

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NOS.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	S-876 (1) S-877 (1) & S-878 (1)		1	10
STATE JOB NO. C-6392				1	24

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

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C-6392	1	7706	Title Sheet For Job No. C-6392
	2	7707	Schedule of Br. Quantities
	3	7708	Layout of Br. No. 4053, 4054 & 4055
	4	7709	" " " 4056 & 4057
	5	7710	" " " 4058, 4059 & 4060
	6	7711	" " " 4061, 4062 & 4063
	7	7712	" " " 4064 & 4065
	8	7713	" " " 4066 & 4067
	9	7714	" " " 4068 & 4069
	10	7715	" " " 4070, 4071 & 4072
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	12	7717	" " " 4077, 4078 & 4079
	13	7718	Details of Single Span Br. No. 4053-4055, 4057-4063, 4065 & 4065-4074
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	15	7720	" " " 4064, 4067, & 4068
	16	7721	" " " 4066, 4067, & 4068
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	18	7723	Details of Br. No. 4079
	19	F.P.C. 12	Standard Pipe Culverts and Headwalls
	20	G.R. 6	Standard Details of Steel Plate Guard Fence
	21	1888	Bankment Construction at Bridge Ends and Fill for Structure.
	22	1891	Basis for Computing Excavation for Structures.
	23	1896	Standard Barricade, Warning and Signs
	24	FPM-2	Reinforced Conc. Markers (RW & Proj. Marker)

PLAN OF PROPOSED BRIDGES
NORTH PULASKI COUNTY BRIDGES
PULASKI COUNTY

ROUTE F.A.S. 1488, 1489 & 1152

JOB NO C-6392

FEDERAL AID PROJECT NOS. S-876(1), S-877(1) & S-878(1)

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
ADOPTED MARCH 1, 1940 WITH THE SPECIAL PROVISIONS LISTED BELOW

PAMPHLETS	
DIVISION	PART
I	1, 4, 8A, 8B, 9
II	
III	
IV	

No.	SPECIAL PROVISIONS TITLE	NO SHEETS
	Required Contract Provisions	7 7 7
	State and County Agreements	1 1 1
2-1	Revision of Article 2-11	2 2 2
2-2	Equipment List Required	1 1 1
2-4	State License For Contractors	1 1 1
4-1	Revision of Article 4-9	1 1 1
5-4	Fed. Aid Secondary Project off State Highway System	1 1 1
8-3	Special Provision pertaining to the required Contract Provisions for Federal Aid Projects	1 1 1
9-5	Partial Payments	2 2 2
107-4	Revision of Section 107.2	1 1 1
SP 805-3	Steel Plate Guard Rail	1 1 1
853-1	Machine Mixing	1 1 1
	At Run Groves on County Projects	1 1 1
	Job C-6392 Remodeling of Existing Bridge Structures	1 1 1
	Job C-6392 Embankment Construction At Bridge Ends	2 2 2
	929-1 Project Marker Posts	1 1 1
	F.A.P. No. S-878(1)	

F.A.P. No. S-876(1)

BRIDGE No. 4053 Log 44.8
Sta 6+84.9 to 6+72.9
Job No. C-6392
F.A.P. No. S-876(1)

BRIDGE No. 4054 Log 44.95
Sta 6+89.7 to 6+75.3
Job No. C-6392
F.A.P. No. S-876(1)

BRIDGE No. 4055 Log 45.5
Sta 6+97.1 to 6+77.7
Job No. C-6392
F.A.P. No. S-876(1)

BRIDGE No. 4056 Log 47.5
Sta 6+98.2 to 6+80.85
Job No. C-6392
F.A.P. No. S-876(1)

BRIDGE No. 4057 Log 48.3
Sta 6+80.18 to 6+95.60
Job No. C-6392
F.A.P. No. S-876(1)

F.A.P. No. S-877(1)

BRIDGE No. 4058 Log 38.3
Sta 6+43.82 to 6+57.74
Job No. C-6392
F.A.P. No. S-877(1)

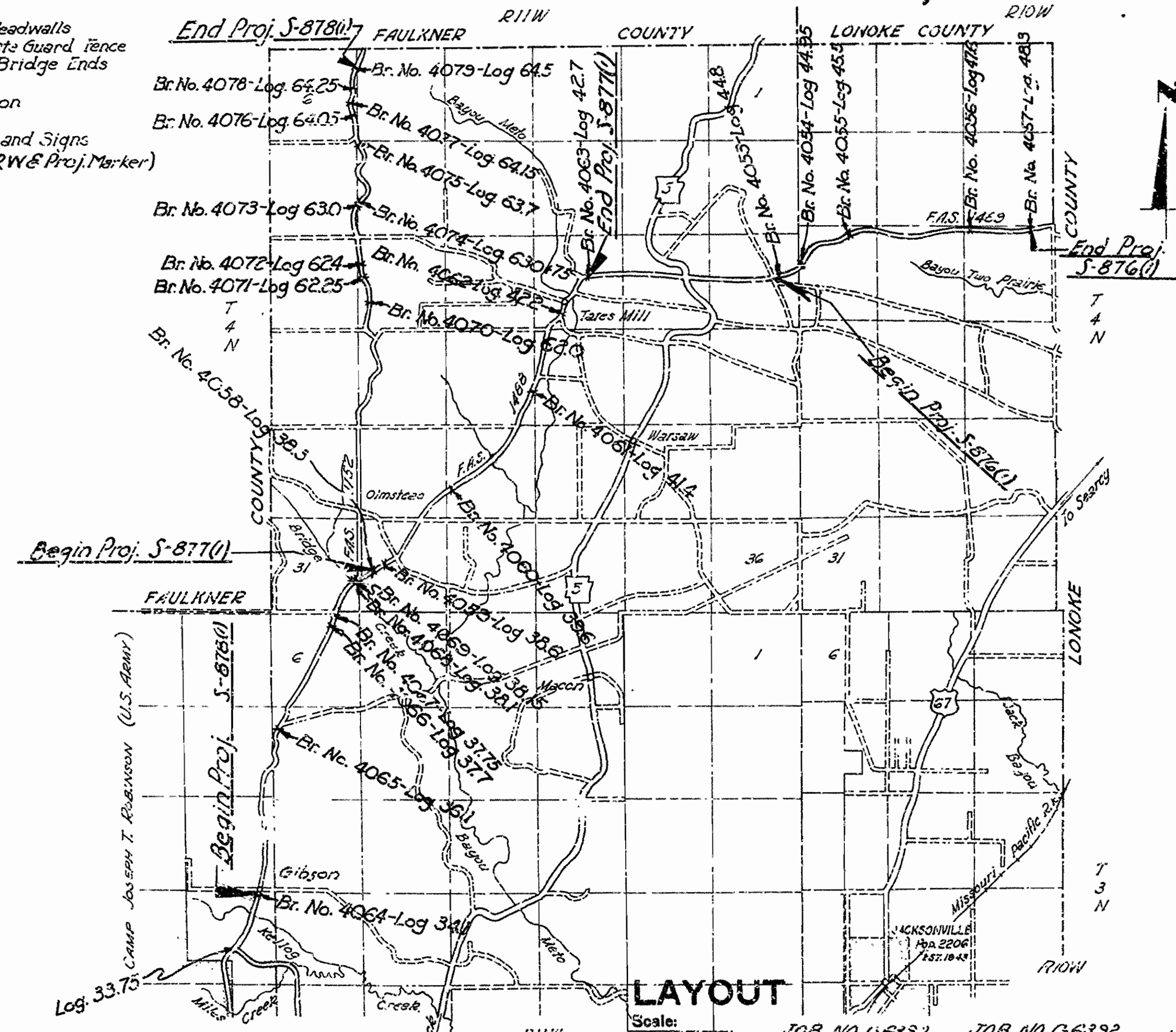
BRIDGE No. 4059 Log 39.6
Sta 6+50.0 to 6+65.79
Job No. C-6392
F.A.P. No. S-877(1)

BRIDGE No. 4060 Log 39.6
Sta 6+36.1 to 6+52.1
Job No. C-6392
F.A.P. No. S-877(1)

BRIDGE No. 4061 Log 41.4
Sta 6+32.32 to 6+47.99
Job No. C-6392
F.A.P. No. S-877(1)

BRIDGE No. 4062 Log 42.7
Sta 6+39.70 to 6+55.45
Job No. C-6392
F.A.P. No. S-877(1)

BRIDGE No. 4063 Log 42.7
Sta 6+39.70 to 6+55.45
Job No. C-6392
F.A.P. No. S-877(1)



