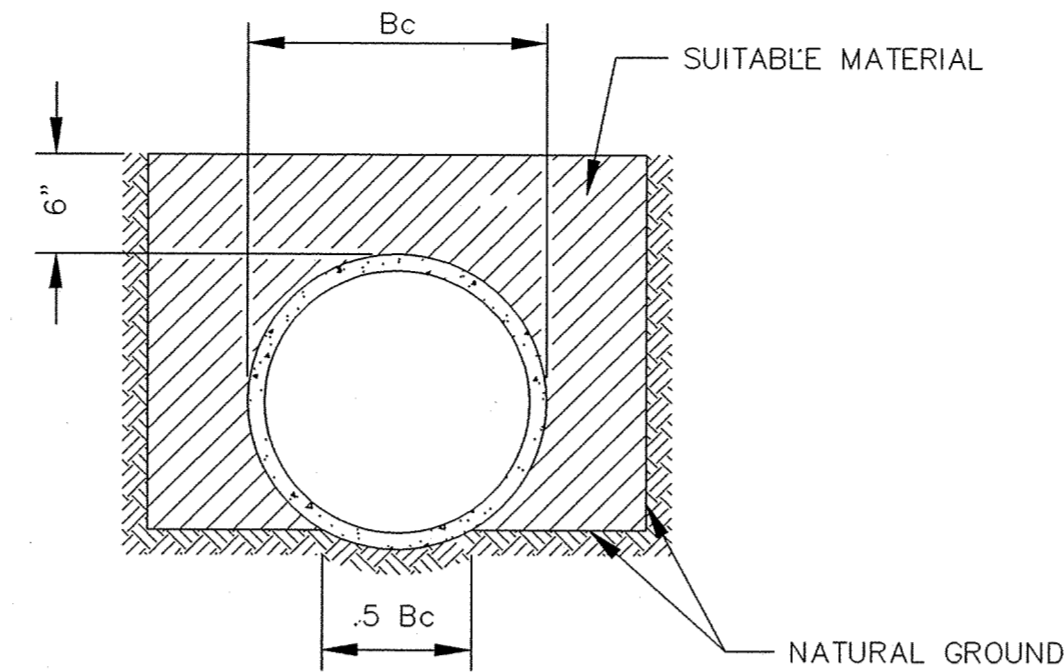


NOTE: ALL COSTS OF EXCAVATION BELOW GRADE AND PLACEMENT OF GRANULAR BEDDING SHALL BE INCLUDED IN THE BID PRICES FOR PIPE ITEMS.

