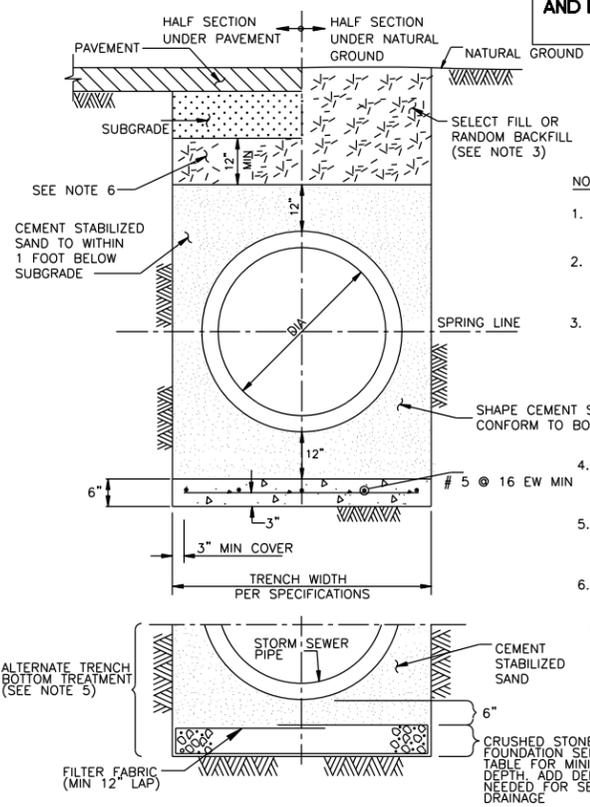
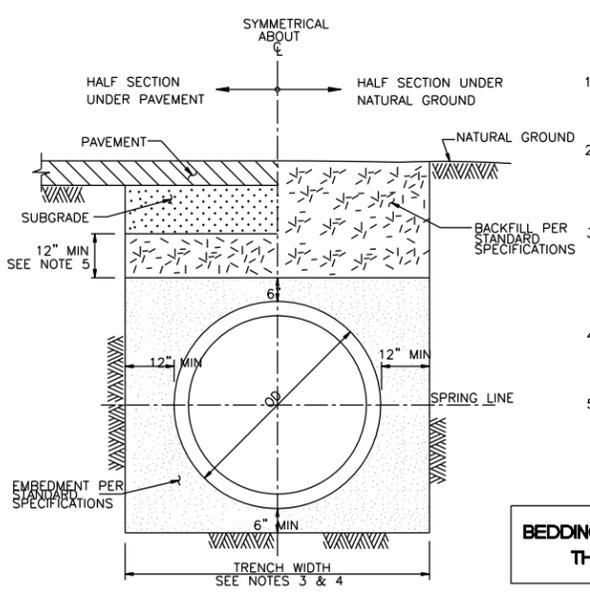


BACKFILL FOR 42" DIAMETER RCP STORM SEWER BEDDING AND LARGER WHERE UNSATISFACTORY SOIL CONDITIONS EXIST



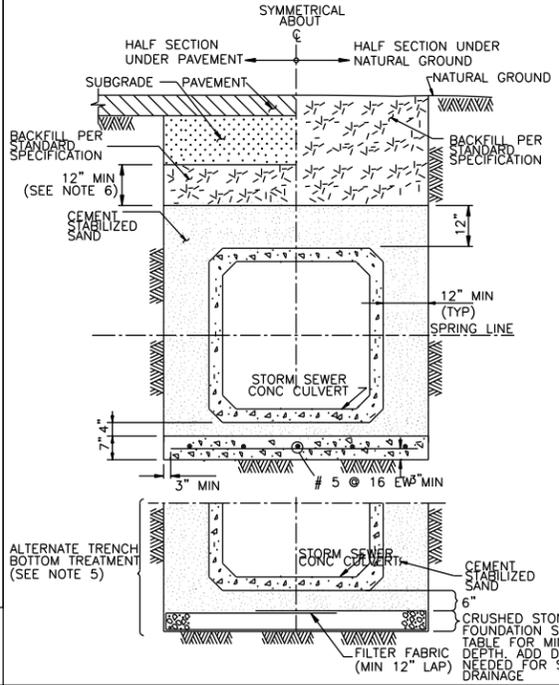
- NOTES:**
1. REINFORCED CONCRETE SLAB, PIPE AND BEDDING TO BE PLACED IN DRY TRENCH ONLY.
 2. CONCRETE IN SLAB TO REACH MIN COMPRESSIVE STRENGTH OF 1000 PSI BASED ON MAX DESIGN BEFORE PIPE IS LAID.
 3. THE METHOD OF INSTALLING CONCRETE PIPE STORM SEWERS SHOWN SHALL BE USED FOR ALL LOCATIONS WHERE SOIL CONDITIONS DO NOT CONFORM TO REQUIREMENTS SPECIFIED IN STANDARD DETAIL.
 4. MONOLITHIC REINFORCED CONCRETE STORM SEWERS, PER STANDARD DETAIL MAY BE CONSTRUCTED IN LIEU OF RCP STORM SEWERS INSTALLED AS SHOWN HEREON.
 5. ALTERNATE TRENCH BOTTOM TREATMENT MAY BE USED AS APPROVED BY THE AGENCY ENGINEER AND AS PAID FOR IN THE PROPOSAL.
 6. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

