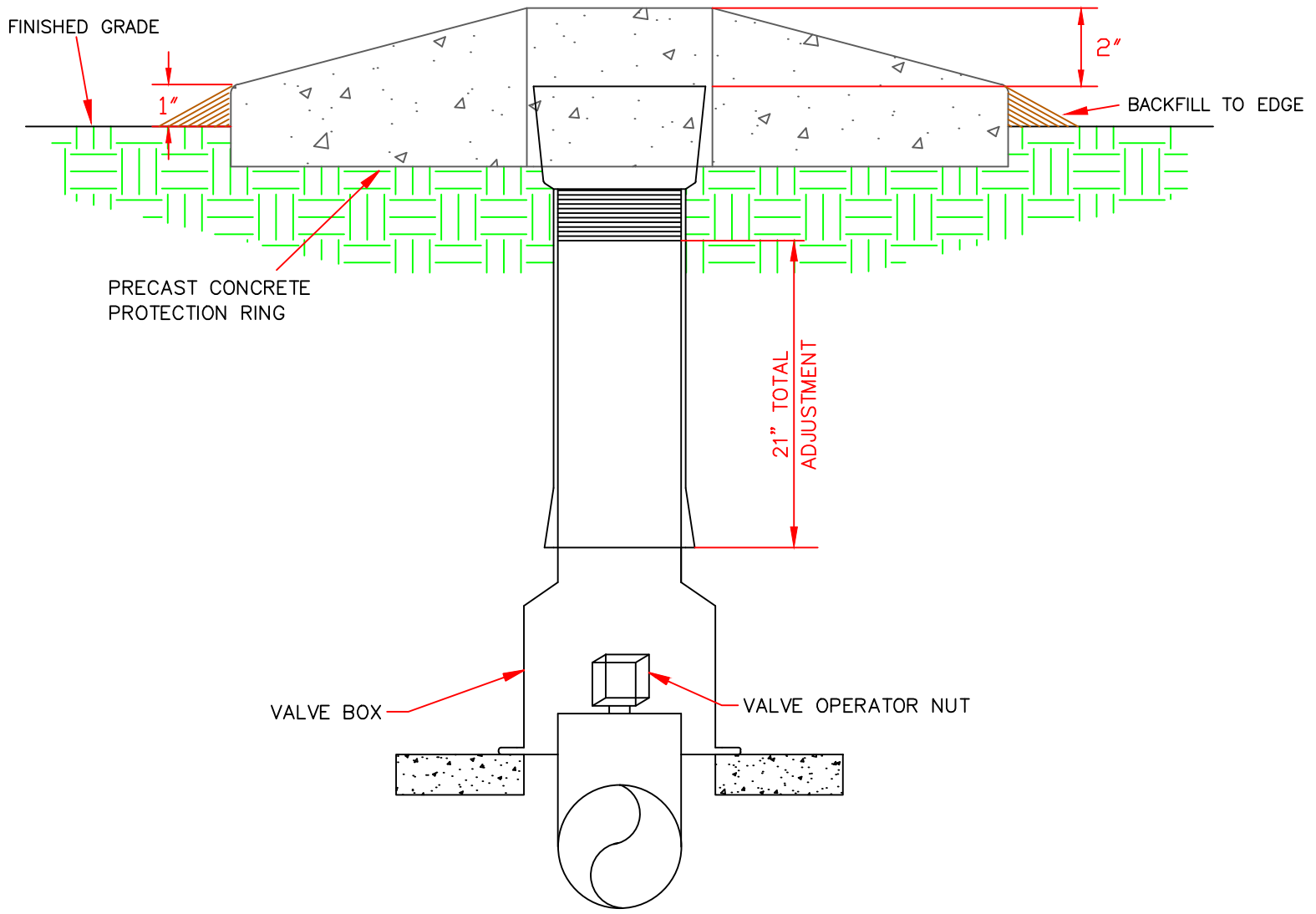


TYPICAL VALVE MARKER DETAIL

W
1

NO SCALE

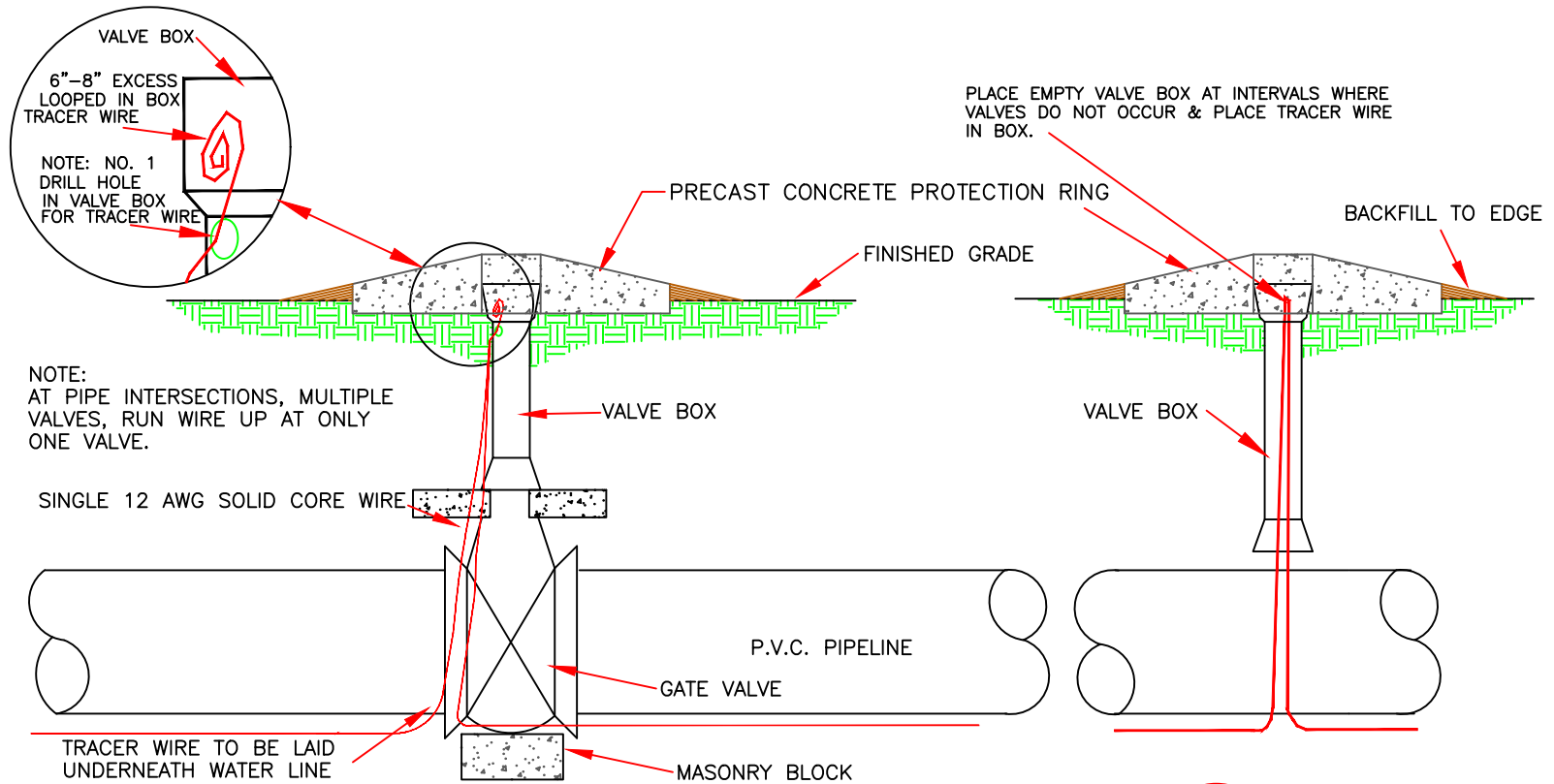
NOTES:
PAINT MARKER BLUE AFTER INSTALLATION



TYPICAL VALVE BOX DETAIL

NO SCALE

W
2



TYPICAL TRACER WIRE INSTALLATION DETAIL

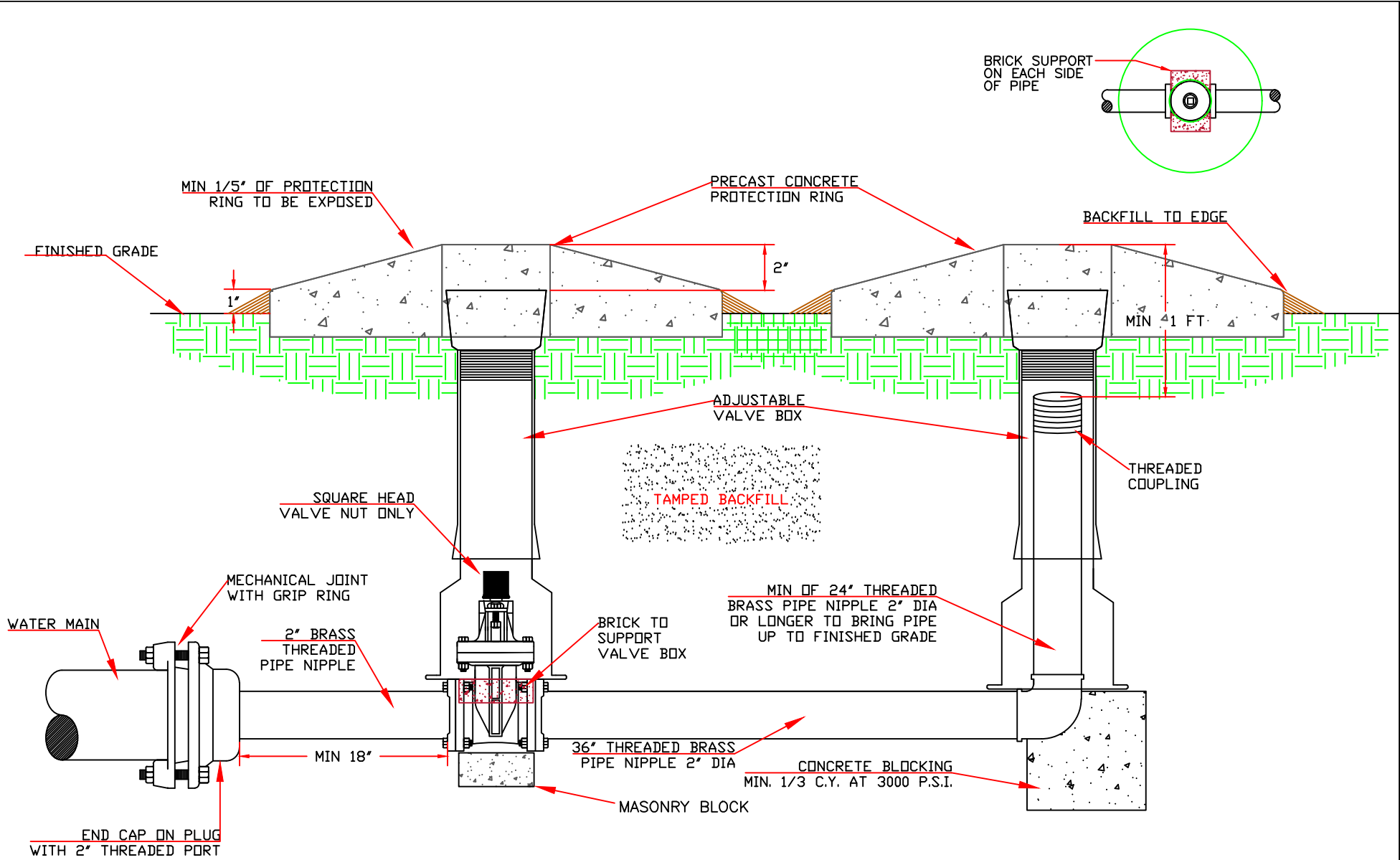
NO SCALE

W

3

NOTES:

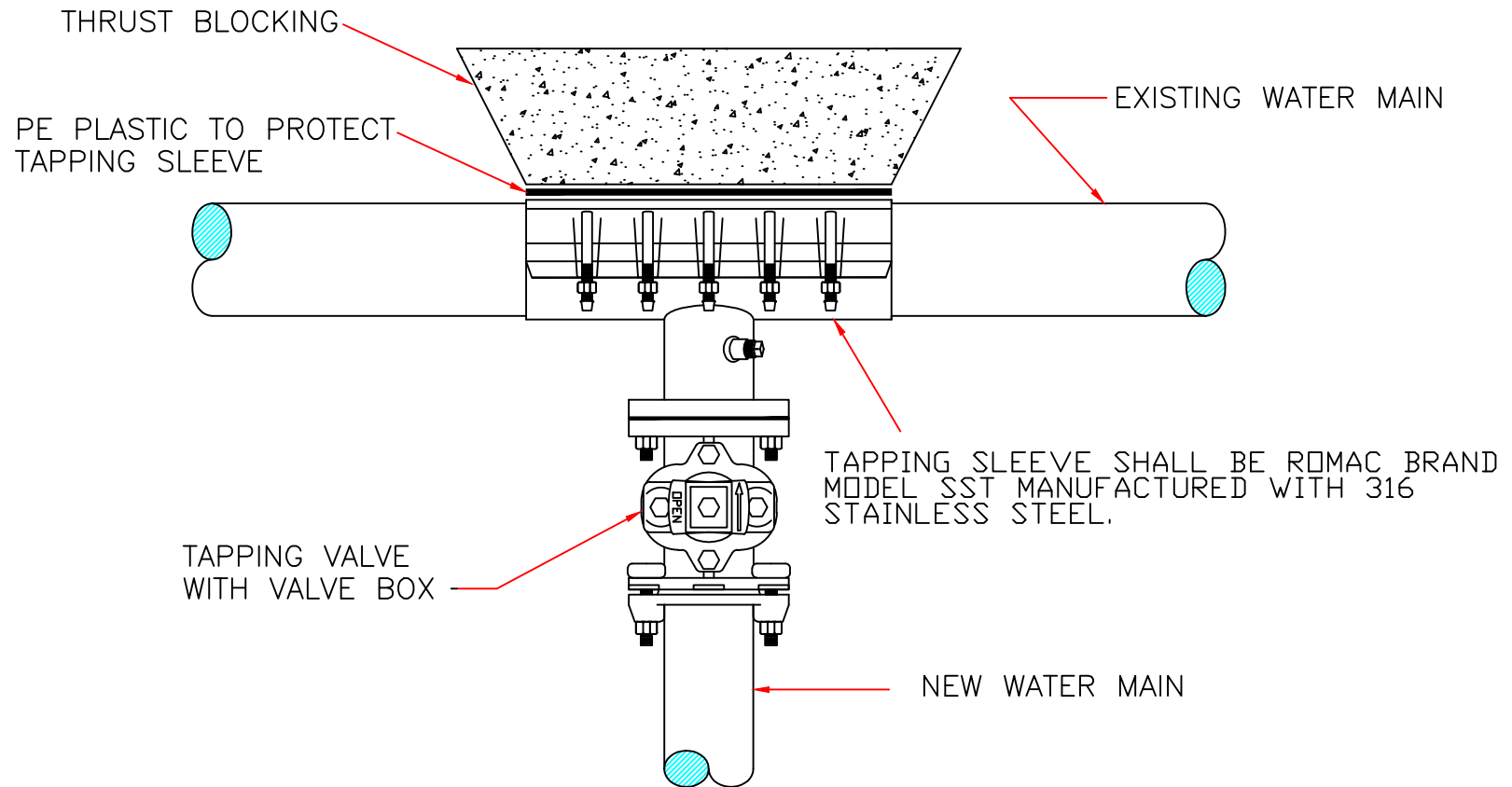
1. DRILL HOLE IN VALVE BOX TO INSERT TRACER WIRE, BRING UP TO INSIDE AND ROLL UP AT LEAST 6"-8" EXCESS
