


2016 ROAD & BRIDGE STANDARDS

BCQ-30

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

DIMENSIONS						REINFORCING STEEL																																
SPAN	HGHT	T1	T2	T3	T4	A		B		C		D		E		F		BH1			BH2			BH3			BH4			BV1		BV2						
(FT.)	(FT.)	TOP SLAB	BOTTOM SLAB	EXTERIOR WALL (IN.)	INTERIOR WALL (IN.)													SIZE	SPACING c-c	LENGTH	SIZE	SPACING c-c	LENGTH	SIZE	SPACING c-c	o	LENGTH	SIZE	SPACING c-c	o	b	LENGTH	SIZE	SPACING c-c	LENGTH	SIZE	SPACING c-c	LENGTH
3	3	8"	8"	8"	8"	13	13'- 0"	13	13'- 0"	1	1'- 0"	4	12"	13'- 11"	4	12"	15'- 0"	--	---	----	----	4	12"	2'- 4"	2'- 8"	4'- 9"	4	12"	4'- 0"	4	12"	4'- 0"	4	12"	4'- 0"			
3	4	8"	8"	8"	8"	13	13'- 0"	13	13'- 0"	2	2'- 0"	4	12"	13'- 11"	4	12"	15'- 0"	--	---	----	----	4	12"	2'- 4"	3'- 2"	5'- 3"	4	12"	5'- 0"	4	12"	5'- 0"						
4	3	8 1/2"	8 1/2"	8"	8"	17	17'- 0"	17	17'- 0"	1	1'- 0"	4	12"	17'- 11"	4	12"	19'- 0"	--	---	----	----	4	12"	2'- 4"	2'- 9"	4'- 9"	4	12"	4'- 1"	4	12"	4'- 1"						
4	4	8 1/2"	8 1/2"	8"	8"	17	17'- 0"	17	17'- 0"	2	2'- 0"	4	12"	17'- 11"	4	12"	19'- 0"	--	---	----	----	4	12"	2'- 4"	3'- 3"	5'- 3"	4	12"	5'- 1"	4	12"	5'- 1"						
4	5	8 1/2"	8 1/2"	8"	8"	17	17'- 0"	17	17'- 0"	3	3'- 0"	4	12"	17'- 11"	4	12"	19'- 0"	--	---	----	----	4	12"	2'- 4"	3'- 9"	5'- 9"	4	12"	6'- 1"	4	12"	6'- 1"						
4	6	8 1/2"	8 1/2"	8"	8"	17	17'- 0"	17	17'- 0"	4	4'- 0"	4	12"	17'- 11"	4	12"	19'- 0"	--	---	----	----	4	12"	2'- 4"	4'- 3"	6'- 3"	5	12"	7'- 1"	4	12"	7'- 1"						
5	3	10 1/4"	10 1/4"	8"	8"	21	21'- 0"	21	21'- 0"	1	1'- 0"	4	12"	21'- 11"	4	12"	23'- 0"	3	12"	2'- 6"	4'- 10"	4	12"	2'- 4"	2'- 11"	4'- 11"	4	12"	4'- 4"	4	12"	4'- 4"						
5	4	10"	10"	8"	8"	21	21'- 0"	21	21'- 0"	2	2'- 0"	4	12"	21'- 11"	4	12"	23'- 0"	3	12"	2'- 6"	4'- 10"	4	12"	2'- 4"	3'- 4"	5'- 5"	4	12"	5'- 4"	4	12"	5'- 4"						
5	5	10 1/4"	10 1/4"	8"	8"	21	21'- 0"	21	21'- 0"	3	3'- 0"	4	12"	21'- 11"	4	12"	23'- 0"	3	12"	2'- 9"	5'- 3"	4	12"	2'- 4"	3'- 11"	5'- 11"	4	12"	6'- 4"	4	12"	6'- 4"						
5	6	10"	10"	8"	8"	21	21'- 0"	21	21'- 0"	4	4'- 0"	4	12"	21'- 11"	4	12"	23'- 0"	4	12"	2'- 11"	5'- 6"	4	12"	2'- 4"	4'- 4"	6'- 5"	5	12"	7'- 4"	4	12"	7'- 4"						
5	7	10"	10"	8"	8"	21	21'- 0"	21	21'- 0"	5	5'- 0"	4	12"	21'- 11"	4	12"	23'- 0"	4	12"	3'- 1"	5'- 11"	4	12"	2'- 4"	4'- 10"	6'- 11"	5	12"	8'- 3"	4	12"	8'- 3"						