BRIDGE No. 4064 Log 34.1
Sta 6+25.2 to 6+53.03
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4065 Log 36.1
Sta 6+10.33 to 6+20.13
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4066 Log 37.7
Sta 7+36.25 to 6+65.84
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4067 Log 37.75
Sta 10+31.20 to 10+58.95
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4068 Log 38.1
Sta 6+93.80 to 6+84.47
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4069 Log 38.15
Sta 9+23.50 to 9+39.43
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4070 Log 62.0
Sta 6+62.20 to 6+78.20
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4071 Log 62.25
Sta 6+50.4 to 6+58.4
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4072 Log 62.4
Sta 6+67.3 to 6+89.09
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4073 Log 63.0
Sta 6+78.8 to 6+84.8
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4074 Log 63.075
Sta 7+40.42 to 7+54.42
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4075 Log 62.7
Sta 6+49.0 to 6+56.75
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4076 Log 64.05
Sta 6+38.0 to 6+46.0
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4077 Log 64.15
Sta 6+55.4 to 6+67.4
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4078 Log 64.25
Sta 11+07.5 to 11+82.5
Job No. C-6392
F.A.P. No. S-878(1)

BRIDGE No. 4079 Log 64.5
Sta 6+96.72 to 6+44.80
Job No. C-6392
F.A.P. No. S-878(1)

LENGTH OF PROJECT	LENGTH OF BRIDGES	LENGTH OF EMBANKMENT	LENGTH OF JOB
278.45' OR 0.05 MI.	218.45' " 0.351 "	31.63' " 0.005 "	247.02' " 0.046 "
93.15' OR 0.017 MI.	93.05' " 0.117 "	0.00' " 0.000 "	93.05' " 0.017 "
929.24' OR 0.176 MI.	929.24' " 0.176 "	321.12' " 0.061 "	608.12' " 0.115 "

JOB C-6392
1300.94' OR 0.244 MI.
1300.94' " 0.244 "
352.75' " 0.065 "
948.19' " 0.179 "

APPROVED
CHIEF ENGINEER-STATE HIGHWAY COMMISSION

APPROVED
CHAIRMAN-STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED
DIVISION ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

SUMMARY OF QUANTITIES

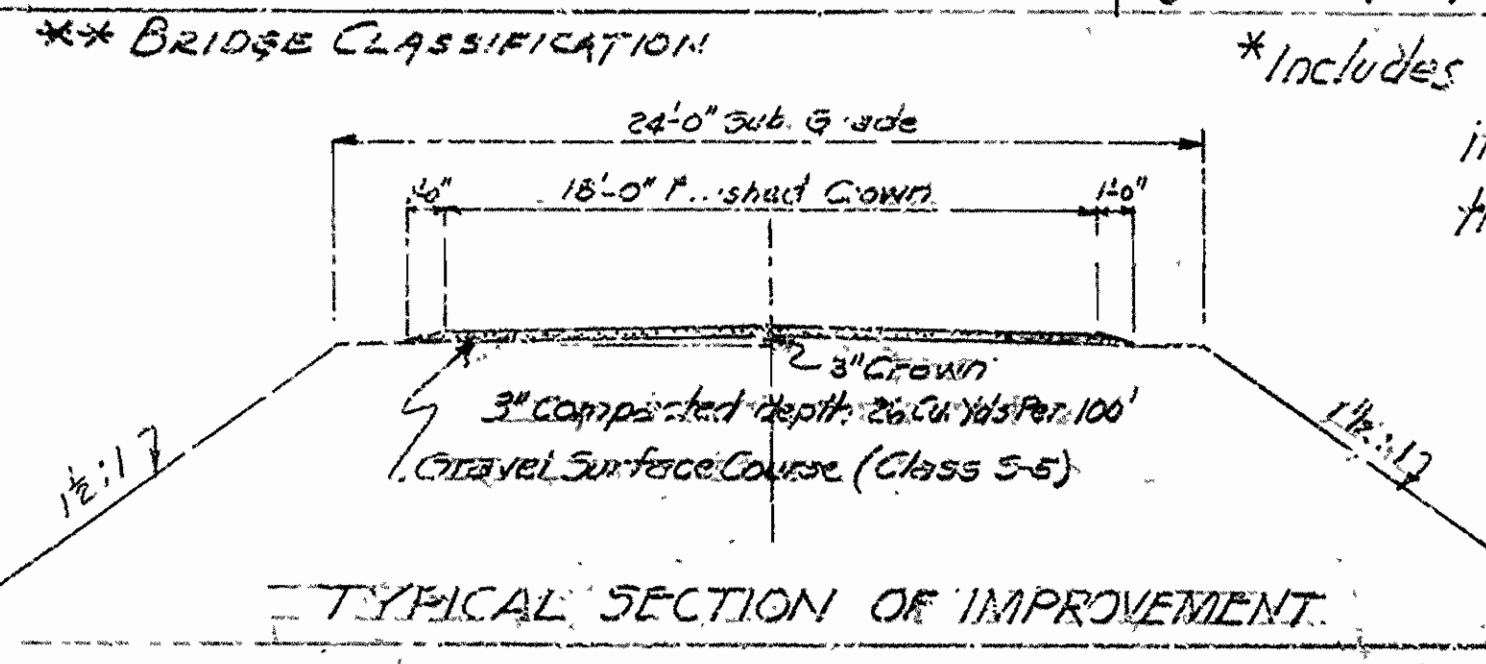
PROJECT NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	875-07	1950	2	10
STATE JOB NO. C-6392				2	24

ROADWAY ITEMS - CODE 2010

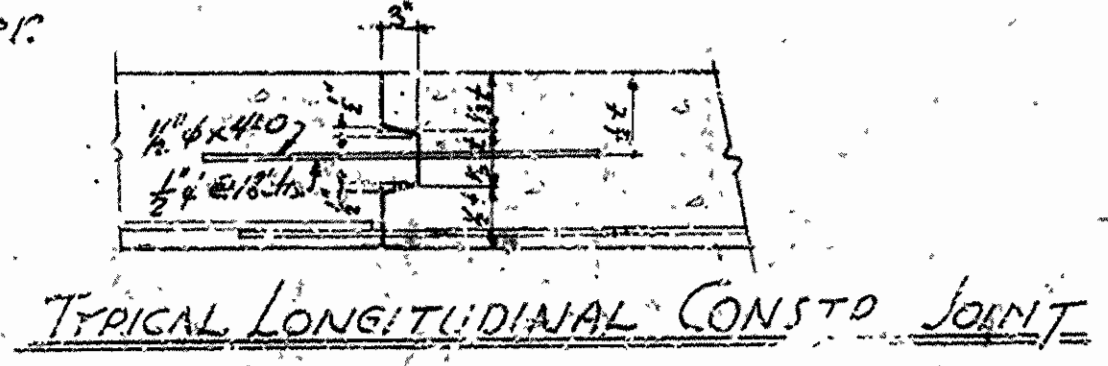
BRIDGE ITEMS CODE-X-020

ITEM NO.	ITEM	QUANTITY			JOB C-6392	UNIT	ITEM NO.	ITEM	QUANTITY			JOB C-6392	UNIT
		S-878(1)	S-877(1)	S-876(1)					S-878(1)	S-877(1)	S-876(1)		
SP 102	UNCLASSIFIED EXCAVATION	1650	695	535	2880	CU.YDS.	103	DRY EXCAVATION FOR STRUCT.	24	0	0	30	CU.YDS.
103	DRY EXCAVATION FOR STRUCT.	79	25	19	123	"	S.P. 802	CLASS 5 CONC FOR BRIDGES	302.55	0	31.15	333.70	"
SP 404	GRAVEL SURFACE COURSE	126	0	0	126	"	S.P. 803	REINFORCING STEEL FOR BRGS	48.710	0	5460	54.150	POUNDS
S.P. 802	CLASS 5 CONC FOR BRIDGES	95.3	82.83	42.34	220.47	"	S.P. 805	STEEL PLATE GUARD RAIL	90.9	0	118	1027	LIN. FT.
S.P. 803	REINFORCING STEEL FOR BRGS	176.70	14,070	7020	38,760	POUNDS	S.P.	REMODELING EXIST. BR. STRUCT.	48.25%	0	4.50%	52.75%	COMPLETE
906	24" REIN. CONC. PIPE CULV.	24	0	0	24	LIN. FT.							
906	30" " " "	48	0	0	48	"							
906	42" " " "	24	0	0	24	"							
S.P.	EMBANKMENT MATERIAL	895	0	44	939	CU.YDS.							
S.P.	REMODELING EXIST. BR. STRUCT.	24.75%	13.50%	9.00%	47.25%	COMPLETE							
SP 929-1	PROJECT MARKER POSTS	2	2	2	6	EACH							

