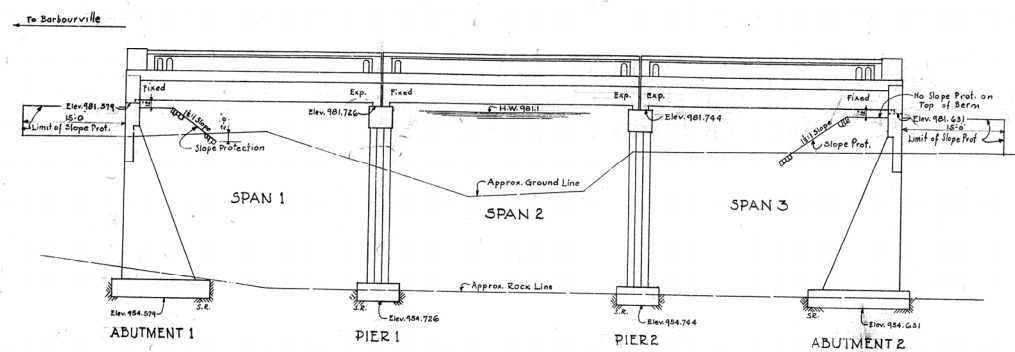
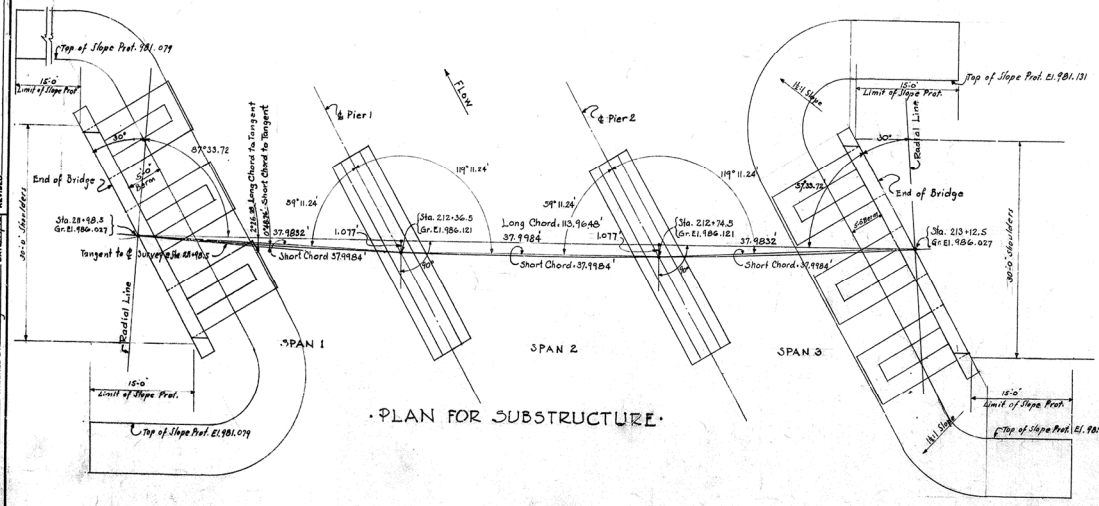


• SOUNDINGS •



• ELEVATION •
3-35'-0" R.C. DECK GIRDER SPANS
36° SKEW LT. 24 FT. ROADWAY - 4" 16' 38" CURVE LT.



• PLAN FOR SUBSTRUCTURE •

Specifications -
Design Load
Concrete
Reinforcement
Dressed Edges
C. I. Drains, Expansion Joint Material, Copper Strip & Tar Paper. The cost of these items to be included in the unit price bid for Class A concrete.
Paving Fill
Slope Protection

• GENERAL NOTES •
Kentucky Department of Highways, 1945 Standard with Amendments.
Bridge designed for H20 Loading as specified in A.A.S.H.O. Specifications 1944.
Class A concrete to be used throughout except in Handrail. Class B concrete to be used in Handrail.
Dimensions from face of concrete to bars are clear distances except as otherwise shown. Dimensions for bar spacing are distances from center of bars. Size of structural and intermediate grade new billet steel may be combined on this project, or bars of hard grade new billet steel and bar steel may be combined on this project, but a mixing of these two permissible combinations will not be allowed.
Exposed edges to be beveled 1/8" unless otherwise noted.
Alasposed edges to be beveled 1/8" unless otherwise noted.
The fill material shall be placed in front and back of Abutments in accordance with Specifications.
Slope Protection may be either Dry Rip Rap or Concrete Slope Roll in accordance with Std. Spec. 3.13.

• REFERENCES & ESTIMATE OF QUANTITIES •

ITEM	DRAWING NO.	CONCRETE CU. YDS.		REINFORCEMENT LBS.	SLOPE PROT. SQ. YDS.	STRUCTURE EST. CU. YDS.		DRAINAGE STRUCTURE EST. CU. YDS.
		CLASS "A"	CLASS "B"			Common	Sub. Est.	
Layout Sheet	Sheet No. 1							
Abutment 1	- 2	86.9		11,330		370	50	
Pier 1	- 3	68.5		6,670		200	25	
Pier 2	- 3	68.5		6,650		200	20	
Abutment 2	- 4	87.0		11,340		380	50	
Span 1	- 5A	57.4		15,150				
Span 2	- 5A	55.8		15,070				
Span 3	- 5A	57.4		15,160				
Table of Elevations	- 6							
Handrail	- 7		11.0	2,390				
Soundings	- 1							
Slope Protection	Std. Spec. 3.13				280			
Totals		481.5	11.0	83,760	280	1150	175	

• BILL OF INCIDENTAL MATERIAL •

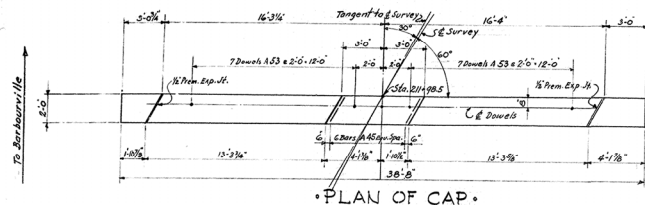
ITEM	No. of Pieces	Description
Prim. Exp. H. Filler	2	2'-0" x 1/2" x 3'-0" x 1/2"
"	1	2'-0" x 1/2" x 5'-0" x 1/2"
"	1	2'-0" x 1/2" x 5'-0" x 1/2"
"	1	1'-4" x 1/2" x 2'-0" x 1/2"
"	1	2'-0" x 1/2" x 2'-0" x 1/2"
"	2	5'-2" x 3/4" x 2'-0" x 1/2"
"	4	1'-5" x 3/4" x 2'-0" x 1/2"
C. I. Drains	4	See Sheet No. 6
Copper Strip	2	2'-0" x 1/2" x 1'-7" Long

Quantities shown in the Bill of Incident Material above are approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the plans & specifications.

