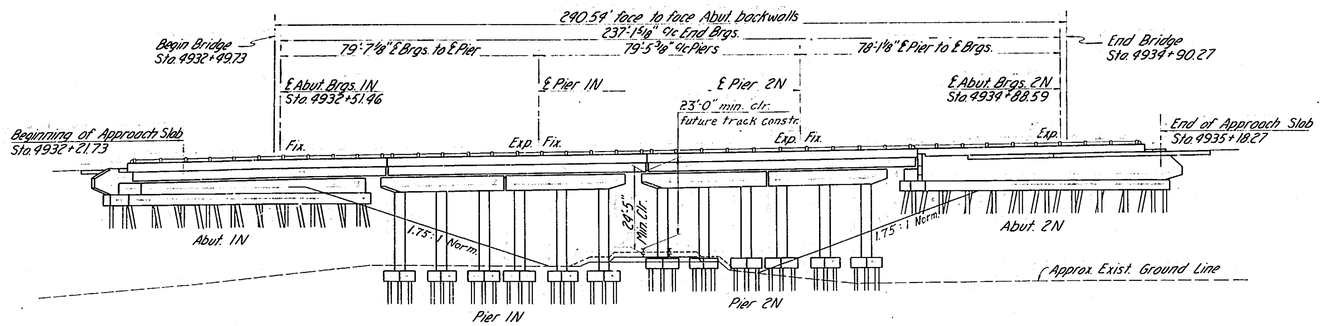
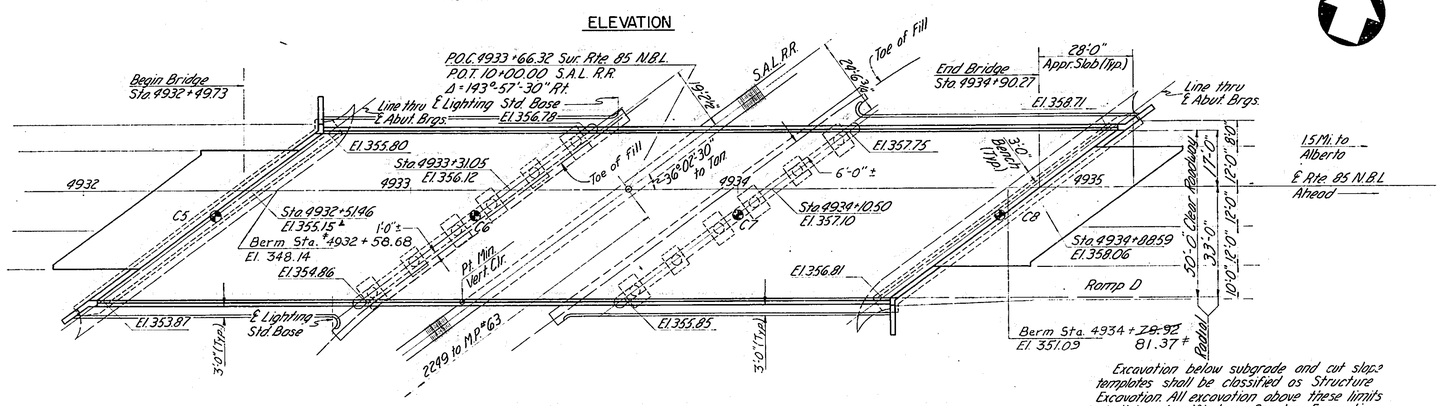
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)25	85	0085-012-101, B611 PE-101 B612	13-1	



ELEVATION



PLAN BRIDGE B611
Scale 1"= 20'

◔ Indicates Boring Location

For PLAN and ELEVATION BRIDGE B612 see sheet # 2

N.B.L.
Sta. 4949+00
C.G. 375.42
V.C. 1375' ▲
+1.23 % —○— -1.949 %

Horiz. Curve Data N.B.L.
P.I. 4929+79.76
Δ 48°-08'-32" Rt.
D: 0°-30'-00"
T = 5119.00'
L = 9628.45' ▲
R = 11,459.16'

FINAL ~~ESTIMATED~~ QUANTITIES

	ITEM	Concrete C.Y. Class A4	Concrete C.Y. Class A3	Reinforcing Steel ℔ Lbs.	Rolled Beams Lbs. Lump Sum	Structure Excavation ℄ C.Y.	Bridge Railing L.F.	Piles 10BP42 L.F.	Drilled in 42"ø Caisson L.F.
B611	SUPERSTR.	(380)		~~(83,059)~~	477,000	~~85,340~~	(479)		
	ABUT. 1N	(403)	~~1285~~ 1200	~~5,399~~	~~83,335~~	~~219~~	(469)	~~1220~~ 1128.0	
	ABUT. 2N		~~123~~	~~5,467~~ 5165		~~219~~		~~1380~~ 1251.5	
	PIER 1N		~~126~~	~~23,022~~ 23820		~~141~~		~~480~~ 533.6	
	PIER 2N	(403)	~~1272~~ 1200	~~24,222~~ 24,220	~~(44,249)~~ 44,210		(463)	~~770~~ 765.9	
	Totals B611	(380)	504	(42,769)	477,000	789	(479)	~~3850~~ 3679.0	
B612	SUPERSTR.	(366)		81,527	951,200	82965	(460)	1311.9	
	ABUT. 1S	(388)	~~1285~~ 1200	~~5,296~~	~~82,967~~	213	(452)	~~1565~~	
	ABUT. 2S		~~1285~~ 1200	~~5,332~~		213		~~850~~	
	PIER 1S	~~139.2~~ 149		~~3,810~~ 3,810	~~50,156~~ 50,160	~~38~~		789.3	~~1295~~
	PIER 2S	(388)	~~1321~~ 1200	~~4,733~~ 4,730	~~(46,446)~~	~~352~~ 407	(452)	2098.2	
	Totals B612	(366)	~~5375~~ 5200	~~59,023~~ 59,020	951,200	~~871~~ 816	(460)	~~2415~~	~~1298~~
Totals B611 & B612		(146)	~~1941~~	~~30,179~~	928,800	~~1660~~	(941)	6265	~~1298~~
		(791)	1,0306	~~304,715~~ 307,025		1605	(921)	5777.2	

FINAL ~~ESTIMATED~~ QUANTITIES (CONT.)

	ITEM	Conc. Slab Slope Prot. Sq. Yd.
B611	ABUTMENT 1N	~~673~~ 675
	ABUTMENT 2N	726 711
	TOTALS B611	~~1,399~~ 1,386
B612	ABUTMENT 1S	~~616~~ 630
	ABUTMENT 2S	701 696
	TOTALS B612	~~1,317~~ 1,330
TOTALS B611 & B612		2,716

WORK ORDER

Location	Work Order #1 Revised Parapets Lump Sum	Work Order #2 Revised Under-lighting Material Lump Sum
Superstr. B611	100%	100%
Superstr. B612	100%	100%
Total	100%	100%

GENERAL NOTES

Roadway: 50'-0"
Capacity: H.S. 20-44 and B.P.R. loading for military vehicles.
Specifications:
General - Virginia Department of Highways, Road and Bridge Specifications 1966.
Design - AASHO Standard Specifications for Highway Bridges 1961 and Interim Specifications through 1964.
Electrical - National Electrical Code; National Electrical Safety Code; Requirements of the local power company.

All reinforcement bars dimensioned on the detailed drawings are to the centers of bars except where otherwise noted.

Concrete in the superstructure shall be Class A4. All other concrete shall be Class A3.

All exposed edges shall be chamfered ¾".

Carefully selected fill shall be placed at abutments to permit driving of piles.

Before excavation for Piers 2S, 1N, and 2N is begun, sheet piling or other device shall be placed between track and Piers at a distance and depth to provide adequate protection. Location and bracing of method of protection used shall be approved by the S.A.L. R.R.

All piles at Abutments, Piers 1N and 2N are 10BP42. Maximum design pile load for Abutments = 36 tons. Maximum design pile load for Piers 1N and 2N = 36 tons. Footings for Pier 2S is a spread footing. Maximum design foundation pressure = 6 tons per square foot. Spread footings shall rest on solid rock. Pier 1S will rest on 42" ø drilled in caisson filled with reinforced concrete. They shall be placed into rock a minimum of 18 inches.

Footing for Piers on piles shall be excavated to elevation of bottom of footings before piles are driven.

Foundations shall be approved by the Engineer.

Either alternate metal railing or the aluminum railing shown on sheet 14 may be used.

Structural Approach Slab Quantities are not to be included in the Bridge Quantities.

B.M. Nail in base 30" Red Oak 75' Lt. Sur. Sta. 4933+65, El. 323.41.

Revised: June 11, 1968 - Sheet 13.
Revised: March 26, 1968 - Sheets 1, 2, 3, 4, 5, 6, 12, 13, 14, 15 & 16.
Δ Revised: November 27, 1967 - Sheets 1 & 12.
Revised: October 31, 1967 - Sheet 1.
Revised: January 17, 1967 - Sheets 1, 2, 3, 4, 5, 6, 10, 14, & 17.
▲ Revised: April 25, 1966 - Sheet 1.
* Revised: December 11, 1967 - Sheet 1 only - Quantities

Excavation below subgrade and cut slope templates shall be classified as Structure Excavation. All excavation above these limits shall be classified as Regular Excavation and is not included in the Bridge Contract

Finals Posted By Richmond District Office August, 1969

JOHN P. DIETZ Certified No. 1681 Pennsylvania Engineer

PREPARED BY
GANNETT FLEMING CORDDRY & CARPENTER
John P. Dietz
REG. PROF. ENGINEER
Nov. 15, 1965

AS BUILT PLANS

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF HIGHWAYS
PROPOSED BRIDGE

INTERSTATE ROUTE 85 OVER S.A.L. R.R., BRUNSWICK COUNTY
0.6 MI. SO. INT. ROUTE 1 (NEAR ALBERTA) PROJECT 0085-012-101, B611, B612
STA. 4933+66 ROUTE 85 N.B.L.
STEEL BEAM SPANS B611, I-78.6', I-77.7', I-77.2' (N.B.L.)
B612, I-74.1', I-76.2', I-75.8' (S.B.L.)
RICHMOND, VIRGINIA

RECOMMENDED FOR APPROVAL — BRIDGE ENGINEER — 3-4-66
RECOMMENDED FOR APPROVAL — DIRECTOR OF ENGINEERING — 3-7-66
APPROVED — DEPUTY COMMISSIONER AND CHIEF ENGINEER — 3/8/66

Recommended for Approval — Chief Engr. — March 1, 1966

187-3 CLXXXVII-3 SHEET 1 OF 18

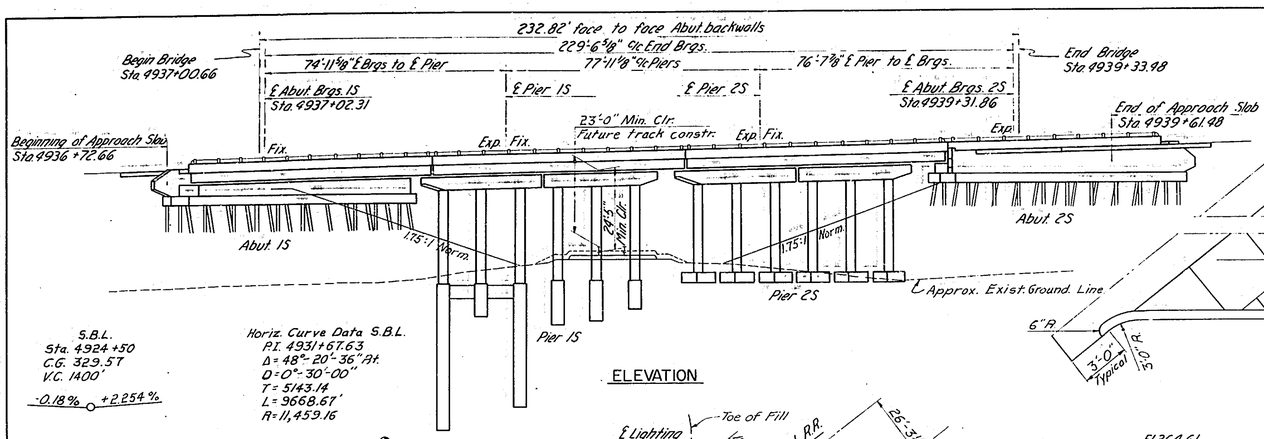
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	R.L.G.

47

1107

30-78-1

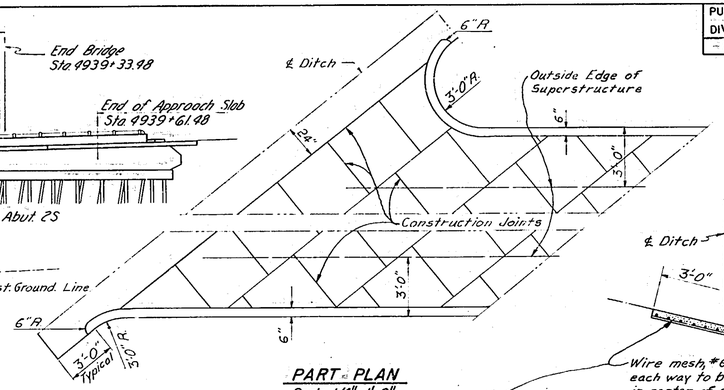
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)125 IG	85	0085-012-101, B611 PE 101 B612	13-2	



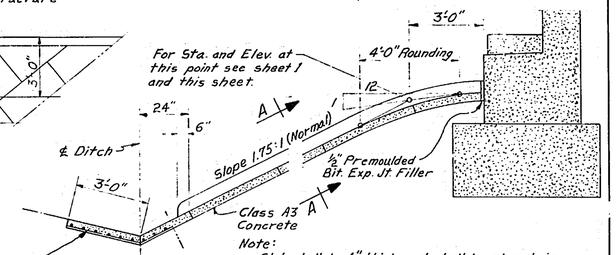
ELEVATION

S.B.L.
Sta. 4+24+50
C.G. 329.51
V.C. 1400'
-0.18% +2.254%

Horiz. Curve Data S.B.L.
P.I. 4931+67.63
Δ = 48°-20'-36" Rt.
D = 0°-30'-00"
T = 5143.14'
L = 9668.67'
R = 11,459.16

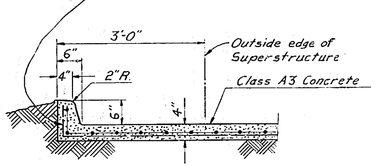


PART PLAN
Scale 1/4"=1'-0"

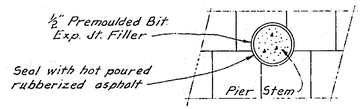


Note:
Slab shall be 4" thick and shall be placed in sections approximately 4'-0" square, reinforced with #6 gage wire mesh, 6" ℄ each way, placed in center of slab and continuous thru construction joint.

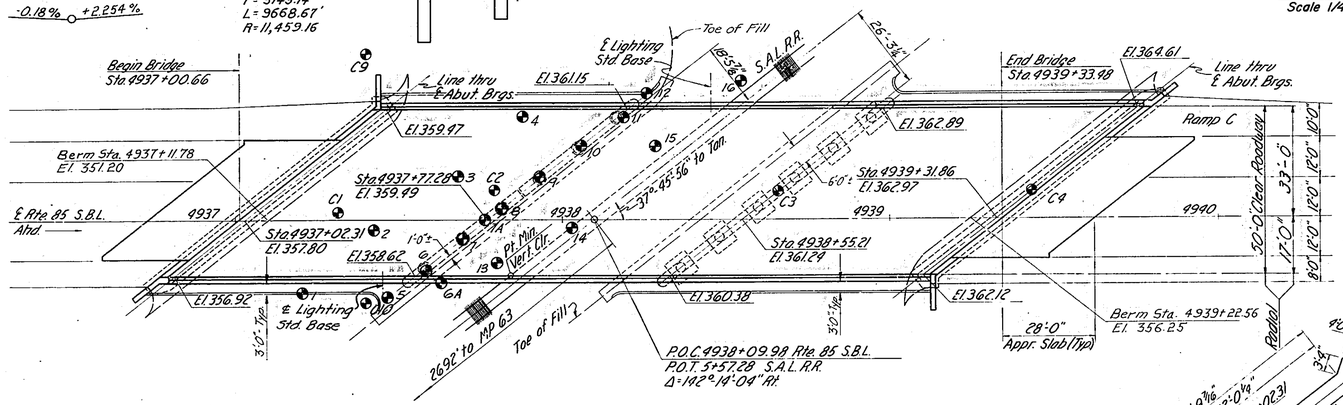
SECTION AT ABUTMENT
Scale 3/16"=1'-0"



SECTION A-A
Scale 3/4"=1'-0"

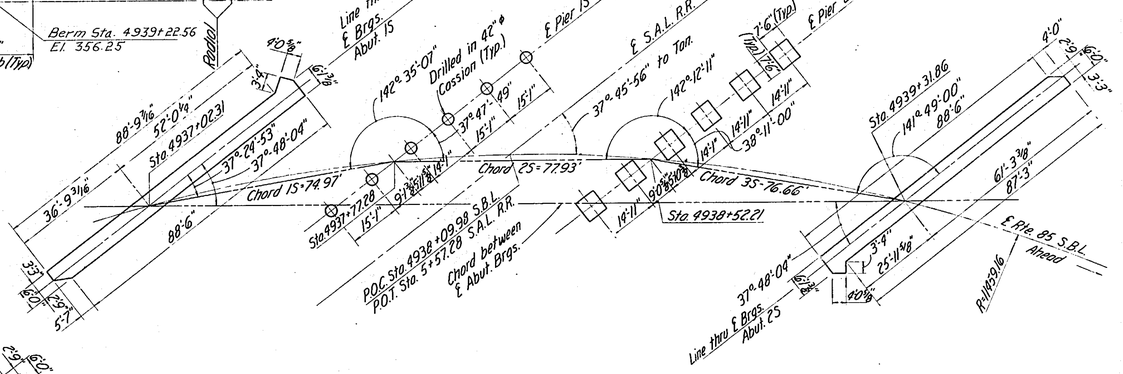


PART PLAN AT STEMS
Scale 3/16"=1'-0"

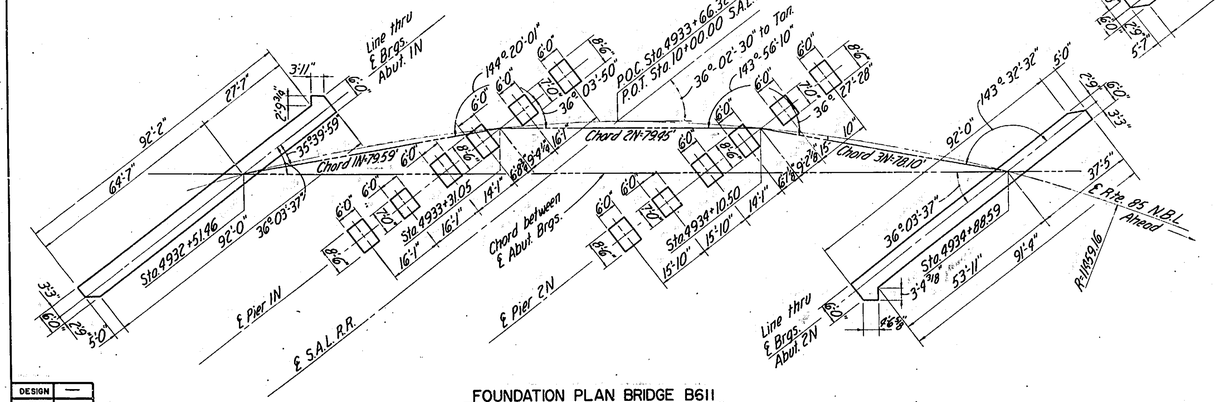


PLAN BRIDGE B612
Scale 1"=20'

● Indicates Boring Location



FOUNDATION PLAN BRIDGE B612
Scale 1"=20'



FOUNDATION PLAN BRIDGE B611
Scale 1"=20'

ROUTE I-85 OVER S.A.L. R.R.

