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

KENTUCKY DEPARTMENT OF HIGHWAYS
CENTRAL KENTUCKY PARKWAY
C.K.P. OVER CHAPLIN RIVER
NELSON-WASHINGTON COUNTIES

REFERENCE AND ESTIMATE OF QUANTITIES - WESTBOUND BRIDGE

ITEM / LOCATION	SHEET NO.	CLASS "A" CONCRETE Cu. Yd.	REINF. STEEL Lb.	STRUCTURE EXCAVATION Cu. Yd. Common	STRUCTURE EXCAVATION Cu. Yd. S. Rock	STANDARD ALUMINUM HANDRAIL Lin. Ft.	ELECTRICAL CONDUIT LUMP SUM BID ③	STRUCTURAL STEEL ① LUMP SUM BID	SHEAR CONNECTORS LUMP SUM BID ②	12BP53 STEEL PILES ALTERNATE 'A' Lin. Ft. FURNISH	12BP53 STEEL PILES ALTERNATE 'A' Lin. Ft. DRIVE	14" RC PRECAST PILES ALTERNATE B Lin. Ft. FURNISH	14" RC PRECAST PILES ALTERNATE B Lin. Ft. DRIVE	6" WROUGHT IRON PIPE Lin. Ft.	DRY CYCLOPEAN STONE RIPRAP Sq. Yd.
QUANTITIES & NOTES	1														
LAYOUT	2														
SOUNDINGS	3														
PILE RECORD	4														
END BENT 1W	5&6	87.2	10,706							650	650	650	650		270
END BENT 2W	5&6	92.4	11,582							507	507	507	507		370
PIER 1W	7&9	218.5	22,379	230	45										
PIER 2W	7&9	215.7	22,426	305	30										
SUPERSTRUCTURE	10-15	340.5	67,608			664		①	②					29	
STRUCTURAL STEEL NOTES	15														
ELECTRICAL CONDUIT	16						③								
ELEVATIONS	17														
SUBSTRUCTURE TOTAL		613.8	67,093	535	75					1157	1157	1157	1157		640
SUPERSTRUCTURE TOTAL		340.5	67,608			664	③	①	②					29	
TOTAL		960.3	134,701	535	75	664	③	①	②	1157	1157	1157	1157	29	640

① Approximate weight of Structural Steel is 316,750 Lb. (Does not include overrun or weld material)
② For Electrical Conduit Quantities, see Sheet 16.

② Approximate Weight:
Option 1 - 1,380 Lb.
Option 2 - 1,194 Lb.
Option 3 - 1,771 Lb.

REFERENCE AND ESTIMATE OF QUANTITIES - EASTBOUND BRIDGE

ITEM / LOCATION	SHEET NO.	CLASS "A" CONCRETE Cu. Yd.	REINF. STEEL Lb.	STRUCTURE EXCAVATION Cu. Yd. Common	STRUCTURE EXCAVATION Cu. Yd. S. Rock	STANDARD ALUMINUM HANDRAIL Lin. Ft.	ELECTRICAL CONDUIT LUMP SUM BID ③	STRUCTURAL STEEL ① LUMP SUM BID	SHEAR CONNECTORS LUMP SUM BID ②	12BP53 STEEL PILES ALTERNATE 'A' Lin. Ft. FURNISH	12BP53 STEEL PILES ALTERNATE 'A' Lin. Ft. DRIVE	14" RC PRECAST PILES ALTERNATE B Lin. Ft. FURNISH	14" RC PRECAST PILES ALTERNATE B Lin. Ft. DRIVE	6" WROUGHT IRON PIPE Lin. Ft.	DRY CYCLOPEAN STONE RIPRAP Sq. Yd.
QUANTITIES & NOTES	1														
LAYOUT	2														
SOUNDINGS	3														
PILE RECORD	4														
END BENT 1E	5&6	87.2	10,706												
END BENT 2E	5&6	92.4	11,582							715	715	715	715		270
PIER 1E	7&9	218.5	22,379	235	50					507	507	507	507		370
PIER 2E	7&9	215.7	22,426	200	25										
SUPERSTRUCTURE	10-15	340.5	67,608			664		①	②					29	
STRUCTURAL STEEL NOTES	15														
ELECTRICAL CONDUIT	16						③								
ELEVATIONS	18														
SUBSTRUCTURE TOTAL		313.8	67,093	435	75					1222	1222	1222	1222		640
SUPERSTRUCTURE TOTAL		340.5	67,608			664	③	①	②					29	
TOTAL		960.3	134,701	435	75	664	③	①	②	1222	1222	1222	1222	29	640

① Approximate weight of Structural Steel is 316,750 Lb. (Does not include overrun or weld material)
② For Electrical Conduit Quantities see Sheet 16.

② Approximate weight:
Option 1 - 1,380 Lb.
Option 2 - 1,194 Lb.
Option 3 - 1,771 Lb.

STANDARD DRAWINGS

H112	AWS-1
G393	P-2
AC-1	P-17

Special provisions for Preformed Joint Sealer dated 2-11-64.
Special Provisions for Joint Sealing Compound dated 6-27-62.

NOTE -

*Quantities shown are for both bridges. The Bill of Incidental Material is approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the plans and specifications.

GENERAL NOTES

SPECIFICATIONS: Kentucky Department of Highways, Current Standards with Amendments.

DESIGN LOAD: Bridge designed for H20-S16A loading as specified in 1961 AASHO Specifications.

DESIGN STRESSES: For reinforced concrete, $f_s = 20{,}000$ psi, $f'_c = 3{,}000$ psi, $f_c = 1{,}200$ psi, $n = 10$, $M = 200$ psi for Embedment, $M = 300$ psi for E_D. For Structural Steel, $f_s = 20{,}000$ psi (A36)

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 A16-59T for rail steel, conforming to the bending requirements of AASHO Spec. M42. 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 7/8" unless otherwise shown.

EXPANSION JOINT MATERIAL, 12" C. I. PIPE: The cost of these items is to be included in the unit price bid for Class "A" Concrete.

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, welding and welding materials, floor drains, paint, linen tracings of shop detail and erection drawings and all labor and materials necessary to erect the steel in accordance with the plans and specifications.

PAINT: All structural steel except pins and pin bearing surfaces shall be given one shop coat of type 1 red lead paint and two field coats of aluminum paint. Expose: surfaces of expansion dams, not accessible after erection shall be given two field coats of aluminum paint before erection. Pins and pin bearing surfaces shall be coated in the shop with a hot mixture of white lead and tallow in accordance with the specifications. Shop paint shall not be applied within 3" of open holes where high strength bolts are to be used for field connections, and shall not be applied to steel surfaces in contact with concrete.

CONSTRUCTION JOINTS: All construction joints shall be carefully formed. The contractor shall furnish sufficient mixer capacity to place the concrete between construction joints as noted on the plans on a period not exceeding ten hours continuous run. After one section of the concrete has been poured, the construction joint shall be thoroughly cleaned of all laitance, loose and foreign material just before the concrete takes its final set, which is about six hours. The joints shall then be covered with burlap and left completely saturated with water. Flush the Joints with 1:2 Portland Cement mortar just before placing the adjoining section.

WIND LOADS: This structure is designed for wind loads based on a wind velocity of 84 m.p.h.

FOUNDATION PRESSURE: Footings are designed for a maximum pressure of 20,0..3 psf, and piles are designed for a maximum load of 40 tons per pile. These maximums are for Group I loads with increases allowed for other loading groups.

JOINT SEALER: Joint sealer shall be furnished and applied in accordance with the special provisions. The cost of this item is to be included in the unit price bid for Class "A" Concrete.

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 and back of end bents in compacted layers and the 5 ft. minimum berm provided as shown on the plans before placing shoring and forms for the end spans.

PILING: Piling shall be driven to refusal or to solid rock. 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 throughout:
ALTERNATE "A" - 12BP53 Steel Piles, Std. Dwg. P17
ALTERNATE "B" - 14" RC Precast Piles, Std. Dwg. P2

DRIVING CONCRETE PILES: For RC Precast Piles cored pilot holes through 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.

SHEAR CONNECTORS: "Lump Sum Bid" for shear connectors shall be full payment for all shear connectors, welding and welding materials, patent royalties and materials necessary to field weld or shop weld the shear connectors in place in accordance with the plans and specifications.

OPTIONAL TYPES OF SHEAR CONNECTORS: The Contractor shall use one of the following optional types throughout:
OPTION "1" 5/8" x 4" 6 spirals
OPTION "2" 3/4" x 4" studs
OPTION "3" 4" channel @ 5.4#

TEMPORARY SUPPORTS: For composite beams temporary supports or shoring will not be permitted under the steel girders when pouring the concrete floor slab or when taking "top of steel" elevations.

WELDED STUDS: Studs used for composite shear developers shall be welded with approved welding equipment.

ELECTRICAL CONDUIT AND JUNCTION BOXES: Lump sum bid for these items shall be full payment for furnishing and placing these materials 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.

BILL OF INCIDENTAL MATERIAL *

ITEM	NO.	SIZE & LOCATION
JOINT SEALING COMPOUND	4	1"x3"x32'-0" @ Expansion Dams
PREFORMED JT. SEALER	30	4"x1"deep x39'-0" @ Slab Joints
12" CAST IRON PIPE	4	2-2" long in Box Inlets

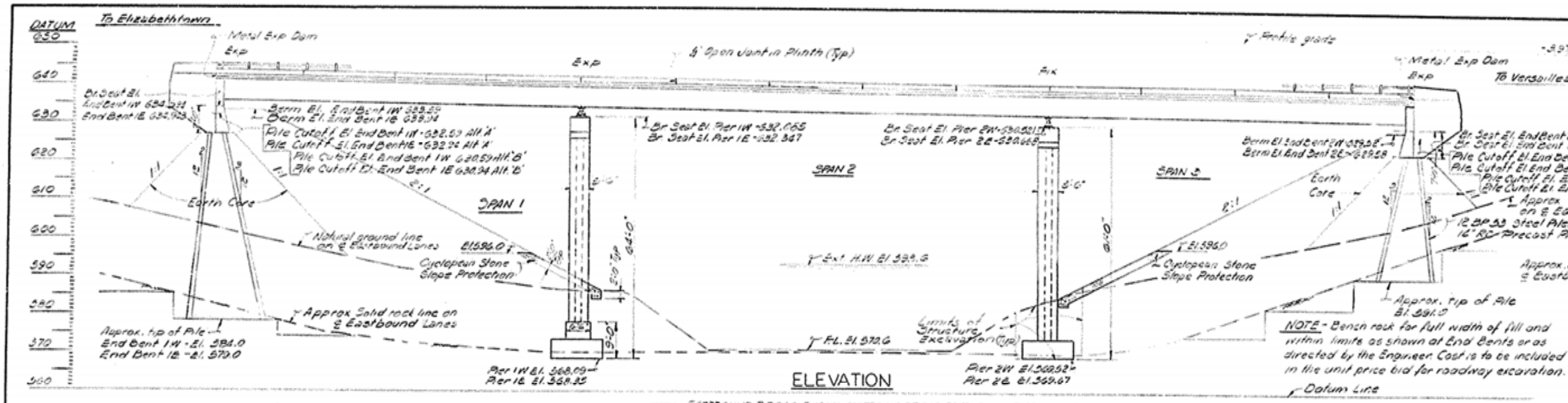
C.K.P. OVER CHAPLIN RIVER SHEET 1 OF 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167 +65.00 PROJECT NO.

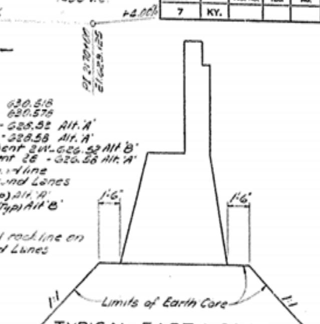
BRIDGE NUMBER	CONTROL NO.	DRAWING NO.	SHEET
C.K.P. 3-2-8	3-2	15846	

ODELL, WRIGHT, MORGAN, & BROWN FOR ADAM K. GRAFE ASSOCIATES
DESIGNED BY ... DATE ... REVISED
DETAILED BY ... CHECKED BY ... REVISED
TRACED BY ... CHECKED BY ... REVISED



ELEVATION

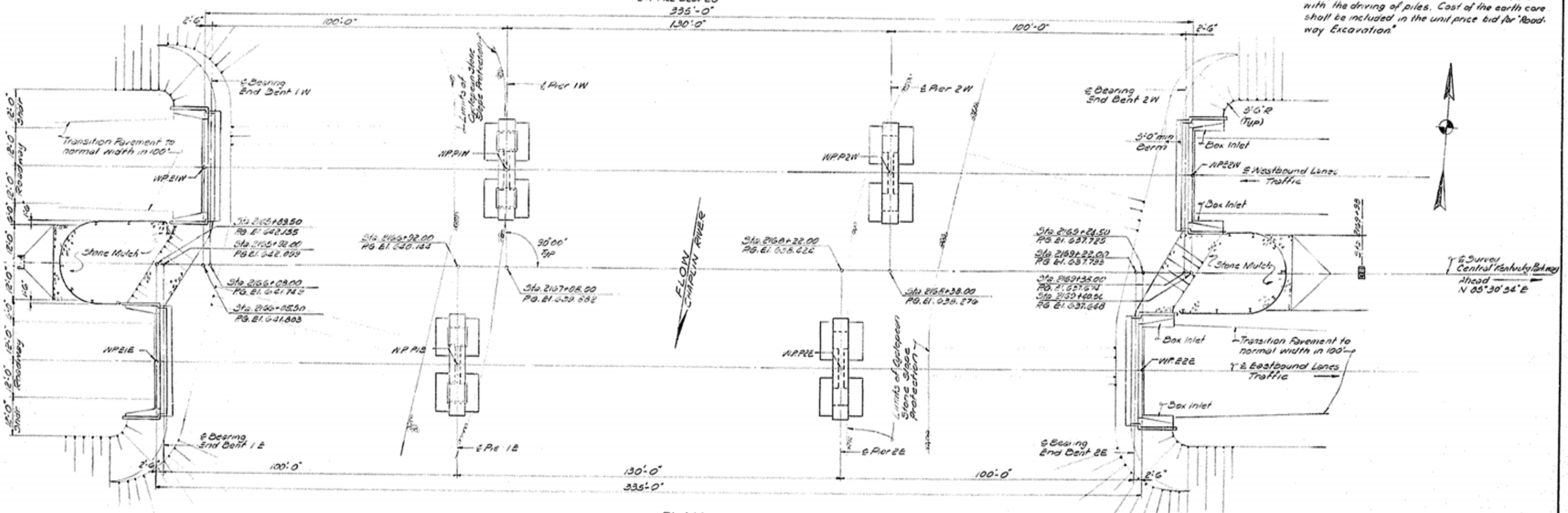
EASTBOUND BRIDGE SHOWN, WESTBOUND BRIDGE SAME EXCEPT AS NOTED — 100'-0" – 130'-0" – 100'-0" CONTINUOUS COMPOSITE WELDED PLATE GIRDER SPANS — H20 S16 A LOADING - DUAL 30'-0" ROADWAYS - 2-1'-6" SAFETY CURBS - NO SKEW - 10'-0" SHOULDERS 2:1 FILL SLOPES



TYPICAL EARTH CORE

NOTE-

The earth core, in addition to meeting the requirements for embankment materials in accordance with the specifications, shall be free of boulders or any other obstruction which would interfere with the driving of piles. Cost of the earth core shall be included in the unit price bid for "Roadway Excavation."



