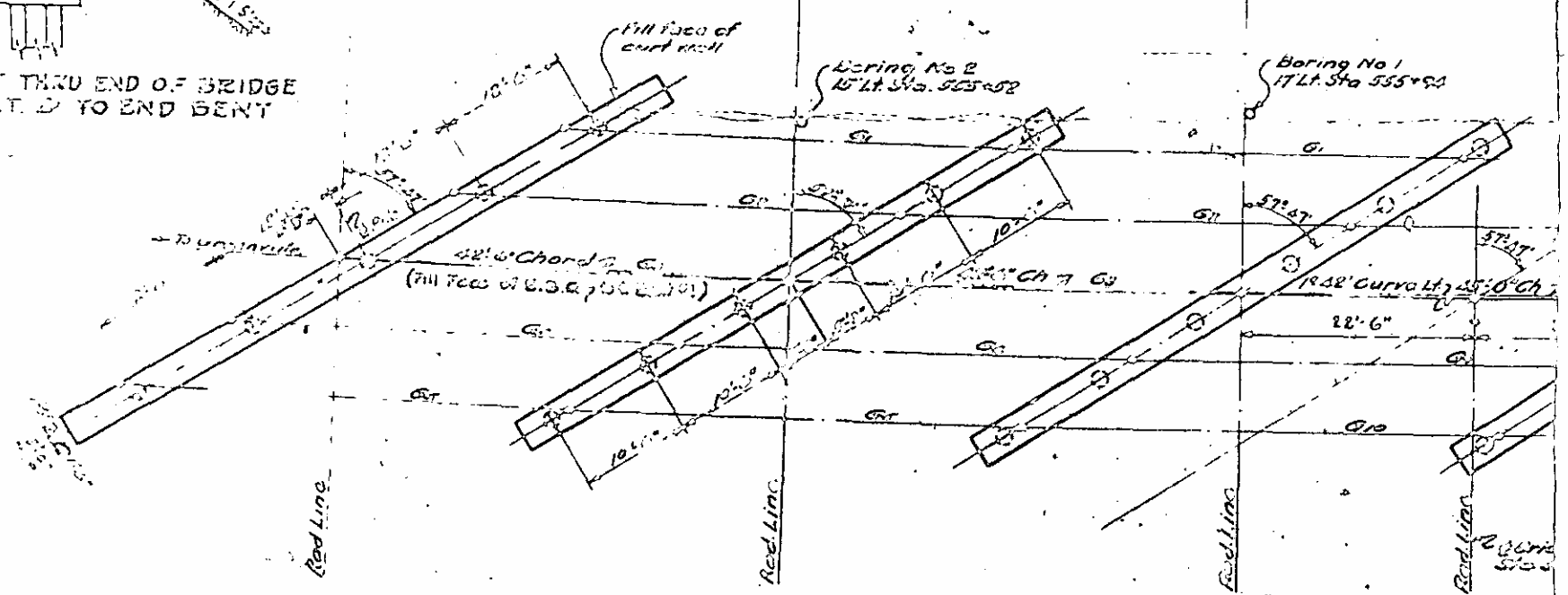
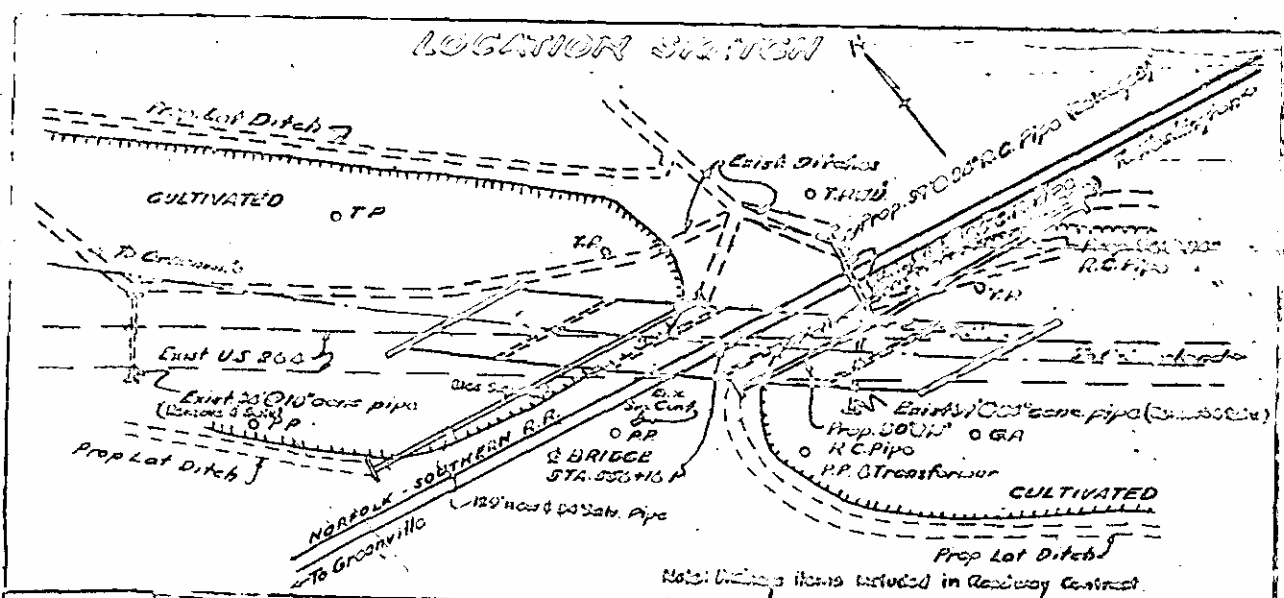


SECTION THROUGH END OF BRIDGE AT RT. END TO END BENT



PLAN

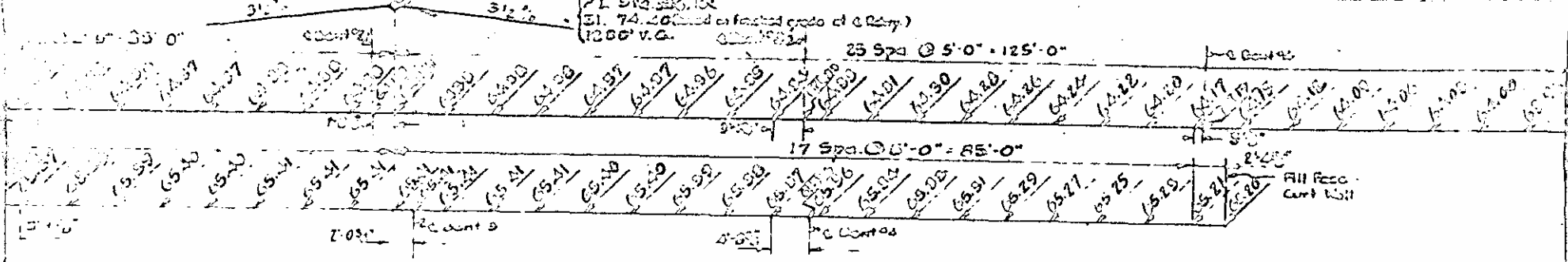


TOTAL CURB CUT			
	Class A 2.0' x 0.5'	Reinf. Steel 18"	Final Clearance
Span A	79.5	24,701	150
" B	76.1	24,501	143
" C	69.1	24,689	143
" D	76.1	24,501	143
" E	79.5	24,701	143
End Bent 1	22.1	4,052	
" 2	22.2	4,000	
Bent # 1	25.9	4,576	143
" 2	25.9	4,576	143
" 3	26.4	4,456	143
" 4	26.8	4,576	143
Precast Pile		41,871	
Total	542.2	155,289	1400

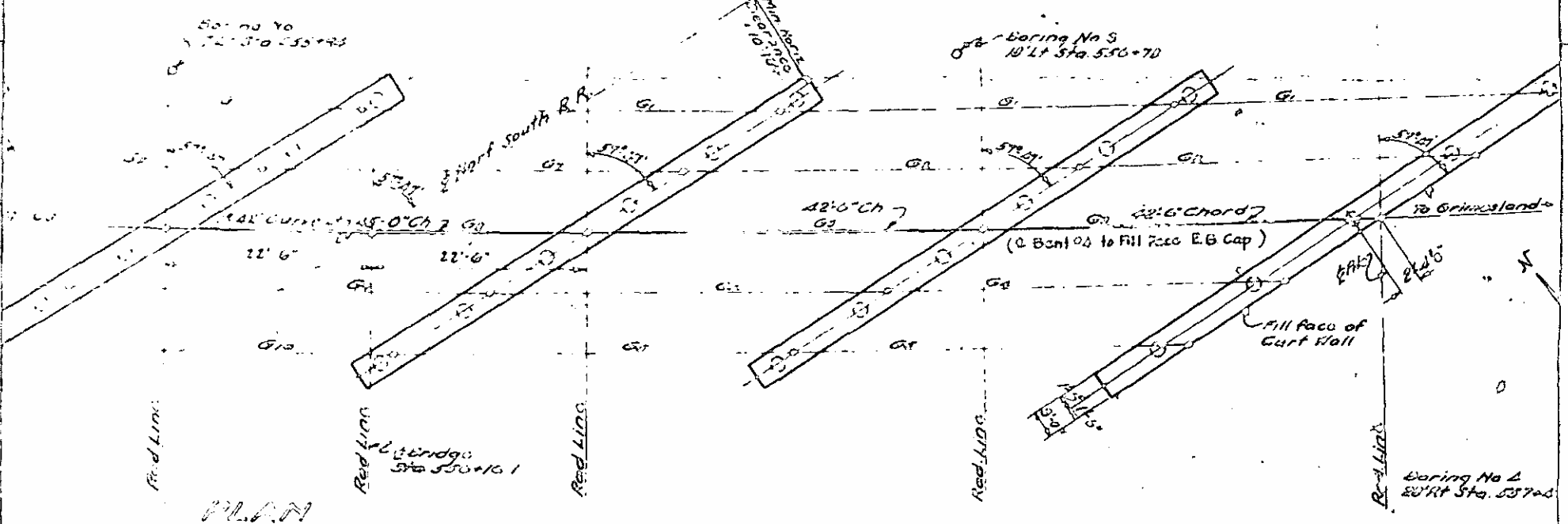
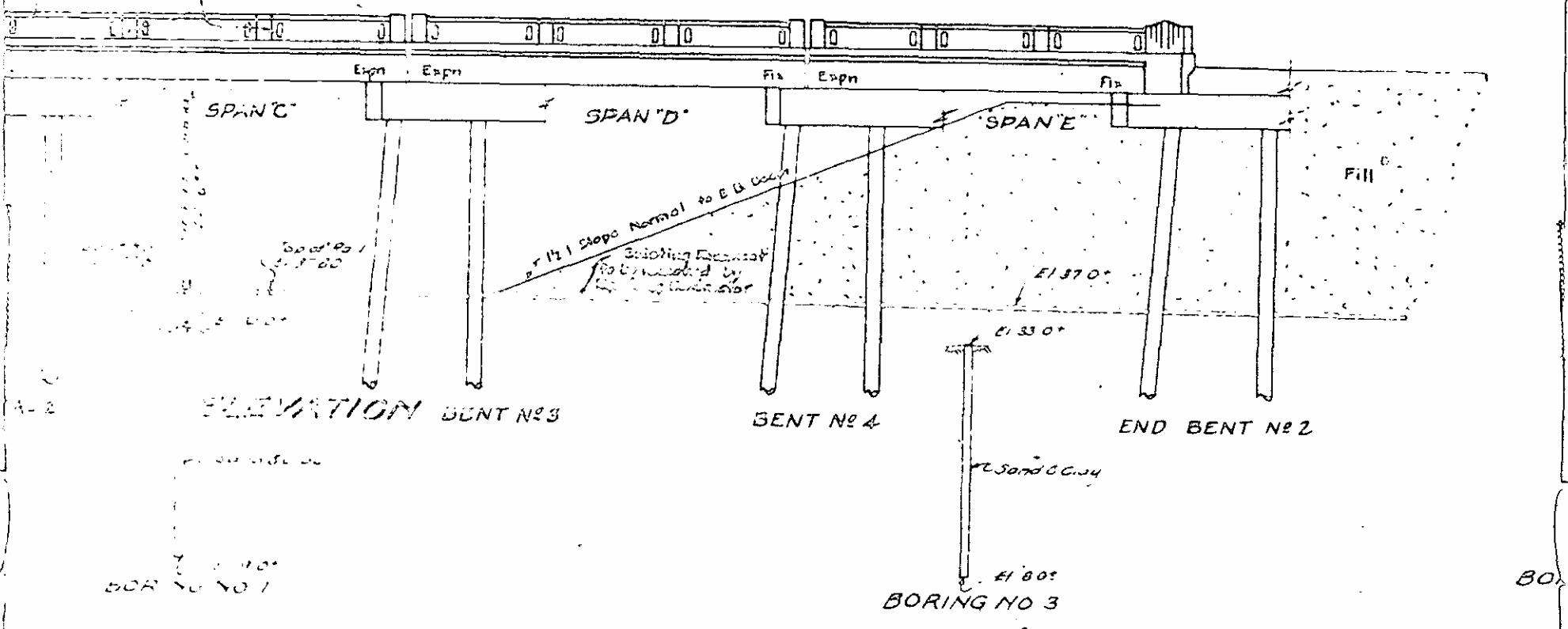
SPECIAL
 CHECKED BY
 DESIGNED BY
 DRAWN BY
 DATE
 DATE

D. M. Nail in root 18" dia chinaberry tree.
 60' RT. STA. 559+05. EL. 25.50.
 Includes 1/2" dia. 10' long to be paid for by contractor.

P.L. Sta 536.152
 E.L. 74.20 (based on finished grade of C.R.R.)
 1200' V.C.



CAMBER DIAGRAM



PLAN

	Class A Cone 4	Reinf Steel lbs	Plates 65x175 Lbs	10' Precast Piles		20' Precast Piles		Total Pile caps
				No.	Vol cu yds	No.	Vol cu yds	
Span A	195	24,701	196					
" B	161	24,581	196					
" C	801	26,889	196					
" D	161	24,581	196					
" E	195	24,701	196					
End Bent #1	221	4,062		5	235			
" #2	242	4,080		3	235			
Bent #1	255	4,576	196			6	317	
" #2	259	4,576	196			6	317	
" #3	262	4,456	425			6	317	
" #4	268	4,576	196			6	317	
Precast Piles		-1.2%						
Totals	542.2	152,687	1995	10	470	24	1232	1

Max. size of coarse aggregate - 3"	29.7 cu yds
Max. size of coarse aggregate - 1 1/2"	518.5 "
Total Class A Concrete	542.2 - -

* Includes 3955 lbs galv. steel to be paid for as reinf. steel.
 † Unloaded Timber

PROJECT NO.	1057
DATE	JULY 1938
STATE OF NORTH CAROLINA	

DESIGN DATA:

Specifications:
 Reinforcing Steel in Tension.
 Concrete in Compression.
 Concrete in Shear.
 Equivalent Fluid Pressure.

