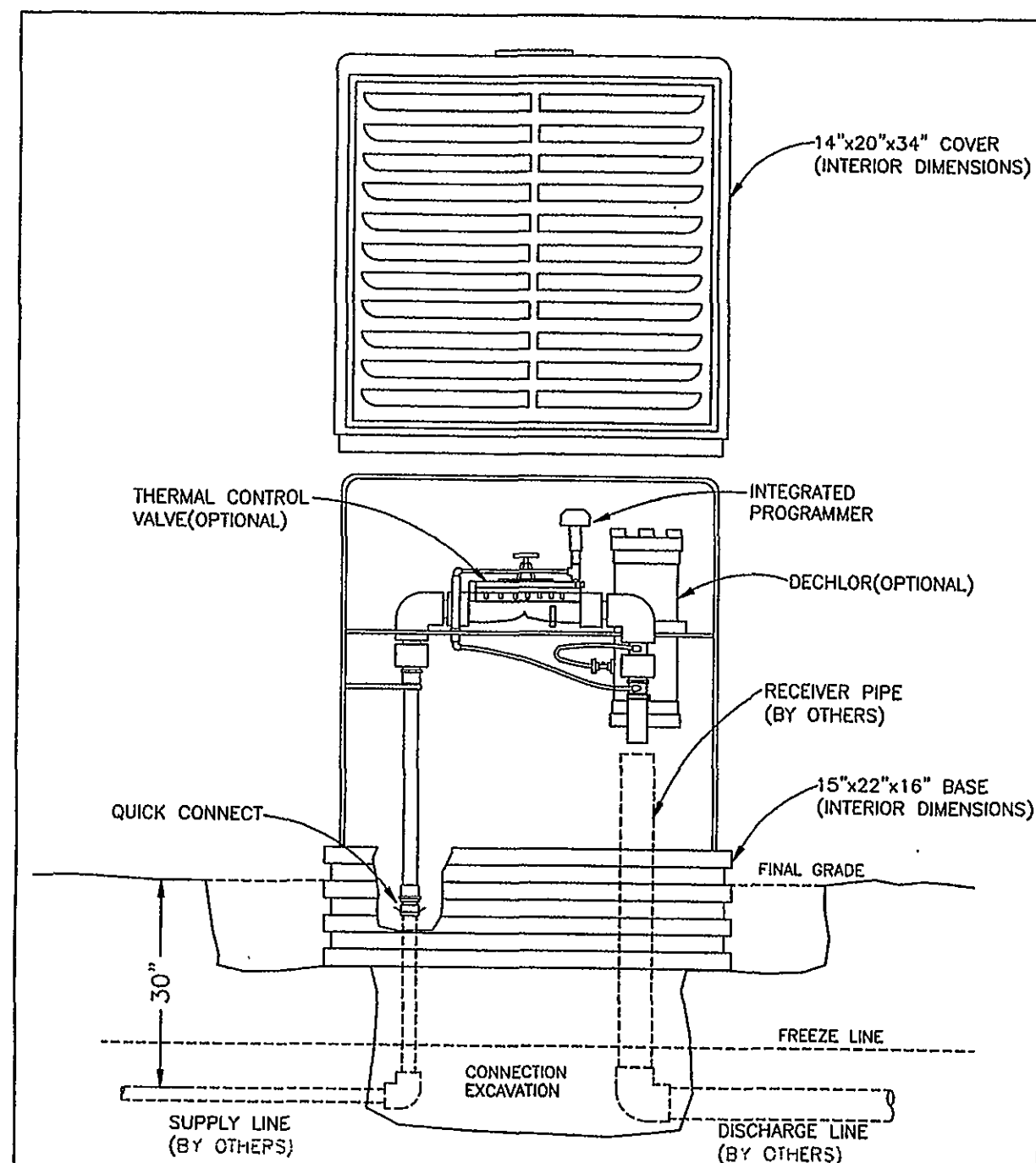


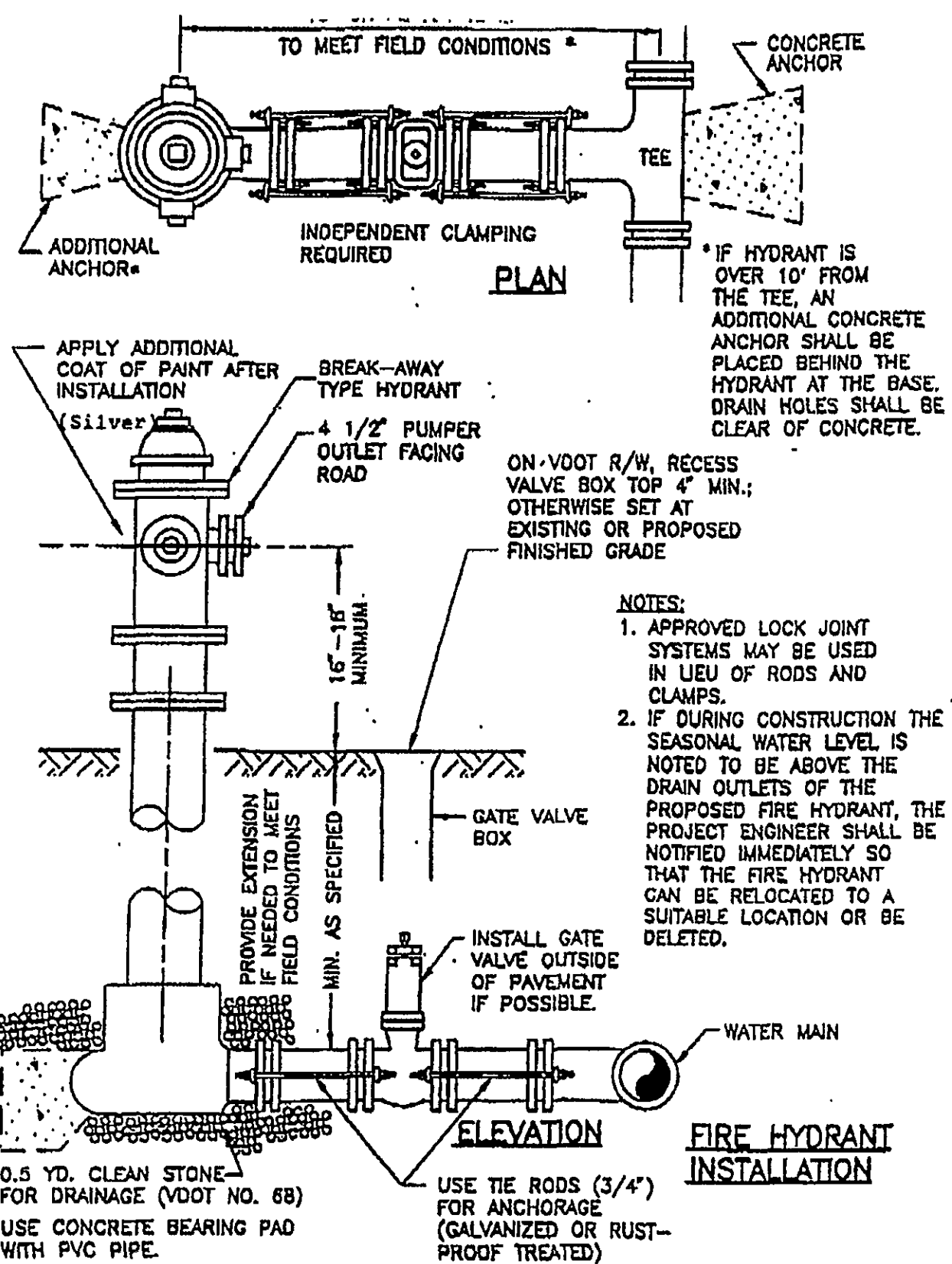