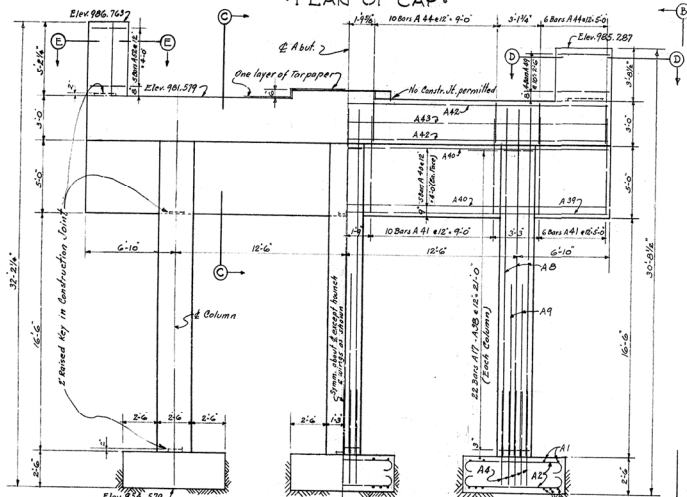
BRIDGE OVER LITTLE RICHLAND CREEK Sheet 1 of 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE-MANCHESTER

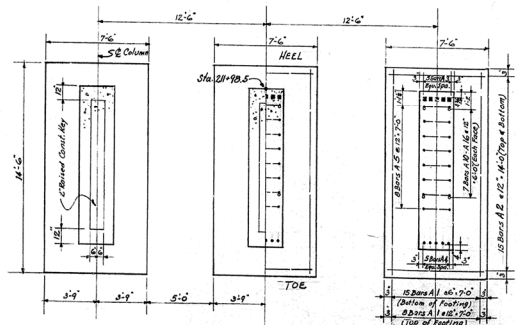
ROAD
STATION 212+55.5 PROJECT NO.
BRIDGE NUMBER NO. 8473



PLAN OF CAP.



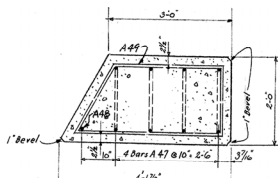
ELEVATION.



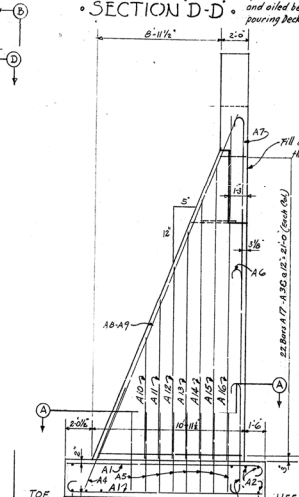
SHOWING DIMENSIONS

PLAN OF FOOTING.

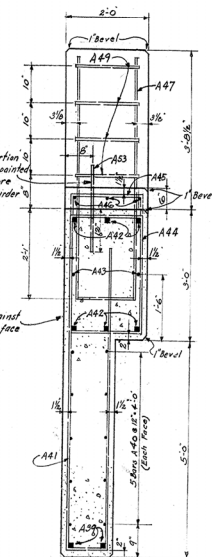
SHOWING REINFORCEMENT



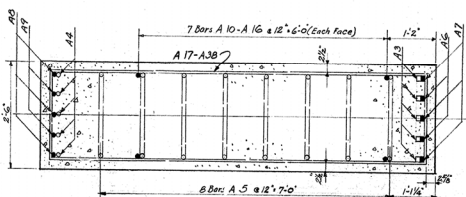
SECTION D-D.



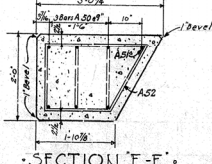
ELEVATION B-B.



SECTION C-C.



SECTION A-A.



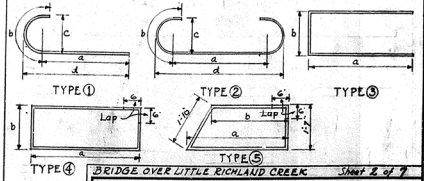
SECTION E-E.

ABUTMENT 1

ESTIMATE OF QUANTITIES.

CONCRETE CLASS A
REINFORCEMENT 86.9 CU. YDS.
11330 LBS.

