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LATERAL RESISTANCE OF PILES NEAR VERTICAL MSE ABUTMENT WALLS

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16. Abstract <p>Full scale lateral load tests were performed on eight piles located at various distances behind MSE walls. The objective of the testing was to determine the effect of spacing from the wall on the lateral resistance of the piles and on the force induced in the Mechanically Stabilized Earth (MSE) reinforcement by the pile load. Lateral load-displacement curves were obtained for the test piles at various spacings and with various reinforcement ratios (reinforcement length, L divided by wall height, H). Reinforcements involved both welded wire grids and ribbed straps. The force in the reinforcements was measured using strain gauges. As the pile spacing behind the MSE wall decreased, the lateral pile resistance decreased substantially. However, by increasing the reinforcement length the reduction in lateral resistance was arrested to some degree. Lateral load analyses were performed to determine the minimum spacing required to eliminate any effect of the wall on the pile resistance and the reduction in soil resistance as a function of normalized distance and reinforcement length. Little pile-wall interaction was observed for piles located more than 4 to 6 pile diameters behind the wall depending on the reinforcement. The induced force in the reinforcements increased as lateral load increased and decreased rapidly with transverse distance relative to the direction of loading. Separate upper bound design curves were developed for the welded wire grids and the ribbed strips which can be used to compute the increased force in the reinforcement produced by the laterally loaded pile. The testing to date has allowed us to develop a framework for understanding the complex interaction between the wall panels, the reinforcements, and the soil resistance against a pile based on the spacing of an abutment pile behind an MSE wall. Tentative design curves have been developed based on the limited available testing to date. However, additional testing is necessary to define behavior for lower L/H ratios typical of static conditions and to refine relationships for determining p-multipliers and induced reinforcement forces. This testing is expected to be performed as part of an upcoming pooled-fund study.</p>					
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EXECUTIVE SUMMARY

Full scale lateral load tests were performed on eight piles located at various distances behind MSE walls. The objective of the testing was to determine the effect of spacing from the wall on the lateral resistance of the piles and on the force induced in the Mechanically Stabilized Earth (MSE) reinforcement by the pile load. Lateral load-displacement curves were obtained for the test piles at various spacings and with various reinforcement ratios (reinforcement length, L divided by wall height, H). Reinforcements involved both welded wire grids and ribbed straps. The force in the reinforcements was measured using strain gauges. As the pile spacing behind the MSE wall decreased, the lateral pile resistance decreased substantially. However, by increasing the reinforcement length the reduction in lateral resistance was arrested to some degree.

Lateral load analyses were performed to determine the minimum spacing required to eliminate any effect of the wall on the pile resistance and the reduction in soil resistance as a function of normalized distance and reinforcement length. Little pile-wall interaction was observed for piles located more than 4 to 6 pile diameters behind the wall depending on the reinforcement. The induced force in the reinforcements increased as lateral load increased and decreased rapidly with transverse distance relative to the point of loading. Separate upper bound design curves were developed for the welded wire grids and the ribbed strips which can be used to compute the increased force in the reinforcement produced by the laterally loaded pile.

The testing to date has allowed us to develop a framework for understanding the complex interaction between the wall panels, the reinforcements, and the soil resistance against a pile based on the spacing of an abutment pile behind an MSE wall. Tentative design curves have been developed based on the limited available testing to date. However, additional testing is necessary to define behavior for lower L/H ratios typical of static conditions and to refine relationships for determining p -multipliers and induced reinforcement forces. This testing is expected to be performed as part of an upcoming pooled-fund study.

1. INTRODUCTION

Pile foundations for bridges with integral abutments must resist lateral loads produced by earthquakes and thermal expansion or contraction. Increasingly, right-of-way constraints are also leading to vertical mechanically stabilized earth (MSE) walls at abutment faces. Currently, there is relatively little guidance for engineers in assessing the lateral resistance of piles located close to these MSE walls. As a result, some designers assume that the soil provides no resistance whatsoever which leads to larger pile diameters and increased foundation cost. Other designers locate the abutment piles six to eight pile diameters behind a wall face to minimize the interaction and use conventional design approaches. However, this approach increases the bridge span and the cost of the bridge structure. Still other designers position the pile close to the wall face and reduce the lateral pile resistance using engineering judgment. However, the appropriate reduction factor to use as a function of pile spacing is not well defined. The Utah Department of Transportation (UDOT) specifies a minimum spacing of three feet from the back face of the MSE wall to the front face of the abutment piles (UDOT Standard Drawing DD8).

Pierson et al. (2009) conducted a series of full-scale lateral load tests on 36 in. diameter drilled shafts located at four distances behind a 20 ft. high block masonry wall reinforced with extensible geogrids. These tests showed that the lateral resistance of the shaft spaced two pile diameters behind the wall was less than 50% of the resistance provided by the shaft located four pile diameters behind the wall. Although these shafts only extended to the base of the wall and acted like short piles, these results clearly indicate that the presence of an MSE wall face can lead to significant reductions in the lateral pile resistance. Unfortunately, generally applicable design methods are not presently available to allow engineers to account for the effects observed in these tests. Due to the fact that the lateral resistance provided by the MSE wall would be a function of the reinforcement used, one might expect that the lateral pile resistance would be connected to the factor of safety against pull-out for the reinforcement. It is conceivable that piles near a wall with a high factor of safety against pull-out would experience less reduction in lateral resistance than a pile near a wall with minimum pull-out resistance.

To improve our understanding of pile-MSE wall interaction, lateral load tests were performed on eight piles located behind MSE walls. Two piles were located at the site of a new overpass structure for U.S. Highway 89 above a railroad line in Pleasant Grove, Utah. Three other piles were located at the site of a new overpass structure for Pioneer Crossing above a railroad in Lehi, Utah. The last three were located at the West side of the I-15 overpass structure for Provo Center Street. Pleasant Grove and Lehi are approximately 30 miles south of Salt Lake City as shown in Figure 1.1 with Provo approximately 15 miles to the South of those two sites. The two piles in Pleasant Grove, one of the piles in Lehi and one pile in Provo were production piles used to support the bridges. The remaining two piles in Lehi were piles located outside of the bridge abutment and were driven specifically for lateral load testing. Two of the piles at the Provo site were placed behind the abutment but at different distances from the wall for the purposes of this test. All eight piles extend well below the bottom of the MSE wall and were considered to be long elastic piles in the lateral load analysis. The piles are 12.75 in. open ended pipe piles in Pleasant Grove and Provo while the piles in Lehi are 16 in. The MSE walls at Pleasant Grove and Lehi use welded wire grid reinforcements with concrete facing panels while the wall at Provo is a two-stage wall with metal straps and a welded wire facing.

The objectives of the lateral load tests are to determine the effect of spacing from the wall on the lateral resistance of the piles and on the force resisted by the MSE reinforcement. Because of the geometry and the testing sequence, the factor of safety against pull-out for three of the eight tests was unusually high at the time of testing. Therefore, the results provide insight on the potential benefit of increasing the factor of safety against pullout to increase the lateral pile resistance. The test procedures, results and analysis are described herein.

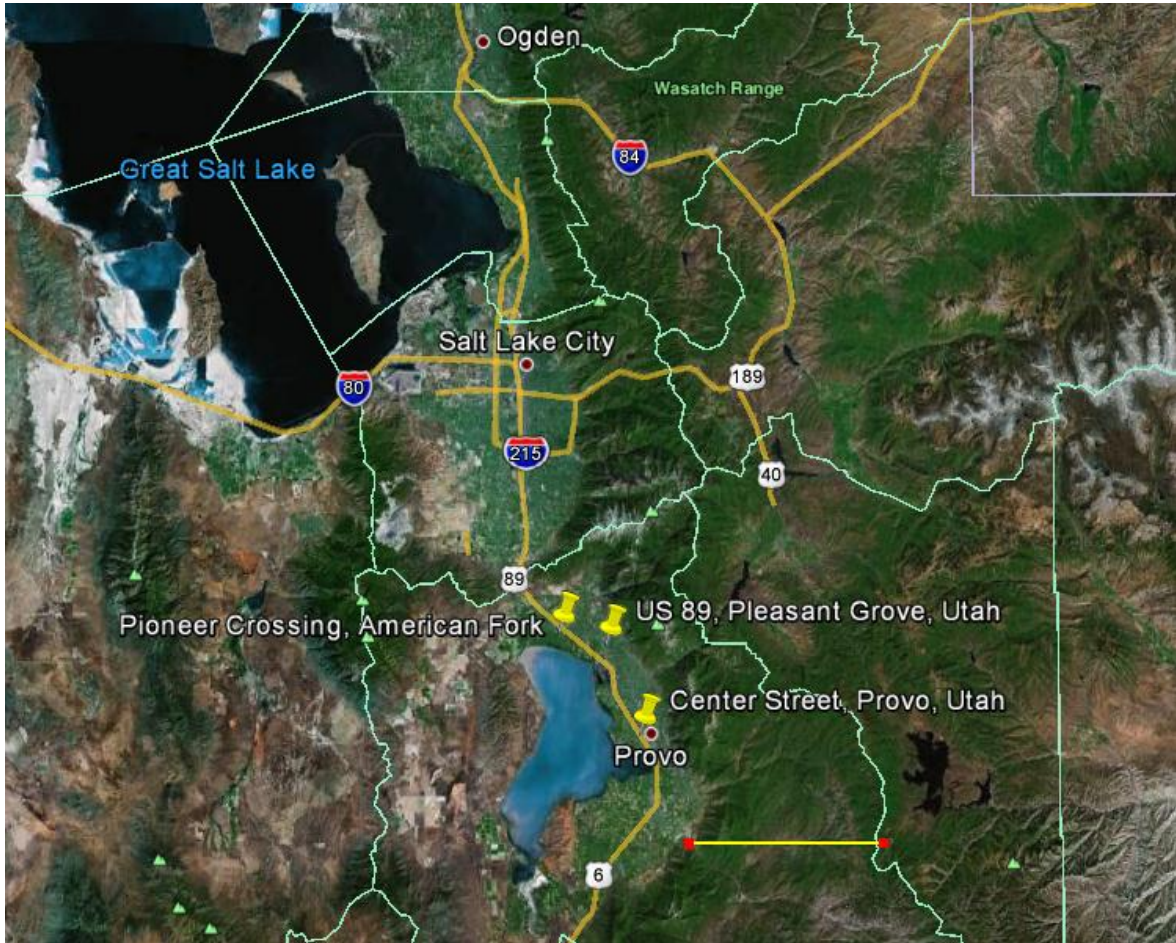


Figure 1.1: Location of test sites shown with yellow pin markers

2. LITERATURE REVIEW

There is relatively little guidance available to design engineers for determining the lateral load capacity of piles behind MSE walls. The literature review contained herein consists of a review of MSE wall design, analysis of laterally loaded piles and testing of laterally loaded drilled shafts behind MSE walls.

2.1 MSE Walls

MSE walls have been in use in the United States since the early 1970s (Elias and Christopher, 1997). These walls can be divided into two general categories based on the type of inclusion (reinforcement) used, i.e. extensible or inextensible reinforcement. Extensible reinforcements are made from non-metallic material that will deform as much as or more than the surrounding soil at failure. Inextensible reinforcements are made from metallic material and deform significantly less than the soil at failure.

MSE wall design includes analysis of internal and external stability. For external stability, the reinforced mass formed by the inclusions and soil is considered to be a homogeneous soil mass. The mass is then evaluated for its resistance to sliding, overturning, bearing and global shear failure using the same guidelines as gravity retaining walls. The same analysis is used for the external stability for MSE walls utilizing extensible as for inextensible reinforcement.

The analysis for internal stability of an MSE wall is performed by evaluating the tensile forces in the reinforcement and comparing these forces to the allowable tensile strength of the reinforcement as well as the pullout resistance of the reinforcement. If the tensile force in any of the inclusions in the wall is greater than the allowable tensile strength of the inclusion an elongation or breakage failure occurs. If the tensile force exceeds the pullout resistance, a failure by pullout will occur. The internal stability analysis differs for extensible and inextensible reinforcement. Inextensible welded wire grid or strap reinforcements are used in the MSE walls at all three test sites as outlined previously, so the analysis of inextensible reinforcement will be

discussed in further detail. The steps for the internal design process are as follows: (Elias and Christopher, 1997)

- Select the location of the critical failure surface.
- Select a reinforcement spacing compatible with the facing.
- Calculate the maximum tensile force at each reinforcement level, static and dynamic.
- Calculate the maximum tensile force at the connection to the facing.
- Calculate the pullout capacity at each reinforcement level.

The critical failure surface is assumed to be bi-linear as shown in Figure 2.1 and coincides with the location of the maximum tensile force in the reinforcement. The maximum tensile force is calculated following Equation 2-1 at each reinforcement level using the lateral earth pressure coefficient from Figure 2.2 and overburden pressure including live load surcharges that are located in the active zone of the reinforced soil

$$T_{max} = \sigma_H S_v \quad (2-1)$$

where

T_{max} is the maximum tensile force in a given reinforcement,
 σ_H is horizontal stress along the potential failure line per Equation 2-2, and
 S_v is vertical spacing between reinforcement levels.

$$\sigma_H = K_r \sigma_v + \Delta\sigma_H \quad (2-2)$$

where

K_r is the lateral earth pressure coefficient from Figure 2.2,
 σ_v is the vertical stress as calculated by Equation 2-3, and
 $\Delta\sigma_H$ is a concentrated horizontal surcharge load.

$$\sigma_v = \gamma_r Z + q + \Delta\sigma_v \quad (2-3)$$

where

γ_r is the moist unit weight of the retained soil,
 Z is depth below the top of wall to the reinforcement,
 q is a uniform surcharge load, and
 $\Delta\sigma_v$ is a concentrated vertical surcharge load.

The pullout capacity at each reinforcement level is a function of size and spacing of the reinforcement, the type of reinforcement and the overburden pressure. Live load surcharges are not included in determining the overburden pressure for pullout calculations. The calculation for pullout capacity is shown in Equation 2-4.

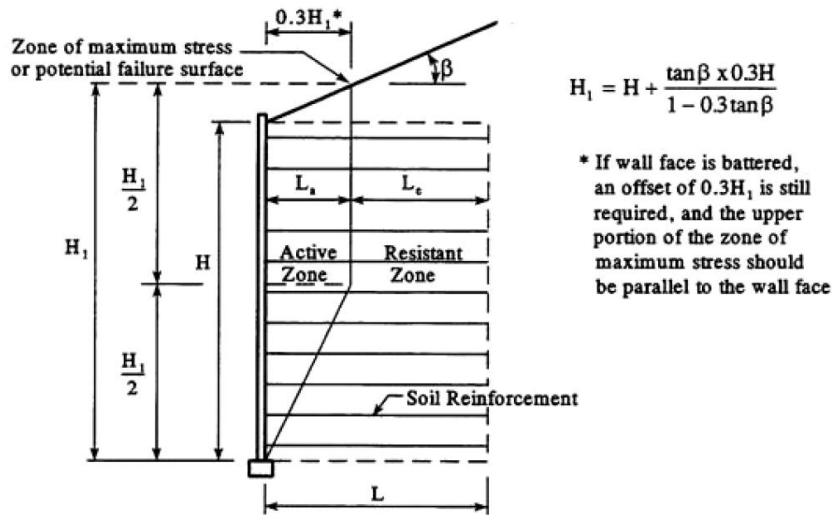


Figure 2.1: Location of critical slip surface for MSE wall with inextensible reinforcement (Elias and Christopher, 1997).

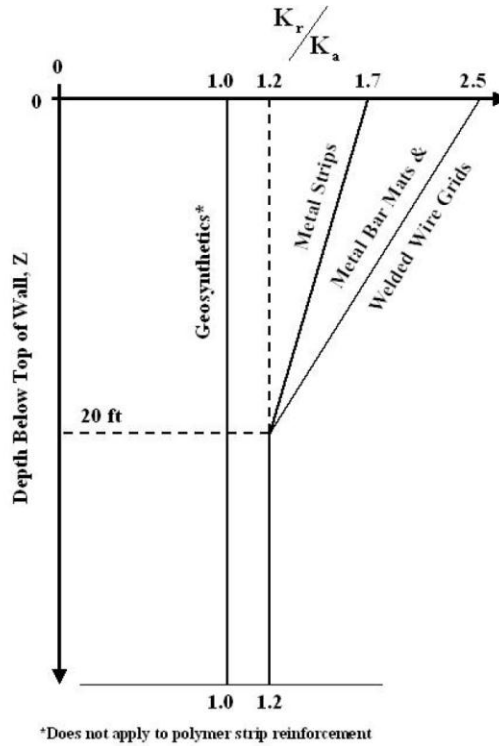


Figure 2.2: Variation of the coefficient of lateral stress ratio with depth in a MSE wall (Elias and Christopher, 1997).

$$PC = F^* \gamma_r Z (L_e) (C) R_c \alpha \quad (2-4)$$

where

PC is the pullout capacity for the reinforcement,

F^* is the pullout resistance factor as defined by Equation 2-5 for wire grids,

γ_r is the moist unit weight of the retained soil,

Z is depth below the top of wall to the reinforcement,

L_e is length of embedment of the reinforcement in the resisting zone,

C is a surface area geometry factor and is equal to 2 for wire grids,

R_c is the reinforcement coverage ratio as defined in Equation 2-6, and

α is a scale factor, equal to 1 for inextensible reinforcement.

$$F^* = \begin{cases} 20(t/S_t), & Z = 0 \\ 10(t/S_t), & Z \geq 20 \text{ ft} \end{cases} \quad (2-5)$$

where

t is the thickness of the transverse bars of the wire grid, and
 S_t is the spacing between transverse bars.

$$R_c = \frac{b}{s_h} \quad (2-6)$$

where

b is the unit width of the reinforcement, and
 s_h is the horizontal center to center spacing of grids at the same elevation.

The factor of safety against pullout is simply the pullout capacity divided by the maximum tensile force in the reinforcement. A minimum factor of safety of 1.5 is recommended by FHWA (Elias and Christopher, 1997). The factor of safety against tensile failure is the tensile capacity of a reinforcement divided by the maximum tensile force in the reinforcement. Once again a factor of safety of 1.5 is typically required.

2.2 Lateral Load Analysis of Piles

The lateral load capacity of a pile is influenced by the geometric properties of the pile, the soil properties and the type of loading. A common method of analysis is known as the p-y method where p is the soil resistance and y is the horizontal deflection of the pile. In this method, the soil is modeled as series of discrete non-linear springs which are a function of the pile deflection.

The computer program LPILE (Reese et al, 2004) uses a finite difference method to analyze lateral loads with the p-y method. The program uses beam elements to represent the pile and non-linear p-y springs. Using an iterative approach, the program solves for the forces and displacements along the length of the pile. The program includes several different methods for obtaining p-y curves in clays and sands. The analysis output includes bending moment, shear and displacement curves.

The method used in this report for obtaining p-y curves was developed by the American Petroleum Institute (API, 1982). The soil properties used for the API method include the unit

weight γ , modulus of subgrade reaction (stiffness) k , and friction angle ϕ . The friction angle has the greatest effect at large displacements where the soil failure occurs, while the subgrade reaction has the greatest effect at small displacements.

2.3 Full Scale Testing of Piles Behind MSE Walls

A literature review indicates that only one series of large scale tests has been performed to evaluate the lateral resistance of piles near MSE walls, other than the tests recorded in this report. Piersons et al. (2009) conducted a series of full-scale lateral load tests on 36 in. diameter drilled shafts located at four distances behind a 20 ft. high block masonry wall reinforced with extensible geogrids. The geogrid length was 14 ft. which is 0.7 times the height of the wall. The shafts were only embedded 15 to 20 ft. into the reinforced fill (short piles, $D/B=5$ to 6.7) and were intended to model foundations for light poles adjacent to the MSE wall.

The MSE wall and shafts were all constructed specifically for the lateral load testing, so that the shafts could be loaded to failure. Each shaft was instrumented with inclinometers, which were monitored at various load levels during testing. These instruments indicated that the shaft was rotating at its base. The geogrid reinforcement was instrumented with strain gauges located at varying distances from the wall face and showed a substantial decrease with transverse distance from the pile. Pressure cells were placed against the back face of the wall directly in front of each test pile at three different elevations. Photogrammetry was used to monitor the displacement of the wall face during testing. This process consisted of attaching targets to various blocks and photographing the wall before testing and at each load level with a camera attached to a tripod. The photos were rastered into AutoCAD so that the wall movement could be determined throughout the test. LVDTs were used to measure the displacement of the shafts during testing, and a load cell was placed between the hydraulic ram and the test pile to determine the load. Figure 2.3 shows the load-displacement curves for the shafts tested.

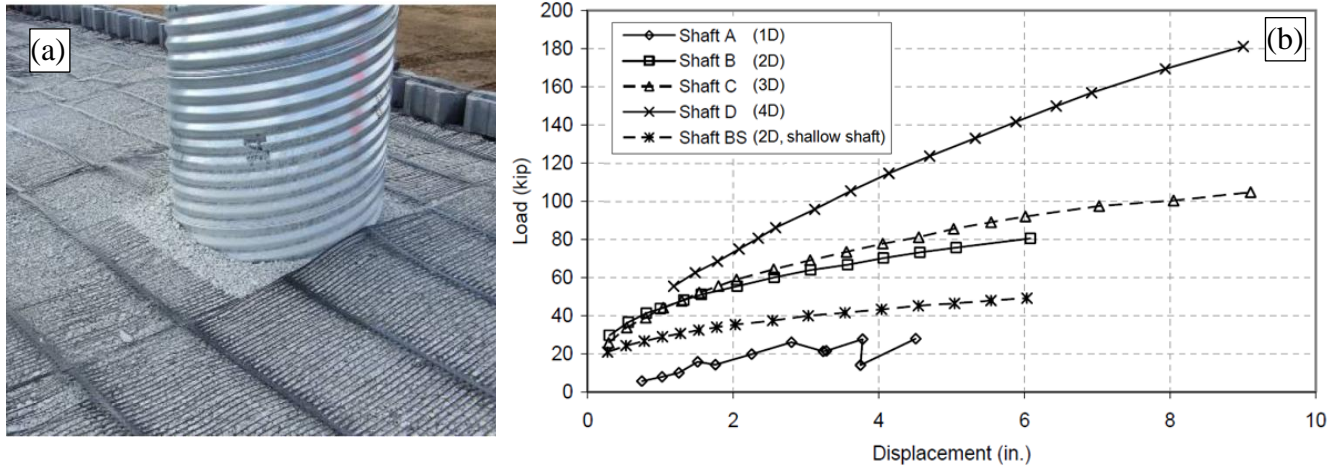


Figure 2.3: (a) Shaft and geogrid near masonry block wall along with (b) Load vs. deflection for curves for shafts at different distances behind the wall (after Piersons et al, 2009).

The testing showed that the lateral resistance of the shaft decreased as the spacing between the pile and the wall decreased. For example, the shaft spaced two pile diameters behind the wall provided less than 50% of the resistance provided by the shaft located four diameters behind the wall as shown in Figure 2.3. After testing, cracking was observed behind the reinforced zone indicating that additional capacity may be gained by longer reinforcements.

2.4 Numerical Analysis of Piles Behind MSE Walls

Research reported by Khodair and Hassiotis (2005) considered lateral loads on an integral abutment bridge due to thermal expansion and contraction of the bridge structure. The H-piles considered in their analyses were placed inside a corrugated steel pipe with the annulus filled with sand and located approximately six pile diameters from the wall. Their findings suggest that thermal loading does not induce significant lateral loads to an MSE wall for the conditions investigated where the maximum pile head displacement was approximately 0.9 in.

In a numerical modeling study by Ng and Chung (2005), interaction between a wall and a nearby single sleeved and unsleeved pile was investigated using a non-linear three-dimensional finite difference method. As shown in Figure 2.4 lateral earth pressures from a single pile placed 1.5 pile diameters from the retaining wall increased lateral earth pressures on the wall substantially. When the pile was unsleeved with a lateral load of 5,000 kilonewtons (kN) (1,124 kips), lateral earth pressures on the retaining wall at shallow depths ranged from K_p to $3 K_p$,

where K_p is the Rankine passive earth pressure coefficient. Although placing a sleeve around the pile reduced the load transferred to the wall, the lateral earth pressure induced by the laterally loaded pile was still substantially greater than at-rest earth pressure conditions.

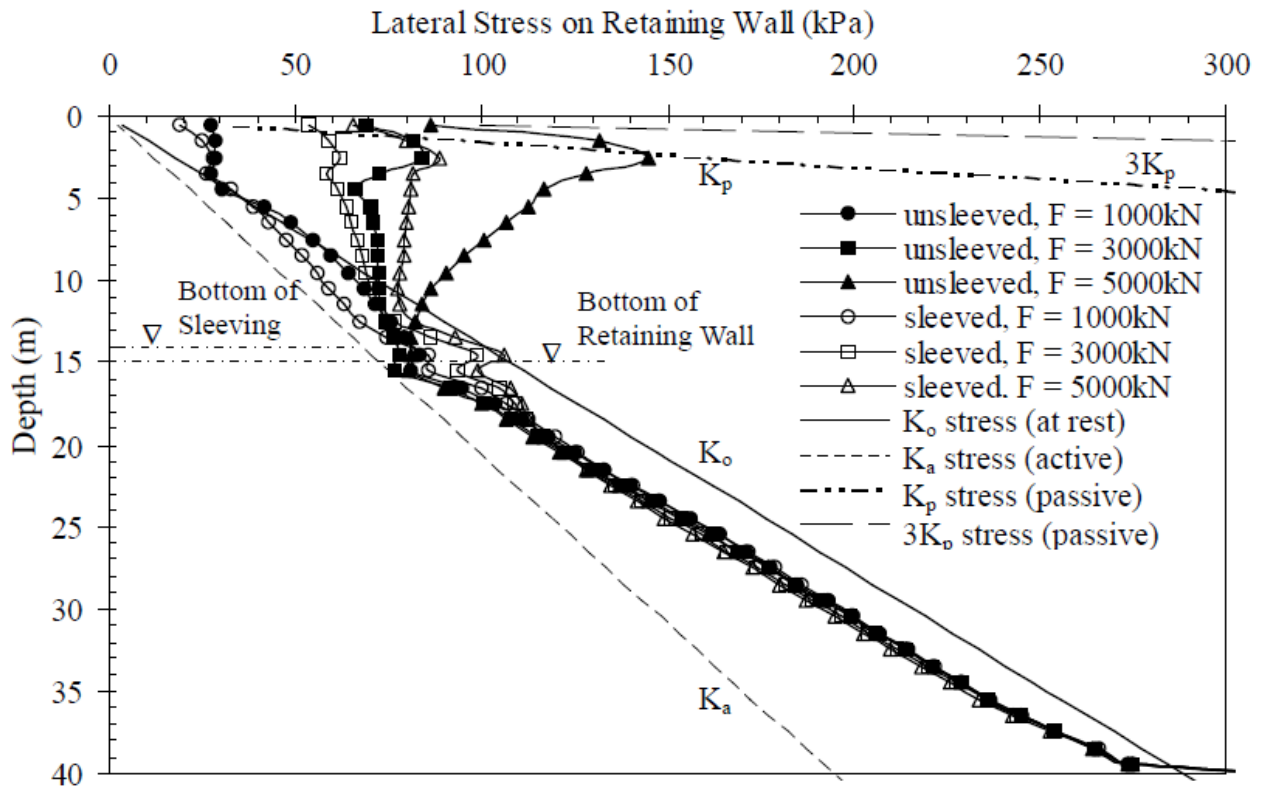


Figure 2.4: Lateral earth pressures on a retaining wall with a laterally loaded pile located 1.5 pile diameters from the wall (Ng and Chung 2005).

(Note: 1 meter is equal to 3.28 feet. 1 kilopascal or kPa is equal to 21 pounds per square foot or psf.)

3. LAYOUT

3.1 U.S. Highway 89 over Union Pacific Rail Road

The first two pile lateral load tests were performed at a new overpass structure for U.S. Highway 89 (State Street) above a Union Pacific rail road line in Pleasant Grove, UT. Both tests were performed on piles supporting the bridge on the east abutment. Plan and profile views of the two pile load tests performed at this site are presented in Figure 3.1 through 4. The plan view in Figure 3.2 is an excerpt from the design plans which shows how the reinforcement overlaps in the corner of the wall.

The test piles are 12.75 in. outside diameter steel pipe piles with a wall thickness of 0.375 in. The piles were driven closed ended prior to the construction of the MSE walls and extend through compressible clay to a sand bearing layer at a depth of approximately 50 ft. below the base of the wall. The piles were eventually filled with reinforced concrete and embedded into the abutment wall; however at the time of testing the piles were hollow. The pipe pile detail from the bridge design plans provided by UDOT is shown in Figure 3.5. The steel conforms to ASTM A252 Grade 3 specifications and has a minimum yield strength of 45 kips per square inch (ksi) based on the 0.2% offset criteria. The abutment has 17 piles with a typical center to center spacing of 8.33 ft. The typical spacing from the back face of the MSE wall to the center of the pile is 8.0 ft. (7.5 pile diameters).

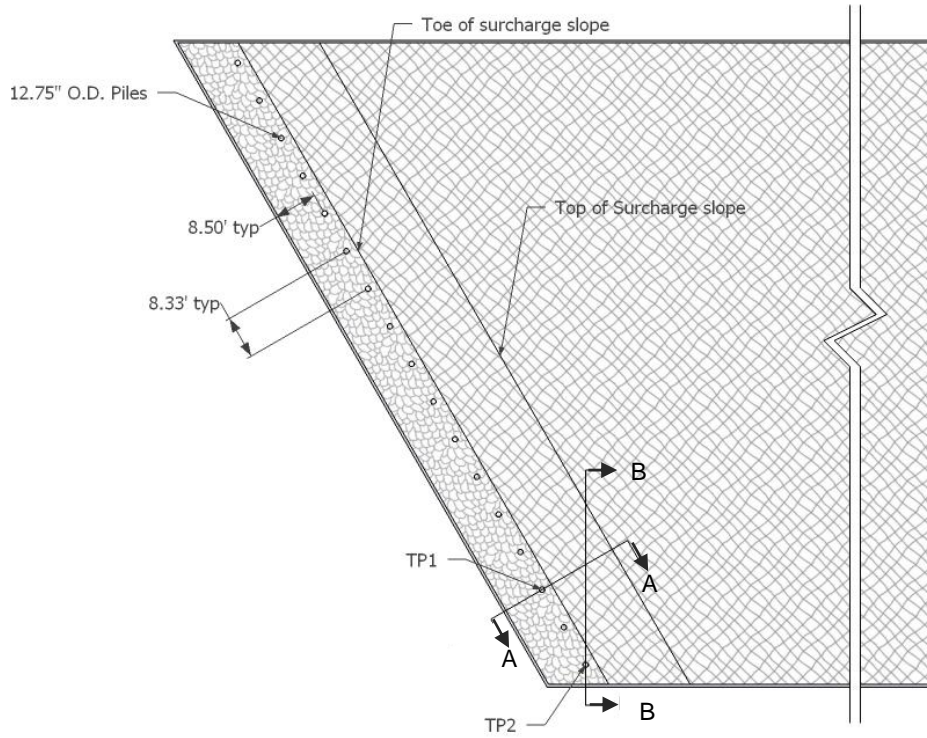


Figure 3.1: Plan view of the east abutment for the U.S. Highway 89 over UPRR.

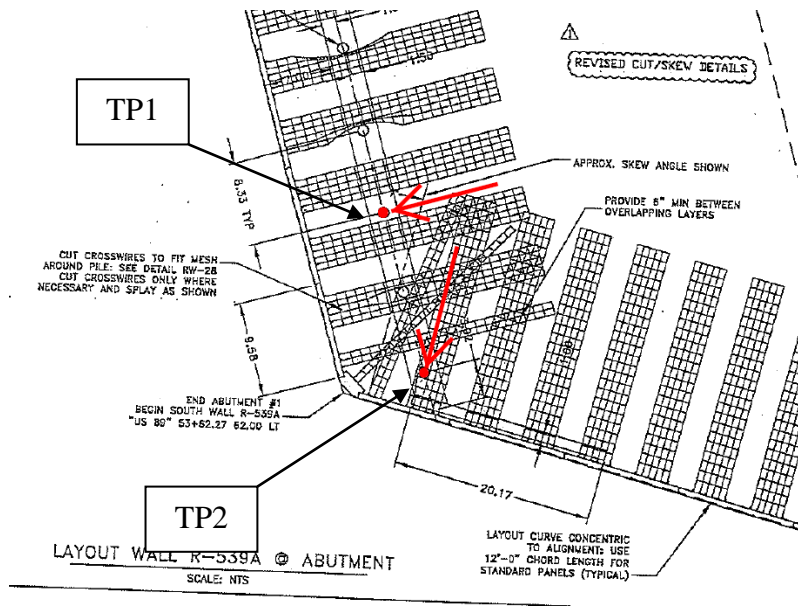


Figure 3.2: Plan view of section of MSE wall with test piles showing reinforcement overlapping in corner.

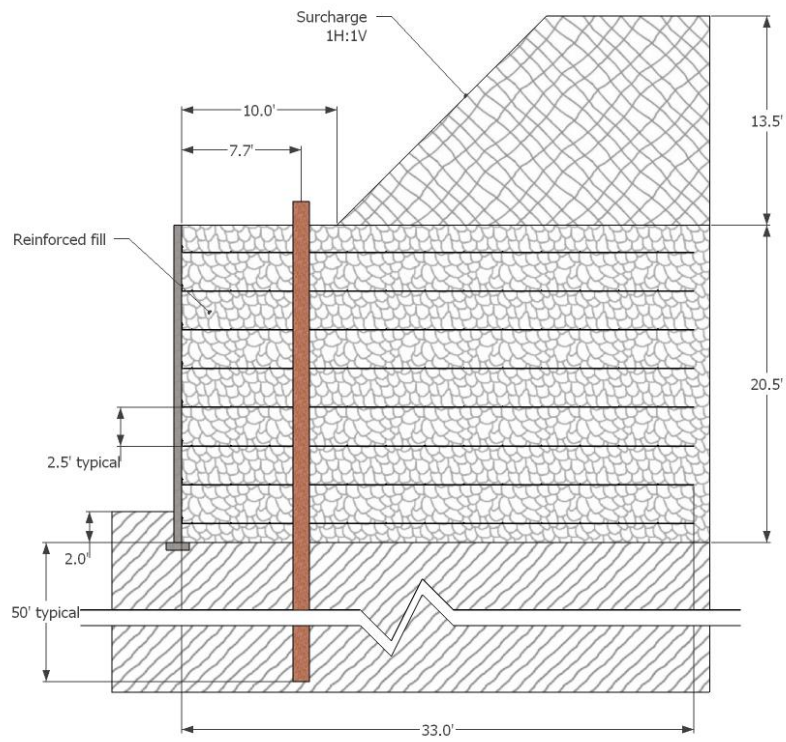


Figure 3.3: Profile view of Test Pile 1 (TP1); cross-section A-A from Figure 3.1.

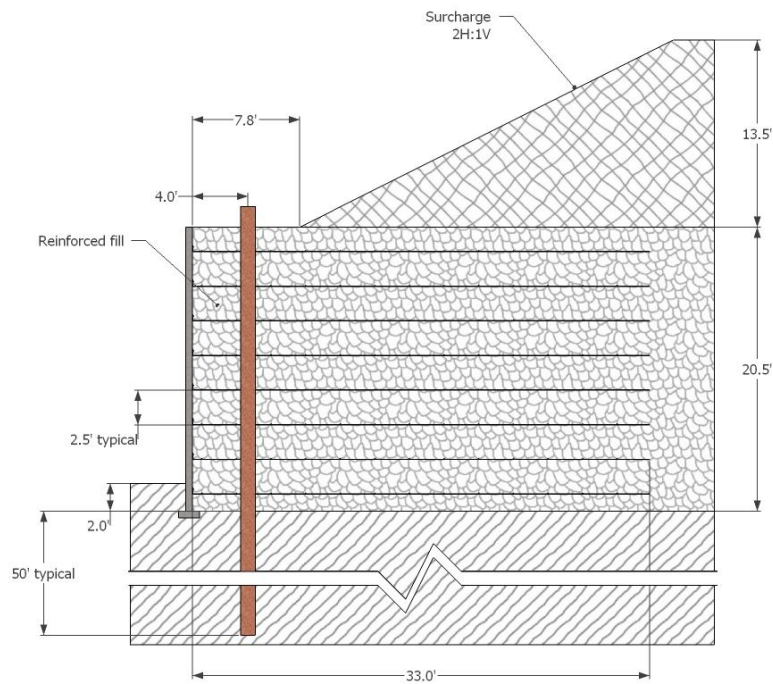


Figure 3.4: Profile view of Test Pile 2 (TP2); cross-section B-B from Figure 3.1.

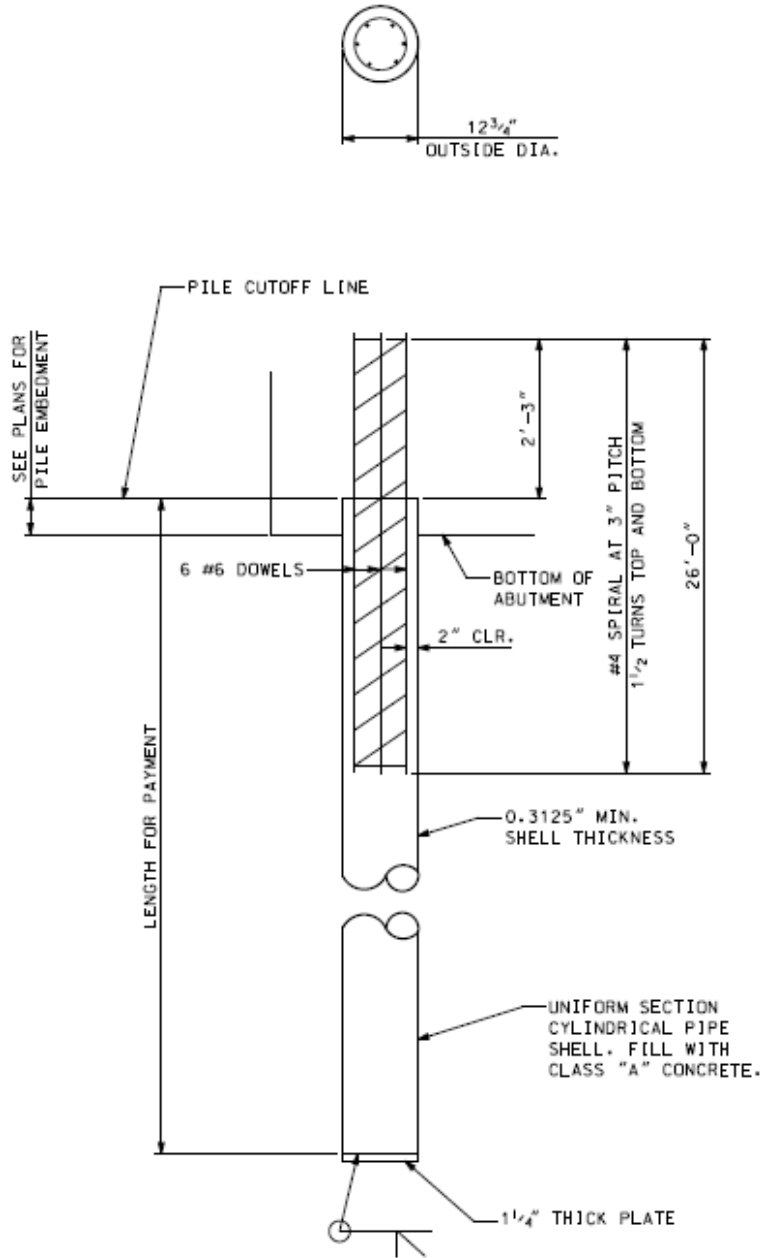


Figure 3.5: Pipe pile detail for the U.S. Highway 89 over UPRR bridge.

The single stage MSE walls were designed by SSL, LLC and consist of welded wire grid soil reinforcement connected to concrete wall panels. The welded wire grid consists of 3 to 6 longitudinal wires with a center to center spacing of 8 in. The longitudinal wires are typically size 20 wires (0.504 in. diameter) for the bottom 3 to 4 layers of reinforcement and size 11 wires (0.374 in. diameter) for the upper 4 to 8 layers. The cross wires are all size 11 and have center to

center spacing of 1.0 to 2.5 ft. The horizontal spacing of the grids at the same elevation from center to center is typically 6 ft. The vertical spacing of the grids is typically 2.5 ft. Wall panels are 6 in. thick and typically 5 ft. high by 12 ft. long. The wall was designed according to AASHTO 2007 Interim Specifications with a seismic coefficient of 0.53g for the walls within 50 ft. of the abutment. The design parameters of the MSE wall for the locations of the lateral load tests are displayed in Table 3.1.

Table 3.1: MSE wall parameters for the U.S. Highway 89 site.

Pile	TP1	TP2
Wall height (ft) at time of testing	20.5	20.5
Design height from top of leveling pad to top of roadway (ft)	32.5	32.5
Mesh length (ft)	33	33
Mesh length to wall height at time of test ratio	1.6	1.6
Mesh length to design height ratio	1.0	1.0

The design height from Table 3.1 includes the abutment wall, backfill and roadway section which were not present at the time of testing. A surcharge load of about 2 kips per square foot (ksf) was in place behind the wall at the time of testing as shown in Figure 3.3 and 4.

The sandy gravel reinforced fill classifies as A-1-a material according to the AASHTO system. The average maximum dry density of the reinforced material was 139.2 pounds per cubic foot (pcf) with optimum moisture content of 6.1% as determined from standard Proctor tests. Nuclear density tests indicate that the soil was compacted to about 97% of the maximum dry density with a water content of about 5%. All material testing data is from tests performed by UDOT throughout the wall construction.

The static factor of safety against pull-out for the MSE wall geometry at the time of testing was approximately 8.4 for TP1 and 6.4 for TP2 as calculated in Appendix A.1 using procedures specified by FHWA (Elias and Christopher, 1997). The static factor of safety as calculated by the wall designer for the final construction geometry is approximately 2.0. The center of Test Pile 1 (TP1) is located 7.7 ft. (7.5 pile diameters) behind the back face of the wall. The center of Test Pile 2 (TP2) is located 4.0 ft. (3.8 pile diameters) behind the back face of the

wall. The piles were laterally loaded normal to the nearest wall on the planes shown in the profile views in Figure 3.3 and 3.4.

3.2 Pioneer Crossing over Union Pacific Rail Road

The next three pile lateral load tests were performed at a new overpass structure under construction at the intersection of Pioneer Crossing and Mill Pond Road above a Union Pacific railroad line in Lehi, UT. One test was performed on a pile supporting the bridge on the north abutment. The other two tests were performed on piles that were donated by Atlas Steel and driven by Build, Inc. behind the MSE wing wall to the east of the abutment. A plan view of the test piles is shown in Figure 3.6. An aerial photograph of the site with all of the piles driven prior to wall construction is shown in Figure 3.7. Profile views for the three pile load tests performed at this site are presented in Figure 3.8 through 10.

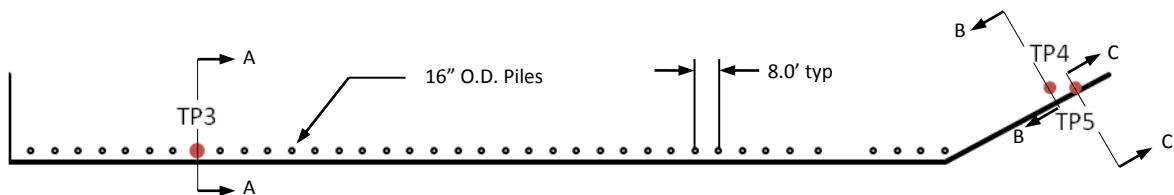


Figure 3.6: Plan view of the north abutment for the Pioneer Crossing bridge over UPRR.



Figure 3.7: Piles for the Pioneer Crossing bridge over UPRR prior to wall construction.

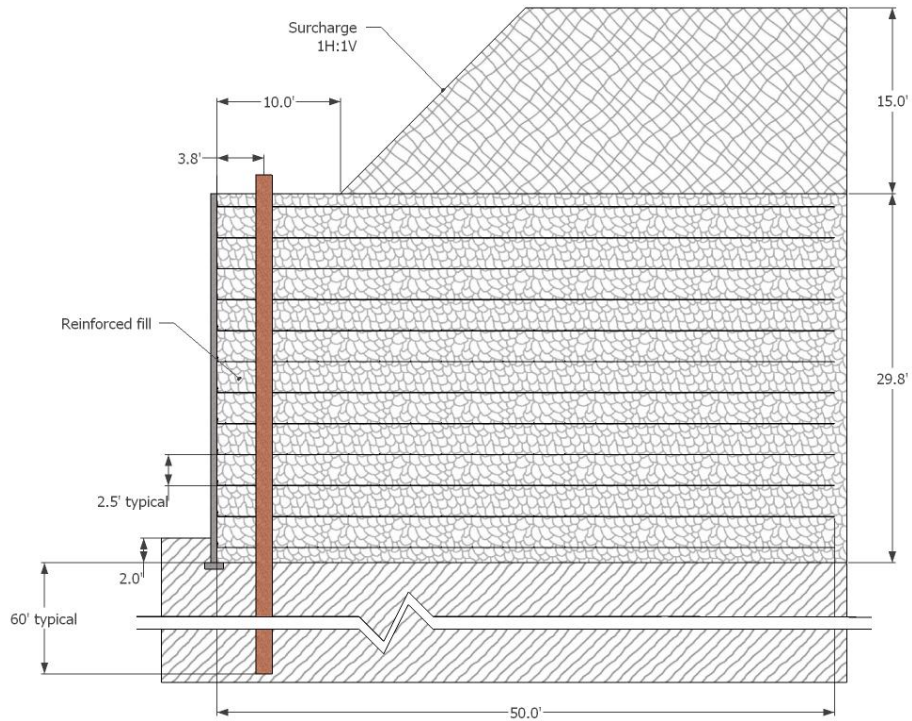


Figure 3.8: Profile view of Test Pile 3 (TP3); cross section A-A from Figure 3.6.

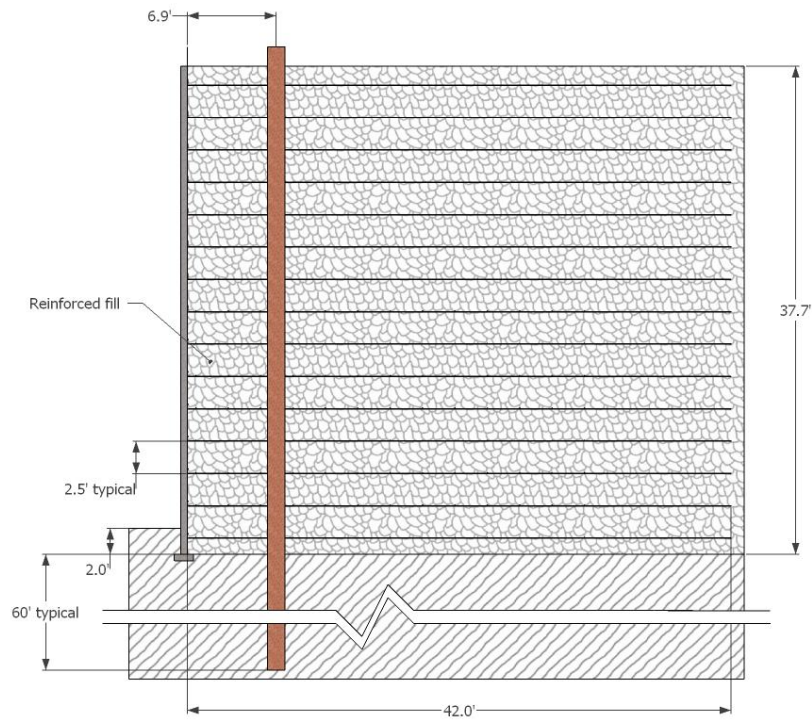


Figure 3.9: Profile view of Test Pile 4 (TP4); cross-section B-B from Figure 3.6.

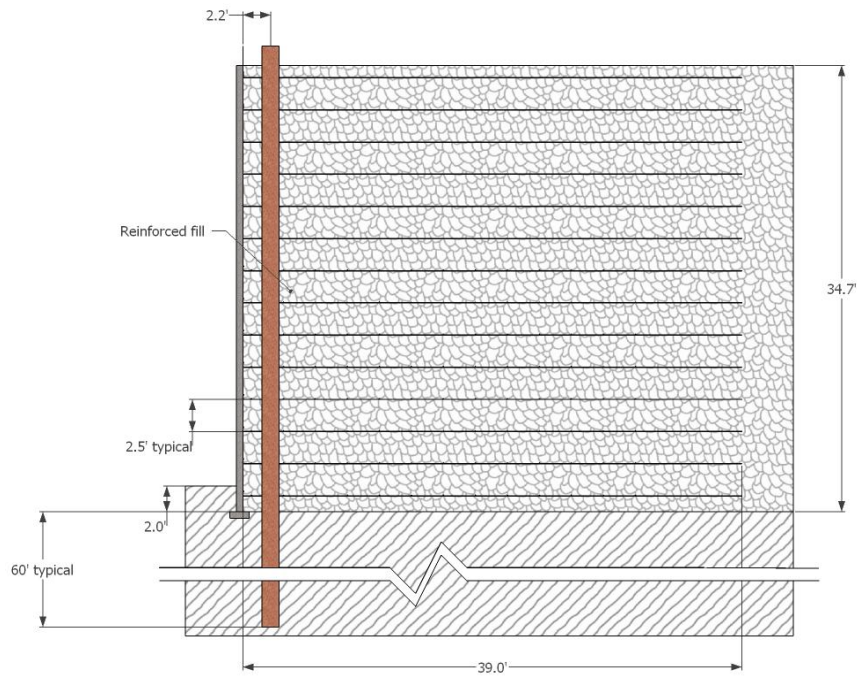


Figure 3.10: Profile view of Test Pile 5 (TP5); cross-section C-C from Figure 3.6.

The test piles are 16 in. outside diameter steel pipe piles with a wall thickness of 0.375 in. The construction sequence for the Pioneer Crossing bridge was similar to the sequence described in Section 3.1 for the US Highway 89 bridge with the piles driven closed ended prior to construction of the MSE walls. The piles extend through layered sand and compressible clay to a sand bearing layer at a depth of approximately 60 ft. below the base of the wall. The piles were hollow at the time of testing but were eventually filled with reinforced concrete and embedded into the abutment wall. The pile detail from the bridge plans provided by UDOT is shown in Figure 3.12. The steel conforms to ASTM A252 Grade 3 specifications and has a minimum yield strength of 45 ksi based on the 0.2% offset criteria. The abutment has 38 piles with a typical center to center spacing of 8.0 ft. The design spacing from the back face of the MSE wall to the center of the pile is 4.5 ft. (3.4 pile diameters). Prior to fill placement, the piles were double wrapped with a 10 mil (0.25 mm) thick sheet of low-density polyethylene (LDPE) to reduce drag load which was otherwise expected to be significant as the fill was compacted around the abutment piles. The photograph in Figure 3.11 shows the double sheeting wrapped around TP3. The photo was taken with the maximum load applied.



Figure 3.11: Double LDPE sheeting wrapped around TP3.

The single stage MSE walls were designed by SSL, LLC and consist of welded wire grid reinforcement connected to concrete wall panels. The welded wire grid consists of 3 to 6 longitudinal wires with a center to center spacing of 8 in. The longitudinal wires are typically size 20 wires (0.504 in. diameter) for the bottom 2 to 3 layers of reinforcement followed by 5 layers of size 15 wires (0.437 in. diameter) and 4 layers of size 11 wires (0.374 in. diameter) at

the abutment. For the wing walls, the longitudinal wires are typically size 20 wires for the bottom 6 layers of reinforcement and size 11 wires for the upper 7 to 8 layers. The cross wires are size 11 wires for the bottom 2 to 4 layers and size 8 wires for the upper layers. The cross wires have a center to center spacing of 1.0 to 2.5 ft. The horizontal spacing of the grids at the same elevation from center to center is typically 5 ft. The vertical spacing of the grids is typically 2.5 ft. The wall panels are 6 in. thick and typically 5 ft. high by 10 ft. long. The wall was designed following the AASHTO 2007 Interim Specifications with a seismic coefficient of 0.50g for the walls within 50 ft. of the abutment. The design parameters of the MSE wall for the locations of the lateral load tests are displayed in Table 3.2.

Table 3.2: MSE wall parameters for the Pioneer Crossing site.

Pile	TP3	TP4	TP5
Wall height (ft) at the time of testing	29.8	37.7	34.7
Design height from top of leveling pad to top of roadway (ft)	45.0	37.5	35.0
Mesh length (ft)	50	42	39
Mesh length to wall height at time of test ratio	1.7	1.1	1.1
Mesh length to design height ratio	1.1	1.1	1.1

Similar to the U.S. 89 site, the design height from Table 3.2 includes the abutment wall, backfill and roadway section which were not present at the time of testing. A surcharge load of about 2 ksf was in place behind the wall at the location of Test Pile 3 (along the bridge abutment) at the time of testing as shown in Figure 3.8; however, no surcharge was in place for the other two piles.

The reinforced soil consisted of sandy gravel classifying as A-1-a material according to the AASHTO system with a standard Proctor maximum density of 139.4 pcf and an optimum moisture content of 6.0%. Nuclear density tests indicate that the soil was compacted to about 97% of the maximum dry density with a water content of about 5%.

The static factor of safety against pull-out for the MSE wall geometry at the time of testing is approximately 11.6 for TP3, 4.0 for TP4 and 3.8 for TP5 as calculated in Appendix A.2 using procedures specified by FHWA (Elias and Christopher, 1997). The static factor of safety

as calculated by the wall designer for the final construction is approximately 2.0 for all piles. The centers of Test Pile 3 (TP3), Test Pile 4 (TP4) and Test Pile 5 (TP5) are located 3.8, 6.9 and 2.7 ft. (or 2.9, 5.2 and 1.6 pile diameters), respectively, behind the back face of the MSE wall. The piles were laterally loaded normal to the MSE wall on planes shown in the profile views in Figure 3.8 through 10.

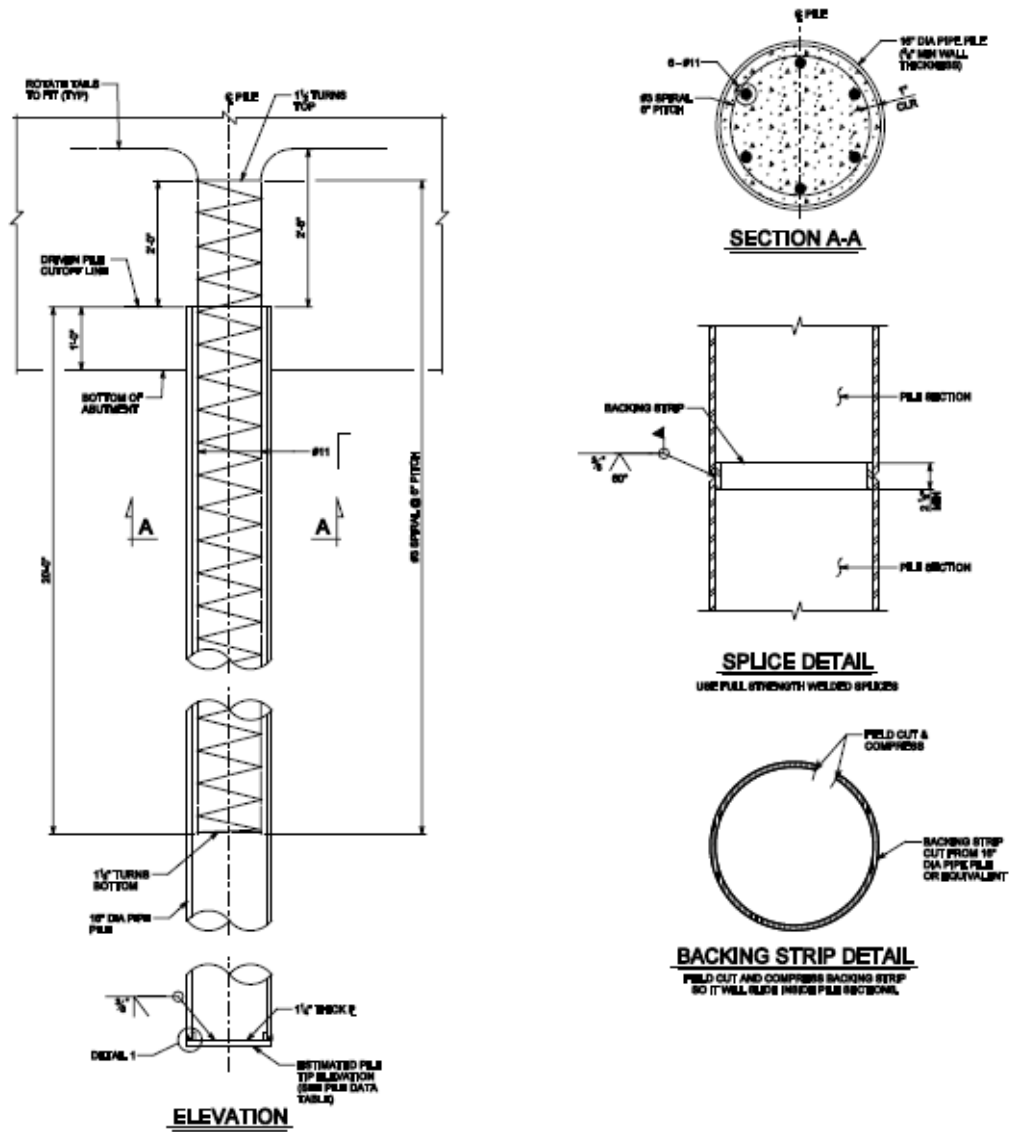


Figure 3.12: Pipe pile detail for the Pioneer Crossing bridge over Union Pacific RR.

3.3 Provo Center Street

The next three lateral pile load tests were performed at a new overpass structure at Provo Center Street as it crosses UTA and the Union Pacific railroad lines in Provo, UT. All of the tests were performed on the West side of the overpass. Two tests were performed on piles donated by Atlas Steel while the other test was performed on a pile supporting the bridge using a donated pile as a reaction pile. Figure 3.13 shows a picture of the lower level of metal strap reinforcement. Figure 3.14 shows how the straps were attached to the wire mesh facing panels with the wires for the strain gauges attached. A top view of the pile layout is shown in Figure 3.15.

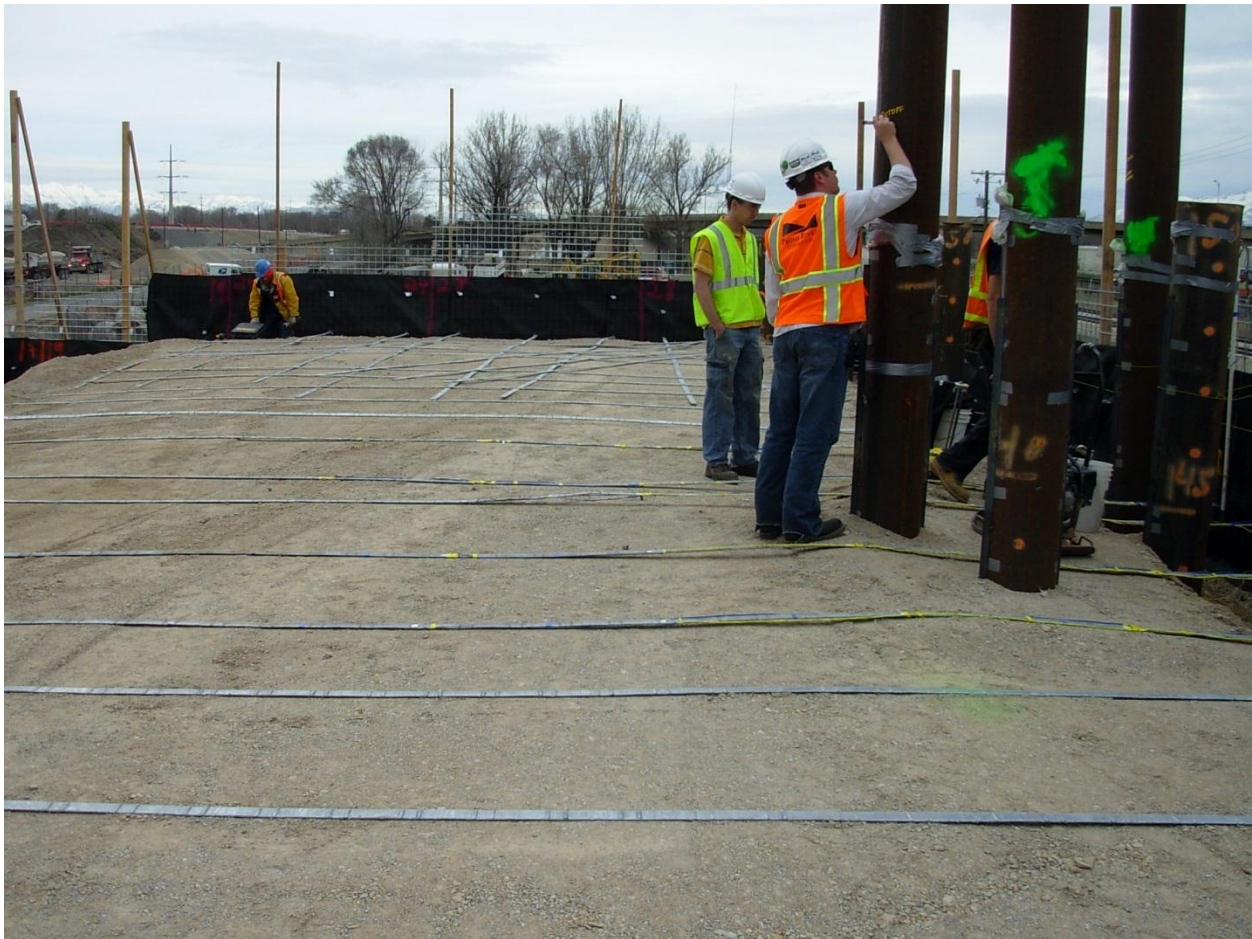


Figure 3.13: Test piles with bottom instrumented layer of steel strap reinforcement

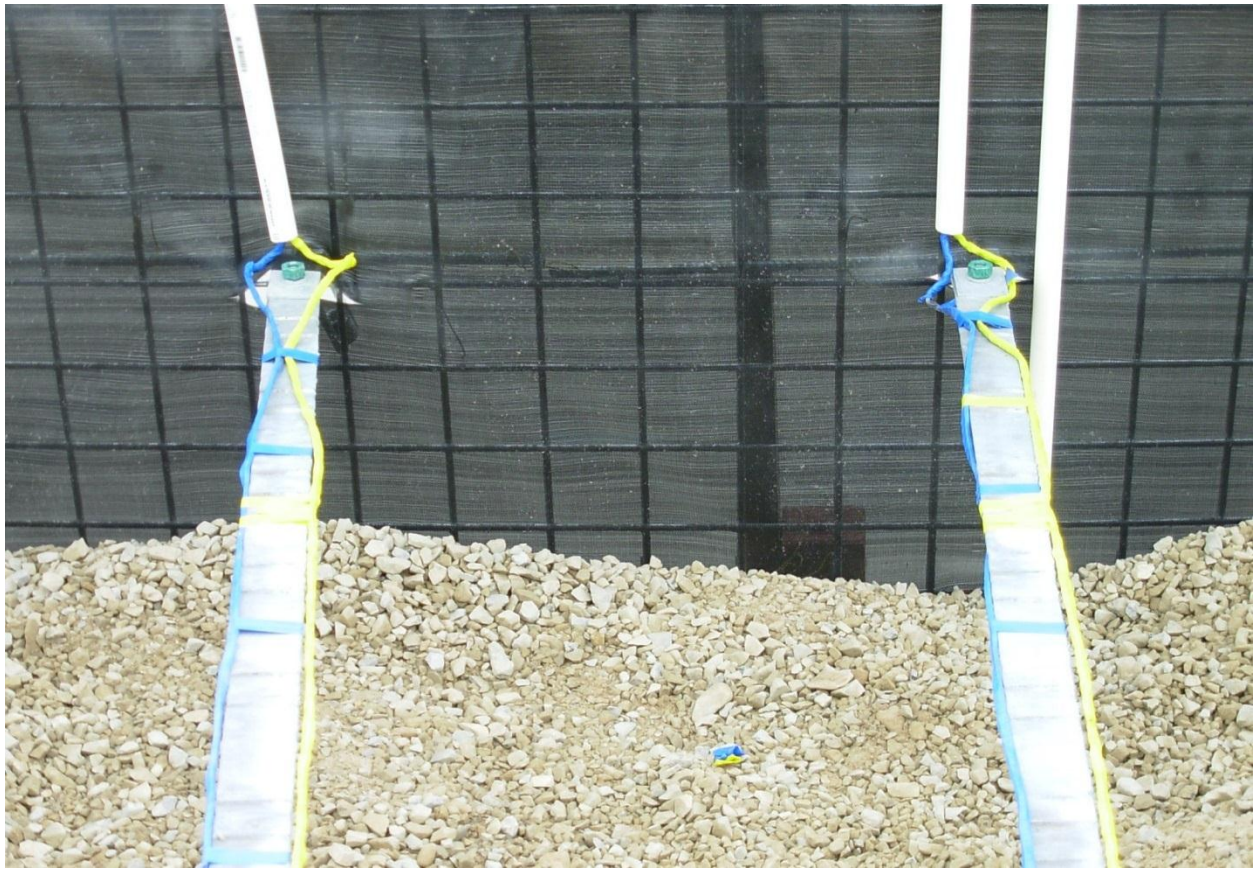


Figure 3.14: Top layer of instrumented straps attached to wire mesh facing.

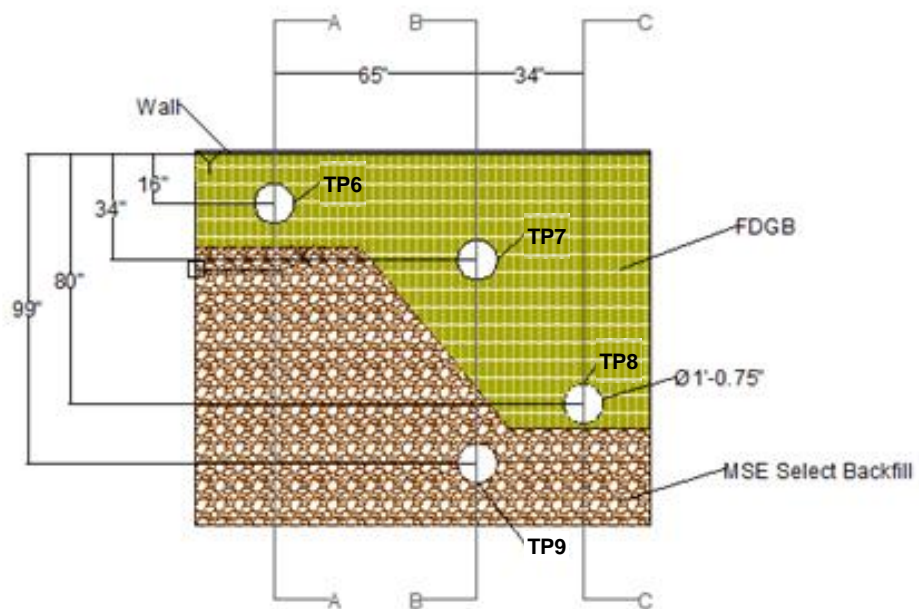


Figure 3.15: Plan view of the west abutment for the Provo Center Street bridge over UPRR and UTA

The test piles are 12.75 in. outside diameter steel pipe piles with a wall thickness of 0.375 in. The construction sequence for the Provo Center Street Bridge was similar to the sequence described in Section 3.1 for the US Highway 89 bridge with the piles driven closed ended prior to construction of the MSE wall. The piles for the bridge extend through layered silty sand and gravel to a sand bearing layer at a depth of approximately 120 ft. below the base of the wall while the test piles only extended 20 feet below the wall. The piles were hollow at the time of testing but were eventually filled with reinforced concrete and embedded into the abutment wall. To ensure that the strain gauge wires attached to the piles were not damaged during construction of the wall, angle irons were placed over the wires and tack welded to the piles at regular intervals. Figure 3.16 shows the test piles with the angle irons. The pile detail from the bridge plans provided by UDOT is shown in Figure 3.17. The steel conforms to ASTM A252 Grade 3 specifications and has a minimum yield strength of 45 ksi based on the 0.2% offset criteria. The abutment has 16 piles with a typical center to center spacing of 6.8 ft. The typical spacing from the face of the wire mesh of the MSE wall to the center of the piles is 34 in. (2.7 pile diameters).

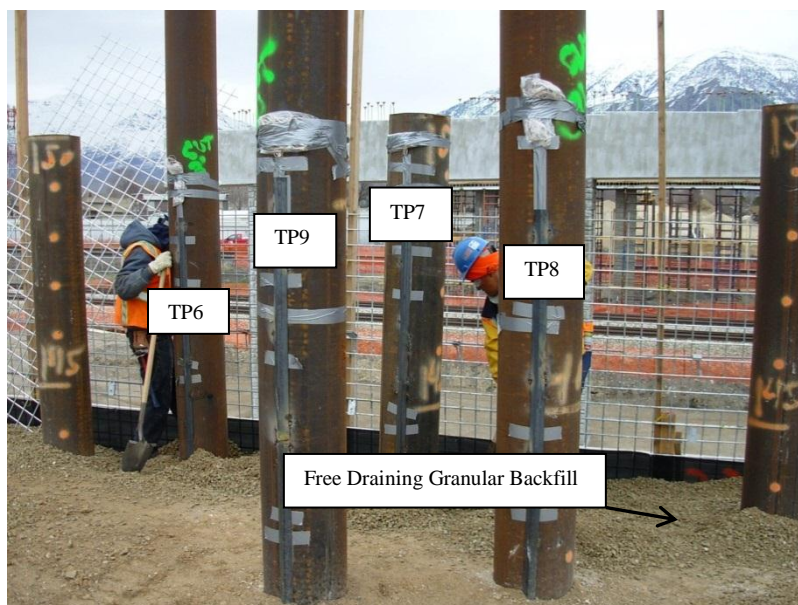


Figure 3.16: Test piles with angle irons and strain gauges.

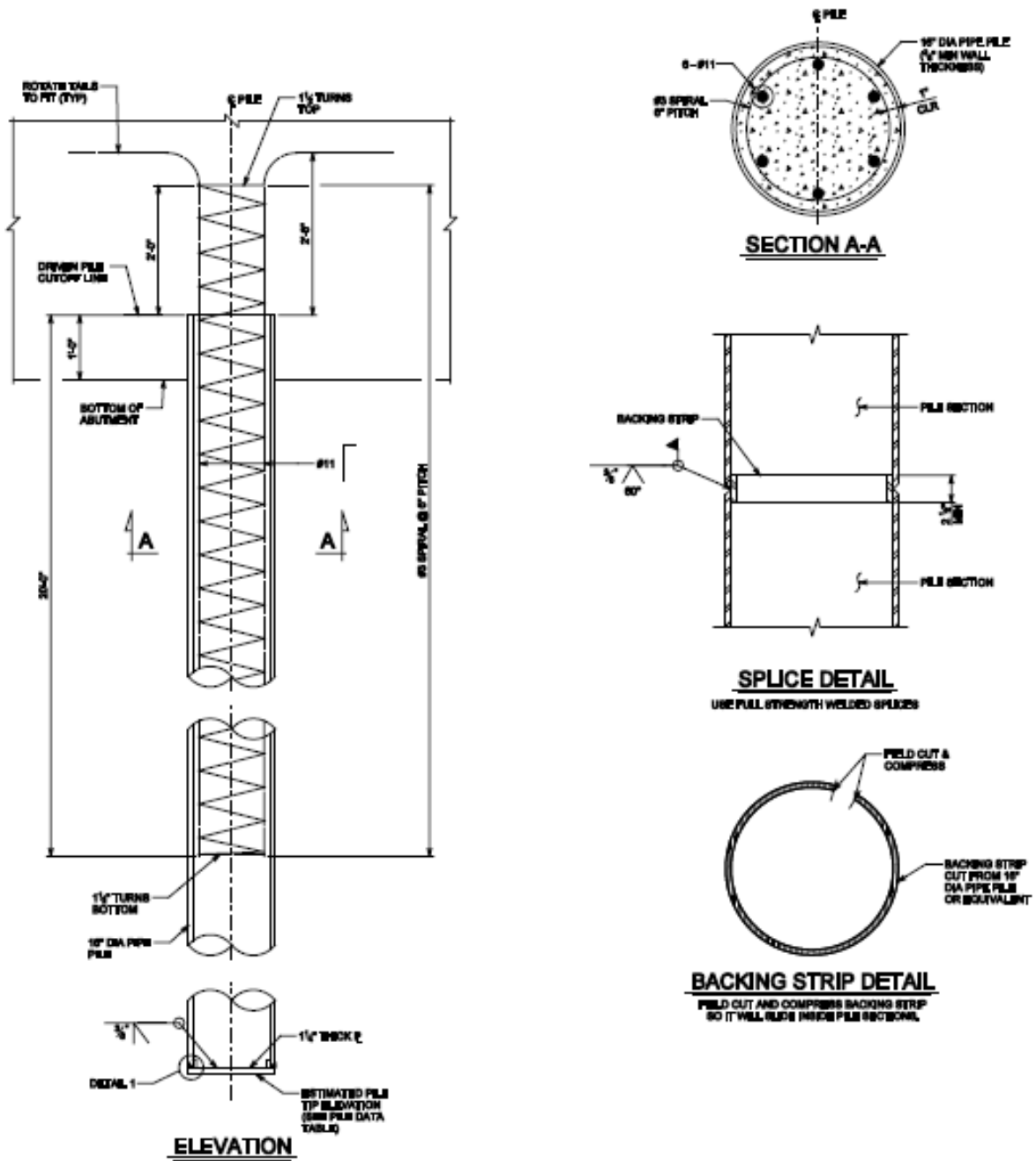


Figure 3.17: Pipe pile detail for the Provo Center Street over UTA and UPRR

The two-stage MSE wall was designed by Reinforced Earth Co. and consisted of galvanized metal straps connected to wire mesh panels. The galvanized straps were 2 in wide and an eighth of an inch thick. The length of the straps varied across the wall; however, the straps in the vicinity of the test piles were 28 ft. long. The vertical spacing of the reinforcing is typically 2.0 ft. The wire mesh wall panels are 4.8 ft. high by 9.75 ft. wide. The design parameters of the MSE wall for the locations of the lateral load tests are displayed in Table 3.3.

Table 3.3: MSE Wall Parameters for the Provo Center Street Site

Pile	TP6	TP7	TP8
Wall height (ft)	22.25	22.25	22.25
Design height from top of leveling pad to top of roadway (ft)	35.7	35.7	35.7
Strap length (ft)	28	28	28
Strap length to wall height at time of test ratio	1.2	1.2	1.2
Strap length to design height ratio	0.78	0.78	0.78

Similar to the U.S. 89 and Pioneer Crossing sites the design height from Table 3.3 includes the abutment wall, backfill and roadway section which were not present at the time of testing. No significant surcharge load was present at the time of testing for any of the piles.

The reinforced soil consisted of sandy gravel classifying as A-1-a material according to the AASHTO system with a standard Proctor maximum density of 132.2 pcf with an optimum moisture content of 7%. Nuclear density tests indicate that the soil was compacted to about 97.4% of the maximum dry density with a water content of about 4.8%. However, in the 30 inches immediately adjacent to the wall a free draining granular backfill was placed with reduced compaction requirements. The backfill was placed next to the wall in approximately 2 ft. lifts. For compaction the crew passed over the lifts with a vibratory plate compactor with three passes. The dry density and wet density of the granular backfill can be assumed to be approximately the same due to the ability of the backfill to drain water. The average dry density was measured with a nuclear density gauge to be 90.1 pcf. As shown in Figure 3.16, the free-draining granular fill often extended back to the test piles.

The static factor of safety against pull-out for the MSE wall geometry at the time of testing is approximately 2.6 for piles TP6, TP7, and TP8 as calculated in Appendix A.3 using procedures specified by FHWA (Elias and Christopher, 2003). The centers of the test piles are located approximately 1.25, 3, and 6.5 ft. behind the two stage wire mesh panels of the MSE wall, respectively. The piles were laterally loaded normal to the MSE wall on planes shown in the profile views in Figures 3.18 through 20.

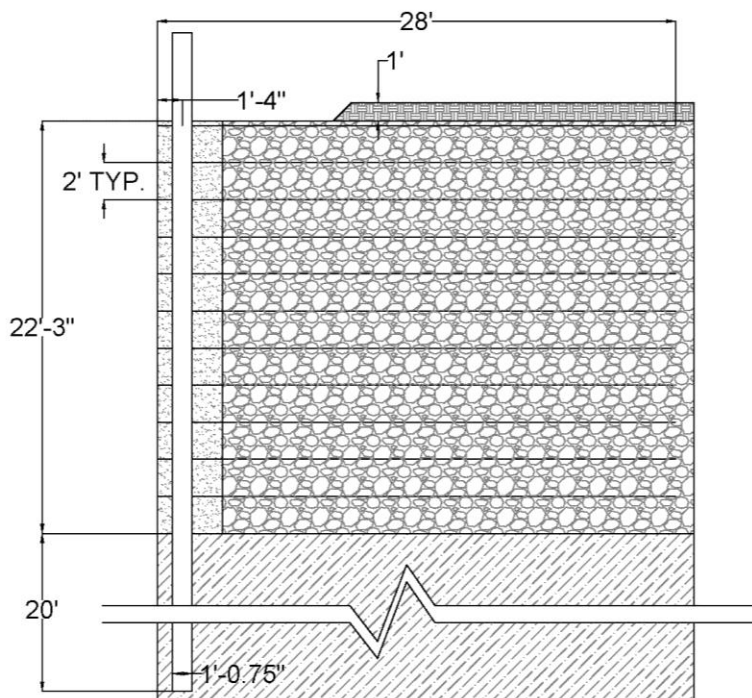


Figure 3.18: Profile view of Test Pile 6 (TP6); cross section A-A from Figure 3.15

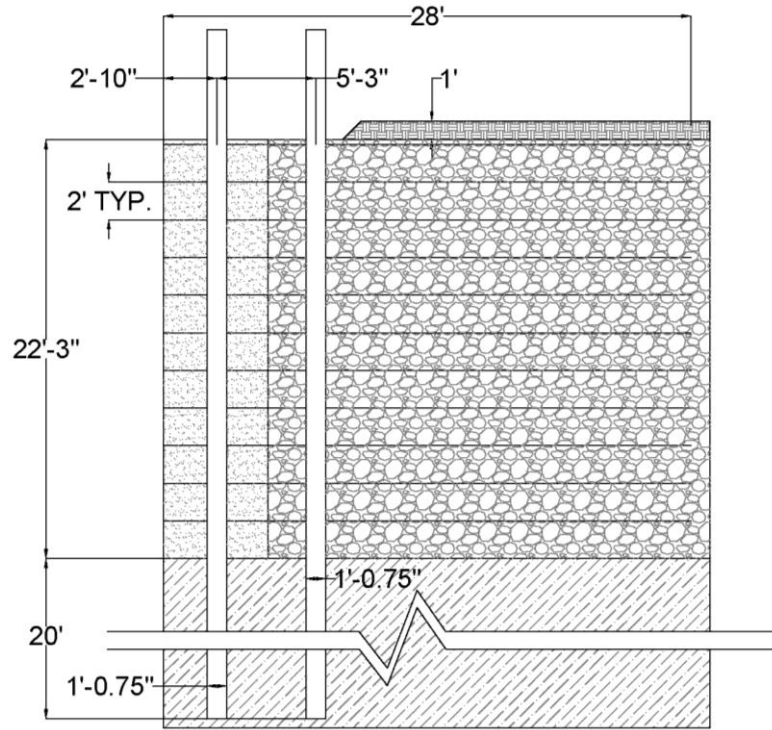


Figure 3.19: Profile view of Test Pile 7 (TP7); cross-section B-B from Figure 3.15

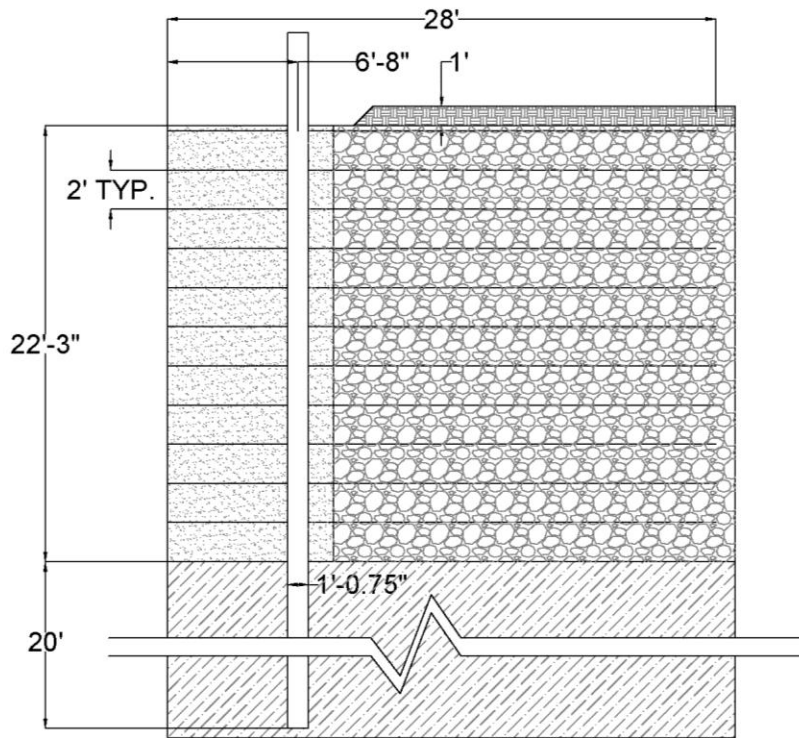


Figure 3.20: Profile view of Test Piles 8 and 9 (TP8 and TP9); cross-section C-C from Figure 3.15

4. INSTRUMENTATION

4.1 Load Cell and Pressure Gauge

During testing, the load applied to each pile was monitored by a load cell and checked with a pressure gauge. The load cell was placed between the hydraulic jack and the pile. Hemispherical end platens were placed between the load cell and the pile to minimize any eccentric loading on the load cell. The pressure gauge was attached to the hydraulic jack and measured the hydraulic pressure. The pressure gauge was observed visually during the loading to verify the accuracy of the load cell by comparing the gauge reading to a chart also attached to the jack. The load cell was connected to a data logger.

The same hydraulic jack, load cell and pressure gauge were used on all test piles. The typical configuration is shown in the photo presented in Figure 4.1. The figure shows the configuration just prior to testing for Test Pile 3 at the Pioneer Crossing site.

4.2 Strain Gauges

Strain gauges were used to determine the increased load in the soil reinforcement and the bending moment in the piles. The gauges were mounted to the reinforcement and the piles following the manufacturer's recommended installation procedures. Sections 4.2.1 and 2 discuss the strain gauges on the reinforcement and piles, respectively, in more detail.

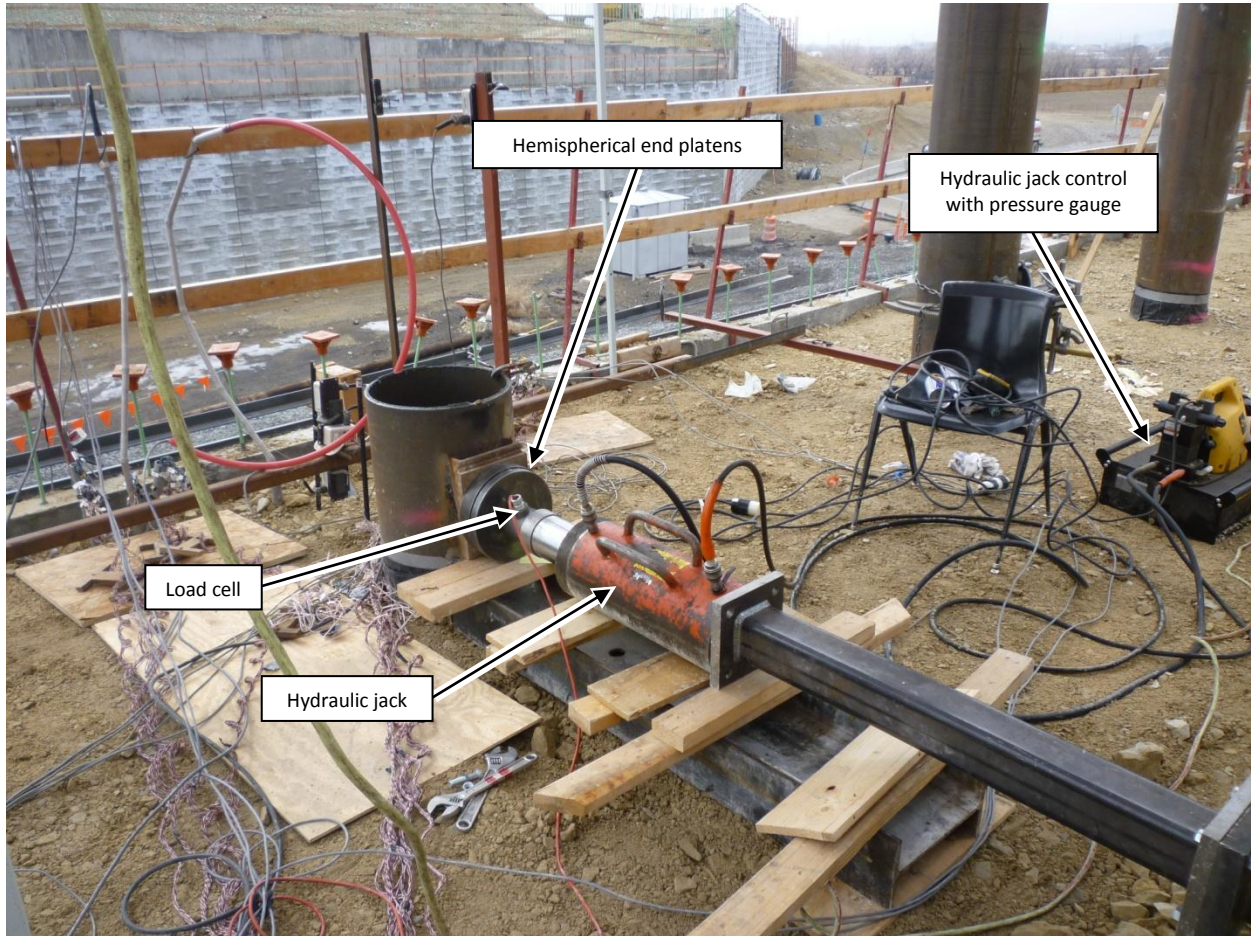


Figure 4.1: Typical load cell and pressure gauge configuration as shown at TP3.

4.2.1 Reinforcement Load

General purpose Texas Measurements Group standard electrical resistance strain gauges were mounted on select straps or longitudinal wires for the wire grids and on either side of each test pile. FLA-2-11 series gauges were used with lead wire lengths varying from 10 to 26 ft. The reinforcements to be instrumented were brought to the Department of Civil and Environmental Engineering structural lab at Brigham Young University, where the gauges were installed. The instrumented reinforcement was protected and stored at the lab until the contractor was ready to install them.

The intent of each wire selection for the strain gauge mounting was to monitor wires equidistant from the pile. For the test piles at the U.S. Highway 89 and Provo Center Street sites,

only the top layer of reinforcement was instrumented because of time and budget constraints (notice of the opportunity to test was obtained shortly before construction). For the test piles at the Pioneer Crossing and Center Street sites two to three of the top three layers of reinforcement adjacent to each test pile were instrumented.

The strain gauges were mounted in pairs with one located on the top and one on the bottom of the wire or strap. Strain gauge installation in pairs provides redundancy in case of damage during the installation and backfill placement. In addition, they allow corrections for bending in the reinforcement. Gauge pairs were installed at varying distances from the wall to provide an assessment of the shear transfer in the reinforcement as lateral load was applied to the pile. The lead wires for the gauges were taped to the longitudinal reinforcement and brought to the back face of the MSE wall. At the back face of the wall, the lead wires were placed into a PVC pipe bringing them up the back face of the wall to the ground surface. Table 4.1 shows the location of each wire that was instrumented in relation to the test piles at the U.S. Highway 89 site, along with the location of the strain gauges on the wire in relation to the back face of the MSE wall. Table 4.2 shows the location of instrumented wires for the Pioneer Crossing site. The location of the instrumented straps for Provo Center Street is shown in Table 4.3. The transverse distance from the pile is shown as R for right or L for left when standing at the pile and looking toward the MSE wall. Figure 4.2 and 3 show the plan and profile view, respectively, of TP3 to demonstrate the notation for the reinforcement strain gauges. Photographs of the installed welded wire grids at the U.S. Highway 89 site are shown in Figure 4.4 and 5.

Table 4.1: Location of instrumented welded wire grids at the U.S. Highway 89 site.

Test Pile	Wire Name	Location of longitudinal wire on grid*	Distance from center line of pile (ft)	Distance from top of wall (ft)	Strain gauge distances from back face of wall (ft)
TP1	A	4 of 4	2.14 L	1.33	0.5, 3, 6, 8, 10, 12, 14
	B	1 of 4	0.80 L		
	C	3 of 4	1.93 R		
TP2	D	4 of 4	2.20 L	1.58	0.5 ⁺ , 3 ⁺ , 6, 8, 10, 12, 14
	E	1 of 4	0.20 L		

*Location 1 is the longitudinal bar that is closest to the test pile.

⁺Wire E cut and bent around pile as shown in Figure 4.5.

Table 4.2: Location of instrumented welded wire grids at the Pioneer Crossing site.

Test Pile	Wire Name	Location of longitudinal wire on grid*	Distance from center line of pile (ft)	Distance from top of wall (ft)	Strain gauge distances from back face of wall (ft)
TP3	F	2 of 3	2.50 L	1.75	0.5, 3.5, 6, 8.5, 11, 13.5
	G			3.26	0.5, 6, 11
	H			5.34	0.5, 3.5, 6, 8.5, 11, 13.5
	J		3.42 R	1.75	0.5, 3.5, 6, 8.5, 11, 13.5
	K			3.26	0.5, 6, 11
	L			5.34	0.5, 3.5, 6, 8.5, 11, 13.5
TP4	M	2 of 4	1.71 L	1.75	1, 3, 6, 9, 13, 18
	N			4.36	1, 3, 6, 9, 13
	P		3.33 R	1.75	1, 3, 6, 9, 13, 18
	Q			4.65	1, 3, 6, 9, 13
TP5	R	2 of 4	4.67 L	1.75	1, 3, 6, 9, 13, 18
	S			3.78	1, 3, 6, 9, 13
	T		3.42 R	1.75	1, 3, 6, 9, 13, 18
	U			4.15	1, 3, 6, 9, 13

*Location 1 is the longitudinal bar that is closest to the test pile.

Table 4.3: Location of instrumented metal straps at the Provo Center Street site.

	Strap Name	Location on Strap	Distance from center line of pile (ft)	Distance from top of wall (ft)	Strain gauge distances from back face of wall (ft)
TP6	T1	Top	1.67L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L1	Top	3.58L	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T2	Top	0.33R	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L2	Top	1R	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T3	Top	2.67R	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L3	Top	2.67R	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
TP7	T3	Top	2.75L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L3	Top	2.75L	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T	Top	0.33L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T4	Top	1R	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L4	Top	2.42R	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
TP8	T3	Top	5.58L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L3	Top	5.58L	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T	Top	3.17L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T4	Top	1.83L	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L4	Top	0.42L	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	T5	Top	1.92R	1	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18
	L5	Top	1.92R	3	2, 4, 6, 9, 12, 15
		Bottom			2, 4, 6, 9, 12, 15, 18

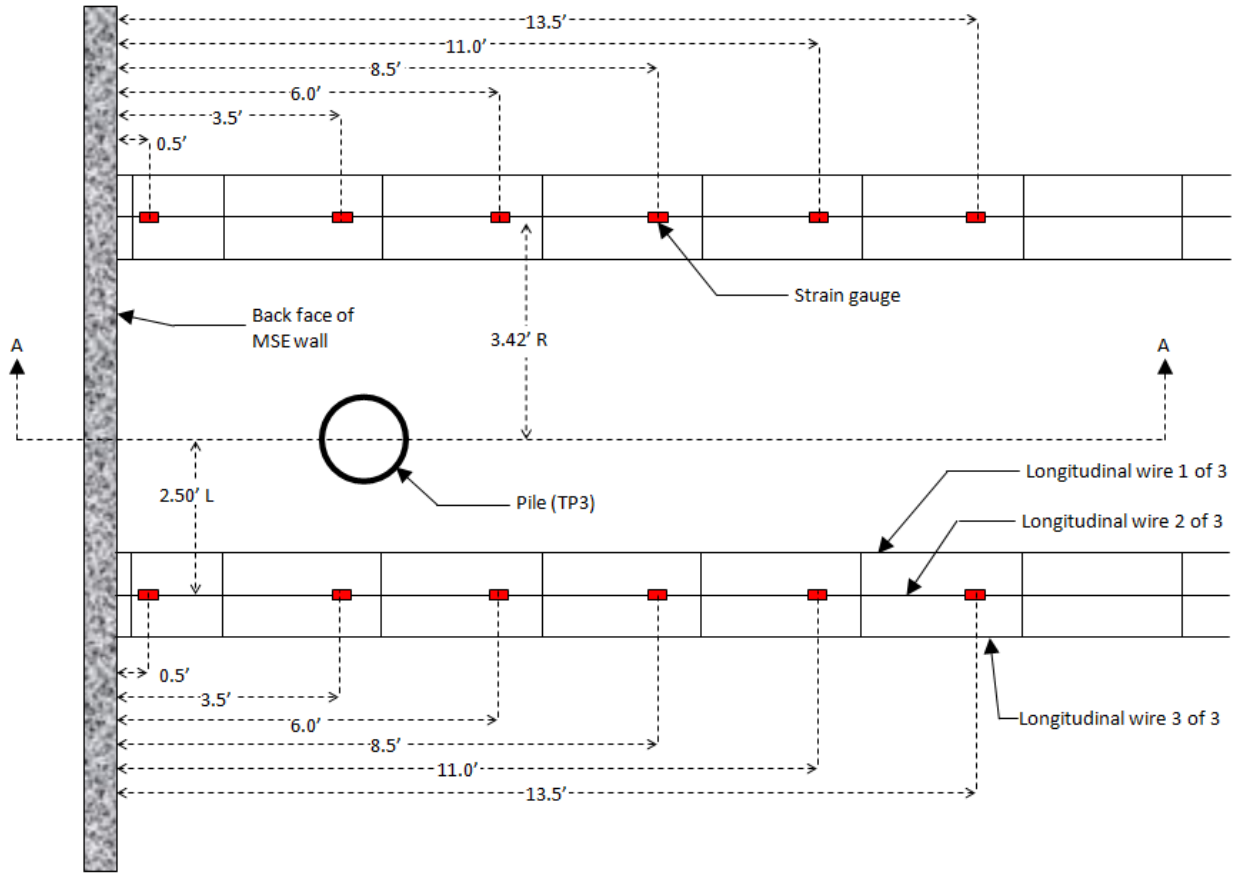


Figure 4.2: Plan view of top layer of reinforcement at TP3.

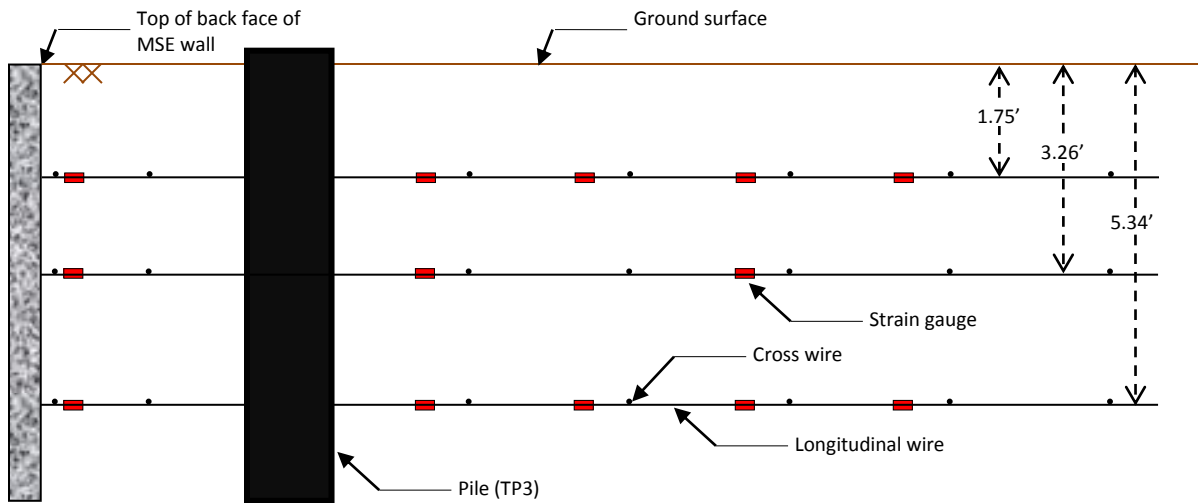


Figure 4.3: Profile view of top three layers of reinforcement at TP3; section A-A from Figure 4.2.

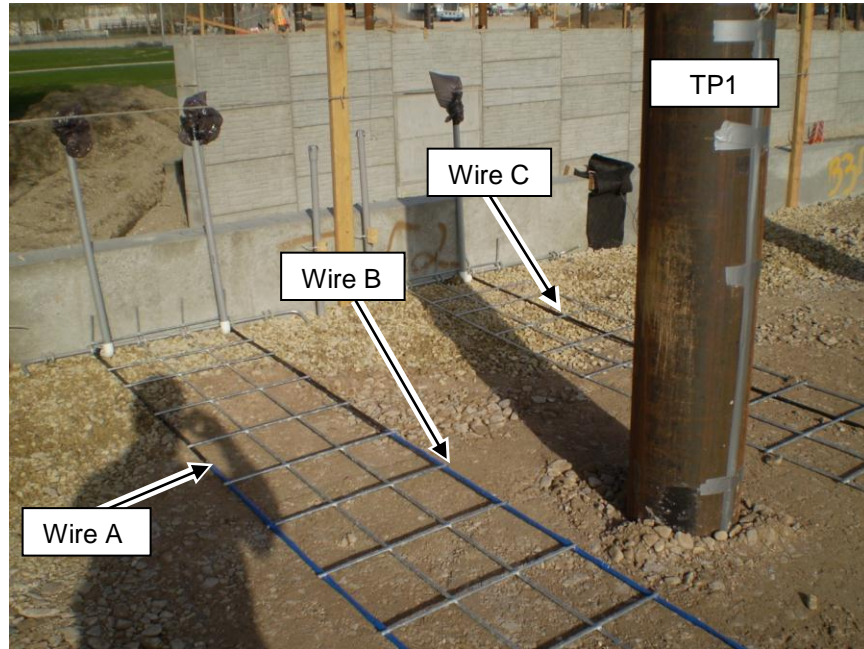


Figure 4.4: View of longitudinal wires that were instrumented near TP1 (U.S. Highway 89 site).

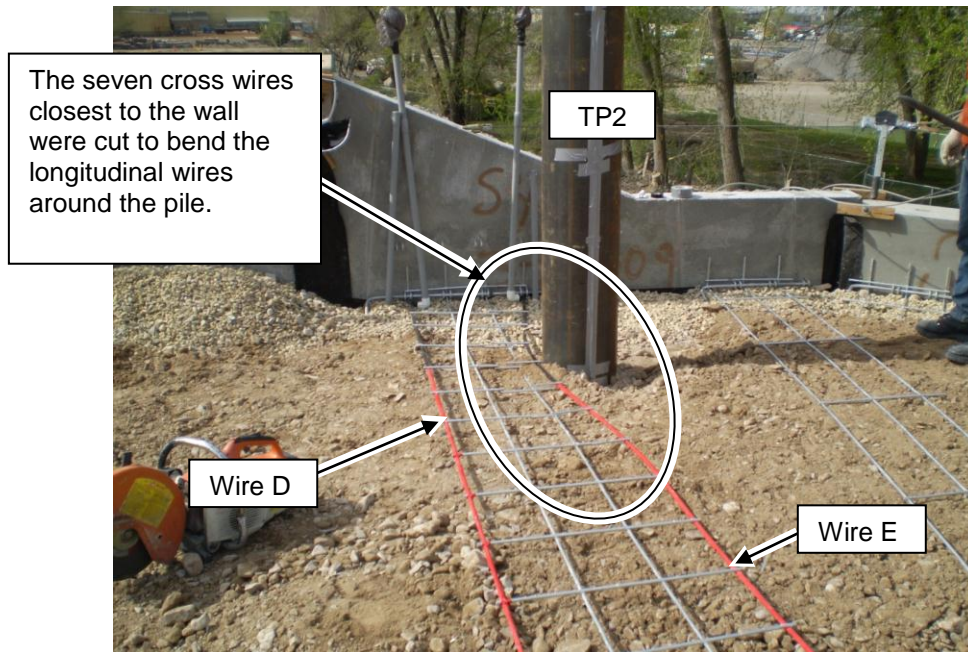


Figure 4.5: View of the longitudinal wires that were instrumented near TP2 (U.S. Highway 89 site).

4.2.2 Pile Bending Moment

Waterproof construction TML standard electrical resistance strain gauges were mounted on the outside walls of the piles after driving. WFLA-6-11 series gauges were used with lead wire lengths varying from 10 to 20 ft. The gauges were installed at several depths below the ground surface on each test pile. Strain gauges were mounted in pairs at each depth with one gauge on the side of the pile that was loaded and the other gauge on the opposite side.

At the U.S. Highway 89 site, the strain gauge wires were run straight up the pile to the ground surface and were protected only by duct tape. As a result, several of the wires were damaged during wall construction and had to be repaired. For the test piles at the Pioneer Crossing and Provo Center Street sites, the wires were protected by tack welding 0.125 in. thick steel angle with 2 in. legs over the strain gauges and wires. The steel angle began just below the lowest strain gauge elevation and ran up to the top of wall elevation. No welds were placed within 6 in. of any strain gauge to prevent damage from the heat of the welding process. Table 4.4 shows the location of the strain gauge pairs for each test pile.

Table 4.4: Location of strain gauge pairs for each test pile.

Test Pile	Strain gauge depth below ground surface (ft)	Strain gauge wire protection
TP1	0, 2, 4, 6, 9	Duct tape
TP2	0, 2, 4, 6, 9	Duct tape
TP3	0, 1, 3, 5, 7, 10, 13, 16	Steel angle welded onto pile
TP4	0, 2, 4, 6, 9, 12, 15	Steel angle welded onto pile
TP5	0, 2, 4, 6, 9, 12, 15	Steel angle welded onto pile
TP6	0, 3, 6, 9, 12	Steel angle welded onto pile
TP7	0, 3, 6, 9, 12	Steel angle welded onto pile
TP8	0, 3, 6, 9, 12	Steel angle welded onto pile

4.3 String Potentiometers

AMETEK RAYELCO model P-20A string potentiometers (also known as linear motion transducers) were installed to measure the displacement and rotation of the pile, displacement of

the ground and the top of the wall directly in front of the pile. The string potentiometers were attached to an independent reference frame located between the pile and the wall face.

The independent reference frame varied slightly between test piles. For the piles at the U.S. Highway 89 site, a 2x4 piece of lumber was attached to the adjacent piles for TP1 and to concrete nails for TP2 and cantilevered such that they extended over the edge of the wall. A third 2x4 rested on the two cantilevered 2x4s between the test pile and the wall. The string potentiometers were attached to this third 2x4. Figure 4.6 shows the independent reference frame set up for TP1.

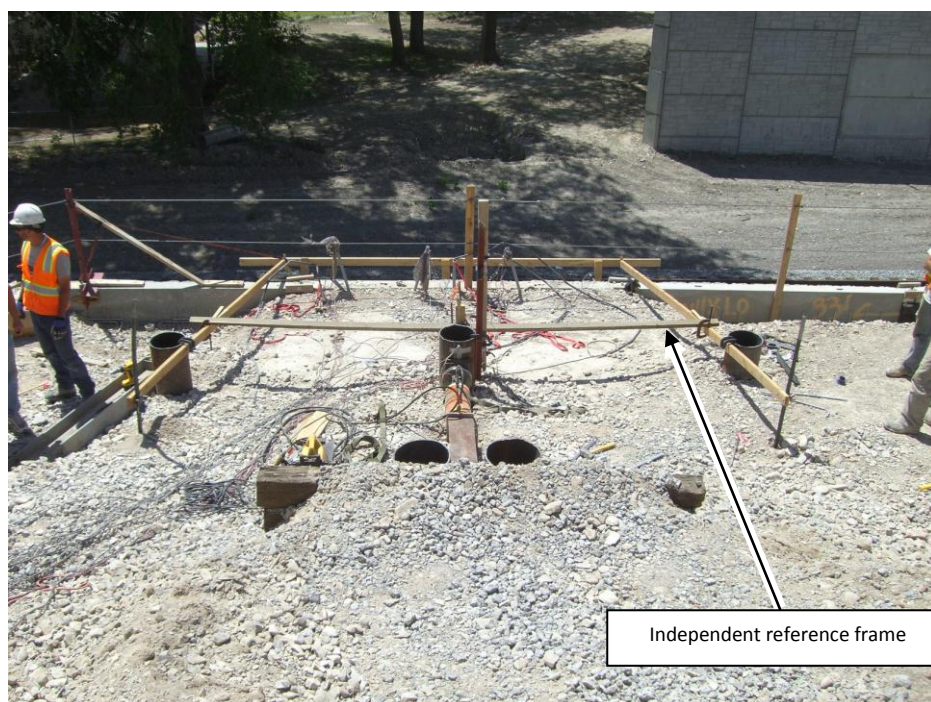


Figure 4.6: Independent reference frame at TP1 (U.S. Highway 89 site).

For the test piles at the Pioneer Crossing site a more sturdy independent reference frame was used. A 6 ft. long steel angle was welded onto each of the piles adjacent to TP3 such that the steel angles cantilevered over the MSE wall. A 20 ft. long steel box section was fastened to the top of the steel angles, and the string potentiometers were attached to this box section. Figure 4.7 shows the independent reference frame for TP3.

For TP4 and TP5 there were no adjacent piles, so heavy I-beam sections were positioned outside the expected zone of influence. Ten foot long 4x4 pieces of lumber were fastened on top

of the end I-beam and laid on top of steel pins which rested on the other I-beam section. The steel pins acted as rollers to eliminate any effects of the lateral loading on the reference frame. At the Provo Center Street site the test set up was similar to that of the set up for TP3.



Figure 4.7: Independent reference frame at TP3 (Pioneer Crossing site).

4.3.1 Pile Head Displacement and Rotation

Pile head displacement and rotation were measured using string potentiometers with one end mounted to the pile and the other end mounted to an independent reference frame. For the pile head displacement, the string potentiometer was mounted on the side of the pile at the same elevation as the load level. A string potentiometer was also mounted 3 ft. above the load level and to the independent reference frame at the same elevation. The difference between the two string potentiometer readings could then be used to determine the rotation of the pile during testing.

4.3.2 Ground Displacement

The ground displacement between the pile and the wall face was measured by connecting the wire from the string potentiometer to a steel pin driven into the ground. Table 4.5 shows the location of the pins where the ground displacement was measured for each pile. The distance shown in the table is the distance from the back face of the wall. Figure 4.8 and 9 show the plan and profile view, respectively, of instrumentation installed at TP3 to demonstrate the notation in Table 4.5.

Table 4.5: Location of string potentiometers measuring ground displacement.

Test Pile	Distance from back face of wall to string potentiometer (ft)	Distance from back face of wall to center of test pile (ft)
TP1	1.2, 3.2, 5.2	7.7
TP2	2.0	4.0
TP3	0.0, 1.2, 2.3	3.8
TP4	0.0, 1.8, 3.6	6.9
TP5	0.0	2.2
TP6	0.0, 1.3	1.3
TP7	0.0, 8.1	2.8
TP8	0.0, 2.0, 4.4	6.7

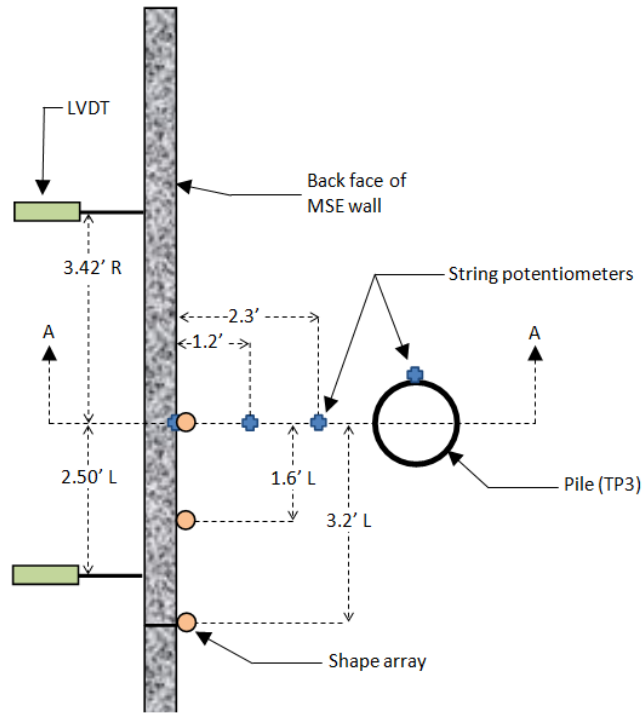


Figure 4.8: Plan view of instrumentation installed at TP3.

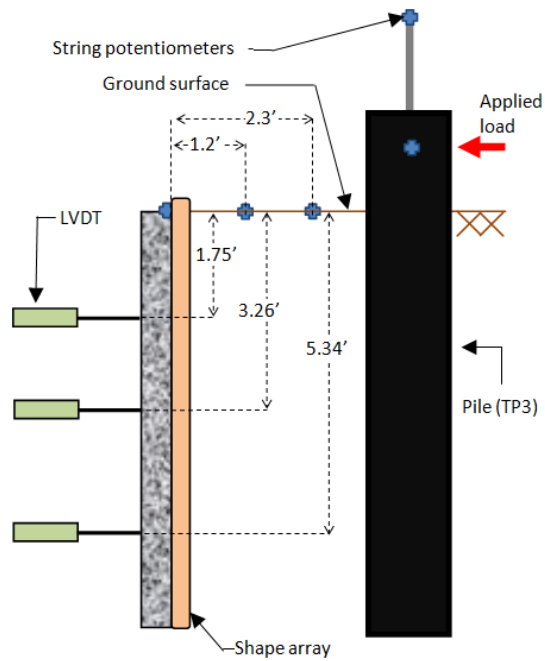


Figure 4.9: Profile view of instrumentation installed at TP3.

4.4 Linear Variable Differential Transformers (LVDTs)

Spring loaded linear variable differential transformers (LVDTs) were placed against the front face of the MSE wall to measure the displacement of the top wall panel. The LVDTs were attached to the independent reference frame discussed in section 4.3.

Table 4.6 through 8 show the location of the LVDTs for the tests at the U.S. Highway 89, Pioneer Crossing, and Provo Center Street sites, respectively.

Table 4.6: Location of LVDTs on wall face at the U.S. Highway 89 site.

Test Pile	Panel ID	Panel width (ft)	Panel height (ft)	Distance from center line of pile to center of panel (ft)	Distance along wall face from center line of pile to LVDT (ft)	Distance from top of wall (ft)
TP1	T52	11.94	4.07 L / 3.83 R	0.76 R	5.21 L	0.33
					5.21 L	3.5
					0 (Center Line)	0.25
					0 (Center Line)	3.34
					5.44 R	0.13
					5.88 R	3.34
TP2	S4	9.58	4.15 L / 1.97 R	1.75 R	3.02 L	0.31
					2.91 L	3.42
					0 (Center Line)	0.23
					0.10 L	1.93
					4.56 R	0.09
					4.60 R	1.89

Table 4.7: Location of LVDTs on wall face at the Pioneer Crossing site.

Test Pile	Panel ID	Panel width (ft)	Panel height (ft)	Distance from center line of pile to center of panel (ft)	Distance along wall face from center line of pile to LVDT (ft)	Distance from top of wall (ft)
TP3	T31	9.93	6.56	1.75 R	2.50 L	1.75
						3.26
						5.34
					3.42 R	1.75
						3.26
						5.34
TP4	T34	9.94	2.72 L / 3.15 R	3.67 L	7.33 L 1.71 L	1.75
						1.75
	A	9.94	4.94	3.67 L	7.33 L 1.71 L	4.15
						4.36
	T33	9.94	5.65 L / 6.08 R	6.33 R	3.33 R	1.75
						4.65
TP5	T35	9.94	4.77 L / 5.22 R	2.92 L	4.67 L	1.75
						3.78
	T34	9.94	2.72 L / 3.15 R	7.08 R	3.42 R 9.04 R	1.75
						1.75
	A	9.94	4.94	7.08 R	3.42 R 9.04 R	4.15
						4.36

Table 4.8: Location of LVDTs on wall face at the Provo Center Street site.

Test Pile	Panel width (ft)	Panel height (ft)	Distance along wall face from center line of pile to LVDT (ft)	Distance from top of wall (ft)
TP6	9.83	4.83	3.67 L	0.25, 1.58
				0.25, 1.58
			3.0 R	0.25, 1.58
				0.25, 1.58
TP7	9.83	4.83	2.88 L	0.25, 1.58
			2.04 R	0.25, 1.58
TP8	9.83	4.83	2.46 L	0.25, 1.58
			2.88 R	0.25, 1.58

4.5 Shape Arrays

Trade size 1 inch schedule 40 PVC pipe (inside diameter of 1.049 inch) was placed vertically along the back face of the wall during construction at the locations noted in Table 4.9 and 10. A Measurand ShapeAccelArray (SAA), referred to herein as a Shape Array, was placed in each pipe during testing to measure the deformation of the wall face. The Shape Array consists of 12 inch segments, each containing three MEMS accelerometers. Each segment is connected by a flexible joint. The digital signal sent from each accelerometer was collected by the data logger and analyzed using SAAREcorder software.

Table 4.9: Location of Shape Arrays on back of wall at the U.S. Highway 89 site.

Test Pile	Shape Array ID	Distance along wall face from center line of pile to Shape Array (ft)	Depth of Shape Array below surface (ft)
TP1	45112	4.9 L	12
	45104	0 (Center Line)	12
	45115	0.9 R	13
TP2	45112	2.2 L	9
	45104	0 (Center Line)	13
	45115	1.3 R	10

Table 4.10: Location of Shape Arrays on back of wall at the Pioneer Crossing site.

Test Pile	Shape Array ID	Distance along wall face from center line of pile to Shape Array (ft)	Depth of Shape Array below surface (ft)
TP3	45112	3.2 L	20.5
	45134	1.6 L	20.25
	46622	0 (Center Line)	19.25
TP4	46622	2.5 L	20.5
	47083	0 (Center Line)	20.5
TP5	46622	2.5 R	20.5
	47083	0 (Center Line)	19.5

5. LATERAL LOAD TESTING

The lateral load tests were performed incrementally with a displacement control approach. Load was applied using a free-head boundary condition at a distance of 1 ft. above the ground surface. Load was applied to reach displacement increments of 0.25 in. up to a total displacement of up to 3.5 in. This approach was adopted to define the load-displacement curve in a reasonable manner. After reaching each displacement increment, the load required to reach that increment was held constant for a period of at least 2 minutes before moving to the next displacement increment.

The reaction for each load varied for each test pile. At the U.S. Highway 89 site, short sections of pile that had been cut off the production pile were driven up to 3 ft. and used in conjunction with the passive resistance from railroad ties against the surcharge to act as the reaction. Figure 5.1 and 2 show the reactions for loading of piles TP1 and TP2 respectively.

For TP3 at the Pioneer Crossing site, a Komatsu 600 track hoe was used in conjunction with the passive resistance provided by the surcharge to react the load. The track hoe sat on top of the surcharge with the bucket placed at the base of the surcharge as shown in Figure 5.3.

For TP4 at the Pioneer Crossing site, a CAT 980 rubber tire loader was initially used as the reaction for the load. This equipment was used because it was the only equipment on site at the time of testing. There was no surcharge in place at TP4 to help react to the load. The loader started to move when the load exceeded 25 kips (with a pile head displacement of 0.75 in.). The test was stopped until a different piece of equipment could be brought to the site. Three days later, a CAT D8R dozer was brought to the site. The dozer was able to react the full load of approximately 50 kips. The same dozer was used to react the loading of TP5. Figures 5.4 and 5 show the reactions for loading of piles TP4 and TP5.



Figure 5.1: Reaction for load at TP1 (U.S. Highway 89 site).



Figure 5.2: Reaction for load at TP2 (U.S. Highway 89 site).



Figure 5.3: Reaction for load at TP3 (Pioneer Crossing Site).



Figure 5.4: Reaction for load at TP4 up to 0.75 in. displacement (Pioneer Crossing Site).



Figure 5.5: Equipment used to react load at TP4 from 0.75 to 3.5 in. displacement, and all load at TP5 (Pioneer Crossing Site).

For piles TP6, and TP8 a CAT D6 dozer was used for the reaction. It was heavy enough for the ultimate load of 33 kips applied to pile TP8. For pile TP7 a reaction pile was used that was driven into the ground at the same time as the other piles and to the same depth. This reaction pile was directly behind pile TP7 as shown in Figure 3.15.

Results of the lateral load testing are discussed in the sections that follow. The data for the first four tests was collected by the Megadac data logger at a rate of 5 readings per second and the data for the last four tests was collected at rate of 2 readings per second. The data was analyzed by looking at the peak values and the final values for each displacement increment. The peak values are taken to be the average of the first two data points when the desired displacement interval was reached. The final values are taken to be the average of the data points recorded from 58 to 62 seconds, or 1 minute into the hold time at the desired displacement.

5.1 U.S. Highway 89 Site

5.1.1 Load Displacement Curves

Applied pile head load is plotted vs. pile head displacement for the lateral pile load tests at TP1 and TP2 in Figure 5.6 at the peak load and in Figure 5.7 at the final load. Appendix B contains load-displacement curves for each individual test pile. These curves typically have a stiff, relatively linear initial section followed by a more non-linear segment as the soil resistance is mobilized progressively from the top of the pile downward and secant stiffness decreases. For a given displacement, the final load (load after a one minute hold) is generally about 7% lower than the peak load.

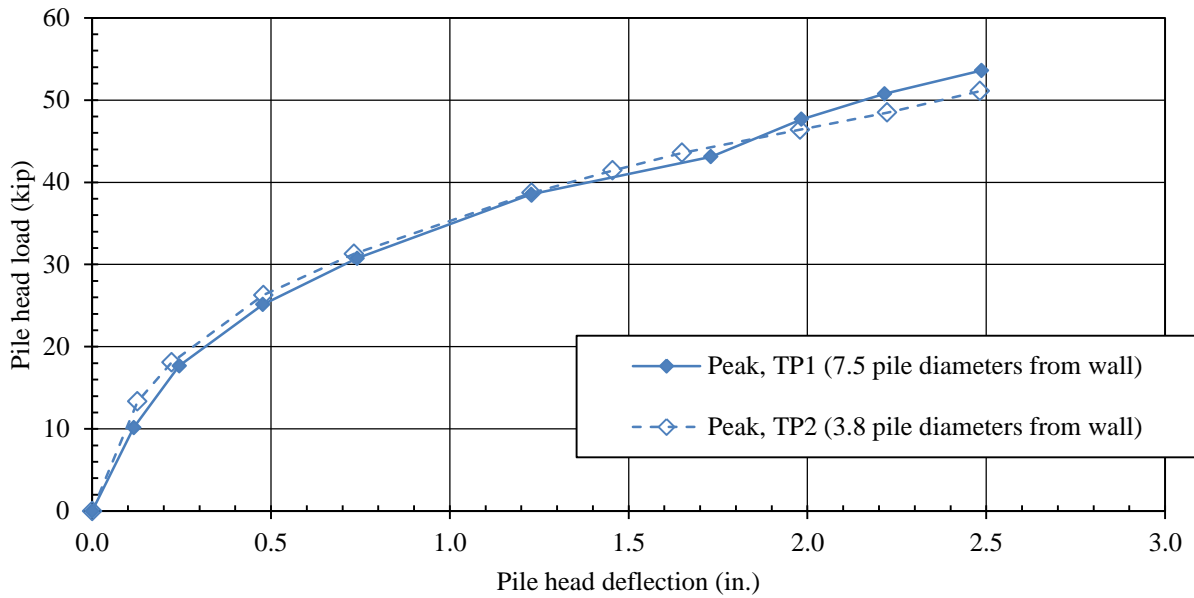


Figure 5.6: Comparison of load-displacement curves for TP1 and TP2 (U.S. Highway 89 site) for the peak data points.

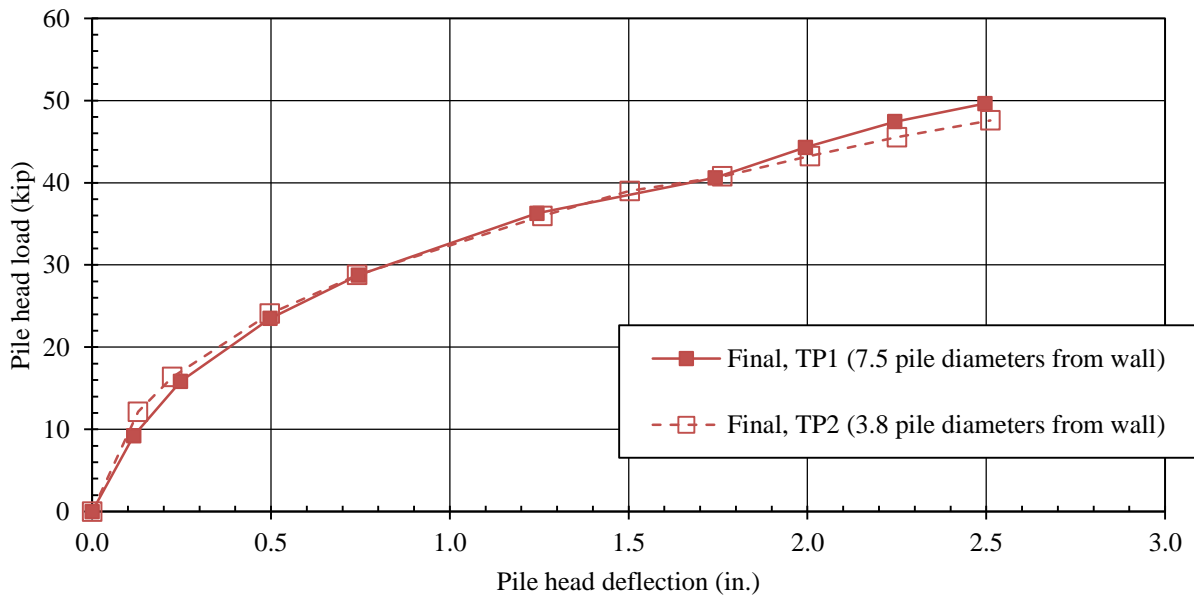


Figure 5.7: Comparison of load-displacement curves for TP1 and TP2 (U.S. Highway 89 site) for the final data points.

The lateral resistance for TP1, located 7.5 pile diameters from the wall is only slightly higher than that for TP2, located only 3.8 pile diameters from the wall. For practical purposes, the two load-displacement curves could be assumed to be identical. These results are in sharp contrast to Pierson et al. (2009) in which the lateral resistance decreased by over 50% as the test piles were located closer to the MSE wall face.

Three conditions exist which may explain this observed discrepancy. First, as indicated previously, the reinforcement length of $1.6H$ at the time of testing is considerably higher than the typical value of $0.7H$ for static conditions, where H is the wall height. The reinforcement length is also considerably higher than that which is typical for seismic conditions ($1.0H$ to $1.3H$). Among other factors, the reinforcement pull-out resistance is a function of the reinforcement length and the vertical effective stress on the reinforcement. The longer reinforcement length, coupled with the increased vertical stress from the fill behind the wall, would provide greater lateral resistance to pull-out which would help the wall to resist the lateral forces applied by the test pile as it was displaced towards the wall. This in turn would provide increased lateral resistance for the pile.

A second factor may be that for the closest test pile the reinforcements overlap diagonally because of the geometry of the wall face near the corner of the wall. This again would provide somewhat greater pile resistance. These factors would suggest that the lateral pile resistance for a pile located close to an MSE wall can be significantly increased by increasing the factor of safety against pull-out for the reinforcing grid.

A third potential explanation for the relatively comparable performance may simply be that the piles could both be located far enough from the wall face that the lateral resistance was not compromised by the presence of the wall. It should be noted, for example, that the normalized spacing for the closest test pile at Pleasant Grove is 3.8 diameters which is about the same as the largest spacing tested by Pierson et al (2009). In reality, some combination of all three mechanisms could be occurring.

5.1.2 Soil Reinforcement Performance

The load on the entire wire grid was calculated from the strain gauge data using Equation 5-1. The average value of the paired strain gauges was used when both gauges were functioning.

There were several locations where one gauge was damaged during installation, in which case only the data from the functioning gauge was used.

$$T_i = EA(\mu\varepsilon_i - \mu\varepsilon_o)(10^{-6})(B) \quad (5-1)$$

where

T_i is the equivalent induced force in kips for the wire grid at the i^{th} data point,

E is the modulus of elasticity of the steel mat (2900 ksi),

A is the cross sectional area of the wire instrumented (0.11 in^2),

$\mu\varepsilon_i$ is the micro strain for the i^{th} data point,

$\mu\varepsilon_o$ is the micro strain for the initial data point, and

B is a location factor as calculated in Equation 5-2.

$$B = (n - 1)x \quad (5-2)$$

where

n is the number of longitudinal wires in the reinforcement grid and

x is 1 for interior longitudinal wires or 2 for wires on the edge of the grid.

The increased load in the welded wire grid as measured by the strain gauge data from wires A and B due to the lateral loading of pile TP1 is shown in Figure 5.8 and 9, respectively. These two figures indicate that the induced load in the welded wire grid is greatest near the pile with an average measured load of 5 kips when the maximum pile load was applied as shown in Figure 5.10. Figure 5.11 shows the induced load as measured by the strain gauge data from wire C. Similar figures for the wire grids on either side of TP2 are found in Appendix C. The load is plotted as a function of distance from the wall for several pile head deflections increments. As the pile head deflection (and lateral load) increases, the induced force in the reinforcing mat also increases.

Figure 5.12 compares the induced force in the welded wire grids adjacent to TP1 and TP2. The force in the grid near TP1 is approximately half the load in the grid near TP2. This

result suggests that the reinforcement grid is providing some beneficial influence in restraining the MSE wall from movement for the pile spaced closer to the wall.

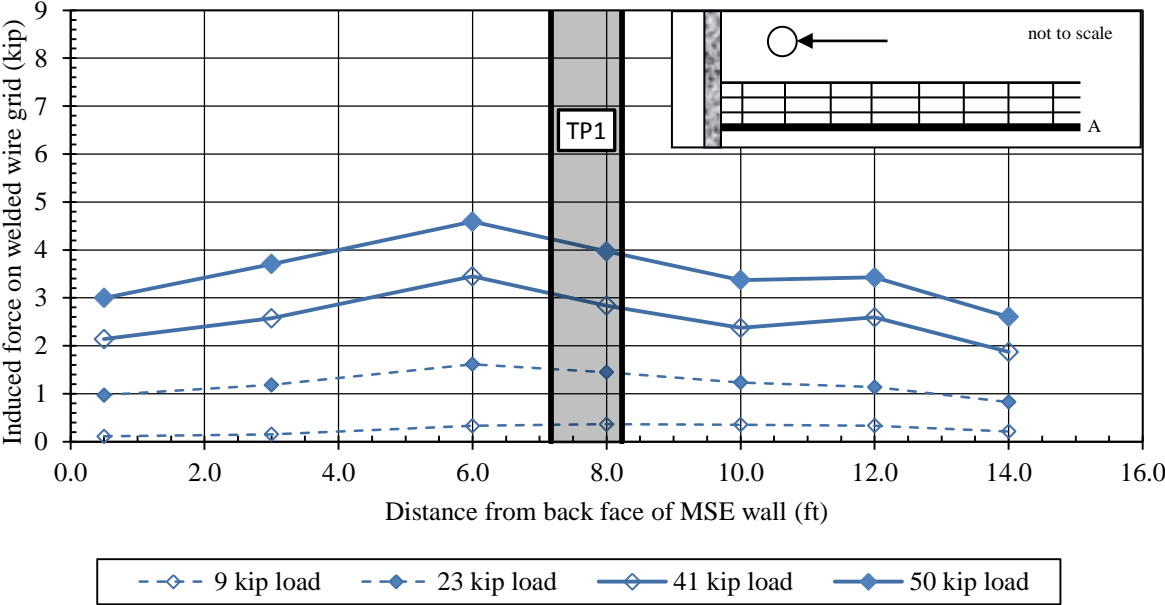


Figure 5.8: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire A during loading of TP1 (see Table 4.1).

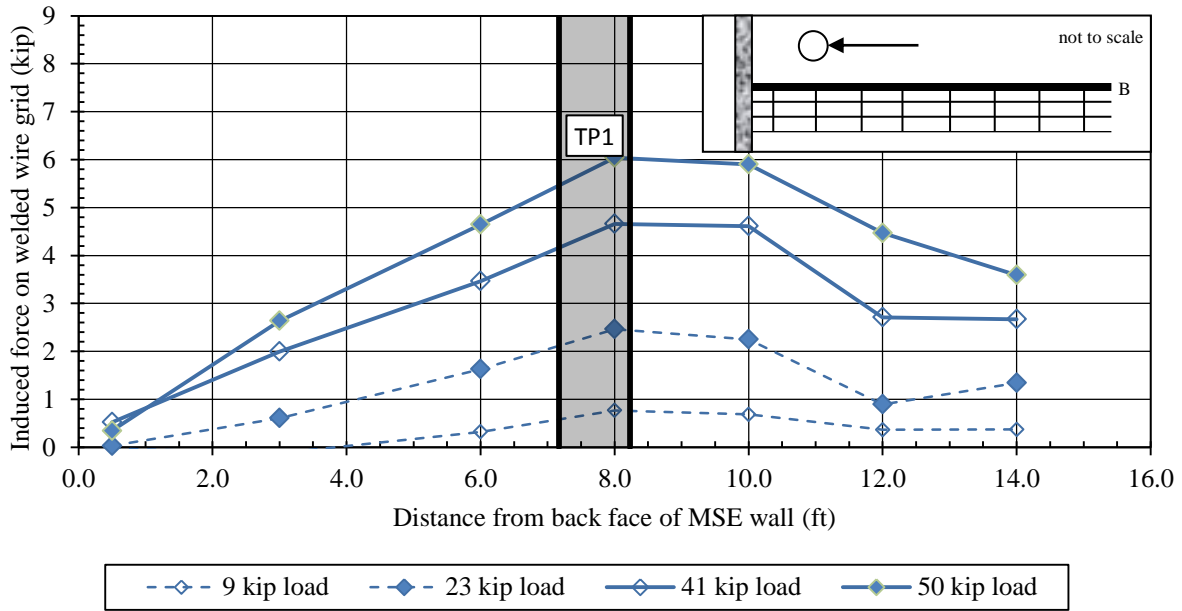


Figure 5.9: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire B during loading of TP1 (see Table 4.1).

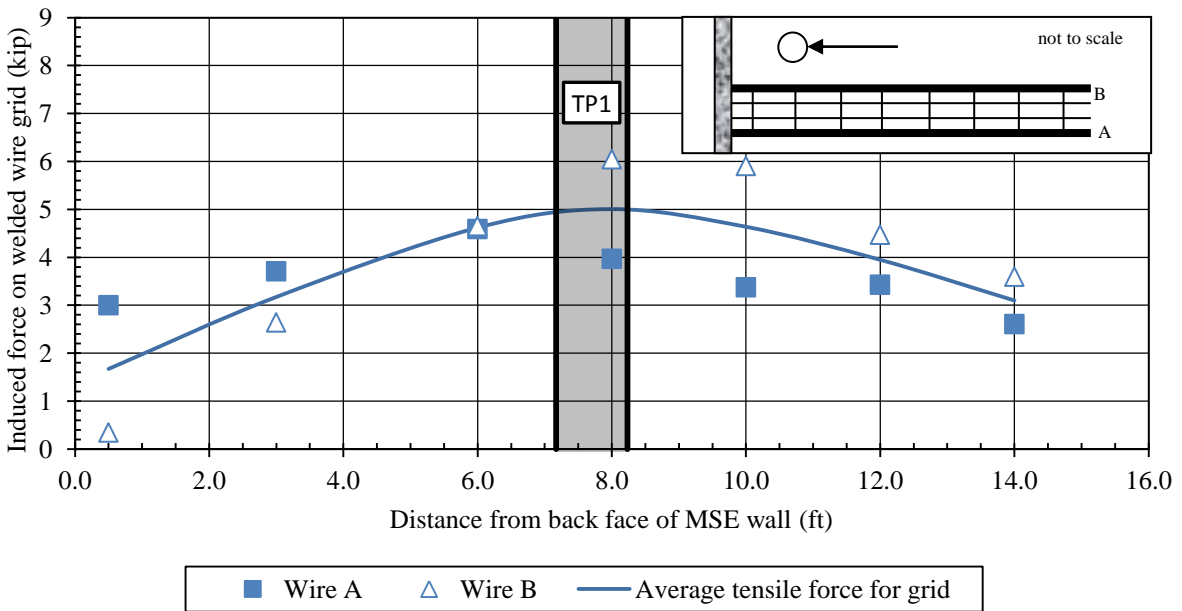


Figure 5.10: Average induced load in welded wire grid vs. distance from back face of pile with a 50 kip load applied to the test pile TP1.

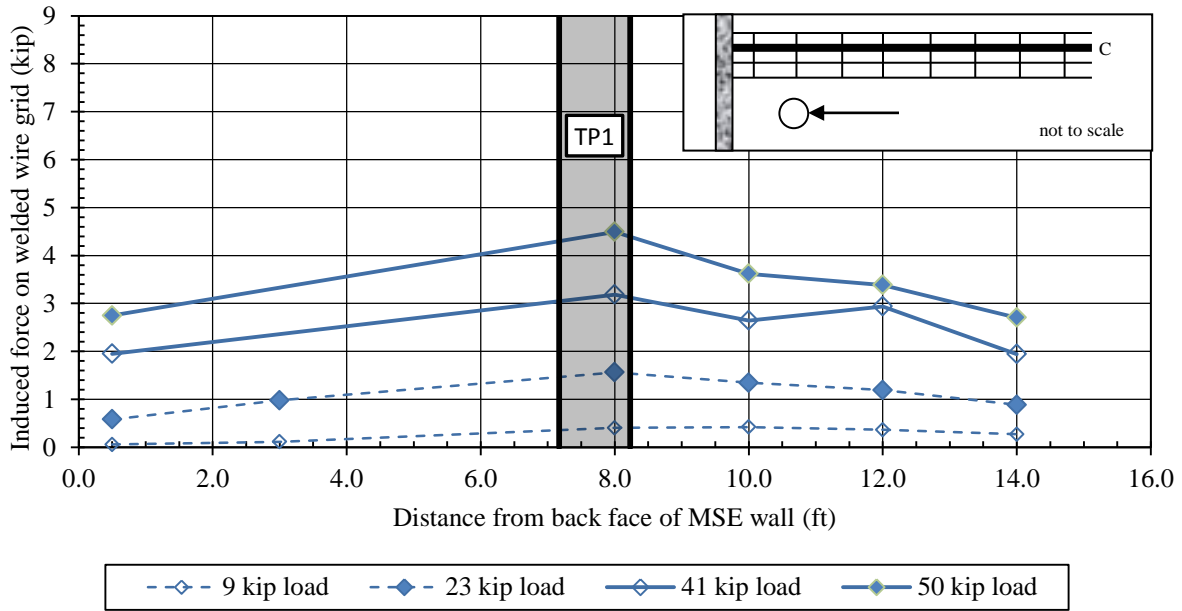


Figure 5.11: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire C during loading of TP1 (see Table 4.1).

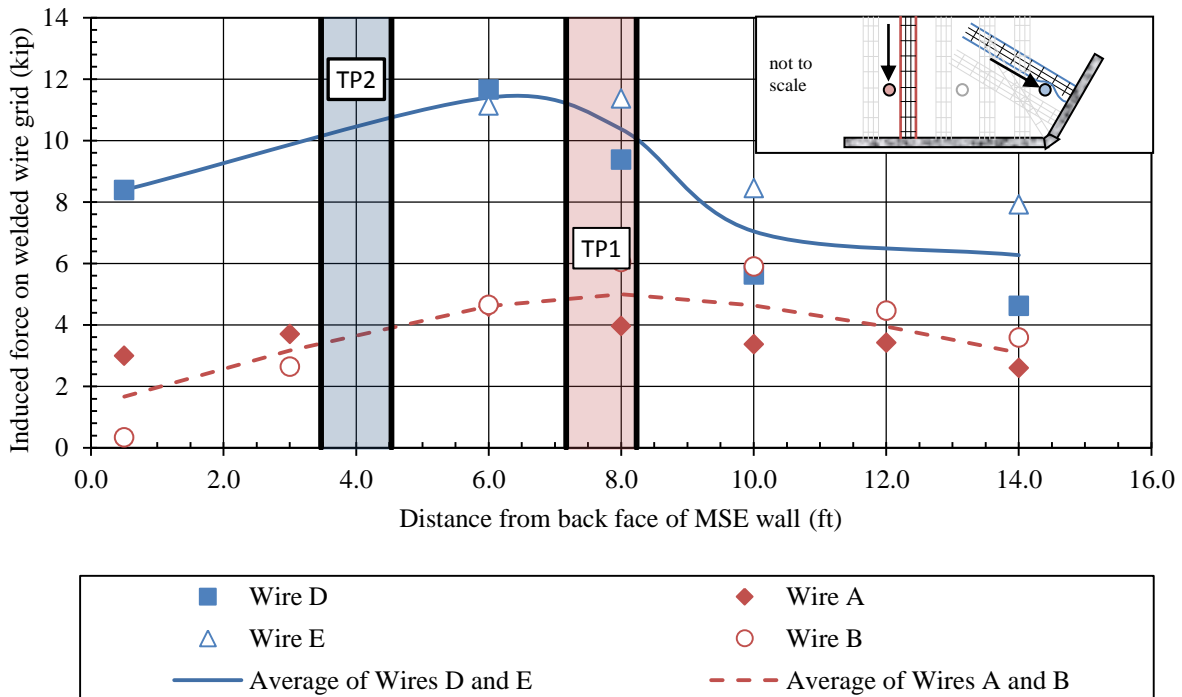


Figure 5.12: Comparison of the induced load in the welded wire grids adjacent to TP1 and TP2.

The force distribution in the grid suggests that soil in front of the pile is being pushed forward as the pile is loaded while soil behind the pile is serving to anchor the reinforcement grid. Behind the the pile, the grid is moving towards the wall relative to the soil. This leads to a decrease in tension in the grid behind the pile as load is transferred to the surrounding soil by skin friction. It is anticipated that the increased tension in the grid behind the pile will go to zero when the factor of safety against pullout is greater than one. In front of the pile, the soil is moving toward the wall relative to the grid. This leads to an increase in tension in the grid as load is transferred from the soil to the grid by skin friction. A positive tensile force in the reinforcement at the wall face is likely a result of the increased earth pressure on the wall. This interaction between the soil and the reinforcement is illustrated in Figure 5.13 below.

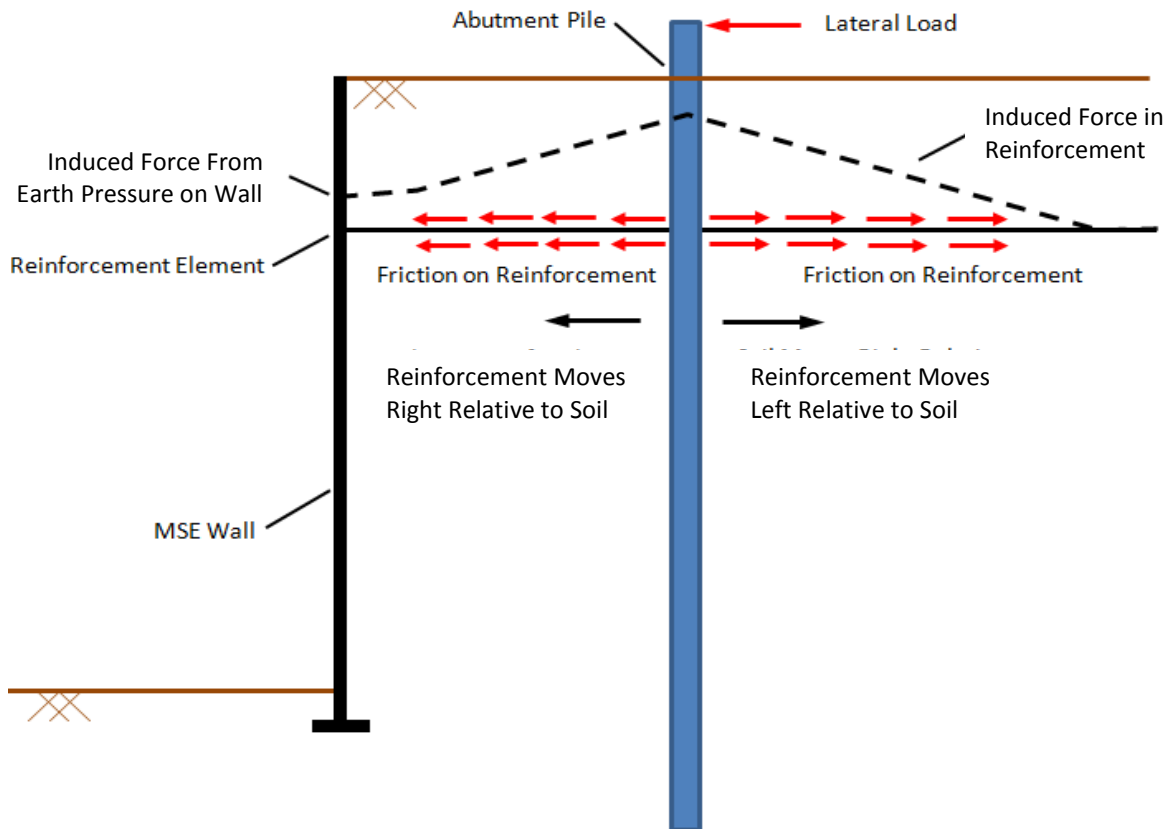


Figure 5.13: Interaction of soil and MSE wall reinforcement when pile is laterally loaded.

5.1.3 Displacement of Ground and Wall Panels

The displacement of the ground surface as a function of distance from the MSE wall for TP1 and TP2 at the maximum load (approximately 50 kips) is shown in Figure 5.14. As expected, the pile that is closest to the wall produces the greatest displacement at the wall. Nevertheless, the displacements at the wall face in both cases are relatively small and did not cause cracking or other permanent distress to the wall panels. For these two tests, soil displacement became relatively low at normalized distances greater than about 3 diameters from the center of the piles. Plots showing the ground surface displacement at different load levels throughout the testing for TP1 and TP2 are included in the Appendix D.

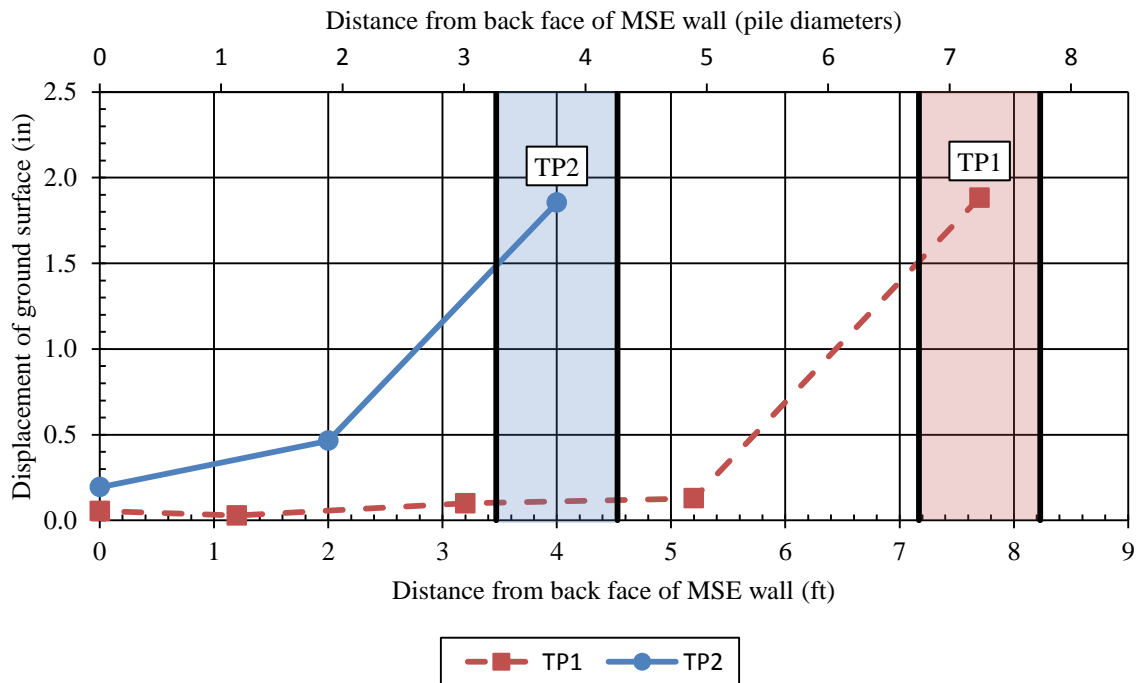


Figure 5.14: Horizontal displacement of the ground surface as a function of distance from the MSE wall at the maximum load of 50 kips.

The wall displacements as measured by the LVDTs and the Shape Arrays at the maximum load for TP1 and TP2 are shown in Figure 5.15 and 16 respectively. For TP1 the data collected from the Shape Array located right of the pile was erroneous and is not plotted. The wall displacement for TP2 is significantly higher than that of TP1; however in both cases the

wall deflection at the peak load is likely still within acceptable limits. Despite scatter associated with the small deflection levels involved, the shape array profiles suggest that wall displacements drop considerably at depths greater than about 8 ft or 7.5 pile diameters.

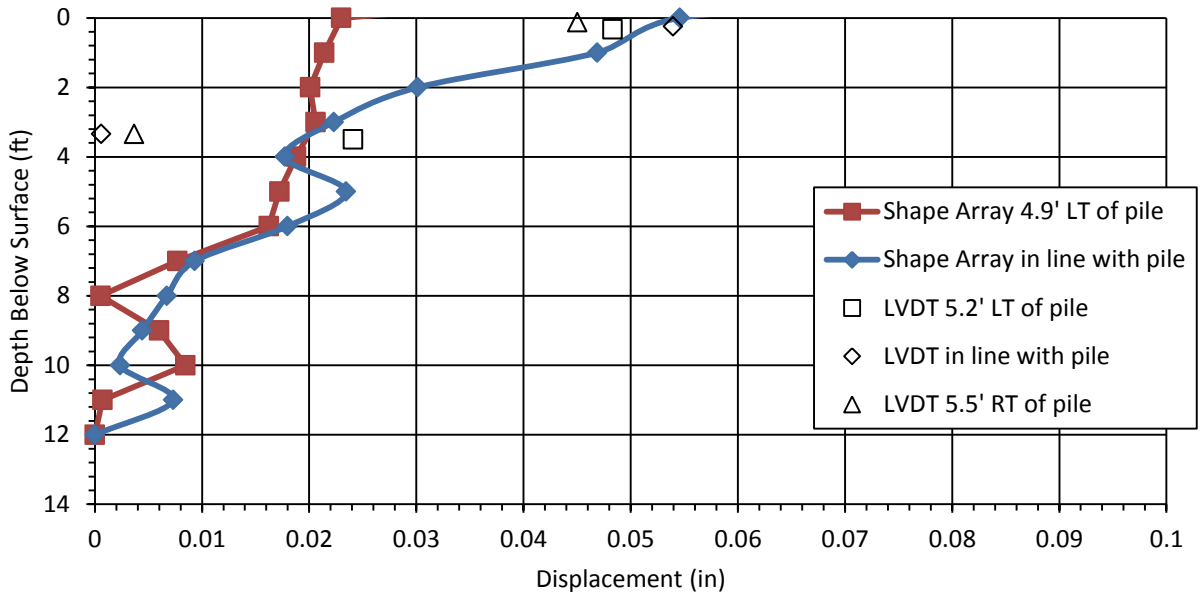


Figure 5.15: Displacement of the wall as measured by the Shape Arrays and LVDTs at the maximum load of TP1 (50 kips).

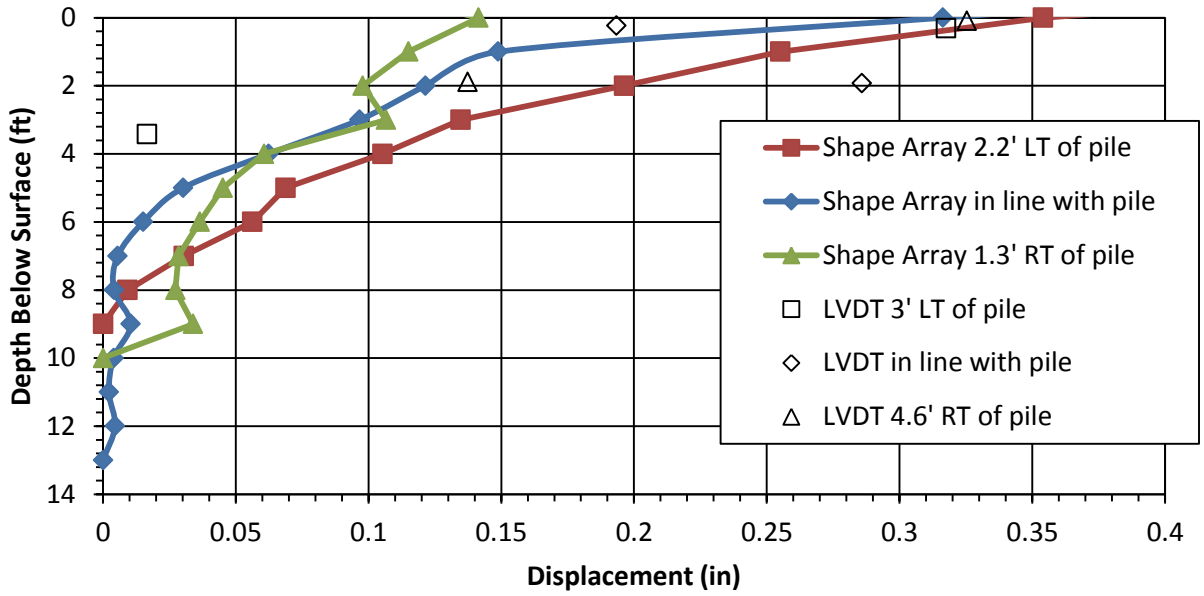


Figure 5.16: Displacement of the wall as measured by the Shape Arrays and LVDTs at the maximum load of TP2 (50 kips).

The data plotted in Figure 5.16 indicates that there is more displacement in the wall 2.2 ft left of pile than directly in line with the pile for TP2. This is in contrast to the data for TP1 presented in Figure 5.15 on the previous page where the greatest displacement was observed in line with the pile. Considering the geometry of the wall at TP2, these results appear to be due to rotation of the wall panel as illustrated in Figure 5.17.

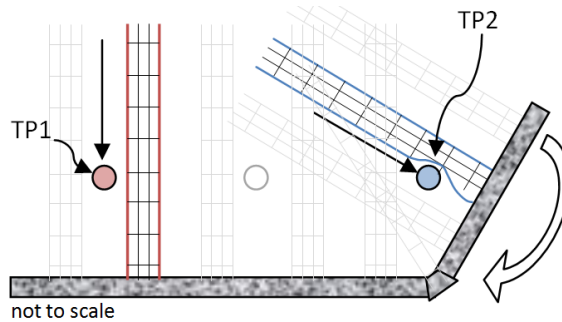


Figure 5.17: Rotation of wall panel near TP2 due to additional reinforcement at wall corner.

5.1.4 Pile Performance

The bending moment in the pile is calculated from the strain gauge data using Equation 5-3. The average value of the paired strain gauges was used when both gauges were functioning. At depths where one of the paired gauges was damaged during construction only the data from the functioning gauge was used.

$$M_i = EI(\mu\varepsilon_i - \mu\varepsilon_o)(10^{-6})\left(\frac{D_o}{2}\right) \quad (5-3)$$

where

M_i is the bending moment in inch-kips for the pile at the i^{th} data point,

E is the modulus of elasticity of the steel (2900 ksi),

I is the moment of inertia of the pile,

$\mu\varepsilon_i$ is the micro strain for the i^{th} data point,

$\mu\varepsilon_o$ is the micro strain for the initial data point, and

D_o is the outside diameter of the pile.

Several of the strain gauges on the piles at the U.S. Highway 89 site were damaged during construction. The measured bending moment for TP1 and TP2 at the maximum load of approximately 50 kips is shown in Figure 5.18. The maximum bending moment at this load varied from 1320 to 1450 in-kips at a depth of 5 to 7 ft. below the load level.

The bending moment vs. depth curve for TP2 as shown in Figure 5.18 indicates that the maximum bending moment in the pile occurs at a greater depth than for TP1. One possible explanation for this is that there is less soil resistance for the pile spaced closer to the wall thereby moving the maximum bending moment deeper in the pile. However, considering that the strain gauge data is fairly sparse and not particularly robust, this assessment must remain somewhat tentative.

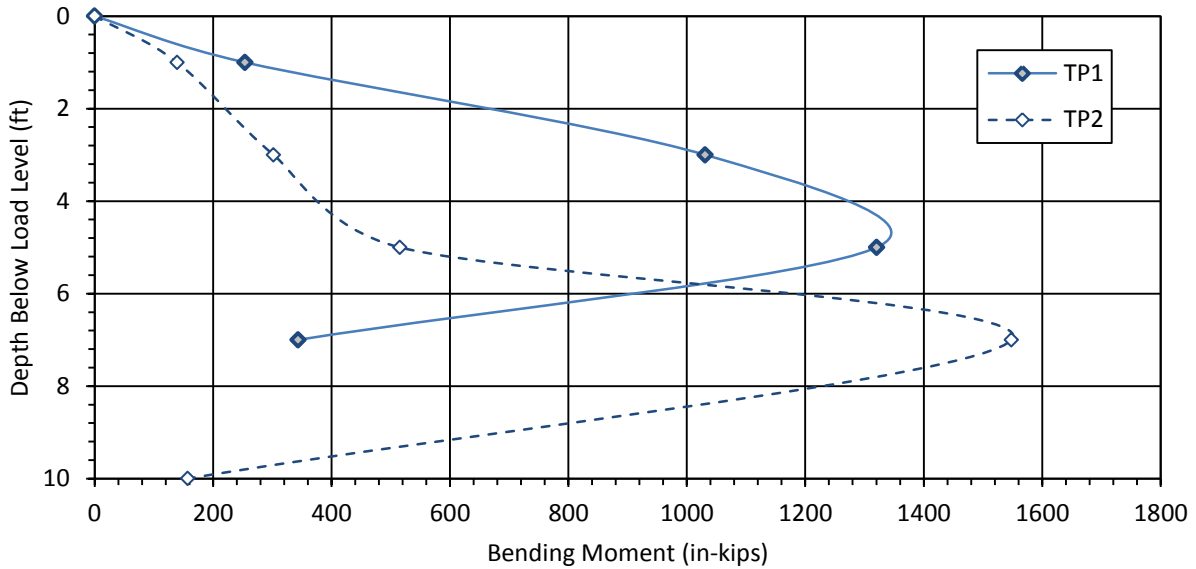


Figure 5.18: Bending moment vs. depth below load level at maximum load for TP1 and TP2.

5.2 Pioneer Crossing Site

5.2.1 Load Displacement Curves

Figure 5.19 is a comparison of the load-displacement curves for the test piles at the Pioneer Crossing site (TP3, TP4 and TP5) for the peak data points. Figure 5.20 is a comparison of the load-displacement curve for the final data points. On average, the final load for TP3 and TP4 is 7% lower than the peak load. The average difference for TP5 between final and peak loading is nearly 10%. This additional relaxation appears to be related to spacing from the wall because the same reaction was used for both TP4 and TP5. For a given displacement, the lateral resistance clearly decreases as the distance from the wall decreases. These results point out the importance of adequately accounting for reduced resistance near a wall face and the need for an improved design approach.

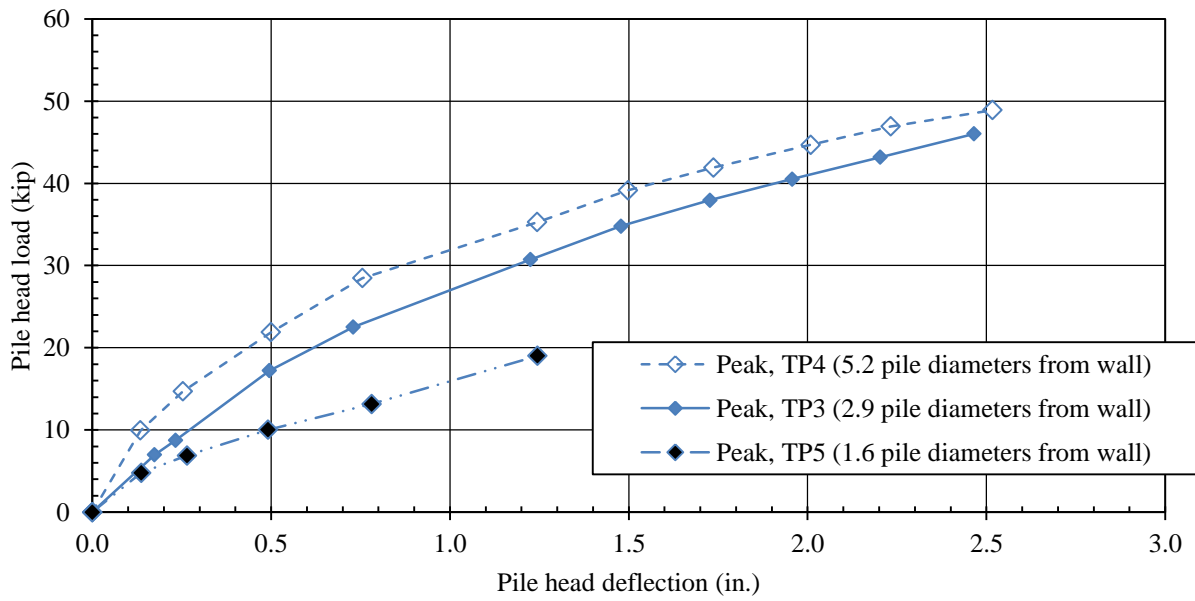


Figure 5.19: Comparison of load-displacement curves for TP3 through TP5 (Pioneer Crossing site) for the peak data points.

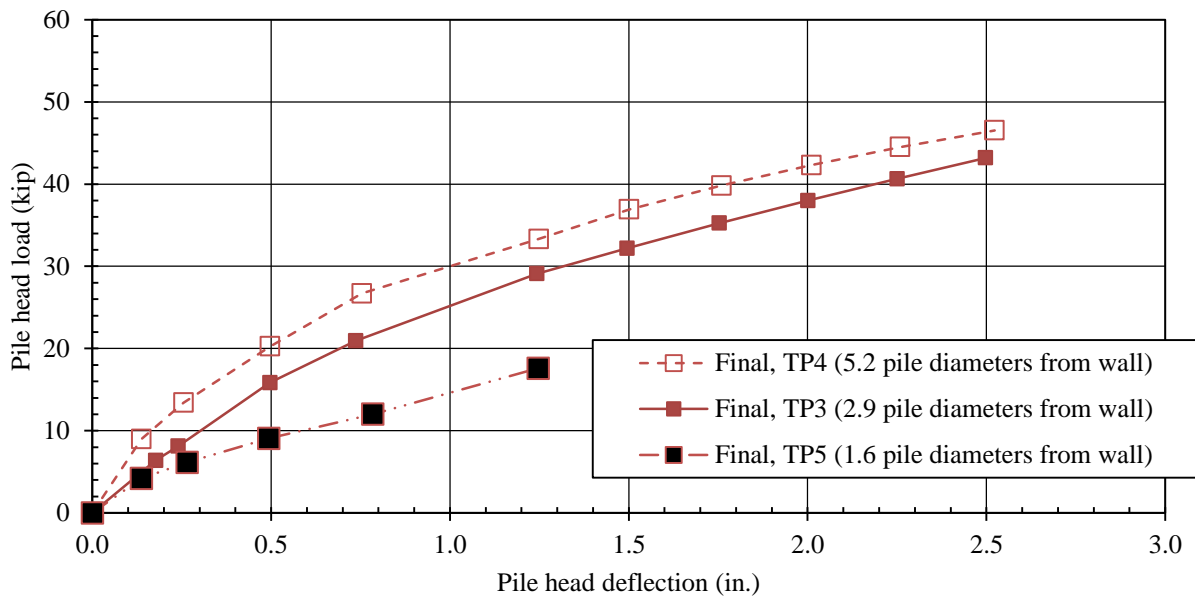


Figure 5.20: Comparison of load-displacement curves for TP3 through TP5 (Pioneer Crossing site) for the final data points.

Relative to the pile at a distance of 5.2 D from the wall, the piles at 2.9 D and 1.6 D from the wall provided only about 80% and 50% of the lateral resistance, respectively. This decrease in resistance with decreasing distance from the wall is consistent with results from previous studies conducted by Pierson et al. (2009) in which the lateral resistance decreased by over 50% as the test piles were located closer to the MSE wall face. However the results differ from the U.S. Highway 89 site discussed in Section 5.1.1. This discrepancy can be attributed to at least two factors. First, the reinforcement ratio for TP4 and TP5 (spaced 5.2D and 1.6D respectively) at the Pioneer Crossing site is much less than at the U.S. Highway 89 site (1.1 versus 1.6). The reinforcement ratio for TP3 however had a slightly larger reinforcement ratio of 1.7. Secondly, the spacing between the pile and the wall is substantially smaller for the test piles at the Pioneer Crossing location.

At the largest pile head displacements, the MSE wall panels moved less than 0.6 in. and no cracking or distress was observed in the panels. However, testing for TP5 (the closest pile to the wall) was stopped at a pile head displacement of approximately 1.25 in. to prevent excessive distress to the wall panels which had already reached a value of approximately 0.6 in.

5.2.2 Reinforcement Mat Performance

The load on the instrumented wire grids at the Pioneer Crossing site is determined in the same way as the grids at the U.S. Highway 89 site discussed in Section 5.1.2. The induced loads in the wire grid at the Pioneer Crossing site generally have a similar trend to the U.S. Highway 89 site with the peak located near the center of the pile. Figure 5.21 through 23 show the induced force in the welded wire grids at the maximum pile load for TP3, TP4 and TP5 respectively. Charts showing the induced force in each grid at varying pile loads are included in Appendix C.

A comparison of the induced forces in the grids for the three test piles indicates that the pile located furthest away from the wall produced the highest force in the grid. Moreover, as spacing decreased, the induced force in the grid decreased. However, interpretation of this trend is complicated by the fact that the peak load applied to the piles also decreased significantly as the spacing decreased.

Figure 5.24 shows a curve where both the induced load and the distance from the pile have been normalized. The induced load is normalized by dividing the maximum induced

tensile force at the maximum load by the maximum pile load. The lateral distance from the pile to the center of the grid is divided by the spacing from the back wall to the center of the pile. The normalized curve shows a trend of decreasing influence of induced force as the normalized distance increases. There does not appear to be any consistent trend to the induced force as a function of depth for the grids instrumented.

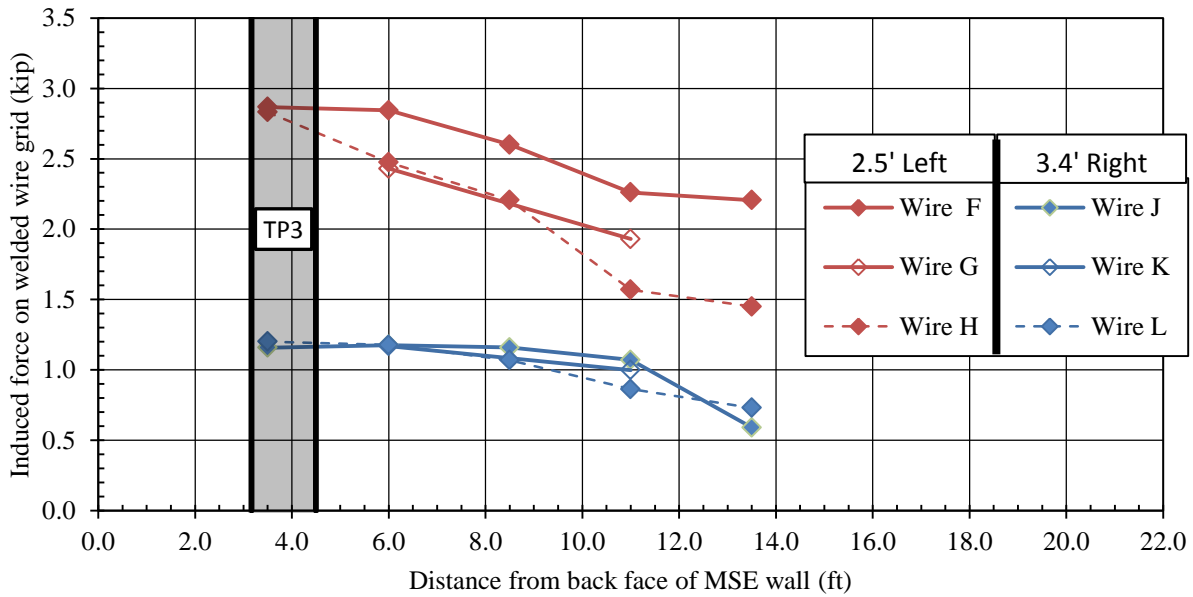


Figure 5.21: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wires F through L with a 55 kip load applied to TP3 (see Table 4.2).

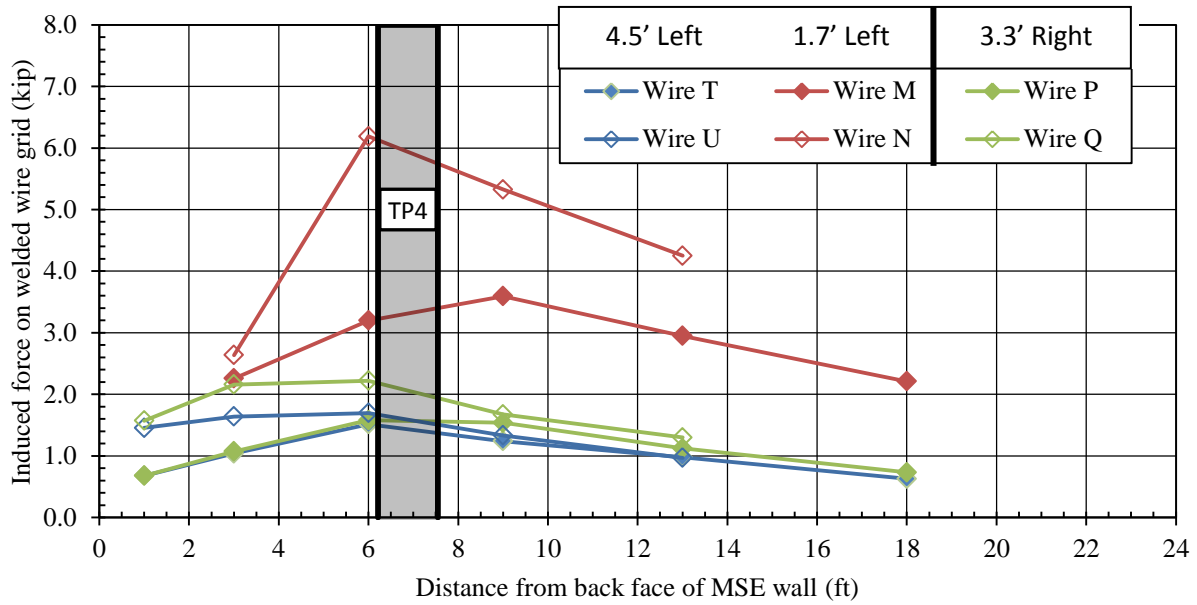


Figure 5.22: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on instrumented wires with a 50 kip load applied to TP4 (see Table 4.2).

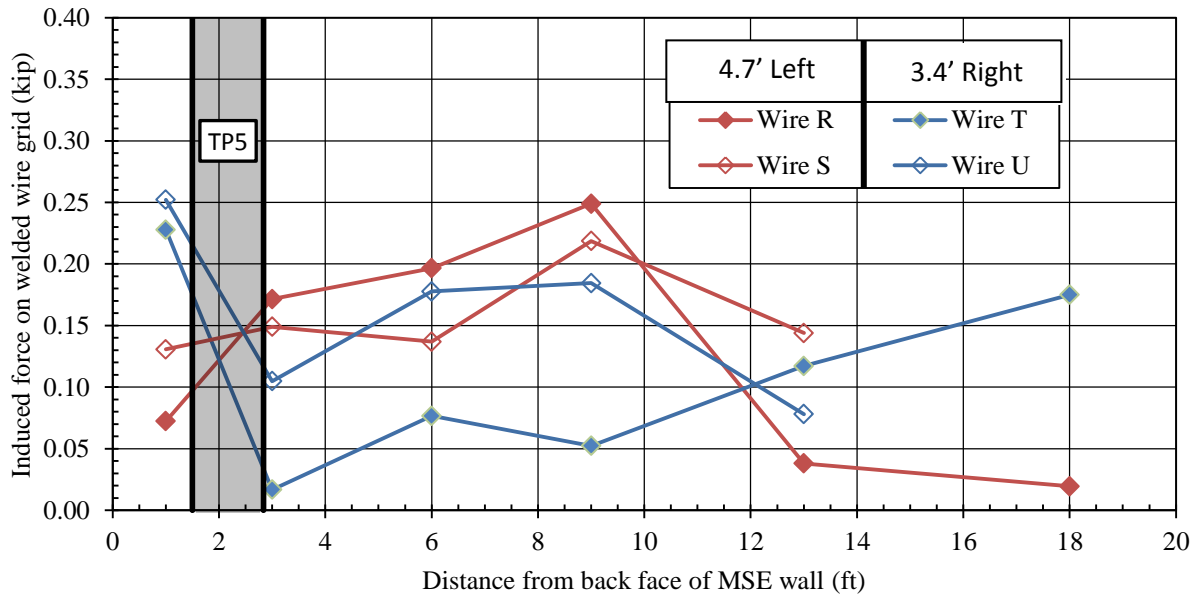


Figure 5.23: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on instrumented wires with a 18 kip load applied to TP5 (see Table 4.2).

