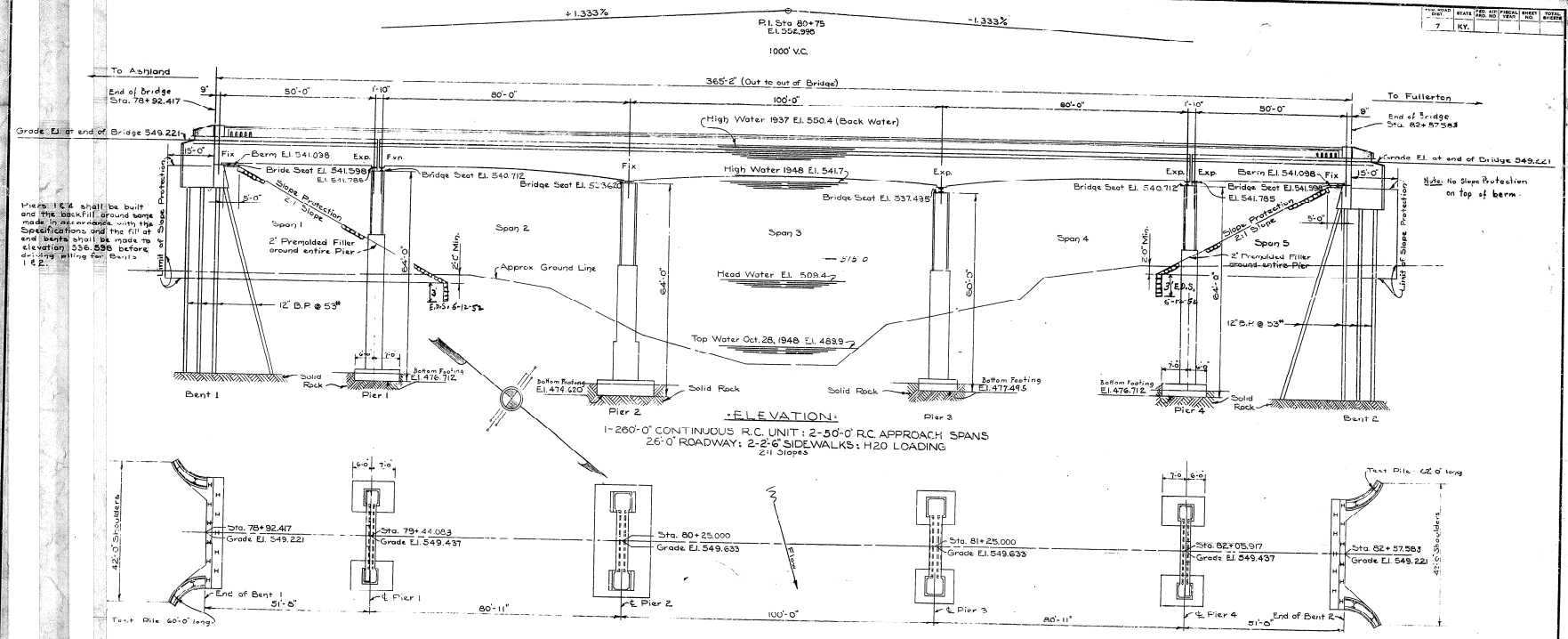
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



·REFERENCES AND ESTIMATE OF QUANTITIES·

ITEM	SHEET NO.	CONCRETE Cu. Yds. CLASS "A"	CONCRETE Cu. Yds. CLASS "D"	REINF. lbs.	EXCAVATION Cu. Yds. COMM.	EXCAVATION Cu. Yds. S.R.	STRUCT. STEEL lbs.	BRONZE PLATES lbs	12" BEARING PILES Lin. Ft. FURNISHING	12" BEARING PILES Lin. Ft. DRIVING	SLOPE PROTECT. Squ. Yds.
Layout Sheet	1										
Bent 1	2	71.7		4230					915	915	1650
Pier 1	3	174.6		22120	440	35		304			
Pier 2	4	324.9		42610	480	70					
Pier 3	5	239.8		19990	290	30					
Pier 4	3	174.6		22120	550	30		304			
Bent 2	2	71.7		4230					930	930	1200
Span 2-3-4	8-9-10	793.9		[illegible]							
Span 5	6-7	133.5		25350							
Handrail	11		36.6	6090							
Exp. Dev.	12						21278				
Piles	P-13										
Cast Iron Drains	13										
Const. Elevs.	14										
Total		2118.2	36.6	[illegible]	1760	165	21278	608	1845	1845	2850

GENERAL NOTES

Specifications: Kentucky Department of Highways (1945 Standard with Amendments)

Design Load: Bridge designed for H20 loading as specified in A.A.S.H.O. Specifications 1949

Concrete: Class "A" concrete to be used throughout except in Handrail. Class "D" concrete to be used in Handrail.

Reinforcement: Dimensions from face of concrete to bar are clear distances, unless otherwise shown. Dimensions for bar spacing are distances center to center of bars. See Emergency Provision No. 16.

Beveled Edges: All exposed edges to be beveled ¾" unless otherwise shown.

Floor Drains: The cost of Floor Drains to be included in the unit price bid for Class "A" concrete.

Construction Joints: All construction joints shall be carefully formed. If the contractor shall furnish sufficient mixer capacity on the job to place the concrete between the construction joints as noted on the plans in a period not exceeding ten hours continuous run. After one section of the concrete has been placed the construction joints shall be cleaned of all laitance, loose and foreign material just before the concrete takes its final set (which is about 6 hours). The joints shall then be covered with burlap and kept completely saturated with water. Flush the joint with 1:2 Portland Cement mortar before placing the adjoining concrete section.

Falsework: The falsework supporting beams and slabs of any span of a continuous unit shall not be removed until all beams and slabs in all spans of that unit have been poured for at least twenty-one (21) days.

Expansion Joint Material and Tar Paper: The cost of these items to be included in the unit price bid for Class "A" Concrete.

Tar Paper: To be Commercial Grade Tar paper or roofing felt approximately ⅛" thick.

Slope Protection: To be dry rip-rap or concrete slope wall in accordance with Standard Drawing 3-13.

Piles: Piles are to be driven to refusal on a sustain a load of 30 tons. Test piles shall be accurately located so as to be used in finished structure.

Drilling Holes & Setting Anchors: Holes of depth and dimensions shown shall be drilled for Anchor Bolts. Contractor shall be responsible for keeping holes dry in freezing weather. After base plates or castings are properly set and anchor bolts are placed in drilled holes, molten lead or sulphur shall be poured into holes and packed until holes are completely filled flush with top of base plate or castings. The cost of drilling anchor bolt holes, furnishing lead or sulphur and packing holes with same shall be included in unit price bid for structural steel.

BILL OF INCIDENTAL MATERIALS

ITEM	No. Pcs.	DESCRIPTION	LOCATION
Premolded Expansion Jt. Fill	4	3'-0⅝" x 8'-4¾" x ½"	Bent 1 & 2
do	2	1'-6" x 26'-0" x ½"	Pier 1 & 4
Floor Drains	30	See Sheet 13	
Prem. Exp. Jt. Filler	154 lin. ft.	2" x 6"	Pier 1 & 4

NOTE: Quantities shown in Bill of Incidental Material are approximate only and the Contractor is responsible for furnishing sufficient material to complete the work in accordance with the plans and Specifications.

G-351
3-13
P-13

Bridge over Little Sandy River — Sheet 1 of 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON ROAD

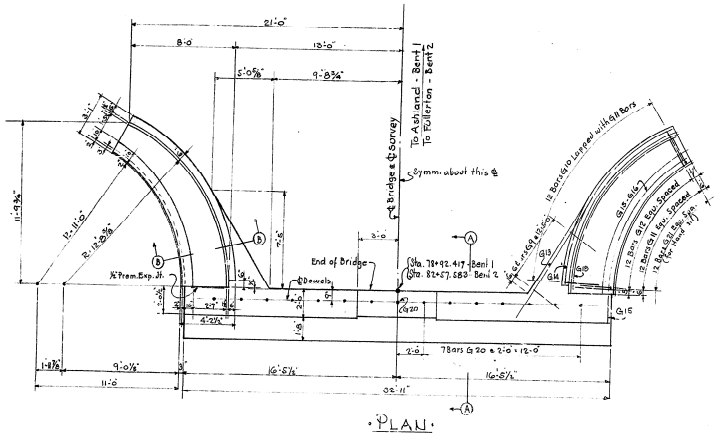
STATION 80+75 · PROJECT NO. F 51508

BRIDGE NUMBER

DRAWING NUMBER 9990

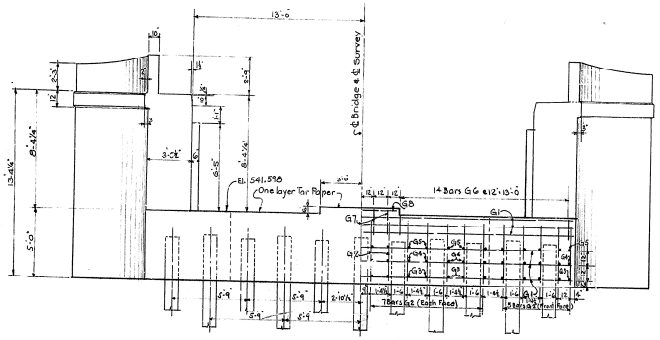
AUG 19 1948

AUG 19 1948

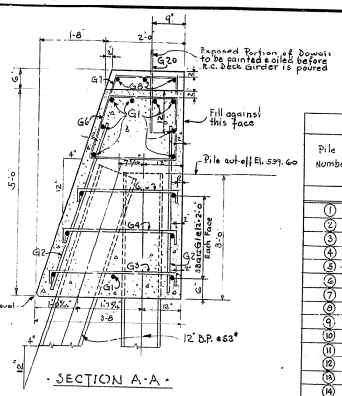


·PLAN·

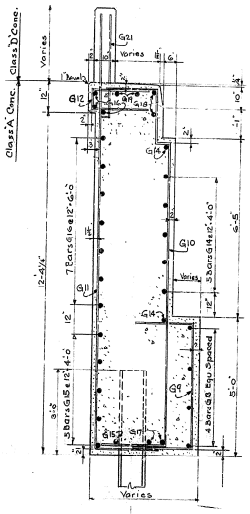
Note: For Rail on Bents See Sheet No. 11



·ELEVATION·



·SECTION A-A·



·SECTION B-B·

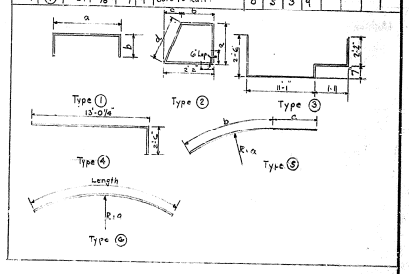
PILE RECORD

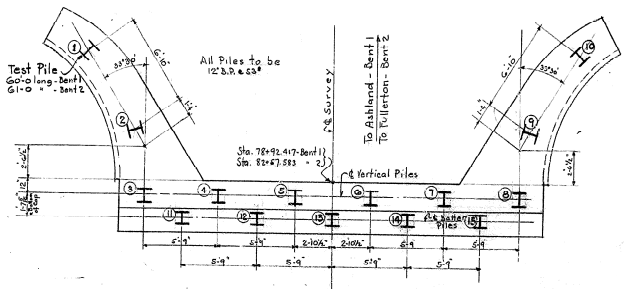
Pile Number	Cut-off Elevation as shown on plan	Tip Pile Elevation as driven	Length of Piles in place Lin. Ft.	Calculated Bearing Capacity Tons
BENT 1				
1	539.60			
2	539.60			
3	539.60			
4	539.60			
5	539.60			
6	539.60			
7	539.60			
8	539.60			
9	539.60			
10	539.60			
11	539.60			
12	539.60			
13	539.60			
14	539.60			
15	539.60			
BENT 2				
1	539.60			
2	539.60			
3	539.60			
4	539.60			
5	539.60			
6	539.60			
7	539.60			
8	539.60			
9	539.60			
10	539.60			
11	539.60			
12	539.60			
13	539.60			
14	539.60			
15	539.60			

FEDERAL AID PROJECT NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	7 KY.				