2. PLACE TRACER WIRE IN VALVE BOX AT 1,000' INTERVALS OR AS NOTED ON THE PLANS, TYPICAL.
3. DO NOT SPLICE WIRE WHEN BEGINNING A NEW SPOOL. INSTEAD INSTALL A VALVE BOX AND ATTACH EACH WIRE WITH A BRASS SCREW TO THE VALVE BOX.



TYPICAL PERMANENT BLOW-OFF ASSEMBLY DETAIL (W 4)

NO SCALE

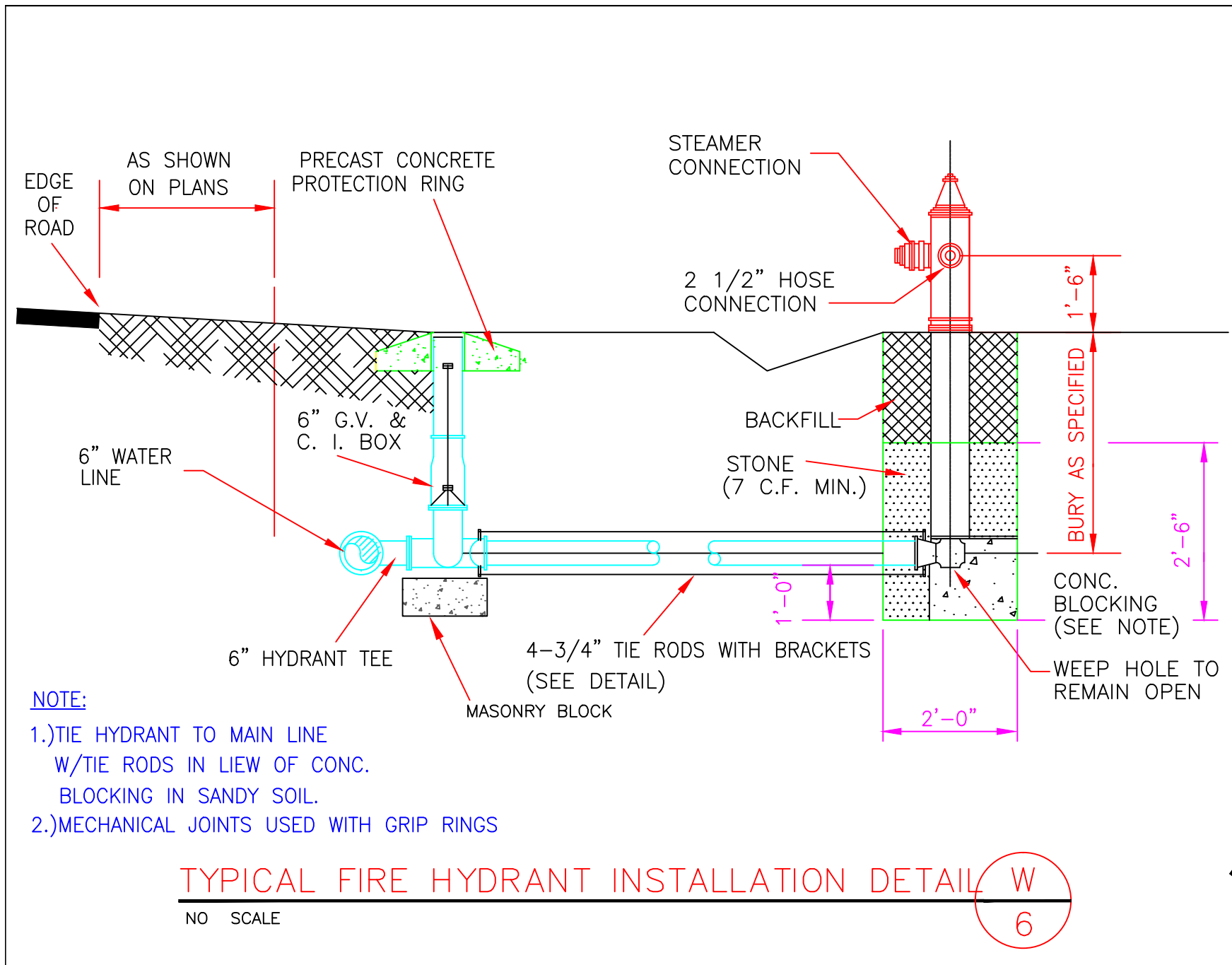
NOTE: SEE TYPICAL VALVE BOX DETAIL FOR BRICK INSTALLATION



TYPICAL TAPPING SLEEVE AND VALVE ASSEMBLY DETAIL

NO SCALE

W
5



NOTE:

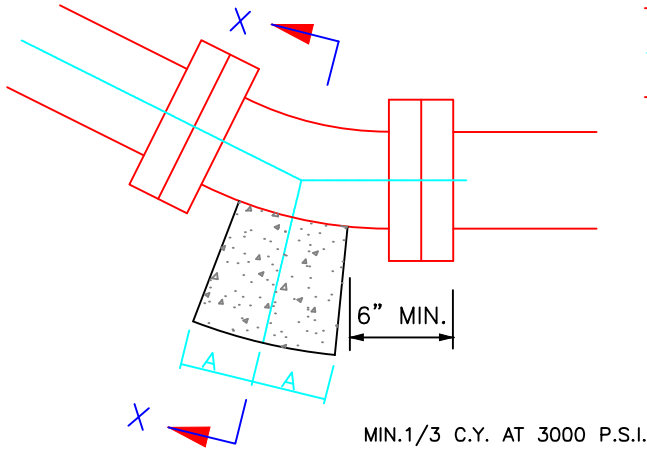
- 1.) TIE HYDRANT TO MAIN LINE
W/TIE RODS IN LIEU OF CONC.
BLOCKING IN SANDY SOIL.
- 2.) MECHANICAL JOINTS USED WITH GRIP RINGS

TYPICAL FIRE HYDRANT INSTALLATION DETAIL W

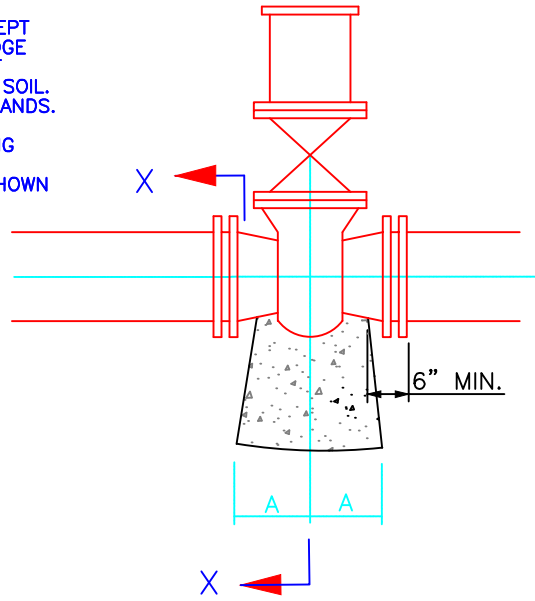
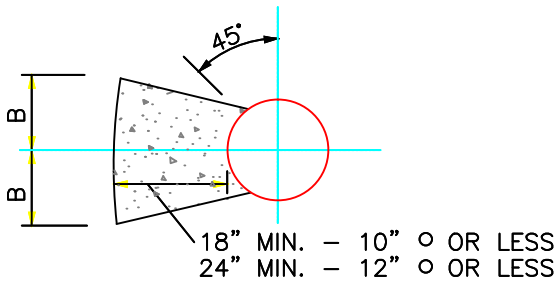
NO SCALE

6

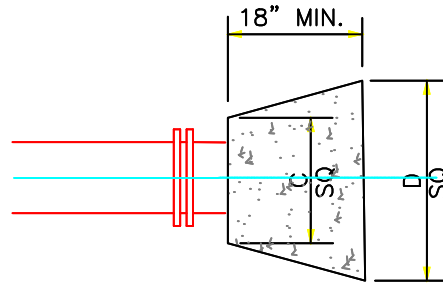
- NOTES:
1. CONCRETE SHALL BE 3,000 PSI MIN.
 2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.
 3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.
 4. ALL PIPING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL. POLYETHYLENE PRIOR TO POURING BLOCKING.
 5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.



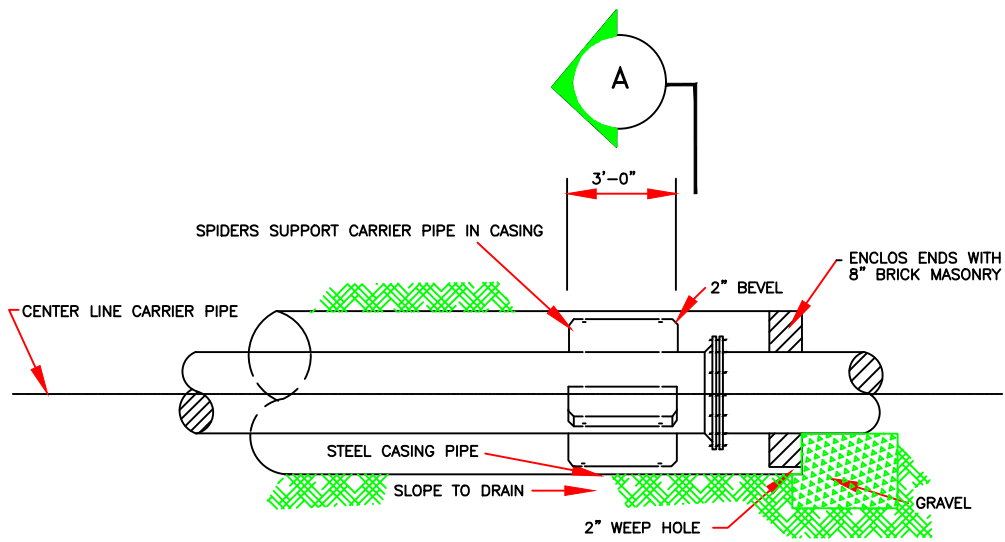
PLAN BENDS



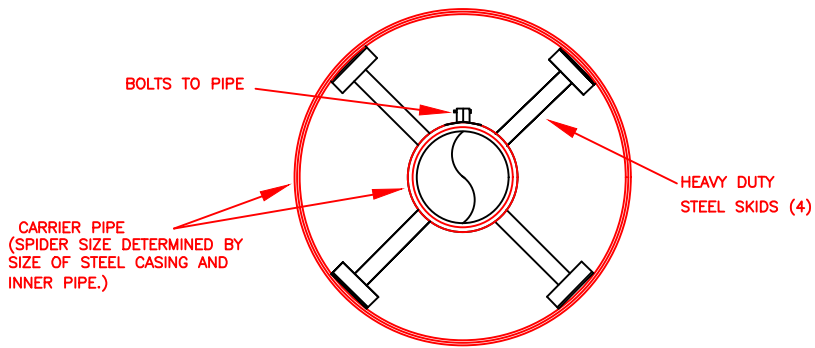
HYDRANT TEE
PLAN TEES



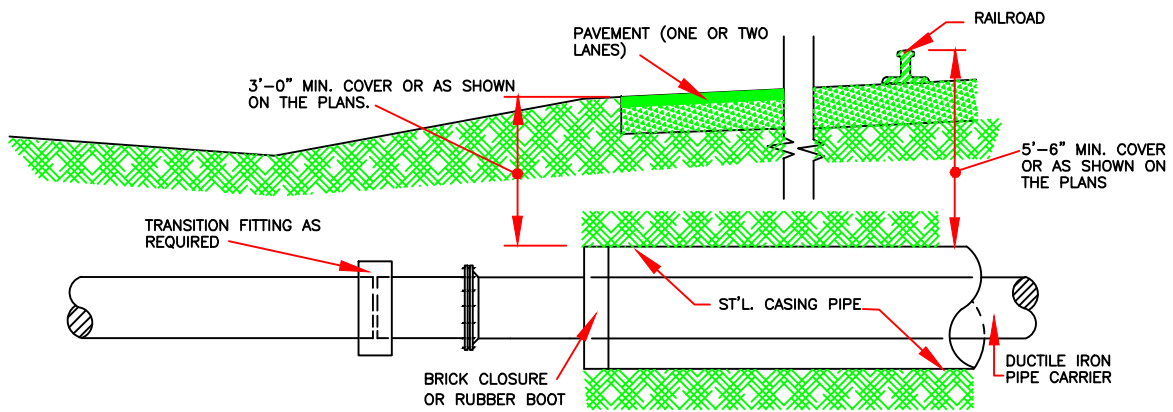
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11/4° BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	8"	9"	10"	16"
6"	10"	12"	8"	10"	8"	8"	8"	8"	10"	10"	12"	18"
8"	15"	13"	10"	10"	8"	8"	8"	8"	10"	12"	12"	24"
10"	16"	14"	10"	12"	6"	10"	6"	10"	11"	14"	14"	25"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
14"	22"	18"	14"	16"	10"	14"	10"	14"	16"	18"	18"	34"
16"	26"	20"	16"	18"	12"	16"	12"	16"	18"	20"	20"	36"



ELEVATION



SECTION "A"



PROFILE

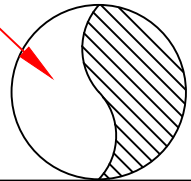
TYPICAL BORING & JACKING DETAIL

NO SCALE

W

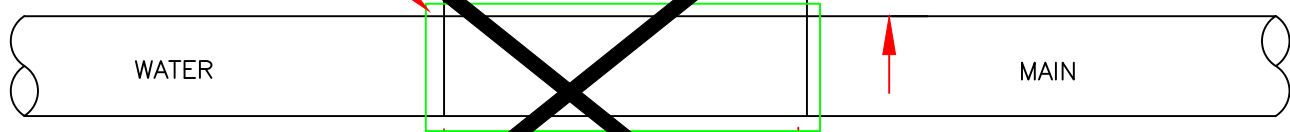
8

EXISTING STORM SEWER



24" MIN.

