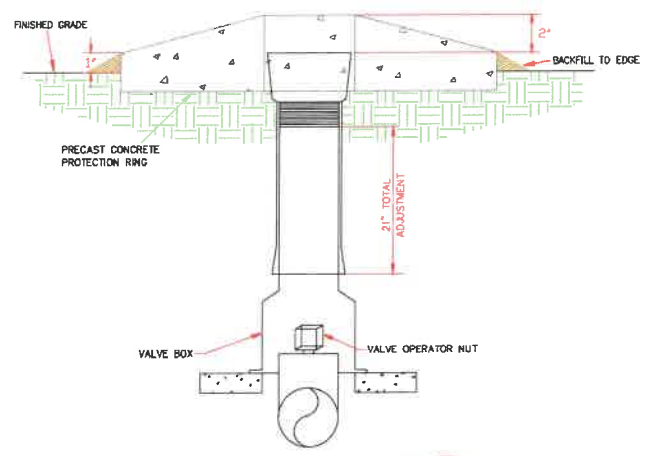
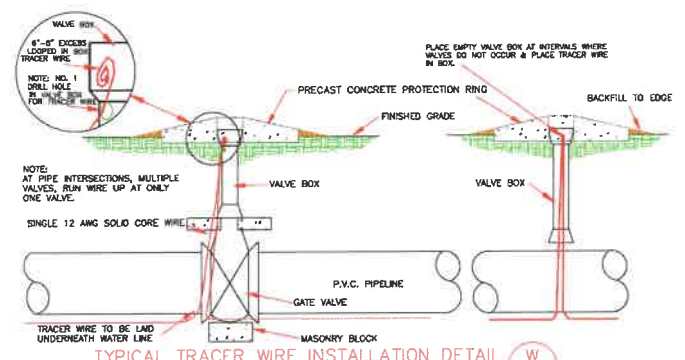


TYPICAL VALVE MARKER DETAIL W1
NO SCALE

NOTES:
PAINT MARKER BLUE AFTER INSTALLATION

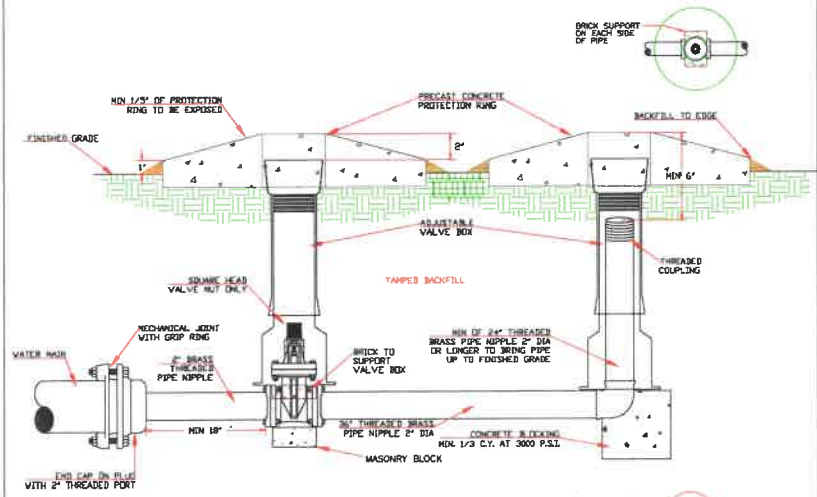


TYPICAL VALVE BOX DETAIL W2
NO SCALE



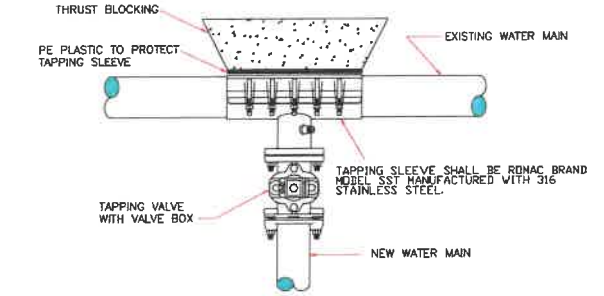
TYPICAL TRACER WIRE INSTALLATION DETAIL W3
NO SCALE

NOTES:
1. DRILL HOLE IN VALVE BOX TO INSERT TRACER WIRE...
2. PLACE TRACER WIRE IN VALVE BOX AT 5,000' INTERVALS...
3. DO NOT SPICE WIRE WHEN BEARING A NEW SPOOL...