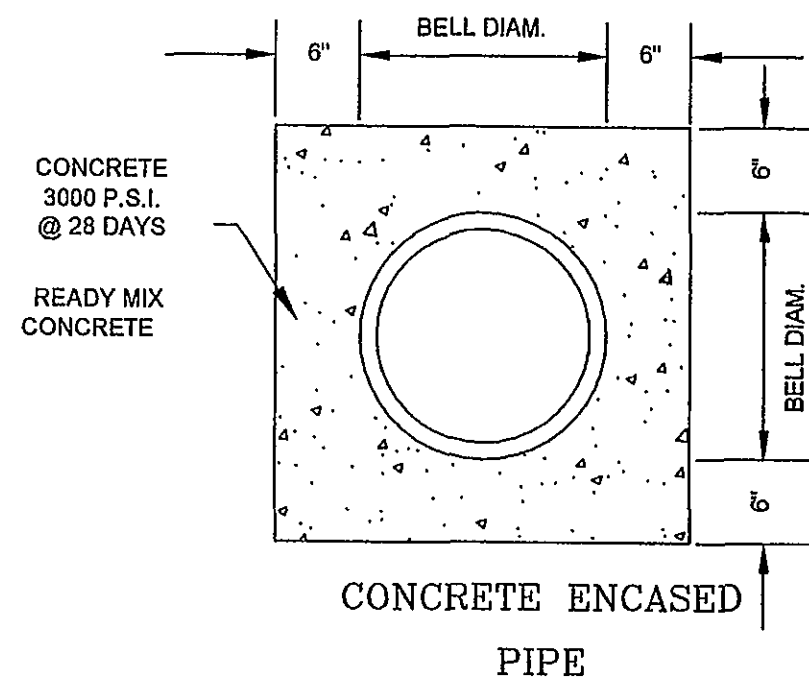
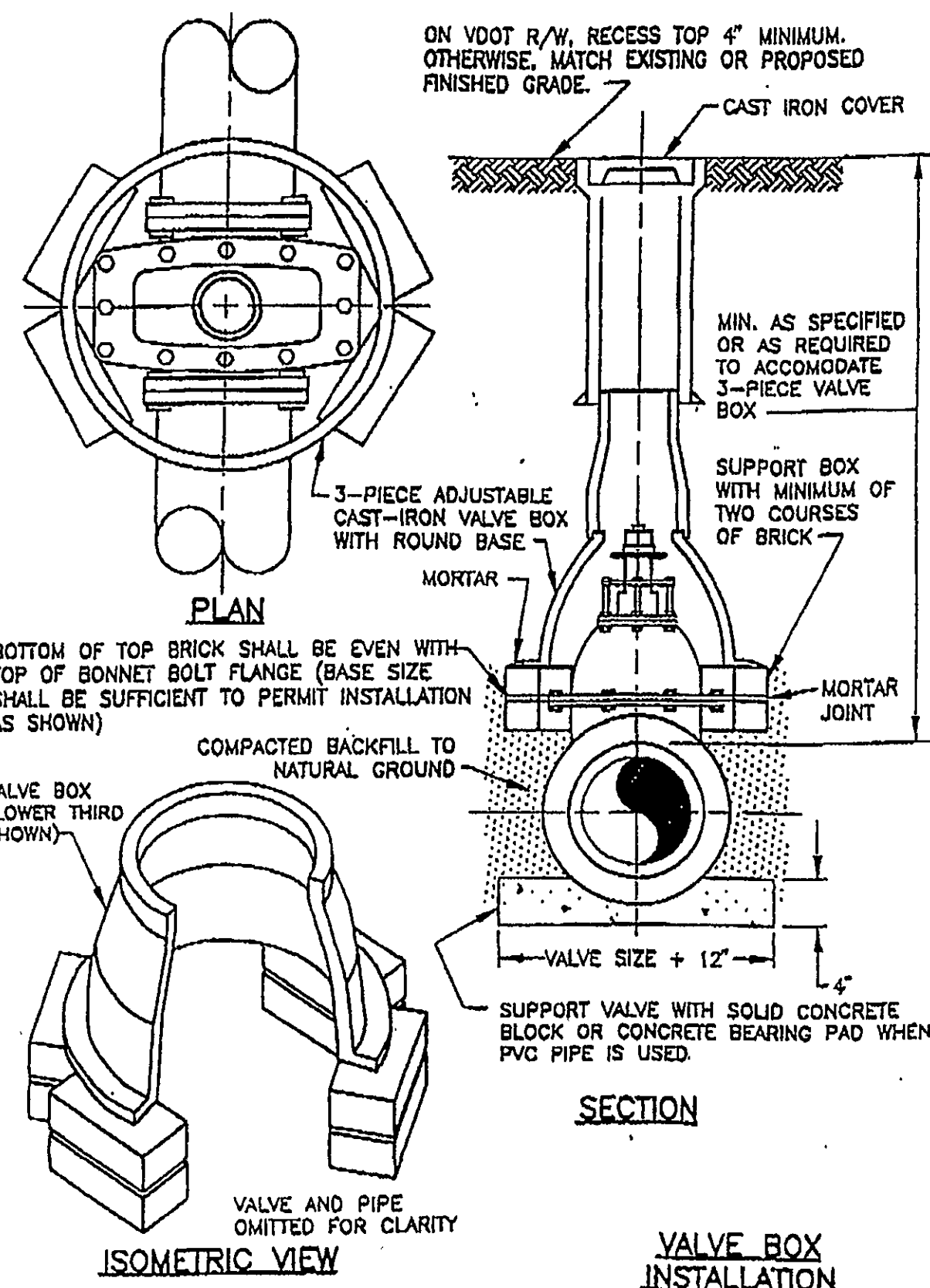
THIS DETAIL APPLICABLE FOR DEPTHS LESS THAN 14 FEET. SEE PLANS FOR MODIFICATIONS IN DEEPER TRENCHES.

