

FINAL ESTIMATE ON NORTH CAROLINA STATE PROJECT NO.8.15/41-F/112(3)
FOR STRUCTURES ON N.C. ROUTE NO.86
BETWEEN YANCEYVILLE & N.C.-VA. STATE LINE
CASWELL COUNTY

DIVISION NO.7

CONTRACTOR - CLINCHFIELD CONCRETE CO.
GREENSBORO, N.C.

CONTRACT LET 8-14-56 7.31.56
WORK STARTED 10-16-56
WORK COMPLETED 5-15-58

T.A. BURTON DIVISION ENGINEER
C.C. PAINTER RESIDENT ENGINEER
L.R. JERNIGAN MASONARY INSPECTOR
W.H. KOONTZ MASONARY INSPECTOR

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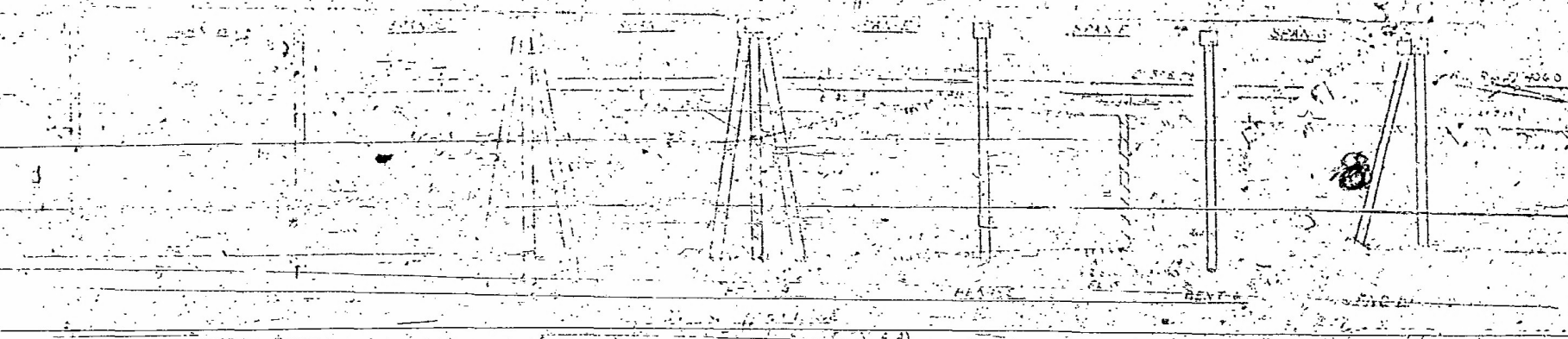
This estimate was prepared by the Division Engineer and Resident Engineer, based on the plans and specifications for the project. It is subject to change if the plans or specifications are changed. The estimate is based on the best estimate of the cost of the work at the time it was prepared. It does not include any profit or overhead. The estimate is for the work shown on the plans and specifications. It does not include any work not shown on the plans and specifications. The estimate is for the work shown on the plans and specifications. It does not include any work not shown on the plans and specifications.