Allowable
 S.S. Sp. contraction
 1000 lbs per sq in
 900 lbs per sq in
 60 lbs per sq in
 30 lbs per cu ft

GENERAL NOTE:

CONCRETE: Class A concrete shall be used throughout. Maximum size of coarse aggregate shall be 1 1/2" except in handrails where top of curb. Maximum size of coarse aggregate in handrails to be 3/4". Coarse aggregate in precast piles shall consist of crushed stone only. All concrete except that in handrails to be compacted by mechanical vibration. See Special Specifications in the Proposal. The girders, slabs, curtain walls and curbs shall be poured in one operation, allowing 10 min. for the concrete to take place between forms. No construction joints other than those shown on plans will be permitted.

CHAMFER: All exposed corners of concrete, below top of curbs to be chamfered 1" except expansion joint corners. Expansion joint and baluster corners to be chamfered 3/4". Corners of handrails and posts shall be chamfered 3/4" unless otherwise noted on plans.

REINFORCING STEEL: All reinforcing steel shall be deformed bars. All dimensions relative to reinforcing are to centers of bars. No splices of bars other than those shown on plans will be permitted. Where splicing of reinforcement is necessary bars are to be lapped 50 diameters. All reinforcing steel shall be securely held in correct position.

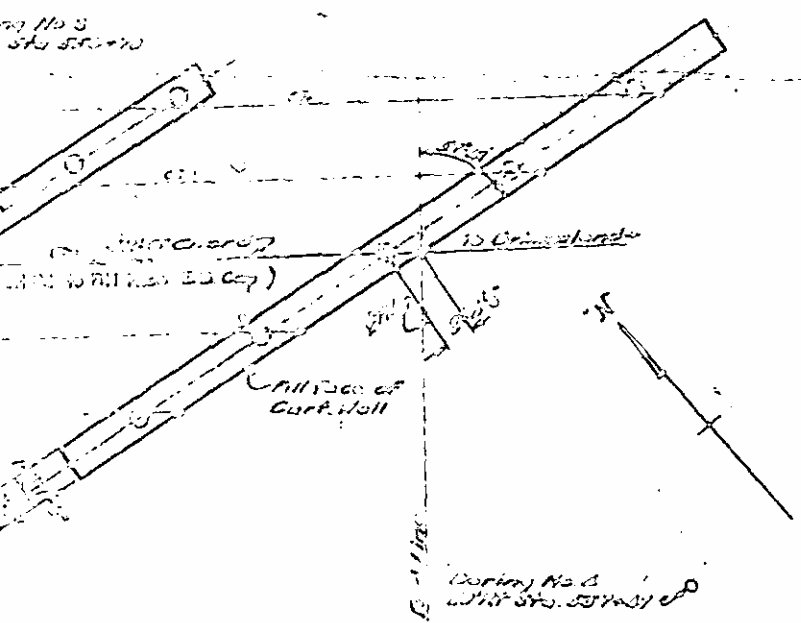
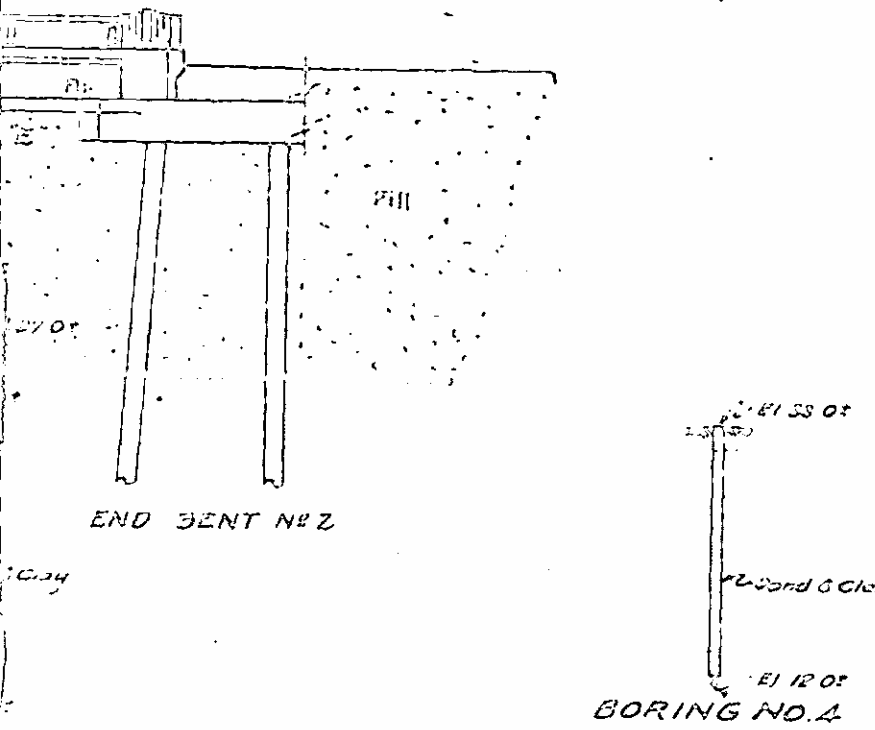
JOINT MATERIAL: Expansion joint material may be either rubber compound or cork as called for in the Specifications.

PLATES & BOLTS: All bearing plates and bolts shall be phosphor bronze. See Specifications.

NAME PLATES: The name plates shall be placed on the bridge, one on each right hand end post approaching the bridge.

EXCAVATION & FOUNDATION DATA: The excavation and foundation data, and all elevations of ground line shown are believed to be correct, and are furnished for the convenience of the bidders, but the State Highway and Public Works Commission assumes no responsibility for their accuracy as correct any of the information given. See Specifications.

MATERIAL AND WORKMANSHIP: All material and workmanship as per the Specifications of the North Carolina State Highway & Public Works Commission.



NOTE: This bridge shall be built on a horizontal and a vertical curve. The handrails, slabs and curbs shall conform to the curve. The girders shall conform to the vertical curve. Handrail posts shall be built plumb. The elevations shown on the CHAMFER DIAGRAM are for tops of sidewalk slabs 15'-0" from roadway. The elevations shown do not include any allowance for settlement of individual spans which should be provided for in addition to the elevations given. After the falsework has been removed, the finished structure shall have the elevations shown.

NOTE: Piles for End Bents 21 1/2% and Int. Bents 17 1/2% are to be driven until after roadway fills adjacent to bents have been placed. See Special Provision.

NOTE: Piles shall be driven to a minimum bearing capacity of 40 tons each for End Bents and 45 tons each for Interior Bents. Pile lengths as listed are approximate only. Exact lengths will be determined after driving test piles.

NOTE: The existing electric signals (N.R.H. 903-B (1935)) are to be removed by the Norfolk-Southern Railroad Company and installed at a crossing to be included in the 1939 Second Partial Federal Aid Grade Crossing Program.

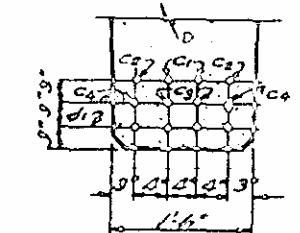
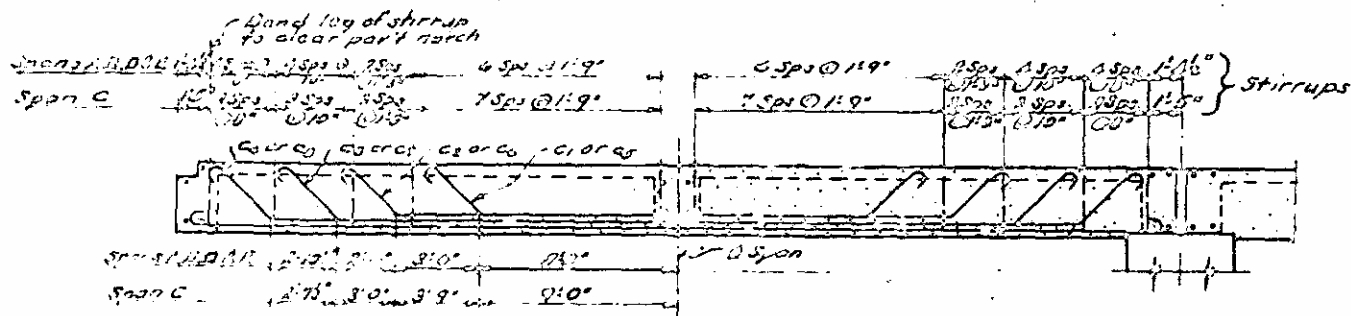
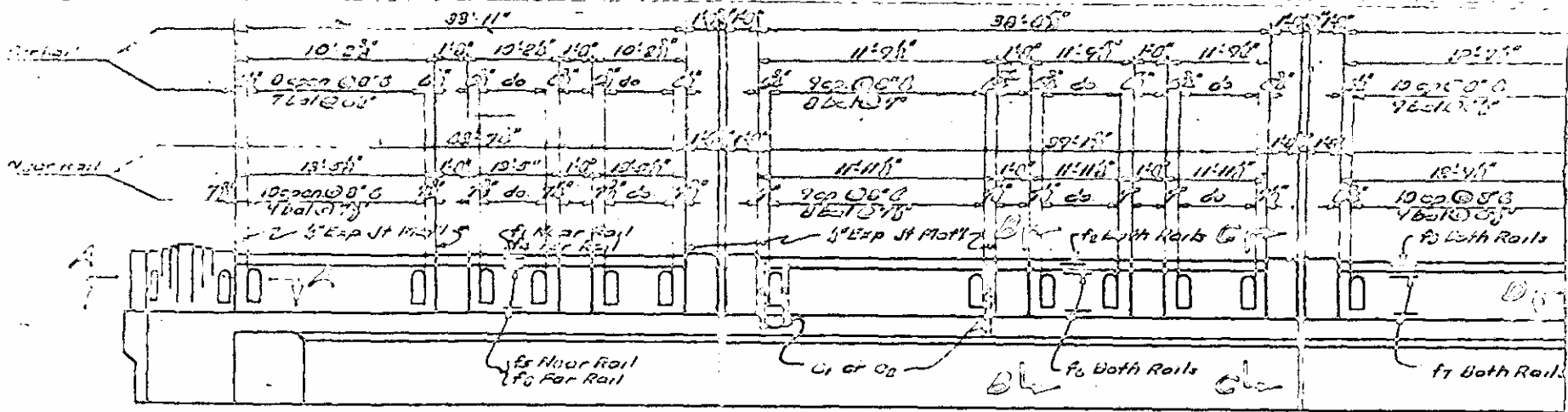
NOTE: For maintenance of highway traffic see Special Provision.

PROJECT NO. 1057
 RAY COUNTY
 STA. 556+16.1

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION
 HALLIGAN
 SPECIAL
 GENERAL DRAWING
 FOR
 BRIDGE OVER
 NORFOLK-SOUTHERN R.R.
 JULY 1938.

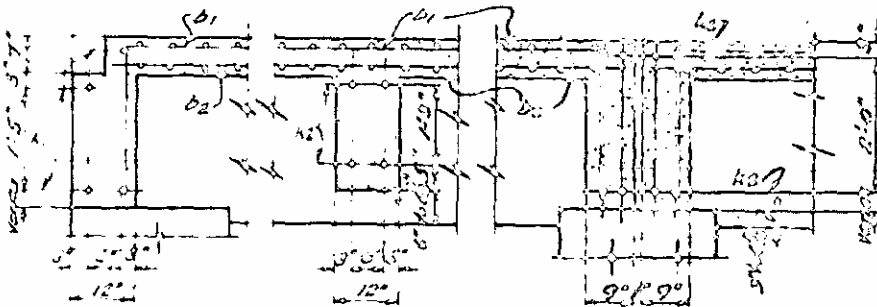
AUTHORIZED BY: W. L. Graham BRIDGE ENGR.
 APPROVED BY: W. Vance Baird DATE 8-9-38
 PLAN NO.

Checked by	W. L. Graham
Scale	1" = 10'
Sheet	5-1

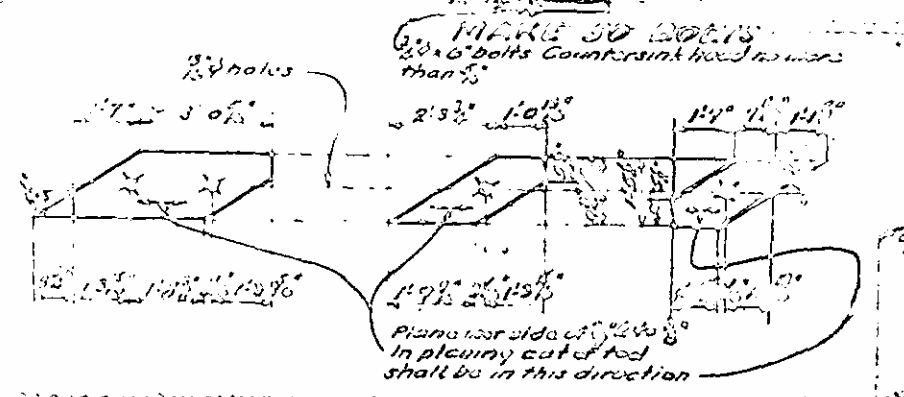
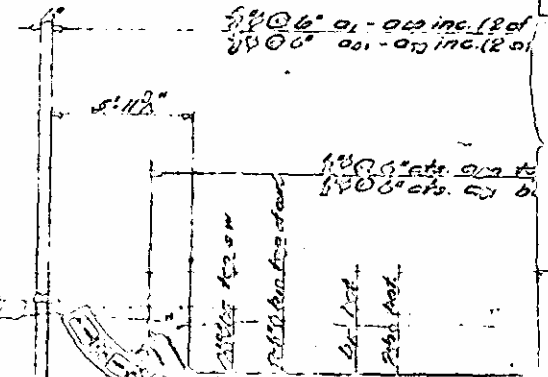


