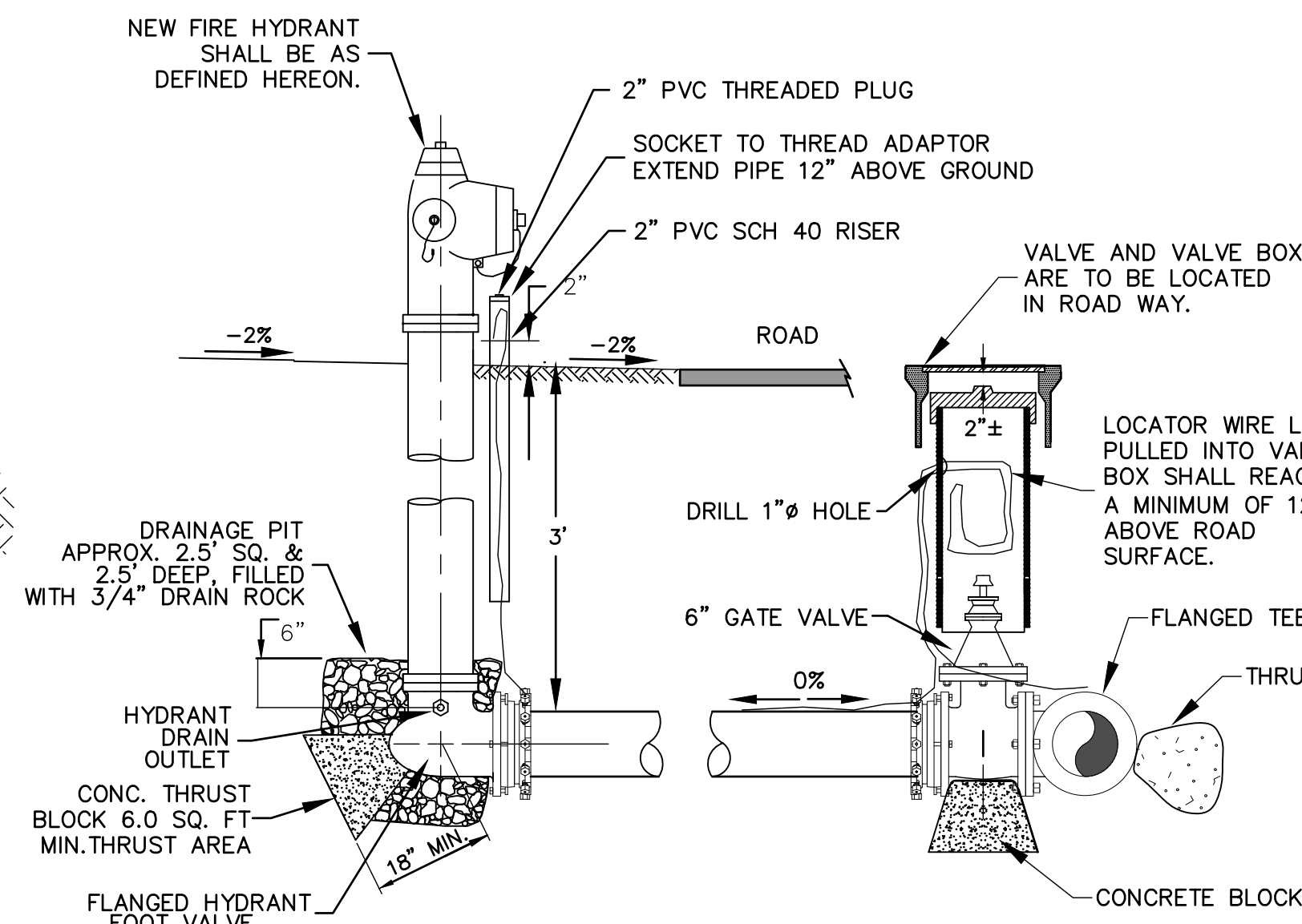


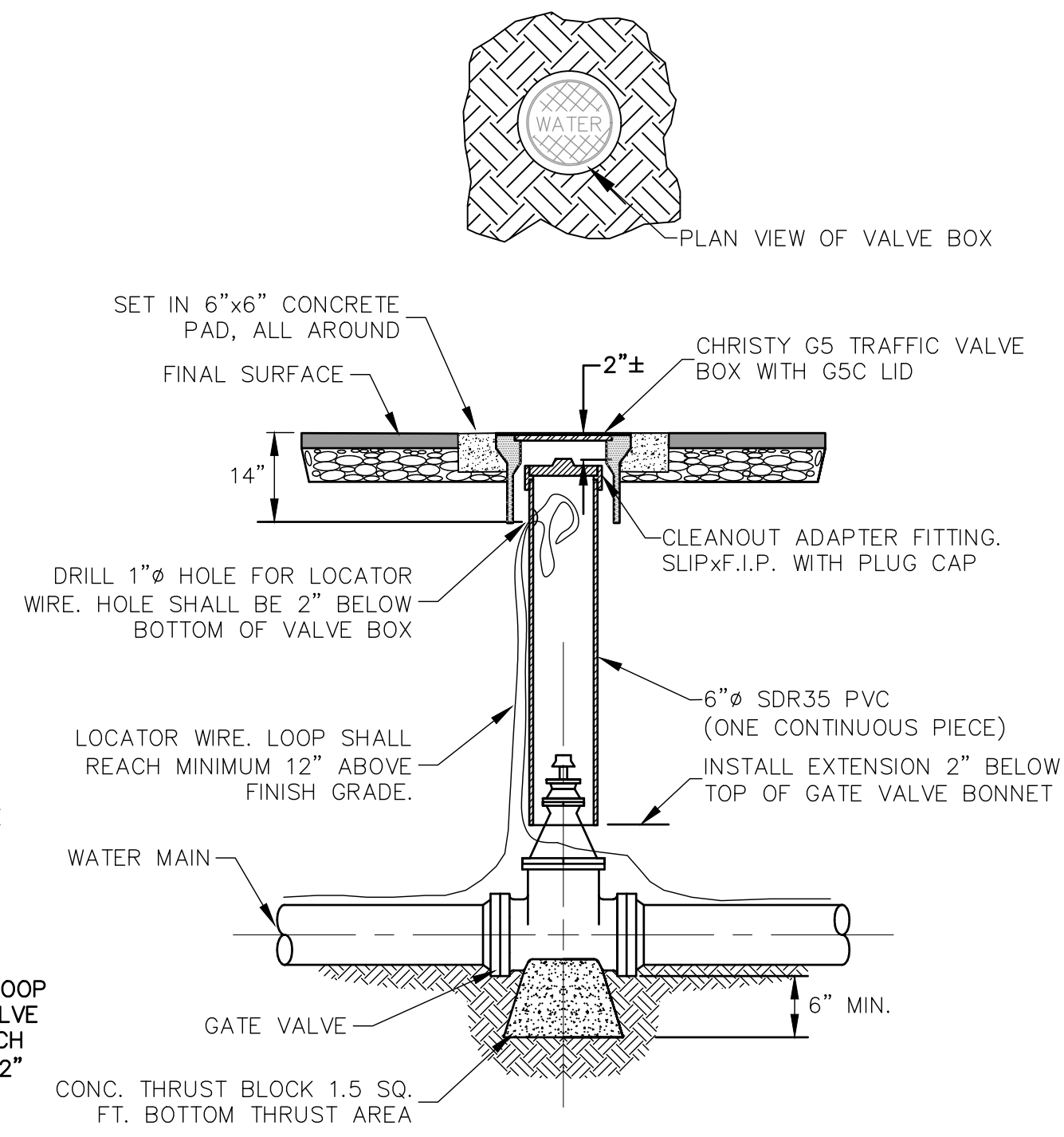
1 TRENCH DETAIL
Scale: N.T.S.

