STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2011/2012

Quality Assessment Category Number 9
Structure Foundations

PILES

1 Does the CEI staff ensure that pile driving requirements as outlined in Spec 455 and as established by the Geotechnical Engineer in reference to bearing penetration, pile and hammer cushion, blow count criteria, practical refusal, and equipment for driving has been complied with? Do the project records, the pile driving log and a field visit verify this? [Spec.455-5]

2. Does the CEI staff inspect prestressed piles for defects as soon as possible upon delivery to the project site? Are defects reported to the Project Administrator as soon as possible but, in any case, prior to use? Have the width, length, termination points, and precise location for any cracks or other defects been properly documented? Have the cause and need for correction of defects been addressed appropriately? Do project documentation and a field visit verify the aforementioned? [Good Practice]

3. When proprietary pile splices are used - is the CEI staff aware of and ensuring that threaded rebars penetrate into the splice plate at least the distance specified in the shop drawings as verified by measuring the distance from plate top to bar end. Is the splice listed on the QPL? Does project documentation and a field visit verify this [Good Practice] Verify Buy America provisions are met, if applicable. [Spec.6]

4. When driving with Open Diesel Hammers, does the CEI enforce that the contractor shall provide and maintain in working order an approved device (such as a saximeter) to automatically determine strokes, and if this malfunctions or cease working, the driving must cease?

ALL DRILLED SHAFTS INCLUDING SHAFTS UNDER MISCELLANEOUS STRUCTURES

4 Does the CEI staff ensure the methods and equipment for drilled shaft construction are consistent with the contract plans and the approved drilled shaft installation plan and ensure proper alignment, cleanliness of shaft, over reaming, and slurry mixtures have been maintained and documented as required by contract documents? Do project records including the drilled shaft logs and a field visit verify this? Try to visit during drilled shaft installation if possible. [Spec. 455-15]

5 Does the CEI staff ensure that Drilled shaft concrete operations are consistent with slump loss test results, limits, pump requirements, curing

requirements and duration of placement limits as outlined in Specs 346, 400 and 455? Does the CEI ensure that the concrete is over-poured until good concrete is evident. Do project records including the drilled shaft logs and a field visit verify this? [Spec. 455-17]

6. Does the CEI staff verify that the temporary casing in drilled shafts supporting miscellaneous structures provided at least one foot above the ground surface to at least five feet below the ground surface (455-15)

7. Does the CEI verify that the proper reinforcement cage is assembled according to the plans, indexes or specifications with the proper number and dimension of bars, with the proper number, type and size of spacers, and that the number, length, top and bottom of the CSL tubes are according to the specifications? [Spec. 455-16]

8. Does the CEI enforce that the shafts are over-reamed when the excavation time exceeds the limits indicated in the specifications? [Section 455-15.11.5]