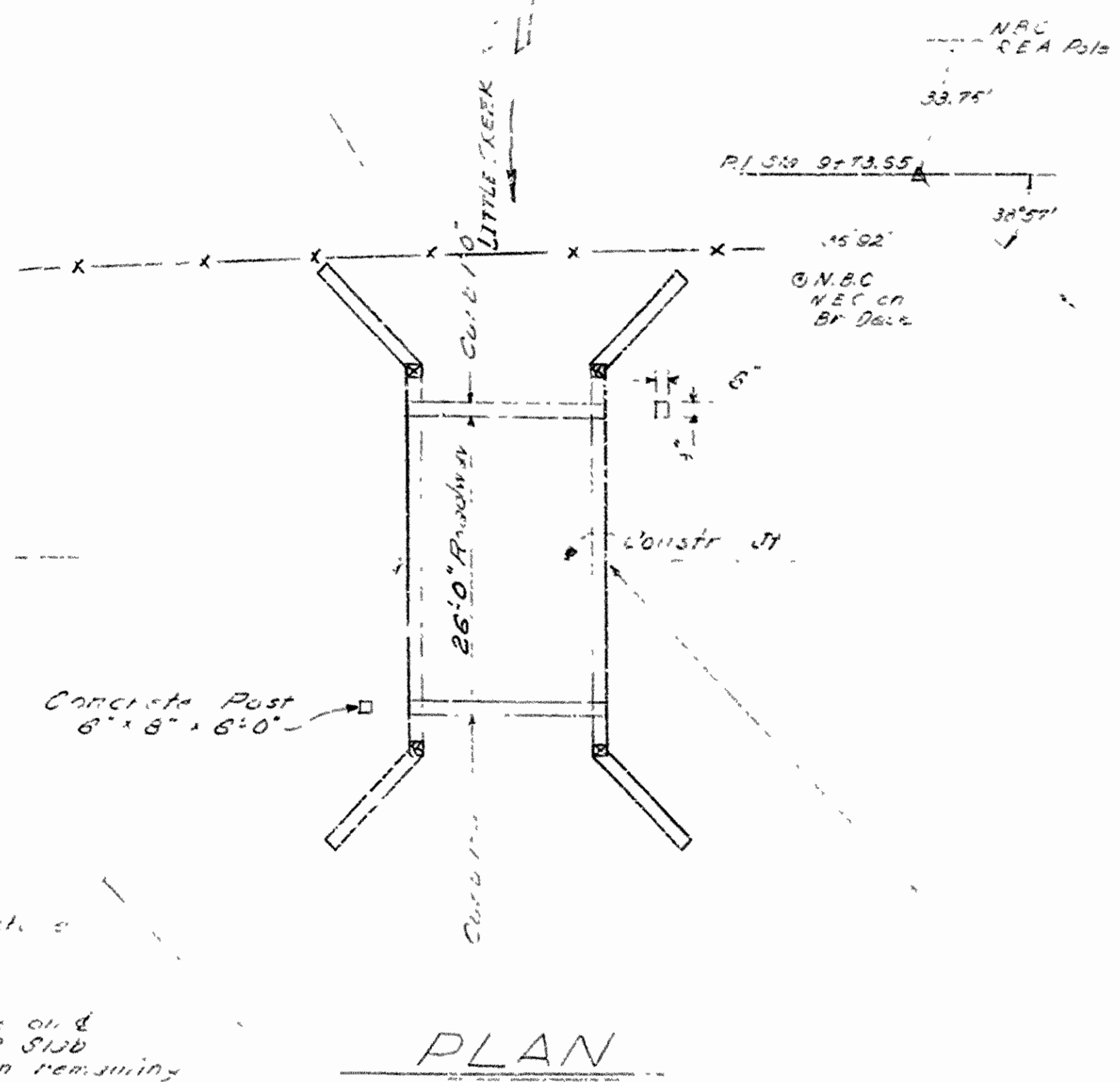
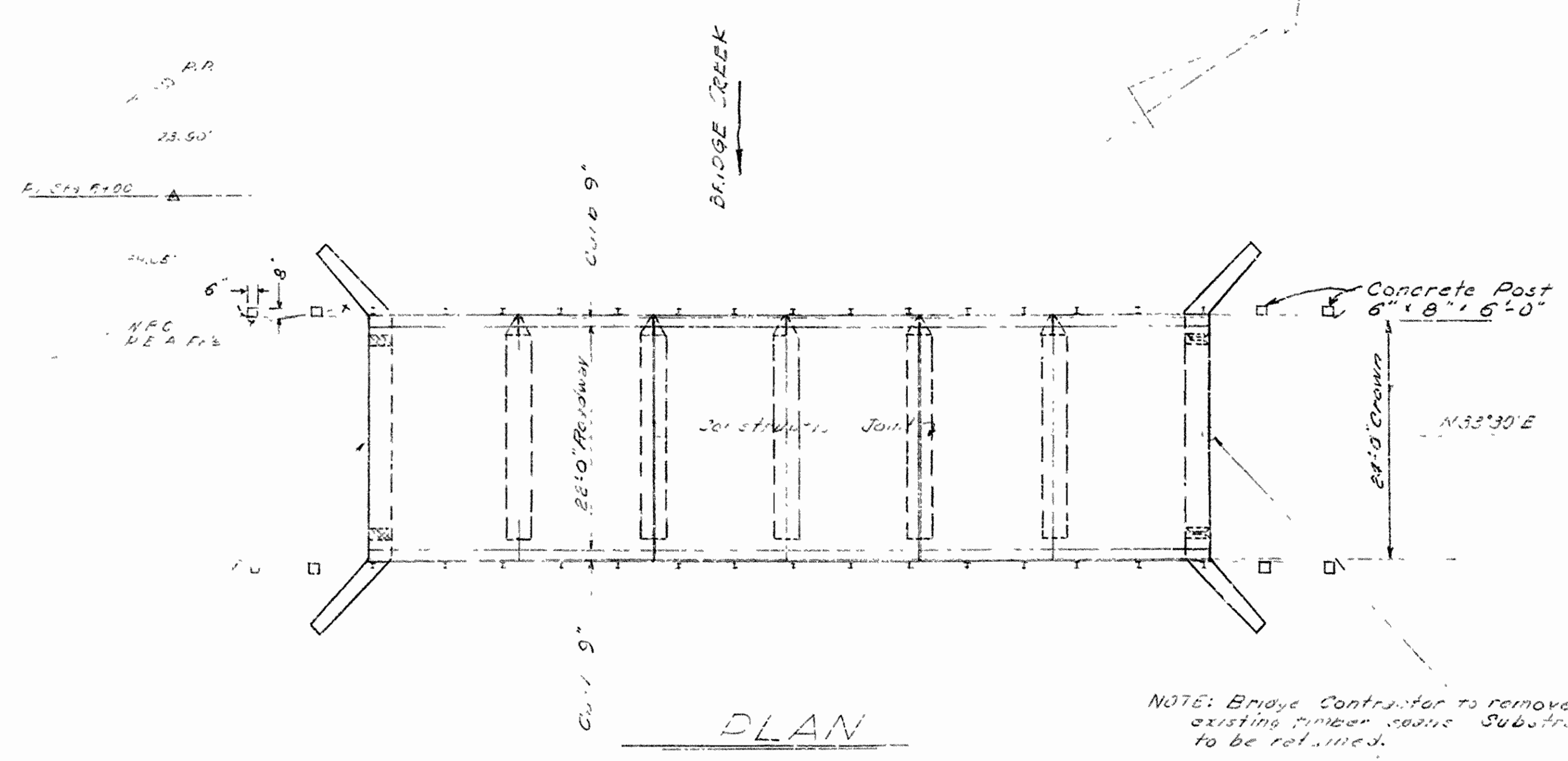
JOB NO.	ROUTE No.	F.A.S. No.	LOG	ITEM NO.	ITEM	SP		103	404	SP & 802	SP 803	SP 805	906	SP	SP 929-1				
						UNCLASSIFIED EXCAV.	EMBANKMENT MATL.	DRY EXCAVATION FOR STRUCTURES	GRAVEL SURFACE COURSE	CLASS 5" CONCRETE FOR BRIDGES	REINFORCING STEEL FOR BRIDGES	STEEL PLATE GUARD RAIL	REINFORCED CONCRETE PIPE CULVERT	REMODELING OF EXISTING BRIDGE STRUCTURES	PROJECT MARKER POSTS				
				BRIDGE NO.	UNIT	CU.YD.	CU.YD.	CU. YD.	CU YD	CU YD	LB.	LIN. FT.	LIN. FT.	COMPLETE	EACH				
C-6392	FAS 1152	5 978 (1)	34.1	4064**	*100					24.28	4,340	108		4.5%	1				
			36.1	4065	*115		4			7.67	1,040				2.25				
			37.7	4066**	*100	250	8	40			121.22	18,070	315		19.00				
			37.75	4067**	*100	250	4	40			31.39	3,860	108		4.50				
			38.1	4068**	*100		4				71.74	12,030	231		13.50				
			38.15	4069	*100		4				16.48	2,820			2.25				
			62.0	4070	*135		4				14.39	2,460			2.25				
			G225	4071	*100		4				5.78	990			2.25				
			62.4	4072	*100		4				14.02	2,410			2.25				
			63.0	4073			12				10.96	990			2.25				
			63.0+75'	4074			6				12.64	2,050			2.25				
			63.7	4075	*100	20	8				2.97	270		24	2.25				
			64.05	4076	*100	15	17				2.22	240		24	2.25				
			64.15	4077	*100	30	9				4.22	400		24	2.25				
			64.25	4078	*100	30	7				4.01	370		24	2.25				
			64.5	4079**	*100	300	8	46			53.92	10,460	147		6.75	1			
								*1650	895	103	126	397.86	66,380	907	24	48	24	73.00%	2
			FAS 1438	5 877 (1)	38.3	4058	*120		4			11.50	2,040			2.25%	1		
					38.6	4059	*100		5			14.39	2,250			2.25			
					39.6	4060	*100		4			14.42	2,460			2.25			
					41.4	4061	*105		4			13.91	2,430			2.25			
					42.2	4062	*125		4			14.13	2,450			2.25			
					42.7	4063	*145		4			14.48	2,440			2.25			
										*695	0	25	0	82.83	14,070	0	0	0	0
			FAS 1489	5 876 (1)	44.3	4053	*110		5			6.22	990			2.25%	1		
44.95	4054	*100				5			16.52	2,760			2.25						
45.5	4055	*100				5			6.22	990			2.25						
47.6	4056**	*125			44	6			31.15	5,480	118		4.50						
48.3	4057	*100				4			13.38	2,260			2.25						
					*535	44	25	0	73.49	12,500	118	0	0	0	13.50%	2			
SUMMARY					*2880	939	153	126	554.18	92,950	1027	24	48	24	100%	6			



