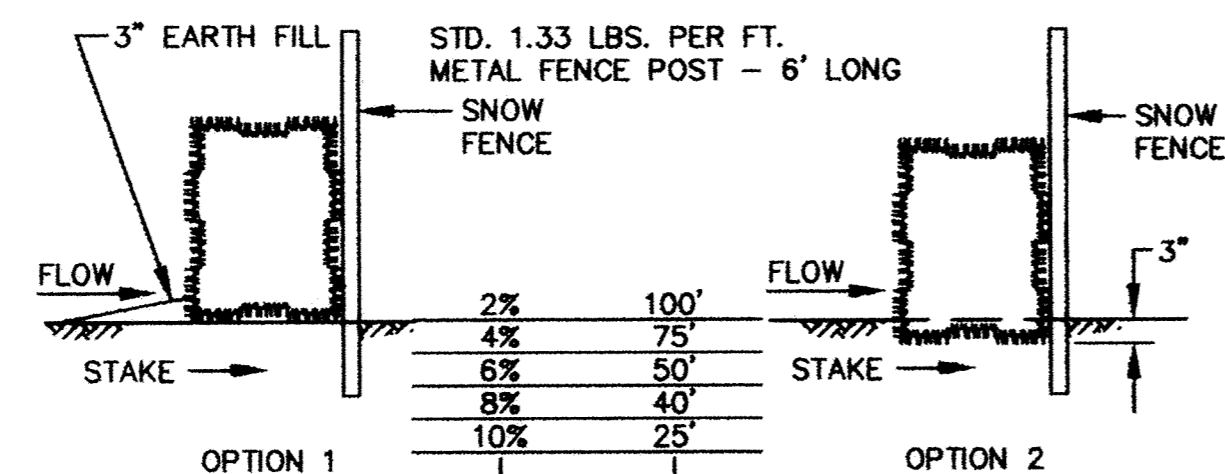
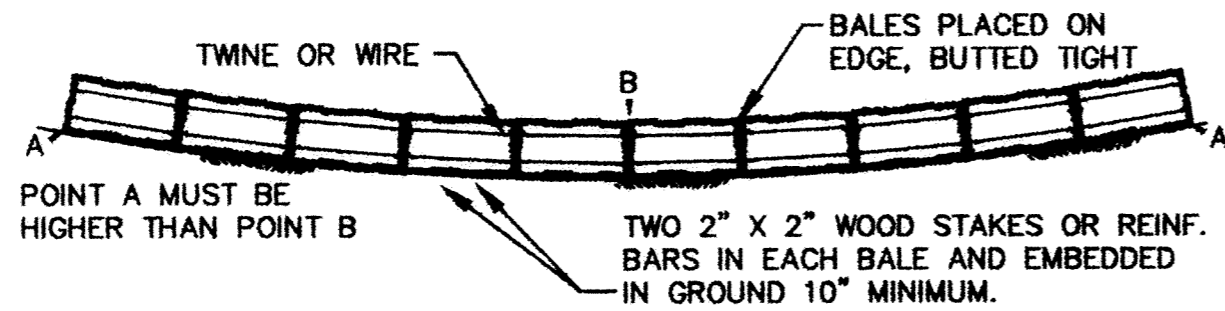


