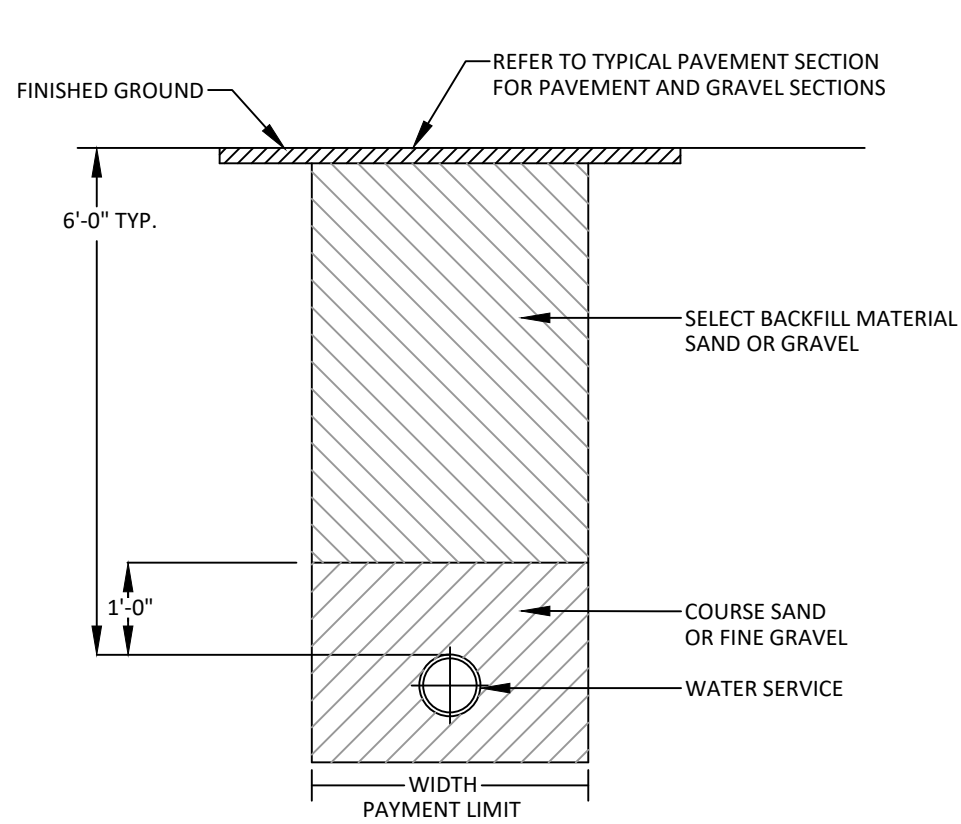
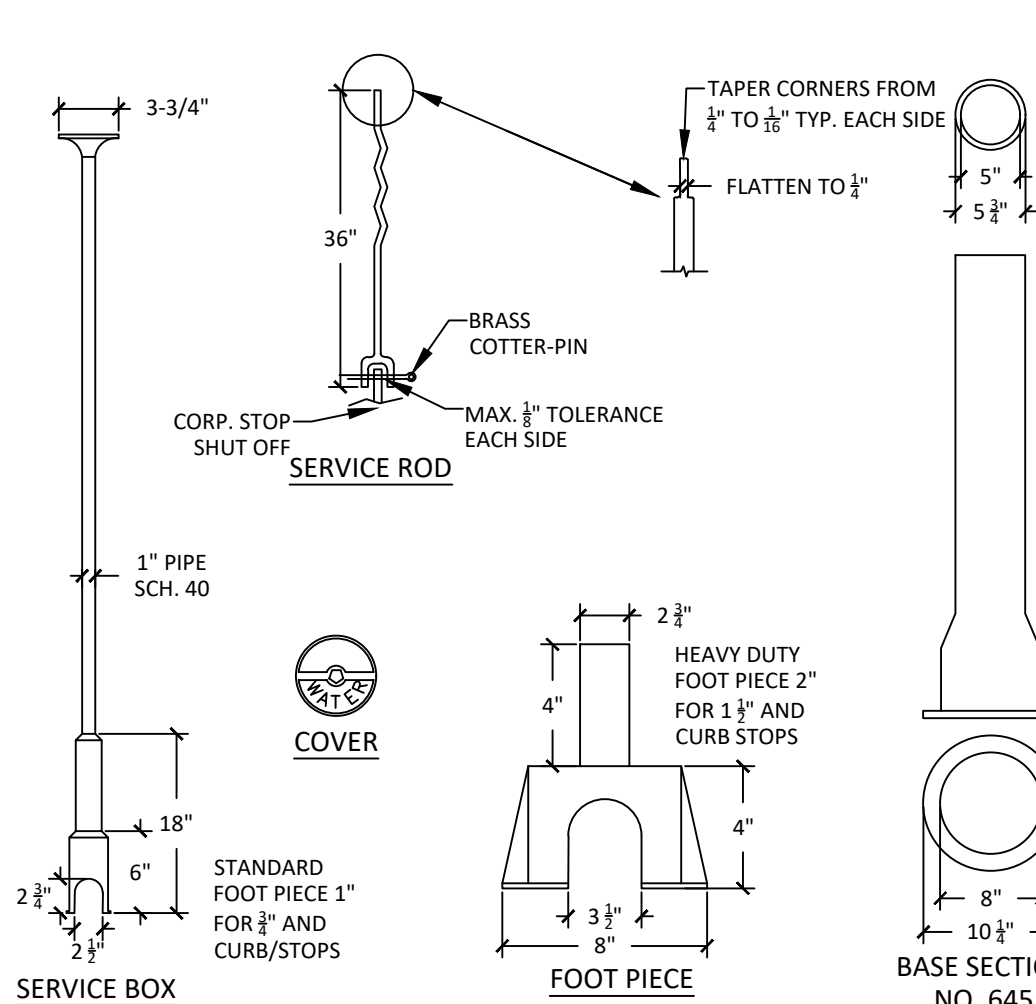