CASWELL #

Reel # 677
Pos # 6

TABLE OF OVERRUNS & UNDERRUNS

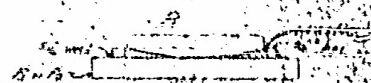
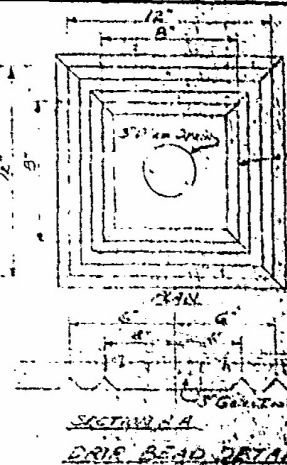
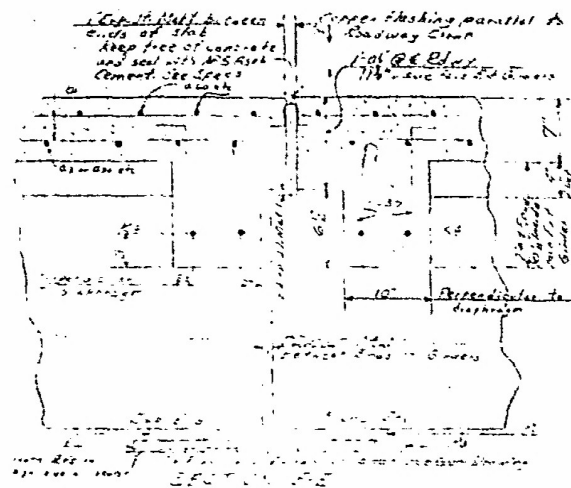
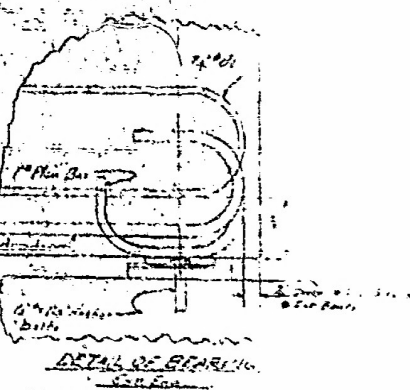
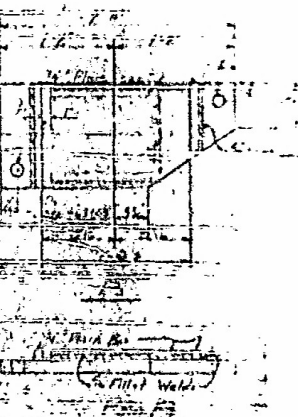
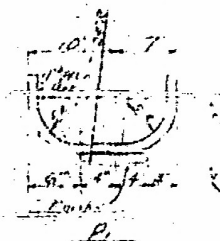
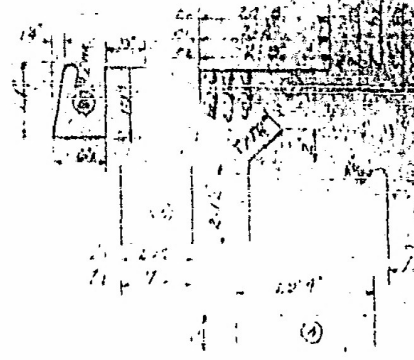
ITEM	UNIT	ORIG EST	FINAL EST	OVERRUN	UNDERRUN	EXPLANATION
DRY EXCAVATION	CY/100	70.1	97.06	27.06		Footings for Bent 3 & End Bent 2, Sta 359+00, were considerably below plan elevation to obtain sufficient bearing.
WET EXCAVATION	CY/100	120.1	206.21	86.21		Same as above.
CLASS 'X' CONCRETE	CY/100	1,914.1	1,921.50	5.5		Footings for Bent 3 & End Bent 2, Sta 359+00, were increased due to footings being below plan.
REINFORCING STEEL	LB	460,820	448,997		11,823	Plan quantity for Sta. 488+00 was decreased to 440,000 and did not conform to plan lengths of several R.C. Piles were cut.
REINFORCING STEEL CUT-OFF	LB	0	1,802	1,802		See explanation for R.C. Pile Cut-offs.
20" PRECAST CONCRETE PILES	LINEAL	2,515	2,246.54		268.46	Actual Pile lengths were determined by test piles.
PILE CUT-OFFS	LINEAL	0	127.46	127.46		Piles that could not be driven full length were cut off.
PILES CUT-OFF	EACH	0	37	37		Same as above.
CONCRETE TEST PILES	EACH	3	3			
CONCRETE RIP RAP	CY/100	1,305	1,365.34	60.34		Quantities were computed by field measurements.
CONDITIONING CONCRETE FOUNDATION	CY/100	0	124.71	124.71		Natural foundation material was not suitable.
RETARDER	GALES	0	50.7656	50.7656		Retarder required due to hot weather and long haul.



Notes:
 1. The bridge is to be constructed of reinforced concrete.
 2. The bridge is to be constructed on a foundation of concrete piers.
 3. The bridge is to be constructed on a foundation of concrete piers.
 4. The bridge is to be constructed on a foundation of concrete piers.
 5. The bridge is to be constructed on a foundation of concrete piers.
 6. The bridge is to be constructed on a foundation of concrete piers.

PROJECT NO. 1000
 COUNTY OF ...
 STATION ...

STATE OF NORTH CAROLINA	1
STATE HIGHWAY	1
PUBLIC WORKS COMMISSION	1
DESIGNED BY	1
CONSTRUCTED BY	1
APPROVED BY	1
DATE	1

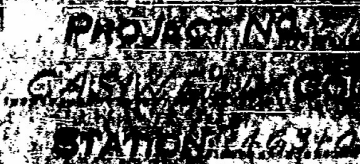
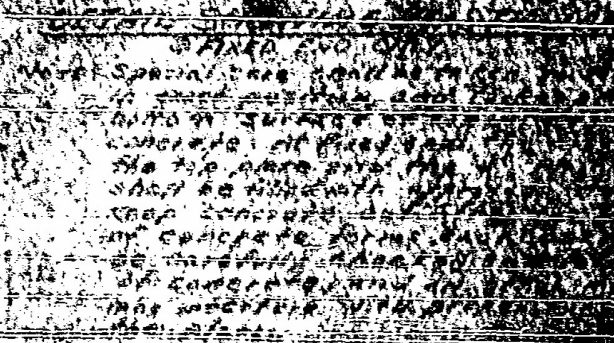
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PROJECT NAME
CASINER 4400C
STATION 1.62

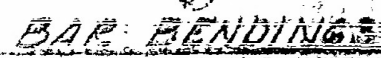
STATE HIGHWAY
PUBLIC WORKS CO.