PLAN
(Deck Removed)

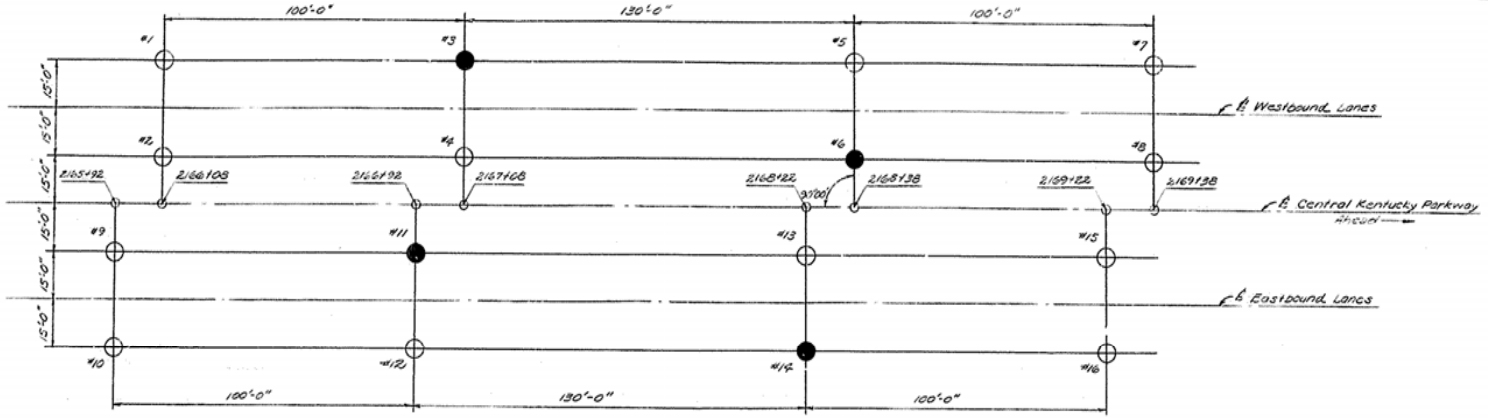
C.K.P. OVER CHAPLIN RIVER — SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167 +65.00 — PROJECT NO.

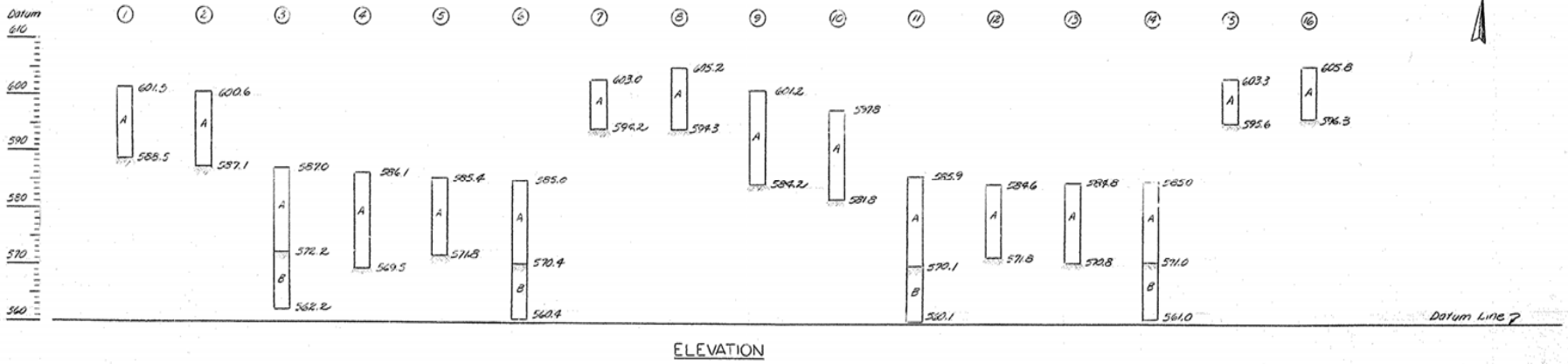
BRIDGE NUMBER C.K.P. — CONTROL NO. — DRAWING NO. 15846

LAYOUT



PLAN

○ Indicates Sounding to Solid Rock.
● Indicates Core 10' into Solid Rock.



ELEVATION

LEGEND

A Silty Clay A-7-6, Brown, Firm, & Moist
B Blue Shaly Limestone, Very Hard

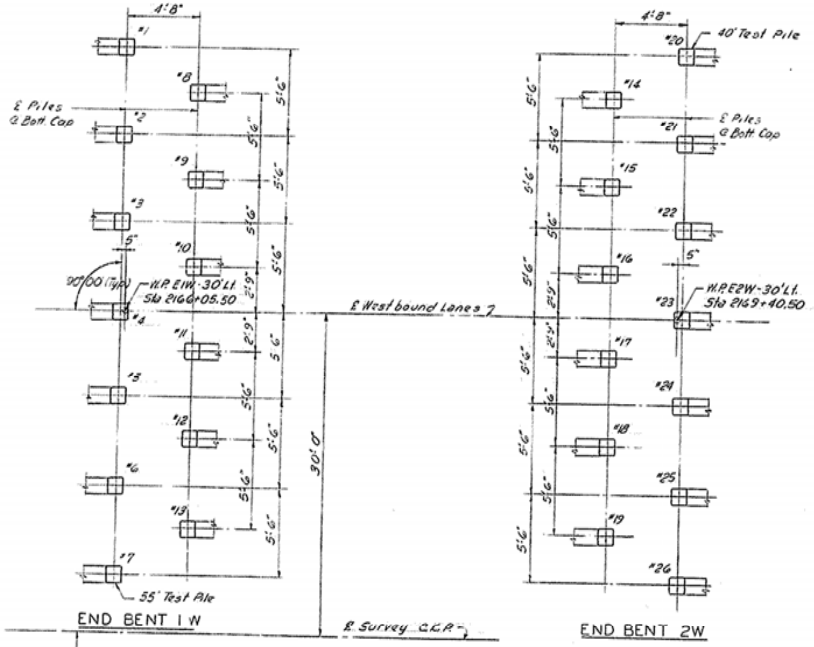
SOUNDINGS

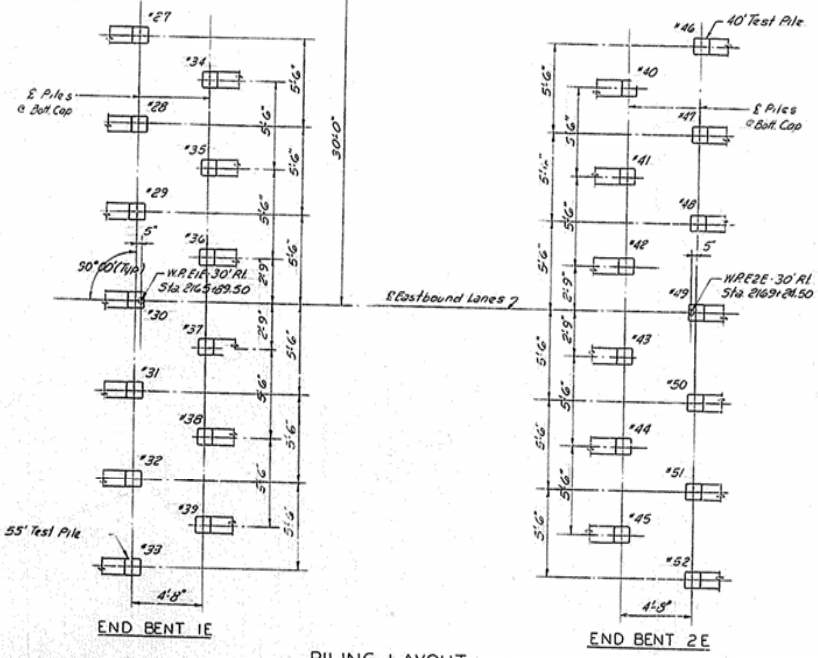
C.K.P. OVER CHAPLIN RIVER SHEET 3

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167+65.00 **PROJECT NO.**

BRIDGE NUMBER	CONTROL NO.	DRAWING NO.	INDEX
C.K.P.		15846	





PILING LAYOUT

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

PILE RECORD

Location	Pile No	Cut off El. Shown All "A"	Cut off El. Shown All "B"	Tip of Pile Elevation as Driven	Pile Length in place (Lin. Ft)	Calculated Bearing Capacity (Tons)	Location	Pile No.	Cut off El. Shown All "A"	Cut off El. Shown All "B"	Tip of Pile Elevation as Driven	Pile Length in place (Lin. Ft)	Calculated Bearing Capacity (Tons)
End Bent 1W	1	632.59	630.59				End Bent 1E	27	632.94	630.94			
"	2	"	"				"	28	"	"			
"	3	"	"				"	29	"	"			
"	4	"	"				"	30	"	"			
"	5	"	"				"	31	"	"			
"	6	"	"				"	32	"	"			
"	7	"	"				"	33	"	"			
"	8	"	"				"	34	"	"			
"	9	"	"				"	35	"	"			
"	10	"	"				"	36	"	"			
"	11	"	"				"	37	"	"			
"	12	"	"				"	38	"	"			
"	13	"	"				"	39	"	"			
End Bent 2W	14	628.52	626.52				End Bent 2E	40	628.88	626.88			
"	15	"	"				"	41	"	"			
"	16	"	"				"	42	"	"			
"	17	"	"				"	43	"	"			
"	18	"	"				"	44	"	"			
"	19	"	"				"	45	"	"			
"	20	"	"				"	46	"	"			
"	21	"	"				"	47	"	"			
"	22	"	"				"	48	"	"			
"	23	"	"				"	49	"	"			
"	24	"	"				"	50	"	"			
"	25	"	"				"	51	"	"			
"	26	"	"				"	52	"	"			

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, the calculated bearing capacity of each pile, and shall return one blue print copy of this sheet with this data 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 cut-off elevation and are not necessarily pay items.

Alternate "A" 12" B.P. 53# - For notes and details, see Std. Drwg. P17.

Alternate "B" 14" R.C. Precast piles - For notes and details see Std. Drwg. P2

See End Bent details, sheet 5 for amount of batter on piles.

PILE RECORD

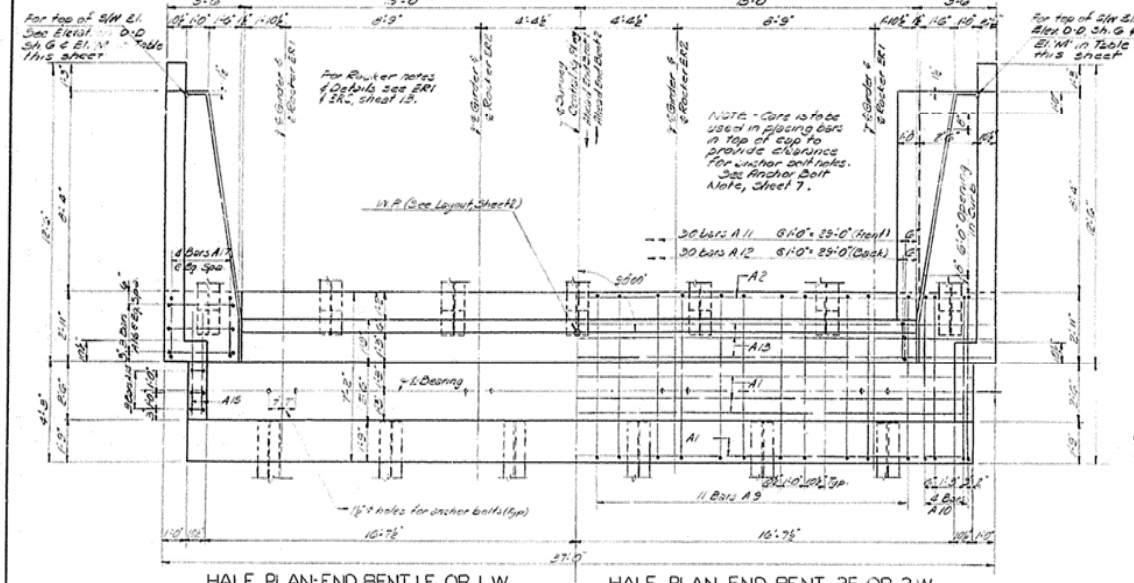
C.K.P. OVER CHAPLIN RIVER SHEET 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

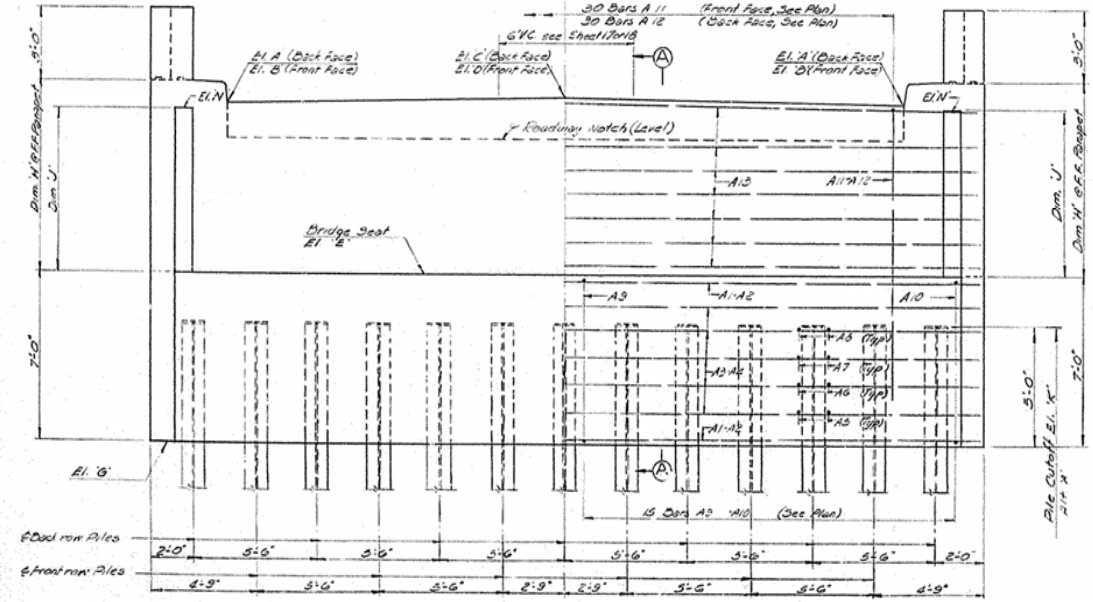
STATION 216+65.00 **PROJECT NO.**

BRIDGE NUMBER C.K.P. | **CONTROL NO.** | **DRAWING NO.** 15846 | **SHEET NO.**

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



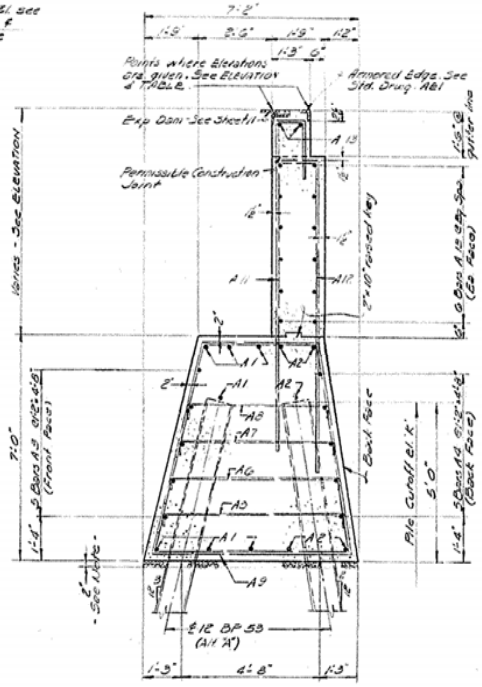
HALF PLAN-END BENT 1E OR 1W



ELEVATION (Typical)

HALF PLAN END BENT 2E OR 2W

Plan above is same for all End Bents except Box Inlet & End Beam 2E & 2W. Reinforcement shown above is same for all End Bents.



