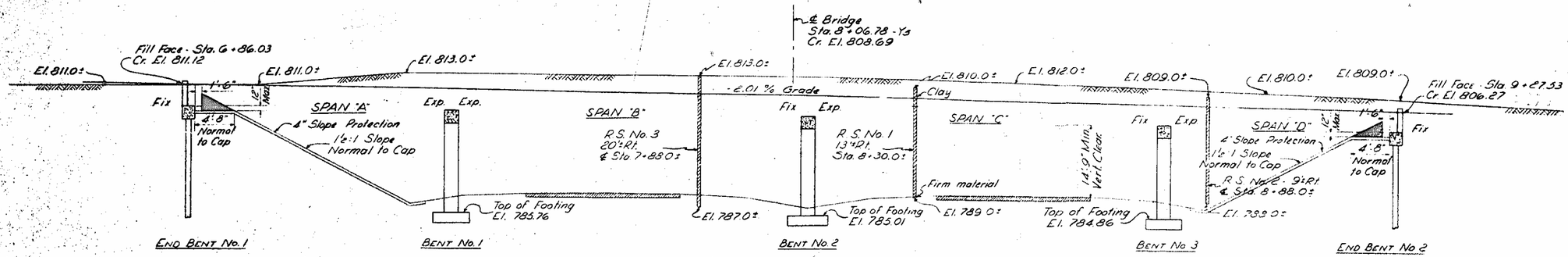
FED. ROAD REGION	STATE	F.
3	N.C.	21

F. A. PROJECT S.F.-20(10)

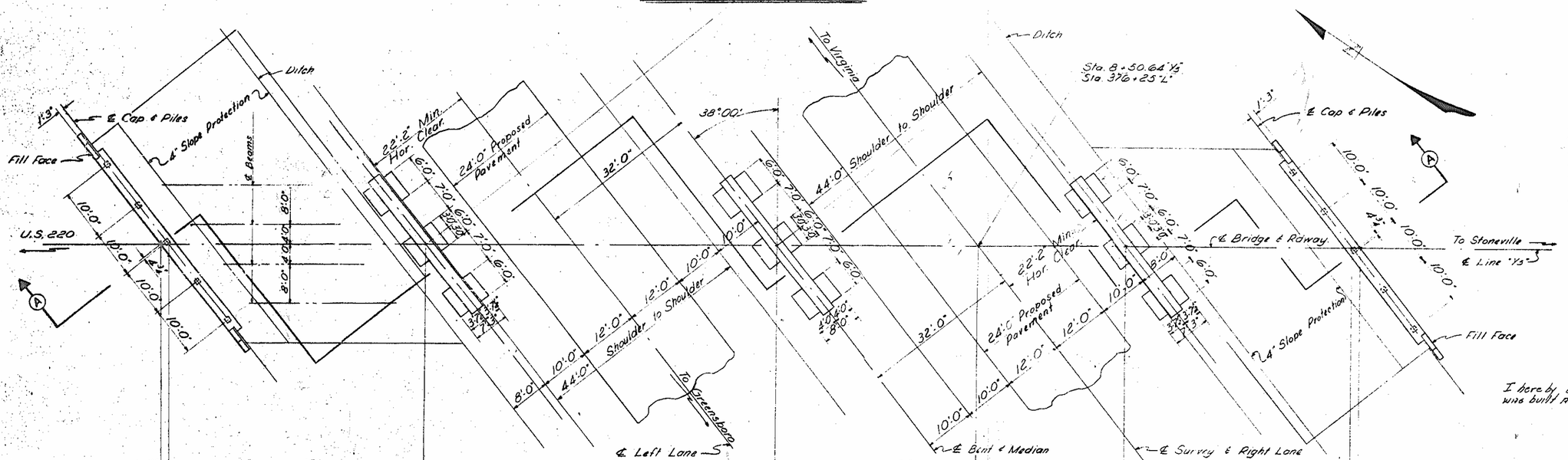
19 of 58

SF-45-2 (102)



SECTION ALONG ℄ BRIDGE

BENTS ALONG SECTION "A-A"

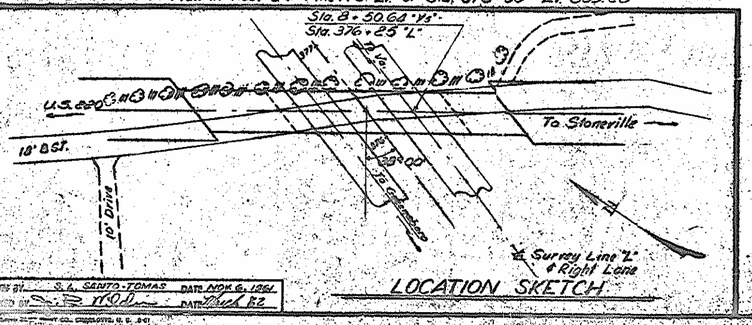


PLAN

* Includes allowance of 4-c.l.f. for cutting off 4 piles.

Note: See letters dated 1-7-63 & 1-16-63 for extra length of concrete and diameter } This is at Contractors expense.

B.M. No. 34 - Nail in Root 24" Pine 175' Lt. of Sta. 376+00 El. 809.28



LOCATION SKETCH

DRAWN BY S. A. SENTO-TOMAS DATE NOV. 6, 1961

CHECKED BY DATE

TOTAL BILL OF MATERIAL

	Class "A" Concrete Cu. Yds.	Reinforcing Steel Lbs.	12" Prestr. Conc. Piles No.	12" Prestr. Conc. Piles Lin. Ft.	Structural Steel Approx. Lbs.	Unclassified Struct. Excav. Cu. Yds.	One Bar Alum. Rail Lin. Ft.	4" Concrete Slope Protec. Sq. Yds.	4" Conc. Block Slope Protec. Sq. Yds.	12" Prestr. Conc. Piles in Lin. Ft.
Superstructure										
Span "A"	60.3	11,905			35,800		101.83			
Span "B"	66.9	14,242			32,200		141.00			
Span "C"	66.9	14,242			32,200		141.00			
Span "D"	53.7	10,551			28,700		88.83			
End Bent No. 1	14.1	2,739	5	~~135~~ 139				~~340~~ 320	310	3.c
Bent No. 1	33.1	5,585				~~40~~ 37.0				
Bent No. 2	33.6	6,066				45 51.8				
Bent No. 3	31.7	5,388		102		~~50~~ 44.8				
End Bent No. 2	14.0	2,730	5	~~105~~ 109				~~255~~ 220	255	4.c
Approach Curbs	3.2	76								
TOTALS	377.3	~~73,842~~ 73,841	10	~~240~~ 237	~~168,900~~ 168,900	~~135~~ 131.8	472.66	~~565~~ 540	565	7.0

— or —

I hereby certify that this structure was built according to plans except noted

W. J. Boone

Resident Engineer

PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8+50.64 -Y3-

376+25 -L-

STATE OF NORTH CAROLINA

STATE HIGHWAY COMMISSION

RALEIGH

GENERAL DRAWING FOR BRIDGE OVER RELOC. U.S. 220 ON CO. RD. BETWEEN U.S. 220 & STONEVILLE

NOVEMBER 1961

SUBMITTED BY ASSISTANT CHIEF ENGINEER

APPROVED BY C. H. Y.

REVISIONS

	BY	DATE
NO.		
1	AGB	
2	HCL	
3	BT	
4	AGB	
5	BT	
NO.		

NOTES

Assumed Live Load - H15-S12 (44)

For other design data and general note see sheet S-N.

Computed foundation load for Bents No. 1, 2 & 3 equals 2½ tons per sq. ft.

No test piles are required. Order length shall be 27 Ft. for End Bent No. 1 and 21 Ft. for End Bent No. 2.

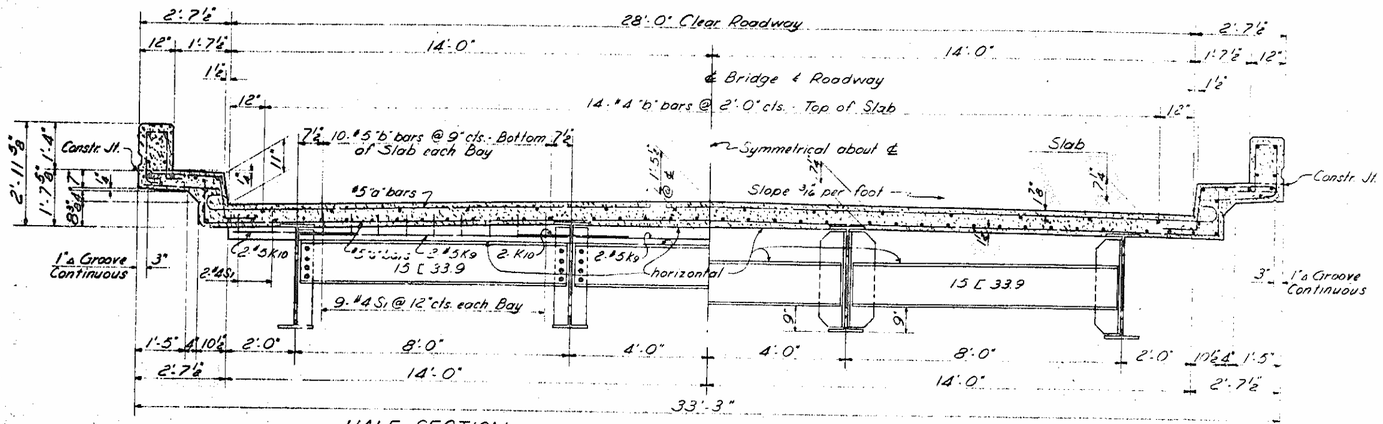
Piles for End Bents No. 1 & No. 2 to be driven to a minimum bearing capacity of 30 tons each.

Work is not to be started on this bridge until after roadway section has been excavated by the roadway contractor.

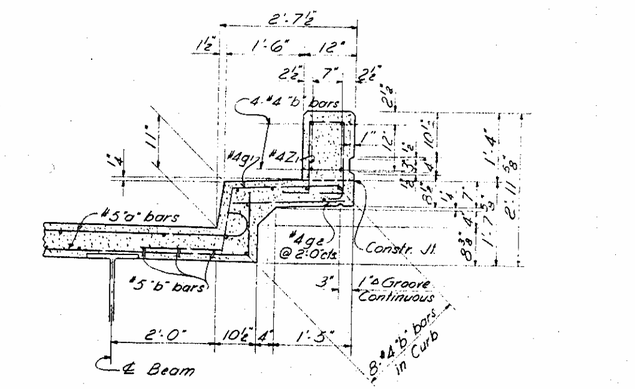
Unclassified structure excavation for Bents No. 1, 2 & 3 to be measured from surface of cut.

Shaded areas to be excavated by the structure contractor. See Special Provisions.

Traffic will be detoured over temporary run-around during construction of the proposed structure. See Special Provisions.