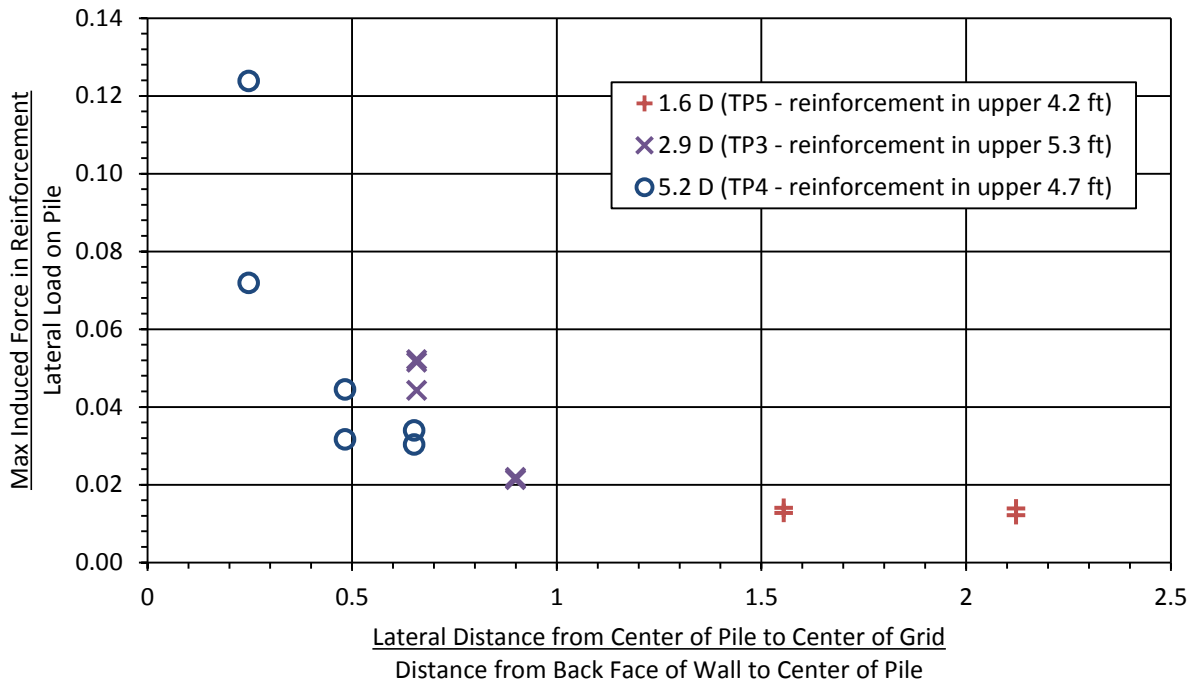


Figure 5.24: Normalized maximum induced force in grids vs. normalized distance from pile for all piles at the Pioneer Crossing site.

5.2.3 Displacement of Ground and Wall Panels

The displacement of the ground surface as a function of distance from the MSE wall for TP3, TP4 and TP5 at a load of approximately 18 kips (the maximum load applied to TP5) is shown in Figure 5.25. A similar plot is shown in Figure 5.26 for TP3 and TP4 at their maximum load (approximately 50 kips). As expected, the pile that was closest to the wall produced the greatest displacement. At greater distances from the wall, the ground surface displacement was also highest for the pile closest to the wall. As with the test piles at Pleasant Grove, ground surface displacement typically dropped to relatively low values at normalized distances greater than about 3 pile diameters.

The displacements at the wall face for the piles at 2.9 and 5.2 pile diameters from the wall were relatively small and did not cause cracking or other permanent distress to the wall panels. Plots showing the ground surface displacement at different load levels throughout the testing for TP3, TP4 and TP5 are included in Appendix D.

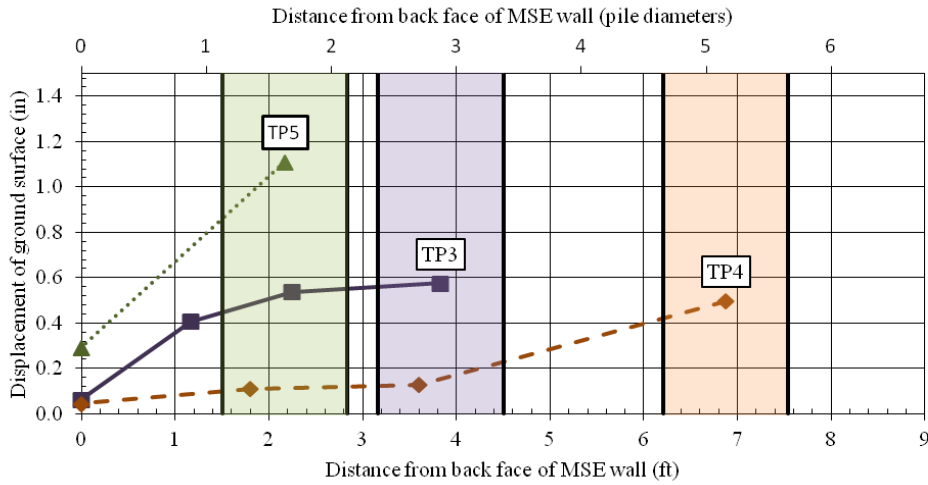


Figure 5.25: Horizontal displacement of the ground surface as a function of distance from the MSE wall at approximately 18 kips (maximum load for TP5).

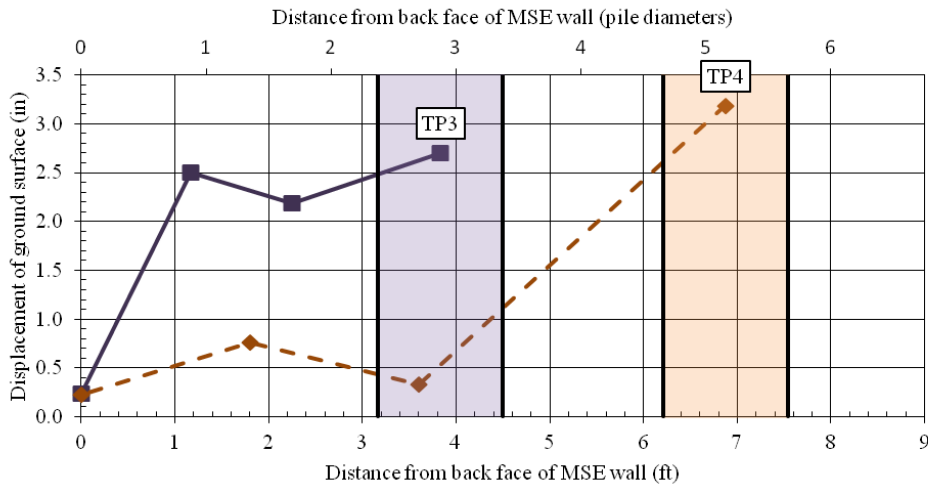


Figure 5.26: Horizontal displacement of the ground surface as a function of distance from the MSE wall at approximately 50 kips (maximum load for TP3 and TP4).

The wall displacement as measured by the Shape Arrays and LVDTs for TP3 at the maximum load of approximately 50 kips is shown in Figure 5.27. The Shape Array in line with TP3 showed several inches of displacement, whereas the string pot that was attached to the wall in line with the pile showed less than 0.5 inch of displacement. This discrepancy appears to be a result of the Shape Array casing being separated from the wall face during construction. Figure

5.28 shows the location of the Shape Arrays with respect to the back face of the wall. The instrument in line with the pile was approximately 10 inches behind the back face of the wall, and the instrument 1.6 ft. left of the pile was approximately 4 inches behind the back face of the wall. The material between the casing and the wall is likely to be relatively un-compacted fill which resulted in the high displacements recorded.

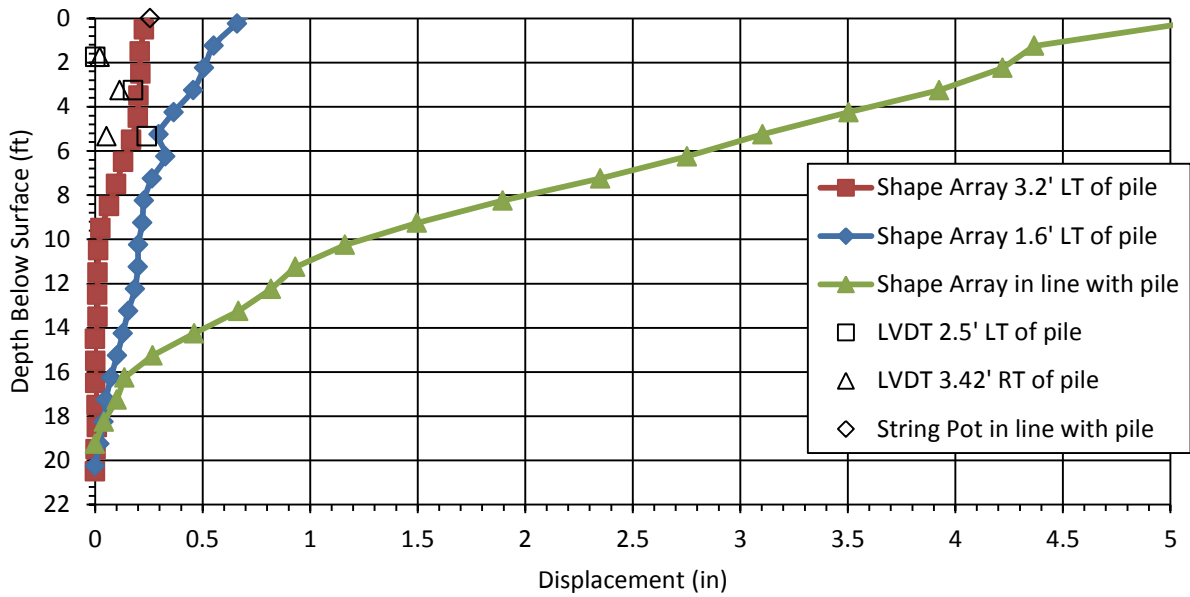


Figure 5.27: Displacement of the wall as measured by the Shape Arrays and LVDTs at the maximum load of TP3 (50 kips).

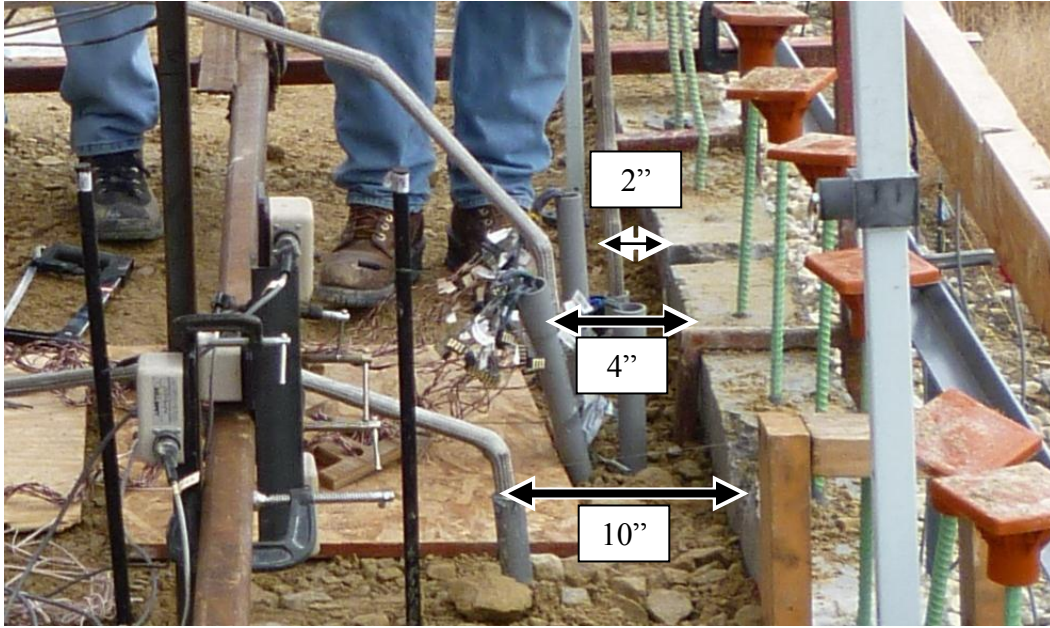


Figure 5.28: Location of Shape Arrays for TP3 with respect to the back face of the wall.

The shape array at the back of the wall face (3.2 feet LT of the pile) indicated deflection values which were in reasonable agreement with the measurements from the LVDTs and string pots. As was the case for the test piles at Pleasant Grove, the shape array profile indicates that displacements become relatively small at depths greater than about 8 ft.

The wall displacement as measured by the Shape Arrays and LVDTs for TP4 and TP5 at the maximum applied load are shown in Figure 5.29 and 30 respectively. The Shape Arrays placed in line with both TP4 and TP5 show significantly more displacement than the string pots attached to the wall, similar to the test data for TP3. The photos shown in Figure 5.31 and 32 are of the test setup of TP4 and TP5 respectively, and it is apparent that the Shape Array casings are separated by a couple of inches from the wall. This separation is significantly less than previously discussed for TP3, but still results in a measured displacement that is higher than the actual wall displacement.

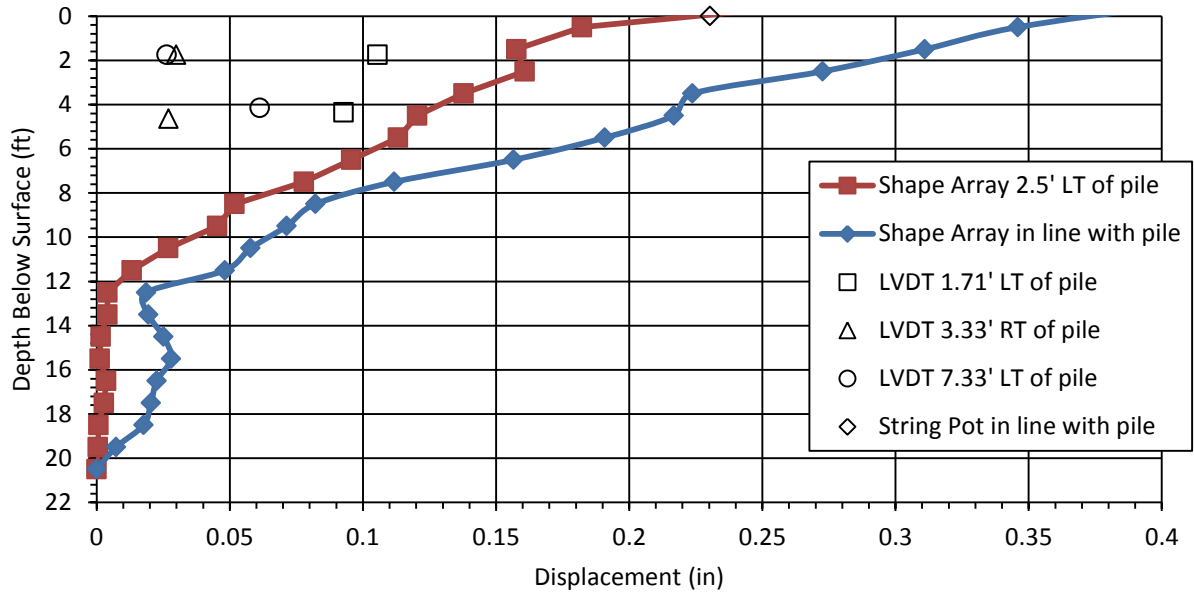


Figure 5.29: Displacement of the wall as measured by the Shape Arrays and LVDTs at the maximum load of TP4 (50 kips).

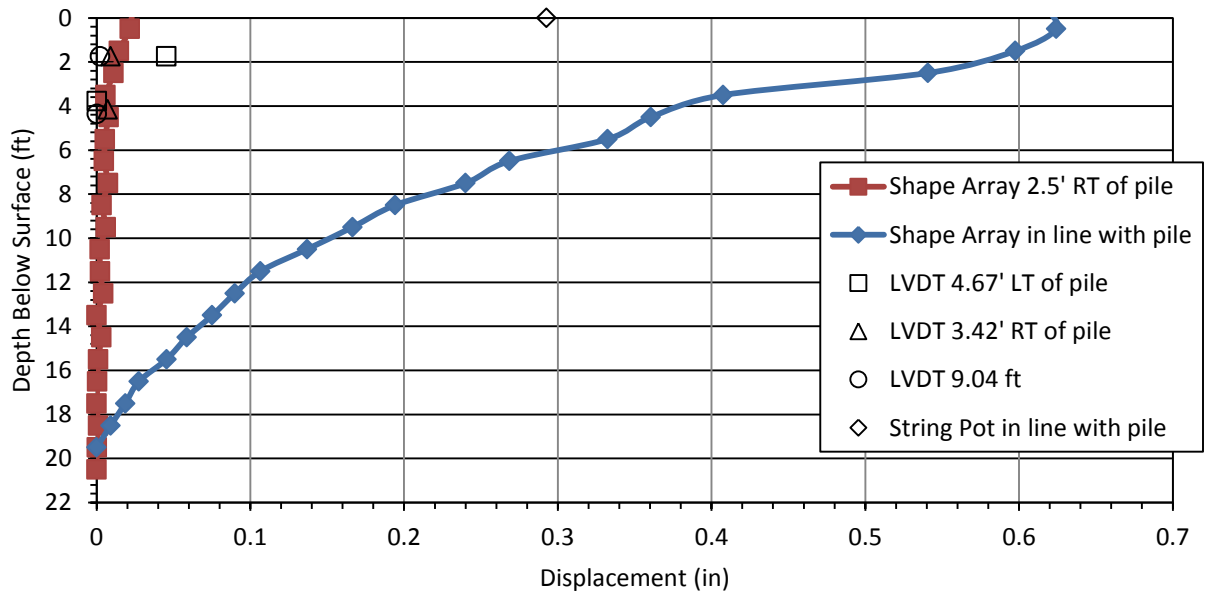


Figure 5.30: Displacement of the wall as measured by the Shape Arrays and LVDTs at the maximum load of TP5 (18 kips).



Figure 5.31: Shape Array casing in line with TP4 separated from wall by a couple inches.



Figure 5.32: Shape Array casing in line with TP5 separated from wall by a couple inches.

5.2.4 Pile Performance

The bending moment in the pile is calculated from the strain gauge data using Equation 5-3. The average value of the paired strain gauges was used when both gauges were functioning. There were several locations where one gauge was damaged during construction, in which case only the data from the functioning gauge was used.

The gauges at the Pioneer Crossing site experienced less damage during construction due to the added protection of the steel angles welded onto the pile. The measured bending moment for TP3 and TP4 at the maximum load of approximately 50 kips is shown in Figure 5.33. The maximum bending moment at this load varied from 2700 to 3200 in-kips at a depth of 6 to 8 ft. below the load level. As was observed in the Pleasant Grove tests, TP 3 at 2.9D from the wall developed a higher maximum bending moment than TP 4 at 5.2D wall. This result is consistent with the lower stiffness of the soil/wall resistance adjacent to the pile which allows the pile to bending more for a given load and develop greater bending moment.

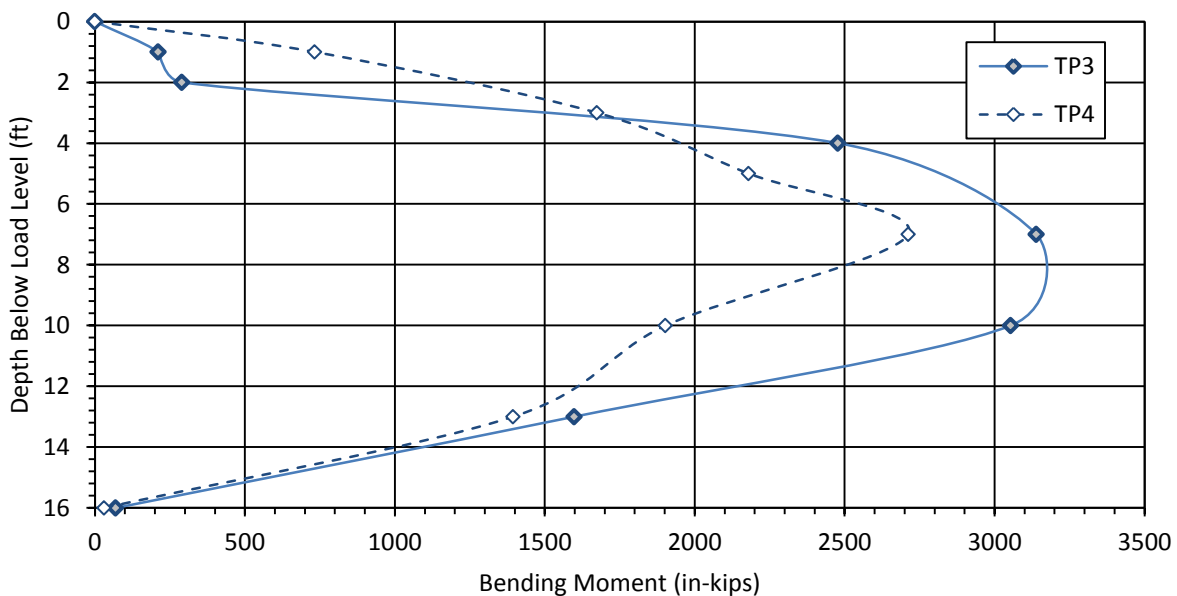


Figure 5.33: Bending moment vs. depth below load level at maximum load (50 kip) for TP3 and TP4.

The maximum load applied to TP5 was 18 kips and the measured bending moment versus depth curve for this pile at this load is shown in Figure 5.34, along with the bending moment curves for TP3 and TP4 at approximately the same load. The maximum moment of

approximately 350 in-kips for TP5 is considerably lower than the other two tests piles which were further from the wall (650 in-kips for TP3 and 720 in-kips for TP4). In addition, the maximum moment occurs at a greater depth. Once again these results are consistent with the soil resistance against the pile decreasing as the pile is positioned closer to the MSE wall face.

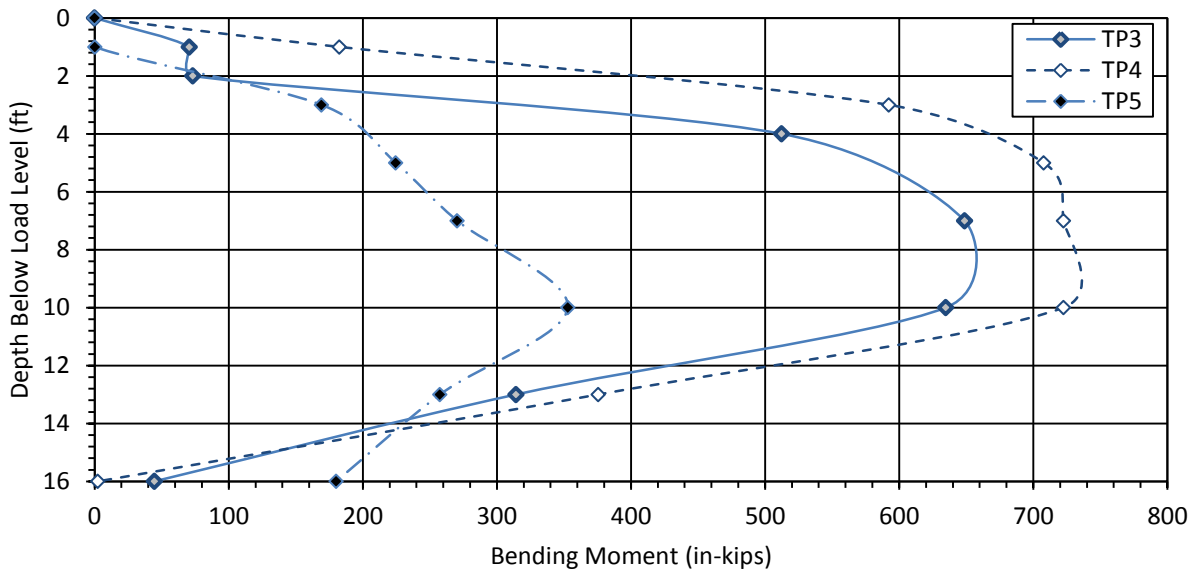


Figure 5.34: Bending moment vs. depth below load level for TP3, TP4 and TP5 at a load of 18 kips (maximum load for TP5).

5.3 Provo Center Street Site

5.3.1 Load Displacement Curves

Figure 5.35 is a comparison of the load-displacement curves for the test piles at the Provo Center Street site (TP6, TP7, and TP8) for the peak data points. Figure 5.36 is a comparison of the load-displacement curves for the final data points. On average, the final load for TP6 is 27% lower than the peak load. The average difference for TP7 between final and peak loading is 8%. The average difference for TP8 between final and peak loading is 12%. The additional relaxation for TP6 has two possible explanations. One is the distance from the wall to the pile.

The other reason is that the only material between this pile and the wall is the looser free draining granular backfill. As with the tests at Pioneer Crossing, the resistance of a pile decreases as the spacing between the pile and the wall decreases. The piles at a distance of 1.3D and 2.7D from the wall provided only 40% and 70%, respectively of the resistance of the pile at 6.3D from the wall. This decrease in resistance with decreasing distance from the wall is also consistent with results from the previous studies conducted by Pierson et al. (2009).

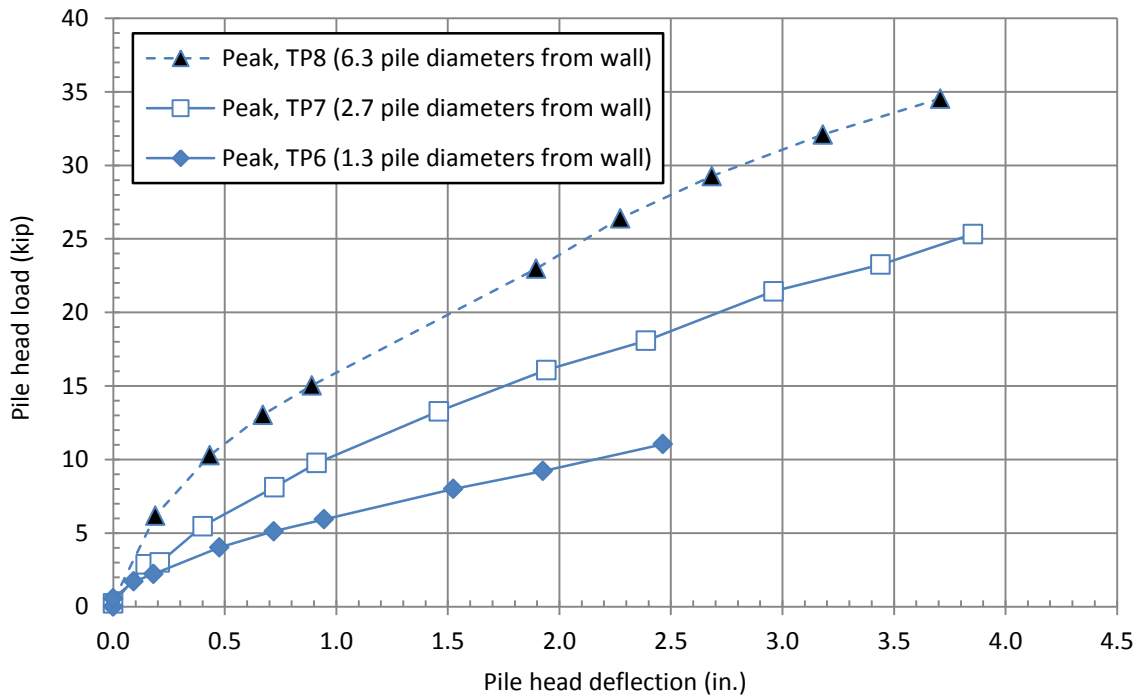


Figure 5.35: Comparison of load-displacement curves for TP6 through TP8 (Provo Center Street site) for the peak data points

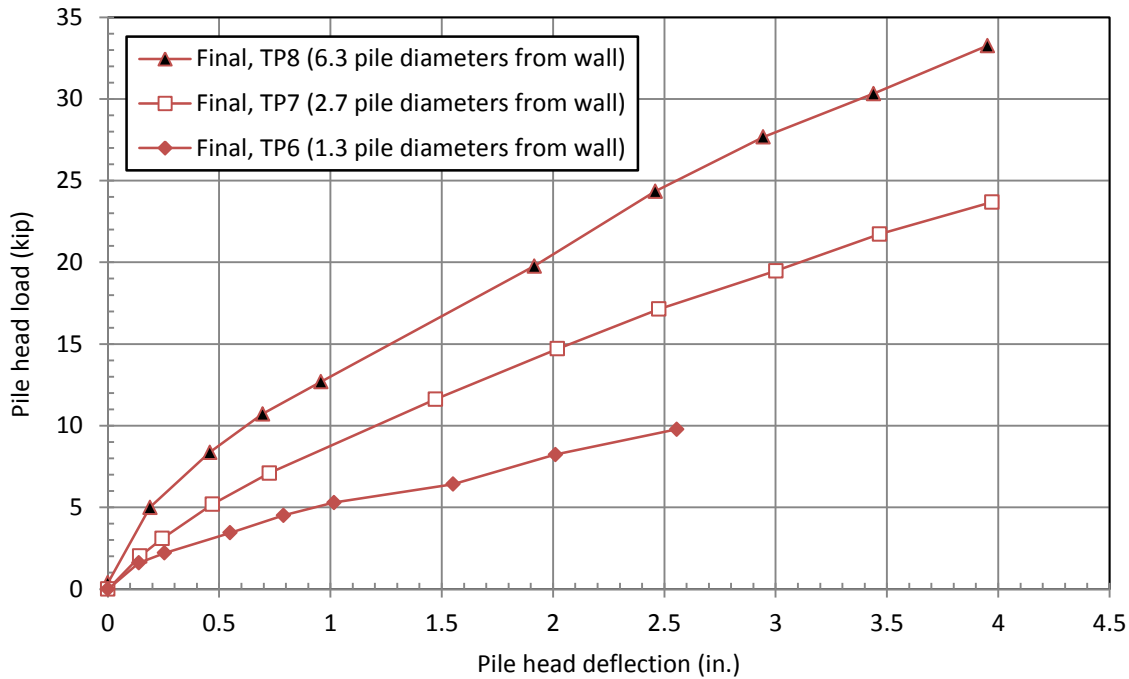


Figure 5.36: Comparison of load-displacement curves for TP6 through TP8 (Provo Center Street site) for the final data points

5.3.2 Reinforcement Strap Performance

The loads on the instrumented straps at the Provo Center Street site were determined in the same way as the grids at the U.S. Highway 89 and Pioneer Crossing sites discussed in Sections 5.1.2 and 5.2.2. The measured loads in the straps at the Provo Center Street site are different than the measured loads at the U.S. Highway 89 and pioneer Crossing Sites. One of the piles, TP6, was placed closer to the wall (16 inches to the center of the pile) than the closest strain gauge (24 inches to the wall). The maximum tensile load in that test was found to be as close to the pile as could be measured. Figure 5.37 through 39 show the measured tensile force in the reinforcing straps at the maximum pile load for TP6, TP7 and TP8 respectively. Graphs showing the measured tensile force in each strap at varying pile loads are included in the Appendix.

A comparison of the tensile forces in the grids for the three test piles at Provo Center Street indicates that the pile located furthest away from the wall produced the highest tensile force in the strap. Also, as spacing decreased, the grid tensile force decreased. As with the Pioneer Crossing site, interpretation of this trend is complicated by the fact that the peak load applied to the piles also decreased significantly as the spacing decreased.

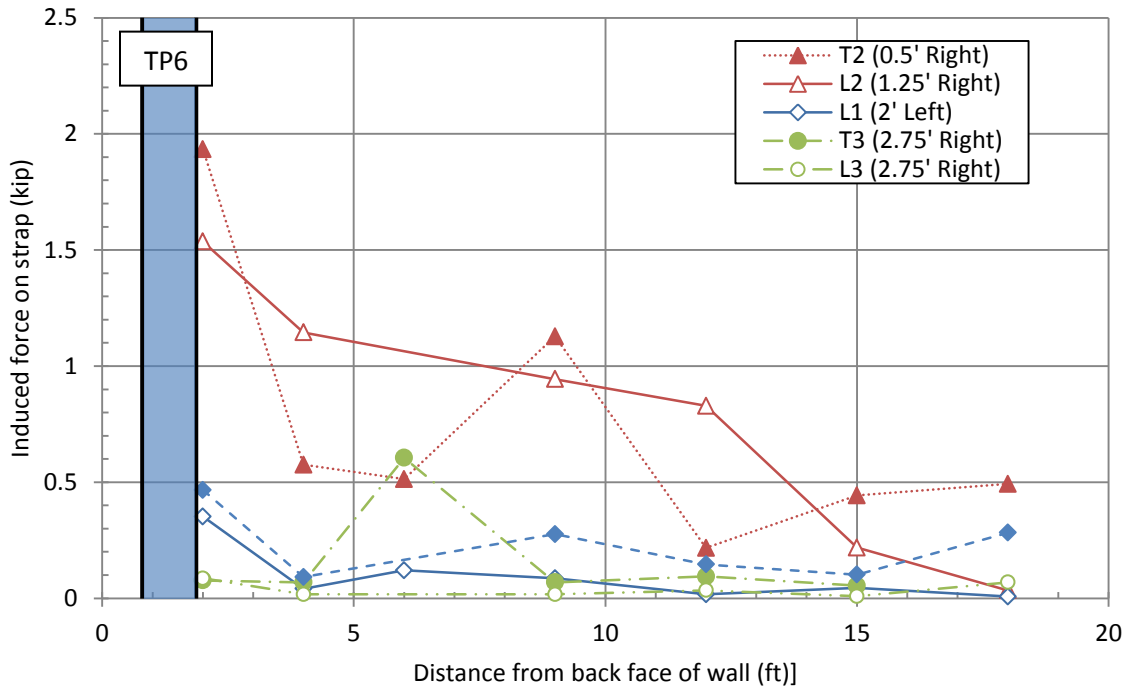


Figure 5.37: Tensile load in reinforcing straps vs. distance from back face of wall as measured by gauges with a 9.8 kip load applied to TP6 located 1.3 D from the wall (see Table 4.3)

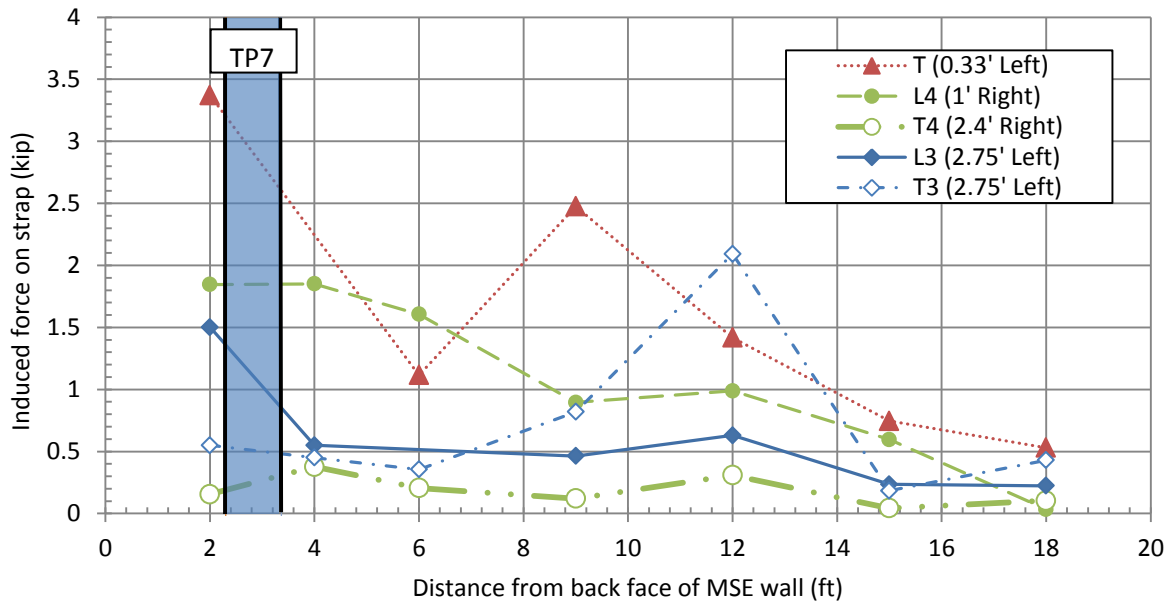


Figure 5.38: Tensile load in reinforcing strapping vs. distance from back face of wall as measured by gauges with a 24 kip load applied to TP7 located 2.7D behind wall (see Table 4.3)

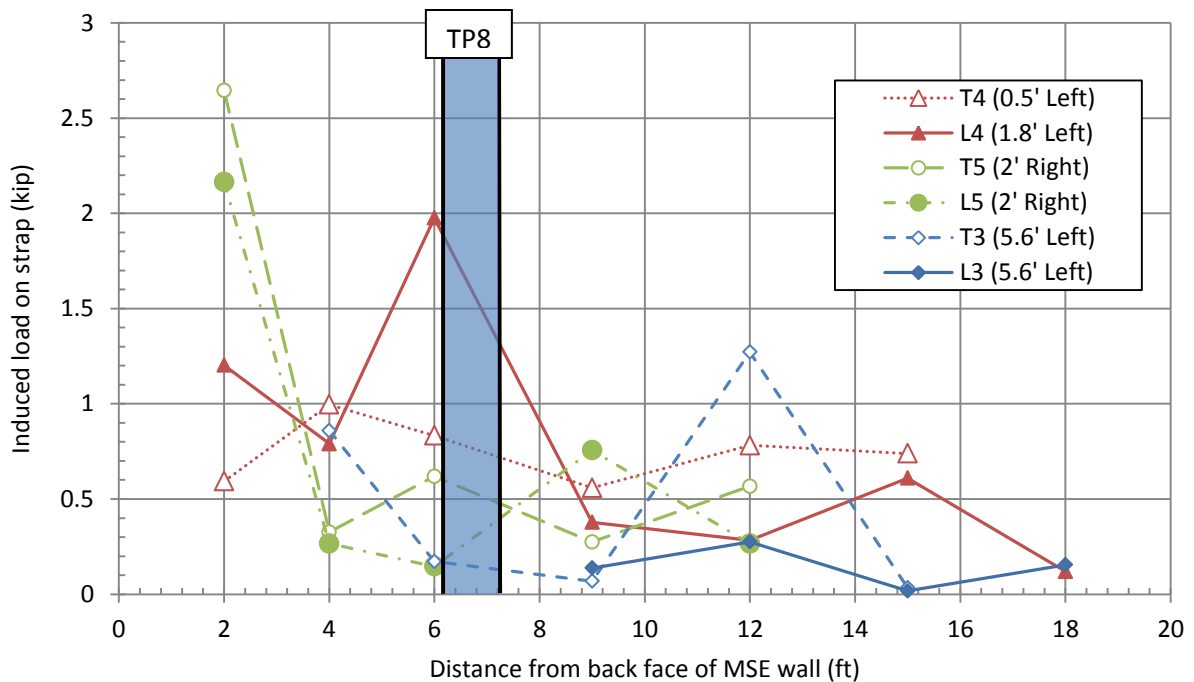


Figure 5.39: Tensile load in reinforcing strapping vs. distance from back face of wall as measured by gauges with a 24 kip load applied to TP8 located 6.7D behind wall (see Table 4.3)

5.3.3 Displacement of Ground and Wall Panels

As the load was applied to the piles in these tests the piles and the ground between the piles and the wall were displaced. The displacement of the pile can be seen in Figure 5.40. Figure 5.41 shows ground surface displacement as a function of distance from the wall at several load levels for TP8. As the load increases, the ground surface displacement extends to a progressively greater distance from the face of the pile. Nevertheless, the ground displacement decreases rapidly from the face of the pile and is typically less than 0.3 in. beyond four pile diameters and less than 0.1 in. beyond six pile diameters. Plots showing the ground surface displacement at different load levels throughout the testing for TP6 and TP7 are included in the appendix.



Figure 5.40: A view of the displacement of pile TP8 during loading

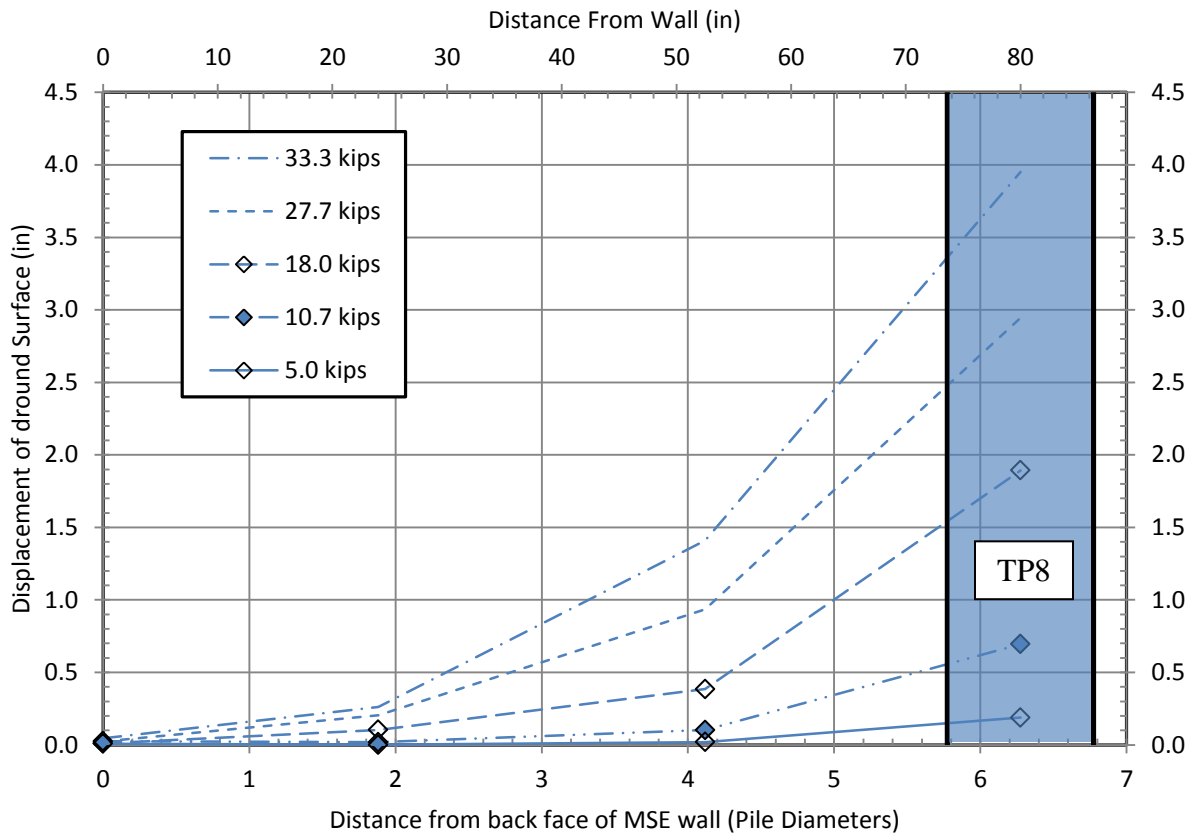


Figure 5.41: Horizontal displacement of the ground surface as a function of distance from the MSE wall different load levels for TP8

In order to be able to find a correlation between the ground movement and the distance from the wall, the ground displacement values were all divided by the maximum displacement at the pile for several load increments. As can be seen in Figure 5.42 through 44 this normalization procedure produces curves which reasonably well correlated. In general, the normalized displacements at higher load levels are very consistent from load to load whereas some variation is evident at lower load levels. Figure 5.45 provides a plot of the average normalized displacement for each pile as a function of normalized distance from the center of the pile. The average curves tend to follow the same trend until they are within about 1 pile diameter of the wall face. At this distance the restraint provided by the reinforced wall face tends to reduce the measured displacement relative to what occurs when the wall is far from the pile ($>6D$).

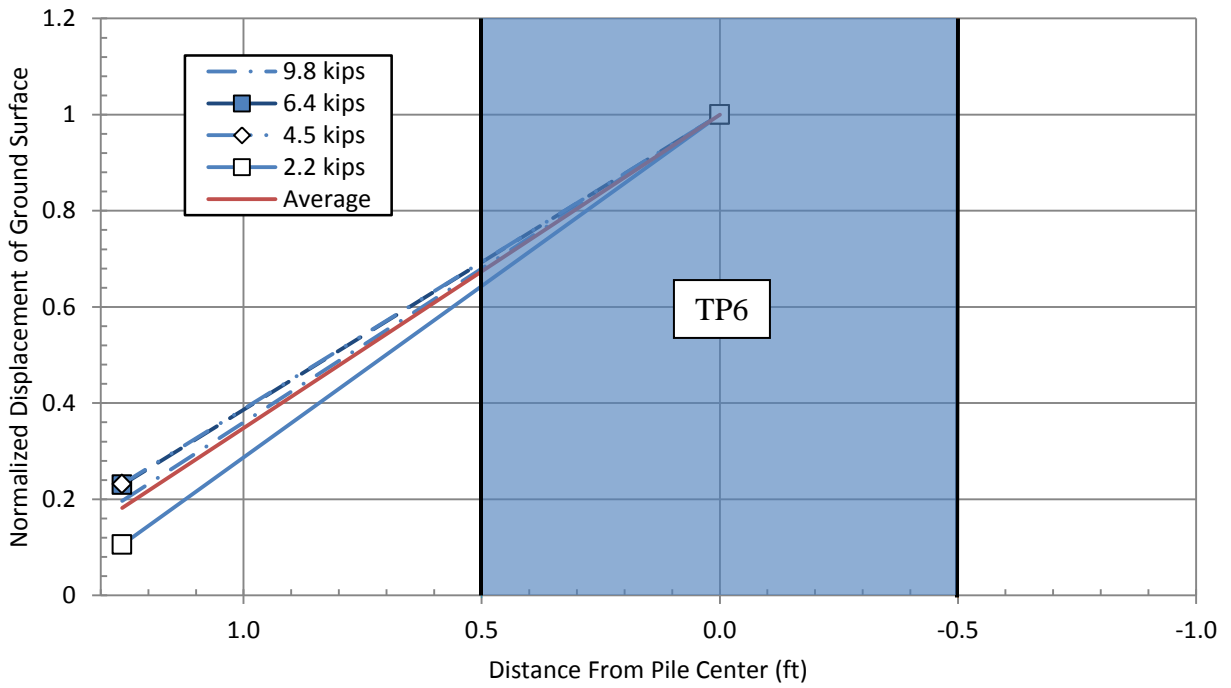


Figure 5.42: Normalized horizontal displacement of the ground surface as a function of distance from the Pile Center different load levels for TP6

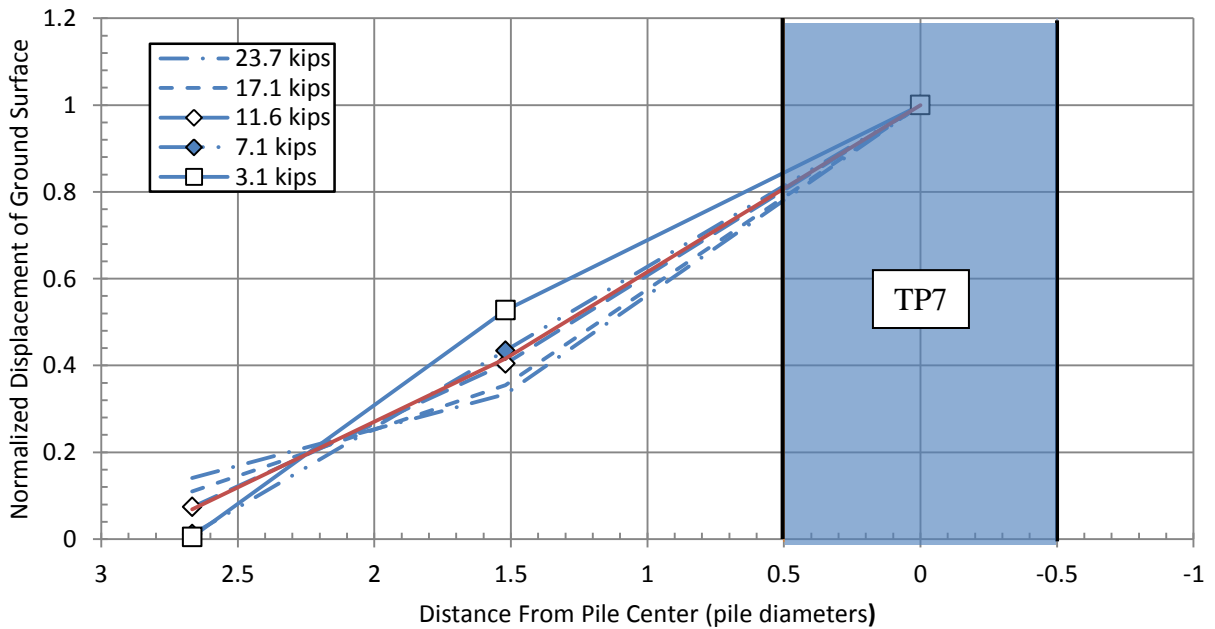


Figure 5.43: Normalized horizontal displacement of the ground surface as a function of distance from the Pile Center different load levels for TP7

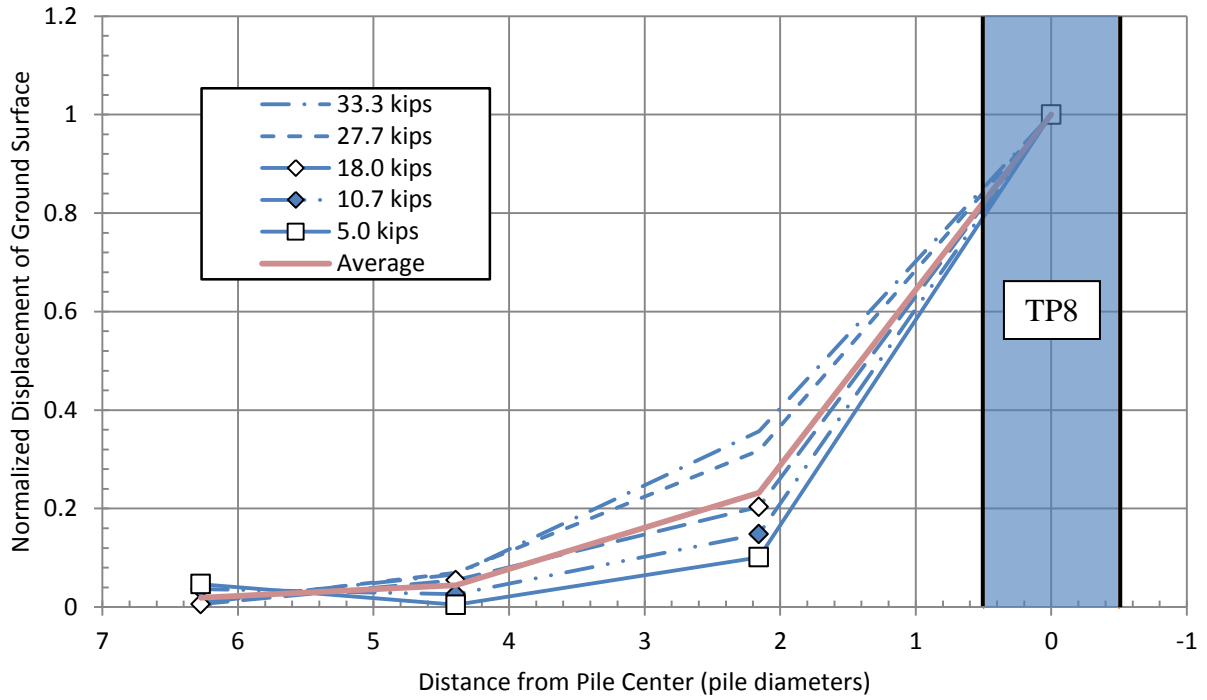


Figure 5.44: Normalized horizontal displacement of the ground surface as a function of distance from the Pile Center different load levels for TP8.

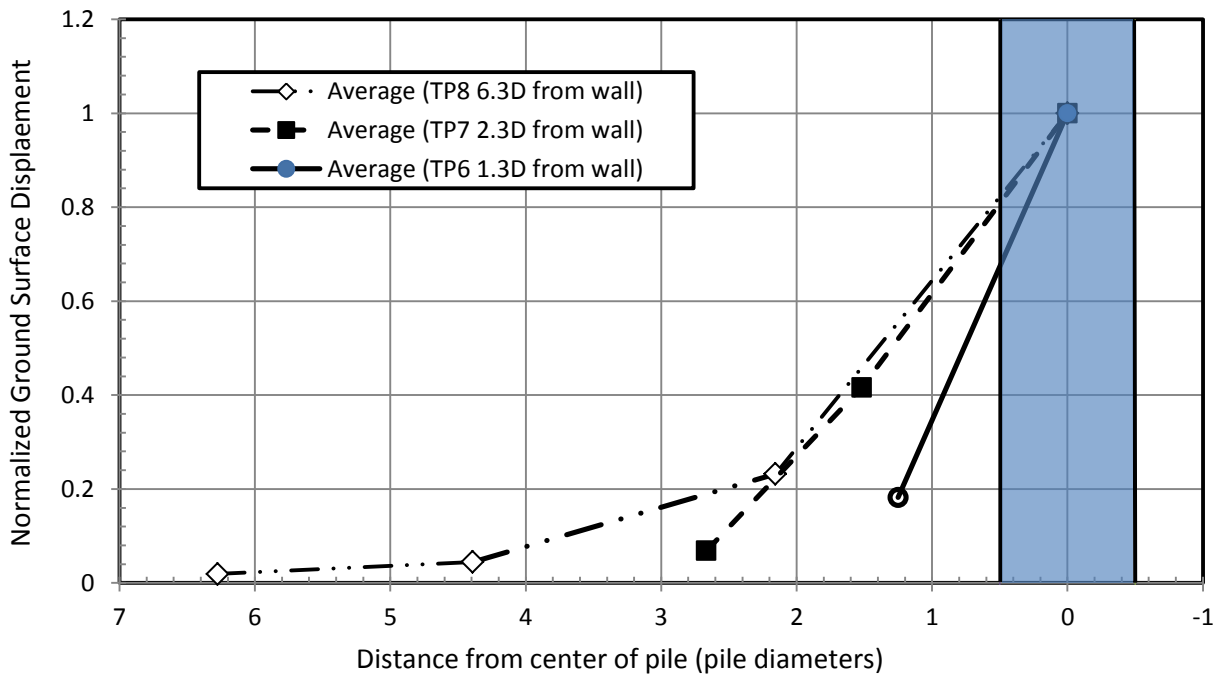


Figure 5.45: Average normalized horizontal displacement of the ground surface as a function of distance from the pile center for piles TP6, TP7 and TP8.

A comparison of the displacement of the ground surface as a function of distance from the MSE wall for TP6, TP7 and TP8 at a load of approximately 9.8 kips (the maximum load applied to TP6) is shown in Figure 5.46. A similar plot is shown in Figure 5.47 for TP7 and TP8 at the maximum load (approximately 24 kips) of pile TP7. As expected, the pile that was closest to the wall produced the greatest displacement.

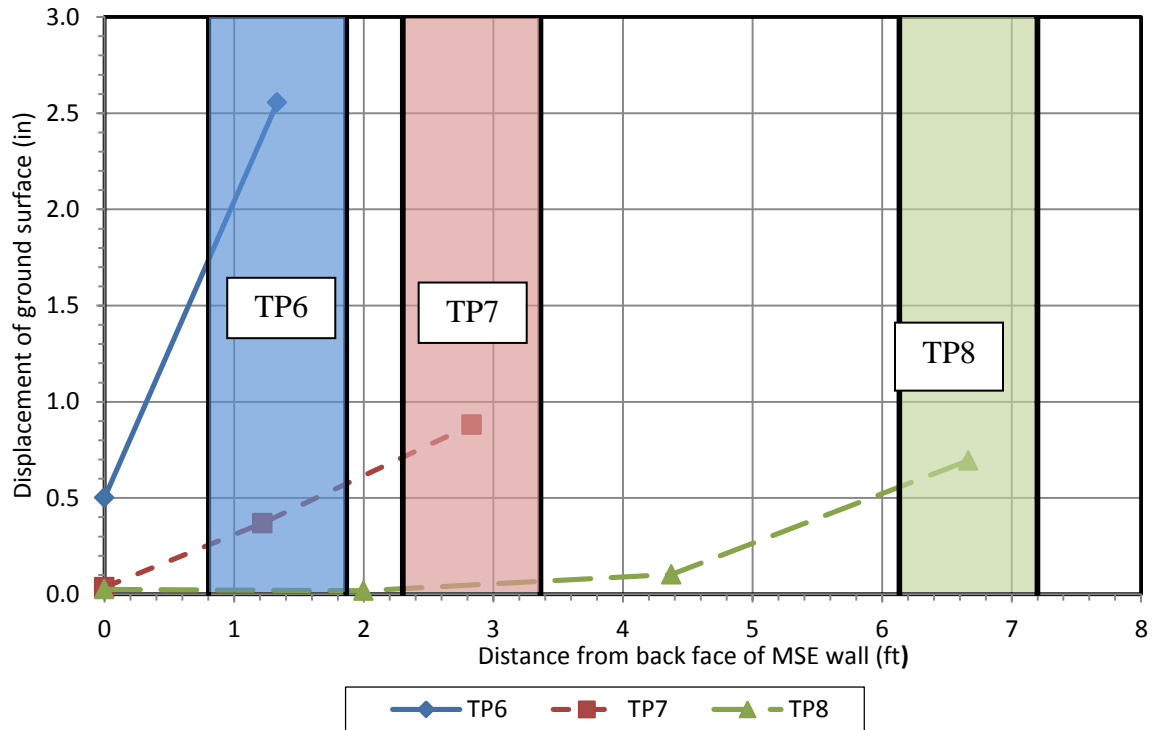


Figure 5.46: Horizontal displacement of the ground surface as a function of distance from the MSE wall at approximately 9.8 kips (maximum load for TP6).

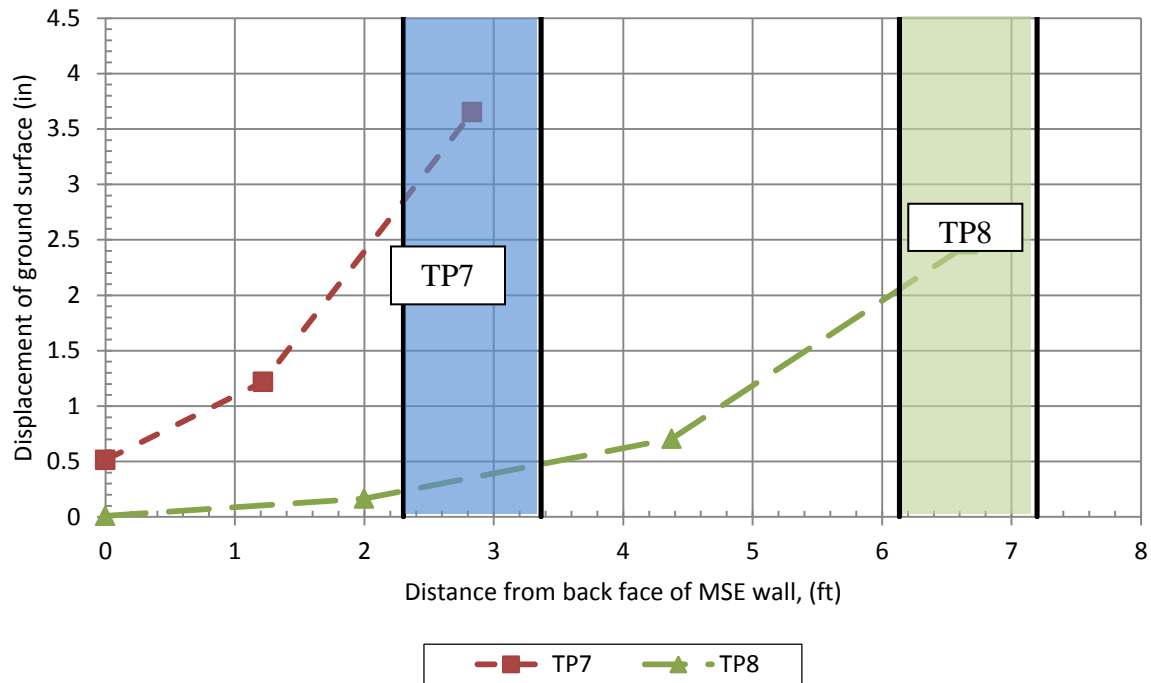


Figure 5.47: Horizontal displacement of the ground surface as a function of distance from the MSE wall at approximately 24 kips (maximum load for TP7).

A bulge in the wire mesh wall was observed during the testing as shown by the photo in Figure 5.48 taken from the top of the wall. There were LVDTs placed on the outside of the wall at the locations of the reinforcing straps with strain gauges at depths of 3 and 19 inches from the top of the wall. The bulge occurred in line with the pile and the load. The two LVDTs and the bulge are not exactly lined up because the bulge was in line with the pile and the LVDTs were in line with the straps. The bulge appeared to be several inches deep and the peak was below the lowest LVDT. Therefore, it is not possible to determine the exact deflection caused or its location. Since this wall was a two stage wall there was no concern about causing deflection at the wall as there is a gap between the wire mesh and the concrete wall panels which was to be filled with drain rock once the wall experienced settlement of the backfill.



Figure 5.48: View from above of the wall displacement and LVDTs for pile TP8

In Figure 5.48 there can also be seen LVDTs on either side of the bulge. These were set up in order measure wall displacement at the strap connections on either side of the pile which were negligible. The displacements of the wall as measured by the LVDTs closest to piles TP6, TP7, and TP8 are shown in Figure 5.49 through 5.51 respectively. In these graphs the values used are from the string potentiometer which was attached to the top of the wire mat facing which extended above the top of the wall and the LVDTs which were placed at the locations of the straps. These graphs show that the wall was typically restrained near the ground surface and did not displace appreciably. The greater displacement occurred at the top of the wall and at greater depths which agrees with the observed bulge in the wire mat facing. The bulge at depth may be attributed to the fact that the soil pressure from a laterally loaded pile generally reaches a maximum at depth and then decreases. In contrast, the reinforcement pull-out resistance increases relatively consistently with depth. Apparently there is a critical depth where the induced pressure may exceed the wall resistance allowing the wall to bulge.

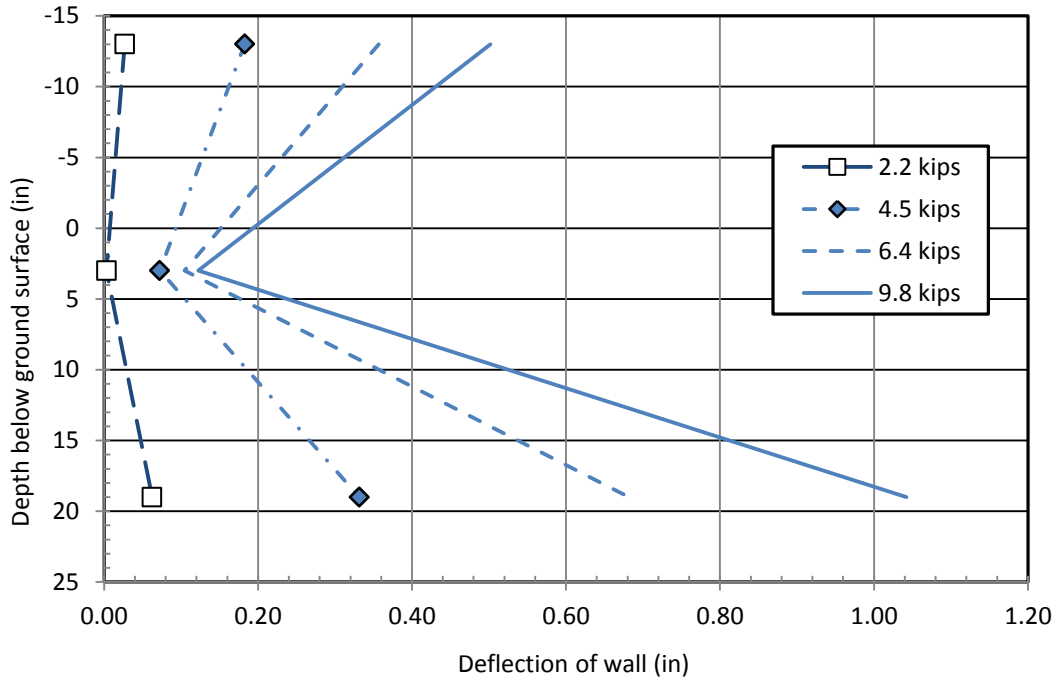


Figure 5.49: Deflection of wire mesh wall versus depth below ground surface for TP6.

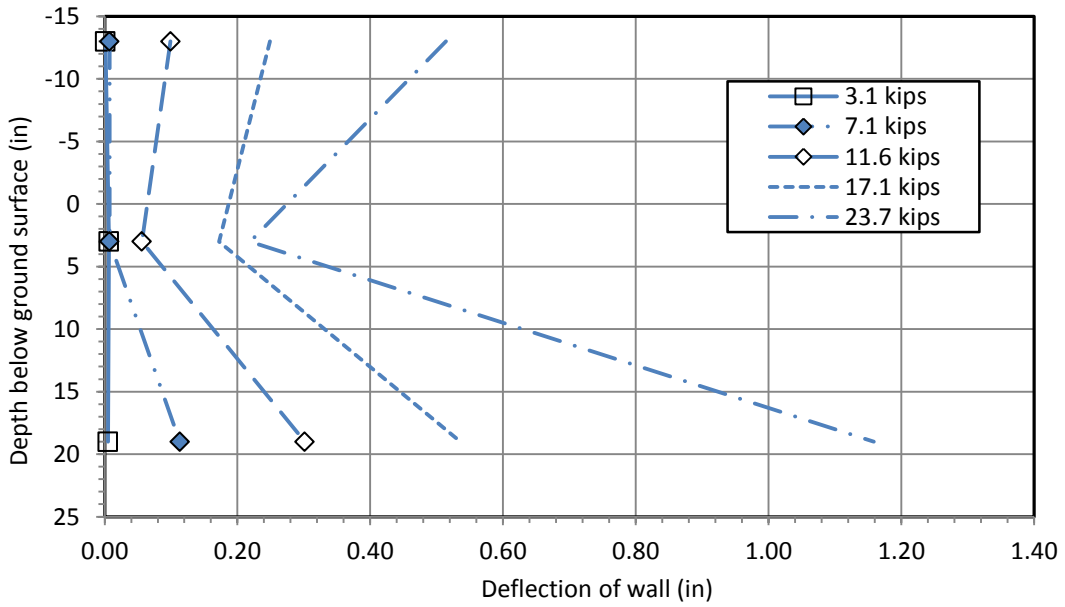


Figure 5.50: Deflection of wire mesh wall versus depth below ground surface for TP7.

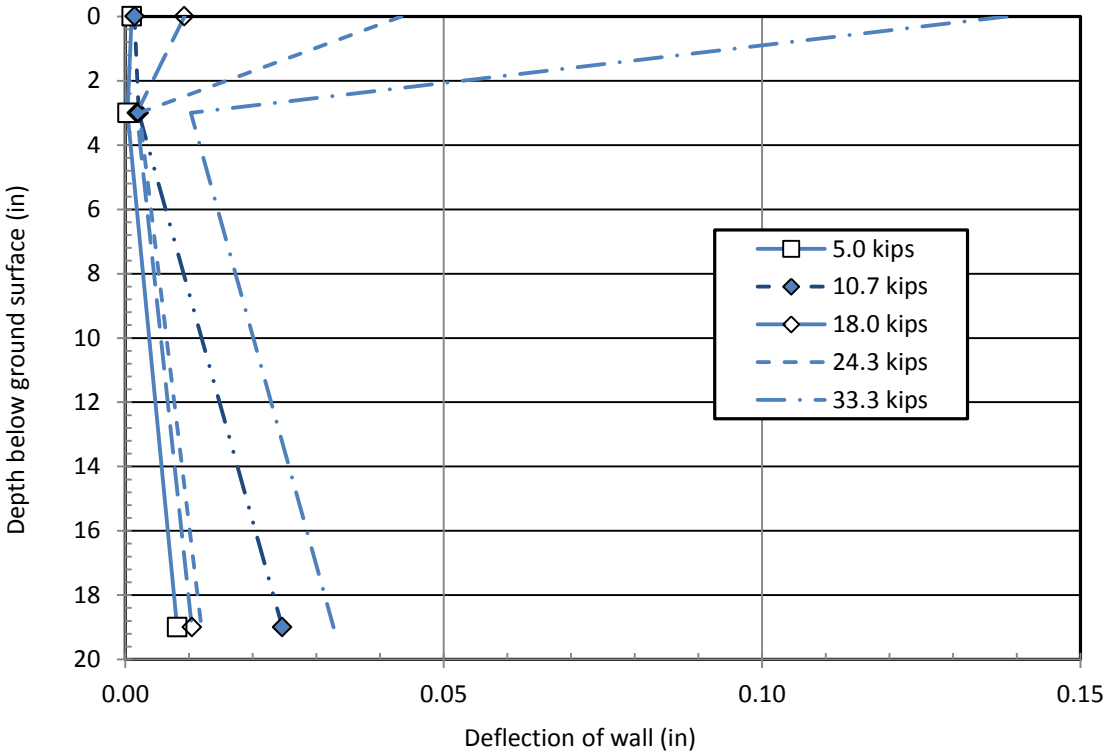


Figure 5.51: Deflection of wire mesh wall versus depth below ground surface for TP8.

5.3.4 Pile Performance

The bending moment in the pile is calculated from the strain gauge data using Equation 5-3. The average value of the paired strain gauges was used when both gauges were functioning. As with the strain gauges on the straps, there were a few locations where one of the gauges was damaged during construction or simply did not function properly, in which case only the data from the functioning gauge was used.

The gauges at the Provo Center Street site along with the gauges at the Pioneer Crossing site experienced less damage during construction due to the added protection of the steel angles welded onto the piles. Figure 5.52 and 53 show the bending moment versus depth at various load levels for TP7 and TP8 respectively. The measured bending moment for TP7 and TP8 at the maximum load of approximately 24 kips for pile TP7 is shown in Figure 5.54. The maximum bending moment at this load varied from 1450 to 2100 in-kips at a depth of 9 to 12 ft. below the load level. As was observed in the Pleasant Grove and Pioneer Crossing tests, TP7 at 2.7D from the wall developed a higher maximum bending moment than TP 8 at 6.7D from the

wall. The maximum load applied to TP6 was 10 kips and the measured bending moment versus depth curve for this pile at this load is shown in Figure 5.55, along with the bending moment curves for TP7 and TP8 at approximately the same load. The maximum bending moment of approximately 640 in-kips for TP6 (1.3 pile diameters from the wall) is comparable to the bending moment of 680 in-kips for TP7 (2.7 pile diameters from the wall) which is approximately 35% higher than the maximum bending moment of about 480 in-kips for TP8 (6.7 pile diameters from the wall). The maximum load applied to piles TP7 and TP9 was the same.

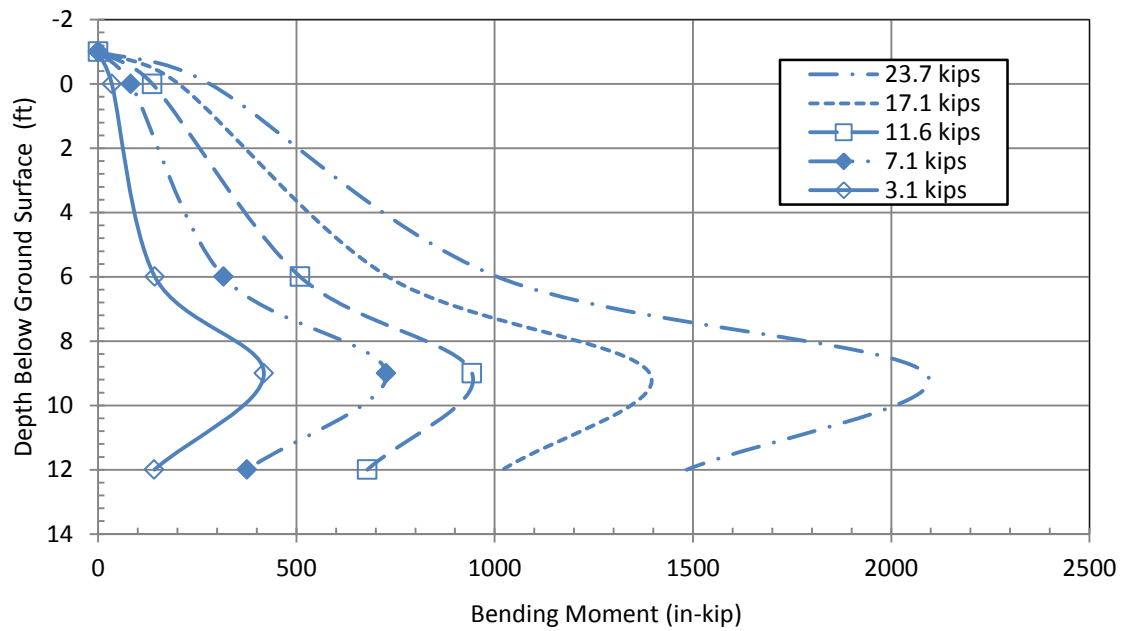


Figure 5.52: Bending moment vs. depth below ground surface for TP7 for various loads.

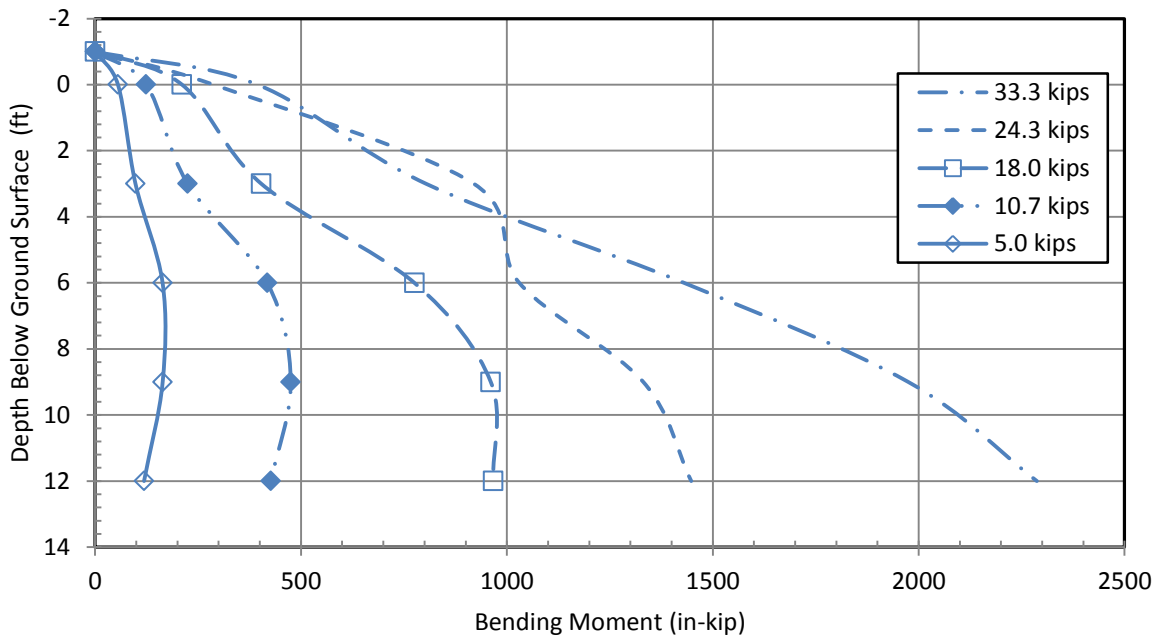


Figure 5.53: Bending moment vs. depth below ground surface for TP8 for various loads.

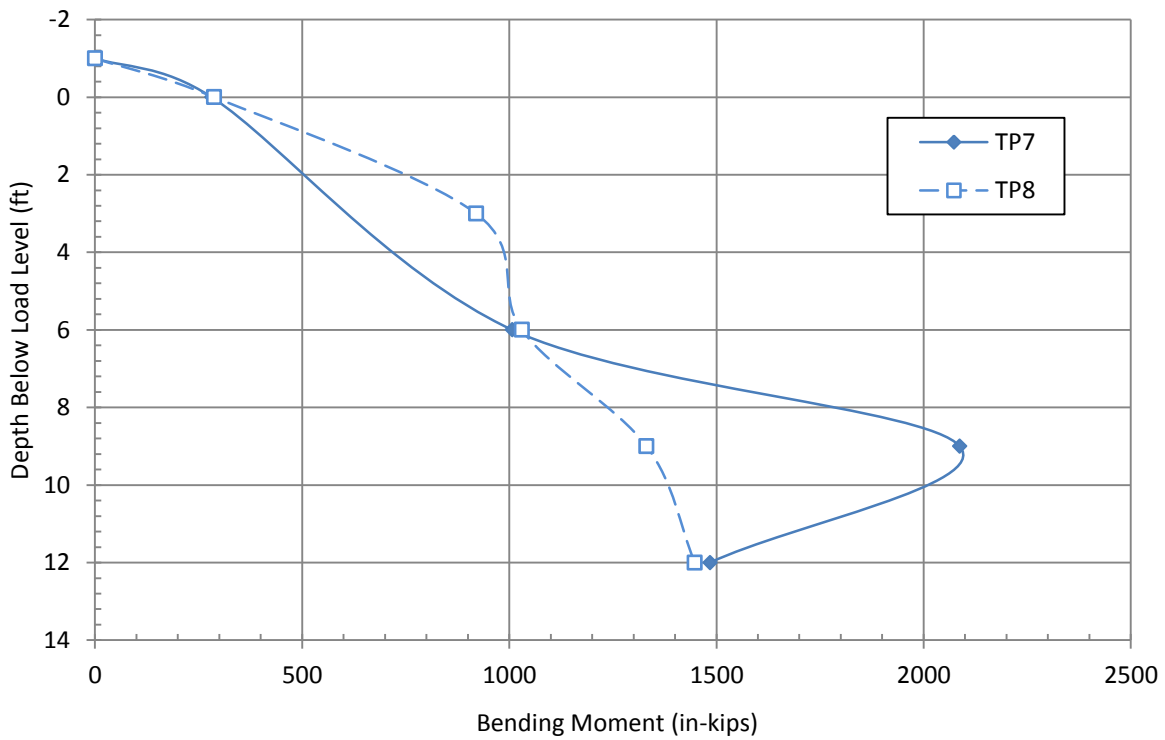


Figure 5.54: Bending moment vs. depth below load level for TP7 and TP8 at a load of 23.7 kips (maximum load for TP7)

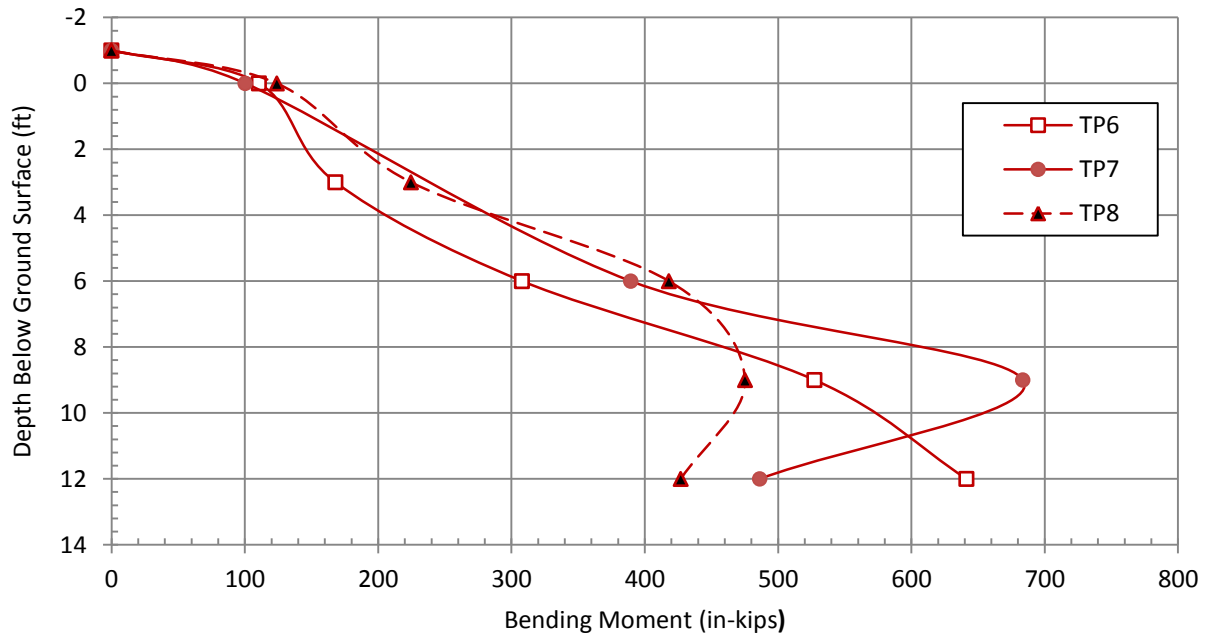


Figure 5.55: Bending moment vs. depth below ground surface for TP6, TP7 and TP8 at a load of 10 kips (maximum load for TP6)

6. LATERAL PILE LOAD ANALYSIS

The lateral pile load analyses were performed using the computer program LPILE (Reese et al., 2004). LPILE uses a finite difference method in which the pile is represented by beam elements and the soil is represented by non-linear p-y springs where p represents the horizontal soil resistance per length of pile and y is the horizontal displacement. The method uses an iterative approach to obtain compatible force and displacement along the length of the pile.

Because the pile was composed of steel and the load was limited to levels which did not exceed the yield stress of the pile, the pile could be treated as a linear elastic material with the modulus of elasticity of steel and the moment of inertia of the steel section.

Relatively few lateral load tests have been performed on piles in dense gravelly soils (Macklin and Chou, 1988, and Smith et al., 2000) similar to the compacted fill behind the MSE walls. As a result, stiffness and strength parameters for laterally loaded piles in gravelly soils are not well calibrated. Therefore, the lateral pile load analyses performed as part of this study required some back-calculation to obtain relevant soil parameters. Although the soil near the pile was actually gravel, the p-y curve shape was modeled within the framework of the API (1982) sand p-y curve. The moist unit weight of gravel for each site was well known based on density testing as discussed previously, however the friction angle (ϕ) and stiffness (k) values had to be refined based on back-calculation procedures. While these two parameters both have an effect on the entire computed load-displacement curve, the friction angle has the greatest effect at large displacements where the soil strength becomes fully developed. In contrast, the stiffness parameter has the greatest influence on the shape of the load-displacement curve at smaller displacements. Guided by this understanding, the load-displacement curves were computed for each test pile with a curve fitting approach. The friction angle and stiffness of the reinforced fill was modified to find the best match to the test data plotted after the one minute hold time (final load data).

A pinned-head condition was used for the boundary conditions at the top of each pile for each LPILE analysis by applying a shear force to the top of the pile and setting the applied

moment to zero. Loads were typically applied in small intervals up to the maximum load. The analyses for each site are discussed in the following sections.

6.1 U.S. Highway 89 Site

The soil profile for the LPILE analysis consists of two generalized layers. The top layer of soil is the reinforced fill with a thickness equal to the wall height. The second layer is the foundation soil consisting of stiff clay. Although the native soil profile is more complicated than this simplified model, parametric analyses indicate that the properties of the deeper native soil layers had relatively little effect on the computed load vs. deflection and bending moment vs. depth curves. Table 6.1 shows the pile property input for the LPILE analysis. Table 6.2 shows the soil layering and properties used in the analysis, including the friction angle (ϕ) and stiffness (k) values for the reinforced fill resulting in the best agreement with the measured data.

Table 6.1: Pile properties for the U.S. Highway 89 site LPILE analysis.

Pile Shape	Total Length (in)	Number of Increments	Distance from Load point to Ground Surface (in)	Outside Diameter (in)	Wall Thickness (in)	Moment of Inertia, I (in ⁴)	Area (in ²)	Modulus of Elasticity, E (psi)	Yield Stress f _y (psi)
Circular Pipe	960	200	12	12.75	0.375	279.34	14.58	29,000,000	60,000

Table 6.2: Material properties for the U.S. Highway 89 site LPILE analysis.

Depth (ft)	Description	Soil Type (p-y model)	Eff. Unit Weight, γ' (pcf)	Cohesion, c (psf)	Strain Factor ϵ_{50}	Friction Angle, ϕ (degrees)	p-y Modulus, k (pci)
0 to 17	Reinforced Fill	API Sand (O'Neill)	138.25	0	-	39	800
17 to 60	Foundation Soil	Stiff Clay w/o Free Water (Reese)	119.2	1000	0.007	0	-

The back-calculated friction angle of 39° used in the analysis appears reasonable for dense compacted gravel (US Navy, 1982, Rollins et al., 2005); however, the k value is 3.6 times higher than would be expected for a dense sand (typically 225 pounds per cubic inch or pci for $D_r = 80\%$ and $\phi = 39^\circ$ (API, 1982)). Figure 6.1 shows the curves used for the API method to determine the subgrade reaction modulus k. Other investigations (Macklin and Chou, 1988) have also found the k value for dense gravels to be unusually high; therefore, this result is not without precedent. The load deflection curve from the LPILE analysis is shown in Figure 6.2, along with the measured lateral load displacement curves for TP1 and TP2. The output file for the LPILE analysis is included in Appendix E.

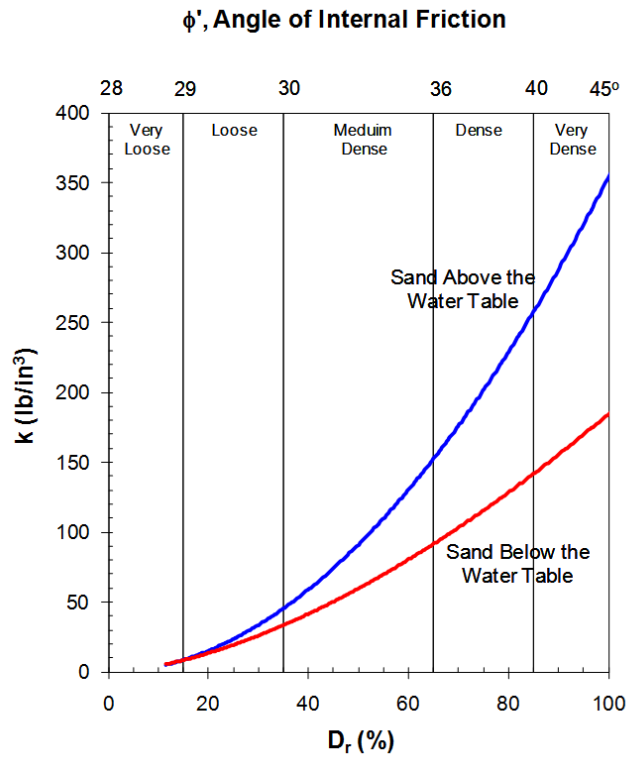


Figure 6.1: Subgrade reaction modulus, k used for API sand criteria in p-y analysis (API, 1982).

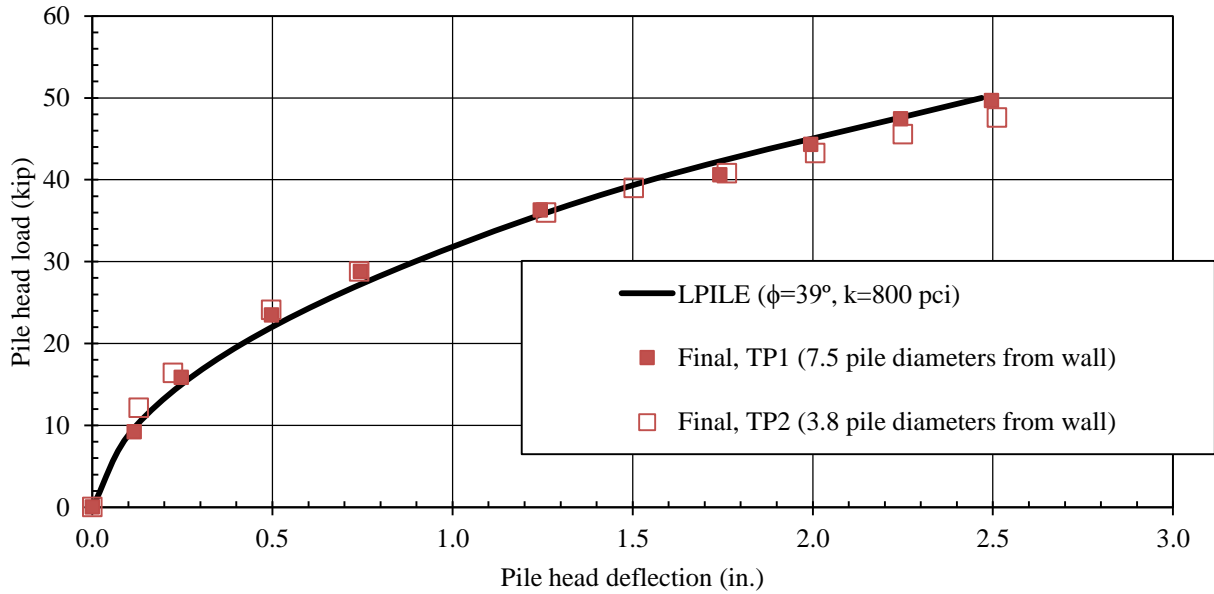


Figure 6.2: Comparison of computed and measured load-displacement curves for TP1 and TP2.

The computed bending moment versus depth curve using the back-calculated soil properties is shown in Figure 6.3. The measured bending moment versus depth curves for piles TP1 and TP2 are also shown in this figure. The analysis shows a maximum computed bending moment of 3070 in-kips occurring 6.8 ft. below the load level for both TP1 and TP2. This value is approximately twice the measured bending moment in both test piles as shown in Figure 6.3. The low measured values are likely a result of the poor protection of the gauges and wires due to the short time frame from notice to proceed with instrumentation and wall construction.

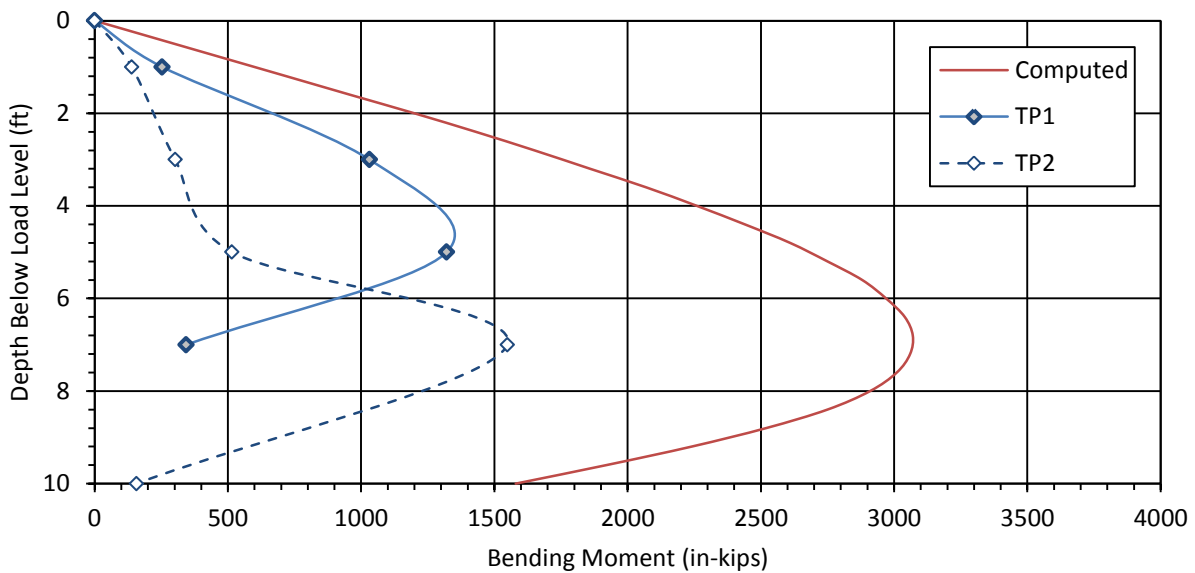


Figure 6.3: Comparison of measured and computed bending moment for TP1 and TP2 with a 50 kip load.

6.2 Pioneer Crossing Site

The soil profile for the LPILE analysis consists of two generalized layers. The top layer of soil is the reinforced fill with a thickness equal to the wall height. The second layer is the foundation soil consisting of stiff clay. Table 6.3 shows the pile property input for the LPILE analysis.

Table 6.3: Pile properties for the Pioneer Crossing site LPILE analysis.

Pile Shape	Total Length (in)	Number of Increments	Distance from Load Point to Ground Surface (in)	Outside Diameter (in)	Wall Thickness (in)	Moment of Inertia, I (in ⁴)	Area (in ²)	Modulus of Elasticity, E (psi)	Yield Stress, f _y (psi)
Circular Pipe	960	200	12	16	0.375	562.08	18.41	29,000,000	60,000

Analyses were first performed on the pile located at a distance of 5.2 pile diameters from the wall (TP4) assuming that there was no effect from the proximity of the wall. Thereafter, the soil parameters calibrated based on the analysis of that pile were held constant for the analyses of the other piles. The reduction in lateral soil resistance was accounted for by using constant p-multipliers over the length of the pile.

Table 6.4 shows the material properties used in the analyses, including the friction angle (ϕ) and stiffness (k) values for the reinforced fill resulting in the best match to the measured data for TP4.

Table 6.4: Material properties for the Pioneer Crossing site LPILE analysis.

Depth (ft)	Description	Soil Type (p-y model)	Eff. Unit Weight, γ' (pcf)	Cohesion (psf)	Strain Factor ϵ_{50}	Friction Angle, ϕ (degrees)	p-y Modulus, k (pci)
0 to 40	Reinforced Fill	API Sand (O'Neill)	138.25	0	-	28	150
40 to 83	Foundation Soil	Stiff Clay w/o Free Water (Reese)	119.3	1000	0.007	0	-

Despite the fact that the test piles at the Pioneer Crossing site were 16 inch in diameter with a moment of inertia of 562 in⁴ relative to the 12.75 inch diameter piles at the Pleasant Grove site with a moment of inertia of only 292 in⁴, the load-displacement curve for the Pioneer

Crossing test pile was softer than that at Pleasant Grove. The back-calculated friction angle obtained from the analyses appears to be low for dense compacted gravel based on recommendations made by others (API 1982, US Navy 1982, Rollins et al. 2005) where values between 38° and 45° are commonly reported. The k value is reasonable for dense sand (typically 225 pci for Dr = 80%) based on API recommendations, but significantly lower than the values found at the U.S. Highway 89 site and discussed in the previous section. The load deflection curve from the LPILE analysis is shown in Figure 6.4, along with the measured lateral load displacement curves for TP4. The output file for the LPILE analysis is included in Appendix F.

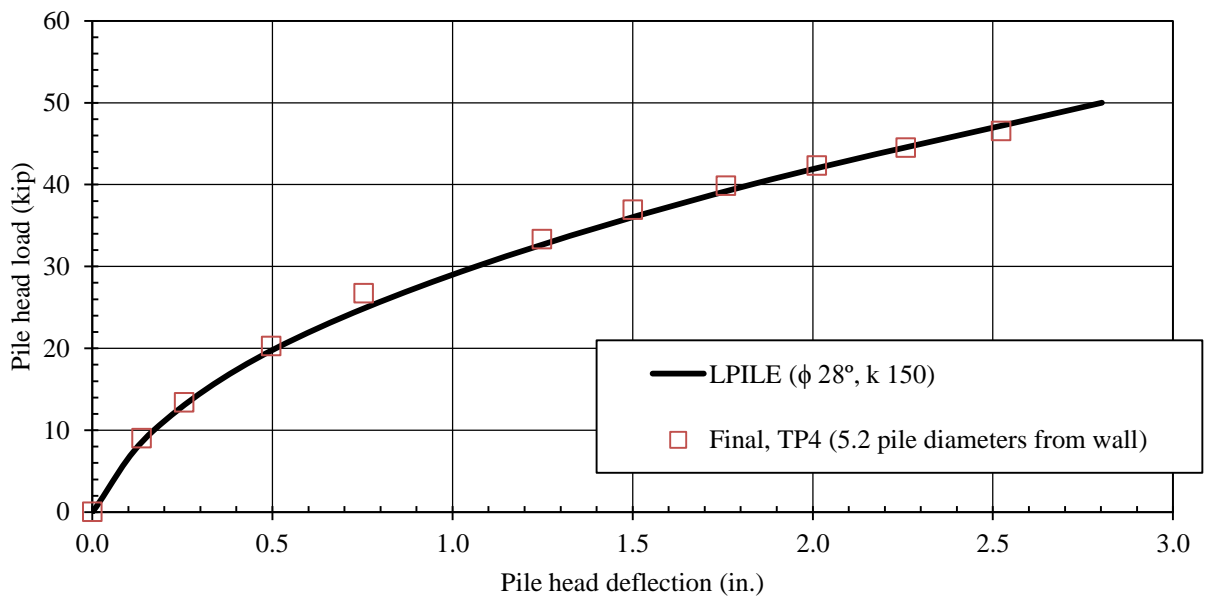


Figure 6.4: Comparison of computed and measured load-displacement curves for TP4.

The lower friction angle and k value could be attributable to three potential factors: (1) the presence of the MSE wall which might still be reducing lateral resistance relative to a pile without the presence of a wall, (2) lower compaction of the backfill in the area around the test piles and (3) the presence of the double sheet of low-density polyethylene sheeting surrounding the piles.

While compaction quality may vary particularly near an MSE wall face, there is no evidence in the construction records to indicate that compaction effort was less effective at Pioneer Crossing than at Pleasant Grove. Based on our review of the strain data, it appears that the double sheeting is the major source of the reduction in lateral resistance. Therefore, the action taken to reduce the force on the pile due to drag load likely had negative consequences on the lateral resistance of the abutment piles. If friction angle and k values more typical of dense compacted gravel were employed (similar to those used for the Pleasant Grove test for example), the computed lateral resistance would be expected to be 60 to 80% higher than what was measured. Therefore, in this case it appears that double wrapping the pile reduced the lateral capacity by as much or more than would have been the case if the pile were placed 1.6 pile diameters from the wall face but without the double wrapping in plastic.

Using the same soil model developed for the pile at 5.2 pile diameters, p-multipliers were obtained by back-analysis with LPILE to match the measured load-deflection curves for the piles at closer spacings. In each case, a constant p-multiplier was used for the entire length of the pile. Back calculated P-multipliers to account for the reduced capacity of piles TP3 (2.9 pile diameters behind wall) and TP5 (1.6 pile diameters behind wall) were found to be 0.8 and 0.25, respectively. The computed pile head load versus displacement curves using these p-multipliers are shown in Figure 6.5 relative to the measured curves and the agreement is very good.

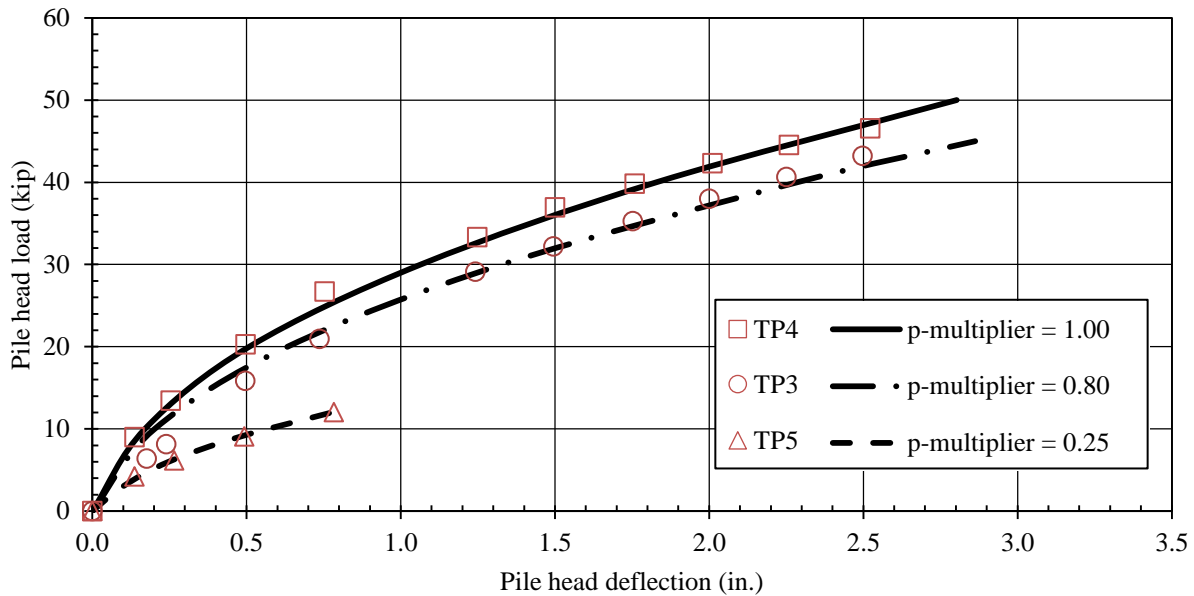


Figure 6.5: Comparison of computed and measured load-displacement curves for TP3, TP4 and TP5.

The bending moment vs. depth curves for each of the three cases is plotted with the measured bending moment vs. depth curve for the maximum applied lateral load in Figure 6.6 through 8. The shape of each of the measured bending moment curves matches the shape of the computed curves fairly well. The maximum measured bending moment, however, is significantly lower than the computed bending moment even with the additional protection of the steel angles around the strain gauges.

With a p-multiplier of 1.0 for TP4, the maximum computed bending moment is 3900 in-kips for a lateral load of 50 kips compared to the maximum measured bending moment of 2700 in-kips. With a p-multiplier of 0.8 for TP3, the maximum computed bending moment is 4300 in-kips compared to 3200 in-kips maximum measured bending moment for the same load. The biggest discrepancy between computed and measured bending moment is in TP5. With a p-multiplier of 0.25 and a lateral load of 18 kips, the maximum computed bending moment is 1560 in-kips compared to the maximum measured bending moment of 350 in-kips.

The measured bending moment in each case is less than the computed bending moment. One possible explanation is that the soil is more dense than what was used in the LPILE analysis. As discussed previously, the LPILE parameters were back-calculated to get the best fit between

the computed and measured load-displacement curves. The resulting friction angle of 28° is very low for a dense gravel. Increasing the friction angle and stiffness parameter in LPILE to values similar to the U.S. Highway 89 site, while keeping the same p-multipliers previously discussed results in computed bending moments that are very similar to the measured bending moments for TP-3 and TP-4. However, the computed bending moment for TP-5 remains significantly higher than measured even when increasing the friction angle and stiffness parameters. Of course, using the higher friction angle would also lead to much stiffer load-deflection curve which would not match the measured response. Considering that the load and deflection values are the best known measured parameters, it is also possible that the discrepancy is related to unknown problems with the strain gauge instrumentation.

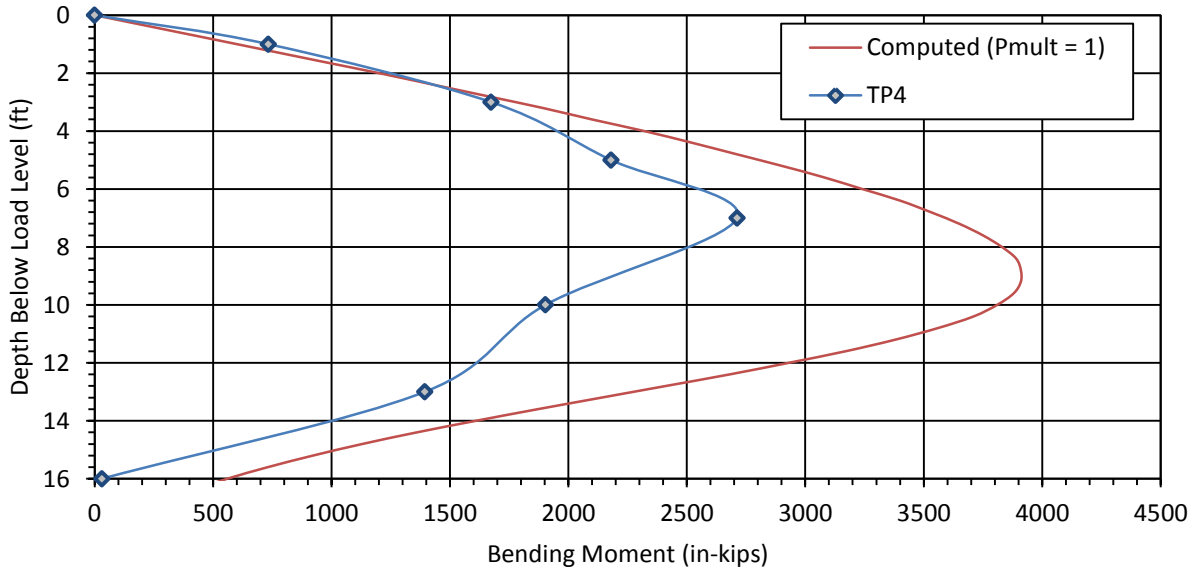


Figure 6.6: Comparison of measured and computed bending moment for TP4 with a 50 kip load.

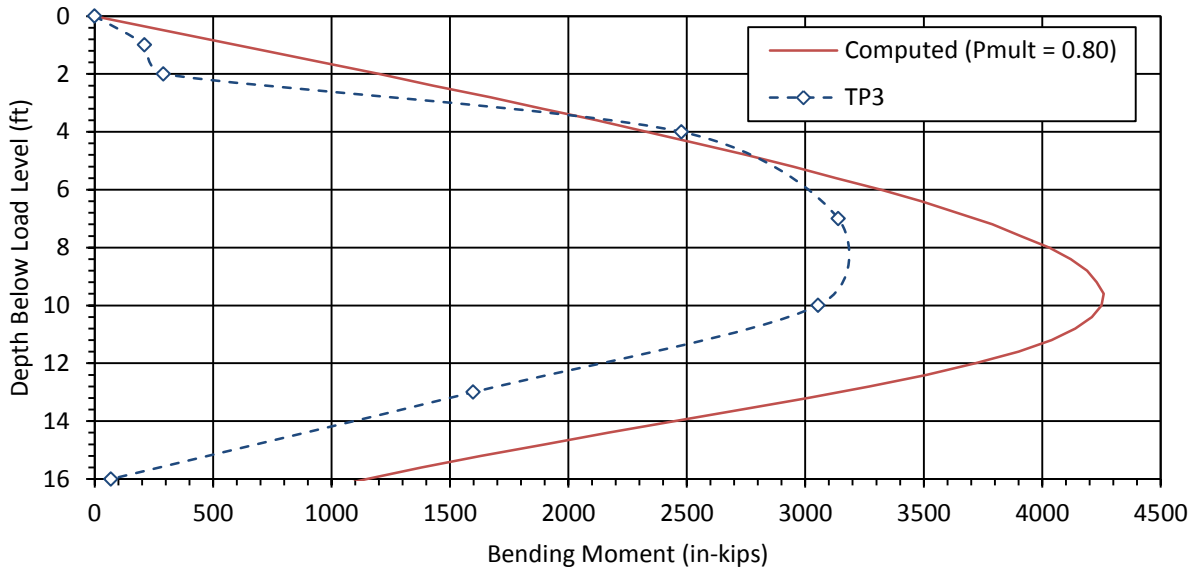


Figure 6.7: Comparison of measured and computed bending moment for TP3 with a 50 kip load.

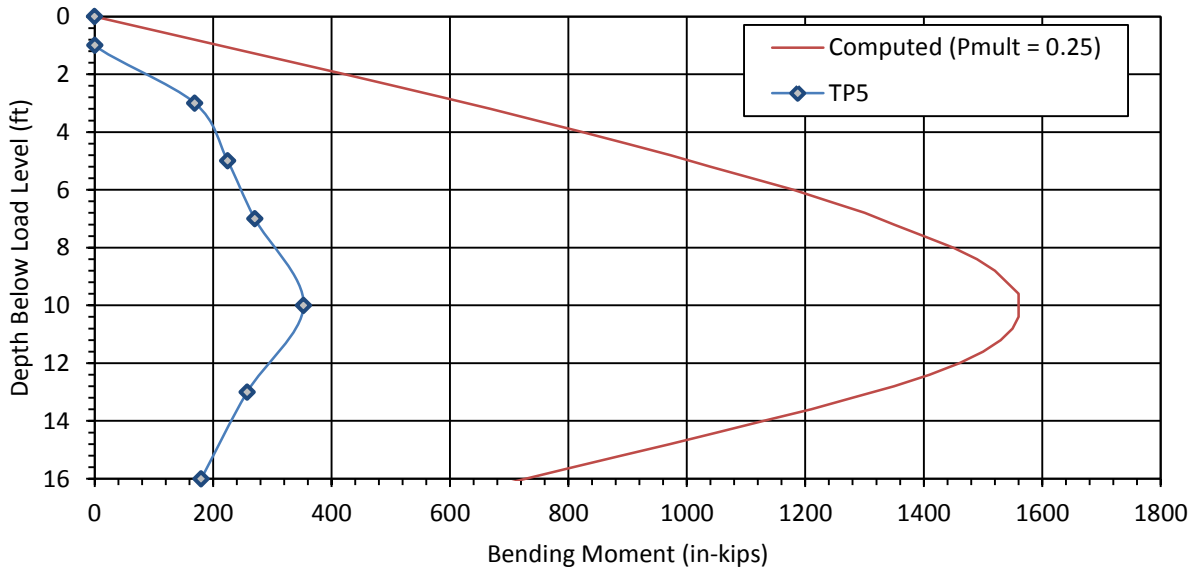


Figure 6.8: Comparison of measured and computed bending moment for TP5 with an 18 kip load.

6.3 Provo Center Street Site

The soil profile for the LPILE analysis consists of three generalized layers. The top layer of soil is the reinforced fill with a thickness equal to the wall height. The second layer is the foundation soil consisting of a silty sand. The third layer is the same as the second layer but below the water table. Table 6.5 shows the material properties used in the analyses, including the friction angle (ϕ) and stiffness (k) values for the reinforced fill resulting in the best match to the measured data for TP4.

Table 6.5: Pile properties for the Provo Center Street site LPILE analysis.

Depth (ft)	Description	Soil Type (p-y model)	Eff. Unit Weight, γ' (pcf)	Cohesion, c (psi)	Strain Factor ϵ_{50}	Friction Angle, ϕ' (degrees)	p-y Modulus, k (pci)
0 to 23	Reinforced Fill	API Sand (O'Neill)	112.3	0	-	28	27
23 to 28	Foundation Soil	API Sand (O'Neill)	110.6	0	-	31	50
28-43	Foundation Soil	API Sand (O'Neill)	48.4	0	-	31	30

Analyses were first performed on the pile located at a distance of 6.7 pile diameters from the wall (TP8) assuming that there was no effect from the proximity of the wall. Thereafter, the soil parameters calibrated based on the analysis of that pile were held constant for the analyses of the other piles. The reduction in lateral soil resistance was accounted for by using constant p-multipliers over the length of the pile.

Table 6.6 shows the pile property input for the LPILE analysis.

Table 6.6: Material properties for the Provo Center Street site LPILE analysis.

Pile Shape	Total Length (in)	Number of Increments	Distance from Pile Top to Top of Ground Surface (in)	Outside Diameter (in)	Wall Thickness (in)	Moment of Inertia (in ⁴)	Area (in ²)	Modulus of Elasticity (psi)	Yield Stress (psi)
Circular Pipe	480	200	12	12.75	0.375	279.34	14.58	29,000,000	60,000

The back-calculated friction angle obtained from the analyses appears to be low for dense compacted gravel based on recommendations made by others (API 1982, US Navy 1982, Rollins et al. 2005) where values between 38° and 45° are commonly reported. The k value is also low for dense sand (typically 225 pci for $D_r = 80\%$) based on API recommendations and significantly lower than the values found at the U.S. Highway 89. The load deflection curve from the LPILE analysis is shown in Figure 6.9, along with the measured lateral load displacement curves for TP8. The output file for the LPILE analysis is included in Appendix I.

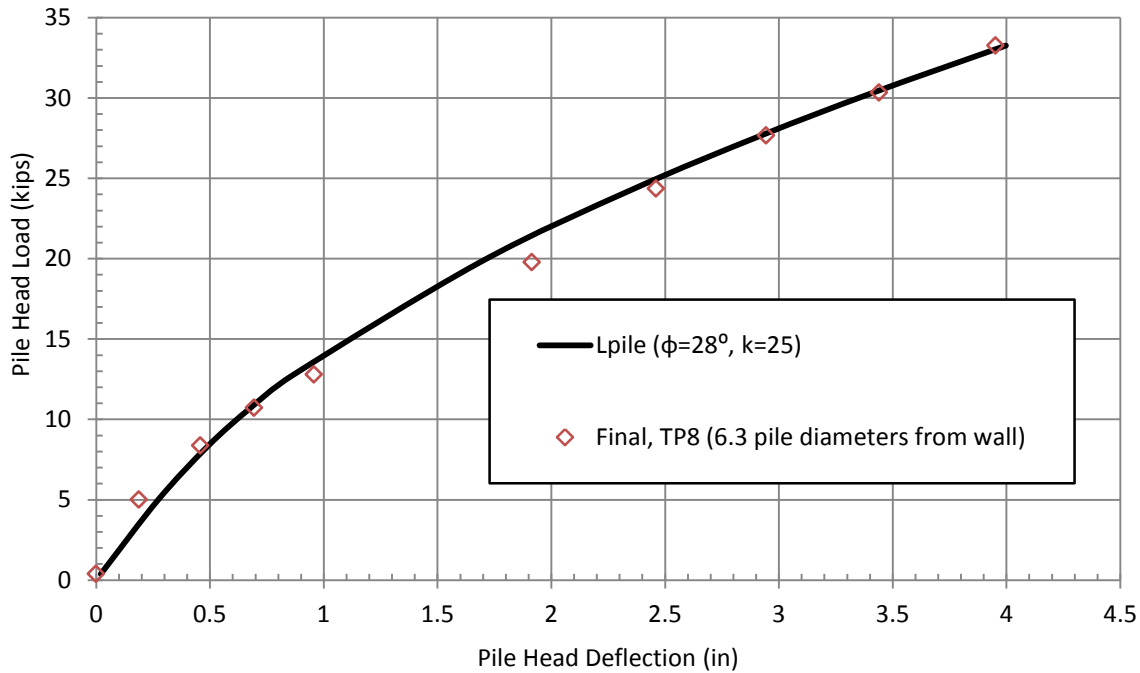


Figure 6.9: Comparison of computed and measured load-displacement curves for TP8.

As with the Pioneer Crossing site, the lower friction angle and k value could be attributable to a few potential factors: (1) the presence of the MSE wall which might still be reducing lateral resistance relative to a pile without the presence of a wall and (2) lower compaction of the backfill in the area around the test. In this case, the most likely explanation is connected with the second explanation.

There was some difficulty in obtaining the required compaction near the piles. Due to the spacing and orientation of the piles, the construction crew was unable to use the CAT CS 56 roller around the test piles that was used in the compaction of the rest of the wall backfill. Instead, a small vibratory plate compactor was used. Despite several passes, it is reasonable to suppose that a lower density might have been achieved. Another reason for possibly lower density in the soil is that the free draining granular backfill (FDGB) that was called for in the closest 30 inches to the wall was not evenly dispersed. As noted previously, specifications for the FDGB soil allowed this material to be placed in 2 ft lifts using only 3 passes of the plate compactor with a minimum width of 30 inches. It is likely that the crew placing the FDGB put more than the required amount next to the wall. For example, in the photo in Figure 3.16, the FDGB extended from the wall to the face of each test pile at this elevation. As noted previously, the unit weight of the FDGB is only 90.1 pcf compared to the 138 pcf unit weight of the conventional backfill material. The density of the soil found in back calculations was about halfway between the densities of the FDGB and the rest of the backfill.

The p multipliers for test piles at 1.3 and 2.7 pile diameters were found using the same method as that discussed in the previous section at the Pioneer Crossing site by using the same soil model developed for the pile at 6.3 pile diameters, p -multipliers were obtained by back-analysis to match the measured load-deflection curves for the piles at closer spacing. In each case a constant p -multiplier was used for the entire length of the pile. Back calculated P -multipliers to account for the reduced capacity of piles TP6 (1.3 pile diameters behind wall) and TP7 (2.7 pile diameters behind wall) were found to be 0.16 and 0.51, respectively. The computed pile head load versus displacement curves using these p -multipliers are shown in Figure 6.10 relative to the measured curves.

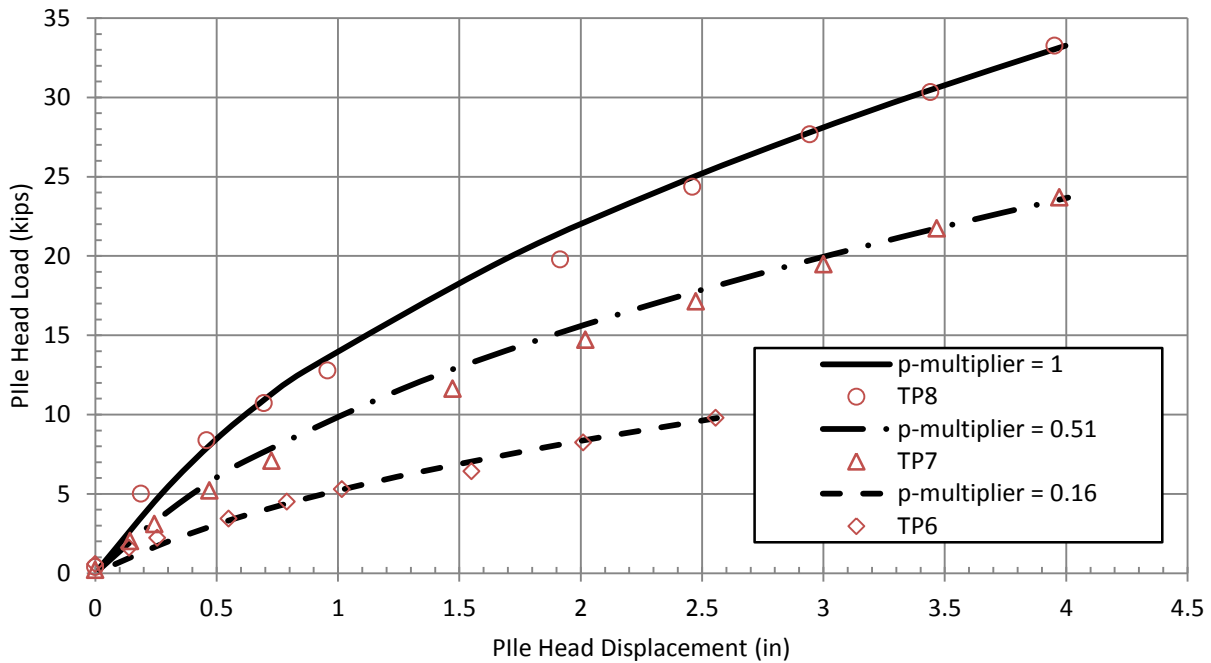


Figure 6.10: Comparison of computed and measured load-displacement curves for TP6, TP7 and TP8.

The bending moment vs. depth curves for each of the three cases is plotted with the measured bending moment vs. depth curve for the maximum applied lateral load in Figure 6.11 through 13. In contrast to the Pioneer Crossing Site, the maximum measured bending moment is relatively close to the computed bending moment even though the shape of the curves aren't as close. With a p-multiplier of 1 for TP8, the maximum computed bending moment is 2560 in-kips compared to the measured maximum bending moment of 2290 in-kips for a lateral load of 33.3 kips. This is a discrepancy of about 12% which is reasonable agreement. With a p-multiplier of 0.56 for TP7, the maximum computed bending moment is 2050 in-kips load compared to a maximum measured bending moment of 2090 in-kips for the same load, which is an error less than 2%. With a p-multiplier of 0.16 and a lateral load of 9.8 kips, the maximum computed bending moment is 940 in-kips compared to the maximum measured bending moment of 640 in-kips, which is a discrepancy of 31% and represents the worst agreement.

As the pile is placed closer to the wall and the p-multiplier decreases, the computed depth to the maximum moment increases gradually. For example, for the three test piles the depth to the maximum moment increases from 9 ft, to 10 ft, to 11ft for the test piles at 6.7, 2.7 and 1.3

pile diameters, respectively. Unfortunately, the depth to the measured maximum bending moments were 13 ft, 10 ft, and 13 ft, respectively for the same three piles. It is unclear whether the discrepancy is a result of poor performance of the strain gauges or error in the calculations.

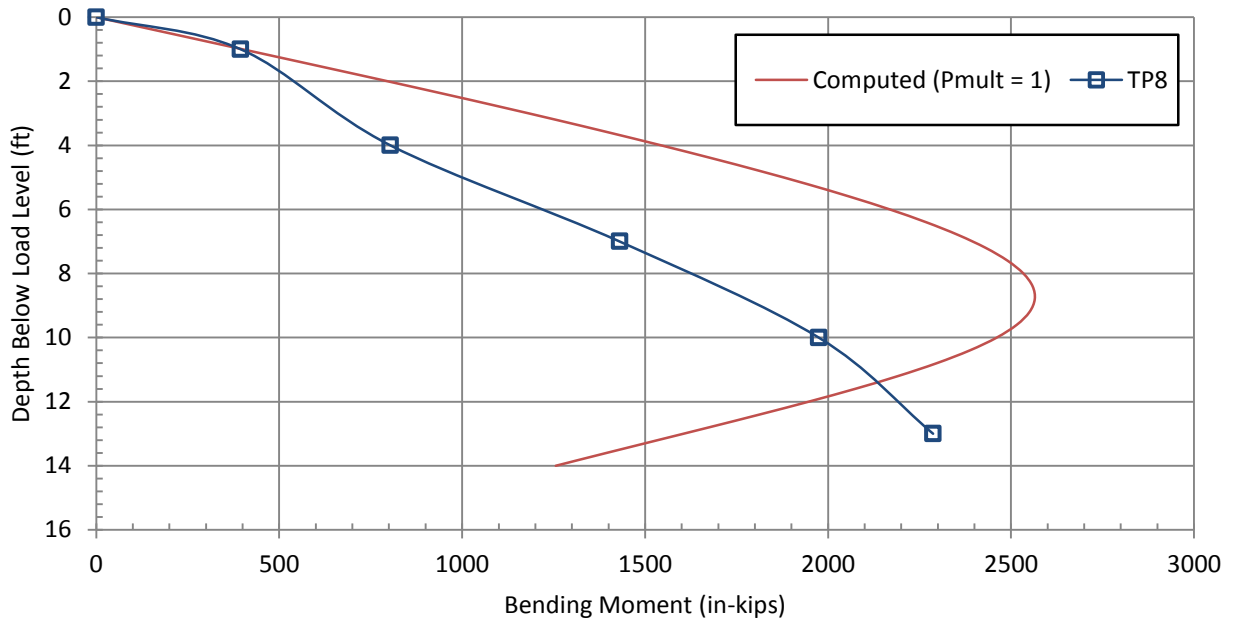


Figure 6.11: Comparison of measured and computed bending moment for TP8 with a 33.3 kip load.

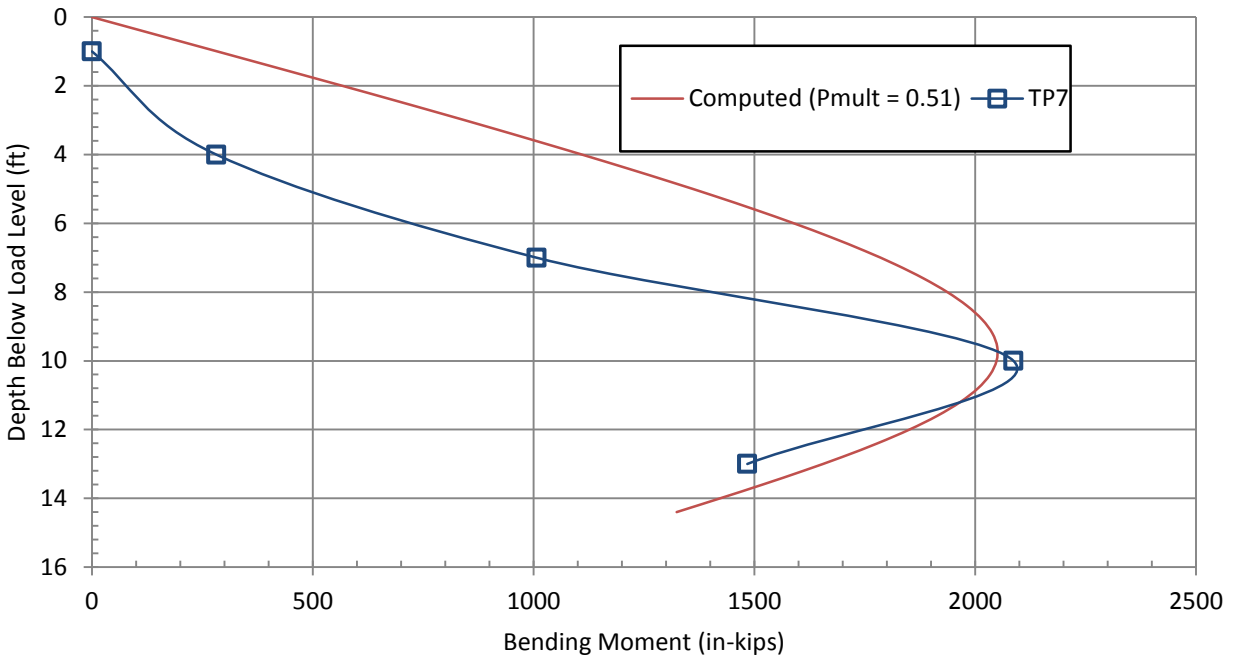


Figure 6.12: Comparison of measured and computed bending moment for TP7 with a 23.7 kip load.

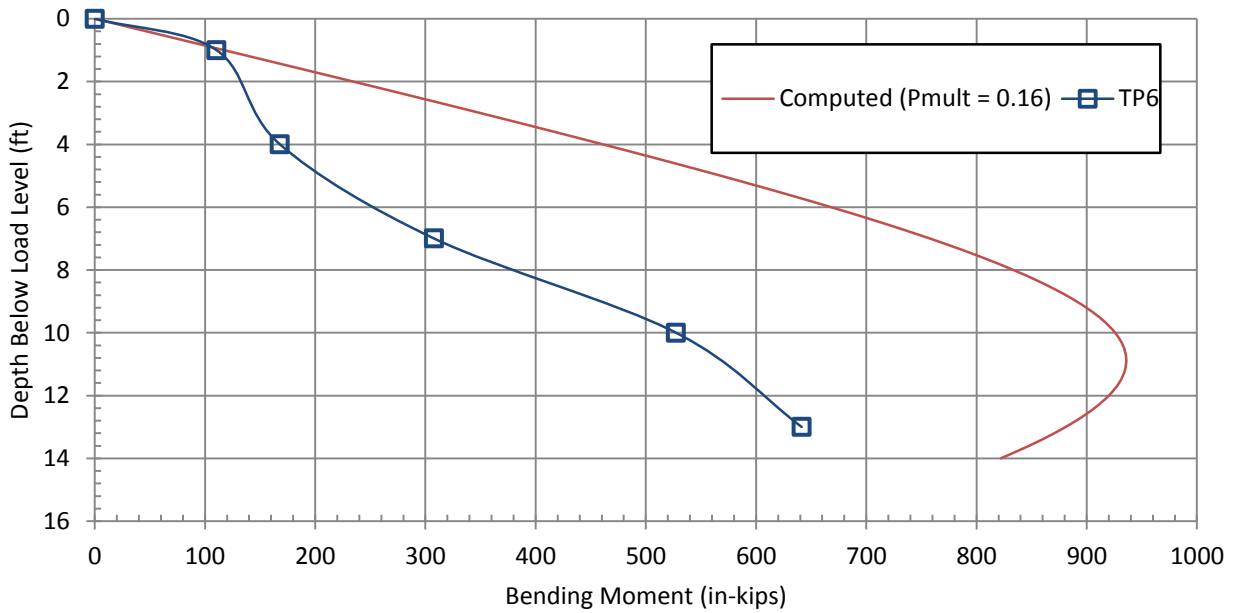


Figure 6.13: Comparison of measured and computed bending moment for TP6 with a 9.8 kip load.

6.4 P-Multiplier Analysis

The results from the lateral load analyses discussed in Sections 6.1, 2 and 3 are summarized in Figure 6.14. This figure plots the p-multiplier vs. the normalized distance from the wall, taken as the distance from the back face of the wall to the center of the pile (S) divided by the diameter of the pile (D). Two general curves are drawn with the data points from the three test sites. The upper curve is labeled “Typical L/H=1.6” consisting of the U.S. Highway 89 test piles and one of the Pioneer Crossing test piles (TP1, TP2 and TP3). The lower curve is labeled “Typical L/H=1.1” and consists of the other two Pioneer Crossing test piles (TP4 and TP5) and the three Provo Center Street test piles. These labels refer to the ratio of the length of the reinforcement to the height of the wall at the time of testing. A p-multiplier of 1 indicates that there is no influence of the wall on the lateral resistance of the pile whereas a p-multiplier less than 1 indicates that the presence of the wall is causing a reduction in the lateral resistance provided by the reinforced soil.

The data suggest that with a L/H ratio of 1.6, a p-multiplier of 1 can be used when the normalized distance from the wall to the center of the pile is at least 3.8 pile diameters. When the L/H ratio decreases to 1.1, a p-multiplier of 1 can be used when the pile is at least 5.2 pile diameters behind the wall. Extrapolating from the data, for an L/H ratio of 0.7, which is typical of static loadings, a normalized distance of 6 pile diameters might be required to achieve a p-multiplier of 1.0.

For smaller normalized spacings, the p-multipliers decrease approximately linearly with normalized distance based on the limited data set available. These two curves are consistent with observations that placing piles closer to the wall leads to lower lateral resistance and that longer reinforcements provide greater pull-out resistance and greater wall stiffness.

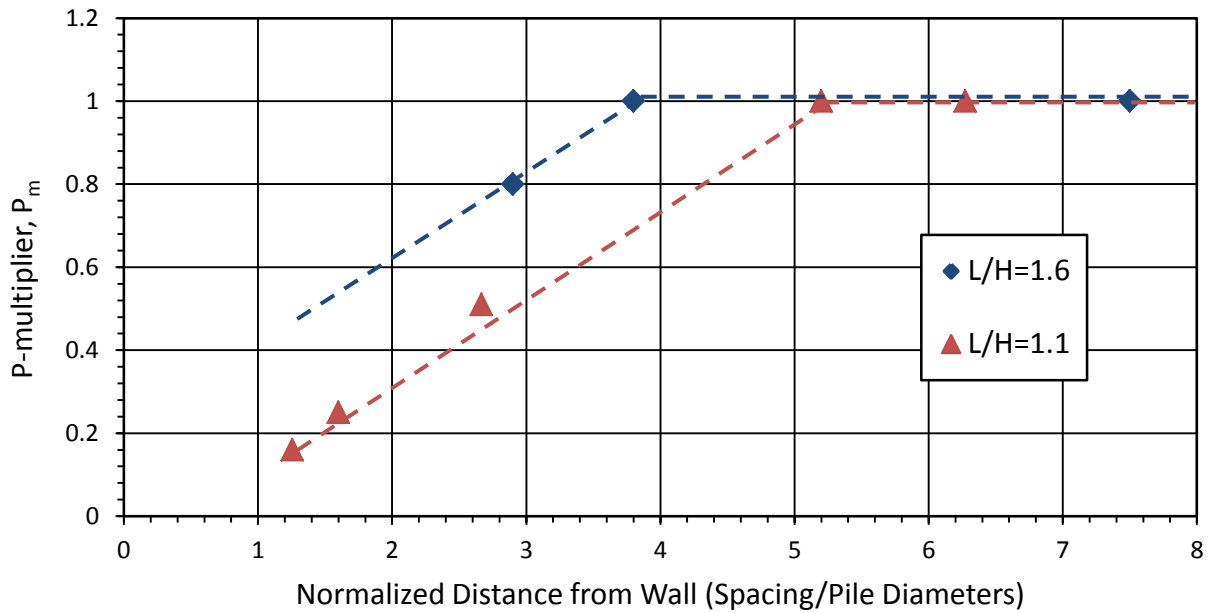


Figure 6.14: Tentative p-multiplier curves as a function of normalized distance for two reinforcement ratios.
Note: L is the length of the MSE reinforcement and H is the wall height.

6.5 Induced Load in Reinforcement

A normalized induced load in the reinforcement was introduced in Section 5.2.2. The maximum measured load in the reinforcement is divided by the maximum lateral pile load to calculate the normalized load. This normalization is meant to account for the fact that the tensile force in the reinforcement increases with lateral load on the pile. The depth of the reinforcement was not strongly correlated with the normalized force. Regression analyses indicate that the normalized force decreases exponentially with transverse distance from the pile; however, there is significant scatter and the equation only accounts for 36% of the variation. Regression analyses also indicate that the normalized force increases with longitudinal distance from wall although this trend is less pronounced.

To account for these two relationships in a simple manner, the normalized load is plotted against a normalized distance which is equal to the transverse spacing from the center of the wire grid or strap to the center of the pile divided by the spacing from the back face of the wall to the

center of the pile. The normalized load vs. normalized distance data points are shown in Figure 6.15 and 16 based on 37 measurements from the test piles TP1 through TP5 and 19 measurements for piles TP6 through TP8 respectively. The correlation is relatively good ($r^2=0.85$) for the data from the first two test sites. The correlation for the data from the Provo Center street site is not as good ($r^2=0.33$). The data points for TP2 show significantly higher induced loads than the other tests. TP2 is the pile that has the overlapping reinforcement from the adjacent wall, and these data points are treated as outliers. The dashed curve is a best fit after removing the two data points from TP2 for Figure 6.15 and is the best fit curve with no data removal for Figure 6.16. The data show that the induced force in the reinforcement when a lateral load is applied to the piles decreases exponentially as the normalized distance from the pile increases.

Because there is significant scatter about the best-fit curve, a design envelope has been plotted that is capped for each graph. The cap is 0.15 starting at a normalized distance of 0.2 for the grid reinforcement in Figure 6.15 and the cap is 0.12 starting at a normalized distance of 0.4 for the strap reinforcement in Figure 6.16. It is of note that the envelope for the straps is not as steep as that of the wire grids. The design curve provides a conservative estimate of the additional force in the reinforcement induced by the laterally loaded pile. Upon reflection, it is not surprising that a design envelope is required to deal with the scatter in the reinforcement force from these tests. A similar conservative design envelope approach was used in the FHWA method to deal with variation in pull-out friction from a number MSE wall tests. In addition, these tests involve both very dense and relatively loose backfill materials. As a result, scatter in the reinforcement forces is likely to be inevitable. The plots are limited to the conditions tested, i.e. for the reinforcement in the upper 6 ft. of the wall with L/H values ranging from 1.1 to 1.6.

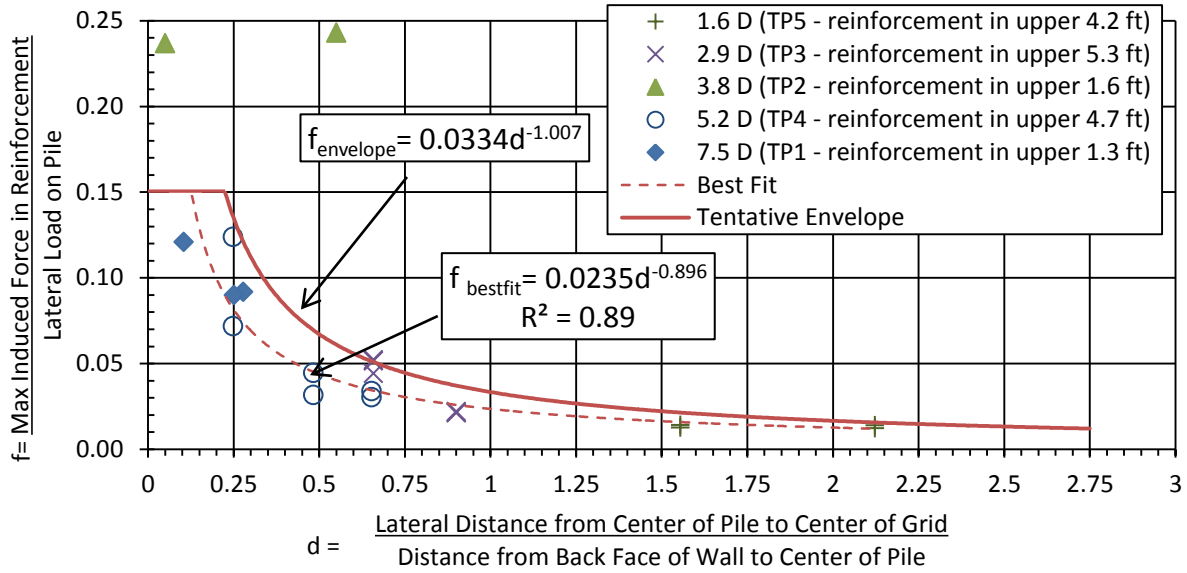


Figure 6.15: Plot of normalized induced force in wire grid reinforcement vs. normalized distance from pile

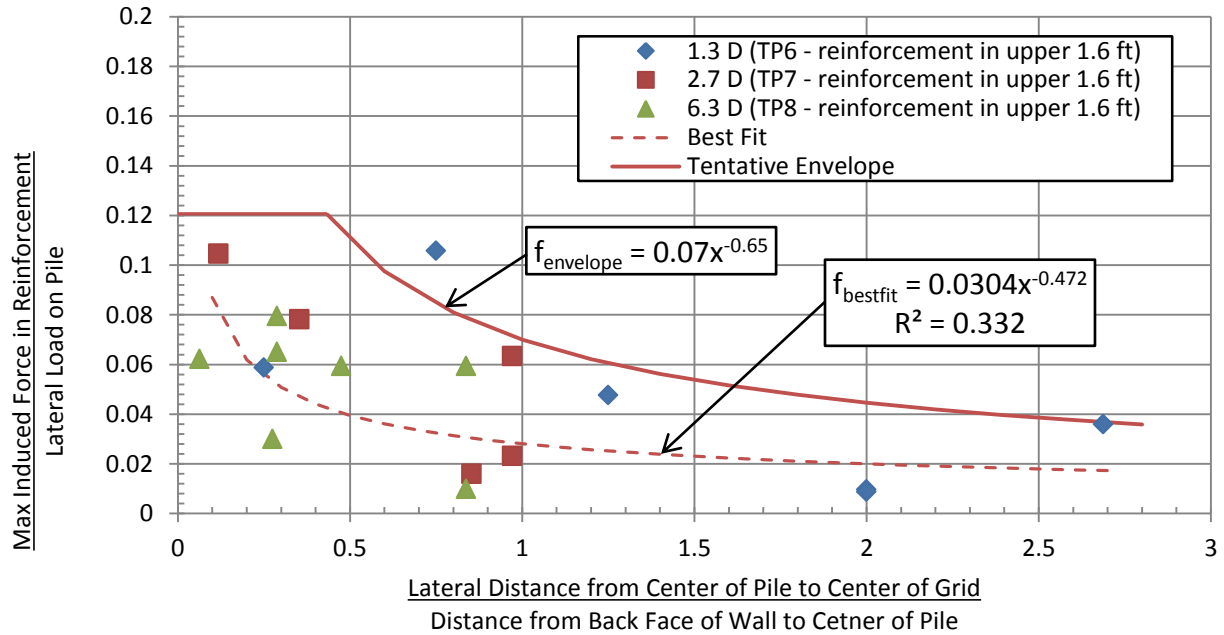


Figure 6.16: Plot of normalized induced force in strap reinforcement vs. normalized distance from pile

7. CONCLUSIONS

The different pile configurations and wall parameters for the three sites lead to unique conclusions for each site. Therefore, the conclusions for each site are discussed separately in the sections that follow. After the discussion of the conclusions for each site is a discussion of general conclusions and recommendations for further research.

7.1 U.S. Highway 89 Site

1. In contrast to previous studies where the lateral pile resistance decreased as the pile spacing from the wall decreased, lateral resistance for these tests was independent of pile spacing relative to the wall. This effect appears to be related to both the length of the reinforcing grid (1.6H) relative to typical lengths (0.7H to 1.2H) for static and seismic loadings, respectively along with the fact that both piles are located relatively far from the wall face itself (7.5D and 3.8D).
2. The load tests in this study suggest that reductions in lateral resistance for a pile near an MSE wall face can be reduced by using longer reinforcement ratios, at least near the ground surface. This option has the potential for reducing construction costs in comparison with options such as adding additional piles for piles spaced close to the wall or placing the piles further from the wall face.
3. Despite the similar load-displacement curves, the pile closest to the wall produced greater displacement at the wall face and greater loads in the reinforcements. These results confirm that the higher than expected resistance for the pile closest to the wall was at least partially a result of greater force in the reinforcement and somewhat higher wall panel movements.
4. Good agreement with measured response was obtained using a p-y curve approach with a friction angle (ϕ) for the gravel of 39° and a lateral stiffness factor (k) of 800 pci. This friction angle is consistent with expected values for

dense gravel; however, the k value is 3.6 times higher than would be expected for sand at an equivalent density.

7.2 Pioneer Crossing Site

1. Test results showed a significant decrease in lateral load capacity as the distance from the wall to the pile decreased.
2. Good agreement with measured response was obtained using a p-y curve approach with a friction angle (ϕ) for the gravel of 28° and a lateral stiffness factor (k) of 150 pci. These values are substantially lower than would be expected for dense compacted gravel likely owing to the presence of the double plastic wrapping around the piles.
3. P-multipliers of 0.80 and 0.25 provide very good agreement with measured pile response for piles spaced 2.9 and 1.6 pile diameters from the wall, respectively relative to soil resistance for a pile spaced 5.2 pile diameters from the wall.
4. Double wrapping a pile with plastic sheeting to reduce drag load can significantly reduce lateral load resistance of piles and the consequences of this action should be viewed against the benefits of reduced drag load.

7.3 Provo Center Street Site

1. Test results showed a decrease in lateral pile resistance as distance from the pile to the wall decreased.
2. The calculated load-displacement curve provided a good match with the measured curve with a friction angle (ϕ) of 28° for the gravelly sand backfill with a lateral stiffness (k) of 27 pci which is dramatically lower than expected for a dense gravel. The lower values are likely a result of the loosely compacted free-draining granular backfill between the pile and the wall which was specified for this two stage wall.
3. P-multipliers of 0.51 and 0.16 for piles at 2.7 and 1.3 pile diameters, respectively, provide a good match for not only the load-displacement curves but a fairly good match for the bending moment vs. depth curves as well.

7.4 General Conclusions

1. The reduction in lateral pile resistance is a function of both the reinforcement ratio (L/H) and the normalized distance behind the wall (S/D).
2. Tentative curves have been developed to define a p -multiplier vs. normalized spacing behind wall for length to height ratios of 1.1 and 1.6. These curves are shown in Figure 6.14. The data suggest that with an L/H ratio of 1.6, a p -multiplier of 1 can be used when the normalized distance from the back face of the MSE wall to the center of the pile is at least 3.8 pile diameters. When the L/H ratio decreases to 1.1 a p -multiplier of 1 can be used when the pile is at least 5.2 pile diameters behind the wall.
3. The induced force in the reinforcement (a) increases rapidly as the lateral load on the pile increases, (b) decreases exponentially as the transverse spacing from the pile increases, and (c) increases gradually as the pile spacing behind the wall increases.
4. Plots showing the induced normalized load in the reinforcement as a function of normalized distance from the pile has been developed for grid and strap reinforcements as shown in Figure 6.15 and 6.16. The maximum tensile force is normalized by the maximum lateral pile load and is plotted versus the transverse distance from the pile to the reinforcement normalized by the longitudinal distance between the pile and the wall. The normalized force decreases exponentially as the normalized distance increases. Because of the scatter about the best-fit curve a conservative design envelope has been developed for each reinforcement type.

7.5 Recommendations for Future Research

The current standard of practice for MSE wall design is to use a uniform reinforcement length throughout the height of the wall (AASHTO, 2010). The AASHTO LRFD code does comment that the “uppermost reinforcement layers can be lengthened beyond $0.7H$ to meet pullout requirements, or to address seismic or impact loads.” Based on the bending moment diagrams discussed in Chapter 7, it appears that the high L/H ratio would only be needed in no more than the upper 10 ft. of the walls tested. A possibility for future research is to perform

lateral load tests on piles behind MSE walls with non-uniform reinforcement lengths to define the “uppermost” reinforcement layers that need to be lengthened.

The minimum reinforcement length under the current standard of practice is 0.7 times the wall height (AASHTO, 2010). Another possibility for future research is to develop a p-multiplier curve for a wall constructed with the minimum reinforcement length. To develop the curve a series of at least 3 lateral load tests should be performed on piles spaced from 2 to 6 pile diameters behind an MSE wall constructed with reinforcements lengths equal to 0.7 times the height of the wall. Ideally, these tests can be conducted at a site where variability in the soil and pile properties can be more closely controlled than at bridges under construction.

Additional research is recommended to better define the increased tensile force in the reinforcement as lateral load is applied to the pile. Considerations could be given to different types of reinforcement (e.g. metallic strips and geosynthetics). The effect on reinforcements deeper than 6 ft. could also be determined. This research could be done in conjunction with the research possibilities discussed above. In conjunction with the testing mentioned above, it would be beneficial to instrument the connections between the reinforcement and the wall panels to develop design guidelines for the induced load with respect to pile offset.

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APPENDIX A: FACTOR OF SAFETY AGAINST PULLOUT CALCULATIONS

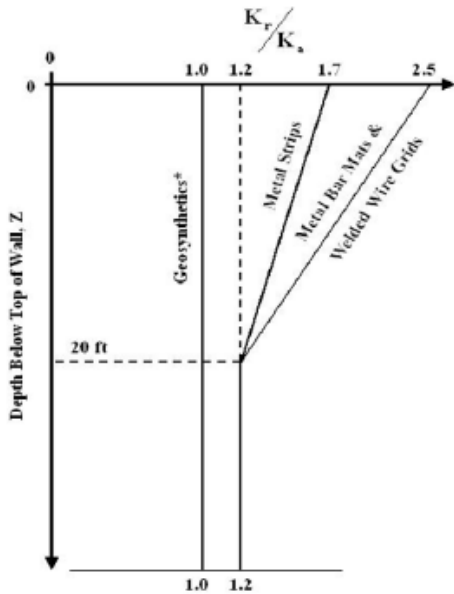
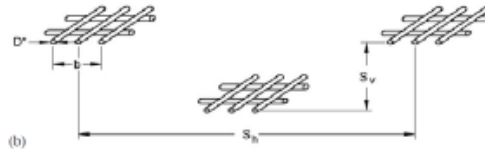
Reference sheet for pullout calculations

Steel Grid Properties

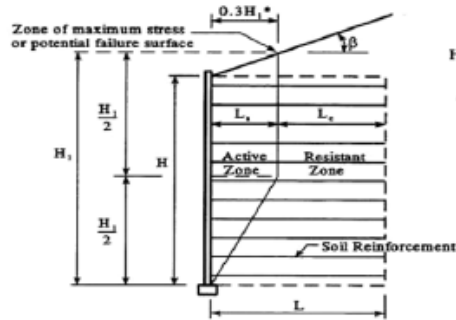
Steel Grid ID	Number of Longitudinal Bars	Thickness of Transverse Bar, t (in)	Unit Width of Reinforcement, b (ft)	Distance Between Transverse Bars, S _t (in)
3W11X2.50W8	6	0.319	3.33	30
3W15X2.50W8	6	0.319	3.33	30
3W20X2.50W11	6	0.374	3.33	30
4W11X1.00W8	4	0.319	2.00	12
4W11X1.00W11	4	0.374	2.00	12
4W20X2.50W11	4	0.374	2.00	30
5W11X2.50W8	5	0.319	2.67	30
5W20X2.50W11	5	0.374	2.67	30
6W11X2.50W8	6	0.319	3.33	30
6W11X2.50W11	6	0.374	3.33	30

Curve definitions for steel grids

Depth below top of wall, Z (ft)	K _r /K _s	F*
0	2.5	20
20	1.2	10



*Does not apply to polymer strip reinforcement



$$H_1 = H + \frac{\tan \beta \times 0.3H}{1 - 0.3 \tan \beta}$$

* If wall face is battered, an offset of 0.3H, is still required, and the upper portion of the zone of maximum stress should be parallel to the wall face

A.1 U.S. Highway 89 Site

Description: TP1
 Given: MSE wall with inextensible reinforcement consisting of steel grids. No live load present. Deadload present at some test locations.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.

Known:

Wall Properties

Wall Height at time of Test	H	20.5	ft	
Angle of sloping backfill	β	0	°	
		0	rad	
	H_1	20.5	ft	$H + [\tan(\beta)(0.3H)] / [1 - 0.3\tan(\beta)]$

Soil Properties

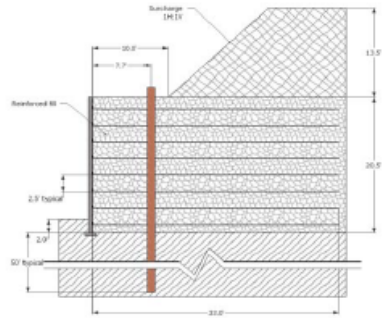
Moist unit weight	γ_r	142	pcf
Friction angle	ϕ_r'	34	°
		0.59	rad

Active Earth Pressure Coefficient K_a 0.28 $\tan^2(45 - \phi_r'/2)$

Reinforcement Properties (steel grids)

Vertical spacing	S_v	2.5	ft
Horizontal spacing	S_h	6	ft
Length of reinforcement	L_t	33	ft

Z (ft)	Le
0	26.85 $L_t - 0.3H_1$
$H_1/2$	26.85 $L_t - 0.3H_1$
H	33 L_t



Surcharge

Unit weight of surcharge	γ_q	135	pcf
Height of surcharge	H_q	13.5	ft
Surcharge	q	1822.5	psf

Surcharge is located outside of active zone, on only the back 37% of the embedded reinforcement, use half the weight of the surcharge in pullout calc.

Average Factor of Safety against pullout 8.4

Reinforcement Level	Grid ID	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z)$ (psf)	$\sigma_h = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_h(S_v)$ (lbs/ft)	t (in)	S_t (in)	b (ft)	$R_c = b/S_h$	F^*	L_t (ft)	Pullout Capacity, $PC_C = F^*[(\gamma_r Z) + 37q]$ (lbs/ft)	$FS_{PO} = PC_C / T_{max}$
1	4W11x1.00W11	1.50	2.4	0.68	213	145	362	0.374	12	2.00	0.33	0.600	26.85	9529	26.3
2	6W11x2.50W11	2.75	2.3	0.66	391	256	641	0.374	30	3.33	0.56	0.232	26.85	7376	11.5
3	6W11x2.50W11	5.25	2.2	0.61	746	455	1137	0.374	30	3.33	0.56	0.217	26.85	9175	8.1
4	6W11x2.50W11	7.75	2.0	0.56	1101	621	1553	0.374	30	3.33	0.56	0.201	26.85	10644	6.9
5	6W11x2.50W11	10.25	1.8	0.52	1456	755	1886	0.374	30	3.33	0.56	0.185	26.85	11783	6.2
6	4W20x2.50W11	12.75	1.7	0.47	1811	855	2139	0.374	30	2.00	0.33	0.170	28.35	7977	3.7
7	4W20x2.50W11	15.25	1.5	0.43	2166	924	2309	0.374	30	2.00	0.33	0.154	29.85	8718	3.8
8	4W20x2.50W11	17.75	1.3	0.38	2521	959	2398	0.374	30	2.00	0.33	0.139	31.35	9261	3.9
9	5W20x2.50W11	20.25	1.2	0.34	2876	976	2439	0.374	30	2.67	0.44	0.125	32.85	12922	5.3

Description: TP2
 Given: MSE wall with inextensible reinforcement consisting of steel grids. No live load present. Deadload present at some test locations.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.
 Known:

Wall Properties

Wall Height at time of Test H 20.5 ft
 Angle of sloping backfill β 0 rad
 H_1 20.5 ft $H + [\tan(\beta)(0.3H)] / [1 - 0.3\tan(\beta)]$

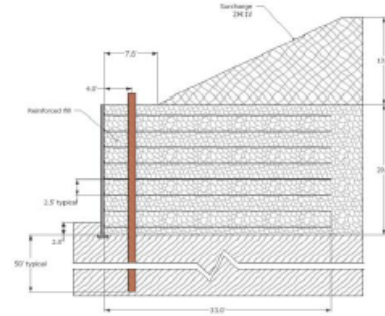
Soil Properties

Moist unit weight γ_r 142 pcf
 Friction angle ϕ_r' 34 rad
 Active Earth Pressure Coefficient K_a 0.28 $\tan^2(45 - \phi_r'/2)$

Reinforcement Properties (steel grids)

Vertical spacing S_v 2.5 ft
 Horizontal spacing S_h 6 ft
 Length of reinforcement L_t 33 ft

Z (ft)	Le	
0	26.85	$L_t - 0.3H_1$
$H_1/2$	26.85	$L_t - 0.3H_1$
H	33	L_t



Surcharge

Unit weight of surcharge γ_q 135 pcf
 Height of surcharge H_q 13.5 ft
 Surcharge q 1822.5 psf

Surcharge is located outside of active zone, on only the back 20% of the embedded reinforcement, use half the weight of the surcharge in pullout calc.

Average Factor of Safety against pullout 6.4

Reinforcement Level	Grid ID	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z)$ (psf)	$\sigma_H = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_H(S_v)$ (lbs/ft)	t (in)	S_t (in)	b (ft)	$R_c = b/S_h$	F^*	L_e (ft)	Pullout Capacity, $PC_i = F^*[(\gamma_r Z) + 20q]$ (lbs/ft)	$F_{SPO} = PC_i / T_{max}$
1	4W11x1.00W11	1.50	2.4	0.68	213	145	362	0.374	12	2.00	0.33	0.600	26.85	6202	17.1
2	6W11x2.50W11	2.75	2.3	0.66	391	256	641	0.374	30	3.33	0.56	0.232	26.85	5230	8.2
3	6W11x2.50W11	5.25	2.2	0.61	746	455	1137	0.374	30	3.33	0.56	0.217	26.85	7173	6.3
4	6W11x2.50W11	7.75	2.0	0.56	1101	621	1553	0.374	30	3.33	0.56	0.201	26.85	8786	5.7
5	6W11x2.50W11	10.25	1.8	0.52	1456	755	1886	0.374	30	3.33	0.56	0.185	26.85	10069	5.3
6	4W20x2.50W11	12.75	1.7	0.47	1811	855	2139	0.374	30	2.00	0.33	0.170	28.35	6982	3.3
7	4W20x2.50W11	15.25	1.5	0.43	2166	924	2309	0.374	30	2.00	0.33	0.154	29.85	7767	3.4
8	4W20x2.50W11	17.75	1.3	0.38	2521	959	2398	0.374	30	2.00	0.33	0.139	31.35	8363	3.5
9	5W20x2.50W11	20.25	1.2	0.34	2876	976	2439	0.374	30	2.67	0.44	0.125	32.85	11794	4.8

A.2 Pioneer Crossing Site

Description: TP3
 Given: MSE wall with inextensible reinforcement consisting of steel grids. No live load present. Deadload present at some test locations.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.
 Known:

Wall Properties

Wall Height at time of Test	H	29.8	ft
Angle of sloping backfill	β	0	°
		0	rad
	H_1	29.8	ft

$$H + [\tan(\beta)(0.3H)] / [1 - 0.3\tan(\beta)]$$

Soil Properties

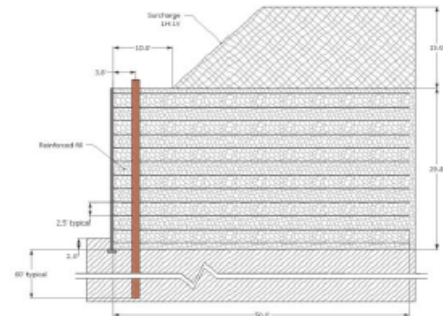
Moist unit weight	γ_r	142	pcf
Friction angle	ϕ_r'	34	°
		0.59	rad

Active Earth Pressure Coefficient K_a 0.28 $\tan^2(45 - \phi_r'/2)$

Reinforcement Properties (steel grids)

Vertical spacing	S_v	2.5	ft
Horizontal spacing	S_h	6	ft
Length of reinforcement	L_t	50	ft

Z (ft)	Le	
0	41.06	$L_t - 0.3H_1$
$H_1/2$	41.06	$L_t - 0.3H_1$
H_1	50	L_t



Surcharge

Unit weight of surcharge	γ_q	135	pcf
Height of surcharge	H_q	15	ft
Surcharge	q	2025	psf

Surcharge is located outside of active zone, on only the back 57% of the embedded reinforcement, use half the weight of the surcharge in pullout calc.

Average Factor of Safety against pullout 11.6

Reinforcement Level	Grid ID	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z)$ (psf)	$\sigma_h = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_h(S_v)$ (lbs/ft)	t (in)	S_t (in)	b (ft)	$R_c = b/S_h$	F^*	L_r (ft)	Pullout Capacity, $PC_i = F^*[(\gamma_r Z) + 57q](L_{e,i})/R_c$ (lbs/ft)	$F_{SP0} = PC_i / T_{max}$
1	3W11X2.50W8	1.50	2.4	0.68	213	145	362	0.319	30	3.33	0.56	0.205	41.06	12768	35.3
2	3W11X2.50W8	2.75	2.3	0.66	391	256	641	0.319	30	3.33	0.56	0.198	41.06	10298	16.1
3	3W11X2.50W8	5.25	2.2	0.61	746	455	1137	0.319	30	3.33	0.56	0.185	41.06	12599	11.1
4	3W11X2.50W8	7.75	2.0	0.56	1101	621	1553	0.319	30	3.33	0.56	0.171	41.06	14470	9.3
5	3W11X2.50W8	10.25	1.8	0.52	1456	755	1886	0.319	30	3.33	0.56	0.158	41.06	15910	8.4
6	3W15X2.50W8	12.75	1.7	0.47	1811	855	2139	0.319	30	3.33	0.56	0.145	41.06	16919	7.9
7	3W15X2.50W8	15.25	1.5	0.43	2166	924	2309	0.319	30	3.33	0.56	0.132	41.27	17588	7.6
8	3W15X2.50W8	17.75	1.3	0.38	2521	959	2398	0.319	30	3.33	0.56	0.118	42.77	18381	7.7
9	3W15X2.50W8	20.25	1.2	0.34	2876	976	2439	0.319	30	3.33	0.56	0.106	44.27	18959	7.8
10	3W20X2.50W11	22.75	1.2	0.34	3231	1096	2740	0.374	30	3.33	0.56	0.125	45.77	25232	9.2
11	3W20X2.50W11	25.25	1.2	0.34	3586	1216	3041	0.374	30	3.33	0.56	0.125	47.27	28383	9.3
12	3W20X2.50W11	27.75	1.2	0.34	3941	1337	3342	0.374	30	3.33	0.56	0.125	48.77	31682	9.5

Description: TP4
 Given: MSE wall with inextensible reinforcement consisting of steel grids. No live load present. Deadload present at some test locations.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.
 Known:

Wall Properties

Wall Height at time of Test H 37.7 ft
 Angle of sloping backfill β 0 °
 H_1 37.7 ft $H + [\tan(\beta)(0.3H)] / [1 - 0.3\tan(\beta)]$

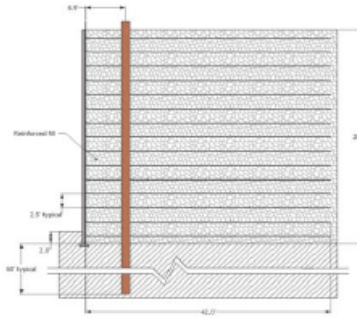
Soil Properties

Moist unit weight γ_r 142 pcf
 Friction angle ϕ_r' 34 °
 Active Earth Pressure Coefficient K_a 0.28 $\tan^2(45 - \phi_r'/2)$

Reinforcement Properties (steel grids)

Vertical spacing S_v 2.5 ft
 Horizontal spacing S_h 6 ft
 Length of reinforcement L_t 42 ft

Z (ft)	Le
0	30.69 $L_t - 0.3H_1$
$H_1/2$	30.69 $L_t - 0.3H_1$
H	L_t



Surcharge

Unit weight of surcharge γ_q 135 pcf
 Height of surcharge H_q 0 ft
 Surcharge q 0 psf

Average Factor of Safety against pullout 4.0

Reinforcement Level	Grid ID	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z) + q$ (psf)	$\sigma_H = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_H(S_v)$ (lbs/ft)	t (in)	S_t (in)	b (ft)	$R_c = b/S_h$	F^*	L_e (ft)	Pullout Capacity, $PC_1 = F^*(\gamma_r)Z / (L_e)(C)(R_c)/\alpha$ (lbs/ft)	$FS_{SP} = PC_1 / T_{max}$
1	4W11X1.00W8	2.50	2.3	0.66	355	235	587	0.319	12	2.00	0.33	0.498	30.69	3620	6.2
2	4W11X1.00W8	3.75	2.3	0.64	533	340	849	0.319	12	2.00	0.33	0.482	30.69	5249	6.2
3	5W11X2.50W8	6.25	2.1	0.59	888	525	1313	0.319	30	2.67	0.44	0.179	30.69	4344	3.3
4	5W11X2.50W8	8.75	1.9	0.55	1243	678	1696	0.319	30	2.67	0.44	0.166	30.69	5632	3.3
5	5W11X2.50W8	11.25	1.8	0.50	1598	799	1997	0.319	30	2.67	0.44	0.153	30.69	6661	3.3
6	5W11X2.50W8	13.75	1.6	0.45	1953	887	2217	0.319	30	2.67	0.44	0.140	30.69	7434	3.4
7	5W11X2.50W8	16.25	1.4	0.41	2308	942	2355	0.319	30	2.67	0.44	0.126	30.69	7949	3.4
8	6W11X2.50W8	18.75	1.3	0.36	2663	964	2411	0.319	30	3.33	0.56	0.113	30.69	10258	4.3
9	4W20X2.50W11	21.25	1.2	0.34	3018	1024	2559	0.374	30	2.00	0.33	0.125	32.13	8058	3.1
10	4W20X2.50W11	23.75	1.2	0.34	3373	1144	2860	0.374	30	2.00	0.33	0.125	33.63	9426	3.3
11	4W20X2.50W11	26.25	1.2	0.34	3728	1265	3161	0.374	30	2.00	0.33	0.125	35.13	10883	3.4
12	4W20X2.50W11	28.75	1.2	0.34	4083	1385	3463	0.374	30	2.00	0.33	0.125	36.63	12429	3.6
13	4W20X2.50W11	31.25	1.2	0.34	4438	1505	3764	0.374	30	2.00	0.33	0.125	38.13	14063	3.7
14	5W20X2.50W11	33.75	1.2	0.34	4793	1626	4065	0.374	30	2.67	0.44	0.125	39.63	21047	5.2

Description: TP5
 Given: MSE wall with inextensible reinforcement consisting of steel grids. No live load present. Deadload present at some test locations.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.
 Known:

Wall Properties

Wall Height at time of Test H 34.7 ft
 Angle of sloping backfill β 0 °
 H_1 34.7 ft $H+[\tan(\beta)(0.3H)]/[1-0.3\tan(\beta)]$

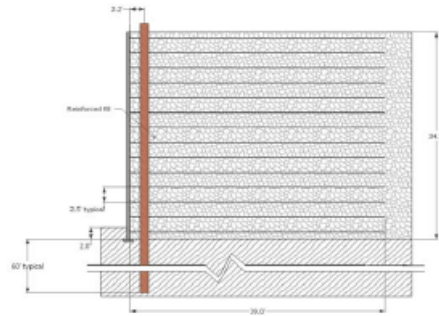
Soil Properties

Moist unit weight γ_r 142 pcf
 Friction angle ϕ_r' 34 °
 $\tan^2(45-\phi_r'/2)$
 Active Earth Pressure Coefficient K_a 0.28

Reinforcement Properties (steel grids)

Vertical spacing S_v 2.5 ft
 Horizontal spacing S_h 6 ft
 Length of reinforcement L_t 39 ft

Z (ft)	Le	
0	28.59	$L_t-0.3H_1$
$H_1/2$	28.59	$L_t-0.3H_1$
H	39	L_t



Surcharge

Unit weight of surcharge γ_q 135 pcf
 Height of surcharge H_q 0 ft
 Surcharge q 0 psf

Average Factor of Safety against pullout 3.8

Reinforcement Level	Grid ID	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z) + q$ (psf)	$\sigma_H = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_H(S_v)$ (lbs/ft)	t (in)	S_t (in)	b (ft)	$R_c = b/S_h$	F^*	L_e (ft)	Pullout Capacity, $PC_1 = F^*(L_e)/Z(L_e)(C_1/R_c)/\alpha$ (lbs/ft)	$FS_{DPO} = PC_1/T_{max}$
1	4W11X1.00W8	2.50	2.3	0.66	355	235	587	0.319	12	2.00	0.33	0.498	28.59	3373	5.8
2	4W11X1.00W8	3.75	2.3	0.64	533	340	849	0.319	12	2.00	0.33	0.482	28.59	4890	5.8
3	5W11X2.50W8	6.25	2.1	0.59	888	525	1313	0.319	30	2.67	0.44	0.179	28.59	4047	3.1
4	5W11X2.50W8	8.75	1.9	0.55	1243	678	1696	0.319	30	2.67	0.44	0.166	28.59	5246	3.1
5	5W11X2.50W8	11.25	1.8	0.50	1598	799	1997	0.319	30	2.67	0.44	0.153	28.59	6206	3.1
6	5W11X2.50W8	13.75	1.6	0.45	1953	887	2217	0.319	30	2.67	0.44	0.140	28.59	6925	3.1
7	5W11X2.50W8	16.25	1.4	0.41	2308	942	2355	0.319	30	2.67	0.44	0.126	28.59	7405	3.1
8	6W11X2.50W8	18.75	1.3	0.36	2663	964	2411	0.319	30	3.33	0.56	0.113	29.43	9836	4.1
9	6W11X2.50W8	21.25	1.2	0.34	3018	1024	2559	0.319	30	3.33	0.56	0.106	30.93	11027	4.3
10	4W20X2.50W11	23.75	1.2	0.34	3373	1144	2860	0.374	30	2.00	0.33	0.125	32.43	9090	3.2
11	4W20X2.50W11	26.25	1.2	0.34	3728	1265	3161	0.374	30	2.00	0.33	0.125	33.93	10511	3.3
12	4W20X2.50W11	28.75	1.2	0.34	4083	1385	3463	0.374	30	2.00	0.33	0.125	35.43	12021	3.5
13	4W20X2.50W11	31.25	1.2	0.34	4438	1505	3764	0.374	30	2.00	0.33	0.125	36.93	13620	3.6

A.3 Provo Center Street Site

Description: **TP6-TP8**
 Given: MSE wall with inextensible reinforcement consisting of steel straps. No live load present.
 Determine: Factor of safety against pullout for the load conditions just prior to lateral load testing.
 Known:

Wall Properties

Wall Height at time of Test	H	23	ft	
Angle of sloping backfill	β	0	$^{\circ}$	
		0	rad	
	H_1	20.5	ft	$H+[\tan(\beta)(0.3H)]/[1-0.3\tan(\beta)]$

Soil Properties

Moist unit weight	γ_r	141.5	pcf	
Friction angle	ϕ_r'	28	$^{\circ}$	
		0.49	rad	
Active Earth Pressure Coefficient	K_a	0.36		$\tan^2(45-\phi_r'/2)$

Reinforcement Properties (steel grids)

Vertical spacing	S_v	2	ft
Horizontal spacing	S_h	2.5	ft
Length of reinforcement	L_t	28	ft
Width of Reinforcement	b	0.17	ft

	Z (ft)	Le	
		0	21.85
$H_1/2$	10.25	21.85	$L_t-0.3H_1$
H	20.5	28	L_t

Surcharge

Unit weight of surcharge	γ_q	135	pcf
Height of surcharge	H_q	1	ft
Surcharge	q	135	psf

Surcharge is located outside of active zone, on only the back 37% of the embedded reinforcement, use half the weight of the surcharge in pullout calc.

