



PIN FOUNDATIONS INC.



Calculation Software for Pin Foundation System

PROJECT INFORMATION:

Overlook Inner Ring

Project Name: McClane Creek Viewing Platform
 Product: DP-75, Medium Diamond Pier
 Location: Olympia, WA - Capitol Forest NR
 Engineer: Soils - Icicle Creek / Foundations - PFI
 Date: revised 8/24/09

SOIL INFORMATION:

Soil 1

Description: Soft/Loose Silty Sand / Sandy Silt
 Phi (degree): 25.00
 Unit Weight (pcf): 105.00
 Cohesion (psf): 50.00
 Ground Water Table: At Grade
 Neglected Depth (ft): 1.50

PILE INFORMATION:

Pile Type: Diamond Pier (4 pins)
 Pin Length (ft): 5.25
 Angle (degree): 40.00
 Pin Diameter (in): 1.670
 Wall Thickness (in): 0.145
 Pin Type and Grade: Pipe, 36ksi
 Effective Depth (ft), D: 2.04
 Effective Length (ft), B: 5.95
 Effective Pile Width (ft): 0.28

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.

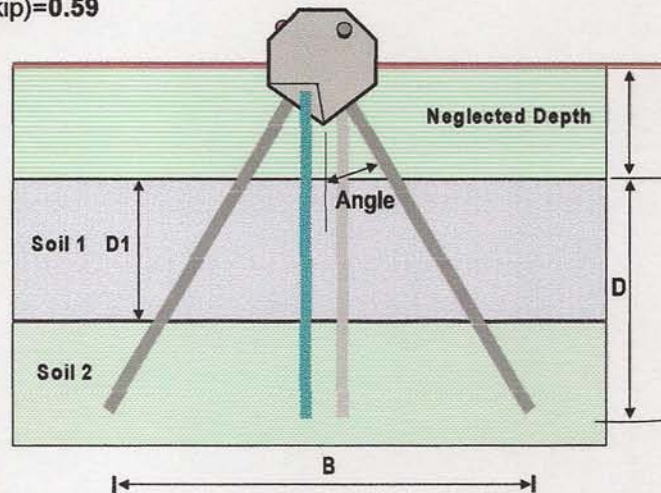
PILE CAPACITY:

Compression:
 F.S.=2: C_ultim (kip)= 7.73
 C_allow (kip)=3.86
 Uplift:
 F.S.=1.5: U_ultim (kip)= 0.73
 U_allow (kip)=0.49
 Lateral:
 Parallel to Pins: L1_allow (kip)=0.59
 Perpendicular to Pins: L2_allow (kip)=0.59

All capacities are calculated separately.

CALCULATION DATA:

Bearing Capacity Factors:
 Nc=25.10
 Nq=12.70
 Nr=9.20
 Pressure at Base (psf)=87.03
 Arching Factor=2
 Allowable Deflection (in)=1
 Allowable Bending Strength (ksi)=24



* Soil 2 - Not Used



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PROJECT INFORMATION:

Project Name: Locust Amphitheater Walkways and Decks
 Product: DP-75, Medium Diamond Pier
 Location: Lexington, KY
 Engineer:
 Date: 4/23/2010

SOIL INFORMATION:

Soil 1
 Description: Medium Stiff Clays
 Phi (degree): 0.00
 Unit Weight (pcf): 100.00
 Cohesion (psf): 750.00
 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): 1.670
 Wall Thickness (in): 0.140
 Pin Type and Grade: Pipe, 36ksi
 Effective Depth (ft), D: 2.24
 Effective Length (ft), B: 4.60
 Effective Pile Width (ft): 0.28

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.

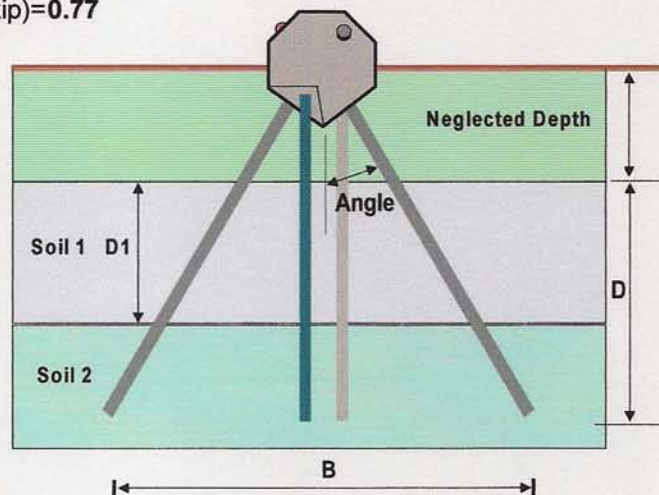
PILE CAPACITY:

Compression:
 F.S.=2: C_ultim (kip)= 11.14
 C_allow (kip)= **5.57**
 Uplift:
 F.S.=1.5: U_ultim (kip)= 0.77
 U_allow (kip)= **0.51**
 Lateral:
 Parallel to Pins: L1_allow (kip)=**0.77**
 Perpendicular to Pins: L2_allow (kip)=**0.77**

All capacities are calculated separately.

CALCULATION DATA:

Bearing Capacity Factors:
 Nc=5.70
 Nq=1.00
 Nr=0.00
 Pressure at Base (psf)=84.17
 Arching Factor=2
 Allowable Deflection (in)=1
 Allowable Bending Strength (ksi)=24



* Soil 2 - Not Used