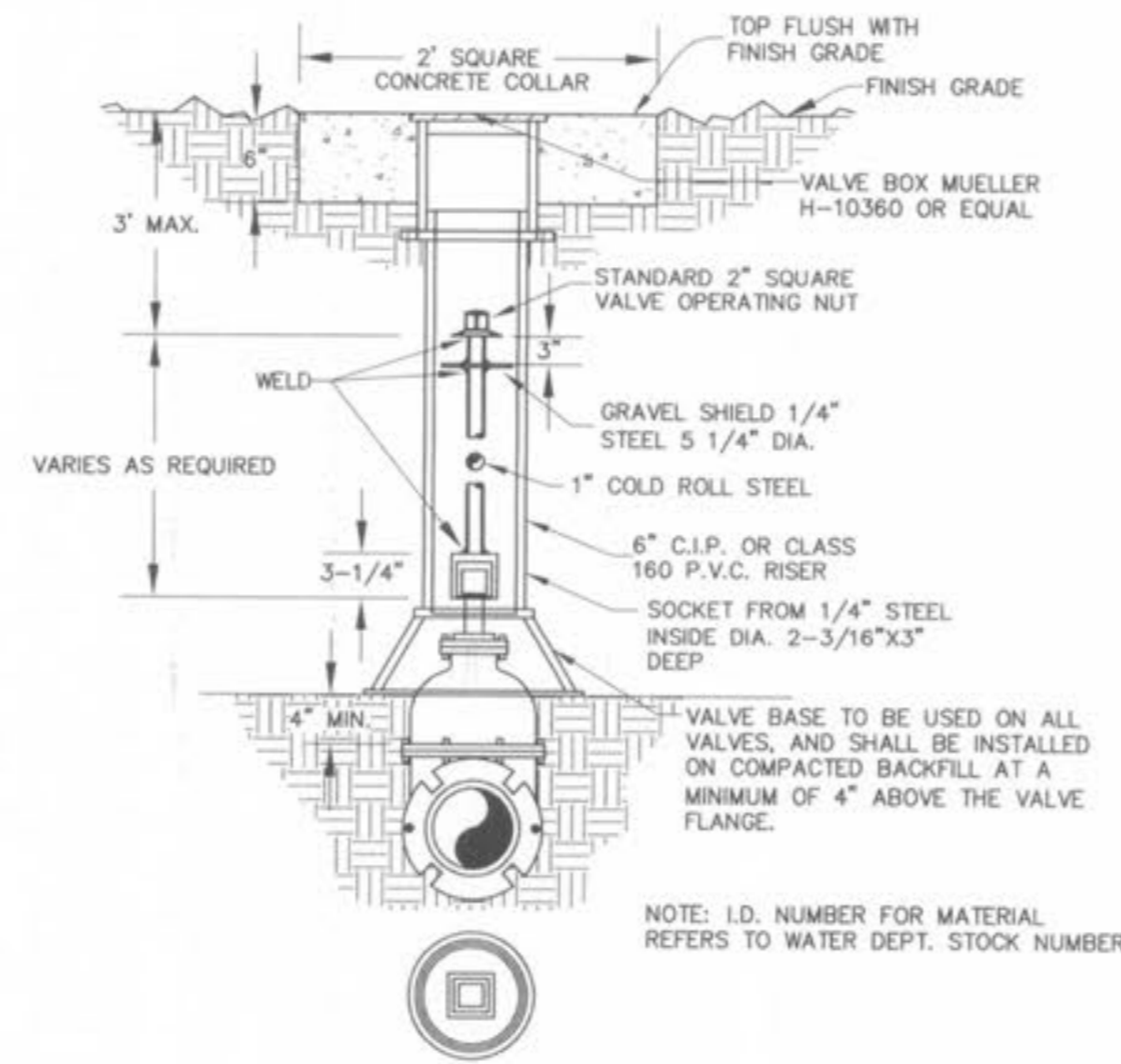
