



PIN FOUNDATIONS INC.



Calculation Software for Pin Foundation System

PROJECT INFORMATION:

Project Name: Wellesley Office Park
 Product: DP-100E
 Location: Wellesley MA
 Engineer:
 Date: 8/2/2016

Preliminary

Values derived from soil boring report B3 from Brierley Associates dated 07/07/16

SOIL INFORMATION:

Soil 1
 Description: Loose Sand (SP)
 Phi (degree): 30.00
 Unit Weight (pcf): 115.00
 Cohesion (psf): 0.00
 Ground Water Table: At Grade
 Neglected Depth (ft): 2.00

PILE INFORMATION:

Pile Type: Diamond Pier (4 pins)
 Pin Length (ft): **7.00**
 Angle (degree): 40.00
 Pin Diameter (in): 1.900
 Wall Thickness (in): 0.179
 Pin Type and Grade: Pipe, 36ksi
 Effective Depth (ft), D: 2.88
 Effective Length (ft), B: 8.20
 Effective Pile Width (ft): 0.32

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.

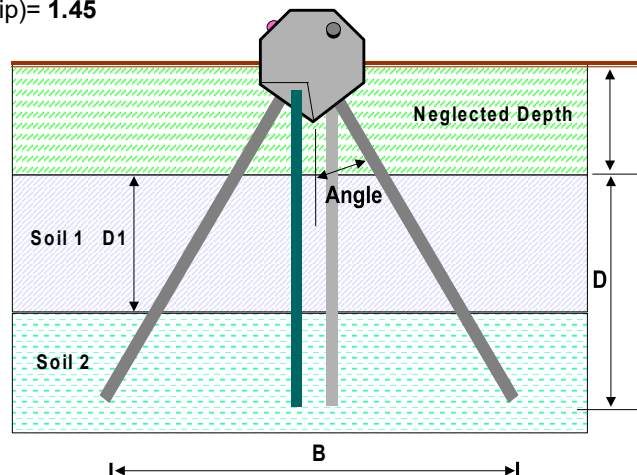
PILE CAPACITY:

Compression: C_ultim (kip)= 17.62
 F.S.=2: C_allow (kip)= **8.81**
 Uplift: U_ultim (kip)= 2.04
 F.S.=1.5: U_allow (kip)= **1.36**
 Lateral:
 Parallel to Pins: L1_allow (kip)= **1.45**
 Perpendicular to Pins: L2_allow (kip)= **1.45**

All capacities are calculated separately.

CALCULATION DATA:

Bearing Capacity Factors:
 Nc=37.20
 Nq=22.50
 Nr=20.10
 Pressure at Base (psf)=151.67
 Arching Factor=2
 Allowable Deflection (in)=1
 Allowable Bending Strength (ksi)=24



* Soil 2 - Not Used