DETAIL OF FOR C₁ C₂ C₃ C₄ C₅

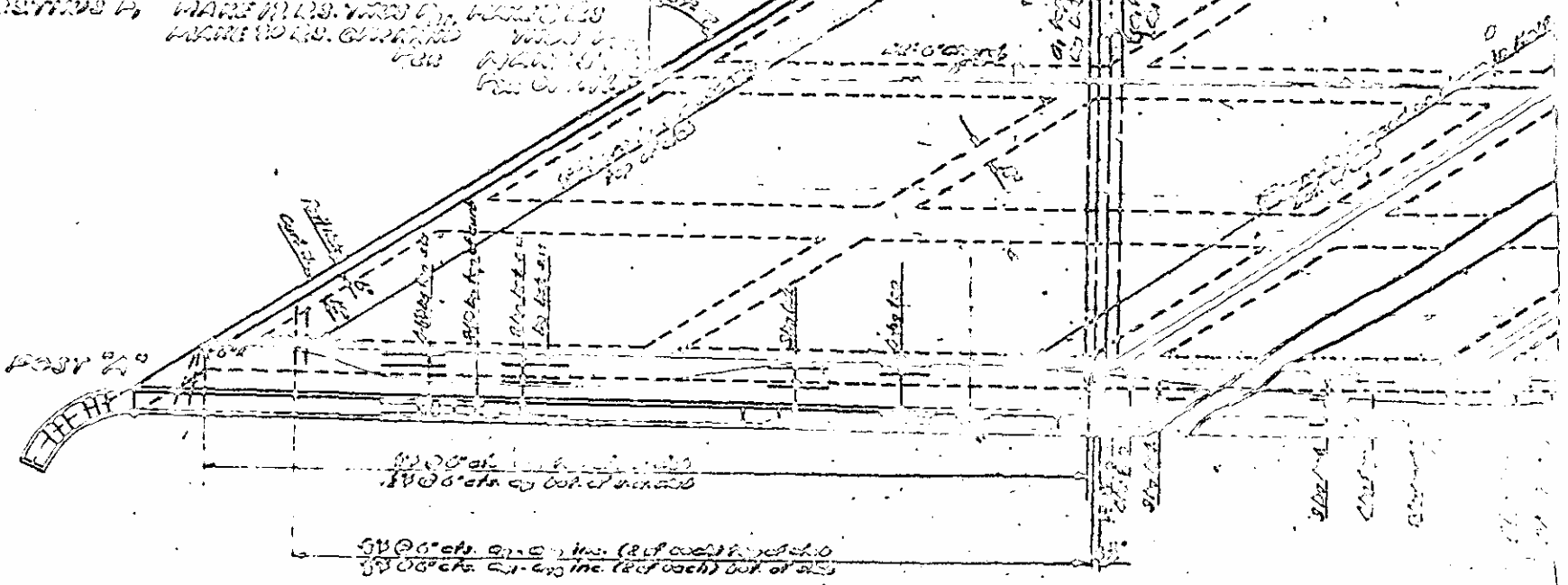
LONGITUDINAL SECTION WITH GIRDER



SECTION B-B SECTION C-C

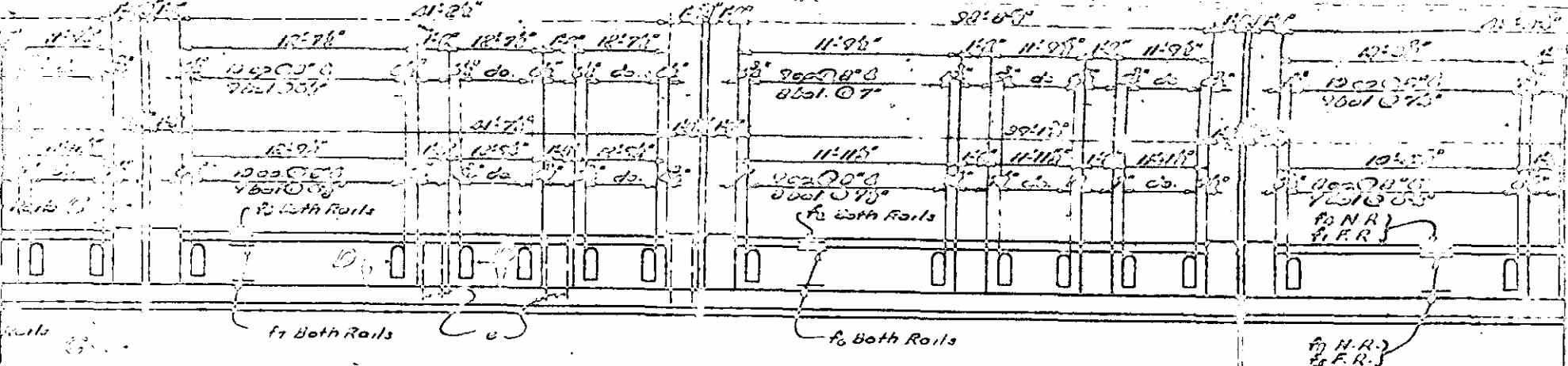


MAKE 50 BOLTS
 3/4" x 6" bolts countersink heads as shown
 than 5"
 Plane last side of top flange
 in planing cut of top
 shall be in this direction



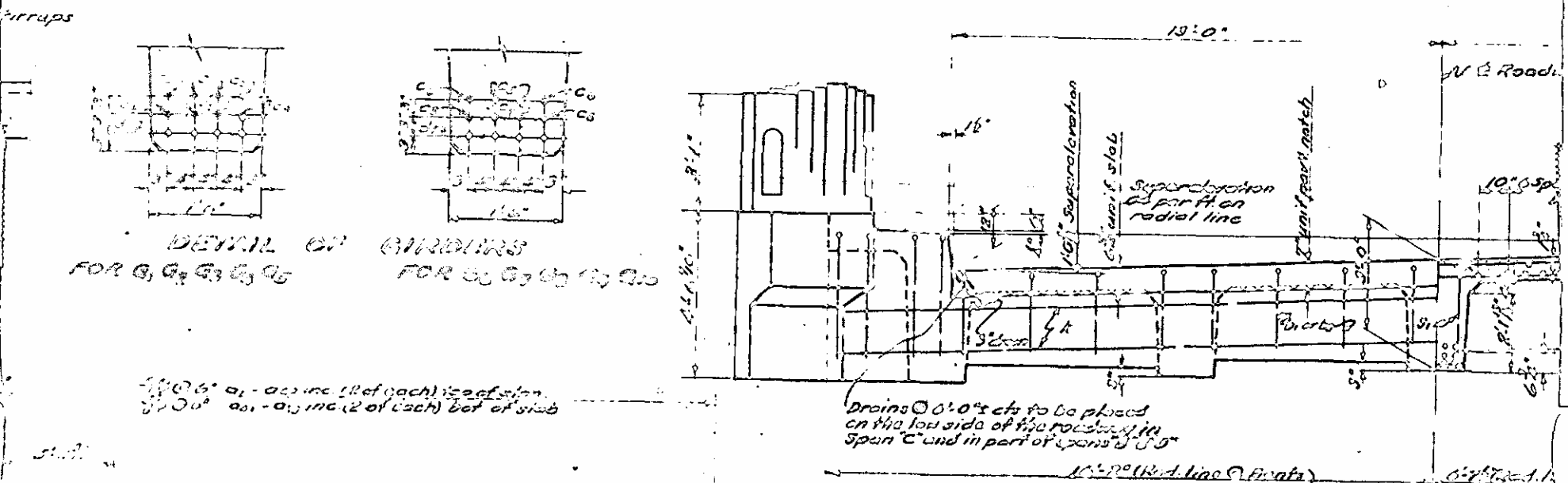
PLAN

SPECIAL STANDARD	APPROVED BY	DATE
	CHECKED BY	DATE
	DESIGNED BY <i>John Gilling</i>	DATE <i>July 1928</i>
	DRAWN BY <i>Charles G. Smith</i>	DATE <i>July 1928</i>
	TRACED BY	DATE
ENGINEER	DATE	



ELEVATION

Note: For location of Fixed & Exp Ends See General Drawing

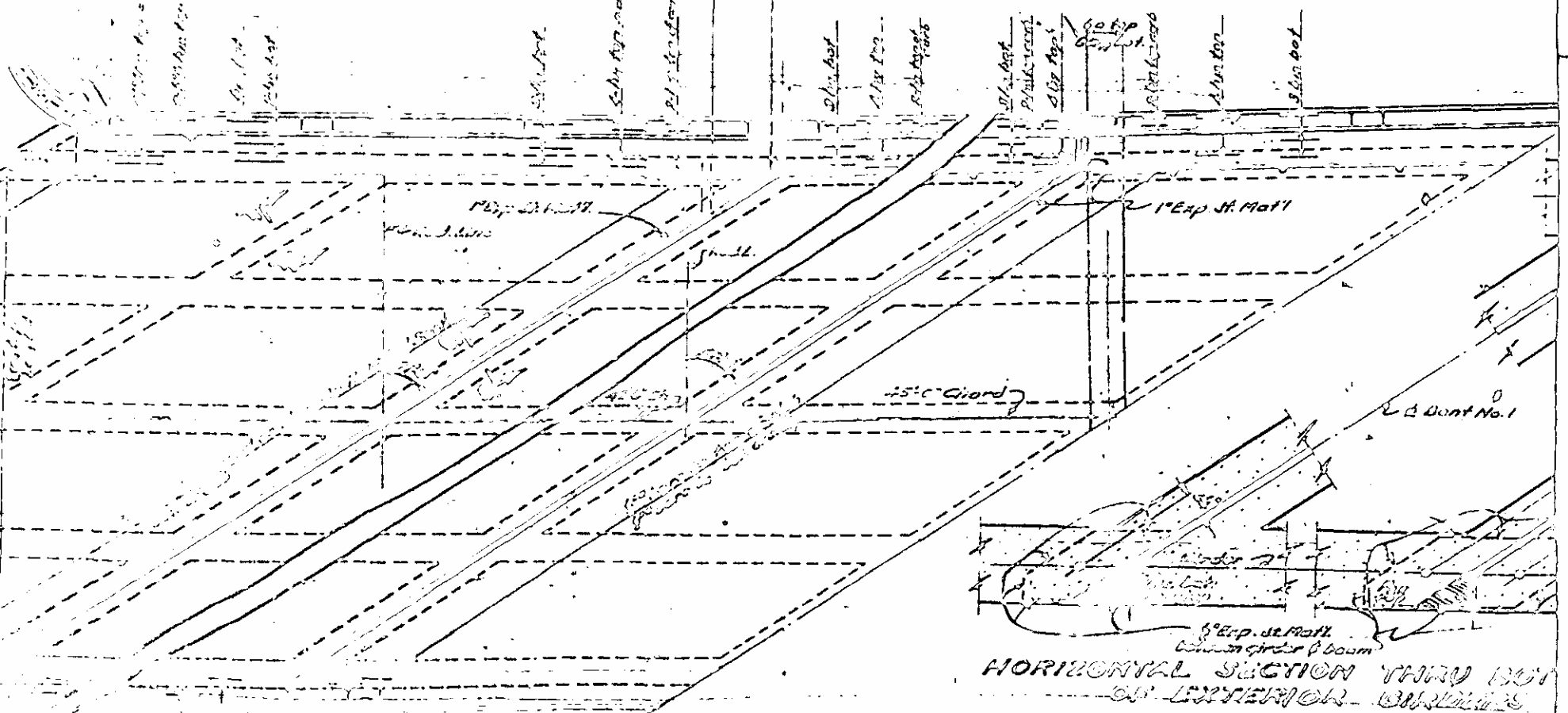


DETAIL OF GIRDERS FOR B, C, D, E, F, G

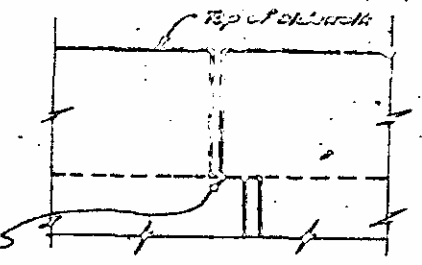
1'-0 1/2\"/>

Drains 6\"/>

HALF END VIEW

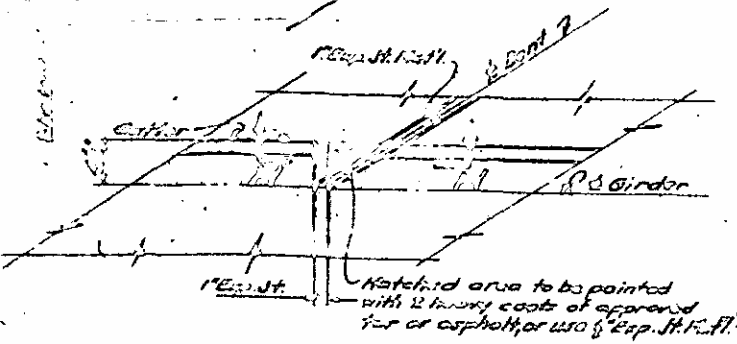


HORIZONTAL SECTION THRU BOV OF EXTERIOR GIRDERS



DETAIL OF 14-RE

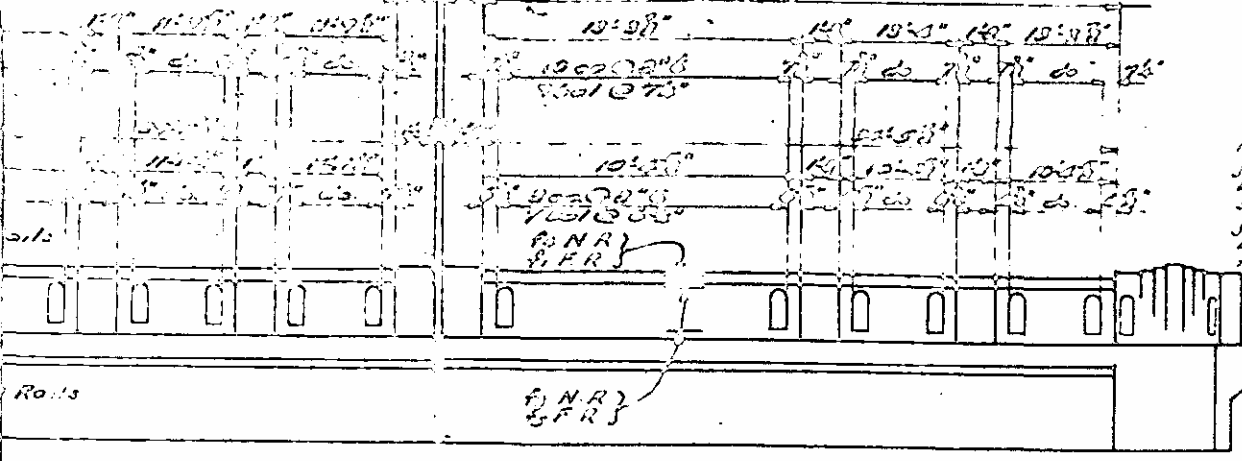
DETAIL OF EXP. JOINT AT CURBS



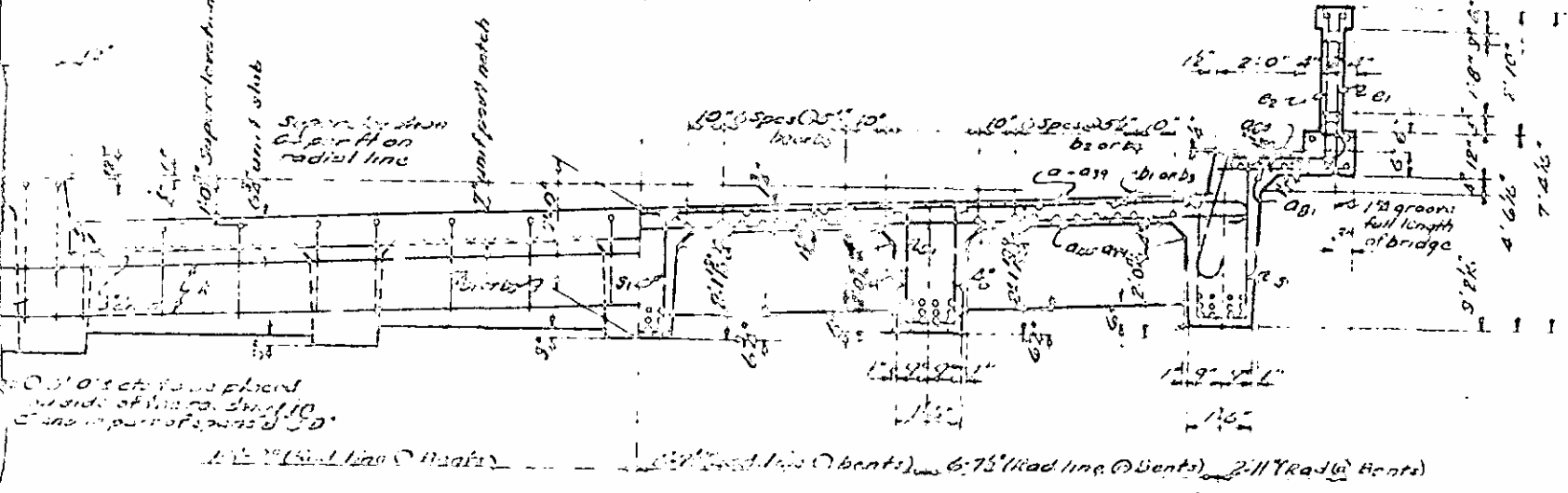
SECTION H-H

FED ROAD DIST NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
10	N. C.	1857	17	22
FA Grade Crossing Proj. (FAG M 453 DU)				

