

2016 ROAD & BRIDGE STANDARDS

BCD-40

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

DIMENSIONS						REINFORCING STEEL																										
SPAN	HGHT	T1	T2	T3	T4	BH1			BH2			BH3			BH4			BV1			BV2											
(FT.)	(FT.)	TOP SLAB	BOTTOM SLAB	EXTERIOR WALL (IN.)	INTERIOR WALL (IN.)	A	B	C	D	E	F	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	LENGTH			
3	3	8"	8"	8"	8"	6	6'- 0"	6	6'- 0"	1	1'- 0"	4	12"	6'- 7"	4	12"	7'- 8"	4	12"	2'- 2"	4'- 0"	4	12"	2'- 4"	2'- 9"	4'- 9"	4	12"	4'- 0"	4	12"	4'- 0"
3	4	8"	8"	8"	8"	6	6'- 0"	6	6'- 0"	2	2'- 0"	4	12"	6'- 7"	4	12"	7'- 8"	3	12"	2'- 4"	4'- 5"	4	12"	2'- 4"	3'- 3"	5'- 3"	4	12"	5'- 0"	4	12"	5'- 0"
4	3	10"	10"	8"	8"	8	8'- 0"	8	8'- 0"	1	1'- 0"	4	12"	8'- 7"	4	12"	9'- 8"	--	---	-----	-----	4	12"	2'- 4"	2'-10"	4'- 11"	4	12"	4'- 3"	4	12"	4'- 3"
4	4	10"	10"	8"	8"	8	8'- 0"	8	8'- 0"	2	2'- 0"	4	12"	8'- 7"	4	12"	9'- 8"	--	---	-----	-----	4	12"	2'- 4"	3'- 4"	5'- 5"	4	12"	5'- 3"	4	12"	5'- 3"
4	5	10"	10"	8"	8"	8	8'- 0"	8	8'- 0"	3	3'- 0"	4	12"	8'- 7"	4	12"	9'- 8"	--	---	-----	-----	4	12"	2'- 4"	3'-10"	5'- 11"	4	12"	6'- 3"	4	12"	6'- 3"
4	6	10"	10"	8"	8"	8	8'- 0"	8	8'- 0"	4	4'- 0"	4	12"	8'- 7"	4	12"	9'- 8"	3	12"	2'-11"	5'- 7"	4	12"	2'- 4"	4'- 4"	6'- 5"	5	12"	7'- 3"	4	12"	7'- 3"
5	3	12 1/2"	12 1/2"	8"	8"	10	10'- 0"	10	10'- 0"	1	1'- 0"	4	11"	10'- 7"	4	11"	11'- 8"	--	---	-----	-----	4	11"	2'- 4"	3'- 1"	5'- 1"	4	12"	4'- 9"	4	12"	4'- 9"
5	4	12 1/2"	12 1/2"	8"	8"	10	10'- 0"	10	10'- 0"	2	2'- 0"	4	11"	10'- 7"	4	11"	11'- 8"	--	---	-----	-----	4	11"	2'- 4"	3'- 7"	5'- 7"	4	12"	5'- 9"	4	12"	5'- 9"
5	5	12 1/2"	12 1/2"	8"	8"	10	10'- 0"	10	10'- 0"	3	3'- 0"	4	11"	10'- 7"	4	11"	11'- 8"	--	---	-----	-----	4	11"	2'- 4"	4'- 1"	6'- 1"	4	12"	6'- 9"	4	12"	6'- 9"
5	6	12 1/4"	12 1/4"	8"	8"	10	10'- 0"	10	10'- 0"	4	4'- 0"	4	11"	10'- 7"	4	11"	11'- 8"	3	11"	3'- 1"	5'-11"	4	11"	2'- 4"	4'- 7"	6'- 7"	5	12"	7'- 8"	4	12"	7'- 8"
5	7	12 1/4"	12 1/4"	8"	8"	10	10'- 0"	10	10'- 0"	5	5'- 0"	4	11"	10'- 7"	4	11"	11'- 8"	4	11"	3'- 4"	6'- 3"	4	11"	2'- 4"	5'- 1"	7'- 1"	5	8"	8'- 8"	4	12"	8'- 8"
6	4	14 1/2"	14 1/2"	8"	8"	12	12'- 0"	12	12'- 0"	2	2'- 0"	4	9"	12'- 7"	4	9"	13'- 8"	--	---	-----	-----	4	9"	2'- 4"	3'- 9"	5'- 9"	4	12"	6'- 0"	4	12"	6'- 0"
