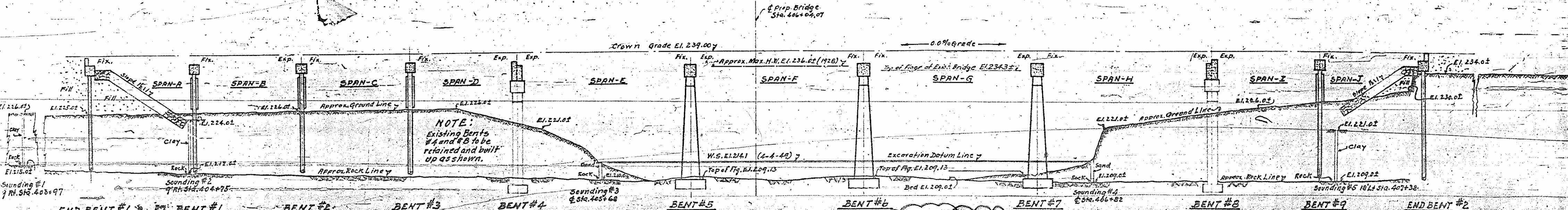


NOTE: This bridge is to be built on a 0.0% grade. The handrails, slabs and curbs shall conform to the grade. Handrail posts to be plumb. The elevations shown do not include any allowance for dead load deflections, which shall be provided for in addition to the elevations given. The finished structure shall have the elevations given.



NOTE: Piles in End Bent #1 shall not be driven until after fill has been placed up to approximately 1'0" below the top of cap elevation. See Special Provision.

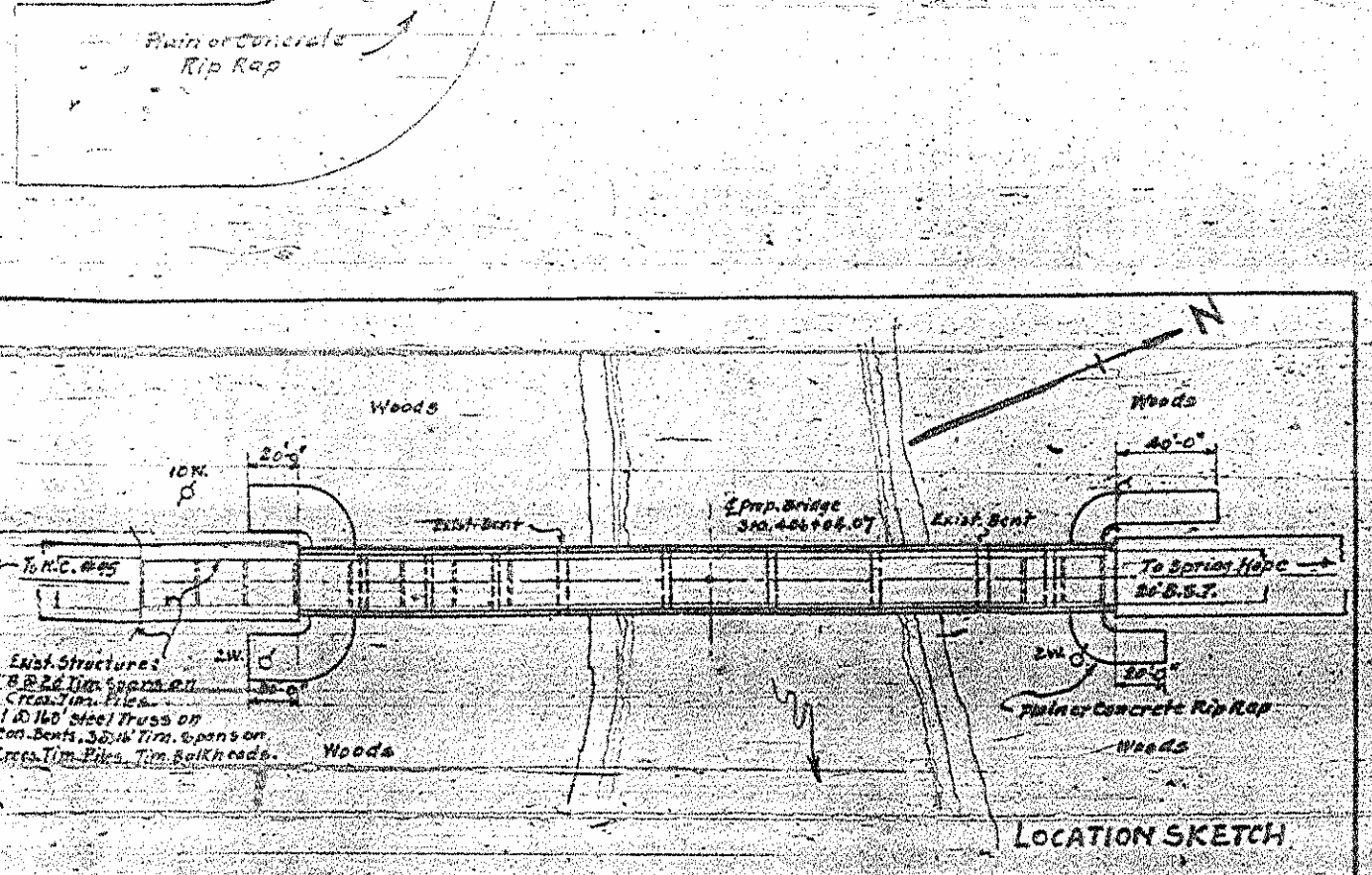
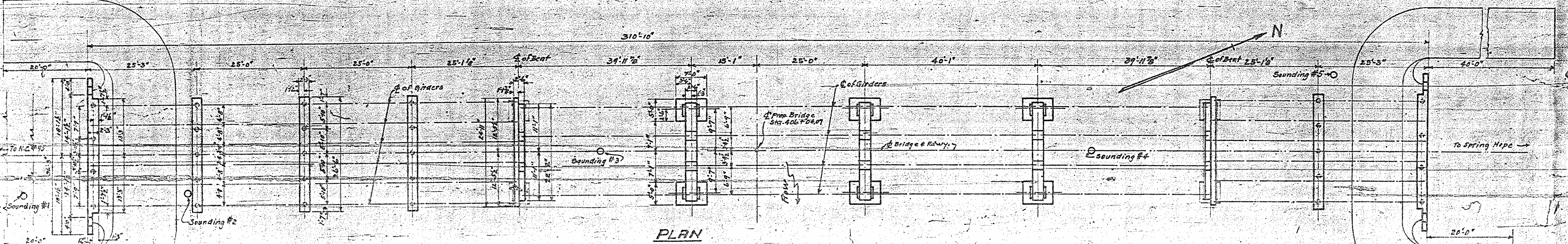
NOTE: Excavation for End Bent Caps will not be measured and paid for as a separate item. The entire total pile work to be included in the unit price bid for Class 'A' Concrete.

NOTE: Piles in End Bent #1 & #2 and in Bent #1-2-3 & #9 shall be driven to a minimum bearing capacity of 10 Tons each.

NOTE: Footings to be carried down at least 12" into rock with a minimum thickness of 2'-0"

NOTE: Roadway work to be done by State forces.

Computed foundation load 2.5 Tons per Sq. Foot.



GENERAL NOTE

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

PILES AND TIMBERS: Piles and timbers and treatment for same shall be in accordance with the Specifications. All piles and timbers shall retain 10 lbs. crocoate oil per Cu. Ft. of material.

PILE LENGTH: Test piles will not be required. Order list for piles to be based on piles 27'-0" long for End Bent #1 and Bents #1-2 & #3. Piles 29'-0" long for Bent #9 and End Bent #2.

NOTE: For Design Data and portions of General Note not shown hereon, See Sheet No. 51 & 53.

REMOVAL OF EXISTING STRUCTURE AT STA. 406+04.07: The existing structure shall be completely removed except the concrete bents which shall be retained as part of the proposed structure. The existing timber piles shall be removed 1'-0" below natural ground line and as necessary to clear proposed construction.

NOTE: Traffic to be detoured during construction of this project.

	Class 'A' Concrete Cu. Yds.	Reinforcing Steel Lbs.	Structural Steel Approx. Lbs.	Crossed Timber Piles No. Length	Crossed Timber F.B.M.	Method 'A' Waterproof Sq. Yds.	Hard Ware Lbs.	Plain Class 'A' Rip Rap Cu. Yds.	Concrete Rip Rap Sq. Yds.	Excavation Wet Cu. Yds.	Removal of Exst. Struct. Sta. 406+04.07
Superstructure	196.5	46533	163,360								
End Bent #1	5.5	1040		4 108		8		310	315		
Bent #1	4.4	916		5 135	216						
Bent #2	4.4	916		5 135	216						
Bent #3	4.4	916		5 135	216						
Bent #4	9.2	808									
Bent #5	23.9	4437								25	
Bent #6	23.9	4437								20	
Bent #7	23.9	4437								25	
Bent #8	9.2	808									
Bent #9	4.4	916		5 145	216						
End Bent #2	5.5	1040		4 116		8		290	340		
TOTAL	315.2	67204	103300	28 774	864	16	36	600	755	60	Lump Sum

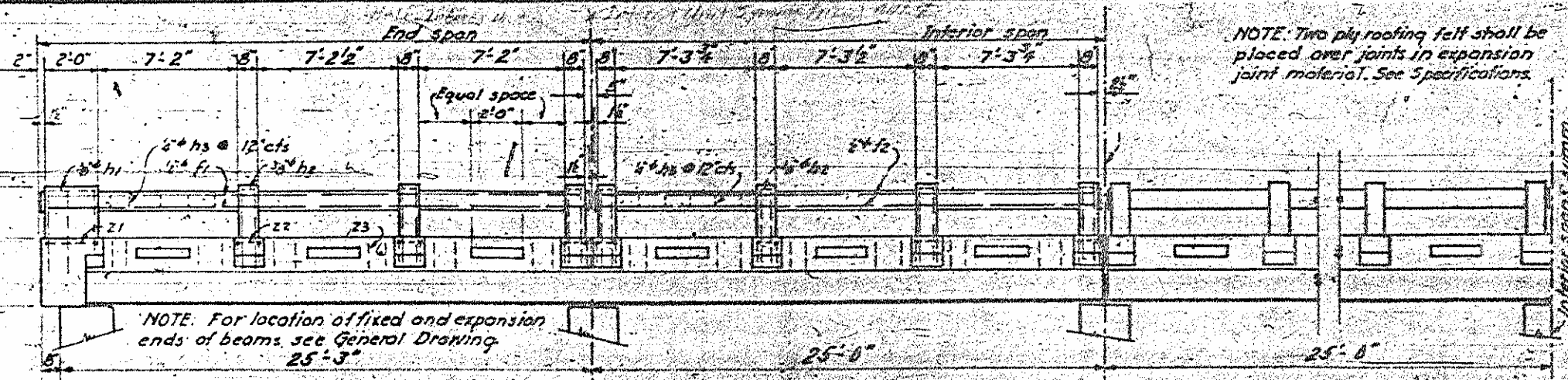
PROJECT NO. 1602
 NASH COUNTY
 STATION: 406+04.07

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION

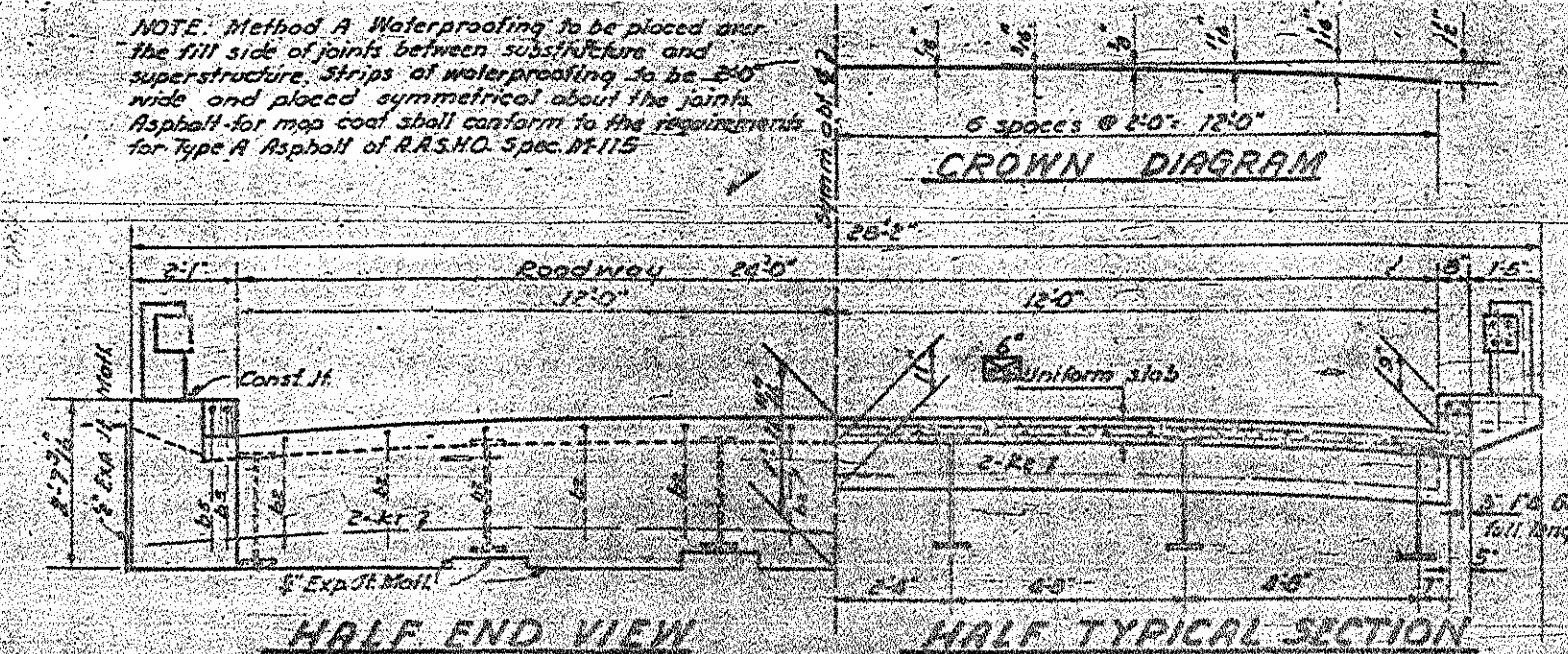
GENERAL DRAWING
 FOR BRIDGE OVER
 TAR RIVER
 ON R. 581 BETWEEN 95 & SPRING HOPE
 MAY-1949

SUBMITTED BY: J.P. Senter
 APPROVED BY: W.H. Rogers
 DATE: 5-20-49

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	N. C.	1602	5	7



ELEVATION



HALF END VIEW

HALF TYPICAL SECTION

DESIGN DATA

Specifications: A.R.S.H.O. (1951)
 Assumed live load: HS-14
 Impact Allowance: See Specifications
 Slabs in extreme fiber: 5th steel: 18000 lbs per sq ft
 Reinforcing steel in tension: 18000 lbs per sq ft
 Concrete in compression: 10000 lbs per sq ft
 Concrete in shear: 50 lbs per sq ft
 Equivalent fluid pressure at earth: 30 lbs per sq ft

GENERAL NOTE

CONCRETE: All concrete to be Class A. Standard size No. 3 coarse aggregate to be used throughout. No construction joints will be permitted except as noted. All exposed corners of concrete, unless otherwise noted, shall be chamfered 1/4" Exp. Jt. to be chamfered 3" and substructure 1".

