

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SUPPLEMENTAL SPECIFICATION

Section 520 - Piling

Delete Subsection 520.3.05.D.2 and substitute the following:

2. Perform Loading Test

Unless otherwise specified on the Plans, use a test method that conforms to ASTM D 1143, modified for quick load tests.

Use loading apparatus capable of the lesser value of the following:

- For concrete piles, 400 percent of the design load or 500 tons (4450 kilonewtons)
- For steel piles, 400 percent of the design load or 90 percent of the yield strength

The Engineer may increase or decrease the number of loading tests.

Furnish and read the instrumentation necessary to determine the pile settlement under load.

A loaded pile is unsatisfactory when the total settlement under 200 percent of the design load exceeds 1 in (25 mm) or the permanent settlement exceeds 1/4 in (6 mm) using the standard loading procedure in ASTM D 1143 Section 5.

The laboratory will determine the maximum safe design load or the failure load of original loading materials based on the results of the loading test.

The Engineer may require the following piles to be driven further:

- Unsatisfactory piles as defined in the paragraphs above
- Piles without enough maximum safety design or failure loads as determined by the Office of Materials and Research

Perform the loading test as follows:

- a. Test load piling as required on the Plans, or as directed by the Engineer.
- b. Furnish and drive the piling to be test loaded.
- c. Furnish and drive necessary anchor piling.
When the Engineer permits, use piling that will remain in the completed structure after load testing as anchor piles when desired.
- d. Apply the test loads in equal increments of 10 to 15 percent of the design load.
- e. Apply the loads at constant 2-1/2-minute time intervals throughout the test.
- f. After the test is complete, remove the temporary materials. These temporary materials remain the Contractor's property.
- g. Remove or cut off the piling that will not remain in the completed structure.
Cut off the piling at least 1 ft (300 mm) below the bottom of the footing or the ground line, whichever applies.
- h. In deep water, have the Engineer direct how much pile to remove.