



PIN FOUNDATIONS INC.



Calculation Software for Pin Foundation System

PROJECT INFORMATION:

Project Name: Brookside Gardens Boardwalk
 Product: DP-100E
 Location: Silver Spring MD
 Engineer: Soils - KIM / Foundations - PFI
 Date: 10/1/2013

Boring SB-3

SOIL INFORMATION:

Soil 1
 Description: Loose Silt
 Phi (degree): 24.00
 Unit Weight (pcf): 110.00
 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): **7.00**
 Angle (degree): 40.00
 Pin Diameter (in): 1.900
 Wall Thickness (in): 0.145
 Pin Type and Grade: Pipe, 36ksi
 Effective Depth (ft), D: 4.38
 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.

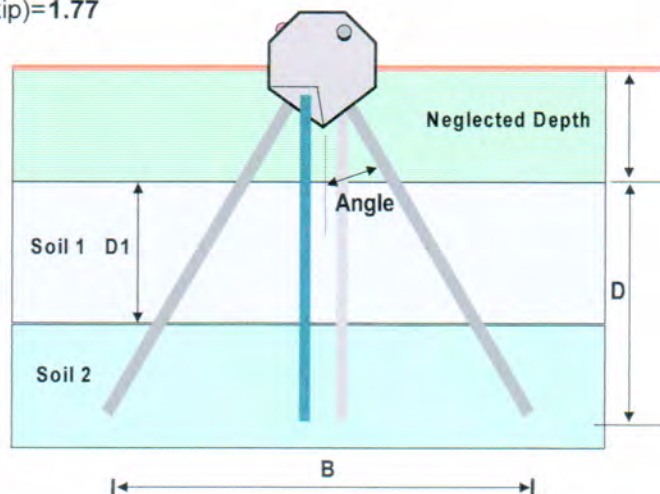
PILE CAPACITY:

Compression:
 F.S.=2: C_ultim (kip)= 11.51
 C_allow (kip)= **5.76**
 Uplift:
 F.S.=1.5: U_ultim (kip)= 4.26
 U_allow (kip)= **2.84**
 Lateral:
 Parallel to Pins: L1_allow (kip)=1.77
 Perpendicular to Pins: L2_allow (kip)=1.77

All capacities are calculated separately.

CALCULATION DATA:

Bearing Capacity Factors:
 Nc=23.40
 Nq=11.40
 Nr=7.90
 Pressure at Base (psf)=208.66
 Arching Factor=2
 Allowable Deflection (in)=1
 Allowable Bending Strength (ksi)=24



* Soil 2 - Not Used