SECRET
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DETAILS
MAX-100

FOR READING

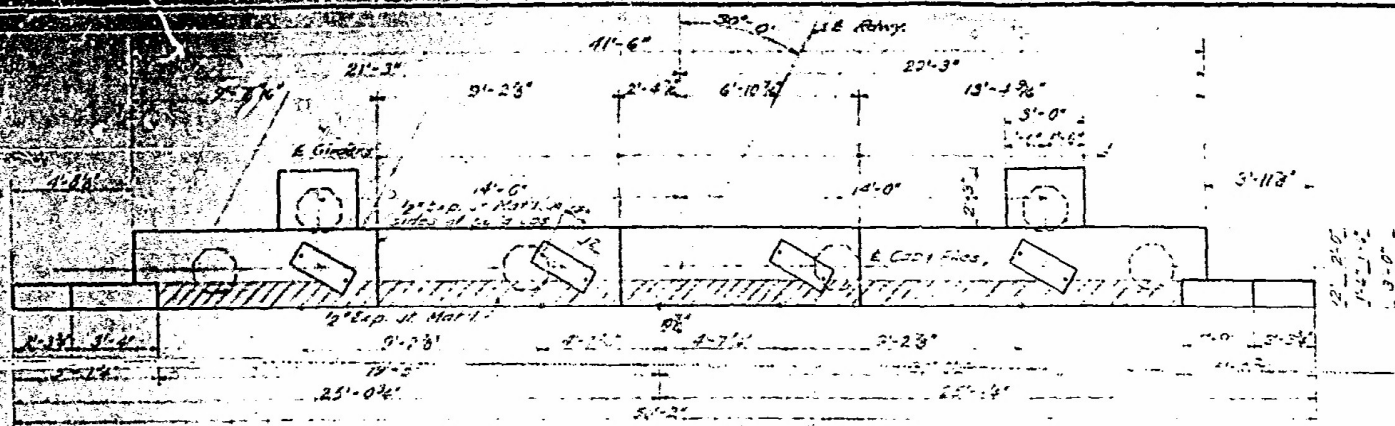


File #11.
Dimensions in
Red Bandings
are not to cut
of 244



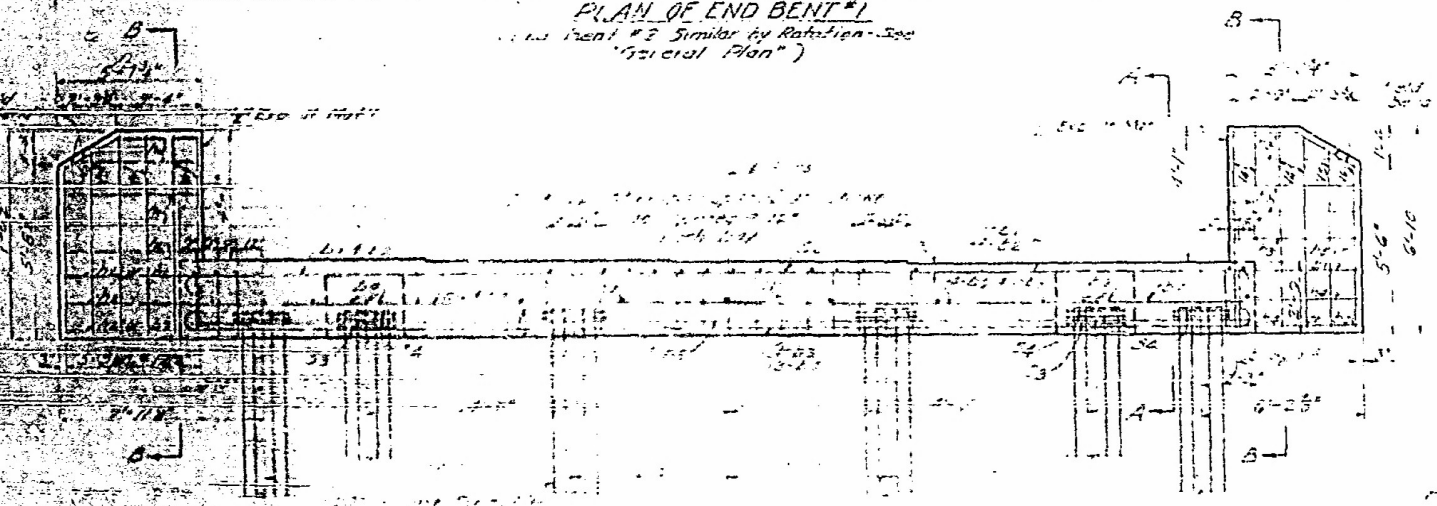
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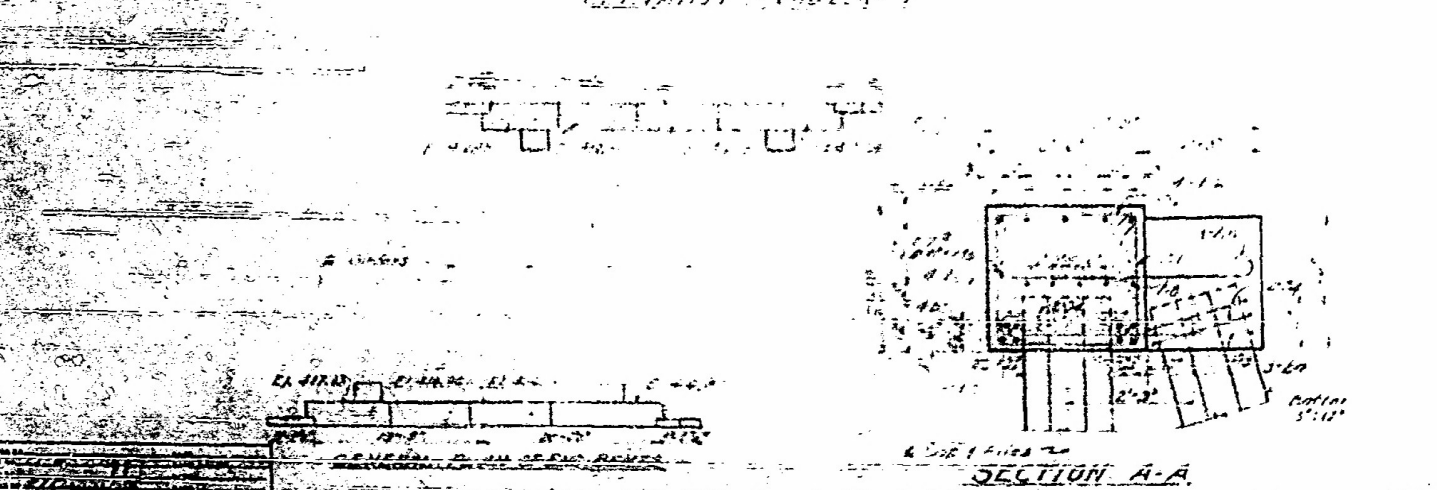


