

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			1	

STATE OF ARKANSAS
STATE HIGHWAY DEPARTMENT

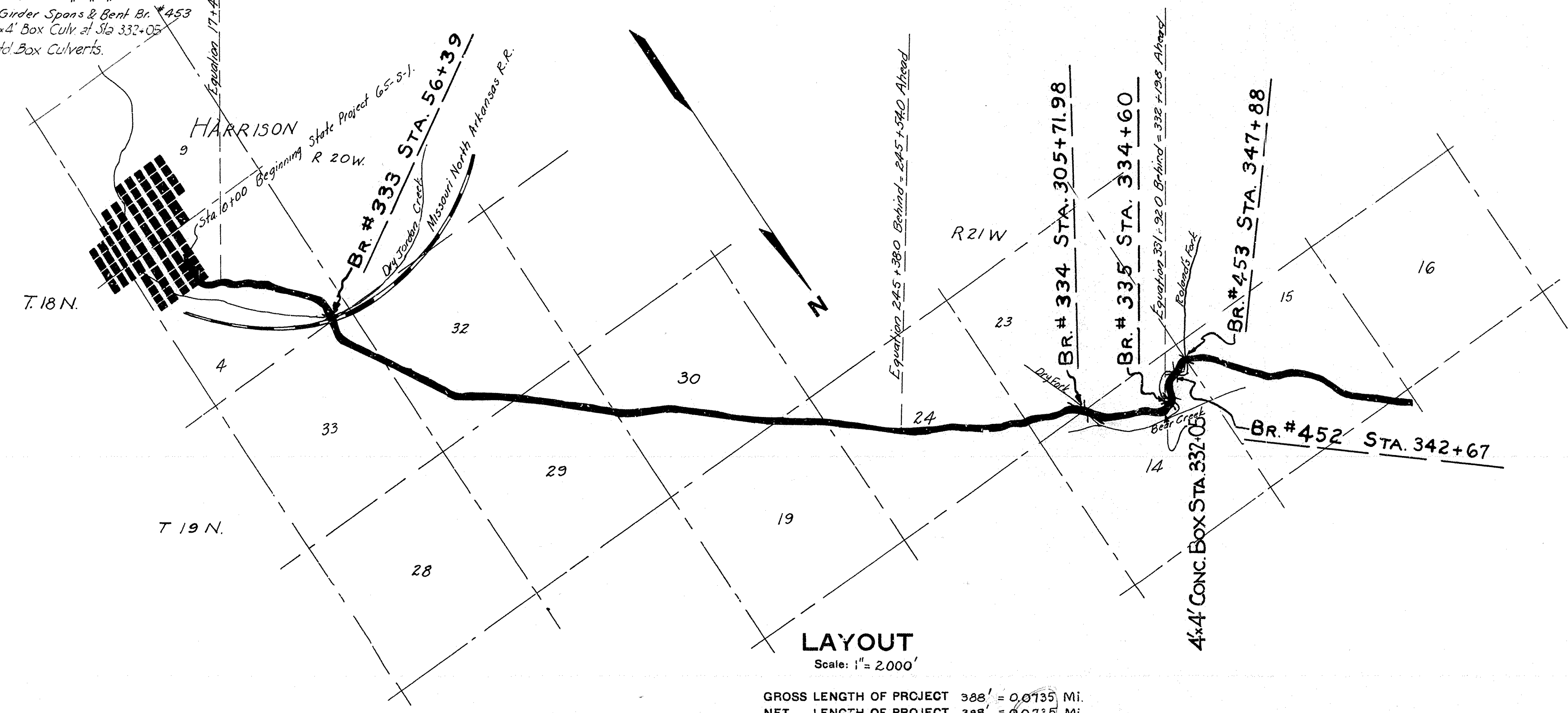
PLAN OF PROPOSED BRIDGES
ON
HARRISON-OMAHA ROAD
BOONE COUNTY
ROUTE 65 - SECTION I
JOB-916
FEDERAL AID PROJECT No.

INDEX OF SHEETS

Sheet No.	Drwg. No.	Title
1	462	Title Sheet.
2	463	Layout of Bridge over Dry Jordan Creek.
3	464	Details " " " " " "
4	465	Layout " " " Dry Fork of Bear Creek.
5	466	Det. of Abutments Br. " " " " " "
6	467	" " Conc Arch & Approach Spans " " " "
7	468	Layout of Brs. 335 & 452 over Roland's Fork Bear Cr.
8	469	Det. of East Abutment Br. # 335
9	470	" " West " " " "
10	471	" " 30'-0" Girder Spans & Bent Br. # 335
11	472	" " East Abutment Br. # 452
12	473	" " West " " " "
13	474	" " 35'-0" Girder Spans & Bent Br. # 452
14	475	Layout of Br. # 453 over Roland's Fork of Bear Cr.
15	476	Det. of East Abutment Br. # 453
16	477	" " West " " " "
17	478	" " 35'-0" Girder Spans & Bent Br. # 453
18	483	Layout of 4x4' Box Culv. at Sta. 332+05
19	152	Details of Std. Box Culverts.

QUANTITIES

ITEM No.	Description	Quantity	Unit
13	DRY EXCAVATION FOR STRUCTURES	550.76	C.Y.
13	WET " " "	96.62	C.Y.
S.P.	SOLID ROCK " " "	275.00	C.Y.
54	CLASS-A- CONCRETE	714.75	C.Y.
55	" -S- "	472.22	C.Y.
55	REINFORCING STEEL	176,812	LBS.
69	RIPRAP 1 FT. THICK	140	SQ. YD.
74	CONCRETE RAILING	858.87	LIN. FT.



LAYOUT
Scale: 1" = 2,000'

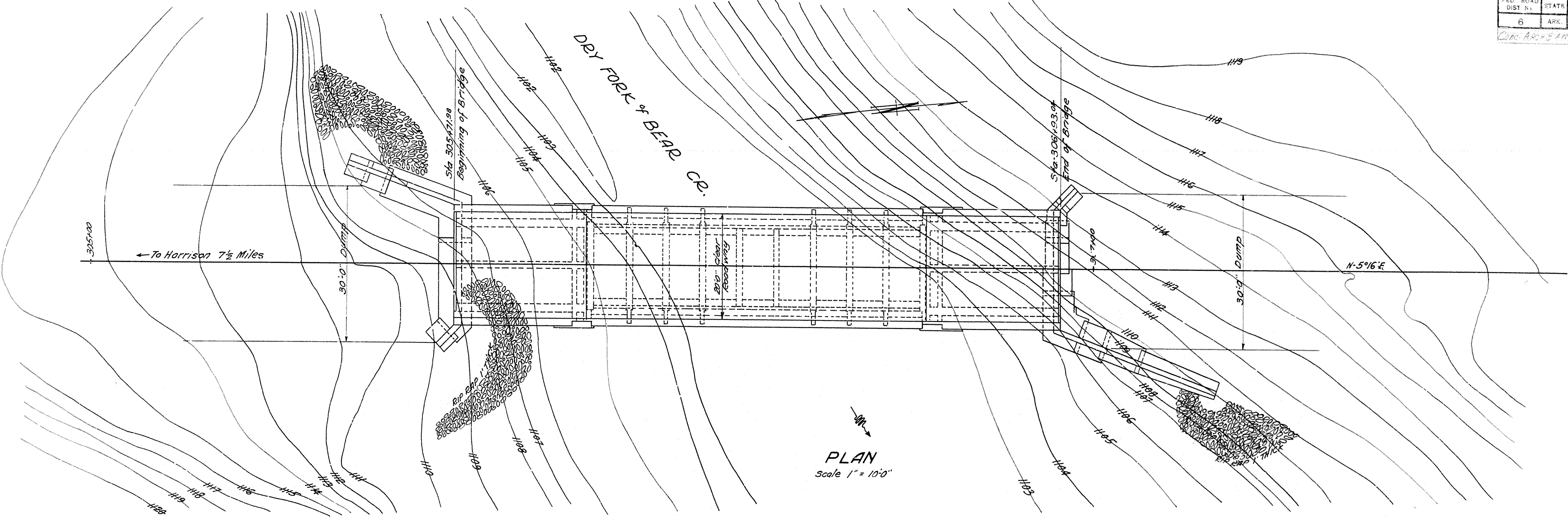
GROSS LENGTH OF PROJECT 388' = 0.0735 Mi.
NET LENGTH OF PROJECT 388' = 0.0735 Mi.