BILL OF REINFORCEMENT (1 BENT)

Mark	Type	No.	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
G1	Str.	15	3/4 ϕ	32	7	Cap								
G2	"	38	"	4	3	"								
G3	(1)	24	"	3	5	"	3	2	0	3				
G4	"	24	"	3	1	"	2	10	0	3				
G5	"	24	"	2	9	"	2	6	0	3				
G6	(2)	28	7/8 ϕ	7	4	"	1	4	1	8 3/8	0	5 5/8	1	5
G7	"	5	"	8	2	"	1	10	1	6 7/8	0	7 3/8	1	11
G8	Str.	3	1/2 ϕ	5	8	"								
G9	(1)	12	3/4 ϕ	10	6	Wings	4	8	3	0				
G10	(3)	24	"	18	2	"								
G11	(4)	24	"	15	5	"								
G12	(1)	24	"	4	6	"	0	0	2	0 3/4				
G13	(5)	8	1" ϕ	17	9	"	13	0	7	9	10	0		
G14	(6)	14	1/2 ϕ	14	6	"	13	0						
G15	(5)	12	1" ϕ	13	9	"	11	5 3/8	11	9	2	0		
G16	(6)	20	1/2 ϕ	11	7	"	11	5 1/4						
G17	(5)	4	1" ϕ	14	3	"	13	0						
G18	(6)	4	1/2 ϕ	14	8	"	12	6						
G19	"	4	"	13	0	"	12	9						
G20	Str.	15	"	2	0	Dowels								
G21	(1)	24	5/8	7	9	Curb to Rail	0	5	3	9				





·PILE LAYOUT·

·ESTIMATE OF QUANTITIES·

Bent No. 1

Concrete Class 'A'	71.7 cu. yds.
Reinforcement	4230 lbs
15 - 12" D.P. @ 53#	915 lin. ft.

Bent No. 2

Concrete Class 'A'	71.7 cu. yds
Reinforcement	4230 lbs
15 - 12" D.P. @ 53#	900 lin. ft.

Note:

This sheet does not replace other records on 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, Length of Pile in place and calculated bearing capacity of each pile and return one blue print copy of this sheet with this information to the Bridge Engineer so that the record can be placed on original plans.

Length of pile in place shown hereon is the actual length of pile in the finished structure below cut-off Elevation and is not necessarily the pay item.

·BENT No. 1 & 2 - PILE RECORD·

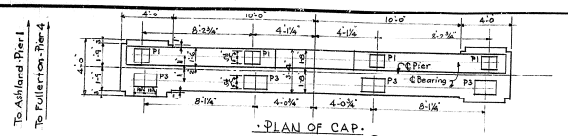
DESIGNED BY: [illegible] DATE:
DETAILED BY: E.R.S. DATE: 7/60
TRACED BY: CHECKED BY: DATE:
REVISED: DATE:
REVISED: DATE:
REVISED: DATE:

Bridge over Little Sandy River — Sheet 2

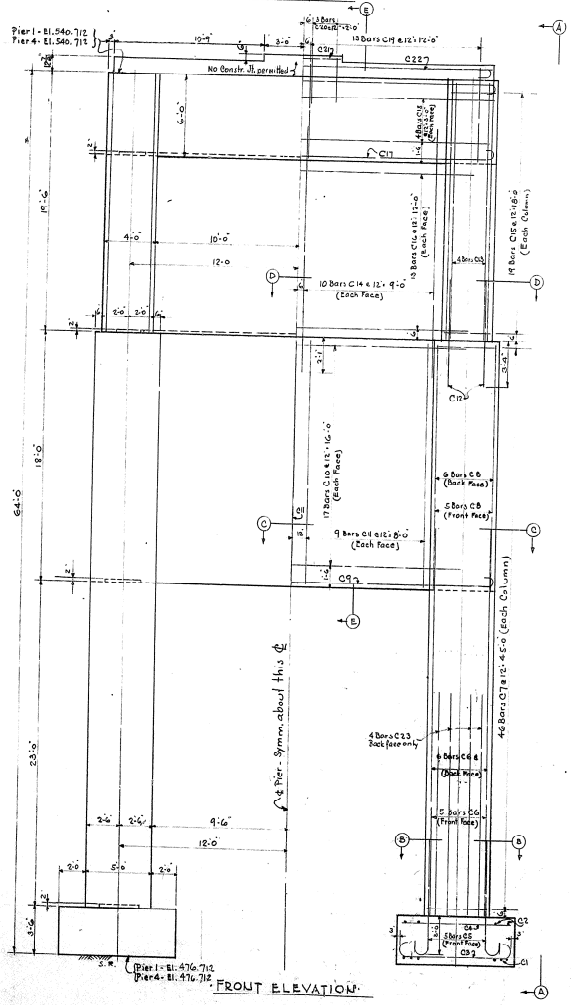
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND - GREENUP - FULLERTON
ROAD

STATION 80+75 PROJECT NO.

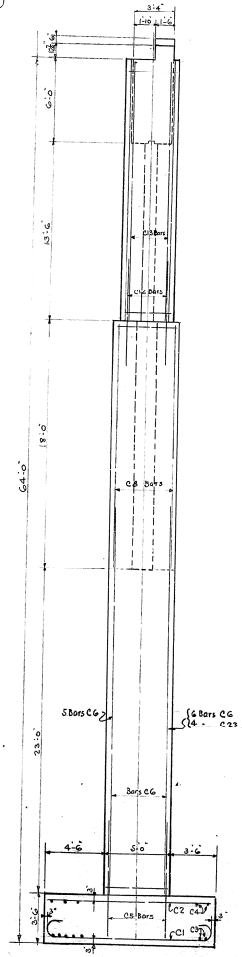
BRIDGE NUMBER — DRAWING NO. 9900



·PLAN OF CAP·



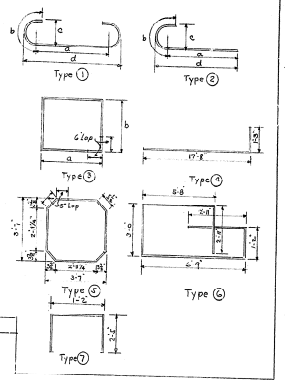
·FRONT ELEVATION·



·ELEVATION A-A·

BILL OF REINFORCEMENT (ONE PIER)

Mark	Type	No.	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
C1	(1)	38	1" □	14	7	Bottom of Footing	11	7	1	6	0	10½	12	5½
C2	Str.	18	⅞" ø	12	8	Top " "								
C3	(1)	50	1" □	10	7	Bottom " "	7	7	1	6	0	10½	8	6½
C4	Str.	26	⅞" ø	8	8	Top " "								
C5	(2)	38	1½" □	9	10	Footing to Columns	8	0	1	10	1	0½	8	6½
C6	Str.	30	1⅛" □	27	5	Lower Columns								
C7	(3)	92	⅝" ø	19	0	" "	4	7	4	7				
C8	Str.	30	1" ø	17	10	" "								
C9	(1)	4	1½" □	31	1	Lower Web	27	5	1	10	1	0½	28	5½
C10	Str.	34	⅝" ø	24	0	" "								
C11	(4)	38	"	18	10	" "								
C12	Str.	32	1" □	7	9	Lower Col. to Upper Col.								
C13	"	32	⅞" ø	19	4	Upper Columns								
C14	"	40	⅝" ø	17	7	" Web								
C15	(5)	38	"	14	2	" Columns								
C16	Str.	26	½" ø	24	0	" Web								
C17	(1)	6	1¼" ø	30	1	Cap	26	5	1	10	1	0½	27	5½
C18	Str.	10	¾" ø	27	8	"								
C19	(6)	26	⅝" ø	21	11	"								
C20	(7)	6	"	5	10	Haunch								
C21	Str.	3	½" ø	5	8	"								
C22	(8)	2	¾" ø	29	10	Cap	26	6	1	2	0	7½	27	1½
C23	Str.	8	1⅛" ø	16	0	Lower Column								



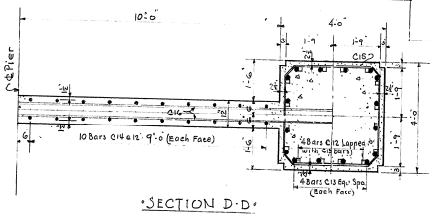
·ESTIMATE OF QUANTITIES·

PIER No. 1

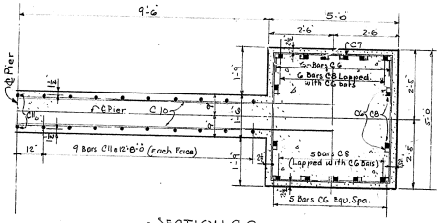
Concrete Class A	174.6 cu. yds
Reinforcement	22120 lbs

PIER No. 4

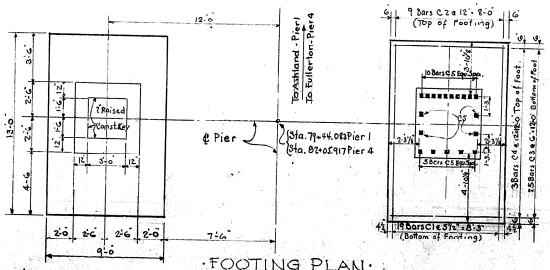
Concrete Class A	174.6 cu. yds.
Reinforcement	22120 lbs.