ENCASEMENT AREA TO INCLUDE
DUCTILE IRON PIPE ONLY



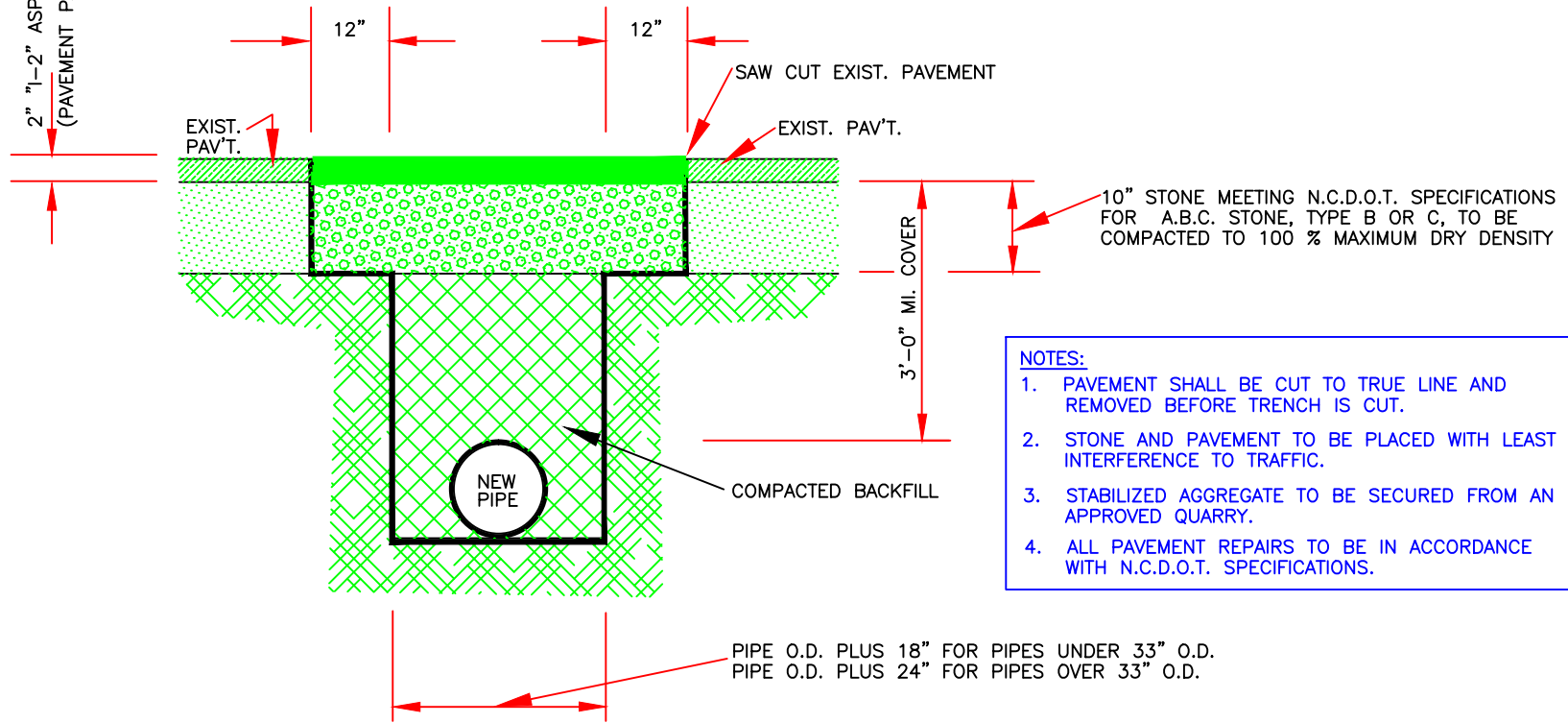
LENGTH OF ENCASEMENT
TO BE STORM SEWER
PIPE PLUS O.D. PLUS
2'-0" OR AS SHOWN
ON PLANS.

TYPICAL STORM SEWER CROSSING DETAIL

NO SCALE



2" 1-2" ASP. PAV'T.
(PAVEMENT PATCH)



- NOTES:**
1. PAVEMENT SHALL BE CUT TO TRUE LINE AND REMOVED BEFORE TRENCH IS CUT.
 2. STONE AND PAVEMENT TO BE PLACED WITH LEAST INTERFERENCE TO TRAFFIC.
 3. STABILIZED AGGREGATE TO BE SECURED FROM AN APPROVED QUARRY.
 4. ALL PAVEMENT REPAIRS TO BE IN ACCORDANCE WITH N.C.D.O.T. SPECIFICATIONS.

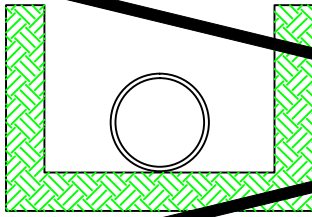
TYPICAL TRENCH IN BITUMINOUS SURFACE AREAS DETAIL

NO SCALE

LAYING
CONDITIONS

DESCRIPTION

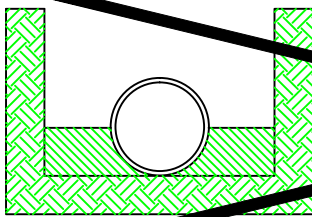
PROJECT USE



TYPE 1

FLAT BOTTOM UNDISTURBED
EARTH TRENCH. LOOSE BACKFILL

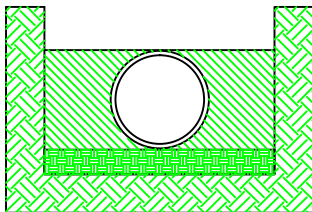
NOT USED.



TYPE 2

FLAT BOTTOMED UNDISTURBED EARTH
TRENCH. BACKFILL LIGHTLY
CONSOLIDATED TO CENTERLINE
OF PIPE.

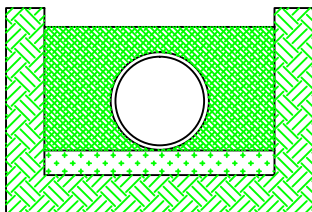
NOT USED.



TYPE 3

PIPE BEDDED IN 4" MINIMUM
JOB EXCAVATED MATERIAL.
BACKFILL LIGHTLY CONSOLIDATED
TO TOP OF PIPE.

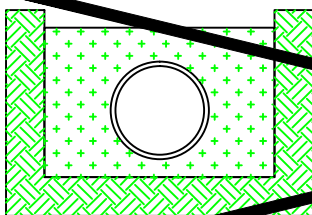
ALL DUCTILE
IRON GRAVITY
SEWER LINE.



TYPE 4

PIPE BEDDED IN SAND, GRANULAR
MATERIAL OR GRADED GRAVEL TO
THE DEPTH OF 1/8 PIPE DIAMETER,
4" MIN. JOB EXCAVATED MATERIAL
COMPACTED TO 4" ABOVE TOP OF PIPE.
(APPROX. 95% STANDARD PROCTOR,
AASHTO T-99)

ALL PVC WATER
LINE AND PVC
FORCE MAIN.



TYPE 5

PIPE BEDDED TO ITS CENTERLINE
IN COMPACTED GRANULAR MATERIAL
4" MIN. UNDER PIPE. COMPACTED
GRANULAR OR SAND MATERIAL TO
4" ABOVE TOP OF PIPE.
(APPROX. 95% STANDARD PROCTOR,
AASHTO T-99)

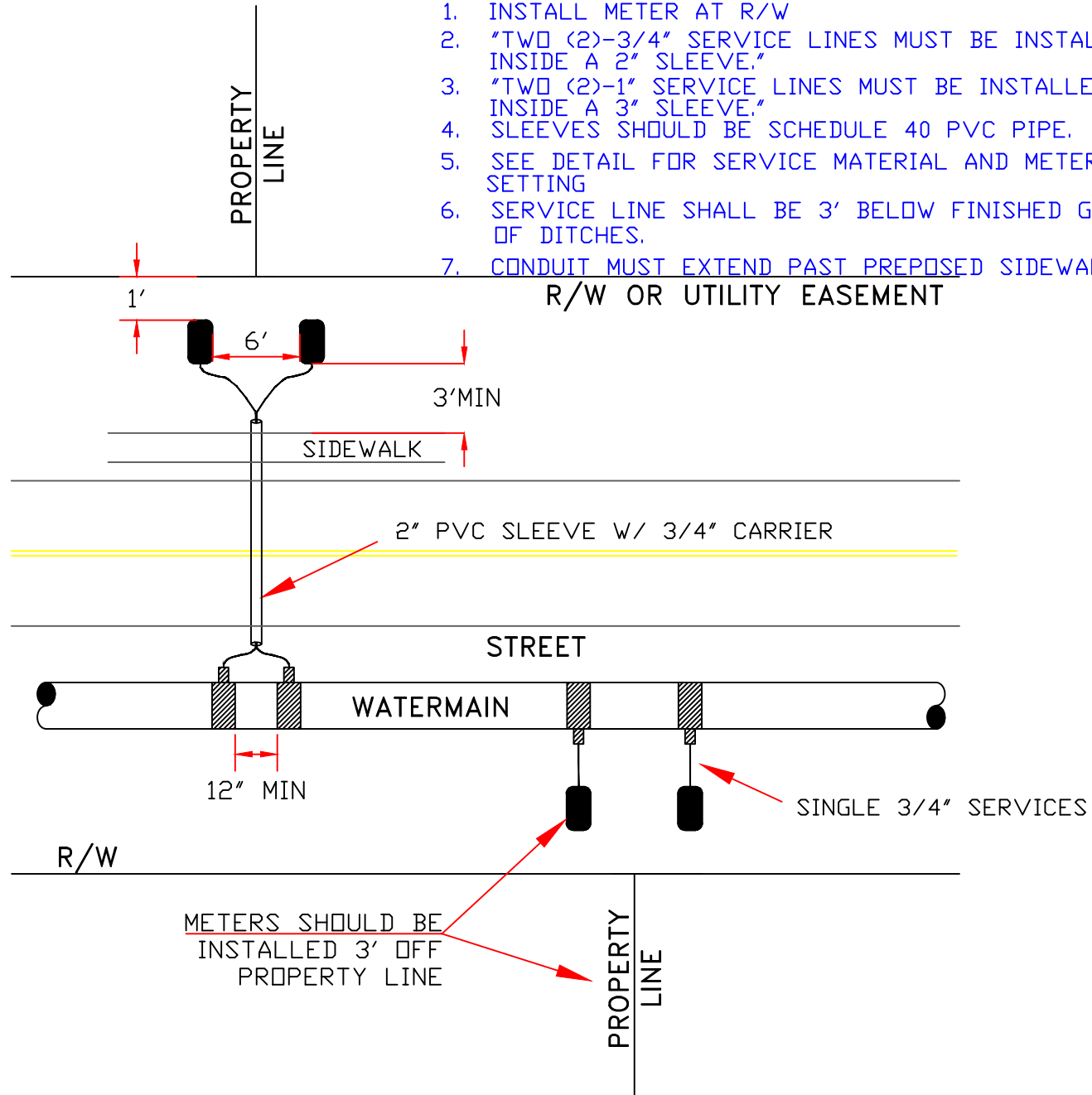
ALL PVC GRAVITY
SEWER LINE.