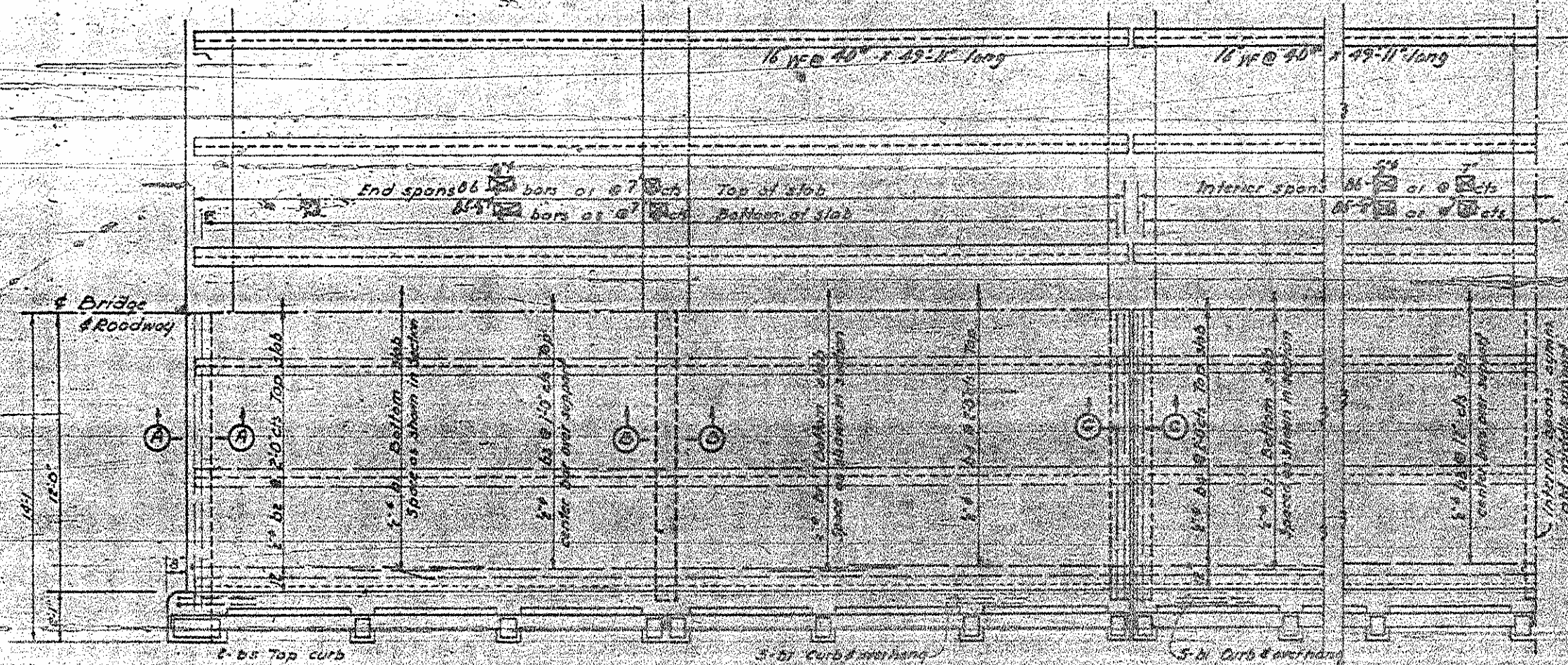
REINFORCING STEEL: All reinforcing steel shall be deformed bars. All dimensions relative to reinforcing steel are to centers of bars. No splices other than those shown on plans will be permitted. All reinforcing steel shall be securely held in contact position.

EXPANSION JOINT MATERIAL: Expansion joint material may be either rubber compound or cork conforming to the requirements of A.R.S.H.O. Spec. M-55.

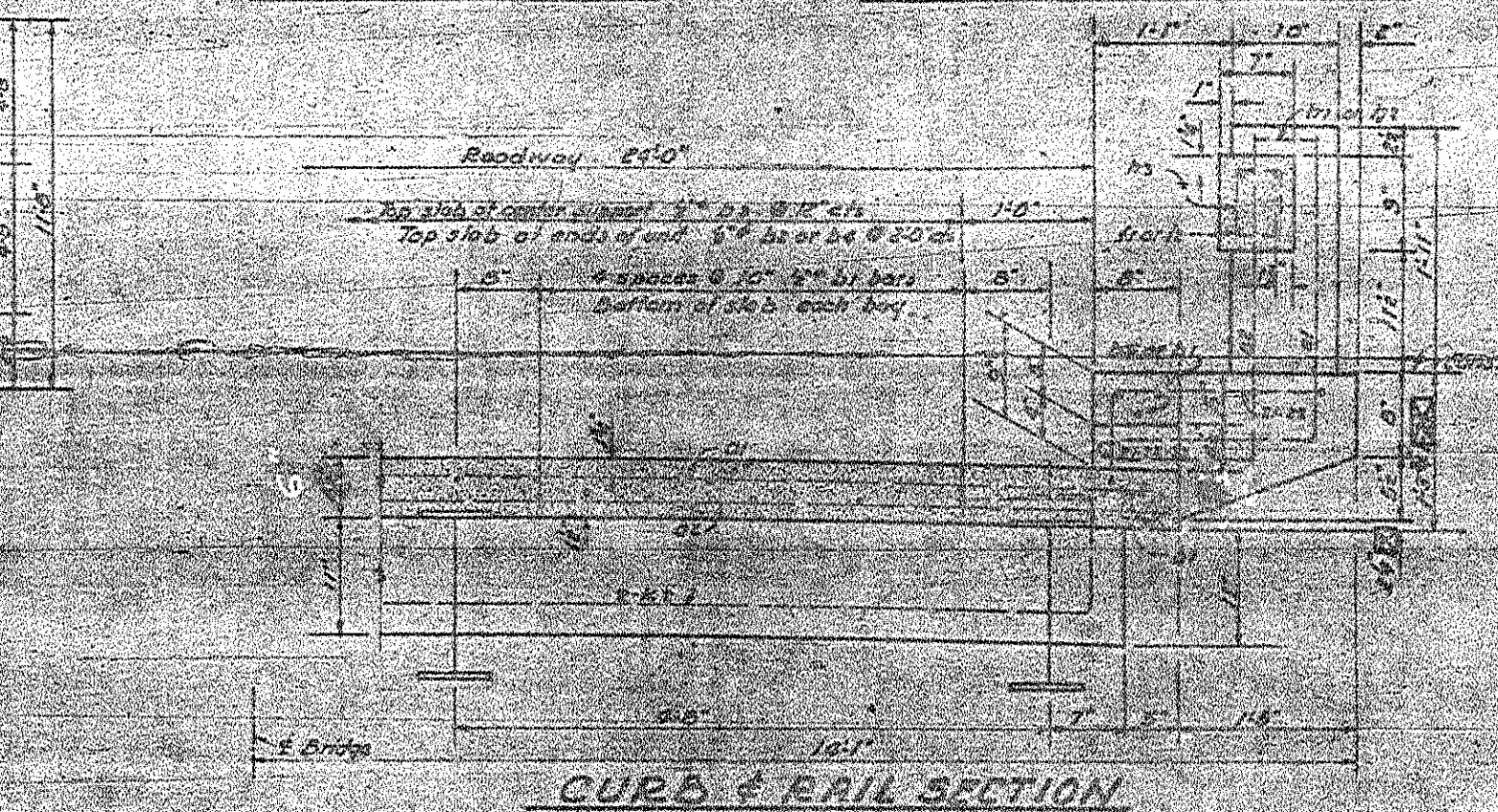
STRUCTURAL STEEL: Structural steel shall be given one shop and one field coat of red lead and lining two field coats of aluminum paint. See Specifications. Detail drawings shall be submitted to the Bridge Engineer for approval. Unchecked drawings will be accepted.

NAME PLATES: Two name plates shall be provided for the bridge. One shall be placed on each right hand and post approaching the bridge.

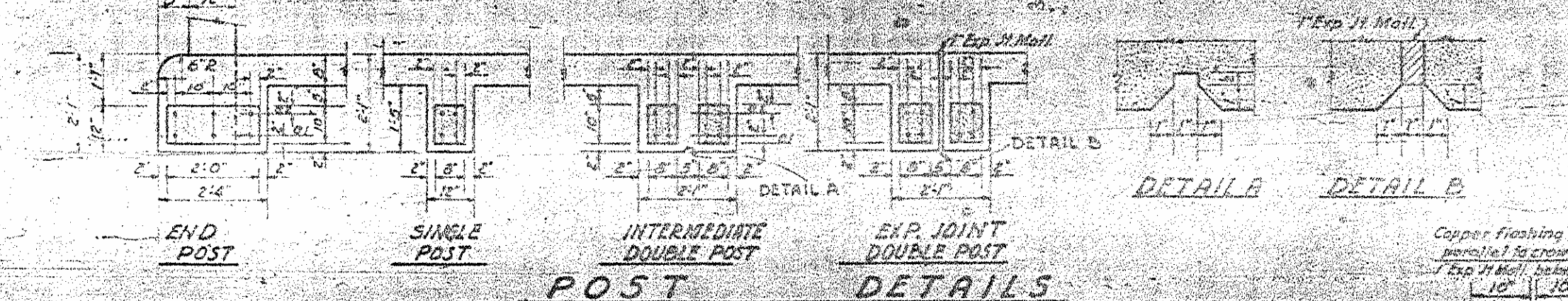
MATERIAL & WORKMANSHIP: All material and workmanship shall be in accordance with the Specifications of the N.C. State Highway & Public Works Commission.



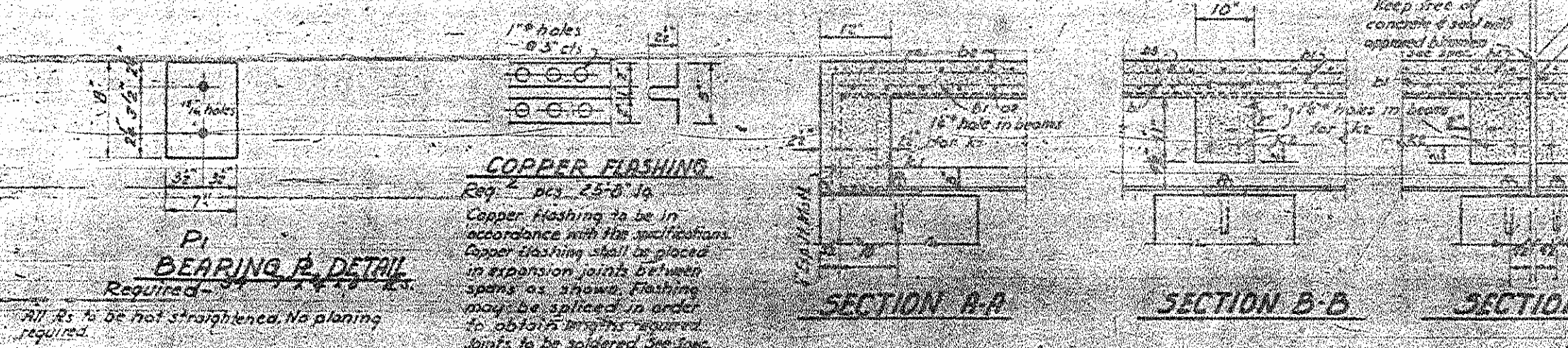
PLAN



CURB & RAIL SECTION



POST DETAILS



BEARING P DETAIL

SPECIAL	DESIGNED BY: S. M. Archambault	DATE: May 1949
STANDARD	DESIGNED BY: J. H. Clark	DATE: Mar 1949

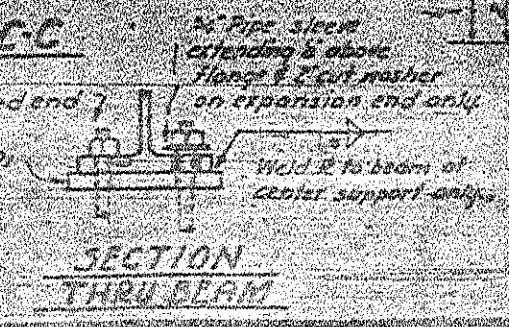
BILL OF MATERIAL FOR 3 DOUBLE 25'-0" SPANS

Qty	No.	Size	Unit	Length	Weight
21	278	1/2"	ft	16.8	10.5
22	303	3/8"	ft	15.0	8.9
23	272	1/2"	ft	26.2	35.8
24	29	5/8"	ft	18.4	25.7
25	29	5/8"	ft	25.0	115.2
26	42	1/2"	ft	16.0	10.7
27	8	5/8"	ft	27.0	15.5
28	100	1/2"	ft	5.10	2.56
29	100	5/8"	ft	2.27	2.35
30	16	1/2"	ft	20.0	2.73
31	37	1/2"	ft	24.7	3.25
32	4	5/8"	ft	5.8	8
33	47	5/8"	ft	2.6	4.7
34	304	3/4"	ft	2.5	12.0
35	8	5/8"	ft	2.5	2.7
36	28	5/8"	ft	15.5	18.4
37	28	5/8"	ft	18.0	22.7
38	4	5/8"	ft	5.5	7.1
39	4	5/8"	ft	5.0	6.5
40	4	5/8"	ft	2.6	2.9