** BRIDGE CLASSIFICATION
 *Includes 100 cu. yds per Bridge which may be required in channel improvement if directed by the engineer.



SUMMARY OF QUANTITIES & TYPICAL SECTION
 NORTH PULASKI COUNTY BRIDGES
 PULASKI COUNTY
 FAS ROUTES 1152, 1438 & 1489.
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By L.A.M. Date 5-17-50 No Scale
 Checked by _____ Date _____
 Bridge Design Engineer
 DRWG. NO. 7707

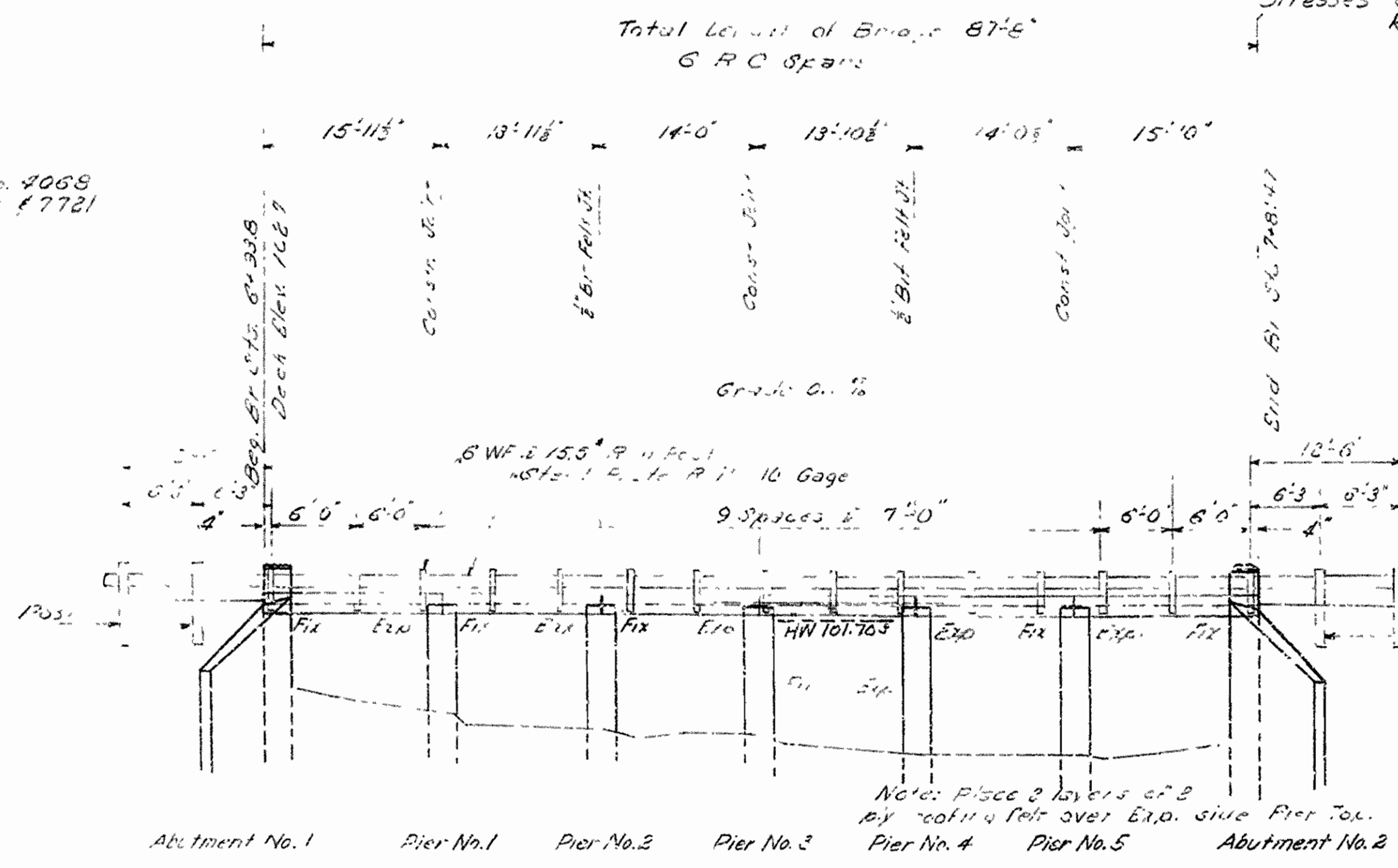


NOTE: Bridge Contractor to remove existing timber spans. Substructure to be retained.

Construction joint is to be made end of Bridge. Four or half of R.C. SUB remain and maintain traffic on remaining half of existing bridge.

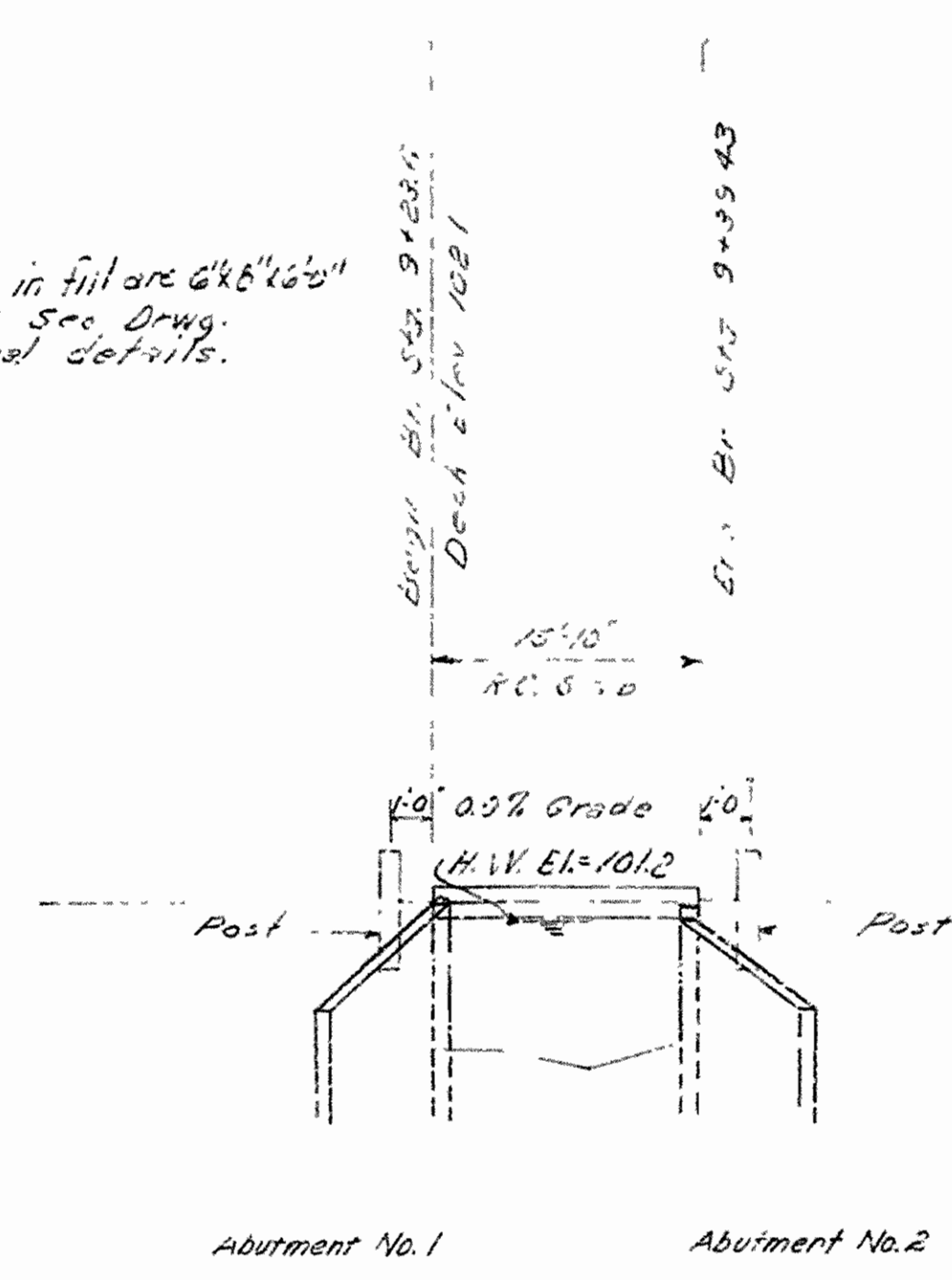
Loading H-15
 Stresses Class 5" Conc. 1300#¹¹² r=10
 Rein. Steel 20,000#¹¹²

