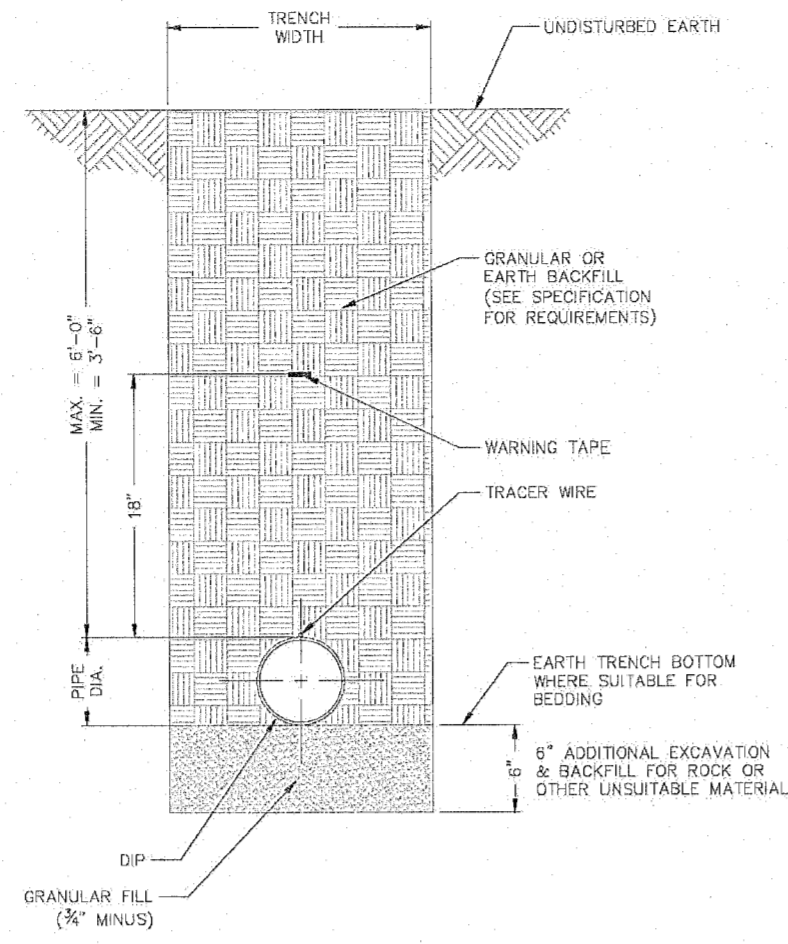


**NOTES**

- 1) SEE SPECIFICATIONS FOR BEDDING AND BACKFILL.

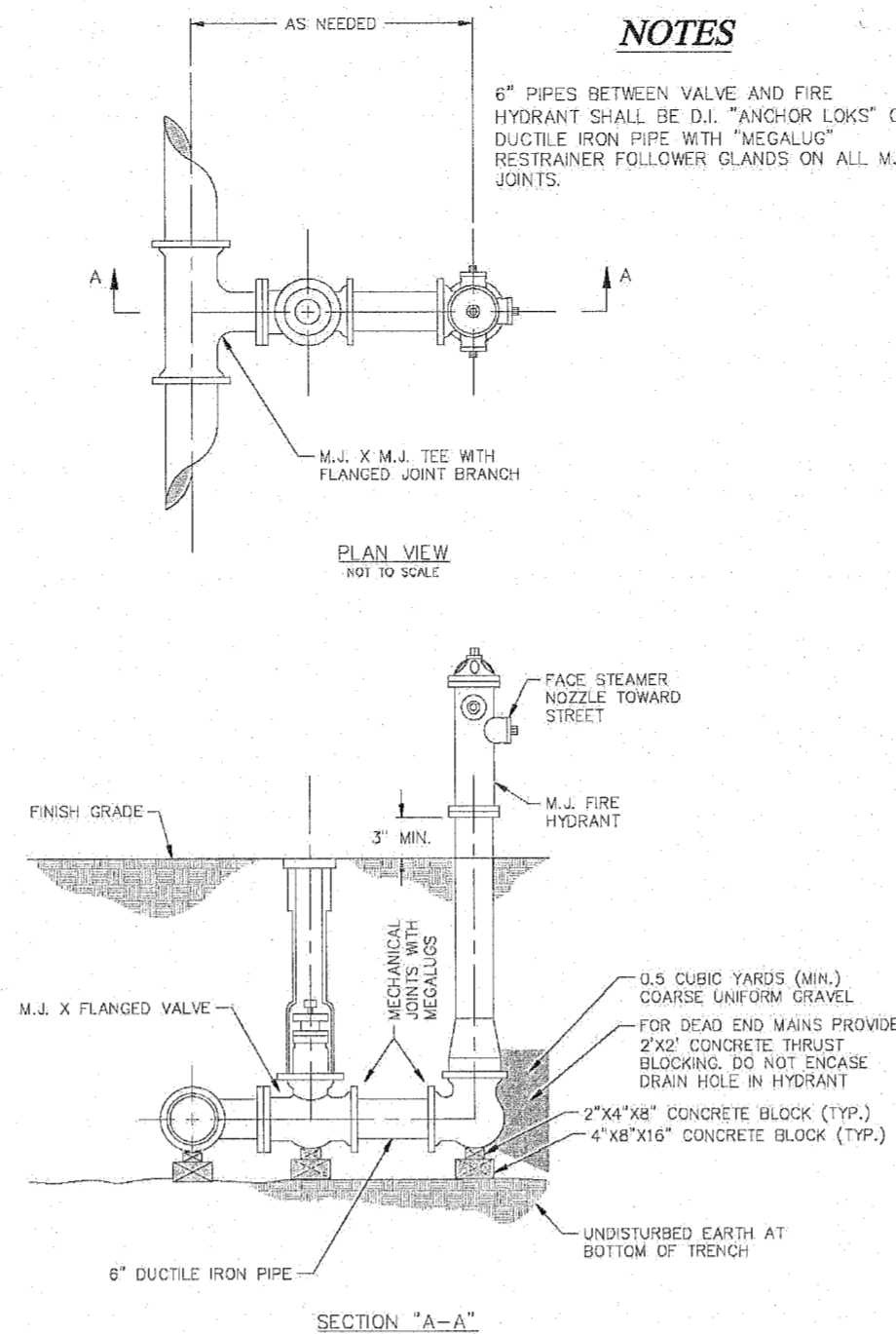
TYPICAL TRENCH SECTION FOR PVC PIPE  
DETAIL "A"  
PAGE 1 OF 2



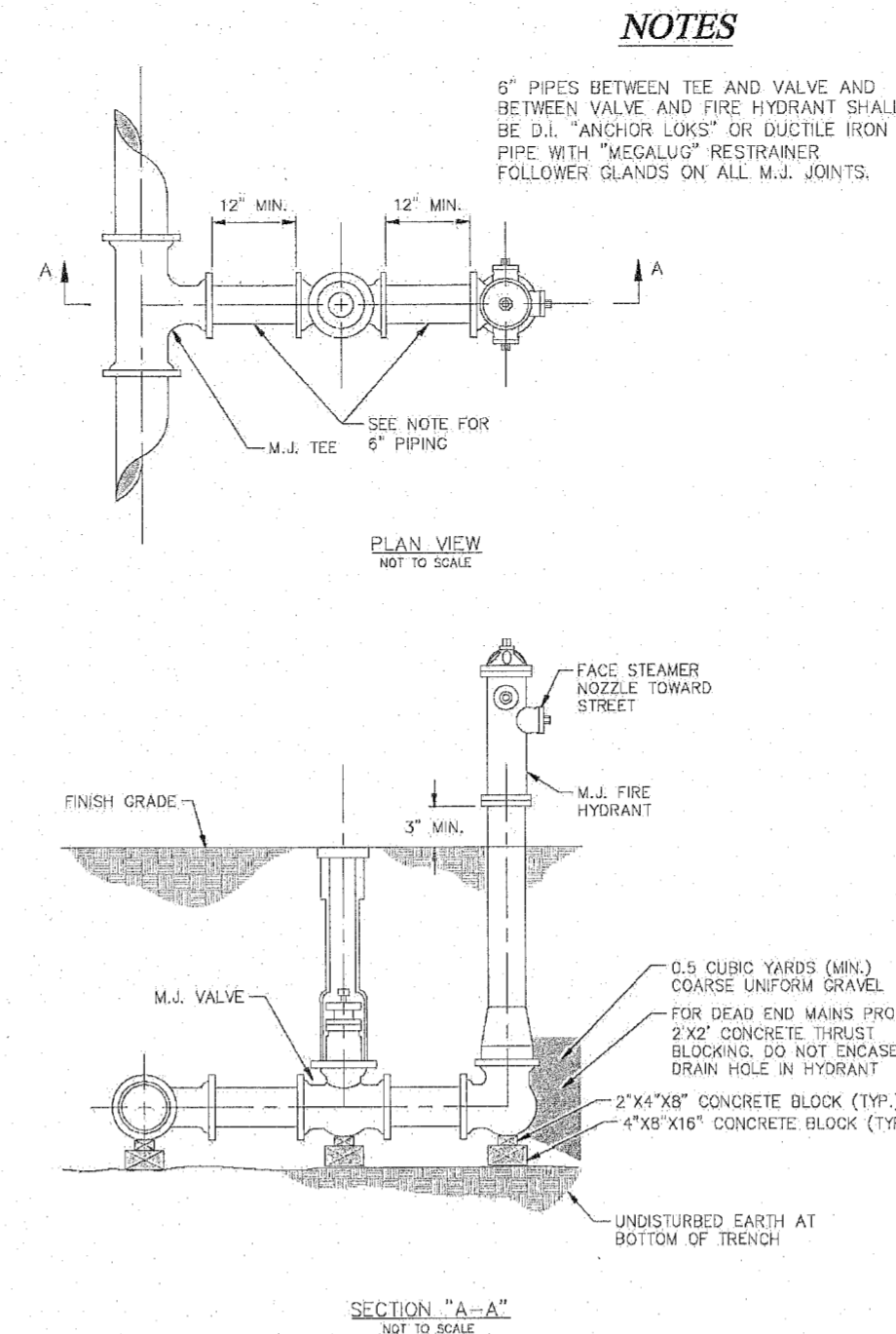
**NOTES**

- 1) POLYWRAP REQUIRED FOR DUCTILE IRON PIPE
- 2) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

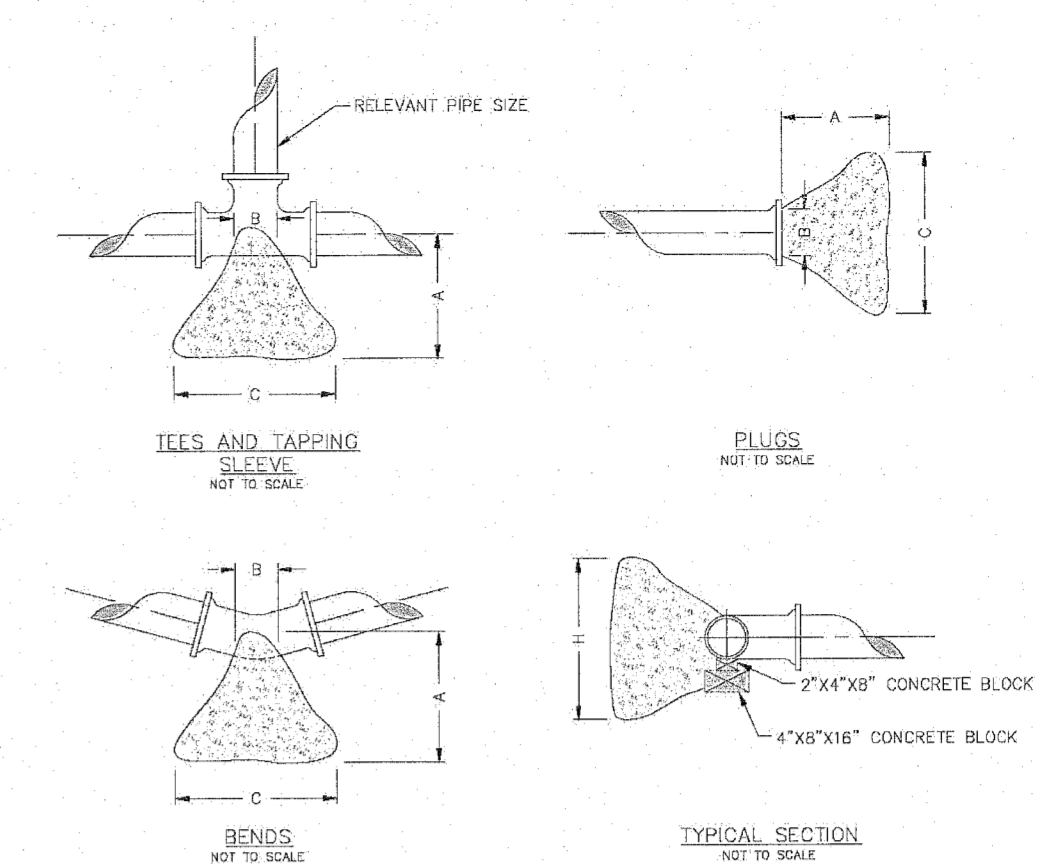
TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE  
DETAIL "A"  
PAGE 2 OF 2



FIRE HYDRANT DETAIL  
DETAIL "B"  
PAGE 1 OF 3



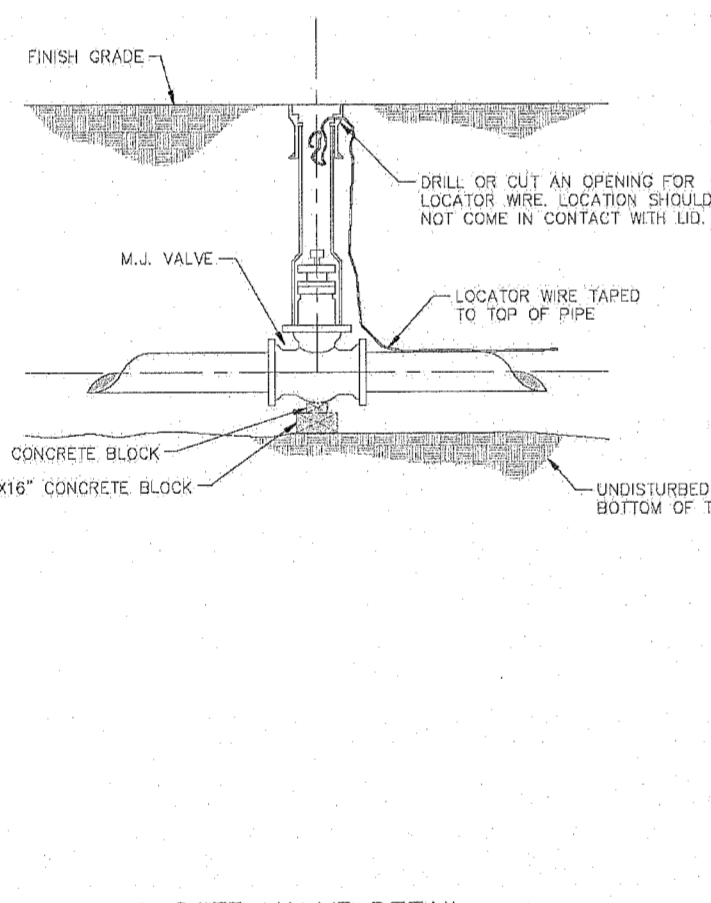
FIRE HYDRANT DETAIL  
DETAIL "B"  
PAGE 2 OF 3



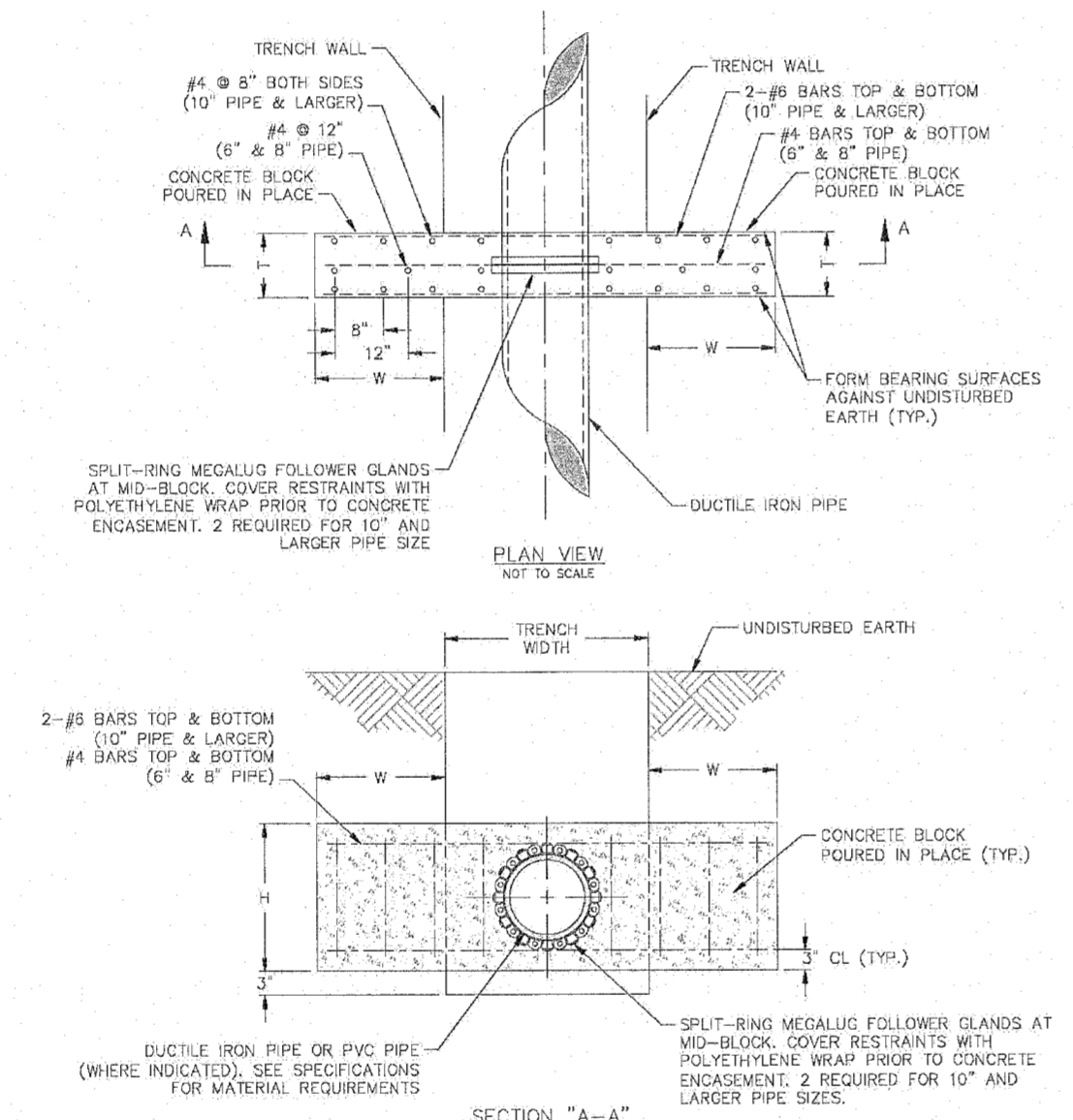
**THRUST BLOCK DIMENSIONS - INCHES**

PIPE DIA.	ALL FTGS.			90 DEGREE BEND			45 DEGREE BEND			22-1/2 BEND			11-1/4 BEND		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4	14	4	24	12	26	15	18	12	12	12	12	12	12	12	12
6	16	6	36	18	36	24	30	18	24	12	12	12	12	12	12
8	20	8	36	30	42	36	36	24	24	18	18	12	12	12	12
10	20	10	48	36	66	36	36	36	28	24	18	18	12	12	12
12	24	12	66	36	82	42	52	36	40	24	28	18	12	12	12

**NOTE**  
FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.  
HORIZONTAL THRUST BLOCKING  
DETAIL "C"



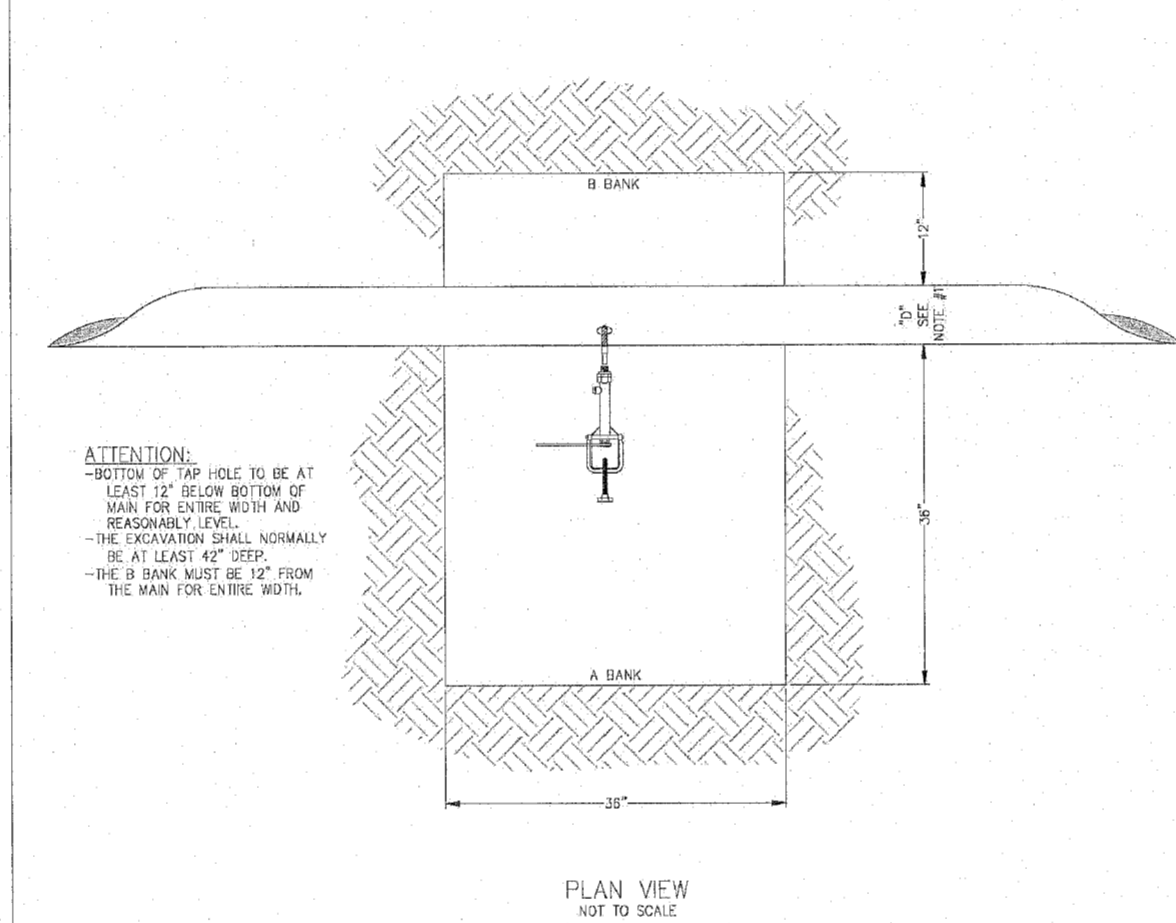
GATE VALVE DETAIL  
DETAIL "D"



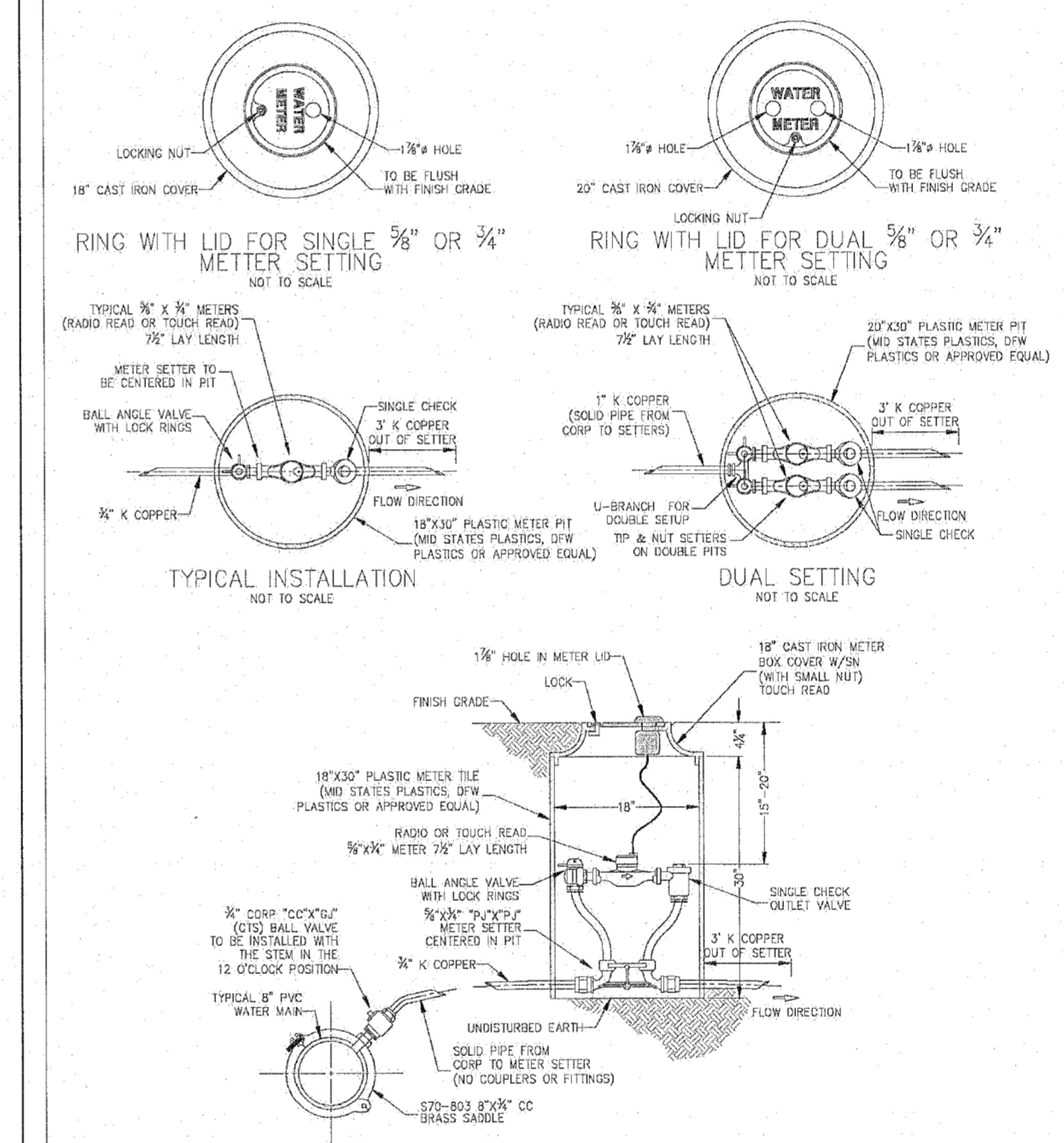
**CROSS BLOCK DIMENSIONS**

PIPE DIA. 1"	WIDTH "W"	HEIGHT "H"	THICKNESS "T"
4	12	12	12
6	24	24	12
8	36	36	18
10	36	36	18
12	36	36	18

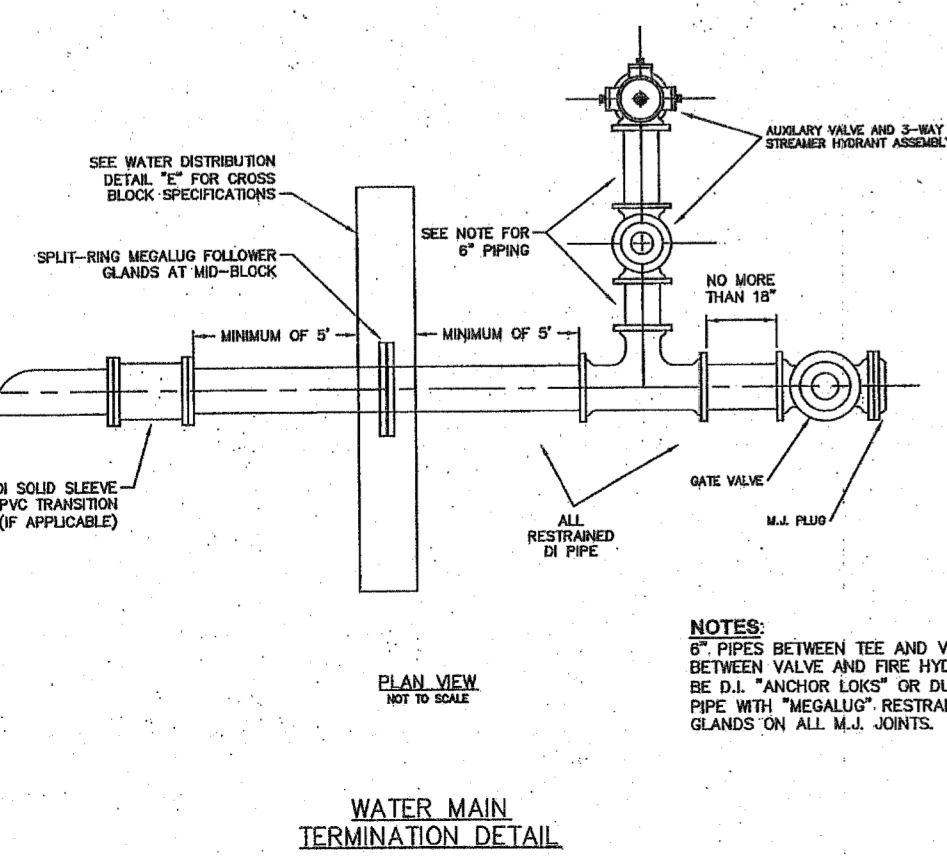
CROSS BLOCK  
DETAIL "E"



TYPICAL 3/4" SERVICE CONNECTIONS  
TAP HOLE DIMENSIONS  
DETAIL "A"



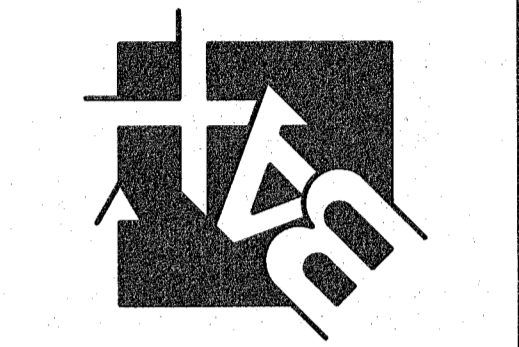
TYPICAL 3/4" RESIDENTIAL WATER SERVICE  
DETAIL "B"



WATER MAIN  
TERMINATION DETAIL

**PROJECT TITLE:**  
**THE VILLAS AT KEATON WOODS**

**ENGINEERING PLANNING SURVEYING**  
221 Point West Blvd.  
St. Charles, MO 63301  
636-628-6552  
FAX 636-628-1718



**DISCLAIMER OF RESPONSIBILITY**  
I hereby certify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

**REFERENCE ONLY**

**REVISIONS**

DATE	BY	DESCRIPTION
12/19/16	P.W.S.D.#2	BUCKET COMMENTS
01/05/17	P.W.S.D.#2	COMMENTS
02/20/17	CITY	COMMENTS
03/17/17	CITY	COMMENTS
09/20/18	CITY	COMMENTS
11/06/18	CITY	COMMENTS
12/14/18	CITY	COMMENTS
12/28/18	CITY	COMMENTS

**Developer / Owner:**  
**Bridgewater Communities, Inc.**  
P.O. Box 4607  
Chesterfield, Missouri 63005  
636-294-6020

**P+Z No.** 18-003986  
June 7, 2018  
**City No.** #18-009384  
Permit #RSP18-000006

**Page No.**  
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**ENGINEERS SEAL DOES NOT APPLY TO DETAILS ON THIS SHEET.**

**WATER DETAILS**