6	5	14 1/2"	14 1/2"	8"	8"	12	12'- 0"	12	12'- 0"	3	3'- 0"	4	9"	12'- 7"	4	9"	13'- 8"	--	---	-----	-----	4	9"	2'- 4"	4'- 3"	6'- 3"	4	12"	7'- 0"	4	12"	7'- 0"
6	6	14 1/4"	14 1/4"	8"	8"	12	12'- 0"	12	12'- 0"	4	4'- 0"	4	9"	12'- 7"	4	9"	13'- 8"	--	---	-----	-----	4	9"	2'- 4"	4'- 9"	6'- 9"	5	12"	8'- 0"	4	12"	8'- 0"
6	7	14 1/4"	14 1/4"	8"	8"	12	12'- 0"	12	12'- 0"	5	5'- 0"	4	9"	12'- 7"	4	9"	13'- 8"	3	9"	3'- 6"	6'- 8"	4	9"	2'- 4"	5'- 3"	7'- 3"	5	8"	9'- 0"	4	12"	9'- 0"
6	8	14 1/4"	14 1/4"	8 1/2"	8"	12	12'- 0"	12	12'- 0"	6	6'- 0"	4	9"	12'- 5"	4	9"	13'- 9"	--	---	-----	-----	5	9"	2'- 6"	5'- 11"	8'- 0"	5	6"	10'- 0"	4	12"	10'- 0"
7	4	16 1/2"	16 1/2"	8"	8"	14	14'- 0"	14	14'- 0"	2	2'- 0"	5	8"	14'- 7"	4	8"	15'- 8"	--	---	-----	-----	4	8"	2'- 9"	3'- 11"	6'- 4"	4	12"	6'- 5"	4	11"	6'- 5"
7	6	16 1/4"	16 1/4"	8"	8"	14	14'- 0"	14	14'- 0"	4	4'- 0"	5	9"	14'- 7"	4	9"	15'- 8"	--	---	-----	-----	4	9"	2'- 9"	4'- 11"	7'- 4"	5	12"	8'- 4"	4	11"	8'- 4"
7	8	16 1/4"	16 1/4"	8"	8"	14	14'- 0"	14	14'- 0"	6	6'- 0"	5	9"	14'- 7"	5	9"	15'- 8"	3	9"	3'-10"	7'- 5"	4	9"	2'- 9"	5'- 11"	8'- 4"	5	6"	10'- 4"	4	11"	10'- 4"
7	10	16 1/4"	16 1/4"	10 1/2"	8"	14	14'- 0"	14	14'- 0"	8	8'- 0"	5	9"	14'- 9"	5	9"	16'- 0"	3	9"	4'- 3"	8'- 3"	5	9"	2'- 11"	7'- 1"	9'- 7"	6	9"	12'- 4"	4	11"	12'- 4"
8	4	18 1/2"	18 1/2"	8"	8"	16	16'- 0"	16	16'- 0"	2	2'- 0"	6	9"	16'- 7"	5	9"	17'- 8"	--	---	-----	-----	4	9"	3'- 2"	4'- 1"	6'- 11"	4	12"	6'- 9"	4	10"	6'- 9"
8	6	18 1/2"	18 1/2"	8"	8"	16	16'- 0"	16	16'- 0"	4	4'- 0"	6	9"	16'- 7"	5	9"	17'- 8"	--	---	-----	-----	4	9"	3'- 2"	5'- 1"	7'- 11"	5	12"	8'- 9"	4	10"	8'- 9"
8	8	18 3/4"	18 3/4"	8 1/2"	8"	16	16'- 0"	16	16'- 0"	6	6'- 0"	6	9"	16'- 5"	5	9"	17'- 9"	--	---	-----	-----	5	9"	3'- 4"	6'- 3"	9'- 2"	5	6"	10'- 9"	4	10"	10'- 9"
8	10	18 1/2"	18 1/2"	10 1/2"	8"	16	16'- 0"	16	16'- 0"	8	8'- 0"	6	9"	16'- 6"	5	9"	18'- 0"	--	---	-----	-----	6	9"	3'- 5"	7'- 5"	10'- 5"	4	4"	12'- 9"	4	10"	12'- 9"
9	4	20 1/2"	20 1/2"	8"	8"	18	18'- 0"	18	18'- 0"	2	2'- 0"	6	9"	18'- 7"	5	9"	19'- 8"	--	---	-----	-----	4	9"	3'- 2"	4'- 3"	7'- 1"	4	12"	7'- 0"	4	10"	7'- 0"
9	6	20 1/2"	20 1/2"	8"	8"	18	18'- 0"	18	18'- 0"	4	4'- 0"	6	9"	18'- 7"	5	9"	19'- 8"	--	---	-----	-----	4	9"	3'- 2"	5'- 3"	8'- 1"	5	12"	9'- 0"	4	10"	9'- 0"