NOTES:

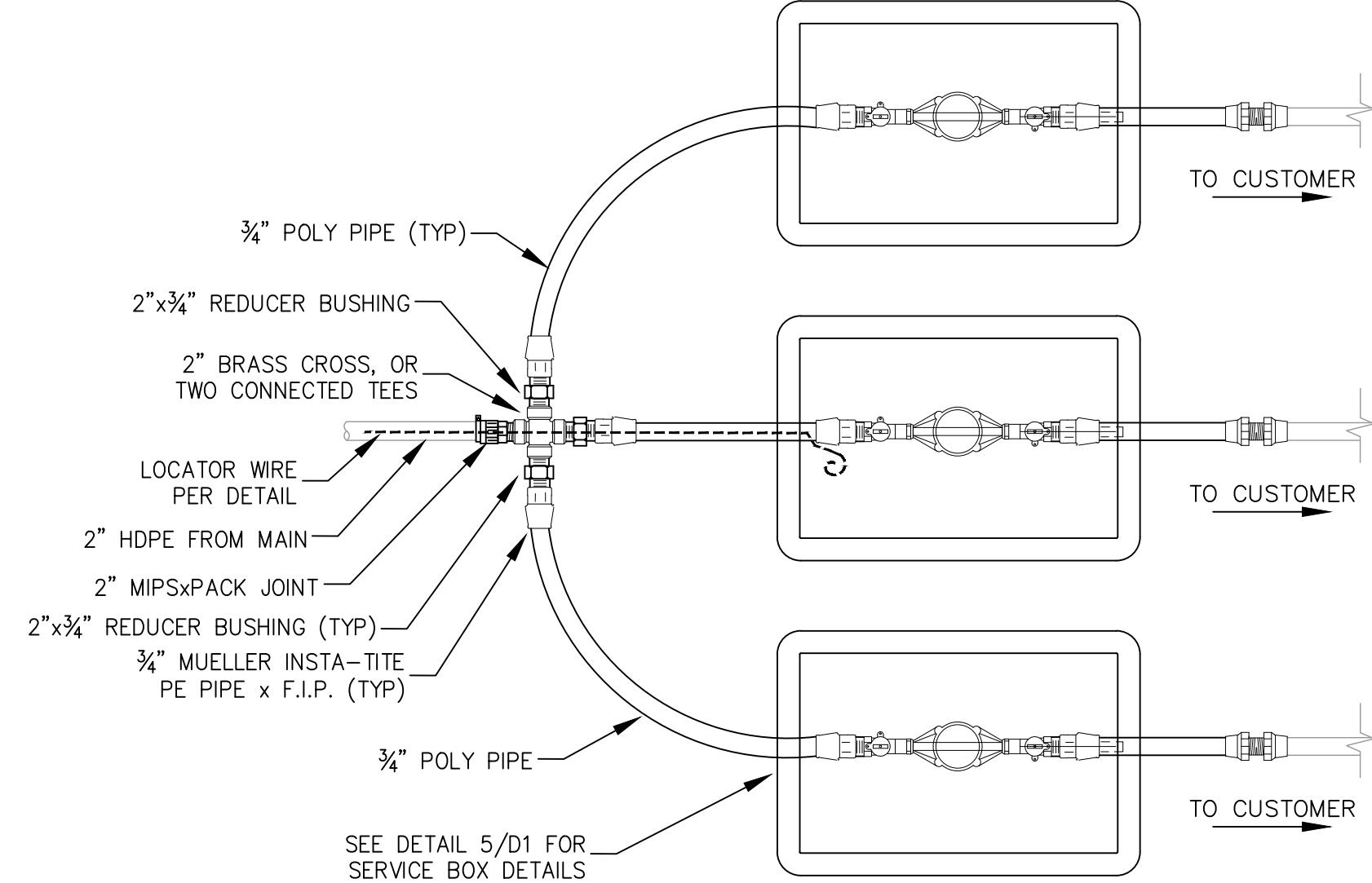
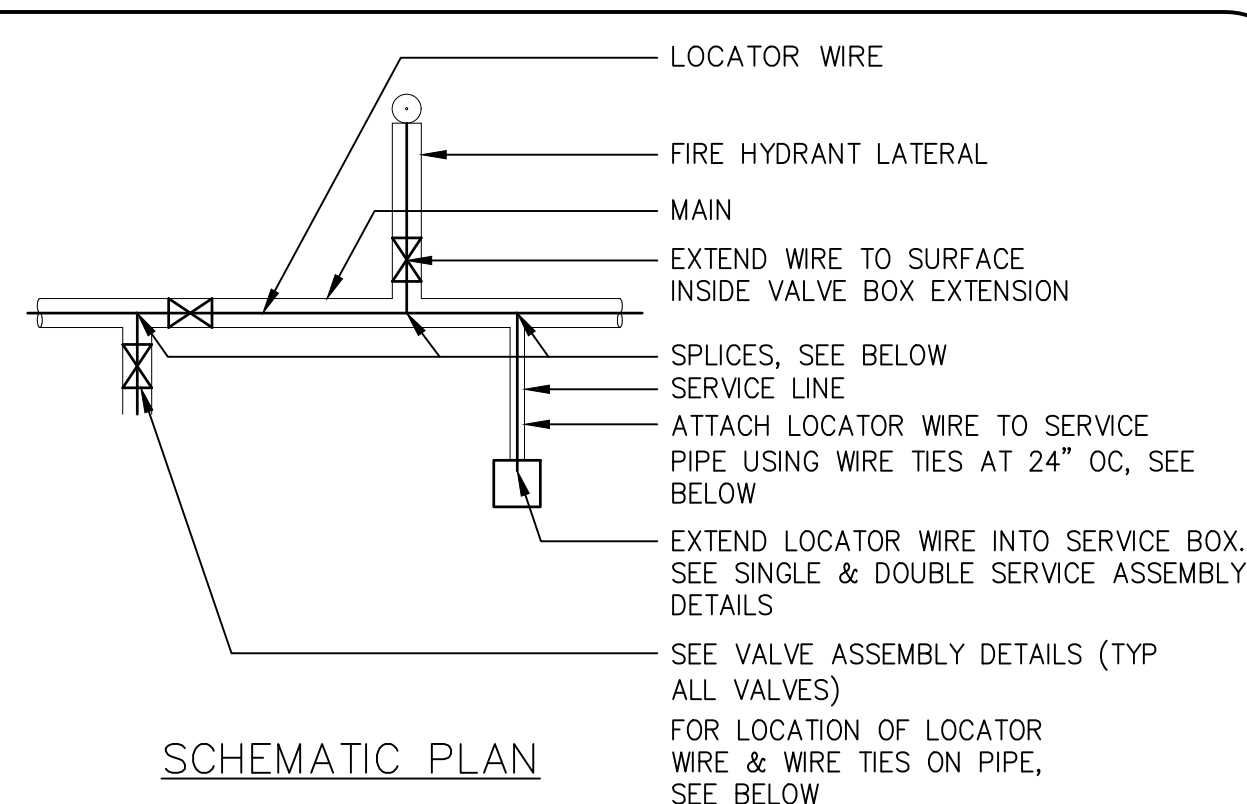
- FIRE HYDRANTS SHALL BE DRY BARREL, AWWA C502 HAVING ONE 4 1/2" PUMPER NOZZLE AND TWO 2 1/2" SIDE OUTLET NOZZLES. THE HYDRANT MAIN VALVE OPENING SHALL BE 5 1/4". FIRE HYDRANTS SHALL BE ONE OF THE FOLLOWING MODELS:
KENNEDY K81A (GUARDIAN)
MUELLER A-423 (CENTURIAN)
WATEROUS W6-67 (PACER)
AMERICAN DARLING 8-62-B
DRESSER M & H 929
AVK 2780
- FIRE HYDRANT BARRELS SHALL BE EXTENDED WHERE UNAVOIDABLE IN ORDER TO MAKE PROPER GRADE. STACKING EXTENSIONS (USING MORE THAN ONE) WILL NOT BE ALLOWED.
- FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON WITH FLANGED JOINTS OR MECHANICAL JOINTS WITH RESTRAINED JOINTS. THE LATERAL SHALL BE PROVIDED WITH POSITIVE RESTRAINT BETWEEN THE SHUTOFF VALVE AND THE FIRE HYDRANT.
- WHEN POURING THE THRUST BLOCK, CARE SHALL BE TAKEN NOT TO ALLOW CONCRETE TO PLUG OR INTERFERE WITH THE HYDRANT DRAIN HOLES.
- THE PERMEABLE BACKFILL PLACED IN THE DRAIN PIT SHALL BE COMPLETELY COVERED WITH A LAYER OF 15# FELT ROOFING PAPER OR 6 MIL POLYETHYLENE FILM.



