

SPAN		HIGHT		REINFORCING STEEL											QUAN./LF		HEADWALLS								WINGWALL	
(FT.)	(FT.)	SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 BARS	NO. BL2 BARS	REINFORCING STEEL (LBS./LONG. JT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	HEADWALL LENGTH	SIZE	HW I 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)
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	0.988	119.799	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	123.701	13'- 2"	6	12'- 10"	2	10	1.932	109.835	1.901	77.103	C
4	3	4	12"	3'- 5 5/8"	0'- 6 1/4"	1'- 9 3/4"	0'- 8 3/8"	0'- 5 1/2"	14'- 4"	1'- 11 1/4"	15'- 1"	56	16	52.408	1.294	131.043	16'- 2"	6	15'- 10"	2	8	2.104	120.956	2.095	95.127	B
4	4	4	12"	3'- 5 5/8"	0'- 6 1/4"	1'- 9 3/4"	0'- 8 3/8"	0'- 5 1/2"	14'- 4"	1'- 11 1/4"	15'- 1"	56	24	55.232	1.392	139.395	16'- 2"	6	15'- 10"	2	10	2.209	127.859	2.188	95.127	D
4	5	4	12"	3'- 5 5/8"	0'- 6 1/4"	1'- 9 3/4"	0'- 8 3/8"	0'- 5 1/2"	14'- 4"	1'- 11 1/4"	15'- 1"	56	32	58.056	1.490	147.747	16'- 2"	6	15'- 10"	2	12	2.315	134.761	2.280	95.127	F
4	6	4	12"	3'- 5 5/8"	0'- 6 1/4"	1'- 9 3/4"	0'- 8 3/8"	0'- 5 1/2"	14'- 4"	1'- 11 1/4"	15'- 1"	56	40	60.880	1.588	167.678	16'- 2"	6	15'- 10"	2	14	2.420	141.664	2.373	95.127	H
5	3	4	11"	4'- 2 1/8"	0'- 8 1/2"	2'- 1/4"	0'- 11 1/2"	0'- 7 3/4"	17'- 4"	2'- 4 1/4"	18'- 5"	68	16	62.428	1.718	161.356	19'- 2"	6	18'- 10"	2	8	2.313	138.980	2.313	113.151	B
5	4	4	11"	4'- 2 1/8"	0'- 8 1/2"	2'- 1/4"	0'- 11 1/2"	0'- 7 3/4"	17'- 4"	2'- 4 1/4"	18'- 5"	68	24	65.252	1.816	169.830	19'- 2"	6	18'- 10"	2	10	2.418	145.883	2.406	113.151	D
5	5	4	10"	4'- 2 1/4"	0'- 8 1/4"	2'- 1/2"	0'- 11 1/8"	0'- 7 1/2"	17'- 4"	2'- 4 1/2"	18'- 4"	68	32	68.076	1.886	187.582	19'- 2"	6	18'- 10"	2	12	2.532	152.785	2.508	113.151	F
5	6	4	10"	4'- 2 1/4"	0'- 8 1/4"	2'- 1/2"	0'- 11 1/8"	0'- 7 1/2"	17'- 4"	2'- 4 1/2"	18'- 4"	68	40	70.900	1.984	196.202	19'- 2"	6	18'- 10"	2	14	2.637	159.688	2.600	113.151	H
5	7	4	10"	4'- 2 1/4"	0'- 8 1/4"	2'- 1/2"	0'- 11 1/8"	0'- 7 1/2"	17'- 4"	2'- 4 1/2"	18'- 4"	68	48	73.724	2.081	222.221	19'- 2"	6	18'- 10"	2	16	2.742	166.591	2.693	113.151	J
6	4	4	9"	4'- 10 7/8"	0'- 10 1/4"	2'- 3 1/4"	1'- 2"	0'- 9 1/2"	20'- 4"	2'- 9 3/4"	21'- 8"	80	24	75.272	2.258	216.698	22'- 2"	6	21'- 10"	2	10	2.607	163.907	2.605	131.175	D
