

SPAN		HGHT	REINFORCING STEEL											QUAN./LF		HEADWALLS								WINGWALL		
(FT.)	(FT.)		BTI											REINFORCING STEEL (LBS./LONG. JT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	C			HW I		NO. HW2 BARS	NO. HW3 BARS		INLET CONCRETE CL. A4 (CY)	INLET REINFORCING STEEL (LBS)
		SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 BARS	NO. BL2 BARS				HEADWALL LENGTH	SIZE	LENGTH							
3	3	4	12"	2'- 8 3/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 3/8"	1'- 5 7/8"	11'- 10"	44	16	42.388	0.989	109.333	13'- 2"	6	12'- 10"	2	8	1.827	102.932	1.808	77.103	A
3	4	4	12"	2'- 8 3/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 3/8"	1'- 5 7/8"	11'- 10"	44	24	45.212	1.087	117.685	13'- 2"	6	12'- 10"	2	10	1.932	109.835	1.901	77.103	C
4	3	3	12"	3'- 6 1/2"	0'- 4 3/8"	1'- 11 3/8"	0'- 5 7/8"	0'- 3 3/8"	14'- 4 1/8"	2'- 7/8"	14'- 10"	56	16	52.408	1.136	120.599	16'- 2"	6	15'- 10"	2	8	2.131	120.956	2.121	95.127	A
4	4	3	12"	3'- 6 1/2"	0'- 4 3/8"	1'- 11 3/8"	0'- 5 7/8"	0'- 3 3/8"	14'- 4 1/8"	2'- 7/8"	14'- 10"	56	24	55.232	1.235	128.951	16'- 2"	6	15'- 10"	2	10	2.236	127.859	2.214	95.127	C
4	5	3	12"	3'- 6 1/2"	0'- 4 3/8"	1'- 11 3/8"	0'- 5 7/8"	0'- 3 3/8"	14'- 4 1/8"	2'- 7/8"	14'- 10"	56	32	58.056	1.333	137.303	16'- 2"	6	15'- 10"	2	12	2.341	134.761	2.307	95.127	E
4	6	4	12"	3'- 6 1/2"	0'- 4 1/2"	1'- 11 1/2"	0'- 5 7/8"	0'- 3 3/4"	14'- 4"	2'- 1"	14'- 10"	56	40	60.880	1.430	154.318	16'- 2"	6	15'- 10"	2	14	2.446	141.664	2.399	95.127	G
5	3	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	16	62.428	1.282	149.413	19'- 2"	6	18'- 10"	2	8	2.434	138.980	2.435	113.151	A
5	4	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	24	65.252	1.381	157.765	19'- 2"	6	18'- 10"	2	10	2.539	145.883	2.527	113.151	C
5	5	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	32	68.076	1.479	166.117	19'- 2"	6	18'- 10"	2	12	2.644	152.785	2.620	113.151	E
5	6	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	40	70.900	1.577	174.469	19'- 2"	6	18'- 10"	2	14	2.750	159.688	2.713	113.151	G
5	7	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	48	73.724	1.675	182.821	19'- 2"	6	18'- 10"	2	16	2.855	166.591	2.806	113.151	I
6	4	4	12"	5'- 1 3/4"	0'- 4 1/2"	2'- 9"	0'- 5 7/8"	0'- 3 3/4"	20'- 4"	3'- 3 1/2"	20'- 10"	80	24	75.272	1.526	191.499	22'- 2"	6	21'- 10"	2	10	2.843	163.907	2.841	131.175	C
