Detail 'A', Median, Detail and Location of Section D-D see Sh. No. 4

Work this Sheet with Sheet No. 4.

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY RD. | WEET 3 OF 9

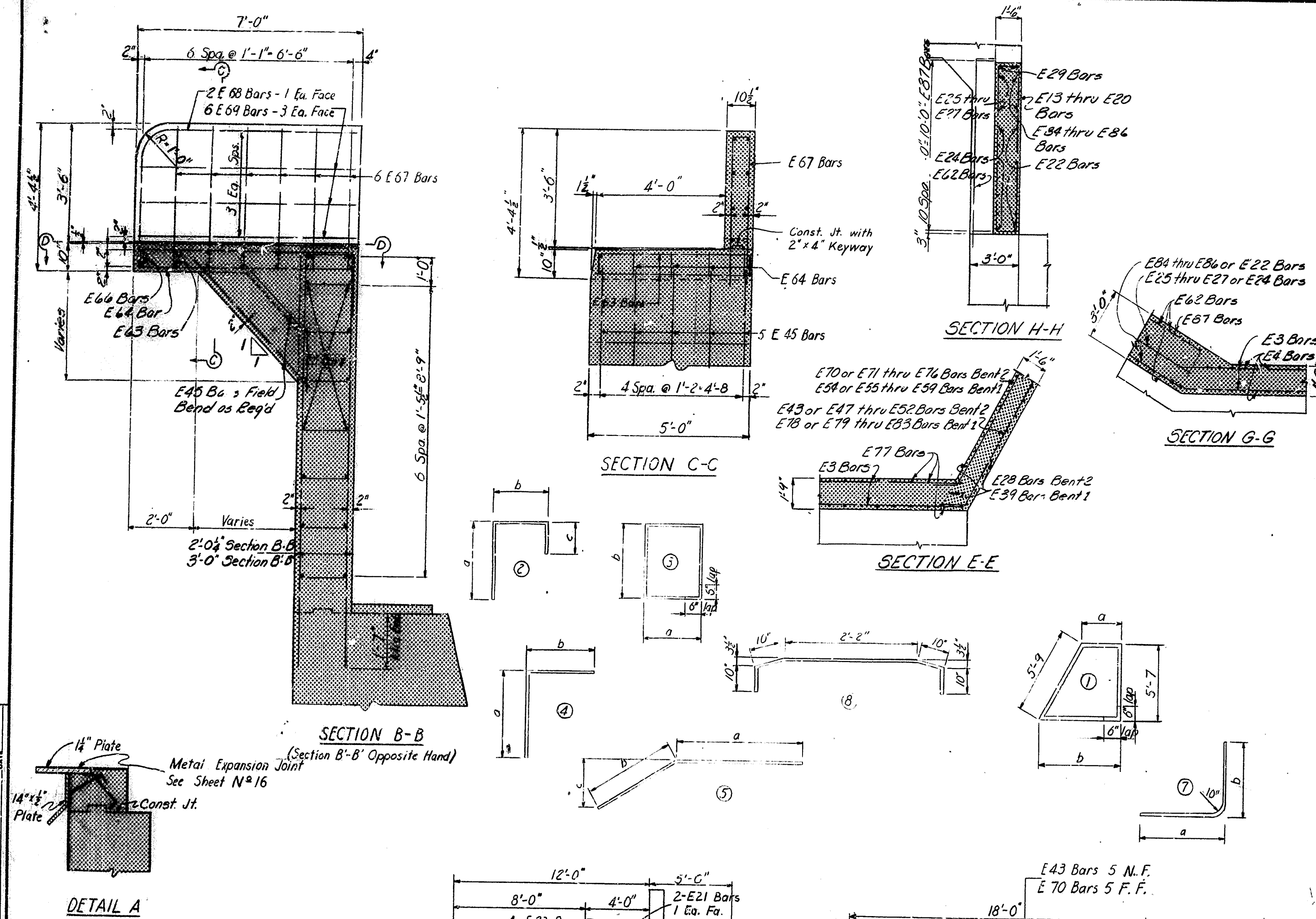
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
DISTRICT
COUNTY OF
PERRY

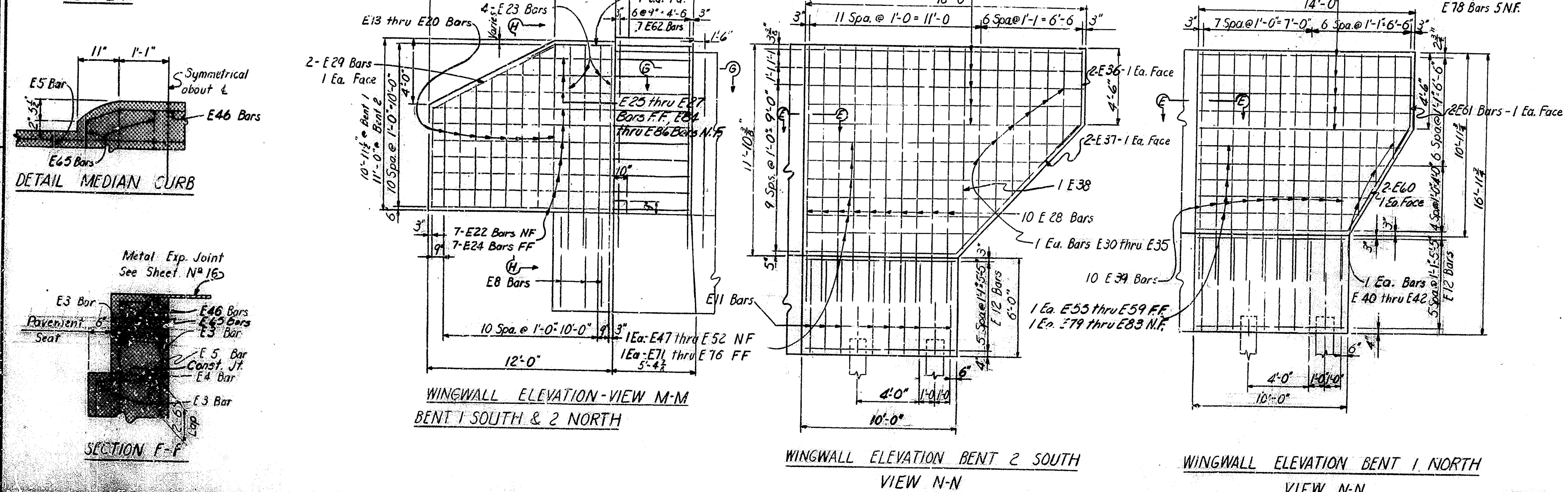
CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-12

BRIDGE NUMBER	SECTION NO.	DRAWING NO.
EK 12-1-2	12	15204

BENTS 1 & 2





BILL OF REINFORCEMENT

Mark	Size	Type	Number Bent 1	Number Bent 2	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.
E1	6	(1)	79	79	22	6	Footing	4	5	5	11		
E2	5	Str.	51	51	30	0	"						
E3	4	Str.	48	48	29	0	Backwall						
E4	6	(2)	91	91	24	6	"	11	8		5	11	8
E5	5	(2)	91	91	4	9	"	2	0	0	11	2	0
E6	6	(1)	1	1	24	5	Footing	5	6	7	0		
E7	6	(1)	3	3	25	7	Footing	6	1	7	7		
E8	6	(3)	3	3	17	1	"	2	8	5	7		
E9	5	Str.	12	12	10	4	"						
E10	5	(4)	6	6	10	0	"	5	0	5	0		
E11	6	(3)	8	8	18	1	"	3	2	5	7		
E12	5	Str.	12	12	12	0	"						
E13	6	(3)	1	1	16	11	Wingwall	1	2	7	0		
E14	6	(3)	1	1	17	11	"	1	2	7	6		
E15	6	(3)	1	1	18	11	"	1	2	8	0		
E16	6	(3)	1	1	19	11	"	1	2	8	6		
E17	6	(3)	1	1	20	11	"	1	2	9	0		
E18	6	(3)	1	1	21	11	"	1	2	9	6		
E19	6	(3)	1	1	22	11	"	1	2	10	0		
E20	6	(3)	1	1	23	11	"	1	2	10	6		
E21	7	(5)	2	2	11	9	"	8	9	3	0	1	4
E22	4	Str.	7	7	16	8	"						
E23	8	(2)	4	4	26	4	Wingwall	12	9	11	2	12	9
E24	6	Str.	7	7	16	8	"						
E25	6	Str.	1	1	14	8	"						
E26	6	Str.	1	1	12	8	"						
E27	6	Str.	1	1	10	8	"						
E28	8	(2)	—	10	27	8	"	13	5	1	2	13	5
E29	7	(5)	2	2	15	2	"	8	6	6	8	5	11
E30	6	(3)	—	1	23	1	"	1	2	10	1		
E31	6	(3)	—	1	21	3	"	1	2	9	2		
E32	6	(3)	—	1	19	5	"	1	2	8	3		
E33	6	(3)	—	1	17	7	"	1	2	7	4		
E34	6	(3)	—	1	15	9	"	1	2	6	5		
E35	6	(3)	—	1	13	11	"	1	2	5	6		
E36	7	(5)	—	2	7	2	"	4	2	3	0	2	3
E37	7	(5)	—	2	20	3	"	9	9	10	6	7	2
E38	6	(3)	—	1	25	2	"	1	2	11	1		
E39	7	(2)	10	—	26	5	"	12	9	1	2	12	9
E40	6	(3)	1	—	22	5	"	1	2	9	9		
E41	6	(3)	1	—	18	11	"	1	2	8	9		
E42	6	(3)	1	—	15	5	"	1	2	6	3		

Mark	Size	Type	Number Bent 1	Number Bent 2	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.
E43	4	(5)	—	5	19	4	Wingwall	17	8	1	8	1	6
E44	5	Str.	18	21	12	0	Risers						
E45	5	Str.	10	10	3	0	Sidewalk						
E46	4	(8)	2	2	5	6	Median						
E47	4	(5)	—	1	12	7	Wingwall	10	11	1	8	1	6
E48	4	(5)	—	1	13	8	"	12	0	1	8	1	6
E49	4	(5)	—	1	14	9	"	13	1	1	8	1	6
E50	4	(5)	—	1	15	10	"	14	2	1	8	1	6
E51	4	(5)	—	1	16	11	"	15	3	1	8	1	6
E52	4	(5)	—	1	18	0	"	16	4	1	8	1	6
E53	5	(2)	60	68	5	4	Risers	1	6	2	5	1	6
E54	6	(5)	5	—	15	3	Wingwall	12	9	2	6	2	2
E55	6	(5)	1	—	12	1	"	9	7	2	6	2	2
E56	6	(5)	1	—	12	10	"	10	4	2	6	2	2
E57	6	(5)	1	—	13	6	"	11	0	2	6	2	2
E58	6	(5)	1	—	14	1	"	11	7	2	6	2	2
E59	6	(5)	1	—	14	8	"	12	2	2	6	2	2
E60	7	(5)	2	—	17	2	"	9	8	7	6	6	5
E61	7	(5)	2	—	7	3	"	4	3	3	0	2	7
E62	6	(2)	7	7	27	4	"	12	6	2	8	12	6
E63	4	Str.	24	24	4	8	Sidewalk						
E64	7	(3)	8	8	14	7	Sidewalk	6	6	0	8		
E65	4	(2)	6	6	4	5	Median	1	9	1	1	1	9
E66	7	(7)	4	4	11	0	Sidewalk	16	6	4	6		
E67	4	(3)	12	12	9	11	Rail	0	6½	4	0		
E68	4	(7)	4	4	10	6	"	4	0	6	6		
E69	4	Str.	12	12	6	8	"						
E70	6	(5)	—	5	19	0	Wingwall	16	6	2	6	2	2
E71	6	(5)	—	1	12	6	"	10	0	2	6	2	2
E72	6	(5)	—	1	13	7	"	11	1	2	6	2	2
E73	6	(5)	—	1	14	8	"	12	2	2	6	2	2
E74	6	(5)	—	1	15	9	"	13	3	2	6	2	2
E75	6	(5)	—	1	16	10	"	14	4	2	6	2	2
E76	6	(5)	—	1	17	11	"	15	5	2	6	2	2
E77	6	(2)	16	16	27	10	Backwall	13	3	1	5	13	3
E78	4	(5)	5	—	15	2	Wingwall	13	6	1	8	1	6
E79	4	(5)	1	—	12	0	"	10	4	1	8	1	6
E80	4	(5)	1	—	12	8	"	11	0	1	8	1	6
E81	4	(5)	1	—	13	5	"	11	9	1	8	1	6
E82	4	(5)	1	—	14	2	"	12	6	1	8	1	6
E83	4	(5)	1	—	14	10	"	13	2	1	8	1	6
E84	4	Str.	1	1	14	8	"						
E85	4	Str.	1	1	12	8	"						
E86	4	Str.	1	1	10	8	"						
E87	4	(2)	11	11	8	1	Backwall	1	9	4	8	1	9

ESTIMATE OF QUANTITIES BENTS 1 AND 2

	BENT 1	BENT 2
Concrete Class "A"	*195.7 Cu. Yds.	*203.5 Cu. Yds.
Steel Reinforcement	13,986 Pounds	14,494 Pounds

*2.4 Cu. Yds. deducted for piles embedded 1'-0" into Concrete.

NOTES:
For location of Sections B-B & F-F, Detail "A" & Median Detail see Sh. No. 5.
For Section D-D see Sheet No. 3.
For Additional Notes see Sheet No. 3.

Work this Sheet with Sheet No. 3.

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 4 OF 17

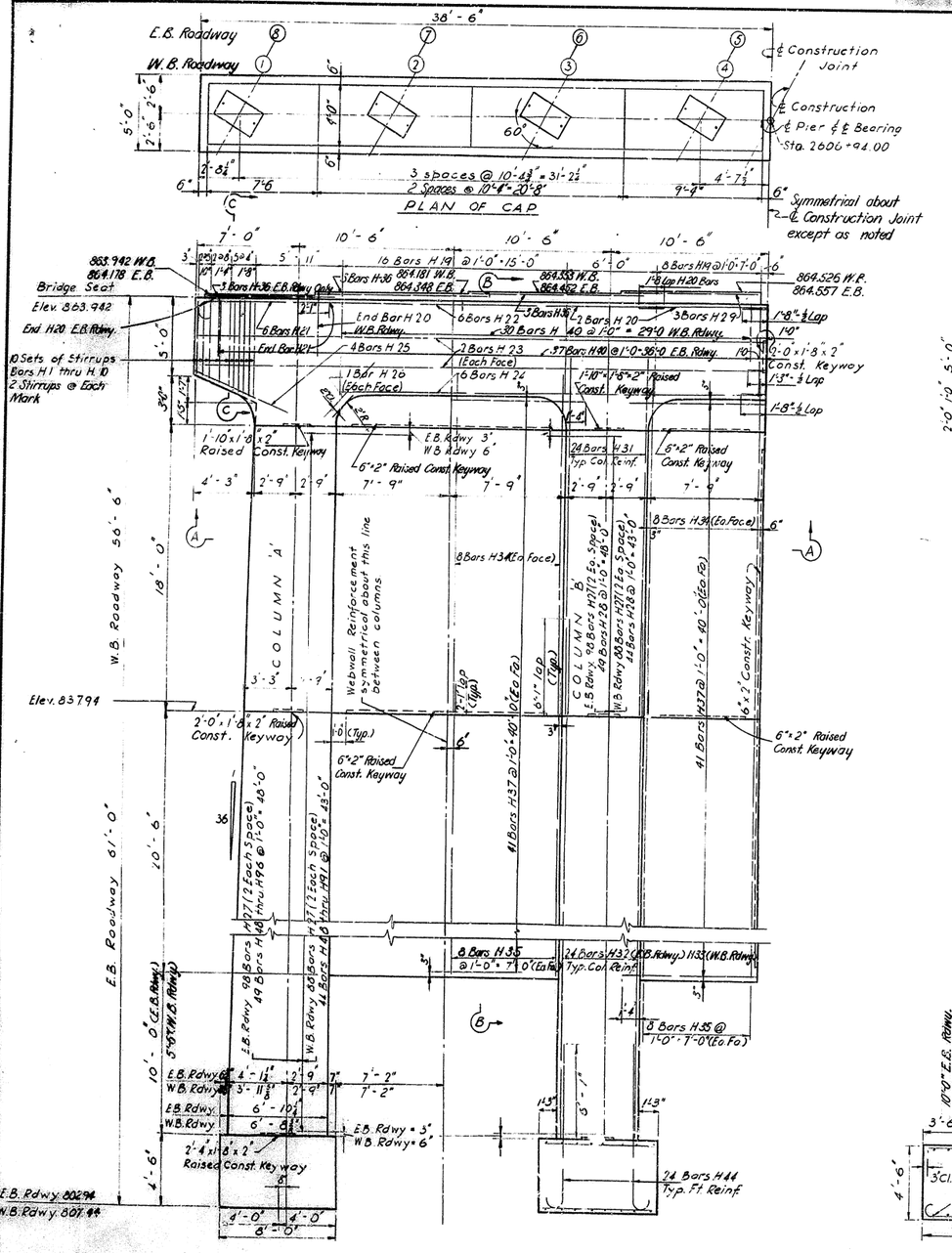
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-162
BRIDGE NUMBER EK 12-1-2 SECTION NO. 12 DRAWING No. 15204

