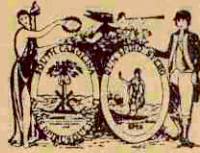


RICHLAND COUNTY

B

WEIGHT OF RAM 2000 Lbs. FALL 15 Ft. TYPE GRAVITY

BR. T. O.



SOUTH CAROLINA
STATE HIGHWAY DEPARTMENT

Waterce, S. C.

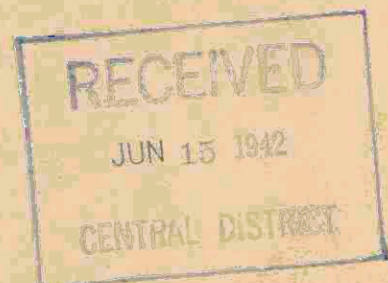
June 11, 1942.

From: Resident Engineer L. E. Wiggins, Jr.
To: Central District Engineer
Subject: Docket 40.256 - Richland County

Under separate cover, I am sending you the final estimate for the above named docket.

This docket was put under my supervision on December 15, 1941 and the diary begins on that date as none had been kept up until that time. All piling had been driven and no data was available on the bearing and penetration.

L. E. Wiggins, Jr.
Wiggins



STATEMENT OF OVERRUNS AND UNDERRUNS

Project Docket 40.256 (Bridge)
County Richland
Route 48

Contractor Work done by State Forces
Stas. 351/86.5 - 352/87.5
Stas. 500/34.5 - 501/85.5
Stas. 585/00 - 585/76

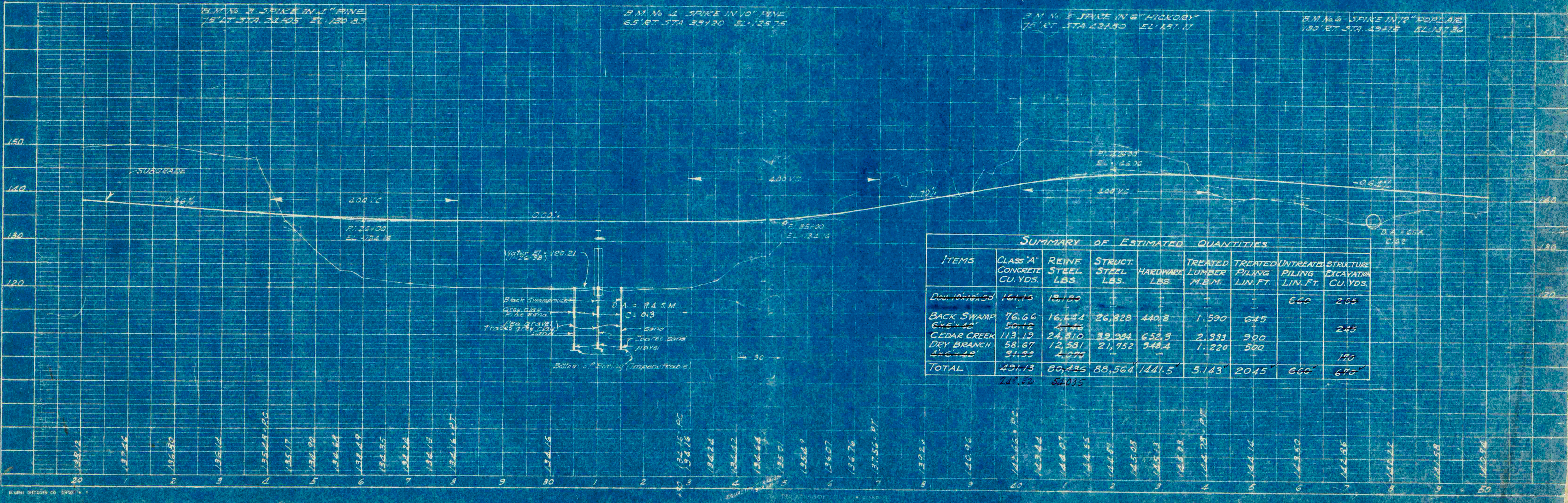
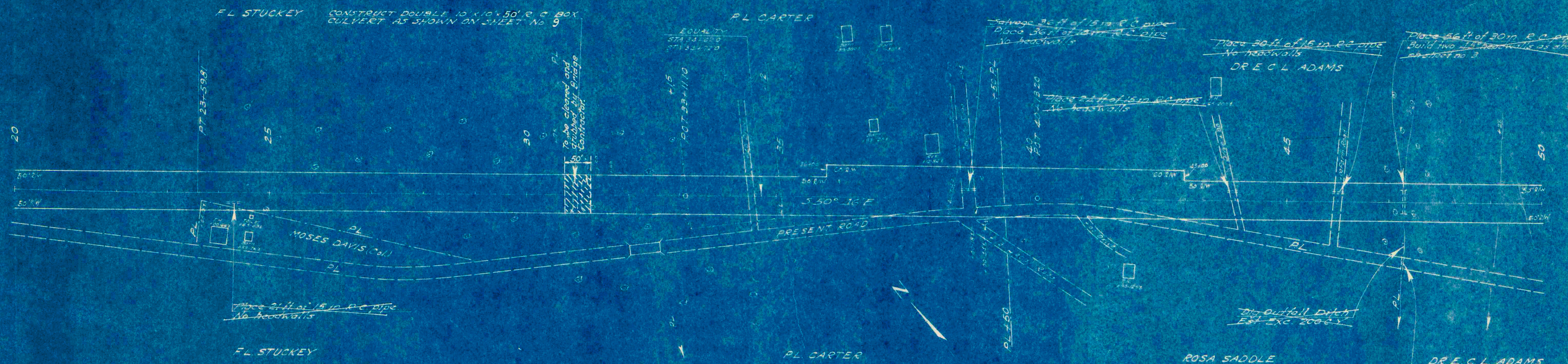
Item	Quantities		Differ- ence	Explanations
	P.A. Est.	Final		
Clearing & Grubbing	L.S.	L.S.	0	
Class A Concrete	248.52	248.52	0	
Reinf. Steel	54035	54035	0	
Structural Steel	88564	88564	0	
Treated Timber Piling	2045	2505.5 2509.5	460.5 459.5	Original quantity an estimate. Final quantity is actual measured amount necessary to secure proper penetration and bearing value.
Treated Stru. Timber	5.143	5.143	0	
Hardware	1441.5	1441.5	0	
Clearing + Grubbing	L.S.	L.S.	0	

Two copies of this form required with all final estimates. Submit separate and distinct forms for each section of projects participating in Federal funds. See project agreement estimate for sectionalization and estimated quantities.

JKB

PLAN
SUBMITTED
DATE
NO.

PROFILE
SUBMITTED
DATE
NO.



SUMMARY OF ESTIMATED QUANTITIES							
ITEMS	CLASS 'A' CONCRETE CU. YDS.	REINF. STEEL LBS.	STRUCT. STEEL LBS.	HARDWARE LBS.	TREATED LUMBER M.B.M.	TREATED PILING LIN. FT.	UNTREATED PILING LIN. FT.
DOWN 10' x 10' x 50'	161.13	13,130					600
BACK SWAMP 6' x 6' x 12'	76.66	16,644	26,828	440.8	1,590	645	
CEDAR CREEK 11' x 11' x 12'	113.19	24,810	39,394	652.3	2,333	900	
DRY BRANCH 8' x 8' x 12'	58.67	12,581	21,752	348.4	1,220	500	
ANCHOR 4' x 4' x 12'	91.93	2,075					170
TOTAL	491.13	80,435	88,564	1,441.5	5,143	2,045	600
	248.52	54,035					640



STATEMENT OF OVERRUNS AND UNDERRUNS

Project Docket 40.256 (Bridge)
County Richland
Route 48

Contractor Work done by State Forces
Stas. 351/86.5 - 352/87.5
Stas. 500/34.5 - 501/85.5
Stas. 585/00 - 585/76

Item	Quantities		Differ- ence	Explanations
	P.A. Est.	Final		
Clearing & Grubbing	L.S.	L.S.	0	
Class A Concrete	248.52 ✓	248.52 ✓	0	
Reinf. Steel	54035 ✓	54035 ✓	0	
Structural Steel	88564 ✓	88564 ✓	0	
Treated Timber Piling	2045 ✓	2505.5 2504.5 ✓	460.5 459.5 ✓	Original quantity an estimate. Final quantity is actual measured amount necessary to secure proper penetration and bearing value.
Treated Stru. Timber	5.143 ✓	5.143 ✓	0	
Hardware	1441.5 ✓	1441.5 ✓	0	
Clearing & Grubbing	L.S.	L.S.	0	