SECTION A-A

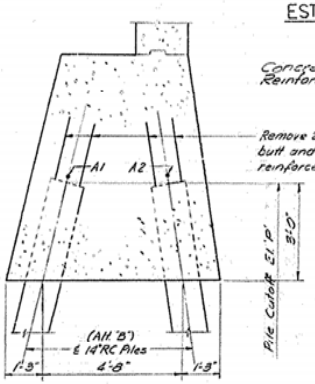
(Showing 12 BP 53. For notes and details, see Std. Dwg. P11)

NOTE –

Excav. 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 bottom of cap elevation. Side forms for cap may be placed as soon as mortar has set a sufficient time to support men and forms without being disturbed. This method is being 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 Class 'A' Concrete.

TABLE OF DIMENSIONS AND ELEV.

	END BENT			
	1E	1W	2E	2W
El. 'A'	642.108	641.756	637.676	637.619
El. 'B'	642.080	641.728	637.581	637.523
El. 'C'	642.319	641.967	637.887	637.830
El. 'D'	642.291	641.940	637.892	637.836
El. 'E'	634.943	634.596	630.578	630.518
El. 'G'	627.94	627.59	623.58	623.52
Dim. 'H'	7'-11½"	7'-11½"	7'-11½"	7'-11½"
Dim. 'J'	6'-9½"	6'-9½"	6'-9½"	6'-9½"
El. 'K'	632.94	632.59	628.58	628.52
Dim. 'L'	5'-5"	5'-5½"	5'-1"	5'-0½"
El. 'M'	623.187	622.826	618.694	618.645
El. 'N'	641.77	641.42	637.37	637.31
El. 'P'	630.94	630.59	626.58	626.52



PART SECTION A-A

(Showing 14" R.C. Piles. For notes and details, see Std. Dwg. P2. For dimensions and reinforcement not shown, see Sect. A-A)

ESTIMATE OF QUANTITIES

	END BENT				
	1E	1W	2E	2W	
Concrete, Class 'A'	87.2	87.2	92.4	92.4	CU. YD.
Reinforcement	10,706	10,706	11582	11582	LB.

END BENTS

C.K.P. OVER CHAPLIN RIVER SHEET 5

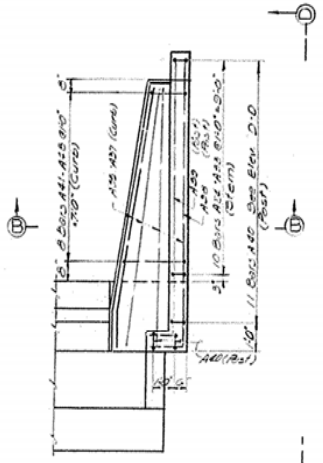
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2+67+65.00 PROJECT NO.

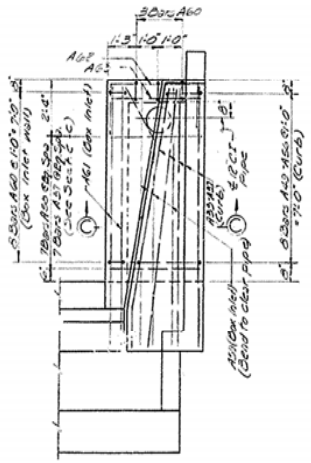
BRIDGE NUMBER C.K.P.	CONTROL NO	DRAWING NO. 15846	INDEX

DESIGNED BY J.R.C. DRAWN BY J.R.C. CHECKED BY P.C.M.
DETAILED BY C.E. Green CHECKED BY
TRACED BY

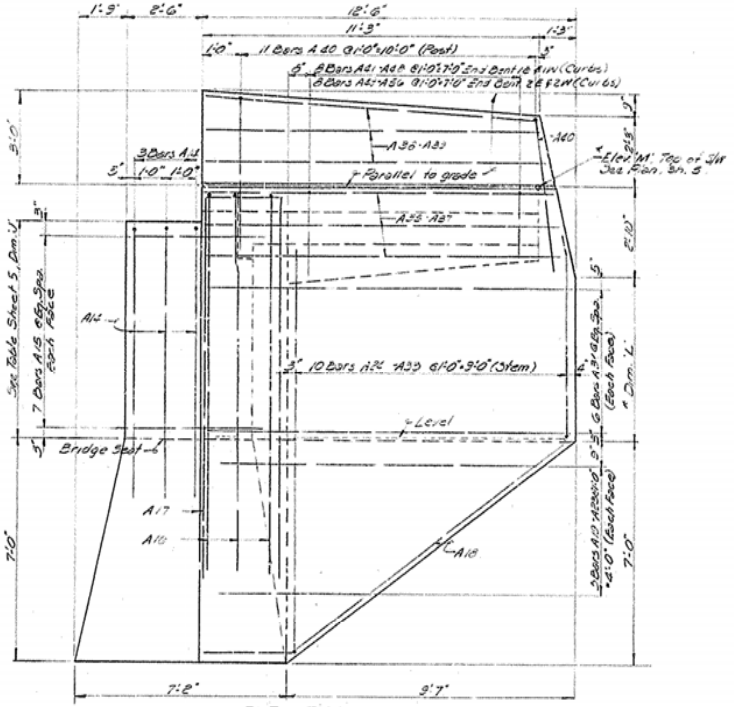
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



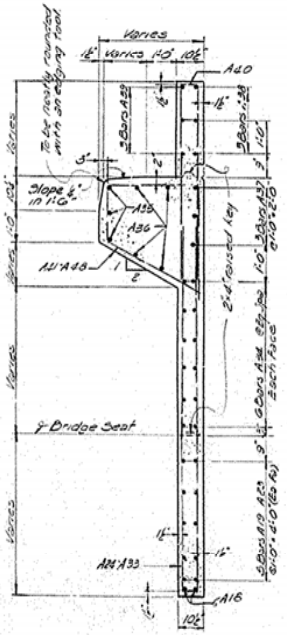
PLAN OF WINGS AT
END BENTS 1E AND 1W



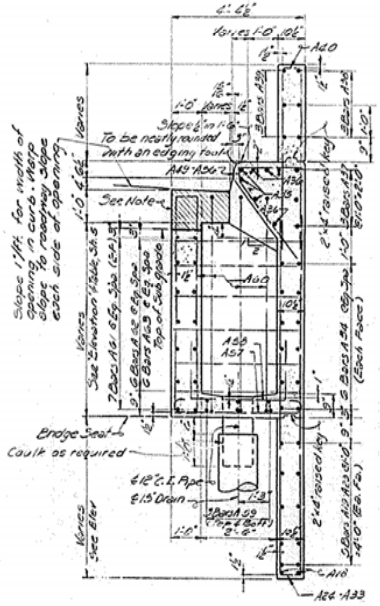
PLAN OF WINGS AT
END BENTS 2E AND 2W
(For bars in Post & Stem See Plan 1E & 1W at Left)



ELEVATION D-D
(Showing Dimensions & Reinforcement in Post, Stem & Curb. Reinforcement same for all wings unless otherwise shown. Also, see other details this sheet.)
* For dimension 'L' & Elev. 'M' see Table Sheet 5.



SECTION B-B



SECTION C-C

NOTE
Top of box inlet (See hatched portion, Section C-C) to be left open and subgrade sloped to drain water into box during construction. Top slab to be placed by paving contractor using slip in place forms. Payment is to be incidental to and included in the unit price bid for the various items involved. See Special Provisions.

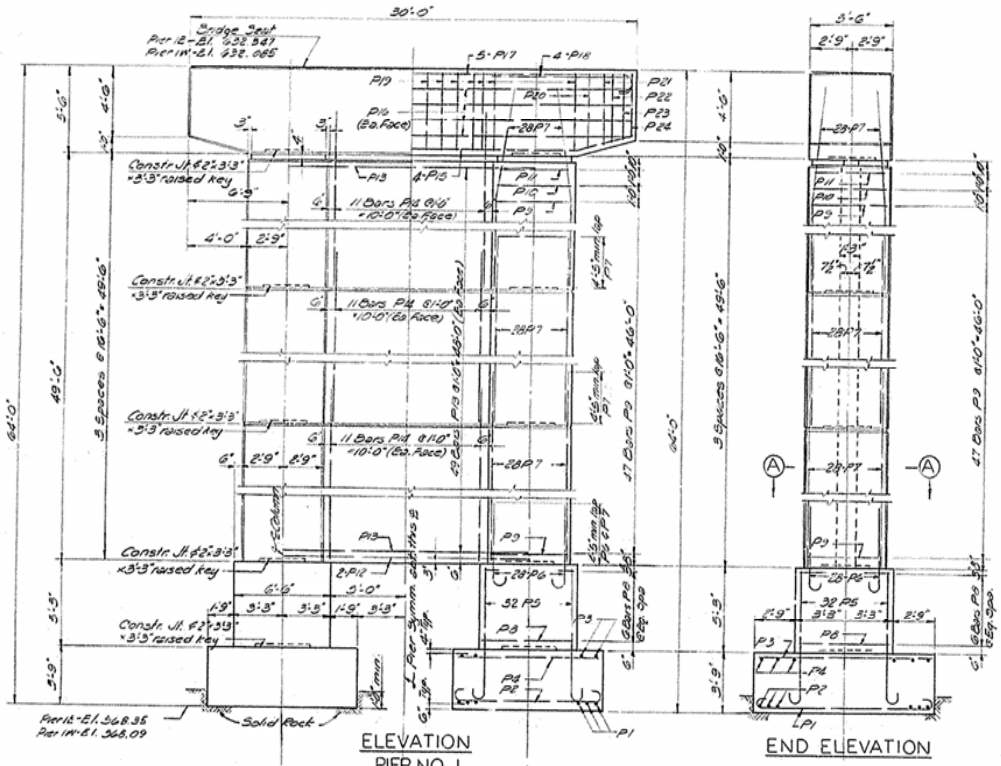
END BENTS

C.K.P. OVER CHAPLIN RIVER SHEET 6

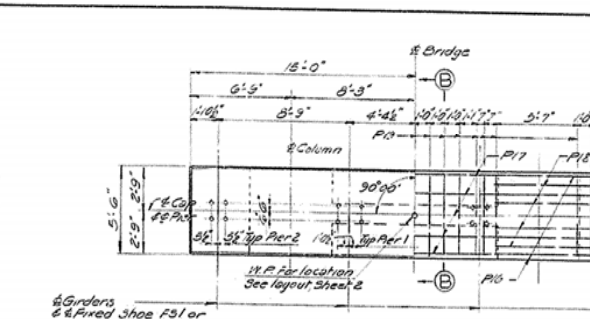
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES ROAD

STATION 2167+65.00	PROJECT NO.		
BRIDGE NUMBER C.K.P.	CONTROL NO.	DRAWING NO. 15846	INDEX

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



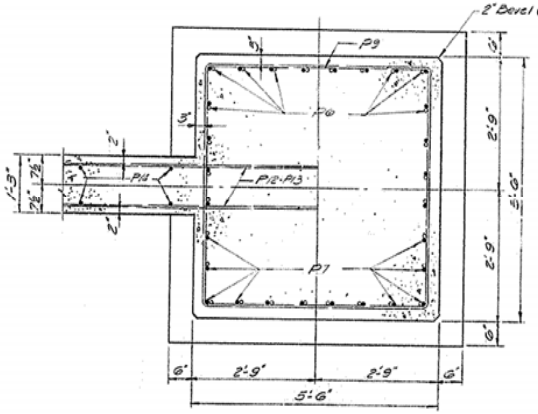
ELEVATION
PIER NO. 1



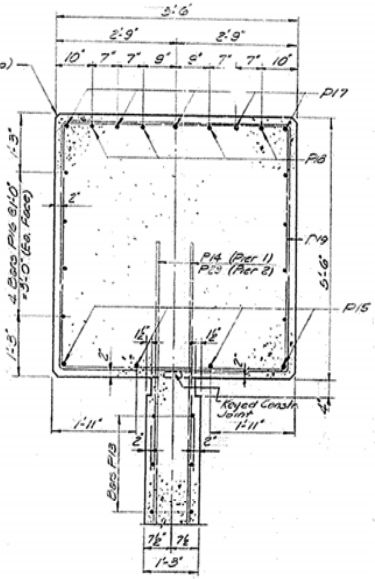
PLAN OF CAP
PIERS NO. 1 AND 2

℄ Girders
℄ ℄ Fixed Shoe FS1 or FS2, Piers 2E & 2W, ℄ ℄ Exp. Rocker ER3 or ER4, Pier 1E or 1W.
See Shoe Details, sheet 13.

NOTE -
Care is to be used in placing Bars P17 - P23 to provide clearance for drilling Anchor Bolt holes. See Anchor Bolt Note, this sheet.