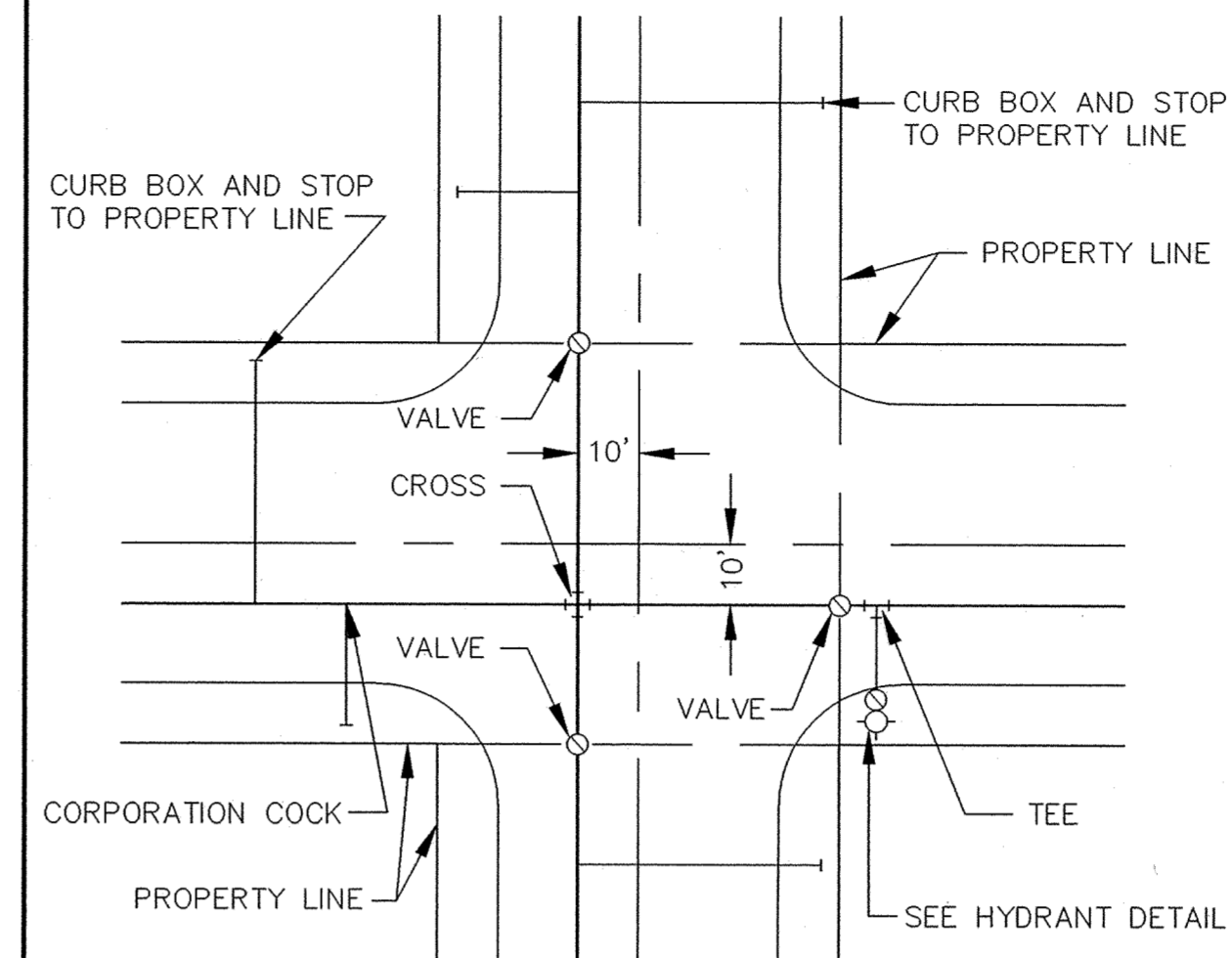
CLASS B PIPE BEDDING



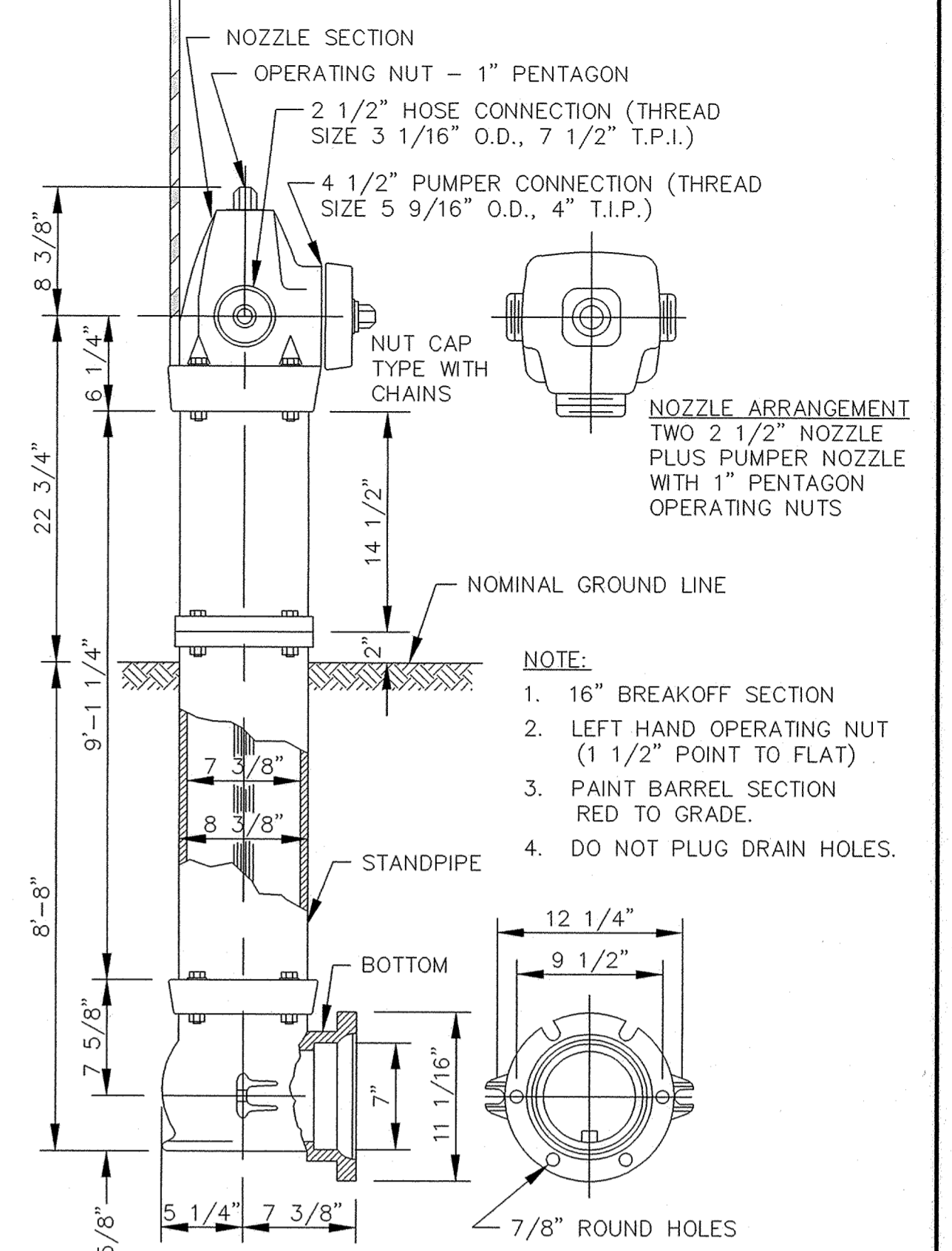
THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE PIPE BARREL FOR AT LEAST 50% OF THE OUTSIDE DIAMETER. THE REMAINDER OF THE PIPE IS SURROUNDED TO A HEIGHT OF AT LEAST 6\"/>