GENERAL PLAN & ELEVATION BRIDGE B612
FOUNDATION PLAN BRIDGES B611 & B612
SLOPE PROTECTION

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA MARCH, 1966

DESIGN	—
CHKD.	—
DRAWN	ASB
CHKD.	AJS
TRCD.	RLG

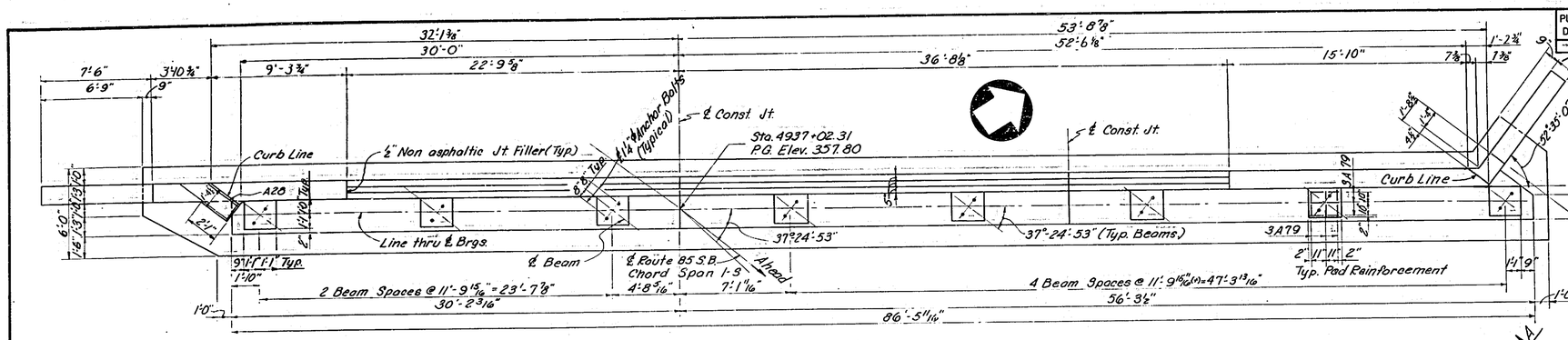
Revised: March 26, 1968
Revised: January 17, 1967
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CLXXXVII-3
SHEET 2 OF 18

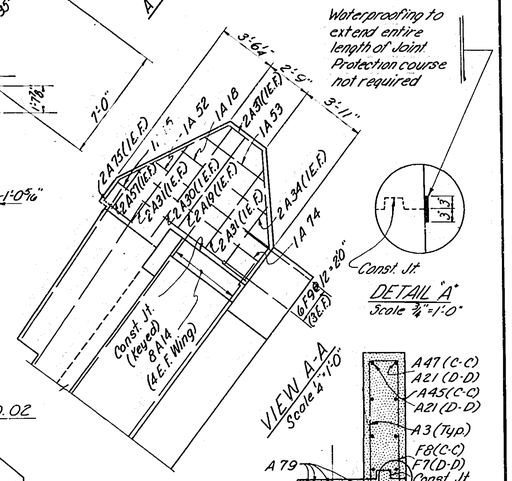
AICC21

0220
0-7-8
3-3
11

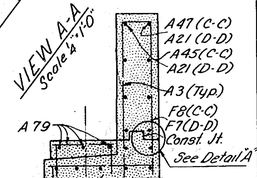
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(19)125 Ig	85	0085-012-101, B611 PE 101 B612	13-3	



PLAN
Scale 1/4"=1'-0"

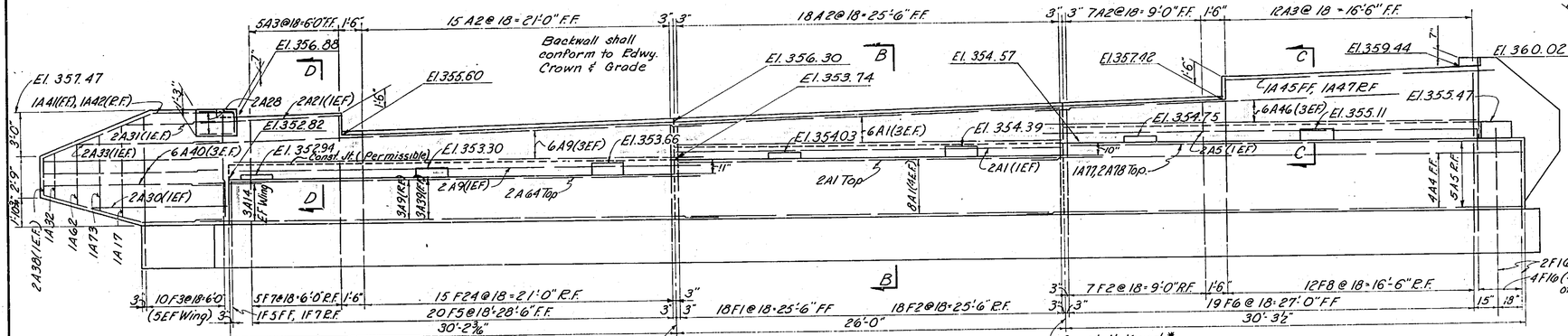


DETAIL "A"
Scale 3/4"=1'-0"



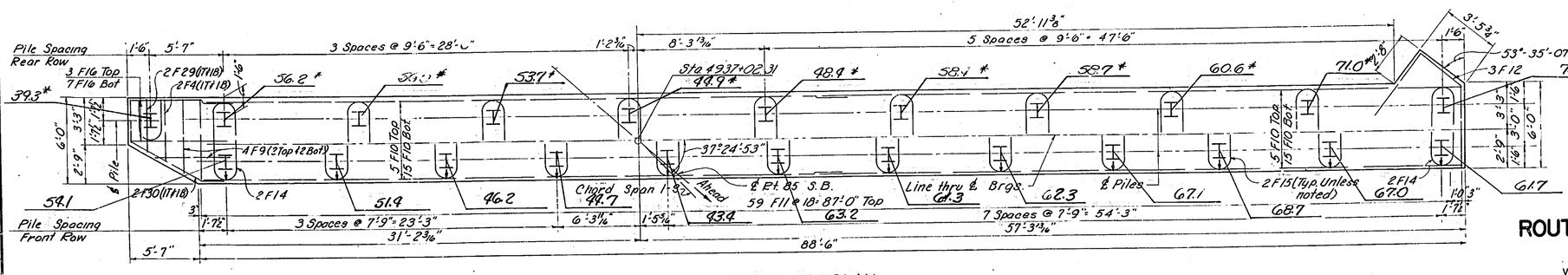
VIEW A-A
Scale 1/4"=1'0"

SECTION C℄ D-D
(Details below Const. Jt. same as B-B)



ELEVATION
Scale 1/4"=1'-0"

SECTION B-B
Scale 1/2"=1'-0"



FOOTING PLAN
Scale 1/4"=1'-0"

ROUTE I-85 OVER S.A.L. R.R.
ABUTMENT I-S

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

Note:
For Reinforcement Bar Schedule see Sheet # 15.

* Denotes Test Piles

Revised: March 26, 1968
Revised: January 17, 1967

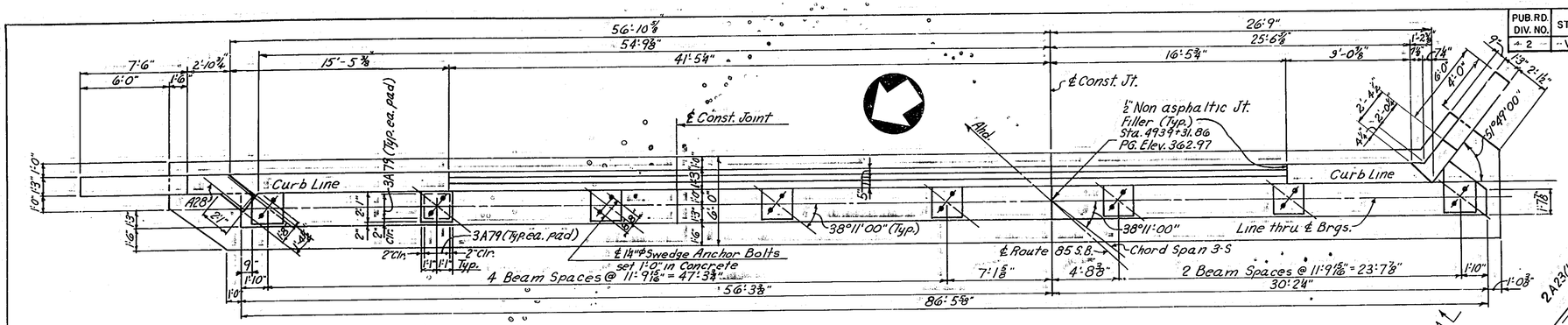
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

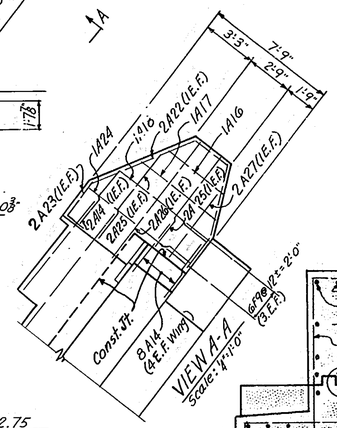
DESIGN	J.J.S.
CHKD.	A.J.S.
DRAWN	J.B.S.
CHKD.	A.J.S.
TRCD.	J.W.P.

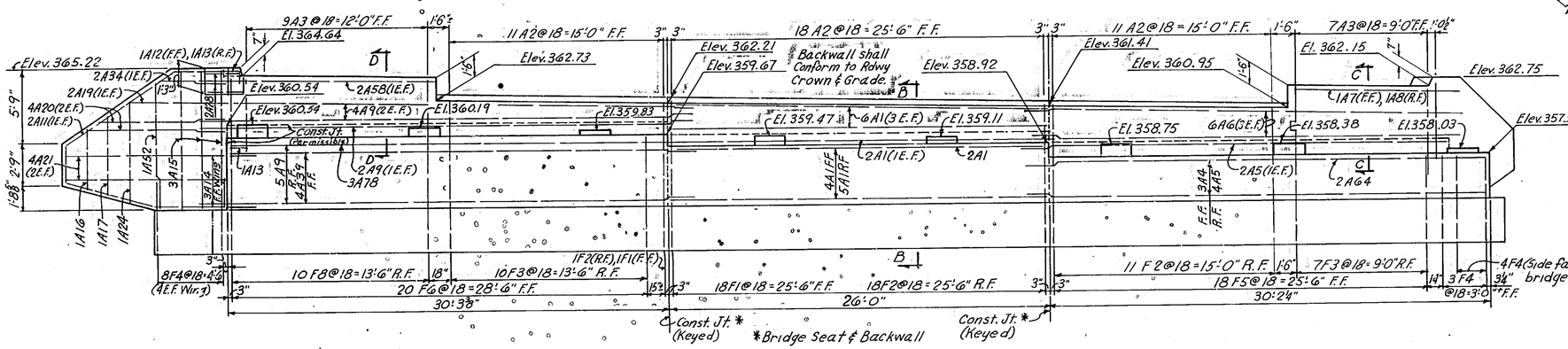
CLXXXVII-3
SHEET 3 OF 18

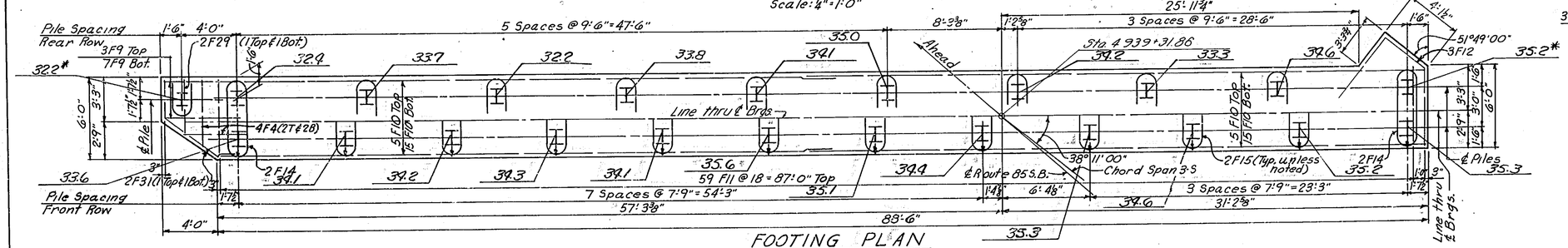
0 3
1 8 7-0 3

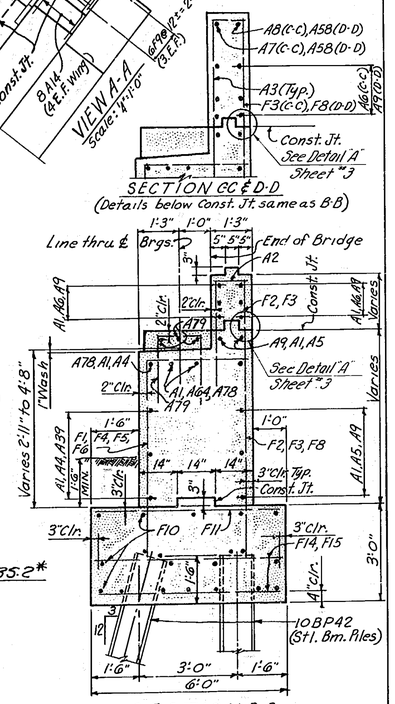
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(10)125 IG	85	0085-012-101, B611 PE 101, B612	13-4	











Note:
for Reinforcing Bar schedule see sheet #15.

ROUTE I-85 OVER S.A.L. R.R.
ABUTMENT 2-S

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

DESIGN	J.J.S.
CHKD.	A.J.S.
DRAWN	D.E.S.
CHKD.	A.J.S.
TRCD.	R.W.H.

* Denotes Test Piles

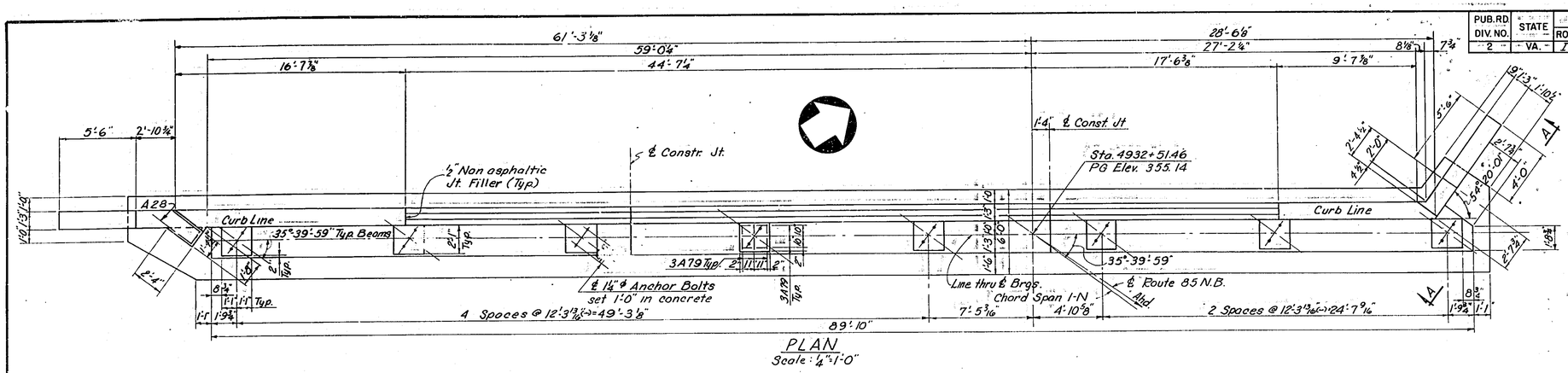
Revised: March 26, 1968
Revised: January 17, 1967

