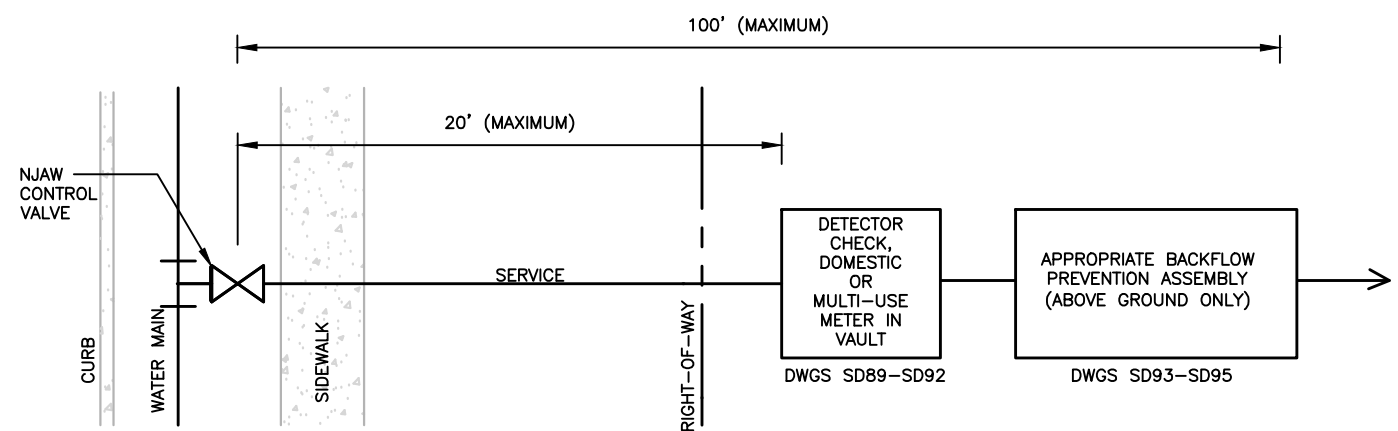


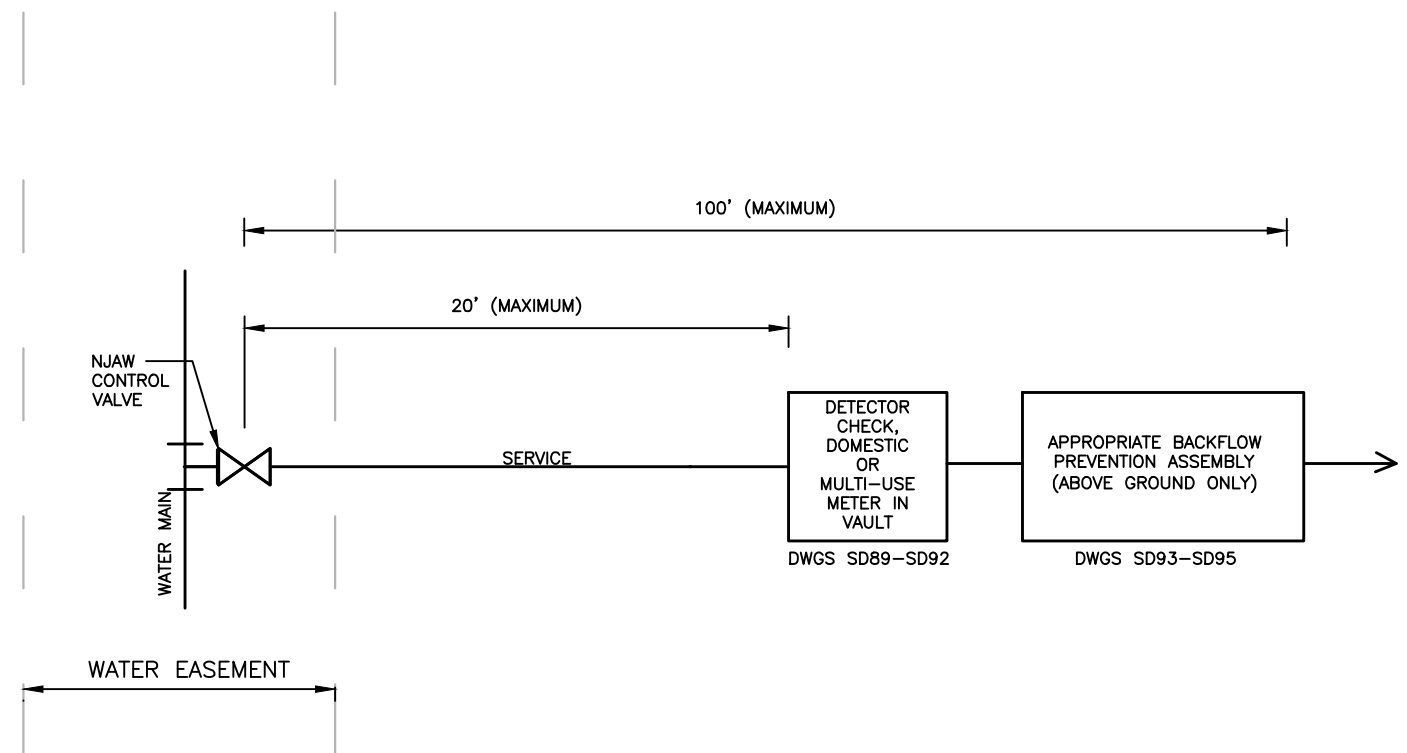
VAULT & ENCLOSURE LOCATION— MAIN IN STREET

