

SPAN		HGT		REINFORCING STEEL											QUAN./LF		HEADWALLS									
(FT.)	(FT.)	SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 BARS	NO. BL2 BARS	REINFORCING STEEL (LBS./LONG. FT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	G HEADWALL LENGTH	HW1 SIZE	HW1 LENGTH	NO. HW2 BARS	NO. HW3 BARS	INLET CONCRETE CL. A4 (CY)	INLET REINFORCING STEEL (LBS)	OUTLET CONCRETE CL. A4 (CY)	OUTLET REINFORCING STEEL (LBS)	WINGWALL
3	3	4	12"	2'- 8 7/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 7/8"	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 7/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 7/8"	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	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	16	52.408	1.136	129.262	16'- 2"	6	15'- 10"	2	8	2.131	120.956	2.121	95.127	A
4	4	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	24	55.232	1.234	137.614	16'- 2"	6	15'- 10"	2	10	2.236	127.859	2.214	95.127	C
4	5	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	32	58.056	1.332	145.966	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	1.281	162.105	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	1.380	170.457	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	1.478	173.387	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	1.576	181.739	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	1.674	195.513	19'- 2"	6	18'- 10"	2	16	2.855	166.591	2.806	113.151	I
6	4	4	12"	5'- 1 1/4"	0'- 5 1/2"	2'- 8"	0'- 7 1/4"	0'- 4 3/4"	20'- 4"	3'- 2 1/2"	21'- 0"	80	24	75.272	1.654	192.613	22'- 2"	6	21'- 10"	2	10	2.799	163.907	2.797	131.175	C
6	5	4	11"	5'- 1 1/4"	0'- 5 1/2"	2'- 8"	0'- 7 1/4"	0'- 4 3/4"	20'- 4"	3'- 2 1/2"	21'- 0"	80	32	78.096	1.751	211.035	22'- 2"	6	21'- 10"	2	12	2.904	170.809	2.889	131.175	E
6	6	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	40	80.920	1.881	219.509	22'- 2"	6	21'- 10"	2	14	3.016	177.712	2.990	131.175	H
6	7	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	48	83.744	1.979	227.982	22'- 2"	6	21'- 10"	2	16	3.121	184.615	3.082	131.175	J
6	8	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	56	86.568	2.077	236.456	22'- 2"	6	21'- 10"	2	18	3.227	191.517	3.175	131.175	L
7	4	4	10"	5'- 10 1/8"	0'- 7"	2'- 11 3/8"	0'- 9 3/8"	0'- 6 1/4"	23'- 4 1/8"	3'- 8 1/8"	24'- 2"	92	24	85.292	2.036	232.126	25'- 2"	6	24'- 10"	2	10	3.031	181.931	3.039	149.199	D
7	6	4	10"	5'- 10"	0'- 7 1/4"	2'- 11 1/8"	0'- 9 3/8"	0'- 6 1/2"	23'- 4 1/8"	3'- 7 7/8"	24'- 3"	92	40	90.940	2.269	249.498	25'- 2"	6	24'- 10"	2	14	3.228	195.736	3.211	149.199	H
7	8	4	9"	5'- 9 7/8"	0'- 7 1/2"	2'- 10 7/8"	0'- 10 1/8"	0'- 6 3/4"	23'- 4 1/8"	3'- 7 5/8"	24'- 3"	92	56	96.588	2.501	283.643	25'- 2"	6	24'- 10"	2	18	3.425	209.541	3.383	149.199	L
7	10	4	9"	5'- 9 7/8"	0'- 7 1/2"	2'- 10 7/8"	0'- 10 1/8"	0'- 6 3/4"	23'- 4 1/8"	3'- 7 5/8"	24'- 3"	92	72	102.236	2.696	318.719	25'- 2"	6	24'- 10"	2	22	3.635	223.347	3.569	149.199	P
8	4	4	9"	6'- 7"	0'- 8 1/4"	3'- 2 7/8"	0'- 11 1/8"	0'- 7 1/2"	26'- 3 3/8"	4'- 2 1/8"	27'- 4"	104	24	95.312	2.431	301.472	28'- 2"	6	27'- 10"	2	10	3.233	199.955	3.251	167.223	D