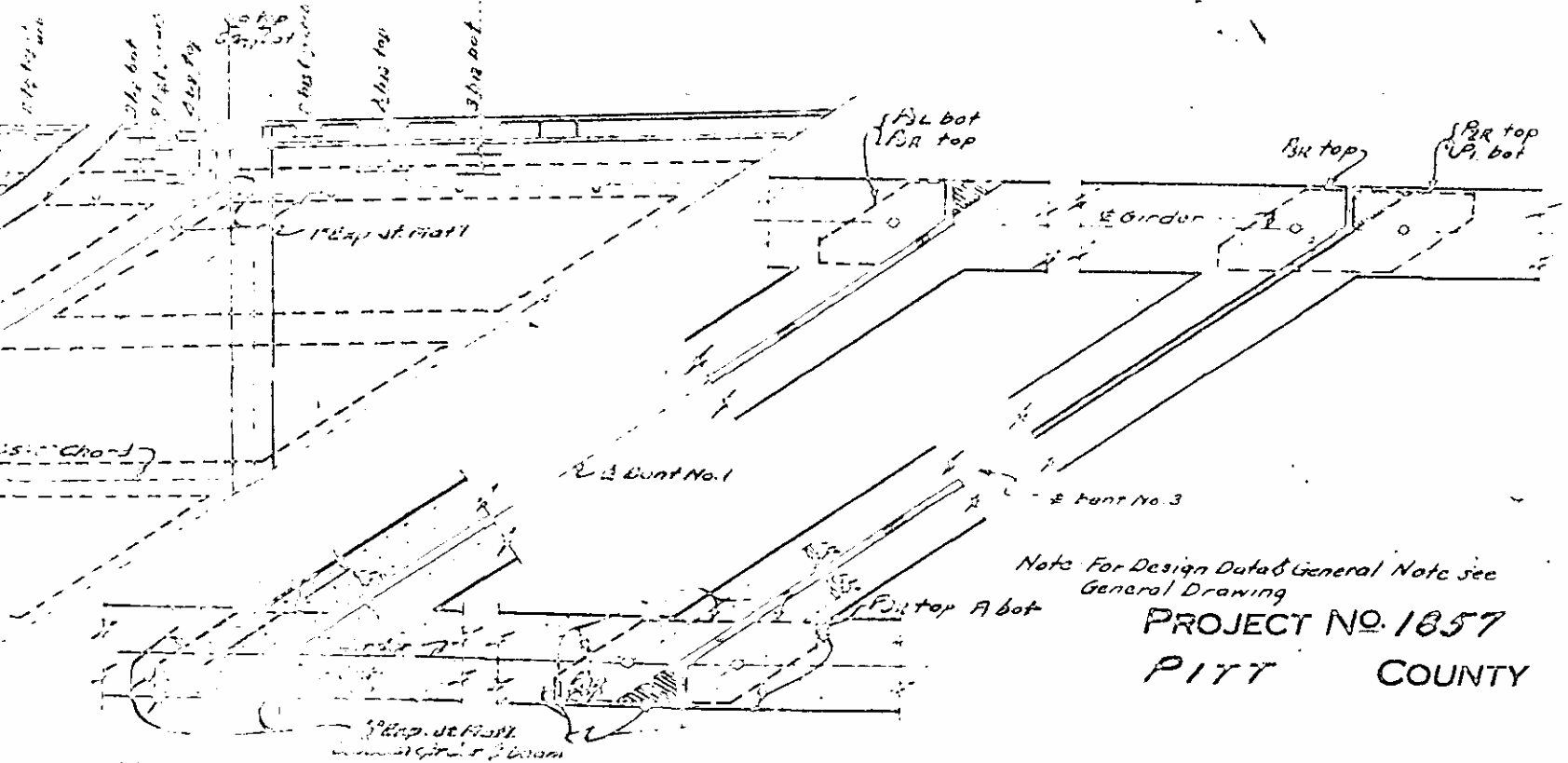
Note: In addition to the expansion joint material, 2-ply roofing felt shall be placed over all joints in the expansion material at all vertical expansion joints below top of curbs. This felt shall be placed on the side of joint adjacent to the pouring.



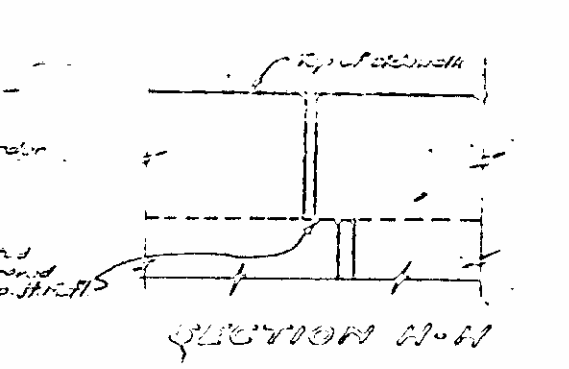
16'-0" Clear Roadway (on Radial Line)
13'-0" Roadway (1:32 Curve)



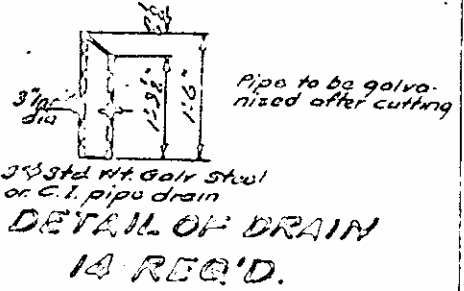
HALF RADIAL SECTION



HORIZONTAL SECTION THRU BOTTOM OF EXTERIOR GIRDERS



SECTION N-N



3\"/>

Note: For Design Data & General Note see General Drawing

PROJECT NO. 1857
PITT COUNTY

STA. 556 + 16.1

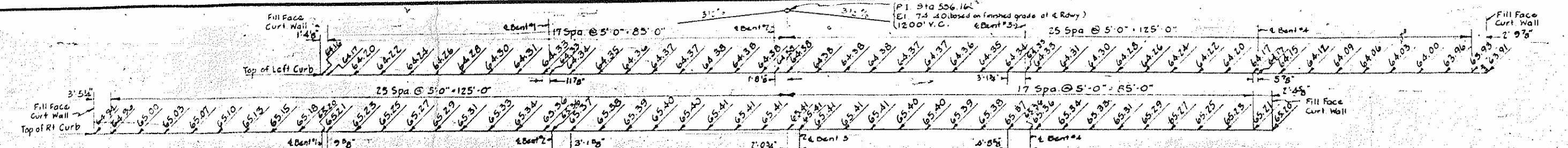
STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION
RALEIGH

**SPECIAL
SUPERSTRUCTURE DETAILS
FOR
BRIDGE OVER
NORFOLK-SOUTHERN R. R.
JULY 1938.**

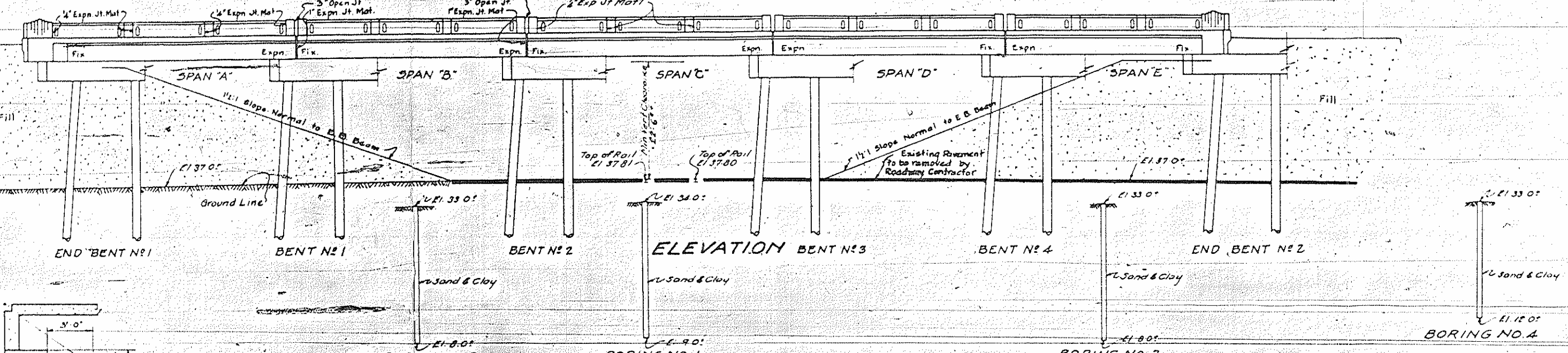
SUBMITTED BY: W. I. Graven BRIDGE ENGR
W. James Baker

PLAN NO.

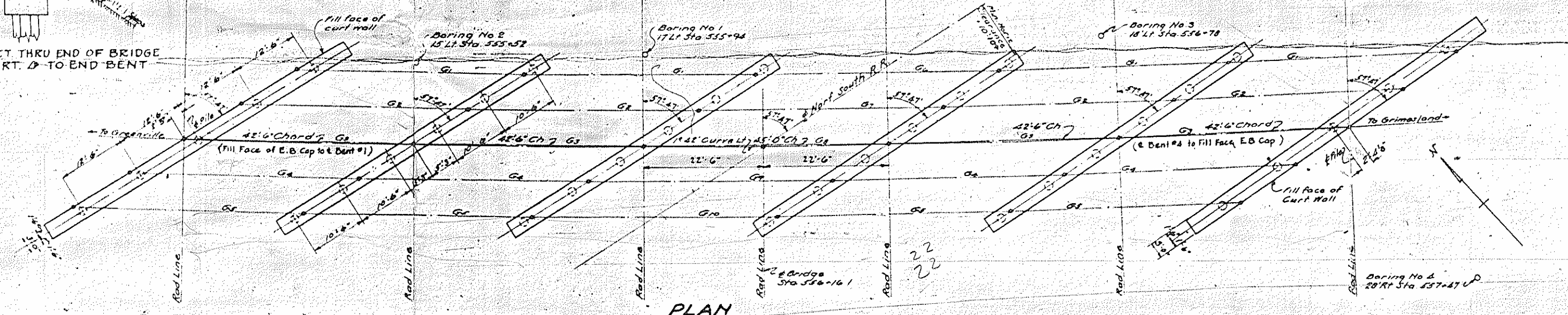
1857



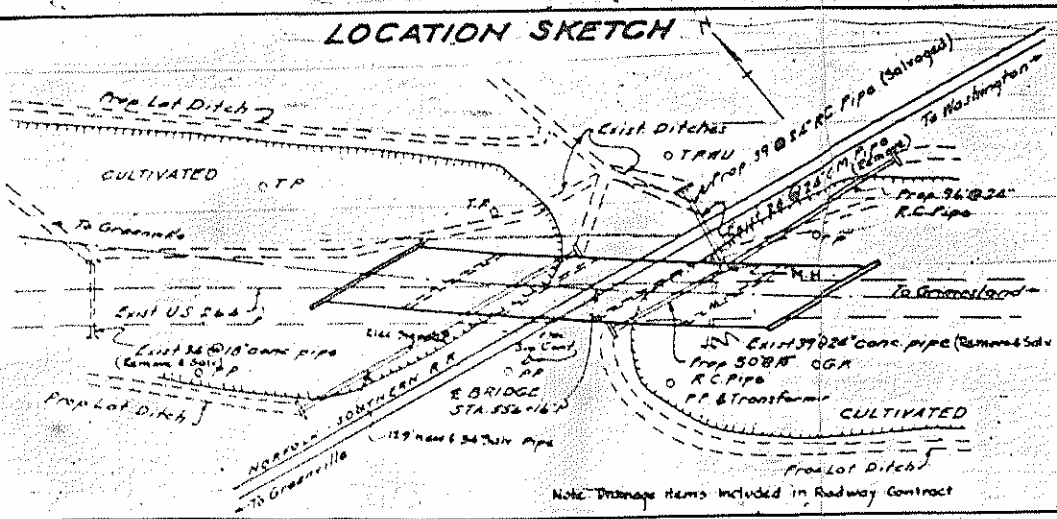
CAMBER DIAGRAM



ELEVATION



PLAN



LOCATION SKETCH

TOTAL BILL OF MATERIAL

CLASS	AMOUNT	UNIT PRICE	TOTAL	CLASS	AMOUNT	UNIT PRICE	TOTAL
SPAN A	79.5	27.701	190				
B	76.1	24.581	190				
C	80.1	26.859	190				
D	76.1	24.581	190				
E	79.5	24.701	190				
End Bent 1	121	4.062					
Bent 1	155	4.576	190				
Bent 2	159	4.576	190				
Bent 3	164	4.456	425				
Bent 4	168	4.576	190				
Precast Piles	1.6						
Total	541.2	33.147	1895				

Includes 39.55 gal. gal. steel to be paid for as rebar steel.
Unloaded Timber

DIVISION OF CLASS A CONCR.

Max size of coarse aggregate - 3"	25.7 cu yds
Max size of coarse aggregate - 1 1/2"	518.5 "
Total Class A Concrete	544.2

DESIGN DATA:
 Specifications AASHTO
 Allowable Soil Load 10,000 lbs per sq ft
 Reinforcing Steel in Tension 40,000 lbs per sq ft
 Concrete in Compression 4,000 lbs per sq ft
 Coefficient of Thermal Expansion 6.0 x 10⁻⁶ per deg F
 Equivalent Fluid Pressure 50 lbs per sq ft

GENERAL NOTE:
 CONCRETE: Class A concrete shall be used throughout. Maximum size of coarse aggregate shall be 1 1/2" in diameter for curb walls and 3" in diameter for other concrete. Maximum free air content shall be 4% for concrete in compression.
 REINFORCING STEEL: All reinforcing steel shall be deformed bars conforming to the specifications of the American Iron and Steel Institute, Inc. All reinforcing steel shall be furnished in the form of straight bars and shall be furnished in the form of straight bars and shall be furnished in the form of straight bars.
 JOINTS: All construction joints shall be staggered and shall be furnished in the form of straight bars.
 PLATES & BOLTS: All bearing plates and bolts shall be furnished in the form of straight bars.

SPECIAL

DESIGNED BY	...
CHECKED BY	...
DATE	Aug. 1933

3" Max. Nails in foot of twin chestnut trees
 60' x 3" x 1/2" x 25' x 25' x 30'

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION

SPECIAL
 GENERAL DRAWING
 FOR
 BRIDGE OVER
 NORFOLK - SOUTHERN R. R.
 JULY 1933.