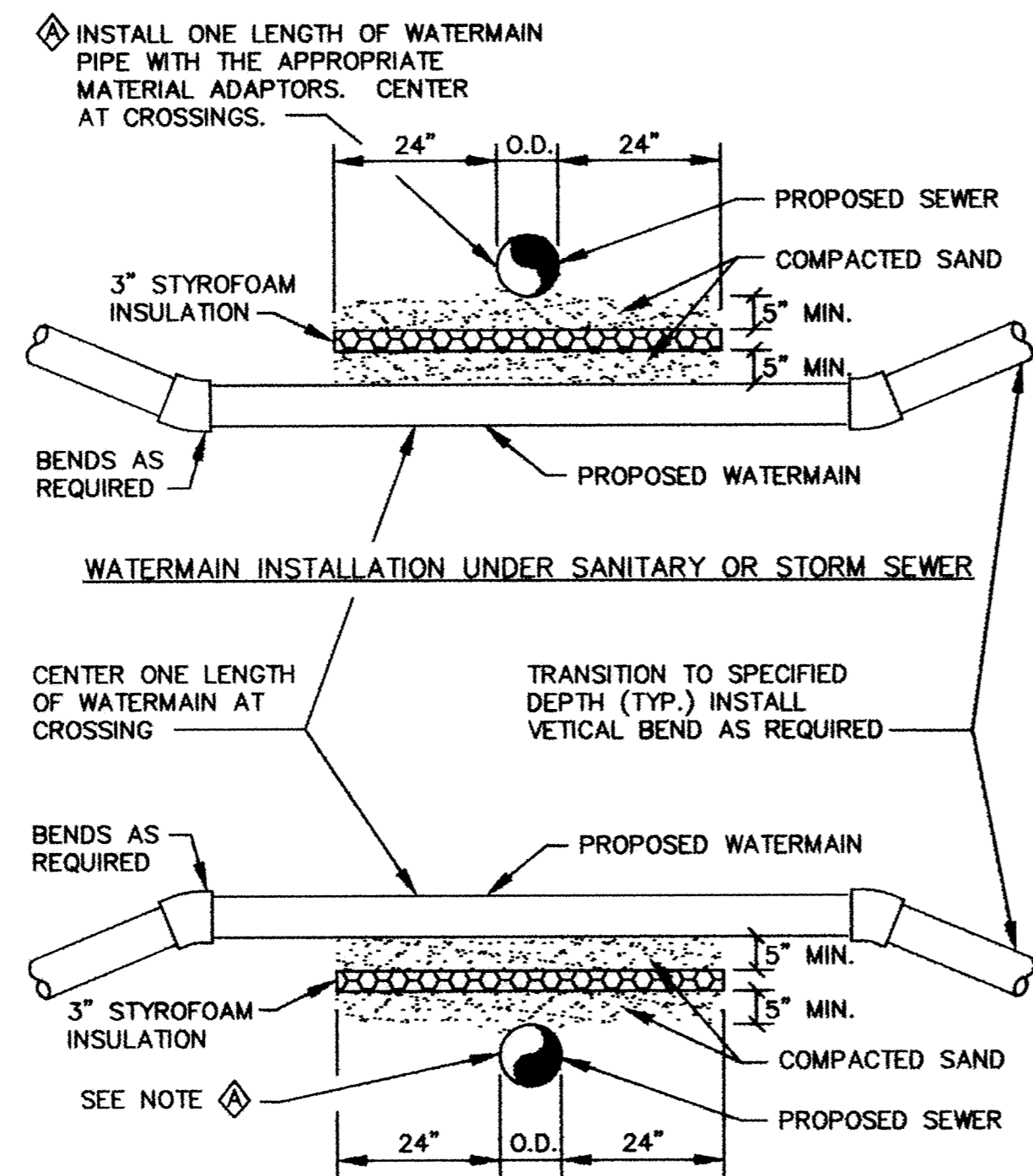
SILT FENCE DETAIL

NOTE:
 1. SILT FENCES CONSTRUCTED WITH SUPPORT FENCES, POSTS SHALL BE SPACED AT 10' OR LESS, AND DRIVEN AT LEAST 2' INTO THE GROUND.
 2. SILT FENCES CONSTRUCTED WITHOUT SUPPORT FENCES, POST SHALL BE SPACED AT 4' OR LESS, AND DRIVEN AT LEAST 3' INTO THE GROUND.