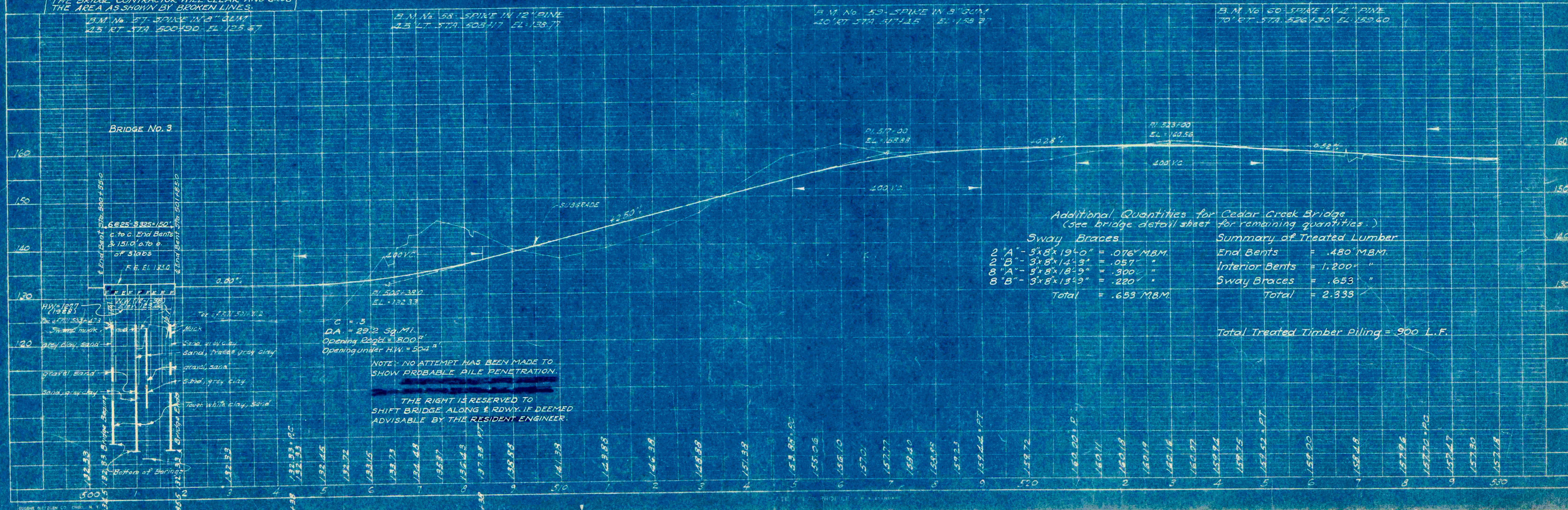
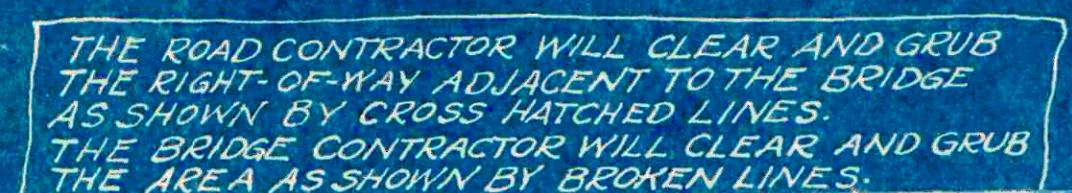
Two copies of this form required with all final estimates. Submit separate and distinct forms for each section of projects participating in Federal funds. See project agreement estimate for sectionalization and estimated quantities.

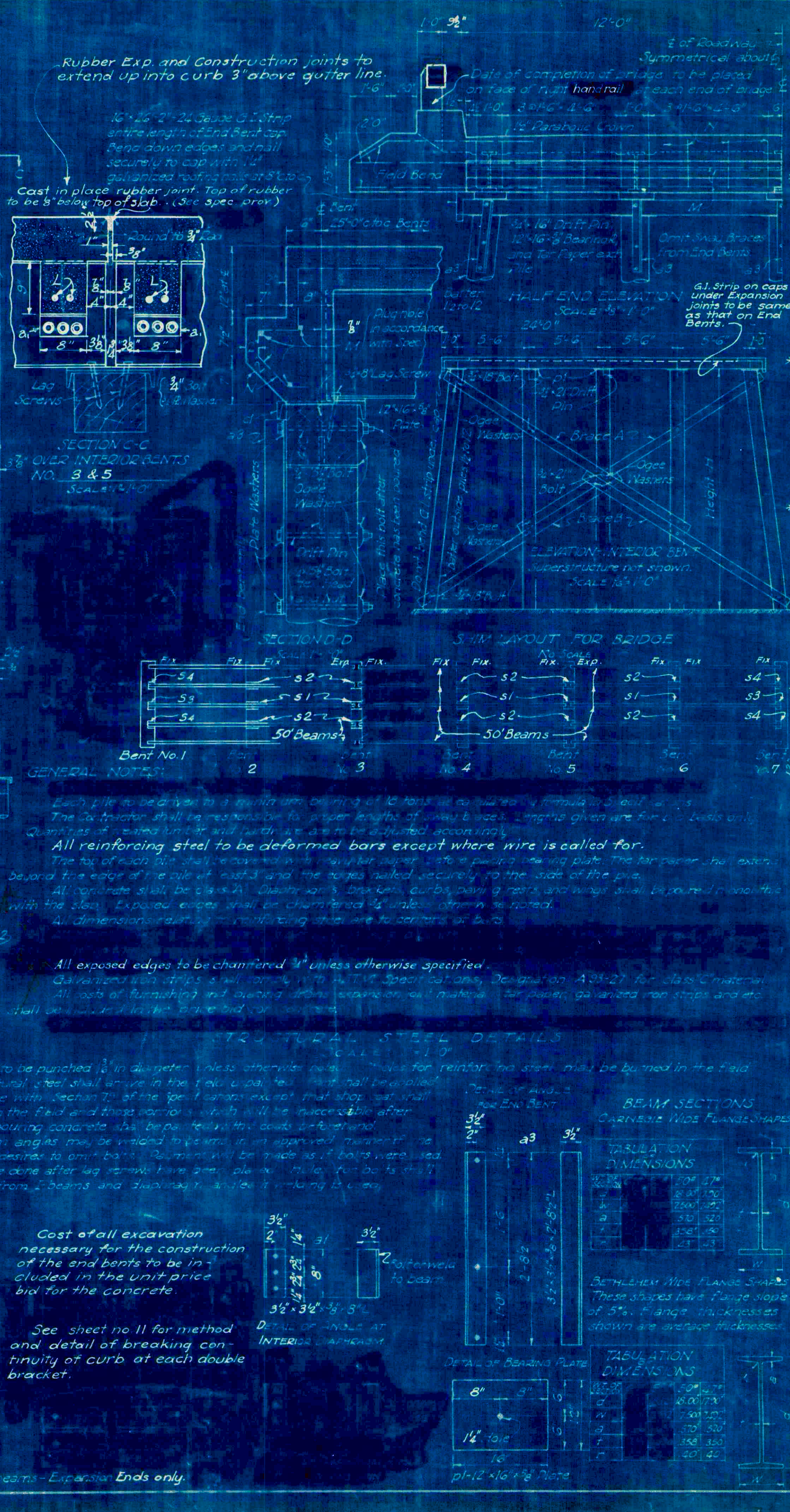
EB

S-325

PLAN NO.	REVIEWED PLOTTED ALIGNMENT CHECKED RT. OF WAY CHECKED	BY	DATE
-------------	--	----	------

PROFILE	SURVIVED	DATE
WITNESS	GRANTED	
NO	9 M. 5 NOTED	
	SUBJECTIVE IN TAT. SCH.	





BARING DETAILS FOR REINFORCING STEEL

Notes:
 ① Thread 9" each end May be plain bars.
 HOOK DETAILS
 3/8" Bars Add 3' per hook
 1/2" Bars Add 6" per hook

ITEM	No. OF ITEMS	CLASS A CONCRETE CY.	REINF. STEEL LB.	STRUCT. STEEL LB.	HARD-WARE LB.	TREATED LUMBER M.D.M.	TREATED PILING LIN. FT.
END BENTS	2			994	115.4		
INTERIOR BENTS	5			1910	326.0		
30 END SPANS	2	76.66	16,641	24,510	129.8		
30 INTERIOR SPANS	1	36.53	8,166	12,300	81.1		
SHIMS	21			270			
TOTALS		113.19	24,810	39,984	652.3		

* SEE PLAN - PROFILE SHEET

HEIGHT - H	4	6	8	10	12	14	16	18	20	22	24
LENGTH BRACE A	13'-6"	13'-9"	13'-0"	13'-6"	13'-9"	20'-6"	21'-0"	21'-9"	22'-3"	23'-0"	23'-9"
LENGTH BRACE B	13'-6"	13'-9"	14'-3"	14'-9"	15'-6"	16'-0"	16'-9"	17'-6"	18'-3"	19'-3"	20'-3"

SWAY BRACES

No.	Grade	Description	Lbs.
34B		5 1/2 x 7 x 1/2	109.6
34C		10 5/8 x 1/2 x 2	119.5
34D		2 1/2 x 7 x 1/2	13.69
34E		4 5/8 x 1/2 x 2	21.1

TOTAL WEIGHT OF SHIMS 2696
 Design Data: AA.SHO-1935
 1/4" Loading, f_c = 200%, n=10
 f (Struct. steel) = 18,000 psi
 f (Reinf. steel) = 16,000 psi

S.C. STATE HIGHWAY DEPARTMENT
COLUMBIA, S.C.