NOTES:

1. ALL METERS (3" & LARGER) SHALL BE INSTALLED IN A CONCRETE VAULT.
2. ALL BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED IN AN ABOVEGROUND ENCLOSURE, IMMEDIATELY ADJACENT (I.E. AS CLOSE AS PRACTICABLE) TO THE DISCHARGE SIDE OF THE METER.
3. NOT WITHSTANDING THE ABOVE, IF A METER VAULT AND HEATED BP ENCLOSURE ARE INSTALLED, BOTH STRUCTURES SHALL BE INSTALLED WITHIN 100 FEET OF THE NJAW CONTROL VALVE (MAXIMUM).
4. NJAW MAY WAIVE HEATED BP ENCLOSURE AND ALLOW BACKFLOW PREVENTER INSTALLATION IN BUILDING IF THE 100 FOOT REQUIREMENT IS MAINTAINED.
5. THE INSTALLATION MUST ALSO MEET ALL APPLICABLE CODE & REGULATORY REQUIREMENTS INCLUDING THE NATIONAL STANDARD PLUMBING CODE AND NEW JERSEY STATUTES AND REGULATIONS.



VAULT & ENCLOSURE LOCATION— MAIN BEHIND CURB



VAULT & ENCLOSURE LOCATION— MAIN IN EASEMENT



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AMERICAN WATER ENGINEERING
3908 CHURCH RD.
MT. LAUREL, NJ 08054

AMERICAN WATER

DRAWN BY D. JOBE
PROJECT ENG'R E. SCHWARTZ

DATE 08-24-18

PROJECT

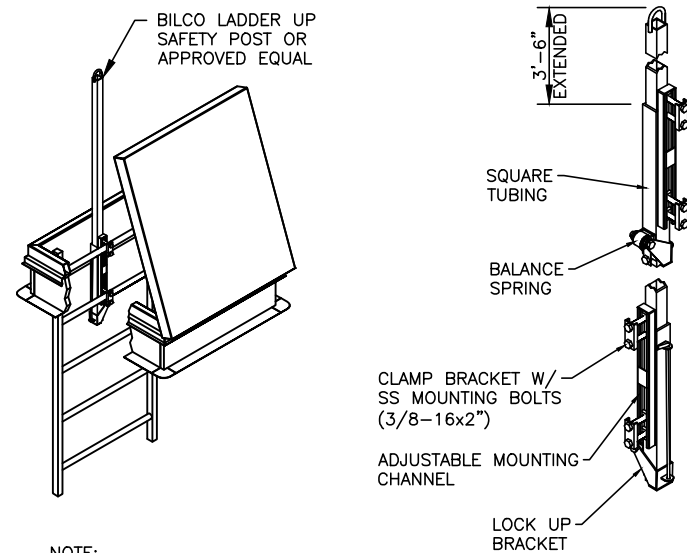
**STANDARD DETAIL
DOMESTIC, FIRE & MULTI-USE SERVICE
LOCATION SCHEMATIC**

NEW JERSEY AMERICAN WATER

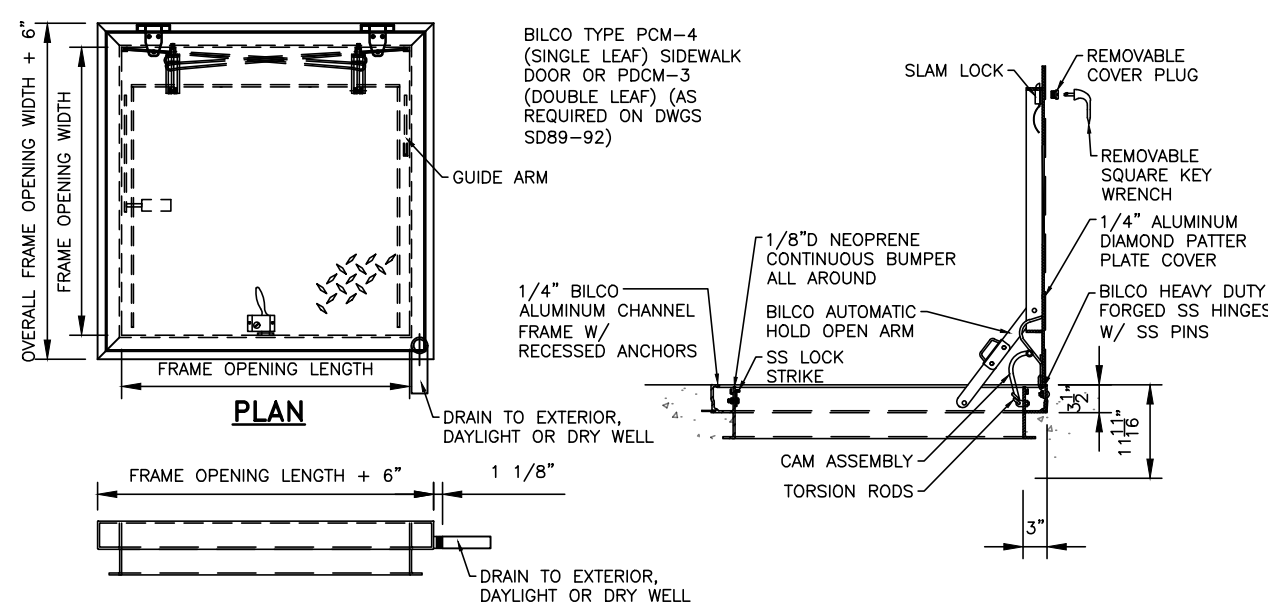
USE APPROVED DRAWINGS ONLY
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USE DIMENSIONS ONLY
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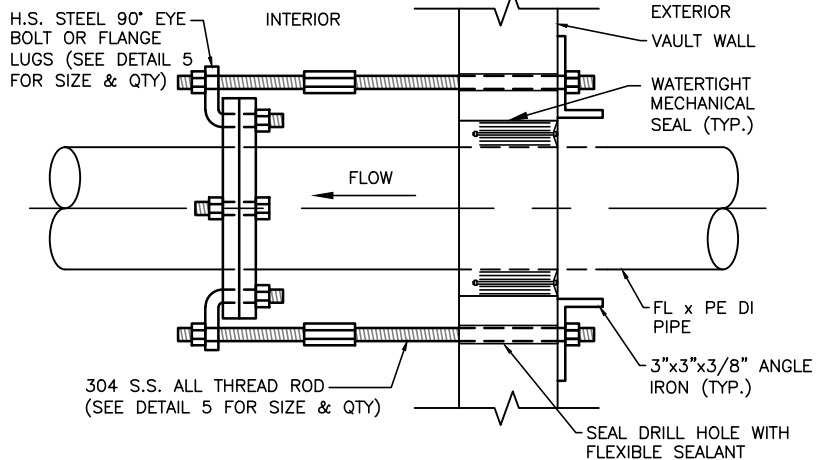
0201-0601-SD88



NOTE:
 1. CLAMP BRACKET MAY BE REVERSED TO ACCOMMODATE RUNG SIZES OF 3/4" TO 1 1/4" WITH STANDARD 2" BOLTS FURNISHED. LARGER RUNGS WILL REQUIRE LONGER BOLTS.