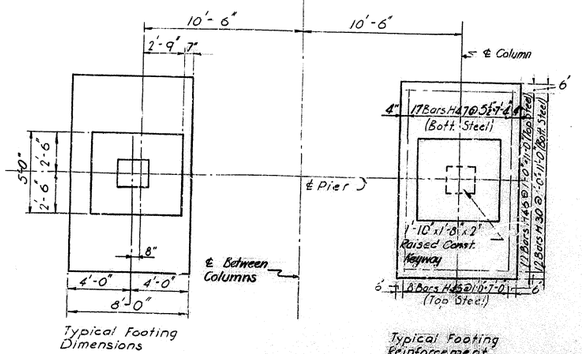
BENTS 1 & 2

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



NOTES

Forms under webwall shall be of sufficient strength and rigidity to support the full weight of web wall without appreciable deformation or settlement.
For Anchor Bolt location see Sheet No 18
For Bill of Materials see Sheet No 7
Top cap bars are to be accurately located in accordance with the plans so that they do not interfere with drilling anchor bolt holes.
Maximum Footing Pressure Group I Loads = 13,500 lbs/sq.ft : Group II Loads = 18,500 lbs/sq.ft



Work This Sheet with Sheets 6 & 7

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 5 OF 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

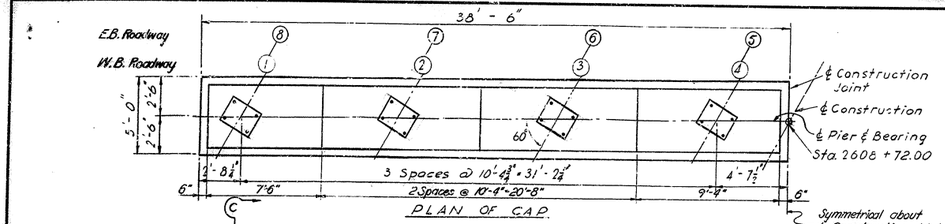
CAMPTON - HAZARD
ROAD

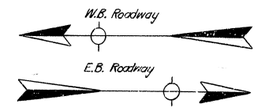
STATION 2807+82 PROJECT NO. SP 97-162

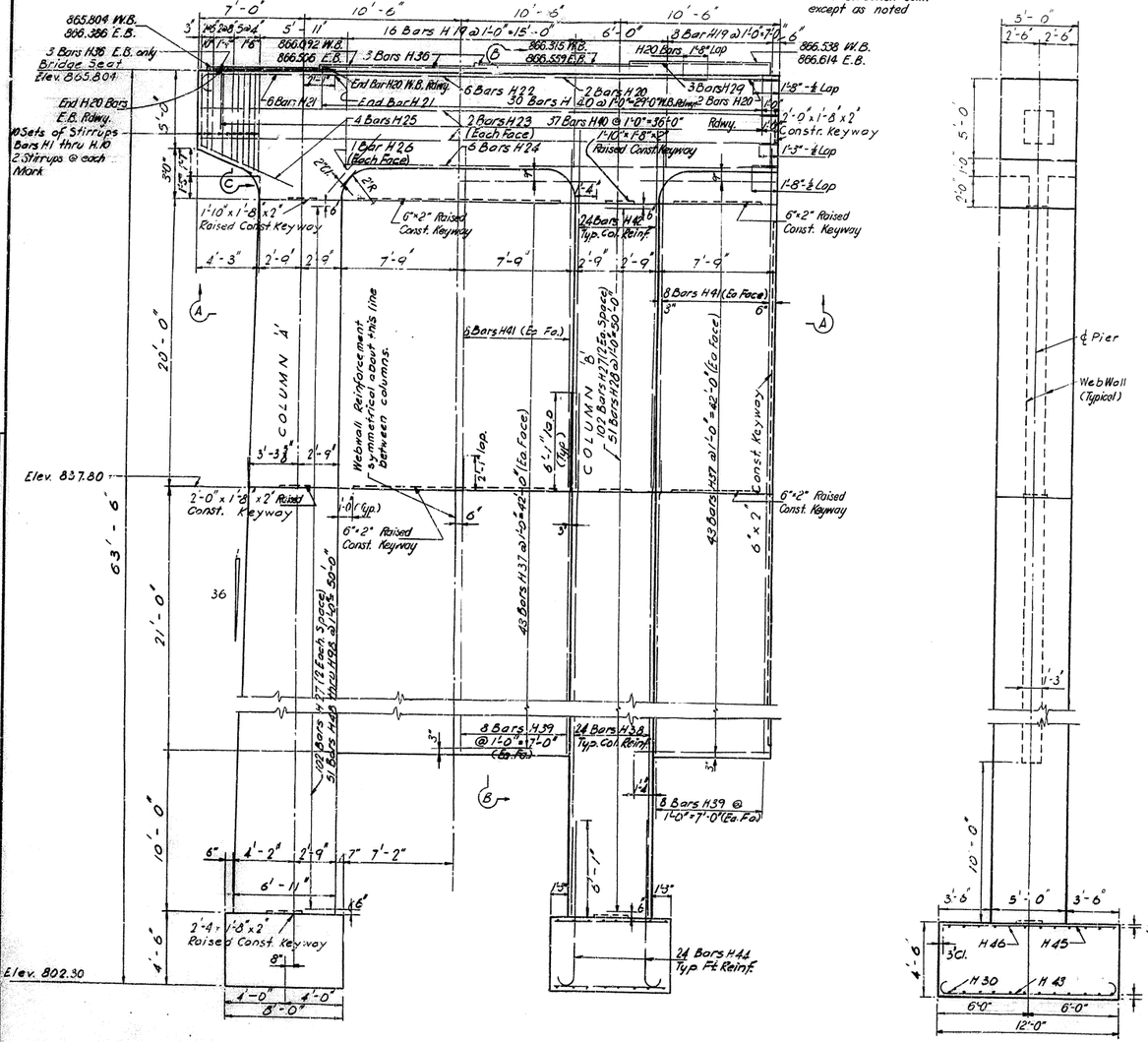
BRIDGE NUMBER	SECTION NO.	COUNTY	INDEX
ER 12-1-2	12	15204	

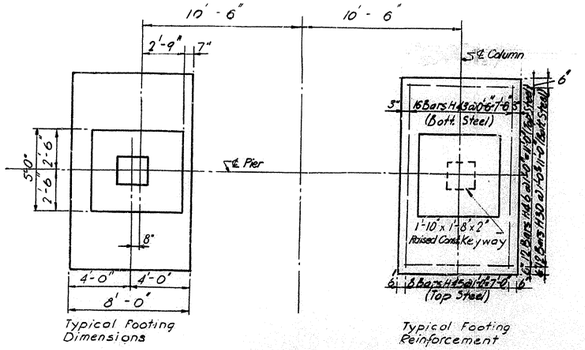
PIER 1

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	PHYSICAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				









FOOTING PLAN

NOTES

Notes on Sheet 5 except : Maximum Footing Pressure Group I Loads = 13,700#/sq.ft. : Group II Loads = 24,500#/sq.ft.

Work this sheet with Sheet No 5 & 7

PIER 2

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY RD SHEET 6 OF 7

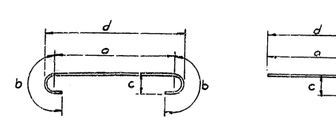
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-162

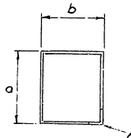
BRIDGE NUMBER	SECTION NO.	DRAWING NO.	INDEX
EK 12-1-2	12	15204	

DRAWN BY JWH DATE 8-84
CHECKED BY JWH DATE 8-84
REVISED BY J.E.L. 5/6/86 DATE
CHECKED BY DATE
REVISED BY DATE
CHECKED BY



TYPE (1)

TYPE (2)



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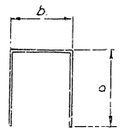

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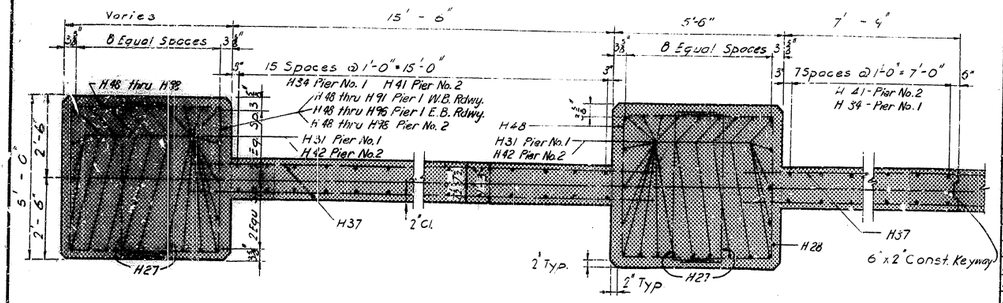
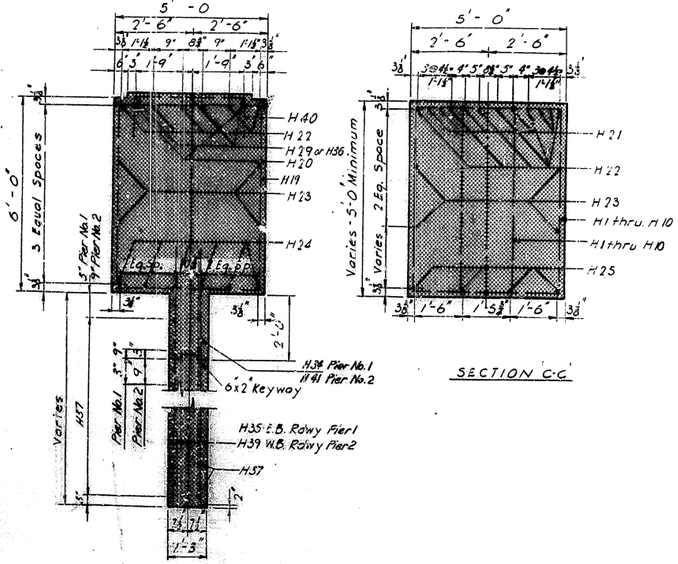


SECTION 'A-A'



SECTION B-B

SECTION C-C

BILL OF REINFORCEMENT

Mark	Type	Size	Number Per1	Number Per2	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
H1	③	5	4	4	16	3	Cap	4	9⅛	3	2½				
H2	③	5	4	4	16	11	Cap	4	11	3	2½				
H3	③	5	4	4	17	3	Cap	5	0⅛	3	2½				
H4	③	5	4	4	17	9	Cap	5	3⅜	3	2½				
H5	③	5	4	4	18	3	Cap	5	6⅜	3	2½				
H6	③	5	4	4	18	6	Cap	5	8⅜	3	2½				
H7	③	5	4	4	18	9	Cap	5	9⅜	3	2½				
H8	③	5	4	4	19	0	Cap	5	11⅜	3	2½				
H9	③	5	4	4	19	3	Cap	6	0⅜	3	2½				
H10	③	5	4	4	19	6	Cap	6	2⅜	3	2½				
H11															
H12															
H13															
H14															
H15	Not Used														
H16															
H17															
H18															
H19	⑤	5	48	48	21	5	Cap	5	8	4	8				
H20	Str.	4	4	4	35	0	Cap								
H21	②	8	12	12	9	11	Cap	8	3	1	6	0	10	8	10
H22	②	8	12	12	41	0	Cap	39	6	1	6	0	10	39	11
H23	Str.	6	8	8	39	6	Cap								
H24	Str.	8	12	12	30	0	Cap								
H25	Str.	8	8	8	7	0	Cap								
H26	Str.	6	12	12	5	0	Cap								
H27	①	4	372	408	7	10	Column	1	8	4	7				
H28	⑤	4	93	102	20	2	Column	5	1	4	7				
H29	Str.	5	6	6	9	0	Riser								
H30	Str.	6	48	48	7	6	Footing								
H31	Str.	11	96	—	22	3	Column								
H32	Str.	11	48	—	36	8	Column								
H33	Str.	11	48	—	32	3	Column								
H34	Str.	5	96	—	21	4	Web Wall								
H35	Str.	5	96	—	22	6	Web Wall								
H36	Str.	5	15	15	10	6	Pier								
H37	Str.	5	246	258	18	3	Web Wall								
H38	Str.	11	—	96	37	3	Column								
H39	Str.	5	—	96	23	0	Web Wall								
H40	④	5	67	67	7	1	Riser	1	9	3	8				
H41	Str.	5	—	96	24	6	Web Wall								
H42	Str.	11	—	96	24	3	Column								
H43	①	7	—	64	13	3	Footing	10	11	1	2	0	7	11	6
H44	②	11	96	96	11	3	Footing	9	8	2	0	1	13	10	3
H45	Str.	4	32	32	11	6	Footing								
H46	Str.	4	48	48	7	6	Footing								
H47	①	6	68	—	13	0	Footing	11	0	1	0	0	6	11	6
H48	③	4	2	2	20	2	Column	5	1⅛	4	7				
H49	③	4	2	2	20	3	Column	5	1⅜	4	7				
H50	③	4	2	2	20	4	Column	5	2	4	7				
H51	③	4	2	2	20	4	Column	5	2⅛	4	7				
H52	③	4	2	2	20	5	Column	5	2⅜	4	7				

BILL OF REINFORCEMENT

Mark	Type	Size	Number Per1	Number Per2	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
H53	③	4	2	2	20	6	Column	5	3	4	7				
H54	③	4	2	2	20	6	Column	5	3⅛	4	7				
H55	③	4	2	2	20	7	Column	5	3⅜	4	7				
H56	③	4	2	2	20	8	Column	5	4	4	7				
H57	③	4	2	2	20	8	Column	5	4⅛	4	7				
H58	③	4	2	2	20	9	Column	5	4⅜	4	7				
H59	③	4	2	2	20	10	Column	5	5	4	7				
H60	③	4	2	2	20	10	Column	5	5⅛	4	7				
H61	③	4	2	2	20	11	Column	5	5⅜	4	7				
H62	③	4	2	2	21	0	Column	5	6	4	7				
H63	③	4	2	2	21	0	Column	5	6⅛	4	7				
H64	③	4	2	2	21	1	Column	5	6⅜	4	7				
H65	③	4	2	2	21	2	Column	5	7	4	7				
H66	③	4	2	2	21	2	Column	5	7⅛	4	7				
H67	③	4	2	2	21	3	Column	5	7⅜	4	7				
H68	③	4	2	2	21	4	Column	5	8	4	7				
H69	③	4	2	2	21	4	Column	5	8⅛	4	7				
H70	③	4	2	2	21	5	Column	5	8⅜	4	7				
H71	③	4	2	2	21	6	Column	5	9	4	7				
H72	③	4	2	2	21	6	Column	5	9⅛	4	7				
H73	③	4	2	2	21	7	Column	5	9⅜	4	7				
H74	③	4	2	2	21	8	Column	5	10	4	7				
H75	③	4	2	2	21	9	Column	5	10⅛	4	7				
H76	③	4	2	2	21	9	Column	5	10⅜	4	7				
H77	③	4	2	2	21	10	Column	5	11	4	7				
H78	③	4	2	2	21	10	Column	5	11⅛	4	7				
H79	③	4	2	2	21	11	Column	5	11⅜	4	7				
H80	③	4	2	2	22	0	Column	6	0	4	7				
H81	③	4	2	2	22	0	Column	6	0⅛	4	7				
H82	③	4	2	2	22	1	Column	6	0⅜	4	7				
H83	③	4	2	2	22	2	Column	6	1	4	7				
H84	③	4	2	2	22	2	Column	6	1⅛	4	7				
H85	③	4	2	2	22	3	Column	6	1⅜	4	7				
H86	③	4	2	2	22	4	Column	6	2	4	7				
H87	③	4	2	2	22	4	Column	6	2⅛	4	7				
H88	③	4	2	2	22	5	Column	6	2⅜	4	7				
H89	③	4	2	2	22	6	Column	6	3	4	7				
H90	③	4	2	2	22	6	Column	6	3⅛	4	7				
H91	③	4	2	2	22	7	Column	6	3⅜	4	7				
H92	③	4	1	2	22	8	Column	6	4	4	7				
H93	③	4	1	2	22	8	Column	6	4⅛	4	7				
H94	③	4	1	2	22	9	Column	6	4⅜	4	7				
H95	③	4	1	2	22	10	Column	6	5	4	7				
H96	③	4	1	2	22	10	Column	6	5⅛	4	7				
H97	③	4	—	2	22	11	Column	6	5⅜	4	7				
H98	③	4	—	2	23	0	Column	6	6	4	7				

ESTIMATE OF QUANTITIES PIER 1

Concrete Class 'A'	449.0	Cu. Yds.
Steel Reinforcement	56,780	Lbs.

ESTIMATE OF QUANTITIES PIER 2

Concrete Class 'A'	478.5	Cu. Yds.
Steel Reinforcement	60,671	Lbs.

