

RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY

---

RICHMOND EXPRESSWAY SYSTEM

CONTRACT NO. MR – 2019

MISCELLANEOUS REPAIRS

\*\*\*\*\*

ADDENDUM NO. 1

June 25, 2019

**DESCRIPTION**

The attached pages are issued to amend, and become part of, the Contract Documents.

Contractor shall acknowledge receipt of this Addendum on the Receipt of Addenda form (Contract Page RA-1). Failure to complete and include the RA-1 form in the bid package may cause bid to be found irregular.

Date of receipt of bids is unchanged.

Date of contract completion is unchanged.

ADDENDUM NO. 1

6/25/19

RA1-1

## MR-2019 BID TAB

1. All Bidders are directed to replace Pages: P-2 through P-5 from the Bid Documents with Addendum No. 1 Pages: P-2 through P-5.
2. This addendum has been issued to delete the amount values listed as "\$0.00" from the "Amount" column on the bid tabulation sheets. Other formatting changes include the widening of the unit price and amount columns. No changes were made to item numbers, descriptions, units, quantities, or specifications.

## SPECIAL PROVISION BRIDGE REPAIRS PLAN SHEETS SP-I

1. All Bidders are directed to add page SP-I-6A entitled "B65 Framing Plan Units 12-13" to the special provisions.
2. This addendum has been issued to clarify the girder layout in units 12 and 13 of Bridge 65. Bid item 39 refers to 8 locations as shown on SP-I-5 and SP-I-6. This includes Girders 1 through 6 on unit 13, as well as Girders 1 **and** 4 on unit 12.

ADDENDUM NO. 1

6/25/19

RA1-2

**RMTA  
MR-2019 Bid Tab**

( \_\_\_\_\_ ) (INSERT BIDDER FIRM NAME HERE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	2016 SPECIFICATION
1	MOBILIZATION	LS	1			513
2	TRUCK MOUNTED ATTENUATOR	HR	1,500			512
3	PORTABLE CHANGEABLE MESSAGE SIGN	HR	100			512
4	ELECTRONIC ARROW	HR	1,500			512
5	FLAGGER SERVICE	HR	160			512
6	GROUP 2 CHANNELIZING DEVICE	DAY	4,270			512
7	FENCE (FE-CL)	LF	930			ATTD/SP-D/SP-Z
8	FENCE (FE-CL) - BRIDGE B64	LF	125			ATTD/SP-D/SP-Z
9	FENCE (FE-CL FABRIC ONLY)	LF	700			ATTD/SP-D/SP-Z
10	ASPHALT BM-25	TON	472			ATTD/SP-Z
11	ASPHALT SM-9.5E	TON	236			ATTD/SP-Z
12	WATERPROOFING MEMBRANE (PETROMAT 4597)	SY	583			ATTD/SP-Z
13	HOLDING POND LINER (APPEX 4S)	SF	4,000			ATTD/SP-Z
14	ASPHALT CONCRETE PATCH	IN * SY	100			ATTD/SP-G
15	REPAIR ASPHALT CONCRETE PAVEMENT CRACKS	LF	20,000			ATTD/SP-T
16	STANDARD 6" CURB CG-2	LF	160			ATTD/SP-M
17	STANDARD 4" CURB CG-3	LF	25			ATTD/SP-M
18	BITUMINOUS CONCRETE CURB	LF	200			ATTD/SP-Z
19	PATCHING TYPE A	SY	20			412
20	PATCHING TYPE B	SY	50			412
21	PATCHING HYDRAULIC CEMENT CONCRETE PAVEMENT	SY	75			ATTD/SP-E
22	BRINE TANK CONCRETE PADS	CY	15			504/SP-BB
23	TRIM EXISTING VEGETATION	SF	20,000			ATTD/SP-C
24	SHOTCRETE, TYPE A (STANDARD)	SF	160			ATTD/SP-F
25	SHOTCRETE, TYPE A (ELEVATED)	SF	509			ATTD/SP-F
26	SHOTCRETE, TYPE A (OVER WATER)	SF	491			ATTD/SP-F

