



PIN FOUNDATIONS INC.



Calculation Software for Pin Foundation System

PROJECT INFORMATION:

Lots 6/7

Project Name: Clearwater Commons
 Product: DP-200E, XL Diamond Pier or Sockett Tube
 Location: Snohomish County, WA
 Engineer: Soils - CEO/ Foundations - PFI/TAN
 Date: 5/9/16

SOIL INFORMATION:

Soil 1

Description: Loose to Medium Dense Silty Gravelly Sands
 Phi (degree): 32.00
 Unit Weight (pcf): 115.00
 Cohesion (psf): 0.00
 Ground Water Table: At Grade
 Neglected Depth (ft): 0.50

PILE INFORMATION:

Pile Type: Diamond Pier (4 pins)
 Pin Length (ft): **4.20**
 Angle (degree): 40.00
 Pin Diameter (in): 2.375
 Wall Thickness (in): 0.150
 Pin Type and Grade: Pipe, 36ksi
 Effective Depth (ft), D: 2.24
 Effective Length (ft), B: 4.60
 Effective Pile Width (ft): 0.49

Program automatically corrects Dry Unit Weight for Buoyant Weight when Ground Water Table "At Grade" is indicated.

Program corrects total Pin length indicated for actual active length.

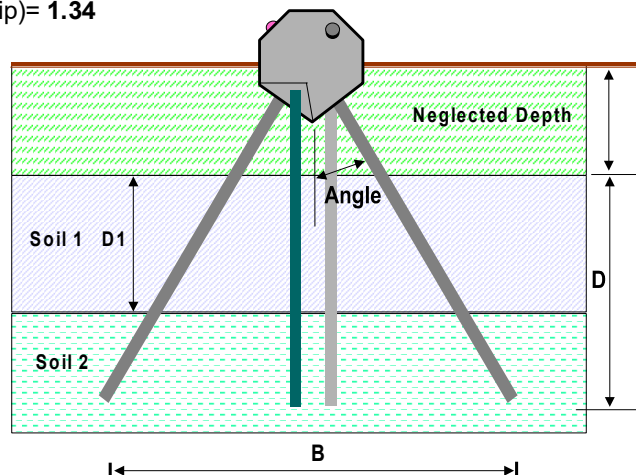
PILE CAPACITY:

Compression: C_ultim (kip)= 16.05
 F.S.=2: C_allow (kip)= **8.03**
 Uplift: U_ultim (kip)= 1.92
 F.S.=1.5: U_allow (kip)= **1.28**
 Lateral:
 Parallel to Pins: L1_allow (kip)= **1.34**
 Perpendicular to Pins: L2_allow (kip)= **1.34**

All capacities are calculated separately.

CALCULATION DATA:

Bearing Capacity Factors:
 Nc=44.00
 Nq=28.50
 Nr=28.00
 Pressure at Base (psf)=117.75
 Arching Factor=2.5
 Allowable Deflection (in)=1
 Allowable Bending Stength (ksi)=24



* Soil 2 - Not Used