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

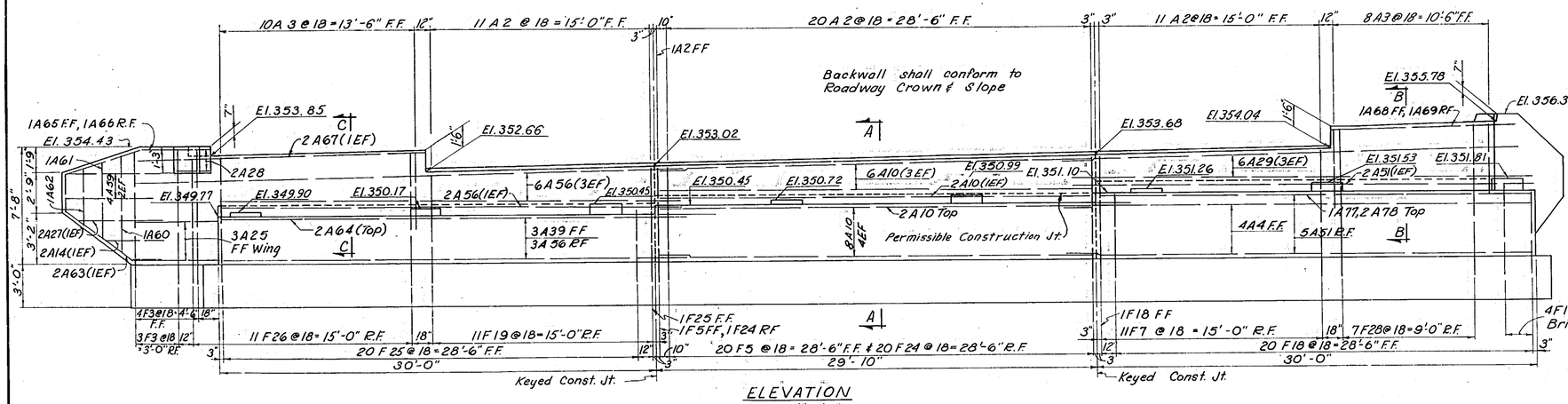
CLXXXVII-3
SHEET 4 OF 18

0-7-3-0-7-8-1-1

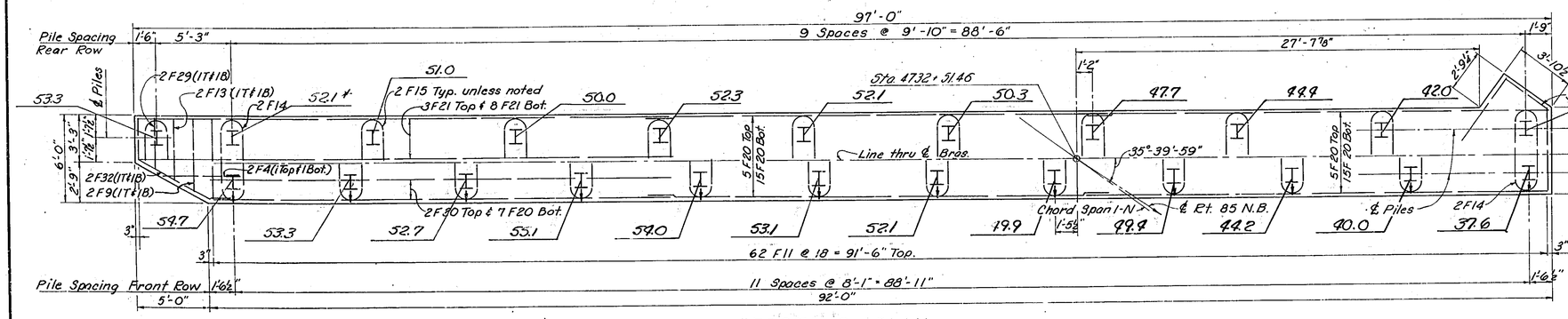
PUB.RD DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)25 IG	85	0085-012-101, B611 PE101 B612	13-5	



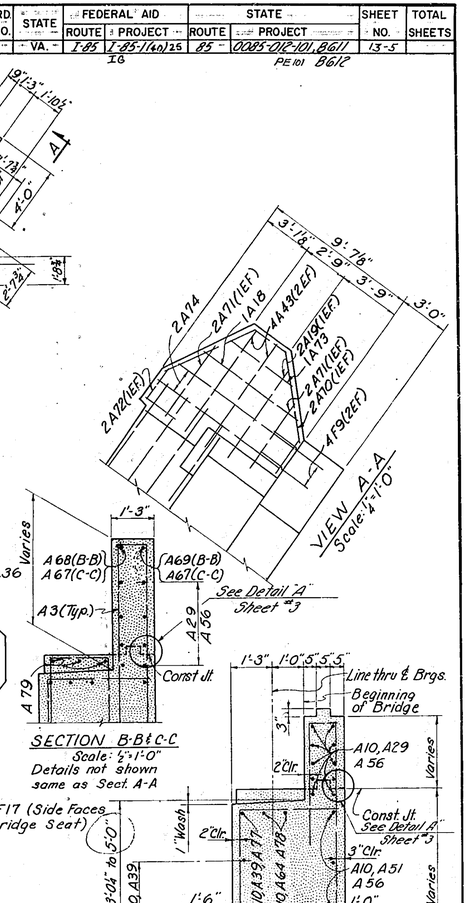
PLAN
Scale: ¼"=1'-0"



ELEVATION
Scale: ¼"=1'-0"



FOOTING PLAN
Scale: ¼"=1'-0"



DESIGN	J.J.S.
CHKD.	A.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	J.W.P.

* Denotes Test Piles

Note:
For Reinforcement Bar Schedule see Sheet # 15.

ROUTE I-85 OVER S.A.L. R.R.
ABUTMENT 1-N

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

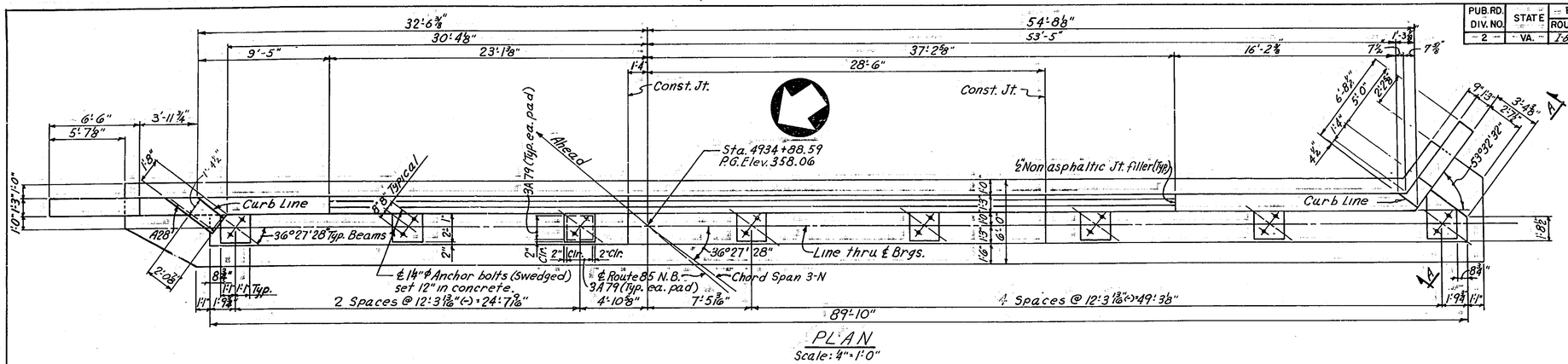
Revised: March 26, 1968
Revised: January 17, 1967

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

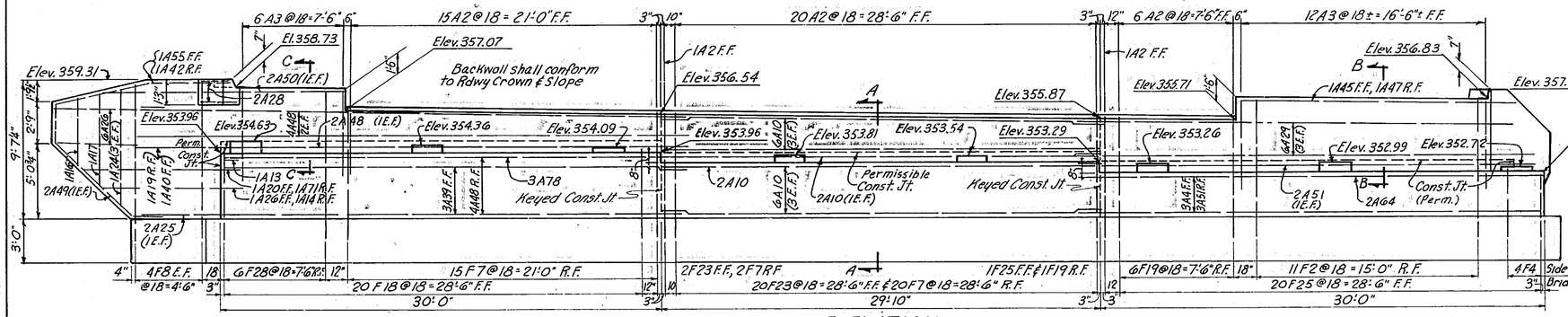
CLXXXVII-3
SHEET 5 OF 18

0-7-8-1-3

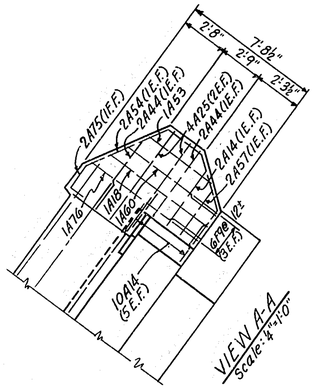
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40) 25 IG	85	008S-01C-101, B611 PE 101 B61C	13-6	



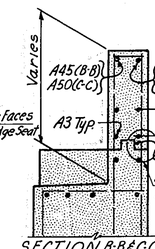
PLAN
Scale: 4"=1'-0"



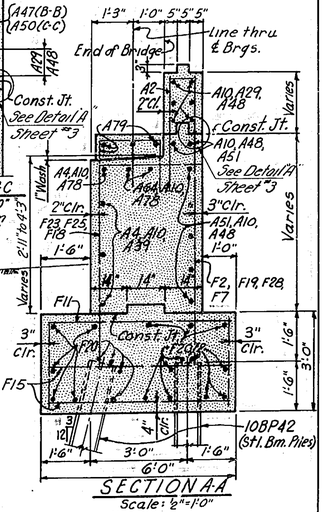
ELEVATION
Scale: 4"=1'-0"



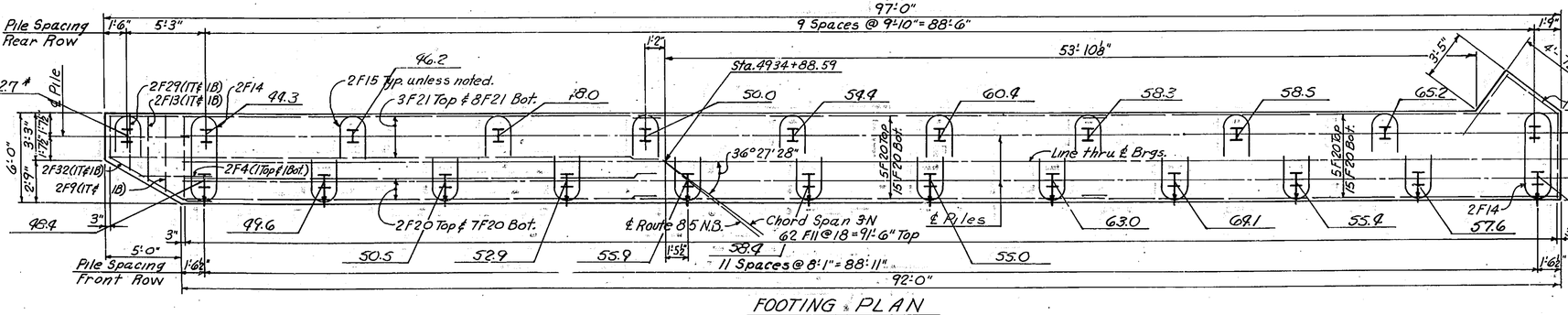
VIEW A-A
Scale: ¼"=1'-0"



SECTION B-B & C-C
Scale: 2"=1'-0"
Details not shown same as Sect. A-A



SECTION A-A
Scale: ½"=1'-0"



FOOTING PLAN
Scale: 4"=1'-0"

Note:
For Reinforcement Bar Schedule see Sheet #15.

* Denotes Test Piles

DESIGN	J.J.S.
CHKD.	A.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	R.W.H.

ROUTE I-85 OVER S.A.L. R.R.
ABUTMENT 2-N

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

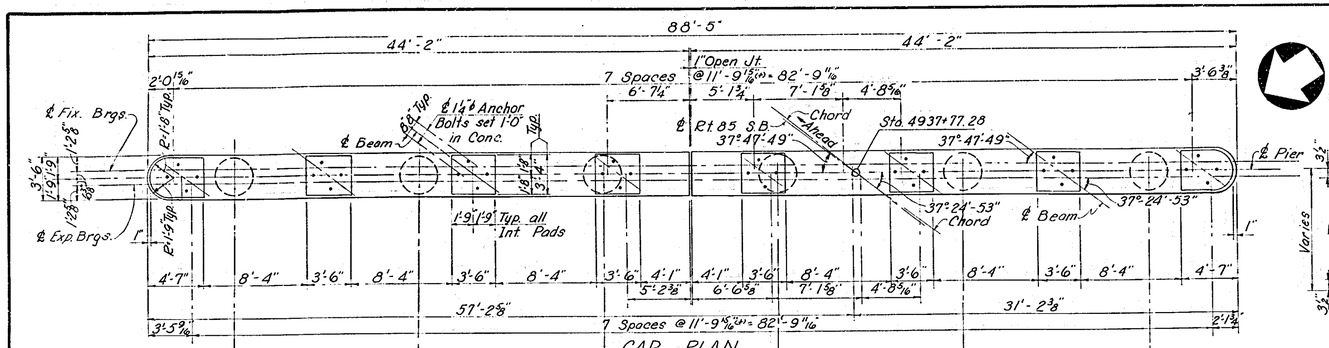
Revised: March 26, 1968
Revised: January 17, 1967

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

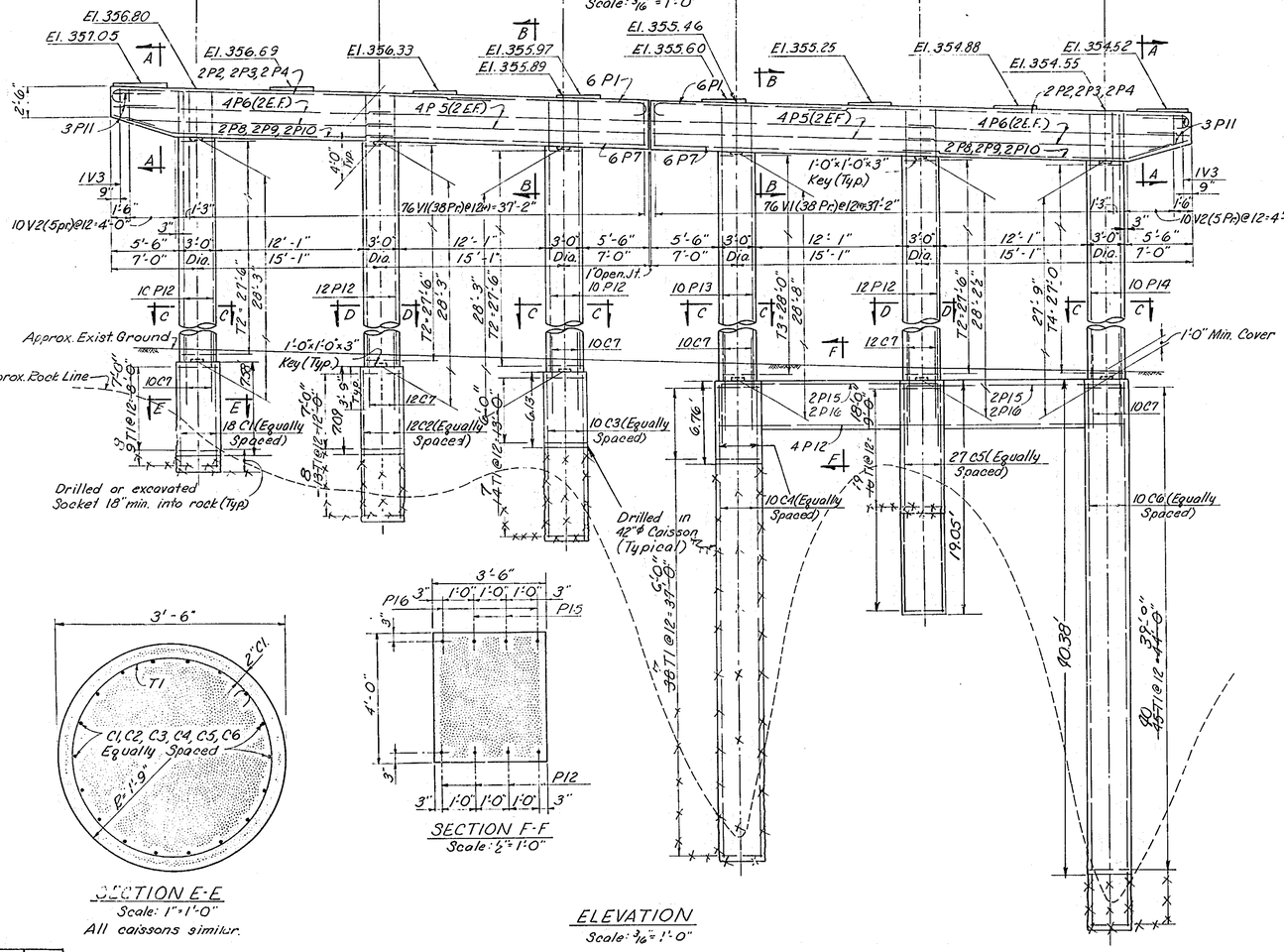
CL XXXVII-3
SHEET 6 OF 18

6 9 0 — 7 0 — 8 — 3

PUB.RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(80)25	85	0085-012-101, B611	15-7	
		IG			PE101 B612		



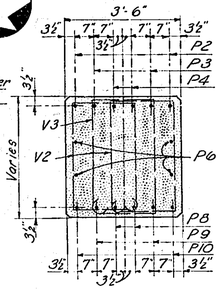
CAP PLAN
Scale: 3/16" = 1'-0"



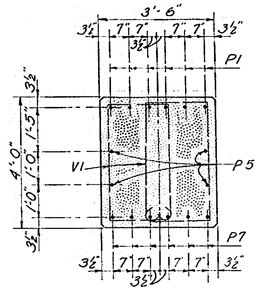
ELEVATION
Scale: 3/16" = 1'-0"

SECTION E-E
Scale: 1"=1'-0"
All caissons similar.

