

**APPROXIMATE QUANTITIES**

PIPE SIZE	2:1 SLOPE				3:1 SLOPE				4:1 SLOPE				5:1 SLOPE				6:1 SLOPE			
	Concrete, m <sup>3</sup>		Reinf. Steel, kg	Str. Steel, kg	Concrete, m <sup>3</sup>		Reinf. Steel, kg	Str. Steel, kg	Concrete, m <sup>3</sup>		Reinf. Steel, kg	Str. Steel, kg	Concrete, m <sup>3</sup>		Reinf. Steel, kg	Str. Steel, kg	Concrete, m <sup>3</sup>		Reinf. Steel, kg	Str. Steel, kg
	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		
430 x 330	-	0.8	120	30	-	0.9	150	70	-	1.1	190	80	-	1.4	220	100	-	1.6	260	130
530 x 380	-	0.8	130	40	-	1.0	160	70	-	1.2	200	90	-	1.5	240	100	-	1.8	280	140
610 x 460	-	1.1	160	80	-	1.4	210	110	-	1.7	260	170	-	2.0	310	200	-	2.4	360	230
710 x 510	-	1.1	170	80	-	1.4	220	110	-	1.8	280	180	-	2.1	330	210	-	2.5	380	240
885 x 610	-	1.5	220	140	-	2.0	280	190	-	2.4	350	240	-	2.9	420	340	-	3.4	490	390
1060 x 740	-	1.6	240	150	-	2.2	320	210	-	2.7	400	310	-	3.4	480	370	-	3.9	560	430
1240 x 840	-	2.1	290	160	-	2.8	390	230	-	3.5	490	340	-	4.2	590	410	-	4.9	680	470
1440 x 970	-	2.3	320	180	-	3.1	430	300	-	4.0	550	370	-	4.7	660	440	-	5.6	770	520
1620 x 1100	-	2.9	390	260	-	3.9	520	420	-	4.9	660	530	-	6.0	800	640	-	7.0	930	800
1800 x 1200	-	3.0	410	280	-	4.2	560	440	-	5.4	710	560	-	6.4	860	670	-	7.6	1010	850

**DIMENSIONS**

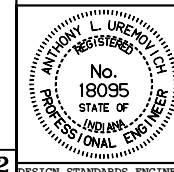
Slope	A	B	C	D	E	F
2:1	230	200	170	210	20	20
3:1	320	310	140	170	30	30
4:1	420	410	130	150	40	40
5:1	520	510	120	150	50	50
6:1	620	610	120	150	60	60

All dimensions are in mm unless otherwise specified.

**INDIANA DEPARTMENT OF TRANSPORTATION  
GRATED BOX END SECTION TYPE I  
DIMENSIONS AND QUANTITIES**

JANUARY 1999

STANDARD DRAWING NO. **715-GBTO-08**



/s/ Anthony L. Uremovich 1-04-99  
DESIGN STANDARDS ENGINEER DATE

/s/ Donald W. Lucas 1-04-99  
CHIEF HIGHWAY ENGINEER DATE

**Source Sheet: GBES 2**