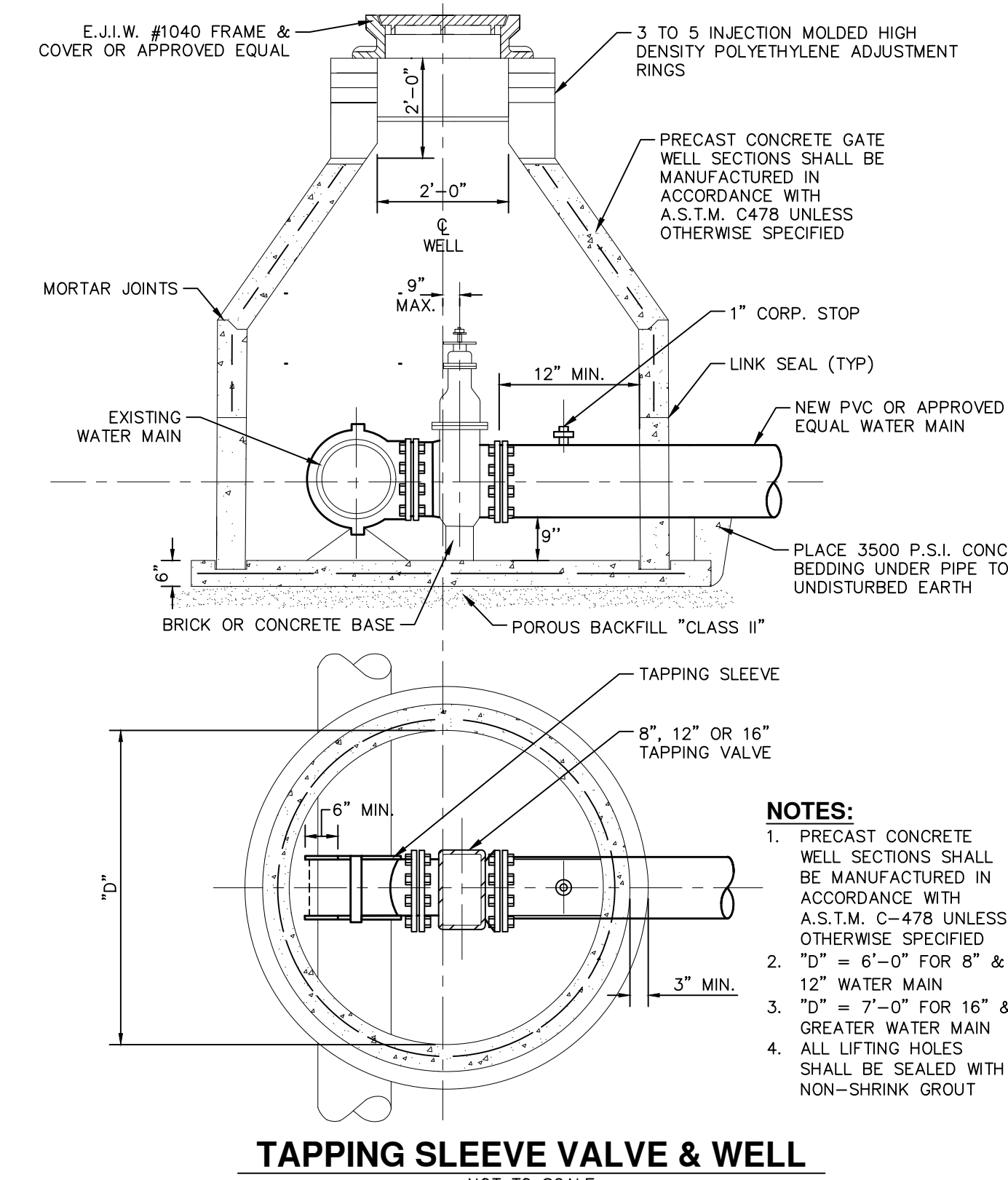
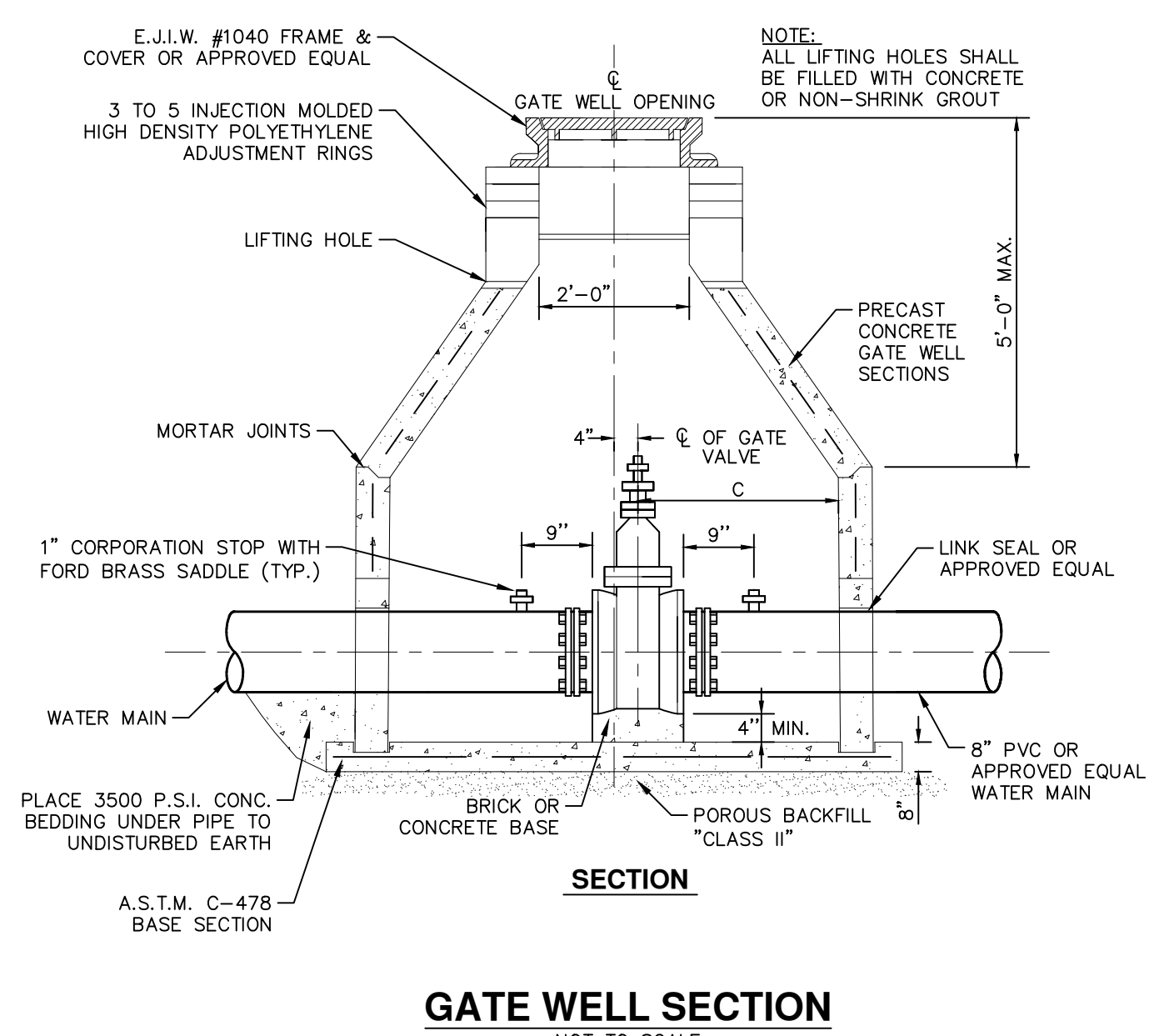


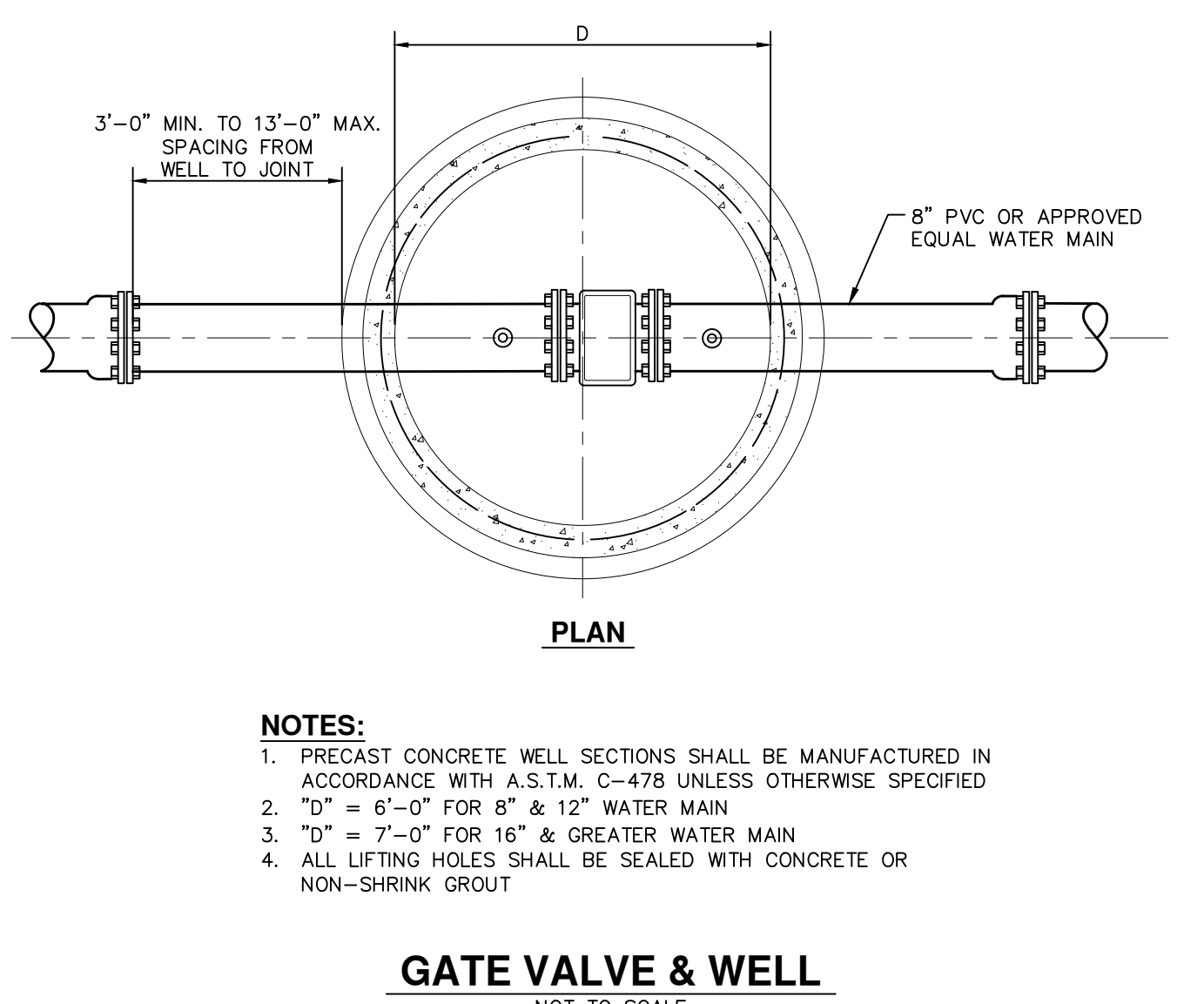
GATE WELL FRAME & COVER
 NOT TO SCALE



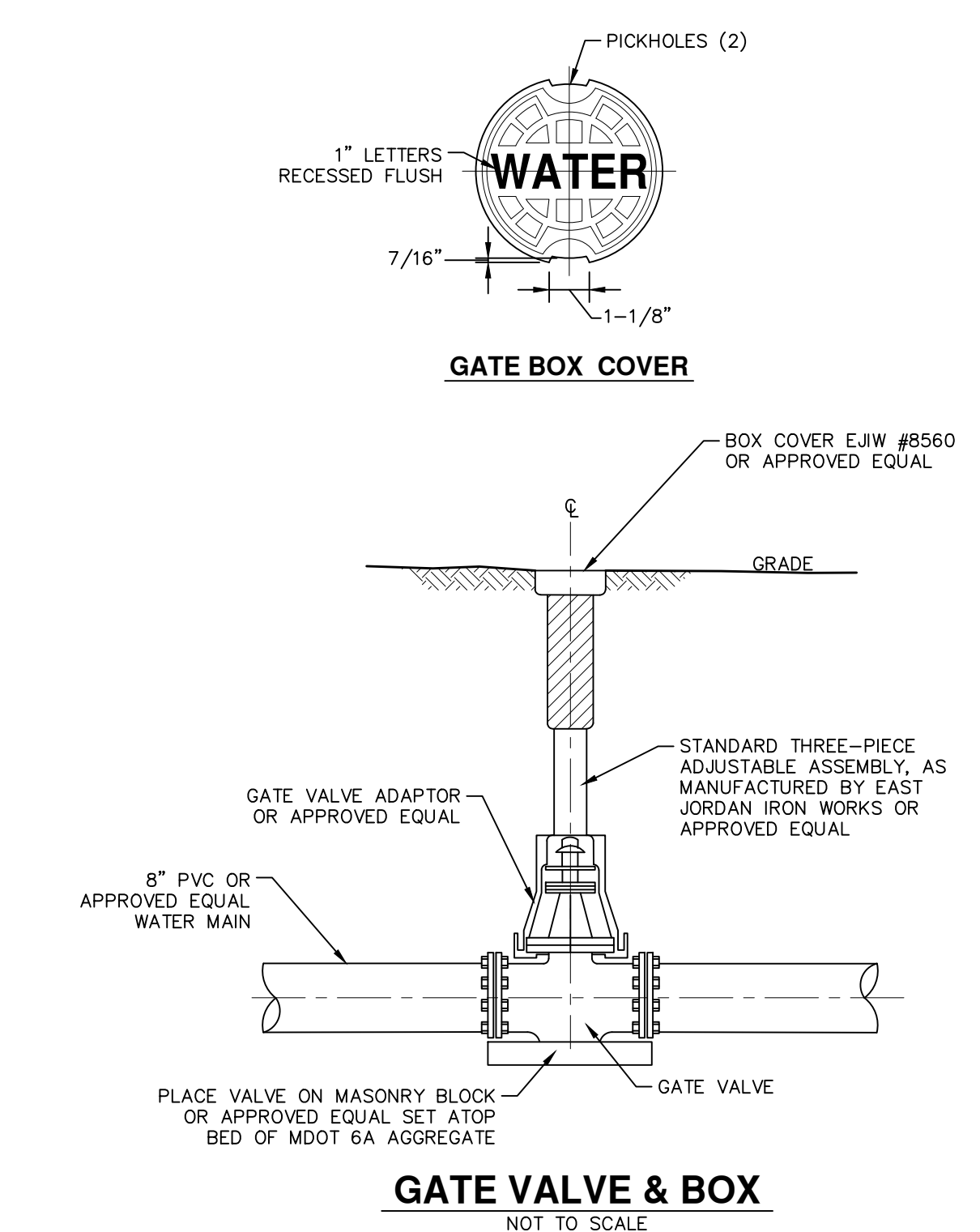
TAPPING SLEEVE VALVE & WELL
 NOT TO SCALE