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

CLASS C PIPE BEDDING



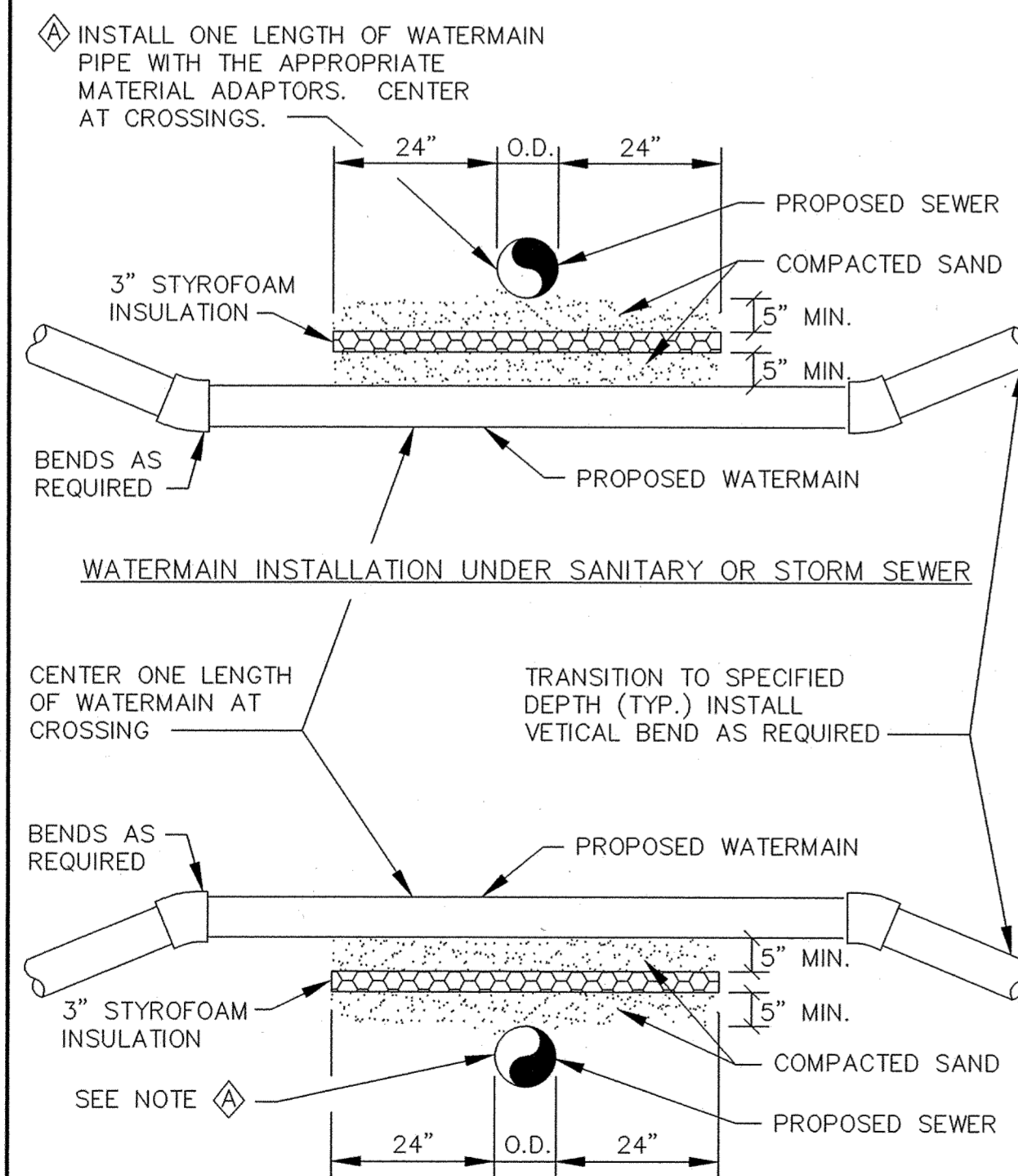
TYPICAL WATER LAYOUT