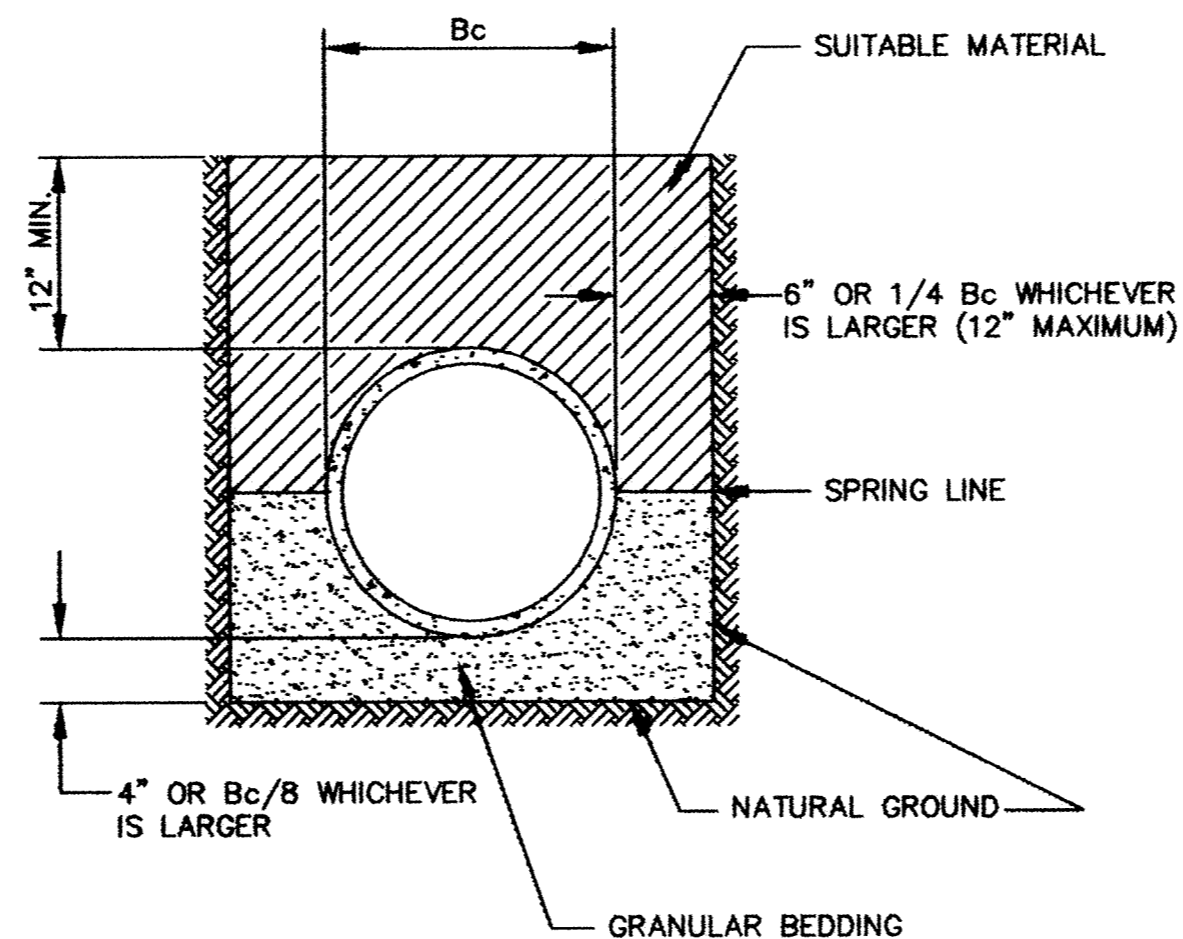
BALE HAY OR STRAW DITCH CHECK

TO BE USED WITH SNOW FENCE AT LOCATIONS AS SHOWN ON PLAN SHEETS. ALSO TO BE USED WITH OR WITHOUT SNOW FENCE AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