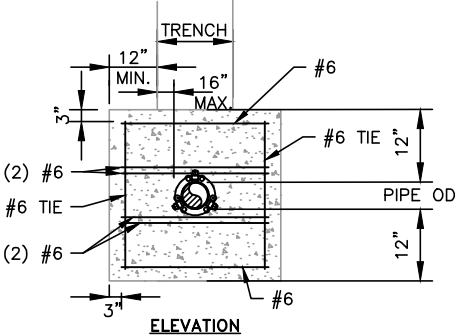
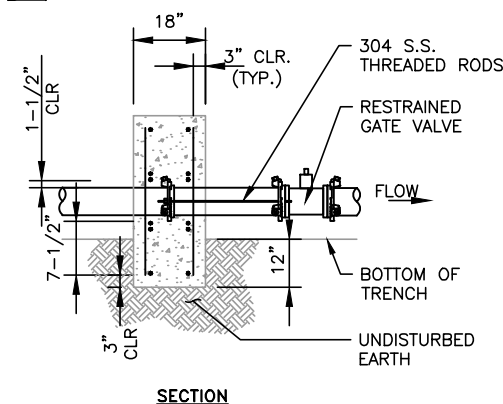
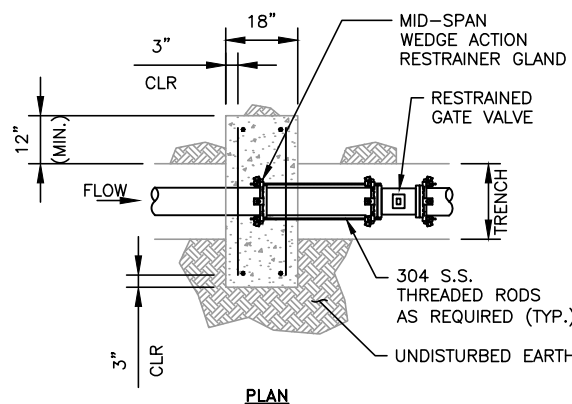
ELEVATION SECTION



PLAN
VAULT PIPE RESTRAINT DETAIL 3
 N.T.S. SD100

LADDER UP SAFETY POST DETAIL 1
 N.T.S. SD100

ACCESS HATCH DETAIL 2
 N.T.S. SD100

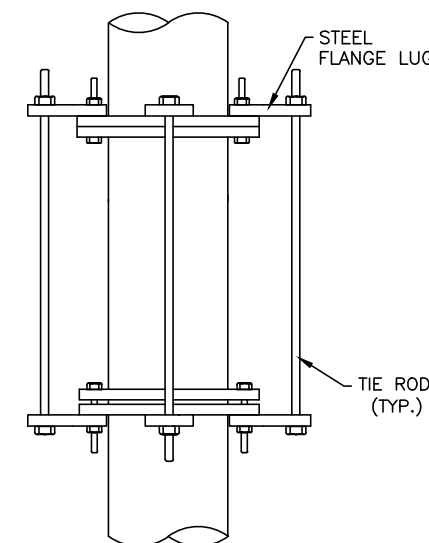
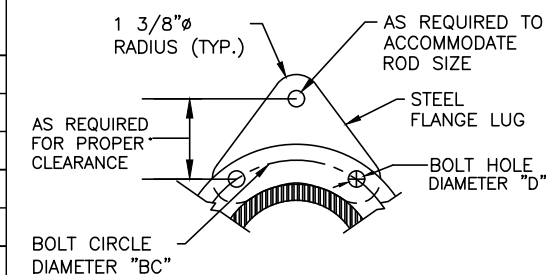


THRUST COLLAR DETAIL 4
 N.T.S. SD100

- NOTES:**
1. PLACE THRUST COLLAR ON ONE FULL LENGTH OF PIPE.
 2. LAST JOINT OF PIPE WITH THRUST COLLAR TO BE RESTRAINED MECHANICAL JOINT PIPE.
 3. PLACE WEDGE ACTION RESTRAINER GLAND JOINT RESTRAINT 4 FEET FROM VAULT INLET SHUTOFF VALVE.
 4. CONCRETE SHALL BE A MINIMUM OF 3000 PSI.
 5. REINFORCING BARS SHALL BE DEFORMED BARS AND TIED TOGETHER.
 6. BACKFILL & COMPACT IN 6" LAYERS.
 7. TRENCH BOTTOM WIDTH IN AT THRUST COLLAR LOCATION SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR PIPE PLACEMENT. MAX. TRENCH WIDTH = PIPE O.D.+2 FT.

