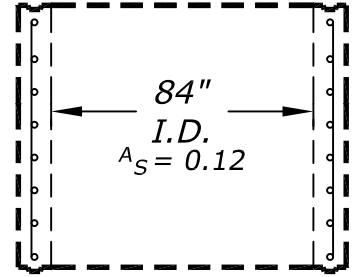


**STRUCTURAL REINFORCEMENT DATA:**

\* ASTM A82, ASTM A 185  
 ASTM A496, ASTM A 615  
 ALL ACCEPTABLE STEEL  
 REINFORCING.

$A_s$  = NOT LESS THAN  
 0.0025 X I.D. IN  
 INCHES FOR ALL  
 CIRCUMFERENTIAL  
 REINFORCEMENT.

\* STEEL CAGE TO BE PLACED  
 IN THE CENTER THIRD OF  
 MANHOLE WALL THICKNESS.



84" I.D.

STEEL REBAR CAGE DESIGN = #3 REBAR  
 CIRCUMFERENTIALS @ 6" VERTICAL CENTERS.  
 #2 REBAR VERTICALS (10 EA.) PLACED TO  
 HOLD CAGE RIGID. = MINIMUM 0.15/VFT  
 CONCRETE: MIN 4000 psi @ 28 DAYS.

**DESIGN NOTES:**

1) LOAD CRITERIA:

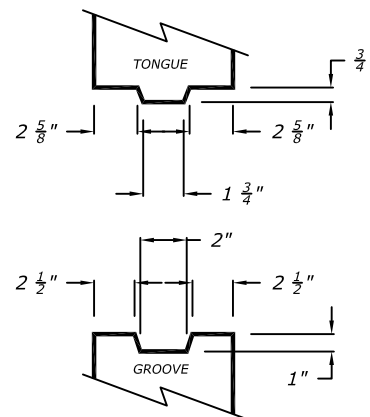
- AASHTO H-20 TRAFFIC LOADING (16,000 LBS. WHEEL LOAD) \*FOR MANHOLES & RING & COVERS.
- INCIDENTAL H-20 TRAFFIC LOADING (OCCASIONAL TRAFFIC, OFF STREET LOCATIONS)
- PARKWAY LOADING (300 LBS./SQ. FT.)
- H-20 SURCHARGE AND LATERAL EARTH PRESSURE. \* FOR PRECAST MANHOLES.

2) CONCRETE COMPRESSIVE STRENGTH: 4500 PSI @ 28 DAYS.

3) STEEL REINFORCING YIELD STRENGTH  $F_y$  = 60,000 PSI PER ASTM A-615.

4) ALL JOINTS TO BE SEALED USING FLEXIBLE GASKET MATERIAL (RAMNECK).

5) ALL MANHOLES MADE IN ACCORDANCE WITH ASTM C-478.



**JOINT DETAIL (8" WALL)**

MORTAR OR MASTIC  
 JOINT AVAILABLE



**NOTE:**  
 1. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.

