

FOR TYPICAL SECTION, NOTES AND OTHER DETAILS, REFER TO STANDARD BCT-DT.

BCT-20

SPAN		HGHT	REINFORCING STEEL												QUAN./LF		HEADWALLS											
(FT.)	(FT.)	SIZE	SPACING C-C	BT1									NO. BL1 #4 BARS	NO. BL2 #3 BARS	REINFORCING STEEL (LBS./LONG. FT.)	CONCRETE CLASS #4 (CY/LF)	REINFORCING STEEL (LBS/LF)	G		HW1		NO. HW2 BARS	NO. HW3 BARS	INLET CONCRETE CL. #4 (CY)	INLET REINFORCING STEEL (LBS)	OUTLET CONCRETE CL. #4 (CY)	OUTLET REINFORCING STEEL (LBS)	WINGWALL
				a	b	c	d	e	f	g	LENGTH	HEADWALL LENGTH						SIZE	LENGTH									
3	3	4	12"	2'-7"	0'- 4"	1'-10"	0'- 5/8"	0'- 3/4"	11'-3"	1'-3"	11'-9"	44	16	42.388	0.989	108.604	13'- 2"	6	12'-10"	2	8	1.827	102.932	1.808	77.103	A		
3	4	4	12"	2'-7"	0'- 4"	1'-10"	0'- 5/8"	0'- 3/4"	11'-3"	1'-3"	11'-9"	44	24	45.212	1.087	116.956	13'- 2"	6	12'-10"	2	10	1.932	109.835	1.901	77.103	C		
4	3	4	12"	3'-5"	0'- 4"	2'-3"	0'- 5/8"	0'- 3/4"	14'-3"	1'-10"	14'-9"	56	16	52.408	1.136	128.644	16'- 2"	6	15'-10"	2	8	2.131	120.956	2.121	95.127	A		
4	4	4	12"	3'-5"	0'- 4"	2'-3"	0'- 5/8"	0'- 3/4"	14'-3"	1'-10"	14'-9"	56	24	55.232	1.234	136.996	16'- 2"	6	15'-10"	2	10	2.236	127.859	2.214	95.127	C		
4	5	4	12"	3'-5"	0'- 4"	2'-3"	0'- 5/8"	0'- 3/4"	14'-3"	1'-10"	14'-9"	56	32	58.056	1.332	145.348	16'- 2"	6	15'-10"	2	12	2.341	134.761	2.307	95.127	E		
4	6	4	12"	3'-5"	0'- 4"	2'-3"	0'- 5/8"	0'- 3/4"	14'-3"	1'-10"	14'-9"	56	40	60.880	1.430	153.700	16'- 2"	6	15'-10"	2	14	2.446	141.664	2.399	95.127	G		
5	3	4	12"	4'-2"	0'- 4"	2'-8"	0'- 5/8"	0'- 3/4"	17'-4"	2'-5"	17'-9"	68	16	62.428	1.281	161.335	19'- 2"	6	18'-10"	2	8	2.434	138.980	2.435	113.151	A		
5	4	4	12"	4'-2"	0'- 4"	2'-8"	0'- 5/8"	0'- 3/4"	17'-4"	2'-5"	17'-9"	68	24	65.252	1.379	169.687	19'- 2"	6	18'-10"	2	10	2.539	145.883	2.527	113.151	C		
5	5	4	12"	4'-2"	0'- 4"	2'-8"	0'- 5/8"	0'- 3/4"	17'-4"	2'-5"	17'-9"	68	32	68.076	1.478	172.608	19'- 2"	6	18'-10"	2	12	2.644	152.785	2.620	113.151	E		
5	6	4	12"	4'-2"	0'- 4"	2'-8"	0'- 5/8"	0'- 3/4"	17'-4"	2'-5"	17'-9"	68	40	70.900	1.576	181.562	19'- 2"	6	18'-10"	2	14	2.750	159.688	2.713	113.151	G		
5	7	4	12"	4'-2"	0'- 4"	2'-8"	0'- 5/8"	0'- 3/4"	17'-4"	2'-5"	17'-9"	68	48	73.724	1.673	202.880	19'- 2"	6	18'-10"	2	16	2.855	166.591	2.806	113.151	I		