APPROVED
COMMISSIONER-STATE LANDS, HIGHWAYS AND IMPROVEMENTS
APPROVED
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER-U. S. BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENGINEER-U. S. BUREAU OF PUBLIC ROADS
APPROVED
DIRECTOR-U. S. BUREAU OF PUBLIC ROADS

N.B. Lawler
Bridge Engineer.

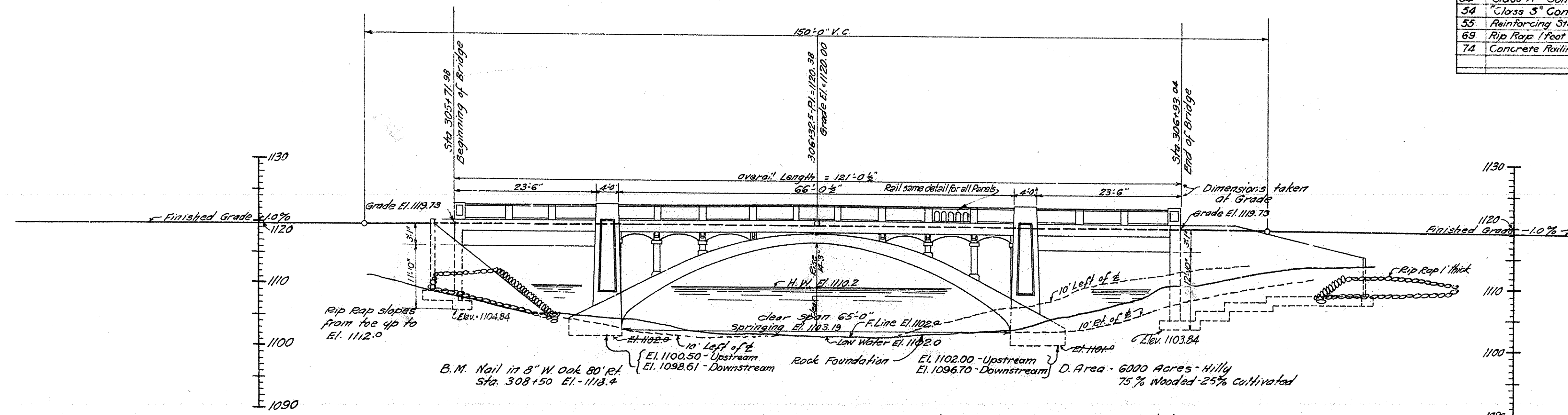
Bridges No. 333-334-335-452-453-Drwg. No. 462

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.
6	ARK.	247-B	114
COR. ARCH. & APPROCH. SPANS BRIDGE OVER DRY FORK OF BEAR CR.			



PLAN
Scale 1" = 10'-0"

QUANTITIES		
NO.	ITEM	TOTALS
13	Dry Exc. for Structures	53 CY
13	Wet " "	19 CY
S.P.	Solid Rock Excav. for Struc.	116.6 c.y.
52	"Class A" Concrete	237.13 c.y.
54	"Class S" Concrete	125.45 c.y.
55	Reinforcing Steel	40,100 Lb.
69	Rip Rap 1' foot thick	140 Sq.Yd.
74	Concrete Railing for Struc.	227 Lin.Ft.



ELEVATION
Scale 1" = 10'-0"

See Drawgs. No. 466, & 467, for Details.
467-A.