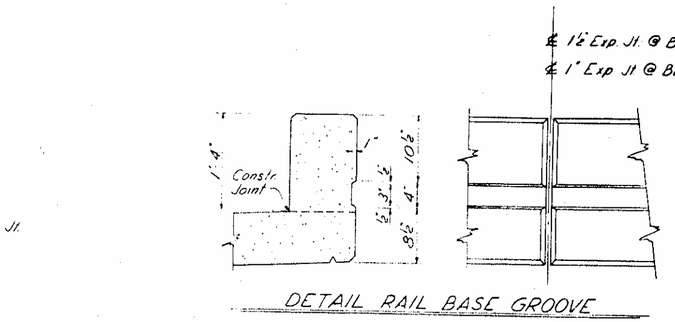
HALF SECTION
SHOWING BENT DIAPHRAGM



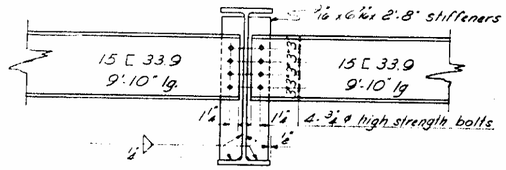
Note: For End Post Details see Sheet S-25

HALF END VIEW

SECTION THRU CURB

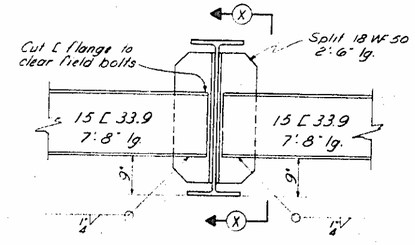


DETAIL RAIL BASE GROOVE

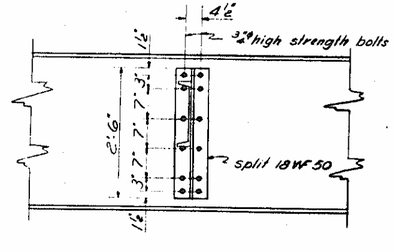


DETAIL DIAPHRAGM CONNECTION @ BENT

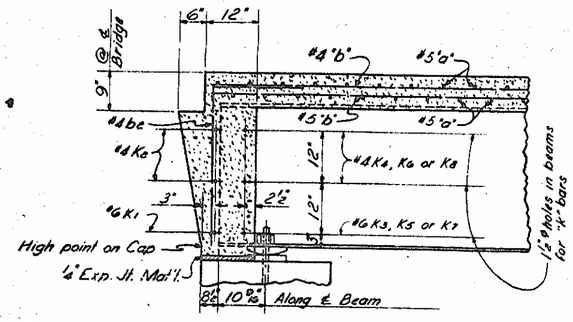
Note: Omit stiffeners on outside of Ext Beams and at End Bents. Stiffeners shall be parallel to ends of beams.



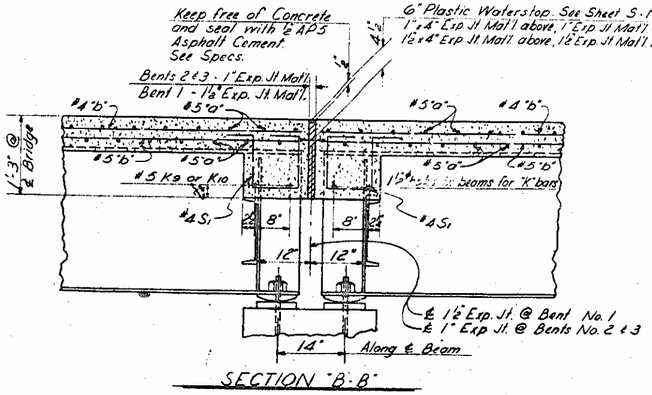
DETAIL INTERIOR
DIAPHRAGM CONNECTION



SECTION "X-X"



SECTION "A-A"



SECTION "B-B"

Note: Field connections of diaphragms to beams shall be bolted using ¾"ø high strength bolts in accordance with the Specifications and Special Provisions

PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8+50.64 "Y5"
376+25 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
SECTIONS & DETAILS

OCTOBER 1961

REVISIONS	NO.	BY	DATE
	1		
	2		
	3		
	4		

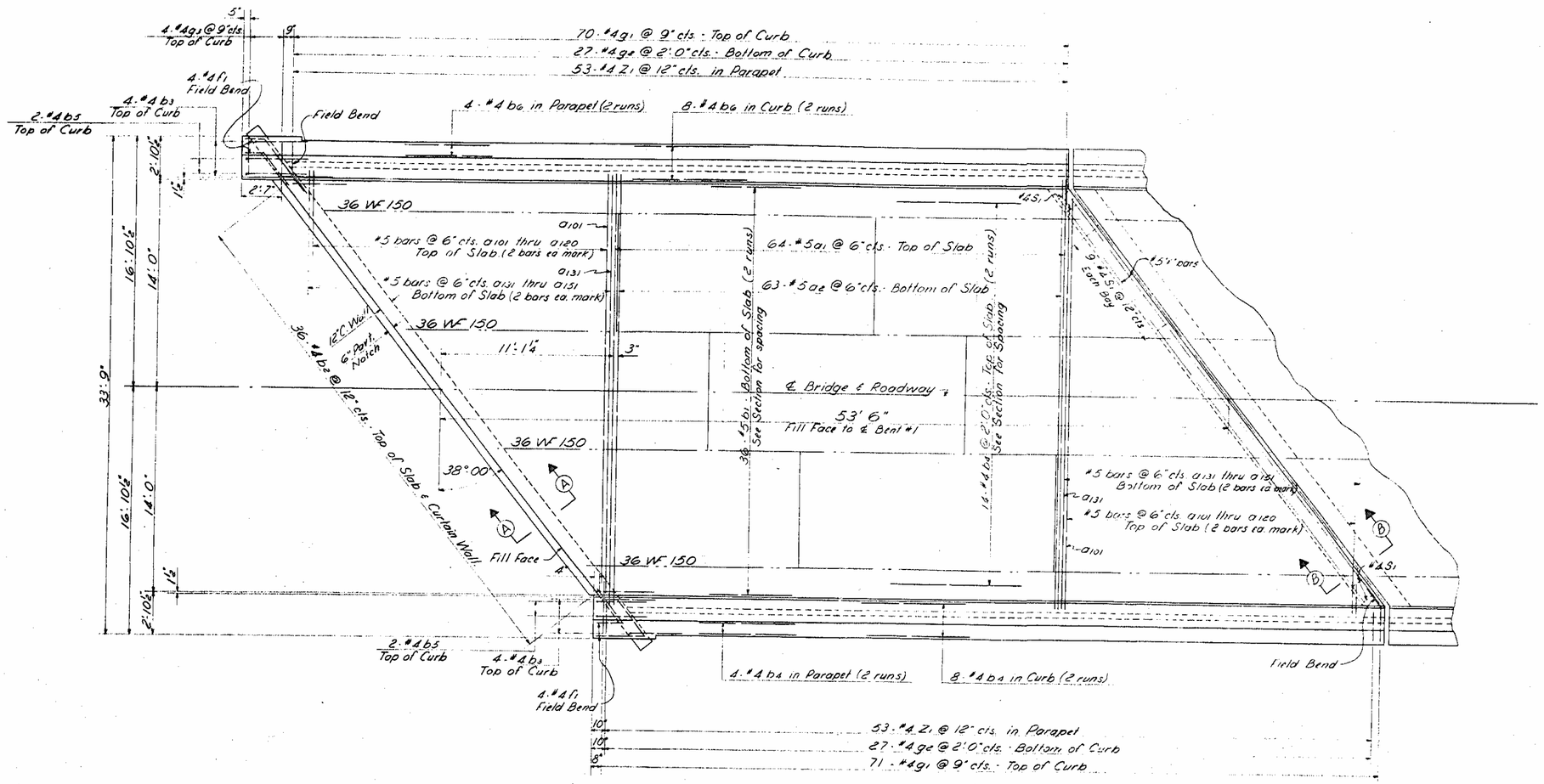
BY S. L. SANTO-TOMAS DATE OCT. 9, 1961
BY E. M. Watson DATE Jan. 1962

FED. ROAD SECTION	STATE	PROJECT
9	N.C.	B-1591

F. A. PROJECT S.F.-2066(1)

21 of 58

SF 45-2(102)



PLAN

PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8+50.64 "Y5"
376+25 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
SPAN "A"

SEPTEMBER 1961

S-2

REVISIONS

NO.	BY	DATE
1		
2		
3		
4		

DRAWN BY S.L. SANTO-TOMAS DATE SEPT. 25, 1961

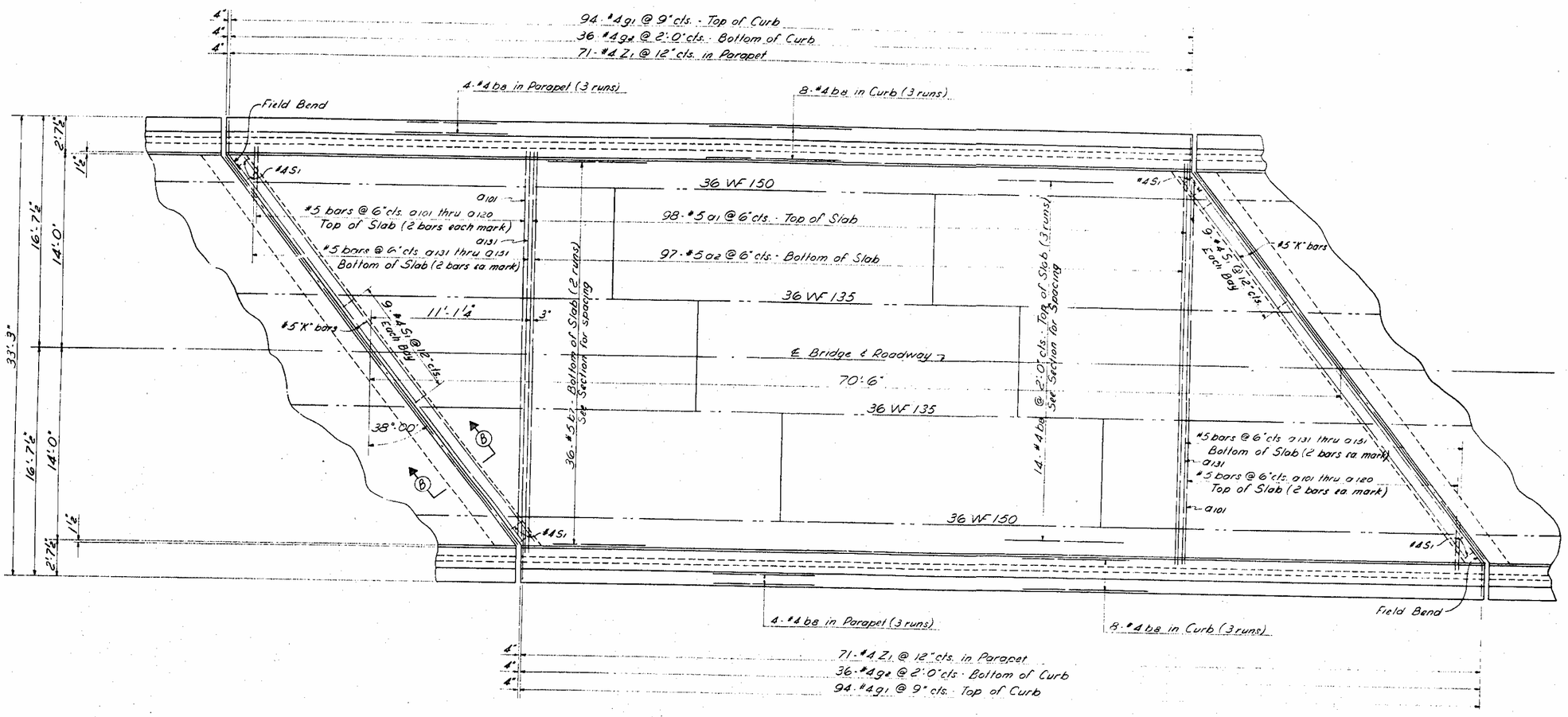
TRACED BY [illegible] DATE Jan. 1962

NO. ROAD SECTION	COUNTY	PROJECT
3	RC	B-159

F. A. PROJECT SF-2050(

22 of 58

SF-45-2 (10



PLAN

PROJECT NO. B-15914

ROCKINGHAM COUNTY

STATION: 8+50.64 'Y5'
376+25 'L'

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
SPAN "B" OR "C"
SEPTEMBER 1961

REVISIONS	NO.	BY	DATE
	3		
	4		

S-21

DRAWN BY: S. L. SANTO-TOMAS DATE: SEP 28, 1961
CHECKED BY: R. R. Wilder DATE: Feb 1962

FED. ROAD DESIGNATION	STATE	PROJECT NO.
9	N.C.	B 15914

P. A. PROJECT S-PR-205(10)

23 of 58

SF 45-2 (102)

62 - #4g1 @ 9" cls. - Top of Curb
24 - #4g2 @ 2'-0" cls. - Bottom of Curb
46 - #4Z1 @ 12" cls. in Parapet

8 - #4 b11 in Curb (2 runs)