IC 101715 4/21 No. 4069
 See Draw. No. 7720 & 7721



NOTE: All posts shown in fill are 6"x6"x6"
 concrete posts See Drawg.
 No 7721 for special details.

For Det. s of Br. No. 4069
 See Draw. No. 7718



BR. NO. 4068 - ROUTE 1152 - LOG 38.1

Drainage Area for Br. No. 4068 +
 #063 = 18 sq. Mi. c=0.8
 Area Req = 890 sq. ft.
 Area Provided = 896 sq. ft.

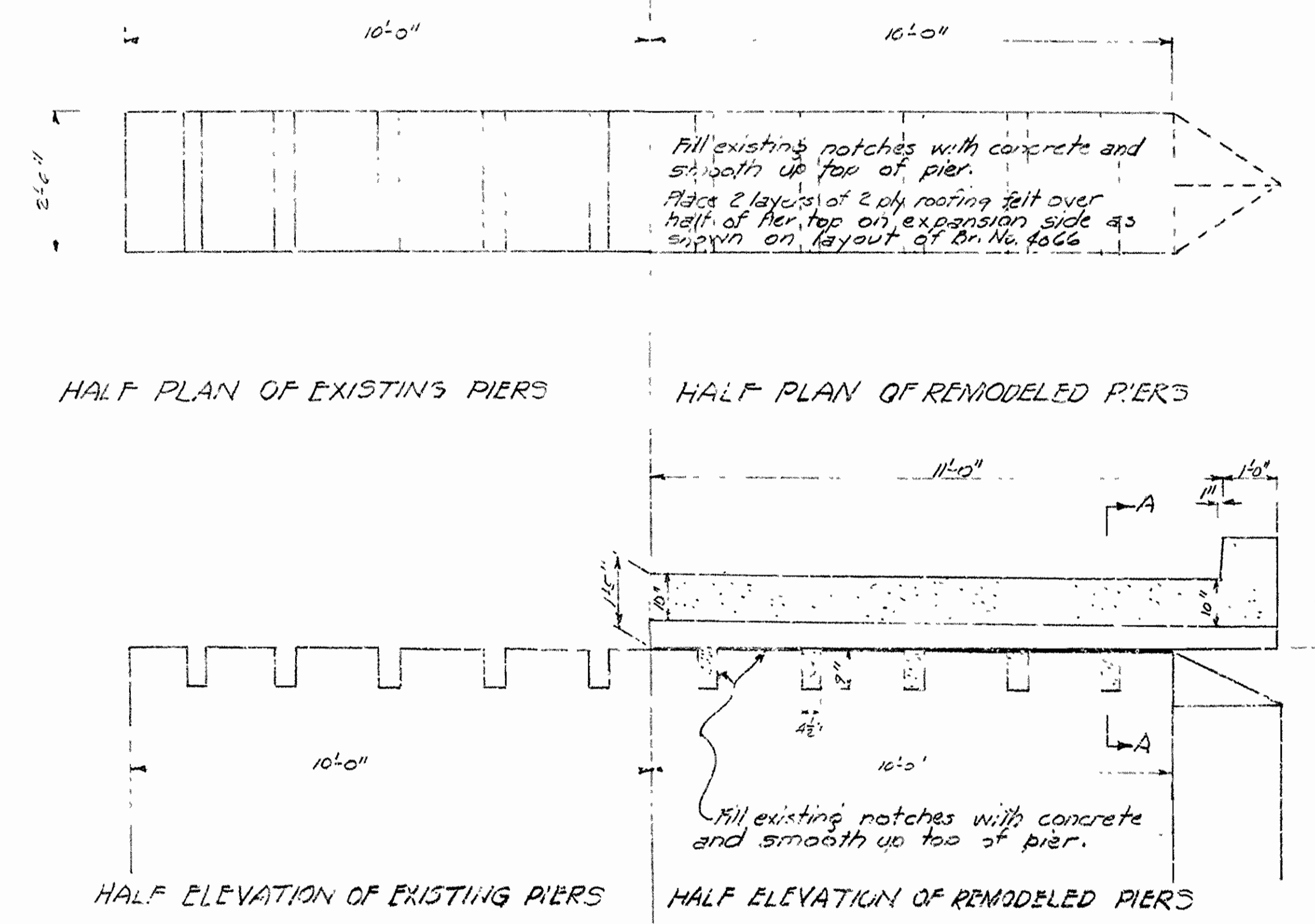
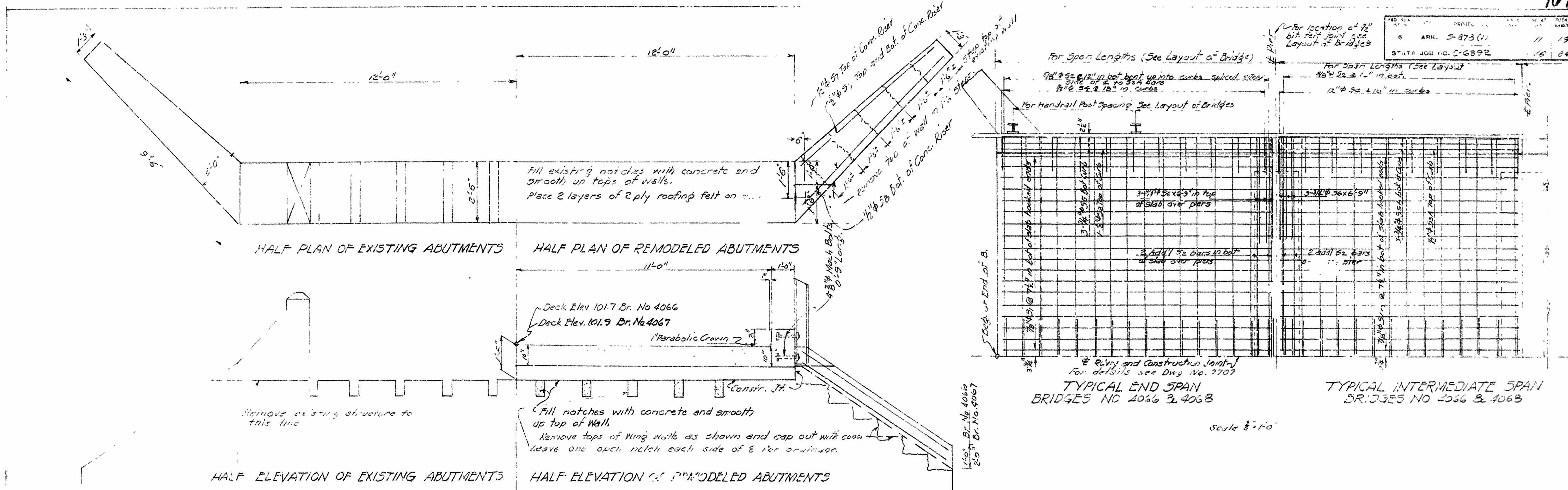
BR. NO. 4069 - ROUTE 1152
 LOG 38.15

LAYOUT OF BRIDGES
 ON F.A.S. ROUTE 1152
 PULASKI COUNTY
 LOG 38.1 & 38.15
 ROUTE SEC.