PIPE SIZE (IN)	FOUNDATION DEPTH (IN)
42 TO 72	12
78 AND LARGER	18

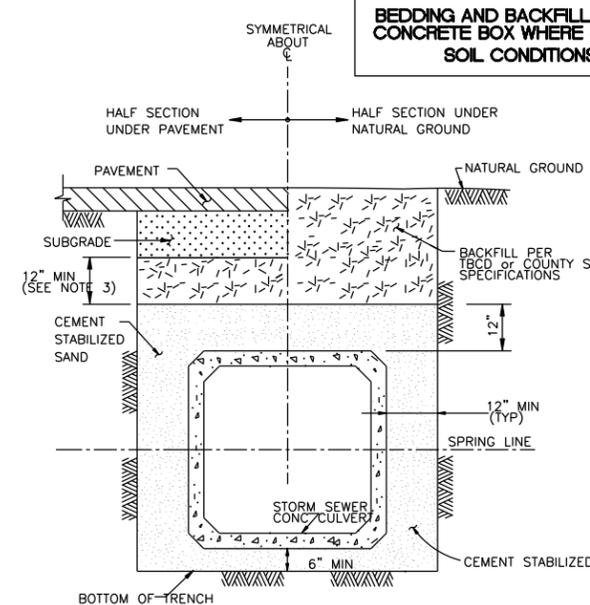


BEDDING AND BACKFILL FOR LESS THAN 24" DIAMETER RCP

- NOTES:**
1. WHERE SOIL CONDITIONS REQUIRE, THE ENGINEER MAY ORDER USE OF GRANULAR MATERIAL IN LIEU OF CEMENT STABILIZED SAND BEDDING.
 2. WHERE WET SAND IS ENCOUNTERED, REINFORCED CONCRETE PIPE SEWERS SHALL BE CONSTRUCTED USING APPROVED SPECIAL DESIGN AS SHOWN ON DRAWINGS.
 3. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:
NOMINAL PIPE SIZE "A"
LESS THAN 18" 18"
 4. MAX TRENCH WIDTH SHALL NOT BE GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
 5. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.



BEDDING AND BACKFILL FOR PRECAST CONCRETE BOX WHERE SATISFACTORY SOIL CONDITIONS EXIST



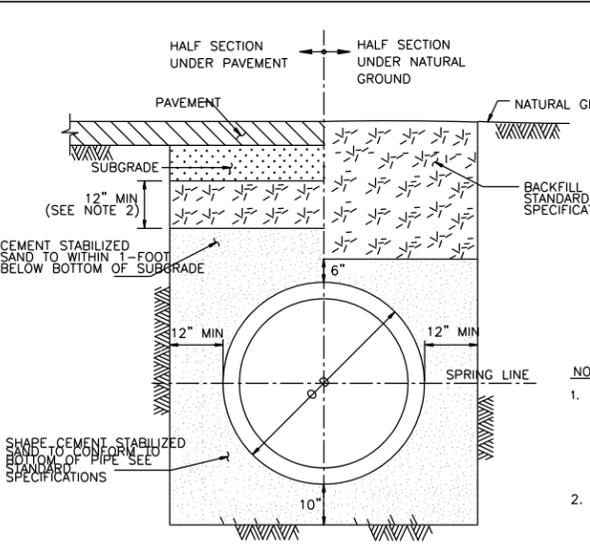
- NOTES:**
1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
 2. THIS DETAIL TO BE USED ONLY WHERE SOIL CONDITIONS ARE SATISFACTORY.
 3. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