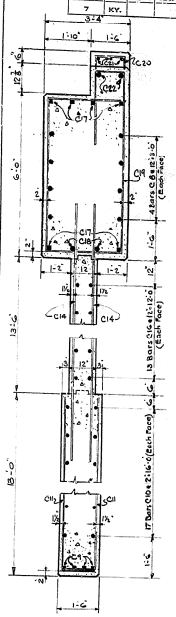
·SECTION D-D·



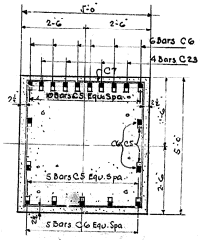
·SECTION C-C·



·FOOTING PLAN·



·SECTION E-E·



·SECTION B-B·

·PIER 1 & 4·

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

Bridge over Little Sandy River — Sheet 3

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND · GREENUP · FULLERTON
ROAD

STATION 80-75 — **PROJECT NO.**

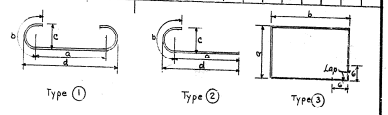
BRIDGE NUMBER — DRAWING No. 9900 — SHEET

DESIGNED BY: [illegible] DATE
DETAILED BY: [illegible] DATE 1/26
TRACED BY: DATE
CHECKED BY: DATE
CHECKED BY: DATE
REVISED: Footings & Column Reinf. OBK DATE 12-29-61
REVISED: DATE
REVISED: DATE
REVISED: DATE

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

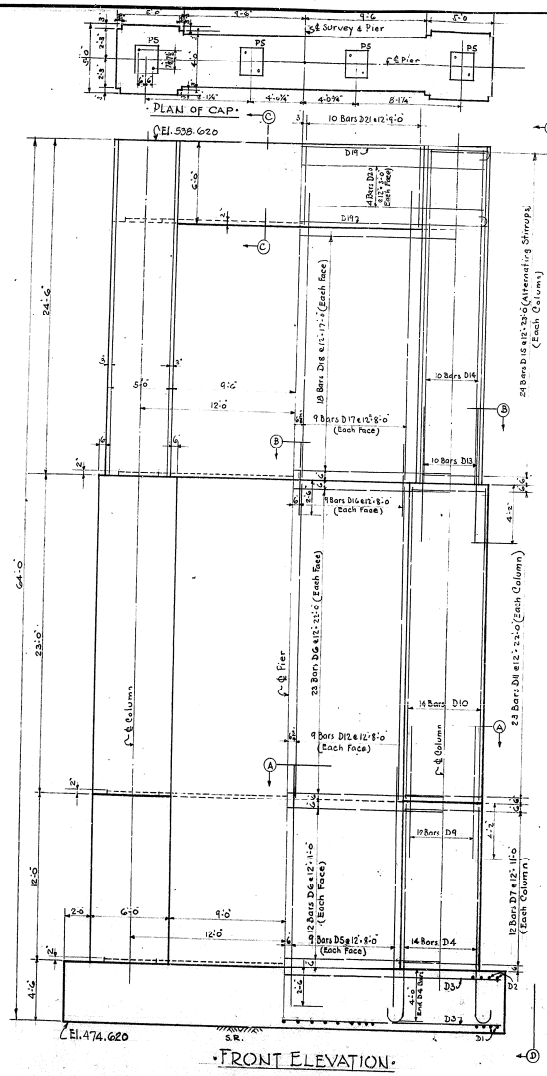
BILL OF REINFORCEMENT

Mark	Type	No.	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
D1	1	57	1" □	19	8	Bottom of Footing	16	8	1	6	0	10	17	6
D2	"	58	1" ø	19	8	Top " "	16	8	1	6	0	10	17	6
D3	Str.	36	"	33	8	" & Bottom of Footing								
D4	2	56	1¼" □	17	2	Footing to Columns	15	4	1	10	1	0½	15	10½
D5	Str	36	¾" ø	17	10	" " Web								
D6	"	70	⅝" ø	24	0	Web								
D7	3	24	"	27	0	Columns (Lower)	5	7	7	7				
D8	2	20	1¼" □	22	10	Footing to Columns	21	0	1	10	1	0½	21	0½
D9	Str.	48	"	9	8	Lower Col. to Inf. Col.								
D10	"	68	1⅛" □	22	10	Interm. Columns								
D11	3	46	⅝" ø	23	0	Interm. Columns	5	7	5	7				
D12	Str.	36	¾" ø	22	10	Web								
D13	"	56	1¼" □	9	8	Inf. Col. to Upper Col.								
D14	"	56	⅞" ø	24	4	Upper Columns								
D15	3	48	⅞" ø	18	0	Upper Columns	4	1	4	7				
D16	Str.	36	"	5	3	Lower Web to Upper Web								
D17	"	36	"	20	6	Upper Web								
D18	"	36	⅞" ø	24	0	" "								
D19	1	7	1¼" □	31	3	Cap	27	7	1	10	1	0½	29	7½
D20	Str.	10	¾" ø	28	8	"								
D21	3	20	⅞" ø	19	4	"	3	8	5	8				

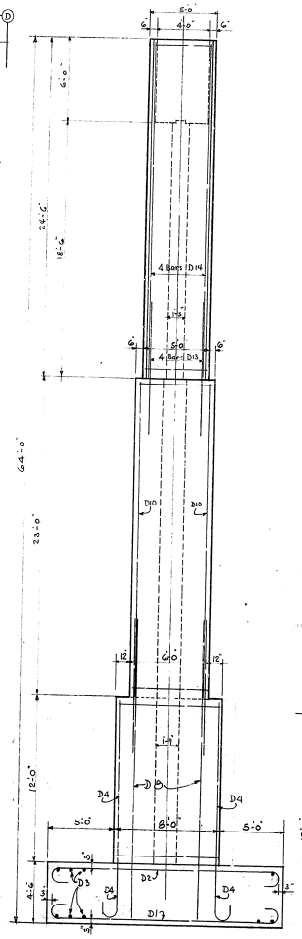


ESTIMATE OF QUANTITIES

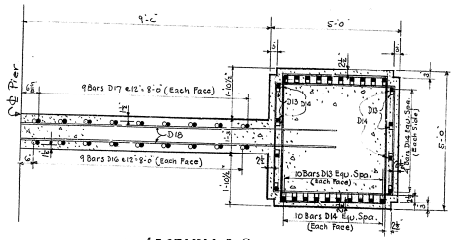
Concrete Class 'A'	324.9 cu yds.
Reinforcement	42610 lbs.



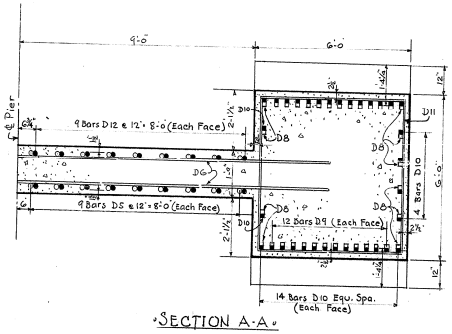
FRONT ELEVATION



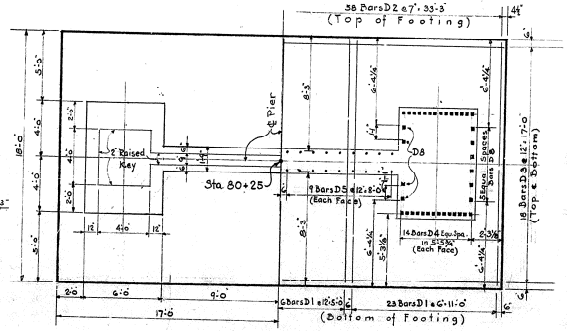
ELEVATION D-D



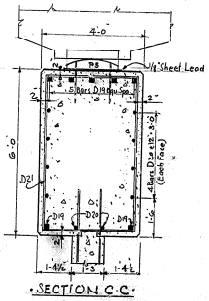
SECTION B-B



SECTION A-A



FOOTING PLAN



SECTION C-C

PIER 2

Bridge over Little Sandy River — Sheet 4

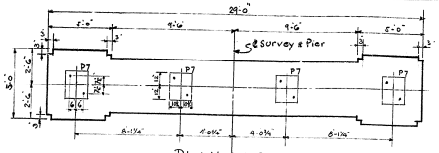
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND - GREENUP - FULLERTON
ROAD

STATION 80+75 — PROJECT NO.

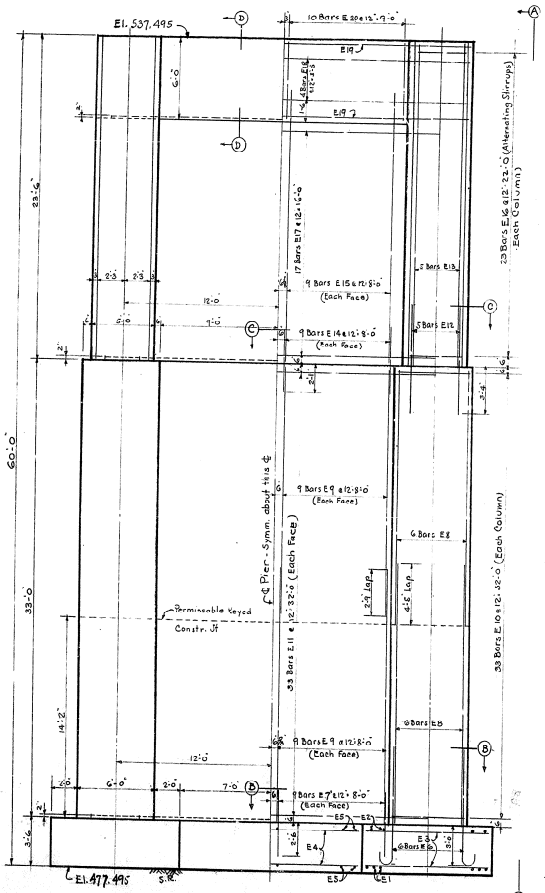
BRIDGE NUMBER — DRAWING ...9906 — SHEET 4

DESIGNED BY: DAV — DATE: 8/60 — REVISED — DATE
DETAILED BY: — DATE — REVISED — DATE
TRACED BY: — DATE — REVISED — DATE
CHECKED BY: — DATE

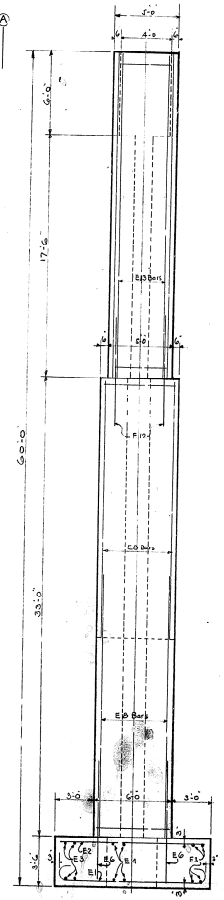
FED. AID PROJ. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
207	KY.				