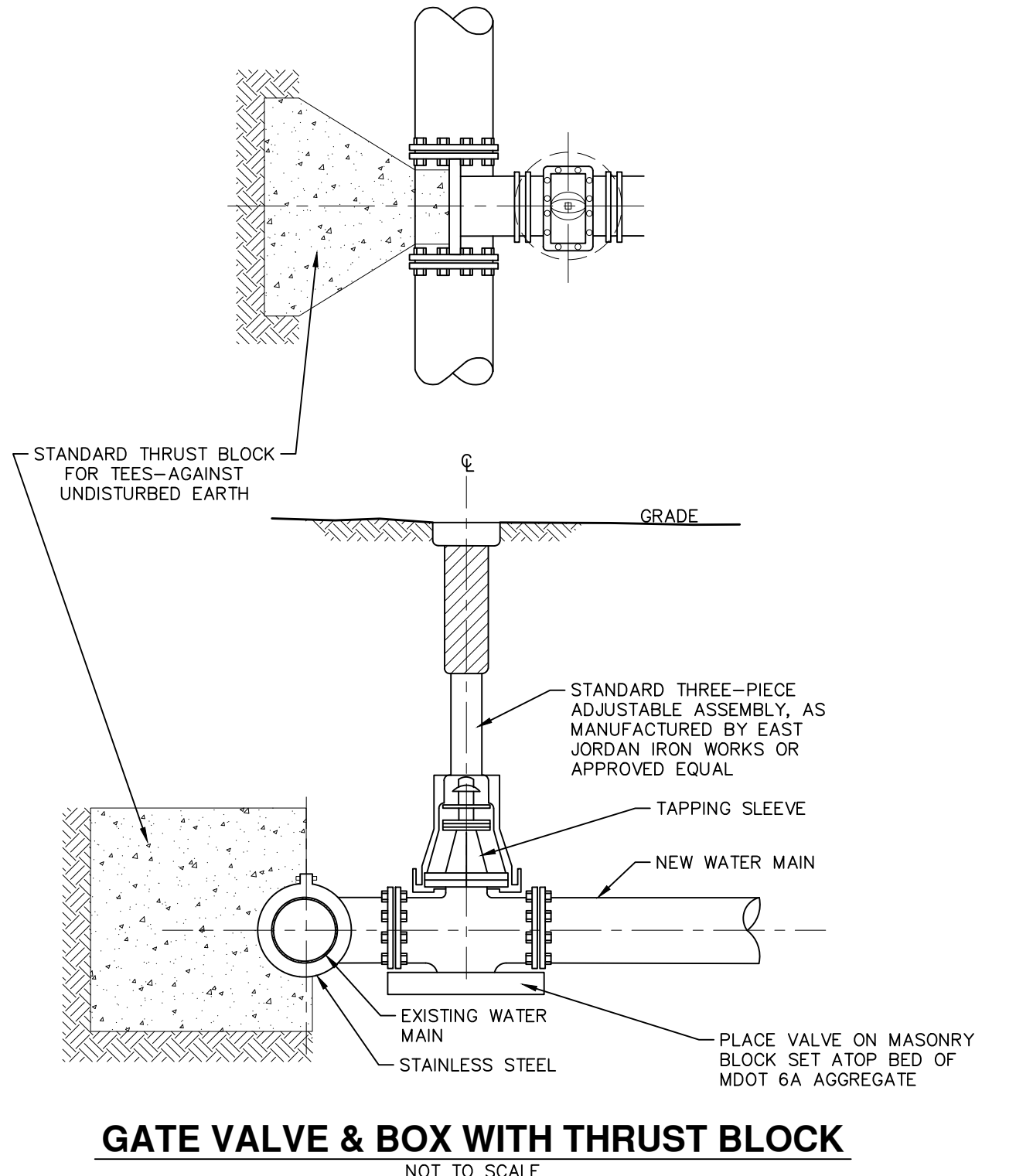
GATE WELL SECTION
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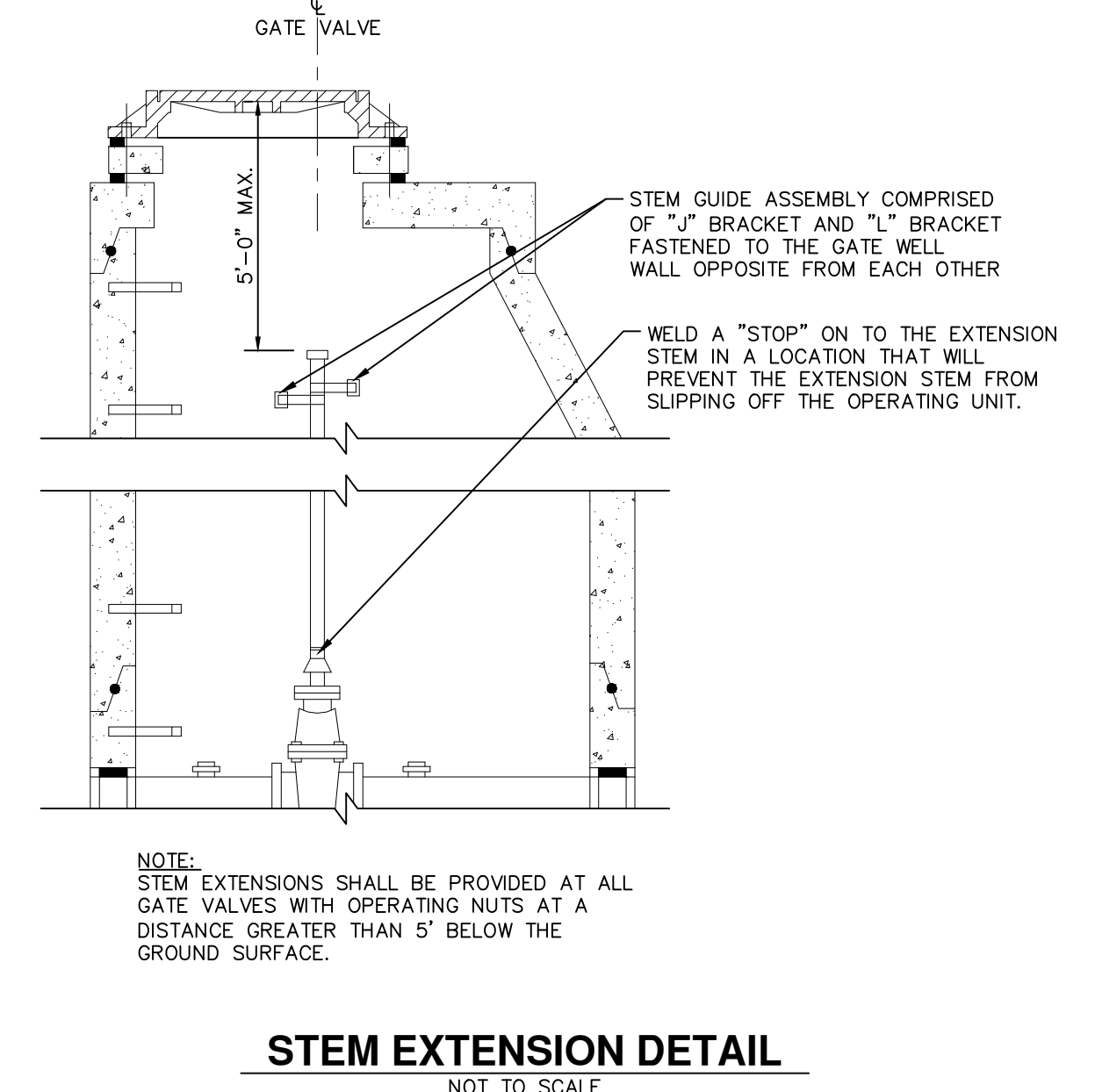
GATE VALVE & WELL
 NOT TO SCALE