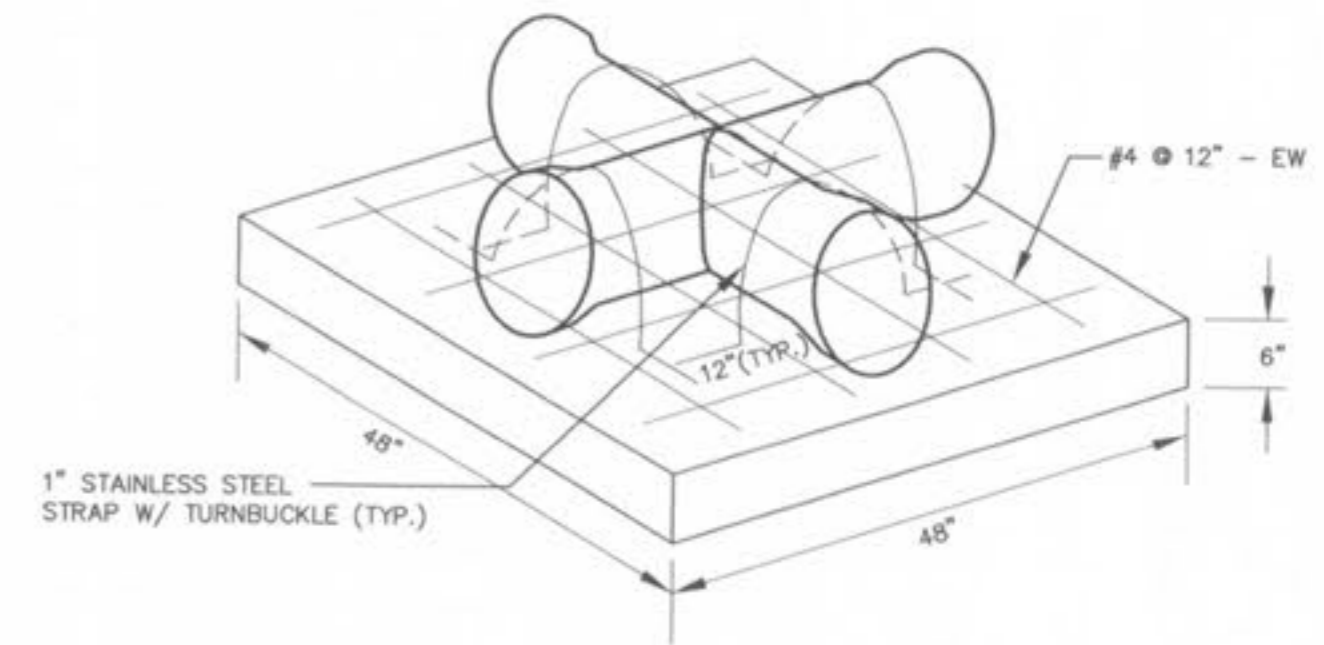


TOP VIEW
CONCRETE COLLAR
NOT TO SCALE



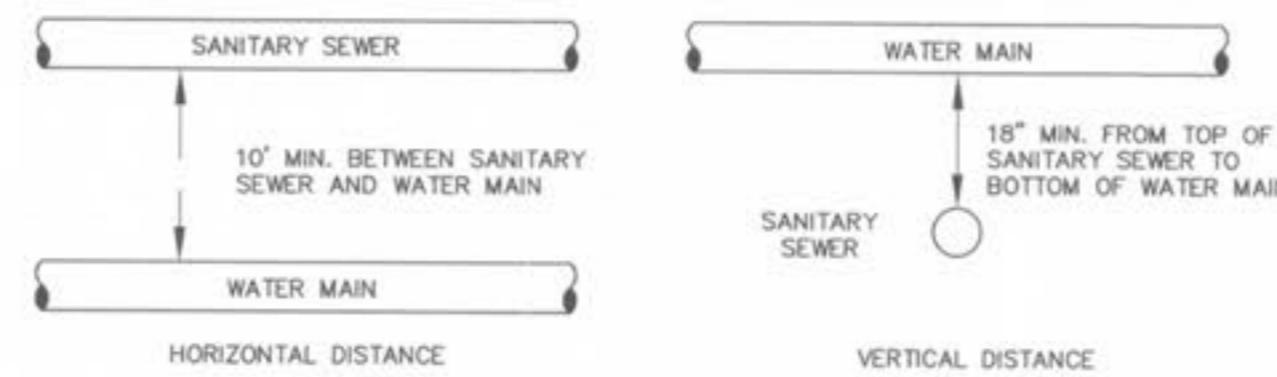
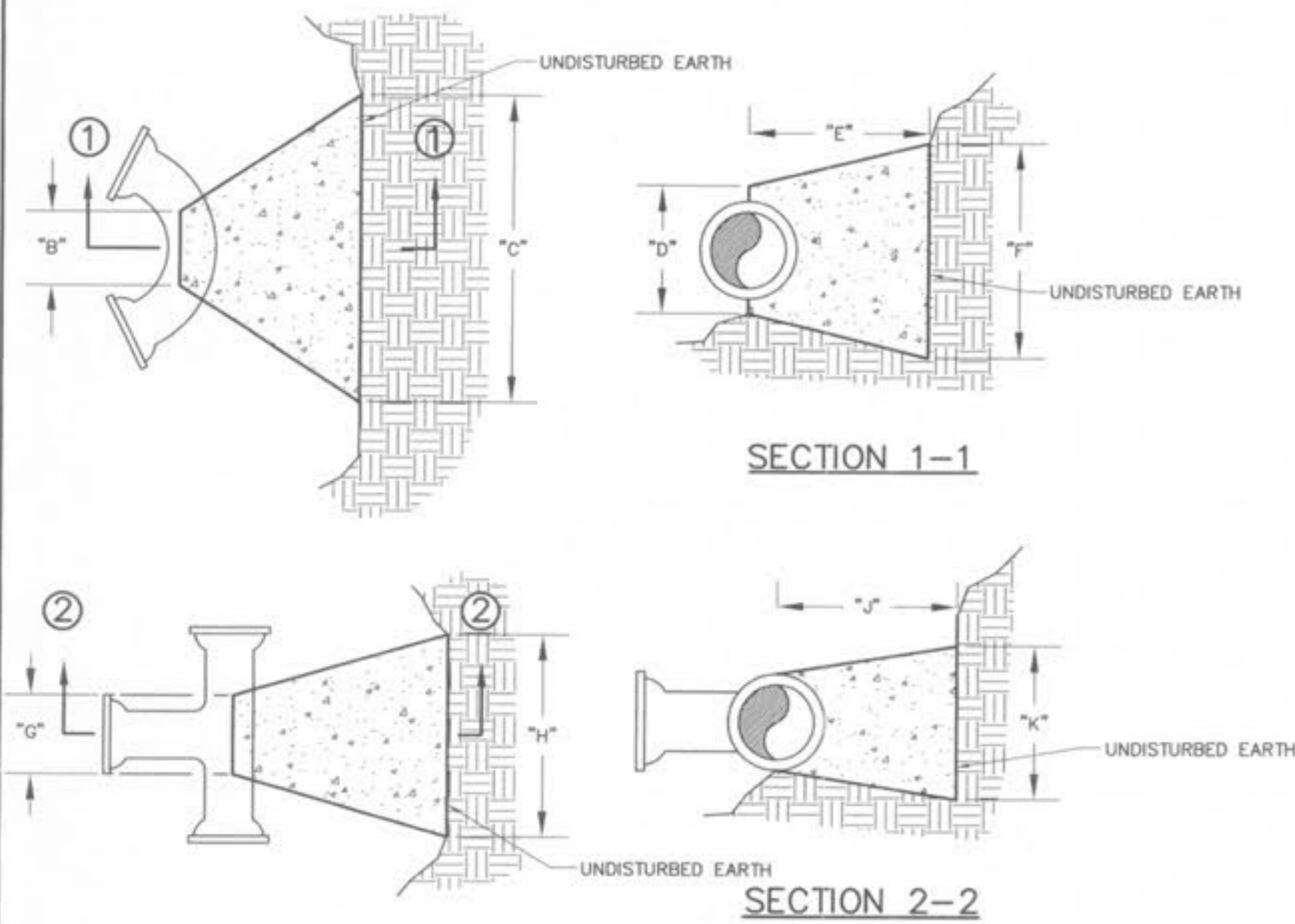
WATER VALVE DETAIL
(16" PIPE OR SMALLER)

NOT TO SCALE
STA. 41+26.76 (19.92' LT) (16")
STA. 41+27.92 (11.29' RT) (16")
STA. 92+70.20 (6.58' RT) (16")

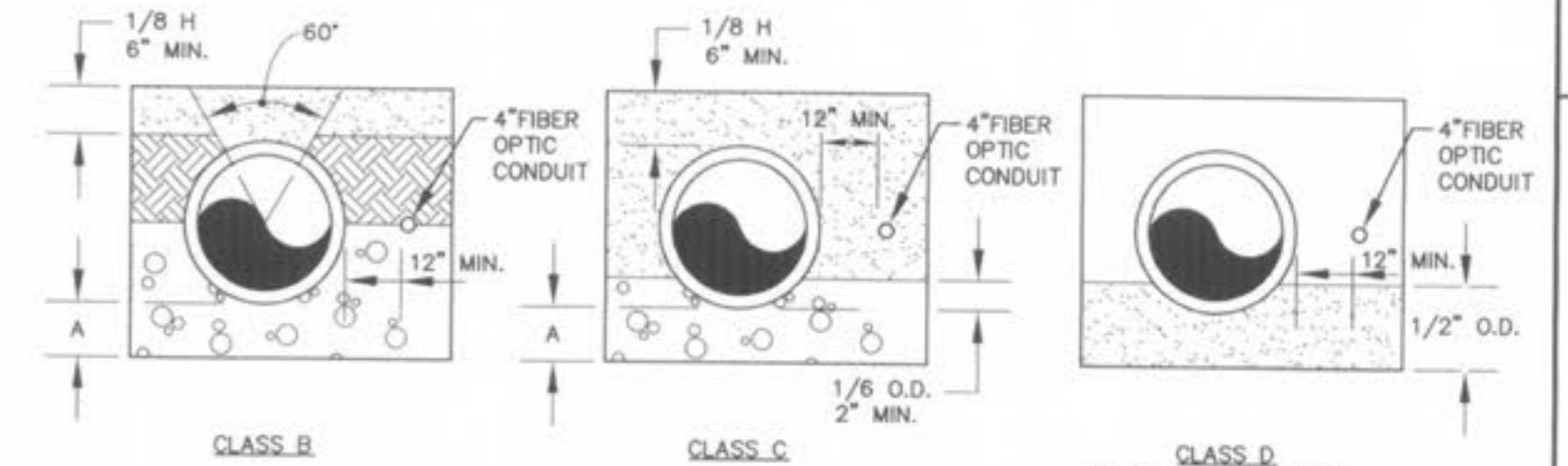


CROSS TIE DOWN
NOT TO SCALE

NOTE: CONTRACTOR SHALL INSTALL ELEVATED SADDLE AREA TO ENSURE PROPER CLEARANCE FOR INSTALLATION OF RESTRAINED JOINTS.



TYPICAL WATER AND SEWER SEPERATION
NOT TO SCALE



LEGEND:

- I.D. - NOMINAL PIPE SIZE
- O.D. - OUTSIDE DIAMETER OF PIPE
- H - COVER ABOVE TOP OF PIPE
- A - EMBEDMENT BELOW PIPE (SEE TABLE)
- TAMPED BACKFILL
- COMPACTED BACKFILL
- GRANULAR BEDDING

TABLE OF EMBEDMENT DEPTHS BELOW PIPE

I.D.	MIN. SOIL	MIN. ROCK
27" & SMALLER	3"	6"

GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" (95% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 95% RETAINED ON A #4. TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL OR VIBRATING.

COMPACTED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T. D698, OR GRADED AGGREGATE. GRANULAR BACKFILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF COMPACTED BACKFILL.

TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, HAND PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK AND TAMPED AROUND CONDUIT PIPE. GRANULAR BACKFILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACKFILL.

TRENCH BACKFILL SHALL BE AS REQUIRED IN THE "LAYING AND BACKFILL" SECTION OF THE DETAILED SPECIFICATIONS.

EMBEDMENT THE TYPE OF EMBEDMENT TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

TRACER WIRE REQUIRED ON ALL WATER MAINS

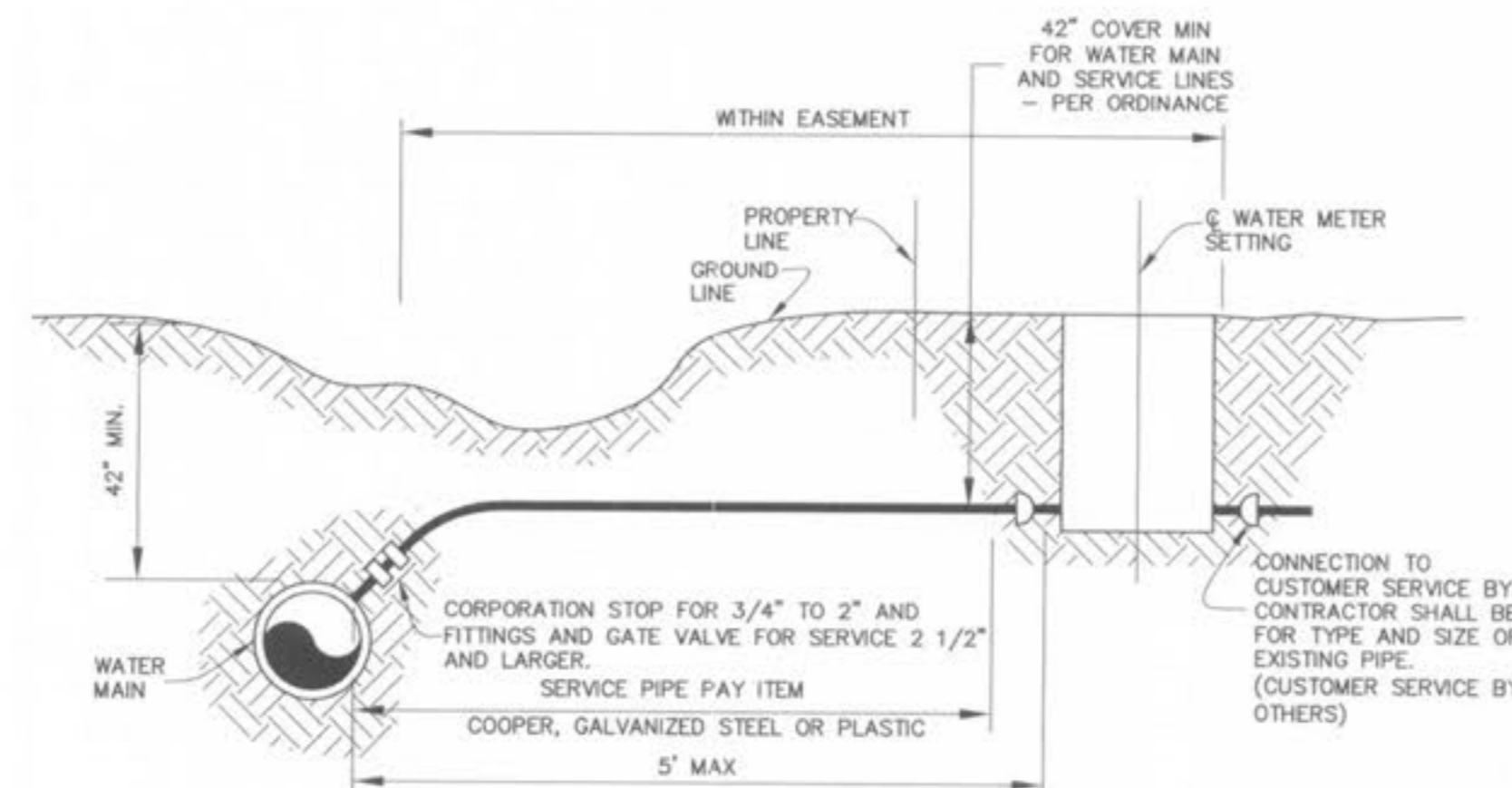
WATER MAIN EMBEDMENT
NOT TO SCALE

BENDS	"B"	"C"	"D"	"E"	"F"
6"-11 1/4"	8"	15"	12"	24"	10"
6"-22 1/2"	8"	19"	12"	24"	13"
6"-45"	8"	30"	12"	24"	15"
6"-90"	8"	30"	12"	24"	28"
8"-11 1/4"	8"	20"	12"	24"	10"
8"-22 1/2"	8"	22"	12"	24"	18"
8"-45"	8"	31"	12"	24"	24"
8"-90"	8"	38"	12"	24"	36"
12"-11 1/4"	8"	30"	12"	24"	15"
12"-22 1/2"	8"	35"	12"	24"	25"
12"-45"	8"	40"	12"	24"	40"
12"-90"	8"	60"	12"	24"	52"
16"-11 1/4"	TL	28"	20"	24"	28"
16"-22 1/2"	TL	39"	20"	24"	39"
16"-45"	TL	55"	20"	24"	55"
16"-90"	TL	91"	20"	24"	60"
20"-11 1/4"	TL	34"	24"	26"	34"
20"-22 1/2"	TL	48"	24"	26"	48"
20"-45"	TL	74"	24"	26"	60"
20"-90"	TL	136"	24"	26"	60"
24"-11 1/4"	TL	40"	28"	28"	40"
24"-22 1/2"	TL	56"	28"	28"	56"
24"-45"	TL	101"	28"	28"	60"
24"-90"	TL	186"	28"	28"	60"
30"-11 1/4"	TL	49"	34"	30"	49"
30"-22 1/2"	TL	79"	34"	30"	60"
30"-45"	TL	154"	34"	30"	60"
30"-90"	TL	285"	34"	30"	60"

TEES	"G"	"H"	"J"	"K"
6"x6"x6"	12"	24"	24"	18"
8"x8"x8"	12"	24"	24"	18"
8"x8"x8"	12"	27"	24"	27"
12"x12"x8"	12"	24"	24"	18"
12"x12"x8"	12"	27"	24"	27"
12"x12"x12"	12"	36"	24"	36"
24"x24"x16"	16"	53"	28"	53"

- NOTES:
1. 2" & 4" FITTINGS EQUIVALENT TO 6" FITTINGS.
2. TAPPING SLEEVES TO HAVE BACKING BLOCKS SAME SIZE AS REQUIRED FOR TEES.
3. "TL" = TOTAL LENGTH OF FITTING MINUS CLEARANCE FOR BELLS.

INTERNAL WATER PRESSURE 6" THRU 12"=200 psi
INTERNAL WATER PRESSURE 16" THRU 30"=210 psi
BEARING PRESSURE OF SOIL=2000 psi
BACKING BLOCKS
NOT TO SCALE



TYPICAL SERVICE ASSEMBLY
NOT TO SCALE

MAIN STREET
TRANSMISSION MAIN

DETAILS

CITY OF O'FALLON
COMMUNITY DEVELOPMENT
DESIGN DIVISION
O'FALLON, MISSOURI



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SEAL

DESIGNED: ERB
CHECKED: CEM
DATE: 12/05/02
PROJECT NO.: 01-067

SHEET

27 OF 29