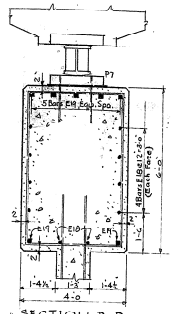
·PLAN OF CAP·



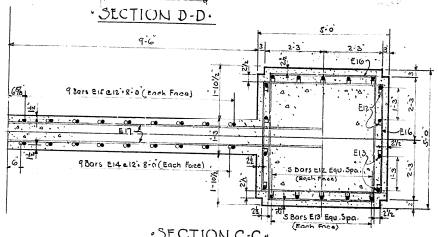
·FRONT ELEVATION·



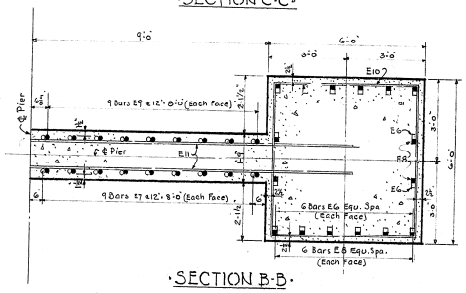
·ELEVATION A-A·



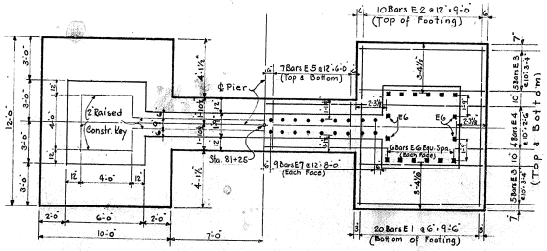
·SECTION D-D·



·SECTION C-C·



·SECTION B-B·

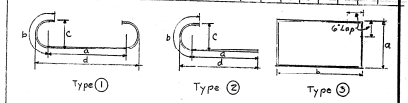


·FOOTING PLAN·

·PIER 3·

BILL OF REINFORCEMENT

Mark	Type	No.	Size	Length Ft	Length In	Location	b Ft	b In	Ft	Ft	d In	Ft	d In
E1	1	40	1" ø	13	8	Bottom of Footing	10	8	1	6	0	10	11	6
E2	Str.	20	3/4" ø	11	8	Top of "								
E3	"	40	"	9	8	Top & Bottom of "								
E4	"	8	"	33	8	" " "								
E5	"	28	1 1/2" ø	3	5	" " "								
E6	2	32	1 1/4" ø	9	10	Footing to Columns	8	0	1	10	1	0 1/2	8	6 1/2
E7	Str.	36	3/4" ø	5	10	" to Web								
E8	"	64	1" ø	18	7	Lower Columns								
E9	"	72	7/8" ø	17	9	Lower Web								
E10	3	66	"	23	0	Lower Columns	5	7	5	7				
E11	Str.	66	"	24	0	" Web								
E12	"	36	1" ø	7	9	Lower Col. to Upper Col.								
E13	"	36	3/4" ø	23	4	Upper Columns								
E14	"	76	7/8" ø	4	10	Lower Web to Upper Web								
E15	"	36	"	19	6	Upper Web								
E16	3	46	"	18	0	" Columns	4	1	4	7				
E17	Str.	34	1/2" ø	24	0	" " Web								
E18	"	10	3/4" ø	28	8	Cap "								
E19	1	7	1 1/8" ø	31	3	" "	27	7	1	10	1	0 1/2	28	7 1/2
E20	3	20	7/8" ø	19	4	" "	3	8	5	8				



ESTIMATE OF QUANTITIES

Concrete Class "A"	239.8 cu. yds.
Reinforcement	19990 lbs

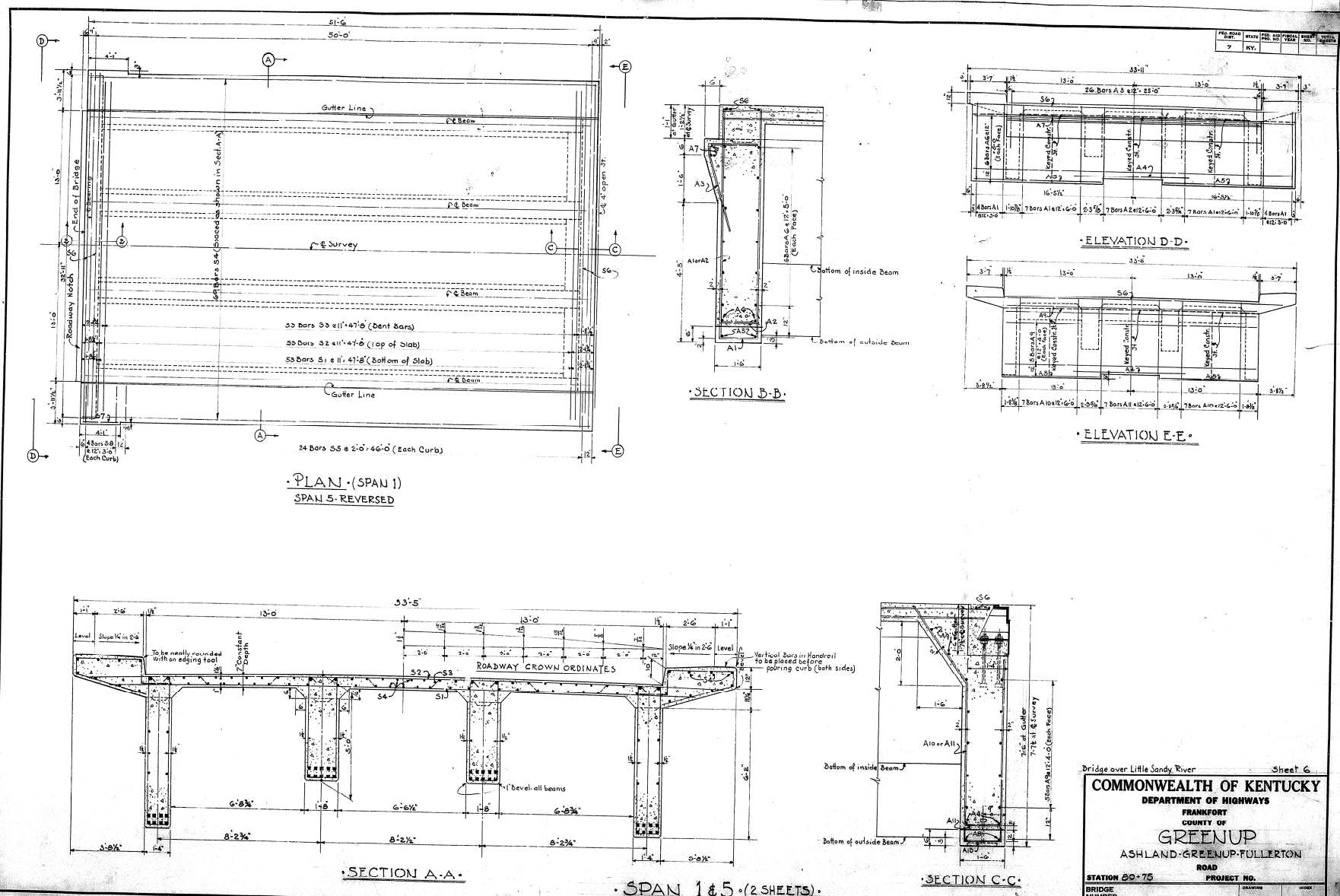
Bridge over Little Sandy River. Sheet 5

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND · GREENUP · FULLERTON
ROAD

STATION 80+75 **PROJECT NO.**

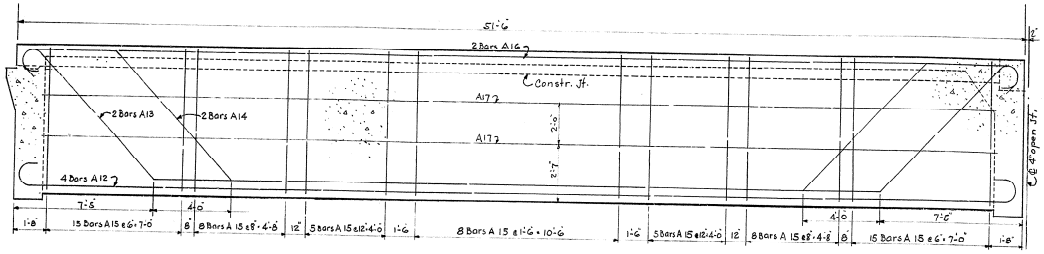
BRIDGE NUMBER | DRAWING NO. 9900 | INDEX

DESIGNED BY: DATE: REVISED: DATE:
DETAILED BY: DATE: REVISED: DATE:
TRACED BY: DATE: REVISED: DATE:
CHECKED BY: DATE: REVISED: DATE:

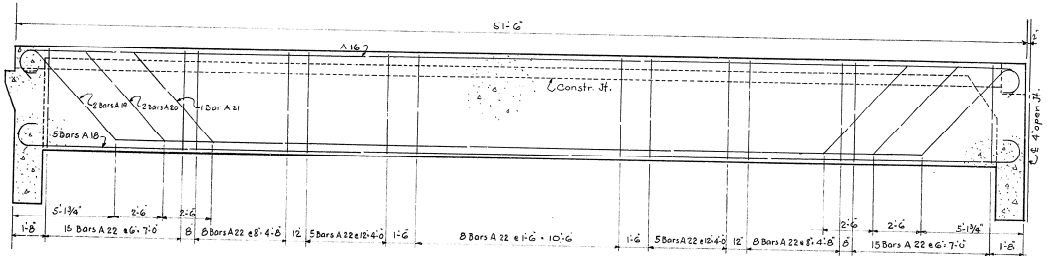


PLAN (SPAN 1)
SPAN 5 REVERSED
SECTION B-B
ELEVATION D-D
ELEVATION E-E
SECTION A-A
SECTION C-C
SPAN 1 & 5 (2 SHEETS)
Gutter Line
℄ Survey
End of Bridge
Roadway Notch
Bottom of inside Beam
Bottom of outside Beam
ROADWAY CROWN ORDINATES
Vertical Bars in Handrail to be placed before pouring curb (both sides)
To be neatly rounded with an edging tool
Level
Slope 1/4" in 2'-6"
7" Constant Depth
1" Bevel all beams
Bridge over Little Sandy River
Sheet 6
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON
ROAD
STATION 80+75
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 9900
INDEX

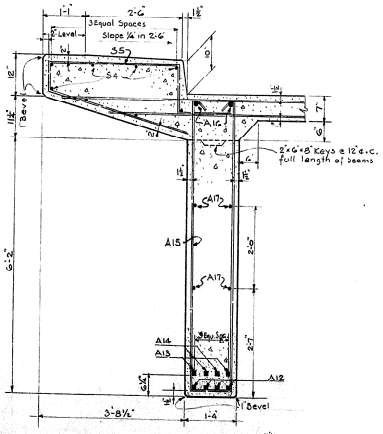
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	ROUTE NO.	TOTAL SHEETS
7	KY.				



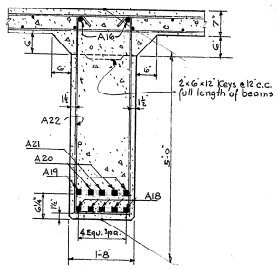
·SECTION ON ℄ OF EXTERIOR BEAMS·



·SECTION ON ℄ OF INTERIOR BEAMS·



·SECTION F-F·



·SECTION G-G·

·ESTIMATE OF QUANTITIES·

SPAN No. 1

Concrete - Class "A"	133.5 cu.yds.
Reinforcement	25350 lbs

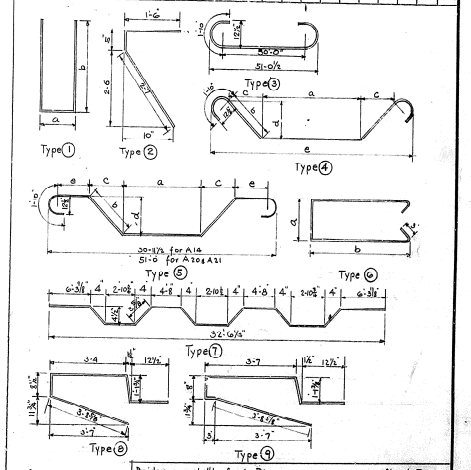
SPAN No. 5

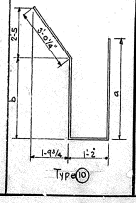
Concrete - Class "A"	133.5 cu.yds.
Reinforcement	25350 lbs.