Work this sheet with sheets 5 & 6

PIERS 1 & 2

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

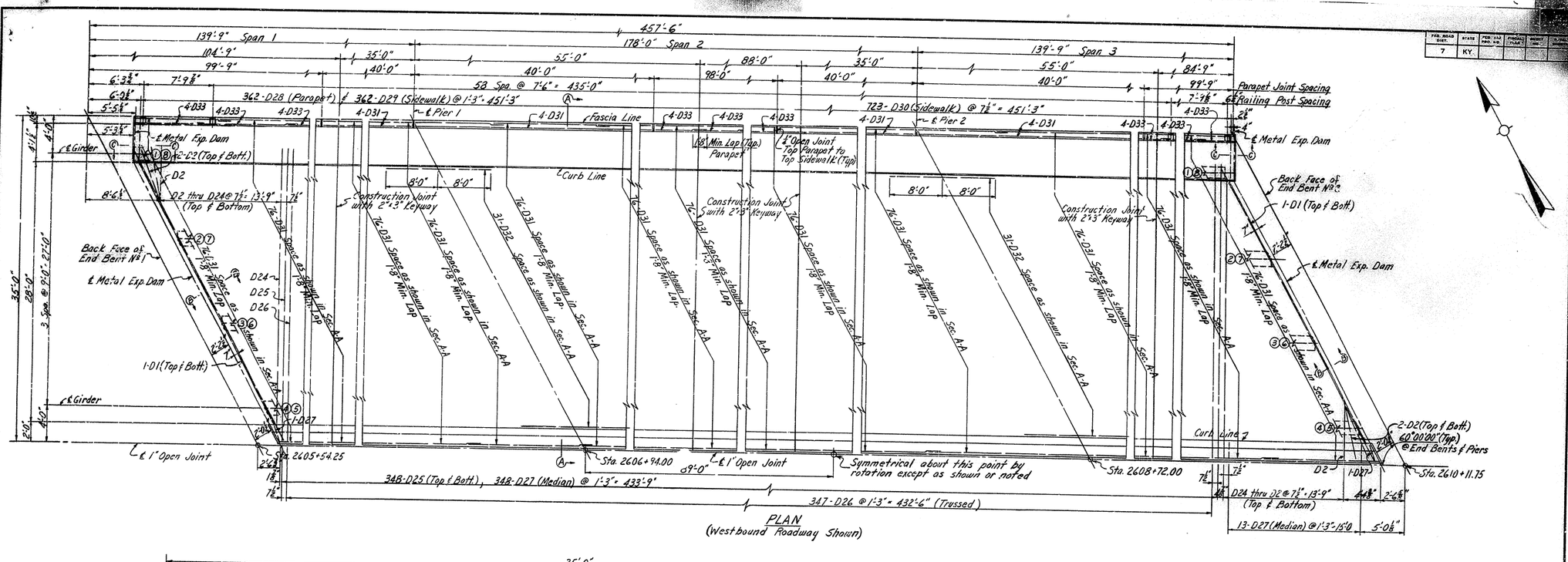
BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY RD SHEET 7 OF 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

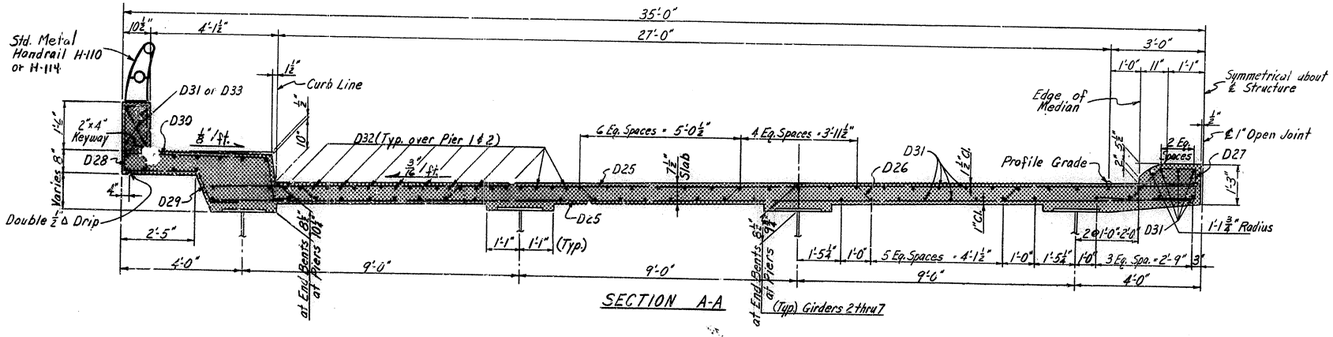
CAMPTON - HAZARD
ROAD

STATION 28071.88 PROJECT NO. SP 97-152

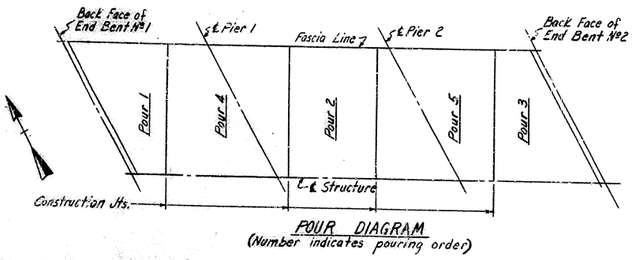
BRIDGE NUMBER	SECTION NO.	DRAWING NO.	LETTER
EK 12-1-2	12	15204	



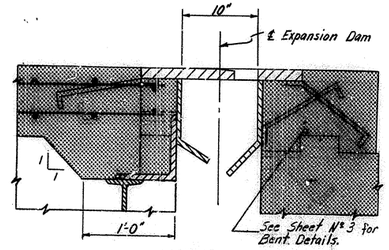
PLAN
(Westbound Roadway Shown)



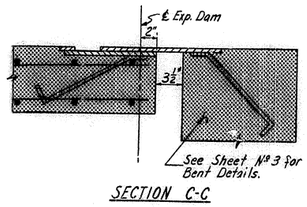
SECTION A-A



POUR DIAGRAM
(Number indicates pouring order)



SECTION B-B



SECTION C-C

NOTES
For details of Metal Exp. Dams see Sheet No. 16.
For reinforcement details see Sheet No. 9
For Quantities see Sheet No. 9
For Drainage details see Sheet No. 9
No Camber, see Sheet No. 10 for Construction Elevations.

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 8 OF 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

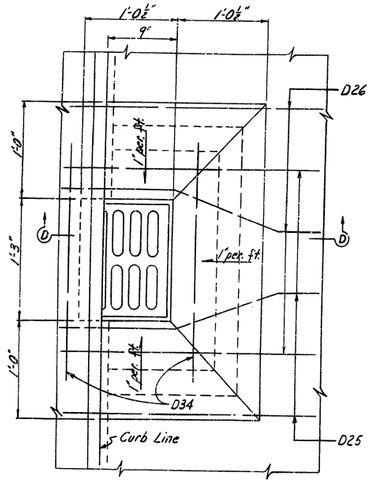
CAMPTON -- HAZARD
ROAD

STATION 2607 + 83 PROJECT NO. SP 97-162

BRIDGE NUMBER	SECTION NO.	DRAWING NO.	INDEX
EK 12-1-3	12	15204	

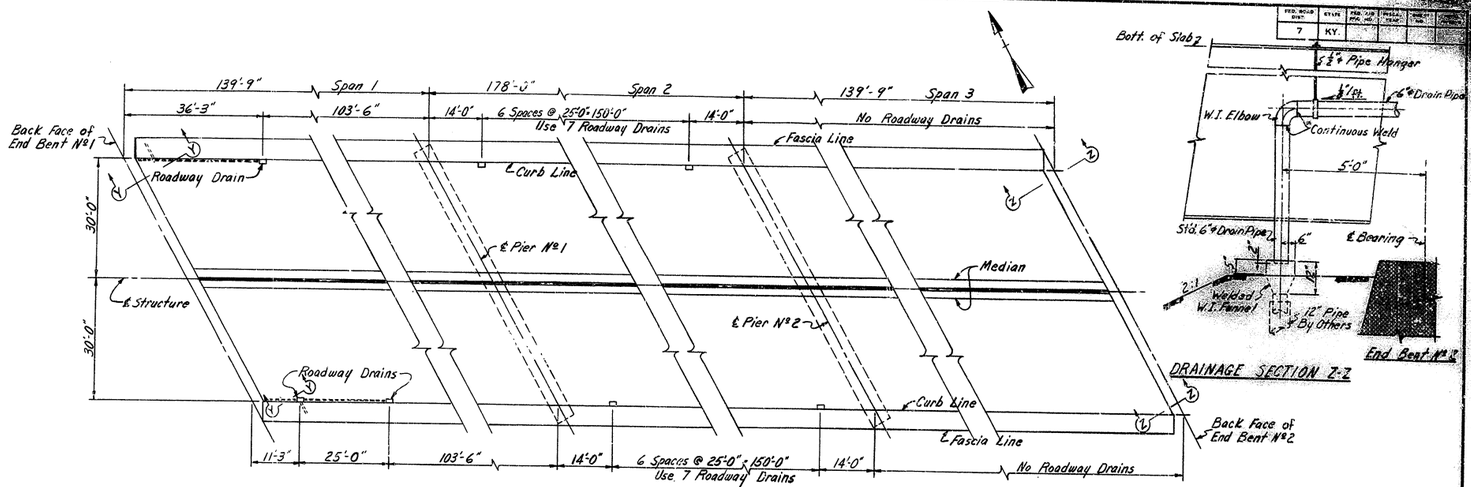
SUPERSTRUCTURE

DESIGNED BY RAA DATE
DETAILED BY RAA CHECKED BY JWH DATE 7/96
CHECKED BY DATE
TRACED BY CHECKED BY DATE
REVISED DATE
REVISED DATE
REVISED DATE



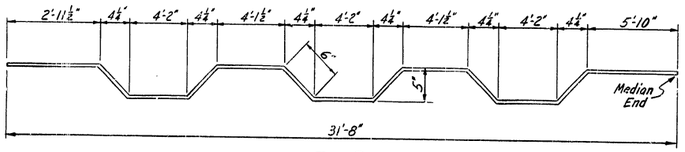
PLAN OF ROADWAY DRAIN

Note:
Bend reinforcement as necessary to install drain casting

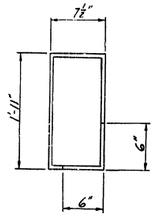


LOCATION OF ROADWAY DRAINS

DRAINAGE SECTION Z-Z



Type-①



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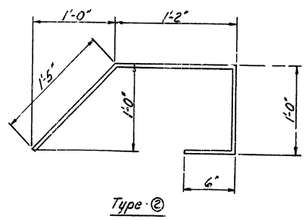
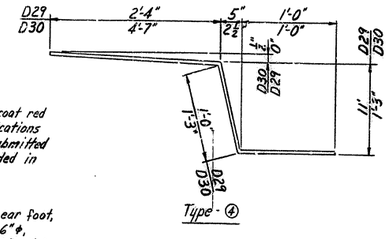
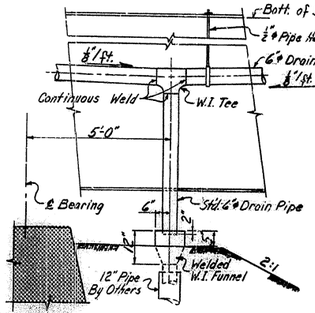


Type-②



Type-④

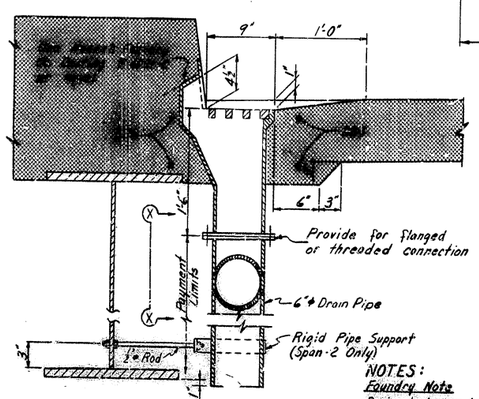
SUPERSTRUCTURE BILL OF REINFORCEMENT						
Mark	Type	Size	No.	Length ft.	Length in.	Location
D1	Str.	6	8	36	8	Slab @ Ends
D2	Str.	6	24	6	2	Trans.-Slab
D3	Str.	6	8	7	3	Trans.-Slab
D4	Str.	6	8	8	4	Trans.-Slab
D5	Str.	6	8	9	5	Trans.-Slab
D6	Str.	6	8	10	6	Trans.-Slab
D7	Str.	6	8	11	7	Trans.-Slab
D8	Str.	6	8	12	8	Trans.-Slab
D9	Str.	6	8	13	9	Trans.-Slab
D10	Str.	6	8	14	10	Trans.-Slab
D11	Str.	6	8	15	11	Trans.-Slab
D12	Str.	6	8	17	0	Trans.-Slab
D13	Str.	6	8	18	1	Trans.-Slab
D14	Str.	6	8	19	2	Trans.-Slab
D15	Str.	6	8	20	3	Trans.-Slab
D16	Str.	6	8	21	4	Trans.-Slab
D17	Str.	6	8	22	5	Trans.-Slab
D18	Str.	6	8	23	6	Trans.-Slab
D19	Str.	6	8	24	7	Trans.-Slab
D20	Str.	6	8	25	8	Trans.-Slab
D21	Str.	6	8	26	9	Trans.-Slab
D22	Str.	6	8	27	10	Trans.-Slab
D23	Str.	6	8	28	11	Trans.-Slab
D24	Str.	6	8	30	7	Trans.-Slab
D25	Str.	6	1392	31	8	Trans.-Slab
D26	①	6	694	32	7	Trans.-Slab
D27	②	4	726	3	11	Median
D28	③	4	724	5	10	Parapet
D29	④	4	724	4	4	Sidewalk
D30	④	4	1446	6	10	Sidewalk
D31	Str.	4	1856	37	3	Parapet/Slab
D32	Str.	6	124	16	6	Over Piers
D33	Str.	4	72	34	0	Long. Parapet
D34	Str.	4	66	2	6	@ Relief Drains



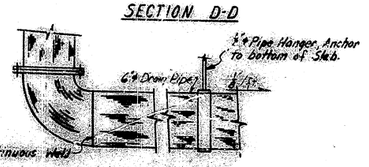
DRAINAGE SECTION Y-Y

ESTIMATE OF QUANTITIES

Concrete - Class A	922.6 Cu. Yd.
Steel Reinforcement	172,575 Lbs.
Metal Handrail	905.0 Lin. Ft.
6" Drain Pipe	203.0 Lin. Ft.
Protective Coating	3812 Sq. Yds.



SECTION D-D



VIEW X-X
(For Span-2 Only)

NOTES:

Foundry Note

Drains to be gray iron castings A.S.T.M. - A48-56 Spec. except that tensile and transverse tests are not required. Cast Iron Drains shall be painted inside and outside with one (1) coat red lead paint and one (1) coat aluminum paint according to specifications Form. T-521 report of field inspection of castings is to be submitted to the laboratory. Payment for Drain Castings will be included in lump sum bid price of Structural Steel.

6" Drain Pipe

Drain Pipe is to be 6" Standard Weight, 19.0 lb. per linear foot, in accordance with A.S.T.M.-A72. Continuous Weld Pipe is to be 6", Standard Weight, containing a minimum of .75% Copper and 1.5% Nickel and having a minimum tensile strength of 50,000 psi. Pipe Fittings, and Connections, complete and in place are to be included in the unit bid price for Drain Pipe. Pipe and all fittings are to be given one coat of red lead paint and two coats of aluminum paint.

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 9 OF 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

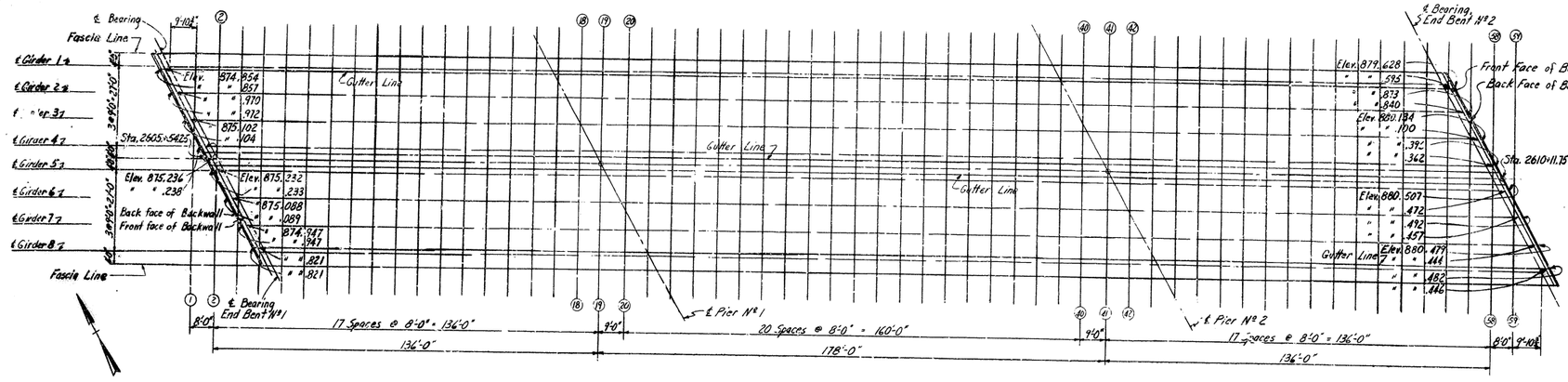
CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-162

BRIDGE NUMBER	SECTION NO.	DRAWING NO.	LAST
EK 12-1-2	12	15204	

SUPERSTRUCTURE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	K.				

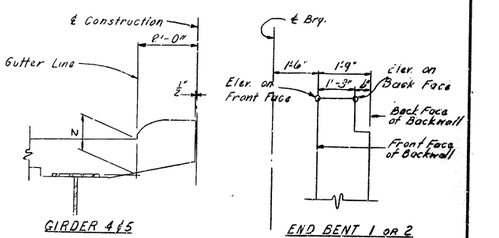


CONSTRUCTION NOTES

1- Lay out section (1)(1) to (58)-(58) as shown in Plan. Center punch marks on top of Girders for Elevation Points.
2- Read Elevations on top of Girders as erected, after Cross Frames are in place and falsework is removed, but before forms are placed and Deck Slab, Walks, Parapets, Etc. are poured. These Elevations are to be entered in the table as Elev. Y.
3. Compute dimension "Z" as indicated (See Sections Shown Below.) Top of Concrete Elevation "X" minus Elevation "Y" + Dimension "Z".
4. Always measure from top of Girder for setting Templates (Dimension "Z"). Elevation "X" includes calculated deflections due to weight of Floor Slab, Walks, Parapets, Handrail & Medicin.
5 - Do not set Templates by Elevation "X". Calculate dimension "Z" as shown and set templates from top of Girders.
6 - Gutter Line Elevations ("X" at Gutter) contain the deflections of the adjacent Girder as shown in sketch. "Z" will indicate difference in elevation of gutter line and top of Girder.

