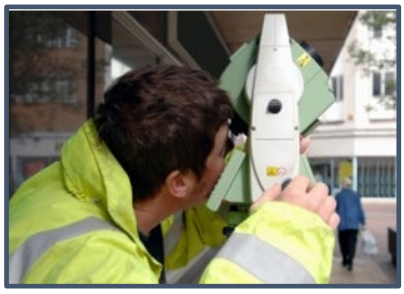
TRAINING USA, INC.
WE TRAIN AMERICA

ELEVATION & GRADE INSTRUMENT USE

This course is designed for DOT, municipal public works, parks, streets/roads, water, wastewater, distribution/collection and/or storm water utility workers or any other government entity employees who may be called on to operate this instrumentation. In some states, course qualifies for CEU or PDH hours.

Classroom Training:



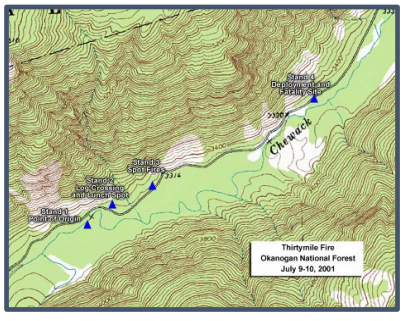
Understanding the basic goals of surveying work
A review of the history and types of surveying, with a review of basic surveying principles and terms. Includes a discussion of the difference between geodetic/plane surveys and the various types of plane surveys.

The different types of equipment used in measuring elevation and grade
A discussion with videos of how to use the various pieces of equipment typically used in surveying (theodolite, total station, automatic level and other miscellaneous equipment). Participants will also be instructed on the use of Global Positional Satellite (GPS) technology in surveying and how to properly set up and use elevation and grade instruments.

The process for determining elevation and grade
This portion of the course reviews geodetic surveys and plane surveys, with an emphasis on plane surveys and their types:

- Control
- Topographic
- Property
- Site
- Construction

This portion of the course also includes instruction on the basic math conversion needed to determine grade, slope, and elevation.



Basic construction and land surveying principles
Participants will learn basic topography and construction surveying and survey staking. This portion also includes a review of how to read construction plans, including the key elements of plans, and a review of the proper use of grade stakes, benchmarks and slope stakes. The course will also review information on how to read the rod, stadia readings, differential leveling and reading a level road.

Field Training Available Upon Request