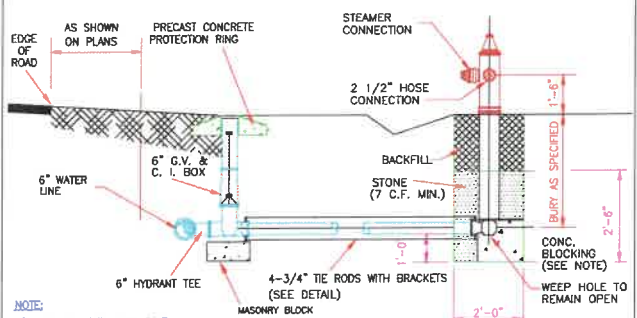


TYPICAL PERMANENT BLOW-OFF ASSEMBLY DETAIL W4
NO SCALE

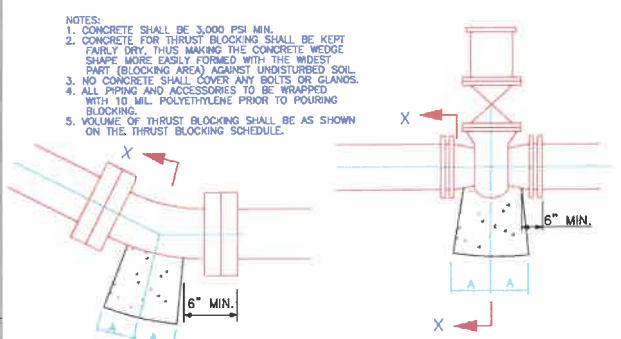
NOTE: SEE TYPICAL VALVE BOX DETAIL FOR BRICK INSTALLATION



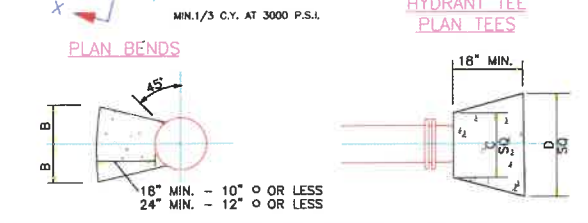
TYPICAL TAPPING SLEEVE AND VALVE ASSEMBLY DETAIL W5
NO SCALE



TYPICAL FIRE HYDRANT INSTALLATION DETAIL W6
NO SCALE

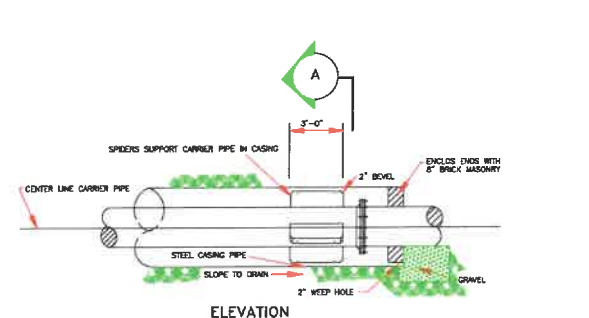


TYPICAL THRUST BLOCK DETAIL W7
NO SCALE

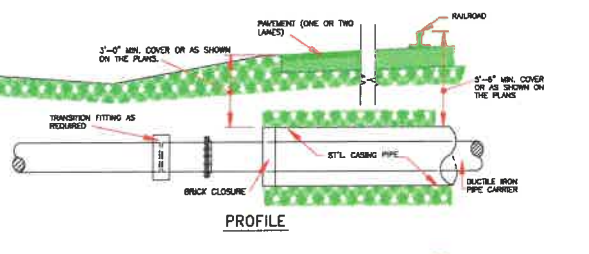


PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND			TEE			PLUG	
	A	B	A	B	A	B	A	B	C	D	E	F	G	H
4"	8"	12"	6"	8"	6"	8"	6"	8"	6"	8"	6"	8"	10"	16"
6"	10"	12"	8"	10"	8"	10"	8"	10"	8"	10"	8"	10"	12"	18"
8"	12"	15"	10"	12"	10"	12"	10"	12"	10"	12"	10"	12"	14"	24"
10"	14"	18"	12"	14"	12"	14"	12"	14"	12"	14"	12"	14"	16"	28"