NOTE:  
 1. 16\"/>

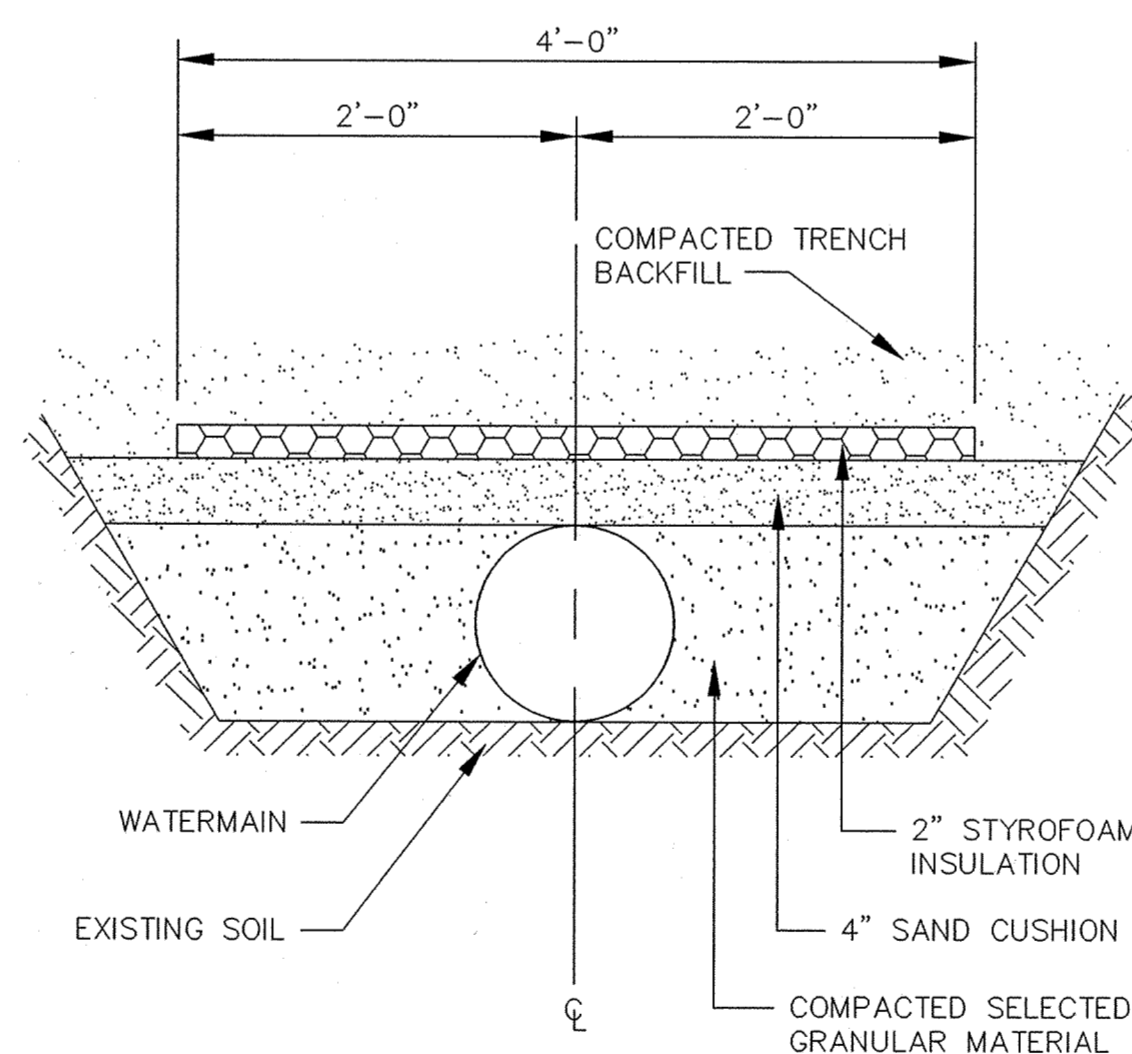
NOTE: HYDRANT LOCATING DEVICES REQUIRED - SEE SPECIFICATIONS.