Horizontal Pressure $\sigma_h = \sigma_v * k$ $\sigma_v = \gamma z + q$

Average Factor of Safety against pullout 2.6

Reinforce ment Level	Depth to Layer, Z (ft)	K_r/K_a	K_r	$\sigma_v = \gamma_r(Z)$ (psf)	$\sigma_H = K_r(\sigma_v)$ (psf)	$T_{max} = \sigma_H(S_v)$ (lbs/ft)	F^*	L_e (ft)	Pullout Capacity, $PC_i =$	$FS_{PO} = PC_i / T_{max}$
1	1.25	1.7	0.60	312	188	939	1.723	21.10	2045	2.2
2	2.58	1.6	0.59	501	296	1478	1.638	21.10	4018	2.7
3	4.58	1.6	0.57	784	448	2242	1.511	21.10	6575	2.9
4	6.58	1.5	0.55	1067	591	2956	1.384	21.10	8651	2.9
5	8.58	1.5	0.54	1350	724	3619	1.257	21.10	10243	2.8
6	10.58	1.4	0.52	1633	846	4230	1.130	21.10	11354	2.7
7	12.58	1.4	0.50	1916	958	4791	1.003	21.75	12350	2.6
8	14.58	1.3	0.48	2199	1060	5300	0.876	22.95	13190	2.5
9	16.58	1.3	0.46	2482	1152	5758	0.749	24.15	13494	2.3
10	18.58	1.2	0.45	2765	1233	6165	0.622	25.35	13179	2.1
11	20.58	1.2	0.43	3048	1320	6602	0.532	26.55	13076	2.0
12	22.58	1.2	0.43	3331	1443	7215	0.532	27.75	14995	2.1

APPENDIX B: LOAD DISPLACEMENT CURVES

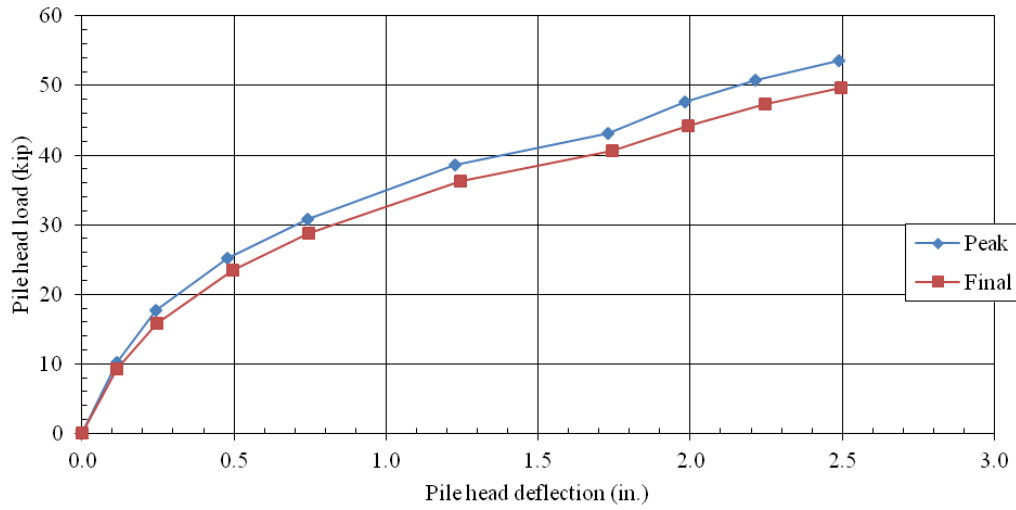


Figure B.1: Load-displacement curve for TP1.

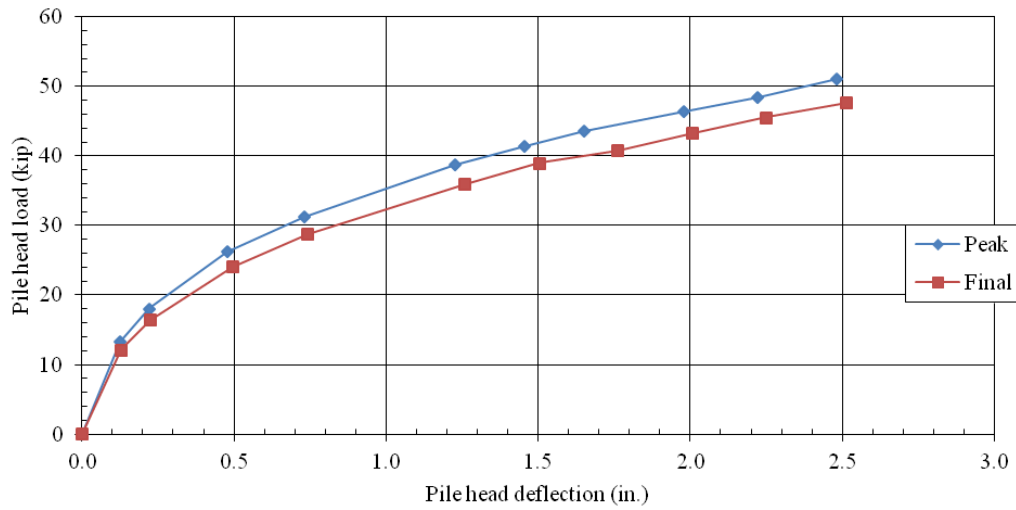


Figure B.2: Load-displacement curve for TP2.

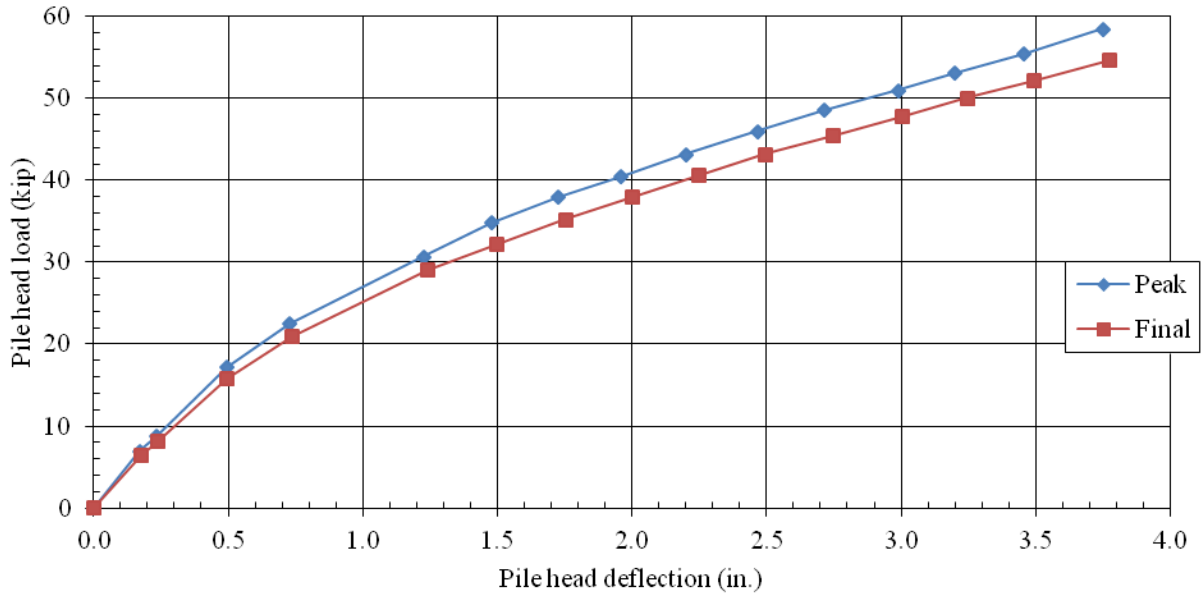


Figure B.3: Load-displacement curve for TP3.

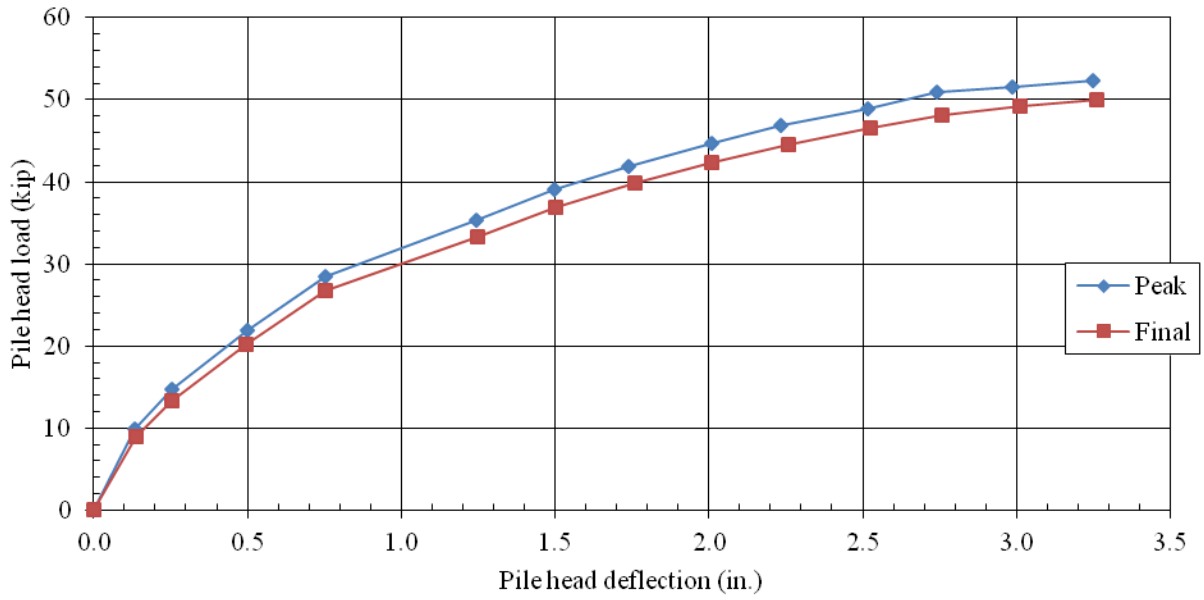


Figure B.4: Load-displacement curve for TP4.

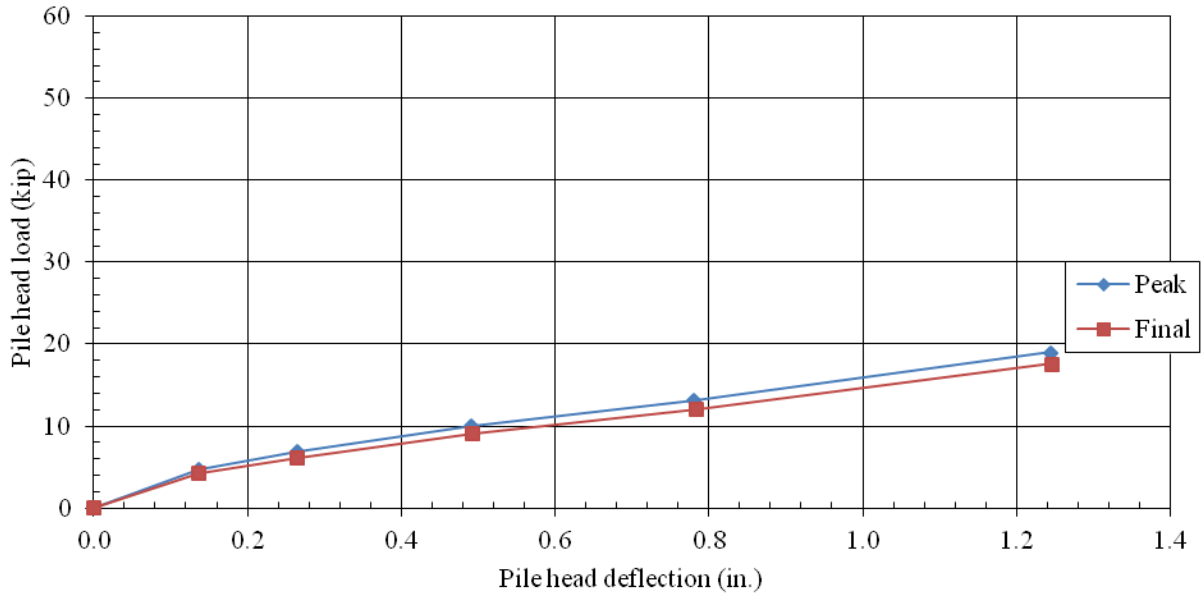


Figure B.5: Load-displacement curve for TP5.

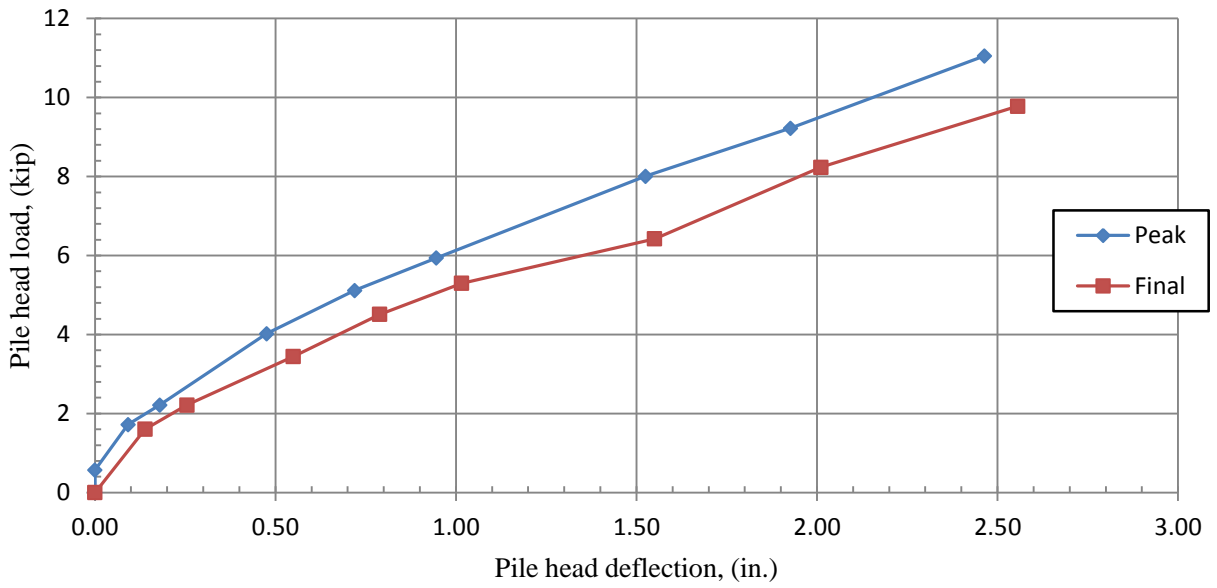


Figure B.6: Load-displacement curve for TP6.

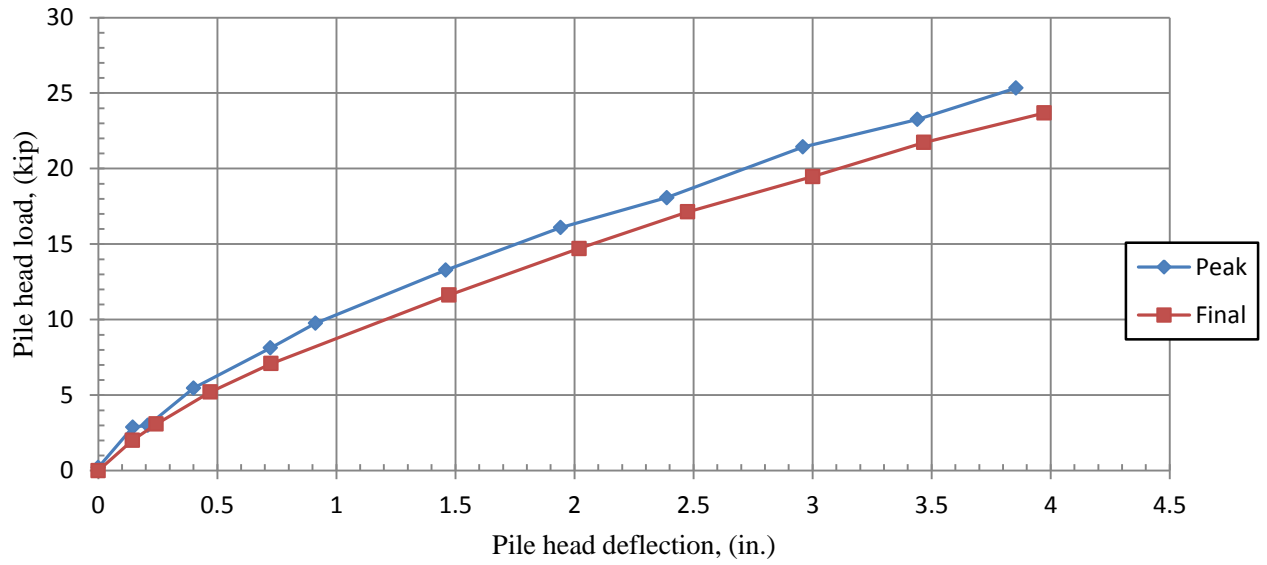


Figure B.7: Load-displacement curve for TP7.

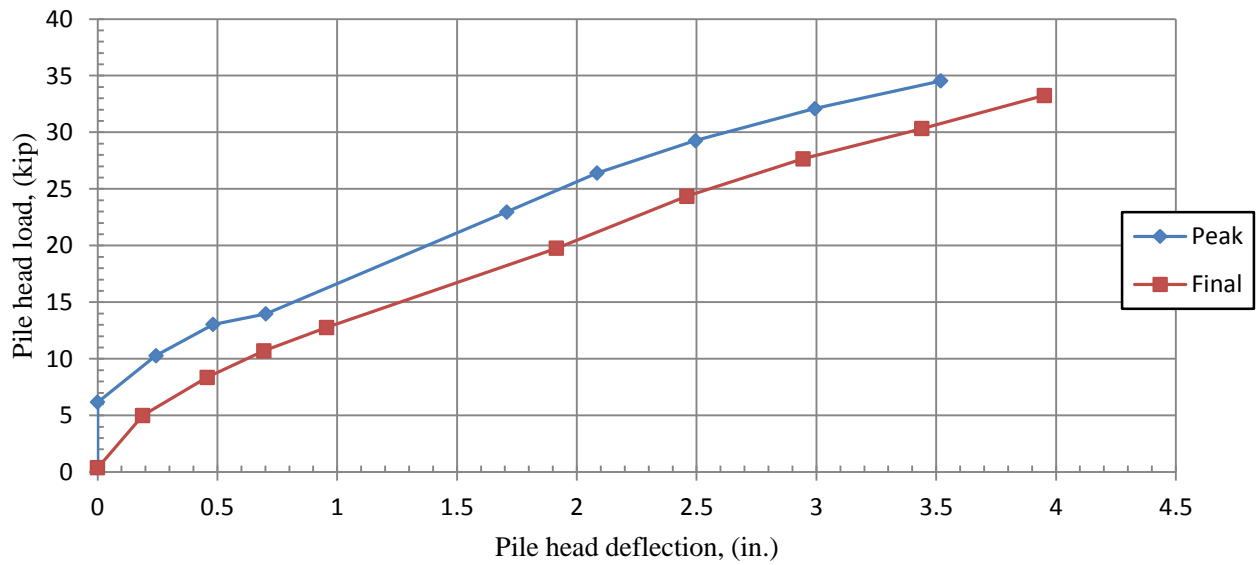


Figure B.8: Load-displacement curve for TP8.

APPENDIX C: INDUCED FORCE IN REINFORCEMENT CURVES

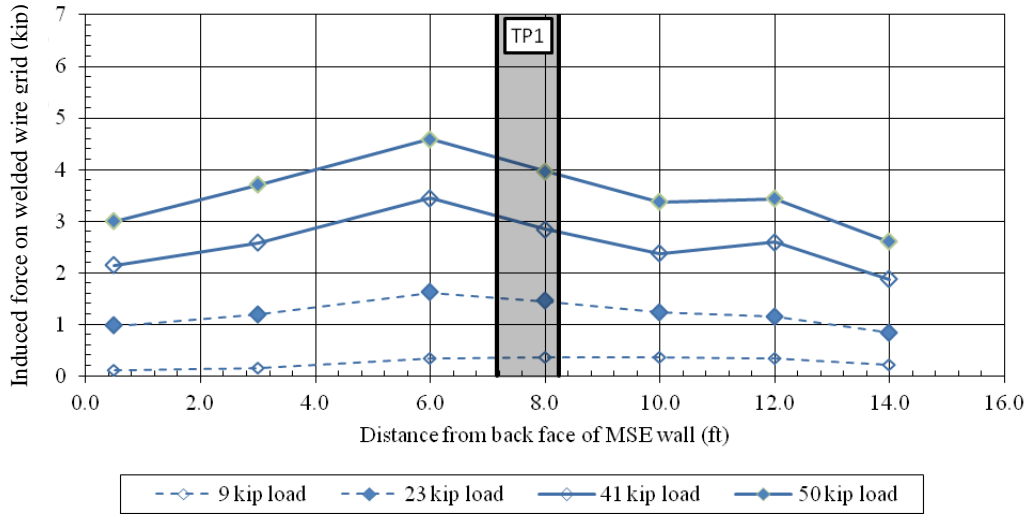


Figure C.1: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire A during loading of TP1 (see Table 4.1).

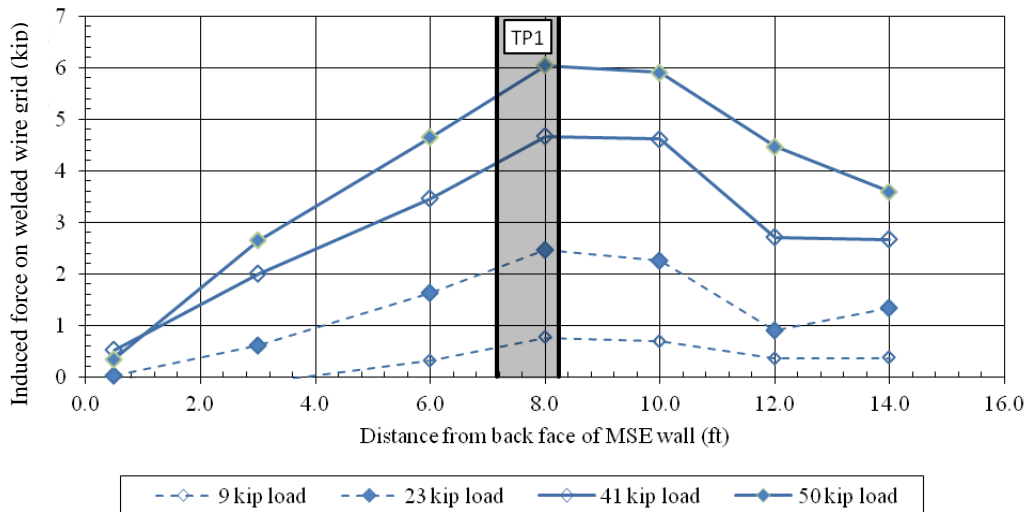


Figure C.2: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire B during loading of TP1 (see Table 4.1).

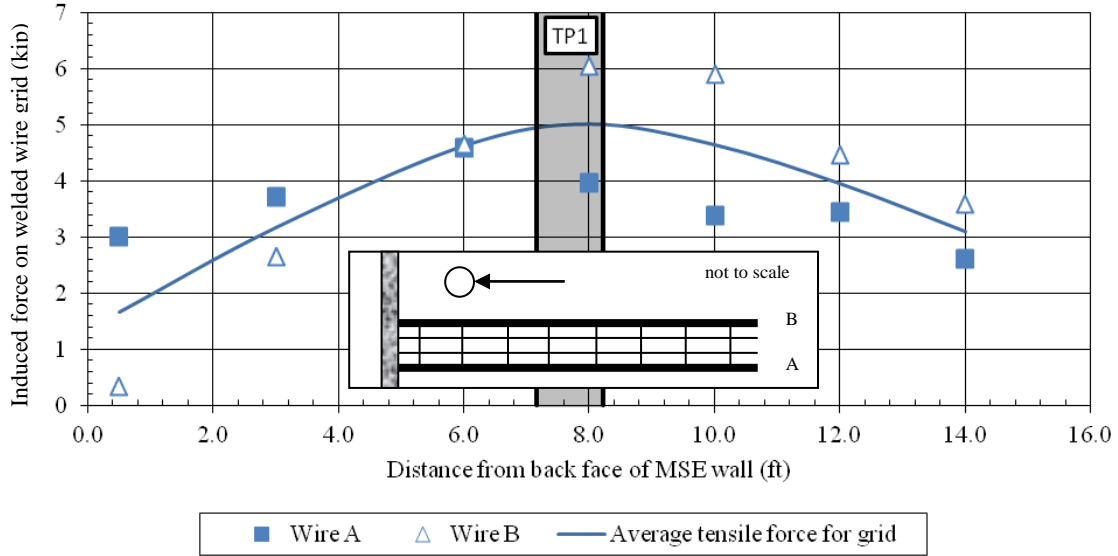


Figure C.3: Average induced load in welded wire grid vs. distance from back face of pile with a 50 kip load applied to the pile.

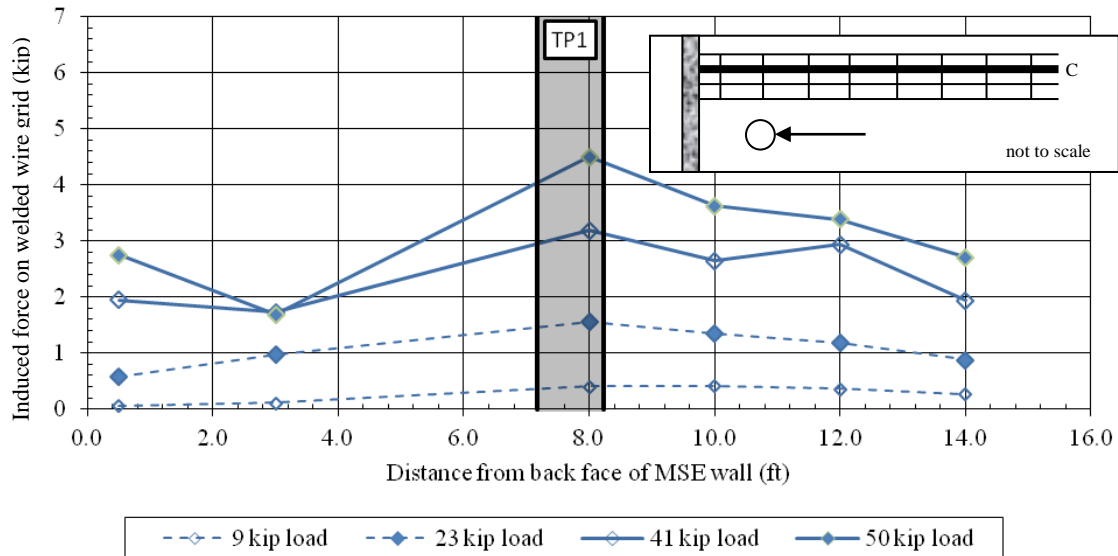


Figure C.4: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire C during loading of TP1 (see Table 4.1).

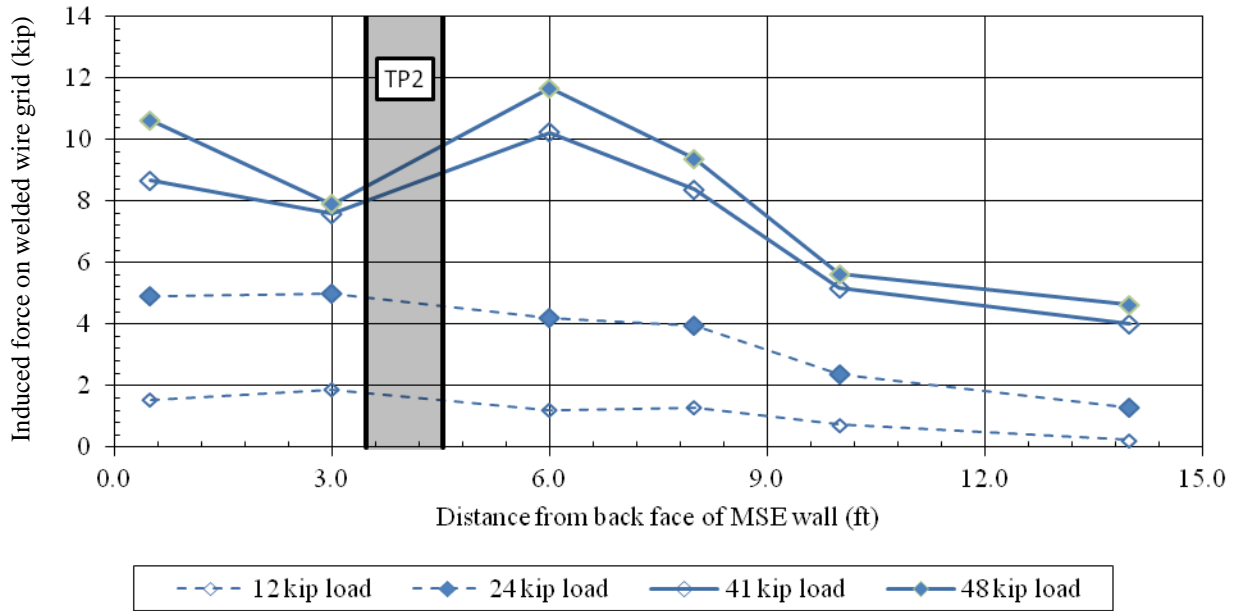


Figure C.5: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire D during loading of TP2 (see Table 4.1).

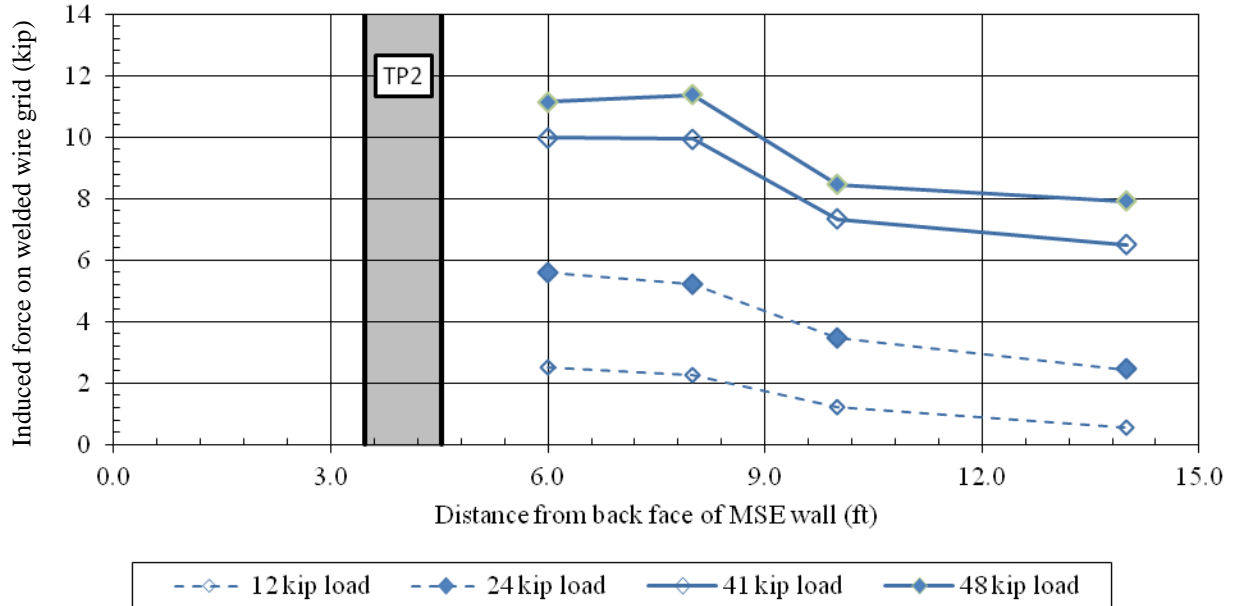


Figure C.6: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire E during loading of TP1 (see Table 4.1).

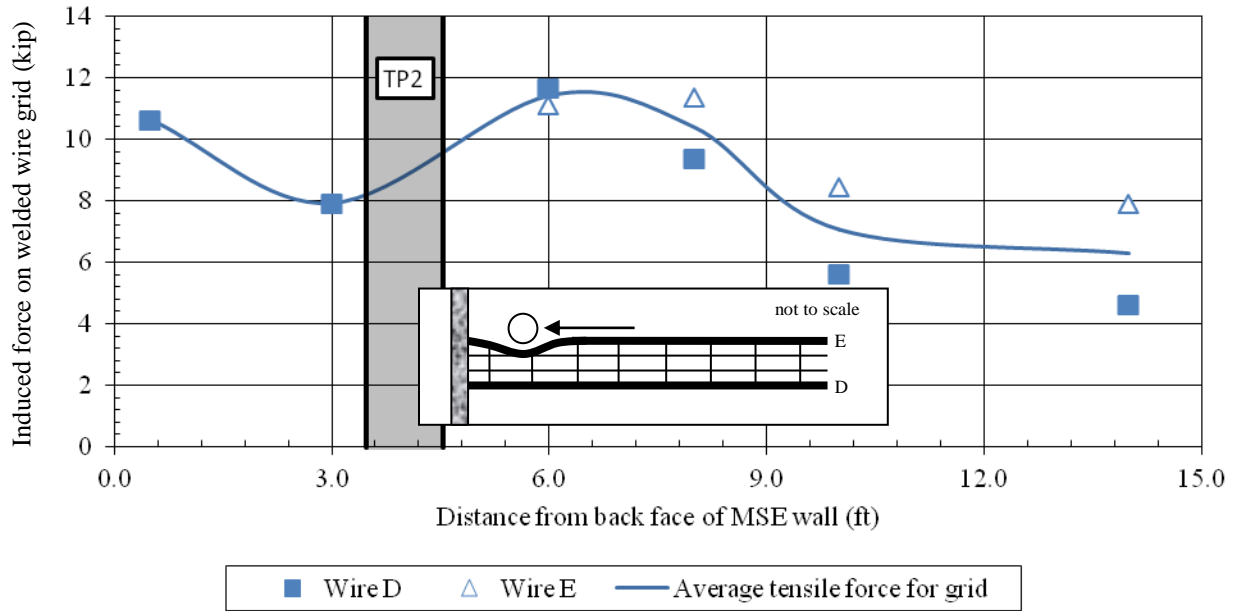


Figure C.7: Average induced load in welded wire grid vs. distance from back face of pile with a 48 kip load applied to pile TP2.

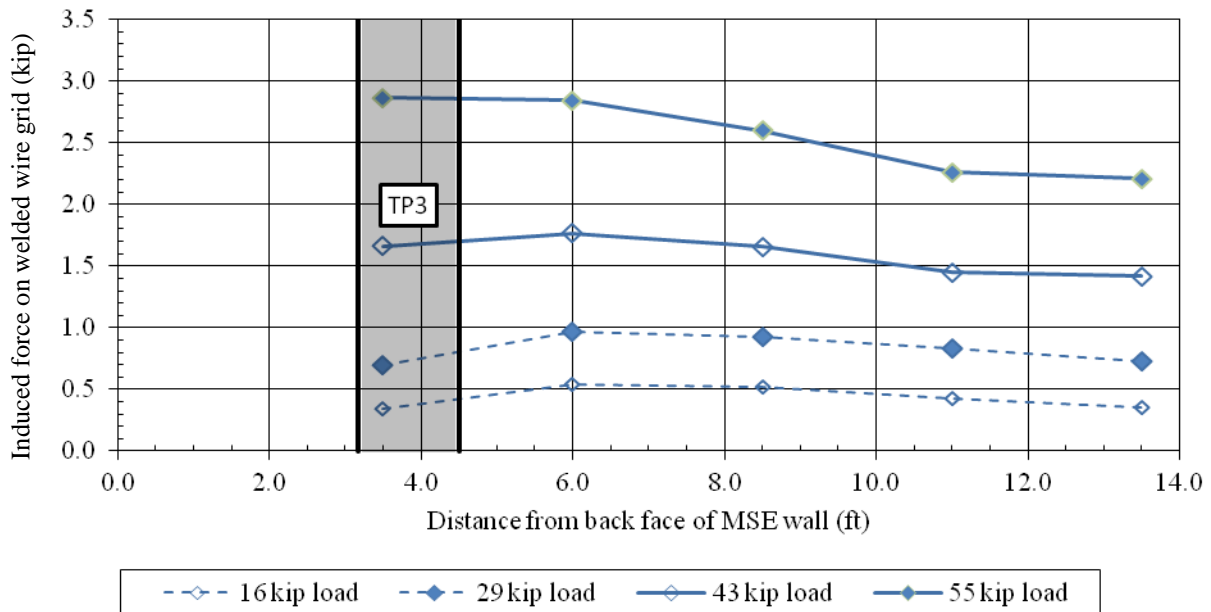


Figure C.8: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire F during loading of TP3 (see Table 4.2).

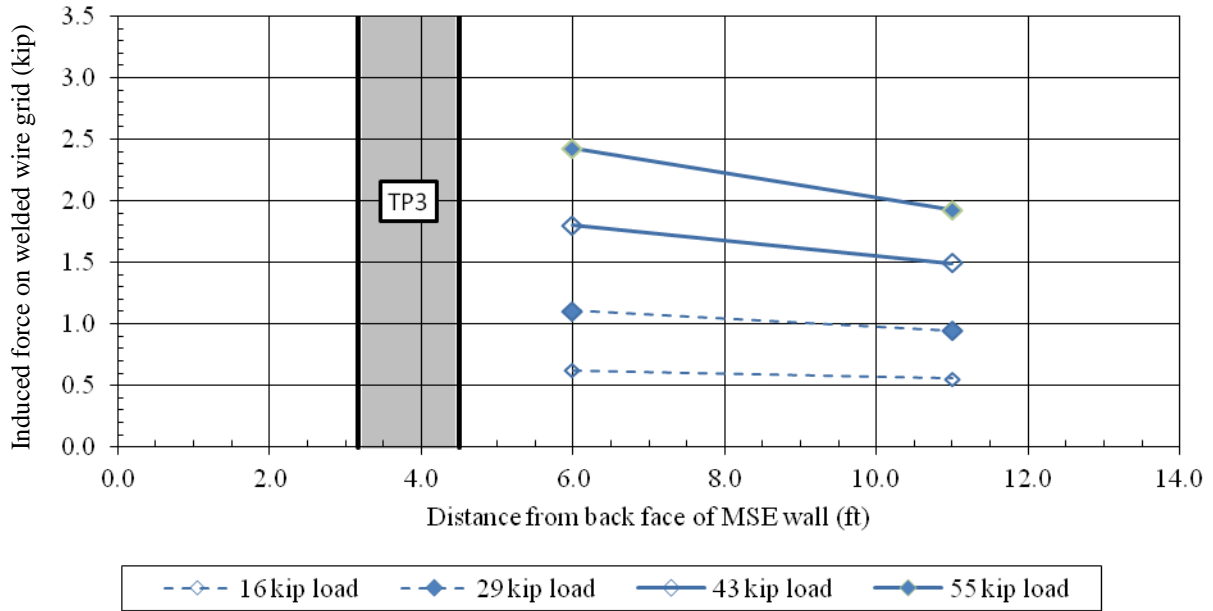


Figure C.9: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire G during loading of TP3 (see Table 4.2).

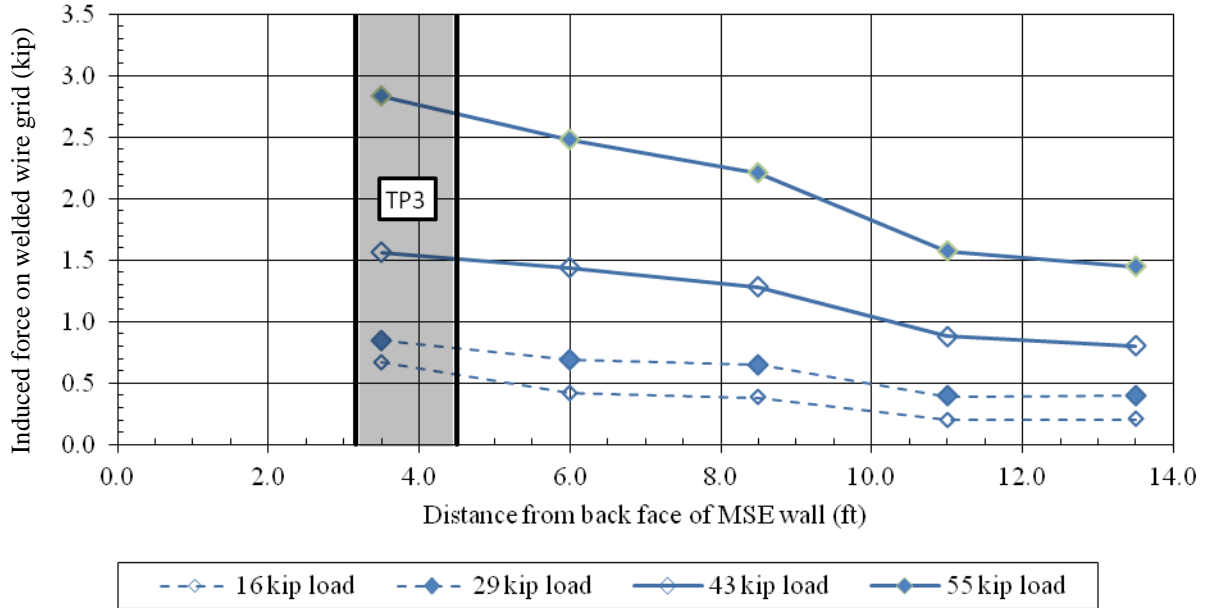


Figure C.10: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire H during loading of TP3 (see Table 4.2).

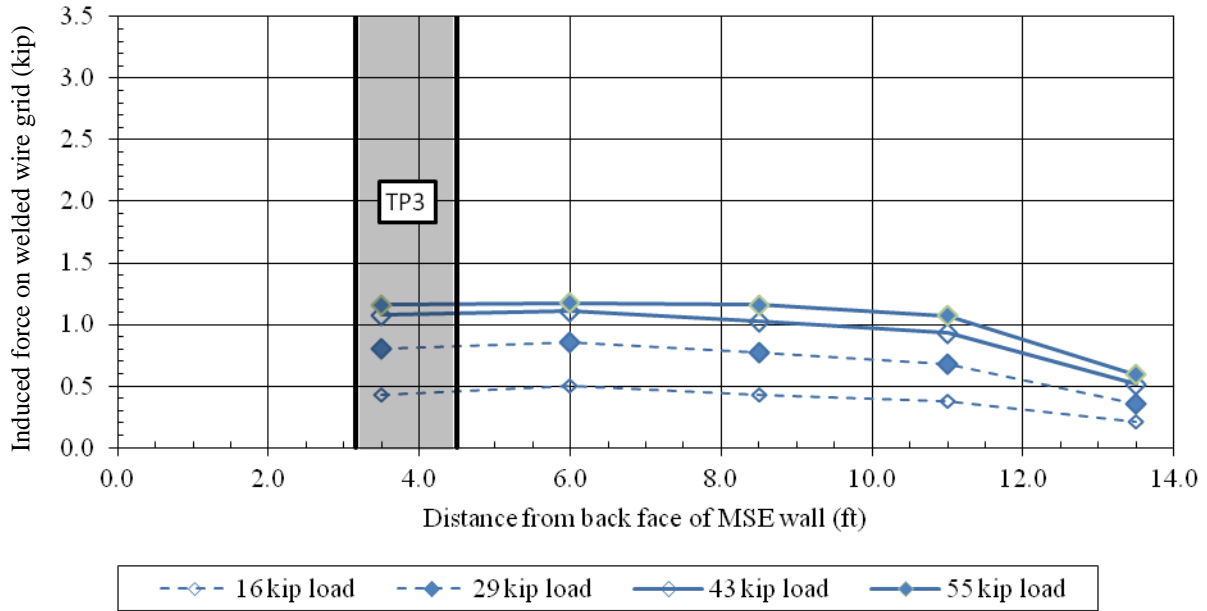


Figure C.11: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire J during loading of TP3 (see Table 4.2).

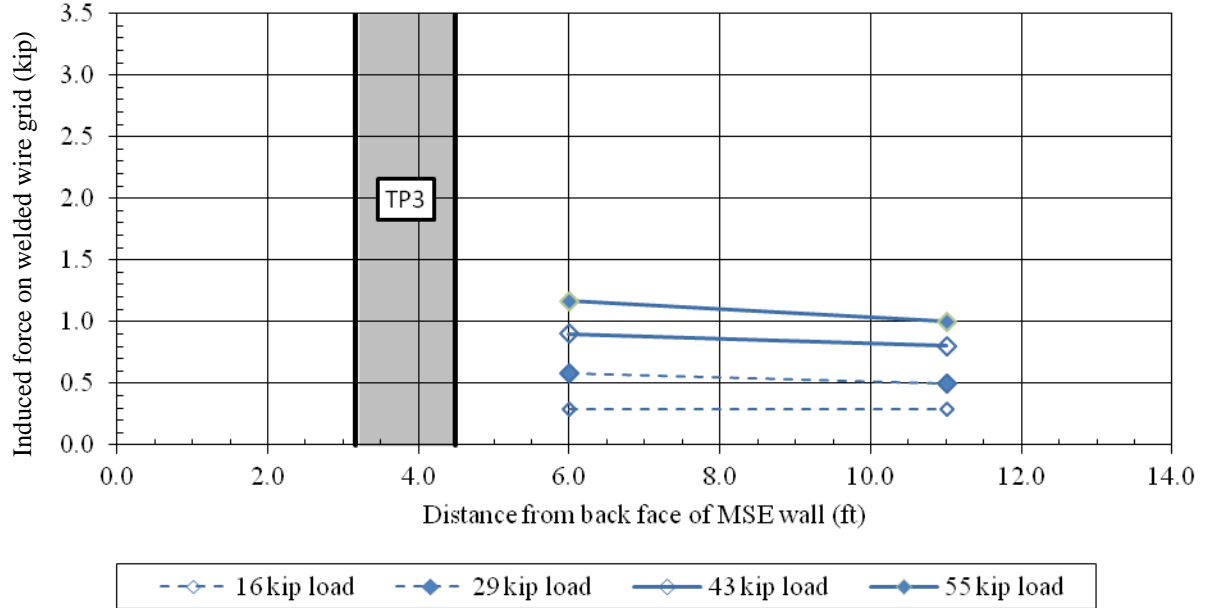


Figure C.12: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire K during loading of TP3 (see Table 4.2).

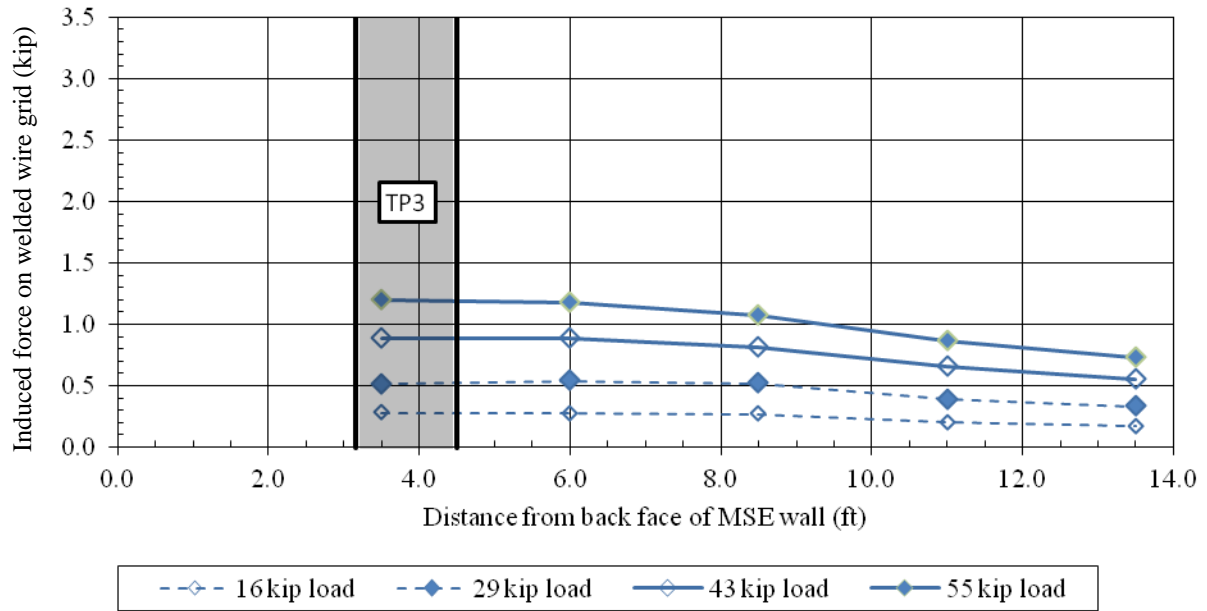


Figure C.13: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire L during loading of TP3 (see Table 4.2).

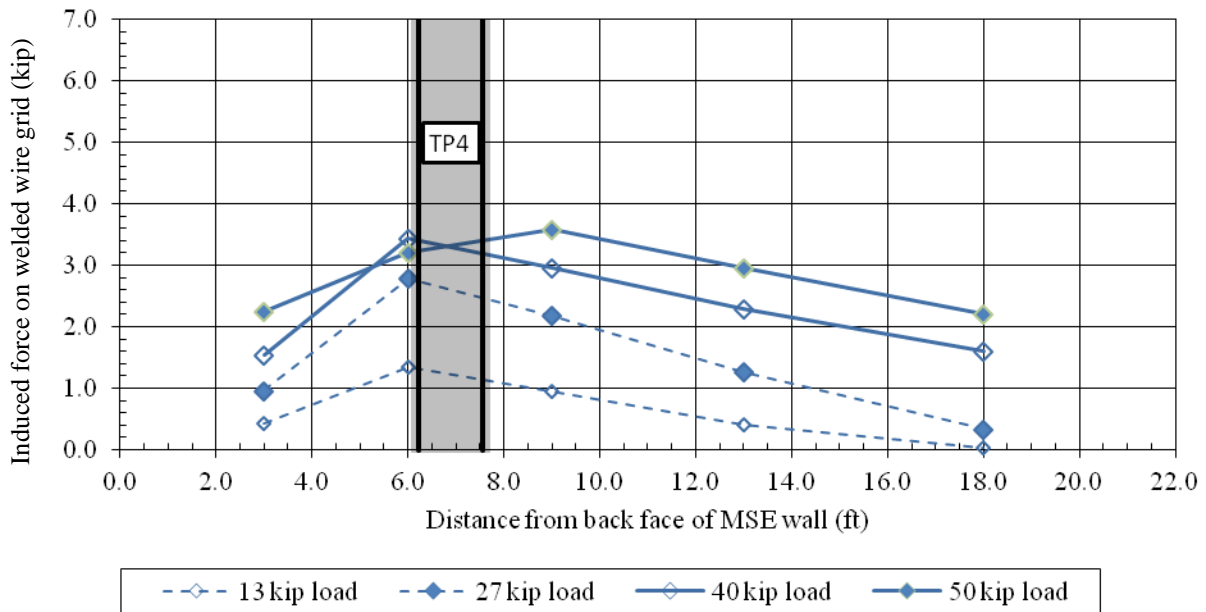


Figure C.14: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire M during loading of TP4 (see Table 4.2).

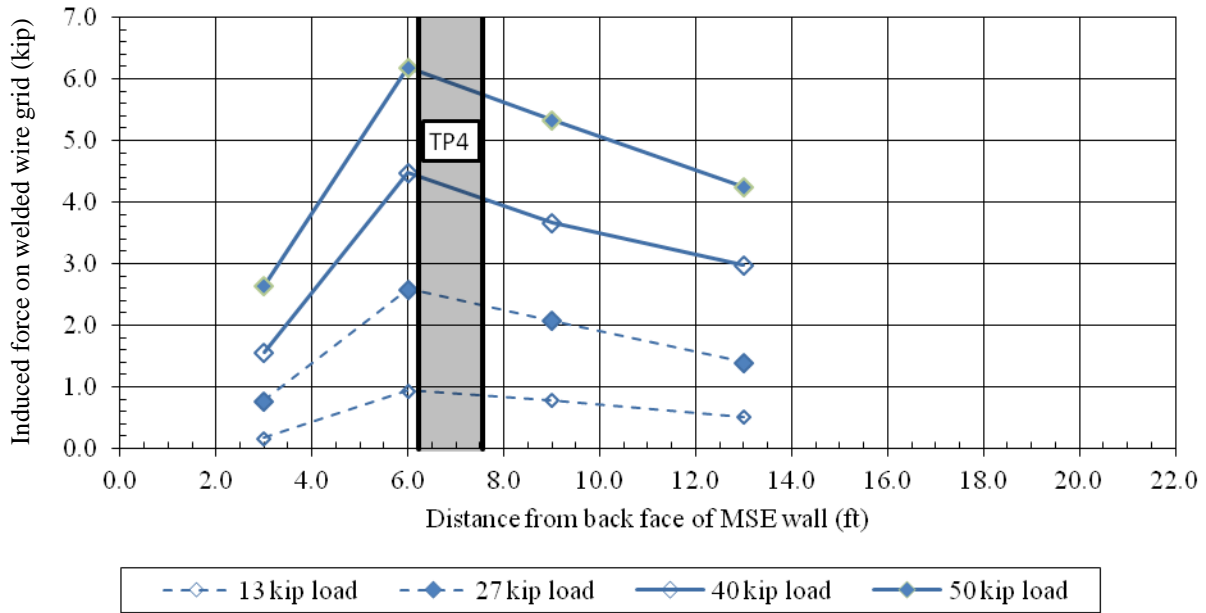


Figure C.15: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire N during loading of TP4 (see Table 4.2).

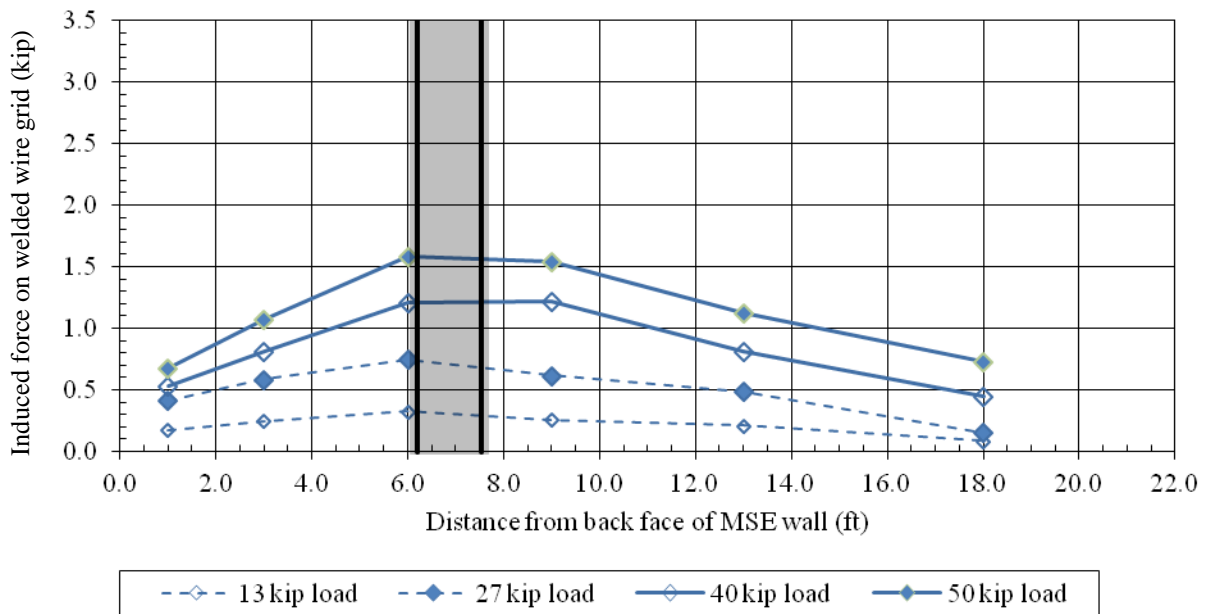


Figure C.16: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire P during loading of TP4 (see Table 4.2).

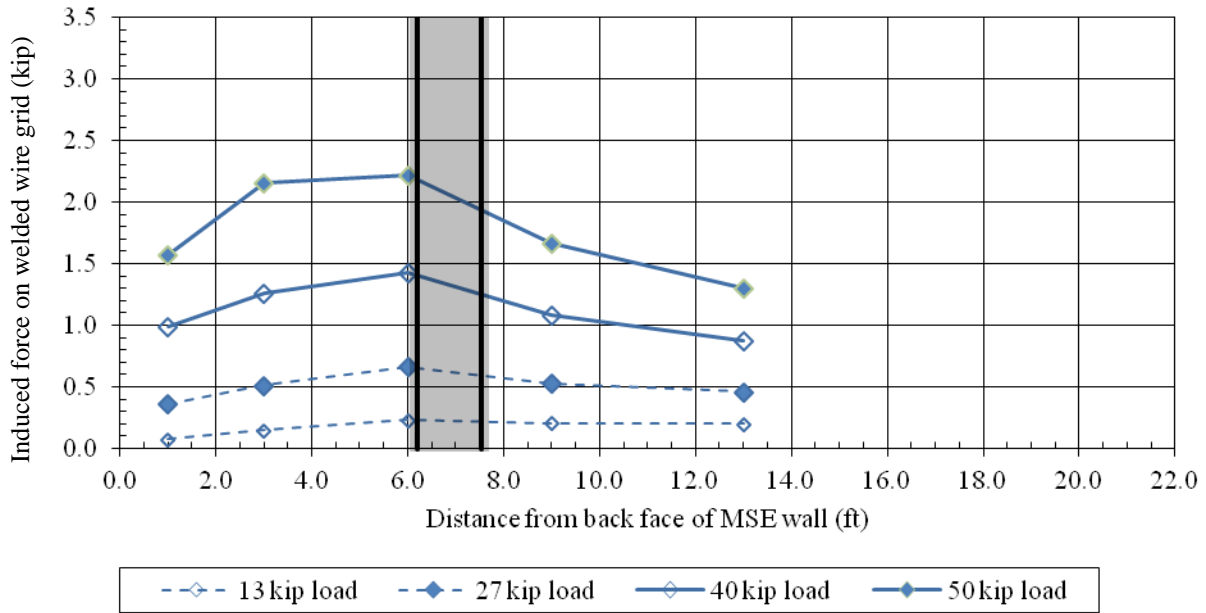


Figure C.17: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire Q during loading of TP4 (see Table 4.2).

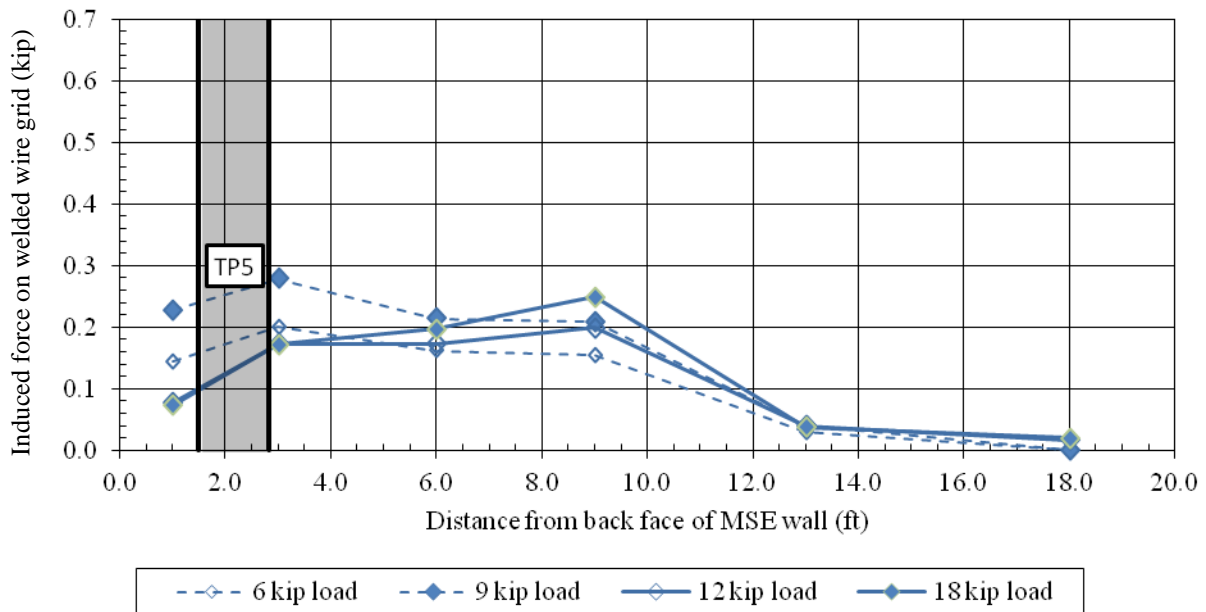


Figure C.18: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire R during loading of TP5 (see Table 4.2).

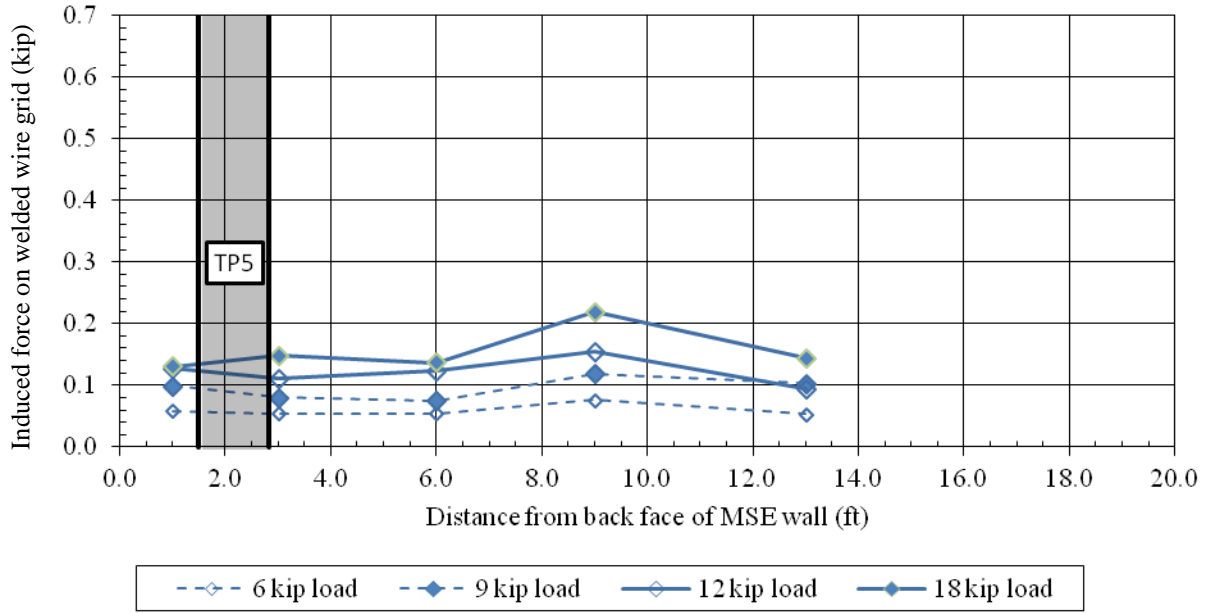


Figure C.19: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire S during loading of TP5 (see Table 4.2).

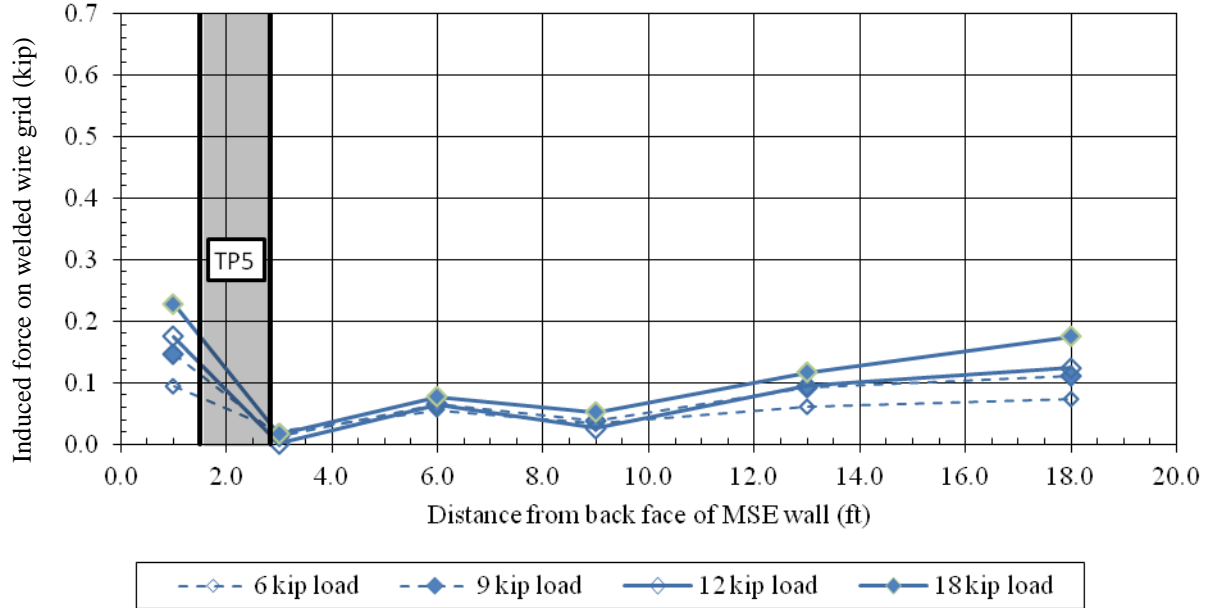


Figure C.20: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire T during loading of TP5 (see Table 4.2).

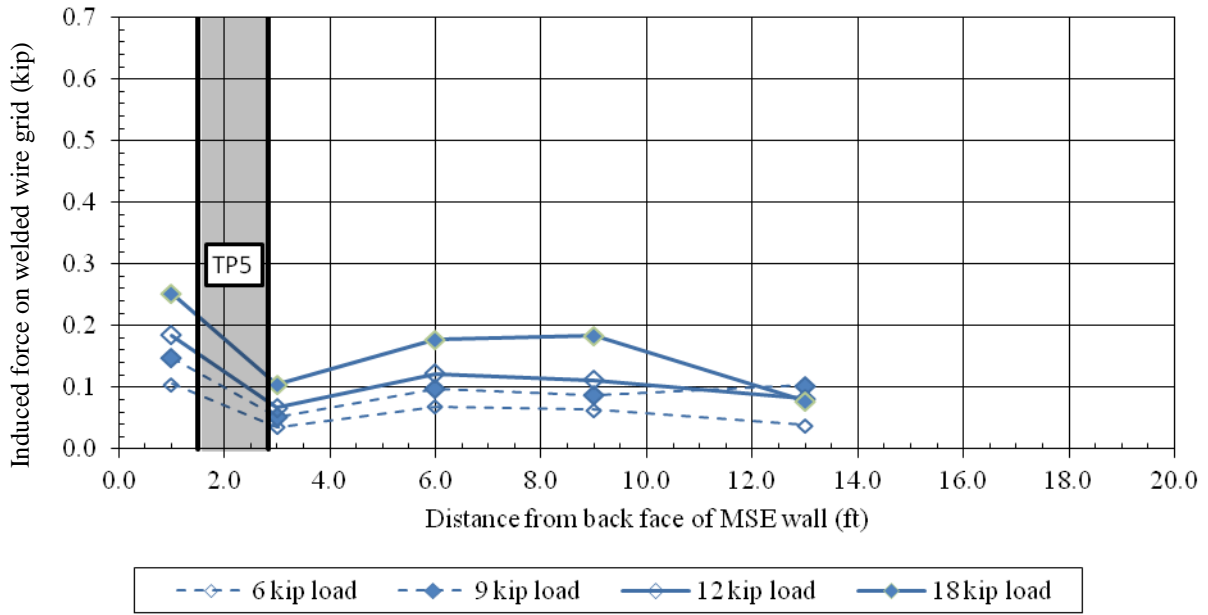


Figure C.21: Induced load in welded wire grid vs. distance from back face of wall as measured by gauges on wire U during loading of TP5 (see Table 4.2).

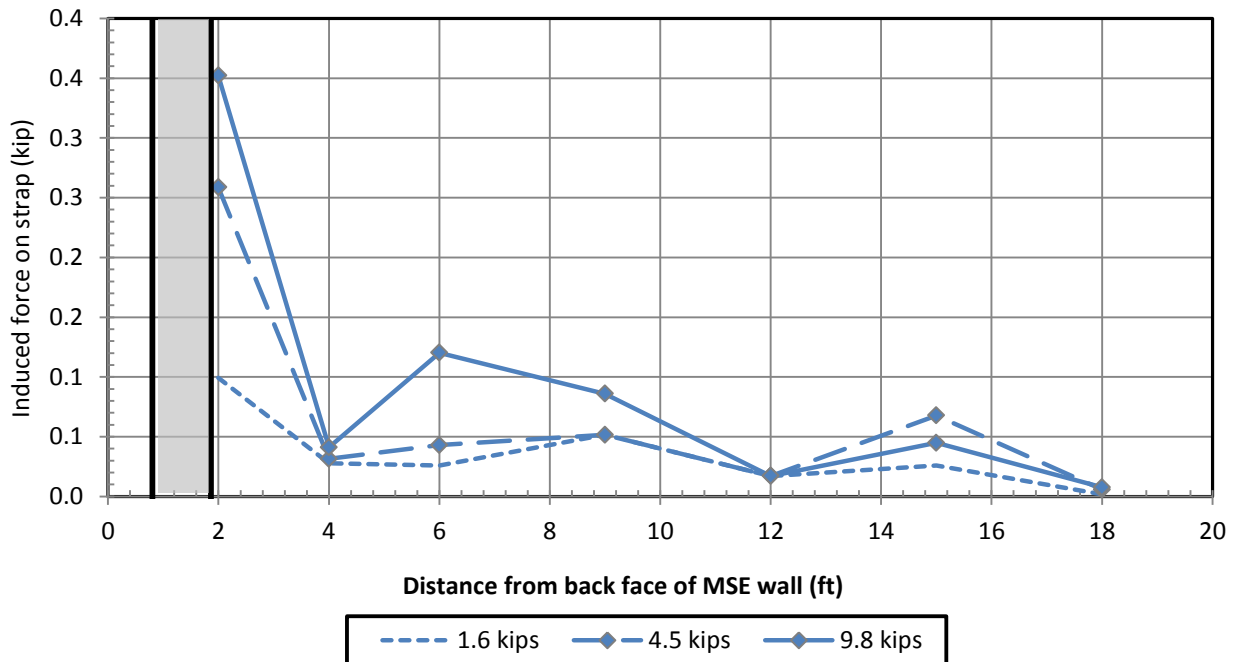


Figure C.22: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L1 during loading of TP6 (see Table 4.3).

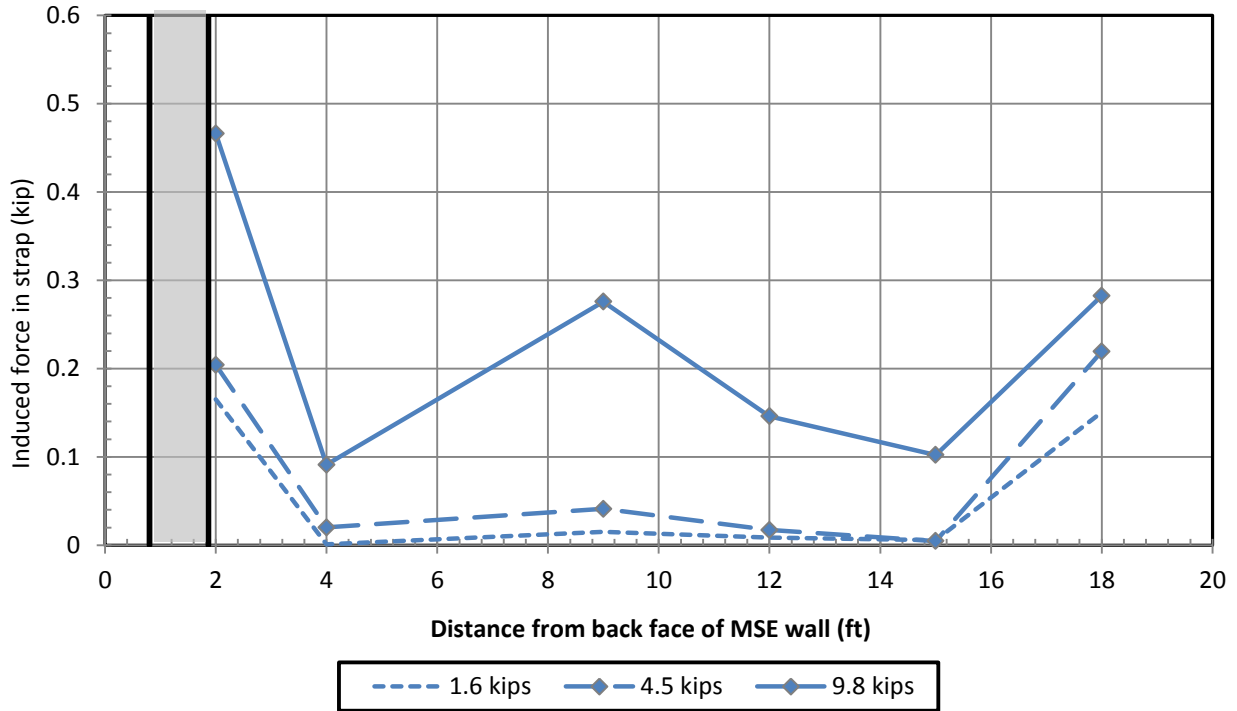


Figure C.23: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T1 during loading of TP6 (see Table 4.3).

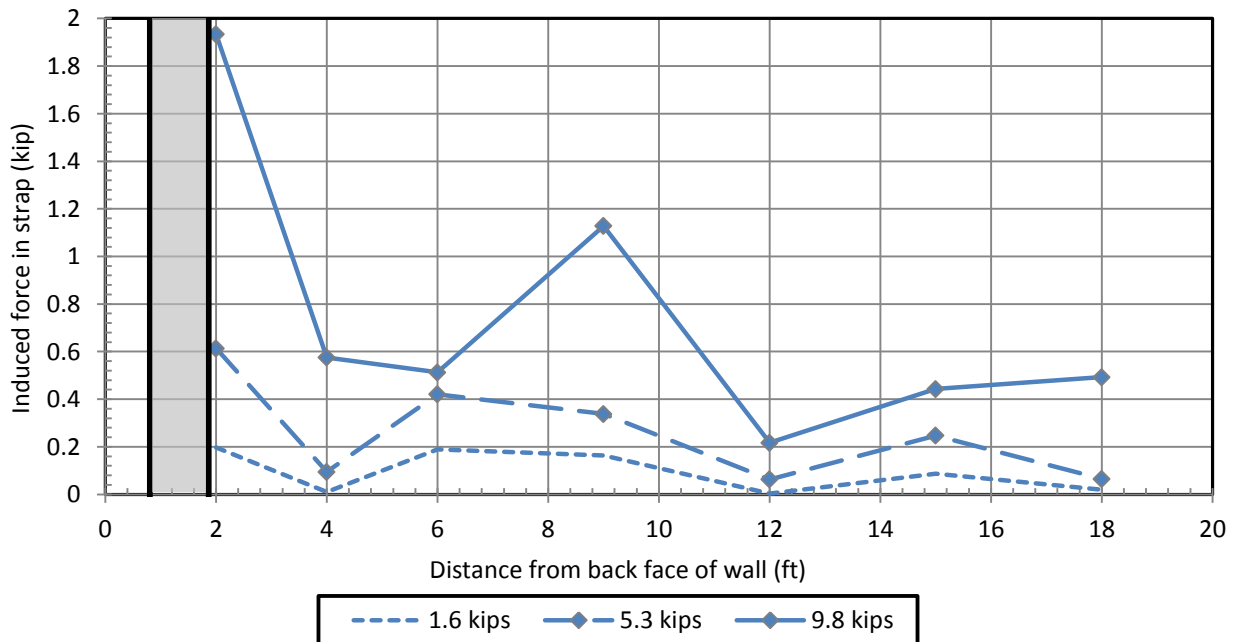


Figure C.24: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T2 during loading of TP6 (see Table 4.3).

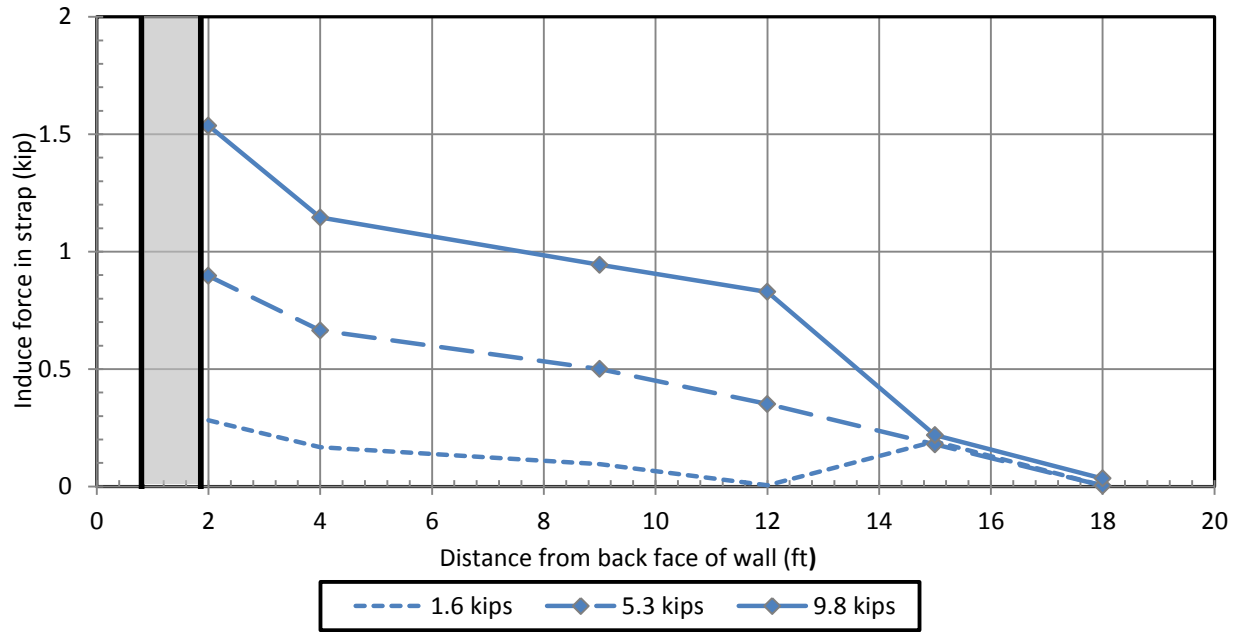


Figure C.25: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L2 during loading of TP6 (see Table 4.3).

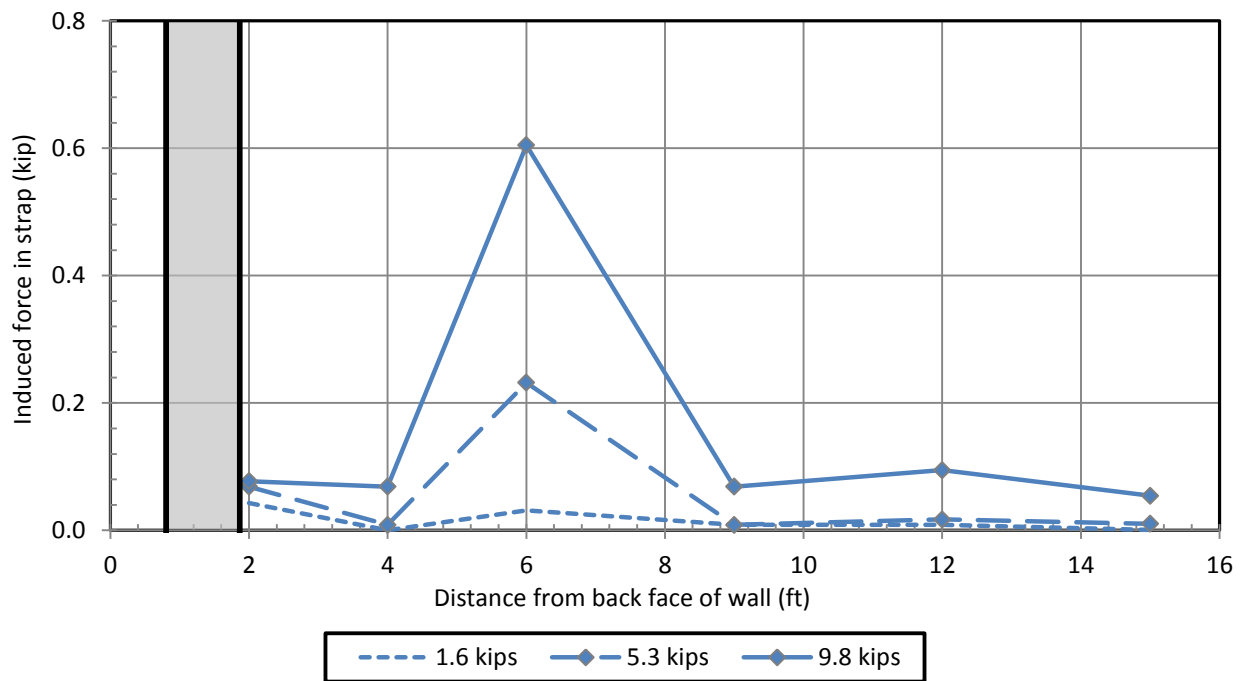


Figure C.26: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T3 during loading of TP6 (see Table 4.3).

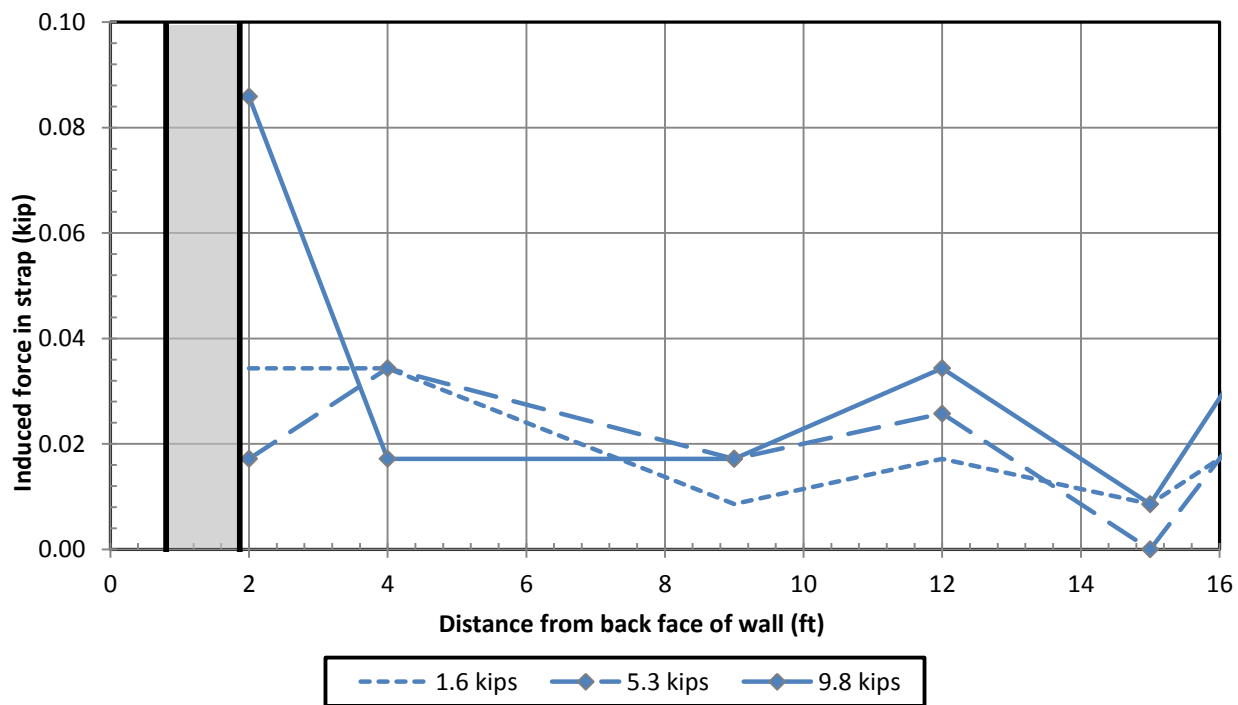


Figure C.27: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L3 during loading of TP6 (see Table 4.3).

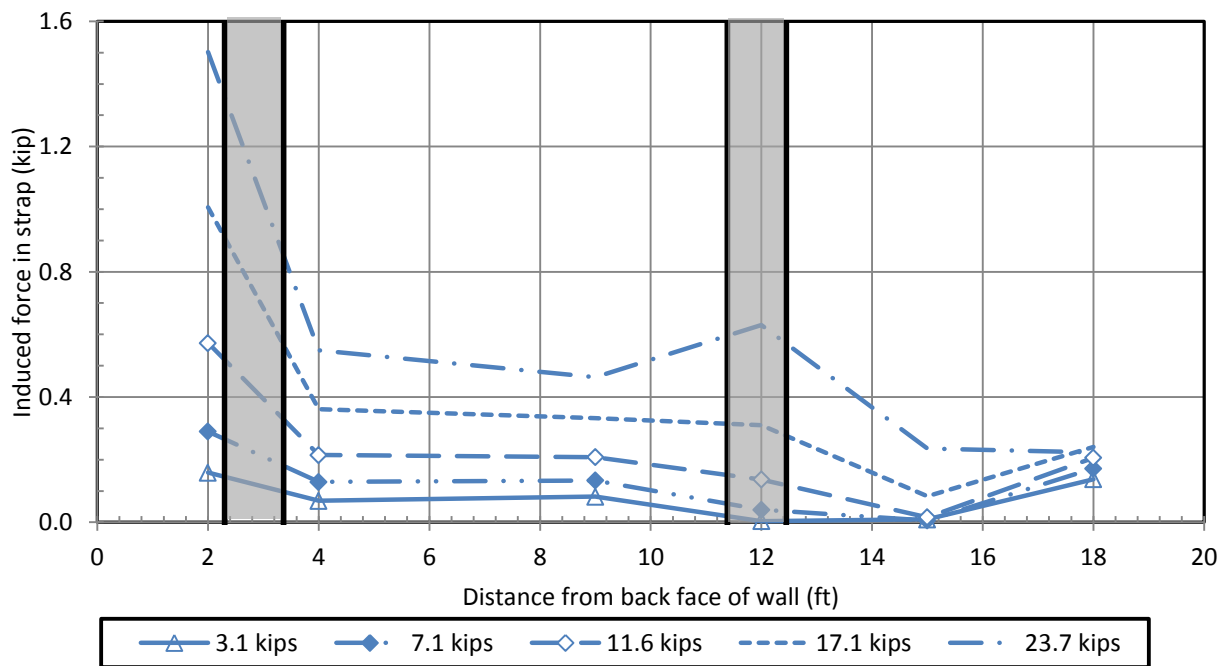


Figure C.28: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L3 during loading of TP7 (see Table 4.3).

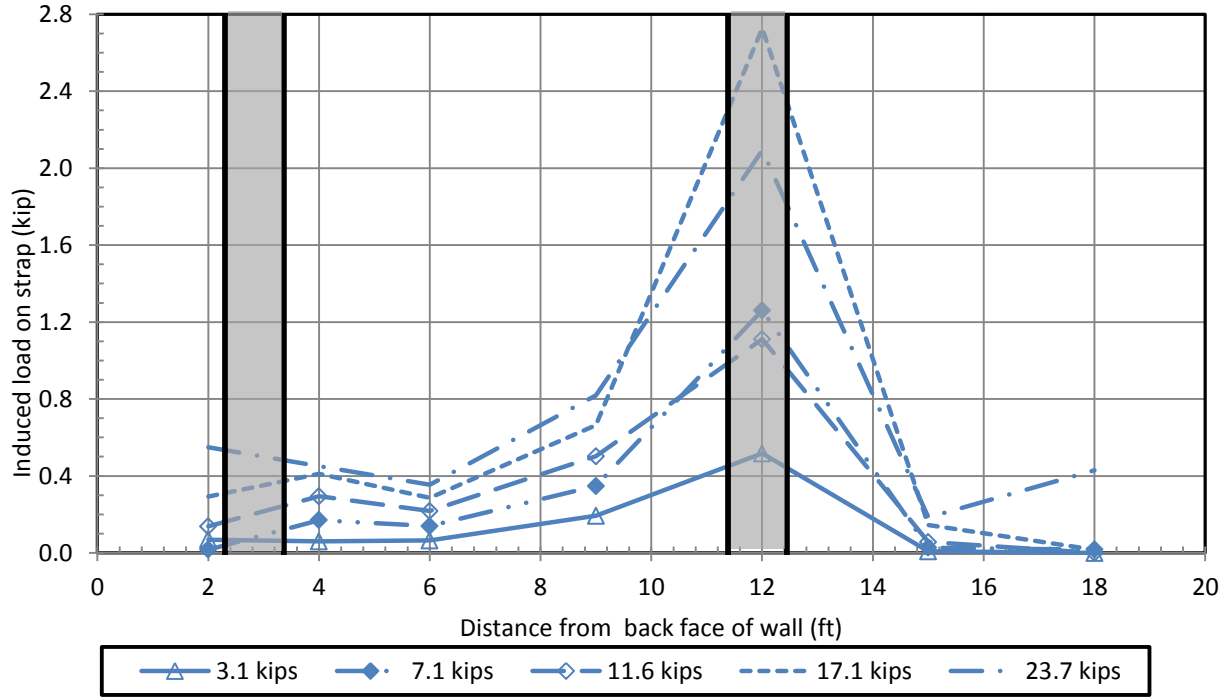


Figure C.29: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T3 during loading of TP7 (see Table 4.3).

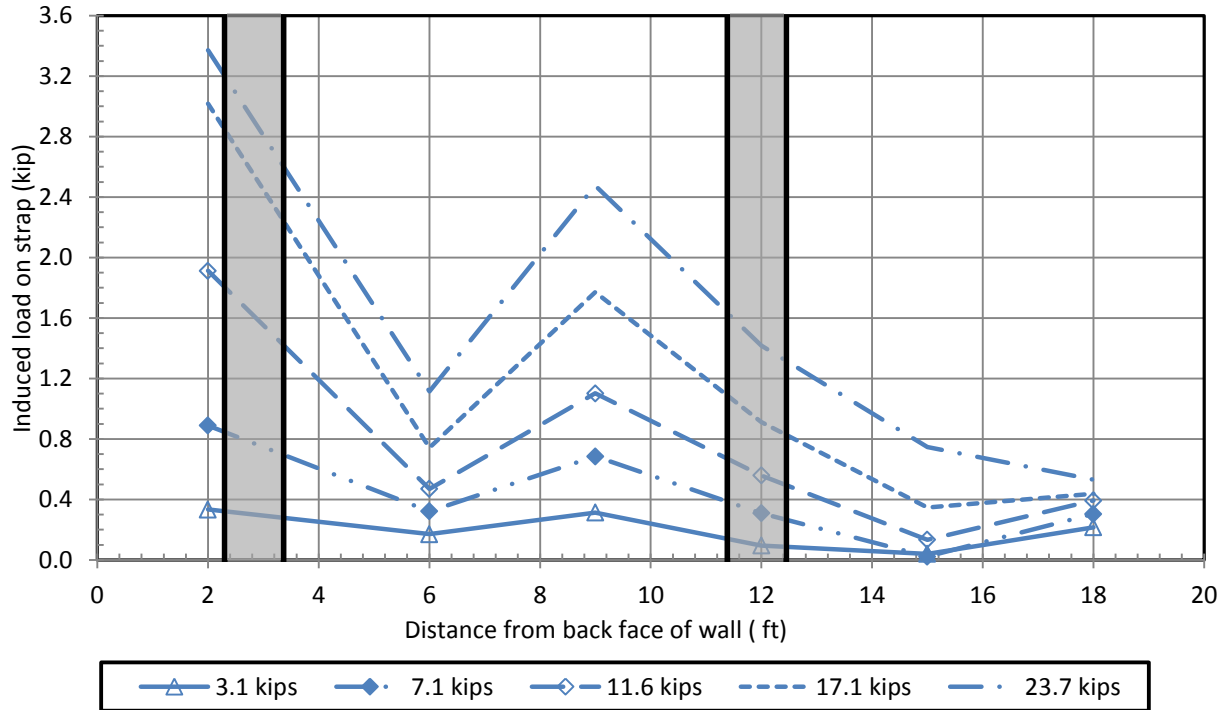


Figure C.30: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T during loading of TP7 (see Table 4.3).

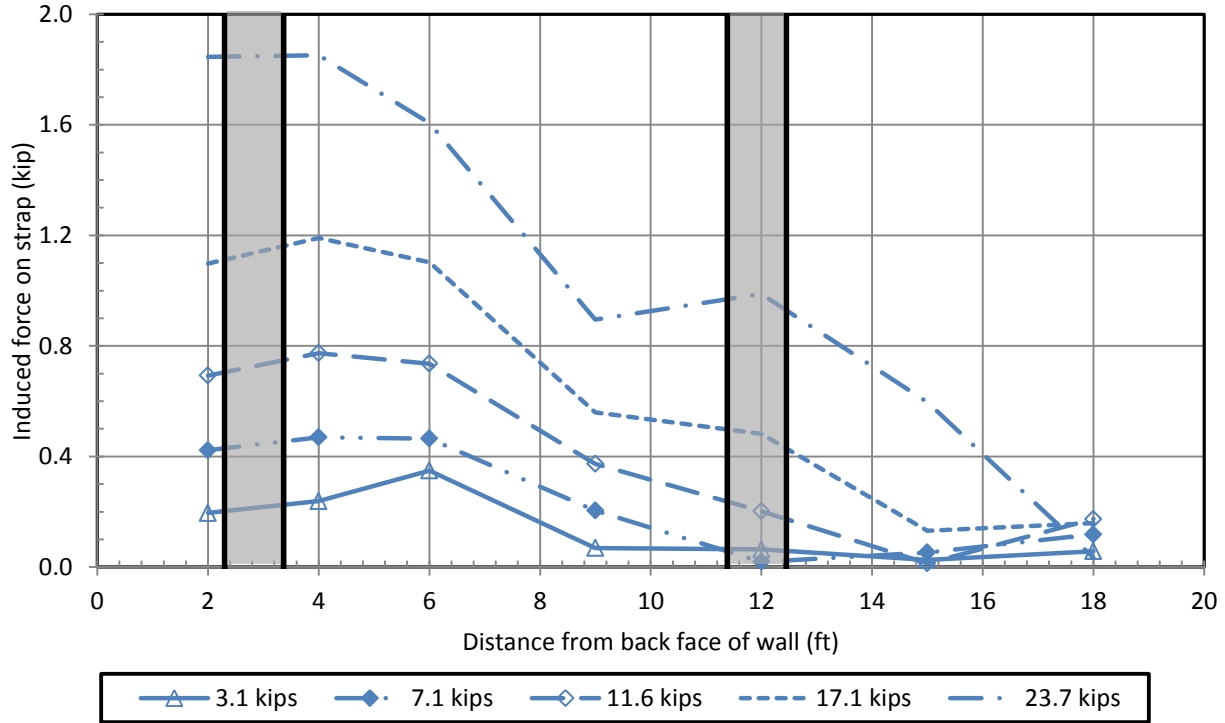


Figure C.31: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L4 during loading of TP7 (see Table 4.3).

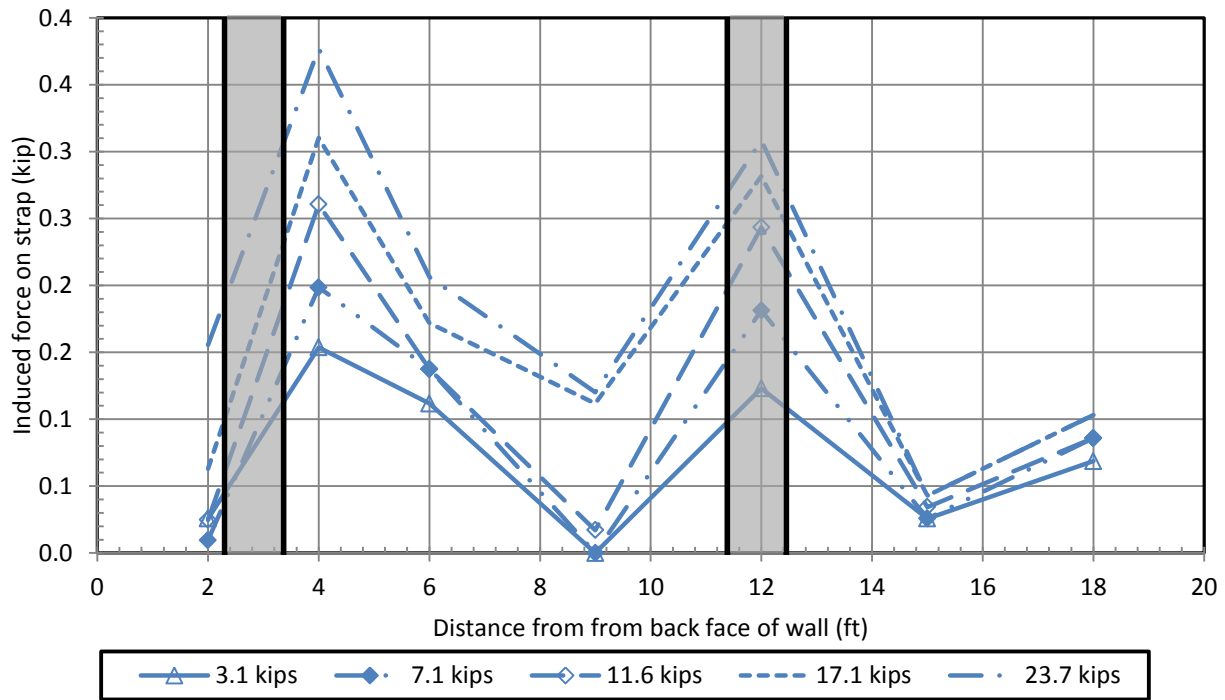


Figure C.32: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T4 during loading of TP7 (see Table 4.3).

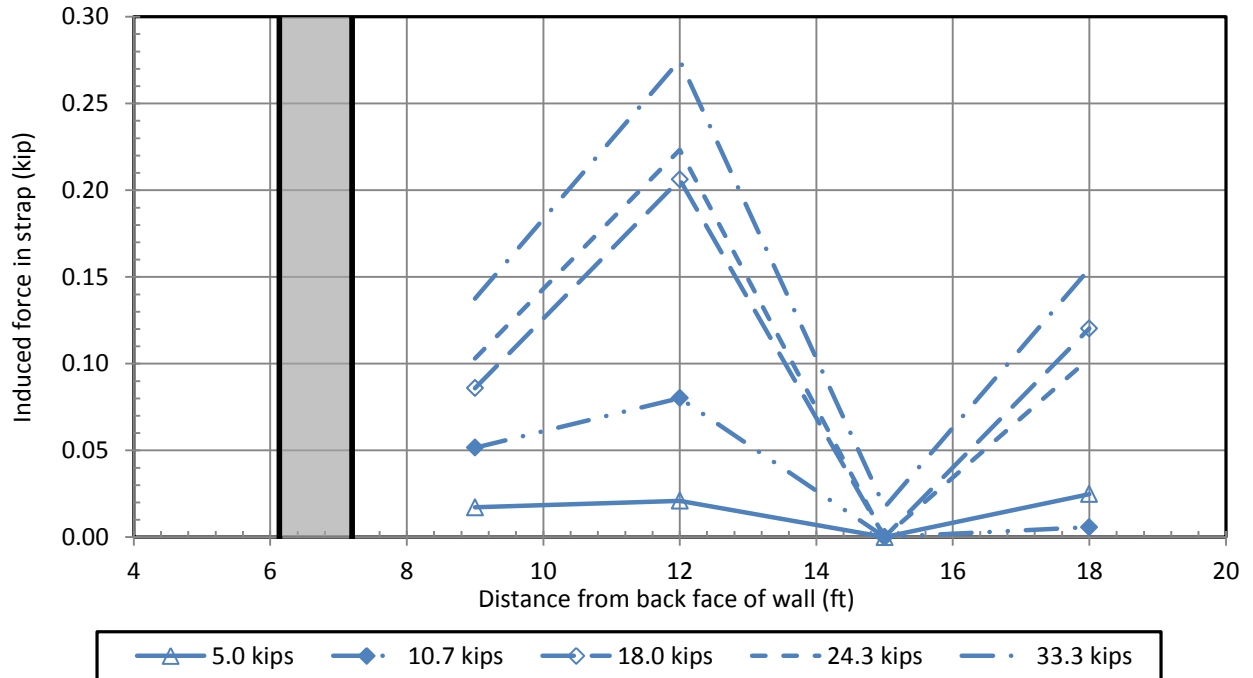


Figure C.33: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L3 during loading of TP8 (see Table 4.3).

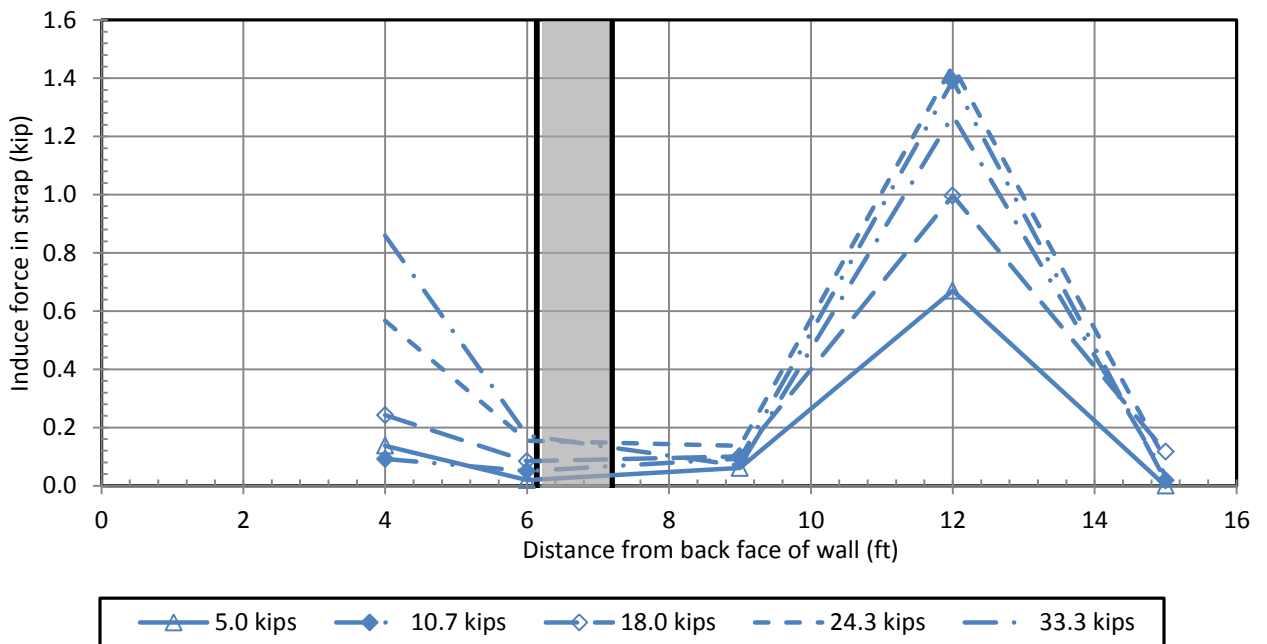


Figure C.34: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T3 during loading of TP8 (see Table 4.3).

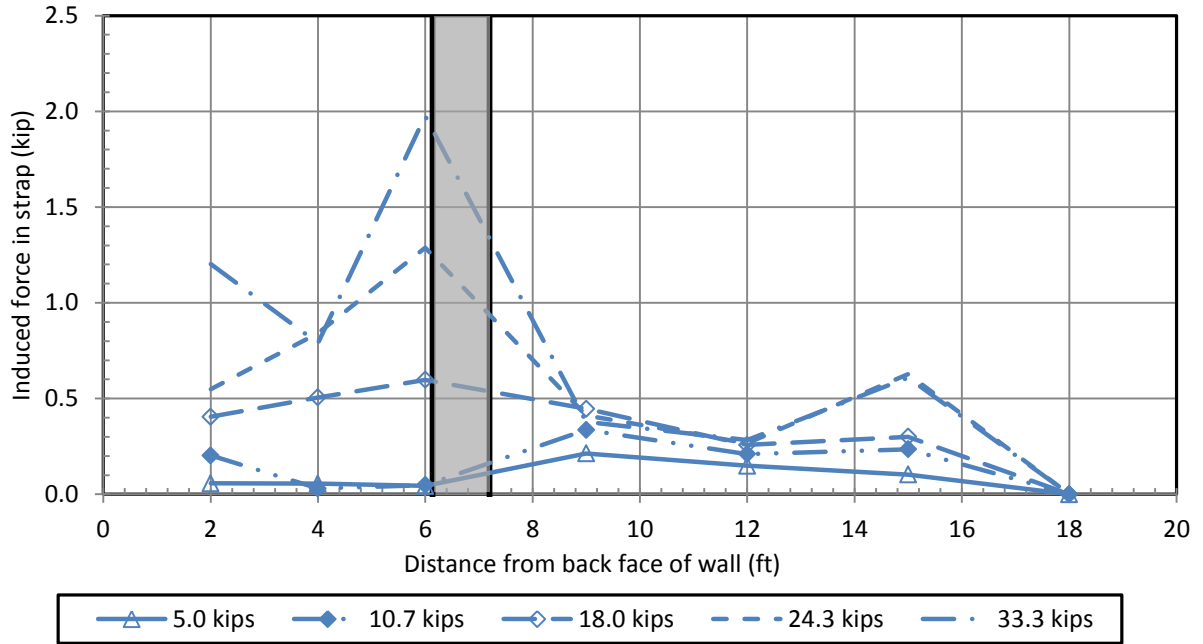


Figure C.35: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T during loading of TP8 (see Table 4.3).

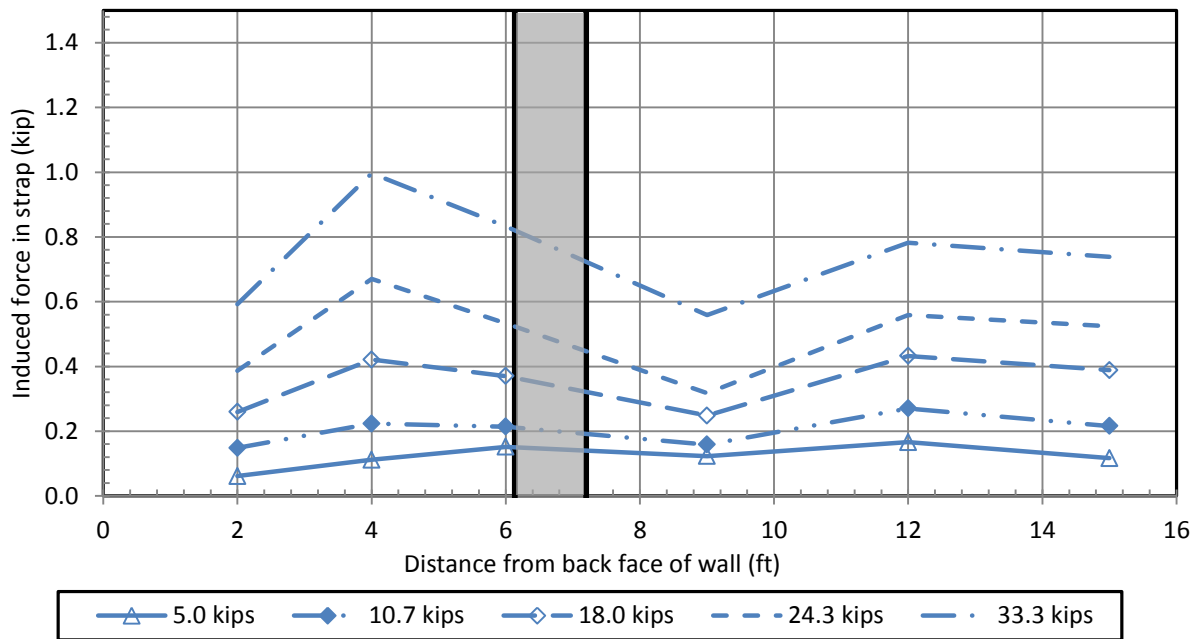


Figure C.36: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L4 during loading of TP8 (see Table 4.3).

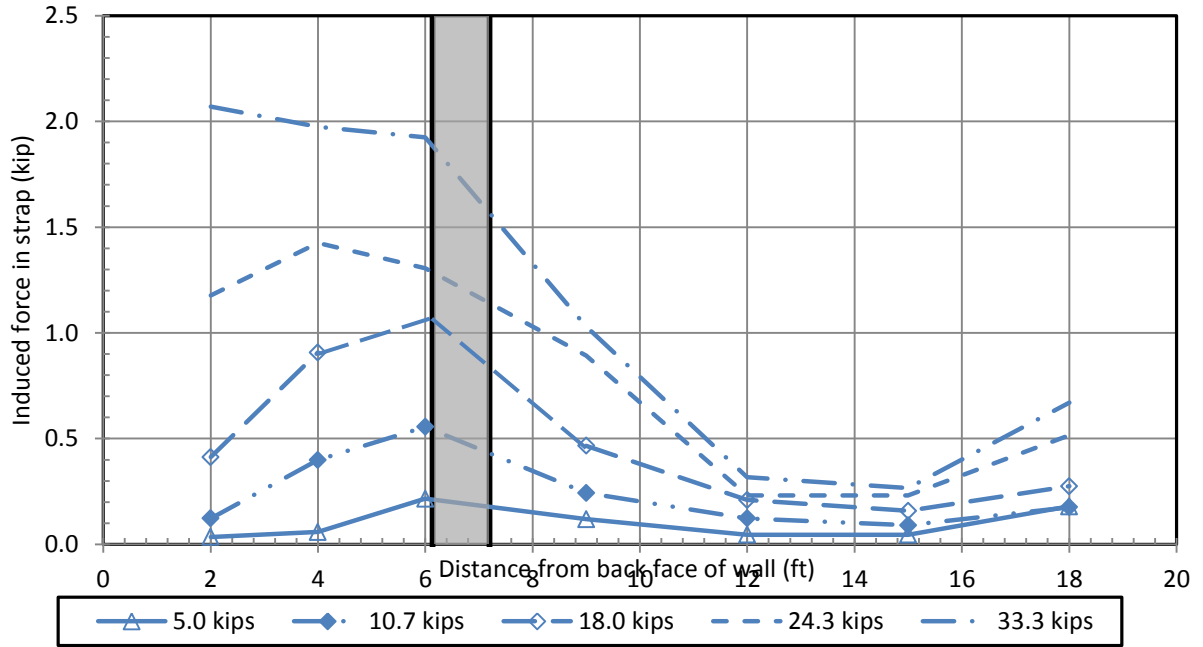


Figure C.37: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T4 during loading of TP8 (see Table 4.3).

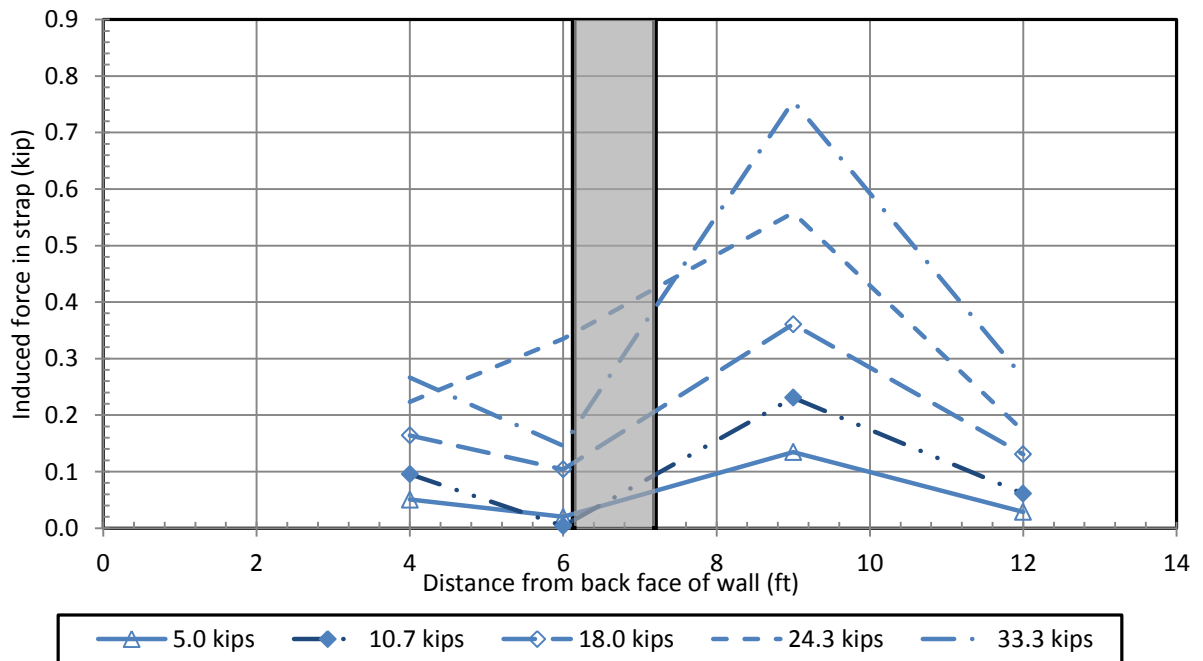


Figure C.38: Induced load in strap vs. distance from back face of wall as measured by gauges on strap L5 during loading of TP8 (see Table 4.3).

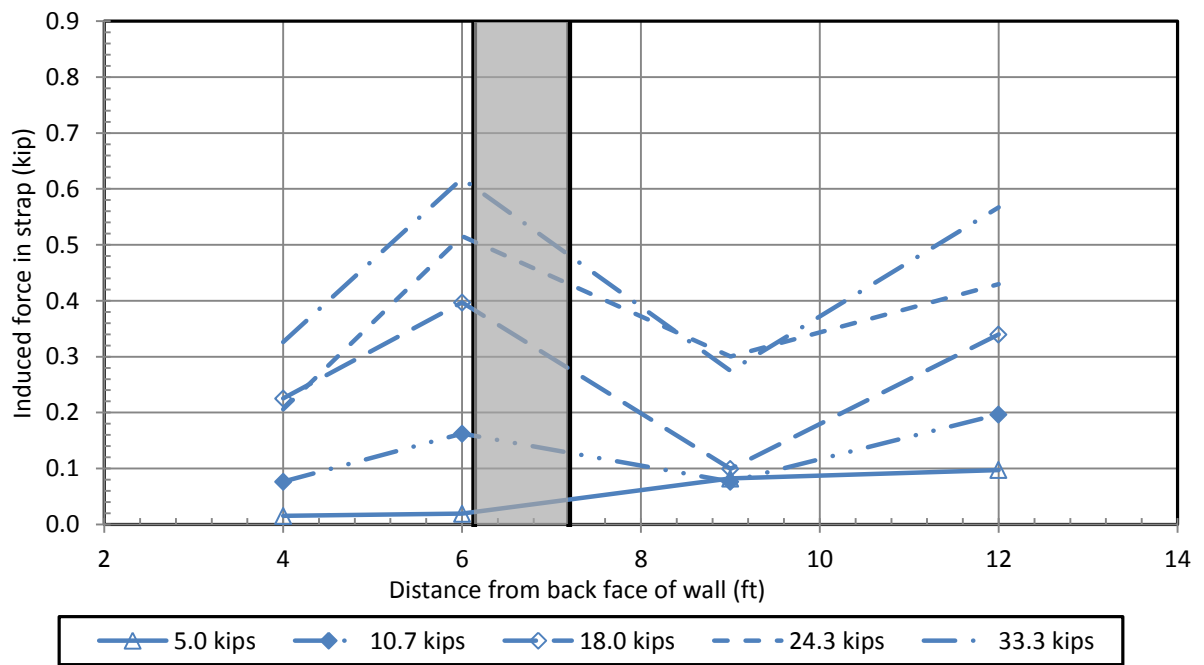


Figure C.39: Induced load in strap vs. distance from back face of wall as measured by gauges on strap T5 during loading of TP8 (see Table 4.3).

APPENDIX D: GROUND DISPLACEMENT CURVES

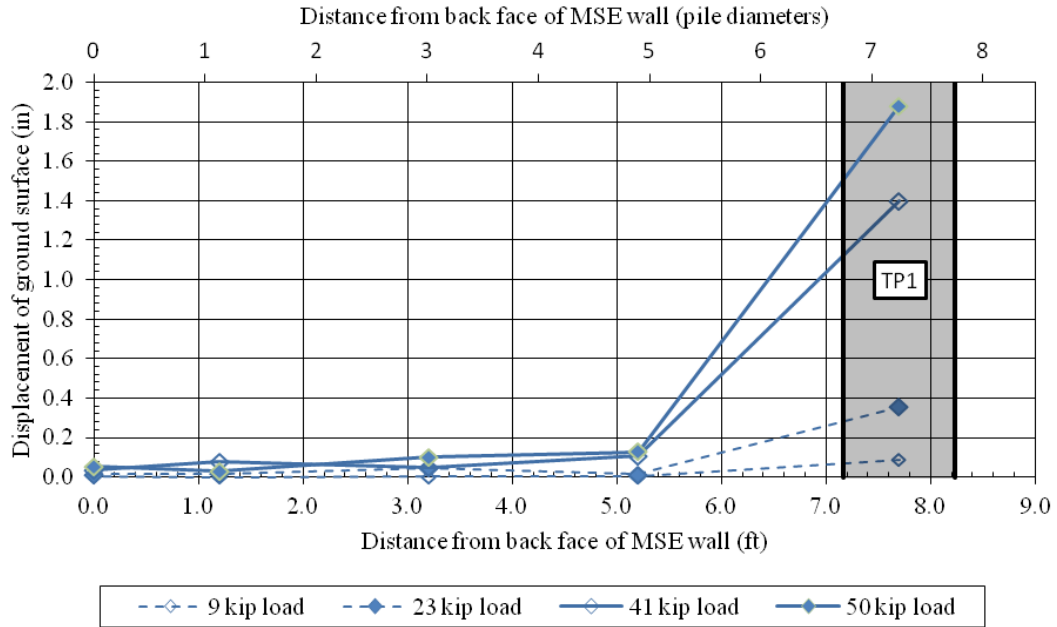


Figure D.1: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP1.

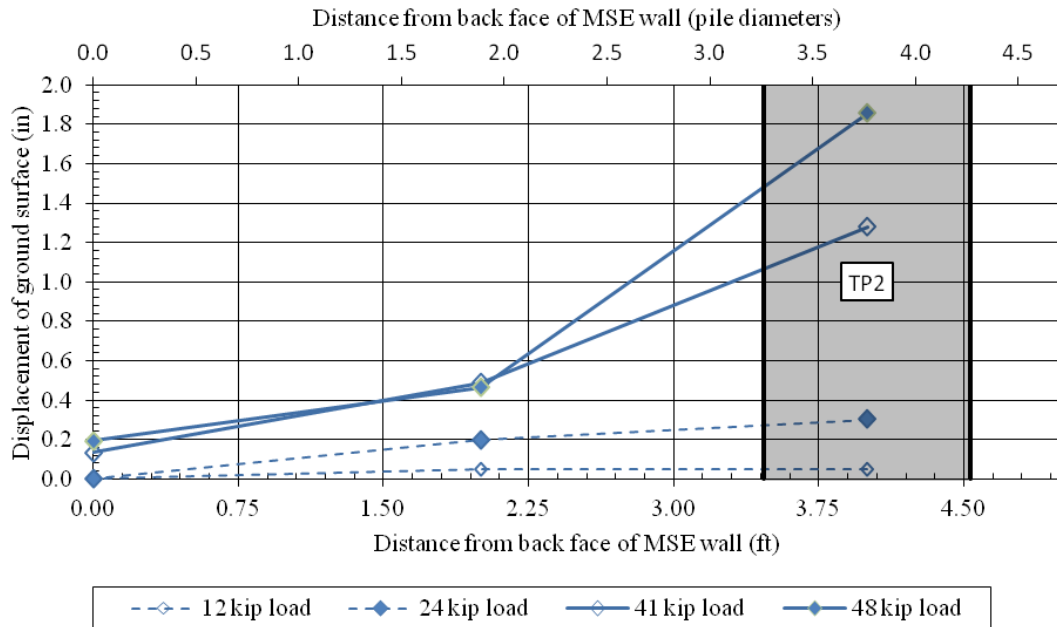


Figure D.2: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP2.

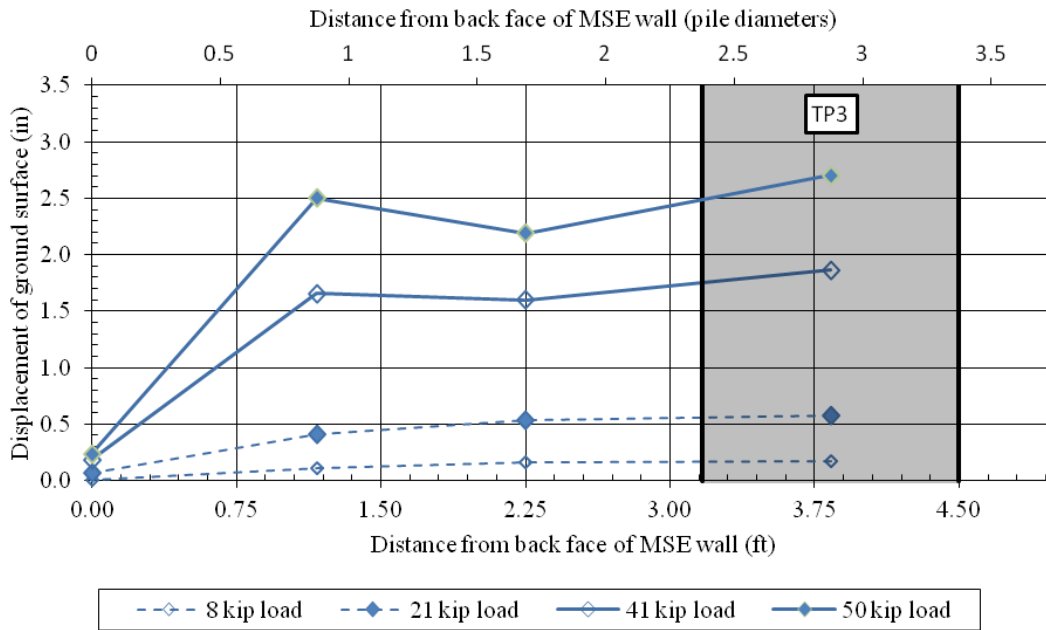


Figure D.3: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP3.

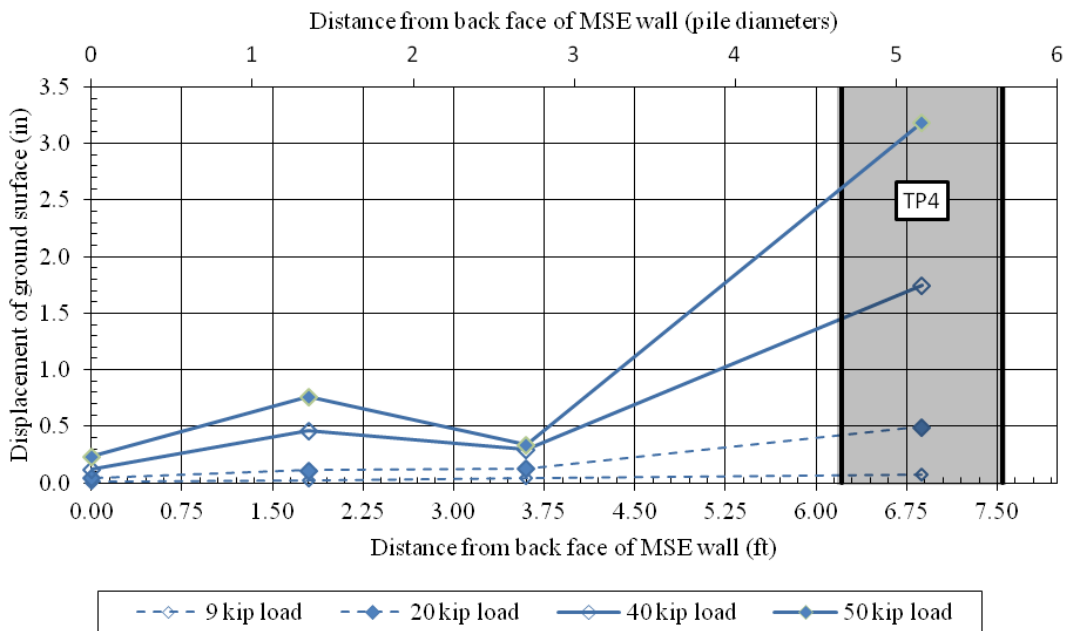


Figure D.4: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP4.

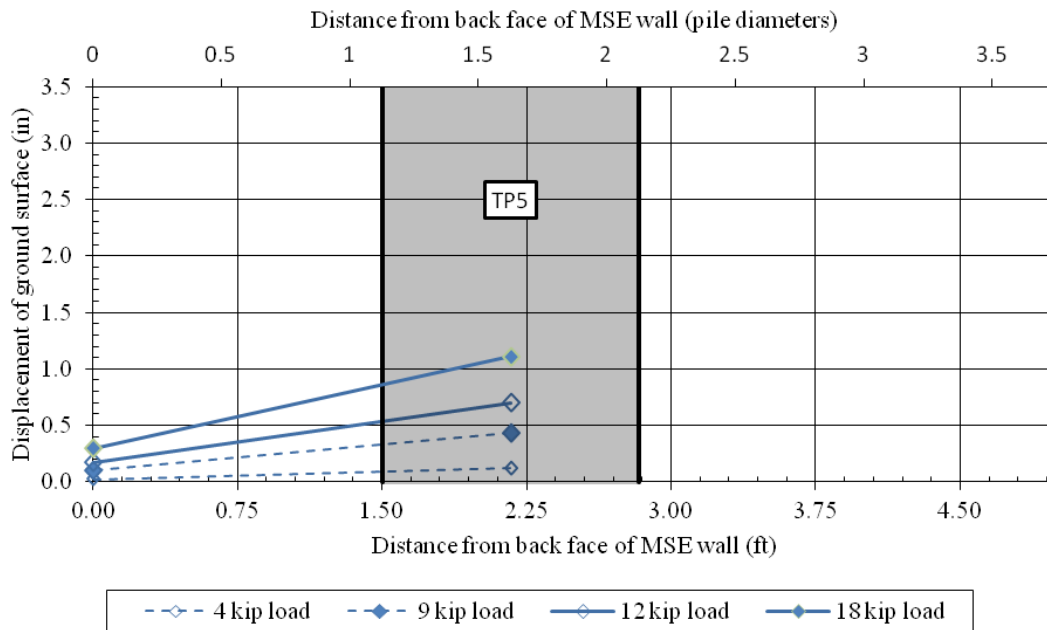


Figure D.5: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP5.

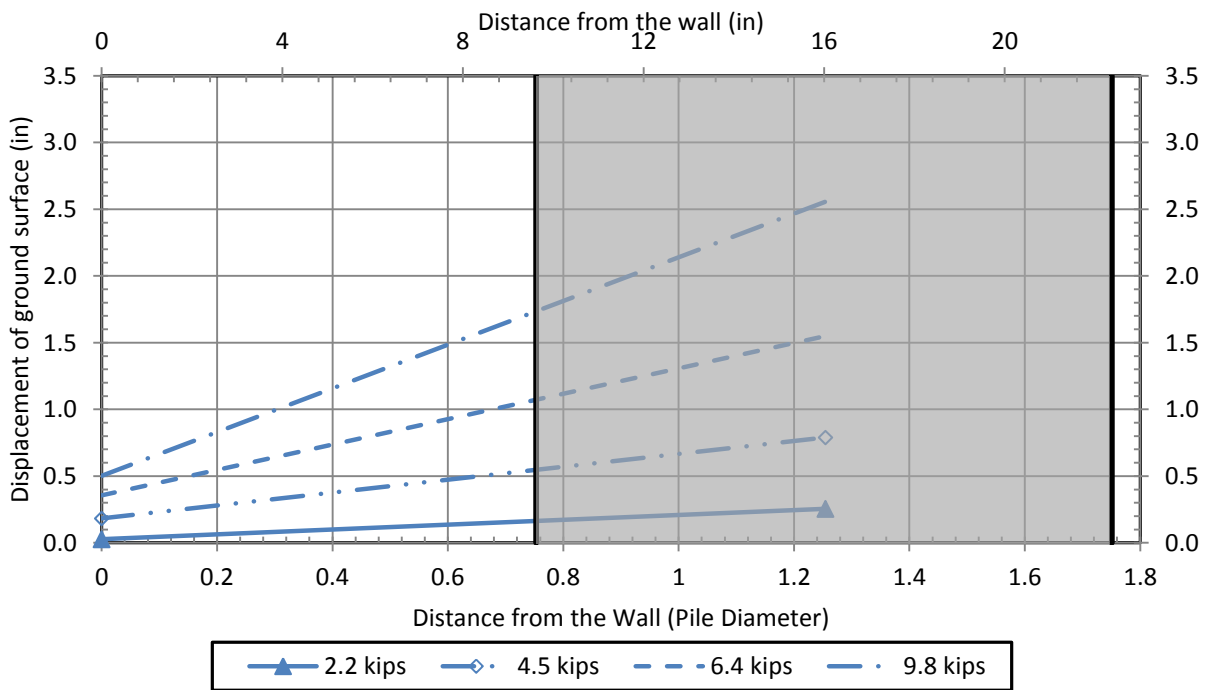


Figure D.6: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP6.

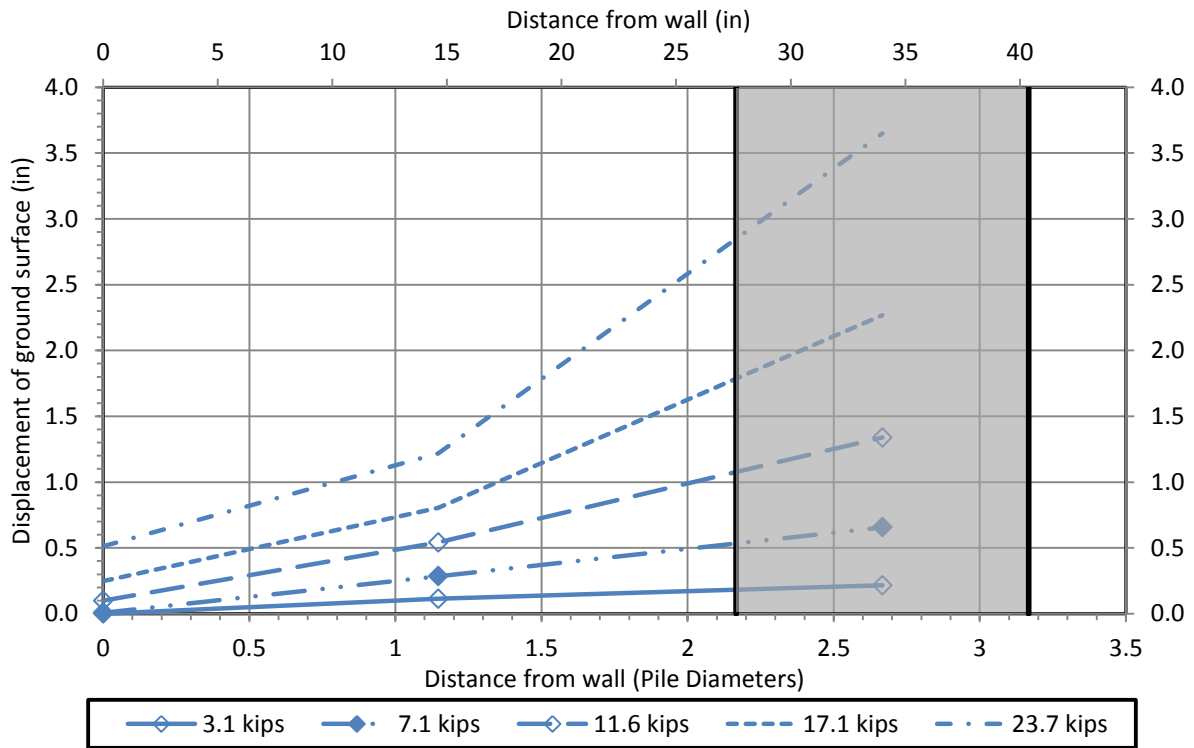


Figure D.7: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP7.

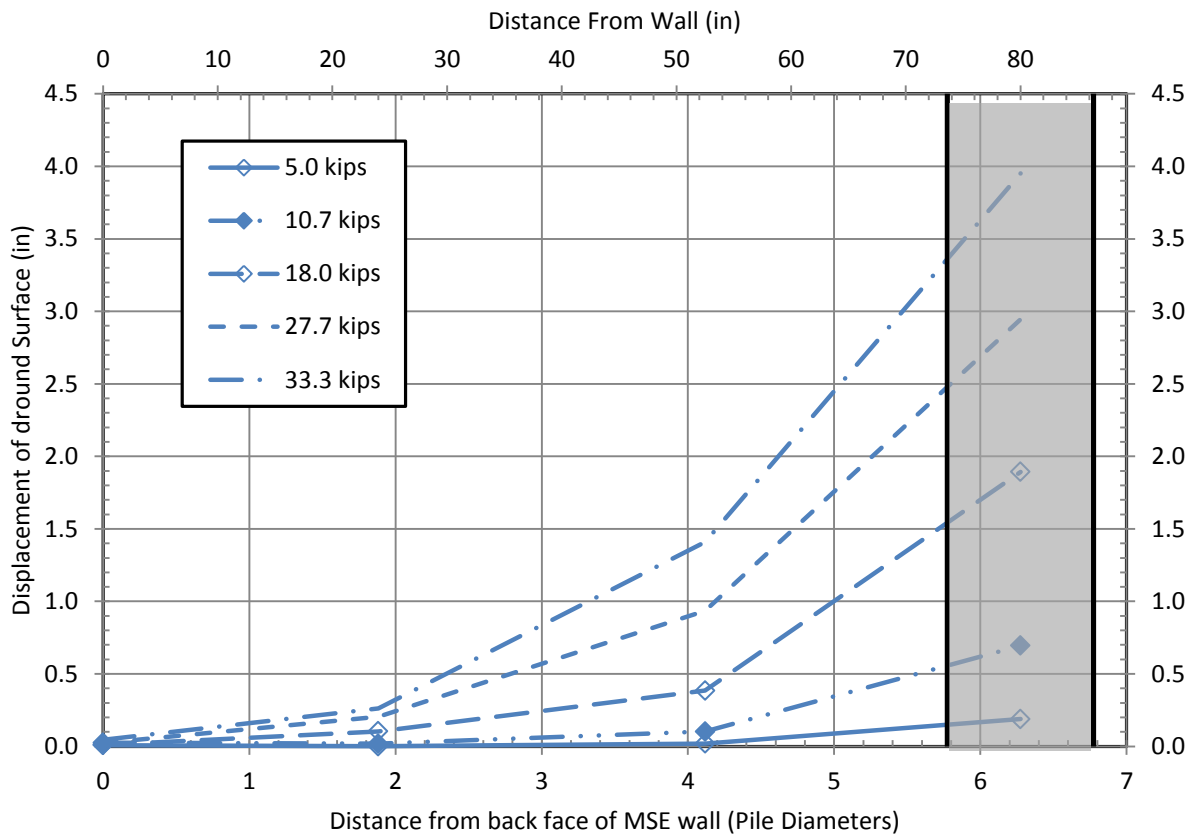


Figure D.8: Horizontal displacement of the ground surface vs. distance from the MSE wall for TP8.

APPENDIX E: LPILE ANALYSIS FOR TP1 AND TP2

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LPILE Plus for Windows, Version 5.0 (5.0.47)

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

(c) 1985-2010 by Ensoft, Inc.
All Rights Reserved

=====

This program is licensed to:

J Price
RB&G Engineering

Files Used for Analysis

Path to file locations: C:\Users\jprice\Documents\Thesis\LPILE 2.17.2010\
Name of input data file: pg 39-800-138.lpd
Name of output file: pg 39-800-138.lpo
Name of plot output file: pg 39-800-138.lpp
Name of runtime file: pg 39-800-138.lpr

Time and Date of Analysis

Date: April 7, 2012 Time: 10:14:49

Problem Title

New LPILE Plus 5.0 Data File

Program Options

Units Used in Computations - US Customary Units: Inches, Pounds

Basic Program Options:

Analysis Type 3:

- Computation of Nonlinear Bending Stiffness and Ultimate Bending Moment Capacity with Pile Response Computed Using Nonlinear EI

Computation Options:

- Only internally-generated p-y curves used in analysis
- Analysis does not use p-y multipliers (individual pile or shaft action only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output pile response for full length of pile
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths

Solution Control Parameters:

- Number of pile increments = 200
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 1.0000E+02 in

Printing Options:

- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (spacing of output points) = 1

Pile Structural Properties and Geometry

- Pile Length = 960.00 in
- Depth of ground surface below top of pile = 12.00 in
- Slope angle of ground surface = 0.00 deg.

Structural properties of pile defined using 2 points

Point No.	Point Depth in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
1	0.0000	12.75000000	279.3400	14.5800	29000000.
2	960.0000	12.75000000	279.3400	14.5800	29000000.

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of moment of inertia and modulus of are not used for any computations other than total stress due to combined axial loading and bending.

 Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is sand, p-y criteria by API RP-2A, 1987

Distance from top of pile to top of layer = 12.000 in
 Distance from top of pile to bottom of layer = 204.000 in
 p-y subgrade modulus k for top of soil layer = 800.000 lbs/in**3
 p-y subgrade modulus k for bottom of layer = 800.000 lbs/in**3

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer = 204.000 in
 Distance from top of pile to bottom of layer = 1000.000 in

(Depth of lowest layer extends 40.00 in below pile tip)

 Effective Unit weight of Soil vs. Depth

Effective unit weight of soil with depth defined using 4 points

Point No.	Depth X in	Eff. Unit weight lbs/in**3
1	12.00	0.08000
2	204.00	0.08000
3	204.00	0.06944
4	1000.00	0.06944

 Shear Strength of Soils

Shear strength parameters with depth defined using 4 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	12.000	0.00000	39.00	-----	-----
2	204.000	0.00000	39.00	-----	-----
3	204.000	6.94000	0.00	0.00700	0.0
4	1000.000	6.94000	0.00	0.00700	0.0

Notes:

(1) Cohesion = uniaxial compressive strength for rock materials.

- (2) values of E50 are reported for clay strata.
- (3) Default values will be generated for E50 when input values are 0.
- (4) RQD and k_{rm} are reported only for weak rock strata.

Loading Type

Static loading criteria was used for computation of p-y curves.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 5

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 10000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 2

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 20000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 3

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 30000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 4

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 40000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 50000.000 lbs

Bending moment at pile head = 0.000 in-lbs

Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Computation of Nonlinear Bending Stiffness for Section 1

Dimensions and Material Properties of Steel Pipe Section:

Outer Diameter of Pipe = 12.75000 in.
Pipe Wall Thickness = 0.37500 in.
Yield Stress of Pipe = 60. ksi
Elastic Modulus = 29000. ksi
Cross-sectional Area = 14.57895 sq. in.
Moment of Inertia = 279.335 in⁴
Elastic Bending Stiffness = 8100716. kip-in²

Definition of Run Messages:

Y = part of pipe section has yielded

Axial Thrust Force = 0.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in ²	Max Comp Strain in/in	Minimum Strain in/in	Depth to N Axis in	Run Msg
0.00000690	55.87140250	8101353.	0.00004397	-0.00004397	6.37500000	
0.00001379	111.74280	8101353.	0.00008793	-0.00008793	6.37500000	
0.00002069	167.61421	8101353.	0.00013190	-0.00013190	6.37500000	
0.00002759	223.48561	8101353.	0.00017586	-0.00017586	6.37500000	
0.00003448	279.35701	8101353.	0.00021983	-0.00021983	6.37500000	
0.00004138	335.22841	8101353.	0.00026379	-0.00026379	6.37500000	
0.00004828	391.09982	8101353.	0.00030776	-0.00030776	6.37500000	
0.00005517	446.97122	8101353.	0.00035172	-0.00035172	6.37500000	
0.00006207	502.84262	8101353.	0.00039569	-0.00039569	6.37500000	
0.00006897	558.71402	8101353.	0.00043966	-0.00043966	6.37500000	
0.00007586	614.58543	8101353.	0.00048362	-0.00048362	6.37500000	
0.00008276	670.45683	8101353.	0.00052759	-0.00052759	6.37500000	
0.00008966	726.32823	8101353.	0.00057155	-0.00057155	6.37500000	
0.00009655	782.19963	8101353.	0.00061552	-0.00061552	6.37500000	
0.00010345	838.07104	8101353.	0.00065948	-0.00065948	6.37500000	

0.00011034	893.94244	8101353.	0.00070345	-0.00070345	6.37500000	
0.00011724	949.81384	8101353.	0.00074741	-0.00074741	6.37500000	
0.00012414	1005.68524	8101353.	0.00079138	-0.00079138	6.37500000	
0.00013103	1061.55665	8101353.	0.00083534	-0.00083534	6.37500000	
0.00013793	1117.42805	8101353.	0.00087931	-0.00087931	6.37500000	
0.00014483	1173.29945	8101353.	0.00092328	-0.00092328	6.37500000	
0.00015172	1229.17085	8101353.	0.00096724	-0.00096724	6.37500000	
0.00015862	1285.04226	8101353.	0.00101121	-0.00101121	6.37500000	
0.00016552	1340.91366	8101353.	0.00105517	-0.00105517	6.37500000	
0.00017241	1396.78506	8101353.	0.00109914	-0.00109914	6.37500000	
0.00017931	1452.65646	8101353.	0.00114310	-0.00114310	6.37500000	
0.00018621	1508.52787	8101353.	0.00118707	-0.00118707	6.37500000	
0.00019310	1564.39927	8101353.	0.00123103	-0.00123103	6.37500000	
0.00020000	1620.27067	8101353.	0.00127500	-0.00127500	6.37500000	
0.00020690	1676.14207	8101353.	0.00131897	-0.00131897	6.37500000	
0.00021379	1732.01348	8101353.	0.00136293	-0.00136293	6.37500000	
0.00022069	1787.88488	8101353.	0.00140690	-0.00140690	6.37500000	
0.00022759	1843.75628	8101353.	0.00145086	-0.00145086	6.37500000	
0.00023448	1899.62768	8101353.	0.00149483	-0.00149483	6.37500000	
0.00024138	1955.49909	8101353.	0.00153879	-0.00153879	6.37500000	
0.00024828	2011.37049	8101353.	0.00158276	-0.00158276	6.37500000	
0.00025517	2067.24189	8101353.	0.00162672	-0.00162672	6.37500000	
0.00026207	2123.11329	8101353.	0.00167069	-0.00167069	6.37500000	
0.00026897	2178.98470	8101353.	0.00171466	-0.00171466	6.37500000	
0.00027586	2234.85610	8101353.	0.00175862	-0.00175862	6.37500000	
0.00028276	2290.72750	8101353.	0.00180259	-0.00180259	6.37500000	
0.00028966	2346.59890	8101353.	0.00184655	-0.00184655	6.37500000	
0.00029655	2402.47031	8101353.	0.00189052	-0.00189052	6.37500000	
0.00030345	2458.34171	8101353.	0.00193448	-0.00193448	6.37500000	
0.00031034	2514.21311	8101353.	0.00197845	-0.00197845	6.37500000	
0.00031724	2570.08451	8101353.	0.00202241	-0.00202241	6.37500000	
0.00032414	2625.95592	8101353.	0.00206638	-0.00206638	6.37500000	
0.00033103	2680.22343	8096508.	0.00211034	-0.00211034	6.37500000	Y
0.00033793	2729.72986	8077772.	0.00215431	-0.00215431	6.37500000	Y
0.00034483	2772.71103	8040862.	0.00219828	-0.00219828	6.37500000	Y
0.00035172	2809.64863	7988216.	0.00224224	-0.00224224	6.37500000	Y
0.00035862	2842.34592	7925772.	0.00228621	-0.00228621	6.37500000	Y
0.00036552	2871.91649	7857130.	0.00233017	-0.00233017	6.37500000	Y
0.00037241	2898.73618	7783643.	0.00237414	-0.00237414	6.37500000	Y
0.00037931	2923.11499	7706394.	0.00241810	-0.00241810	6.37500000	Y
0.00038621	2945.75816	7627409.	0.00246207	-0.00246207	6.37500000	Y
0.00039310	2966.92113	7547431.	0.00250603	-0.00250603	6.37500000	Y
0.00040000	2986.63564	7466589.	0.00255000	-0.00255000	6.37500000	Y
0.00040690	3004.67239	7384364.	0.00259397	-0.00259397	6.37500000	Y
0.00041379	3021.80484	7302695.	0.00263793	-0.00263793	6.37500000	Y
0.00042069	3037.98561	7221441.	0.00268190	-0.00268190	6.37500000	Y
0.00042759	3052.82383	7139668.	0.00272586	-0.00272586	6.37500000	Y
0.00043448	3067.13516	7059279.	0.00276983	-0.00276983	6.37500000	Y
0.00044138	3080.41805	6979072.	0.00281379	-0.00281379	6.37500000	Y
0.00044828	3093.02630	6899828.	0.00285776	-0.00285776	6.37500000	Y
0.00045517	3105.05019	6821701.	0.00290172	-0.00290172	6.37500000	Y
0.00046207	3116.24552	6744113.	0.00294569	-0.00294569	6.37500000	Y
0.00046897	3127.11859	6668120.	0.00298966	-0.00298966	6.37500000	Y
0.00047586	3137.15012	6592562.	0.00303362	-0.00303362	6.37500000	Y

0.00048276	3146.96968	6518723.	0.00307759	-0.00307759	6.37500000	Y
0.00048966	3156.05272	6445460.	0.00312155	-0.00312155	6.37500000	Y
0.00049655	3164.90691	6373771.	0.00316552	-0.00316552	6.37500000	Y
0.00050345	3173.22845	6302988.	0.00320948	-0.00320948	6.37500000	Y
0.00051034	3181.19755	6233427.	0.00325345	-0.00325345	6.37500000	Y
0.00051724	3188.92037	6165246.	0.00329741	-0.00329741	6.37500000	Y
0.00052414	3196.07786	6097780.	0.00334138	-0.00334138	6.37500000	Y
0.00053103	3203.23536	6032066.	0.00338534	-0.00338534	6.37500000	Y
0.00053793	3209.75711	5966856.	0.00342931	-0.00342931	6.37500000	Y
0.00054483	3216.17052	5903098.	0.00347328	-0.00347328	6.37500000	Y
0.00055172	3222.42077	5840637.	0.00351724	-0.00351724	6.37500000	Y
0.00055862	3228.15234	5778791.	0.00356121	-0.00356121	6.37500000	Y
0.00056552	3233.88391	5718453.	0.00360517	-0.00360517	6.37500000	Y
0.00057241	3239.34039	5659088.	0.00364914	-0.00364914	6.37500000	Y
0.00057931	3244.44769	5600535.	0.00369310	-0.00369310	6.37500000	Y
0.00058621	3249.55498	5543358.	0.00373707	-0.00373707	6.37500000	Y
0.00059310	3254.41192	5487090.	0.00378103	-0.00378103	6.37500000	Y
0.00060000	3258.94829	5431580.	0.00382500	-0.00382500	6.37500000	Y
0.00060690	3263.48465	5377333.	0.00386897	-0.00386897	6.37500000	Y
0.00061379	3267.91164	5324126.	0.00391293	-0.00391293	6.37500000	Y
0.00062069	3271.92660	5271437.	0.00395690	-0.00395690	6.37500000	Y
0.00062759	3275.94156	5219907.	0.00400086	-0.00400086	6.37500000	Y
0.00063448	3279.95651	5169497.	0.00404483	-0.00404483	6.37500000	Y
0.00064138	3283.62550	5119631.	0.00408879	-0.00408879	6.37500000	Y
0.00064828	3287.16510	5070627.	0.00413276	-0.00413276	6.37500000	Y
0.00065517	3290.70470	5022654.	0.00417672	-0.00417672	6.37500000	Y
0.00066207	3294.24430	4975681.	0.00422069	-0.00422069	6.37500000	Y
0.00066897	3297.36801	4929055.	0.00426466	-0.00426466	6.37500000	Y
0.00067586	3300.47512	4883356.	0.00430862	-0.00430862	6.37500000	Y
0.00068276	3303.58222	4838580.	0.00435259	-0.00435259	6.37500000	Y
0.00068966	3306.68932	4794699.	0.00439655	-0.00439655	6.37500000	Y
0.00069655	3309.45299	4751195.	0.00444052	-0.00444052	6.37500000	Y
0.00070345	3312.16753	4708473.	0.00448448	-0.00448448	6.37500000	Y
0.00071034	3314.88207	4666581.	0.00452845	-0.00452845	6.37500000	Y
0.00071724	3317.59661	4625495.	0.00457241	-0.00457241	6.37500000	Y
0.00072414	3320.16018	4584983.	0.00461638	-0.00461638	6.37500000	Y
0.00073103	3322.51936	4544956.	0.00466034	-0.00466034	6.37500000	Y
0.00073793	3324.87855	4505676.	0.00470431	-0.00470431	6.37500000	Y
0.00074483	3327.23773	4467125.	0.00474828	-0.00474828	6.37500000	Y
0.00075172	3329.59692	4429280.	0.00479224	-0.00479224	6.37500000	Y
0.00075862	3331.77625	4391887.	0.00483621	-0.00483621	6.37500000	Y
0.00076552	3333.81477	4354983.	0.00488017	-0.00488017	6.37500000	Y
0.00077241	3335.85329	4318739.	0.00492414	-0.00492414	6.37500000	Y
0.00077931	3337.89181	4283135.	0.00496810	-0.00496810	6.37500000	Y
0.00078621	3339.93034	4248157.	0.00501207	-0.00501207	6.37500000	Y
0.00079310	3341.90473	4213706.	0.00505603	-0.00505603	6.37500000	Y
0.00080000	3343.65491	4179569.	0.00510000	-0.00510000	6.37500000	Y
0.00080690	3345.40509	4146015.	0.00514397	-0.00514397	6.37500000	Y
0.00081379	3347.15527	4113030.	0.00518793	-0.00518793	6.37500000	Y
0.00082069	3348.90545	4080599.	0.00523190	-0.00523190	6.37500000	Y
0.00082759	3350.65562	4048709.	0.00527586	-0.00527586	6.37500000	Y
0.00083448	3352.31894	4017242.	0.00531983	-0.00531983	6.37500000	Y
0.00084138	3353.81088	3986087.	0.00536379	-0.00536379	6.37500000	Y
0.00084828	3355.30282	3955438.	0.00540776	-0.00540776	6.37500000	Y

0.00085517	3356.79477	3925284.	0.00545172	-0.00545172	6.37500000	Y
0.00086207	3358.28671	3895612.	0.00549569	-0.00549569	6.37500000	Y
0.00086897	3359.77865	3866412.	0.00553966	-0.00553966	6.37500000	Y
0.00087586	3361.27059	3837671.	0.00558362	-0.00558362	6.37500000	Y
0.00088276	3362.57513	3809167.	0.00562759	-0.00562759	6.37500000	Y
0.00088966	3363.83685	3781057.	0.00567155	-0.00567155	6.37500000	Y
0.00089655	3365.09857	3753379.	0.00571552	-0.00571552	6.37500000	Y
0.00090345	3366.36028	3726124.	0.00575948	-0.00575948	6.37500000	Y
0.00091034	3367.62200	3699282.	0.00580345	-0.00580345	6.37500000	Y
0.00091724	3368.88372	3672843.	0.00584741	-0.00584741	6.37500000	Y
0.00092414	3370.14544	3646799.	0.00589138	-0.00589138	6.37500000	Y
0.00093103	3371.29563	3621021.	0.00593534	-0.00593534	6.37500000	Y
0.00093793	3372.35316	3595523.	0.00597931	-0.00597931	6.37500000	Y
0.00094483	3373.41069	3570398.	0.00602328	-0.00602328	6.37500000	Y
0.00095172	3374.46823	3545637.	0.00606724	-0.00606724	6.37500000	Y
0.00095862	3375.52576	3521232.	0.00611121	-0.00611121	6.37500000	Y
0.00096552	3376.58329	3497175.	0.00615517	-0.00615517	6.37500000	Y
0.00097241	3377.64083	3473460.	0.00619914	-0.00619914	6.37500000	Y
0.00097931	3378.69836	3450079.	0.00624310	-0.00624310	6.37500000	Y

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Load	Axial Thrust	Interp. Mom. Cap.
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1	0.000 kips	3378.7 in-kip

Please note that the values in the above table are not factored by a strength reduction factor for LRFD.

The value of the strength reduction factor depends on the provisions of the LRFD code being used.

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to the LRFD structural design standard being followed.