4 - #4 b11 in Parapet (2 runs)

Field Bend

#4S1

a101
#5 bars @ 6" cls. a101 thru a120
Top of Slab (2 bars ea. mark)

#5 bars @ 6" cls. a131 thru a151
Bottom of Slab (2 bars ea. mark)
a131

9 - #4 S1 @ 12" cls. Each Bay

36 WF 135

51 - #5a1 @ 6" cls. - Top of Slab

50 - #5a2 @ 6" cls. - Bottom of Slab

36 WF 135

℄ Bridge ℄ Roadway

47'-0"

36 WF 135

14 - #4 b11 @ 2'-0" cls. - Top of Slab (2 runs)

36 - #5 b3 - Bottom of Slab (2 runs) See Section for spacing

36 WF 135

#4S1

7"
7"
12"

4 - #4 f1 Field Bend

2 - #4 b5 - Top of Curb

4 - #4 b5 - Top of Curb

4"

16" pvmt riser

38° 00'

36 - #4 a2 @ 12" cls. - Top of Slab ℄ Curtain Wall

11'-1/4"

12" Curtain Wall

Fill Face

a131
#5 bars @ 6" cls. a131 thru a151
Bottom of Slab (2 bars ea. mark)

#5 bars @ 6" cls. a101 thru a120
Top of Slab (2 bars ea. mark)
a101

2'-7"

Field Bend

8 - #4 b10 in Curb (2 runs)

4 - #4 b10 in Parapet (2 runs)

47 - #4 Z1 @ 12 cls. in Parapet
24 - #4 g2 @ 2'-0" cls. Bottom of Curb
62 - #4 g1 @ 9" cls. Top of Curb

12'-2 1/2"
14'-0"
16'-10 1/2"
33'-9"

4 - #4 b5 - Top of Curb
2 - #4 b5 - Top of Curb
4 - #4 f1 Field Bend

9"
5"
4 - #4 g5 @ 9" cls.

PLAN

PROJECT No. 8.15914

ROCKINGHAM COUNTY

STATION: 8+50.64 "Y5"
376+25 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

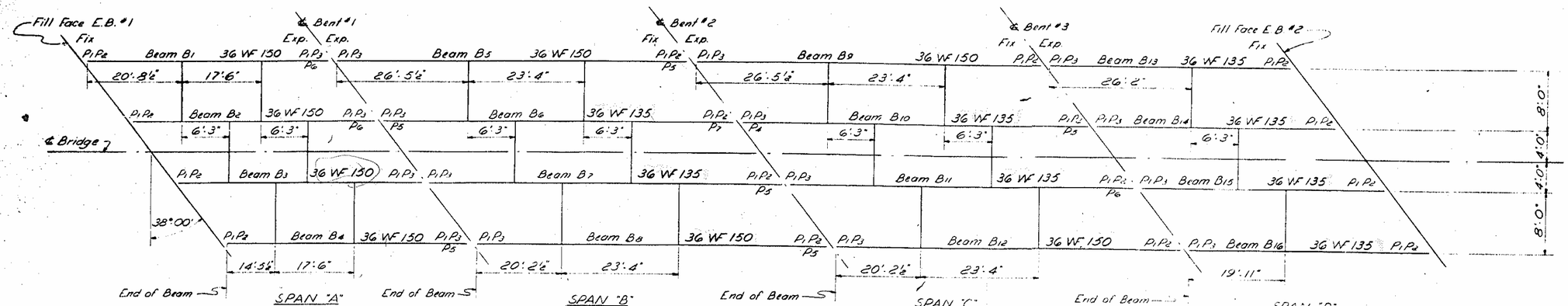
SUPERSTRUCTURE
SPAN "D"
SEPTEMBER 1961

REVISIONS	NO.	BY	DATE
	1		
	2		
	3		
	4		

SHEET NO. 5-2
TOTAL SHEETS 49

DRAWN BY S. L. SANTO-TOMAS DATE SEP 28, 1961
CHECKED BY D. E. W. Jr. DATE Jan. 1962

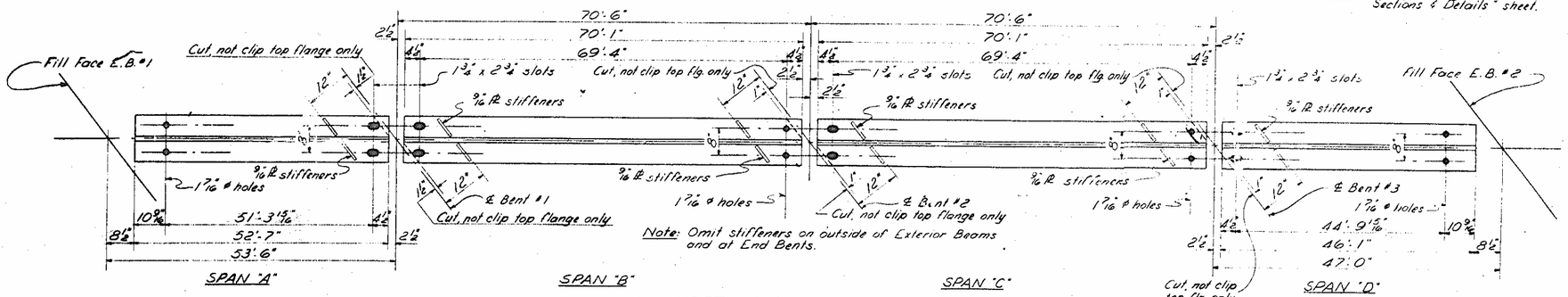
COMMERCIAL BLUE PRINT CO., CHARLOTTE, N. C.



BEAM, DIAPHRAGM & PLATE LAYOUT

Note: Dimensions given to diaphragms are horizontal

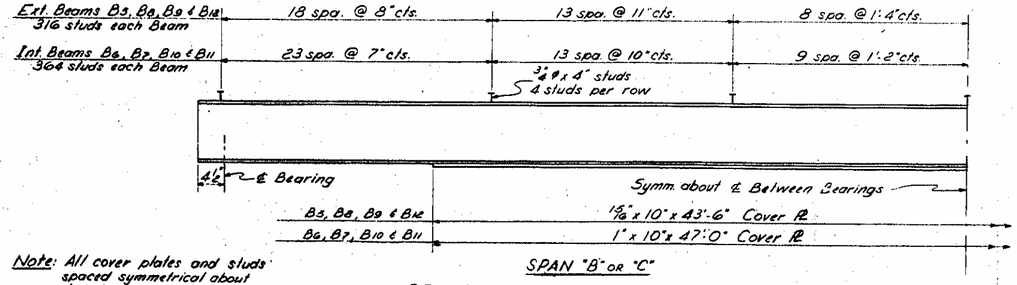
Note: For diaphragm details see "Superstructure Sections & Details" sheet.



Note: Omit stiffeners on outside of Exterior Beams and at End Bents.

BOTTOM FLANGE DETAIL

Note: Dimensions are horizontal.



SPAN "B" OR "C"

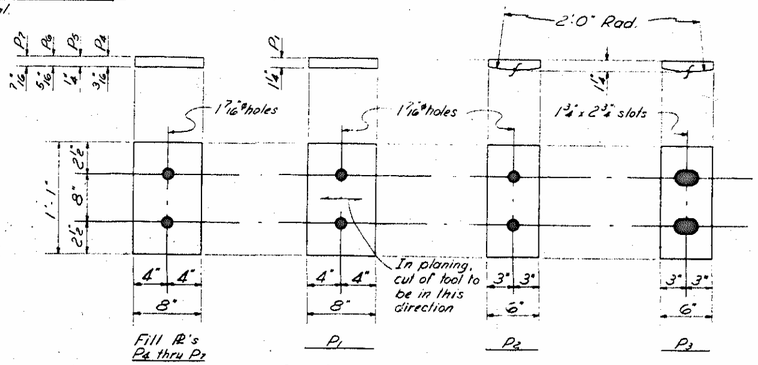
BEAM ELEVATION & STUD SPACING

Note: For holes in beam webs for "K" bars see Superstructure Sections & Details.

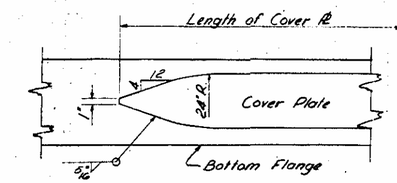
Note: All cover plates and studs spaced symmetrical about ℄ between bearings. Shear studs and cover Pl's not required for Beams B1, B2, B3, B4, B13, B14, B15 & B16.

DEAD LOAD DEFLECTION AND BEAM CAMBER	SPAN "A"		SPAN "B" or "C"		SPAN "D"	
	B1 & B4 Ext.	B2 & B3 Int.	B5, B8, B9 & B12 Ext.	B6, B7, B10 & B11 Int.	B13 & B16 Ext.	B14 & B15 Int.
Deflection due to weight of beam	9/16	1/16	2 1/16	3/16	1/16	1/16
Deflection due to superimposed dead load	1/16	0	1 1/16	1 1/16	1/16	1/16
Total dead load deflection	3/8	3/8	1 3/16	1 3/8	1/2	3/16
Camber	0"	0"	1 3/16	1 3/8	0"	0"

Note: No camber other than natural mill camber required for Spans A & D

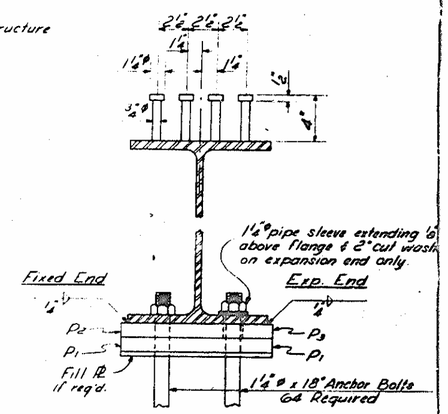


BEARING PLATE DETAILS



COVER PLATE DETAIL

REQ'D LIST OF BRG. PL'S	
P1 - 32	P5 - 6
P2 - 16	P6 - 3
P3 - 16	P7 - 1
P4 - 1	



SECTION THRU BEAM AND STUD DETAIL

Note: At the contractor's option 3 [@ 6" channels may be used in lieu of the stud shear connectors. See Sheet S-N.

Note: All beams, cover plates and shear connectors shall be of ASTM A36 grade structural ~~steel. See Sheet S-N.~~

PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8+50.64 "Y5"
376+25 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
STRUCTURAL STEEL
DETAILS
OCTOBER 1961

REVISIONS	NO.	BY	DATE
	1		
	2		
	3		
	4		

SHEET NO. S-23

DRAWN BY S. L. SANTO-TOMAS DATE OCT. 12, 1961
TRACED BY W. R. Ash DATE July 1962

FED. ROAD DESIGN	STATE	PROJECT
3	N.C.	8.15914
F. A. PROJECT S-F-2051(1)		

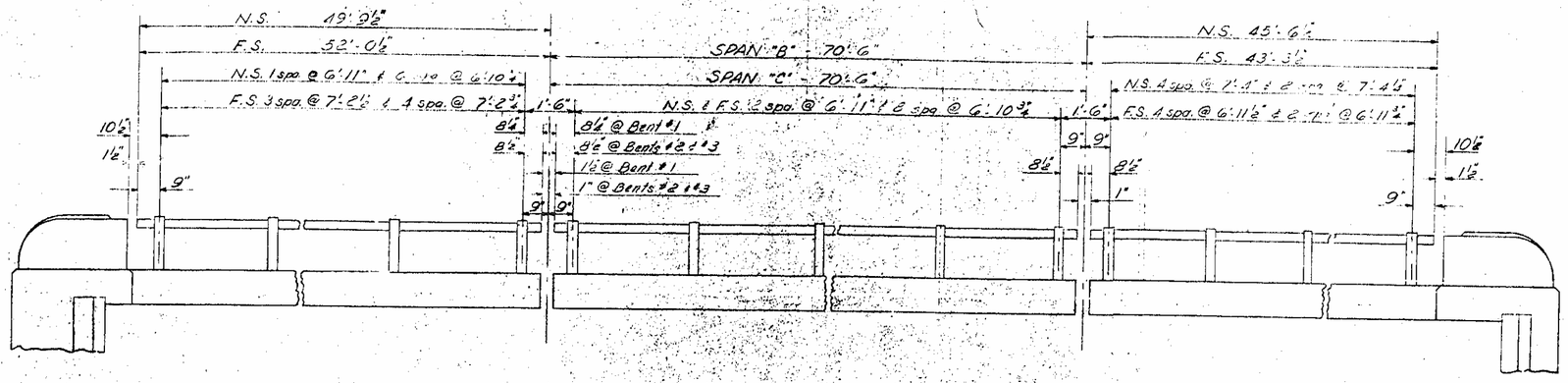
24 of 58
SF 45-2 (10

FED. ROAD DIST. NO.	STATE	PROJ.
3	N. C.	B-15

F.A. PROJ. SF-285(1)