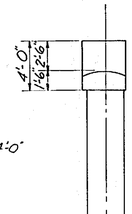
SECTION F-F
Scale: ½"=1'-0"



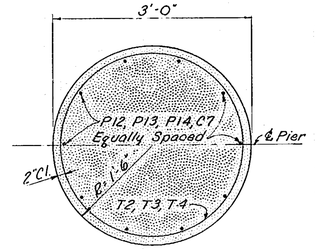
SECTION A-A
Scale: ½"=1'-0"



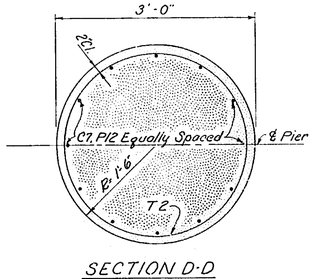
SECTION B-B
Scale: ½"=1'-0"



END VIEW



SECTION C-C
Scale: 1"=1'-0"

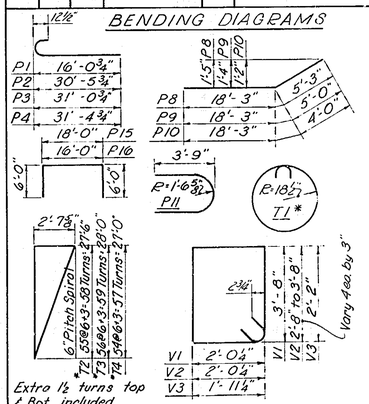


SECTION D-D
Scale: 1"=1'-0"

BAR SCHEDULE

Mark	Size	No	Length	Pin	Location
C1	#11	18	8'-9"		Caisson
C2	#11	12	12'-3"		"
C3	#11	10	13'-6"		"
C4	#11	10	37'-9"		"
C5	#11	27	9'-9"		"
C6	#11	10	44'-6"		"
C7	#11	64	7'-6"		" Dowel
P1	#11	12	17'-7"	11"	Horiz. Cap Top
P2	#11	4	32'-0"	11"	" " "
P3	#11	4	32'-7"	11"	" " "
P4	#11	4	32'-11"	11"	" " "
P5	#6	8	22'-10"		" Sides
P6	#6	8	21'-6"		" "
P7	#9	12	23'-3"		" Bot
P8	#9	4	23'-6"	9"	" "
P9	#9	4	23'-3"	9"	" "
P10	#9	4	22'-3"	9"	" "
P11	#6	6	9'-2"	36½"	" End
P12	#11	48	32'-0"		Column & Strut
P13	#11	10	32'-5"		Column
P14	#11	10	31'-6"		"
P15	#11	4	29'-4"	11"	Strut
P16	#11	4	27'-4"	11"	"
T1	#5	131	10'-7"		Caisson Ties
T2	3/8" ø	4	482'-0"		Column Spiral
T3	3/8" ø	1	490'-6"		" "
T4	3/8" ø	1	473'-10"		" "
V1	#5	152	12'-1"	2½"	Vertical Cap Stirrups
V2	#5	20	10'-1" to 12'-1" Vary 4 ea. by 6"	2½"	" " "
V3	#5	2	8'-11"	2½"	" " "

BENDING DIAGRAMS



Bars marked with an asterisk are dimensioned center to center. All others are dimensioned out to out.

ROUTE I-85 OVER S.A.L. R.R.
PIER I-S

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	J.W.P.

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

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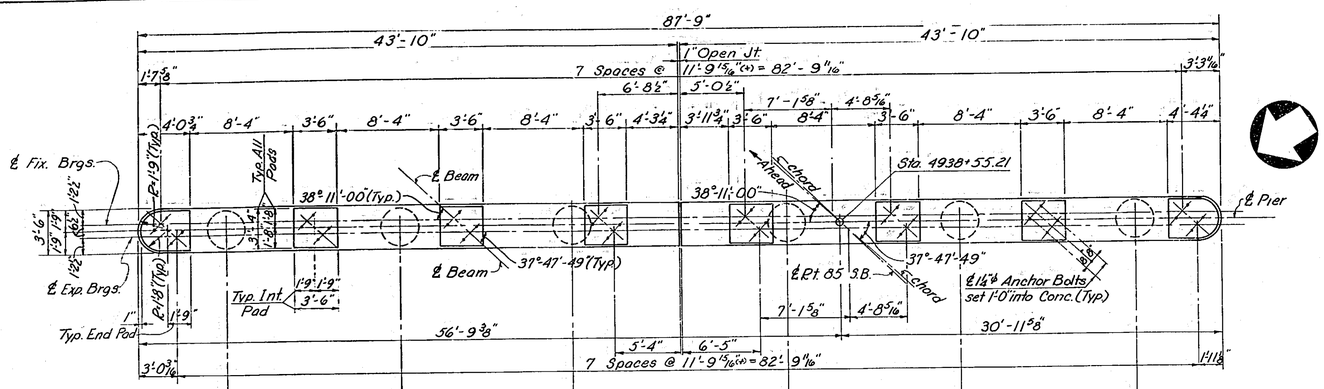
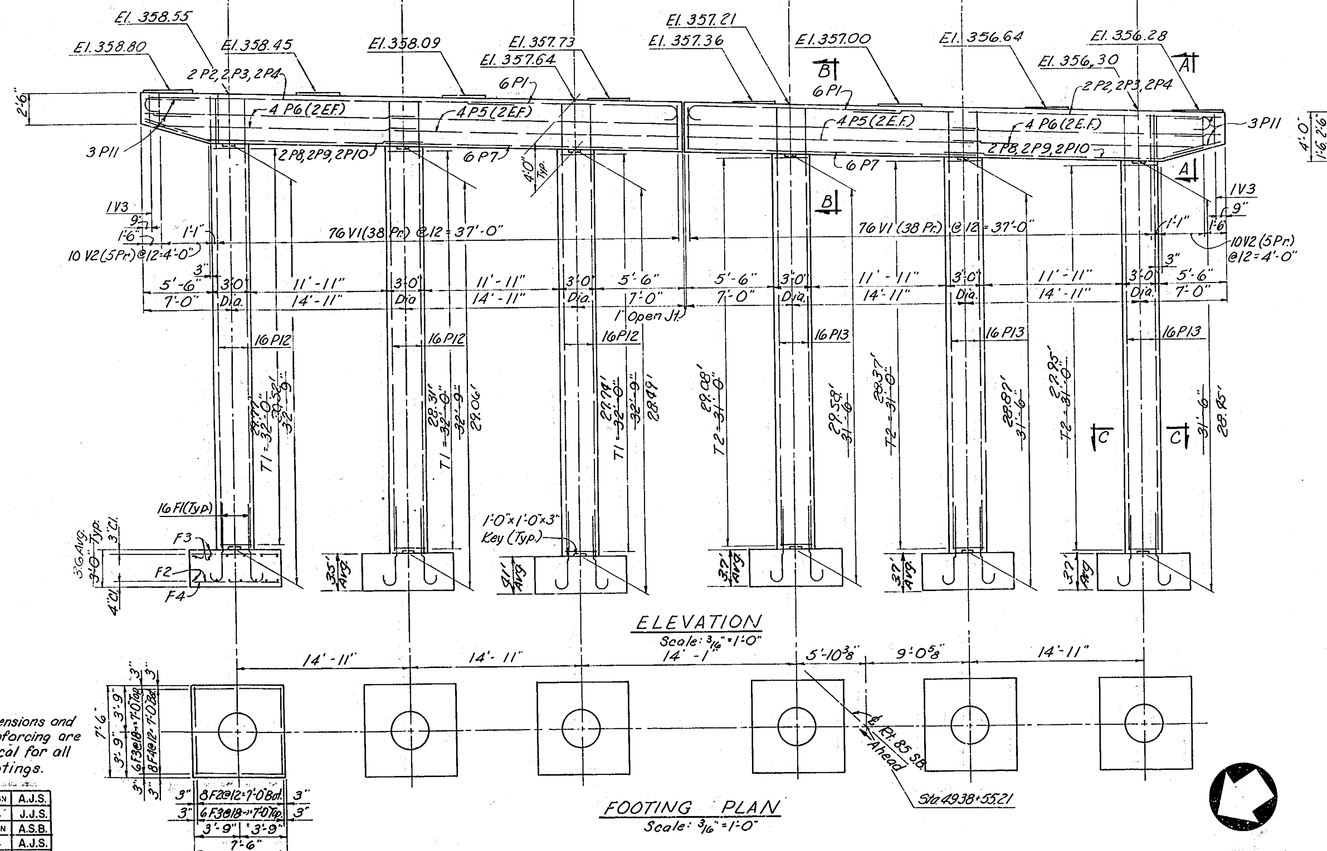
7-03
1-87

PUB.RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)25	85	0085-016-101, B611, B612	13-8	



CAP PLAN
Scale: 3/16" = 1'-0"

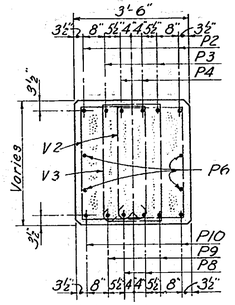


ELEVATION
Scale: 3/16" = 1'-0"

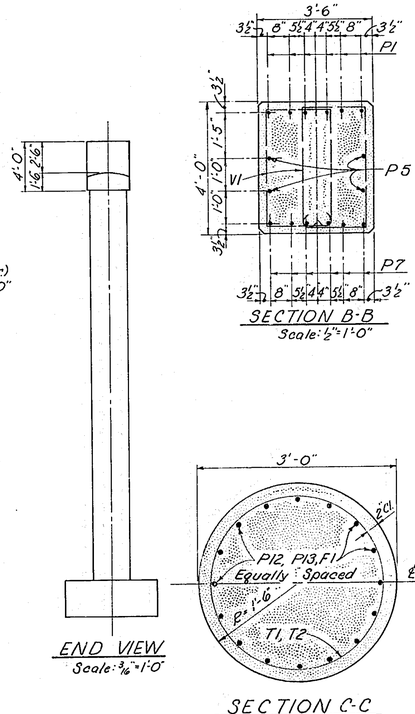
FOOTING PLAN
Scale: 3/16" = 1'-0"

Dimensions and Reinforcing are Typical for all Footings.

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	J.W.P.

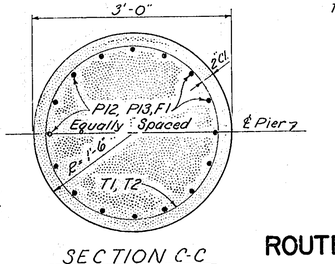


SECTION A-A
Scale: 2"=1'-0"



SECTION B-B
Scale: ½"=1'-0"

END VIEW
Scale: 3/16"=1'-0"

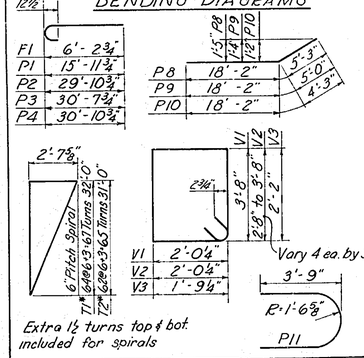


SECTION C-C
Scale: 1"=1'-0"

BAR SCHEDULE

Mark	Size	No	Length	Pin	Location
F1	#11	96	7'-9"	11"	Footing Dowel
F2	#7	48	7'-0"		" Bot.
F3	#5	72	7'-0"		" Top.
F4	#6	48	7'-0"		" Bot.
P1	#11	12	17'-6"	11"	Horiz. Cap Top
P2	#11	4	31'-5"	11"	" " "
P3	#11	4	32'-2"	11"	" " "
P4	#11	4	32'-5"	11"	" " "
P5	#6	8	22'-9"		" " Sides
P6	#6	8	21'-3"		" " "
P7	#9	12	23'-0"		" " Bot.
P8	#9	4	23'-4"	9"	" " "
P9	#9	4	23'-1"	9"	" " "
P10	#9	4	22'-4"	9"	" " "
P11	#6	6	9'-2"	36½"	Cap End
P12	#11	48	36'-6" to 34'-1"		Column
P13	#11	48	35'-5" to 33'-3"		"
T1	⅜"ϕ	3	5541'-0"	24"	Column Spiral
T2	⅜"ϕ	3	3490'-0"	90"	" "
V1	#5	152	12'-1"	2½"	Vertical Cap Stirrups
V2	#5	20	10'-1" to 12'-1" Vary 4 ea. by 6"	2½"	" " "
V3	#5	2	8'-7"	2½"	" " "

BENDING DIAGRAMS



Extra 1½ turns top & bot. included for spirals

Bars marked with an asterisk are dimensioned center to center. All others are dimensioned out to out.

ROUTE I-85 OVER S.A.L. R.R.
PIER 2-S

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

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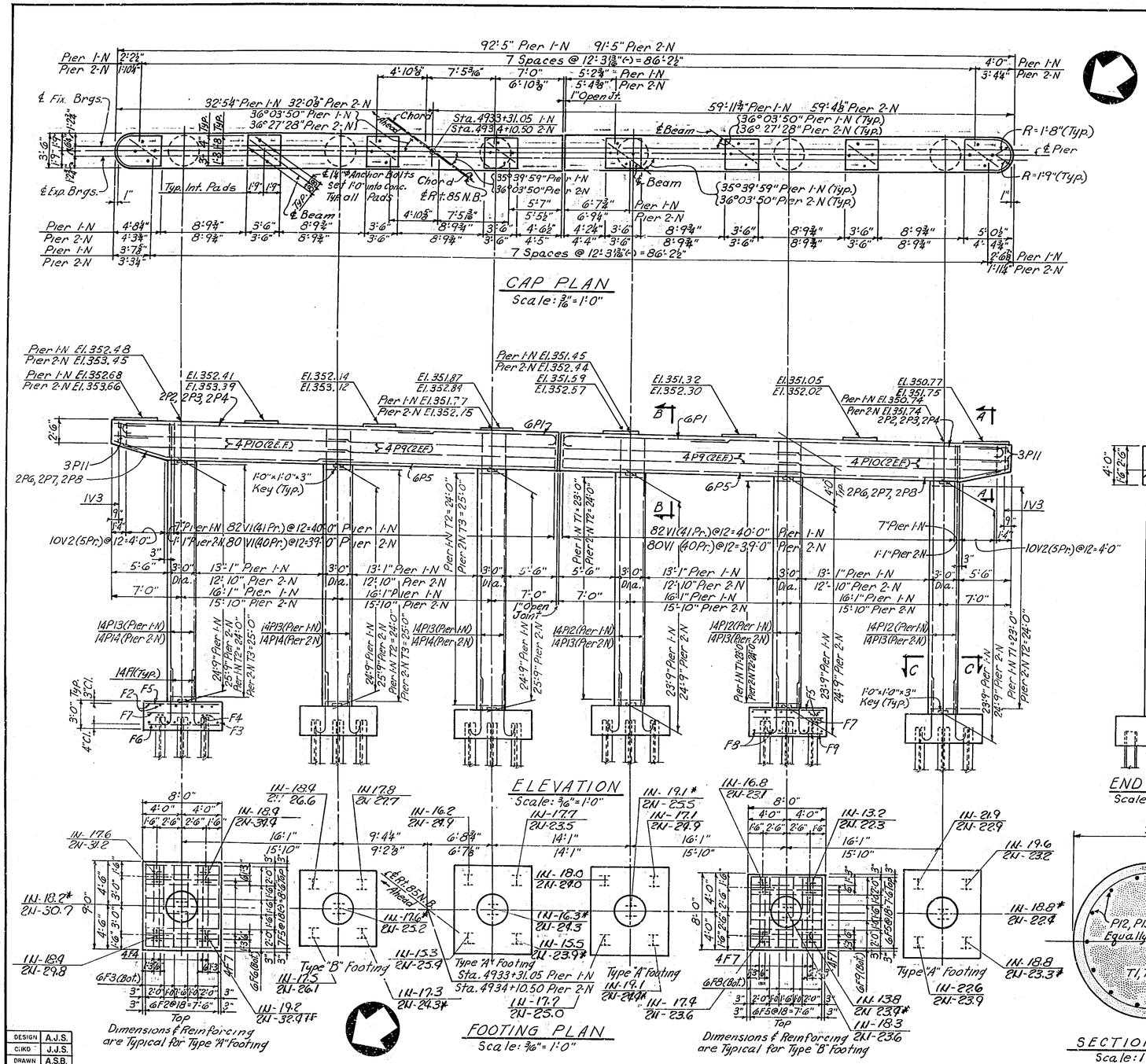
SHEET 8 OF 18

0085-016-101, B611, B612

PUB.RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(60)25	85	0085-012-101, B611, B612 PE 101	13-9	

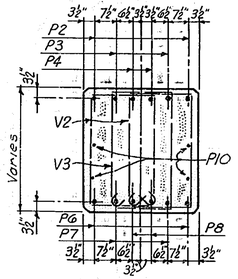


CAP PLAN
Scale: 3/16"=1'-0"

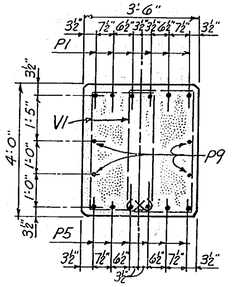
ELEVATION
Scale: 3/16"=1'-0"

FOOTING PLAN
Scale: 3/16"=1'-0"

END VIEW
Scale: 1/8"=1'-0"

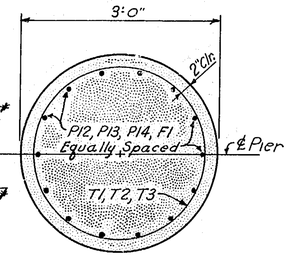


SECTION A-A
Scale: 1/2"=1'-0"



SECTION B-B
Scale: 1/2"=1'-0"

SECTION C-C
Scale: 1"=1'-0"



BAR SCHEDULE

Mark	Size	Piers 1-N	Piers 2-N	Length	Pin	Location
F1	#10	84	84	7'-3"	10"	Footing Dowel
F2	#5	24	24	8'-6"	-	" Top
F3	#8	24	24	10'-8"	8"	" Bot.
F4	#4	16	16	8'-6"		Footing
F5	#5	52	52	7'-6"		Footing Top
F6	#6	24	24	7'-6"		" Bot.
F7	#4	32	32	7'-6"	-	Footing
F8	#8	12	12	9'-8"	8"	Footing Bot.
F9	#8	12	12	7'-6"		" Bot.
P1	#11	12	12	18'-3"	11"	Horiz. Cap Top
P2	#11	4	4	33'-1"	11"	" " "
P3	#11	4	4	33'-11"	11"	" " "
P4	#11	4	4	34'-2"	11"	" " "
P5	#9	12	12	24'-3"		" " Bot.
P6	#9	4	4	23'-6"	9"	" " "
P7	#9	4	4	24'-3"	9"	" " "
P8	#9	4	4	24'-6"	9"	" " "
P9	#6	8	8	23'-10"		" " Sides
P10	#6	8	8	20'-9"		" " "
P11	#6	6	6	9'-2"	36½"	Cap End
P12	#10	42		27'-6"		Column
P13	#10	42	42	28'-6"		"
P14	#10		42	29'-6"		"
T1	⅜"ø	3		407'-3"		Column Spirals
T2	⅜"ø	3	3	424'-0"		" "
T3	⅜"ø		3	440'-6"		" "
V1	#5	164	160	12'-1"	2½"	Vertical Cap Stirrups
V2	#5	20	20	10'-1" to 12'-1" Vary 8 ea. by 6"	2½"	" " "
V3	#5	2	2	8'-9"	2½"	" " "

BENDING DIAGRAMS

12½"

P1	16'-8¾"
P2	31'-6¾"
P3	32'-4¾"
P4	32'-7⅝"
F1	5'-10⅛"

9" 9"
F3 8'-6"
F8 7'-6"

1'-0" P6 P7 P8
13" 15" 15"
P6 4'-3" 19'-3"
P7 5'-0" 19'-3"
P8 5'-3" 19'-3"

2'-7⅝"
6 Pl. ½ Spiral
17* 46@6-13-4@1 turns 23'-0"
72* 48@6-13-5@1 turns 24'-0"
73* 50@6-13-5@3 turns 25'-0"
Extra ½ Turns Top & Bot. included for Spirals.