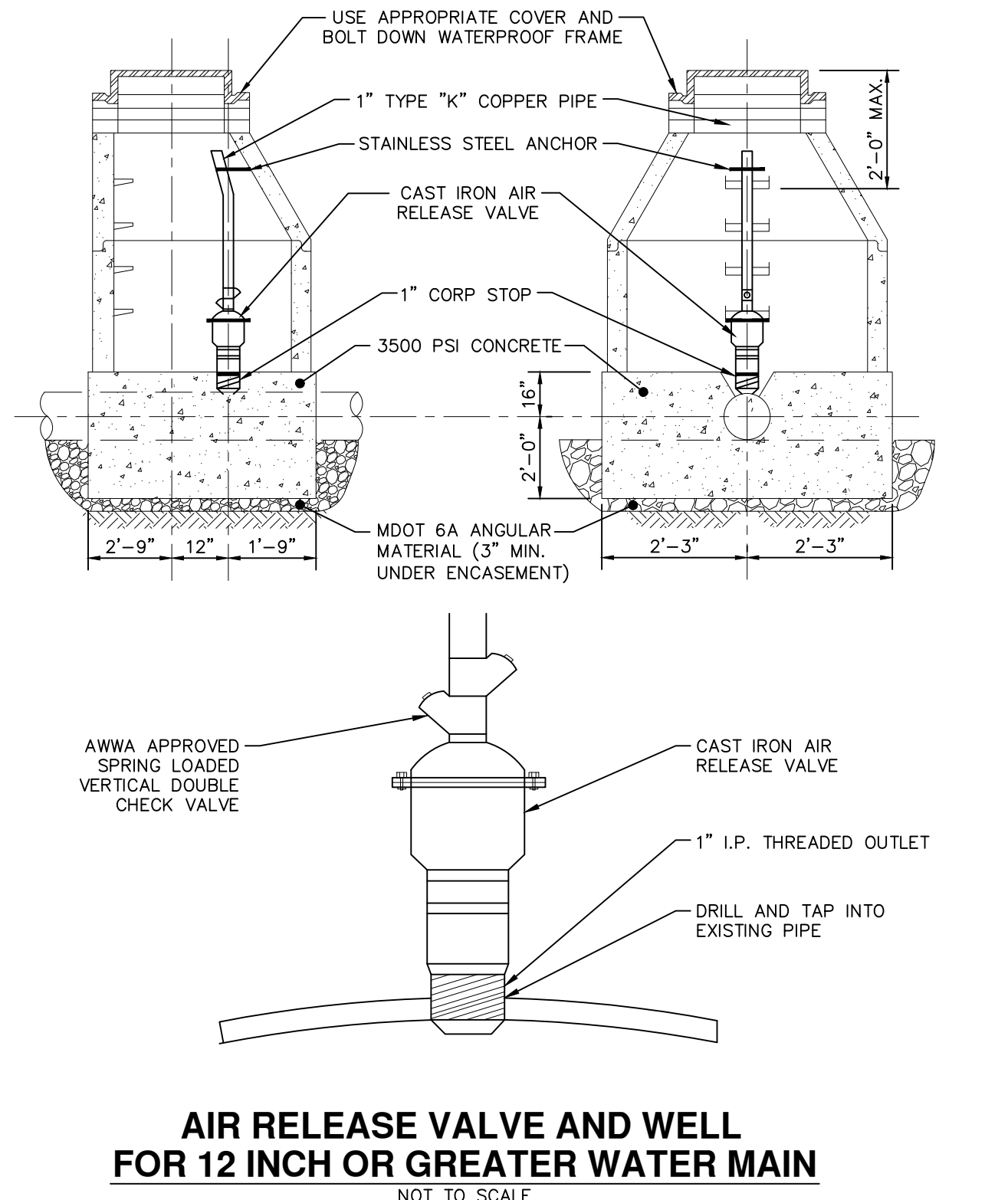
GATE VALVE & BOX
 NOT TO SCALE



GATE VALVE & BOX WITH THRUST BLOCK
 NOT TO SCALE



STEM EXTENSION DETAIL
 NOT TO SCALE



AIR RELEASE VALVE AND WELL FOR 12 INCH OR GREATER WATER MAIN
 NOT TO SCALE

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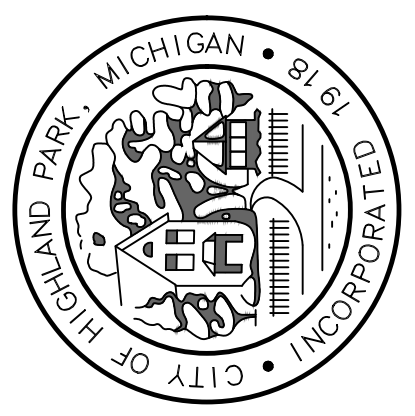
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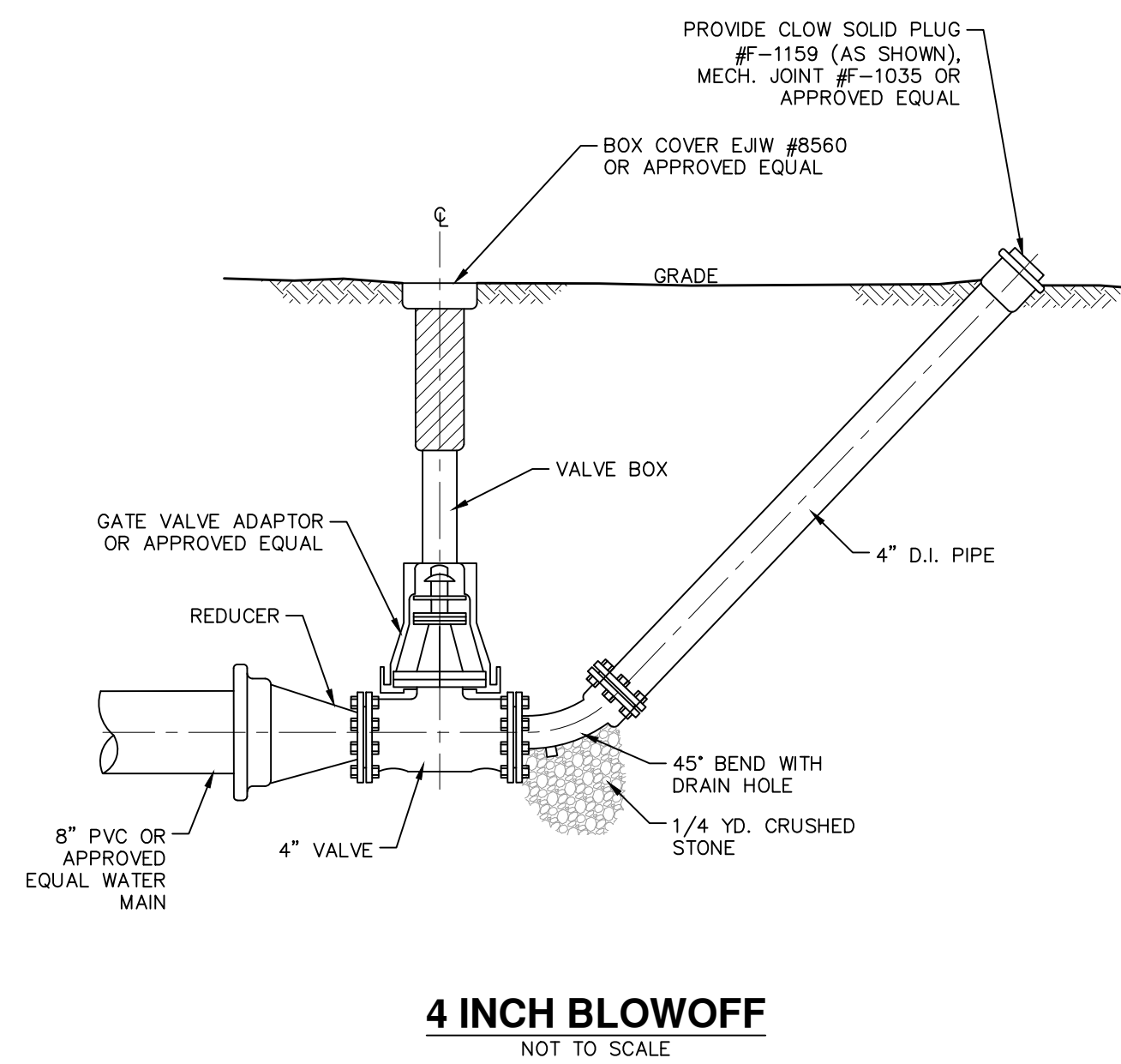
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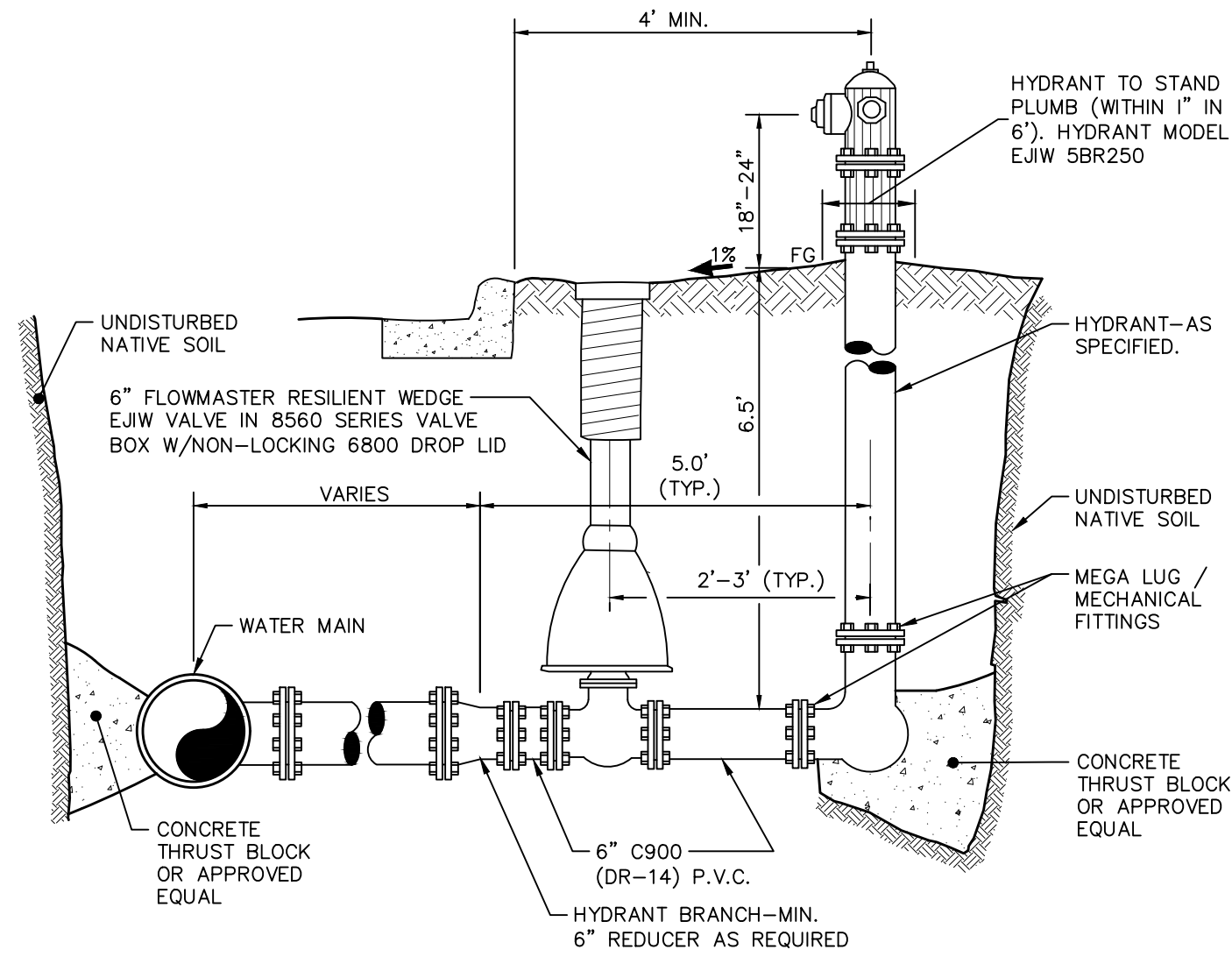
CITY OF HIGHLAND PARK
STANDARD WATER MAIN DETAILS AND NOTES
 WATER-1



MCA JOB #:	1039-18-8756
DATE:	06.19.2023
SCALE:	AS SHOWN PER DETAIL
DRAWN BY:	Metro Consulting Associates
COUNTY:	WAYNE
SHEET:	W1