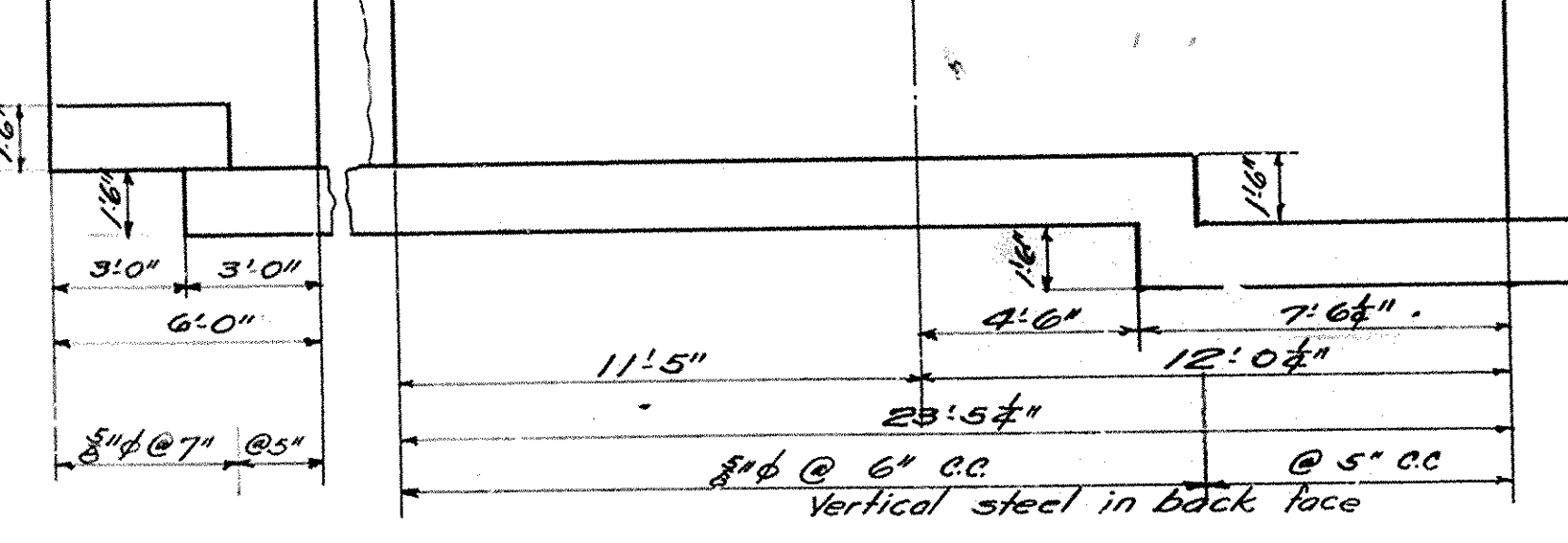
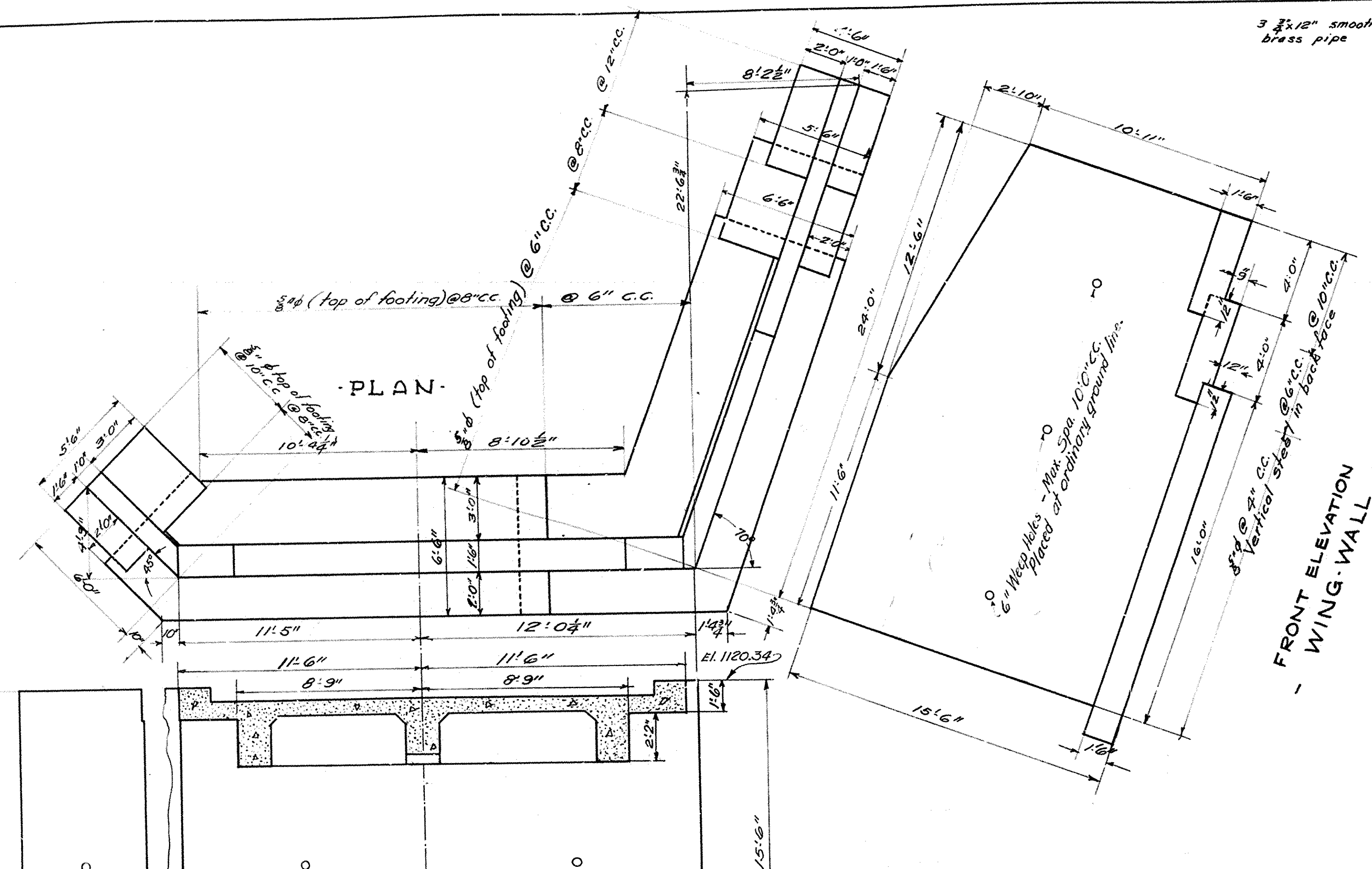
Provided Arch Etc. Quantities.
R.E.M. 5-31-32.

LAYOUT OF
CONC. ARCH ^{2nd} APPROCH SPANS
BRIDGE OVER DRY FORK OF BEAR CREEK
AT STA. 305+71.98 BOONE CO.
ROUTE 65 SECTION 1
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