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 1

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
Specified shear force at pile head = 10000.000 lbs
Specified moment at pile head = 0.000 in-lbs
Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L

in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.123941	4.88E-08	10000.	-0.002585	1.11E-09	8.10E+09	0.000	0.000
4.800	0.111534	48000.	10000.	-0.002571	1095.439	8.10E+09	0.000	0.000
9.600	0.099263	96000.	10000.	-0.002528	2190.878	8.10E+09	0.000	0.000
14.400	0.087266	1.44E+05	9916.900	-0.002457	3286.318	8.10E+09	-34.625	1904.537
19.200	0.075678	1.91E+05	9539.780	-0.002358	4363.551	8.10E+09	-122.508	7770.300
24.000	0.064633	2.36E+05	8712.039	-0.002231	5376.368	8.10E+09	-222.384	16515.
28.800	0.054259	2.75E+05	7415.998	-0.002080	6272.253	8.10E+09	-317.633	28099.
33.600	0.044667	3.07E+05	5712.876	-0.001908	7001.123	8.10E+09	-392.001	42126.
38.400	0.035946	3.30E+05	3733.701	-0.001719	7523.874	8.10E+09	-432.655	57773.
43.200	0.028164	3.43E+05	1657.793	-0.001520	7819.131	8.10E+09	-432.306	73678.
48.000	0.021356	3.46E+05	-426.931	-0.001316	7887.077	8.10E+09	-436.329	98071.
52.800	0.015530	3.39E+05	-2498.546	-0.001113	7725.596	8.10E+09	-426.844	1.32E+05
57.600	0.010668	3.22E+05	-4390.852	-0.000918	7339.676	8.10E+09	-361.617	1.63E+05
62.400	0.006720	2.96E+05	-5892.503	-0.000735	6763.614	8.10E+09	-264.072	1.89E+05
67.200	0.003615	2.65E+05	-6906.921	-0.000568	6048.700	8.10E+09	-158.603	2.11E+05
72.000	0.001264	2.30E+05	-7433.050	-0.000422	5250.391	8.10E+09	-60.618	2.30E+05
76.800	-0.000433	1.94E+05	-7524.637	-0.000296	4420.209	8.10E+09	22.457	2.49E+05
81.600	-0.001579	1.58E+05	-7259.868	-0.000192	3601.835	8.10E+09	87.864	2.67E+05
86.400	-0.002277	1.24E+05	-6724.291	-0.000109	2829.660	8.10E+09	135.293	2.85E+05
91.200	-0.002621	93272.	-6001.728	-4.42E-05	2128.624	8.10E+09	165.775	3.04E+05
96.000	-0.002701	66374.	-5169.078	3.12E-06	1514.755	8.10E+09	181.162	3.22E+05
100.800	-0.002591	43649.	-4293.138	3.57E-05	996.142	8.10E+09	183.813	3.40E+05
105.600	-0.002358	25159.	-3428.733	5.61E-05	574.180	8.10E+09	176.356	3.59E+05
110.400	-0.002053	10733.	-2617.953	6.67E-05	244.948	8.10E+09	161.469	3.78E+05
115.200	-0.001717	27.097	-1890.344	6.99E-05	0.618403	8.10E+09	141.702	3.96E+05
120.000	-0.001382	-7414.147	-1263.865	6.77E-05	169.203	8.10E+09	119.331	4.15E+05
124.800	-0.001067	-12106.	-746.424	6.19E-05	276.279	8.10E+09	96.270	4.33E+05
129.600	-0.000787	-14580.	-337.726	5.40E-05	332.735	8.10E+09	74.021	4.52E+05
134.400	-0.000548	-15348.	-31.254	4.52E-05	350.271	8.10E+09	53.676	4.70E+05
139.200	-0.000353	-14880.	183.814	3.62E-05	339.583	8.10E+09	35.936	4.88E+05
144.000	-0.000200	-13584.	320.862	2.78E-05	309.999	8.10E+09	21.167	5.07E+05
148.800	-8.64E-05	-11800.	394.348	2.03E-05	269.286	8.10E+09	9.452	5.25E+05
153.600	-5.85E-06	-9797.826	418.623	1.39E-05	223.603	8.10E+09	0.662637	5.44E+05
158.400	4.68E-05	-7780.802	407.057	8.66E-06	177.571	8.10E+09	-5.482	5.62E+05
163.200	7.73E-05	-5890.077	371.452	4.61E-06	134.421	8.10E+09	-9.354	5.81E+05
168.000	9.11E-05	-4214.866	321.714	1.62E-06	96.190	8.10E+09	-11.370	5.99E+05
172.800	9.29E-05	-2801.618	265.747	-4.58E-07	63.938	8.10E+09	-11.950	6.17E+05
177.600	8.67E-05	-1663.692	209.497	-1.78E-06	37.968	8.10E+09	-11.488	6.36E+05
182.400	7.58E-05	-790.443	157.127	-2.51E-06	18.039	8.10E+09	-10.333	6.54E+05
187.200	6.26E-05	-155.272	111.256	-2.79E-06	3.544	8.10E+09	-8.780	6.73E+05
192.000	4.90E-05	277.610	73.235	-2.75E-06	6.336	8.10E+09	-7.062	6.91E+05
196.800	3.62E-05	547.786	43.432	-2.51E-06	12.501	8.10E+09	-5.356	7.10E+05
201.600	2.50E-05	694.557	21.485	-2.14E-06	15.851	8.10E+09	-3.788	7.28E+05
206.400	1.57E-05	754.045	1.577	-1.71E-06	17.209	8.10E+09	-4.507	1.38E+06
211.200	8.56E-06	709.697	-15.140	-1.28E-06	16.196	8.10E+09	-2.459	1.38E+06
216.000	3.45E-06	608.704	-23.416	-8.85E-07	13.892	8.10E+09	-0.989900	1.38E+06
220.800	6.35E-08	484.903	-25.836	-5.61E-07	11.066	8.10E+09	-0.018224	1.38E+06
225.600	-1.94E-06	360.682	-24.541	-3.11E-07	8.231	8.10E+09	0.557521	1.38E+06
230.400	-2.92E-06	249.306	-21.190	-1.30E-07	5.690	8.10E+09	0.838763	1.38E+06
235.200	-3.19E-06	157.255	-16.978	-9.78E-09	3.589	8.10E+09	0.916443	1.38E+06
240.000	-3.02E-06	86.320	-12.701	6.24E-08	1.970	8.10E+09	0.865721	1.38E+06
244.800	-2.59E-06	35.330	-8.836	9.84E-08	0.806295	8.10E+09	0.744518	1.38E+06

249.600	-2.07E-06	1.494	-5.622	1.09E-07	0.034106	8.10E+09	0.594467	1.38E+06
254.400	-1.54E-06	-18.645	-3.132	1.04E-07	0.425505	8.10E+09	0.443196	1.38E+06
259.200	-1.07E-06	-28.573	-1.331	9.03E-08	0.652080	8.10E+09	0.307148	1.38E+06
264.000	-6.77E-07	-31.424	-0.127399	7.25E-08	0.717153	8.10E+09	0.194431	1.38E+06
268.800	-3.74E-07	-29.796	0.596928	5.43E-08	0.679991	8.10E+09	0.107372	1.38E+06
273.600	-1.55E-07	-25.694	0.961763	3.79E-08	0.586373	8.10E+09	0.044642	1.38E+06
278.400	-1.01E-08	-20.563	1.076	2.42E-08	0.469281	8.10E+09	0.002891	1.38E+06
283.200	7.69E-08	-15.366	1.030	1.36E-08	0.350669	8.10E+09	-0.022069	1.38E+06
288.000	1.20E-07	-10.677	0.894090	5.85E-09	0.243661	8.10E+09	-0.034484	1.38E+06
292.800	1.33E-07	-6.782	0.719697	6.73E-10	0.154784	8.10E+09	-0.038180	1.38E+06
297.600	1.27E-07	-3.768	0.540851	-2.45E-09	0.085984	8.10E+09	-0.036339	1.38E+06
302.400	1.09E-07	-1.590	0.378226	-4.04E-09	0.036291	8.10E+09	-0.031421	1.38E+06
307.200	8.78E-08	-0.136670	0.242322	-4.55E-09	0.003119	8.10E+09	-0.025205	1.38E+06
312.000	6.58E-08	0.736107	0.136522	-4.37E-09	0.016799	8.10E+09	-0.018878	1.38E+06
316.800	4.58E-08	1.174	0.059652	-3.81E-09	0.026791	8.10E+09	-0.013151	1.38E+06
321.600	2.92E-08	1.309	0.007969	-3.07E-09	0.029868	8.10E+09	-0.008383	1.38E+06
326.400	1.63E-08	1.250	-0.023393	-2.31E-09	0.028537	8.10E+09	-0.004684	1.38E+06
331.200	6.99E-09	1.084	-0.039448	-1.62E-09	0.024743	8.10E+09	-0.002006	1.38E+06
336.000	7.40E-10	0.871740	-0.044771	-1.04E-09	0.019895	8.10E+09	-0.000212	1.38E+06
340.800	-3.03E-09	0.654392	-0.043196	-5.91E-10	0.014934	8.10E+09	0.000869	1.38E+06
345.600	-4.93E-09	0.457062	-0.037712	-2.62E-10	0.010431	8.10E+09	0.001416	1.38E+06
350.400	-5.54E-09	0.292353	-0.030499	-3.95E-11	0.006672	8.10E+09	0.001590	1.38E+06
355.200	-5.31E-09	0.164269	-0.023025	9.58E-11	0.003749	8.10E+09	0.001525	1.38E+06
360.000	-4.62E-09	0.071315	-0.016184	1.66E-10	0.001628	8.10E+09	0.001326	1.38E+06
364.800	-3.72E-09	0.008904	-0.010438	1.89E-10	0.000203	8.10E+09	0.001068	1.38E+06
369.600	-2.80E-09	-0.028892	-0.005945	1.83E-10	0.000659	8.10E+09	0.000804	1.38E+06
374.400	-1.96E-09	-0.048167	-0.002665	1.61E-10	0.001099	8.10E+09	0.000563	1.38E+06
379.200	-1.26E-09	-0.054473	-0.000447	1.30E-10	0.001243	8.10E+09	0.000361	1.38E+06
384.000	-7.11E-10	-0.052455	0.000910	9.85E-11	0.001197	8.10E+09	0.000204	1.38E+06
388.800	-3.13E-10	-0.045735	0.001616	6.94E-11	0.001044	8.10E+09	8.98E-05	1.38E+06
393.600	-4.47E-11	-0.036945	0.001862	4.49E-11	0.000843	8.10E+09	1.28E-05	1.38E+06
398.400	1.18E-10	-0.027861	0.001811	2.57E-11	0.000636	8.10E+09	-3.40E-05	1.38E+06
403.200	2.02E-10	-0.019559	0.001590	1.17E-11	0.000446	8.10E+09	-5.81E-05	1.38E+06
408.000	2.30E-10	-0.012595	0.001292	2.14E-12	0.000287	8.10E+09	-6.61E-05	1.38E+06
412.800	2.23E-10	-0.007155	0.000980	-3.71E-12	0.000163	8.10E+09	-6.39E-05	1.38E+06
417.600	1.95E-10	-0.003188	0.000692	-6.78E-12	7.28E-05	8.10E+09	-5.59E-05	1.38E+06
422.400	1.58E-10	-0.000509	0.000449	-7.87E-12	1.16E-05	8.10E+09	-4.53E-05	1.38E+06
427.200	1.19E-10	0.001126	0.000259	-7.69E-12	2.57E-05	8.10E+09	-3.42E-05	1.38E+06
432.000	8.39E-11	0.001973	0.000119	-6.77E-12	4.50E-05	8.10E+09	-2.41E-05	1.38E+06
436.800	5.42E-11	0.002266	2.36E-05	-5.51E-12	5.17E-05	8.10E+09	-1.56E-05	1.38E+06
441.600	3.09E-11	0.002200	-3.51E-05	-4.19E-12	5.02E-05	8.10E+09	-8.89E-06	1.38E+06
446.400	1.40E-11	0.001929	-6.61E-05	-2.97E-12	4.40E-05	8.10E+09	-4.01E-06	1.38E+06
451.200	2.46E-12	0.001565	-7.74E-05	-1.93E-12	3.57E-05	8.10E+09	-7.05E-07	1.38E+06
456.000	-4.60E-12	0.001186	-7.59E-05	-1.12E-12	2.71E-05	8.10E+09	1.32E-06	1.38E+06
460.800	-8.28E-12	0.000837	-6.70E-05	-5.19E-13	1.91E-05	8.10E+09	2.38E-06	1.38E+06
465.600	-9.58E-12	0.000542	-5.47E-05	-1.10E-13	1.24E-05	8.10E+09	2.75E-06	1.38E+06
470.400	-9.34E-12	0.000311	-4.17E-05	1.42E-13	7.10E-06	8.10E+09	2.68E-06	1.38E+06
475.200	-8.21E-12	0.000142	-2.96E-05	2.77E-13	3.24E-06	8.10E+09	2.36E-06	1.38E+06
480.000	-6.68E-12	2.72E-05	-1.93E-05	3.27E-13	6.20E-07	8.10E+09	1.92E-06	1.38E+06
484.800	-5.07E-12	-4.35E-05	-1.12E-05	3.22E-13	9.94E-07	8.10E+09	1.46E-06	1.38E+06
489.600	-3.59E-12	-8.07E-05	-5.27E-06	2.85E-13	1.84E-06	8.10E+09	1.03E-06	1.38E+06
494.400	-2.33E-12	-9.42E-05	-1.19E-06	2.33E-13	2.15E-06	8.10E+09	6.70E-07	1.38E+06
499.200	-1.35E-12	-9.22E-05	1.34E-06	1.78E-13	2.10E-06	8.10E+09	3.86E-07	1.38E+06
504.000	-6.21E-13	-8.13E-05	2.70E-06	1.27E-13	1.86E-06	8.10E+09	1.78E-07	1.38E+06

508.800	-1.28E-13	-6.63E-05	3.21E-06	8.32E-14	1.51E-06	8.10E+09	3.67E-08	1.38E+06
513.600	1.77E-13	-5.05E-05	3.18E-06	4.86E-14	1.15E-06	8.10E+09	-5.08E-08	1.38E+06
518.400	3.38E-13	-3.58E-05	2.82E-06	2.30E-14	8.16E-07	8.10E+09	-9.71E-08	1.38E+06
523.200	3.98E-13	-2.33E-05	2.32E-06	5.51E-15	5.33E-07	8.10E+09	-1.14E-07	1.38E+06
528.000	3.91E-13	-1.35E-05	1.77E-06	-5.41E-15	3.09E-07	8.10E+09	-1.12E-07	1.38E+06
532.800	3.46E-13	-6.32E-06	1.27E-06	-1.13E-14	1.44E-07	8.10E+09	-9.94E-08	1.38E+06
537.600	2.83E-13	-1.39E-06	8.32E-07	-1.36E-14	3.17E-08	8.10E+09	-8.12E-08	1.38E+06
542.400	2.16E-13	1.67E-06	4.88E-07	-1.35E-14	3.81E-08	8.10E+09	-6.19E-08	1.38E+06
547.200	1.53E-13	3.30E-06	2.34E-07	-1.20E-14	7.52E-08	8.10E+09	-4.40E-08	1.38E+06
552.000	1.00E-13	3.91E-06	5.89E-08	-9.88E-15	8.93E-08	8.10E+09	-2.88E-08	1.38E+06
556.800	5.85E-14	3.86E-06	-5.06E-08	-7.58E-15	8.81E-08	8.10E+09	-1.68E-08	1.38E+06
561.600	2.76E-14	3.43E-06	-1.10E-07	-5.42E-15	7.82E-08	8.10E+09	-7.92E-09	1.38E+06
566.400	6.44E-15	2.81E-06	-1.33E-07	-3.58E-15	6.41E-08	8.10E+09	-1.85E-09	1.38E+06
571.200	-6.74E-15	2.15E-06	-1.33E-07	-2.11E-15	4.90E-08	8.10E+09	1.93E-09	1.38E+06
576.000	-1.38E-14	1.53E-06	-1.19E-07	-1.02E-15	3.49E-08	8.10E+09	3.96E-09	1.38E+06
580.800	-1.65E-14	1.00E-06	-9.81E-08	-2.69E-16	2.29E-08	8.10E+09	4.74E-09	1.38E+06
585.600	-1.64E-14	5.88E-07	-7.54E-08	2.02E-16	1.34E-08	8.10E+09	4.71E-09	1.38E+06
590.400	-1.46E-14	2.80E-07	-5.41E-08	4.60E-16	6.39E-09	8.10E+09	4.19E-09	1.38E+06
595.200	-1.20E-14	6.89E-08	-3.58E-08	5.63E-16	1.57E-09	8.10E+09	3.44E-09	1.38E+06
600.000	-9.18E-15	-6.31E-08	-2.12E-08	5.65E-16	1.44E-09	8.10E+09	2.63E-09	1.38E+06
604.800	-6.56E-15	-1.34E-07	-1.03E-08	5.06E-16	3.07E-09	8.10E+09	1.88E-09	1.38E+06
609.600	-4.32E-15	-1.62E-07	-2.85E-09	4.18E-16	3.70E-09	8.10E+09	1.24E-09	1.38E+06
614.400	-2.54E-15	-1.62E-07	1.88E-09	3.22E-16	3.69E-09	8.10E+09	7.29E-10	1.38E+06
619.200	-1.22E-15	-1.44E-07	4.47E-09	2.32E-16	3.29E-09	8.10E+09	3.51E-10	1.38E+06
624.000	-3.16E-16	-1.19E-07	5.53E-09	1.54E-16	2.71E-09	8.10E+09	9.06E-11	1.38E+06
628.800	2.53E-16	-9.13E-08	5.57E-09	9.14E-17	2.08E-09	8.10E+09	-7.26E-11	1.38E+06
633.600	5.62E-16	-6.53E-08	5.01E-09	4.51E-17	1.49E-09	8.10E+09	-1.61E-10	1.38E+06
638.400	6.86E-16	-4.32E-08	4.15E-09	1.29E-17	9.85E-10	8.10E+09	-1.97E-10	1.38E+06
643.200	6.86E-16	-2.55E-08	3.20E-09	-7.44E-18	5.82E-10	8.10E+09	-1.97E-10	1.38E+06
648.000	6.14E-16	-1.24E-08	2.31E-09	-1.87E-17	2.83E-10	8.10E+09	-1.76E-10	1.38E+06
652.800	5.07E-16	-3.35E-09	1.54E-09	-2.33E-17	7.64E-11	8.10E+09	-1.46E-10	1.38E+06
657.600	3.90E-16	2.35E-09	9.18E-10	-2.36E-17	5.36E-11	8.10E+09	-1.12E-10	1.38E+06
662.400	2.80E-16	5.47E-09	4.56E-10	-2.13E-17	1.25E-10	8.10E+09	-8.04E-11	1.38E+06
667.200	1.86E-16	6.73E-09	1.36E-10	-1.77E-17	1.54E-10	8.10E+09	-5.33E-11	1.38E+06
672.000	1.10E-16	6.77E-09	-6.82E-11	-1.37E-17	1.54E-10	8.10E+09	-3.16E-11	1.38E+06
676.800	5.40E-17	6.08E-09	-1.81E-10	-9.89E-18	1.39E-10	8.10E+09	-1.55E-11	1.38E+06
681.600	1.52E-17	5.03E-09	-2.29E-10	-6.60E-18	1.15E-10	8.10E+09	-4.36E-12	1.38E+06
686.400	-9.34E-18	3.88E-09	-2.33E-10	-3.96E-18	8.85E-11	8.10E+09	2.68E-12	1.38E+06
691.200	-2.28E-17	2.79E-09	-2.11E-10	-1.99E-18	6.37E-11	8.10E+09	6.56E-12	1.38E+06
696.000	-2.84E-17	1.85E-09	-1.76E-10	-6.11E-19	4.23E-11	8.10E+09	8.16E-12	1.38E+06
700.800	-2.87E-17	1.11E-09	-1.36E-10	2.67E-19	2.52E-11	8.10E+09	8.24E-12	1.38E+06
705.600	-2.59E-17	5.48E-10	-9.86E-11	7.57E-19	1.25E-11	8.10E+09	7.42E-12	1.38E+06
710.400	-2.14E-17	1.60E-10	-6.60E-11	9.66E-19	3.65E-12	8.10E+09	6.16E-12	1.38E+06
715.200	-1.66E-17	-8.59E-11	-3.98E-11	9.88E-19	1.96E-12	8.10E+09	4.76E-12	1.38E+06
720.000	-1.20E-17	-2.22E-10	-2.01E-11	8.97E-19	5.07E-12	8.10E+09	3.43E-12	1.38E+06
724.800	-7.97E-18	-2.79E-10	-6.38E-12	7.49E-19	6.37E-12	8.10E+09	2.29E-12	1.38E+06
729.600	-4.78E-18	-2.83E-10	2.41E-12	5.82E-19	6.46E-12	8.10E+09	1.37E-12	1.38E+06
734.400	-2.38E-18	-2.56E-10	7.34E-12	4.22E-19	5.84E-12	8.10E+09	6.85E-13	1.38E+06
739.200	-7.21E-19	-2.13E-10	9.48E-12	2.83E-19	4.85E-12	8.10E+09	2.07E-13	1.38E+06
744.000	3.37E-19	-1.65E-10	9.74E-12	1.72E-19	3.76E-12	8.10E+09	-9.68E-14	1.38E+06
748.800	9.27E-19	-1.19E-10	8.87E-12	8.75E-20	2.72E-12	8.10E+09	-2.66E-13	1.38E+06
753.600	1.18E-18	-7.97E-11	7.42E-12	2.86E-20	1.82E-12	8.10E+09	-3.38E-13	1.38E+06
758.400	1.20E-18	-4.79E-11	5.78E-12	-9.24E-21	1.09E-12	8.10E+09	-3.45E-13	1.38E+06
763.200	1.09E-18	-2.41E-11	4.21E-12	-3.06E-20	5.51E-13	8.10E+09	-3.12E-13	1.38E+06

768.000	9.07E-19	-7.54E-12	2.83E-12	-4.00E-20	1.72E-13	8.10E+09	-2.60E-13	1.38E+06
772.800	7.05E-19	3.05E-12	1.72E-12	-4.13E-20	6.97E-14	8.10E+09	-2.02E-13	1.38E+06
777.600	5.11E-19	8.99E-12	8.85E-13	-3.77E-20	2.05E-13	8.10E+09	-1.47E-13	1.38E+06
782.400	3.42E-19	1.15E-11	2.97E-13	-3.16E-20	2.64E-13	8.10E+09	-9.83E-14	1.38E+06
787.200	2.07E-19	1.18E-11	-8.14E-14	-2.47E-20	2.70E-13	8.10E+09	-5.94E-14	1.38E+06
792.000	1.05E-19	1.08E-11	-2.96E-13	-1.80E-20	2.46E-13	8.10E+09	-3.01E-14	1.38E+06
796.800	3.38E-20	9.00E-12	-3.92E-13	-1.22E-20	2.05E-13	8.10E+09	-9.71E-15	1.38E+06
801.600	-1.18E-20	7.00E-12	-4.07E-13	-7.43E-21	1.60E-13	8.10E+09	3.38E-15	1.38E+06
806.400	-3.75E-20	5.09E-12	-3.73E-13	-3.85E-21	1.16E-13	8.10E+09	1.08E-14	1.38E+06
811.200	-4.87E-20	3.42E-12	-3.14E-13	-1.32E-21	7.81E-14	8.10E+09	1.40E-14	1.38E+06
816.000	-5.02E-20	2.08E-12	-2.46E-13	3.04E-22	4.74E-14	8.10E+09	1.44E-14	1.38E+06
820.800	-4.58E-20	1.06E-12	-1.80E-13	1.23E-21	2.42E-14	8.10E+09	1.31E-14	1.38E+06
825.600	-3.84E-20	3.52E-13	-1.22E-13	1.65E-21	8.03E-15	8.10E+09	1.10E-14	1.38E+06
830.400	-2.99E-20	-1.05E-13	-7.45E-14	1.73E-21	2.39E-15	8.10E+09	8.59E-15	1.38E+06
835.200	-2.18E-20	-3.63E-13	-3.89E-14	1.59E-21	8.29E-15	8.10E+09	6.26E-15	1.38E+06
840.000	-1.47E-20	-4.78E-13	-1.37E-14	1.34E-21	1.09E-14	8.10E+09	4.22E-15	1.38E+06
844.800	-8.95E-21	-4.95E-13	2.58E-15	1.05E-21	1.13E-14	8.10E+09	2.57E-15	1.38E+06
849.600	-4.62E-21	-4.53E-13	1.19E-14	7.69E-22	1.03E-14	8.10E+09	1.33E-15	1.38E+06
854.400	-1.57E-21	-3.80E-13	1.62E-14	5.22E-22	8.68E-15	8.10E+09	4.51E-16	1.38E+06
859.200	3.94E-22	-2.97E-13	1.70E-14	3.21E-22	6.79E-15	8.10E+09	-1.13E-16	1.38E+06
864.000	1.51E-21	-2.17E-13	1.57E-14	1.69E-22	4.95E-15	8.10E+09	-4.34E-16	1.38E+06
868.800	2.01E-21	-1.47E-13	1.33E-14	6.10E-23	3.35E-15	8.10E+09	-5.78E-16	1.38E+06
873.600	2.10E-21	-8.98E-14	1.04E-14	-9.14E-24	2.05E-15	8.10E+09	-6.02E-16	1.38E+06
878.400	1.93E-21	-4.67E-14	7.66E-15	-4.96E-23	1.07E-15	8.10E+09	-5.53E-16	1.38E+06
883.200	1.62E-21	-1.63E-14	5.21E-15	-6.82E-23	3.72E-16	8.10E+09	-4.66E-16	1.38E+06
888.000	1.27E-21	3.35E-15	3.22E-15	-7.21E-23	7.66E-17	8.10E+09	-3.65E-16	1.38E+06
892.800	9.30E-22	1.46E-14	1.70E-15	-6.68E-23	3.33E-16	8.10E+09	-2.67E-16	1.38E+06
897.600	6.30E-22	1.97E-14	6.28E-16	-5.66E-23	4.50E-16	8.10E+09	-1.81E-16	1.38E+06
902.400	3.86E-22	2.06E-14	-7.21E-17	-4.46E-23	4.71E-16	8.10E+09	-1.11E-16	1.38E+06
907.200	2.02E-22	1.90E-14	-4.77E-16	-3.29E-23	4.34E-16	8.10E+09	-5.79E-17	1.38E+06
912.000	7.07E-23	1.61E-14	-6.65E-16	-2.25E-23	3.66E-16	8.10E+09	-2.03E-17	1.38E+06
916.800	-1.45E-23	1.26E-14	-7.03E-16	-1.40E-23	2.88E-16	8.10E+09	4.17E-18	1.38E+06
921.600	-6.38E-23	9.30E-15	-6.49E-16	-7.51E-24	2.12E-16	8.10E+09	1.83E-17	1.38E+06
926.400	-8.66E-23	6.39E-15	-5.46E-16	-2.86E-24	1.46E-16	8.10E+09	2.49E-17	1.38E+06
931.200	-9.12E-23	4.06E-15	-4.23E-16	2.39E-25	9.27E-17	8.10E+09	2.62E-17	1.38E+06
936.000	-8.43E-23	2.33E-15	-3.02E-16	2.13E-24	5.32E-17	8.10E+09	2.42E-17	1.38E+06
940.800	-7.08E-23	1.16E-15	-1.95E-16	3.17E-24	2.65E-17	8.10E+09	2.03E-17	1.38E+06
945.600	-5.39E-23	4.55E-16	-1.10E-16	3.64E-24	1.04E-17	8.10E+09	1.55E-17	1.38E+06
950.400	-3.58E-23	1.07E-16	-4.78E-17	3.81E-24	2.45E-18	8.10E+09	1.03E-17	1.38E+06
955.200	-1.73E-23	-3.67E-18	-1.12E-17	3.84E-24	8.38E-20	8.10E+09	4.97E-18	1.38E+06
960.000	1.11E-24	0.000	0.000	3.84E-24	0.000	8.10E+09	-3.19E-19	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.12394088 in
 Computed slope at pile head = -0.00258481
 Maximum bending moment = 345596.24051 lbs-in
 Maximum shear force = 10000.00000 lbs
 Depth of maximum bending moment = 48.00000000 in
 Depth of maximum shear force = 4.80000000 in
 Number of iterations = 13
 Number of zero deflection points = 16

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 20000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.426219	-1.76E-07	20000.	-0.007496	4.01E-09	8.10E+09	0.000	0.000
4.800	0.390239	96000.	20000.	-0.007468	2190.878	8.10E+09	0.000	0.000
9.600	0.354531	1.92E+05	20000.	-0.007382	4381.757	8.10E+09	0.000	0.000
14.400	0.319369	2.88E+05	19917.	-0.007240	6572.635	8.10E+09	-34.627	520.435
19.200	0.285026	3.83E+05	19539.	-0.007041	8745.307	8.10E+09	-122.701	2066.351
24.000	0.251773	4.76E+05	18707.	-0.006787	10853.	8.10E+09	-224.127	4272.928
28.800	0.219873	5.63E+05	17389.	-0.006479	12844.	8.10E+09	-324.817	7091.025
33.600	0.189573	6.43E+05	15624.	-0.006122	14663.	8.10E+09	-410.685	10399.
38.400	0.161100	7.13E+05	13516.	-0.005721	16267.	8.10E+09	-467.640	13933.
43.200	0.134655	7.72E+05	11238.	-0.005281	17625.	8.10E+09	-481.597	17167.
48.000	0.110406	8.21E+05	8804.466	-0.004809	18729.	8.10E+09	-532.417	23147.
52.800	0.088491	8.57E+05	5935.854	-0.004312	19553.	8.10E+09	-662.838	35954.
57.600	0.069012	8.78E+05	2414.104	-0.003798	20029.	8.10E+09	-804.558	55959.
62.400	0.052030	8.80E+05	-1776.638	-0.003277	20082.	8.10E+09	-941.584	86866.
67.200	0.037550	8.61E+05	-6488.281	-0.002762	19640.	8.10E+09	-1021.600	1.31E+05
72.000	0.025518	8.18E+05	-11256.	-0.002264	18661.	8.10E+09	-964.845	1.81E+05
76.800	0.015811	7.53E+05	-15369.	-0.001799	17174.	8.10E+09	-749.020	2.27E+05
81.600	0.008244	6.70E+05	-18244.	-0.001378	15294.	8.10E+09	-448.692	2.61E+05
86.400	0.002583	5.77E+05	-19689.	-0.001008	13177.	8.10E+09	-153.449	2.85E+05
91.200	-0.001435	4.81E+05	-19839.	-0.000695	10980.	8.10E+09	90.893	3.04E+05
96.000	-0.004086	3.87E+05	-18964.	-0.000438	8830.837	8.10E+09	273.435	3.21E+05
100.800	-0.005636	2.99E+05	-17354.	-0.000234	6825.287	8.10E+09	397.531	3.39E+05
105.600	-0.006335	2.20E+05	-15271.	-8.04E-05	5028.764	8.10E+09	470.515	3.57E+05
110.400	-0.006408	1.52E+05	-12940.	3.00E-05	3479.642	8.10E+09	500.576	3.75E+05
115.200	-0.006047	96125.	-10548.	0.000104	2193.729	8.10E+09	496.106	3.94E+05
120.000	-0.005412	51209.	-8240.346	0.000147	1168.674	8.10E+09	465.474	4.13E+05
124.800	-0.004632	17018.	-6123.077	0.000168	388.369	8.10E+09	416.722	4.32E+05

129.600	-0.003804	-7572.546	-4265.701	0.000170	172.818	8.10E+09	357.185	4.51E+05
134.400	-0.002997	-23933.	-2704.877	0.000161	546.194	8.10E+09	293.158	4.69E+05
139.200	-0.002258	-33539.	-1450.051	0.000144	765.424	8.10E+09	229.686	4.88E+05
144.000	-0.001615	-37854.	-489.584	0.000123	863.882	8.10E+09	170.508	5.07E+05
148.800	-0.001079	-38239.	203.116	0.000100	872.686	8.10E+09	118.116	5.25E+05
153.600	-0.000652	-35904.	663.970	7.83E-05	819.382	8.10E+09	73.906	5.44E+05
158.400	-0.000328	-31865.	933.427	5.82E-05	727.218	8.10E+09	38.367	5.62E+05
163.200	-9.34E-05	-26943.	1052.612	4.08E-05	614.879	8.10E+09	11.293	5.81E+05
168.000	6.42E-05	-21760.	1060.474	2.64E-05	496.603	8.10E+09	-8.017	5.99E+05
172.800	0.000160	-16762.	991.847	1.50E-05	382.542	8.10E+09	-20.578	6.17E+05
177.600	0.000208	-12238.	876.323	6.38E-06	279.302	8.10E+09	-27.557	6.36E+05
182.400	0.000221	-8349.557	737.799	2.85E-07	190.551	8.10E+09	-30.161	6.54E+05
187.200	0.000211	-5155.580	594.519	-3.72E-06	117.659	8.10E+09	-29.539	6.73E+05
192.000	0.000186	-2642.178	459.487	-6.03E-06	60.299	8.10E+09	-26.724	6.91E+05
196.800	0.000153	-744.506	341.095	-7.03E-06	16.991	8.10E+09	-22.606	7.10E+05
201.600	0.000118	632.330	243.845	-7.06E-06	14.431	8.10E+09	-17.915	7.28E+05
206.400	8.51E-05	1596.405	142.203	-6.40E-06	36.433	8.10E+09	-24.436	1.38E+06
211.200	5.67E-05	1997.475	44.519	-5.34E-06	45.586	8.10E+09	-16.266	1.38E+06
216.000	3.39E-05	2023.788	-17.861	-4.15E-06	46.186	8.10E+09	-9.726	1.38E+06
220.800	1.69E-05	1826.014	-52.816	-3.01E-06	41.673	8.10E+09	-4.839	1.38E+06
225.600	5.03E-06	1516.751	-67.892	-2.01E-06	34.615	8.10E+09	-1.443	1.38E+06
230.400	-2.49E-06	1174.246	-69.640	-1.22E-06	26.798	8.10E+09	0.714827	1.38E+06
235.200	-6.67E-06	848.210	-63.331	-6.19E-07	19.358	8.10E+09	1.914	1.38E+06
240.000	-8.43E-06	566.266	-52.931	-2.00E-07	12.923	8.10E+09	2.420	1.38E+06
244.800	-8.58E-06	340.077	-41.209	6.89E-08	7.761	8.10E+09	2.464	1.38E+06
249.600	-7.77E-06	170.656	-29.944	2.20E-07	3.895	8.10E+09	2.230	1.38E+06
254.400	-6.47E-06	52.617	-20.135	2.86E-07	1.201	8.10E+09	1.857	1.38E+06
259.200	-5.02E-06	-22.637	-12.220	2.95E-07	0.516619	8.10E+09	1.441	1.38E+06
264.000	-3.63E-06	-64.693	-6.258	2.69E-07	1.476	8.10E+09	1.043	1.38E+06
268.800	-2.43E-06	-82.710	-2.077	2.26E-07	1.888	8.10E+09	0.698564	1.38E+06
273.600	-1.47E-06	-84.632	0.610745	1.76E-07	1.931	8.10E+09	0.421331	1.38E+06
278.400	-7.43E-07	-76.847	2.134	1.28E-07	1.754	8.10E+09	0.213201	1.38E+06
283.200	-2.36E-07	-64.149	2.808	8.65E-08	1.464	8.10E+09	0.067818	1.38E+06
288.000	8.77E-08	-49.889	2.910	5.27E-08	1.139	8.10E+09	-0.025186	1.38E+06
292.800	2.70E-07	-36.209	2.664	2.72E-08	0.826358	8.10E+09	-0.077455	1.38E+06
297.600	3.49E-07	-24.314	2.238	9.27E-09	0.554892	8.10E+09	-0.100159	1.38E+06
302.400	3.59E-07	-14.727	1.750	-2.29E-09	0.336090	8.10E+09	-0.103009	1.38E+06
307.200	3.27E-07	-7.513	1.278	-8.88E-09	0.171451	8.10E+09	-0.093835	1.38E+06
312.000	2.74E-07	-2.460	0.864070	-1.18E-08	0.056152	8.10E+09	-0.078527	1.38E+06
316.800	2.13E-07	0.782427	0.528702	-1.23E-08	0.017856	8.10E+09	-0.061210	1.38E+06
321.600	1.55E-07	2.615	0.274923	-1.13E-08	0.059680	8.10E+09	-0.044531	1.38E+06
326.400	1.04E-07	3.422	0.096076	-9.54E-09	0.078088	8.10E+09	-0.029988	1.38E+06
331.200	6.35E-08	3.537	-0.019669	-7.48E-09	0.080729	8.10E+09	-0.018239	1.38E+06
336.000	3.27E-08	3.233	-0.085949	-5.47E-09	0.073779	8.10E+09	-0.009378	1.38E+06
340.800	1.10E-08	2.712	-0.116032	-3.71E-09	0.061898	8.10E+09	-0.003157	1.38E+06
345.600	-2.96E-09	2.119	-0.121567	-2.28E-09	0.048358	8.10E+09	0.000850	1.38E+06
350.400	-1.09E-08	1.545	-0.112022	-1.19E-09	0.035265	8.10E+09	0.003127	1.38E+06
355.200	-1.44E-08	1.044	-0.094578	-4.27E-10	0.023815	8.10E+09	0.004142	1.38E+06
360.000	-1.50E-08	0.637278	-0.074308	7.07E-11	0.014544	8.10E+09	0.004304	1.38E+06
364.800	-1.37E-08	0.330187	-0.054505	3.57E-10	0.007535	8.10E+09	0.003947	1.38E+06
369.600	-1.16E-08	0.114032	-0.037065	4.89E-10	0.002602	8.10E+09	0.003320	1.38E+06
374.400	-9.05E-09	-0.025637	-0.022859	5.15E-10	0.000585	8.10E+09	0.002599	1.38E+06
379.200	-6.62E-09	-0.105417	-0.012061	4.76E-10	0.002406	8.10E+09	0.001900	1.38E+06
384.000	-4.48E-09	-0.141420	-0.004412	4.03E-10	0.003227	8.10E+09	0.001287	1.38E+06

388.800	-2.75E-09	-0.147776	0.000570	3.17E-10	0.003372	8.10E+09	0.000789	1.38E+06
393.600	-1.43E-09	-0.135953	0.003452	2.33E-10	0.003103	8.10E+09	0.000412	1.38E+06
398.400	-5.08E-10	-0.114641	0.004790	1.59E-10	0.002616	8.10E+09	0.000146	1.38E+06
403.200	9.33E-11	-0.089972	0.005075	9.85E-11	0.002053	8.10E+09	-2.68E-05	1.38E+06
408.000	4.38E-10	-0.065920	0.004709	5.24E-11	0.001504	8.10E+09	-0.000126	1.38E+06
412.800	5.96E-10	-0.044768	0.003996	1.96E-11	0.001022	8.10E+09	-0.000171	1.38E+06
417.600	6.26E-10	-0.027558	0.003154	-1.87E-12	0.000629	8.10E+09	-0.000180	1.38E+06
422.400	5.78E-10	-0.014490	0.002324	-1.43E-11	0.000331	8.10E+09	-0.000166	1.38E+06
427.200	4.89E-10	-0.005245	0.001589	-2.02E-11	0.000120	8.10E+09	-0.000140	1.38E+06
432.000	3.84E-10	0.000767	0.000988	-2.15E-11	1.75E-05	8.10E+09	-0.000110	1.38E+06
436.800	2.82E-10	0.004237	0.000528	-2.00E-11	9.67E-05	8.10E+09	-8.10E-05	1.38E+06
441.600	1.92E-10	0.005839	0.000201	-1.70E-11	0.000133	8.10E+09	-5.52E-05	1.38E+06
446.400	1.19E-10	0.006170	-1.29E-05	-1.35E-11	0.000141	8.10E+09	-3.41E-05	1.38E+06
451.200	6.29E-11	0.005715	-0.000138	-9.95E-12	0.000130	8.10E+09	-1.81E-05	1.38E+06
456.000	2.33E-11	0.004844	-0.000198	-6.82E-12	0.000111	8.10E+09	-6.68E-06	1.38E+06
460.800	-2.59E-12	0.003819	-0.000212	-4.26E-12	8.72E-05	8.10E+09	7.44E-07	1.38E+06
465.600	-1.76E-11	0.002811	-0.000198	-2.29E-12	6.42E-05	8.10E+09	5.05E-06	1.38E+06
470.400	-2.46E-11	0.001920	-0.000169	-8.90E-13	4.38E-05	8.10E+09	7.06E-06	1.38E+06
475.200	-2.61E-11	0.001191	-0.000134	3.12E-14	2.72E-05	8.10E+09	7.50E-06	1.38E+06
480.000	-2.43E-11	0.000635	-9.91E-05	5.72E-13	1.45E-05	8.10E+09	6.97E-06	1.38E+06
484.800	-2.06E-11	0.000240	-6.81E-05	8.31E-13	5.47E-06	8.10E+09	5.93E-06	1.38E+06
489.600	-1.63E-11	-1.89E-05	-4.27E-05	8.97E-13	4.32E-07	8.10E+09	4.68E-06	1.38E+06
494.400	-1.20E-11	-0.000170	-2.31E-05	8.41E-13	3.87E-06	8.10E+09	3.46E-06	1.38E+06
499.200	-8.24E-12	-0.000241	-9.14E-06	7.19E-13	5.50E-06	8.10E+09	2.37E-06	1.38E+06
504.000	-5.13E-12	-0.000257	7.10E-08	5.72E-13	5.88E-06	8.10E+09	1.47E-06	1.38E+06
508.800	-2.75E-12	-0.000240	5.51E-06	4.24E-13	5.48E-06	8.10E+09	7.91E-07	1.38E+06
513.600	-1.06E-12	-0.000205	8.13E-06	2.92E-13	4.67E-06	8.10E+09	3.05E-07	1.38E+06
518.400	5.17E-14	-0.000162	8.83E-06	1.84E-13	3.70E-06	8.10E+09	-1.48E-08	1.38E+06
523.200	7.03E-13	-0.000120	8.31E-06	1.00E-13	2.74E-06	8.10E+09	-2.02E-07	1.38E+06
528.000	1.01E-12	-8.23E-05	7.13E-06	4.03E-14	1.88E-06	8.10E+09	-2.91E-07	1.38E+06
532.800	1.09E-12	-5.14E-05	5.68E-06	7.15E-16	1.17E-06	8.10E+09	-3.13E-07	1.38E+06
537.600	1.02E-12	-2.78E-05	4.22E-06	-2.28E-14	6.34E-07	8.10E+09	-2.93E-07	1.38E+06
542.400	8.72E-13	-1.09E-05	2.92E-06	-3.42E-14	2.49E-07	8.10E+09	-2.50E-07	1.38E+06
547.200	6.92E-13	2.25E-07	1.84E-06	-3.74E-14	5.13E-09	8.10E+09	-1.99E-07	1.38E+06
552.000	5.13E-13	6.77E-06	1.01E-06	-3.53E-14	1.55E-07	8.10E+09	-1.47E-07	1.38E+06
556.800	3.53E-13	9.92E-06	4.13E-07	-3.04E-14	2.26E-07	8.10E+09	-1.01E-07	1.38E+06
561.600	2.22E-13	1.07E-05	1.72E-08	-2.42E-14	2.45E-07	8.10E+09	-6.36E-08	1.38E+06
566.400	1.20E-13	1.01E-05	-2.18E-07	-1.81E-14	2.30E-07	8.10E+09	-3.46E-08	1.38E+06
571.200	4.81E-14	8.64E-06	-3.35E-07	-1.25E-14	1.97E-07	8.10E+09	-1.38E-08	1.38E+06
576.000	2.73E-16	6.88E-06	-3.68E-07	-7.93E-15	1.57E-07	8.10E+09	-7.83E-11	1.38E+06
580.800	-2.80E-14	5.11E-06	-3.49E-07	-4.38E-15	1.17E-07	8.10E+09	8.04E-09	1.38E+06
585.600	-4.17E-14	3.53E-06	-3.01E-07	-1.82E-15	8.05E-08	8.10E+09	1.20E-08	1.38E+06
590.400	-4.55E-14	2.22E-06	-2.41E-07	-1.17E-16	5.07E-08	8.10E+09	1.31E-08	1.38E+06
595.200	-4.29E-14	1.21E-06	-1.80E-07	9.01E-16	2.77E-08	8.10E+09	1.23E-08	1.38E+06
600.000	-3.68E-14	4.93E-07	-1.25E-07	1.41E-15	1.13E-08	8.10E+09	1.06E-08	1.38E+06
604.800	-2.94E-14	1.50E-08	-7.94E-08	1.56E-15	3.41E-10	8.10E+09	8.43E-09	1.38E+06
609.600	-2.19E-14	-2.69E-07	-4.41E-08	1.48E-15	6.14E-09	8.10E+09	6.28E-09	1.38E+06
614.400	-1.51E-14	-4.08E-07	-1.86E-08	1.28E-15	9.32E-09	8.10E+09	4.34E-09	1.38E+06
619.200	-9.56E-15	-4.48E-07	-1.59E-09	1.03E-15	1.02E-08	8.10E+09	2.74E-09	1.38E+06
624.000	-5.26E-15	-4.24E-07	8.63E-09	7.70E-16	9.67E-09	8.10E+09	1.51E-09	1.38E+06
628.800	-2.17E-15	-3.65E-07	1.37E-08	5.36E-16	8.32E-09	8.10E+09	6.23E-10	1.38E+06
633.600	-1.16E-16	-2.92E-07	1.53E-08	3.42E-16	6.65E-09	8.10E+09	3.34E-11	1.38E+06
638.400	1.11E-15	-2.18E-07	1.46E-08	1.91E-16	4.97E-09	8.10E+09	-3.19E-10	1.38E+06
643.200	1.72E-15	-1.51E-07	1.27E-08	8.17E-17	3.45E-09	8.10E+09	-4.93E-10	1.38E+06

648.000	1.89E-15	-9.58E-08	1.02E-08	8.61E-18	2.19E-09	8.10E+09	-5.44E-10	1.38E+06
652.800	1.80E-15	-5.30E-08	7.66E-09	-3.55E-17	1.21E-09	8.10E+09	-5.17E-10	1.38E+06
657.600	1.55E-15	-2.22E-08	5.35E-09	-5.78E-17	5.07E-10	8.10E+09	-4.46E-10	1.38E+06
662.400	1.24E-15	-1.67E-09	3.42E-09	-6.48E-17	3.82E-11	8.10E+09	-3.57E-10	1.38E+06
667.200	9.31E-16	1.06E-08	1.92E-09	-6.22E-17	2.43E-10	8.10E+09	-2.67E-10	1.38E+06
672.000	6.48E-16	1.68E-08	8.34E-10	-5.41E-17	3.83E-10	8.10E+09	-1.86E-10	1.38E+06
676.800	4.12E-16	1.86E-08	1.04E-10	-4.36E-17	4.25E-10	8.10E+09	-1.18E-10	1.38E+06
681.600	2.30E-16	1.78E-08	-3.39E-10	-3.28E-17	4.06E-10	8.10E+09	-6.59E-11	1.38E+06
686.400	9.76E-17	1.54E-08	-5.64E-10	-2.30E-17	3.51E-10	8.10E+09	-2.80E-11	1.38E+06
691.200	9.36E-18	1.24E-08	-6.38E-10	-1.47E-17	2.82E-10	8.10E+09	-2.69E-12	1.38E+06
696.000	-4.38E-17	9.27E-09	-6.14E-10	-8.32E-18	2.12E-10	8.10E+09	1.26E-11	1.38E+06
700.800	-7.05E-17	6.47E-09	-5.35E-10	-3.66E-18	1.48E-10	8.10E+09	2.02E-11	1.38E+06
705.600	-7.89E-17	4.13E-09	-4.33E-10	-5.21E-19	9.42E-11	8.10E+09	2.26E-11	1.38E+06
710.400	-7.55E-17	2.31E-09	-3.26E-10	1.39E-18	5.28E-11	8.10E+09	2.17E-11	1.38E+06
715.200	-6.56E-17	9.97E-10	-2.29E-10	2.37E-18	2.28E-11	8.10E+09	1.88E-11	1.38E+06
720.000	-5.28E-17	1.15E-10	-1.47E-10	2.70E-18	2.63E-12	8.10E+09	1.52E-11	1.38E+06
724.800	-3.97E-17	-4.18E-10	-8.37E-11	2.61E-18	9.54E-12	8.10E+09	1.14E-11	1.38E+06
729.600	-2.77E-17	-6.89E-10	-3.73E-11	2.28E-18	1.57E-11	8.10E+09	7.96E-12	1.38E+06
734.400	-1.78E-17	-7.76E-10	-5.94E-12	1.85E-18	1.77E-11	8.10E+09	5.10E-12	1.38E+06
739.200	-1.00E-17	-7.46E-10	1.32E-11	1.40E-18	1.70E-11	8.10E+09	2.87E-12	1.38E+06
744.000	-4.38E-18	-6.49E-10	2.31E-11	9.82E-19	1.48E-11	8.10E+09	1.26E-12	1.38E+06
748.800	-5.85E-19	-5.24E-10	2.65E-11	6.34E-19	1.20E-11	8.10E+09	1.68E-13	1.38E+06
753.600	1.71E-18	-3.95E-10	2.58E-11	3.62E-19	9.01E-12	8.10E+09	-4.92E-13	1.38E+06
758.400	2.89E-18	-2.77E-10	2.26E-11	1.63E-19	6.31E-12	8.10E+09	-8.30E-13	1.38E+06
763.200	3.28E-18	-1.78E-10	1.83E-11	2.87E-20	4.06E-12	8.10E+09	-9.42E-13	1.38E+06
768.000	3.17E-18	-1.01E-10	1.39E-11	-5.39E-20	2.30E-12	8.10E+09	-9.09E-13	1.38E+06
772.800	2.77E-18	-4.46E-11	9.79E-12	-9.70E-20	1.02E-12	8.10E+09	-7.94E-13	1.38E+06
777.600	2.24E-18	-6.75E-12	6.35E-12	-1.12E-19	1.54E-13	8.10E+09	-6.42E-13	1.38E+06
782.400	1.69E-18	1.63E-11	3.64E-12	-1.09E-19	3.73E-13	8.10E+09	-4.85E-13	1.38E+06
787.200	1.19E-18	2.82E-11	1.66E-12	-9.61E-20	6.44E-13	8.10E+09	-3.41E-13	1.38E+06
792.000	7.65E-19	3.23E-11	3.17E-13	-7.82E-20	7.37E-13	8.10E+09	-2.20E-13	1.38E+06
796.800	4.36E-19	3.13E-11	-5.10E-13	-5.94E-20	7.14E-13	8.10E+09	-1.25E-13	1.38E+06
801.600	1.95E-19	2.74E-11	-9.46E-13	-4.20E-20	6.25E-13	8.10E+09	-5.61E-14	1.38E+06
806.400	3.28E-20	2.22E-11	-1.10E-12	-2.73E-20	5.07E-13	8.10E+09	-9.42E-15	1.38E+06
811.200	-6.67E-20	1.68E-11	-1.08E-12	-1.58E-20	3.83E-13	8.10E+09	1.92E-14	1.38E+06
816.000	-1.18E-19	1.18E-11	-9.52E-13	-7.27E-21	2.70E-13	8.10E+09	3.40E-14	1.38E+06
820.800	-1.37E-19	7.66E-12	-7.76E-13	-1.49E-21	1.75E-13	8.10E+09	3.92E-14	1.38E+06
825.600	-1.33E-19	4.39E-12	-5.91E-13	2.07E-21	1.00E-13	8.10E+09	3.81E-14	1.38E+06
830.400	-1.17E-19	1.99E-12	-4.19E-13	3.96E-21	4.54E-14	8.10E+09	3.35E-14	1.38E+06
835.200	-9.47E-20	3.65E-13	-2.73E-13	4.66E-21	8.34E-15	8.10E+09	2.72E-14	1.38E+06
840.000	-7.19E-20	-6.33E-13	-1.58E-13	4.58E-21	1.44E-14	8.10E+09	2.06E-14	1.38E+06
844.800	-5.08E-20	-1.16E-12	-7.39E-14	4.05E-21	2.64E-14	8.10E+09	1.46E-14	1.38E+06
849.600	-3.30E-20	-1.34E-12	-1.62E-14	3.31E-21	3.06E-14	8.10E+09	9.46E-15	1.38E+06
854.400	-1.90E-20	-1.31E-12	1.95E-14	2.53E-21	2.99E-14	8.10E+09	5.45E-15	1.38E+06
859.200	-8.71E-21	-1.15E-12	3.86E-14	1.80E-21	2.63E-14	8.10E+09	2.50E-15	1.38E+06
864.000	-1.73E-21	-9.40E-13	4.58E-14	1.17E-21	2.15E-14	8.10E+09	4.96E-16	1.38E+06
868.800	2.57E-21	-7.15E-13	4.52E-14	6.85E-22	1.63E-14	8.10E+09	-7.39E-16	1.38E+06
873.600	4.84E-21	-5.06E-13	4.01E-14	3.23E-22	1.16E-14	8.10E+09	-1.39E-15	1.38E+06
878.400	5.67E-21	-3.30E-13	3.29E-14	7.52E-23	7.52E-15	8.10E+09	-1.63E-15	1.38E+06
883.200	5.57E-21	-1.91E-13	2.51E-14	-7.90E-23	4.35E-15	8.10E+09	-1.60E-15	1.38E+06
888.000	4.92E-21	-8.85E-14	1.79E-14	-1.62E-22	2.02E-15	8.10E+09	-1.41E-15	1.38E+06
892.800	4.01E-21	-1.89E-14	1.17E-14	-1.94E-22	4.31E-16	8.10E+09	-1.15E-15	1.38E+06
897.600	3.06E-21	2.42E-14	6.87E-15	-1.92E-22	5.53E-16	8.10E+09	-8.78E-16	1.38E+06
902.400	2.17E-21	4.71E-14	3.27E-15	-1.71E-22	1.08E-15	8.10E+09	-6.23E-16	1.38E+06

907.200	1.42E-21	5.56E-14	7.99E-16	-1.40E-22	1.27E-15	8.10E+09	-4.07E-16	1.38E+06
912.000	8.24E-22	5.48E-14	-7.46E-16	-1.08E-22	1.25E-15	8.10E+09	-2.37E-16	1.38E+06
916.800	3.85E-22	4.85E-14	-1.58E-15	-7.70E-23	1.11E-15	8.10E+09	-1.11E-16	1.38E+06
921.600	8.43E-23	3.96E-14	-1.90E-15	-5.09E-23	9.04E-16	8.10E+09	-2.42E-17	1.38E+06
926.400	-1.04E-22	3.02E-14	-1.89E-15	-3.02E-23	6.90E-16	8.10E+09	2.98E-17	1.38E+06
931.200	-2.06E-22	2.15E-14	-1.68E-15	-1.49E-23	4.90E-16	8.10E+09	5.91E-17	1.38E+06
936.000	-2.47E-22	1.41E-14	-1.36E-15	-4.37E-24	3.22E-16	8.10E+09	7.09E-17	1.38E+06
940.800	-2.48E-22	8.40E-15	-1.02E-15	2.30E-24	1.92E-16	8.10E+09	7.12E-17	1.38E+06
945.600	-2.25E-22	4.31E-15	-6.97E-16	6.07E-24	9.83E-17	8.10E+09	6.46E-17	1.38E+06
950.400	-1.90E-22	1.71E-15	-4.11E-16	7.85E-24	3.89E-17	8.10E+09	5.44E-17	1.38E+06
955.200	-1.50E-22	3.59E-16	-1.78E-16	8.46E-24	8.18E-18	8.10E+09	4.29E-17	1.38E+06
960.000	-1.08E-22	0.000	0.000	8.57E-24	0.000	8.10E+09	3.11E-17	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.42621948 in
 Computed slope at pile head = -0.00749602
 Maximum bending moment = 879970.56347 lbs-in
 Maximum shear force = 20000.00000 lbs
 Depth of maximum bending moment = 62.40000000 in
 Depth of maximum shear force = 4.80000000 in
 Number of iterations = 22
 Number of zero deflection points = 15

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 3

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 30000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.915446	3.90E-08	30000.	-0.014348	8.91E-10	8.10E+09	0.000	0.000
4.800	0.846574	1.44E+05	30000.	-0.014306	3286.318	8.10E+09	0.000	0.000

9.600	0.778111	2.88E+05	30000.	-0.014178	6572.635	8.10E+09	0.000	0.000
14.400	0.710467	4.32E+05	29917.	-0.013964	9858.953	8.10E+09	-34.627	233.944
19.200	0.644052	5.75E+05	29539.	-0.013666	13127.	8.10E+09	-122.700	914.460
24.000	0.579273	7.16E+05	28707.	-0.013284	16331.	8.10E+09	-224.125	1857.157
28.800	0.516529	8.51E+05	27389.	-0.012820	19416.	8.10E+09	-324.815	3018.440
33.600	0.456204	9.79E+05	25624.	-0.012278	22331.	8.10E+09	-410.681	4321.024
38.400	0.398662	1.10E+06	23516.	-0.011663	25030.	8.10E+09	-467.636	5630.463
43.200	0.344240	1.20E+06	21238.	-0.010981	27483.	8.10E+09	-481.593	6715.211
48.000	0.293242	1.30E+06	18805.	-0.010239	29683.	8.10E+09	-532.418	8714.995
52.800	0.245944	1.38E+06	15935.	-0.009444	31603.	8.10E+09	-663.047	12940.
57.600	0.202584	1.45E+06	12406.	-0.008603	33175.	8.10E+09	-807.710	19138.
62.400	0.163358	1.50E+06	8147.745	-0.007727	34321.	8.10E+09	-966.403	28396.
67.200	0.128409	1.53E+06	3094.712	-0.006827	34960.	8.10E+09	-1139.027	42578.
72.000	0.097816	1.53E+06	-2815.771	-0.005919	34999.	8.10E+09	-1323.674	64955.
76.800	0.071585	1.50E+06	-9600.385	-0.005019	34343.	8.10E+09	-1503.249	1.01E+05
81.600	0.049634	1.44E+06	-17052.	-0.004146	32896.	8.10E+09	-1601.640	1.55E+05
86.400	0.031782	1.34E+06	-24416.	-0.003322	30607.	8.10E+09	-1466.572	2.21E+05
91.200	0.017745	1.21E+06	-30424.	-0.002567	27547.	8.10E+09	-1036.641	2.80E+05
96.000	0.007140	1.05E+06	-34049.	-0.001899	23941.	8.10E+09	-473.855	3.19E+05
100.800	-0.000481	8.80E+05	-35104.	-0.001327	20087.	8.10E+09	34.204	3.41E+05
105.600	-0.005600	7.12E+05	-34022.	-0.000855	16251.	8.10E+09	416.638	3.57E+05
110.400	-0.008693	5.54E+05	-31402.	-0.000480	12633.	8.10E+09	674.789	3.73E+05
115.200	-0.010211	4.11E+05	-27795.	-0.000195	9370.759	8.10E+09	828.281	3.89E+05
120.000	-0.010562	2.87E+05	-23655.	1.18E-05	6543.737	8.10E+09	896.811	4.08E+05
124.800	-0.010098	1.84E+05	-19348.	0.000151	4188.268	8.10E+09	897.871	4.27E+05
129.600	-0.009111	1.01E+05	-15158.	0.000235	2304.909	8.10E+09	847.671	4.47E+05
134.400	-0.007838	38002.	-11296.	0.000277	867.266	8.10E+09	761.577	4.66E+05
139.200	-0.006456	-7446.129	-7899.308	0.000286	169.933	8.10E+09	653.761	4.86E+05
144.000	-0.005095	-37831.	-5042.560	0.000272	863.377	8.10E+09	536.550	5.05E+05
148.800	-0.003843	-55855.	-2747.113	0.000244	1274.697	8.10E+09	419.886	5.25E+05
153.600	-0.002748	-64204.	-992.723	0.000209	1465.236	8.10E+09	311.110	5.43E+05
158.400	-0.001837	-65385.	270.105	0.000171	1492.190	8.10E+09	215.068	5.62E+05
163.200	-0.001111	-61611.	1108.845	0.000133	1406.059	8.10E+09	134.407	5.81E+05
168.000	-0.000561	-54740.	1599.430	9.84E-05	1249.256	8.10E+09	70.003	5.99E+05
172.800	-0.000166	-46256.	1818.766	6.85E-05	1055.644	8.10E+09	21.387	6.17E+05
177.600	9.69E-05	-37280.	1839.297	4.38E-05	850.786	8.10E+09	-12.833	6.36E+05
182.400	0.000254	-28599.	1725.407	2.43E-05	652.676	8.10E+09	-34.621	6.54E+05
187.200	0.000330	-20716.	1531.398	9.65E-06	472.770	8.10E+09	-46.216	6.73E+05
192.000	0.000347	-13898.	1300.699	-6.06E-07	317.165	8.10E+09	-49.909	6.91E+05
196.800	0.000324	-8229.154	1065.986	-7.16E-06	187.803	8.10E+09	-47.888	7.10E+05
201.600	0.000278	-3664.091	849.910	-1.07E-05	83.621	8.10E+09	-42.144	7.28E+05
206.400	0.000221	-70.015	596.244	-1.18E-05	1.598	8.10E+09	-63.551	1.38E+06
211.200	0.000165	2059.850	330.265	-1.12E-05	47.009	8.10E+09	-47.274	1.38E+06
216.000	0.000114	3100.529	138.380	-9.67E-06	70.759	8.10E+09	-32.678	1.38E+06
220.800	7.18E-05	3388.299	10.477	-7.75E-06	77.327	8.10E+09	-20.615	1.38E+06
225.600	3.94E-05	3201.105	-66.161	-5.80E-06	73.054	8.10E+09	-11.318	1.38E+06
230.400	1.61E-05	2753.152	-104.446	-4.03E-06	62.831	8.10E+09	-4.634	1.38E+06
235.200	6.93E-07	2198.423	-116.046	-2.57E-06	50.172	8.10E+09	-0.199075	1.38E+06
240.000	-8.50E-06	1639.107	-110.665	-1.43E-06	37.407	8.10E+09	2.441	1.38E+06
244.800	-1.30E-05	1136.036	-95.823	-6.08E-07	25.926	8.10E+09	3.743	1.38E+06
249.600	-1.43E-05	719.206	-76.958	-5.85E-08	16.413	8.10E+09	4.117	1.38E+06
254.400	-1.36E-05	397.240	-57.706	2.72E-07	9.066	8.10E+09	3.904	1.38E+06
259.200	-1.17E-05	165.232	-40.254	4.39E-07	3.771	8.10E+09	3.367	1.38E+06
264.000	-9.39E-06	10.804	-25.705	4.91E-07	0.246569	8.10E+09	2.695	1.38E+06

268.800	-7.01E-06	-81.532	-14.403	4.70E-07	1.861	8.10E+09	2.014	1.38E+06
273.600	-4.87E-06	-127.468	-6.211	4.08E-07	2.909	8.10E+09	1.399	1.38E+06
278.400	-3.10E-06	-141.160	-0.718639	3.29E-07	3.221	8.10E+09	0.889096	1.38E+06
283.200	-1.72E-06	-134.367	2.601	2.47E-07	3.066	8.10E+09	0.493980	1.38E+06
288.000	-7.26E-07	-116.193	4.287	1.73E-07	2.652	8.10E+09	0.208577	1.38E+06
292.800	-6.29E-08	-93.213	4.831	1.11E-07	2.127	8.10E+09	0.018048	1.38E+06
297.600	3.36E-07	-69.817	4.643	6.23E-08	1.593	8.10E+09	-0.096372	1.38E+06
302.400	5.36E-07	-48.642	4.042	2.73E-08	1.110	8.10E+09	-0.153784	1.38E+06
307.200	5.97E-07	-31.010	3.262	3.65E-09	0.707696	8.10E+09	-0.171480	1.38E+06
312.000	5.71E-07	-17.329	2.457	-1.07E-08	0.395470	8.10E+09	-0.163856	1.38E+06
316.800	4.95E-07	-7.423	1.723	-1.80E-08	0.169400	8.10E+09	-0.142083	1.38E+06
321.600	3.98E-07	-0.790458	1.108	-2.04E-08	0.018040	8.10E+09	-0.114248	1.38E+06
326.400	2.99E-07	3.210	0.627497	-1.97E-08	0.073248	8.10E+09	-0.085769	1.38E+06
331.200	2.09E-07	5.234	0.277868	-1.72E-08	0.119437	8.10E+09	-0.059910	1.38E+06
336.000	1.33E-07	5.877	0.042107	-1.39E-08	0.134126	8.10E+09	-0.038324	1.38E+06
340.800	7.50E-08	5.638	-0.101561	-1.05E-08	0.128663	8.10E+09	-0.021537	1.38E+06
345.600	3.26E-08	4.902	-0.175699	-7.39E-09	0.111875	8.10E+09	-0.009354	1.38E+06
350.400	4.08E-09	3.951	-0.200962	-4.77E-09	0.090169	8.10E+09	-0.001173	1.38E+06
355.200	-1.32E-08	2.973	-0.194699	-2.71E-09	0.067846	8.10E+09	0.003782	1.38E+06
360.000	-2.20E-08	2.082	-0.170479	-1.22E-09	0.047513	8.10E+09	0.006310	1.38E+06
364.800	-2.49E-08	1.336	-0.138207	-2.05E-10	0.030497	8.10E+09	0.007137	1.38E+06
369.600	-2.39E-08	0.755129	-0.104581	4.15E-10	0.017233	8.10E+09	0.006874	1.38E+06
374.400	-2.09E-08	0.332324	-0.073700	7.37E-10	0.007584	8.10E+09	0.005993	1.38E+06
379.200	-1.69E-08	0.047609	-0.047695	8.50E-10	0.001087	8.10E+09	0.004842	1.38E+06
384.000	-1.27E-08	-0.125548	-0.027311	8.27E-10	0.002865	8.10E+09	0.003652	1.38E+06
388.800	-8.93E-09	-0.214573	-0.012394	7.26E-10	0.004897	8.10E+09	0.002564	1.38E+06
393.600	-5.75E-09	-0.244530	-0.002279	5.90E-10	0.005581	8.10E+09	0.001651	1.38E+06
398.400	-3.27E-09	-0.236447	0.003935	4.47E-10	0.005396	8.10E+09	0.000938	1.38E+06
403.200	-1.46E-09	-0.206752	0.007190	3.16E-10	0.004718	8.10E+09	0.000418	1.38E+06
408.000	-2.33E-10	-0.167423	0.008354	2.05E-10	0.003821	8.10E+09	6.70E-05	1.38E+06
412.800	5.13E-10	-0.126550	0.008161	1.18E-10	0.002888	8.10E+09	-0.000147	1.38E+06
417.600	9.00E-10	-0.089074	0.007187	5.42E-11	0.002033	8.10E+09	-0.000259	1.38E+06
422.400	1.03E-09	-0.057554	0.005854	1.08E-11	0.001313	8.10E+09	-0.000297	1.38E+06
427.200	1.00E-09	-0.032873	0.004450	-1.60E-11	0.000750	8.10E+09	-0.000288	1.38E+06
432.000	8.80E-10	-0.014833	0.003152	-3.01E-11	0.000339	8.10E+09	-0.000253	1.38E+06
436.800	7.15E-10	-0.002616	0.002053	-3.53E-11	5.97E-05	8.10E+09	-0.000205	1.38E+06
441.600	5.41E-10	0.004874	0.001188	-3.46E-11	0.000111	8.10E+09	-0.000155	1.38E+06
446.400	3.82E-10	0.008784	0.000551	-3.06E-11	0.000200	8.10E+09	-0.000110	1.38E+06
451.200	2.48E-10	0.010167	0.000118	-2.50E-11	0.000232	8.10E+09	-7.11E-05	1.38E+06
456.000	1.42E-10	0.009912	-0.000151	-1.90E-11	0.000226	8.10E+09	-4.08E-05	1.38E+06
460.800	6.49E-11	0.008717	-0.000294	-1.35E-11	0.000199	8.10E+09	-1.86E-05	1.38E+06
465.600	1.24E-11	0.007092	-0.000347	-8.83E-12	0.000162	8.10E+09	-3.57E-06	1.38E+06
470.400	-1.99E-11	0.005385	-0.000342	-5.13E-12	0.000123	8.10E+09	5.70E-06	1.38E+06
475.200	-3.68E-11	0.003810	-0.000303	-2.41E-12	8.69E-05	8.10E+09	1.06E-05	1.38E+06
480.000	-4.30E-11	0.002478	-0.000248	-5.46E-13	5.65E-05	8.10E+09	1.23E-05	1.38E+06
484.800	-4.21E-11	0.001430	-0.000189	6.11E-13	3.26E-05	8.10E+09	1.21E-05	1.38E+06
489.600	-3.71E-11	0.000660	-0.000135	1.23E-12	1.51E-05	8.10E+09	1.07E-05	1.38E+06
494.400	-3.03E-11	0.000136	-8.83E-05	1.47E-12	3.11E-06	8.10E+09	8.69E-06	1.38E+06
499.200	-2.30E-11	-0.000188	-5.16E-05	1.45E-12	4.28E-06	8.10E+09	6.61E-06	1.38E+06
504.000	-1.63E-11	-0.000359	-2.45E-05	1.29E-12	8.19E-06	8.10E+09	4.69E-06	1.38E+06
508.800	-1.07E-11	-0.000422	-5.87E-06	1.06E-12	9.64E-06	8.10E+09	3.06E-06	1.38E+06
513.600	-6.18E-12	-0.000415	5.73E-06	8.09E-13	9.48E-06	8.10E+09	1.77E-06	1.38E+06
518.400	-2.89E-12	-0.000367	1.20E-05	5.78E-13	8.38E-06	8.10E+09	8.28E-07	1.38E+06
523.200	-6.36E-13	-0.000300	1.44E-05	3.80E-13	6.85E-06	8.10E+09	1.83E-07	1.38E+06

528.000	7.60E-13	-0.000229	1.43E-05	2.23E-13	5.23E-06	8.10E+09	-2.18E-07	1.38E+06
532.800	1.50E-12	-0.000163	1.28E-05	1.07E-13	3.72E-06	8.10E+09	-4.32E-07	1.38E+06
537.600	1.78E-12	-0.000107	1.05E-05	2.69E-14	2.43E-06	8.10E+09	-5.12E-07	1.38E+06
542.400	1.76E-12	-6.21E-05	8.05E-06	-2.30E-14	1.42E-06	8.10E+09	-5.06E-07	1.38E+06
547.200	1.56E-12	-2.93E-05	5.76E-06	-5.01E-14	6.69E-07	8.10E+09	-4.49E-07	1.38E+06
552.000	1.28E-12	-6.85E-06	3.80E-06	-6.08E-14	1.56E-07	8.10E+09	-3.68E-07	1.38E+06
556.800	9.80E-13	7.14E-06	2.24E-06	-6.08E-14	1.63E-07	8.10E+09	-2.81E-07	1.38E+06
561.600	6.98E-13	1.46E-05	1.08E-06	-5.43E-14	3.34E-07	8.10E+09	-2.00E-07	1.38E+06
566.400	4.58E-13	1.75E-05	2.86E-07	-4.48E-14	4.00E-07	8.10E+09	-1.32E-07	1.38E+06
571.200	2.68E-13	1.74E-05	-2.15E-07	-3.44E-14	3.97E-07	8.10E+09	-7.71E-08	1.38E+06
576.000	1.28E-13	1.55E-05	-4.88E-07	-2.47E-14	3.53E-07	8.10E+09	-3.67E-08	1.38E+06
580.800	3.15E-14	1.27E-05	-5.98E-07	-1.63E-14	2.90E-07	8.10E+09	-9.05E-09	1.38E+06
585.600	-2.87E-14	9.74E-06	-5.99E-07	-9.67E-15	2.22E-07	8.10E+09	8.25E-09	1.38E+06
590.400	-6.13E-14	6.96E-06	-5.37E-07	-4.72E-15	1.59E-07	8.10E+09	1.76E-08	1.38E+06
595.200	-7.41E-14	4.58E-06	-4.44E-07	-1.30E-15	1.05E-07	8.10E+09	2.13E-08	1.38E+06
600.000	-7.38E-14	2.70E-06	-3.42E-07	8.55E-16	6.16E-08	8.10E+09	2.12E-08	1.38E+06
604.800	-6.59E-14	1.30E-06	-2.46E-07	2.04E-15	2.96E-08	8.10E+09	1.89E-08	1.38E+06
609.600	-5.42E-14	3.36E-07	-1.63E-07	2.52E-15	7.66E-09	8.10E+09	1.56E-08	1.38E+06
614.400	-4.17E-14	-2.68E-07	-9.71E-08	2.54E-15	6.12E-09	8.10E+09	1.20E-08	1.38E+06
619.200	-2.98E-14	-5.97E-07	-4.79E-08	2.29E-15	1.36E-08	8.10E+09	8.57E-09	1.38E+06
624.000	-1.97E-14	-7.28E-07	-1.37E-08	1.89E-15	1.66E-08	8.10E+09	5.66E-09	1.38E+06
628.800	-1.16E-14	-7.28E-07	7.88E-09	1.46E-15	1.66E-08	8.10E+09	3.34E-09	1.38E+06
633.600	-5.66E-15	-6.52E-07	1.98E-08	1.05E-15	1.49E-08	8.10E+09	1.63E-09	1.38E+06
638.400	-1.53E-15	-5.38E-07	2.48E-08	7.01E-16	1.23E-08	8.10E+09	4.40E-10	1.38E+06
643.200	1.07E-15	-4.14E-07	2.51E-08	4.19E-16	9.45E-09	8.10E+09	-3.07E-10	1.38E+06
648.000	2.49E-15	-2.97E-07	2.26E-08	2.08E-16	6.79E-09	8.10E+09	-7.16E-10	1.38E+06
652.800	3.07E-15	-1.97E-07	1.88E-08	6.20E-17	4.50E-09	8.10E+09	-8.82E-10	1.38E+06
657.600	3.09E-15	-1.17E-07	1.45E-08	-3.10E-17	2.67E-09	8.10E+09	-8.87E-10	1.38E+06
662.400	2.77E-15	-5.74E-08	1.05E-08	-8.27E-17	1.31E-09	8.10E+09	-7.96E-10	1.38E+06
667.200	2.30E-15	-1.62E-08	7.01E-09	-1.05E-16	3.69E-10	8.10E+09	-6.59E-10	1.38E+06
672.000	1.77E-15	9.90E-09	4.21E-09	-1.06E-16	2.26E-10	8.10E+09	-5.08E-10	1.38E+06
676.800	1.27E-15	2.42E-08	2.11E-09	-9.62E-17	5.53E-10	8.10E+09	-3.66E-10	1.38E+06
681.600	8.47E-16	3.02E-08	6.49E-10	-8.01E-17	6.88E-10	8.10E+09	-2.43E-10	1.38E+06
686.400	5.05E-16	3.05E-08	-2.82E-10	-6.22E-17	6.96E-10	8.10E+09	-1.45E-10	1.38E+06
691.200	2.50E-16	2.75E-08	-8.03E-10	-4.50E-17	6.26E-10	8.10E+09	-7.18E-11	1.38E+06
696.000	7.31E-17	2.28E-08	-1.03E-09	-3.01E-17	5.20E-10	8.10E+09	-2.10E-11	1.38E+06
700.800	-3.91E-17	1.76E-08	-1.05E-09	-1.82E-17	4.02E-10	8.10E+09	1.12E-11	1.38E+06
705.600	-1.01E-16	1.27E-08	-9.52E-10	-9.19E-18	2.90E-10	8.10E+09	2.91E-11	1.38E+06
710.400	-1.27E-16	8.47E-09	-7.95E-10	-2.92E-18	1.93E-10	8.10E+09	3.65E-11	1.38E+06
715.200	-1.29E-16	5.07E-09	-6.18E-10	1.10E-18	1.16E-10	8.10E+09	3.71E-11	1.38E+06
720.000	-1.17E-16	2.53E-09	-4.48E-10	3.35E-18	5.78E-11	8.10E+09	3.35E-11	1.38E+06
724.800	-9.71E-17	7.67E-10	-3.01E-10	4.33E-18	1.75E-11	8.10E+09	2.79E-11	1.38E+06
729.600	-7.53E-17	-3.57E-10	-1.82E-10	4.45E-18	8.15E-12	8.10E+09	2.16E-11	1.38E+06
734.400	-5.44E-17	-9.83E-10	-9.29E-11	4.05E-18	2.24E-11	8.10E+09	1.56E-11	1.38E+06
739.200	-3.64E-17	-1.25E-09	-3.04E-11	3.39E-18	2.85E-11	8.10E+09	1.04E-11	1.38E+06
744.000	-2.19E-17	-1.27E-09	9.78E-12	2.64E-18	2.91E-11	8.10E+09	6.28E-12	1.38E+06
748.800	-1.10E-17	-1.16E-09	3.25E-11	1.92E-18	2.64E-11	8.10E+09	3.17E-12	1.38E+06
753.600	-3.45E-18	-9.63E-10	4.24E-11	1.29E-18	2.20E-11	8.10E+09	9.90E-13	1.38E+06
758.400	1.39E-18	-7.48E-10	4.38E-11	7.86E-19	1.71E-11	8.10E+09	-3.99E-13	1.38E+06
763.200	4.10E-18	-5.42E-10	4.01E-11	4.04E-19	1.24E-11	8.10E+09	-1.18E-12	1.38E+06
768.000	5.27E-18	-3.64E-10	3.36E-11	1.36E-19	8.30E-12	8.10E+09	-1.51E-12	1.38E+06
772.800	5.40E-18	-2.20E-10	2.62E-11	-3.70E-20	5.01E-12	8.10E+09	-1.55E-12	1.38E+06
777.600	4.91E-18	-1.12E-10	1.91E-11	-1.35E-19	2.55E-12	8.10E+09	-1.41E-12	1.38E+06
782.400	4.11E-18	-3.60E-11	1.29E-11	-1.79E-19	8.21E-13	8.10E+09	-1.18E-12	1.38E+06

787.200	3.20E-18	1.25E-11	7.89E-12	-1.86E-19	2.85E-13	8.10E+09	-9.18E-13	1.38E+06
792.000	2.32E-18	3.98E-11	4.08E-12	-1.70E-19	9.08E-13	8.10E+09	-6.67E-13	1.38E+06
796.800	1.56E-18	5.17E-11	1.41E-12	-1.43E-19	1.18E-12	8.10E+09	-4.48E-13	1.38E+06
801.600	9.48E-19	5.33E-11	-3.21E-13	-1.12E-19	1.22E-12	8.10E+09	-2.72E-13	1.38E+06
806.400	4.85E-19	4.86E-11	-1.31E-12	-8.20E-20	1.11E-12	8.10E+09	-1.39E-13	1.38E+06
811.200	1.61E-19	4.07E-11	-1.75E-12	-5.55E-20	9.29E-13	8.10E+09	-4.62E-14	1.38E+06
816.000	-4.76E-20	3.18E-11	-1.83E-12	-3.40E-20	7.25E-13	8.10E+09	1.37E-14	1.38E+06
820.800	-1.66E-19	2.31E-11	-1.68E-12	-1.77E-20	5.28E-13	8.10E+09	4.76E-14	1.38E+06
825.600	-2.18E-19	1.56E-11	-1.42E-12	-6.27E-21	3.56E-13	8.10E+09	6.26E-14	1.38E+06
830.400	-2.26E-19	9.51E-12	-1.11E-12	1.17E-21	2.17E-13	8.10E+09	6.48E-14	1.38E+06
835.200	-2.07E-19	4.91E-12	-8.16E-13	5.44E-21	1.12E-13	8.10E+09	5.93E-14	1.38E+06
840.000	-1.74E-19	1.67E-12	-5.54E-13	7.39E-21	3.81E-14	8.10E+09	4.98E-14	1.38E+06
844.800	-1.36E-19	-4.16E-13	-3.41E-13	7.76E-21	9.50E-15	8.10E+09	3.90E-14	1.38E+06
849.600	-9.91E-20	-1.60E-12	-1.79E-13	7.16E-21	3.66E-14	8.10E+09	2.85E-14	1.38E+06
854.400	-6.70E-20	-2.14E-12	-6.48E-14	6.05E-21	4.88E-14	8.10E+09	1.92E-14	1.38E+06
859.200	-4.10E-20	-2.23E-12	9.65E-15	4.76E-21	5.08E-14	8.10E+09	1.18E-14	1.38E+06
864.000	-2.13E-20	-2.04E-12	5.26E-14	3.50E-21	4.67E-14	8.10E+09	6.12E-15	1.38E+06
868.800	-7.44E-21	-1.72E-12	7.24E-14	2.38E-21	3.93E-14	8.10E+09	2.14E-15	1.38E+06
873.600	1.54E-21	-1.35E-12	7.65E-14	1.47E-21	3.08E-14	8.10E+09	-4.41E-16	1.38E+06
878.400	6.68E-21	-9.87E-13	7.08E-14	7.78E-22	2.25E-14	8.10E+09	-1.92E-15	1.38E+06
883.200	9.01E-21	-6.69E-13	6.00E-14	2.88E-22	1.53E-14	8.10E+09	-2.59E-15	1.38E+06
888.000	9.44E-21	-4.11E-13	4.73E-14	-3.24E-23	9.38E-15	8.10E+09	-2.71E-15	1.38E+06
892.800	8.70E-21	-2.15E-13	3.48E-14	-2.18E-22	4.91E-15	8.10E+09	-2.50E-15	1.38E+06
897.600	7.35E-21	-7.69E-14	2.38E-14	-3.04E-22	1.76E-15	8.10E+09	-2.11E-15	1.38E+06
902.400	5.77E-21	1.28E-14	1.47E-14	-3.23E-22	2.93E-16	8.10E+09	-1.66E-15	1.38E+06
907.200	4.24E-21	6.44E-14	7.81E-15	-3.01E-22	1.47E-15	8.10E+09	-1.22E-15	1.38E+06
912.000	2.89E-21	8.78E-14	2.90E-15	-2.56E-22	2.00E-15	8.10E+09	-8.29E-16	1.38E+06
916.800	1.79E-21	9.22E-14	-3.21E-16	-2.02E-22	2.10E-15	8.10E+09	-5.13E-16	1.38E+06
921.600	9.48E-22	8.47E-14	-2.21E-15	-1.50E-22	1.93E-15	8.10E+09	-2.72E-16	1.38E+06
926.400	3.50E-22	7.10E-14	-3.10E-15	-1.04E-22	1.62E-15	8.10E+09	-1.00E-16	1.38E+06
931.200	-4.64E-23	5.50E-14	-3.31E-15	-6.63E-23	1.25E-15	8.10E+09	1.33E-17	1.38E+06
936.000	-2.86E-22	3.93E-14	-3.08E-15	-3.83E-23	8.96E-16	8.10E+09	8.22E-17	1.38E+06
940.800	-4.15E-22	2.54E-14	-2.60E-15	-1.92E-23	5.80E-16	8.10E+09	1.19E-16	1.38E+06
945.600	-4.71E-22	1.43E-14	-1.99E-15	-7.42E-24	3.27E-16	8.10E+09	1.35E-16	1.38E+06
950.400	-4.86E-22	6.34E-15	-1.33E-15	-1.29E-24	1.45E-16	8.10E+09	1.39E-16	1.38E+06
955.200	-4.83E-22	1.57E-15	-6.61E-16	1.05E-24	3.59E-17	8.10E+09	1.39E-16	1.38E+06
960.000	-4.76E-22	0.000	0.000	1.52E-24	0.000	8.10E+09	1.37E-16	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection	=	0.91544593 in
Computed slope at pile head	=	-0.01434839
Maximum bending moment	=	1533600. lbs-in

Maximum shear force = -35103.89161 lbs
 Depth of maximum bending moment = 72.00000000 in
 Depth of maximum shear force = 100.80000 in
 Number of iterations = 26
 Number of zero deflection points = 15

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 40000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Flx. Rig. EI lbs-in**2	Soil Res. p lbs/in	Es*h F/L
0.000	1.588	0.000	40000.	-0.022854	0.000	8.10E+09	0.000	0.000
4.800	1.478	1.92E+05	40000.	-0.022797	4381.757	8.10E+09	0.000	0.000
9.600	1.369	3.84E+05	40000.	-0.022626	8763.514	8.10E+09	0.000	0.000
14.400	1.261	5.76E+05	39917.	-0.022342	13145.	8.10E+09	-34.627	131.791
19.200	1.155	7.67E+05	39539.	-0.021944	17509.	8.10E+09	-122.700	510.036
24.000	1.050	9.56E+05	38707.	-0.021434	21808.	8.10E+09	-224.124	1024.083
28.800	0.948975	1.14E+06	37389.	-0.020813	25989.	8.10E+09	-324.814	1642.937
33.600	0.850691	1.31E+06	35624.	-0.020086	29999.	8.10E+09	-410.679	2317.249
38.400	0.756145	1.48E+06	33516.	-0.019258	33794.	8.10E+09	-467.634	2968.538
43.200	0.665810	1.64E+06	31238.	-0.018335	37342.	8.10E+09	-481.590	3471.910
48.000	0.580130	1.78E+06	28805.	-0.017323	40638.	8.10E+09	-532.415	4405.213
52.800	0.499513	1.91E+06	25935.	-0.016228	43653.	8.10E+09	-663.044	6371.427
57.600	0.424336	2.03E+06	22406.	-0.015061	46320.	8.10E+09	-807.705	9136.587
62.400	0.354932	2.13E+06	18148.	-0.013829	48562.	8.10E+09	-966.399	13069.
67.200	0.291579	2.20E+06	13095.	-0.012546	50296.	8.10E+09	-1139.127	18752.
72.000	0.234494	2.25E+06	7178.551	-0.011225	51431.	8.10E+09	-1325.887	27140.
76.800	0.183818	2.27E+06	332.412	-0.009884	51869.	8.10E+09	-1526.671	39866.
81.600	0.139605	2.26E+06	-7510.114	-0.008542	51504.	8.10E+09	-1741.049	59862.
86.400	0.101811	2.20E+06	-16397.	-0.007222	50223.	8.10E+09	-1961.993	92500.
91.200	0.070276	2.10E+06	-26231.	-0.005948	47911.	8.10E+09	-2135.484	1.46E+05
96.000	0.044711	1.95E+06	-36328.	-0.004749	44476.	8.10E+09	-2071.446	2.22E+05
100.800	0.024689	1.75E+06	-45015.	-0.003653	39952.	8.10E+09	-1548.198	3.01E+05
105.600	0.009646	1.52E+06	-50432.	-0.002685	34614.	8.10E+09	-708.861	3.53E+05
110.400	-0.001084	1.27E+06	-51929.	-0.001860	28903.	8.10E+09	85.337	3.78E+05
115.200	-0.008212	1.02E+06	-50115.	-0.001183	23237.	8.10E+09	670.277	3.92E+05
120.000	-0.012445	7.85E+05	-45987.	-0.000649	17924.	8.10E+09	1049.634	4.05E+05
124.800	-0.014444	5.77E+05	-40432.	-0.000246	13162.	8.10E+09	1265.004	4.20E+05
129.600	-0.014802	3.97E+05	-34150.	4.30E-05	9065.361	8.10E+09	1352.601	4.39E+05
134.400	-0.014031	2.49E+05	-27686.	0.000234	5680.053	8.10E+09	1340.770	4.59E+05
139.200	-0.012552	1.31E+05	-21458.	0.000347	2999.737	8.10E+09	1254.144	4.80E+05
144.000	-0.010700	42892.	-15770.	0.000399	978.863	8.10E+09	1115.857	5.01E+05

148.800	-0.008725	-19950.	-10818.	0.000405	455.281	8.10E+09	947.433	5.21E+05
153.600	-0.006807	-60962.	-6701.907	0.000382	1391.255	8.10E+09	767.655	5.41E+05
158.400	-0.005062	-84288.	-3439.869	0.000338	1923.588	8.10E+09	591.528	5.61E+05
163.200	-0.003558	-93985.	-988.561	0.000286	2144.889	8.10E+09	429.850	5.80E+05
168.000	-0.002320	-93778.	737.640	0.000230	2140.170	8.10E+09	289.401	5.99E+05
172.800	-0.001349	-86903.	1848.640	0.000177	1983.281	8.10E+09	173.516	6.17E+05
177.600	-0.000625	-76031.	2463.890	0.000128	1735.155	8.10E+09	82.838	6.36E+05
182.400	-0.000118	-63250.	2701.241	8.70E-05	1443.472	8.10E+09	16.058	6.54E+05
187.200	0.000210	-50099.	2669.199	5.34E-05	1143.346	8.10E+09	-29.409	6.73E+05
192.000	0.000395	-37626.	2462.118	2.74E-05	858.683	8.10E+09	-56.875	6.91E+05
196.800	0.000473	-26463.	2157.755	8.44E-06	603.926	8.10E+09	-69.943	7.10E+05
201.600	0.000476	-16911.	1816.621	-4.41E-06	385.945	8.10E+09	-72.196	7.28E+05
206.400	0.000431	-9023.283	1443.033	-1.21E-05	205.926	8.10E+09	-83.466	9.30E+05
211.200	0.000360	-3058.246	1051.202	-1.57E-05	69.794	8.10E+09	-79.797	1.06E+06
216.000	0.000280	1068.257	679.772	-1.63E-05	24.379	8.10E+09	-74.965	1.28E+06
220.800	0.000204	3467.568	359.452	-1.49E-05	79.136	8.10E+09	-58.502	1.38E+06
225.600	0.000137	4518.992	124.586	-1.26E-05	103.131	8.10E+09	-39.358	1.38E+06
230.400	8.33E-05	4663.597	-27.245	-9.83E-06	106.431	8.10E+09	-23.905	1.38E+06
235.200	4.27E-05	4257.437	-114.038	-7.19E-06	97.162	8.10E+09	-12.259	1.38E+06
240.000	1.42E-05	3568.833	-153.273	-4.87E-06	81.447	8.10E+09	-4.089	1.38E+06
244.800	-4.06E-06	2786.012	-160.289	-2.99E-06	63.581	8.10E+09	1.166	1.38E+06
249.600	-1.44E-05	2030.063	-147.536	-1.56E-06	46.329	8.10E+09	4.147	1.38E+06
254.400	-1.91E-05	1369.662	-124.455	-5.54E-07	31.258	8.10E+09	5.470	1.38E+06
259.200	-1.98E-05	835.295	-97.706	9.88E-08	19.063	8.10E+09	5.675	1.38E+06
264.000	-1.81E-05	431.682	-71.611	4.74E-07	9.852	8.10E+09	5.198	1.38E+06
268.800	-1.52E-05	147.828	-48.653	6.46E-07	3.374	8.10E+09	4.368	1.38E+06
273.600	-1.19E-05	-35.384	-29.967	6.79E-07	0.807531	8.10E+09	3.418	1.38E+06
278.400	-8.69E-06	-139.851	-15.773	6.27E-07	3.192	8.10E+09	2.496	1.38E+06
283.200	-5.88E-06	-186.803	-5.728	5.30E-07	4.263	8.10E+09	1.689	1.38E+06
288.000	-3.60E-06	-194.841	0.807490	4.17E-07	4.447	8.10E+09	1.034	1.38E+06
292.800	-1.88E-06	-179.051	4.582	3.07E-07	4.086	8.10E+09	0.538512	1.38E+06
297.600	-6.58E-07	-150.854	6.328	2.09E-07	3.443	8.10E+09	0.189023	1.38E+06
302.400	1.30E-07	-118.301	6.692	1.29E-07	2.700	8.10E+09	-0.037292	1.38E+06
307.200	5.82E-07	-86.608	6.202	6.85E-08	1.977	8.10E+09	-0.167012	1.38E+06
312.000	7.87E-07	-58.763	5.259	2.54E-08	1.341	8.10E+09	-0.226014	1.38E+06
316.800	8.26E-07	-36.125	4.147	-2.70E-09	0.824441	8.10E+09	-0.237036	1.38E+06
321.600	7.61E-07	-18.949	3.054	-1.90E-08	0.432445	8.10E+09	-0.218560	1.38E+06
326.400	6.43E-07	-6.808	2.086	-2.67E-08	0.155371	8.10E+09	-0.184613	1.38E+06
331.200	5.05E-07	1.079	1.295	-2.83E-08	0.024632	8.10E+09	-0.145106	1.38E+06
336.000	3.71E-07	5.623	0.691140	-2.64E-08	0.128337	8.10E+09	-0.106481	1.38E+06
340.800	2.52E-07	7.714	0.261712	-2.24E-08	0.176053	8.10E+09	-0.072447	1.38E+06
345.600	1.56E-07	8.136	-0.019472	-1.77E-08	0.185675	8.10E+09	-0.044713	1.38E+06
350.400	8.23E-08	7.527	-0.183473	-1.31E-08	0.171787	8.10E+09	-0.023621	1.38E+06
355.200	3.02E-08	6.375	-0.260986	-8.96E-09	0.145478	8.10E+09	-0.008676	1.38E+06
360.000	-3.71E-09	5.022	-0.279252	-5.58E-09	0.114608	8.10E+09	0.001065	1.38E+06
364.800	-2.34E-08	3.694	-0.260606	-3.00E-09	0.084297	8.10E+09	0.006705	1.38E+06
369.600	-3.25E-08	2.520	-0.222125	-1.16E-09	0.057512	8.10E+09	0.009329	1.38E+06
374.400	-3.45E-08	1.561	-0.175988	5.16E-11	0.035632	8.10E+09	0.009895	1.38E+06
379.200	-3.20E-08	0.830587	-0.130192	7.60E-10	0.018955	8.10E+09	0.009187	1.38E+06
384.000	-2.72E-08	0.311496	-0.089424	1.10E-09	0.007109	8.10E+09	0.007800	1.38E+06
388.800	-2.15E-08	-0.027887	-0.055924	1.18E-09	0.000636	8.10E+09	0.006159	1.38E+06
393.600	-1.58E-08	-0.225370	-0.030245	1.11E-09	0.005143	8.10E+09	0.004541	1.38E+06
398.400	-1.08E-08	-0.318239	-0.011893	9.46E-10	0.007263	8.10E+09	0.003106	1.38E+06
403.200	-6.73E-09	-0.339540	0.000199	7.52E-10	0.007749	8.10E+09	0.001932	1.38E+06

408.000	-3.60E-09	-0.316331	0.007319	5.57E-10	0.007219	8.10E+09	0.001035	1.38E+06
412.800	-1.38E-09	-0.269282	0.010752	3.84E-10	0.006145	8.10E+09	0.000396	1.38E+06
417.600	8.09E-11	-0.213115	0.011646	2.41E-10	0.004864	8.10E+09	-2.32E-05	1.38E+06
422.400	9.34E-10	-0.157482	0.010946	1.31E-10	0.003594	8.10E+09	-0.000268	1.38E+06
427.200	1.34E-09	-0.108029	0.009380	5.25E-11	0.002465	8.10E+09	-0.000385	1.38E+06
432.000	1.44E-09	-0.067438	0.007466	4.90E-13	0.001539	8.10E+09	-0.000413	1.38E+06
436.800	1.34E-09	-0.036359	0.005548	-3.03E-11	0.000830	8.10E+09	-0.000386	1.38E+06
441.600	1.15E-09	-0.014172	0.003831	-4.52E-11	0.000323	8.10E+09	-0.000329	1.38E+06
446.400	9.10E-10	0.000423	0.002414	-4.93E-11	9.66E-06	8.10E+09	-0.000261	1.38E+06
451.200	6.74E-10	0.008998	0.001322	-4.65E-11	0.000205	8.10E+09	-0.000194	1.38E+06
456.000	4.64E-10	0.013114	0.000538	-4.00E-11	0.000299	8.10E+09	-0.000133	1.38E+06
460.800	2.91E-10	0.014162	1.82E-05	-3.19E-11	0.000323	8.10E+09	-8.34E-05	1.38E+06
465.600	1.58E-10	0.013288	-0.000291	-2.37E-11	0.000303	8.10E+09	-4.53E-05	1.38E+06
470.400	6.26E-11	0.011372	-0.000442	-1.64E-11	0.000260	8.10E+09	-1.80E-05	1.38E+06
475.200	-1.86E-13	0.009041	-0.000485	-1.04E-11	0.000206	8.10E+09	5.35E-08	1.38E+06
480.000	-3.72E-11	0.006712	-0.000460	-5.73E-12	0.000153	8.10E+09	1.07E-05	1.38E+06
484.800	-5.52E-11	0.004629	-0.000396	-2.37E-12	0.000106	8.10E+09	1.58E-05	1.38E+06
489.600	-6.00E-11	0.002911	-0.000317	-1.34E-13	6.64E-05	8.10E+09	1.72E-05	1.38E+06
494.400	-5.65E-11	0.001590	-0.000236	1.20E-12	3.63E-05	8.10E+09	1.62E-05	1.38E+06
499.200	-4.84E-11	0.000642	-0.000164	1.86E-12	1.46E-05	8.10E+09	1.39E-05	1.38E+06
504.000	-3.86E-11	1.43E-05	-0.000104	2.05E-12	3.25E-07	8.10E+09	1.11E-05	1.38E+06
508.800	-2.87E-11	-0.000358	-5.77E-05	1.95E-12	8.16E-06	8.10E+09	8.25E-06	1.38E+06
513.600	-1.99E-11	-0.000540	-2.42E-05	1.69E-12	1.23E-05	8.10E+09	5.70E-06	1.38E+06
518.400	-1.25E-11	-0.000590	-1.90E-06	1.35E-12	1.35E-05	8.10E+09	3.60E-06	1.38E+06
523.200	-6.89E-12	-0.000558	1.15E-05	1.01E-12	1.27E-05	8.10E+09	1.98E-06	1.38E+06
528.000	-2.83E-12	-0.000480	1.82E-05	7.04E-13	1.10E-05	8.10E+09	8.11E-07	1.38E+06
532.800	-1.30E-13	-0.000383	2.02E-05	4.48E-13	8.75E-06	8.10E+09	3.72E-08	1.38E+06
537.600	1.48E-12	-0.000286	1.93E-05	2.50E-13	6.53E-06	8.10E+09	-4.24E-07	1.38E+06
542.400	2.27E-12	-0.000198	1.67E-05	1.06E-13	4.52E-06	8.10E+09	-6.52E-07	1.38E+06
547.200	2.50E-12	-0.000126	1.34E-05	1.05E-14	2.87E-06	8.10E+09	-7.17E-07	1.38E+06
552.000	2.37E-12	-6.94E-05	1.01E-05	-4.72E-14	1.58E-06	8.10E+09	-6.81E-07	1.38E+06
556.800	2.05E-12	-2.89E-05	7.03E-06	-7.64E-14	6.60E-07	8.10E+09	-5.87E-07	1.38E+06
561.600	1.64E-12	-1.97E-06	4.49E-06	-8.55E-14	4.50E-08	8.10E+09	-4.70E-07	1.38E+06
566.400	1.22E-12	1.42E-05	2.52E-06	-8.19E-14	3.23E-07	8.10E+09	-3.51E-07	1.38E+06
571.200	8.51E-13	2.22E-05	1.09E-06	-7.12E-14	5.06E-07	8.10E+09	-2.44E-07	1.38E+06
576.000	5.41E-13	2.46E-05	1.28E-07	-5.73E-14	5.61E-07	8.10E+09	-1.55E-07	1.38E+06
580.800	3.01E-13	2.34E-05	-4.51E-07	-4.31E-14	5.35E-07	8.10E+09	-8.63E-08	1.38E+06
585.600	1.27E-13	2.03E-05	-7.46E-07	-3.01E-14	4.62E-07	8.10E+09	-3.65E-08	1.38E+06
590.400	1.13E-14	1.63E-05	-8.42E-07	-1.93E-14	3.71E-07	8.10E+09	-3.25E-09	1.38E+06
595.200	-5.83E-14	1.22E-05	-8.09E-07	-1.09E-14	2.78E-07	8.10E+09	1.67E-08	1.38E+06
600.000	-9.32E-14	8.49E-06	-7.05E-07	-4.77E-15	1.94E-07	8.10E+09	2.68E-08	1.38E+06
604.800	-1.04E-13	5.41E-06	-5.69E-07	-6.50E-16	1.24E-07	8.10E+09	2.99E-08	1.38E+06
609.600	-9.95E-14	3.03E-06	-4.29E-07	1.85E-15	6.91E-08	8.10E+09	2.86E-08	1.38E+06
614.400	-8.63E-14	1.30E-06	-3.01E-07	3.13E-15	2.97E-08	8.10E+09	2.48E-08	1.38E+06
619.200	-6.94E-14	1.42E-07	-1.93E-07	3.56E-15	3.23E-09	8.10E+09	1.99E-08	1.38E+06
624.000	-5.21E-14	-5.57E-07	-1.10E-07	3.44E-15	1.27E-08	8.10E+09	1.50E-08	1.38E+06
628.800	-3.64E-14	-9.11E-07	-4.86E-08	3.00E-15	2.08E-08	8.10E+09	1.05E-08	1.38E+06
633.600	-2.33E-14	-1.02E-06	-7.47E-09	2.43E-15	2.34E-08	8.10E+09	6.69E-09	1.38E+06
638.400	-1.31E-14	-9.83E-07	1.76E-08	1.83E-15	2.24E-08	8.10E+09	3.76E-09	1.38E+06
643.200	-5.70E-15	-8.55E-07	3.06E-08	1.29E-15	1.95E-08	8.10E+09	1.64E-09	1.38E+06
648.000	-7.28E-16	-6.89E-07	3.50E-08	8.32E-16	1.57E-08	8.10E+09	2.09E-10	1.38E+06
652.800	2.29E-15	-5.19E-07	3.39E-08	4.74E-16	1.18E-08	8.10E+09	-6.56E-10	1.38E+06
657.600	3.83E-15	-3.63E-07	2.97E-08	2.13E-16	8.29E-09	8.10E+09	-1.10E-09	1.38E+06
662.400	4.33E-15	-2.33E-07	2.41E-08	3.62E-17	5.32E-09	8.10E+09	-1.24E-09	1.38E+06

667.200	4.17E-15	-1.32E-07	1.82E-08	-7.20E-17	3.01E-09	8.10E+09	-1.20E-09	1.38E+06
672.000	3.64E-15	-5.82E-08	1.29E-08	-1.28E-16	1.33E-09	8.10E+09	-1.05E-09	1.38E+06
676.800	2.94E-15	-8.46E-09	8.33E-09	-1.48E-16	1.93E-10	8.10E+09	-8.45E-10	1.38E+06
681.600	2.22E-15	2.18E-08	4.77E-09	-1.44E-16	4.97E-10	8.10E+09	-6.37E-10	1.38E+06
686.400	1.56E-15	3.73E-08	2.17E-09	-1.27E-16	8.52E-10	8.10E+09	-4.47E-10	1.38E+06
691.200	1.00E-15	4.26E-08	4.03E-10	-1.03E-16	9.72E-10	8.10E+09	-2.88E-10	1.38E+06
696.000	5.71E-16	4.12E-08	-6.82E-10	-7.80E-17	9.41E-10	8.10E+09	-1.64E-10	1.38E+06
700.800	2.55E-16	3.60E-08	-1.25E-09	-5.52E-17	8.23E-10	8.10E+09	-7.32E-11	1.38E+06
705.600	4.14E-17	2.92E-08	-1.46E-09	-3.58E-17	6.66E-10	8.10E+09	-1.19E-11	1.38E+06
710.400	-8.91E-17	2.21E-08	-1.42E-09	-2.06E-17	5.04E-10	8.10E+09	2.56E-11	1.38E+06
715.200	-1.57E-16	1.55E-08	-1.25E-09	-9.49E-18	3.55E-10	8.10E+09	4.50E-11	1.38E+06
720.000	-1.80E-16	1.00E-08	-1.02E-09	-1.90E-18	2.29E-10	8.10E+09	5.17E-11	1.38E+06
724.800	-1.75E-16	5.74E-09	-7.76E-10	2.77E-18	1.31E-10	8.10E+09	5.02E-11	1.38E+06
729.600	-1.53E-16	2.60E-09	-5.50E-10	5.24E-18	5.92E-11	8.10E+09	4.41E-11	1.38E+06
734.400	-1.25E-16	4.63E-10	-3.58E-10	6.15E-18	1.06E-11	8.10E+09	3.58E-11	1.38E+06
739.200	-9.44E-17	-8.45E-10	-2.07E-10	6.04E-18	1.93E-11	8.10E+09	2.71E-11	1.38E+06
744.000	-6.67E-17	-1.53E-09	-9.64E-11	5.33E-18	3.49E-11	8.10E+09	1.91E-11	1.38E+06
748.800	-4.32E-17	-1.77E-09	-2.07E-11	4.36E-18	4.04E-11	8.10E+09	1.24E-11	1.38E+06
753.600	-2.48E-17	-1.73E-09	2.62E-11	3.32E-18	3.94E-11	8.10E+09	7.13E-12	1.38E+06
758.400	-1.14E-17	-1.52E-09	5.11E-11	2.36E-18	3.47E-11	8.10E+09	3.26E-12	1.38E+06
763.200	-2.20E-18	-1.24E-09	6.05E-11	1.54E-18	2.82E-11	8.10E+09	6.31E-13	1.38E+06
768.000	3.44E-18	-9.40E-10	5.96E-11	8.97E-19	2.14E-11	8.10E+09	-9.88E-13	1.38E+06
772.800	6.41E-18	-6.65E-10	5.28E-11	4.21E-19	1.52E-11	8.10E+09	-1.84E-12	1.38E+06
777.600	7.49E-18	-4.33E-10	4.32E-11	9.63E-20	9.87E-12	8.10E+09	-2.15E-12	1.38E+06
782.400	7.33E-18	-2.50E-10	3.30E-11	-1.06E-19	5.70E-12	8.10E+09	-2.11E-12	1.38E+06
787.200	6.47E-18	-1.16E-10	2.35E-11	-2.14E-19	2.64E-12	8.10E+09	-1.86E-12	1.38E+06
792.000	5.28E-18	-2.40E-11	1.54E-11	-2.55E-19	5.49E-13	8.10E+09	-1.52E-12	1.38E+06
796.800	4.02E-18	3.25E-11	9.01E-12	-2.53E-19	7.42E-13	8.10E+09	-1.15E-12	1.38E+06
801.600	2.85E-18	6.25E-11	4.28E-12	-2.25E-19	1.43E-12	8.10E+09	-8.18E-13	1.38E+06
806.400	1.86E-18	7.36E-11	1.03E-12	-1.84E-19	1.68E-12	8.10E+09	-5.34E-13	1.38E+06
811.200	1.08E-18	7.24E-11	-9.93E-13	-1.41E-19	1.65E-12	8.10E+09	-3.10E-13	1.38E+06
816.000	5.05E-19	6.41E-11	-2.08E-12	-1.01E-19	1.46E-12	8.10E+09	-1.45E-13	1.38E+06
820.800	1.12E-19	5.24E-11	-2.51E-12	-6.63E-20	1.20E-12	8.10E+09	-3.22E-14	1.38E+06
825.600	-1.32E-19	4.00E-11	-2.50E-12	-3.89E-20	9.12E-13	8.10E+09	3.78E-14	1.38E+06
830.400	-2.62E-19	2.84E-11	-2.22E-12	-1.87E-20	6.49E-13	8.10E+09	7.51E-14	1.38E+06
835.200	-3.11E-19	1.86E-11	-1.83E-12	-4.74E-21	4.25E-13	8.10E+09	8.93E-14	1.38E+06
840.000	-3.07E-19	1.09E-11	-1.40E-12	3.99E-21	2.48E-13	8.10E+09	8.82E-14	1.38E+06
844.800	-2.73E-19	5.13E-12	-1.00E-12	8.72E-21	1.17E-13	8.10E+09	7.83E-14	1.38E+06
849.600	-2.23E-19	1.21E-12	-6.63E-13	1.06E-20	2.75E-14	8.10E+09	6.42E-14	1.38E+06
854.400	-1.71E-19	-1.24E-12	-3.91E-13	1.06E-20	2.82E-14	8.10E+09	4.91E-14	1.38E+06
859.200	-1.22E-19	-2.55E-12	-1.89E-13	9.47E-21	5.82E-14	8.10E+09	3.50E-14	1.38E+06
864.000	-8.00E-20	-3.05E-12	-5.03E-14	7.81E-21	6.97E-14	8.10E+09	2.30E-14	1.38E+06
868.800	-4.69E-20	-3.03E-12	3.71E-14	6.00E-21	6.92E-14	8.10E+09	1.35E-14	1.38E+06
873.600	-2.24E-20	-2.70E-12	8.49E-14	4.31E-21	6.16E-14	8.10E+09	6.43E-15	1.38E+06
878.400	-5.55E-21	-2.22E-12	1.04E-13	2.85E-21	5.06E-14	8.10E+09	1.59E-15	1.38E+06
883.200	4.98E-21	-1.70E-12	1.04E-13	1.69E-21	3.88E-14	8.10E+09	-1.43E-15	1.38E+06
888.000	1.07E-20	-1.21E-12	9.37E-14	8.27E-22	2.77E-14	8.10E+09	-3.07E-15	1.38E+06
892.800	1.29E-20	-8.00E-13	7.74E-14	2.31E-22	1.82E-14	8.10E+09	-3.71E-15	1.38E+06
897.600	1.29E-20	-4.70E-13	5.97E-14	-1.46E-22	1.07E-14	8.10E+09	-3.70E-15	1.38E+06
902.400	1.15E-20	-2.27E-13	4.28E-14	-3.52E-22	5.17E-15	8.10E+09	-3.31E-15	1.38E+06
907.200	9.51E-21	-5.92E-14	2.84E-14	-4.37E-22	1.35E-15	8.10E+09	-2.73E-15	1.38E+06
912.000	7.33E-21	4.54E-14	1.67E-14	-4.41E-22	1.04E-15	8.10E+09	-2.10E-15	1.38E+06
916.800	5.28E-21	1.02E-13	8.06E-15	-3.97E-22	2.32E-15	8.10E+09	-1.52E-15	1.38E+06
921.600	3.52E-21	1.23E-13	2.00E-15	-3.31E-22	2.80E-15	8.10E+09	-1.01E-15	1.38E+06

926.400	2.10E-21	1.21E-13	-1.87E-15	-2.59E-22	2.76E-15	8.10E+09	-6.03E-16	1.38E+06
931.200	1.03E-21	1.05E-13	-4.03E-15	-1.92E-22	2.39E-15	8.10E+09	-2.96E-16	1.38E+06
936.000	2.60E-22	8.21E-14	-4.92E-15	-1.36E-22	1.87E-15	8.10E+09	-7.46E-17	1.38E+06
940.800	-2.78E-22	5.76E-14	-4.91E-15	-9.51E-23	1.32E-15	8.10E+09	8.00E-17	1.38E+06
945.600	-6.53E-22	3.50E-14	-4.26E-15	-6.76E-23	7.99E-16	8.10E+09	1.87E-16	1.38E+06
950.400	-9.28E-22	1.67E-14	-3.17E-15	-5.23E-23	3.81E-16	8.10E+09	2.66E-16	1.38E+06
955.200	-1.16E-21	4.53E-15	-1.74E-15	-4.60E-23	1.03E-16	8.10E+09	3.32E-16	1.38E+06
960.000	-1.37E-21	0.000	0.000	-4.47E-23	0.000	8.10E+09	3.93E-16	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection	=	1.58807189 in
Computed slope at pile head	=	-0.02285388
Maximum bending moment	=	2272783. lbs-in
Maximum shear force	=	-51928.53651 lbs
Depth of maximum bending moment	=	76.80000000 in
Depth of maximum shear force	=	110.40000 in
Number of iterations	=	29
Number of zero deflection points	=	15

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head	=	50000.000 lbs
Specified moment at pile head	=	0.000 in-lbs
Specified axial load at pile head	=	0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	2.545	-3.12E-07	50000.	-0.034087	7.13E-09	8.10E+09	0.000	0.000
4.800	2.381	2.40E+05	50000.	-0.034016	5477.196	8.10E+09	0.000	0.000
9.600	2.218	4.80E+05	50000.	-0.033803	10954.	8.10E+09	0.000	0.000
14.400	2.056	7.20E+05	49917.	-0.033447	16432.	8.10E+09	-34.627	80.823
19.200	1.897	9.59E+05	49539.	-0.032950	21891.	8.10E+09	-122.699	310.480
24.000	1.740	1.20E+06	48707.	-0.032311	27285.	8.10E+09	-224.124	618.227

28.800	1.587	1.43E+06	47389.	-0.031534	32562.	8.10E+09	-324.813	982.586
33.600	1.437	1.65E+06	45624.	-0.030623	37668.	8.10E+09	-410.678	1371.407
38.400	1.293	1.86E+06	43516.	-0.029581	42557.	8.10E+09	-467.633	1736.321
43.200	1.153	2.07E+06	41238.	-0.028416	47201.	8.10E+09	-481.588	2004.156
48.000	1.020	2.26E+06	38805.	-0.027134	51592.	8.10E+09	-532.413	2505.574
52.800	0.892932	2.44E+06	35936.	-0.025741	55703.	8.10E+09	-663.040	3564.208
57.600	0.772846	2.61E+06	32406.	-0.024246	59465.	8.10E+09	-807.700	5016.474
62.400	0.660171	2.75E+06	28148.	-0.022654	62803.	8.06E+09	-966.393	7026.497
67.200	0.555363	2.88E+06	23095.	-0.020955	65632.	7.85E+09	-1139.118	9845.393
72.000	0.459001	2.97E+06	17179.	-0.019126	67863.	7.52E+09	-1325.876	13865.
76.800	0.371749	3.04E+06	10333.	-0.017165	69396.	7.21E+09	-1526.667	19712.
81.600	0.294220	3.07E+06	2489.050	-0.015102	70126.	7.02E+09	-1741.489	28411.
86.400	0.226769	3.06E+06	-6419.342	-0.013012	69941.	7.07E+09	-1970.341	41706.
91.200	0.169301	3.01E+06	-16459.	-0.010990	68720.	7.35E+09	-2212.961	62742.
96.000	0.121268	2.91E+06	-27683.	-0.009108	66335.	7.76E+09	-2463.432	97507.
100.800	0.081867	2.75E+06	-39987.	-0.007391	62655.	8.06E+09	-2663.509	1.56E+05
105.600	0.050310	2.52E+06	-52530.	-0.005827	57574.	8.10E+09	-2562.644	2.44E+05
110.400	0.025927	2.24E+06	-63044.	-0.004416	51146.	8.10E+09	-1818.192	3.37E+05
115.200	0.007919	1.92E+06	-68960.	-0.003184	43762.	8.10E+09	-646.820	3.92E+05
120.000	-0.004636	1.58E+06	-69554.	-0.002148	36038.	8.10E+09	399.228	4.13E+05
124.800	-0.012701	1.25E+06	-65909.	-0.001310	28524.	8.10E+09	1119.782	4.23E+05
129.600	-0.017210	9.46E+05	-59484.	-0.000659	21598.	8.10E+09	1557.012	4.34E+05
134.400	-0.019028	6.79E+05	-51470.	-0.000178	15491.	8.10E+09	1782.476	4.50E+05
139.200	-0.018916	4.52E+05	-42757.	0.000157	10322.	8.10E+09	1847.671	4.69E+05
144.000	-0.017517	2.68E+05	-34027.	0.000371	6123.759	8.10E+09	1789.769	4.90E+05
148.800	-0.015355	1.26E+05	-25794.	0.000488	2866.806	8.10E+09	1640.798	5.13E+05
153.600	-0.012836	20708.	-18421.	0.000531	472.601	8.10E+09	1431.350	5.35E+05
158.400	-0.010258	-51223.	-12129.	0.000522	1168.984	8.10E+09	1190.091	5.57E+05
163.200	-0.007826	-95734.	-7013.081	0.000478	2184.806	8.10E+09	941.715	5.78E+05
168.000	-0.005666	-1.19E+05	-3060.220	0.000415	2705.464	8.10E+09	705.310	5.97E+05
172.800	-0.003843	-1.25E+05	-182.230	0.000343	2855.263	8.10E+09	493.852	6.17E+05
177.600	-0.002376	-1.20E+05	1758.267	0.000270	2745.389	8.10E+09	314.688	6.36E+05
182.400	-0.001251	-1.08E+05	2922.903	0.000202	2470.048	8.10E+09	170.577	6.54E+05
187.200	-0.000434	-92238.	3478.388	0.000143	2105.016	8.10E+09	60.875	6.73E+05
192.000	0.000120	-74840.	3582.865	9.34E-05	1707.976	8.10E+09	-17.343	6.91E+05
196.800	0.000462	-57842.	3377.185	5.41E-05	1320.054	8.10E+09	-68.356	7.10E+05
201.600	0.000640	-42419.	2980.227	2.44E-05	968.075	8.10E+09	-97.043	7.28E+05
206.400	0.000697	-29232.	2521.431	3.17E-06	667.123	8.10E+09	-94.122	6.49E+05
211.200	0.000670	-18213.	2071.813	-1.09E-05	415.660	8.10E+09	-93.219	6.68E+05
216.000	0.000592	-9342.606	1631.188	-1.90E-05	213.214	8.10E+09	-90.375	7.33E+05
220.800	0.000487	-2554.021	1207.690	-2.26E-05	58.287	8.10E+09	-86.083	8.48E+05
225.600	0.000375	2251.214	807.543	-2.27E-05	51.376	8.10E+09	-80.645	1.03E+06
230.400	0.000270	5198.391	435.783	-2.05E-05	118.636	8.10E+09	-74.255	1.32E+06
235.200	0.000179	6434.728	134.189	-1.70E-05	146.851	8.10E+09	-51.409	1.38E+06
240.000	0.000107	6486.609	-62.624	-1.32E-05	148.035	8.10E+09	-30.597	1.38E+06
244.800	5.25E-05	5833.541	-172.251	-9.53E-06	133.131	8.10E+09	-15.081	1.38E+06
249.600	1.51E-05	4832.999	-218.836	-6.37E-06	110.297	8.10E+09	-4.329	1.38E+06
254.400	-8.63E-06	3732.716	-223.281	-3.83E-06	85.187	8.10E+09	2.477	1.38E+06
259.200	-2.17E-05	2689.504	-202.371	-1.93E-06	61.379	8.10E+09	6.235	1.38E+06
264.000	-2.72E-05	1789.953	-168.692	-6.03E-07	40.850	8.10E+09	7.797	1.38E+06
268.800	-2.75E-05	1070.056	-131.023	2.44E-07	24.420	8.10E+09	7.898	1.38E+06
273.600	-2.48E-05	532.134	-94.967	7.19E-07	12.144	8.10E+09	7.125	1.38E+06
278.400	-2.06E-05	158.375	-63.664	9.23E-07	3.614	8.10E+09	5.918	1.38E+06
283.200	-1.60E-05	-79.042	-38.468	9.47E-07	1.804	8.10E+09	4.581	1.38E+06

288.000	-1.15E-05	-210.918	-19.534	8.61E-07	4.813	8.10E+09	3.308	1.38E+06
292.800	-7.69E-06	-266.566	-6.293	7.19E-07	6.083	8.10E+09	2.208	1.38E+06
297.600	-4.62E-06	-271.332	2.189	5.60E-07	6.192	8.10E+09	1.326	1.38E+06
302.400	-2.32E-06	-245.547	6.968	4.07E-07	5.604	8.10E+09	0.665101	1.38E+06
307.200	-7.13E-07	-204.439	9.056	2.74E-07	4.666	8.10E+09	0.204714	1.38E+06
312.000	3.09E-07	-158.614	9.334	1.66E-07	3.620	8.10E+09	-0.088745	1.38E+06
316.800	8.80E-07	-114.833	8.514	8.49E-08	2.621	8.10E+09	-0.252694	1.38E+06
321.600	1.12E-06	-76.875	7.133	2.82E-08	1.754	8.10E+09	-0.322879	1.38E+06
326.400	1.15E-06	-46.356	5.565	-8.35E-09	1.058	8.10E+09	-0.330295	1.38E+06
331.200	1.04E-06	-23.447	4.053	-2.90E-08	0.535094	8.10E+09	-0.299860	1.38E+06
336.000	8.72E-07	-7.446	2.733	-3.82E-08	0.169938	8.10E+09	-0.250281	1.38E+06
340.800	6.78E-07	2.788	1.665	-3.96E-08	0.063616	8.10E+09	-0.194621	1.38E+06
345.600	4.92E-07	8.537	0.858910	-3.62E-08	0.194837	8.10E+09	-0.141238	1.38E+06
350.400	3.30E-07	11.033	0.292357	-3.04E-08	0.251793	8.10E+09	-0.094826	1.38E+06
355.200	2.00E-07	11.344	-0.073036	-2.38E-08	0.258889	8.10E+09	-0.057422	1.38E+06
360.000	1.02E-07	10.332	-0.281122	-1.74E-08	0.235791	8.10E+09	-0.029280	1.38E+06
364.800	3.34E-08	8.645	-0.374375	-1.17E-08	0.197298	8.10E+09	-0.009575	1.38E+06
369.600	-1.07E-08	6.738	-0.389986	-7.18E-09	0.153770	8.10E+09	0.003071	1.38E+06
374.400	-3.56E-08	4.901	-0.358100	-3.73E-09	0.111857	8.10E+09	0.010215	1.38E+06
379.200	-4.65E-08	3.300	-0.301524	-1.30E-09	0.075315	8.10E+09	0.013358	1.38E+06
384.000	-4.81E-08	2.007	-0.236332	2.70E-10	0.045797	8.10E+09	0.013806	1.38E+06
388.800	-4.39E-08	1.031	-0.172923	1.17E-09	0.023538	8.10E+09	0.012615	1.38E+06
393.600	-3.69E-08	0.346664	-0.117250	1.58E-09	0.007911	8.10E+09	0.010582	1.38E+06
398.400	-2.88E-08	-0.094229	-0.072014	1.65E-09	0.002150	8.10E+09	0.008266	1.38E+06
403.200	-2.10E-08	-0.344666	-0.037709	1.52E-09	0.007866	8.10E+09	0.006027	1.38E+06
408.000	-1.42E-08	-0.456233	-0.013476	1.29E-09	0.010412	8.10E+09	0.004070	1.38E+06
412.800	-8.65E-09	-0.474031	0.002256	1.01E-09	0.010818	8.10E+09	0.002485	1.38E+06
417.600	-4.48E-09	-0.434577	0.011308	7.41E-10	0.009918	8.10E+09	0.001287	1.38E+06
422.400	-1.55E-09	-0.365472	0.015462	5.04E-10	0.008341	8.10E+09	0.000444	1.38E+06
427.200	3.51E-10	-0.286140	0.016286	3.10E-10	0.006530	8.10E+09	-0.000101	1.38E+06
432.000	1.43E-09	-0.209131	0.015055	1.64E-10	0.004773	8.10E+09	-0.000412	1.38E+06
436.800	1.92E-09	-0.141610	0.012742	5.98E-11	0.003232	8.10E+09	-0.000552	1.38E+06
441.600	2.01E-09	-0.086809	0.010033	-7.83E-12	0.001981	8.10E+09	-0.000577	1.38E+06
446.400	1.85E-09	-0.045297	0.007375	-4.70E-11	0.001034	8.10E+09	-0.000531	1.38E+06
451.200	1.56E-09	-0.016007	0.005029	-6.51E-11	0.000365	8.10E+09	-0.000447	1.38E+06
456.000	1.22E-09	0.002977	0.003113	-6.90E-11	6.79E-05	8.10E+09	-0.000351	1.38E+06
460.800	8.96E-10	0.013875	0.001653	-6.40E-11	0.000317	8.10E+09	-0.000257	1.38E+06
465.600	6.08E-10	0.018848	0.000617	-5.43E-11	0.000430	8.10E+09	-0.000175	1.38E+06
470.400	3.74E-10	0.019798	-5.99E-05	-4.29E-11	0.000452	8.10E+09	-0.000107	1.38E+06
475.200	1.97E-10	0.018272	-0.000453	-3.16E-11	0.000417	8.10E+09	-5.65E-05	1.38E+06
480.000	7.11E-11	0.015445	-0.000638	-2.16E-11	0.000352	8.10E+09	-2.04E-05	1.38E+06
484.800	-1.05E-11	0.012148	-0.000680	-1.34E-11	0.000277	8.10E+09	3.02E-06	1.38E+06
489.600	-5.77E-11	0.008920	-0.000633	-7.17E-12	0.000204	8.10E+09	1.66E-05	1.38E+06
494.400	-7.94E-11	0.006074	-0.000538	-2.73E-12	0.000139	8.10E+09	2.28E-05	1.38E+06
499.200	-8.39E-11	0.003753	-0.000426	1.80E-13	8.56E-05	8.10E+09	2.41E-05	1.38E+06
504.000	-7.77E-11	0.001986	-0.000314	1.88E-12	4.53E-05	8.10E+09	2.23E-05	1.38E+06
508.800	-6.58E-11	0.000734	-0.000216	2.69E-12	1.68E-05	8.10E+09	1.89E-05	1.38E+06
513.600	-5.19E-11	-8.30E-05	-0.000134	2.88E-12	1.89E-06	8.10E+09	1.49E-05	1.38E+06
518.400	-3.82E-11	-0.000557	-7.24E-05	2.69E-12	1.27E-05	8.10E+09	1.10E-05	1.38E+06
523.200	-2.61E-11	-0.000778	-2.81E-05	2.29E-12	1.78E-05	8.10E+09	7.49E-06	1.38E+06
528.000	-1.62E-11	-0.000826	1.02E-06	1.82E-12	1.89E-05	8.10E+09	4.64E-06	1.38E+06
532.800	-8.62E-12	-0.000768	1.81E-05	1.35E-12	1.75E-05	8.10E+09	2.48E-06	1.38E+06
537.600	-3.25E-12	-0.000653	2.63E-05	9.25E-13	1.49E-05	8.10E+09	9.34E-07	1.38E+06
542.400	2.62E-13	-0.000516	2.84E-05	5.79E-13	1.18E-05	8.10E+09	-7.52E-08	1.38E+06

547.200	2.31E-12	-0.000380	2.66E-05	3.14E-13	8.68E-06	8.10E+09	-6.63E-07	1.38E+06
552.000	3.28E-12	-0.000260	2.27E-05	1.24E-13	5.94E-06	8.10E+09	-9.40E-07	1.38E+06
556.800	3.50E-12	-0.000162	1.81E-05	-1.14E-15	3.70E-06	8.10E+09	-1.00E-06	1.38E+06
561.600	3.26E-12	-8.70E-05	1.34E-05	-7.49E-14	1.99E-06	8.10E+09	-9.37E-07	1.38E+06
566.400	2.78E-12	-3.35E-05	9.24E-06	-1.11E-13	7.64E-07	8.10E+09	-7.98E-07	1.38E+06
571.200	2.20E-12	1.68E-06	5.80E-06	-1.20E-13	3.84E-08	8.10E+09	-6.32E-07	1.38E+06
576.000	1.63E-12	2.23E-05	3.16E-06	-1.13E-13	5.08E-07	8.10E+09	-4.68E-07	1.38E+06
580.800	1.12E-12	3.21E-05	1.27E-06	-9.69E-14	7.32E-07	8.10E+09	-3.21E-07	1.38E+06
585.600	6.99E-13	3.45E-05	2.09E-08	-7.71E-14	7.87E-07	8.10E+09	-2.01E-07	1.38E+06
590.400	3.77E-13	3.23E-05	-7.20E-07	-5.74E-14	7.36E-07	8.10E+09	-1.08E-07	1.38E+06
595.200	1.48E-13	2.76E-05	-1.08E-06	-3.96E-14	6.29E-07	8.10E+09	-4.24E-08	1.38E+06
600.000	-3.26E-15	2.19E-05	-1.18E-06	-2.50E-14	4.99E-07	8.10E+09	9.37E-10	1.38E+06
604.800	-9.22E-14	1.62E-05	-1.12E-06	-1.37E-14	3.70E-07	8.10E+09	2.65E-08	1.38E+06
609.600	-1.35E-13	1.12E-05	-9.60E-07	-5.61E-15	2.55E-07	8.10E+09	3.87E-08	1.38E+06
614.400	-1.46E-13	7.00E-06	-7.66E-07	-2.27E-16	1.60E-07	8.10E+09	4.19E-08	1.38E+06
619.200	-1.37E-13	3.81E-06	-5.71E-07	2.97E-15	8.68E-08	8.10E+09	3.94E-08	1.38E+06
624.000	-1.17E-13	1.52E-06	-3.96E-07	4.55E-15	3.46E-08	8.10E+09	3.37E-08	1.38E+06
628.800	-9.34E-14	6.56E-09	-2.50E-07	5.00E-15	1.50E-10	8.10E+09	2.68E-08	1.38E+06
633.600	-6.94E-14	-8.86E-07	-1.38E-07	4.74E-15	2.02E-08	8.10E+09	1.99E-08	1.38E+06
638.400	-4.79E-14	-1.32E-06	-5.74E-08	4.09E-15	3.01E-08	8.10E+09	1.38E-08	1.38E+06
643.200	-3.02E-14	-1.44E-06	-3.62E-09	3.27E-15	3.28E-08	8.10E+09	8.66E-09	1.38E+06
648.000	-1.65E-14	-1.36E-06	2.85E-08	2.44E-15	3.09E-08	8.10E+09	4.74E-09	1.38E+06
652.800	-6.69E-15	-1.16E-06	4.45E-08	1.70E-15	2.66E-08	8.10E+09	1.92E-09	1.38E+06
657.600	-1.94E-16	-9.28E-07	4.92E-08	1.08E-15	2.12E-08	8.10E+09	5.58E-11	1.38E+06
662.400	3.66E-15	-6.91E-07	4.69E-08	5.99E-16	1.58E-08	8.10E+09	-1.05E-09	1.38E+06
667.200	5.55E-15	-4.78E-07	4.05E-08	2.52E-16	1.09E-08	8.10E+09	-1.59E-09	1.38E+06
672.000	6.08E-15	-3.02E-07	3.25E-08	2.13E-17	6.89E-09	8.10E+09	-1.75E-09	1.38E+06
676.800	5.76E-15	-1.66E-07	2.43E-08	-1.17E-16	3.79E-09	8.10E+09	-1.65E-09	1.38E+06
681.600	4.96E-15	-6.85E-08	1.69E-08	-1.87E-16	1.56E-09	8.10E+09	-1.42E-09	1.38E+06
686.400	3.96E-15	-3.58E-09	1.08E-08	-2.08E-16	8.18E-11	8.10E+09	-1.14E-09	1.38E+06
691.200	2.96E-15	3.51E-08	6.03E-09	-1.99E-16	8.02E-10	8.10E+09	-8.49E-10	1.38E+06
696.000	2.05E-15	5.43E-08	2.58E-09	-1.73E-16	1.24E-09	8.10E+09	-5.89E-10	1.38E+06
700.800	1.30E-15	5.99E-08	2.69E-10	-1.39E-16	1.37E-09	8.10E+09	-3.73E-10	1.38E+06
705.600	7.20E-16	5.69E-08	-1.12E-09	-1.04E-16	1.30E-09	8.10E+09	-2.07E-10	1.38E+06
710.400	3.01E-16	4.91E-08	-1.83E-09	-7.27E-17	1.12E-09	8.10E+09	-8.65E-11	1.38E+06
715.200	2.24E-17	3.93E-08	-2.05E-09	-4.65E-17	8.98E-10	8.10E+09	-6.42E-12	1.38E+06
720.000	-1.45E-16	2.94E-08	-1.97E-09	-2.61E-17	6.72E-10	8.10E+09	4.16E-11	1.38E+06
724.800	-2.28E-16	2.05E-08	-1.71E-09	-1.13E-17	4.67E-10	8.10E+09	6.55E-11	1.38E+06
729.600	-2.53E-16	1.30E-08	-1.38E-09	-1.40E-18	2.97E-10	8.10E+09	7.28E-11	1.38E+06
734.400	-2.42E-16	7.25E-09	-1.04E-09	4.61E-18	1.66E-10	8.10E+09	6.94E-11	1.38E+06
739.200	-2.09E-16	3.08E-09	-7.25E-10	7.67E-18	7.03E-11	8.10E+09	6.01E-11	1.38E+06
744.000	-1.68E-16	2.92E-10	-4.65E-10	8.67E-18	6.67E-12	8.10E+09	4.82E-11	1.38E+06
748.800	-1.26E-16	-1.39E-09	-2.63E-10	8.35E-18	3.16E-11	8.10E+09	3.62E-11	1.38E+06
753.600	-8.78E-17	-2.23E-09	-1.15E-10	7.28E-18	5.09E-11	8.10E+09	2.52E-11	1.38E+06
758.400	-5.61E-17	-2.49E-09	-1.63E-11	5.88E-18	5.69E-11	8.10E+09	1.61E-11	1.38E+06
763.200	-3.14E-17	-2.39E-09	4.40E-11	4.43E-18	5.45E-11	8.10E+09	9.02E-12	1.38E+06
768.000	-1.35E-17	-2.07E-09	7.49E-11	3.11E-18	4.73E-11	8.10E+09	3.88E-12	1.38E+06
772.800	-1.55E-18	-1.67E-09	8.53E-11	2.00E-18	3.81E-11	8.10E+09	4.44E-13	1.38E+06
777.600	5.69E-18	-1.25E-09	8.25E-11	1.14E-18	2.86E-11	8.10E+09	-1.63E-12	1.38E+06
782.400	9.37E-18	-8.76E-10	7.21E-11	5.06E-19	2.00E-11	8.10E+09	-2.69E-12	1.38E+06
787.200	1.06E-17	-5.61E-10	5.83E-11	8.02E-20	1.28E-11	8.10E+09	-3.03E-12	1.38E+06
792.000	1.01E-17	-3.16E-10	4.41E-11	-1.80E-19	7.22E-12	8.10E+09	-2.91E-12	1.38E+06
796.800	8.82E-18	-1.38E-10	3.10E-11	-3.14E-19	3.15E-12	8.10E+09	-2.53E-12	1.38E+06
801.600	7.12E-18	-1.83E-11	2.00E-11	-3.61E-19	4.19E-13	8.10E+09	-2.04E-12	1.38E+06

806.400	5.36E-18	5.43E-11	1.14E-11	-3.50E-19	1.24E-12	8.10E+09	-1.54E-12	1.38E+06
811.200	3.76E-18	9.15E-11	5.16E-12	-3.07E-19	2.09E-12	8.10E+09	-1.08E-12	1.38E+06
816.000	2.42E-18	1.04E-10	9.00E-13	-2.49E-19	2.37E-12	8.10E+09	-6.94E-13	1.38E+06
820.800	1.37E-18	1.00E-10	-1.71E-12	-1.89E-19	2.29E-12	8.10E+09	-3.93E-13	1.38E+06
825.600	6.05E-19	8.74E-11	-3.07E-12	-1.33E-19	1.99E-12	8.10E+09	-1.74E-13	1.38E+06
830.400	9.10E-20	7.07E-11	-3.55E-12	-8.62E-20	1.61E-12	8.10E+09	-2.61E-14	1.38E+06
835.200	-2.22E-19	5.34E-11	-3.46E-12	-4.95E-20	1.22E-12	8.10E+09	6.38E-14	1.38E+06
840.000	-3.84E-19	3.75E-11	-3.04E-12	-2.26E-20	8.56E-13	8.10E+09	1.10E-13	1.38E+06
844.800	-4.39E-19	2.42E-11	-2.47E-12	-4.29E-21	5.52E-13	8.10E+09	1.26E-13	1.38E+06
849.600	-4.25E-19	1.38E-11	-1.88E-12	6.95E-21	3.14E-13	8.10E+09	1.22E-13	1.38E+06
854.400	-3.72E-19	6.17E-12	-1.33E-12	1.29E-20	1.41E-13	8.10E+09	1.07E-13	1.38E+06
859.200	-3.02E-19	1.03E-12	-8.63E-13	1.50E-20	2.35E-14	8.10E+09	8.66E-14	1.38E+06
864.000	-2.28E-19	-2.11E-12	-4.98E-13	1.47E-20	4.82E-14	8.10E+09	6.55E-14	1.38E+06
868.800	-1.61E-19	-3.75E-12	-2.29E-13	1.29E-20	8.55E-14	8.10E+09	4.62E-14	1.38E+06
873.600	-1.04E-19	-4.32E-12	-4.69E-14	1.05E-20	9.85E-14	8.10E+09	2.99E-14	1.38E+06
878.400	-5.96E-20	-4.20E-12	6.58E-14	8.03E-21	9.58E-14	8.10E+09	1.71E-14	1.38E+06
883.200	-2.70E-20	-3.68E-12	1.25E-13	5.69E-21	8.41E-14	8.10E+09	7.75E-15	1.38E+06
888.000	-4.91E-21	-2.99E-12	1.47E-13	3.71E-21	6.83E-14	8.10E+09	1.41E-15	1.38E+06
892.800	8.66E-21	-2.27E-12	1.45E-13	2.16E-21	5.18E-14	8.10E+09	-2.49E-15	1.38E+06
897.600	1.58E-20	-1.60E-12	1.28E-13	1.01E-21	3.66E-14	8.10E+09	-4.53E-15	1.38E+06
902.400	1.84E-20	-1.04E-12	1.04E-13	2.27E-22	2.37E-14	8.10E+09	-5.27E-15	1.38E+06
907.200	1.80E-20	-5.99E-13	7.95E-14	-2.58E-22	1.37E-14	8.10E+09	-5.16E-15	1.38E+06
912.000	1.59E-20	-2.77E-13	5.61E-14	-5.17E-22	6.31E-15	8.10E+09	-4.56E-15	1.38E+06
916.800	1.30E-20	-5.97E-14	3.62E-14	-6.17E-22	1.36E-15	8.10E+09	-3.73E-15	1.38E+06
921.600	9.96E-21	7.12E-14	2.04E-14	-6.13E-22	1.62E-15	8.10E+09	-2.86E-15	1.38E+06
926.400	7.12E-21	1.36E-13	8.62E-15	-5.52E-22	3.11E-15	8.10E+09	-2.04E-15	1.38E+06
931.200	4.67E-21	1.54E-13	5.02E-16	-4.66E-22	3.51E-15	8.10E+09	-1.34E-15	1.38E+06
936.000	2.65E-21	1.41E-13	-4.54E-15	-3.79E-22	3.22E-15	8.10E+09	-7.60E-16	1.38E+06
940.800	1.03E-21	1.10E-13	-7.07E-15	-3.04E-22	2.52E-15	8.10E+09	-2.96E-16	1.38E+06
945.600	-2.71E-22	7.30E-14	-7.60E-15	-2.50E-22	1.67E-15	8.10E+09	7.79E-17	1.38E+06
950.400	-1.37E-21	3.75E-14	-6.47E-15	-2.17E-22	8.55E-16	8.10E+09	3.92E-16	1.38E+06
955.200	-2.35E-21	1.10E-14	-3.90E-15	-2.03E-22	2.50E-16	8.10E+09	6.76E-16	1.38E+06
960.000	-3.31E-21	0.000	0.000	-1.99E-22	0.000	8.10E+09	9.51E-16	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection	=	2.54456359 in
Computed slope at pile head	=	-0.03408693
Maximum bending moment	=	3072796. lbs-in
Maximum shear force	=	-69554.29645 lbs
Depth of maximum bending moment	=	81.60000000 in
Depth of maximum shear force	=	120.00000 in
Number of iterations	=	40

Number of zero deflection points = 15

 Summary of Pile Response(s)

Definition of Symbols for Pile-Head Loading Conditions:

Type 1 = Shear and Moment, y = pile-head displacment in
 Type 2 = Shear and Slope, M = Pile-head Moment lbs-in
 Type 3 = Shear and Rot. Stiffness, V = Pile-head Shear Force lbs
 Type 4 = Deflection and Moment, S = Pile-head Slope, radians
 Type 5 = Deflection and Slope, R = Rot. Stiffness of Pile-head in-lbs/rad

Load Type	Pile-Head Condition 1	Pile-Head Condition 2	Axial Load lbs	Pile-Head Deflection in	Maximum Moment in-lbs	Maximum Shear lbs
1	v= 10000.	M= 0.000	0.0000	0.1239409	345596.	10000.0000
1	v= 20000.	M= 0.000	0.0000	0.4262195	879971.	20000.0000
1	v= 30000.	M= 0.000	0.0000	0.9154459	1533600.	-35103.8916
1	v= 40000.	M= 0.000	0.0000	1.5881	2272783.	-51928.5365
1	v= 50000.	M= 0.000	0.0000	2.5446	3072796.	-69554.2964

The analysis ended normally.

APPENDIX F: LPILE ANALYSIS FOR TP4

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LPILE Plus for Windows, Version 5.0 (5.0.47)

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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This program is licensed to:

J Price
RB&G Engineering

Files Used for Analysis

Path to file locations: C:\Users\jprice\Documents\Thesis\LPILE 03.23.11\Pioneer
Crossing\Peak Plus 1 Min\
Name of input data file: phi28.k150.gam138.2.lpd
Name of output file: phi28.k150.gam138.2.lpo
Name of plot output file: phi28.k150.gam138.2.lpp
Name of runtime file: phi28.k150.gam138.2.lpr

Time and Date of Analysis

Date: May 5, 2012 Time: 1:53:59

Problem Title

New LPILE Plus 5.0 Data File

Program Options

Units Used in Computations - US Customary Units: Inches, Pounds

Basic Program Options:

Analysis Type 3:

- Computation of Nonlinear Bending Stiffness and Ultimate Bending Moment Capacity with Pile Response Computed Using Nonlinear EI

Computation Options:

- Only internally-generated p-y curves used in analysis
- Analysis does not use p-y multipliers (individual pile or shaft action only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output pile response for full length of pile
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths

Solution Control Parameters:

- Number of pile increments = 200
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 1.0000E+02 in

Printing Options:

- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (spacing of output points) = 1

Pile Structural Properties and Geometry

- Pile Length = 960.00 in
- Depth of ground surface below top of pile = 12.00 in
- Slope angle of ground surface = 0.00 deg.

Structural properties of pile defined using 2 points

Point No.	Point Depth in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
1	0.0000	16.00000000	562.0800	18.4100	29000000.
2	960.0000	16.00000000	562.0800	18.4100	29000000.

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of moment of inertia and modulus of are not used for any computations other than total stress due to combined axial loading and bending.

Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is sand, p-y criteria by API RP-2A, 1987

Distance from top of pile to top of layer = 12.000 in
Distance from top of pile to bottom of layer = 480.000 in
p-y subgrade modulus k for top of soil layer = 150.000 lbs/in**3
p-y subgrade modulus k for bottom of layer = 150.000 lbs/in**3

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer = 480.000 in
Distance from top of pile to bottom of layer = 1000.000 in

(Depth of lowest layer extends 40.00 in below pile tip)

Effective Unit weight of Soil vs. Depth

Effective unit weight of soil with depth defined using 4 points

Point No.	Depth X in	Eff. Unit weight lbs/in**3
1	12.00	0.08000
2	480.00	0.08000
3	480.00	0.06944
4	1000.00	0.06944

Shear Strength of Soils

Shear strength parameters with depth defined using 4 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	12.000	0.00000	28.00	-----	-----
2	480.000	0.00000	28.00	-----	-----
3	480.000	6.94444	0.00	0.00700	0.0
4	1000.000	6.94444	0.00	0.00700	0.0

Notes:

(1) Cohesion = uniaxial compressive strength for rock materials.

- (2) values of E50 are reported for clay strata.
- (3) Default values will be generated for E50 when input values are 0.
- (4) RQD and k_{rm} are reported only for weak rock strata.

Loading Type

Static loading criteria was used for computation of p-y curves.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 5

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 10000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 2

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 20000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 3

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 30000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 4

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 40000.000 lbs
Bending moment at pile head = 0.000 in-lbs
Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 50000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

 Computation of Nonlinear Bending Stiffness for Section 1

Dimensions and Material Properties of Steel Pipe Section:

Outer Diameter of Pipe = 16.00000 in.
 Pipe Wall Thickness = 0.37500 in.
 Yield Stress of Pipe = 60. ksi
 Elastic Modulus = 29000. ksi
 Cross-sectional Area = 18.40777 sq. in.
 Moment of Inertia = 562.084 in⁴
 Elastic Bending Stiffness = 16300439. kip-in²

Definition of Run Messages:

Y = part of pipe section has yielded

Axial Thrust Force = 0.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in ²	Max Comp Strain in/in	Minimum Strain in/in	Depth to N Axis in	Run Msg
0.00000550	89.57501530	16299140.	0.00004397	-0.00004397	8.00000000	
0.00001099	179.15003	16299140.	0.00008793	-0.00008793	8.00000000	
0.00001649	268.72505	16299140.	0.00013190	-0.00013190	8.00000000	
0.00002198	358.30006	16299140.	0.00017586	-0.00017586	8.00000000	
0.00002748	447.87508	16299140.	0.00021983	-0.00021983	8.00000000	
0.00003297	537.45009	16299140.	0.00026379	-0.00026379	8.00000000	
0.00003847	627.02511	16299140.	0.00030776	-0.00030776	8.00000000	
0.00004397	716.60012	16299140.	0.00035172	-0.00035172	8.00000000	
0.00004946	806.17514	16299140.	0.00039569	-0.00039569	8.00000000	
0.00005496	895.75015	16299140.	0.00043966	-0.00043966	8.00000000	
0.00006045	985.32517	16299140.	0.00048362	-0.00048362	8.00000000	
0.00006595	1074.90018	16299140.	0.00052759	-0.00052759	8.00000000	
0.00007144	1164.47520	16299140.	0.00057155	-0.00057155	8.00000000	
0.00007694	1254.05021	16299140.	0.00061552	-0.00061552	8.00000000	
0.00008244	1343.62523	16299140.	0.00065948	-0.00065948	8.00000000	

0.00008793	1433.20024	16299140.	0.00070345	-0.00070345	8.00000000	
0.00009343	1522.77526	16299140.	0.00074741	-0.00074741	8.00000000	
0.00009892	1612.35028	16299140.	0.00079138	-0.00079138	8.00000000	
0.00010442	1701.92529	16299140.	0.00083534	-0.00083534	8.00000000	
0.00010991	1791.50031	16299140.	0.00087931	-0.00087931	8.00000000	
0.00011541	1881.07532	16299140.	0.00092328	-0.00092328	8.00000000	
0.00012091	1970.65034	16299140.	0.00096724	-0.00096724	8.00000000	
0.00012640	2060.22535	16299140.	0.00101121	-0.00101121	8.00000000	
0.00013190	2149.80037	16299140.	0.00105517	-0.00105517	8.00000000	
0.00013739	2239.37538	16299140.	0.00109914	-0.00109914	8.00000000	
0.00014289	2328.95040	16299140.	0.00114310	-0.00114310	8.00000000	
0.00014838	2418.52541	16299140.	0.00118707	-0.00118707	8.00000000	
0.00015388	2508.10043	16299140.	0.00123103	-0.00123103	8.00000000	
0.00015938	2597.67544	16299140.	0.00127500	-0.00127500	8.00000000	
0.00016487	2687.25046	16299140.	0.00131897	-0.00131897	8.00000000	
0.00017037	2776.82547	16299140.	0.00136293	-0.00136293	8.00000000	
0.00017586	2866.40049	16299140.	0.00140690	-0.00140690	8.00000000	
0.00018136	2955.97550	16299140.	0.00145086	-0.00145086	8.00000000	
0.00018685	3045.55052	16299140.	0.00149483	-0.00149483	8.00000000	
0.00019235	3135.12554	16299140.	0.00153879	-0.00153879	8.00000000	
0.00019784	3224.70055	16299140.	0.00158276	-0.00158276	8.00000000	
0.00020334	3314.27557	16299140.	0.00162672	-0.00162672	8.00000000	
0.00020884	3403.85058	16299140.	0.00167069	-0.00167069	8.00000000	
0.00021433	3493.42560	16299140.	0.00171466	-0.00171466	8.00000000	
0.00021983	3583.00061	16299140.	0.00175862	-0.00175862	8.00000000	
0.00022532	3672.57563	16299140.	0.00180259	-0.00180259	8.00000000	
0.00023082	3762.15064	16299140.	0.00184655	-0.00184655	8.00000000	
0.00023631	3851.72566	16299140.	0.00189052	-0.00189052	8.00000000	
0.00024181	3941.30067	16299140.	0.00193448	-0.00193448	8.00000000	
0.00024731	4030.87569	16299140.	0.00197845	-0.00197845	8.00000000	
0.00025280	4120.45070	16299140.	0.00202241	-0.00202241	8.00000000	
0.00025830	4210.02572	16299140.	0.00206638	-0.00206638	8.00000000	
0.00026379	4296.43113	16287124.	0.00211034	-0.00211034	8.00000000	Y
0.00026929	4373.42773	16240660.	0.00215431	-0.00215431	8.00000000	Y
0.00027478	4439.00035	16154479.	0.00219828	-0.00219828	8.00000000	Y
0.00028028	4495.55846	16039516.	0.00224224	-0.00224224	8.00000000	Y
0.00028578	4546.13334	15908038.	0.00228621	-0.00228621	8.00000000	Y
0.00029127	4592.05610	15765549.	0.00233017	-0.00233017	8.00000000	Y
0.00029677	4633.81340	15614302.	0.00237414	-0.00237414	8.00000000	Y
0.00030226	4671.83655	15456200.	0.00241810	-0.00241810	8.00000000	Y
0.00030776	4707.19007	15295071.	0.00246207	-0.00246207	8.00000000	Y
0.00031325	4740.26069	15132308.	0.00250603	-0.00250603	8.00000000	Y
0.00031875	4771.09192	14968131.	0.00255000	-0.00255000	8.00000000	Y
0.00032425	4799.32117	14801495.	0.00259397	-0.00259397	8.00000000	Y
0.00032974	4826.14536	14636153.	0.00263793	-0.00263793	8.00000000	Y
0.00033524	4851.49019	14471819.	0.00268190	-0.00268190	8.00000000	Y
0.00034073	4874.74421	14306649.	0.00272586	-0.00272586	8.00000000	Y
0.00034623	4897.17687	14144351.	0.00276983	-0.00276983	8.00000000	Y
0.00035172	4918.00554	13982564.	0.00281379	-0.00281379	8.00000000	Y
0.00035722	4937.78073	13822807.	0.00285776	-0.00285776	8.00000000	Y
0.00036272	4956.64343	13665374.	0.00290172	-0.00290172	8.00000000	Y
0.00036821	4974.21101	13509124.	0.00294569	-0.00294569	8.00000000	Y
0.00037371	4991.27486	13356122.	0.00298966	-0.00298966	8.00000000	Y
0.00037920	5007.02214	13204082.	0.00303362	-0.00303362	8.00000000	Y

0.00038470	5022.43782	13055524.	0.00307759	-0.00307759	8.00000000	Y
0.00039019	5036.70038	12908196.	0.00312155	-0.00312155	8.00000000	Y
0.00039569	5050.60468	12764055.	0.00316552	-0.00316552	8.00000000	Y
0.00040119	5063.67451	12621783.	0.00320948	-0.00320948	8.00000000	Y
0.00040668	5076.19222	12481999.	0.00325345	-0.00325345	8.00000000	Y
0.00041218	5088.32389	12345005.	0.00329741	-0.00329741	8.00000000	Y
0.00041767	5099.56942	12209495.	0.00334138	-0.00334138	8.00000000	Y
0.00042317	5110.81496	12077505.	0.00338534	-0.00338534	8.00000000	Y
0.00042866	5121.06351	11946573.	0.00342931	-0.00342931	8.00000000	Y
0.00043416	5131.14214	11818565.	0.00347328	-0.00347328	8.00000000	Y
0.00043966	5140.96479	11693174.	0.00351724	-0.00351724	8.00000000	Y
0.00044515	5149.97368	11569052.	0.00356121	-0.00356121	8.00000000	Y
0.00045065	5158.98257	11447957.	0.00360517	-0.00360517	8.00000000	Y
0.00045614	5167.55970	11328834.	0.00364914	-0.00364914	8.00000000	Y
0.00046164	5175.58878	11211359.	0.00369310	-0.00369310	8.00000000	Y
0.00046713	5183.61786	11096649.	0.00373707	-0.00373707	8.00000000	Y
0.00047263	5191.25387	10983774.	0.00378103	-0.00378103	8.00000000	Y
0.00047813	5198.38655	10872442.	0.00382500	-0.00382500	8.00000000	Y
0.00048362	5205.51924	10763640.	0.00386897	-0.00386897	8.00000000	Y
0.00048912	5212.48015	10656932.	0.00391293	-0.00391293	8.00000000	Y
0.00049461	5218.79394	10551287.	0.00395690	-0.00395690	8.00000000	Y
0.00050011	5225.10773	10447963.	0.00400086	-0.00400086	8.00000000	Y
0.00050560	5231.42152	10346886.	0.00404483	-0.00404483	8.00000000	Y
0.00051110	5237.19181	10246919.	0.00408879	-0.00408879	8.00000000	Y
0.00051659	5242.75882	10148686.	0.00413276	-0.00413276	8.00000000	Y
0.00052209	5248.32584	10052521.	0.00417672	-0.00417672	8.00000000	Y
0.00052759	5253.89285	9958359.	0.00422069	-0.00422069	8.00000000	Y
0.00053308	5258.80636	9864912.	0.00426466	-0.00426466	8.00000000	Y
0.00053858	5263.69376	9773325.	0.00430862	-0.00430862	8.00000000	Y
0.00054407	5268.58116	9683587.	0.00435259	-0.00435259	8.00000000	Y
0.00054957	5273.46856	9595644.	0.00439655	-0.00439655	8.00000000	Y
0.00055506	5277.81618	9508471.	0.00444052	-0.00444052	8.00000000	Y
0.00056056	5282.08657	9422869.	0.00448448	-0.00448448	8.00000000	Y
0.00056606	5286.35697	9338928.	0.00452845	-0.00452845	8.00000000	Y
0.00057155	5290.62736	9256603.	0.00457241	-0.00457241	8.00000000	Y
0.00057705	5294.66043	9175434.	0.00461638	-0.00461638	8.00000000	Y
0.00058254	5298.37219	9095245.	0.00466034	-0.00466034	8.00000000	Y
0.00058804	5302.08395	9016554.	0.00470431	-0.00470431	8.00000000	Y
0.00059353	5305.79571	8939322.	0.00474828	-0.00474828	8.00000000	Y
0.00059903	5309.50748	8863506.	0.00479224	-0.00479224	8.00000000	Y
0.00060453	5312.93644	8788601.	0.00483621	-0.00483621	8.00000000	Y
0.00061002	5316.14401	8714682.	0.00488017	-0.00488017	8.00000000	Y
0.00061552	5319.35157	8642084.	0.00492414	-0.00492414	8.00000000	Y
0.00062101	5322.55913	8570770.	0.00496810	-0.00496810	8.00000000	Y
0.00062651	5325.76669	8500708.	0.00501207	-0.00501207	8.00000000	Y
0.00063200	5328.87341	8431704.	0.00505603	-0.00505603	8.00000000	Y
0.00063750	5331.62752	8363337.	0.00510000	-0.00510000	8.00000000	Y
0.00064300	5334.38163	8296139.	0.00514397	-0.00514397	8.00000000	Y
0.00064849	5337.13574	8230079.	0.00518793	-0.00518793	8.00000000	Y
0.00065399	5339.88985	8165130.	0.00523190	-0.00523190	8.00000000	Y
0.00065948	5342.64396	8101264.	0.00527586	-0.00527586	8.00000000	Y
0.00066498	5345.26145	8038247.	0.00531983	-0.00531983	8.00000000	Y
0.00067047	5347.60938	7975862.	0.00536379	-0.00536379	8.00000000	Y
0.00067597	5349.95732	7914491.	0.00540776	-0.00540776	8.00000000	Y

0.00068147	5352.30525	7854110.	0.00545172	-0.00545172	8.00000000	Y
0.00068696	5354.65319	7794695.	0.00549569	-0.00549569	8.00000000	Y
0.00069246	5357.00112	7736223.	0.00553966	-0.00553966	8.00000000	Y
0.00069795	5359.34906	7678672.	0.00558362	-0.00558362	8.00000000	Y
0.00070345	5361.40220	7621601.	0.00562759	-0.00562759	8.00000000	Y
0.00070894	5363.38797	7565320.	0.00567155	-0.00567155	8.00000000	Y
0.00071444	5365.37374	7509905.	0.00571552	-0.00571552	8.00000000	Y
0.00071994	5367.35952	7455335.	0.00575948	-0.00575948	8.00000000	Y
0.00072543	5369.34529	7401593.	0.00580345	-0.00580345	8.00000000	Y
0.00073093	5371.33107	7348659.	0.00584741	-0.00584741	8.00000000	Y
0.00073642	5373.31684	7296514.	0.00589138	-0.00589138	8.00000000	Y
0.00074192	5375.12714	7244906.	0.00593534	-0.00593534	8.00000000	Y
0.00074741	5376.79167	7193862.	0.00597931	-0.00597931	8.00000000	Y
0.00075291	5378.45620	7143563.	0.00602328	-0.00602328	8.00000000	Y
0.00075841	5380.12073	7093992.	0.00606724	-0.00606724	8.00000000	Y
0.00076390	5381.78526	7045136.	0.00611121	-0.00611121	8.00000000	Y
0.00076940	5383.44979	6996977.	0.00615517	-0.00615517	8.00000000	Y
0.00077489	5385.11432	6949501.	0.00619914	-0.00619914	8.00000000	Y
0.00078039	5386.77885	6902694.	0.00624310	-0.00624310	8.00000000	Y

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Load	Axial Thrust	Interp. Mom. Cap.
----	-----	-----
1	0.000 kips	5386.8 in-kip

Please note that the values in the above table are not factored by a strength reduction factor for LRFD.

The value of the strength reduction factor depends on the provisions of the LRFD code being used.

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to the LRFD structural design standard being followed.

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 1

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
Specified shear force at pile head = 10000.000 lbs
Specified moment at pile head = 0.000 in-lbs
Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L

in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.170551	2.16E-07	10000.	-0.002473	3.07E-09	1.63E+10	0.000	0.000
4.800	0.158681	48000.	10000.	-0.002466	683.177	1.63E+10	0.000	0.000
9.600	0.146878	96000.	10000.	-0.002445	1366.354	1.63E+10	0.000	0.000
14.400	0.135212	1.44E+05	9945.495	-0.002409	2049.530	1.63E+10	-22.710	806.212
19.200	0.123748	1.91E+05	9718.894	-0.002360	2725.260	1.63E+10	-71.707	2781.407
24.000	0.112556	2.37E+05	9256.521	-0.002297	3377.475	1.63E+10	-120.948	5157.889
28.800	0.101699	2.80E+05	8567.938	-0.002221	3990.028	1.63E+10	-165.961	7833.076
33.600	0.091238	3.20E+05	7681.122	-0.002132	4548.158	1.63E+10	-203.545	10708.
38.400	0.081229	3.54E+05	6636.593	-0.002033	5039.541	1.63E+10	-231.675	13690.
43.200	0.071721	3.83E+05	5482.362	-0.001925	5454.951	1.63E+10	-249.254	16682.
48.000	0.062754	4.07E+05	4270.322	-0.001808	5788.625	1.63E+10	-255.762	19563.
52.800	0.054362	4.24E+05	3054.611	-0.001686	6038.428	1.63E+10	-250.784	22143.
57.600	0.046570	4.36E+05	1836.492	-0.001559	6205.993	1.63E+10	-256.766	26465.
62.400	0.039394	4.42E+05	600.520	-0.001430	6289.358	1.63E+10	-258.223	31463.
67.200	0.032843	4.42E+05	-615.153	-0.001300	6288.045	1.63E+10	-248.308	36290.
72.000	0.026916	4.36E+05	-1760.995	-0.001171	6205.306	1.63E+10	-229.126	40860.
76.800	0.021606	4.25E+05	-2798.739	-0.001044	6047.431	1.63E+10	-203.267	45158.
81.600	0.016897	4.09E+05	-3702.322	-0.000921	5822.900	1.63E+10	-173.226	49210.
86.400	0.012765	3.89E+05	-4456.754	-0.000803	5541.563	1.63E+10	-141.121	53065.
91.200	0.009184	3.66E+05	-5056.139	-0.000692	5213.949	1.63E+10	-108.623	56770.
96.000	0.006121	3.41E+05	-5501.597	-0.000588	4850.716	1.63E+10	-76.985	60371.
100.800	0.003540	3.14E+05	-5799.453	-0.000492	4462.237	1.63E+10	-47.121	63900.
105.600	0.001401	2.85E+05	-5959.762	-0.000403	4058.306	1.63E+10	-19.674	67387.
110.400	-0.000334	2.56E+05	-5995.156	-0.000324	3647.923	1.63E+10	4.926	70848.
115.200	-0.001707	2.28E+05	-5919.936	-0.000252	3239.155	1.63E+10	26.416	74296.
120.000	-0.002758	1.99E+05	-5749.344	-0.000190	2839.050	1.63E+10	44.665	77741.
124.800	-0.003527	1.72E+05	-5498.982	-0.000135	2453.592	1.63E+10	59.653	81186.
129.600	-0.004052	1.47E+05	-5184.330	-8.79E-05	2087.695	1.63E+10	71.452	84633.
134.400	-0.004371	1.23E+05	-4820.359	-4.82E-05	1745.229	1.63E+10	80.203	88084.
139.200	-0.004515	1.00E+05	-4421.207	-1.54E-05	1429.063	1.63E+10	86.110	91538.
144.000	-0.004518	80176.	-3999.937	1.12E-05	1141.136	1.63E+10	89.419	94995.
148.800	-0.004408	62007.	-3568.347	3.21E-05	882.531	1.63E+10	90.410	98454.
153.600	-0.004210	45920.	-3136.848	4.80E-05	653.573	1.63E+10	89.382	1.02E+05
158.400	-0.003947	31893.	-2714.388	5.95E-05	453.926	1.63E+10	86.643	1.05E+05
163.200	-0.003639	19862.	-2308.436	6.71E-05	282.692	1.63E+10	82.503	1.09E+05
168.000	-0.003302	9731.870	-1924.999	7.15E-05	138.512	1.63E+10	77.262	1.12E+05
172.800	-0.002952	1381.933	-1568.681	7.31E-05	19.669	1.63E+10	71.204	1.16E+05
177.600	-0.002601	-5327.464	-1242.769	7.25E-05	75.825	1.63E+10	64.592	1.19E+05
182.400	-0.002256	-10549.	-949.349	7.02E-05	150.137	1.63E+10	57.666	1.23E+05
187.200	-0.001927	-14441.	-689.429	6.65E-05	205.540	1.63E+10	50.634	1.26E+05
192.000	-0.001618	-17167.	-463.077	6.19E-05	244.338	1.63E+10	43.679	1.30E+05
196.800	-0.001333	-18887.	-269.565	5.65E-05	268.812	1.63E+10	36.951	1.33E+05
201.600	-0.001075	-19755.	-107.510	5.09E-05	281.170	1.63E+10	30.572	1.37E+05
206.400	-0.000845	-19919.	24.987	4.50E-05	283.502	1.63E+10	24.635	1.40E+05
211.200	-0.000643	-19515.	130.213	3.92E-05	277.756	1.63E+10	19.209	1.43E+05
216.000	-0.000468	-18669.	210.718	3.36E-05	265.710	1.63E+10	14.335	1.47E+05
220.800	-0.000320	-17492.	269.211	2.83E-05	248.964	1.63E+10	10.037	1.50E+05
225.600	-0.000197	-16084.	308.462	2.33E-05	228.927	1.63E+10	6.318	1.54E+05
230.400	-9.66E-05	-14531.	331.223	1.88E-05	206.817	1.63E+10	3.166	1.57E+05
235.200	-1.66E-05	-12905.	340.159	1.48E-05	183.670	1.63E+10	0.557250	1.61E+05
240.000	4.51E-05	-11265.	337.794	1.12E-05	160.340	1.63E+10	-1.543	1.64E+05
244.800	9.09E-05	-9661.824	326.469	8.13E-06	137.515	1.63E+10	-3.176	1.68E+05

249.600	0.000123	-8131.362	308.315	5.51E-06	115.732	1.63E+10	-4.388	1.71E+05
254.400	0.000144	-6702.004	285.234	3.32E-06	95.389	1.63E+10	-5.229	1.75E+05
259.200	0.000155	-5393.119	258.889	1.54E-06	76.759	1.63E+10	-5.748	1.78E+05
264.000	0.000159	-4216.669	230.705	1.26E-07	60.015	1.63E+10	-5.995	1.81E+05
268.800	0.000156	-3178.348	201.874	-9.63E-07	45.237	1.63E+10	-6.018	1.85E+05
273.600	0.000149	-2278.677	173.365	-1.77E-06	32.432	1.63E+10	-5.861	1.88E+05
278.400	0.000139	-1514.040	145.943	-2.32E-06	21.549	1.63E+10	-5.565	1.92E+05
283.200	0.000127	-877.625	120.183	-2.68E-06	12.491	1.63E+10	-5.168	1.95E+05
288.000	0.000114	-360.280	96.496	-2.86E-06	5.128	1.63E+10	-4.702	1.99E+05
292.800	9.96E-05	48.737	75.144	-2.91E-06	0.693661	1.63E+10	-4.195	2.02E+05
297.600	8.57E-05	361.106	56.268	-2.84E-06	5.140	1.63E+10	-3.671	2.06E+05
302.400	7.23E-05	588.907	39.902	-2.70E-06	8.382	1.63E+10	-3.148	2.09E+05
307.200	5.97E-05	744.167	26.000	-2.51E-06	10.592	1.63E+10	-2.644	2.13E+05
312.000	4.82E-05	838.508	14.449	-2.28E-06	11.934	1.63E+10	-2.169	2.16E+05
316.800	3.79E-05	882.879	5.089	-2.02E-06	12.566	1.63E+10	-1.731	2.19E+05
321.600	2.88E-05	887.362	-2.274	-1.76E-06	12.630	1.63E+10	-1.337	2.23E+05
326.400	2.10E-05	861.048	-7.854	-1.50E-06	12.255	1.63E+10	-0.988264	2.26E+05
331.200	1.43E-05	811.964	-11.874	-1.26E-06	11.557	1.63E+10	-0.686825	2.30E+05
336.000	8.88E-06	747.055	-14.559	-1.03E-06	10.633	1.63E+10	-0.431647	2.33E+05
340.800	4.47E-06	672.202	-16.124	-8.19E-07	9.567	1.63E+10	-0.220686	2.37E+05
345.600	1.02E-06	592.263	-16.776	-6.33E-07	8.430	1.63E+10	-0.050926	2.40E+05
350.400	-1.60E-06	511.152	-16.703	-4.70E-07	7.275	1.63E+10	0.081315	2.44E+05
355.200	-3.50E-06	431.914	-16.076	-3.32E-07	6.147	1.63E+10	0.180131	2.47E+05
360.000	-4.79E-06	356.826	-15.044	-2.15E-07	5.079	1.63E+10	0.249809	2.51E+05
364.800	-5.57E-06	287.494	-13.737	-1.21E-07	4.092	1.63E+10	0.294647	2.54E+05
369.600	-5.94E-06	224.950	-12.265	-4.52E-08	3.202	1.63E+10	0.318812	2.57E+05
374.400	-6.00E-06	169.752	-10.717	1.30E-08	2.416	1.63E+10	0.326232	2.61E+05
379.200	-5.82E-06	122.070	-9.164	5.59E-08	1.737	1.63E+10	0.320519	2.64E+05
384.000	-5.46E-06	81.773	-7.663	8.59E-08	1.164	1.63E+10	0.304916	2.68E+05
388.800	-4.99E-06	48.502	-6.254	1.05E-07	0.690318	1.63E+10	0.282268	2.71E+05
393.600	-4.46E-06	21.733	-4.965	1.15E-07	0.309329	1.63E+10	0.255018	2.75E+05
398.400	-3.89E-06	0.840794	-3.812	1.19E-07	0.011967	1.63E+10	0.225212	2.78E+05
403.200	-3.31E-06	-14.863	-2.805	1.17E-07	0.211542	1.63E+10	0.194516	2.82E+05
408.000	-2.77E-06	-26.085	-1.944	1.11E-07	0.371265	1.63E+10	0.164245	2.85E+05
412.800	-2.25E-06	-33.523	-1.225	1.02E-07	0.477128	1.63E+10	0.135400	2.89E+05
417.600	-1.79E-06	-37.841	-0.638763	9.14E-08	0.538590	1.63E+10	0.108700	2.92E+05
422.400	-1.37E-06	-39.655	-0.174791	8.00E-08	0.564406	1.63E+10	0.084622	2.95E+05
427.200	-1.02E-06	-39.519	0.180561	6.83E-08	0.562472	1.63E+10	0.063442	2.99E+05
432.000	-7.19E-07	-37.922	0.441466	5.69E-08	0.539735	1.63E+10	0.045268	3.02E+05
436.800	-4.72E-07	-35.281	0.622298	4.62E-08	0.502152	1.63E+10	0.030079	3.06E+05
441.600	-2.75E-07	-31.948	0.737081	3.63E-08	0.454707	1.63E+10	0.017748	3.09E+05
446.400	-1.24E-07	-28.205	0.799057	2.74E-08	0.401441	1.63E+10	0.008076	3.13E+05
451.200	-1.23E-08	-24.277	0.820391	1.97E-08	0.345527	1.63E+10	0.000813	3.16E+05
456.000	6.49E-08	-20.329	0.811963	1.31E-08	0.289347	1.63E+10	-0.004325	3.20E+05
460.800	1.13E-07	-16.482	0.783247	7.69E-09	0.234584	1.63E+10	-0.007640	3.23E+05
465.600	1.39E-07	-12.810	0.742256	3.37E-09	0.182327	1.63E+10	-0.009439	3.27E+05
470.400	1.46E-07	-9.356	0.695529	1.10E-10	0.133166	1.63E+10	-0.010030	3.30E+05
475.200	1.40E-07	-6.133	0.648146	-2.17E-09	0.087294	1.63E+10	-0.009712	3.34E+05
480.000	1.25E-07	-3.134	0.538629	-3.54E-09	0.044606	1.63E+10	-0.035920	1.38E+06
484.800	1.06E-07	-0.962419	0.379443	-4.14E-09	0.013698	1.63E+10	-0.030408	1.38E+06
489.600	8.53E-08	0.508609	0.247653	-4.21E-09	0.007239	1.63E+10	-0.024505	1.38E+06
494.400	6.55E-08	1.415	0.143701	-3.92E-09	0.020140	1.63E+10	-0.018808	1.38E+06
499.200	4.76E-08	1.888	0.065712	-3.44E-09	0.026874	1.63E+10	-0.013687	1.38E+06
504.000	3.25E-08	2.046	0.010468	-2.86E-09	0.029119	1.63E+10	-0.009332	1.38E+06

508.800	2.02E-08	1.989	-0.025867	-2.26E-09	0.028304	1.63E+10	-0.005808	1.38E+06
513.600	1.08E-08	1.798	-0.047224	-1.71E-09	0.025584	1.63E+10	-0.003091	1.38E+06
518.400	3.85E-09	1.535	-0.057294	-1.21E-09	0.021851	1.63E+10	-0.001105	1.38E+06
523.200	-8.99E-10	1.248	-0.059325	-8.05E-10	0.017756	1.63E+10	0.000258	1.38E+06
528.000	-3.88E-09	0.965756	-0.056030	-4.79E-10	0.013745	1.63E+10	0.001115	1.38E+06
532.800	-5.50E-09	0.709656	-0.049565	-2.32E-10	0.010100	1.63E+10	0.001579	1.38E+06
537.600	-6.11E-09	0.489936	-0.041563	-5.55E-11	0.006973	1.63E+10	0.001755	1.38E+06
542.400	-6.03E-09	0.310652	-0.033194	6.24E-11	0.004421	1.63E+10	0.001732	1.38E+06
547.200	-5.51E-09	0.171274	-0.025238	1.33E-10	0.002438	1.63E+10	0.001583	1.38E+06
552.000	-4.75E-09	0.068367	-0.018165	1.69E-10	0.000973	1.63E+10	0.001364	1.38E+06
556.800	-3.89E-09	-0.003106	-0.012207	1.78E-10	4.42E-05	1.63E+10	0.001118	1.38E+06
561.600	-3.04E-09	-0.048823	-0.007430	1.71E-10	0.000695	1.63E+10	0.000873	1.38E+06
566.400	-2.25E-09	-0.074432	-0.003782	1.52E-10	0.001059	1.63E+10	0.000647	1.38E+06
571.200	-1.57E-09	-0.085126	-0.001142	1.29E-10	0.001212	1.63E+10	0.000452	1.38E+06
576.000	-1.02E-09	-0.085400	0.000643	1.04E-10	0.001215	1.63E+10	0.000292	1.38E+06
580.800	-5.77E-10	-0.078951	0.001742	7.96E-11	0.001124	1.63E+10	0.000166	1.38E+06
585.600	-2.51E-10	-0.068681	0.002313	5.79E-11	0.000978	1.63E+10	7.21E-05	1.38E+06
590.400	-2.15E-11	-0.056750	0.002501	3.94E-11	0.000808	1.63E+10	6.19E-06	1.38E+06
595.200	1.28E-10	-0.044676	0.002427	2.45E-11	0.000636	1.63E+10	-3.67E-05	1.38E+06
600.000	2.14E-10	-0.033447	0.002192	1.30E-11	0.000476	1.63E+10	-6.14E-05	1.38E+06
604.800	2.52E-10	-0.023633	0.001871	4.59E-12	0.000336	1.63E+10	-7.25E-05	1.38E+06
609.600	2.58E-10	-0.015489	0.001519	-1.17E-12	0.000220	1.63E+10	-7.40E-05	1.38E+06
614.400	2.41E-10	-0.009051	0.001175	-4.78E-12	0.000129	1.63E+10	-6.93E-05	1.38E+06
619.200	2.12E-10	-0.004209	0.000863	-6.74E-12	5.99E-05	1.63E+10	-6.09E-05	1.38E+06
624.000	1.77E-10	-0.000769	0.000595	-7.47E-12	1.09E-05	1.63E+10	-5.07E-05	1.38E+06
628.800	1.40E-10	0.001502	0.000377	-7.36E-12	2.14E-05	1.63E+10	-4.03E-05	1.38E+06
633.600	1.06E-10	0.002846	0.000207	-6.72E-12	4.05E-05	1.63E+10	-3.04E-05	1.38E+06
638.400	7.56E-11	0.003490	8.19E-05	-5.79E-12	4.97E-05	1.63E+10	-2.17E-05	1.38E+06
643.200	5.03E-11	0.003633	-4.87E-06	-4.74E-12	5.17E-05	1.63E+10	-1.44E-05	1.38E+06
648.000	3.01E-11	0.003443	-6.03E-05	-3.70E-12	4.90E-05	1.63E+10	-8.65E-06	1.38E+06
652.800	1.48E-11	0.003054	-9.13E-05	-2.74E-12	4.35E-05	1.63E+10	-4.25E-06	1.38E+06
657.600	3.81E-12	0.002567	-0.000104	-1.91E-12	3.65E-05	1.63E+10	-1.09E-06	1.38E+06
662.400	-3.55E-12	0.002055	-0.000104	-1.23E-12	2.92E-05	1.63E+10	1.02E-06	1.38E+06
667.200	-8.01E-12	0.001566	-9.63E-05	-6.98E-13	2.23E-05	1.63E+10	2.30E-06	1.38E+06
672.000	-1.03E-11	0.001130	-8.37E-05	-3.01E-13	1.61E-05	1.63E+10	2.95E-06	1.38E+06
676.800	-1.09E-11	0.000762	-6.91E-05	-2.28E-14	1.08E-05	1.63E+10	3.13E-06	1.38E+06
681.600	-1.05E-11	0.000467	-5.44E-05	1.58E-13	6.64E-06	1.63E+10	3.01E-06	1.38E+06
686.400	-9.39E-12	0.000240	-4.07E-05	2.62E-13	3.42E-06	1.63E+10	2.70E-06	1.38E+06
691.200	-7.96E-12	7.61E-05	-2.87E-05	3.09E-13	1.08E-06	1.63E+10	2.29E-06	1.38E+06
696.000	-6.43E-12	-3.53E-05	-1.88E-05	3.15E-13	5.03E-07	1.63E+10	1.85E-06	1.38E+06
700.800	-4.94E-12	-0.000104	-1.10E-05	2.94E-13	1.48E-06	1.63E+10	1.42E-06	1.38E+06
705.600	-3.60E-12	-0.000140	-5.07E-06	2.58E-13	2.00E-06	1.63E+10	1.03E-06	1.38E+06
710.400	-2.46E-12	-0.000153	-8.87E-07	2.15E-13	2.18E-06	1.63E+10	7.07E-07	1.38E+06
715.200	-1.54E-12	-0.000149	1.87E-06	1.71E-13	2.12E-06	1.63E+10	4.41E-07	1.38E+06
720.000	-8.23E-13	-0.000135	3.50E-06	1.29E-13	1.92E-06	1.63E+10	2.37E-07	1.38E+06
724.800	-3.01E-13	-0.000115	4.27E-06	9.19E-14	1.64E-06	1.63E+10	8.64E-08	1.38E+06
729.600	5.84E-14	-9.39E-05	4.44E-06	6.10E-14	1.34E-06	1.63E+10	-1.68E-08	1.38E+06
734.400	2.85E-13	-7.28E-05	4.20E-06	3.65E-14	1.04E-06	1.63E+10	-8.19E-08	1.38E+06
739.200	4.08E-13	-5.36E-05	3.72E-06	1.78E-14	7.63E-07	1.63E+10	-1.17E-07	1.38E+06
744.000	4.56E-13	-3.71E-05	3.13E-06	4.49E-15	5.28E-07	1.63E+10	-1.31E-07	1.38E+06
748.800	4.52E-13	-2.36E-05	2.50E-06	-4.45E-15	3.36E-07	1.63E+10	-1.30E-07	1.38E+06
753.600	4.14E-13	-1.31E-05	1.90E-06	-9.85E-15	1.86E-07	1.63E+10	-1.19E-07	1.38E+06
758.400	3.57E-13	-5.31E-06	1.37E-06	-1.26E-14	7.56E-08	1.63E+10	-1.03E-07	1.38E+06
763.200	2.93E-13	9.86E-08	9.25E-07	-1.33E-14	1.40E-09	1.63E+10	-8.42E-08	1.38E+06

768.000	2.29E-13	3.57E-06	5.65E-07	-1.28E-14	5.08E-08	1.63E+10	-6.58E-08	1.38E+06
772.800	1.70E-13	5.53E-06	2.90E-07	-1.14E-14	7.86E-08	1.63E+10	-4.89E-08	1.38E+06
777.600	1.19E-13	6.35E-06	9.05E-08	-9.70E-15	9.04E-08	1.63E+10	-3.42E-08	1.38E+06
782.400	7.71E-14	6.39E-06	-4.48E-08	-7.82E-15	9.10E-08	1.63E+10	-2.21E-08	1.38E+06
787.200	4.41E-14	5.92E-06	-1.28E-07	-6.01E-15	8.43E-08	1.63E+10	-1.27E-08	1.38E+06
792.000	1.94E-14	5.16E-06	-1.72E-07	-4.38E-15	7.35E-08	1.63E+10	-5.57E-09	1.38E+06
796.800	2.04E-15	4.27E-06	-1.87E-07	-2.99E-15	6.08E-08	1.63E+10	-5.87E-10	1.38E+06
801.600	-9.28E-15	3.37E-06	-1.82E-07	-1.86E-15	4.79E-08	1.63E+10	2.67E-09	1.38E+06
806.400	-1.58E-14	2.53E-06	-1.65E-07	-9.95E-16	3.59E-08	1.63E+10	4.55E-09	1.38E+06
811.200	-1.88E-14	1.79E-06	-1.41E-07	-3.59E-16	2.54E-08	1.63E+10	5.41E-09	1.38E+06
816.000	-1.93E-14	1.17E-06	-1.14E-07	7.68E-17	1.67E-08	1.63E+10	5.54E-09	1.38E+06
820.800	-1.81E-14	6.90E-07	-8.86E-08	3.51E-16	9.82E-09	1.63E+10	5.20E-09	1.38E+06
825.600	-1.59E-14	3.24E-07	-6.52E-08	5.01E-16	4.61E-09	1.63E+10	4.57E-09	1.38E+06
830.400	-1.33E-14	6.40E-08	-4.50E-08	5.58E-16	9.11E-10	1.63E+10	3.82E-09	1.38E+06
835.200	-1.06E-14	-1.08E-07	-2.86E-08	5.51E-16	1.54E-09	1.63E+10	3.03E-09	1.38E+06
840.000	-7.99E-15	-2.11E-07	-1.58E-08	5.04E-16	3.00E-09	1.63E+10	2.30E-09	1.38E+06
844.800	-5.72E-15	-2.60E-07	-6.37E-09	4.35E-16	3.70E-09	1.63E+10	1.64E-09	1.38E+06
849.600	-3.81E-15	-2.72E-07	2.04E-10	3.57E-16	3.87E-09	1.63E+10	1.10E-09	1.38E+06
854.400	-2.29E-15	-2.58E-07	4.41E-09	2.79E-16	3.67E-09	1.63E+10	6.59E-10	1.38E+06
859.200	-1.14E-15	-2.29E-07	6.78E-09	2.07E-16	3.26E-09	1.63E+10	3.27E-10	1.38E+06
864.000	-3.06E-16	-1.93E-07	7.77E-09	1.45E-16	2.75E-09	1.63E+10	8.79E-11	1.38E+06
868.800	2.53E-16	-1.55E-07	7.81E-09	9.35E-17	2.20E-09	1.63E+10	-7.26E-11	1.38E+06
873.600	5.92E-16	-1.18E-07	7.23E-09	5.34E-17	1.68E-09	1.63E+10	-1.70E-10	1.38E+06
878.400	7.65E-16	-8.54E-08	6.29E-09	2.34E-17	1.21E-09	1.63E+10	-2.20E-10	1.38E+06
883.200	8.17E-16	-5.77E-08	5.20E-09	2.35E-18	8.21E-10	1.63E+10	-2.35E-10	1.38E+06
888.000	7.87E-16	-3.54E-08	4.09E-09	-1.14E-17	5.04E-10	1.63E+10	-2.26E-10	1.38E+06
892.800	7.08E-16	-1.84E-08	3.06E-09	-1.93E-17	2.62E-10	1.63E+10	-2.03E-10	1.38E+06
897.600	6.02E-16	-6.02E-09	2.16E-09	-2.29E-17	8.57E-11	1.63E+10	-1.73E-10	1.38E+06
902.400	4.88E-16	2.36E-09	1.41E-09	-2.34E-17	3.35E-11	1.63E+10	-1.40E-10	1.38E+06
907.200	3.77E-16	7.50E-09	8.12E-10	-2.20E-17	1.07E-10	1.63E+10	-1.08E-10	1.38E+06
912.000	2.77E-16	1.02E-08	3.61E-10	-1.94E-17	1.44E-10	1.63E+10	-7.96E-11	1.38E+06
916.800	1.91E-16	1.10E-08	3.75E-11	-1.63E-17	1.56E-10	1.63E+10	-5.50E-11	1.38E+06
921.600	1.21E-16	1.05E-08	-1.78E-10	-1.31E-17	1.50E-10	1.63E+10	-3.48E-11	1.38E+06
926.400	6.56E-17	9.25E-09	-3.07E-10	-1.02E-17	1.32E-10	1.63E+10	-1.89E-11	1.38E+06
931.200	2.32E-17	7.57E-09	-3.68E-10	-7.71E-18	1.08E-10	1.63E+10	-6.68E-12	1.38E+06
936.000	-8.44E-18	5.72E-09	-3.78E-10	-5.76E-18	8.14E-11	1.63E+10	2.42E-12	1.38E+06
940.800	-3.20E-17	3.93E-09	-3.50E-10	-4.34E-18	5.60E-11	1.63E+10	9.20E-12	1.38E+06
945.600	-5.01E-17	2.36E-09	-2.94E-10	-3.41E-18	3.36E-11	1.63E+10	1.44E-11	1.38E+06
950.400	-6.48E-17	1.12E-09	-2.15E-10	-2.90E-18	1.59E-11	1.63E+10	1.86E-11	1.38E+06
955.200	-7.79E-17	3.00E-10	-1.16E-10	-2.69E-18	4.27E-12	1.63E+10	2.24E-11	1.38E+06
960.000	-9.06E-17	0.000	0.000	-2.65E-18	0.000	1.63E+10	2.60E-11	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.17055084 in
 Computed slope at pile head = -0.00247297
 Maximum bending moment = 441890.29666 lbs-in
 Maximum shear force = 10000.00000 lbs
 Depth of maximum bending moment = 62.40000000 in
 Depth of maximum shear force = 0.00000 in
 Number of iterations = 10
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 20000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.508947	1.02E-06	20000.	-0.006570	1.45E-08	1.63E+10	0.000	0.000
4.800	0.477409	96000.	20000.	-0.006556	1366.354	1.63E+10	0.000	0.000
9.600	0.446007	1.92E+05	20000.	-0.006514	2732.707	1.63E+10	0.000	0.000
14.400	0.414876	2.88E+05	19944.	-0.006443	4099.061	1.63E+10	-23.434	271.129
19.200	0.384153	3.83E+05	19705.	-0.006344	5457.729	1.63E+10	-76.117	951.082
24.000	0.353972	4.77E+05	19203.	-0.006218	6791.438	1.63E+10	-133.004	1803.584
28.800	0.324465	5.68E+05	18428.	-0.006064	8081.531	1.63E+10	-189.827	2808.224
33.600	0.295761	6.54E+05	17391.	-0.005884	9309.375	1.63E+10	-242.317	3932.654
38.400	0.267981	7.35E+05	16122.	-0.005679	10458.	1.63E+10	-286.230	5126.875
43.200	0.241240	8.09E+05	14674.	-0.005452	11512.	1.63E+10	-317.373	6314.829
48.000	0.215642	8.76E+05	13116.	-0.005204	12463.	1.63E+10	-331.604	7381.193
52.800	0.191282	9.35E+05	11541.	-0.004937	13304.	1.63E+10	-324.768	8149.670
57.600	0.168244	9.86E+05	9886.405	-0.004654	14040.	1.63E+10	-364.650	10403.
62.400	0.146600	1.03E+06	7985.750	-0.004358	14655.	1.63E+10	-427.290	13990.
67.200	0.126411	1.06E+06	5787.887	-0.004049	15131.	1.63E+10	-488.486	18548.
72.000	0.107725	1.09E+06	3316.643	-0.003733	15446.	1.63E+10	-541.199	24115.
76.800	0.090574	1.09E+06	634.925	-0.003412	15584.	1.63E+10	-576.184	30535.
81.600	0.074969	1.09E+06	-2151.551	-0.003090	15533.	1.63E+10	-584.848	37445.
86.400	0.060908	1.07E+06	-4906.291	-0.002771	15290.	1.63E+10	-562.961	44365.
91.200	0.048365	1.04E+06	-7487.540	-0.002459	14862.	1.63E+10	-512.560	50869.
96.000	0.037299	1.00E+06	-9775.331	-0.002158	14267.	1.63E+10	-440.686	56712.
100.800	0.027649	9.50E+05	-11688.	-0.001870	13527.	1.63E+10	-356.282	61852.
105.600	0.019343	8.90E+05	-13185.	-0.001599	12670.	1.63E+10	-267.499	66381.
110.400	0.012295	8.24E+05	-14260.	-0.001347	11725.	1.63E+10	-180.444	70447.
115.200	0.006411	7.53E+05	-14931.	-0.001115	10721.	1.63E+10	-99.106	74198.
120.000	0.001593	6.80E+05	-15231.	-0.000904	9685.143	1.63E+10	-25.801	77754.
124.800	-0.002264	6.07E+05	-15201.	-0.000714	8640.374	1.63E+10	38.299	81203.