REVISED BY: W. Vance Price

33-22-50

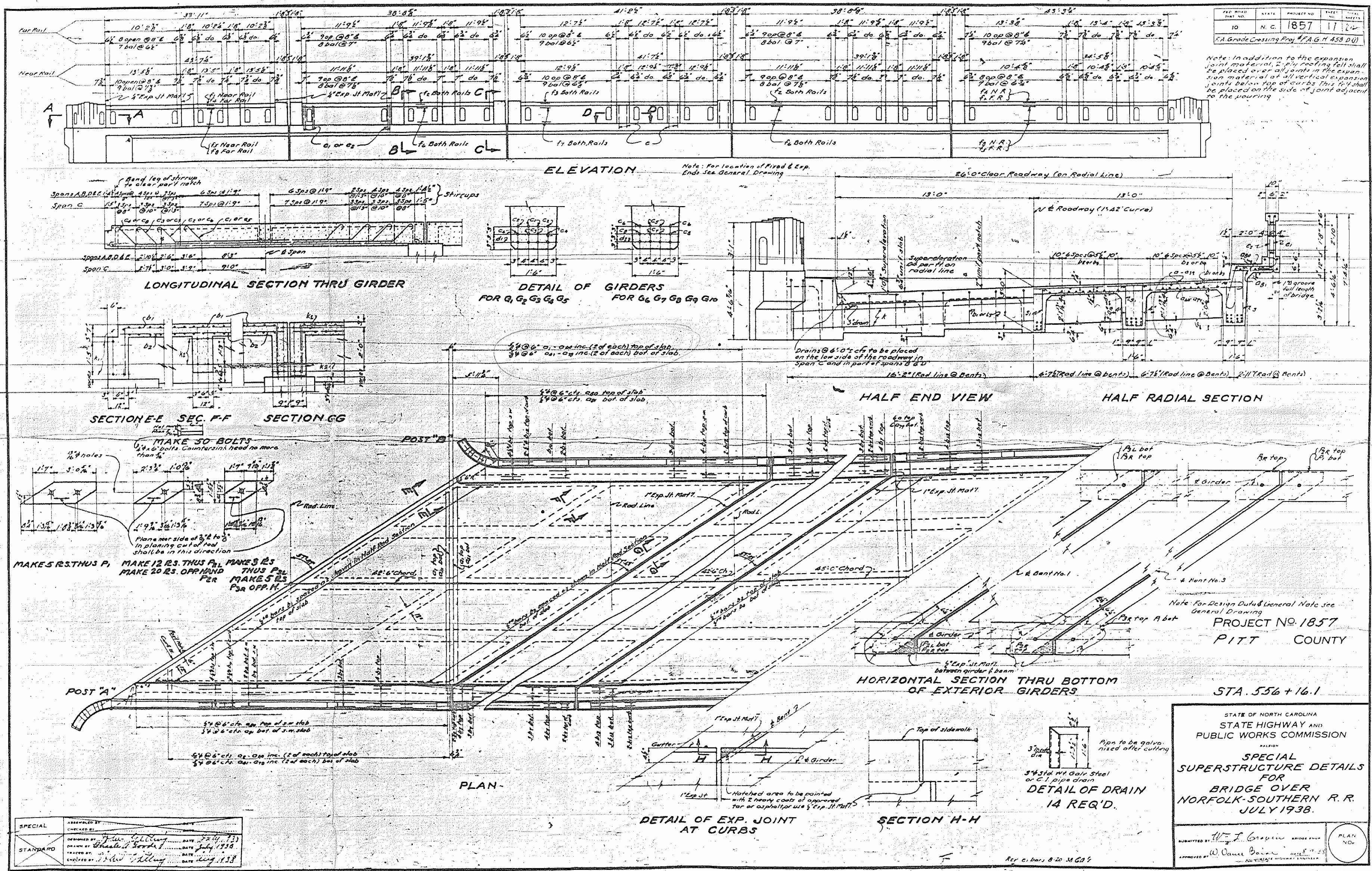
1857
 COUNTY
 16.1
 DRAWING
 FOR
 NORTHERN R.R.
 1938.

A.A.S.H.O. M. 15.
 See Specifications
 5005 in part
 900 lbs per sq. ft.
 60 lbs per cu. ft.
 80 lbs per cu. ft.

Horizontal and vertical
 curves shall conform
 to the A.A.S.H.O. M. 15.
 The design of the
 roadway shall be
 determined after
 the structure shall
 be designed.

1857
 COUNTY
 16.1
 DRAWING
 FOR
 NORTHERN R.R.
 1938.

PLAN
 100'



17 2

Expansion in full shall be covered. Expansion in full shall not be covered.

24 Top 2.00'

NTY

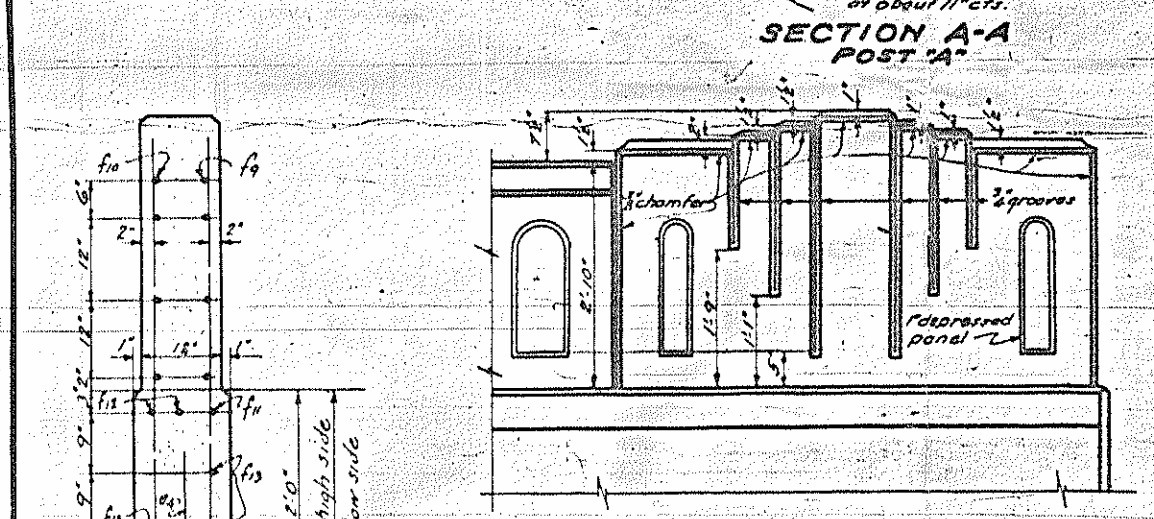
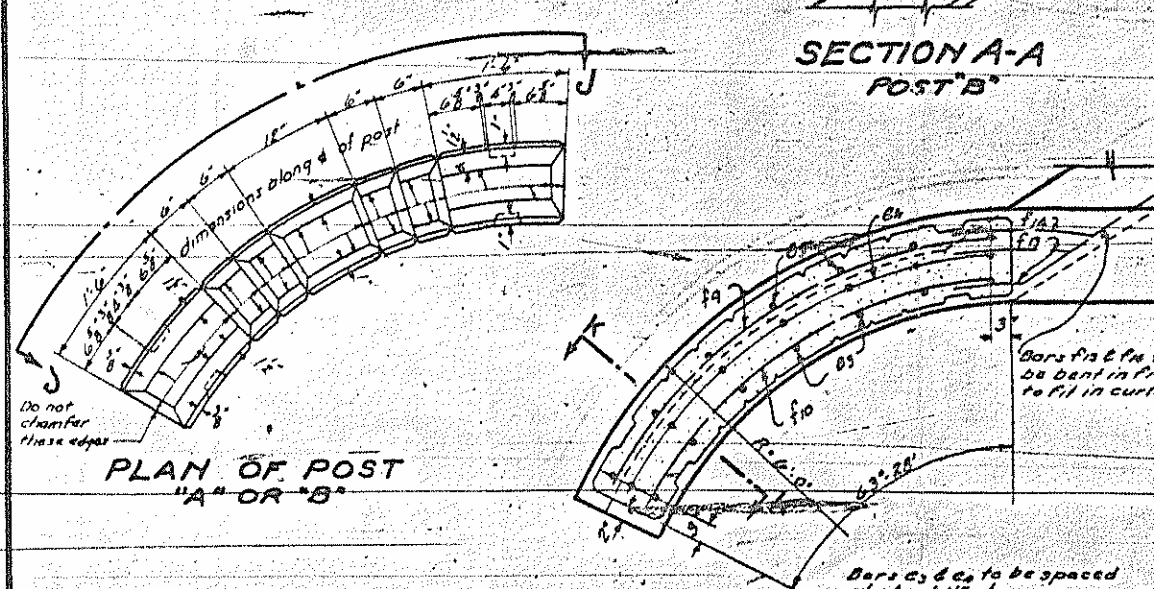
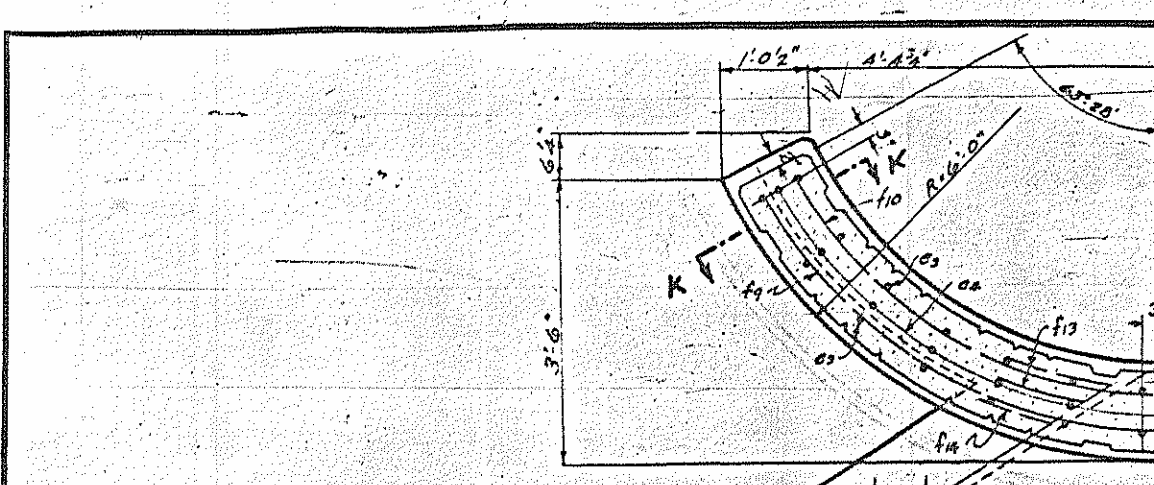
ION

TAILS

P.R.

PLAN NO.

FED. ROAD DIST. NO. 10 STATE N.C. PROJECT NO. 1857 SHEET NO. 22 TOTAL SHEETS 48
 (A Grade Crossing Proj. FA-G458-20)

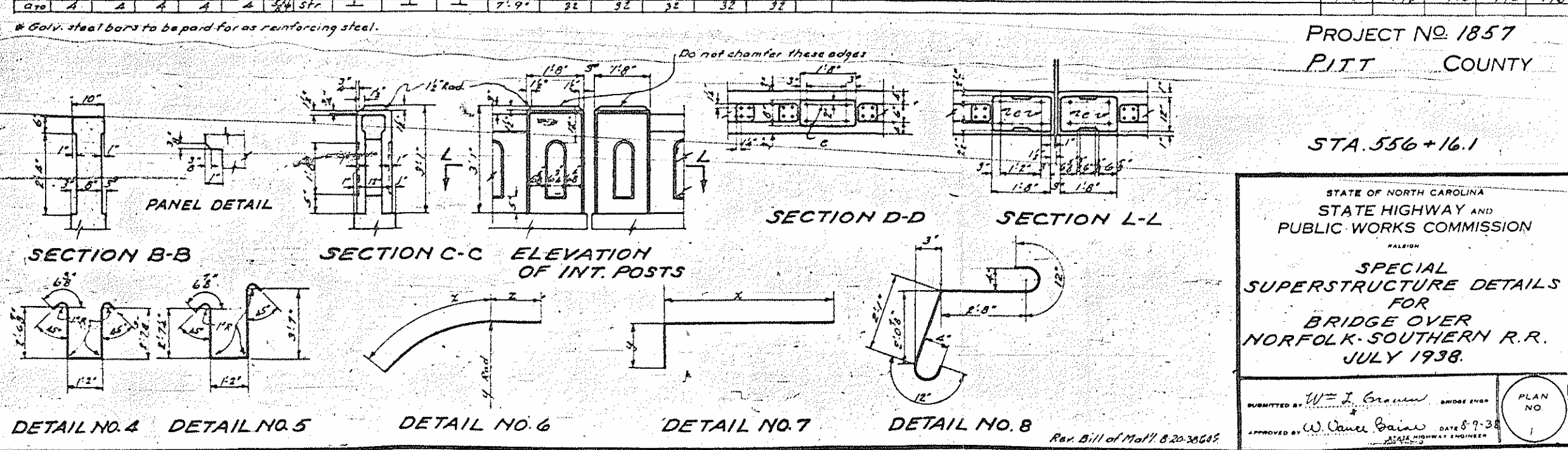
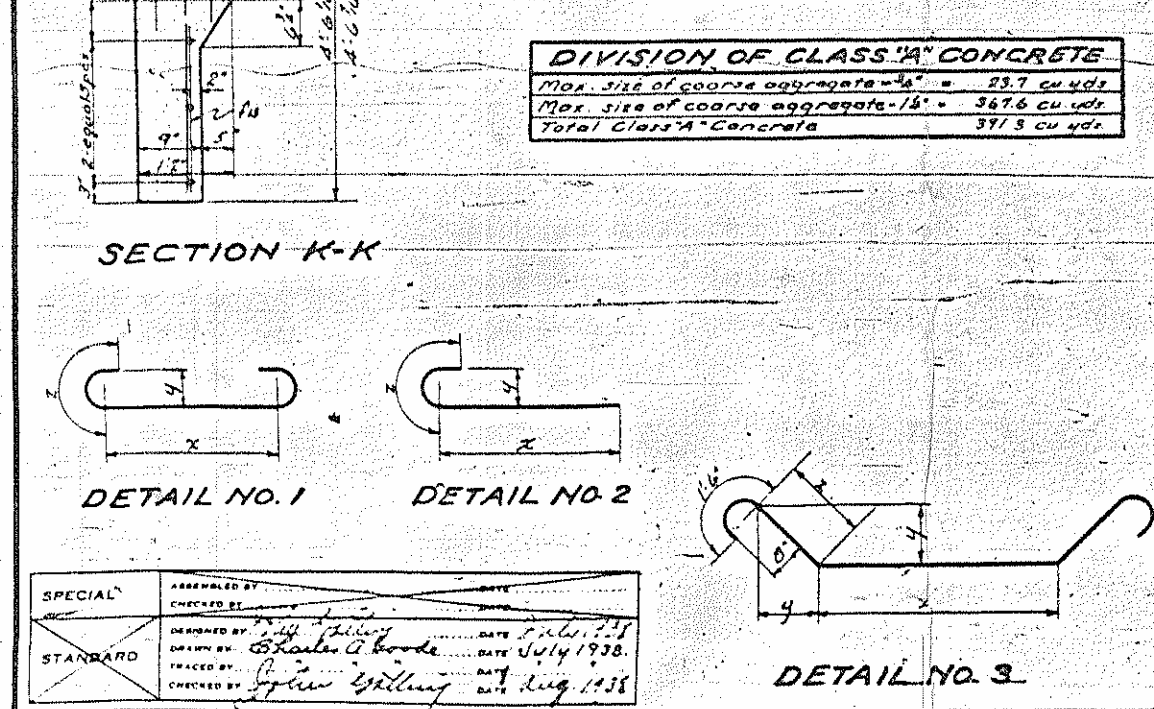


