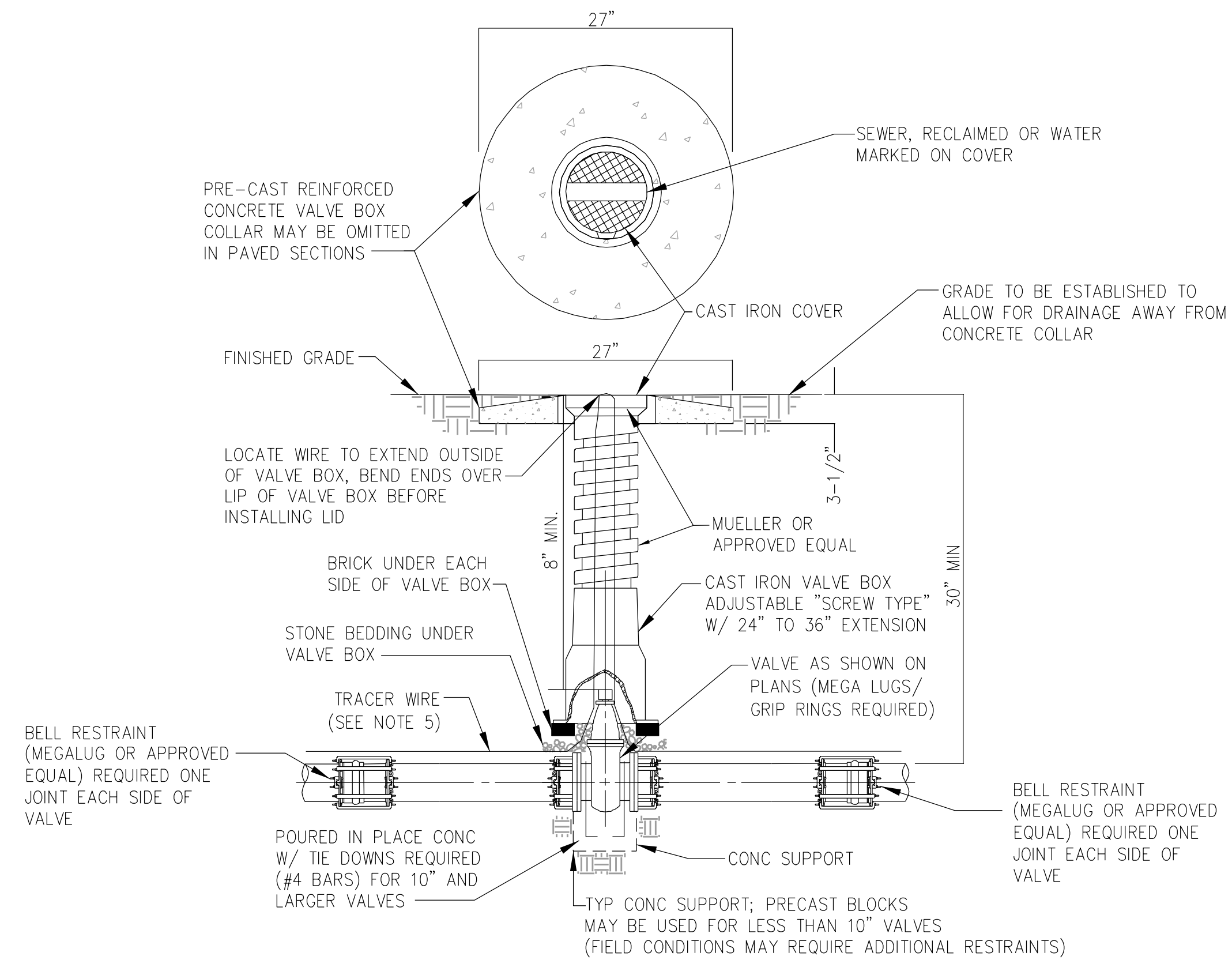


# PROJECT TYPICAL DETAILS

PROJECT REFERENCE NO.	SHEET NO.
U-5312	UC-3D
DESIGNED BY: B. DIXON	
DRAWN BY: R. MOSS	
CHECKED BY: B. DIXON	
APPROVED BY:	
REVISED:	
MUNICIPAL ENGINEERING SERVICES COMPANY, PA.	
P.O. BOX 97 GARNER, NC 27529 (919) 772-5393	
UTILITY CONSTRUCTION PLANS ONLY	