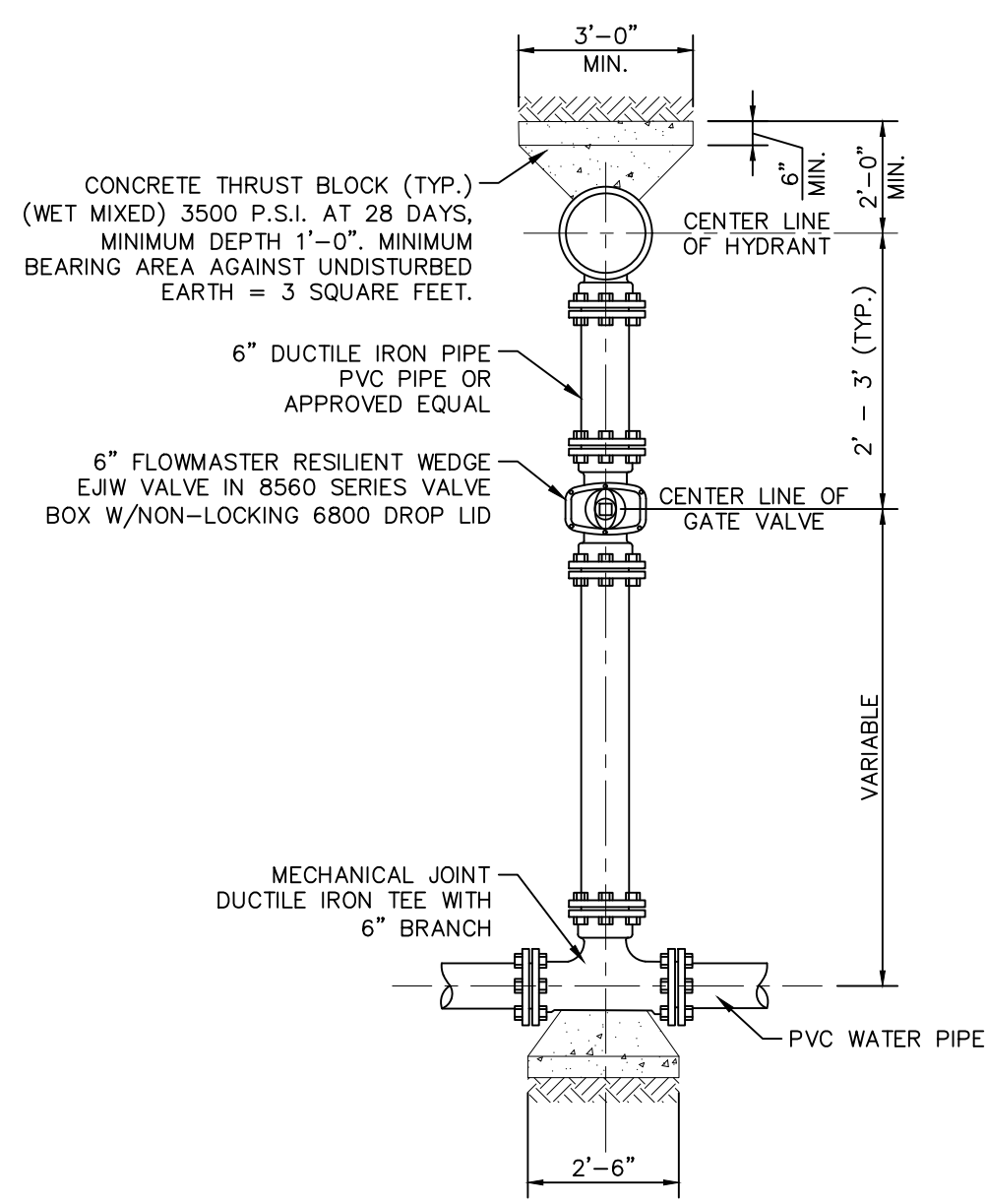


4 INCH BLOWOFF
NOT TO SCALE

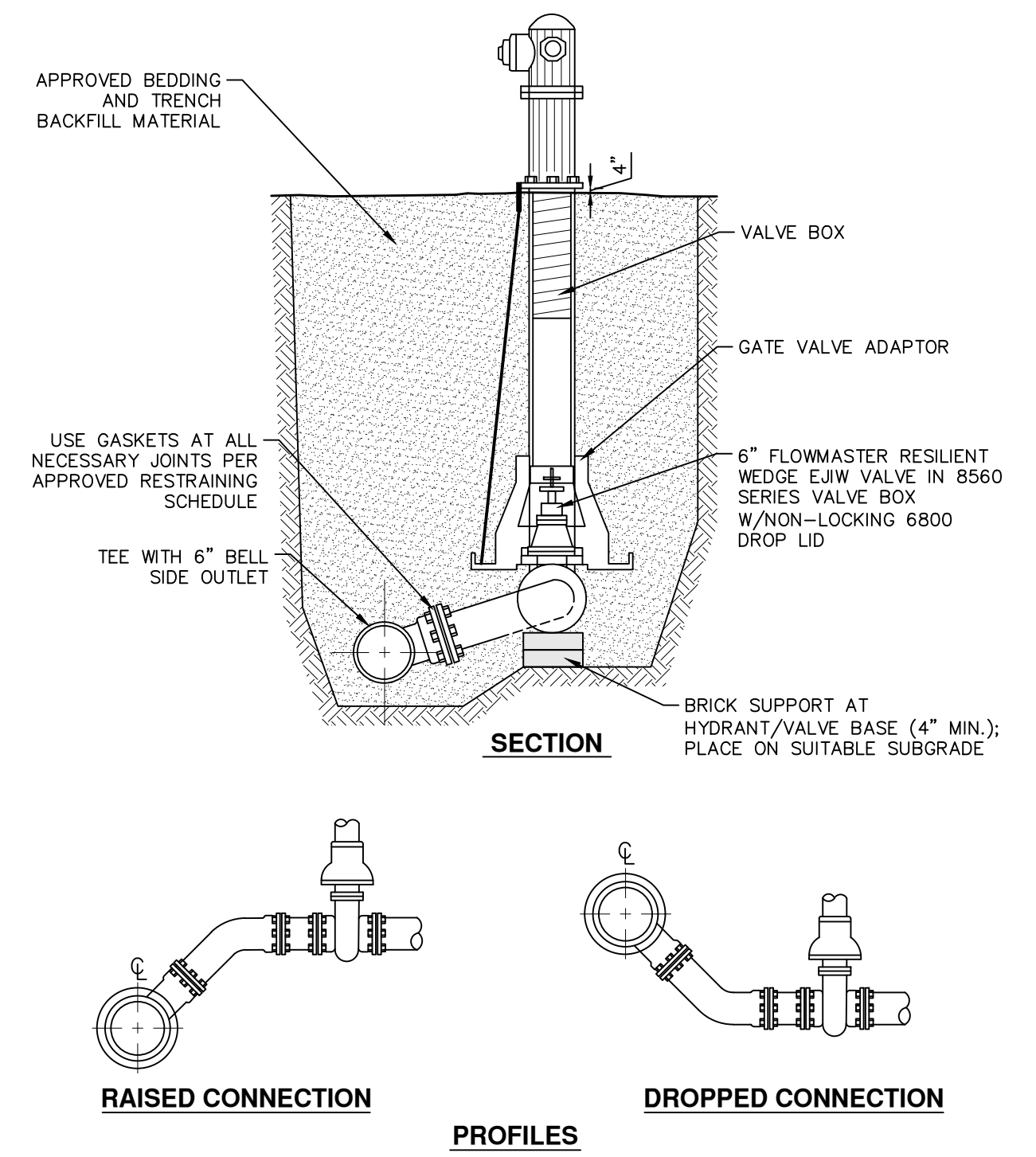


- NOTES:**
- REFER TO SPECIFICATION FOR HYDRANT AND GATE VALVE (E.J.W.-5BR250)
 - HYDRANT TO BE A MINIMUM OF 3 FEET - 10 FEET BEHIND CURB.
 - TRACE WIRE (12 GAUGE OR LARGER) SHALL BE INSTALLED PER SPECIFICATION.
 - HYDRANT SHALL BE LEFT-TURN OFF.
 - CONTRACTOR TO INCLUDE ALL NECESSARY MATERIALS TO CONNECT TO EXISTING MAIN.

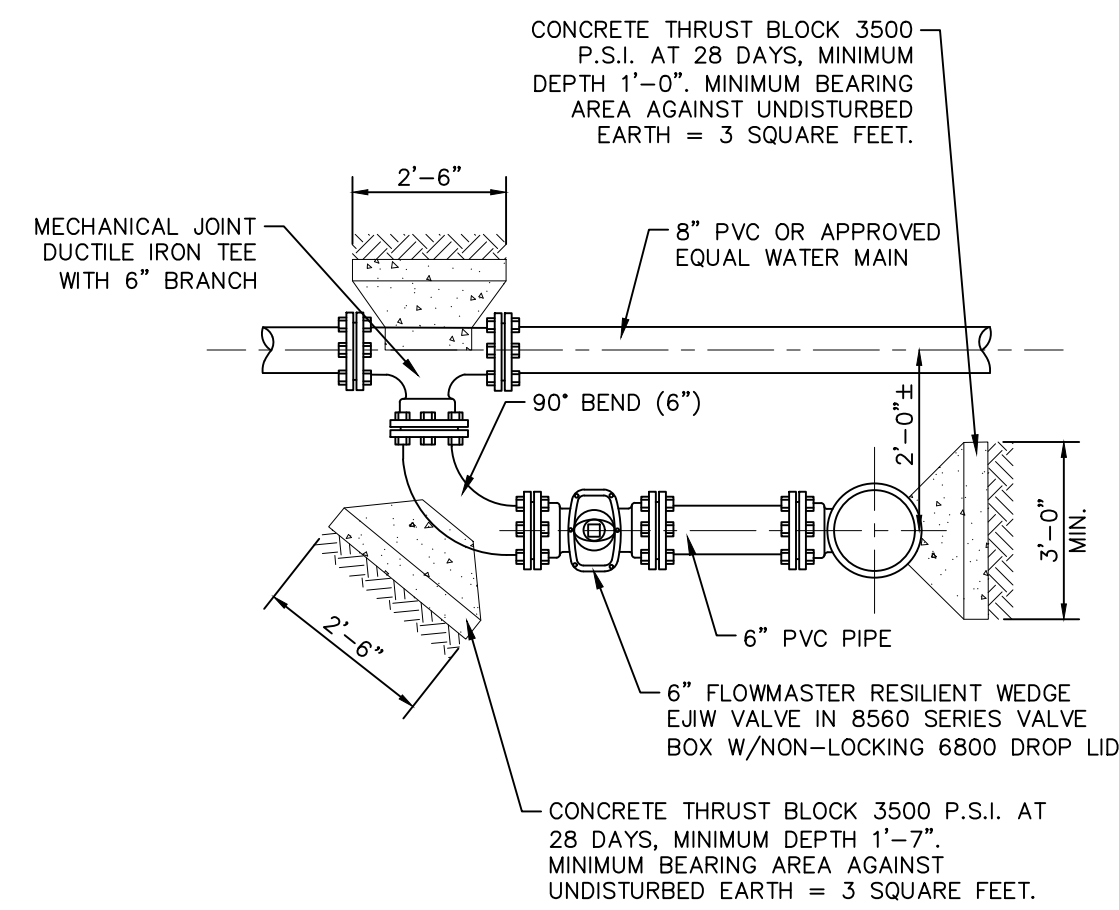
FIRE HYDRANT ASSEMBLY
NOT TO SCALE



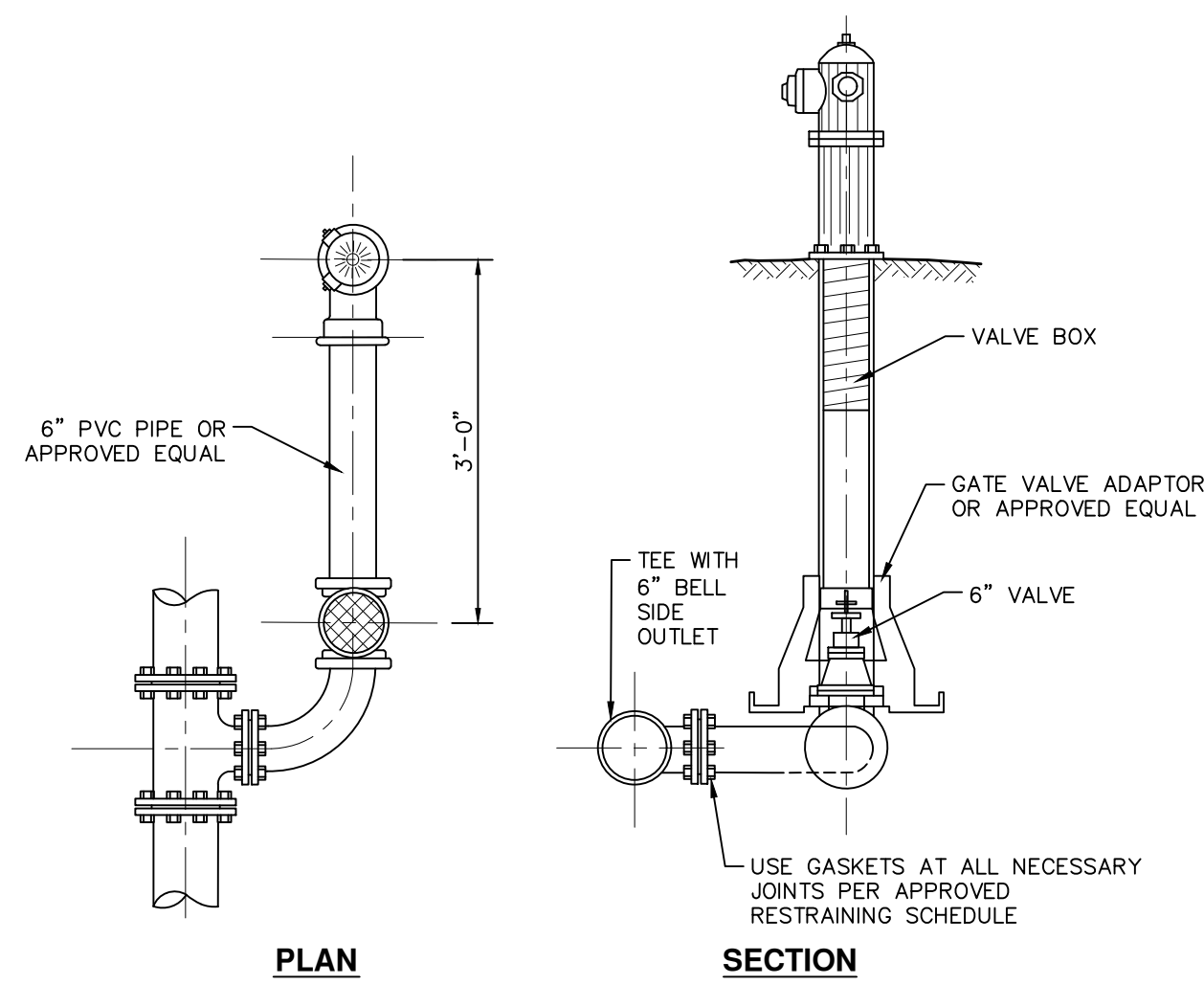
STRAIGHT HYDRANT CONNECTION
NOT TO SCALE



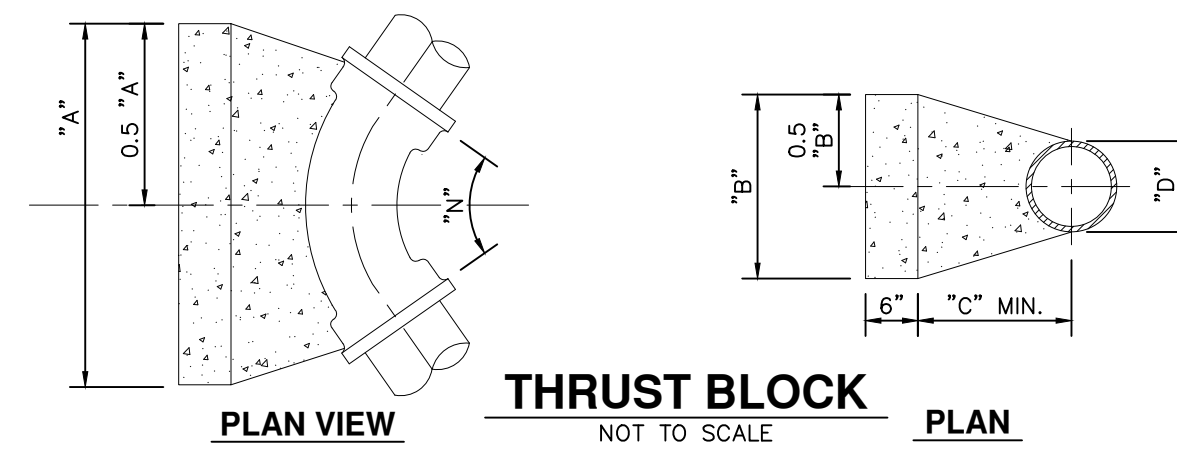
90 DEGREE FIRE HYDRANT ASSEMBLY
NOT TO SCALE