6	5	4	12"	5'- 1 3/4"	0'- 4 1/2"	2'- 9"	0'- 5 7/8"	0'- 3 3/4"	20'- 4"	3'- 3 1/2"	20'- 10"	80	32	78.096	1.624	199.851	22'- 2"	6	21'- 10"	2	12	2.948	170.809	2.934	131.175	E
6	6	4	12"	5'- 1 3/4"	0'- 4 1/2"	2'- 9"	0'- 5 7/8"	0'- 3 3/4"	20'- 4"	3'- 3 1/2"	20'- 10"	80	40	80.920	1.722	208.203	22'- 2"	6	21'- 10"	2	14	3.053	177.712	3.026	131.175	G
6	7	4	12"	5'- 1 3/4"	0'- 4 1/2"	2'- 9"	0'- 5 7/8"	0'- 3 3/4"	20'- 4"	3'- 3 1/2"	20'- 10"	80	48	83.744	1.821	216.555	22'- 2"	6	21'- 10"	2	16	3.158	184.615	3.119	131.175	I
6	8	4	12"	5'- 1 5/8"	0'- 4 3/4"	2'- 8 3/4"	0'- 6 1/4"	0'- 4"	20'- 4"	3'- 3 1/4"	20'- 11"	80	56	86.568	1.951	225.019	22'- 2"	6	21'- 10"	2	18	3.252	191.517	3.201	131.175	K
7	4	4	11"	5'- 10 7/8"	0'- 5 1/2"	3'- 7/8"	0'- 7 1/4"	0'- 4 3/4"	23'- 4 1/8"	3'- 9 5/8"	24'- 0"	92	24	85.292	1.818	219.045	25'- 2"	6	24'- 10"	2	10	3.093	181.931	3.101	149.199	C
7	6	4	10"	5'- 10 7/8"	0'- 5 1/2"	3'- 7/8"	0'- 7 1/4"	0'- 4 3/4"	23'- 4 1/8"	3'- 9 5/8"	24'- 0"	92	40	90.940	2.014	249.784	25'- 2"	6	24'- 10"	2	14	3.303	195.736	3.286	149.199	G
7	8	4	10"	5'- 10 3/4"	0'- 5 3/4"	3'- 5/8"	0'- 7 5/8"	0'- 5"	23'- 4 1/8"	3'- 9 5/8"	24'- 0"	92	56	96.588	2.246	265.066	25'- 2"	6	24'- 10"	2	18	3.519	209.541	3.477	149.199	L
7	10	4	10"	5'- 10 5/8"	0'- 6"	3'- 3/8"	0'- 8"	0'- 5 1/4"	23'- 4 1/8"	3'- 9 1/8"	24'- 1"	92	72	102.236	2.478	302.360	25'- 2"	6	24'- 10"	2	22	3.715	223.347	3.649	149.199	P
8	4	4	9"	6'- 7 7/8"	0'- 6 1/2"	3'- 4 5/8"	0'- 8 5/8"	0'- 5 3/4"	26'- 3 3/8"	4'- 3 3/8"	27'- 1"	104	24	95.312	2.145	274.288	28'- 2"	6	27'- 10"	2	10	3.343	199.955	3.361	167.223	D
8	6	4	9"	6'- 7 3/4"	0'- 6 3/4"	3'- 4 3/8"	0'- 9"	0'- 6"	26'- 3 3/8"	4'- 3 3/8"	27'- 2"	104	40	100.960	2.383	290.153	28'- 2"	6	27'- 10"	2	14	3.537	213.760	3.531	167.223	H
8	8	4	9"	6'- 7 3/4"	0'- 6 3/4"	3'- 4 3/8"	0'- 9"	0'- 6"	26'- 3 3/8"	4'- 3 3/8"	27'- 2"	104	56	106.608	2.579	307.747	28'- 2"	6	27'- 10"	2	18	3.748	227.565	3.716	167.223	L
8	10	4	9"	6'- 7 5/8"	0'- 7"	3'- 4 1/8"	0'- 9 3/8"	0'- 6 1/4"	26'- 3 3/8"	4'- 3 3/8"	27'- 2"	104	72	112.256	2.814	358.640	28'- 2"	6	27'- 10"	2	22	3.942	241.371	3.886	167.223	P
9	4	4	9"	7'- 5"	0'- 7 1/2"	3'- 8 1/2"	0'- 10 1/8"	0'- 6 3/4"	29'- 4"	4'- 10"	30'- 3"	116	24	105.332	2.507	357.147	31'- 2"	6	30'- 10"	2	10	3.556	217.979	3.584	185.247	D