TYPICAL LAYING CONDITIONS DETAIL

NO SCALE

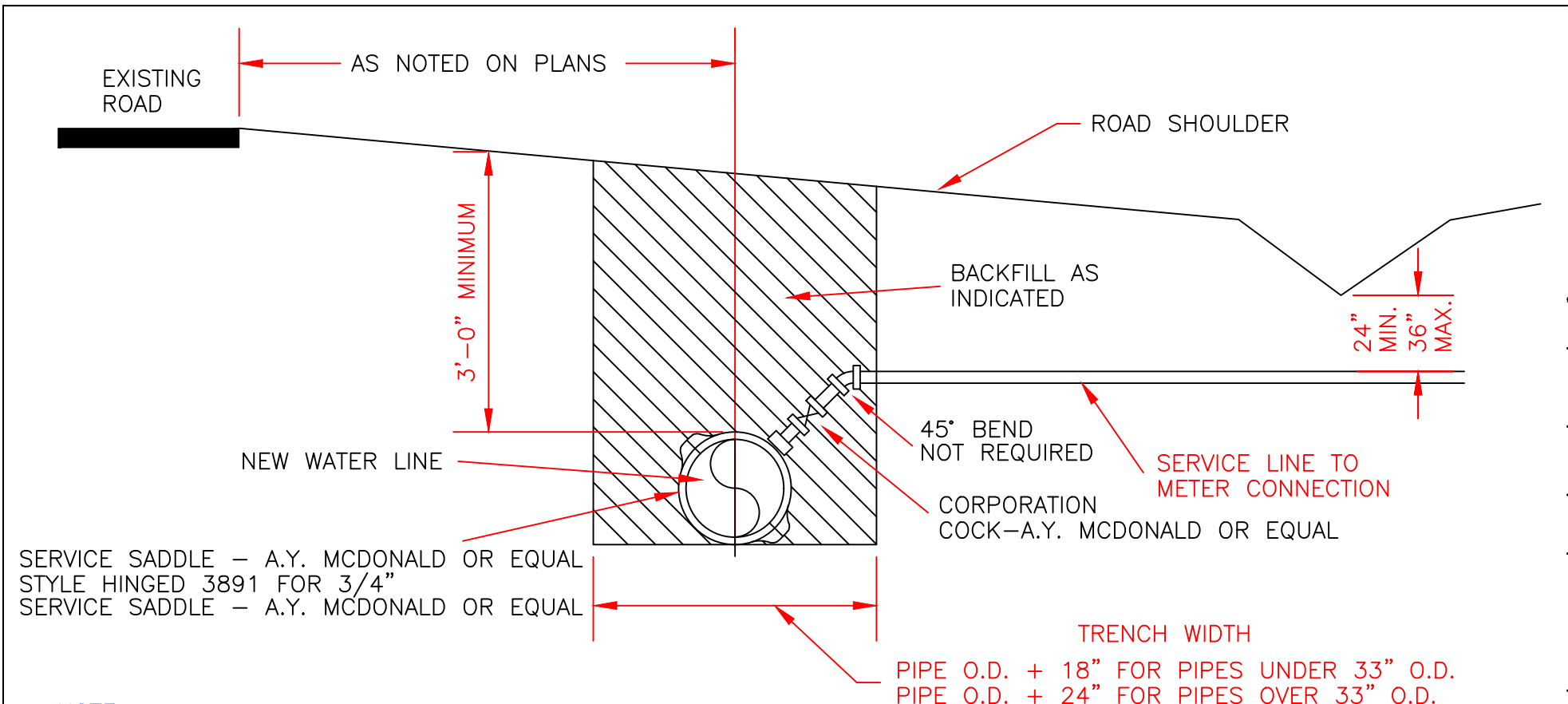
NOTES:

1. INSTALL METER AT R/W
2. "TWO (2)-3/4" SERVICE LINES MUST BE INSTALLED INSIDE A 2" SLEEVE."
3. "TWO (2)-1" SERVICE LINES MUST BE INSTALLED INSIDE A 3" SLEEVE."
4. SLEEVES SHOULD BE SCHEDULE 40 PVC PIPE.
5. SEE DETAIL FOR SERVICE MATERIAL AND METER SETTING
6. SERVICE LINE SHALL BE 3' BELOW FINISHED GRADE OF DITCHES.
7. CONDUIT MUST EXTEND PAST PREPOSED SIDEWALK.



TYPICAL DOMESTIC WATER SERVICE INSTALLATION DETAIL

NO SCALE

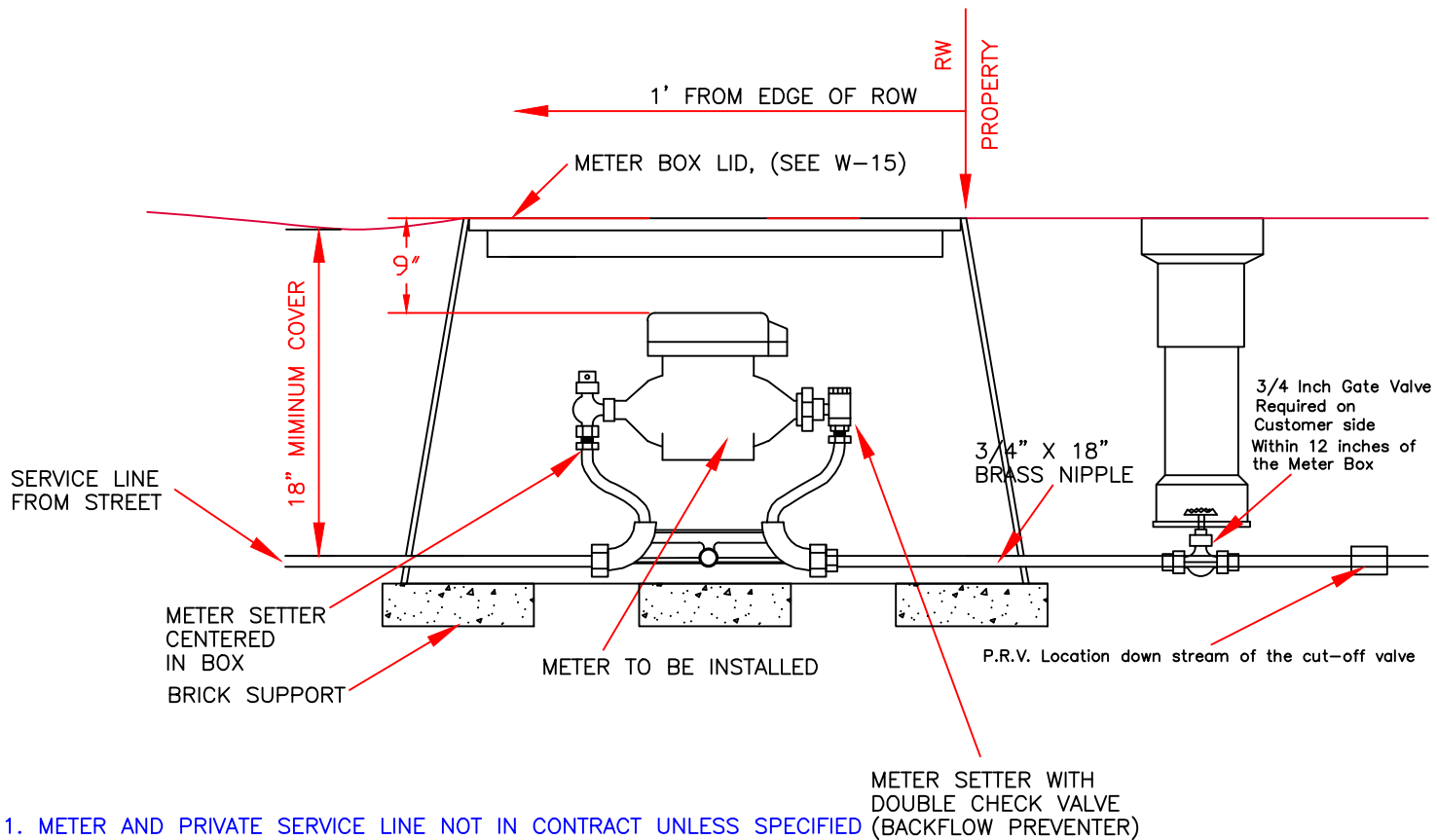


NOTE:

1. "SERVICE CONNECTION" IN PROPOSAL TO INCLUDE SERVICE SADDLE, 45° BEND, CORPORATION COCK AND ALL LABOR INVOLVED IN MAKING A COMPLETE SERVICE CONNECTION.
2. SERVICE PIPING TO BE 3/4" SDR-9 PE TUBING
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE

TYPICAL WATER SERVICE CONNECTION
 USING TAPPING SADDLE DETAIL

NO SCALE

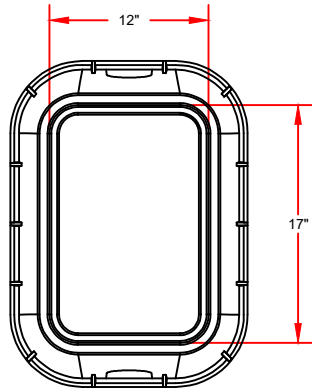


1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

TYPICAL 3/4" METER SETTER INSTALLATION DETAIL

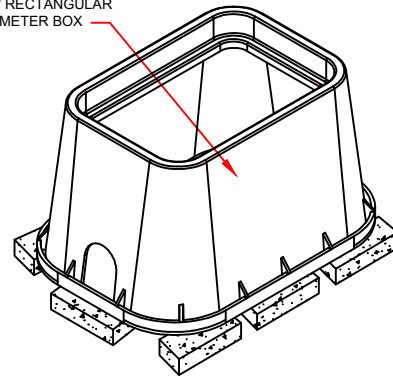
NO SCALE

W
14

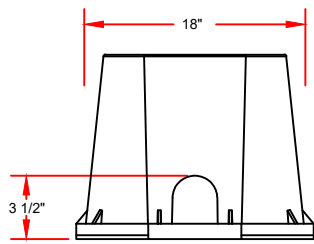


A
PLAN

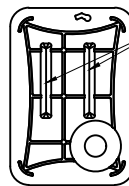
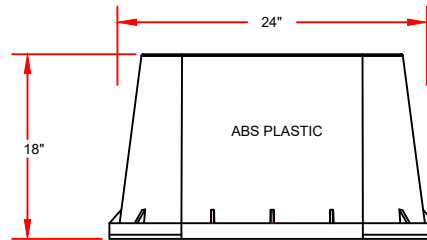
24"x18" RECTANGULAR
METER BOX



