4550102 STRUCTURES FOUNDATIONS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (5-1-19, Internal)
1. Suggest the following change:
455-8.9 Filling Pipe Piles: Ensure closed-end pipe piles are watertight. ~~The Engineer may reject closed-end pipe piles that exhibits water leakage or require pile extraction to repair integrity defects.~~

Response: Agree. Change made.

2. The design of the closed end pipe pile is up to the department. If I drive the pile and the bottom breaks out or is leaking that should be on the department and not the contractor. The contractor should not be responsible for watertight.

Response: Disagree. The integrity of steel pipe piles is contingent on the quality of the welds at both the plate at the bottom and at the splice locations. The quality and workmanship of the welding is a contractor's responsibility. We have observed pipe piles that failed because of poor quality welds at the bottom and/or splice locations. Properly welded pipe piles should be able to withstand the stresses when they don't exceed the maximum allowed stresses per 455-5.12.2.

No change made.

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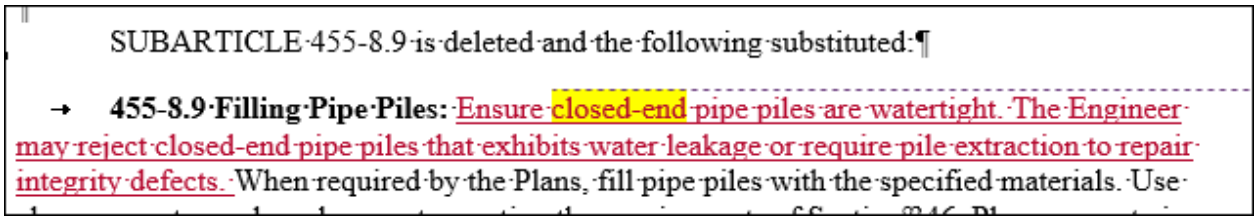
Comments: (5-6-19, Internal)
1.


SUBARTICLE 455-8.9 is deleted and the following substituted:

455-8.9 Filling Pipe Piles: Ensure closed-end pipe piles are watertight. The Engineer may reject closed-end pipe piles that exhibits water leakage or require pile extraction to repair integrity defects. When required by the Plans, fill pipe piles with the specified materials. Use

Response: Agree. Change made.

2. 455-15.1.2

→ → → 5. Details of slurry, including proposed methods to mix, circulate, de-sand, test methods, and proposed CTQP certified technician that will perform and document the fluid tests.¶

→ → → 6. Details of proposed methods to clean the shaft excavation.¶

Response: Existing text/language is correct as written.
No change made.

3. 455-17.16.1.3

→ → → → 9. A conclusion stating whether the tested shaft is free from integrity defects and meets the minimum concrete cover and diameter requirements by the specifications. When anomalies are detected, include in the report a three--dimensional rendering of the shape of the shaft.¶

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Response: Change will be made.
Change made.
4.

455-41 Grout Mix Proportions.¶

→ Use a ~~cement~~ grout mix consisting of a mixture of cementitious materials, admixtures, sand and water. ~~p~~Proportion~~ed~~ and mix~~ed~~ to produce a grout capable of maintaining the solids in suspension without appreciable bleed water which may be pumped without difficulty and will fill open voids in the adjacent soils and rock. The grout mix may ~~also~~ include a fluidifier ~~if desired~~. Add the fluidifier without ~~exceeding~~violating the speed of application, dosage, or any other limits contained in the manufacturer's technical data sheet. Proportion these materials to produce a hardened grout of the required strength.¶

Response: Language changed to "The grout mix may include a fluidifier used in accordance with the manufacturer's technical representative."

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Comments: (5-14-19)
Hold Cylinders for QC (2) are different than hold cylinders for VT (1), see section 455-43. 2 hold cylinders for both QC and VT is what should be required

Response: Agree. Language changed to "The Engineer will cast three verification cylinders and two "hold" cylinders from one of every four consecutive Lots, randomly selected."

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Comments: (5-22-19)
I suggest the following revision to the latest language proposed for: 455-5.11.4 Set-checks and Pile Redrive: 3. Uninstrumented Set-Checks and Uninstrumented Pile Redrive: The Engineer may use uninstrumented set-checks or uninstrumented pile redrives to determine whether a pile has sufficient bearing. Eliminating the clause "at his discretion" enhances clarity and eliminates the use of the male pronoun "his."

Response: Agree. Change made.

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