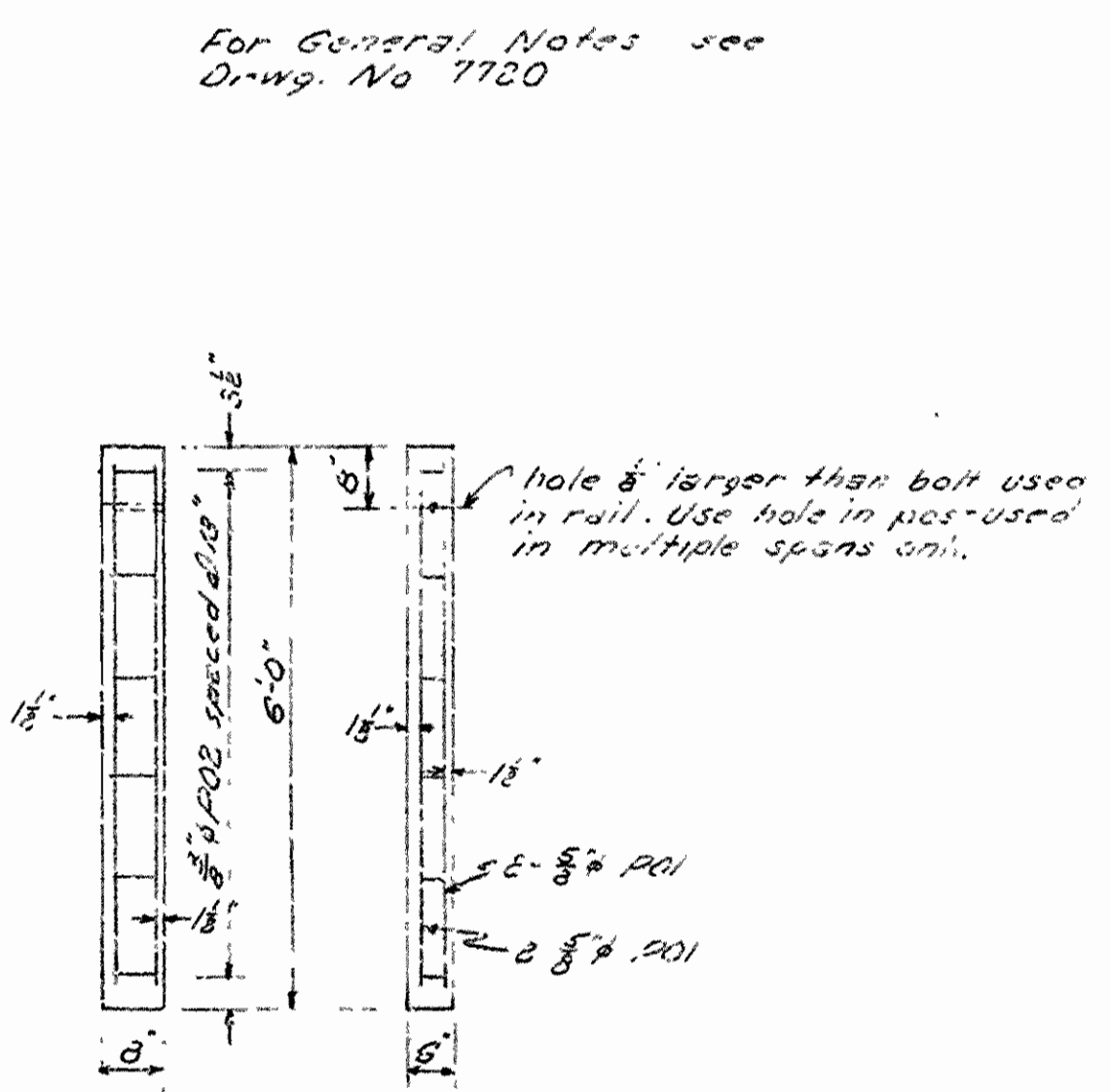
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: _____ Date: _____
 Traced By: _____ Date: _____
 Checked By: _____ Date: _____
 BRIDGE NO. 4068, 4069 DRAWING NO. 7714

Wanda P. ...
 CIVIL DESIGN ENGINEER

NO.	PROJ.	DATE	TOTAL SHEETS
6	ARK. S-373(1)		11 19
NOTE JOB NO. C-6392			16 24



DETAILS OF SUBSTRUCTURE FOR BRIDGES NO 4066 & 4067
For Details of Superstructure Br. 4067 See Drwg. No. 7720



On Bridges having steel plate guard rail the concrete post will not be paid for directly but will be considered subsidiary to the price bid per lin. ft. of Steel Plate Guard Rail.

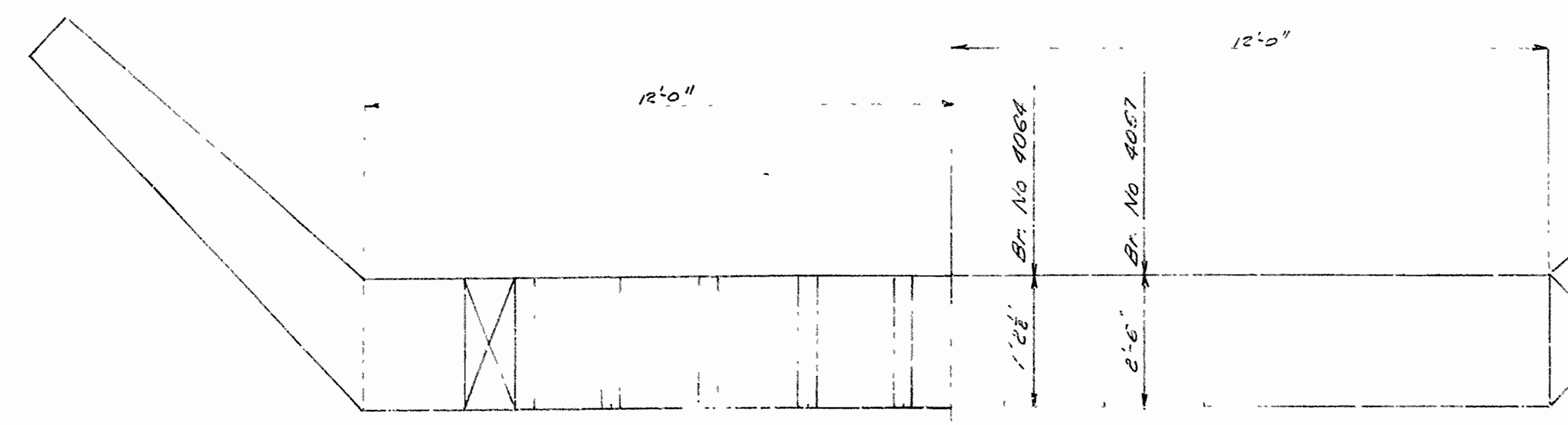
On single span bridges where single concrete post are indicated on the layouts the quantities in concrete posts are included in the item "Class 'C' Concrete and Reinforcing Steel". Each post for single span bridge to have one crystal (White) approx. 1/8" reflector buttons in center of face of post toward traffic and 9" down from top of post.

County forces to paint one black band around each single span post, six inches wide and centered nine inches from top.

BAR LIST FOR BRIDGES NO 4066 & 4068					
MARK	SIZE	LENGTH	A	B	BENDING DIAGRAM
S1	3/8"	16'-11"	15'-5"		
S1A	3/8"	14'-11"	13'-5"		
S2A	3/8"	13'-11"	11'-10"	1'-3 1/2"	
S2	3/8"	15'-2"	13'-11"	1'-3 1/2"	
S3	1/2"	15'-6"		Straight	
S3A	1/2"	13'-6"			
S4	1/2"	3'-6"			
S5	3/4"	14'-11"	15'-5"		
S5A	3/4"	14'-11"	13'-5"		
S6	3/4"	6'-0"			
NOTE FOR BR. NO 4066 ONLY					
S7	1/2"	8'-0"			
S8	1/2"	9'-0"			
NOTE FOR CONCRETE POST ONLY					
P01	3/4"	5'-8"		Straight	
P02	3/4"	1'-3"			