129.600	-0.005262	5.35E+05	-14886.	-0.000546	7608.164	1.63E+10	92.757	84606.
134.400	-0.007505	4.64E+05	-14334.	-0.000399	6606.371	1.63E+10	137.593	87997.
139.200	-0.009092	3.97E+05	-13588.	-0.000272	5649.698	1.63E+10	173.124	91397.
144.000	-0.010118	3.34E+05	-12693.	-0.000165	4749.798	1.63E+10	199.857	94815.
148.800	-0.010672	2.75E+05	-11689.	-7.49E-05	3915.435	1.63E+10	218.440	98252.
153.600	-0.010837	2.22E+05	-10613.	-1.77E-06	3152.704	1.63E+10	229.617	1.02E+05
158.400	-0.010689	1.73E+05	-9500.225	5.64E-05	2465.270	1.63E+10	234.203	1.05E+05
163.200	-0.010296	1.30E+05	-8378.809	0.000101	1854.637	1.63E+10	233.054	1.09E+05
168.000	-0.009719	92773.	-7274.578	0.000134	1320.428	1.63E+10	227.043	1.12E+05
172.800	-0.009010	60471.	-6208.780	0.000156	860.673	1.63E+10	217.040	1.16E+05
177.600	-0.008217	33169.	-5198.557	0.000170	472.090	1.63E+10	203.886	1.19E+05
182.400	-0.007376	10565.	-4257.121	0.000177	150.366	1.63E+10	188.379	1.23E+05
187.200	-0.006521	-7699.347	-3393.997	0.000177	109.584	1.63E+10	171.256	1.26E+05
192.000	-0.005676	-22018.	-2615.349	0.000173	313.374	1.63E+10	153.181	1.30E+05
196.800	-0.004862	-32807.	-1924.334	0.000165	466.933	1.63E+10	134.742	1.33E+05
201.600	-0.004095	-40491.	-1321.493	0.000154	576.306	1.63E+10	116.442	1.36E+05
206.400	-0.003385	-45493.	-805.153	0.000141	647.495	1.63E+10	98.700	1.40E+05
211.200	-0.002740	-48221.	-371.830	0.000127	686.319	1.63E+10	81.852	1.43E+05
216.000	-0.002162	-49063.	-16.606	0.000113	698.300	1.63E+10	66.158	1.47E+05
220.800	-0.001654	-48380.	266.500	9.87E-05	688.588	1.63E+10	51.803	1.50E+05
225.600	-0.001214	-46504.	484.200	8.48E-05	661.887	1.63E+10	38.906	1.54E+05
230.400	-0.000840	-43732.	643.644	7.15E-05	622.429	1.63E+10	27.529	1.57E+05
235.200	-0.000528	-40325.	752.154	5.91E-05	573.943	1.63E+10	17.683	1.61E+05
240.000	-0.000273	-36511.	817.003	4.78E-05	519.658	1.63E+10	9.337	1.64E+05
244.800	-6.95E-05	-32482.	845.233	3.76E-05	462.311	1.63E+10	2.426	1.68E+05
249.600	8.82E-05	-28397.	843.514	2.87E-05	404.169	1.63E+10	-3.142	1.71E+05
254.400	0.000206	-24384.	818.026	2.09E-05	347.057	1.63E+10	-7.478	1.75E+05
259.200	0.000289	-20544.	774.390	1.43E-05	292.398	1.63E+10	-10.704	1.78E+05
264.000	0.000343	-16950.	717.613	8.75E-06	241.248	1.63E+10	-12.953	1.81E+05
268.800	0.000373	-13655.	652.074	4.24E-06	194.346	1.63E+10	-14.356	1.85E+05
273.600	0.000383	-10690.	581.513	6.59E-07	152.152	1.63E+10	-15.045	1.88E+05
278.400	0.000379	-8072.256	509.057	-2.10E-06	114.891	1.63E+10	-15.145	1.92E+05
283.200	0.000363	-5803.254	437.248	-4.15E-06	82.597	1.63E+10	-14.775	1.95E+05
288.000	0.000339	-3874.675	368.084	-5.57E-06	55.148	1.63E+10	-14.043	1.99E+05
292.800	0.000310	-2269.644	303.073	-6.48E-06	32.304	1.63E+10	-13.045	2.02E+05
297.600	0.000277	-965.178	243.281	-6.95E-06	13.737	1.63E+10	-11.868	2.06E+05
302.400	0.000243	65.852	189.397	-7.09E-06	0.937263	1.63E+10	-10.584	2.09E+05
307.200	0.000209	853.030	141.784	-6.95E-06	12.141	1.63E+10	-9.255	2.13E+05
312.000	0.000176	1426.975	100.536	-6.61E-06	20.310	1.63E+10	-7.931	2.16E+05
316.800	0.000146	1818.181	65.534	-6.14E-06	25.878	1.63E+10	-6.653	2.19E+05
321.600	0.000117	2056.104	36.489	-5.57E-06	29.264	1.63E+10	-5.449	2.23E+05
326.400	9.21E-05	2168.472	12.988	-4.94E-06	30.864	1.63E+10	-4.343	2.26E+05
331.200	6.99E-05	2180.788	-5.465	-4.30E-06	31.039	1.63E+10	-3.346	2.30E+05
336.000	5.08E-05	2116.011	-19.417	-3.67E-06	30.117	1.63E+10	-2.467	2.33E+05
340.800	3.46E-05	1994.387	-29.439	-3.07E-06	28.386	1.63E+10	-1.709	2.37E+05
345.600	2.13E-05	1833.394	-36.103	-2.50E-06	26.094	1.63E+10	-1.068	2.40E+05
350.400	1.06E-05	1647.799	-39.960	-1.99E-06	23.453	1.63E+10	-0.539432	2.44E+05
355.200	2.24E-06	1449.775	-41.532	-1.53E-06	20.634	1.63E+10	-0.115491	2.47E+05
360.000	-4.09E-06	1249.089	-41.297	-1.14E-06	17.778	1.63E+10	0.213546	2.51E+05
364.800	-8.66E-06	1053.325	-39.685	-7.97E-07	14.992	1.63E+10	0.458265	2.54E+05
369.600	-1.17E-05	868.118	-37.073	-5.14E-07	12.356	1.63E+10	0.629695	2.57E+05
374.400	-1.36E-05	697.420	-33.789	-2.83E-07	9.926	1.63E+10	0.738852	2.61E+05
379.200	-1.45E-05	543.744	-30.104	-1.00E-07	7.739	1.63E+10	0.796376	2.64E+05
384.000	-1.46E-05	408.418	-26.244	3.97E-08	5.813	1.63E+10	0.812260	2.68E+05

388.800	-1.41E-05	291.805	-22.385	1.43E-07	4.153	1.63E+10	0.795654	2.71E+05
393.600	-1.32E-05	193.525	-18.664	2.14E-07	2.754	1.63E+10	0.754747	2.75E+05
398.400	-1.20E-05	112.634	-15.180	2.59E-07	1.603	1.63E+10	0.696700	2.78E+05
403.200	-1.07E-05	47.795	-12.002	2.83E-07	0.680256	1.63E+10	0.627633	2.82E+05
408.000	-9.30E-06	-2.584	-9.169	2.90E-07	0.036773	1.63E+10	0.552645	2.85E+05
412.800	-7.92E-06	-40.229	-6.701	2.83E-07	0.572575	1.63E+10	0.475872	2.89E+05
417.600	-6.58E-06	-66.911	-4.597	2.68E-07	0.952327	1.63E+10	0.400559	2.92E+05
422.400	-5.35E-06	-84.363	-2.846	2.45E-07	1.201	1.63E+10	0.329152	2.95E+05
427.200	-4.23E-06	-94.232	-1.424	2.19E-07	1.341	1.63E+10	0.263391	2.99E+05
432.000	-3.24E-06	-98.032	-0.301144	1.91E-07	1.395	1.63E+10	0.204411	3.02E+05
436.800	-2.40E-06	-97.123	0.556270	1.62E-07	1.382	1.63E+10	0.152845	3.06E+05
441.600	-1.69E-06	-92.692	1.184	1.34E-07	1.319	1.63E+10	0.108907	3.09E+05
446.400	-1.11E-06	-85.752	1.620	1.08E-07	1.220	1.63E+10	0.072486	3.13E+05
451.200	-6.56E-07	-77.142	1.898	8.37E-08	1.098	1.63E+10	0.043219	3.16E+05
456.000	-3.09E-07	-67.536	2.051	6.24E-08	0.961227	1.63E+10	0.020557	3.20E+05
460.800	-5.68E-08	-57.456	2.109	4.40E-08	0.817767	1.63E+10	0.003822	3.23E+05
465.600	1.14E-07	-47.289	2.100	2.86E-08	0.673052	1.63E+10	-0.007749	3.27E+05
470.400	2.18E-07	-37.300	2.045	1.61E-08	0.530879	1.63E+10	-0.014970	3.30E+05
475.200	2.69E-07	-27.655	1.964	6.57E-09	0.393615	1.63E+10	-0.018677	3.34E+05
480.000	2.81E-07	-18.442	1.726	-2.14E-10	0.262476	1.63E+10	-0.080677	1.38E+06
484.800	2.67E-07	-11.087	1.348	-4.56E-09	0.157793	1.63E+10	-0.076638	1.38E+06
489.600	2.37E-07	-5.497	1.001	-7.00E-09	0.078241	1.63E+10	-0.068096	1.38E+06
494.400	2.00E-07	-1.477	0.700009	-8.03E-09	0.021020	1.63E+10	-0.057321	1.38E+06
499.200	1.60E-07	1.223	0.452166	-8.07E-09	0.017404	1.63E+10	-0.045947	1.38E+06
504.000	1.22E-07	2.864	0.257728	-7.47E-09	0.040762	1.63E+10	-0.035069	1.38E+06
508.800	8.83E-08	3.697	0.112711	-6.50E-09	0.052619	1.63E+10	-0.025355	1.38E+06
513.600	5.97E-08	3.946	0.010721	-5.37E-09	0.056162	1.63E+10	-0.017141	1.38E+06
518.400	3.67E-08	3.800	-0.055691	-4.23E-09	0.054084	1.63E+10	-0.010530	1.38E+06
523.200	1.90E-08	3.411	-0.094075	-3.17E-09	0.048553	1.63E+10	-0.005463	1.38E+06
528.000	6.20E-09	2.897	-0.111460	-2.24E-09	0.041230	1.63E+10	-0.001781	1.38E+06
532.800	-2.52E-09	2.341	-0.113993	-1.47E-09	0.033324	1.63E+10	0.000725	1.38E+06
537.600	-7.94E-09	1.803	-0.106779	-8.62E-10	0.025655	1.63E+10	0.002280	1.38E+06
542.400	-1.08E-08	1.316	-0.093859	-4.03E-10	0.018734	1.63E+10	0.003103	1.38E+06
547.200	-1.18E-08	0.901456	-0.078271	-7.65E-11	0.012830	1.63E+10	0.003392	1.38E+06
552.000	-1.15E-08	0.564830	-0.062176	1.39E-10	0.008039	1.63E+10	0.003314	1.38E+06
556.800	-1.05E-08	0.304565	-0.047004	2.67E-10	0.004335	1.63E+10	0.003007	1.38E+06
561.600	-8.97E-09	0.113588	-0.033603	3.29E-10	0.001617	1.63E+10	0.002577	1.38E+06
566.400	-7.31E-09	-0.018023	-0.022379	3.43E-10	0.000257	1.63E+10	0.002100	1.38E+06
571.200	-5.68E-09	-0.101252	-0.013426	3.26E-10	0.001441	1.63E+10	0.001630	1.38E+06
576.000	-4.18E-09	-0.146916	-0.006628	2.89E-10	0.002091	1.63E+10	0.001202	1.38E+06
580.800	-2.90E-09	-0.164883	-0.001743	2.43E-10	0.002347	1.63E+10	0.000833	1.38E+06
585.600	-1.85E-09	-0.163646	0.001534	1.95E-10	0.002329	1.63E+10	0.000532	1.38E+06
590.400	-1.03E-09	-0.150158	0.003522	1.48E-10	0.002137	1.63E+10	0.000297	1.38E+06
595.200	-4.26E-10	-0.129838	0.004527	1.07E-10	0.001848	1.63E+10	0.000122	1.38E+06
600.000	-2.51E-12	-0.106701	0.004822	7.24E-11	0.001519	1.63E+10	7.21E-07	1.38E+06
604.800	2.70E-10	-0.083547	0.004638	4.44E-11	0.001189	1.63E+10	-7.75E-05	1.38E+06
609.600	4.24E-10	-0.062179	0.004160	2.30E-11	0.000885	1.63E+10	-0.000122	1.38E+06
614.400	4.90E-10	-0.043616	0.003529	7.37E-12	0.000621	1.63E+10	-0.000141	1.38E+06
619.200	4.95E-10	-0.028296	0.002850	-3.21E-12	0.000403	1.63E+10	-0.000142	1.38E+06
624.000	4.59E-10	-0.016251	0.002193	-9.77E-12	0.000231	1.63E+10	-0.000132	1.38E+06
628.800	4.01E-10	-0.007245	0.001600	-1.32E-11	0.000103	1.63E+10	-0.000115	1.38E+06
633.600	3.32E-10	-0.000892	0.001094	-1.44E-11	1.27E-05	1.63E+10	-9.54E-05	1.38E+06
638.400	2.62E-10	0.003262	0.000685	-1.41E-11	4.64E-05	1.63E+10	-7.53E-05	1.38E+06
643.200	1.97E-10	0.005680	0.000368	-1.28E-11	8.08E-05	1.63E+10	-5.66E-05	1.38E+06

648.000	1.40E-10	0.006794	0.000136	-1.09E-11	9.67E-05	1.63E+10	-4.01E-05	1.38E+06
652.800	9.21E-11	0.006984	-2.40E-05	-8.90E-12	9.94E-05	1.63E+10	-2.64E-05	1.38E+06
657.600	5.43E-11	0.006564	-0.000125	-6.91E-12	9.34E-05	1.63E+10	-1.56E-05	1.38E+06
662.400	2.58E-11	0.005785	-0.000180	-5.09E-12	8.23E-05	1.63E+10	-7.40E-06	1.38E+06
667.200	5.44E-12	0.004835	-0.000202	-3.52E-12	6.88E-05	1.63E+10	-1.56E-06	1.38E+06
672.000	-8.05E-12	0.003849	-0.000200	-2.24E-12	5.48E-05	1.63E+10	2.31E-06	1.38E+06
676.800	-1.61E-11	0.002917	-0.000183	-1.25E-12	4.15E-05	1.63E+10	4.63E-06	1.38E+06
681.600	-2.00E-11	0.002091	-0.000158	-5.10E-13	2.98E-05	1.63E+10	5.75E-06	1.38E+06
686.400	-2.10E-11	0.001398	-0.000130	3.31E-15	1.99E-05	1.63E+10	6.03E-06	1.38E+06
691.200	-2.00E-11	0.000844	-0.000102	3.33E-13	1.20E-05	1.63E+10	5.75E-06	1.38E+06
696.000	-1.78E-11	0.000422	-7.56E-05	5.20E-13	6.01E-06	1.63E+10	5.11E-06	1.38E+06
700.800	-1.50E-11	0.000118	-5.30E-05	5.99E-13	1.68E-06	1.63E+10	4.31E-06	1.38E+06
705.600	-1.20E-11	-8.65E-05	-3.43E-05	6.04E-13	1.23E-06	1.63E+10	3.46E-06	1.38E+06
710.400	-9.21E-12	-0.000211	-1.97E-05	5.60E-13	3.01E-06	1.63E+10	2.65E-06	1.38E+06
715.200	-6.67E-12	-0.000275	-8.71E-06	4.89E-13	3.92E-06	1.63E+10	1.92E-06	1.38E+06
720.000	-4.52E-12	-0.000295	-9.94E-07	4.05E-13	4.20E-06	1.63E+10	1.30E-06	1.38E+06
724.800	-2.79E-12	-0.000285	4.05E-06	3.19E-13	4.05E-06	1.63E+10	8.01E-07	1.38E+06
729.600	-1.46E-12	-0.000256	6.97E-06	2.40E-13	3.65E-06	1.63E+10	4.19E-07	1.38E+06
734.400	-4.88E-13	-0.000218	8.31E-06	1.70E-13	3.10E-06	1.63E+10	1.40E-07	1.38E+06
739.200	1.73E-13	-0.000176	8.53E-06	1.12E-13	2.51E-06	1.63E+10	-4.96E-08	1.38E+06
744.000	5.84E-13	-0.000136	8.01E-06	6.57E-14	1.94E-06	1.63E+10	-1.68E-07	1.38E+06
748.800	8.03E-13	-9.95E-05	7.05E-06	3.10E-14	1.42E-06	1.63E+10	-2.31E-07	1.38E+06
753.600	8.82E-13	-6.83E-05	5.89E-06	6.34E-15	9.72E-07	1.63E+10	-2.53E-07	1.38E+06
758.400	8.64E-13	-4.29E-05	4.69E-06	-1.00E-14	6.11E-07	1.63E+10	-2.48E-07	1.38E+06
763.200	7.86E-13	-2.33E-05	3.55E-06	-1.98E-14	3.32E-07	1.63E+10	-2.26E-07	1.38E+06
768.000	6.74E-13	-8.86E-06	2.54E-06	-2.45E-14	1.26E-07	1.63E+10	-1.94E-07	1.38E+06
772.800	5.50E-13	1.10E-06	1.70E-06	-2.57E-14	1.57E-08	1.63E+10	-1.58E-07	1.38E+06
777.600	4.28E-13	7.43E-06	1.02E-06	-2.44E-14	1.06E-07	1.63E+10	-1.23E-07	1.38E+06
782.400	3.16E-13	1.09E-05	5.09E-07	-2.17E-14	1.55E-07	1.63E+10	-9.08E-08	1.38E+06
787.200	2.20E-13	1.23E-05	1.40E-07	-1.83E-14	1.75E-07	1.63E+10	-6.31E-08	1.38E+06
792.000	1.41E-13	1.23E-05	-1.09E-07	-1.47E-14	1.74E-07	1.63E+10	-4.04E-08	1.38E+06
796.800	7.88E-14	1.13E-05	-2.60E-07	-1.12E-14	1.60E-07	1.63E+10	-2.26E-08	1.38E+06
801.600	3.30E-14	9.76E-06	-3.37E-07	-8.11E-15	1.39E-07	1.63E+10	-9.48E-09	1.38E+06
806.400	9.81E-16	8.03E-06	-3.60E-07	-5.49E-15	1.14E-07	1.63E+10	-2.82E-10	1.38E+06
811.200	-1.97E-14	6.30E-06	-3.48E-07	-3.38E-15	8.97E-08	1.63E+10	5.66E-09	1.38E+06
816.000	-3.14E-14	4.70E-06	-3.12E-07	-1.76E-15	6.68E-08	1.63E+10	9.03E-09	1.38E+06
820.800	-3.66E-14	3.30E-06	-2.65E-07	-5.81E-16	4.70E-08	1.63E+10	1.05E-08	1.38E+06
825.600	-3.70E-14	2.15E-06	-2.15E-07	2.21E-16	3.06E-08	1.63E+10	1.06E-08	1.38E+06
830.400	-3.44E-14	1.24E-06	-1.65E-07	7.19E-16	1.76E-08	1.63E+10	9.90E-09	1.38E+06
835.200	-3.01E-14	5.59E-07	-1.21E-07	9.84E-16	7.96E-09	1.63E+10	8.65E-09	1.38E+06
840.000	-2.50E-14	7.87E-08	-8.29E-08	1.08E-15	1.12E-09	1.63E+10	7.18E-09	1.38E+06
844.800	-1.98E-14	-2.36E-07	-5.20E-08	1.06E-15	3.36E-09	1.63E+10	5.68E-09	1.38E+06
849.600	-1.49E-14	-4.21E-07	-2.81E-08	9.58E-16	5.99E-09	1.63E+10	4.27E-09	1.38E+06
854.400	-1.06E-14	-5.07E-07	-1.06E-08	8.22E-16	7.21E-09	1.63E+10	3.04E-09	1.38E+06
859.200	-6.98E-15	-5.22E-07	1.51E-09	6.70E-16	7.44E-09	1.63E+10	2.01E-09	1.38E+06
864.000	-4.13E-15	-4.92E-07	9.17E-09	5.21E-16	7.00E-09	1.63E+10	1.19E-09	1.38E+06
868.800	-1.98E-15	-4.34E-07	1.34E-08	3.84E-16	6.18E-09	1.63E+10	5.69E-10	1.38E+06
873.600	-4.44E-16	-3.64E-07	1.51E-08	2.67E-16	5.17E-09	1.63E+10	1.27E-10	1.38E+06
878.400	5.81E-16	-2.90E-07	1.50E-08	1.71E-16	4.12E-09	1.63E+10	-1.67E-10	1.38E+06
883.200	1.20E-15	-2.20E-07	1.37E-08	9.57E-17	3.13E-09	1.63E+10	-3.44E-10	1.38E+06
888.000	1.50E-15	-1.58E-07	1.19E-08	4.01E-17	2.25E-09	1.63E+10	-4.31E-10	1.38E+06
892.800	1.58E-15	-1.06E-07	9.76E-09	1.29E-18	1.51E-09	1.63E+10	-4.54E-10	1.38E+06
897.600	1.51E-15	-6.42E-08	7.63E-09	-2.37E-17	9.14E-10	1.63E+10	-4.34E-10	1.38E+06
902.400	1.35E-15	-3.26E-08	5.65E-09	-3.80E-17	4.64E-10	1.63E+10	-3.89E-10	1.38E+06

907.200	1.15E-15	-9.93E-09	3.93E-09	-4.42E-17	1.41E-10	1.63E+10	-3.30E-10	1.38E+06
912.000	9.28E-16	5.12E-09	2.50E-09	-4.50E-17	7.28E-11	1.63E+10	-2.67E-10	1.38E+06
916.800	7.16E-16	1.40E-08	1.36E-09	-4.21E-17	2.00E-10	1.63E+10	-2.06E-10	1.38E+06
921.600	5.24E-16	1.82E-08	5.08E-10	-3.74E-17	2.59E-10	1.63E+10	-1.50E-10	1.38E+06
926.400	3.57E-16	1.89E-08	-9.95E-11	-3.19E-17	2.69E-10	1.63E+10	-1.03E-10	1.38E+06
931.200	2.17E-16	1.72E-08	-4.95E-10	-2.66E-17	2.45E-10	1.63E+10	-6.23E-11	1.38E+06
936.000	1.01E-16	1.41E-08	-7.15E-10	-2.20E-17	2.01E-10	1.63E+10	-2.91E-11	1.38E+06
940.800	5.88E-18	1.04E-08	-7.89E-10	-1.84E-17	1.48E-10	1.63E+10	-1.69E-12	1.38E+06
945.600	-7.50E-17	6.57E-09	-7.41E-10	-1.59E-17	9.35E-11	1.63E+10	2.16E-11	1.38E+06
950.400	-1.47E-16	3.26E-09	-5.88E-10	-1.44E-17	4.64E-11	1.63E+10	4.21E-11	1.38E+06
955.200	-2.14E-16	9.24E-10	-3.40E-10	-1.38E-17	1.32E-11	1.63E+10	6.14E-11	1.38E+06
960.000	-2.79E-16	0.000	0.000	-1.37E-17	0.000	1.63E+10	8.02E-11	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.50894654 in
 Computed slope at pile head = -0.00657034
 Maximum bending moment = 1094928. lbs-in
 Maximum shear force = 20000.00000 lbs
 Depth of maximum bending moment = 76.80000000 in
 Depth of maximum shear force = 0.00000 in
 Number of iterations = 18
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 3

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 30000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	1.065	-1.57E-06	30000.	-0.012425	2.24E-08	1.63E+10	0.000	0.000
4.800	1.005	1.44E+05	30000.	-0.012404	2049.530	1.63E+10	0.000	0.000

9.600	0.945862	2.88E+05	30000.	-0.012340	4099.061	1.63E+10	0.000	0.000
14.400	0.886833	4.32E+05	29944.	-0.012234	6148.591	1.63E+10	-23.434	126.839
19.200	0.828416	5.75E+05	29705.	-0.012086	8190.437	1.63E+10	-76.119	441.049
24.000	0.770812	7.17E+05	29203.	-0.011895	10207.	1.63E+10	-133.021	828.350
28.800	0.714221	8.56E+05	28428.	-0.011664	12181.	1.63E+10	-189.895	1276.208
33.600	0.658841	9.90E+05	27390.	-0.011392	14092.	1.63E+10	-242.495	1766.703
38.400	0.604859	1.12E+06	26120.	-0.011081	15923.	1.63E+10	-286.576	2274.189
43.200	0.552460	1.24E+06	24670.	-0.010734	17661.	1.63E+10	-317.893	2761.984
48.000	0.501814	1.36E+06	23109.	-0.010352	19294.	1.63E+10	-332.200	3177.589
52.800	0.453085	1.46E+06	21532.	-0.009937	20818.	1.63E+10	-325.252	3445.733
57.600	0.406423	1.56E+06	19873.	-0.009491	22236.	1.63E+10	-366.004	4322.638
62.400	0.361969	1.65E+06	17956.	-0.009018	23533.	1.63E+10	-432.388	5733.815
67.200	0.319853	1.73E+06	15709.	-0.008519	24689.	1.63E+10	-504.058	7564.341
72.000	0.280189	1.80E+06	13105.	-0.007998	25680.	1.63E+10	-580.889	9951.377
76.800	0.243075	1.86E+06	10121.	-0.007458	26480.	1.63E+10	-662.325	13079.
81.600	0.208591	1.90E+06	6740.236	-0.006904	27063.	1.63E+10	-746.472	17177.
86.400	0.176796	1.93E+06	2960.665	-0.006341	27401.	1.63E+10	-828.349	22490.
91.200	0.147721	1.93E+06	-1182.109	-0.005773	27467.	1.63E+10	-897.807	29173.
96.000	0.121374	1.91E+06	-5590.867	-0.005207	27239.	1.63E+10	-939.176	37142.
100.800	0.097733	1.88E+06	-10090.	-0.004649	26703.	1.63E+10	-935.385	45940.
105.600	0.076744	1.82E+06	-14438.	-0.004105	25861.	1.63E+10	-876.282	54808.
110.400	0.058323	1.74E+06	-18377.	-0.003582	24731.	1.63E+10	-765.187	62975.
115.200	0.042359	1.64E+06	-21696.	-0.003084	23350.	1.63E+10	-617.523	69976.
120.000	0.028713	1.53E+06	-24265.	-0.002618	21766.	1.63E+10	-453.113	75747.
124.800	0.017230	1.41E+06	-26046.	-0.002185	20034.	1.63E+10	-288.940	80496.
129.600	0.007736	1.28E+06	-27067.	-0.001790	18207.	1.63E+10	-136.225	84530.
134.400	4.99E-05	1.15E+06	-27396.	-0.001432	16336.	1.63E+10	-0.915390	88128.
139.200	-0.006013	1.02E+06	-27123.	-0.001114	14464.	1.63E+10	114.633	91502.
144.000	-0.010640	8.87E+05	-26344.	-0.000833	12630.	1.63E+10	210.121	94791.
148.800	-0.014012	7.63E+05	-25152.	-0.000590	10865.	1.63E+10	286.307	98076.
153.600	-0.016306	6.46E+05	-23638.	-0.000383	9193.294	1.63E+10	344.447	1.01E+05
158.400	-0.017686	5.36E+05	-21885.	-0.000209	7634.859	1.63E+10	386.035	1.05E+05
163.200	-0.018308	4.36E+05	-19968.	-6.54E-05	6203.015	1.63E+10	412.678	1.08E+05
168.000	-0.018314	3.45E+05	-17955.	4.95E-05	4906.498	1.63E+10	426.050	1.12E+05
172.800	-0.017832	2.63E+05	-15906.	0.000139	3749.693	1.63E+10	427.864	1.15E+05
177.600	-0.016978	1.92E+05	-13871.	0.000206	2733.195	1.63E+10	419.841	1.19E+05
182.400	-0.015853	1.30E+05	-11895.	0.000254	1854.374	1.63E+10	403.688	1.22E+05
187.200	-0.014544	77843.	-10012.	0.000284	1107.932	1.63E+10	381.057	1.26E+05
192.000	-0.013124	34178.	-8248.516	0.000301	486.448	1.63E+10	353.522	1.29E+05
196.800	-0.011656	-1342.458	-6625.962	0.000306	19.107	1.63E+10	322.542	1.33E+05
201.600	-0.010190	-29431.	-5157.208	0.000301	418.893	1.63E+10	289.439	1.36E+05
206.400	-0.008766	-50852.	-3849.637	0.000289	723.764	1.63E+10	255.382	1.40E+05
211.200	-0.007413	-66388.	-2705.414	0.000272	944.889	1.63E+10	221.377	1.43E+05
216.000	-0.006155	-76824.	-1722.285	0.000251	1093.419	1.63E+10	188.260	1.47E+05
220.800	-0.005005	-82922.	-894.358	0.000227	1180.214	1.63E+10	156.709	1.50E+05
225.600	-0.003972	-85409.	-212.871	0.000203	1215.620	1.63E+10	127.244	1.54E+05
230.400	-0.003060	-84965.	333.080	0.000178	1209.300	1.63E+10	100.236	1.57E+05
235.200	-0.002268	-82212.	755.883	0.000153	1170.110	1.63E+10	75.931	1.61E+05
240.000	-0.001592	-77709.	1068.813	0.000129	1106.020	1.63E+10	54.457	1.64E+05
244.800	-0.001026	-71951.	1285.534	0.000107	1024.072	1.63E+10	35.843	1.68E+05
249.600	-0.000562	-65368.	1419.652	8.71E-05	930.370	1.63E+10	20.039	1.71E+05
254.400	-0.000190	-58323.	1484.368	6.89E-05	830.097	1.63E+10	6.926	1.75E+05
259.200	9.89E-05	-51118.	1492.194	5.28E-05	727.553	1.63E+10	-3.665	1.78E+05
264.000	0.000316	-43998.	1454.735	3.87E-05	626.211	1.63E+10	-11.942	1.81E+05

268.800	0.000471	-37152.	1382.548	2.68E-05	528.785	1.63E+10	-18.136	1.85E+05
273.600	0.000573	-30725.	1285.041	1.68E-05	437.306	1.63E+10	-22.492	1.88E+05
278.400	0.000632	-24816.	1170.438	8.62E-06	353.203	1.63E+10	-25.260	1.92E+05
283.200	0.000656	-19489.	1045.770	2.10E-06	277.383	1.63E+10	-26.685	1.95E+05
288.000	0.000652	-14777.	916.914	-2.94E-06	210.313	1.63E+10	-27.005	1.99E+05
292.800	0.000628	-10687.	788.649	-6.69E-06	152.100	1.63E+10	-26.439	2.02E+05
297.600	0.000588	-7205.589	664.737	-9.33E-06	102.556	1.63E+10	-25.191	2.06E+05
302.400	0.000538	-4305.052	548.018	-1.10E-05	61.273	1.63E+10	-23.442	2.09E+05
307.200	0.000482	-1944.619	440.513	-1.19E-05	27.677	1.63E+10	-21.352	2.13E+05
312.000	0.000423	-76.130	343.531	-1.22E-05	1.084	1.63E+10	-19.057	2.16E+05
316.800	0.000365	1353.281	257.778	-1.21E-05	19.261	1.63E+10	-16.673	2.19E+05
321.600	0.000308	2398.542	183.459	-1.15E-05	34.138	1.63E+10	-14.293	2.23E+05
326.400	0.000254	3114.483	120.375	-1.07E-05	44.328	1.63E+10	-11.991	2.26E+05
331.200	0.000205	3554.141	68.019	-9.71E-06	50.586	1.63E+10	-9.823	2.30E+05
336.000	0.000161	3767.470	25.655	-8.63E-06	53.622	1.63E+10	-7.829	2.33E+05
340.800	0.000122	3800.428	-7.613	-7.51E-06	54.091	1.63E+10	-6.033	2.37E+05
345.600	8.89E-05	3694.384	-32.774	-6.41E-06	52.582	1.63E+10	-4.451	2.40E+05
350.400	6.08E-05	3485.799	-50.859	-5.35E-06	49.613	1.63E+10	-3.085	2.44E+05
355.200	3.75E-05	3206.134	-62.902	-4.37E-06	45.632	1.63E+10	-1.933	2.47E+05
360.000	1.88E-05	2881.941	-69.900	-3.47E-06	41.018	1.63E+10	-0.983378	2.51E+05
364.800	4.21E-06	2535.091	-72.795	-2.67E-06	36.082	1.63E+10	-0.222752	2.54E+05
369.600	-6.84E-06	2183.109	-72.450	-1.98E-06	31.072	1.63E+10	0.366720	2.57E+05
374.400	-1.48E-05	1839.576	-69.639	-1.39E-06	26.182	1.63E+10	0.804344	2.61E+05
379.200	-2.02E-05	1514.575	-65.044	-8.94E-07	21.557	1.63E+10	1.110	2.64E+05
384.000	-2.34E-05	1215.153	-59.249	-4.92E-07	17.295	1.63E+10	1.304	2.68E+05
388.800	-2.49E-05	945.782	-52.745	-1.73E-07	13.461	1.63E+10	1.406	2.71E+05
393.600	-2.50E-05	708.805	-45.930	7.02E-08	10.088	1.63E+10	1.433	2.75E+05
398.400	-2.42E-05	504.850	-39.124	2.49E-07	7.185	1.63E+10	1.403	2.78E+05
403.200	-2.26E-05	333.215	-32.568	3.72E-07	4.743	1.63E+10	1.329	2.82E+05
408.000	-2.06E-05	192.202	-26.437	4.50E-07	2.736	1.63E+10	1.225	2.85E+05
412.800	-1.83E-05	79.418	-20.851	4.90E-07	1.130	1.63E+10	1.102	2.89E+05
417.600	-1.59E-05	-7.970	-15.881	5.00E-07	0.113442	1.63E+10	0.968962	2.92E+05
422.400	-1.35E-05	-73.034	-11.556	4.88E-07	1.039	1.63E+10	0.832972	2.95E+05
427.200	-1.12E-05	-118.907	-7.877	4.60E-07	1.692	1.63E+10	0.699962	2.99E+05
432.000	-9.11E-06	-148.652	-4.819	4.21E-07	2.116	1.63E+10	0.574241	3.02E+05
436.800	-7.20E-06	-165.167	-2.339	3.74E-07	2.351	1.63E+10	0.458851	3.06E+05
441.600	-5.52E-06	-171.110	-0.384281	3.25E-07	2.435	1.63E+10	0.355750	3.09E+05
446.400	-4.08E-06	-168.856	1.108	2.75E-07	2.403	1.63E+10	0.265990	3.13E+05
451.200	-2.88E-06	-160.474	2.202	2.26E-07	2.284	1.63E+10	0.189883	3.16E+05
456.000	-1.91E-06	-147.717	2.963	1.81E-07	2.102	1.63E+10	0.127156	3.20E+05
460.800	-1.15E-06	-132.030	3.453	1.40E-07	1.879	1.63E+10	0.077085	3.23E+05
465.600	-5.67E-07	-114.567	3.731	1.03E-07	1.631	1.63E+10	0.038612	3.27E+05
470.400	-1.52E-07	-96.215	3.848	7.24E-08	1.369	1.63E+10	0.010443	3.30E+05
475.200	1.28E-07	-77.622	3.852	4.68E-08	1.105	1.63E+10	-0.008875	3.34E+05
480.000	2.98E-07	-59.234	3.626	2.67E-08	0.843065	1.63E+10	-0.085502	1.38E+06
484.800	3.84E-07	-42.815	3.156	1.16E-08	0.609383	1.63E+10	-0.110253	1.38E+06
489.600	4.09E-07	-28.937	2.609	1.08E-09	0.411856	1.63E+10	-0.117616	1.38E+06
494.400	3.94E-07	-17.769	2.055	-5.80E-09	0.252899	1.63E+10	-0.113227	1.38E+06
499.200	3.54E-07	-9.209	1.539	-9.77E-09	0.131071	1.63E+10	-0.101623	1.38E+06
504.000	3.00E-07	-2.991	1.088	-1.16E-08	0.042567	1.63E+10	-0.086279	1.38E+06
508.800	2.43E-07	1.240	0.714001	-1.18E-08	0.017643	1.63E+10	-0.069720	1.38E+06
513.600	1.87E-07	3.864	0.417878	-1.11E-08	0.054990	1.63E+10	-0.053665	1.38E+06
518.400	1.36E-07	5.251	0.195055	-9.73E-09	0.074740	1.63E+10	-0.039178	1.38E+06
523.200	9.34E-08	5.736	0.036647	-8.11E-09	0.081642	1.63E+10	-0.026825	1.38E+06

528.000	5.85E-08	5.603	-0.068053	-6.44E-09	0.079747	1.63E+10	-0.016800	1.38E+06
532.800	3.15E-08	5.083	-0.130098	-4.87E-09	0.072343	1.63E+10	-0.009052	1.38E+06
537.600	1.17E-08	4.354	-0.159903	-3.48E-09	0.061971	1.63E+10	-0.003367	1.38E+06
542.400	-1.91E-09	3.548	-0.166664	-2.32E-09	0.050495	1.63E+10	0.000550	1.38E+06
547.200	-1.05E-08	2.754	-0.158085	-1.39E-09	0.039199	1.63E+10	0.003025	1.38E+06
552.000	-1.53E-08	2.030	-0.140306	-6.85E-10	0.028895	1.63E+10	0.004383	1.38E+06
556.800	-1.71E-08	1.407	-0.117991	-1.79E-10	0.020028	1.63E+10	0.004915	1.38E+06
561.600	-1.70E-08	0.897451	-0.094491	1.60E-10	0.012773	1.63E+10	0.004877	1.38E+06
566.400	-1.56E-08	0.500075	-0.072050	3.66E-10	0.007117	1.63E+10	0.004474	1.38E+06
571.200	-1.35E-08	0.205769	-0.052032	4.70E-10	0.002929	1.63E+10	0.003867	1.38E+06
576.000	-1.11E-08	0.000567	-0.035124	5.00E-10	8.07E-06	1.63E+10	0.003178	1.38E+06
580.800	-8.66E-09	-0.131424	-0.021528	4.81E-10	0.001871	1.63E+10	0.002488	1.38E+06
585.600	-6.44E-09	-0.206102	-0.011116	4.31E-10	0.002933	1.63E+10	0.001851	1.38E+06
590.400	-4.52E-09	-0.238135	-0.003558	3.66E-10	0.003389	1.63E+10	0.001298	1.38E+06
595.200	-2.93E-09	-0.240261	0.001577	2.95E-10	0.003420	1.63E+10	0.000842	1.38E+06
600.000	-1.68E-09	-0.222992	0.004757	2.27E-10	0.003174	1.63E+10	0.000483	1.38E+06
604.800	-7.49E-10	-0.194592	0.006433	1.66E-10	0.002770	1.63E+10	0.000215	1.38E+06
609.600	-9.05E-11	-0.161236	0.007011	1.13E-10	0.002295	1.63E+10	2.60E-05	1.38E+06
614.400	3.40E-10	-0.127282	0.006840	7.09E-11	0.001812	1.63E+10	-9.76E-05	1.38E+06
619.200	5.90E-10	-0.095576	0.006199	3.81E-11	0.001360	1.63E+10	-0.000169	1.38E+06
624.000	7.05E-10	-0.067776	0.005306	1.40E-11	0.000965	1.63E+10	-0.000203	1.38E+06
628.800	7.24E-10	-0.044643	0.004320	-2.54E-12	0.000635	1.63E+10	-0.000208	1.38E+06
633.600	6.81E-10	-0.026305	0.003351	-1.30E-11	0.000374	1.63E+10	-0.000196	1.38E+06
638.400	6.00E-10	-0.012473	0.002468	-1.87E-11	0.000178	1.63E+10	-0.000172	1.38E+06
643.200	5.01E-10	-0.002612	0.001709	-2.09E-11	3.72E-05	1.63E+10	-0.000144	1.38E+06
648.000	3.99E-10	0.003932	0.001088	-2.07E-11	5.60E-05	1.63E+10	-0.000115	1.38E+06
652.800	3.02E-10	0.007834	0.000605	-1.90E-11	0.000112	1.63E+10	-8.68E-05	1.38E+06
657.600	2.17E-10	0.009736	0.000247	-1.64E-11	0.000139	1.63E+10	-6.22E-05	1.38E+06
662.400	1.45E-10	0.010204	-2.40E-06	-1.35E-11	0.000145	1.63E+10	-4.16E-05	1.38E+06
667.200	8.74E-11	0.009713	-0.000162	-1.05E-11	0.000138	1.63E+10	-2.51E-05	1.38E+06
672.000	4.36E-11	0.008644	-0.000253	-7.83E-12	0.000123	1.63E+10	-1.25E-05	1.38E+06
676.800	1.22E-11	0.007286	-0.000291	-5.49E-12	0.000104	1.63E+10	-3.49E-06	1.38E+06
681.600	-9.04E-12	0.005848	-0.000293	-3.55E-12	8.32E-05	1.63E+10	2.60E-06	1.38E+06
686.400	-2.20E-11	0.004470	-0.000272	-2.03E-12	6.36E-05	1.63E+10	6.31E-06	1.38E+06
691.200	-2.86E-11	0.003237	-0.000237	-9.00E-13	4.61E-05	1.63E+10	8.21E-06	1.38E+06
696.000	-3.06E-11	0.002193	-0.000196	-1.01E-13	3.12E-05	1.63E+10	8.79E-06	1.38E+06
700.800	-2.95E-11	0.001351	-0.000155	4.21E-13	1.92E-05	1.63E+10	8.49E-06	1.38E+06
705.600	-2.66E-11	0.000706	-0.000116	7.24E-13	1.00E-05	1.63E+10	7.63E-06	1.38E+06
710.400	-2.26E-11	0.000236	-8.23E-05	8.63E-13	3.35E-06	1.63E+10	6.49E-06	1.38E+06
715.200	-1.83E-11	-8.49E-05	-5.42E-05	8.85E-13	1.21E-06	1.63E+10	5.25E-06	1.38E+06
720.000	-1.41E-11	-0.000284	-3.18E-05	8.31E-13	4.05E-06	1.63E+10	4.05E-06	1.38E+06
724.800	-1.03E-11	-0.000391	-1.50E-05	7.31E-13	5.56E-06	1.63E+10	2.96E-06	1.38E+06
729.600	-7.07E-12	-0.000429	-3.04E-06	6.11E-13	6.10E-06	1.63E+10	2.03E-06	1.38E+06
734.400	-4.44E-12	-0.000420	4.90E-06	4.86E-13	5.97E-06	1.63E+10	1.28E-06	1.38E+06
739.200	-2.41E-12	-0.000382	9.62E-06	3.68E-13	5.43E-06	1.63E+10	6.92E-07	1.38E+06
744.000	-9.15E-13	-0.000327	1.19E-05	2.63E-13	4.66E-06	1.63E+10	2.63E-07	1.38E+06
748.800	1.18E-13	-0.000267	1.25E-05	1.76E-13	3.80E-06	1.63E+10	-3.38E-08	1.38E+06
753.600	7.72E-13	-0.000208	1.19E-05	1.06E-13	2.96E-06	1.63E+10	-2.22E-07	1.38E+06
758.400	1.13E-12	-0.000153	1.05E-05	5.26E-14	2.18E-06	1.63E+10	-3.26E-07	1.38E+06
763.200	1.28E-12	-0.000107	8.88E-06	1.44E-14	1.52E-06	1.63E+10	-3.67E-07	1.38E+06
768.000	1.27E-12	-6.82E-05	7.12E-06	-1.14E-14	9.70E-07	1.63E+10	-3.65E-07	1.38E+06
772.800	1.17E-12	-3.82E-05	5.44E-06	-2.70E-14	5.44E-07	1.63E+10	-3.36E-07	1.38E+06
777.600	1.01E-12	-1.60E-05	3.93E-06	-3.50E-14	2.27E-07	1.63E+10	-2.91E-07	1.38E+06
782.400	8.33E-13	-4.27E-07	2.66E-06	-3.74E-14	6.08E-09	1.63E+10	-2.39E-07	1.38E+06

787.200	6.53E-13	9.59E-06	1.64E-06	-3.61E-14	1.37E-07	1.63E+10	-1.88E-07	1.38E+06
792.000	4.87E-13	1.53E-05	8.52E-07	-3.24E-14	2.18E-07	1.63E+10	-1.40E-07	1.38E+06
796.800	3.42E-13	1.78E-05	2.81E-07	-2.75E-14	2.53E-07	1.63E+10	-9.82E-08	1.38E+06
801.600	2.22E-13	1.80E-05	-1.08E-07	-2.23E-14	2.56E-07	1.63E+10	-6.39E-08	1.38E+06
806.400	1.28E-13	1.67E-05	-3.50E-07	-1.71E-14	2.38E-07	1.63E+10	-3.68E-08	1.38E+06
811.200	5.78E-14	1.46E-05	-4.79E-07	-1.25E-14	2.08E-07	1.63E+10	-1.66E-08	1.38E+06
816.000	8.01E-15	1.21E-05	-5.24E-07	-8.59E-15	1.73E-07	1.63E+10	-2.30E-09	1.38E+06
820.800	-2.46E-14	9.59E-06	-5.12E-07	-5.39E-15	1.37E-07	1.63E+10	7.08E-09	1.38E+06
825.600	-4.37E-14	7.22E-06	-4.65E-07	-2.91E-15	1.03E-07	1.63E+10	1.26E-08	1.38E+06
830.400	-5.26E-14	5.13E-06	-3.99E-07	-1.09E-15	7.30E-08	1.63E+10	1.51E-08	1.38E+06
835.200	-5.42E-14	3.39E-06	-3.25E-07	1.59E-16	4.82E-08	1.63E+10	1.56E-08	1.38E+06
840.000	-5.11E-14	2.00E-06	-2.53E-07	9.53E-16	2.85E-08	1.63E+10	1.47E-08	1.38E+06
844.800	-4.51E-14	9.60E-07	-1.86E-07	1.39E-15	1.37E-08	1.63E+10	1.29E-08	1.38E+06
849.600	-3.77E-14	2.14E-07	-1.29E-07	1.56E-15	3.05E-09	1.63E+10	1.08E-08	1.38E+06
854.400	-3.01E-14	-2.82E-07	-8.26E-08	1.55E-15	4.01E-09	1.63E+10	8.64E-09	1.38E+06
859.200	-2.28E-14	-5.79E-07	-4.62E-08	1.43E-15	8.24E-09	1.63E+10	6.55E-09	1.38E+06
864.000	-1.64E-14	-7.25E-07	-1.91E-08	1.23E-15	1.03E-08	1.63E+10	4.71E-09	1.38E+06
868.800	-1.10E-14	-7.63E-07	-2.65E-10	1.01E-15	1.09E-08	1.63E+10	3.15E-09	1.38E+06
873.600	-6.64E-15	-7.28E-07	1.19E-08	7.95E-16	1.04E-08	1.63E+10	1.91E-09	1.38E+06
878.400	-3.34E-15	-6.48E-07	1.88E-08	5.92E-16	9.23E-09	1.63E+10	9.60E-10	1.38E+06
883.200	-9.57E-16	-5.47E-07	2.17E-08	4.16E-16	7.79E-09	1.63E+10	2.75E-10	1.38E+06
888.000	6.54E-16	-4.40E-07	2.19E-08	2.71E-16	6.26E-09	1.63E+10	-1.88E-10	1.38E+06
892.800	1.64E-15	-3.37E-07	2.04E-08	1.57E-16	4.79E-09	1.63E+10	-4.72E-10	1.38E+06
897.600	2.16E-15	-2.44E-07	1.77E-08	7.11E-17	3.48E-09	1.63E+10	-6.20E-10	1.38E+06
902.400	2.33E-15	-1.66E-07	1.46E-08	1.06E-17	2.37E-09	1.63E+10	-6.68E-10	1.38E+06
907.200	2.26E-15	-1.04E-07	1.15E-08	-2.91E-17	1.48E-09	1.63E+10	-6.49E-10	1.38E+06
912.000	2.05E-15	-5.61E-08	8.51E-09	-5.27E-17	7.99E-10	1.63E+10	-5.88E-10	1.38E+06
916.800	1.75E-15	-2.20E-08	5.89E-09	-6.42E-17	3.14E-10	1.63E+10	-5.04E-10	1.38E+06
921.600	1.43E-15	4.46E-10	3.70E-09	-6.74E-17	6.34E-12	1.63E+10	-4.11E-10	1.38E+06
926.400	1.11E-15	1.35E-08	1.95E-09	-6.53E-17	1.91E-10	1.63E+10	-3.18E-10	1.38E+06
931.200	8.04E-16	1.91E-08	6.28E-10	-6.05E-17	2.72E-10	1.63E+10	-2.31E-10	1.38E+06
936.000	5.27E-16	1.95E-08	-2.89E-10	-5.48E-17	2.77E-10	1.63E+10	-1.51E-10	1.38E+06
940.800	2.77E-16	1.64E-08	-8.43E-10	-4.96E-17	2.33E-10	1.63E+10	-7.96E-11	1.38E+06
945.600	5.08E-17	1.14E-08	-1.07E-09	-4.55E-17	1.62E-10	1.63E+10	-1.46E-11	1.38E+06
950.400	-1.59E-16	6.10E-09	-9.94E-10	-4.29E-17	8.68E-11	1.63E+10	4.58E-11	1.38E+06
955.200	-3.61E-16	1.85E-09	-6.35E-10	-4.17E-17	2.64E-11	1.63E+10	1.04E-10	1.38E+06
960.000	-5.60E-16	0.000	0.000	-4.15E-17	0.000	1.63E+10	1.61E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.06493613 in
 Computed slope at pile head = -0.01242478
 Maximum bending moment = 1929850. lbs-in

Maximum shear force = 30000.00000 lbs
 Depth of maximum bending moment = 91.20000000 in
 Depth of maximum shear force = 4.80000000 in
 Number of iterations = 22
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 40000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Flx. Rig. EI lbs-in**2	Soil Res. p lbs/in	Es*h F/L
0.000	1.829	0.000	40000.	-0.019711	0.000	1.63E+10	0.000	0.000
4.800	1.734	1.92E+05	40000.	-0.019683	2732.707	1.63E+10	0.000	0.000
9.600	1.640	3.84E+05	40000.	-0.019598	5465.414	1.63E+10	0.000	0.000
14.400	1.546	5.76E+05	39944.	-0.019457	8198.121	1.63E+10	-23.434	72.755
19.200	1.453	7.67E+05	39705.	-0.019259	10923.	1.63E+10	-76.119	251.446
24.000	1.361	9.57E+05	39203.	-0.019005	13623.	1.63E+10	-133.020	469.078
28.800	1.271	1.14E+06	38428.	-0.018696	16280.	1.63E+10	-189.894	717.354
33.600	1.182	1.33E+06	37390.	-0.018332	18874.	1.63E+10	-242.493	984.999
38.400	1.095	1.50E+06	36120.	-0.017916	21388.	1.63E+10	-286.574	1256.631
43.200	1.010	1.67E+06	34670.	-0.017448	23809.	1.63E+10	-317.891	1511.208
48.000	0.927137	1.84E+06	33109.	-0.016931	26126.	1.63E+10	-332.197	1719.862
52.800	0.847163	1.99E+06	31532.	-0.016368	28333.	1.63E+10	-325.249	1842.852
57.600	0.770004	2.14E+06	29873.	-0.015760	30434.	1.63E+10	-366.001	2281.554
62.400	0.695867	2.28E+06	27956.	-0.015110	32415.	1.63E+10	-432.388	2982.554
67.200	0.624949	2.41E+06	25709.	-0.014420	34254.	1.63E+10	-504.081	3871.655
72.000	0.557434	2.52E+06	23105.	-0.013694	35927.	1.63E+10	-581.081	5003.623
76.800	0.493486	2.63E+06	20118.	-0.012935	37411.	1.63E+10	-663.387	6452.574
81.600	0.433255	2.72E+06	16723.	-0.012148	38676.	1.63E+10	-750.992	8320.196
86.400	0.376864	2.79E+06	12896.	-0.011337	39696.	1.63E+10	-843.842	10748.
91.200	0.324416	2.84E+06	8610.614	-0.010508	40438.	1.63E+10	-941.622	13932.
96.000	0.275984	2.87E+06	3847.565	-0.009667	40872.	1.63E+10	-1042.983	18140.
100.800	0.231612	2.88E+06	-1400.113	-0.008820	40964.	1.63E+10	-1143.550	23699.
105.600	0.191307	2.86E+06	-7102.464	-0.007976	40681.	1.63E+10	-1232.430	30922.
110.400	0.155044	2.81E+06	-13154.	-0.007141	39994.	1.63E+10	-1289.102	39909.
115.200	0.122752	2.73E+06	-19334.	-0.006325	38884.	1.63E+10	-1285.894	50283.
120.000	0.094322	2.62E+06	-25301.	-0.005536	37352.	1.63E+10	-1200.366	61086.
124.800	0.069602	2.49E+06	-30657.	-0.004784	35427.	1.63E+10	-1031.157	71112.
129.600	0.048400	2.33E+06	-35055.	-0.004074	33163.	1.63E+10	-801.575	79495.
134.400	0.030492	2.15E+06	-38291.	-0.003414	30637.	1.63E+10	-546.509	86031.
139.200	0.015627	1.96E+06	-40314.	-0.002808	27931.	1.63E+10	-296.372	91035.
144.000	0.003535	1.77E+06	-41193.	-0.002259	25128.	1.63E+10	-69.981	95012.

148.800	-0.006060	1.57E+06	-41063.	-0.001768	22303.	1.63E+10	124.254	98417.
153.600	-0.013441	1.37E+06	-40082.	-0.001336	19518.	1.63E+10	284.422	1.02E+05
158.400	-0.018883	1.18E+06	-38411.	-0.000960	16826.	1.63E+10	411.811	1.05E+05
163.200	-0.022654	1.00E+06	-36201.	-0.000638	14270.	1.63E+10	508.986	1.08E+05
168.000	-0.025007	8.35E+05	-33590.	-0.000367	11880.	1.63E+10	578.873	1.11E+05
172.800	-0.026181	6.80E+05	-30702.	-0.000144	9679.927	1.63E+10	624.425	1.14E+05
177.600	-0.026394	5.40E+05	-27647.	3.52E-05	7684.806	1.63E+10	648.532	1.18E+05
182.400	-0.025843	4.15E+05	-24521.	0.000176	5902.354	1.63E+10	654.025	1.21E+05
187.200	-0.024706	3.05E+05	-21406.	0.000282	4334.373	1.63E+10	643.684	1.25E+05
192.000	-0.023138	2.09E+05	-18373.	0.000357	2977.472	1.63E+10	620.232	1.29E+05
196.800	-0.021275	1.28E+05	-15477.	0.000407	1823.961	1.63E+10	586.311	1.32E+05
201.600	-0.019231	60614.	-12764.	0.000435	862.715	1.63E+10	544.431	1.36E+05
206.400	-0.017101	5620.949	-10264.	0.000445	80.002	1.63E+10	496.937	1.39E+05
211.200	-0.014963	-37923.	-8001.373	0.000440	539.753	1.63E+10	445.955	1.43E+05
216.000	-0.012878	-71192.	-5987.037	0.000424	1013.268	1.63E+10	393.352	1.47E+05
220.800	-0.010895	-95399.	-4225.146	0.000399	1357.794	1.63E+10	340.770	1.50E+05
225.600	-0.009046	-1.12E+05	-2712.349	0.000369	1590.573	1.63E+10	289.562	1.54E+05
230.400	-0.007355	-1.21E+05	-1439.480	0.000334	1728.397	1.63E+10	240.800	1.57E+05
235.200	-0.005836	-1.26E+05	-392.836	0.000298	1787.256	1.63E+10	195.302	1.61E+05
240.000	-0.004494	-1.25E+05	444.661	0.000261	1782.072	1.63E+10	153.655	1.64E+05
244.800	-0.003329	-1.21E+05	1092.406	0.000225	1726.500	1.63E+10	116.238	1.68E+05
249.600	-0.002336	-1.15E+05	1571.162	0.000190	1632.811	1.63E+10	83.244	1.71E+05
254.400	-0.001505	-1.06E+05	1902.251	0.000158	1511.824	1.63E+10	54.710	1.75E+05
259.200	-0.000824	-96460.	2106.862	0.000128	1372.896	1.63E+10	30.544	1.78E+05
264.000	-0.000279	-85995.	2205.492	0.000101	1223.952	1.63E+10	10.551	1.81E+05
268.800	0.000144	-75287.	2217.511	7.70E-05	1071.548	1.63E+10	-5.543	1.85E+05
273.600	0.000461	-64707.	2160.835	5.64E-05	920.962	1.63E+10	-18.071	1.88E+05
278.400	0.000686	-54543.	2051.703	3.89E-05	776.301	1.63E+10	-27.400	1.92E+05
283.200	0.000834	-45010.	1904.541	2.42E-05	640.626	1.63E+10	-33.917	1.95E+05
288.000	0.000918	-36259.	1731.910	1.23E-05	516.074	1.63E+10	-38.013	1.99E+05
292.800	0.000951	-28384.	1544.508	2.73E-06	403.986	1.63E+10	-40.071	2.02E+05
297.600	0.000944	-21432.	1351.236	-4.60E-06	305.039	1.63E+10	-40.459	2.06E+05
302.400	0.000907	-15412.	1159.295	-1.00E-05	219.360	1.63E+10	-39.517	2.09E+05
307.200	0.000848	-10303.	974.320	-1.38E-05	146.639	1.63E+10	-37.556	2.13E+05
312.000	0.000775	-6058.747	800.532	-1.62E-05	86.233	1.63E+10	-34.855	2.16E+05
316.800	0.000692	-2617.726	640.903	-1.75E-05	37.258	1.63E+10	-31.657	2.19E+05
321.600	0.000607	93.917	497.321	-1.79E-05	1.337	1.63E+10	-28.168	2.23E+05
326.400	0.000521	2156.559	370.767	-1.75E-05	30.694	1.63E+10	-24.563	2.26E+05
331.200	0.000438	3653.278	261.466	-1.67E-05	51.997	1.63E+10	-20.979	2.30E+05
336.000	0.000361	4666.637	169.050	-1.55E-05	66.420	1.63E+10	-17.528	2.33E+05
340.800	0.000290	5276.157	92.687	-1.40E-05	75.095	1.63E+10	-14.290	2.37E+05
345.600	0.000226	5556.435	31.215	-1.24E-05	79.084	1.63E+10	-11.323	2.40E+05
350.400	0.000171	5575.824	-16.754	-1.08E-05	79.360	1.63E+10	-8.664	2.44E+05
355.200	0.000123	5395.595	-52.741	-9.15E-06	76.795	1.63E+10	-6.330	2.47E+05
360.000	8.29E-05	5069.514	-78.316	-7.61E-06	72.154	1.63E+10	-4.326	2.51E+05
364.800	5.00E-05	4643.761	-95.043	-6.18E-06	66.094	1.63E+10	-2.643	2.54E+05
369.600	2.36E-05	4157.104	-104.424	-4.88E-06	59.167	1.63E+10	-1.265	2.57E+05
374.400	3.10E-06	3641.295	-107.865	-3.73E-06	51.826	1.63E+10	-0.168753	2.61E+05
379.200	-1.22E-05	3121.597	-106.653	-2.74E-06	44.429	1.63E+10	0.673799	2.64E+05
384.000	-2.32E-05	2617.424	-101.935	-1.89E-06	37.253	1.63E+10	1.292	2.68E+05
388.800	-3.04E-05	2143.024	-94.712	-1.19E-06	30.501	1.63E+10	1.717	2.71E+05
393.600	-3.46E-05	1708.188	-85.840	-6.23E-07	24.312	1.63E+10	1.979	2.75E+05
398.400	-3.64E-05	1318.955	-76.032	-1.77E-07	18.772	1.63E+10	2.107	2.78E+05
403.200	-3.63E-05	978.277	-65.866	1.61E-07	13.924	1.63E+10	2.129	2.82E+05

408.000	-3.48E-05	686.643	-55.795	4.07E-07	9.773	1.63E+10	2.068	2.85E+05
412.800	-3.24E-05	442.649	-46.161	5.73E-07	6.300	1.63E+10	1.946	2.89E+05
417.600	-2.93E-05	243.496	-37.210	6.74E-07	3.466	1.63E+10	1.783	2.92E+05
422.400	-2.59E-05	85.429	-29.104	7.22E-07	1.216	1.63E+10	1.595	2.95E+05
427.200	-2.24E-05	-35.899	-21.932	7.30E-07	0.510940	1.63E+10	1.394	2.99E+05
432.000	-1.89E-05	-125.119	-15.730	7.06E-07	1.781	1.63E+10	1.191	3.02E+05
436.800	-1.56E-05	-186.907	-10.487	6.60E-07	2.660	1.63E+10	0.993947	3.06E+05
441.600	-1.26E-05	-225.795	-6.159	5.99E-07	3.214	1.63E+10	0.809551	3.09E+05
446.400	-9.85E-06	-246.031	-2.676	5.30E-07	3.502	1.63E+10	0.641580	3.13E+05
451.200	-7.48E-06	-251.485	0.046064	4.56E-07	3.579	1.63E+10	0.492610	3.16E+05
456.000	-5.46E-06	-245.589	2.102	3.83E-07	3.495	1.63E+10	0.363904	3.20E+05
460.800	-3.80E-06	-231.308	3.589	3.13E-07	3.292	1.63E+10	0.255669	3.23E+05
465.600	-2.46E-06	-211.137	4.604	2.48E-07	3.005	1.63E+10	0.167283	3.27E+05
470.400	-1.42E-06	-187.112	5.239	1.89E-07	2.663	1.63E+10	0.097489	3.30E+05
475.200	-6.42E-07	-160.841	5.580	1.38E-07	2.289	1.63E+10	0.044574	3.34E+05
480.000	-9.26E-08	-133.543	5.751	9.47E-08	1.901	1.63E+10	0.026611	1.38E+06
484.800	2.68E-07	-105.631	5.630	5.95E-08	1.503	1.63E+10	-0.076854	1.38E+06
489.600	4.78E-07	-79.491	5.116	3.22E-08	1.131	1.63E+10	-0.137422	1.38E+06
494.400	5.77E-07	-56.516	4.389	1.22E-08	0.804384	1.63E+10	-0.165709	1.38E+06
499.200	5.95E-07	-37.360	3.580	-1.63E-09	0.531732	1.63E+10	-0.171044	1.38E+06
504.000	5.61E-07	-22.144	2.783	-1.04E-08	0.315170	1.63E+10	-0.161208	1.38E+06
508.800	4.96E-07	-10.642	2.054	-1.52E-08	0.151471	1.63E+10	-0.142379	1.38E+06
513.600	4.15E-07	-2.421	1.427	-1.71E-08	0.034463	1.63E+10	-0.119228	1.38E+06
518.400	3.31E-07	3.053	0.912200	-1.71E-08	0.043449	1.63E+10	-0.095093	1.38E+06
523.200	2.51E-07	6.336	0.510698	-1.57E-08	0.090176	1.63E+10	-0.072199	1.38E+06
528.000	1.81E-07	7.955	0.212916	-1.36E-08	0.113228	1.63E+10	-0.051877	1.38E+06
532.800	1.21E-07	8.380	0.004923	-1.12E-08	0.119268	1.63E+10	-0.034786	1.38E+06
537.600	7.34E-08	8.003	-0.129200	-8.75E-09	0.113901	1.63E+10	-0.021098	1.38E+06
542.400	3.71E-08	7.139	-0.205421	-6.52E-09	0.101615	1.63E+10	-0.010660	1.38E+06
547.200	1.09E-08	6.031	-0.238499	-4.58E-09	0.085833	1.63E+10	-0.003122	1.38E+06
552.000	-6.85E-09	4.850	-0.241269	-2.98E-09	0.069027	1.63E+10	0.001968	1.38E+06
556.800	-1.77E-08	3.714	-0.224336	-1.72E-09	0.052867	1.63E+10	0.005088	1.38E+06
561.600	-2.33E-08	2.696	-0.196047	-7.72E-10	0.038375	1.63E+10	0.006699	1.38E+06
566.400	-2.51E-08	1.832	-0.162651	-1.05E-10	0.026080	1.63E+10	0.007216	1.38E+06
571.200	-2.43E-08	1.135	-0.128560	3.32E-10	0.016151	1.63E+10	0.006988	1.38E+06
576.000	-2.19E-08	0.598209	-0.096668	5.87E-10	0.008514	1.63E+10	0.006300	1.38E+06
580.800	-1.87E-08	0.206780	-0.068663	7.06E-10	0.002943	1.63E+10	0.005369	1.38E+06
585.600	-1.52E-08	-0.060952	-0.045329	7.27E-10	0.000868	1.63E+10	0.004354	1.38E+06
590.400	-1.17E-08	-0.228379	-0.026809	6.85E-10	0.003250	1.63E+10	0.003363	1.38E+06
595.200	-8.58E-09	-0.318322	-0.012822	6.04E-10	0.004531	1.63E+10	0.002465	1.38E+06
600.000	-5.91E-09	-0.351466	-0.002833	5.06E-10	0.005002	1.63E+10	0.001697	1.38E+06
604.800	-3.73E-09	-0.345516	0.003810	4.03E-10	0.004918	1.63E+10	0.001071	1.38E+06
609.600	-2.04E-09	-0.314890	0.007786	3.06E-10	0.004482	1.63E+10	0.000586	1.38E+06
614.400	-7.94E-10	-0.270773	0.009738	2.19E-10	0.003854	1.63E+10	0.000228	1.38E+06
619.200	6.82E-11	-0.221402	0.010239	1.47E-10	0.003151	1.63E+10	-1.96E-05	1.38E+06
624.000	6.17E-10	-0.172483	0.009766	8.90E-11	0.002455	1.63E+10	-0.000177	1.38E+06
628.800	9.22E-10	-0.127649	0.008705	4.48E-11	0.001817	1.63E+10	-0.000265	1.38E+06
633.600	1.05E-09	-0.088919	0.007347	1.29E-11	0.001266	1.63E+10	-0.000301	1.38E+06
638.400	1.05E-09	-0.057118	0.005904	-8.63E-12	0.000813	1.63E+10	-0.000300	1.38E+06
643.200	9.64E-10	-0.032239	0.004518	-2.18E-11	0.000459	1.63E+10	-0.000277	1.38E+06
648.000	8.37E-10	-0.013741	0.003277	-2.86E-11	0.000196	1.63E+10	-0.000240	1.38E+06
652.800	6.90E-10	-0.000781	0.002224	-3.07E-11	1.11E-05	1.63E+10	-0.000198	1.38E+06
657.600	5.42E-10	0.007613	0.001375	-2.97E-11	0.000108	1.63E+10	-0.000156	1.38E+06
662.400	4.05E-10	0.012420	0.000722	-2.67E-11	0.000177	1.63E+10	-0.000116	1.38E+06

667.200	2.85E-10	0.014548	0.000247	-2.28E-11	0.000207	1.63E+10	-8.19E-05	1.38E+06
672.000	1.86E-10	0.014787	-7.85E-05	-1.85E-11	0.000210	1.63E+10	-5.35E-05	1.38E+06
676.800	1.08E-10	0.013795	-0.000281	-1.42E-11	0.000196	1.63E+10	-3.11E-05	1.38E+06
681.600	4.95E-11	0.012086	-0.000390	-1.04E-11	0.000172	1.63E+10	-1.42E-05	1.38E+06
686.400	7.96E-12	0.010050	-0.000430	-7.17E-12	0.000143	1.63E+10	-2.29E-06	1.38E+06
691.200	-1.94E-11	0.007961	-0.000422	-4.52E-12	0.000113	1.63E+10	5.56E-06	1.38E+06
696.000	-3.54E-11	0.006001	-0.000384	-2.46E-12	8.54E-05	1.63E+10	1.02E-05	1.38E+06
700.800	-4.30E-11	0.004275	-0.000330	-9.50E-13	6.08E-05	1.63E+10	1.24E-05	1.38E+06
705.600	-4.45E-11	0.002833	-0.000270	9.63E-14	4.03E-05	1.63E+10	1.28E-05	1.38E+06
710.400	-4.21E-11	0.001687	-0.000210	7.62E-13	2.40E-05	1.63E+10	1.21E-05	1.38E+06
715.200	-3.72E-11	0.000818	-0.000155	1.13E-12	1.16E-05	1.63E+10	1.07E-05	1.38E+06
720.000	-3.12E-11	0.000197	-0.000108	1.28E-12	2.80E-06	1.63E+10	8.97E-06	1.38E+06
724.800	-2.49E-11	-0.000218	-6.93E-05	1.28E-12	3.11E-06	1.63E+10	7.17E-06	1.38E+06
729.600	-1.90E-11	-0.000468	-3.90E-05	1.18E-12	6.66E-06	1.63E+10	5.45E-06	1.38E+06
734.400	-1.37E-11	-0.000593	-1.65E-05	1.02E-12	8.43E-06	1.63E+10	3.92E-06	1.38E+06
739.200	-9.18E-12	-0.000627	-7.58E-07	8.40E-13	8.92E-06	1.63E+10	2.64E-06	1.38E+06
744.000	-5.59E-12	-0.000600	9.42E-06	6.59E-13	8.54E-06	1.63E+10	1.61E-06	1.38E+06
748.800	-2.85E-12	-0.000536	1.52E-05	4.92E-13	7.63E-06	1.63E+10	8.18E-07	1.38E+06
753.600	-8.63E-13	-0.000454	1.78E-05	3.46E-13	6.46E-06	1.63E+10	2.48E-07	1.38E+06
758.400	4.80E-13	-0.000365	1.81E-05	2.26E-13	5.20E-06	1.63E+10	-1.38E-07	1.38E+06
763.200	1.31E-12	-0.000280	1.68E-05	1.31E-13	3.99E-06	1.63E+10	-3.75E-07	1.38E+06
768.000	1.74E-12	-0.000204	1.47E-05	5.95E-14	2.90E-06	1.63E+10	-4.99E-07	1.38E+06
772.800	1.88E-12	-0.000139	1.22E-05	9.10E-15	1.98E-06	1.63E+10	-5.39E-07	1.38E+06
777.600	1.82E-12	-8.63E-05	9.69E-06	-2.40E-14	1.23E-06	1.63E+10	-5.24E-07	1.38E+06
782.400	1.65E-12	-4.58E-05	7.30E-06	-4.35E-14	6.52E-07	1.63E+10	-4.73E-07	1.38E+06
787.200	1.41E-12	-1.62E-05	5.19E-06	-5.26E-14	2.31E-07	1.63E+10	-4.04E-07	1.38E+06
792.000	1.14E-12	4.06E-06	3.44E-06	-5.44E-14	5.78E-08	1.63E+10	-3.28E-07	1.38E+06
796.800	8.83E-13	1.68E-05	2.04E-06	-5.13E-14	2.39E-07	1.63E+10	-2.54E-07	1.38E+06
801.600	6.48E-13	2.37E-05	9.86E-07	-4.54E-14	3.37E-07	1.63E+10	-1.86E-07	1.38E+06
806.400	4.47E-13	2.63E-05	2.31E-07	-3.80E-14	3.74E-07	1.63E+10	-1.28E-07	1.38E+06
811.200	2.83E-13	2.59E-05	-2.73E-07	-3.04E-14	3.68E-07	1.63E+10	-8.14E-08	1.38E+06
816.000	1.56E-13	2.36E-05	-5.76E-07	-2.31E-14	3.36E-07	1.63E+10	-4.48E-08	1.38E+06
820.800	6.18E-14	2.04E-05	-7.25E-07	-1.66E-14	2.90E-07	1.63E+10	-1.77E-08	1.38E+06
825.600	-3.50E-15	1.67E-05	-7.66E-07	-1.11E-14	2.37E-07	1.63E+10	1.00E-09	1.38E+06
830.400	-4.52E-14	1.30E-05	-7.32E-07	-6.77E-15	1.85E-07	1.63E+10	1.30E-08	1.38E+06
835.200	-6.85E-14	9.64E-06	-6.54E-07	-3.43E-15	1.37E-07	1.63E+10	1.97E-08	1.38E+06
840.000	-7.82E-14	6.73E-06	-5.53E-07	-1.02E-15	9.58E-08	1.63E+10	2.25E-08	1.38E+06
844.800	-7.83E-14	4.34E-06	-4.45E-07	6.06E-16	6.17E-08	1.63E+10	2.25E-08	1.38E+06
849.600	-7.23E-14	2.46E-06	-3.41E-07	1.61E-15	3.50E-08	1.63E+10	2.08E-08	1.38E+06
854.400	-6.29E-14	1.06E-06	-2.48E-07	2.13E-15	1.51E-08	1.63E+10	1.81E-08	1.38E+06
859.200	-5.19E-14	8.34E-08	-1.68E-07	2.29E-15	1.19E-09	1.63E+10	1.49E-08	1.38E+06
864.000	-4.09E-14	-5.53E-07	-1.05E-07	2.23E-15	7.88E-09	1.63E+10	1.17E-08	1.38E+06
868.800	-3.06E-14	-9.20E-07	-5.53E-08	2.01E-15	1.31E-08	1.63E+10	8.78E-09	1.38E+06
873.600	-2.16E-14	-1.08E-06	-1.93E-08	1.71E-15	1.54E-08	1.63E+10	6.20E-09	1.38E+06
878.400	-1.41E-14	-1.11E-06	5.30E-09	1.39E-15	1.57E-08	1.63E+10	4.06E-09	1.38E+06
883.200	-8.22E-15	-1.03E-06	2.07E-08	1.08E-15	1.47E-08	1.63E+10	2.36E-09	1.38E+06
888.000	-3.79E-15	-9.07E-07	2.90E-08	7.91E-16	1.29E-08	1.63E+10	1.09E-09	1.38E+06
892.800	-6.31E-16	-7.55E-07	3.20E-08	5.46E-16	1.07E-08	1.63E+10	1.81E-10	1.38E+06
897.600	1.46E-15	-5.99E-07	3.15E-08	3.47E-16	8.53E-09	1.63E+10	-4.18E-10	1.38E+06
902.400	2.70E-15	-4.53E-07	2.86E-08	1.92E-16	6.45E-09	1.63E+10	-7.74E-10	1.38E+06
907.200	3.29E-15	-3.25E-07	2.45E-08	7.70E-17	4.62E-09	1.63E+10	-9.46E-10	1.38E+06
912.000	3.43E-15	-2.18E-07	1.98E-08	-2.90E-18	3.11E-09	1.63E+10	-9.87E-10	1.38E+06
916.800	3.27E-15	-1.34E-07	1.52E-08	-5.48E-17	1.91E-09	1.63E+10	-9.38E-10	1.38E+06
921.600	2.91E-15	-7.23E-08	1.09E-08	-8.53E-17	1.03E-09	1.63E+10	-8.36E-10	1.38E+06

926.400	2.45E-15	-2.94E-08	7.25E-09	-1.00E-16	4.18E-10	1.63E+10	-7.03E-10	1.38E+06
931.200	1.95E-15	-2.66E-09	4.22E-09	-1.05E-16	3.79E-11	1.63E+10	-5.59E-10	1.38E+06
936.000	1.44E-15	1.12E-08	1.89E-09	-1.04E-16	1.59E-10	1.63E+10	-4.14E-10	1.38E+06
940.800	9.51E-16	1.54E-08	2.36E-10	-9.98E-17	2.20E-10	1.63E+10	-2.73E-10	1.38E+06
945.600	4.83E-16	1.34E-08	-7.53E-10	-9.55E-17	1.91E-10	1.63E+10	-1.39E-10	1.38E+06
950.400	3.41E-17	8.21E-09	-1.11E-09	-9.23E-17	1.17E-10	1.63E+10	-9.80E-12	1.38E+06
955.200	-4.03E-16	2.77E-09	-8.55E-10	-9.07E-17	3.94E-11	1.63E+10	1.16E-10	1.38E+06
960.000	-8.37E-16	0.000	0.000	-9.03E-17	0.000	1.63E+10	2.40E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection = 1.82882223 in
 Computed slope at pile head = -0.01971142
 Maximum bending moment = 2878131. lbs-in
 Maximum shear force = -41192.93190 lbs
 Depth of maximum bending moment = 100.80000 in
 Depth of maximum shear force = 144.00000 in
 Number of iterations = 26
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 50000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	2.803	4.40E-06	50000.	-0.028310	6.26E-08	1.63E+10	0.000	0.000
4.800	2.667	2.40E+05	50000.	-0.028275	3415.884	1.63E+10	0.000	0.000
9.600	2.531	4.80E+05	50000.	-0.028169	6831.768	1.63E+10	0.000	0.000
14.400	2.396	7.20E+05	49944.	-0.027992	10248.	1.63E+10	-23.434	46.941
19.200	2.262	9.59E+05	49705.	-0.027745	13656.	1.63E+10	-76.119	161.493
24.000	2.130	1.20E+06	49203.	-0.027427	17039.	1.63E+10	-133.020	299.770

28.800	1.999	1.43E+06	48428.	-0.027040	20379.	1.63E+10	-189.893	455.938
33.600	1.870	1.66E+06	47390.	-0.026584	23656.	1.63E+10	-242.493	622.318
38.400	1.744	1.89E+06	46120.	-0.026062	26854.	1.63E+10	-286.574	788.761
43.200	1.620	2.10E+06	44670.	-0.025474	29958.	1.63E+10	-317.890	941.793
48.000	1.499	2.32E+06	43109.	-0.024823	32957.	1.63E+10	-332.197	1063.462
52.800	1.382	2.52E+06	41532.	-0.024111	35848.	1.63E+10	-325.249	1129.764
57.600	1.268	2.71E+06	39873.	-0.023341	38632.	1.63E+10	-366.000	1385.576
62.400	1.158	2.90E+06	37957.	-0.022514	41296.	1.63E+10	-432.387	1792.579
67.200	1.052	3.08E+06	35709.	-0.021633	43818.	1.63E+10	-504.080	2300.446
72.000	0.950125	3.24E+06	33105.	-0.020702	46175.	1.63E+10	-581.079	2935.595
76.800	0.853047	3.40E+06	30118.	-0.019724	48341.	1.63E+10	-663.386	3732.799
81.600	0.760770	3.53E+06	26723.	-0.018704	50290.	1.63E+10	-750.999	4738.350
86.400	0.673488	3.65E+06	22896.	-0.017646	51993.	1.63E+10	-843.919	6014.673
91.200	0.591370	3.75E+06	18609.	-0.016555	53419.	1.63E+10	-942.145	7647.152
96.000	0.514557	3.83E+06	13838.	-0.015438	54535.	1.63E+10	-1045.670	9754.442
100.800	0.443161	3.89E+06	8557.995	-0.014302	55309.	1.63E+10	-1154.435	12504.
105.600	0.377257	3.91E+06	2743.991	-0.013154	55705.	1.63E+10	-1268.066	16134.
110.400	0.316886	3.91E+06	-3622.976	-0.012001	55684.	1.63E+10	-1384.837	20977.
115.200	0.262046	3.88E+06	-10544.	-0.010854	55210.	1.63E+10	-1498.759	27453.
120.000	0.212689	3.81E+06	-17967.	-0.009722	54244.	1.63E+10	-1594.132	35977.
124.800	0.168719	3.71E+06	-25730.	-0.008615	52755.	1.63E+10	-1640.434	46670.
129.600	0.129989	3.56E+06	-33499.	-0.007544	50728.	1.63E+10	-1596.785	58963.
134.400	0.096297	3.38E+06	-40772.	-0.006521	48178.	1.63E+10	-1433.696	71464.
139.200	0.067390	3.17E+06	-46994.	-0.005555	45157.	1.63E+10	-1158.633	82526.
144.000	0.042968	2.93E+06	-51733.	-0.004656	41757.	1.63E+10	-816.087	91167.
148.800	0.022693	2.68E+06	-54797.	-0.003830	38089.	1.63E+10	-460.483	97403.
153.600	0.006200	2.41E+06	-56218.	-0.003081	34270.	1.63E+10	-131.592	1.02E+05
158.400	-0.006888	2.14E+06	-56171.	-0.002412	30407.	1.63E+10	151.126	1.05E+05
163.200	-0.016957	1.87E+06	-54890.	-0.001822	26595.	1.63E+10	382.559	1.08E+05
168.000	-0.024384	1.61E+06	-52616.	-0.001310	22908.	1.63E+10	564.746	1.11E+05
172.800	-0.029536	1.36E+06	-49575.	-0.000873	19405.	1.63E+10	702.309	1.14E+05
177.600	-0.032761	1.13E+06	-45969.	-0.000505	16134.	1.63E+10	800.332	1.17E+05
182.400	-0.034384	9.22E+05	-41976.	-0.000202	13124.	1.63E+10	863.636	1.21E+05
187.200	-0.034703	7.31E+05	-37751.	4.11E-05	10398.	1.63E+10	896.663	1.24E+05
192.000	-0.033989	5.60E+05	-33430.	0.000231	7966.369	1.63E+10	903.573	1.28E+05
196.800	-0.032484	4.10E+05	-29130.	0.000374	5830.640	1.63E+10	888.340	1.31E+05
201.600	-0.030400	2.80E+05	-24946.	0.000475	3986.219	1.63E+10	854.813	1.35E+05
206.400	-0.027920	1.70E+05	-20958.	0.000542	2422.112	1.63E+10	806.712	1.39E+05
211.200	-0.025200	78870.	-17228.	0.000578	1122.547	1.63E+10	747.585	1.42E+05
216.000	-0.022368	4787.010	-13800.	0.000591	68.133	1.63E+10	680.656	1.46E+05
220.800	-0.019529	-53614.	-10705.	0.000584	763.077	1.63E+10	609.056	1.50E+05
225.600	-0.016766	-97982.	-7958.163	0.000561	1394.562	1.63E+10	535.501	1.53E+05
230.400	-0.014141	-1.30E+05	-5563.579	0.000528	1850.444	1.63E+10	462.242	1.57E+05
235.200	-0.011701	-1.51E+05	-3515.452	0.000486	2154.744	1.63E+10	391.144	1.60E+05
240.000	-0.009474	-1.64E+05	-1799.853	0.000440	2330.779	1.63E+10	323.689	1.64E+05
244.800	-0.007479	-1.69E+05	-396.599	0.000391	2400.668	1.63E+10	261.000	1.68E+05
249.600	-0.005722	-1.68E+05	719.070	0.000341	2384.968	1.63E+10	203.862	1.71E+05
254.400	-0.004202	-1.62E+05	1574.974	0.000293	2302.417	1.63E+10	152.764	1.74E+05
259.200	-0.002911	-1.52E+05	2200.643	0.000247	2169.771	1.63E+10	107.931	1.78E+05
264.000	-0.001835	-1.41E+05	2626.173	0.000203	2001.731	1.63E+10	69.373	1.81E+05
268.800	-0.000958	-1.27E+05	2881.272	0.000164	1810.943	1.63E+10	36.918	1.85E+05
273.600	-0.000261	-1.13E+05	2994.491	0.000129	1608.048	1.63E+10	10.257	1.88E+05
278.400	0.000276	-98490.	2992.641	9.74E-05	1401.790	1.63E+10	-11.027	1.92E+05
283.200	0.000674	-84252.	2900.365	7.05E-05	1199.147	1.63E+10	-27.421	1.95E+05

288.000	0.000953	-70646.	2739.854	4.77E-05	1005.497	1.63E+10	-39.458	1.99E+05
292.800	0.001132	-57949.	2530.700	2.88E-05	824.786	1.63E+10	-47.690	2.02E+05
297.600	0.001229	-46352.	2289.834	1.34E-05	659.714	1.63E+10	-52.671	2.06E+05
302.400	0.001261	-35967.	2031.573	1.31E-06	511.914	1.63E+10	-54.938	2.09E+05
307.200	0.001242	-26848.	1767.725	-7.94E-06	382.129	1.63E+10	-54.999	2.13E+05
312.000	0.001185	-18997.	1507.746	-1.47E-05	270.380	1.63E+10	-53.325	2.16E+05
316.800	0.001101	-12374.	1258.946	-1.93E-05	176.118	1.63E+10	-50.342	2.19E+05
321.600	0.001000	-6911.045	1026.707	-2.21E-05	98.364	1.63E+10	-46.425	2.23E+05
326.400	0.000888	-2517.662	814.726	-2.35E-05	35.834	1.63E+10	-41.901	2.26E+05
331.200	0.000774	910.325	625.252	-2.38E-05	12.957	1.63E+10	-37.047	2.30E+05
336.000	0.000660	3484.756	459.325	-2.31E-05	49.598	1.63E+10	-32.090	2.33E+05
340.800	0.000552	5319.841	317.000	-2.18E-05	75.716	1.63E+10	-27.212	2.37E+05
345.600	0.000451	6527.955	197.559	-2.01E-05	92.911	1.63E+10	-22.555	2.40E+05
350.400	0.000359	7216.406	99.698	-1.81E-05	102.710	1.63E+10	-18.220	2.44E+05
355.200	0.000277	7485.061	21.701	-1.59E-05	106.534	1.63E+10	-14.279	2.47E+05
360.000	0.000206	7424.732	-38.421	-1.37E-05	105.675	1.63E+10	-10.772	2.51E+05
364.800	0.000146	7116.216	-82.799	-1.16E-05	101.284	1.63E+10	-7.718	2.54E+05
369.600	9.54E-05	6629.866	-113.605	-9.53E-06	94.362	1.63E+10	-5.117	2.57E+05
374.400	5.43E-05	6025.612	-132.974	-7.67E-06	85.762	1.63E+10	-2.953	2.61E+05
379.200	2.18E-05	5353.320	-142.938	-6.00E-06	76.193	1.63E+10	-1.199	2.64E+05
384.000	-3.23E-06	4653.409	-145.382	-4.52E-06	66.231	1.63E+10	0.180231	2.68E+05
388.800	-2.16E-05	3957.651	-142.013	-3.25E-06	56.329	1.63E+10	1.223	2.71E+05
393.600	-3.45E-05	3290.080	-134.343	-2.19E-06	46.827	1.63E+10	1.973	2.75E+05
398.400	-4.26E-05	2667.963	-123.677	-1.31E-06	37.973	1.63E+10	2.471	2.78E+05
403.200	-4.70E-05	2102.782	-111.122	-6.07E-07	29.929	1.63E+10	2.760	2.82E+05
408.000	-4.85E-05	1601.192	-97.589	-6.14E-08	22.790	1.63E+10	2.879	2.85E+05
412.800	-4.76E-05	1165.925	-83.809	3.46E-07	16.594	1.63E+10	2.863	2.89E+05
417.600	-4.51E-05	796.625	-70.346	6.35E-07	11.338	1.63E+10	2.746	2.92E+05
422.400	-4.15E-05	490.599	-57.620	8.25E-07	6.983	1.63E+10	2.556	2.95E+05
427.200	-3.72E-05	243.474	-45.921	9.33E-07	3.465	1.63E+10	2.318	2.99E+05
432.000	-3.26E-05	49.760	-35.432	9.76E-07	0.708227	1.63E+10	2.052	3.02E+05
436.800	-2.79E-05	-96.672	-26.247	9.69E-07	1.376	1.63E+10	1.775	3.06E+05
441.600	-2.33E-05	-202.210	-18.388	9.25E-07	2.878	1.63E+10	1.500	3.09E+05
446.400	-1.90E-05	-273.197	-11.821	8.55E-07	3.888	1.63E+10	1.236	3.13E+05
451.200	-1.51E-05	-315.696	-6.472	7.68E-07	4.493	1.63E+10	0.992450	3.16E+05
456.000	-1.16E-05	-335.329	-2.236	6.72E-07	4.773	1.63E+10	0.772569	3.20E+05
460.800	-8.61E-06	-337.163	1.009	5.73E-07	4.799	1.63E+10	0.579611	3.23E+05
465.600	-6.10E-06	-325.642	3.396	4.76E-07	4.635	1.63E+10	0.414774	3.27E+05
470.400	-4.04E-06	-304.564	5.058	3.83E-07	4.335	1.63E+10	0.277969	3.30E+05
475.200	-2.42E-06	-277.083	6.129	2.97E-07	3.944	1.63E+10	0.168120	3.34E+05
480.000	-1.19E-06	-245.728	7.352	2.20E-07	3.497	1.63E+10	0.341429	1.38E+06
484.800	-3.05E-07	-206.506	8.381	1.54E-07	2.939	1.63E+10	0.087501	1.38E+06
489.600	2.87E-07	-165.268	8.393	9.90E-08	2.352	1.63E+10	-0.082565	1.38E+06
494.400	6.46E-07	-125.933	7.750	5.61E-08	1.792	1.63E+10	-0.185515	1.38E+06
499.200	8.26E-07	-90.872	6.735	2.42E-08	1.293	1.63E+10	-0.237324	1.38E+06
504.000	8.78E-07	-61.278	5.560	1.79E-09	0.872166	1.63E+10	-0.252229	1.38E+06
508.800	8.43E-07	-37.497	4.373	-1.28E-08	0.533682	1.63E+10	-0.242249	1.38E+06
513.600	7.55E-07	-19.296	3.271	-2.11E-08	0.274638	1.63E+10	-0.217042	1.38E+06
518.400	6.40E-07	-6.096	2.308	-2.49E-08	0.086767	1.63E+10	-0.183998	1.38E+06
523.200	5.17E-07	2.864	1.510	-2.53E-08	0.040766	1.63E+10	-0.148479	1.38E+06
528.000	3.97E-07	8.404	0.880173	-2.37E-08	0.119609	1.63E+10	-0.114123	1.38E+06
532.800	2.90E-07	11.314	0.406648	-2.08E-08	0.161029	1.63E+10	-0.083179	1.38E+06
537.600	1.98E-07	12.308	0.070625	-1.73E-08	0.175172	1.63E+10	-0.056831	1.38E+06
542.400	1.23E-07	11.992	-0.150920	-1.37E-08	0.170678	1.63E+10	-0.035480	1.38E+06

547.200	6.61E-08	10.859	-0.281670	-1.04E-08	0.154550	1.63E+10	-0.018999	1.38E+06
552.000	2.41E-08	9.288	-0.343896	-7.39E-09	0.132192	1.63E+10	-0.006928	1.38E+06
556.800	-4.77E-09	7.557	-0.357233	-4.91E-09	0.107562	1.63E+10	0.001371	1.38E+06
561.600	-2.30E-08	5.858	-0.338100	-2.93E-09	0.083382	1.63E+10	0.006601	1.38E+06
566.400	-3.29E-08	4.312	-0.299573	-1.43E-09	0.061366	1.63E+10	0.009452	1.38E+06
571.200	-3.67E-08	2.982	-0.251563	-3.59E-10	0.042449	1.63E+10	0.010552	1.38E+06
576.000	-3.63E-08	1.897	-0.201179	3.60E-10	0.026993	1.63E+10	0.010441	1.38E+06
580.800	-3.33E-08	1.051	-0.153177	7.94E-10	0.014961	1.63E+10	0.009560	1.38E+06
585.600	-2.87E-08	0.426050	-0.110430	1.01E-09	0.006064	1.63E+10	0.008252	1.38E+06
590.400	-2.36E-08	-0.008958	-0.074378	1.07E-09	0.000127	1.63E+10	0.006770	1.38E+06
595.200	-1.84E-08	-0.287978	-0.045427	1.03E-09	0.004099	1.63E+10	0.005293	1.38E+06
600.000	-1.37E-08	-0.445054	-0.023287	9.21E-10	0.006334	1.63E+10	0.003932	1.38E+06
604.800	-9.58E-09	-0.511534	-0.007245	7.80E-10	0.007281	1.63E+10	0.002752	1.38E+06
609.600	-6.20E-09	-0.514605	0.003632	6.29E-10	0.007324	1.63E+10	0.001780	1.38E+06
614.400	-3.54E-09	-0.476664	0.010345	4.83E-10	0.006784	1.63E+10	0.001017	1.38E+06
619.200	-1.56E-09	-0.415294	0.013859	3.52E-10	0.005911	1.63E+10	0.000447	1.38E+06
624.000	-1.61E-10	-0.343621	0.015043	2.40E-10	0.004891	1.63E+10	4.63E-05	1.38E+06
628.800	7.49E-10	-0.270881	0.014638	1.50E-10	0.003855	1.63E+10	-0.000215	1.38E+06
633.600	1.28E-09	-0.203097	0.013242	7.99E-11	0.002891	1.63E+10	-0.000367	1.38E+06
638.400	1.52E-09	-0.143758	0.011317	2.88E-11	0.002046	1.63E+10	-0.000435	1.38E+06
643.200	1.55E-09	-0.094452	0.009202	-6.26E-12	0.001344	1.63E+10	-0.000446	1.38E+06
648.000	1.46E-09	-0.055421	0.007128	-2.83E-11	0.000789	1.63E+10	-0.000418	1.38E+06
652.800	1.28E-09	-0.026025	0.005241	-4.03E-11	0.000370	1.63E+10	-0.000368	1.38E+06
657.600	1.07E-09	-0.005105	0.003622	-4.49E-11	7.27E-05	1.63E+10	-0.000307	1.38E+06
662.400	8.49E-10	0.008744	0.002299	-4.44E-11	0.000124	1.63E+10	-0.000244	1.38E+06
667.200	6.43E-10	0.016970	0.001271	-4.06E-11	0.000242	1.63E+10	-0.000185	1.38E+06
672.000	4.60E-10	0.020943	0.000511	-3.50E-11	0.000298	1.63E+10	-0.000132	1.38E+06
676.800	3.07E-10	0.021874	-1.75E-05	-2.87E-11	0.000311	1.63E+10	-8.81E-05	1.38E+06
681.600	1.84E-10	0.020775	-0.000356	-2.24E-11	0.000296	1.63E+10	-5.29E-05	1.38E+06
686.400	9.13E-11	0.018458	-0.000546	-1.66E-11	0.000263	1.63E+10	-2.62E-05	1.38E+06
691.200	2.45E-11	0.015536	-0.000626	-1.16E-11	0.000221	1.63E+10	-7.03E-06	1.38E+06
696.000	-2.04E-11	0.012452	-0.000628	-7.51E-12	0.000177	1.63E+10	5.86E-06	1.38E+06
700.800	-4.77E-11	0.009503	-0.000581	-4.28E-12	0.000135	1.63E+10	1.37E-05	1.38E+06
705.600	-6.15E-11	0.006870	-0.000506	-1.87E-12	9.78E-05	1.63E+10	1.77E-05	1.38E+06
710.400	-6.56E-11	0.004644	-0.000418	-1.76E-13	6.61E-05	1.63E+10	1.89E-05	1.38E+06
715.200	-6.32E-11	0.002852	-0.000330	9.28E-13	4.06E-05	1.63E+10	1.82E-05	1.38E+06
720.000	-5.67E-11	0.001479	-0.000247	1.57E-12	2.10E-05	1.63E+10	1.63E-05	1.38E+06
724.800	-4.82E-11	0.000481	-0.000175	1.85E-12	6.85E-06	1.63E+10	1.38E-05	1.38E+06
729.600	-3.89E-11	-0.000198	-0.000115	1.90E-12	2.81E-06	1.63E+10	1.12E-05	1.38E+06
734.400	-3.00E-11	-0.000619	-6.71E-05	1.78E-12	8.81E-06	1.63E+10	8.61E-06	1.38E+06
739.200	-2.19E-11	-0.000842	-3.13E-05	1.56E-12	1.20E-05	1.63E+10	6.29E-06	1.38E+06
744.000	-1.50E-11	-0.000920	-5.92E-06	1.30E-12	1.31E-05	1.63E+10	4.30E-06	1.38E+06
748.800	-9.39E-12	-0.000898	1.09E-05	1.03E-12	1.28E-05	1.63E+10	2.70E-06	1.38E+06
753.600	-5.06E-12	-0.000815	2.08E-05	7.81E-13	1.16E-05	1.63E+10	1.45E-06	1.38E+06
758.400	-1.88E-12	-0.000698	2.56E-05	5.59E-13	9.94E-06	1.63E+10	5.41E-07	1.38E+06
763.200	3.03E-13	-0.000569	2.67E-05	3.72E-13	8.10E-06	1.63E+10	-8.71E-08	1.38E+06
768.000	1.69E-12	-0.000442	2.54E-05	2.23E-13	6.29E-06	1.63E+10	-4.84E-07	1.38E+06
772.800	2.44E-12	-0.000326	2.25E-05	1.10E-13	4.64E-06	1.63E+10	-7.02E-07	1.38E+06
777.600	2.74E-12	-0.000226	1.89E-05	2.89E-14	3.21E-06	1.63E+10	-7.88E-07	1.38E+06
782.400	2.72E-12	-0.000144	1.52E-05	-2.56E-14	2.05E-06	1.63E+10	-7.82E-07	1.38E+06
787.200	2.50E-12	-8.03E-05	1.16E-05	-5.86E-14	1.14E-06	1.63E+10	-7.17E-07	1.38E+06
792.000	2.16E-12	-3.31E-05	8.35E-06	-7.53E-14	4.71E-07	1.63E+10	-6.20E-07	1.38E+06
796.800	1.77E-12	-1.44E-07	5.64E-06	-8.02E-14	2.06E-09	1.63E+10	-5.10E-07	1.38E+06
801.600	1.39E-12	2.10E-05	3.46E-06	-7.71E-14	2.99E-07	1.63E+10	-3.99E-07	1.38E+06

806.400	1.03E-12	3.30E-05	1.79E-06	-6.92E-14	4.70E-07	1.63E+10	-2.97E-07	1.38E+06
811.200	7.25E-13	3.82E-05	5.73E-07	-5.87E-14	5.43E-07	1.63E+10	-2.08E-07	1.38E+06
816.000	4.70E-13	3.85E-05	-2.52E-07	-4.74E-14	5.48E-07	1.63E+10	-1.35E-07	1.38E+06
820.800	2.70E-13	3.58E-05	-7.62E-07	-3.65E-14	5.09E-07	1.63E+10	-7.76E-08	1.38E+06
825.600	1.20E-13	3.12E-05	-1.03E-06	-2.66E-14	4.44E-07	1.63E+10	-3.46E-08	1.38E+06
830.400	1.47E-14	2.59E-05	-1.12E-06	-1.82E-14	3.68E-07	1.63E+10	-4.22E-09	1.38E+06
835.200	-5.44E-14	2.04E-05	-1.10E-06	-1.14E-14	2.91E-07	1.63E+10	1.56E-08	1.38E+06
840.000	-9.45E-14	1.53E-05	-9.94E-07	-6.11E-15	2.18E-07	1.63E+10	2.72E-08	1.38E+06
844.800	-1.13E-13	1.09E-05	-8.51E-07	-2.25E-15	1.55E-07	1.63E+10	3.25E-08	1.38E+06
849.600	-1.16E-13	7.16E-06	-6.93E-07	4.03E-16	1.02E-07	1.63E+10	3.34E-08	1.38E+06
854.400	-1.09E-13	4.22E-06	-5.38E-07	2.08E-15	6.01E-08	1.63E+10	3.14E-08	1.38E+06
859.200	-9.62E-14	2.00E-06	-3.96E-07	3.00E-15	2.85E-08	1.63E+10	2.76E-08	1.38E+06
864.000	-8.04E-14	4.23E-07	-2.74E-07	3.35E-15	6.02E-09	1.63E+10	2.31E-08	1.38E+06
868.800	-6.40E-14	-6.27E-07	-1.75E-07	3.32E-15	8.92E-09	1.63E+10	1.84E-08	1.38E+06
873.600	-4.85E-14	-1.25E-06	-9.70E-08	3.05E-15	1.78E-08	1.63E+10	1.39E-08	1.38E+06
878.400	-3.47E-14	-1.56E-06	-3.96E-08	2.63E-15	2.22E-08	1.63E+10	9.98E-09	1.38E+06
883.200	-2.32E-14	-1.63E-06	3.51E-10	2.16E-15	2.32E-08	1.63E+10	6.67E-09	1.38E+06
888.000	-1.40E-14	-1.55E-06	2.60E-08	1.69E-15	2.21E-08	1.63E+10	4.02E-09	1.38E+06
892.800	-6.94E-15	-1.38E-06	4.04E-08	1.26E-15	1.97E-08	1.63E+10	2.00E-09	1.38E+06
897.600	-1.87E-15	-1.17E-06	4.65E-08	8.86E-16	1.66E-08	1.63E+10	5.37E-10	1.38E+06
902.400	1.56E-15	-9.38E-07	4.67E-08	5.76E-16	1.33E-08	1.63E+10	-4.48E-10	1.38E+06
907.200	3.66E-15	-7.19E-07	4.31E-08	3.32E-16	1.02E-08	1.63E+10	-1.05E-09	1.38E+06
912.000	4.75E-15	-5.24E-07	3.73E-08	1.49E-16	7.45E-09	1.63E+10	-1.36E-09	1.38E+06
916.800	5.09E-15	-3.60E-07	3.05E-08	1.90E-17	5.13E-09	1.63E+10	-1.46E-09	1.38E+06
921.600	4.93E-15	-2.31E-07	2.36E-08	-6.80E-17	3.28E-09	1.63E+10	-1.42E-09	1.38E+06
926.400	4.44E-15	-1.34E-07	1.72E-08	-1.22E-16	1.90E-09	1.63E+10	-1.28E-09	1.38E+06
931.200	3.76E-15	-6.59E-08	1.15E-08	-1.51E-16	9.38E-10	1.63E+10	-1.08E-09	1.38E+06
936.000	2.99E-15	-2.32E-08	6.85E-09	-1.64E-16	3.30E-10	1.63E+10	-8.59E-10	1.38E+06
940.800	2.18E-15	-1.85E-10	3.28E-09	-1.68E-16	2.63E-12	1.63E+10	-6.28E-10	1.38E+06
945.600	1.38E-15	8.34E-09	8.23E-10	-1.66E-16	1.19E-10	1.63E+10	-3.97E-10	1.38E+06
950.400	5.87E-16	7.72E-09	-5.33E-10	-1.64E-16	1.10E-10	1.63E+10	-1.69E-10	1.38E+06
955.200	-1.95E-16	3.22E-09	-8.04E-10	-1.62E-16	4.58E-11	1.63E+10	5.59E-11	1.38E+06
960.000	-9.72E-16	0.000	0.000	-1.62E-16	0.000	1.63E+10	2.79E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection	=	2.80260720 in
Computed slope at pile head	=	-0.02830991
Maximum bending moment	=	3913821. lbs-in
Maximum shear force	=	-56217.64909 lbs
Depth of maximum bending moment	=	105.60000 in
Depth of maximum shear force	=	153.60000 in
Number of iterations	=	29

Number of zero deflection points = 11

 Summary of Pile Response(s)

Definition of Symbols for Pile-Head Loading Conditions:

Type 1 = Shear and Moment, y = pile-head displacment in
 Type 2 = Shear and Slope, M = Pile-head Moment lbs-in
 Type 3 = Shear and Rot. Stiffness, V = Pile-head Shear Force lbs
 Type 4 = Deflection and Moment, S = Pile-head Slope, radians
 Type 5 = Deflection and Slope, R = Rot. Stiffness of Pile-head in-lbs/rad

Load Type	Pile-Head Condition 1	Pile-Head Condition 2	Axial Load lbs	Pile-Head Deflection in	Maximum Moment in-lbs	Maximum Shear lbs
1	v= 10000.	M= 0.000	0.0000	0.1705508	441890.	10000.0000
1	v= 20000.	M= 0.000	0.0000	0.5089465	1094928.	20000.0000
1	v= 30000.	M= 0.000	0.0000	1.0649	1929850.	30000.0000
1	v= 40000.	M= 0.000	0.0000	1.8288	2878131.	-41192.9319
1	v= 50000.	M= 0.000	0.0000	2.8026	3913821.	-56217.6491

The analysis ended normally.

APPENDIX G: LPILE ANALYSIS FOR TP3 (P-MULTIPLIER OF 0.80)

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LPILE Plus for Windows, Version 5.0 (5.0.47)

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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This program is licensed to:

J Price
RB&G Engineering

Files Used for Analysis

Path to file locations: C:\Users\jprice\Documents\Thesis\LPILE 03.23.11\Pioneer
Crossing\Peak Plus 1 Min\
Name of input data file: phi28.k150.gam138.2.pmult0.80.lpd
Name of output file: phi28.k150.gam138.2.pmult0.80.lpo
Name of plot output file: phi28.k150.gam138.2.pmult0.80.lpp
Name of runtime file: phi28.k150.gam138.2.pmult0.80.lpr

Time and Date of Analysis

Date: May 5, 2012 Time: 2:15:58

Problem Title

New LPILE Plus 5.0 Data File

Program Options

Units Used in Computations - US Customary Units: Inches, Pounds

Basic Program Options:

Analysis Type 3:

- Computation of Nonlinear Bending Stiffness and Ultimate Bending Moment Capacity with Pile Response Computed Using Nonlinear EI

Computation Options:

- Only internally-generated p-y curves used in analysis
- Analysis uses p-y multipliers for group action
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output pile response for full length of pile
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths

Solution Control Parameters:

- Number of pile increments = 200
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 1.0000E+02 in

Printing Options:

- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (spacing of output points) = 1

Pile Structural Properties and Geometry

Pile Length = 960.00 in

Depth of ground surface below top of pile = 12.00 in

Slope angle of ground surface = 0.00 deg.

Structural properties of pile defined using 2 points

Point No.	Point Depth in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
1	0.0000	16.00000000	562.0800	18.4100	29000000.
2	960.0000	16.00000000	562.0800	18.4100	29000000.

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of moment of inertia and modulus of are not used for any computations other than total stress due to combined axial loading and bending.

 Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is sand, p-y criteria by API RP-2A, 1987

Distance from top of pile to top of layer = 12.000 in
 Distance from top of pile to bottom of layer = 480.000 in
 p-y subgrade modulus k for top of soil layer = 150.000 lbs/in**3
 p-y subgrade modulus k for bottom of layer = 150.000 lbs/in**3

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer = 480.000 in
 Distance from top of pile to bottom of layer = 1000.000 in

(Depth of lowest layer extends 40.00 in below pile tip)

 Effective Unit weight of Soil vs. Depth

Effective unit weight of soil with depth defined using 4 points

Point No.	Depth X in	Eff. Unit weight lbs/in**3
1	12.00	0.08000
2	480.00	0.08000
3	480.00	0.06944
4	1000.00	0.06944

 Shear Strength of Soils

Shear strength parameters with depth defined using 4 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	12.000	0.00000	28.00	-----	-----
2	480.000	0.00000	28.00	-----	-----
3	480.000	6.94444	0.00	0.00700	0.0
4	1000.000	6.94444	0.00	0.00700	0.0

Notes:

(1) Cohesion = uniaxial compressive strength for rock materials.

- (2) values of E50 are reported for clay strata.
- (3) Default values will be generated for E50 when input values are 0.
- (4) RQD and k_{rm} are reported only for weak rock strata.

 p-y Modification Factors

Distribution of p-y multipliers with depth defined using 2 points

Point No.	Depth X in	p-mult	y-mult
1	12.000	0.8000	1.0000
2	960.000	0.8000	1.0000

 Loading Type

Static loading criteria was used for computation of p-y curves.

 Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 5

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 10000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 2

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 20000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 3

Pile-head boundary conditions are Shear and Moment (BC Type 1)
 Shear force at pile head = 30000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 4

Pile-head boundary conditions are Shear and Moment (BC Type 1)
 Shear force at pile head = 40000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)
 Shear force at pile head = 50000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

 Computation of Nonlinear Bending Stiffness for Section 1

Dimensions and Material Properties of Steel Pipe Section:

Outer Diameter of Pipe = 16.00000 in.
 Pipe Wall Thickness = 0.37500 in.
 Yield Stress of Pipe = 60. ksi
 Elastic Modulus = 29000. ksi
 Cross-sectional Area = 18.40777 sq. in.
 Moment of Inertia = 562.084 in⁴
 Elastic Bending Stiffness = 16300439. kip-in²

Definition of Run Messages:

Y = part of pipe section has yielded

Axial Thrust Force = 0.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in ²	Max Comp Strain in/in	Minimum Strain in/in	Depth to N Axis in	Run Msg
0.00000550	89.57501530	16299140.	0.00004397	-0.00004397	8.00000000	---

0.00001099	179.15003	16299140.	0.00008793	-0.00008793	8.00000000	
0.00001649	268.72505	16299140.	0.00013190	-0.00013190	8.00000000	
0.00002198	358.30006	16299140.	0.00017586	-0.00017586	8.00000000	
0.00002748	447.87508	16299140.	0.00021983	-0.00021983	8.00000000	
0.00003297	537.45009	16299140.	0.00026379	-0.00026379	8.00000000	
0.00003847	627.02511	16299140.	0.00030776	-0.00030776	8.00000000	
0.00004397	716.60012	16299140.	0.00035172	-0.00035172	8.00000000	
0.00004946	806.17514	16299140.	0.00039569	-0.00039569	8.00000000	
0.00005496	895.75015	16299140.	0.00043966	-0.00043966	8.00000000	
0.00006045	985.32517	16299140.	0.00048362	-0.00048362	8.00000000	
0.00006595	1074.90018	16299140.	0.00052759	-0.00052759	8.00000000	
0.00007144	1164.47520	16299140.	0.00057155	-0.00057155	8.00000000	
0.00007694	1254.05021	16299140.	0.00061552	-0.00061552	8.00000000	
0.00008244	1343.62523	16299140.	0.00065948	-0.00065948	8.00000000	
0.00008793	1433.20024	16299140.	0.00070345	-0.00070345	8.00000000	
0.00009343	1522.77526	16299140.	0.00074741	-0.00074741	8.00000000	
0.00009892	1612.35028	16299140.	0.00079138	-0.00079138	8.00000000	
0.00010442	1701.92529	16299140.	0.00083534	-0.00083534	8.00000000	
0.00010991	1791.50031	16299140.	0.00087931	-0.00087931	8.00000000	
0.00011541	1881.07532	16299140.	0.00092328	-0.00092328	8.00000000	
0.00012091	1970.65034	16299140.	0.00096724	-0.00096724	8.00000000	
0.00012640	2060.22535	16299140.	0.00101121	-0.00101121	8.00000000	
0.00013190	2149.80037	16299140.	0.00105517	-0.00105517	8.00000000	
0.00013739	2239.37538	16299140.	0.00109914	-0.00109914	8.00000000	
0.00014289	2328.95040	16299140.	0.00114310	-0.00114310	8.00000000	
0.00014838	2418.52541	16299140.	0.00118707	-0.00118707	8.00000000	
0.00015388	2508.10043	16299140.	0.00123103	-0.00123103	8.00000000	
0.00015938	2597.67544	16299140.	0.00127500	-0.00127500	8.00000000	
0.00016487	2687.25046	16299140.	0.00131897	-0.00131897	8.00000000	
0.00017037	2776.82547	16299140.	0.00136293	-0.00136293	8.00000000	
0.00017586	2866.40049	16299140.	0.00140690	-0.00140690	8.00000000	
0.00018136	2955.97550	16299140.	0.00145086	-0.00145086	8.00000000	
0.00018685	3045.55052	16299140.	0.00149483	-0.00149483	8.00000000	
0.00019235	3135.12554	16299140.	0.00153879	-0.00153879	8.00000000	
0.00019784	3224.70055	16299140.	0.00158276	-0.00158276	8.00000000	
0.00020334	3314.27557	16299140.	0.00162672	-0.00162672	8.00000000	
0.00020884	3403.85058	16299140.	0.00167069	-0.00167069	8.00000000	
0.00021433	3493.42560	16299140.	0.00171466	-0.00171466	8.00000000	
0.00021983	3583.00061	16299140.	0.00175862	-0.00175862	8.00000000	
0.00022532	3672.57563	16299140.	0.00180259	-0.00180259	8.00000000	
0.00023082	3762.15064	16299140.	0.00184655	-0.00184655	8.00000000	
0.00023631	3851.72566	16299140.	0.00189052	-0.00189052	8.00000000	
0.00024181	3941.30067	16299140.	0.00193448	-0.00193448	8.00000000	
0.00024731	4030.87569	16299140.	0.00197845	-0.00197845	8.00000000	
0.00025280	4120.45070	16299140.	0.00202241	-0.00202241	8.00000000	
0.00025830	4210.02572	16299140.	0.00206638	-0.00206638	8.00000000	
0.00026379	4296.43113	16287124.	0.00211034	-0.00211034	8.00000000	Y
0.00026929	4373.42773	16240660.	0.00215431	-0.00215431	8.00000000	Y
0.00027478	4439.00035	16154479.	0.00219828	-0.00219828	8.00000000	Y
0.00028028	4495.55846	16039516.	0.00224224	-0.00224224	8.00000000	Y
0.00028578	4546.13334	15908038.	0.00228621	-0.00228621	8.00000000	Y
0.00029127	4592.05610	15765549.	0.00233017	-0.00233017	8.00000000	Y
0.00029677	4633.81340	15614302.	0.00237414	-0.00237414	8.00000000	Y
0.00030226	4671.83655	15456200.	0.00241810	-0.00241810	8.00000000	Y

0.00030776	4707.19007	15295071.	0.00246207	-0.00246207	8.00000000	Y
0.00031325	4740.26069	15132308.	0.00250603	-0.00250603	8.00000000	Y
0.00031875	4771.09192	14968131.	0.00255000	-0.00255000	8.00000000	Y
0.00032425	4799.32117	14801495.	0.00259397	-0.00259397	8.00000000	Y
0.00032974	4826.14536	14636153.	0.00263793	-0.00263793	8.00000000	Y
0.00033524	4851.49019	14471819.	0.00268190	-0.00268190	8.00000000	Y
0.00034073	4874.74421	14306649.	0.00272586	-0.00272586	8.00000000	Y
0.00034623	4897.17687	14144351.	0.00276983	-0.00276983	8.00000000	Y
0.00035172	4918.00554	13982564.	0.00281379	-0.00281379	8.00000000	Y
0.00035722	4937.78073	13822807.	0.00285776	-0.00285776	8.00000000	Y
0.00036272	4956.64343	13665374.	0.00290172	-0.00290172	8.00000000	Y
0.00036821	4974.21101	13509124.	0.00294569	-0.00294569	8.00000000	Y
0.00037371	4991.27486	13356122.	0.00298966	-0.00298966	8.00000000	Y
0.00037920	5007.02214	13204082.	0.00303362	-0.00303362	8.00000000	Y
0.00038470	5022.43782	13055524.	0.00307759	-0.00307759	8.00000000	Y
0.00039019	5036.70038	12908196.	0.00312155	-0.00312155	8.00000000	Y
0.00039569	5050.60468	12764055.	0.00316552	-0.00316552	8.00000000	Y
0.00040119	5063.67451	12621783.	0.00320948	-0.00320948	8.00000000	Y
0.00040668	5076.19222	12481999.	0.00325345	-0.00325345	8.00000000	Y
0.00041218	5088.32389	12345005.	0.00329741	-0.00329741	8.00000000	Y
0.00041767	5099.56942	12209495.	0.00334138	-0.00334138	8.00000000	Y
0.00042317	5110.81496	12077505.	0.00338534	-0.00338534	8.00000000	Y
0.00042866	5121.06351	11946573.	0.00342931	-0.00342931	8.00000000	Y
0.00043416	5131.14214	11818565.	0.00347328	-0.00347328	8.00000000	Y
0.00043966	5140.96479	11693174.	0.00351724	-0.00351724	8.00000000	Y
0.00044515	5149.97368	11569052.	0.00356121	-0.00356121	8.00000000	Y
0.00045065	5158.98257	11447957.	0.00360517	-0.00360517	8.00000000	Y
0.00045614	5167.55970	11328834.	0.00364914	-0.00364914	8.00000000	Y
0.00046164	5175.58878	11211359.	0.00369310	-0.00369310	8.00000000	Y
0.00046713	5183.61786	11096649.	0.00373707	-0.00373707	8.00000000	Y
0.00047263	5191.25387	10983774.	0.00378103	-0.00378103	8.00000000	Y
0.00047813	5198.38655	10872442.	0.00382500	-0.00382500	8.00000000	Y
0.00048362	5205.51924	10763640.	0.00386897	-0.00386897	8.00000000	Y
0.00048912	5212.48015	10656932.	0.00391293	-0.00391293	8.00000000	Y
0.00049461	5218.79394	10551287.	0.00395690	-0.00395690	8.00000000	Y
0.00050011	5225.10773	10447963.	0.00400086	-0.00400086	8.00000000	Y
0.00050560	5231.42152	10346886.	0.00404483	-0.00404483	8.00000000	Y
0.00051110	5237.19181	10246919.	0.00408879	-0.00408879	8.00000000	Y
0.00051659	5242.75882	10148686.	0.00413276	-0.00413276	8.00000000	Y
0.00052209	5248.32584	10052521.	0.00417672	-0.00417672	8.00000000	Y
0.00052759	5253.89285	9958359.	0.00422069	-0.00422069	8.00000000	Y
0.00053308	5258.80636	9864912.	0.00426466	-0.00426466	8.00000000	Y
0.00053858	5263.69376	9773325.	0.00430862	-0.00430862	8.00000000	Y
0.00054407	5268.58116	9683587.	0.00435259	-0.00435259	8.00000000	Y
0.00054957	5273.46856	9595644.	0.00439655	-0.00439655	8.00000000	Y
0.00055506	5277.81618	9508471.	0.00444052	-0.00444052	8.00000000	Y
0.00056056	5282.08657	9422869.	0.00448448	-0.00448448	8.00000000	Y
0.00056606	5286.35697	9338928.	0.00452845	-0.00452845	8.00000000	Y
0.00057155	5290.62736	9256603.	0.00457241	-0.00457241	8.00000000	Y
0.00057705	5294.66043	9175434.	0.00461638	-0.00461638	8.00000000	Y
0.00058254	5298.37219	9095245.	0.00466034	-0.00466034	8.00000000	Y
0.00058804	5302.08395	9016554.	0.00470431	-0.00470431	8.00000000	Y
0.00059353	5305.79571	8939322.	0.00474828	-0.00474828	8.00000000	Y
0.00059903	5309.50748	8863506.	0.00479224	-0.00479224	8.00000000	Y

0.00060453	5312.93644	8788601.	0.00483621	-0.00483621	8.00000000	Y
0.00061002	5316.14401	8714682.	0.00488017	-0.00488017	8.00000000	Y
0.00061552	5319.35157	8642084.	0.00492414	-0.00492414	8.00000000	Y
0.00062101	5322.55913	8570770.	0.00496810	-0.00496810	8.00000000	Y
0.00062651	5325.76669	8500708.	0.00501207	-0.00501207	8.00000000	Y
0.00063200	5328.87341	8431704.	0.00505603	-0.00505603	8.00000000	Y
0.00063750	5331.62752	8363337.	0.00510000	-0.00510000	8.00000000	Y
0.00064300	5334.38163	8296139.	0.00514397	-0.00514397	8.00000000	Y
0.00064849	5337.13574	8230079.	0.00518793	-0.00518793	8.00000000	Y
0.00065399	5339.88985	8165130.	0.00523190	-0.00523190	8.00000000	Y
0.00065948	5342.64396	8101264.	0.00527586	-0.00527586	8.00000000	Y
0.00066498	5345.26145	8038247.	0.00531983	-0.00531983	8.00000000	Y
0.00067047	5347.60938	7975862.	0.00536379	-0.00536379	8.00000000	Y
0.00067597	5349.95732	7914491.	0.00540776	-0.00540776	8.00000000	Y
0.00068147	5352.30525	7854110.	0.00545172	-0.00545172	8.00000000	Y
0.00068696	5354.65319	7794695.	0.00549569	-0.00549569	8.00000000	Y
0.00069246	5357.00112	7736223.	0.00553966	-0.00553966	8.00000000	Y
0.00069795	5359.34906	7678672.	0.00558362	-0.00558362	8.00000000	Y
0.00070345	5361.40220	7621601.	0.00562759	-0.00562759	8.00000000	Y
0.00070894	5363.38797	7565320.	0.00567155	-0.00567155	8.00000000	Y
0.00071444	5365.37374	7509905.	0.00571552	-0.00571552	8.00000000	Y
0.00071994	5367.35952	7455335.	0.00575948	-0.00575948	8.00000000	Y
0.00072543	5369.34529	7401593.	0.00580345	-0.00580345	8.00000000	Y
0.00073093	5371.33107	7348659.	0.00584741	-0.00584741	8.00000000	Y
0.00073642	5373.31684	7296514.	0.00589138	-0.00589138	8.00000000	Y
0.00074192	5375.12714	7244906.	0.00593534	-0.00593534	8.00000000	Y
0.00074741	5376.79167	7193862.	0.00597931	-0.00597931	8.00000000	Y
0.00075291	5378.45620	7143563.	0.00602328	-0.00602328	8.00000000	Y
0.00075841	5380.12073	7093992.	0.00606724	-0.00606724	8.00000000	Y
0.00076390	5381.78526	7045136.	0.00611121	-0.00611121	8.00000000	Y
0.00076940	5383.44979	6996977.	0.00615517	-0.00615517	8.00000000	Y
0.00077489	5385.11432	6949501.	0.00619914	-0.00619914	8.00000000	Y
0.00078039	5386.77885	6902694.	0.00624310	-0.00624310	8.00000000	Y

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Load	Axial Thrust	Interp. Mom. Cap.
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1	0.000 kips	5386.8 in-kip

Please note that the values in the above table are not factored by a strength reduction factor for LRFD.

The value of the strength reduction factor depends on the provisions of the LRFD code being used.

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to the LRFD structural design standard being followed.

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 10000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Flx. Rig. EI lbs-in**2	Soil Res. p lbs/in	Es*h F/L
0.000	0.201985	7.85E-08	10000.	-0.002772	1.12E-09	1.63E+10	0.000	0.000
4.800	0.188679	48000.	10000.	-0.002765	683.177	1.63E+10	0.000	0.000
9.600	0.175440	96000.	10000.	-0.002744	1366.354	1.63E+10	0.000	0.000
14.400	0.162337	1.44E+05	9955.615	-0.002709	2049.530	1.63E+10	-18.494	546.827
19.200	0.149438	1.92E+05	9769.228	-0.002659	2726.643	1.63E+10	-59.168	1900.488
24.000	0.136809	2.38E+05	9384.114	-0.002596	3384.352	1.63E+10	-101.296	3554.022
28.800	0.124516	2.82E+05	8802.218	-0.002519	4008.844	1.63E+10	-141.161	5441.612
33.600	0.112622	3.22E+05	8041.599	-0.002431	4587.046	1.63E+10	-175.764	7491.132
38.400	0.101183	3.59E+05	7132.830	-0.002330	5107.611	1.63E+10	-202.890	9624.803
43.200	0.090252	3.91E+05	6115.534	-0.002220	5561.643	1.63E+10	-220.984	11753.
48.000	0.079873	4.18E+05	5035.806	-0.002101	5943.209	1.63E+10	-228.902	13756.
52.800	0.070084	4.39E+05	3945.339	-0.001975	6249.712	1.63E+10	-225.459	15442.
57.600	0.060916	4.55E+05	2832.294	-0.001843	6482.282	1.63E+10	-238.310	18778.
62.400	0.052391	4.66E+05	1659.276	-0.001707	6636.704	1.63E+10	-250.447	22945.
67.200	0.044526	4.71E+05	454.352	-0.001569	6708.998	1.63E+10	-251.604	27123.
72.000	0.037327	4.71E+05	-731.118	-0.001430	6698.784	1.63E+10	-242.342	31163.
76.800	0.030794	4.64E+05	-1851.363	-0.001293	6609.101	1.63E+10	-224.427	34983.
81.600	0.024917	4.53E+05	-2870.378	-0.001158	6445.823	1.63E+10	-200.162	38560.
86.400	0.019680	4.37E+05	-3763.178	-0.001027	6216.906	1.63E+10	-171.838	41913.
91.200	0.015060	4.17E+05	-4515.031	-0.000901	5931.640	1.63E+10	-141.435	45079.
96.000	0.011030	3.93E+05	-5119.742	-0.000782	5599.993	1.63E+10	-110.528	48101.
100.800	0.007555	3.68E+05	-5577.746	-0.000670	5232.102	1.63E+10	-80.306	51020.
105.600	0.004601	3.40E+05	-5894.395	-0.000565	4837.876	1.63E+10	-51.631	53867.
110.400	0.002127	3.11E+05	-6078.564	-0.000470	4426.719	1.63E+10	-25.107	56669.
115.200	9.21E-05	2.82E+05	-6141.557	-0.000382	4007.329	1.63E+10	-1.141	59443.
120.000	-0.001544	2.52E+05	-6096.263	-0.000304	3587.565	1.63E+10	20.013	62203.
124.800	-0.002825	2.23E+05	-5956.493	-0.000234	3174.364	1.63E+10	38.224	64957.
129.600	-0.003789	1.95E+05	-5736.465	-0.000172	2773.698	1.63E+10	53.455	67710.
134.400	-0.004479	1.68E+05	-5450.371	-0.000119	2390.560	1.63E+10	65.751	70465.
139.200	-0.004931	1.43E+05	-5112.042	-7.32E-05	2028.984	1.63E+10	75.220	73223.
144.000	-0.005181	1.19E+05	-4734.663	-3.47E-05	1692.075	1.63E+10	82.022	75985.
148.800	-0.005264	97104.	-4330.552	-2.88E-06	1382.062	1.63E+10	86.358	78749.
153.600	-0.005209	77312.	-3910.986	2.28E-05	1100.368	1.63E+10	88.461	81516.
158.400	-0.005045	59558.	-3486.078	4.30E-05	847.683	1.63E+10	88.584	84285.
163.200	-0.004797	43846.	-3064.697	5.82E-05	624.047	1.63E+10	86.992	87054.
168.000	-0.004486	30137.	-2654.429	6.91E-05	428.937	1.63E+10	83.953	89824.
172.800	-0.004133	18363.	-2261.578	7.62E-05	261.358	1.63E+10	79.735	92595.
177.600	-0.003755	8425.978	-1891.189	8.02E-05	119.926	1.63E+10	74.593	95364.

182.400	-0.003364	207.585	-1547.115	8.14E-05	2.955	1.63E+10	68.771	98134.
187.200	-0.002973	-6426.328	-1232.087	8.05E-05	91.465	1.63E+10	62.491	1.01E+05
192.000	-0.002591	-11620.	-947.816	7.79E-05	165.392	1.63E+10	55.955	1.04E+05
196.800	-0.002225	-15525.	-695.099	7.39E-05	220.970	1.63E+10	49.344	1.06E+05
201.600	-0.001882	-18293.	-473.932	6.89E-05	260.367	1.63E+10	42.809	1.09E+05
206.400	-0.001564	-20075.	-283.634	6.32E-05	285.726	1.63E+10	36.482	1.12E+05
211.200	-0.001275	-21016.	-122.958	5.72E-05	299.122	1.63E+10	30.466	1.15E+05
216.000	-0.001015	-21256.	9.789	5.10E-05	302.526	1.63E+10	24.845	1.18E+05
220.800	-0.000785	-20922.	116.641	4.48E-05	297.784	1.63E+10	19.677	1.20E+05
225.600	-0.000585	-20136.	199.870	3.87E-05	286.589	1.63E+10	15.002	1.23E+05
230.400	-0.000414	-19004.	261.899	3.29E-05	270.475	1.63E+10	10.843	1.26E+05
235.200	-0.000269	-17622.	305.216	2.76E-05	250.805	1.63E+10	7.206	1.29E+05
240.000	-0.000149	-16073.	332.310	2.26E-05	228.771	1.63E+10	4.083	1.31E+05
244.800	-5.22E-05	-14431.	345.608	1.81E-05	205.399	1.63E+10	1.458	1.34E+05
249.600	2.45E-05	-12756.	347.431	1.41E-05	181.549	1.63E+10	-0.698219	1.37E+05
254.400	8.31E-05	-11096.	339.952	1.06E-05	157.928	1.63E+10	-2.418	1.40E+05
259.200	0.000126	-9492.099	325.173	7.55E-06	135.100	1.63E+10	-3.740	1.42E+05
264.000	0.000156	-7974.351	304.904	4.98E-06	113.498	1.63E+10	-4.706	1.45E+05
268.800	0.000174	-6565.021	280.751	2.84E-06	93.439	1.63E+10	-5.358	1.48E+05
273.600	0.000183	-5279.139	254.116	1.09E-06	75.137	1.63E+10	-5.740	1.51E+05
278.400	0.000184	-4125.508	226.194	-2.91E-07	58.718	1.63E+10	-5.894	1.53E+05
283.200	0.000180	-3107.674	197.985	-1.36E-06	44.231	1.63E+10	-5.860	1.56E+05
288.000	0.000171	-2224.849	170.302	-2.14E-06	31.666	1.63E+10	-5.675	1.59E+05
292.800	0.000159	-1472.779	143.782	-2.69E-06	20.962	1.63E+10	-5.375	1.62E+05
297.600	0.000146	-844.538	118.910	-3.03E-06	12.020	1.63E+10	-4.989	1.65E+05
302.400	0.000130	-331.240	96.028	-3.20E-06	4.714	1.63E+10	-4.546	1.67E+05
307.200	0.000115	77.327	75.354	-3.24E-06	1.101	1.63E+10	-4.068	1.70E+05
312.000	9.94E-05	392.161	57.006	-3.17E-06	5.582	1.63E+10	-3.577	1.73E+05
316.800	8.44E-05	624.583	41.010	-3.02E-06	8.890	1.63E+10	-3.088	1.76E+05
321.600	7.04E-05	785.855	27.323	-2.81E-06	11.185	1.63E+10	-2.615	1.78E+05
326.400	5.74E-05	886.884	15.846	-2.56E-06	12.623	1.63E+10	-2.167	1.81E+05
331.200	4.58E-05	937.981	6.439	-2.30E-06	13.350	1.63E+10	-1.753	1.84E+05
336.000	3.54E-05	948.695	-1.071	-2.02E-06	13.503	1.63E+10	-1.376	1.87E+05
340.800	2.64E-05	927.697	-6.873	-1.74E-06	13.204	1.63E+10	-1.041	1.89E+05
345.600	1.87E-05	882.715	-11.166	-1.48E-06	12.564	1.63E+10	-0.747717	1.92E+05
350.400	1.22E-05	820.505	-14.151	-1.22E-06	11.678	1.63E+10	-0.496238	1.95E+05
355.200	6.92E-06	746.863	-16.026	-9.94E-07	10.630	1.63E+10	-0.285086	1.98E+05
360.000	2.68E-06	666.651	-16.979	-7.86E-07	9.488	1.63E+10	-0.111919	2.00E+05
364.800	-6.20E-07	583.862	-17.185	-6.01E-07	8.310	1.63E+10	0.026239	2.03E+05
369.600	-3.09E-06	501.676	-16.803	-4.42E-07	7.140	1.63E+10	0.132782	2.06E+05
374.400	-4.86E-06	422.550	-15.977	-3.06E-07	6.014	1.63E+10	0.211336	2.09E+05
379.200	-6.03E-06	348.293	-14.833	-1.92E-07	4.957	1.63E+10	0.265604	2.12E+05
384.000	-6.70E-06	280.156	-13.477	-9.95E-08	3.987	1.63E+10	0.299240	2.14E+05
388.800	-6.98E-06	218.913	-12.001	-2.60E-08	3.116	1.63E+10	0.315747	2.17E+05
393.600	-6.95E-06	164.945	-10.479	3.05E-08	2.348	1.63E+10	0.318407	2.20E+05
398.400	-6.69E-06	118.313	-8.970	7.22E-08	1.684	1.63E+10	0.310221	2.23E+05
403.200	-6.26E-06	78.829	-7.521	1.01E-07	1.122	1.63E+10	0.293881	2.25E+05
408.000	-5.72E-06	46.115	-6.163	1.20E-07	0.656353	1.63E+10	0.271750	2.28E+05
412.800	-5.11E-06	19.663	-4.921	1.29E-07	0.279861	1.63E+10	0.245860	2.31E+05
417.600	-4.48E-06	-1.125	-3.808	1.32E-07	0.016007	1.63E+10	0.217918	2.34E+05
422.400	-3.84E-06	-16.892	-2.830	1.29E-07	0.240414	1.63E+10	0.189324	2.36E+05
427.200	-3.24E-06	-28.296	-1.989	1.23E-07	0.402738	1.63E+10	0.161190	2.39E+05
432.000	-2.67E-06	-35.987	-1.280	1.13E-07	0.512203	1.63E+10	0.134370	2.42E+05
436.800	-2.15E-06	-40.583	-0.694550	1.02E-07	0.577605	1.63E+10	0.109488	2.45E+05

441.600	-1.69E-06	-42.655	-0.223061	8.97E-08	0.607103	1.63E+10	0.086966	2.47E+05
446.400	-1.29E-06	-42.724	0.146593	7.72E-08	0.608083	1.63E+10	0.067056	2.50E+05
451.200	-9.46E-07	-41.248	0.427212	6.48E-08	0.587073	1.63E+10	0.049868	2.53E+05
456.000	-6.64E-07	-38.623	0.631842	5.30E-08	0.549711	1.63E+10	0.035395	2.56E+05
460.800	-4.37E-07	-35.182	0.773277	4.22E-08	0.500741	1.63E+10	0.023537	2.59E+05
465.600	-2.59E-07	-31.199	0.863663	3.24E-08	0.444054	1.63E+10	0.014124	2.61E+05
470.400	-1.26E-07	-26.891	0.914199	2.38E-08	0.382734	1.63E+10	0.006933	2.64E+05
475.200	-3.06E-08	-22.423	0.934920	1.66E-08	0.319142	1.63E+10	0.001701	2.67E+05
480.000	3.31E-08	-17.916	0.916149	1.06E-08	0.254991	1.63E+10	-0.009522	1.38E+06
484.800	7.16E-08	-13.628	0.843958	6.00E-09	0.193963	1.63E+10	-0.020558	1.38E+06
489.600	9.07E-08	-9.814	0.732076	2.54E-09	0.139677	1.63E+10	-0.026060	1.38E+06
494.400	9.60E-08	-6.600	0.603351	1.28E-10	0.093936	1.63E+10	-0.027576	1.38E+06
499.200	9.19E-08	-4.022	0.473780	-1.44E-09	0.057238	1.63E+10	-0.026412	1.38E+06
504.000	8.22E-08	-2.052	0.353716	-2.33E-09	0.029201	1.63E+10	-0.023615	1.38E+06
508.800	6.96E-08	-0.625859	0.249077	-2.72E-09	0.008908	1.63E+10	-0.019985	1.38E+06
513.600	5.60E-08	0.339486	0.162473	-2.77E-09	0.004832	1.63E+10	-0.016100	1.38E+06
518.400	4.30E-08	0.933882	0.094184	-2.58E-09	0.013292	1.63E+10	-0.012354	1.38E+06
523.200	3.13E-08	1.244	0.042967	-2.26E-09	0.017701	1.63E+10	-0.008986	1.38E+06
528.000	2.13E-08	1.346	0.006702	-1.88E-09	0.019163	1.63E+10	-0.006124	1.38E+06
532.800	1.33E-08	1.308	-0.017137	-1.49E-09	0.018616	1.63E+10	-0.003809	1.38E+06
537.600	7.05E-09	1.182	-0.031137	-1.12E-09	0.016821	1.63E+10	-0.002024	1.38E+06
542.400	2.51E-09	1.009	-0.037723	-7.97E-10	0.014362	1.63E+10	-0.000720	1.38E+06
547.200	-6.07E-10	0.819707	-0.039033	-5.28E-10	0.011667	1.63E+10	0.000175	1.38E+06
552.000	-2.56E-09	0.634361	-0.036847	-3.14E-10	0.009029	1.63E+10	0.000736	1.38E+06
556.800	-3.62E-09	0.465977	-0.032583	-1.52E-10	0.006632	1.63E+10	0.001040	1.38E+06
561.600	-4.02E-09	0.321560	-0.027315	-3.59E-11	0.004577	1.63E+10	0.001155	1.38E+06
566.400	-3.97E-09	0.203757	-0.021808	4.14E-11	0.002900	1.63E+10	0.001139	1.38E+06
571.200	-3.62E-09	0.112204	-0.016576	8.80E-11	0.001597	1.63E+10	0.001041	1.38E+06
576.000	-3.12E-09	0.044631	-0.011926	1.11E-10	0.000635	1.63E+10	0.000897	1.38E+06
580.800	-2.56E-09	-0.002281	-0.008010	1.17E-10	3.25E-05	1.63E+10	0.000735	1.38E+06
585.600	-2.00E-09	-0.032269	-0.004872	1.12E-10	0.000459	1.63E+10	0.000573	1.38E+06
590.400	-1.48E-09	-0.049049	-0.002475	1.00E-10	0.000698	1.63E+10	0.000425	1.38E+06
595.200	-1.03E-09	-0.056034	-0.000743	8.47E-11	0.000798	1.63E+10	0.000297	1.38E+06
600.000	-6.66E-10	-0.056179	0.000429	6.82E-11	0.000800	1.63E+10	0.000191	1.38E+06
604.800	-3.78E-10	-0.051915	0.001149	5.23E-11	0.000739	1.63E+10	0.000109	1.38E+06
609.600	-1.64E-10	-0.045146	0.001523	3.80E-11	0.000643	1.63E+10	4.71E-05	1.38E+06
614.400	-1.34E-11	-0.037292	0.001646	2.59E-11	0.000531	1.63E+10	3.85E-06	1.38E+06
619.200	8.45E-11	-0.029349	0.001597	1.61E-11	0.000418	1.63E+10	-2.43E-05	1.38E+06
624.000	1.41E-10	-0.021965	0.001441	8.51E-12	0.000313	1.63E+10	-4.05E-05	1.38E+06
628.800	1.66E-10	-0.015514	0.001230	2.99E-12	0.000221	1.63E+10	-4.77E-05	1.38E+06
633.600	1.70E-10	-0.010162	0.000998	-7.89E-13	0.000145	1.63E+10	-4.87E-05	1.38E+06
638.400	1.59E-10	-0.005932	0.000772	-3.16E-12	8.44E-05	1.63E+10	-4.56E-05	1.38E+06
643.200	1.39E-10	-0.002753	0.000566	-4.44E-12	3.92E-05	1.63E+10	-4.00E-05	1.38E+06
648.000	1.16E-10	-0.000494	0.000390	-4.92E-12	7.04E-06	1.63E+10	-3.33E-05	1.38E+06
652.800	9.20E-11	0.000996	0.000247	-4.84E-12	1.42E-05	1.63E+10	-2.64E-05	1.38E+06
657.600	6.95E-11	0.001877	0.000136	-4.42E-12	2.67E-05	1.63E+10	-2.00E-05	1.38E+06
662.400	4.96E-11	0.002298	5.35E-05	-3.80E-12	3.27E-05	1.63E+10	-1.43E-05	1.38E+06
667.200	3.30E-11	0.002390	-3.49E-06	-3.11E-12	3.40E-05	1.63E+10	-9.48E-06	1.38E+06
672.000	1.97E-11	0.002264	-3.99E-05	-2.43E-12	3.22E-05	1.63E+10	-5.67E-06	1.38E+06
676.800	9.69E-12	0.002008	-6.01E-05	-1.80E-12	2.86E-05	1.63E+10	-2.78E-06	1.38E+06
681.600	2.47E-12	0.001687	-6.85E-05	-1.26E-12	2.40E-05	1.63E+10	-7.10E-07	1.38E+06
686.400	-2.36E-12	0.001350	-6.86E-05	-8.08E-13	1.92E-05	1.63E+10	6.79E-07	1.38E+06
691.200	-5.29E-12	0.001028	-6.33E-05	-4.58E-13	1.46E-05	1.63E+10	1.52E-06	1.38E+06
696.000	-6.76E-12	0.000742	-5.50E-05	-1.97E-13	1.06E-05	1.63E+10	1.94E-06	1.38E+06

700.800	-7.18E-12	0.000500	-4.54E-05	-1.41E-14	7.12E-06	1.63E+10	2.06E-06	1.38E+06
705.600	-6.89E-12	0.000306	-3.57E-05	1.05E-13	4.35E-06	1.63E+10	1.98E-06	1.38E+06
710.400	-6.17E-12	0.000157	-2.67E-05	1.73E-13	2.24E-06	1.63E+10	1.77E-06	1.38E+06
715.200	-5.23E-12	4.95E-05	-1.88E-05	2.03E-13	7.05E-07	1.63E+10	1.50E-06	1.38E+06
720.000	-4.22E-12	-2.36E-05	-1.23E-05	2.07E-13	3.36E-07	1.63E+10	1.21E-06	1.38E+06
724.800	-3.24E-12	-6.88E-05	-7.18E-06	1.93E-13	9.79E-07	1.63E+10	9.32E-07	1.38E+06
729.600	-2.36E-12	-9.25E-05	-3.31E-06	1.70E-13	1.32E-06	1.63E+10	6.79E-07	1.38E+06
734.400	-1.61E-12	-0.000101	-5.70E-07	1.41E-13	1.43E-06	1.63E+10	4.64E-07	1.38E+06
739.200	-1.01E-12	-9.80E-05	1.24E-06	1.12E-13	1.39E-06	1.63E+10	2.90E-07	1.38E+06
744.000	-5.39E-13	-8.87E-05	2.31E-06	8.45E-14	1.26E-06	1.63E+10	1.55E-07	1.38E+06
748.800	-1.96E-13	-7.59E-05	2.81E-06	6.03E-14	1.08E-06	1.63E+10	5.64E-08	1.38E+06
753.600	3.96E-14	-6.17E-05	2.92E-06	4.00E-14	8.79E-07	1.63E+10	-1.14E-08	1.38E+06
758.400	1.88E-13	-4.78E-05	2.76E-06	2.39E-14	6.81E-07	1.63E+10	-5.41E-08	1.38E+06
763.200	2.69E-13	-3.52E-05	2.45E-06	1.17E-14	5.01E-07	1.63E+10	-7.73E-08	1.38E+06
768.000	3.00E-13	-2.43E-05	2.06E-06	2.91E-15	3.47E-07	1.63E+10	-8.63E-08	1.38E+06
772.800	2.97E-13	-1.55E-05	1.64E-06	-2.96E-15	2.20E-07	1.63E+10	-8.53E-08	1.38E+06
777.600	2.72E-13	-8.57E-06	1.25E-06	-6.50E-15	1.22E-07	1.63E+10	-7.81E-08	1.38E+06
782.400	2.35E-13	-3.47E-06	9.02E-07	-8.27E-15	4.94E-08	1.63E+10	-6.74E-08	1.38E+06
787.200	1.93E-13	8.29E-08	6.07E-07	-8.77E-15	1.18E-09	1.63E+10	-5.53E-08	1.38E+06
792.000	1.50E-13	2.36E-06	3.71E-07	-8.41E-15	3.36E-08	1.63E+10	-4.32E-08	1.38E+06
796.800	1.12E-13	3.64E-06	1.90E-07	-7.53E-15	5.18E-08	1.63E+10	-3.21E-08	1.38E+06
801.600	7.82E-14	4.18E-06	5.89E-08	-6.37E-15	5.95E-08	1.63E+10	-2.25E-08	1.38E+06
806.400	5.06E-14	4.21E-06	-2.99E-08	-5.14E-15	5.99E-08	1.63E+10	-1.45E-08	1.38E+06
811.200	2.89E-14	3.90E-06	-8.47E-08	-3.95E-15	5.54E-08	1.63E+10	-8.29E-09	1.38E+06
816.000	1.27E-14	3.39E-06	-1.13E-07	-2.87E-15	4.83E-08	1.63E+10	-3.64E-09	1.38E+06
820.800	1.29E-15	2.81E-06	-1.23E-07	-1.96E-15	4.00E-08	1.63E+10	-3.69E-10	1.38E+06
825.600	-6.14E-15	2.21E-06	-1.20E-07	-1.22E-15	3.15E-08	1.63E+10	1.76E-09	1.38E+06
830.400	-1.04E-14	1.66E-06	-1.08E-07	-6.51E-16	2.36E-08	1.63E+10	3.00E-09	1.38E+06
835.200	-1.24E-14	1.17E-06	-9.25E-08	-2.34E-16	1.67E-08	1.63E+10	3.56E-09	1.38E+06
840.000	-1.27E-14	7.71E-07	-7.52E-08	5.20E-17	1.10E-08	1.63E+10	3.65E-09	1.38E+06
844.800	-1.19E-14	4.52E-07	-5.82E-08	2.32E-16	6.44E-09	1.63E+10	3.42E-09	1.38E+06
849.600	-1.05E-14	2.12E-07	-4.28E-08	3.30E-16	3.02E-09	1.63E+10	3.01E-09	1.38E+06
854.400	-8.73E-15	4.13E-08	-2.96E-08	3.67E-16	5.88E-10	1.63E+10	2.51E-09	1.38E+06
859.200	-6.94E-15	-7.17E-08	-1.88E-08	3.63E-16	1.02E-09	1.63E+10	1.99E-09	1.38E+06
864.000	-5.25E-15	-1.39E-07	-1.04E-08	3.32E-16	1.97E-09	1.63E+10	1.51E-09	1.38E+06
868.800	-3.75E-15	-1.71E-07	-4.15E-09	2.86E-16	2.44E-09	1.63E+10	1.08E-09	1.38E+06
873.600	-2.50E-15	-1.79E-07	1.60E-10	2.35E-16	2.54E-09	1.63E+10	7.18E-10	1.38E+06
878.400	-1.50E-15	-1.70E-07	2.92E-09	1.83E-16	2.41E-09	1.63E+10	4.31E-10	1.38E+06
883.200	-7.41E-16	-1.51E-07	4.47E-09	1.36E-16	2.14E-09	1.63E+10	2.13E-10	1.38E+06
888.000	-1.94E-16	-1.27E-07	5.11E-09	9.53E-17	1.80E-09	1.63E+10	5.57E-11	1.38E+06
892.800	1.74E-16	-1.02E-07	5.12E-09	6.17E-17	1.44E-09	1.63E+10	-5.00E-11	1.38E+06
897.600	3.99E-16	-7.75E-08	4.73E-09	3.54E-17	1.10E-09	1.63E+10	-1.15E-10	1.38E+06
902.400	5.14E-16	-5.61E-08	4.10E-09	1.57E-17	7.99E-10	1.63E+10	-1.48E-10	1.38E+06
907.200	5.49E-16	-3.81E-08	3.37E-09	1.82E-18	5.43E-10	1.63E+10	-1.58E-10	1.38E+06
912.000	5.31E-16	-2.38E-08	2.62E-09	-7.30E-18	3.39E-10	1.63E+10	-1.53E-10	1.38E+06
916.800	4.79E-16	-1.30E-08	1.92E-09	-1.27E-17	1.85E-10	1.63E+10	-1.38E-10	1.38E+06
921.600	4.09E-16	-5.32E-09	1.31E-09	-1.54E-17	7.58E-11	1.63E+10	-1.18E-10	1.38E+06
926.400	3.31E-16	-3.77E-10	8.02E-10	-1.63E-17	5.36E-12	1.63E+10	-9.52E-11	1.38E+06
931.200	2.53E-16	2.38E-09	3.99E-10	-1.60E-17	3.38E-11	1.63E+10	-7.27E-11	1.38E+06
936.000	1.78E-16	3.45E-09	1.02E-10	-1.51E-17	4.91E-11	1.63E+10	-5.12E-11	1.38E+06
940.800	1.08E-16	3.35E-09	-9.58E-11	-1.41E-17	4.77E-11	1.63E+10	-3.11E-11	1.38E+06
945.600	4.28E-17	2.53E-09	-2.00E-10	-1.32E-17	3.60E-11	1.63E+10	-1.23E-11	1.38E+06
950.400	-1.89E-17	1.43E-09	-2.16E-10	-1.26E-17	2.04E-11	1.63E+10	5.43E-12	1.38E+06
955.200	-7.86E-17	4.56E-10	-1.49E-10	-1.24E-17	6.48E-12	1.63E+10	2.26E-11	1.38E+06

960.000 -1.38E-16 0.000 0.000 -1.23E-17 0.000 1.63E+10 3.96E-11 6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.20198519 in
 Computed slope at pile head = -0.00277219
 Maximum bending moment = 471374.18651 lbs-in
 Maximum shear force = 10000.00000 lbs
 Depth of maximum bending moment = 67.20000000 in
 Depth of maximum shear force = 9.60000000 in
 Number of iterations = 11
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 20000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.632877	7.85E-08	20000.	-0.007623	1.12E-09	1.63E+10	0.000	0.000
4.800	0.596288	96000.	20000.	-0.007609	1366.354	1.63E+10	0.000	0.000
9.600	0.559835	1.92E+05	20000.	-0.007566	2732.707	1.63E+10	0.000	0.000
14.400	0.523654	2.88E+05	19955.	-0.007495	4099.061	1.63E+10	-18.748	171.847
19.200	0.487879	3.84E+05	19764.	-0.007397	5459.266	1.63E+10	-60.895	599.120
24.000	0.452647	4.78E+05	19362.	-0.007270	6799.503	1.63E+10	-106.416	1128.469
28.800	0.418090	5.69E+05	18742.	-0.007116	8104.843	1.63E+10	-151.912	1744.067
33.600	0.384338	6.58E+05	17912.	-0.006935	9360.367	1.63E+10	-193.983	2422.658
38.400	0.351516	7.41E+05	16896.	-0.006729	10552.	1.63E+10	-229.234	3130.226
43.200	0.319741	8.20E+05	15736.	-0.006499	11669.	1.63E+10	-254.274	3817.192
48.000	0.289126	8.92E+05	14488.	-0.006247	12702.	1.63E+10	-265.717	4411.369
52.800	0.259772	9.59E+05	13226.	-0.005974	13649.	1.63E+10	-260.173	4807.405
57.600	0.231774	1.02E+06	11899.	-0.005683	14510.	1.63E+10	-292.703	6061.835

62.400	0.205217	1.07E+06	10368.	-0.005375	15274.	1.63E+10	-345.386	8078.543
67.200	0.180177	1.12E+06	8576.019	-0.005052	15926.	1.63E+10	-401.108	10686.
72.000	0.156718	1.16E+06	6514.922	-0.004717	16446.	1.63E+10	-457.682	14018.
76.800	0.134893	1.18E+06	4190.749	-0.004373	16816.	1.63E+10	-510.723	18173.
81.600	0.114738	1.20E+06	1637.107	-0.004023	17019.	1.63E+10	-553.294	23147.
86.400	0.096274	1.20E+06	-1075.614	-0.003671	17040.	1.63E+10	-577.006	28768.
91.200	0.079501	1.19E+06	-3839.982	-0.003320	16872.	1.63E+10	-574.814	34705.
96.000	0.064405	1.16E+06	-6525.424	-0.002974	16515.	1.63E+10	-544.121	40553.
100.800	0.050948	1.12E+06	-9002.425	-0.002638	15980.	1.63E+10	-487.963	45972.
105.600	0.039079	1.07E+06	-11166.	-0.002315	15285.	1.63E+10	-413.477	50786.
110.400	0.028728	1.02E+06	-12948.	-0.002007	14455.	1.63E+10	-329.051	54979.
115.200	0.019813	9.50E+05	-14319.	-0.001718	13516.	1.63E+10	-242.053	58642.
120.000	0.012239	8.78E+05	-15278.	-0.001448	12498.	1.63E+10	-157.858	61908.
124.800	0.005908	8.03E+05	-15849.	-0.001201	11429.	1.63E+10	-79.881	64904.
129.600	0.000711	7.26E+05	-16065.	-0.000976	10333.	1.63E+10	-10.030	67737.
134.400	-0.003460	6.49E+05	-15967.	-0.000773	9233.491	1.63E+10	50.802	70480.
139.200	-0.006713	5.73E+05	-15599.	-0.000593	8151.000	1.63E+10	102.359	73186.
144.000	-0.009157	4.99E+05	-15006.	-0.000436	7102.074	1.63E+10	144.771	75884.
148.800	-0.010896	4.29E+05	-14231.	-0.000299	6100.623	1.63E+10	178.407	78593.
153.600	-0.012029	3.62E+05	-13313.	-0.000183	5157.676	1.63E+10	203.786	81319.
158.400	-0.012649	3.01E+05	-12293.	-8.50E-05	4281.555	1.63E+10	221.533	84065.
163.200	-0.012845	2.44E+05	-11203.	-4.70E-06	3478.080	1.63E+10	232.347	86828.
168.000	-0.012694	1.93E+05	-10077.	5.97E-05	2750.797	1.63E+10	236.974	89604.
172.800	-0.012271	1.48E+05	-8941.259	0.000110	2101.225	1.63E+10	236.194	92391.
177.600	-0.011639	1.07E+05	-7820.478	0.000147	1529.105	1.63E+10	230.798	95183.
182.400	-0.010855	72555.	-6734.784	0.000174	1032.671	1.63E+10	221.574	97978.
187.200	-0.009969	42781.	-5700.727	0.000191	608.896	1.63E+10	209.283	1.01E+05
192.000	-0.009022	17828.	-4731.284	0.000200	253.750	1.63E+10	194.652	1.04E+05
196.800	-0.008049	-2639.312	-3836.068	0.000202	37.565	1.63E+10	178.355	1.06E+05
201.600	-0.007081	-18998.	-3021.598	0.000199	270.393	1.63E+10	161.007	1.09E+05
206.400	-0.006139	-31647.	-2291.603	0.000192	450.422	1.63E+10	143.157	1.12E+05
211.200	-0.005243	-40997.	-1647.353	0.000181	583.507	1.63E+10	125.280	1.15E+05
216.000	-0.004404	-47461.	-1088.008	0.000168	675.509	1.63E+10	107.780	1.17E+05
220.800	-0.003632	-51442.	-610.965	0.000153	732.167	1.63E+10	90.988	1.20E+05
225.600	-0.002933	-53327.	-212.191	0.000138	758.988	1.63E+10	75.168	1.23E+05
230.400	-0.002309	-53479.	113.447	0.000122	761.160	1.63E+10	60.515	1.26E+05
235.200	-0.001761	-52237.	371.881	0.000106	743.487	1.63E+10	47.166	1.29E+05
240.000	-0.001287	-49909.	569.575	9.15E-05	710.348	1.63E+10	35.206	1.31E+05
244.800	-0.000883	-46769.	713.276	7.72E-05	665.663	1.63E+10	24.669	1.34E+05
249.600	-0.000545	-43062.	809.809	6.40E-05	612.889	1.63E+10	15.553	1.37E+05
254.400	-0.000269	-38995.	865.897	5.19E-05	555.015	1.63E+10	7.817	1.40E+05
259.200	-4.71E-05	-34749.	888.016	4.11E-05	494.577	1.63E+10	1.399	1.42E+05
264.000	0.000125	-30470.	882.276	3.14E-05	433.680	1.63E+10	-3.790	1.45E+05
268.800	0.000255	-26279.	854.339	2.31E-05	374.027	1.63E+10	-7.850	1.48E+05
273.600	0.000347	-22269.	809.354	1.59E-05	316.947	1.63E+10	-10.893	1.51E+05
278.400	0.000408	-18509.	751.922	9.94E-06	263.440	1.63E+10	-13.037	1.53E+05
283.200	0.000442	-15050.	686.078	5.00E-06	214.208	1.63E+10	-14.398	1.56E+05
288.000	0.000456	-11923.	615.294	1.03E-06	169.698	1.63E+10	-15.095	1.59E+05
292.800	0.000452	-9143.456	542.490	-2.08E-06	130.137	1.63E+10	-15.240	1.62E+05
297.600	0.000436	-6715.062	470.067	-4.41E-06	95.574	1.63E+10	-14.937	1.65E+05
302.400	0.000410	-4630.815	399.935	-6.08E-06	65.910	1.63E+10	-14.285	1.67E+05
307.200	0.000377	-2875.686	333.563	-7.19E-06	40.929	1.63E+10	-13.371	1.70E+05
312.000	0.000341	-1428.615	272.019	-7.82E-06	20.333	1.63E+10	-12.273	1.73E+05
316.800	0.000302	-264.308	216.022	-8.07E-06	3.762	1.63E+10	-11.059	1.76E+05

321.600	0.000263	645.199	165.992	-8.01E-06	9.183	1.63E+10	-9.787	1.78E+05
326.400	0.000225	1329.215	122.093	-7.72E-06	18.919	1.63E+10	-8.504	1.81E+05
331.200	0.000189	1817.289	84.282	-7.26E-06	25.865	1.63E+10	-7.250	1.84E+05
336.000	0.000156	2138.319	52.352	-6.68E-06	30.434	1.63E+10	-6.054	1.87E+05
340.800	0.000125	2319.863	25.969	-6.02E-06	33.018	1.63E+10	-4.939	1.89E+05
345.600	9.79E-05	2387.622	4.710	-5.33E-06	33.983	1.63E+10	-3.919	1.92E+05
350.400	7.40E-05	2365.082	-11.909	-4.63E-06	33.662	1.63E+10	-3.005	1.95E+05
355.200	5.35E-05	2273.296	-24.407	-3.95E-06	32.355	1.63E+10	-2.202	1.98E+05
360.000	3.61E-05	2130.778	-33.312	-3.30E-06	30.327	1.63E+10	-1.509	2.00E+05
364.800	2.18E-05	1953.496	-39.150	-2.70E-06	27.804	1.63E+10	-0.923351	2.03E+05
369.600	1.03E-05	1754.941	-42.421	-2.15E-06	24.978	1.63E+10	-0.439849	2.06E+05
374.400	1.17E-06	1546.251	-43.599	-1.66E-06	22.008	1.63E+10	-0.050911	2.09E+05
379.200	-5.72E-06	1336.388	-43.116	-1.24E-06	19.021	1.63E+10	0.252173	2.12E+05
384.000	-1.07E-05	1132.335	-41.362	-8.76E-07	16.116	1.63E+10	0.478871	2.14E+05
388.800	-1.41E-05	939.315	-38.679	-5.71E-07	13.369	1.63E+10	0.638959	2.17E+05
393.600	-1.62E-05	761.017	-35.364	-3.20E-07	10.831	1.63E+10	0.742166	2.20E+05
398.400	-1.72E-05	599.818	-31.668	-1.20E-07	8.537	1.63E+10	0.797885	2.23E+05
403.200	-1.74E-05	457.003	-27.797	3.55E-08	6.504	1.63E+10	0.814953	2.25E+05
408.000	-1.69E-05	332.964	-23.918	1.52E-07	4.739	1.63E+10	0.801498	2.28E+05
412.800	-1.59E-05	227.392	-20.159	2.34E-07	3.236	1.63E+10	0.764837	2.31E+05
417.600	-1.46E-05	139.442	-16.616	2.88E-07	1.985	1.63E+10	0.711421	2.34E+05
422.400	-1.31E-05	67.882	-13.356	3.19E-07	0.966161	1.63E+10	0.646816	2.36E+05
427.200	-1.16E-05	11.226	-10.422	3.31E-07	0.159776	1.63E+10	0.575722	2.39E+05
432.000	-9.96E-06	-32.166	-7.835	3.27E-07	0.457815	1.63E+10	0.502010	2.42E+05
436.800	-8.41E-06	-63.992	-5.601	3.13E-07	0.910785	1.63E+10	0.428778	2.45E+05
441.600	-6.95E-06	-85.938	-3.712	2.91E-07	1.223	1.63E+10	0.358426	2.47E+05
446.400	-5.62E-06	-99.627	-2.149	2.64E-07	1.418	1.63E+10	0.292725	2.50E+05
451.200	-4.42E-06	-106.571	-0.887716	2.34E-07	1.517	1.63E+10	0.232906	2.53E+05
456.000	-3.37E-06	-108.149	0.102622	2.02E-07	1.539	1.63E+10	0.179735	2.56E+05
460.800	-2.48E-06	-105.586	0.854609	1.70E-07	1.503	1.63E+10	0.133593	2.59E+05
465.600	-1.74E-06	-99.945	1.402	1.40E-07	1.422	1.63E+10	0.094546	2.61E+05
470.400	-1.13E-06	-92.125	1.779	1.12E-07	1.311	1.63E+10	0.062415	2.64E+05
475.200	-6.63E-07	-82.868	2.017	8.62E-08	1.179	1.63E+10	0.036827	2.67E+05
480.000	-3.08E-07	-72.762	2.318	6.32E-08	1.036	1.63E+10	0.088371	1.38E+06
484.800	-5.55E-08	-60.620	2.568	4.36E-08	0.862791	1.63E+10	0.015947	1.38E+06
489.600	1.11E-07	-48.110	2.530	2.76E-08	0.684745	1.63E+10	-0.031860	1.38E+06
494.400	2.09E-07	-36.335	2.309	1.51E-08	0.517147	1.63E+10	-0.060129	1.38E+06
499.200	2.56E-07	-25.945	1.988	5.98E-09	0.369267	1.63E+10	-0.073642	1.38E+06
504.000	2.67E-07	-17.251	1.627	-3.81E-10	0.245536	1.63E+10	-0.076619	1.38E+06
508.800	2.53E-07	-10.323	1.269	-4.44E-09	0.146931	1.63E+10	-0.072591	1.38E+06
513.600	2.24E-07	-5.068	0.940416	-6.71E-09	0.072129	1.63E+10	-0.064370	1.38E+06
518.400	1.88E-07	-1.295	0.656111	-7.64E-09	0.018437	1.63E+10	-0.054091	1.38E+06
523.200	1.51E-07	1.231	0.422408	-7.65E-09	0.017518	1.63E+10	-0.043286	1.38E+06
528.000	1.15E-07	2.760	0.239370	-7.07E-09	0.039279	1.63E+10	-0.032980	1.38E+06
532.800	8.28E-08	3.529	0.103108	-6.14E-09	0.050225	1.63E+10	-0.023796	1.38E+06
537.600	5.58E-08	3.750	0.007492	-5.07E-09	0.053367	1.63E+10	-0.016044	1.38E+06
542.400	3.42E-08	3.601	-0.054571	-3.99E-09	0.051249	1.63E+10	-0.009815	1.38E+06
547.200	1.76E-08	3.226	-0.090246	-2.98E-09	0.045911	1.63E+10	-0.005049	1.38E+06
552.000	5.54E-09	2.734	-0.106185	-2.10E-09	0.038918	1.63E+10	-0.001592	1.38E+06
556.800	-2.62E-09	2.206	-0.108197	-1.38E-09	0.031402	1.63E+10	0.000754	1.38E+06
561.600	-7.67E-09	1.696	-0.101099	-8.02E-10	0.024134	1.63E+10	0.002204	1.38E+06
566.400	-1.03E-08	1.236	-0.088693	-3.70E-10	0.017589	1.63E+10	0.002965	1.38E+06
571.200	-1.12E-08	0.844212	-0.073837	-6.40E-11	0.012016	1.63E+10	0.003225	1.38E+06
576.000	-1.09E-08	0.526948	-0.058556	1.38E-10	0.007500	1.63E+10	0.003142	1.38E+06

580.800	-9.90E-09	0.282071	-0.044189	2.57E-10	0.004015	1.63E+10	0.002845	1.38E+06
585.600	-8.47E-09	0.102733	-0.031523	3.14E-10	0.001462	1.63E+10	0.002433	1.38E+06
590.400	-6.89E-09	-0.020552	-0.020934	3.26E-10	0.000293	1.63E+10	0.001979	1.38E+06
595.200	-5.34E-09	-0.098231	-0.012501	3.08E-10	0.001398	1.63E+10	0.001534	1.38E+06
600.000	-3.93E-09	-0.140561	-0.006109	2.73E-10	0.002001	1.63E+10	0.001129	1.38E+06
604.800	-2.72E-09	-0.156876	-0.001525	2.29E-10	0.002233	1.63E+10	0.000781	1.38E+06
609.600	-1.73E-09	-0.155199	0.001541	1.83E-10	0.002209	1.63E+10	0.000497	1.38E+06
614.400	-9.58E-10	-0.142083	0.003393	1.40E-10	0.002022	1.63E+10	0.000275	1.38E+06
619.200	-3.88E-10	-0.122628	0.004320	1.01E-10	0.001745	1.63E+10	0.000111	1.38E+06
624.000	8.73E-12	-0.100607	0.004582	6.78E-11	0.001432	1.63E+10	-2.51E-06	1.38E+06
628.800	2.63E-10	-0.078643	0.004394	4.14E-11	0.001119	1.63E+10	-7.56E-05	1.38E+06
633.600	4.06E-10	-0.058420	0.003933	2.12E-11	0.000831	1.63E+10	-0.000117	1.38E+06
638.400	4.67E-10	-0.040885	0.003331	6.59E-12	0.000582	1.63E+10	-0.000134	1.38E+06
643.200	4.69E-10	-0.026439	0.002686	-3.33E-12	0.000376	1.63E+10	-0.000135	1.38E+06
648.000	4.35E-10	-0.015099	0.002063	-9.44E-12	0.000215	1.63E+10	-0.000125	1.38E+06
652.800	3.79E-10	-0.006636	0.001502	-1.26E-11	9.45E-05	1.63E+10	-0.000109	1.38E+06
657.600	3.13E-10	-0.000680	0.001025	-1.37E-11	9.67E-06	1.63E+10	-9.00E-05	1.38E+06
662.400	2.47E-10	0.003203	0.000639	-1.33E-11	4.56E-05	1.63E+10	-7.09E-05	1.38E+06
667.200	1.85E-10	0.005451	0.000341	-1.21E-11	7.76E-05	1.63E+10	-5.32E-05	1.38E+06
672.000	1.31E-10	0.006474	0.000123	-1.03E-11	9.21E-05	1.63E+10	-3.76E-05	1.38E+06
676.800	8.61E-11	0.006630	-2.70E-05	-8.39E-12	9.44E-05	1.63E+10	-2.47E-05	1.38E+06
681.600	5.05E-11	0.006215	-0.000121	-6.50E-12	8.85E-05	1.63E+10	-1.45E-05	1.38E+06
686.400	2.37E-11	0.005467	-0.000172	-4.78E-12	7.78E-05	1.63E+10	-6.81E-06	1.38E+06
691.200	4.63E-12	0.004562	-0.000192	-3.30E-12	6.49E-05	1.63E+10	-1.33E-06	1.38E+06
696.000	-7.99E-12	0.003626	-0.000189	-2.10E-12	5.16E-05	1.63E+10	2.30E-06	1.38E+06
700.800	-1.55E-11	0.002743	-0.000173	-1.16E-12	3.90E-05	1.63E+10	4.45E-06	1.38E+06
705.600	-1.91E-11	0.001962	-0.000149	-4.65E-13	2.79E-05	1.63E+10	5.49E-06	1.38E+06
710.400	-1.99E-11	0.001308	-0.000123	1.66E-14	1.86E-05	1.63E+10	5.73E-06	1.38E+06
715.200	-1.89E-11	0.000786	-9.57E-05	3.25E-13	1.12E-05	1.63E+10	5.44E-06	1.38E+06
720.000	-1.68E-11	0.000389	-7.10E-05	4.98E-13	5.54E-06	1.63E+10	4.84E-06	1.38E+06
724.800	-1.42E-11	0.000104	-4.97E-05	5.71E-13	1.48E-06	1.63E+10	4.07E-06	1.38E+06
729.600	-1.14E-11	-8.74E-05	-3.21E-05	5.73E-13	1.24E-06	1.63E+10	3.26E-06	1.38E+06
734.400	-8.66E-12	-0.000204	-1.83E-05	5.30E-13	2.90E-06	1.63E+10	2.49E-06	1.38E+06
739.200	-6.26E-12	-0.000263	-7.98E-06	4.62E-13	3.74E-06	1.63E+10	1.80E-06	1.38E+06
744.000	-4.23E-12	-0.000280	-7.40E-07	3.82E-13	3.99E-06	1.63E+10	1.22E-06	1.38E+06
748.800	-2.60E-12	-0.000270	3.97E-06	3.01E-13	3.84E-06	1.63E+10	7.47E-07	1.38E+06
753.600	-1.35E-12	-0.000242	6.69E-06	2.25E-13	3.45E-06	1.63E+10	3.87E-07	1.38E+06
758.400	-4.38E-13	-0.000206	7.92E-06	1.59E-13	2.93E-06	1.63E+10	1.26E-07	1.38E+06
763.200	1.81E-13	-0.000166	8.10E-06	1.04E-13	2.37E-06	1.63E+10	-5.20E-08	1.38E+06
768.000	5.65E-13	-0.000128	7.58E-06	6.11E-14	1.82E-06	1.63E+10	-1.62E-07	1.38E+06
772.800	7.68E-13	-9.34E-05	6.66E-06	2.85E-14	1.33E-06	1.63E+10	-2.21E-07	1.38E+06
777.600	8.39E-13	-6.39E-05	5.56E-06	5.36E-15	9.10E-07	1.63E+10	-2.41E-07	1.38E+06
782.400	8.19E-13	-4.00E-05	4.41E-06	-9.95E-15	5.70E-07	1.63E+10	-2.35E-07	1.38E+06
787.200	7.43E-13	-2.16E-05	3.34E-06	-1.90E-14	3.07E-07	1.63E+10	-2.14E-07	1.38E+06
792.000	6.37E-13	-8.03E-06	2.38E-06	-2.34E-14	1.14E-07	1.63E+10	-1.83E-07	1.38E+06
796.800	5.19E-13	1.31E-06	1.59E-06	-2.44E-14	1.86E-08	1.63E+10	-1.49E-07	1.38E+06
801.600	4.03E-13	7.21E-06	9.52E-07	-2.31E-14	1.03E-07	1.63E+10	-1.16E-07	1.38E+06
806.400	2.97E-13	1.04E-05	4.69E-07	-2.05E-14	1.49E-07	1.63E+10	-8.53E-08	1.38E+06
811.200	2.06E-13	1.17E-05	1.23E-07	-1.73E-14	1.67E-07	1.63E+10	-5.91E-08	1.38E+06
816.000	1.31E-13	1.16E-05	-1.10E-07	-1.38E-14	1.65E-07	1.63E+10	-3.77E-08	1.38E+06
820.800	7.31E-14	1.07E-05	-2.51E-07	-1.05E-14	1.52E-07	1.63E+10	-2.10E-08	1.38E+06
825.600	3.01E-14	9.22E-06	-3.22E-07	-7.61E-15	1.31E-07	1.63E+10	-8.65E-09	1.38E+06
830.400	8.82E-17	7.57E-06	-3.43E-07	-5.14E-15	1.08E-07	1.63E+10	-2.53E-11	1.38E+06
835.200	-1.92E-14	5.93E-06	-3.29E-07	-3.15E-15	8.44E-08	1.63E+10	5.52E-09	1.38E+06