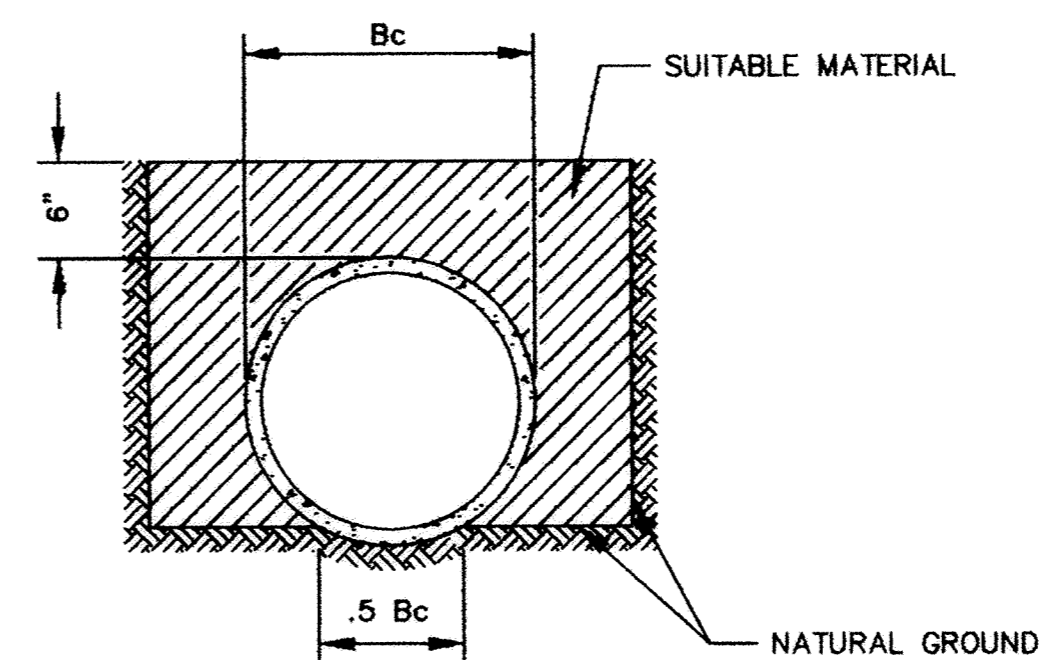


WATERMAIN INSTALLATION OVER SANITARY OR STORM SEWER

NOTES:
 1. WHEN WATERMAIN AND SANITARY SEWER CROSSINGS HAVE LESS THAN 18" VERTICAL SEPARATION, INSTALL CROSSING AS SHOWN.
 2. WHEN WATERMAIN COVER IS LESS THAN 7.5 FEET, INSTALL WATERMAIN UNDER SANITARY SEWER.