6	5	4	10"	4'- 10 7/8"	0'- 10 1/4"	2'- 3 1/4"	1'- 2"	0'- 9 1/2"	20'- 4"	2'- 9 3/4"	21'- 8"	80	32	78.096	2.356	230.598	22'- 2"	6	21'- 10"	2	12	2.712	170.809	2.698	131.175	F
6	6	4	10"	4'- 10 7/8"	0'- 10 1/4"	2'- 3 1/4"	1'- 2"	0'- 9 1/2"	20'- 4"	2'- 9 3/4"	21'- 8"	80	40	80.920	2.454	239.218	22'- 2"	6	21'- 10"	2	14	2.817	177.712	2.791	131.175	H
6	7	4	10"	4'- 10 7/8"	0'- 10 1/4"	2'- 3 1/4"	1'- 2"	0'- 9 1/2"	20'- 4"	2'- 9 3/4"	21'- 8"	80	48	83.744	2.551	261.170	22'- 2"	6	21'- 10"	2	16	2.922	184.615	2.883	131.175	J
6	8	4	9"	4'- 11"	0'- 10"	2'- 3 1/2"	1'- 1 5/8"	0'- 9 1/4"	20'- 4"	2'- 10"	21'- 7"	80	56	86.568	2.616	279.989	22'- 2"	6	21'- 10"	2	18	3.039	191.517	2.987	131.175	L
7	4	4	9"	5'- 7 1/2"	1'- 1/4"	2'- 6 1/8"	1'- 4 3/4"	0'- 11 1/2"	23'- 4 1/8"	3'- 2 7/8"	24'- 11"	92	24	85.292	2.799	287.472	25'- 2"	6	24'- 10"	2	10	2.769	181.931	2.777	149.199	E
7	6	4	9"	5'- 7 1/2"	1'- 1/4"	2'- 6 1/8"	1'- 4 3/4"	0'- 11 1/2"	23'- 4 1/8"	3'- 2 7/8"	24'- 11"	92	40	90.940	2.995	305.066	25'- 2"	6	24'- 10"	2	14	2.979	195.736	2.962	149.199	I
7	8	4	9"	5'- 7 1/2"	1'- 1/4"	2'- 6 1/8"	1'- 4 3/4"	0'- 11 1/2"	23'- 4 1/8"	3'- 2 7/8"	24'- 11"	92	56	96.588	3.189	355.950	25'- 2"	6	24'- 10"	2	18	3.189	209.541	3.148	149.199	M
7	10	4	9"	5'- 8"	1'- 1/4"	2'- 6 1/8"	1'- 4 3/4"	0'- 11 1/2"	23'- 5 1/8"	3'- 2 7/8"	25'- 0"	92	72	102.236	3.422	401.643	25'- 2"	6	24'- 10"	2	22	3.361	223.347	3.294	149.199	Q
8	4	4	8"	6'- 4"	1'- 2 1/4"	2'- 8 3/8"	1'- 7 5/8"	1'- 1 1/2"	26'- 3 3/8"	3'- 8 1/8"	28'- 2"	104	24	95.312	3.415	349.243	28'- 2"	6	27'- 10"	2	10	2.875	199.955	2.893	167.223	E
8	6	4	8"	6'- 4"	1'- 2 1/4"	2'- 8 3/8"	1'- 7 5/8"	1'- 1 1/2"	26'- 3 3/8"	3'- 8 1/8"	28'- 2"	104	40	100.960	3.612	368.047	28'- 2"	6	27'- 10"	2	14	3.085	213.760	3.079	167.223	I
8	8	4	8"	6'- 3 3/8"	1'- 2 1/2"	2'- 8 5/8"	1'- 8"	1'- 1 3/4"	26'- 3 7/8"	3'- 7 7/8"	28'- 3"	104	56	106.608	3.847	415.170	28'- 2"	6	27'- 10"	2	18	3.280	227.565	3.248	167.223	M
8	10	4	8"	6'- 4 3/8"	1'- 2 1/2"	2'- 8 5/8"	1'- 8"	1'- 1 3/4"	26'- 4 7/8"	3'- 7 7/8"	28'- 4"	104	72	112.256	4.080	476.275	28'- 2"	6	27'- 10"	2	22	3.451	241.371	3.394	167.223	Q
9	4	5	9"	7'- 5 8"	1'- 4 3/8"	2'- 11 3/4"	1'- 10 1/2"	1'- 3 1/2"	29'- 4"	4'- 1 1/4"	31'- 5"	116	24	105.332	4.102	455.854	31'- 2"	6	30'- 10"	2	10	2.944	217.979	2.972	185.247	E
9	6	5	9"	7'- 5 8"	1'- 4 3/8"	2'- 11 3/4"	1'- 10 1/2"	1'- 3 1/2"	29'- 4"	4'- 1 1/4"	31'- 5"	116	40	110.980	4.298	474.517	31'- 2"	6	30'- 10"	2	14	3.155	231.784	3.158	185.247	I