ISOMETRIC



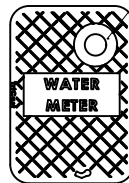
ELEVATION A



2 areas of weighted rebar



Sensus Recess

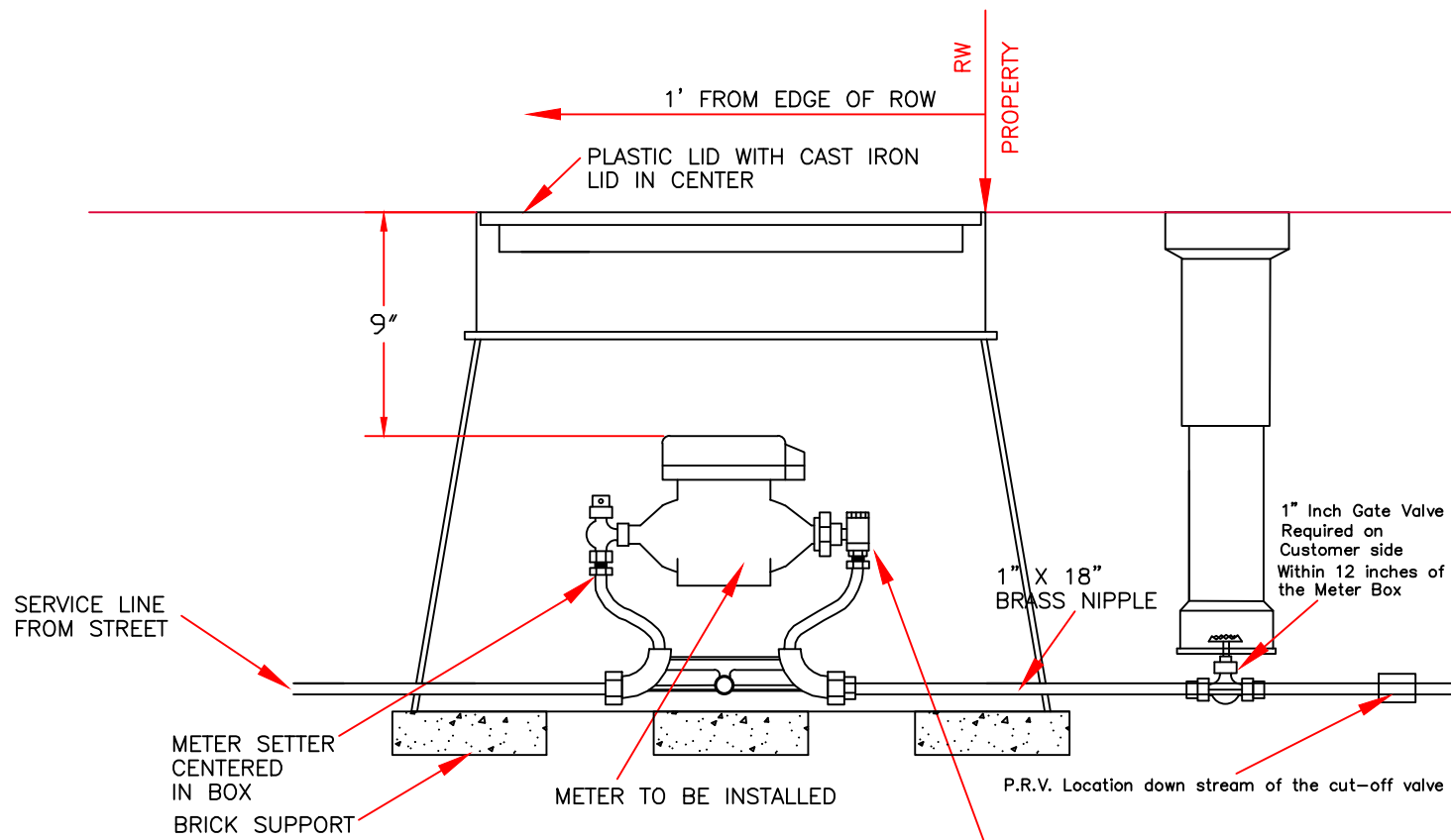


Part Number : MS-CP1419-Sensus
TITLE:
Iricast 1419 - Overlapping
T-Lid w/ Rebar and Sensus
Recess

(OR EQUAL)

TYPICAL METER BOX DETAIL FOR 3/4" SERVICE W
15

NO SCALE

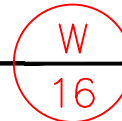


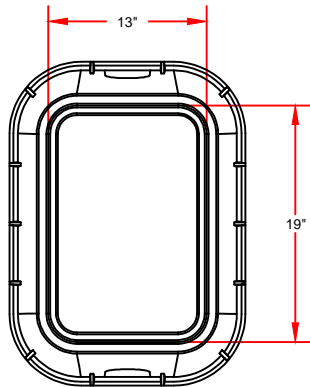
1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

METER SETTER WITH
DOUBLE CHECK VALVE
(BACKFLOW PREVENTER)

TYPICAL 1" METER SETTER INSTALLATION DETAIL

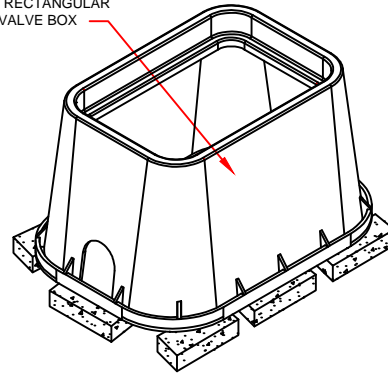
NO SCALE



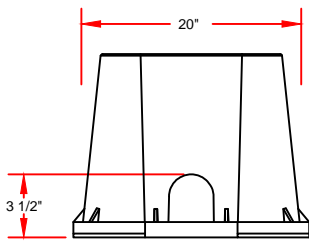


PLAN

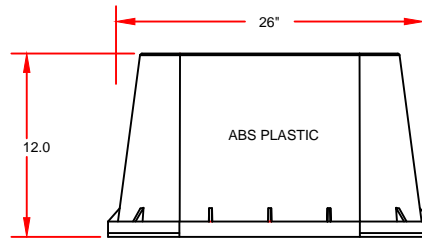
26"x20" RECTANGULAR VALVE BOX



ISOMETRIC

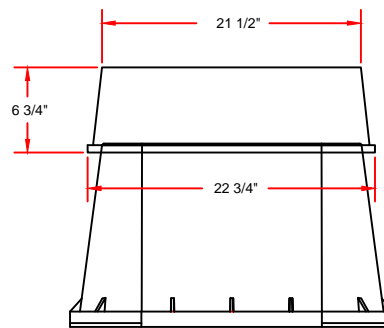
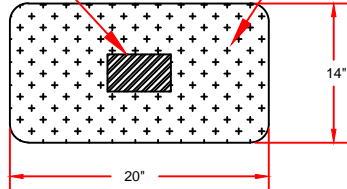


ELEVATION



6 3/4"x4' STEEL HINGED ACCESS HATCH

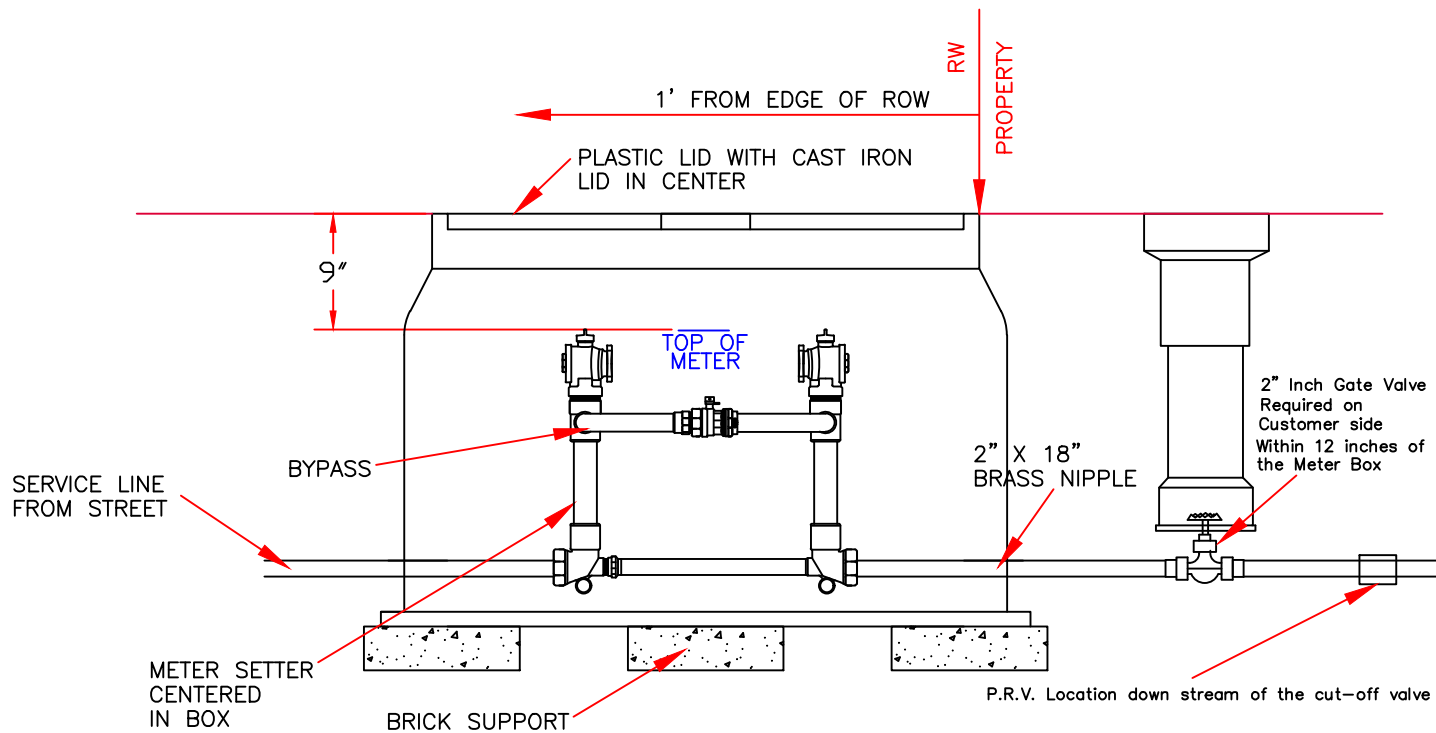
PLASTIC LID



SHOWN WITH EXTENSION

TYPICAL METER BOX DETAIL FOR 1" SERVICE

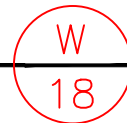
NO SCALE

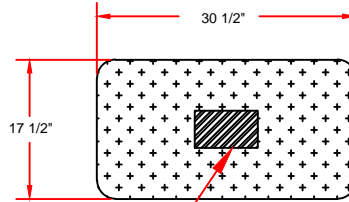
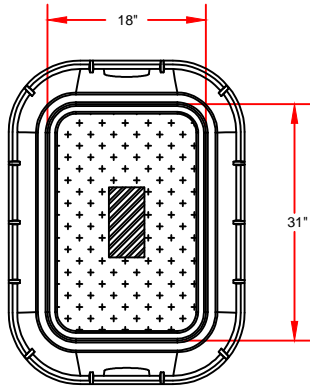


1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.
4. 17 1/4" SPREAD (FLANGE TO FLANGE).