**RMTA  
MR-2019 Bid Tab**

( \_\_\_\_\_ ) (INSERT BIDDER FIRM NAME HERE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	2016 SPECIFICATION
27	JOINT SEALANT REPLACEMENT	LF	3,489			427/SP-Q
28	BRIDGE RAILING	LF	110			410/SP-V
29	BRIDGE RAILING POSTS	EA	4			410/SP-V
30	TYPE B CLASS VI PAVEMENT LINE MARKING 6"	LF	250			704/SP-R
31	TYPE B CLASS VI PAVEMENT LINE MARKING 8"	LF	100			704/SP-R
32	TYPE B CLASS VI PAVEMENT LINE MARKING 12"	LF	100			704/SP-R
33	PAVEMENT MESSAGE MARK. "STAY"	EA	6			704/SP-R
34	PAVEMENT MESSAGE MARK. "IN"	EA	6			704/SP-R
35	PAVEMENT MESSAGE MARK. "LANE"	EA	6			704/SP-R
36	BOULEVARD BRIDGE SWAY FRAME, LOWER STRUT AND GUSSET PLATE REPAIRS	LS	1			ATTD/SP-I
37	BRIDGE 11 PIER 2, UNIT 2, BEAM 4 STIFFENER REPLACEMENT	LS	1			ATTD/SP-I
38	BRIDGE 65 PIER 11, UNIT 12, GIRDER 1 BEARING ALIGNMENT	LS	1			ATTD/SP-I
39	BRIDGE 65 PIER 12, UNIT 12, GIRDER 1 BEARING RETROFIT	LS	1			ATTD/SP-I
40	BOULEVARD BRIDGE FABRICATE LACING BARS AND BOLTS	LS	1			ATTD/SP-I
41	BOULEVARD BRIDGE LACING BAR AND BOLT REPLACEMENT (multiple locations)	EA	165			ATTD/SP-I
42	10TH STREET ON RAMP REHABILITATION	LS	1			ATTD/SP-N
43	MAINLINE APPROACH SLAB REHABILITATION	LS	1			ATTD/SP-W
44	BRIDGE DECK SEALING	SY	8,738			ATTD/SP-O
45	B65 SP 13 BRIDGE DECK SEALING	SY	225			ATTD/SP-O
46	REPAIR EXISTING DROP INLET OR MANHOLE TOP	EA	10			ATTD/SP-P
47	CONCRETE SURFACE COATING	SF	240,894			ATTD/SP-S
48	CONCRETE BARRIER DELINEATORS	EA	500			702/SP-CC
49	CRUSHED AGGREGATE NO. 21A OR 21B	TON	702			ATTD/SP-K/SP-Z

**RMTA  
MR-2019 Bid Tab**

( \_\_\_\_\_ ) (INSERT BIDDER FIRM NAME HERE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	2016 SPECIFICATION
50	COARSE AGGREGATE NO.57	TON	100			ATTD/SP-K
51	AGGREGATE MATERIAL NO.1	TON	50			ATTD/SP-K
52	RIPRAP CLASS I	TON	500			ATTD/SP-K
53	CLEAN MANHOLE	EA	1			ATTD/SP-H
54	STORM DRAIN DI-1	EA	1			ATTD/SP-H/SP-Z
55	PIPE - 8" PVC INSTALLED	LF	158			ATTD/SP-H/SP-Z
56	GUARDRAIL GR-2	LF	8,000			221/SP-Y
57	GUARDRAIL TERMINAL	EA	8			505/SP-Y
58	GUARDRAIL OFFSET BLOCK	EA	1,400			221/SP-Y
59	FIXED OBJECT ATTACH. GR-FOA-2 TY. I	EA	13			505/SP-Y
60	RAILROAD COORDINATION	LS	1			ATTD/SS-107.19
61	TOPSOIL, CLASS B	CY	50			244/SP-K
62	REGULAR SEED	LB	100			244/SP-K
63	FERTILIZER 15-30-15	TN	1			244/SP-K
64	LIME	TN	1			244/SP-K
65	DEBRIS REMOVAL JAMES RIVER BRIDGE 8	LS	1			ATTD/SP-U
66	WHEEL LOADER AND OPERATOR 3CY BUCKET	HR	100			SP-AA
67	MISCELLANEOUS COATINGS	SF	1,000			411/SP-L
68	FOREST HILL TOLL PLAZA PAINTING	LS	1			SP-X
69	EQUIPMENT - CUB CADET 48" MOWER	LS	1			ATTD/SP-J
70	5000 GALLON DOUBLE WALL STORAGE TANK	EA	2			SP-BB
71	OVERHEAD SIGN REPLACEMENT/REPAIRS 200256	LS	1			SP-DD
72	OVERHEAD SIGN REPLACEMENT/REPAIRS 200545	LS	1			SP-DD
73	OVERHEAD SIGN REPLACEMENT/REPAIRS 200553	LS	1			SP-DD
74	OVERHEAD SIGN REPLACEMENT/REPAIRS 200554	LS	1			SP-DD
75	OVERHEAD SIGN REPLACEMENT/REPAIRS 202556	LS	1			SP-DD