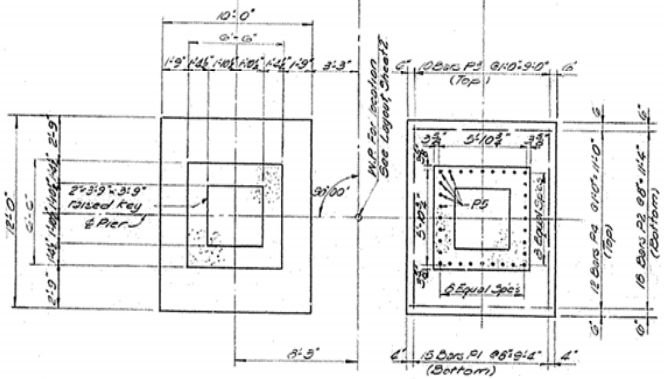


SECTION A-A



SECTION B-B

ANCHOR BOLT NOTE -
Holes 1'-6" x 1'-3" deep shall be drilled 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. 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.



PLAN OF FOOTINGS
PIER NO. 1

ESTIMATE OF QUANTITIES

ITEM	UNIT	PIER 1E	PIER 2E	PIER 1W	PIER 2W
Concrete, Class 'A'	Cu. Yds.	216.5	215.7	216.5	215.7
Reinforcement	Lb.	22,379	22,426	22,379	22,426

PIERS

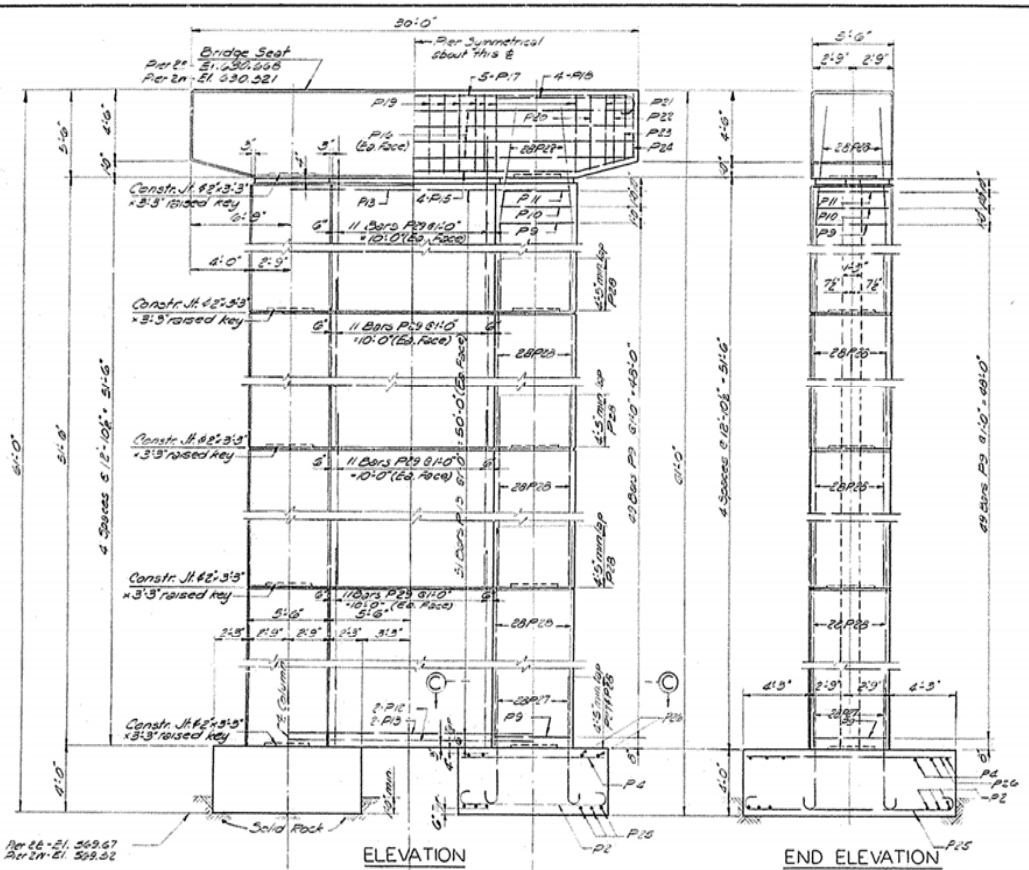
C.K.P. OVER CHAPLIN RIVER SHEET 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

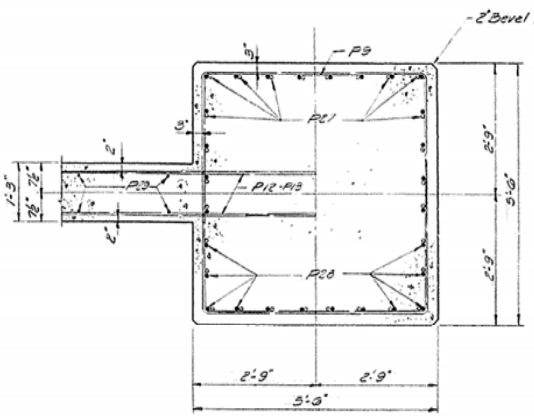
STATION 2167+65.00 PROJECT NO.

BRIDGE NUMBER C.K.P. | CONTROL NO. | DRAWING NO. 15846 | INDEX

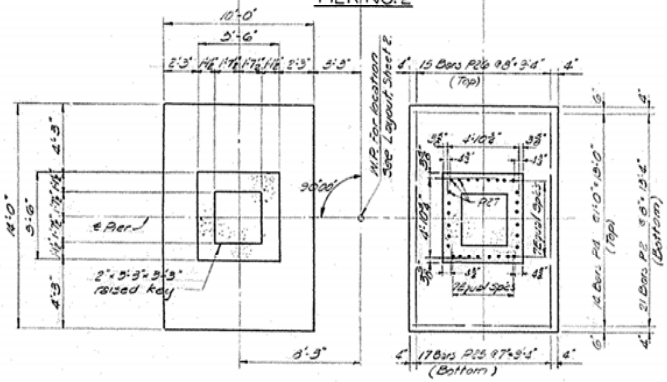
DESIGNED BY: JBD DATE: 2/14
DETAILED BY: GEB DATE: 3/64
TRACED BY: DATE:
CHECKED BY: PW DATE:
CHECKED BY: JEW DATE:
CHECKED BY: DATE:
REVISED: DATE:
REVISED: DATE:
REVISED: DATE:



ELEVATION
PIER NO. 2



SECTION C-C



PLAN OF FOOTINGS
PIER NO. 2

NOTE -
For Plan of Cap, Cap Section & Estimate of Quantities, see Sheet 7.

PIERS

C.K.P. OVER CHAPLIN RIVER SHEET 8

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167 + 65.00 PROJECT NO.

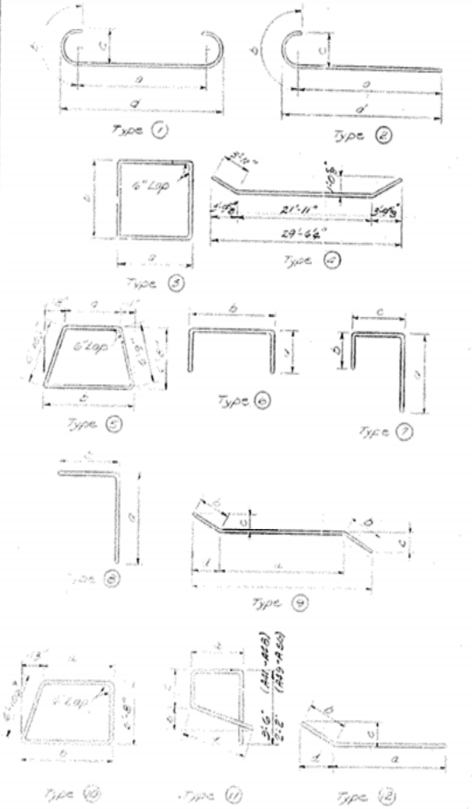
BRIDGE NUMBER C.K.P. CONTROL NO. DRAWING NO. 15846 INDEX

BILL OF REINFORCEMENT

Mark	Type	Number EB1E	Number EB1N	Number EB2E	Number EB2N	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A 1	Str.	7	7	7	7	9	34	8	Cap								
A 2	"	5	5	5	5	9	36	8	"								
A 3	"	5	5	5	5	6	34	8	"								
A 4	"	5	5	5	5	6	36	8	"								
A 5	(6)	26	26	26	26	6	7	0	"	0	6	6	3				
A 6	"	26	26	26	26	6	6	7	"	0	6	5	10				
A 7	"	26	26	26	26	6	6	1	"	0	6	5	4				
A 8	"	26	26	26	26	6	5	7	"	0	6	4	10				
A 9	(5)	22	22	22	22	5	25	3	"	4	0	6	9				
A 10	(10)	8	8	8	8	8	26	1	"	5	1½	6	9				
A 11	(7)	30	30	30	30	6	11	10	Parapet	9	7	2	6	1	0		
A 12	(8)	30	30	30	30	7	11	4	"	10	0	1	6				
A 13	Str.	14	14	14	14	5	36	8	"								
A 14	(6)	6	6	6	6	5	16	9	Stubwalls	8	2	0	7½				
A 15	Str.	28	28	28	28	5	4	6	"								
A 16	(6)	6	6	6	6	7	29	6	Parapet & Wings	13	6	2	9				
A 17	"	8	8	8	8	9	25	10	" " "	10	9	2	7				
A 18	(2)	4	4	4	4	6	13	6	Wing Stem	11	0	2	6	2	0½	1	5½
A 19	Str.	4	4	4	4	5	5	7	" "								
A 20	"	4	4	4	4	5	6	10	" "								
A 21	"	4	4	4	4	5	8	4	" "								
A 22	"	4	4	4	4	7	9	8	" "								
A 23	"	4	4	4	4	7	11	0	" "								
A 24	(6)	2	2	2	2	7	27	9	" "	13	8	0	7½				
A 25	"	2	2	2	2	7	26	3	" "	12	11	0	7½				
A 26	"	2	2	2	2	7	24	11	" "	12	3	0	7½				
A 27	"	2	2	2	2	7	23	5	" "	11	6	0	7½				
A 28	"	2	2	2	2	7	22	0	" "	10	10	0	7½				
A 29	"	2	2	2	2	7	20	7	" "	10	1	0	7½				
A 30	"	2	2	2	2	7	19	1	" "	9	4	0	7½				
A 31	"	2	2	2	2	7	17	9	" "	8	8	0	7½				
A 32	"	2	2	2	2	7	16	3	" "	7	11	0	7½				
A 33	"	2	2	2	2	7	14	9	" "	7	2	0	7½				
A 34	Str.	24	24	24	24	7	12	2	" "								
A 35	(12)	6	6	6	6	10	10	11	Wing Curbs	9	4	1	7	1	6½	0	3
A 36	Str.	8	8	8	8	10	10	11	" "								
A 37	"	6	6	6	6	10	11	6	" "								
A 38	(8)	6	6	6	6	5	12	6	Posts	11	0	1	7				
A 39	"	6	6	6	6	5	11	2	"	10	3	1	0				
A 40	(6)	26	26	26	26	6	13	5	"	6	6	0	7½				
A 41	(11)	2	2	—	—	5	10	10	Wing Curb	2	9½	1	6½	1	6	3	1½
A 42	"	2	2	—	—	5	10	5	" "	2	7½	1	5½	1	8	2	11
A 43	"	2	2	—	—	5	10	4	" "	2	5½	1	4½	1	8	2	9
A 44	"	2	2	—	—	5	9	8	" "	2	3	1	3	1	8	2	6
A 45	"	2	2	—	—	5	9	4	" "	2	1	1	2	1	8	2	4
A 46	"	2	2	—	—	5	9	0	" "	1	11	1	1	1	8	2	2
A 47	"	2	2	—	—	5	8	7	" "	1	9	0	11½	1	8	1	11
A 48	"	2	2	—	—	5	8	3	" "	1	7	0	10½	1	8	1	9
A 49	"	—	—	2	2	5	8	7	" "	2	9½	2	2	0	4	3	6
A 50	"	—	—	2	2	5	8	4	" "	2	7½	2	2	0	4	3	4½
A 51	"	—	—	2	2	5	8	0	" "	2	5½	2	2	0	4	3	3
A 52	"	—	—	2	2	5	7	8	" "	2	3	2	2	0	4	3	1½
A 53	"	—	—	2	2	5	7	5	" "	2	1	2	2	0	4	3	0
A 54	"	—	—	2	2	5	7	1	" "	1	11	2	2	0	4	2	10½
A 55	"	—	—	2	2	5	6	10	" "	1	9	2	2	0	4	2	9
A 56	"	—	—	2	2	5	6	6	" "	1	7	2	2	0	4	2	7
A 57	(1)	—	—	14	14	5	5	3	Box Inlet	3	7	0	10	0	5	4	0
A 58	(6)	—	—	14	14	5	5	8	" "	1	6	2	10				
A 59	Str.	—	—	12	12	5	10	9	" "								
A 60	(3)	—	—	22	22	5	15	5	" "	6	7	0	9				
A 61	Str.	—	—	28	28	5	10	9	" "								
A 62	(6)	—	—	12	12	5	6	10	" "	1	6	4	0				
A 63	Str.	—	—	12	12	5	4	0	" "								

Mark	Type	Number P1E	Number P1W	Number P2E	Number P2W	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
P 1	(1)	30	30	—	—	6	13	2	Footings	11	2	1	0	0	6	11	8
P 2	"	36	36	42	42	5	10	11	"	9	3	0	10	0	5	9	8
P 3	Str.	20	20	—	—	5	11	8	"								
P 4	"	24	24	28	28	5	9	8	"								
P 5	(2)	64	64	—	—	9	9	8	Column Dowels	8	0	1	8	0	11¼	8	5⅜
P 6	"	56	56	—	—	8	10	0	Columns	8	6	1	6	0	10	8	11
P 7	Str.	168	168	—	—	8	20	11	"								
P 8	(3)	12	12	—	—	5	24	9	Column Hoops	6	0	6	0				
P 9	"	94	94	98	98	5	20	9	" "	3	0	3	0				
P 10	"	2	2	2	2	5	20	5	" "	4	11	4	11				
P 11	"	2	2	2	2	5	20	1	" "	4	10	4	10				
P 12	Str.	2	2	2	2	8	16	6	Web								
P 13	"	98	98	102	102	5	16	6	"								
P 14	"	66	66	—	—	5	19	4	"								
P 15	(4)	4	4	4	4	9	29	9	Cap								
P 16	Str.	8	8	8	8	6	29	8	"								
P 17	(1)	5	5	5	5	10	32	4	"	28	8	1	10	1	0½	29	8½
P 18	(2)	8	8	8	8	10	10	10	"	9	0	1	10	1	0½	9	6½
P 19	(3)	15	15	15	15	5	21	5	"	3	2	5	2				
P 20	"	2	2	2	2	5	21	0	"	5	2	4	1½				
P 21	"	2	2	2	2	5	20	6	"	3	2	4	8½				
P 22	"	2	2	2	2	5	20	2	"	5	2	4	6¾				
P 23	"	2	2	2	2	5	19	10	"	5	2	4	4⅝				
P 24	"	2	2	2	2	5	19	7	"	5	2	4	3				
P 25	(1)	—	—	34	34	8	15	10	Footings	12	10	1	6	0	10	13	8
P 26	Str.	—	—	30	30	5	13	8	"								
P 27	(2)	—	—	56	56	8	10	0	Column Dowels	8	6	1	6	0	10	8	11
P 28	Str.	—	—	224	224	8	17	4	Columns								
P 29	"	—	—	88	88	5	16	6	Web								

Fed. Road Dist.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
7	KY.				