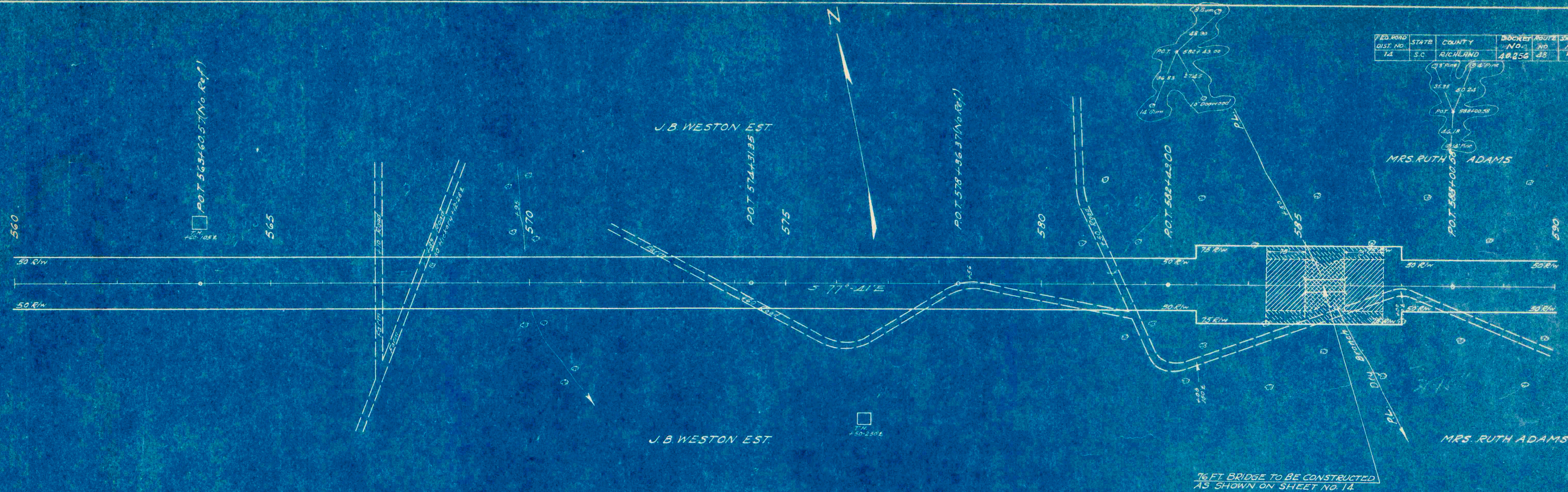
DETAILS OF 25'-50' SPAN BRIDGE OVER CEDAR CREEK

DOCKET NO. 40-256 RICHLAND CO.
 6 SPANS @ 25' DATE: DEC. 1938.
 SCALE: AS SHOWN

DATE	BY	CHECKED
PLANNED	DESIGNED	CHECKED
FILED	APPROVED	REVISIONS

DATE	BY	CHECKED
PLANNED	DESIGNED	CHECKED
FILED	APPROVED	REVISIONS

FED. ROAD DIST. NO.	STATE	COUNTY	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S.C.	RICHLAND	40256	38	7



16 FT BRIDGE TO BE CONSTRUCTED AS SHOWN ON SHEET NO. 14

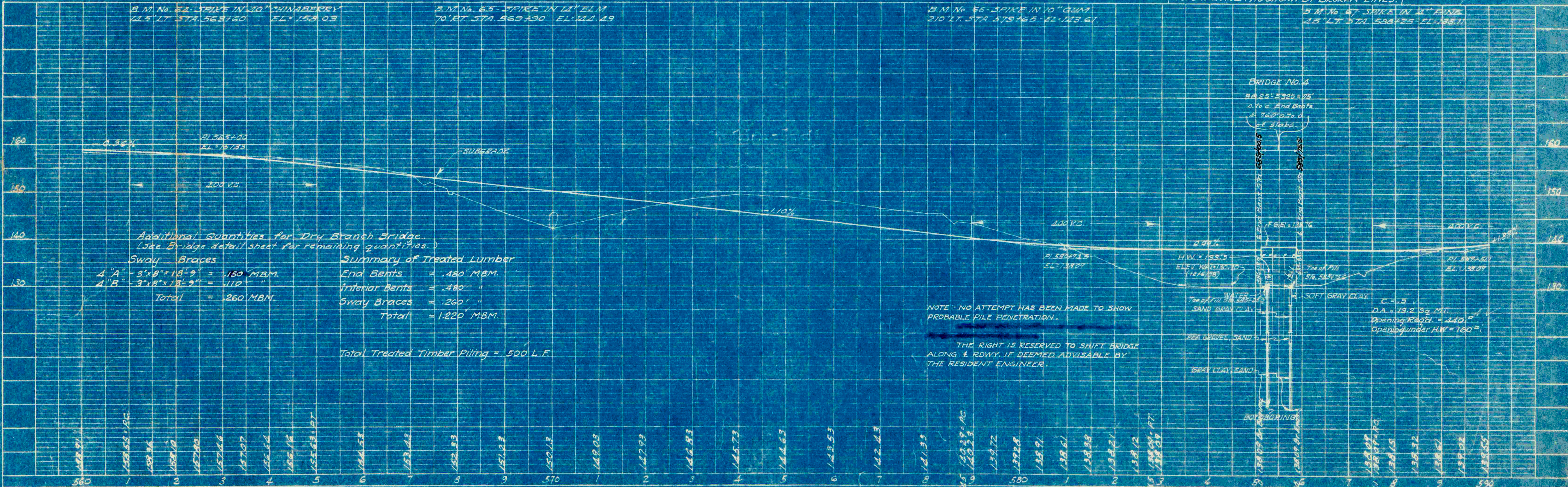
THE ROAD CONTRACTOR WILL CLEAR AND GRUB THE RIGHT-OF-WAY ADJACENT TO THE BRIDGE AS SHOWN BY CROSS HATCHED LINES. THE BRIDGE CONTRACTOR WILL CLEAR AND GRUB THE AREA AS SHOWN BY BROKEN LINES.

B.M. No. 62 - SPIKE IN 10" CHINA BERRY
12.5' LT. STA. 563+60 EL. 153.03

B.M. No. 65 - SPIKE IN 12" ELM
70' RT. STA. 569+30 EL. 141.49

B.M. No. 66 - SPIKE IN 10" CUM
210' LT. STA. 579+65 EL. 143.61

B.M. No. 67 - SPIKE IN 12" ELM
15' LT. STA. 583+25 EL. 138.11



Additional Quantities for Dry Branch Bridge.
(See Bridge detail sheet for remaining quantities.)

Sway Braces
4 "A" 3"x8"x18'-9" = 150 MBM.
4 "B" 3"x8"x18'-9" = 110 "
Total = 260 MBM.

Summary of Treated Lumber
End Bents = 480 MBM.
Interior Bents = 480 "
Sway Braces = 260 "
Total = 1,220 MBM.

Total Treated Timber Piling = 500 L.F.

NOTE: NO ATTEMPT HAS BEEN MADE TO SHOW PROBABLE PILE PENETRATION.

THE RIGHT IS RESERVED TO SHIFT BRIDGE ALONG & RDWY. IF DEEMED ADVISABLE BY THE RESIDENT ENGINEER.

BRIDGE No. 14

8 @ 25' = 200' c/c. And Bents
16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