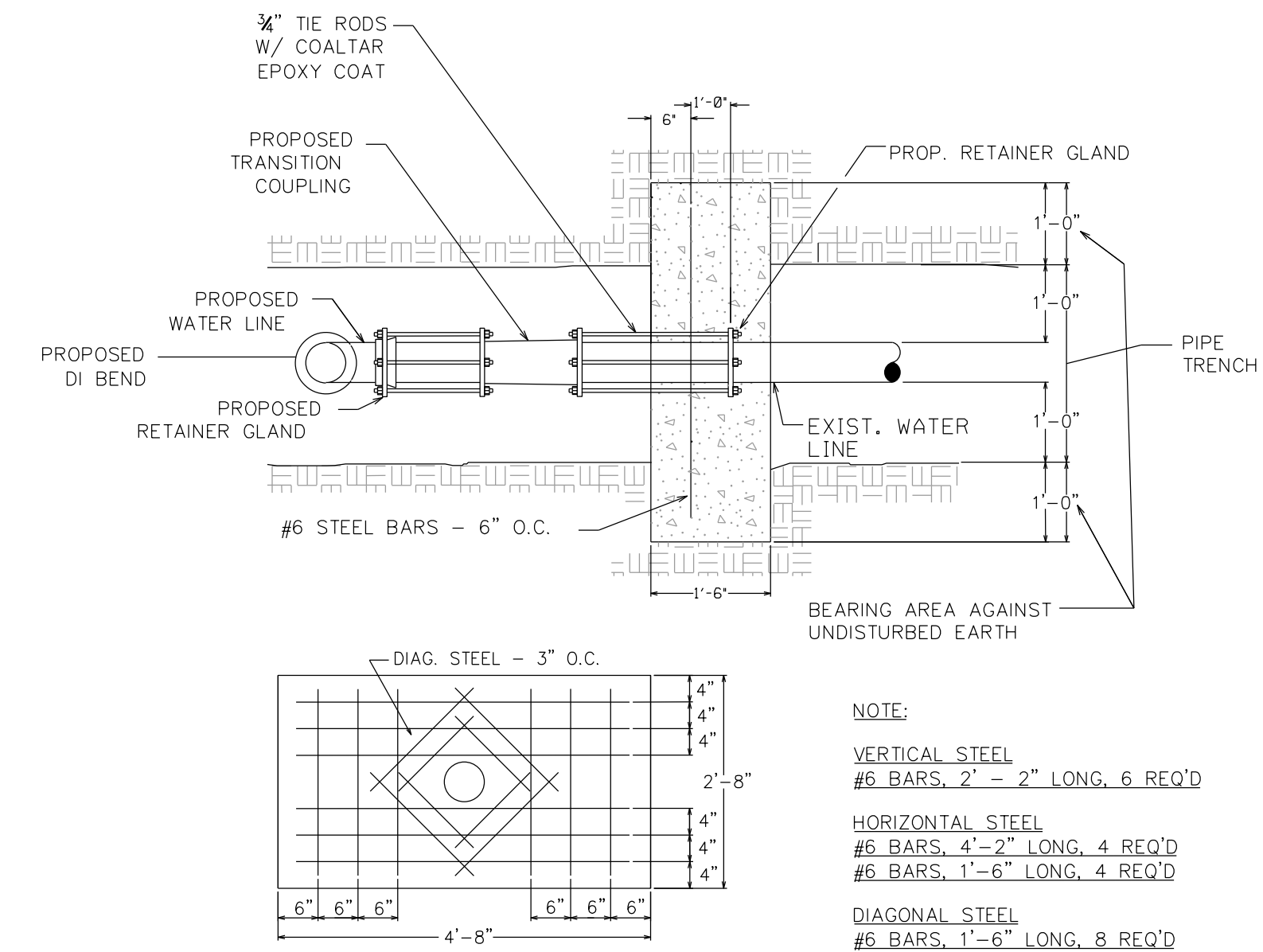
## UTILITY CONSTRUCTION



**NOTES:**

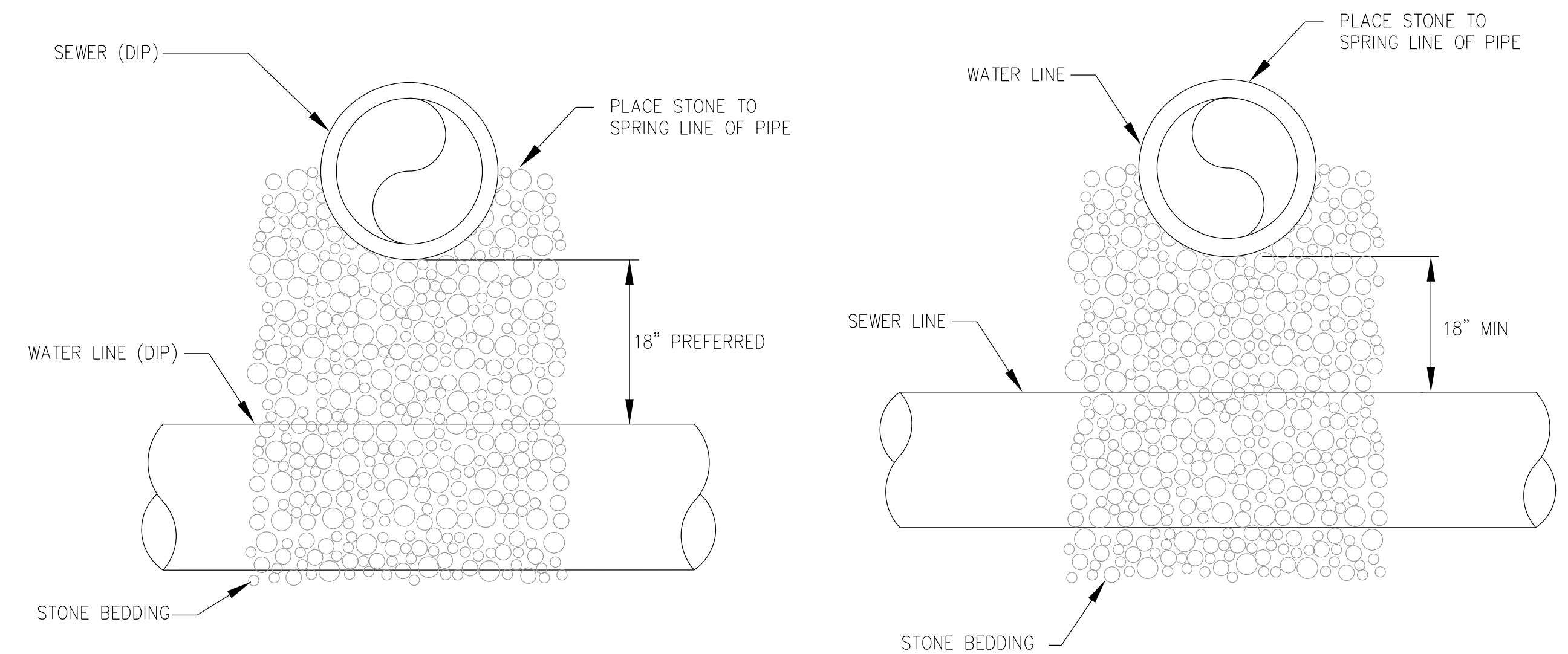
- TOP OF VALVE BOX AND COLLAR SHALL BE PAINTED GREEN FOR SEWER FM, PURPLE FOR RECLAIMED WATER, AND BLUE FOR WATER.
- EXTENSION STEM WILL BE REQUIRED TO BE WITHIN 2 FEET OF THE SURFACE IF OPERATING NUT WOULD OTHERWISE BE OVER 5 FEET BELOW GRADE. EXTENSIONS SHALL BE PERMANENTLY ATTACHED TO VALVE NUT AND SHALL BE PROVIDED WITH HORIZONTAL SPACERS FOR VERTICAL ALIGNMENT WITHIN THE VALVE BOX.
- MINIMUM CLEARANCE TO EXTENSION IS 8".
- WIRE COLORS REQUIRED: SEWER-GREEN/WATER-BLUE/RECLAIMED WATER-PURPLE OR GREEN WITH PURPLE STRIPE
- 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE OR APPROVED EQUAL.

**VALVE BOX DETAIL**



**THRUST RESTRAINT WITH RETAINER GLANDS FOR PROP. PIPE TO EXIST. PIPE**

- NOTE:**
- VERTICAL STEEL  
#6 BARS, 2' - 2" LONG, 6 REQ'D
  - HORIZONTAL STEEL  
#6 BARS, 4' - 2" LONG, 4 REQ'D  
#6 BARS, 1' - 6" LONG, 4 REQ'D
  - DIAGONAL STEEL  
#6 BARS, 1' - 6" LONG, 8 REQ'D



**NOTES:**

- BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE FERROUS MATERIALS WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
- ALTERNATIVELY, PIPES MAY BE SLEEVED WITH FERROUS MATERIALS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING AS APPROVED BY BRUNSWICK COUNTY ENGINEERING.

**NOTES:**

- SOIL REPLACED UNDER THE WATER MAIN SHALL BE COMPACTED.
- IF THE WATER MAIN CROSSES AT LESS THAN 18" ABOVE THE SEWER MAIN BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE FERROUS MATERIALS WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, OR THEY MAY HAVE FERROUS SLEEVES PUT AROUND THEM AS APPROVED BY BRUNSWICK COUNTY ENGINEERING.

SEWER CROSSING ABOVE WATER LINE

SEWER CROSSING BELOW WATER LINE

**SEWER OFFSETS ABOVE AND BELOW WATER MAINS**