SPAN 1 & 5 (2 Sheets)

BILL OF REINFORCEMENT (1 SPAN)

Mark	Type	No.	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.	e Ft.	e In.
A1	1	22	5/8 ø	15	5	End Wall & Bent	1	2	7	2½						
A2	"	7	"	14	7	" " "	1	2	6	9½						
A3	2	26	"	4	5	Roadway Notch										
A4	Str.	4	½ ø	10	6	End Wall & Bent										
A5	"	4	"	15	0	" " "										
A6	"	12	"	32	7	" " "										
A7	"	2	"	25	6	" "										
A8	"	4	"	9	8	" " & Pier 1 & 4										
A9	"	12	"	25	8	" " "										
A10	10	14	5/8 ø	14	6	" " "	5	8	4	10						
A11	"	7	"	13	8	" " "	5	5	4	5						
A12	3	8	1¼ □	53	8	Exterior Beams										
A13	4	4	"	56	1	" "	36	8	8	10½	6	3¼	6	4½	50	11⅝
A14	5	4	"	68	11	" "	28	8	9	1¼	6	5¾	6	6½	4	2¼
A15	6	128	5/8 ø	15	5	" "	1	1	7	0						
A16	Str.	8	1" ø	51	0	All "										
A17	"	8	½ ø	49	6	Exterior "										
A18	3	10	1¼ □	53	8	Interior Beams										
A19	4	4	"	56	5	" "	41	2½	5	8¼	4	0¼	4	1½	51	0¼
A20	5	4	"	57	1	" "	36	2½	5	11	4	2¼	4	3¼	2	8¼
A21	"	2	"	57	1	" "	31	2½	5	11	4	2¼	4	3¼	5	2¼
A22	6	128	5/8 ø	11	3	" "	1	5	4	9						
S1	Str.	53	"	29	6	Slab (Bottom)										
S2	"	53	"	32	6	" (Top)										
S3	7	53	"	33	4	" (Bent)										
S4	Str	69	½ ø	51	0	" & Curbs										
S5	8	48	5/8 ø	9	7	Curbs										
S6	Str	4	"	32	6	Slab over Endwalls										
S7	"	4	½ ø	3	10	Curbs										
S8	9	8	5/8 ø	10	1	"										





Bridge over Little Sandy River — Sheet 7

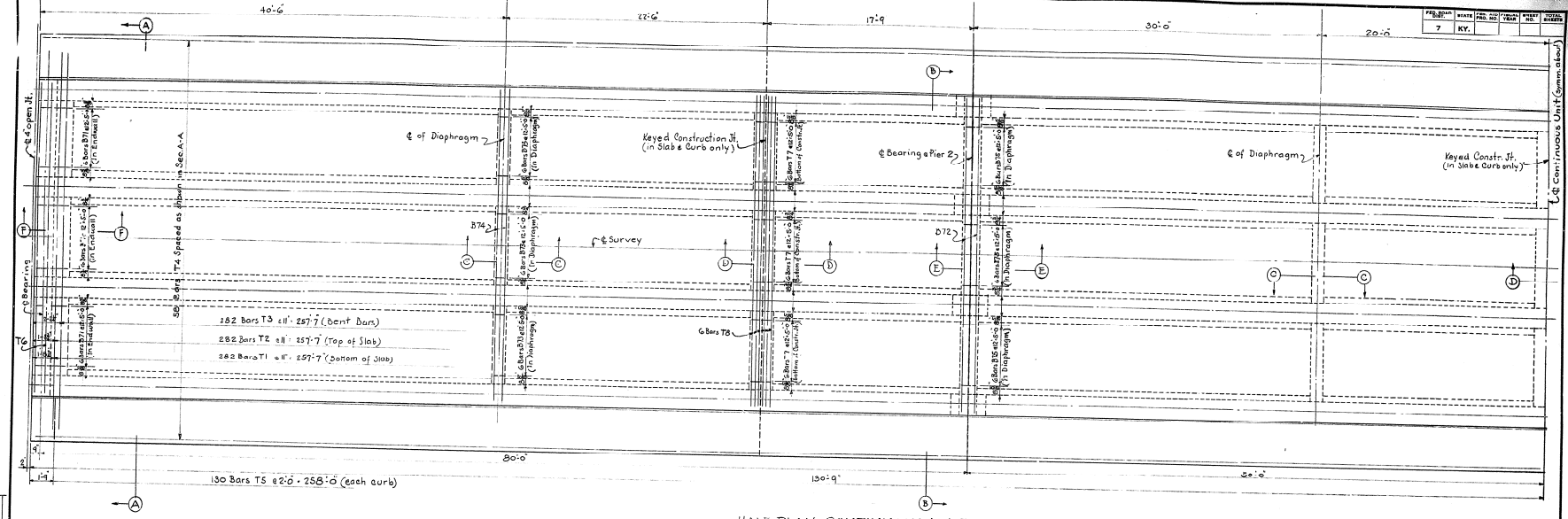
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON
ROAD

STATION 80+75 — PROJECT NO.

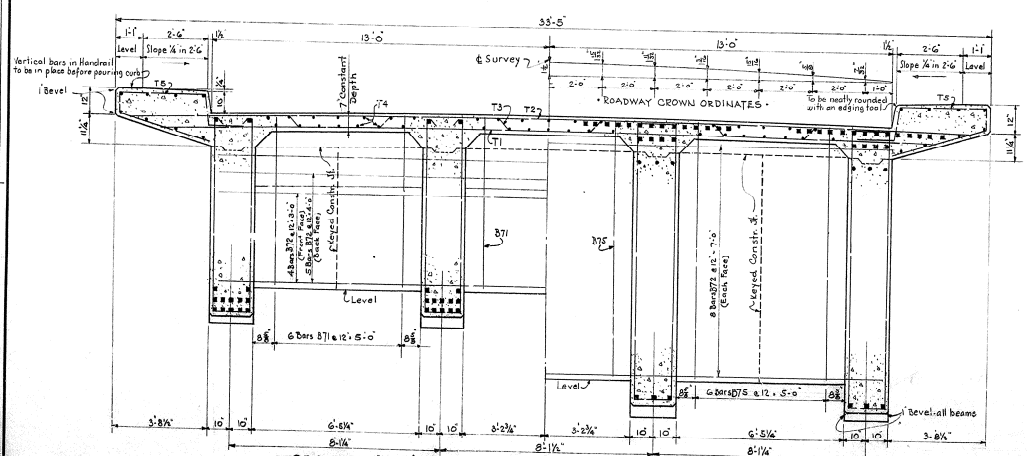
BRIDGE NUMBER — DRAWING No. 9900 — INDEX

DESIGNED BY		DATE	REVISED
DETAILED BY		DATE	REVISED
TRACED BY		DATE	REVISED
CHECKED BY		DATE	REVISED

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

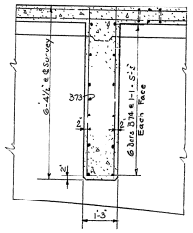


· HALF PLAN - CONTINUOUS UNIT ·

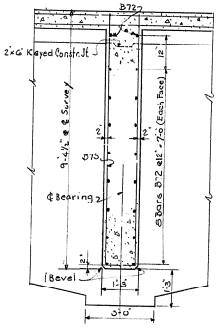


· SECTION A-A ·

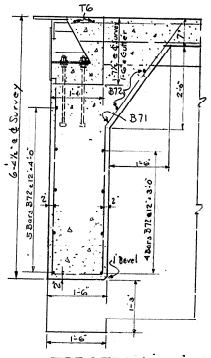
· SECTION B-B ·



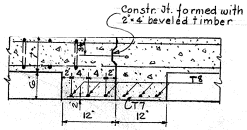
· SECTION C-C ·



SECTION E-E



· SECTION F-F ·



· SECTION D-D ·

· CONTINUOUS UNIT SPANS 2-3-4 (3 Sheets) ·

Bridge over Little Sandy River

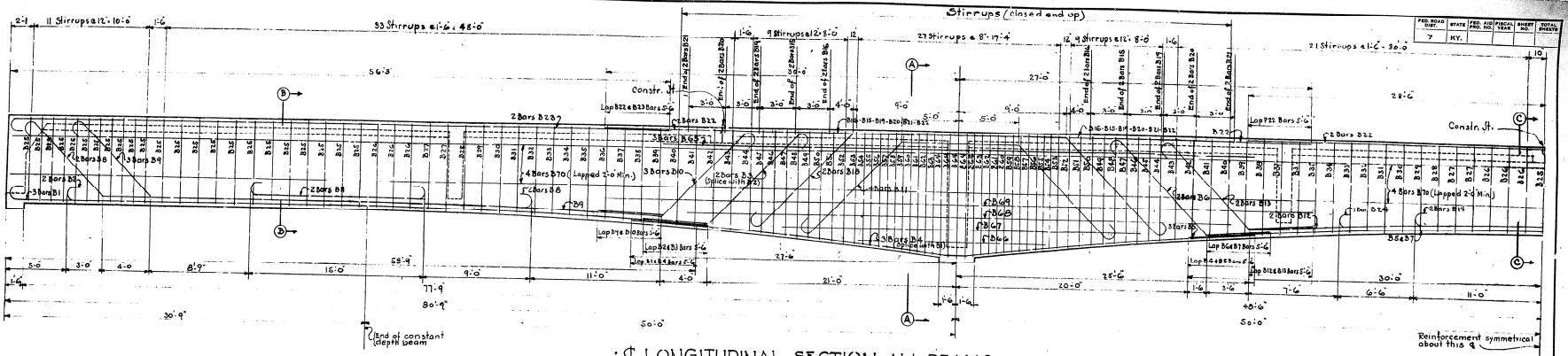
Sheet 8

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON
ROAD

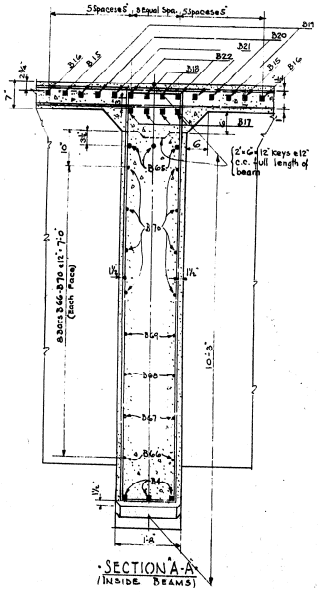
STATION 80+75 **PROJECT**

BRIDGE NUMBER | DRAWING NO. 9900 | INDEX

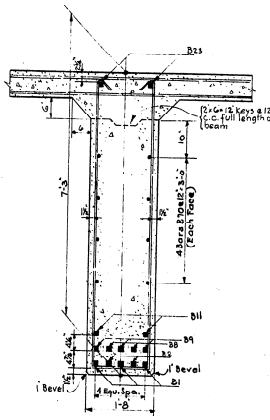
DESIGNED BY: DAK DATE: 1/70 REVISED: DATE:
CHECKED BY: DATE: REVISED: DATE:
DETAILED BY: DATE: REVISED: DATE:
TRACED BY: CHECKED BY: DATE:



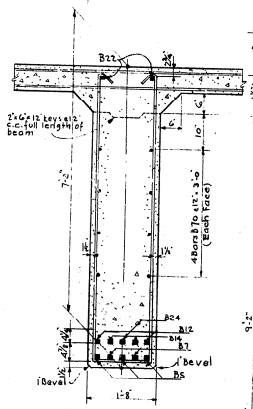
· ℄ LONGITUDINAL SECTION ALL BEAMS ·



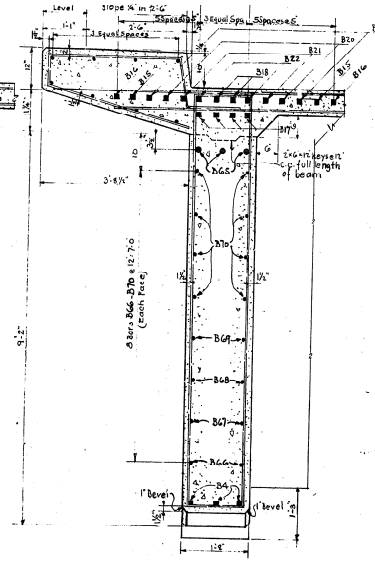
· SECTION A-A (INSIDE BEAMS)



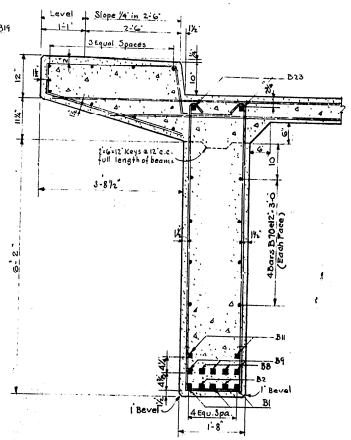
· SECTION B-B · (INSIDE BEAMS)



· SECTION C-C · (INSIDE BEAMS)

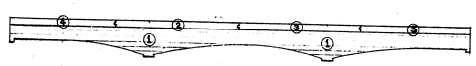


· SECTION A-A · (OUTSIDE BEAMS)



· SECTION B-B · (OUTSIDE BEAMS)

Note: Section "C-C" for outside beams same as Sect. B-B above except for Reinforcement bars. Reinforcement bars same as in Sect. C-C - inside beams.



· ORDER OF POURING SUPERSTRUCTURE · SPANS 2-3-4

Note: Pour Section ① in one continuous operation in horizontal layers.

· CONTINUOUS UNIT - SPANS 2-3-4 · (3 Sheets)

Bridge over Little Sandy River — Sheet 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON
ROAD
STATION 80+75 — **PROJECT NO.**
BRIDGE NUMBER — **DRAWING** No. 9900 — **INDEX**

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

DESIGNED BY — CHECKED BY — DATE — REVISED
CHECKED BY — DATE — REVISED
CHECKED BY — DATE — REVISED

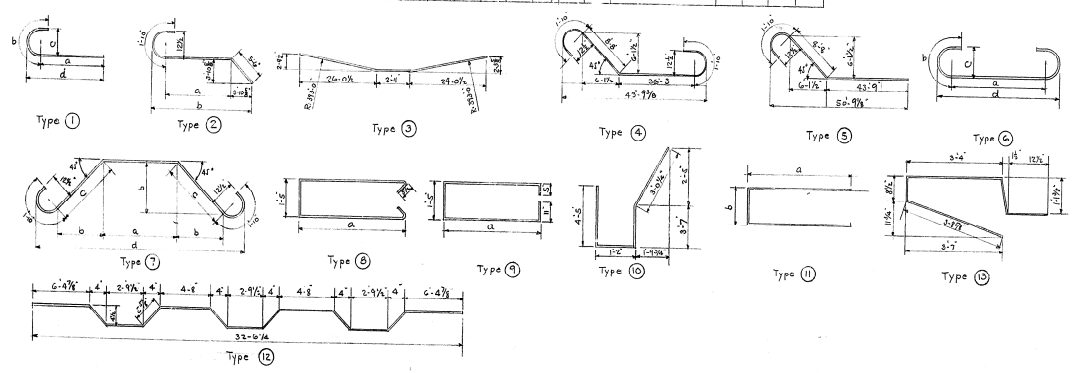
FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

• BILL OF REINFORCEMENT •

Mark	Type	No.	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
B1	1	24	1½ø	59	10	Beams - Anchor Span	59	0	1	10	1	0½	58	6¼
B2	"	16	"	56	1	" " "	54	3	1	10	1	0½	54	9¼
B3	2	16	"	17	5	" " "	10	1	14	6				
B4	3	24	"	53	2	" ℄ Pier 2 & 3								
B5	Str.	12	"	60	0	" Center Span								
B6	2	16	"	17	4	" " "	10	0	14	5				
B7	Str.	8	"	57	0	" " "								
B8	4	16	"	48	7	" Anchor Span								
B9	5	24	"	54	3	" " "								
B10	2	24	"	16	6	" " "	9	2	13	7				
B11	6	16	"	17	8	" " "	14	0	1	10	1	0½	15	0¼
B12	Str.	8	"	50	0	" Center								
B13	2	16	"	16	6	" " "	9	2	13	7				
B14	6	8	"	24	8	" " "	21	0	1	10	1	0½	22	0½
B15	Str.	16	"	32	0	" ℄ Pier 2 & 3								
B16	"	16	"	26	0	" " "								
B17	7	32	"	35	8	" " " "	10	0	7	9⅜	11	0	27	4
B18	"	16	"	42	8	" " "	18	0	7	5⅛	10	6	34	8¼
B19	Str.	16	"	38	0	Top of Beams								
B20	"	16	"	44	0	" " "								
B21	"	16	"	50	0	" " "								
B22	"	24	"	57	0	" " "								
B23	1	16	"	57	4	" " "	55	6	1	10	1	0½	56	0¼
B24	6	4	"	57	8	" " "	54	0	1	10	1	0½	55	0½
B25	8	188	⅝ø	15	8	Beams	6	11¼						
B26	"	48	"	15	9	"	7	0						
B27	"	32	"	15	10	"	7	0¼						
B28	"	16	"	15	10	"	7	0½						
B29	"	16	"	15	11	"	7	1						
B30	"	16	"	16	0	"	7	1½						
B31	"	16	"	16	1	"	7	2						
B32	"	16	"	16	2	"	7	2¾						
B33	"	16	"	16	4	"	7	3½						
B34	"	16	"	16	5	"	7	4						
B35	"	16	"	16	7	"	7	5						
B36	"	16	"	16	9	"	7	6						
B37	"	16	"	16	11	"	7	7						
B38	"	16	"	17	1	"	7	8						

Mark	Type	No	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.
B39	8	16	⅝ø	17	3	Beams	7	9		
B40	9	16	"	18	1	"	7	10		
B41	"	16	"	18	4	"	7	11½		
B42	"	16	"	18	6	"	8	0½		
B43	"	16	"	18	9	"	8	2		
B44	"	16	"	19	0	"	8	3½		
B45	"	16	"	19	2	"	8	4½		
B46	"	16	"	19	4	"	8	5½		
B47	"	16	"	19	6	"	8	6½		
B48	"	16	"	19	9	"	8	8		
B49	"	16	"	19	11	"	8	9		
B50	"	16	"	20	1	"	8	10		
B51	"	16	"	20	3	"	5	11		
B52	"	16	"	20	6	"	9	0½		
B53	"	16	"	20	8	"	9	1½		
B54	"	16	"	20	10	"	9	2½		
B55	"	16	"	21	0	"	9	3½		
B56	"	16	"	21	2	"	9	4½		
B57	"	16	"	21	3	"	9	5		
B58	"	16	"	21	5	"	9	6		
B59	"	16	"	21	7	"	9	7		
B60	"	16	"	21	9	"	9	8		
B61	"	16	"	21	11	"	9	9		
B62	"	16	"	22	1	"	9	10		
B63	"	16	"	22	3	"	9	11		
B64	"	40 16	"	22	4	"	9	11½		
B65	Str.	24	1ø	46	4	" ℄ Pier 2 & 3				
B66	"	16	½ø	16	0	"				
B67	"	16	"	31	0	"				
B68	"	16	"	46	0	"				
B69	"	16	"	60	0	"				
B70	"	224	"	39	0	"				
B71	10	36	⅝ø	12	0	Endwall				
B72	Str.	58	½ø	25	6	"				
B73	11	72	⅝ø	12	6	Diaphragm	5	10½	0	11
B74	Str.	48	½ø	25	6	"				
B75	11	36	⅝ø	18	9	Endwall	9	0	0	11

Mark	Type	No.	Size	Length Ft.	Length In.	Location
T1	Str.	282	⅝ø	29	6	Slab
T2	"	282	"	32	6	"
T3	12	282	"	33	4	"
T4	Str.	464	½ø	34	5	"
T5	13	260	⅝ø	9	7	Curbs
T6	Str.	4	"	25	8	Endwalls
T7	Str.	54	½ø	1	8	Constr. Jt. Haunch
T8	"	18	⅝ø	25	6	" " "



• ESTIMATE OF QUANTITIES •

Concrete Class "A"	793.9 cu.yds
Reinforcement	158870 lbs
	159430 lbs

CONTINUOUS UNIT - SPANS 2-3-4 (3 Sheets)

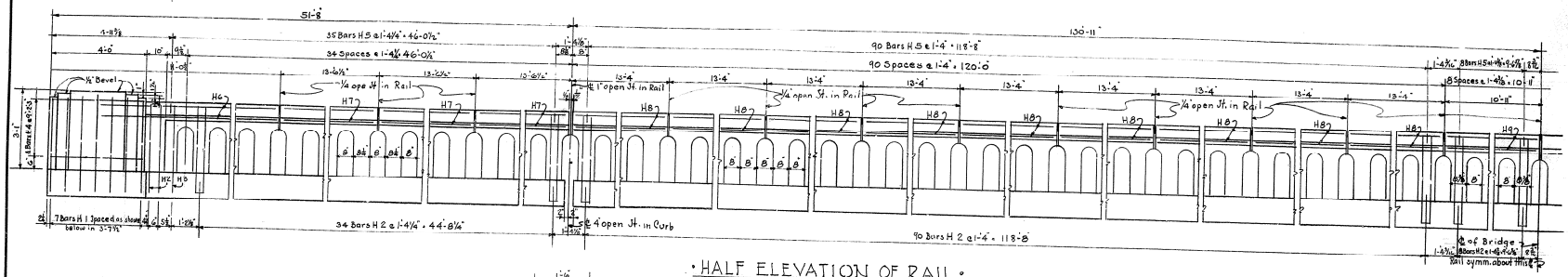
Bridge over Little Sandy River — Sheet 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
• ASHLAND - GREENUP - FULLERTON •
ROAD
STATION 80+75 **PROJECT NO.**