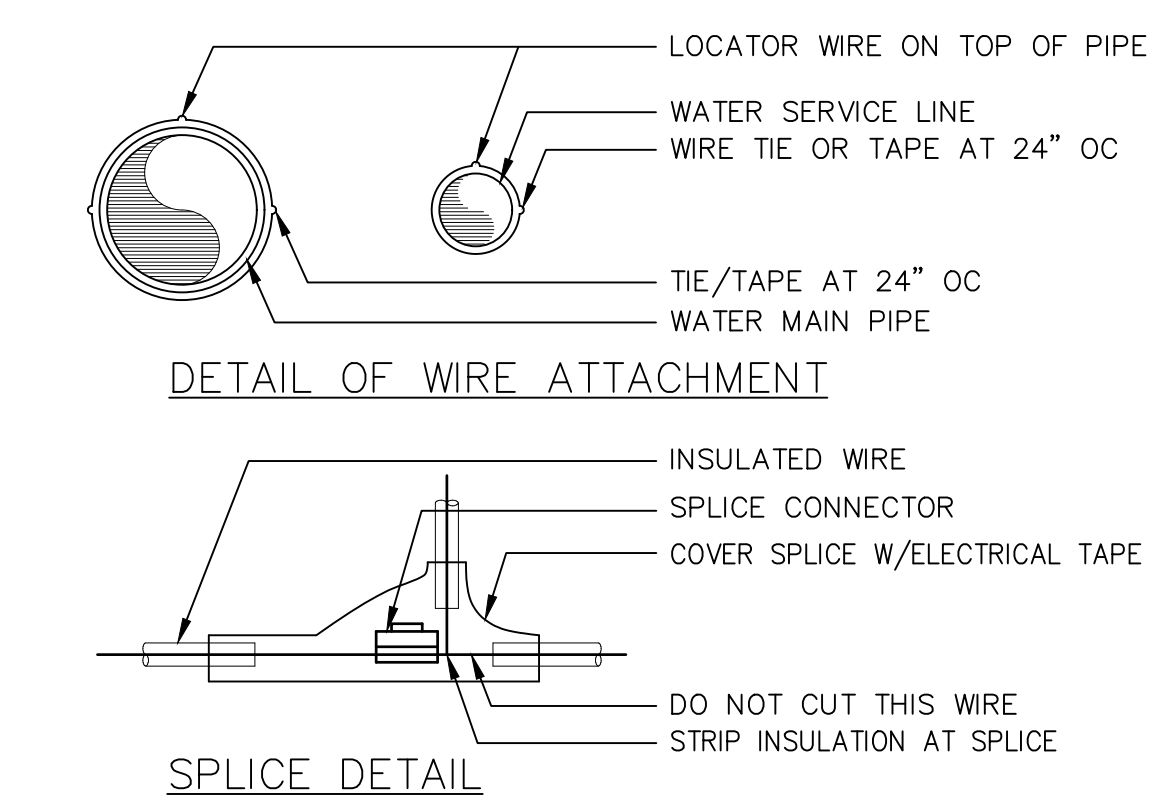
2 FIRE HYDRANT DETAIL
Scale: N.T.S.