PROJECT NO. 1602
 WASH COUNTY
 STATION: 406+04.07
 SPANS A-B-C-D-T & J

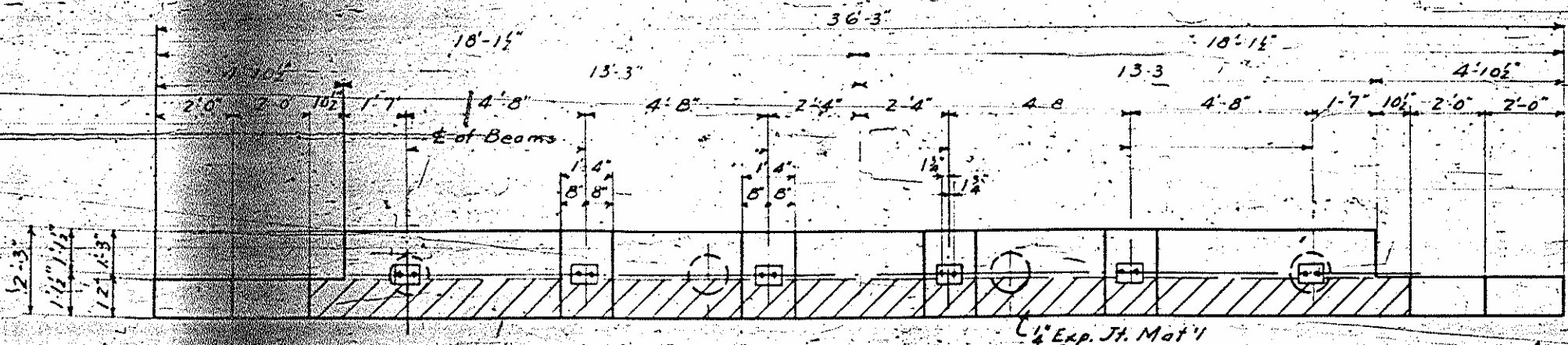
STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION

STANDARD
 I BEAM SUPERSTRUCTURE
 CONCRETE FLOOR & RAIL
 3 DOUBLE 25'-0" SPANS
 24' ROADWAY
 MAR. 1949



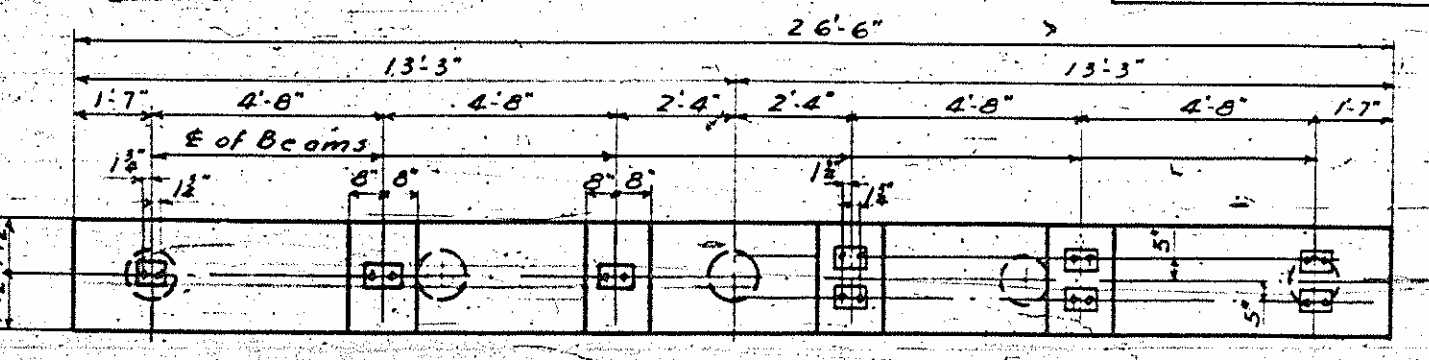
BAR TYPES

REINFORCING STEEL: 18000 lbs per sq ft
 CLASS B CONCRETE: 10000 lbs per sq ft
 STRUCTURAL STEEL (MINIMUM): 36,000 lbs per sq ft
 METHOD A WATERPROOFING: 100 lbs per sq ft

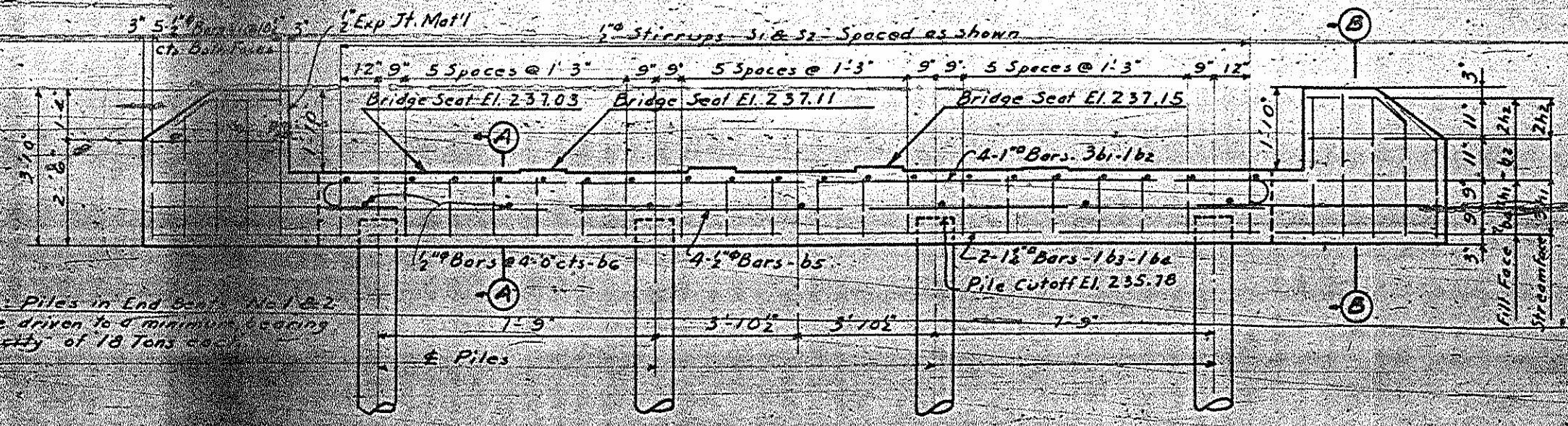


PLAN OF CAP

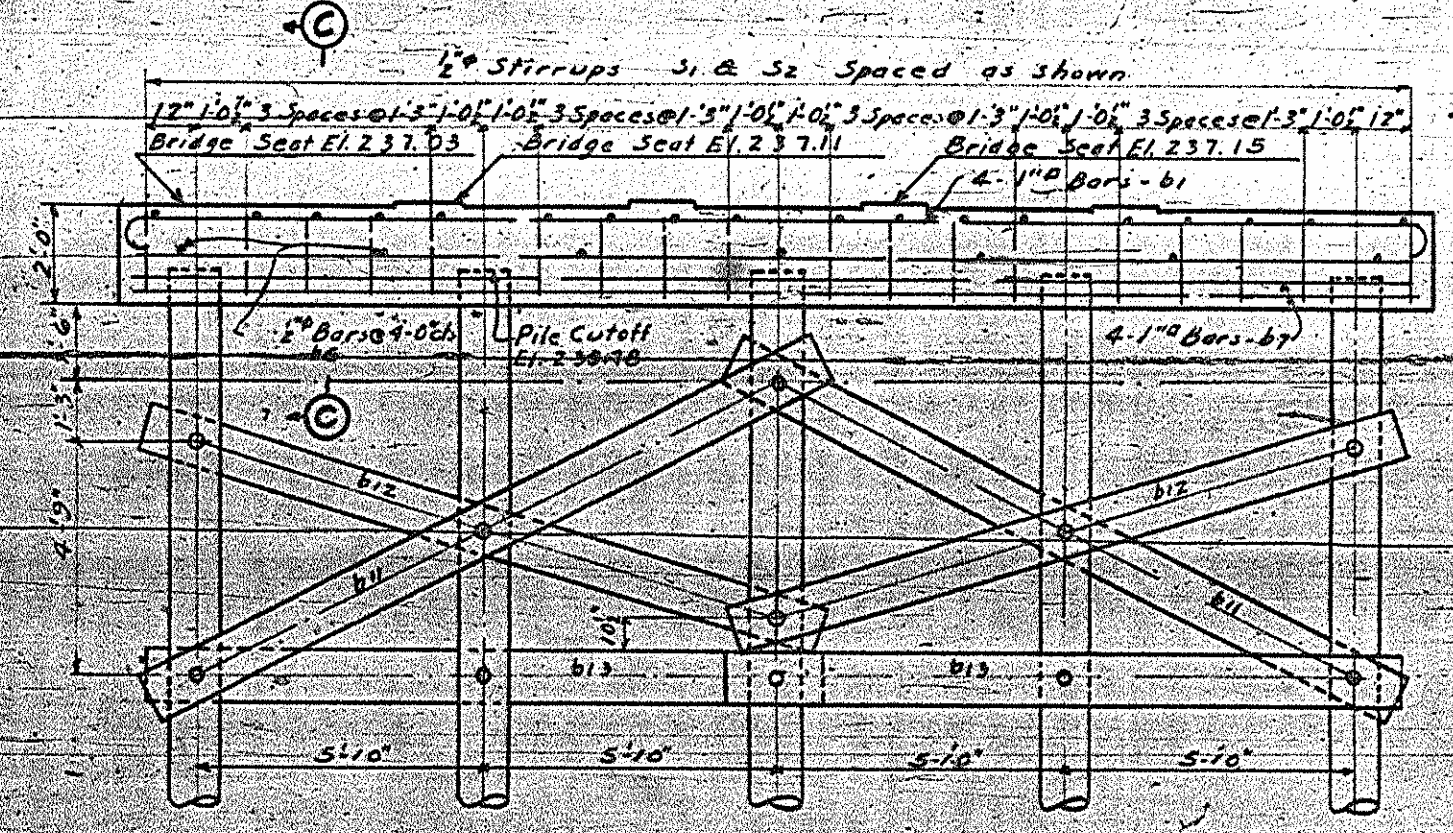
Note: The heads and ends of all bolts shall be painted in accordance with the Specifications. Lengths of bolts shown are based on piles 13" in diameter and are approximate. Only increase the length of bolts as necessary for larger piles.



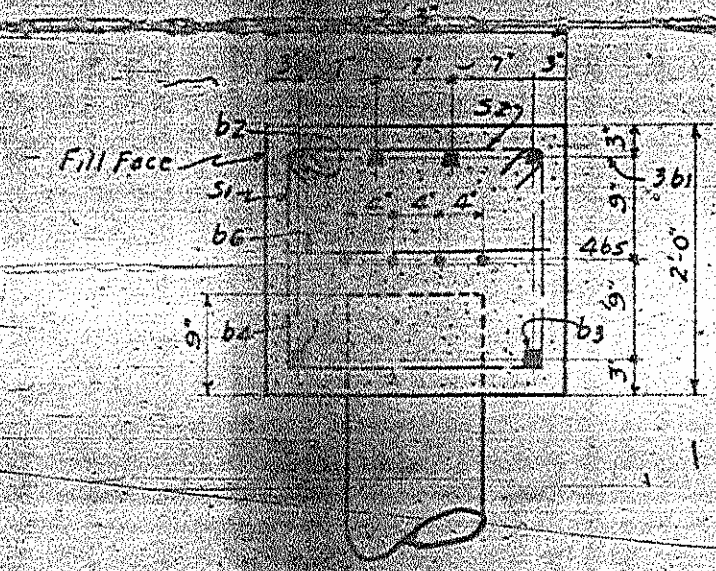
BENTS NO. 1-3 & 9. BENT NO. 2
PLAN OF CAP



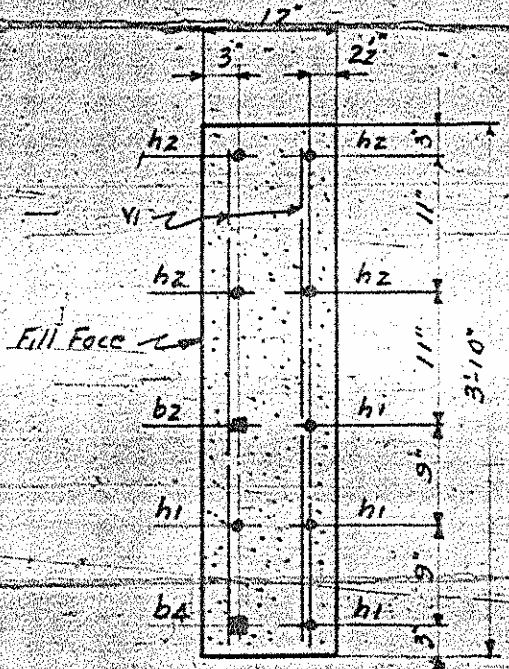
ELEVATION-END BENT NO. 1 OR 2



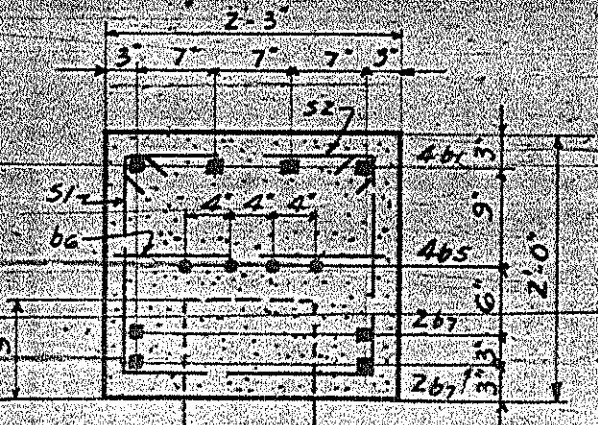
ELEVATION-BENTS NO. 1, 2, 3 & 9



SECTION A-A



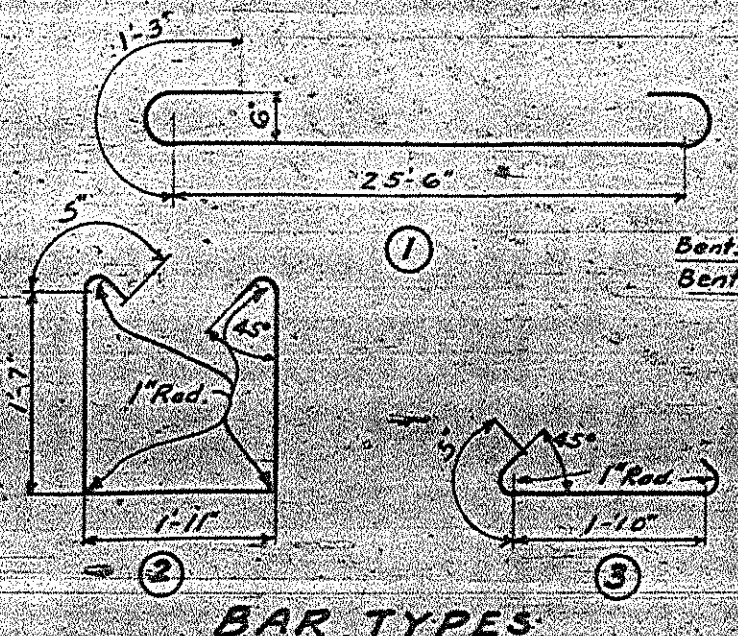
SECTION B-B



SECTION C-C

BILL OF MATERIAL-END BENT NO. 1 OR 2

Bar No.	SIZE	TYPE	LENGTH	WEIGHT
b1	3	1" ⁰	28'-0"	286
b2	1	1" ⁰ Str.	35'-9"	122
b3	1	1 1/2" ⁰ Str.	26'-0"	138
b4	1	1 1/2" ⁰ Str.	35'-9"	190
b5	4	1 1/2" ⁰ Str.	26'-0"	69
b6	7	1 1/2" ⁰ Str.	1'-11"	9
h1	8	1/2" ⁰ Str.	8'-2"	44
h2	8	1/2" ⁰ Str.	3'-8"	20
S1	20	1/2" ⁰	5'-11"	19
S2	20	1/2" ⁰	2'-8"	36
v1	20	1/2" ⁰ Str.	3'-6"	41
Reinforcing Steel			Lbs.	1040
*Class A Concrete			Cu.Yds.	5.5
End Bent No. 1			Crossed Timber Piles No. - 4	L.F. 108
End Bent No. 2			Crossed Timber Piles No. - 4	L.F. 116



BAR TYPES

*Concrete displaced by piles has been deducted.

