

# Pile loading testing

## Minimum requirements

Must be qualified under MnDOT Pre-Qualification Program Work Type 6.5 Pile Loading Testing.

## Description

Pile load testing includes designing and conducting a procedure for determining in-place pile capacity using static load testing and high strain dynamic load testing using the Pile Driving Analyzer and Case Pile Wave Analysis Program (CAPWAP). Testing includes the deployment of equipment/personnel and the collection of data through field or laboratory investigations. Analysis includes recommendations and conclusions drawn from the data acquired in relation to the specific needs of the project. This work type will also include conducting Standard Penetration Test (SPT) energy measurements using dynamic methods. Individuals will be approved for Level 1, Level 2, Level 3 or any combination of the three as defined below.

### **Level 1 – Advanced High Strain Dynamic Testing**

Level 1 individuals will be required to obtain, analyze and report on high strain dynamic testing of driven piles. Individuals will have a Certificate of Proficiency with a rating of "Advanced" or higher from one of the following organizations:

- Pile Dynamics Inc./Pile Driving Contractors Association
- Foundation QC/HSDPT Register

### **Level 2 – Expert High Strain Dynamic Testing**

Level 2 individuals will be required to obtain, analyze and report on high strain dynamic testing of driven piles and design, analyze and report on Static Load Testing of driven piles. Individuals will have a Certificate of Proficiency with a rating of "Expert" from one of the following organizations:

- Pile Dynamics Inc./Pile Driving Contractors Association
- Foundation QC/HSDPT Register

## Level 3 – Static Load Testing

Level 3 individuals will be required to oversee static load testing. This will include the following tasks:

- Designing load test instrumentation
- Providing recommendations for load test procedures
- Providing and Installing instrumentation
- Monitoring instrumentation during load test
- Analyzing load test results
- Providing final report for load test

## Standards and specifications

All tasks will be performed in accordance with current ASTM, AASHTO, and MnDOT specifications.

## Provided by Hennepin County

Information to be supplied by Hennepin County for a project may include the following:

- American Society for Testing and Materials (ASTM), American Association of State Highway & Transportation Officials (AASHTO), and MnDOT standard specifications.

## Typical services

Project deliverables may include the following:

- Final testing report including results of the test conducted.
  - A copy of field data logs, both physical and electronic, along with samples when required.
  - A copy of final data logs, both physical and electronic, showing the results of field and laboratory tests.
  - Weekly progress reports.
  - Final report summarizing the results of the testing along with recommendations and conclusions.