- NOTES:**
1. REINFORCED CONCRETE SLAB TO BE POURED IN DRY TRENCH ONLY.
 2. CONCRETE SLAB TO REACH MIN COMPRESSIVE STRENGTH OF 1000 PSI BASED ON MIX DESIGN BEFORE BOX IS LAID.
 3. WHERE MULTIPLE BOX SEWERS ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
 4. THIS BEDDING DETAIL TO BE USED FOR ALL LOCATIONS WHERE SOIL CONDITIONS DO NOT CONFORM TO FOLLOWING REQUIREMENTS:
A. STRATA FROM SPRING LINE (CENTER) TO 3 FT. BELOW THE FLOWLINE OF THE BOX TO CONSIST OF NON-WATERBEARING COHESIVE SOIL HAVING A SHEAR STRENGTH OF 1000 PSF OR GREATER.
B. NO WET SAND STRATA TO EXIST IN THE AREA FROM 1 FT. ABOVE THE TOP OF THE BOX TO 3 FT. BELOW THE FLOW LINE.
 5. ALTERNATE TRENCH BOTTOM TREATMENT MAY BE USED AS APPROVED BY THE ENGINEER AND AS PAID FOR IN THE PROPOSAL.

CULVERT SIZE (FT)	FOUNDATION DEPTH (IN)
3' x 2' TO 6' x 6'	12
6' x 6' AND LARGER	18

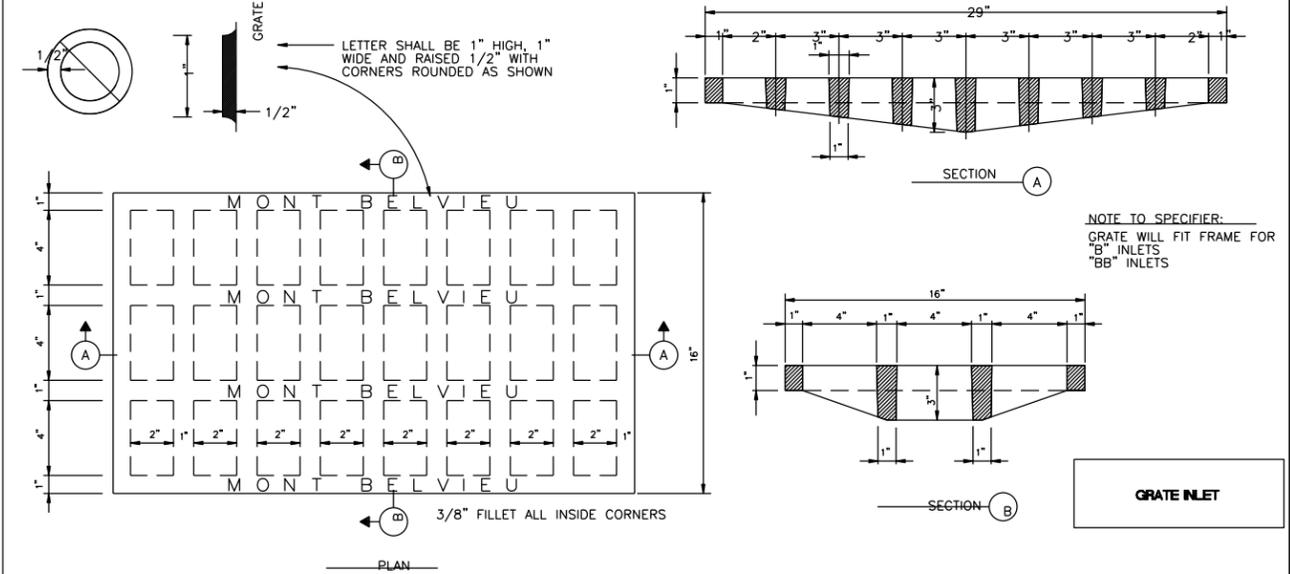
6. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

BEDDING AND BACKFILL FOR PRECAST CONCRETE BOX WHERE UNSATISFACTORY SOIL CONDITIONS EXIST



BEDDING AND BACKFILL FOR 24" TO 36" DIAMETER RCP WHERE SATISFACTORY SOIL CONDITIONS EXIST

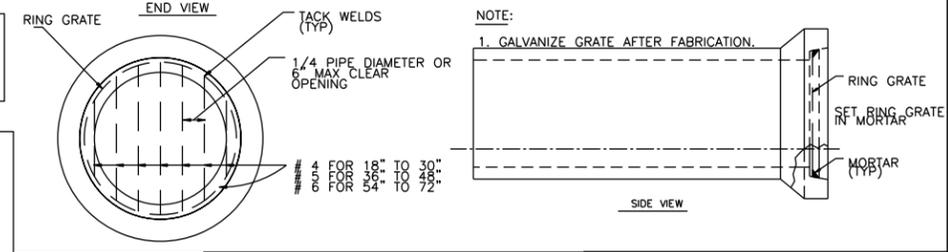
- NOTES:**
1. THE METHOD OF INSTALLING CONCRETE PIPE STORM SEWERS SHOWN HEREON TO BE USED ONLY WHERE SOIL CONDITIONS ARE SATISFACTORY.
 - FOR ALL OTHER SOIL CONDITIONS USE RCP INSTALLED PER SPECIAL DESIGN AS APPROVED BY AGENCY ENGINEER.
 - SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.



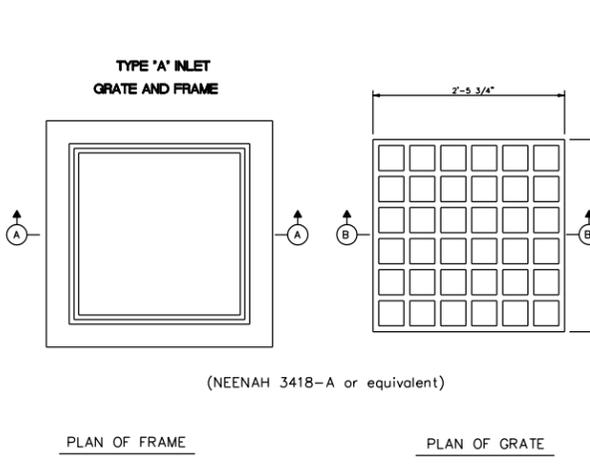
NOTE TO SPECIFIER: GRATE WILL FIT FRAME FOR "B" INLETS "BB" INLETS

GRATE INLET

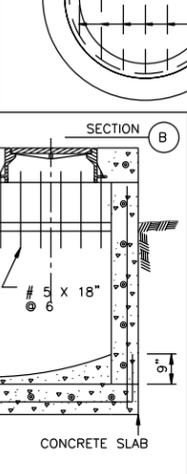
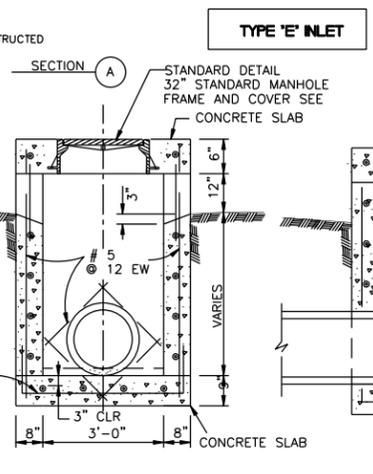
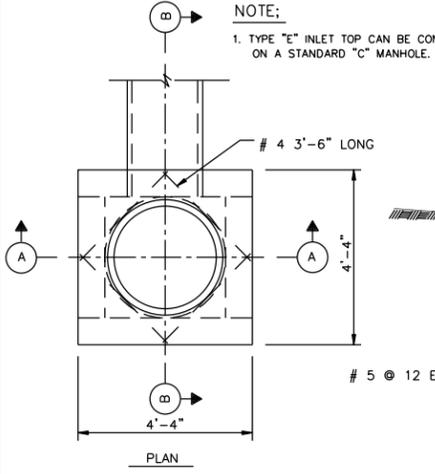
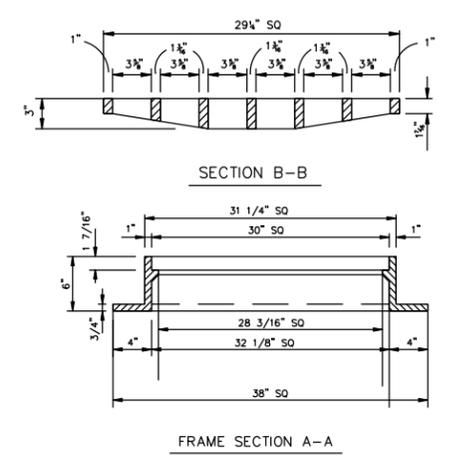
RING GRATE FOR OPEN END OF 18" TO 72" RCP STUBS TO DITCH



- NOTE:**
1. GALVANIZE GRATE AFTER FABRICATION.



(NEENAH 3418-A or equivalent)



Storm Sewer Standard Details

Scale: NTS

DWG No: 300 - 02

SHEET 2 OF 4

PLACE ENGINEERING SEAL HERE