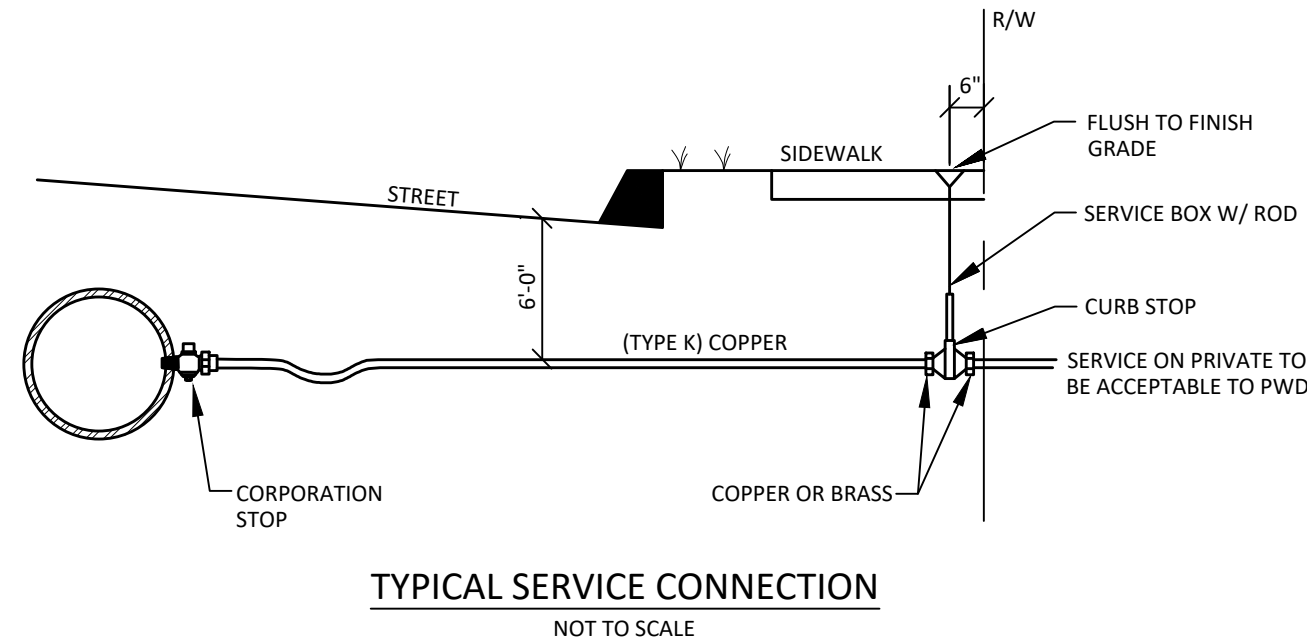