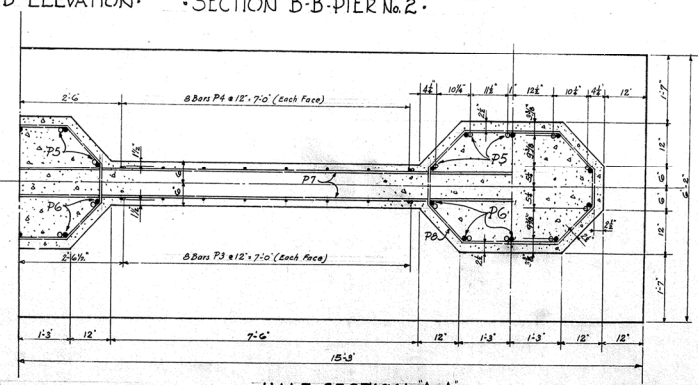
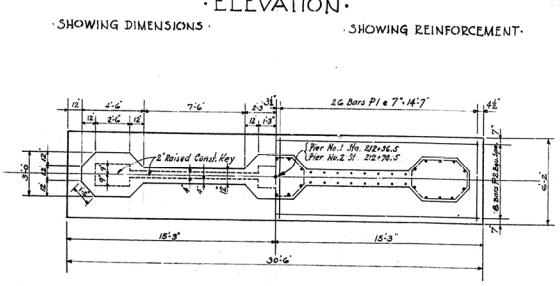
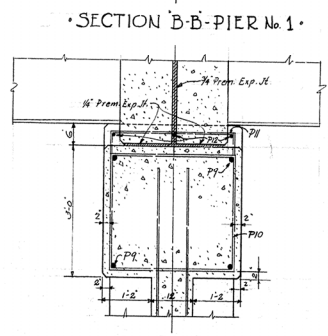
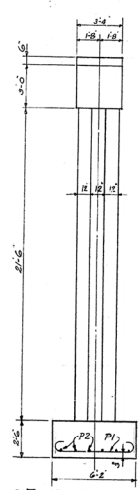
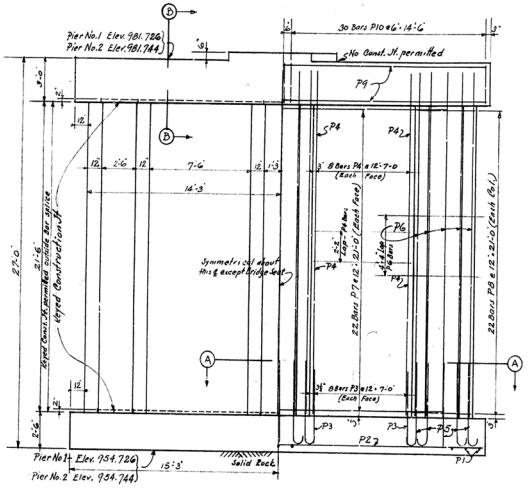
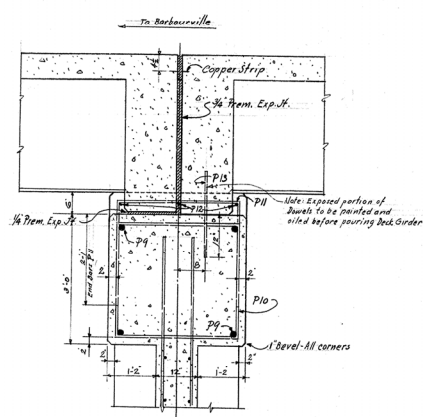
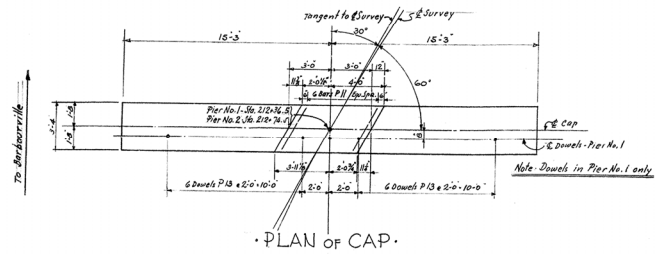
Mark	Type	No.	Size	Location	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A1	①	69	3/8"	15	1																									
A2	②	90	"	B	11																									
A3	"	15	1/2"	10	4																									
A4	3fr.	15	1/8"	6	B																									
A5	③	24	3/8"	12	9																									
A6	①	6	1/2"	12	4																									
A7	"	9	"	12	4																									
A8	3fr.	9	1/8"	26	"																									
A9	"	6	"	12	0																									
A10	"	6	3/8"	8	2																									
A11	"	6	"	10	7																									
A12	"	6	"	12	11																									
A13	"	6	"	15	4																									
A14	"	6	"	17	9																									
A15	"	6	"	20	2																									
A16	"	6	"	24	0																									
A17	④	3	1 1/8"	25	9																									
A18	"	3	"	24	1																									
A19	"	3	"	24	1																									
A20	"	3	"	23	3																									
A21	"	3	"	22	5																									
A22	"	3	"	21	7																									
A23	"	3	"	20	9																									
A24	"	3	"	19	11																									
A25	"	3	"	19	1																									
A26	"	3	"	18	3																									
A27	"	3	"	17	5																									
A28	"	3	"	16	7																									
A29	"	3	"	15	9																									
A30	"	3	"	14	11																									
A31	"	3	"	14	1																									
A32	"	3	"	13	3																									
A33	"	3	"	12	5																									
A34	"	3	"	11	7																									
A35	"	3	"	10	9																									
A36	"	3	"	9	11																									
A37	"	3	"	9	1																									
A38	"	3	"	8	3																									
A39	3fr.	2	1"	36	4																									
A40	"	10	3/8"	36	4																									
A41	⑤	32	5/8"	14	6																									
A42	3fr.	6	1"	36	4																									
A43	"	2	3/8"	36	4																									
A44	⑥	32	5/8"	9	6																									
A45	⑥	6	"	6	B																									
A46	3fr.	3	1/2"	5	B																									
A47	⑦	4	3/8"	12	6																									
A48	3fr.	1	"	3	B																									
A49	⑧	4	3/8"	10	2																									
A50	⑧	3	3/8"	15	6																									
A51	3fr.	1	"	7	2																									
A52	⑨	5	5/8"	8	2																									
A53	3fr.	15	1/8"	2	0																									



BRIDGE OVER LITTLE RICHLAND CREEK Sheet 2 of 9

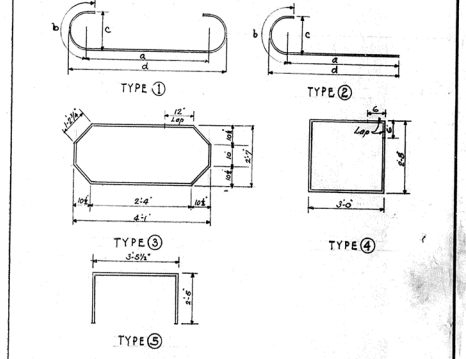
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE-MANCHESTER

STATION 212+55.5 ROAD PROJECT NO.
BRIDGE NUMBER DRAWING NO. 247



BILL OF REINFORCEMENT.