6	4	4	12"	4'-11"	0'- 5"	3'-0"	0'- 6 5/8"	0'- 4 1/4"	20'-4"	2'-11"	20'-10"	80	24	75.272	1.653	191.868	22'- 2"	6	21'-10"	2	10	2.799	163.907	2.797	131.175	C		
6	5	4	11"	4'-11"	0'- 5"	3'-0"	0'- 6 5/8"	0'- 4 1/4"	20'-4"	2'-11"	20'-10"	80	32	78.096	1.751	210.223	22'- 2"	6	21'-10"	2	12	2.904	170.809	2.889	131.175	E		
6	6	4	11"	4'-11"	0'- 5 1/4"	3'-0"	0'- 7"	0'- 4 1/2"	20'-4"	2'-10"	20'-11"	80	40	80.920	1.881	219.582	22'- 2"	6	21'-10"	2	14	3.016	177.712	2.990	131.175	H		
6	7	4	11"	4'-11"	0'- 5 1/4"	3'-0"	0'- 7"	0'- 4 1/2"	20'-4"	2'-10"	20'-11"	80	48	83.744	1.978	235.377	22'- 2"	6	21'-10"	2	16	3.121	184.615	3.082	131.175	J		
6	8	4	11"	4'-11"	0'- 5 1/4"	3'-0"	0'- 7"	0'- 4 1/2"	20'-4"	2'-10"	20'-11"	80	56	86.568	2.076	245.767	22'- 2"	6	21'-10"	2	18	3.227	191.517	3.175	131.175	L		
7	4	4	10"	5'-7"	0'- 6 1/2"	3'-5"	0'- 8 3/4"	0'- 5 3/4"	23'-4"	3'-3"	24'-1"	92	24	85.292	2.036	231.430	25'- 2"	6	24'-10"	2	10	3.031	181.931	3.039	149.199	D		
7	6	4	10"	5'-7"	0'- 6 3/4"	3'-5"	0'- 9"	0'- 6"	23'-4"	3'-2"	24'-1"	92	40	90.940	2.269	249.062	25'- 2"	6	24'-10"	2	14	3.228	195.736	3.211	149.199	H		
7	8	4	9"	5'-7"	0'- 7"	3'-5"	0'- 9 3/8"	0'- 6 1/4"	23'-4"	3'-2"	24'-2"	92	56	96.588	2.500	291.625	25'- 2"	6	24'-10"	2	18	3.425	209.541	3.383	149.199	L		
7	10	4	9"	5'-7"	0'- 7"	3'-5"	0'- 9 3/8"	0'- 6 1/4"	23'-5"	3'-2"	24'-3"	92	72	102.236	2.731	332.978	25'- 2"	6	24'-10"	2	22	3.635	223.347	3.569	149.199	P		
8	4	4	9"	6'-3"	0'- 7 3/4"	3'-10"	0'- 10 1/2"	0'- 7"	26'-4"	3'-7"	27'-3"	104	24	95.312	2.431	300.279	28'- 2"	6	27'-10"	2	10	3.233	199.955	3.251	167.223	D		
8	6	4	9"	6'-3"	0'- 8"	3'-10"	0'- 10 7/8"	0'- 7 1/4"	26'-4"	3'-7"	27'-3"	104	40	100.960	2.668	317.493	28'- 2"	6	27'-10"	2	14	3.428	213.760	3.421	167.223	H		
8	8	4	9"	6'-3"	0'- 8 1/4"	3'-10"	0'- 11 1/8"	0'- 7 1/2"	26'-4"	3'-6"	27'-4"	104	56	106.608	2.905	344.092	28'- 2"	6	27'-10"	2	18	3.622	227.565	3.591	167.223	L		
8	10	4	9"	6'-3"	0'- 8 1/2"	3'-10"	0'- 11 1/2"	0'- 7 3/4"	26'-4"	3'-6"	27'-4"	104	72	112.256	3.139	400.681	28'- 2"	6	27'-10"	2	22	3.817	241.371	3.760	167.223	P		
9	4	5	9"	7'-0"	0'- 9"	4'-3"	1'- 1/8"	0'- 8 1/8"	29'-4"	4'-0"	30'-5"	116	24	105.332	2.871	390.708	31'- 2"	6	30'-10"	2	10	3.412	217.979	3.440	185.247	D		