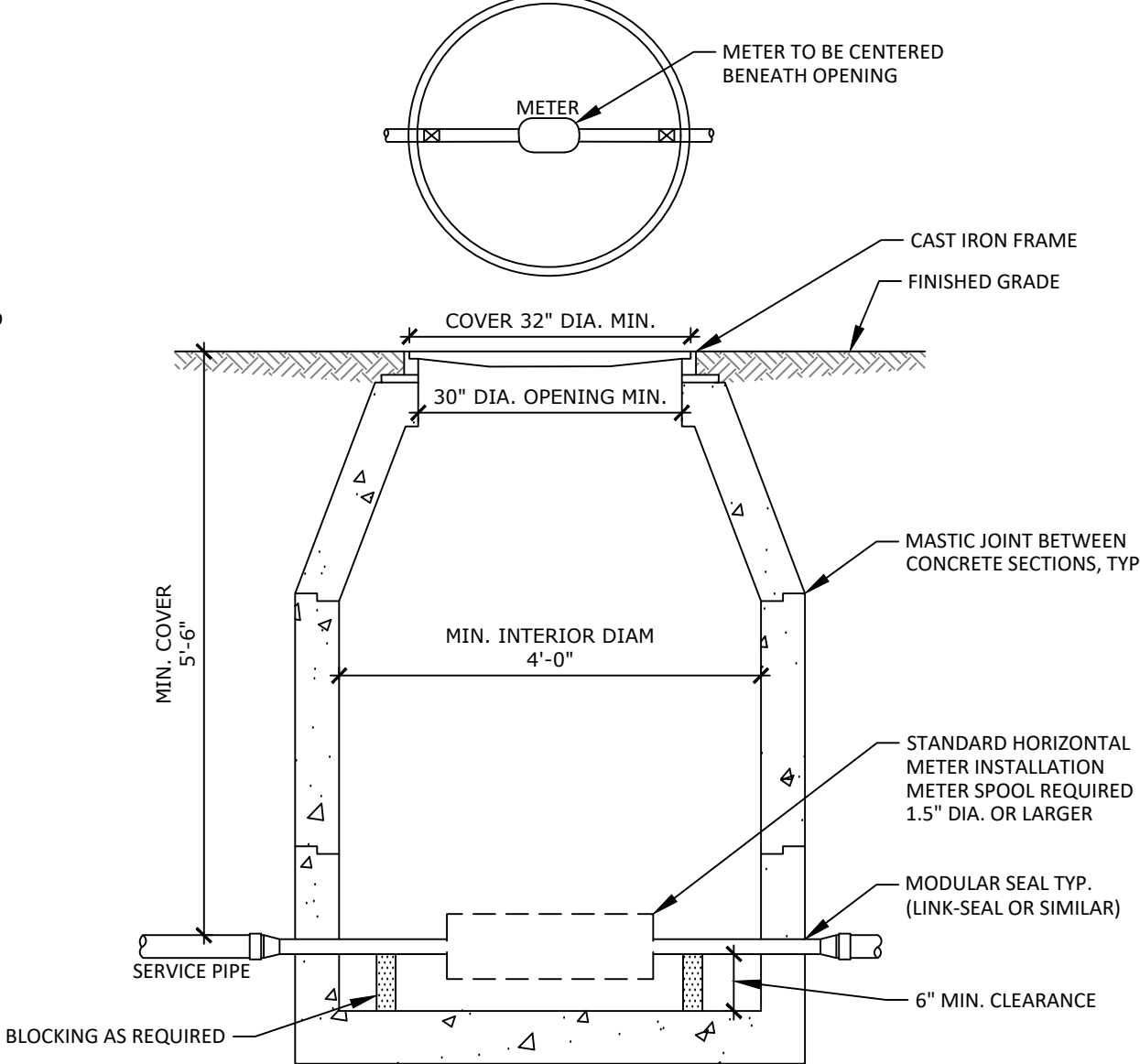
TYPICAL WATER SERVICE TRENCH CROSS-SECTION
NOT TO SCALE



VALVE BOX & COVER
NOT TO SCALE



TYPICAL SERVICE CONNECTION
NOT TO SCALE



METER PIT AND COVER NOTES:

- SPECIAL APPROVAL BY PWD IS REQUIRED, PRIOR TO CONSTRUCTION, FOR ALL PROPOSED METER PIT INSTALLATIONS.
- BACKFLOW PREVENTION DEVICES MAY NOT BE INSTALLED WITHIN SMALL METER PITS.
- A METER PIT MAY HOUSE UP TO TWO 5/8", 3/4" OR 1" METERS WITH PRIOR APPROVAL FROM PWD.
- METER PIT SHALL BE LOCATED ON PRIVATE PROPERTY BETWEEN 10' AND 20' FROM PROPERTY LINE UNLESS OTHERWISE APPROVED BY PWD.
- THE METER PIT SHALL BE MADE OF PRECAST CONCRETE OF SUFFICIENT SIZE TO PROVIDE 5.5' MIN. GROUND COVER FROM FINISHED GRADE TO THE TOP OF THE SERVICE PIPE.
- ALL SEAMS BETWEEN CONCRETE SECTIONS SHALL BE SEALED WITH MASTIC JOINT. ALL OPENINGS IN THE CONCRETE FOR SERVICE PIPING SHALL BE SEALED WITH A MODULAR SEAL (LINK-SEAL OR SIMILAR).
- METER PIT INTERIOR MUST BE AT LEAST 48" IN DIAMETER. THE OPENING MUST BE AT LEAST 30" IN DIAMETER, WITH A CAST IRON FRAME. THE COVER SHALL BE CAST IRON OR STEEL, 32" MIN. IN DIAMETER, AND BE EITHER PERMANENTLY LABELED "WATER" OR HAVE NO LABEL. STEEL PLATE MATERIAL SHALL BE COATED WITH A RUST INHIBITOR PAINT.
- WALL-MOUNTED LADDER RUNGS ARE NOT TO BE INSTALLED WITHIN METER PIT.
- ALL PIPING INSIDE AND EXTENDING THROUGH THE METER PIT WILL BE MADE OF COPPER, WITH A MIN. OF 6" CLEARANCE FROM THE METER PIT FLOOR. USE BLOCKING AS NEEDED TO SUPPORT THE PIPE.
- CUSTOMER SHALL ENSURE THE METER PIT AND COVER ARE PROPERLY RATED FOR TRAFFIC FLOW, IF APPLICABLE.