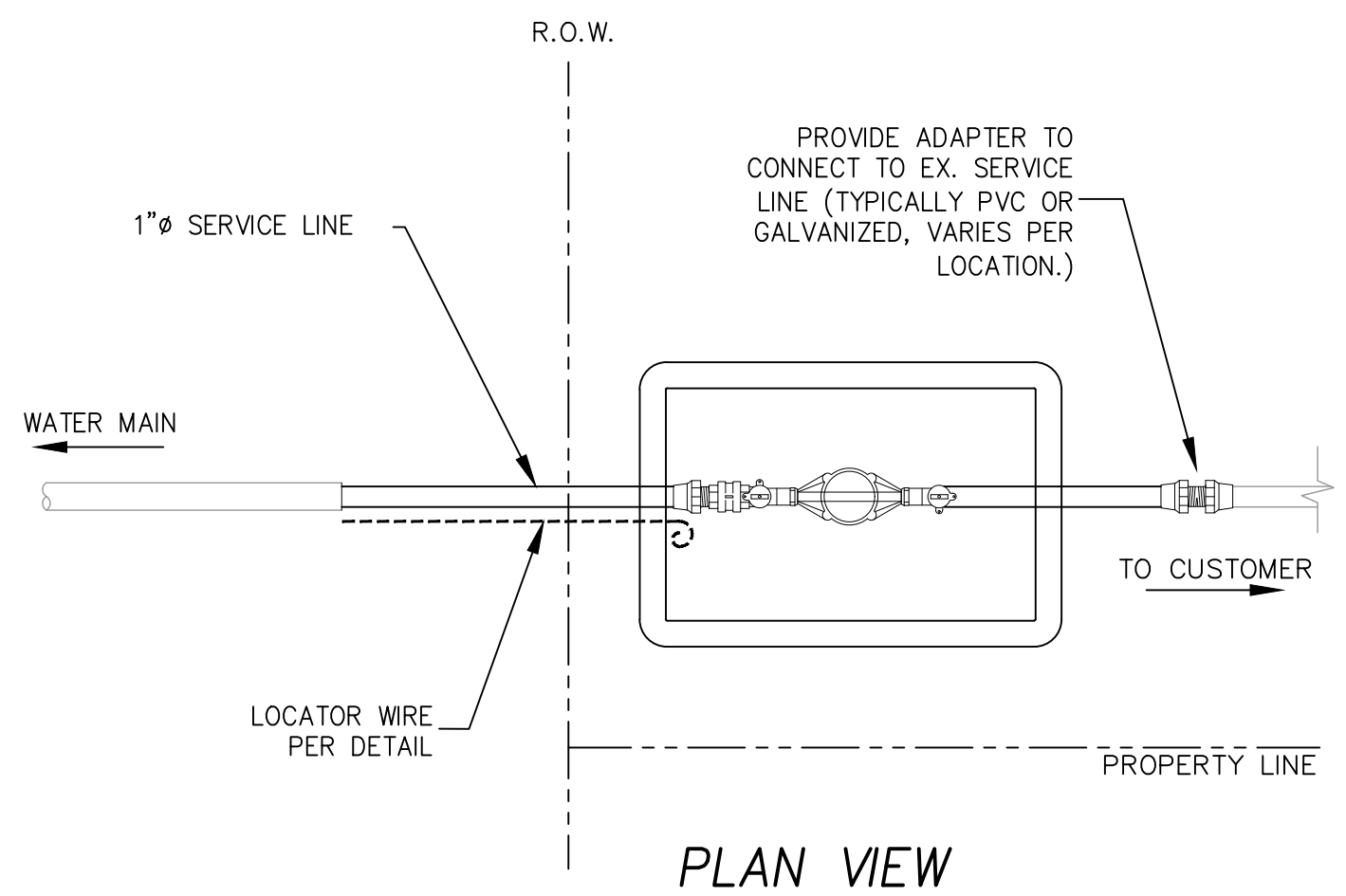
3 VALVE & VALVE BOX INSTALLATION DETAIL
Scale: N.T.S.



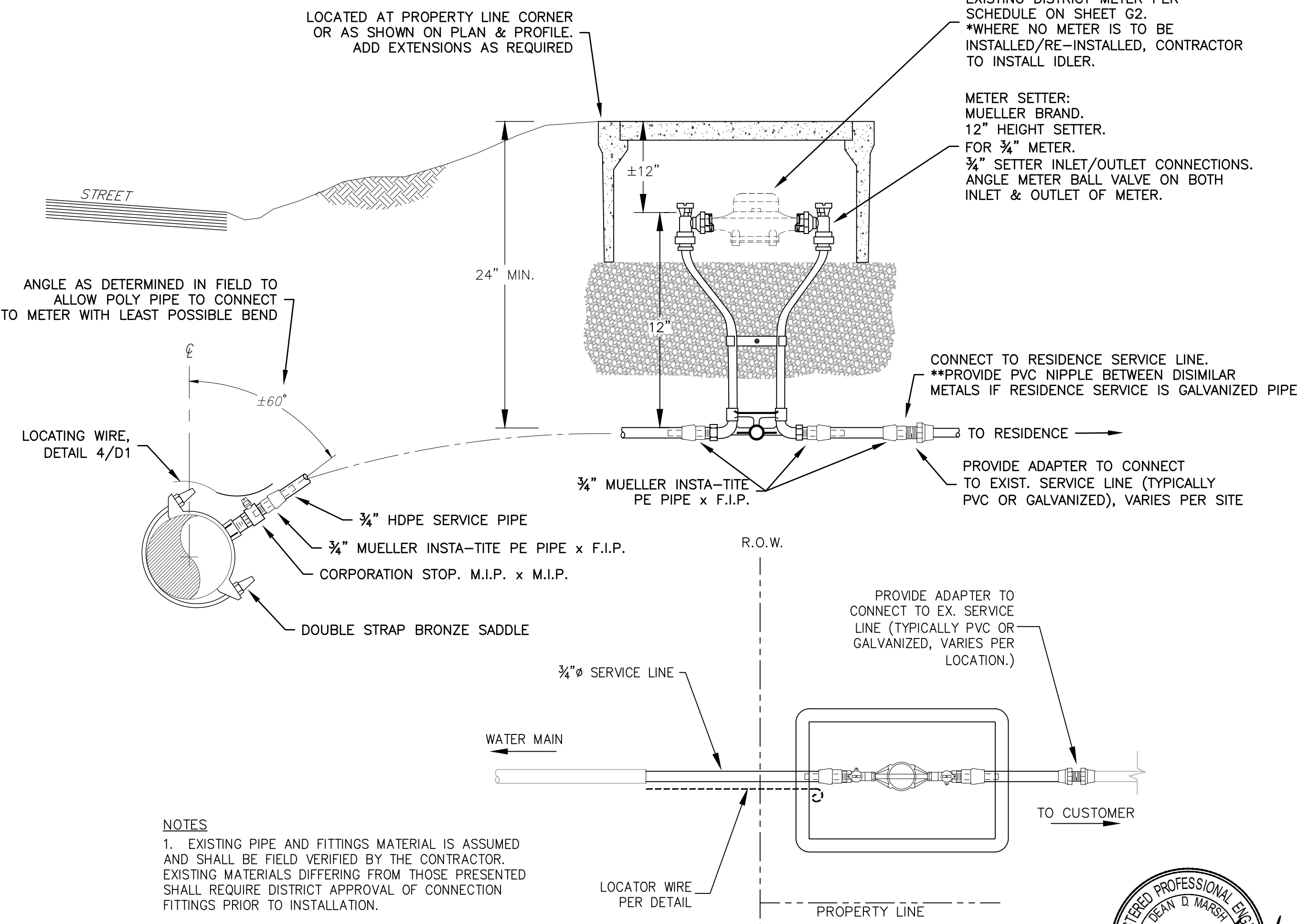
6 STA. 20+56 SERVICE LATERAL & SERVICE BOX DETAILS
Scale: N.T.S.



4 LOCATOR WIRE DETAIL
Scale: N.T.S.



- NOTES**
- EXISTING PIPE AND FITTINGS MATERIAL IS ASSUMED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. EXISTING MATERIALS DIFFERING FROM THOSE PRESENTED SHALL REQUIRE DISTRICT APPROVAL OF CONNECTION FITTINGS PRIOR TO INSTALLATION.



- NOTES**
- EXISTING PIPE AND FITTINGS MATERIAL IS ASSUMED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. EXISTING MATERIALS DIFFERING FROM THOSE PRESENTED SHALL REQUIRE DISTRICT APPROVAL OF CONNECTION FITTINGS PRIOR TO INSTALLATION.