Mark	Type	Number	Size	Length	Location	A	B	C	D	E
P1	①	52	3/8"	7' 4"	Footings	5	4	1	0	0
P2	Str.	8	1/2"	30' 2"						
P3	-	32	3/8"	4' 5"	Dowels - Web Wall					
P4	-	64	3/8"	13' 7"	Web Wall					
P5	②	30	3/8"	10' 7"	Dowels - Columns	6	2	1	6	0
P6	Str.	60	1/2"	14' 2"	Columns					
P7	-	44	1/2"	24' 0"	Web Walls					
P8	③	66	3/8"	12' 3"	Columns					
P9	Str.	4	1/2"	3' 2"	Cap					
P10	④	61	3/8"	12' 0"						
P11	⑤	6	3/8"	8' 1"	Haunch					
P12	Str.	3	1/2"	3' 0"						
P13	-	13	1/2"	2' 0"	Dowels					



ESTIMATE OF QUANTITIES.

PIER No. 1		
CONCRETE CLASS 'A'		68.5 CU. YDS.
REINFORCEMENT		6670 LBS.
PIER No. 2		
CONCRETE CLASS 'A'		68.5 CU. YDS.
REINFORCEMENT		6650 LBS.

BRIDGE OVER LITTLE RICHLAND CREEK Sheet 3 of 7

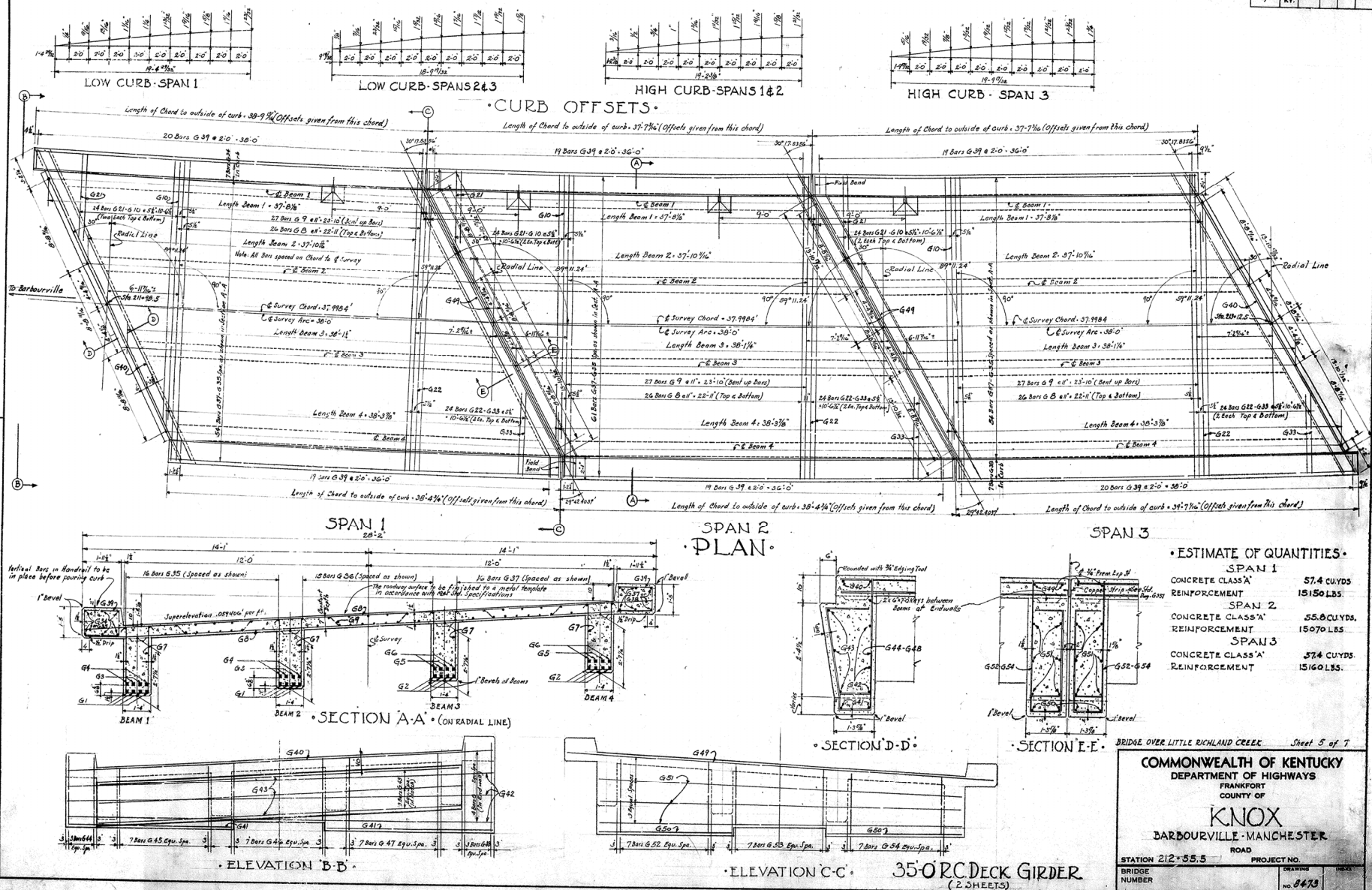
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF

KNOX
BARBOURVILLE-MANCHESTER

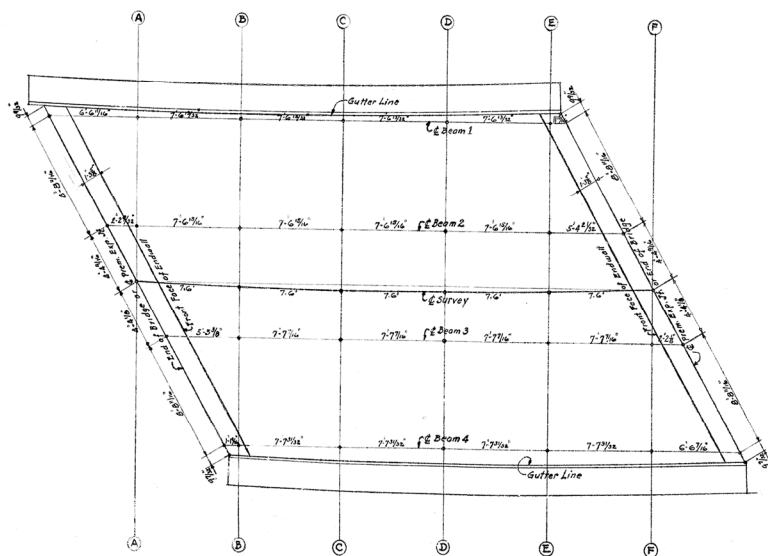
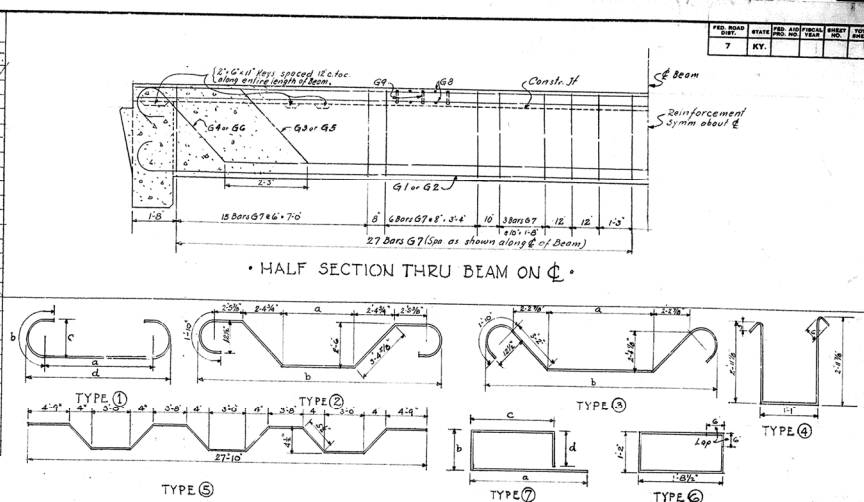
STATION 212+55.5 ROAD PROJECT NO. 6473

DESIGNED BY: *[Signature]* CHECKED BY: *[Signature]*
DATE: DATE
REVIEWED BY: *[Signature]* DATE: DATE
REVIEWED BY: *[Signature]* DATE: DATE

FEED ROAD	STATION	DATE	BY	CHKD	APP'D	REMARKS
7	KY.					



•BILL OF REINFORCEMENT•																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MARK	TYPE	NUMBER	LENGTH	LOCATION	a				b				c				d				MARK	TYPE	NUMBER	LENGTH	LOCATION	a				b				c				d																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.						FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
G1	①	2	8	8	12	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

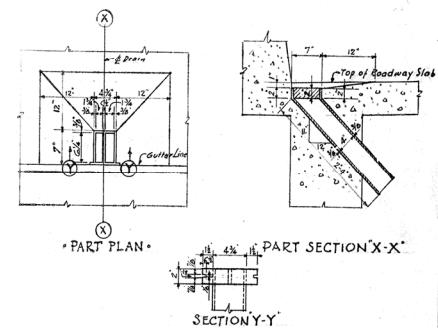


PLAN.
4°16'38" CURVE LT. 30° SKEW LT.
24'0" ROADWAY
(Showing Points where Elevations are given)

CONSTRUCTION ELEVATIONS									
LOCATION	TOP OF BEAM 1	TOP OF BEAM 2	TOP OF BEAM 3	TOP OF BEAM 4	TOP OF BEAM 5	TOP OF BEAM 6	TOP OF BEAM 7	TOP OF BEAM 8	TOP OF BEAM 9
End of Bridge	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
Intersection of Beam 1 & Pier 1	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
A - A	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
B - B	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
C - C	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
D - D	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
E - E	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
F - F	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
Intersection of Beam 1 & Pier 2	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
G - G	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
H - H	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
I - I	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
J - J	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
K - K	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
L - L	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
M - M	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
N - N	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
O - O	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
P - P	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
Q - Q	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
R - R	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
S - S	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
T - T	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
U - U	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
V - V	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
W - W	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
X - X	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
Y - Y	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227
Z - Z	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227	985.227

NOTE: Elevations shown in Table above include both Construction & Permanent Cambers, and are to be maintained with falsework in place.

35'-0" R.C. DECK GIRDER
(2 SHEETS)



DETAILS OF CAST IRON DRAINS (ASTM A48-41)

4 REQUIRED - Estimated Wt. per Drain - 50 lbs. added for fillets. 52"
Foundry Note: Drains to be gray iron castings A.S.T.M. Specification A 48-41
except that inside and transverse parts are not required, from T&E Report
if field inspection of castings is to be submitted to the Laboratory.

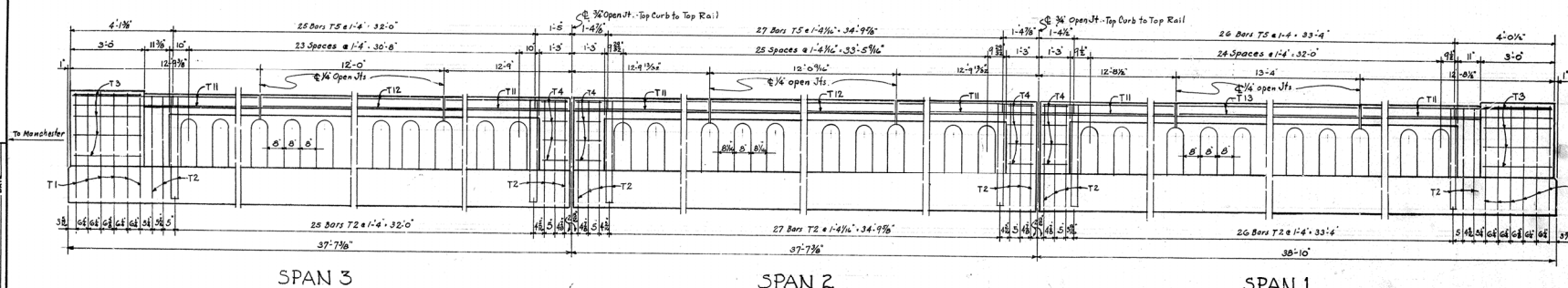
BRIDGE OVER LITTLE RICHLAND CREEK Sheet 6 of 7