**RMTA  
MR-2019 Bid Tab**

( \_\_\_\_\_ ) (INSERT BIDDER FIRM NAME HERE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	2016 SPECIFICATION
				Total		

\_\_\_\_\_  
(SIGN HERE)

\_\_\_\_\_  
(INSERT HERE)

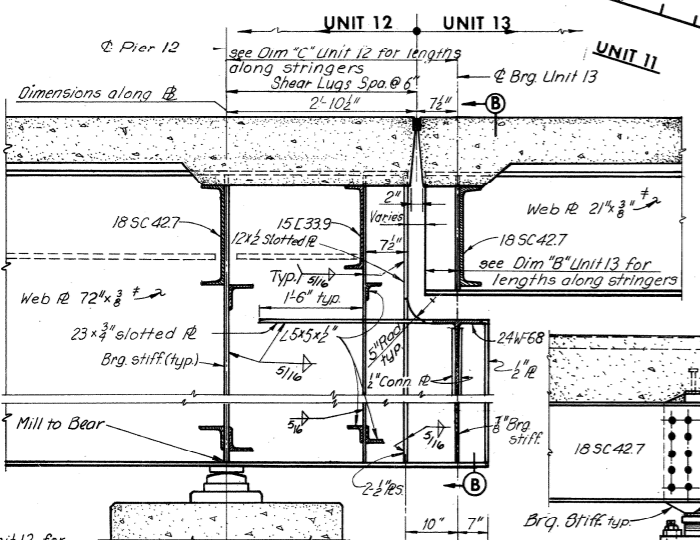
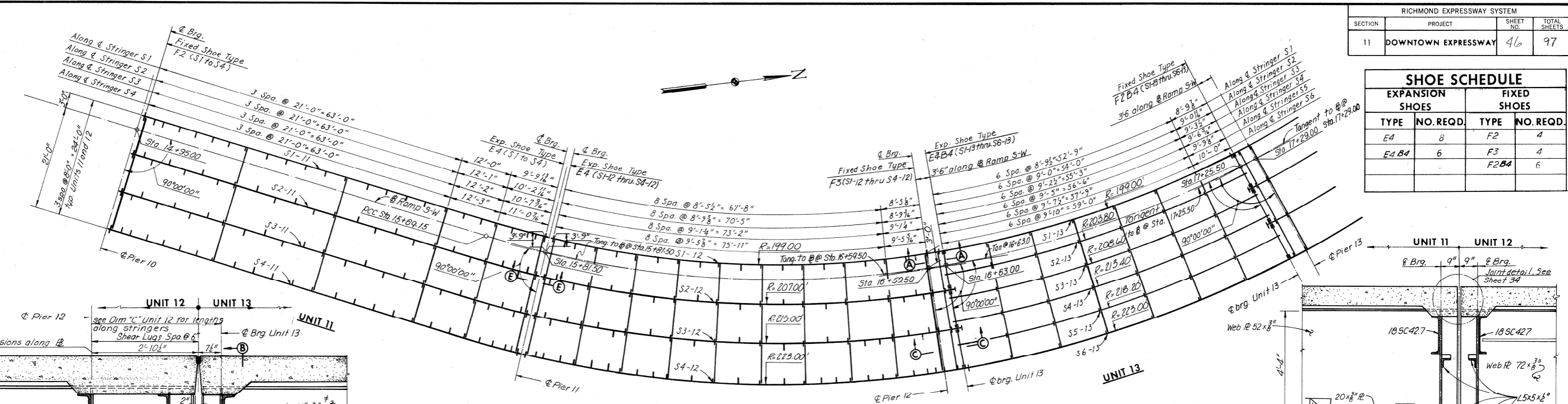
Signature of Owner, Partner, or Corporate Officer:

Title:

\_\_\_\_\_  
TOTAL \$0.00

RICHMOND EXPRESSWAY SYSTEM			
SECTION	PROJECT	SHEET NO.	TOTAL SHEETS
11	DOWNTOWN EXPRESSWAY	46	97

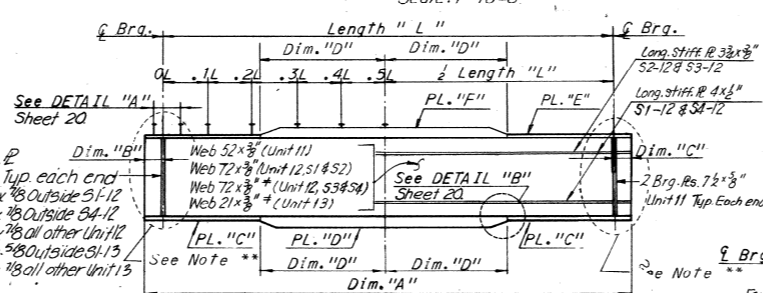
SHOE SCHEDULE			
EXPANSION SHOES		FIXED SHOES	
TYPE	NO. REQD.	TYPE	NO. REQD.
E4	8	F2	4
E4 B4	6	F3	4
		F2B4	6



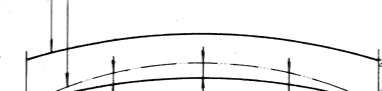
Note: It may be necessary to increase Bearing Stiffener size to accommodate erection of end diaphragms.

UNIT 12  
FRAMING PLAN  
Scale: 1"=10'-0"

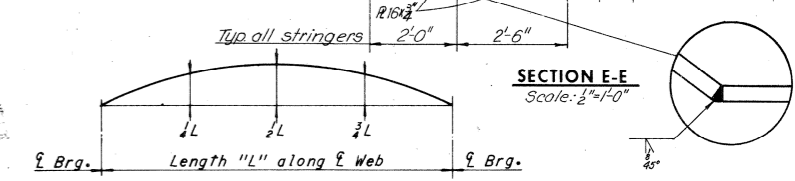
\*\* Note: For stringers in Unit 11, see Section E-E. For stringers in Units 12 and 13, see Section A-A.



Finished top of slab after full dead load deflection.  
Shape of top of form before any deck slab concrete is cast.

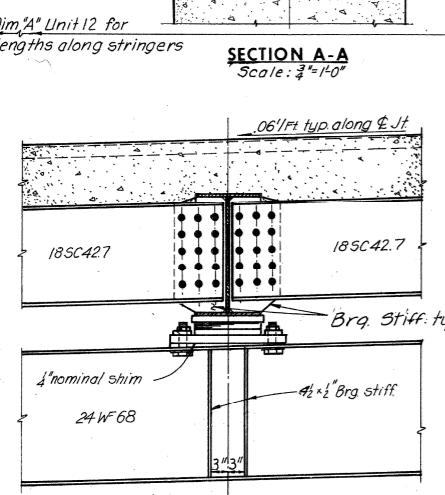


Shape of top of form (bottom of deck slab) after deflection from total concrete deck dead load.

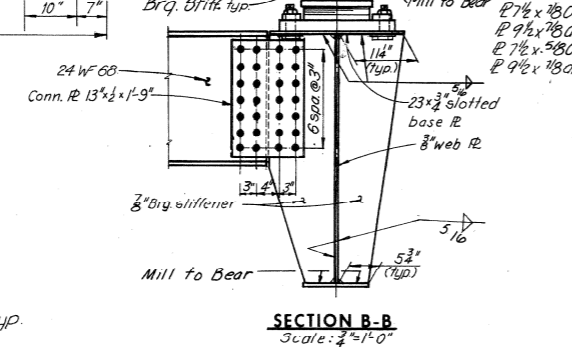


SECTION E-E  
Scale: 3/4"=1'-0"