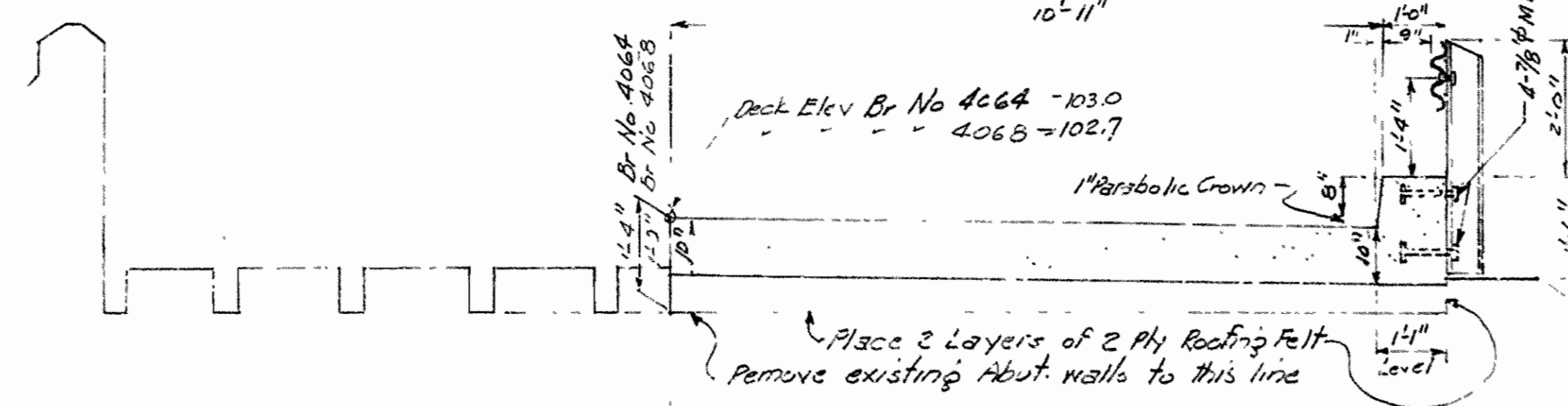
NOTE: Provide for 2 ply roofing felt and 3" bituminous felt shall be included in the bid for Class 'C' Concrete.

DETAILS OF BRIDGES NO 4066 & 4068
NORTH PULASKI COUNTY BRIDGES
PULASKI COUNTY
FAS ROUTE 1152
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By LAM, Date 5-10-50
Checked By JAM, Date 5-20-50
BRIDGES NO 4066, 4067 & DRAWING NO 772
4068

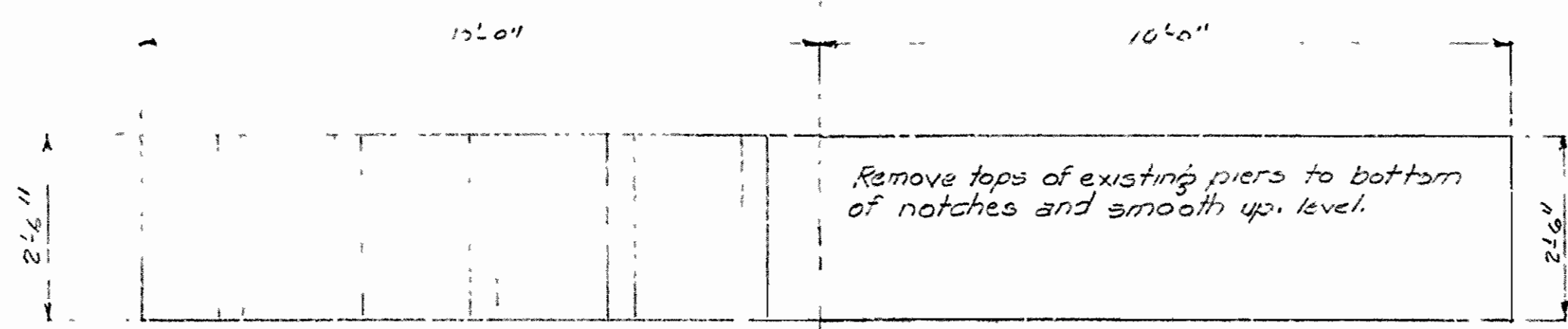


HALF PLAN OF EXISTING ABUTMENTS HALF PLAN OF REMODELED ABUTMENTS

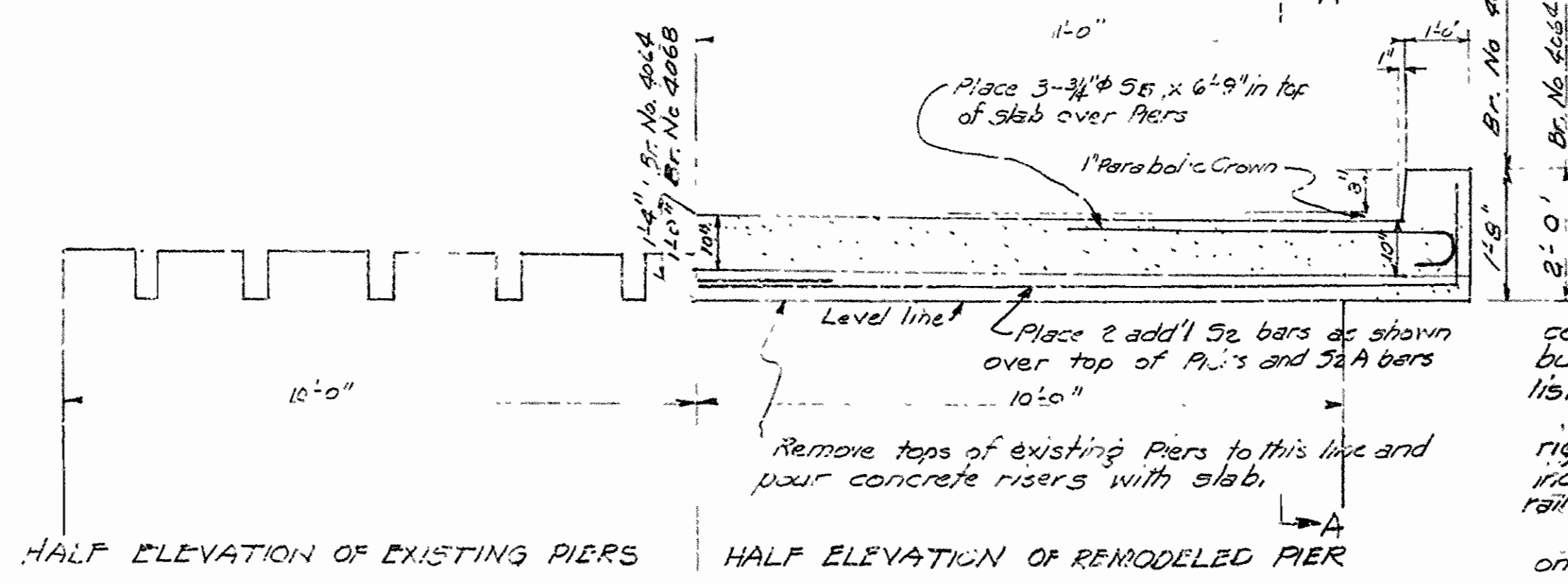
NOTE: Pay for 2 ply roofing felt and 3 bituminous felt shall be included in the price bid for Class 5 Concrete.