PLAN OF END BENT #1

End Bent #2 Similar by Rotation - See "General Plan"



ELEVATION OF END BENT #1



SECTION A-A

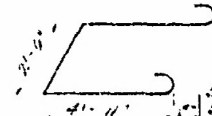
SECTION B-B

Two Required
BILL OF MATERIALS
FOR ONE END BENT

ITEM	QTY	UNIT	PRICE	AMOUNT
1	1	sq. ft.	1.00	1.00
2	1	sq. ft.	1.00	1.00
3	1	sq. ft.	1.00	1.00
4	1	sq. ft.	1.00	1.00
5	1	sq. ft.	1.00	1.00
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99	1	sq. ft.	1.00	1.00
100	1	sq. ft.	1.00	1.00



Note: See Note General for No. 1000



Note: See Note General for No. 1000

ITEM	QTY	UNIT	PRICE	AMOUNT
1	1	sq. ft.	1.00	1.00
2	1	sq. ft.	1.00	1.00
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98	1	sq. ft.	1.00	1.00
99	1	sq. ft.	1.00	1.00
100	1	sq. ft.	1.00	1.00

Note: See Note General for No. 1000

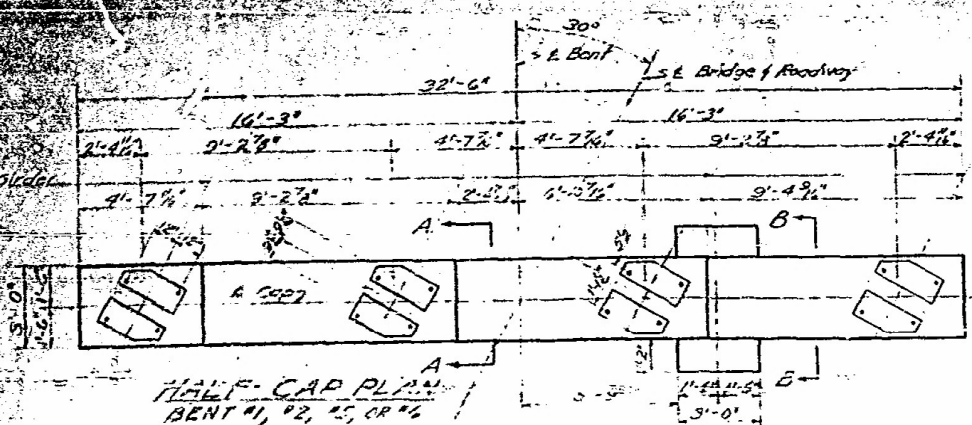
PROJECT NO. 1
GASWELL CO.
STATION 163

STATE OF NORTH CAROLINA
STATE HIGHWAY
PUBLIC WORKS COM.

END BENTS #1

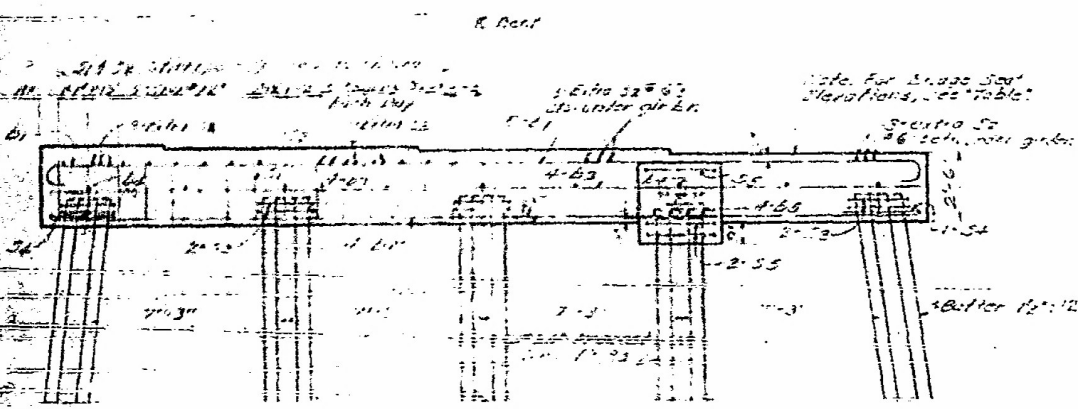
JUNE, 1956

W. H. H. H.



HALF-CAP PLAN
BENT #3 OR #4

BRIDGE SEAT ELEVATIONS						
	Bent #1	Bent #2	Bent #3	Bent #4	Bent #5	Bent #6
LL. C. & G. Grade	416.45	415.85	415.25	414.65	414.05	413.45
CL. C. & G. Grade	416.20	415.60	415.00	414.40	413.80	413.20
CL. C. & G. Grade	416.31	415.71	415.11	414.51	413.91	413.31
CL. C. & G. Grade	416.24	415.64	415.04	414.44	413.84	413.24



