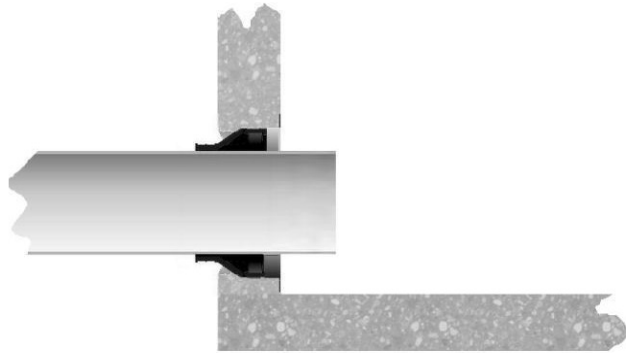
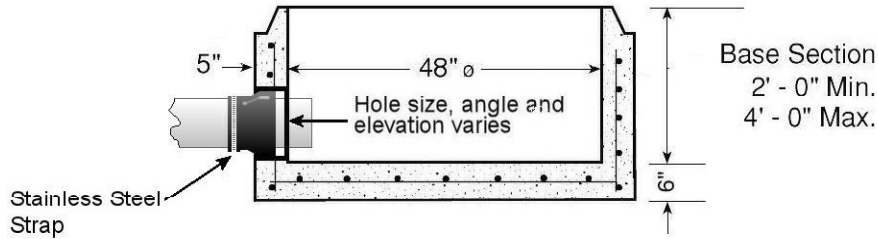


**Precast Sanitary or Storm Structures**  
with Pipe to Manhole Connectors (boots)



**-No Scale-**  
All dimensions subject to allowable specification tolerances.

WALLS TO MEET/EXCEED  
**ASTM C-478**

THE MINIMUM STRENGTH OF THE CONCRETE IN THE BASE AND RISER SECTIONS SHALL BE 4000 P.S.I. AFTER 28 DAYS. THE MINIMUM WALL THICKNESS SHALL BE ONE-TWELTH OF THE INTERNAL DIAMETER OF THE RISER. THE CIRCUMFERENTIAL REINFORCEMENT IN BASE SECTIONS AND RISERS MAY CONSIST OF EITHER ONE OR TWO LINES OF STEEL. THE TOTAL AREA OF STEEL PER VERTICAL FOOT SHALL BE NOT LESS THAN .0025 TIMES THE INSIDE DIAMETER IN INCHES. BASE SLABS OR FLOORS SHALL BE REINFORCED WITH A LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 in. SQUARED / LINEAR FOOT IN BOTH DIRECTIONS.

**Materials**

CONCRETE: 4,500 PSI  
(State of IL Specification)

WALL REINFORCING:  
per ASTM C-478 Standard.

BOTTOM SLAB REINFORCING  
#4 @ 12" O.C.E.W.

Unit Weights		
Wt./ Vert. Ft.	876	lbs.
Base Bottom	955	lbs.
Wall Thickness	5	in.

Pipe to Manhole Connectors (boots) meet or exceed ASTM C-923 including physical properties of materials and performance testing.  
See Boot Submittal for details.

**VOLLMAR**  
CLAY PRODUCTS COMPANY  
1-773-774-1234

TITLE

**48" Diameter Manhole with Boots**