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DRIVEN 1.2

GENERAL PROJECT INFORMATION

Filename:

Project Name: Driven Pile Example

Project Date: 05/23/2024

Project Client: vulcanhammer.info

Computed By: dcw

Project Manager: Warrington

PILE INFORMATION

Pile Type: Pipe Pile - Open End

Top of Pile: 0.00 ft

Diameter of Pile: 18.00 in

Shell Thickness: 0.50 in

ULTIMATE CONSIDERATIONS

Water Table Depth At Time Of:	- Drilling:	15.00 ft
	- Driving/Restrike	15.00 ft
	- Ultimate:	15.00 ft
Ultimate Considerations:	- Local Scour:	0.00 ft
	- Long Term Scour:	0.00 ft
	- Soft Soil:	0.00 ft

ULTIMATE PROFILE

Layer	Type	Thickness	Driving Loss	Unit Weight	Strength	Ultimate Curve
1	Cohesive	15.00 ft	50.00%	120.00 pcf	2000.00 psf	T-79 Steel
2	Cohesionless	15.00 ft	0.00%	100.00 pcf	36.0/36.0	Nordlund

RESTRIKE - SKIN FRICTION

Depth	Soil Type	Effective Stress At Midpoint	Sliding Friction Angle	Adhesion	Skin Friction
0.01 ft	Cohesive	N/A	N/A	1165.00 psf	0.05 Kips
9.01 ft	Cohesive	N/A	N/A	1165.00 psf	49.46 Kips
14.99 ft	Cohesive	N/A	N/A	1165.00 psf	82.29 Kips
15.01 ft	Cohesionless	1800.19 psf	29.51	N/A	82.41 Kips
24.01 ft	Cohesionless	1969.39 psf	29.51	N/A	137.90 Kips
29.99 ft	Cohesionless	2081.81 psf	29.51	N/A	180.04 Kips

RESTRIKE - END BEARING

Depth	Soil Type	Effective Stress At Tip	Bearing Cap. Factor	Limiting End Bearing	End Bearing
0.01 ft	Cohesive	N/A	N/A	N/A	31.81 Kips
9.01 ft	Cohesive	N/A	N/A	N/A	31.81 Kips
14.99 ft	Cohesive	N/A	N/A	N/A	31.81 Kips
15.01 ft	Cohesionless	1800.38 psf	77.60	267.90 Kips	171.17 Kips
24.01 ft	Cohesionless	2138.78 psf	77.60	267.90 Kips	203.35 Kips
29.99 ft	Cohesionless	2363.62 psf	77.60	267.90 Kips	224.73 Kips

RESTRIKE - SUMMARY OF CAPACITIES

Depth	Skin Friction	End Bearing	Total Capacity
0.01 ft	0.05 Kips	31.81 Kips	31.86 Kips
9.01 ft	49.46 Kips	31.81 Kips	81.27 Kips
14.99 ft	82.29 Kips	31.81 Kips	114.10 Kips
15.01 ft	82.41 Kips	171.17 Kips	253.58 Kips
24.01 ft	137.90 Kips	203.35 Kips	341.25 Kips
29.99 ft	180.04 Kips	224.73 Kips	404.77 Kips

DRIVING - SKIN FRICTION

Depth	Soil Type	Effective Stress At Midpoint	Sliding Friction Angle	Adhesion	Skin Friction
0.01 ft	Cohesive	N/A	N/A	1515.00 psf	0.04 Kips
9.01 ft	Cohesive	N/A	N/A	1515.00 psf	32.16 Kips
14.99 ft	Cohesive	N/A	N/A	1515.00 psf	53.51 Kips
15.01 ft	Cohesionless	1800.19 psf	29.51	N/A	53.64 Kips
24.01 ft	Cohesionless	1969.39 psf	29.51	N/A	109.13 Kips
29.99 ft	Cohesionless	2081.81 psf	29.51	N/A	151.28 Kips

DRIVING - END BEARING

Depth	Soil Type	Effective Stress At Tip	Bearing Cap. Factor	Limiting End Bearing	End Bearing
0.01 ft	Cohesive	N/A	N/A	N/A	0.00 Kips
9.01 ft	Cohesive	N/A	N/A	N/A	0.00 Kips
14.99 ft	Cohesive	N/A	N/A	N/A	0.00 Kips
15.01 ft	Cohesionless	1800.38 psf	77.60	267.90 Kips	0.00 Kips
24.01 ft	Cohesionless	2138.78 psf	77.60	267.90 Kips	0.00 Kips
29.99 ft	Cohesionless	2363.62 psf	77.60	267.90 Kips	0.00 Kips

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Depth	Skin Friction	End Bearing	Total Capacity
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9.01 ft	32.16 Kips	0.00 Kips	32.16 Kips
14.99 ft	53.51 Kips	0.00 Kips	53.51 Kips
15.01 ft	53.64 Kips	0.00 Kips	53.64 Kips
24.01 ft	109.13 Kips	0.00 Kips	109.13 Kips
29.99 ft	151.28 Kips	0.00 Kips	151.28 Kips

ULTIMATE - SKIN FRICTION

Depth	Soil Type	Effective Stress At Midpoint	Sliding Friction Angle	Adhesion	Skin Friction
0.01 ft	Cohesive	N/A	N/A	1165.00 psf	0.05 Kips
9.01 ft	Cohesive	N/A	N/A	1165.00 psf	49.46 Kips
14.99 ft	Cohesive	N/A	N/A	1165.00 psf	82.29 Kips
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Depth	Soil Type	Effective Stress At Tip	Bearing Cap. Factor	Limiting End Bearing	End Bearing
0.01 ft	Cohesive	N/A	N/A	N/A	31.81 Kips
9.01 ft	Cohesive	N/A	N/A	N/A	31.81 Kips
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