TABLE OF ELEVATIONS

SECTION	GIRDER 8			GIRDER 7			GIRDER 6			GIRDER 5			GIRDER 4			GIRDER 3			GIRDER 2			GIRDER 1			SECTION
	X @ Gutter	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X @ Gutter	Y	Z	
1	—			—			—			—						—			874.974	874.231	6.743	874.871	874.065	0.806	1
2	—			—			—			—			875.240	874.466	0.776	875.112	874.391	0.721	.985	.227	0.756	.888	.049	0.839	2
3	—			—			—			—			.264	.472	0.792	.127	.390	0.737	874.918	.227	0.749	.906	.065	0.841	3
4	—			874.955	874.217	0.738	875.089	874.369	0.740	875.247	874.458	0.789	.283	.493	0.801	.305	.490	0.815	875.009	.268	0.741	.919	.071	0.848	4
5	874.845	874.075	0.770	.978	.218	0.760	.130	.359	0.771	.294	.693	0.801	.305	.490	0.815	.155	.469	0.746	.721	.245	0.776	.930	.071	0.859	5
6	.878	.078	0.800	875.001	.226	0.775	.150	.376	0.774	.317	.517	0.800	.326	.505	0.821	.170	.425	0.745	.033	.271	0.762	.943	.069	0.874	6
7	.911	.083	0.828	.024	.228	0.796	.171	.391	0.780	.339	.522	0.817	.344	.540	0.804	.183	.437	0.746	.045	.274	0.771	.952	.069	0.883	7
8	.943	.095	0.848	.048	.236	0.812	.193	.409	0.784	.360	.515	0.820	.362	.561	0.801	.198	.446	0.752	.056	.282	0.774	.960	.135	0.825	8
9	.972	.098	0.874	.071	.255	0.816	.213	.428	0.785	.378	.568	0.810	.377	.578	0.799	.210	.480	0.730	.065	.280	0.785	.965	.164	0.801	9
10	874.999	.106	0.895	.093	.279	0.814	.232	.428	0.808	.394	.571	0.823	.390	.585	0.805	.222	.491	0.731	.076	.300	0.776	.968	.150	0.818	10
11	875.024	.133	0.891	.114	.295	0.819	.251	.433	0.818	.410	.573	0.817	.403	.602	0.797	.235	.509	0.726	.097	.321	0.776	.973	.172	0.801	11
12	.048	.167	0.901	.136	.314	0.822	.271	.479	0.792	.424	.619	0.805	.415	.649	0.766	.250	.545	0.705	.101	.348	0.753	.981	.270	0.711	12
13	.069	.168	0.901	.158	.326	0.832	.290	.460	0.830	.439	.638	0.801	.424	.690	0.733	.266	.559	0.707	.116	.350	0.766	874.993	.285	0.708	13
14	.089	.200	0.889	.179	.355	0.824	.311	.472	0.819	.458	.765	0.693	.444	.793	0.651	.286	.560	0.686	.139	.680	0.659	875.012	.318	0.694	14
15	.109	.237	0.872	.203	.376	0.833	.334	.626	0.710	.475	.767	0.706	.465	.761	0.724	.312	.671	0.661	.167	.521	0.646	.040	.449	0.591	15
16	.133	.373	0.760	.231	.476	0.755	.362	.615	0.747	.501	.796	0.705	.493	.860	0.653	.346	.670	0.656	.203	.620	0.583	.077	.489	0.588	16
17	.157	.387	0.770	.263	.524	0.739	.396	.676	0.722	.533	.827	0.706	.528	.945	0.583	.385	.789	0.597	.246	.653	0.593	.121	.498	0.623	17
18	.188	.425	0.763	.300	.555	0.745	.436	.719	0.717	.574	.918	0.656	.573	.968	0.605	.433	.809	0.624	.294	.667	0.627	.173	.527	0.646	18
19	.227	.578	0.649	.346	.622	0.678	.484	.835	0.649	.624	.937	0.685	.624	.989	0.635	.466	.818	0.648	.351	.680	0.671	.237	.613	0.826	19
20	.282	.628	0.658	.406	.723	0.683	.546	.860	0.686	.688	.960	0.728	.692	875.010	0.682	.557	.780	0.777	.423	.609	0.818	.321	.437	0.884	20
21	.338	.668	0.623	.466	.762	0.703	.607	.878	0.709	.754	.918	0.836	.761	874.959	0.802	.627	.791	0.836	.496	.620	0.876	.401	.830	0.971	21
22	.403	.697	0.706	.532	.805	0.727	.678	.830	0.848	.830	.967	0.863	.840	.973	0.847	.703	.805	0.898	.572	.627	0.950	.485	.508	0.977	22
23	.478	.731	0.747	.607	.757	0.850	.756	.857	0.897	875.913	875.006	0.807	875.924	874.990	0.934	.782	.855	0.927	.652	.577	1.055	.576	.475	1.077	23
24	.565	.645	0.920	.689	.786	0.903	.838	.878	0.960	876.000	.074	0.926	876.012	875.019	0.993	.867	.821	1.046	.737	.641	1.076	.663	.556	1.107	24
25	.659	.650	1.009	.776	.815	0.961	875.925	.931	0.994	.042	.051	1.041	.104	.010	1.098	875.954	.902	1.052	.822	.758	1.064	.752	.629	1.123	25
26	.756	.767	1.009	.867	.806	1.041	876.017	.919	1.098	.168	.100	1.088	.200	.059	1.141	876.043	.973	1.070	.909	.837	1.072	.839	.716	1.123	26
27	.857	.732	1.125	875.961	.895	1.066	.111	.998	1.115	.285	.192	1.093	.294	.127	1.167	.131	875.046	1.071	875.995	.319	1.076	875.925	.799	1.126	27
28	875.963	.817	1.186	876.058	.973	1.085	.206	875.079	1.107	.381	.279	1.102	.387	.188	1.199	.220	.144	1.076	876.082	875.006	1.076	876.010	.878	1.132	28
29	876.069	.900	1.169	.156	875.062	1.096	.301	.200	1.101	.476	.328	1.098	.479	.201	1.218	.308	.235	1.073	.168	.091	1.077	.091	.959	1.132	29
30	.113	.988	1.185	.254	.157	1.097	.347	.308	1.087	.570	.459	1.111	.570	.338	1.232	.397	.310	1.087	.264	.169	1.085	.173	875.030	1.183	30
31	.274	875.097	1.177	.351	.258	1.093	.491	.419	1.072	.662	.529	1.133	.659	.425	1.234	.464	.638	1.086	.339	.255	1.084	.252	.112	1.140	31
32	.376	.189	1.187	.448	.356	1.096	.586	.500	1.086	.753	.608	1.145	.747	.509	1.238	.572	.667	1.123	.424	.337	1.085	.369	.201	1.128	32
33	.474	.293	1.178	.544	.438	1.106	.680	.581	1.099	.843	.693	1.150	.834	.602	1.232	.660	.622	1.138	.514	.430	1.086	.406	.289	1.117	33
34	.571	.385	1.186	.641	.528	1.117	.775	.664	1.091	876.932	.780	1.152	876.920	.700	1.220	.749	.610	1.139	.599	.532	1.067	.489	.481	1.008	34
35	.667	.479	1.188	.737	.630	1.107	.869	.777	1.090	877.019	.869	1.170	877.007	875.801	1.200	.840	.723	1.047	.691	.701	0.990	.574	.595	0.979	35
36	.780	.580	1.180	.834	.713	1.121	876.964	.829	1.085	.109	876.061	1.063	.097	876.029	1.068	876.935	.930	1.005	.786	.858	0.928	.682	.740	0.922	36
37	.858	.691	1.191	876.932	.832	1.095	877.062	876.078	0.968	.204	.177	1.027	.193	.176	1.017	877.036	876.091	0.945	.897	876.010	0.877	.759	876.003	0.756	37
38	.948	.868	1.080	877.035	876.039	0.996	.106	.226	0.960	.303	.368	0.955	.293	.368	0.925	.141	.250	0.891	876.945	.240	0.775	.867	.160	0.727	38
39	877.047	.939	1.048	.142	.208	0.936	.273	.378	0.895	.407	.520	0.887	.400	.520	0.860	.253	.679	0.778	877.111	.387	0.728	876.985	.288	0.697	39
40	.150	876.103	0.987	.254	.366	0.888	.386	.529	0.857	.521	.764	0.760	.517	.785	0.732	.375	.656	0.719	.535	.541	0.698	877.111	.133	0.678	40
41	.272	.347	0.905	.386	.619	0.767	.521	.786	0.735	.659	.937	0.722	.659	.968	0.695	.519	.831	0.688	.381	.700	0.681	.262	.592	0.670	41
42	.391	.664	0.727	.512	.793	0.719	.651	.956	0.697	.791	877.104	0.687	.792	877.126	0.666	.654	.912	0.742	.518	.781	0.737	.406	.619	0.787	42
43	.521	.838	0.685	.646	.960	0.686	.786	877.126	0.660	877.928	.216	0.718	877.933	.207	0.726	.796	877.057	0.739	.663	.934	0.729	.557	.771	0.786	43
44	.760	877.008	0.661	.786	877.138	0.648	877.929	.218	0.711	878.016	.369	0.727	878.084	.360	0.724	877.945	.205	0.780	.814	877.080	0.736	.716	.953	0.763	44
45	877.007	.169	0.638	877.958	.226	0.708	878.079	.380	0.699	.232	.509	0.723	.542	.509	0.733	878.101	.398	0.703	877.970	.158	0.812	877.876	877.008	0.868	45
46	877.167	.227	0.760	878.089	.391	0.698	.236	.537	0.697	.394	.668	0.726	.604	.696	0.710	.261	.666	0.795	878.129	.312	0.817	878.038	.150	0.888	46
47	878.125	.383	0.742	.250	.567	0.683	.390	.748	0.650	.561	.752	0.807	.571	.748	0.823	.422	.624	0.798	.290	.671	0.819	.201	.304	0.895	47
48	.196	.541	0.755	.416	.758	0.658	.565	.793	0.772	.730	.920	0.810	.739	.906	0.835	.586	.781	0.805	.451	.632	0.819	.363	.664	0.899	48
49	.471	.635	0.832	.586	.812	0.764	.733	.964	0.769	878.901	878.093	0.808	878.908	878.066	0.842	.749	.951	0.798	.612	.800	0.812	.522	.628	0.896	49
50	.549	.820	0.827	.767	.974	0.781	878.093	878.126	0.777	879.071	.269	0.802	879.075	.222	0.833	878.913	878.120	0.793	.774	.269	0.805	.680	.791	0.889	50
51	878.028	.937	0.891	878.929	878.163	0.786	879.073	.303	0.770	.240	.603	0.797	.241	.617	0.824	879.076	.275	0.781	878.934	878.181	0.773	.835	.746	0.871	51
52	879.008	878.166	0.842	879.102	.372	0.770	.244	.475	0.769	.408	.612	0.796	.406	.587	0.817	.239	.466	0.773	879.094	.310	0.784	878.969	878.169	0.840	52
53	.181	.348	0.833	.274	.499	0.775	.312	.552	0.760	.573	.786	0.787	.568	.759	0.809	.400	.634	0.766	.253	.688	0.765	879.140	.535	0.805	53
54	.355	.515	0.836	.445	.687	0.758	.582	.818	0.764	.738	.955	0.783	.729	.935	0.794	.562	.813	0.769	.413	.662	0.751	.290	.530	0.760	54
55	.527	.700	0.827	.616	.850	0.760	.757	.994	0.756	879.900	879.161	0.759	879.889	879.122	0.767	.725	.994	0.731	.578	.885	0.758	.440	.738	0.708	55
56	.697	.888	0.809	.787	879.035	0.752	879.919	879.171	0.748	880.061	.318	0.743	880.048	.310	0.738	879.867	879.179	0.708	.733	879.032	0.701	—			56
57	879.096	879.074	0.792	879.958	.228	0.735	880.087	.358	0.729	.224	.495	0.729	.207	.499	0.708	880.049	.369	0.680	—			—			57
58	880.032	.268	0.768	880.189	.417	0.712	.256	.547	0.709	.384	.677	0.687	—			—			—			—			58
59	.197	.457	0.760	.300	.615	0.685	—			—			—			—			—			—			59



CONSTRUCTION ELEVATIONS

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET NO. OF NO.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON – HAZARD
ROAD

STATION 2607+83 PROJECT NO. NP 97-162

BRIDGE NUMBER	SECTION NO.	DRAWING NO.	INDEX
EK 12-1-2	12	15204	

GENERAL NOTES

FED. HWY. SYST.	STATE	FED. AID PROJ. NO.	SHEET NO.	SHEETS IN SET
7	KY			

SPECIFICATIONS KENTUCKY DEPARTMENT OF HIGHWAYS, 1956 STANDARDS, WITH AMENDMENTS.

DESIGN LOADING H20-S16-44 LOADING AS SPECIFIED IN AASHO SPECIFICATIONS, 1961 EDITION, WITH MODIFICATION OF LIVE LOAD FOR THE NATIONAL SYSTEM OF INTERSTATE HIGHWAYS.

STRUCTURAL STEEL THE FOLLOWING ASTM DESIGNATIONS SHALL GOVERN THE MATERIALS FURNISHED:

ASTM SPECIFICATION	MATERIAL
A108-58T	PINS AND ROLLERS, 7" OR LESS IN DIAMETER (GRADE 1016 TO 1030 INCLUSIVE).
A7-58T	STRUCTURAL STEEL (BRACING, CROSS FRAMES, PIPE HANGERS, ANCHOR BOLTS AND BEARING PLATES).
A373-58T	STRUCTURAL STEEL (FLANGE AND WEB OF GIRDERS, STIFFENERS, WELDED SHOES AND EXPANSION DAMS).
A325-58T	HIGH STRENGTH BOLTS, NUTS AND WASHERS.
A307-58T	MACHINE BOLTS AND NUTS.
B29-55	LEAD PLATES - COMMERCIAL GRADE.
A72-59T	WROUGHT IRON PIPE.

IMPACT ALL SUPERSTRUCTURES ARE FOR NORMAL TRUCK-FLOW OF 60# PEDESTRIANS WITH FULL DEAD LOAD ON THE SUPERSTRUCTURE.

MILL TEST REPORTS SUPERVISOR, MILL TEST REPORTS, IN TRIPLICATE, SHALL BE FURNISHED THE ENGINEER OF BRIDGES, KENTUCKY DEPARTMENT OF HIGHWAYS, ENSURING THAT ALL STEEL MATERIALS FURNISHED CONFORM TO THE SPECIFICATIONS.

PAINT ALL STRUCTURAL STEEL SHALL BE GIVEN ONE SHOP COAT AND ONE FIELD COAT OF RED LEAD PAINT, TYPE I, AND TWO FIELD COATS OF ALUMINUM PAINT, IN ACCORDANCE WITH THESE SPECIFICATIONS, EXCEPT AS NOTED. PAINT SHALL NOT BE APPLIED WITHIN 3 INCHES OF OPEN HOLES OF FIELD CONNECTIONS WHERE HIGH STRENGTH BOLTS ARE USED TO MAKE SUCH CONNECTIONS. SURFACES IN CONTACT WITH CONCRETE (TOP OF BEAMS, TOP OF END DIAPHRAGMS AND BEAM CONNECTIONS) ARE NOT TO BE PAINTED, BUT SHALL BE GIVEN A COAT OF ASPHALTED LACQUER OR OTHER PROTECTIVE COATING. ALL EXPANSION DAM MATERIAL SHALL HAVE A SHOP COAT OF RED LEAD PAINT, TYPE I. ALL EXPOSED SURFACES REASSEMBLED AFTER ERECTION, SHALL BE GIVEN TWO COATS OF ALUMINUM PAINT EXCEPT CONTACT SURFACES. FIELD PAINTING OF DRAIN PIPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR EXPANSION DAMS. THE PAINTING OF STRUCTURAL STEEL AND DRAIN PIPES SHALL BE INCLUDED IN THE LUMP SUM COST OF STRUCTURAL STEEL. CLEANING OF WELD SPATTER FROM WELDED ASSEMBLIES IN ACCORDANCE WITH A.W.S. S1.3a, SHALL BE REQUIRED BEFORE ASSEMBLIES ARE SHOP PAINTED. SHOP PAINT SHALL NOT BE APPLIED WHERE FIELD WELDING IS TO BE DONE. AREAS NOT PAINTED IN THE SHOP, SHALL BE GIVEN ONE COAT OF RED LEAD PAINT, TYPE I, AS TOUCH-UP PRIOR TO APPLICATION OF THE FIELD COAT OF RED LEAD PAINT. INDIVIDUAL FIELD COATS SHALL BE TINTED TO FACILITATE INDICATE THE PROGRESS OF FIELD PAINTING.

SHOP ASSEMBLY AND REAMING GENERAL REAMING OF HOLES FOR EACH FIELD SPLICE SHALL BE REQUIRED WITH ALL PARTS FOR EACH SPLICE COMPLETELY SHOP ASSEMBLED WITH PARTS ADJUSTED TO LINES AND GRADES, FIT FOR REAMING AND REAMING. THIS APPLIES TO FIELD SPLICES IN GIRDERS ONLY. GIRDERS SHALL REMAIN ASSEMBLED FOR INSPECTION BY THE DEPARTMENT OF HIGHWAYS INSPECTOR AND SHALL BE MATCH-MARKED WHEN ASSEMBLED. OTHER FIELD CONNECTIONS SHALL BE DRILLED OR REAMED IN THE SHOP WITH CONNECTING PARTS ASSEMBLED, OR SHALL BE DRILLED OR REAMED TO A METAL TEMPLATE WITHOUT ASSEMBLY.

SHOP CONNECTIONS RIVETED OR BOLTED SHOP CONNECTIONS SHALL BE 7/8" DIAMETER RIVETS, OR 7/8" DIAMETER HIGH-STRENGTH BOLTS.