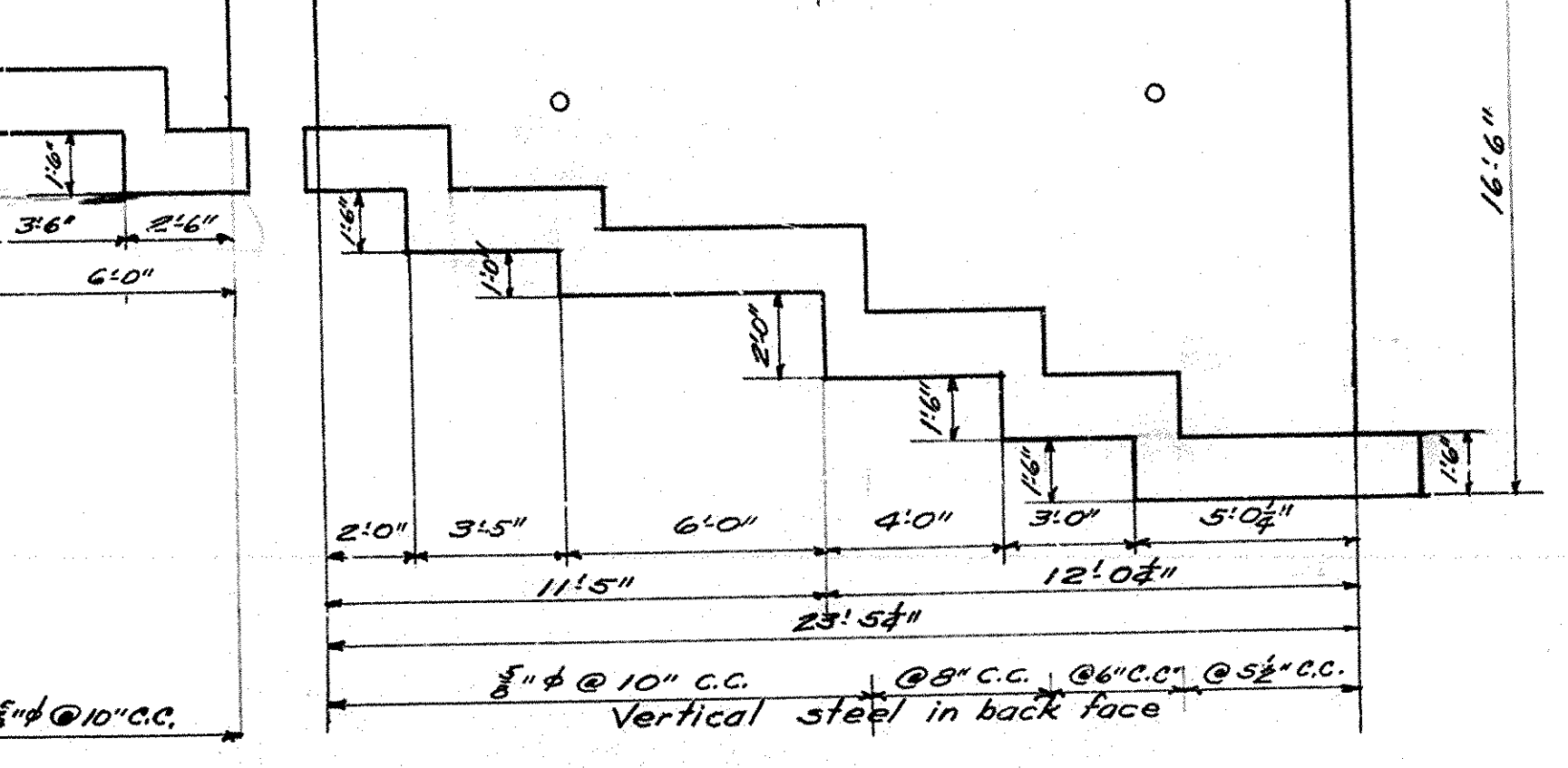
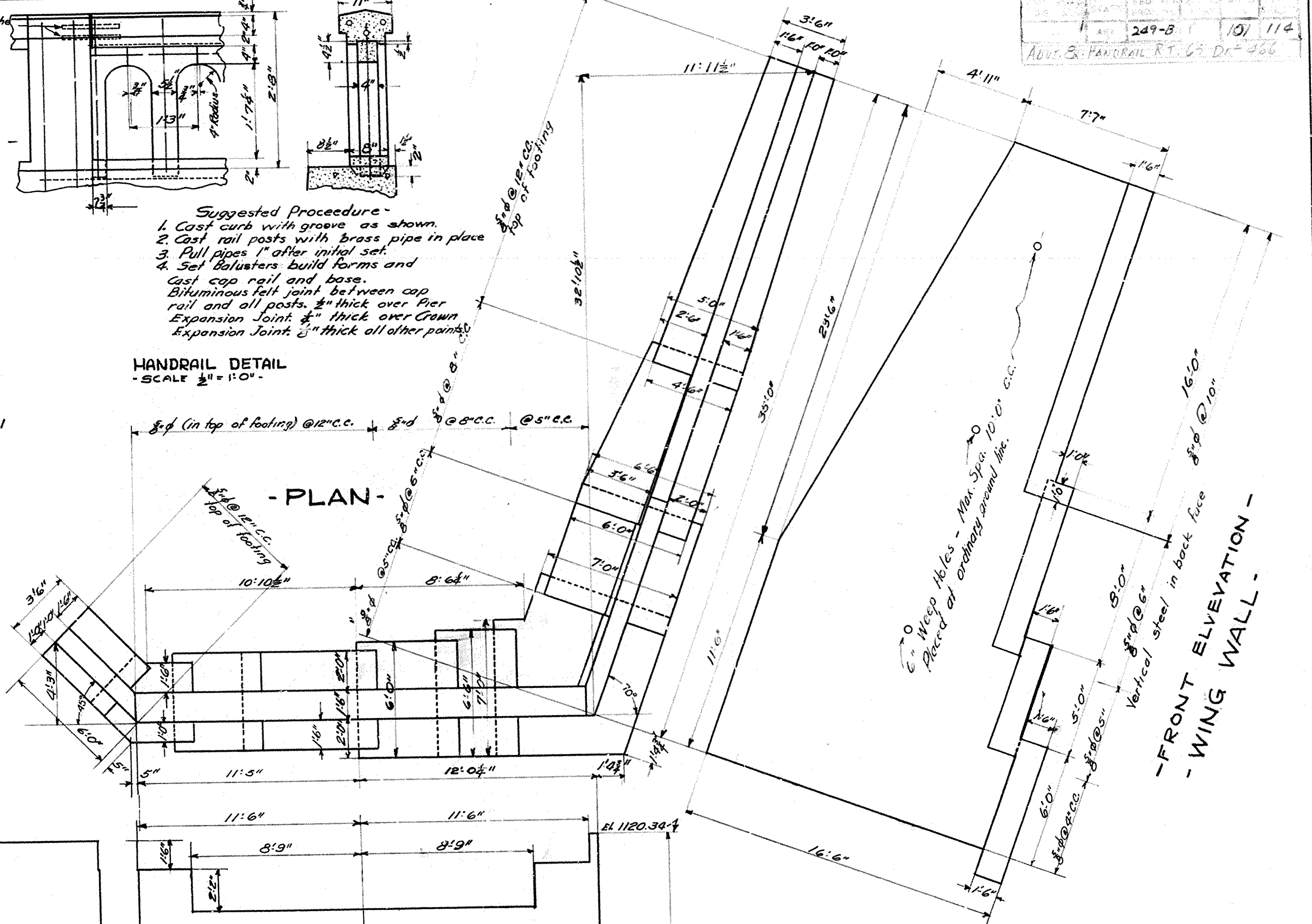
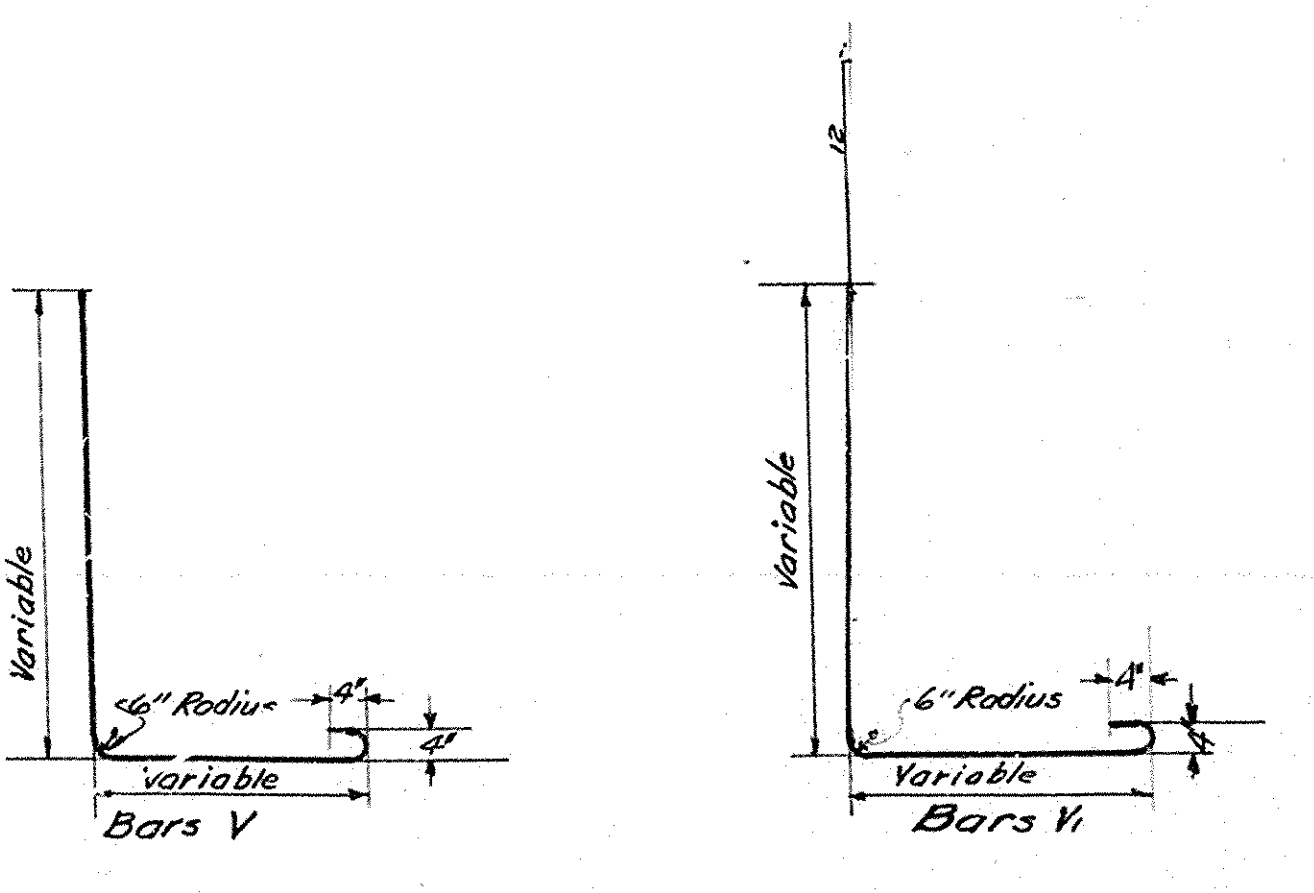
Designed By G.S.V. Date 10-27-27
Traced By G.W.P. Date 10-26-27
Checked By --- Date ---