12"	16"	20"	14"	16"	14"	16"	14"	16"	14"	16"	14"	16"	18"	30"
14"	18"	22"	16"	18"	16"	18"	16"	18"	16"	18"	16"	18"	20"	34"
16"	20"	26"	18"	20"	18"	20"	18"	20"	18"	20"	18"	20"	22"	38"

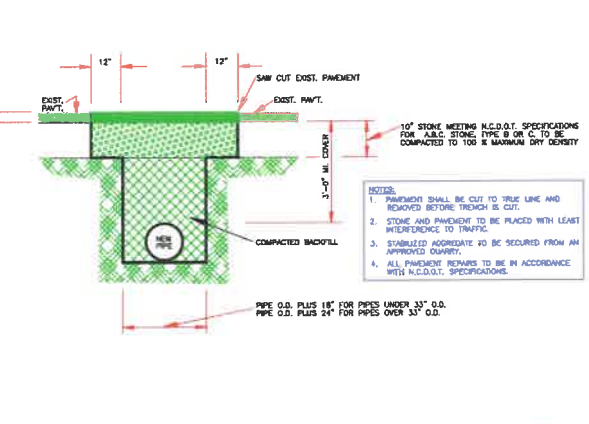
18" MIN. - 10" O OR LESS
24" MIN. - 12" O OR LESS



TYPICAL BORING & JACKING DETAIL W8
NO SCALE



TYPICAL STORM SEWER CROSSING DETAIL W9
NO SCALE

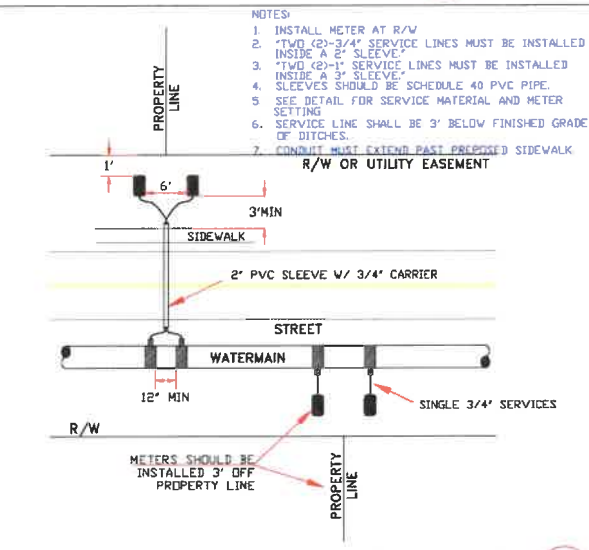


TYPICAL TRENCH IN BITUMINOUS SURFACE AREAS DETAIL W10
NO SCALE

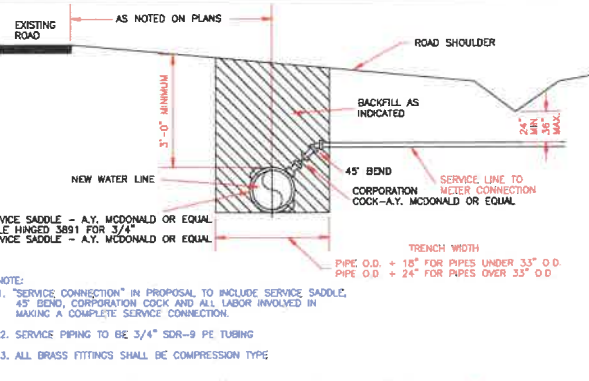
NOTES:
1. PAVEMENT SHALL BE CUT TO TRUE LINE AND REMOVED BEFORE TRENCH IS CUT.
2. STONE AND FILLING TO BE PLACED WITH LEAST INTERFERENCE TO TRAFFIC.
3. STABILIZED AGGREGATE TO BE SECURED FROM AN APPROVED QUARRY.
4. ALL PAVEMENT REPAIRS TO BE IN ACCORDANCE WITH A.C.T.O.C. SPECIFICATIONS.