FIELD CONNECTIONS HIGH STRENGTH STEEL BOLTS IN ACCORDANCE WITH SECTION 5.2.3.a-5 (1) OF THE SPECIFICATIONS SHALL BE USED IN ALL FIELD CONNECTIONS, EXCEPT WHERE FIELD WELDING IS INDICATED. FIELD WELDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND WELDING PROCEDURES FOR FIELD WELDING SHALL BE SUBMITTED BY THE DIRECTOR TO THE DEPARTMENT OF HIGHWAYS FOR APPROVAL.

OPEN HOLES SHALL BE 15/16" DIAMETER FOR 7/8" DIAMETER HIGH STRENGTH BOLTS.

ASSEMBLY AND DIMENSIONS OF HIGH STRENGTH STEEL BOLTS, NUTS AND WASHERS SHALL CONFORM TO "SPECIFICATIONS FOR THE STRUCTURAL JOINTS USING ASTM A325 BOLTS", MARCH, 1960, APPROVED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS OF ENGINEERING FOUNDATION. ALL JOINTS ARE DESIGNED AS FRICTION TYPE CONNECTIONS. INSTALLATION SHALL BE PERFORMED BY USING THE TURN-OF-NUT METHOD.

WELDING WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, EDITION OF 1956, EXCEPT AS HEREINAFTER PROVIDED. NO DIRECT PAYMENT SHALL BE MADE FOR WELDING OR WELDING MATERIAL, BUT PRICE FOR SAME SHALL BE INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL. FILLET WELD SIZES NOT SHOWN ON THE PLANS SHALL BE AS KNOWN SIZES BASED ON THE THICKNESS OF MEMBERS TO BE CONNECTED, BUT NOT LESS THAN 1/4".

SHEAR CONNECTORS STUD SHEAR CONNECTORS, SPIRAL SHEAR CONNECTORS AND CHANNEL SHEAR CONNECTORS. STUD SHEAR CONNECTORS SHALL BE STUDS OF WELDABLE STEEL WITH A YIELD POINT OF 50,000 PSI AND ULTIMATE TENSILE STRENGTH OF 65,000 PSI. SPIRAL SHEAR CONNECTORS SHALL BE STRUCTURAL GRADE BILLET STEEL ASTM A-15 GRADE 60 SPECIFICATIONS. CHANNEL SHEAR CONNECTORS SHALL BE STRUCTURAL STEEL CONFORMING WITH ASTM A373-59T. SHEAR CONNECTORS SHALL BE FIELD OR SHOP WELDED TO THE TOPS OF THE BEAMS, AS SHOWN ON THE PLANS. SHOP WELDING REQUIRED FOR SHEAR CONNECTORS WILL BE INSPECTED, AS REQUIRED FOR STRUCTURAL STEEL. THE LUMP SUM PRICE BID SHALL INCLUDE SHEAR CONNECTORS WELDED, WELD MATERIAL, INSPECTION, TOOLS, LABOR, SHOP DRAWINGS, PATENT ROYALTIES, AND ALL INCIDENTALS NECESSARY TO PLACE SHEAR CONNECTORS AS SHOWN. BEFORE PLACING CONCRETE, ALL SURFACES (TOPS OF BEAMS, DIAPHRAGMS AND OTHER CONNECTIONS) ARE TO BE THOROUGHLY CLEANED OF ALL RUST, GREASE, AND FOREIGN MATTER. STUD SHEAR CONNECTORS SHALL BE WELDED WITH AN APPROVED TYPE OF WELDING EQUIPMENT.

SHOP DETAIL DRAWINGS THE CONTRACTOR SHALL SUBMIT SHOP DETAIL DRAWINGS OF ALL STRUCTURAL STEEL TO THE BRIDGE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THE SPECIFICATIONS. A SET OF LINEN TRACINGS OF APPROVED SHOP DETAILS SHALL REMAIN THE PROPERTY OF THE DEPARTMENT OF HIGHWAYS WHEN THE CONTRACT IS COMPLETED, AND BEFORE FINAL PAYMENT IS MADE. NO DIRECT PAYMENT SHALL BE MADE FOR RECORD DRAWINGS, BUT THE COST SHALL BE INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL. ANY MATERIAL ORDERED OR WORK DONE BY THE CONTRACTOR BEFORE THE SHOP DRAWINGS, INCLUDING THE WELDING PROCEDURES, ARE APPROVED SHALL BE AT HIS RISK. QUALIFICATION TESTS OF ALL WELDING PROCEDURES SHALL BE COMPLETED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER, PRIOR TO THE FINAL APPROVAL OF SHOP DRAWINGS AND THE START OF FABRICATION.

RADIOGRAPHIC TESTS TESTS FOR DISCONTINUITIES OF WELD IN GIRDERS SHALL BE MADE BY THE KENTUCKY DEPARTMENT OF HIGHWAYS, IN ACCORDANCE WITH ASTM E94-55T SPECIFICATIONS. THIS SERVICE IS TO BE AN INSPECTION OPERATION WHEREIN MATERIAL IS ACCEPTED OR REJECTED. ALL PARTS AND MATERIALS WHICH HAVE BEEN ACCEPTED SHOULD BE MARKED PERMANENTLY WHEN A CHARACTERISTIC IDENTIFYING SYMBOL WHICH WILL INDICATE TO SUBSEQUENT OR FINAL INSPECTORS, THE FACT OF X-RAY ACCEPTANCE. THIS SERVICE, INCLUDING RADIOGRAPHS, CUTTING AND PREPARATION, INTERPRETATIONS AND REPORTS SHALL BE ARRANGED BY THE KENTUCKY DEPARTMENT OF HIGHWAYS. ALL BUTT WELDS SHALL BE OF SATISFACTORY QUALITY, AS DETERMINED BY RADIOGRAPHIC INSPECTION.

THE METHOD OF INSPECTION SHALL BE ON THE FOLLOWING OUTLINE: FOR SHOP BUTT WELDS, RADIOGRAPHY SHALL BE USED IN CONJUNCTION WITH PROCEDURE QUALIFICATION TO INSURE THAT THE MATERIALS, MACHINES, METHODS AND WORKMEN BEING USED ARE PRODUCING WORK OF RADIOGRAPHIC QUALITY. EXCEPT FOR UNUSUAL CIRCUMSTANCES, NOT OVER 25% OF THE SHOP BUTT WELDS WILL BE RADIOGRAPHED, BUT 100% OF THE SHOP BUTT TENSION FLANGE WELDS ARE TO BE RADIOGRAPHED. RADIOGRAPHS SHALL BE MADE OF EACH WELDING OPERATORS WORK.

UNLESS SO DESIGNATED ON THE PLANS, NO RADIOGRAPHS WILL BE MADE OF THE SHOES, ROCKERS, ETC. THE CONTRACTOR (FABRICATOR) WILL REMOVE DEFECTIVE WELDING AND REPLACE IT WITH ACCEPTABLE WORK AS IS PROVIDED IN PARAGRAPH 706a OF THE AWS SPECIFICATIONS. SECTIONS OF BUTT WELDS, SHOWN BY RADIOGRAPHY TO HAVE ANY ONE OF THE FOLLOWING IMPERFECTIONS, SHALL BE REMOVED AND REPAIRED:

1. ANY KIND OF CRACK OR ZONE OF INCOMPLETE FUSION OR PENETRATION.
2. ANY ELONGATED SLAG INCLUSION WHICH HAS A DIMENSION GREATER THAN $1/3$" FOR T UP TO $3/4$", AND $1/3$ T FOR T FROM $3/4$" TO 2-$1/4$" WHERE T IS THE THICKNESS OF THE THINNER PLATE BEING WELDED.
3. ANY GROUP OF SLAG INCLUSIONS IN LINE HAVING AN AGGREGATE LENGTH GREATER THAN T IN LENGTH OF 12 T, UNLESS THE DISTANCE BETWEEN INCLUSIONS EXCEEDS 6 L, WHERE L IS THE LENGTH OF THE LONGEST IMPERFECTION IN THE GROUP.
4. POROSITY IN EXCESS OF THAT SHOWN BY PICTURE STANDARD AS DESIGNATED IN SECTION VIII OF THE ASME BOILER CODE, PARAGRAPH W651, SUPPLEMENT (W)(A). FOR RADIOGRAPHY OF FILLET WELDS, ANY SPECIES OF WELD SHOWN TO HAVE ANY OF THE FOLLOWING TYPES OF SUBSURFACE IMPERFECTIONS SHALL BE REMOVED AND REPAIRED:
   (a) ANY TYPE OF CRACK OR ZONE OF INCOMPLETE FUSION OR PENETRATION.
   (b) ANY ELONGATED SLAG INCLUSION WHICH HAS A DIMENSION GREATER THAN 2/3 T WHERE T IS THE THICKNESS OF THE THINNER PLATE BEING WELDED. ANY SUCH IMPERFECTION 1/4" OR LESS SHALL BE ACCEPTABLE FOR ANY PLATE THICKNESS.
   (c) POROSITY IS NOT A FACTOR IN WELDS SUBJECT TO THIS TYPE OF SPOT RADIOGRAPHY, EXCEPT AS NOTED FOR SURFACE POROSITY IN PARAGRAPH 509a OF THE AWS SPECIFICATIONS. IN ANY OF THE ABOVE RADIOGRAPHY THE DISCOVERY OF POOR WORKMANSHIP WILL REQUIRE THAT ADDITIONAL RADIOGRAPHS BE MADE OF EITHER THE AREA OF WORK SHOWING DEFECTS OR OTHER WORK DONE BY THE SAME OPERATOR WHOSE WORK IS NOT ACCEPTABLE.

FILLER METAL ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING OF A7 AND A373 STEELS UP TO AND INCLUDING 1-$1/4$" THICKNESS SHALL CONFORM TO THE REQUIREMENTS FOR GLASS E60 SERIES A.S.T.M. A233 DESIGNATION. FOR STEEL OVER 1-$1/4$" THICKNESS, LOW HYDROGEN ELECTRODES E7015, E7016 OR E7018 CONFORMING TO ASTM DESIGNATION A233 SHALL BE USED. FOR SUBMERGED ARC WELDING OF A7 AND A373 STEELS THE BARE WIRE ELECTRODES AND THE FLUXING MATERIALS, USED IN COMBINATION SHALL BE CAPABLE OF PRODUCING WELD METAL HAVING THE PROPERTIES LISTED IN AWS SPECIFICATION PARAGRAPH 303. THE REQUIREMENTS FOR E6045 AND E6015 ELECTRODES, CONTAINED IN PARAGRAPH 308b OF THE AWS SPECIFICATIONS, SHALL BE APPLICABLE TO ALL LOW HYDROGEN ELECTRODES. DRYING TIME MAY BE REDUCED TO ONE HOUR, IF HEATED FROM 600° to 800° F. FLUX USED FOR SUBMERGED ARC WELDING SHALL BE THOROUGHLY DRY AND KEPT FREE FROM CONTAMINATION FROM ALL FOREIGN MATERIALS. FLUX WHICH SHOWS EVIDENCE OF MOISTURE PICK UP SHALL BE DRIED BY HEATING TO ABOVE 300° F. FOR A MINIMUM OF TWO HOURS. FLUX WHICH HAS BEEN USED, BUT NOT FUSED, SHALL BE SCREENED BEFORE RE-USE. FLUX FUSED IN WELDING SHALL NOT BE RE-USED. THE ELECTRODES FOR MANUAL WELDING AND THE WIRE AND FLUX FOR SUBMERGED ARC WELDING SHALL BE SUBMITTED TO THE TESTS PRESCRIBED IN APPENDIX B OF THE AWS SPECIFICATIONS, PRIOR TO APPROVAL FOR USE. THE ENGINEER, AT HIS DISCRETION, MAY ACCEPT EVIDENCE OF PREVIOUS TESTING.

PREHEAT FOR SUBMERGED ARC WELDING OF STRUCTURAL CARBON STEEL, PREHEAT MAY BE REQUIRED AHEAD OF BOTH FILLET AND GROOVE WELDS.

WELDING PROCEDURE THE PROCEDURE OF WELDING TO BE FOLLOWED IN FABRICATION SHALL BE ESTABLISHED BY THE FABRICATOR IN ACCORDANCE WITH SECTION II(B)4a OF THE AWS SPECIFICATIONS. THE PROCEDURE SPECIFICATION SHALL BE SUBMITTED AS A PART OF THE SHOP DETAIL DRAWINGS, AND SHALL BE SUBMITTED TO THE DIRECTOR OF BRIDGES FOR APPROVAL. THE PROCEDURE SPECIFICATION SHALL OUTLINE THE WELDING SEQUENCE FOR EACH WELDED SHOP ASSEMBLY INCLUDING SHOES AND ROCKERS. THE PROCEDURE SPECIFICATION SHALL SPECIFY FOR EACH TYPE OF WELD, PREQUALIFIED OR OTHER, THE FOLLOWING: JOINT PREPARATION, FIT UP, ELECTRODE SPECIFICATION, ELECTRODE DIAMETER, WELDING POSITION, POLARITY, AMPERAGE, AND NUMBER OF PASSES, INDICATING ANY PROGRESSIVE CHANGE FROM ONE PASS TO THE NEXT IN THE SAME WELD, AND INDICATING THE MAXIMUM THICKNESS IN A WELDMENT LAYER. WHERE PREHEATING OF THE BASE METAL IS REQUIRED, IT SHALL BE INDICATED WITH THE WELD SYMBOL ON THE SHOP DETAIL DRAWINGS. EXTENSION BARS USED IN MAKING BUTT WELDS SHALL BE DETAILED ON THE SHOP DETAIL DRAWINGS. PROCEDURE SPECIFICATIONS SUBMITTED WHICH ARE NOT TAILORED TO SUIT THE PARTICULAR WORK TO BE FABRICATED SHALL NOT BE CONSIDERED AS FULFILLING THE REQUIREMENTS OF THE CONTRACT. A SUBMERGED ARC, SINGLE PASS FILLET WELD IN THE FLAT POSITION IS TO BE USED TO CONNECT THE FLANGE PLATES TO THE WEB PLATES. THE WELDING SEQUENCE OUTLINED IN THE PROCEDURE SPECIFICATION SHALL BE SUCH AS TO AVOID EXCESS DISTORTION AND SHRINKAGE STRESSES IN ACCORDANCE WITH SECTION 504 OF THE AWS SPECIFICATIONS. FOR WELDED PLATE GIRDERS, THE BROAD OUTLINE OF SEQUENCE SHALL BE AS FOLLOWS:

1. FLANGE BUTT WELD.
2. WEB BUTT WELD.
3. WEB TO FLANGE WELD.
4. STIFFENERS TO WEB WELD.
5. STIFFENER TO FLANGE WELD.

QUALIFICATION WELDING PROCEDURES AND WELDING OPERATORS SHALL BE QUALIFIED IN ACCORDANCE WITH SECTION SIX OF THE AWS SPECIFICATIONS TO THE SATISFACTION OF THE ENGINEER. PRIOR TO THE START OF ACTUAL WELDING OPERATIONS, THE INSPECTOR AND WELDING FOREMAN SHALL HOLD A CONFERENCE TO INSURE THAT ACCURACY HAS BEEN REACHED REGARDING REPAIRS OF THE PROCEDURE AND SEQUENCE OF WELDING TO BE FOLLOWED, THE STATUS OF QUALIFICATION OF THE WELDERS, AND APPROVAL OF ELECTRODES AND OTHER MATERIALS AND EQUIPMENT TO BE USED.

SHOP SPLICES ALL SHOP SPLICES IN FLANGE PLATES AND WEB PLATES SHALL BE MADE BEFORE WELDING FLANGE PLATES TO WEB PLATES. ALL SHOP PREPARED SPLICES SHALL BE SHOWN ON SHOP DRAWINGS.

ADDITIONAL FIELD SPLICES IF ADDITIONAL FIELD SPLICES ARE PERMITTED, THEY SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL BE INCLUDED IN THE "LUMP SUM BID" FOR STRUCTURAL STEEL.

SHOP WELDS EXTENSION BARS SHALL BE USED IN MAKING BUTT WELDS IN THE GIRDER FLANGES. SEE AASHO SECTION 505(1)(b)3.d FROM SUBMERGED ARC-PROCESS WELD. IN THE WELD, IN THE FLAT POSITION IS TO BE USED TO CONNECT FLANGE PLATES TO WEB PLATES.

AUTOMATIC WELDING PROCEDURE QUALIFICATION IN THE WELDING OF JOINTS DESIGNED AS STUDDED CARRYING MEMBERS, THE USE OF SEMI-AUTOMATIC (SQUIRT-GUN) WELDING WILL NOT BE ALLOWED. FOR AUTOMATIC WELDING PROCEDURE QUALIFICATION TO ESTABLISH THE CURRENT, VOLTAGE AND SPEED OF TRAVEL, TO BE USED TO OBTAIN THE QUALITY OF WORK REQUIRED AS TO APPEARANCE, SOUNDNESS, DUCTILITY, ETC., TEST SPECIMENS WILL BE REQUIRED PRIOR TO THE BEGINNING OF WORK FOR THE TYPES OF WELDS OUTLINED IN APPENDIX D, SECTION EIGHT OF THE AWS SPECIFICATIONS. UPON ACCEPTANCE BY THE INSPECTOR OF THE PROCEDURES USED, THE VALUES FOR VOLTAGE, CURRENT AND SPEED OF TRAVEL SHALL BE THE PROCEDURE SPECIFICATIONS, AND SHALL BE MAINTAINED WITHIN THE LIMITS AS SET UNDER SECTION 504g OF THE AWS SPECIFICATIONS. DEVIATION FROM THIS SHALL REQUIRE REQUALIFYING THE PROCEDURE.