V1 V2 V3
3'-8" 2'-8" 10 3'-8" 2'-2"
2'-0¼"
2'-0¼"
1'-10¼"
Vary 8 ea by 3"

3'-9"
R=1'-6⅝"
P11

Bars marked with an asterisk are dimensioned center to center. All others are dimensioned out to out.

DESIGN	A.J.S.
CHKD	J.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	R.W.H.

* Denotes Test Piles

ROUTE I-85 OVER S.A.L. R.R.
PIERS 1-N & 2-N

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

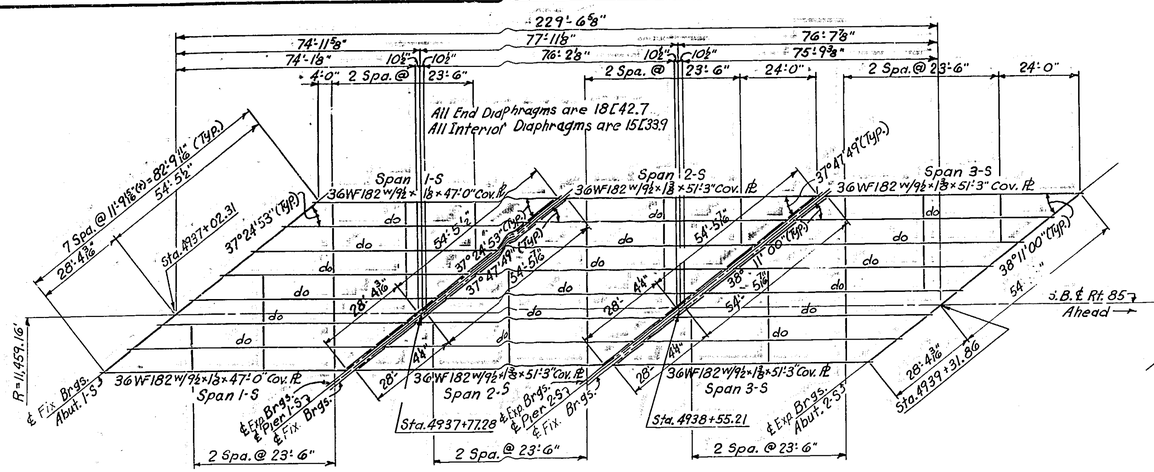
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CLXXXVII-3
SHEET 9 OF 18

9-0-78
1
3

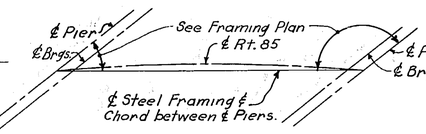
PUB.RD. DIV.NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)25	85	0085-012-104, B611	13-10	

BGLE, PE 101



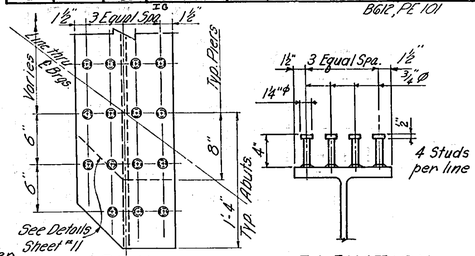
FRAMING PLAN SOUTH BOUND BRIDGE

Scale: 1" = 20'-0"



TYPICAL GEOMETRY PLAN

NO Scale



PLAN ELEVATION

SHEAR CONNECTOR DETAIL

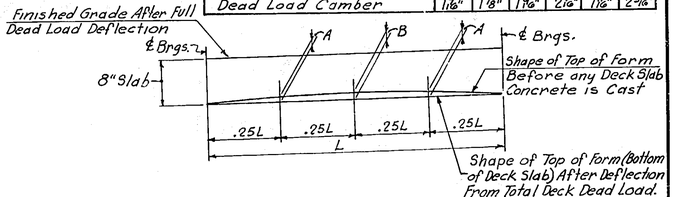
Stud shear connectors shall be granular or solid flux studs automatically welded to develop full shear value of studs. Welded base of studs should be at least ¾"ϕ dia. and are to be welded on centers as shown on the drawing.

Note to Fabricator: The beams shall be fabricated with an upward camber amounting to dimensions shown in the Stress Table at midspan. This will provide approximate compensation for deflection under full dead load and for conformity with Finished Grade.

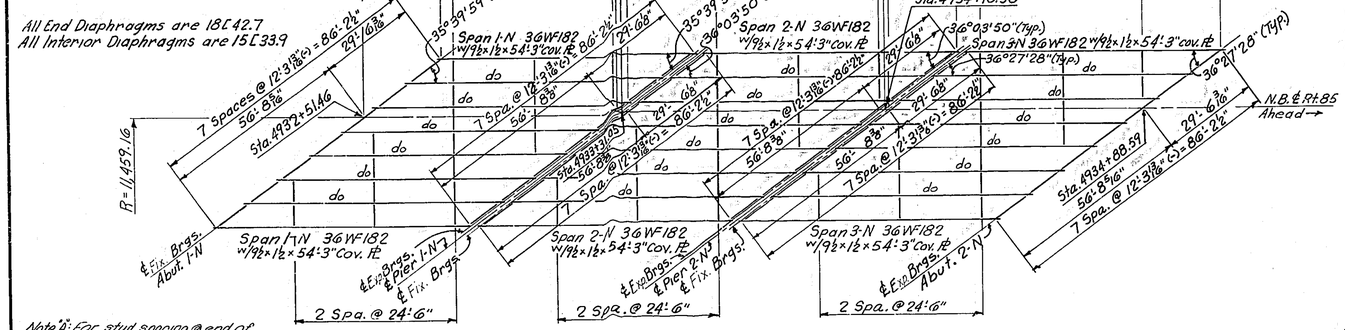
Note to Contractor: The above deflections are those anticipated to occur in the beam upon placement of the total concrete deck dead load. In practice the beams, in place, are not likely to have the exact camber to compensate for these deflections during construction. The residual amounts shall be provided for by adjusting forms to vary the thickness of the concrete bolster between the bottom of the slab and the top of the beam, without alteration of the slab thickness.

STRESS TABLE

			1-S	2-S, 3-S	1-N, 2-N, 3-N
Span					
Stringers			Fas ℄ Int.	Fas ℄ Int.	Fas ℄ Int.
Moment In Foot Kips	Initial Dead Load		674.0	723.0	770.0
	Superimp'd D.L.		201.0	213.8	226.8
	Live Load		700.6	728.3	755.5
	Impact		175.8	180.6	185.1
	Total		1751.4	1845.7	1937.4
Section	Top Plate		—	—	—
	Beam		36WF182	36WF182	36WF182
	Bottom Fl.		9½"×1⅛"×47'-0"	9½"×1⅛"×51'-3"	9½"×1½"×54'-3"
Composite Section I (for n=10) in⁴			f	I	f	I	f	I
f" Final Stress in Kips Per Sq. inch	Concrete		.549		.559		.574	
	Steel	Top	15.85	355483	16.72	375331	17.64	385190
		Bottom	19.86		19.70		20.12	
Reaction In Kips	Dead Load		35.67		37.03		38.27	
	Superimp'd D.L.		10.81		11.15		11.49	
	Live Load		46.22		46.60		46.72	
	Impact		11.73		11.45		11.41	
	Total		104.43		106.23		107.89	
Dead Load Camber			A	B	A	B	A	B
			1⅛"	1⅞"	1⅞"	2⅛"	1⅛"	2⅝"



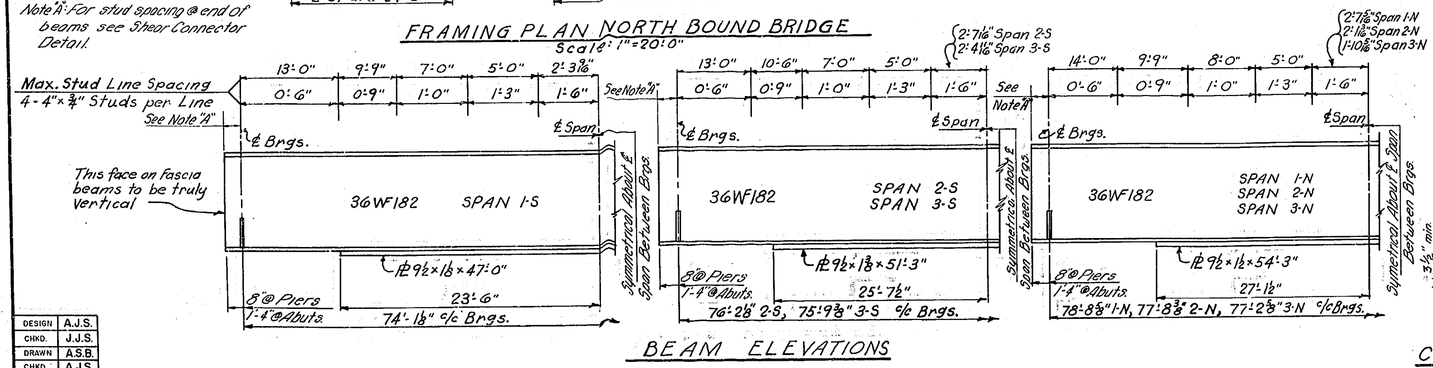
DEAD LOAD DEFLECTION DIAGRAM



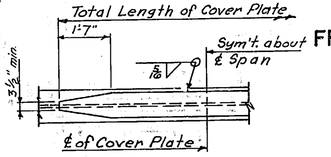
FRAMING PLAN NORTH BOUND BRIDGE

Scale: 1" = 20'-0"

Note "A": For stud spacing @ end of beams see Shear Connector Detail.



BEAM ELEVATIONS



COVER PLATE DETAIL

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	R.W.H.

ROUTE I-85 OVER S.A.L. R.R.
FRAMING PLANS & BEAM DETAILS

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

Revised: January 17, 1967

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

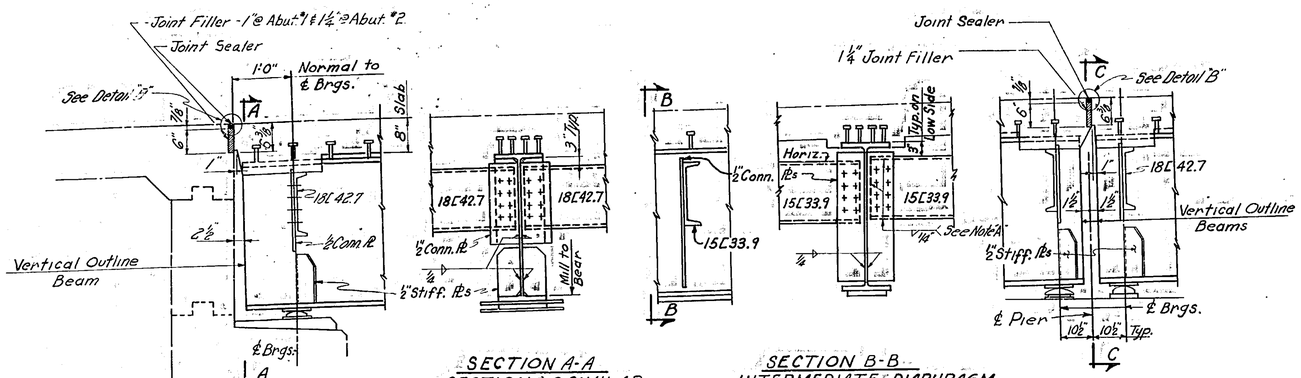
CLXXXVII-3
SHEET 10 OF 18

A1C021

0011

30-78-1

PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1140(26) IG	85	0085-012-101, B611 B612, PE 101	13-11	-



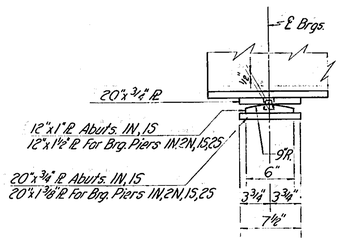
ABUTMENT 1-N
ALL ABUTMENTS SIMILAR
Scale: ¾"=1'-0"

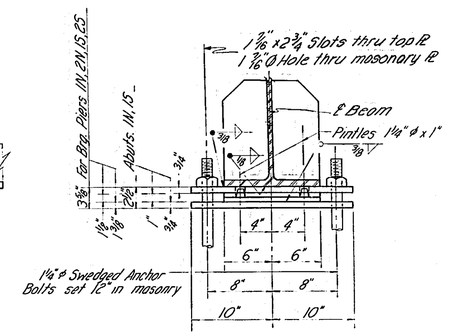
SECTION A-A
SECTION C-C SIMILAR
Scale: ¾"=1'-0"

SECTION B-B
INTERMEDIATE DIAPHRAGM
Scale: ¾"=1'-0"

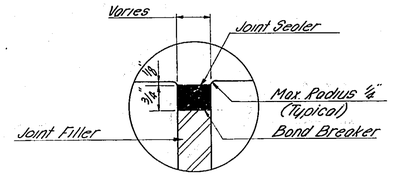
PIER 1-N
ALL PIERS SIMILAR
Scale: ¾"=1'-0"

NOTE A
Field connection of diaphragms may be made with ⅞"ϕ field rivets. ⅞" High tensile strength bolts or welded as shown. Welded connections shall not be used by the fabricator unless specifically authorized by the General Contractor. The method of securing the member during field welding shall be detailed by the fabricator and subject to approval by the Engineer.





FIXED SHOES
Scale 1½"=1'-0"



DETAIL "B"
Scale 6"=1'-0"

NOTES FOR JOINT MATERIAL

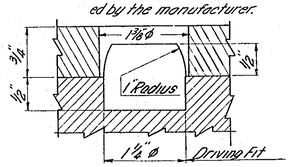
A cold-applied sealer shall be used

The joint filler shall be an expanded rubber or polyvinylchloride (PVC)

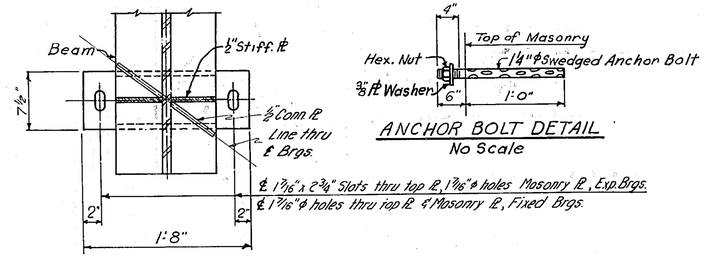
Expanded Rubber Joint Filler shall conform to the requirements of ASTM Designation D1056. Unless otherwise specified grade RE43L to RE45L, SBE43L to SBE45L, or SCE43L to SCE45L shall be furnished.

Polyvinylchloride (PVC) Joint Filler shall conform to the requirements of ASTM Designation D1667. Unless otherwise specified grade VE-43L to VE45L shall be furnished.

Adhesives for use with these fillers shall be as recommended by the manufacturer.

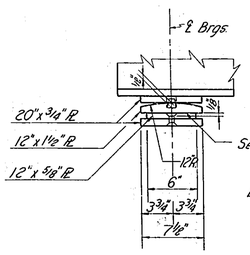


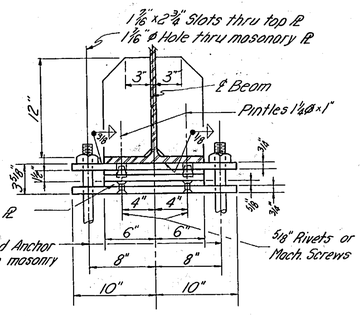
PINTLE DETAIL
No Scale



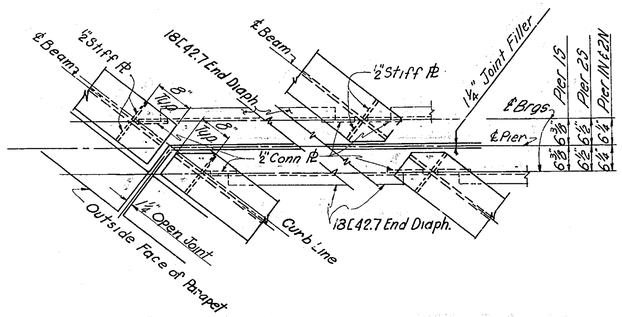
TYPICAL SHOE PLAN
Scale: 1½"=1'-0"

ANCHOR BOLT DETAIL
No Scale

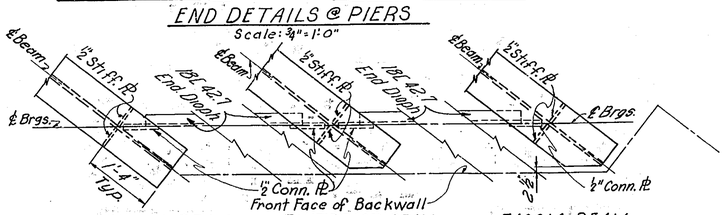




EXPANSION SHOES
Scale: 1½"=1'-0"



FASCIA BEAM INTERIOR BEAM
END DETAILS @ PIERS
Scale: ¾"=1'-0"



FASCIA BEAM INTERIOR BEAM FASCIA BEAM
END DETAILS @ ABUTMENTS
Scale: ¾"=1'-0"

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD.	R.W.H.