WATER MAIN TRENCH BED

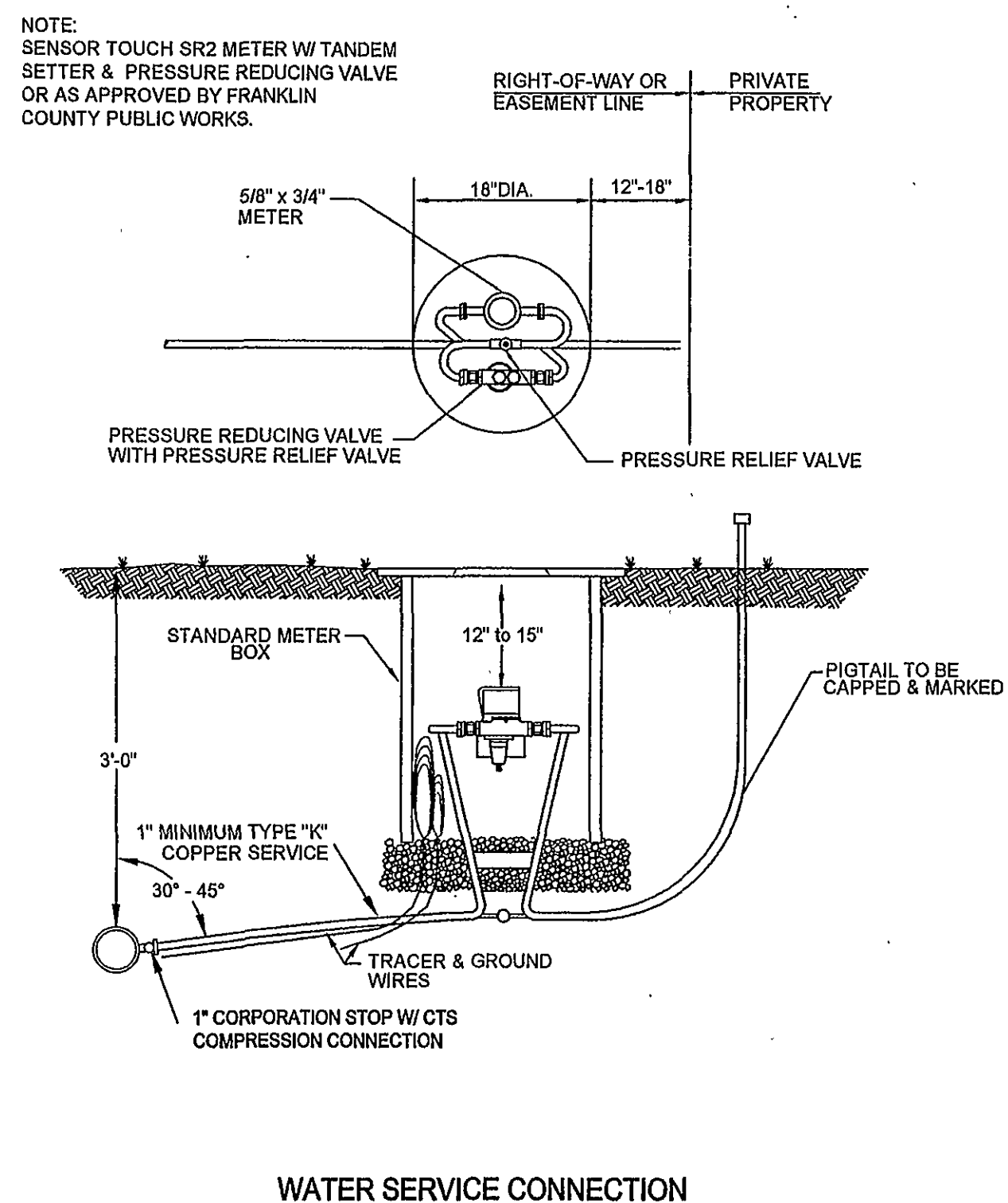


TYPICAL INSTALLATION HYDRO-GUARD VERTICAL UNIT HG-5AIR ENVIRONMENTAL ENHANCEMENT & TECHNOLOGIES USA, INC. NAPLES, FLORIDA

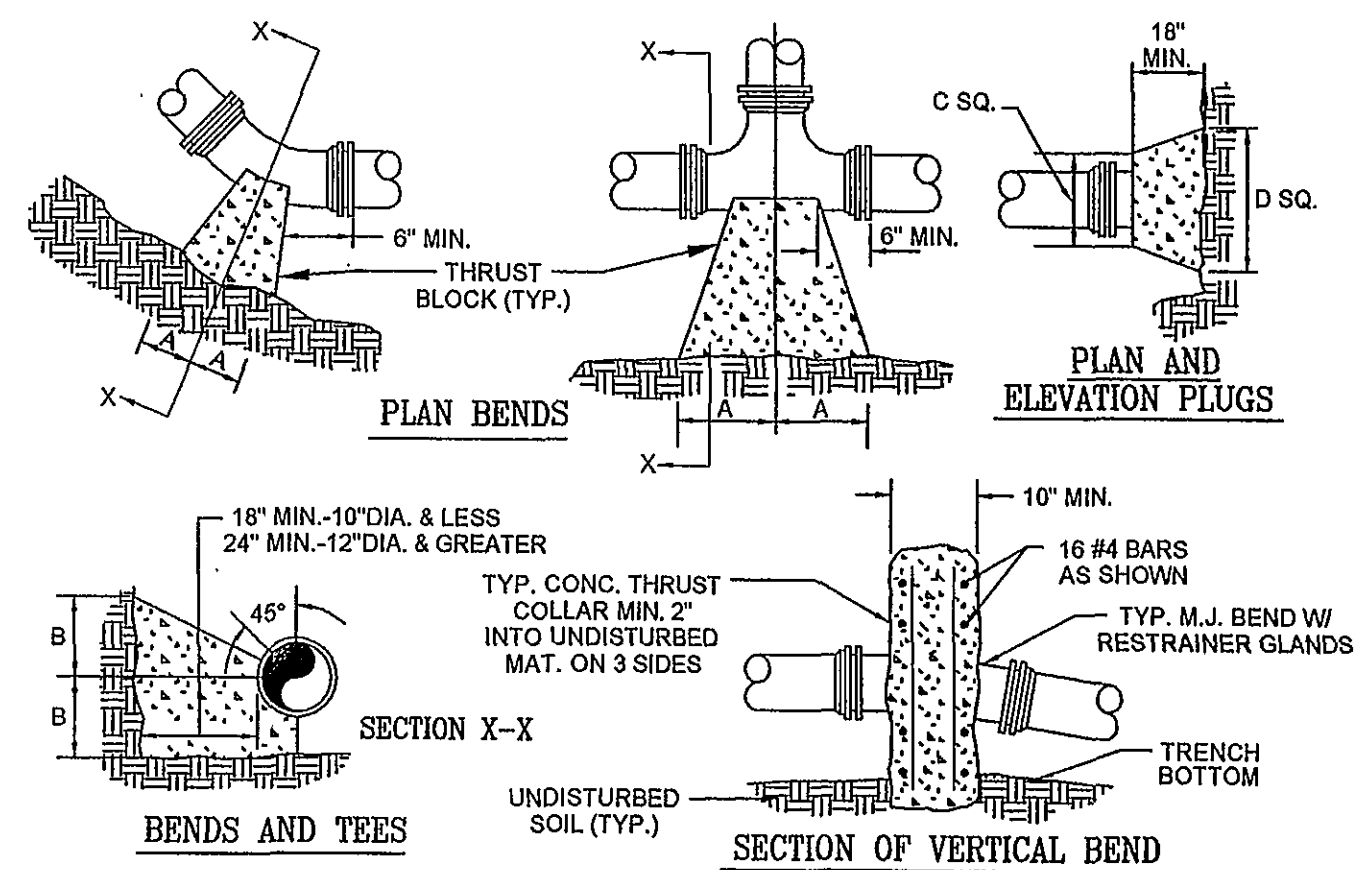
DATE: 03-24-03 PROJECT: HYDRO-GUARD DWG: 9840HG-5