M.B. Gower
Bridge Engineer

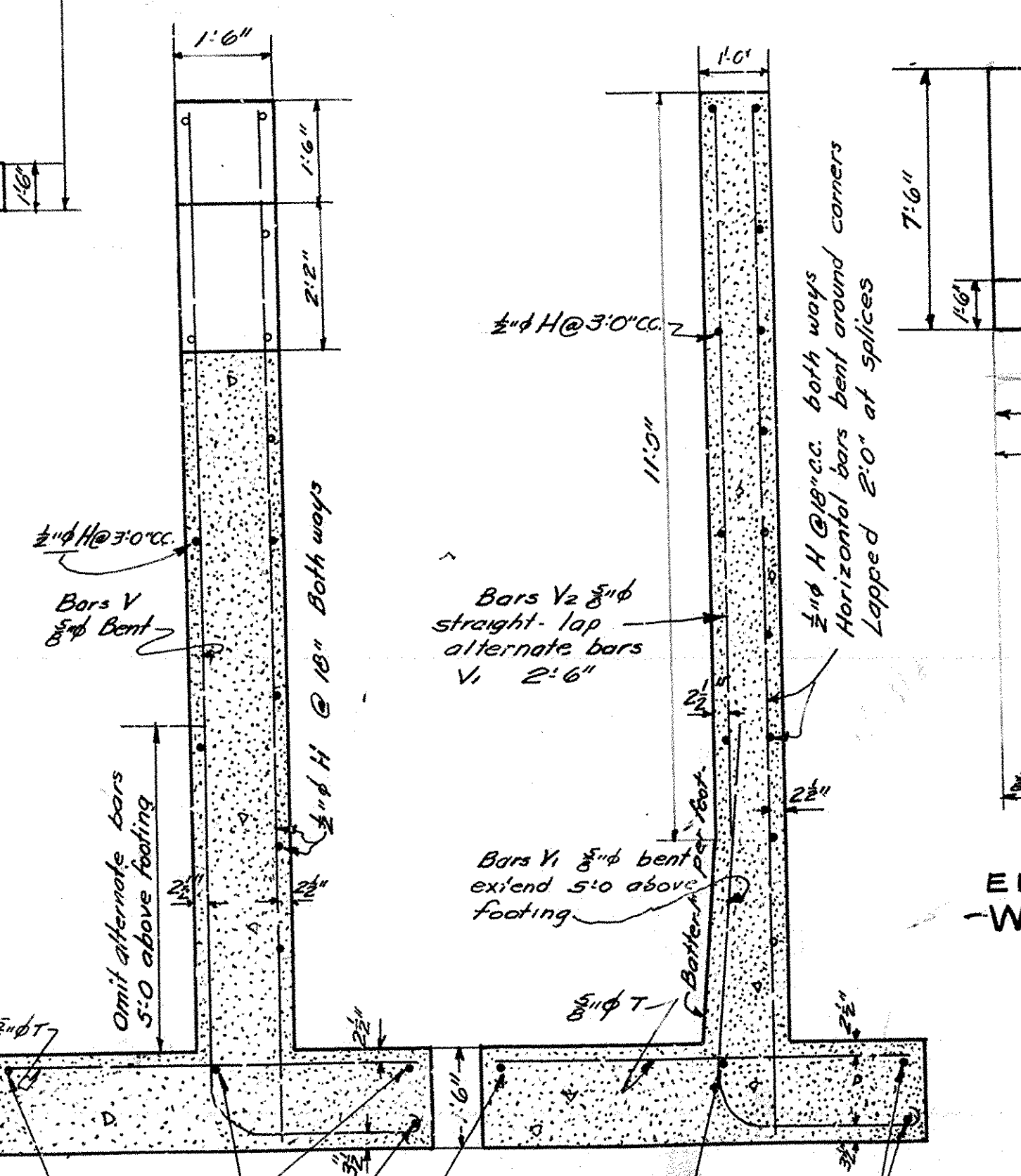
Bridge No. 334 Drawing No. 465



FRONT ELEV. BREAST WALL
- SOUTH ABUTMENT -



FRONT ELEV. BREAST WALL
- NORTH ABUTMENT -



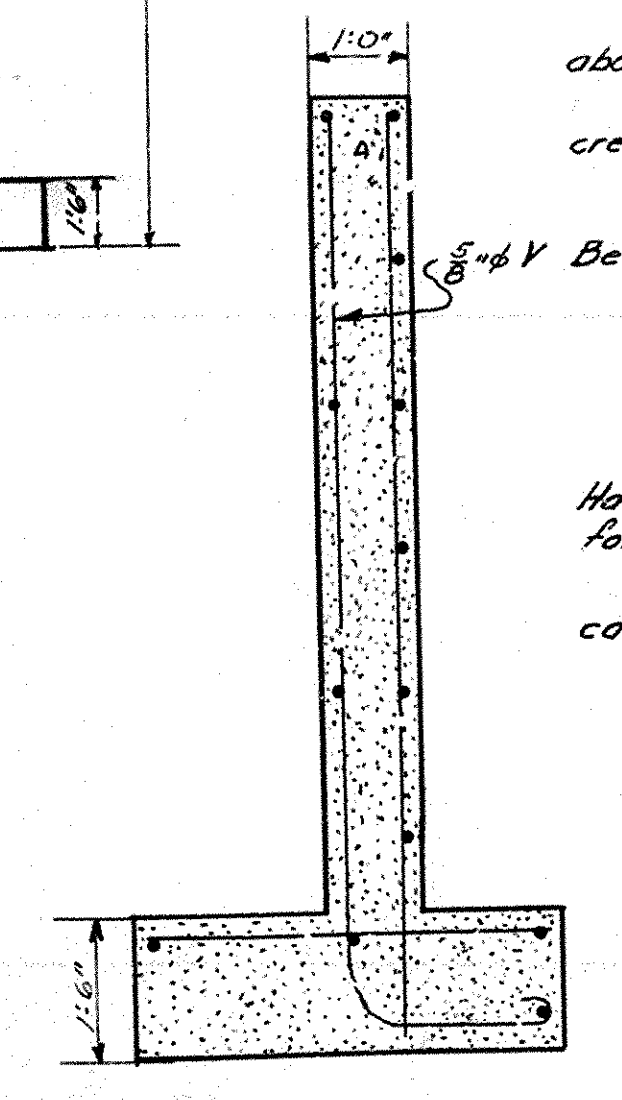
ABUTMENT WING WALL - OVER 12'6" HIGH
- TYPICAL CROSS SECTIONS -
 Scale 1/2" = 1'-0"