ROUTE I-85 OVER S.A.L. R.R.
STEEL DETAILS

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

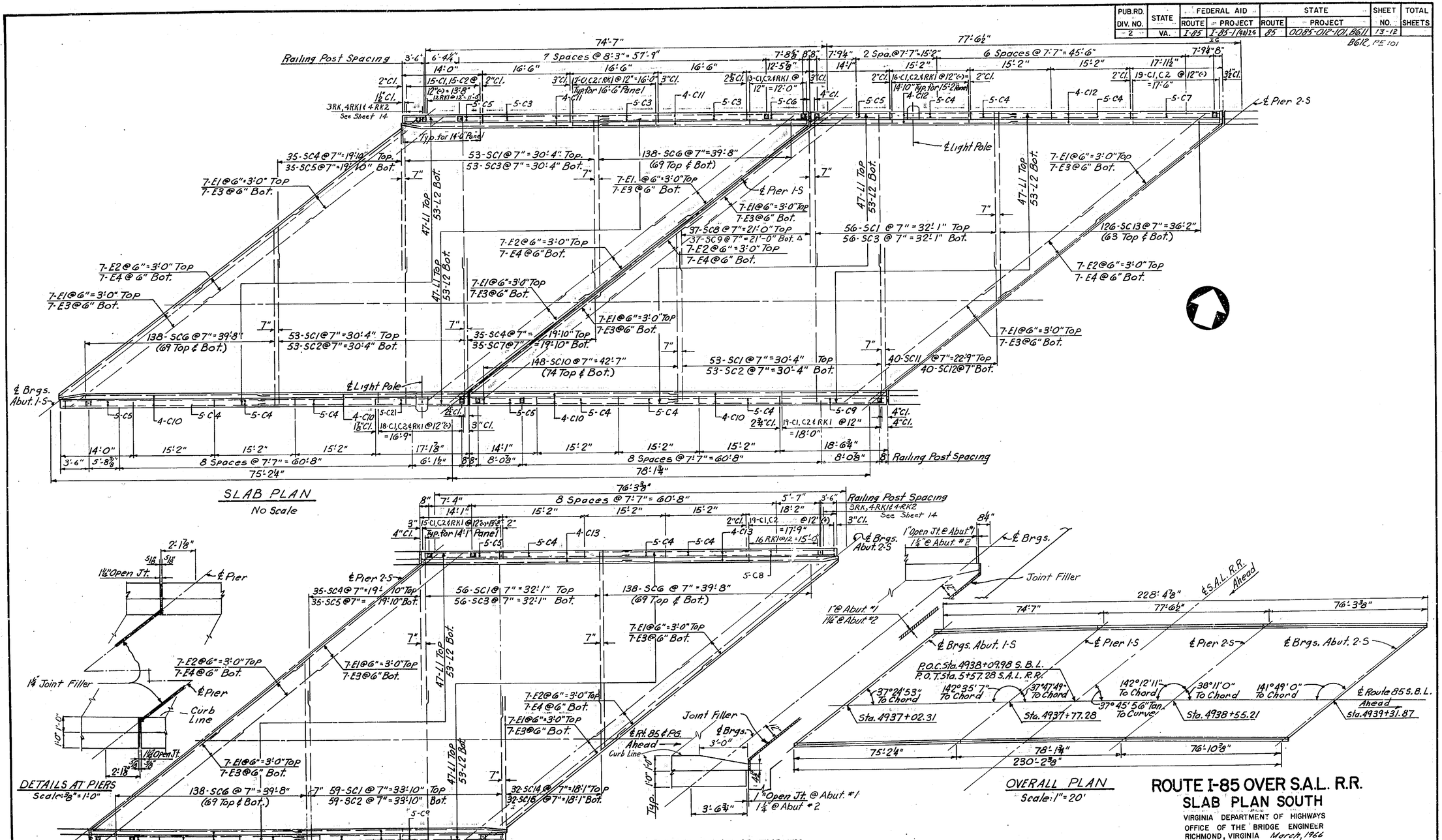
CLXXXVII-3
SHEET 11 OF 18

A10021

I-85 7-03-18

PUB.RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)126	85	0085-012-101, B611	13-12	

B612, PE 101



SLAB PLAN
No Scale

DETAILS AT PIERS
Scale: ⅜" = 1'-0"

DETAILS AT ABUTMENTS
Scale: ⅜" = 1'-0"

OVERALL PLAN
Scale: 1" = 20'

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	M.J.F.
CHKD.	J.J.S.
TRCD.	R.W.H.

Revised: March 26, 1968
△Revised: November 27, 1967.

ROUTE I-85 OVER S.A.L. R.R.
SLAB PLAN SOUTH

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

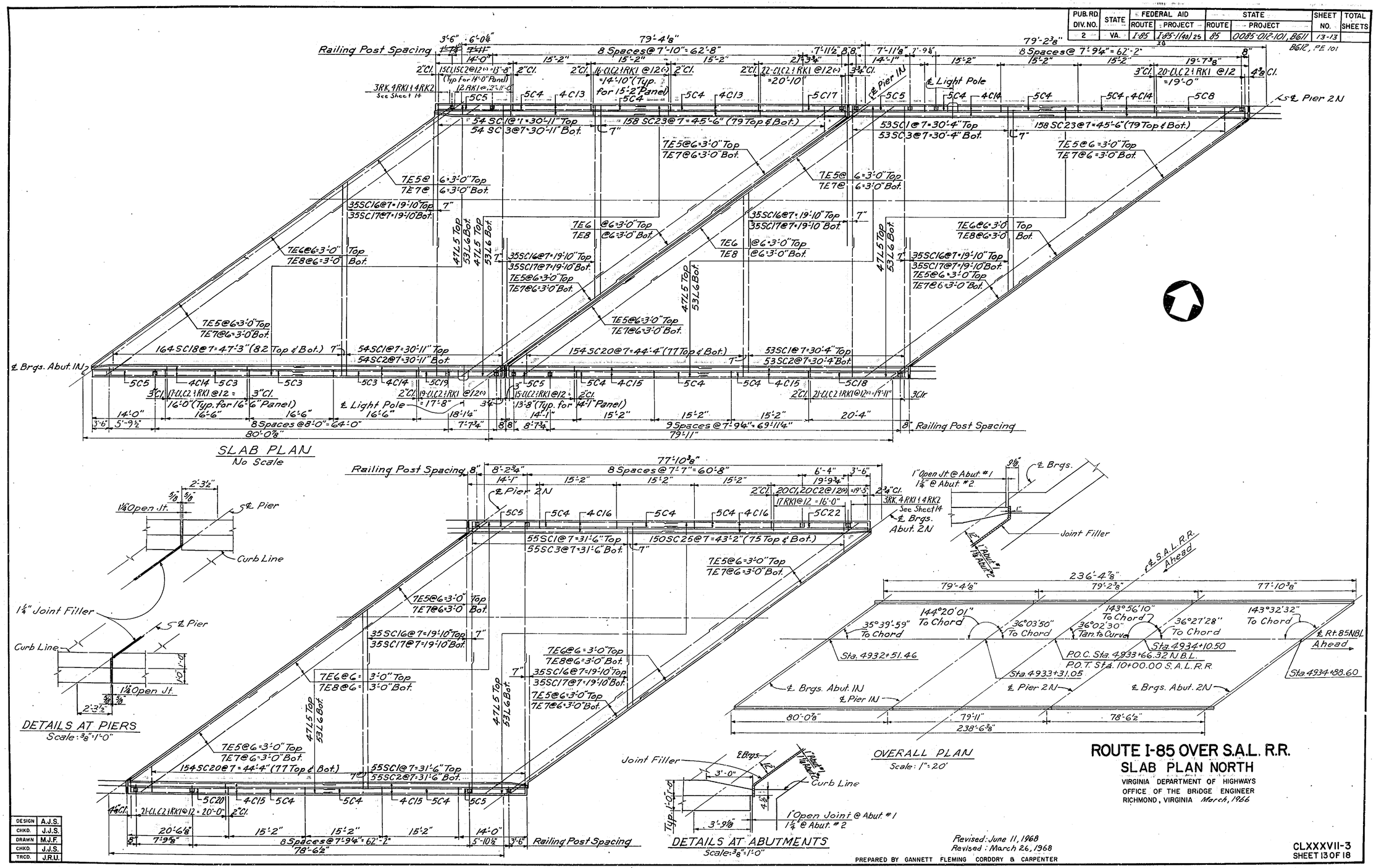
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CLXXXVII-3
SHEET 12 OF 18

12-18-7-03

PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)25	85	0085-012-101, B611	13-13	

B612, PE 101



DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	M.J.F.
CHKD.	J.J.S.
TRCD.	J.R.U.

ROUTE I-85 OVER S.A.L. R.R.
SLAB PLAN NORTH

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA *March, 1966*

Revised: June 11, 1968
Revised: March 26, 1968

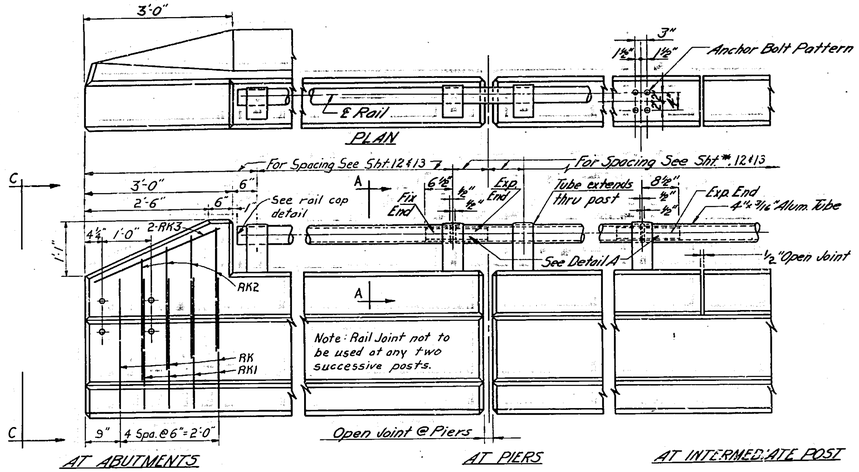
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CLXXXVII-3
SHEET 13 OF 18

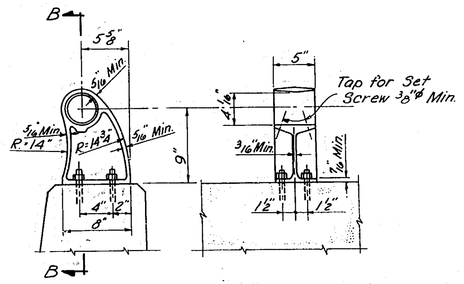
13
30-78-1

PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(10)25	85	0085-012-101, B611	13-14	

IG B612, PE 101



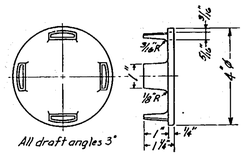
RAILING & PARAPET ELEVATION
Scale ¾"=1'-0"



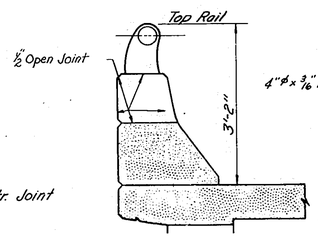
SECTION A-A
Scale 1½"=1'-0"

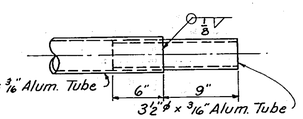
SECTION B-B
Scale 1½"=1'-0"

Note: ¾"ø Stainless Steel (Type 304) Stud to be end welded automatically or semiautomatically to ¾" steel anchor. Required minimum tensile strength of complete anchor = 27,000 lbs.

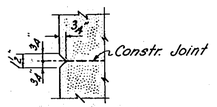


RAIL END CAP



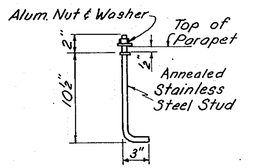


DETAIL A
Scale 1½"=1'-0"



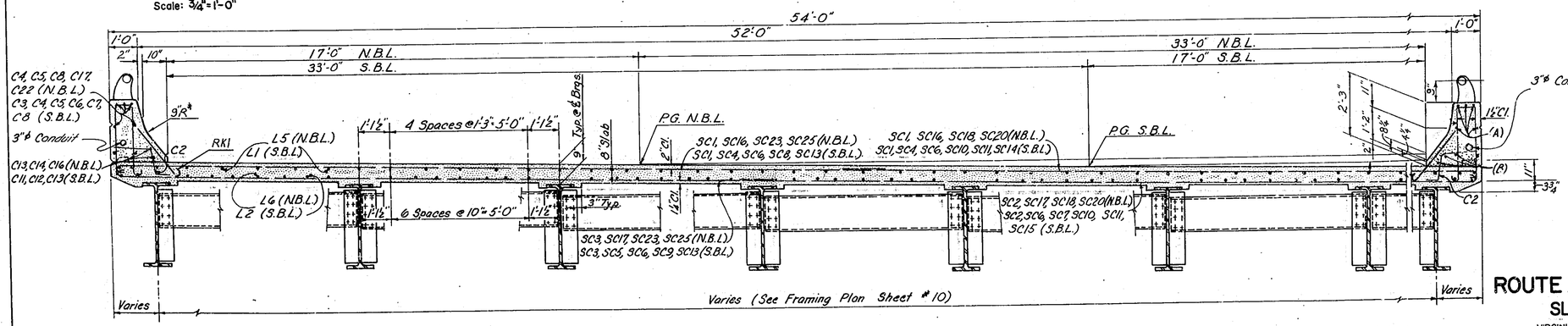
V-GROOVE DETAIL
Scale 1½"=1'-0"

JOINT DETAIL IN PARAPET
Scale ¾"=1'-0"



ANCHOR BOLT DETAIL
Scale 1½"=1'-0"

VIEW C-C
Scale: ¾"=1'-0"



TYPICAL CROSS SECTION
Scale ½"=1'-0"

* Consideration will be given to the modification of this radius requirement in the event steel forms are not used.

DESIGN	A.J.S.
CHKD.	J.J.S.
DRAWN	M.J.F.
CHKD.	J.J.S.
TRCD	J.W.P.

ROUTE I-85 OVER S.A.L. R.R.
SLAB DETAILS

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

Revised: March 26, 1968
Revised: January 17, 1967

CLXXXVII-3
SHEET 14 OF 18

PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

A1 1021

J 4 1 1 3-0-78-1

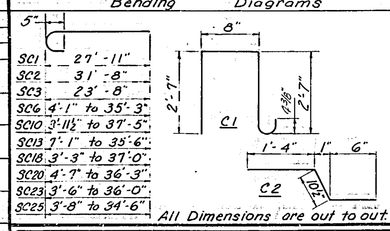
PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)126 IG	85	0085-012-101, B611, B612, PE-101	13-15	

SLAB BAR SCHEDULE

Mark	Size	S. Slab	N. Slab	Length	Pin	Location
SC1	#5	330	324	28'-6"	3¾"	Transverse Slab
SC2	#5	165	162	32'-3"	3¾"	" "
SC3	#5	165	162	24'-3"	3¾"	" "
SC4	#5	105		10'-2" to 25'-9" Vary 3 ea. by 5½"		" "
SC5	#5	70		6'-5" to 22'-0" Vary 2 ea. by 5½"		" "
SC6	#5	552		4'-8" to 35'-10" Vary 8 ea. by 5½"	3¾"	" "
SC7	#5	35		13'-11" to 29'-6" Vary 1 ea. by 5½"		" "
SC8	#5	37		10'-3" to 26'-9" Vary 1 ea. by 5½"		" "
SC9	#5	37		6'-6" to 23'-0" Vary 1 ea. by 5½"		" "
SC10	#5	148		4'-6½" to 38'-0" Vary 2 ea. by 5½"	3¾"	" "
SC11	#5	40		7'-10½" to 25'-9" Vary 1 ea. by 5½"		" "
SC12	#5	40		15'-1½" to 33'-0" Vary 1 ea. by 5½"		" "
SC13	#5	126		7'-8" to 36'-1" Vary 2 ea. by 5½"	3¾"	" "
SC14	#5	32		11'-6½" to 25'-9" Vary 1 ea. by 5½"		" "
SC15	#5	32		18'-9½" to 33'-0" Vary 1 ea. by 5½"		" "
SC16	#5		210	11'-7" to 25'-9" Vary 6 ea. by 5"		" "
SC17	#5		210	7'-10" to 22'-0" Vary 6 ea. by 5"		" "
SC18	#5		164	3'-10" to 37'-7" Vary 2 ea. by 5"	3¾"	" "
SC20	#5		308	5'-5" to 36'-10" Vary 4 ea. by 5"	3¾"	" "
SC23	#5		316	4'-1" to 36'-7" Vary 4 ea. by 5"	3¾"	" "
SC25	#5		150	4'-3" to 35'-1" Vary 2 ea. by 5"	3¾"	" "
L1	#4	282		39'-8"		Longitudinal Slab
L2	#5	318		39'-10"		" "
L3	#4		282	41'-7"		" "
L4	#5		318	41'-9"		" "
E1	#5	84		33'-0"		End Slab
E2	#5	42		25'-3"		" "
E3	#5	84		27'-0"		" "
E4	#5	42		37'-3"		" "
E5	#5		84	33'-6"		" "
E6	#5		42	25'-6"		" "
E7	#5		84	27'-6"		" "
E8	#5		42	37'-6"		" "
C1	#5	488	504	6'-2"	3¾"	Parapet - Curb
C2	#5	488	504	2'-6"	3¾"	" "
C3	#4	15	15	16'-0"		" "
C4	#4	75	75	14'-9"		" "
C5	#4	30	30	13'-8"		" "
C6	#4	5		12'-1"		" "
C7	#4	5		17'-6"		" "
C8	#4	5	5	17'-9"		" "
C9	#4	10		18'-3"		" "
C10	#4	24		39'-8"		" "
C11	#4	8		38'-5"		" "
C12	#4	8		39'-3"		" "
C13	#4	8	8	40'-1"		" "
C14	#4		16	41'-3"		" "
C15	#4		16	41'-8"		" "
C16	#4		8	40'-7"		" "
C17	#4		5	20'-10"		" "
C18	#4		5	19'-11"		" "
C19	#4		5	17'-8"		" "
C20	#4		5	20'-0"		" "
C21	#4	5		16'-9"		" "
C22	#4		5	19'-6"		" "

SC SCHEDULE

Bending Diagrams



SC1	27'-11"
SC2	31'-8"
SC3	23'-8"
SC6	4'-1" to 35'-3"
SC10	3'-11½" to 37'-5"
SC13	7'-1" to 35'-6"
SC18	3'-3" to 37'-0"
SC20	4'-7" to 36'-3"
SC23	3'-6" to 36'-0"
SC25	3'-8" to 34'-6"

All Dimensions are out to out.