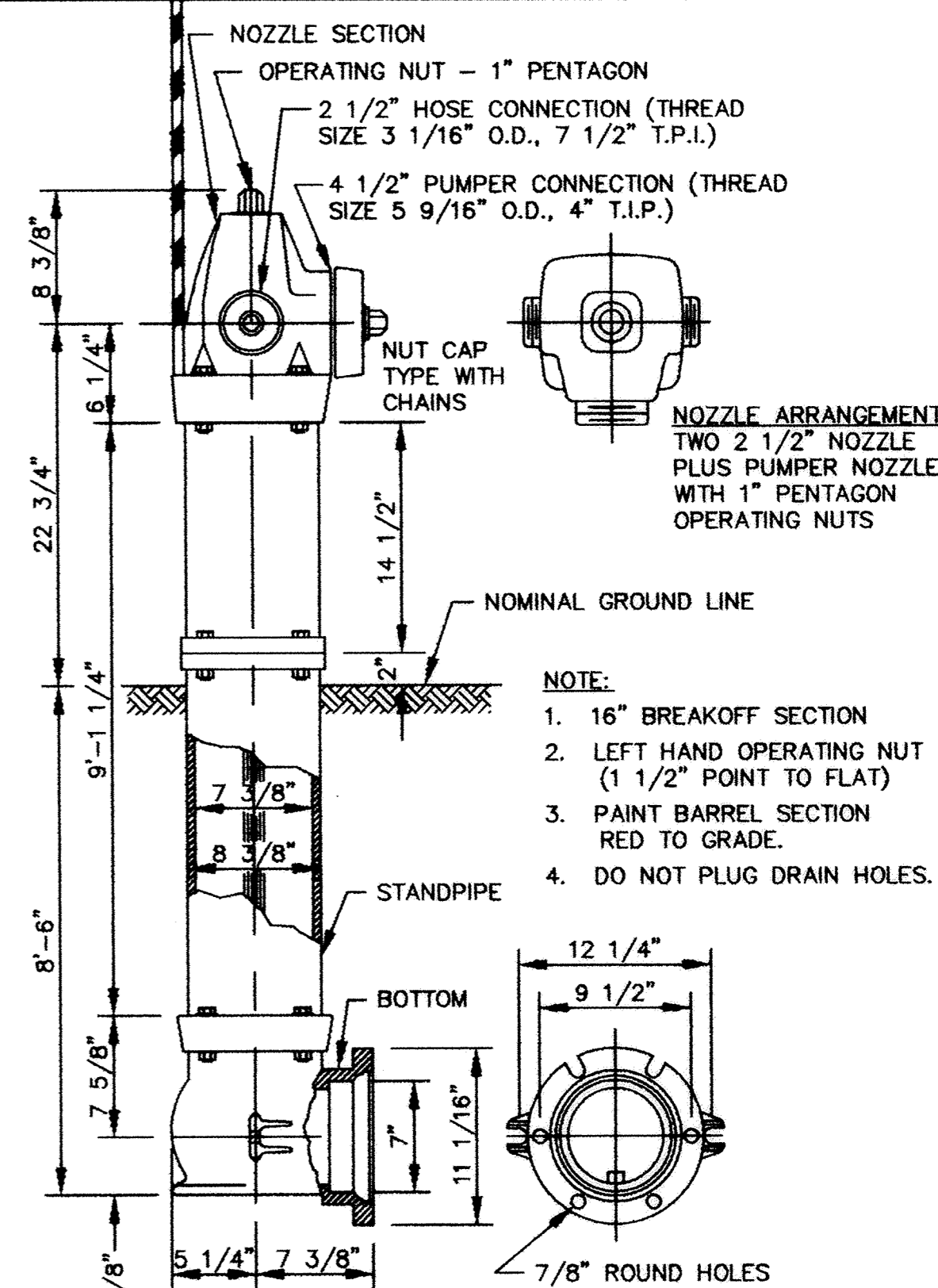


NOTE: ALL COSTS OF EXCAVATION BELOW GRADE AND PLACEMENT OF GRANULAR BEDDING SHALL BE INCLUDED IN THE BID PRICES FOR PIPE ITEMS.