HALF ELEVATION OF EXISTING ABUTMENTS HALF ELEVATION OF REMODELED ABUTMENTS

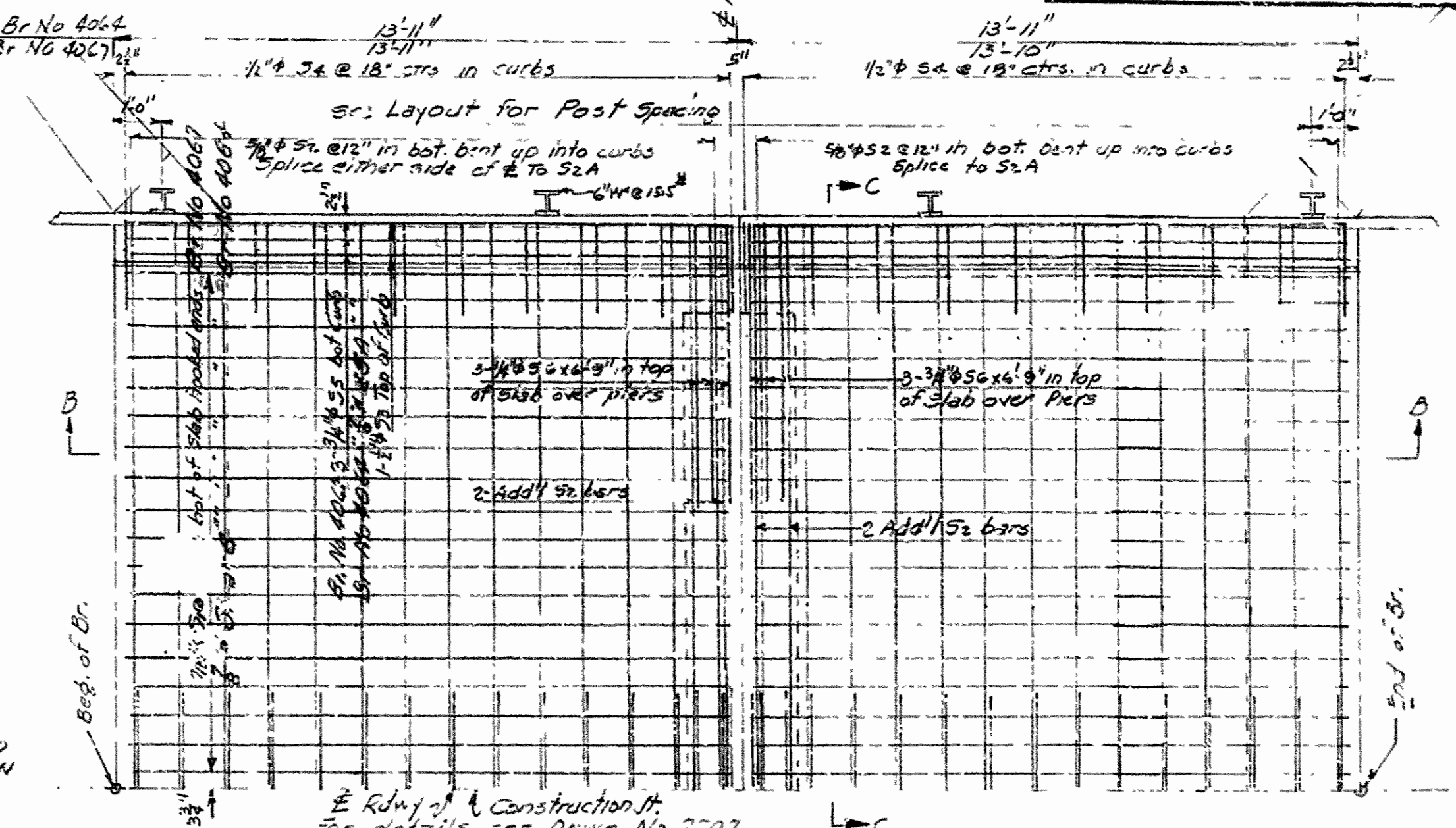


HALF PLAN OF EXISTING PIERS HALF PLAN OF REMODELED PIERS

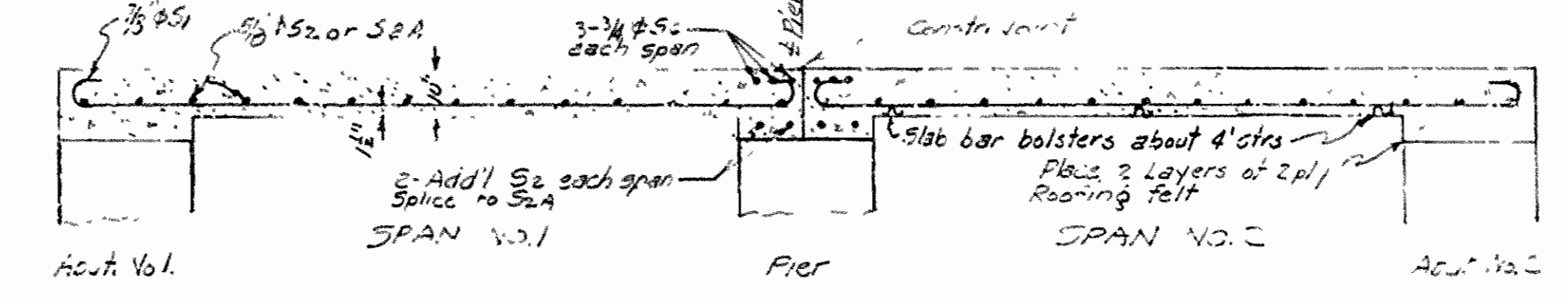


HALF ELEVATION OF EXISTING PIERS HALF ELEVATION OF REMODELED PIER

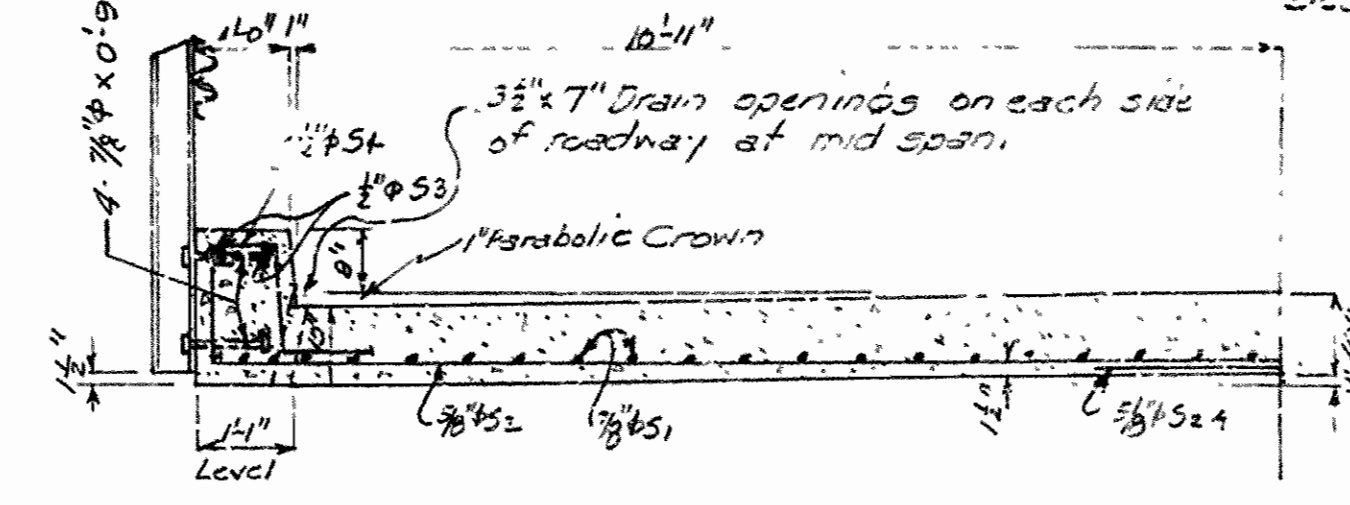
DETAILS OF SUBSTRUCTURE BRIDGES 4064 & 4068
 For Details of Substructure Br. No. 4067 See Drwg. No 7721
 For Details of Superstructure Br No 4068 See Drwg. No 7721



TYPICAL DETAILS OF SUPERSTRUCTURE FOR BRIDGES 4064 AND 4067



SECTION B-B
 Scale 3/8" = 1'-0"



SECTION C-C
 Scale 3/8" = 1'-0"

BAR LIST FOR BRIDGES NO 4064 & 4067

MARK	SIZE	LENGTH	A	B	BENDING DIAGRAM
51	7/8"	14'-11"	13'-5"		
52A	5/8"	13'-11"	11'-0"	1'-3"	
52	5/8"	15'-2"	13'-11"	1'-3"	
54	1/2"	3'-6"			
55A	3/4"	14'-11"	13'-5"	1'-0"	
55	3/4"	14'-11"	13'-5"	1'-0"	
56	3/4"	6'-0"			
53	1/2"	13'-5"			Straight
57	1/2"	9'-8"			Straight
58	1/2"	9'-8"			Straight

NOTE: FOR BR. NO. 4067 ONLY. See Drwg. No 7721

General Notes:
 All concrete to be class "5". All exposed corners to be chamfered 3/4" unless otherwise noted. No payment shall be made for 2 ply roofing felt but shall be included in the price bid for Class 5 Concrete.
 Care shall be exercised in remodeling tops of abutments and piers so no damage will be done to existing structure below remodeling line.
 Reinforcing steel shall be deformed bar or intermediate grade.
 All reinforcing shall be accurately located in the forms and firmly held in place by means of steel wire supports sufficient in number and size, to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of Reinforcing Steel. Shop lists and bending diagrams must be submitted for approval.
 The steel plate guard rail shall be of the type shown or an equivalent rigid type as approved by the engineer. The steel plate guard rail including all steel post, Conc. post in multiple spans, and hardware for attaching rail to post shall be paid for at unit price of \$1.00 per "steel plate guard rail".
 Shop paint; The steel plate guard rail and steel post shall be given one coat of red lead and raw linseed oil before shipment.
 Field Paint: 1st coat, white lead; 2nd coat Aluminum paint.
 SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for road and bridge construction adopted March 1940.
 Design Live Loading H-15
 Stresses Class 5 Concrete 1300#10" n=10
 Reinf. Steel 20000#10"
 Structural Steel 18000#10"

DETAILS OF
 BRIDGES NO 4064, 4067 & 4068
 NORTH PULASKI COUNTY BRIDGES
 PULASKI COUNTY
 #A3 ROUTE 1152

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By LAME Date 5-10-50 Scale 1/4" = 1'-0"
 and 1/8" = 1'-0"
 Checked By Date
 BRIDGES NO 4064, 4067 & DRAWING NO 7720
 4068

Ward
 Bridge Design Engineer