SUBSTRUCTURE

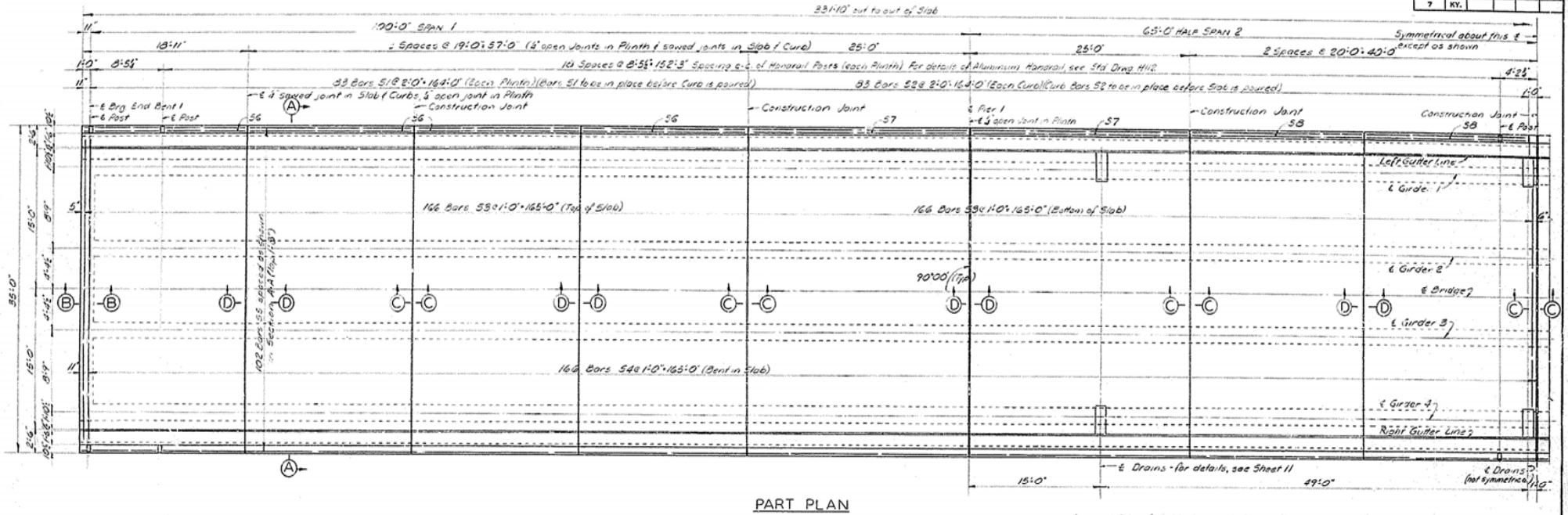
C.K.P. OVER CHAPLIN RIVER SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

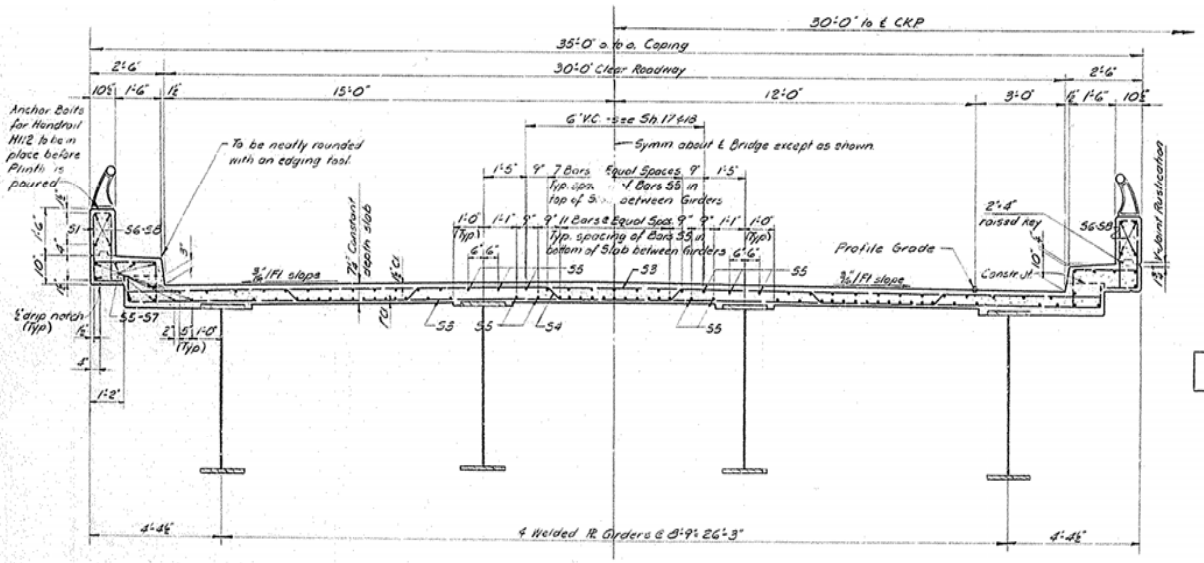
STATION 2167+65.00 **PROJECT NO.**

BRIDGE NUMBER C.K.P. | CONTROL NO. | DRAWING NO. 15846 | INDEX

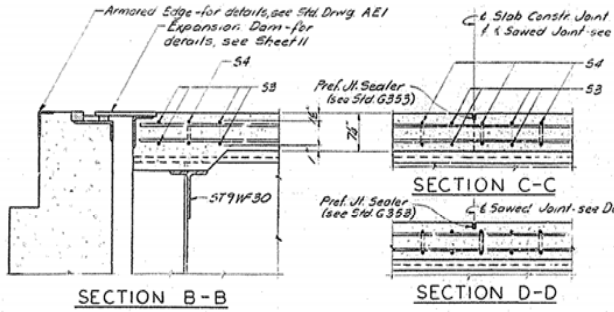
FED. ROAD DESIG.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

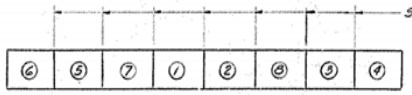


PART PLAN



SECTION A-A





POURING ORDER

C.K.P. OVER CHAPLIN RIVER SHEET 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

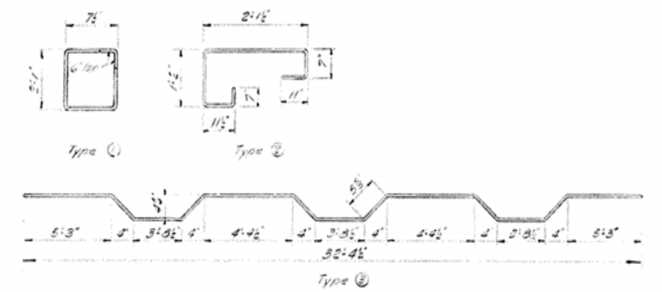
STATION 2167+65.00 **PROJECT NO.**

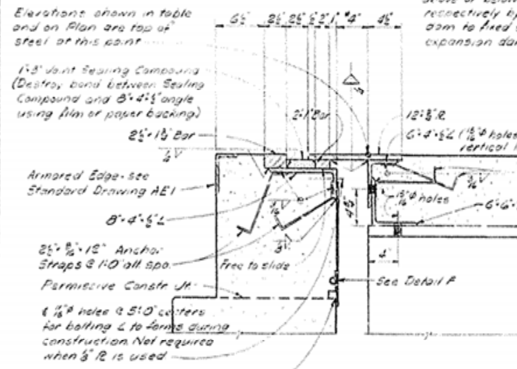
BRIDGE NUMBER	CONTROL NO.	DRAWING NO.	SHEET
C.K.P.		15846	

SUPERSTRUCTURE

BILL OF REINFORCEMENT - ONE BRIDGE

Mark	Type	No	Bar Size	Length Ft	Length In	Location
S1	(1)	332	4	6	2	Plinth
S2	(2)	332	5	6	1	Curb
S3	Str	664	5	32	4	Slab Transverse
S4	(3)	331	6	33	2	Slab - (Cont)
S5	Str	913	4	38	4	Slab Longitudinal
S6	-	64	4	18	8	Plinth
S7	-	32	4	24	8	"
S8	-	32	4	19	8	"





SECTION A-A

* This dimension to be maintained at normal temperature of 60° Fahrenheit. For each 10° above or below 60° decrease or increase respectively by ⅛" for 100 ft. from expansion dam to fixed shoe and by ⅜" for 290' from expansion dam to fixed shoe.

Use of 16"x⅝" R is optional. Weight of this plate is not included in approximate weight of Structural Steel shown and if used shall be included in the lump sum bid for Structural Steel. Details of plate, if used, shall be incorporated in shop plans submitted for approval.

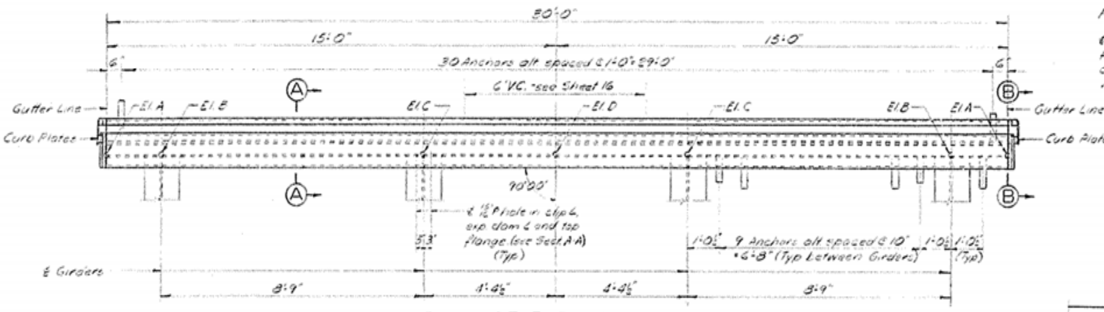
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

TABLE OF ELEVATIONS

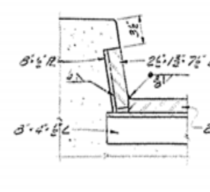
Point	End Bent 1	End Bent 2
EASTBOUND BRIDGE		
A	642.072	637.683
B	.102	.712
C	.229	.869
D	.264	.894
WESTBOUND BRIDGE		
A	641.722	637.624
B	.752	.653
C	.886	.790
D	.933	.835

DETAIL F

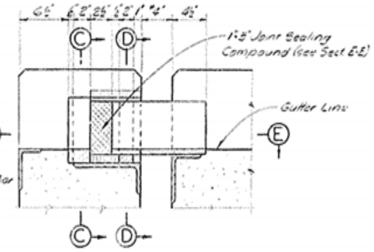
No 9 Black Iron or Equivalent Wire Eyelets @ 2'-0" Spacing, tack welded to ⅝" R. Eyelets are to be used in tying ⅝" R with wire so as to prevent leakage during construction.



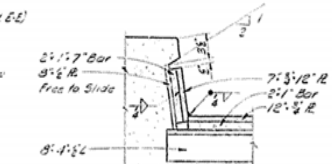
PLAN OF EXPANSION DAM



SECTION C-C



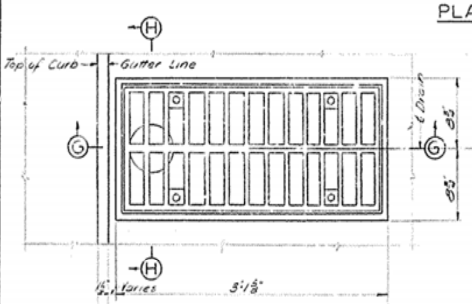
SECTION B-B



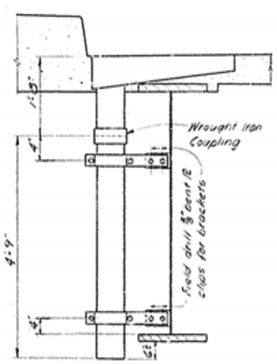
SECTION D-D

ESTIMATE OF QUANTITIES-ONE BRIDGE

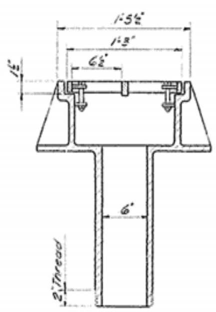
Concrete Class "A"	346.5	Cu Yd
Reinforcement	67,608	Lb
Aluminum Handrail	664	Lin Ft
Cast Iron Pipe	29	Lin Ft



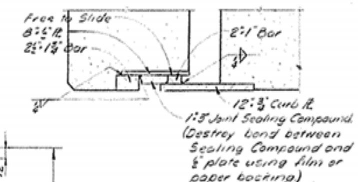
PLAN



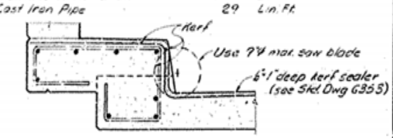
ELEVATION



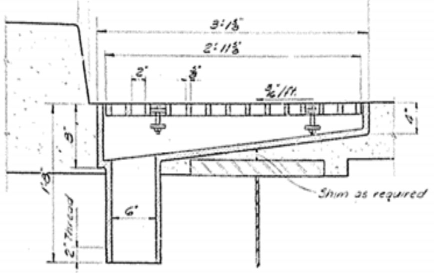
SECTION H-H



SECTION E-E



SAWED SLAB JOINT DETAIL



SECTION G-G

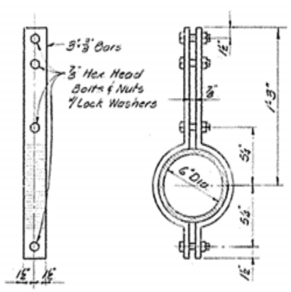
NOTES

FOUNDRY NOTE - All drains to be gray iron casting ASTM A48, except that tensile and transverse test are not required. Form T-521 Report of Field Inspection of castings is to be submitted to the Laboratory. Drains are to be furnished by the Superstructure Contractor and the cost of furnishing and placing same is to be included in the Lump Sum Bid price for Structural Steel.

WROUGHT IRON PIPE - Wrought Iron Pipe is to be 6"Φ Standard Weight 19.0# per linear foot in accordance with ASTM A72 Pipe, fittings and connections are to be paid for at unit price per linear foot of pipe and connections complete in place. (Length to be measured along ℄ of pipe between limits shown on drawings.) Pipe and all fittings to be given one coat of red lead and two field coats of aluminum paint in accordance with the Specifications.