LAYING CONDITIONS	DESCRIPTION	PROJECT USE
TYPE 1	PIPE BOTTOM UNDISTURBED EARTH TRENCH, LOCAL 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 UNDER PIPE. COVER TO 4" ABOVE TOP OF PIPE. (APPROX. 95% STANDARD PROCTOR, AASHTO T-99)	ALL DUCTILE IRON GRAVITY SEWER LINE.

TYPICAL LAYING CONDITIONS DETAIL W11
NO SCALE

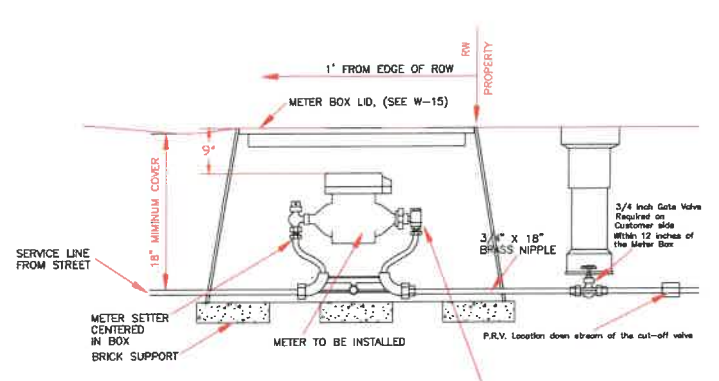


TYPICAL DOMESTIC WATER SERVICE INSTALLATION DETAIL W12
NO SCALE



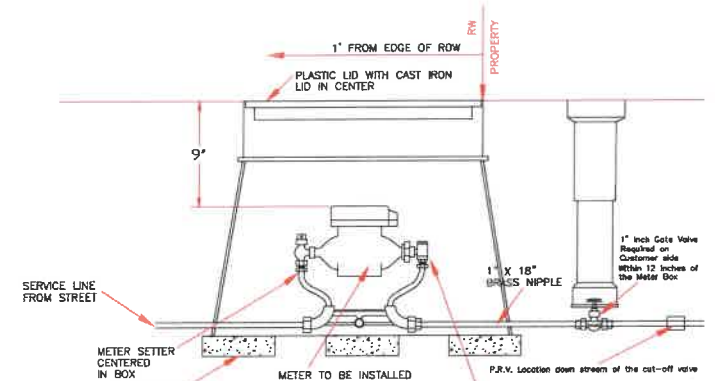
TYPICAL WATER SERVICE CONNECTION USING TAPPING SADDLE DETAIL W13
NO SCALE

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



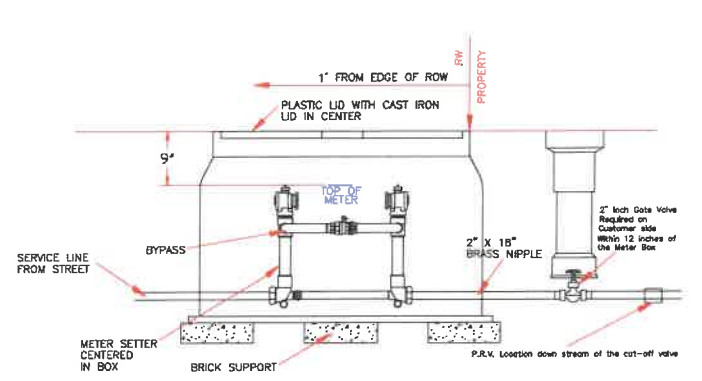
1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. INCLUDE STONE IN PRICE OF METER BOX.
3. METER SETTER SIZE AS NOTED ON PLANS.
4. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