9	6	4	9"	7'- 4 1/8"	0'- 7 3/4"	3'- 8 1/4"	0'- 10 1/2"	0'- 7"	29'- 4"	4'- 9 3/4"	30'- 4"	116	40	110.980	2.750	372.196	31'- 2"	6	30'- 10"	2	14	3.748	231.784	3.751	185.247	H
9	8	4	9"	7'- 4 3/4"	0'- 8"	3'- 8"	0'- 10 3/4"	0'- 7 1/4"	29'- 4"	4'- 9 1/2"	30'- 4"	116	56	116.628	2.993	377.257	31'- 2"	6	30'- 10"	2	18	3.940	245.589	3.919	185.247	L
9	10	4	9"	7'- 4 3/4"	0'- 8"	3'- 8"	0'- 10 3/4"	0'- 7 1/4"	29'- 4"	4'- 9 1/2"	30'- 4"	116	72	122.276	3.186	426.256	31'- 2"	6	30'- 10"	2	22	4.151	259.395	4.104	185.247	P
9	12	4	9"	7'- 4 5/8"	0'- 8 1/4"	3'- 7 3/4"	0'- 11 1/8"	0'- 7 1/2"	29'- 4"	4'- 9 1/4"	30'- 4"	116	88	127.924	3.426	474.139	31'- 2"	6	30'- 10"	2	26	4.343	273.200	4.272	185.247	T
10	4	4	8"	8'- 2 1/8"	0'- 8 1/2"	4'- 1 1/4"	0'- 11 1/2"	0'- 7 3/4"	32'- 4"	5'- 4 1/4"	33'- 5"	128	24	115.352	2.907	435.055	34'- 2"	6	33'- 10"	2	10	3.750	236.003	3.788	203.271	D
10	6	4	8"	8'- 2"	0'- 8 3/4"	4'- 0"	0'- 11 3/8"	0'- 8"	32'- 4"	5'- 4"	33'- 5"	128	40	121.000	3.155	438.006	34'- 2"	6	33'- 10"	2	14	3.940	249.808	3.953	203.271	H
10	8	4	8"	8'- 1 7/8"	0'- 9"	3'- 11 3/4"	1'- 1/4"	0'- 8 1/4"	32'- 4"	5'- 3 3/4"	33'- 6"	128	56	126.648	3.401	456.213	34'- 2"	6	33'- 10"	2	18	4.130	263.613	4.119	203.271	L
10	10	4	8"	8'- 1 5/8"	0'- 9"	3'- 11 3/4"	1'- 1/4"	0'- 8 1/4"	32'- 4"	5'- 3 3/4"	33'- 6"	128	72	132.296	3.597	485.891	34'- 2"	6	33'- 10"	2	22	4.340	277.419	4.304	203.271	P
10	12	4	8"	8'- 1 3/4"	0'- 9 1/4"	3'- 11 1/2"	1'- 1/2"	0'- 8 1/2"	32'- 4"	5'- 3 1/2"	33'- 6"	128	88	137.944	3.840	546.489	34'- 2"	6	33'- 10"	2	26	4.530	291.224	4.469	203.271	T
12	6	5	9"	9'- 8 1/4"	0'- 10 3/8"	4'- 7 5/8"	1'- 2 3/4"	0'- 10"	38'- 4 1/8"	6'- 4 3/8"	39'- 8"	152	40	141.040	4.076	560.177	40'- 2"	6	39'- 10"	2	14	4.269	285.856	4.302	239.319	H
12	8	5	9"	9'- 8 1/8"	0'- 11 1/8"	4'- 7 3/8"	1'- 3 3/8"	0'- 10 1/4"	38'- 4 1/8"	6'- 4 1/8"	39'- 9"	152	56	146.688	4.332	578.337	40'- 2"	6	39'- 10"	2	18	4.454	299.661	4.463	239.319	L
12	10	5	9"	9'- 8 1/8"	0'- 11 1/8"	4'- 7 3/8"	1'- 3 3/8"	0'- 10 1/4"	38'- 4 1/8"	6'- 4 1/8"	39'- 9"	152	72	152.336	4.528	604.622	40'- 2"	6	39'- 10"	2	22	4.665	313.467	4.648	239.319	P
12	12	5	9"	9'- 8"	0'- 11 3/8"	4'- 7 1/8"	1'- 3 1/2"	0'- 10 1/2"	38'- 4 1/8"	6'- 3 3/8"	39'- 9"	152	88	157.984	4.778	699.034	40'- 2"	6	39'- 10"	2	26	4.850	327.272	4.808	239.319	T

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS
10 TO 15 FT. FILLS
VIRGINIA DEPARTMENT OF TRANSPORTATION