**SPU‐XX, Concrete Blocking**

Version Date: 11/17/2017 Revision Date: MM/DD/YYY by XXX

1. **DESCRIPTION**

Install concrete blocking as shown on the plans and details where applicable.

1. **MATERIALS AND CONSTRUCTION METHODS**
2. All concrete shall have a 28‐day compressive strength of 3,600 psi.
3. All concrete shall be placed and consolidated in accordance with the American Concrete Institute (ACI) publication ACI 309R‐05 Guide for Consolidation of Concrete.
4. All blocking shall be formed to prevent excessive use of concrete.
5. The bearing surface should, where possible, be placed against undisturbed soil. Where it is not possible, the fill between the bearing surface and undisturbed soil must be compacted to at least 95% standard Proctor density.
6. All fittings shall have a polyethylene barrier between the fitting and the concrete.

Concrete blocking shall be installed as shown in the plans or by referring to the Ductile Iron Pipe Research Association (DIPRA) publication “Thrust Restraint Design for Ductile Iron Pipe, Sixth Edition, 2006” as basis for sizing the required bearing area of thrust block. The application of a safety factor of 2, a soil classification of Silt I, and a trench bedding type III shall be utilized.

All‐thread rods, nuts, washers, hex head bolts, pig tail eye bolts, couplings and plates required to temporarily restrain the new water main is considered incidental to the work. All hardware shall be made of the same alloy steel used to manufacture standard American Water Works Association (AWWA) tee head bolts.

1. **MEASUREMENT**

Measurement will be made per cubic yard of concrete blocking installed.

1. **PAYMENT**

*Concrete Blocking* will be paid in cubic yards, which has been incorporated into the completed and accepted work in accordance with the special provisions.

Payment is full compensation for furnishing and placing the concrete blocking material as specified or directed and includes but isn’t limited to proportioning, mixing, handling, hauling, placing, maintenance, and protection of the concrete blocking; providing admixtures, shoring, forming, and all other materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to complete the work in accordance with the Plans, the Specifications, and as directed by the Engineer.

Payment will be made under:

**CONCRETE BLOCKING …………………..…..…………………………………………………………………………………….CY**