DIVISION OF CLASS 'A' CONCRETE
 Max. size of coarse aggregate - 1/2" = 23.7 cu yds
 Max. size of coarse aggregate - 3/4" = 34.6 cu yds
 Total Class 'A' Concrete = 58.3 cu yds

BILL OF MATERIAL

BAR	NO. BARS FOR EACH SPAN					SIZE	DIMENSIONS		LENGTH	WEIGHT FOR EACH SPAN					NO. BARS FOR EACH SPAN	SIZE	DIMENSIONS		LENGTH	WEIGHT FOR EACH SPAN						
	A	B	C	D	E		A	B		A	B	C	D	E			A	B		C	D	E				
O1	4	4	4	4	4	2	27'0"	1'0 1/2"	27'0"	116	116	116	116	116	116	4	4	4	4	4	7'2"	30	30	30	30	30
O2	4	4	4	4	4	2	26'0"	1'0 1/2"	26'0"	112	112	112	112	112	112	4	4	4	4	4	5'10"	24	24	24	24	24

Reinforcing Steel - lbs
 Class 'A' Concrete - cu yds
 Plates & Bars - lbs



PROJECT NO. 1857
 P.I.T.T. COUNTY
 STA. 556 + 16.1

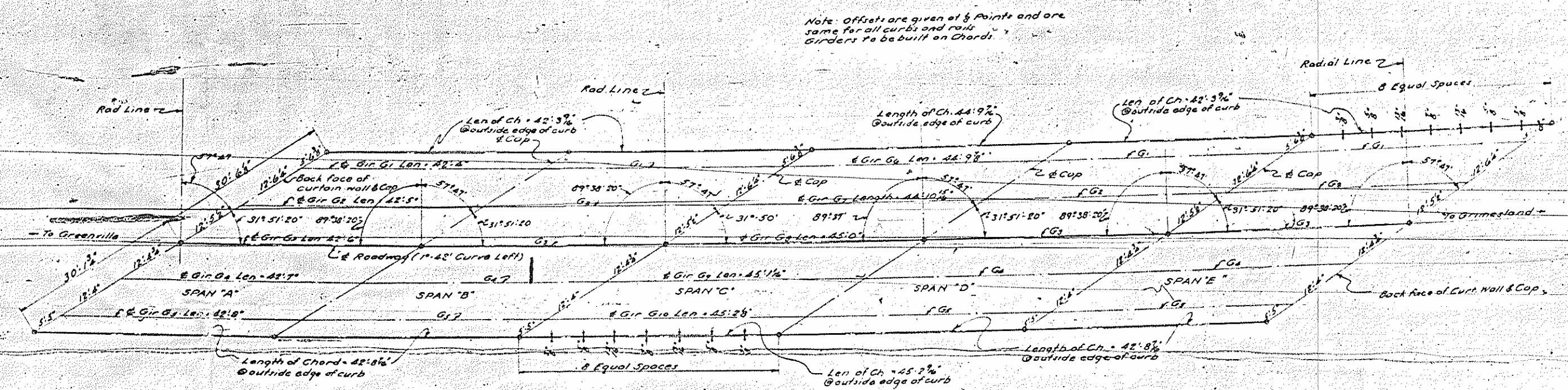
STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION

SPECIAL
 SUPERSTRUCTURE DETAILS
 FOR
 BRIDGE OVER
 NORFOLK SOUTHERN R.R.
 JULY 1938

APPROVED BY: W. Daniel Perkins, DATE: 7-3-38

LINE NO.	PROJECT NO.	DATE	TOTAL
C	1857	13	22
SPECIAL DETAILS FOR R.R. CROSSING			
FOR EACH SPAN			
30	30	30	30
27	27	27	27
24	24	24	24
22	22	22	22
19	19	19	19
17	17	17	17
14	14	14	14
11	11	11	11
7	7	7	7
4	4	4	4
68	68	68	68
66	66	66	66
64	64	64	64
62	62	62	62
60	60	60	60
58	58	58	58
56	56	56	56
54	54	54	54
52	52	52	52
50	50	50	50
48	48	48	48
46	46	46	46
44	44	44	44
42	42	42	42
40	40	40	40
38	38	38	38
36	36	36	36
34	34	34	34
32	32	32	32
30	30	30	30
28	28	28	28
26	26	26	26
24	24	24	24
22	22	22	22
20	20	20	20
18	18	18	18
16	16	16	16
14	14	14	14
12	12	12	12
10	10	10	10
8	8	8	8
6	6	6	6
4	4	4	4
2	2	2	2
1	1	1	1
0	0	0	0

FILE NO.	DATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
10	N.C.	1857	10	22
S.A. GRADE CROSSING PROJ. S.A. G.H. 458-DK				



LINE DIAGRAM

Note: Offsets are given of 1/2 points and are same for all curbs and road girders to be built on chords.

T NO. 1857
 COUNTY

PROJECT NO. 1857
 PITT COUNTY
 STA. 556+16.1

SPECIAL
 STRUCTURE DETAILS
 FOR
 BRIDGE OVER
 NORTHERN R.R.
 1938

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION
 SPECIAL
 SUPERSTRUCTURE DETAILS
 FOR
 BRIDGE OVER
 NORFOLK-SOUTHERN R.R.
 JULY 1938

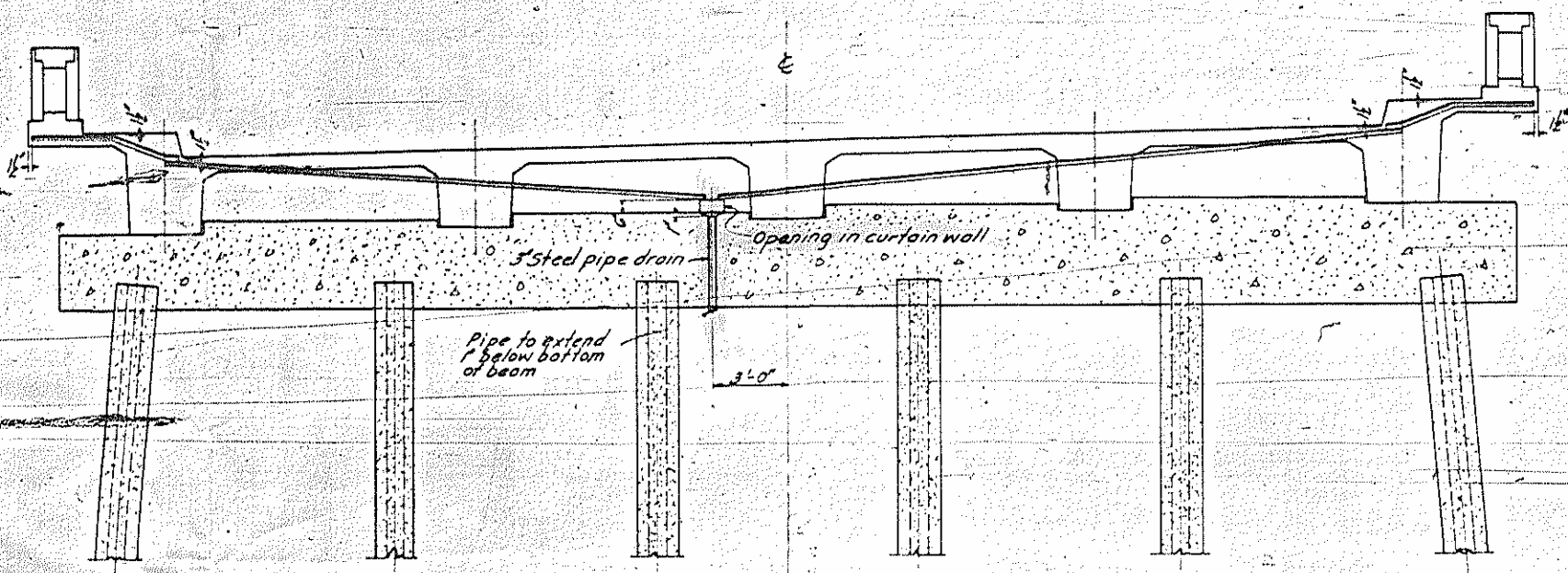
SPECIAL	DESIGNED BY	DATE
STANDARD	DRAWN BY	DATE
	CHECKED BY	DATE
	APPROVED BY	DATE

DESIGNED BY	DATE	BRIDGE NO.
APPROVED BY	DATE	PLAN NO.

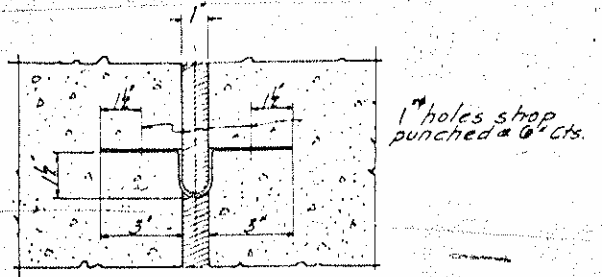
DATE	SHEET	TOTAL
1938	17	23

PROJECT NO.	STATE	PROJECT NO.	SHEET	TOTAL
1857	N.C.	1857	17	23

F. A. Grade Crossing Proj. #F.A.G.H.430-B/D



TYPICAL SECTION AT INT BENT
SHOWING COPPER DRAIN THRU EXP. JOINT



DETAIL OF COPPER DRAIN

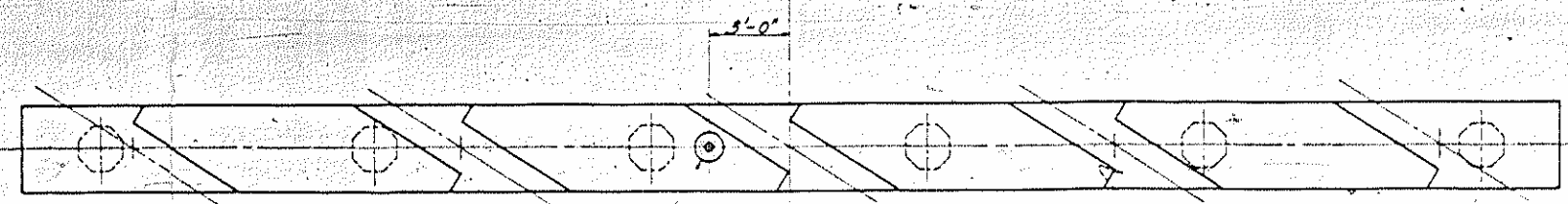
MAKE 8 PIECES 10" x 3'-6" LONG
4 " 10" x 22'-0"
4 " 10" x 27'-6"

NOTE

Copper flashing and steel pipe drains to be provided for all interior bents.

GEN. NOTE

Copper drains shall be placed in expansion joints between spans of all interior bents as shown. Copper for drains to be of the best grade sheet copper, not thick with permissible variation of .001" and shall be shop bent. The cost of same shall be included in contract unit price bid for reinforcing steel, which price shall include cost of drains complete in place and all labor, tools and material incidental thereto, including the steel pipe in bents.



PLAN OF BENT

PROJECT NO. 1857
PITT COUNTY

STA. 556 +16'

STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION
DETAILS OF COPPER DRAINS
THRU CURTAIN WALLS
FOR
BRIDGE OVER
NORFOLK-SOUTHERN R.R.
JULY, 1938

DESIGNED BY: W. L. Graw
APPROVED BY: W. H. H. Drake
DATE: July 1938

SPECIAL	DATE
DESIGNED BY: G. S. W.	DATE: July 1938
DRAWN BY: G. S. W.	DATE: July 1938
CHECKED BY: J. W. H. Drake	DATE: July 1938

7857
COUNTY

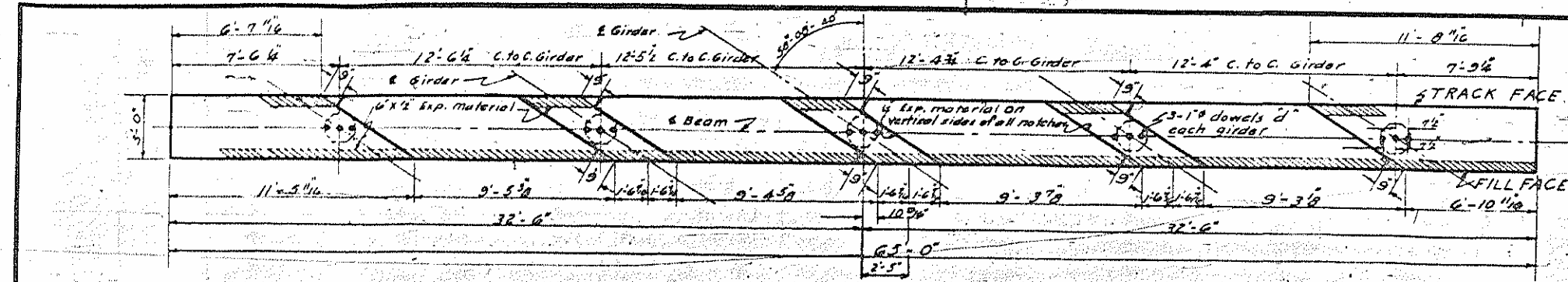
6.1

COMMISSION

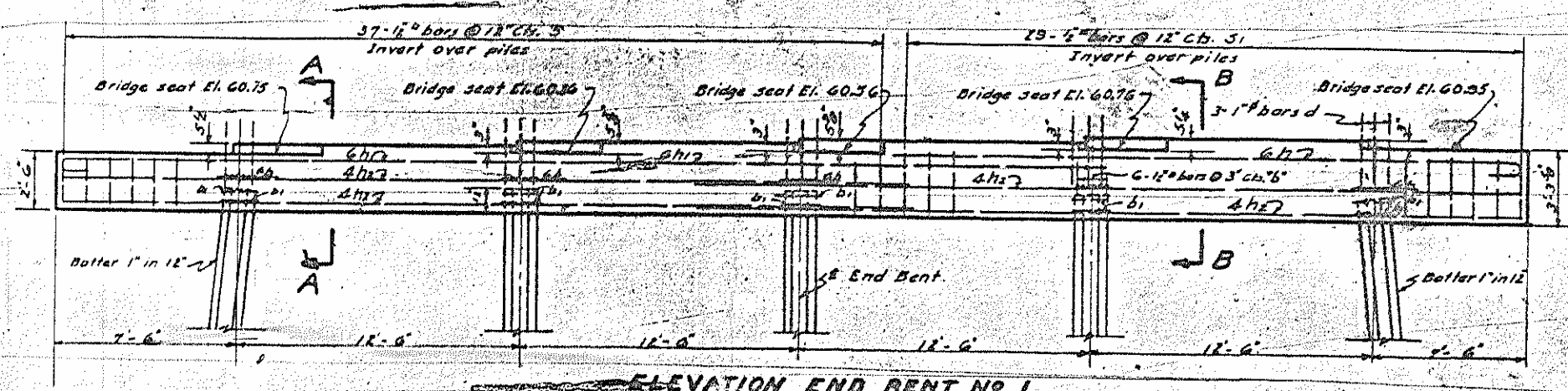
DETAILS

FOR R.R.

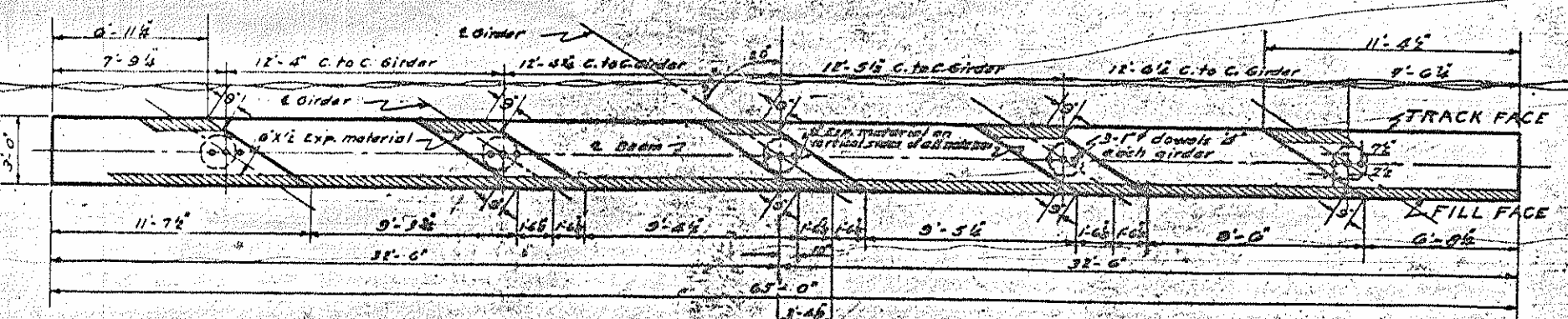
PLAN NO.



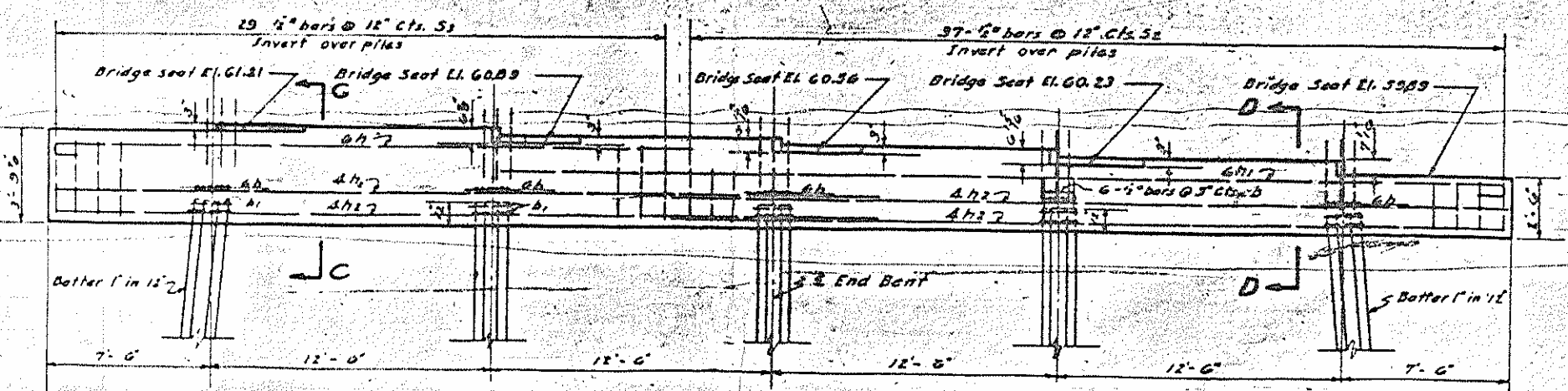
PLAN OF BEAM END BENT NO 1



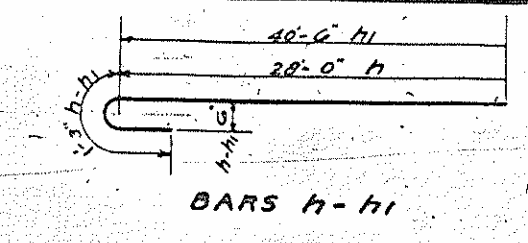
ELEVATION END BENT NO 1



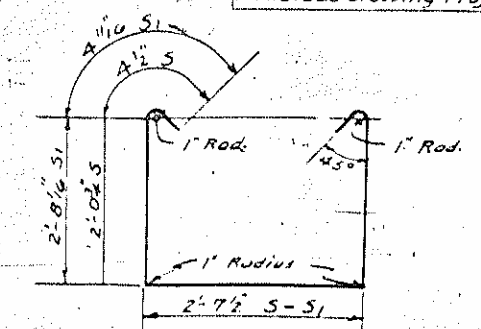
PLAN OF BEAM END BENT NO 2



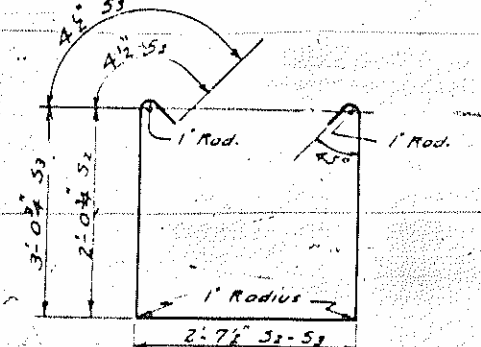
ELEVATION END BENT NO 2



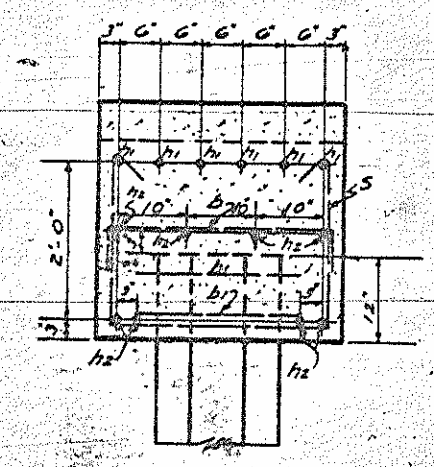
BARS h-hi



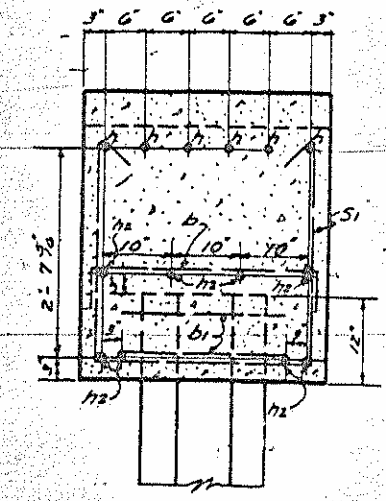
BARS S-S1



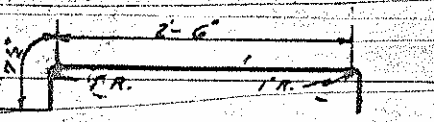
BARS S2-S3



SECTION A-A



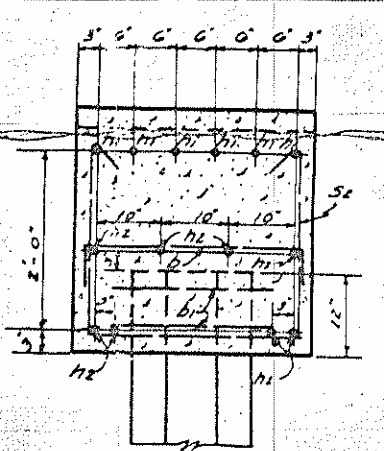
SECTION B-B



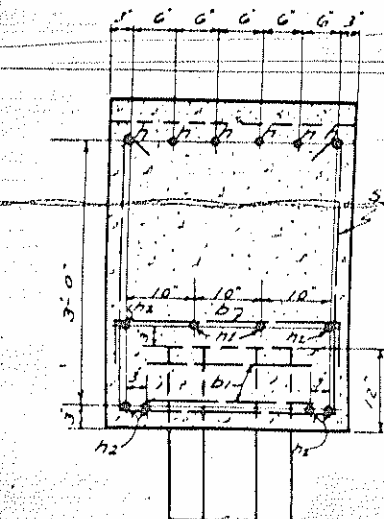
BARS b



BARS b1



SECTION D-D



SECTION C-C

**BILL OF MATERIAL
END BENT NO ONE**

Bars No	Size	Length	Weight
b	3/4"	2'-0"	9.6
b1	1'-0"	0'-0"	6.0
d	1'-0"	3'-0"	12.0
h	6"	29'-3"	3.97
hl	6"	31'-9"	4.22
hl	16"	26'-0"	10.77
s	3/4"	7'-0"	2.36
s1	1/2"	8'-0"	2.10

Reinforcing Steel Lbs. 4002
Class 'A' Concrete Cu. Yds. 22.1
10' Precast Piles No. 5 Lx 12 133

**BILL OF MATERIAL
END BENT NO TWO**

Bars No	Size	Length	Weight
b	3/4"	3'-0"	9.6
b1	1'-0"	0'-0"	6.0
d	1'-0"	3'-0"	12.0
h	6"	29'-3"	3.97
hl	6"	31'-9"	4.22
hl	16"	26'-0"	10.77
s	3/4"	7'-0"	2.36
s1	1/2"	8'-0"	2.10

Reinforcing Steel Lbs. 4000
Class 'A' Concrete Cu. Yds. 24.2
10' Precast Piles No. 5 Lx 12 133

PROJECT NO 1857
PITT COUNTY
STATION: 556+16.1
END BENT #1 AND #2

STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION

**SPECIAL
R. C. END BENTS
FOR
BRIDGE OVER
NORFOLK SOUTHERN R. R.
AUGUST 1938**

DESIGNED BY: W. L. I. J. A. T. E.
DRAWN BY: W. L. I. J. A. T. E.
CHECKED BY: W. L. I. J. A. T. E.

PLAN NO.

Notes: For design data and general note see general drawing.
For details of piles see sheet No 13.
Volume of concrete displaced by piles has been deducted.
All piles shall have a minimum bearing capacity of 40 tons each.
The portion of the pile extending into the cap shall be thoroughly roughened, cleaned of loose material and wetted previous to pouring concrete. See Specifications.

SPECIAL

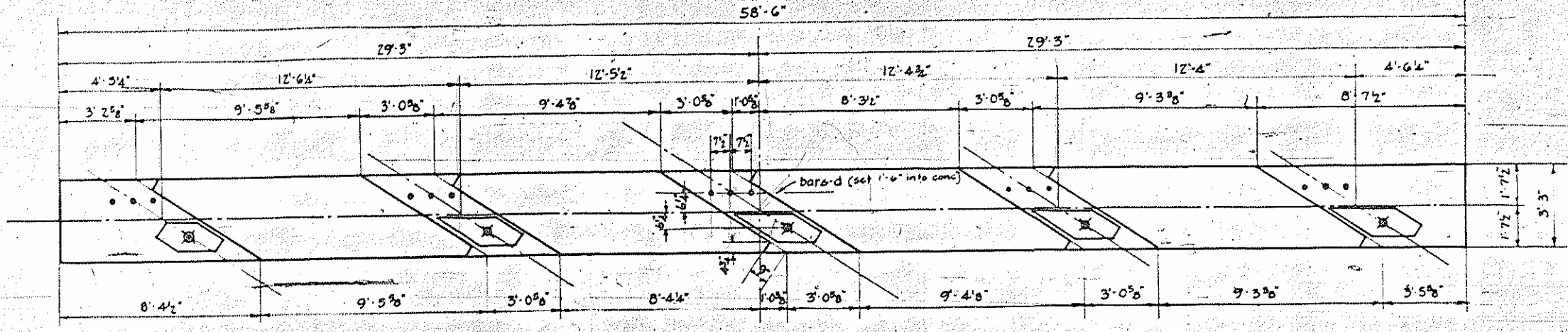
REVISION	DATE
1	8-1-38

APPROVED BY: W. L. I. J. A. T. E.
DATE: 8-1-38

7-21-32
S. P. A. G. H. & S. P. M.

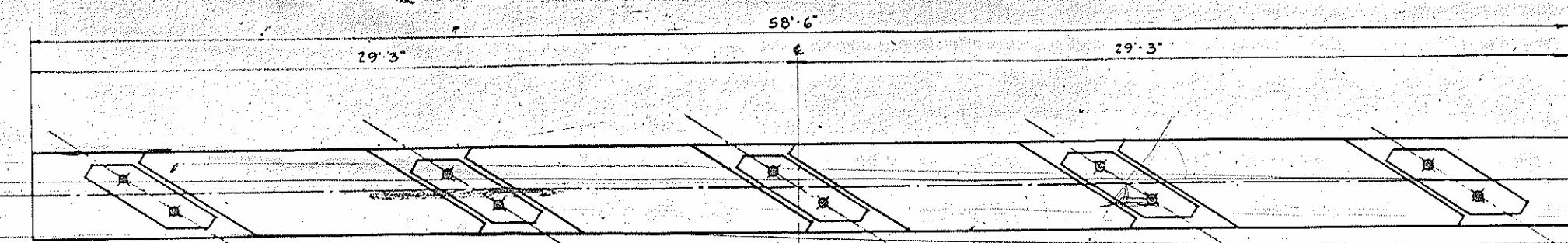
FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
10	N. C.	1857	22	24

F. A. Grade Crossing Proj. #A.A.G.N. 438-001

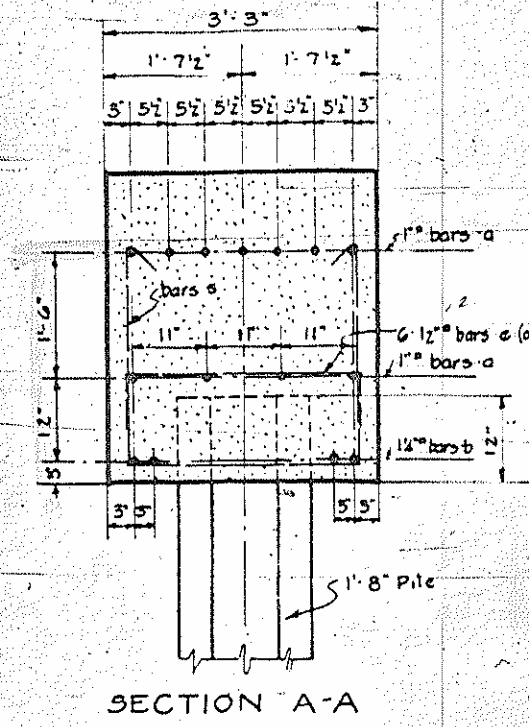


PLAN BENTS #1-#2 & #4

Note: for location of fixed and expansion sides of bents see General Dwg.