TIE ROD SIZING			
NOMINAL PIPE SIZE	# OF RODS	ROD SIZE	LUG THICKNESS
3	2	3/4	3/4
4	2	3/4	3/4
6	4	3/4	3/4
8	4	1	1
10	6	1	1
12	6	1 1/8	1 1/8

NOTE: MAX. PRESSURE 300 PSI



TIE ROD RESTRAINT DETAIL 5
 N.T.S. SD100



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AMERICAN WATER ENGINEERING
 3906 CHURCH RD.
 MT. LAUREL, NJ 08054

AMERICAN WATER

DRAWN BY R. BEATTY
 PROJECT ENG'R E. SCHWARTZ

DATE 08-24-18

PROJECT

**STANDARD DETAIL
 METER VAULT APPURTENANCES**

NEW JERSEY AMERICAN WATER

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

USE DIMENSIONS ONLY SCALE NOT TO SCALE

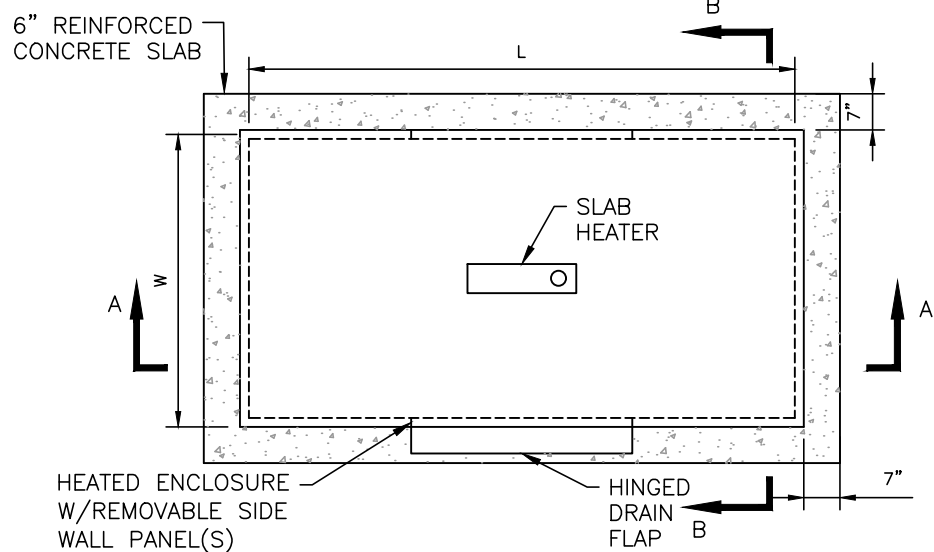
0201-0601-SD100

INTERIOR DIMENSIONS FOR FIRE & DOMESTIC BP ENCLOSURE (DWG SD93)			
Service Size (in)	Length (ft)	Width (ft)	Height (ft)
2	8.00	5.00	6.50
3	8.00	6.00	6.50
4	10.00	6.00	6.50
6	11.00	6.00	6.50
8	12.00	7.00	6.50
10	14.00	7.00	7.00

