APPROXIMATE QUANTITIES

PIPE SIZE	2:1 SLOPE				3:1 SLOPE				4:1 SLOPE				5:1 SLOPE				6:1 SLOPE			
	Concrete, Cu. Yds.		Reinf. Steel, lb.	Str. Steel, lb.	Concrete, Cu. Yds.		Reinf. Steel, lb.	Str. Steel, lb.	Concrete, Cu. Yds.		Reinf. Steel, lb.	Str. Steel, lb.	Concrete, Cu. Yds.		Reinf. Steel, lb.	Str. Steel, lb.	Concrete, Cu. Yds.		Reinf. Steel, lb.	Str. Steel, lb.
	Conc. Pipe	C.M. Pipe			Conc. Pipe	C.M. Pipe			Conc. Pipe	C.M. Pipe			Conc. Pipe	C.M. Pipe			Conc. Pipe	C.M. Pipe		
17 x 13	–	1.0	260	75	–	1.2	335	150	–	1.5	415	180	–	1.8	490	210	–	2.1	565	290
21 x 15	–	1.1	280	80	–	1.3	360	160	–	1.6	445	190	–	1.9	530	220	–	2.3	615	300
24 x 18	–	1.4	360	170	–	1.8	465	235	–	2.2	570	370	–	2.6	680	440	–	3.1	790	505
28 x 20	–	1.5	375	180	–	1.9	495	245	–	2.4	610	390	–	2.8	730	460	–	3.3	845	530
35 x 24	–	2.0	475	300	–	2.6	625	410	–	3.2	775	525	–	3.8	925	740	–	4.4	1075	860
42 x 29	–	2.2	535	335	–	2.9	710	460	–	3.6	885	685	–	4.4	1060	820	–	5.1	1240	955
49 x 33	–	2.8	645	360	–	3.7	860	500	–	4.6	1075	750	–	5.5	1290	900	–	6.4	1505	1045
57 x 38	–	3.0	710	395	–	4.1	955	655	–	5.2	1205	815	–	6.2	1450	980	–	7.3	1700	1140
64 x 43	–	3.8	855	575	–	5.1	1155	925	–	6.4	1450	1160	–	7.8	1755	1400	–	9.1	2055	1760
71 x 47	–	4.0	910	610	–	5.5	1235	980	–	7.0	1565	1225	–	8.4	1895	1480	–	9.9	2225	1865

DIMENSIONS

Slope	A	B	C	D	E	F
2:1	0′–9″	0′–8″	0′–6 1/2″	0′–8 1/2″	0′–0 3/4″	0′–0 7/8″
3:1	1′–0 5/8″	1′–0″	0′–5 1/2″	0′–6 7/8″	0′–1 1/8″	0′–1 1/8″
4:1	1′–4 1/2″	1′–4″	0′–5 1/8″	0′–6 1/8″	0′–1 1/2″	0′–1 1/2″
5:1	1′–8 3/8″	1′–8″	0′–4 7/8″	0′–5 5/8″	0′–1 7/8″	0′–1 7/8″
6:1	2′–0 3/8″	2′–0″	0′–4 3/4″	0′–5 3/8″	0′–2 1/4″	0′–2 1/4″

INDIANA DEPARTMENT OF TRANSPORTATION

GRATED BOX END SECTION TYPE I
DIMENSIONS AND QUANTITIES

JANUARY 1999

STANDARD DRAWING NO. **E 715–GBTO–08**

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

DETAILS PLACED IN THIS FORMAT 11-15-99

/s/ Anthony L. Uremovich 11-15-99
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 11-15-99
CHIEF HIGHWAY ENGINEER DATE

ORIGINALLY APPROVED 1-04-99