HALF-ELEVATION

HALF-ELEVATION
(BRIDGE AND BENTS)

4 Required

BILL OF MATERIAL FOR BENT #1, #2, #5 OR #6					
Bar	No.	Size	Type	Length	Weight
B1	5	#8	1	35'-0"	75.3
B2	4	#8	2	32'-2"	68.4
B3	8	#4	3	16'-10"	20
B4	9	#4	3	16'-0"	16
B5	26	#4	3	7'-7"	13.2
B6	38	#4	3	3'-5"	8.7
B7	10	#4	7	8'-1"	61
B8	2	#6	5	7'-6"	51

Reinforcing Steel, Lbs., 1814
Class A Concrete, Cu. Yds., 10.2
20' Precast Conc. Piles, Nos. 5
20' Precast Conc. Piles, Lin. Pk. 225
20' Precast Conc. Piles, Lin. Pk. 200

Note: "See Data Record for Bar Quantities"

Note: "Concrete displaced by pile heads has been deducted."

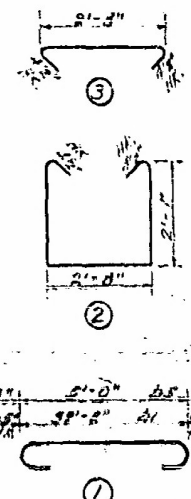
2 Required

BILL OF MATERIAL FOR BENT #3 OR #4					
Bar	No.	Size	Type	Length	Weight
B1	10	#8	1	35'-0"	75.3
B2	4	#8	2	32'-2"	68.4
B3	8	#4	3	16'-10"	20
B4	9	#4	3	16'-0"	16
B5	26	#4	3	7'-7"	13.2
B6	38	#4	3	3'-5"	8.7
B7	10	#4	7	8'-1"	61
B8	2	#6	5	7'-6"	51
B9	2	#6	6	15'-5"	13.2

Reinforcing Steel, Lbs., 6064
Class A Concrete, Cu. Yds., 10.2
20' Precast Conc. Piles, Nos. 5
20' Precast Conc. Piles, Lin. Pk. 225
20' Precast Conc. Piles, Lin. Pk. 200

Bent #3
Bent #4

SECTION B-B
BENT #3 OR #4



Note: All dimensions in feet and inches.

PROJECT NO. CASWELL CO. STATION 11.8

STATE OF NORTH CAROLINA
STATE HIGHWAY
PUBLIC WORKS COMMISSION

INTERIOR BENT
#1, #2, #3, #4

JUNE 1952

11/1/52

END BENT #1

STATION 463105

BENT #1

PILE RECORD

File No	Ord. Length	Total Cut off	Reinf. Steel	Pay Steel	Wire	Pay Wire	No. test Blows	Total Panels	Beam Tons
1	42	0	665	31	0	31	50	2	100
2	42	0	665	31	0	31	50	2	86
3	42	0	665	31	0	31	50	2	70
4	42	0	665	31	0	31	50	2	86
5	42	0	665	31	0	31	50	2	94
TOTALS	210	0	3325	155	0	155			

Type Hammer Vulcan 1

PILE RECORD

File No	Ord. Length	Total Cut off	Reinf. Steel	Pay Steel	Wire	Pay Wire	No. test Blows	Total Panels	Beam Tons
1	42	0	665	31	0	31	50	2	100
2	42	0	665	31	0	31	50	2	86
3	42	0	665	31	0	31	50	2	70
4	42	0	665	31	0	31	50	2	86
5	42	0	665	31	0	31	50	2	94
TOTALS	210	0	3325	155	0	155			

Type Hammer Vulcan 1

BENT #2

PILE RECORD

File No	Ord. Length	Total Cut off	Reinf. Steel	Pay Steel	Wire	Pay Wire	No. test Blows	Total Panels	Beam Tons
1	42	0	665	31	0	31	50	2	97
2	42	0	665	31	0	31	50	2	100
3	42	0	665	31	0	31	50	2	128
4	42	0	665	31	0	31	50	2	86
5	42	0	665	31	0	31	50	2	130
TOTALS	210	0	3325	155	0	155			

Type Hammer Vulcan 1

BENT #3

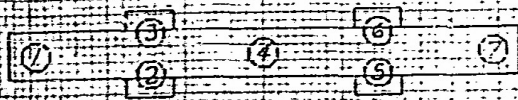
PILE RECORD

File No	Ord. Length	Total Cut off	Reinf. Steel	Pay Steel	Wire	Pay Wire	No. test Blows	Total Panels	Beam Tons
1	42	0	665	31	0	31	50	2	100
2	42	0	665	31	0	31	50	2	86
3	42	0	665	31	0	31	50	2	70
4	42	0	665	31	0	31	50	2	86
5	42	0	665	31	0	31	50	2	94
6	42	0	665	31	0	31	50	2	100
7	42	0	665	31	0	31	50	2	110
TOTALS	294	0	4665	217	0	217			