TYPICAL 2" METER SETTER INSTALLATION DETAIL

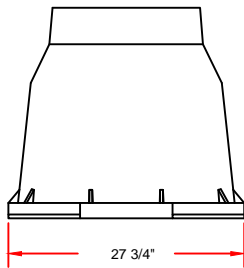
NO SCALE



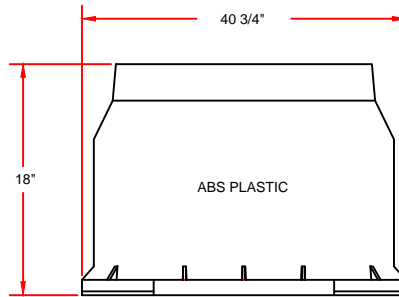


4 1/2"x7 1/2" STEEL
HINGED ACCESS HATCH

A
PLAN

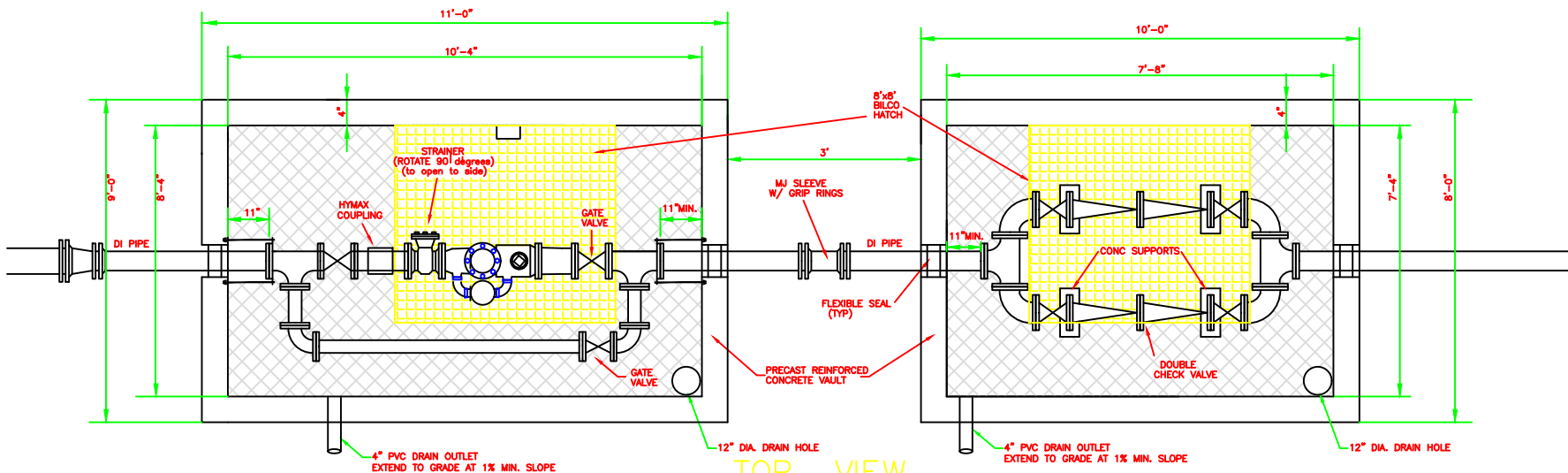


ELEVATION (A)



ELEVATION (B)

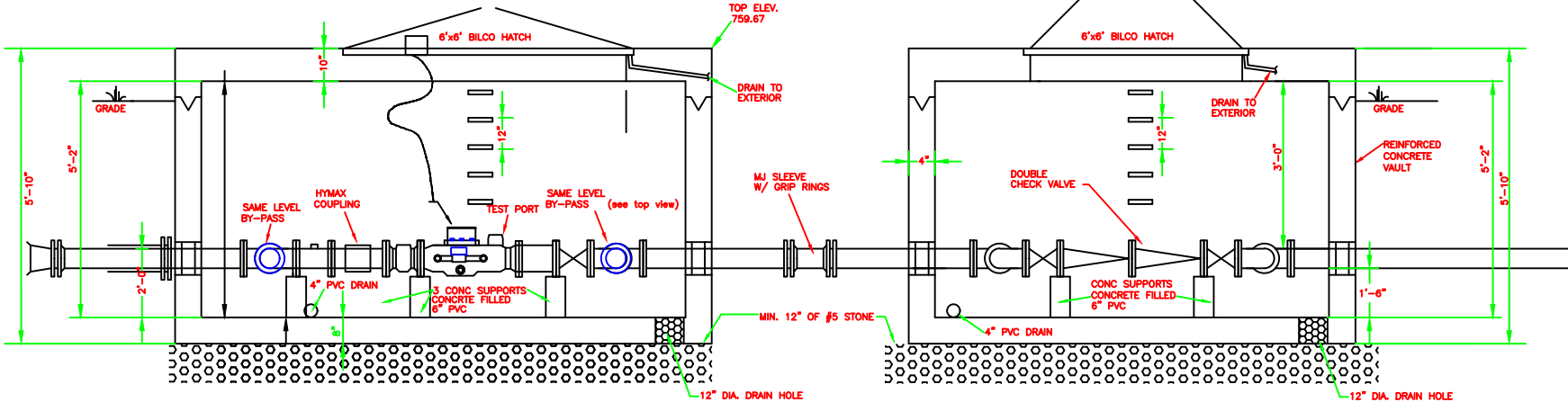
TYPICAL METER BOX DETAIL FOR 2" SERVICE
NO SCALE



TOP VIEW
NO SCALE
PLAN VIEW

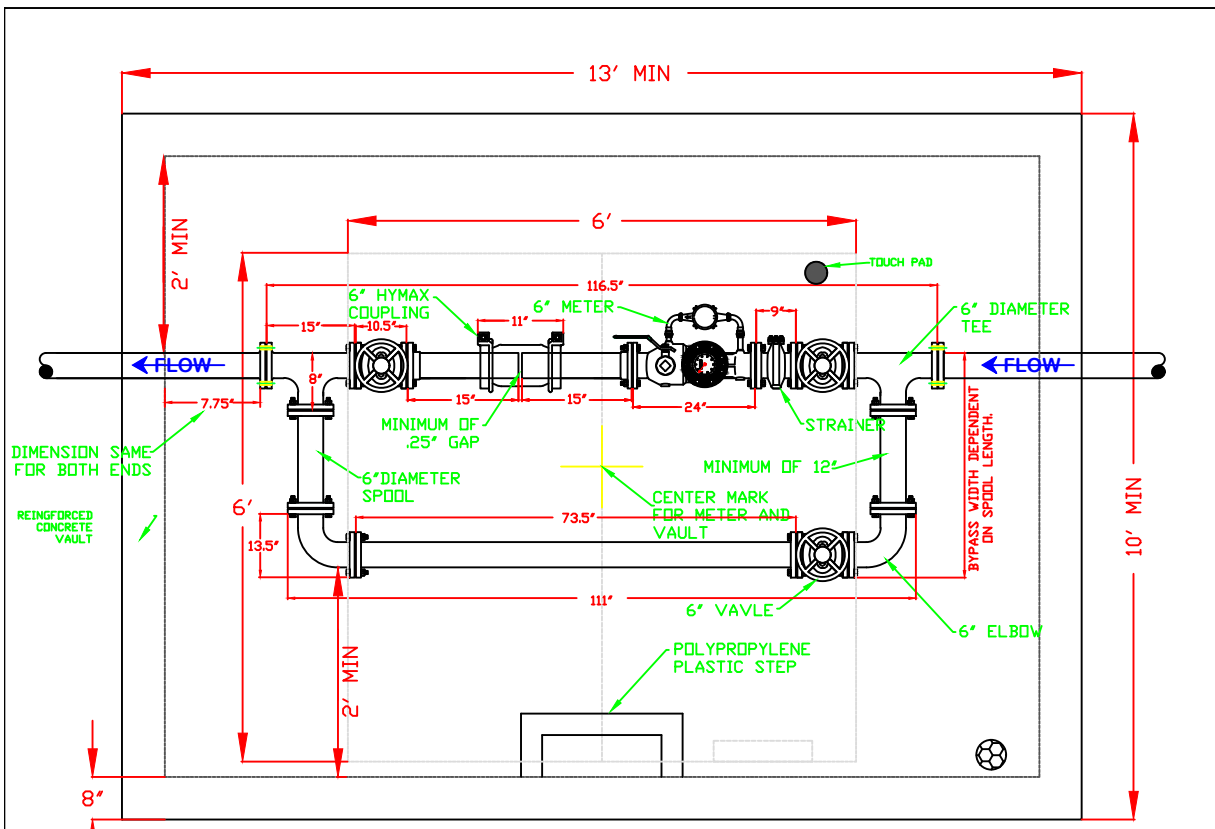
NOTE: SENSUS METER WITH TOUCH PAD AND MXU.
METER IN HOT BOX ABOVE GROUND PREFERRED.
BACKFLOW PREVENTER TO BE FROM APPROVED LIST
USE CONCRETE SUPPORTS ALSO FOR BY-PASS
ALL PIPE SHALL BE DUCTILE IRON
HCDPU STANDARD VAULTS

ALL BACKFLOW AND METER VAULT EQUIPMENT, ETC.
TO BE AS PER HARNETT COUNTY DEPT. OF
PUBLIC UTILITIES, ENGINEERING DIVISION SPECIFICATIONS.

