

SECTION 16405

FOUNDATION TEST LOAD

PART 1 DESCRIPTION

- A. Test-load piling or drilled shafts.

PART 2 MATERIALS

- A. Provide piling or drilled shafts for test loading as shown on the plans.

PART 3 EQUIPMENT

- A. Unless otherwise shown on the plans, the Owner's Representative will furnish the jacking equipment, jacking beams, and displacement indicators. Furnish all necessary tools and equipment not furnished by the Owner's Representative.

PART 4 CONSTRUCTION

- A. Furnish and drive the piling or construct the shaft to be test-loaded, and furnish necessary anchors. Drive anchor and test piling in accordance with Section 16416 "Driving Piling." Construct anchor and test shafts in accordance with Section 16416, "Drilled Shaft Foundations." To develop a satisfactory procedure for drilling the test shaft, construct anchor shafts first. Use the same procedure for drilling the test shaft as for the shafts required in the structure.
- B. Keep a complete record of pile-driving data and shaft-drilling data for all foundations used in the test load. Apply the test load no earlier than the seventh day after driving the test piling or after placing concrete in the test shaft. Do not load the test shaft until the concrete design strength has been attained.
- C. Construct a shelter to protect the test load equipment from weather and direct sunlight, and furnish incidentals necessary for the handling, transportation, and installation of the complete test load setup.
- D. Apply incremental static loads to the pile or shaft and measure the resulting settlement. Apply loads by a hydraulic jack acting against suitable anchorage, transmitting the load directly to the pile or shaft. Carry all test loads to failure of the test pile or test shaft as directed.
- E. Load and record data as discussed in Section 16000 "Test Loading Piling," Construction Bulletin C 8, *Pile Driving Manual*; or "Test Loading Drilled Shafts," Construction Bulletin C 9, *Drilled Shaft Manual*. Provide the data to the Owner's Representative for evaluation.
- F. After completing the test, dismantle the test setup.

- G. Upon completion of the test load, remove piling or shafts that are not part of the structure, or cut off at least 1 ft. below the bottom of the footing or the finished grade. If permanent piling is raised during the test load, re-drive it to its original grade and bearing.

PART 5 MEASUREMENT

- A. Measurement will be made for each complete test load satisfactorily performed and accepted.

PART 6 PAYMENT

- A. The work performed and materials furnished in accordance with this Section and measured as provided under "Measurement" will be paid for at the unit price bid for each "Foundation Test Load." This price is full compensation for material, equipment, labor, work, tools, and incidentals.
- B. Anchor and test piling or anchor and test shafts that are not part of the permanent structure will not be paid for directly, but will be subsidiary to this Section. Anchor and test piling or anchor and test shafts that are part of the permanent structure will be paid for under the pertinent Sections.

END OF SECTION