9	6	5	9"	7'-0"	0'- 9"	4'-3"	1'- 1/8"	0'- 8 1/8"	29'-4"	4'-0"	30'-5"	116	40	110.980	3.067	406.744	31'- 2"	6	30'-10"	2	14	3.622	231.784	3.625	185.247	H		
9	8	5	9"	7'-0"	0'- 9 1/4"	4'-3"	1'- 1/2"	0'- 8 5/8"	29'-4"	4'-0"	30'-5"	116	56	116.628	3.308	433.034	31'- 2"	6	30'-10"	2	18	3.814	245.589	3.793	185.247	L		
9	10	5	9"	7'-0"	0'- 9 1/4"	4'-3"	1'- 1/2"	0'- 8 5/8"	29'-4"	4'-0"	30'-5"	116	72	122.276	3.501	497.976	31'- 2"	6	30'-10"	2	22	4.025	259.395	3.978	185.247	P		
9	12	5	8"	7'-1"	0'- 9 1/2"	4'-3"	1'- 7/8"	0'- 8 5/8"	29'-7"	3'-11"	30'-9"	116	88	127.924	3.869	590.289	31'- 2"	6	30'-10"	2	26	4.217	273.200	4.146	185.247	T		
10	4	5	9"	7'-8"	0'- 10 1/4"	4'-8"	1'- 1 1/8"	0'- 9 3/8"	32'-3"	4'-5"	33'-7"	128	24	115.352	3.361	425.479	34'- 2"	6	33'-10"	2	10	3.567	236.003	3.605	203.271	D		
10	6	5	9"	7'-8"	0'- 10 1/2"	4'-8"	1'- 2 1/4"	0'- 9 5/8"	32'-3"	4'-4"	33'-7"	128	40	121.000	3.607	442.615	34'- 2"	6	33'-10"	2	14	3.757	249.808	3.771	203.271	H		
10	8	5	9"	7'-8"	0'- 10 1/2"	4'-8"	1'- 2 1/4"	0'- 9 5/8"	32'-3"	4'-4"	33'-7"	128	56	126.648	3.803	470.995	34'- 2"	6	33'-10"	2	18	3.968	263.613	3.956	203.271	L		
10	10	5	9"	7'-8"	0'- 10 3/4"	4'-8"	1'- 2 1/4"	0'- 9 5/8"	32'-3"	4'-4"	33'-7"	128	72	132.296	3.996	531.092	34'- 2"	6	33'-10"	2	22	4.178	277.419	4.141	203.271	P		
10	12	5	9"	7'-9"	0'- 10 3/4"	4'-8"	1'- 2 5/8"	0'- 9 7/8"	32'-3"	4'-4"	33'-11"	128	88	137.944	4.372	598.219	34'- 2"	6	33'-10"	2	26	4.368	291.224	4.307	203.271	T		
12	6	6	9"	9'-1"	1'- 1"	5'-5"	1'- 5 5/8"	1'- 0"	38'-3"	5'-3"	39'-11"	152	40	141.040	4.725	656.619	40'- 2"	6	39'-10"	2	14	4.013	285.856	4.046	239.319	I		
12	8	6	9"	9'-1"	1'- 1"	5'-5"	1'- 5 5/8"	1'- 0"	38'-3"	5'-3"	39'-11"	152	56	146.688	4.920	682.088	40'- 2"	6	39'-10"	2	18	4.223	299.661	4.232	239.319	M		
12	10	6	9"	9'-1"	1'- 1 1/4"	5'-5"	1'- 6"	1'- 1/4"	38'-3"	5'-2"	39'-11"	152	72	152.336	5.172	746.974	40'- 2"	6	39'-10"	2	22	4.409	313.467	4.392	239.319	Q		
12	12	6	9"	9'-2"	1'- 1 1/4"	5'-5"	1'- 6"	1'- 1/4"	38'-6"	5'-2"	40'-2"	152	88	157.984	5.502	818.885	40'- 2"	6	39'-10"	2	26	4.619	327.272	4.578	239.319	U		

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

SPECIFICATION REFERENCE	TRIPLE BOX CULVERTS 10 TO 20 FT. FILLS VIRGINIA DEPARTMENT OF TRANSPORTATION	 ROAD AND BRIDGE STANDARDS	
		REVISION DATE 07/11	SHEET 2 OF 2 1004.12