

CULVERT SIZE (FEET) SPAN X RISE	1 ½ : 1 Slope No Skew				1 ½ : 1 Slope 15° Skew			
	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	5.84	2.92	3.89	5.84	5.97	2.99	3.98	5.97
3 x 4	7.29	3.65	4.86	7.29	7.47	3.74	4.98	7.47
4 x 3	8.22	4.11	5.48	8.22	8.40	4.20	5.60	8.40
4 x 4	9.78	4.89	6.52	9.78	10.01	5.00	6.67	10.01
4 x 5	11.34	5.67	7.56	11.34	11.61	5.81	7.74	11.61
4 x 6	12.89	6.44	8.59	12.89	13.22	6.61	8.81	13.22
5 x 3	11.22	5.61	7.48	11.22	11.42	5.71	7.61	11.42
5 x 4	13.10	6.55	8.73	13.10	13.38	6.69	8.92	13.38
5 x 5	15.00	7.50	10.00	15.00	15.33	7.67	10.22	15.33
5 x 6	16.89	8.45	11.26	16.89	17.30	8.65	11.53	17.30
5 x 7	18.78	9.39	12.52	18.78	19.23	9.62	12.82	19.23
6 x 4	16.89	8.45	11.26	16.89	17.21	8.60	11.47	17.21
6 x 5	19.23	9.62	12.82	19.23	19.62	9.81	13.08	19.62
6 x 6	21.69	10.85	14.46	21.69	22.16	11.08	14.77	22.16
6 x 7	24.15	12.08	16.10	24.15	24.69	12.35	16.46	24.69
6 x 8	25.77	12.89	17.18	25.77	26.40	13.20	17.60	26.40
7 x 4	21.11	10.55	14.07	21.11	21.47	10.73	14.31	21.47
7 x 6	26.40	13.20	17.60	26.40	26.94	13.47	17.96	26.94
7 x 8	31.98	15.99	21.32	31.98	32.70	16.35	21.80	32.70
7 x 10	37.56	18.78	25.04	37.56	38.46	19.23	25.64	38.46
8 x 4	25.77	12.89	17.18	25.77	26.19	13.10	17.46	26.19
8 x 6	31.55	15.77	21.03	31.55	32.18	16.09	21.45	32.18
8 x 8	37.32	18.66	24.88	37.32	38.15	19.07	25.43	38.15
8 x 10	43.11	21.56	28.74	43.11	44.13	22.07	29.42	44.13
9 x 4	30.90	15.45	20.60	30.90	31.35	15.68	20.90	31.35
9 x 6	37.34	18.67	24.89	37.34	38.03	19.01	25.35	38.03
9 x 8	43.76	21.88	29.17	43.76	44.69	22.34	29.79	44.69
9 x 10	51.00	25.50	34.00	51.00	52.13	26.06	34.75	52.13
9 x 12	57.92	28.96	38.61	57.92	59.28	29.64	39.52	59.28
10 x 4	36.44	18.22	24.29	36.44	36.95	18.47	24.63	36.95
10 x 6	43.56	21.78	29.04	43.56	44.31	22.16	29.54	44.31
10 x 8	50.67	25.34	33.78	50.67	51.68	25.84	34.45	51.68
10 x 10	57.77	28.88	38.51	57.77	59.03	29.51	39.35	59.03
10 x 12	64.88	32.44	43.25	64.88	66.39	33.20	44.26	66.39
12 x 6	57.33	28.67	38.22	57.33	58.22	29.11	38.81	58.22
12 x 8	65.78	32.89	43.85	65.78	66.96	33.48	44.64	66.96
12 x 10	74.22	37.11	49.48	74.22	75.71	37.85	50.47	75.71
12 x 12	82.67	41.33	55.11	82.67	84.45	42.23	56.30	84.45

**TABLE D-20 CULVERT OUTLET PROTECTION FOR MULTIPLE BOX CULVERT
(INCREMENTS FOR EACH ADDITIONAL BARREL)**

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

* Rev. 7/10