840.000	-3.01E-14	4.41E-06	-2.95E-07	-1.63E-15	6.28E-08	1.63E+10	8.66E-09	1.38E+06
844.800	-3.48E-14	3.09E-06	-2.51E-07	-5.21E-16	4.40E-08	1.63E+10	1.00E-08	1.38E+06
849.600	-3.51E-14	2.01E-06	-2.02E-07	2.30E-16	2.86E-08	1.63E+10	1.01E-08	1.38E+06
854.400	-3.26E-14	1.15E-06	-1.56E-07	6.96E-16	1.64E-08	1.63E+10	9.37E-09	1.38E+06
859.200	-2.85E-14	5.13E-07	-1.13E-07	9.41E-16	7.30E-09	1.63E+10	8.18E-09	1.38E+06
864.000	-2.36E-14	6.24E-08	-7.76E-08	1.03E-15	8.89E-10	1.63E+10	6.77E-09	1.38E+06
868.800	-1.86E-14	-2.32E-07	-4.85E-08	1.00E-15	3.30E-09	1.63E+10	5.35E-09	1.38E+06
873.600	-1.40E-14	-4.03E-07	-2.60E-08	9.07E-16	5.74E-09	1.63E+10	4.02E-09	1.38E+06
878.400	-9.91E-15	-4.82E-07	-9.58E-09	7.77E-16	6.86E-09	1.63E+10	2.85E-09	1.38E+06
883.200	-6.52E-15	-4.95E-07	1.75E-09	6.33E-16	7.05E-09	1.63E+10	1.87E-09	1.38E+06
888.000	-3.83E-15	-4.65E-07	8.89E-09	4.91E-16	6.62E-09	1.63E+10	1.10E-09	1.38E+06
892.800	-1.80E-15	-4.10E-07	1.28E-08	3.62E-16	5.84E-09	1.63E+10	5.18E-10	1.38E+06
897.600	-3.55E-16	-3.43E-07	1.43E-08	2.51E-16	4.88E-09	1.63E+10	1.02E-10	1.38E+06
902.400	6.10E-16	-2.73E-07	1.41E-08	1.61E-16	3.89E-09	1.63E+10	-1.75E-10	1.38E+06
907.200	1.19E-15	-2.07E-07	1.28E-08	9.00E-17	2.95E-09	1.63E+10	-3.41E-10	1.38E+06
912.000	1.47E-15	-1.50E-07	1.10E-08	3.74E-17	2.13E-09	1.63E+10	-4.23E-10	1.38E+06
916.800	1.55E-15	-1.02E-07	8.93E-09	4.06E-19	1.45E-09	1.63E+10	-4.45E-10	1.38E+06
921.600	1.48E-15	-6.40E-08	6.84E-09	-2.40E-17	9.12E-10	1.63E+10	-4.25E-10	1.38E+06
926.400	1.32E-15	-3.61E-08	4.91E-09	-3.88E-17	5.14E-10	1.63E+10	-3.78E-10	1.38E+06
931.200	1.11E-15	-1.69E-08	3.24E-09	-4.66E-17	2.40E-10	1.63E+10	-3.18E-10	1.38E+06
936.000	8.70E-16	-4.96E-09	1.88E-09	-4.98E-17	7.06E-11	1.63E+10	-2.50E-10	1.38E+06
940.800	6.28E-16	1.19E-09	8.48E-10	-5.03E-17	1.69E-11	1.63E+10	-1.80E-10	1.38E+06
945.600	3.87E-16	3.18E-09	1.48E-10	-4.97E-17	4.53E-11	1.63E+10	-1.11E-10	1.38E+06
950.400	1.51E-16	2.61E-09	-2.24E-10	-4.88E-17	3.71E-11	1.63E+10	-4.34E-11	1.38E+06
955.200	-8.14E-17	1.03E-09	-2.72E-10	-4.83E-17	1.47E-11	1.63E+10	2.34E-11	1.38E+06
960.000	-3.13E-16	0.000	0.000	-4.81E-17	0.000	1.63E+10	8.98E-11	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection	=	0.63287682 in
Computed slope at pile head	=	-0.00762264
Maximum bending moment	=	1197227. lbs-in
Maximum shear force	=	20000.00000 lbs
Depth of maximum bending moment	=	86.40000000 in
Depth of maximum shear force	=	9.60000000 in
Number of iterations	=	19
Number of zero deflection points	=	11

 Computed Values of Load Distribution and Deflection

for Lateral Loading for Load Case Number 3

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 30000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	1.329	-9.42E-07	30000.	-0.014438	1.34E-08	1.63E+10	0.000	0.000
4.800	1.260	1.44E+05	30000.	-0.014417	2049.530	1.63E+10	0.000	0.000
9.600	1.190	2.88E+05	30000.	-0.014353	4099.061	1.63E+10	0.000	0.000
14.400	1.122	4.32E+05	29955.	-0.014247	6148.591	1.63E+10	-18.747	80.219
19.200	1.054	5.76E+05	29764.	-0.014099	8191.974	1.63E+10	-60.895	277.400
24.000	0.986431	7.18E+05	29362.	-0.013908	10215.	1.63E+10	-106.416	517.825
28.800	0.920180	8.57E+05	28742.	-0.013676	12204.	1.63E+10	-151.915	792.445
33.600	0.855140	9.94E+05	27912.	-0.013404	14143.	1.63E+10	-193.995	1088.915
38.400	0.791505	1.13E+06	26896.	-0.013092	16018.	1.63E+10	-229.259	1390.320
43.200	0.729461	1.25E+06	25736.	-0.012742	17818.	1.63E+10	-254.313	1673.428
48.000	0.669187	1.37E+06	24488.	-0.012355	19534.	1.63E+10	-265.758	1906.253
52.800	0.610852	1.49E+06	23225.	-0.011934	21163.	1.63E+10	-260.200	2044.616
57.600	0.554620	1.60E+06	21898.	-0.011480	22707.	1.63E+10	-292.801	2534.069
62.400	0.500643	1.70E+06	20365.	-0.010995	24156.	1.63E+10	-345.910	3316.477
67.200	0.449065	1.79E+06	18567.	-0.010482	25490.	1.63E+10	-403.265	4310.452
72.000	0.400018	1.88E+06	16484.	-0.009942	26692.	1.63E+10	-464.861	5578.085
76.800	0.353623	1.95E+06	14094.	-0.009379	27742.	1.63E+10	-530.677	7203.304
81.600	0.309982	2.01E+06	11379.	-0.008796	28618.	1.63E+10	-600.585	9299.905
86.400	0.269184	2.06E+06	8320.217	-0.008196	29297.	1.63E+10	-674.046	12019.
91.200	0.231296	2.09E+06	4904.145	-0.007586	29755.	1.63E+10	-749.317	15550.
96.000	0.196363	2.11E+06	1133.126	-0.006968	29967.	1.63E+10	-821.940	20092.
100.800	0.164406	2.10E+06	-2958.600	-0.006348	29910.	1.63E+10	-882.946	25778.
105.600	0.135420	2.08E+06	-7281.884	-0.005733	29563.	1.63E+10	-918.423	32554.
110.400	0.109370	2.03E+06	-11677.	-0.005128	28915.	1.63E+10	-912.827	40062.
115.200	0.086192	1.96E+06	-15922.	-0.004539	27968.	1.63E+10	-856.152	47679.
120.000	0.065791	1.88E+06	-19778.	-0.003973	26739.	1.63E+10	-750.251	54737.
124.800	0.048046	1.78E+06	-23039.	-0.003435	25265.	1.63E+10	-608.545	60796.
129.600	0.032811	1.66E+06	-25578.	-0.002930	23591.	1.63E+10	-449.479	65756.
134.400	0.019918	1.53E+06	-27352.	-0.002461	21770.	1.63E+10	-289.538	69775.
139.200	0.009188	1.39E+06	-28383.	-0.002030	19854.	1.63E+10	-139.950	73115.
144.000	0.000429	1.26E+06	-28735.	-0.001640	17892.	1.63E+10	-6.798	76032.
148.800	-0.006552	1.12E+06	-28493.	-0.001290	15928.	1.63E+10	107.463	78723.
153.600	-0.011952	9.84E+05	-27749.	-0.000980	13999.	1.63E+10	202.493	81322.
158.400	-0.015961	8.53E+05	-26594.	-0.000710	12136.	1.63E+10	279.026	83911.
163.200	-0.018765	7.28E+05	-25112.	-0.000477	10365.	1.63E+10	338.285	86531.
168.000	-0.020540	6.12E+05	-23384.	-0.000280	8705.293	1.63E+10	381.697	89201.
172.800	-0.021449	5.04E+05	-21482.	-0.000115	7170.327	1.63E+10	410.766	91922.
177.600	-0.021647	4.05E+05	-19472.	1.85E-05	5770.062	1.63E+10	427.031	94689.
182.400	-0.021272	3.17E+05	-17410.	0.000125	4509.831	1.63E+10	432.046	97492.
187.200	-0.020448	2.38E+05	-15347.	0.000207	3391.279	1.63E+10	427.367	1.00E+05
192.000	-0.019288	1.70E+05	-13327.	0.000267	2412.871	1.63E+10	414.538	1.03E+05
196.800	-0.017889	1.10E+05	-11384.	0.000308	1570.401	1.63E+10	395.062	1.06E+05

201.600	-0.016333	60247.	-9546.443	0.000333	857.481	1.63E+10	370.385	1.09E+05
206.400	-0.014692	18691.	-7837.046	0.000345	266.019	1.63E+10	341.864	1.12E+05
211.200	-0.013025	-14989.	-6270.779	0.000345	213.337	1.63E+10	310.748	1.15E+05
216.000	-0.011379	-41509.	-4857.423	0.000337	590.791	1.63E+10	278.150	1.17E+05
220.800	-0.009791	-61620.	-3601.696	0.000322	877.033	1.63E+10	245.070	1.20E+05
225.600	-0.008291	-76085.	-2503.882	0.000301	1082.910	1.63E+10	212.353	1.23E+05
230.400	-0.006898	-85658.	-1560.572	0.000278	1219.151	1.63E+10	180.694	1.26E+05
235.200	-0.005627	-91067.	-765.349	0.000252	1296.139	1.63E+10	150.649	1.29E+05
240.000	-0.004484	-93005.	-109.444	0.000224	1323.725	1.63E+10	122.645	1.31E+05
244.800	-0.003472	-92117.	417.667	0.000197	1311.093	1.63E+10	96.985	1.34E+05
249.600	-0.002591	-88995.	827.710	0.000170	1266.657	1.63E+10	73.866	1.37E+05
254.400	-0.001835	-84171.	1133.117	0.000145	1197.999	1.63E+10	53.387	1.40E+05
259.200	-0.001199	-78117.	1346.602	0.000121	1111.833	1.63E+10	35.565	1.42E+05
264.000	-0.000673	-71244.	1480.795	9.91E-05	1014.005	1.63E+10	20.348	1.45E+05
268.800	-0.000248	-63902.	1547.939	7.92E-05	909.504	1.63E+10	7.629	1.48E+05
273.600	8.75E-05	-56384.	1559.659	6.15E-05	802.502	1.63E+10	-2.746	1.51E+05
278.400	0.000343	-48929.	1526.770	4.60E-05	696.400	1.63E+10	-10.958	1.53E+05
283.200	0.000529	-41727.	1459.159	3.26E-05	593.891	1.63E+10	-17.213	1.56E+05
288.000	0.000656	-34921.	1365.696	2.14E-05	497.027	1.63E+10	-21.730	1.59E+05
292.800	0.000734	-28616.	1254.196	1.20E-05	407.289	1.63E+10	-24.729	1.62E+05
297.600	0.000771	-22881.	1131.409	4.41E-06	325.660	1.63E+10	-26.432	1.65E+05
302.400	0.000776	-17755.	1003.052	-1.57E-06	252.698	1.63E+10	-27.051	1.67E+05
307.200	0.000756	-13252.	873.844	-6.14E-06	188.607	1.63E+10	-26.786	1.70E+05
312.000	0.000717	-9365.667	747.580	-9.47E-06	133.300	1.63E+10	-25.824	1.73E+05
316.800	0.000665	-6074.775	627.204	-1.17E-05	86.461	1.63E+10	-24.333	1.76E+05
321.600	0.000605	-3344.513	514.893	-1.31E-05	47.602	1.63E+10	-22.463	1.78E+05
326.400	0.000539	-1131.799	412.155	-1.38E-05	16.109	1.63E+10	-20.345	1.81E+05
331.200	0.000472	612.173	319.912	-1.39E-05	8.713	1.63E+10	-18.090	1.84E+05
336.000	0.000406	1939.354	238.596	-1.35E-05	27.603	1.63E+10	-15.792	1.87E+05
340.800	0.000343	2902.697	168.236	-1.28E-05	41.314	1.63E+10	-13.525	1.89E+05
345.600	0.000284	3554.420	108.535	-1.18E-05	50.590	1.63E+10	-11.350	1.92E+05
350.400	0.000229	3944.635	58.949	-1.07E-05	56.143	1.63E+10	-9.311	1.95E+05
355.200	0.000181	4120.331	18.751	-9.53E-06	58.644	1.63E+10	-7.439	1.98E+05
360.000	0.000138	4124.642	-12.911	-8.32E-06	58.705	1.63E+10	-5.754	2.00E+05
364.800	0.000101	3996.390	-36.958	-7.12E-06	56.880	1.63E+10	-4.266	2.03E+05
369.600	6.94E-05	3769.849	-54.344	-5.98E-06	53.656	1.63E+10	-2.978	2.06E+05
374.400	4.34E-05	3474.690	-66.018	-4.91E-06	49.455	1.63E+10	-1.886	2.09E+05
379.200	2.22E-05	3136.073	-72.898	-3.94E-06	44.635	1.63E+10	-0.980421	2.12E+05
384.000	5.56E-06	2774.868	-75.847	-3.07E-06	39.494	1.63E+10	-0.248280	2.14E+05
388.800	-7.20E-06	2407.943	-75.661	-2.30E-06	34.272	1.63E+10	0.325728	2.17E+05
393.600	-1.66E-05	2048.522	-73.059	-1.65E-06	29.156	1.63E+10	0.758575	2.20E+05
398.400	-2.30E-05	1706.579	-68.675	-1.10E-06	24.289	1.63E+10	1.068	2.23E+05
403.200	-2.71E-05	1389.241	-63.060	-6.40E-07	19.773	1.63E+10	1.272	2.25E+05
408.000	-2.92E-05	1101.198	-56.681	-2.73E-07	15.673	1.63E+10	1.386	2.28E+05
412.800	-2.97E-05	845.099	-49.925	1.33E-08	12.028	1.63E+10	1.429	2.31E+05
417.600	-2.90E-05	621.921	-43.102	2.29E-07	8.852	1.63E+10	1.414	2.34E+05
422.400	-2.75E-05	431.317	-36.458	3.84E-07	6.139	1.63E+10	1.355	2.36E+05
427.200	-2.54E-05	271.924	-30.175	4.88E-07	3.870	1.63E+10	1.263	2.39E+05
432.000	-2.28E-05	141.640	-24.382	5.49E-07	2.016	1.63E+10	1.150	2.42E+05
436.800	-2.01E-05	37.858	-19.164	5.75E-07	0.538821	1.63E+10	1.024	2.45E+05
441.600	-1.73E-05	-42.332	-14.566	5.75E-07	0.602504	1.63E+10	0.891827	2.47E+05
446.400	-1.46E-05	-101.974	-10.602	5.53E-07	1.451	1.63E+10	0.759566	2.50E+05
451.200	-1.20E-05	-144.115	-7.263	5.17E-07	2.051	1.63E+10	0.631759	2.53E+05
456.000	-9.61E-06	-171.701	-4.519	4.71E-07	2.444	1.63E+10	0.511829	2.56E+05

460.800	-7.47E-06	-187.494	-2.325	4.18E-07	2.669	1.63E+10	0.402229	2.59E+05
465.600	-5.60E-06	-194.020	-0.628521	3.62E-07	2.761	1.63E+10	0.304592	2.61E+05
470.400	-4.00E-06	-193.528	0.630221	3.05E-07	2.754	1.63E+10	0.219884	2.64E+05
475.200	-2.67E-06	-187.970	1.514	2.48E-07	2.675	1.63E+10	0.148540	2.67E+05
480.000	-1.61E-06	-178.989	2.983	1.94E-07	2.548	1.63E+10	0.463431	1.38E+06
484.800	-8.07E-07	-159.331	4.652	1.45E-07	2.268	1.63E+10	0.231812	1.38E+06
489.600	-2.26E-07	-134.332	5.364	1.01E-07	1.912	1.63E+10	0.064897	1.38E+06
494.400	1.65E-07	-107.838	5.406	6.56E-08	1.535	1.63E+10	-0.047464	1.38E+06
499.200	4.04E-07	-82.438	5.013	3.76E-08	1.173	1.63E+10	-0.116032	1.38E+06
504.000	5.26E-07	-59.711	4.372	1.67E-08	0.849851	1.63E+10	-0.151122	1.38E+06
508.800	5.64E-07	-40.465	3.621	1.90E-09	0.575936	1.63E+10	-0.161964	1.38E+06
513.600	5.44E-07	-24.952	2.857	-7.73E-09	0.355133	1.63E+10	-0.156372	1.38E+06
518.400	4.90E-07	-13.041	2.144	-1.33E-08	0.185607	1.63E+10	-0.140648	1.38E+06
523.200	4.16E-07	-4.370	1.519	-1.59E-08	0.062204	1.63E+10	-0.119627	1.38E+06
528.000	3.37E-07	1.544	0.999710	-1.63E-08	0.021970	1.63E+10	-0.096832	1.38E+06
532.800	2.60E-07	5.227	0.588122	-1.53E-08	0.074392	1.63E+10	-0.074663	1.38E+06
537.600	1.90E-07	7.190	0.277848	-1.35E-08	0.102329	1.63E+10	-0.054617	1.38E+06
542.400	1.31E-07	7.894	0.056787	-1.13E-08	0.112355	1.63E+10	-0.037491	1.38E+06
547.200	8.20E-08	7.735	-0.089762	-8.96E-09	0.110088	1.63E+10	-0.023571	1.38E+06
552.000	4.45E-08	7.032	-0.177033	-6.78E-09	0.100091	1.63E+10	-0.012792	1.38E+06
556.800	1.69E-08	6.035	-0.219417	-4.86E-09	0.085899	1.63E+10	-0.004868	1.38E+06
561.600	-2.10E-09	4.926	-0.229651	-3.24E-09	0.070111	1.63E+10	0.000604	1.38E+06
566.400	-1.42E-08	3.831	-0.218419	-1.95E-09	0.054520	1.63E+10	0.004076	1.38E+06
571.200	-2.09E-08	2.829	-0.194255	-9.73E-10	0.040267	1.63E+10	0.005992	1.38E+06
576.000	-2.35E-08	1.966	-0.163650	-2.67E-10	0.027978	1.63E+10	0.006760	1.38E+06
580.800	-2.34E-08	1.258	-0.131276	2.08E-10	0.017906	1.63E+10	0.006729	1.38E+06
585.600	-2.15E-08	0.705497	-0.100278	4.97E-10	0.010041	1.63E+10	0.006187	1.38E+06
590.400	-1.87E-08	0.295441	-0.072567	6.44E-10	0.004205	1.63E+10	0.005359	1.38E+06
595.200	-1.54E-08	0.008854	-0.049120	6.89E-10	0.000126	1.63E+10	0.004411	1.38E+06
600.000	-1.20E-08	-0.176111	-0.030233	6.64E-10	0.002507	1.63E+10	0.003459	1.38E+06
604.800	-8.98E-09	-0.281386	-0.015744	5.97E-10	0.004005	1.63E+10	0.002578	1.38E+06
609.600	-6.31E-09	-0.327253	-0.005206	5.07E-10	0.004658	1.63E+10	0.001812	1.38E+06
614.400	-4.10E-09	-0.331362	0.001974	4.10E-10	0.004716	1.63E+10	0.001179	1.38E+06
619.200	-2.37E-09	-0.308302	0.006438	3.16E-10	0.004388	1.63E+10	0.000681	1.38E+06
624.000	-1.07E-09	-0.269561	0.008808	2.31E-10	0.003837	1.63E+10	0.000307	1.38E+06
628.800	-1.51E-10	-0.223741	0.009650	1.58E-10	0.003184	1.63E+10	4.33E-05	1.38E+06
633.600	4.52E-10	-0.176924	0.009442	9.95E-11	0.002518	1.63E+10	-0.000130	1.38E+06
638.400	8.04E-10	-0.133097	0.008576	5.38E-11	0.001894	1.63E+10	-0.000231	1.38E+06
643.200	9.68E-10	-0.094592	0.007354	2.03E-11	0.001346	1.63E+10	-0.000278	1.38E+06
648.000	9.99E-10	-0.062495	0.005998	-2.85E-12	0.000889	1.63E+10	-0.000287	1.38E+06
652.800	9.41E-10	-0.037010	0.004661	-1.75E-11	0.000527	1.63E+10	-0.000270	1.38E+06
657.600	8.31E-10	-0.017751	0.003439	-2.56E-11	0.000253	1.63E+10	-0.000239	1.38E+06
662.400	6.95E-10	-0.003991	0.002387	-2.88E-11	5.68E-05	1.63E+10	-0.000200	1.38E+06
667.200	5.54E-10	0.005166	0.001526	-2.86E-11	7.35E-05	1.63E+10	-0.000159	1.38E+06
672.000	4.21E-10	0.010654	0.000853	-2.63E-11	0.000152	1.63E+10	-0.000121	1.38E+06
676.800	3.02E-10	0.013356	0.000355	-2.27E-11	0.000190	1.63E+10	-8.68E-05	1.38E+06
681.600	2.03E-10	0.014058	6.49E-06	-1.87E-11	0.000200	1.63E+10	-5.82E-05	1.38E+06
686.400	1.23E-10	0.013419	-0.000218	-1.47E-11	0.000191	1.63E+10	-3.53E-05	1.38E+06
691.200	6.19E-11	0.011967	-0.000345	-1.09E-11	0.000170	1.63E+10	-1.78E-05	1.38E+06
696.000	1.80E-11	0.010105	-0.000400	-7.66E-12	0.000144	1.63E+10	-5.17E-06	1.38E+06
700.800	-1.16E-11	0.008124	-0.000405	-4.98E-12	0.000116	1.63E+10	3.34E-06	1.38E+06
705.600	-2.98E-11	0.006220	-0.000376	-2.87E-12	8.85E-05	1.63E+10	8.56E-06	1.38E+06
710.400	-3.92E-11	0.004513	-0.000329	-1.29E-12	6.42E-05	1.63E+10	1.12E-05	1.38E+06
715.200	-4.21E-11	0.003066	-0.000273	-1.70E-13	4.36E-05	1.63E+10	1.21E-05	1.38E+06

720.000	-4.08E-11	0.001897	-0.000215	5.61E-13	2.70E-05	1.63E+10	1.17E-05	1.38E+06
724.800	-3.68E-11	0.000999	-0.000162	9.87E-13	1.42E-05	1.63E+10	1.06E-05	1.38E+06
729.600	-3.13E-11	0.000343	-0.000115	1.18E-12	4.89E-06	1.63E+10	9.00E-06	1.38E+06
734.400	-2.54E-11	-0.000104	-7.58E-05	1.22E-12	1.49E-06	1.63E+10	7.29E-06	1.38E+06
739.200	-1.96E-11	-0.000384	-4.48E-05	1.15E-12	5.47E-06	1.63E+10	5.63E-06	1.38E+06
744.000	-1.44E-11	-0.000535	-2.14E-05	1.01E-12	7.61E-06	1.63E+10	4.13E-06	1.38E+06
748.800	-9.88E-12	-0.000590	-4.67E-06	8.47E-13	8.39E-06	1.63E+10	2.84E-06	1.38E+06
753.600	-6.23E-12	-0.000579	6.45E-06	6.75E-13	8.25E-06	1.63E+10	1.79E-06	1.38E+06
758.400	-3.40E-12	-0.000528	1.31E-05	5.12E-13	7.51E-06	1.63E+10	9.78E-07	1.38E+06
763.200	-1.32E-12	-0.000454	1.63E-05	3.67E-13	6.46E-06	1.63E+10	3.79E-07	1.38E+06
768.000	1.22E-13	-0.000371	1.72E-05	2.46E-13	5.28E-06	1.63E+10	-3.50E-08	1.38E+06
772.800	1.04E-12	-0.000289	1.64E-05	1.49E-13	4.11E-06	1.63E+10	-2.99E-07	1.38E+06
777.600	1.55E-12	-0.000214	1.46E-05	7.47E-14	3.04E-06	1.63E+10	-4.45E-07	1.38E+06
782.400	1.76E-12	-0.000149	1.23E-05	2.13E-14	2.12E-06	1.63E+10	-5.05E-07	1.38E+06
787.200	1.75E-12	-9.55E-05	9.89E-06	-1.47E-14	1.36E-06	1.63E+10	-5.04E-07	1.38E+06
792.000	1.62E-12	-5.39E-05	7.57E-06	-3.67E-14	7.67E-07	1.63E+10	-4.64E-07	1.38E+06
796.800	1.40E-12	-2.29E-05	5.49E-06	-4.80E-14	3.26E-07	1.63E+10	-4.03E-07	1.38E+06
801.600	1.16E-12	-1.20E-06	3.72E-06	-5.15E-14	1.71E-08	1.63E+10	-3.32E-07	1.38E+06
806.400	9.08E-13	1.28E-05	2.30E-06	-4.98E-14	1.83E-07	1.63E+10	-2.61E-07	1.38E+06
811.200	6.78E-13	2.09E-05	1.21E-06	-4.48E-14	2.97E-07	1.63E+10	-1.95E-07	1.38E+06
816.000	4.77E-13	2.44E-05	4.10E-07	-3.82E-14	3.48E-07	1.63E+10	-1.37E-07	1.38E+06
820.800	3.11E-13	2.48E-05	-1.34E-07	-3.09E-14	3.53E-07	1.63E+10	-8.95E-08	1.38E+06
825.600	1.81E-13	2.31E-05	-4.74E-07	-2.39E-14	3.29E-07	1.63E+10	-5.19E-08	1.38E+06
830.400	8.25E-14	2.03E-05	-6.55E-07	-1.75E-14	2.88E-07	1.63E+10	-2.37E-08	1.38E+06
835.200	1.30E-14	1.68E-05	-7.21E-07	-1.20E-14	2.40E-07	1.63E+10	-3.74E-09	1.38E+06
840.000	-3.27E-14	1.33E-05	-7.07E-07	-7.56E-15	1.90E-07	1.63E+10	9.39E-09	1.38E+06
844.800	-5.95E-14	1.00E-05	-6.44E-07	-4.11E-15	1.43E-07	1.63E+10	1.71E-08	1.38E+06
849.600	-7.22E-14	7.15E-06	-5.53E-07	-1.58E-15	1.02E-07	1.63E+10	2.07E-08	1.38E+06
854.400	-7.47E-14	4.74E-06	-4.52E-07	1.70E-16	6.75E-08	1.63E+10	2.15E-08	1.38E+06
859.200	-7.06E-14	2.82E-06	-3.51E-07	1.28E-15	4.01E-08	1.63E+10	2.03E-08	1.38E+06
864.000	-6.24E-14	1.37E-06	-2.60E-07	1.90E-15	1.94E-08	1.63E+10	1.79E-08	1.38E+06
868.800	-5.23E-14	3.26E-07	-1.81E-07	2.15E-15	4.63E-09	1.63E+10	1.50E-08	1.38E+06
873.600	-4.18E-14	-3.68E-07	-1.16E-07	2.14E-15	5.24E-09	1.63E+10	1.20E-08	1.38E+06
878.400	-3.18E-14	-7.86E-07	-6.51E-08	1.97E-15	1.12E-08	1.63E+10	9.12E-09	1.38E+06
883.200	-2.28E-14	-9.93E-07	-2.74E-08	1.71E-15	1.41E-08	1.63E+10	6.56E-09	1.38E+06
888.000	-1.53E-14	-1.05E-06	-1.13E-09	1.41E-15	1.49E-08	1.63E+10	4.40E-09	1.38E+06
892.800	-9.30E-15	-1.00E-06	1.59E-08	1.11E-15	1.43E-08	1.63E+10	2.67E-09	1.38E+06
897.600	-4.70E-15	-8.97E-07	2.55E-08	8.27E-16	1.28E-08	1.63E+10	1.35E-09	1.38E+06
902.400	-1.36E-15	-7.59E-07	2.97E-08	5.84E-16	1.08E-08	1.63E+10	3.91E-10	1.38E+06
907.200	9.03E-16	-6.12E-07	3.00E-08	3.82E-16	8.71E-09	1.63E+10	-2.60E-10	1.38E+06
912.000	2.30E-15	-4.71E-07	2.78E-08	2.22E-16	6.71E-09	1.63E+10	-6.61E-10	1.38E+06
916.800	3.04E-15	-3.45E-07	2.41E-08	1.02E-16	4.92E-09	1.63E+10	-8.72E-10	1.38E+06
921.600	3.28E-15	-2.40E-07	1.98E-08	1.57E-17	3.41E-09	1.63E+10	-9.42E-10	1.38E+06
926.400	3.19E-15	-1.56E-07	1.53E-08	-4.26E-17	2.22E-09	1.63E+10	-9.15E-10	1.38E+06
931.200	2.87E-15	-9.28E-08	1.11E-08	-7.92E-17	1.32E-09	1.63E+10	-8.25E-10	1.38E+06
936.000	2.43E-15	-4.90E-08	7.47E-09	-1.00E-16	6.97E-10	1.63E+10	-6.97E-10	1.38E+06
940.800	1.91E-15	-2.11E-08	4.48E-09	-1.10E-16	3.01E-10	1.63E+10	-5.49E-10	1.38E+06
945.600	1.37E-15	-5.94E-09	2.22E-09	-1.14E-16	8.45E-11	1.63E+10	-3.93E-10	1.38E+06
950.400	8.13E-16	2.03E-10	7.19E-10	-1.15E-16	2.89E-12	1.63E+10	-2.34E-10	1.38E+06
955.200	2.60E-16	9.63E-10	-2.12E-11	-1.15E-16	1.37E-11	1.63E+10	-7.48E-11	1.38E+06
960.000	-2.91E-16	0.000	0.000	-1.15E-16	0.000	1.63E+10	8.36E-11	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above

values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.32886633 in
 Computed slope at pile head = -0.01443772
 Maximum bending moment = 2105499. lbs-in
 Maximum shear force = 30000.00000 lbs
 Depth of maximum bending moment = 96.00000000 in
 Depth of maximum shear force = 4.80000000 in
 Number of iterations = 24
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 40000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Flx. Rig. EI lbs-in**2	Soil Res. p lbs/in	Es*h F/L
0.000	2.286	1.57E-06	40000.	-0.022917	2.24E-08	1.63E+10	0.000	0.000
4.800	2.176	1.92E+05	40000.	-0.022888	2732.707	1.63E+10	0.000	0.000
9.600	2.066	3.84E+05	40000.	-0.022804	5465.414	1.63E+10	0.000	0.000
14.400	1.957	5.76E+05	39955.	-0.022662	8198.121	1.63E+10	-18.747	45.989
19.200	1.848	7.68E+05	39764.	-0.022464	10925.	1.63E+10	-60.895	158.140
24.000	1.741	9.58E+05	39362.	-0.022210	13631.	1.63E+10	-106.416	293.385
28.800	1.635	1.15E+06	38742.	-0.021901	16303.	1.63E+10	-151.915	445.957
33.600	1.531	1.33E+06	37912.	-0.021536	18925.	1.63E+10	-193.995	608.292
38.400	1.428	1.51E+06	36896.	-0.021118	21483.	1.63E+10	-229.259	770.421
43.200	1.328	1.68E+06	35736.	-0.020648	23966.	1.63E+10	-254.312	919.154
48.000	1.230	1.85E+06	34488.	-0.020127	26366.	1.63E+10	-265.758	1036.979
52.800	1.135	2.01E+06	33225.	-0.019558	28678.	1.63E+10	-260.199	1100.551
57.600	1.042	2.17E+06	31898.	-0.018941	30906.	1.63E+10	-292.801	1348.285
62.400	0.953010	2.32E+06	30365.	-0.018280	33037.	1.63E+10	-345.910	1742.236
67.200	0.866907	2.46E+06	28567.	-0.017575	35055.	1.63E+10	-403.264	2232.845
72.000	0.784286	2.60E+06	26484.	-0.016831	36940.	1.63E+10	-464.864	2845.070
76.800	0.705334	2.72E+06	24094.	-0.016048	38673.	1.63E+10	-530.710	3611.631

81.600	0.630223	2.83E+06	21379.	-0.015232	40232.	1.63E+10	-600.800	4575.908
86.400	0.559107	2.92E+06	18316.	-0.014385	41594.	1.63E+10	-675.136	5796.119
91.200	0.492123	3.00E+06	14887.	-0.013513	42735.	1.63E+10	-753.712	7351.449
96.000	0.429383	3.07E+06	11071.	-0.012619	43628.	1.63E+10	-836.491	9350.998
100.800	0.370976	3.11E+06	6847.280	-0.011710	44248.	1.63E+10	-923.263	11946.
105.600	0.316963	3.13E+06	2199.974	-0.010792	44564.	1.63E+10	-1013.114	15342.
110.400	0.267377	3.13E+06	-2878.672	-0.009870	44548.	1.63E+10	-1102.988	19801.
115.200	0.222215	3.10E+06	-8369.682	-0.008952	44171.	1.63E+10	-1184.932	25595.
120.000	0.181440	3.05E+06	-14197.	-0.008046	43405.	1.63E+10	-1242.940	32882.
124.800	0.144975	2.97E+06	-20187.	-0.007160	42231.	1.63E+10	-1253.097	41489.
129.600	0.112705	2.86E+06	-26055.	-0.006302	40646.	1.63E+10	-1191.796	50757.
134.400	0.084472	2.72E+06	-31436.	-0.005482	38671.	1.63E+10	-1050.295	59681.
139.200	0.060080	2.55E+06	-35980.	-0.004706	36351.	1.63E+10	-843.175	67365.
144.000	0.039297	2.37E+06	-39446.	-0.003980	33755.	1.63E+10	-601.081	73419.
148.800	0.021868	2.18E+06	-41742.	-0.003311	30961.	1.63E+10	-355.277	77984.
153.600	0.007513	1.97E+06	-42900.	-0.002700	28051.	1.63E+10	-127.512	81467.
158.400	-0.004056	1.76E+06	-43035.	-0.002150	25100.	1.63E+10	71.230	84299.
163.200	-0.013132	1.56E+06	-42294.	-0.001661	22171.	1.63E+10	237.509	86816.
168.000	-0.020006	1.36E+06	-40832.	-0.001232	19321.	1.63E+10	371.914	89234.
172.800	-0.024961	1.17E+06	-38795.	-0.000861	16592.	1.63E+10	476.739	91678.
177.600	-0.028268	9.85E+05	-36319.	-0.000544	14020.	1.63E+10	554.790	94206.
182.400	-0.030183	8.17E+05	-33527.	-0.000279	11630.	1.63E+10	608.905	96835.
187.200	-0.030942	6.63E+05	-30525.	-6.06E-05	9438.975	1.63E+10	641.808	99562.
192.000	-0.030765	5.24E+05	-27410.	0.000114	7458.825	1.63E+10	656.108	1.02E+05
196.800	-0.029846	4.00E+05	-24265.	0.000250	5693.828	1.63E+10	654.332	1.05E+05
201.600	-0.028362	2.91E+05	-21161.	0.000352	4143.403	1.63E+10	638.943	1.08E+05
206.400	-0.026467	1.97E+05	-18158.	0.000424	2802.504	1.63E+10	612.341	1.11E+05
211.200	-0.024293	1.17E+05	-15304.	0.000470	1662.406	1.63E+10	576.838	1.14E+05
216.000	-0.021954	49988.	-12636.	0.000495	711.467	1.63E+10	534.561	1.17E+05
220.800	-0.019544	-4508.948	-10183.	0.000501	64.175	1.63E+10	487.625	1.20E+05
225.600	-0.017141	-47771.	-7961.856	0.000494	679.914	1.63E+10	437.923	1.23E+05
230.400	-0.014805	-80943.	-5981.876	0.000475	1152.046	1.63E+10	387.069	1.25E+05
235.200	-0.012584	-1.05E+05	-4245.425	0.000447	1497.249	1.63E+10	336.452	1.28E+05
240.000	-0.010511	-1.22E+05	-2748.578	0.000414	1732.121	1.63E+10	287.234	1.31E+05
244.800	-0.008611	-1.32E+05	-1482.378	0.000377	1872.802	1.63E+10	240.349	1.34E+05
249.600	-0.006896	-1.36E+05	-433.899	0.000337	1934.667	1.63E+10	196.517	1.37E+05
254.400	-0.005374	-1.36E+05	412.763	0.000297	1932.088	1.63E+10	156.259	1.40E+05
259.200	-0.004043	-1.32E+05	1075.575	0.000258	1878.269	1.63E+10	119.913	1.42E+05
264.000	-0.002899	-1.25E+05	1573.754	0.000220	1785.127	1.63E+10	87.661	1.45E+05
268.800	-0.001932	-1.17E+05	1927.055	0.000184	1663.238	1.63E+10	59.547	1.48E+05
273.600	-0.001131	-1.07E+05	2155.171	0.000151	1521.823	1.63E+10	35.501	1.51E+05
278.400	-0.000481	-96169.	2277.242	0.000121	1368.766	1.63E+10	15.362	1.53E+05
283.200	3.39E-05	-85062.	2311.465	9.46E-05	1210.671	1.63E+10	-1.103	1.56E+05
288.000	0.000428	-73979.	2274.793	7.12E-05	1052.938	1.63E+10	-14.177	1.59E+05
292.800	0.000718	-63224.	2182.728	5.10E-05	899.854	1.63E+10	-24.183	1.62E+05
297.600	0.000918	-53025.	2049.190	3.39E-05	754.700	1.63E+10	-31.458	1.65E+05
302.400	0.001043	-43552.	1886.443	1.97E-05	619.862	1.63E+10	-36.353	1.67E+05
307.200	0.001107	-34915.	1705.090	8.13E-06	496.945	1.63E+10	-39.211	1.70E+05
312.000	0.001121	-27183.	1514.107	-1.01E-06	386.886	1.63E+10	-40.365	1.73E+05
316.800	0.001097	-20380.	1320.915	-8.01E-06	290.065	1.63E+10	-40.131	1.76E+05
321.600	0.001044	-14502.	1131.481	-1.31E-05	206.403	1.63E+10	-38.799	1.78E+05
326.400	0.000971	-9517.713	950.444	-1.67E-05	135.464	1.63E+10	-36.633	1.81E+05
331.200	0.000884	-5377.591	781.245	-1.89E-05	76.538	1.63E+10	-33.867	1.84E+05
336.000	0.000790	-2017.756	626.274	-2.00E-05	28.718	1.63E+10	-30.705	1.87E+05

340.800	0.000692	634.640	487.011	-2.02E-05	9.033	1.63E+10	-27.322	1.89E+05
345.600	0.000596	2657.547	364.169	-1.97E-05	37.824	1.63E+10	-23.862	1.92E+05
350.400	0.000503	4130.665	257.833	-1.87E-05	58.791	1.63E+10	-20.444	1.95E+05
355.200	0.000417	5132.742	167.581	-1.73E-05	73.054	1.63E+10	-17.160	1.98E+05
360.000	0.000337	5739.443	92.605	-1.57E-05	81.689	1.63E+10	-14.079	2.00E+05
364.800	0.000266	6021.754	31.814	-1.40E-05	85.707	1.63E+10	-11.250	2.03E+05
369.600	0.000203	6044.860	-16.076	-1.22E-05	86.036	1.63E+10	-8.704	2.06E+05
374.400	0.000148	5867.426	-52.462	-1.05E-05	83.510	1.63E+10	-6.457	2.09E+05
379.200	0.000102	5541.224	-78.789	-8.78E-06	78.867	1.63E+10	-4.513	2.12E+05
384.000	6.42E-05	5111.047	-96.496	-7.21E-06	72.745	1.63E+10	-2.865	2.14E+05
388.800	3.32E-05	4614.859	-106.973	-5.78E-06	65.683	1.63E+10	-1.500	2.17E+05
393.600	8.70E-06	4084.107	-111.529	-4.50E-06	58.128	1.63E+10	-0.398172	2.20E+05
398.400	-1.00E-05	3544.181	-111.370	-3.38E-06	50.444	1.63E+10	0.464319	2.23E+05
403.200	-2.37E-05	3014.953	-107.584	-2.41E-06	42.911	1.63E+10	1.113	2.25E+05
408.000	-3.32E-05	2511.372	-101.132	-1.60E-06	35.744	1.63E+10	1.575	2.28E+05
412.800	-3.90E-05	2044.086	-92.845	-9.26E-07	29.093	1.63E+10	1.878	2.31E+05
417.600	-4.20E-05	1620.059	-83.429	-3.86E-07	23.058	1.63E+10	2.046	2.34E+05
422.400	-4.27E-05	1243.169	-73.467	3.56E-08	17.694	1.63E+10	2.105	2.36E+05
427.200	-4.17E-05	914.779	-63.429	3.53E-07	13.020	1.63E+10	2.077	2.39E+05
432.000	-3.94E-05	634.249	-53.684	5.81E-07	9.027	1.63E+10	1.983	2.42E+05
436.800	-3.61E-05	399.414	-44.506	7.34E-07	5.685	1.63E+10	1.841	2.45E+05
441.600	-3.23E-05	206.990	-36.091	8.23E-07	2.946	1.63E+10	1.665	2.47E+05
446.400	-2.82E-05	52.940	-28.565	8.61E-07	0.753482	1.63E+10	1.471	2.50E+05
451.200	-2.40E-05	-67.229	-21.995	8.59E-07	0.956867	1.63E+10	1.267	2.53E+05
456.000	-2.00E-05	-158.208	-16.401	8.26E-07	2.252	1.63E+10	1.064	2.56E+05
460.800	-1.61E-05	-224.681	-11.766	7.70E-07	3.198	1.63E+10	0.867627	2.59E+05
465.600	-1.26E-05	-271.163	-8.041	6.97E-07	3.859	1.63E+10	0.684486	2.61E+05
470.400	-9.42E-06	-301.875	-5.154	6.12E-07	4.297	1.63E+10	0.518357	2.64E+05
475.200	-6.70E-06	-320.644	-3.017	5.21E-07	4.564	1.63E+10	0.372316	2.67E+05
480.000	-4.43E-06	-330.835	0.928919	4.25E-07	4.709	1.63E+10	1.272	1.38E+06
484.800	-2.62E-06	-311.727	5.789	3.30E-07	4.437	1.63E+10	0.753372	1.38E+06
489.600	-1.26E-06	-275.260	8.465	2.44E-07	3.918	1.63E+10	0.361661	1.38E+06
494.400	-2.85E-07	-230.462	9.529	1.69E-07	3.280	1.63E+10	0.081734	1.38E+06
499.200	3.64E-07	-183.779	9.474	1.08E-07	2.616	1.63E+10	-0.104602	1.38E+06
504.000	7.53E-07	-139.507	8.704	6.05E-08	1.986	1.63E+10	-0.216304	1.38E+06
508.800	9.45E-07	-100.219	7.534	2.52E-08	1.426	1.63E+10	-0.271353	1.38E+06
513.600	9.94E-07	-67.183	6.197	5.13E-10	0.956201	1.63E+10	-0.285702	1.38E+06
518.400	9.49E-07	-40.729	4.857	-1.54E-08	0.579687	1.63E+10	-0.272768	1.38E+06
523.200	8.47E-07	-20.560	3.618	-2.44E-08	0.292621	1.63E+10	-0.243294	1.38E+06
528.000	7.15E-07	-5.996	2.541	-2.83E-08	0.085337	1.63E+10	-0.205470	1.38E+06
532.800	5.75E-07	3.834	1.651	-2.86E-08	0.054568	1.63E+10	-0.165212	1.38E+06
537.600	4.40E-07	9.857	0.951218	-2.66E-08	0.140296	1.63E+10	-0.126511	1.38E+06
542.400	3.20E-07	12.966	0.427241	-2.33E-08	0.184538	1.63E+10	-0.091813	1.38E+06
547.200	2.17E-07	13.959	0.057179	-1.93E-08	0.198672	1.63E+10	-0.062380	1.38E+06
552.000	1.34E-07	13.515	-0.185210	-1.52E-08	0.192351	1.63E+10	-0.038616	1.38E+06
556.800	7.08E-08	12.181	-0.326703	-1.15E-08	0.173366	1.63E+10	-0.020340	1.38E+06
561.600	2.44E-08	10.378	-0.392344	-8.14E-09	0.147712	1.63E+10	-0.007011	1.38E+06
566.400	-7.32E-09	8.414	-0.404119	-5.37E-09	0.119758	1.63E+10	0.002104	1.38E+06
571.200	-2.72E-08	6.499	-0.380345	-3.17E-09	0.092495	1.63E+10	0.007802	1.38E+06
576.000	-3.78E-08	4.763	-0.335557	-1.52E-09	0.067789	1.63E+10	0.010860	1.38E+06
580.800	-4.17E-08	3.277	-0.280730	-3.33E-10	0.046646	1.63E+10	0.011984	1.38E+06
585.600	-4.10E-08	2.068	-0.223700	4.54E-10	0.029432	1.63E+10	0.011778	1.38E+06
590.400	-3.74E-08	1.130	-0.169678	9.25E-10	0.016080	1.63E+10	0.010731	1.38E+06
595.200	-3.21E-08	0.438972	-0.121780	1.16E-09	0.006248	1.63E+10	0.009226	1.38E+06

600.000	-2.63E-08	-0.039288	-0.081535	1.22E-09	0.000559	1.63E+10	0.007543	1.38E+06
604.800	-2.04E-08	-0.343768	-0.049333	1.16E-09	0.004893	1.63E+10	0.005875	1.38E+06
609.600	-1.51E-08	-0.512887	-0.024800	1.03E-09	0.007300	1.63E+10	0.004347	1.38E+06
614.400	-1.05E-08	-0.581850	-0.007102	8.71E-10	0.008281	1.63E+10	0.003027	1.38E+06
619.200	-6.77E-09	-0.581063	0.004830	7.00E-10	0.008270	1.63E+10	0.001944	1.38E+06
624.000	-3.82E-09	-0.535486	0.012127	5.36E-10	0.007621	1.63E+10	0.001097	1.38E+06
628.800	-1.62E-09	-0.464645	0.015879	3.88E-10	0.006613	1.63E+10	0.000467	1.38E+06
633.600	-8.82E-11	-0.383052	0.017059	2.64E-10	0.005452	1.63E+10	2.54E-05	1.38E+06
638.400	9.06E-10	-0.300876	0.016495	1.63E-10	0.004282	1.63E+10	-0.000260	1.38E+06
643.200	1.48E-09	-0.224698	0.014853	8.55E-11	0.003198	1.63E+10	-0.000424	1.38E+06
648.000	1.73E-09	-0.158286	0.012645	2.91E-11	0.002253	1.63E+10	-0.000496	1.38E+06
652.800	1.75E-09	-0.103305	0.010245	-9.42E-12	0.001470	1.63E+10	-0.000504	1.38E+06
657.600	1.64E-09	-0.059938	0.007906	-3.35E-11	0.000853	1.63E+10	-0.000470	1.38E+06
662.400	1.43E-09	-0.027404	0.005790	-4.63E-11	0.000390	1.63E+10	-0.000412	1.38E+06
667.200	1.19E-09	-0.004359	0.003979	-5.10E-11	6.20E-05	1.63E+10	-0.000342	1.38E+06
672.000	9.44E-10	0.010798	0.002507	-5.00E-11	0.000154	1.63E+10	-0.000271	1.38E+06
676.800	7.11E-10	0.019706	0.001365	-4.56E-11	0.000280	1.63E+10	-0.000204	1.38E+06
681.600	5.07E-10	0.023906	0.000526	-3.91E-11	0.000340	1.63E+10	-0.000146	1.38E+06
686.400	3.36E-10	0.024752	-5.52E-05	-3.20E-11	0.000352	1.63E+10	-9.64E-05	1.38E+06
691.200	2.00E-10	0.023376	-0.000424	-2.49E-11	0.000333	1.63E+10	-5.74E-05	1.38E+06
696.000	9.68E-11	0.020678	-0.000629	-1.84E-11	0.000294	1.63E+10	-2.78E-05	1.38E+06
700.800	2.31E-11	0.017340	-0.000712	-1.28E-11	0.000247	1.63E+10	-6.64E-06	1.38E+06
705.600	-2.60E-11	0.013848	-0.000709	-8.21E-12	0.000197	1.63E+10	7.48E-06	1.38E+06
710.400	-5.56E-11	0.010529	-0.000653	-4.62E-12	0.000150	1.63E+10	1.60E-05	1.38E+06
715.200	-7.04E-11	0.007577	-0.000566	-1.95E-12	0.000108	1.63E+10	2.02E-05	1.38E+06
720.000	-7.44E-11	0.005092	-0.000466	-8.46E-14	7.25E-05	1.63E+10	2.14E-05	1.38E+06
724.800	-7.12E-11	0.003099	-0.000366	1.12E-12	4.41E-05	1.63E+10	2.04E-05	1.38E+06
729.600	-6.36E-11	0.001577	-0.000273	1.81E-12	2.24E-05	1.63E+10	1.83E-05	1.38E+06
734.400	-5.38E-11	0.000476	-0.000192	2.11E-12	6.78E-06	1.63E+10	1.55E-05	1.38E+06
739.200	-4.33E-11	-0.000269	-0.000125	2.14E-12	3.82E-06	1.63E+10	1.24E-05	1.38E+06
744.000	-3.32E-11	-0.000727	-7.25E-05	2.00E-12	1.03E-05	1.63E+10	9.54E-06	1.38E+06
748.800	-2.42E-11	-0.000965	-3.30E-05	1.75E-12	1.37E-05	1.63E+10	6.94E-06	1.38E+06
753.600	-1.64E-11	-0.001043	-4.97E-06	1.45E-12	1.48E-05	1.63E+10	4.73E-06	1.38E+06
758.400	-1.02E-11	-0.001013	1.34E-05	1.15E-12	1.44E-05	1.63E+10	2.94E-06	1.38E+06
763.200	-5.42E-12	-0.000915	2.42E-05	8.65E-13	1.30E-05	1.63E+10	1.56E-06	1.38E+06
768.000	-1.91E-12	-0.000780	2.93E-05	6.16E-13	1.11E-05	1.63E+10	5.50E-07	1.38E+06
772.800	4.89E-13	-0.000634	3.02E-05	4.07E-13	9.02E-06	1.63E+10	-1.40E-07	1.38E+06
777.600	2.00E-12	-0.000490	2.85E-05	2.42E-13	6.98E-06	1.63E+10	-5.73E-07	1.38E+06
782.400	2.81E-12	-0.000360	2.52E-05	1.17E-13	5.12E-06	1.63E+10	-8.07E-07	1.38E+06
787.200	3.12E-12	-0.000248	2.11E-05	2.71E-14	3.53E-06	1.63E+10	-8.95E-07	1.38E+06
792.000	3.07E-12	-0.000157	1.69E-05	-3.25E-14	2.24E-06	1.63E+10	-8.82E-07	1.38E+06
796.800	2.80E-12	-8.64E-05	1.28E-05	-6.84E-14	1.23E-06	1.63E+10	-8.05E-07	1.38E+06
801.600	2.41E-12	-3.42E-05	9.21E-06	-8.61E-14	4.86E-07	1.63E+10	-6.94E-07	1.38E+06
806.400	1.98E-12	2.05E-06	6.18E-06	-9.09E-14	2.91E-08	1.63E+10	-5.68E-07	1.38E+06
811.200	1.54E-12	2.52E-05	3.75E-06	-8.69E-14	3.58E-07	1.63E+10	-4.43E-07	1.38E+06
816.000	1.14E-12	3.81E-05	1.90E-06	-7.75E-14	5.42E-07	1.63E+10	-3.28E-07	1.38E+06
820.800	7.98E-13	4.34E-05	5.65E-07	-6.55E-14	6.18E-07	1.63E+10	-2.29E-07	1.38E+06
825.600	5.14E-13	4.35E-05	-3.39E-07	-5.27E-14	6.19E-07	1.63E+10	-1.48E-07	1.38E+06
830.400	2.91E-13	4.02E-05	-8.94E-07	-4.04E-14	5.72E-07	1.63E+10	-8.37E-08	1.38E+06
835.200	1.26E-13	3.49E-05	-1.18E-06	-2.94E-14	4.97E-07	1.63E+10	-3.61E-08	1.38E+06
840.000	9.48E-15	2.88E-05	-1.28E-06	-2.00E-14	4.10E-07	1.63E+10	-2.72E-09	1.38E+06
844.800	-6.60E-14	2.27E-05	-1.24E-06	-1.24E-14	3.23E-07	1.63E+10	1.90E-08	1.38E+06
849.600	-1.09E-13	1.70E-05	-1.12E-06	-6.55E-15	2.41E-07	1.63E+10	3.14E-08	1.38E+06
854.400	-1.29E-13	1.20E-05	-9.51E-07	-2.28E-15	1.70E-07	1.63E+10	3.70E-08	1.38E+06

859.200	-1.31E-13	7.84E-06	-7.71E-07	6.33E-16	1.12E-07	1.63E+10	3.77E-08	1.38E+06
864.000	-1.23E-13	4.57E-06	-5.96E-07	2.46E-15	6.50E-08	1.63E+10	3.53E-08	1.38E+06
868.800	-1.08E-13	2.11E-06	-4.37E-07	3.44E-15	3.01E-08	1.63E+10	3.09E-08	1.38E+06
873.600	-8.97E-14	3.71E-07	-3.01E-07	3.81E-15	5.29E-09	1.63E+10	2.58E-08	1.38E+06
878.400	-7.11E-14	-7.78E-07	-1.90E-07	3.75E-15	1.11E-08	1.63E+10	2.04E-08	1.38E+06
883.200	-5.37E-14	-1.46E-06	-1.04E-07	3.42E-15	2.07E-08	1.63E+10	1.54E-08	1.38E+06
888.000	-3.83E-14	-1.78E-06	-4.09E-08	2.95E-15	2.53E-08	1.63E+10	1.10E-08	1.38E+06
892.800	-2.54E-14	-1.85E-06	3.04E-09	2.41E-15	2.63E-08	1.63E+10	7.30E-09	1.38E+06
897.600	-1.51E-14	-1.75E-06	3.10E-08	1.88E-15	2.49E-08	1.63E+10	4.35E-09	1.38E+06
902.400	-7.34E-15	-1.55E-06	4.65E-08	1.40E-15	2.21E-08	1.63E+10	2.11E-09	1.38E+06
907.200	-1.74E-15	-1.30E-06	5.28E-08	9.75E-16	1.86E-08	1.63E+10	4.99E-10	1.38E+06
912.000	2.02E-15	-1.04E-06	5.26E-08	6.30E-16	1.49E-08	1.63E+10	-5.81E-10	1.38E+06
916.800	4.31E-15	-7.99E-07	4.82E-08	3.58E-16	1.14E-08	1.63E+10	-1.24E-09	1.38E+06
921.600	5.46E-15	-5.82E-07	4.15E-08	1.55E-16	8.28E-09	1.63E+10	-1.57E-09	1.38E+06
926.400	5.80E-15	-4.01E-07	3.37E-08	1.04E-17	5.70E-09	1.63E+10	-1.67E-09	1.38E+06
931.200	5.56E-15	-2.58E-07	2.59E-08	-8.67E-17	3.68E-09	1.63E+10	-1.60E-09	1.38E+06
936.000	4.96E-15	-1.53E-07	1.86E-08	-1.47E-16	2.17E-09	1.63E+10	-1.43E-09	1.38E+06
940.800	4.15E-15	-7.96E-08	1.23E-08	-1.81E-16	1.13E-09	1.63E+10	-1.19E-09	1.38E+06
945.600	3.22E-15	-3.42E-08	7.24E-09	-1.98E-16	4.87E-10	1.63E+10	-9.26E-10	1.38E+06
950.400	2.25E-15	-1.01E-08	3.47E-09	-2.05E-16	1.44E-10	1.63E+10	-6.46E-10	1.38E+06
955.200	1.26E-15	-8.86E-10	1.05E-09	-2.06E-16	1.26E-11	1.63E+10	-3.62E-10	1.38E+06
960.000	2.68E-16	0.000	0.000	-2.06E-16	0.000	1.63E+10	-7.69E-11	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection = 2.28561954 in
 Computed slope at pile head = -0.02291664
 Maximum bending moment = 3131064. lbs-in
 Maximum shear force = -43035.39921 lbs
 Depth of maximum bending moment = 105.60000 in
 Depth of maximum shear force = 158.40000 in
 Number of iterations = 27
 Number of zero deflection points = 11

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 50000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	3.506	-3.46E-06	50000.	-0.032921	4.92E-08	1.63E+10	0.000	0.000
4.800	3.348	2.40E+05	50000.	-0.032885	3415.884	1.63E+10	0.000	0.000
9.600	3.190	4.80E+05	50000.	-0.032779	6831.768	1.63E+10	0.000	0.000
14.400	3.033	7.20E+05	49955.	-0.032603	10248.	1.63E+10	-18.747	29.670
19.200	2.877	9.60E+05	49764.	-0.032355	13657.	1.63E+10	-60.895	101.600
24.000	2.722	1.20E+06	49362.	-0.032038	17047.	1.63E+10	-106.416	187.634
28.800	2.569	1.43E+06	48742.	-0.031650	20402.	1.63E+10	-151.915	283.801
33.600	2.418	1.67E+06	47912.	-0.031194	23707.	1.63E+10	-193.994	385.027
38.400	2.270	1.89E+06	46896.	-0.030670	26949.	1.63E+10	-229.259	484.796
43.200	2.124	2.12E+06	45736.	-0.030079	30115.	1.63E+10	-254.312	574.708
48.000	1.981	2.33E+06	44488.	-0.029424	33198.	1.63E+10	-265.757	643.888
52.800	1.842	2.54E+06	43225.	-0.028707	36193.	1.63E+10	-260.199	678.206
57.600	1.706	2.75E+06	41898.	-0.027928	39104.	1.63E+10	-292.800	824.034
62.400	1.573	2.95E+06	40365.	-0.027089	41918.	1.63E+10	-345.909	1055.237
67.200	1.446	3.13E+06	38567.	-0.026194	44619.	1.63E+10	-403.264	1339.093
72.000	1.322	3.32E+06	36484.	-0.025244	47188.	1.63E+10	-464.863	1687.868
76.800	1.203	3.49E+06	34094.	-0.024243	49604.	1.63E+10	-530.708	2117.258
81.600	1.089	3.64E+06	31379.	-0.023193	51846.	1.63E+10	-600.799	2647.523
86.400	0.980505	3.79E+06	28316.	-0.022099	53891.	1.63E+10	-675.135	3305.080
91.200	0.877104	3.91E+06	24887.	-0.020965	55715.	1.63E+10	-753.716	4124.753
96.000	0.779237	4.03E+06	21071.	-0.019796	57292.	1.63E+10	-836.543	5152.998
100.800	0.687059	4.12E+06	16846.	-0.018597	58594.	1.63E+10	-923.614	6452.643
105.600	0.600701	4.19E+06	12194.	-0.017375	59594.	1.63E+10	-1014.928	8109.946
110.400	0.520262	4.23E+06	7092.783	-0.016135	60260.	1.63E+10	-1110.460	10245.
115.200	0.445809	4.26E+06	1523.587	-0.014884	60563.	1.63E+10	-1210.039	13028.
120.000	0.377374	4.25E+06	-4531.267	-0.013632	60469.	1.63E+10	-1312.817	16698.
124.800	0.314946	4.21E+06	-11079.	-0.012386	59944.	1.63E+10	-1415.572	21574.
129.600	0.258471	4.14E+06	-18098.	-0.011156	58955.	1.63E+10	-1508.913	28022.
134.400	0.207852	4.04E+06	-25492.	-0.009951	57471.	1.63E+10	-1571.969	36302.
139.200	0.162940	3.90E+06	-33035.	-0.008783	55472.	1.63E+10	-1570.806	46274.
144.000	0.123538	3.72E+06	-40332.	-0.007661	52957.	1.63E+10	-1469.754	57106.
148.800	0.089396	3.51E+06	-46873.	-0.006596	49961.	1.63E+10	-1255.613	67419.
153.600	0.060215	3.27E+06	-52174.	-0.005598	46553.	1.63E+10	-953.040	75971.
158.400	0.035658	3.01E+06	-55929.	-0.004673	42832.	1.63E+10	-611.392	82301.
163.200	0.015355	2.73E+06	-58062.	-0.003827	38911.	1.63E+10	-277.397	86715.
168.000	-0.001084	2.45E+06	-58679.	-0.003064	34899.	1.63E+10	20.287	89854.
172.800	-0.014056	2.17E+06	-57981.	-0.002383	30893.	1.63E+10	270.347	92319.
177.600	-0.023961	1.90E+06	-56200.	-0.001784	26976.	1.63E+10	471.895	94534.
182.400	-0.031186	1.63E+06	-53559.	-0.001265	23214.	1.63E+10	628.573	96748.
187.200	-0.036105	1.38E+06	-50261.	-0.000822	19658.	1.63E+10	745.294	99083.
192.000	-0.039072	1.15E+06	-46488.	-0.000449	16347.	1.63E+10	826.895	1.02E+05
196.800	-0.040416	9.35E+05	-42397.	-0.000142	13306.	1.63E+10	877.760	1.04E+05
201.600	-0.040438	7.42E+05	-38126.	0.000105	10554.	1.63E+10	901.854	1.07E+05
206.400	-0.039412	5.69E+05	-33795.	0.000298	8097.088	1.63E+10	902.846	1.10E+05
211.200	-0.037581	4.17E+05	-29506.	0.000443	5936.349	1.63E+10	884.226	1.13E+05
216.000	-0.035161	2.86E+05	-25346.	0.000546	4065.571	1.63E+10	849.087	1.16E+05

220.800	-0.032338	1.74E+05	-21386.	0.000614	2473.229	1.63E+10	800.942	1.19E+05
225.600	-0.029268	80345.	-17680.	0.000651	1143.536	1.63E+10	743.126	1.22E+05
230.400	-0.026085	4042.179	-14268.	0.000664	57.532	1.63E+10	678.509	1.25E+05
235.200	-0.022897	-56628.	-11176.	0.000656	805.972	1.63E+10	609.709	1.28E+05
240.000	-0.019788	-1.03E+05	-8419.206	0.000632	1469.537	1.63E+10	539.054	1.31E+05
244.800	-0.016825	-1.37E+05	-6000.935	0.000597	1956.333	1.63E+10	468.560	1.34E+05
249.600	-0.014057	-1.61E+05	-3916.591	0.000553	2289.477	1.63E+10	399.917	1.37E+05
254.400	-0.011516	-1.75E+05	-2154.020	0.000504	2491.478	1.63E+10	334.488	1.39E+05
259.200	-0.009223	-1.82E+05	-695.277	0.000451	2583.792	1.63E+10	273.321	1.42E+05
264.000	-0.007186	-1.82E+05	481.906	0.000398	2586.478	1.63E+10	217.172	1.45E+05
268.800	-0.005406	-1.77E+05	1402.786	0.000345	2517.947	1.63E+10	166.528	1.48E+05
273.600	-0.003876	-1.68E+05	2094.408	0.000294	2394.807	1.63E+10	121.648	1.51E+05
278.400	-0.002584	-1.57E+05	2584.574	0.000246	2231.777	1.63E+10	82.588	1.53E+05
283.200	-0.001513	-1.43E+05	2900.975	0.000202	2041.663	1.63E+10	49.245	1.56E+05
288.000	-0.000646	-1.29E+05	3070.475	0.000162	1835.401	1.63E+10	21.380	1.59E+05
292.800	3.98E-05	-1.14E+05	3118.567	0.000126	1622.128	1.63E+10	-1.342	1.62E+05
297.600	0.000564	-99017.	3068.945	9.46E-05	1409.295	1.63E+10	-19.333	1.65E+05
302.400	0.000948	-84509.	2943.223	6.76E-05	1202.801	1.63E+10	-33.051	1.67E+05
307.200	0.001213	-70762.	2760.753	4.48E-05	1007.146	1.63E+10	-42.979	1.70E+05
312.000	0.001378	-58006.	2538.538	2.58E-05	825.585	1.63E+10	-49.611	1.73E+05
316.800	0.001461	-46392.	2291.230	1.04E-05	660.292	1.63E+10	-53.434	1.76E+05
321.600	0.001478	-36010.	2031.189	-1.71E-06	512.522	1.63E+10	-54.916	1.78E+05
326.400	0.001445	-26893.	1768.594	-1.10E-05	382.760	1.63E+10	-54.498	1.81E+05
331.200	0.001373	-19031.	1511.593	-1.77E-05	270.869	1.63E+10	-52.585	1.84E+05
336.000	0.001274	-12381.	1266.482	-2.24E-05	176.223	1.63E+10	-49.544	1.87E+05
340.800	0.001158	-6873.058	1037.899	-2.52E-05	97.823	1.63E+10	-45.699	1.89E+05
345.600	0.001032	-2417.593	829.028	-2.66E-05	34.409	1.63E+10	-41.331	1.92E+05
350.400	0.000903	1085.614	641.806	-2.68E-05	15.451	1.63E+10	-36.679	1.95E+05
355.200	0.000776	3743.740	477.117	-2.60E-05	53.284	1.63E+10	-31.941	1.98E+05
360.000	0.000653	5665.938	334.991	-2.47E-05	80.642	1.63E+10	-27.278	2.00E+05
364.800	0.000539	6959.657	214.775	-2.28E-05	99.056	1.63E+10	-22.812	2.03E+05
369.600	0.000434	7727.783	115.297	-2.06E-05	109.988	1.63E+10	-18.637	2.06E+05
374.400	0.000341	8066.510	35.008	-1.83E-05	114.809	1.63E+10	-14.817	2.09E+05
379.200	0.000259	8063.863	-27.889	-1.59E-05	114.772	1.63E+10	-11.391	2.12E+05
384.000	0.000188	7798.775	-75.336	-1.36E-05	110.999	1.63E+10	-8.379	2.14E+05
388.800	0.000128	7340.637	-109.327	-1.14E-05	104.478	1.63E+10	-5.784	2.17E+05
393.600	7.85E-05	6749.235	-131.838	-9.30E-06	96.061	1.63E+10	-3.595	2.20E+05
398.400	3.87E-05	6074.994	-144.769	-7.41E-06	86.464	1.63E+10	-1.792	2.23E+05
403.200	7.38E-06	5359.458	-149.902	-5.73E-06	76.280	1.63E+10	-0.346437	2.25E+05
408.000	-1.63E-05	4635.939	-148.872	-4.25E-06	65.983	1.63E+10	0.775486	2.28E+05
412.800	-3.35E-05	3930.288	-143.148	-2.99E-06	55.939	1.63E+10	1.610	2.31E+05
417.600	-4.51E-05	3261.720	-134.022	-1.93E-06	46.424	1.63E+10	2.193	2.34E+05
422.400	-5.20E-05	2643.677	-122.609	-1.06E-06	37.627	1.63E+10	2.563	2.36E+05
427.200	-5.53E-05	2084.675	-109.849	-3.69E-07	29.671	1.63E+10	2.754	2.39E+05
432.000	-5.56E-05	1589.128	-96.517	1.72E-07	22.618	1.63E+10	2.801	2.42E+05
436.800	-5.36E-05	1158.112	-83.235	5.77E-07	16.483	1.63E+10	2.733	2.45E+05
441.600	-5.00E-05	790.073	-70.484	8.64E-07	11.245	1.63E+10	2.579	2.47E+05
446.400	-4.53E-05	481.461	-58.623	1.05E-06	6.853	1.63E+10	2.363	2.50E+05
451.200	-3.99E-05	227.290	-47.900	1.16E-06	3.235	1.63E+10	2.105	2.53E+05
456.000	-3.42E-05	21.621	-38.470	1.19E-06	0.307732	1.63E+10	1.824	2.56E+05
460.800	-2.85E-05	-142.020	-30.408	1.17E-06	2.021	1.63E+10	1.535	2.59E+05
465.600	-2.30E-05	-270.299	-23.725	1.11E-06	3.847	1.63E+10	1.250	2.61E+05
470.400	-1.78E-05	-369.781	-18.374	1.02E-06	5.263	1.63E+10	0.979583	2.64E+05
475.200	-1.32E-05	-446.693	-14.266	8.99E-07	6.358	1.63E+10	0.732392	2.67E+05

480.000	-9.18E-06	-506.730	-6.181	7.59E-07	7.212	1.63E+10	2.636	1.38E+06
484.800	-5.89E-06	-506.030	4.208	6.10E-07	7.202	1.63E+10	1.693	1.38E+06
489.600	-3.32E-06	-466.330	10.562	4.66E-07	6.637	1.63E+10	0.954794	1.38E+06
494.400	-1.41E-06	-404.631	13.829	3.38E-07	5.759	1.63E+10	0.406230	1.38E+06
499.200	-7.65E-08	-333.572	14.857	2.30E-07	4.748	1.63E+10	0.021988	1.38E+06
504.000	7.89E-07	-262.007	14.365	1.42E-07	3.729	1.63E+10	-0.226790	1.38E+06
508.800	1.28E-06	-195.667	12.935	7.44E-08	2.785	1.63E+10	-0.369165	1.38E+06
513.600	1.50E-06	-137.833	11.012	2.53E-08	1.962	1.63E+10	-0.432080	1.38E+06
518.400	1.53E-06	-89.954	8.921	-8.21E-09	1.280	1.63E+10	-0.439020	1.38E+06
523.200	1.43E-06	-52.190	6.885	-2.91E-08	0.742806	1.63E+10	-0.409430	1.38E+06
528.000	1.25E-06	-23.859	5.042	-4.03E-08	0.339577	1.63E+10	-0.358646	1.38E+06
532.800	1.04E-06	-3.791	3.465	-4.44E-08	0.053957	1.63E+10	-0.298172	1.38E+06
537.600	8.22E-07	9.407	2.183	-4.36E-08	0.133886	1.63E+10	-0.236159	1.38E+06
542.400	6.19E-07	17.164	1.189	-3.97E-08	0.244286	1.63E+10	-0.177966	1.38E+06
547.200	4.41E-07	20.820	0.457554	-3.41E-08	0.296326	1.63E+10	-0.126744	1.38E+06
552.000	2.92E-07	21.556	-0.048174	-2.78E-08	0.306804	1.63E+10	-0.083976	1.38E+06
556.800	1.74E-07	20.357	-0.369626	-2.17E-08	0.289744	1.63E+10	-0.049962	1.38E+06
561.600	8.43E-08	18.008	-0.547653	-1.60E-08	0.256300	1.63E+10	-0.024216	1.38E+06
566.400	2.01E-08	15.100	-0.619647	-1.11E-08	0.214915	1.63E+10	-0.005782	1.38E+06
571.200	-2.27E-08	12.059	-0.617877	-7.15E-09	0.171634	1.63E+10	0.006520	1.38E+06
576.000	-4.85E-08	9.168	-0.568813	-4.02E-09	0.130491	1.63E+10	0.013924	1.38E+06
580.800	-6.13E-08	6.598	-0.493144	-1.70E-09	0.093914	1.63E+10	0.017605	1.38E+06
585.600	-6.48E-08	4.434	-0.406237	-7.33E-11	0.063110	1.63E+10	0.018606	1.38E+06
590.400	-6.20E-08	2.699	-0.318845	9.77E-10	0.038408	1.63E+10	0.017807	1.38E+06
595.200	-5.54E-08	1.373	-0.237919	1.58E-09	0.019545	1.63E+10	0.015912	1.38E+06
600.000	-4.68E-08	0.414501	-0.167429	1.84E-09	0.005900	1.63E+10	0.013459	1.38E+06
604.800	-3.77E-08	-0.234110	-0.109116	1.87E-09	0.003332	1.63E+10	0.010838	1.38E+06
609.600	-2.89E-08	-0.633016	-0.063157	1.74E-09	0.009010	1.63E+10	0.008312	1.38E+06
614.400	-2.10E-08	-0.840416	-0.028706	1.52E-09	0.011962	1.63E+10	0.006043	1.38E+06
619.200	-1.43E-08	-0.908590	-0.004327	1.26E-09	0.012932	1.63E+10	0.004115	1.38E+06
624.000	-8.90E-09	-0.881951	0.011685	1.00E-09	0.012553	1.63E+10	0.002556	1.38E+06
628.800	-4.72E-09	-0.796413	0.021074	7.53E-10	0.011335	1.63E+10	0.001356	1.38E+06
633.600	-1.67E-09	-0.679637	0.025477	5.36E-10	0.009673	1.63E+10	0.000479	1.38E+06
638.400	4.26E-10	-0.551832	0.026332	3.55E-10	0.007854	1.63E+10	-0.000122	1.38E+06
643.200	1.74E-09	-0.426849	0.024839	2.11E-10	0.006075	1.63E+10	-0.000500	1.38E+06
648.000	2.45E-09	-0.313375	0.021953	1.02E-10	0.004460	1.63E+10	-0.000703	1.38E+06
652.800	2.71E-09	-0.216103	0.018394	2.36E-11	0.003076	1.63E+10	-0.000780	1.38E+06
657.600	2.67E-09	-0.136793	0.014679	-2.84E-11	0.001947	1.63E+10	-0.000768	1.38E+06
662.400	2.44E-09	-0.075186	0.011151	-5.96E-11	0.001070	1.63E+10	-0.000701	1.38E+06
667.200	2.10E-09	-0.029740	0.008018	-7.50E-11	0.000423	1.63E+10	-0.000604	1.38E+06
672.000	1.72E-09	0.001789	0.005382	-7.91E-11	2.55E-05	1.63E+10	-0.000495	1.38E+06
676.800	1.34E-09	0.021924	0.003269	-7.56E-11	0.000312	1.63E+10	-0.000386	1.38E+06
681.600	9.95E-10	0.033170	0.001657	-6.75E-11	0.000472	1.63E+10	-0.000286	1.38E+06
686.400	6.95E-10	0.037829	0.000492	-5.71E-11	0.000538	1.63E+10	-0.000200	1.38E+06
691.200	4.47E-10	0.037890	-0.000296	-4.59E-11	0.000539	1.63E+10	-0.000129	1.38E+06
696.000	2.54E-10	0.034991	-0.000779	-3.52E-11	0.000498	1.63E+10	-7.29E-05	1.38E+06
700.800	1.09E-10	0.030412	-0.001029	-2.56E-11	0.000433	1.63E+10	-3.14E-05	1.38E+06
705.600	8.24E-12	0.025109	-0.001110	-1.74E-11	0.000357	1.63E+10	-2.37E-06	1.38E+06
710.400	-5.75E-11	0.019752	-0.001077	-1.08E-11	0.000281	1.63E+10	1.65E-05	1.38E+06
715.200	-9.53E-11	0.014775	-0.000971	-5.70E-12	0.000210	1.63E+10	2.74E-05	1.38E+06
720.000	-1.12E-10	0.010429	-0.000828	-1.99E-12	0.000148	1.63E+10	3.22E-05	1.38E+06
724.800	-1.14E-10	0.006825	-0.000672	5.52E-13	9.71E-05	1.63E+10	3.29E-05	1.38E+06
729.600	-1.07E-10	0.003978	-0.000519	2.14E-12	5.66E-05	1.63E+10	3.07E-05	1.38E+06
734.400	-9.38E-11	0.001839	-0.000381	3.00E-12	2.62E-05	1.63E+10	2.69E-05	1.38E+06

739.200	-7.81E-11	0.000321	-0.000262	3.32E-12	4.58E-06	1.63E+10	2.24E-05	1.38E+06
744.000	-6.20E-11	-0.000680	-0.000166	3.26E-12	9.67E-06	1.63E+10	1.78E-05	1.38E+06
748.800	-4.68E-11	-0.001271	-9.09E-05	2.98E-12	1.81E-05	1.63E+10	1.34E-05	1.38E+06
753.600	-3.34E-11	-0.001552	-3.56E-05	2.56E-12	2.21E-05	1.63E+10	9.59E-06	1.38E+06
758.400	-2.22E-11	-0.001613	2.66E-06	2.10E-12	2.30E-05	1.63E+10	6.37E-06	1.38E+06
763.200	-1.32E-11	-0.001526	2.71E-05	1.63E-12	2.17E-05	1.63E+10	3.80E-06	1.38E+06
768.000	-6.48E-12	-0.001353	4.07E-05	1.21E-12	1.93E-05	1.63E+10	1.86E-06	1.38E+06
772.800	-1.63E-12	-0.001136	4.63E-05	8.44E-13	1.62E-05	1.63E+10	4.67E-07	1.38E+06
777.600	1.62E-12	-0.000909	4.63E-05	5.42E-13	1.29E-05	1.63E+10	-4.65E-07	1.38E+06
782.400	3.58E-12	-0.000692	4.27E-05	3.07E-13	9.85E-06	1.63E+10	-1.03E-06	1.38E+06
787.200	4.56E-12	-0.000499	3.71E-05	1.31E-13	7.10E-06	1.63E+10	-1.31E-06	1.38E+06
792.000	4.84E-12	-0.000336	3.06E-05	8.53E-15	4.78E-06	1.63E+10	-1.39E-06	1.38E+06
796.800	4.65E-12	-0.000205	2.40E-05	-7.12E-14	2.92E-06	1.63E+10	-1.33E-06	1.38E+06
801.600	4.16E-12	-0.000105	1.80E-05	-1.17E-13	1.50E-06	1.63E+10	-1.19E-06	1.38E+06
806.400	3.52E-12	-3.28E-05	1.27E-05	-1.37E-13	4.67E-07	1.63E+10	-1.01E-06	1.38E+06
811.200	2.84E-12	1.63E-05	8.28E-06	-1.40E-13	2.32E-07	1.63E+10	-8.16E-07	1.38E+06
816.000	2.18E-12	4.66E-05	4.81E-06	-1.30E-13	6.64E-07	1.63E+10	-6.27E-07	1.38E+06
820.800	1.59E-12	6.25E-05	2.21E-06	-1.14E-13	8.90E-07	1.63E+10	-4.57E-07	1.38E+06
825.600	1.09E-12	6.79E-05	3.70E-07	-9.51E-14	9.66E-07	1.63E+10	-3.12E-07	1.38E+06
830.400	6.76E-13	6.61E-05	-8.45E-07	-7.54E-14	9.41E-07	1.63E+10	-1.94E-07	1.38E+06
835.200	3.61E-13	5.98E-05	-1.56E-06	-5.69E-14	8.51E-07	1.63E+10	-1.04E-07	1.38E+06
840.000	1.30E-13	5.11E-05	-1.90E-06	-4.05E-14	7.27E-07	1.63E+10	-3.75E-08	1.38E+06
844.800	-2.80E-14	4.16E-05	-1.97E-06	-2.69E-14	5.91E-07	1.63E+10	8.05E-09	1.38E+06
849.600	-1.28E-13	3.22E-05	-1.86E-06	-1.60E-14	4.58E-07	1.63E+10	3.67E-08	1.38E+06
854.400	-1.82E-13	2.37E-05	-1.65E-06	-7.81E-15	3.37E-07	1.63E+10	5.23E-08	1.38E+06
859.200	-2.03E-13	1.64E-05	-1.38E-06	-1.91E-15	2.33E-07	1.63E+10	5.82E-08	1.38E+06
864.000	-2.00E-13	1.04E-05	-1.11E-06	2.03E-15	1.48E-07	1.63E+10	5.76E-08	1.38E+06
868.800	-1.83E-13	5.75E-06	-8.41E-07	4.40E-15	8.18E-08	1.63E+10	5.27E-08	1.38E+06
873.600	-1.58E-13	2.31E-06	-6.06E-07	5.59E-15	3.29E-08	1.63E+10	4.54E-08	1.38E+06
878.400	-1.30E-13	-7.19E-08	-4.08E-07	5.92E-15	1.02E-09	1.63E+10	3.72E-08	1.38E+06
883.200	-1.01E-13	-1.60E-06	-2.49E-07	5.67E-15	2.28E-08	1.63E+10	2.91E-08	1.38E+06
888.000	-7.52E-14	-2.46E-06	-1.27E-07	5.08E-15	3.50E-08	1.63E+10	2.16E-08	1.38E+06
892.800	-5.25E-14	-2.82E-06	-3.89E-08	4.30E-15	4.01E-08	1.63E+10	1.51E-08	1.38E+06
897.600	-3.39E-14	-2.83E-06	2.07E-08	3.47E-15	4.03E-08	1.63E+10	9.74E-09	1.38E+06
902.400	-1.92E-14	-2.62E-06	5.73E-08	2.66E-15	3.73E-08	1.63E+10	5.53E-09	1.38E+06
907.200	-8.31E-15	-2.28E-06	7.63E-08	1.94E-15	3.25E-08	1.63E+10	2.39E-09	1.38E+06
912.000	-6.05E-16	-1.89E-06	8.25E-08	1.33E-15	2.69E-08	1.63E+10	1.74E-10	1.38E+06
916.800	4.44E-15	-1.49E-06	7.98E-08	8.31E-16	2.12E-08	1.63E+10	-1.27E-09	1.38E+06
921.600	7.37E-15	-1.12E-06	7.17E-08	4.47E-16	1.60E-08	1.63E+10	-2.12E-09	1.38E+06
926.400	8.72E-15	-8.01E-07	6.06E-08	1.64E-16	1.14E-08	1.63E+10	-2.51E-09	1.38E+06
931.200	8.94E-15	-5.39E-07	4.84E-08	-3.38E-17	7.68E-09	1.63E+10	-2.57E-09	1.38E+06
936.000	8.40E-15	-3.36E-07	3.65E-08	-1.63E-16	4.79E-09	1.63E+10	-2.41E-09	1.38E+06
940.800	7.38E-15	-1.89E-07	2.56E-08	-2.40E-16	2.69E-09	1.63E+10	-2.12E-09	1.38E+06
945.600	6.09E-15	-9.09E-08	1.63E-08	-2.81E-16	1.29E-09	1.63E+10	-1.75E-09	1.38E+06
950.400	4.68E-15	-3.28E-08	8.86E-09	-3.00E-16	4.68E-10	1.63E+10	-1.34E-09	1.38E+06
955.200	3.22E-15	-5.78E-09	3.42E-09	-3.05E-16	8.23E-11	1.63E+10	-9.24E-10	1.38E+06
960.000	1.75E-15	0.000	0.000	-3.06E-16	0.000	1.63E+10	-5.02E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection = 3.50561134 in
 Computed slope at pile head = -0.03292060
 Maximum bending moment = 4255146. lbs-in
 Maximum shear force = -58678.72372 lbs
 Depth of maximum bending moment = 115.20000 in
 Depth of maximum shear force = 168.00000 in
 Number of iterations = 30
 Number of zero deflection points = 10

 Summary of Pile Response(s)

Definition of Symbols for Pile-Head Loading Conditions:

Type 1 = Shear and Moment, y = pile-head displacement in
 Type 2 = Shear and Slope, M = Pile-head Moment lbs-in
 Type 3 = Shear and Rot. Stiffness, V = Pile-head Shear Force lbs
 Type 4 = Deflection and Moment, S = Pile-head Slope, radians
 Type 5 = Deflection and Slope, R = Rot. Stiffness of Pile-head in-lbs/rad

Load Type	Pile-Head Condition 1	Pile-Head Condition 2	Axial Load lbs	Pile-Head Deflection in	Maximum Moment in-lbs	Maximum Shear lbs
1	v= 10000.	M= 0.000	0.0000	0.2019852	471374.	10000.0000
1	v= 20000.	M= 0.000	0.0000	0.6328768	1197227.	20000.0000
1	v= 30000.	M= 0.000	0.0000	1.3289	2105499.	30000.0000
1	v= 40000.	M= 0.000	0.0000	2.2856	3131064.	-43035.3992
1	v= 50000.	M= 0.000	0.0000	3.5056	4255146.	-58678.7237

The analysis ended normally.

APPENDIX H: LPILE ANALYSIS FOR TP5 (P-MULTIPLIER OF 0.25)

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LPILE Plus for Windows, Version 5.0 (5.0.47)

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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This program is licensed to:

J Price
RB&G Engineering

Files Used for Analysis

Path to file locations: C:\Users\jprice\Documents\Thesis\LPILE 03.23.11\Pioneer
Crossing\Peak Plus 1 Min\
Name of input data file: phi28.k150.gam138.2.pmult0.25.lpd
Name of output file: phi28.k150.gam138.2.pmult0.25.lpo
Name of plot output file: phi28.k150.gam138.2.pmult0.25.lpp
Name of runtime file: phi28.k150.gam138.2.pmult0.25.lpr

Time and Date of Analysis

Date: May 5, 2012 Time: 2:23:06

Problem Title

New LPILE Plus 5.0 Data File

Program Options

Units Used in Computations - US Customary Units: Inches, Pounds

Basic Program Options:

Analysis Type 3:

- Computation of Nonlinear Bending Stiffness and Ultimate Bending Moment Capacity with Pile Response Computed Using Nonlinear EI

Computation Options:

- Only internally-generated p-y curves used in analysis
- Analysis uses p-y multipliers for group action
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output pile response for full length of pile
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths

Solution Control Parameters:

- Number of pile increments = 200
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 1.0000E+02 in

Printing Options:

- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (spacing of output points) = 1

Pile Structural Properties and Geometry

- Pile Length = 960.00 in
- Depth of ground surface below top of pile = 12.00 in
- Slope angle of ground surface = 0.00 deg.

Structural properties of pile defined using 2 points

Point No.	Point Depth in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
1	0.0000	16.00000000	562.0800	18.4100	29000000.
2	960.0000	16.00000000	562.0800	18.4100	29000000.

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of moment of inertia and modulus of are not used for any computations other than total stress due to combined axial

loading and bending.

Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is sand, p-y criteria by API RP-2A, 1987

Distance from top of pile to top of layer = 12.000 in
Distance from top of pile to bottom of layer = 480.000 in
p-y subgrade modulus k for top of soil layer = 150.000 lbs/in**3
p-y subgrade modulus k for bottom of layer = 150.000 lbs/in**3

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer = 480.000 in
Distance from top of pile to bottom of layer = 1000.000 in

(Depth of lowest layer extends 40.00 in below pile tip)

Effective Unit weight of Soil vs. Depth

Effective unit weight of soil with depth defined using 4 points

Point No.	Depth X in	Eff. Unit weight lbs/in**3
1	12.00	0.08000
2	480.00	0.08000
3	480.00	0.06944
4	1000.00	0.06944

Shear Strength of Soils

Shear strength parameters with depth defined using 4 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	12.000	0.00000	28.00	-----	-----
2	480.000	0.00000	28.00	-----	-----
3	480.000	6.94444	0.00	0.00700	0.0
4	1000.000	6.94444	0.00	0.00700	0.0

Notes:

- (1) Cohesion = uniaxial compressive strength for rock materials.
- (2) values of E50 are reported for clay strata.
- (3) Default values will be generated for E50 when input values are 0.
- (4) RQD and k_{rm} are reported only for weak rock strata.

 p-y Modification Factors

Distribution of p-y multipliers with depth defined using 2 points

Point No.	Depth X in	p-mult	y-mult
1	12.000	0.2500	1.0000
2	960.000	0.2500	1.0000

 Loading Type

Static loading criteria was used for computation of p-y curves.

 Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 5

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)
 Shear force at pile head = 3000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 2

Pile-head boundary conditions are Shear and Moment (BC Type 1)
 Shear force at pile head = 6000.000 lbs
 Bending moment at pile head = 0.000 in-lbs
 Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 3

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 9000.000 lbs

Bending moment at pile head = 0.000 in-lbs

Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 4

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 12000.000 lbs

Bending moment at pile head = 0.000 in-lbs

Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)

Shear force at pile head = 17600.000 lbs

Bending moment at pile head = 0.000 in-lbs

Axial load at pile head = 0.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Computation of Nonlinear Bending Stiffness for Section 1

Dimensions and Material Properties of Steel Pipe Section:

Outer Diameter of Pipe = 16.00000 in.
Pipe Wall Thickness = 0.37500 in.
Yield Stress of Pipe = 60. ksi
Elastic Modulus = 29000. ksi
Cross-sectional Area = 18.40777 sq. in.
Moment of Inertia = 562.084 in⁴
Elastic Bending Stiffness = 16300439. kip-in²

Definition of Run Messages:

Y = part of pipe section has yielded

Axial Thrust Force = 0.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in ²	Max Comp Strain in/in	Minimum Strain in/in	Depth to N Axis in	Run Msg
---------------------------------	-----------------------------	---	-----------------------------	----------------------------	--------------------------	------------

0.00000550	89.57501530	16299140.	0.00004397	-0.00004397	8.00000000	
0.00001099	179.15003	16299140.	0.00008793	-0.00008793	8.00000000	
0.00001649	268.72505	16299140.	0.00013190	-0.00013190	8.00000000	
0.00002198	358.30006	16299140.	0.00017586	-0.00017586	8.00000000	
0.00002748	447.87508	16299140.	0.00021983	-0.00021983	8.00000000	
0.00003297	537.45009	16299140.	0.00026379	-0.00026379	8.00000000	
0.00003847	627.02511	16299140.	0.00030776	-0.00030776	8.00000000	
0.00004397	716.60012	16299140.	0.00035172	-0.00035172	8.00000000	
0.00004946	806.17514	16299140.	0.00039569	-0.00039569	8.00000000	
0.00005496	895.75015	16299140.	0.00043966	-0.00043966	8.00000000	
0.00006045	985.32517	16299140.	0.00048362	-0.00048362	8.00000000	
0.00006595	1074.90018	16299140.	0.00052759	-0.00052759	8.00000000	
0.00007144	1164.47520	16299140.	0.00057155	-0.00057155	8.00000000	
0.00007694	1254.05021	16299140.	0.00061552	-0.00061552	8.00000000	
0.00008244	1343.62523	16299140.	0.00065948	-0.00065948	8.00000000	
0.00008793	1433.20024	16299140.	0.00070345	-0.00070345	8.00000000	
0.00009343	1522.77526	16299140.	0.00074741	-0.00074741	8.00000000	
0.00009892	1612.35028	16299140.	0.00079138	-0.00079138	8.00000000	
0.00010442	1701.92529	16299140.	0.00083534	-0.00083534	8.00000000	
0.00010991	1791.50031	16299140.	0.00087931	-0.00087931	8.00000000	
0.00011541	1881.07532	16299140.	0.00092328	-0.00092328	8.00000000	
0.00012091	1970.65034	16299140.	0.00096724	-0.00096724	8.00000000	
0.00012640	2060.22535	16299140.	0.00101121	-0.00101121	8.00000000	
0.00013190	2149.80037	16299140.	0.00105517	-0.00105517	8.00000000	
0.00013739	2239.37538	16299140.	0.00109914	-0.00109914	8.00000000	
0.00014289	2328.95040	16299140.	0.00114310	-0.00114310	8.00000000	
0.00014838	2418.52541	16299140.	0.00118707	-0.00118707	8.00000000	
0.00015388	2508.10043	16299140.	0.00123103	-0.00123103	8.00000000	
0.00015938	2597.67544	16299140.	0.00127500	-0.00127500	8.00000000	
0.00016487	2687.25046	16299140.	0.00131897	-0.00131897	8.00000000	
0.00017037	2776.82547	16299140.	0.00136293	-0.00136293	8.00000000	
0.00017586	2866.40049	16299140.	0.00140690	-0.00140690	8.00000000	
0.00018136	2955.97550	16299140.	0.00145086	-0.00145086	8.00000000	
0.00018685	3045.55052	16299140.	0.00149483	-0.00149483	8.00000000	
0.00019235	3135.12554	16299140.	0.00153879	-0.00153879	8.00000000	
0.00019784	3224.70055	16299140.	0.00158276	-0.00158276	8.00000000	
0.00020334	3314.27557	16299140.	0.00162672	-0.00162672	8.00000000	
0.00020884	3403.85058	16299140.	0.00167069	-0.00167069	8.00000000	
0.00021433	3493.42560	16299140.	0.00171466	-0.00171466	8.00000000	
0.00021983	3583.00061	16299140.	0.00175862	-0.00175862	8.00000000	
0.00022532	3672.57563	16299140.	0.00180259	-0.00180259	8.00000000	
0.00023082	3762.15064	16299140.	0.00184655	-0.00184655	8.00000000	
0.00023631	3851.72566	16299140.	0.00189052	-0.00189052	8.00000000	
0.00024181	3941.30067	16299140.	0.00193448	-0.00193448	8.00000000	
0.00024731	4030.87569	16299140.	0.00197845	-0.00197845	8.00000000	
0.00025280	4120.45070	16299140.	0.00202241	-0.00202241	8.00000000	
0.00025830	4210.02572	16299140.	0.00206638	-0.00206638	8.00000000	
0.00026379	4296.43113	16287124.	0.00211034	-0.00211034	8.00000000	Y
0.00026929	4373.42773	16240660.	0.00215431	-0.00215431	8.00000000	Y
0.00027478	4439.00035	16154479.	0.00219828	-0.00219828	8.00000000	Y
0.00028028	4495.55846	16039516.	0.00224224	-0.00224224	8.00000000	Y
0.00028578	4546.13334	15908038.	0.00228621	-0.00228621	8.00000000	Y
0.00029127	4592.05610	15765549.	0.00233017	-0.00233017	8.00000000	Y

0.00029677	4633.81340	15614302.	0.00237414	-0.00237414	8.00000000	Y
0.00030226	4671.83655	15456200.	0.00241810	-0.00241810	8.00000000	Y
0.00030776	4707.19007	15295071.	0.00246207	-0.00246207	8.00000000	Y
0.00031325	4740.26069	15132308.	0.00250603	-0.00250603	8.00000000	Y
0.00031875	4771.09192	14968131.	0.00255000	-0.00255000	8.00000000	Y
0.00032425	4799.32117	14801495.	0.00259397	-0.00259397	8.00000000	Y
0.00032974	4826.14536	14636153.	0.00263793	-0.00263793	8.00000000	Y
0.00033524	4851.49019	14471819.	0.00268190	-0.00268190	8.00000000	Y
0.00034073	4874.74421	14306649.	0.00272586	-0.00272586	8.00000000	Y
0.00034623	4897.17687	14144351.	0.00276983	-0.00276983	8.00000000	Y
0.00035172	4918.00554	13982564.	0.00281379	-0.00281379	8.00000000	Y
0.00035722	4937.78073	13822807.	0.00285776	-0.00285776	8.00000000	Y
0.00036272	4956.64343	13665374.	0.00290172	-0.00290172	8.00000000	Y
0.00036821	4974.21101	13509124.	0.00294569	-0.00294569	8.00000000	Y
0.00037371	4991.27486	13356122.	0.00298966	-0.00298966	8.00000000	Y
0.00037920	5007.02214	13204082.	0.00303362	-0.00303362	8.00000000	Y
0.00038470	5022.43782	13055524.	0.00307759	-0.00307759	8.00000000	Y
0.00039019	5036.70038	12908196.	0.00312155	-0.00312155	8.00000000	Y
0.00039569	5050.60468	12764055.	0.00316552	-0.00316552	8.00000000	Y
0.00040119	5063.67451	12621783.	0.00320948	-0.00320948	8.00000000	Y
0.00040668	5076.19222	12481999.	0.00325345	-0.00325345	8.00000000	Y
0.00041218	5088.32389	12345005.	0.00329741	-0.00329741	8.00000000	Y
0.00041767	5099.56942	12209495.	0.00334138	-0.00334138	8.00000000	Y
0.00042317	5110.81496	12077505.	0.00338534	-0.00338534	8.00000000	Y
0.00042866	5121.06351	11946573.	0.00342931	-0.00342931	8.00000000	Y
0.00043416	5131.14214	11818565.	0.00347328	-0.00347328	8.00000000	Y
0.00043966	5140.96479	11693174.	0.00351724	-0.00351724	8.00000000	Y
0.00044515	5149.97368	11569052.	0.00356121	-0.00356121	8.00000000	Y
0.00045065	5158.98257	11447957.	0.00360517	-0.00360517	8.00000000	Y
0.00045614	5167.55970	11328834.	0.00364914	-0.00364914	8.00000000	Y
0.00046164	5175.58878	11211359.	0.00369310	-0.00369310	8.00000000	Y
0.00046713	5183.61786	11096649.	0.00373707	-0.00373707	8.00000000	Y
0.00047263	5191.25387	10983774.	0.00378103	-0.00378103	8.00000000	Y
0.00047813	5198.38655	10872442.	0.00382500	-0.00382500	8.00000000	Y
0.00048362	5205.51924	10763640.	0.00386897	-0.00386897	8.00000000	Y
0.00048912	5212.48015	10656932.	0.00391293	-0.00391293	8.00000000	Y
0.00049461	5218.79394	10551287.	0.00395690	-0.00395690	8.00000000	Y
0.00050011	5225.10773	10447963.	0.00400086	-0.00400086	8.00000000	Y
0.00050560	5231.42152	10346886.	0.00404483	-0.00404483	8.00000000	Y
0.00051110	5237.19181	10246919.	0.00408879	-0.00408879	8.00000000	Y
0.00051659	5242.75882	10148686.	0.00413276	-0.00413276	8.00000000	Y
0.00052209	5248.32584	10052521.	0.00417672	-0.00417672	8.00000000	Y
0.00052759	5253.89285	9958359.	0.00422069	-0.00422069	8.00000000	Y
0.00053308	5258.80636	9864912.	0.00426466	-0.00426466	8.00000000	Y
0.00053858	5263.69376	9773325.	0.00430862	-0.00430862	8.00000000	Y
0.00054407	5268.58116	9683587.	0.00435259	-0.00435259	8.00000000	Y
0.00054957	5273.46856	9595644.	0.00439655	-0.00439655	8.00000000	Y
0.00055506	5277.81618	9508471.	0.00444052	-0.00444052	8.00000000	Y
0.00056056	5282.08657	9422869.	0.00448448	-0.00448448	8.00000000	Y
0.00056606	5286.35697	9338928.	0.00452845	-0.00452845	8.00000000	Y
0.00057155	5290.62736	9256603.	0.00457241	-0.00457241	8.00000000	Y
0.00057705	5294.66043	9175434.	0.00461638	-0.00461638	8.00000000	Y
0.00058254	5298.37219	9095245.	0.00466034	-0.00466034	8.00000000	Y
0.00058804	5302.08395	9016554.	0.00470431	-0.00470431	8.00000000	Y

0.00059353	5305.79571	8939322.	0.00474828	-0.00474828	8.00000000	Y
0.00059903	5309.50748	8863506.	0.00479224	-0.00479224	8.00000000	Y
0.00060453	5312.93644	8788601.	0.00483621	-0.00483621	8.00000000	Y
0.00061002	5316.14401	8714682.	0.00488017	-0.00488017	8.00000000	Y
0.00061552	5319.35157	8642084.	0.00492414	-0.00492414	8.00000000	Y
0.00062101	5322.55913	8570770.	0.00496810	-0.00496810	8.00000000	Y
0.00062651	5325.76669	8500708.	0.00501207	-0.00501207	8.00000000	Y
0.00063200	5328.87341	8431704.	0.00505603	-0.00505603	8.00000000	Y
0.00063750	5331.62752	8363337.	0.00510000	-0.00510000	8.00000000	Y
0.00064300	5334.38163	8296139.	0.00514397	-0.00514397	8.00000000	Y
0.00064849	5337.13574	8230079.	0.00518793	-0.00518793	8.00000000	Y
0.00065399	5339.88985	8165130.	0.00523190	-0.00523190	8.00000000	Y
0.00065948	5342.64396	8101264.	0.00527586	-0.00527586	8.00000000	Y
0.00066498	5345.26145	8038247.	0.00531983	-0.00531983	8.00000000	Y
0.00067047	5347.60938	7975862.	0.00536379	-0.00536379	8.00000000	Y
0.00067597	5349.95732	7914491.	0.00540776	-0.00540776	8.00000000	Y
0.00068147	5352.30525	7854110.	0.00545172	-0.00545172	8.00000000	Y
0.00068696	5354.65319	7794695.	0.00549569	-0.00549569	8.00000000	Y
0.00069246	5357.00112	7736223.	0.00553966	-0.00553966	8.00000000	Y
0.00069795	5359.34906	7678672.	0.00558362	-0.00558362	8.00000000	Y
0.00070345	5361.40220	7621601.	0.00562759	-0.00562759	8.00000000	Y
0.00070894	5363.38797	7565320.	0.00567155	-0.00567155	8.00000000	Y
0.00071444	5365.37374	7509905.	0.00571552	-0.00571552	8.00000000	Y
0.00071994	5367.35952	7455335.	0.00575948	-0.00575948	8.00000000	Y
0.00072543	5369.34529	7401593.	0.00580345	-0.00580345	8.00000000	Y
0.00073093	5371.33107	7348659.	0.00584741	-0.00584741	8.00000000	Y
0.00073642	5373.31684	7296514.	0.00589138	-0.00589138	8.00000000	Y
0.00074192	5375.12714	7244906.	0.00593534	-0.00593534	8.00000000	Y
0.00074741	5376.79167	7193862.	0.00597931	-0.00597931	8.00000000	Y
0.00075291	5378.45620	7143563.	0.00602328	-0.00602328	8.00000000	Y
0.00075841	5380.12073	7093992.	0.00606724	-0.00606724	8.00000000	Y
0.00076390	5381.78526	7045136.	0.00611121	-0.00611121	8.00000000	Y
0.00076940	5383.44979	6996977.	0.00615517	-0.00615517	8.00000000	Y
0.00077489	5385.11432	6949501.	0.00619914	-0.00619914	8.00000000	Y
0.00078039	5386.77885	6902694.	0.00624310	-0.00624310	8.00000000	Y

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Load	Axial Thrust	Interp. Mom. Cap.
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1	0.000 kips	5386.8 in-kip

Please note that the values in the above table are not factored by a strength reduction factor for LRFD.

The value of the strength reduction factor depends on the provisions of the LRFD code being used.

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to the LRFD structural design standard being followed.

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 3000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Flx. Rig. EI lbs-in**2	Soil Res. p lbs/in	Es*h F/L
0.000	0.098815	1.08E-07	3000.000	-0.001136	1.54E-09	1.63E+10	0.000	0.000
4.800	0.093363	14400.	3000.000	-0.001134	204.953	1.63E+10	0.000	0.000
9.600	0.087932	28800.	3000.000	-0.001127	409.906	1.63E+10	0.000	0.000
14.400	0.082541	43200.	2988.002	-0.001117	614.859	1.63E+10	-4.999	290.706
19.200	0.077211	57485.	2939.518	-0.001102	818.173	1.63E+10	-15.203	945.112
24.000	0.071962	71419.	2843.143	-0.001083	1016.501	1.63E+10	-24.954	1664.457
28.800	0.066814	84779.	2702.387	-0.001060	1206.647	1.63E+10	-33.695	2420.641
33.600	0.061787	97362.	2522.862	-0.001033	1385.743	1.63E+10	-41.108	3193.537
38.400	0.056896	1.09E+05	2311.361	-0.001003	1551.359	1.63E+10	-47.018	3966.588
43.200	0.052160	1.20E+05	2075.358	-0.000969	1701.556	1.63E+10	-51.317	4722.409
48.000	0.047593	1.29E+05	1822.828	-0.000933	1834.926	1.63E+10	-53.903	5436.441
52.800	0.043208	1.37E+05	1562.463	-0.000893	1950.619	1.63E+10	-54.582	6063.533
57.600	0.039017	1.44E+05	1294.751	-0.000852	2048.414	1.63E+10	-56.965	7008.019
62.400	0.035029	1.49E+05	1016.421	-0.000809	2127.528	1.63E+10	-59.006	8085.538
67.200	0.031253	1.54E+05	731.881	-0.000764	2187.293	1.63E+10	-59.552	9146.402
72.000	0.027693	1.57E+05	447.954	-0.000718	2227.529	1.63E+10	-58.751	10183.
76.800	0.024355	1.58E+05	170.647	-0.000672	2248.499	1.63E+10	-56.793	11193.
81.600	0.021241	1.58E+05	-94.974	-0.000626	2250.845	1.63E+10	-53.882	12176.
86.400	0.018350	1.57E+05	-344.804	-0.000579	2235.522	1.63E+10	-50.214	13135.
91.200	0.015681	1.55E+05	-575.654	-0.000533	2203.733	1.63E+10	-45.974	14073.
96.000	0.013230	1.52E+05	-785.175	-0.000488	2156.868	1.63E+10	-41.326	14993.
100.800	0.010994	1.47E+05	-971.756	-0.000444	2096.450	1.63E+10	-36.416	15899.
105.600	0.008967	1.42E+05	-1134.442	-0.000402	2024.091	1.63E+10	-31.370	16793.
110.400	0.007140	1.36E+05	-1272.838	-0.000360	1941.445	1.63E+10	-26.295	17678.
115.200	0.005506	1.30E+05	-1387.032	-0.000321	1850.177	1.63E+10	-21.285	18556.
120.000	0.004056	1.23E+05	-1477.516	-0.000284	1751.928	1.63E+10	-16.417	19430.
124.800	0.002779	1.16E+05	-1545.126	-0.000249	1648.296	1.63E+10	-11.754	20299.
129.600	0.001667	1.08E+05	-1590.978	-0.000216	1540.809	1.63E+10	-7.351	21166.
134.400	0.000708	1.01E+05	-1616.414	-0.000185	1430.912	1.63E+10	-3.247	22032.
139.200	-0.000110	92740.	-1622.950	-0.000157	1319.950	1.63E+10	0.523960	22896.
144.000	-0.000796	84956.	-1612.235	-0.000130	1209.159	1.63E+10	3.941	23760.
148.800	-0.001362	77262.	-1586.006	-0.000107	1099.661	1.63E+10	6.988	24623.
153.600	-0.001819	69730.	-1546.052	-8.49E-05	992.455	1.63E+10	9.659	25486.
158.400	-0.002178	62420.	-1494.181	-6.55E-05	888.416	1.63E+10	11.954	26350.
163.200	-0.002448	55386.	-1432.186	-4.81E-05	788.297	1.63E+10	13.877	27213.
168.000	-0.002640	48671.	-1361.826	-3.28E-05	692.729	1.63E+10	15.440	28077.

172.800	-0.002763	42312.	-1284.795	-1.94E-05	602.223	1.63E+10	16.657	28940.
177.600	-0.002826	36337.	-1202.708	-7.82E-06	517.180	1.63E+10	17.546	29804.
182.400	-0.002838	30766.	-1117.082	2.06E-06	437.891	1.63E+10	18.131	30668.
187.200	-0.002806	25613.	-1029.326	1.04E-05	364.547	1.63E+10	18.434	31532.
192.000	-0.002738	20885.	-940.728	1.72E-05	297.249	1.63E+10	18.482	32397.
196.800	-0.002641	16582.	-852.451	2.27E-05	236.011	1.63E+10	18.300	33261.
201.600	-0.002520	12701.	-765.529	2.70E-05	180.774	1.63E+10	17.917	34125.
206.400	-0.002381	9233.030	-680.865	3.03E-05	131.412	1.63E+10	17.360	34990.
211.200	-0.002230	6164.858	-599.232	3.25E-05	87.743	1.63E+10	16.655	35854.
216.000	-0.002069	3480.407	-521.273	3.40E-05	49.536	1.63E+10	15.828	36718.
220.800	-0.001904	1160.639	-447.512	3.46E-05	16.519	1.63E+10	14.906	37582.
225.600	-0.001737	-815.704	-378.354	3.47E-05	11.610	1.63E+10	13.910	38447.
230.400	-0.001571	-2471.557	-314.095	3.42E-05	35.177	1.63E+10	12.864	39311.
235.200	-0.001408	-3831.020	-254.931	3.33E-05	54.526	1.63E+10	11.788	40175.
240.000	-0.001251	-4918.899	-200.965	3.20E-05	70.010	1.63E+10	10.699	41039.
244.800	-0.001101	-5760.279	-152.214	3.04E-05	81.985	1.63E+10	9.614	41903.
249.600	-0.000959	-6380.151	-108.625	2.86E-05	90.808	1.63E+10	8.548	42768.
254.400	-0.000826	-6803.078	-70.079	2.67E-05	96.827	1.63E+10	7.513	43632.
259.200	-0.000703	-7052.910	-36.403	2.46E-05	100.383	1.63E+10	6.519	44496.
264.000	-0.000590	-7152.549	-7.379	2.26E-05	101.801	1.63E+10	5.575	45360.
268.800	-0.000487	-7123.746	17.250	2.04E-05	101.391	1.63E+10	4.687	46224.
273.600	-0.000394	-6986.950	37.766	1.84E-05	99.444	1.63E+10	3.861	47088.
278.400	-0.000310	-6761.190	54.475	1.63E-05	96.231	1.63E+10	3.101	47952.
283.200	-0.000237	-6463.992	67.693	1.44E-05	92.001	1.63E+10	2.407	48816.
288.000	-0.000172	-6111.337	77.746	1.25E-05	86.982	1.63E+10	1.782	49680.
292.800	-0.000116	-5717.634	84.959	1.08E-05	81.378	1.63E+10	1.224	50544.
297.600	-6.84E-05	-5295.735	89.654	9.18E-06	75.373	1.63E+10	0.732497	51408.
302.400	-2.81E-05	-4856.958	92.145	7.69E-06	69.128	1.63E+10	0.305485	52272.
307.200	5.42E-06	-4411.144	92.734	6.32E-06	62.783	1.63E+10	-0.060048	53136.
312.000	3.27E-05	-3966.713	91.708	5.09E-06	56.458	1.63E+10	-0.367483	54000.
316.800	5.43E-05	-3530.749	89.336	3.99E-06	50.253	1.63E+10	-0.620634	54864.
321.600	7.09E-05	-3109.084	85.870	3.01E-06	44.251	1.63E+10	-0.823628	55728.
326.400	8.32E-05	-2706.395	81.540	2.15E-06	38.520	1.63E+10	-0.980797	56592.
331.200	9.16E-05	-2326.304	76.554	1.41E-06	33.110	1.63E+10	-1.097	57456.
336.000	9.67E-05	-1971.479	71.101	7.79E-07	28.060	1.63E+10	-1.175	58320.
340.800	9.91E-05	-1643.735	65.348	2.47E-07	23.395	1.63E+10	-1.222	59184.
345.600	9.91E-05	-1344.142	59.439	-1.93E-07	19.131	1.63E+10	-1.240	60048.
350.400	9.72E-05	-1073.117	53.502	-5.49E-07	15.274	1.63E+10	-1.234	60912.
355.200	9.38E-05	-830.521	47.642	-8.29E-07	11.821	1.63E+10	-1.208	61776.
360.000	8.93E-05	-615.753	41.947	-1.04E-06	8.764	1.63E+10	-1.165	62640.
364.800	8.38E-05	-427.827	36.489	-1.20E-06	6.089	1.63E+10	-1.109	63504.
369.600	7.78E-05	-265.457	31.323	-1.30E-06	3.778	1.63E+10	-1.043	64368.
374.400	7.14E-05	-127.123	26.492	-1.36E-06	1.809	1.63E+10	-0.970010	65232.
379.200	6.48E-05	-11.137	22.023	-1.38E-06	0.158518	1.63E+10	-0.892005	66096.
384.000	5.82E-05	84.296	17.935	-1.37E-06	1.200	1.63E+10	-0.811405	66960.
388.800	5.17E-05	161.035	14.235	-1.33E-06	2.292	1.63E+10	-0.730108	67824.
393.600	4.54E-05	220.952	10.923	-1.27E-06	3.145	1.63E+10	-0.649730	68688.
398.400	3.94E-05	265.899	7.992	-1.20E-06	3.784	1.63E+10	-0.571622	69552.
403.200	3.39E-05	297.676	5.428	-1.12E-06	4.237	1.63E+10	-0.496885	70416.
408.000	2.87E-05	318.005	3.212	-1.03E-06	4.526	1.63E+10	-0.426388	71280.
412.800	2.40E-05	328.509	1.323	-9.33E-07	4.676	1.63E+10	-0.360790	72144.
417.600	1.98E-05	330.702	-0.264632	-8.35E-07	4.707	1.63E+10	-0.300560	73008.
422.400	1.60E-05	325.969	-1.576	-7.39E-07	4.639	1.63E+10	-0.245997	73872.
427.200	1.27E-05	315.568	-2.640	-6.44E-07	4.491	1.63E+10	-0.197249	74736.

432.000	9.80E-06	300.623	-3.484	-5.54E-07	4.279	1.63E+10	-0.154333	75600.
436.800	7.35E-06	282.123	-4.136	-4.68E-07	4.015	1.63E+10	-0.117153	76464.
441.600	5.31E-06	260.922	-4.622	-3.88E-07	3.714	1.63E+10	-0.085518	77328.
446.400	3.63E-06	237.752	-4.969	-3.14E-07	3.384	1.63E+10	-0.059154	78192.
451.200	2.29E-06	213.219	-5.202	-2.48E-07	3.035	1.63E+10	-0.037722	79056.
456.000	1.25E-06	187.816	-5.342	-1.89E-07	2.673	1.63E+10	-0.020826	79920.
460.800	4.77E-07	161.934	-5.411	-1.37E-07	2.305	1.63E+10	-0.008024	80784.
465.600	-6.84E-08	135.867	-5.428	-9.36E-08	1.934	1.63E+10	0.001164	81648.
470.400	-4.22E-07	109.826	-5.408	-5.74E-08	1.563	1.63E+10	0.007246	82512.
475.200	-6.19E-07	83.953	-5.364	-2.89E-08	1.195	1.63E+10	0.010759	83376.
480.000	-6.99E-07	58.328	-4.857	-7.91E-09	0.830168	1.63E+10	0.200686	1.38E+06
484.800	-6.95E-07	37.326	-3.896	6.18E-09	0.531254	1.63E+10	0.199747	1.38E+06
489.600	-6.39E-07	20.926	-2.976	1.48E-08	0.297842	1.63E+10	0.183649	1.38E+06
494.400	-5.54E-07	8.758	-2.153	1.91E-08	0.124653	1.63E+10	0.159054	1.38E+06
499.200	-4.56E-07	0.254463	-1.457	2.05E-08	0.003622	1.63E+10	0.130901	1.38E+06
504.000	-3.57E-07	-5.233	-0.896916	1.97E-08	0.074484	1.63E+10	0.102646	1.38E+06
508.800	-2.66E-07	-8.356	-0.466931	1.77E-08	0.118929	1.63E+10	0.076515	1.38E+06
513.600	-1.87E-07	-9.716	-0.154227	1.51E-08	0.138283	1.63E+10	0.053778	1.38E+06
518.400	-1.22E-07	-9.837	0.058807	1.22E-08	0.140002	1.63E+10	0.034986	1.38E+06
523.200	-7.03E-08	-9.151	0.191229	9.38E-09	0.130248	1.63E+10	0.020189	1.38E+06
528.000	-3.17E-08	-8.001	0.261546	6.86E-09	0.113873	1.63E+10	0.009109	1.38E+06
532.800	-4.45E-09	-6.640	0.286473	4.70E-09	0.094511	1.63E+10	0.001277	1.38E+06
537.600	1.34E-08	-5.251	0.280281	2.95E-09	0.074731	1.63E+10	-0.003857	1.38E+06
542.400	2.39E-08	-3.950	0.254559	1.60E-09	0.056215	1.63E+10	-0.006860	1.38E+06
547.200	2.87E-08	-2.807	0.218275	6.01E-10	0.039949	1.63E+10	-0.008259	1.38E+06
552.000	2.96E-08	-1.854	0.178013	-8.54E-11	0.026391	1.63E+10	-0.008517	1.38E+06
556.800	2.79E-08	-1.098	0.138317	-5.20E-10	0.015626	1.63E+10	-0.008023	1.38E+06
561.600	2.47E-08	-0.526384	0.102063	-7.59E-10	0.007492	1.63E+10	-0.007083	1.38E+06
566.400	2.06E-08	-0.118076	0.070835	-8.54E-10	0.001681	1.63E+10	-0.005929	1.38E+06
571.200	1.65E-08	0.153629	0.045260	-8.49E-10	0.002187	1.63E+10	-0.004727	1.38E+06
576.000	1.25E-08	0.316422	0.025305	-7.80E-10	0.004504	1.63E+10	-0.003588	1.38E+06
580.800	8.97E-09	0.396556	0.010511	-6.75E-10	0.005644	1.63E+10	-0.002577	1.38E+06
585.600	6.01E-09	0.417324	0.000183	-5.55E-10	0.005940	1.63E+10	-0.001727	1.38E+06
590.400	3.64E-09	0.398308	-0.006473	-4.35E-10	0.005669	1.63E+10	-0.001046	1.38E+06
595.200	1.84E-09	0.355186	-0.010250	-3.24E-10	0.005055	1.63E+10	-0.000528	1.38E+06
600.000	5.33E-10	0.299908	-0.011884	-2.27E-10	0.004269	1.63E+10	-0.000153	1.38E+06
604.800	-3.46E-10	0.241101	-0.012013	-1.48E-10	0.003432	1.63E+10	9.95E-05	1.38E+06
609.600	-8.85E-10	0.184586	-0.011164	-8.50E-11	0.002627	1.63E+10	0.000254	1.38E+06
614.400	-1.16E-09	0.133929	-0.009752	-3.81E-11	0.001906	1.63E+10	0.000334	1.38E+06
619.200	-1.25E-09	0.090968	-0.008088	-5.02E-12	0.001295	1.63E+10	0.000359	1.38E+06
624.000	-1.21E-09	0.056287	-0.006390	1.67E-11	0.000801	1.63E+10	0.000348	1.38E+06
628.800	-1.09E-09	0.029621	-0.004803	2.93E-11	0.000422	1.63E+10	0.000313	1.38E+06
633.600	-9.29E-10	0.010177	-0.003410	3.52E-11	0.000145	1.63E+10	0.000267	1.38E+06
638.400	-7.53E-10	-0.003115	-0.002250	3.62E-11	4.43E-05	1.63E+10	0.000216	1.38E+06
643.200	-5.82E-10	-0.011420	-0.001329	3.41E-11	0.000163	1.63E+10	0.000167	1.38E+06
648.000	-4.26E-10	-0.015875	-0.000634	3.01E-11	0.000226	1.63E+10	0.000122	1.38E+06
652.800	-2.93E-10	-0.017508	-0.000138	2.51E-11	0.000249	1.63E+10	8.42E-05	1.38E+06
657.600	-1.85E-10	-0.017200	0.000192	2.00E-11	0.000245	1.63E+10	5.31E-05	1.38E+06
662.400	-1.01E-10	-0.015668	0.000389	1.52E-11	0.000223	1.63E+10	2.90E-05	1.38E+06
667.200	-3.91E-11	-0.013467	0.000485	1.09E-11	0.000192	1.63E+10	1.12E-05	1.38E+06
672.000	3.66E-12	-0.011008	0.000510	7.29E-12	0.000157	1.63E+10	-1.05E-06	1.38E+06
676.800	3.09E-11	-0.008573	0.000486	4.41E-12	0.000122	1.63E+10	-8.87E-06	1.38E+06
681.600	4.60E-11	-0.006342	0.000433	2.22E-12	9.03E-05	1.63E+10	-1.32E-05	1.38E+06
686.400	5.22E-11	-0.004415	0.000365	6.31E-13	6.28E-05	1.63E+10	-1.50E-05	1.38E+06

691.200	5.21E-11	-0.002834	0.000294	-4.36E-13	4.03E-05	1.63E+10	-1.50E-05	1.38E+06
696.000	4.80E-11	-0.001598	0.000225	-1.09E-12	2.27E-05	1.63E+10	-1.38E-05	1.38E+06
700.800	4.16E-11	-0.000679	0.000163	-1.42E-12	9.66E-06	1.63E+10	-1.20E-05	1.38E+06
705.600	3.43E-11	-3.50E-05	0.000110	-1.53E-12	4.98E-07	1.63E+10	-9.85E-06	1.38E+06
710.400	2.69E-11	0.000382	6.82E-05	-1.48E-12	5.43E-06	1.63E+10	-7.74E-06	1.38E+06
715.200	2.01E-11	0.000620	3.58E-05	-1.33E-12	8.82E-06	1.63E+10	-5.78E-06	1.38E+06
720.000	1.42E-11	0.000725	1.21E-05	-1.13E-12	1.03E-05	1.63E+10	-4.07E-06	1.38E+06
724.800	9.24E-12	0.000736	-4.00E-06	-9.17E-13	1.05E-05	1.63E+10	-2.65E-06	1.38E+06
729.600	5.36E-12	0.000686	-1.41E-05	-7.08E-13	9.77E-06	1.63E+10	-1.54E-06	1.38E+06
734.400	2.45E-12	0.000601	-1.95E-05	-5.18E-13	8.56E-06	1.63E+10	-7.03E-07	1.38E+06
739.200	3.84E-13	0.000500	-2.14E-05	-3.56E-13	7.11E-06	1.63E+10	-1.10E-07	1.38E+06
744.000	-9.72E-13	0.000396	-2.10E-05	-2.24E-13	5.63E-06	1.63E+10	2.79E-07	1.38E+06
748.800	-1.77E-12	0.000298	-1.91E-05	-1.22E-13	4.24E-06	1.63E+10	5.08E-07	1.38E+06
753.600	-2.14E-12	0.000212	-1.64E-05	-4.69E-14	3.02E-06	1.63E+10	6.16E-07	1.38E+06
758.400	-2.22E-12	0.000141	-1.34E-05	5.11E-15	2.00E-06	1.63E+10	6.37E-07	1.38E+06
763.200	-2.09E-12	8.36E-05	-1.04E-05	3.81E-14	1.19E-06	1.63E+10	6.02E-07	1.38E+06
768.000	-1.85E-12	4.05E-05	-7.71E-06	5.64E-14	5.76E-07	1.63E+10	5.32E-07	1.38E+06
772.800	-1.55E-12	9.61E-06	-5.36E-06	6.38E-14	1.37E-07	1.63E+10	4.46E-07	1.38E+06
777.600	-1.24E-12	-1.10E-05	-3.44E-06	6.36E-14	1.56E-07	1.63E+10	3.56E-07	1.38E+06
782.400	-9.42E-13	-2.34E-05	-1.93E-06	5.85E-14	3.33E-07	1.63E+10	2.71E-07	1.38E+06
787.200	-6.78E-13	-2.95E-05	-8.15E-07	5.07E-14	4.20E-07	1.63E+10	1.95E-07	1.38E+06
792.000	-4.56E-13	-3.12E-05	-3.30E-08	4.18E-14	4.44E-07	1.63E+10	1.31E-07	1.38E+06
796.800	-2.77E-13	-2.99E-05	4.72E-07	3.28E-14	4.25E-07	1.63E+10	7.96E-08	1.38E+06
801.600	-1.41E-13	-2.67E-05	7.60E-07	2.45E-14	3.80E-07	1.63E+10	4.05E-08	1.38E+06
806.400	-4.24E-14	-2.26E-05	8.87E-07	1.72E-14	3.21E-07	1.63E+10	1.22E-08	1.38E+06
811.200	2.43E-14	-1.82E-05	8.99E-07	1.12E-14	2.59E-07	1.63E+10	-6.98E-09	1.38E+06
816.000	6.53E-14	-1.39E-05	8.37E-07	6.48E-15	1.98E-07	1.63E+10	-1.87E-08	1.38E+06
820.800	8.65E-14	-1.01E-05	7.33E-07	2.94E-15	1.44E-07	1.63E+10	-2.49E-08	1.38E+06
825.600	9.35E-14	-6.89E-06	6.09E-07	4.38E-16	9.81E-08	1.63E+10	-2.69E-08	1.38E+06
830.400	9.07E-14	-4.28E-06	4.82E-07	-1.21E-15	6.09E-08	1.63E+10	-2.61E-08	1.38E+06
835.200	8.19E-14	-2.27E-06	3.63E-07	-2.17E-15	3.23E-08	1.63E+10	-2.35E-08	1.38E+06
840.000	6.99E-14	-7.99E-07	2.58E-07	-2.62E-15	1.14E-08	1.63E+10	-2.01E-08	1.38E+06
844.800	5.67E-14	2.08E-07	1.71E-07	-2.71E-15	2.96E-09	1.63E+10	-1.63E-08	1.38E+06
849.600	4.39E-14	8.39E-07	1.01E-07	-2.56E-15	1.19E-08	1.63E+10	-1.26E-08	1.38E+06
854.400	3.22E-14	1.18E-06	4.88E-08	-2.26E-15	1.68E-08	1.63E+10	-9.25E-09	1.38E+06
859.200	2.22E-14	1.31E-06	1.12E-08	-1.89E-15	1.86E-08	1.63E+10	-6.38E-09	1.38E+06
864.000	1.41E-14	1.29E-06	-1.38E-08	-1.51E-15	1.83E-08	1.63E+10	-4.04E-09	1.38E+06
868.800	7.72E-15	1.18E-06	-2.88E-08	-1.15E-15	1.67E-08	1.63E+10	-2.22E-09	1.38E+06
873.600	3.04E-15	1.01E-06	-3.62E-08	-8.25E-16	1.44E-08	1.63E+10	-8.74E-10	1.38E+06
878.400	-2.03E-16	8.28E-07	-3.81E-08	-5.54E-16	1.18E-08	1.63E+10	5.82E-11	1.38E+06
883.200	-2.28E-15	6.46E-07	-3.64E-08	-3.37E-16	9.19E-09	1.63E+10	6.54E-10	1.38E+06
888.000	-3.44E-15	4.78E-07	-3.25E-08	-1.71E-16	6.81E-09	1.63E+10	9.88E-10	1.38E+06
892.800	-3.92E-15	3.34E-07	-2.74E-08	-5.19E-17	4.75E-09	1.63E+10	1.13E-09	1.38E+06
897.600	-3.94E-15	2.15E-07	-2.20E-08	2.88E-17	3.06E-09	1.63E+10	1.13E-09	1.38E+06
902.400	-3.65E-15	1.22E-07	-1.68E-08	7.85E-17	1.74E-09	1.63E+10	1.05E-09	1.38E+06
907.200	-3.18E-15	5.40E-08	-1.21E-08	1.04E-16	7.68E-10	1.63E+10	9.14E-10	1.38E+06
912.000	-2.64E-15	6.58E-09	-8.05E-09	1.13E-16	9.37E-11	1.63E+10	7.59E-10	1.38E+06
916.800	-2.09E-15	-2.33E-08	-4.78E-09	1.11E-16	3.32E-10	1.63E+10	6.01E-10	1.38E+06
921.600	-1.58E-15	-3.93E-08	-2.25E-09	1.02E-16	5.60E-10	1.63E+10	4.53E-10	1.38E+06
926.400	-1.12E-15	-4.49E-08	-3.96E-10	8.93E-17	6.40E-10	1.63E+10	3.21E-10	1.38E+06
931.200	-7.20E-16	-4.32E-08	8.70E-10	7.63E-17	6.14E-10	1.63E+10	2.07E-10	1.38E+06
936.000	-3.84E-16	-3.66E-08	1.63E-09	6.46E-17	5.21E-10	1.63E+10	1.10E-10	1.38E+06
940.800	-9.96E-17	-2.75E-08	1.96E-09	5.52E-17	3.91E-10	1.63E+10	2.86E-11	1.38E+06
945.600	1.46E-16	-1.77E-08	1.93E-09	4.85E-17	2.52E-10	1.63E+10	-4.19E-11	1.38E+06

950.400 3.66E-16 -8.94E-09 1.58E-09 4.46E-17 1.27E-10 1.63E+10 -1.05E-10 1.38E+06
 955.200 5.74E-16 -2.57E-09 9.32E-10 4.29E-17 3.66E-11 1.63E+10 -1.65E-10 1.38E+06
 960.000 7.78E-16 0.000 0.000 4.25E-17 0.000 1.63E+10 -2.23E-10 6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.09881549 in
 Computed slope at pile head = -0.00113585
 Maximum bending moment = 158144.39077 lbs-in
 Maximum shear force = 3000.00000 lbs
 Depth of maximum bending moment = 81.60000000 in
 Depth of maximum shear force = 9.60000000 in
 Number of iterations = 7
 Number of zero deflection points = 10

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 6000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.247069	7.85E-08	6000.000	-0.002677	1.12E-09	1.63E+10	0.000	0.000
4.800	0.234221	28800.	6000.000	-0.002672	409.906	1.63E+10	0.000	0.000
9.600	0.221414	57600.	6000.000	-0.002660	819.812	1.63E+10	0.000	0.000
14.400	0.208687	86400.	5985.985	-0.002639	1229.718	1.63E+10	-5.840	134.315
19.200	0.196084	1.15E+05	5926.646	-0.002609	1637.709	1.63E+10	-18.885	462.294
24.000	0.183642	1.43E+05	5802.608	-0.002571	2039.508	1.63E+10	-32.798	857.258
28.800	0.171403	1.71E+05	5612.338	-0.002525	2430.551	1.63E+10	-46.481	1301.672
33.600	0.159406	1.97E+05	5359.335	-0.002470	2806.351	1.63E+10	-58.936	1774.682
38.400	0.147687	2.22E+05	5051.646	-0.002409	3162.825	1.63E+10	-69.267	2251.265
43.200	0.136283	2.46E+05	4701.439	-0.002340	3496.585	1.63E+10	-76.652	2699.752
48.000	0.125226	2.67E+05	4324.834	-0.002264	3805.208	1.63E+10	-80.267	3076.686

52.800	0.114546	2.87E+05	3942.208	-0.002183	4087.510	1.63E+10	-79.161	3317.207
57.600	0.104273	3.05E+05	3541.349	-0.002095	4343.853	1.63E+10	-87.864	4044.629
62.400	0.094431	3.21E+05	3089.454	-0.002003	4571.383	1.63E+10	-100.426	5104.729
67.200	0.085043	3.35E+05	2580.853	-0.001907	4765.982	1.63E+10	-111.491	6292.800
72.000	0.076128	3.46E+05	2024.875	-0.001806	4924.019	1.63E+10	-120.166	7576.654
76.800	0.067703	3.54E+05	1434.678	-0.001703	5042.651	1.63E+10	-125.749	8915.385
81.600	0.059778	3.60E+05	826.009	-0.001598	5120.047	1.63E+10	-127.863	10267.
86.400	0.052362	3.62E+05	215.554	-0.001492	5155.513	1.63E+10	-126.493	11596.
91.200	0.045458	3.62E+05	-380.685	-0.001385	5149.499	1.63E+10	-121.940	12876.
96.000	0.039065	3.59E+05	-948.635	-0.001279	5103.498	1.63E+10	-114.706	14094.
100.800	0.033179	3.53E+05	-1476.863	-0.001174	5019.882	1.63E+10	-105.389	15247.
105.600	0.027792	3.44E+05	-1956.801	-0.001072	4901.706	1.63E+10	-94.585	16336.
110.400	0.022891	3.34E+05	-2382.620	-0.000972	4752.514	1.63E+10	-82.839	17370.
115.200	0.018463	3.22E+05	-2750.905	-0.000875	4576.156	1.63E+10	-70.613	18358.
120.000	0.014489	3.08E+05	-3060.256	-0.000783	4376.643	1.63E+10	-58.283	19309.
124.800	0.010949	2.92E+05	-3310.894	-0.000694	4158.017	1.63E+10	-46.149	20231.
129.600	0.007823	2.76E+05	-3504.309	-0.000611	3924.258	1.63E+10	-34.440	21132.
134.400	0.005086	2.59E+05	-3642.960	-0.000532	3679.204	1.63E+10	-23.331	22017.
139.200	0.002715	2.41E+05	-3730.032	-0.000459	3426.501	1.63E+10	-12.949	22892.
144.000	0.000684	2.23E+05	-3769.241	-0.000390	3169.550	1.63E+10	-3.388	23760.
148.800	-0.001032	2.05E+05	-3764.668	-0.000327	2911.489	1.63E+10	5.293	24623.
153.600	-0.002459	1.87E+05	-3720.637	-0.000270	2655.163	1.63E+10	13.054	25485.
158.400	-0.003622	1.69E+05	-3641.597	-0.000217	2403.118	1.63E+10	19.879	26345.
163.200	-0.004546	1.52E+05	-3532.043	-0.000170	2157.592	1.63E+10	25.769	27206.
168.000	-0.005257	1.35E+05	-3396.430	-0.000128	1920.517	1.63E+10	30.737	28066.
172.800	-0.005776	1.19E+05	-3239.113	-9.07E-05	1693.520	1.63E+10	34.812	28928.
177.600	-0.006128	1.04E+05	-3064.294	-5.79E-05	1477.939	1.63E+10	38.030	29790.
182.400	-0.006332	89570.	-2875.971	-2.94E-05	1274.829	1.63E+10	40.438	30654.
187.200	-0.006410	76231.	-2677.905	-5.01E-06	1084.980	1.63E+10	42.089	31518.
192.000	-0.006380	63862.	-2473.588	1.56E-05	908.933	1.63E+10	43.043	32382.
196.800	-0.006260	52484.	-2266.219	3.27E-05	747.000	1.63E+10	43.361	33247.
201.600	-0.006066	42106.	-2058.693	4.67E-05	599.287	1.63E+10	43.109	34112.
206.400	-0.005812	32721.	-1853.586	5.77E-05	465.710	1.63E+10	42.353	34978.
211.200	-0.005512	24311.	-1653.154	6.61E-05	346.022	1.63E+10	41.160	35844.
216.000	-0.005178	16851.	-1459.338	7.22E-05	239.831	1.63E+10	39.596	36709.
220.800	-0.004819	10302.	-1273.765	7.62E-05	146.625	1.63E+10	37.725	37574.
225.600	-0.004446	4622.367	-1097.764	7.83E-05	65.789	1.63E+10	35.609	38440.
230.400	-0.004067	-236.687	-932.374	7.90E-05	3.369	1.63E+10	33.304	39305.
235.200	-0.003688	-4328.421	-778.368	7.83E-05	61.606	1.63E+10	30.865	40170.
240.000	-0.003315	-7709.022	-636.271	7.66E-05	109.721	1.63E+10	28.342	41035.
244.800	-0.002953	-10437.	-506.379	7.39E-05	148.543	1.63E+10	25.780	41900.
249.600	-0.002606	-12570.	-388.785	7.05E-05	178.911	1.63E+10	23.218	42765.
254.400	-0.002277	-14169.	-283.400	6.66E-05	201.665	1.63E+10	20.693	43629.
259.200	-0.001967	-15291.	-189.975	6.22E-05	217.633	1.63E+10	18.234	44494.
264.000	-0.001679	-15993.	-108.127	5.76E-05	227.622	1.63E+10	15.869	45359.
268.800	-0.001414	-16329.	-37.361	5.28E-05	232.407	1.63E+10	13.617	46223.
273.600	-0.001172	-16351.	22.912	4.80E-05	232.727	1.63E+10	11.496	47087.
278.400	-0.000953	-16109.	73.350	4.33E-05	229.277	1.63E+10	9.519	47952.
283.200	-0.000757	-15647.	114.665	3.86E-05	222.705	1.63E+10	7.695	48816.
288.000	-0.000583	-15008.	147.604	3.41E-05	213.609	1.63E+10	6.029	49680.
292.800	-0.000430	-14230.	172.930	2.98E-05	202.537	1.63E+10	4.524	50544.
297.600	-0.000297	-13348.	191.416	2.57E-05	189.981	1.63E+10	3.179	51408.
302.400	-0.000183	-12393.	203.825	2.19E-05	176.382	1.63E+10	1.991	52272.
307.200	-8.64E-05	-11391.	210.901	1.84E-05	162.131	1.63E+10	0.956981	53136.

312.000	-6.13E-06	-10368.	213.363	1.52E-05	147.566	1.63E+10	0.069001	54000.
316.800	5.95E-05	-9343.046	211.896	1.23E-05	132.978	1.63E+10	-0.680375	54864.
321.600	0.000112	-8333.784	207.143	9.70E-06	118.613	1.63E+10	-1.300	55728.
326.400	0.000153	-7354.476	199.703	7.39E-06	104.675	1.63E+10	-1.800	56592.
331.200	0.000183	-6416.633	190.129	5.36E-06	91.327	1.63E+10	-2.190	57456.
336.000	0.000204	-5529.238	178.921	3.60E-06	78.697	1.63E+10	-2.480	58320.
340.800	0.000218	-4698.987	166.532	2.10E-06	66.880	1.63E+10	-2.682	59184.
345.600	0.000224	-3930.528	153.362	8.27E-07	55.943	1.63E+10	-2.806	60048.
350.400	0.000225	-3226.710	139.762	-2.27E-07	45.925	1.63E+10	-2.861	60912.
355.200	0.000222	-2588.809	126.036	-1.08E-06	36.846	1.63E+10	-2.858	61776.
360.000	0.000215	-2016.762	112.441	-1.76E-06	28.704	1.63E+10	-2.806	62640.
364.800	0.000205	-1509.376	99.191	-2.28E-06	21.483	1.63E+10	-2.714	63504.
369.600	0.000193	-1064.530	86.460	-2.66E-06	15.151	1.63E+10	-2.590	64368.
374.400	0.000180	-679.363	74.384	-2.92E-06	9.669	1.63E+10	-2.441	65232.
379.200	0.000165	-350.445	63.067	-3.07E-06	4.988	1.63E+10	-2.274	66096.
384.000	0.000150	-73.924	52.580	-3.13E-06	1.052	1.63E+10	-2.095	66960.
388.800	0.000135	154.325	42.970	-3.12E-06	2.196	1.63E+10	-1.909	67824.
393.600	0.000120	338.591	34.259	-3.05E-06	4.819	1.63E+10	-1.721	68688.
398.400	0.000106	483.212	26.448	-2.93E-06	6.877	1.63E+10	-1.534	69552.
403.200	9.22E-05	592.492	19.522	-2.77E-06	8.433	1.63E+10	-1.352	70416.
408.000	7.93E-05	670.621	13.451	-2.58E-06	9.545	1.63E+10	-1.178	71280.
412.800	6.74E-05	721.619	8.194	-2.38E-06	10.271	1.63E+10	-1.013	72144.
417.600	5.65E-05	749.282	3.701	-2.16E-06	10.664	1.63E+10	-0.859217	73008.
422.400	4.67E-05	757.149	-0.084325	-1.94E-06	10.776	1.63E+10	-0.718025	73872.
427.200	3.79E-05	748.473	-3.223	-1.72E-06	10.653	1.63E+10	-0.589956	74736.
432.000	3.02E-05	726.204	-5.780	-1.50E-06	10.336	1.63E+10	-0.475395	75600.
436.800	2.35E-05	692.982	-7.820	-1.29E-06	9.863	1.63E+10	-0.374413	76464.
441.600	1.78E-05	651.133	-9.407	-1.09E-06	9.267	1.63E+10	-0.286808	77328.
446.400	1.30E-05	602.677	-10.604	-9.07E-07	8.578	1.63E+10	-0.212143	78192.
451.200	9.09E-06	549.332	-11.473	-7.37E-07	7.819	1.63E+10	-0.149789	79056.
456.000	5.94E-06	492.537	-12.070	-5.84E-07	7.010	1.63E+10	-0.098950	79920.
460.800	3.49E-06	433.461	-12.448	-4.48E-07	6.169	1.63E+10	-0.058694	80784.
465.600	1.64E-06	373.034	-12.656	-3.29E-07	5.309	1.63E+10	-0.027976	81648.
470.400	3.29E-07	311.961	-12.737	-2.28E-07	4.440	1.63E+10	-0.005660	82512.
475.200	-5.45E-07	250.759	-12.728	-1.45E-07	3.569	1.63E+10	0.009470	83376.
480.000	-1.07E-06	189.774	-11.971	-8.04E-08	2.701	1.63E+10	0.306025	1.38E+06
484.800	-1.32E-06	135.841	-10.328	-3.24E-08	1.933	1.63E+10	0.378348	1.38E+06
489.600	-1.38E-06	90.624	-8.471	9.02E-10	1.290	1.63E+10	0.395506	1.38E+06
494.400	-1.31E-06	54.520	-6.620	2.23E-08	0.775977	1.63E+10	0.375861	1.38E+06
499.200	-1.16E-06	27.076	-4.916	3.43E-08	0.385369	1.63E+10	0.334075	1.38E+06
504.000	-9.79E-07	7.329	-3.439	3.94E-08	0.104312	1.63E+10	0.281294	1.38E+06
508.800	-7.85E-07	-5.937	-2.222	3.96E-08	0.084502	1.63E+10	0.225536	1.38E+06
513.600	-5.99E-07	-14.007	-1.268	3.66E-08	0.199357	1.63E+10	0.172189	1.38E+06
518.400	-4.33E-07	-18.109	-0.555807	3.19E-08	0.257747	1.63E+10	0.124531	1.38E+06
523.200	-2.93E-07	-19.343	-0.054789	2.64E-08	0.275300	1.63E+10	0.084227	1.38E+06
528.000	-1.80E-07	-18.635	0.271621	2.08E-08	0.265233	1.63E+10	0.051778	1.38E+06
532.800	-9.36E-08	-16.735	0.460438	1.56E-08	0.238187	1.63E+10	0.026896	1.38E+06
537.600	-3.07E-08	-14.215	0.546135	1.10E-08	0.202321	1.63E+10	0.008811	1.38E+06
542.400	1.22E-08	-11.492	0.558879	7.24E-09	0.163566	1.63E+10	-0.003501	1.38E+06
547.200	3.88E-08	-8.850	0.523723	4.24E-09	0.125958	1.63E+10	-0.011147	1.38E+06
552.000	5.29E-08	-6.464	0.460494	1.99E-09	0.092006	1.63E+10	-0.015198	1.38E+06
556.800	5.79E-08	-4.429	0.384119	3.82E-10	0.063039	1.63E+10	-0.016625	1.38E+06
561.600	5.66E-08	-2.777	0.305215	-6.79E-10	0.039522	1.63E+10	-0.016252	1.38E+06
566.400	5.13E-08	-1.499	0.230804	-1.31E-09	0.021335	1.63E+10	-0.014752	1.38E+06

571.200	4.40E-08	-0.561106	0.165055	-1.61E-09	0.007986	1.63E+10	-0.012643	1.38E+06
576.000	3.59E-08	0.085507	0.109975	-1.68E-09	0.001217	1.63E+10	-0.010307	1.38E+06
580.800	2.79E-08	0.494654	0.066028	-1.60E-09	0.007040	1.63E+10	-0.008005	1.38E+06
585.600	2.05E-08	0.719372	0.032648	-1.42E-09	0.010239	1.63E+10	-0.005904	1.38E+06
590.400	1.43E-08	0.808070	0.008651	-1.19E-09	0.011501	1.63E+10	-0.004095	1.38E+06
595.200	9.10E-09	0.802426	-0.007449	-9.56E-10	0.011421	1.63E+10	-0.002614	1.38E+06
600.000	5.08E-09	0.736556	-0.017225	-7.29E-10	0.010483	1.63E+10	-0.001459	1.38E+06
604.800	2.10E-09	0.637069	-0.022174	-5.27E-10	0.009067	1.63E+10	-0.000603	1.38E+06
609.600	2.15E-11	0.523684	-0.023637	-3.56E-10	0.007454	1.63E+10	-6.18E-06	1.38E+06
614.400	-1.32E-09	0.410156	-0.022744	-2.18E-10	0.005838	1.63E+10	0.000378	1.38E+06
619.200	-2.07E-09	0.305342	-0.020406	-1.13E-10	0.004346	1.63E+10	0.000596	1.38E+06
624.000	-2.40E-09	0.214262	-0.017319	-3.65E-11	0.003050	1.63E+10	0.000690	1.38E+06
628.800	-2.43E-09	0.139077	-0.013991	1.55E-11	0.001979	1.63E+10	0.000697	1.38E+06
633.600	-2.25E-09	0.079944	-0.010766	4.78E-11	0.001138	1.63E+10	0.000647	1.38E+06
638.400	-1.97E-09	0.035721	-0.007857	6.48E-11	0.000508	1.63E+10	0.000565	1.38E+06
643.200	-1.63E-09	0.004514	-0.005377	7.07E-11	6.42E-05	1.63E+10	0.000468	1.38E+06
648.000	-1.29E-09	-0.015903	-0.003366	6.91E-11	0.000226	1.63E+10	0.000370	1.38E+06
652.800	-9.67E-10	-0.027798	-0.001811	6.26E-11	0.000396	1.63E+10	0.000278	1.38E+06
657.600	-6.86E-10	-0.033290	-0.000671	5.36E-11	0.000474	1.63E+10	0.000197	1.38E+06
662.400	-4.52E-10	-0.034239	0.000114	4.37E-11	0.000487	1.63E+10	0.000130	1.38E+06
667.200	-2.67E-10	-0.032194	0.000610	3.39E-11	0.000458	1.63E+10	7.67E-05	1.38E+06
672.000	-1.27E-10	-0.028382	0.000882	2.50E-11	0.000404	1.63E+10	3.65E-05	1.38E+06
676.800	-2.71E-11	-0.023729	0.000988	1.73E-11	0.000338	1.63E+10	7.79E-06	1.38E+06
681.600	3.92E-11	-0.018897	0.000980	1.10E-11	0.000269	1.63E+10	-1.13E-05	1.38E+06
686.400	7.88E-11	-0.014324	0.000898	6.14E-12	0.000204	1.63E+10	-2.26E-05	1.38E+06
691.200	9.81E-11	-0.010272	0.000776	2.52E-12	0.000146	1.63E+10	-2.82E-05	1.38E+06
696.000	1.03E-10	-0.006870	0.000638	-5.05E-15	9.78E-05	1.63E+10	-2.96E-05	1.38E+06
700.800	9.81E-11	-0.004150	0.000499	-1.63E-12	5.91E-05	1.63E+10	-2.82E-05	1.38E+06
705.600	8.73E-11	-0.002079	0.000371	-2.54E-12	2.96E-05	1.63E+10	-2.51E-05	1.38E+06
710.400	7.37E-11	-0.000586	0.000260	-2.94E-12	8.34E-06	1.63E+10	-2.12E-05	1.38E+06
715.200	5.91E-11	0.000420	0.000169	-2.96E-12	5.97E-06	1.63E+10	-1.70E-05	1.38E+06
720.000	4.52E-11	0.001034	9.67E-05	-2.75E-12	1.47E-05	1.63E+10	-1.30E-05	1.38E+06
724.800	3.28E-11	0.001348	4.30E-05	-2.40E-12	1.92E-05	1.63E+10	-9.41E-06	1.38E+06
729.600	2.22E-11	0.001446	5.04E-06	-1.99E-12	2.06E-05	1.63E+10	-6.38E-06	1.38E+06
734.400	1.37E-11	0.001397	-1.97E-05	-1.57E-12	1.99E-05	1.63E+10	-3.94E-06	1.38E+06
739.200	7.17E-12	0.001257	-3.41E-05	-1.18E-12	1.79E-05	1.63E+10	-2.06E-06	1.38E+06
744.000	2.41E-12	0.001069	-4.07E-05	-8.34E-13	1.52E-05	1.63E+10	-6.94E-07	1.38E+06
748.800	-8.32E-13	0.000866	-4.18E-05	-5.49E-13	1.23E-05	1.63E+10	2.39E-07	1.38E+06
753.600	-2.86E-12	0.000668	-3.93E-05	-3.23E-13	9.50E-06	1.63E+10	8.20E-07	1.38E+06
758.400	-3.93E-12	0.000488	-3.46E-05	-1.53E-13	6.95E-06	1.63E+10	1.13E-06	1.38E+06
763.200	-4.32E-12	0.000335	-2.89E-05	-3.16E-14	4.77E-06	1.63E+10	1.24E-06	1.38E+06
768.000	-4.24E-12	0.000211	-2.30E-05	4.88E-14	3.00E-06	1.63E+10	1.22E-06	1.38E+06
772.800	-3.85E-12	0.000115	-1.74E-05	9.68E-14	1.63E-06	1.63E+10	1.11E-06	1.38E+06
777.600	-3.31E-12	4.38E-05	-1.25E-05	1.20E-13	6.23E-07	1.63E+10	9.51E-07	1.38E+06
782.400	-2.70E-12	-5.19E-06	-8.34E-06	1.26E-13	7.39E-08	1.63E+10	7.76E-07	1.38E+06
787.200	-2.10E-12	-3.63E-05	-5.03E-06	1.20E-13	5.16E-07	1.63E+10	6.04E-07	1.38E+06
792.000	-1.55E-12	-5.34E-05	-2.51E-06	1.06E-13	7.61E-07	1.63E+10	4.46E-07	1.38E+06
796.800	-1.08E-12	-6.03E-05	-6.93E-07	8.97E-14	8.59E-07	1.63E+10	3.10E-07	1.38E+06
801.600	-6.91E-13	-6.01E-05	5.28E-07	7.20E-14	8.55E-07	1.63E+10	1.98E-07	1.38E+06
806.400	-3.88E-13	-5.53E-05	1.27E-06	5.50E-14	7.87E-07	1.63E+10	1.11E-07	1.38E+06
811.200	-1.63E-13	-4.79E-05	1.65E-06	3.98E-14	6.82E-07	1.63E+10	4.68E-08	1.38E+06
816.000	-5.50E-15	-3.94E-05	1.77E-06	2.70E-14	5.61E-07	1.63E+10	1.58E-09	1.38E+06
820.800	9.61E-14	-3.09E-05	1.70E-06	1.66E-14	4.40E-07	1.63E+10	-2.76E-08	1.38E+06
825.600	1.54E-13	-2.31E-05	1.53E-06	8.66E-15	3.28E-07	1.63E+10	-4.42E-08	1.38E+06

830.400	1.79E-13	-1.62E-05	1.30E-06	2.88E-15	2.31E-07	1.63E+10	-5.15E-08	1.38E+06
835.200	1.82E-13	-1.06E-05	1.05E-06	-1.06E-15	1.50E-07	1.63E+10	-5.22E-08	1.38E+06
840.000	1.69E-13	-6.10E-06	8.12E-07	-3.52E-15	8.68E-08	1.63E+10	-4.85E-08	1.38E+06
844.800	1.48E-13	-2.76E-06	5.94E-07	-4.82E-15	3.93E-08	1.63E+10	-4.25E-08	1.38E+06
849.600	1.23E-13	-3.97E-07	4.07E-07	-5.29E-15	5.65E-09	1.63E+10	-3.52E-08	1.38E+06
854.400	9.70E-14	1.15E-06	2.56E-07	-5.17E-15	1.64E-08	1.63E+10	-2.79E-08	1.38E+06
859.200	7.30E-14	2.06E-06	1.38E-07	-4.70E-15	2.93E-08	1.63E+10	-2.10E-08	1.38E+06
864.000	5.19E-14	2.48E-06	5.23E-08	-4.03E-15	3.53E-08	1.63E+10	-1.49E-08	1.38E+06
868.800	3.43E-14	2.56E-06	-7.15E-09	-3.29E-15	3.64E-08	1.63E+10	-9.86E-09	1.38E+06
873.600	2.03E-14	2.41E-06	-4.48E-08	-2.56E-15	3.43E-08	1.63E+10	-5.84E-09	1.38E+06
878.400	9.75E-15	2.13E-06	-6.56E-08	-1.89E-15	3.03E-08	1.63E+10	-2.80E-09	1.38E+06
883.200	2.18E-15	1.78E-06	-7.38E-08	-1.31E-15	2.54E-08	1.63E+10	-6.27E-10	1.38E+06
888.000	-2.87E-15	1.42E-06	-7.33E-08	-8.42E-16	2.02E-08	1.63E+10	8.23E-10	1.38E+06
892.800	-5.90E-15	1.08E-06	-6.73E-08	-4.74E-16	1.54E-08	1.63E+10	1.70E-09	1.38E+06
897.600	-7.41E-15	7.76E-07	-5.81E-08	-2.01E-16	1.10E-08	1.63E+10	2.13E-09	1.38E+06
902.400	-7.83E-15	5.22E-07	-4.76E-08	-9.55E-18	7.42E-09	1.63E+10	2.25E-09	1.38E+06
907.200	-7.50E-15	3.19E-07	-3.70E-08	1.14E-16	4.54E-09	1.63E+10	2.16E-09	1.38E+06
912.000	-6.73E-15	1.66E-07	-2.72E-08	1.86E-16	2.37E-09	1.63E+10	1.93E-09	1.38E+06
916.800	-5.72E-15	5.82E-08	-1.86E-08	2.19E-16	8.28E-10	1.63E+10	1.64E-09	1.38E+06
921.600	-4.63E-15	-1.21E-08	-1.15E-08	2.26E-16	1.73E-10	1.63E+10	1.33E-09	1.38E+06
926.400	-3.56E-15	-5.18E-08	-5.82E-09	2.16E-16	7.38E-10	1.63E+10	1.02E-09	1.38E+06
931.200	-2.55E-15	-6.80E-08	-1.60E-09	1.99E-16	9.68E-10	1.63E+10	7.34E-10	1.38E+06
936.000	-1.65E-15	-6.72E-08	1.30E-09	1.79E-16	9.57E-10	1.63E+10	4.74E-10	1.38E+06
940.800	-8.40E-16	-5.55E-08	3.01E-09	1.61E-16	7.91E-10	1.63E+10	2.41E-10	1.38E+06
945.600	-1.09E-16	-3.83E-08	3.67E-09	1.47E-16	5.45E-10	1.63E+10	3.12E-11	1.38E+06
950.400	5.68E-16	-2.03E-08	3.35E-09	1.38E-16	2.90E-10	1.63E+10	-1.63E-10	1.38E+06
955.200	1.22E-15	-6.14E-09	2.12E-09	1.34E-16	8.75E-11	1.63E+10	-3.50E-10	1.38E+06
960.000	1.86E-15	0.000	0.000	1.33E-16	0.000	1.63E+10	-5.33E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection	=	0.24706942 in
Computed slope at pile head	=	-0.00267672
Maximum bending moment	=	362226.35686 lbs-in
Maximum shear force	=	6000.00000 lbs
Depth of maximum bending moment	=	86.40000000 in
Depth of maximum shear force	=	9.60000000 in
Number of iterations	=	12
Number of zero deflection points	=	10

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 3

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 9000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.474061	-1.96E-07	9000.000	-0.004795	2.79E-09	1.63E+10	0.000	0.000
4.800	0.451044	43200.	9000.000	-0.004789	614.859	1.63E+10	0.000	0.000
9.600	0.428088	86400.	9000.000	-0.004770	1229.718	1.63E+10	0.000	0.000
14.400	0.405254	1.30E+05	8985.939	-0.004738	1844.577	1.63E+10	-5.859	69.392
19.200	0.382603	1.73E+05	8926.209	-0.004694	2457.515	1.63E+10	-19.029	238.734
24.000	0.360196	2.15E+05	8800.734	-0.004636	3064.213	1.63E+10	-33.252	443.115
28.800	0.338094	2.57E+05	8607.021	-0.004567	3660.007	1.63E+10	-47.462	673.832
33.600	0.316355	2.98E+05	8347.675	-0.004485	4240.236	1.63E+10	-60.599	919.451
38.400	0.295037	3.37E+05	8030.390	-0.004392	4800.594	1.63E+10	-71.604	1164.928
43.200	0.274196	3.75E+05	7667.923	-0.004287	5337.472	1.63E+10	-79.424	1390.384
48.000	0.253885	4.11E+05	7278.086	-0.004171	5848.304	1.63E+10	-83.008	1569.358
52.800	0.234155	4.45E+05	6883.773	-0.004045	6331.915	1.63E+10	-81.290	1666.376
57.600	0.215054	4.77E+05	6469.215	-0.003909	6788.870	1.63E+10	-91.443	2041.006
62.400	0.196627	5.07E+05	5990.850	-0.003764	7215.839	1.63E+10	-107.876	2633.440
67.200	0.178916	5.34E+05	5431.183	-0.003611	7607.432	1.63E+10	-125.319	3362.070
72.000	0.161962	5.59E+05	4786.351	-0.003450	7957.930	1.63E+10	-143.361	4248.742
76.800	0.145797	5.80E+05	4055.195	-0.003282	8261.417	1.63E+10	-161.287	5309.971
81.600	0.130453	5.98E+05	3240.846	-0.003109	8512.014	1.63E+10	-178.025	6550.396
86.400	0.115955	6.12E+05	2352.289	-0.002930	8704.231	1.63E+10	-192.207	7956.477
91.200	0.102321	6.21E+05	1405.300	-0.002749	8833.419	1.63E+10	-202.372	9493.538
96.000	0.089564	6.25E+05	422.125	-0.002566	8896.245	1.63E+10	-207.284	11109.
100.800	0.077691	6.25E+05	-570.313	-0.002382	8891.097	1.63E+10	-206.232	12742.
105.600	0.066701	6.20E+05	-1543.331	-0.002198	8818.320	1.63E+10	-199.193	14335.
110.400	0.056587	6.10E+05	-2469.690	-0.002017	8680.223	1.63E+10	-186.790	15845.
115.200	0.047334	5.96E+05	-3326.199	-0.001840	8480.873	1.63E+10	-170.089	17248.
120.000	0.038924	5.78E+05	-4095.214	-0.001667	8225.747	1.63E+10	-150.334	18539.
124.800	0.031331	5.57E+05	-4764.994	-0.001500	7921.322	1.63E+10	-128.741	19723.
129.600	0.024525	5.32E+05	-5329.239	-0.001340	7574.680	1.63E+10	-106.361	20817.
134.400	0.018471	5.05E+05	-5786.175	-0.001187	7193.160	1.63E+10	-84.029	21836.
139.200	0.013132	4.77E+05	-6137.541	-0.001042	6784.084	1.63E+10	-62.373	22799.
144.000	0.008466	4.46E+05	-6387.647	-0.000906	6354.554	1.63E+10	-41.838	23721.
148.800	0.004431	4.15E+05	-6542.595	-0.000779	5911.305	1.63E+10	-22.724	24613.
153.600	0.000984	3.84E+05	-6609.671	-0.000662	5460.605	1.63E+10	-5.225	25487.
158.400	-0.001921	3.52E+05	-6596.898	-0.000553	5008.191	1.63E+10	10.547	26350.
163.200	-0.004329	3.20E+05	-6512.697	-0.000454	4559.235	1.63E+10	24.537	27207.
168.000	-0.006284	2.89E+05	-6365.642	-0.000365	4118.326	1.63E+10	36.736	28061.
172.800	-0.007830	2.59E+05	-6164.276	-0.000284	3689.463	1.63E+10	47.167	28915.
177.600	-0.009009	2.30E+05	-5916.971	-0.000212	3276.068	1.63E+10	55.877	29770.
182.400	-0.009864	2.02E+05	-5631.817	-0.000148	2880.996	1.63E+10	62.937	30627.
187.200	-0.010432	1.76E+05	-5316.538	-9.24E-05	2506.563	1.63E+10	68.430	31487.

192.000	-0.010751	1.51E+05	-4978.418	-4.42E-05	2154.569	1.63E+10	72.453	32349.
196.800	-0.010856	1.28E+05	-4624.253	-3.00E-06	1826.335	1.63E+10	75.116	33213.
201.600	-0.010779	1.07E+05	-4260.299	3.17E-05	1522.733	1.63E+10	76.532	34079.
206.400	-0.010552	87419.	-3892.250	6.03E-05	1244.227	1.63E+10	76.822	34946.
211.200	-0.010201	69622.	-3525.213	8.34E-05	990.914	1.63E+10	76.110	35814.
216.000	-0.009751	53577.	-3163.704	0.000102	762.558	1.63E+10	74.518	36681.
220.800	-0.009226	39250.	-2811.650	0.000115	558.640	1.63E+10	72.171	37548.
225.600	-0.008645	26586.	-2472.381	0.000125	378.388	1.63E+10	69.191	38416.
230.400	-0.008027	15515.	-2148.659	0.000131	220.825	1.63E+10	65.693	39284.
235.200	-0.007387	5958.398	-1842.701	0.000134	84.805	1.63E+10	61.789	40152.
240.000	-0.006738	-2174.760	-1556.214	0.000135	30.953	1.63E+10	57.581	41019.
244.800	-0.006092	-8981.258	-1290.426	0.000133	127.829	1.63E+10	53.165	41887.
249.600	-0.005459	-14563.	-1046.124	0.000130	207.271	1.63E+10	48.628	42754.
254.400	-0.004847	-19024.	-823.700	0.000125	270.766	1.63E+10	44.049	43621.
259.200	-0.004262	-22470.	-623.187	0.000119	319.817	1.63E+10	39.498	44487.
264.000	-0.003708	-25007.	-444.305	0.000112	355.916	1.63E+10	35.036	45353.
268.800	-0.003190	-26736.	-286.507	0.000104	380.525	1.63E+10	30.714	46219.
273.600	-0.002709	-27757.	-149.015	9.60E-05	395.063	1.63E+10	26.575	47084.
278.400	-0.002268	-28166.	-30.862	8.78E-05	400.886	1.63E+10	22.655	47949.
283.200	-0.001866	-28053.	69.064	7.95E-05	399.280	1.63E+10	18.981	48814.
288.000	-0.001505	-27503.	151.991	7.13E-05	391.449	1.63E+10	15.572	49679.
292.800	-0.001182	-26594.	219.227	6.34E-05	378.512	1.63E+10	12.443	50543.
297.600	-0.000896	-25399.	272.128	5.57E-05	361.495	1.63E+10	9.599	51408.
302.400	-0.000647	-23982.	312.073	4.84E-05	341.330	1.63E+10	7.044	52272.
307.200	-0.000431	-22403.	340.439	4.16E-05	318.855	1.63E+10	4.775	53136.
312.000	-0.000247	-20714.	358.579	3.53E-05	294.814	1.63E+10	2.784	54000.
316.800	-9.28E-05	-18960.	367.806	2.94E-05	269.860	1.63E+10	1.061	54864.
321.600	3.50E-05	-17183.	369.379	2.41E-05	244.559	1.63E+10	-0.405899	55728.
326.400	0.000138	-15414.	364.486	1.93E-05	219.390	1.63E+10	-1.633	56592.
331.200	0.000220	-13684.	354.243	1.50E-05	194.757	1.63E+10	-2.636	57456.
336.000	0.000283	-12014.	339.677	1.12E-05	170.988	1.63E+10	-3.433	58320.
340.800	0.000328	-10423.	321.733	7.92E-06	148.345	1.63E+10	-4.044	59184.
345.600	0.000359	-8924.991	301.260	5.07E-06	127.028	1.63E+10	-4.486	60048.
350.400	0.000377	-7530.623	279.021	2.65E-06	107.182	1.63E+10	-4.780	60912.
355.200	0.000384	-6246.385	255.687	6.22E-07	88.904	1.63E+10	-4.943	61776.
360.000	0.000383	-5076.032	231.839	-1.05E-06	72.246	1.63E+10	-4.993	62640.
364.800	0.000374	-4020.728	207.979	-2.38E-06	57.226	1.63E+10	-4.948	63504.
369.600	0.000360	-3079.436	184.524	-3.43E-06	43.829	1.63E+10	-4.824	64368.
374.400	0.000341	-2249.293	161.821	-4.21E-06	32.014	1.63E+10	-4.636	65232.
379.200	0.000319	-1525.954	140.144	-4.77E-06	21.719	1.63E+10	-4.397	66096.
384.000	0.000295	-903.911	119.706	-5.13E-06	12.865	1.63E+10	-4.119	66960.
388.800	0.000270	-376.780	100.661	-5.32E-06	5.363	1.63E+10	-3.816	67824.
393.600	0.000244	62.434	83.114	-5.36E-06	0.888612	1.63E+10	-3.495	68688.
398.400	0.000219	421.115	67.125	-5.29E-06	5.994	1.63E+10	-3.167	69552.
403.200	0.000193	706.830	52.713	-5.13E-06	10.060	1.63E+10	-2.838	70416.
408.000	0.000169	927.158	39.866	-4.89E-06	13.196	1.63E+10	-2.515	71280.
412.800	0.000147	1089.543	28.544	-4.59E-06	15.507	1.63E+10	-2.203	72144.
417.600	0.000125	1201.178	18.683	-4.25E-06	17.096	1.63E+10	-1.906	73008.
422.400	0.000106	1268.903	10.204	-3.89E-06	18.060	1.63E+10	-1.627	73872.
427.200	8.80E-05	1299.134	3.010	-3.51E-06	18.490	1.63E+10	-1.370	74736.
432.000	7.21E-05	1297.803	-3.001	-3.13E-06	18.471	1.63E+10	-1.135	75600.
436.800	5.80E-05	1270.326	-7.940	-2.75E-06	18.080	1.63E+10	-0.923307	76464.
441.600	4.57E-05	1221.575	-11.922	-2.38E-06	17.386	1.63E+10	-0.735641	77328.
446.400	3.51E-05	1155.876	-15.059	-2.03E-06	16.451	1.63E+10	-0.571677	78192.