5 WATER METER SERVICE INSTALLATION DETAILS
Scale: N.T.S.

INITIAL	
REVISIONS	
REV. DATE	

HILLSDALE ROAD PIPELINE

DETAILS 1

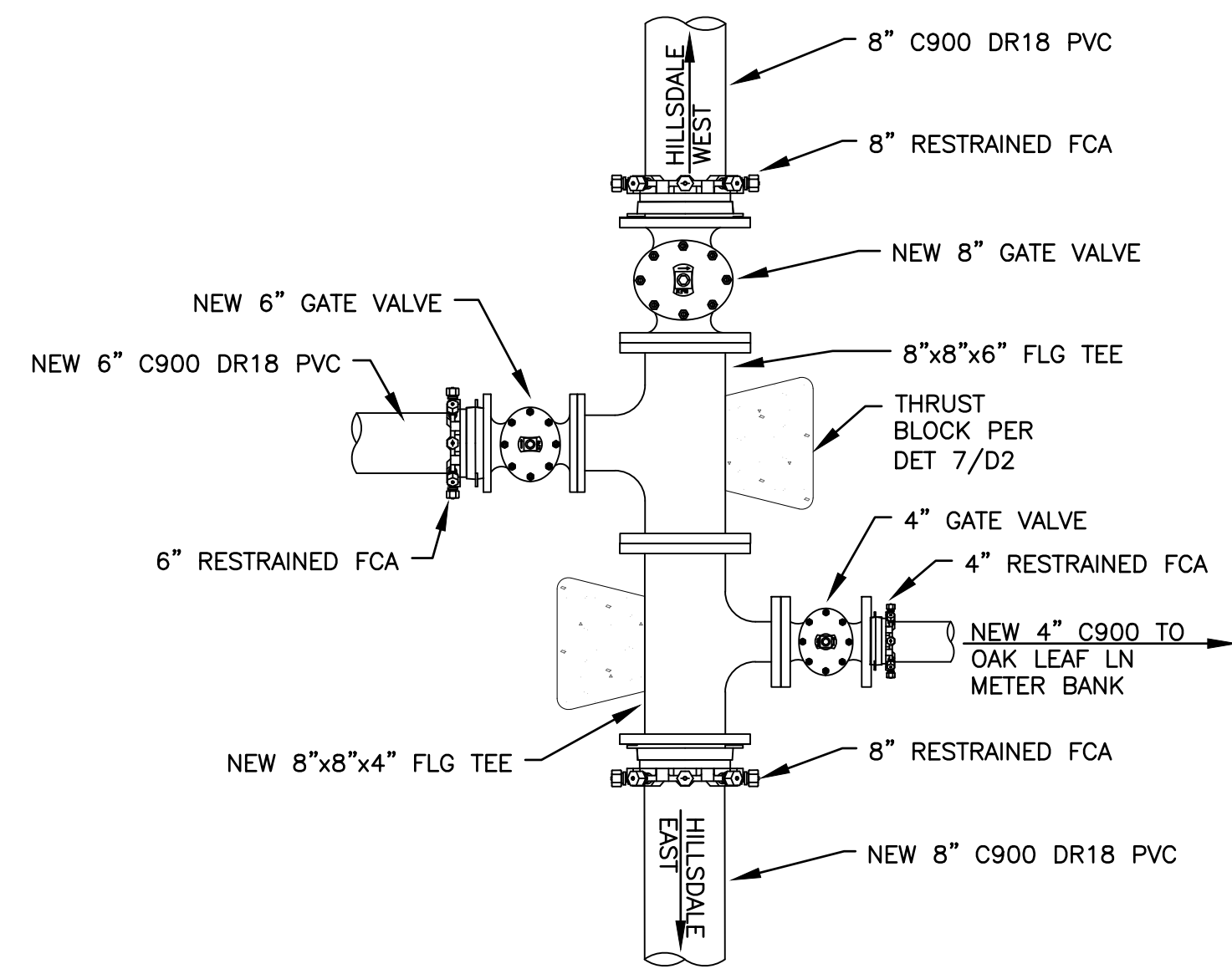
Midway Heights County Water District

PLACER COUNTY CALIFORNIA

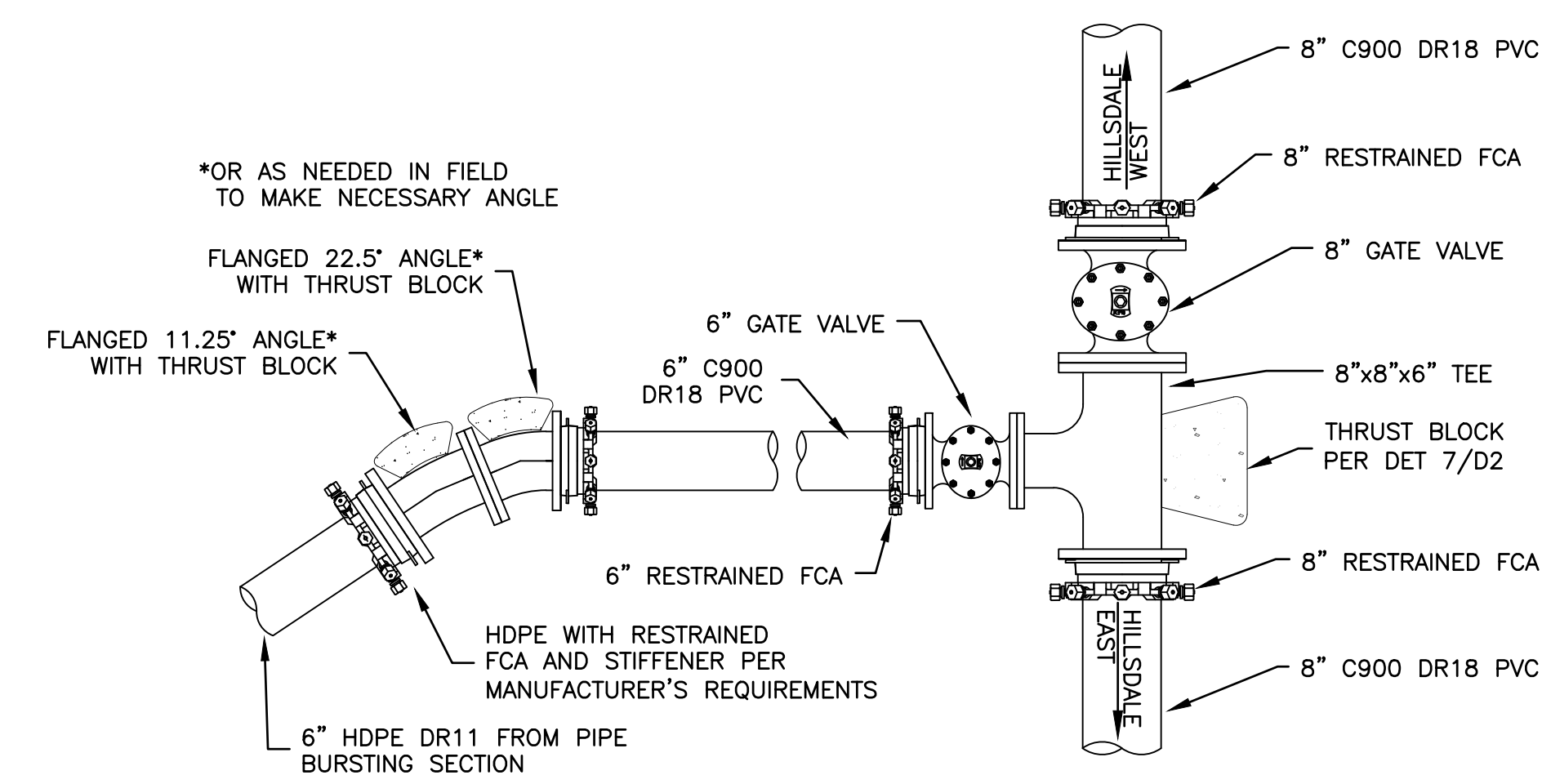
Sauers Engineering, Inc.
Civil & Environmental Engineers
105 Providence Mine Road, Suite 202, Nevada City, CA 95959
tel (530) 265-8021 www.sauerseng.com



