

## DRILLED SHAFT INSPECTOR'S CHECKLIST

The following is a general checklist to follow when constructing a drilled shaft. The answer to each of these questions should be "YES" or "NA" unless plans, specifications or specific approval has been given otherwise. CONSULT WITH RESPONSIBLE ENGINEER FOR YOUR SPECIFIC PROJECT RESPONSIBILITIES.

| <b>Contractor And Equipment Arrive on Site</b>   | YES | NO | NA |
|--|-----|----|----|
| 1. Has the Contractor submitted a Drilled Shaft Installation Plan (xxx.12, Submittals)?  |     |    |    |
| 2. Has the Drilled Shaft Installation Plan been approved?  |     |    |    |
| 3. Does the Contractor have an approved concrete mix design (xxx.60, Concrete Placement)?  |     |    |    |
| 4. Has the Contractor run the required Trial Mix and slump loss test for their concrete mix design (xxx.60, Concrete Placement)?   |     |    |    |
| 5. If concreting is estimated to take over two hours, has the Contractor performed a satisfactory slump loss test for the extended time period in accordance with xxx.60, Concrete Placement)? |     |    |    |
| 6. If the Contractor proposed a blended mineral-polymer or polymer slurry, do they have an approved Slurry Management Plan (xxx.38, Slurry)?   |     |    |    |
| 7. Is the Contractor prepared to take soil samples or rock cores on the bottom of the shaft in accordance with xxx.35.5, Exploration (Shaft Excavation)?                                       |     |    |    |
| 8. Has the Contractor met the requirements of xxx.30.1, Protection of Existing Structures?   |     |    |    |
| 9. Has the site preparation been completed for footing in accordance with xxx.30.3, Construction Sequence?   |     |    |    |
| 10. If a cofferdam is required, does the Contractor have a qualified diver and safety diver for inspections in accordance with xxx.35, Excavations?  |     |    |    |
| 11. Does the Contractor have all the equipment and tools shown in the Drilled Shaft Installation Plan?   |     |    |    |
| 12. If casing is to be used, is it the right size in accordance with xxx.36, Casings?  |     |    |    |
| 13. If the Contractor plans to use a manufactured slurry, do they have the proper equipment to mix it?   |     |    |    |
| 14. Is a desander required (xxx.38, Slurry)?   |     |    |    |
| 15. If a desander is required, does the Contractor have it on site and operational?  |     |    |    |
| 16. Does the Contractor's tremie meet the requirements of xxx.61, Tremies?   |     |    |    |
| 17. Do you have all the required drilled shaft forms that need to be filled out during shaft construction?   |     |    |    |
| 18. Do you understand all of the forms (if not contact the responsible Engineer for assistance)?   |     |    |    |
| <b>Trial Shaft</b>   |     |    |    |
| 19. Is the trial shaft positioned away from the production shafts or as specified in the contract documents (xxx.31 Trial Shaft Installation)?   |     |    |    |
| 20. Has the Contractor performed a successful test hole in accordance with xxx.13, Trial Shaft Installation?   |     |    |    |
| 21. Did the Contractor cut off the shaft 2 feet (0.6 m) below grade in accordance with with xxx.13, Trial Shaft Installation?  |     |    |    |
| 22. Has the Contractor revised the technique and equipment to (and the revision approved) to successfully construct a shaft?   |     |    |    |
| <b>Shaft Excavation &amp; Cleaning</b>   |     |    |    |
| 23. Is the shaft being constructed in the correct location and within tolerance (xxx.41, Construction Tolerances)?   |     |    |    |
| 24. Does the Contractor have a benchmark so the shaft can be constructed and inspected to the proper elevations?   |     |    |    |
| 25. If core holes are required, has the Contractor taken them in accordance with xxx.35.5, Exploration (Shaft Excavation)?   |     |    |    |
| 26. If a core hole was performed, was the Rock Core form completed and did the Contractor maintain a log, (xxx.35.5, Exploration (Shaft Excavation))?  |     |    |    |
| 27. If the Contractor is using slurry, can they perform tests and report results in accordance with xxx.38, Slurry?  |     |    |    |
| 28. Is the slurry level being properly maintained in accordance with xxx.38, Slurry?   |     |    |    |
| 29. Are the proper number and types of tests being performed on the slurry in accordance with xxx.38, Slurry?  |     |    |    |
| 30. Are you filling out the Soil and Rock Excavation forms?  |     |    |    |
| 31. If permanent casing is being used, does it meet xxx.36 & 36.2, Casing?   |     |    |    |
| 32. If temporary casing is being used, does it meet xxx.36.1, Temporary Casing?  |     |    |    |
| 33. If bellling is required, does it meet the requirements of xxx.35, Excavations?   |     |    |    |
| 34. Is the Contractor maintaining an excavation log in accordance with xxx.35, Excavations?  |     |    |    |
| 35. Is the shaft within allowable vertical alignment tolerances(xxx.41, Construction Tolerances)?  |     |    |    |
| 36. Is the shaft of proper depth?  |     |    |    |
| 37. Does the shaft excavation time meet the specified time limit (xxx.34 Excavation and Drilling Equipment)?   |     |    |    |
| 38. If the shaft required over-reaming, was it performed in accordance with xxx.34 Excavation and Drilling Equipment?  |     |    |    |
| 39. Does the shaft bottom meet the requirements of xxx.40 Excavation Inspection?   |     |    |    |
| 40. Did you complete the Shaft Inspection form?  |     |    |    |

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| <b>Reinforcing Cage</b>  | YES | NO | NA |
|--|-----|----|----|
| 41. Is the rebar the correct sizes and configured in accordance with the project plans?  |     |    |    |
| 42. Is the rebar properly tied in accordance with xxx.50, Reinforcing Steel Cage Construction and Placement?   |     |    |    |
| 43. Does the Contractor have the proper spacers for the steel cage in accordance with xxx.50, Reinforcing Steel Cage Construction and Placement?   |     |    |    |
| 44. Does the Contractor have the proper amount of spacers for the steel cage in accordance with xxx.50, Reinforcing Steel Cage Construction and Placement?   |     |    |    |
| 45. If the steel cage was spliced, was it done in accordance with contract documents?  |     |    |    |
| 46. Is the steel cage secured from settling and from floating (during concrete placement steel cages sometimes rise with the placement of the concrete) (xxx.50, Reinforcing Steel Cage Construction and Placement)? |     |    |    |
| 47. Is the top of the steel cage at the proper elevation in accordance with xxx.41, Construction Tolerances?   |     |    |    |
| <b>Concreting Operations</b>   |     |    |    |
| 48. prior to concrete placement, has the slurry (both manufactured and natural) been tested in accordance with xxx.38, Slurry?   |     |    |    |
| 49. If required, was the casing removed in accordance with xxx.36.1, Temporary Casing?   |     |    |    |
| 50. Was the discharge end of the tremie maintained in the concrete mass with proper concrete head above it (xxx.61, Tremies)?  |     |    |    |
| 51. If free-fall placement (dry shaft construction only), was concrete placed in accordance with xxx.60, Concrete Placement?   |     |    |    |
| 52. Did concrete placement occur within the specified time limit (xxx.60, Concrete Placement)?   |     |    |    |
| 53. Are you filling out the Concrete Placement and Volume forms?   |     |    |    |
| 54. When placing concrete, did the Contractor overflow the shaft until good concrete flowed (xxx.60, Concrete Placement)?  |     |    |    |
| 55. Were concrete acceptance tests performed as required?  |     |    |    |
| <b>Post Installation</b>   |     |    |    |
| 56. If shaft is constructed in open water, is the shaft protected for seven days or until the concrete reaches a minimum compressive strength of 2500 psi (17 Mpa) in accordance with xxx.36, Casings?               |     |    |    |
| 57. Is all casing removed to the proper elevation in accordance with xxx.36.2, Permanent Casing?   |     |    |    |
| 58. If required, has the Contractor complied with xxx.64, Nondestructive Evaluation?   |     |    |    |
| 59. Is the shaft within the applicable construction tolerances (xxx.41, Construction Tolerances)?  |     |    |    |
| 60. Has the Drilled Shaft Log been completed?  |     |    |    |
| 61. Have you documented the pay items?   |     |    |    |
| Notes/Comments   |     |    |    |