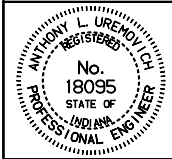


| 5:1 SLOPE | | | | | | | | | | |
|-----------|--------|---------|-------|-----------------------|-----|------------------------|------------|----------------------|------------------------|--------|
| Pipe Size | H | L | W | Longitudinal Pipe | | | Cross Tube | | | |
| | | | | S | No. | Length | No. | Length | S 1 | S 2 |
| 17 x 13 | 1'-9" | 8'-9" | 2'-0" | 8'-11 $\frac{1}{2}$ " | 1 | 10'-11 $\frac{1}{2}$ " | 1 | 2'-7 $\frac{1}{2}$ " | 6'-1 $\frac{1}{2}$ " | 4'-6" |
| 21 x 15 | 1'-11" | 9'-7" | 2'-0" | 9'-9 $\frac{1}{4}$ " | 1 | 11'-9 $\frac{3}{8}$ " | 1 | 2'-7 $\frac{1}{2}$ " | 6'-8 $\frac{1}{4}$ " | 4'-9" |
| 24 x 18 | 2'-2" | 10'-10" | 3'-0" | 11'-0 $\frac{3}{8}$ " | 2 | 13'-1" | 1 | 3'-7 $\frac{1}{2}$ " | 8'-8 $\frac{3}{8}$ " | 4'-0" |
| 28 x 20 | 2'-4" | 11'-6" | 3'-0" | 11'-0 $\frac{3}{4}$ " | 2 | 13'-11 $\frac{1}{8}$ " | 1 | 3'-7 $\frac{1}{2}$ " | 9'-6 $\frac{3}{4}$ " | 4'-0" |
| 35 x 24 | 2'-8" | 13'-4" | 4'-0" | 13'-7 $\frac{3}{8}$ " | 3 | 15'-7 $\frac{1}{2}$ " | 1 | 4'-7 $\frac{1}{2}$ " | 12'-3 $\frac{3}{8}$ " | 3'-0" |
| 42 x 29 | 3'-1" | 15'-5" | 4'-0" | 15'-8 $\frac{3}{8}$ " | 3 | 17'-9" | 1 | 4'-7 $\frac{1}{2}$ " | 12'-10 $\frac{3}{8}$ " | 4'-6" |
| 49 x 33 | 3'-5" | 17'-1" | 5'-0" | 17'-5 $\frac{1}{2}$ " | 3 | 19'-5 $\frac{1}{2}$ " | 1 | 5'-7 $\frac{1}{2}$ " | 13'-1" | 6'-0" |
| 57 x 38 | 3'-10" | 19'-2" | 5'-0" | 19'-6 $\frac{1}{2}$ " | 3 | 21'-6 $\frac{1}{2}$ " | 1 | 5'-7 $\frac{1}{2}$ " | 13'-2 $\frac{1}{2}$ " | 8'-0" |
| 64 x 43 | 4'-3" | 21'-3" | 6'-0" | 21'-8" | 4 | 23'-8 $\frac{3}{8}$ " | 1 | 6'-7 $\frac{1}{2}$ " | 12'-10" | 10'-6" |
| 71 x 47 | 4'-7" | 22'-11" | 6'-0" | 23'-4 $\frac{3}{8}$ " | 4 | 25'-4 $\frac{1}{2}$ " | 1 | 6'-7 $\frac{1}{2}$ " | 13'-6 $\frac{3}{8}$ " | 11'-6" |

| 6:1 SLOPE | | | | | | | | | | |
|-----------|--------|--------|-------|------------------------|-----|-----------------------|------------|----------------------|-----------------------|--------|
| Pipe Size | H | L | W | Longitudinal Pipe | | | Cross Tube | | | |
| | | | | S | No. | Length | No. | Length | S 1 | S 2 |
| 17 x 13 | 1'-9" | 10'-6" | 2'-0" | 10'-7 $\frac{3}{4}$ " | 1 | 13'-0" | 2 | 2'-7 $\frac{1}{2}$ " | 6'-7 $\frac{3}{4}$ " | 3'-0" |
| 21 x 15 | 1'-11" | 11'-6" | 2'-0" | 11'-7 $\frac{1}{8}$ " | 1 | 14'-0 $\frac{1}{8}$ " | 2 | 2'-7 $\frac{1}{2}$ " | 6'-1 $\frac{1}{8}$ " | 3'-9" |
| 24 x 18 | 2'-2" | 13'-0" | 3'-0" | 13'-2 $\frac{1}{4}$ " | 2 | 15'-6 $\frac{1}{8}$ " | 1 | 3'-7 $\frac{1}{2}$ " | 9'-8 $\frac{1}{4}$ " | 5'-6" |
| 28 x 20 | 2'-4" | 14'-0" | 3'-0" | 14'-2 $\frac{1}{4}$ " | 2 | 16'-6 $\frac{1}{2}$ " | 1 | 3'-7 $\frac{1}{2}$ " | 9'-8 $\frac{1}{4}$ " | 6'-6" |
| 35 x 24 | 2'-5" | 16'-0" | 4'-0" | 16'-2 $\frac{3}{8}$ " | 3 | 18'-6 $\frac{1}{4}$ " | 1 | 4'-7 $\frac{1}{2}$ " | 13'-2 $\frac{3}{8}$ " | 5'-0" |
| 42 x 29 | 3'-1" | 18'-6" | 4'-0" | 18'-9" | 3 | 21'-1 $\frac{1}{4}$ " | 1 | 4'-7 $\frac{1}{2}$ " | 13'-6" | 7'-3" |
| 49 x 33 | 3'-5" | 20'-6" | 5'-0" | 20'-9 $\frac{3}{8}$ " | 3 | 23'-1 $\frac{3}{8}$ " | 1 | 5'-7 $\frac{1}{2}$ " | 13'-3 $\frac{3}{8}$ " | 9'-6" |
| 57 x 38 | 3'-10" | 23'-0" | 5'-0" | 23'-3 $\frac{3}{4}$ " | 3 | 25'-8" | 1 | 5'-7 $\frac{1}{2}$ " | 13'-9 $\frac{3}{4}$ " | 11'-6" |
| 64 x 43 | 4'-3" | 25'-6" | 6'-0" | 25'-10 $\frac{1}{4}$ " | 4 | 28'-2 $\frac{1}{2}$ " | 2 | 6'-7 $\frac{1}{2}$ " | 13'-4 $\frac{1}{4}$ " | 7'-3" |
| 71 x 47 | 4'-7" | 27'-6" | 6'-0" | 27'-10 $\frac{3}{4}$ " | 4 | 30'-2 $\frac{3}{4}$ " | 2 | 6'-7 $\frac{1}{2}$ " | 13'-4 $\frac{1}{2}$ " | 8'-3" |

INDIANA DEPARTMENT OF TRANSPORTATION
GRATED BOX END SECTION
TYPE I DIMENSIONS
 JANUARY 1999
 STANDARD DRAWING NO. E 715-GBTO-07

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
 DESIGN STANDARDS ENGINEER ORIGINALLY APPROVED 1-04-99