Type Hammer Vulcan 1

STATION 463705

BENT #4

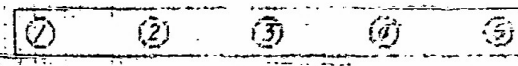


PILE RECORD

Pile No.	Ord. Length	Total Cut off	Pay Length	Reinf. Steel	Steel Cut off	Pay Steel	Wire	Wire Cut off	Pay Wire	No. Test Blows	Total Penetr.	Bearing Tons
1	42	665	0	665	31	0	31	0	31	2	2	83
2	42	665	0	665	31	0	31	0	31	160	38	120
3	42	665	0	665	31	0	31	0	31	10	12	75
4	42	665	0	665	31	0	31	0	31	20	8	104
5	42	665	0	665	31	0	31	0	31	50	24	103
6	42	665	0	665	31	0	31	0	31	10	1	75
7	42	665	0	665	31	0	31	0	31	10	8	36
TOTALS	294.00	4665	0	4665	217	0	217					

Vulcan 1
4:55

BENT #4

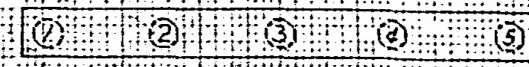


PILE RECORD

Pile No.	Ord. Length	Total Cut off	Pay Length	Reinf. Steel	Steel Cut off	Pay Steel	Wire	Wire Cut off	Pay Wire	No. Test Blows	Total Penetr.	Bearing Tons
1	38.08	600	0	600	28	0	28	0	28	10	8	125
2	34.37	600	0	600	28	0	28	0	28	10	1	75
3	34.42	600	0	600	28	0	28	0	28	10	2	107
4	35.62	600	0	600	28	0	28	0	28	10	4	120
5	33.62	600	0	600	28	0	28	0	28	10	8	107
TOTALS	176.11	3000	0	3000	140	0	140					

Vulcan 1

BENT #5

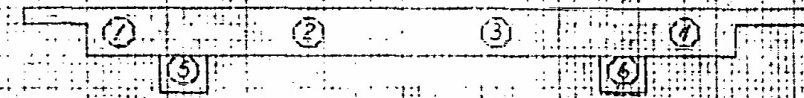


PILE RECORD

Pile No.	Ord. Length	Total Cut off	Pay Length	Reinf. Steel	Steel Cut off	Pay Steel	Wire	Wire Cut off	Pay Wire	No. Test Blows	Total Penetr.	Bearing Tons
1	38	0	38.00	600	0	600	28	0	28	10	8	86
2	38	0	38.00	600	0	600	28	0	28	10	18	96
3	38	0	38.00	600	0	600	28	0	28	4	14	117
4	38	125	36.75	600	16	560	28	0	28	10	8	116
5	38	154	36.46	600	21	579	28	2	28	10	8	12
TOTALS	170	279	187.21	3000	37	2965	140	3	137			