451.200	2.62E-05	1077.005	-17.465	-1.70E-06	15.329	1.63E+10	-0.430819	79056.
456.000	1.87E-05	988.208	-19.248	-1.40E-06	14.065	1.63E+10	-0.312092	79920.
460.800	1.27E-05	892.220	-20.512	-1.12E-06	12.699	1.63E+10	-0.214207	80784.
465.600	7.97E-06	791.297	-21.351	-8.74E-07	11.262	1.63E+10	-0.135608	81648.
470.400	4.34E-06	687.250	-21.855	-6.56E-07	9.782	1.63E+10	-0.074526	82512.
475.200	1.67E-06	581.486	-22.104	-4.70E-07	8.276	1.63E+10	-0.029008	83376.
480.000	-1.73E-07	475.053	-22.054	-3.14E-07	6.761	1.63E+10	0.049808	1.38E+06
484.800	-1.35E-06	369.768	-21.007	-1.90E-07	5.263	1.63E+10	0.386475	1.38E+06
489.600	-1.99E-06	273.387	-18.704	-9.50E-08	3.891	1.63E+10	0.572979	1.38E+06
494.400	-2.26E-06	190.208	-15.773	-2.67E-08	2.707	1.63E+10	0.648460	1.38E+06
499.200	-2.25E-06	121.969	-12.664	1.92E-08	1.736	1.63E+10	0.646697	1.38E+06
504.000	-2.07E-06	68.630	-9.683	4.73E-08	0.976802	1.63E+10	0.595402	1.38E+06
508.800	-1.80E-06	29.009	-7.015	6.17E-08	0.412884	1.63E+10	0.516236	1.38E+06
513.600	-1.48E-06	1.282	-4.756	6.61E-08	0.018254	1.63E+10	0.425289	1.38E+06
518.400	-1.16E-06	-16.646	-2.934	6.39E-08	0.236914	1.63E+10	0.333822	1.38E+06
523.200	-8.67E-07	-26.882	-1.535	5.75E-08	0.382614	1.63E+10	0.249114	1.38E+06
528.000	-6.10E-07	-31.380	-0.516152	4.89E-08	0.446623	1.63E+10	0.175323	1.38E+06
532.800	-3.98E-07	-31.838	0.178887	3.96E-08	0.453139	1.63E+10	0.114276	1.38E+06
537.600	-2.30E-07	-29.662	0.611929	3.05E-08	0.422180	1.63E+10	0.066158	1.38E+06
542.400	-1.05E-07	-25.963	0.842916	2.23E-08	0.369527	1.63E+10	0.030086	1.38E+06
547.200	-1.59E-08	-21.570	0.926062	1.53E-08	0.307008	1.63E+10	0.004558	1.38E+06
552.000	4.25E-08	-17.073	0.907695	9.65E-09	0.242995	1.63E+10	-0.012211	1.38E+06
556.800	7.67E-08	-12.857	0.825479	5.24E-09	0.182985	1.63E+10	-0.022046	1.38E+06
561.600	9.28E-08	-9.148	0.708585	2.00E-09	0.130205	1.63E+10	-0.026660	1.38E+06
566.400	9.59E-08	-6.054	0.578459	-2.39E-10	0.086167	1.63E+10	-0.027559	1.38E+06
571.200	9.05E-08	-3.595	0.449918	-1.66E-09	0.051167	1.63E+10	-0.026000	1.38E+06
576.000	8.00E-08	-1.735	0.332366	-2.45E-09	0.024693	1.63E+10	-0.022980	1.38E+06
580.800	6.70E-08	-0.404277	0.230999	-2.76E-09	0.005754	1.63E+10	-0.019256	1.38E+06
585.600	5.35E-08	0.482689	0.147902	-2.75E-09	0.006870	1.63E+10	-0.015368	1.38E+06
590.400	4.06E-08	1.016	0.082997	-2.53E-09	0.014455	1.63E+10	-0.011676	1.38E+06
595.200	2.92E-08	1.279	0.034825	-2.19E-09	0.018210	1.63E+10	-0.008396	1.38E+06
600.000	1.96E-08	1.350	0.001148	-1.80E-09	0.019213	1.63E+10	-0.005636	1.38E+06
604.800	1.19E-08	1.290	-0.020595	-1.41E-09	0.018367	1.63E+10	-0.003424	1.38E+06
609.600	6.04E-09	1.152	-0.032979	-1.05E-09	0.016399	1.63E+10	-0.001736	1.38E+06
614.400	1.80E-09	0.973882	-0.038384	-7.41E-10	0.013861	1.63E+10	-0.000516	1.38E+06
619.200	-1.07E-09	0.783694	-0.038882	-4.83E-10	0.011154	1.63E+10	0.000308	1.38E+06
624.000	-2.84E-09	0.600614	-0.036186	-2.79E-10	0.008548	1.63E+10	0.000815	1.38E+06
628.800	-3.75E-09	0.436305	-0.031646	-1.26E-10	0.006210	1.63E+10	0.001077	1.38E+06
633.600	-4.05E-09	0.296809	-0.026272	-1.80E-11	0.004224	1.63E+10	0.001162	1.38E+06
638.400	-3.92E-09	0.184090	-0.020779	5.28E-11	0.002620	1.63E+10	0.001127	1.38E+06
643.200	-3.54E-09	0.097332	-0.015635	9.42E-11	0.001385	1.63E+10	0.001017	1.38E+06
648.000	-3.02E-09	0.033995	-0.011115	1.14E-10	0.000484	1.63E+10	0.000867	1.38E+06
652.800	-2.45E-09	-0.009368	-0.007346	1.17E-10	0.000133	1.63E+10	0.000703	1.38E+06
657.600	-1.89E-09	-0.036524	-0.004353	1.10E-10	0.000520	1.63E+10	0.000544	1.38E+06
662.400	-1.39E-09	-0.051153	-0.002090	9.75E-11	0.000728	1.63E+10	0.000399	1.38E+06
667.200	-9.56E-10	-0.056591	-0.000474	8.16E-11	0.000805	1.63E+10	0.000275	1.38E+06
672.000	-6.05E-10	-0.055699	0.000603	6.51E-11	0.000793	1.63E+10	0.000174	1.38E+06
676.800	-3.31E-10	-0.050805	0.001248	4.94E-11	0.000723	1.63E+10	9.52E-05	1.38E+06
681.600	-1.30E-10	-0.043717	0.001566	3.55E-11	0.000622	1.63E+10	3.74E-05	1.38E+06
686.400	9.53E-12	-0.035769	0.001649	2.38E-11	0.000509	1.63E+10	-2.74E-06	1.38E+06
691.200	9.85E-11	-0.027884	0.001575	1.44E-11	0.000397	1.63E+10	-2.83E-05	1.38E+06
696.000	1.48E-10	-0.020650	0.001405	7.29E-12	0.000294	1.63E+10	-4.26E-05	1.38E+06
700.800	1.69E-10	-0.014398	0.001186	2.13E-12	0.000205	1.63E+10	-4.84E-05	1.38E+06
705.600	1.69E-10	-0.009260	0.000954	-1.35E-12	0.000132	1.63E+10	-4.84E-05	1.38E+06

710.400	1.56E-10	-0.005239	0.000731	-3.49E-12	7.46E-05	1.63E+10	-4.47E-05	1.38E+06
715.200	1.35E-10	-0.002246	0.000530	-4.59E-12	3.20E-05	1.63E+10	-3.88E-05	1.38E+06
720.000	1.11E-10	-0.000148	0.000360	-4.94E-12	2.11E-06	1.63E+10	-3.20E-05	1.38E+06
724.800	8.76E-11	0.001213	0.000223	-4.79E-12	1.73E-05	1.63E+10	-2.52E-05	1.38E+06
729.600	6.55E-11	0.001994	0.000118	-4.31E-12	2.84E-05	1.63E+10	-1.88E-05	1.38E+06
734.400	4.62E-11	0.002341	4.06E-05	-3.68E-12	3.33E-05	1.63E+10	-1.33E-05	1.38E+06
739.200	3.02E-11	0.002383	-1.21E-05	-2.98E-12	3.39E-05	1.63E+10	-8.67E-06	1.38E+06
744.000	1.76E-11	0.002225	-4.50E-05	-2.30E-12	3.17E-05	1.63E+10	-5.04E-06	1.38E+06
748.800	8.08E-12	0.001951	-6.27E-05	-1.69E-12	2.78E-05	1.63E+10	-2.32E-06	1.38E+06
753.600	1.35E-12	0.001623	-6.92E-05	-1.16E-12	2.31E-05	1.63E+10	-3.89E-07	1.38E+06
758.400	-3.07E-12	0.001287	-6.80E-05	-7.33E-13	1.83E-05	1.63E+10	8.83E-07	1.38E+06
763.200	-5.68E-12	0.000971	-6.20E-05	-4.01E-13	1.38E-05	1.63E+10	1.63E-06	1.38E+06
768.000	-6.92E-12	0.000692	-5.33E-05	-1.56E-13	9.85E-06	1.63E+10	1.99E-06	1.38E+06
772.800	-7.18E-12	0.000459	-4.36E-05	1.37E-14	6.53E-06	1.63E+10	2.06E-06	1.38E+06
777.600	-6.79E-12	0.000274	-3.39E-05	1.22E-13	3.90E-06	1.63E+10	1.95E-06	1.38E+06
782.400	-6.01E-12	0.000133	-2.51E-05	1.82E-13	1.90E-06	1.63E+10	1.73E-06	1.38E+06
787.200	-5.04E-12	3.28E-05	-1.75E-05	2.06E-13	4.66E-07	1.63E+10	1.45E-06	1.38E+06
792.000	-4.03E-12	-3.45E-05	-1.12E-05	2.06E-13	4.91E-07	1.63E+10	1.16E-06	1.38E+06
796.800	-3.07E-12	-7.50E-05	-6.34E-06	1.90E-13	1.07E-06	1.63E+10	8.81E-07	1.38E+06
801.600	-2.21E-12	-9.53E-05	-2.70E-06	1.65E-13	1.36E-06	1.63E+10	6.35E-07	1.38E+06
806.400	-1.49E-12	-0.000101	-1.49E-07	1.36E-13	1.44E-06	1.63E+10	4.27E-07	1.38E+06
811.200	-9.07E-13	-9.67E-05	1.50E-06	1.07E-13	1.38E-06	1.63E+10	2.61E-07	1.38E+06
816.000	-4.63E-13	-8.65E-05	2.45E-06	7.96E-14	1.23E-06	1.63E+10	1.33E-07	1.38E+06
820.800	-1.42E-13	-7.33E-05	2.86E-06	5.61E-14	1.04E-06	1.63E+10	4.09E-08	1.38E+06
825.600	7.50E-14	-5.90E-05	2.91E-06	3.66E-14	8.40E-07	1.63E+10	-2.16E-08	1.38E+06
830.400	2.09E-13	-4.53E-05	2.71E-06	2.12E-14	6.45E-07	1.63E+10	-6.01E-08	1.38E+06
835.200	2.79E-13	-3.30E-05	2.38E-06	9.72E-15	4.69E-07	1.63E+10	-8.02E-08	1.38E+06
840.000	3.02E-13	-2.25E-05	1.98E-06	1.55E-15	3.20E-07	1.63E+10	-8.69E-08	1.38E+06
844.800	2.94E-13	-1.40E-05	1.57E-06	-3.82E-15	1.99E-07	1.63E+10	-8.44E-08	1.38E+06
849.600	2.66E-13	-7.45E-06	1.18E-06	-6.98E-15	1.06E-07	1.63E+10	-7.63E-08	1.38E+06
854.400	2.27E-13	-2.67E-06	8.41E-07	-8.47E-15	3.79E-08	1.63E+10	-6.52E-08	1.38E+06
859.200	1.84E-13	6.18E-07	5.57E-07	-8.77E-15	8.79E-09	1.63E+10	-5.30E-08	1.38E+06
864.000	1.43E-13	2.68E-06	3.31E-07	-8.28E-15	3.82E-08	1.63E+10	-4.10E-08	1.38E+06
868.800	1.05E-13	3.80E-06	1.61E-07	-7.33E-15	5.41E-08	1.63E+10	-3.01E-08	1.38E+06
873.600	7.24E-14	4.22E-06	3.83E-08	-6.15E-15	6.01E-08	1.63E+10	-2.08E-08	1.38E+06
878.400	4.59E-14	4.17E-06	-4.32E-08	-4.91E-15	5.93E-08	1.63E+10	-1.32E-08	1.38E+06
883.200	2.53E-14	3.81E-06	-9.23E-08	-3.74E-15	5.42E-08	1.63E+10	-7.25E-09	1.38E+06
888.000	1.00E-14	3.28E-06	-1.17E-07	-2.69E-15	4.67E-08	1.63E+10	-2.87E-09	1.38E+06
892.800	-6.11E-16	2.69E-06	-1.23E-07	-1.82E-15	3.83E-08	1.63E+10	1.75E-10	1.38E+06
897.600	-7.42E-15	2.10E-06	-1.18E-07	-1.11E-15	2.99E-08	1.63E+10	2.13E-09	1.38E+06
902.400	-1.13E-14	1.56E-06	-1.05E-07	-5.71E-16	2.22E-08	1.63E+10	3.24E-09	1.38E+06
907.200	-1.29E-14	1.10E-06	-8.80E-08	-1.80E-16	1.56E-08	1.63E+10	3.71E-09	1.38E+06
912.000	-1.30E-14	7.16E-07	-7.01E-08	8.66E-17	1.02E-08	1.63E+10	3.73E-09	1.38E+06
916.800	-1.21E-14	4.22E-07	-5.28E-08	2.54E-16	6.01E-09	1.63E+10	3.47E-09	1.38E+06
921.600	-1.06E-14	2.09E-07	-3.72E-08	3.47E-16	2.97E-09	1.63E+10	3.03E-09	1.38E+06
926.400	-8.74E-15	6.51E-08	-2.39E-08	3.87E-16	9.27E-10	1.63E+10	2.51E-09	1.38E+06
931.200	-6.84E-15	-2.07E-08	-1.32E-08	3.94E-16	2.94E-10	1.63E+10	1.96E-09	1.38E+06
936.000	-4.96E-15	-6.13E-08	-5.04E-09	3.82E-16	8.72E-10	1.63E+10	1.42E-09	1.38E+06
940.800	-3.17E-15	-6.90E-08	5.68E-10	3.63E-16	9.83E-10	1.63E+10	9.10E-10	1.38E+06
945.600	-1.48E-15	-5.58E-08	3.77E-09	3.44E-16	7.95E-10	1.63E+10	4.24E-10	1.38E+06
950.400	1.38E-16	-3.28E-08	4.69E-09	3.31E-16	4.67E-10	1.63E+10	-3.96E-11	1.38E+06
955.200	1.71E-15	-1.08E-08	3.42E-09	3.25E-16	1.53E-10	1.63E+10	-4.90E-10	1.38E+06
960.000	3.26E-15	0.000	0.000	3.23E-16	0.000	1.63E+10	-9.36E-10	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection = 0.47406136 in
 Computed slope at pile head = -0.00479526
 Maximum bending moment = 625050.16016 lbs-in
 Maximum shear force = 9000.00000 lbs
 Depth of maximum bending moment = 96.00000000 in
 Depth of maximum shear force = 0.00000 in
 Number of iterations = 16
 Number of zero deflection points = 10

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)

Specified shear force at pile head = 12000.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	0.775676	-7.07E-07	12000.	-0.007389	1.01E-08	1.63E+10	0.000	0.000
4.800	0.740210	57600.	12000.	-0.007380	819.812	1.63E+10	0.000	0.000
9.600	0.704826	1.15E+05	12000.	-0.007355	1639.624	1.63E+10	0.000	0.000
14.400	0.669605	1.73E+05	11986.	-0.007312	2459.436	1.63E+10	-5.859	41.997
19.200	0.634628	2.30E+05	11926.	-0.007253	3277.327	1.63E+10	-19.030	143.932
24.000	0.599976	2.87E+05	11801.	-0.007177	4088.978	1.63E+10	-33.255	266.053
28.800	0.565731	3.44E+05	11607.	-0.007084	4889.723	1.63E+10	-47.474	402.796
33.600	0.531971	3.99E+05	11348.	-0.006975	5674.901	1.63E+10	-60.624	547.011
38.400	0.498774	4.52E+05	11030.	-0.006849	6440.198	1.63E+10	-71.644	689.471
43.200	0.466218	5.05E+05	10667.	-0.006708	7182.002	1.63E+10	-79.473	818.224
48.000	0.434375	5.55E+05	10277.	-0.006552	7897.745	1.63E+10	-83.050	917.731
52.800	0.403316	6.03E+05	9882.892	-0.006382	8586.253	1.63E+10	-81.313	967.733
57.600	0.373109	6.50E+05	9468.139	-0.006197	9248.097	1.63E+10	-91.501	1177.145
62.400	0.343822	6.94E+05	8989.106	-0.005999	9879.936	1.63E+10	-108.096	1509.104
67.200	0.315515	7.36E+05	8427.242	-0.005789	10476.	1.63E+10	-126.013	1917.066

72.000	0.288249	7.75E+05	7776.251	-0.005566	11031.	1.63E+10	-145.233	2418.454
76.800	0.262079	8.11E+05	7030.024	-0.005333	11539.	1.63E+10	-165.695	3034.720
81.600	0.237055	8.43E+05	6182.987	-0.005089	11992.	1.63E+10	-187.237	3791.266
86.400	0.213221	8.70E+05	5230.849	-0.004837	12384.	1.63E+10	-209.487	4715.935
91.200	0.190618	8.93E+05	4171.949	-0.004578	12707.	1.63E+10	-231.721	5835.028
96.000	0.169277	9.10E+05	3009.279	-0.004312	12954.	1.63E+10	-252.725	7166.247
100.800	0.149222	9.22E+05	1752.931	-0.004042	13118.	1.63E+10	-270.754	8709.309
105.600	0.130470	9.27E+05	422.241	-0.003770	13193.	1.63E+10	-283.700	10437.
110.400	0.113028	9.26E+05	-953.438	-0.003497	13176.	1.63E+10	-289.500	12294.
115.200	0.096895	9.18E+05	-2336.278	-0.003226	13063.	1.63E+10	-286.684	14202.
120.000	0.082059	9.03E+05	-3683.909	-0.002958	12856.	1.63E+10	-274.829	16076.
124.800	0.068500	8.82E+05	-4954.727	-0.002695	12560.	1.63E+10	-254.678	17846.
129.600	0.056189	8.56E+05	-6112.865	-0.002439	12179.	1.63E+10	-227.880	19467.
134.400	0.045087	8.24E+05	-7131.453	-0.002192	11724.	1.63E+10	-196.532	20923.
139.200	0.035149	7.87E+05	-7993.671	-0.001954	11205.	1.63E+10	-162.725	22222.
144.000	0.026325	7.47E+05	-8692.012	-0.001728	10632.	1.63E+10	-128.251	23385.
148.800	0.018556	7.04E+05	-9226.570	-0.001515	10017.	1.63E+10	-94.482	24440.
153.600	0.011782	6.58E+05	-9603.050	-0.001314	9371.448	1.63E+10	-62.384	25415.
158.400	0.005939	6.12E+05	-9830.972	-0.001127	8705.161	1.63E+10	-32.583	26334.
163.200	0.000961	5.64E+05	-9922.241	-0.000954	8028.189	1.63E+10	-5.446	27216.
168.000	-0.003221	5.16E+05	-9890.103	-0.000795	7349.432	1.63E+10	18.837	28075.
172.800	-0.006672	4.69E+05	-9748.412	-0.000650	6676.852	1.63E+10	40.201	28923.
177.600	-0.009460	4.23E+05	-9511.137	-0.000519	6017.454	1.63E+10	58.663	29766.
182.400	-0.011650	3.78E+05	-9192.037	-0.000401	5377.294	1.63E+10	74.295	30610.
187.200	-0.013307	3.35E+05	-8804.438	-0.000296	4761.497	1.63E+10	87.205	31457.
192.000	-0.014490	2.93E+05	-8361.072	-0.000203	4174.297	1.63E+10	97.531	32308.
196.800	-0.015259	2.54E+05	-7873.972	-0.000123	3619.079	1.63E+10	105.427	33164.
201.600	-0.015669	2.18E+05	-7354.389	-5.32E-05	3098.434	1.63E+10	111.066	34025.
206.400	-0.015770	1.84E+05	-6812.726	5.85E-06	2614.209	1.63E+10	114.628	34889.
211.200	-0.015612	1.52E+05	-6258.493	5.53E-05	2167.574	1.63E+10	116.303	35757.
216.000	-0.015239	1.24E+05	-5700.297	9.59E-05	1759.078	1.63E+10	116.279	36625.
220.800	-0.014691	97571.	-5145.812	0.000129	1388.712	1.63E+10	114.757	37494.
225.600	-0.014005	74193.	-4601.743	0.000154	1055.978	1.63E+10	111.939	38364.
230.400	-0.013215	53394.	-4073.845	0.000173	759.951	1.63E+10	108.019	39236.
235.200	-0.012349	35084.	-3566.962	0.000186	499.347	1.63E+10	103.182	40108.
240.000	-0.011433	19151.	-3085.065	0.000194	272.578	1.63E+10	97.608	40980.
244.800	-0.010490	5467.485	-2631.288	0.000197	77.818	1.63E+10	91.465	41853.
249.600	-0.009539	-6109.016	-2207.987	0.000197	86.949	1.63E+10	84.910	42725.
254.400	-0.008597	-15729.	-1816.795	0.000194	223.871	1.63E+10	78.087	43596.
259.200	-0.007678	-23550.	-1458.683	0.000188	335.187	1.63E+10	71.126	44467.
264.000	-0.006791	-29733.	-1134.031	0.000180	423.179	1.63E+10	64.146	45337.
268.800	-0.005947	-34437.	-842.688	0.000171	490.136	1.63E+10	57.247	46206.
273.600	-0.005151	-37822.	-584.049	0.000160	538.320	1.63E+10	50.519	47074.
278.400	-0.004409	-40044.	-357.113	0.000149	569.937	1.63E+10	44.037	47942.
283.200	-0.003723	-41251.	-160.556	0.000137	587.114	1.63E+10	37.862	48808.
288.000	-0.003096	-41585.	7.211	0.000125	591.875	1.63E+10	32.042	49675.
292.800	-0.002528	-41181.	147.984	0.000112	586.129	1.63E+10	26.614	50540.
297.600	-0.002017	-40164.	263.707	0.000100	571.655	1.63E+10	21.604	51406.
302.400	-0.001564	-38650.	356.425	8.88E-05	550.097	1.63E+10	17.029	52271.
307.200	-0.001165	-36743.	428.240	7.77E-05	522.955	1.63E+10	12.894	53135.
312.000	-0.000818	-34539.	481.269	6.72E-05	491.584	1.63E+10	9.201	54000.
316.800	-0.000520	-32123.	517.607	5.74E-05	457.197	1.63E+10	5.940	54864.
321.600	-0.000267	-29570.	539.302	4.83E-05	420.861	1.63E+10	3.099	55728.
326.400	-5.60E-05	-26945.	548.326	4.00E-05	383.509	1.63E+10	0.660468	56592.

331.200	0.000117	-24306.	546.554	3.24E-05	345.940	1.63E+10	-1.398	57456.
336.000	0.000255	-21698.	535.753	2.57E-05	308.830	1.63E+10	-3.102	58320.
340.800	0.000363	-19163.	517.561	1.96E-05	272.738	1.63E+10	-4.478	59184.
345.600	0.000444	-16730.	493.487	1.44E-05	238.113	1.63E+10	-5.553	60048.
350.400	0.000501	-14425.	464.902	9.77E-06	205.310	1.63E+10	-6.357	60912.
355.200	0.000538	-12267.	433.037	5.84E-06	174.591	1.63E+10	-6.920	61776.
360.000	0.000557	-10268.	398.984	2.52E-06	146.142	1.63E+10	-7.269	62640.
364.800	0.000562	-8436.528	363.698	-2.34E-07	120.076	1.63E+10	-7.433	63504.
369.600	0.000555	-6776.412	328.002	-2.47E-06	96.448	1.63E+10	-7.440	64368.
374.400	0.000538	-5287.704	292.596	-4.25E-06	75.259	1.63E+10	-7.313	65232.
379.200	0.000514	-3967.488	258.059	-5.61E-06	56.469	1.63E+10	-7.077	66096.
384.000	0.000484	-2810.337	224.861	-6.61E-06	39.999	1.63E+10	-6.755	66960.
388.800	0.000451	-1808.822	193.371	-7.29E-06	25.745	1.63E+10	-6.366	67824.
393.600	0.000414	-953.974	163.867	-7.70E-06	13.578	1.63E+10	-5.928	68688.
398.400	0.000377	-235.701	136.543	-7.87E-06	3.355	1.63E+10	-5.457	69552.
403.200	0.000339	356.840	111.523	-7.86E-06	5.079	1.63E+10	-4.968	70416.
408.000	0.000301	834.916	88.864	-7.68E-06	11.883	1.63E+10	-4.473	71280.
412.800	0.000265	1209.938	68.573	-7.38E-06	17.221	1.63E+10	-3.982	72144.
417.600	0.000230	1493.216	50.607	-6.98E-06	21.253	1.63E+10	-3.504	73008.
422.400	0.000198	1695.764	34.887	-6.51E-06	24.136	1.63E+10	-3.046	73872.
427.200	0.000168	1828.135	21.305	-5.99E-06	26.020	1.63E+10	-2.614	74736.
432.000	0.000140	1900.288	9.725	-5.44E-06	27.047	1.63E+10	-2.211	75600.
436.800	0.000116	1921.496	-0.001564	-4.88E-06	27.348	1.63E+10	-1.842	76464.
441.600	9.35E-05	1900.273	-8.038	-4.32E-06	27.046	1.63E+10	-1.507	77328.
446.400	7.42E-05	1844.331	-14.554	-3.77E-06	26.250	1.63E+10	-1.208	78192.
451.200	5.74E-05	1760.556	-19.721	-3.24E-06	25.058	1.63E+10	-0.945076	79056.
456.000	4.31E-05	1655.007	-23.711	-2.73E-06	23.555	1.63E+10	-0.717539	79920.
460.800	3.11E-05	1532.926	-26.692	-2.26E-06	21.818	1.63E+10	-0.524233	80784.
465.600	2.14E-05	1398.766	-28.822	-1.83E-06	19.908	1.63E+10	-0.363485	81648.
470.400	1.36E-05	1256.232	-30.254	-1.44E-06	17.880	1.63E+10	-0.233205	82512.
475.200	7.54E-06	1108.325	-31.128	-1.09E-06	15.775	1.63E+10	-0.130961	83376.
480.000	3.08E-06	957.400	-33.566	-7.88E-07	13.627	1.63E+10	-0.884672	1.38E+06
484.800	-2.74E-08	786.093	-35.670	-5.31E-07	11.188	1.63E+10	0.007862	1.38E+06
489.600	-2.02E-06	614.967	-34.257	-3.25E-07	8.753	1.63E+10	0.581162	1.38E+06
494.400	-3.15E-06	457.230	-30.690	-1.67E-07	6.508	1.63E+10	0.904722	1.38E+06
499.200	-3.63E-06	320.339	-26.017	-5.28E-08	4.559	1.63E+10	1.043	1.38E+06
504.000	-3.66E-06	207.469	-20.994	2.49E-08	2.953	1.63E+10	1.050	1.38E+06
508.800	-3.39E-06	118.800	-16.135	7.29E-08	1.691	1.63E+10	0.973920	1.38E+06
513.600	-2.96E-06	52.570	-11.760	9.82E-08	0.748217	1.63E+10	0.849209	1.38E+06
518.400	-2.45E-06	5.906	-8.034	1.07E-07	0.084052	1.63E+10	0.703149	1.38E+06
523.200	-1.93E-06	-24.558	-5.015	1.04E-07	0.349533	1.63E+10	0.554690	1.38E+06
528.000	-1.45E-06	-42.242	-2.685	9.42E-08	0.601222	1.63E+10	0.416205	1.38E+06
532.800	-1.03E-06	-50.336	-0.978607	8.06E-08	0.716426	1.63E+10	0.294874	1.38E+06
537.600	-6.75E-07	-51.636	0.194656	6.56E-08	0.734934	1.63E+10	0.193985	1.38E+06
542.400	-3.97E-07	-48.467	0.933979	5.08E-08	0.689829	1.63E+10	0.114066	1.38E+06
547.200	-1.87E-07	-42.670	1.337	3.74E-08	0.607319	1.63E+10	0.053829	1.38E+06
552.000	-3.80E-08	-35.633	1.492	2.59E-08	0.507158	1.63E+10	0.010921	1.38E+06
556.800	6.10E-08	-28.344	1.476	1.64E-08	0.403415	1.63E+10	-0.017516	1.38E+06
561.600	1.20E-07	-21.459	1.352	9.12E-09	0.305416	1.63E+10	-0.034443	1.38E+06
566.400	1.48E-07	-15.367	1.167	3.69E-09	0.218711	1.63E+10	-0.042656	1.38E+06
571.200	1.55E-07	-10.258	0.957276	-8.02E-11	0.145995	1.63E+10	-0.044628	1.38E+06
576.000	1.48E-07	-6.177	0.748325	-2.50E-09	0.087914	1.63E+10	-0.042435	1.38E+06
580.800	1.31E-07	-3.074	0.555923	-3.86E-09	0.043748	1.63E+10	-0.037733	1.38E+06
585.600	1.11E-07	-0.839953	0.389086	-4.44E-09	0.011955	1.63E+10	-0.031783	1.38E+06

590.400	8.87E-08	0.661525	0.251629	-4.46E-09	0.009415	1.63E+10	-0.025491	1.38E+06
595.200	6.78E-08	1.576	0.143724	-4.14E-09	0.022426	1.63E+10	-0.019469	1.38E+06
600.000	4.90E-08	2.041	0.063192	-3.60E-09	0.029053	1.63E+10	-0.014086	1.38E+06
604.800	3.32E-08	2.182	0.006508	-2.98E-09	0.031061	1.63E+10	-0.009532	1.38E+06
609.600	2.04E-08	2.104	-0.030446	-2.35E-09	0.029942	1.63E+10	-0.005865	1.38E+06
614.400	1.06E-08	1.890	-0.051846	-1.76E-09	0.026901	1.63E+10	-0.003052	1.38E+06
619.200	3.50E-09	1.606	-0.061585	-1.25E-09	0.022858	1.63E+10	-0.001006	1.38E+06
624.000	-1.35E-09	1.299	-0.063070	-8.19E-10	0.018486	1.63E+10	0.000387	1.38E+06
628.800	-4.36E-09	1.001	-0.059133	-4.81E-10	0.014241	1.63E+10	0.001253	1.38E+06
633.600	-5.96E-09	0.731151	-0.052015	-2.26E-10	0.010406	1.63E+10	0.001713	1.38E+06
638.400	-6.53E-09	0.501209	-0.043403	-4.42E-11	0.007134	1.63E+10	0.001875	1.38E+06
643.200	-6.39E-09	0.314478	-0.034499	7.59E-11	0.004476	1.63E+10	0.001835	1.38E+06
648.000	-5.80E-09	0.170015	-0.026098	1.47E-10	0.002420	1.63E+10	0.001666	1.38E+06
652.800	-4.97E-09	0.063936	-0.018672	1.82E-10	0.000910	1.63E+10	0.001428	1.38E+06
657.600	-4.05E-09	-0.009233	-0.012448	1.90E-10	0.000131	1.63E+10	0.001165	1.38E+06
662.400	-3.15E-09	-0.055565	-0.007481	1.80E-10	0.000791	1.63E+10	0.000905	1.38E+06
667.200	-2.32E-09	-0.081048	-0.003706	1.60E-10	0.001154	1.63E+10	0.000668	1.38E+06
672.000	-1.61E-09	-0.091146	-0.000992	1.35E-10	0.001297	1.63E+10	0.000463	1.38E+06
676.800	-1.03E-09	-0.090570	0.000830	1.08E-10	0.001289	1.63E+10	0.000296	1.38E+06
681.600	-5.76E-10	-0.083175	0.001938	8.24E-11	0.001184	1.63E+10	0.000165	1.38E+06
686.400	-2.39E-10	-0.071968	0.002500	5.96E-11	0.001024	1.63E+10	6.86E-05	1.38E+06
691.200	-3.77E-12	-0.059179	0.002667	4.03E-11	0.000842	1.63E+10	1.08E-06	1.38E+06
696.000	1.48E-10	-0.046366	0.002568	2.47E-11	0.000660	1.63E+10	-4.24E-05	1.38E+06
700.800	2.34E-10	-0.034531	0.002305	1.28E-11	0.000491	1.63E+10	-6.71E-05	1.38E+06
705.600	2.71E-10	-0.024242	0.001957	4.17E-12	0.000345	1.63E+10	-7.78E-05	1.38E+06
710.400	2.74E-10	-0.015746	0.001581	-1.72E-12	0.000224	1.63E+10	-7.86E-05	1.38E+06
715.200	2.54E-10	-0.009061	0.001217	-5.37E-12	0.000129	1.63E+10	-7.31E-05	1.38E+06
720.000	2.22E-10	-0.004060	0.000889	-7.30E-12	5.78E-05	1.63E+10	-6.38E-05	1.38E+06
724.800	1.84E-10	-0.000530	0.000609	-7.98E-12	7.54E-06	1.63E+10	-5.29E-05	1.38E+06
729.600	1.46E-10	0.001782	0.000381	-7.80E-12	2.54E-05	1.63E+10	-4.18E-05	1.38E+06
734.400	1.09E-10	0.003130	0.000205	-7.07E-12	4.45E-05	1.63E+10	-3.14E-05	1.38E+06
739.200	7.76E-11	0.003754	7.65E-05	-6.06E-12	5.34E-05	1.63E+10	-2.23E-05	1.38E+06
744.000	5.12E-11	0.003864	-1.24E-05	-4.94E-12	5.50E-05	1.63E+10	-1.47E-05	1.38E+06
748.800	3.02E-11	0.003635	-6.85E-05	-3.83E-12	5.17E-05	1.63E+10	-8.69E-06	1.38E+06
753.600	1.44E-11	0.003206	-9.93E-05	-2.83E-12	4.56E-05	1.63E+10	-4.14E-06	1.38E+06
758.400	3.13E-12	0.002681	-0.000111	-1.96E-12	3.82E-05	1.63E+10	-8.98E-07	1.38E+06
763.200	-4.38E-12	0.002136	-0.000111	-1.25E-12	3.04E-05	1.63E+10	1.26E-06	1.38E+06
768.000	-8.87E-12	0.001620	-0.000101	-6.96E-13	2.31E-05	1.63E+10	2.55E-06	1.38E+06
772.800	-1.11E-11	0.001162	-8.77E-05	-2.87E-13	1.65E-05	1.63E+10	3.18E-06	1.38E+06
777.600	-1.16E-11	0.000778	-7.21E-05	-1.06E-15	1.11E-05	1.63E+10	3.34E-06	1.38E+06
782.400	-1.11E-11	0.000470	-5.64E-05	1.83E-13	6.69E-06	1.63E+10	3.18E-06	1.38E+06
787.200	-9.86E-12	0.000236	-4.20E-05	2.87E-13	3.36E-06	1.63E+10	2.83E-06	1.38E+06
792.000	-8.32E-12	6.71E-05	-2.94E-05	3.31E-13	9.55E-07	1.63E+10	2.39E-06	1.38E+06
796.800	-6.68E-12	-4.67E-05	-1.91E-05	3.34E-13	6.65E-07	1.63E+10	1.92E-06	1.38E+06
801.600	-5.11E-12	-0.000116	-1.10E-05	3.10E-13	1.65E-06	1.63E+10	1.47E-06	1.38E+06
806.400	-3.71E-12	-0.000152	-4.88E-06	2.71E-13	2.16E-06	1.63E+10	1.06E-06	1.38E+06
811.200	-2.51E-12	-0.000163	-5.93E-07	2.24E-13	2.32E-06	1.63E+10	7.22E-07	1.38E+06
816.000	-1.55E-12	-0.000158	2.21E-06	1.77E-13	2.24E-06	1.63E+10	4.46E-07	1.38E+06
820.800	-8.14E-13	-0.000142	3.84E-06	1.33E-13	2.02E-06	1.63E+10	2.34E-07	1.38E+06
825.600	-2.76E-13	-0.000121	4.59E-06	9.43E-14	1.72E-06	1.63E+10	7.92E-08	1.38E+06
830.400	9.19E-14	-9.78E-05	4.72E-06	6.21E-14	1.39E-06	1.63E+10	-2.64E-08	1.38E+06
835.200	3.21E-13	-7.55E-05	4.43E-06	3.66E-14	1.07E-06	1.63E+10	-9.22E-08	1.38E+06
840.000	4.43E-13	-5.52E-05	3.91E-06	1.74E-14	7.86E-07	1.63E+10	-1.27E-07	1.38E+06
844.800	4.88E-13	-3.80E-05	3.27E-06	3.65E-15	5.40E-07	1.63E+10	-1.40E-07	1.38E+06

849.600	4.78E-13	-2.39E-05	2.60E-06	-5.46E-15	3.40E-07	1.63E+10	-1.37E-07	1.38E+06
854.400	4.35E-13	-1.30E-05	1.97E-06	-1.09E-14	1.85E-07	1.63E+10	-1.25E-07	1.38E+06
859.200	3.74E-13	-4.99E-06	1.41E-06	-1.35E-14	7.10E-08	1.63E+10	-1.07E-07	1.38E+06
864.000	3.05E-13	5.49E-07	9.43E-07	-1.42E-14	7.81E-09	1.63E+10	-8.77E-08	1.38E+06
868.800	2.38E-13	4.07E-06	5.69E-07	-1.35E-14	5.79E-08	1.63E+10	-6.82E-08	1.38E+06
873.600	1.76E-13	6.01E-06	2.84E-07	-1.20E-14	8.56E-08	1.63E+10	-5.04E-08	1.38E+06
878.400	1.22E-13	6.80E-06	7.91E-08	-1.01E-14	9.67E-08	1.63E+10	-3.51E-08	1.38E+06
883.200	7.81E-14	6.77E-06	-5.89E-08	-8.15E-15	9.64E-08	1.63E+10	-2.24E-08	1.38E+06
888.000	4.38E-14	6.23E-06	-1.43E-07	-6.24E-15	8.87E-08	1.63E+10	-1.26E-08	1.38E+06
892.800	1.82E-14	5.40E-06	-1.86E-07	-4.52E-15	7.69E-08	1.63E+10	-5.24E-09	1.38E+06
897.600	3.53E-16	4.45E-06	-1.98E-07	-3.07E-15	6.33E-08	1.63E+10	-1.01E-10	1.38E+06
902.400	-1.13E-14	3.49E-06	-1.91E-07	-1.90E-15	4.97E-08	1.63E+10	3.23E-09	1.38E+06
907.200	-1.79E-14	2.62E-06	-1.71E-07	-1.00E-15	3.72E-08	1.63E+10	5.15E-09	1.38E+06
912.000	-2.09E-14	1.85E-06	-1.44E-07	-3.46E-16	2.64E-08	1.63E+10	6.00E-09	1.38E+06
916.800	-2.12E-14	1.23E-06	-1.15E-07	1.09E-16	1.75E-08	1.63E+10	6.10E-09	1.38E+06
921.600	-1.98E-14	7.50E-07	-8.67E-08	4.00E-16	1.07E-08	1.63E+10	5.70E-09	1.38E+06
926.400	-1.74E-14	3.99E-07	-6.10E-08	5.70E-16	5.68E-09	1.63E+10	5.00E-09	1.38E+06
931.200	-1.44E-14	1.64E-07	-3.91E-08	6.53E-16	2.33E-09	1.63E+10	4.13E-09	1.38E+06
936.000	-1.11E-14	2.37E-08	-2.15E-08	6.80E-16	3.37E-10	1.63E+10	3.20E-09	1.38E+06
940.800	-7.85E-15	-4.28E-08	-8.45E-09	6.77E-16	6.10E-10	1.63E+10	2.26E-09	1.38E+06
945.600	-4.63E-15	-5.74E-08	1.57E-10	6.63E-16	8.17E-10	1.63E+10	1.33E-09	1.38E+06
950.400	-1.49E-15	-4.13E-08	4.38E-09	6.48E-16	5.88E-10	1.63E+10	4.28E-10	1.38E+06
955.200	1.59E-15	-1.54E-08	4.31E-09	6.40E-16	2.19E-10	1.63E+10	-4.57E-10	1.38E+06
960.000	4.65E-15	0.000	0.000	6.37E-16	0.000	1.63E+10	-1.34E-09	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection	=	0.77567595 in
Computed slope at pile head	=	-0.00738867
Maximum bending moment	=	926954.26058 lbs-in
Maximum shear force	=	12000.00000 lbs
Depth of maximum bending moment	=	105.60000 in
Depth of maximum shear force	=	9.60000000 in
Number of iterations	=	19
Number of zero deflection points	=	10

 Computed Values of Load Distribution and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head boundary conditions are Shear and Moment (Pile-head Condition Type 1)
 Specified shear force at pile head = 17600.000 lbs
 Specified moment at pile head = 0.000 in-lbs
 Specified axial load at pile head = 0.000 lbs

Depth	Deflect.	Moment	Shear	Slope	Total	Flx. Rig.	Soil Res.	Es*h
X	y	M	V	S	Stress	EI	p	F/L
in	in	lbs-in	lbs	Rad.	lbs/in**2	lbs-in**2	lbs/in	
0.000	1.537	-7.85E-07	17600.	-0.013353	1.12E-08	1.63E+10	0.000	0.000
4.800	1.473	84480.	17600.	-0.013340	1202.391	1.63E+10	0.000	0.000
9.600	1.409	1.69E+05	17600.	-0.013303	2404.782	1.63E+10	0.000	0.000
14.400	1.345	2.53E+05	17586.	-0.013241	3607.173	1.63E+10	-5.859	20.904
19.200	1.282	3.38E+05	17526.	-0.013154	4807.643	1.63E+10	-19.030	71.255
24.000	1.219	4.22E+05	17401.	-0.013042	6001.873	1.63E+10	-33.255	130.947
28.800	1.157	5.05E+05	17207.	-0.012905	7185.197	1.63E+10	-47.474	197.002
33.600	1.095	5.87E+05	16948.	-0.012745	8352.954	1.63E+10	-60.623	265.719
38.400	1.034	6.68E+05	16630.	-0.012560	9500.831	1.63E+10	-71.644	332.468
43.200	0.974539	7.47E+05	16267.	-0.012352	10625.	1.63E+10	-79.473	391.436
48.000	0.915778	8.24E+05	15877.	-0.012121	11724.	1.63E+10	-83.050	435.299
52.800	0.858182	8.99E+05	15483.	-0.011867	12795.	1.63E+10	-81.312	454.799
57.600	0.801856	9.72E+05	15068.	-0.011591	13839.	1.63E+10	-91.500	547.732
62.400	0.746905	1.04E+06	14589.	-0.011294	14853.	1.63E+10	-108.097	694.688
67.200	0.693429	1.11E+06	14027.	-0.010977	15832.	1.63E+10	-126.020	872.329
72.000	0.641526	1.18E+06	13376.	-0.010640	16770.	1.63E+10	-145.270	1086.937
76.800	0.591288	1.24E+06	12629.	-0.010284	17660.	1.63E+10	-165.847	1346.327
81.600	0.542804	1.30E+06	11781.	-0.009909	18496.	1.63E+10	-187.751	1660.272
86.400	0.496157	1.35E+06	10824.	-0.009519	19270.	1.63E+10	-210.980	2041.095
91.200	0.451424	1.40E+06	9752.235	-0.009113	19975.	1.63E+10	-235.532	2504.419
96.000	0.408674	1.45E+06	8559.614	-0.008693	20602.	1.63E+10	-261.393	3070.141
100.800	0.367971	1.49E+06	7239.839	-0.008261	21144.	1.63E+10	-288.513	3763.502
105.600	0.329368	1.52E+06	5787.244	-0.007819	21591.	1.63E+10	-316.736	4615.901
110.400	0.292909	1.54E+06	4197.480	-0.007369	21935.	1.63E+10	-345.666	5664.542
115.200	0.258629	1.56E+06	2469.231	-0.006912	22165.	1.63E+10	-374.437	6949.328
120.000	0.226550	1.56E+06	607.172	-0.006453	22272.	1.63E+10	-401.421	8505.039
124.800	0.196683	1.56E+06	-1373.852	-0.005992	22248.	1.63E+10	-424.006	10348.
129.600	0.169026	1.55E+06	-3444.312	-0.005533	22085.	1.63E+10	-438.686	12458.
134.400	0.143562	1.53E+06	-5557.159	-0.005080	21777.	1.63E+10	-441.667	14767.
139.200	0.120261	1.50E+06	-7649.115	-0.004634	21325.	1.63E+10	-429.982	17162.
144.000	0.099078	1.46E+06	-9647.390	-0.004199	20732.	1.63E+10	-402.633	19506.
148.800	0.079955	1.41E+06	-11480.	-0.003777	20007.	1.63E+10	-361.096	21678.
153.600	0.062818	1.35E+06	-13088.	-0.003372	19164.	1.63E+10	-308.858	23600.
158.400	0.047584	1.28E+06	-14430.	-0.002985	18219.	1.63E+10	-250.308	25249.
163.200	0.034160	1.21E+06	-15486.	-0.002619	17192.	1.63E+10	-189.633	26646.
168.000	0.022443	1.13E+06	-16254.	-0.002274	16103.	1.63E+10	-130.153	27836.
172.800	0.012326	1.05E+06	-16744.	-0.001953	14971.	1.63E+10	-74.140	28871.
177.600	0.003696	9.71E+05	-16977.	-0.001655	13815.	1.63E+10	-22.944	29802.
182.400	-0.003563	8.89E+05	-16977.	-0.001381	12651.	1.63E+10	22.763	30666.
187.200	-0.009565	8.08E+05	-16772.	-0.001131	11495.	1.63E+10	62.759	31495.
192.000	-0.014425	7.28E+05	-16388.	-0.000905	10360.	1.63E+10	97.094	32309.
196.800	-0.018256	6.50E+05	-15853.	-0.000702	9256.110	1.63E+10	125.972	33121.
201.600	-0.021168	5.76E+05	-15191.	-0.000522	8193.721	1.63E+10	149.677	33940.
206.400	-0.023266	5.04E+05	-14428.	-0.000363	7180.416	1.63E+10	168.533	34769.

211.200	-0.024652	4.37E+05	-13584.	-0.000224	6222.376	1.63E+10	182.888	35611.
216.000	-0.025419	3.74E+05	-12682.	-0.000105	5324.310	1.63E+10	193.065	36458.
220.800	-0.025657	3.15E+05	-11740.	-3.20E-06	4489.555	1.63E+10	199.433	37311.
225.600	-0.025449	2.61E+05	-10776.	8.17E-05	3720.199	1.63E+10	202.391	38173.
230.400	-0.024872	2.12E+05	-9804.429	0.000151	3017.212	1.63E+10	202.311	39043.
235.200	-0.023995	1.67E+05	-8839.931	0.000207	2380.567	1.63E+10	199.563	39920.
240.000	-0.022882	1.27E+05	-7894.154	0.000251	1809.365	1.63E+10	194.510	40802.
244.800	-0.021589	91475.	-6977.323	0.000283	1301.947	1.63E+10	187.503	41688.
249.600	-0.020167	60144.	-6098.004	0.000305	856.016	1.63E+10	178.880	42575.
254.400	-0.018660	32934.	-5263.176	0.000319	468.744	1.63E+10	168.965	43463.
259.200	-0.017106	9617.175	-4478.317	0.000325	136.880	1.63E+10	158.060	44351.
264.000	-0.015539	-10058.	-3747.496	0.000325	143.153	1.63E+10	146.449	45238.
268.800	-0.013986	-26359.	-3073.482	0.000320	375.161	1.63E+10	134.390	46124.
273.600	-0.012470	-39563.	-2457.862	0.000310	563.099	1.63E+10	122.118	47007.
278.400	-0.011010	-49954.	-1901.160	0.000297	710.991	1.63E+10	109.841	47887.
283.200	-0.009621	-57814.	-1402.963	0.000281	822.864	1.63E+10	97.741	48766.
288.000	-0.008313	-63423.	-962.050	0.000263	902.686	1.63E+10	85.973	49642.
292.800	-0.007095	-67050.	-576.509	0.000244	954.314	1.63E+10	74.669	50516.
297.600	-0.005972	-68957.	-243.864	0.000224	981.457	1.63E+10	63.933	51388.
302.400	-0.004946	-69391.	38.813	0.000203	987.635	1.63E+10	53.849	52258.
307.200	-0.004019	-68585.	274.796	0.000183	976.154	1.63E+10	44.477	53126.
312.000	-0.003188	-66753.	467.603	0.000163	950.088	1.63E+10	35.859	53994.
316.800	-0.002452	-64096.	620.913	0.000144	912.263	1.63E+10	28.019	54860.
321.600	-0.001806	-60792.	738.476	0.000126	865.249	1.63E+10	20.965	55726.
326.400	-0.001246	-57006.	824.052	0.000108	811.361	1.63E+10	14.691	56591.
331.200	-0.000767	-52882.	881.342	9.20E-05	752.655	1.63E+10	9.180	57456.
336.000	-0.000362	-48545.	913.944	7.71E-05	690.938	1.63E+10	4.404	58320.
340.800	-2.67E-05	-44108.	925.303	6.35E-05	627.778	1.63E+10	0.328788	59184.
345.600	0.000247	-39662.	918.682	5.11E-05	564.509	1.63E+10	-3.087	60048.
350.400	0.000464	-35288.	897.135	4.01E-05	502.253	1.63E+10	-5.891	60912.
355.200	0.000632	-31050.	863.486	3.03E-05	441.929	1.63E+10	-8.130	61776.
360.000	0.000755	-26999.	820.317	2.18E-05	384.271	1.63E+10	-9.857	62640.
364.800	0.000841	-23175.	769.964	1.44E-05	329.845	1.63E+10	-11.123	63503.
369.600	0.000893	-19607.	714.512	8.09E-06	279.066	1.63E+10	-11.981	64367.
374.400	0.000918	-16316.	655.800	2.80E-06	232.217	1.63E+10	-12.482	65231.
379.200	0.000920	-13312.	595.427	-1.56E-06	189.461	1.63E+10	-12.674	66095.
384.000	0.000903	-10599.	534.763	-5.08E-06	150.861	1.63E+10	-12.603	66959.
388.800	0.000872	-8177.798	474.957	-7.85E-06	116.393	1.63E+10	-12.316	67823.
393.600	0.000828	-6039.881	416.957	-9.94E-06	85.965	1.63E+10	-11.851	68687.
398.400	0.000776	-4175.008	361.523	-1.14E-05	59.422	1.63E+10	-11.247	69552.
403.200	0.000718	-2569.260	309.241	-1.24E-05	36.568	1.63E+10	-10.537	70416.
408.000	0.000657	-1206.293	260.544	-1.30E-05	17.169	1.63E+10	-9.753	71280.
412.800	0.000594	-68.040	215.725	-1.32E-05	0.968401	1.63E+10	-8.921	72144.
417.600	0.000530	864.667	174.958	-1.31E-05	12.307	1.63E+10	-8.065	73008.
422.400	0.000468	1611.553	138.309	-1.27E-05	22.937	1.63E+10	-7.205	73872.
427.200	0.000408	2192.436	105.758	-1.21E-05	31.205	1.63E+10	-6.358	74736.
432.000	0.000352	2626.831	77.207	-1.14E-05	37.387	1.63E+10	-5.538	75600.
436.800	0.000299	2933.627	52.499	-1.06E-05	41.754	1.63E+10	-4.757	76464.
441.600	0.000250	3130.817	31.424	-9.72E-06	44.560	1.63E+10	-4.024	77328.
446.400	0.000205	3235.297	13.738	-8.78E-06	46.047	1.63E+10	-3.345	78192.
451.200	0.000165	3262.705	-0.831495	-7.82E-06	46.438	1.63E+10	-2.726	79056.
456.000	0.000130	3227.314	-12.578	-6.87E-06	45.934	1.63E+10	-2.169	79920.
460.800	9.96E-05	3141.958	-21.804	-5.93E-06	44.719	1.63E+10	-1.676	80784.
465.600	7.33E-05	3017.994	-28.819	-5.02E-06	42.955	1.63E+10	-1.247	81648.

470.400	5.14E-05	2865.293	-33.931	-4.16E-06	40.781	1.63E+10	-0.882743	82512.
475.200	3.34E-05	2692.253	-37.443	-3.34E-06	38.318	1.63E+10	-0.580651	83376.
480.000	1.93E-05	2505.836	-52.151	-2.57E-06	35.665	1.63E+10	-5.548	1.38E+06
484.800	8.73E-06	2191.600	-71.488	-1.88E-06	31.193	1.63E+10	-2.509	1.38E+06
489.600	1.26E-06	1819.551	-78.377	-1.29E-06	25.897	1.63E+10	-0.360979	1.38E+06
494.400	-3.65E-06	1439.185	-76.727	-8.10E-07	20.484	1.63E+10	1.048	1.38E+06
499.200	-6.52E-06	1082.974	-69.715	-4.39E-07	15.414	1.63E+10	1.873	1.38E+06
504.000	-7.86E-06	769.925	-59.798	-1.66E-07	10.958	1.63E+10	2.258	1.38E+06
508.800	-8.11E-06	508.912	-48.784	2.24E-08	7.243	1.63E+10	2.331	1.38E+06
513.600	-7.65E-06	301.603	-37.917	1.42E-07	4.293	1.63E+10	2.197	1.38E+06
518.400	-6.75E-06	144.907	-27.989	2.07E-07	2.062	1.63E+10	1.940	1.38E+06
523.200	-5.65E-06	32.910	-19.434	2.34E-07	0.468405	1.63E+10	1.625	1.38E+06
528.000	-4.51E-06	-41.658	-12.426	2.32E-07	0.592910	1.63E+10	1.296	1.38E+06
532.800	-3.42E-06	-86.375	-6.955	2.14E-07	1.229	1.63E+10	0.983642	1.38E+06
537.600	-2.46E-06	-108.428	-2.898	1.85E-07	1.543	1.63E+10	0.706738	1.38E+06
542.400	-1.65E-06	-114.199	-0.064907	1.52E-07	1.625	1.63E+10	0.473867	1.38E+06
547.200	-1.00E-06	-109.052	1.762	1.19E-07	1.552	1.63E+10	0.287373	1.38E+06
552.000	-5.05E-07	-97.283	2.800	8.88E-08	1.385	1.63E+10	0.145165	1.38E+06
556.800	-1.48E-07	-82.170	3.250	6.24E-08	1.170	1.63E+10	0.042464	1.38E+06
561.600	9.35E-08	-66.079	3.288	4.05E-08	0.940487	1.63E+10	-0.026868	1.38E+06
566.400	2.41E-07	-50.606	3.057	2.34E-08	0.720270	1.63E+10	-0.069365	1.38E+06
571.200	3.18E-07	-36.732	2.671	1.05E-08	0.522801	1.63E+10	-0.091311	1.38E+06
576.000	3.42E-07	-24.962	2.216	1.42E-09	0.355274	1.63E+10	-0.098340	1.38E+06
580.800	3.31E-07	-15.457	1.752	-4.53E-09	0.219996	1.63E+10	-0.095232	1.38E+06
585.600	2.99E-07	-8.146	1.317	-8.01E-09	0.115946	1.63E+10	-0.085846	1.38E+06
590.400	2.55E-07	-2.814	0.935398	-9.62E-09	0.040048	1.63E+10	-0.073153	1.38E+06
595.200	2.06E-07	0.833435	0.617472	-9.91E-09	0.011862	1.63E+10	-0.059317	1.38E+06
600.000	1.59E-07	3.114	0.365147	-9.33E-09	0.044321	1.63E+10	-0.045819	1.38E+06
604.800	1.17E-07	4.339	0.174577	-8.23E-09	0.061754	1.63E+10	-0.033586	1.38E+06
609.600	8.05E-08	4.790	0.038497	-6.89E-09	0.068174	1.63E+10	-0.023114	1.38E+06
614.400	5.08E-08	4.708	-0.051990	-5.49E-09	0.067014	1.63E+10	-0.014588	1.38E+06
619.200	2.78E-08	4.291	-0.106142	-4.16E-09	0.061070	1.63E+10	-0.007975	1.38E+06
624.000	1.08E-08	3.689	-0.132729	-2.99E-09	0.052512	1.63E+10	-0.003103	1.38E+06
628.800	-9.39E-10	3.017	-0.139529	-2.00E-09	0.042935	1.63E+10	0.000270	1.38E+06
633.600	-8.42E-09	2.350	-0.133080	-1.21E-09	0.033447	1.63E+10	0.002418	1.38E+06
638.400	-1.26E-08	1.739	-0.118610	-6.10E-10	0.024752	1.63E+10	0.003611	1.38E+06
643.200	-1.43E-08	1.211	-0.100106	-1.75E-10	0.017241	1.63E+10	0.004099	1.38E+06
648.000	-1.43E-08	0.778034	-0.080443	1.18E-10	0.011074	1.63E+10	0.004094	1.38E+06
652.800	-1.31E-08	0.439075	-0.061559	2.97E-10	0.006249	1.63E+10	0.003774	1.38E+06
657.600	-1.14E-08	0.187063	-0.044642	3.89E-10	0.002662	1.63E+10	0.003275	1.38E+06
662.400	-9.40E-09	0.010507	-0.030302	4.18E-10	0.000150	1.63E+10	0.002700	1.38E+06
667.200	-7.38E-09	-0.103835	-0.018730	4.05E-10	0.001478	1.63E+10	0.002121	1.38E+06
672.000	-5.51E-09	-0.169305	-0.009837	3.64E-10	0.002410	1.63E+10	0.001584	1.38E+06
676.800	-3.89E-09	-0.198270	-0.003355	3.10E-10	0.002822	1.63E+10	0.001116	1.38E+06
681.600	-2.54E-09	-0.201516	0.001073	2.51E-10	0.002868	1.63E+10	0.000729	1.38E+06
686.400	-1.47E-09	-0.187973	0.003837	1.94E-10	0.002675	1.63E+10	0.000423	1.38E+06
691.200	-6.74E-10	-0.164684	0.005316	1.42E-10	0.002344	1.63E+10	0.000194	1.38E+06
696.000	-1.08E-10	-0.136935	0.005856	9.77E-11	0.001949	1.63E+10	3.11E-05	1.38E+06
700.800	2.64E-10	-0.108471	0.005748	6.16E-11	0.001544	1.63E+10	-7.59E-05	1.38E+06
705.600	4.83E-10	-0.081755	0.005233	3.35E-11	0.001164	1.63E+10	-0.000139	1.38E+06
710.400	5.86E-10	-0.058234	0.004496	1.29E-11	0.000829	1.63E+10	-0.000168	1.38E+06
715.200	6.07E-10	-0.038594	0.003673	-1.32E-12	0.000549	1.63E+10	-0.000174	1.38E+06
720.000	5.73E-10	-0.022971	0.002859	-1.04E-11	0.000327	1.63E+10	-0.000165	1.38E+06
724.800	5.07E-10	-0.011143	0.002114	-1.54E-11	0.000159	1.63E+10	-0.000146	1.38E+06

729.600	4.25E-10	-0.002674	0.001471	-1.74E-11	3.81E-05	1.63E+10	-0.000122	1.38E+06
734.400	3.40E-10	0.002979	0.000943	-1.74E-11	4.24E-05	1.63E+10	-9.76E-05	1.38E+06
739.200	2.58E-10	0.006383	0.000531	-1.60E-11	9.09E-05	1.63E+10	-7.42E-05	1.38E+06
744.000	1.86E-10	0.008077	0.000225	-1.39E-11	0.000115	1.63E+10	-5.34E-05	1.38E+06
748.800	1.25E-10	0.008540	1.02E-05	-1.14E-11	0.000122	1.63E+10	-3.59E-05	1.38E+06
753.600	7.61E-11	0.008175	-0.000129	-8.99E-12	0.000116	1.63E+10	-2.19E-05	1.38E+06
758.400	3.88E-11	0.007306	-0.000208	-6.71E-12	0.000104	1.63E+10	-1.11E-05	1.38E+06
763.200	1.17E-11	0.006181	-0.000243	-4.72E-12	8.80E-05	1.63E+10	-3.37E-06	1.38E+06
768.000	-6.55E-12	0.004978	-0.000246	-3.08E-12	7.08E-05	1.63E+10	1.88E-06	1.38E+06
772.800	-1.78E-11	0.003818	-0.000229	-1.78E-12	5.43E-05	1.63E+10	5.11E-06	1.38E+06
777.600	-2.37E-11	0.002776	-0.000201	-8.11E-13	3.95E-05	1.63E+10	6.80E-06	1.38E+06
782.400	-2.56E-11	0.001891	-0.000167	-1.23E-13	2.69E-05	1.63E+10	7.35E-06	1.38E+06
787.200	-2.48E-11	0.001175	-0.000132	3.28E-13	1.67E-05	1.63E+10	7.14E-06	1.38E+06
792.000	-2.24E-11	0.000624	-9.94E-05	5.93E-13	8.88E-06	1.63E+10	6.45E-06	1.38E+06
796.800	-1.91E-11	0.000221	-7.08E-05	7.17E-13	3.14E-06	1.63E+10	5.50E-06	1.38E+06
801.600	-1.55E-11	-5.56E-05	-4.68E-05	7.42E-13	7.91E-07	1.63E+10	4.47E-06	1.38E+06
806.400	-1.20E-11	-0.000229	-2.78E-05	7.00E-13	3.26E-06	1.63E+10	3.46E-06	1.38E+06
811.200	-8.83E-12	-0.000323	-1.34E-05	6.18E-13	4.59E-06	1.63E+10	2.54E-06	1.38E+06
816.000	-6.09E-12	-0.000358	-3.14E-06	5.18E-13	5.09E-06	1.63E+10	1.75E-06	1.38E+06
820.800	-3.86E-12	-0.000353	3.72E-06	4.14E-13	5.02E-06	1.63E+10	1.11E-06	1.38E+06
825.600	-2.12E-12	-0.000322	7.85E-06	3.14E-13	4.58E-06	1.63E+10	6.09E-07	1.38E+06
830.400	-8.41E-13	-0.000277	9.89E-06	2.26E-13	3.95E-06	1.63E+10	2.41E-07	1.38E+06
835.200	4.83E-14	-0.000227	1.04E-05	1.52E-13	3.23E-06	1.63E+10	-1.39E-08	1.38E+06
840.000	6.16E-13	-0.000177	9.98E-06	9.22E-14	2.52E-06	1.63E+10	-1.77E-07	1.38E+06
844.800	9.33E-13	-0.000131	8.91E-06	4.68E-14	1.87E-06	1.63E+10	-2.68E-07	1.38E+06
849.600	1.07E-12	-9.17E-05	7.53E-06	1.39E-14	1.31E-06	1.63E+10	-3.06E-07	1.38E+06
854.400	1.07E-12	-5.91E-05	6.06E-06	-8.27E-15	8.41E-07	1.63E+10	-3.07E-07	1.38E+06
859.200	9.86E-13	-3.35E-05	4.64E-06	-2.19E-14	4.77E-07	1.63E+10	-2.83E-07	1.38E+06
864.000	8.57E-13	-1.45E-05	3.37E-06	-2.90E-14	2.06E-07	1.63E+10	-2.46E-07	1.38E+06
868.800	7.08E-13	-1.13E-06	2.29E-06	-3.13E-14	1.61E-08	1.63E+10	-2.03E-07	1.38E+06
873.600	5.57E-13	7.54E-06	1.42E-06	-3.03E-14	1.07E-07	1.63E+10	-1.60E-07	1.38E+06
878.400	4.16E-13	1.25E-05	7.53E-07	-2.74E-14	1.78E-07	1.63E+10	-1.20E-07	1.38E+06
883.200	2.94E-13	1.48E-05	2.63E-07	-2.34E-14	2.10E-07	1.63E+10	-8.44E-08	1.38E+06
888.000	1.92E-13	1.51E-05	-7.20E-08	-1.90E-14	2.14E-07	1.63E+10	-5.52E-08	1.38E+06
892.800	1.12E-13	1.41E-05	-2.81E-07	-1.47E-14	2.00E-07	1.63E+10	-3.21E-08	1.38E+06
897.600	5.12E-14	1.24E-05	-3.94E-07	-1.08E-14	1.76E-07	1.63E+10	-1.47E-08	1.38E+06
902.400	8.12E-15	1.03E-05	-4.35E-07	-7.45E-15	1.47E-07	1.63E+10	-2.33E-09	1.38E+06
907.200	-2.04E-14	8.18E-06	-4.26E-07	-4.73E-15	1.16E-07	1.63E+10	5.85E-09	1.38E+06
912.000	-3.73E-14	6.20E-06	-3.86E-07	-2.61E-15	8.83E-08	1.63E+10	1.07E-08	1.38E+06
916.800	-4.54E-14	4.47E-06	-3.29E-07	-1.04E-15	6.37E-08	1.63E+10	1.31E-08	1.38E+06
921.600	-4.73E-14	3.04E-06	-2.65E-07	6.62E-17	4.33E-08	1.63E+10	1.36E-08	1.38E+06
926.400	-4.48E-14	1.92E-06	-2.02E-07	7.98E-16	2.74E-08	1.63E+10	1.29E-08	1.38E+06
931.200	-3.96E-14	1.10E-06	-1.44E-07	1.24E-15	1.57E-08	1.63E+10	1.14E-08	1.38E+06
936.000	-3.29E-14	5.45E-07	-9.37E-08	1.49E-15	7.76E-09	1.63E+10	9.44E-09	1.38E+06
940.800	-2.54E-14	2.04E-07	-5.36E-08	1.60E-15	2.90E-09	1.63E+10	7.28E-09	1.38E+06
945.600	-1.75E-14	3.05E-08	-2.40E-08	1.63E-15	4.35E-10	1.63E+10	5.04E-09	1.38E+06
950.400	-9.70E-15	-2.66E-08	-5.22E-09	1.63E-15	3.78E-10	1.63E+10	2.79E-09	1.38E+06
955.200	-1.88E-15	-1.95E-08	2.77E-09	1.62E-15	2.78E-10	1.63E+10	5.41E-10	1.38E+06
960.000	5.90E-15	0.000	0.000	1.62E-15	0.000	1.63E+10	-1.70E-09	6.89E+05

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of total stress due to combined axial stress and bending may not be representative of actual conditions.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection = 1.53708176 in
 Computed slope at pile head = -0.01335267
 Maximum bending moment = 1564852. lbs-in
 Maximum shear force = 17600.00000 lbs
 Depth of maximum bending moment = 120.00000 in
 Depth of maximum shear force = 9.60000000 in
 Number of iterations = 23
 Number of zero deflection points = 10

 Summary of Pile Response(s)

Definition of Symbols for Pile-Head Loading Conditions:

Type 1 = Shear and Moment, y = pile-head displacement in
 Type 2 = Shear and Slope, M = Pile-head Moment lbs-in
 Type 3 = Shear and Rot. Stiffness, V = Pile-head Shear Force lbs
 Type 4 = Deflection and Moment, S = Pile-head Slope, radians
 Type 5 = Deflection and Slope, R = Rot. Stiffness of Pile-head in-lbs/rad

Load Type	Pile-Head Condition 1	Pile-Head Condition 2	Axial Load lbs	Pile-Head Deflection in	Maximum Moment in-lbs	Maximum Shear lbs
1	v= 3000.000	M= 0.000	0.0000	0.0988155	158144.	3000.0000
1	v= 6000.000	M= 0.000	0.0000	0.2470694	362226.	6000.0000
1	v= 9000.000	M= 0.000	0.0000	0.4740614	625050.	9000.0000
1	v= 12000.	M= 0.000	0.0000	0.7756760	926954.	12000.0000
1	v= 17600.	M= 0.000	0.0000	1.5371	1564852.	17600.0000

The analysis ended normally.

APPENDIX I: LPILE ANALYSIS FOR TP8 (P-MULTIPLIER OF 1)

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 386.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	0.000	386.0000	-0.000243	0.000	8.091E+09	0.000	
0.000	0.000	1852.8000	386.0000	-0.000242	42.3355	8.091E+09	0.000	
0.000	0.000	3705.6000	386.0000	-0.000241	84.6710	8.091E+09	0.000	
0.000	0.000	5558.4000	383.5419	-0.000238	127.0065	8.091E+09	-1.0242	
310.5757	0.000	7387.6020	374.2348	-0.000234	168.8027	8.091E+09	-2.8537	
932.1146	0.000	9151.0540	356.8329	-0.000229	209.0967	8.091E+09	-4.3970	
1553.8816	0.000	10813.	332.6864	-0.000223	247.0758	8.091E+09	-5.6640	
2175.7150	0.000	12345.	303.0912	-0.000216	282.0730	8.091E+09	-6.6673	
2797.5221	0.000	13723.	269.2776	-0.000209	313.5603	8.091E+09	-7.4217	
3419.2046	0.000	14930.	232.4000	-0.000200	341.1404	8.091E+09	-7.9440	
4040.5726	0.000	15954.	193.5241	-0.000191	364.5384	8.091E+09	-8.2543	
4662.5162	0.000	16788.	153.6193	-0.000181	383.5908	8.091E+09	-8.3727	
5285.3108	0.000	17429.	113.5625	-0.000171	398.2355	8.091E+09	-8.3177	
5907.9666	0.000	17878.	74.1347	-0.000161	408.5013	8.091E+09	-8.1106	
6530.5028	0.000							

67.200	0.005216	18140.	36.0151	-0.000150	414.4973	8.091E+09	-7.7726
7152.9388	0.000						
72.000	0.004522	18224.	-0.2190	-0.000139	416.4014	8.091E+09	-7.3249
7775.2925	0.000						
76.800	0.003880	18138.	-34.0900	-0.000128	414.4493	8.091E+09	-6.7880
8397.5799	0.000						
81.600	0.003290	17896.	-65.2173	-0.000118	408.9236	8.091E+09	-6.1817
9019.8145	0.000						
86.400	0.002750	17512.	-93.3125	-0.000107	400.1435	8.091E+09	-5.5247
9642.0076	0.000						
91.200	0.002261	17001.	-118.1742	-9.694E-05	388.4550	8.091E+09	-4.8344
10264.	0.000						
96.000	0.001820	16378.	-139.6818	-8.703E-05	374.2215	8.091E+09	-4.1271
10886.	0.000						
100.800	0.001425	15660.	-157.7880	-7.753E-05	357.8152	8.091E+09	-3.4172
11508.	0.000						
105.600	0.001075	14863.	-172.5118	-6.848E-05	339.6099	8.091E+09	-2.7178
12131.	0.000						
110.400	0.000768	14004.	-183.9306	-5.992E-05	319.9739	8.091E+09	-2.0401
12753.	0.000						
115.200	0.000500	13097.	-192.1719	-5.188E-05	299.2638	8.091E+09	-1.3938
13375.	0.000						
120.000	0.000270	12159.	-197.4056	-4.439E-05	277.8200	8.091E+09	-0.7869
13997.	0.000						
124.800	7.412E-05	11202.	-199.8360	-3.746E-05	255.9619	8.091E+09	-0.2257
14619.	0.000						
129.600	-8.972E-05	10240.	-199.6940	-3.110E-05	233.9850	8.091E+09	0.2849
15241.	0.000						
134.400	-0.000224	9285.0366	-197.2306	-2.530E-05	212.1581	8.091E+09	0.7416
15863.	0.000						
139.200	-0.000333	8346.8729	-192.7090	-2.007E-05	190.7216	8.091E+09	1.1424
16485.	0.000						
144.000	-0.000417	7435.0299	-186.3996	-1.539E-05	169.8864	8.091E+09	1.4865
17107.	0.000						
148.800	-0.000480	6557.4370	-178.5733	-1.124E-05	149.8339	8.091E+09	1.7744
17729.	0.000						
153.600	-0.000525	5720.7260	-169.4974	-7.600E-06	130.7155	8.091E+09	2.0073
18351.	0.000						
158.400	-0.000553	4930.2622	-159.4305	-4.440E-06	112.6538	8.091E+09	2.1873
18973.	0.000						
163.200	-0.000568	4190.1936	-148.6193	-1.735E-06	95.7437	8.091E+09	2.3174
19596.	0.000						
168.000	-0.000570	3503.5170	-137.2955	5.473E-07	80.0535	8.091E+09	2.4009
20218.	0.000						
172.800	-0.000562	2872.1564	-125.6734	2.438E-06	65.6272	8.091E+09	2.4417
20840.	0.000						
177.600	-0.000547	2297.0522	-113.9479	3.972E-06	52.4864	8.091E+09	2.4440
21462.	0.000						
182.400	-0.000524	1778.2566	-102.2935	5.181E-06	40.6322	8.091E+09	2.4120
22084.	0.000						
187.200	-0.000497	1315.0342	-90.8638	6.098E-06	30.0478	8.091E+09	2.3504
22706.	0.000						
192.000	-0.000466	905.9643	-79.7907	6.757E-06	20.7008	8.091E+09	2.2634
23328.	0.000						

196.800	-0.000432	549.0432	-69.1854	7.189E-06	12.5453	8.091E+09	2.1555
23950.	0.000						
201.600	-0.000397	241.7847	-59.1382	7.423E-06	5.5246	8.091E+09	2.0308
24572.	0.000						
206.400	-0.000361	-18.6833	-49.7199	7.489E-06	0.4269	8.091E+09	1.8934
25194.	0.000						
211.200	-0.000325	-235.5267	-40.9830	7.414E-06	5.3817	8.091E+09	1.7470
25816.	0.000						
216.000	-0.000290	-412.1198	-32.9625	7.222E-06	9.4167	8.091E+09	1.5949
26438.	0.000						
220.800	-0.000255	-551.9663	-25.6779	6.936E-06	12.6121	8.091E+09	1.4403
27060.	0.000						
225.600	-0.000223	-658.6280	-19.1349	6.577E-06	15.0493	8.091E+09	1.2860
27683.	0.000						
230.400	-0.000192	-735.6612	-13.3264	6.163E-06	16.8095	8.091E+09	1.1342
28305.	0.000						
235.200	-0.000164	-786.5618	-8.2350	5.712E-06	17.9725	8.091E+09	0.9872
28927.	0.000						
240.000	-0.000138	-814.7175	-3.8341	5.237E-06	18.6159	8.091E+09	0.8465
29549.	0.000						
244.800	-0.000114	-823.3688	-0.0896	4.751E-06	18.8135	8.091E+09	0.7137
30171.	0.000						
249.600	-9.191E-05	-815.5774	3.0383	4.265E-06	18.6355	8.091E+09	0.5896
30793.	0.000						
254.400	-7.260E-05	-794.2014	5.5937	3.787E-06	18.1471	8.091E+09	0.4751
31415.	0.000						
259.200	-5.555E-05	-761.8780	7.6239	3.326E-06	17.4085	8.091E+09	0.3708
32037.	0.000						
264.000	-4.067E-05	-721.0120	9.1779	2.886E-06	16.4747	8.091E+09	0.2767
32659.	0.000						
268.800	-2.785E-05	-673.7699	10.3056	2.472E-06	15.3953	8.091E+09	0.1931
33281.	0.000						
273.600	-1.694E-05	-622.0787	11.0562	2.088E-06	14.2142	8.091E+09	0.1197
33903.	0.000						
278.400	-7.809E-06	-567.6303	11.4845	1.735E-06	12.9700	8.091E+09	0.0588
36138.	0.000						
283.200	-2.906E-07	-511.8274	11.6310	1.414E-06	11.6950	8.091E+09	0.002258
37290.	0.000						
288.000	5.770E-06	-455.9724	11.5255	1.127E-06	10.4187	8.091E+09	-0.0462
38442.	0.000						
292.800	1.053E-05	-401.1821	11.2061	8.731E-07	9.1668	8.091E+09	-0.0869
39594.	0.000						
297.600	1.415E-05	-348.3935	10.7093	6.508E-07	7.9606	8.091E+09	-0.1201
40746.	0.000						
302.400	1.678E-05	-298.3727	10.0695	4.589E-07	6.8177	8.091E+09	-0.1465
41898.	0.000						
307.200	1.856E-05	-251.7266	9.3185	2.958E-07	5.7518	8.091E+09	-0.1664
43050.	0.000						
312.000	1.962E-05	-208.9153	8.4854	1.591E-07	4.7736	8.091E+09	-0.1807
44202.	0.000						
316.800	2.009E-05	-170.2666	7.5963	4.665E-08	3.8905	8.091E+09	-0.1898
45354.	0.000						
321.600	2.007E-05	-135.9905	6.6742	-4.419E-08	3.1073	8.091E+09	-0.1944
46506.	0.000						

326.400	1.966E-05	-106.1940	5.7391	-1.160E-07	2.4265	8.091E+09	-0.1952
47658.	0.000						
331.200	1.895E-05	-80.8951	4.8080	-1.715E-07	1.8484	8.091E+09	-0.1927
48810.	0.000						
336.000	1.801E-05	-60.0368	4.0796	-2.133E-07	1.3718	8.091E+09	-0.1108
29520.	0.000						
340.800	1.691E-05	-41.7310	3.5583	-2.435E-07	0.9535	8.091E+09	-0.1064
30211.	0.000						
345.600	1.568E-05	-25.8767	3.0608	-2.636E-07	0.5913	8.091E+09	-0.1009
30902.	0.000						
350.400	1.437E-05	-12.3478	2.5915	-2.749E-07	0.2821	8.091E+09	-0.0946
31593.	0.000						
355.200	1.304E-05	-0.9988	2.1539	-2.789E-07	0.0228	8.091E+09	-0.0877
32284.	0.000						
360.000	1.170E-05	8.3298	1.7506	-2.767E-07	0.1903	8.091E+09	-0.0804
32976.	0.000						
364.800	1.038E-05	15.8068	1.3830	-2.695E-07	0.3612	8.091E+09	-0.0728
33667.	0.000						
369.600	9.110E-06	21.6062	1.0517	-2.584E-07	0.4937	8.091E+09	-0.0652
34358.	0.000						
374.400	7.901E-06	25.9031	0.7567	-2.443E-07	0.5919	8.091E+09	-0.0577
35049.	0.000						
379.200	6.765E-06	28.8709	0.4974	-2.281E-07	0.6597	8.091E+09	-0.0504
35740.	0.000						
384.000	5.711E-06	30.6781	0.2725	-2.104E-07	0.7010	8.091E+09	-0.0433
36432.	0.000						
388.800	4.744E-06	31.4867	0.0804	-1.920E-07	0.7195	8.091E+09	-0.0367
37123.	0.000						
393.600	3.868E-06	31.4499	-0.0808	-1.733E-07	0.7186	8.091E+09	-0.0305
37814.	0.000						
398.400	3.081E-06	30.7111	-0.2132	-1.549E-07	0.7017	8.091E+09	-0.0247
38505.	0.000						
403.200	2.381E-06	29.4028	-0.3192	-1.371E-07	0.6718	8.091E+09	-0.0194
39196.	0.000						
408.000	1.765E-06	27.6467	-0.4011	-1.201E-07	0.6317	8.091E+09	-0.0147
39888.	0.000						
412.800	1.228E-06	25.5527	-0.4612	-1.044E-07	0.5839	8.091E+09	-0.0104
40579.	0.000						
417.600	7.631E-07	23.2195	-0.5018	-8.988E-08	0.5306	8.091E+09	-0.006561
41270.	0.000						
422.400	3.647E-07	20.7352	-0.5252	-7.685E-08	0.4738	8.091E+09	-0.003188
41961.	0.000						
427.200	2.534E-08	18.1775	-0.5334	-6.530E-08	0.4153	8.091E+09	-0.000225
42652.	0.000						
432.000	-2.622E-07	15.6145	-0.5283	-5.528E-08	0.3568	8.091E+09	0.002368
43344.	0.000						
436.800	-5.053E-07	13.1062	-0.5115	-4.676E-08	0.2995	8.091E+09	0.004636
44035.	0.000						
441.600	-7.111E-07	10.7046	-0.4844	-3.970E-08	0.2446	8.091E+09	0.006626
44726.	0.000						
446.400	-8.864E-07	8.4557	-0.4484	-3.401E-08	0.1932	8.091E+09	0.008387
45417.	0.000						
451.200	-1.038E-06	6.4000	-0.4043	-2.961E-08	0.1462	8.091E+09	0.009968
46108.	0.000						

456.000	-1.171E-06	4.5740	-0.3530	-2.635E-08	0.1045	8.091E+09	0.0114
46800.	0.000						
460.800	-1.291E-06	3.0110	-0.2950	-2.410E-08	0.0688	8.091E+09	0.0128
47491.	0.000						
465.600	-1.402E-06	1.7422	-0.2306	-2.269E-08	0.0398	8.091E+09	0.0141
48182.	0.000						
470.400	-1.508E-06	0.7977	-0.1599	-2.194E-08	0.0182	8.091E+09	0.0154
48873.	0.000						
475.200	-1.613E-06	0.2070	-0.0831	-2.164E-08	0.004730	8.091E+09	0.0167
49564.	0.000						
480.000	-1.716E-06	0.000	0.000	-2.158E-08	0.000	8.091E+09	0.0180
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.0193051 inches
 Computed slope at pile head = -0.0002428 radians
 Maximum bending moment = 18224. inch-lbs
 Maximum shear force = 386.0000000 lbs
 Depth of maximum bending moment = 72.0000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 6
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 5004.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib.	Deflect. y	Bending Moment	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil Res. p	Soil Spr. Es*h
Lat. Load inches lb/inch	inches	in-lbs	lbs	radians	psi*	lb-in ²	lb/in	lb/inch
0.00	0.2623	-7.798E-08	5004.0000	-0.003261	1.782E-09	8.091E+09	0.000	
0.000	0.000							

4.800	0.2467	24019.	5004.0000	-0.003254	548.8258	8.091E+09	0.000
0.000	0.000						
9.600	0.2311	48038.	5004.0000	-0.003232	1097.6516	8.091E+09	0.000
0.000	0.000						
14.400	0.2156	72058.	4977.4514	-0.003197	1646.4774	8.091E+09	-11.0619
246.2202	0.000						
19.200	0.2004	95822.	4872.5285	-0.003147	2189.4797	8.091E+09	-32.6560
782.1539	0.000						
24.000	0.1854	118834.	4669.1338	-0.003083	2715.2901	8.091E+09	-52.0918
1348.3845	0.000						
28.800	0.1708	140646.	4379.6947	-0.003006	3213.6768	8.091E+09	-68.5078
1925.2093	0.000						
33.600	0.1566	160879.	4019.6297	-0.002917	3675.9973	8.091E+09	-81.5193
2499.0658	0.000						
38.400	0.1428	179234.	3605.8465	-0.002816	4095.4020	8.091E+09	-90.8904
3055.0739	0.000						
43.200	0.1295	195495.	3156.7220	-0.002705	4466.9572	8.091E+09	-96.2448
3566.2456	0.000						
48.000	0.1168	209539.	2682.8219	-0.002585	4787.8442	8.091E+09	-101.2136
4158.1936	0.000						
52.800	0.1047	221250.	2184.3956	-0.002457	5055.4472	8.091E+09	-106.4641
4879.6191	0.000						
57.600	0.0932	230509.	1668.2382	-0.002323	5267.0020	8.091E+09	-108.6015
5590.3132	0.000						
62.400	0.0824	237265.	1148.4637	-0.002184	5421.3833	8.091E+09	-107.9712
6287.5991	0.000						
67.200	0.0723	241534.	637.3945	-0.002042	5518.9230	8.091E+09	-104.9743
6971.2295	0.000						
72.000	0.0628	243384.	145.4105	-0.001898	5561.1989	8.091E+09	-100.0191
7642.2616	0.000						
76.800	0.0541	242930.	-319.0259	-0.001754	5550.8195	8.091E+09	-93.4961
8302.3362	0.000						
81.600	0.0460	240322.	-749.2558	-0.001611	5491.2190	8.091E+09	-85.7663
8953.2545	0.000						
86.400	0.0386	235737.	-1140.2700	-0.001470	5386.4666	8.091E+09	-77.1563
9596.7475	0.000						
91.200	0.0319	229375.	-1488.5442	-0.001332	5241.0953	8.091E+09	-67.9580
10234.	0.000						
96.000	0.0258	221447.	-1791.8750	-0.001198	5059.9473	8.091E+09	-58.4298
10867.	0.000						
100.800	0.0204	212173.	-2049.2217	-0.001069	4848.0388	8.091E+09	-48.7980
11497.	0.000						
105.600	0.0155	201775.	-2260.5575	-0.000946	4610.4406	8.091E+09	-39.2586
12124.	0.000						
110.400	0.0113	190472.	-2426.7280	-0.000830	4352.1746	8.091E+09	-29.9791
12749.	0.000						
115.200	0.007573	178478.	-2549.3184	-0.000721	4078.1260	8.091E+09	-21.1002
13373.	0.000						
120.000	0.004368	165998.	-2630.5280	-0.000619	3792.9693	8.091E+09	-12.7371
13996.	0.000						
124.800	0.001636	153225.	-2673.0528	-0.000524	3501.1070	8.091E+09	-4.9815
14619.	0.000						
129.600	-0.000661	140337.	-2679.9748	-0.000437	3206.6222	8.091E+09	2.0973
15241.	0.000						

134.400	-0.002557	127497.	-2654.6597	-0.000357	2913.2416	8.091E+09	8.4506
15863.	0.000						
139.200	-0.004091	114852.	-2600.6619	-0.000285	2624.3098	8.091E+09	14.0485
16485.	0.000						
144.000	-0.005297	102531.	-2521.6383	-0.000221	2342.7738	8.091E+09	18.8780
17107.	0.000						
148.800	-0.006212	90644.	-2421.2705	-0.000164	2071.1762	8.091E+09	22.9419
17728.	0.000						
153.600	-0.006868	79287.	-2303.1956	-0.000113	1811.6564	8.091E+09	26.2560
18350.	0.000						
158.400	-0.007298	68534.	-2170.9464	-6.938E-05	1565.9591	8.091E+09	28.8478
18972.	0.000						
163.200	-0.007534	58446.	-2027.9003	-3.171E-05	1335.4488	8.091E+09	30.7547
19594.	0.000						
168.000	-0.007603	49066.	-1877.2370	1.801E-07	1121.1293	8.091E+09	32.0217
20217.	0.000						
172.800	-0.007532	40424.	-1721.9047	2.673E-05	923.6678	8.091E+09	32.7001
20839.	0.000						
177.600	-0.007346	32536.	-1564.5957	4.837E-05	743.4212	8.091E+09	32.8454
21461.	0.000						
182.400	-0.007068	25404.	-1407.7275	6.555E-05	580.4661	8.091E+09	32.5163
22083.	0.000						
187.200	-0.006717	19021.	-1253.4332	7.873E-05	434.6294	8.091E+09	31.7730
22705.	0.000						
192.000	-0.006312	13371.	-1103.5572	8.834E-05	305.5195	8.091E+09	30.6754
23327.	0.000						
196.800	-0.005869	8427.2776	-959.6572	9.481E-05	192.5588	8.091E+09	29.2829
23949.	0.000						
201.600	-0.005402	4158.2620	-823.0118	9.854E-05	95.0141	8.091E+09	27.6527
24572.	0.000						
206.400	-0.004923	526.3647	-694.6311	9.993E-05	12.0271	8.091E+09	25.8393
25194.	0.000						
211.200	-0.004443	-2510.1960	-575.2721	9.934E-05	57.3566	8.091E+09	23.8936
25816.	0.000						
216.000	-0.003969	-4996.2479	-465.4568	9.711E-05	114.1616	8.091E+09	21.8628
26438.	0.000						
220.800	-0.003510	-6978.5812	-365.4913	9.356E-05	159.4568	8.091E+09	19.7895
27060.	0.000						
225.600	-0.003071	-8504.9649	-275.4883	8.897E-05	194.3339	8.091E+09	17.7118
27682.	0.000						
230.400	-0.002656	-9623.2692	-195.3888	8.359E-05	219.8865	8.091E+09	15.6630
28304.	0.000						
235.200	-0.002269	-10381.	-124.9849	7.766E-05	237.1933	8.091E+09	13.6719
28927.	0.000						
240.000	-0.001911	-10823.	-63.9430	7.137E-05	247.3026	8.091E+09	11.7622
29549.	0.000						
244.800	-0.001584	-10995.	-11.8252	6.490E-05	251.2196	8.091E+09	9.9535
30171.	0.000						
249.600	-0.001288	-10937.	31.8893	5.839E-05	249.8965	8.091E+09	8.2608
30793.	0.000						
254.400	-0.001023	-10688.	67.7840	5.198E-05	244.2245	8.091E+09	6.6953
31415.	0.000						
259.200	-0.000789	-10286.	96.4871	4.575E-05	235.0277	8.091E+09	5.2643
32037.	0.000						

264.000	-0.000584	-9762.1368	118.6540	3.981E-05	223.0596	8.091E+09	3.9719
32659.	0.000						
268.800	-0.000407	-9146.8419	134.9522	3.420E-05	209.0004	8.091E+09	2.8191
33281.	0.000						
273.600	-0.000255	-8466.5960	146.0482	2.897E-05	193.4572	8.091E+09	1.8043
33903.	0.000						
278.400	-0.000128	-7744.7796	152.6990	2.417E-05	176.9640	8.091E+09	0.9669
36138.	0.000						
283.200	-2.346E-05	-7000.6860	155.4569	1.979E-05	159.9619	8.091E+09	0.1822
37290.	0.000						
288.000	6.157E-05	-6252.3933	154.7108	1.586E-05	142.8638	8.091E+09	-0.4931
38442.	0.000						
292.800	0.000129	-5515.4622	150.9775	1.237E-05	126.0253	8.091E+09	-1.0624
39594.	0.000						
297.600	0.000180	-4803.0097	144.7539	9.309E-06	109.7462	8.091E+09	-1.5307
40746.	0.000						
302.400	0.000218	-4125.8249	136.5098	6.660E-06	94.2729	8.091E+09	-1.9043
41898.	0.000						
307.200	0.000244	-3492.5157	126.6817	4.401E-06	79.8021	8.091E+09	-2.1907
43050.	0.000						
312.000	0.000260	-2909.6809	115.6685	2.502E-06	66.4846	8.091E+09	-2.3981
44202.	0.000						
316.800	0.000268	-2382.0980	103.8294	9.319E-07	54.4297	8.091E+09	-2.5349
45354.	0.000						
321.600	0.000269	-1912.9190	91.4822	-3.421E-07	43.7092	8.091E+09	-2.6098
46506.	0.000						
326.400	0.000265	-1503.8688	78.9042	-1.356E-06	34.3626	8.091E+09	-2.6311
47658.	0.000						
331.200	0.000256	-1155.4382	66.3336	-2.144E-06	26.4011	8.091E+09	-2.6067
48810.	0.000						
336.000	0.000244	-867.0664	56.4701	-2.744E-06	19.8120	8.091E+09	-1.5031
29520.	0.000						
340.800	0.000230	-613.3257	49.3884	-3.183E-06	14.0142	8.091E+09	-1.4476
30211.	0.000						
345.600	0.000214	-392.9378	42.6100	-3.482E-06	8.9784	8.091E+09	-1.3767
30902.	0.000						
350.400	0.000197	-204.2695	36.2007	-3.659E-06	4.6674	8.091E+09	-1.2938
31593.	0.000						
355.200	0.000179	-45.4111	30.2106	-3.733E-06	1.0376	8.091E+09	-1.2020
32284.	0.000						
360.000	0.000161	85.7522	24.6755	-3.721E-06	1.9594	8.091E+09	-1.1042
32976.	0.000						
364.800	0.000143	191.4739	19.6183	-3.639E-06	4.3751	8.091E+09	-1.0030
33667.	0.000						
369.600	0.000126	274.0875	15.0500	-3.501E-06	6.2628	8.091E+09	-0.9005
34358.	0.000						
374.400	0.000109	335.9543	10.9720	-3.320E-06	7.6764	8.091E+09	-0.7987
35049.	0.000						
379.200	9.393E-05	379.4183	7.3765	-3.108E-06	8.6695	8.091E+09	-0.6994
35740.	0.000						
384.000	7.955E-05	406.7684	4.2488	-2.875E-06	9.2944	8.091E+09	-0.6038
36432.	0.000						
388.800	6.633E-05	420.2071	1.5685	-2.629E-06	9.6015	8.091E+09	-0.5130
37123.	0.000						

393.600	5.431E-05	421.8257	-0.6897	-2.379E-06	9.6385	8.091E+09	-0.4279
37814.	0.000						
398.400	4.349E-05	413.5864	-2.5539	-2.132E-06	9.4502	8.091E+09	-0.3489
38505.	0.000						
403.200	3.385E-05	397.3088	-4.0545	-1.891E-06	9.0783	8.091E+09	-0.2764
39196.	0.000						
408.000	2.534E-05	374.6629	-5.2232	-1.662E-06	8.5608	8.091E+09	-0.2105
39888.	0.000						
412.800	1.789E-05	347.1660	-6.0915	-1.448E-06	7.9326	8.091E+09	-0.1513
40579.	0.000						
417.600	1.144E-05	316.1843	-6.6905	-1.251E-06	7.2246	8.091E+09	-0.0983
41270.	0.000						
422.400	5.880E-06	282.9372	-7.0498	-1.074E-06	6.4650	8.091E+09	-0.0514
41961.	0.000						
427.200	1.130E-06	248.5058	-7.1973	-9.159E-07	5.6782	8.091E+09	-0.0100
42652.	0.000						
432.000	-2.913E-06	213.8431	-7.1583	-7.787E-07	4.8862	8.091E+09	0.0263
43344.	0.000						
436.800	-6.346E-06	179.7864	-6.9554	-6.620E-07	4.1080	8.091E+09	0.0582
44035.	0.000						
441.600	-9.268E-06	147.0710	-6.6084	-5.650E-07	3.3605	8.091E+09	0.0864
44726.	0.000						
446.400	-1.177E-05	116.3453	-6.1339	-4.869E-07	2.6584	8.091E+09	0.1114
45417.	0.000						
451.200	-1.394E-05	88.1856	-5.5452	-4.262E-07	2.0150	8.091E+09	0.1339
46108.	0.000						
456.000	-1.586E-05	63.1114	-4.8526	-3.813E-07	1.4421	8.091E+09	0.1547
46800.	0.000						
460.800	-1.760E-05	41.6005	-4.0635	-3.503E-07	0.9505	8.091E+09	0.1742
47491.	0.000						
465.600	-1.922E-05	24.1022	-3.1823	-3.308E-07	0.5507	8.091E+09	0.1930
48182.	0.000						
470.400	-2.078E-05	11.0500	-2.2114	-3.204E-07	0.2525	8.091E+09	0.2116
48873.	0.000						
475.200	-2.230E-05	2.8723	-1.1510	-3.162E-07	0.0656	8.091E+09	0.2303
49564.	0.000						
480.000	-2.381E-05	0.000	0.000	-3.154E-07	0.000	8.091E+09	0.2493
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection	=	0.2623335 inches
Computed slope at pile head	=	-0.0032610 radians
Maximum bending moment	=	243384. inch-lbs
Maximum shear force	=	5004.0000000 lbs
Depth of maximum bending moment	=	72.0000000 inches below pile head
Depth of maximum shear force	=	4.8000000 inches below pile head
Number of iterations	=	7

Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 3

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 8371.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	0.4766 0.000	-7.798E-08	8371.0000	-0.005801	1.782E-09	8.091E+09	0.000	
4.800 0.000	0.4488 0.000	40181.	8371.0000	-0.005789	918.1097	8.091E+09	0.000	
9.600 0.000	0.4210 0.000	80362.	8371.0000	-0.005754	1836.2194	8.091E+09	0.000	
14.400 173.8917	0.3935 0.000	120542.	8336.7847	-0.005694	2754.3290	8.091E+09	-14.2564	
19.200 585.0587	0.3664 0.000	160395.	8195.3969	-0.005611	3664.9334	8.091E+09	-44.6552	
24.000 1049.6036	0.3397 0.000	199218.	7909.9688	-0.005504	4552.0290	8.091E+09	-74.2731	
28.800 1537.0592	0.3135 0.000	236330.	7490.7581	-0.005375	5400.0233	8.091E+09	-100.3980	
33.600 2020.3451	0.2881 0.000	271129.	6958.8074	-0.005224	6195.1630	8.091E+09	-121.2482	
38.400 2467.4839	0.2634 0.000	303135.	6342.8747	-0.005054	6926.4714	8.091E+09	-135.3904	
43.200 2825.5027	0.2395 0.000	332021.	5679.5156	-0.004865	7586.5033	8.091E+09	-141.0092	
48.000 3339.5756	0.2167 0.000	357658.	4979.3058	-0.004661	8172.3006	8.091E+09	-150.7448	
52.800 4136.6619	0.1948 0.000	379822.	4214.5993	-0.004442	8678.7381	8.091E+09	-167.8829	
57.600 4951.0537	0.1740 0.000	398118.	3380.8831	-0.004211	9096.7934	8.091E+09	-179.4989	
62.400 5761.5894	0.1544 0.000	412279.	2505.3637	-0.003971	9420.3512	8.091E+09	-185.3009	
67.200 6554.5702	0.1359 0.000	422170.	1615.2549	-0.003723	9646.3570	8.091E+09	-185.5778	

72.000	0.1186	427785.	735.5022	-0.003471	9774.6652	8.091E+09	-180.9858
7323.0606	0.000						
76.800	0.1026	429231.	-112.5103	-0.003217	9807.6930	8.091E+09	-172.3528
8065.1531	0.000						
81.600	0.0877	426705.	-911.4514	-0.002963	9749.9855	8.091E+09	-160.5393
8782.1180	0.000						
86.400	0.0741	420481.	-1648.0036	-0.002712	9607.7617	8.091E+09	-146.3574
9476.9044	0.000						
91.200	0.0617	410884.	-2312.5387	-0.002465	9388.4879	8.091E+09	-130.5322
10153.	0.000						
96.000	0.0505	398280.	-2898.6725	-0.002225	9100.4952	8.091E+09	-113.6902
10814.	0.000						
100.800	0.0403	383057.	-3402.7989	-0.001994	8752.6501	8.091E+09	-96.3624
11464.	0.000						
105.600	0.0313	365614.	-3823.6497	-0.001771	8354.0748	8.091E+09	-78.9921
12105.	0.000						
110.400	0.0233	346350.	-4161.9003	-0.001560	7913.9140	8.091E+09	-61.9456
12739.	0.000						
115.200	0.0163	325659.	-4419.8222	-0.001361	7441.1418	8.091E+09	-45.5218
13368.	0.000						
120.000	0.0103	303920.	-4600.9799	-0.001174	6944.4046	8.091E+09	-29.9605
13994.	0.000						
124.800	0.005073	281490.	-4709.9642	-0.001001	6431.8946	8.091E+09	-15.4496
14618.	0.000						
129.600	0.000671	258704.	-4752.1573	-0.000840	5911.2512	8.091E+09	-2.1309
15241.	0.000						
134.400	-0.002994	235869.	-4733.5242	-0.000694	5389.4859	8.091E+09	9.8947
15863.	0.000						
139.200	-0.005988	213262.	-4660.4263	-0.000560	4872.9297	8.091E+09	20.5628
16484.	0.000						
144.000	-0.008374	191129.	-4539.4555	-0.000440	4367.1988	8.091E+09	29.8417
17106.	0.000						
148.800	-0.0102	169684.	-4377.2872	-0.000333	3877.1782	8.091E+09	37.7284
17727.	0.000						
153.600	-0.0116	149107.	-4180.5500	-0.000239	3407.0197	8.091E+09	44.2454
18349.	0.000						
158.400	-0.0125	129550.	-3955.7134	-0.000156	2960.1543	8.091E+09	49.4366
18970.	0.000						
163.200	-0.0131	111132.	-3708.9911	-8.480E-05	2539.3148	8.091E+09	53.3644
19592.	0.000						
168.000	-0.0133	93944.	-3446.2610	-2.397E-05	2146.5692	8.091E+09	56.1065
20214.	0.000						
172.800	-0.0133	78048.	-3173.0005	2.705E-05	1783.3608	8.091E+09	57.7521
20836.	0.000						
177.600	-0.0131	63483.	-2894.2378	6.903E-05	1450.5561	8.091E+09	58.3991
21459.	0.000						
182.400	-0.0126	50264.	-2614.5145	0.000103	1148.4958	8.091E+09	58.1523
22081.	0.000						
187.200	-0.0121	38384.	-2337.8625	0.000129	877.0497	8.091E+09	57.1194
22703.	0.000						
192.000	-0.0114	27820.	-2067.7944	0.000149	635.6743	8.091E+09	55.4090
23325.	0.000						
196.800	-0.0106	18533.	-1807.3042	0.000162	423.4690	8.091E+09	53.1286
23948.	0.000						

201.600	-0.009843	10470.	-1558.8770	0.000171	239.2334	8.091E+09	50.3828
24570.	0.000						
206.400	-0.009007	3567.7781	-1324.5070	0.000175	81.5218	8.091E+09	47.2714
25192.	0.000						
211.200	-0.008161	-2245.2895	-1105.7232	0.000176	51.3037	8.091E+09	43.8885
25815.	0.000						
216.000	-0.007321	-7047.1650	-903.6192	0.000173	161.0239	8.091E+09	40.3215
26437.	0.000						
220.800	-0.006501	-10920.	-718.8882	0.000168	249.5169	8.091E+09	36.6498
27059.	0.000						
225.600	-0.005713	-13948.	-551.8613	0.000160	318.7155	8.091E+09	32.9448
27682.	0.000						
230.400	-0.004964	-16218.	-402.5469	0.000151	370.5703	8.091E+09	29.2695
28304.	0.000						
235.200	-0.004261	-17813.	-270.6718	0.000141	407.0161	8.091E+09	25.6784
28926.	0.000						
240.000	-0.003609	-18816.	-155.7221	0.000130	429.9435	8.091E+09	22.2173
29548.	0.000						
244.800	-0.003011	-19308.	-56.9829	0.000119	441.1745	8.091E+09	18.9240
30171.	0.000						
249.600	-0.002467	-19363.	26.4226	0.000107	442.4430	8.091E+09	15.8283
30793.	0.000						
254.400	-0.001979	-19054.	95.4965	9.607E-05	435.3786	8.091E+09	12.9525
31415.	0.000						
259.200	-0.001545	-18447.	151.3322	8.494E-05	421.4954	8.091E+09	10.3124
32037.	0.000						
264.000	-0.001164	-17601.	195.0828	7.425E-05	402.1832	8.091E+09	7.9171
32659.	0.000						
268.800	-0.000832	-16574.	227.9330	6.411E-05	378.7030	8.091E+09	5.7705
33281.	0.000						
273.600	-0.000548	-15413.	251.0732	5.463E-05	352.1850	8.091E+09	3.8713
33903.	0.000						
278.400	-0.000308	-14164.	265.9266	4.585E-05	323.6289	8.091E+09	2.3176
36138.	0.000						
283.200	-0.000108	-12860.	273.5008	3.784E-05	293.8527	8.091E+09	0.8383
37290.	0.000						
288.000	5.540E-05	-11538.	274.4478	3.060E-05	263.6352	8.091E+09	-0.4437
38442.	0.000						
292.800	0.000186	-10226.	269.7036	2.414E-05	233.6512	8.091E+09	-1.5331
39594.	0.000						
297.600	0.000287	-8948.7606	260.1734	1.846E-05	204.4744	8.091E+09	-2.4379
40746.	0.000						
302.400	0.000363	-7728.0125	246.7173	1.351E-05	176.5809	8.091E+09	-3.1689
41898.	0.000						
307.200	0.000417	-6580.2750	230.1386	9.266E-06	150.3557	8.091E+09	-3.7389
43050.	0.000						
312.000	0.000452	-5518.6821	211.1758	5.677E-06	126.0989	8.091E+09	-4.1622
44202.	0.000						
316.800	0.000471	-4552.9874	190.4969	2.689E-06	104.0333	8.091E+09	-4.4539
45354.	0.000						
321.600	0.000478	-3689.9117	168.6970	2.442E-07	84.3125	8.091E+09	-4.6293
46506.	0.000						
326.400	0.000474	-2933.4960	146.2982	-1.720E-06	67.0288	8.091E+09	-4.7035
47658.	0.000						

331.200	0.000461	-2285.4486	123.7521	-3.269E-06	52.2213	8.091E+09	-4.6907
48810.	0.000						
336.000	0.000442	-1745.4757	105.9654	-4.464E-06	39.8832	8.091E+09	-2.7204
29520.	0.000						
340.800	0.000418	-1268.1806	93.1159	-5.358E-06	28.9772	8.091E+09	-2.6336
30211.	0.000						
345.600	0.000391	-851.5633	80.7554	-5.987E-06	19.4578	8.091E+09	-2.5166
30902.	0.000						
350.400	0.000361	-492.9292	69.0135	-6.386E-06	11.2632	8.091E+09	-2.3758
31593.	0.000						
355.200	0.000330	-189.0334	57.9911	-6.588E-06	4.3193	8.091E+09	-2.2169
32284.	0.000						
360.000	0.000298	63.7851	47.7619	-6.625E-06	1.4575	8.091E+09	-2.0453
32976.	0.000						
364.800	0.000266	269.4807	38.3755	-6.526E-06	6.1575	8.091E+09	-1.8657
33667.	0.000						
369.600	0.000235	432.1900	29.8597	-6.318E-06	9.8753	8.091E+09	-1.6825
34358.	0.000						
374.400	0.000205	556.1335	22.2229	-6.025E-06	12.7074	8.091E+09	-1.4994
35049.	0.000						
379.200	0.000177	645.5299	15.4573	-5.669E-06	14.7500	8.091E+09	-1.3196
35740.	0.000						
384.000	0.000151	704.5236	9.5410	-5.268E-06	16.0980	8.091E+09	-1.1455
36432.	0.000						
388.800	0.000127	737.1238	4.4410	-4.840E-06	16.8429	8.091E+09	-0.9795
37123.	0.000						
393.600	0.000104	747.1569	0.1152	-4.400E-06	17.0721	8.091E+09	-0.8229
37814.	0.000						
398.400	8.440E-05	738.2296	-3.4849	-3.960E-06	16.8681	8.091E+09	-0.6771
38505.	0.000						
403.200	6.645E-05	713.7022	-6.4122	-3.529E-06	16.3077	8.091E+09	-0.5426
39196.	0.000						
408.000	5.053E-05	676.6728	-8.7221	-3.116E-06	15.4616	8.091E+09	-0.4199
39888.	0.000						
412.800	3.653E-05	629.9696	-10.4710	-2.729E-06	14.3945	8.091E+09	-0.3088
40579.	0.000						
417.600	2.433E-05	576.1509	-11.7143	-2.371E-06	13.1647	8.091E+09	-0.2092
41270.	0.000						
422.400	1.377E-05	517.5127	-12.5052	-2.047E-06	11.8249	8.091E+09	-0.1204
41961.	0.000						
427.200	4.681E-06	456.1014	-12.8938	-1.758E-06	10.4217	8.091E+09	-0.0416
42652.	0.000						
432.000	-3.108E-06	393.7319	-12.9263	-1.506E-06	8.9966	8.091E+09	0.0281
43344.	0.000						
436.800	-9.776E-06	332.0090	-12.6437	-1.291E-06	7.5862	8.091E+09	0.0897
44035.	0.000						
441.600	-1.550E-05	272.3523	-12.0819	-1.111E-06	6.2231	8.091E+09	0.1444
44726.	0.000						
446.400	-2.044E-05	216.0228	-11.2711	-9.664E-07	4.9360	8.091E+09	0.1934
45417.	0.000						
451.200	-2.478E-05	164.1501	-10.2356	-8.537E-07	3.7507	8.091E+09	0.2380
46108.	0.000						
456.000	-2.864E-05	117.7608	-8.9943	-7.700E-07	2.6908	8.091E+09	0.2792
46800.	0.000						

460.800	-3.217E-05	77.8049	-7.5603	-7.120E-07	1.7778	8.091E+09	0.3183
47491.	0.000						
465.600	-3.547E-05	45.1820	-5.9418	-6.756E-07	1.0324	8.091E+09	0.3561
48182.	0.000						
470.400	-3.865E-05	20.7635	-4.1426	-6.560E-07	0.4744	8.091E+09	0.3936
48873.	0.000						
475.200	-4.177E-05	5.4127	-2.1629	-6.482E-07	0.1237	8.091E+09	0.4313
49564.	0.000						
480.000	-4.488E-05	0.000	0.000	-6.466E-07	0.000	8.091E+09	0.4699
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection = 0.4766037 inches
 Computed slope at pile head = -0.0058012 radians
 Maximum bending moment = 429231. inch-lbs
 Maximum shear force = 8371.0000000 lbs
 Depth of maximum bending moment = 76.8000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 9
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 10715.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	0.6580 0.000	-5.458E-07	10715.	-0.007854	1.247E-08	8.091E+09	0.000	
4.800 0.000	0.6203 0.000	51432.	10715.	-0.007838	1175.1935	8.091E+09	0.000	

9.600	0.5827	102864.	10715.	-0.007793	2350.3871	8.091E+09	0.000
0.000	0.000						
14.400	0.5455	154296.	10679.	-0.007716	3525.5806	8.091E+09	-15.0146
132.1237	0.000						
19.200	0.5087	205382.	10527.	-0.007610	4692.8698	8.091E+09	-48.2980
455.7724	0.000						
24.000	0.4724	255355.	10214.	-0.007473	5834.7323	8.091E+09	-82.1568
834.7505	0.000						
28.800	0.4369	303436.	9745.8097	-0.007307	6933.3433	8.091E+09	-112.8907
1240.2371	0.000						
33.600	0.4023	348915.	9144.6564	-0.007114	7972.5228	8.091E+09	-137.5899
1641.7628	0.000						
38.400	0.3686	391224.	8445.5912	-0.006894	8939.2679	8.091E+09	-153.6873
2001.2435	0.000						
43.200	0.3361	429993.	7697.0383	-0.006651	9825.1041	8.091E+09	-158.2097
2259.5670	0.000						
48.000	0.3048	465116.	6907.3452	-0.006385	10628.	8.091E+09	-170.8291
2690.4500	0.000						
52.800	0.2748	496303.	6021.4789	-0.006100	11340.	8.091E+09	-198.2819
3463.5926	0.000						
57.600	0.2462	522922.	5016.0338	-0.005798	11948.	8.091E+09	-220.6536
4301.6818	0.000						
62.400	0.2191	544457.	3919.5977	-0.005481	12441.	8.091E+09	-236.1948
5173.7848	0.000						
67.200	0.1936	560550.	2766.9740	-0.005153	12808.	8.091E+09	-244.0651
6051.2937	0.000						
72.000	0.1697	571020.	1594.8321	-0.004818	13048.	8.091E+09	-244.3273
6912.4939	0.000						
76.800	0.1473	575861.	437.9052	-0.004477	13158.	8.091E+09	-237.7255
7744.1178	0.000						
81.600	0.1267	575224.	-673.5756	-0.004136	13144.	8.091E+09	-225.3915
8540.4708	0.000						
86.400	0.1076	569394.	-1715.1304	-0.003796	13010.	8.091E+09	-208.5897
9301.3793	0.000						
91.200	0.0902	558759.	-2668.2554	-0.003462	12767.	8.091E+09	-188.5457
10030.	0.000						
96.000	0.0744	543779.	-3520.0176	-0.003135	12425.	8.091E+09	-166.3552
10731.	0.000						
100.800	0.0601	524967.	-4262.3526	-0.002818	11995.	8.091E+09	-142.9510
11410.	0.000						
105.600	0.0474	502861.	-4891.2818	-0.002513	11490.	8.091E+09	-119.1028
12071.	0.000						
110.400	0.0360	478010.	-5406.1685	-0.002222	10922.	8.091E+09	-95.4333
12719.	0.000						
115.200	0.0260	450961.	-5809.0604	-0.001946	10304.	8.091E+09	-72.4383
13358.	0.000						
120.000	0.0173	422243.	-6104.1290	-0.001687	9648.0339	8.091E+09	-50.5069
13990.	0.000						
124.800	0.009832	392362.	-6297.1985	-0.001446	8965.2540	8.091E+09	-29.9387
14617.	0.000						
129.600	0.003451	361790.	-6395.3494	-0.001222	8266.7129	8.091E+09	-10.9575
15241.	0.000						
134.400	-0.001899	330966.	-6406.5827	-0.001016	7562.4032	8.091E+09	6.2770
15863.	0.000						

139.200	-0.006307	300287.	-6339.5323	-0.000829	6861.3980	8.091E+09	21.6607
16484.	0.000						
144.000	-0.009860	270107.	-6203.2170	-0.000660	6171.7961	8.091E+09	35.1374
17105.	0.000						
148.800	-0.0126	240736.	-6006.8250	-0.000509	5500.6923	8.091E+09	46.6926
17726.	0.000						
153.600	-0.0147	212441.	-5759.5269	-0.000374	4854.1700	8.091E+09	56.3483
18347.	0.000						
158.400	-0.0162	185445.	-5470.3138	-0.000256	4237.3123	8.091E+09	64.1572
18968.	0.000						
163.200	-0.0172	159926.	-5147.8600	-0.000154	3654.2302	8.091E+09	70.1986
19590.	0.000						
168.000	-0.0177	136025.	-4800.4074	-6.584E-05	3108.1043	8.091E+09	74.5734
20212.	0.000						
172.800	-0.0178	113842.	-4435.6717	8.273E-06	2601.2376	8.091E+09	77.3998
20834.	0.000						
177.600	-0.0176	93443.	-4060.7711	6.976E-05	2135.1182	8.091E+09	78.8087
21456.	0.000						
182.400	-0.0172	74859.	-3682.1692	0.000120	1710.4878	8.091E+09	78.9421
22078.	0.000						
187.200	-0.0165	58094.	-3305.6367	0.000159	1327.4166	8.091E+09	77.9465
22701.	0.000						
192.000	-0.0156	43125.	-2936.2352	0.000189	985.3804	8.091E+09	75.9708
23323.	0.000						
196.800	-0.0147	29906.	-2578.3136	0.000211	683.3392	8.091E+09	73.1632
23946.	0.000						
201.600	-0.0136	18373.	-2235.5177	0.000225	419.8149	8.091E+09	69.6684
24568.	0.000						
206.400	-0.0125	8445.1684	-1910.8124	0.000233	192.9676	8.091E+09	65.6255
25191.	0.000						
211.200	-0.0114	29.2748	-1606.5124	0.000236	0.6689	8.091E+09	61.1661
25813.	0.000						
216.000	-0.0102	-6977.3508	-1324.3227	0.000234	159.4287	8.091E+09	56.4129
26436.	0.000						
220.800	-0.009132	-12684.	-1065.3840	0.000228	289.8277	8.091E+09	51.4782
27059.	0.000						
225.600	-0.008057	-17205.	-830.3237	0.000219	393.1259	8.091E+09	46.4636
27681.	0.000						
230.400	-0.007031	-20655.	-619.3097	0.000208	471.9632	8.091E+09	41.4589
28303.	0.000						
235.200	-0.006064	-23150.	-432.1060	0.000195	528.9744	8.091E+09	36.5426
28926.	0.000						
240.000	-0.005163	-24804.	-268.1287	0.000180	566.7478	8.091E+09	31.7813
29548.	0.000						
244.800	-0.004332	-25724.	-126.5013	0.000165	587.7898	8.091E+09	27.2302
30170.	0.000						
249.600	-0.003575	-26018.	-6.1083	0.000150	594.4964	8.091E+09	22.9336
30793.	0.000						
254.400	-0.002892	-25783.	94.3536	0.000135	589.1297	8.091E+09	18.9256
31415.	0.000						
259.200	-0.002282	-25112.	176.3280	0.000120	573.7995	8.091E+09	15.2304
32037.	0.000						
264.000	-0.001744	-24090.	241.3541	0.000105	550.4513	8.091E+09	11.8638
32659.	0.000						

268.800	-0.001274	-22795.	291.0268	9.109E-05	520.8573	8.091E+09	8.8332
33281.	0.000						
273.600	-0.000869	-21296.	326.9610	7.801E-05	486.6131	8.091E+09	6.1394
33903.	0.000						
278.400	-0.000525	-19656.	351.1832	6.586E-05	449.1369	8.091E+09	3.9532
36138.	0.000						
283.200	-0.000237	-17925.	365.0887	5.471E-05	409.5794	8.091E+09	1.8407
37290.	0.000						
288.000	1.690E-07	-16151.	369.5031	4.461E-05	369.0529	8.091E+09	-0.001354
38442.	0.000						
292.800	0.000191	-14378.	365.7131	3.555E-05	328.5271	8.091E+09	-1.5778
39594.	0.000						
297.600	0.000341	-12641.	354.9699	2.754E-05	288.8320	8.091E+09	-2.8985
40746.	0.000						
302.400	0.000456	-10970.	338.4687	2.053E-05	250.6627	8.091E+09	-3.9770
41898.	0.000						
307.200	0.000539	-9391.3462	317.3313	1.449E-05	214.5872	8.091E+09	-4.8302
43050.	0.000						
312.000	0.000595	-7923.7999	292.5942	9.356E-06	181.0546	8.091E+09	-5.4769
44202.	0.000						
316.800	0.000628	-6582.4416	265.1999	5.053E-06	150.4053	8.091E+09	-5.9374
45354.	0.000						
321.600	0.000643	-5377.8810	235.9923	1.506E-06	122.8817	8.091E+09	-6.2324
46506.	0.000						
326.400	0.000643	-4316.9152	205.7165	-1.370E-06	98.6392	8.091E+09	-6.3825
47658.	0.000						
331.200	0.000630	-3403.0026	175.0207	-3.660E-06	77.7568	8.091E+09	-6.4074
48810.	0.000						
336.000	0.000608	-2636.7169	150.6734	-5.452E-06	60.2476	8.091E+09	-3.7373
29520.	0.000						
340.800	0.000578	-1956.5380	132.9764	-6.814E-06	44.7058	8.091E+09	-3.6365
30211.	0.000						
345.600	0.000542	-1360.1431	115.8702	-7.798E-06	31.0785	8.091E+09	-3.4911
30902.	0.000						
350.400	0.000503	-844.1843	99.5471	-8.452E-06	19.2892	8.091E+09	-3.3101
31593.	0.000						
355.200	0.000461	-404.4908	84.1590	-8.822E-06	9.2424	8.091E+09	-3.1016
32284.	0.000						
360.000	0.000418	-36.2582	69.8196	-8.953E-06	0.8285	8.091E+09	-2.8731
32976.	0.000						
364.800	0.000375	265.7775	56.6083	-8.885E-06	6.0729	8.091E+09	-2.6316
33667.	0.000						
369.600	0.000333	507.1816	44.5732	-8.656E-06	11.5888	8.091E+09	-2.3830
34358.	0.000						
374.400	0.000292	693.6804	33.7350	-8.299E-06	15.8502	8.091E+09	-2.1329
35049.	0.000						
379.200	0.000253	831.0375	24.0904	-7.847E-06	18.9888	8.091E+09	-1.8857
35740.	0.000						
384.000	0.000217	924.9485	15.6162	-7.326E-06	21.1346	8.091E+09	-1.6452
36432.	0.000						
388.800	0.000183	980.9530	8.2724	-6.761E-06	22.4142	8.091E+09	-1.4147
37123.	0.000						
393.600	0.000152	1004.3634	2.0059	-6.172E-06	22.9492	8.091E+09	-1.1964
37814.	0.000						

398.400	0.000124	1000.2097	-3.2463	-5.577E-06	22.8543	8.091E+09	-0.9920
38505.	0.000						
403.200	9.832E-05	973.1991	-7.5541	-4.992E-06	22.2371	8.091E+09	-0.8029
39196.	0.000						
408.000	7.574E-05	927.6904	-10.9916	-4.428E-06	21.1972	8.091E+09	-0.6294
39888.	0.000						
412.800	5.581E-05	867.6798	-13.6346	-3.896E-06	19.8260	8.091E+09	-0.4718
40579.	0.000						
417.600	3.835E-05	796.7987	-15.5582	-3.402E-06	18.2064	8.091E+09	-0.3297
41270.	0.000						
422.400	2.315E-05	718.3214	-16.8352	-2.952E-06	16.4133	8.091E+09	-0.2024
41961.	0.000						
427.200	1.000E-05	635.1812	-17.5342	-2.551E-06	14.5135	8.091E+09	-0.0889
42652.	0.000						
432.000	-1.338E-06	549.9932	-17.7185	-2.199E-06	12.5670	8.091E+09	0.0121
43344.	0.000						
436.800	-1.111E-05	465.0836	-17.4448	-1.898E-06	10.6269	8.091E+09	0.1019
44035.	0.000						
441.600	-1.956E-05	382.5228	-16.7627	-1.647E-06	8.7404	8.091E+09	0.1823
44726.	0.000						
446.400	-2.692E-05	304.1616	-15.7139	-1.443E-06	6.9499	8.091E+09	0.2547
45417.	0.000						
451.200	-3.342E-05	231.6696	-14.3321	-1.284E-06	5.2935	8.091E+09	0.3210
46108.	0.000						
456.000	-3.925E-05	166.5735	-12.6432	-1.166E-06	3.8061	8.091E+09	0.3827
46800.	0.000						
460.800	-4.461E-05	110.2947	-10.6654	-1.084E-06	2.5202	8.091E+09	0.4414
47491.	0.000						
465.600	-4.966E-05	64.1854	-8.4098	-1.032E-06	1.4666	8.091E+09	0.4985
48182.	0.000						
470.400	-5.452E-05	29.5607	-5.8812	-1.004E-06	0.6754	8.091E+09	0.5551
48873.	0.000						
475.200	-5.930E-05	7.7263	-3.0792	-9.934E-07	0.1765	8.091E+09	0.6123
49564.	0.000						
480.000	-6.406E-05	0.000	0.000	-9.911E-07	0.000	8.091E+09	0.6707
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection	=	0.6579801 inches
Computed slope at pile head	=	-0.0078537 radians
Maximum bending moment	=	575861. inch-lbs
Maximum shear force	=	10715. lbs
Depth of maximum bending moment	=	76.8000000 inches below pile head
Depth of maximum shear force	=	4.8000000 inches below pile head
Number of iterations	=	11
Number of zero deflection points	=	3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 12777.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	3.899E-08	12777.	-0.009879	8.909E-10	8.091E+09	0.000	
4.800	0.000	61330.	12777.	-0.009861	1401.3484	8.091E+09	0.000	
9.600	0.000	122659.	12777.	-0.009806	2802.6968	8.091E+09	0.000	
14.400	0.000	183989.	12740.	-0.009715	4204.0452	8.091E+09	-15.2342	
104.1582	0.000	244967.	12585.	-0.009588	5597.3735	8.091E+09	-49.5942	
19.200	0.000	304803.	12261.	-0.009425	6964.5929	8.091E+09	-85.3644	
363.0642	0.000	362673.	11772.	-0.009227	8286.8721	8.091E+09	-118.4144	
24.000	0.000	417813.	11139.	-0.008996	9546.8118	8.091E+09	-145.1092	
671.7194	0.000	469611.	10402.	-0.008732	10730.	8.091E+09	-162.0551	
28.800	0.000	517675.	9615.9806	-0.008440	11829.	8.091E+09	-165.5486	
1005.6532	0.000	561924.	8787.1956	-0.008119	12840.	8.091E+09	-179.7786	
33.600	0.000	602032.	7840.6573	-0.007774	13756.	8.091E+09	-214.6124	
1335.8217	0.000	637195.	6733.8051	-0.007406	14560.	8.091E+09	-246.5760	
38.400	0.000	666676.	5487.2535	-0.007020	15233.	8.091E+09	-272.8205	
1624.4912	0.000	689872.	4134.0517	-0.006617	15763.	8.091E+09	-291.0136	
43.200	0.000	706363.	2716.0218	-0.006203	16140.	8.091E+09	-299.8322	
1815.9343	0.000							
48.000	0.000							
2169.1841	0.000							
52.800	0.000							
2864.3318	0.000							
57.600	0.000							
3662.1816	0.000							
62.400	0.000							
4538.4662	0.000							
67.200	0.000							
5460.8396	0.000							
72.000	0.000							
6395.9643	0.000							

76.800	0.1962	715946.	1278.5516	-0.005781	16359.	8.091E+09	-299.1137
7316.0252	0.000						
81.600	0.1695	718637.	-134.5353	-0.005356	16420.	8.091E+09	-289.6725
8202.3339	0.000						
86.400	0.1448	714655.	-1484.7981	-0.004931	16329.	8.091E+09	-272.9370
9045.6416	0.000						
91.200	0.1222	704383.	-2741.2470	-0.004510	16095.	8.091E+09	-250.5833
9844.2664	0.000						
96.000	0.1015	688339.	-3880.8807	-0.004097	15728.	8.091E+09	-224.2641
10601.	0.000						
100.800	0.0829	667127.	-4888.2080	-0.003694	15243.	8.091E+09	-195.4556
11323.	0.000						
105.600	0.0661	641412.	-5754.2570	-0.003306	14656.	8.091E+09	-165.3981
12016.	0.000						
110.400	0.0511	611886.	-6475.4351	-0.002935	13981.	8.091E+09	-135.0927
12686.	0.000						
115.200	0.0379	579248.	-7052.4405	-0.002581	13235.	8.091E+09	-105.3261
13339.	0.000						
120.000	0.0263	544183.	-7489.3134	-0.002248	12434.	8.091E+09	-76.7042
13980.	0.000						
124.800	0.0163	507350.	-7792.6469	-0.001936	11593.	8.091E+09	-49.6847
14613.	0.000						
129.600	0.007750	469373.	-7970.9423	-0.001646	10725.	8.091E+09	-24.6050
15240.	0.000						
134.400	0.000516	430829.	-8034.0840	-0.001379	9844.2160	8.091E+09	-1.7041
15863.	0.000						
139.200	-0.005492	392246.	-7992.9099	-0.001135	8962.6098	8.091E+09	18.8600
16484.	0.000						
144.000	-0.0104	354097.	-7858.8535	-0.000914	8090.9325	8.091E+09	36.9969
17105.	0.000						
148.800	-0.0143	316801.	-7643.6442	-0.000715	7238.7323	8.091E+09	52.6737
17725.	0.000						
153.600	-0.0172	280718.	-7359.0523	-0.000538	6414.2622	8.091E+09	65.9063
18345.	0.000						
158.400	-0.0194	246154.	-7016.6723	-0.000381	5624.4886	8.091E+09	76.7521
18966.	0.000						
163.200	-0.0209	213358.	-6627.7391	-0.000245	4875.1212	8.091E+09	85.3034
19587.	0.000						
168.000	-0.0218	182528.	-6202.9743	-0.000128	4170.6619	8.091E+09	91.6819
20209.	0.000						
172.800	-0.0221	153810.	-5752.4601	-2.776E-05	3514.4687	8.091E+09	96.0323
20831.	0.000						
177.600	-0.0220	127304.	-5285.5438	5.562E-05	2908.8319	8.091E+09	98.5162
21453.	0.000						
182.400	-0.0216	103068.	-4810.7562	0.000124	2355.0591	8.091E+09	99.3120
22075.	0.000						
187.200	-0.0209	81121.	-4335.7555	0.000179	1853.5693	8.091E+09	98.6049
22697.	0.000						
192.000	-0.0199	61445.	-3867.3020	0.000221	1403.9902	8.091E+09	96.5840
23320.	0.000						
196.800	-0.0187	43995.	-3411.2478	0.000252	1005.2579	8.091E+09	93.4386
23943.	0.000						
201.600	-0.0175	28697.	-2972.5447	0.000274	655.7165	8.091E+09	89.3544
24566.	0.000						

206.400	-0.0161	15458.	-2555.2673	0.000287	353.2158	8.091E+09	84.5112
25189.	0.000						
211.200	-0.0147	4166.6729	-2162.6494	0.000293	95.2062	8.091E+09	79.0796
25811.	0.000						
216.000	-0.0133	-5303.0474	-1797.1314	0.000292	121.1718	8.091E+09	73.2196
26434.	0.000						
220.800	-0.0119	-13086.	-1460.4163	0.000287	299.0032	8.091E+09	67.0784
27057.	0.000						
225.600	-0.0105	-19323.	-1153.5324	0.000277	441.5212	8.091E+09	60.7899
27680.	0.000						
230.400	-0.009238	-24160.	-876.9012	0.000264	552.0362	8.091E+09	54.4732
28303.	0.000						
235.200	-0.008004	-27741.	-630.4068	0.000249	633.8737	8.091E+09	48.2328
28925.	0.000						
240.000	-0.006849	-30212.	-413.4679	0.000232	690.3189	8.091E+09	42.1584
29548.	0.000						
244.800	-0.005779	-31711.	-225.1079	0.000213	724.5699	8.091E+09	36.3250
30170.	0.000						
249.600	-0.004800	-32373.	-64.0237	0.000194	739.6974	8.091E+09	30.7934
30792.	0.000						
254.400	-0.003913	-32325.	71.3475	0.000175	738.6138	8.091E+09	25.6113
31415.	0.000						
259.200	-0.003118	-31688.	182.7669	0.000156	724.0470	8.091E+09	20.8135
32037.	0.000						
264.000	-0.002414	-30571.	272.1359	0.000138	698.5230	8.091E+09	16.4236
32659.	0.000						
268.800	-0.001796	-29075.	341.4434	0.000120	664.3527	8.091E+09	12.4546
33281.	0.000						
273.600	-0.001262	-27293.	392.7190	0.000103	623.6257	8.091E+09	8.9103
33903.	0.000						
278.400	-0.000804	-25305.	428.6395	8.771E-05	578.2079	8.091E+09	6.0566
36138.	0.000						
283.200	-0.000419	-23178.	450.9967	7.333E-05	529.6015	8.091E+09	3.2589
37290.	0.000						
288.000	-0.000101	-20976.	460.7498	6.023E-05	479.2796	8.091E+09	0.8049
38442.	0.000						
292.800	0.000159	-18755.	459.5387	4.845E-05	428.5339	8.091E+09	-1.3095
39594.	0.000						
297.600	0.000365	-16564.	448.9680	3.797E-05	378.4775	8.091E+09	-3.0950
40746.	0.000						
302.400	0.000523	-14445.	430.5780	2.877E-05	330.0506	8.091E+09	-4.5675
41898.	0.000						
307.200	0.000641	-12430.	405.8223	2.080E-05	284.0282	8.091E+09	-5.7473
43050.	0.000						
312.000	0.000723	-10549.	376.0504	1.399E-05	241.0315	8.091E+09	-6.6576
44202.	0.000						
316.800	0.000775	-8820.3251	342.4956	8.240E-06	201.5397	8.091E+09	-7.3235
45354.	0.000						
321.600	0.000802	-7260.7129	306.2687	3.470E-06	165.9034	8.091E+09	-7.7711
46506.	0.000						
326.400	0.000808	-5880.1459	268.3551	-4.281E-07	134.3582	8.091E+09	-8.0263
47658.	0.000						
331.200	0.000798	-4684.5042	229.6178	-3.562E-06	107.0384	8.091E+09	-8.1143
48810.	0.000						

336.000	0.000774	-3675.8150	198.7166	-6.042E-06	83.9904	8.091E+09	-4.7612
29520.	0.000						
340.800	0.000740	-2776.8244	176.1123	-7.956E-06	63.4489	8.091E+09	-4.6572
30211.	0.000						
345.600	0.000698	-1985.1366	154.1530	-9.368E-06	45.3593	8.091E+09	-4.4925
30902.	0.000						
350.400	0.000650	-1296.9558	133.1028	-1.034E-05	29.6347	8.091E+09	-4.2784
31593.	0.000						
355.200	0.000599	-707.3493	113.1730	-1.094E-05	16.1626	8.091E+09	-4.0257
32284.	0.000						
360.000	0.000545	-210.4948	94.5249	-1.121E-05	4.8097	8.091E+09	-3.7443
32976.	0.000						
364.800	0.000491	200.0902	77.2745	-1.121E-05	4.5720	8.091E+09	-3.4434
33667.	0.000						
369.600	0.000437	531.3403	61.4964	-1.099E-05	12.1408	8.091E+09	-3.1309
34358.	0.000						
374.400	0.000385	790.4552	47.2286	-1.060E-05	18.0615	8.091E+09	-2.8140
35049.	0.000						
379.200	0.000336	984.7349	34.4775	-1.008E-05	22.5007	8.091E+09	-2.4990
35740.	0.000						
384.000	0.000289	1121.4387	23.2220	-9.451E-06	25.6243	8.091E+09	-2.1908
36432.	0.000						
388.800	0.000245	1207.6657	13.4186	-8.761E-06	27.5945	8.091E+09	-1.8939
37123.	0.000						
393.600	0.000205	1250.2577	5.0059	-8.031E-06	28.5677	8.091E+09	-1.6114
37814.	0.000						
398.400	0.000168	1255.7225	-2.0917	-7.288E-06	28.6926	8.091E+09	-1.3459
38505.	0.000						
403.200	0.000135	1230.1776	-7.9594	-6.551E-06	28.1089	8.091E+09	-1.0990
39196.	0.000						
408.000	0.000105	1179.3119	-12.6890	-5.836E-06	26.9466	8.091E+09	-0.8716
39888.	0.000						
412.800	7.856E-05	1108.3636	-16.3748	-5.157E-06	25.3255	8.091E+09	-0.6641
40579.	0.000						
417.600	5.538E-05	1022.1140	-19.1114	-4.525E-06	23.3548	8.091E+09	-0.4762
41270.	0.000						
422.400	3.511E-05	924.8938	-20.9909	-3.948E-06	21.1333	8.091E+09	-0.3070
41961.	0.000						
427.200	1.748E-05	820.6013	-22.1004	-3.430E-06	18.7503	8.091E+09	-0.1553
42652.	0.000						
432.000	2.184E-06	712.7301	-22.5205	-2.975E-06	16.2855	8.091E+09	-0.0197
43344.	0.000						
436.800	-1.108E-05	604.4047	-22.3238	-2.585E-06	13.8103	8.091E+09	0.1017
44035.	0.000						
441.600	-2.263E-05	498.4218	-21.5737	-2.258E-06	11.3887	8.091E+09	0.2109
44726.	0.000						
446.400	-3.276E-05	397.2971	-20.3238	-1.992E-06	9.0780	8.091E+09	0.3099
45417.	0.000						
451.200	-4.175E-05	303.3131	-18.6175	-1.784E-06	6.9305	8.091E+09	0.4011
46108.	0.000						
456.000	-4.988E-05	218.5694	-16.4877	-1.629E-06	4.9942	8.091E+09	0.4863
46800.	0.000						
460.800	-5.739E-05	145.0310	-13.9577	-1.521E-06	3.3139	8.091E+09	0.5678
47491.	0.000						

465.600	-6.449E-05	84.5753	-11.0414	-1.453E-06	1.9325	8.091E+09	0.6473
48182.	0.000						
470.400	-7.134E-05	39.0336	-7.7445	-1.417E-06	0.8919	8.091E+09	0.7264
48873.	0.000						
475.200	-7.809E-05	10.2281	-4.0660	-1.402E-06	0.2337	8.091E+09	0.8063
49564.	0.000						
480.000	-8.480E-05	0.000	0.000	-1.399E-06	0.000	8.091E+09	0.8879
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection	=	0.8436084 inches
Computed slope at pile head	=	-0.0098792 radians
Maximum bending moment	=	718637. inch-lbs
Maximum shear force	=	12777. lbs
Depth of maximum bending moment	=	81.6000000 inches below pile head
Depth of maximum shear force	=	0.0000000 inches below pile head
Number of iterations	=	13
Number of zero deflection points	=	3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 6

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head	=	19776.000 lbs
Applied moment at pile head	=	0.000 in-lbs
Axial thrust load on pile head	=	0.000 lbs

Depth Distrib. X inches	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	3.119E-07	19776.	-0.0181	7.127E-09	8.091E+09	0.000	
4.800	0.000	94925.	19776.	-0.0181	2168.9806	8.091E+09	0.000	
9.600	0.000	189850.	19776.	-0.0180	4337.9613	8.091E+09	0.000	

14.400	1.3927	284774.	19739.	-0.0179	6506.9419	8.091E+09	-15.3142
52.7810	0.000						
19.200	1.3072	379346.	19582.	-0.0177	8667.8604	8.091E+09	-50.2130
184.3755	0.000						
24.000	1.2229	472761.	19252.	-0.0174	10802.	8.091E+09	-87.2014
342.2868	0.000						
28.800	1.1398	564167.	18750.	-0.0171	12891.	8.091E+09	-121.9596
513.5967	0.000						
33.600	1.0584	652763.	18097.	-0.0168	14915.	8.091E+09	-150.1876
681.1314	0.000						
38.400	0.9788	737899.	17334.	-0.0164	16861.	8.091E+09	-167.5985
821.8839	0.000						
43.200	0.9013	819173.	16524.	-0.0159	18718.	8.091E+09	-169.8829
904.6900	0.000						
48.000	0.8262	896533.	15672.	-0.0154	20485.	8.091E+09	-185.3518
1076.8341	0.000						
52.800	0.7536	969623.	14680.	-0.0148	22155.	8.091E+09	-228.0925
1452.7735	0.000						
57.600	0.6838	1037457.	13473.	-0.0142	23705.	8.091E+09	-274.4793
1926.7344	0.000						
62.400	0.6169	1098968.	12038.	-0.0136	25111.	8.091E+09	-323.4476
2516.5687	0.000						
67.200	0.5532	1153026.	10367.	-0.0129	26346.	8.091E+09	-372.9636
3236.1789	0.000						
72.000	0.4927	1198491.	8464.3284	-0.0122	27385.	8.091E+09	-419.8121
4089.6204	0.000						
76.800	0.4357	1234283.	6353.2901	-0.0115	28203.	8.091E+09	-459.7872
5065.4642	0.000						
81.600	0.3822	1259482.	4077.5842	-0.0108	28778.	8.091E+09	-488.4236
6134.6506	0.000						
86.400	0.3322	1273428.	1700.3418	-0.0100	29097.	8.091E+09	-502.0940
7254.3777	0.000						
91.200	0.2859	1275805.	-702.2544	-0.009271	29151.	8.091E+09	-498.9877
8377.4232	0.000						
96.000	0.2432	1266686.	-3050.6064	-0.008517	28943.	8.091E+09	-479.4923
9462.8364	0.000						
100.800	0.2041	1246520.	-5271.4399	-0.007771	28482.	8.091E+09	-445.8550
10483.	0.000						
105.600	0.1686	1216080.	-7304.8606	-0.007041	27787.	8.091E+09	-401.4036
11427.	0.000						
110.400	0.1366	1176393.	-9107.5950	-0.006331	26880.	8.091E+09	-349.7357
12293.	0.000						
115.200	0.1078	1128648.	-10653.	-0.005647	25789.	8.091E+09	-294.1445
13092.	0.000						
120.000	0.0823	1074125.	-11928.	-0.004994	24543.	8.091E+09	-237.3403
13835.	0.000						
124.800	0.0599	1014134.	-12933.	-0.004374	23172.	8.091E+09	-181.3940
14535.	0.000						
129.600	0.0403	949964.	-13676.	-0.003792	21706.	8.091E+09	-127.8036
15204.	0.000						
134.400	0.0235	882849.	-14168.	-0.003248	20173.	8.091E+09	-77.6041
15851.	0.000						
139.200	0.009166	813947.	-14430.	-0.002745	18598.	8.091E+09	-31.4775
16483.	0.000						

144.000	-0.002850	744319.	-14481.	-0.002283	17007.	8.091E+09	10.1565
17107.	0.000						
148.800	-0.0127	674925.	-14344.	-0.001862	15422.	8.091E+09	47.0712
17726.	0.000						
153.600	-0.0207	606615.	-14041.	-0.001481	13861.	8.091E+09	79.1840
18343.	0.000						
158.400	-0.0270	540130.	-13595.	-0.001141	12342.	8.091E+09	106.5216
18959.	0.000						
163.200	-0.0317	476099.	-13030.	-0.000840	10879.	8.091E+09	129.1957
19577.	0.000						
168.000	-0.0350	415045.	-12366.	-0.000576	9483.5623	8.091E+09	147.3861
20195.	0.000						
172.800	-0.0372	357387.	-11625.	-0.000346	8166.1001	8.091E+09	161.3253
20815.	0.000						
177.600	-0.0384	303446.	-10827.	-0.000150	6933.5678	8.091E+09	171.2810
21434.	0.000						
182.400	-0.0386	253450.	-9989.4681	1.481E-05	5791.2067	8.091E+09	177.5738
22055.	0.000						
187.200	-0.0382	207547.	-9129.9941	0.000152	4742.3296	8.091E+09	180.5404
22677.	0.000						
192.000	-0.0372	165803.	-8263.4169	0.000262	3788.4983	8.091E+09	180.5334
23300.	0.000						
196.800	-0.0357	128218.	-7403.1446	0.000350	2929.7092	8.091E+09	177.9134
23924.	0.000						
201.600	-0.0338	94732.	-6560.8529	0.000416	2164.5827	8.091E+09	173.0415
24548.	0.000						
206.400	-0.0317	65234.	-5746.4965	0.000463	1490.5543	8.091E+09	166.2736
25172.	0.000						
211.200	-0.0294	39566.	-4968.3493	0.000494	904.0609	8.091E+09	157.9544
25797.	0.000						
216.000	-0.0270	17538.	-4233.0691	0.000511	400.7229	8.091E+09	148.4124
26422.	0.000						
220.800	-0.0245	-1071.5021	-3545.7836	0.000516	24.4832	8.091E+09	137.9565
27046.	0.000						
225.600	-0.0220	-16502.	-2910.1939	0.000511	377.0619	8.091E+09	126.8725
27671.	0.000						
230.400	-0.0196	-29009.	-2328.6910	0.000497	662.8484	8.091E+09	115.4204
28295.	0.000						
235.200	-0.0172	-38857.	-1802.4817	0.000477	887.8716	8.091E+09	103.8335
28919.	0.000						
240.000	-0.0150	-46313.	-1331.7210	0.000452	1058.2314	8.091E+09	92.3168
29543.	0.000						
244.800	-0.0129	-51642.	-915.6469	0.000423	1179.9910	8.091E+09	81.0474
30167.	0.000						
249.600	-0.0109	-55103.	-552.7150	0.000391	1259.0830	8.091E+09	70.1743
30790.	0.000						
254.400	-0.009141	-56948.	-240.7297	0.000358	1301.2317	8.091E+09	59.8196
31413.	0.000						
259.200	-0.007504	-57414.	23.0294	0.000324	1311.8883	8.091E+09	50.0800
32036.	0.000						
264.000	-0.006030	-56727.	241.6877	0.000290	1296.1801	8.091E+09	41.0277
32658.	0.000						
268.800	-0.004718	-55094.	418.6651	0.000257	1258.8729	8.091E+09	32.7129
33281.	0.000						

273.600	-0.003563	-52708.	557.5745	0.000225	1204.3439	8.091E+09	25.1660
33903.	0.000						
278.400	-0.002558	-49741.	664.1932	0.000195	1136.5662	8.091E+09	19.2585
36138.	0.000						
283.200	-0.001695	-46332.	742.0096	0.000166	1058.6499	8.091E+09	13.1650
37290.	0.000						
288.000	-0.000963	-42618.	792.1188	0.000140	973.8028	8.091E+09	7.7138
38442.	0.000						
292.800	-0.000353	-38727.	817.6219	0.000116	884.8948	8.091E+09	2.9125
39594.	0.000						
297.600	0.000147	-34769.	821.6227	9.381E-05	794.4535	8.091E+09	-1.2455
40746.	0.000						
302.400	0.000548	-30840.	807.1636	7.435E-05	704.6679	8.091E+09	-4.7791
41898.	0.000						
307.200	0.000860	-27020.	777.1715	5.719E-05	617.3983	8.091E+09	-7.7176
43050.	0.000						
312.000	0.001097	-23379.	734.4149	4.224E-05	534.1916	8.091E+09	-10.0977
44202.	0.000						
316.800	0.001266	-19970.	681.4717	2.938E-05	456.3008	8.091E+09	-11.9620
45354.	0.000						
321.600	0.001379	-16837.	620.7067	1.846E-05	384.7074	8.091E+09	-13.3567
46506.	0.000						
326.400	0.001443	-14011.	554.2598	9.313E-06	320.1458	8.091E+09	-14.3295
47658.	0.000						
331.200	0.001468	-11516.	484.0429	1.741E-06	263.1279	8.091E+09	-14.9275
48810.	0.000						
336.000	0.001460	-9364.2740	426.6683	-4.453E-06	213.9686	8.091E+09	-8.9785
29520.	0.000						
340.800	0.001425	-7419.6988	383.5911	-9.431E-06	169.5361	8.091E+09	-8.9703
30211.	0.000						
345.600	0.001369	-5681.7996	340.9037	-1.332E-05	129.8261	8.091E+09	-8.8161
30902.	0.000						
350.400	0.001297	-4147.0228	299.2509	-1.623E-05	94.7572	8.091E+09	-8.5393
31593.	0.000						
355.200	0.001214	-2808.9911	259.1671	-1.830E-05	64.1839	8.091E+09	-8.1623
32284.	0.000						
360.000	0.001122	-1659.0189	221.0826	-1.962E-05	37.9077	8.091E+09	-7.7062
32976.	0.000						
364.800	0.001025	-686.5985	185.3301	-2.032E-05	15.6884	8.091E+09	-7.1906
33667.	0.000						
369.600	0.000927	120.1503	152.1531	-2.049E-05	2.7454	8.091E+09	-6.6332
34358.	0.000						
374.400	0.000829	774.0713	121.7139	-2.022E-05	17.6871	8.091E+09	-6.0498
35049.	0.000						
379.200	0.000733	1288.6040	94.1031	-1.961E-05	29.4439	8.091E+09	-5.4547
35740.	0.000						
384.000	0.000640	1677.4611	69.3486	-1.873E-05	38.3291	8.091E+09	-4.8597
36432.	0.000						
388.800	0.000553	1954.3504	47.4250	-1.765E-05	44.6559	8.091E+09	-4.2751
37123.	0.000						
393.600	0.000471	2132.7411	28.2627	-1.644E-05	48.7320	8.091E+09	-3.7092
37814.	0.000						
398.400	0.000395	2225.6725	11.7567	-1.515E-05	50.8554	8.091E+09	-3.1683
38505.	0.000						

403.200	0.000325	2245.6057	-2.2250	-1.382E-05	51.3109	8.091E+09	-2.6574
39196.	0.000						
408.000	0.000262	2204.3123	-13.8338	-1.250E-05	50.3674	8.091E+09	-2.1796
39888.	0.000						
412.800	0.000205	2112.8013	-23.2327	-1.122E-05	48.2764	8.091E+09	-1.7366
40579.	0.000						
417.600	0.000155	1981.2780	-30.5904	-1.001E-05	45.2711	8.091E+09	-1.3291
41270.	0.000						
422.400	0.000109	1819.1330	-36.0750	-8.878E-06	41.5662	8.091E+09	-0.9562
41961.	0.000						
427.200	6.935E-05	1634.9582	-39.8488	-7.853E-06	37.3579	8.091E+09	-0.6163
42652.	0.000						
432.000	3.399E-05	1436.5846	-42.0644	-6.942E-06	32.8252	8.091E+09	-0.3069
43344.	0.000						
436.800	2.709E-06	1231.1404	-42.8605	-6.151E-06	28.1309	8.091E+09	-0.0248
44035.	0.000						
441.600	-2.506E-05	1025.1236	-42.3597	-5.482E-06	23.4235	8.091E+09	0.2335
44726.	0.000						
446.400	-4.991E-05	824.4873	-40.6658	-4.933E-06	18.8391	8.091E+09	0.4723
45417.	0.000						
451.200	-7.242E-05	634.7323	-37.8627	-4.500E-06	14.5033	8.091E+09	0.6956
46108.	0.000						
456.000	-9.311E-05	461.0049	-34.0144	-4.175E-06	10.5337	8.091E+09	0.9079
46800.	0.000						
460.800	-0.000112	308.1944	-29.1642	-3.947E-06	7.0421	8.091E+09	1.1130
47491.	0.000						
465.600	-0.000131	181.0286	-23.3369	-3.802E-06	4.1364	8.091E+09	1.3150
48182.	0.000						
470.400	-0.000149	84.1604	-16.5399	-3.723E-06	1.9230	8.091E+09	1.5170
48873.	0.000						
475.200	-0.000167	22.2451	-8.7667	-3.691E-06	0.5083	8.091E+09	1.7218
49564.	0.000						
480.000	-0.000184	0.000	0.000	-3.685E-06	0.000	8.091E+09	1.9310
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 6:

Pile-head deflection	=	1.6528741 inches
Computed slope at pile head	=	-0.0181427 radians
Maximum bending moment	=	1275805. inch-lbs
Maximum shear force	=	19776. lbs
Depth of maximum bending moment	=	91.2000000 inches below pile head
Depth of maximum shear force	=	9.6000000 inches below pile head
Number of iterations	=	17
Number of zero deflection points	=	3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 7

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 24349.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	-2.183E-06	24349.	-0.0245	4.989E-08	8.091E+09	0.000	
4.800	0.000	116875.	24349.	-0.0245	2670.5355	8.091E+09	0.000	
9.600	0.000	233750.	24349.	-0.0244	5341.0710	8.091E+09	0.000	
14.400	0.000	350626.	24312.	-0.0242	8011.6065	8.091E+09	-15.3144	
19.200	0.000	467148.	24155.	-0.0240	10674.	8.091E+09	-50.2170	
24.000	0.000	582513.	23825.	-0.0237	13310.	8.091E+09	-87.2207	
28.800	0.000	695869.	23323.	-0.0233	15900.	8.091E+09	-122.0090	
33.600	0.000	806414.	22670.	-0.0228	18426.	8.091E+09	-150.2664	
38.400	0.000	913496.	21906.	-0.0223	20873.	8.091E+09	-167.6777	
43.200	0.000	1016716.	21096.	-0.0218	23231.	8.091E+09	-169.9266	
48.000	0.000	1116020.	20243.	-0.0211	25500.	8.091E+09	-185.4144	
52.800	0.000	1211052.	19250.	-0.0204	27672.	8.091E+09	-228.3989	
57.600	0.000	1300822.	18041.	-0.0197	29723.	8.091E+09	-275.6332	
62.400	0.000	1384241.	16594.	-0.0189	31629.	8.091E+09	-326.9602	
67.200	0.000	1460127.	14893.	-0.0181	33363.	8.091E+09	-381.9084	
72.000	0.000	1527214.	12922.	-0.0172	34896.	8.091E+09	-439.3402	
76.800	0.000	1584179.	10675.	-0.0162	36198.	8.091E+09	-496.9926	

81.600	0.5811	1629693.	8159.3837	-0.0153	37238.	8.091E+09	-551.1138
4552.2726	0.000						
86.400	0.5100	1662509.	5405.0269	-0.0143	37987.	8.091E+09	-596.5349
5614.3876	0.000						
91.200	0.4436	1681581.	2467.4217	-0.0133	38423.	8.091E+09	-627.4672
6788.9285	0.000						
96.000	0.3821	1686196.	-571.9680	-0.0123	38529.	8.091E+09	-638.9452
8027.2881	0.000						
100.800	0.3253	1676090.	-3613.4157	-0.0113	38298.	8.091E+09	-628.3247
9271.6276	0.000						
105.600	0.2733	1651508.	-6551.9151	-0.0103	37736.	8.091E+09	-596.0501
10469.	0.000						
110.400	0.2260	1613192.	-9291.2037	-0.009375	36861.	8.091E+09	-545.3202
11583.	0.000						
115.200	0.1833	1562312.	-11754.	-0.008434	35698.	8.091E+09	-480.9660
12596.	0.000						
120.000	0.1450	1500351.	-13888.	-0.007525	34282.	8.091E+09	-408.1906
13510.	0.000						
124.800	0.1110	1428985.	-15664.	-0.006656	32652.	8.091E+09	-331.6629
14337.	0.000						
129.600	0.0811	1349977.	-17072.	-0.005832	30846.	8.091E+09	-255.0942
15093.	0.000						
134.400	0.0551	1265092.	-18119.	-0.005056	28907.	8.091E+09	-181.1848
15796.	0.000						
139.200	0.0326	1176033.	-18822.	-0.004332	26872.	8.091E+09	-111.7644
16462.	0.000						
144.000	0.0135	1084398.	-19206.	-0.003662	24778.	8.091E+09	-47.9901
17103.	0.000						
148.800	-0.002563	991658.	-19298.	-0.003046	22659.	8.091E+09	9.4675
17729.	0.000						
153.600	-0.0158	899136.	-19131.	-0.002485	20545.	8.091E+09	60.2789
18346.	0.000						
158.400	-0.0264	808003.	-18736.	-0.001978	18462.	8.091E+09	104.3512
18960.	0.000						
163.200	-0.0348	719274.	-18145.	-0.001525	16435.	8.091E+09	141.7576
19573.	0.000						
168.000	-0.0411	633811.	-17390.	-0.001124	14482.	8.091E+09	172.6908
20187.	0.000						
172.800	-0.0456	552327.	-16502.	-0.000772	12620.	8.091E+09	197.4305
20802.	0.000						
177.600	-0.0485	475392.	-15509.	-0.000467	10862.	8.091E+09	216.3072
21418.	0.000						
182.400	-0.0500	403440.	-14439.	-0.000207	9218.3917	8.091E+09	229.7400
22036.	0.000						
187.200	-0.0505	336782.	-13316.	1.283E-05	7695.2847	8.091E+09	238.1755
22656.	0.000						
192.000	-0.0499	275611.	-12163.	0.000194	6297.5655	8.091E+09	242.0882
23278.	0.000						
196.800	-0.0486	220018.	-11001.	0.000342	5027.2941	8.091E+09	241.9695
23901.	0.000						
201.600	-0.0466	170000.	-9848.4696	0.000457	3884.4079	8.091E+09	238.3180
24526.	0.000						
206.400	-0.0442	125473.	-8720.5929	0.000545	2866.9847	8.091E+09	231.6306
25152.	0.000						

211.200	-0.0414	86282.	-7630.9320	0.000608	1971.5037	8.091E+09	222.3947
25778.	0.000						
216.000	-0.0384	52216.	-6590.5907	0.000649	1193.1028	8.091E+09	211.0808
26405.	0.000						
220.800	-0.0352	23013.	-5608.4693	0.000671	525.8257	8.091E+09	198.1364
27032.	0.000						
225.600	-0.0319	-1625.5127	-4691.3878	0.000677	37.1421	8.091E+09	183.9809
27658.	0.000						
230.400	-0.0287	-22025.	-3844.2304	0.000670	503.2529	8.091E+09	169.0014
28284.	0.000						
235.200	-0.0255	-38530.	-3070.1081	0.000652	880.3926	8.091E+09	153.5496
28910.	0.000						
240.000	-0.0224	-51498.	-2370.5339	0.000626	1176.6960	8.091E+09	137.9397
29536.	0.000						
244.800	-0.0195	-61287.	-1745.6048	0.000592	1400.3807	8.091E+09	122.4474
30161.	0.000						
249.600	-0.0167	-68256.	-1194.1874	0.000554	1559.6028	8.091E+09	107.3098
30785.	0.000						
254.400	-0.0142	-72751.	-714.1023	0.000512	1662.3315	8.091E+09	92.7257
31410.	0.000						
259.200	-0.0118	-75111.	-302.3037	0.000468	1716.2446	8.091E+09	78.8571
32033.	0.000						
264.000	-0.009676	-75654.	44.9483	0.000423	1728.6433	8.091E+09	65.8312
32657.	0.000						
268.800	-0.007751	-74679.	331.9257	0.000379	1706.3850	8.091E+09	53.7427
33280.	0.000						
273.600	-0.006039	-72467.	563.2832	0.000335	1655.8338	8.091E+09	42.6563
33902.	0.000						
278.400	-0.004534	-69272.	747.5779	0.000293	1582.8261	8.091E+09	34.1332
36138.	0.000						
283.200	-0.003225	-65290.	889.6335	0.000253	1491.8489	8.091E+09	25.0566
37290.	0.000						
288.000	-0.002103	-60731.	990.1875	0.000216	1387.6807	8.091E+09	16.8409
38442.	0.000						
292.800	-0.001153	-55785.	1053.4364	0.000181	1274.6465	8.091E+09	9.5128
39594.	0.000						
297.600	-0.000363	-50618.	1083.6532	0.000150	1156.6043	8.091E+09	3.0775
40746.	0.000						
302.400	0.000284	-45381.	1085.0888	0.000121	1036.9420	8.091E+09	-2.4793
41898.	0.000						
307.200	0.000801	-40202.	1061.8889	9.585E-05	918.5848	8.091E+09	-7.1874
43050.	0.000						
312.000	0.001204	-35187.	1018.0243	7.349E-05	804.0115	8.091E+09	-11.0896
44202.	0.000						
316.800	0.001507	-30429.	957.2373	5.403E-05	695.2763	8.091E+09	-14.2384
45354.	0.000						
321.600	0.001723	-25998.	883.0022	3.729E-05	594.0369	8.091E+09	-16.6929
46506.	0.000						
326.400	0.001865	-21952.	798.5006	2.307E-05	501.5855	8.091E+09	-18.5161
47658.	0.000						
331.200	0.001944	-18332.	706.6095	1.112E-05	418.8819	8.091E+09	-19.7718
48810.	0.000						
336.000	0.001972	-15168.	630.0561	1.182E-06	346.5873	8.091E+09	-12.1254
29520.	0.000						

340.800	0.001956	-12284.	571.4132	-6.961E-06	280.6761	8.091E+09	-12.3091
30211.	0.000						
345.600	0.001905	-9682.7228	512.4401	-1.348E-05	221.2450	8.091E+09	-12.2630
30902.	0.000						
350.400	0.001826	-7364.2801	454.1590	-1.853E-05	168.2698	8.091E+09	-12.0208
31593.	0.000						
355.200	0.001727	-5322.7964	397.4333	-2.230E-05	121.6230	8.091E+09	-11.6149
32284.	0.000						
360.000	0.001612	-3548.9201	342.9745	-2.493E-05	81.0909	8.091E+09	-11.0763
32976.	0.000						
364.800	0.001488	-2030.2407	291.3506	-2.658E-05	46.3899	8.091E+09	-10.4337
33667.	0.000						
369.600	0.001357	-751.9542	242.9964	-2.741E-05	17.1818	8.091E+09	-9.7139
34358.	0.000						
374.400	0.001224	302.5244	198.2251	-2.754E-05	6.9125	8.091E+09	-8.9408
35049.	0.000						
379.200	0.001093	1151.0063	157.2407	-2.711E-05	26.2999	8.091E+09	-8.1360
35740.	0.000						
384.000	0.000964	1812.0351	120.1509	-2.623E-05	41.4040	8.091E+09	-7.3181
36432.	0.000						
388.800	0.000841	2304.4553	86.9802	-2.501E-05	52.6556	8.091E+09	-6.5031
37123.	0.000						
393.600	0.000724	2647.0448	57.6827	-2.354E-05	60.4836	8.091E+09	-5.7042
37814.	0.000						
398.400	0.000615	2858.2088	32.1551	-2.191E-05	65.3085	8.091E+09	-4.9322
38505.	0.000						
403.200	0.000514	2955.7342	10.2492	-2.018E-05	67.5369	8.091E+09	-4.1952
39196.	0.000						
408.000	0.000421	2956.6012	-8.2171	-1.843E-05	67.5567	8.091E+09	-3.4991
39888.	0.000						
412.800	0.000337	2876.8496	-23.4487	-1.670E-05	65.7345	8.091E+09	-2.8474
40579.	0.000						
417.600	0.000261	2731.4941	-35.6629	-1.504E-05	62.4132	8.091E+09	-2.2419
41270.	0.000						
422.400	0.000192	2534.4857	-45.0813	-1.347E-05	57.9116	8.091E+09	-1.6825
41961.	0.000						
427.200	0.000131	2298.7136	-51.9212	-1.204E-05	52.5244	8.091E+09	-1.1675
42652.	0.000						
432.000	7.686E-05	2036.0425	-56.3889	-1.076E-05	46.5225	8.091E+09	-0.6941
43344.	0.000						
436.800	2.813E-05	1757.3803	-58.6741	-9.630E-06	40.1552	8.091E+09	-0.2581
44035.	0.000						
441.600	-1.559E-05	1472.7714	-58.9449	-8.672E-06	33.6520	8.091E+09	0.1453
44726.	0.000						
446.400	-5.512E-05	1191.5092	-57.3446	-7.882E-06	27.2253	8.091E+09	0.5215
45417.	0.000						
451.200	-9.125E-05	922.2628	-53.9892	-7.255E-06	21.0732	8.091E+09	0.8766
46108.	0.000						
456.000	-0.000125	673.2128	-48.9660	-6.782E-06	15.3825	8.091E+09	1.2164
46800.	0.000						
460.800	-0.000156	452.1895	-42.3338	-6.448E-06	10.3323	8.091E+09	1.5470
47491.	0.000						
465.600	-0.000187	266.8087	-34.1241	-6.234E-06	6.0964	8.091E+09	1.8737
48182.	0.000						

470.400	-0.000216	124.5980	-24.3439	-6.118E-06	2.8470	8.091E+09	2.2014
48873.	0.000						
475.200	-0.000245	33.1078	-12.9790	-6.072E-06	0.7565	8.091E+09	2.5340
49564.	0.000						
480.000	-0.000274	0.000	0.000	-6.062E-06	0.000	8.091E+09	2.8739
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 7:

Pile-head deflection	=	2.3228178 inches
Computed slope at pile head	=	-0.0245397 radians
Maximum bending moment	=	1686196. inch-lbs
Maximum shear force	=	24349. lbs
Depth of maximum bending moment	=	96.0000000 inches below pile head
Depth of maximum shear force	=	0.0000000 inches below pile head
Number of iterations	=	19
Number of zero deflection points	=	3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 8

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head	=	27667.000 lbs
Applied moment at pile head	=	0.000 in-lbs
Axial thrust load on pile head	=	0.000 lbs

Depth	Deflect.	Bending	Shear	Slope	Total	Bending	Soil Res.	Soil Spr.
Distrib.	x	Moment	Force	s	Stress	Stiffness	p	Es*h
Lat. Load	inches	in-lbs	lbs	radians	psi*	lb-in^2	lb/in	lb/inch
lb/inch								
0.000	0.000	3.743E-06	27667.	-0.0296	8.552E-08	8.091E+09	0.000	
0.000	0.000	132802.	27667.	-0.0296	3034.4452	8.091E+09	0.000	
0.000	0.000	265603.	27667.	-0.0295	6068.8903	8.091E+09	0.000	
0.000	0.000	398405.	27630.	-0.0293	9103.3355	8.091E+09	-15.3144	
29.9701	0.000							

19.200	2.3128	530854.	27473.	-0.0290	12130.	8.091E+09	-50.2170
104.2219	0.000						
24.000	2.1743	662145.	27143.	-0.0287	15130.	8.091E+09	-87.2211
192.5490	0.000						
28.800	2.0377	791427.	26641.	-0.0282	18084.	8.091E+09	-122.0103
287.4026	0.000						
33.600	1.9034	917899.	25987.	-0.0277	20973.	8.091E+09	-150.2686
378.9462	0.000						
38.400	1.7717	1040907.	25224.	-0.0271	23784.	8.091E+09	-167.6797
454.2888	0.000						
43.200	1.6430	1160053.	24414.	-0.0265	26507.	8.091E+09	-169.9274
496.4548	0.000						
48.000	1.5175	1275283.	23561.	-0.0258	29140.	8.091E+09	-185.4157
586.4841	0.000						
52.800	1.3957	1386242.	22568.	-0.0250	31675.	8.091E+09	-228.4096
785.5321	0.000						
57.600	1.2778	1491938.	21358.	-0.0241	34090.	8.091E+09	-275.6980
1035.6194	0.000						
62.400	1.1642	1591281.	19911.	-0.0232	36360.	8.091E+09	-327.2565
1349.2569	0.000						
67.200	1.0551	1683085.	18207.	-0.0222	38458.	8.091E+09	-382.9813
1742.2501	0.000						
72.000	0.9508	1766065.	16225.	-0.0212	40354.	8.091E+09	-442.5314
2233.9623	0.000						
76.800	0.8516	1838849.	13951.	-0.0201	42017.	8.091E+09	-505.0068
2846.5036	0.000						
81.600	0.7576	1899998.	11375.	-0.0190	43414.	8.091E+09	-568.4501
3601.7905	0.000						
86.400	0.6689	1948049.	8500.3899	-0.0179	44512.	8.091E+09	-629.3117
4515.6366	0.000						
91.200	0.5859	1981602.	5352.7151	-0.0167	45279.	8.091E+09	-682.2194
5589.3534	0.000						
96.000	0.5084	1999435.	1986.1982	-0.0155	45686.	8.091E+09	-720.4960
6801.8348	0.000						
100.800	0.4367	2000669.	-1513.2774	-0.0144	45714.	8.091E+09	-737.6188
8107.2493	0.000						
105.600	0.3707	1984908.	-5033.6191	-0.0132	45354.	8.091E+09	-729.1902
9442.3568	0.000						
110.400	0.3103	1952346.	-8450.2909	-0.0120	44610.	8.091E+09	-694.4230
10742.	0.000						
115.200	0.2555	1903785.	-11644.	-0.0109	43500.	8.091E+09	-636.3035
11955.	0.000						
120.000	0.2061	1840564.	-14516.	-0.009746	42056.	8.091E+09	-560.4462
13054.	0.000						
124.800	0.1619	1764429.	-16997.	-0.008677	40316.	8.091E+09	-473.4123
14034.	0.000						
129.600	0.1228	1677388.	-19049.	-0.007656	38327.	8.091E+09	-381.3146
14907.	0.000						
134.400	0.0884	1581560.	-20658.	-0.006689	36138.	8.091E+09	-289.0722
15693.	0.000						
139.200	0.0586	1479073.	-21832.	-0.005781	33796.	8.091E+09	-200.2410
16412.	0.000						
144.000	0.0329	1371972.	-22594.	-0.004936	31349.	8.091E+09	-117.1750
17085.	0.000						

148.800	0.0112	1262171.	-22974.	-0.004154	28840.	8.091E+09	-41.3028
17727.	0.000						
153.600	-0.006959	1151419.	-23010.	-0.003438	26309.	8.091E+09	26.6040
18350.	0.000						
158.400	-0.0218	1041280.	-22739.	-0.002788	23793.	8.091E+09	86.2200
18964.	0.000						
163.200	-0.0337	933127.	-22202.	-0.002202	21321.	8.091E+09	137.5157
19574.	0.000						
168.000	-0.0430	828143.	-21438.	-0.001680	18923.	8.091E+09	180.6592
20184.	0.000						
172.800	-0.0498	727321.	-20486.	-0.001218	16619.	8.091E+09	215.9511
20795.	0.000						
177.600	-0.0547	631474.	-19383.	-0.000815	14429.	8.091E+09	243.7623
21406.	0.000						
182.400	-0.0577	541244.	-18163.	-0.000467	12367.	8.091E+09	264.5823
22020.	0.000						
187.200	-0.0591	457109.	-16859.	-0.000171	10445.	8.091E+09	278.9413
22637.	0.000						
192.000	-0.0593	379402.	-15499.	7.687E-05	8669.1317	8.091E+09	287.4082
23257.	0.000						
196.800	-0.0584	308316.	-14112.	0.000281	7044.8642	8.091E+09	290.5766
23880.	0.000						
201.600	-0.0566	243926.	-12721.	0.000445	5573.5712	8.091E+09	289.0536
24504.	0.000						
206.400	-0.0541	186195.	-11347.	0.000572	4254.4509	8.091E+09	283.4486
25130.	0.000						
211.200	-0.0511	134995.	-10008.	0.000668	3084.5527	8.091E+09	274.3640
25758.	0.000						
216.000	-0.0477	90116.	-8720.0444	0.000734	2059.0938	8.091E+09	262.3864
26386.	0.000						
220.800	-0.0441	51282.	-7494.9280	0.000776	1171.7688	8.091E+09	248.0787
27015.	0.000						
225.600	-0.0403	18164.	-6342.8036	0.000797	415.0451	8.091E+09	231.9731
27644.	0.000						
230.400	-0.0364	-9608.7996	-5271.1103	0.000799	219.5559	8.091E+09	214.5657
28272.	0.000						
235.200	-0.0326	-32438.	-4285.0047	0.000787	741.1984	8.091E+09	196.3116
28900.	0.000						
240.000	-0.0289	-50745.	-3387.5644	0.000762	1159.4924	8.091E+09	177.6218
29527.	0.000						
244.800	-0.0253	-64959.	-2580.0058	0.000728	1484.2771	8.091E+09	158.8610
30154.	0.000						
249.600	-0.0219	-75513.	-1861.9075	0.000686	1725.4292	8.091E+09	140.3467
30780.	0.000						
254.400	-0.0187	-82833.	-1231.4368	0.000639	1892.6955	8.091E+09	122.3494
31406.	0.000						
259.200	-0.0157	-87335.	-685.5727	0.000589	1995.5508	8.091E+09	105.0939
32030.	0.000						
264.000	-0.0130	-89415.	-220.3214	0.000536	2043.0792	8.091E+09	88.7608
32654.	0.000						
268.800	-0.0106	-89450.	169.0784	0.000483	2043.8793	8.091E+09	73.4891
33278.	0.000						
273.600	-0.008407	-87792.	487.9640	0.000431	2005.9910	8.091E+09	59.3799
33901.	0.000						

278.400	-0.006465	-84765.	747.2881	0.000380	1936.8421	8.091E+09	48.6719
36138.	0.000						
283.200	-0.004764	-80618.	952.9191	0.000331	1842.0698	8.091E+09	37.0077
37290.	0.000						
288.000	-0.003292	-75617.	1105.0142	0.000284	1727.8147	8.091E+09	26.3653
38442.	0.000						
292.800	-0.002036	-70010.	1208.5928	0.000241	1599.6796	8.091E+09	16.7925
39594.	0.000						
297.600	-0.000979	-64015.	1268.8363	0.000201	1462.7040	8.091E+09	8.3090
40746.	0.000						
302.400	-0.000104	-57829.	1290.9601	0.000165	1321.3542	8.091E+09	0.9093
41898.	0.000						
307.200	0.000606	-51622.	1280.1024	0.000133	1179.5257	8.091E+09	-5.4333
43050.	0.000						
312.000	0.001169	-45540.	1241.2311	0.000104	1040.5575	8.091E+09	-10.7631
44202.	0.000						
316.800	0.001602	-39706.	1179.0693	7.849E-05	907.2556	8.091E+09	-15.1377
45354.	0.000						
321.600	0.001922	-34221.	1098.0393	5.656E-05	781.9229	8.091E+09	-18.6248
46506.	0.000						
326.400	0.002145	-29165.	1002.2240	3.776E-05	666.3954	8.091E+09	-21.2982
47658.	0.000						
331.200	0.002285	-24599.	895.3470	2.181E-05	562.0803	8.091E+09	-23.2339
48810.	0.000						
336.000	0.002355	-20569.	804.8332	8.417E-06	469.9967	8.091E+09	-14.4801
29520.	0.000						
340.800	0.002366	-16873.	734.3470	-2.690E-06	385.5362	8.091E+09	-14.8891
30211.	0.000						
345.600	0.002329	-13520.	662.6324	-1.170E-05	308.9141	8.091E+09	-14.9920
30902.	0.000						
350.400	0.002253	-10512.	591.0576	-1.883E-05	240.1846	8.091E+09	-14.8308
31593.	0.000						
355.200	0.002148	-7845.3825	520.7917	-2.428E-05	179.2628	8.091E+09	-14.4466
32284.	0.000						
360.000	0.002020	-5512.0072	452.8112	-2.824E-05	125.9464	8.091E+09	-13.8786
32976.	0.000						
364.800	0.001877	-3498.3947	387.9097	-3.091E-05	79.9364	8.091E+09	-13.1637
33667.	0.000						
369.600	0.001723	-1788.0737	326.7100	-3.248E-05	40.8565	8.091E+09	-12.3362
34358.	0.000						
374.400	0.001565	-361.9785	269.6776	-3.312E-05	8.2710	8.091E+09	-11.4273
35049.	0.000						
379.200	0.001405	800.8312	217.1356	-3.299E-05	18.2986	8.091E+09	-10.4652
35740.	0.000						
384.000	0.001248	1722.5235	169.2808	-3.224E-05	39.3587	8.091E+09	-9.4744
36432.	0.000						
388.800	0.001096	2425.9264	126.1993	-3.101E-05	55.4311	8.091E+09	-8.4762
37123.	0.000						
393.600	0.000951	2934.0369	87.8835	-2.942E-05	67.0412	8.091E+09	-7.4887
37814.	0.000						
398.400	0.000814	3269.6085	54.2478	-2.758E-05	74.7088	8.091E+09	-6.5262
38505.	0.000						
403.200	0.000686	3454.8156	25.1439	-2.559E-05	78.9407	8.091E+09	-5.6004
39196.	0.000						

408.000	0.000568	3510.9901	0.3763	-2.352E-05	80.2242	8.091E+09	-4.7195
39888.	0.000						
412.800	0.000460	3458.4277	-20.2845	-2.145E-05	79.0232	8.091E+09	-3.8892
40579.	0.000						
417.600	0.000362	3316.2592	-37.0883	-1.944E-05	75.7747	8.091E+09	-3.1124
41270.	0.000						
422.400	0.000273	3102.3802	-50.2942	-1.754E-05	70.8877	8.091E+09	-2.3900
41961.	0.000						
427.200	0.000194	2833.4350	-60.1597	-1.578E-05	64.7425	8.091E+09	-1.7206
42652.	0.000						
432.000	0.000122	2524.8471	-66.9317	-1.419E-05	57.6914	8.091E+09	-1.1011
43344.	0.000						
436.800	5.743E-05	2190.8906	-70.8387	-1.279E-05	50.0607	8.091E+09	-0.5268
44035.	0.000						
441.600	-8.402E-07	1844.7956	-72.0843	-1.159E-05	42.1526	8.091E+09	0.007828
44726.	0.000						
446.400	-5.386E-05	1498.8810	-70.8426	-1.060E-05	34.2486	8.091E+09	0.5096
45417.	0.000						
451.200	-0.000103	1164.7070	-67.2542	-9.810E-06	26.6129	8.091E+09	0.9856
46108.	0.000						
456.000	-0.000148	853.2410	-61.4248	-9.212E-06	19.4961	8.091E+09	1.4433
46800.	0.000						
460.800	-0.000191	575.0287	-53.4247	-8.788E-06	13.1391	8.091E+09	1.8901
47491.	0.000						
465.600	-0.000232	340.3636	-43.2899	-8.516E-06	7.7771	8.091E+09	2.3328
48182.	0.000						
470.400	-0.000273	159.4458	-31.0252	-8.368E-06	3.6432	8.091E+09	2.7775
48873.	0.000						
475.200	-0.000313	42.5222	-16.6089	-8.308E-06	0.9716	8.091E+09	3.2292
49564.	0.000						
480.000	-0.000353	0.000	0.000	-8.296E-06	0.000	8.091E+09	3.6912
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 8:

Pile-head deflection = 2.8779670 inches
 Computed slope at pile head = -0.0296341 radians
 Maximum bending moment = 2000669. inch-lbs
 Maximum shear force = 27667. lbs
 Depth of maximum bending moment = 100.8000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 20
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection

for Lateral Loading for Load Case Number 9

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 30327.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	0.000	30327.	-0.0340	0.000	8.091E+09	0.000	
4.800	0.000	145570.	30327.	-0.0339	3326.1871	8.091E+09	0.000	
9.600	0.000	291139.	30327.	-0.0338	6652.3742	8.091E+09	0.000	
14.400	0.000	436709.	30290.	-0.0336	9978.5613	8.091E+09	-15.3144	
19.200	0.000	581926.	30133.	-0.0333	13297.	8.091E+09	-50.2170	
24.000	0.000	725985.	29803.	-0.0329	16588.	8.091E+09	-87.2210	
28.800	0.000	868035.	29301.	-0.0324	19834.	8.091E+09	-122.0103	
33.600	0.000	1007275.	28647.	-0.0319	23016.	8.091E+09	-150.2687	
38.400	0.000	1143051.	27884.	-0.0312	26118.	8.091E+09	-167.6797	
43.200	0.000	1274965.	27074.	-0.0305	29132.	8.091E+09	-169.9273	
48.000	0.000	1402963.	26221.	-0.0297	32057.	8.091E+09	-185.4156	
52.800	0.000	1526690.	25228.	-0.0289	34884.	8.091E+09	-228.4100	
57.600	0.000	1645154.	24018.	-0.0279	37591.	8.091E+09	-275.7033	
62.400	0.000	1757265.	22571.	-0.0269	40153.	8.091E+09	-327.2911	
67.200	0.000	1861836.	20866.	-0.0258	42542.	8.091E+09	-383.1495	
72.000	0.000	1957579.	18883.	-0.0247	44730.	8.091E+09	-443.1762	
76.800	0.000	2043112.	16602.	-0.0235	46684.	8.091E+09	-507.0300	
81.600	0.000	2116962.	14008.	-0.0223	48371.	8.091E+09	-573.7921	
2995.2966	0.000							

86.400	0.8156	2177592.	11092.	-0.0210	49757.	8.091E+09	-641.4202
3775.0111	0.000						
91.200	0.7178	2223444.	7857.7797	-0.0197	50805.	8.091E+09	-706.1218
4721.5887	0.000						
96.000	0.6265	2253027.	4334.2422	-0.0184	51480.	8.091E+09	-762.0188
5838.7583	0.000						
100.800	0.5415	2265053.	581.4854	-0.0170	51755.	8.091E+09	-801.6299
7106.2887	0.000						
105.600	0.4629	2258609.	-3304.3798	-0.0157	51608.	8.091E+09	-817.4806
8476.1550	0.000						
110.400	0.3908	2233331.	-7196.9444	-0.0144	51030.	8.091E+09	-804.4213
9879.4501	0.000						
115.200	0.3251	2189518.	-10955.	-0.0130	50029.	8.091E+09	-761.4875
11243.	0.000						
120.000	0.2656	2128162.	-14444.	-0.0118	48627.	8.091E+09	-692.1985
12510.	0.000						
124.800	0.2121	2050856.	-17553.	-0.0105	46861.	8.091E+09	-603.2181
13649.	0.000						
129.600	0.1645	1959653.	-20206.	-0.009337	44777.	8.091E+09	-502.3063
14654.	0.000						
134.400	0.1225	1856877.	-22364.	-0.008205	42429.	8.091E+09	-396.6106
15540.	0.000						
139.200	0.0858	1744962.	-24016.	-0.007136	39871.	8.091E+09	-291.7757
16329.	0.000						
144.000	0.0540	1626325.	-25176.	-0.006136	37161.	8.091E+09	-191.7733
17047.	0.000						
148.800	0.0269	1503270.	-25874.	-0.005208	34349.	8.091E+09	-99.1344
17715.	0.000						
153.600	0.004004	1377930.	-26149.	-0.004353	31485.	8.091E+09	-15.3088
18351.	0.000						
158.400	-0.0149	1252238.	-26044.	-0.003573	28613.	8.091E+09	58.9995
18969.	0.000						
163.200	-0.0303	1127906.	-25606.	-0.002867	25772.	8.091E+09	123.5760
19578.	0.000						
168.000	-0.0425	1006420.	-24881.	-0.002234	22996.	8.091E+09	178.5198
20185.	0.000						
172.800	-0.0517	889048.	-23915.	-0.001672	20314.	8.091E+09	224.1282
20791.	0.000						
177.600	-0.0585	776839.	-22751.	-0.001178	17750.	8.091E+09	260.7990
21398.	0.000						
182.400	-0.0630	670639.	-21431.	-0.000748	15324.	8.091E+09	289.0752
22008.	0.000						
187.200	-0.0657	571100.	-19994.	-0.000380	13049.	8.091E+09	309.5566
22621.	0.000						
192.000	-0.0667	478692.	-18477.	-6.848E-05	10938.	8.091E+09	322.8920
23239.	0.000						
196.800	-0.0663	393725.	-16910.	0.000190	8996.3950	8.091E+09	329.7618
23859.	0.000						
201.600	-0.0649	316354.	-15325.	0.000401	7228.5289	8.091E+09	330.8648
24483.	0.000						
206.400	-0.0625	246607.	-13746.	0.000568	5634.8471	8.091E+09	326.9062
25109.	0.000						
211.200	-0.0594	184392.	-12197.	0.000696	4213.2656	8.091E+09	318.5866
25738.	0.000						

216.000	-0.0558	129517.	-10696.	0.000789	2959.4045	8.091E+09	306.5926
26367.	0.000						
220.800	-0.0518	81707.	-9260.8090	0.000852	1866.9496	8.091E+09	291.5872
26998.	0.000						
225.600	-0.0476	40614.	-7902.9150	0.000888	928.0012	8.091E+09	274.2020
27628.	0.000						
230.400	-0.0433	5838.5161	-6632.7584	0.000902	133.4070	8.091E+09	255.0299
28259.	0.000						
235.200	-0.0390	-23061.	-5457.6001	0.000896	526.9264	8.091E+09	234.6194
28889.	0.000						
240.000	-0.0347	-46554.	-4382.1869	0.000876	1063.7440	8.091E+09	213.4695
29518.	0.000						
244.800	-0.0306	-65130.	-3408.9945	0.000843	1488.1803	8.091E+09	192.0273
30146.	0.000						
249.600	-0.0266	-79281.	-2538.4828	0.000800	1811.5235	8.091E+09	170.6859
30774.	0.000						
254.400	-0.0229	-89499.	-1769.3561	0.000750	2045.0088	8.091E+09	149.7836
31401.	0.000						
259.200	-0.0194	-96267.	-1098.8226	0.000695	2199.6403	8.091E+09	129.6053
32027.	0.000						
264.000	-0.0162	-100048.	-522.8485	0.000636	2286.0409	8.091E+09	110.3839
32652.	0.000						
268.800	-0.0133	-101286.	-36.4002	0.000577	2314.3296	8.091E+09	92.3029
33276.	0.000						
273.600	-0.0107	-100397.	366.3262	0.000517	2294.0254	8.091E+09	75.4998
33900.	0.000						
278.400	-0.008352	-97769.	698.4330	0.000458	2233.9742	8.091E+09	62.8781
36137.	0.000						
283.200	-0.006292	-93692.	966.6535	0.000401	2140.8207	8.091E+09	48.8804
37290.	0.000						
288.000	-0.004499	-88489.	1170.4392	0.000347	2021.9341	8.091E+09	36.0303
38442.	0.000						
292.800	-0.002958	-82456.	1315.4665	0.000297	1884.0792	8.091E+09	24.3977
39594.	0.000						
297.600	-0.001651	-75861.	1407.6655	0.000250	1733.3801	8.091E+09	14.0185
40746.	0.000						
302.400	-0.000561	-68943.	1453.0648	0.000207	1575.3010	8.091E+09	4.8978
41898.	0.000						
307.200	0.000333	-61911.	1457.6544	0.000168	1414.6434	8.091E+09	-2.9855
43050.	0.000						
312.000	0.001051	-54949.	1427.2708	0.000133	1255.5574	8.091E+09	-9.6744
44202.	0.000						
316.800	0.001612	-48210.	1367.5022	0.000103	1101.5646	8.091E+09	-15.2293
45354.	0.000						
321.600	0.002036	-41821.	1283.6157	7.591E-05	955.5892	8.091E+09	-19.7234
46506.	0.000						
326.400	0.002341	-35887.	1180.5066	5.286E-05	819.9973	8.091E+09	-23.2387
47658.	0.000						
331.200	0.002543	-30488.	1062.6671	3.317E-05	696.6394	8.091E+09	-25.8611
48810.	0.000						
336.000	0.002659	-25685.	961.3538	1.651E-05	586.8961	8.091E+09	-16.3528
29520.	0.000						
340.800	0.002702	-21259.	881.2968	2.587E-06	485.7618	8.091E+09	-17.0043
30211.	0.000						

345.600	0.002684	-17225.	799.0181	-8.828E-06	393.5794	8.091E+09	-17.2785
30902.	0.000						
350.400	0.002617	-13589.	716.2108	-1.797E-05	310.4933	8.091E+09	-17.2246
31593.	0.000						
355.200	0.002511	-10349.	634.3328	-2.507E-05	236.4751	8.091E+09	-16.8912
32284.	0.000						
360.000	0.002376	-7499.0528	554.6139	-3.036E-05	171.3493	8.091E+09	-16.3250
32976.	0.000						
364.800	0.002220	-5024.9698	478.0658	-3.408E-05	114.8179	8.091E+09	-15.5700
33667.	0.000						
369.600	0.002049	-2909.6207	405.4954	-3.643E-05	66.4833	8.091E+09	-14.6676
34358.	0.000						
374.400	0.001870	-1132.2142	337.5196	-3.763E-05	25.8705	8.091E+09	-13.6556
35049.	0.000						
379.200	0.001688	330.5677	274.5832	-3.787E-05	7.5533	8.091E+09	-12.5679
35740.	0.000						
384.000	0.001507	1503.7843	216.9762	-3.732E-05	34.3607	8.091E+09	-11.4350
36432.	0.000						
388.800	0.001330	2413.5391	164.8533	-3.616E-05	55.1481	8.091E+09	-10.2829
37123.	0.000						
393.600	0.001159	3086.3760	118.2528	-3.453E-05	70.5220	8.091E+09	-9.1340
37814.	0.000						
398.400	0.000998	3548.7658	77.1154	-3.256E-05	81.0874	8.091E+09	-8.0066
38505.	0.000						
403.200	0.000847	3826.6840	41.3031	-3.037E-05	87.4377	8.091E+09	-6.9152
39196.	0.000						
408.000	0.000706	3945.2754	10.6165	-2.807E-05	90.1474	8.091E+09	-5.8709
39888.	0.000						
412.800	0.000577	3928.6021	-15.1881	-2.573E-05	89.7664	8.091E+09	-4.8811
40579.	0.000						
417.600	0.000459	3799.4694	-36.3832	-2.344E-05	86.8158	8.091E+09	-3.9502
41270.	0.000						
422.400	0.000352	3579.3230	-53.2560	-2.125E-05	81.7856	8.091E+09	-3.0801
41961.	0.000						
427.200	0.000255	3288.2122	-66.0951	-1.922E-05	75.1339	8.091E+09	-2.2696
42652.	0.000						
432.000	0.000168	2944.8101	-75.1799	-1.737E-05	67.2873	8.091E+09	-1.5158
43344.	0.000						
436.800	8.869E-05	2566.4849	-80.7705	-1.573E-05	58.6428	8.091E+09	-0.8136
44035.	0.000						
441.600	1.683E-05	2169.4133	-83.0997	-1.433E-05	49.5699	8.091E+09	-0.1568
44726.	0.000						
446.400	-4.885E-05	1768.7283	-82.3667	-1.316E-05	40.4145	8.091E+09	0.4622
45417.	0.000						
451.200	-0.000109	1378.6929	-78.7330	-1.223E-05	31.5024	8.091E+09	1.0518
46108.	0.000						
456.000	-0.000166	1012.8915	-72.3192	-1.152E-05	23.1440	8.091E+09	1.6206
46800.	0.000						
460.800	-0.000220	684.4288	-63.2045	-1.101E-05	15.6388	8.091E+09	2.1772
47491.	0.000						
465.600	-0.000272	406.1283	-51.4280	-1.069E-05	9.2798	8.091E+09	2.7297
48182.	0.000						
470.400	-0.000323	190.7200	-36.9918	-1.051E-05	4.3578	8.091E+09	3.2854
48873.	0.000						

475.200	-0.000373	51.0071	-19.8667	-1.044E-05	1.1655	8.091E+09	3.8501
49564.	0.000						
480.000	-0.000423	0.000	0.000	-1.043E-05	0.000	8.091E+09	4.4277
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 9:

Pile-head deflection	=	3.3651764 inches
Computed slope at pile head	=	-0.0339837 radians
Maximum bending moment	=	2265053. inch-lbs
Maximum shear force	=	30327. lbs
Depth of maximum bending moment	=	100.8000000 inches below pile head
Depth of maximum shear force	=	0.0000000 inches below pile head
Number of iterations	=	21
Number of zero deflection points	=	3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 10

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head	=	33259.000 lbs
Applied moment at pile head	=	0.000 in-lbs
Axial thrust load on pile head	=	0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	-2.183E-06	33259.	-0.0390	4.989E-08	8.091E+09	0.000	
4.800	0.000	159643.	33259.	-0.0390	3647.7613	8.091E+09	0.000	
9.600	0.000	319286.	33259.	-0.0389	7295.5226	8.091E+09	0.000	
14.400	0.000	478930.	33222.	-0.0386	10943.	8.091E+09	-15.3144	
21.7135	0.000	638220.	33065.	-0.0383	14583.	8.091E+09	-50.2170	
19.200	0.000							
75.3085	0.000							

24.000	3.0179	796353.	32735.	-0.0379	18196.	8.091E+09	-87.2210
138.7281	0.000						
28.800	2.8373	952477.	32233.	-0.0373	21764.	8.091E+09	-122.0103
206.4143	0.000						
33.600	2.6594	1105790.	31579.	-0.0367	25267.	8.091E+09	-150.2686
271.2263	0.000						
38.400	2.4846	1255640.	30816.	-0.0360	28691.	8.091E+09	-167.6797
323.9373	0.000						
43.200	2.3135	1401627.	30006.	-0.0352	32026.	8.091E+09	-169.9273
352.5675	0.000						
48.000	2.1463	1543699.	29153.	-0.0344	35273.	8.091E+09	-185.4156
414.6671	0.000						
52.800	1.9835	1681499.	28160.	-0.0334	38421.	8.091E+09	-228.4100
552.7412	0.000						
57.600	1.8255	1814037.	26950.	-0.0324	41450.	8.091E+09	-275.7038
724.9315	0.000						
62.400	1.6727	1940222.	25503.	-0.0313	44333.	8.091E+09	-327.2965
939.2145	0.000						
67.200	1.5254	2058867.	23798.	-0.0301	47044.	8.091E+09	-383.1843
1205.7714	0.000						
72.000	1.3840	2168682.	21814.	-0.0288	49553.	8.091E+09	-443.3457
1537.6535	0.000						
76.800	1.2487	2268283.	19532.	-0.0275	51829.	8.091E+09	-507.6868
1951.5374	0.000						
81.600	1.1199	2356187.	16931.	-0.0261	53838.	8.091E+09	-575.8845
2468.2845	0.000						
86.400	0.9978	2430823.	13996.	-0.0247	55543.	8.091E+09	-647.0415
3112.6014	0.000						
91.200	0.8826	2490551.	10717.	-0.0233	56908.	8.091E+09	-719.0966
3910.5879	0.000						
96.000	0.7746	2533711.	7100.1968	-0.0218	57894.	8.091E+09	-788.0943
4883.8166	0.000						
100.800	0.6737	2558713.	3174.2989	-0.0203	58465.	8.091E+09	-847.6965
6039.6311	0.000						
105.600	0.5801	2564184.	-995.1154	-0.0187	58590.	8.091E+09	-889.5595
7360.2012	0.000						
110.400	0.4939	2549160.	-5302.1712	-0.0172	58247.	8.091E+09	-905.0471
8796.5103	0.000						
115.200	0.4148	2513283.	-9605.3486	-0.0157	57427.	8.091E+09	-887.9435
10274.	0.000						
120.000	0.3430	2456948.	-13745.	-0.0142	56140.	8.091E+09	-836.8289
11711.	0.000						
124.800	0.2781	2381333.	-17567.	-0.0128	54412.	8.091E+09	-755.6555
13041.	0.000						
129.600	0.2200	2288307.	-20946.	-0.0114	52287.	8.091E+09	-652.2439
14228.	0.000						
134.400	0.1685	2180254.	-23797.	-0.0101	49818.	8.091E+09	-535.7834
15265.	0.000						
139.200	0.1231	2059856.	-26078.	-0.008838	47067.	8.091E+09	-414.7002
16167.	0.000						
144.000	0.0836	1929904.	-27783.	-0.007655	44097.	8.091E+09	-295.5501
16963.	0.000						
148.800	0.0496	1793142.	-28931.	-0.006550	40972.	8.091E+09	-182.8306
17679.	0.000						

153.600	0.0208	1652167.	-29560.	-0.005528	37751.	8.091E+09	-79.2979
18343.	0.000						
158.400	-0.003433	1509366.	-29718.	-0.004591	34488.	8.091E+09	13.5683
18973.	0.000						
163.200	-0.0233	1366877.	-29457.	-0.003737	31232.	8.091E+09	95.1438
19585.	0.000						
168.000	-0.0393	1226581.	-28832.	-0.002968	28027.	8.091E+09	165.3461
20189.	0.000						
172.800	-0.0518	1090094.	-27896.	-0.002281	24908.	8.091E+09	224.4227
20791.	0.000						
177.600	-0.0612	958777.	-26703.	-0.001673	21908.	8.091E+09	272.7863
21392.	0.000						
182.400	-0.0679	833746.	-25302.	-0.001141	19051.	8.091E+09	311.0317
21996.	0.000						
187.200	-0.0722	715881.	-23740.	-0.000682	16357.	8.091E+09	339.8381
22604.	0.000						
192.000	-0.0744	605845.	-22060.	-0.000290	13843.	8.091E+09	359.9477
23217.	0.000						
196.800	-0.0749	504103.	-20303.	3.954E-05	11518.	8.091E+09	372.1427
23834.	0.000						
201.600	-0.0740	410935.	-18505.	0.000311	9389.6447	8.091E+09	377.2292
24456.	0.000						
206.400	-0.0720	326458.	-16697.	0.000530	7459.3992	8.091E+09	376.0234
25082.	0.000						
211.200	-0.0690	250645.	-14908.	0.000701	5727.1119	8.091E+09	369.3401
25711.	0.000						
216.000	-0.0652	183342.	-13162.	0.000830	4189.2643	8.091E+09	357.9820
26341.	0.000						
220.800	-0.0610	124286.	-11481.	0.000921	2839.8768	8.091E+09	342.7297
26974.	0.000						
225.600	-0.0564	73127.	-9879.7385	0.000979	1670.9200	8.091E+09	324.3322
27607.	0.000						
230.400	-0.0516	29441.	-8372.9455	0.001010	672.7084	8.091E+09	303.4982
28240.	0.000						
235.200	-0.0467	-7252.9560	-6970.4172	0.001016	165.7261	8.091E+09	280.8886
28872.	0.000						
240.000	-0.0418	-37475.	-5679.2183	0.001003	856.2864	8.091E+09	257.1109
29504.	0.000						
244.800	-0.0371	-61773.	-4503.6390	0.000974	1411.4902	8.091E+09	232.7138
30135.	0.000						
249.600	-0.0325	-80710.	-3445.4818	0.000931	1844.1814	8.091E+09	208.1850
30765.	0.000						
254.400	-0.0281	-94850.	-2504.3597	0.000879	2167.2733	8.091E+09	183.9492
31394.	0.000						
259.200	-0.0240	-104752.	-1677.9968	0.000820	2393.5248	8.091E+09	160.3686
32021.	0.000						
264.000	-0.0203	-110959.	-962.5262	0.000756	2535.3500	8.091E+09	137.7441
32648.	0.000						
268.800	-0.0168	-113992.	-352.7773	0.000689	2604.6596	8.091E+09	116.3179
33273.	0.000						
273.600	-0.0136	-114346.	157.4501	0.000622	2612.7334	8.091E+09	96.2768
33898.	0.000						
278.400	-0.0108	-112481.	583.8594	0.000554	2570.1221	8.091E+09	81.3937
36137.	0.000						

283.200	-0.008310	-108740.	934.1462	0.000489	2484.6610	8.091E+09	64.5592
37289.	0.000						
288.000	-0.006119	-103513.	1206.6955	0.000426	2365.2126	8.091E+09	49.0030
38442.	0.000						
292.800	-0.004222	-97156.	1407.8847	0.000366	2219.9665	8.091E+09	34.8258
39594.	0.000						
297.600	-0.002602	-89997.	1544.4742	0.000311	2056.3863	8.091E+09	22.0865
40746.	0.000						
302.400	-0.001238	-82329.	1623.4168	0.000260	1881.1786	8.091E+09	10.8063
41898.	0.000						
307.200	-0.000109	-74412.	1651.6899	0.000213	1700.2820	8.091E+09	0.9741
43050.	0.000						
312.000	0.000809	-66473.	1636.1505	0.000171	1518.8725	8.091E+09	-7.4488
44202.	0.000						
316.800	0.001537	-58705.	1583.4165	0.000134	1341.3844	8.091E+09	-14.5237
45354.	0.000						
321.600	0.002098	-51272.	1499.7717	0.000102	1171.5424	8.091E+09	-20.3283
46506.	0.000						
326.400	0.002513	-44307.	1391.0972	7.332E-05	1012.4022	8.091E+09	-24.9527
47658.	0.000						
331.200	0.002802	-37918.	1262.8269	4.893E-05	866.3985	8.091E+09	-28.4933
48810.	0.000						
336.000	0.002983	-32184.	1150.4155	2.814E-05	735.3950	8.091E+09	-18.3448
29520.	0.000						
340.800	0.003072	-26874.	1059.9816	1.062E-05	614.0493	8.091E+09	-19.3360
30211.	0.000						
345.600	0.003085	-22009.	965.9106	-3.879E-06	502.8830	8.091E+09	-19.8603
30902.	0.000						
350.400	0.003035	-17601.	870.3043	-1.563E-05	402.1721	8.091E+09	-19.9757
31593.	0.000						
355.200	0.002935	-13654.	774.9874	-2.490E-05	311.9775	8.091E+09	-19.7396
32284.	0.000						
360.000	0.002796	-10161.	681.5139	-3.196E-05	232.1749	8.091E+09	-19.2077
32976.	0.000						
364.800	0.002628	-7111.0704	591.1770	-3.709E-05	162.4841	8.091E+09	-18.4327
33667.	0.000						
369.600	0.002440	-4485.7660	505.0237	-4.053E-05	102.4973	8.091E+09	-17.4645
34358.	0.000						
374.400	0.002239	-2262.8431	423.8719	-4.253E-05	51.7047	8.091E+09	-16.3488
35049.	0.000						
379.200	0.002032	-416.5961	348.3294	-4.332E-05	9.5190	8.091E+09	-15.1272
35740.	0.000						
384.000	0.001823	1081.1194	278.8153	-4.313E-05	24.7030	8.091E+09	-13.8370
36432.	0.000						
388.800	0.001618	2260.0312	215.5815	-4.213E-05	51.6405	8.091E+09	-12.5104
37123.	0.000						
393.600	0.001419	3150.7022	158.7354	-4.053E-05	71.9919	8.091E+09	-11.1755
37814.	0.000						
398.400	0.001229	3783.8907	108.2620	-3.847E-05	86.4599	8.091E+09	-9.8551
38505.	0.000						
403.200	0.001049	4190.0174	64.0465	-3.611E-05	95.7396	8.091E+09	-8.5680
39196.	0.000						
408.000	0.000882	4398.7369	25.8949	-3.356E-05	100.5088	8.091E+09	-7.3284
39888.	0.000						

412.800	0.000727	4438.6089	-6.4451	-3.094E-05	101.4198	8.091E+09	-6.1466
40579.	0.000						
417.600	0.000585	4336.8640	-33.2659	-2.834E-05	99.0950	8.091E+09	-5.0288
41270.	0.000						
422.400	0.000455	4119.2561	-54.8822	-2.583E-05	94.1228	8.091E+09	-3.9780
41961.	0.000						
427.200	0.000337	3809.9952	-71.6151	-2.348E-05	87.0563	8.091E+09	-2.9940
42652.	0.000						
432.000	0.000230	3431.7515	-83.7785	-2.133E-05	78.4137	8.091E+09	-2.0741
43344.	0.000						
436.800	0.000132	3005.7216	-91.6670	-1.942E-05	68.6791	8.091E+09	-1.2128
44035.	0.000						
441.600	4.328E-05	2551.7480	-95.5457	-1.777E-05	58.3061	8.091E+09	-0.4033
44726.	0.000						
446.400	-3.838E-05	2088.4830	-95.6420	-1.639E-05	47.7207	8.091E+09	0.3631
45417.	0.000						
451.200	-0.000114	1633.5844	-92.1403	-1.529E-05	37.3265	8.091E+09	1.0959
46108.	0.000						
456.000	-0.000185	1203.9358	-85.1777	-1.445E-05	27.5093	8.091E+09	1.8052
46800.	0.000						
460.800	-0.000253	815.8784	-74.8430	-1.385E-05	18.6424	8.091E+09	2.5010
47491.	0.000						
465.600	-0.000318	485.4431	-61.1777	-1.346E-05	11.0921	8.091E+09	3.1929
48182.	0.000						
470.400	-0.000382	228.5724	-44.1797	-1.325E-05	5.2228	8.091E+09	3.8896
48873.	0.000						
475.200	-0.000445	61.3177	-23.8096	-1.316E-05	1.4011	8.091E+09	4.5980
49564.	0.000						
480.000	-0.000508	0.000	0.000	-1.315E-05	0.000	8.091E+09	5.3227
25128.	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 10:

Pile-head deflection = 3.9458295 inches
 Computed slope at pile head = -0.0390445 radians
 Maximum bending moment = 2564184. inch-lbs
 Maximum shear force = 33259. lbs
 Depth of maximum bending moment = 105.6000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 22
 Number of zero deflection points = 3

 Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
 Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
 Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
 Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
 Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case	Load Type	Pile-head Condition 1 V(lbs) or Rotation y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Pile-head Deflection in-lbs	Maximum Moment lbs
1	1	V = 386.0000	M = 0.000	0.0000000	0.01930514	18224.	386.0000
2	1	V = 5004.0000	M = 0.000	0.0000000	0.26233352	243384.	5004.0000
3	1	V = 8371.0000	M = 0.000	0.0000000	0.47660370	429231.	8371.0000
4	1	V = 10715.	M = 0.000	0.0000000	0.65798015	575861.	10715.
5	1	V = 12777.	M = 0.000	0.0000000	0.84360836	718637.	12777.
6	1	V = 19776.	M = 0.000	0.0000000	1.65287406	1275805.	19776.
7	1	V = 24349.	M = 0.000	0.0000000	2.32281776	1686196.	24349.
8	1	V = 27667.	M = 0.000	0.0000000	2.87796703	2000669.	27667.
9	1	V = 30327.	M = 0.000	0.0000000	3.36517635	2265053.	30327.
10	1	V = 33259.	M = 0.000	0.0000000	3.94582955	2564184.	33259.