9	8	20 1/4"	20 1/4"	8"	8"	18	18'- 0"	18	18'- 0"	6	6'- 0"	6	9"	18'- 7"	5	9"	19'- 8"	3	9"	4'- 2"	8'- 1"	4	9"	3'- 2"	6'- 3"	9'- 1"	5	6"	11'- 0"	4	10"	11'- 0"
9	10	20"	20"	11"	8"	18	18'- 0"	18	18'- 0"	8	8'- 0"	6	9"	18'-10"	5	9"	20'- 2"	3	9"	4'- 6"	8'-10"	5	9"	3'- 4"	7'- 4"	10'- 4"	4	4"	13'- 0"	4	10"	13'- 0"
9	12	20 1/2"	20 1/2"	13"	8"	18	18'- 0"	18	18'- 0"	10	10'- 0"	6	9"	18'-11"	5	9"	20'- 6"	3	9"	5'- 0"	9'- 9"	6	9"	3'- 5"	8'- 7"	11'- 7"	6	7 1/2"	15'- 0"	4	10"	15'- 0"
10	4	22 3/4"	22 3/4"	8"	8"	20	20'- 0"	20	20'- 0"	2	2'- 0"	6	8"	20'- 7"	5	8"	21'- 8"	--	---	-----	-----	4	8"	3'- 2"	4'- 5"	7'- 4"	4	12"	7'- 5"	4	10"	7'- 5"
10	6	22 3/4"	22 3/4"	8"	8"	20	20'- 0"	20	20'- 0"	4	4'- 0"	6	8"	20'- 7"	5	8"	21'- 8"	--	---	-----	-----	4	8"	3'- 2"	5'- 5"	8'- 4"	5	11 1/2"	9'- 5"	4	10"	9'- 5"
10	8	22 1/2"	22 1/2"	8"	8"	20	20'- 0"	20	20'- 0"	6	6'- 0"	6	8"	20'- 7"	5	8"	21'- 8"	3	8"	4'- 4"	8'- 6"	4	8"	3'- 2"	6'- 5"	9'- 3"	6	9"	11'- 5"	4	10"	11'- 5"
10	10	22 1/4"	22 1/4"	10"	8"	20	20'- 0"	20	20'- 0"	8	8'- 0"	6	8"	20'- 8"	5	8"	22'- 0"	3	8"	4'- 9"	9'- 3"	5	8"	3'- 4"	7'- 7"	10'- 6"	5	6"	13'- 4"	4	10"	13'- 4"
10	12	22 1/4"	22 1/4"	12 1/2"	8"	20	20'- 0"	20	20'- 0"	10	10'- 0"	7	9"	20'-10"	6	9"	22'- 5"	3	9"	5'- 2"	10'- 0"	6	9"	4'- 1"	8'- 9"	12'- 5"	6	7 1/2"	15'- 4"	4	10"	15'- 4"
12	6	27 1/2"	27 1/2"	8"	8"	24	24'- 0"	24	24'- 0"	4	4'- 0"	7	9"	24'- 7"	6	9"	25'- 8"	--	---	-----	-----	4	9"	3'- 10"	5'- 10"	9'- 4"	5	10"	10'- 3"	4	8 1/2"	10'- 3"
12	8	27"	27"	8"	8"	24	24'- 0"	24	24'- 0"	6	6'- 0"	7	9"	24'- 7"	6	9"	25'- 8"	3	9"	4'- 9"	9'- 3"	4	9"	3'- 10"	6'- 9"	10'- 4"	5	5 1/2"	12'- 2"	4	8 1/2"	12'- 2"
12	10	27"	27"	9 1/2"	8"	24	24'- 0"	24	24'- 0"	8	8'- 0"	7	9"	24'- 7"	6	9"	25'-11"	3	9"	5'- 1"	10'- 0"	5	9"	4'- 0"	8'- 0"	11'- 7"	7	8"	14'- 2"	4	8 1/2"	14'- 2"
12	12	26 3/4"	26 3/4"	12"	8"	24	24'- 0"	24	24'- 0"	10	10'- 0"	7	9"	24'- 9"	6	9"	26'- 3"	3	9"	5'- 6"	10'- 9"	6	9"	4'- 1"	9'- 1"	12'- 9"	5	5"	16'- 1"	4	8 1/2"	16'- 1"

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

ROAD AND BRIDGE STANDARDS	
SHEET 1 OF 2	REVISION DATE
1003.15	07/11

DOUBLE BOX CULVERTS

30 TO 40 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE