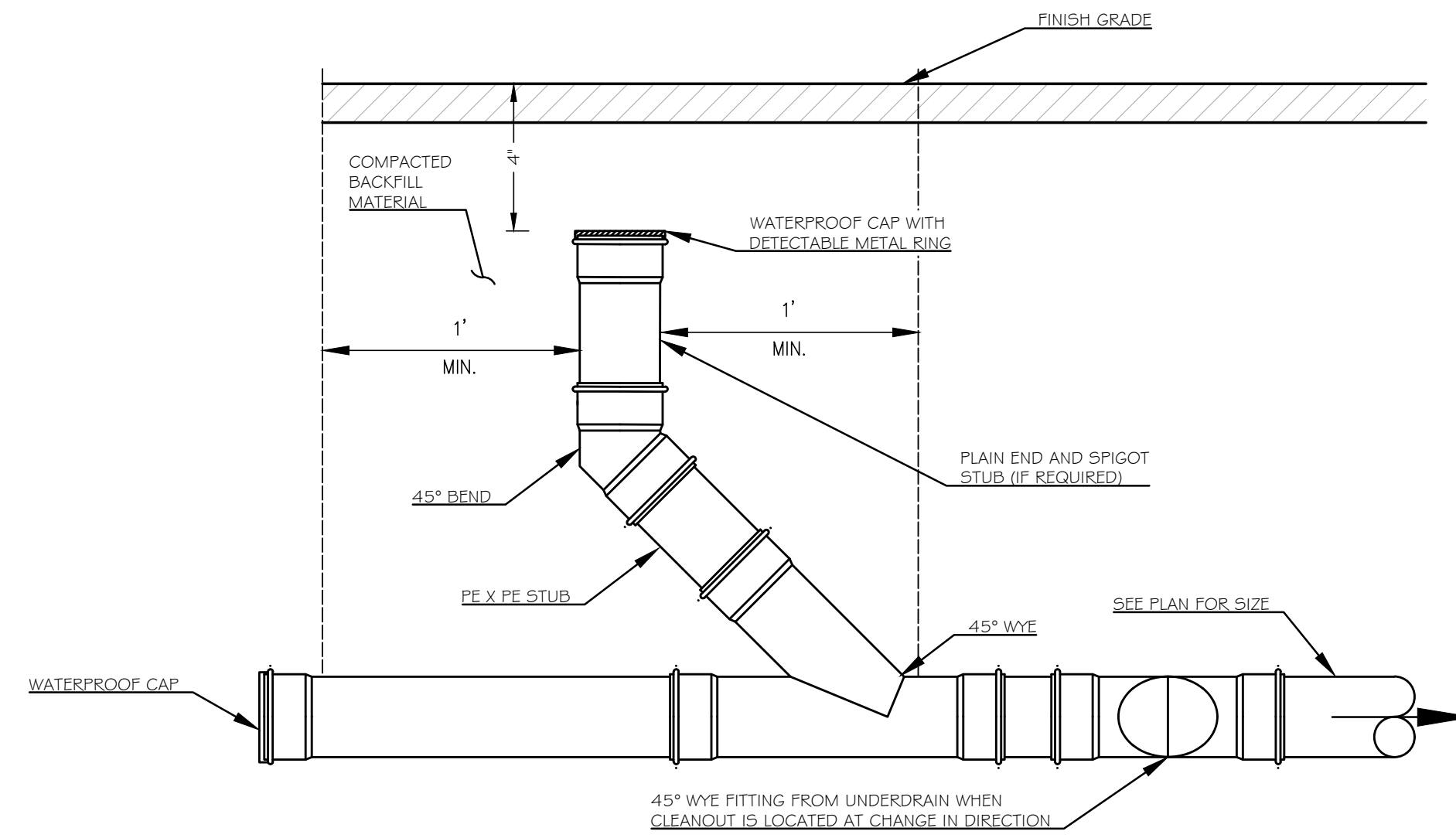


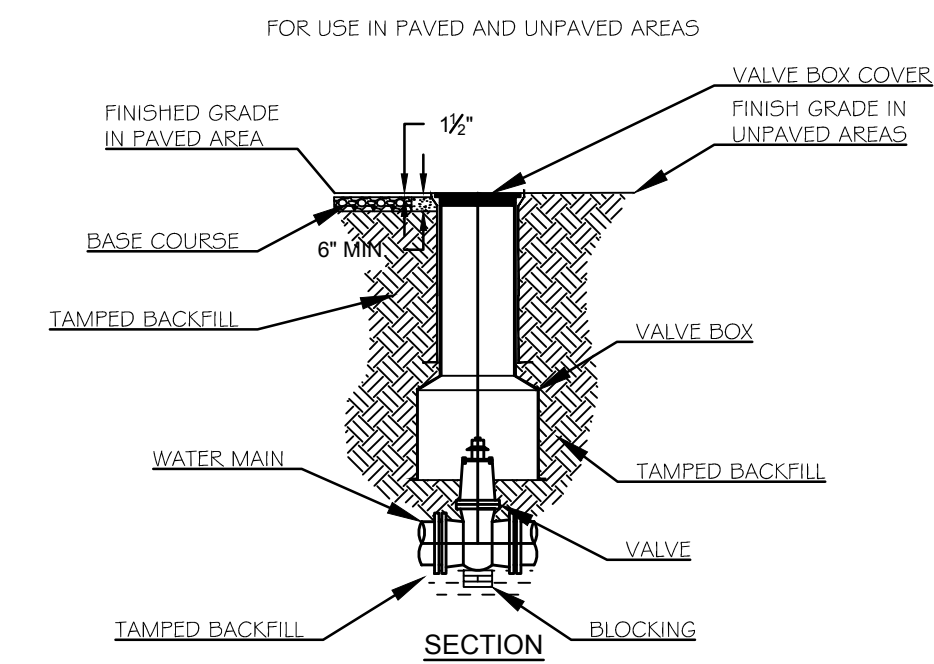
- NOTES:**
- USE D_{50} NOTED ON TABLE UNLESS OTHERWISE SPECIFIED ON PLANS.
 - UNDERLAY RIP-RAP WITH 6" OF GRAVEL OR GEOTEXTILE
 - USE WIDTHS NOTED ABOVE OR CONFORM TO NATURAL CHANNEL OR TOPOGRAPHY.
 - RIP-RAP INLET PROTECTION SHALL BE A CIRCULAR APRON WITH A RADIUS OF 1X THE PIPE DIAMETER.

D	L	W	D_{50}
8"	4'	2'	4"

1
C4.2 **RIP-RAP APRON**
NOT TO SCALE

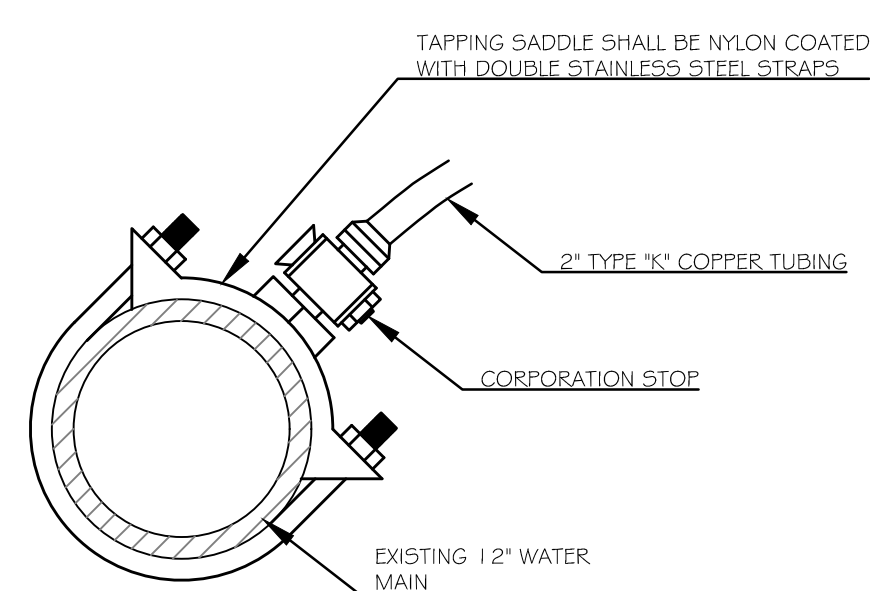


2
C4.2 **UNDERDRAIN CLEANOUT**
NOT TO SCALE



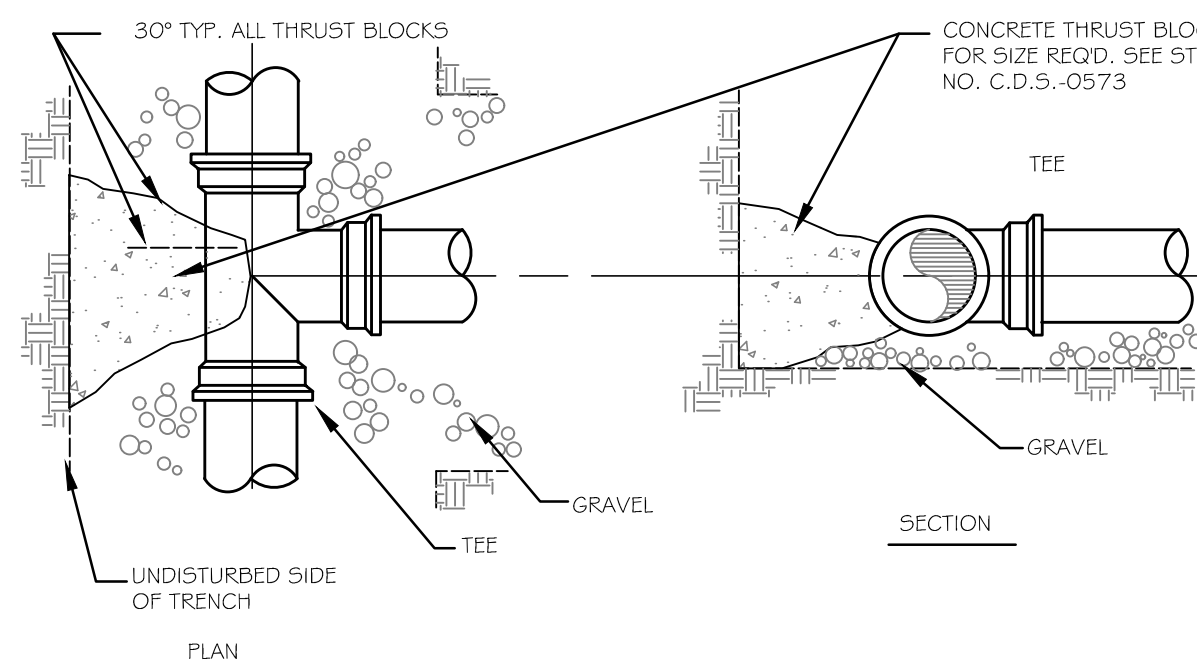
- NOTES:**
- ALL WORK TO CONFORM TO THE PORTLAND WATER DISTRICT STANDARDS AND REQUIREMENTS.
 - D.I.P. MAY BE USED FOR VALVE BOX EXTENSIONS.
 - VALVE BOX SHOULD NOT CONTACT WATER MAIN OR VALVE.
 - CONCRETE PROTECTOR RING SHALL BE USED IN ALL UNPAVED AREAS.

3
C4.2 **VALVE AND VALVE BOX INSTALLATION DETAIL**
NOT TO SCALE



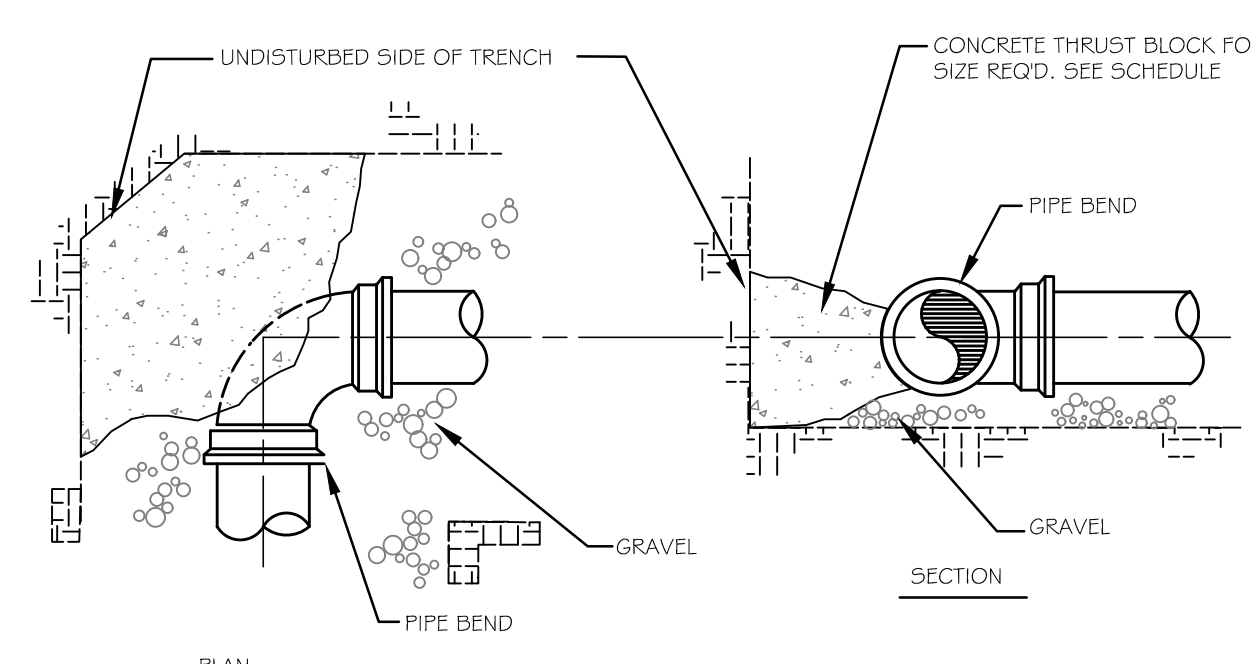
- NOTES:**
ALL WORK TO CONFORM TO THE PORTLAND WATER DISTRICT STANDARDS AND REQUIREMENTS.

4
C4.2 **STANDARD CORPORATION STOP DETAIL**
NOT TO SCALE



THRUST BLOCK PLACEMENT AT TEE(S)

5
C4.2 **THRUST BLOCK DETAILS**
NOT TO SCALE



THRUST BLOCK PLACEMENT AT BEND(S)

SIZE REQUIREMENTS FOR CONCRETE THRUST BLOCKS					
BEARING ON UNDISTURBED SOIL (SQUARE FT.)					
FITTINGS	90° BENDS	45° BENDS	TEES & PLUGS	HYDRANTS	
4"	2.0	1.0	1.0	N/A	
6"	3.0	2.0	2.0	6.0	
8"	5.0	3.0	4.0	N/A	

THRUST BLOCK SCHEDULE

Spirm and Gulliver Residence
7 Diamond Pass
Peaks Island, Maine

Sam Sprin & Kate Gulliver
61 Chandler Street, Apt. 2
Boston, MA

Rev.	Date	Description	Drawn	Check
1	9/5/17	Revised Per City Comments	SWC	SWC

Sheet Title:
DETAILS

Job No.: 346
Date: June 15, 2017
Scale: NTS
Drawn: SWC
Checked: WRW

Sheet No.:
C4.2

PERMITTING SET