L FIRE HYDRANT ASSEMBLY
NOT TO SCALE

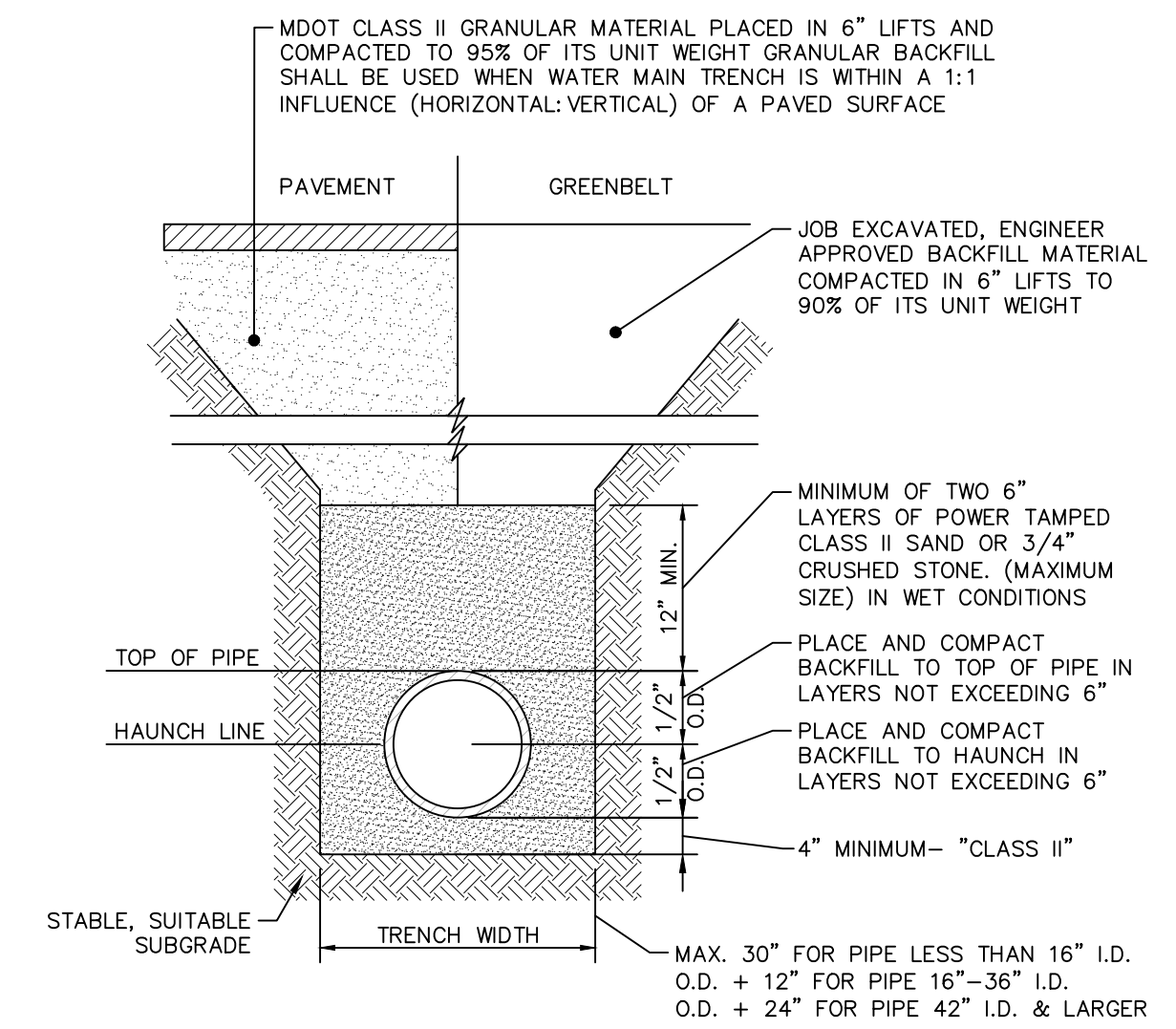


CLOSE COUPLE HYDRANT SETTING
NOT TO SCALE

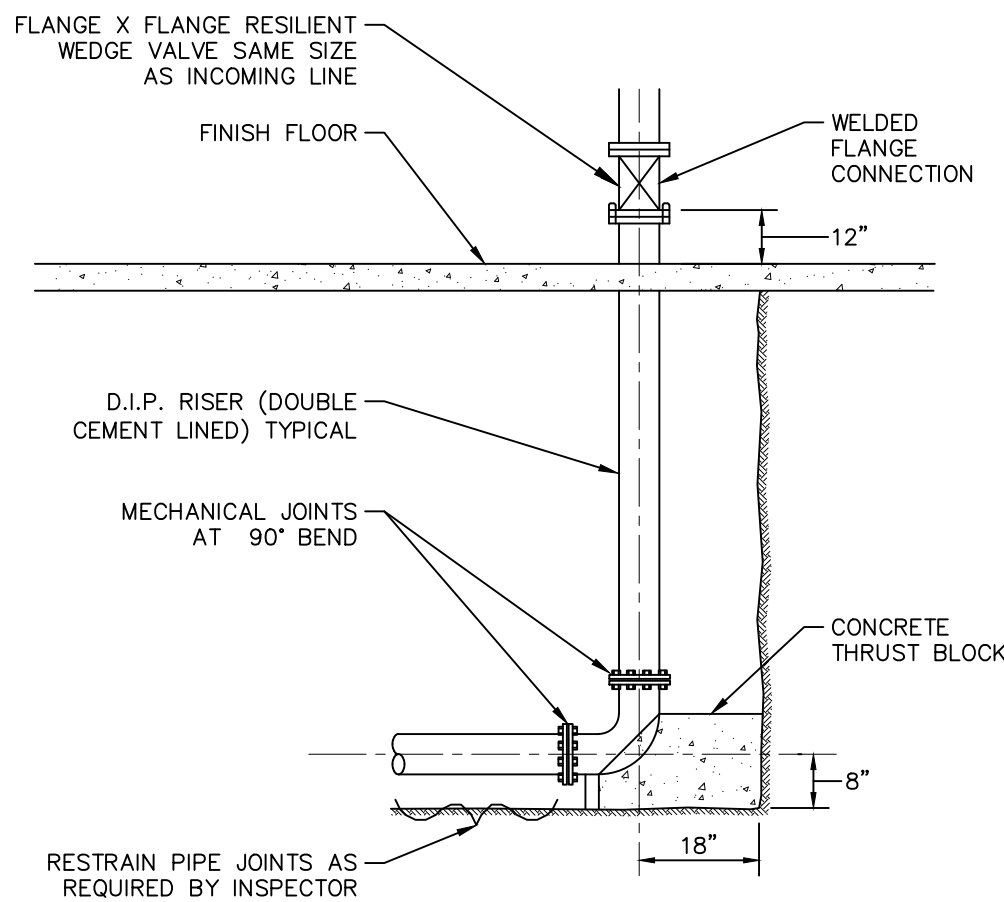


BEND	THRUST BLOCK DIMENSION	DIMENSION (D) OF WATER MAIN					
		6"	8"	10" & 12"	14" & 16"	18" & 20"	24" +
90°	A	2'-9"	3'-0"	5'-6"	6'-0"	9'-0"	11'-0"
	B	1'-6"	2'-6"	3'-0"	5'-0"	5'-0"	6'-0"
	C	0'-9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
45°	A	2'-0"	2'-0"	3'-6"	5'-6"	6'-6"	7'-0"
	B	1'-6"	2'-0"	2'-6"	3'-0"	4'-0"	5'-0"
	C	1'-0"	1'-3"	1'-6"	1'-9"	1'-9"	2'-0"
22 1/2°	A	1'-6"	1'-9"	3'-0"	4'-0"	4'-0"	4'-0"
	B	1'-0"	1'-3"	1'-6"	2'-0"	3'-0"	4'-6"
	C	1'-0"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
11 1/4°	A	1'-0"	1'-3"	1'-6"	2'-0"	3'-0"	3'-0"
	B	1'-0"	1'-3"	1'-6"	2'-0"	2'-0"	3'-0"
	C	1'-0"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
TEE	A	2'-0"	2'-6"	4'-0"	5'-0"	8'-0"	9'-0"
	B	1'-6"	2'-0"	3'-0"	4'-0"	4'-0"	5'-0"
	C	0'-9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
PLUG	A	2'-0"	2'-6"	4'-0"	5'-0"	8'-0"	9'-0"
	B	1'-6"	2'-0"	3'-0"	4'-0"	4'-0"	5'-0"
	C	0'-9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"

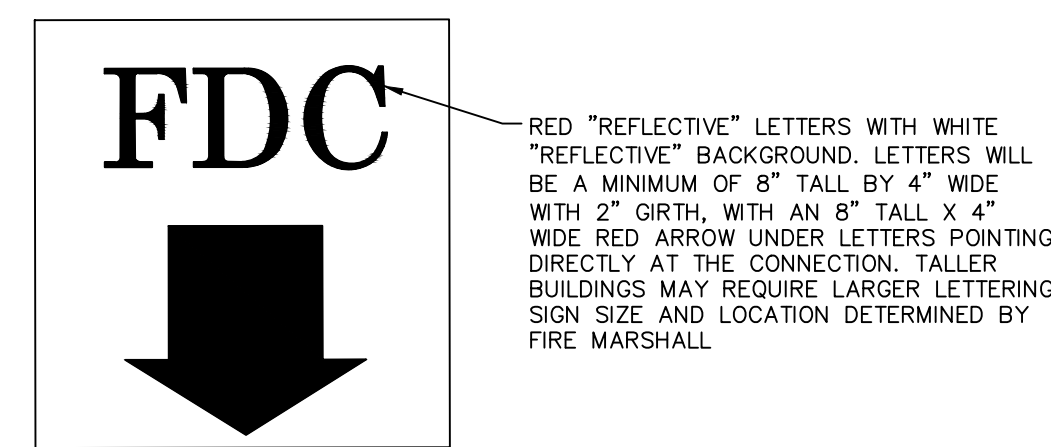
- THRUST BLOCK NOTES:**
- 3500 P.S.I. CONCRETE POURED AGAINST UNDISTURBED EARTH
 - WHEN "A" DIMENSION IS 6 FEET OR GREATER, USE #4 RE-BAR AT 12 INCH CENTERS EACH WAY.
 - THE TABLE IS BASED ON SOIL BEARING OF 1500 P.S.F. THEREFORE, WHEN PLACED IN MUCK, PEAT OR OTHER UNSUITABLE SOILS HAVING A SOIL BEARING LESS THAN 1500 P.S.F., THE CONTRACTOR SHALL PROVIDE SUITABLE ADDITIONAL BLOCKING, ENCASEMENT, OR RESTRAINTS.



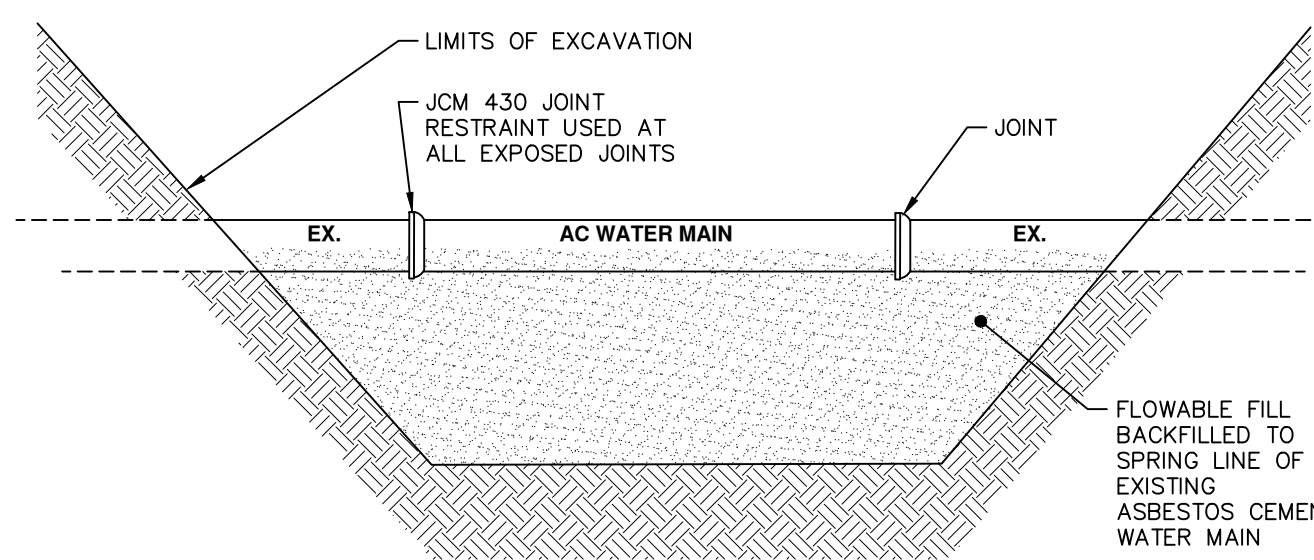
STANDARD BEDDING FOR WATER MAIN
NOT TO SCALE