TYPICAL 3/4" METER SETTER INSTALLATION DETAIL W
NO SCALE 14



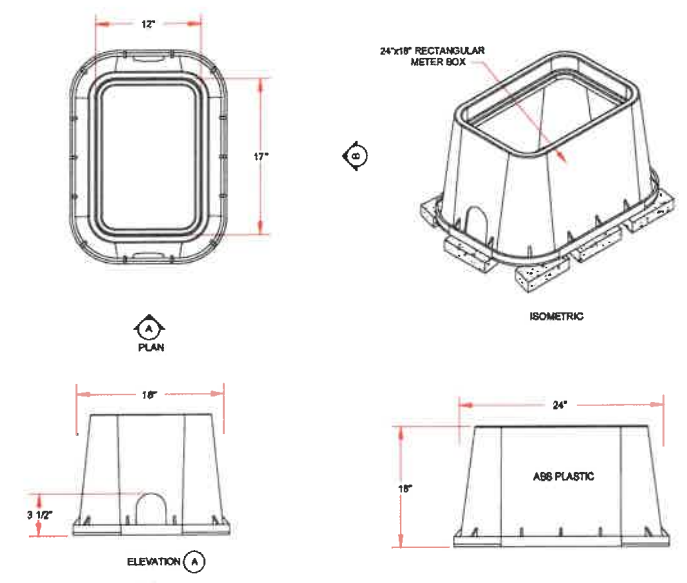
1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. INCLUDE STONE IN PRICE OF METER BOX.
3. METER SETTER SIZE AS NOTED ON PLANS.
4. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

TYPICAL 1" METER SETTER INSTALLATION DETAIL W
NO SCALE 16

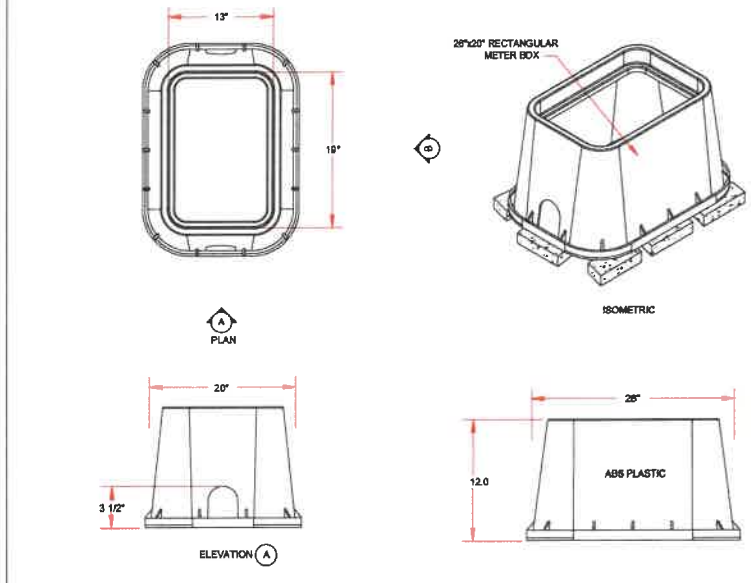


1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. INCLUDE STONE IN PRICE OF METER BOX.
3. METER SETTER SIZE AS NOTED ON PLANS.
4. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