25 of 58

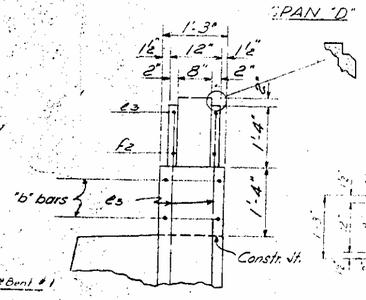
SF 45-2 (10

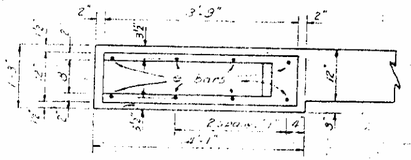


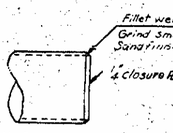
SPAN "A" SPAN "B" or "C" SPAN "D"

ELEVATION

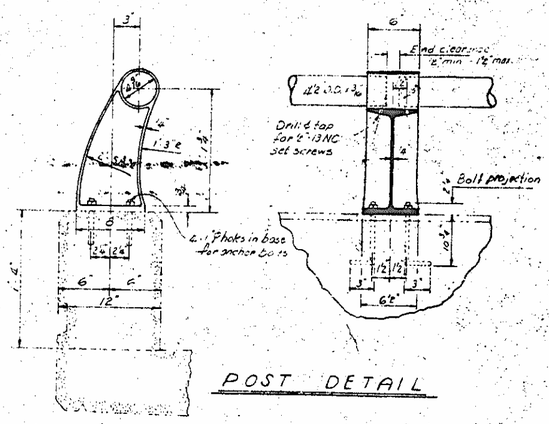
Pay length = 472.66 L.F.



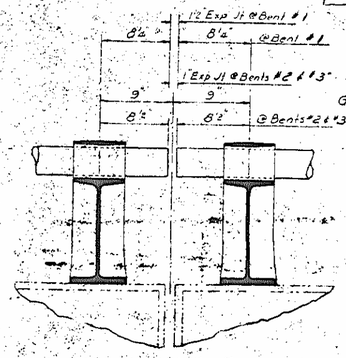




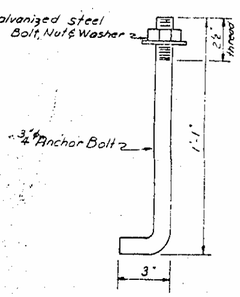
DETAIL END CLOSURE



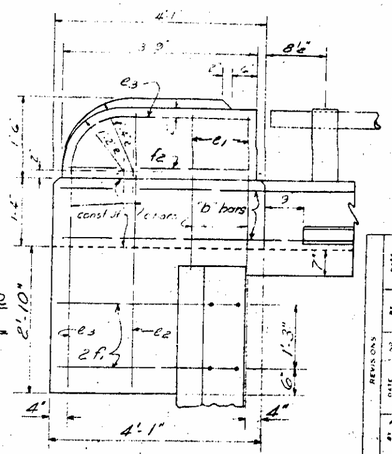
POST DETAIL



DETAIL @ EXPANSION JOINT



DETAIL OF ANCHOR BOLTS



END POST DETAILS

NOTE

Round Tubular Rail to be of size and wall thickness indicated.

Unless noted on the plans, maximum length of rail section to be two panels plus stick thr

End of rail to clear face of concrete End Post by 1½".

For double panel runs of rail, set screws sha be set tight at center post and snug at end to allow for expansion.
For Single panel runs, set screw to be tight at one end and snug at other end.

Base of rail post or any other aluminum surfa in contact with concrete, shall be thoroughly coated with an aluminum impregnated caul compound of approved quality.

⅜"ø Anchor bolts - hex. nuts and washers be galvanized steel and painted alumin after erection.

Cast posts to be as shown or an approv equal.

Certified Mill reports are required fo rails & posts. Shop inspection is not requir

Aluminum Rail Posts to be set normal to @ grade.

Use aluminum alloys as follows:

Cast Rail Posts	A 356 - T6.
Round Tubular Rail	6061-T6 or 6062-T
Set Screws	2024-T4
Pipe Closure Plates	6061-T6 or 6062-T

Method of measurement for Aluminum Rails:

Unless otherwise stated, the length of aluminum rails to be paid for shall be the continuous horizontal length measure from end to end of rail, excepting concret posts, but without deductions for spaces between rail sections.

Concrete and reinforcing steel for End Post are included with Superstructure or End Bents

PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8-30.64 "L"
376+25 "L"

ASSEMBLY	DESIGNED BY	DATE
Made by S.S.T.	DRAWN BY G. L. Smith, Jr.	DATE July 2, 1961
Chkd by [illegible]	TRACED BY	DATE
Date 2-13-62	CHECKED BY A. L. Barnette	DATE July 28, 196[illegible]

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

STANDARD
I BAR
ALUMINUM RAIL
AND END POSTS
JULY 1961

REVISIONS

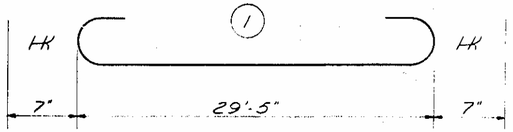
SHEET NO. S-24

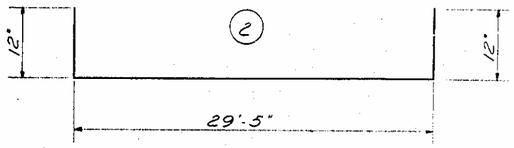
FED. ROAD REGION	STATE	PROJECT NO.
3	N.C.	B-1591

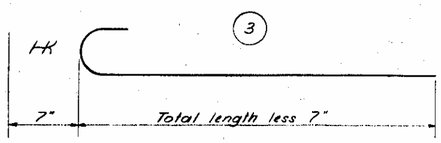
F. A. PROJECT STF-205(1)

26 of 58

SF 45-2 (102)







BILL OF MATERIAL

SPAN "A"

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
a1	64	#5	1	30'-7"	2,042
a2	63		2	31'-5"	2,064
a101	4		3	27'-11"	116
a102				26'-8"	111
a103				25'-5"	106
a104				24'-1"	100
a105				22'-10"	95
a106				21'-7"	90
a107				20'-3"	84
a108				19'-0"	79
a109				17'-9"	74
a110				16'-5"	68
a111				15'-2"	63
a112				13'-11"	58
a113				12'-7"	52
a114				11'-4"	47
a115				10'-0"	42
a116				8'-9"	37
a117				7'-6"	31
a118				6'-2"	26
a119				4'-11"	21
a120			3	3'-8"	15
a131			4	28'-8"	120
a132				27'-5"	114
a133				26'-2"	109
a134				24'-10"	104
a135				23'-7"	98
a136				22'-3"	93
a137				21'-0"	88
a138				19'-9"	82
a139				18'-5"	77
a140				17'-2"	72
a141				15'-11"	66
a142				14'-7"	61
a143				13'-4"	56
a144				12'-1"	50
a145				10'-9"	45
a146				9'-6"	40
a147				8'-3"	34
a148				6'-11"	29
a149				5'-8"	24
a150				4'-4"	18
a151	4	#5	4	3'-1"	13

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	72	#5	Str.	27'-6"	2,063
b2	36	#4	5	5'-11"	142
b3	8		5	6'-10"	37
b4	52		Str.	27'-3"	947
b5	4		5	4'-11"	13
b6	24	#4	Str.	28'-7"	458
e1	8	#4	Str.	2'-11"	16
e2	4	#4	Str.	5'-0"	13
e3	4	#4	9	8'-1"	22
f1	8	#4	Str.	4'-2"	22
f2	4	#4	Str.	3'-5"	9
g1	141	#4	6	5'-2"	487
g2	54	#4	Str.	2'-3"	81
g3	4	#4	10	3'-10"	10
K1	1	#6	Str.	47'-5"	64
K2	4	#4		21'-10"	58
K3	3	#6		9'-9"	44
K4	6	#4		9'-9"	39
K5	2	#6		4'-8"	14
K6	4	#4		3'-2"	8
K7	2	#6		8'-8"	26
K8	4	#4		7'-11"	21
K9	6	#5		9'-9"	61
K10	8	#5	Str.	4'-3"	35
S1	31	#4	7	3'-4"	69
Z1	106	#4	8	4'-8"	330

Reinforcing Steel Lbs. = 11,903
Class "A" Concrete Cu. Yds. = 60.3
Structural Steel Approx Lbs. = 35,800
1 Bar Aluminum Rail Lin. Ft. = 101.83

ONE SPAN "B" OR "C"

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	98	#5	1	30'-7"	3,120
b2	97		2	31'-5"	3,178
b101	4		3	27'-11"	116
b102				26'-8"	111
b103				25'-5"	106
b104				24'-1"	100
b105				22'-10"	95
b106				21'-7"	90
b107				20'-3"	84
b108				19'-0"	79
b109				17'-9"	74
b110				16'-5"	68
b111				15'-2"	63
b112				13'-11"	58
b113				12'-7"	52
b114				11'-4"	47
b115				10'-0"	42
b116				8'-9"	37
b117				7'-6"	31
b118				6'-2"	26
b119				4'-11"	21
b120			3	3'-8"	15
b131			4	28'-8"	120
b132				27'-5"	114
b133				26'-2"	109
b134				24'-1"	104
b135				23'-7"	98
b136				22'-7"	93
b137				21'-0"	88
b138				19'-9"	82
b139				18'-5"	77
b140				17'-2"	72
b141				15'-11"	66
b142				14'-7"	61
b143				13'-4"	56
b144				12'-1"	50
b145				10'-9"	45
b146				9'-6"	40
b147				8'-3"	34
b148				6'-11"	29
b149				5'-8"	24
b150				4'-4"	18
b151	4	#5	4	3'-1"	13

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b3	72	#5	Str.	24'-5"	1,832
b4	114	#4	Str.	24'-3"	1,847
g1	188	#4	6	5'-2"	649
g2	72	#4	Str.	2'-3"	108
K9	12	#5	Str.	9'-9"	122
K10	16	#5	Str.	4'-3"	71
S1	62	#4	7	3'-4"	138
Z1	142	#4	8	4'-8"	443

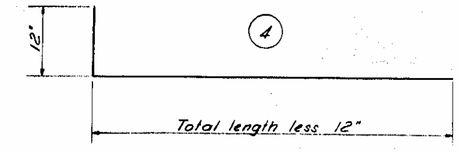
Reinforcing Steel Lbs. = 14,243
Class "A" Concrete Cu. Yds. = 66.9
Structural Steel Approx Lbs. = 36,200
1 Bar Aluminum Rail Lin. Ft. = 141.0

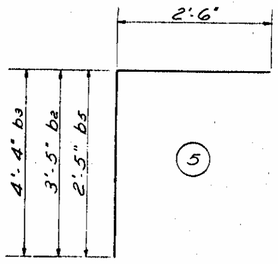
SPAN "D"