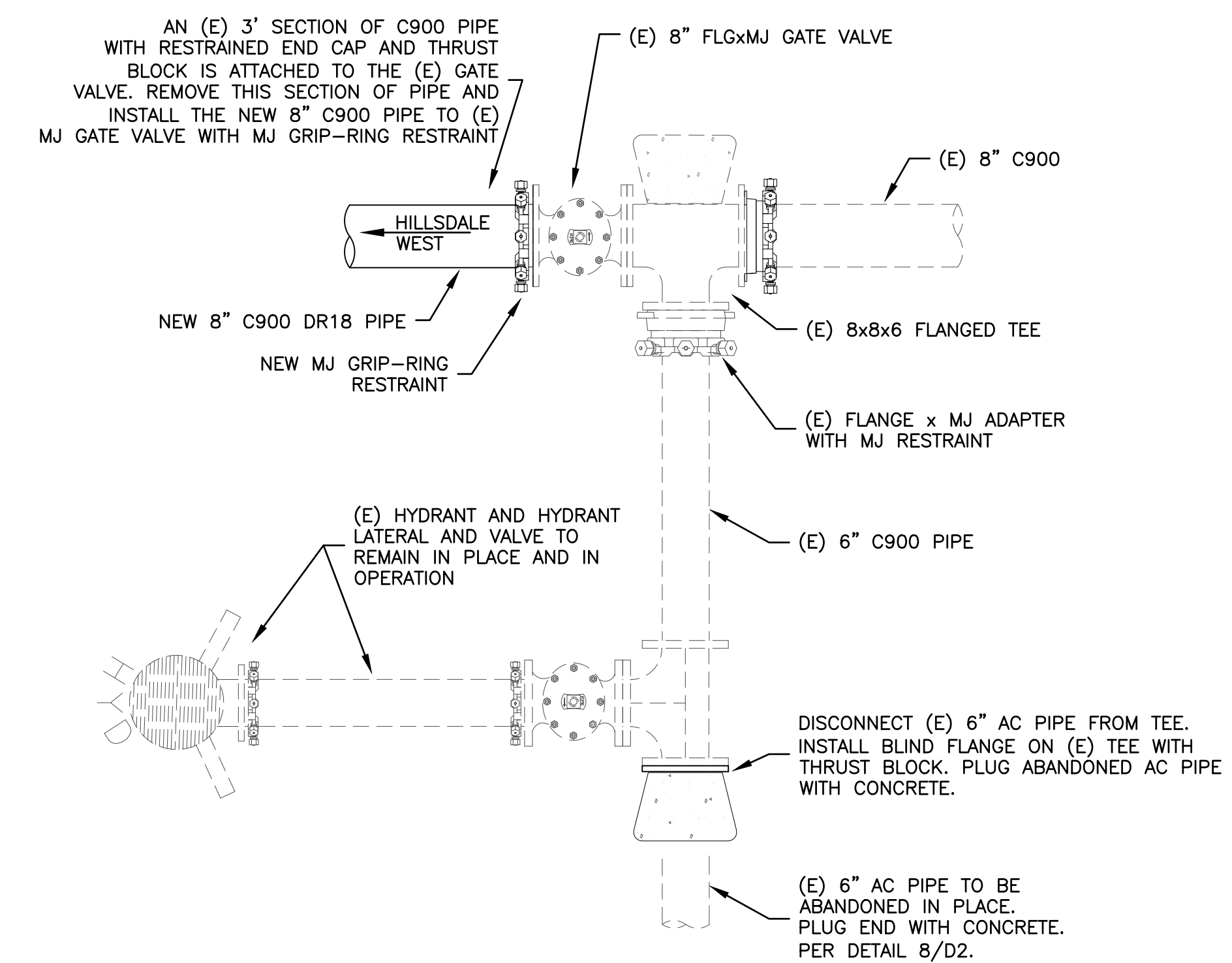
PROJECT NUMBER:	22-002-01
DATE:	DOM
DRAFTING BY:	KEM
CHECKED BY:	DOM
FILE PATH:	Midway Heights/Hillside Rd Pipeline/Drawings
DATE:	September 2022
SCALE:	AS SHOWN HORIZONTAL
SCALE:	VERTICAL
SHEET:	D1
10 of 12	



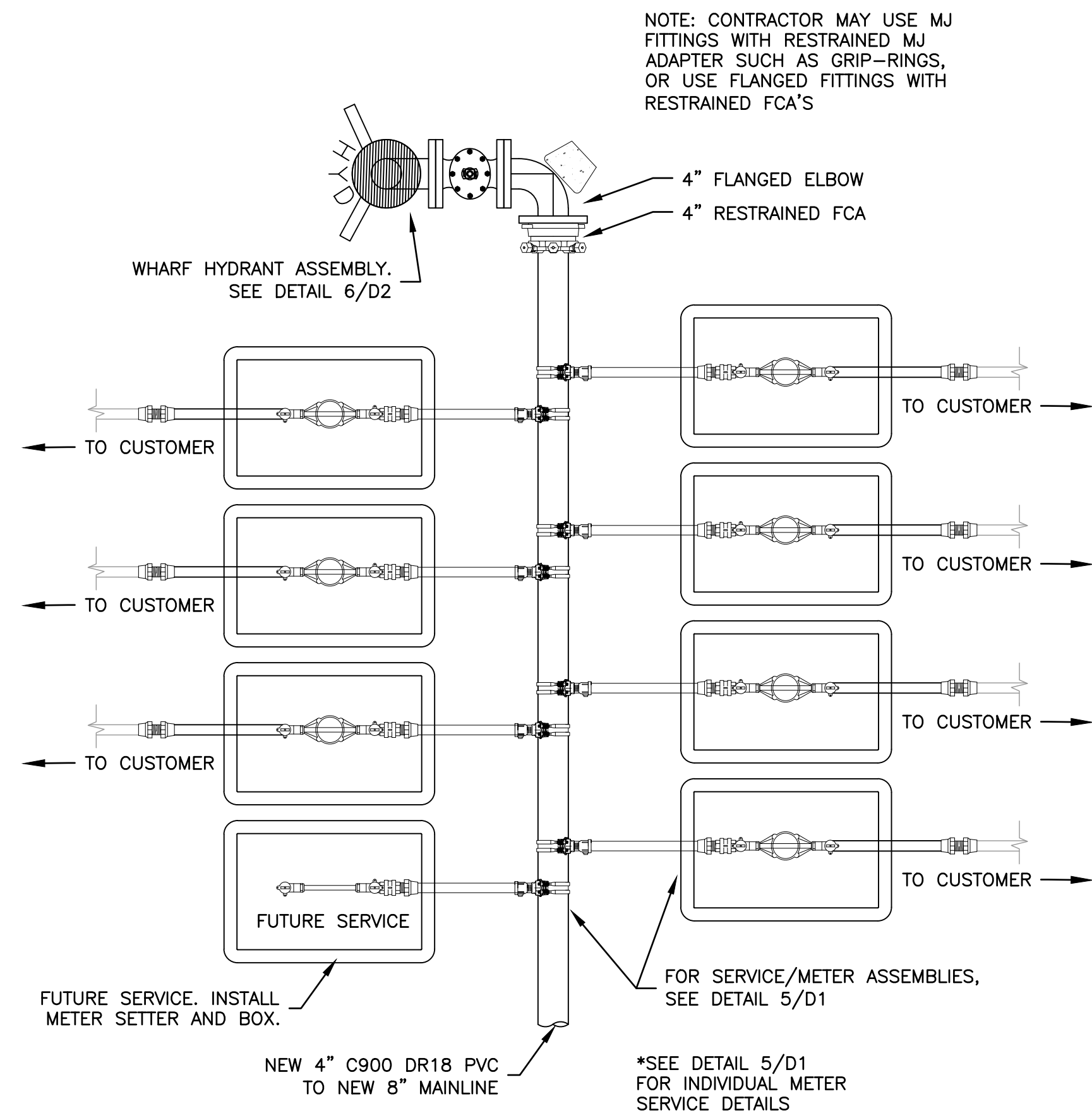
1 D2 STA 14+62-68 CONNECTION DETAIL
Scale: 3/4" = 1'