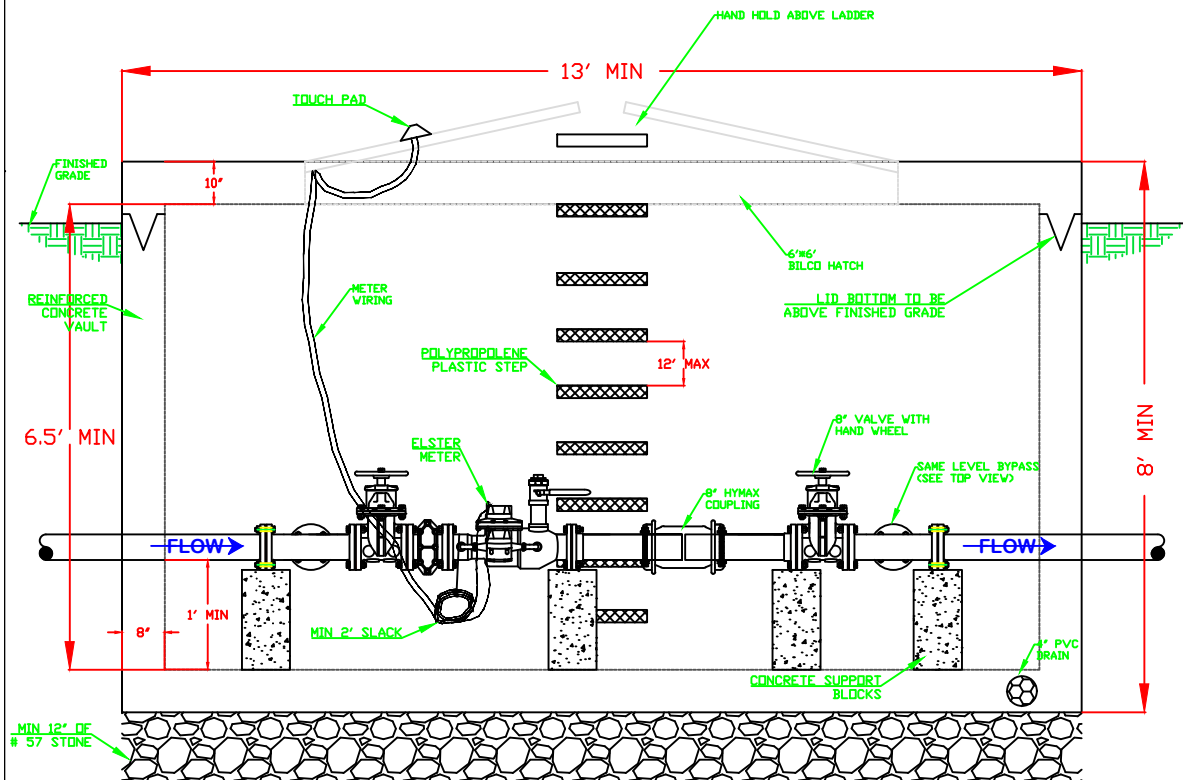


SIDE VIEW
NO SCALE

TYPICAL 4" METER & DOUBLE CHECK ASSEMBLY LAYOUT DETAIL



TOP VIEW

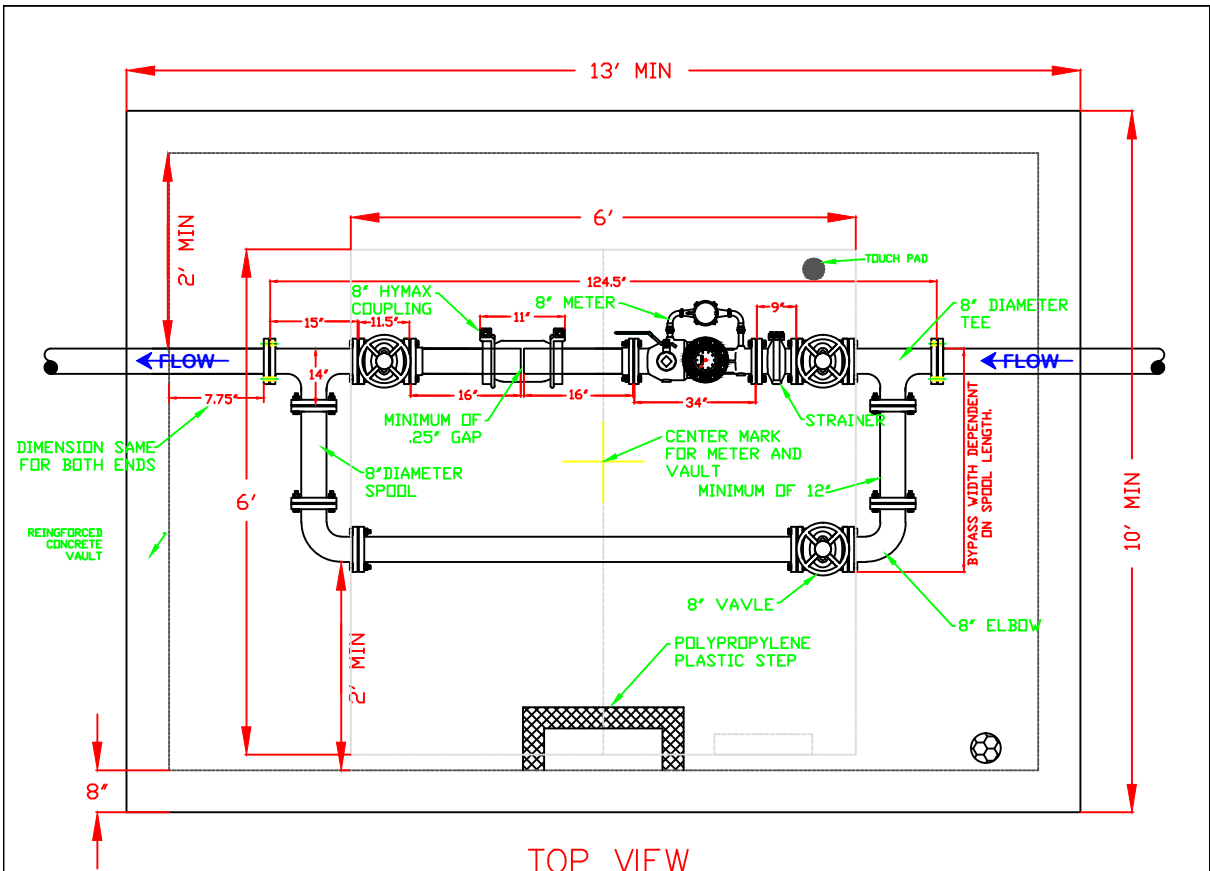


PROFILE

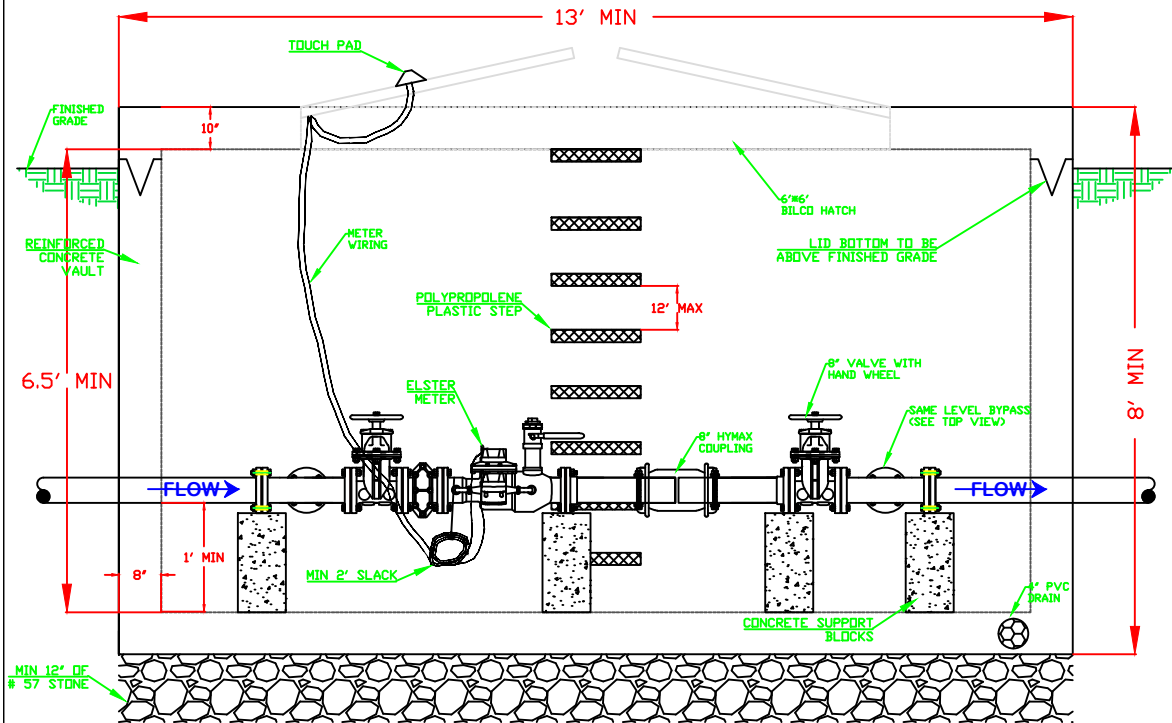
NOTE:
METER TO BE INSTALLED WITH EQUAL AMOUNTS
OF SPACE ON METER SIDE AND BYPASS SIDE.

TYPICAL 6" METER & VAULT DETAIL

NO SCALE



TOP VIEW



PROFILE

NOTE:
METER TO BE INSTALLED WITH EQUAL AMOUNTS
OF SPACE ON METER SIDE AND BYPASS SIDE.

TYPICAL 8" METER & VAULT DETAIL

NO SCALE