

WAL PJM 21904.14

RAWN BY: HECKED BY: ROJECT:

Y OF PORTSMOUT
1 Junkins Avenue
Portsmouth, NH 03801

ID POOL RENOVATION

Peirce Island Road

SITE UTILITY PLAN

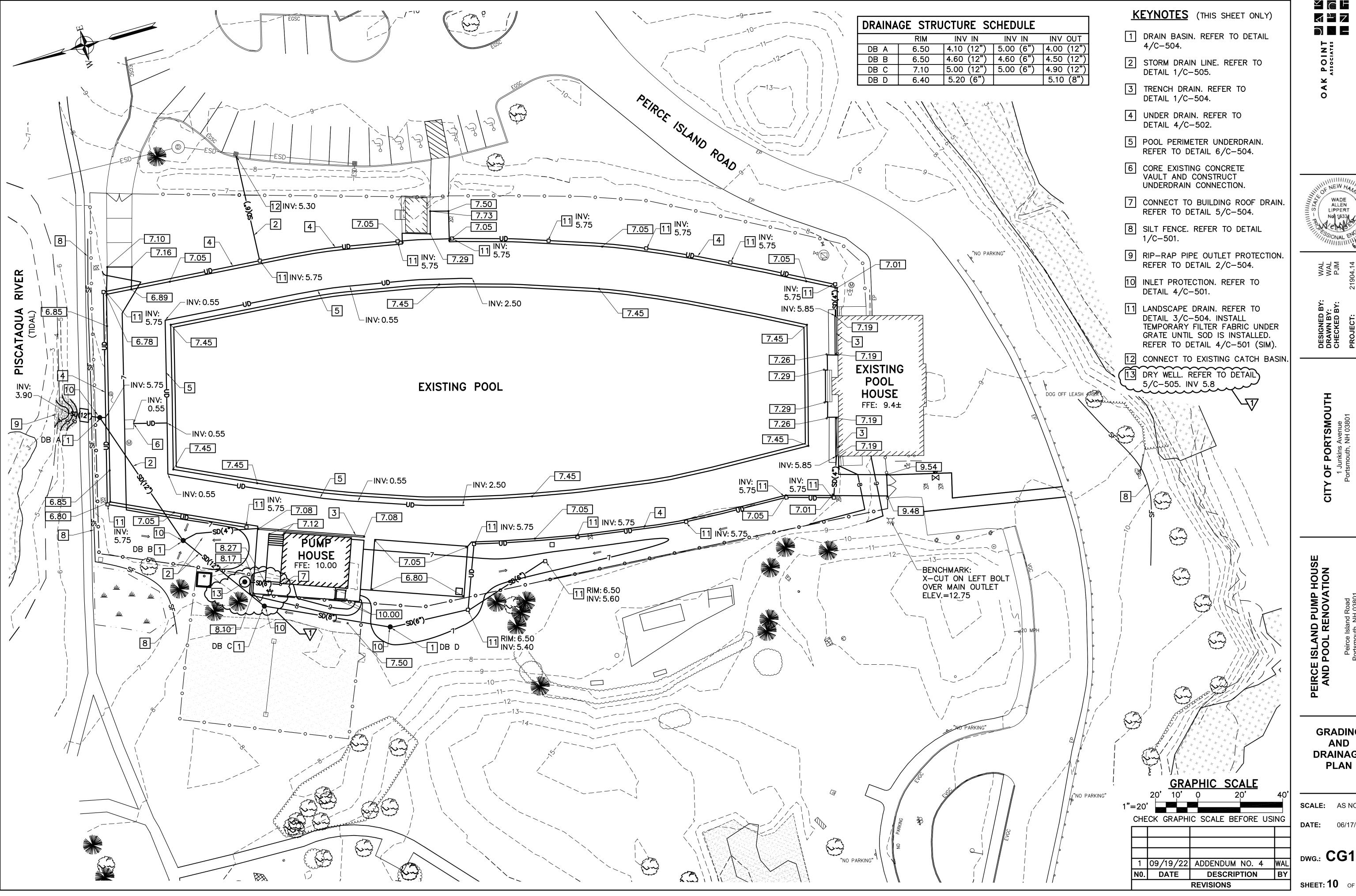
SCALE: AS NOTED

AS NOTE

DATE: 06/17/2022

DWG.: **CU101**

SHEET: 9 OF **72**



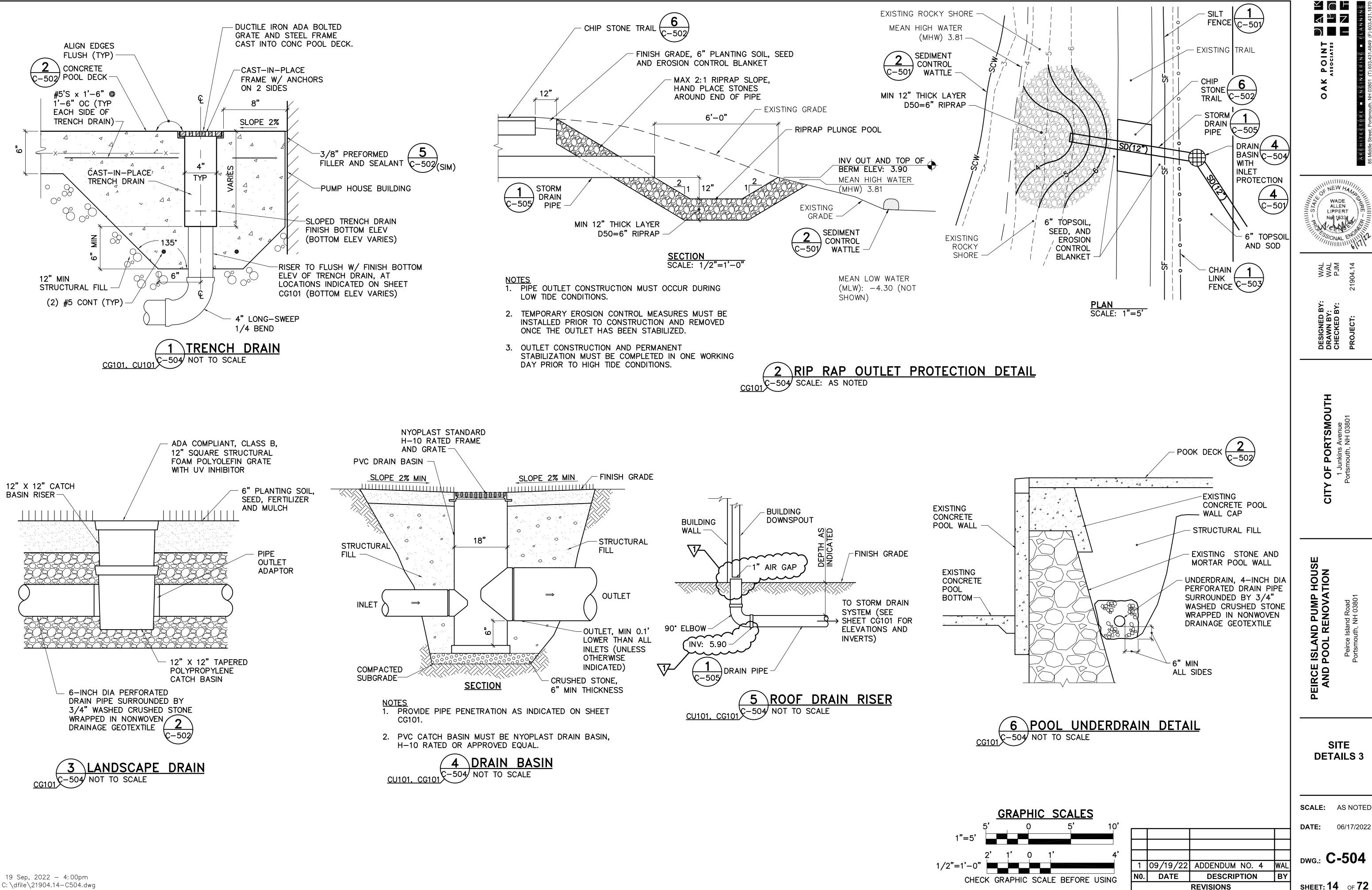


GRADING AND **DRAINAGE**

SCALE: AS NOTED

DWG.: **CG101**

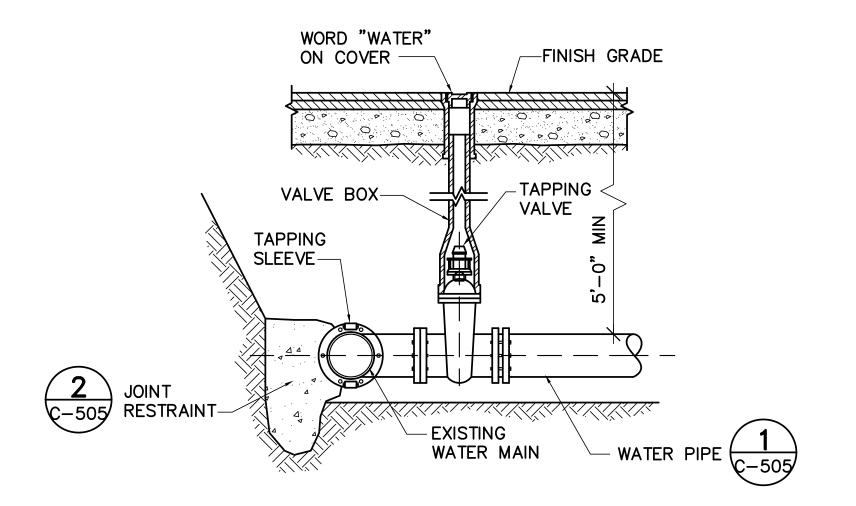
SHEET: 10 OF **72**



SHEET: 14 OF **72**

- 1. EXCAVATION WORK MUST COMPLY WITH OSHA STANDARDS. TRENCH SIDEWALLS MUST BE VERTICAL FROM TRENCH BOTTOM TO 12" ABOVE TOP OF PIPE.
- 2. PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN CROSSING
- 3. PROVIDE 10' HORIZONTAL CLEARANCE BETWEEN WATER AND SEWER LINE.
- 4. WHERE 5'-0" MIN COVER OVER SEWER LINE CANNOT BE ACHIEVED PROVIDE 4' WIDE, 4" THICK RIGID FOAM BOARD INSULATION OVER BLANKET MATERIAL. (2-2" LAYERS WITH JOINTS STAGGERED)
- 5. PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE BOTTOM OF THE WATER PIPING AND THE TOP OF THE SEWER PIPING IN CASES WHERE WATER PIPING CROSSES ABOVE SEWER PIPING. IF SEPARATION CANNOT BE ACHIEVED PROVIDE 6" MIN CONCRETE ENCASEMENT OF WATER PIPE FOR A DISTANCE OF 10' ON EITHER SIDE OF THE CROSSING.

PIPE TRENCH CU101, CG101, C-502, C-504, C-505 NOT TO SCALE



3 WATER SERVICE CONNECTION CU101 C-505 NOT TO SCALE

- 1. PROVIDE JOINT RESTRAINT FOR TEES, BENDS, AND PLUGS. FOR DUCTILE IRON PIPE PROVIDE CONCRETE THRUST BLOCKS AND WEDGE-ACTION TYPE RETAINER GLANDS. FOR POLYETHYLENE PIPE PROVIDE CONCRETE THRUST BLOCKS.
- 2. WRAP DI PIPE FITTINGS IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE THRUST BLOCKING.
- 3. PLACE CONCRETE PAVERS OR BRICKS IN FRONT OF PLUGS BEFORE PLACING THRUST BLOCKS.
- 4. PLACE THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND CONCRETE THRUST BLOCK TO UNDISTURBED MATERIAL. AREA OF THRUST BLOCKS SHOWN ARE BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1,500 POUNDS PER SQUARE FOOT AND 1.5 SAFETY FACTOR. BEARING CAPACITY MAY BE ALTERED BASED ON CONDITIONS ENCOUNTERED WITH APPROVAL BY THE OWNER.
- 5. EXTEND CONCRETE THRUST BLOCKING THE ENTIRE LENGTH OF THE FITTING. DO NOT COVER ANY PART OF THE JOINT WITH CONCRETE.
- 6. PROVIDE LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.
- 7. CONCRETE THRUST BLOCKS MUST BE 3,000 PSI (MIN) PORTLAND CEMENT CONCRETE.
- 8. PROVIDE CONCRETE THRUST BLOCKING IN ACCORDANCE WITH NFPA 24 AND CITY OF PORTSMOUTH WATER DIVISION CONSTRUCTION MANUAL.
- 9. PROVIDE WEDGE-ACTION TYPE RETAINER GLANDS ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.

MECHANICAL

#4'S AT 6" OC, EW-TYP SECTION (TEE OR BEND)

> **CONC THRUST** BLOCK (TYP) -

> > TYP PLAN VIEW

(HORIZONTAL BEND)

THRUST BLOCK SCHEDULE SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL (BASED ON 100 PSI WORKING PRESSURE)

TYP SECTION (VERTICAL BEND)

-UNDISTURBED MATERIAL (TYP)

-0.7 CY MIN

CONCRETE

#5'S @ 6" OC, EW

WITH 3" CONC

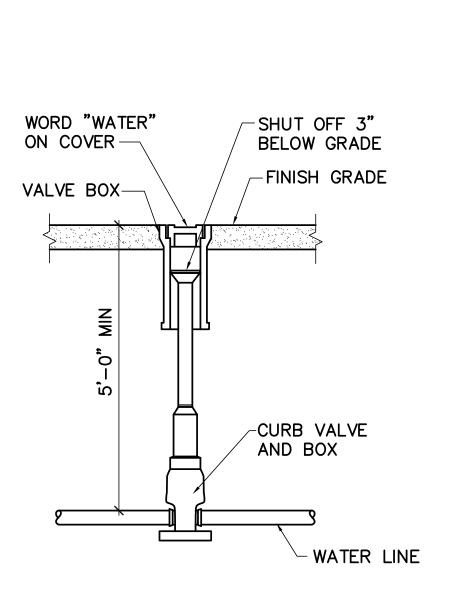
COVER (TYP)