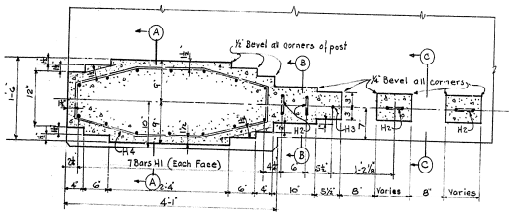
BRIDGE NUMBER	DRAWING	INDEX
	9900	

DESIGNED BY
DETAILED BY
TRACED BY
CHECKED BY
CHECKED BY
CHECKED BY
REVISED
REVISED
REVISED
DATE

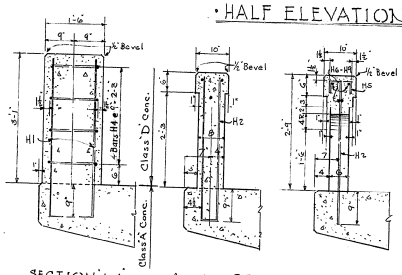
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



• HALF ELEVATION OF RAIL •



• PART SECTIONAL PLAN •

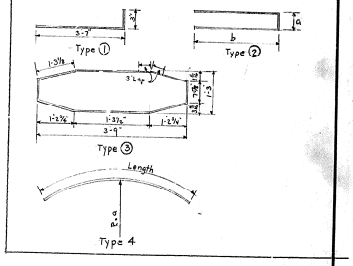


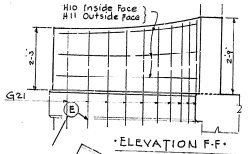
• SECTION A-A • • SECTION B-B • • SECTION C-C •

Note: Top of posts and rail to be parallel to the Grade line
All posts & spindels to be vertical.
All exposed edges to be beveled ¼" unless otherwise noted.

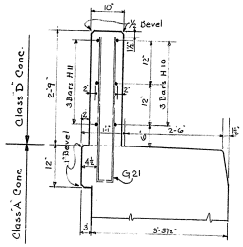
BILL OF REINFORCEMENT (Entire Rail)

Mark	Type	No.	Size	Length Ft	Length In	Location	a Ft	a In	a Fr	b In
H1	1	56	⅝ φ	3	9	Posts				
H2	2	536	"	6	10	Spindles	0	4	3	4¼
H3	Str.	4	"	3	4	"				
H4	3	16	½ φ	9	5	Posts				
H5	2	592	"	0	11	Rail	0	7	0	3
H6	Str	12	"	9	0	Rail				
H7	"	36	"	13	3	"				
H8	"	108	"	13	1	"				
H9	"	12	"	10	8	"				
H10	4	12	"	11	10	Wing Rail	11	9½		
H11	"	12	"	11	7	"	11	4		

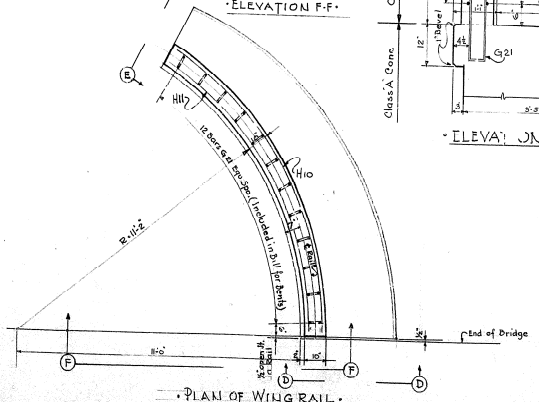




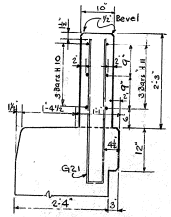
• ELEVATION F-F •



• ELEVATION D-D •



• PLAN OF WING RAIL •



• ELEVATION E-E •

• ESTIMATE OF QUANTITIES • (Entire Rail)

Concrete Class 'D' ..... 36.6 cu.yds
Reinforcement ..... 6090 lbs

• HANDRAIL & WING RAIL •

Bridge over Little Sandy River — Sheet 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND - GREENUP - FULLERTON
ROAD

STATION 80+75 **PROJECT NO.**

BRIDGE NUMBER — DRAWING NO. 9900 — INDEX

DESIGNED BY — CHECKED BY — DATE — REVISED
DETAILED BY — CHECKED BY — DATE — REVISED
TRACED BY — CHECKED BY — DATE — REVISED

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

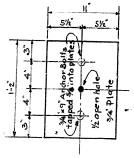


PLATE P1

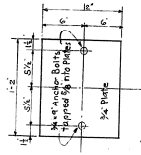
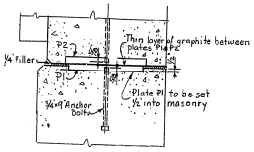


PLATE P2

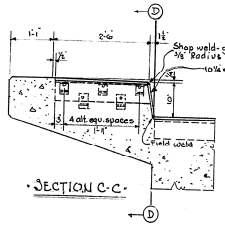


Plates in Place

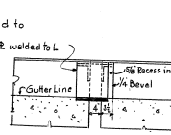
Expansion Plates P1 & P2: Plates to be A.S.T.M. Specifications B22-47, Class C or B 100-47 Type A or B with sliding surfaces finely polished. Machine Bolts ¾"ø × 9" to be furnished but are not included in the weight of plates given. Cost of bolts to be included in unit price bid for Plates.

8 Bottom Plates P1 required (Pier 1 & 4) Weight each 36 lbs.
8 Top Plates P2 " (" 1 & 4) " " 40 lbs

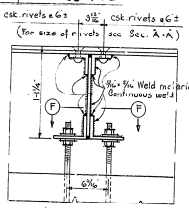
BRONZE PLATES FOR EXPANSION END of SPANS 1 & 5



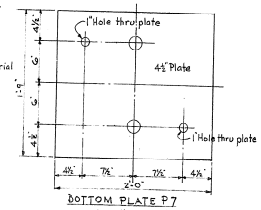
SECTION C-C



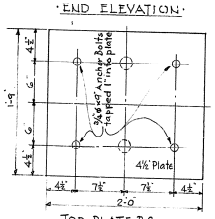
SECTION D-D



SECTION E-E



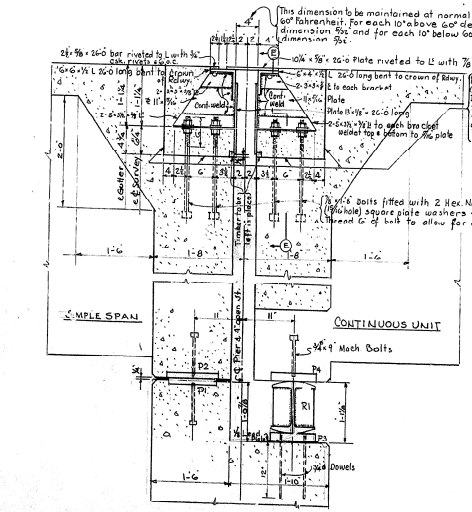
BOTTOM PLATE P7



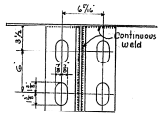
TOP PLATE P8

4 Bottom Plates P7 required (Pier 3) Weight each 641 lbs.
4 Top Plates P8 " (" 3) " " 640 lbs.
4 Rockers R2 " (" 3) " " 271 lbs

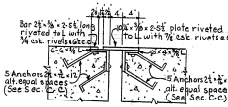
EXPANSION ROCKER ASSEMBLY AT PIER 3



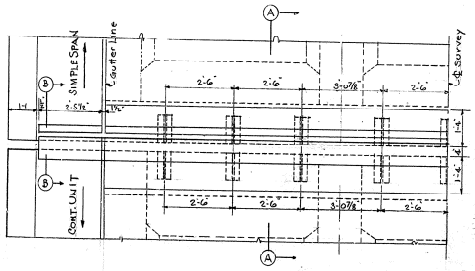
SECTION A-A



PART SECTION F-F

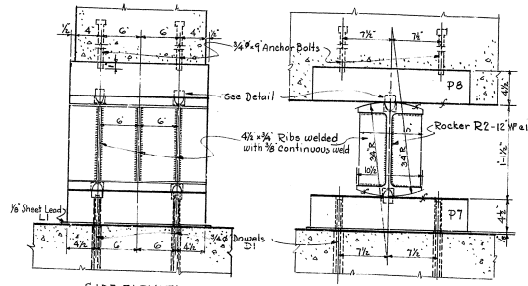


SECTION B-B



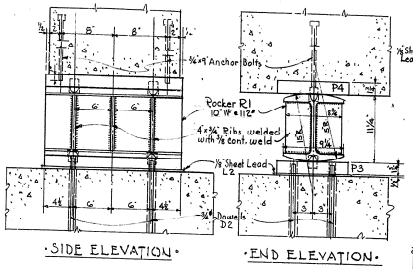
PART PLAN OF EXPANSION DAM

DETAILS OF EXPANSION DAMS



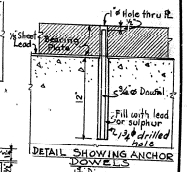
SIDE ELEVATION

END ELEVATION

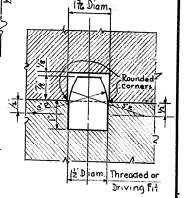


SIDE ELEVATION

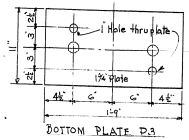
END ELEVATION



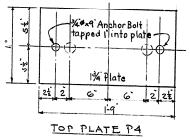
DETAIL SHOWING ANCHOR DOWELS



DETAIL OF PINTEL AND RECESS FOR ROCKERS AND FIXED SHOES



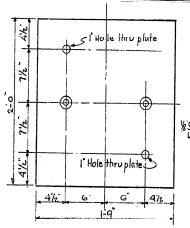
BOTTOM PLATE P3



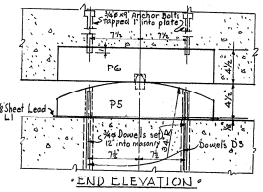
TOP PLATE P4

8 Bottom Plates P3 required (Pier 1 & 4) Weight each 114 lbs.
8 Top Plates P4 " (" 1 & 4) " " 118 lbs
8 Rockers R1 " (" 1 & 4) " " 192.0 lbs.