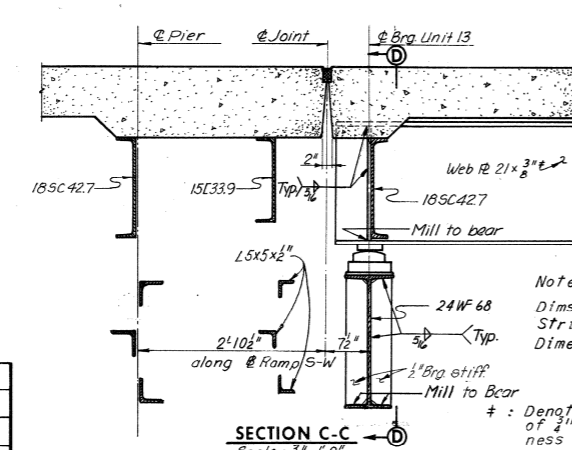
Notes:  
For Diaphragm Details, see Sheet 28.  
For Shear Stud Details, see Sheet 20.  
For Structural Steel Quantities, see Sheet 4.  
For Joint Details, see Sheets 34 and 35.  
For Shoe Details, see Sheet S1 & S2.



SECTION D-D  
Scale: 3/4"=1'-0"



SECTION B-B  
Scale: 3/4"=1'-0"



SECTION C-C  
Scale: 3/4"=1'-0"

Note: Dim. "D" is measured out from the halfway line (.5L) between Brgs. of stringer.

Note: See Section A-A for limits of Dims. A, B and C as shown in the Stringer Schedule above. Dimension F equals 39'-0", S6-13 only.

\* Denotes A572 Grade 50 Steel for thickness of 3/4" and under and A588 Steel for thickness over 3/4".

NOTE TO FABRICATOR  
The stringers shall be fabricated with an upward camber amounting to the tabulated value. This will provide approximate compensation for deflection under full dead load and for conformity with finished grade.

Note: Stringers having a total camber of less than 1" are not required to be shop cambered, but should be turned so that any mill tolerance deviation from straightness will be in the direction shown by the Camber Diagram.

If stringers are not cambered, distance top of stringers to top of slab will vary along the stringer in accordance with the offset dimensions shown in the Camber Diagram, and with minimum distance as shown in Cross-Section on Sheet 29.

\* Spacing begins at termination of 7 spaces @ 4".

NOTE TO CONTRACTOR  
Deflections given are those anticipated to occur in the stringer upon placement of the total concrete deck dead load.

In practice, the stringers in place are not likely to have the exact camber to compensate for these deflections during construction. The residual amounts shall be provided by adjusting forms to vary the thickness of the concrete haunch between the bottom of the slab and the top of stringer without altering the slab thickness.