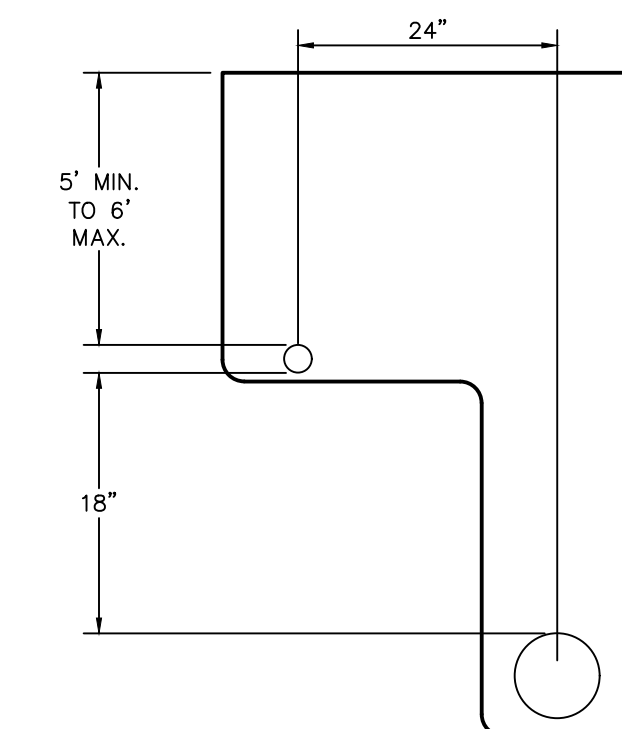
FIRE PROTECTION RISER
NOT TO SCALE



FIRE DEPARTMENT CONNECTION LABEL DETAIL
NOT TO SCALE



ASBESTOS CEMENT (AC) WATER MAIN
NOT TO SCALE



TYPICAL L TRENCH DETAIL HOUSE LEADS
NOT TO SCALE

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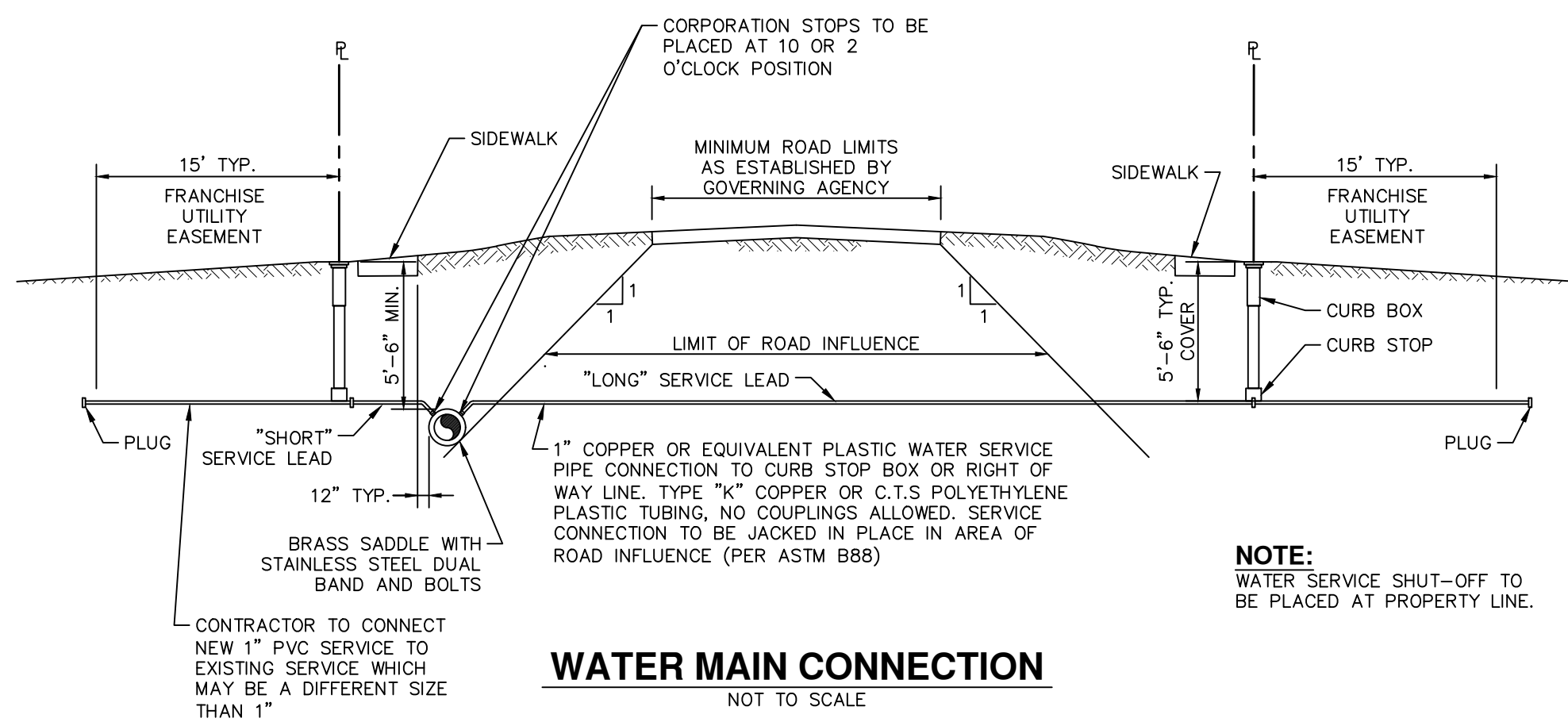
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CITY OF HIGHLAND PARK
STANDARD WATER MAIN DETAILS AND NOTES
WATER-2

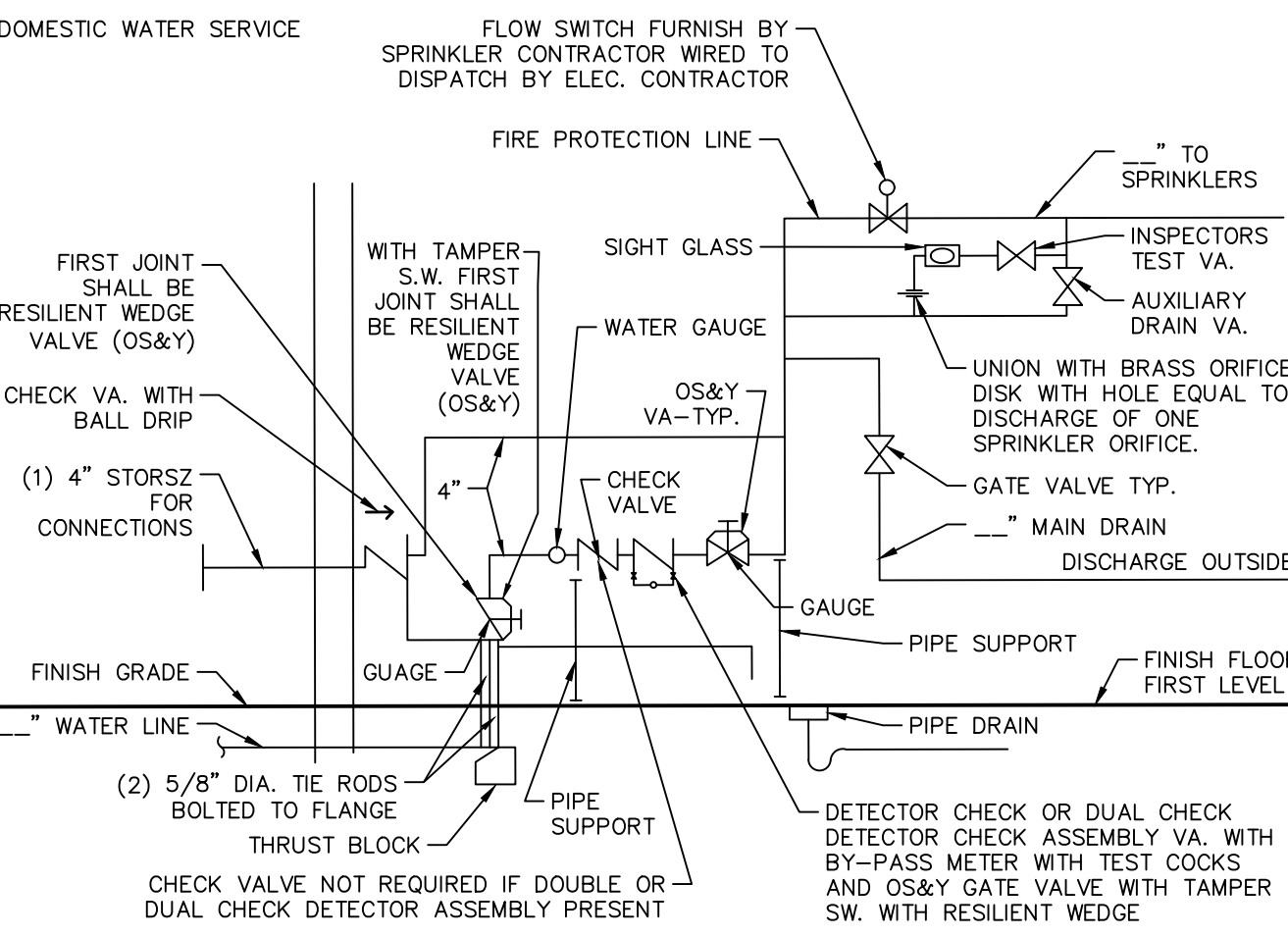


MCA JOB #: 1039-18-8756
DATE: 06.19.2023
SCALE: AS SHOWN PER DETAIL
DRAWN BY: Metro Consulting Associates
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COUNTY: WAYNE
SHEET: W2

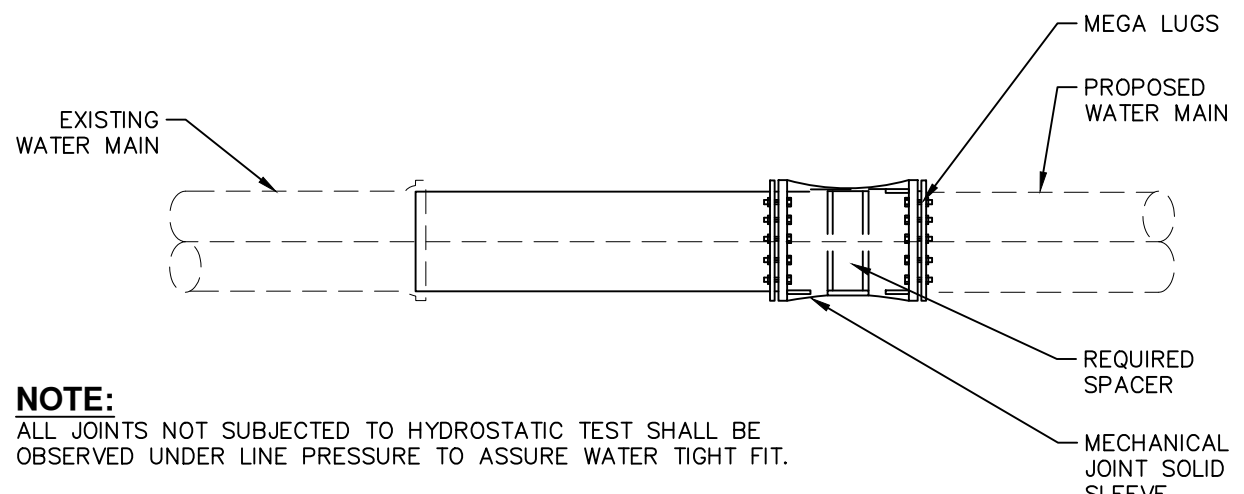


WATER MAIN CONNECTION
NOT TO SCALE

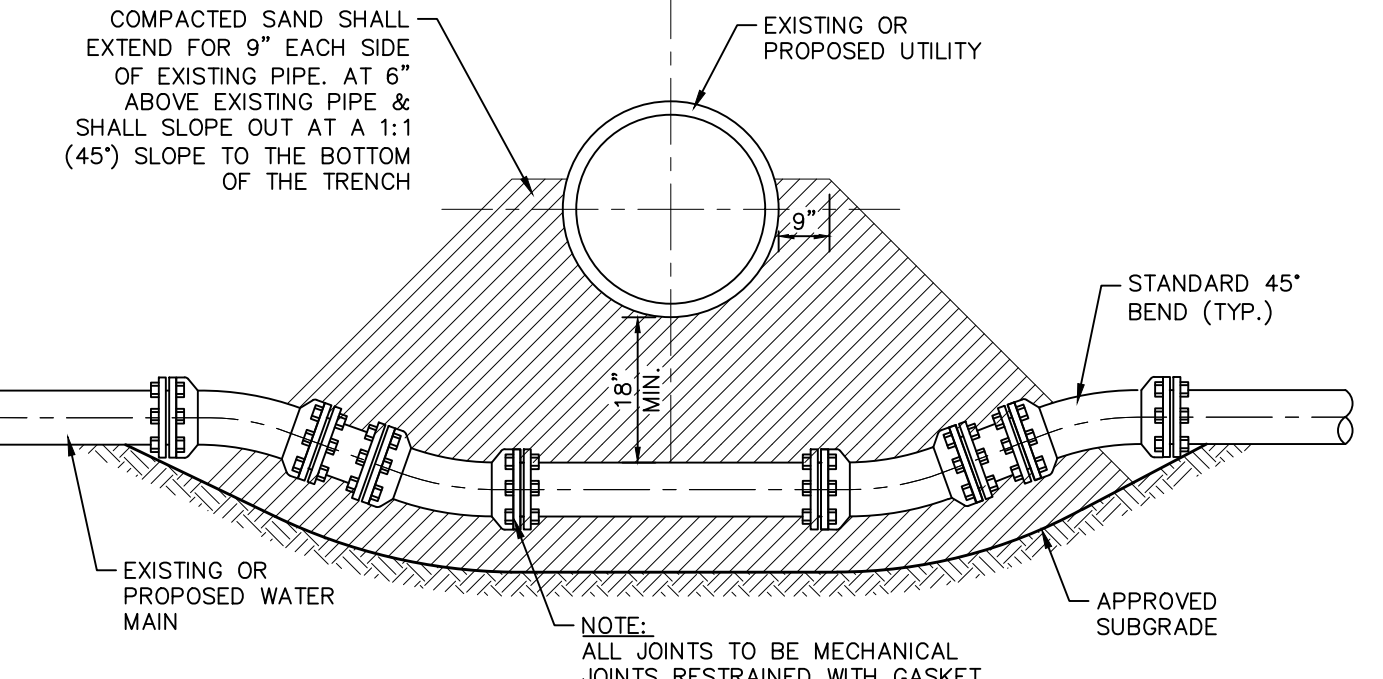
NOTE:
WATER SERVICE SHUT-OFF TO BE PLACED AT PROPERTY LINE.