DRAIN DETAILS

6 Required - each Bridge   Weight each drain - 350 lbs.
Neenah R-4014 (Type A) or Equal



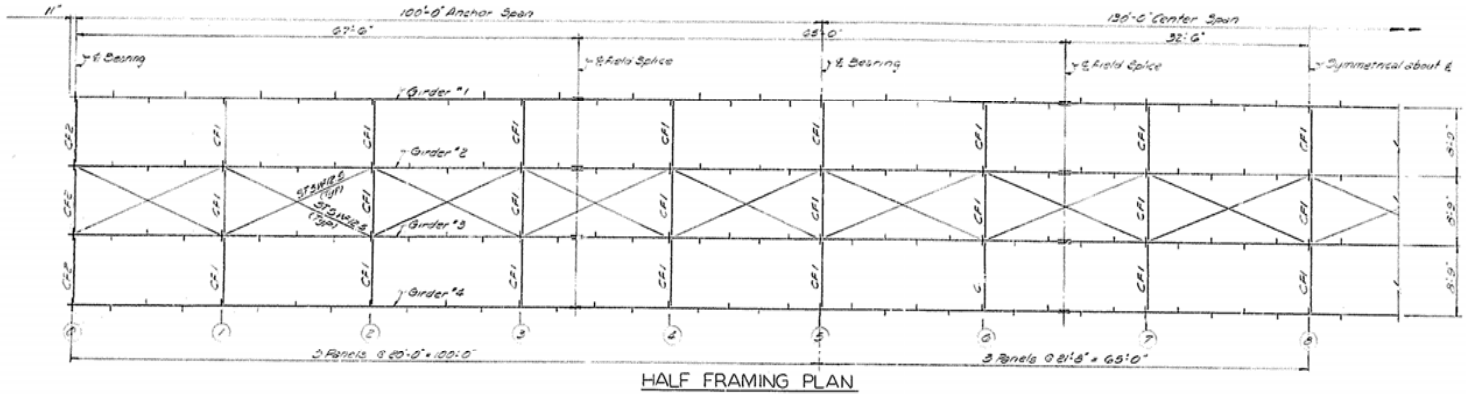
DRAIN PIPE BRACKETS

SUPERSTRUCTURE

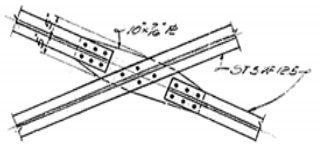
C.K.P. OVER CHAPLIN RIVER   SHEET 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES ROAD

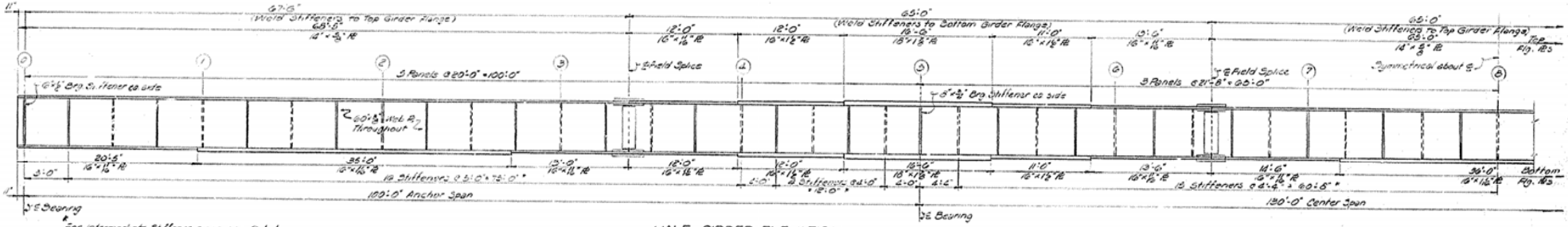
STATION 2167+65.00   PROJECT NO.
BRIDGE NUMBER C.K.P.   CONTROL NO.   DRAWING NO. 15846



HALF FRAMING PLAN

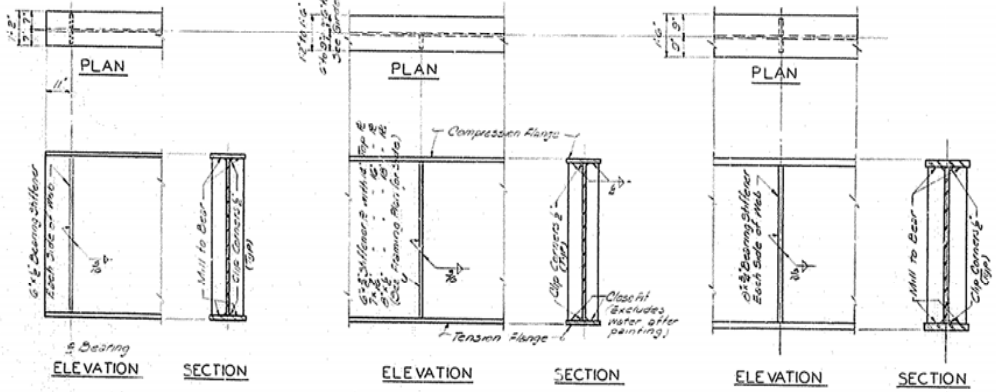


LATERAL SPLICE



For intermediate Stiffener sizes see Detail this sheet. For location with respect to web see Framing Plan, this sheet.

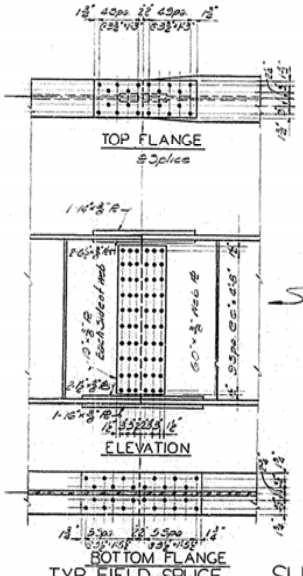
HALF GIRDER ELEVATION
(All Girders)



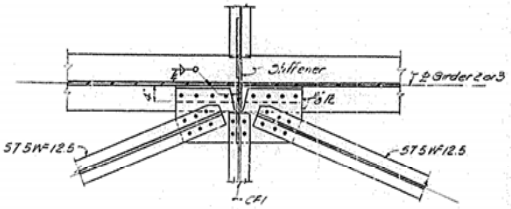
BEARING STIFFENER AT P.P. 0

TYP. INTERMEDIATE STIFFENER DETAILS

BEARING STIFFENER AT P.P. 5



TYP. FIELD SPLICE



LATERAL BRACING CONNECTION
(Connection to CF2 Similar. See CF1 Detail, Sh. 13. for location of Connection)

NOTE - Use 1" ϕ High Strength Bolts in Field Splices. All other bolted connections are ⅞" ϕ High Strength Bolts unless otherwise noted.

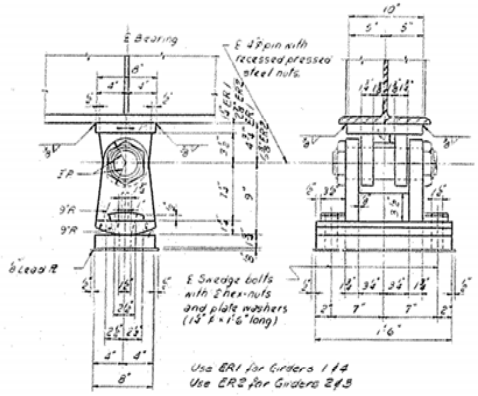
SUPERSTRUCTURE

C.K.P. OVER CHAPLIN RIVER SHEET 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 216+65.00 PROJECT NO.

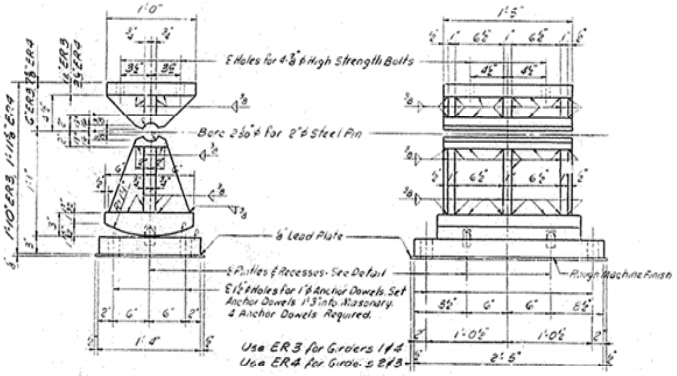
BRIDGE NUMBER C.K.P | CONTROL NO. | DRAWING NO. 15846 | INDEX



Use ER1 for Girders 1 ℄ 4
Use ER2 for Girders 2 ℄ 3

EXPANSION ROCKER ER1 & ER2

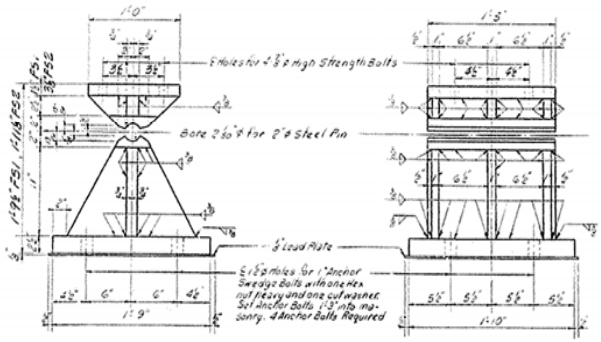
Capacity	144 Kips	144 Kips
Structural Steel	282 lbs.	319 lbs.
Pin and Nuts	55 lbs.	55 lbs.
Lead Plate	9 lbs.	9 lbs.



Use ER3 for Girders 1 ℄ 4
Use ER4 for Girders 2 ℄ 3

EXPANSION ROCKER ER3 & ER4

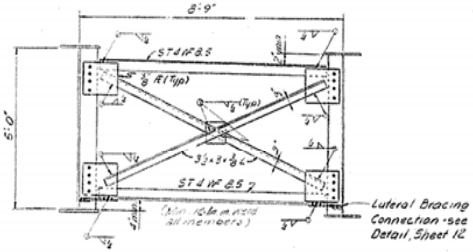
Capacity	390 Kips	390 Kips
Structural Steel	839 lbs	933 lbs.
Pin and Nuts	18 lbs.	18 lbs.
Lead Plate	26 lbs.	26 lbs.



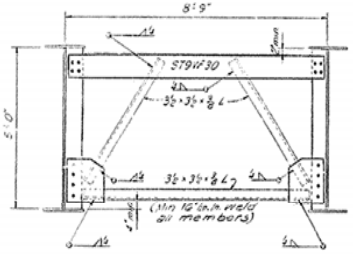
FIXED SHOE FS1 & FS2

Capacity	V = 320 Kips, H = 20 Kips (both)	
Structural Steel	688 lbs.	782 lbs.
Pin and Nuts	18 lbs.	18 lbs.
Lead Plate	20 lbs.	20 lbs.

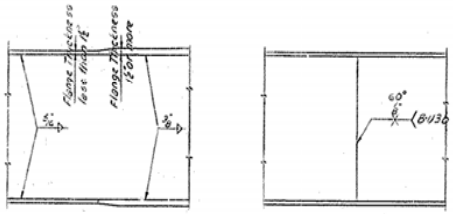
Use FS1 for Girders 1 ℄ 4
Use FS2 for Girders 2 ℄ 3



CROSSFRAME CF 1

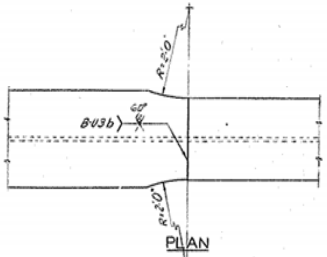


CROSSFRAME CF 2

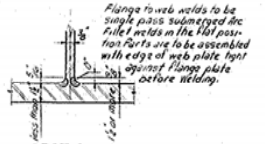


ELEVATION

ELEVATION

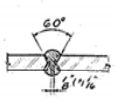


PLAN



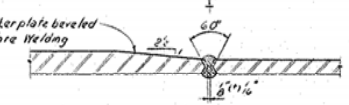
SECTION

FLANGE TO WEB WELD
(Submerged Arc Weld)



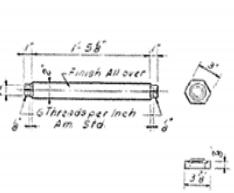
SECTION

SHOP WEB SPLICE
(Manual Shielded Metal-Arc Weld)

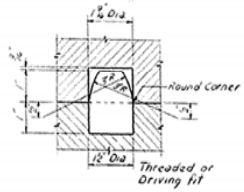


SECTION

SHOP FLANGE SPLICE
(Manual Shielded Metal-Arc Weld)



STEEL PIN



DETAIL OF PINTLE AND RECESS

SUPERSTRUCTURE

C.K.P. OVER CHAPLIN RIVER SHEET 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167+65.00 PROJECT NO.