6	4	12"	12"	8"	8"	25	25'- 0"	25	25'- 0"	2	2'- 0"	4	10"	25'- 11"	4	10"	27'- 0"	--	---	----	----	4	10"	2'- 4"	3'- 6"	5'- 7"	4	12"	5'- 8"	4	12"	5'- 8"						
6	5	12 1/4"	12 1/4"	8"	8"	25	25'- 0"	25	25'- 0"	3	3'- 0"	4	10"	25'- 11"	4	10"	27'- 0"	--	---	----	----	4	10"	2'- 4"	4'- 1"	6'- 1"	4	12"	6'- 8"	4	12"	6'- 8"						
6	6	11 1/2"	11 1/2"	8"	8"	25	25'- 0"	25	25'- 0"	4	4'- 0"	4	10"	25'- 11"	4	10"	27'- 0"	--	---	----	----	4	10"	2'- 4"	4'- 6"	6'- 6"	4	12"	7'- 7"	4	12"	7'- 7"						
6	7	11 1/2"	11 1/2"	8"	8"	25	25'- 0"	25	25'- 0"	5	5'- 0"	4	10"	25'- 11"	4	10"	27'- 0"	3	10"	3'- 3"	6'- 3"	4	10"	2'- 4"	5'- 0"	7'- 0"	5	12"	8'- 6"	4	12"	8'- 6"						
6	8	11 3/4"	11 3/4"	8"	8"	25	25'- 0"	25	25'- 0"	6	6'- 0"	4	10"	25'- 8"	4	10"	27'- 0"	--	---	----	----	5	10"	2'- 6"	5'- 8"	7'- 9"	5	8 1/2"	9'- 7"	4	12"	9'- 7"						
7	4	13 1/2"	13 1/2"	8"	8"	29	29'- 0"	29	29'- 0"	2	2'- 0"	4	9"	29'- 11"	4	9"	31'- 0"	--	---	----	----	4	9"	2'- 4"	3'- 8"	5'- 8"	4	12"	5'- 11"	4	12"	5'- 11"						
7	6	13 1/2"	13 1/2"	8"	8"	29	29'- 0"	29	29'- 0"	4	4'- 0"	4	9"	29'- 11"	5	9"	31'- 0"	--	---	----	----	4	9"	2'- 4"	4'- 8"	6'- 8"	4	12"	7'- 11"	4	12"	7'- 11"						
7	8	13 3/4"	13 3/4"	8"	8"	29	29'- 0"	29	29'- 0"	6	6'- 0"	4	9"	29'- 11"	5	9"	31'- 0"	3	9"	3'- 7"	6'- 11"	4	9"	2'- 4"	5'- 8"	7'- 8"	5	9"	9'- 10"	4	12"	9'- 10"						
7	10	13 3/4"	13 3/4"	9 1/2"	8"	29	29'- 0"	29	29'- 0"	8	8'- 0"	4	9"	29'- 11"	5	9"	31'- 3"	3	9"	4'- 0"	7'- 9"	5	9"	2'- 6"	6'- 10"	8'- 11"	6	8"	11'- 10"	4	12"	11'- 10"						
8	4	15 1/2"	15 1/2"	8"	8"	33	33'- 0"	33	33'- 0"	2	2'- 0"	5	9"	33'- 11"	5	9"	35'- 0"	--	---	----	----	4	9"	2'- 9"	3'- 10"	6'- 3"	4	12"	6'- 3"	4	12"	6'- 3"						
8	6	15 1/2"	15 1/2"	8"	8"	33	33'- 0"	33	33'- 0"	4	4'- 0"	5	9"	33'- 11"	5	9"	35'- 0"	--	---	----	----	4	9"	2'- 9"	4'- 10"	7'- 3"	4	12"	8'- 3"	4	12"	8'- 3"						
8	8	15 1/4"	15 1/4"	8"	8"	33	33'- 0"	33	33'- 0"	6	6'- 0"	5	9"	33'- 11"	5	9"	35'- 0"	3	9"	3'- 9"	7'- 3"	4	9"	2'- 9"	5'- 10"	8'- 3"	5	9"	10'- 2"	4	12"	10'- 2"						
8	10	15"	15"	9 1/2"	8"	33	33'- 0"	33	33'- 0"	8	8'- 0"	5	9"	33'- 11"	5	9"	35'- 3"	3	9"	4'- 1"	8'- 0"	5	9"	2'- 11"	6'- 11"	9'- 6"	7	11 1/2"	12'- 1"	4	12"	12'- 1"						
9	4	17"	17"	8"	8"	37	37'- 0"	37	37'- 0"	2	2'- 0"	6	9"	37'- 11"	5	9"	39'- 0"	--	---	----	----	4	9"	3'- 2"	3'- 11"	6'- 10"	4	12"	6'- 6"	4	12"	6'- 6"						