AS BUILT

UNIT	STRINGER	Dim. "A"	LENGTH	Dim. "C"	Dim. "D"	Dim. "B"	PL. "C"	PL. "D"	PL. "E"	PL. "F"	MAX. SHEAR STUD SPACING						DEAD LOAD DEFLECTION SCHEDULE			CAMBER SCHEDULE		
											0.0L-0.1L	0.1L-0.2L	0.2L-0.3L	0.3L-0.4L	0.4L-0.5L	1/8"	1/4"	3/8"	1/2"	3/4"	1/8"	1/4"
11	S1-11	86'-1 1/2"	84'-9 3/4"	8"	29'-0"	8"	16x3 1/2"	16x1 1/2"	12x3 1/2"	—	10 1/2"	12"	15"	18"	23"	1 1/8"	1 1/4"	1 1/8"	3 5/8"	5"	3 5/8"	
	S2-11	86'-5 1/4"	85'-3 1/4"	7"	29'-2"	7"	16x3 1/2"	16x1 1/2"	12x3 1/2"	—	11 1/2"	12 1/2"	15 1/2"	18 1/2"	23 1/2"	1 1/4"	1 1/2"	1 1/4"	3 5/8"	5"	3 5/8"	
	S3-11	86'-11 1/2"	85'-9 3/4"	7"	29'-6"	7"	16x3 1/2"	16x1 1/2"	12x3 1/2"	—	11 1/2"	12 1/2"	15 1/2"	18 1/2"	22 1/2"	1 1/8"	1 1/4"	1 1/8"	3 3/4"	5 1/16"	3 3/4"	
	S4-11	87'-7 1/2"	86'-3 3/4"	8"	29'-8"	8"	16x3 1/2"	16x1 1/2"	12x3 1/2"	—	10 1/2"	12"	15"	18"	23"	1 1/8"	1 3/8"	1 3/16"	3 7/8"	5 1/4"	3 7/8"	
12	S1-12	80'-9 1/2"	76'-1 1/2"	3'-5 3/4"	—	9"	12x3 1/2"	—	12x3 1/2"	—	16 1/2"	19 1/2"	22 1/2"	24"	24"	1/4"	3/8"	1/4"	2 3/16"	2 7/8"	2 3/16"	
	S2-12	83'-4 1/2"	79'-2 3/4"	3'-7"	—	7"	16x4 1/2"	—	12x3 1/2"	—	14"	16 1/2"	19 1/2"	24"	24"	3/8"	1/2"	3/8"	2 9/16"	3 1/2"	2 5/8"	
	S3-12	87'-1 1/2"	82'-3 1/4"	3'-8 1/2"	25'-0"	7"	12x1 1/2"	16x1 1/2"	12x3 1/2"	—	13 1/2"	14 1/2"	17"	21 1/2"	24"	5/8"	1 3/16"	5/8"	3 1/8"	4 1/4"	3 3/16"	
	S4-12	90'-5 1/4"	85'-4 3/4"	3'-10 3/4"	24'-5"	8"	16x1 1/2"	16x1 1/2"	12x1 1/2"	—	12 1/2"	13"	16"	21"	24"	7/8"	1 1/4"	7/8"	3 1/16"	5 1/8"	3 1/16"	
13	S1-13	62'-6 3/4"	61'-6 7/8"	6"	—	6"	16x1 1/2"	—	12x3 1/2"	—	8 1/2"	9 1/2"	12"	15 1/2"	20 1/2"	7/8"	1 1/4"	7/8"	2 7/16"	3 3/8"	2 7/16"	
	S2-13	64'-0 1/4"	63'-0 1/4"	6"	—	6"	16x3 1/2"	—	12x3 1/2"	—	8 1/2"	10"	13"	16 1/2"	21"	7/8"	1 1/4"	7/8"	2 7/16"	3 1/8"	2 1/2"	
	S3-13	65'-6 1/2"	64'-6 1/2"	6"	18'-6"	6"	16x1 1/2"	20x1 1/2"	12x1 1/2"	—	8 1/2"	9 1/2"	12"	16"	20"	1 3/16"	1 5/16"	1 3/16"	2 13/16"	3 13/16"	2 13/16"	
	S4-13	67'-0 3/4"	66'-0 3/4"	6"	18'-6"	6"	16x3 1/2"	20x1 1/2"	16x3 1/2"	—	8 1/2"	9 1/2"	11 1/2"	14 1/2"	18 1/2"	1 3/16"	1 5/16"	1 3/16"	3"	4 7/8"	3"	
	S5-13	68'-6 1/4"	67'-6 1/4"	6"	19'-6"	6"	16x3 1/2"	20x1 1/2"	16x3 1/2"	—	7 1/2"	8 1/2"	11 1/2"	14 1/2"	19 1/2"	1 1/2"	2 1/16"	1 1/2"	3 1/8"	4 1/4"	3 1/8"	
	S6-13	70'-0"	69'-0"	6"	19'-6"	6"	20x1 1/2"	24x1 1/2"	16x1 1/2"	20x1 1/2"	6 1/2"	7 1/2"	10"	13 1/2"	19"	2 3/16"	3"	2 3/16"	3 13/16"	5 1/4"	3 13/16"	

RICHMOND METROPOLITAN AUTHORITY  
RICHMOND EXPRESSWAY SYSTEM  
DOWNTOWN EXPRESSWAY

BRIDGE NO. 65  
RAMP S-W CONNECTION FROM  
RICHMOND-PETERSBURG TURNPIKE  
FRAMING PLAN UNITS 11, 12 AND 13

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
consulting engineers  
NEW YORK ALEXANDRIA KANSAS CITY

SCALE: AS NOTED  
CONTRACT NO. 11  
SHEET NO. 21 38

BY	DATE	NO.	REVISION	BY	DATE
JV	1-21-69				
AMH	1-27-69				