BRIDGE NUMBER C.K.P. CONTROL NO. DRAWING NO. 15846 INDEX

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

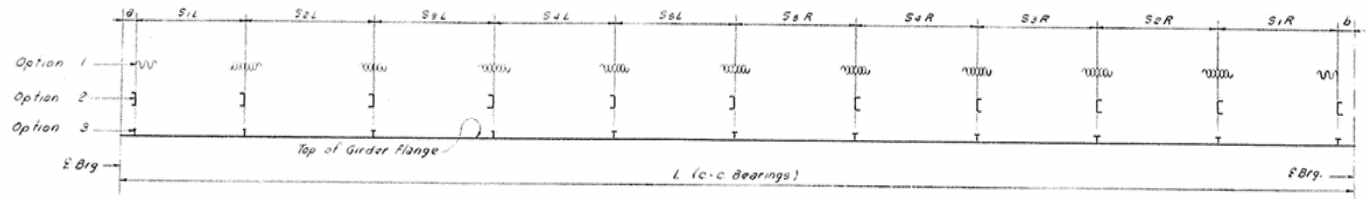
DRAWN BY J.R.D. DATE 5-64
DETAILED BY J.R.D. DATE 5-64
TRACED BY DATE
CHECKED BY P.C.M. DATE
CHECKED BY P.C.M. DATE
CHECKED BY DATE

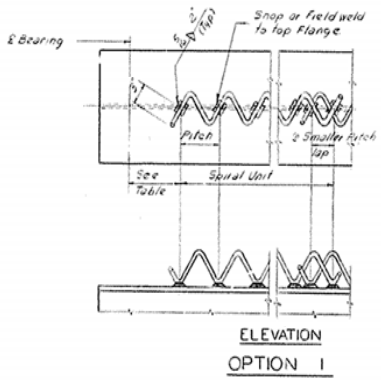
STUD OR CHANNEL SPACING

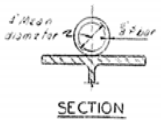
Span	Girder	L	a	S1L	S2L	S3L	S4L	S5L	S5R	S4R	S3R	S2R	S1R	b
1	1-4	100'0"	6"	10 Spa @ 1'0"=10'0"	8 Spa @ 1'3"=10'0"	8 Spa @ 1'3"=10'0"	6 Spa @ 1'7"=9'6"	6 Spa @ 1'10"=11'0"	5 Spa @ 1'10"=9'2"					19'10"
2	1-4	130'0"	36'8"				2 Spa @ 1'6"=3'0"	8 Spa @ 1'8"=13'4"	8 Spa @ 1'8"=13'4"	9 Spa @ 1'6"=13'6"				18'2"
3	1-4	105'0"	39'10"					5 Spa @ 1'10"=9'2"	6 Spa @ 1'10"=11'0"	6 Spa @ 1'7"=9'6"	8 Spa @ 1'3"=10'0"	8 Spa @ 1'3"=10'0"	10 Spa @ 1'0"=10'0"	6"

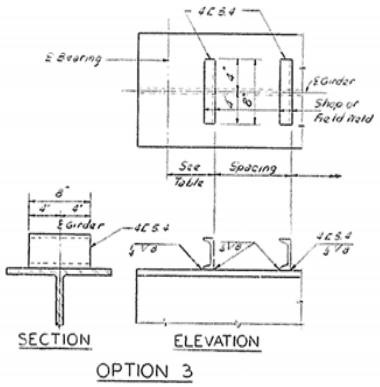
SPIRAL PITCH

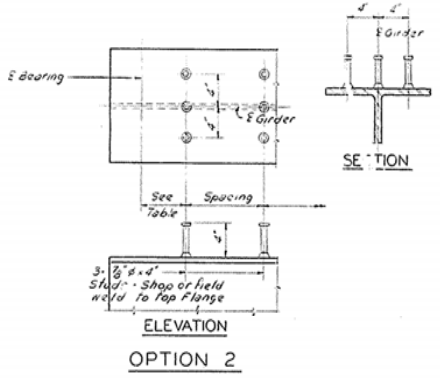
Span	Girder	L	a	S1L	S2L	S3L	S4L	S5L	S5R	S4R	S3R	S2R	S1R	b
1	1-4	100'0"	3"	4½" for 10'0"	5½" for 10'0"	6½ for 10'0"	8" for 10'0"	9½ for 10'0"	9½ for 10'0"	8½ for 10'0"				3'1½"
2	1-4	130'0"	38'9"				7½" for 13'0"	8½ for 13'3"	8½ for 13'9"	7½ for 13'0"				3'1½"
3	1-4	100'0"	29'9"					9½" for 10'0"	9½" for 10'0	8" for 10'0"	6½" for 10'0"	5½" for 10'0"	4½" for 10'0"	3"











SHEAR CONNECTORS

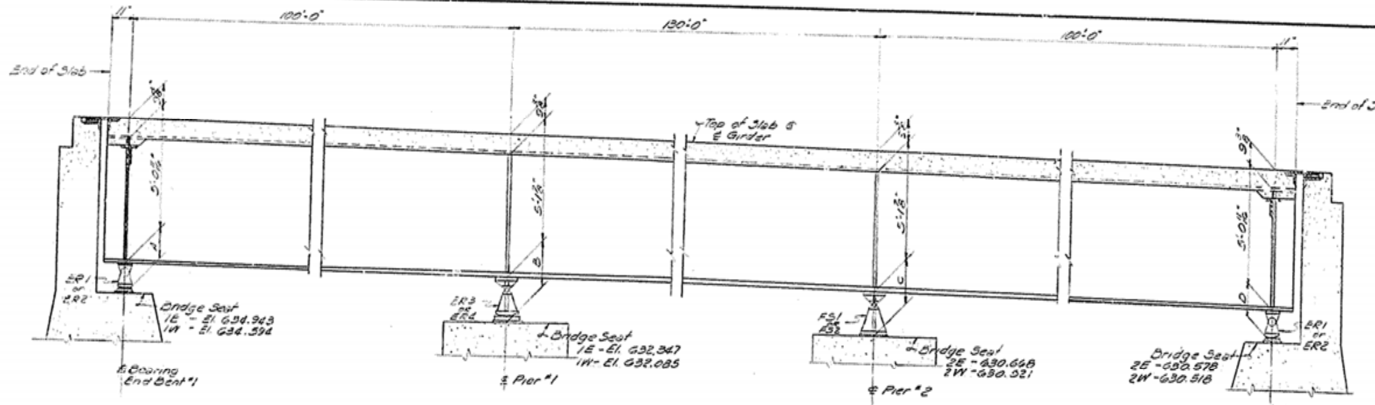
C.K.P. OVER CHAPLIN RIVER SHEET 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167+65.00 PROJECT NO.

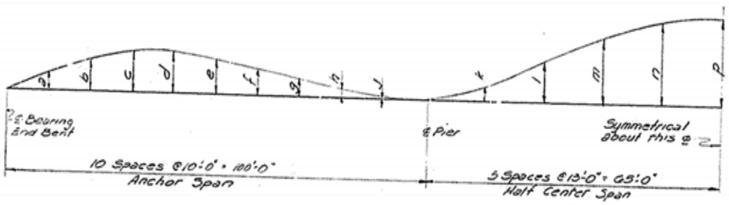
BRIDGE NUMBER C.K.P. CONTROL NO. DRAWING NO. 15846 SHEET

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



PART SECTION ON ℄ GIRDER

TABLE OF DIMENSIONS		
DIM.	GIRDER #1 or #4	GIRDER #2 or #3
A	1'-3⅝"	1'-5⅛"
B	1'-10⅞"	1'-11¾"
C	1'-9⅝"	1'-11¼"
D	1'-3⅝"	1'-5¼"



DEAD LOAD CAMBER

DEAD LOAD CAMBER						
POINT	GIRDER #1 OR #4			GIRDER #2 OR #3		
	STEEL Δ	CONCRETE Δ	TOTAL Δ	STEEL Δ	CONCRETE Δ	TOTAL Δ
a	0.013	0.035	0.048	0.013	0.035	0.048
b	0.019	0.067	0.086	0.019	0.067	0.086
c	0.024	0.085	0.109	0.024	0.085	0.109
d	0.025	0.090	0.115	0.025	0.090	0.115
e	0.023	0.082	0.105	0.023	0.082	0.105
f	0.018	0.064	0.082	0.018	0.064	0.082
g	0.011	0.039	0.050	0.011	0.039	0.050
h	0.004	0.016	0.020	0.004	0.016	0.020
j	0	0.002	0.002	0	0.002	0.002
k	0.004	0.015	0.019	0.004	0.015	0.019
l	0.014	0.048	0.062	0.014	0.048	0.062
m	0.026	0.091	0.117	0.026	0.091	0.117
n	0.034	0.124	0.158	0.034	0.124	0.158
p	0.038	0.135	0.173	0.038	0.135	0.173

NOTE—
Girder is to be fabricated so that top and bottom of web plate will be parallel to grade with full dead load in place.

STRUCTURAL STEEL NOTES

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

MATERIAL SPECIFICATIONS: The following ASTM designations shall govern the materials furnished:

Material	ASTM Designation
Structural Steel	A36-61T
High Strength Bolts, Nuts & Plain Hardened Washers	A325-61T
Low-Carbon Steel Machine Bolts & Nuts	A307-61T
Structural Rivet Steel	A141-58
Mild Steel Arc-Welding Electrodes	A233-58T
Gray Iron Castings	A48-60T
Welded Wrought Iron Pipe, Standard	A72-59T

PAYMENT FOR STRUCTURAL STEEL: For purposes of payment "lump sum bid" for structural steel includes structural steel, rivets, high strength bolts, washers, welding and welding materials, molten lead, lead plates and anchor bolts, floor drains, paint and all labor and materials necessary to erect the steel in accordance with the Plans and Specifications. Payment credits for changes in the steel quantities due to changes in the Plans ordered by the Engineer shall be at the unit price derived from the Contract lump sum bid divided by the estimated structural steel weight.

STEEL FINISH: Steel bearing surfaces in contact shall be finished in accordance with Section 5.2.3 of the Specifications.

CAMBER: Web plates shall be cut to provide for parabolic camber of the girder. Provide for possible warpage due to extra heat in top flange by virtue of shear connectors. Girder is to be fabricated so that top and bottom of web plate will be parallel to roadway grade with full dead load in place.

MILL TEST REPORTS: Notarized mill test reports in triplicate shall be furnished the Kentucky Department of Highways showing that all materials furnished conform to the Specifications.

SHOP DETAIL DRAWINGS: The Contractor shall submit shop detail drawings of all structural steel to the Director of Bridges for approval in accordance with the Specifications. A set of linen tracings of approved shop details shall become 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 "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 start of the fabrication.

DIMENSIONS: Dimensions shown on the design drawings are for a normal temperature of 60 degrees Fahrenheit with dead load on the structure.

SHOP ASSEMBLY: 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 camber, fit for drilling or reaming. This applies to field splices in girders only. Girders shall remain assembled for inspection by the Department of Highways Inspector and are to be match-marked while assembled. Connections for cross frames, diaphragms, longitudinal bracing, expansion joints and other minor members may be punched or drilled full size without assembly, subject to the requirements in the specifications for general reaming.

FIELD CONNECTIONS: High strength steel bolts shall be used in all field connections in accordance with Section 5.2.3-A-6 (1) of the Specifications, except Assembly and Dimensions of high strength bolts, nuts and washers shall conform to "Specifications for Structural Joints using ASTM A325 Bolts", March 1960, approved by the Research Council on Riveted and Bolted Structural Joints of The Engineering Foundation. All joints are designed as friction-type connections. Installation shall be performed by using the turn-of-nut method. When the width of high-strength bolt heads corresponds to that of heavy semifinished hexagon bolt only one washer per bolt is required.

Open holes shall be 15/16" diameter for 7/8" diameter bolts; and 1 1/16" diameter for 1" diameter bolts.

Where field welding is indicated, welding shall be performed in accordance with the Specifications for welding materials and welding. Welding procedures shall be submitted by the erector to the Department of Highways for approval.

PAINT: All structural steel shall be given one shop coat and one field coat of type 1 red lead paint and two field coats of aluminum paint. Exposed surfaces of expansion dams, not accessible after erection shall be given two field coats of aluminum paint before erection. Shop paint shall not be applied within 3" of open holes where high strength bolts are to be used for field connections and shall not be applied to steel surfaces in contact with concrete. Cleaning of weld spatter from welded assemblies in accordance with AWS 413(e) 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 type 1 red lead paint as touch up prior to application of the field coat of red lead paint. Individual field coats shall be tinted to faithfully indicate the progress of field painting.

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.

SUPERSTRUCTURE

C.K.P. OVER CHAPLIN RIVER — SHEET 15

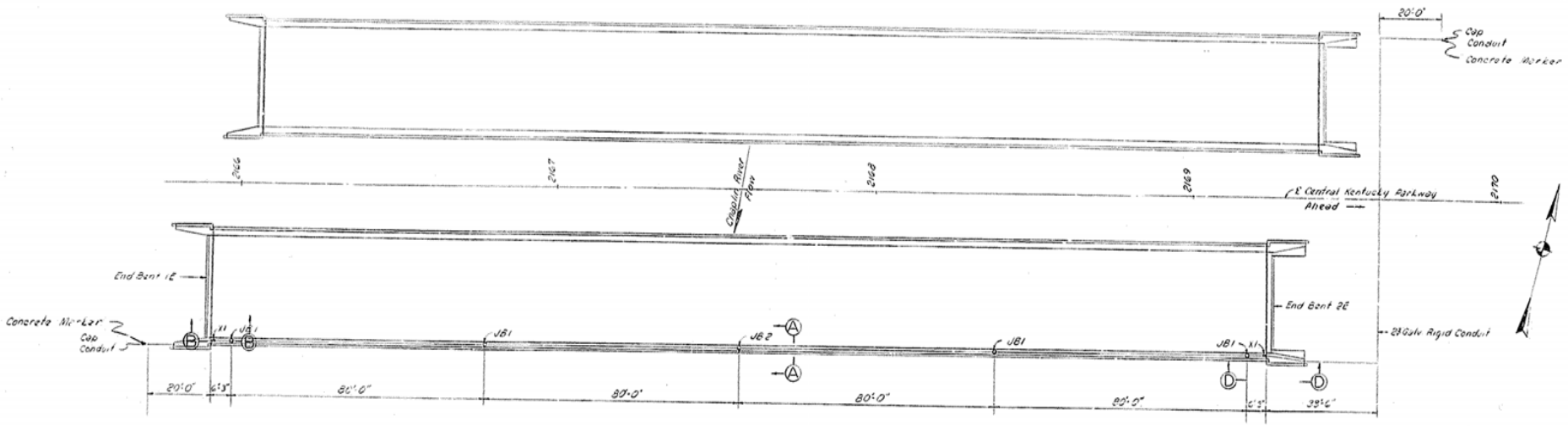
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES ROAD

STATION 2167+65.00 — PROJECT NO.
BRIDGE NUMBER C.K.P. — CONTROL NO. — DRAWING NO. 15846 — SHEET

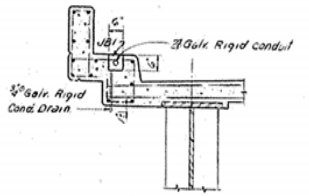
DESIGNED BY R.C.W. — CHECKED BY J.R.O. — DATE 2-64
DETAILED BY C.L.B. — CHECKED BY J.R.O. — DATE 2-64
TRACED BY — CHECKED BY — DATE
REVISED — DATE
REVISED — DATE
REVISED — DATE

BRIDGE

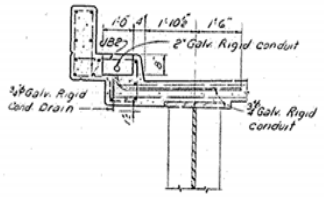
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



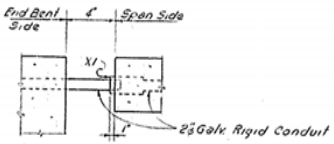
PLAN



SECTION A-A JB1



SECTION A-A JB2



SECTION B-B

ELEVATION D-D

NOTE

Concrete Marker @ Terminal points of conduit is to consist of a 4"x4"x36" reinforced concrete post with 4 size 4 deformed reinforcing steel rods, a 6" brass disc in the end of the post and inscribed 'End of Duct.' Marker to be 2" above grade with disc exposed.

NOTES

X = Expansion Joint - Crouse-Hinds XU641 with GC100 Grounding Straps.
JB1 = Junction Box - OZ Type YU 16" long, 6" wide, 6" deep or approved equal.
All conduit to be Rigid Galvanized.
Junction boxes and conduit are to be placed so as to interfere with a minimum amount of reinforcement. Bend reinforcement where necessary.
JB2 - Junction Box - OZ Type YR 18" long 12" wide 8" deep or approved equal.