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF KNOX BARBOURVILLE - MANCHESTER	
STATION 212+55.5	PROJECT NO. 6473
BRIDGE NUMBER	INDEX

The drawing shows three spans of a bridge structure with the following details:

- SPAN 1:**
 - Overall length: 38'-4"
 - Span length: 15'-0"
 - Openings: 12'-3 3/4" (6" open Jt.), 13'-0"
 - Reinforcement: 25 Bars T5 @ 1'-4 3/8" - 32'-9"
 - Labels: T1, T2, T3, T4, T6, T7
- SPAN 2:**
 - Overall length: 38'-4"
 - Span length: 15'-0"
 - Openings: 12'-3 3/4" (6" open Jt.), 13'-0"
 - Reinforcement: 27 Bars T5 @ 1'-4 1/2" - 35'-9"
 - Labels: T2, T4, T6, T7
- SPAN 3:**
 - Overall length: 39'-0"
 - Span length: 15'-0"
 - Openings: 12'-3 3/4" (6" open Jt.), 13'-0"
 - Reinforcement: 26 Bars T5 @ 1'-4 3/8" - 34'-1 3/8"
 - Labels: T2, T4, T6, T7, T9, T10

SPAN 2
• ELEVATION - HIGH SIDE •

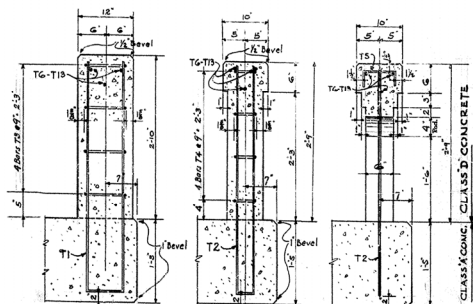


SPAN 2

• ELEVATION - LOW SIDE •

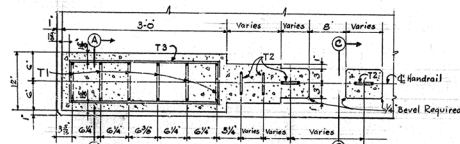
Note: All Dimensions shown are measured on ~~the~~ Handrail Arc.

Note: All Dimensions shown are measured on a Handrail Arc

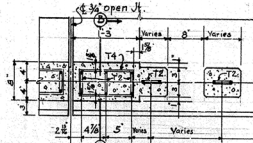


SECTION A-A SECTION B-B SECTION C-C

Note:
All exposed edges to be beveled $\frac{1}{4}$ " unless
otherwise noted.



SECTIONAL PLAN - END POST.



SECTIONAL PLAN-INTERMEDIATE POST.

• HANDRAIL •

•BILL OF REINFORCEMENT.

Mark	Type	Number			Size	Length		Location	a	
		Span 1	Span 2	Span 3		ft.	in.		ft.	in.
T.1	(1)	12	-	12	5/8	8	5	End Posts	3	11 1/2
T.2	-	6	6	6	-	7	11	Intern. Posts & Spirals	3	10 1/2
T.3	(2)	8	-	8	3/4	7	5	End Posts	2	8 1/2
T.4	-	8	16	8	-	3	2	Intern. Posts	0	11 1/2
T.5	(1)	51	54	51	7/8	0	11	Rail	0	3
T.6	Str.	6	6	3	-	12	8	-	-	-
T.7	-	3	3	-	-	12	8	-	-	-
T.8	-	-	3	-	-	12	1	-	-	-
T.9	-	-	-	3	-	13	4	-	-	-
T.10	-	-	-	3	-	12	7	-	-	-
T.11	-	6	6	6	-	12	5	-	-	-
T.12	-	-	3	3	-	11	9	-	-	-
T.13	-	3	-	-	-	13	1	-	-	-

ESTIMATE OF QUANTITIES

SPAN 1	
CONCRETE CLASS 'D'	3.8 CUYDS.
REINFORCEMENT	820 LBS.
SPAN 2	
CONCRETE CLASS 'D'	3.4 CUYDS.
REINFORCEMENT	750 LBS.
SPAN 3	
CONCRETE CLASS 'D'	3.8 CUYDS.
REINFORCEMENT	820 LBS.

BRIDGE OVER LITTLE RICHLAND CREEK Sheet 7 of 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT

KNOX
BARBOURVILLE-MANCHESTER

STATION 212+55.5

PROJECT NO.

BRIDGE
NUMBER

DRAWING

5423

REV.	DATE	BY	CHKD.	APP'D.	REMARKS
1	7	KY			

GENERAL NOTE

CONSTRUCTION NOTE: This drawing to be used in conjunction with Standard Plans or Special Plans for concrete floors on bridges when so noted on the Standard or Special Plans.

The joint between the spans shall have the copper strip and premolded joint filler so placed as to prevent contact of concrete between spans and to provide the full width of joint shown on plans. The copper strip and premolded joint filler shall be accurately placed and rigidly held in correct position. The premolded filler on the roadway between curbs shall be trimmed or placed 1/8" below the concrete surface and sealed with asphaltic joint filler, as indicated on this drawing.

No direct payment will be made for material or installation of copper expansion strip and premolded expansion joint filler, the cost of these shall be included in the unit price bid for class A concrete.

SPECIFICATIONS FOR PREMOLDED FILLER:

Premolded expansion joint filler shall conform to Section 7.25 of the 1956 Std. Specifications.

SPECIFICATIONS FOR ASPHALTIC FILLER:

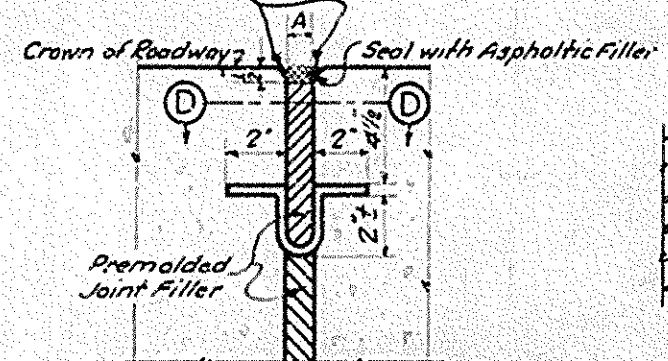
The Asphaltic Filler shall conform to the requirements of Section 7.26.2 of the Kentucky Department of Highways 1956 Standard Specifications, with Amendments.