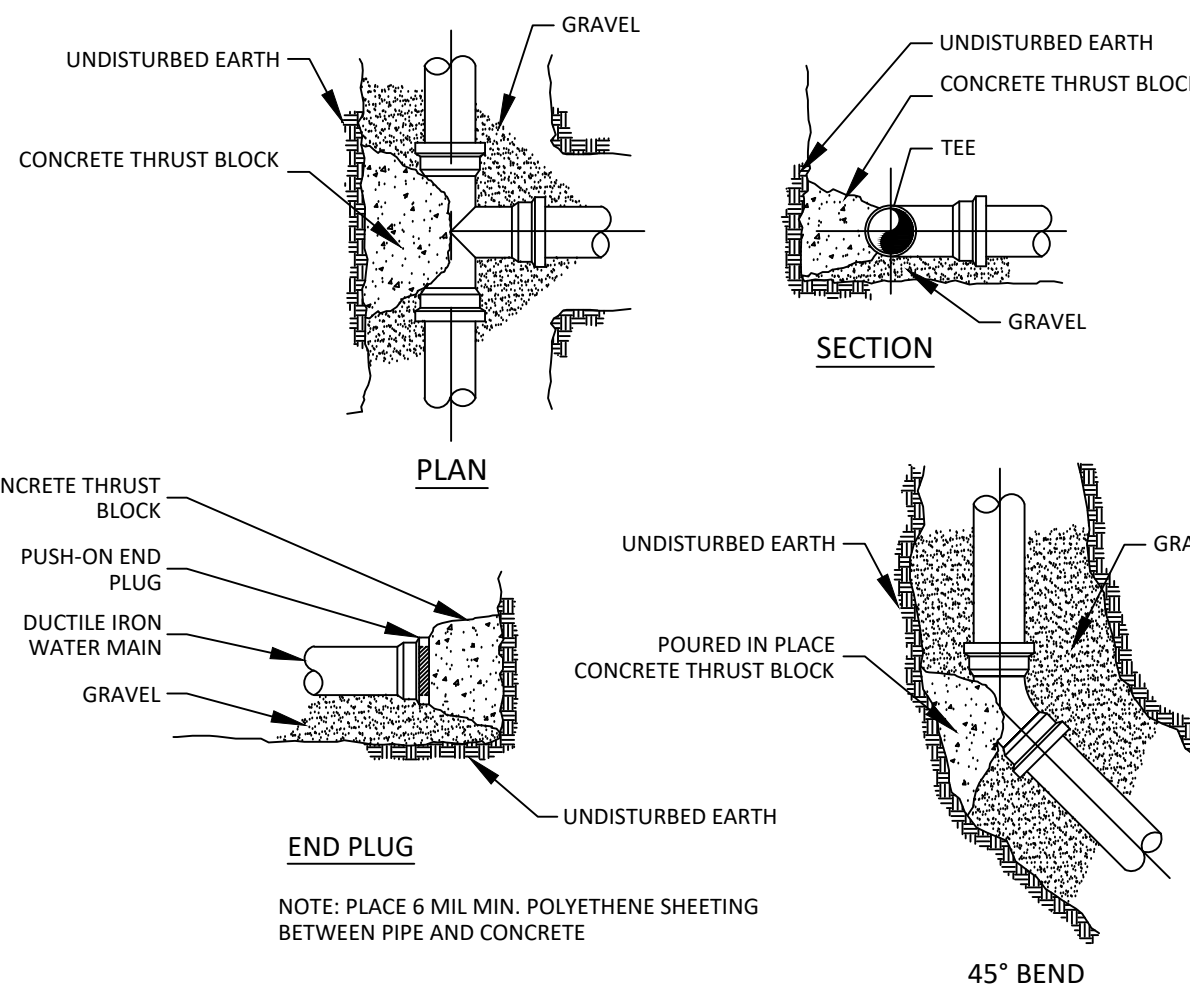
METER INSTALLATION NOTES:

- ONLY PWD PERSONNEL ARE AUTHORIZED TO INSTALL WATER METERS. PWD PERSONNEL ARE ADDITIONALLY AUTHORIZED TO OPERATE METER VALVES AS NEEDED FOR INSTALLATION AND MAINTENANCE.
- PWD WILL SUPPLY THE WATER METER. ALL OTHER FITTINGS, INCLUDING A METER RESETTER FOR 1" OR SMALLER METERS SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER.
- FOR 1.5" AND 2" METERS, CUSTOMER WILL INSTALL A FLANGED METER SPOOL PIECE SUPPLIED BY PWD AT NO ADDITIONAL CHARGE, PRIOR TO METER SET. THE METER SPOOL WILL BE MADE AVAILABLE FOR CUSTOMER PICKUP AT PWD CUSTOMER SERVICE, 225 DOUGLAS STREET, PORTLAND DURING NORMAL BUSINESS HOURS.
- CUSTOMER WILL INSTALL TWO BALL VALVES AT LEAST 24" APART FOR METER INSTALLATION, ALLOWING FOR THE WATER METER TO BE CENTERED UNDER THE METER PIT OPENING. THE BALL VALVES SHALL BE SOLDERED IN PLACE.