PLAN BENT #3

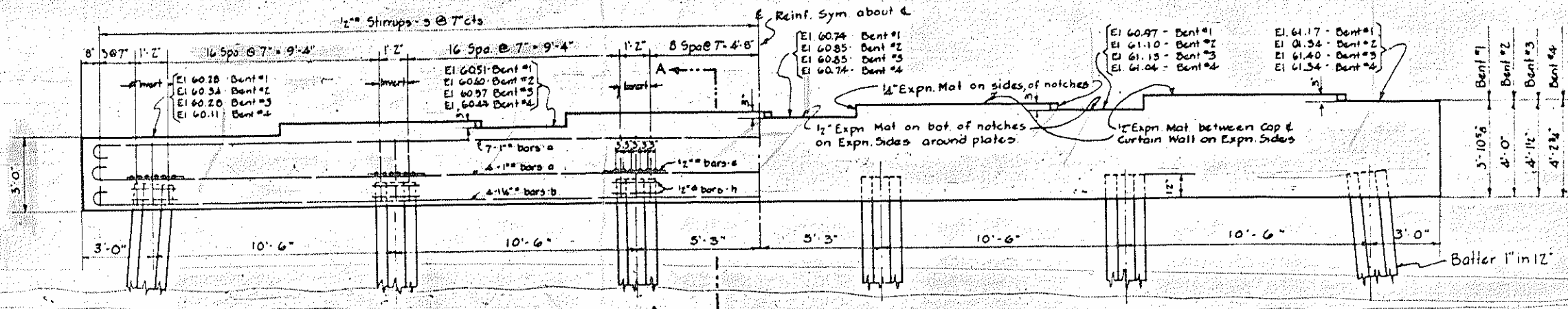


SECTION A-A

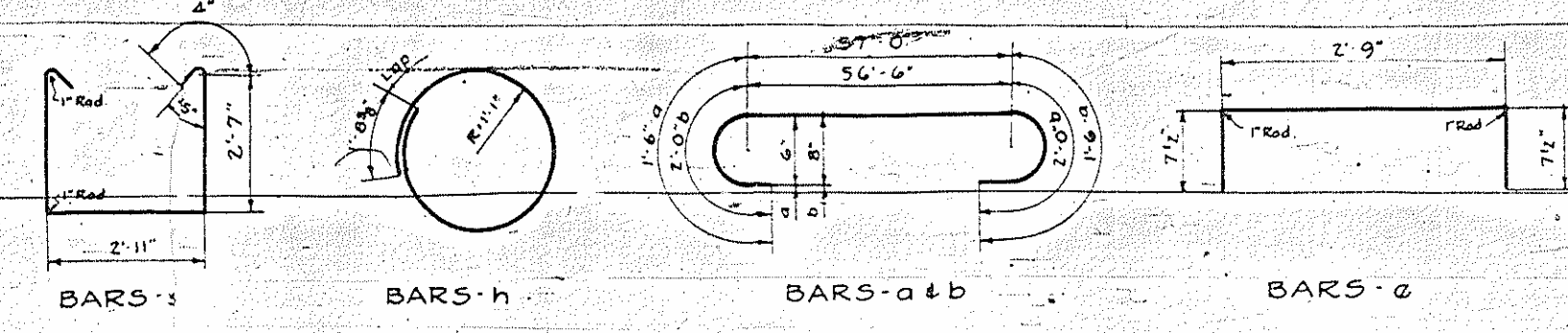
Notes:
For Design Data & General Note see General Drawing.
Volume of concrete displaced by piles has been deducted.
Piles shall be driven to a minimum bearing capacity of 45 tons.
The portion of the pile extending into the cap shall be thoroughly roughened, cleaned of loose material and wetted previous to pouring concrete. See Specs.

BILL OF MATERIAL				
ONE BENT		BENTS #1-#2 or #4		
Bar	Nº	Size	Length	Weight
a	11	1"	60'-0"	22.44
b	4	1 1/2"	30'-6"	12.86
d	15	1"	3'-0"	1.20
e	36	1"	4'-0"	1.22
h	12	1 1/2"	8'-6"	6.8
s	99	1"	8'-9"	7.36
Reinforcing Steel		Lbs. 4576		
Class 'A' Concrete - Bent #1		Cu Yds. 25.5		
Class 'A' Concrete - Bent #2		Cu Yds. 25.8		
Class 'A' Concrete - Bent #3		Cu Yds. 26.8		
Plates & Bolts		Lbs. 196		
Precast Concrete Piles No. 6, App. Lin. Ft.		312		

BILL OF MATERIAL				
BENT #3				
Bar	Nº	Size	Length	Weight
a	11	1"	60'-0"	22.44
b	4	1 1/2"	60'-0"	12.86
e	36	1"	4'-0"	1.22
h	12	1 1/2"	8'-6"	6.8
s	99	1"	8'-9"	7.36
Reinforcing Steel		Lbs. 4436		
Class 'A' Concrete		Cu Yds. 26.4		
Plates & Bolts		Lbs. 425		
Precast Concrete Piles No. 6, App. Lin. Ft.		312		



ELEVATION BENTS #1-#2-#3 & #4



BARS-s BARS-h BARS-a & b BARS-e

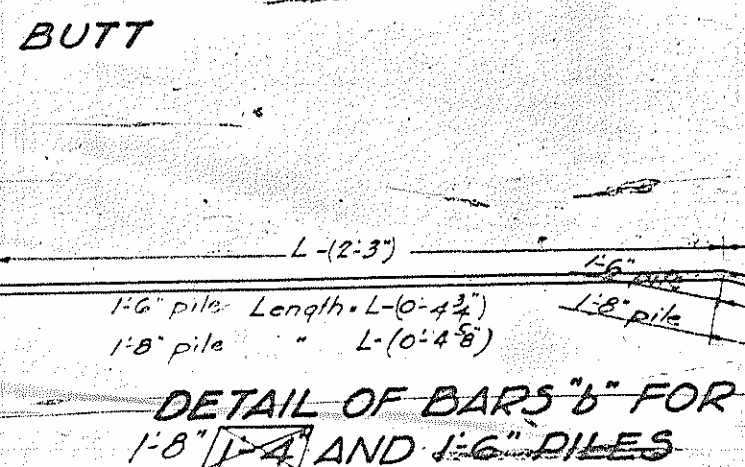
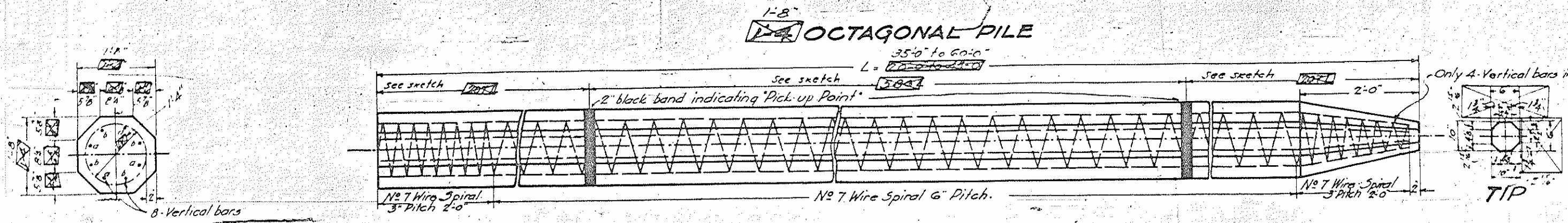
SPECIAL
DESIGNED BY: W. P. G. S. P. DATE: Aug. 1938
CHECKED BY: R. H. G. DATE: Aug. 1938
APPROVED BY: R. H. G. DATE: Aug. 1938

PROJECT No. 1857
PITT COUNTY
STATION 556+162
INTERIOR BENTS #1-#2-#3 & #4

STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION
DETAIL OF
INTERIOR BENTS
FOR
O'HEAD BRIDGE
NORFOLK SOUTHERN R.R.
BETWEEN GREENVILLE & GRIMESLAND
AUG 1938
SUBMITTED BY: W. P. G. S. P. DATE: 8-9-38
APPROVED BY: W. Vance G. S. P. DATE: 8-9-38

357
COUNTY
SHEET
#2
DIVISION
S. P. A. G. H. & S. P. M.
PLAN NO.

PROJECT NO.	10	STATE	N.C.	YEAR	1957	DATE	23	REV.	1, 2
P.A. Concrete Piles, Proj. # P.A.G.H. 438-D(1)									



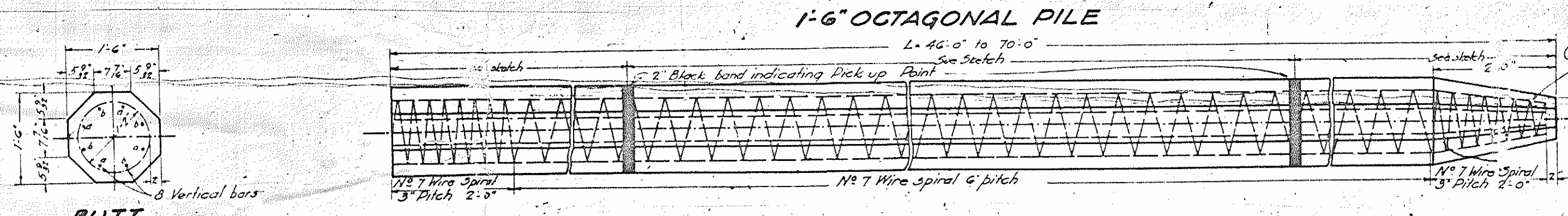
QUANTITIES FOR ONE 1-4" OCTAGONAL PILE

LENGTH L'	VERTICAL REIN BARS	TOTAL REIN STEEL LBS	CONCRETE CU YDS	PILE WT TONS	TWO PICKUP POINTS	THREE PICKUP POINTS
Bar No	SIZE	LENGTH LBS			.207L	.586L
20'-0"	a	2	22.5	169	1.04	2.11
25'-0"	a	2	28.1	213	1.31	2.65
30'-0"	a	2	33.7	256	1.58	3.20
35'-0"	a	2	39.3	299	1.85	3.75
40'-0"	a	2	44.9	342	2.13	4.31
45'-0"	a	2	50.5	385	2.40	4.86

MT No 7 Wire is considered as .0035 lbs per Ft. American Steel and Wire Co's Standard. Conc per lin. Ft. of Pile = 0.0545 cu yds. Conc in point = 0.055 cu yds.

METHOD OF PICKING UP 1-8" 1-4" PILES 60 FEET AND OVER 3 PICKUP POINTS.

METHOD OF PICKING UP 1-8" 1-6" AND 1-6" PILES UNDER 60 FEET 2 PICKUP POINTS



GENERAL NOTE:
 Concrete shall be Class A. Maximum size of coarse aggregate to be 1/2". Coarse Aggregate shall consist of crushed stone only. All reinforcing steel shall be deformed bars. No splices of bars will be permitted. The spiral hooping shall be wired to the vertical bars at intervals of not more than 2'-0". In driving piles a method, approved by the Engineer shall be used whereby the head of the pile is not damaged. Concrete in pre-cast piles shall be compacted by means of mechanical vibration. See Special Specifications in the Proposal. All material and workmanship as per the specifications of the North Carolina State Highway and Public Works Commission.

QUANTITIES FOR ONE 1-6" OCTAGONAL PILE

Length L'	Vertical Rein Bars	Total Reinf Steel LBS	Concrete Cu Yds	PILE WT TONS	TWO PICKUP POINTS	THREE PICKUP POINTS
Bar No	SIZE	LENGTH LBS			.207L	.586L
47'-0"	a	2	51.9	779	3.18	6.44
	b	2	46.7		9.9	27.6

QUANTITIES FOR ONE 1-6" OCTAGONAL PILE

LENGTH L'	VERTICAL REIN BARS	TOTAL REIN STEEL LBS	CONCRETE CU YDS	PILE WT TONS	TWO PICKUP POINTS	THREE PICKUP POINTS
Bar No	SIZE	LENGTH LBS			.207L	.586L
46'-0"	a	2	47.9	761	3.11	6.30
50'-0"	a	2	53.5	1073	3.39	6.86
55'-0"	a	2	59.1	1495	3.73	7.55
60'-0"	a	2	64.7	2059	4.08	8.24
65'-0"	a	2	70.3	2749	4.42	8.95
70'-0"	a	2	75.9	2965	4.77	9.66

MT No 7 Wire is considered as .0035 lbs per Ft. American Steel and Wire Co's Standard. Conc per lin. Ft. of Pile = 0.069 cu yds. Conc in point = 0.076 cu yds.

QUANTITIES FOR ONE 1-8" OCTAGONAL PILE

Length L'	Vertical Rein Bars	Total Reinf Steel LBS	Concrete Cu Yds	PILE WT TONS	TWO PICKUP POINTS	THREE PICKUP POINTS
Bar No	SIZE	LENGTH LBS			.207L	.586L
40'-0"	a	2	35.9	668	3.38	6.84
45'-0"	a	2	41.5	750	3.81	7.72
50'-0"	a	2	47.1	1080	4.23	8.57
52'-0"	a	2	51.1	1420	4.41	8.93
55'-0"	a	2	55.1	1503	4.66	9.44
60'-0"	a	2	67.1	2067	5.04	10.31

Conc per Lin. Ft. of pile = 0.0851 cu yds. Conc in point of pile = 0.15 cu yds.

SUMMARY OF PILES.

NO	LENGTH	DIAMETER	CONG. CU YDS	REIN STEEL LBS
24	57'-0"	1-8"	11.1	24,680
10	47'-0"	1-6"	31.8	7775
REINFORCING STEEL LBS			24,680	7775
CONCRETE CLASS A CU YDS			13.1	13.1
LINEAR FEET 1-8" PILES			216	216
LINEAR FEET 1-6" PILES			318	318
TOTAL PILES NO			34	34

Lengths of piles are subject to variations to soil conditions as found.

PROJECT NO. 1857
 PITT COUNTY
 STA 556 + 16.1

STATE OF NORTH CAROLINA
 STATE HIGHWAY & PUBLIC WORKS COMM.
 STANDARD
 PRE-CAST
 R.C. PILES
 SEPTEMBER 1925

APPROVED BY: *John H. ...*

STANDARD NO. 11.76

Revised to allow only crushed stone for coarse aggregate. May 1, 1934.
 Traced and revised as to Class A concrete & size of aggregate by E.H.P. & W.S. ck. by A.L.R. 28-31.
 Revised May 24, 1936 for Concrete quantities and Pile weight by F.A.F. Jr. Checked by B.P.R.
 Revised Jan. 31, 1925 for weight reinforcing steel, go lengths by J.G.
 Revised for 'a' bars, 60' Pile, 4-28-24 by A.B. Rush.
 Revised for 'a' & 'b' bars, 70-10-22 by F.P.H. checked by G.T.B. Revised June 21, 1927 for Pickup Points by B.P.R. ck. by T.P.M. Jr.