SPECIFICATION FOR COPPER EXPANSION STRIP:

The copper strips are to be 24 ounces soft sheet commercial grade. A tolerance of 8% variation in weight above or below that specified will be allowed. The strips are to be shop fabricated to the section and dimensions shown. Field bending and fabrication will not be permitted except as provided herein. Unless otherwise provided by plans, the strips may be furnished in one or two pieces. If furnished in two pieces the field joint shall be at the center line of roadway. Shop joints shall not be spaced closer than 6 feet unless otherwise shown on plans and shall be lock seam and soldered. The field joint of the center line of roadway may be a 2 inch width lap joint soldered. All joints shall be water tight.

On Skewed Spans the two copper strips are separate units and are not to be connected in any way that will prevent movement of the strips relative to each other. All points are to be located to allow free movement of the individual strips.

Round with 1/4" Radius Edging Tool

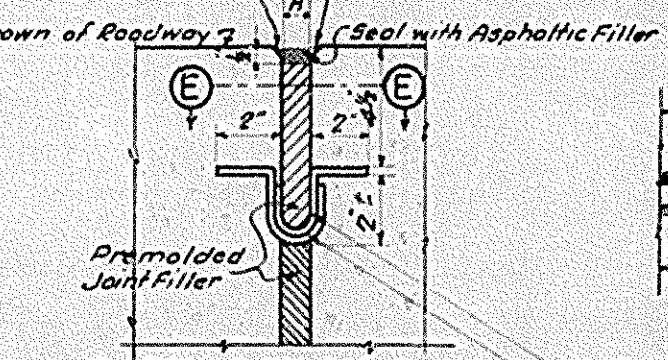


PART SECTION B-B

Dimension A shown on Drawings (On Straight Spans)

NOTE: Dimension A is inside dimension and is to be same as thickness shown on Drawings for Premolded Expansion Joint Filler.

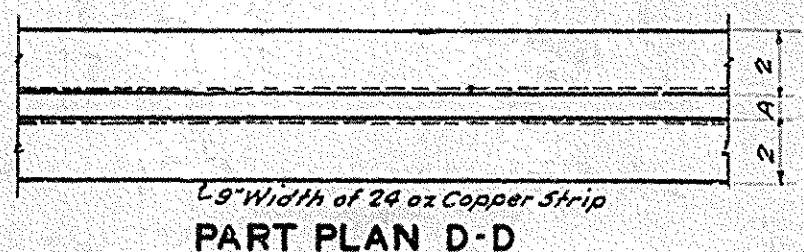
Round with 1/4" Radius Edging Tool



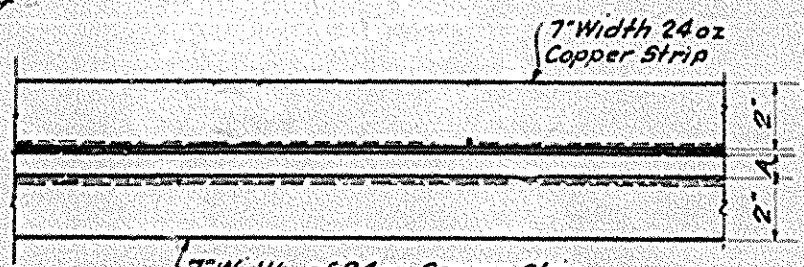
PART SECTION C-C

Dimension A shown on Drawings (On all skewed spans)

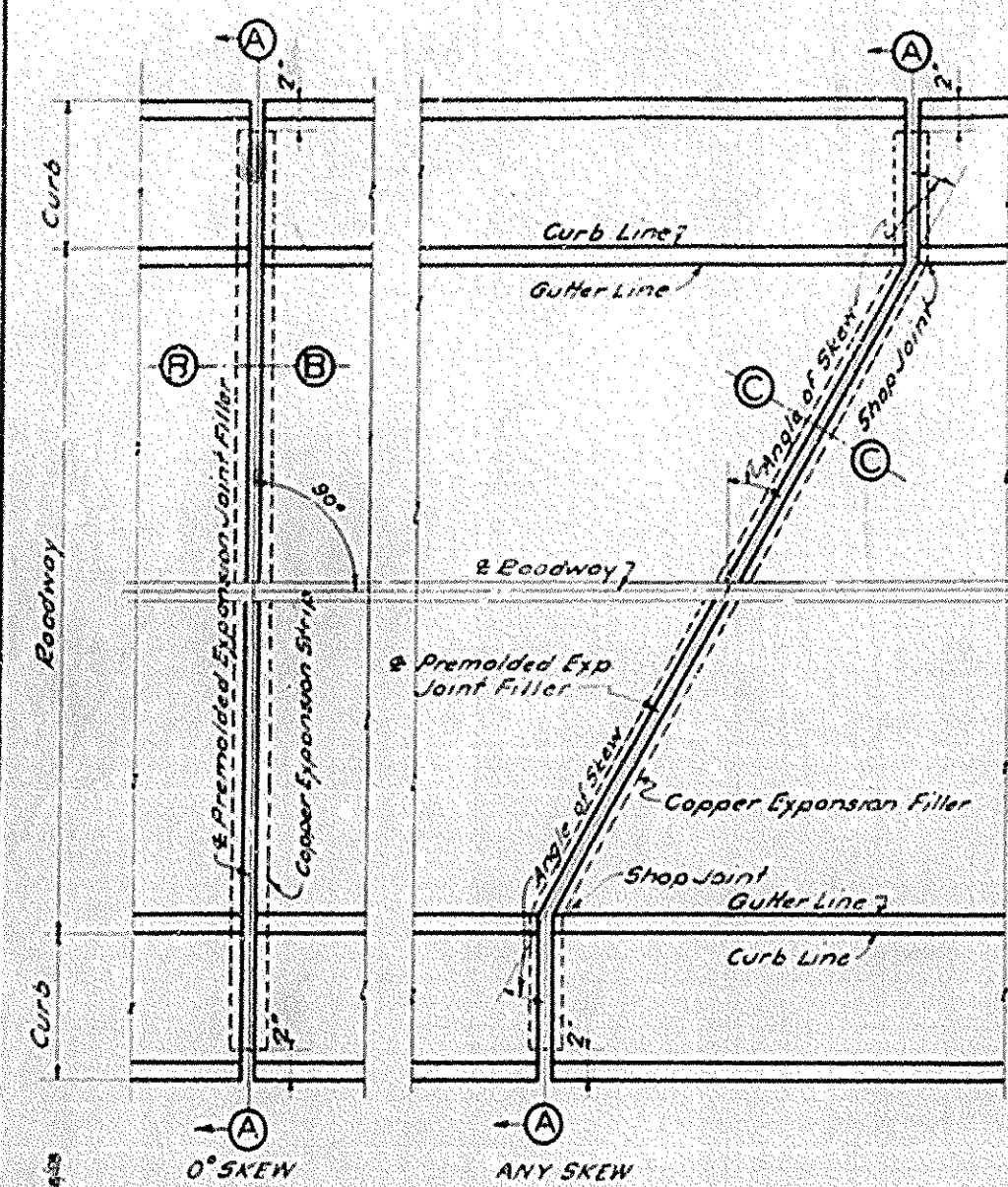
One point coat of Asphalt Cement PAC-7
NOTE: Lower section of copper strip is placed first, just prior to placing upper section of copper strip paint lower section with PAC-7 along all areas of contact, to provide additional seal. Cost of this work shall be included in the unit price bid for Class A concrete.