9	8	5	9"	7'- 5 8"	1'- 4 3/8"	2'- 11 3/4"	1'- 10 1/2"	1'- 3 1/2"	29'- 4"	4'- 1 1/4"	31'- 5"	116	56	116.628	4.492	525.747	31'- 2"	6	30'- 10"	2	18	3.365	245.589	3.343	185.247	M
9	10	5	9"	7'- 1 1/4"	1'- 4 1/8"	3'- 0"	1'- 10 1/4"	1'- 3 1/4"	29'- 5"	4'- 1 1/2"	31'- 6"	116	72	122.276	4.680	591.064	31'- 2"	6	30'- 10"	2	22	3.553	259.395	3.506	185.247	Q
9	12	5	9"	7'- 2 5/8"	1'- 4 3/8"	2'- 11 3/4"	1'- 10 1/2"	1'- 3 1/2"	29'- 8"	4'- 1 1/4"	31'- 9"	116	88	127.924	5.066	662.948	31'- 2"	6	30'- 10"	2	26	3.598	273.200	3.525	185.247	U
10	4	6	9"	7'- 9 1/8"	1'- 6 3/4"	3'- 2 1/4"	2'- 1 7/8"	1'- 5 3/4"	32'- 4"	4'- 6 1/4"	34'- 9"	128	24	115.352	4.915	541.037	34'- 2"	6	33'- 10"	2	10	2.975	236.003	3.013	203.271	F
10	6	6	9"	7'- 9 1/8"	1'- 6 3/4"	3'- 2 1/4"	2'- 1 7/8"	1'- 5 3/4"	32'- 4"	4'- 6 1/4"	34'- 9"	128	40	121.000	5.112	559.700	34'- 2"	6	33'- 10"	2	14	3.185	249.808	3.198	203.271	J
10	8	6	9"	7'- 9 1/8"	1'- 6 3/4"	3'- 2 1/4"	2'- 1 7/8"	1'- 5 3/4"	32'- 4"	4'- 6 1/4"	34'- 9"	128	56	126.648	5.305	612.208	34'- 2"	6	33'- 10"	2	18	3.395	263.613	3.384	203.271	N
10	10	6	9"	7'- 9 5/8"	1'- 6 3/4"	3'- 2 1/4"	2'- 1 7/8"	1'- 5 3/4"	32'- 5"	4'- 6 1/4"	34'- 10"	128	72	132.296	5.536	722.125	34'- 2"	6	33'- 10"	2	22	3.564	277.419	3.527	203.271	R
10	12	6	9"	7'- 11"	1'- 7"	3'- 2"	2'- 2 1/8"	1'- 6"	32'- 8"	4'- 6"	35'- 1"	128	88	137.944	5.935	737.468	34'- 2"	6	33'- 10"	2	26	3.603	291.224	3.540	203.271	V
12	6	6	8"	9'- 2 5/8"	1'- 10 1/4"	3'- 8 3/8"	2'- 6 3/4"	1'- 9 1/4"	38'- 4 1/8"	5'- 5 1/8"	41'- 3"	152	40	141.040	6.750	714.428	40'- 2"	6	39'- 10"	2	14	3.184	285.856	3.217	239.319	J
12	8	6	8"	9'- 2 5/8"	1'- 10 1/4"	3'- 8 3/8"	2'- 6 3/4"	1'- 9 1/4"	38'- 4 1/8"	5'- 5 1/8"	41'- 3"	152	56	146.688	6.943	768.206	40'- 2"	6	39'- 10"	2	18	3.394	299.661	3.402	239.319	N
12	10	6	8"	9'- 3"	1'- 10 1/2"	3'- 8 1/8"	2'- 7 1/8"	1'- 9 1/2"	38'- 5 1/8"	5'- 4 7/8"	41'- 4"	152	72	152.336	7.240	837.453	40'- 2"	6	39'- 10"	2	22	3.535	313.467	3.518	239.319	R
12	12	6	8"	9'- 4 1/2"	1'- 10 1/2"	3'- 8 1/8"	2'- 7 1/8"	1'- 9 1/2"	38'- 8 1/8"	5'- 4 7/8"	41'- 7"	152	88	157.984	7.590	895.574	40'- 2"	6	39'- 10"	2	26	3.590	327.272	3.547	239.319	V

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS  
35 TO 40 FT. FILLS  
VIRGINIA DEPARTMENT OF TRANSPORTATION