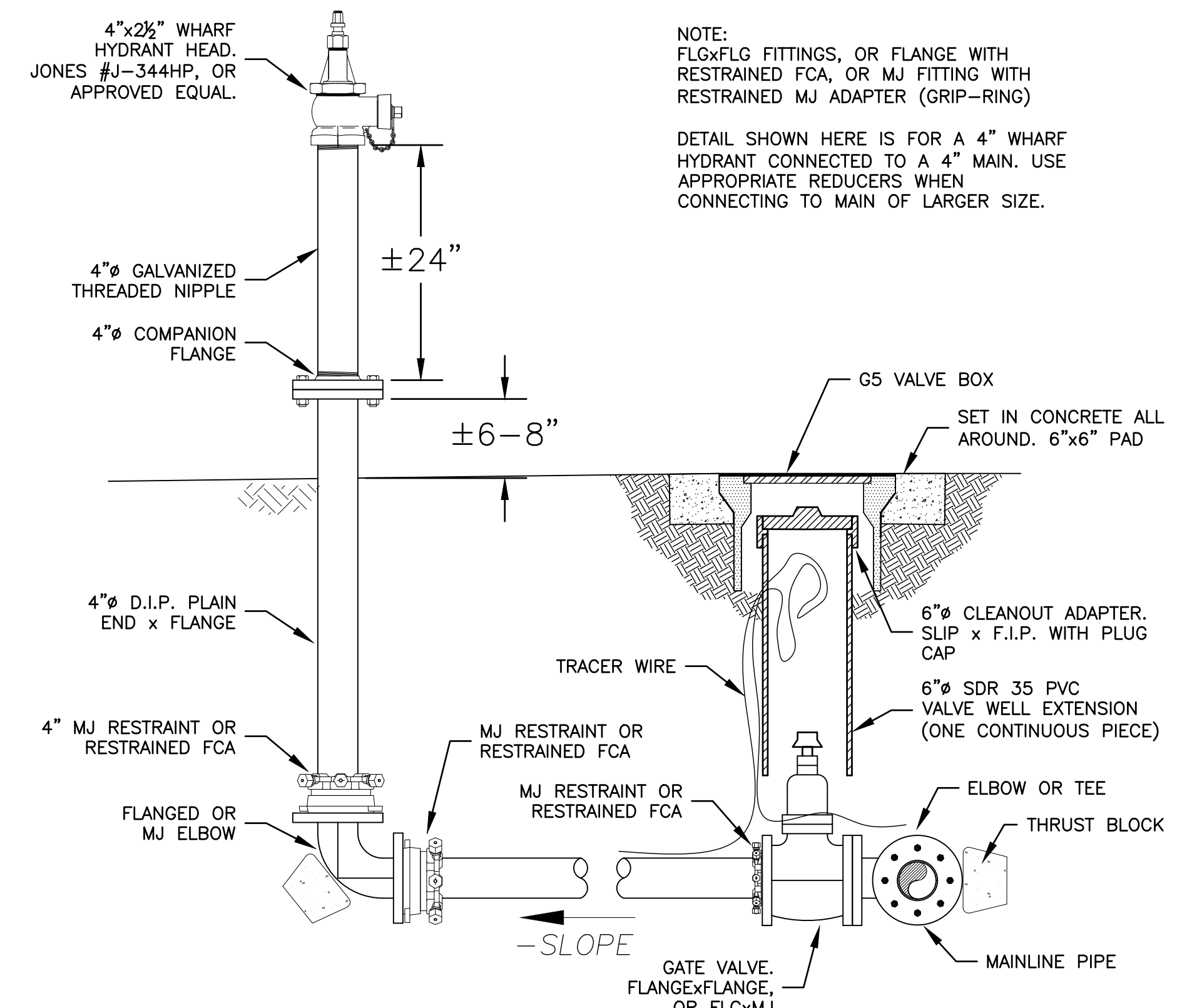
2 D2 STA 24+12 CONNECTION DETAIL
Scale: 3/4" = 1'