16' 0" to 16' 0" c/c. bents

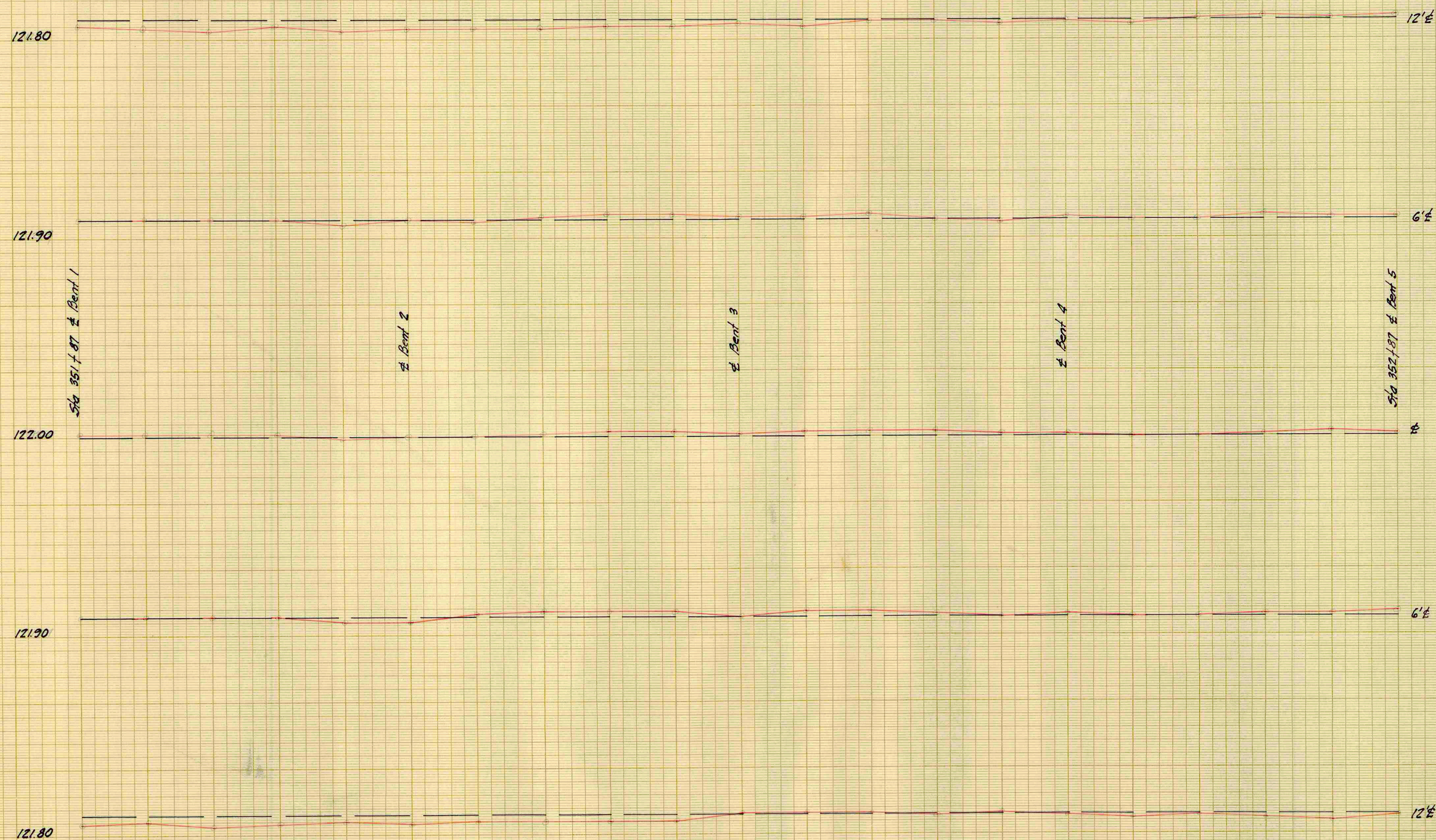
16' 0" to 16' 0" c/c. bents

CROSS SECTION

SCALE 1 INCH = 5 FEET Horizontal
1 INCH = 3 INCHES Vertical

FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	Richland	20,256	48	9	13

Roadway Profiles of Bridge over Back Swamp
Sta 351+86.5 to Sta 352+87.5
Final shown by red solid line.
Theoretical shown by black dashed line.



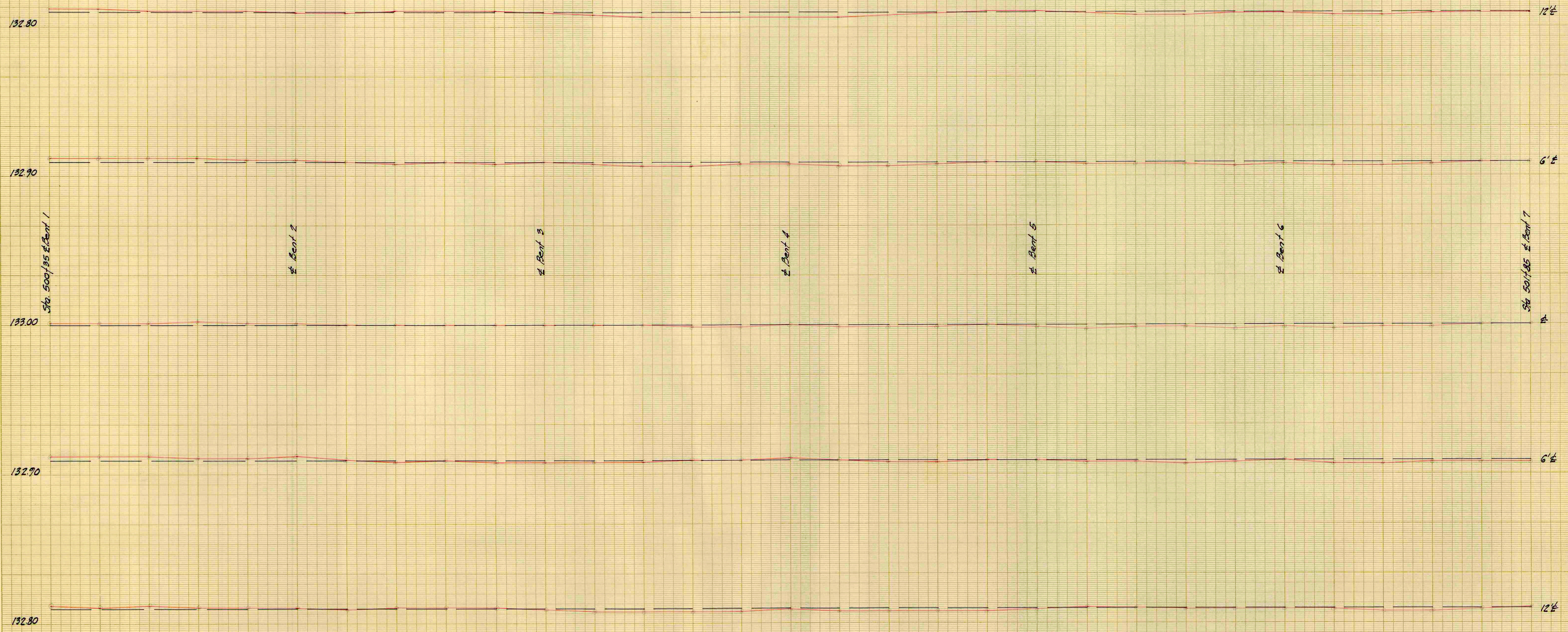
Ground Surface Plotted by _____
" " Checked by _____
Template Sections Plotted by _____
" " Checked by _____
Areas Plotted by _____
" " Checked by _____
Template Sections Revised by _____
" " Checked by _____
Final Areas by _____
" " Checked by _____
Quantities Transferred and Inked by _____

CROSS SECTION

SCALE 1 INCH = 5 FEET Horizontal
1 INCH = 3 INCHES Vertical

FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	Richland	10,256	18	10	13

Roadway Profiles of Bridge over Cedar Creek
Sta 500+31.5 to Sta 501+85.5
Finals shown by red solid line
Theoretical shown by black dashed line



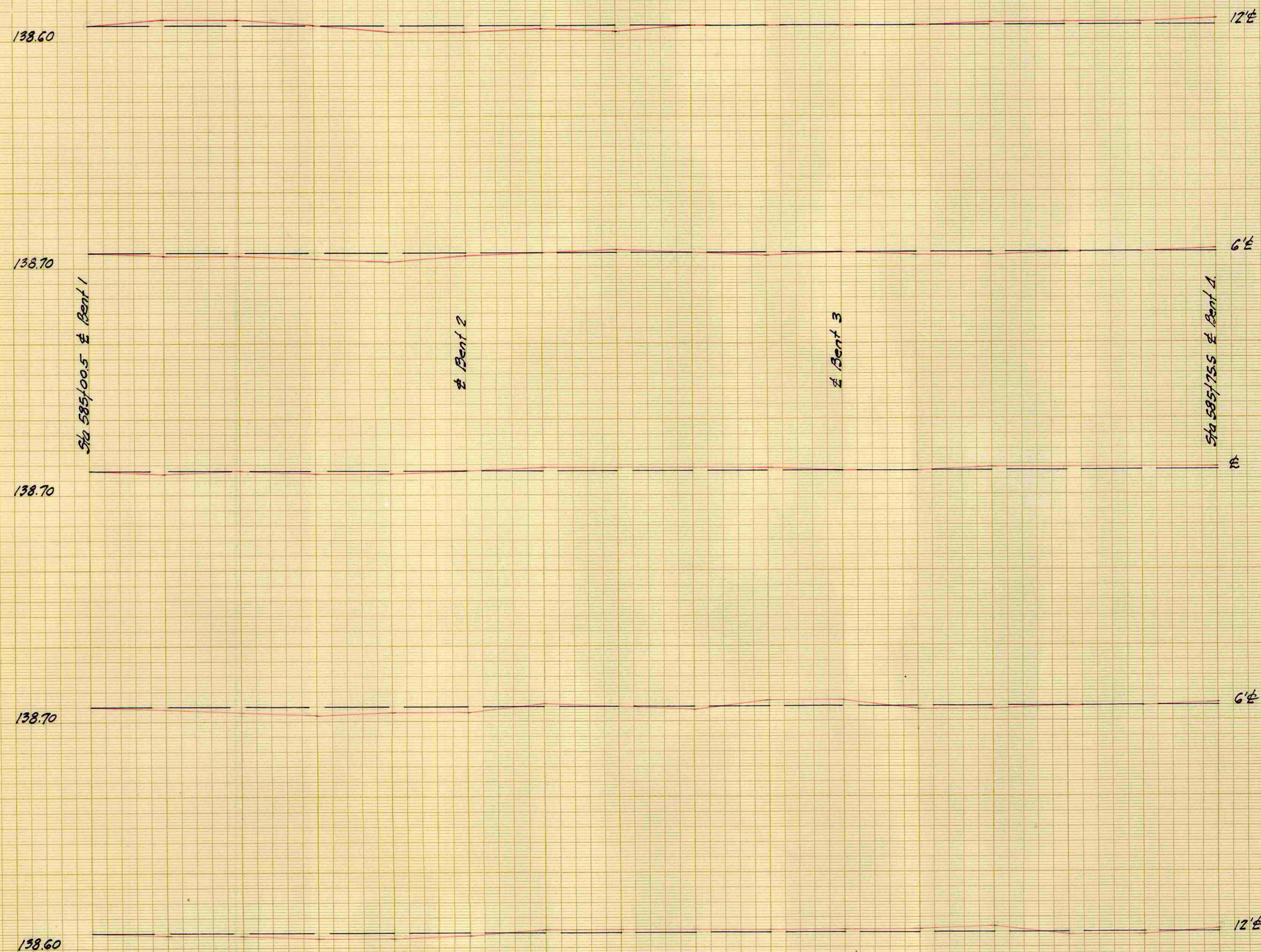
Ground Surface Platted by _____
 " " Checked by _____
 Template Sections Platted by _____
 " " Checked by _____
 Areas by _____
 " " Checked by _____
 Template Sections Revised by _____
 " " Checked by _____
 Final Areas by _____
 " " Checked by _____
 Quantities Transferred and Inked by _____