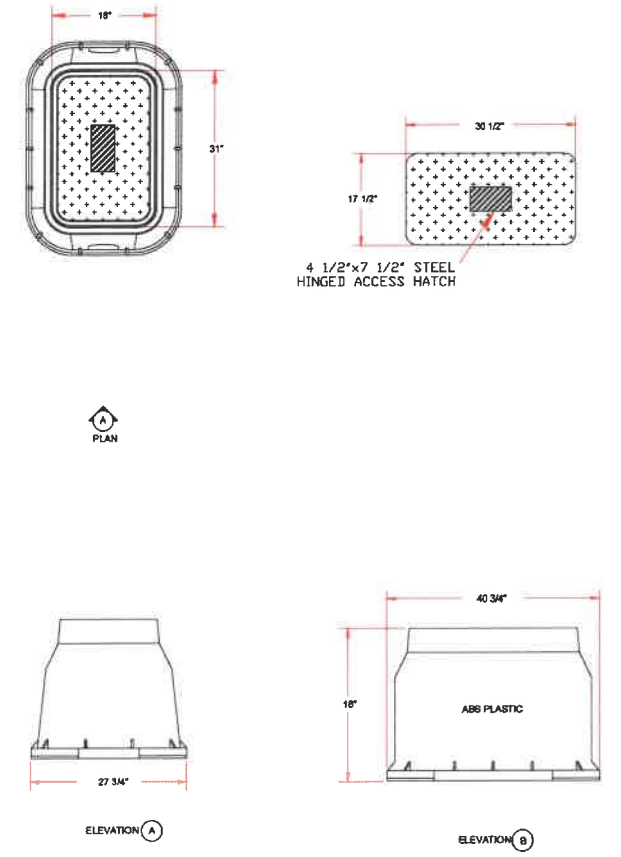
TYPICAL 2" METER SETTER INSTALLATION DETAIL W
NO SCALE 18



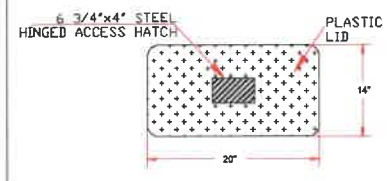
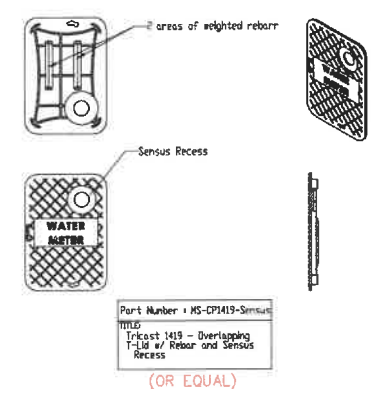
TYPICAL METER BOX DETAIL FOR 3/4" SERVICE W
NO SCALE 15



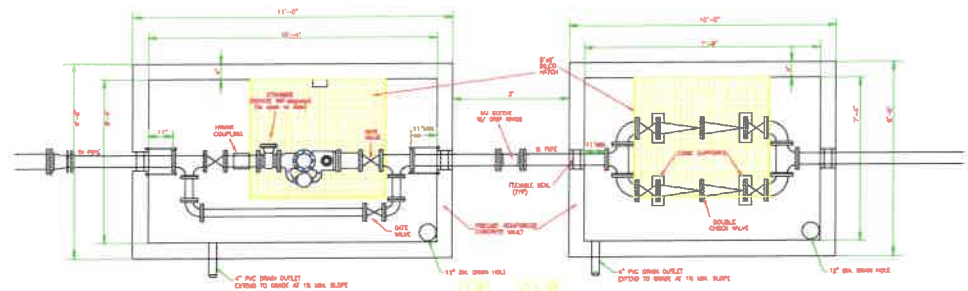
TYPICAL METER BOX DETAIL FOR 1" SERVICE W
NO SCALE 17



TYPICAL METER BOX DETAIL FOR 2" SERVICE W
NO SCALE 19

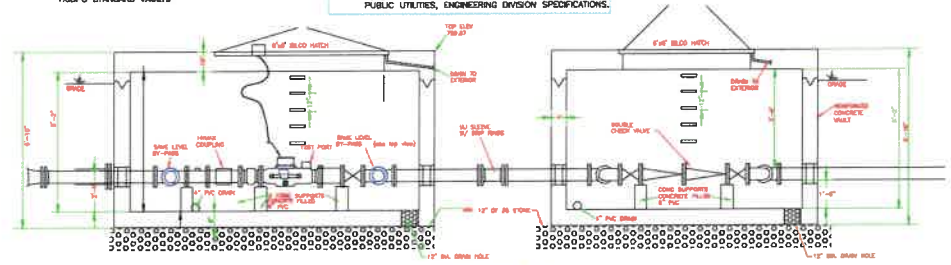


	Date / App'd
	Revisions
HARNETT County Public Utilities WILMINGTON, NORTH CAROLINA	
S:\Shipping\MAIN SEWER & WATER DETAILS 2005\06-rate-VIC Logos.dwg	
TYPICAL WATER DETAILS WATER DISTRIBUTION SYSTEM HARNETT COUNTY SPECIFICATIONS HARNETT COUNTY - NORTH CAROLINA	
Scale: NOTED	
Date: 2009	
Drawn By: HCDPU	
Checked By: W.W.R.	
Book No.:	
Page No.:	
Job No.:	
Sheet No.:	
2 of 3	