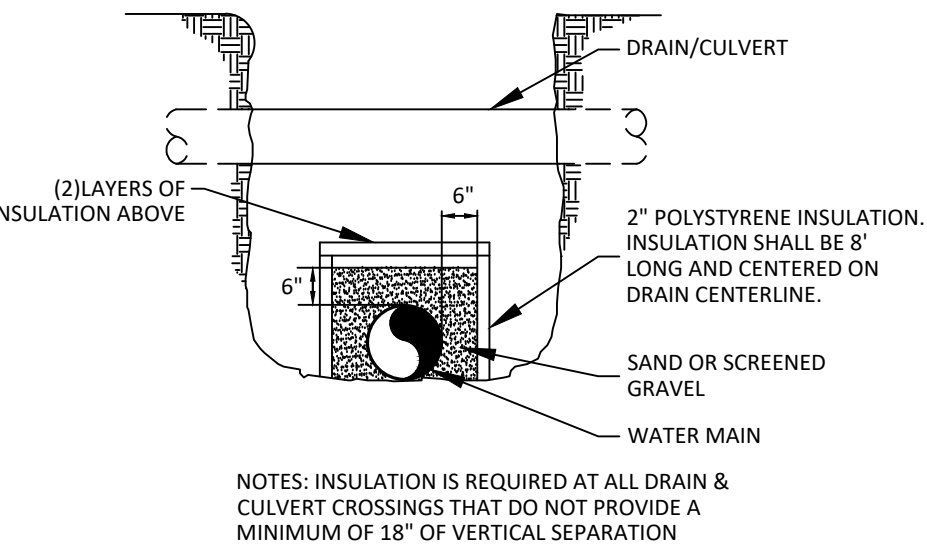
SMALL METER PIT (5/8" TO 2" METER)
NOT TO SCALE

CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
SQ. FT. OF BEARING ON UNDISTURBED SOIL				
FITTINGS	90°BENDS	45°BENDS	TEES AND PLUGS	
PIPE SIZE				
6"	4.0	2.0	3.0	
8"	8.0	4.0	6.0	
12"	15	9	12	
16"	26	14	19	
20"	40	22	28	

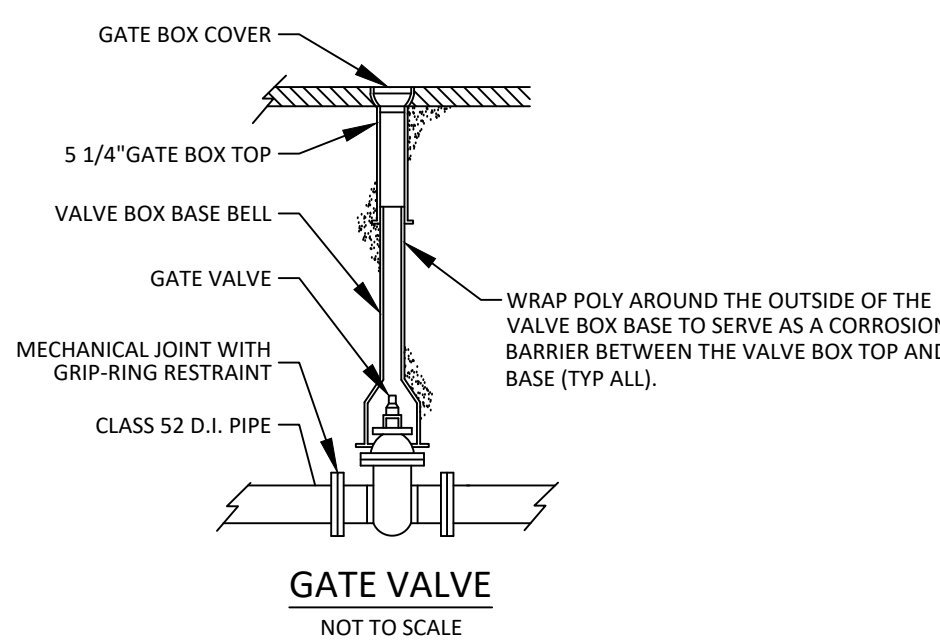
BASED ON SOIL BEARING PRESSURE OF 2000PSF AND 100PSI LINE PRESSURE. COMPACT COURSE TO FINE SANDS AND CLAYS REQUIRE ENGINEERED BLOCKS. ENGINEERED BLOCKS WILL TYPICALLY REQUIRE REINFORCING STEEL OF #5 AT 12".