CROSS SECTION

SCALE 1 INCH = 5 FEET Horizontal
1 INCH = 3 INCHES Vertical

FED. ROAD DIST. NO.	STATE	COUNTY	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	Richland	10256 18	11	13

Roadway Profiles of Bridge over Dry Branch
Sta 585+00 to Sta 585+76
Finals shown by red solid line.
Theoretical shown by black dashed line



Ground Surface Plotted by _____
" " Checked by _____
Temporary Sections Plotted by _____
" " Checked by _____
Areas by _____
" " Checked by _____
Template Sections Revised by _____
" " Checked by _____
Final Areas by _____
" " Checked by _____
Quantities Transferred and Inked by _____

SUMMARY OF FINAL ESTIMATE QUANTITIES DOCKET NO. 40.256
RICHLAND COUNTY

PIERS OR BENTS

PIERS OR BENTS																						SHEET REF.
ITEM	PLAN ELEVATION		FINAL ELEVATION		DIFFERENCE		DRY EXCAVATION	WET EXCAVATION	ROCK EXCAVATION	TREATED TIMBER PILING	UNTREATED TIMBER PILING	REINFORCED CONC PILING	STEEL H PILING	CLASS A-A CONCRETE	CLASS A CONCRETE	CLASS B CONCRETE	REINFORCING STEEL	STRUCTURAL STEEL	TREATED STRU. TIMBER	WELDING	HARDWARE	REMARKS
	UPSTREAM	DOWNSIDE	UPSTREAM	DOWNSIDE	UPSTREAM	DOWNSIDE																
BACK SWAMP BRIDGE BENTS 1,2,3,4,5										788'-10"								2140	1.590		311.0	
CEDAR CREEK BRIDGE BENTS 1,2,3,4,5,6,7										1075'-8"								2904	2.333		441.4	
DRY BRANCH BRIDGE BENTS 1,2,3+4										641'-0" 640'-0"								1758	1.220		245.8	

SUPERSTRUCTURE

SUPERSTRUCTURE													SHEET REF.		
ITEM	PLAN QUANTITIES			CONCRETE	REINFORCING STEEL	STRUCTURAL STEEL LBS.	STRUCTURAL STEEL L.S.	TREATED STRU. TIMBER	UNTREATED STRU. TIMBER	WELDING	HARDWARE	WATER PROOFING			REMARKS
	CONCRETE	REINF. STEEL	STRU. STEEL												
BACK SWAMP BRIDGE Spans 1+2	76.66 ✓	16644 ✓	24688 ✓	76.66 ✓	16644 ✓	24688 ✓					129.8 ✓				
CEDAR CREEK BRIDGE Spans 1,2+3	113.19 ✓	24810 ✓	37080 ✓	113.19 ✓	24810 ✓	37080 ✓					210.9 ✓				
DRY BRANCH BRIDGE Spans 1+2	58.67 ✓	12581 ✓	19994 ✓	58.67 ✓	12581 ✓	19994 ✓					102.6 ✓				
</															

SHOP BILL

VIRGINIA BRIDGE COMPANY

Proj. Docket No. 40.256

Description 3-Bm. Bridges Over Back Swamp, Cedar Creek & Dry Branch - Richland Co. SC - SC. State Hwy. Dept.
 Contract No. V3099 Fabricated at Roanoke Shop Paint None

Item No.	CUTTING LIST			ORDERED			No. Pcs	DESCRIPTION	LENGTH		REMARKS	WEIGHT			
	No.	Feet	In.	No.	Feet	In.			Feet	In.					
5				12	—		2	CBs 18@47#	49	10 1/4	B1 H=5	4685			
4				18	—		3	CBs 18@50#	49	10 1/4	B2 H=10	4680			
5				12	—		2	CBs 18@47#	49	10 1/4	B3 H=10	7475			
4				18	—		3	CBs 18@50#	49	10 1/4	B4 H=15	7465			
5				12	—		8	CBs 18@47#	49	10 1/4	B5 H=20	4685			
4				18	—		12	CBs 18@50#	49	10 1/4	B6 H=50	4675			
3				2	—		2	CBs 18@55#	24	10 1/4	B7 H=5	7475			
2				3	—		3	CBs 18@64#	24	10 1/4	B8 H=10	18745			
✓				Stack			3	As 7 1/2 x 1 1/2	1	3	S1	29910			
✓							6	As 7 1/2 x 3/8	1	3	S2	2735			
✓							6	As 7 1/2 x 1/2	0	6 3/8	S3	2730			
✓							12	As 7 1/2 x 3/8	0	6 3/8	S4	4770			
✓							2	As 8 3/4 x 1 1/2	0	6 3/8	S5	10			
✓							4	As 8 3/4 x 3/4	0	6 3/8	S6	65			
✓							5	As 7 1/2 x 1/2	0	6 3/8	S7	35			
✓							12	As 7 1/2 x 3/8	1	3	S8	50			
✓							6	As 7 1/2 x 1/2	1	3	S9	15			
✓							80	As 12 x 8	1	4	P1 H=15	145			
✓							30	Is 15@33.9#	1	3	C1 H=5	255			
✓							20	Is do	1	3	C2 H=5	1270			
✓							30	Is do	1	3	C3 H=5	845			
✓							112	Ls 3 1/2 x 3 1/2 x 3/8	0	8	A1 H=20	840			
✓							18	Ls do Thus	2	8 1/2	A3R H=5	1270			
✓							12	Ls do Rev.	2	8 1/2	A3L H=180	635			

CHARGE OF C.R.W.

Made by

HHC

Checked by

ELC

Drawing No.

1

Page

1

of 1-File

8-7-40

8/7/40

SHIPPING BILL

VIRGINIA BRIDGE COMPANY

Proj. Docket No. 40.256

SG St. Hwy., Dept.

Description 3-Bm. Bridges over Back Swamp, Cedar Creek & Dry Branch, Richland Co., S.C.

Contract No. V-3099 Fabricated at Roanoke Shop Paint None

[illegible]

IN CHARGE OF Wentworth Made by H.W. 8/8/40 Checked by W.W. Page 1 of 2

SHIPPING BILL

VIRGINIA BRIDGE COMPANY

Description

Contract No. V-3099 Fabricated at Roanoke Shop Paint

Number of Pcs.	DESCRIPTION	LENGTH		MARK	Dwg. No.	Weight of One Piece	Total Weight	No. OF PIECES FOR EACH SECTION								
		Feet	Inches					1st	2d	3d	4th	5th	6th	7th		
								Bridge No 4								
								Bridge No 3								
								Bridge No 2								
112	Angles			A1	1	5	615	32	56	24						
18	{	2	8 1/2	A3 ^R	{	22	410	6	6	6						
12		{	{	A3 ^L		{	22	275	4	4	4					

1300	Total Page #2
87055	5 5 1
<hr/>	
88355	Grand Total

Field Rivets & Bolts Not by Va. Br. Co.

Field Paint Not by Va.Br. Co

Total

Longest Piece $2' - 8\frac{1}{2}"$

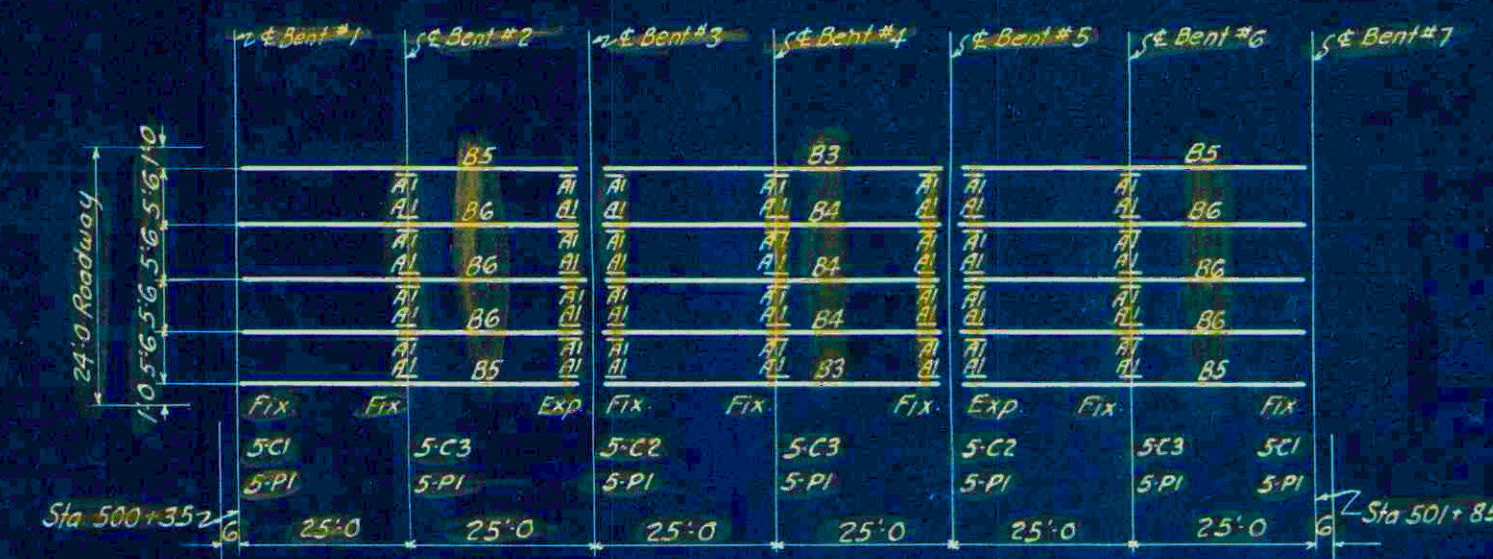
IN CHARGE OF CRW

Made by H.W. 8/8/40 Checked by W.W.