BILL OF MATERIAL-FOR ONE BENT

BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT
b1	4	1" ⁰	28'-0"	381
b5	4	1 1/2" ⁰ Str.	26'-0"	69
b6	7	1 1/2" ⁰ Str.	1'-11"	9
b7	4	1" ⁰ Str.	26'-0"	354
S1	18	1/2" ⁰	5'-11"	71
S2	18	1/2" ⁰	2'-8"	32
Reinforcing Steel			Lbs.	916
*Class A Concrete			Cu.Yds.	4.4

ITEM NUMBER	SIZE	FINISH	LENGTH	F.B.M.
b11	2	3"x10" Rough	15'-3"	76
b12	2	3"x10" Rough	14'-3"	71
b13	2	3"x10" Rough	13'-9"	69
Crossed Timber			F.B.M.	216
Crossed Timber Piles No. 5 - L.F.				135
Crossed Timber Piles No. 5 - L.F.				145

ITEM NUMBER	SIZE	LENGTH	WEIGHT
Bolt	4	5"	146
Bolt	7	5"	15
O.G. Washers	2.2	For 5" Bolts	14
Total Hardware			Lbs. 36

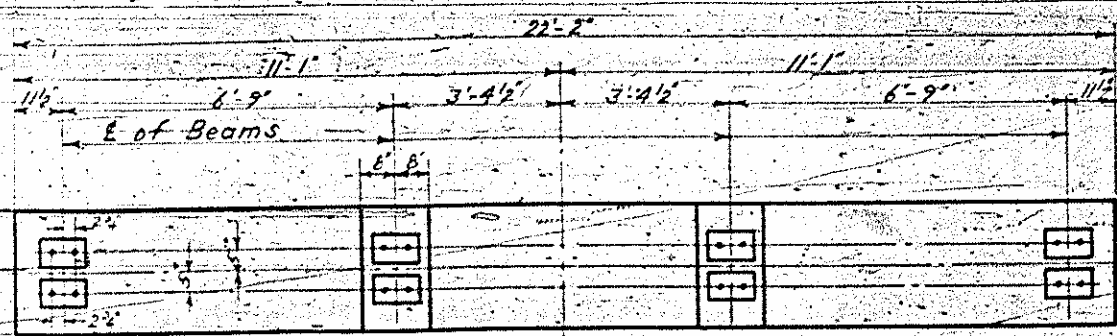
Note: Piles in Bents No. 1-2-3 and 9 shall be driven to a minimum bearing capacity of 18 Tons Each.
Note: For "DESIGN DATA" and "GENERAL NOTE" See Sheet No. 51528.53

PROJECT NO. 1602
NASH COUNTY
STATION: 406+04.07
END BENTS NO. 1 & 2.
BENTS NO. 1-2-3 & 9.

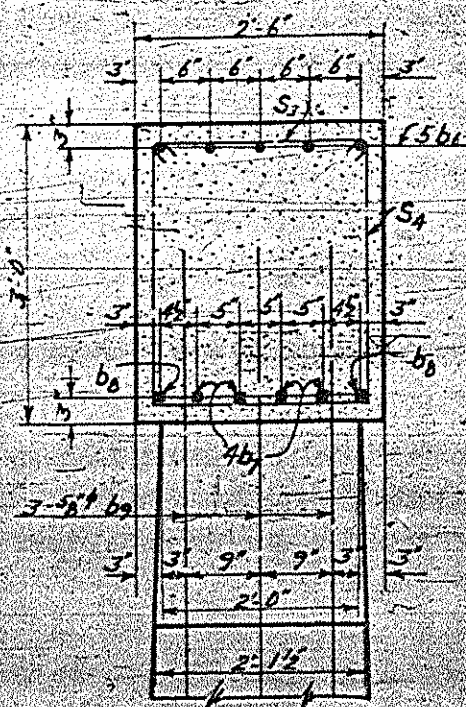
STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION
SUBSTRUCTURE DETAILS
FOR BRIDGE OVER
TAR RIVER
ON N.C. 581 BETWEEN
N.C. 95 AND SPRING HOPE
MAY 1949
SUBMITTED BY J.P. Hunt
APPROVED BY W.R. Hunt
DATE 5-20-49

DESIGNED BY J.P. Hunt
DRAWN BY S.J. Hunt
CHECKED BY J.P. Hunt
DATE May 49

Revised Plan of Cap for Plates
by J.S.M. & By S.J. Hunt
8-31-49

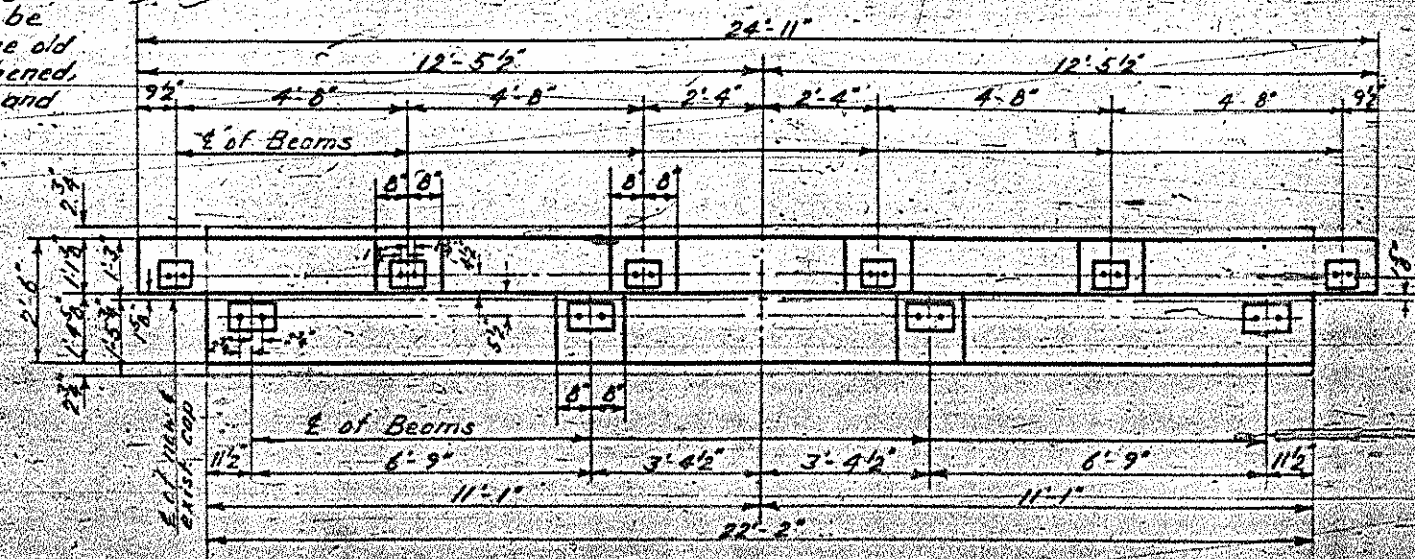


PLAN OF CAP

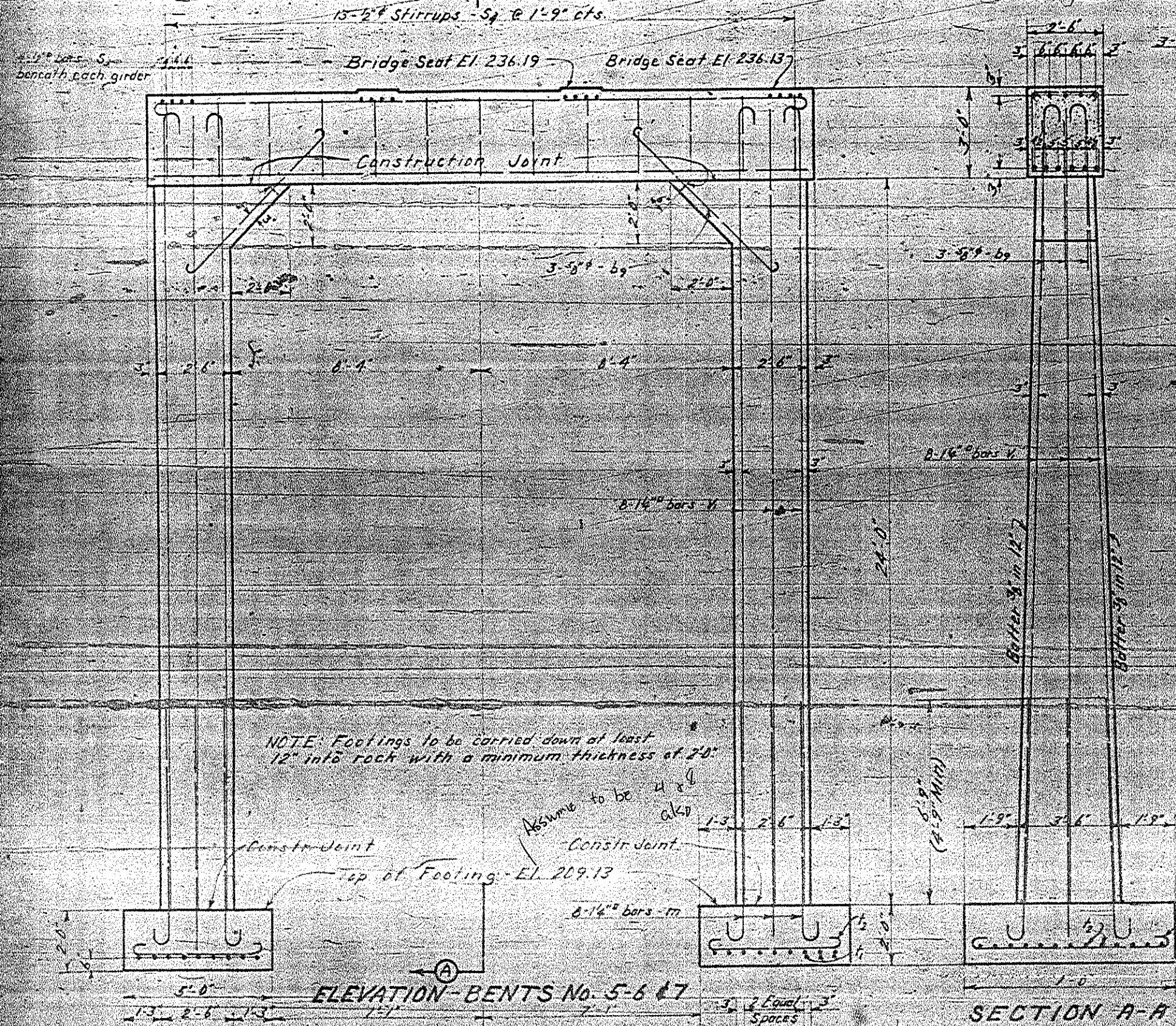


PART SECTION A-A

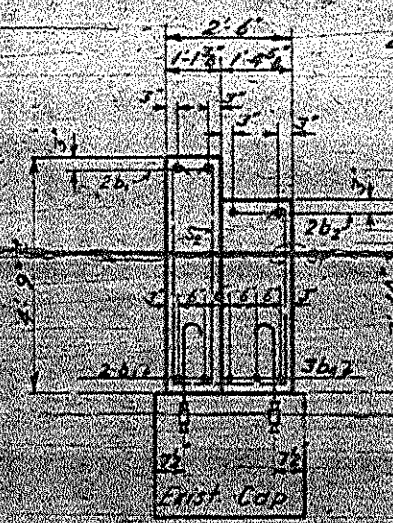
NOTE: Holes are to be drilled into the old concrete and expansion anchors set at points indicated on plans. Use 1/2" hand or 1/4" power drill for 3/4" anchors. Where new and old concrete are to be bonded, the connecting surface of the old concrete shall be thoroughly roughened, cleaned of loose material, wetted and flushed with 1:2 cement mortar immediately before pouring new concrete. The cost of the above work including expansion anchors in place, shall be included in the unit price for Class A Concrete.