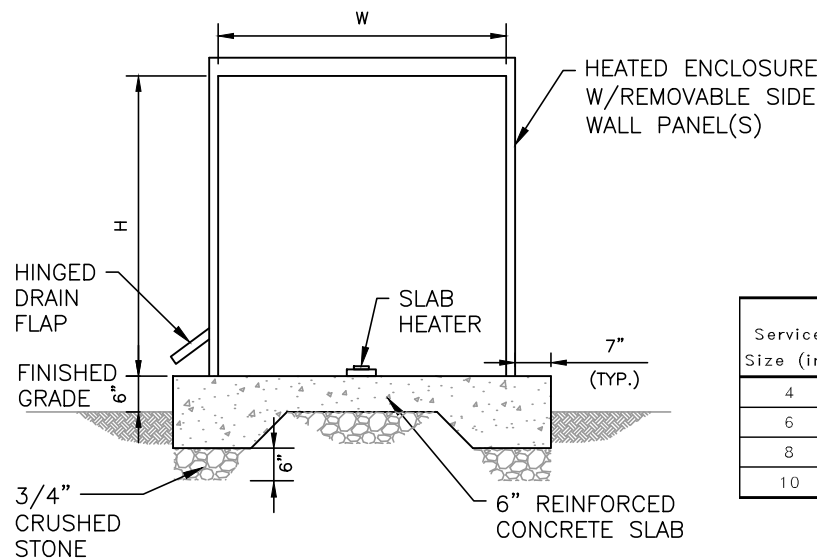
INTERIOR DIMENSIONS FOR SINGLE SERVICE BP ENCLOSURES (DWG SD94)			
Service Size (in)	Length (ft)	Width (ft)	Height (ft)
2	8.00	3.00	6.50
3	8.00	3.00	6.50
4	10.00	3.00	6.50
6	11.00	3.00	6.50
8	12.00	4.00	6.50
10	14.00	4.00	7.00

INTERIOR DIMENSIONS FOR FIRE & DOMESTIC METER & BP ENCLOSURE (DWG SD95)						
Service Size (in)	Without PRV Assembly			With PRV Assembly		
	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
2	12.00	5.00	6.50	13.00	5.00	6.50
3	13.00	6.00	6.50	15.00	6.00	6.50
4	15.00	6.00	6.50	17.00	6.00	6.50
6	18.00	7.00	6.50	20.00	7.00	6.50
8	20.00	8.00	6.50	23.00	8.00	6.50
10	24.00	8.00	7.00	27.00	8.00	7.00

INTERIOR DIMENSIONS FOR DOMESTIC METER & BP ENCLOSURE (DWG SD96)						
Service Size (in)	Without PRV Assembly			With PRV Assembly		
	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
2	12.00	4.00	6.50	13.00	4.00	6.50
3	13.00	4.00	6.50	15.00	4.00	6.50
4	15.00	4.00	6.50	17.00	4.00	6.50
6	18.00	5.00	6.50	20.00	5.00	6.50
8	20.00	5.00	6.50	23.00	5.00	6.50
10	24.00	6.00	7.00	27.00	6.00	7.00



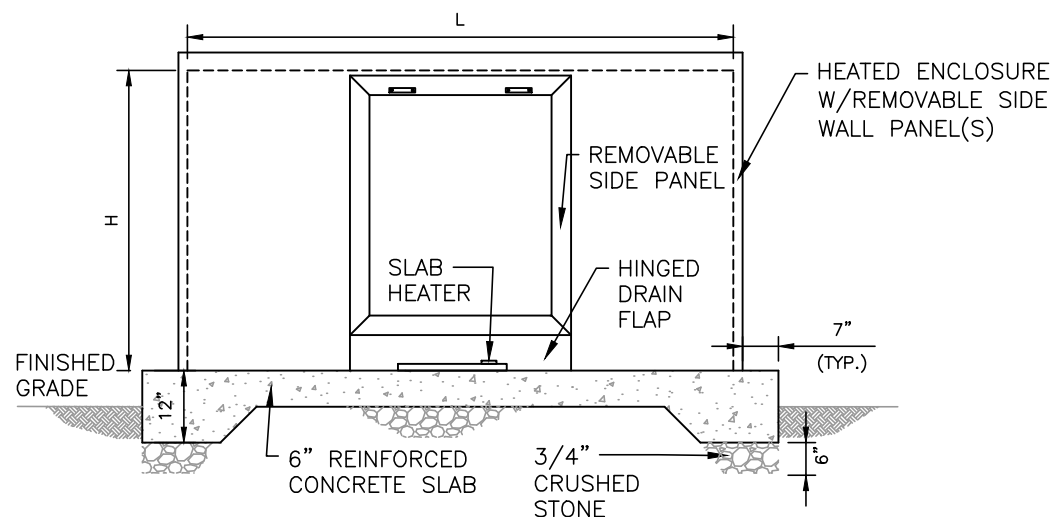
ENCLOSURE PLAN
N.T.S.