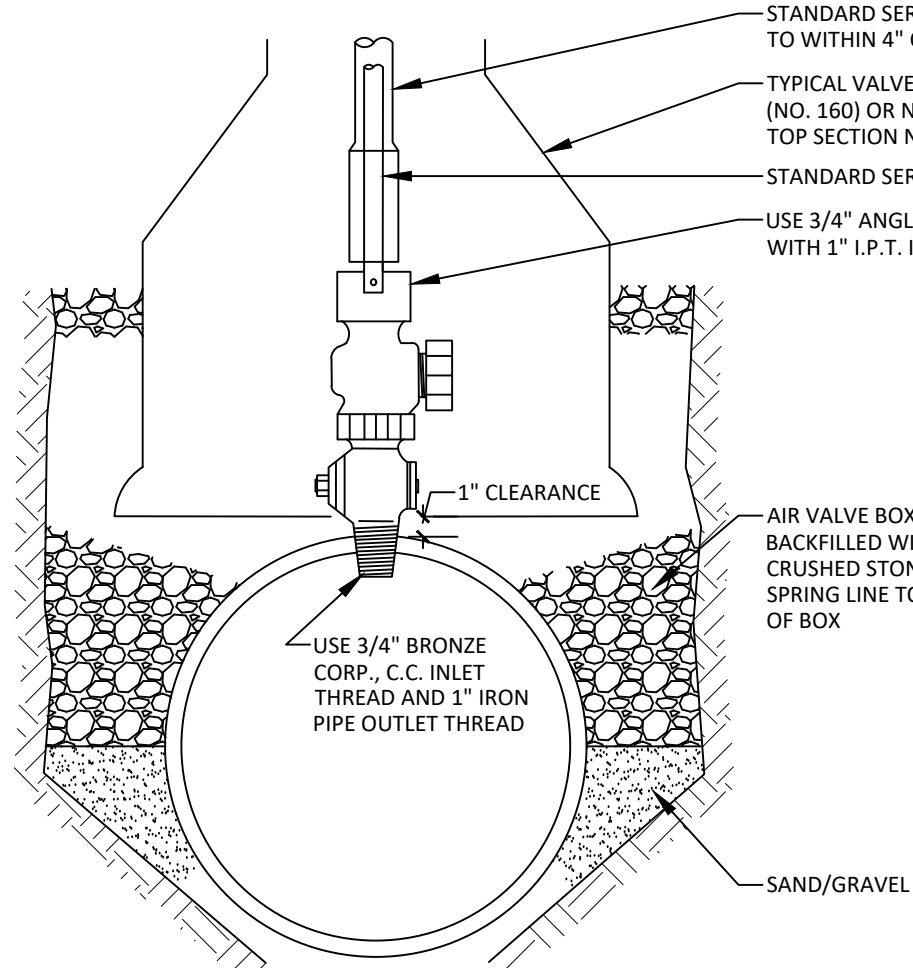
THRUST BLOCK DETAIL
NOT TO SCALE



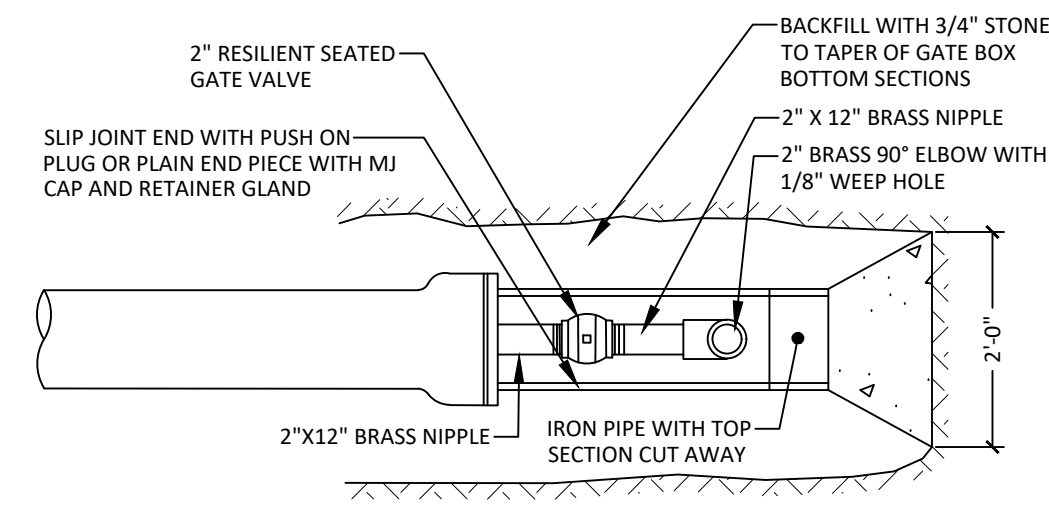
INSULATION DETAIL
NOT TO SCALE



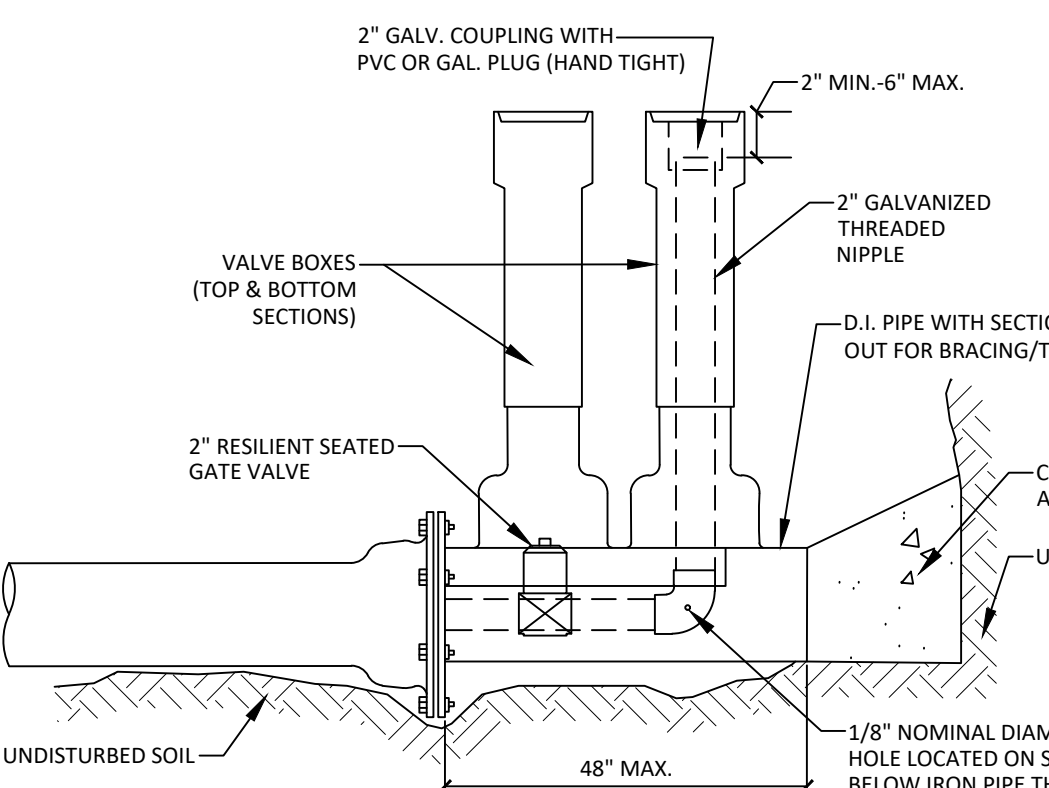
GATE VALVE
NOT TO SCALE



TYPICAL AIR VALVE (1")
NOT TO SCALE



TOP VIEW

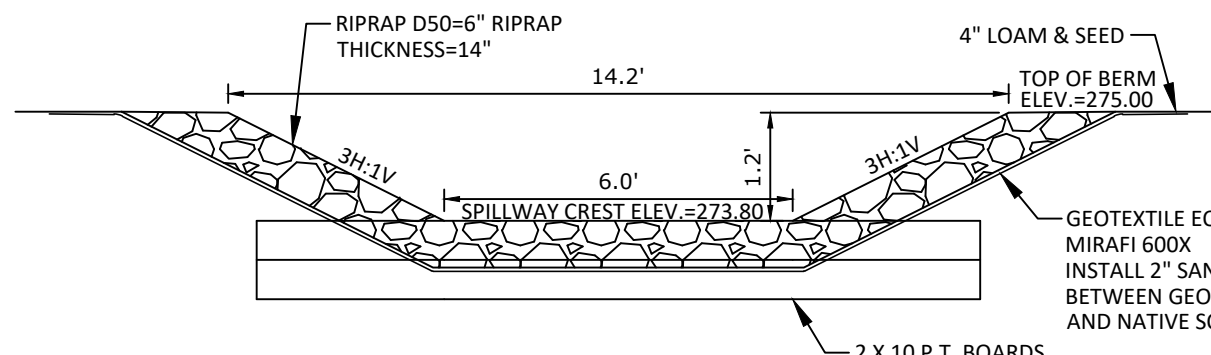


STANDARD 2" BLOW OFF
NOT TO SCALE

TABLE 7.1 UNDERDRAIN 703.22 TYPE "B"	
SIEVE SIZE	% PASSING BY WEIGHT
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

TABLE 7.3 LOAMY COARSE SAND	
SIEVE SIZE	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15
200 CLAY	<2.0