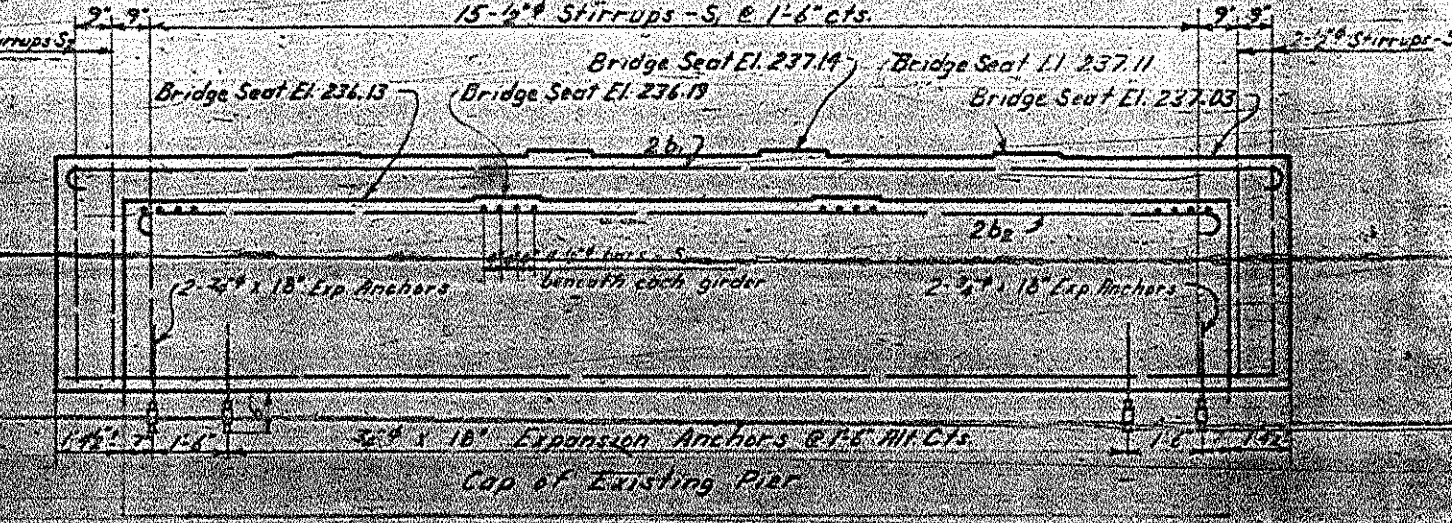
PLAN OF CAP



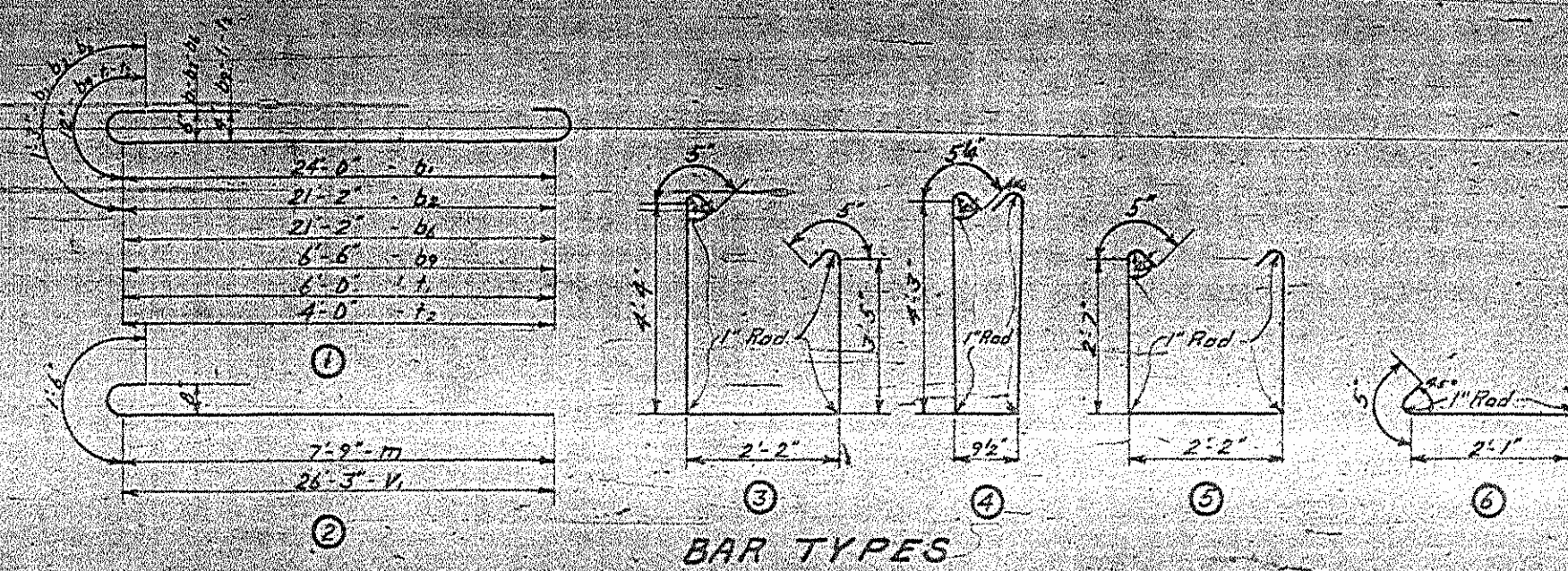
ELEVATION-BENTS No. 5-6 & 7



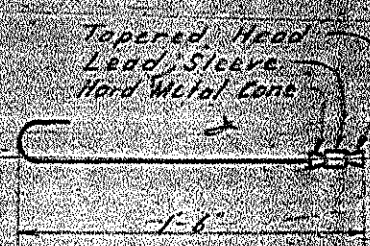
END VIEW OF CAP



ELEVATION OF CAP EXTENSION-BENTS No. 4 & 8



BAR TYPES



NOTE: For Design Data and General Note see sheet No. 31-52 & 53.

NOTE: Footings to be carried down at least 12" into rock with a minimum thickness of 2'-0".

BILL OF MATERIAL - BENT No. 5-6 or 7

Bar No.	Size	Type	Length	Weight	
b ₁	3/4"	1	23'-8"	178	
b ₂	4	16"	STP	21'-8"	460
b ₃	2	16"	STP	21'-8"	188
b ₄	6	5/8"	1	6'-8"	53
m	16	14"	2	9'-3"	786
s ₁	16	5/8"	6	2'-11"	31
s ₂	13	1/2"	5	6'-2"	71
t ₁	18	5/8"	1	8'-0"	150
t ₂	26	5/8"	1	6'-0"	165
v ₁	16	14"	2	27'-9"	2359
Reinforcing Steel				Lbs. 4437	
Class A Concrete				CU Yds. 33.5	

BILL OF MATERIAL - BENT No. 4 or 8

Bar No.	Size	Type	Length	Weight	
b ₁	2	3/4"	1	26'-8"	80
b ₂	2	3/4"	1	23'-8"	71
b ₃	2	1/2"	STP	24'-0"	211
b ₄	3	1/2"	STP	21'-8"	260
s ₁	15	1/2"	3	10'-7"	108
s ₂	16	1/2"	4	16'-7"	92
s ₃	16	1/2"	6	2'-11"	31
Reinforcing Steel				Lbs. 808	
Class A Concrete				CU Yds. 9.2	
3/4" x 18" Expansion Anchors				No. 17	

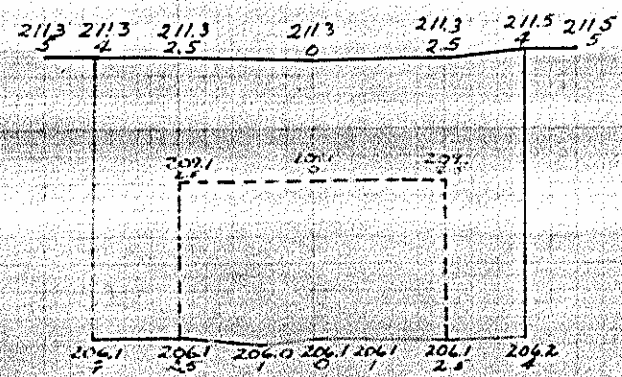
PROJECT NO. 1602
 NASH COUNTY
 STATION: 406 + 04.01
 BENTS No. 5-6-7

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION
 SUBSTRUCTURE DETAILS
 FOR BRIDGE OVER
 TAR RIVER
 ON N.C. 581 BETWEEN
 N.C. 95 & SPRING HOPE
 MAY 1949

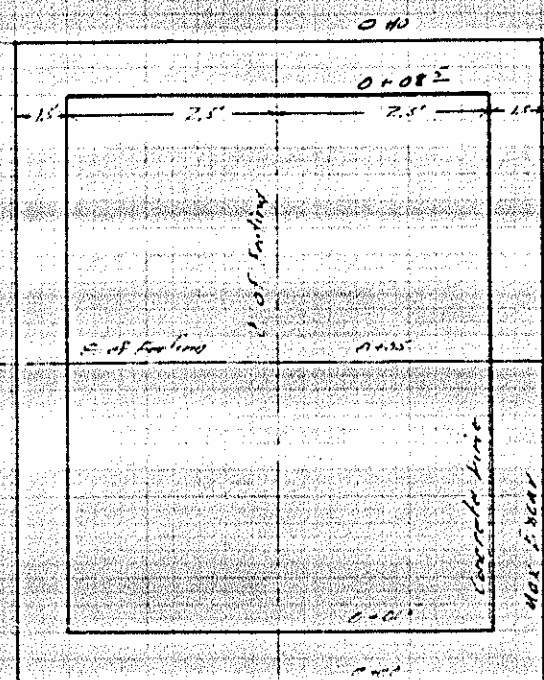
DESIGNED BY: *J. J. Temple*
 DATE: May 1949
 CHECKED BY: *Wm. J. ...*
 DATE: 5/24/49

APPROVED BY: *Wm. J. ...*
 DATE: 5/24/49

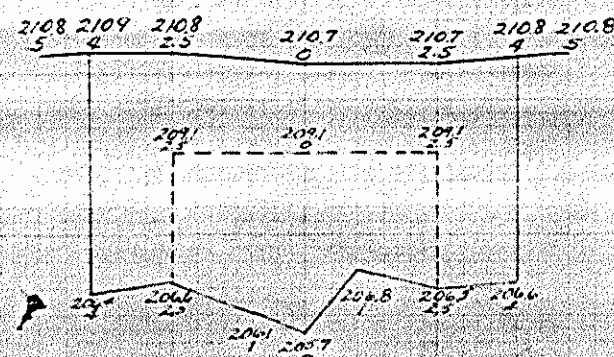
SKETCH SHOWING EXCAV. & CONCRETE FOR BENT NO 7



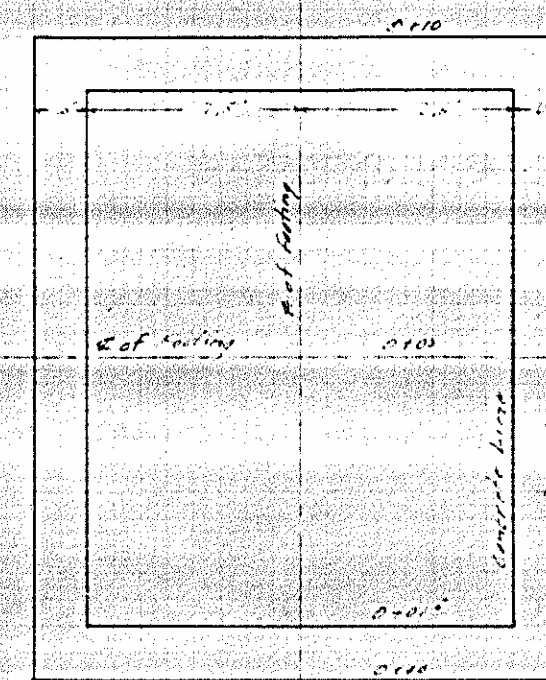
0+05 Excav. A = 41.80
Conc. A = 15.13



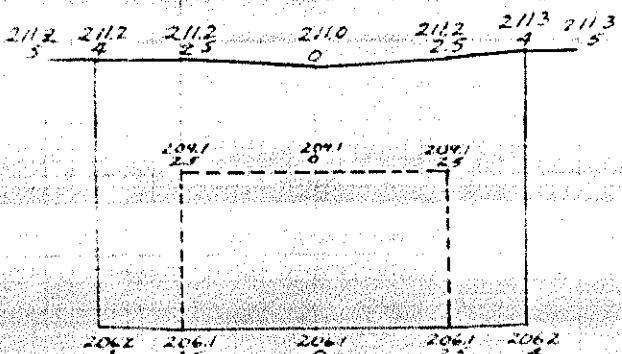
LT. FOOTING



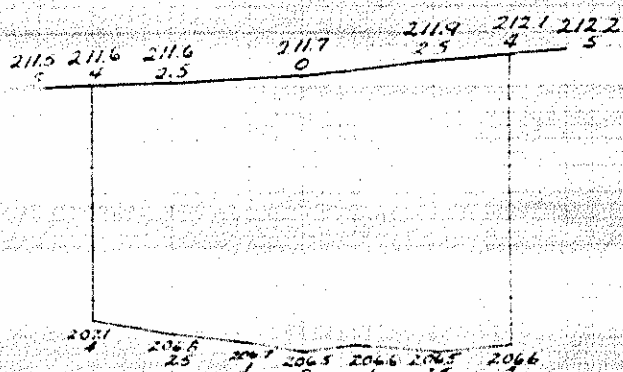
0+05 Excav. A = 34.8
Conc. A = 13.85



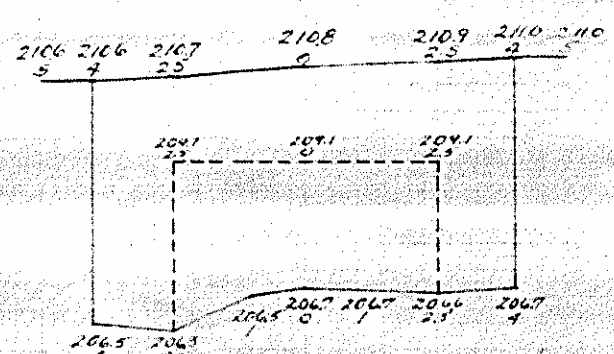
RT. FOOTING



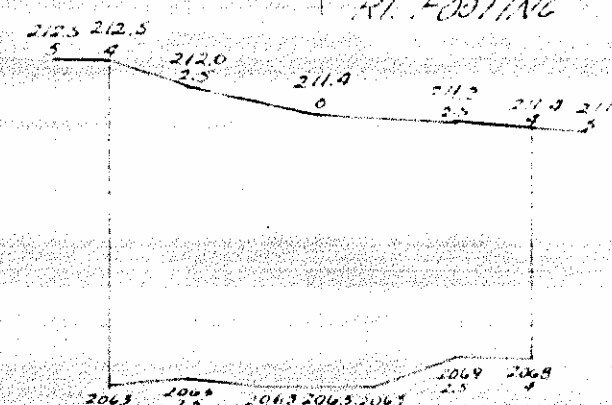
0+03 Excav. A = 40.23
Conc. A = 15.00



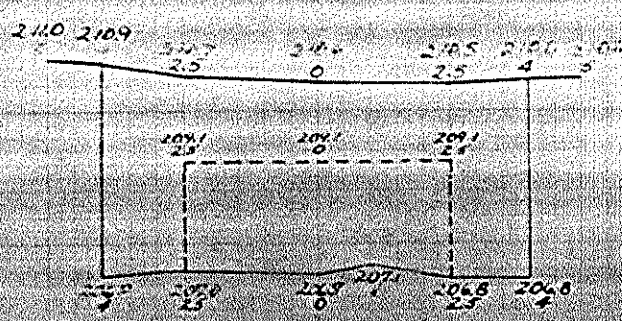
0+10 Excav. A = 40.7



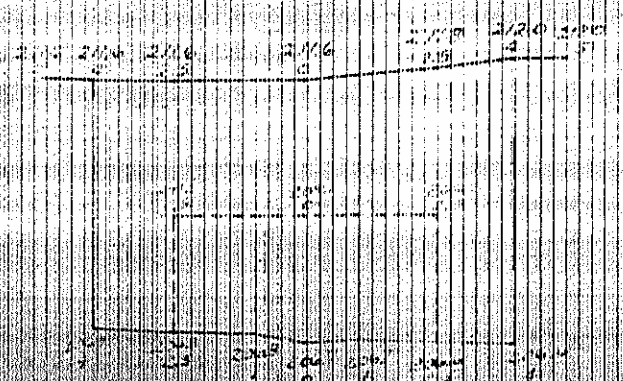
0+03 Excav. A = 34.0
Conc. A = 12.63



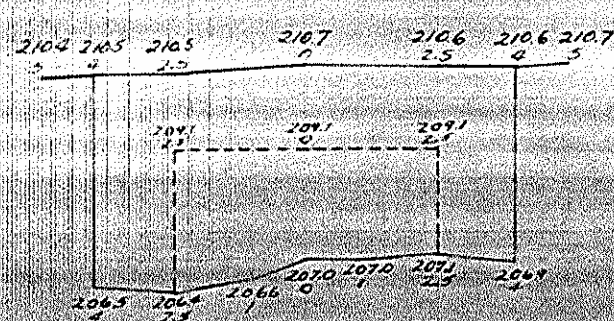
0+10 Excav. A = 41.1



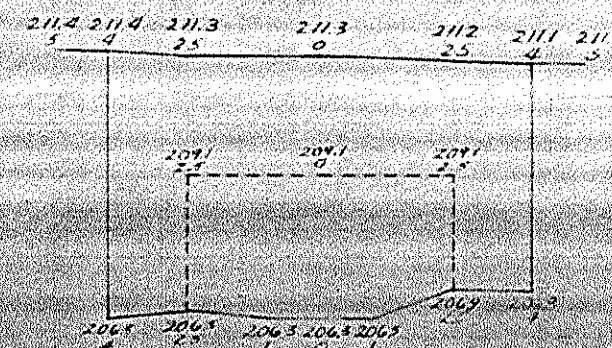
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Conc. A = 10.70



