

REVISIONS

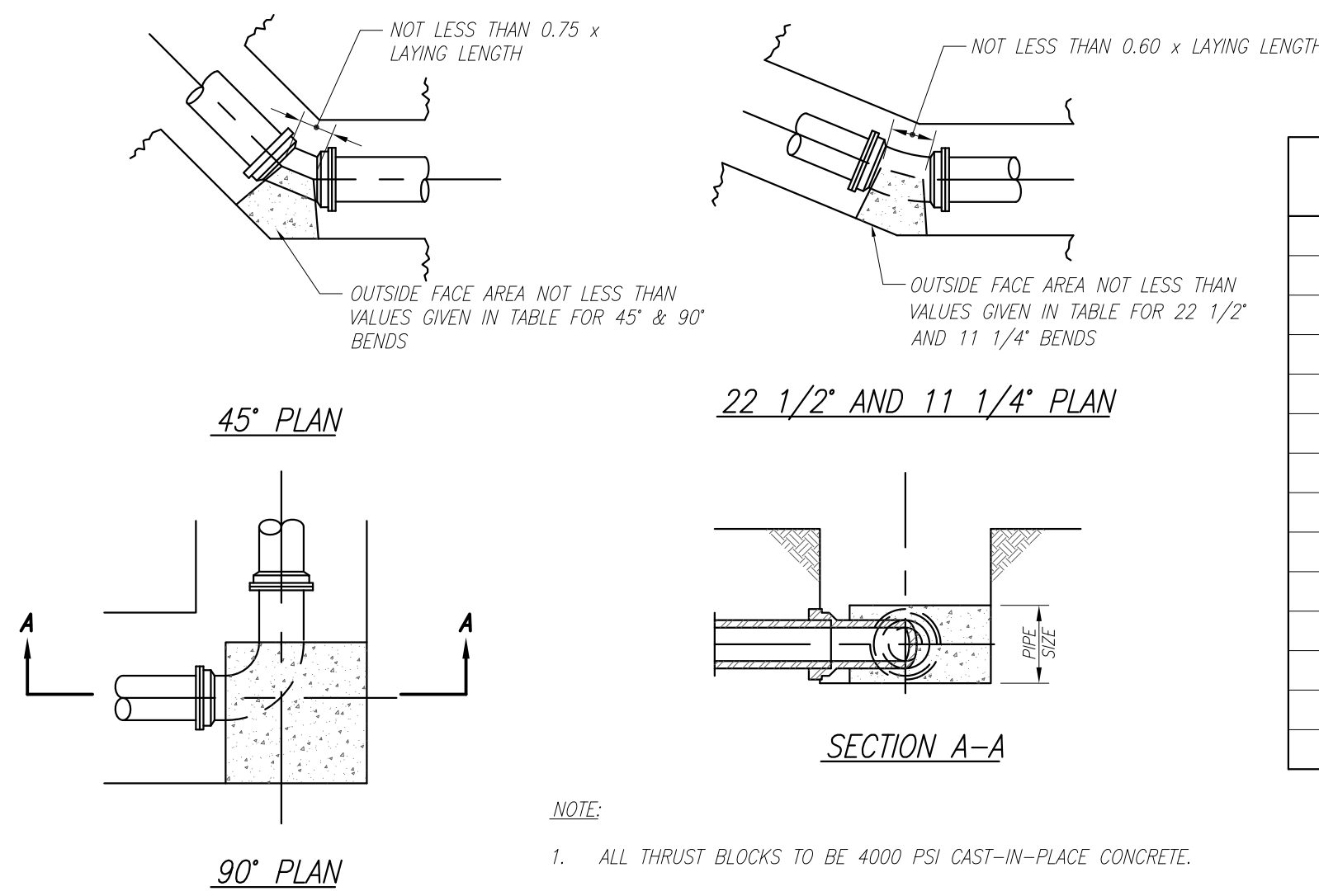
Rev. No. Description Date

CERTIFIED BY:

Scale: AS NOTED

Sheet: 10 of 17

Date: 8/11/09

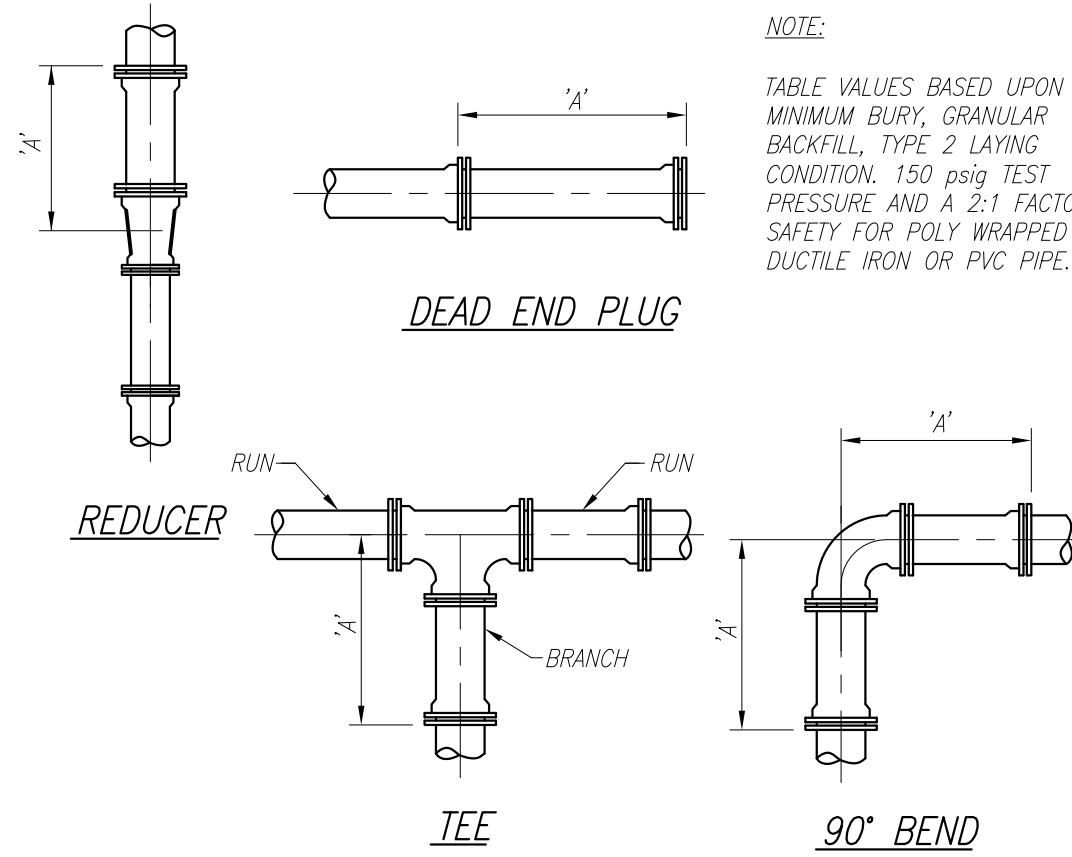


THRUST BLOCKING DETAILS

NOT TO SCALE

SIZE	TEE & PLUG	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	2.0	2.5	1.5	1.0	1.0
6"	4.0	5.5	3.0	1.5	1.0
8"	6.5	9.0	5.0	2.5	1.5
10"	10.0	14.0	7.5	4.0	2.0
12"	14.0	20.0	11.0	5.5	3.0
14"	19.0	27.0	14.5	7.5	4.0
16"	25.0	35.0	19.0	10.0	5.0
18"	31.5	44.5	24.0	12.5	6.5
20"	40.0	54.0	31.0	16.5	7.5
24"	55.5	78.5	42.5	22.0	11.0
30"	86.5	122.0	66.0	34.0	17.0
36"	124.0	175.5	95.0	48.5	24.5
42"	168.0	237.5	128.5	65.5	33.0
48"	212.0	306.0	160.0	85.0	42.0

(MINIMUM AREA IN SQ. FT. REQUIRED FOR CONCRETE THRUST BLOCKING)



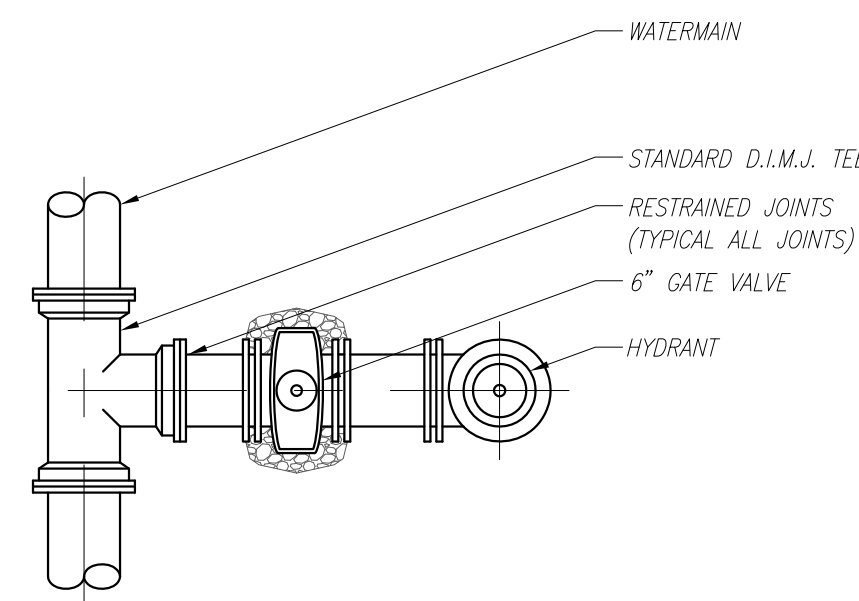
RESTRAINED JOINT FITTING DETAILS

NOT TO SCALE

REDUCERS

FITTING SIZE	'A'										REDUCERS	
	90° HORIZ. BEND	45° HORIZ. BEND	22 1/2° HORIZ. BEND	BRANCH FOR TAPPING SLEEVE OR TEE	DEAD END PLUG OR IN-LINE VALVE	45° VERTICAL DOWNWARD BEND	22 1/2° VERTICAL DOWNWARD BEND	45° VERTICAL UPWARD BEND	22 1/2° VERTICAL UPWARD BEND	DIFFERENCE IN REDUCER NOMINAL SIZE	RESTRAINED JOINT LENGTH	
4"	31'-0"	13'-0"	6'-0"	54'-0"	54'-0"	34'-0"	17'-0"	13'-0"	6'-0"	2-INCHES	44'-0"	
6"	45'-0"	19'-0"	9'-0"	77'-0"	77'-0"	49'-0"	24'-0"	19'-0"	9'-0"	4-INCHES	83'-0"	
8"	58'-0"	24'-0"	12'-0"	101'-0"	101'-0"	64'-0"	31'-0"	24'-0"	12'-0"	6-INCHES	117'-0"	
12"	83'-0"	34'-0"	17'-0"	146'-0"	146'-0"	93'-0"	44'-0"	34'-0"	17'-0"	8-INCHES	153'-0"	
14"	96'-0"	40'-0"	19'-0"	169'-0"	169'-0"	107'-0"	51'-0"	40'-0"	19'-0"	12-INCHES	228'-0"	
16"	108'-0"	45'-0"	21'-0"	191'-0"	191'-0"	121'-0"	58'-0"	45'-0"	21'-0"			

NOTE: RESTRAINING JOINTS ARE REQUIRED AT ALL LOCATIONS AS REQUIRED PER THE ABOVE CHART UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.



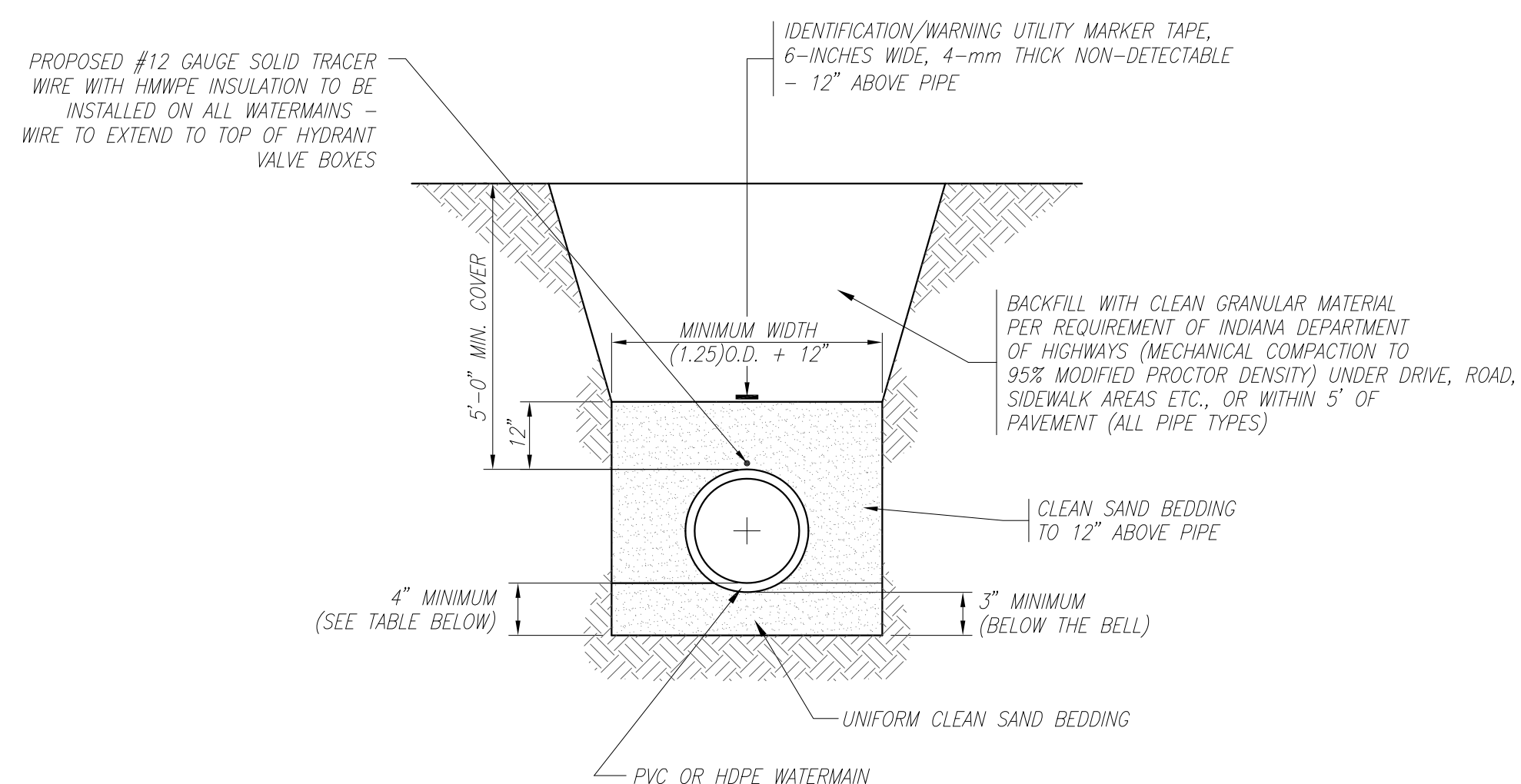
INSTALLATION PERPENDICULAR TO MAIN

NOT TO SCALE

- NOTE:**
- SEE SHEET 11 FOR VALVE AND HYDRANT LOCATIONS WHEN SIDEWALKS ARE REQUIRED.

FIRE HYDRANT CONNECTION DETAIL

NOT TO SCALE

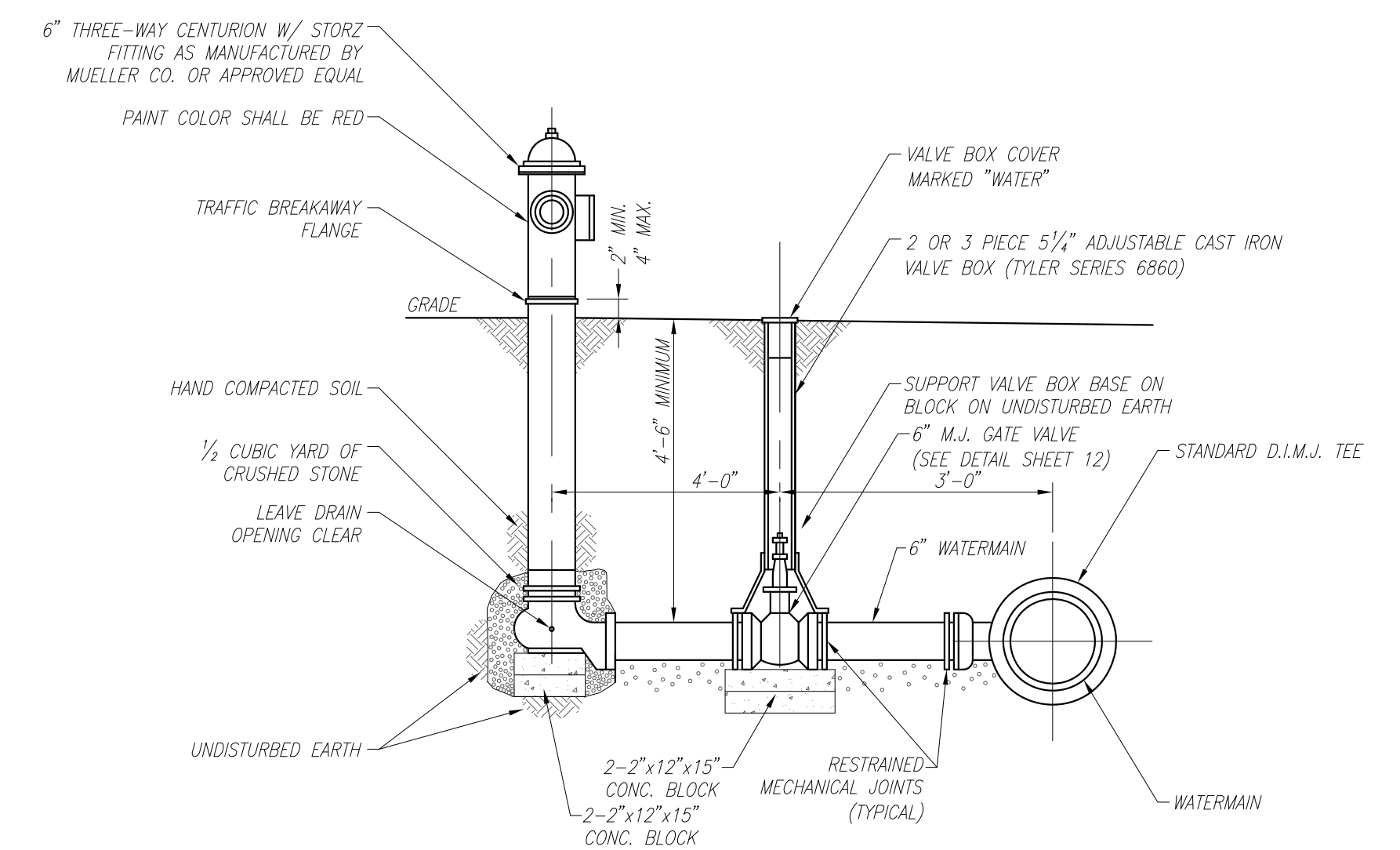


PIPE SIZE	6" TO 14"	16" AND OVER
BEDDING BELOW THE PIPE BARREL	O.D./4 MIN.=4"	O.D./4 MAX.=8"

TYPICAL HDPE PIPE TRENCH DETAIL

NOT TO SCALE

- NOTES:**
- CLEAN SAND BEDDING SHALL BE FREE OF OTHER SOIL AND DEBRIS AND BE WITH NO MORE THAN 5% OF THE MATERIAL PASSING A #200 SIEVE.
 - HDPE WATERMANS TO BE ALLOWED WHEN SPECIFICALLY APPROVED BY THE TOWN ON A CASE-BY-CASE BASIS.



- HYDRANT NOTES:**
- HYDRANTS SHALL BE PROVIDED AT EACH STREET INTERSECTION AND AT INTERMEDIATE POINTS BETWEEN INTERSECTIONS OR AS DIRECTED BY THE TOWN ENGINEER OR THE CICERO FIRE DEPARTMENT.
 - HYDRANTS SHALL BE SPACED AT NO GREATER THAN 400 FEET.
 - HYDRANTS SHALL BE PLACED IN A LOCATION TO AVOID UNNECESSARY RISK OF DAMAGE AS REQUIRED.
 - ALL JOINTS TO BE MECHANICALLY RESTRAINED.

FIRE HYDRANT ASSEMBLY DETAIL

NOT TO SCALE