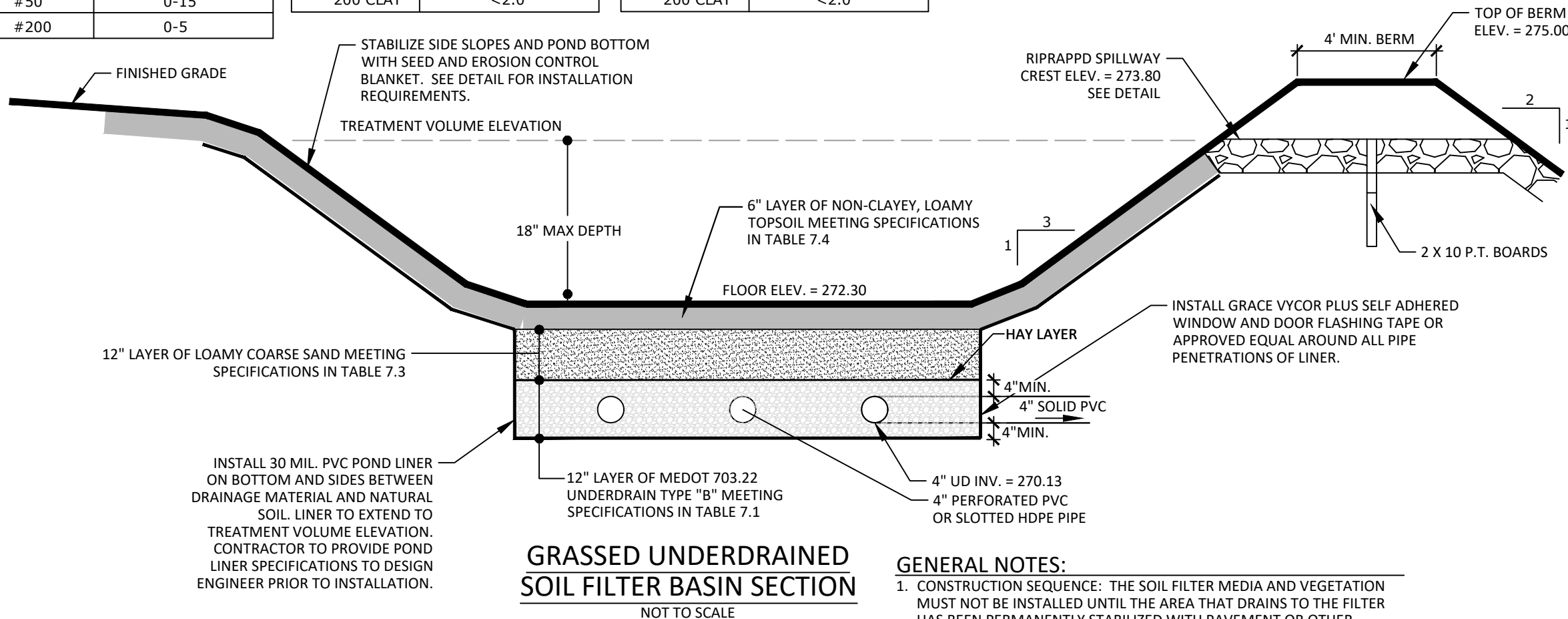
TABLE 7.4 SANDY LOAM	
SIEVE SIZE	% PASSING BY WEIGHT
#4	75-95
#10	60-90
#40	35-85
#200	20-70
200 CLAY	<2.0



RIPRAPED SPILLWAY CROSS-SECTION
NOT TO SCALE

FILTRATION BMPs CONSTRUCTION OVERSIGHT NOTES:

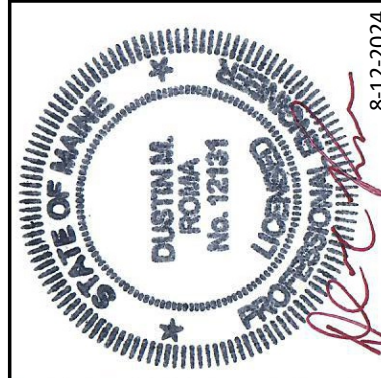
- INSPECTION BY THE DESIGN ENGINEER OR SUITABLE THIRD PARTY WILL OCCUR AT A MINIMUM:
 - AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
 - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
 - AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDING.
 - AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
- TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
 - SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRASS) FROM THE STOCKPILE OR PIT FILL. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
 - PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
 - PERFORM A PERMIABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698
- WITHIN 30 DAYS OF COMPLETION OF THE FILTRATION BMP, THE APPLICANT SHALL SUBMIT A LOG OF INSPECTION REPORTS DETAILING THE ITEMS INSPECTED, PHOTOS TAKEN, AND THE DATES OF EACH INSPECTION TO THE MAINE DEP BUREAU OF LAND RESOURCES FOR REVIEW.



GRASSED UNDERDRAINED SOIL FILTER BASIN SECTION
NOT TO SCALE

GENERAL NOTES:

- CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.
- COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST TWO LIFTS TO PREVENT POCKETS OF LOOSE MEDIA.



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(207) 591-5055

REV	DATE	DESCRIPTION
A	5/20/24	ISSUED FOR PRELIMINARY REVIEW
B	7/22/24	ISSUED FOR FINAL PLAN REVIEW
C	8-5-24	REVISED PER PWD REVIEW
D	8-12-24	REVISED PER TOWN REVIEW

DETAILS
ASTRAL VILLAGE SUBDIVISION
TAUBERG TRAIL & ASTRAL DRIVE
WINDHAM, MAINE
FOR: THE JR HOLDING GROUP, LLC
P.O. BOX 1508
WINDHAM, ME 04062

23020 JOB NUMBER:
AS NOTED SCALE:
8-12-2024 DATE:
SHEET 8 OF 8
D-3