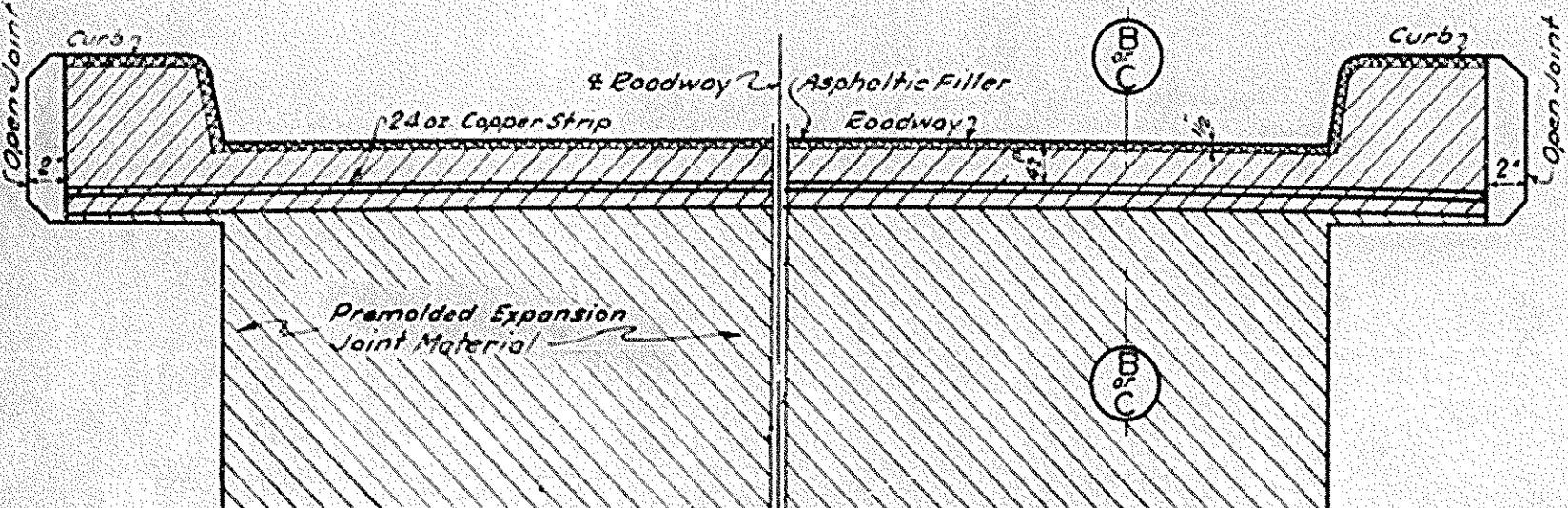
PART PLAN D-D



PART PLAN E-E

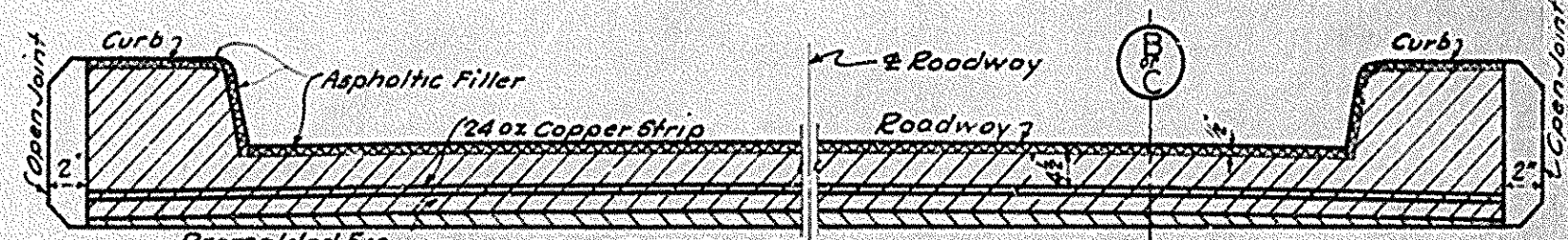


PART PLAN



PART ELEVATION A-A

NOTE: Premolded Expansion Joint Material of the thickness shown on plans to be used in joint over area shown as shaded above. Joint to be left open over unshaded areas.



PART ELEVATION A-A
(For Concrete Floor on Steel Superstructure)

TYPICAL EXPANSION JOINT DETAILS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
**EXPANSION JOINT DETAILS
FOR
CONCRETE BRIDGE FLOORS**

REVISED
-G-351

BRIDGE