PACER HYDRANT DETAIL

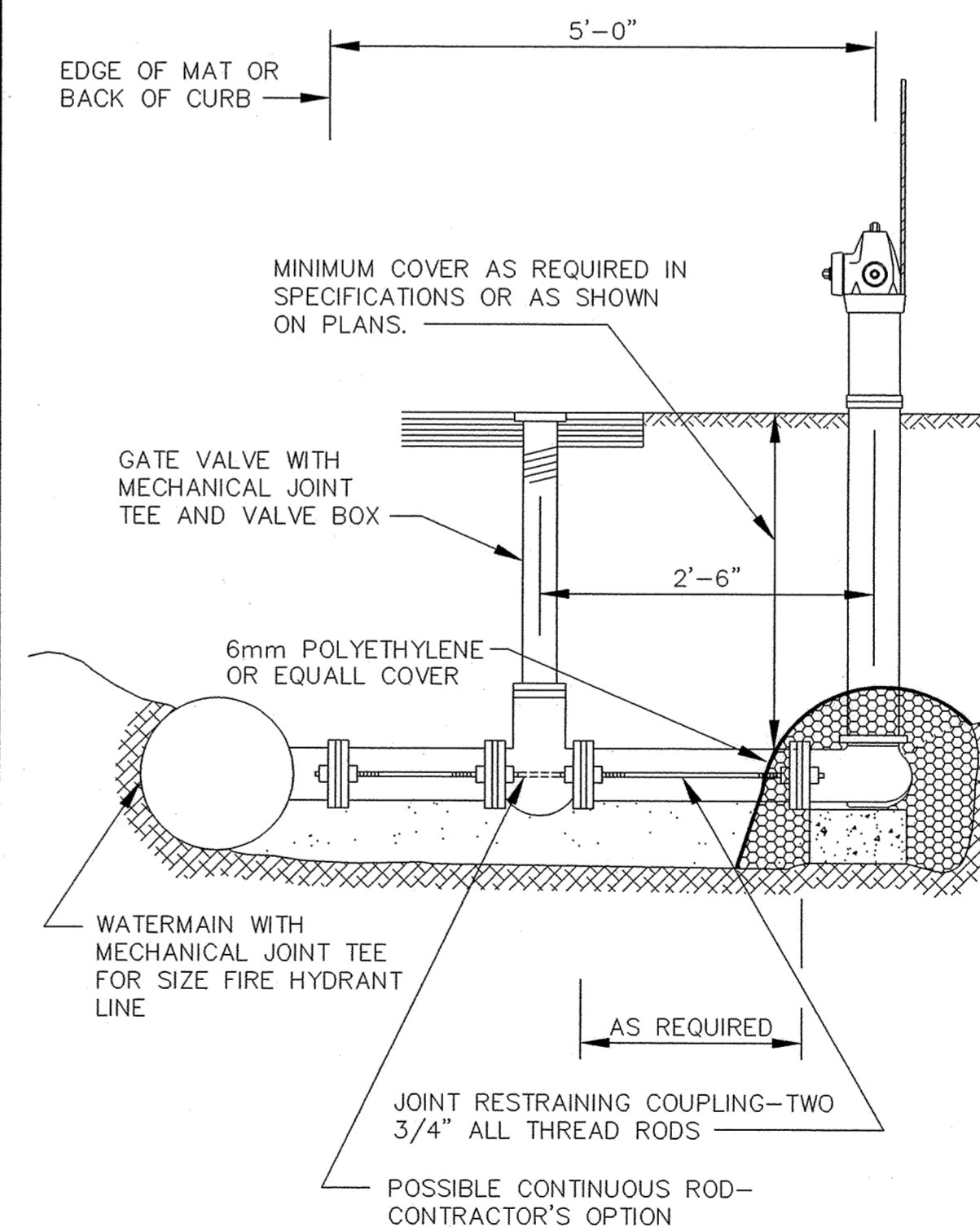


NOTES:  
 1. WHEN WATERMAIN AND SANITARY SEWER CROSSINGS HAVE LESS THAN 18\"/>

WATERMAIN CROSSING

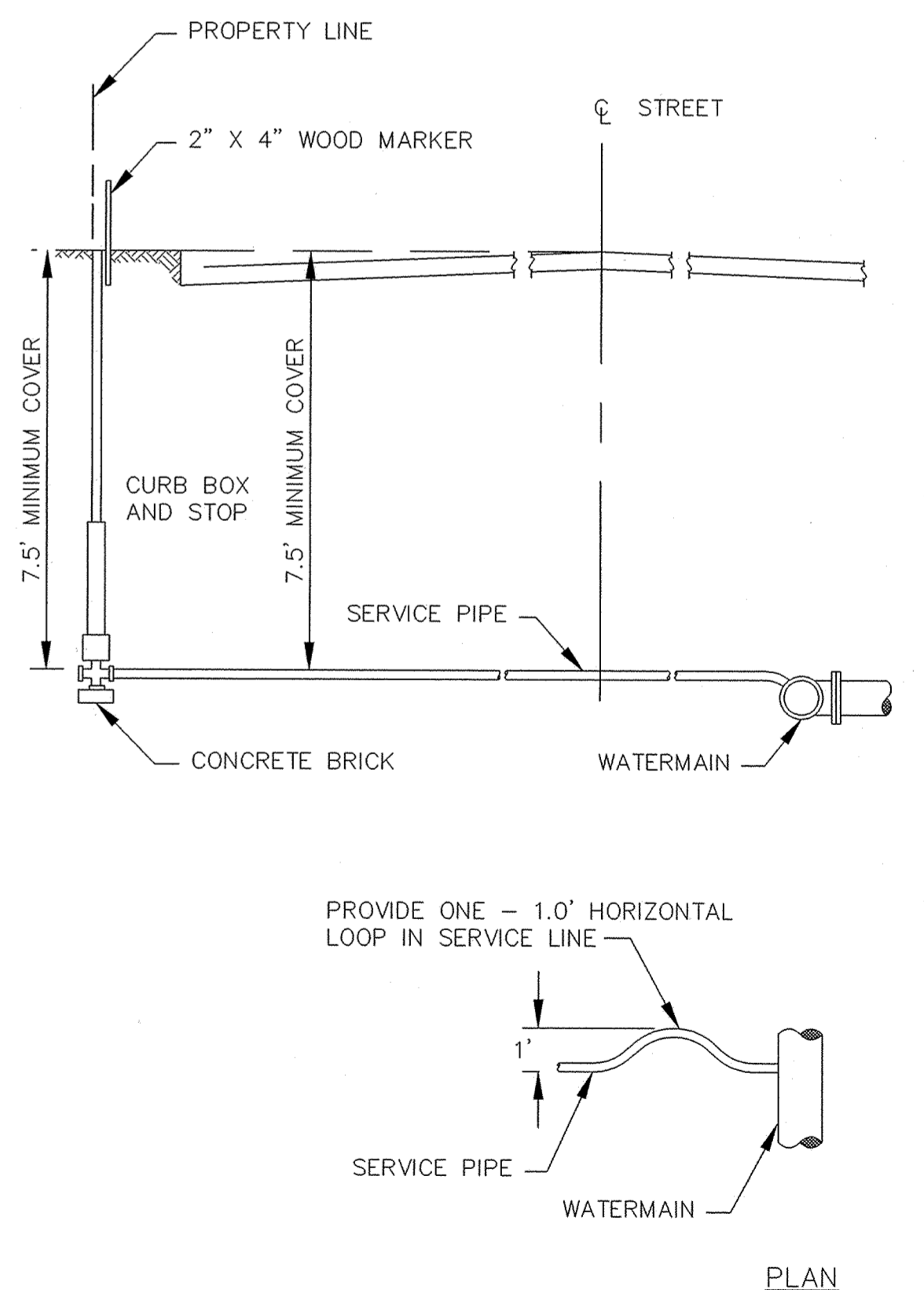


PIPE INSULATION DETAIL



NOTE: HYDRANT LEADS SHALL BE RODDED FROM MAIN LINE TO HYDRANT UNLESS SPECIFIED OTHERWISE.

RODDING DETAIL



TYPICAL SERVICE DETAIL

CONTRACTOR: RYAN CONTRACTING, INC.  
 RECORD DRAWING  
 CONFORMING TO CONSTRUCTION RECORDS  
 BY S. HUTNER DATE 7/20/01



PREPARED FOR:  
**D.R. Horton, Inc.**  
 3459 Washington Drive  
 Suite 204  
 Eagan, Minnesota 55122

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

NO.	DATE	BY	REVISION DESCRIPTION



1326 ENERGY PARK DRIVE  
 ST. PAUL, MINNESOTA 55108  
 (612) 644-4389  
**Howard R. Green Company**  
 CONSULTING ENGINEERS

**CITY OF ELK RIVER  
 TROTT BROOK FARMS  
 WATERMAIN DETAILS**

SHEET NO.  
 29  
 OF  
 32

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER  
 TROTT1-4.99  
 29