- NOTES:
1. APPROVED LOCK JOINT SYSTEMS MAY BE USED IN LIEU OF RODS AND CLAMPS.
 2. IF DURING CONSTRUCTION THE SEASONAL WATER LEVEL IS NOTED TO BE ABOVE THE DRAIN OUTLETS OF THE PROPOSED FIRE HYDRANT, THE PROJECT ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT THE FIRE HYDRANT CAN BE RELOCATED TO A SUITABLE LOCATION OR BE DELETED.



WATER SERVICE CONNECTION



- NOTES:
1. FOR VERT. BEND DOWN IN EXCESS OF 11 1/4" BEND, ANCHORAGE SHALL BE DESIGNED BY ENGINEER.
 2. FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORIZ. BEND.
 3. GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. BY PLASTIC SHEETING WHEN POURING THRUST BLOCKS.
 4. ALL THRUST BLOCK & SUPPORT CONC. SHALL BE 3000 PSI READY MIX CONC.
 5. THRUST BLOCKS WITH "B" DIMENSION GREATER THAN 30" SHALL HAVE THE RESTRAINED PIPE INSTALLED WITH A MINIMUM OF 4' OF COVER.

PRESSURE = 200 psi
BEARING = 2000 psi
FACTOR OF SAFETY = 1.5

PIPE SIZE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	TEE	PLUG
	A B	A B	A B	A B	A B	C D
4"	8" 12"	8" 8"	6" 6"	6" 6"	11" 9"	10" 6"
6"	18" 12"	10" 8"	10" 8"	8" 8"	11" 10"	12" 18"
8"	18" 13"	10" 10"	8" 8"	8" 8"	11" 12"	12" 24"
10"	20" 16"	12" 14"	8" 12"	8" 12"	14" 16"	16" 30"
12"	20" 16"	12" 14"	8" 12"	8" 12"	14" 16"	16" 30"
16"	26" 20"	16" 18"	11" 13"	11" 13"	18" 20"	20" 36"
24"	82" 42"	30" 44"	22" 16"	22" 16"	82" 42"	82" 42"
30"	185" 42"	100" 42"	52" 42"	40" 30"	185" 42"	185" 42"

THRUST BLOCK CONSTRUCTION

parker
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COMMONWEALTH OF VIRGINIA
Sheldon R. Bower
No. 039439
5/10/04
PROFESSIONAL ENGINEER

The Reserve at Westlake
Prepared for CIR Developments
Gills Creek Magisterial District
Franklin County, Virginia

REVISIONS:
COUNTY COMMENTS
MAY 10, 2006

DESIGNED BY: SRB/PJB
DRAWN BY: SRB/PJB
CHECKED BY: SRB
SCALE: As Shown
DATE: February 22, 2006

SHEET TITLE:
Water Details

C11
11 OF 14
PROJECT NUMBER:
05-0031-02