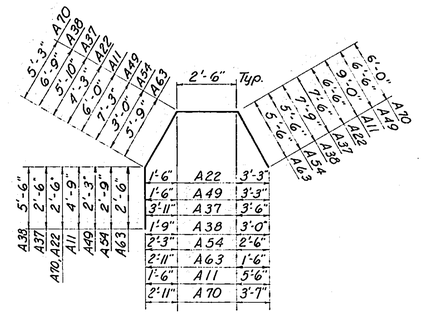
ABUTMENT BAR SCHEDULE

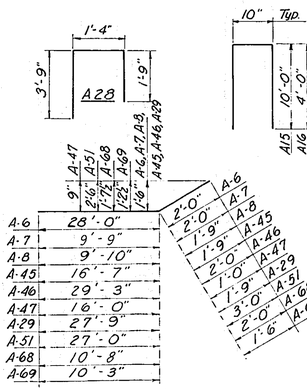
Mark	Size	Abut 1S	Abut 2S	Abut 1N	Abut 2N	Length	Pin	Location
F1	#5	18	19			9'-0"	3¾"	Footing Dowel
F2	#5	25	30		11	8'-6"	"	"
F3	#5	10	17	7		9'-0"	"	"
F4	#5	2	19	2	6	4'-6"	"	"
F5	#5	21	18	21		8'-3"	3¾"	"
F6	#5	19	20			9'-9"	3¾"	"
F7	#5	6		11	37	8'-6"	"	"
F8	#5	12	10		4	11'-0"	"	"
F9	#5	10	16	6	8	5'-3"	"	"
F10	#4	40	40			44'-9"		Footing
F11	#4	59	59	62	62	5'-6"		"
F12	#5	3	3			13'-11"	3¾"	"
F13	#5			2	2	4'-0"		"
F14	#4	4	4	4	4	14'-7½"	17½°	"
F15	#4	38	38	38	38	6'-3¾"	17½°	"
F16	#5	16				6'-9"		"
F17	#5			4		6'-3"		Footing Dowel
F18	#5			21	20	9'-2"	3¾"	" "
F19	#5			11	7	7'-6"		" "
F20	#4			49	49	31'-6"		Footing
F21	#4			11	11	36'-6"		"
F22	#5				3	15'-9"	3¾"	"
F23	#5				22	8'-8"	3¾"	Footing Dowel
F24	#5	15		21		7'-9"		" "
F25	#5			21	21	7'-8"	3¾"	" "
F26	#5			11		8'-9"		" "
F27	#5			3		13'-10"	3¾"	Footing
F28	#5			7	6	10'-3"		Footing Dowel
F29	#5	2	2	4	4	3'-6"		Footing
F30	#5	2				9'-8"	3¾"	"
F31	#5		2			8'-5"	3¾"	"
F32	#5			2	2	9'-3"	3¾"	"
A1	#5	18	19			25'-6"		Abutment
A2	#5	40	40	43	43	4'-8"	3¾"	"
A3	#5	17	16	18	18	6'-2"	3¾"	"
A4	#5	4	3	4	3	36'-3"	3¾"	"
A5	#5	5	6			29'-0"		"
A6	#5		6			30'-0"	3¾"	"
A7	#5		1			11'-9"	3¾"	"
A8	#5		1			11'-7"	3¾"	"
A9	#5	11	11			34'-0"		"
A10	#5			18	16	29'-7"		"
A11	#5		2			22'-3"	3¾"	Wing
A12	#5		1			5'-6"	3¾"	"
A13	#5		2		1	4'-0"	3¾"	"
A14	#5	11	14	2	13	4'-0"		"
A15	#5	1	3			20'-7"	3¾"	"
A16	#5		2		1	8'-7"	3¾"	"
A17	#5	1	2		1	11'-7"	3¾"	"
A18	#5	1	1	1	1	14'-1"	3¾"	"
A19	#5	2	2	2	1	7'-0"		"
A20	#5		4		1	9'-9"		"
A21	#5	2	4			10'-0"		"
A22	#5		2			15'-9"	3¾"	"
A23	#5		2			3'-0"	3¾"	"
A24	#5		2		1	15'-7"	3¾"	"
A25	#5		4	3	6	6'-6"		"
A26	#5		2		7	8'-3"		"
A27	#5		2	2		5'-9"	3¾"	"
A28	#6	2	2	2	2	6'-7"	3¾"	"
A29	#5			6	6	29'-6"	3¾"	Abutment

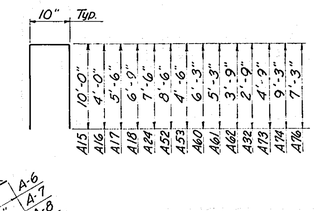
ABUTMENT BAR SCHEDULE

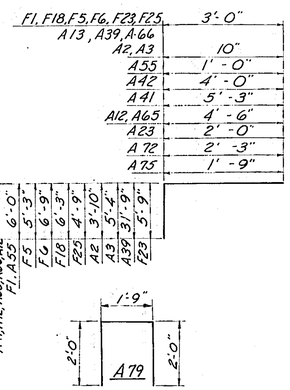
Mark	Size	Abut 1S	Abut 2S	Abut 1N	Abut 2N	Length	Pin	Location
A30	#5	4				8'-6"		Wing
A31	#5	6				6'-3"		"
A32	#5	1				6'-1"	3¾"	"
A33	#5	2				10'-0"		"
A34	#5	2	2			4'-6"		"
A37	#5	2				18'-4"	3¾"	"
A38	#5	2				22'-6"	3¾"	"
A39	#5	3	4	3	4	34'-9"	3¾"	Abutment
A40	#5	6			1	12'-3"		Wing
A41	#5	1				6'-3"	3¾"	"
A42	#5	1			1	5'-0"	3¾"	"
A43	#5			4		7'-9"		"
A44	#5				4	5'-0"		"
A45	#5	1			1	18'-4"	3¾"	Abutment
A46	#5	8				31'-3"	3¾"	"
A47	#5	1			1	17'-0"	3¾"	"
A48	#5				10	37'-0"		"
A49	#5				2	18'-3"	3¾"	Wing
A50	#5				2	16'-0"		Abutment
A51	#5			7	7	30'-0"	3¾"	"
A52	#5	1	1			17'-7"	3¾"	Wing
A53	#5	1			1	9'-7"	3¾"	"
A54	#5				2	13'-6"	3¾"	"
A55	#5				1	7'-0"	3¾"	"
A56	#5			11		37'-9"		Abutment
A57	#5	2			2	3'-6"		Wing
A58	#5		2			15'-9"		Abutment
A59	#5			4		6'-6"		Wing
A60	#5			1	1	13'-1"	3¾"	"
A61	#5			1		11'-1"	3¾"	"
A62	#5	1		1		8'-1"	3¾"	"
A63	#5			2		16'-2"	3¾"	"
A64	#5	2	3	2	2	31'-6"		Abutment
A65	#5			1		5'-5"	3¾"	Wing
A66	#5			1		3'-11"	3¾"	"
A67	#5			2		19'-9"		Abutment
A68	#5			1		12'-8"	3¾"	"
A69	#5			1		11'-9"	3¾"	"
A70	#5			2		16'-1"	3¾"	Wing
A71	#5			4	1	5'-6"		"
A72	#5	1		1		10'-1"	3¾"	"
A74	#5	1		2		19'-1"	3¾"	"
A75	#5	2			2	2'-9"	3¾"	"
A76	#5				1	15'-1"	3¾"	"
A77	#5	1		1		34'-6"	3¾"	Abutment
A78	#5	2	3	2	3	29'-9"		"
A79	#5	48	48	48	48	5'-6"	3¾"	Pads

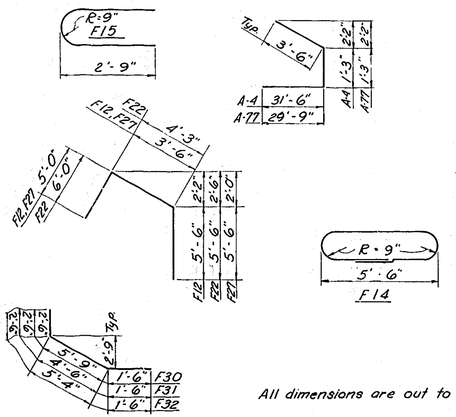
Bending Diagrams



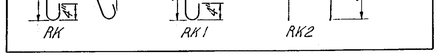








ADDITIONAL REINFORCING STEEL ADDED BY REVISION DATED MARCH 26, 1968, FOR MODIFICATION OF PARAPETS						
Mark	Size	B611	B612	Length	Pin	Locations
RK	4	12	12	6'-10"	2"	Parapet
RK1	4	508	492	3'-9"	2"	"
RK2	4	16	16	5'-7"	2"	End Wall
RK3	4	8	8	3'-0"	—	"



All dimensions are out to out.

ROUTE I-85 OVER S.A.L. R.R.
SLAB & ABUTMENT BAR SCHEDULE

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

Revised: March 26, 1968

DRAWN	A.S.B.
CHKD.	A.J.S.
TRCD	J.W.P.

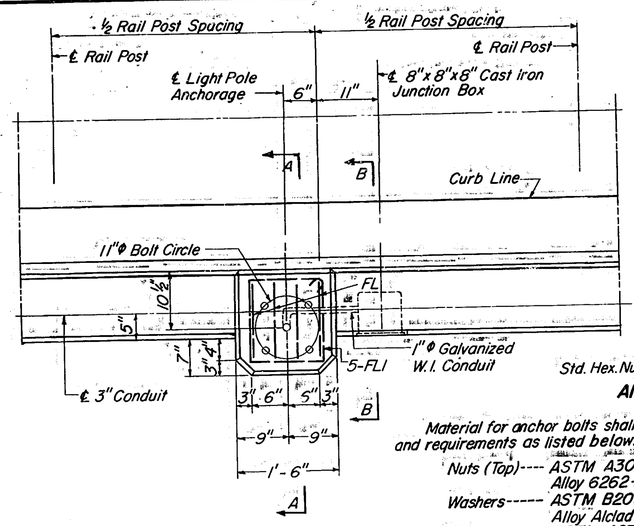
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CL XXXVII-3
SHEET 15 OF 18

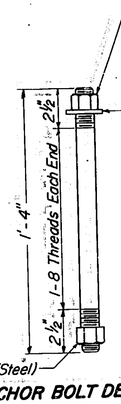
A10021

15
1-85-1-87-03

PUB. RD. REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(40)125	85	0085-012-101, B611, B612 P.E.101	13-16	



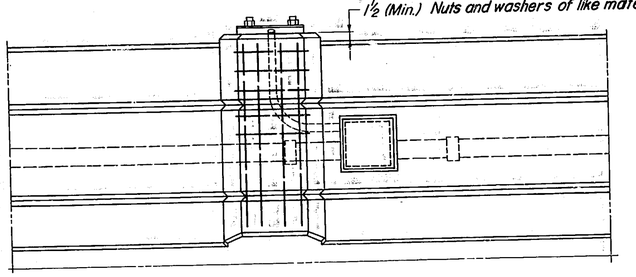
PLAN



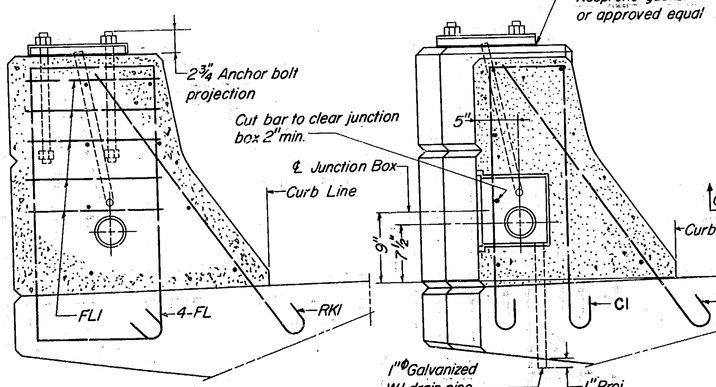
ANCHOR BOLT DETAIL

Material for anchor bolts shall meet the same specifications and requirements as listed below.

Nuts (Top)---- ASTM A307, or ASTM B211 Alloy 6262-T9 or 6061-T6
Washers----- ASTM B209 Alloy Alclad 2024-T3 or T4
Rods-------- ASTM A276, Type 430 or 410 Annealed, Hot-Finished
Nuts (Bottom)-ASTM A307
Threads on all rods may be rolled or cut.
Nuts and washers of like material shall be used together.

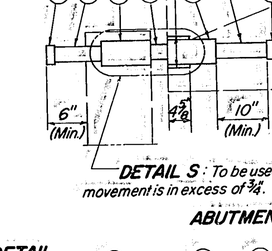


ELEVATION

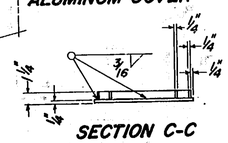


SECTION A-A

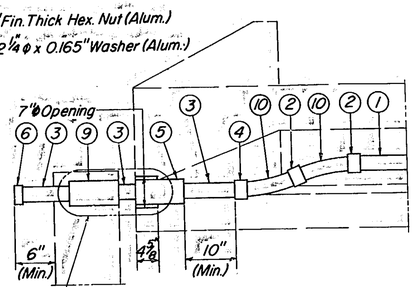
SECTION B-B



ALUMINUM COVER



SECTION C-C

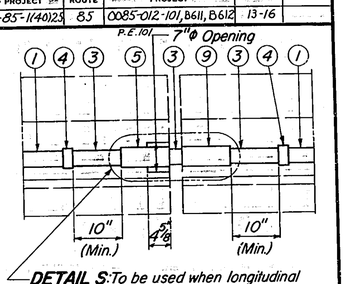


DETAIL S: To be used when longitudinal movement is in excess of ¾".

ABUTMENTS

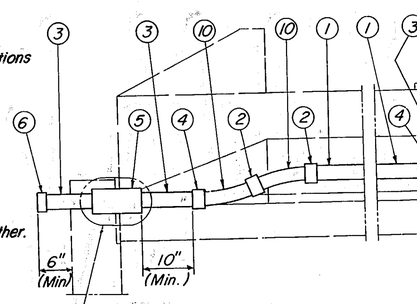
1. 3"ϕ Nonmetallic conduit.
2. Coupling.
3. 3"ϕ Galvanized W.I. conduit.†
4. Adapter to connect nonmetallic conduit to metal conduit.
5. Expansion and deflection fitting.
6. 3"ϕ Galvanized pipe cap.
7. 8"x8"x8" Cast Iron junction box.
8. 1"ϕ Galvanized W.I. conduit.†
9. Expansion fitting.
10. 3"ϕ 22½ 36"R curved non-metallic segment.

†Furnish locknut and bushing to connect conduit to junction box.



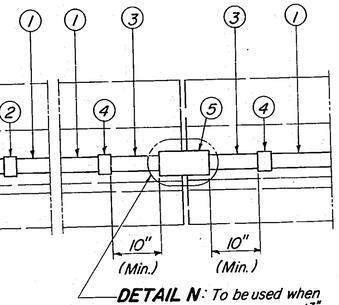
DETAIL S: To be used when longitudinal movement is in excess of ¾".

PIERS



DETAIL N: To be used when longitudinal movement does not exceed ¾".

ABUTMENTS

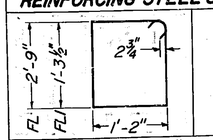


DETAIL N: To be used when longitudinal movement does not exceed ¾".

PIERS

CONDUIT LAYOUT

REINFORCING STEEL SCHEDULE



Dimensions in bending diagram are out to out of bars.

Mark	No.	Size	Length	Pin	Location
FL	16	# 4	8'-3"	2"ϕ	Light Base
FLI	20	# 4	5'-4"	2"ϕ	Light Base
CI	*				
RKI	*				

*Bars CI and RKI are detailed and accounted for on Sheet 15.

NOTE:

All bearing areas for lighting standards shall be finished to a truly level plane.

Where the longitudinal movement exceeds ¾" from normal (expansion or contraction) DETAIL S will replace DETAIL N. Close adherence to the manufacturer's requirements in regard to clearances for the installation of deflection fittings shall be observed.

Junction box frame and cover to be galvanized after fabrication, in accordance with AASHO M-111 (ASTMA-123).

A cast aluminum cover having dimensions and properties equal to the welded cover shown may be used at contractor's opinion.