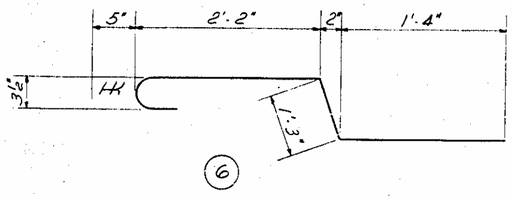
BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
a1	51	#5	1	30'-7"	1,627
a2	50		2	31'-5"	1,638
a101	4		3	27'-11"	116
a102				26'-8"	111
a103				25'-5"	106
a104				24'-1"	100
a105				22'-10"	95
a106				21'-7"	90
a107				20'-3"	84
a108				19'-0"	79
a109				17'-9"	74
a110				16'-5"	68
a111				15'-2"	63
a112				13'-11"	58
a113				12'-7"	52
a114				11'-4"	47
a115				10'-0"	42
a116				8'-9"	37
a117				7'-6"	31
a118				6'-2"	26
a119				4'-11"	21
a120			3	3'-8"	15
a131			4	28'-8"	120
a132				27'-5"	114
a133				26'-2"	109
a134				24'-10"	104
a135				23'-7"	98
a136				22'-3"	93
a137				21'-0"	88
a138				19'-9"	82
a139				18'-5"	77
a140				17'-2"	72
a141				15'-11"	66
a142				14'-7"	61
a143				13'-4"	56
a144				12'-1"	50
a145				10'-9"	45
a146				9'-6"	40
a147				8'-3"	34
a148				6'-11"	29
a149				5'-8"	24
a150				4'-4"	18
a151	4	#5	4	3'-1"	13

BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
b2	36	#4	5	5'-11"	142
b3	8	#4	5	6'-10"	37
b4	4	#4	5	4'-11"	13
b9	72	#5	Str.	24'-3"	1,821
b10	24	#4	Str.	25'-5"	458
b11	52	#4	Str.	6a-1	8
e1	8	#4	Str.	2'-11"	16
e2	4	#4	Str.	5'-0"	13
e3	4	#4	9	8'-1"	22
f1	8	#4	Str.	4'-2"	22
f2	4	#4	Str.	3'-5"	9
g1	124	#4	6	5'-2"	428
g2	48	#4	Str.	2'-3"	72
g3	4	#4	10	3'-10"	10
K1	1	#6	Str.	42'-5"	64
K2	4	#4		21'-10"	58
K3	3	#6		9'-9"	44
K4	6	#4		9'-9"	39
K5	2	#6		4'-8"	14
K6	4	#4		3'-2"	8
K7	2	#6		8'-8"	26
K8	4	#4		7'-11"	21
K9	6	#5		9'-9"	61
K10	8	#5	Str.	4'-3"	35
S1	31	#4	7	3'-4"	69
Z1	93	#4	8	4'-8"	291

Reinforcing Steel Lbs. = 10,3
Class "A" Concrete Cu. Yds. = 53.7
Structural Steel Approx Lbs. = 28,70
1 Bar Aluminum Rail Lin. Ft. = 88.2

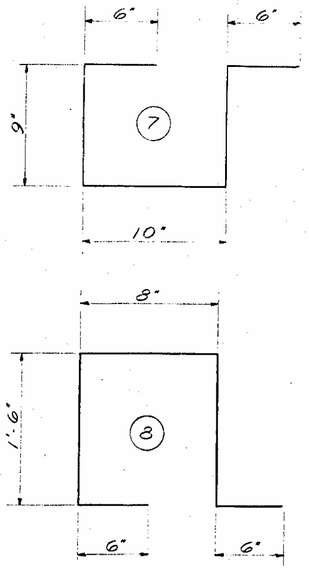


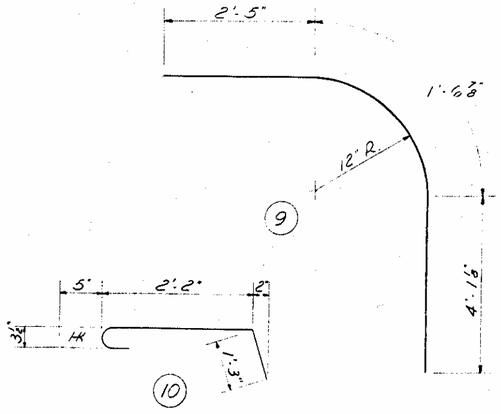




All bar dimensions are out to out.

BAR TYPES





PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 8 - 50.64 "Y5"
376 + 23 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
BAR TYPES &
BILL OF MATERIAL
OCTOBER 1961

REVISIONS | NO. | DATE | BY

SHEET NO. S-25

DRAWN BY S.L. SMITH-TOMAC DATE OCT. 24 1961
CHECKED BY R. R. WILSON DATE Oct. 24, 1961

FED. ROAD DIV. NO.	STATE	PROJECT NO.
8	NC	8.15914
F. A. PROJECT	SF-45-2(102)	

27 of 68

SF 45-2(102)

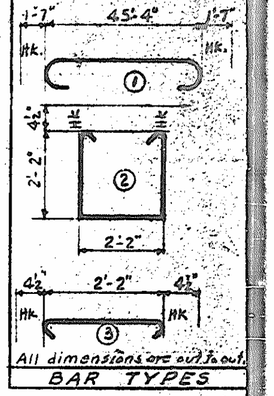
BILL OF MATERIAL

BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
b1	2	#11	Str.	85'-0"	584
b2	6	#11	1	40'-6"	1546
b3	8	#4	Str.	23'-0"	125
b4	12	#4	Str.	2'-2"	17
h1	10	#4	Str.	5'-10"	39
h2	4	#4	Str.	6'-3"	17
h3	10	#4	Str.	5'-1"	34
h4	4	#4	Str.	5'-6"	15
S1	36	#4	2	7'-5"	174
S2	36	#4	3	2'-11"	70
V1	14	#4	Str.	7'-1"	66
V2	12	#4	Str.	6'-6"	52

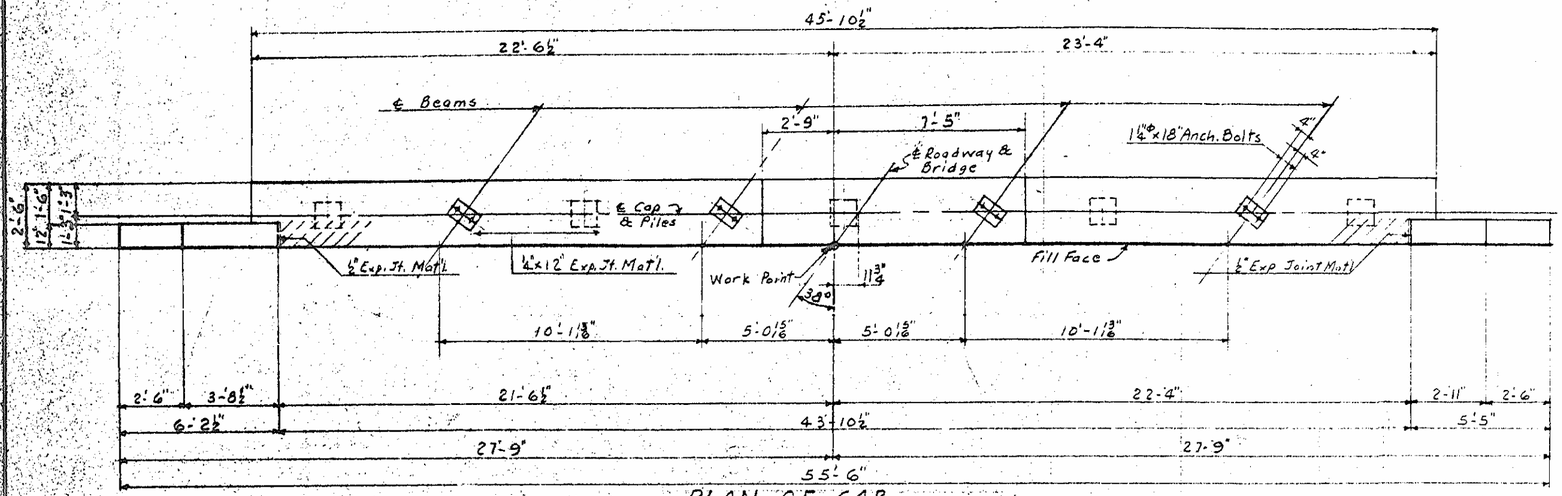
Reinforcing Steel Lbs. 2735

Class "A" Conc. Cu. Yds. 14

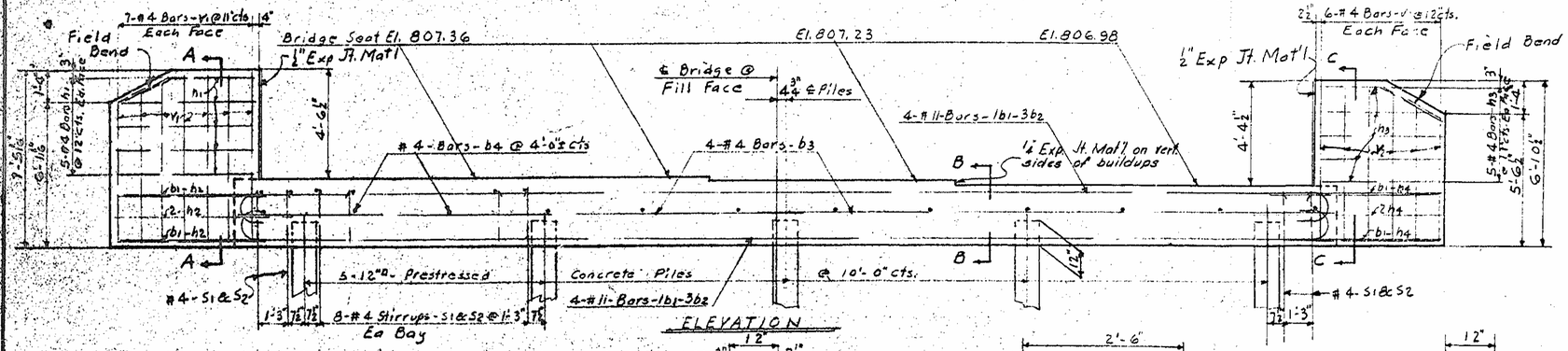
12"ø Prestr. Conc. Piles No. 8 @ 13

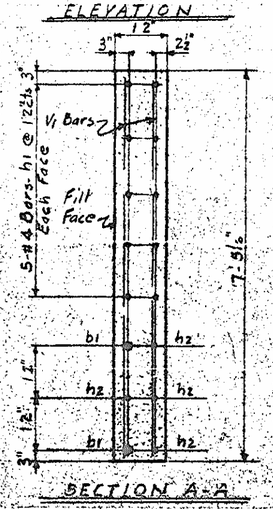


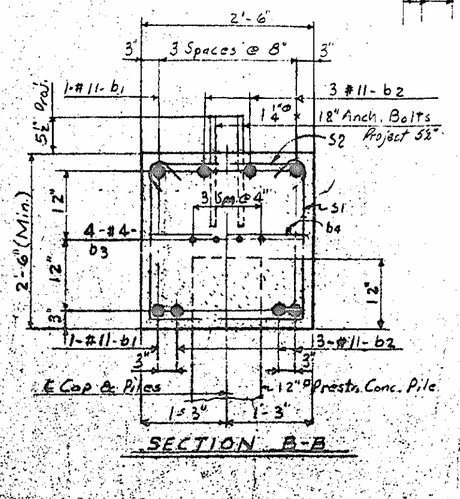
BAR TYPES

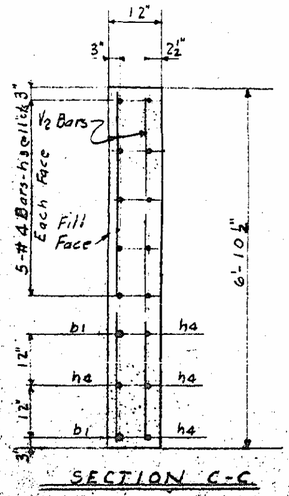


PLAN OF CAP









PROJECT NO. 8.15914

ROCKINGHAM COUNTY

STATION: 376+25 -L- 1

STATE OF NORTH CAROLINA

STATE HIGHWAY COMMISSION

RALEIGH

SUBSTRUCTURE

END BENT NO. 1

AUGUST-1961

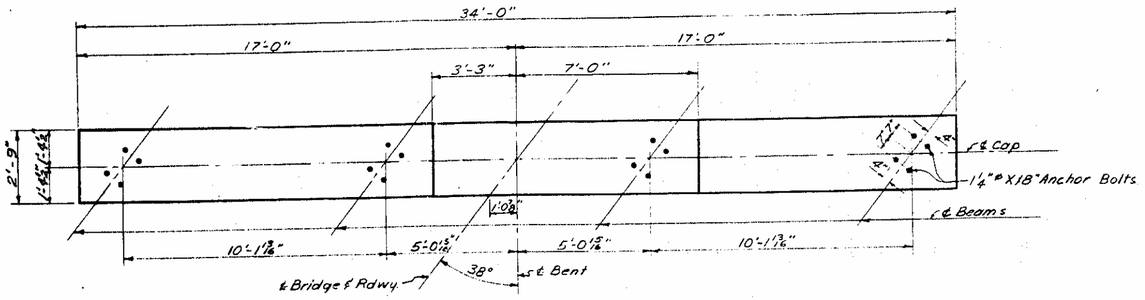
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N. C.	8.15914