JOINT PREPARATION DETAILS OF BUTT WELDED JOINTS, SHOWN ON THE DESIGN DRAWINGS, ARE TO BE USED WITH MANUAL WELDING. WHEN THE USE OF SUBMERGED ARC WELDING IS ANTICIPATED, THE WELDING PROCEDURE SHALL REFLECT THE CORRECT JOINT PREPARATION TO BE USED. IN ADDITION TO THE PROVISIONS OF PARAGRAPH 502c OF THE AWS SPECIFICATIONS, THE FOLLOWING WILL BE REQUIRED:

SHEARED PLATES, TO BE USED FOR WEBS OF BUILT-UP MEMBERS, SHALL BE ORDERED WITH SUFFICIENT ADDITIONAL WIDTH TO ALLOW FOR TRIMMING OF EDGES WHERE BEVEL-IN CHAMFER IS REQUIRED. PLATES WITH ROLLED EDGES SHALL BE TRIMMED.

UNIVERSAL MILL PLATES, TO BE USED FOR WEBS OF BUILT-UP MEMBERS SHALL BE ORDERED WITH SUFFICIENT ADDITIONAL WIDTH TO ALLOW FOR TRIMMING OF BOTH EDGES.

THE FAYING SURFACES OF THE WEB AND FLANGE PLATES AND THE ADJACENT SURFACES THAT ARE TO BE FILLET WELDED SHALL BE CLEANED BY GRINDING, PRIOR TO ASSEMBLY AND WELDING OF WEB TO FLANGE.

INSPECTION (a) GENERAL. INSPECTION OF WELDING TO CONTROL THE QUALITY OF WELDS AND WORKMANSHIP WILL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AWS STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN. THE INTENT OF THE INSPECTION IS TO ASSURE THE HIGHEST QUALITY OF WELDING AND WORKMANSHIP SO THAT, IN ADDITION TO VISUAL INSPECTION OF THE WELDING AND THE WELDS, RADIOGRAPHIC AND MAGNETIC PARTICLE INSPECTION OF THE WELDS WILL BE REQUIRED AS SPECIFIED HEREIN. THE RADIOGRAPHIC AND MAGNETIC PARTICLE INSPECTION WILL BE PERFORMED BY THE KENTUCKY DEPARTMENT OF HIGHWAYS WITH NO DIRECT COST TO THE CONTRACTOR, EXCEPT AS SPECIFIED IN SUB-ARTICLES (b) AND (c) BELOW.

(b) OBLIGATIONS OF CONTRACTOR. WHILE EVERY REASONABLE EFFORT WILL BE MADE TO FIT THE INSPECTION WORK TO THE SHOP FABRICATING SCHEDULE, THE CONTRACTOR SHALL COOPERATE WITH THE INSPECTOR TO ASSURE THAT ALL THE WORK MAY BE INSPECTED PROPERLY. THE CONTRACTOR SHALL NOT BE ENTITLED TO CLAIMS AGAINST THE STATE FOR EXTRA PAYMENT OR EXTENSION OF CONTRACT TIME DUE TO FABRICATING DELAYS RESULTING FROM THE INSPECTION WORK.

THE RESPONSIBILITY FOR INSURING ADEQUATE WORKMANSHIP AND TECHNIQUES WILL NOT BE UPON THE INSPECTOR ALONE. THE CONTRACTOR SHALL PROVIDE COMPETENT SUPERVISION AND VISUAL INSPECTION OF ALL WELDING THROUGH HIS OWN SHOP INSPECTORS, WHO SHALL HAVE NO DUTIES OTHER THAN INSPECTION. THE CONTRACTOR SHALL FURNISH POWER AND UTILITIES FOR OPERATING INSPECTION EQUIPMENT, SHALL PROVIDE SHOP SPACE FOR THE INSPECTION WORK, SHALL HANDLE THE MATERIAL AS NECESSARY AND SHALL ENFORCE THE REQUIRED SAFETY PRECAUTIONS FOR RADIOACTIVE EXPOSURE. NO EXTRA PAYMENT WILL BE MADE FOR SUCH INCIDENTALS AND THE COST THEREOF SHALL BE INCLUDED IN THE LUMP SUM BID FOR "STRUCTURAL STEEL".

(c) RADIOGRAPHIC INSPECTION BY THE STATE. THE PROPER AND ADEQUATE PROCEDURE FOR IDENTIFYING BOTH THE STEEL BEING WELDED AND THE OPERATOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE APPROVED BY THE ENGINEER. RADIOGRAPHIC FILMS OF DEFECTIVE WELDING WILL BE SHOWN TO THE CONTRACTOR WITH THE INSPECTOR'S INTERPRETATION. THE CONTRACTOR SHALL SIGN AND DATE EACH REPORT TO ACKNOWLEDGE THE REQUIRED WELDING REPAIRS. IN THE EVENT THE CONTRACTOR QUESTIONS THE INSPECTOR'S INTERPRETATION OF RADIOGRAPHIC FILM, THEY SHALL REVIEW THE FILM TOGETHER AND THE INSPECTOR'S INTERPRETATION WILL BE FINAL.

SUBSEQUENT TO THE ASSEMBLY OF THE STEEL INTO FINAL MEMBERS OR PIECES, THE INSPECTOR WILL BE REQUIRED TO FURNISH THE ENGINEER A COMPLETE INDEX PROPERLY IDENTIFYING THE RADIOGRAPHIC FILM OR FILMS, REPORT, MEMBER, WELD, WELDER OR WELDING OPERATOR, AND THE FINAL MARK OF THE PIECE OR MEMBER AND ITS LOCATION IN THE STRUCTURE. THE CONTRACTOR SHALL FURNISH TO THE INSPECTOR ASSEMBLY MARKS FOR EACH MEMBER WHICH WILL GIVE THE FINAL LOCATION OF EACH WELD.

IF THE RADIOGRAPHIC INSPECTION DISCLOSES DEFECTIVE WELDS, THE DEFECTIVE MATERIAL SHALL BE REMOVED AND THE PIECE REWELDED. AFTER REPAIRS ARE MADE, ADDITIONAL RADIOGRAPHS OF THE REPAIRED WELD SHALL BE MADE AND REPORTED AS NOTED ABOVE. IF THE RADIOGRAPHIC INSPECTION OF THE REPAIRED WELD DISCLOSES FURTHER DEFECTIVE WELDS, THE OPERATIONS OF REPAIRING AND RADIOGRAPHIC INSPECTING SHALL CONTINUE UNTIL THE REPAIRED MATERIAL MEETS THE APPROVAL OF THE INSPECTOR OR IS FINALLY REJECTED. THE CONTRACTOR SHALL BE CHARGED SIX DOLLARS ($6.00) EACH EXPOSURE FOR ANY AND ALL RADIOGRAPHS REQUIRED BY REASON OF REPAIR WORK AND SUCH CHARGES WILL BE DEDUCTED BY THE DEPARTMENT OF HIGHWAYS FROM ANY PAYMENT OR PAYMENTS DUE FOR THE CONTRACT.

FABRICATION TOLERANCES FABRICATION TOLERANCES FOR WELDED SHOP FABRICATED MEMBERS SHALL BE LIMITED TO THE TOLERANCES OUTLINED IN SECTION 507 OF THE AWS SPECIFICATIONS.

SURFACE FINISH OF STEEL - SPECIFICATIONS

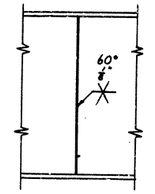
STEEL SLABS	ASA 2000
HEAVY PLATES IN CONTACT IN SHOES TO BE WELDED	ASA 1000
MILLED ENDS OF COMPRESSION MEMBERS AND BRIDGE STIFFENERS	ASA 500
BRIDGE ROLLERS AND ROCKERS	ASA 250
PINS AND PIN HOLES	ASA 125

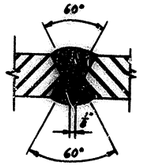
MAGNETIC PARTICLE INSPECTION OF FILLET WELDS WEB-TO-FLANGE FILLETS IN MAIN GIRDERS AND FRAMES SHALL BE INSPECTED BY THE DRY POWDER MAGNETIC PARTICLE INSPECTION METHOD, IN ACCORDANCE WITH A.S.T.M. SPECIFICATION E109-57T. THIS INSPECTION SHALL BE CONDUCTED BY THE KENTUCKY DEPARTMENT OF HIGHWAYS INSPECTOR, WHO SHALL ACCEPT OR REJECT THE WELD. THE INSPECTOR SHALL DEMONSTRATE TO THE FABRICATORS THE PERFORMANCE AND SENSITIVITY OF THE EQUIPMENT AND THE INSPECTING PERSONNEL ON STANDARD PREPARED SPECIMENS WHICH SHALL ILLUSTRATE THE FOLLOWING TYPES OF DEFECTS:

1. SURFACE OR SUBSURFACE CRACKING.
2. LACK OF PENETRATION.
3. INCOMPLETE FUSION.
4. SLAG INCLUSION.
5. POROSITY.

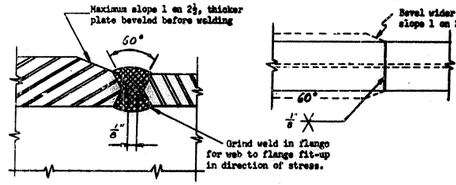
THE DEMONSTRATED PERFORMANCE OF THE INSPECTION TECHNIQUE ON THE STANDARD DEFECTIVE SPECIMENS SHALL BE THE BASIS OF ACCEPTANCE OR REJECTION OF THE WELD. ANY SECTION OF FILLET WELD SHOWN TO HAVE THE ABOVE TYPES OF IMPERFECTIONS SHALL BE REMOVED AND REPAIRED, EXCEPT THAT POROSITY AND SLAG INCLUSIONS, HAVING A DIMENSION OF $1/4$" OR LESS, OR 2/3 T OR LESS, WHERE T IS THE THICKNESS OF THE THINNER PLATE BEING WELDED, WILL BE ACCEPTABLE.

THE INSPECTOR SHALL SCHEDULE AND PERFORM HIS WORK IN SUCH A MANNER AS TO KEEP INTERFERENCE WITH REGULAR FABRICATION OPERATIONS TO A MINIMUM. THE FABRICATOR SHALL PROVIDE AN ADEQUATE SOURCE OF ELECTRICAL CURRENT TO THE INSPECTOR, AND FURNISH THE CURRENT REQUIRED TO CONDUCT THE INSPECTION. A MINIMUM OF 50% OF THE LINEAR FEET OF WEB-TO-FLANGE FILLETS IN MAIN GIRDERS AND FRAMES SHALL BE TESTED BY THE MAGNETIC PARTICLE INSPECTION METHOD. WELD DEFECTS DISCLOSED BY MAGNETIC PARTICLE INSPECTION SHALL BE REPAIRED OR REPLACED AND THE REPAIRED SECTION REINSPECTED BY THE MAGNETIC PARTICLE METHOD.

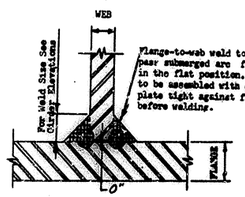




SHOP WEB SPLICE



SHOP FLANGE SPLICE



NOTE: JOINT PREPARATIONS SHOWN FOR SHOP SPLICES ARE FOR MANUAL SHIELDED METAL-ARC WELDING. SHOP DETAILS ARE TO SHOW PROPER JOINT PREPARATION IF SUBMERGED ARC WELDING IS USED.

FLANGE TO WEB WELD

SUBMERGED-ARC JOINT PREPARATION AWS 221-AS

BRIDGE OVER N. FK. KY. RIVER & KY. 80 SHEET 11 OF 19

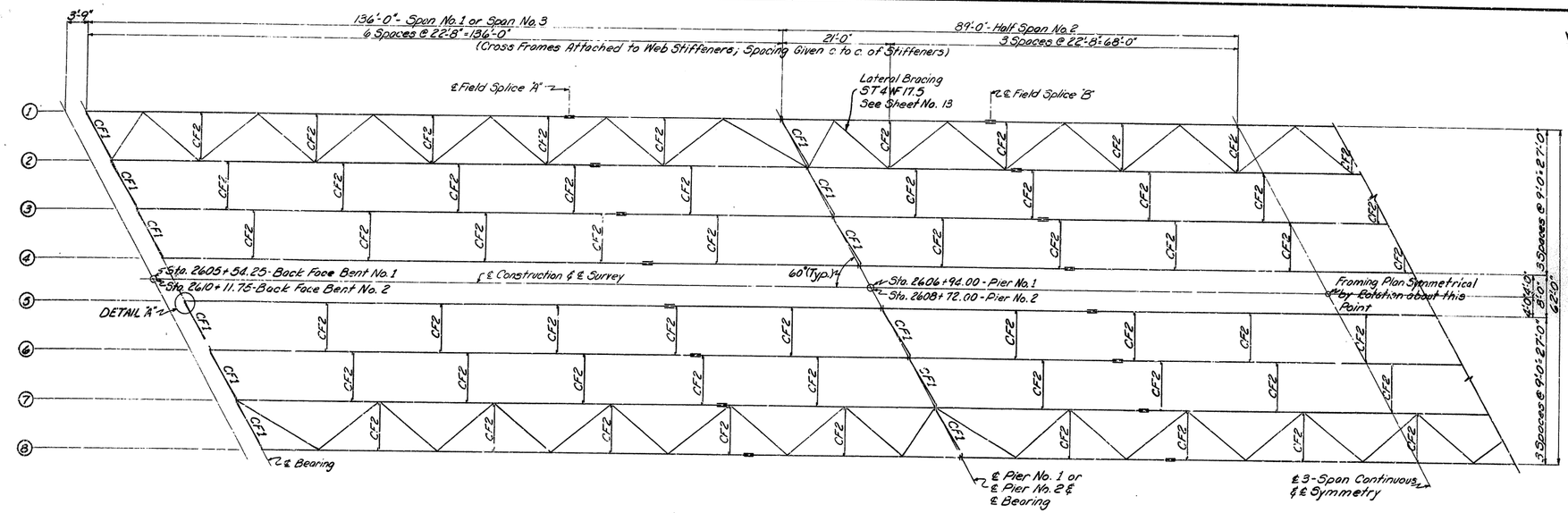
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY
CAMPTON-HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-102-141

BRIDGE NUMBER	SECTION NO	DRAWING	NOTES
EK 12-1-2	12	- 15204	

STRUCTURAL STEEL

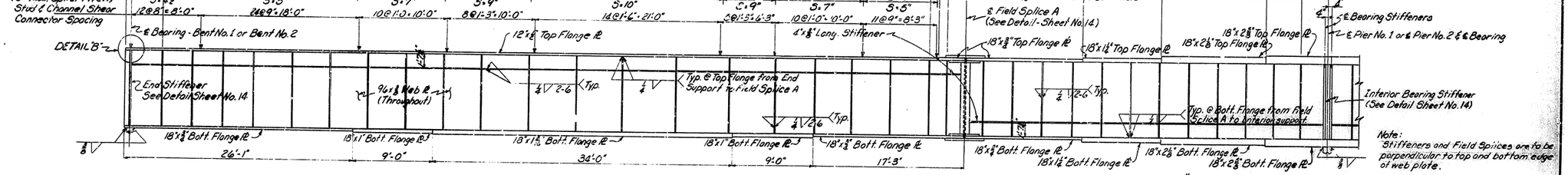
FED. ROAD DIST.	STATE	PROJ. NO.	FEDERAL AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	KY.				



FRAMING PLAN

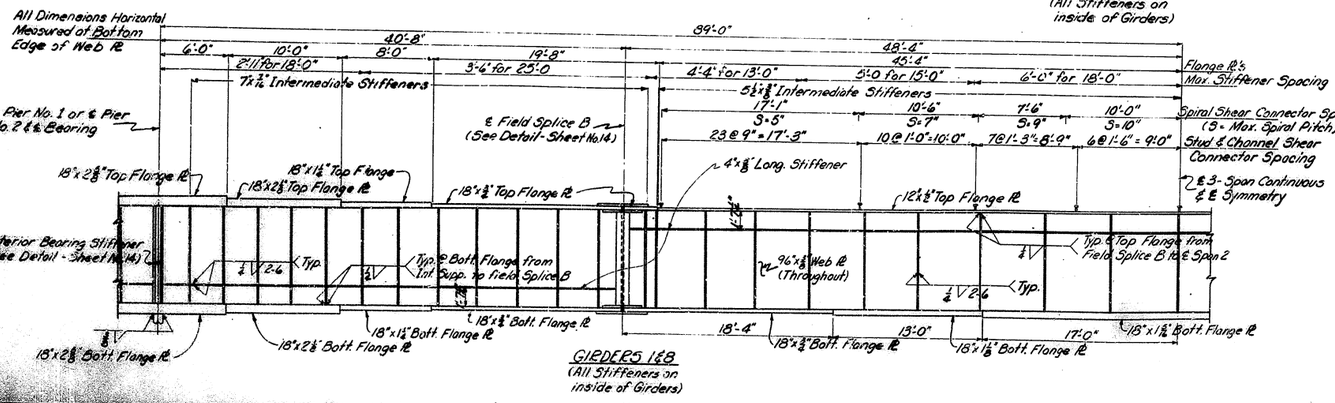
Note:
Girders shall be adequately supported in the lateral direction at all times.

Erection Note:
Girders shall be supported in the lateral direction during erection preferably by erecting the girders in pairs.

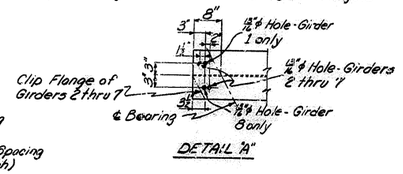


Note:
Stiffeners and Field Splices are to be perpendicular to top and bottom edge of web plate.

