

DISTRICT 2 CONSTRUCTION QC/QA PLAN

QUALITY ASSESSMENT GUIDE

EFFECTIVE DATE: April 17, 1998
Revised as of 12/21/10

STRUCTURE FOUNDATIONS - PILINGS/DRILLED SHAFTS

(SPECIFICATIONS)

Number 17

CRITERIA
USED

PILE PLACEMENT

1. For preforming of holes, comply with hole sizes and depths covered in the specification. The void between pile and hole must be filled with approved sand ~~or grout~~. Spec. 455-5.9
2. For concrete piles, the proper number of lifting points must be used as shown in the plans. Spec. 455-7.3.3
3. Jetting requirements include: no jetting in completed embankments; and driving with external jets requires 2 jets; specific jet nozzle placement; all piles in a group jetted prior to driving and pumps. Spec. 455-5.7 jetting
4. Pre-drilling of holes through compacted fill or as 4 foot maximum depth starter holes must comply with the specifications. Spec. 455-5.1.1

PILE DRIVING

5. ~~Hammer fuel or slide bar settings must comply with the Pile Driving Criteria (PDC).~~ Good Practice DELETED
6. Maintain proper alignment of leads and pile within tolerances. Spec. 455-5.4
7. ~~Fill out pile driving log keeping special driving procedures and precautions in mind. For open end Diesel hammers, provide and maintain in working order for the Engineer 's use an approved device to automatically determine and display ram stroke.~~ Spec. 455-5.2.2 DELETED
8. Detailed set check and redrive procedures are covered in the specifications related to blow count interval, pile cushion, and hammer warm up. Spec. 455-5.10.4
9. ~~Detailed bearing and penetration requirements are covered in the specifications.~~ Spec. 455-5.10 DELETED
10. Splices and buildups for concrete and steel piles must be performed properly. Spec. 455-7.1
Spec. 455-8.3

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11. ~~Final pile top elevations and alignment must be within tolerance, strands and reinforcement must be severed prior to breaking of piles that require cut off and pile must be visually checked for deficiencies after driving is complete.~~ Good Practice DELETED

DRILLED SHAFTS

12. Drilled Shaft Test Hole (demonstration): document activities and note problems in the Daily Report of Construction; test shafts must be removed to 2 ft below ground line. Spec. 455-18
13. Detailed shaft excavation procedures are required by the specifications including alignment, logging of excavated material, and overreaming. Spec. 455-15.10
14. ~~Slurry Desanding: contractor must perform proper slurry viscosity testing and sand content must be within acceptable limits.~~ Spec. 455-15.18 DELETED
15. ~~Shaft Inspection: When using a Shaft Inspection Device (SID), assist the Geotechnical Engineer as needed; when SID is not used, the shaft bottom must be probed with a solid bar, if possible, or with a weighted line to check for unevenness and firmness.~~ Spec. 455-15.11 DELETED
16. Detailed rebar placement procedures are covered in the specifications and include time of placement, bar extensions, clearance tolerances, and spacer requirements. Spec. 455-16.3
Spec. 415
17. Drilled shaft concrete placement must conform to all applicable specifications including 346, 400 and 455 including method of placement, pump line requirements, duration of placement and slump. Spec. 455-17
18. Curing of the top surface of the shaft shall be as specified in Section 400-16 and shafts exposed to a body of water shall be protected from the action of the water by leaving the forms or casings in place for a minimum of 7 days unless the concrete has attained a compressive strength of 2500 psi or greater as evidenced by cylinder breaks. Spec. 455-17.5
19. Are there signed and sealed slurry reports for each wet shaft constructed? Spec. 455-15.8.1

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| 20. | Were all shafts constructed in accordance with the Specifications?
If not, how were they accepted? | Spec. 455-13 thru
Spec. 455-24 |
| 21. | Is there a certification for the curing compound that was used? | Spec. 455-17.5 |