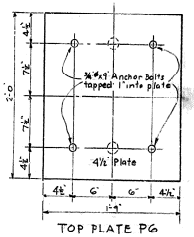
EXPANSION ROCKER ASSEMBLY AT PIERS 1 & 4



BOTTOM PLATE P5



END ELEVATION



TOP PLATE P6

4 Bottom Plates P5 required (Pier 2) Weight each 538 lbs.
4 Top Plates P6 " (" 2) " " 648 lbs.

FIXED SHOE ASSEMBLY AT PIER 2

NOTES

Material: All material shown on this sheet unless otherwise noted to conform to A.S.T.M.-A7-46 Specifications.
Plates: Contact surface of all plates to have a smooth polished surface. Plates must be true and free of warp.
Anchor Bolts: To be comercial grade Steel.
Paint: All material shown on this sheet to have a shop coat of red lead or basic sulphate blue lead paint. All exposed surfaces not in contact with concrete are to be given two field coats of Aluminum paint in accordance with specifications. The aluminum pigment shall conform to the standard specifications and the vehicle for the aluminum paint shall conform to the requirements of the standard specifications 1945.
Welding Material: Welding material shall conform to the American Welding Society current specifications for welded Highway & Railroad bridges, Edition 1941 and subsequent adopted amendments.
Rivets: To conform to A.S.T.M.-A.141-39 Specifications.
Sheet Lead Plates: Commercial grade.
Anchor Dowels: To be comercial grade Steel. Dowels shall be set in masonry and plates simultaneously with molten lead or sulphur. The cost of the lead or sulphur shall be included in the unit price bid for Structural Steel.

SHEET LEAD PLATES

8 Plates L1 required 2'-1"×1'-10"×⅛" (Pier 2 & 3) Wight each 28.2 lbs
8 " L2 " 12"×1'-10"×⅛" (Pier 1 & 4) " " 13.5 lbs

ANCHOR DOWELS

8 Dowels D1 required ¾"×1'-4" long (Plates P7) } Total Wight 58 lbs.
16 " D2 " ¾"×1-1/2" " (" P3) }
8 " D3 " ¾"×1-3" " (" P3) }

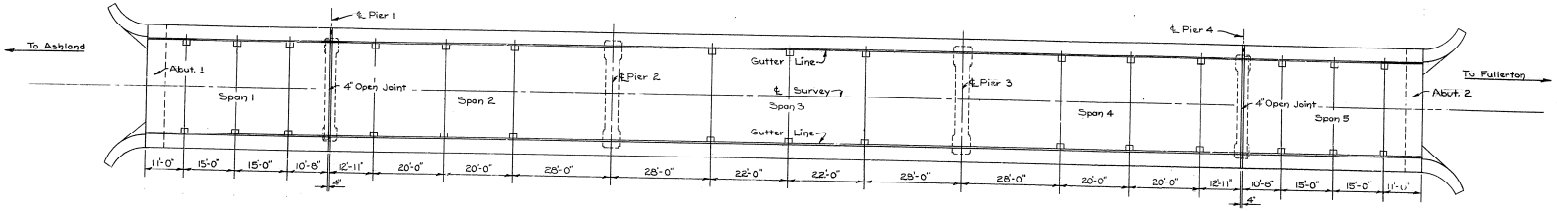
Bridge over Little Sandy River — Sheet 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON.

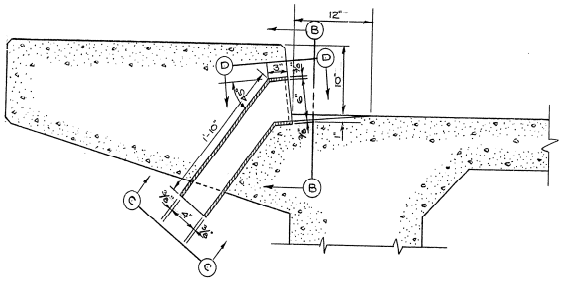
ROAD
STATION 80+78 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 9900
INDEX

DESIGNED BY		DATE	REVISED
DETAILED BY		DATE 1/10	REVISED
TRACED BY		DATE	REVISED
CHECKED BY		DATE	REVISED

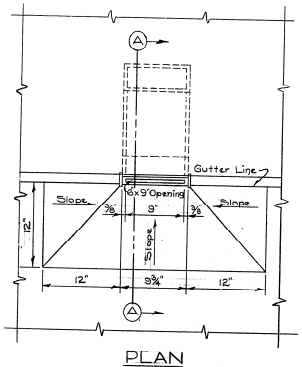
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



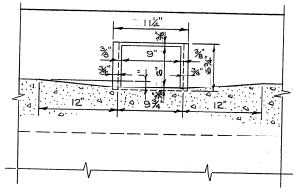
·PLAN·
SHOWING LOCATION OF FLOOR DRAINS



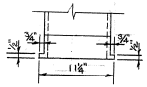
·SECTION A-A·



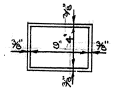
PLAN



·SECTION B-B·



·PLAN D-D·
(SHOWING LUGS)



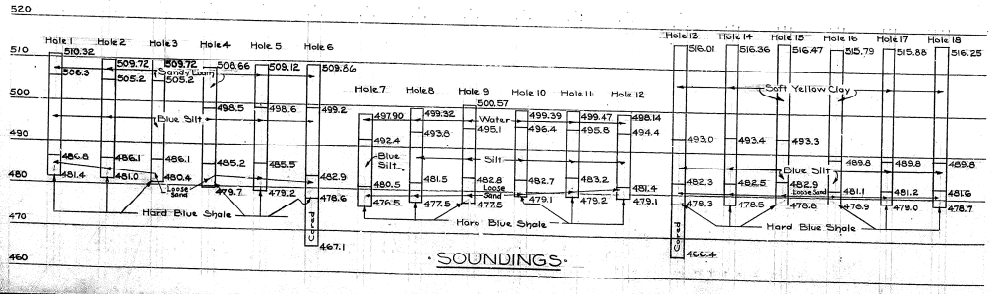
·ELEVATION C-C·

·DETAILS OF FLOOR DRAINS·

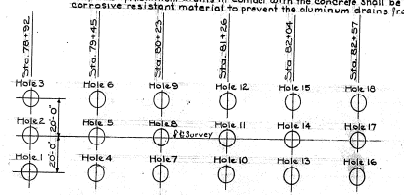
30 Required — Weight each 66 lbs.* – Cast Iron
or 26 lbs.* – Aluminum

*(5% added for fillets)

NOTE: Drains shall be gray iron castings conforming to A.S.T.M. Specifications A48-48, or Aluminum base alloy castings conforming to A.S.T.M. Specifications B26-47T Class CS-22. Surfaces of Aluminum drains in contact with the concrete shall be coated with a corrosive resistant material to prevent the aluminum drains from corroding.



·SOUNDINGS·



·PLAN OF SOUNDINGS·

Bridge over Little Sandy River Sheet 13

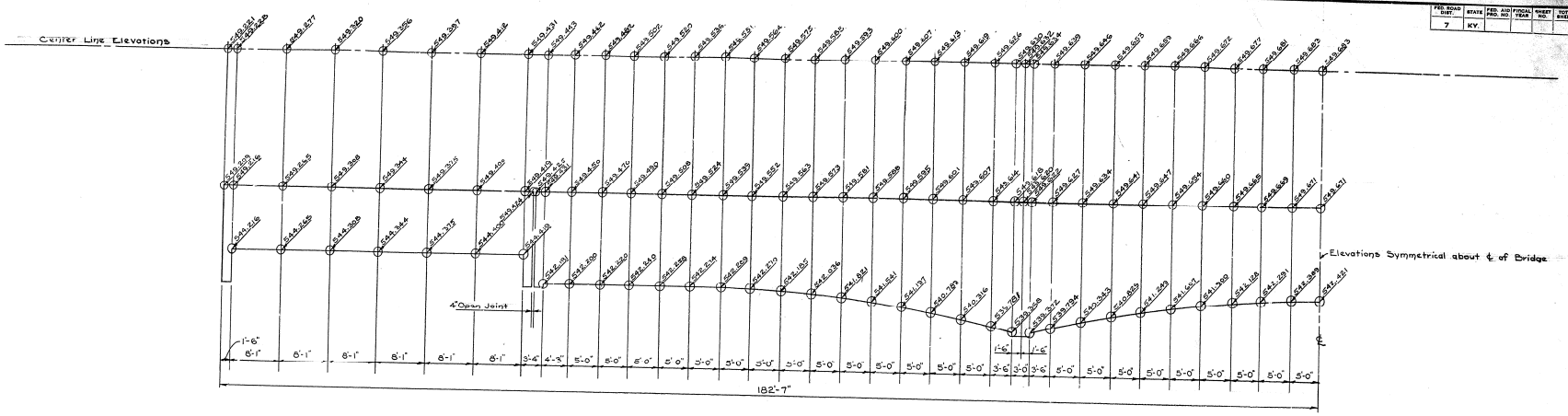
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND – GREENUP – FULLERTON
ROAD

STATION 80+75 PROJECT NO.

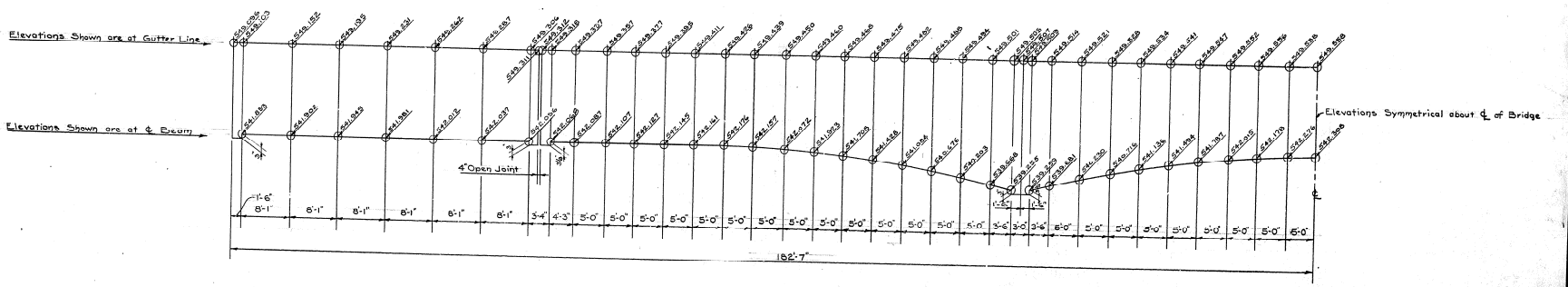
BRIDGE NUMBER — DRAWING 9900 — INDEX

DESIGNED BY — DATE — REVISED
DETAILED BY — DATE — REVISED
TRACED BY — DATE — REVISED
CHECKED BY — DATE
CHECKED BY — DATE
CHECKED BY — DATE

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



· VIEW SHOWING ELEVATIONS ALONG CENTER LINE AND TOP AND BOTTOM OF INTERIOR BEAMS ·



NOTE: Elevations shown include construction camber and must be maintained with falsework in place.

· VIEW SHOWING ELEVATIONS AT TOP AND BOTTOM OF EXTERIOR BEAMS ·

CONSTRUCTION ELEVATIONS

Bridge over Little Sandy River Sheet 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-FULLERTON
ROAD
STATION 80+75 **PROJECT NO.**
BRIDGE NUMBER **DRAWING** NO. 9900 **INDEX**

DESIGNED BY ___ CHECKED BY ___ DATE ___ REVISED ___ DATE ___
DETAILED BY ___ CHECKED BY ___ DATE ___ REVISED ___ DATE ___
TRACED BY ___ CHECKED BY ___ DATE ___ REVISED ___ DATE ___