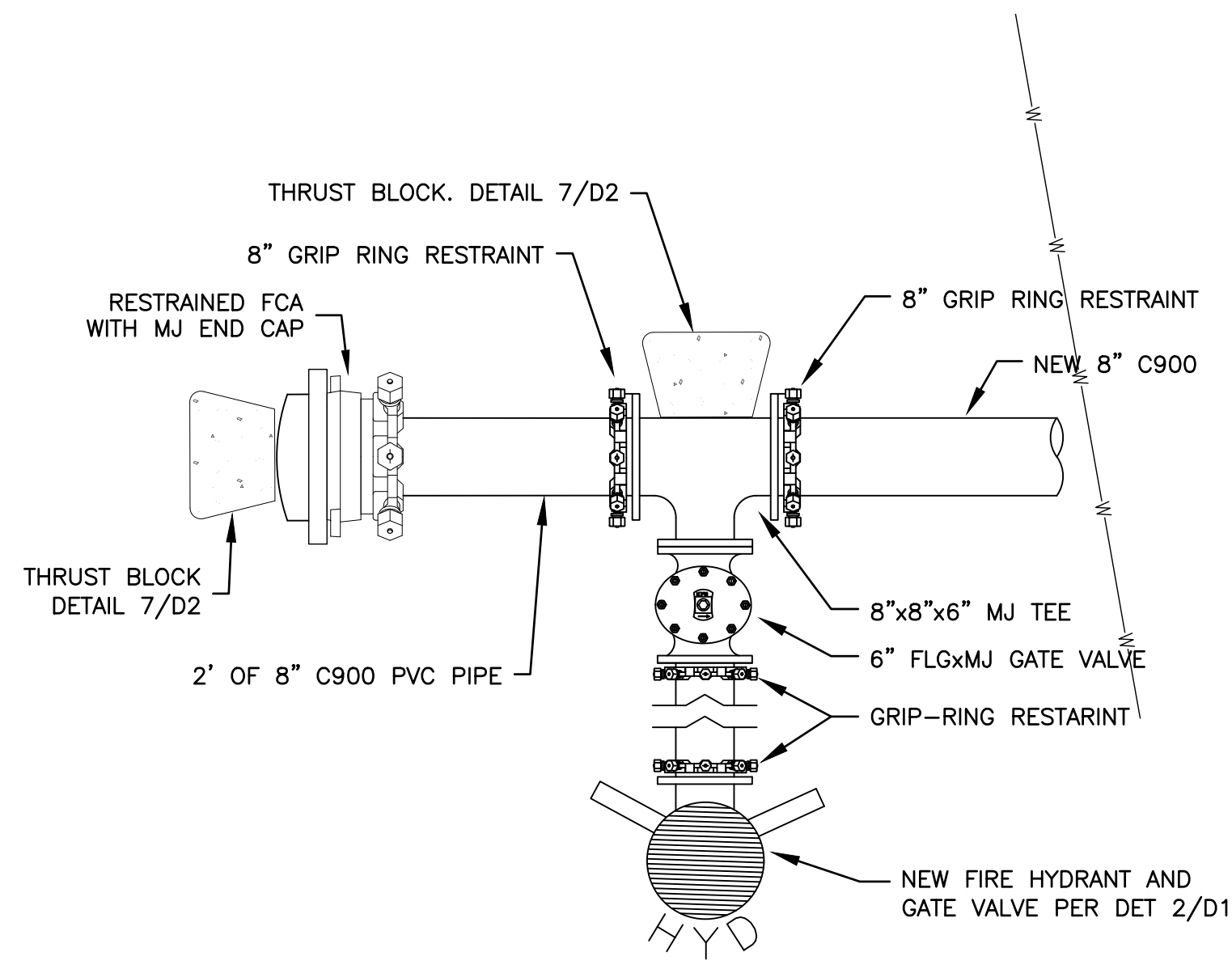
3 D2 STA 26+75 CONNECTION TO EXISTING PIPELINE DETAIL
Scale: 3/4" = 1'



5 D2 4-INCH LATERAL & CONNECTION TO (E) METERS & NEW BLOWOFF: STA 14+62
Scale: N.T.S.



6 D2 WHARF HYDRANT DETAIL
Scale: N.T.S.



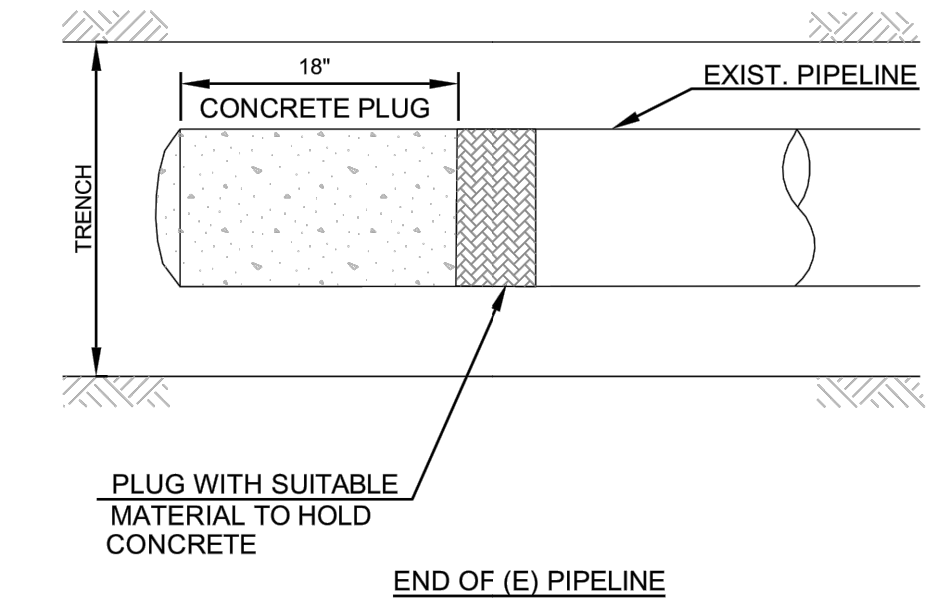
7 D2 THRUST BLOCK DETAIL
Scale: N.T.S.

4 D2 STA 09+86 PIPE END DETAIL & HYDRANT
Scale: 3/4" = 1'

REQUIRED BEARING AREA - TOTAL SQUARE FEET PER CONCRETE RESTRAINT

TYPE OF FITTING	90° BEND	45° BEND	11.25° OR 22.5° BEND	TEE OR DEAD END	TEE W/PLUG	CROSS W/PLUG	CROSS W/PLUGS
TYPICAL INSTALLATION							
SIZE OF PIPE	4"	6"	8"	10"	12"	16"	24"
	2	1	1	2	2	2	2
	4	2	1	3	4	4	4
	7	4	2	5	7	7	7
	12	6	3	8	12	12	12
	16	10	5	12	16	16	16

- NOTES:
- JOINTS & FACE OF PLUGS, NUTS AND BOLTS TO BE KEPT CLEAR OF CONCRETE.
 - BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
 - THRUST BLOCKS TO BE CONSTRUCTED OF MINOR CONCRETE.
 - STRAPS TO BE #4 REBAR EMBEDDED IN THRUST BLOCK TO A DEPTH EQUAL TO 3/4 OF PIPE DIAMETER. STRAP BEND EQUALS 1/2 PIPE DIAMETER.
 - AREAS GIVEN ARE FOR TEST PRESSURE OF 150 PSI, AND SOIL BEARING PRESSURE OF 2,000 PSF. INSTALLATIONS USING HIGHER TEST PRESSURES OR LOWER SOIL BEARING PRESSURES WILL REQUIRE ADJUSTMENT OF THRUST BLOCK SIZES, SUBJECT TO APPROVAL BY THE DISTRICT ENGINEER.



8 D2 PIPE ABANDONMENT/PLUGGING DETAIL
Scale: N.T.S.



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REVISIONS	
REV DATE	

HILLSDALE ROAD PIPELINE
 Midway Heights County Water District
 CALIFORNIA
 PLACER COUNTY
 DETAILS 2

Sauers Engineering, Inc.
 Civil & Environmental Engineers
 105 Providence Mine Road, Suite 202, Nevada City, CA 95959
 tel (530) 265-8021 www.sauerseng.com

PROJECT NUMBER: 22-002-01
 DESIGN BY: DDM
 DRAFTING BY: KEM
 CHECKED BY: DDM

FILE PATH: Midway Heights/Hilldale Rd Pipeline/Drawings
 DATE: September 2022

SCALES:
 AS SHOWN
 HORIZONTAL: D2
 NA
 VERTICAL: 11 of 12