ROUTE I-85 OVER S.A.L. R.R.
ELECTRICAL CONDUIT SYSTEM FOR FUTURE LIGHTING

Virginia Department of Highways
Office of the Bridge Engineer
Richmond, Virginia
March, 1966

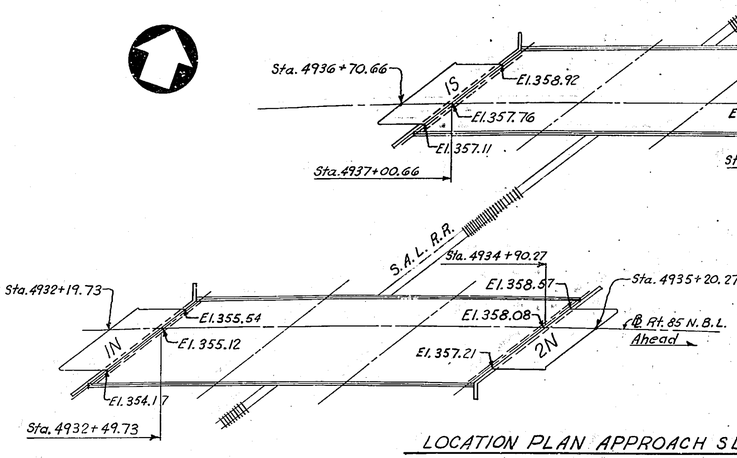
Revised: March 26, 1968

CL XXXVII-3
SHEET 16 OF 18

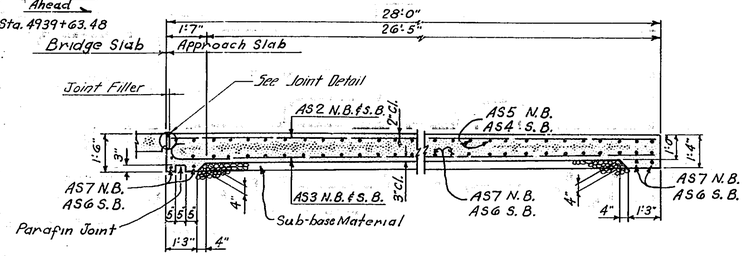
DRAWN BY B.R.S.
TRACED BY BSN
CHECKED BY P.B.C. Jr.

16
11
3
0-7
8
11

PUB. RD. DIV. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	VA.	I-85	I-85-1(14)125 IG	85	0085-012-101, B611, PE 1-1	13-17	



LOCATION PLAN APPROACH SLABS
Scale 1"=40'



SECTION A-A
Scale ⅜"=1'-0"

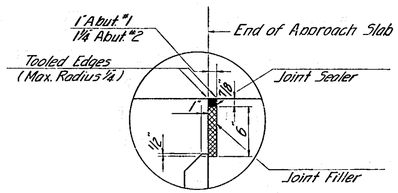
REINFORCING STEEL SCHEDULE								
Mark	Size	Number per Slab 1N	2N	1S	2S	Length	Pin	Location
AS1	8	2	2	2	2	27'-6"		Bottom of Slabs
AS2	5	46	46	46	46	27'-6"		Top of Slabs
AS3	8	46	46	46	46	28'-7"	8"ø	Bottom of Slabs
AS4	5			76	76	30'-3"		Top of Slab
AS5	5	76	76			31'-9"		Top of Slab
AS6	8			84	84	30'-9"		Bottom of Slab
AS7	8	84	84			32'-0"		Bottom of Slab
AS8	8	2	2	2	2	26'-0"		Bottom of Slab
AS9	5	2	2	2	2	26'-0"		Top of Slab
AS10	8	2	2	2	2	27'-1"	8"ø	Bottom of Slab

AS3, AS10: 27'-6" / 26'-0", 9" cl.

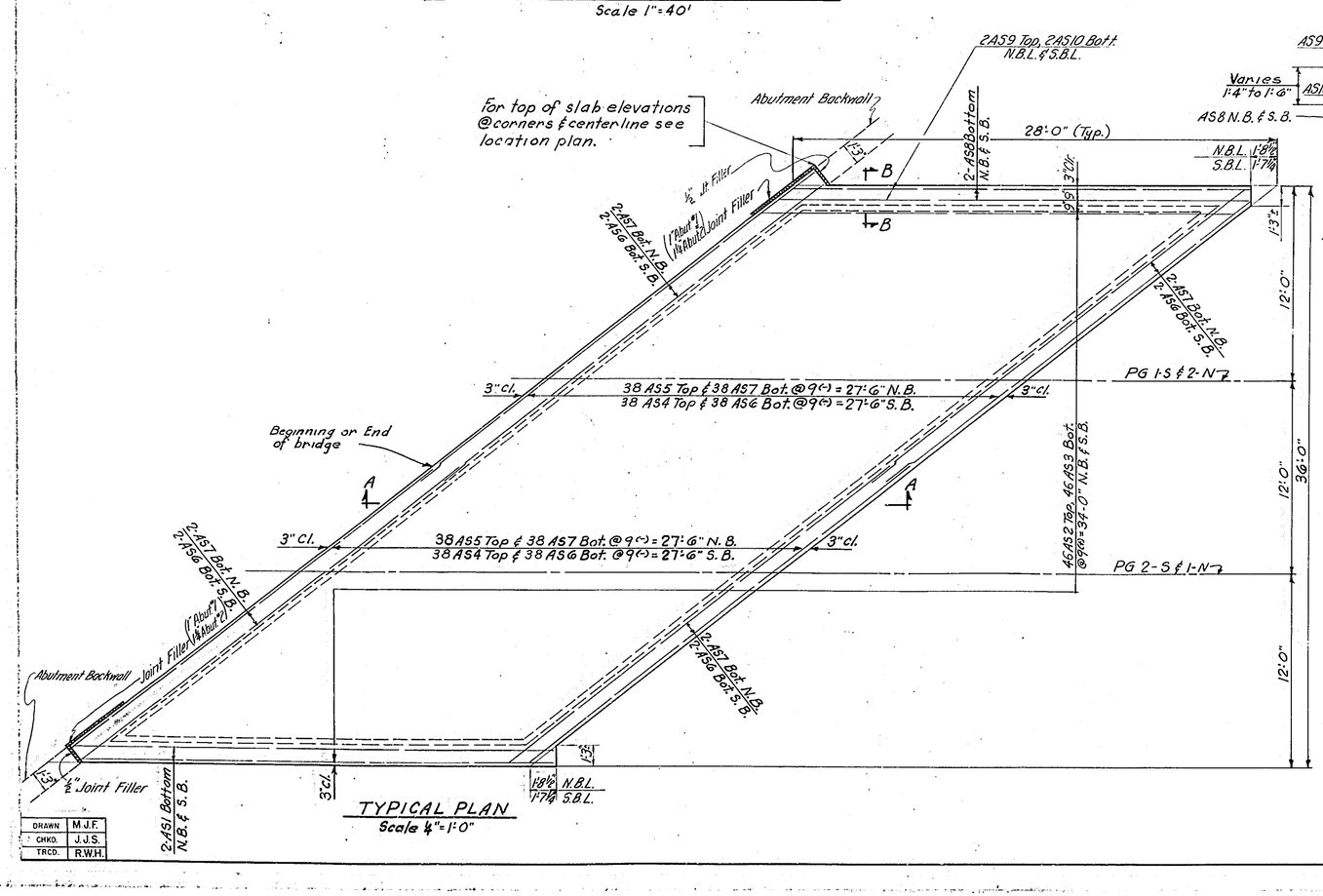
Dimensions Are Out to Out

QUANTITY TABLE				
Item	Slab 1N	Slab 2N	Slab 1S	Slab 2S
Reinforcing Steel - Lbs.	18,715	18,715	18,296	18,296
Class A3 Concrete - C.Y.	46	46	46	46

NOTE:
Structural Approach Slab Quantities are not to be included in the Bridge Contract.



JOINT DETAIL
Scale 1½"=1'-0"



SECTION B-B
Scale ⅜"=1'-0"

TYPICAL PLAN
Scale ¼"=1'-0"

DRAWN	M.J.F.
CHKD.	J.J.S.
TRCD.	R.W.H.

Note:
A cold-applied sealer shall be used.
The joint filler shall be an expanded rubber or polyvinylchloride (P.V.C.).
Expanded Rubber Joint Filler shall conform to the requirements of ASTM Designation D1056. Unless otherwise specified, grade RE 43L to RE 45L, SBE 43L to SBE 45L, or SCE 43L to SCE 45L shall be furnished.
Polyvinylchloride (P.V.C.) Joint Filler shall conform to the requirements of ASTM Designation D1667. Unless otherwise specified, grade VE-43L to VE-45L shall be furnished.
Adhesives for use with these fillers shall be as recommended by the manufacturer.

ROUTE I-85 OVER S.A.L. R.R.
APPROACH SLABS

VIRGINIA DEPARTMENT OF HIGHWAYS
OFFICE OF THE BRIDGE ENGINEER
RICHMOND, VIRGINIA March, 1966

Revised: January 17, 1967

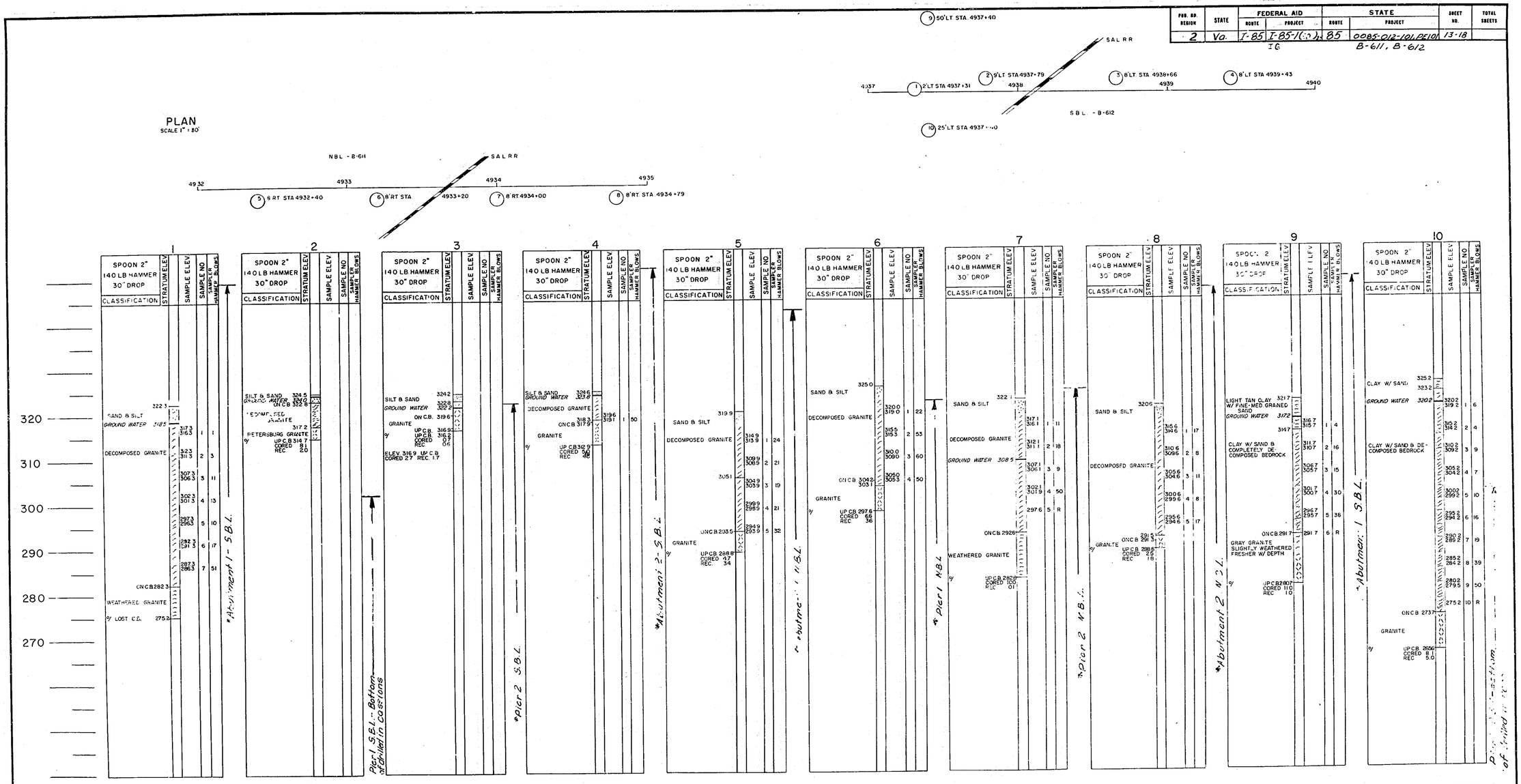
PREPARED BY GANNETT FLEMING CORDDRY & CARPENTER

CLXXXVII-3
SHEET 17 OF 18

A 10021

7-11-3-7-8-1

PROJ. NO. REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	Va.	I-85	I-85-1(10) IG	85	0085-012-101, PE101 B-611, B-612	13-18	



GEOLOGIC SECTION
SCALE 1" = 10'

* Denotes bottom of boring

NOTE:
THE LOGS SHOWN ON THIS PLAN WERE TAKEN FROM FIELD NOTES THEY REPRESENT THE BEST INFORMATION AVAILABLE TO THE VIRGINIA DEPARTMENT OF HIGHWAYS
ELEVATION AT BOTTOM OF DRILL HOLE
EQUIPMENT - DIAMOND CORE DRILL

VIRGINIA DEPARTMENT OF HIGHWAYS
ROUTE NO. 85 STA. 4932+40
PROJ. NO. 0085-012-101, B-611, B-612
ENGINEERING GEOLOGY
MATERIALS DIVISION
RTE. 85 OVER S.A.L.R.R.
BRUNSWICK COUNTY
DECEMBER 21, 1964

64-163
SHEET 1 OF 1

Drawn by: JIM
Traced by:
Checked by:

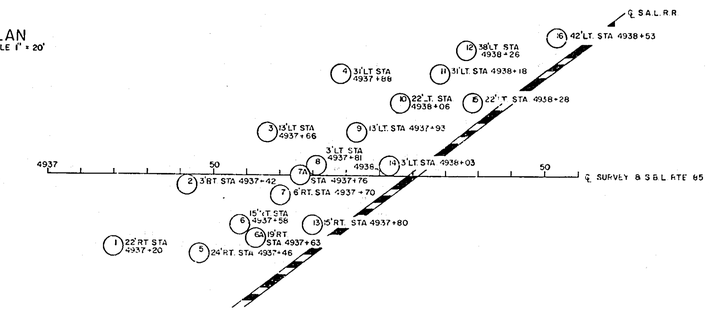
18a of 18 CLXXXVII-3 Sheet ~~18 of 18~~

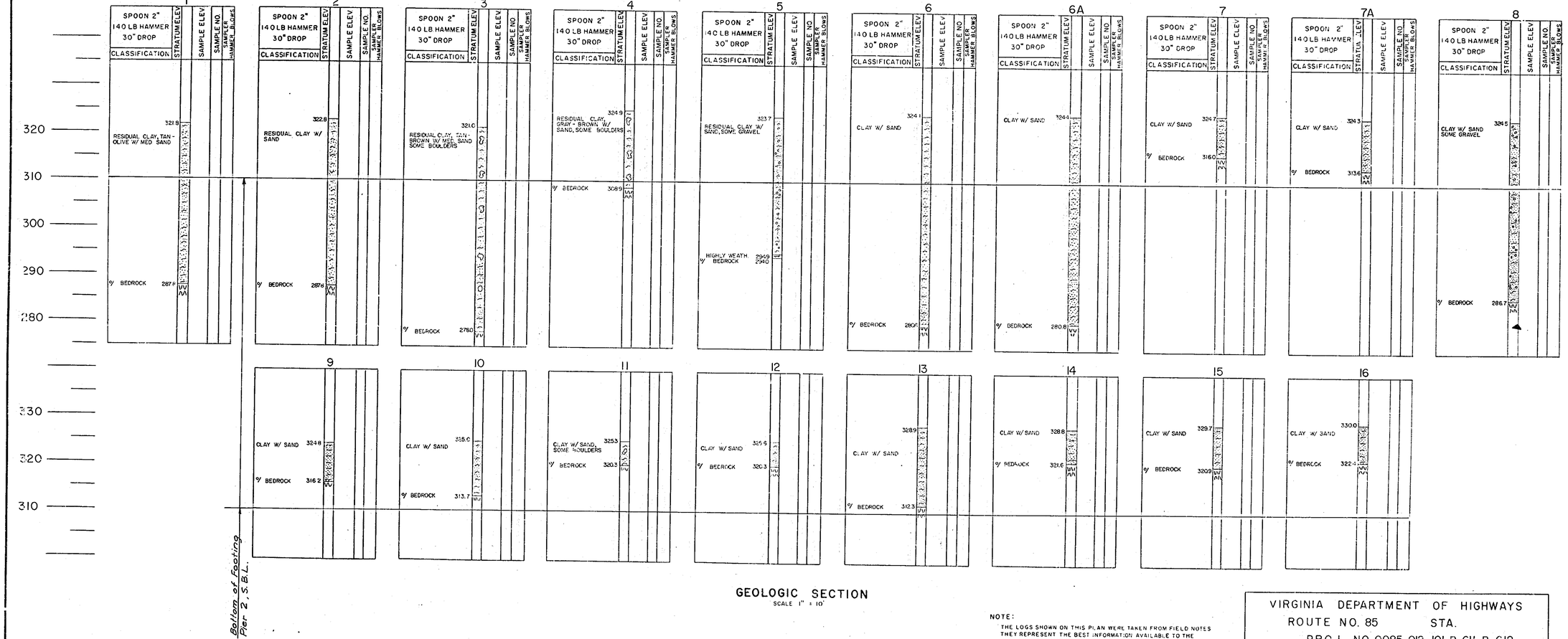
A10021

18A 1-87-0-3

PUB. NO. REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
2	Va.	I-85	I-85-1(40)25	85	0085-012-101, PE101, B-611, B-612	13-18z	
			I6				

PLAN
SCALE 1" = 20'





GEOLOGIC SECTION
SCALE 1" = 10'

NOTE:
THE LOGS SHOWN ON THIS PLAN WERE TAKEN FROM FIELD NOTES THEY REPRESENT THE BEST INFORMATION AVAILABLE TO THE VIRGINIA DEPARTMENT OF HIGHWAYS
°/ ELEVATION AT BOTTOM OF DRILL HOLE
EQUIPMENT - DIAMOND CORE DRILL

VIRGINIA DEPARTMENT OF HIGHWAYS
ROUTE NO. 85 STA.
PROJ. NO. 0085-012-101, B-611, B-612
ENGINEERING GEOLOGY
MATERIALS DIVISION
RTE. 85 OVER S.A.L. R.R.
BRUNSWICK COUNTY
MAY 14, 1965

64-163
SHEET 1 OF 1
SUPPLEMENTAL BORINGS

Drawn by: JIM
Traced by:
Checked by:

18 of 18 CLXXXVII-3
Sheet

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187-03