BILL OF MATERIALS

2" ϕ Galv. Rigid Conduit	500 Lin. Ft.
¾" ϕ Galv. Rigid Conduit	8 Lin. Ft.
16"x6"x6" Junction Boxes (OZ Type YU or approved equal)	4 Each
18"x12"x8" Junction Boxes (OZ Type YR or approved equal)	1 Each
Expansion Fittings (Crouse-Hinds XU641 with GC100 grounding strap)	2 Each
2" ϕ Galv. Conduit Caps	2 Each
Concrete Marker (See Note)	2 Each

ELECTRICAL CONDUIT

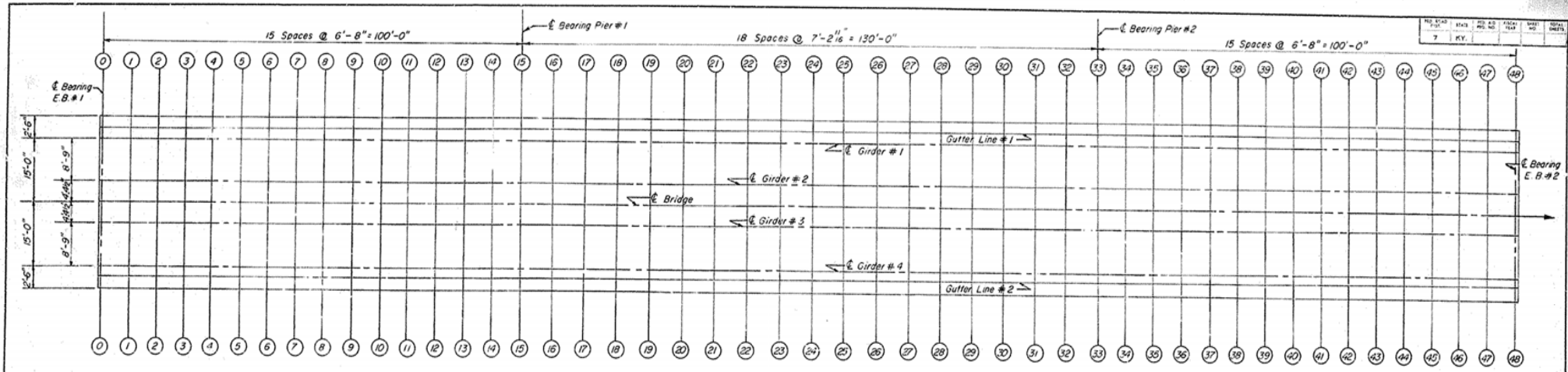
C.K.P. OVER CHAPLIN RIVER SHEET 16

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

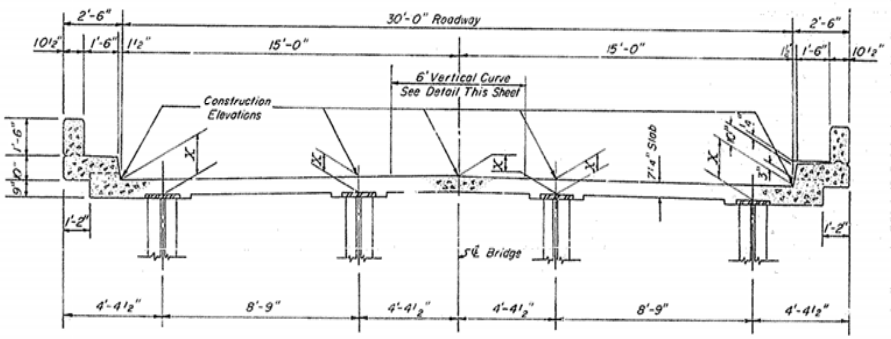
STATION 2167+65.00 PROJECT NO.

BRIDGE NUMBER C.K.P. CONTROL NO. DRAWING NO. 15846 INDEX

BRIDGE



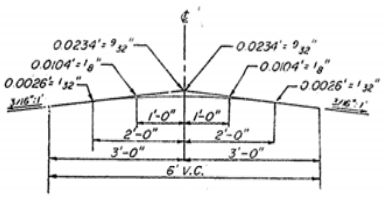
PLAN OF SLAB



TYPICAL SECTION

TABLE OF ELEVATIONS (WESTBOUND)

Section	Gutter Line #1			Girder #2			℄ Bridge			Girder #3			Gutter Line #2		
	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X
0-0	641.703			641.869			641.214			641.869			641.703		
1-1	.586			.752			.737			.752			.586		
2-2	.469			.635			.680			.635			.469		
3-3	.352			.518			.563			.518			.352		
4-4	.232			.398			.443			.398			.232		
5-5	.107			.273			.318			.273			.107		
6-6	640.980			.146			.191			.146			640.980		
7-7	.850			.016			.061			.016			.850		
8-8	.716			640.882			640.927			640.882			.716		
9-9	.580			.746			.791			.746			.580		
10-10	.445			.611			.656			.611			.445		
11-11	.309			.475			.520			.475			.309		
12-12	.181			.347			.392			.347			.181		
13-13	.058			.224			.269			.224			.058		
14-14	639.944			.110			.155			.110			639.944		
15-15	.835			.001			.046			.001			.835		
16-16	.727			639.893			639.938			639.893			.727		
17-17	.623			.795			.840			.795			.623		
18-18	.536			.704			.749			.704			.536		
19-19	.456			.622			.667			.622			.456		
20-20	.380			.546			.591			.546			.380		
21-21	.303			.469			.514			.469			.303		
22-22	.220			.385			.431			.386			.220		
23-23	.137			.303			.348			.303			.137		
24-24	.051			.217			.266			.217			.051		
25-25	638.959			.125			.170			.125			638.959		
26-26	.864			.030			.075			.030			.864		
27-27	.768			638.934			638.979			638.934			.768		
28-28	.666			.832			.877			.832			.666		
29-29	.564			.730			.775			.730			.564		
30-30	.468			.634			.679			.634			.468		
31-31	.380			.546			.591			.546			.380		
32-32	.300			.466			.511			.466			.300		
33-33	.220			.386			.431			.386			.230		
34-34	.173			.339			.384			.339			.173		
35-35	.124			.290			.335			.290			.124		
36-36	.081			.247			.292			.247			.081		
37-37	.045			.211			.256			.211			.045		
38-38	.016			.182			.227			.182			.016		
39-39	637.987			.153			.198			.153			637.987		
40-40	.950			.124			.169			.124			.958		
41-41	.927			.093			.138			.093			.927		
42-42	.892			.058			.103			.058			.892		
43-43	.855			.021			.066			.021			.855		
44-44	.815			637.981			.026			637.981			.815		
45-45	.771			.937			637.982			.937			.771		
46-46	.723			.889			.934			.889			.728		
47-47	.675			.841			.886			.841			.675		
48-48	.627			.793			.838			.793			.627		



PARABOLIC CROWN

CONSTRUCTION NOTES

Layout sections 1-1 to 48-48 as shown in plan on this sheet. (Center punch marks on top of beams for elevation points.)

Take elevations on top of steel at points indicated after cross frames and lateral bracing are in place and after all false work has been removed, but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in table under Top of Steel.

Compute Dimension "X" as follows: Construction Elevation minus Top of Steel equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, plinth, handrail, and future surfacing.

For setting templates measure Dimension "X" above Top of Steel for top of template. Do not set templates by elevations.

Construct handrail plinth to sidewalk grade. Do not add camber to handrail plinth.

Slab elevation tolerances are based on delivery to the bridge site of fabricated steel having dimension and sweep tolerances meeting the requirements of A.W.S. Spec. par. 507 for welded girders, and are based on erection of the steel undamaged.

C.K.P. OVER CHAPLIN RIVER SHEET 17

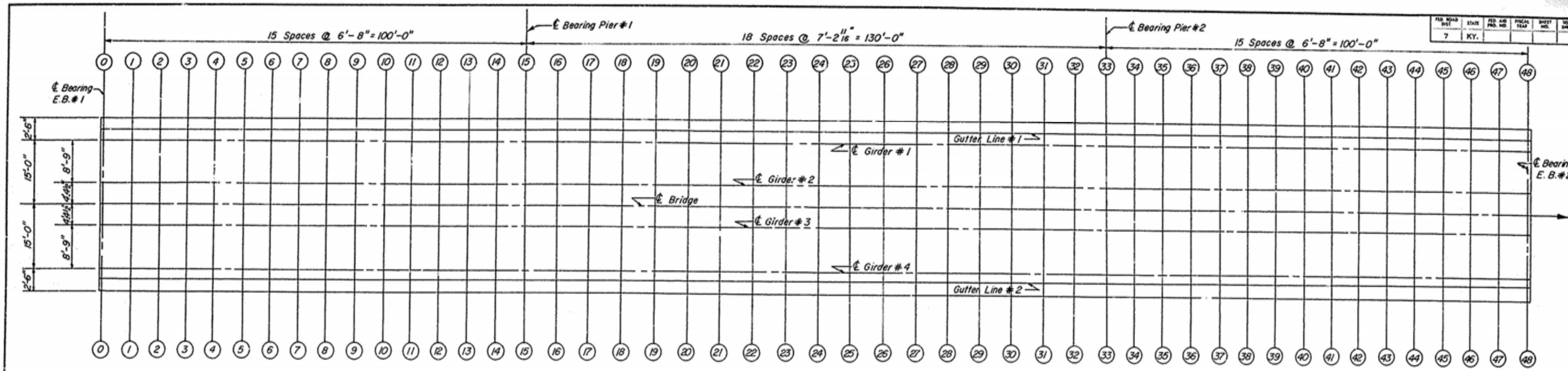
WESTBOUND ELEVATIONS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES
ROAD

STATION 2167 + 65.00 PROJECT NO.
BRIDGE NUMBER C.K.P. CONTROL NO. DRAWING NO. 15846

DESIGNED BY PCH DRAWN BY PCH CHECKED BY PCH CHECKED BY PCH

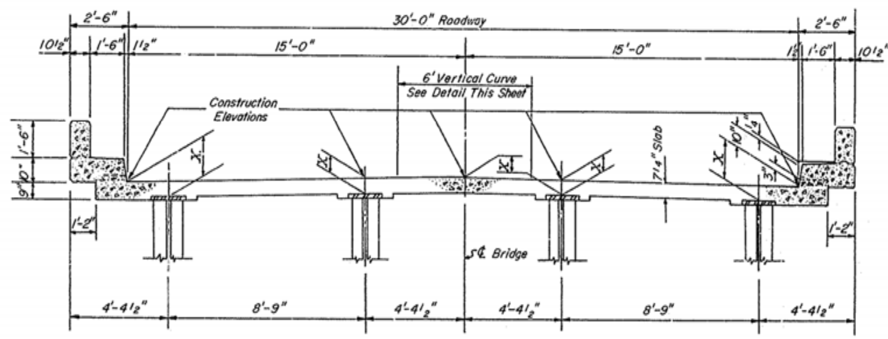
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



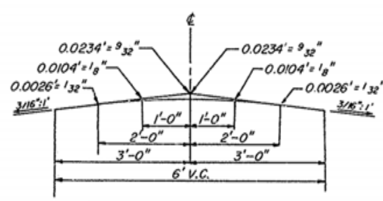
PLAN OF SLAB

Section	Gutter Line # 1 Const. El.	Gutter Line # 1 Top of Steel	Gutter Line # 1 Dim. X	Girder # 2 Const. El.	Girder # 2 Top of Steel	Girder # 2 Dim. X	℄ Bridge Const. El.	℄ Bridge Top of Steel	℄ Bridge Dim. X	Girder # 3 Const. El.	Girder # 3 Top of Steel	Girder # 3 Dim. X	Gutter Line # 2 Const. El.	Gutter Line # 2 Top of Steel	Gutter Line # 2 Dim. X
0-0	642.056			642.218			642.263			642.218			642.056		
1-1	641.930			.096			.141			.096			641.930		
2-2	.807			641.973			.018			641.973			.807		
3-3	.684			.850			641.895			.850			.684		
4-4	.558			.724			.769			.724			.558		
5-5	.428			.594			.639			.594			.428		
6-6	.294			.460			.505			.460			.294		
7-7	.158			.324			.369			.324			.158		
8-8	.019			.185			.230			.185			.019		
9-9	640.877			.043			.088			.043			640.877		
10-10	.736			640.902			640.947			640.902			.736		
11-11	.595			.761			.806			.761			.595		
12-12	.460			.626			.671			.626			.460		
13-13	.332			.498			.543			.498			.332		
14-14	.211			.377			.422			.377			.211		
15-15	.097			.263			.308			.263			.097		
16-16	639.982			.148			.193			.148			639.982		
17-17	.878			.044			.089			.044			.878		
18-18	.781			639.947			639.992			639.947			.781		
19-19	.693			.859			.904			.859			.693		
20-20	.610			.776			.821			.776			.610		
21-21	.527			.693			.738			.693			.527		
22-22	.438			.604			.649			.604			.438		
23-23	.348			.514			.559			.514			.348		
24-24	.256			.422			.467			.422			.256		
25-25	.157			.323			.368			.323			.157		
26-26	.056			.222			.267			.222			.056		
27-27	638.953			.119			.164			.119			638.953		
28-28	.846			.012			.057			.016			.846		
29-29	.737			638.903			638.948			638.903			.737		
30-30	.634			.800			.845			.800			.634		
31-31	.540			.706			.751			.706			.540		
32-32	.453			.619			.664			.619			.453		
33-33	.377			.543			.588			.543			.377		
34-34	.315			.481			.526			.481			.315		
35-35	.259			.425			.470			.425			.259		
36-36	.211			.377			.422			.377			.211		
37-37	.169			.335			.380			.335			.169		
38-38	.134			.300			.345			.300			.134		
39-39	.099			.265			.310			.265			.099		
40-40	.064			.230			.275			.230			.064		
41-41	.027			.193			.238			.193			.027		
42-42	637.987			.153			.198			.153			637.987		
43-43	.944			.110			.155			.110			.944		
44-44	.898			.064			.109			.064			.898		
45-45	.848			.014			.059			.014			.848		
46-46	.794			637.960			.005			637.960			.794		
47-47	.741			.907			637.952			.907			.741		
48-48	.687			.853			.898			.853			.687		

TABLE OF ELEVATIONS (EASTBOUND)



TYPICAL SECTION



PARABOLIC CROWN

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EASTBOUND ELEVATIONS

C.K.P. OVER CHAPLIN RIVER SHEET 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
NELSON-WASHINGTON
CENTRAL KENTUCKY PARKWAY
ELIZABETHTOWN-VERSAILLES ROAD

STATION 2167+65.00 PROJECT NO.

BRIDGE NUMBER C.K.P. | CONTROL NO | DRAWING NO. 15846 | INDEX

DESIGNED BY R.W. DETAILED BY RC TRACED BY CHECKED BY RLW CHECKED BY DATE REVISED

BRIDGE