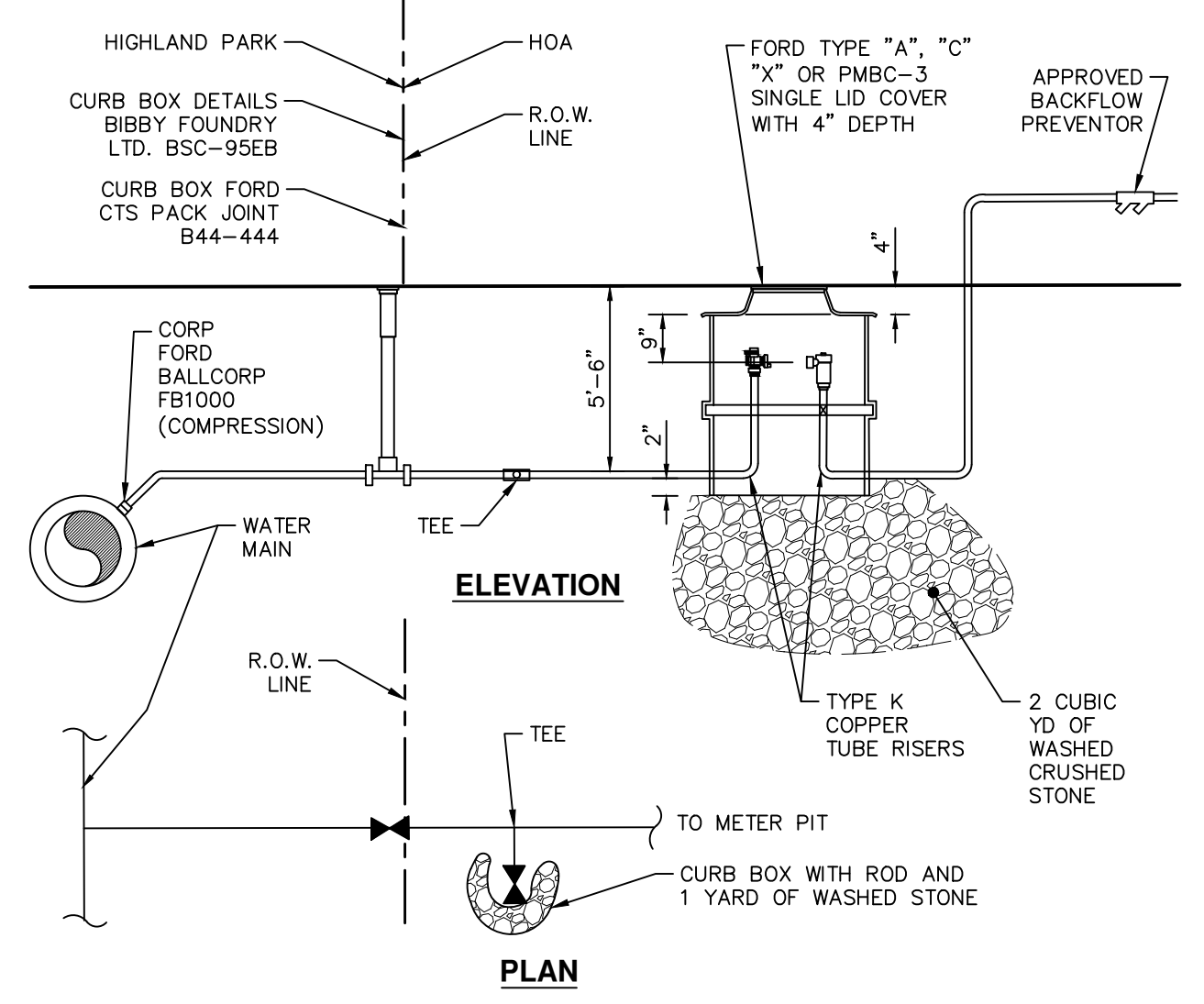
METER ROOM DETAIL
NOT TO SCALE



COMPLETED CONNECTION TO EXISTING WATER MAIN
NOT TO SCALE

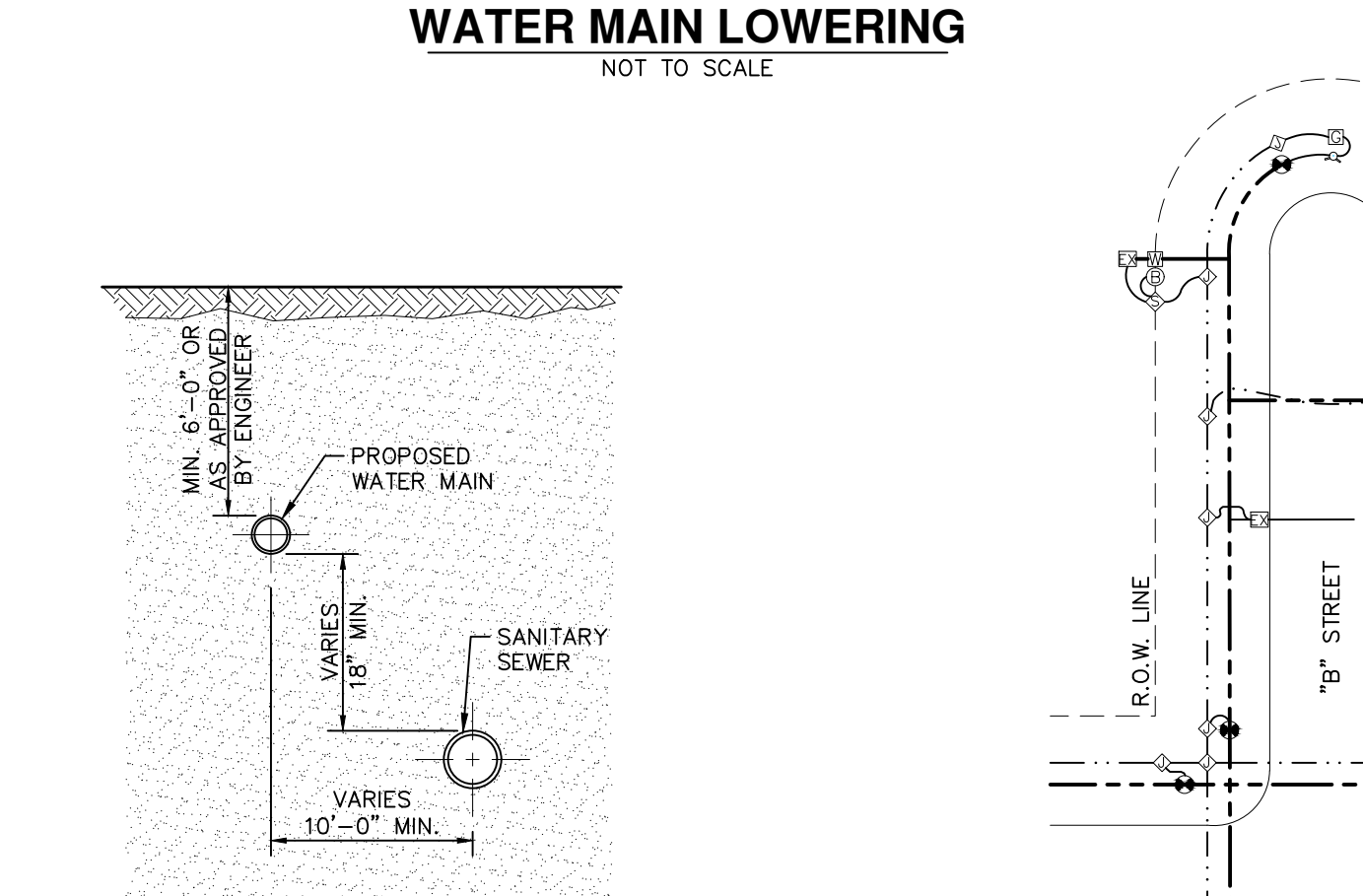


WATER MAIN LOWERING
NOT TO SCALE

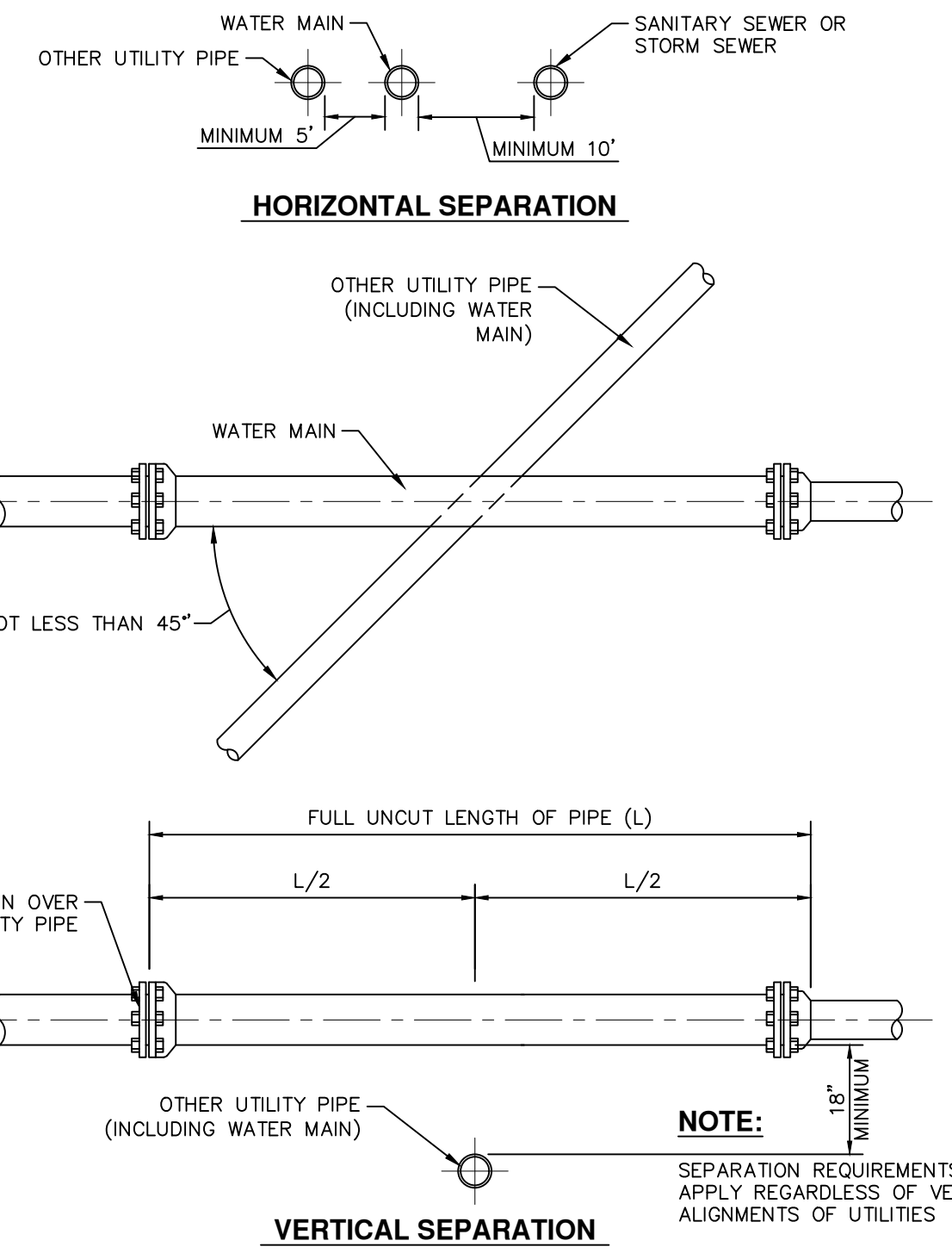


IRRIGATION METER PIT
NOT TO SCALE

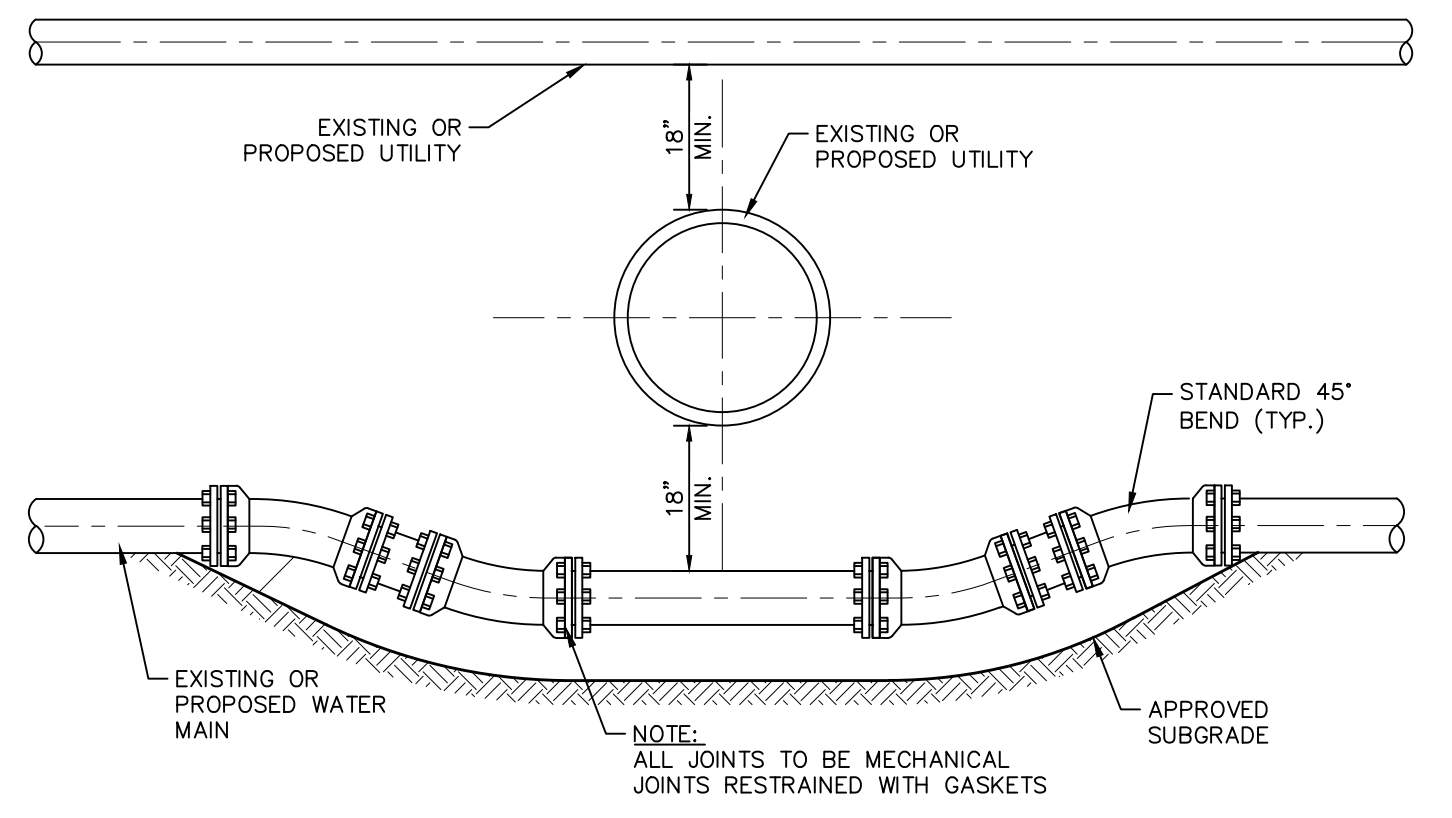
NOTES:
1. SADDLE MAY BE REQUIRED ON MAIN BASED ON LEAD SIZE, MAIN SIZE, AND MAIN PRESSURE.
2. ALL WATER MAIN TAPS AND COMPONENT PARTS SHALL BE APPROVED BY THE CITY OF HIGHLAND PARK ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
3. INSTALLATION SHALL BE INSPECTED AND APPROVED BY THE CITY OF HIGHLAND PARK ENGINEERING DEPARTMENT.