8	6	4	9"	6'- 6 3/4"	0'- 8 1/2"	3'- 2 5/8"	0'- 11 1/2"	0'- 7 3/4"	26'- 3 3/8"	4'- 1 7/8"	27'- 5"	104	40	100.960	2.669	318.527	28'- 2"	6	27'- 10"	2	14	3.428	213.760	3.421	167.223	H
8	8	4	9"	6'- 6 3/4"	0'- 8 3/4"	3'- 2 5/8"	0'- 11 7/8"	0'- 8"	26'- 3 3/8"	4'- 1 5/8"	27'- 5"	104	56	106.608	2.906	336.456	28'- 2"	6	27'- 10"	2	18	3.622	227.565	3.591	167.223	L
8	10	4	9"	6'- 6 5/8"	0'- 9"	3'- 2 1/8"	1'- 1/4"	0'- 8 1/4"	26'- 3 3/8"	4'- 1 3/8"	27'- 6"	104	72	112.256	3.141	384.078	28'- 2"	6	27'- 10"	2	22	3.817	241.371	3.760	167.223	P
9	4	4	9"	7'- 4"	0'- 9 1/2"	3'- 6 1/2"	1'- 7/8"	0'- 8 3/4"	29'- 4"	4'- 8"	30'- 6"	116	24	105.332	2.874	358.090	31'- 2"	6	30'- 10"	2	10	3.412	217.979	3.440	185.247	D
9	6	4	9"	7'- 4"	0'- 9 1/2"	3'- 6 1/2"	1'- 7/8"	0'- 8 3/4"	29'- 4"	4'- 8"	30'- 6"	116	40	110.980	3.070	374.126	31'- 2"	6	30'- 10"	2	14	3.622	231.784	3.625	185.247	H
9	8	4	9"	7'- 3 3/8"	0'- 9 3/4"	3'- 6 1/4"	1'- 1 1/4"	0'- 9"	29'- 4"	4'- 7 3/4"	30'- 7"	116	56	116.628	3.312	392.166	31'- 2"	6	30'- 10"	2	18	3.814	245.589	3.793	185.247	L
9	10	4	9"	7'- 3 3/8"	0'- 9 3/4"	3'- 6 1/4"	1'- 1 1/4"	0'- 9"	29'- 4"	4'- 7 3/4"	30'- 7"	116	72	122.276	3.506	435.140	31'- 2"	6	30'- 10"	2	22	4.025	259.395	3.978	185.247	P
9	12	4	8"	7'- 3 3/4"	0'- 10"	3'- 6"	1'- 1 5/8"	0'- 9 1/4"	29'- 4"	4'- 7 1/2"	30'- 7"	116	88	127.924	3.743	522.598	31'- 2"	6	30'- 10"	2	26	4.217	273.200	4.146	185.247	T
10	4	5	9"	8'- 1"	0'- 10 7/8"	3'- 10"	1'- 2 3/8"	0'- 10"	32'- 4"	5'- 2"	33'- 8"	128	24	115.352	3.362	423.345	34'- 2"	6	33'- 10"	2	10	3.567	236.003	3.605	203.271	D
10	6	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	40	121.000	3.608	440.235	34'- 2"	6	33'- 10"	2	14	3.757	249.808	3.771	203.271	H
10	8	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	56	126.648	3.804	461.960	34'- 2"	6	33'- 10"	2	18	3.968	263.613	3.956	203.271	L
10	10	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	72	132.296	3.999	500.639	34'- 2"	6	33'- 10"	2	22	4.178	277.419	4.141	203.271	P
10	12	5	9"	8'- 3/4"	0'- 11 3/8"	3'- 9 1/2"	1'- 3 1/2"	0'- 10 1/2"	32'- 4"	5'- 1 1/2"	33'- 9"	128	88	137.944	4.241	569.098	34'- 2"	6	33'- 10"	2	26	4.368	291.224	4.307	203.271	T
12	6	6	9"	9'- 6 3/8"	1'- 1 3/4"	4'- 4 7/8"	1'- 6 3/4"	1'- 3/4"	38'- 4 1/8"	6'- 1 5/8"	40'- 1"	152	40	141.040	4.726	648.700	40'- 2"	6	39'- 10"	2	14	4.013	285.856	4.046	239.319	I
12	8	6	9"	9'- 6 3/8"	1'- 1 3/4"	4'- 4 7/8"	1'- 6 3/4"	1'- 3/4"	38'- 4 1/8"	6'- 1 5/8"	40'- 1"	152	56	146.688	4.922	666.294	40'- 2"	6	39'- 10"	2	18	4.223	299.661	4.232	239.319	M
12	10	6	9"	9'- 6 3/4"	1'- 2"	4'- 4 5/8"	1'- 7 1/8"	1'- 1"	38'- 4 1/8"	6'- 1 3/8"	40'- 1"	152	72	152.336	5.176	710.159	40'- 2"	6	39'- 10"	2	22	4.409	313.467	4.392	239.319	Q
12	12	6	9"	9'- 6 3/4"	1'- 2"	4'- 4 5/8"	1'- 7 1/8"	1'- 1"	38'- 4 1/8"	6'- 1 3/8"	40'- 1"	152	88	157.984	5.369	778.792	40'- 2"	6	39'- 10"	2	26	4.619	327.272	4.578	239.319	U

SPECIFICATION REFERENCE

TRIPLE BOX CULVERTS

15 TO 20 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE

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