9	6	17"	17"	8"	8"	37	37'- 0"	37	37'- 0"	4	4'- 0"	6	9"	37'- 11"	5	9"	39'- 0"	--	---	----	----	4	9"	3'- 2"	4'- 11"	7'- 10"	4	12"	8'- 6"	4	12"	8'- 6"						
9	8	17"	17"	8"	8"	37	37'- 0"	37	37'- 0"	6	6'- 0"	6	9"	37'- 8"	5	9"	39'- 0"	--	---	----	----	5	9"	3'- 4"	6'- 2"	9'- 1"	5	9"	10'- 6"	4	12"	10'- 6"						
9	10	17"	17"	9"	8"	37	37'- 0"	37	37'- 0"	8	8'- 0"	5	9"	37'- 7"	5	9"	39'- 1"	--	---	----	----	6	9"	3'- 0"	7'- 3"	9'- 10"	6	8"	12'- 6"	4	12"	12'- 6"						
9	12	17"	17"	11"	8"	37	37'- 0"	37	37'- 0"	10	10'- 0"	5	9"	37'- 8"	5	9"	39'- 6"	--	---	----	----	7	9"	3'- 2"	8'- 6"	11'- 2"	5	5 1/2"	14'- 6"	4	12"	14'- 6"						
10	4	18 1/2"	18 1/2"	8"	8"	41	41'- 0"	41	41'- 0"	2	2'- 0"	6	9"	41'- 11"	6	9"	43'- 0"	--	---	----	----	4	9"	3'- 2"	4'- 1"	6'- 11"	4	12"	6'- 9"	4	10 1/2"	6'- 9"						
10	6	18 1/2"	18 1/2"	8"	8"	41	41'- 0"	41	41'- 0"	4	4'- 0"	6	9"	41'- 11"	6	9"	43'- 0"	--	---	----	----	4	9"	3'- 2"	5'- 1"	7'- 11"	4	12"	8'- 9"	4	10 1/2"	8'- 9"						
10	8	18 3/4"	18 3/4"	8"	8"	41	41'- 0"	41	41'- 0"	6	6'- 0"	6	9"	41'- 11"	6	9"	43'- 0"	3	9"	4'- 0"	7'- 10"	4	9"	3'- 2"	6'- 1"	9'- 0"	5	9"	10'- 9"	4	11"	10'- 9"						
10	10	18 3/4"	18 3/4"	9"	8"	41	41'- 0"	41	41'- 0"	8	8'- 0"	6	9"	41'- 10"	6	9"	43'- 1"	3	9"	4'- 5"	8'- 8"	5	9"	3'- 4"	7'- 3"	10'- 2"	5	5"	12'- 9"	4	11"	12'- 9"						
10	12	18 3/4"	18 3/4"	11"	8"	41	41'- 0"	41	41'- 0"	10	10'- 0"	6	9"	41'- 11"	6	9"	43'- 6"	4	9"	4'- 10"	9'- 4"	6	9"	3'- 5"	8'- 5"	11'- 5"	5	5 1/2"	14'- 9"	4	11"	14'- 9"						
12	6	21 3/4"	21 3/4"	8"	8"	49	49'- 0"	49	49'- 0"	4	4'- 0"	6	8"	49'- 11"	6	8"	51'- 0"	--	---	----	----	4	8"	3'- 2"	5'- 4"	8'- 3"	4	12"	9'- 3"	4	10"	9'- 3"						
12	8	21 3/4"	21 3/4"	8"	8"	49	49'- 0"	49	49'- 0"	6	6'- 0"	6	8"	49'- 11"	6	8"	51'- 0"	3	8"	4'- 3"	8'- 4"	4	8"	3'- 2"	6'- 4"	9'- 3"	5	8 1/2"	11'- 3"	4	10"	11'- 3"						
12	10	21 3/4"	21 3/4"	8 1/2"	8"	49	49'- 0"	49	49'- 0"	8	8'- 0"	6	8"	49'- 9"	6	8"	51'- 0"	3	8"	4'- 8"	9'- 2"	5	8"	3'- 4"	7'- 6"	10'- 5"	5	5"	13'- 3"	4	10"	13'- 3"						
12	12	21 3/4"	21 3/4"	11"	8"	49	49'- 0"	49	49'- 0"	10	10'- 0"	6	8"	50'- 2"	6	8"	51'- 6"	4	8"	5'- 1"	9'- 10"	5	8"	3'- 4"	8'- 6"	11'- 5"	5	5 1/2"	15'- 3"	4	10"	15'- 3"						

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
1005.13	07/11

QUADRUPLE BOX CULVERTS
20 TO 30 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE