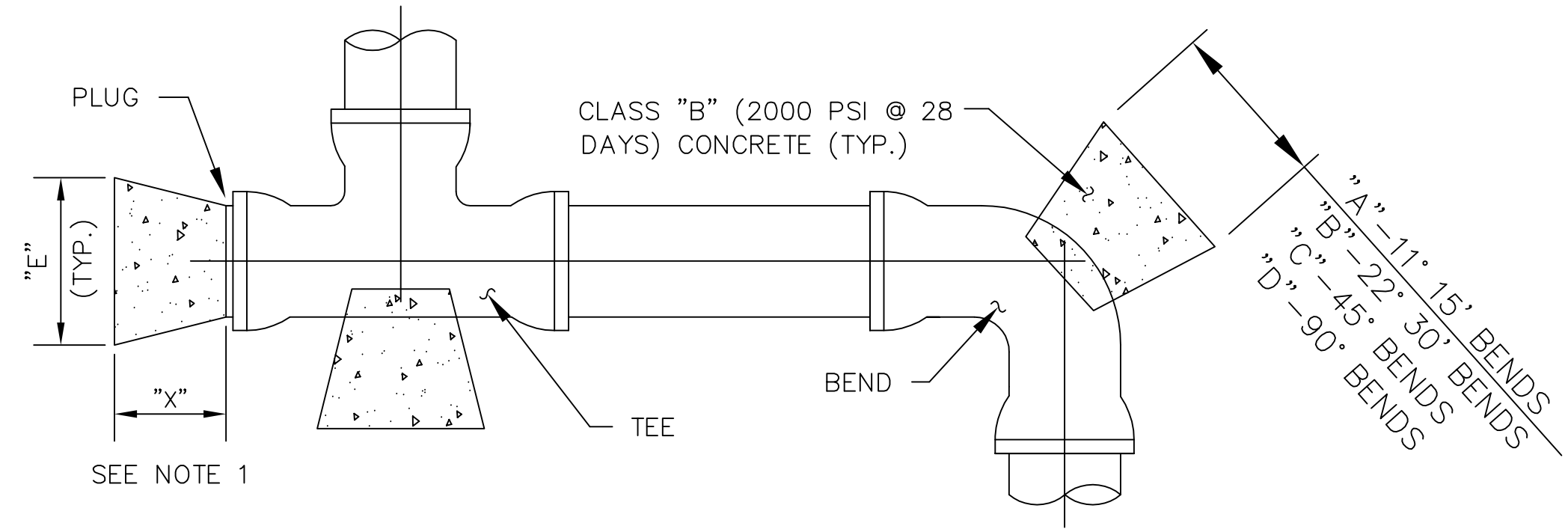


**WATER MAINS NOTE:**  
 ALL PVC 6 IN. OR GREATER,  
 MUST BE BLUE IN COLOR.  
 (NO 90 DEGREE BENDS ALLOWED)



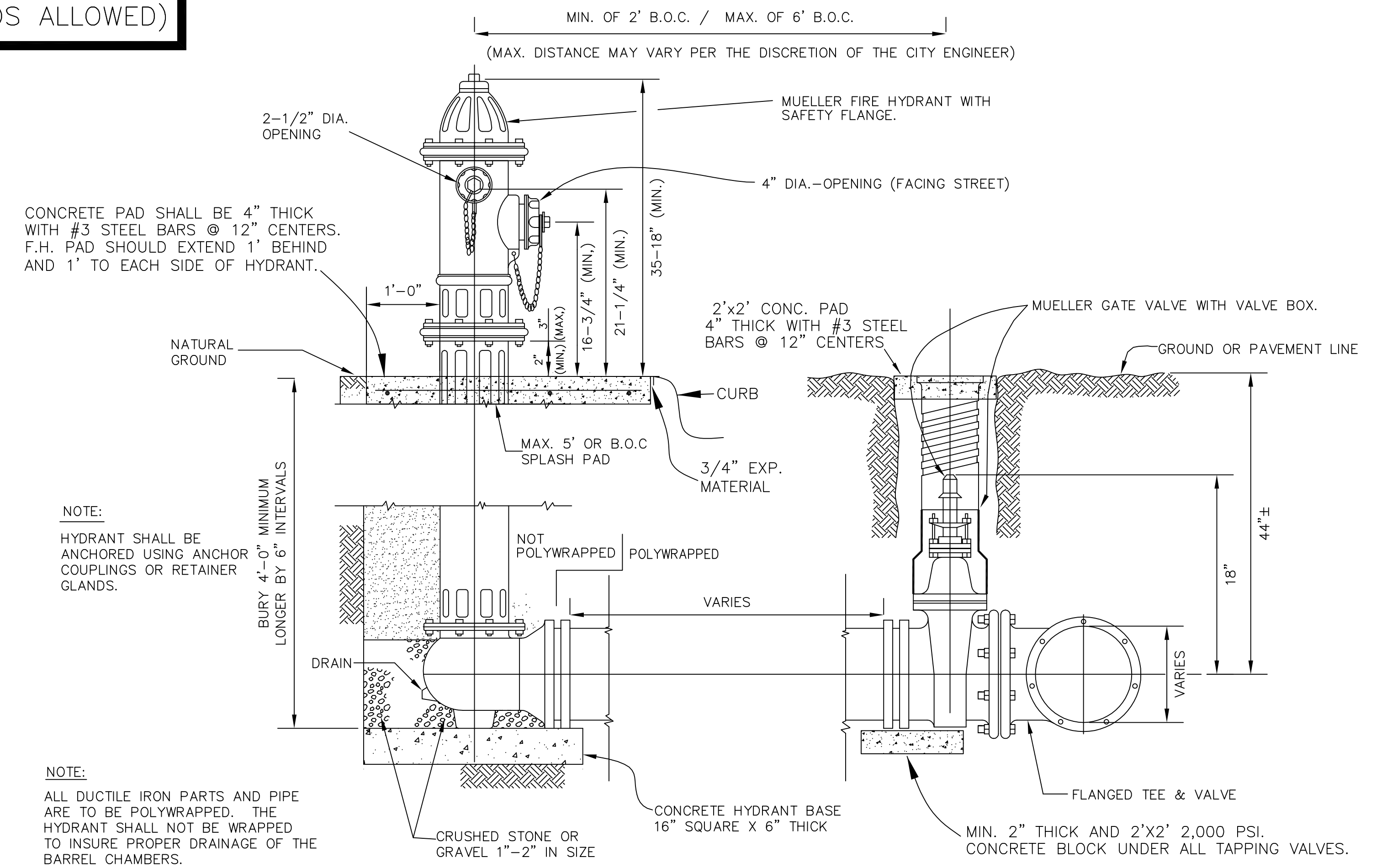
PIPE SIZE	"X"	11'-15'			22'-30'			45'			90'			TEE & PLUGS		
		"A"	MIN. AREA	MIN. VOL.	"B"	MIN. AREA	MIN. VOL.	"C"	MIN. AREA	MIN. VOL.	"D"	MIN. AREA	MIN. VOL.	"E"	MIN. AREA	MIN. VOL.
4"	1.00	1.50	2.25	0.10	1.50	2.25	0.10	1.50	2.25	0.10	1.50	2.25	0.10	1.50	2.25	0.10
6"	1.50	1.80	2.25	0.15	1.50	2.25	0.15	1.50	2.25	0.15	1.75	3.20	0.20	1.50	2.25	0.15
8"	1.50	1.75	3.20	0.20	1.75	3.20	0.20	1.75	3.20	0.20	2.00	4.00	0.25	1.75	3.20	0.20
10"	1.50	2.00	4.00	0.25	2.00	4.00	0.25	2.00	4.00	0.25	2.25	5.10	0.35	2.00	4.00	0.25
12"	1.50	2.25	5.00	0.30	2.25	5.00	0.30	2.25	5.00	0.30	2.80	8.00	0.50	2.40	5.80	0.35
16"	2.00	2.50	6.30	0.45	2.50	8.00	0.45	2.80	8.00	0.60	3.75	14.10	1.00	3.20	10.00	0.75
20"	2.00	2.75	7.80	0.60	2.75	12.50	0.60	3.50	12.50	0.90	4.75	22.60	1.70	4.00	16.00	1.20
24"	2.00	3.10	9.30	0.75	3.20	18.20	0.80	4.30	18.20	1.40	5.75	33.00	2.45	4.80	23.00	1.75
30"	2.50	3.50	12.30	1.10	3.80	27.00	1.30	5.20	27.00	2.50	6.80	46.00	3.40	5.90	35.00	2.60
36"	2.50	3.90	15.40	1.50	4.50	40.00	1.90	6.30	40.00	3.70	7.90	63.00	5.10	7.10	51.00	3.75
42"	3.00	4.30	18.50	2.00	5.25	55.00	3.00	7.40	55.00	5.10	9.00	81.00	7.90	8.30	69.00	5.25
48"	3.00	4.70	21.80	2.50	6.00	72.00	4.00	8.50	72.00	6.70	10.80	116.00	10.40	9.50	90.00	8.25
54"	4.00	5.00	25.00	3.70	6.75	92.00	6.70	9.60	92.00	10.00	13.00	169.00	16.00	10.70	115.00	12.00

- NOTES:**
- DIMENSION "X" MAY VARY IF NECESSARY TO PROVIDE BEARING AGAINST UNDISTURBED TRENCH WALL.
  - LENGTHS ARE IN UNITS OF FEET, AREAS ARE IN UNITS OF SQUARE FEET, AND VOLUMES ARE IN UNITS OF CUBIC YARDS.
  - ALL BEARING SURFACES OF THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH. IF, IN THE OPINION OF THE CITY, THE UNDISTURBED TRENCH WALL DOES NOT EXHIBIT ADEQUATE SOIL BEARING CHARACTERISTICS, THE VOLUME OF CONCRETE SHOWN IN THE TABLE SHALL BE INCREASED. THE ADJUSTED QUANTITIES MUST BE APPROVED BY THE CITY ENGINEER. ON CITY CONTRACT PROJECT, THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE LARGER THRUST BLOCKS.
  - VERTICAL DIMENSION OF ALL BLOCK BEARING AREAS SHALL BE IDENTICAL TO HORIZONTAL DIMENSIONS SHOWN.
  - THE THRUST BLOCKING SHALL BE CONSIDERED SUBSIDIARY TO THE COST OF INSTALLING THE PIPE.
  - CONCRETE FOR BLOCKING SHALL BE CLASS B CONCRETE MIX 4 SACK OR 94 LBS. PER BAG; WATER CEMENT RATIO = 8; 28-DAY STRENGTH = 2,000 P.S.I.

**HORIZONTAL BLOCKING**

**FIRE HYDRANT NOTES:**

- FIRE HYDRANTS SHALL BE COATED WITH FLYNT SILVER.
- ALL FIRE HYDRANTS SHALL BE PAINTED AFTER INSTALLATION.
- WATER SERVICES SHALL NOT BE CONNECTED TO FIRE HYDRANT LINES.
- FIRE HYDRANTS MUST HAVE THRUST BLOCKING.

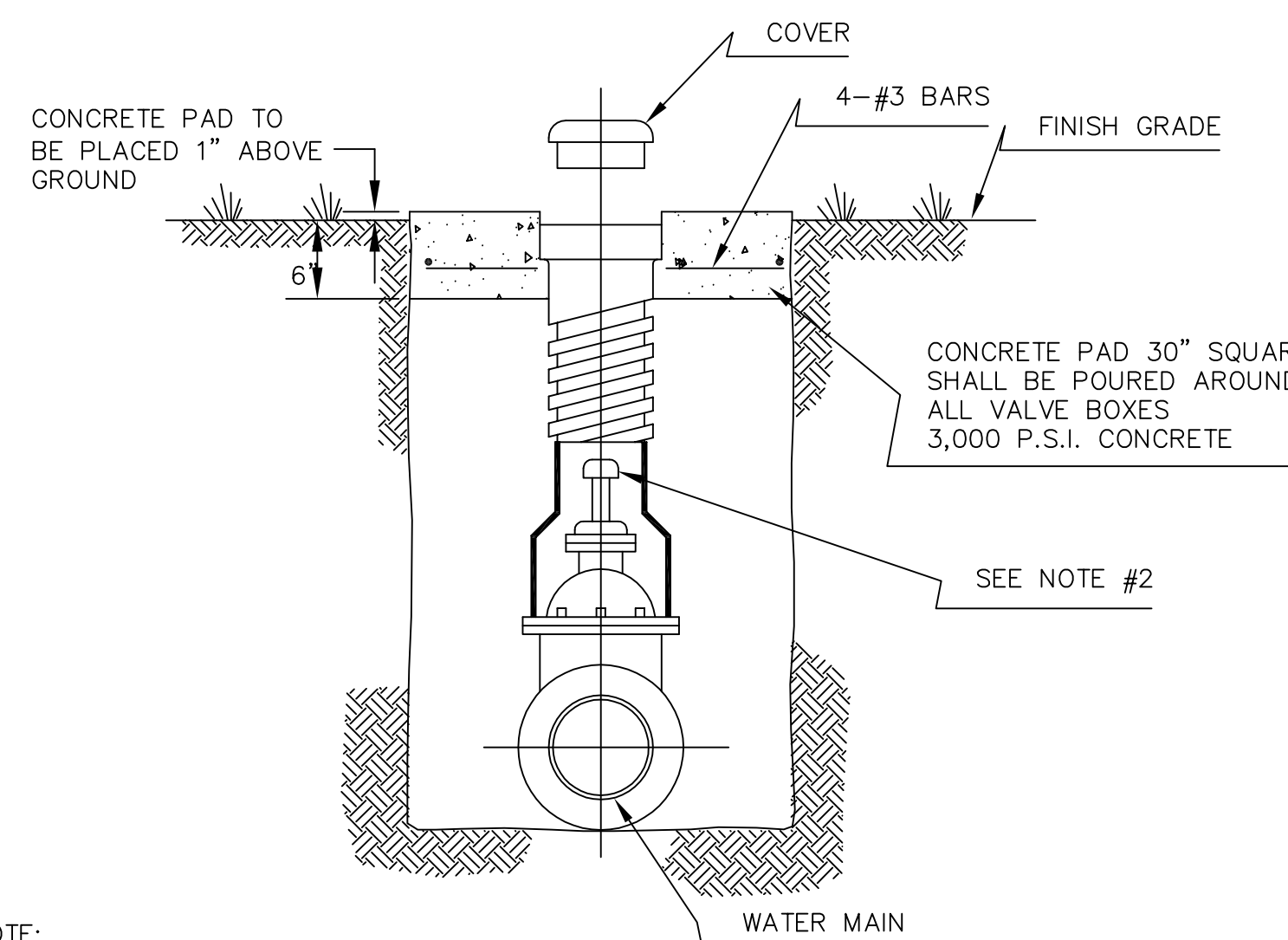


**NOTE:**  
 HYDRANT SHALL BE ANCHORED USING ANCHOR COUPLINGS OR RETAINER GLANDS.

**NOTE:**  
 ALL DUCTILE IRON PARTS AND PIPE ARE TO BE POLYWRAPPED. THE HYDRANT SHALL NOT BE WRAPPED TO INSURE PROPER DRAINAGE OF THE BARREL CHAMBERS.

**STANDARD FIRE HYDRANT DETAIL/INSTALLATION**

(APPROVED MANUFACTURERS: MUELLER, WATEROUS & AVK)



**NOTE:**

- 4"-12" RS GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509.
- A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4' OF VALVE BOX LID.
- THE LOCATION OF ALL VALVES AND SERVICES SHALL BE MARKED ON THE STREET OR ALLEY CURB AS DIRECTED BY THE CITY ENGINEER.
- ANY VALVE DEEPER THAN 5' MUST HAVE A VALVE EXTENSION. THE EXTENSION SHOULD BE A MAXIMUM OF 1' BELOW THE LID.

**TYPICAL VALVE SETTING AND BOX**

**GENERAL NOTES:**

**DISINFECTION**

- ALL WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED, FLUSHED, AND TESTED FOR COLIFORM BACTERIA. DISINFECTION SHALL BE BY THE INTRODUCTION OF A CHLORINE SOLUTION OF NO LESS THAN 50 MG/L WITH A DETENTION TIME OF NOT LESS THAN 24 HOURS.
- SAMPLES FOR BACTERIAL TESTING SHALL BE COLLECTED BY AUTHORIZED CITY PERSONNEL.

NO.	REVISION	BY	DATE

**CERTIFICATION: CITY OF DESOTO STANDARD CONSTRUCTION DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE DETAIL AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF DESOTO.**

**STANDARD CONSTRUCTION DETAILS**

CITY OF DESOTO, TEXAS  
 DEVELOPMENT SERVICES  
 ENGINEERING DEPARTMENT

**WATER**

DATE: APRIL, 2016

SHEET: SD-13

ENGINEERING SEAL