Type Hammer Vulcan 1

END BENT #2



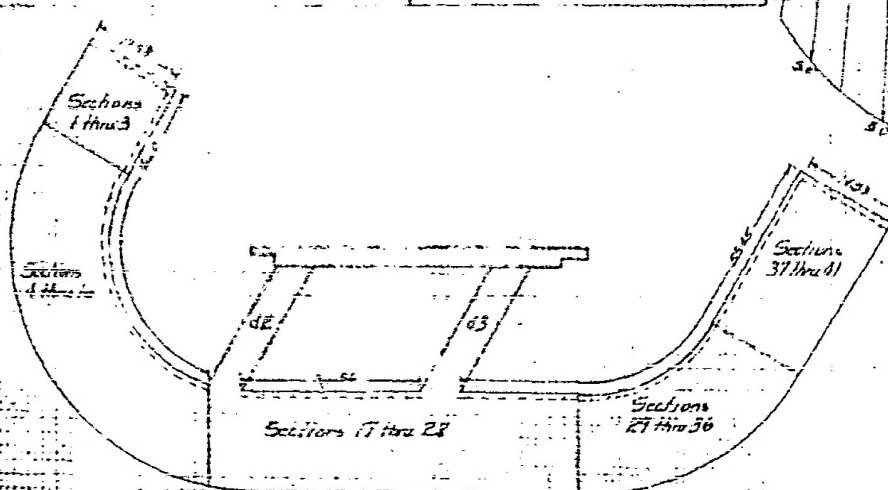
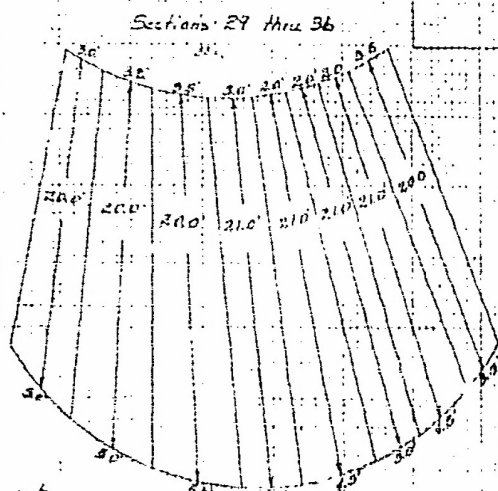
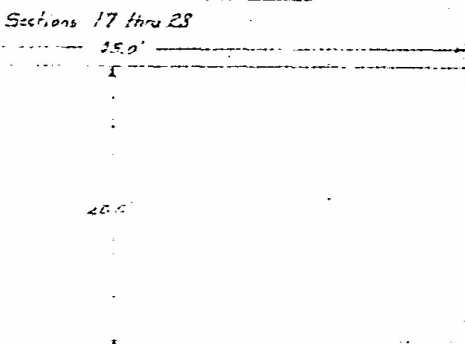
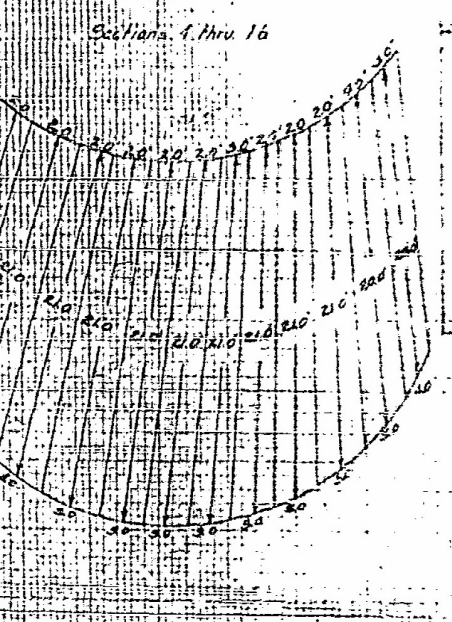
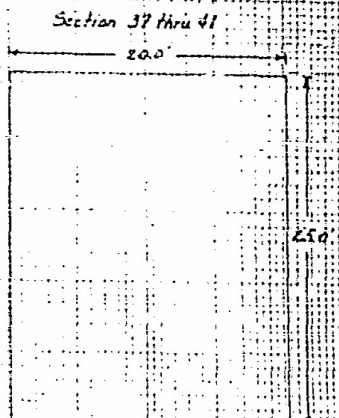
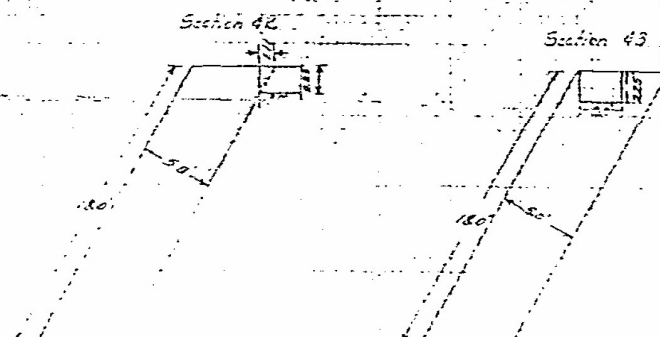
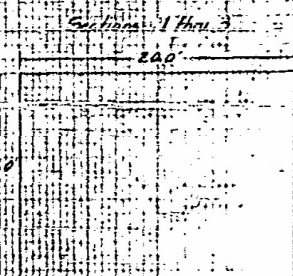
PILE RECORD

Pile No.	Ord. Length	Total Cut off	Pay Length	Reinf. Steel	Steel Cut off	Pay Steel	Wire	Wire Cut off	Pay Wire	No. Test Blows	Total Penetr.	Bearing Tons
1	36	255	33.45	567	37	530	27	3	24	10	8	120
2	36	465	31.18	567	74	493	27	5	22	10	8	86
3	36	234	33.64	567	34	533	27	3	24	10	14	117
4	36	292	33.08	567	43	524	27	3	24	10	1	125
5	36	276	33.24	567	41	526	27	3	24	10	8	120
6	36	288	33.12	567	43	524	27	3	24	10	14	109
TOTALS	216	1829	197.71	3402	272	3150	162	20	142			

Type Hammer Vulcan 1

HOGAN CREEK BRIDGE
RIP RAP END BENT NO. 1
STA. 463+05

B-15141 32
F-112(3)



Sections	Sq. Ft.
1 thru 3	15.0' X 20.0' = 300.00
4	3.0' X 20.0' = 60.00
5	2.0' X 20.0' = 40.00
6	2.0' X 20.0' = 40.00
7	2.0' X 20.0' = 40.00
8	2.0' X 20.0' = 40.00
9	2.0' X 20.0' = 40.00
10	2.0' X 20.0' = 40.00
11	2.0' X 20.0' = 40.00
12	2.0' X 20.0' = 40.00
13	2.0' X 20.0' = 40.00
14	2.0' X 20.0' = 40.00
15	2.0' X 20.0' = 40.00
16	2.0' X 20.0' = 40.00
17 thru 28	20.0' X 45.0' = 900.00
29	3.0' X 20.0' = 60.00
30	2.0' X 20.0' = 40.00
31	2.0' X 20.0' = 40.00
32	2.0' X 20.0' = 40.00
33	2.0' X 20.0' = 40.00
34	2.0' X 20.0' = 40.00
35	2.0' X 20.0' = 40.00
36	2.0' X 20.0' = 40.00
37 thru 41	20.0' X 25.0' = 500.00
42	18.0' X 5.0' = 90.00
43	18.0' X 5.0' = 90.00
44	18.0' X 5.0' = 90.00
Total Sq. Ft.	3600.00

PLAN VIEW



Section 21 thru 34

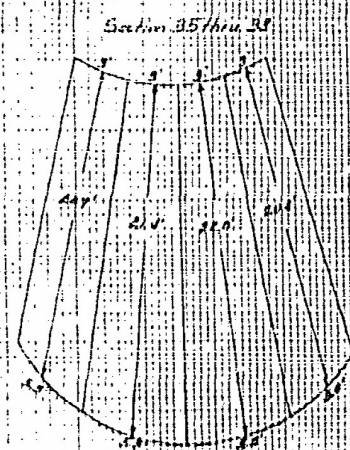
200

560'

[illegible]

Total 4,866,52 Sq. Ft.