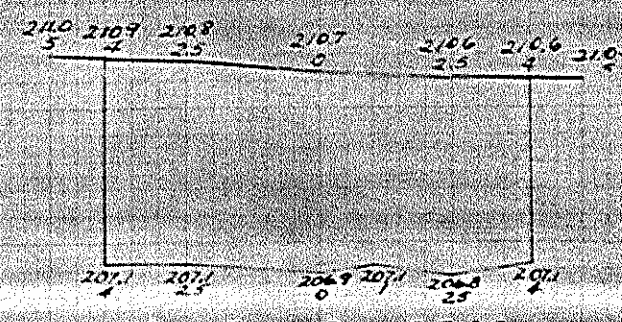
0+08.5 Excav. A = 39.7
Conc. A = 11.88



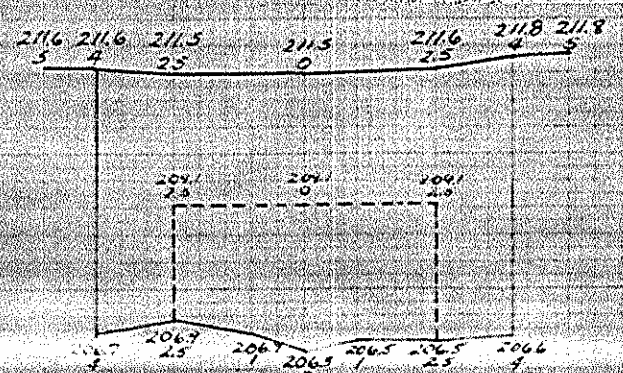
0+01.5 Excav. A = 30.5
Conc. A = 11.38



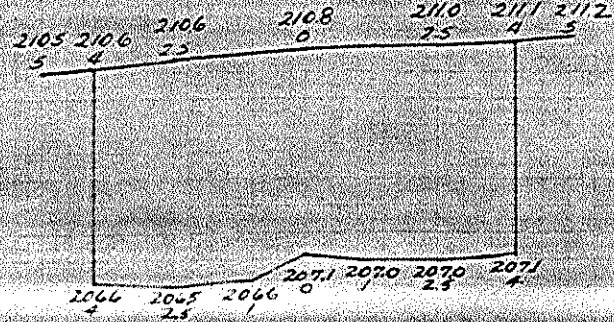
0+08.5 Excav. A = 38.2
Conc. A = 13.40



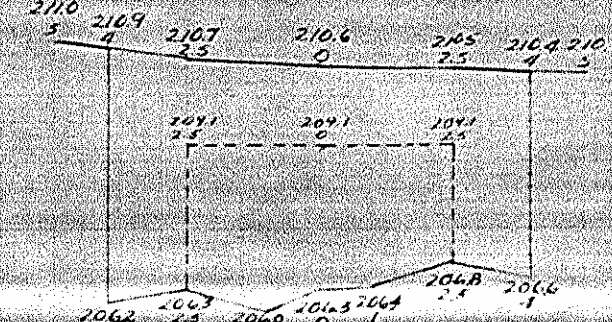
0+00 Excav. A = 29.68



0+07 Excav. A = 39.6
Conc. A = 12.65



0+00 Excav. A = 31.9



0+07 Excav. A = 33.8
Conc. A = 13.88

COMPUTATIONS

WET EXCAVATION				
STA	DIST	AREA	D. AREA	CU. YDS
Lt. Footing				
0+00		29.7		
0+01.5	1.5	29.6	59.3	1.65
0+03	1.5	40.2	69.8	1.94
0+05	2.0	41.8	82.0	3.04
0+07	2.0	39.6	81.4	3.01
0+08.5	1.5	39.7	79.3	2.20
0+10	1.5	40.7	80.4	2.23
		Lt. total	14.07	
Rt. Footing				
0+00		31.9		
0+01.5	1.5	30.5	62.4	1.73
0+03	1.5	34.0	64.5	1.79
0+05	2.0	34.8	68.8	2.55
0+07	2.0	33.8	68.6	2.54
0+08.5	1.5	38.2	72.0	2.00
0+10	1.5	41.1	79.3	2.20
		Rt. Total	12.81	
		TOTAL EXCAV FOR FOOTING	26.88	

CLASS A CONCRETE				
STA	DIST	AREA	D. AREA	CU. YDS
Lt. Footing				
0+01.5		10.70		
0+03	1.5	15.00	25.70	0.71
0+05	2.0	15.13	30.13	1.12
0+07	2.0	12.65	27.78	1.03
0+08.5	1.5	11.88	24.53	0.88
		Lt. Total	3.54	
Rt. Footing				
0+01.5		11.38		
0+03	1.5	12.63	24.01	0.67
0+05	2.0	13.85	26.48	0.98
0+07	2.0	13.88	27.73	1.03
0+08.5	1.5	13.40	27.28	0.76
		Rt. Total	3.44	
		TOTAL CONC. FOR FOOTING	6.98	

See pages 39, 41, 46, 47, 48 of Book No 5

CLASS A CONCRETE

SPANS ABCD-I+J	93.3 CU.YDS.
SPANS EFG+H	103.2 196.5
END BENT No 1	5.5
END BENT No 2	5.5
BENT No 1	4.4
BENT No 2	4.4
BENT No 3	4.4
BENT No 4	9.2
BENT No 5	23.9 - (5.7 * 2) + 5.72 ^o 24.43
BENT No 6	23.9 - (5.7 * 2) + 5.67 ^o 24.38
BENT No 7	23.9 - (5.7 * 2) + 6.98 ^o 25.69
BENT No 8	9.2
BENT No 9	4.4 121.5
GRAND TOTAL	318.00 CU.YDS.

see page 38 of Book No 3

see page 34 of Book No 3

see page 40 of Book No 3

*Cu Yds in footing according to original plans
 oCu Yds in footing computed from class sections

CREOSOTED TIMBER PILES

BENT	FILE NO	ORDERED LENGTH	CUTOFF	CUT OFF IN EXCESS OF 2'	PAY LENGTH
END No 1	1	27	6.12	4.12	20.88
	2	27	5.46	3.46	21.54
	3	27	6.92	4.92	20.08
	4	27	6.75	4.75	20.25
TOTAL		108	25.25	17.25	82.75
No 1	1	27	2.25	0.25	24.75
	2	27	2.17	0.17	24.83
	3	27	2.58	0.58	24.42
	4	27	3.00	1.00	24.00
	5	27	2.83	0.83	24.17
TOTAL		135	12.85	2.83	122.17
No 2	1	27	1.75	0.0	25.25
	2	27	2.08	0.08	24.92
	3	27	1.50	0.0	25.50
	4	27	1.58	0.0	25.42
	5	27	1.75	0.0	25.25
TOTAL		135	8.66	0.08	126.34
No 3	1	27	1.67	0.0	25.33
	2	27	2.00	0.0	25.00
	3	27	1.92	0.0	25.08
	4	27	1.75	0.0	25.25
	5	27	1.84	0.0	25.16
TOTAL		135	9.18	0.0	125.82
No 9	1	29	3.00	1.00	26.00
	2	29	3.00	1.00	26.00
	3	29	2.00	0.00	27.00
	4	29	2.50	0.50	26.50
	5	29	3.33	1.33	25.67
TOTAL		145	13.83	3.83	131.17
END No 2	1	29	3.33	1.33	25.67
	2	29	2.00	0.00	27.00
	3	29	2.42	0.42	26.58
	4	29	1.83	0.00	27.17
TOTAL		116	9.58	1.75	106.42
GRAND TOTAL		774 Ft.	79.33 Ft.	25.74 Ft.	694.67 Ft.

