

CULVERT SIZE (FEET)  SPAN X RISE	1 ½ : 1 Slope				2 : 1 Slope			
	EC-3 Type B	Depth (T) (18")	Depth (T) (24")	Depth (T) (36")	EC-3 Type B	Depth (T) (18")	Depth (T) (24")	Depth (T) (36")
		Class A1	Class I	Class II		Class A1	Class I	Class II
	Sq. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Sq. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.
3 x 3	22.46	11.23	14.97	22.46	21.80	10.90	14.53	21.80
3 x 4	30.65	15.32	20.43	30.65	30.44	15.22	20.29	30.44
4 x 3	30.11	15.05	20.07	30.11	28.52	14.26	19.01	28.52
4 x 4	40.05	20.03	26.70	40.05	38.97	19.49	25.98	38.97
4 x 5	50.96	25.48	33.97	50.96	50.60	25.30	33.73	50.60
4 x 6	62.64	31.32	41.76	62.64	63.42	31.71	42.28	63.42
5 x 3	38.51	19.25	25.67	38.51	35.85	17.93	23.90	35.85
5 x 4	50.01	25.01	33.34	50.01	47.63	23.81	31.75	47.63
5 x 5	62.57	31.28	41.71	62.57	60.77	30.38	40.51	60.77
5 x 6	75.95	37.97	50.63	75.95	75.09	37.55	50.06	75.09
5 x 7	90.33	45.17	60.22	90.33	90.41	45.20	60.27	90.41
6 x 4	60.86	30.43	40.57	60.86	57.11	28.55	38.07	57.11
6 x 5	74.94	37.47	49.96	74.94	71.60	35.80	47.73	71.60
6 x 6	90.03	45.02	60.02	90.03	87.42	43.71	58.28	87.42
6 x 7	104.73	52.37	69.82	104.73	104.27	52.13	69.51	104.27
6 x 8	122.67	61.34	81.78	122.67	122.37	61.19	81.58	122.37
7 x 4	72.39	36.20	48.26	72.39	67.28	33.64	44.85	67.28
7 x 6	104.90	52.45	69.93	104.90	100.37	50.18	66.91	100.37
7 x 8	141.17	70.58	94.11	141.17	138.36	69.18	92.24	138.36
7 x 10	180.48	90.24	120.32	180.48	180.26	90.13	120.17	180.26
8 x 4	84.72	42.36	56.48	84.72	78.14	39.07	52.09	78.14
8 x 6	120.54	60.27	80.36	120.54	114.00	57.00	76.00	114.00
8 x 8	160.23	80.12	106.82	160.23	155.63	77.81	103.75	155.63
8 x 10	203.22	101.61	135.48	203.22	189.74	94.87	126.49	189.74
9 x 4	97.80	48.90	65.20	97.80	89.64	44.82	59.76	89.64
9 x 6	137.13	68.57	91.42	137.13	128.49	64.25	85.66	128.49
9 x 8	173.73	86.87	115.82	173.73	172.73	86.36	115.15	172.73
9 x 10	226.20	113.10	150.80	226.20	233.46	116.73	155.64	233.46
9 x 12	275.97	137.99	183.98	275.97	315.14	157.57	210.09	315.14
10 x 4	111.65	55.82	74.43	111.65	101.81	50.90	67.87	101.81
10 x 6	154.46	77.23	102.97	154.46	143.64	71.82	95.76	143.64
10 x 8	200.07	100.04	133.38	200.07	190.59	95.30	127.06	190.59
10 x 10	250.41	125.21	166.94	250.41	243.12	121.56	162.08	243.12
10 x 12	304.07	152.03	202.71	304.07	300.12	150.06	200.08	300.12
12 x 6	190.32	95.16	126.88	190.32	176.52	88.26	117.68	176.52
12 x 8	243.35	121.67	162.23	243.35	228.20	114.10	152.13	228.20
12 x 10	299.91	149.96	199.94	299.91	286.68	143.34	191.12	286.68
12 x 12	360.83	180.41	240.55	360.83	350.34	175.17	233.56	350.34

**TABLE D-19 CULVERT OUTLET PROTECTION FOR BOX CULVERT ST'D BCS-02 THRU BCS-50 (45° SKEW)**

Quantities To Be Used Only For Computations of Dry Rip Rap For Outlet Protection.\*

\* Rev. 7/10