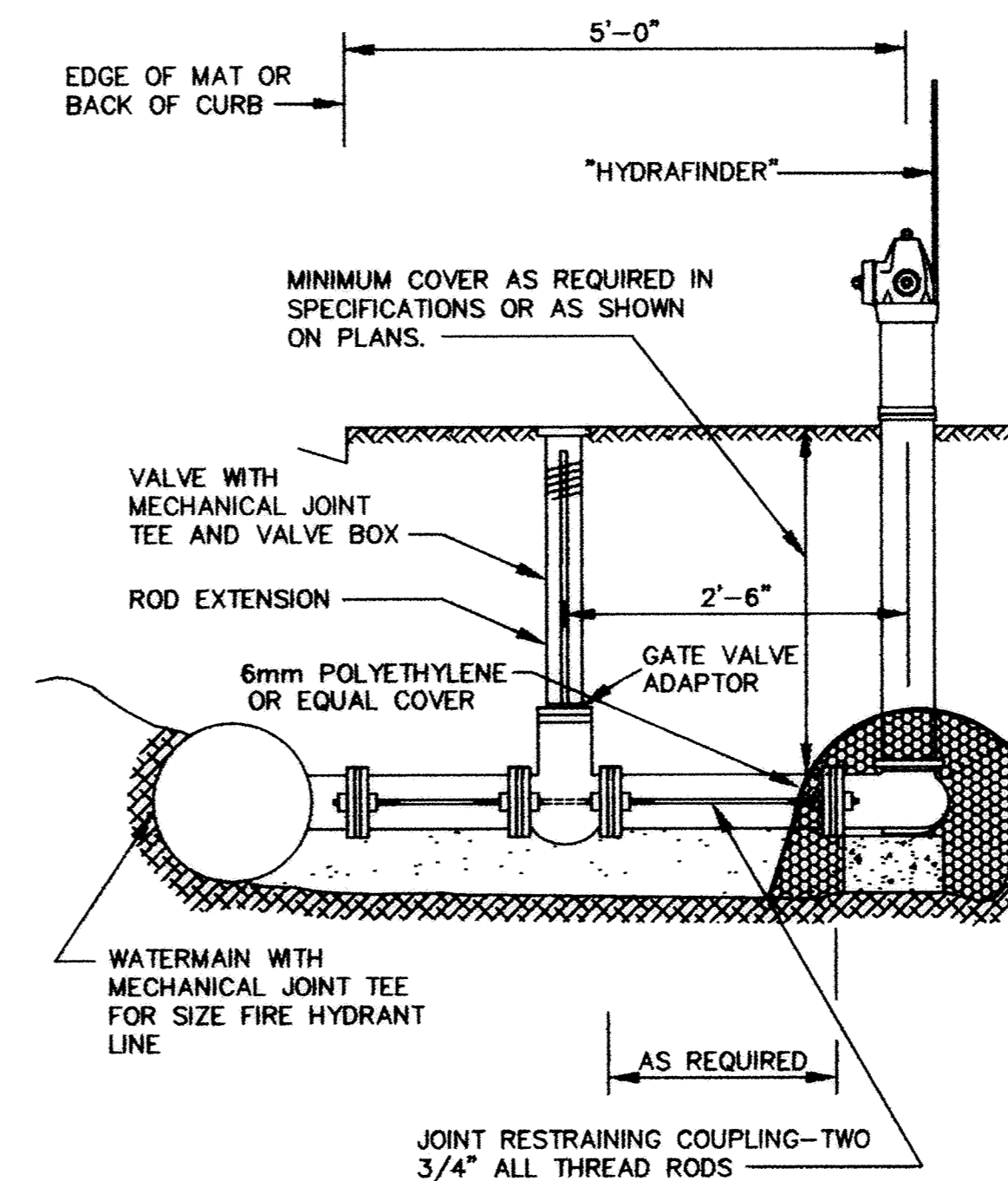
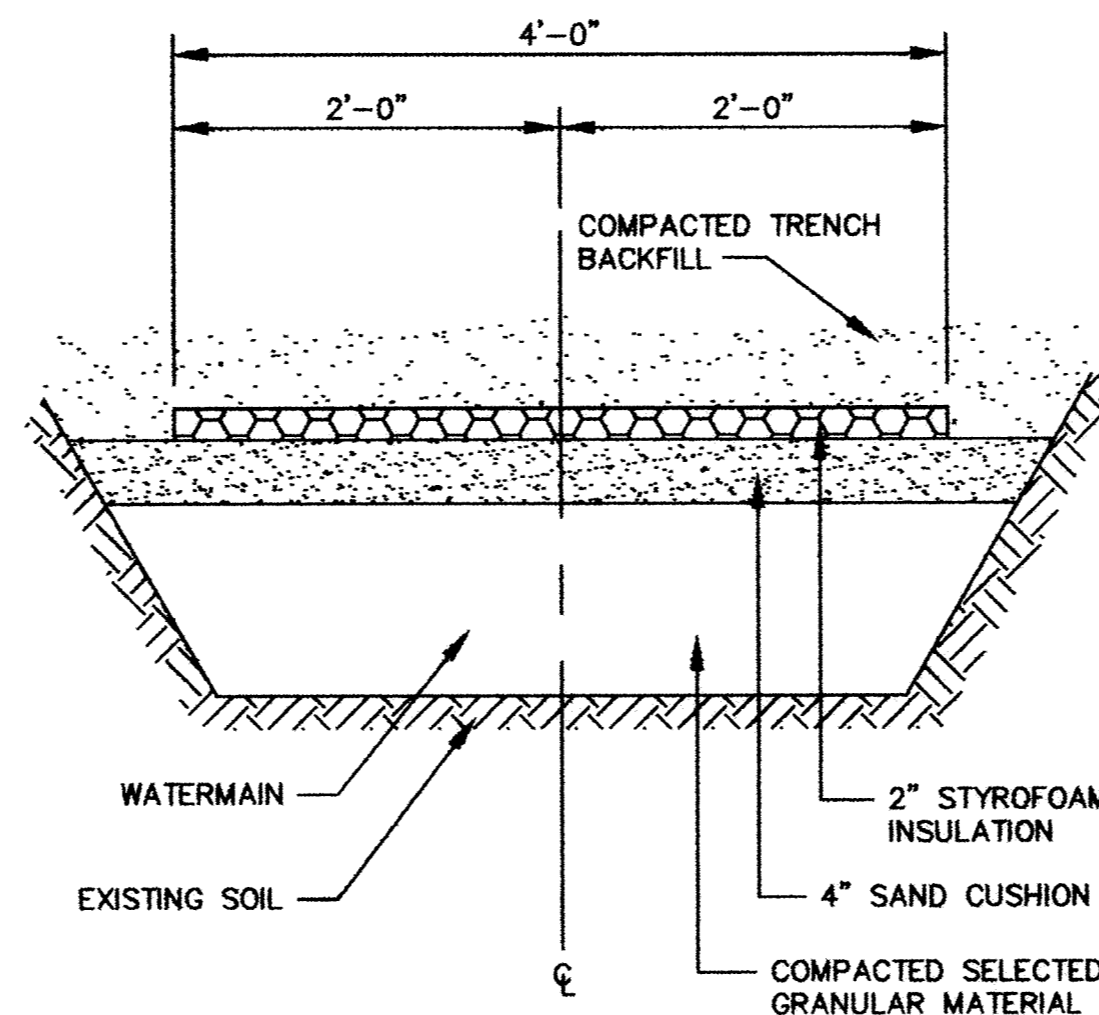
THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE PIPE BARREL FOR AT LEAST 50% OF THE OUTSIDE DIAMETER. THE REMAINDER OF THE PIPE IS SURROUNDED TO A HEIGHT OF AT LEAST 6" ABOVE ITS TOP BY SELECT FILL MATERIALS, PLACED BY HAND TOOLS AND COMPACTED TO COMPLETELY FILL ALL SPACES UNDER AND ADJACENT TO THE PIPE.