see page No 6 of Book No 3

see page No 7 of Book No 3

see page No 8 of Book No 3

see page No 9 of Book No 3

see page No 15 of Book No 3

see page No 16 of Book No 3

SUPERSTRUCTURE STEEL REINFORCING STRUCTURAL

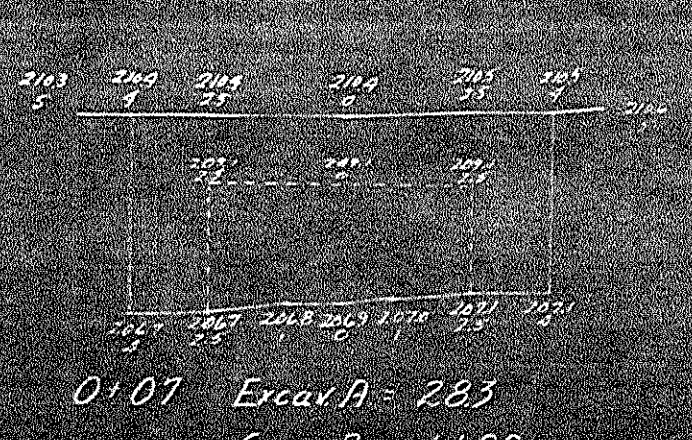
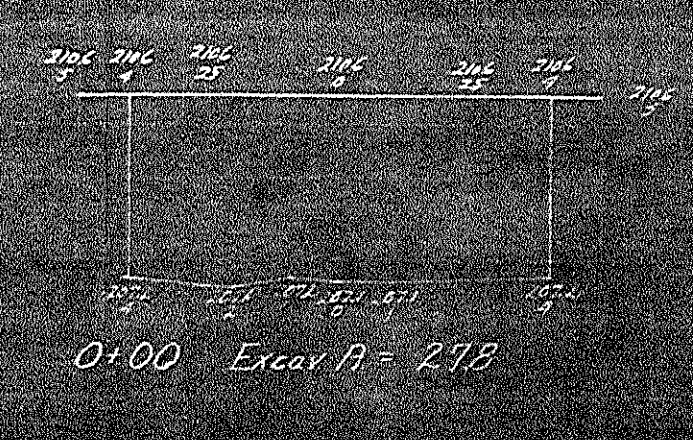
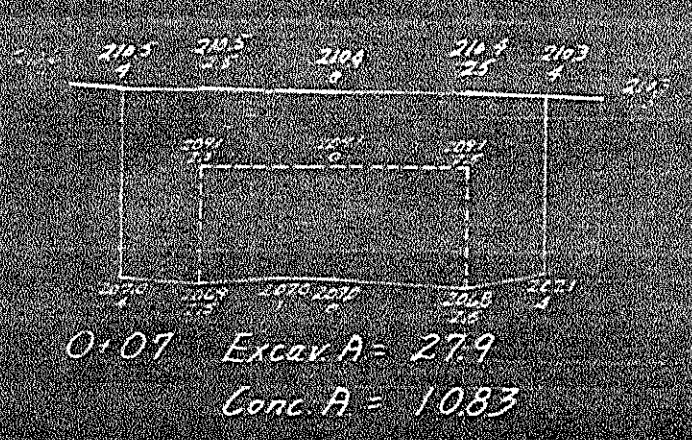
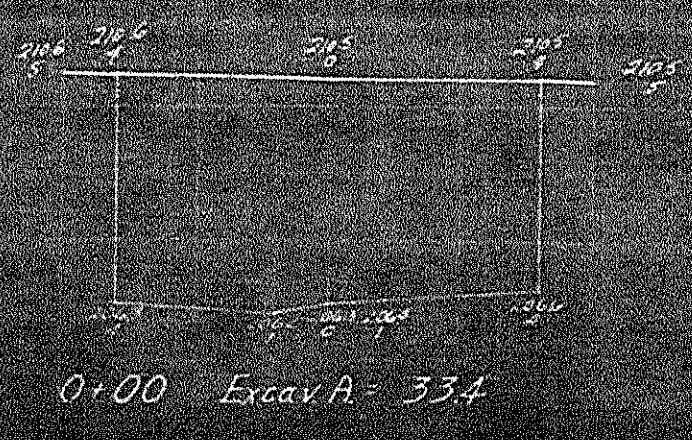
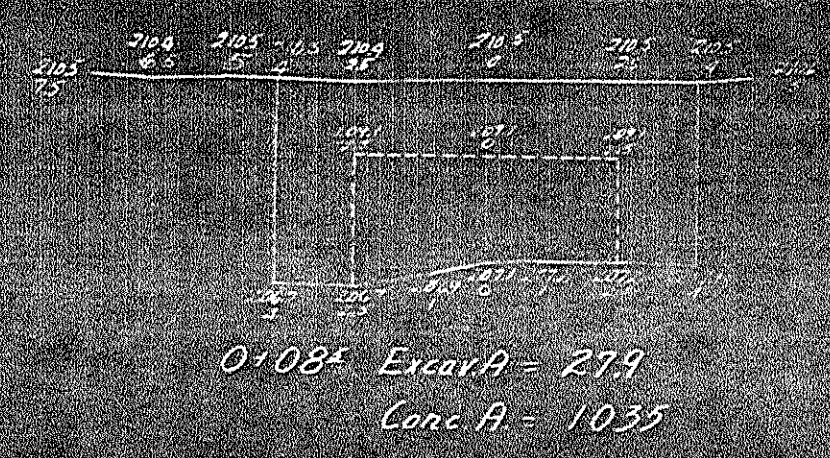
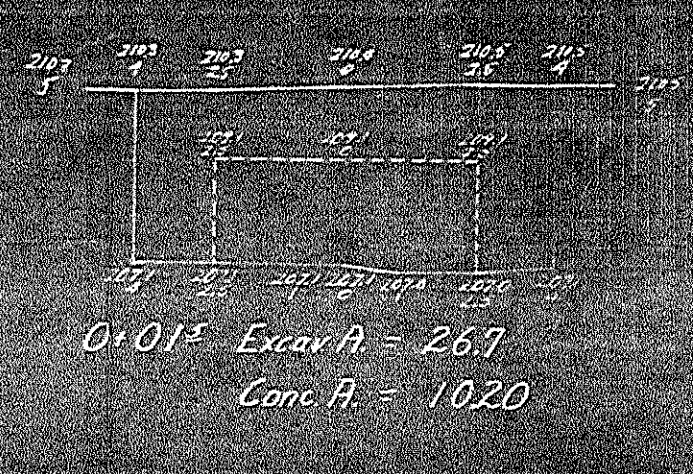
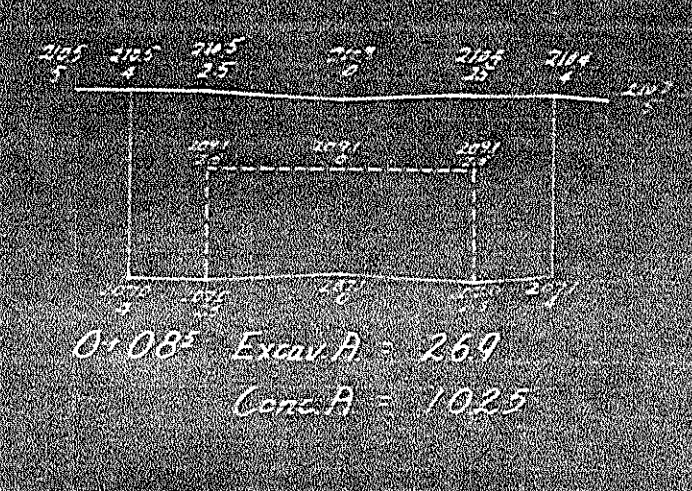
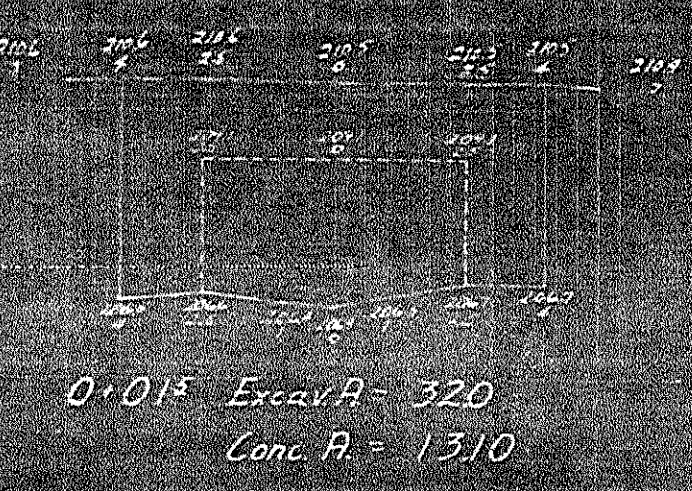
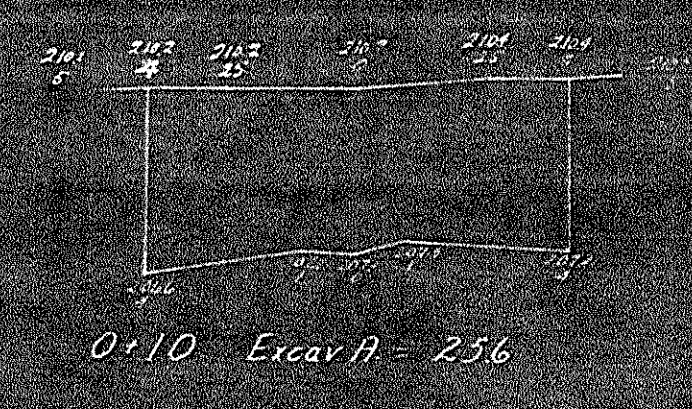
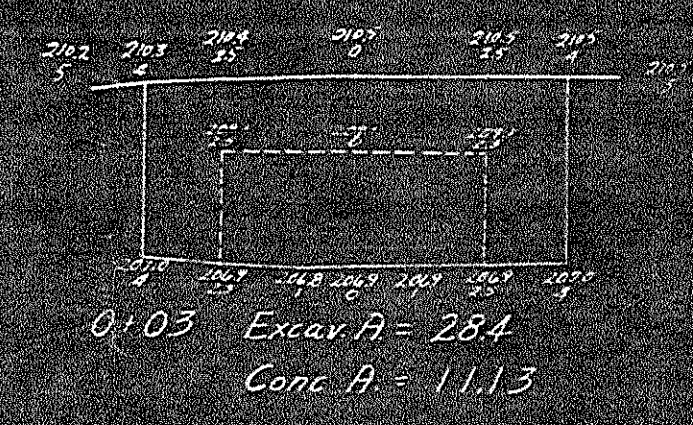
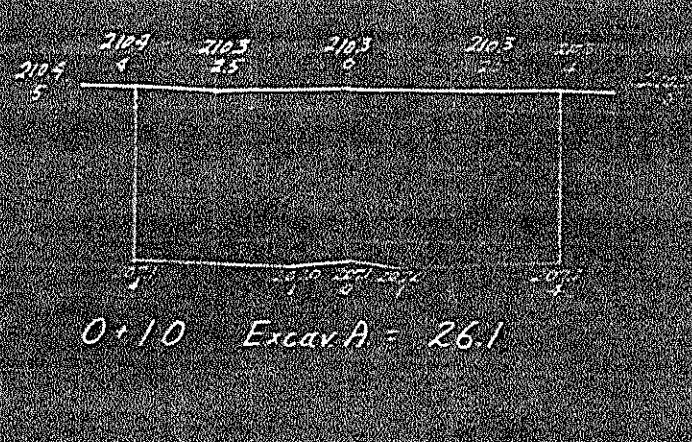
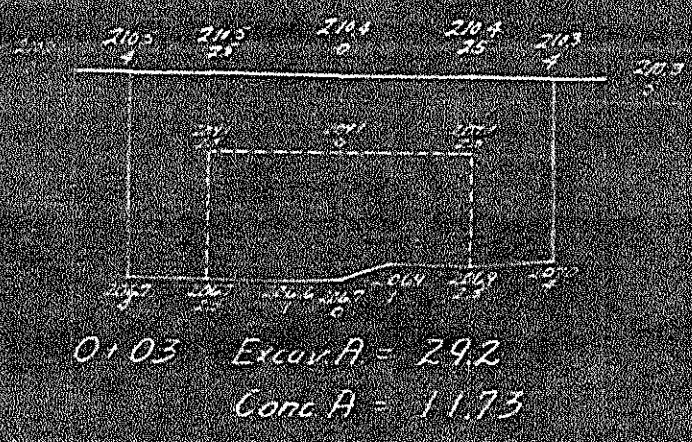
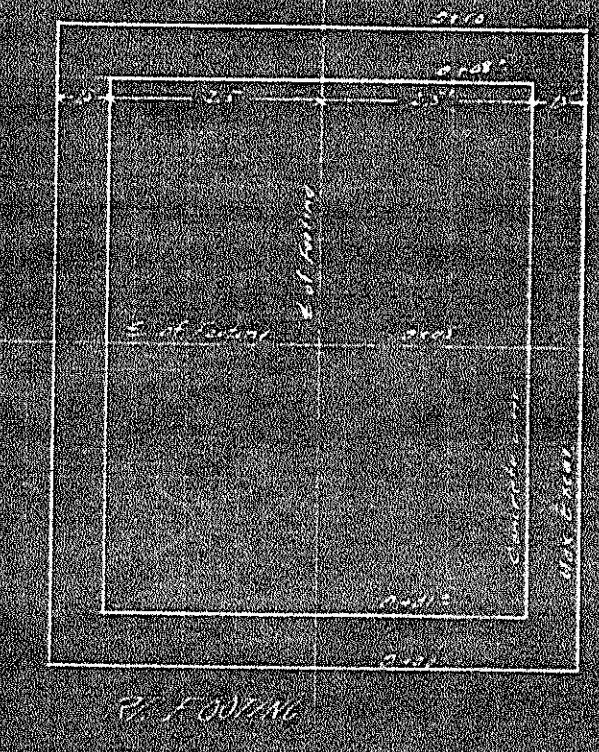
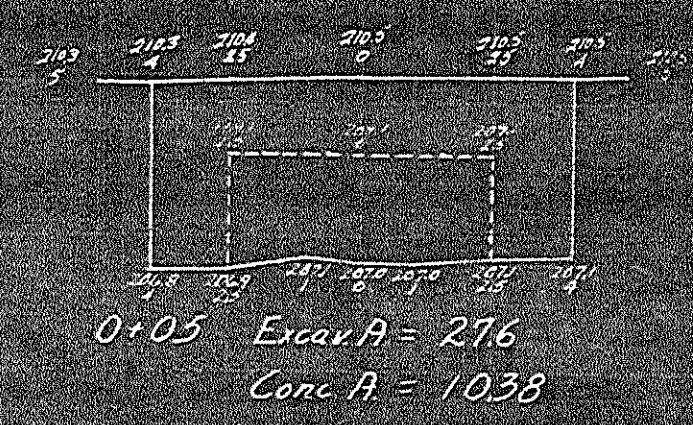
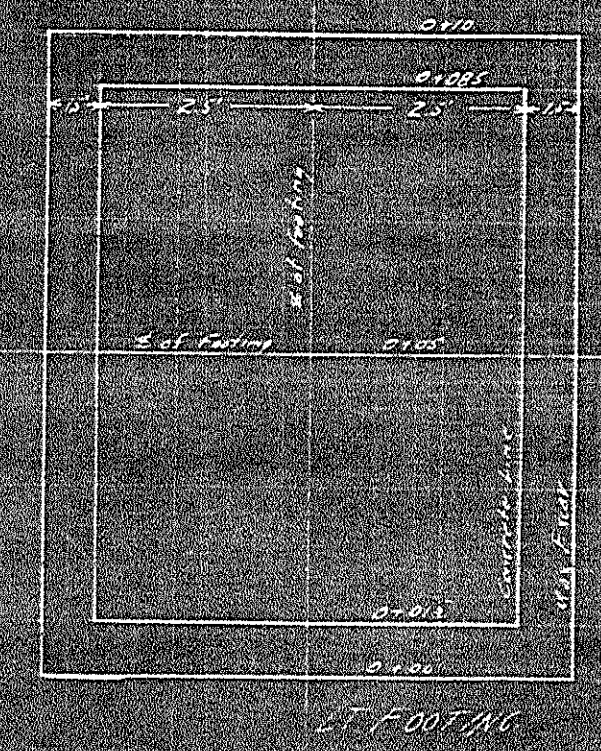
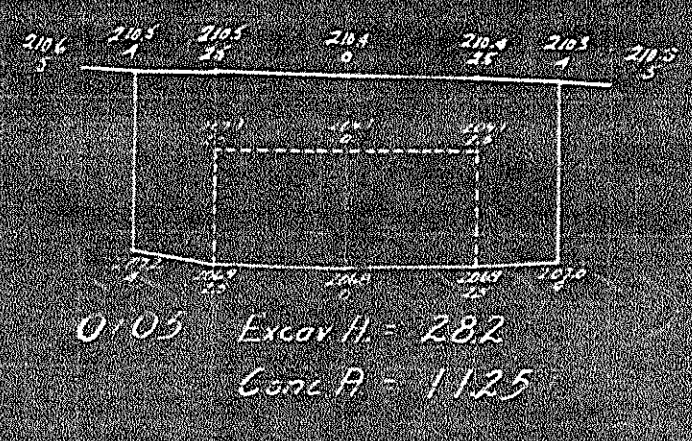
SPANS ABCD+I+J	22163 LBS.	36,800 LBS.
SPANS EFG+H	24370	66,500
TOTAL	46533 LBS.	103300 LBS.

see sheet No 4 & 5

TABLE OF OVERRUNS & UNDERRUNS

ITEMS	PLAN QUANTITIES	FINAL EST.	OVERRUN	UNDERRUN	EXPLANATION
	ORIG. EST.				
CU. YDS. CLASS "A" CONCRETE	315.2	318.0	2.8		Bottom of footings were irregular and carried down to solid rock.
LBS. REINFORCING STEEL	67,204.0	67,204.0			
LBS. STRUCTURAL STEEL	103,300.0	103,300.0			
LIN. FT. CREOSOTED TIMBER PILES	774.0	694.67		79.33	Satisfactory bearings were obtained at a higher elevation than estimated.
LIN. FT. CREO. TIMB. PILE CUT OFFS IN EXCESS OF 2'	0.0	25.74	25.74		Cut offs from ordered lengths furnished by plans to be paid for as prescribed in the Specifications.
M.F.B.M. CREOSOTED STRUCTURAL TIMBER	0.864	0.864			
SQ. YDS. METHOD "A" WATERPROOFING	16.0	16.0			
SQ. YDS. CONCRETE RIP RAP	705.0	918.33	213.33		Toe of Rip Rap carried down into natural ground line a minimum of 3' 6"
CU. YDS. WET EXCAVATION	60.0	65.21	5.21		Difference due to final quantities being computed from final cross sections and footings being carried down to solid rock.
REMOVAL OF EXISTING STRUCTURE	LUMP SUM	LUMP SUM			

SKETCH SHOWING EXCAV. & CONCRETE FOR BENT NO 5



COMPUTATIONS

WET EXCAVATION

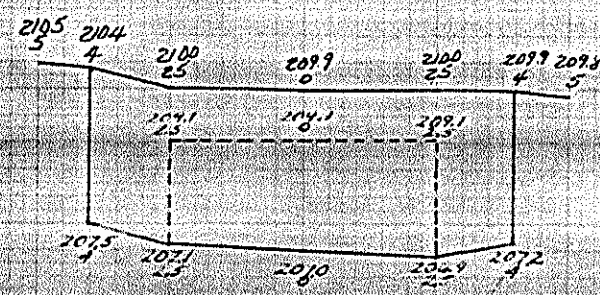
STA	DIST	AREA	D AREA	CUYDS
Lt. Footing				
0+00		334		
0+015	1.5	320	654	1.82
0+03	1.5	292	612	1.70
0+05	2.0	282	574	2.13
0+07	2.0	279	561	2.08
0+085	1.5	269	548	1.52
0+10	1.5	261	530	1.47
Lt. Total = 10.72				
Rt. Footing				
0+00		278		
0+015	1.5	267	545	1.51
0+03	1.5	284	551	1.53
0+05	2.0	276	560	2.07
0+07	2.0	283	559	2.07
0+085	1.5	279	562	1.56
0+10	1.5	256	535	1.49
Rt. Total = 10.23				
TOTAL EXCAV. FOR FOOTING = 20.95				