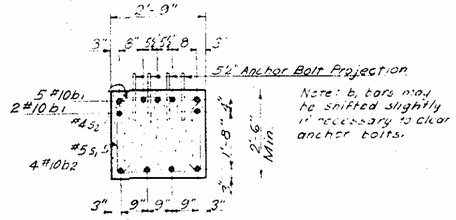
F. A. PROJECT SF-205(104)

28 of 58

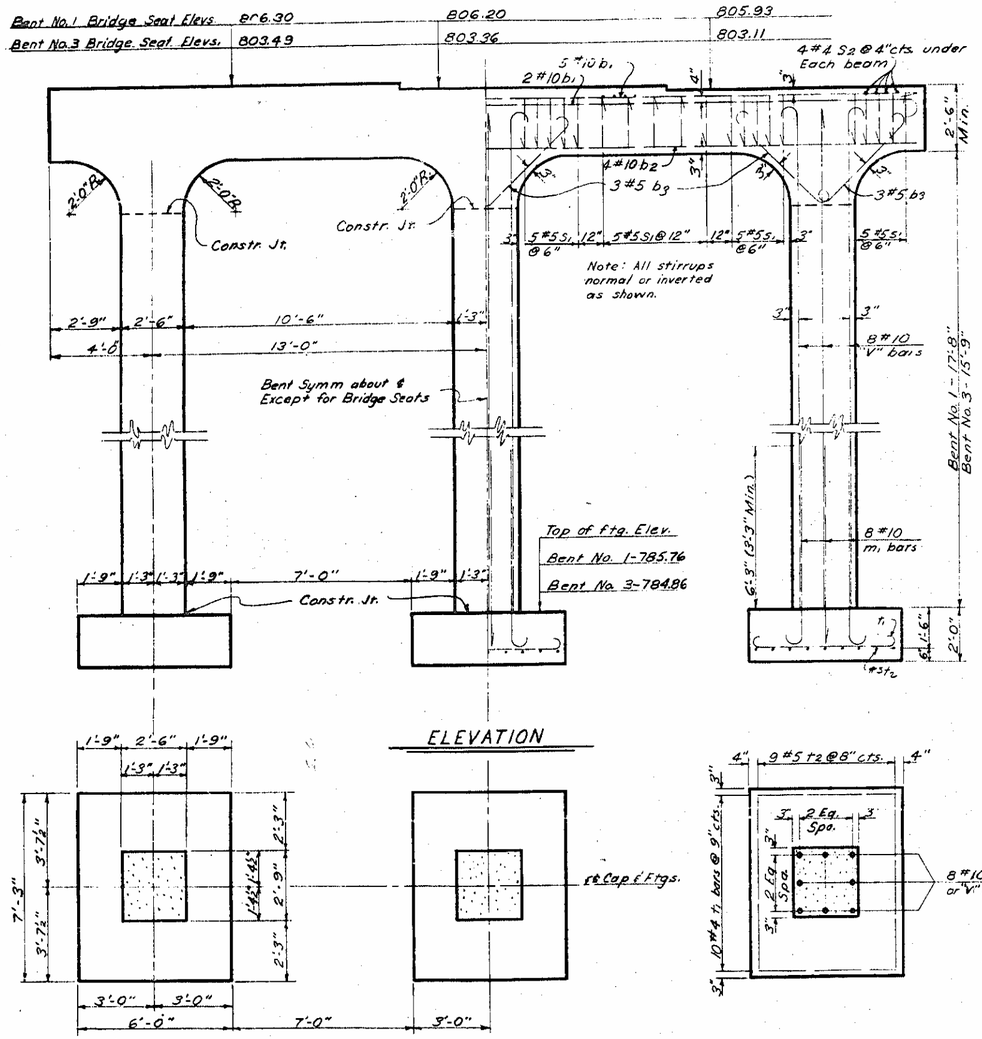
SF 45-2 (102)



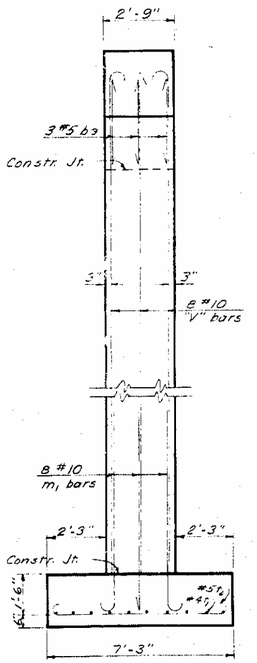
PLAN OF CAP



SECTION THRU CAP



ELEVATION

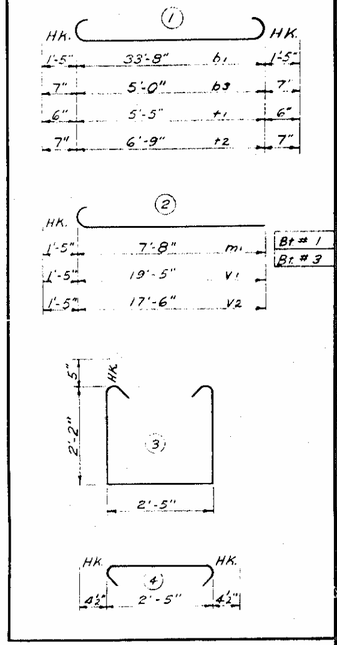


END ELEVATION

PLAN OF FOOTINGS

BAR TYPES

All dimensions are out to out.



BILL OF MATERIAL

FOR ONE BENT-2 REQ'D.

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	7	#10	1	36'-6"	1,095
b2	4	#10	Str.	33'-8"	579
b3	18	#5	1	6'-2"	116
m1	24	#10	2	9'-1"	938
S1	40	#5	3	7'-7"	316
S2	16	#4	4	3'-2"	34
t1	30	#4	1	6'-5"	129
t2	27	#5	1	7'-11"	223
V1	24	#10	2	20'-10"	2151
V2	24	#10	2	18'-11"	1,954

Bent No. 1	Reinforcing Steel - Lbs. 5,585 Class "A" Concrete - Cu. Yds. 33.1
Bent No. 3	Reinforcing Steel - Lbs. 5,386 Class "A" Concrete - Cu. Yds. 31.7

PROJECT NO. 8.15914

ROCKINGHAM **COUNTY**

STATION: 376+25 "L"

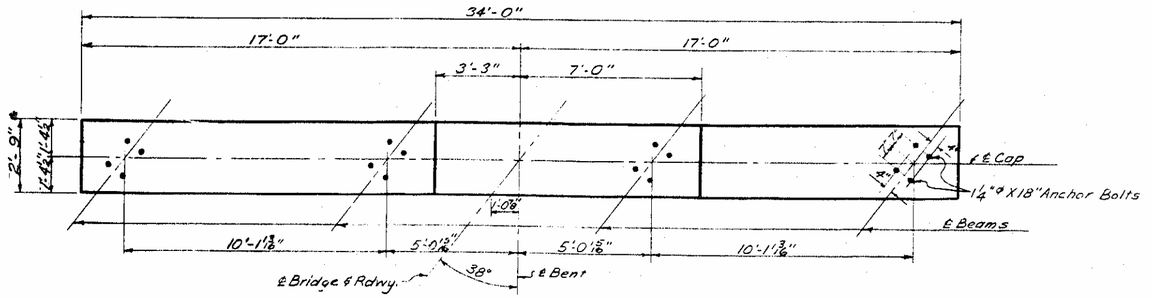
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUBSTRUCTURE
BENTS No 1 & 3

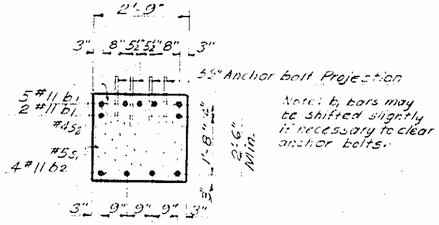
AUGUST 1961

REVISIONS						BRIDGE NO.
NO.	BY	DATE	NO.	BY	DATE	S-27
1			3			TOTAL SHEETS
2			4			45

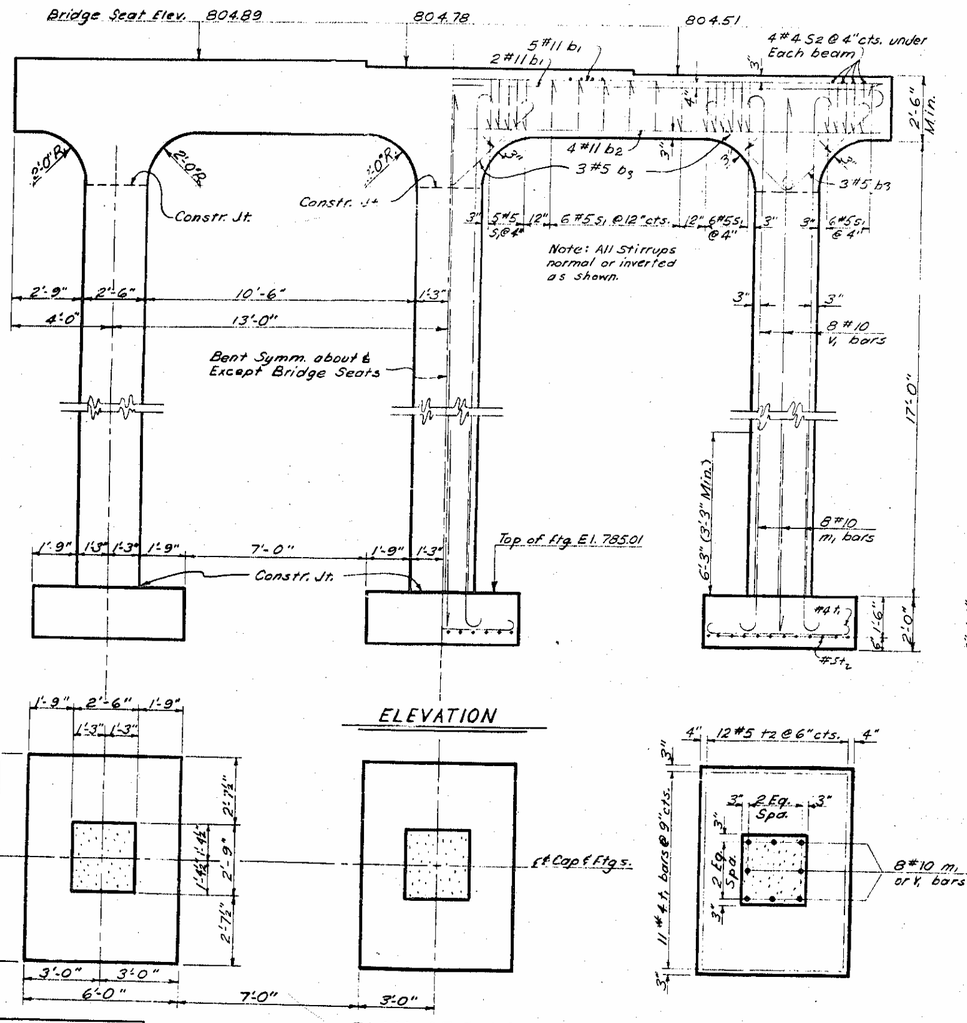
DRAWN BY Calloway Engineering DATE August 1961
CHECKED BY R. Hildebrand DATE 3-1-62