Abutments and wingwalls to be founded on rock excavated to horizontal steps. Steps as shown may be varied to fit conditions found in excavating, the design of the wall and footing to be adjusted accordingly.

- Suggested Procedure**
1. Cast curb with groove as shown.
 2. Cast rail posts with brass pipe in place.
 3. Pull pipes 1" after initial set.
 4. Set balusters, build forms and cast cap rail and base.
- Bituminous felt joint between cap rail and all posts. 1/2" thick over pier. Expansion joint 1/2" thick over crown. Expansion joint 1/2" thick all other points.

HANDRAIL DETAIL
 SCALE 1/2" = 1'-0"

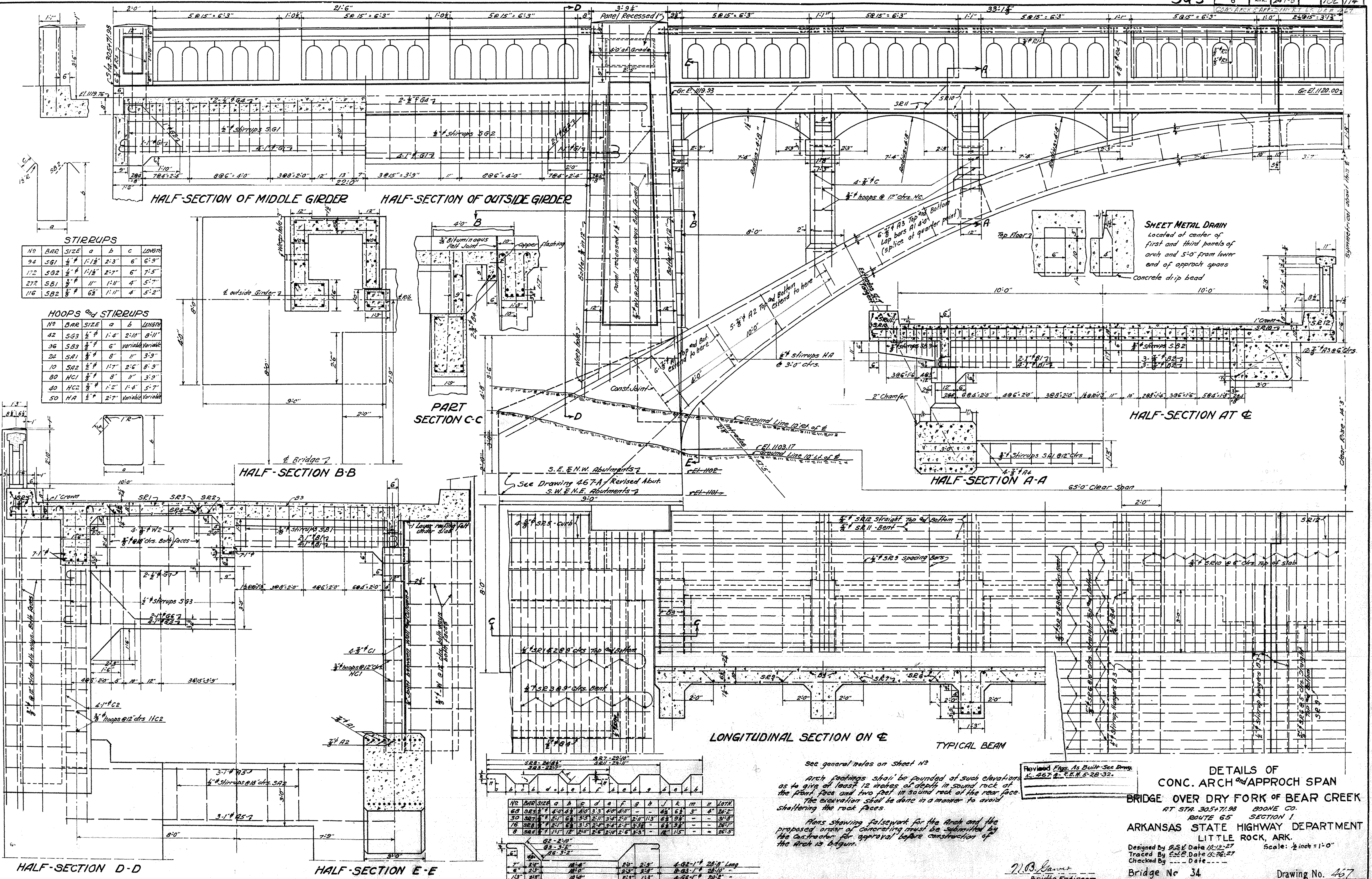
GENERAL NOTES:
 All exposed corners to have 3/4" chamfer unless otherwise noted.
 Precast Handrail Balusters to be 1:3 mix. Max. Agg. 1/4" Class 5 Concrete to be used for approach spans, above bottom of Girders, Arch Deck above bottom of copings, Handrail posts and cap rail. All other concrete except handrail to be Class A.
 Reinforcing steel to be deformed bars of Structural or Intermediate Grade.
 Roadway drains and expansion devices to be paid for as reinforcing steel.
 Shop lists and bending diagrams of reinforcing steel to be submitted by contractor before fabrication is begun.
 All Concrete above top of curb to be paid for as Handrail, except posts over piers which will be paid for as class A Concrete.
 Specifications: Arkansas Standard Road and Bridge Specifications, Adopted May 30, 1925



- TYPICAL CROSS SECTION WING WALL -
 - UNDER 12'6" -
 Same as high wall except as indicated.