PIPE SIZE (INCHES) **REACTION** TYPE 8" 10**"** 12" **6**" 2.8 7.3 10.3 TEE 4.8 1.4 10.3 90° BEND 6.8 4.0 1.9 14.5 2.2 45° BEND 1.0 3.7 5.6 7.9 22.5° BEND 0.5 1.9 2.8 4.0 11.25° BEND 0.3 0.6 1.0 2.0 1.4

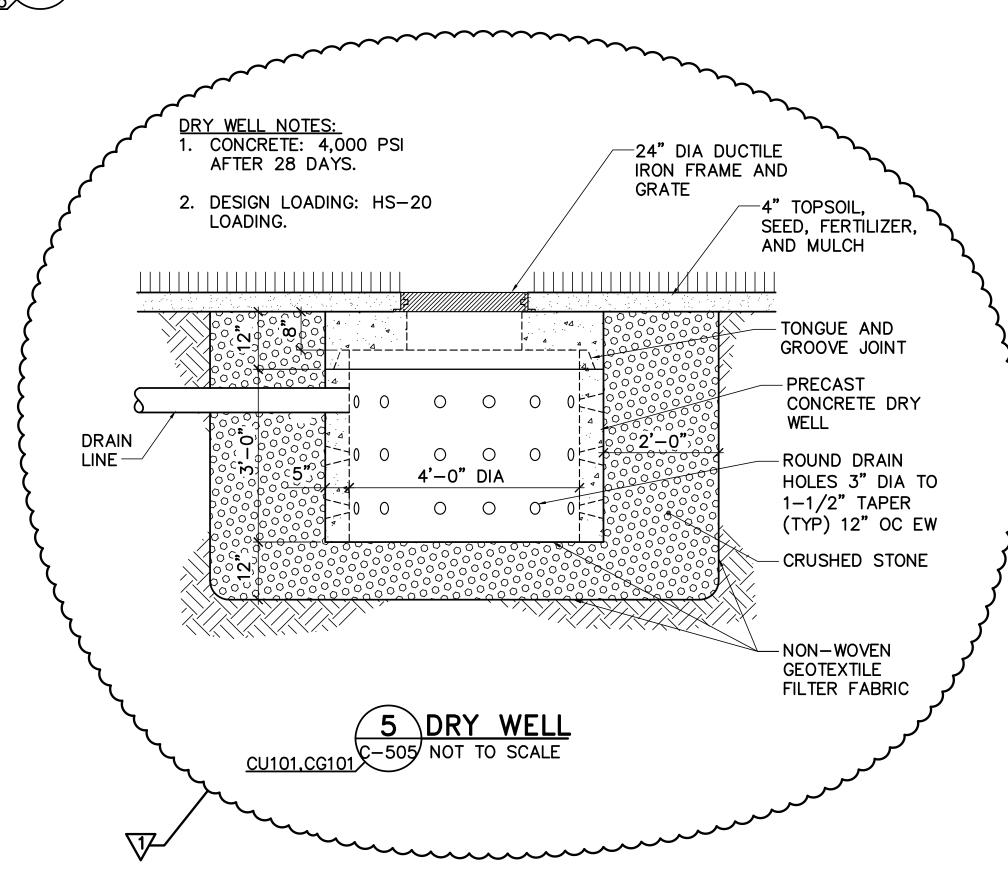
-UNDISTURBED MATERIAL (TYP) TYP PLAN VIEW (TEE)

NOTE: FOR OTHER PRESSURES, AREA OF CONCRETE THRUST BLOCKING IS DIRECTLY PROPORTIONAL TO AREAS SHOWN IN ABOVE TABLE.

<u>JOINT RESTRAINT</u>



4 WATER SHUT OFF VALVE CU101 C-505 NOT TO SCALE



1 09/19/22 ADDENDUM NO. 4 WAL DATE DESCRIPTION **REVISIONS**

1 - 7 POINT ASSOCIATES

NEW HA WADE LIPPERT

WAL WAL PJM

PORTSMOUTH OF

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION

SITE **DETAILS 4**

SCALE: AS NOTED

DATE: 06/17/2022

DWG.: **C-505**

SHEET: 15 OF **72**

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