176652 17A.06 Sp. 142 Gr. concrete sup. Rsp.



SUMMARY OF QUANTITIES

DRY EXCAV.	WET EXCAV.	WET EXCAV. 3-6'	WET EXCAV. 6-9'	CLASS. CONCRETE	REINF. STEEL	20 CONC. PILES	PILE CUT-OFFS	PILES CUT-OFF	STEEL CUT-OFF	WIRE	WIRE CUT-OFF	TEST PILES	CONCRETE RIP RAP	CU YDS
Cu Yds.	Cu Yds.	Cu Yds.	Cu Yds.	Cu Yds.	Lbs.	LF	LF	Ea.	Lbs.	Lbs.	Lbs.	Ea.	Sq Yds.	Cu Yds.
STATION 222700														
			157.6		25,213									
STATION 312735														
			106.4		15,875									
STATION 349145														
End Bent 1			21.4		4,963								482.66	
Piles End Bent 1					3,066	264.34	41.64	9	471	193	41			
Bent 1			12.4		2,704									
Piles Bent 1					2,356	202.77	20.23	7	220	146	22			
Bent 2	3.55	102.45			33.63									
Piles Bent 2					6,573									
Bent 3	2.61	62.71	22.48	7.78	39.31									
Piles Bent 3					5,284									
End Bent 2	90.40	113.25	212	8.67	37.4									
Piles End Bent 2					5,375									
Superstructure					570.6									
Approach Curbs					76									
TOTALS	97.06	167.28	31.15	7.78	523.20	121.10	449.13	61.87	16	671	337	63	1	482.66
	118.59													
STATION 343105														
			106.5		18,664									
STATION 463105														
End Bent 1			16.3		3,726								408.35	
Piles End Bent 1					3,371	212.67	27.33	6	421	154	26		108.68	
Bent 1			5.9		1,674									
Piles Bent 1					3,325	210.00	0	0	0	155	0			
Bent 2			8.4		1,874									
Piles Bent 2					3,263	206.83	3.17	3	39	152	3			
Bent 3			10.8		2,062									
Piles Bent 3					2,125	274.60	0	0	0	217	0			
Bent 4			10.2		2,062									
Piles Bent 4					2,125	274.00	0	0	0	217	0			
Bent 5			4.4		1,874									
Piles Bent 5					2,963	187.21	2.79	2	37	137	3			
Bent 6			8.9		1,874									
Piles Bent 6					2,758	175.94	10.01	4	212	120	13			
End Bent 2			16.3		3,726								474.06	
Piles End Bent 2					3,337	197.71	18.29	6	272	142	20			
Superstructure					433.3									
Approach Curbs					76									
TOTALS			52.3		116,207									
					713.53									
					14,352									
STATION 488105														
			202.4		43,356									
STATION 418140														
			196.1		37,081									
GRAND TOTAL	15.51	167.28	31.15	7.78	1,724.5	224,654	127.46	37	1,672	1,628	130	3		136,634
					448.59									
					448.59									

COMPUTED BY J. J. R. (S. J.)
CHECKED BY J. J. R. (S. J.)

FINAL ESTIMATE OF STRUCTURES

AMOUNT	UNIT	ITEM	CONTRACT PRICE	TOTAL AMOUNT
112.39	97.06	CU YDS. DRY EXCAVATION	500'	455.30
167.28	CU YDS.	WET EXCAVATION	307.00	512.28
31.15	CU YDS.	WET EXCAVATION 3'-6" BELOW PLAN	33.00	1027.25
7.78	CU YDS.	WET EXCAVATION 6'-1" BELOW PLAN	34.00	234.52
1921.5	CU YDS.	CLASS A CONCRETE	10.00	15,290.00
1119.17	CU YDS.	REINFORCING STEEL	5.12	58,879.85
1302	CU YDS.	REINFORCING STEEL CUT OFF PILES	3.79	142.18
2246.56	CU YDS.	20 PRECAST CONCRETE PILES	0.00	2246.540
127.15	CU YDS.	CONCRETE PILES CUT OFFS	1.50	955.75
27	CU YDS.	CONCRETE PILES CUT OFF	10.00	370.00
3	CU YDS.	CONCRETE TEST PILES	500.00	1500.00
1345.11	CU YDS.	CONCRETE RIP RAP	1.00	8,174.04
124.71	CU YDS.	CONDITIONING COLLECT FOUNDATION	5.00	623.55
50.76	CU YDS.	RETARDER	4.97	252.31

TOTAL AMOUNT OF FINAL ESTIMATE 110,481.11
LESS PREVIOUS PAYMENTS 111,981.11
AMOUNT DUE ON FINAL ESTIMATE 19,500.00

I hereby certify that I have checked this estimate and find it true and correct according to my best knowledge and belief.

Signed *[Signature]* Date *8/1/60*
RESIDENT ENGINEER

Examined and Approved by *[Signature]* Date *8/1/60*
DIVISION ENGINEER