Designed By G.S.V. Date 10-19-27
 Traced By Beck Date
 Checked By Date
 Scale 1/2" = 1'-0" (except as noted)
BRIDGE No 334 - DRAWING No. 466

N.B. Jarrow
 Bridge Engineer



STIRRUPS

No	BAR SIZE	a	b	c	LENGTH	
94	SG1	1 1/2"	2-3"	6"	6'-9"	
172	SG2	1 1/2"	2-7"	6"	7'-5"	
272	SB1	1 1/2"	1-11"	4"	5'-2"	
116	SB2	1 1/2"	6-2"	1-11"	4"	5'-2"

HOOPS and STIRRUPS

No	BAR SIZE	a	b	LENGTH
42	SG3	1-4"	2-10"	9'-11"
36	SB3	6"	variable	variable
2A	SA1	8"	11"	3'-9"
10	SA2	1-7"	2'-6"	8'-9"
80	HC1	8"	11"	3'-9"
40	HC2	1-2"	1-4"	5'-7"
50	HA	2-7"	variable	variable

No	BAR SIZE	a	b	c	d	e	f	g	h	i	j	k	l	m	n	LENGTH
60	SG3	1-4"	2-10"	3-3"	2-0"	4-11"	-	-	2-6"	6-3"	3"	4"	24'-2"			
30	SB3	6"	variable	variable	variable	variable	variable	variable	variable	variable	variable	variable	variable			
76	SB2	1 1/2"	6-2"	1-11"	4"	5'-2"	-	-	6-3"	9-3"	-	-	24'-7"			
8	HA	2-7"	variable	variable	variable	variable	variable	variable	variable	variable	variable	variable	variable			

See general notes on Sheet No. 344
 Arch footings shall be founded at such elevations as to give at least 12 inches of depth in sound rock at the front face and two feet in sound rock at the rear face. The excavation shall be done in a manner to avoid shattering the rock faces.
 Plans showing falsework for the arch and the proposed order of concreting must be submitted by the contractor for approval before construction of the arch is begun.

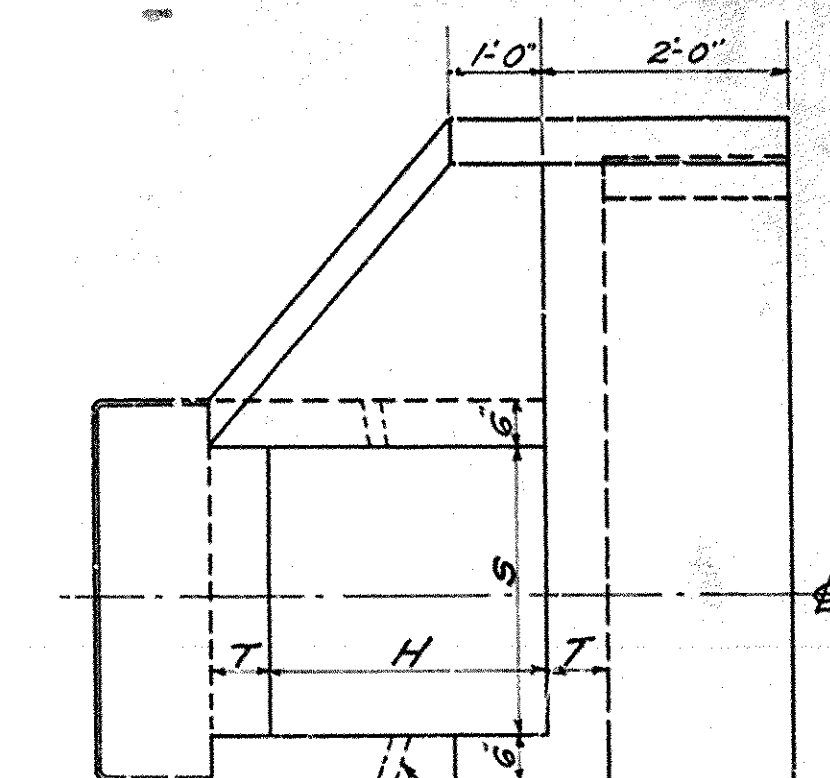
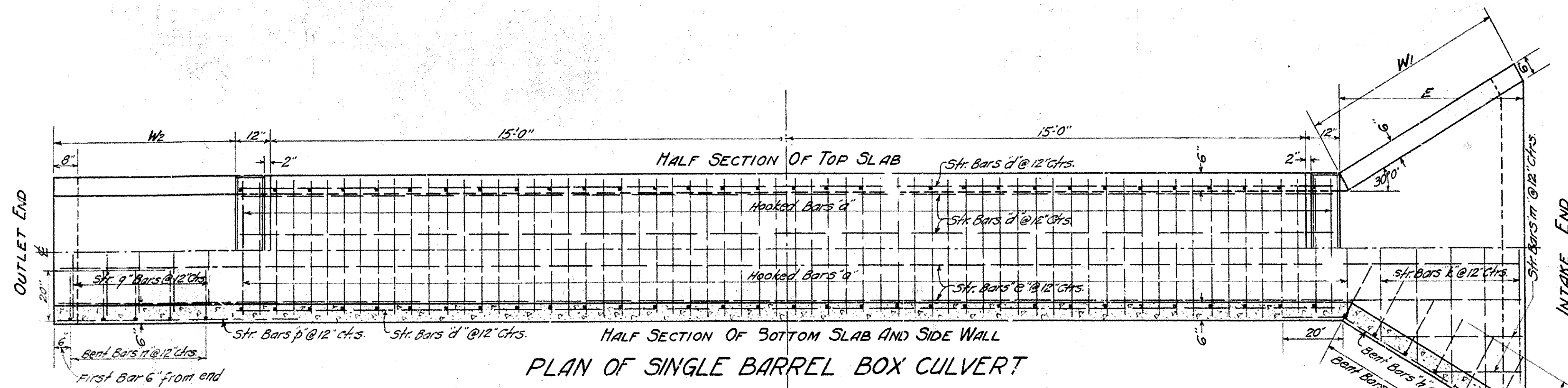
Revised Plans As Built-See Drawg. No. 467-A, R.E.M. 5-28-32.

DETAILS OF CONC. ARCH AND APPROCH SPAN
 BRIDGE OVER DRY FORK OF BEAR CREEK
 AT STA. 305+71.98 BOONE CO.
 ROUTE 65 SECTION 1
 ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.
 Designed by P.S.E. Date 10-12-27
 Traced by E.S.E. Date 3-26-28
 Checked by _____ Date _____
 Bridge No. 34 Drawing No. 467

P.S.E.
 Bridge Engineer

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				

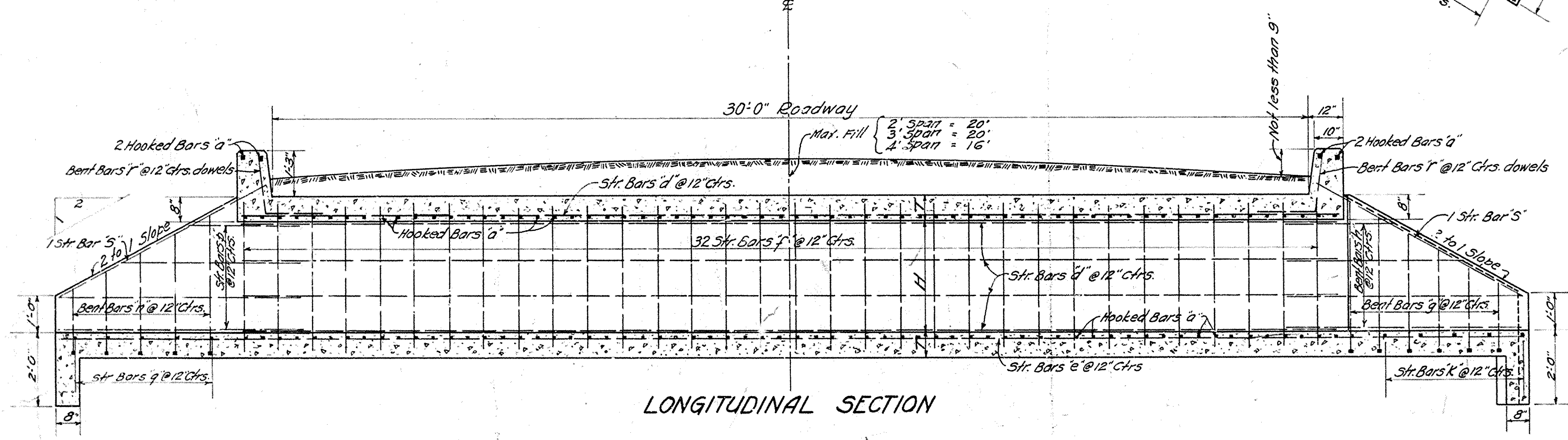
RAIN. CONC. BOX CH. SP. 20' Hwy. D.R. 152



