1. **DRILLED PIERS (5-16-17)**

Revise the *2012* *Standard Specifications* as follows:

**Page 4-9, Article 411-1, Description,** line 12,replace second sentence in the second paragraph with the following:

Define “permanent casing” as a casing that remains in the excavation and acts as a form for Drilled Pier concrete and “temporary casing” as any casing that is not permanent. Define “rock” as a continuous intact natural material with a standard penetration resistance of 0.1 ft or less per 60 blows or a rock auger penetration rate of less than 2" per 5 minutes of drilling at full crowd force or as determined by the Engineer when rock is not encountered as expected based on these criteria.

**Page 4-9, Article 411-2, Materials,** line 18,in materials table, replace “Grout, Nonshrink” with “Grout, Type 2”.

**Page 4-9, Subarticle 411-2(A), Steel Casing,** line 26, add the following after first sentence in the first paragraph:

If permanent casing is required for an excavation, the largest diameter casing in the hole is the permanent casing. This does not apply to working casings around permanent casings as approved by the Engineer.

**Page 4-10, Subarticle 411-2(B)(2), Polymer Slurry,** line 15 and **Page 4-11, Table 411-3,** replace with the following:

(2) Polymer Slurry

Use polymer slurry products qualified by the Department. Provide polymer slurry with density, viscosity, sand content and pH properties that meet the product requirements. The polymer slurry QPL with the property requirements for each qualified polymer slurry product is available from the Geotechnical Engineering Unit’s website.

**Page 4-12, Subarticle 411-3(B), Preconstruction Meeting,** line 22, replace with the following:

1. **Preconstruction Meeting**

Before starting drilled pier construction, hold a preconstruction meeting to discuss the installation, monitoring and inspection of the drilled piers. Schedule this meeting after the Drilled Pier Contractor mobilizes to the site. If this meeting occurs before all drilled pier submittals have been accepted, additional preconstruction meetings may be required before beginning construction of drilled piers without accepted submittals. The Resident or Bridge Maintenance Engineer, Bridge Construction Engineer, Geotechnical Operations Engineer, Contractor and Drilled Pier Contractor Superintendent will attend preconstruction meetings.

**Page 4-12, Article 411-4, Construction Methods,** lines 37-39, replace with the following:

For drilled piers constructed with slurry or permanent casings, the pier diameter may be 2" less than the design pier diameter shown in the plans. For all other drilled piers, construct piers with the minimum required diameters shown in the plans except for portions of drilled piers in rock which may be 2" less than the design pier diameter.

**Page 4-13, Subarticle 411-4(A), Excavation,** line 11, add the following after second sentence in the third paragraph:

See Articles 107-11 and 107-12 for protection of public and private property and control of siltation, dust and air and water pollution from blasting, drilling and excavating with down-the-hole hammers.

**Page 4-21, Article 411-7, Measurement and Payment**, line 7-8, add “except no payment will be made for *SPT Testing* to determine if temporary casing is necessary.”

**PE SEAL NAME**

**PE #**