SECTION B-B
N.T.S.

INTERIOR DIMENSIONS FOR MULTI-USE METER & BP ENCLOSURE (DWG SD98)						
Service Size (in)	Without PRV Assembly			With PRV Assembly		
	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
4	16.00	4.00	6.50	18.00	4.00	6.50
6	19.00	5.00	6.50	22.00	5.00	6.50
8	22.00	5.00	6.50	25.00	5.00	6.50
10	26.00	6.00	7.00	29.00	6.00	7.00

INTERIOR DIMENSIONS FOR FIRE METER & BP ENCLOSURE (DWG SD97)			
Service Size	Length (ft)	Width (ft)	Height (ft)
2	10.00	3.00	6.50
3	10.00	4.00	6.50
4	12.00	4.00	6.50
6	14.00	4.00	6.50
8	15.00	5.00	6.50
10	18.00	6.00	7.00



SECTION A-A
N.T.S.

CONCRETE SLAB NOTES:

1. CONCRETE SLAB SHALL BE DESIGNED BASED ON SOIL BEARING PRESSURE OF 2,500 PSF.
2. EFFECTS OF ALL VERTICAL LOADS ANTICIPATED ON THE FINISHED STRUCTURE & SLAB SHALL BE INCLUDED IN THE ANALYSIS AND DESIGN. LOADING FROM PIPING AND EQUIPMENT, SUPERSTRUCTURES, WIND AND SNOW SHALL BE INCLUDED AS APPROPRIATE.
3. ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH 2 COATS OF COAL TAR EPOXY OR ISOLATED FROM THE CONCRETE WITH 1/8" THICK NEOPRENE PADDING. ALL STEEL THRUST RESTRAINT ANGLES SHALL BE WIRE BRUSHED AND PAINTED WITH 2 COATS OF COAL TAR EPOXY.
4. ALL CONCRETE ANCHORS AND HARDWARE SHALL BE STAINLESS STEEL.
5. PROVIDE COMMON KEYED LOCKS FOR ALL HATCHES, ND QUICK DISCONNECT CAPS ASSOCIATED WITH THIS PROJECT.
6. DESIGN SHALL FOLLOW ACI 318-14 USING LOAD FACTOR DESIGN.
7. CONCRETE: $f_c = 4,000$ PSI AT 28 DAYS. TYPE III CEMENT. AIR ENTRAINMENT $7\% \pm 2\%$. ASTM C33 NO. 57 OR NO. 67 COARSE AGGREGATE.
8. REINFORCEMENT: WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. BAR REINFORCEMENT SHALL BE GRADE 60, CONFORMING TO ASTM A615..

GENERAL NOTES:

1. THE ENCLOSURE DIMENSIONS NOTED ABOVE ARE APPROXIMATE MINIMUM REQUIREMENTS BASED ON THE EQUIPMENT AND LAYOUTS SHOWN ON DRAWINGS SD93 THROUGH SD98.
2. THE DESIGN ENGINEER SHALL MAKE HIS OWN DETERMINATION TO ENSURE THAT THE REQUIRED CLEARANCES NOTED ON THE ENCLOSURE DRAWINGS ARE ACHIEVED BASED ON THE ACTUAL SERVICE SIZE(S), EQUIPMENT AND FITTINGS PROPOSED.
3. THE TABLES PROVIDED ABOVE ARE BASED ON THE LARGEST SERVICE SIZE ENTERING THE ENCLOSURE.
4. ENCLOSURE MUST MEET OSHA 29 CFR 1910.145 AND ASSE 1060 CLASS 1.
5. INSULATED HEATED ENCLOSURE CHARACTERISTICS.
 A. ENCLOSURE-5052-H32 MARINE GRADE ALUMINUM (0.050/18 GAUGE), MILL FINISH, OR 1/8" POLYESTER RESIN REINFORCED WITH FIBERGLASS STRAND
 B. INSULATION- 1-1/2" (R9) POLYISOCYANURATE FOAM
 C. HEATING SYSTEM- SLAB OR WALL MOUNT THERMOSTATICALLY CONTROLLED ELECTRIC HEATER MEETING SECTION 49 OF UL-2021 FOR DAMP OR WET LOCATIONS, WITH GFI RECEPTACLE, U.L. 943 NEMA 3R MOUNTED 8" (MIN.) ABOVE SLAB.
 D. HEATER(S) SHALL BE PROVIDED AS NECESSARY TO MAINTAIN TEMPERATURE ABOVE 40° F AT ALL TIMES.
6. ENCLOSURE MUST BE A SUFFICIENT SIZE TO HOUSE ALL REQUIRED PIPING. ENCLOSURE SHALL BE LOCKABLE. ACCESS PANELS SHALL BE ABOVE THE CENTERLINE OF THE ASSEMBLY, OR IN SIDE WALLS IN SUFFICIENT NUMBER AND LOCATION TO FACILITATE MAINTENANCE & REPAIRS ON ALL COMPONENTS. ENCLOSURE TO HAVE HINGED ONE-WAY DRAIN FLAP.
7. ENCLOSURE DIMENSIONS ARE MEASURED TO THE INSIDE WALLS.