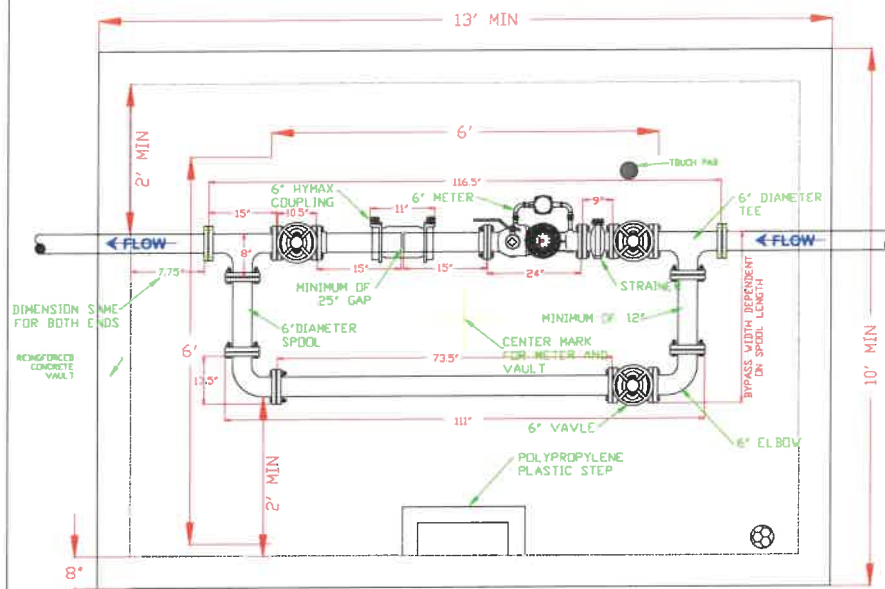


NOTE: METER TO BE AMO OR AMCO METER. BACKFLOW PREVENTER TO BE FROM APPROVED LIST. USE CONCRETE SUPPORTS ALSO FOR BY-PASS. ALL PIPE SHALL BE DUCTILE IRON HICDPU STANDARD VAULTS.

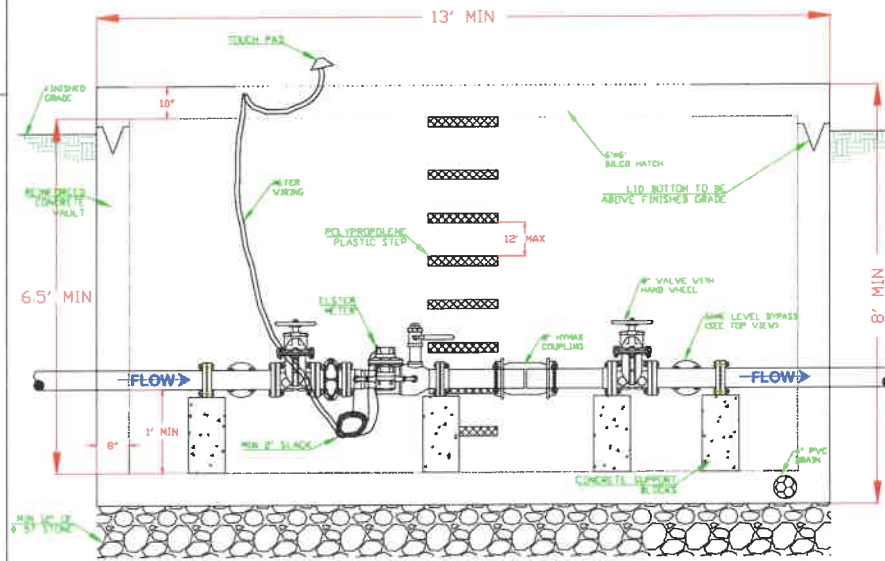
ALL BACKFLOW AND METER VAULT EQUIPMENT, ETC. TO BE AS PER HARNETT COUNTY DEPT. OF PUBLIC UTILITIES, ENGINEERING DIVISION SPECIFICATIONS.