NOTE: ALL COSTS OF EXCAVATION BELOW GRADE AND PLACEMENT OF GRANULAR BEDDING SHALL BE INCLUDED IN THE BID PRICES FOR PIPE ITEMS.



NOTE:
 1. 16" BREAKOFF SECTION
 2. LEFT HAND OPERATING NUT (1 1/2" POINT TO FLAT)
 3. PAINT BARREL SECTION RED TO GRADE.
 4. DO NOT PLUG DRAIN HOLES.

NOTE: HYDRANT LOCATING DEVICES REQUIRED - SEE SPECIFICATIONS.



NOTE: ALL HYDRANT LEADS SHALL BE RESTRAINED FROM THE MAIN TO THE HYDRANT THROUGH THE USE OF THREADED RODS OR MEGALUGS AS RESTRAINTS IN ACCORDANCE WITH THE STANDARD DETAIL PLATES.

**RECORD PLAN
 DECEMBER 2002**

DESIGNED BY: KT DRAWN BY: EY/RM
 APPROVED BY: JOB NUMBER 816050J
 CAD DATE: February 01, 2003 9:06:48 a.m.
 CAD FILE: 816050\dwg\XCS-BASE.DWG (JLALLEN)

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 SIGNATURE: TERRY J. MAURER DATE: _____
 PRINTED NAME: TERRY J. MAURER LIC. NO. 15316

NO.	DATE	BY	REVISION DESCRIPTION

**ELK RIVER MUNICIPAL UTILITIES
 EAGLE MARSH**

WATERMAIN AND CONSTRUCTION DETAILS

SHEET NO.
D1

DRAWING NUMBER
 EAGLE 02
 DRAWING NUMBER