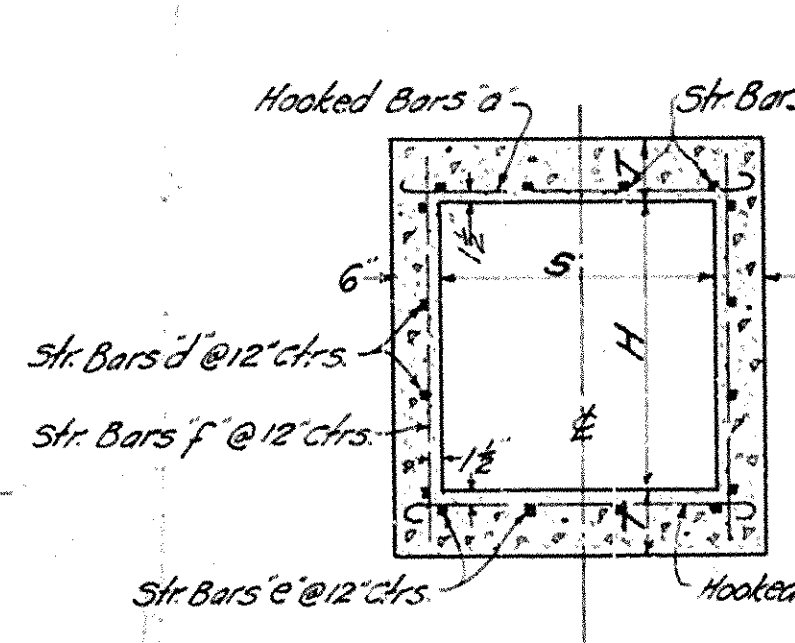
3'-3" Drains to be placed in both outside walls spaced as directed by the engineer.

HALF ELEVATION INTAKE END
HALF ELEVATION OUTLET END

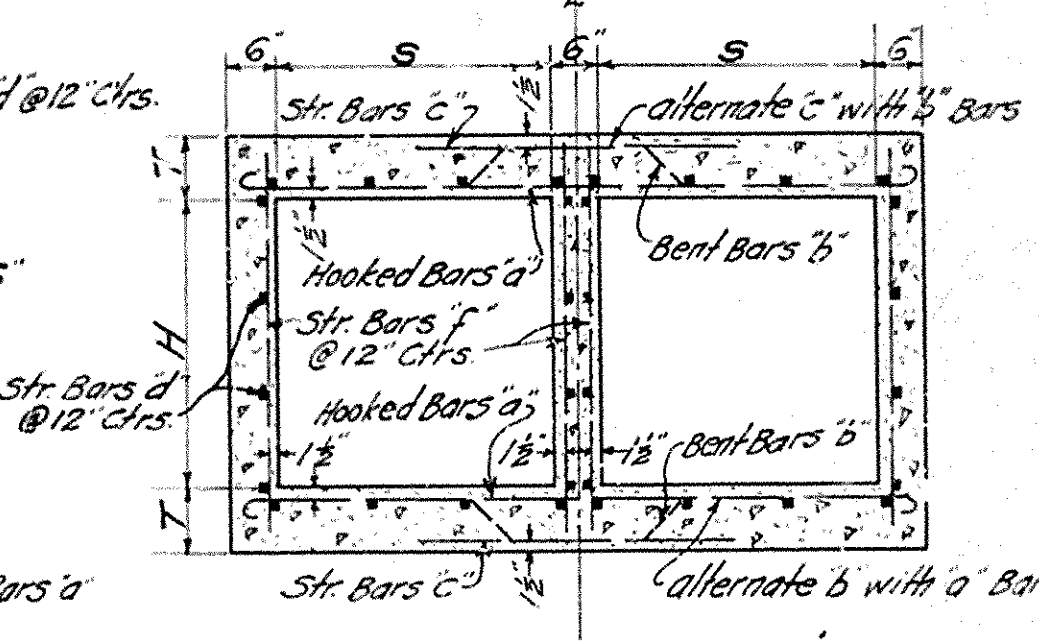
PLAN OF SINGLE BARREL BOX CULVERT



LONGITUDINAL SECTION



SECTION THRU SINGLE BARREL



SECTION THRU DOUBLE BARREL

SPECIFICATIONS: Ark. Stand. Road Bridge Specifications Adopted May 30th 1925.
 REINFORCING STEEL: To be deformed Bars of Structural or Intermediate Grade.
 CHAMFER: All exposed corners to have $\frac{3}{8}$ " chamfer.
 CONCRETE: All concrete to be class "A" and poured in the dry.

STEEL SCHEDULE

NUMBER OF SPANS	HEIGHT OF BARREL	a Bars $\frac{3}{8}$ "		b Bars $\frac{3}{8}$ "		c Bars $\frac{3}{8}$ "		d Bars $\frac{3}{8}$ "		e Bars $\frac{3}{8}$ "		f Bars $\frac{3}{8}$ "		g Bars $\frac{3}{8}$ "		h Bars $\frac{3}{8}$ "		i Bars $\frac{3}{8}$ "		j Bars $\frac{3}{8}$ "		k Bars $\frac{3}{8}$ "		l Bars $\frac{3}{8}$ "		m Bars $\frac{3}{8}$ "		n Bars $\frac{3}{8}$ "		o Bars $\frac{3}{8}$ "		p Bars $\frac{3}{8}$ "			
		Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height	Span	Height
2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"	2	2	6'	2'-9"

DIMENSIONS AND QUANTITIES

SPAN	HEIGHT	SINGLE BARREL		DOUBLE BARREL	
		CONCRETE Cu. Yds.	STEEL Pounds	CONCRETE Cu. Yds.	STEEL Pounds
2	2	1.67	194	3.33	388
3	2	2.02	247	4.04	484
4	2	2.39	305	4.78	570

STANDARD PLAN REINFORCED CONCRETE BOX CULVERT SPANS 2' 3' and 4' - 30' ROADWAY

ARKANSAS STATE HIGHWAY DEPARTMENT LITTLE ROCK, ARK.

Designed By: M.B. Barlow Date: 11-1927
 Traced By: C.W. Dyer Date: 11-1927
 Checked By: Date: _____

M.B. Barlow Bridge Engineer

Drawing No. 152