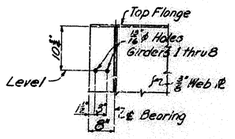
GIRDERS 1 & 8
(All Stiffeners on inside of Girders)



GIRDERS 1 & 8
(All Stiffeners on inside of Girders)



DETAIL "A"



DETAIL "B"

FLANGE TO WEB MIN. WELD SIZES	
Flange ℞ Thickness	Fillet Weld Size
⅜" to ½"	¼"
over ½"	⅜"
Fillet Welds to be Continuous	

Work this sheet with Sheets No. 11, 13 & 14.

BRIDGE OVER NORTH FORK KENTUCKY R. CR 8 KENTUCKY RD SHEET / OF 14

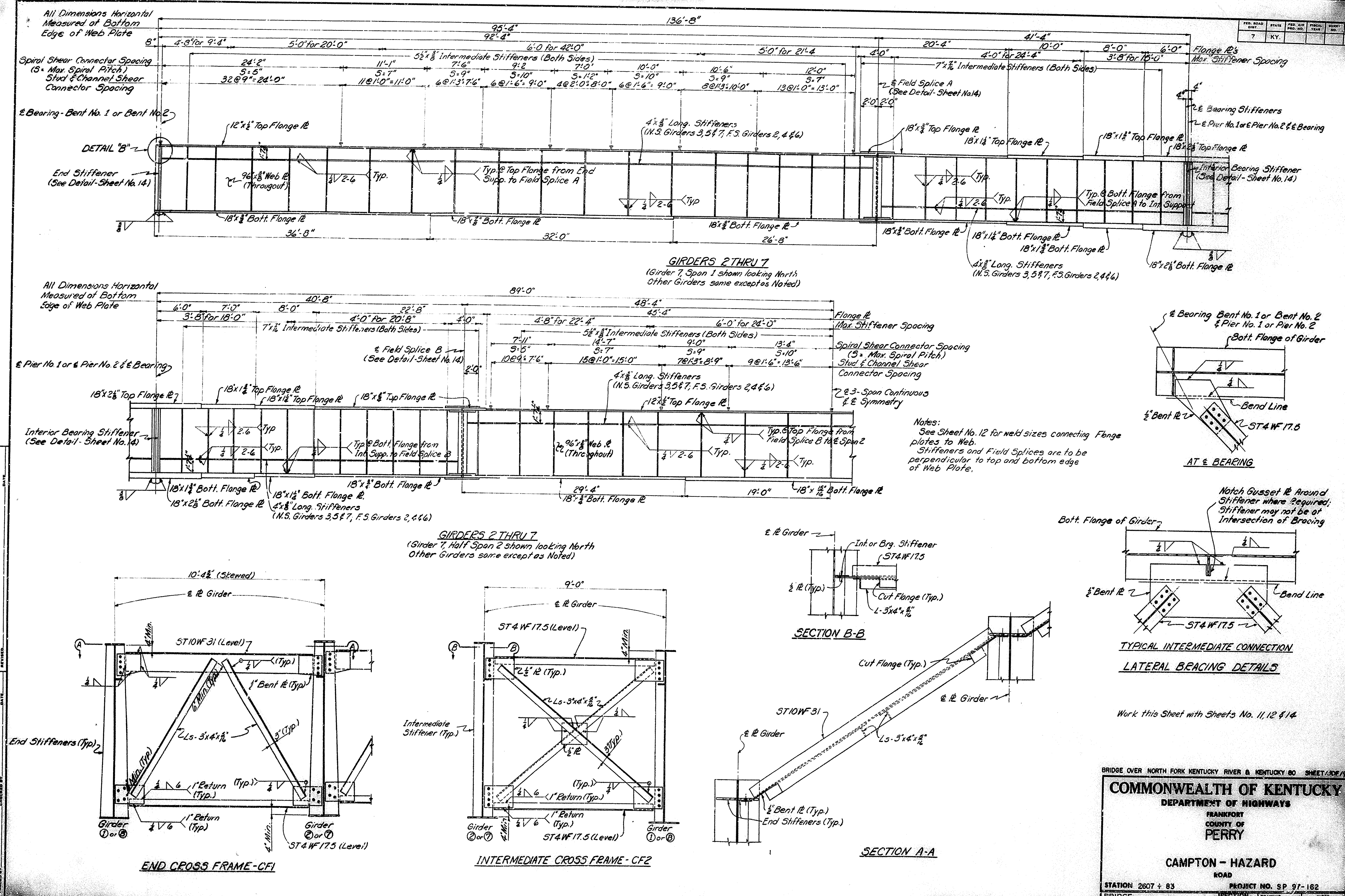
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TRANSPORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. S-P 97-162

BRIDGE NUMBER	SECTION NO.	
E.K 12-1-2	12	15204

STRUCTURAL STEEL



BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 13 OF 19

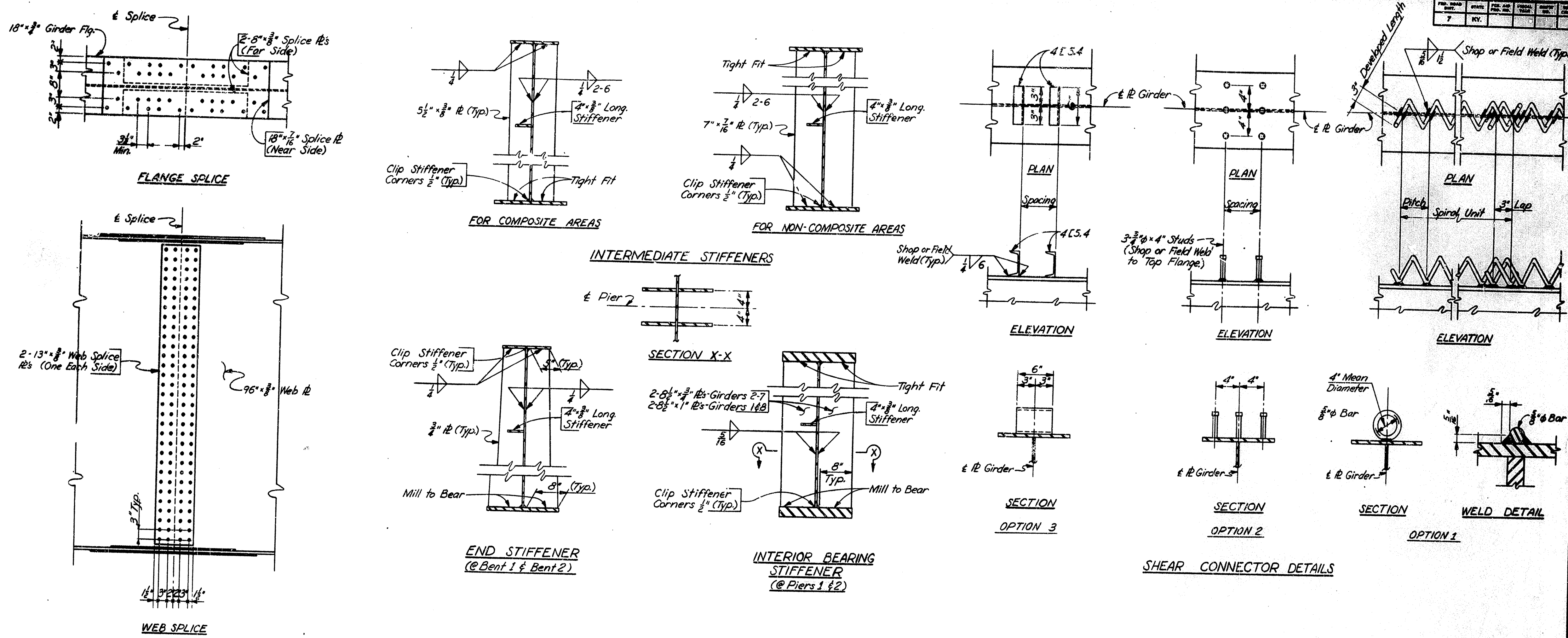
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607 + 83 — PROJECT NO. SP 97-162

BRIDGE NUMBER EK 12-1-2 | SECTION NO. 12 | DRAWING NO. 15204

STRUCTURAL STEEL



FIELD SPLICE DETAILS

NOTE: Use 15/16"φ Holes with ⅞"φ High Strength Steel Bolts.

CAMBER

No Camber

For Construction Elevations see Sheet Nº 10.

Work this sheet with Sheets Nº 11 thru 13

ESTIMATE OF QUANTITIES

** Structural Steel	1,144,640 Lbs.
Lead Plates	825 Lbs.
Wrought Iron Plates	7,820 Lbs
TOTAL	1,153,285 Lbs
Shear Connectors	Lump Sum

* NOTE: For purposes of payment the lump sum item "Structural Steel" includes the structural steel, lead plates, wrought iron plates, lead for anchor bolt packing and Drain Castings.

** Includes allowance for overrun of web plates but does not include weld material. Also includes weight of Bearings and Expansion Dam.

STRUCTURAL STEEL

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KY. 80 SHEET 14 OF 19

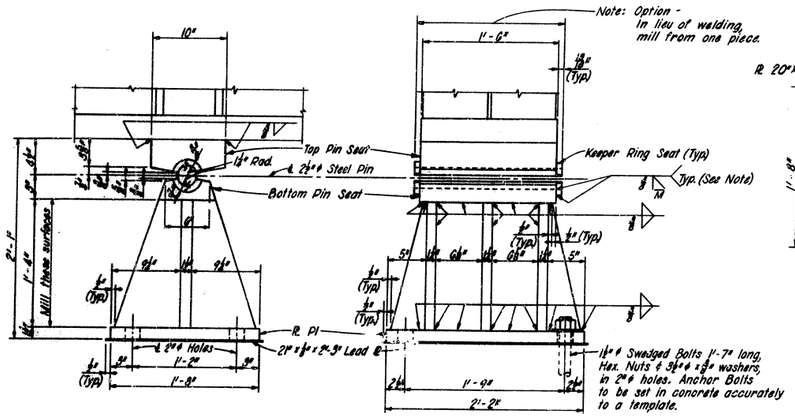
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-152

BRIDGE NUMBER EK 12-1-2 | SECTION NO. 12 | DRAWING NO. 15204

Designed by RAB Drawn by [illegible] Date 7-8-60 Checked by [illegible] Date 8-3-60



F-1 AT PIER 2
Capacity 252 Tons

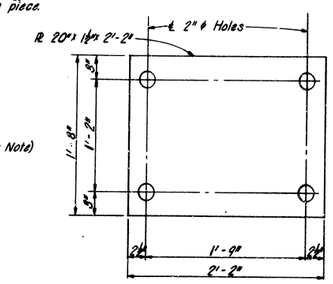
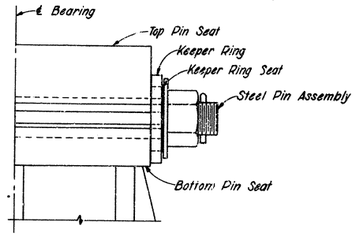
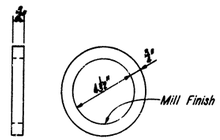


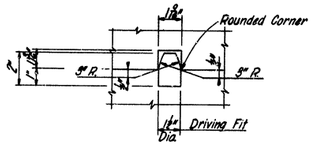
PLATE PI



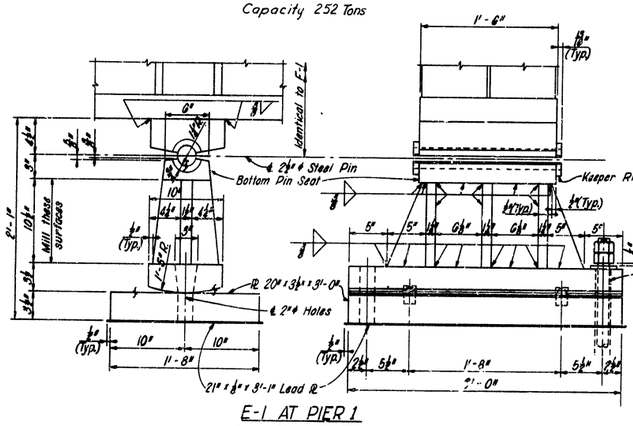
ASSEMBLY SHOWING STEEL PIN AND KEEPER RING IN PLACE



KEEPER RING DETAIL

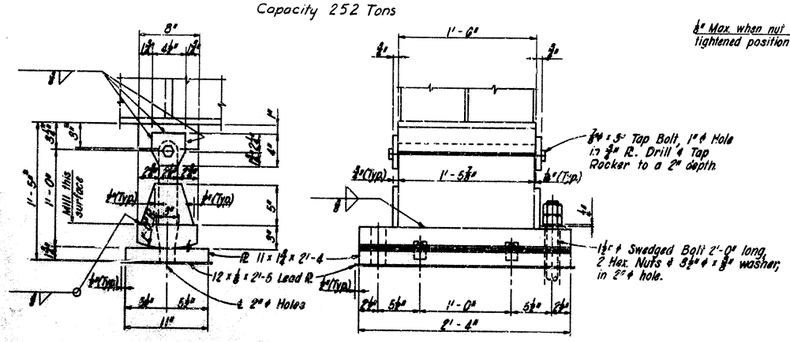


PINTLE AND RECESS DETAIL

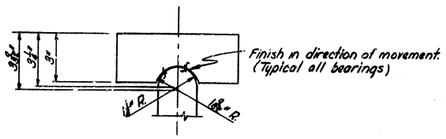


E-1 AT PIER 1
Capacity 252 Tons

STEEL PIN ASSEMBLY



E-2 AT BENT 1 AND BENT 2
*Increase these Dimensions ⅜" @ Girder 1 Bent No. 1, ⅜" @ Girder 5 Bent No. 2 and ¼" @ Girder 6 Bent No. 2.
Capacity 82 Tons



TOP BEARING DETAIL FOR E-2

Finished surfaces of structural steel pins and pin bearing surfaces in steel shoes shall be coated with white lead and tallow in accordance with current specifications with amendments.
Plates must be true and free of warp.
For General Notes see Sheet 11.
For Anchor Bolt settings see Sheet 18.
Weight of Bearings included in Structural Steel weight shown on Sheet 14.

BEARINGS

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KY. 80 SHEET 15 OF 19

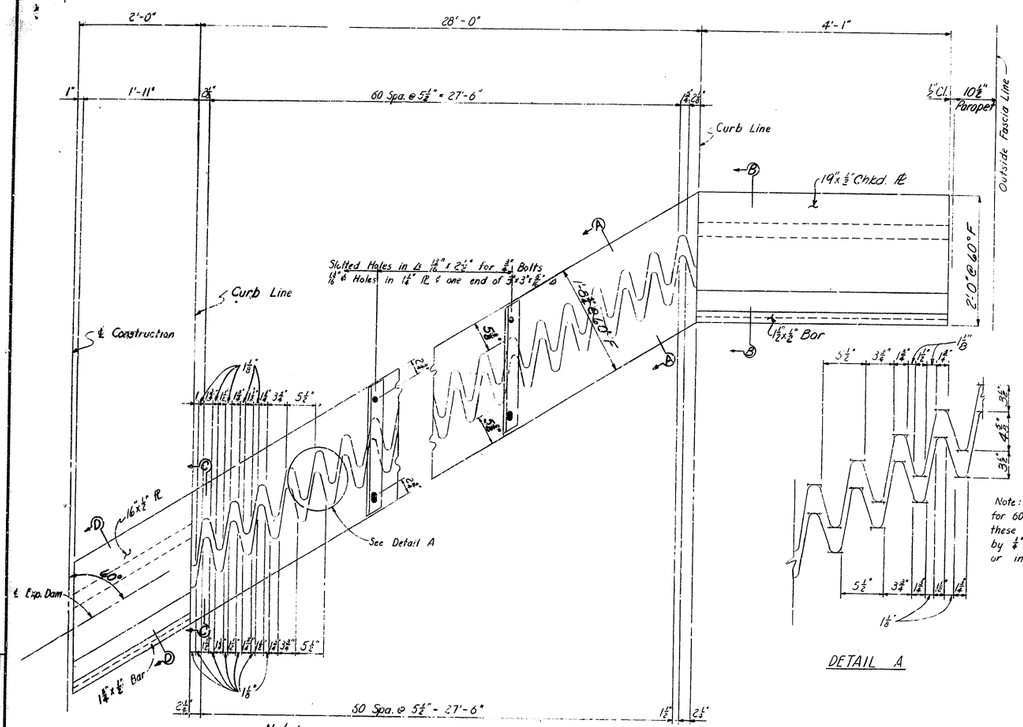
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TRANSPORT
COUNTY OF
PERRY

CAMPTON – HAZARD
ROAD

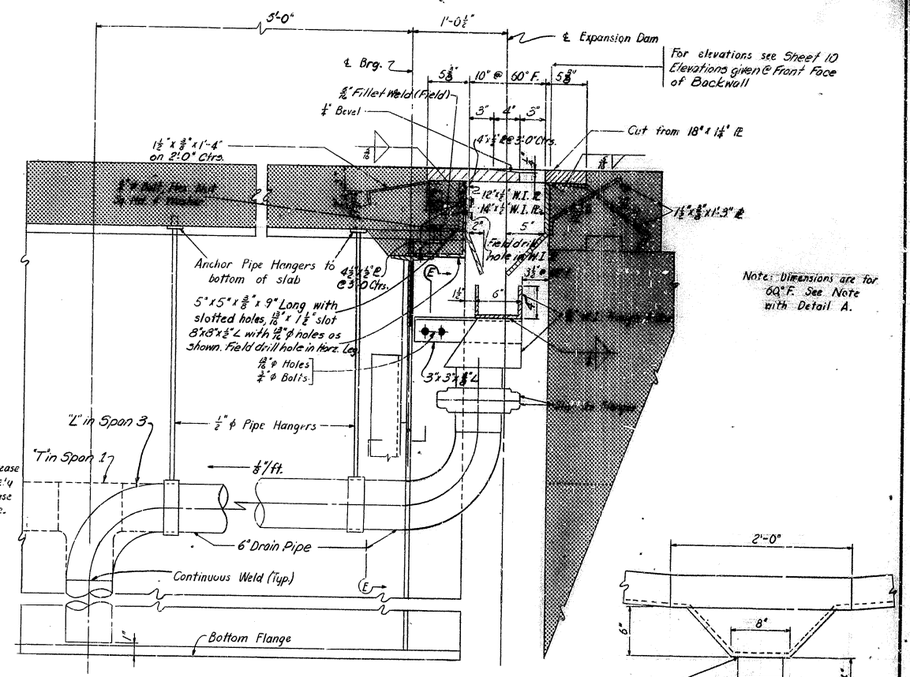
STATION 2607+83 PROJECT NO. SP 97-162

BRIDGE NUMBER EK 12-1-2 SECTION NO. 12 CONTRACT NO. 15204

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



Note: Dimensions shown for 60°F. Increase or decrease these dimensions respectively by ¼" for every 10° decrease or increase in temperature.