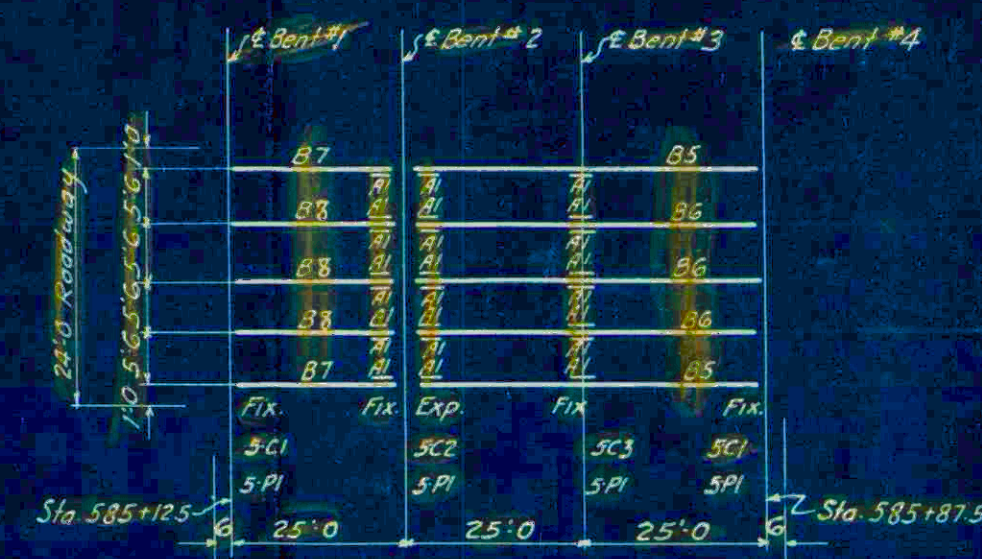
Page 2 of 2 Final



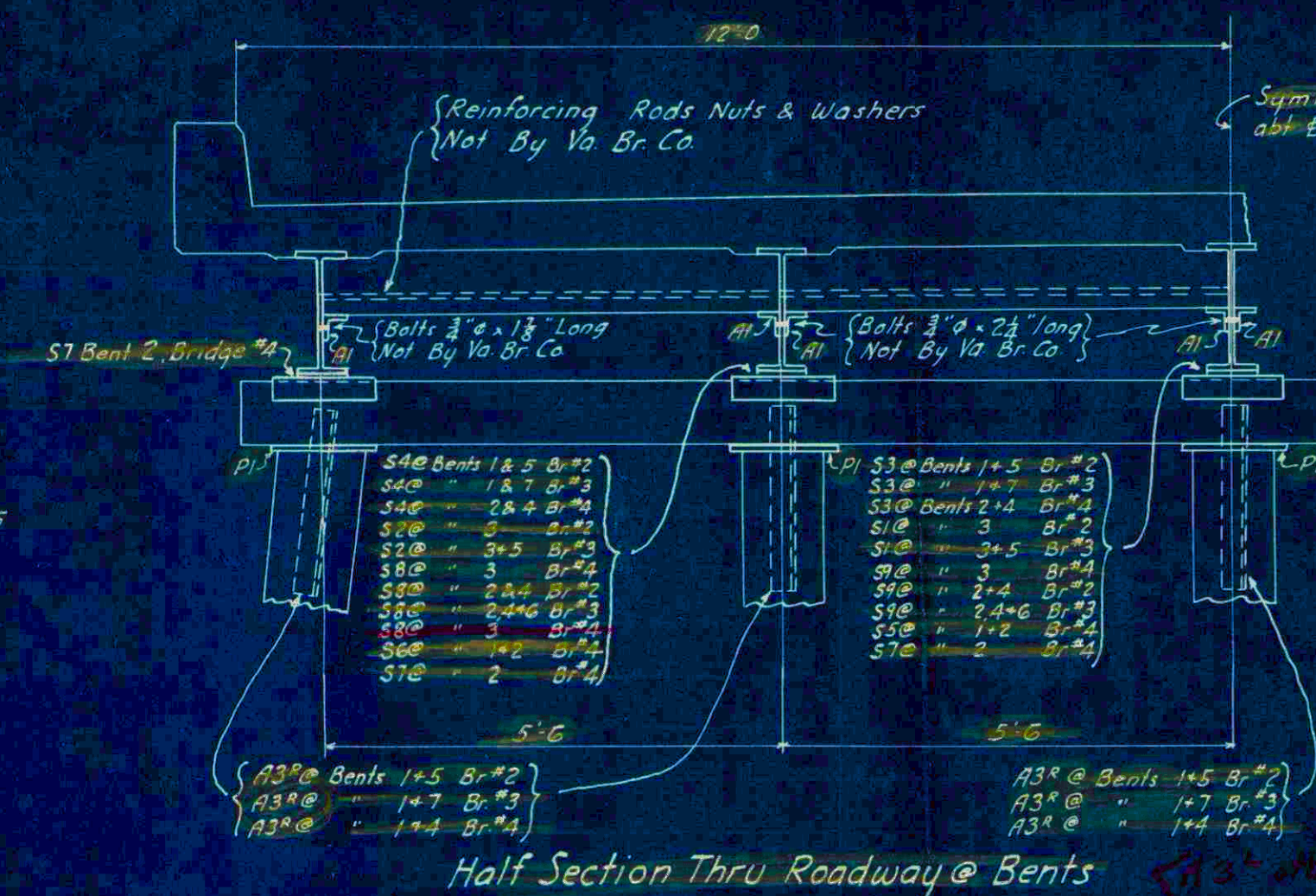
BRIDGE No. 2 OVER BACK SWAMP



BRIDGE No. 3 OVER CEDAR CREEK

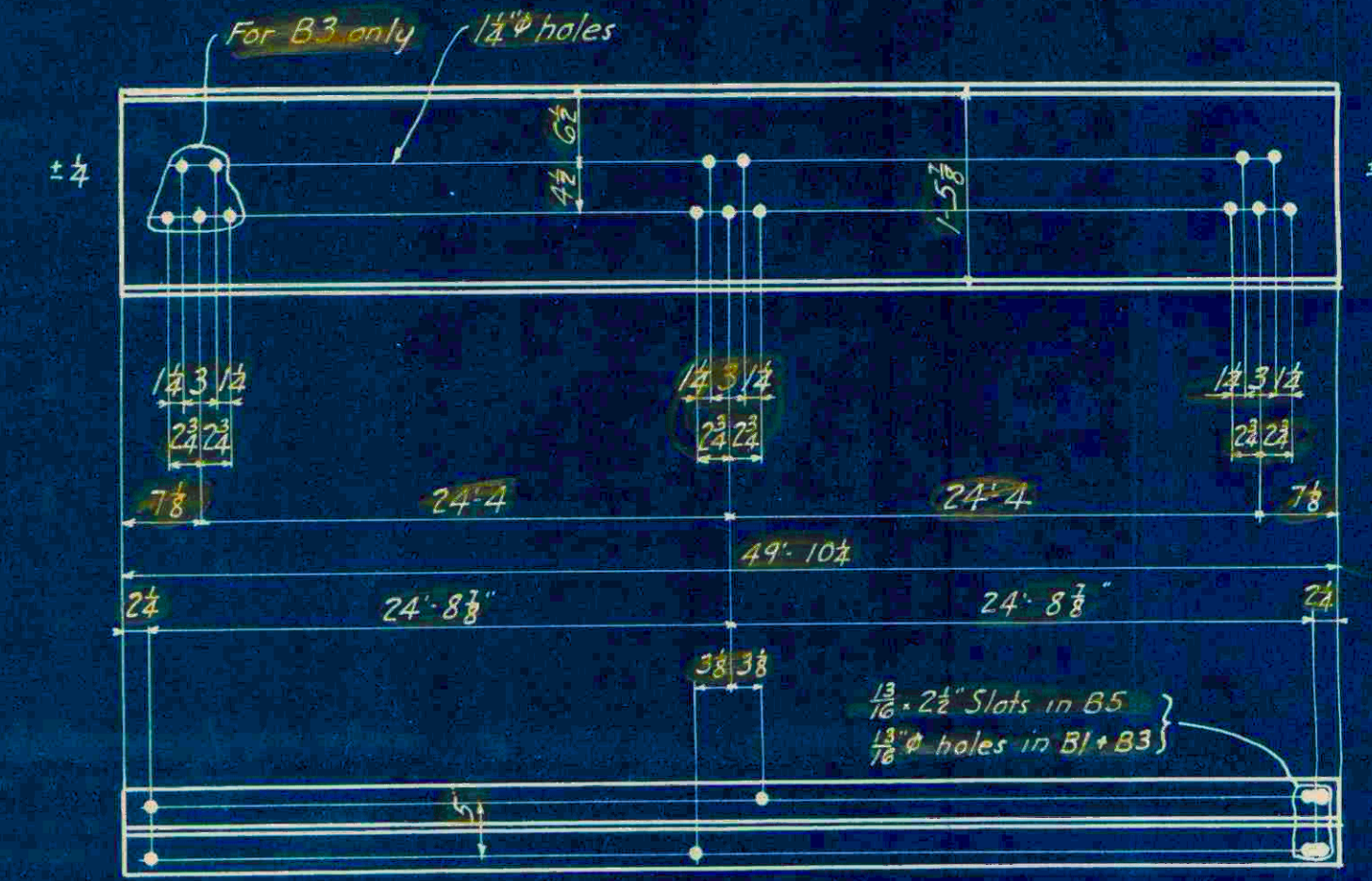


BRIDGE No. 4 OVER DRY BRANCH

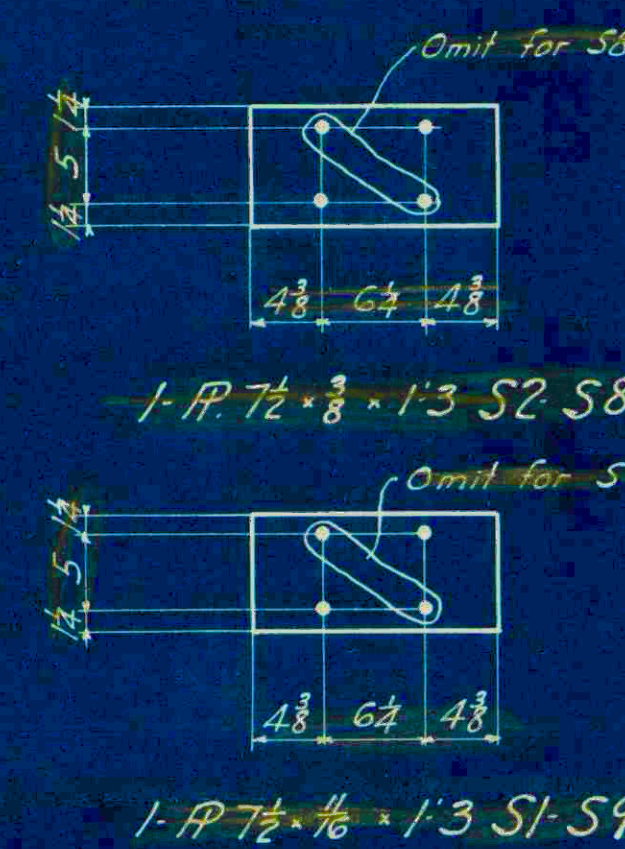


Half Section Thru Roadway @ Bents

Project Docket No. 40.256			
Reg'd List			Mark
Description			
2	2	2	Beams B1
3	3	3	" B2
	2	2	" B3
3	3	3	" B4
2	4	2	" B5
3	6	3	" B6
	2	2	" B7
	3	3	" B8
1	2	3	Plates S1
2	4	6	" S2
2	2	2	" S3
4	4	4	" S4
	2	2	" S5
	4	4	" S6
	5	5	" S7
4	6	2	" S8
2	3	1	" S9
25	35	20	" P1
10	10	10	Channels C1
5	10	5	" C2
10	15	5	" C3
32	56	24	Angles A1
6	6	6	" Thus A3R
4	4	4	" Rev A3L