TYPICAL 4" METER & DOUBLE CHECK ASSEMBLY LAYOUT DETAIL W 20
NO SCALE



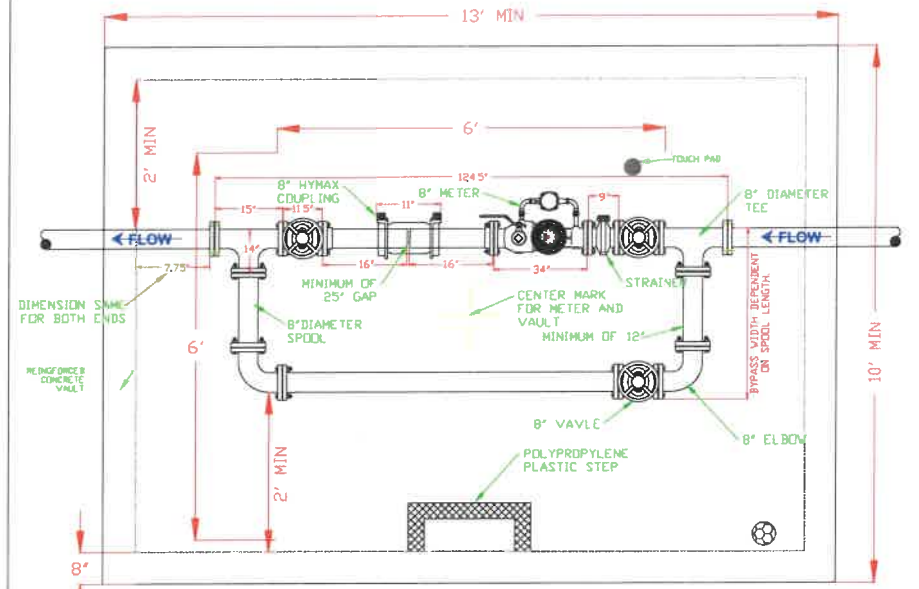
TOP VIEW



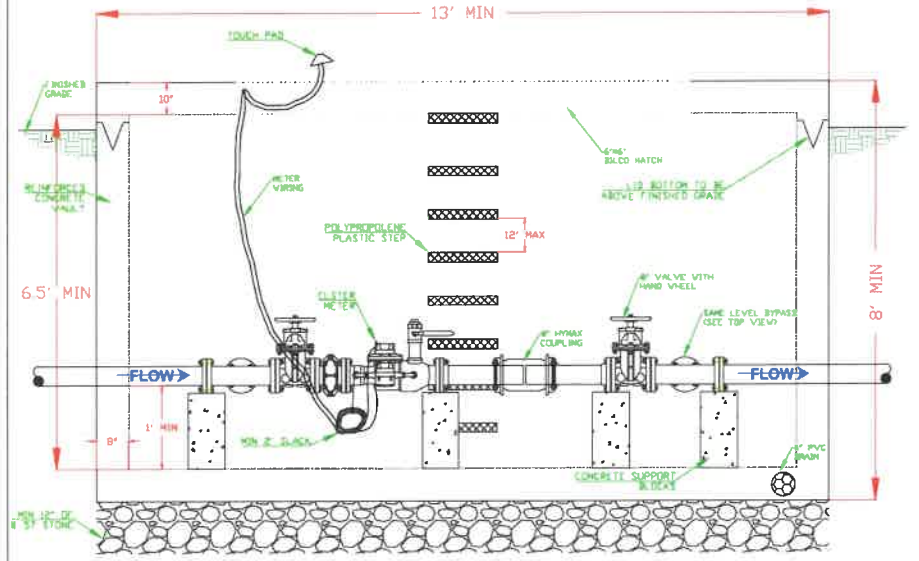
PROFILE

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

TYPICAL 6" METER & VAULT DETAIL W 21
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 W 22
NO SCALE

HARNETT County
Public Utilities
WELLSVILLE, NORTH CAROLINA

D:\Engineering\Projects\Water\Water Details\WaterVault\WaterVault.dwg

TYPICAL WATER DETAILS
WATER DISTRIBUTION SYSTEM
HARNETT COUNTY SPECIFICATIONS
HARNETT COUNTY - NORTH CAROLINA

Scale: NOTED
Date: 2009
Drawn By: HCDPU
Checked By: W.W.R.
Book No.:
Page No.:
Job No.:
Sheet No.:
3 of 3