NOTES:

Material

All expansion dam material and wrought iron shall conform to current requirements of A.S.T.M. Specifications. See Sheet Nº 11 for A.S.T.M. Specifications. Contact surfaces of all plates shall have a smooth surface. Plates must be true and free from warp. Wrought iron plates to be bent at right angles to the direction of rolling, or welded.

Wrought iron pipe is to be 6"ϕ Standard Weight 19.0 lb. per linear foot in accordance with current A.S.T.M. Specifications. See Sheet Nº 11. Continuous weld pipe is to be 6"ϕ Standard Weight containing a minimum of .75% Copper and 1.5% Nickel and having a minimum tensile strength of 50,000 psi.

Mill Test Report

Notarized statements in triplicate shall be furnished the Department of Highways showing that all structural steel meets specifications.

Shop Plans

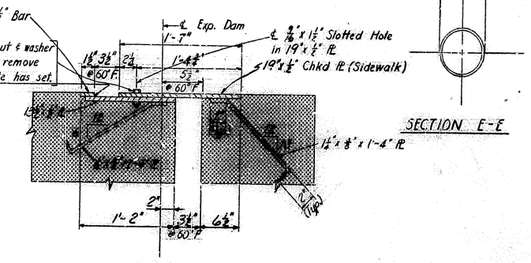
The Contractor shall furnish the Department of Highways with complete shop detail plans for approval.

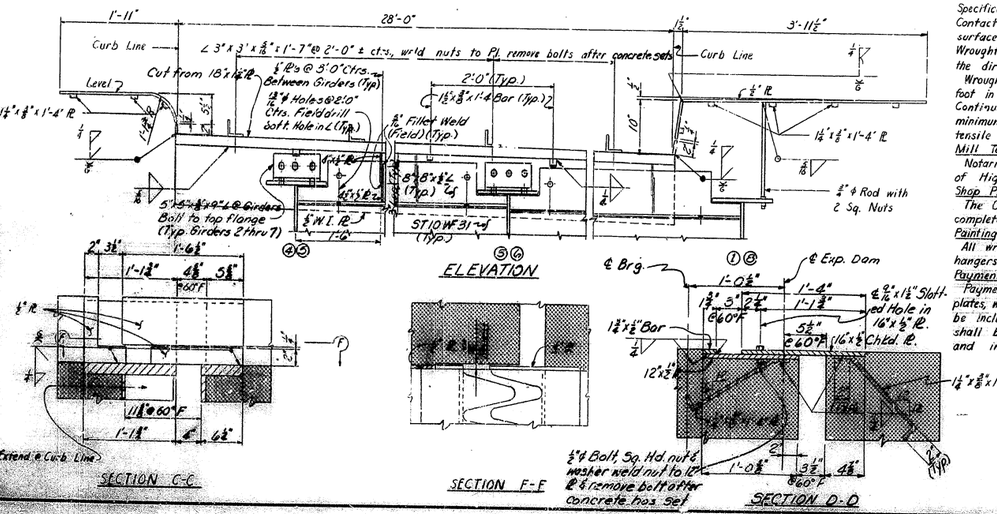
Painting

All wrought iron plates, pipes, fittings, connections and brackets, and pipe hangers shall be given some paint as expansion dam. See Sheet Nº 11.

Payment

Payment for all expansion dam material, nuts and bolts, wrought iron plates, wrought iron pipe, fittings, connections, brackets and pipe hangers, shall be included in Lump Sum Price for Structural Steel. Such payment shall be complete compensation for all materials, equipment, tools, labor, and incidentals to complete the work.





EXPANSION DAMS

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 6 OF 12

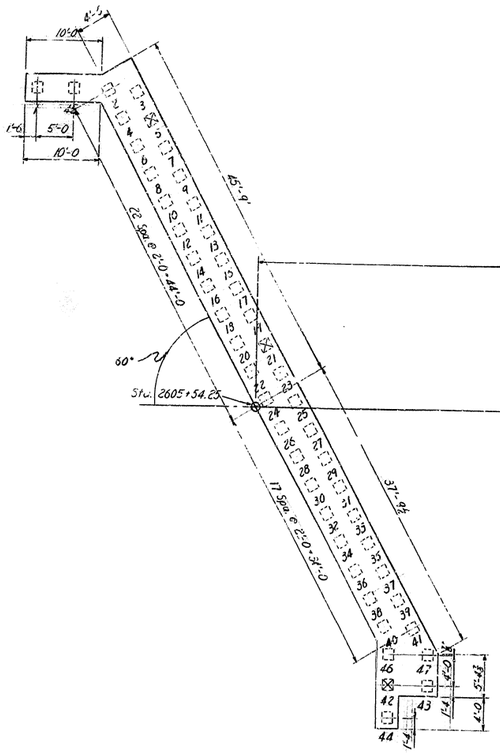
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TRANSPORT
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607 + 83 PROJECT NO. SP 97-L62

BRIDGE NUMBER	SECTION NO.	DRAWING NO.	SHEET NO.
EK 12-1-2	12	15204	

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	PROJECT GROUP	SHEET NO.	TOTAL SHEETS
7	KY.				



BENT 1

BENT 2

BENT 1				
PILE NO.	Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place	Calculated Bearing Capacity-Tons
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
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33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				

BENT 2				
PILE NO.	Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place	Calculated Bearing Capacity-Tons
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
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42				
43				
44				
45				
46				
47				

Note- This pile record does not replace other records of piles required to be kept and submitted by the Resident Engineer. After all piles have been driven, the Resident Engineer shall record the tip-of-pile elevation as driven, the length of pile in place and the calculated bearing capacity of each pile; and shall return one blueprint copy of this sheet to the Director of Bridges so that the data may be recorded on the original plans. Lengths of piles in place shown hereon are the actual lengths of piles in the finished structure below the cutoff elevation and are not necessarily pay items.

⊠ Indicates Test Pile Location

PILE RECORD

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	DATE
REVISED	DATE				
REVISED	DATE				

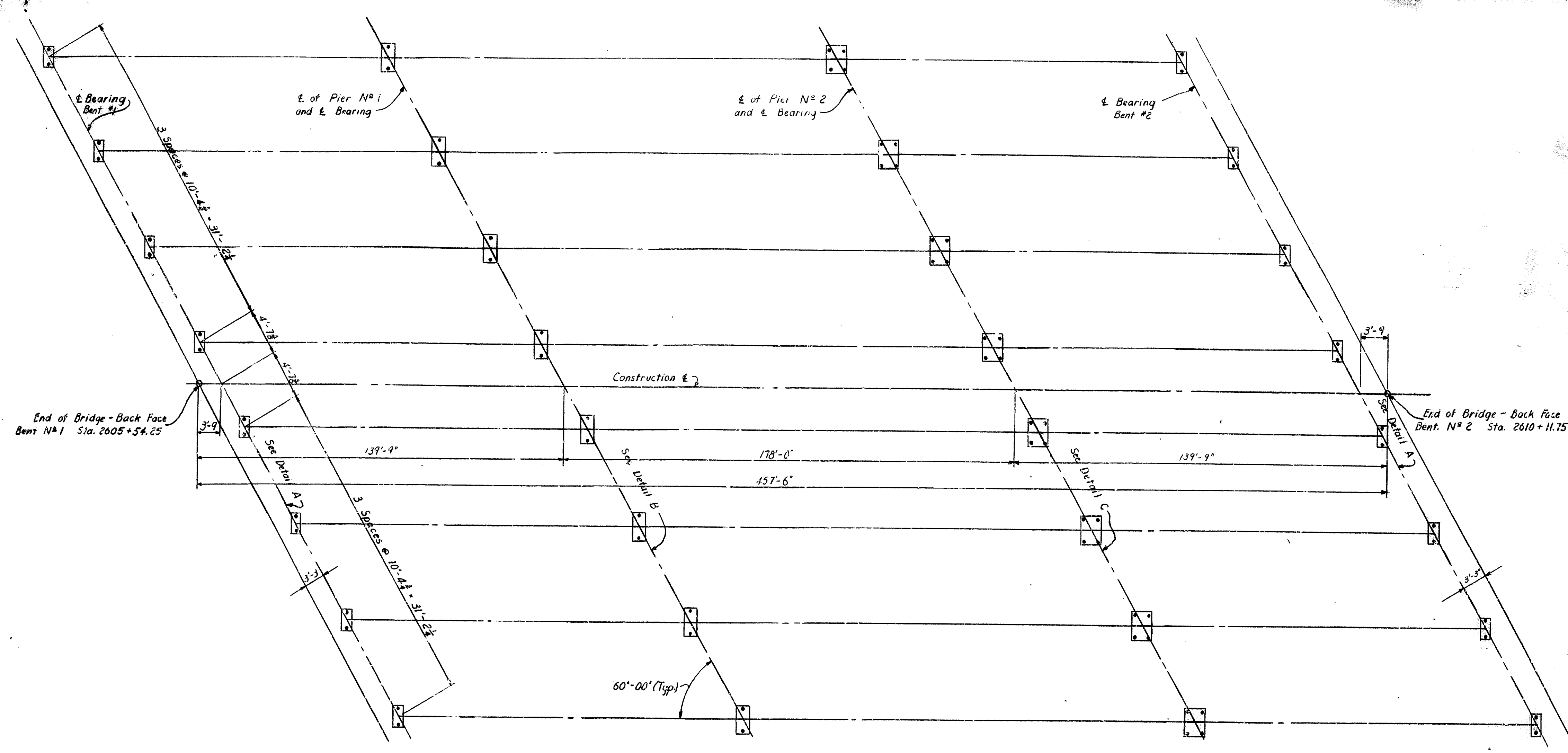
BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY 80 SHEET 7 OF 12

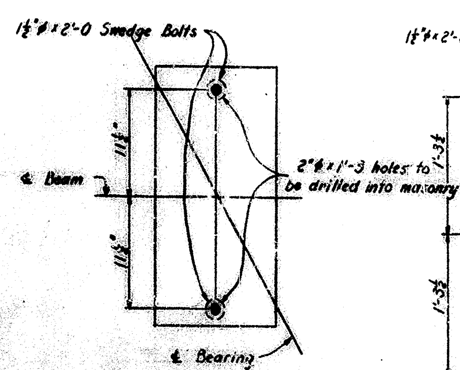
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
PERRY

CAMPTON – HAZARD
ROAD

STATION 2607+83 PROJECT NO. SP 97-182

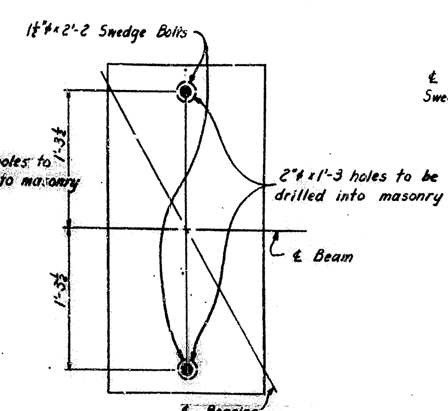
BRIDGE NUMBER	SECTION NO.	DRAWING NO.	SHEET
EK 12-1-2	12	15204	





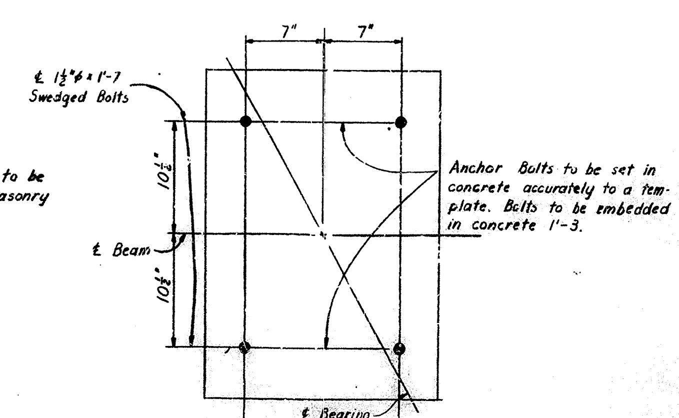
DETAIL A

Exp. Shoe Assembly "E-2" - See Sh. # 15



DETAIL B

Ex. Shoe Assembly "E-1" - See Sh. # 15



DETAIL C

Fix Shoe Assembly "F-1" - See Sh. # 15

Anchor Bolts for "Fixed Shoe Assembly F-1" are to be set in concrete accurately to a template. Holes for "Exp. Shoe Assemblies 'E-1' & 'E-2'" shall be drilled as shown for anchor bolts or dowels by the Superstructure Contractor who shall be responsible for keeping holes dry in freezing weather. After base plates are properly set and anchor bolts are placed in drilled holes, molten lead shall be poured in holes and packed until holes are completely filled flush to top of base plates. At the time of setting, anchor bolts are to be heated to a blue heat to assure free flow of lead to the bottoms of anchor bolt holes. The cost of drilling anchor bolt holes, furnishing lead, and filling holes with molten lead shall be incidental to and included in the lump sum bid for structural steel.

ANCHOR BOLT PLAN

COMMONWEALTH OF KENTUCKY

PERRY

CAMPTON - HAZARD

BRIDGE NUMBER EK 12-1-2

12

-15204

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

2606 2607 2608 2609 2610

T.B. No. 1 · T.B. No. 2 · T.B. No. 3 · T.B. No. 4 · T.B. No. 5 · T.B. No. 6 · T.B. No. 7 · T.B. No. 8

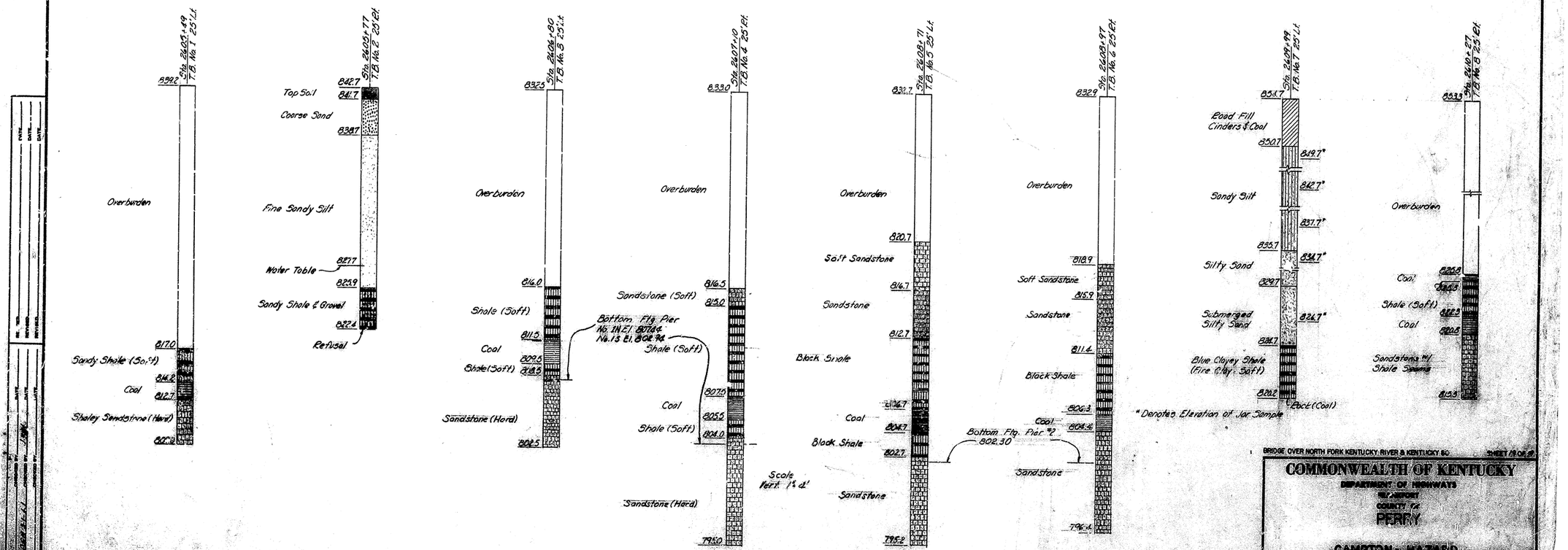
To JACKSON

Survey ℄ 7

To HAZARD

BENT NO. 1 · PIER NO. 1 · PIER NO. 2 · BENT NO. 2

PLAN
Scale: 1"=20'



LOG OF SOUNDINGS

BRIDGE OVER NORTH FORK KENTUCKY RIVER & KENTUCKY RR SHEET 7 OF 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
RE-ROUTE
COUNTY OF
PERRY

CAMPTON - HAZARD
ROAD

STATION 2607+33 PROJECT NO. FBD7-168

BRIDGE NUMBER	SECTION	
BK 12-1-2	12	11304