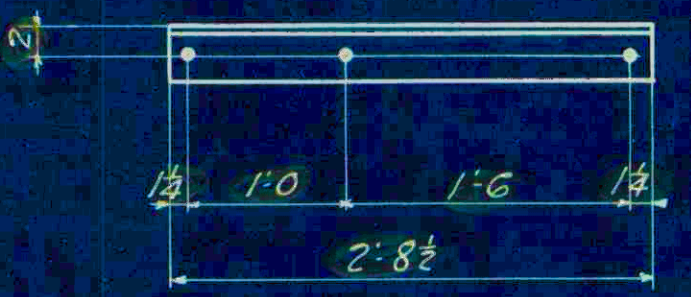


1-CB 18 @ 47" 49' 10 1/4" B1-B3-B5

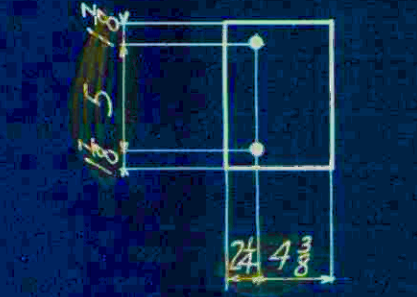


1-P 7 1/2 x 3/8 x 1-3 S2-S8

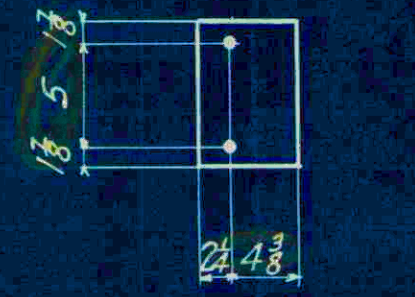
1-P 7 1/2 x 1/6 x 1-3 S1-S9



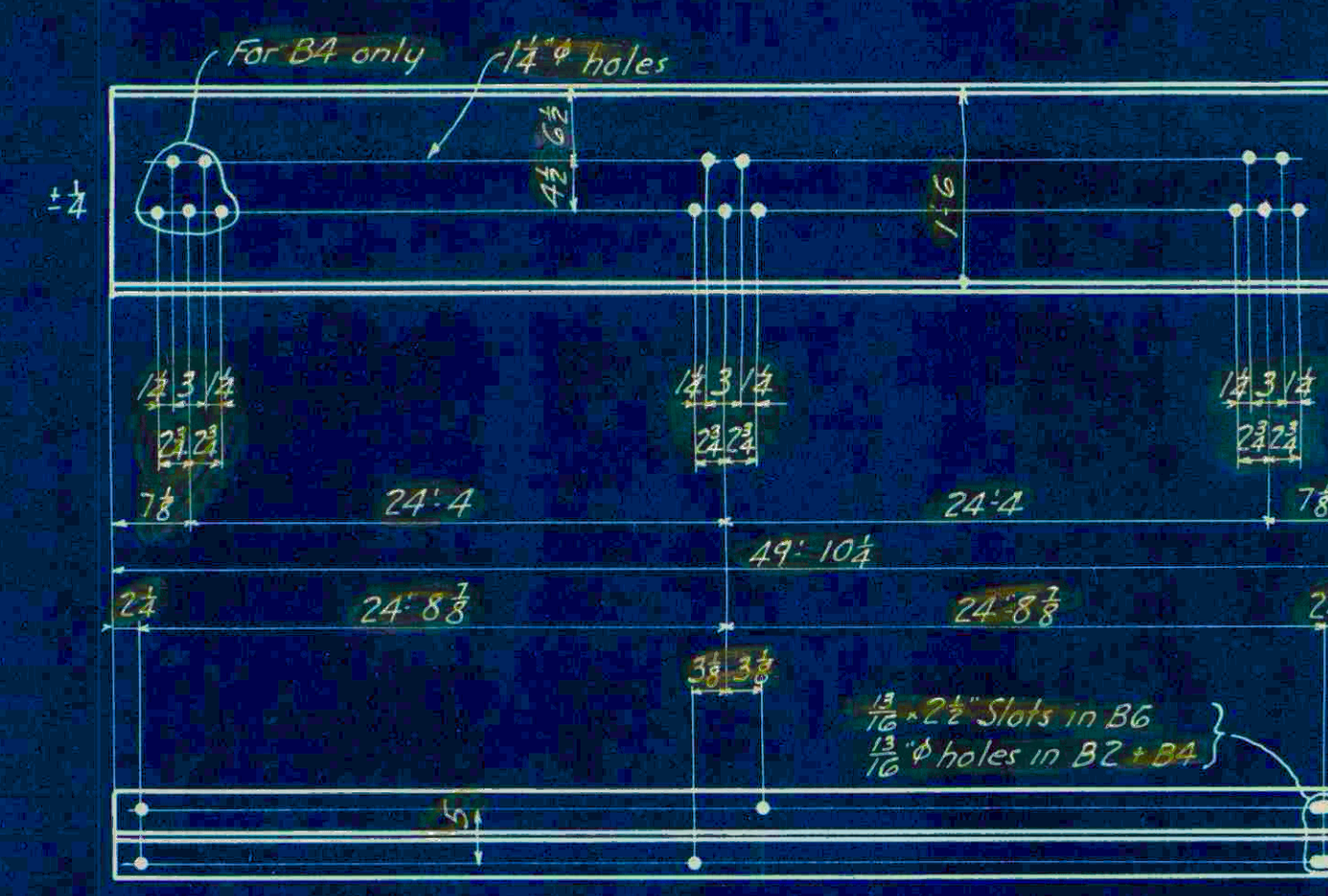
1-L 3 1/2 x 3/8 x 2-8 A3



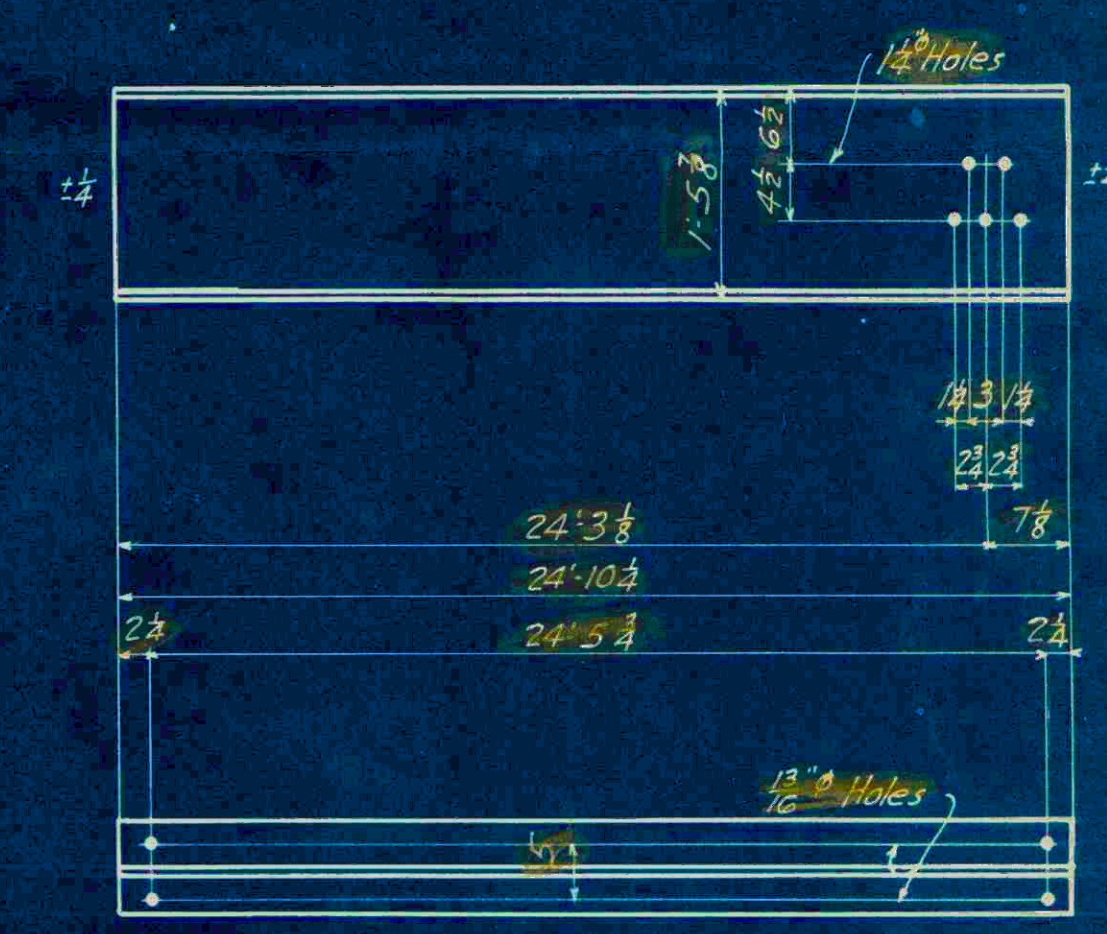
1-P 8 1/2 x 1/6 x 0-6 S5



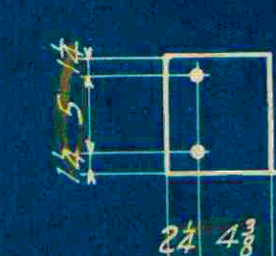
1-P 8 1/2 x 1/6 x 0-6 S6



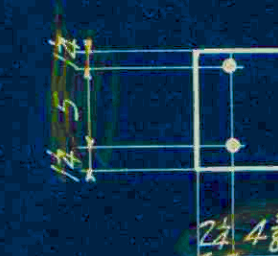
1-CB 18 @ 50" 49' 10 1/4" B2-B4-B6



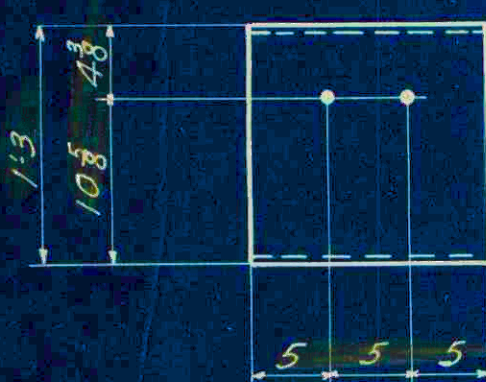
1-CB 18 @ 64" 24' 10 1/4" B8



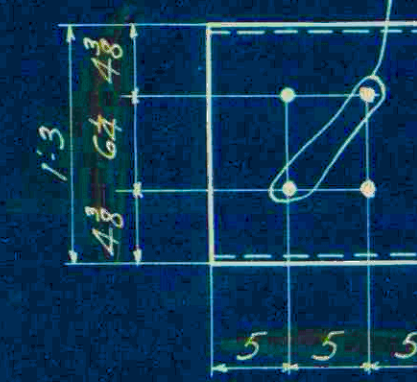
1-P 7 1/2 x 3/8 x 0-6 S4



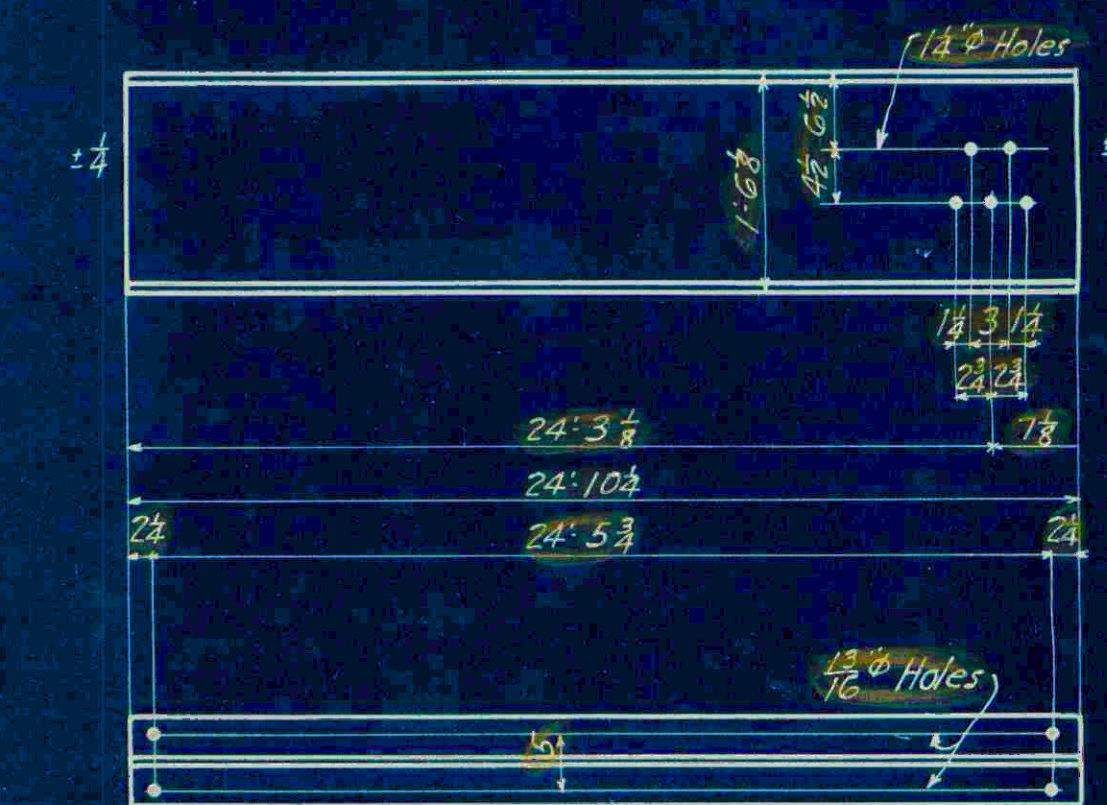
1-P 7 1/2 x 1/6 x 0-6 S3



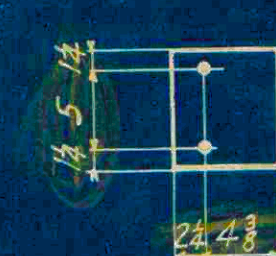
1-L 15 @ 33.9" 1-3 C1



1-L 15 @ 33.9" 1-3 C2-C3



1-CB 18 @ 55" 24' 10 1/4" B7



1-P 7 1/2 x 3/8 x 0-6 S7

GENERAL NOTES:

PRINTS	
Material.....	A.H. Str. Steel
Specifications.....	A.S.T.M. A7-39
Rivets.....	None
Holes.....	1/8" unless noted
Reaming.....	None
Shop Paint.....	"
Field Paint.....	By others
Erection.....	do
Field Conn's.....	do
Inspection.....	V.B. Co. (Shop)
Design.....	"

Material on Shop Bills #7

CONTRACT V 3099

Details Complete	
For 3 Beam Bridges	
Location Over Back Swamp, Cedar Creek, Dry Branch, Richmond Co., S.C.	
Owner South Carolina State Hwy. Dept.	
VIRGINIA BRIDGE COMPANY	
ROANOKE, VIRGINIA	
To be fabricated at	Roanoke
Made by	H.C. 8-6-40
In charge of	Wentworth
Revised	
Scale	1/4" = 1 Ft.
Sheet No.	1
ct.	1 Final