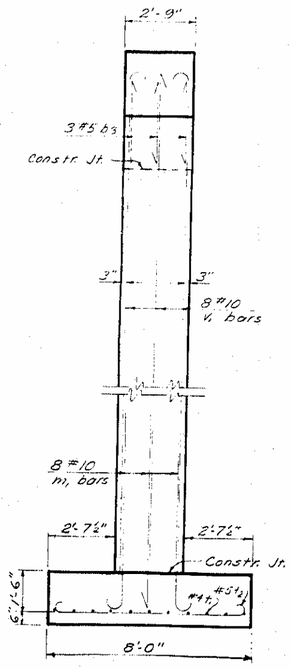
PLAN OF CAP



SECTION THRU CAP



ELEVATION



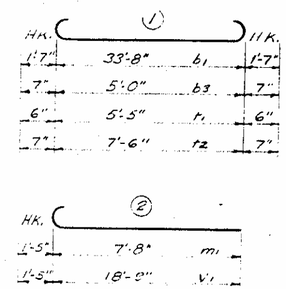
END ELEVATION

PLAN OF FOOTINGS

Quantities by Culpepper & Terrell DATE Aug. 1961
Checked by C.E.M. DATE Jul. 1962

BAR TYPES

All dimensions are out to out



BILL OF MATERIAL FOR BENT No. 2

BAR	NO.	SIZE	TYPE	LENGTH	WT.
b1	7	#11	1	36'-10"	1
b2	4	#11	Str	33'-8"	
b3	18	#5	1	6'-2"	
m1	24	#10	2	9'-1"	
S1	46	#5	3	7'-7"	
S2	16	#4	4	3'-2"	
t1	33	#4	1	6'-5"	
t2	36	#5	1	8'-8"	
V1	24	#10	2	20'-2"	20

Reinforcing Steel-Lbs. 608
Class "A" Concrete-Cu Yds. 3

PROJECT No. 8.15914
ROCKINGHAM COUNTY
STATION: 376+25 "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUBSTRUCTURE
BENT No 2

AUGUST 1961

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		

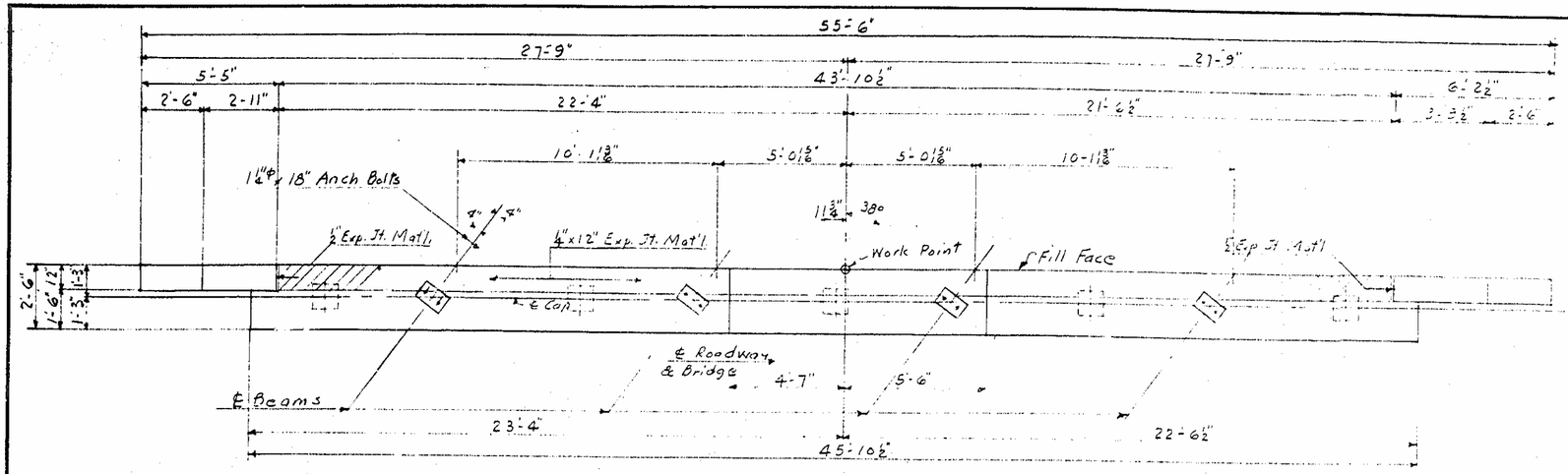
S-28

FED. ROAD DIST. NO. 3 | STATE N.C. | 8151

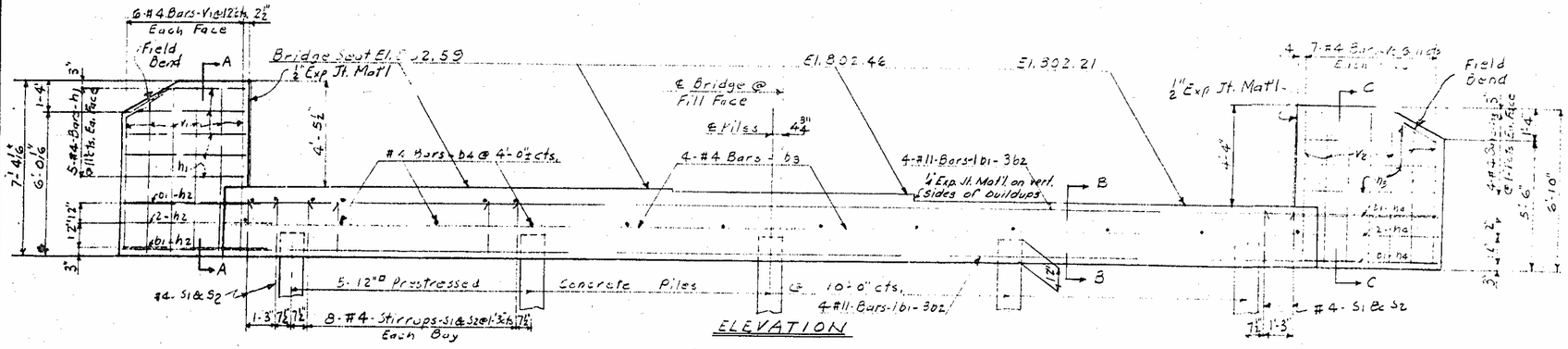
F. A. PROJECT S-F-2050

29 OF 58

SF 45-2 (10



PLAN OF CAP



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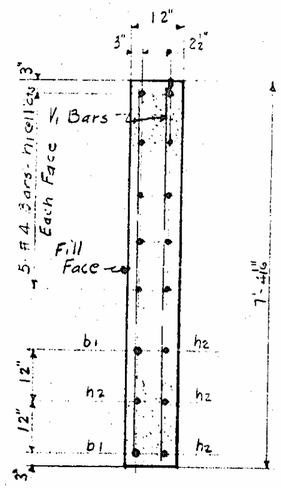
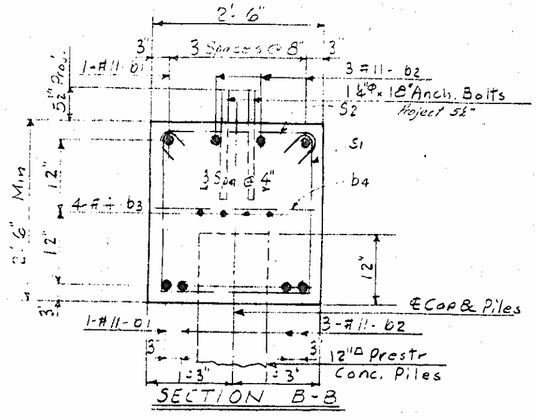
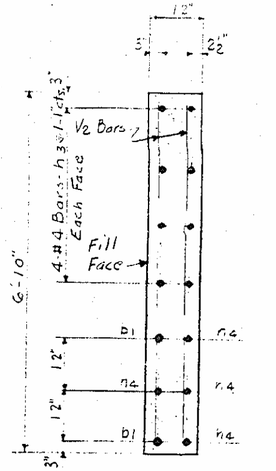


SECTION A-A



SECTION B-B



SECTION C-C

DRAWN BY H.S. Maydwell DATE Aug 1961
CHECKED BY [illegible] DATE [illegible] 1961

FED. ROAD DIV. NO.	STATE	PROJECT NO.
3	N.C.	8.15914

F. A. PROJECT S-F-205(104)

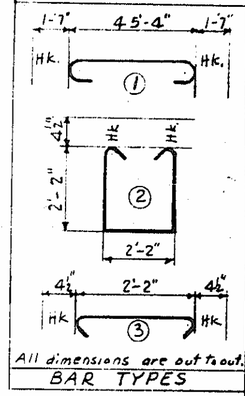
30 of 68

SF 46-2 (102)

BILL OF MATERIAL

BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
b1	2	#11	Str.	55'-6	58
b2	6	#11	1	48'-6	154
b3	8	#4	Str.	23'-4"	12
b4	12	#4	Str.	2'-2	1
h1	10	#4	Str.	5'-1"	34
h2	4	#4	Str.	5'-6	15
h3	8	#4	Str.	5'-10	31
h4	4	#4	Str.	6'-3"	17
S1	36	#4	2	7'-3	174
S2	36	#4	3	2'-11"	70
V1	12	#4	Str.	7'-0"	56
V2	14	#4	Str.	6'-6	61

Reinforcing Steel - Lbs 2730
Class "A" Conc. Cu.Yds. 14.0
12"Φ Prestr. Conc. Piles - No 5 Lf 105



All dimensions are out to out.

