

**Deep Foundation Systems**

This course is designed to educate builders on Deep Foundation Systems, which are used to build structures on less than optimal soil conditions. We will cover a wide range of topics including types of Deep Foundation Systems and how they perform in different soil types.

Section 1

 Defining Deep Foundation Systems.

Section 2

 Terms & Definitions.

* Tension Load
* Lateral Load
* Live Loads
* Dead Loads
* Safety Factor
* Unfactored
* Factored

Section 3

 Reasons for Deep Foundation Systems.

Section 4

 Scenarios for using Deep Foundation Systems.

* Soil type always matters
* Heavy Structure
* Light Structure

Section 5

 How do Deep Foundation Systems generate Capacity.

* End Bearing
* Skin Friction

Section 6

 Units of Measure.

* Kips
* Tons

Section 7

 Safety Factor Explained.

* Are my plans showing factored or unfactored loads?
* How to calculate safety factor?

Section 8

 Types of Deep Foundation Systems.

* Helical Piles
* Micropiles
* Push Piers
* Driven Piles
* Aggregate Piers
* Caissons
* Mat Slabs
* Stelcor Piles
* Soil Nails
* Deadman Anchors

Section 9

 Testing.

* How Deep Foundation Systems are tested

Section 10

 Questions.