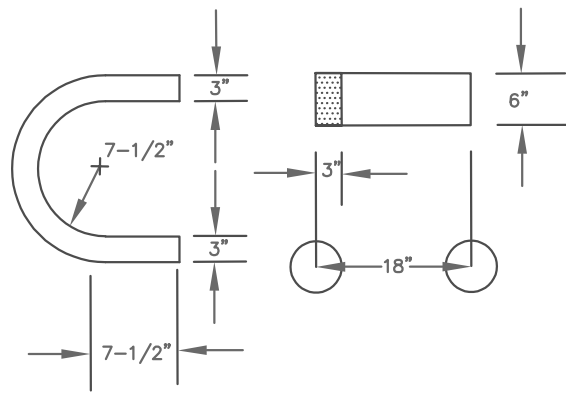


**HORSESHOE DETAILS**



NEENAH MANHOLE FRAME AND CASTING R-1642, SELF SEALING B LID, WITH SOLID COVER AND TWO CONCEALED PICK HOLES OR APPROVED EQUAL. LID SHALL BE LABELED "SANITARY SEWER" WITH 2" RAISED LETTERS

IF USING CONCRETE ADJUSTING RINGS AN ALIGNMENT OR INFLOW & INFILTRATION BARRIER MUST BE INSTALLED AS PER STANDARD PLATE SS-17. CONCRETE ADJUSTMENT RINGS SHALL BE SEALED TO THE CASTING, AND ONE ANOTHER BY USING A PREPACKAGED MOTOR MIX OR MFG SPECIFIED MIX FOR NON-CONCRETE RINGS. TOTAL ADJUSTMENT MINIMUM 4" MAX 14".

PRECAST REINFORCED ECCENTRIC CONE & RISER SECTIONS AS CONFORMING TO ASTM C478.

JOINTS BETWEEN PRECAST SECTIONS SHALL USE PRELUBRICATED PROFILE RUBBER GASKETS CONFORMING TO ASTM C443.

MANHOLE STEPS, NEENAH R-1981-N OR APPROVED EQUAL, 16" ON CENTER. COPOLYMER POLYPROPYLENE PLASTIC (PSI-PF) AND ALUMINUM STEPS APPROVED.

JOINTS OF PRECAST SECTIONS SHALL BE WRAPPED IN 20" HEAVY DUTY 80 GAUGE STRETCH WRAP A MINIMUM OF 4 LAYERS.

POSITIVE MECHANICAL SEAL STAINLESS STEEL EXTERNAL CLAMP WITH DRAW NUTS AND BOLTS (KOR-N-SEAL BOOT BY NPC OR APPROVED EQUAL).

MINIMUM SLAB THICKNESS IS 6" FOR 14' DEPTH. INCREASE THICKNESS 1" FOR EVERY 4' OF DEPTH GREATER THAN 14'. REINFORCE AS PER MN/DOT STD PLATE 4011.

TEE AND 90 DEGREE BEND SHALL BE DIP.

FULL LENGTH OF DIP PIPE

END OF PVC TO BEAR ON UNDISTURBED SOIL.

DIP PIPE AND FITTINGS TO BE USED FOR DROP SECTION. DROP SECTION PIPE SIZE TO BE EQUIVALENT TO INLET PIPE SIZE.

INSTALL HORSESHOES AROUND DROP AND FILL WITH MIXED CONCRETE MORTAR OR DRY MIX AROUND ALL SIDES.

VARIES (SEE PLAN)

2"/FOOT

**NOTES:**

ALL WATER TIGHT PIPE CONNECTIONS SHALL CONFORM TO ASTM C923 FOR CONNECTIONS BETWEEN MAINTENANCE HOLE STRUCTURES AND PIPES.

POSITIVE MECHANICAL SEALS SHALL BE KOR-N-SEAL FOR PIPES 24" AND SMALLER. GREATER THAN 24" SHALL BE A-LOK X-CEL.

PRECAST INVERT SHOULD BE 1/2 Ø OF PIPE SLOPED 2" TOWARD INVERT

MANHOLE TO BE LINED WITH ZEBRON OR SPECTRASHIELD LINER SYSTEM



LAST REVISION  
JANUARY 2021

**SANITARY MANHOLE  
OUTSIDE DROP SECTION**

CITY OF MAPLE GROVE ENGINEERING  
& PUBLIC WORKS DEPARTMENTS

STANDARD  
PLATE #  
SS-16