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AMERICAN WATER ENGINEERING
3906 CHURCH RD.
MT. LAUREL, NJ 08054

AMERICAN WATER

DRAWN BY D. JOBE
PROJECT ENG'R E. SCHWARTZ

DATE 08-24-18

PROJECT

STANDARD DETAIL
HEATED ENCLOSURE

NEW JERSEY AMERICAN WATER

STANDARDS

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

USE DIMENSIONS ONLY SCALE AS SHOWN

0201-0601-SD101



FITTINGS & EQUIPMENT LAYING LENGTHS

Nominal Service Size	Laying Length (inches)				
	3"	4"	6"	8"	10"
A- Gate Valve (OS&Y)	8	9	10.5	11.5	13
B- Detector Check Valve (DCV)	15	15	21	25	28.75
C- Domestic Compound Meter Assembly (includes spool, strainer, meter & test port)	24	29.5	39.375	42	55
D- Multi-Use Meter Assembly (includes strainer, meter & test port)	-----	43	57.25	63.3125	70
E- Dismantling Joint	9	9	9	9	10
F- Swing Check Valve	9.5	11.5	14	19.5	24.5
G- RPZ Backflow Preventer Assembly (includes gate valves)	42.25	55.125	65.5	78.5	93.625
G- Double Check Backflow Preventer Assembly (includes gate valves)	40.375	52.375	62.875	75	90
H- Pressure Reducing Valve (PRV) (excludes shutoffs)	12	15	20	25.375	29.75
Y-Strainer DI Class 125	10.125	12.125	18.5	21.625	26
Tee (Run)	11	13	16	18	22
Tee (Branch)	5.5	6.5	8	9	11
90° Bend	5.5	6.5	8	9	11
Spool (FLGxFLG) (minimum length available)	-----	4.25	4.5	5	5.5

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NOTES:

1. **LAYING LENGTHS SHOWN ABOVE ARE APPROXIMATE** AND BASED ON SPECIFIC MANUFACTURER AND MODEL COMPONENTS. DESIGN ENGINEER TO VERIFY ALL DIMENSIONS, BASED ON ACTUAL EQUIPMENT AND FITTINGS PROPOSED.
2. LAYING LENGTHS NOTED ABOVE DO NOT INCLUDE GASKET THICKNESS.
3. THE USE OF FLANGED COUPLING ADAPTERS IS STRICTLY PROHIBITED.

	REVISIONS		REVISIONS			STANDARD DETAIL DOMESTIC & FIRE SERVICE TYPICAL LAYING LENGTHS OF EQUIPMENT & FITTINGS				
	△ 1	REVISED LAYING LENGTHS R. BEATTY 11-29-22	△			DRAWN BY D. JOBE PROJECT ENG'R E. SCHWARTZ	DATE 08-24-18	NEW JERSEY AMERICAN WATER	STANDARDS	USE DIMENSIONS ONLY SCALE AS SHOWN
	△		△			PROJECT	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES			0201-0601-SD102
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