BAR TYPES

PROJECT NO. 8.15914

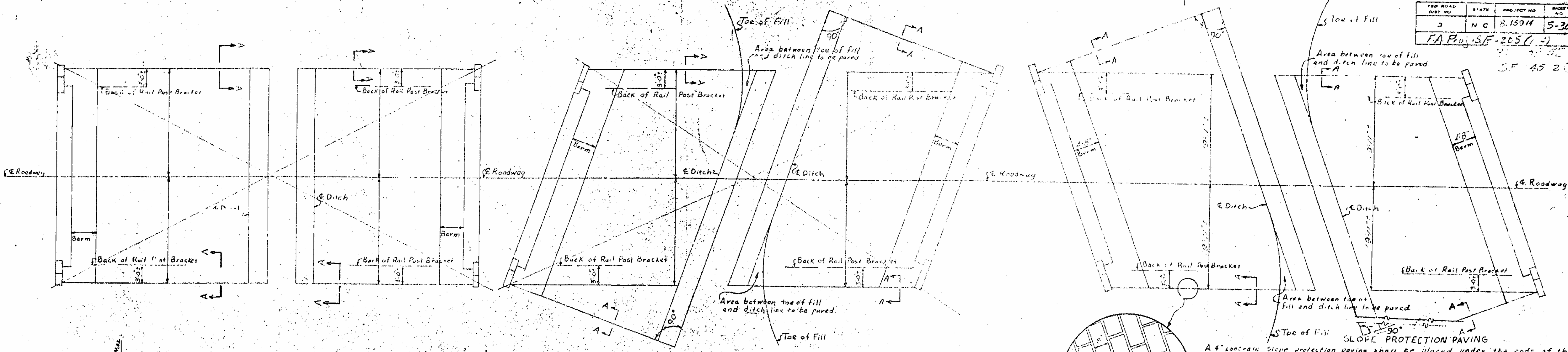
ROCKINGHAM COUNTY

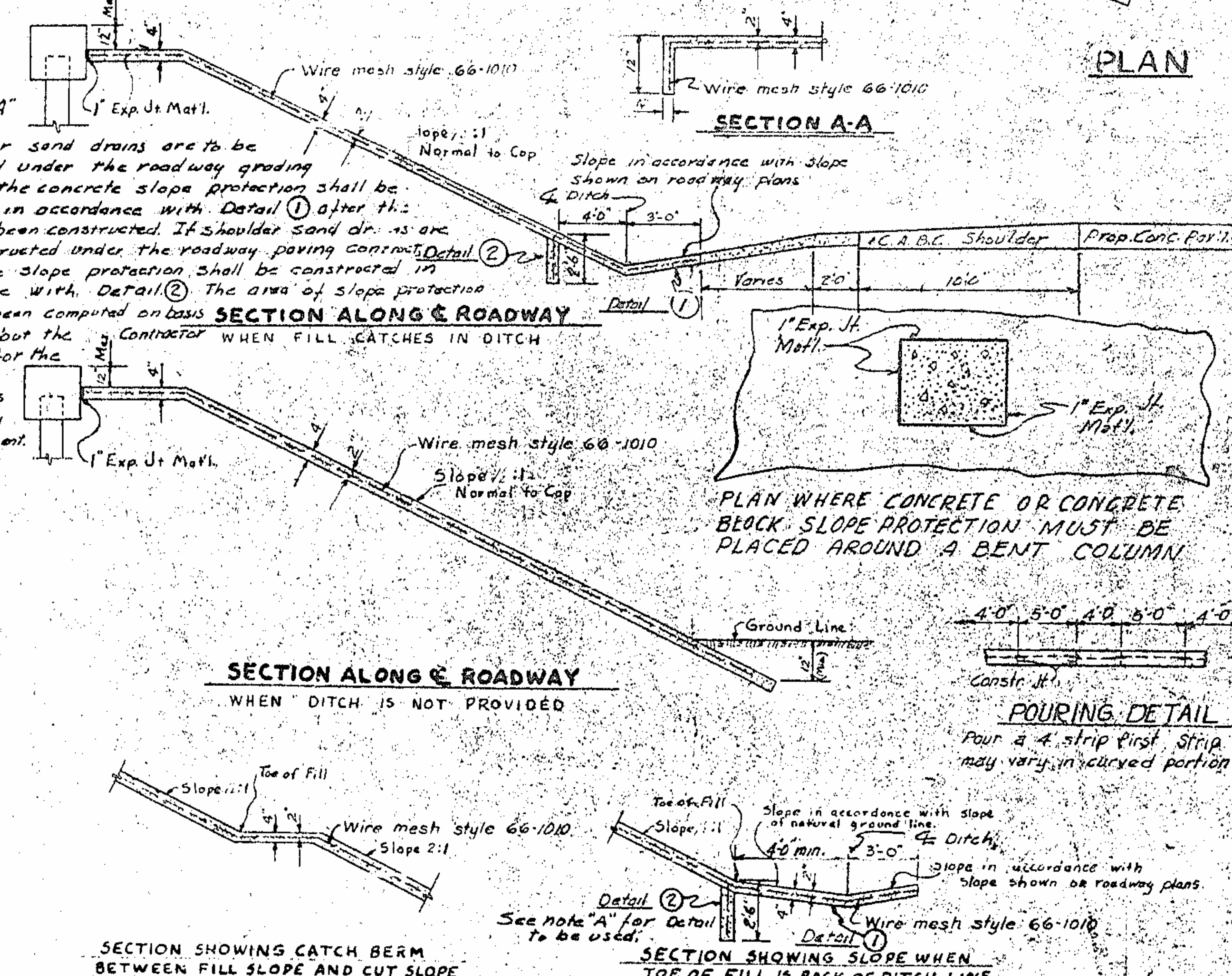
STATION: 376+25.4 LINE "L"

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUBSTRUCTURE
END BENT NO. 2.
AUGUST 1961

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-29
1			3			TOTAL



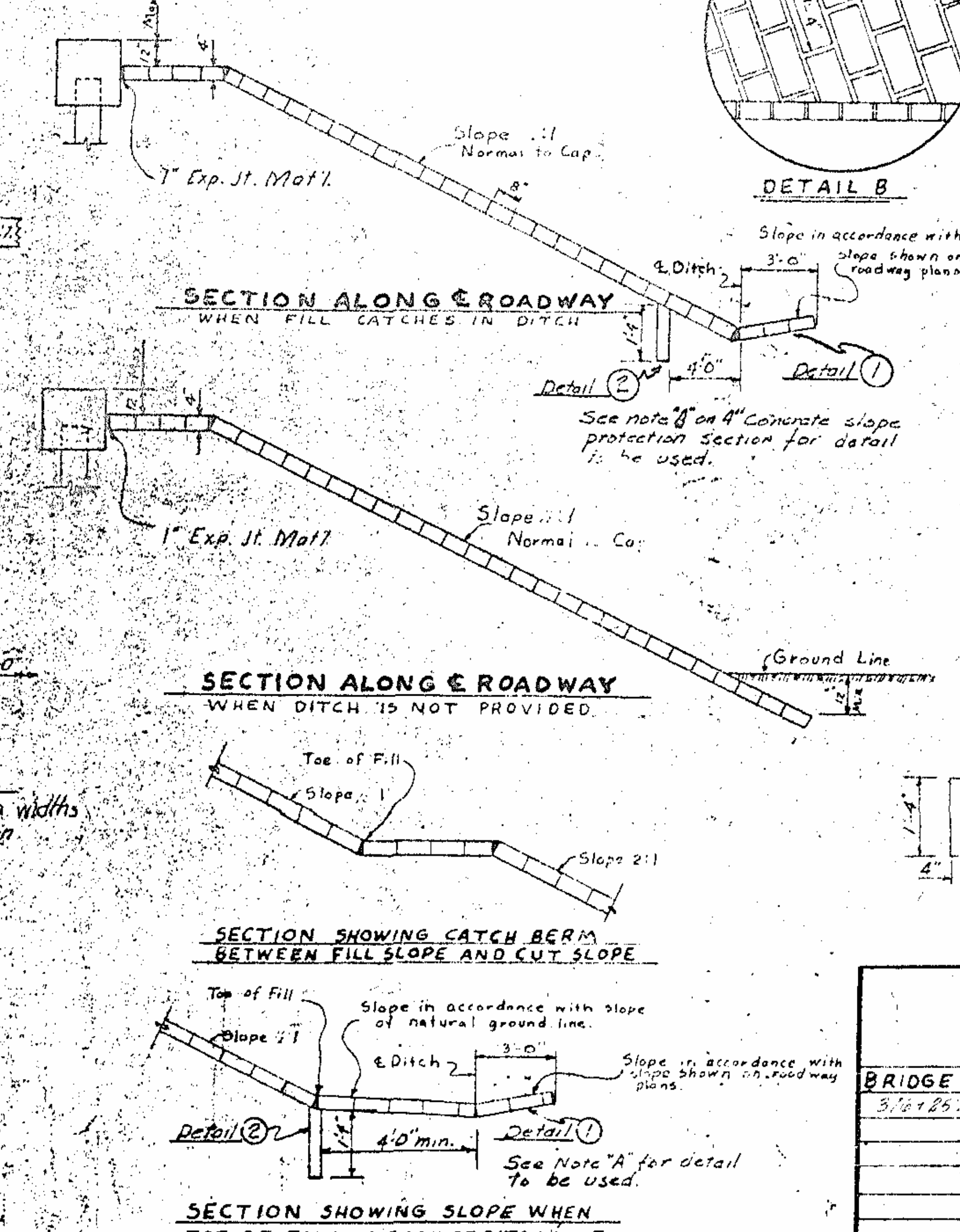


NOTE "A"

If shoulder sand drains are to be constructed under the roadway grading contract, the concrete slope protection shall be constructed in accordance with Detail ① after the drains have been constructed. If shoulder sand drains are to be constructed under the roadway paving contract, the concrete slope protection shall be constructed in accordnance with Detail ②. The area of slope protection shown has been computed on basis of Detail ①, but the Contractor will be paid for the area actually constructed as determined by field measurement.

DETAILS FOR ALTERNATE "A"

Wire mesh reinforcing to be style 66-1010-60" wide. Adjacent runs of wire mesh to lap at least 6". Slope Protection to be poured in alternate 4' & 5' strips as shown in Pouring Detail. The cost of wire mesh to be included in the contract unit price bid per square yard for 4" concrete slope protection.



DETAILS FOR ALTERNATE "B"

SLOPE PROTECTION PAVING

A 4" concrete slope protection paving shall be placed under the ends of the bridge. Limits of the protection shall be as shown in the details. Bids will be accepted on either Alternate "A" or "B" as described below.

Immediately before placing the paving, the slope shall be properly shaped and firmly compacted so that it conforms to the lines and grades shown. The finished surface shall be reasonably smooth and uniform and shall not vary from lines, grade and sections shown by more than ½" along a 10' straight edge.

ALTERNATE "A":

Alternate "A" shall consist of 4" poured in place concrete paving as shown in details on this sheet. Concrete shall be Class B using Standard size Number 3 coarse aggregate. The concrete surface shall be floated with a wooden float and finished.

The quantity to be paid for under this item shall be the number of square yards of slope protection measured in place complete and accepted, including the area of the toe walls below 4" thickness of protection (for example 8" pay area for toe wall 1'-0" deep.)

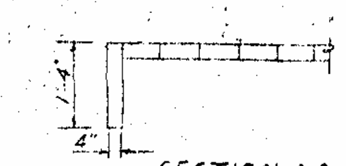
The quantity measured as provided for above, shall be paid for at the contract unit price per square yard for 4" Concrete Slope Protection, complete in place, which price and payment shall be full compensation for all excavation, backfilling, wire mesh, preparation of slopes, and all materials, labor, equipment, tools, and incidentals necessary to complete the work.

ALTERNATE "B":

Alternate "B" shall consist of solid concrete blocks 4"x8"x16" laid in horizontal courses such that those in successive courses will break joints with units in the preceding one. Blocks are to be laid with their long axis parallel to the end bent cap with grouted joints preferably ¾" but not less than ½" nor more than 1¼" wide between successive courses and ends of blocks. Joints shall be grouted by pouring a mixture of one part portland cement to three parts sand mixed with sufficient water to enable the mixture to be poured through a spout.

The concrete blocks shall be cast to accurate dimensions, shall have uniform surface color and texture, and shall be manufactured of materials to produce a compressive strength of not less than 3000 p.s.i. at age of 28 days. No broken blocks shall be used except in constructing a straight line along each side of the paving down the slope. Care shall be taken to break the blocks so as to give a uniform workmanlike joint and surface.

Method of measurement and basis of payment shall be as prescribed above under Alternate A except that the item shall be 4" Concrete Block Slope Protection instead of 4" Concrete Slope Protection.



PROJECT NO. 8.15914
ROCKINGHAM COUNTY
STATION: 376+25 L

	Wire Mesh 60" Wide	4" Concrete Slope Protection or 4" Concrete Block Slope Protection S.Y.	
	Approx. L.F.	E.B. #1	E.B. #2
BRIDGE @ 376+25 L	[illegible]	3[illegible]	2[illegible]

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

STANDARD
SLOPE PROTECTION PAVING
DETAILS
SEPTEMBER, 1958

SPECIAL	Assembled by	[illegible]	Date	[illegible]
	Checked by	[illegible]	Date	[illegible]
STANDARD	Designed by		Date	
	Drawn by	R.C. [illegible]	Date	Sept. 3, 1958
	Traced by		Date	
	[illegible]	[illegible]	Date	Sept. 1958

Revision No. 1 - to add Section B-B. by W.C.P.

Rev. 2. to add plan of Bent Column. A.L.B. 3-8-60

Rev. 3. To eliminate toe wall along front edge. C.A.K. 4-1-60

Rev. 4. To add wire mesh to Alternate "A". W.J.R. 27 Jun. 60

Rev. 5 To show detail ① & ② and Note "A" J.N.P. 28 Sep. 60

Rev. #6 - To remove Section B-B and change Plan for Skewed Bridges. By J.H.B.