CLASS "A" CONCRETE

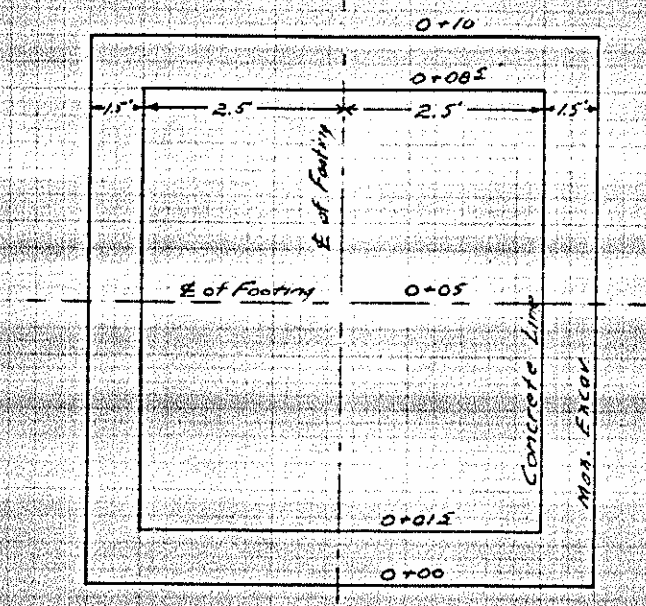
STA	DIST	AREA	D AREA	CUYDS
Lt. Footing				
0+015		1310		
0+03	1.5	1173	2483	0.69
0+05	2.0	1125	2298	0.85
0+07	2.0	1083	2208	0.82
0+085	1.5	1025	2108	0.59
Lt. Total = 2.95				
Rt. Footing				
0+015		1020		
0+03	1.5	1113	2133	0.59
0+05	2.0	1038	2151	0.80
0+07	2.0	1100	2138	0.79
0+085	1.5	1035	2135	0.59
Rt. Total = 2.77				
TOTAL CONC. FOR FOOTING = 5.72				

See pages 16, 27, 32, 33, 34 of Book No 2

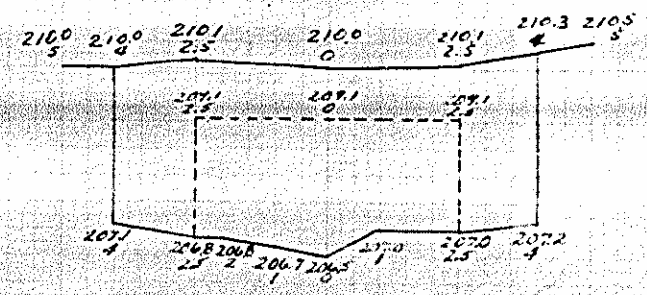
SKETCH SHOWING EXCAV. & CONCRETE FOR BENT NO 6



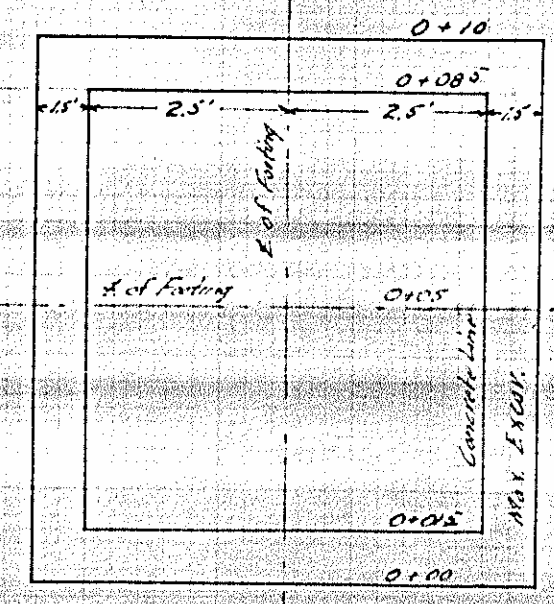
0+05 Excav. A. = 23.5
Conc. A. = 10.05



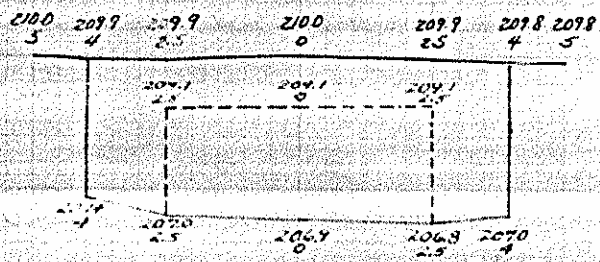
LT FOOTING



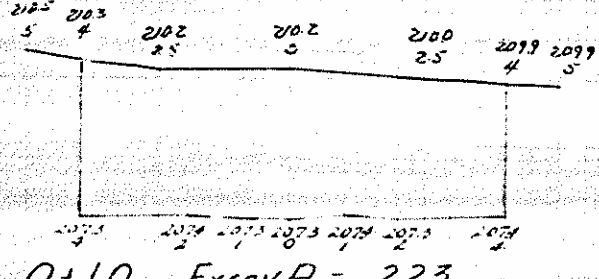
0+05 Excav. A. = 25.6
Conc. A. = 11.50



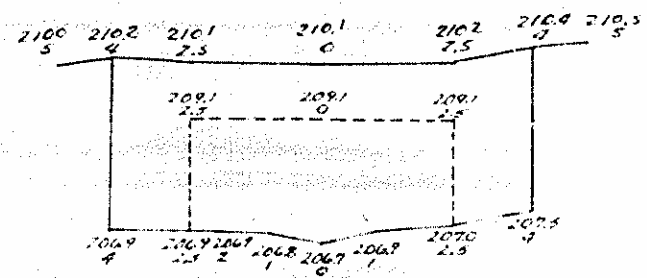
RT FOOTING



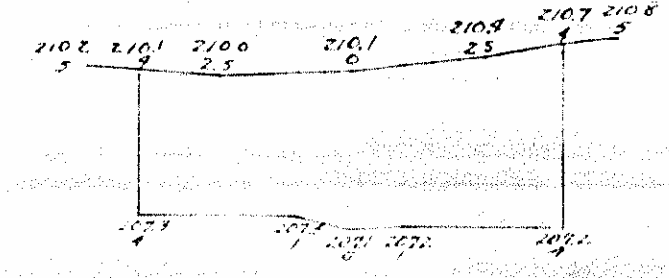
0+03 Excav. A. = 23.7
Conc. A. = 11.00



0+10 Excav. A. = 22.3



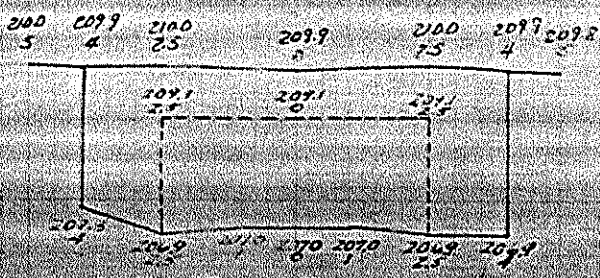
0+03 Excav. A. = 26.0
Conc. A. = 11.23



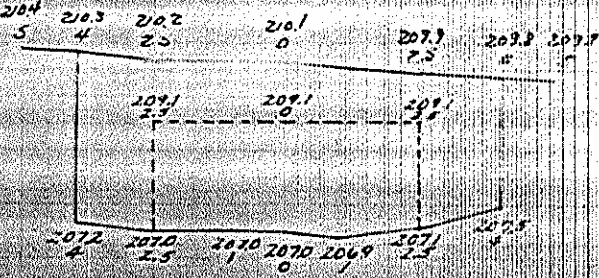
0+10 Excav. A. = 23.8

COMPUTATIONS

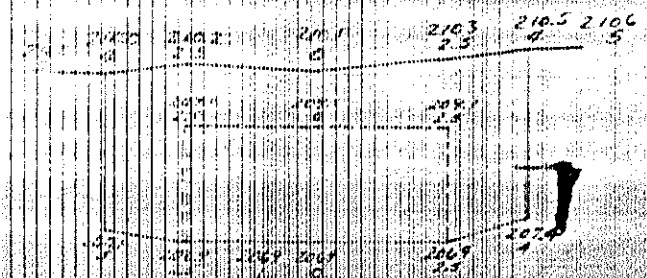
WET EXCAVATION				
STA	DIST	AREA	D. AREA	CUM. VOL.
Lt Footing				
0+00		22.4		
0+01 ⁵	1.5	23.8	46.2	1128
0+03	1.5	23.7	47.5	1131
0+05	2.0	23.5	47.2	1175
0+07	2.0	24.1	47.6	1176
0+08 ⁵	1.5	24.0	48.1	1133
0+10	1.5	22.3	46.3	1129
		Lt Total	= 872	
Rt Footing				
0+00		23.7		
0+01 ⁵	1.5	25.9	49.6	1138
0+03	1.5	26.0	51.9	1144
0+05	2.0	25.6	51.6	1154
0+07	2.0	26.3	51.9	1155
0+08 ⁵	1.5	24.5	50.8	1141
0+10	1.5	23.8	48.3	1134
		Rt Total	= 866	
TOTAL EXCAV FOR FOOTING = 1738				



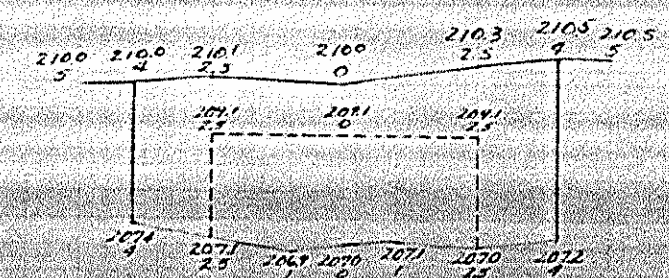
0+01⁵ Excav. A. = 23.8
Conc. A. = 10.65



0+08⁵ Excav. A. = 24.0
Conc. A. = 10.55

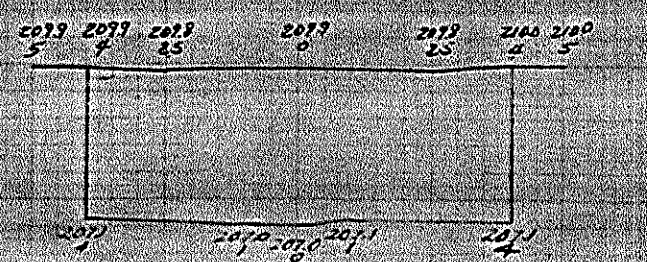


0+01⁵ Excav. A. = 25.9
Conc. A. = 11.00

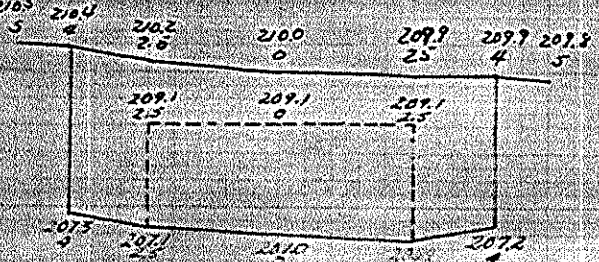


0+08⁵ Excav. A. = 24.5
Conc. A. = 10.43

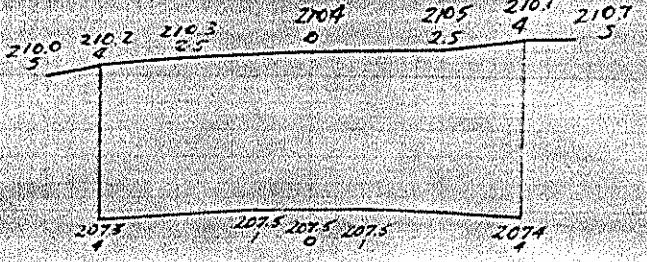
CLASS "A" CONCRETE				
STA	DIST	AREA	D. AREA	CUM. VOL.
Lt Footing				
0+01 ⁵		10.65		
0+03	1.5	11.00	21.65	260
0+05	2.0	10.05	21.05	278
0+07	2.0	10.50	20.55	276
0+08 ⁵	1.5	10.55	21.05	258
		Lt Total	= 272	
Rt Footing				
0+01 ⁵		11.00		
0+03	1.5	11.23	22.23	262
0+05	2.0	11.50	22.73	284
0+07	2.0	11.98	23.48	287
0+08 ⁵	1.5	10.43	22.41	262
		Rt Total	= 295	
TOTAL CONC. FOR FOOTING = 567				



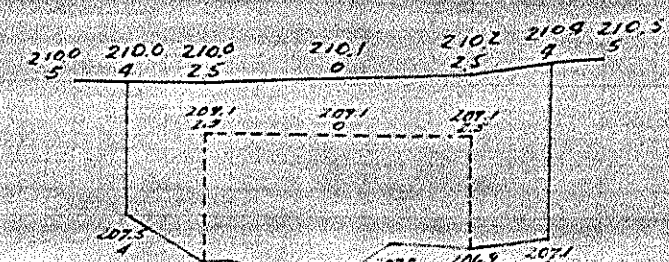
0+00 Excav. A. = 22.4



0+07 Excav. A. = 24.1
Conc. A. = 10.50



0+00 Excav. A. = 23.7



0+07 Excav. A. = 26.3
Conc. A. = 11.98

SEE PAGES 28, 29, 34, 35, 39 OF DRAW NO 3

SUMMARY OF QUANTITIES

SEE SHEET NO	LOCATION	CLASS A CONC. C.Y.	REINF. STEEL LBS.	STRUCTURAL STEEL LBS.	CREOSOTED TIMB PILES LIN. FT.	PILE PAY CUT OFF LIN. FT.	CREOSOTED TIMBER F.B.M.	METHOD "A" WAT PROOF SQ. Y.	HARD-WARE LBS.	CONCRETE RIP RAP SQ. Y.	WET EXCAV C. Y.	REMOVAL OF EXISTING STRUCTURE
13	SUPERSTRUCTURE	196.5	46533	103,300								
6	END BENT N°1	5.5	1040		82.75	17.25		8		425.63		
6	BENT N°1	4.4	916		122.17	2.83	216					
6	BENT N°2	4.4	916		126.34	0.08	216					
6	BENT N°3	4.4	916		125.82	0.00	216					
7	BENT N°4	9.2	808									
13	BENT N°5	24.43	4437								20.95	
13	BENT N°6	24.38	4437								17.38	
13	BENT N°7	25.69	4437								26.88	
7	BENT N°8	9.2	808									
6	BENT N°9	4.4	916		131.17	3.83	216					
6	END BENT N°2	5.5	1040		106.42	1.75		8		492.70		
	TOTAL	318.00	67,204	103,300	694.67	25.74	864	16	36	918.33	65.21	LUMP SUM