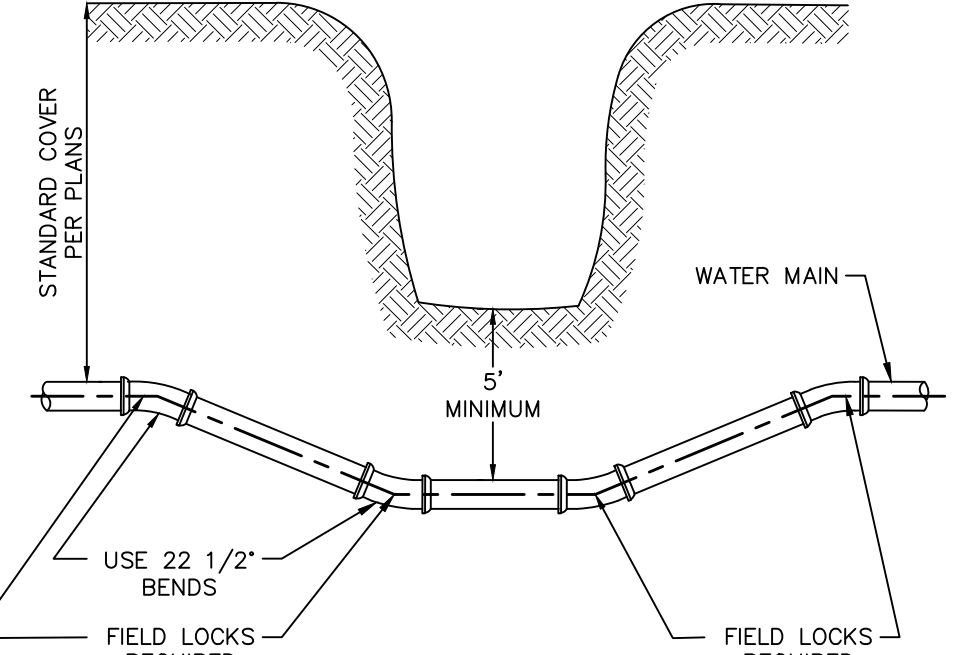
WATER & SANITARY CLEARANCE DETAIL
NOT TO SCALE



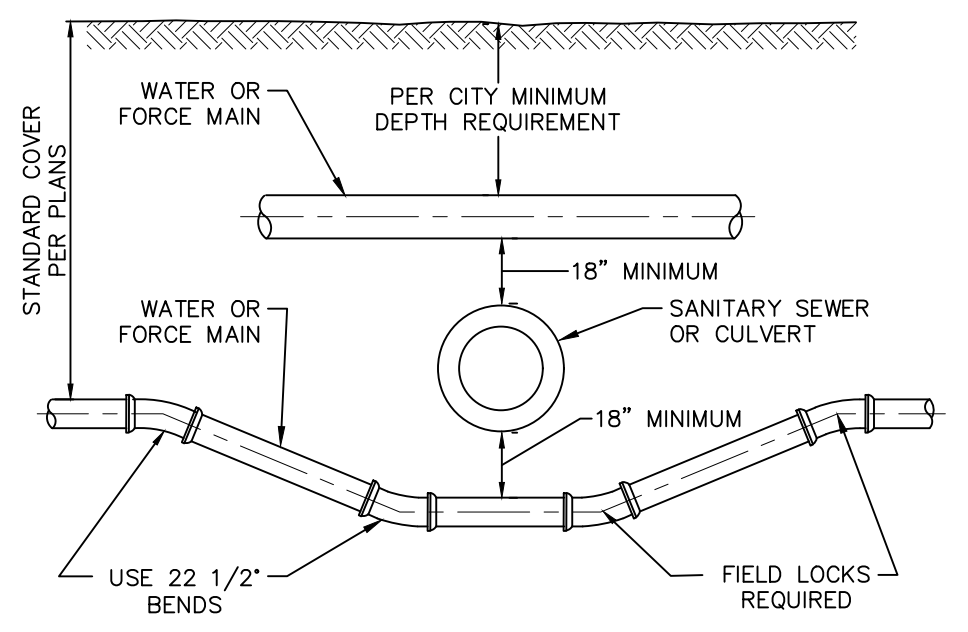
WATER MAIN CROSSING OTHER UTILITIES
NOT TO SCALE



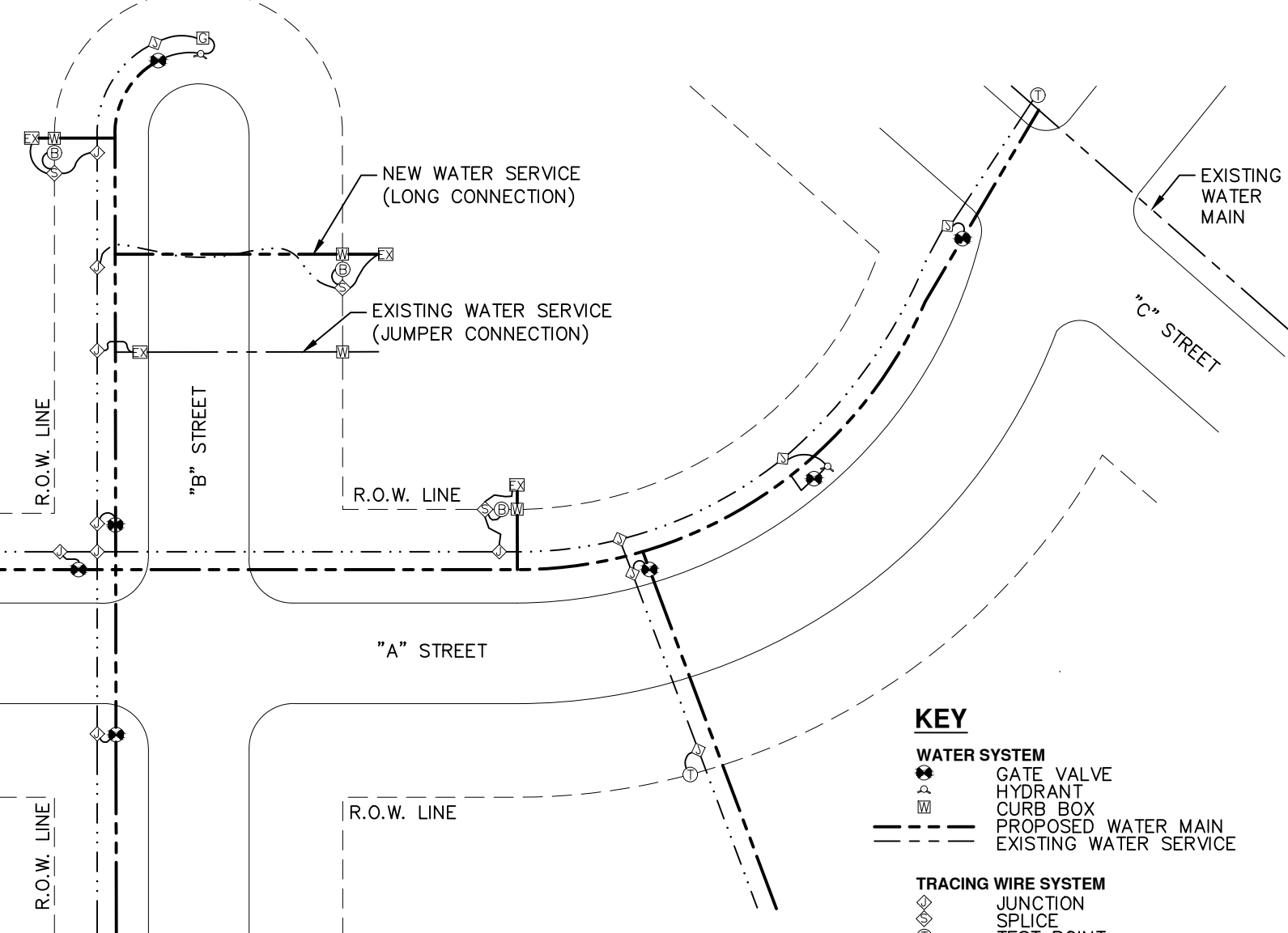
WATER MAIN CROSSING MULTIPLE UTILITIES
NOT TO SCALE



DITCH AND STREAM CROSSING
NOT TO SCALE

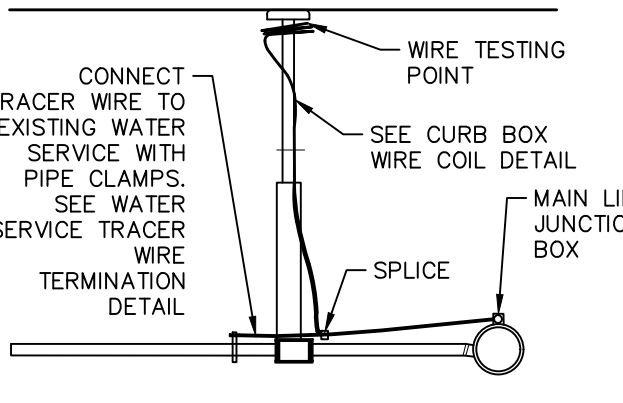


SEWER OR CULVERT CROSSING
NOT TO SCALE



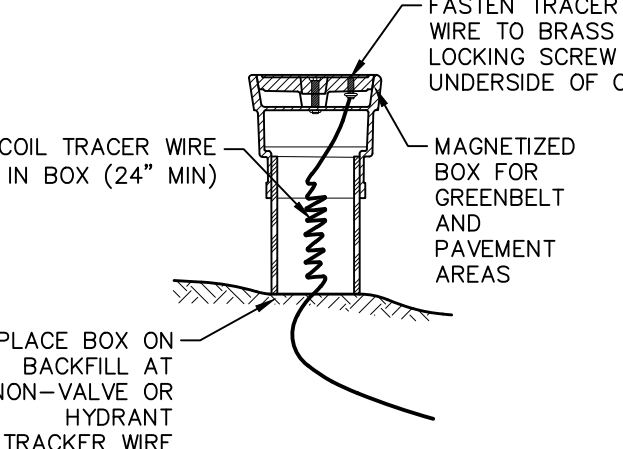
TRACER WIRE SCHEMATIC
NOT TO SCALE

KEY
 WATER SYSTEM
 GATE VALVE
 HYDRANT
 CURB BOX
 PROPOSED WATER MAIN
 EXISTING WATER SERVICE
 TRACING WIRE SYSTEM
 JUNCTION
 SPLICE
 TEST POINT
 CURB BOX WIRE COIL
 WATER SERVICE TERMINATION
 GROUNDING ROD TERMINATION
 TRACING WIRE

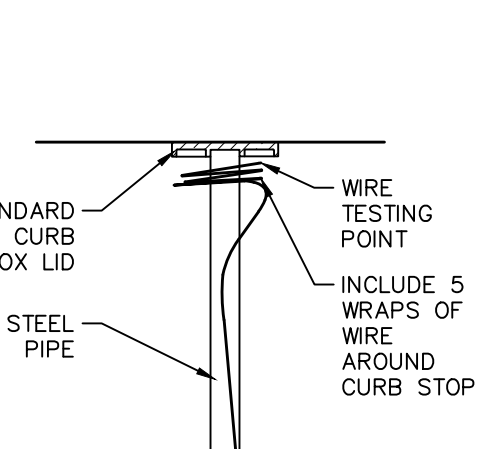


CURB STOP CONNECTION

WIRE TESTING POINT



TRACER WIRE TEST POINT

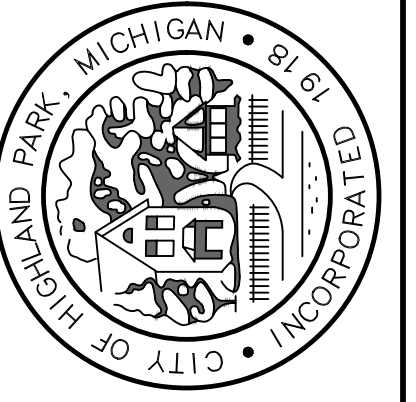


CURB BOX WIRE COIL

WIRE DETAILS
NOT TO SCALE

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CITY OF HIGHLAND PARK
STANDARD WATER MAIN DETAILS AND NOTES
WATER-3



MCA JOB #1039-18-8756
DATE: 06.19.2023
SCALE: AS SHOWN PER DETAIL
DRAWN BY: Metro Consulting Associates
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COUNTY: WAYNE
SHEET: W3

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