The analysis ended normally.

APPENDIX J: LPILE ANALYSIS FOR TP7 (P-MULTIPLIER OF 0.51)

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 210.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth	Deflect.	Bending	Shear	Slope	Total	Bending	Soil Res.	Soil Spr.
Distrib.								
X	y	Moment	Force	S	Stress	Stiffness	p	Es*h
Lat. Load								
inches	inches	in-lbs	lbs	radians	psi*	lb-in ²	lb/in	lb/inch
lb/inch								
0.00	0.0151	-2.071E-08	210.0000	-0.000168	4.733E-10	8.091E+09	0.000	0.000
0.000								
4.800	0.0143	1008.0000	210.0000	-0.000168	23.0323	8.091E+09	0.000	0.000
0.000								
9.600	0.0135	2016.0000	210.0000	-0.000167	46.0645	8.091E+09	0.000	0.000
0.000								
14.400	0.0127	3024.0000	208.9910	-0.000165	69.0968	8.091E+09	-0.4204	158.4771
0.000								
19.200	0.0119	4022.3135	205.1417	-0.000163	91.9077	8.091E+09	-1.1834	475.5523
0.000								
24.000	0.0112	4993.3606	197.8752	-0.000160	114.0956	8.091E+09	-1.8443	792.6973
0.000								
28.800	0.0104	5921.9157	187.6753	-0.000157	135.3126	8.091E+09	-2.4057	1109.8593
0.000								
33.600	0.009658	6795.0431	175.0105	-0.000153	155.2631	8.091E+09	-2.8713	1427.0053
0.000								
38.400	0.008931	7602.0162	160.3310	-0.000149	173.7020	8.091E+09	-3.2451	1744.0965
0.000								
43.200	0.008226	8334.2211	144.0658	-0.000144	190.4325	8.091E+09	-3.5320	2061.0529
0.000								
48.000	0.007544	8985.0479	126.6181	-0.000139	205.3035	8.091E+09	-3.7379	2378.2162
0.000								
52.800	0.006888	9549.7547	108.3629	-0.000134	218.2068	8.091E+09	-3.8685	2695.7252
0.000								
57.600	0.006259	10025.	89.6483	-0.000128	229.0735	8.091E+09	-3.9293	3013.1929
0.000								
62.400	0.005659	10410.	70.7939	-0.000122	237.8716	8.091E+09	-3.9267	3330.6238
0.000								

67.200	0.005088	10705.	52.0884	-0.000116	244.6024	8.091E+09	-3.8672	3648.0229
0.000								
72.000	0.004548	10910.	33.7890	-0.000109	249.2974	8.091E+09	-3.7575	3965.3950
0.000								
76.800	0.004039	11029.	16.1216	-0.000103	252.0142	8.091E+09	-3.6040	4282.7444
0.000								
81.600	0.003562	11065.	-0.7197	-9.623E-05	252.8337	8.091E+09	-3.4132	4600.0750
0.000								
86.400	0.003115	11022.	-16.5713	-8.968E-05	251.8564	8.091E+09	-3.1916	4917.3903
0.000								
91.200	0.002701	10906.	-31.2997	-8.318E-05	249.1987	8.091E+09	-2.9452	5234.6931
0.000								
96.000	0.002317	10722.	-44.8001	-7.676E-05	244.9906	8.091E+09	-2.6799	5551.9859
0.000								
100.800	0.001964	10476.	-56.9948	-7.047E-05	239.3716	8.091E+09	-2.4012	5869.2706
0.000								
105.600	0.001640	10175.	-67.8319	-6.435E-05	232.4885	8.091E+09	-2.1143	6186.5491
0.000								
110.400	0.001346	9824.8425	-77.2833	-5.841E-05	224.4924	8.091E+09	-1.8238	6503.8226
0.000								
115.200	0.001080	9432.8720	-85.3427	-5.270E-05	215.5361	8.091E+09	-1.5342	6821.0924
0.000								
120.000	0.000840	9005.5529	-92.0233	-4.723E-05	205.7720	8.091E+09	-1.2494	7138.3593
0.000								
124.800	0.000626	8549.4485	-97.3561	-4.202E-05	195.3503	8.091E+09	-0.9727	7455.6241
0.000								
129.600	0.000437	8070.9340	-101.3876	-3.709E-05	184.4165	8.091E+09	-0.7071	7772.8874
0.000								
134.400	0.000270	7576.1278	-104.1772	-3.245E-05	173.1104	8.091E+09	-0.4552	8090.1496
0.000								
139.200	0.000125	7070.8329	-105.7957	-2.811E-05	161.5647	8.091E+09	-0.2191	8407.4110
0.000								
144.000	2.520E-07	6560.4893	-106.3227	-2.407E-05	149.9037	8.091E+09	-0.000458	8724.6720
0.000								
148.800	-0.000106	6050.1351	-105.8449	-2.032E-05	138.2423	8.091E+09	0.1995	9041.9327
0.000								
153.600	-0.000195	5544.3780	-104.4542	-1.689E-05	126.6861	8.091E+09	0.3800	9359.1932
0.000								
158.400	-0.000268	5047.3752	-102.2455	-1.374E-05	115.3298	8.091E+09	0.5403	9676.4537
0.000								
163.200	-0.000327	4562.8212	-99.3157	-1.089E-05	104.2580	8.091E+09	0.6804	9993.7142
0.000								
168.000	-0.000373	4093.9440	-95.7618	-8.325E-06	93.5444	8.091E+09	0.8004	10311.
0.000								
172.800	-0.000407	3643.5077	-91.6795	-6.030E-06	83.2522	8.091E+09	0.9006	10628.
0.000								
177.600	-0.000430	3213.8209	-87.1621	-3.996E-06	73.4341	8.091E+09	0.9816	10945.
0.000								
182.400	-0.000445	2806.7513	-82.2997	-2.210E-06	64.1328	8.091E+09	1.0444	11263.
0.000								
187.200	-0.000452	2423.7439	-77.1778	-6.588E-07	55.3812	8.091E+09	1.0897	11580.
0.000								
192.000	-0.000451	2065.8442	-71.8771	6.729E-07	47.2034	8.091E+09	1.1189	11897.
0.000								

196.800	-0.000445	1733.7236	-66.4726	1.800E-06	39.6147	8.091E+09	1.1330	12215.
0.000								
201.600	-0.000434	1427.7076	-61.0331	2.738E-06	32.6224	8.091E+09	1.1334	12532.
0.000								
206.400	-0.000419	1147.8062	-55.6212	3.502E-06	26.2268	8.091E+09	1.1215	12849.
0.000								
211.200	-0.000401	893.7446	-50.2928	4.107E-06	20.4216	8.091E+09	1.0986	13166.
0.000								
216.000	-0.000380	664.9952	-45.0974	4.570E-06	15.1948	8.091E+09	1.0661	13484.
0.000								
220.800	-0.000357	460.8097	-40.0776	4.904E-06	10.5293	8.091E+09	1.0254	13801.
0.000								
225.600	-0.000332	280.2504	-35.2697	5.123E-06	6.4036	8.091E+09	0.9779	14118.
0.000								
230.400	-0.000307	122.2208	-30.7036	5.243E-06	2.7927	8.091E+09	0.9247	14435.
0.000								
235.200	-0.000282	-14.5045	-26.4034	5.275E-06	0.3314	8.091E+09	0.8671	14753.
0.000								
240.000	-0.000257	-131.2515	-22.3871	5.232E-06	2.9990	8.091E+09	0.8063	15070.
0.000								
244.800	-0.000232	-229.4205	-18.6677	5.125E-06	5.2421	8.091E+09	0.7434	15387.
0.000								
249.600	-0.000208	-310.4614	-15.2531	4.964E-06	7.0939	8.091E+09	0.6793	15704.
0.000								
254.400	-0.000184	-375.8505	-12.1467	4.761E-06	8.5880	8.091E+09	0.6150	16022.
0.000								
259.200	-0.000162	-427.0702	-9.3479	4.523E-06	9.7583	8.091E+09	0.5512	16339.
0.000								
264.000	-0.000141	-465.5901	-6.8521	4.258E-06	10.6385	8.091E+09	0.4887	16656.
0.000								
268.800	-0.000121	-492.8506	-4.6519	3.974E-06	11.2614	8.091E+09	0.4281	16973.
0.000								
273.600	-0.000103	-510.2484	-2.7368	3.676E-06	11.6589	8.091E+09	0.3699	17291.
0.000								
278.400	-8.577E-05	-519.1239	-0.8159	3.371E-06	11.8617	8.091E+09	0.4305	24093.
0.000								
283.200	-7.033E-05	-518.0809	1.0851	3.063E-06	11.8379	8.091E+09	0.3616	24680.
0.000								
288.000	-5.636E-05	-508.7066	2.6650	2.758E-06	11.6237	8.091E+09	0.2967	25268.
0.000								
292.800	-4.385E-05	-492.4965	3.9439	2.461E-06	11.2533	8.091E+09	0.2362	25855.
0.000								
297.600	-3.273E-05	-470.8450	4.9435	2.176E-06	10.7586	8.091E+09	0.1803	26443.
0.000								
302.400	-2.296E-05	-445.0390	5.6865	1.904E-06	10.1689	8.091E+09	0.1293	27030.
0.000								
307.200	-1.445E-05	-416.2542	6.1964	1.649E-06	9.5112	8.091E+09	0.0832	27618.
0.000								
312.000	-7.132E-06	-385.5534	6.4966	1.411E-06	8.8097	8.091E+09	0.0419	28205.
0.000								
316.800	-9.101E-07	-353.8870	6.6103	1.191E-06	8.0861	8.091E+09	0.005459	28793.
0.000								
321.600	4.305E-06	-322.0949	6.5601	9.909E-07	7.3597	8.091E+09	-0.0263	29381.
0.000								

326.400	8.602E-06	-290.9098	6.3680	8.090E-07	6.6471	8.091E+09	-0.0537	29968.
0.000								
331.200	1.207E-05	-260.9621	6.0547	6.453E-07	5.9628	8.091E+09	-0.0768	30556.
0.000								
336.000	1.480E-05	-232.7848	5.7476	4.989E-07	5.3190	8.091E+09	-0.0511	16580.
0.000								
340.800	1.686E-05	-205.7852	5.4822	3.688E-07	4.7021	8.091E+09	-0.0595	16932.
0.000								
345.600	1.834E-05	-180.1558	5.1810	2.543E-07	4.1165	8.091E+09	-0.0660	17285.
0.000								
350.400	1.930E-05	-156.0479	4.8523	1.546E-07	3.5656	8.091E+09	-0.0709	17637.
0.000								
355.200	1.982E-05	-133.5740	4.5038	6.866E-08	3.0521	8.091E+09	-0.0743	17990.
0.000								
360.000	1.996E-05	-112.8118	4.1424	-4.428E-09	2.5777	8.091E+09	-0.0763	18342.
0.000								
364.800	1.978E-05	-93.8069	3.7745	-6.572E-08	2.1434	8.091E+09	-0.0770	18695.
0.000								
369.600	1.933E-05	-76.5769	3.4055	-1.163E-07	1.7497	8.091E+09	-0.0767	19047.
0.000								
374.400	1.866E-05	-61.1141	3.0404	-1.571E-07	1.3964	8.091E+09	-0.0754	19400.
0.000								
379.200	1.782E-05	-47.3892	2.6833	-1.893E-07	1.0828	8.091E+09	-0.0733	19752.
0.000								
384.000	1.685E-05	-35.3541	2.3380	-2.138E-07	0.8078	8.091E+09	-0.0706	20105.
0.000								
388.800	1.577E-05	-24.9445	2.0074	-2.317E-07	0.5700	8.091E+09	-0.0672	20457.
0.000								
393.600	1.462E-05	-16.0834	1.6939	-2.439E-07	0.3675	8.091E+09	-0.0634	20810.
0.000								
398.400	1.343E-05	-8.6828	1.3997	-2.512E-07	0.1984	8.091E+09	-0.0592	21162.
0.000								
403.200	1.221E-05	-2.6462	1.1263	-2.546E-07	0.0605	8.091E+09	-0.0547	21515.
0.000								
408.000	1.098E-05	2.1296	0.8749	-2.547E-07	0.0487	8.091E+09	-0.0500	21867.
0.000								
412.800	9.764E-06	5.7525	0.6463	-2.524E-07	0.1314	8.091E+09	-0.0452	22220.
0.000								
417.600	8.560E-06	8.3340	0.4412	-2.482E-07	0.1904	8.091E+09	-0.0403	22572.
0.000								
422.400	7.381E-06	9.9881	0.2600	-2.428E-07	0.2282	8.091E+09	-0.0353	22925.
0.000								
427.200	6.230E-06	10.8299	0.1029	-2.366E-07	0.2475	8.091E+09	-0.0302	23278.
0.000								
432.000	5.109E-06	10.9757	-0.0300	-2.301E-07	0.2508	8.091E+09	-0.0252	23630.
0.000								
436.800	4.020E-06	10.5420	-0.1386	-2.238E-07	0.2409	8.091E+09	-0.0201	23983.
0.000								
441.600	2.961E-06	9.6454	-0.2228	-2.178E-07	0.2204	8.091E+09	-0.0150	24335.
0.000								
446.400	1.930E-06	8.4030	-0.2827	-2.124E-07	0.1920	8.091E+09	-0.009924	24688.
0.000								
451.200	9.218E-07	6.9320	-0.3180	-2.079E-07	0.1584	8.091E+09	-0.004809	25040.
0.000								

456.000	-6.610E-08	5.3502	-0.3287	-2.042E-07	0.1222	8.091E+09	0.000350	25393.
0.000								
460.800	-1.039E-06	3.7764	-0.3145	-2.015E-07	0.0863	8.091E+09	0.005572	25745.
0.000								
465.600	-2.001E-06	2.3310	-0.2750	-1.997E-07	0.0533	8.091E+09	0.0109	26098.
0.000								
470.400	-2.956E-06	1.1362	-0.2098	-1.987E-07	0.0260	8.091E+09	0.0163	26450.
0.000								
475.200	-3.908E-06	0.3167	-0.1184	-1.983E-07	0.007236	8.091E+09	0.0218	26803.
0.000								
480.000	-4.859E-06	0.000	0.000	-1.982E-07	0.000	8.091E+09	0.0275	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.0151407 inches
 Computed slope at pile head = -0.0001679 radians
 Maximum bending moment = 11065. inch-lbs
 Maximum shear force = 210.000000 lbs
 Depth of maximum bending moment = 81.6000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 6
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head	=	2016.000 lbs						
Applied moment at pile head	=	0.000 in-lbs						
Axial thrust load on pile head	=	0.000 lbs						
Depth	Deflect.	Bending	Shear	Slope	Total	Bending	Soil Res.	Soil Spr.
Distrib.								
X	y	Moment	Force	S	Stress	Stiffness	p	Es*h
Lat. Load								
inches	inches	in-lbs	lbs	radians	psi*	lb-in^2	lb/in	lb/inch
lb/inch								
-----	-----	-----	-----	-----	-----	-----	-----	-----
0.00	0.1478	-5.848E-08	2016.0000	-0.001633	1.336E-09	8.091E+09	0.000	0.000
0.000								
4.800	0.1400	9676.8000	2016.0000	-0.001630	221.1097	8.091E+09	0.000	0.000
0.000								
9.600	0.1322	19354.	2016.0000	-0.001622	442.2194	8.091E+09	0.000	0.000
0.000								
14.400	0.1244	29030.	2006.9516	-0.001607	663.3290	8.091E+09	-3.7702	145.4334
0.000								

19.200	0.1168	38620.	1971.8700	-0.001587	882.4539	8.091E+09	-10.8472	445.9285
0.000								
24.000	0.1092	47960.	1904.7607	-0.001561	1095.8683	8.091E+09	-17.1150	752.3352
0.000								
28.800	0.1018	56906.	1809.7317	-0.001530	1300.2724	8.091E+09	-22.4803	1060.2957
0.000								
33.600	0.0945	65334.	1691.1888	-0.001494	1492.8417	8.091E+09	-26.9125	1366.9211
0.000								
38.400	0.0874	73141.	1553.6506	-0.001453	1671.2428	8.091E+09	-30.3950	1668.8015
0.000								
43.200	0.0806	80249.	1401.7931	-0.001408	1833.6424	8.091E+09	-32.8789	1959.1398
0.000								
48.000	0.0739	86599.	1239.0987	-0.001358	1978.7329	8.091E+09	-34.9104	2267.1168
0.000								
52.800	0.0675	92144.	1067.3625	-0.001305	2105.4447	8.091E+09	-36.6463	2605.2765
0.000								
57.600	0.0614	96845.	889.1547	-0.001249	2212.8640	8.091E+09	-37.6069	2940.6857
0.000								
62.400	0.0555	100680.	708.0192	-0.001190	2300.4851	8.091E+09	-37.8662	3273.2892
0.000								
67.200	0.0500	103642.	527.1363	-0.001130	2368.1715	8.091E+09	-37.5017	3603.2661
0.000								
72.000	0.0447	105741.	349.3128	-0.001068	2416.1150	8.091E+09	-36.5914	3930.8995
0.000								
76.800	0.0397	106996.	176.9864	-0.001005	2444.7949	8.091E+09	-35.2113	4256.5053
0.000								
81.600	0.0350	107440.	12.2363	-0.000941	2454.9378	8.091E+09	-33.4346	4580.3943
0.000								
86.400	0.0307	107113.	-143.2017	-0.000877	2447.4790	8.091E+09	-31.3312	4902.8537
0.000								
91.200	0.0266	106065.	-287.9177	-0.000814	2423.5258	8.091E+09	-28.9671	5224.1393
0.000								
96.000	0.0229	104349.	-420.8083	-0.000752	2384.3229	8.091E+09	-26.4040	5544.4731
0.000								
100.800	0.0194	102025.	-541.0567	-0.000690	2331.2195	8.091E+09	-23.6995	5864.0446
0.000								
105.600	0.0162	99155.	-648.1114	-0.000631	2265.6395	8.091E+09	-20.9066	6183.0130
0.000								
110.400	0.0133	95803.	-741.6640	-0.000573	2189.0531	8.091E+09	-18.0737	6501.5101
0.000								
115.200	0.0107	92035.	-821.6277	-0.000517	2102.9519	8.091E+09	-15.2445	6819.6444
0.000								
120.000	0.008378	87916.	-888.1139	-0.000464	2008.8251	8.091E+09	-12.4581	7137.5037
0.000								
124.800	0.006277	83509.	-941.4104	-0.000413	1908.1398	8.091E+09	-9.7488	7455.1583
0.000								
129.600	0.004413	78878.	-981.9587	-0.000365	1802.3222	8.091E+09	-7.1463	7772.6638
0.000								
134.400	0.002774	74082.	-1010.3317	-0.000319	1692.7424	8.091E+09	-4.6758	8090.0637
0.000								
139.200	0.001346	69179.	-1027.2129	-0.000277	1580.7011	8.091E+09	-2.3580	8407.3914
0.000								
144.000	0.000115	64221.	-1033.3750	-0.000237	1467.4183	8.091E+09	-0.2095	8724.6719
0.000								

148.800	-0.000933	59259.	-1029.6604	-0.000201	1354.0253	8.091E+09	1.7572	9041.9238
0.000								
153.600	-0.001812	54336.	-1016.9625	-0.000167	1241.5573	8.091E+09	3.5335	9359.1604
0.000								
158.400	-0.002537	49496.	-996.2082	-0.000136	1130.9496	8.091E+09	5.1141	9676.3910
0.000								
163.200	-0.003121	44773.	-968.3414	-0.000108	1023.0342	8.091E+09	6.4970	9993.6216
0.000								
168.000	-0.003577	40200.	-934.3087	-8.312E-05	918.5392	8.091E+09	7.6833	10311.
0.000								
172.800	-0.003919	35803.	-895.0458	-6.057E-05	818.0891	8.091E+09	8.6763	10628.
0.000								
177.600	-0.004158	31607.	-851.4658	-4.058E-05	722.2066	8.091E+09	9.4820	10945.
0.000								
182.400	-0.004308	27629.	-804.4489	-2.301E-05	631.3160	8.091E+09	10.1083	11263.
0.000								
187.200	-0.004379	23884.	-754.8341	-7.727E-06	545.7468	8.091E+09	10.5645	11580.
0.000								
192.000	-0.004382	20383.	-703.4113	5.404E-06	465.7394	8.091E+09	10.8616	11897.
0.000								
196.800	-0.004327	17132.	-650.9160	1.653E-05	391.4502	8.091E+09	11.0114	12214.
0.000								
201.600	-0.004224	14134.	-598.0249	2.581E-05	322.9579	8.091E+09	11.0266	12532.
0.000								
206.400	-0.004080	11391.	-545.3524	3.338E-05	260.2705	8.091E+09	10.9203	12849.
0.000								
211.200	-0.003903	8898.7733	-493.4492	3.940E-05	203.3322	8.091E+09	10.7060	13166.
0.000								
216.000	-0.003701	6653.5502	-442.8015	4.401E-05	152.0300	8.091E+09	10.3972	13483.
0.000								
220.800	-0.003481	4647.8788	-393.8307	4.736E-05	106.2015	8.091E+09	10.0073	13801.
0.000								
225.600	-0.003247	2872.7751	-346.8951	4.959E-05	65.6414	8.091E+09	9.5492	14118.
0.000								
230.400	-0.003005	1317.6856	-302.2914	5.084E-05	30.1084	8.091E+09	9.0357	14435.
0.000								
235.200	-0.002759	-29.2224	-260.2573	5.122E-05	0.6677	8.091E+09	8.4785	14753.
0.000								
240.000	-0.002513	-1180.7850	-220.9748	5.086E-05	26.9803	8.091E+09	7.8892	15070.
0.000								
244.800	-0.002270	-2150.5809	-184.5734	4.987E-05	49.1396	8.091E+09	7.2781	15387.
0.000								
249.600	-0.002034	-2952.6895	-151.1340	4.836E-05	67.4674	8.091E+09	6.6550	15704.
0.000								
254.400	-0.001806	-3601.4669	-120.6930	4.641E-05	82.2916	8.091E+09	6.0287	16022.
0.000								
259.200	-0.001589	-4111.3422	-93.2466	4.412E-05	93.9420	8.091E+09	5.4072	16339.
0.000								
264.000	-0.001383	-4496.6346	-68.7550	4.157E-05	102.7457	8.091E+09	4.7976	16656.
0.000								
268.800	-0.001189	-4771.3901	-47.1463	3.882E-05	109.0237	8.091E+09	4.2060	16973.
0.000								
273.600	-0.001010	-4949.2387	-28.3209	3.594E-05	113.0874	8.091E+09	3.6379	17291.
0.000								

278.400	-0.000844	-5043.2712	-9.4177	3.297E-05	115.2360	8.091E+09	4.2385	24093.
0.000								
283.200	-0.000693	-5039.6490	9.3105	2.998E-05	115.1533	8.091E+09	3.5649	24680.
0.000								
288.000	-0.000557	-4953.8908	24.8982	2.702E-05	113.1937	8.091E+09	2.9299	25268.
0.000								
292.800	-0.000434	-4800.6267	37.5399	2.413E-05	109.6917	8.091E+09	2.3375	25855.
0.000								
297.600	-0.000325	-4593.5075	47.4465	2.134E-05	104.9592	8.091E+09	1.7903	26443.
0.000								
302.400	-0.000229	-4345.1404	54.8393	1.869E-05	99.2841	8.091E+09	1.2901	27030.
0.000								
307.200	-0.000146	-4067.0504	59.9456	1.619E-05	92.9299	8.091E+09	0.8376	27618.
0.000								
312.000	-7.363E-05	-3769.6627	62.9942	1.387E-05	86.1348	8.091E+09	0.4327	28205.
0.000								
316.800	-1.243E-05	-3462.3059	64.2117	1.172E-05	79.1118	8.091E+09	0.0746	28793.
0.000								
321.600	3.891E-05	-3153.2306	63.8191	9.761E-06	72.0496	8.091E+09	-0.2381	29381.
0.000								
326.400	8.127E-05	-2849.6422	62.0299	7.980E-06	65.1128	8.091E+09	-0.5074	29968.
0.000								
331.200	0.000116	-2557.7439	59.0473	6.376E-06	58.4431	8.091E+09	-0.7353	30556.
0.000								
336.000	0.000142	-2282.7880	56.1013	4.940E-06	52.1605	8.091E+09	-0.4921	16580.
0.000								
340.800	0.000163	-2019.1710	53.5407	3.664E-06	46.1370	8.091E+09	-0.5748	16932.
0.000								
345.600	0.000178	-1768.7972	50.6258	2.541E-06	40.4161	8.091E+09	-0.6397	17285.
0.000								
350.400	0.000187	-1533.1630	47.4384	1.561E-06	35.0320	8.091E+09	-0.6883	17637.
0.000								
355.200	0.000193	-1313.3883	44.0536	7.168E-07	30.0102	8.091E+09	-0.7220	17990.
0.000								
360.000	0.000194	-1110.2486	40.5396	-2.084E-09	25.3686	8.091E+09	-0.7422	18342.
0.000								
364.800	0.000193	-924.2081	36.9579	-6.056E-07	21.1177	8.091E+09	-0.7502	18695.
0.000								
369.600	0.000188	-755.4529	33.3631	-1.104E-06	17.2617	8.091E+09	-0.7476	19047.
0.000								
374.400	0.000182	-603.9226	29.8031	-1.507E-06	13.7993	8.091E+09	-0.7357	19400.
0.000								
379.200	0.000174	-469.3426	26.3197	-1.825E-06	10.7242	8.091E+09	-0.7158	19752.
0.000								
384.000	0.000165	-351.2536	22.9482	-2.069E-06	8.0260	8.091E+09	-0.6890	20105.
0.000								
388.800	0.000154	-249.0398	19.7186	-2.247E-06	5.6904	8.091E+09	-0.6567	20457.
0.000								
393.600	0.000143	-161.9553	16.6554	-2.369E-06	3.7006	8.091E+09	-0.6197	20810.
0.000								
398.400	0.000131	-89.1481	13.7785	-2.443E-06	2.0370	8.091E+09	-0.5790	21162.
0.000								
403.200	0.000119	-29.6818	11.1035	-2.478E-06	0.6782	8.091E+09	-0.5355	21515.
0.000								

408.000	0.000108	17.4457	8.6424	-2.482E-06	0.3986	8.091E+09	-0.4899	21867.
0.000								
412.800	9.565E-05	53.2854	6.4039	-2.461E-06	1.2175	8.091E+09	-0.4428	22220.
0.000								
417.600	8.391E-05	78.9234	4.3942	-2.422E-06	1.8034	8.091E+09	-0.3946	22572.
0.000								
422.400	7.240E-05	95.4696	2.6172	-2.370E-06	2.1814	8.091E+09	-0.3458	22925.
0.000								
427.200	6.116E-05	104.0489	1.0755	-2.311E-06	2.3775	8.091E+09	-0.2966	23278.
0.000								
432.000	5.021E-05	105.7947	-0.2296	-2.249E-06	2.4174	8.091E+09	-0.2472	23630.
0.000								
436.800	3.957E-05	101.8450	-1.2974	-2.187E-06	2.3271	8.091E+09	-0.1977	23983.
0.000								
441.600	2.922E-05	93.3400	-2.1274	-2.129E-06	2.1328	8.091E+09	-0.1481	24335.
0.000								
446.400	1.913E-05	81.4221	-2.7190	-2.077E-06	1.8605	8.091E+09	-0.0984	24688.
0.000								
451.200	9.274E-06	67.2373	-3.0713	-2.033E-06	1.5363	8.091E+09	-0.0484	25040.
0.000								
456.000	-3.900E-07	51.9378	-3.1824	-1.998E-06	1.1868	8.091E+09	0.002063	25393.
0.000								
460.800	-9.906E-06	36.6858	-3.0500	-1.972E-06	0.8383	8.091E+09	0.0531	25745.
0.000								
465.600	-1.932E-05	22.6581	-2.6704	-1.954E-06	0.5177	8.091E+09	0.1050	26098.
0.000								
470.400	-2.867E-05	11.0503	-2.0392	-1.944E-06	0.2525	8.091E+09	0.1580	26450.
0.000								
475.200	-3.798E-05	3.0819	-1.1511	-1.940E-06	0.0704	8.091E+09	0.2121	26803.
0.000								
480.000	-4.729E-05	0.000	0.000	-1.939E-06	0.000	8.091E+09	0.2675	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.1478393 inches
 Computed slope at pile head = -0.0016331 radians
 Maximum bending moment = 107440. inch-lbs
 Maximum shear force = 2016.0000000 lbs
 Depth of maximum bending moment = 81.6000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 6
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection

for Lateral Loading for Load Case Number 3

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 3088.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth	Deflect.	Bending	Shear	Slope	Total	Bending	Soil Res.	Soil Spr.
Distrib.								
X	y	Moment	Force	S	Stress	Stiffness	p	Es*h
Lat. Load								
inches	inches	in-lbs	lbs	radians	psi*	lb-in^2	lb/in	lb/inch
0.00	0.2317	-2.534E-07	3088.0000	-0.002545	5.791E-09	8.091E+09	0.000	0.000
0.000								
4.800	0.2195	14822.	3088.0000	-0.002541	338.6839	8.091E+09	0.000	0.000
0.000								
9.600	0.2073	29645.	3088.0000	-0.002528	677.3677	8.091E+09	0.000	0.000
0.000								
14.400	0.1952	44467.	3075.2850	-0.002506	1016.0516	8.091E+09	-5.2979	130.2710
0.000								
19.200	0.1832	59168.	3025.0582	-0.002475	1351.9464	8.091E+09	-15.6299	409.4173
0.000								
24.000	0.1714	73508.	2927.4651	-0.002436	1679.6128	8.091E+09	-25.0339	700.8615
0.000								
28.800	0.1599	87271.	2787.7846	-0.002388	1994.1000	8.091E+09	-33.1663	995.8368
0.000								
33.600	0.1485	100270.	2612.5288	-0.002332	2291.1268	8.091E+09	-39.8569	1288.0751
0.000								
38.400	0.1375	112351.	2408.9450	-0.002269	2567.1708	8.091E+09	-44.9696	1570.1376
0.000								
43.200	0.1267	123396.	2185.1887	-0.002199	2819.5405	8.091E+09	-48.2621	1827.7818
0.000								
48.000	0.1164	133329.	1945.8695	-0.002123	3046.5026	8.091E+09	-51.4542	2122.5100
0.000								
52.800	0.1064	142077.	1690.3481	-0.002041	3246.3764	8.091E+09	-55.0130	2482.6889
0.000								
57.600	0.0968	149557.	1420.9385	-0.001955	3417.2886	8.091E+09	-57.2410	2839.4145
0.000								
62.400	0.0876	155718.	1143.7859	-0.001864	3558.0662	8.091E+09	-58.2393	3191.3799
0.000								
67.200	0.0789	160537.	864.4858	-0.001770	3668.1836	8.091E+09	-58.1358	3538.2155
0.000								
72.000	0.0706	164017.	587.9964	-0.001674	3747.6953	8.091E+09	-57.0681	3880.0878
0.000								
76.800	0.0628	166182.	318.6151	-0.001576	3797.1634	8.091E+09	-55.1741	4217.4401
0.000								
81.600	0.0555	167075.	59.9893	-0.001477	3817.5851	8.091E+09	-52.5866	4550.8331
0.000								

86.400	0.0486	166758.	-184.8528	-0.001378	3810.3224	8.091E+09	-49.4309	4880.8513
0.000								
91.200	0.0422	165301.	-413.4634	-0.001280	3777.0367	8.091E+09	-45.8235	5208.0530
0.000								
96.000	0.0363	162788.	-623.9318	-0.001183	3719.6272	8.091E+09	-41.8717	5532.9440
0.000								
100.800	0.0309	159311.	-814.8411	-0.001087	3640.1742	8.091E+09	-37.6738	5855.9682
0.000								
105.600	0.0259	154966.	-985.2243	-0.000994	3540.8878	8.091E+09	-33.3191	6177.5055
0.000								
110.400	0.0213	149853.	-1134.5216	-0.000903	3424.0605	8.091E+09	-28.8881	6497.8756
0.000								
115.200	0.0172	144075.	-1262.5391	-0.000816	3292.0250	8.091E+09	-24.4526	6817.3429
0.000								
120.000	0.0135	137733.	-1369.4084	-0.000733	3147.1165	8.091E+09	-20.0763	7136.1233
0.000								
124.800	0.0102	130928.	-1455.5476	-0.000653	2991.6387	8.091E+09	-15.8150	7454.3905
0.000								
129.600	0.007236	123759.	-1521.6232	-0.000577	2827.8351	8.091E+09	-11.7165	7772.2827
0.000								
134.400	0.004641	116321.	-1568.5139	-0.000506	2657.8633	8.091E+09	-7.8213	8089.9079
0.000								
139.200	0.002377	108702.	-1597.2755	-0.000439	2483.7739	8.091E+09	-4.1627	8407.3494
0.000								
144.000	0.000422	100987.	-1609.1075	-0.000377	2307.4932	8.091E+09	-0.7673	8724.6701
0.000								
148.800	-0.001245	93254.	-1605.3216	-0.000320	2130.8084	8.091E+09	2.3448	9041.9167
0.000								
153.600	-0.002646	85576.	-1587.3115	-0.000267	1955.3581	8.091E+09	5.1594	9359.1228
0.000								
158.400	-0.003804	78016.	-1556.5257	-0.000218	1782.6240	8.091E+09	7.6680	9676.3119
0.000								
163.200	-0.004739	70633.	-1514.4416	-0.000174	1613.9267	8.091E+09	9.8671	9993.4994
0.000								
168.000	-0.005474	63477.	-1462.5422	-0.000134	1450.4239	8.091E+09	11.7577	10311.
0.000								
172.800	-0.006027	56593.	-1402.2952	-9.855E-05	1293.1110	8.091E+09	13.3452	10628.
0.000								
177.600	-0.006420	50015.	-1335.1347	-6.693E-05	1142.8236	8.091E+09	14.6384	10945.
0.000								
182.400	-0.006670	43775.	-1262.4442	-3.910E-05	1000.2427	8.091E+09	15.6493	11262.
0.000								
187.200	-0.006795	37896.	-1185.5438	-1.488E-05	865.9004	8.091E+09	16.3925	11580.
0.000								
192.000	-0.006813	32394.	-1105.6779	5.971E-06	740.1879	8.091E+09	16.8849	11897.
0.000								
196.800	-0.006738	27281.	-1024.0062	2.367E-05	623.3646	8.091E+09	17.1449	12214.
0.000								
201.600	-0.006585	22564.	-941.5970	3.846E-05	515.5672	8.091E+09	17.1922	12531.
0.000								
206.400	-0.006369	18242.	-859.4219	5.056E-05	416.8207	8.091E+09	17.0474	12849.
0.000								
211.200	-0.006100	14313.	-778.3527	6.022E-05	327.0489	8.091E+09	16.7314	13166.
0.000								

216.000	-0.005790	10770.	-699.1601	6.766E-05	246.0853	8.091E+09	16.2655	13483.
0.000								
220.800	-0.005450	7601.2602	-622.5139	7.311E-05	173.6847	8.091E+09	15.6704	13800.
0.000								
225.600	-0.005089	4793.7169	-548.9845	7.678E-05	109.5339	8.091E+09	14.9668	14118.
0.000								
230.400	-0.004713	2331.0085	-479.0461	7.890E-05	53.2623	8.091E+09	14.1742	14435.
0.000								
235.200	-0.004331	194.8747	-413.0798	7.965E-05	4.4528	8.091E+09	13.3117	14752.
0.000								
240.000	-0.003949	-1634.5579	-351.3793	7.922E-05	37.3488	8.091E+09	12.3969	15070.
0.000								
244.800	-0.003571	-3178.3669	-294.1555	7.779E-05	72.6240	8.091E+09	11.4464	15387.
0.000								
249.600	-0.003202	-4458.4511	-241.5429	7.553E-05	101.8732	8.091E+09	10.4755	15704.
0.000								
254.400	-0.002846	-5497.1788	-193.6056	7.257E-05	125.6076	8.091E+09	9.4983	16022.
0.000								
259.200	-0.002505	-6317.0653	-150.3442	6.907E-05	144.3415	8.091E+09	8.5273	16339.
0.000								
264.000	-0.002183	-6940.4830	-111.7019	6.514E-05	158.5863	8.091E+09	7.5737	16656.
0.000								
268.800	-0.001880	-7389.4039	-77.5717	6.089E-05	168.8439	8.091E+09	6.6473	16973.
0.000								
273.600	-0.001598	-7685.1717	-47.8024	5.642E-05	175.6020	8.091E+09	5.7566	17291.
0.000								
278.400	-0.001338	-7848.3065	-17.8655	5.181E-05	179.3296	8.091E+09	6.7170	24093.
0.000								
283.200	-0.001101	-7856.6810	11.8385	4.715E-05	179.5209	8.091E+09	5.6597	24680.
0.000								
288.000	-0.000886	-7734.6569	36.6103	4.252E-05	176.7328	8.091E+09	4.6619	25268.
0.000								
292.800	-0.000692	-7505.2221	56.7513	3.800E-05	171.4903	8.091E+09	3.7302	25855.
0.000								
297.600	-0.000521	-7189.8441	72.5890	3.364E-05	164.2841	8.091E+09	2.8689	26443.
0.000								
302.400	-0.000370	-6808.3672	84.4684	2.949E-05	155.5675	8.091E+09	2.0808	27030.
0.000								
307.200	-0.000238	-6378.9478	92.7439	2.558E-05	145.7555	8.091E+09	1.3673	27618.
0.000								
312.000	-0.000124	-5918.0253	97.7734	2.193E-05	135.2237	8.091E+09	0.7283	28205.
0.000								
316.800	-2.708E-05	-5440.3236	99.9111	1.856E-05	124.3085	8.091E+09	0.1625	28793.
0.000								
321.600	5.428E-05	-4958.8789	99.5036	1.548E-05	113.3077	8.091E+09	-0.3322	29381.
0.000								
326.400	0.000122	-4485.0887	96.8855	1.268E-05	102.4819	8.091E+09	-0.7587	29968.
0.000								
331.200	0.000176	-4028.7785	92.3760	1.015E-05	92.0554	8.091E+09	-1.1203	30556.
0.000								
336.000	0.000219	-3598.2796	87.8719	7.890E-06	82.2188	8.091E+09	-0.7564	16580.
0.000								
340.800	0.000252	-3185.2078	83.9254	5.878E-06	72.7803	8.091E+09	-0.8880	16932.
0.000								

345.600	0.000275	-2792.5955	79.4140	4.105E-06	63.8093	8.091E+09	-0.9918	17285.
0.000								
350.400	0.000291	-2422.8332	74.4664	2.558E-06	55.3604	8.091E+09	-1.0698	17637.
0.000								
355.200	0.000300	-2077.7182	69.2008	1.223E-06	47.4747	8.091E+09	-1.1242	17990.
0.000								
360.000	0.000303	-1758.5055	63.7249	8.484E-08	40.1809	8.091E+09	-1.1574	18342.
0.000								
364.800	0.000301	-1465.9590	58.1357	-8.716E-07	33.4964	8.091E+09	-1.1715	18695.
0.000								
369.600	0.000295	-1200.4030	52.5194	-1.663E-06	27.4286	8.091E+09	-1.1687	19047.
0.000								
374.400	0.000285	-961.7730	46.9519	-2.304E-06	21.9760	8.091E+09	-1.1511	19400.
0.000								
379.200	0.000272	-749.6651	41.4990	-2.812E-06	17.1294	8.091E+09	-1.1209	19752.
0.000								
384.000	0.000258	-563.3830	36.2170	-3.201E-06	12.8730	8.091E+09	-1.0799	20105.
0.000								
388.800	0.000242	-401.9822	31.1533	-3.487E-06	9.1851	8.091E+09	-1.0299	20457.
0.000								
393.600	0.000224	-264.3114	26.3471	-3.685E-06	6.0394	8.091E+09	-0.9726	20810.
0.000								
398.400	0.000206	-149.0503	21.8300	-3.808E-06	3.4057	8.091E+09	-0.9095	21162.
0.000								
403.200	0.000188	-54.7435	17.6270	-3.868E-06	1.2509	8.091E+09	-0.8418	21515.
0.000								
408.000	0.000169	20.1693	13.7574	-3.878E-06	0.4609	8.091E+09	-0.7706	21867.
0.000								
412.800	0.000151	77.3274	10.2352	-3.849E-06	1.7669	8.091E+09	-0.6970	22220.
0.000								
417.600	0.000132	118.4271	7.0704	-3.791E-06	2.7060	8.091E+09	-0.6217	22572.
0.000								
422.400	0.000114	145.2035	4.2698	-3.713E-06	3.3178	8.091E+09	-0.5453	22925.
0.000								
427.200	9.655E-05	159.4171	1.8374	-3.623E-06	3.6426	8.091E+09	-0.4682	23278.
0.000								
432.000	7.939E-05	162.8429	-0.2243	-3.527E-06	3.7209	8.091E+09	-0.3908	23630.
0.000								
436.800	6.269E-05	157.2642	-1.9139	-3.432E-06	3.5934	8.091E+09	-0.3132	23983.
0.000								
441.600	4.644E-05	144.4691	-3.2307	-3.343E-06	3.3010	8.091E+09	-0.2354	24335.
0.000								
446.400	3.060E-05	126.2496	-4.1734	-3.262E-06	2.8847	8.091E+09	-0.1574	24688.
0.000								
451.200	1.512E-05	104.4042	-4.7404	-3.194E-06	2.3856	8.091E+09	-0.0789	25040.
0.000								
456.000	-6.429E-08	80.7417	-4.9289	-3.139E-06	1.8449	8.091E+09	0.000340	25393.
0.000								
460.800	-1.502E-05	57.0870	-4.7348	-3.098E-06	1.3044	8.091E+09	0.0805	25745.
0.000								
465.600	-2.981E-05	35.2881	-4.1525	-3.071E-06	0.8063	8.091E+09	0.1621	26098.
0.000								
470.400	-4.450E-05	17.2231	-3.1751	-3.055E-06	0.3935	8.091E+09	0.2452	26450.
0.000								

```

475.200 -5.914E-05    4.8074    -1.7941 -3.049E-06    0.1098  8.091E+09    0.3302    26803.
0.000
480.000 -7.376E-05    0.000      0.000 -3.047E-06    0.000  8.091E+09    0.4173    13578.
0.000

```

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

```

Pile-head deflection          =      0.2316905 inches
Computed slope at pile head   =     -0.0025452 radians
Maximum bending moment        =      167075. inch-lbs
Maximum shear force           =     3088.0000000 lbs
Depth of maximum bending moment =    81.6000000 inches below pile head
Depth of maximum shear force  =     4.8000000 inches below pile head
Number of iterations          =           6
Number of zero deflection points =          3

```

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 4

Pile-head conditions are Shear and Moment (Loading Type 1)

```

Shear force at pile head          =      5198.000 lbs
Applied moment at pile head       =           0.000 in-lbs
Axial thrust load on pile head    =           0.000 lbs

```

Depth Distrib.	Deflect. y	Bending Moment	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil Res. p	Soil Spr. Es*h
inches	inches	in-lbs	lbs	radians	psi*	lb-in ²	lb/in	lb/inch
0.00	0.4184	1.560E-07	5198.0000	-0.004518	3.563E-09	8.091E+09	0.000	0.000
0.000								
4.800	0.3967	24950.	5198.0000	-0.004511	570.1032	8.091E+09	0.000	0.000
0.000								
9.600	0.3751	49901.	5198.0000	-0.004488	1140.2065	8.091E+09	0.000	0.000
0.000								
14.400	0.3536	74851.	5181.0456	-0.004451	1710.3097	8.091E+09	-7.0643	95.8879
0.000								
19.200	0.3324	99639.	5111.3383	-0.004400	2276.6939	8.091E+09	-21.9804	317.4367
0.000								

24.000	0.3114	123920.	4971.0464	-0.004333	2831.5065	8.091E+09	-36.4746	562.2431
0.000								
28.800	0.2908	147361.	4764.9952	-0.004253	3367.1170	8.091E+09	-49.3801	815.1646
0.000								
33.600	0.2706	169664.	4502.6808	-0.004159	3876.7312	8.091E+09	-59.9176	1062.9788
0.000								
38.400	0.2508	190587.	4197.1341	-0.004052	4354.8018	8.091E+09	-67.3935	1289.6022
0.000								
43.200	0.2317	209956.	3865.4098	-0.003933	4797.3929	8.091E+09	-70.8249	1467.4562
0.000								
48.000	0.2131	227695.	3512.3860	-0.003803	5202.6981	8.091E+09	-76.2683	1718.0305
0.000								
52.800	0.1952	243675.	3123.6376	-0.003664	5567.8518	8.091E+09	-85.7102	2108.1237
0.000								
57.600	0.1779	257681.	2694.8849	-0.003515	5887.8831	8.091E+09	-92.9368	2507.3404
0.000								
62.400	0.1614	269546.	2237.1966	-0.003358	6158.9878	8.091E+09	-97.7667	2907.3414
0.000								
67.200	0.1457	279159.	1762.0140	-0.003196	6378.6230	8.091E+09	-100.2261	3302.4419
0.000								
72.000	0.1307	286462.	1280.3101	-0.003028	6545.4941	8.091E+09	-100.4839	3689.3447
0.000								
76.800	0.1166	291450.	802.0496	-0.002856	6659.4652	8.091E+09	-98.7913	4066.5968
0.000								
81.600	0.1033	294161.	335.9068	-0.002683	6721.4275	8.091E+09	-95.4349	4434.0104
0.000								
86.400	0.0909	294674.	-110.8307	-0.002508	6733.1480	8.091E+09	-90.7057	4792.1714
0.000								
91.200	0.0792	293097.	-532.2400	-0.002334	6697.1163	8.091E+09	-84.8815	5142.0741
0.000								
96.000	0.0685	289565.	-923.6761	-0.002161	6616.3986	8.091E+09	-78.2169	5484.8753
0.000								
100.800	0.0585	284230.	-1281.6542	-0.001991	6494.5035	8.091E+09	-70.9407	5821.7402
0.000								
105.600	0.0493	277261.	-1603.7241	-0.001824	6335.2615	8.091E+09	-63.2551	6153.7568
0.000								
110.400	0.0410	268834.	-1888.3459	-0.001662	6142.7188	8.091E+09	-55.3373	6481.8925
0.000								
115.200	0.0334	259133.	-2134.7746	-0.001506	5921.0437	8.091E+09	-47.3413	6806.9796
0.000								
120.000	0.0265	248340.	-2342.9534	-0.001355	5674.4457	8.091E+09	-39.3999	7129.7159
0.000								
124.800	0.0204	236640.	-2513.4171	-0.001211	5407.1055	8.091E+09	-31.6267	7450.6744
0.000								
129.600	0.0149	224212.	-2647.2042	-0.001074	5123.1155	8.091E+09	-24.1179	7770.3173
0.000								
134.400	0.0101	211227.	-2745.7766	-0.000945	4826.4285	8.091E+09	-16.9539	8089.0107
0.000								
139.200	0.005824	197852.	-2810.9462	-0.000824	4520.8161	8.091E+09	-10.2001	8407.0399
0.000								
144.000	0.002151	184242.	-2844.8080	-0.000711	4209.8338	8.091E+09	-3.9089	8724.6227
0.000								
148.800	-0.000998	170542.	-2849.6775	-0.000605	3896.7937	8.091E+09	1.8800	9041.9225
0.000								

153.600	-0.003661	156885.	-2828.0342	-0.000508	3584.7433	8.091E+09	7.1381	9359.0582
0.000								
158.400	-0.005877	143393.	-2782.4691	-0.000419	3276.4507	8.091E+09	11.8474	9676.1142
0.000								
163.200	-0.007685	130174.	-2715.6369	-0.000338	2974.3952	8.091E+09	15.9993	9993.1478
0.000								
168.000	-0.009122	117323.	-2630.2131	-0.000265	2680.7626	8.091E+09	19.5939	10310.
0.000								
172.800	-0.0102	104923.	-2528.8547	-0.000199	2397.4452	8.091E+09	22.6387	10627.
0.000								
177.600	-0.0110	93046.	-2414.1665	-0.000140	2126.0461	8.091E+09	25.1480	10944.
0.000								
182.400	-0.0116	81747.	-2288.6703	-8.811E-05	1867.8861	8.091E+09	27.1420	11261.
0.000								
187.200	-0.0119	71075.	-2154.7792	-4.278E-05	1624.0152	8.091E+09	28.6459	11579.
0.000								
192.000	-0.0120	61062.	-2014.7759	-3.588E-06	1395.2249	8.091E+09	29.6888	11896.
0.000								
196.800	-0.0119	51733.	-1870.7952	2.987E-05	1182.0643	8.091E+09	30.3032	12213.
0.000								
201.600	-0.0117	43102.	-1724.8104	5.800E-05	984.8569	8.091E+09	30.5238	12530.
0.000								
206.400	-0.0114	35175.	-1578.6235	8.122E-05	803.7188	8.091E+09	30.3874	12848.
0.000								
211.200	-0.0109	27947.	-1433.8586	9.994E-05	638.5782	8.091E+09	29.9313	13165.
0.000								
216.000	-0.0104	21409.	-1291.9587	0.000115	489.1950	8.091E+09	29.1936	13482.
0.000								
220.800	-0.009813	15544.	-1154.1851	0.000126	355.1808	8.091E+09	28.2120	13800.
0.000								
225.600	-0.009188	10329.	-1021.6200	0.000133	236.0189	8.091E+09	27.0234	14117.
0.000								
230.400	-0.008534	5736.8311	-895.1706	0.000138	131.0835	8.091E+09	25.6638	14434.
0.000								
235.200	-0.007864	1735.6590	-775.5756	0.000140	39.6589	8.091E+09	24.1675	14752.
0.000								
240.000	-0.007188	-1708.6947	-663.4131	0.000140	39.0428	8.091E+09	22.5669	15069.
0.000								
244.800	-0.006518	-4633.1064	-559.1101	0.000138	105.8640	8.091E+09	20.8927	15387.
0.000								
249.600	-0.005860	-7076.1515	-462.9529	0.000135	161.6863	8.091E+09	19.1729	15704.
0.000								
254.400	-0.005223	-9077.4539	-375.0979	0.000130	207.4149	8.091E+09	17.4334	16021.
0.000								
259.200	-0.004612	-10677.	-295.5835	0.000124	243.9658	8.091E+09	15.6976	16339.
0.000								
264.000	-0.004031	-11915.	-224.3415	0.000118	272.2526	8.091E+09	13.9865	16656.
0.000								
268.800	-0.003484	-12831.	-161.2093	0.000110	293.1762	8.091E+09	12.3186	16973.
0.000								
273.600	-0.002973	-13463.	-105.9410	0.000102	307.6146	8.091E+09	10.7099	17291.
0.000								
278.400	-0.002501	-13848.	-50.1097	9.426E-05	316.4149	8.091E+09	12.5531	24093.
0.000								

283.200	-0.002068	-13944.	5.5401	8.602E-05	318.6065	8.091E+09	10.6343	24680.
0.000								
288.000	-0.001675	-13795.	52.2266	7.779E-05	315.1996	8.091E+09	8.8185	25268.
0.000								
292.800	-0.001321	-13442.	90.4742	6.971E-05	307.1503	8.091E+09	7.1180	25855.
0.000								
297.600	-0.001006	-12926.	120.8578	6.189E-05	295.3537	8.091E+09	5.5418	26443.
0.000								
302.400	-0.000727	-12282.	143.9879	5.441E-05	280.6396	8.091E+09	4.0957	27030.
0.000								
307.200	-0.000484	-11544.	160.4959	4.734E-05	263.7692	8.091E+09	2.7826	27618.
0.000								
312.000	-0.000273	-10741.	171.0213	4.073E-05	245.4340	8.091E+09	1.6030	28205.
0.000								
316.800	-9.257E-05	-9901.9782	176.2011	3.461E-05	226.2549	8.091E+09	0.5553	28793.
0.000								
321.600	5.947E-05	-9049.8162	176.6601	2.899E-05	206.7834	8.091E+09	-0.3640	29381.
0.000								
326.400	0.000186	-8206.0411	173.0034	2.387E-05	187.5036	8.091E+09	-1.1596	29968.
0.000								
331.200	0.000289	-7388.9832	165.8108	1.925E-05	168.8343	8.091E+09	-1.8374	30556.
0.000								
336.000	0.000370	-6614.2578	158.3298	1.509E-05	151.1322	8.091E+09	-1.2797	16580.
0.000								
340.800	0.000434	-5869.0170	151.5884	1.139E-05	134.1039	8.091E+09	-1.5292	16932.
0.000								
345.600	0.000480	-5159.0096	143.7714	8.117E-06	117.8806	8.091E+09	-1.7278	17285.
0.000								
350.400	0.000511	-4488.8113	135.1145	5.256E-06	102.5669	8.091E+09	-1.8792	17637.
0.000								
355.200	0.000530	-3861.9106	125.8346	2.779E-06	88.2426	8.091E+09	-1.9874	17990.
0.000								
360.000	0.000538	-3280.7994	116.1297	6.598E-07	74.9645	8.091E+09	-2.0563	18342.
0.000								
364.800	0.000537	-2747.0651	106.1788	-1.128E-06	62.7690	8.091E+09	-2.0899	18695.
0.000								
369.600	0.000527	-2261.4831	96.1413	-2.614E-06	51.6737	8.091E+09	-2.0923	19047.
0.000								
374.400	0.000512	-1824.1088	86.1580	-3.826E-06	41.6799	8.091E+09	-2.0673	19400.
0.000								
379.200	0.000491	-1434.3661	76.3516	-4.792E-06	32.7745	8.091E+09	-2.0187	19752.
0.000								
384.000	0.000466	-1091.1332	66.8274	-5.541E-06	24.9318	8.091E+09	-1.9498	20105.
0.000								
388.800	0.000437	-792.8232	57.6744	-6.100E-06	18.1156	8.091E+09	-1.8640	20457.
0.000								
393.600	0.000407	-537.4592	48.9666	-6.495E-06	12.2807	8.091E+09	-1.7643	20810.
0.000								
398.400	0.000375	-322.7437	40.7644	-6.750E-06	7.3745	8.091E+09	-1.6533	21162.
0.000								
403.200	0.000342	-146.1207	33.1159	-6.889E-06	3.3388	8.091E+09	-1.5336	21515.
0.000								
408.000	0.000309	-4.8312	26.0582	-6.934E-06	0.1104	8.091E+09	-1.4071	21867.
0.000								

412.800	0.000276	104.0385	19.6196	-6.904E-06	2.3772	8.091E+09	-1.2757	22220.
0.000								
417.600	0.000243	183.5165	13.8201	-6.819E-06	4.1933	8.091E+09	-1.1408	22572.
0.000								
422.400	0.000210	236.7111	8.6738	-6.695E-06	5.4087	8.091E+09	-1.0035	22925.
0.000								
427.200	0.000178	266.7850	4.1900	-6.545E-06	6.0959	8.091E+09	-0.8647	23278.
0.000								
432.000	0.000147	276.9354	0.3746	-6.384E-06	6.3278	8.091E+09	-0.7250	23630.
0.000								
436.800	0.000117	270.3809	-2.7689	-6.222E-06	6.1781	8.091E+09	-0.5847	23983.
0.000								
441.600	8.755E-05	250.3544	-5.2375	-6.067E-06	5.7205	8.091E+09	-0.4439	24335.
0.000								
446.400	5.879E-05	220.1013	-7.0284	-5.928E-06	5.0292	8.091E+09	-0.3023	24688.
0.000								
451.200	3.065E-05	182.8820	-8.1377	-5.808E-06	4.1788	8.091E+09	-0.1599	25040.
0.000								
456.000	3.029E-06	141.9792	-8.5599	-5.712E-06	3.2441	8.091E+09	-0.0160	25393.
0.000								
460.800	-2.418E-05	100.7072	-8.2870	-5.640E-06	2.3011	8.091E+09	0.1297	25745.
0.000								
465.600	-5.111E-05	62.4239	-7.3087	-5.591E-06	1.4264	8.091E+09	0.2779	26098.
0.000								
470.400	-7.786E-05	30.5434	-5.6121	-5.564E-06	0.6979	8.091E+09	0.4290	26450.
0.000								
475.200	-0.000105	8.5481	-3.1816	-5.552E-06	0.1953	8.091E+09	0.5836	26803.
0.000								
480.000	-0.000131	0.000	0.000	-5.550E-06	0.000	8.091E+09	0.7420	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection = 0.4184035 inches
 Computed slope at pile head = -0.0045180 radians
 Maximum bending moment = 294674. inch-lbs
 Maximum shear force = 5198.0000000 lbs
 Depth of maximum bending moment = 86.4000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 9
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 7092.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth	Deflect.	Bending	Shear	Slope	Total	Bending	Soil Res.	Soil Spr.
Distrib.								
X	y	Moment	Force	S	Stress	Stiffness	p	Es*h
Lat. Load								
inches	inches	in-lbs	lbs	radians	psi*	lb-in ²	lb/in	lb/inch
lb/inch								
0.00	0.6210	-3.509E-07	7092.0000	-0.006567	8.018E-09	8.091E+09	0.000	0.000
0.000								
4.800	0.5895	34042.	7092.0000	-0.006557	777.8323	8.091E+09	0.000	0.000
0.000								
9.600	0.5581	68083.	7092.0000	-0.006527	1555.6645	8.091E+09	0.000	0.000
0.000								
14.400	0.5268	102125.	7073.6842	-0.006476	2333.4968	8.091E+09	-7.6316	69.5296
0.000								
19.200	0.4959	135991.	6996.4906	-0.006405	3107.3114	8.091E+09	-24.5325	237.4549
0.000								
24.000	0.4654	169291.	6837.3770	-0.006315	3868.2108	8.091E+09	-41.7648	430.7911
0.000								
28.800	0.4353	201629.	6599.0945	-0.006205	4607.1231	8.091E+09	-57.5195	634.2814
0.000								
33.600	0.4058	232642.	6292.2373	-0.006076	5315.7541	8.091E+09	-70.3377	832.0092
0.000								
38.400	0.3770	262035.	5934.1883	-0.005929	5987.3558	8.091E+09	-78.8494	1004.0351
0.000								
43.200	0.3489	289611.	5549.6464	-0.005766	6617.4471	8.091E+09	-81.3764	1119.6374
0.000								
48.000	0.3216	315311.	5142.4565	-0.005586	7204.6976	8.091E+09	-88.2861	1317.6783
0.000								
52.800	0.2952	338978.	4681.6326	-0.005392	7745.4698	8.091E+09	-103.7238	1686.3315
0.000								
57.600	0.2698	360255.	4150.8536	-0.005185	8231.6364	8.091E+09	-117.4341	2088.9425
0.000								
62.400	0.2455	378826.	3560.4991	-0.004965	8655.9796	8.091E+09	-128.5470	2513.6705
0.000								
67.200	0.2222	394436.	2924.4284	-0.004736	9012.6491	8.091E+09	-136.4825	2948.6756
0.000								
72.000	0.2000	406901.	2258.4834	-0.004498	9297.4671	8.091E+09	-140.9946	3383.8500
0.000								
76.800	0.1790	416117.	1578.9663	-0.004254	9508.0583	8.091E+09	-142.1375	3811.7619
0.000								
81.600	0.1592	422059.	901.3872	-0.004006	9643.8210	8.091E+09	-140.1871	4227.8073
0.000								
86.400	0.1405	424771.	239.6152	-0.003754	9705.7820	8.091E+09	-135.5513	4629.8209
0.000								

91.200	0.1231	424359.	-394.5748	-0.003503	9696.3817	8.091E+09	-128.6945	5017.4501
0.000								
96.000	0.1069	420983.	-991.6423	-0.003252	9619.2301	8.091E+09	-120.0836	5391.5204
0.000								
100.800	0.0919	414840.	-1544.2147	-0.003004	9478.8602	8.091E+09	-110.1550	5753.5103
0.000								
105.600	0.0781	406158.	-2046.9055	-0.002760	9280.4991	8.091E+09	-99.2995	6105.1706
0.000								
110.400	0.0654	395189.	-2496.0817	-0.002523	9029.8616	8.091E+09	-87.8572	6448.2775
0.000								
115.200	0.0539	382196.	-2889.6226	-0.002292	8732.9715	8.091E+09	-76.1182	6784.4878
0.000								
120.000	0.0434	367449.	-3226.6912	-0.002070	8396.0089	8.091E+09	-64.3271	7115.2674
0.000								
124.800	0.0340	351220.	-3507.5278	-0.001857	8025.1812	8.091E+09	-52.6882	7441.8656
0.000								
129.600	0.0256	333777.	-3733.2685	-0.001653	7626.6157	8.091E+09	-41.3704	7765.3170
0.000								
134.400	0.0181	315380.	-3905.7864	-0.001461	7206.2707	8.091E+09	-30.5120	8086.4581
0.000								
139.200	0.0115	296281.	-4027.5538	-0.001279	6769.8625	8.091E+09	-20.2244	8405.9512
0.000								
144.000	0.005829	276716.	-4101.5211	-0.001109	6322.8073	8.091E+09	-10.5954	8724.3100
0.000								
148.800	0.000898	256906.	-4131.0108	-0.000951	5870.1740	8.091E+09	-1.6920	9041.9244
0.000								
153.600	-0.003301	237058.	-4119.6225	-0.000805	5416.6500	8.091E+09	6.4371	9359.0835
0.000								
158.400	-0.006826	217358.	-4071.1492	-0.000670	4966.5149	8.091E+09	13.7601	9675.9955
0.000								
163.200	-0.009732	197975.	-3989.5018	-0.000547	4523.6238	8.091E+09	20.2597	9992.8054
0.000								
168.000	-0.0121	179059.	-3878.6419	-0.000435	4091.3984	8.091E+09	25.9319	10310.
0.000								
172.800	-0.0139	160740.	-3742.5221	-0.000334	3672.8249	8.091E+09	30.7847	10626.
0.000								
177.600	-0.0153	143131.	-3585.0335	-0.000244	3270.4580	8.091E+09	34.8356	10943.
0.000								
182.400	-0.0162	126324.	-3409.9589	-0.000164	2886.4305	8.091E+09	38.1121	11260.
0.000								
187.200	-0.0169	110395.	-3220.9322	-9.371E-05	2522.4671	8.091E+09	40.6490	11577.
0.000								
192.000	-0.0171	95403.	-3021.4051	-3.266E-05	2179.9034	8.091E+09	42.4873	11894.
0.000								
196.800	-0.0172	81390.	-2814.6188	1.978E-05	1859.7072	8.091E+09	43.6736	12211.
0.000								
201.600	-0.0170	68382.	-2603.5832	6.421E-05	1562.5031	8.091E+09	44.2579	12529.
0.000								
206.400	-0.0166	56395.	-2391.0597	0.000101	1288.5987	8.091E+09	44.2935	12846.
0.000								
211.200	-0.0160	45428.	-2179.5504	0.000131	1038.0126	8.091E+09	43.8353	13163.
0.000								
216.000	-0.0153	35471.	-1971.2917	0.000155	810.5037	8.091E+09	42.9391	13481.
0.000								

220.800	-0.0145	26504.	-1768.2523	0.000174	605.6002	8.091E+09	41.6606	13798.
0.000								
225.600	-0.0136	18496.	-1572.1351	0.000187	422.6291	8.091E+09	40.0549	14116.
0.000								
230.400	-0.0127	11411.	-1384.3822	0.000196	260.7448	8.091E+09	38.1755	14433.
0.000								
235.200	-0.0117	5206.1666	-1206.1840	0.000201	118.9581	8.091E+09	36.0738	14751.
0.000								
240.000	-0.0108	-167.9461	-1038.4892	0.000202	3.8375	8.091E+09	33.7990	15068.
0.000								
244.800	-0.009795	-4763.3297	-882.0185	0.000201	108.8395	8.091E+09	31.3971	15386.
0.000								
249.600	-0.008837	-8635.3239	-737.2790	0.000197	197.3125	8.091E+09	28.9110	15703.
0.000								
254.400	-0.007904	-11841.	-604.5798	0.000191	270.5652	8.091E+09	26.3803	16021.
0.000								
259.200	-0.007004	-14439.	-484.0492	0.000183	329.9300	8.091E+09	23.8408	16338.
0.000								
264.000	-0.006146	-16488.	-375.6513	0.000174	376.7438	8.091E+09	21.3250	16656.
0.000								
268.800	-0.005334	-18046.	-279.2033	0.000164	412.3309	8.091E+09	18.8616	16973.
0.000								
273.600	-0.004574	-19168.	-194.3929	0.000153	437.9884	8.091E+09	16.4760	17290.
0.000								
278.400	-0.003868	-19912.	-108.2518	0.000141	454.9720	8.091E+09	19.4161	24092.
0.000								
283.200	-0.003219	-20208.	-21.9252	0.000129	461.7339	8.091E+09	16.5533	24680.
0.000								
288.000	-0.002628	-20122.	51.0057	0.000117	459.7814	8.091E+09	13.8345	25268.
0.000								
292.800	-0.002094	-19718.	111.2796	0.000105	450.5456	8.091E+09	11.2796	25855.
0.000								
297.600	-0.001616	-19054.	159.7184	9.391E-05	435.3716	8.091E+09	8.9032	26443.
0.000								
302.400	-0.001193	-18185.	197.2031	8.286E-05	415.5106	8.091E+09	6.7154	27030.
0.000								
307.200	-0.000821	-17161.	224.6523	7.238E-05	392.1142	8.091E+09	4.7218	27618.
0.000								
312.000	-0.000498	-16028.	243.0030	6.254E-05	366.2320	8.091E+09	2.9243	28205.
0.000								
316.800	-0.000220	-14828.	253.1930	5.338E-05	338.8103	8.091E+09	1.3215	28793.
0.000								
321.600	1.481E-05	-13597.	256.1471	4.495E-05	310.6929	8.091E+09	-0.0907	29381.
0.000								
326.400	0.000211	-12369.	252.7646	3.725E-05	282.6232	8.091E+09	-1.3187	29968.
0.000								
331.200	0.000372	-11171.	243.9102	3.027E-05	255.2478	8.091E+09	-2.3706	30556.
0.000								
336.000	0.000502	-10027.	234.0611	2.398E-05	229.1203	8.091E+09	-1.7332	16580.
0.000								
340.800	0.000603	-8923.8566	224.7998	1.836E-05	203.9053	8.091E+09	-2.1257	16932.
0.000								
345.600	0.000678	-7869.3055	213.8386	1.338E-05	179.8094	8.091E+09	-2.4415	17285.
0.000								

350.400	0.000731	-6871.0060	201.5326	9.003E-06	156.9988	8.091E+09	-2.6860	17637.
0.000								
355.200	0.000764	-5934.5921	188.2102	5.205E-06	135.6022	8.091E+09	-2.8650	17990.
0.000								
360.000	0.000781	-5064.1877	174.1719	1.942E-06	115.7140	8.091E+09	-2.9843	18342.
0.000								
364.800	0.000783	-4262.5417	159.6899	-8.244E-07	97.3968	8.091E+09	-3.0499	18695.
0.000								
369.600	0.000773	-3531.1651	145.0079	-3.136E-06	80.6852	8.091E+09	-3.0676	19047.
0.000								
374.400	0.000753	-2870.4662	130.3419	-5.035E-06	65.5886	8.091E+09	-3.0432	19400.
0.000								
379.200	0.000725	-2279.8832	115.8807	-6.563E-06	52.0941	8.091E+09	-2.9822	19752.
0.000								
384.000	0.000690	-1758.0110	101.7875	-7.761E-06	40.1696	8.091E+09	-2.8899	20105.
0.000								
388.800	0.000650	-1302.7228	88.2009	-8.668E-06	29.7665	8.091E+09	-2.7712	20457.
0.000								
393.600	0.000607	-911.2823	75.2369	-9.325E-06	20.8223	8.091E+09	-2.6305	20810.
0.000								
398.400	0.000561	-580.4482	62.9910	-9.768E-06	13.2629	8.091E+09	-2.4720	21162.
0.000								
403.200	0.000513	-306.5685	51.5399	-1.003E-05	7.0049	8.091E+09	-2.2993	21515.
0.000								
408.000	0.000464	-85.6649	40.9441	-1.015E-05	1.9574	8.091E+09	-2.1156	21867.
0.000								
412.800	0.000416	86.4944	31.2496	-1.015E-05	1.9764	8.091E+09	-1.9237	22220.
0.000								
417.600	0.000367	214.3314	22.4909	-1.006E-05	4.8974	8.091E+09	-1.7258	22572.
0.000								
422.400	0.000319	302.4067	14.6924	-9.904E-06	6.9098	8.091E+09	-1.5236	22925.
0.000								
427.200	0.000272	355.3781	7.8711	-9.709E-06	8.1202	8.091E+09	-1.3186	23278.
0.000								
432.000	0.000226	377.9696	2.0387	-9.492E-06	8.6364	8.091E+09	-1.1116	23630.
0.000								
436.800	0.000181	374.9499	-2.7969	-9.268E-06	8.5674	8.091E+09	-0.9032	23983.
0.000								
441.600	0.000137	351.1195	-6.6295	-9.053E-06	8.0229	8.091E+09	-0.6937	24335.
0.000								
446.400	9.387E-05	311.3070	-9.4530	-8.857E-06	7.1132	8.091E+09	-0.4828	24688.
0.000								
451.200	5.180E-05	260.3709	-11.2602	-8.687E-06	5.9493	8.091E+09	-0.2702	25040.
0.000								
456.000	1.047E-05	203.2086	-12.0418	-8.549E-06	4.6432	8.091E+09	-0.0554	25393.
0.000								
460.800	-3.027E-05	144.7696	-11.7851	-8.446E-06	3.3079	8.091E+09	0.1624	25745.
0.000								
465.600	-7.061E-05	90.0718	-10.4740	-8.377E-06	2.0581	8.091E+09	0.3839	26098.
0.000								
470.400	-0.000111	44.2190	-8.0888	-8.337E-06	1.0104	8.091E+09	0.6099	26450.
0.000								
475.200	-0.000151	12.4192	-4.6061	-8.320E-06	0.2838	8.091E+09	0.8412	26803.
0.000								

480.000 -0.000191 0.000 0.000 -8.316E-06 0.000 8.091E+09 1.0781 13578.
0.000

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection = 0.6210237 inches
 Computed slope at pile head = -0.0065669 radians
 Maximum bending moment = 424771. inch-lbs
 Maximum shear force = 7092.0000000 lbs
 Depth of maximum bending moment = 86.4000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 11
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 6

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 11620.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib.	Deflect. y	Bending Moment	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil Res. p	Soil Spr. Es*h
X Lat. Load inches lb/inch	inches	in-lbs	lbs	radians	psi*	lb-in ²	lb/in	lb/inch
0.00 0.000	1.2636	1.248E-06	11620.	-0.0126	2.851E-08	8.091E+09	0.000	0.000
4.800 0.000	1.2030	55776.	11620.	-0.0126	1274.4516	8.091E+09	0.000	0.000
9.600 0.000	1.1426	111552.	11620.	-0.0126	2548.9032	8.091E+09	0.000	0.000
14.400 0.000	1.0824	167328.	11601.	-0.0125	3823.3548	8.091E+09	-7.8087	34.6279
19.200 0.000	1.0228	222924.	11521.	-0.0124	5093.6955	8.091E+09	-25.5921	120.1082
24.000 0.000	0.9637	277931.	11353.	-0.0122	6350.5632	8.091E+09	-44.4137	221.2073

28.800	0.9055	331914.	11098.	-0.0120	7584.0493	8.091E+09	-62.0773	329.0656
0.000								
33.600	0.8482	384467.	10765.	-0.0118	8784.8546	8.091E+09	-76.4256	432.4850
0.000								
38.400	0.7920	435259.	10377.	-0.0116	9945.4255	8.091E+09	-85.3135	517.0325
0.000								
43.200	0.7371	484085.	9964.4584	-0.0113	11061.	8.091E+09	-86.5470	563.6120
0.000								
48.000	0.6835	530917.	9530.1466	-0.0110	12131.	8.091E+09	-94.4162	663.0507
0.000								
52.800	0.6314	575574.	9025.2360	-0.0107	13152.	8.091E+09	-115.9632	881.5107
0.000								
57.600	0.5810	617560.	8413.2046	-0.0103	14111.	8.091E+09	-139.0499	1148.7377
0.000								
62.400	0.5324	656341.	7688.3366	-0.009944	14997.	8.091E+09	-162.9785	1469.4993
0.000								
67.200	0.4856	691368.	6849.1529	-0.009544	15797.	8.091E+09	-186.6814	1845.4343
0.000								
72.000	0.4407	722093.	5900.0921	-0.009125	16499.	8.091E+09	-208.7606	2273.5926
0.000								
76.800	0.3980	748009.	4852.7010	-0.008689	17092.	8.091E+09	-227.6523	2745.7998
0.000								
81.600	0.3573	768679.	3725.7994	-0.008239	17564.	8.091E+09	-241.8900	3249.3484
0.000								
86.400	0.3189	783776.	2544.3485	-0.007778	17909.	8.091E+09	-250.3812	3768.9856
0.000								
91.200	0.2827	793105.	1337.2030	-0.007310	18122.	8.091E+09	-252.5961	4289.5556
0.000								
96.000	0.2487	796613.	134.3108	-0.006839	18202.	8.091E+09	-248.6090	4798.3672
0.000								
100.800	0.2170	794394.	-1035.9493	-0.006367	18151.	8.091E+09	-238.9994	5286.5927
0.000								
105.600	0.1876	786668.	-2148.7702	-0.005898	17975.	8.091E+09	-224.6760	5749.5261
0.000								
110.400	0.1604	773766.	-3184.0497	-0.005435	17680.	8.091E+09	-206.6905	6185.9846
0.000								
115.200	0.1354	756101.	-4126.7258	-0.004981	17277.	8.091E+09	-186.0912	6597.3065
0.000								
120.000	0.1126	734149.	-4966.5376	-0.004539	16775.	8.091E+09	-163.8304	6986.3265
0.000								
124.800	0.0918	708423.	-5697.4609	-0.004111	16187.	8.091E+09	-140.7210	7356.5427
0.000								
129.600	0.0731	679454.	-6317.0170	-0.003700	15525.	8.091E+09	-117.4274	7711.5387
0.000								
134.400	0.0563	647779.	-6825.5851	-0.003306	14801.	8.091E+09	-94.4760	8054.6386
0.000								
139.200	0.0414	613928.	-7225.7846	-0.002932	14028.	8.091E+09	-72.2738	8388.7356
0.000								
144.000	0.0282	578412.	-7521.9522	-0.002578	13216.	8.091E+09	-51.1293	8716.2366
0.000								
148.800	0.0166	541717.	-7719.7129	-0.002246	12378.	8.091E+09	-31.2710	9039.0742
0.000								
153.600	0.006597	504303.	-7825.6350	-0.001935	11523.	8.091E+09	-12.8632	9358.7539
0.000								

158.400	-0.001975	466591.	-7846.9518	-0.001647	10661.	8.091E+09	3.9812	9676.4160
0.000								
163.200	-0.009219	428972.	-7791.3368	-0.001382	9801.7750	8.091E+09	19.1917	9992.8988
0.000								
168.000	-0.0152	391794.	-7666.7205	-0.001138	8952.2930	8.091E+09	32.7318	10309.
0.000								
172.800	-0.0201	355371.	-7481.1380	-0.000917	8120.0428	8.091E+09	44.5942	10625.
0.000								
177.600	-0.0240	319976.	-7242.6045	-0.000716	7311.2692	8.091E+09	54.7947	10940.
0.000								
182.400	-0.0270	285842.	-6959.0065	-0.000537	6531.3424	8.091E+09	63.3711	11256.
0.000								
187.200	-0.0292	253169.	-6638.0062	-0.000377	5784.7774	8.091E+09	70.3790	11571.
0.000								
192.000	-0.0306	222117.	-6286.9633	-0.000236	5075.2636	8.091E+09	75.8889	11888.
0.000								
196.800	-0.0315	192814.	-5912.8695	-0.000113	4405.7016	8.091E+09	79.9836	12204.
0.000								
201.600	-0.0317	165354.	-5522.2946	-6.543E-06	3778.2471	8.091E+09	82.7559	12521.
0.000								
206.400	-0.0315	139800.	-5121.3453	8.397E-05	3194.3596	8.091E+09	84.3063	12838.
0.000								
211.200	-0.0309	116189.	-4715.6331	0.000160	2654.8552	8.091E+09	84.7405	13155.
0.000								
216.000	-0.0300	94530.	-4310.2530	0.000222	2159.9626	8.091E+09	84.1679	13473.
0.000								
220.800	-0.0288	74811.	-3909.7710	0.000273	1709.3804	8.091E+09	82.6996	13791.
0.000								
225.600	-0.0274	56996.	-3518.2196	0.000312	1302.3355	8.091E+09	80.4468	14109.
0.000								
230.400	-0.0258	41036.	-3139.1013	0.000341	937.6419	8.091E+09	77.5192	14427.
0.000								
235.200	-0.0241	26861.	-2775.3983	0.000361	613.7584	8.091E+09	74.0238	14745.
0.000								
240.000	-0.0223	14392.	-2429.5882	0.000373	328.8448	8.091E+09	70.0638	15063.
0.000								
244.800	-0.0205	3536.9090	-2103.6649	0.000379	80.8165	8.091E+09	65.7376	15382.
0.000								
249.600	-0.0187	-5803.3852	-1799.1630	0.000378	132.6042	8.091E+09	61.1382	15700.
0.000								
254.400	-0.0169	-13735.	-1517.1861	0.000372	313.8386	8.091E+09	56.3522	16018.
0.000								
259.200	-0.0151	-20368.	-1258.4372	0.000362	465.4063	8.091E+09	51.4598	16336.
0.000								
264.000	-0.0134	-25816.	-1023.2509	0.000348	589.8829	8.091E+09	46.5345	16654.
0.000								
268.800	-0.0118	-30192.	-811.6261	0.000332	689.8614	8.091E+09	41.6425	16971.
0.000								
273.600	-0.0102	-33608.	-623.2593	0.000313	767.9170	8.091E+09	36.8436	17289.
0.000								
278.400	-0.008776	-36175.	-429.1271	0.000292	826.5763	8.091E+09	44.0448	24091.
0.000								
283.200	-0.007426	-37727.	-231.7899	0.000270	862.0481	8.091E+09	38.1790	24679.
0.000								

288.000	-0.006183	-38400.	-62.0458	0.000247	877.4205	8.091E+09	32.5477	25267.
0.000								
292.800	-0.005050	-38323.	81.3502	0.000225	875.6582	8.091E+09	27.2007	25855.
0.000								
297.600	-0.004026	-37619.	199.8571	0.000202	859.5760	8.091E+09	22.1772	26442.
0.000								
302.400	-0.003109	-36404.	295.0969	0.000180	831.8186	8.091E+09	17.5061	27030.
0.000								
307.200	-0.002295	-34786.	368.8078	0.000159	794.8451	8.091E+09	13.2068	27618.
0.000								
312.000	-0.001581	-32864.	422.8013	0.000139	750.9188	8.091E+09	9.2905	28205.
0.000								
316.800	-0.000960	-30727.	458.9239	0.000120	702.1016	8.091E+09	5.7606	28793.
0.000								
321.600	-0.000427	-28458.	479.0238	0.000103	650.2516	8.091E+09	2.6143	29381.
0.000								
326.400	2.507E-05	-26129.	484.9226	8.645E-05	597.0254	8.091E+09	-0.1565	29968.
0.000								
331.200	0.000403	-23803.	478.3925	7.164E-05	543.8815	8.091E+09	-2.5644	30556.
0.000								
336.000	0.000713	-21536.	466.3285	5.819E-05	492.0877	8.091E+09	-2.4622	16580.
0.000								
340.800	0.000962	-19326.	452.2788	4.607E-05	441.5901	8.091E+09	-3.3918	16932.
0.000								
345.600	0.001155	-17194.	434.1552	3.524E-05	392.8781	8.091E+09	-4.1597	17285.
0.000								
350.400	0.001300	-15158.	412.7092	2.564E-05	346.3560	8.091E+09	-4.7761	17637.
0.000								
355.200	0.001401	-13232.	388.6416	1.722E-05	302.3484	8.091E+09	-5.2520	17990.
0.000								
360.000	0.001465	-11427.	362.5993	9.909E-06	261.1056	8.091E+09	-5.5989	18342.
0.000								
364.800	0.001496	-9751.2336	335.1740	3.626E-06	222.8104	8.091E+09	-5.8284	18695.
0.000								
369.600	0.001500	-8209.5410	306.9006	-1.701E-06	187.5836	8.091E+09	-5.9522	19047.
0.000								
374.400	0.001480	-6804.9879	278.2581	-6.155E-06	155.4903	8.091E+09	-5.9821	19400.
0.000								
379.200	0.001441	-5538.2634	249.6704	-9.816E-06	126.5463	8.091E+09	-5.9294	19752.
0.000								
384.000	0.001386	-4408.1522	221.5082	-1.277E-05	100.7239	8.091E+09	-5.8048	20105.
0.000								
388.800	0.001318	-3411.7845	194.0917	-1.509E-05	77.9574	8.091E+09	-5.6187	20457.
0.000								
393.600	0.001241	-2544.8716	167.6936	-1.685E-05	58.1489	8.091E+09	-5.3805	20810.
0.000								
398.400	0.001157	-1801.9257	142.5427	-1.814E-05	41.1730	8.091E+09	-5.0990	21162.
0.000								
403.200	0.001067	-1176.4614	118.8279	-1.903E-05	26.8815	8.091E+09	-4.7821	21515.
0.000								
408.000	0.000974	-661.1776	96.7025	-1.957E-05	15.1076	8.091E+09	-4.4368	21867.
0.000								
412.800	0.000879	-248.1177	76.2883	-1.984E-05	5.6694	8.091E+09	-4.0691	22220.
0.000								

417.600	0.000783	71.1900	57.6805	-1.989E-05	1.6267	8.091E+09	-3.6841	22572.
0.000								
422.400	0.000688	305.6150	40.9519	-1.978E-05	6.9831	8.091E+09	-3.2861	22925.
0.000								
427.200	0.000594	464.3279	26.1573	-1.955E-05	10.6096	8.091E+09	-2.8783	23278.
0.000								
432.000	0.000500	556.7251	13.3380	-1.925E-05	12.7209	8.091E+09	-2.4631	23630.
0.000								
436.800	0.000409	592.3727	2.5255	-1.891E-05	13.5354	8.091E+09	-2.0421	23983.
0.000								
441.600	0.000319	580.9696	-6.2547	-1.856E-05	13.2748	8.091E+09	-1.6163	24335.
0.000								
446.400	0.000231	532.3278	-12.9794	-1.823E-05	12.1634	8.091E+09	-1.1857	24688.
0.000								
451.200	0.000144	456.3676	-17.6252	-1.794E-05	10.4278	8.091E+09	-0.7501	25040.
0.000								
456.000	5.833E-05	363.1257	-20.1660	-1.769E-05	8.2972	8.091E+09	-0.3086	25393.
0.000								
460.800	-2.609E-05	262.7740	-20.5708	-1.751E-05	6.0042	8.091E+09	0.1399	25745.
0.000								
465.600	-0.000110	165.6459	-18.8029	-1.738E-05	3.7849	8.091E+09	0.5967	26098.
0.000								
470.400	-0.000193	82.2666	-14.8189	-1.731E-05	1.8797	8.091E+09	1.0633	26450.
0.000								
475.200	-0.000276	23.3847	-8.5694	-1.728E-05	0.5343	8.091E+09	1.5407	26803.
0.000								
480.000	-0.000359	0.000	0.000	-1.727E-05	0.000	8.091E+09	2.0299	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 6:

Pile-head deflection = 1.2636150 inches
 Computed slope at pile head = -0.0126272 radians
 Maximum bending moment = 796613. inch-lbs
 Maximum shear force = 11620. lbs
 Depth of maximum bending moment = 96.0000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 15
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 7

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 14710.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00	1.8250	-3.119E-07	14710.	-0.0176	7.127E-09	8.091E+09	0.000	0.000
0.000								
4.800	1.7407	70608.	14710.	-0.0176	1613.3548	8.091E+09	0.000	0.000
0.000								
9.600	1.6565	141216.	14710.	-0.0175	3226.7097	8.091E+09	0.000	0.000
0.000								
14.400	1.5727	211824.	14691.	-0.0174	4840.0645	8.091E+09	-7.8103	23.8380
0.000								
19.200	1.4895	282252.	14611.	-0.0172	6449.3076	8.091E+09	-25.6102	82.5304
0.000								
24.000	1.4071	352090.	14443.	-0.0171	8045.0681	8.091E+09	-44.4802	151.7321
0.000								
28.800	1.3257	420903.	14187.	-0.0168	9617.4120	8.091E+09	-62.2188	225.2704
0.000								
33.600	1.2456	488283.	13854.	-0.0166	11157.	8.091E+09	-76.6274	295.2974
0.000								
38.400	1.1668	553897.	13464.	-0.0162	12656.	8.091E+09	-85.5083	351.7731
0.000								
43.200	1.0896	617541.	13051.	-0.0159	14110.	8.091E+09	-86.6595	381.7726
0.000								
48.000	1.0141	679188.	12616.	-0.0155	15519.	8.091E+09	-94.5575	447.5602
0.000								
52.800	0.9406	738657.	12110.	-0.0151	16878.	8.091E+09	-116.4625	594.3272
0.000								
57.600	0.8692	795443.	11493.	-0.0146	18175.	8.091E+09	-140.4896	775.8478
0.000								
62.400	0.8000	848991.	10756.	-0.0142	19399.	8.091E+09	-166.4914	998.9125
0.000								
67.200	0.7333	898704.	9890.8949	-0.0136	20535.	8.091E+09	-194.1291	1270.7269
0.000								
72.000	0.6691	943944.	8890.3913	-0.0131	21569.	8.091E+09	-222.7474	1597.8930
0.000								
76.800	0.6076	984052.	7752.7729	-0.0125	22485.	8.091E+09	-251.2603	1984.8141
0.000								
81.600	0.5490	1018371.	6482.2767	-0.0119	23269.	8.091E+09	-278.1131	2431.7871
0.000								
86.400	0.4932	1046282.	5091.4683	-0.0113	23907.	8.091E+09	-301.3903	2933.4017
0.000								
91.200	0.4404	1067249.	3602.3163	-0.0107	24386.	8.091E+09	-319.0897	3478.0600
0.000								

96.000	0.3906	1080864.	2045.6851	-0.0100	24697.	8.091E+09	-329.5066	4049.1866
0.000								
100.800	0.3439	1086887.	459.0447	-0.009404	24835.	8.091E+09	-331.5936	4627.9860
0.000								
105.600	0.3003	1085271.	-1117.1522	-0.008760	24798.	8.091E+09	-325.1551	5196.8210
0.000								
110.400	0.2598	1076163.	-2643.4828	-0.008119	24590.	8.091E+09	-310.8159	5741.9886
0.000								
115.200	0.2224	1059893.	-4084.9725	-0.007485	24218.	8.091E+09	-289.8048	6255.0835
0.000								
120.000	0.1880	1036947.	-5413.2963	-0.006863	23694.	8.091E+09	-263.6635	6732.8796
0.000								
124.800	0.1565	1007926.	-6607.6471	-0.006256	23031.	8.091E+09	-233.9827	7176.2274
0.000								
129.600	0.1279	973513.	-7654.5339	-0.005669	22244.	8.091E+09	-202.2201	7588.6032
0.000								
134.400	0.1021	934442.	-8546.9213	-0.005103	21351.	8.091E+09	-169.6080	7974.7842
0.000								
139.200	0.0789	891463.	-9283.0893	-0.004561	20369.	8.091E+09	-137.1287	8339.8652
0.000								
144.000	0.0583	845324.	-9865.4743	-0.004046	19315.	8.091E+09	-105.5317	8688.6443
0.000								
148.800	0.0401	796754.	-10300.	-0.003559	18205.	8.091E+09	-75.3686	9025.3066
0.000								
153.600	0.0241	746448.	-10593.	-0.003101	17056.	8.091E+09	-47.0318	9353.3123
0.000								
158.400	0.0103	695058.	-10756.	-0.002673	15882.	8.091E+09	-20.7899	9675.4069
0.000								
163.200	-0.001529	643189.	-10798.	-0.002276	14697.	8.091E+09	3.1833	9993.6927
0.000								
168.000	-0.0115	591393.	-10731.	-0.001910	13513.	8.091E+09	24.7870	10310.
0.000								
172.800	-0.0199	540168.	-10566.	-0.001575	12343.	8.091E+09	43.9762	10625.
0.000								
177.600	-0.0267	489957.	-10315.	-0.001269	11195.	8.091E+09	60.7484	10939.
0.000								
182.400	-0.0321	441145.	-9988.7991	-0.000993	10080.	8.091E+09	75.1372	11253.
0.000								
187.200	-0.0362	394064.	-9599.1760	-0.000745	9004.1591	8.091E+09	87.2058	11567.
0.000								
192.000	-0.0392	348993.	-9156.9817	-0.000525	7974.3010	8.091E+09	97.0418	11881.
0.000								
196.800	-0.0412	306157.	-8672.6743	-0.000330	6995.5308	8.091E+09	104.7529	12197.
0.000								
201.600	-0.0424	265735.	-8156.1576	-0.000161	6071.9080	8.091E+09	110.4624	12512.
0.000								
206.400	-0.0428	227858.	-7616.7116	-1.434E-05	5206.4382	8.091E+09	114.3067	12829.
0.000								
211.200	-0.0425	192615.	-7062.9404	0.000110	4401.1454	8.091E+09	116.4313	13146.
0.000								
216.000	-0.0417	160054.	-6502.7329	0.000215	3657.1481	8.091E+09	116.9885	13463.
0.000								
220.800	-0.0404	130189.	-5943.2374	0.000301	2974.7395	8.091E+09	116.1347	13781.
0.000								

225.600	-0.0388	102999.	-5390.8471	0.000370	2353.4702	8.091E+09	114.0279	14100.
0.000								
230.400	-0.0369	78436.	-4851.1976	0.000424	1792.2311	8.091E+09	110.8260	14418.
0.000								
235.200	-0.0347	56427.	-4329.1729	0.000464	1289.3365	8.091E+09	106.6842	14737.
0.000								
240.000	-0.0324	36876.	-3828.9215	0.000492	842.6061	8.091E+09	101.7539	15056.
0.000								
244.800	-0.0300	19670.	-3353.8788	0.000509	449.4441	8.091E+09	96.1806	15375.
0.000								
249.600	-0.0276	4679.1697	-2906.7976	0.000516	106.9165	8.091E+09	90.1033	15694.
0.000								
254.400	-0.0251	-8235.4690	-2489.7826	0.000515	188.1760	8.091E+09	83.6530	16013.
0.000								
259.200	-0.0226	-19223.	-2104.3303	0.000507	439.2293	8.091E+09	76.9521	16332.
0.000								
264.000	-0.0202	-28437.	-1751.3714	0.000492	649.7711	8.091E+09	70.1140	16650.
0.000								
268.800	-0.0179	-36036.	-1431.3158	0.000473	823.4011	8.091E+09	63.2425	16969.
0.000								
273.600	-0.0157	-42178.	-1144.0978	0.000450	963.7371	8.091E+09	56.4317	17287.
0.000								
278.400	-0.0136	-47019.	-845.2444	0.000424	1074.3645	8.091E+09	68.0906	24087.
0.000								
283.200	-0.0116	-50292.	-538.6763	0.000395	1149.1455	8.091E+09	59.6461	24676.
0.000								
288.000	-0.009779	-52191.	-271.9926	0.000364	1192.5258	8.091E+09	51.4721	25265.
0.000								
292.800	-0.008104	-52903.	-43.6975	0.000333	1208.8084	8.091E+09	43.6509	25854.
0.000								
297.600	-0.006580	-52610.	148.0612	0.000302	1202.1110	8.091E+09	36.2486	26442.
0.000								
302.400	-0.005206	-51482.	305.4168	0.000271	1176.3305	8.091E+09	29.3162	27030.
0.000								
307.200	-0.003978	-49678.	430.7132	0.000241	1135.1164	8.091E+09	22.8906	27618.
0.000								
312.000	-0.002892	-47347.	526.4397	0.000212	1081.8515	8.091E+09	16.9955	28205.
0.000								
316.800	-0.001941	-44624.	595.1722	0.000185	1019.6393	8.091E+09	11.6431	28793.
0.000								
321.600	-0.001117	-41633.	639.5210	0.000159	951.2976	8.091E+09	6.8356	29380.
0.000								
326.400	-0.000411	-38485.	662.0857	0.000136	879.3573	8.091E+09	2.5664	29968.
0.000								
331.200	0.000185	-35277.	665.4182	0.000114	806.0659	8.091E+09	-1.1779	30556.
0.000								
336.000	0.000681	-32097.	656.9487	9.374E-05	733.3946	8.091E+09	-2.3511	16580.
0.000								
340.800	0.001085	-28971.	642.1209	7.562E-05	661.9610	8.091E+09	-3.8271	16932.
0.000								
345.600	0.001407	-25932.	620.7789	5.934E-05	592.5422	8.091E+09	-5.0654	17285.
0.000								
350.400	0.001655	-23011.	594.0310	4.482E-05	525.7901	8.091E+09	-6.0796	17637.
0.000								

355.200	0.001837	-20230.	562.9170	3.199E-05	462.2386	8.091E+09	-6.8846	17990.
0.000								
360.000	0.001962	-17607.	528.4028	2.077E-05	402.3116	8.091E+09	-7.4963	18342.
0.000								
364.800	0.002036	-15157.	491.3773	1.105E-05	346.3309	8.091E+09	-7.9310	18695.
0.000								
369.600	0.002068	-12890.	452.6499	2.732E-06	294.5256	8.091E+09	-8.2054	19047.
0.000								
374.400	0.002063	-10812.	412.9502	-4.298E-06	247.0400	8.091E+09	-8.3361	19400.
0.000								
379.200	0.002027	-8925.5034	372.9291	-1.015E-05	203.9430	8.091E+09	-8.3393	19752.
0.000								
384.000	0.001965	-7231.5131	333.1607	-1.495E-05	165.2362	8.091E+09	-8.2308	20105.
0.000								
388.800	0.001883	-5727.1611	294.1454	-1.879E-05	130.8626	8.091E+09	-8.0255	20457.
0.000								
393.600	0.001785	-4407.7172	256.3143	-2.180E-05	100.7140	8.091E+09	-7.7375	20810.
0.000								
398.400	0.001674	-3266.5443	220.0333	-2.407E-05	74.6388	8.091E+09	-7.3796	21162.
0.000								
403.200	0.001554	-2295.3977	185.6091	-2.572E-05	52.4486	8.091E+09	-6.9638	21515.
0.000								
408.000	0.001427	-1484.6970	153.2947	-2.684E-05	33.9245	8.091E+09	-6.5005	21867.
0.000								
412.800	0.001296	-823.7685	123.2956	-2.753E-05	18.8227	8.091E+09	-5.9991	22220.
0.000								
417.600	0.001163	-301.0592	95.7761	-2.786E-05	6.8790	8.091E+09	-5.4674	22572.
0.000								
422.400	0.001028	95.6816	70.8655	-2.792E-05	2.1863	8.091E+09	-4.9120	22925.
0.000								
427.200	0.000895	379.2499	48.6650	-2.778E-05	8.6657	8.091E+09	-4.3382	23278.
0.000								
432.000	0.000762	562.8653	29.2530	-2.750E-05	12.8612	8.091E+09	-3.7501	23630.
0.000								
436.800	0.000631	660.0782	12.6915	-2.714E-05	15.0824	8.091E+09	-3.1505	23983.
0.000								
441.600	0.000501	684.7037	-0.9684	-2.674E-05	15.6451	8.091E+09	-2.5411	24335.
0.000								
446.400	0.000374	650.7813	-11.6819	-2.634E-05	14.8700	8.091E+09	-1.9228	24688.
0.000								
451.200	0.000248	572.5575	-19.4057	-2.598E-05	13.0826	8.091E+09	-1.2954	25040.
0.000								
456.000	0.000124	464.4868	-24.0946	-2.567E-05	10.6133	8.091E+09	-0.6583	25393.
0.000								
460.800	1.859E-06	341.2497	-25.6983	-2.543E-05	7.7974	8.091E+09	-0.009973	25745.
0.000								
465.600	-0.000120	217.7830	-24.1598	-2.527E-05	4.9762	8.091E+09	0.6510	26098.
0.000								
470.400	-0.000241	109.3160	-19.4137	-2.517E-05	2.4978	8.091E+09	1.3265	26450.
0.000								
475.200	-0.000361	31.4111	-11.3871	-2.513E-05	0.7177	8.091E+09	2.0180	26803.
0.000								
480.000	-0.000482	0.000	0.000	-2.512E-05	0.000	8.091E+09	2.7267	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 7:

Pile-head deflection = 1.8250470 inches
 Computed slope at pile head = -0.0175812 radians
 Maximum bending moment = 1086887. inch-lbs
 Maximum shear force = 14710. lbs
 Depth of maximum bending moment = 100.8000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 17
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 8

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 17134.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	2.3335	-1.092E-06	17134.	-0.0219	2.494E-08	8.091E+09	0.000	0.000
4.800 0.000	2.2285	82243.	17134.	-0.0219	1879.2129	8.091E+09	0.000	0.000
9.600 0.000	2.1237	164486.	17134.	-0.0218	3758.4258	8.091E+09	0.000	0.000
14.400 0.000	2.0193	246730.	17115.	-0.0217	5637.6387	8.091E+09	-7.8104	18.5655
19.200 0.000	1.9157	328793.	17035.	-0.0215	7512.7398	8.091E+09	-25.6107	64.1710
24.000 0.000	1.8130	410266.	16867.	-0.0213	9374.3582	8.091E+09	-44.4827	117.7712
28.800 0.000	1.7114	490714.	16611.	-0.0210	11213.	8.091E+09	-62.2250	174.5192

33.600	1.6113	569729.	16277.	-0.0207	13018.	8.091E+09	-76.6365	228.2962
0.000								
38.400	1.5128	646978.	15888.	-0.0203	14783.	8.091E+09	-85.5163	271.3381
0.000								
43.200	1.4161	722257.	15475.	-0.0199	16503.	8.091E+09	-86.6629	293.7476
0.000								
48.000	1.3215	795538.	15040.	-0.0195	18178.	8.091E+09	-94.5619	343.4700
0.000								
52.800	1.2292	866642.	14534.	-0.0190	19802.	8.091E+09	-116.4877	454.8987
0.000								
57.600	1.1393	935061.	13917.	-0.0184	21366.	8.091E+09	-140.5985	592.3720
0.000								
62.400	1.0521	1000241.	13179.	-0.0179	22855.	8.091E+09	-166.8688	761.3410
0.000								
67.200	0.9677	1061576.	12310.	-0.0173	24256.	8.091E+09	-195.2169	968.3372
0.000								
72.000	0.8863	1118414.	11300.	-0.0166	25555.	8.091E+09	-225.4303	1220.8353
0.000								
76.800	0.8082	1170057.	10142.	-0.0159	26735.	8.091E+09	-257.0458	1526.6868
0.000								
81.600	0.7333	1215779.	8831.1810	-0.0152	27780.	8.091E+09	-289.1993	1892.9335
0.000								
86.400	0.6620	1254837.	7367.9093	-0.0145	28672.	8.091E+09	-320.4972	2323.9646
0.000								
91.200	0.5942	1286510.	5761.1372	-0.0137	29396.	8.091E+09	-348.9912	2819.3240
0.000								
96.000	0.5300	1310144.	4029.9417	-0.0130	29936.	8.091E+09	-372.3403	3371.9037
0.000								
100.800	0.4696	1325198.	2204.6861	-0.0122	30280.	8.091E+09	-388.1829	3967.5057
0.000								
105.600	0.4130	1331309.	325.9322	-0.0114	30420.	8.091E+09	-394.6312	4586.4467
0.000								
110.400	0.3602	1328327.	-1558.8792	-0.0106	30352.	8.091E+09	-390.7069	5206.9901
0.000								
115.200	0.3111	1316343.	-3400.2675	-0.009829	30078.	8.091E+09	-376.5382	5809.4059
0.000								
120.000	0.2658	1295684.	-5151.7685	-0.009055	29606.	8.091E+09	-353.2538	6379.1408
0.000								
124.800	0.2242	1266886.	-6773.9467	-0.008294	28948.	8.091E+09	-322.6538	6908.1585
0.000								
129.600	0.1862	1230654.	-8236.6691	-0.007554	28120.	8.091E+09	-286.8139	7394.4816
0.000								
134.400	0.1517	1187814.	-9519.6379	-0.006836	27141.	8.091E+09	-247.7564	7840.6367
0.000								
139.200	0.1206	1139266.	-10612.	-0.006146	26032.	8.091E+09	-207.2457	8251.8189
0.000								
144.000	0.0927	1085943.	-11509.	-0.005486	24813.	8.091E+09	-166.7042	8634.3199
0.000								
148.800	0.0679	1028778.	-12215.	-0.004859	23507.	8.091E+09	-127.2119	8994.4367
0.000								
153.600	0.0460	968683.	-12735.	-0.004266	22134.	8.091E+09	-89.5496	9337.8439
0.000								
158.400	0.0269	906525.	-13080.	-0.003710	20714.	8.091E+09	-54.2565	9669.3160
0.000								

163.200	0.0104	843116.	-13262.	-0.003191	19265.	8.091E+09	-21.6865	9992.6729
0.000								
168.000	-0.003699	779208.	-13295.	-0.002710	17804.	8.091E+09	7.9449	10311.
0.000								
172.800	-0.0156	715483.	-13193.	-0.002266	16348.	8.091E+09	34.5244	10626.
0.000								
177.600	-0.0255	652553.	-12971.	-0.001860	14910.	8.091E+09	58.0126	10939.
0.000								
182.400	-0.0335	590960.	-12644.	-0.001492	13503.	8.091E+09	78.4258	11252.
0.000								
187.200	-0.0398	531174.	-12225.	-0.001159	12137.	8.091E+09	95.8251	11564.
0.000								
192.000	-0.0446	473596.	-11731.	-0.000861	10821.	8.091E+09	110.3072	11877.
0.000								
196.800	-0.0480	418559.	-11173.	-0.000596	9563.8512	8.091E+09	121.9975	12190.
0.000								
201.600	-0.0503	366333.	-10566.	-0.000363	8370.5154	8.091E+09	131.0436	12504.
0.000								
206.400	-0.0515	317126.	-9921.1396	-0.000161	7246.1677	8.091E+09	137.6108	12820.
0.000								
211.200	-0.0518	271090.	-9250.3668	1.393E-05	6194.2654	8.091E+09	141.8779	13136.
0.000								
216.000	-0.0514	228323.	-8564.1800	0.000162	5217.0549	8.091E+09	144.0333	13453.
0.000								
220.800	-0.0503	188874.	-7872.2469	0.000286	4315.6711	8.091E+09	144.2721	13771.
0.000								
225.600	-0.0486	152749.	-7183.2904	0.000387	3490.2395	8.091E+09	142.7931	14089.
0.000								
230.400	-0.0466	119914.	-6505.0771	0.000468	2739.9816	8.091E+09	139.7958	14408.
0.000								
235.200	-0.0442	90301.	-5844.4193	0.000530	2063.3193	8.091E+09	135.4783	14728.
0.000								
240.000	-0.0415	63808.	-5207.1870	0.000576	1457.9799	8.091E+09	130.0351	15047.
0.000								
244.800	-0.0386	40312.	-4598.3307	0.000607	921.0977	8.091E+09	123.6550	15367.
0.000								
249.600	-0.0357	19664.	-4021.9127	0.000625	449.3138	8.091E+09	116.5192	15687.
0.000								
254.400	-0.0326	1701.2065	-3481.1460	0.000631	38.8717	8.091E+09	108.8002	16007.
0.000								
259.200	-0.0296	-13755.	-2978.4398	0.000628	314.2924	8.091E+09	100.6607	16327.
0.000								
264.000	-0.0266	-26892.	-2515.4493	0.000615	614.4635	8.091E+09	92.2521	16646.
0.000								
268.800	-0.0237	-37903.	-2093.1290	0.000596	866.0684	8.091E+09	83.7147	16965.
0.000								
273.600	-0.0209	-46986.	-1711.7886	0.000571	1073.6015	8.091E+09	75.1771	17284.
0.000								
278.400	-0.0182	-54336.	-1312.1695	0.000541	1241.5575	8.091E+09	91.3308	24083.
0.000								
283.200	-0.0157	-59583.	-899.4929	0.000507	1361.4322	8.091E+09	80.6178	24673.
0.000								
288.000	-0.0133	-62972.	-537.5868	0.000471	1438.8656	8.091E+09	70.1765	25263.
0.000								

292.800	-0.0112	-64744.	-224.8690	0.000433	1479.3545	8.091E+09	60.1226	25852.
0.000								
297.600	-0.009177	-65130.	40.7467	0.000394	1488.1917	8.091E+09	50.5507	26441.
0.000								
302.400	-0.007376	-64352.	261.7534	0.000356	1470.4165	8.091E+09	41.5354	27029.
0.000								
307.200	-0.005759	-62617.	440.9572	0.000318	1430.7749	8.091E+09	33.1328	27617.
0.000								
312.000	-0.004319	-60119.	581.3913	0.000282	1373.6904	8.091E+09	25.3814	28205.
0.000								
316.800	-0.003051	-57036.	686.2369	0.000247	1303.2439	8.091E+09	18.3043	28793.
0.000								
321.600	-0.001946	-53531.	758.7529	0.000214	1223.1610	8.091E+09	11.9107	29380.
0.000								
326.400	-0.000993	-49752.	802.2141	0.000184	1136.8078	8.091E+09	6.1981	29968.
0.000								
331.200	-0.000181	-45830.	819.8593	0.000155	1047.1915	8.091E+09	1.1541	30556.
0.000								
336.000	0.000500	-41881.	818.4869	0.000129	956.9676	8.091E+09	-1.7259	16580.
0.000								
340.800	0.001061	-37973.	805.3589	0.000106	867.6524	8.091E+09	-3.7440	16932.
0.000								
345.600	0.001515	-34150.	783.2805	8.436E-05	780.3083	8.091E+09	-5.4553	17285.
0.000								
350.400	0.001871	-30453.	753.6858	6.520E-05	695.8360	8.091E+09	-6.8758	17637.
0.000								
355.200	0.002141	-26915.	717.9269	4.818E-05	614.9836	8.091E+09	-8.0237	17990.
0.000								
360.000	0.002334	-23561.	677.2660	3.321E-05	538.3553	8.091E+09	-8.9183	18342.
0.000								
364.800	0.002460	-20413.	632.8702	2.017E-05	466.4221	8.091E+09	-9.5799	18695.
0.000								
369.600	0.002527	-17485.	585.8079	8.926E-06	399.5322	8.091E+09	-10.0294	19047.
0.000								
374.400	0.002545	-14789.	537.0472	-6.470E-07	337.9223	8.091E+09	-10.2876	19400.
0.000								
379.200	0.002521	-12330.	487.4569	-8.691E-06	281.7283	8.091E+09	-10.3751	19752.
0.000								
384.000	0.002462	-10109.	437.8081	-1.535E-05	230.9962	8.091E+09	-10.3120	20105.
0.000								
388.800	0.002374	-8126.7977	388.7775	-2.076E-05	185.6930	8.091E+09	-10.1175	20457.
0.000								
393.600	0.002263	-6377.2188	340.9523	-2.506E-05	145.7160	8.091E+09	-9.8097	20810.
0.000								
398.400	0.002133	-4853.6552	294.8358	-2.839E-05	110.9034	8.091E+09	-9.4055	21162.
0.000								
403.200	0.001990	-3546.7948	250.8536	-3.088E-05	81.0424	8.091E+09	-8.9204	21515.
0.000								
408.000	0.001837	-2445.4606	209.3608	-3.266E-05	55.8775	8.091E+09	-8.3683	21867.
0.000								
412.800	0.001677	-1536.9310	170.6498	-3.384E-05	35.1180	8.091E+09	-7.7613	22220.
0.000								
417.600	0.001512	-807.2227	134.9578	-3.454E-05	18.4446	8.091E+09	-7.1103	22572.
0.000								

422.400	0.001345	-241.3360	102.4751	-3.485E-05	5.5144	8.091E+09	-6.4241	22925.
0.000								
427.200	0.001177	176.5387	73.3530	-3.487E-05	4.0338	8.091E+09	-5.7101	23278.
0.000								
432.000	0.001010	462.8528	47.7114	-3.468E-05	10.5759	8.091E+09	-4.9739	23630.
0.000								
436.800	0.000845	634.5680	25.6465	-3.435E-05	14.4995	8.091E+09	-4.2198	23983.
0.000								
441.600	0.000681	709.0596	7.2380	-3.395E-05	16.2016	8.091E+09	-3.4504	24335.
0.000								
446.400	0.000519	704.0529	-7.4448	-3.353E-05	16.0872	8.091E+09	-2.6674	24688.
0.000								
451.200	0.000359	637.5891	-18.3372	-3.314E-05	14.5686	8.091E+09	-1.8711	25040.
0.000								
456.000	0.000201	528.0163	-25.3736	-3.279E-05	12.0649	8.091E+09	-1.0608	25393.
0.000								
460.800	4.389E-05	394.0027	-28.4844	-3.252E-05	9.0027	8.091E+09	-0.2354	25745.
0.000								
465.600	-0.000112	254.5658	-27.5927	-3.232E-05	5.8167	8.091E+09	0.6069	26098.
0.000								
470.400	-0.000266	129.1127	-22.6126	-3.221E-05	2.9502	8.091E+09	1.4681	26450.
0.000								
475.200	-0.000421	37.4848	-13.4492	-3.216E-05	0.8565	8.091E+09	2.3500	26803.
0.000								
480.000	-0.000575	0.000	0.000	-3.215E-05	0.000	8.091E+09	3.2539	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 8:

Pile-head deflection = 2.3335169 inches
 Computed slope at pile head = -0.0218842 radians
 Maximum bending moment = 1331309. inch-lbs
 Maximum shear force = 17134. lbs
 Depth of maximum bending moment = 105.6000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 18
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 9

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 19470.000 lbs

Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00	2.8804	1.404E-06	19470.	-0.0264	3.207E-08	8.091E+09	0.000	0.000
0.000								
4.800	2.7538	93456.	19470.	-0.0263	2135.4194	8.091E+09	0.000	0.000
0.000								
9.600	2.6276	186912.	19470.	-0.0263	4270.8387	8.091E+09	0.000	0.000
0.000								
14.400	2.5018	280368.	19451.	-0.0261	6406.2581	8.091E+09	-7.8103	14.9850
0.000								
19.200	2.3769	373644.	19371.	-0.0259	8537.5657	8.091E+09	-25.6106	51.7197
0.000								
24.000	2.2530	466330.	19203.	-0.0257	10655.	8.091E+09	-44.4827	94.7704
0.000								
28.800	2.1304	557991.	18947.	-0.0254	12750.	8.091E+09	-62.2252	140.1969
0.000								
33.600	2.0095	648219.	18613.	-0.0250	14811.	8.091E+09	-76.6369	183.0614
0.000								
38.400	1.8904	736680.	18224.	-0.0246	16833.	8.091E+09	-85.5166	217.1440
0.000								
43.200	1.7733	823172.	17811.	-0.0241	18809.	8.091E+09	-86.6629	234.5759
0.000								
48.000	1.6587	907666.	17376.	-0.0236	20740.	8.091E+09	-94.5619	273.6531
0.000								
52.800	1.5466	989982.	16870.	-0.0231	22621.	8.091E+09	-116.4890	361.5409
0.000								
57.600	1.4373	1069614.	16253.	-0.0224	24440.	8.091E+09	-140.6081	469.5764
0.000								
62.400	1.3311	1146007.	15515.	-0.0218	26186.	8.091E+09	-166.9162	601.9218
0.000								
67.200	1.2281	1218554.	14645.	-0.0211	27843.	8.091E+09	-195.3989	763.7104
0.000								
72.000	1.1286	1286598.	13634.	-0.0203	29398.	8.091E+09	-226.0060	961.2094
0.000								
76.800	1.0328	1349436.	12471.	-0.0196	30834.	8.091E+09	-258.5947	1201.8594
0.000								
81.600	0.9408	1406316.	11147.	-0.0187	32134.	8.091E+09	-292.8229	1494.0089
0.000								
86.400	0.8528	1456448.	9657.1699	-0.0179	33279.	8.091E+09	-327.9934	1846.0993
0.000								
91.200	0.7690	1499024.	7999.0832	-0.0170	34252.	8.091E+09	-362.8760	2265.1065
0.000								
96.000	0.6894	1533240.	6178.7755	-0.0161	35034.	8.091E+09	-395.5855	2754.2708
0.000								

100.800	0.6142	1558341.	4212.6764	-0.0152	35607.	8.091E+09	-423.6225	3310.6004
0.000								
105.600	0.5434	1573681.	2129.9831	-0.0143	35958.	8.091E+09	-444.1664	3923.1396
0.000								
110.400	0.4772	1578788.	-27.0807	-0.0133	36074.	8.091E+09	-454.6102	4573.1594
0.000								
115.200	0.4154	1573421.	-2205.7692	-0.0124	35952.	8.091E+09	-453.1767	5236.8441
0.000								
120.000	0.3581	1557613.	-4347.8706	-0.0115	35591.	8.091E+09	-439.3656	5889.8137
0.000								
124.800	0.3052	1531682.	-6396.0364	-0.0106	34998.	8.091E+09	-414.0369	6511.7638
0.000								
129.600	0.2567	1496211.	-8299.6215	-0.009662	34188.	8.091E+09	-379.1236	7089.4764
0.000								
134.400	0.2124	1452005.	-10019.	-0.008788	33178.	8.091E+09	-337.1383	7617.4598
0.000								
139.200	0.1723	1400032.	-11525.	-0.007942	31990.	8.091E+09	-290.6839	8096.6617
0.000								
144.000	0.1362	1341361.	-12804.	-0.007128	30649.	8.091E+09	-242.1066	8532.2845
0.000								
148.800	0.1039	1277113.	-13849.	-0.006352	29181.	8.091E+09	-193.3230	8931.6252
0.000								
153.600	0.0752	1208409.	-14663.	-0.005614	27612.	8.091E+09	-145.7862	9302.4359
0.000								
158.400	0.0500	1136348.	-15254.	-0.004919	25965.	8.091E+09	-100.5323	9651.9104
0.000								
163.200	0.0280	1061969.	-15635.	-0.004267	24265.	8.091E+09	-58.2583	9986.1887
0.000								
168.000	0.009034	986249.	-15822.	-0.003659	22535.	8.091E+09	-19.4038	10310.
0.000								
172.800	-0.007127	910081.	-15830.	-0.003097	20795.	8.091E+09	15.7801	10628.
0.000								
177.600	-0.0207	834277.	-15679.	-0.002579	19063.	8.091E+09	47.1760	10941.
0.000								
182.400	-0.0319	759560.	-15387.	-0.002107	17356.	8.091E+09	74.7598	11253.
0.000								
187.200	-0.0409	686566.	-14971.	-0.001678	15688.	8.091E+09	98.5765	11563.
0.000								
192.000	-0.0480	615843.	-14449.	-0.001291	14072.	8.091E+09	118.7242	11874.
0.000								
196.800	-0.0533	547855.	-13839.	-0.000946	12518.	8.091E+09	135.3423	12185.
0.000								
201.600	-0.0571	482985.	-13158.	-0.000640	11036.	8.091E+09	148.6011	12497.
0.000								
206.400	-0.0595	421539.	-12420.	-0.000372	9631.9417	8.091E+09	158.6949	12810.
0.000								
211.200	-0.0607	363750.	-11641.	-0.000139	8311.4815	8.091E+09	165.8358	13125.
0.000								
216.000	-0.0608	309781.	-10835.	6.063E-05	7078.3259	8.091E+09	170.2494	13441.
0.000								
220.800	-0.0601	259735.	-10013.	0.000230	5934.7982	8.091E+09	172.1702	13758.
0.000								
225.600	-0.0586	213655.	-9187.4509	0.000370	4881.9099	8.091E+09	171.8389	14076.
0.000								

230.400	-0.0565	171535.	-8368.2416	0.000484	3919.4864	8.091E+09	169.4983	14396.
0.000								
235.200	-0.0539	133320.	-7564.5061	0.000575	3046.2956	8.091E+09	165.3914	14716.
0.000								
240.000	-0.0510	98916.	-6784.1473	0.000644	2260.1754	8.091E+09	159.7581	15036.
0.000								
244.800	-0.0478	68192.	-6033.9291	0.000693	1558.1601	8.091E+09	152.8329	15357.
0.000								
249.600	-0.0443	40990.	-5319.5072	0.000726	936.6039	8.091E+09	144.8429	15678.
0.000								
254.400	-0.0408	17125.	-4645.4700	0.000743	391.3005	8.091E+09	136.0059	15999.
0.000								
259.200	-0.0372	-3606.3187	-4015.3870	0.000747	82.4024	8.091E+09	126.5287	16319.
0.000								
264.000	-0.0336	-21423.	-3431.8646	0.000739	489.4941	8.091E+09	116.6057	16640.
0.000								
268.800	-0.0301	-36552.	-2896.6066	0.000722	835.1985	8.091E+09	106.4184	16960.
0.000								
273.600	-0.0267	-49230.	-2410.4793	0.000697	1124.8788	8.091E+09	96.1346	17280.
0.000								
278.400	-0.0234	-59693.	-1897.6989	0.000664	1363.9488	8.091E+09	117.5239	24077.
0.000								
283.200	-0.0203	-67448.	-1364.9375	0.000627	1541.1482	8.091E+09	104.4601	24668.
0.000								
288.000	-0.0174	-72796.	-894.3013	0.000585	1663.3545	8.091E+09	91.6384	25259.
0.000								
292.800	-0.0147	-76033.	-484.2561	0.000541	1737.3176	8.091E+09	79.2138	25849.
0.000								
297.600	-0.0122	-77445.	-132.5866	0.000495	1769.5784	8.091E+09	67.3152	26439.
0.000								
302.400	-0.009954	-77306.	163.4806	0.000449	1766.4011	8.091E+09	56.0462	27028.
0.000								
307.200	-0.007906	-75876.	407.1591	0.000404	1733.7182	8.091E+09	45.4866	27616.
0.000								
312.000	-0.006075	-73397.	601.9927	0.000360	1677.0888	8.091E+09	35.6941	28205.
0.000								
316.800	-0.004452	-70097.	751.7534	0.000317	1601.6681	8.091E+09	26.7062	28792.
0.000								
321.600	-0.003029	-66180.	860.3505	0.000277	1512.1880	8.091E+09	18.5426	29380.
0.000								
326.400	-0.001795	-61837.	931.7494	0.000239	1412.9461	8.091E+09	11.2070	29968.
0.000								
331.200	-0.000737	-57236.	969.9024	0.000203	1307.8043	8.091E+09	4.6901	30556.
0.000								
336.000	0.000159	-52526.	979.8445	0.000171	1200.1933	8.091E+09	-0.5475	16580.
0.000								
340.800	0.000904	-47829.	970.8753	0.000141	1092.8706	8.091E+09	-3.1897	16932.
0.000								
345.600	0.001514	-43206.	950.1378	0.000114	987.2272	8.091E+09	-5.4509	17285.
0.000								
350.400	0.002000	-38708.	919.4165	8.987E-05	884.4533	8.091E+09	-7.3496	17637.
0.000								
355.200	0.002376	-34379.	880.4015	6.819E-05	785.5487	8.091E+09	-8.9066	17990.
0.000								

360.000	0.002655	-30256.	834.6779	4.902E-05	691.3330	8.091E+09	-10.1448	18342.
0.000								
364.800	0.002847	-26366.	783.7183	3.222E-05	602.4581	8.091E+09	-11.0884	18695.
0.000								
369.600	0.002964	-22732.	728.8770	1.766E-05	519.4206	8.091E+09	-11.7622	19047.
0.000								
374.400	0.003016	-19369.	671.3881	5.167E-06	442.5754	8.091E+09	-12.1915	19400.
0.000								
379.200	0.003014	-16287.	612.3644	-5.409E-06	372.1484	8.091E+09	-12.4017	19752.
0.000								
384.000	0.002965	-13490.	552.7994	-1.424E-05	308.2503	8.091E+09	-12.4171	20105.
0.000								
388.800	0.002877	-10980.	493.5705	-2.150E-05	250.8891	8.091E+09	-12.2616	20457.
0.000								
393.600	0.002758	-8752.2048	435.4442	-2.735E-05	199.9832	8.091E+09	-11.9577	20810.
0.000								
398.400	0.002614	-6799.8252	379.0823	-3.197E-05	155.3723	8.091E+09	-11.5264	21162.
0.000								
403.200	0.002451	-5113.0146	325.0494	-3.550E-05	116.8296	8.091E+09	-10.9873	21515.
0.000								
408.000	0.002274	-3679.3510	273.8211	-3.811E-05	84.0712	8.091E+09	-10.3578	21867.
0.000								
412.800	0.002085	-2484.3318	225.7932	-3.994E-05	56.7656	8.091E+09	-9.6538	22220.
0.000								
417.600	0.001890	-1511.7359	181.2909	-4.112E-05	34.5424	8.091E+09	-8.8888	22572.
0.000								
422.400	0.001691	-743.9387	140.5786	-4.179E-05	16.9986	8.091E+09	-8.0746	22925.
0.000								
427.200	0.001489	-162.1814	103.8693	-4.206E-05	3.7058	8.091E+09	-7.2209	23277.
0.000								
432.000	0.001287	253.2070	71.3347	-4.203E-05	5.7856	8.091E+09	-6.3352	23630.
0.000								
436.800	0.001085	522.6321	43.1139	-4.180E-05	11.9419	8.091E+09	-5.4235	23983.
0.000								
441.600	0.000886	667.1006	19.3224	-4.145E-05	15.2429	8.091E+09	-4.4897	24335.
0.000								
446.400	0.000688	708.1271	0.0601	-4.104E-05	16.1803	8.091E+09	-3.5363	24688.
0.000								
451.200	0.000492	667.6772	-14.5815	-4.063E-05	15.2561	8.091E+09	-2.5644	25040.
0.000								
456.000	0.000297	568.1446	-24.5128	-4.027E-05	12.9818	8.091E+09	-1.5737	25393.
0.000								
460.800	0.000105	432.3545	-29.6412	-3.997E-05	9.8791	8.091E+09	-0.5632	25745.
0.000								
465.600	-8.624E-05	283.5889	-29.8675	-3.976E-05	6.4799	8.091E+09	0.4689	26098.
0.000								
470.400	-0.000277	145.6268	-25.0830	-3.963E-05	3.3275	8.091E+09	1.5246	26450.
0.000								
475.200	-0.000467	42.7922	-15.1695	-3.958E-05	0.9778	8.091E+09	2.6060	26803.
0.000								
480.000	-0.000657	0.000	0.000	-3.956E-05	0.000	8.091E+09	3.7146	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 9:

Pile-head deflection = 2.8803813 inches
 Computed slope at pile head = -0.0263629 radians
 Maximum bending moment = 1578788. inch-lbs
 Maximum shear force = 19470. lbs
 Depth of maximum bending moment = 110.4000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 20
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 10

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 21731.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	3.4631	-7.798E-06	21731.	-0.0310	1.782E-07	8.091E+09	0.000	0.000
4.800 0.000	3.3143	104309.	21731.	-0.0310	2383.4000	8.091E+09	0.000	0.000
9.600 0.000	3.1658	208618.	21731.	-0.0309	4766.8000	8.091E+09	0.000	0.000
14.400 0.000	3.0179	312926.	21712.	-0.0307	7150.2000	8.091E+09	-7.8103	12.4225
19.200 0.000	2.8709	417055.	21632.	-0.0305	9529.4882	8.091E+09	-25.6106	42.8200
24.000 0.000	2.7251	520594.	21464.	-0.0302	11895.	8.091E+09	-44.4827	78.3532
28.800 0.000	2.5807	623108.	21208.	-0.0299	14238.	8.091E+09	-62.2252	115.7356
33.600 0.000	2.4382	724188.	20874.	-0.0295	16547.	8.091E+09	-76.6369	150.8754

38.400	2.2977	823503.	20485.	-0.0290	18817.	8.091E+09	-85.5166	178.6519
0.000								
43.200	2.1595	920847.	20072.	-0.0285	21041.	8.091E+09	-86.6629	192.6294
0.000								
48.000	2.0240	1016194.	19637.	-0.0279	23219.	8.091E+09	-94.5619	224.2622
0.000								
52.800	1.8913	1109363.	19131.	-0.0273	25348.	8.091E+09	-116.4890	295.6395
0.000								
57.600	1.7618	1199848.	18514.	-0.0266	27416.	8.091E+09	-140.6088	383.0799
0.000								
62.400	1.6358	1287093.	17775.	-0.0259	29409.	8.091E+09	-166.9210	489.8139
0.000								
67.200	1.5134	1370493.	16906.	-0.0251	31315.	8.091E+09	-195.4236	619.8330
0.000								
72.000	1.3949	1449390.	15894.	-0.0243	33118.	8.091E+09	-226.1075	778.0794
0.000								
76.800	1.2805	1523077.	14730.	-0.0234	34801.	8.091E+09	-258.9387	970.6452
0.000								
81.600	1.1705	1590798.	13403.	-0.0225	36349.	8.091E+09	-293.8123	1204.9099
0.000								
86.400	1.0650	1651750.	11905.	-0.0215	37742.	8.091E+09	-330.4602	1489.4595
0.000								
91.200	0.9642	1705088.	10228.	-0.0205	38960.	8.091E+09	-368.2966	1833.5458
0.000								
96.000	0.8682	1749941.	8369.3709	-0.0195	39985.	8.091E+09	-406.2156	2245.8092
0.000								
100.800	0.7772	1785434.	6332.6864	-0.0184	40796.	8.091E+09	-442.4029	2732.1173
0.000								
105.600	0.6914	1810735.	4132.6615	-0.0174	41374.	8.091E+09	-474.2741	3292.7575
0.000								
110.400	0.6106	1825108.	1797.5833	-0.0163	41703.	8.091E+09	-498.6751	3919.8293
0.000								
115.200	0.5351	1827992.	-629.0038	-0.0152	41769.	8.091E+09	-512.4029	4596.1876
0.000								
120.000	0.4648	1819069.	-3089.8370	-0.0141	41565.	8.091E+09	-512.9442	5297.1197
0.000								
124.800	0.3997	1798329.	-5518.8616	-0.0130	41091.	8.091E+09	-499.1494	5994.7843
0.000								
129.600	0.3396	1766088.	-7848.5085	-0.0120	40354.	8.091E+09	-471.5368	6663.8710
0.000								
134.400	0.2847	1722983.	-10017.	-0.0109	39369.	8.091E+09	-432.1011	7286.1832
0.000								
139.200	0.2346	1669923.	-11975.	-0.009939	38157.	8.091E+09	-383.7576	7852.5693
0.000								
144.000	0.1893	1608021.	-13688.	-0.008966	36742.	8.091E+09	-329.6960	8362.1537
0.000								
148.800	0.1485	1538522.	-15134.	-0.008033	35154.	8.091E+09	-272.8714	8819.9571
0.000								
153.600	0.1121	1462737.	-16306.	-0.007143	33423.	8.091E+09	-215.7242	9234.1843
0.000								
158.400	0.0799	1381981.	-17208.	-0.006299	31578.	8.091E+09	-160.1000	9614.0115
0.000								
163.200	0.0517	1297536.	-17850.	-0.005504	29648.	8.091E+09	-107.2965	9968.1480
0.000								

168.000	0.0271	1210620.	-18247.	-0.004760	27662.	8.091E+09	-58.1652	10304.
0.000								
172.800	0.005971	1122363.	-18419.	-0.004068	25645.	8.091E+09	-13.2209	10628.
0.000								
177.600	-0.0120	1033802.	-18385.	-0.003428	23622.	8.091E+09	27.2624	10944.
0.000								
182.400	-0.0269	945868.	-18168.	-0.002841	21613.	8.091E+09	63.1756	11256.
0.000								
187.200	-0.0392	859391.	-17789.	-0.002306	19637.	8.091E+09	94.5217	11565.
0.000								
192.000	-0.0491	775091.	-17271.	-0.001821	17710.	8.091E+09	121.3860	11873.
0.000								
196.800	-0.0567	693588.	-16634.	-0.001385	15848.	8.091E+09	143.9146	12181.
0.000								
201.600	-0.0624	615401.	-15900.	-0.000997	14062.	8.091E+09	162.2979	12490.
0.000								
206.400	-0.0663	540953.	-15086.	-0.000654	12360.	8.091E+09	176.7588	12800.
0.000								
211.200	-0.0687	470577.	-14211.	-0.000354	10752.	8.091E+09	187.5439	13113.
0.000								
216.000	-0.0697	404523.	-13294.	-9.428E-05	9243.1253	8.091E+09	194.9166	13427.
0.000								
220.800	-0.0696	342959.	-12348.	0.000127	7836.4308	8.091E+09	199.1525	13743.
0.000								
225.600	-0.0685	285984.	-11389.	0.000314	6534.5805	8.091E+09	200.5350	14061.
0.000								
230.400	-0.0665	233629.	-10429.	0.000468	5338.3021	8.091E+09	199.3518	14380.
0.000								
235.200	-0.0640	185868.	-9480.2152	0.000593	4246.9728	8.091E+09	195.8917	14701.
0.000								
240.000	-0.0609	142619.	-8553.0145	0.000690	3258.7711	8.091E+09	190.4419	15022.
0.000								
244.800	-0.0573	103759.	-7656.0706	0.000763	2370.8277	8.091E+09	183.2848	15343.
0.000								
249.600	-0.0535	69121.	-6796.9173	0.000814	1579.3749	8.091E+09	174.6958	15666.
0.000								
254.400	-0.0495	38508.	-5981.7892	0.000846	879.8910	8.091E+09	164.9409	15988.
0.000								
259.200	-0.0454	11696.	-5215.6716	0.000861	267.2405	8.091E+09	154.2748	16310.
0.000								
264.000	-0.0413	-11562.	-4502.3594	0.000861	264.1918	8.091E+09	142.9387	16632.
0.000								
268.800	-0.0371	-31527.	-3844.5233	0.000848	720.3738	8.091E+09	131.1597	16953.
0.000								
273.600	-0.0331	-48470.	-3243.7818	0.000825	1107.5066	8.091E+09	119.1493	17274.
0.000								
278.400	-0.0292	-62667.	-2606.2157	0.000792	1431.9130	8.091E+09	146.5032	24068.
0.000								
283.200	-0.0255	-73489.	-1940.0852	0.000751	1679.1926	8.091E+09	131.0511	24662.
0.000								
288.000	-0.0220	-81292.	-1347.7003	0.000705	1857.4801	8.091E+09	115.7759	25254.
0.000								
292.800	-0.0187	-86427.	-827.7307	0.000656	1974.8172	8.091E+09	100.8781	25846.
0.000								

297.600	-0.0157	-89238.	-377.9587	0.000604	2039.0468	8.091E+09	86.5268	26436.
0.000								
302.400	-0.0129	-90056.	4.5699	0.000550	2057.7242	8.091E+09	72.8601	27026.
0.000								
307.200	-0.0104	-89194.	323.4020	0.000497	2038.0444	8.091E+09	59.9866	27615.
0.000								
312.000	-0.008167	-86951.	582.5404	0.000445	1986.7844	8.091E+09	47.9877	28204.
0.000								
316.800	-0.006155	-83602.	786.3171	0.000394	1910.2613	8.091E+09	36.9192	28792.
0.000								
321.600	-0.004381	-79402.	939.2781	0.000346	1814.3020	8.091E+09	26.8145	29380.
0.000								
326.400	-0.002833	-74585.	1046.0809	0.000300	1704.2261	8.091E+09	17.6867	29968.
0.000								
331.200	-0.001497	-69360.	1111.4050	0.000258	1584.8391	8.091E+09	9.5317	30555.
0.000								
336.000	-0.000359	-63915.	1137.2595	0.000218	1460.4340	8.091E+09	1.2410	16580.
0.000								
340.800	0.000597	-58442.	1135.1858	0.000182	1335.3757	8.091E+09	-2.1051	16932.
0.000								
345.600	0.001386	-53018.	1118.1520	0.000149	1211.4256	8.091E+09	-4.9923	17285.
0.000								
350.400	0.002025	-47708.	1088.3123	0.000119	1090.1036	8.091E+09	-7.4408	17637.
0.000								
355.200	0.002528	-42570.	1047.7168	9.212E-05	972.6990	8.091E+09	-9.4740	17990.
0.000								
360.000	0.002909	-37650.	998.2967	6.833E-05	860.2819	8.091E+09	-11.1177	18342.
0.000								
364.800	0.003184	-32986.	941.8542	4.737E-05	753.7178	8.091E+09	-12.4000	18695.
0.000								
369.600	0.003364	-28608.	880.0549	2.910E-05	653.6816	8.091E+09	-13.3498	19047.
0.000								
374.400	0.003463	-24538.	814.4232	1.334E-05	560.6735	8.091E+09	-13.9968	19400.
0.000								
379.200	0.003492	-20790.	746.3408	-1.060E-07	475.0340	8.091E+09	-14.3708	19752.
0.000								
384.000	0.003462	-17373.	677.0479	-1.143E-05	396.9600	8.091E+09	-14.5012	20105.
0.000								
388.800	0.003383	-14290.	607.6459	-2.082E-05	326.5202	8.091E+09	-14.4163	20457.
0.000								
393.600	0.003262	-11539.	539.1030	-2.848E-05	263.6699	8.091E+09	-14.1433	20810.
0.000								
398.400	0.003109	-9114.6729	472.2605	-3.461E-05	208.2654	8.091E+09	-13.7077	21162.
0.000								
403.200	0.002930	-7005.7353	407.8419	-3.939E-05	160.0773	8.091E+09	-13.1334	21515.
0.000								
408.000	0.002731	-5199.3902	346.4616	-4.301E-05	118.8033	8.091E+09	-12.4418	21867.
0.000								
412.800	0.002517	-3679.7038	288.6355	-4.564E-05	84.0793	8.091E+09	-11.6524	22220.
0.000								
417.600	0.002293	-2428.4897	234.7918	-4.745E-05	55.4897	8.091E+09	-10.7824	22572.
0.000								
422.400	0.002062	-1425.7025	185.2826	-4.860E-05	32.5765	8.091E+09	-9.8464	22925.
0.000								

427.200	0.001826	-649.7767	140.3950	-4.921E-05	14.8470	8.091E+09	-8.8568	23277.
0.000								
432.000	0.001589	-77.9105	100.3625	-4.943E-05	1.7802	8.091E+09	-7.8234	23630.
0.000								
436.800	0.001352	313.7038	65.3763	-4.936E-05	7.1680	8.091E+09	-6.7542	23983.
0.000								
441.600	0.001115	549.7021	35.5954	-4.910E-05	12.5604	8.091E+09	-5.6546	24335.
0.000								
446.400	0.000880	655.4195	11.1566	-4.875E-05	14.9760	8.091E+09	-4.5283	24688.
0.000								
451.200	0.000647	656.8054	-7.8166	-4.836E-05	15.0077	8.091E+09	-3.3772	25040.
0.000								
456.000	0.000416	580.3804	-21.2063	-4.799E-05	13.2614	8.091E+09	-2.2018	25393.
0.000								
460.800	0.000187	453.2253	-28.8939	-4.768E-05	10.3560	8.091E+09	-1.0013	25745.
0.000								
465.600	-4.154E-05	302.9992	-30.7551	-4.746E-05	6.9234	8.091E+09	0.2258	26098.
0.000								
470.400	-0.000269	157.9764	-26.6568	-4.732E-05	3.6097	8.091E+09	1.4818	26450.
0.000								
475.200	-0.000496	47.0938	-16.4559	-4.726E-05	1.0761	8.091E+09	2.7686	26803.
0.000								
480.000	-0.000723	0.000	0.000	-4.725E-05	0.000	8.091E+09	4.0880	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 10:

Pile-head deflection = 3.4630766 inches
 Computed slope at pile head = -0.0309983 radians
 Maximum bending moment = 1827992. inch-lbs
 Maximum shear force = 21731. lbs
 Depth of maximum bending moment = 115.2000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 21
 Number of zero deflection points = 3

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 11

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 23682.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00	4.0082	-5.302E-06	23682.	-0.0352	1.212E-07	8.091E+09	0.000	0.000
0.000								
4.800	3.8391	113674.	23682.	-0.0352	2597.3806	8.091E+09	0.000	0.000
0.000								
9.600	3.6704	227347.	23682.	-0.0351	5194.7613	8.091E+09	0.000	0.000
0.000								
14.400	3.5022	341021.	23663.	-0.0349	7792.1419	8.091E+09	-7.8103	10.7045
0.000								
19.200	3.3351	454514.	23583.	-0.0347	10385.	8.091E+09	-25.6106	36.8600
0.000								
24.000	3.1692	567418.	23415.	-0.0344	12965.	8.091E+09	-44.4827	67.3722
0.000								
28.800	3.0050	679297.	23159.	-0.0340	15522.	8.091E+09	-62.2252	99.3958
0.000								
33.600	2.8427	789742.	22825.	-0.0336	18045.	8.091E+09	-76.6369	129.4063
0.000								
38.400	2.6826	898421.	22436.	-0.0331	20528.	8.091E+09	-85.5166	153.0161
0.000								
43.200	2.5251	1005130.	22023.	-0.0325	22967.	8.091E+09	-86.6628	164.7397
0.000								
48.000	2.3704	1109842.	21588.	-0.0319	25359.	8.091E+09	-94.5618	191.4821
0.000								
52.800	2.2190	1212376.	21082.	-0.0312	27702.	8.091E+09	-116.4890	251.9865
0.000								
57.600	2.0709	1312226.	20465.	-0.0305	29984.	8.091E+09	-140.6088	325.9037
0.000								
62.400	1.9266	1408836.	19726.	-0.0296	32191.	8.091E+09	-166.9213	415.8668
0.000								
67.200	1.7863	1501600.	18857.	-0.0288	34311.	8.091E+09	-195.4261	525.1188
0.000								
72.000	1.6503	1589862.	17845.	-0.0279	36327.	8.091E+09	-226.1218	657.6722
0.000								
76.800	1.5189	1672913.	16681.	-0.0269	38225.	8.091E+09	-259.0002	818.5072
0.000								
81.600	1.3921	1749998.	15354.	-0.0259	39987.	8.091E+09	-294.0307	1013.7912
0.000								
86.400	1.2704	1820308.	13853.	-0.0248	41593.	8.091E+09	-331.1173	1251.0569
0.000								
91.200	1.1539	1882988.	12171.	-0.0237	43025.	8.091E+09	-370.0065	1539.1983
0.000								
96.000	1.0427	1937145.	10298.	-0.0226	44263.	8.091E+09	-410.1289	1888.0351
0.000								
100.800	0.9370	1981851.	8232.9777	-0.0214	45284.	8.091E+09	-450.3773	2307.1350
0.000								

105.600	0.8370	2016181.	5978.7625	-0.0202	46069.	8.091E+09	-488.8791	2803.6601
0.000								
110.400	0.7427	2039247.	3550.5305	-0.0190	46596.	8.091E+09	-522.8843	3379.3566
0.000								
115.200	0.6542	2050266.	978.1828	-0.0178	46847.	8.091E+09	-548.9273	4027.4663
0.000								
120.000	0.5716	2048638.	-1691.3210	-0.0166	46810.	8.091E+09	-563.3660	4731.0177
0.000								
124.800	0.4948	2034030.	-4395.1261	-0.0154	46476.	8.091E+09	-563.2195	5464.0168
0.000								
129.600	0.4238	2006445.	-7059.6516	-0.0142	45846.	8.091E+09	-546.9995	6195.9572
0.000								
134.400	0.3585	1966257.	-9608.8117	-0.0130	44928.	8.091E+09	-515.1506	6898.2011
0.000								
139.200	0.2988	1914200.	-11973.	-0.0119	43738.	8.091E+09	-469.8943	7549.5752
0.000								
144.000	0.2445	1851317.	-14096.	-0.0108	42302.	8.091E+09	-414.5952	8139.0629
0.000								
148.800	0.1955	1778881.	-15938.	-0.009676	40646.	8.091E+09	-352.9788	8665.2446
0.000								
153.600	0.1516	1698313.	-17477.	-0.008645	38806.	8.091E+09	-288.4994	9133.6554
0.000								
158.400	0.1125	1611098.	-18707.	-0.007663	36813.	8.091E+09	-223.9878	9553.6157
0.000								
163.200	0.0780	1518722.	-19633.	-0.006735	34702.	8.091E+09	-161.5535	9935.6010
0.000								
168.000	0.0479	1422624.	-20267.	-0.005862	32506.	8.091E+09	-102.6459	10290.
0.000								
172.800	0.0218	1324161.	-20629.	-0.005048	30256.	8.091E+09	-48.1839	10624.
0.000								
177.600	-0.000573	1224588.	-20741.	-0.004292	27981.	8.091E+09	1.3061	10945.
0.000								
182.400	-0.0194	1125045.	-20629.	-0.003595	25707.	8.091E+09	45.5723	11259.
0.000								
187.200	-0.0351	1026552.	-20316.	-0.002956	23456.	8.091E+09	84.5418	11568.
0.000								
192.000	-0.0478	930007.	-19830.	-0.002376	21250.	8.091E+09	118.2662	11874.
0.000								
196.800	-0.0579	836187.	-19193.	-0.001852	19106.	8.091E+09	146.8860	12179.
0.000								
201.600	-0.0656	745751.	-18431.	-0.001383	17040.	8.091E+09	170.6046	12485.
0.000								
206.400	-0.0712	659245.	-17567.	-0.000966	15063.	8.091E+09	189.6695	12793.
0.000								
211.200	-0.0749	577110.	-16621.	-0.000599	13187.	8.091E+09	204.3584	13103.
0.000								
216.000	-0.0769	499683.	-15615.	-0.000280	11417.	8.091E+09	214.9701	13415.
0.000								
220.800	-0.0776	427209.	-14566.	-4.992E-06	9761.4916	8.091E+09	221.8181	13729.
0.000								
225.600	-0.0770	359845.	-13493.	0.000228	8222.2751	8.091E+09	225.2252	14046.
0.000								
230.400	-0.0754	297671.	-12412.	0.000424	6801.6287	8.091E+09	225.5198	14365.
0.000								

235.200	-0.0729	240693.	-11335.	0.000583	5499.7076	8.091E+09	223.0326	14685.
0.000								
240.000	-0.0698	188854.	-10276.	0.000711	4315.2024	8.091E+09	218.0937	15007.
0.000								
244.800	-0.0661	142039.	-9246.5810	0.000809	3245.5130	8.091E+09	211.0291	15329.
0.000								
249.600	-0.0620	100086.	-8254.9298	0.000881	2286.9201	8.091E+09	202.1589	15652.
0.000								
254.400	-0.0576	62792.	-7309.4441	0.000929	1434.7542	8.091E+09	191.7936	15976.
0.000								
259.200	-0.0531	29916.	-6416.5813	0.000956	683.5582	8.091E+09	180.2326	16299.
0.000								
264.000	-0.0484	1192.4134	-5581.3950	0.000966	27.2460	8.091E+09	167.7617	16622.
0.000								
268.800	-0.0438	-23666.	-4807.6030	0.000959	540.7478	8.091E+09	154.6516	16945.
0.000								
273.600	-0.0392	-44961.	-4097.6645	0.000939	1027.3250	8.091E+09	141.1561	17268.
0.000								
278.400	-0.0348	-63003.	-3340.3358	0.000907	1439.5903	8.091E+09	174.3975	24057.
0.000								
283.200	-0.0305	-77028.	-2545.3886	0.000865	1760.0438	8.091E+09	156.8305	24653.
0.000								
288.000	-0.0265	-87439.	-1834.5574	0.000816	1997.9336	8.091E+09	139.3492	25248.
0.000								
292.800	-0.0227	-94640.	-1206.8396	0.000762	2162.4628	8.091E+09	122.1999	25841.
0.000								
297.600	-0.0192	-99025.	-660.1384	0.000705	2262.6597	8.091E+09	105.5923	26433.
0.000								
302.400	-0.0159	-100977.	-191.4377	0.000645	2307.2674	8.091E+09	89.6997	27024.
0.000								
307.200	-0.0130	-100862.	203.0280	0.000586	2304.6525	8.091E+09	74.6610	27613.
0.000								
312.000	-0.0103	-99028.	527.6118	0.000526	2262.7322	8.091E+09	60.5822	28203.
0.000								
316.800	-0.007926	-95797.	787.1033	0.000469	2188.9183	8.091E+09	47.5392	28791.
0.000								
321.600	-0.005813	-91472.	986.5904	0.000413	2090.0773	8.091E+09	35.5804	29380.
0.000								
326.400	-0.003961	-86326.	1131.3348	0.000360	1972.5049	8.091E+09	24.7297	29968.
0.000								
331.200	-0.002355	-80611.	1226.6625	0.000311	1841.9135	8.091E+09	14.9901	30555.
0.000								
336.000	-0.000978	-74550.	1270.7477	0.000265	1703.4306	8.091E+09	3.3787	16580.
0.000								
340.800	0.000186	-68412.	1277.2801	0.000222	1563.1689	8.091E+09	-0.6569	16932.
0.000								
345.600	0.001156	-62288.	1265.7149	0.000184	1423.2530	8.091E+09	-4.1619	17285.
0.000								
350.400	0.001948	-56261.	1238.5479	0.000148	1285.5282	8.091E+09	-7.1577	17637.
0.000								
355.200	0.002580	-50398.	1198.1631	0.000117	1151.5715	8.091E+09	-9.6693	17990.
0.000								
360.000	0.003068	-44758.	1146.8158	8.849E-05	1022.7053	8.091E+09	-11.7254	18342.
0.000								

364.800	0.003429	-39389.	1086.6187	6.353E-05	900.0119	8.091E+09	-13.3568	18695.
0.000								
369.600	0.003678	-34327.	1019.5319	4.166E-05	784.3502	8.091E+09	-14.5961	19047.
0.000								
374.400	0.003829	-29601.	947.3567	2.270E-05	676.3727	8.091E+09	-15.4769	19400.
0.000								
379.200	0.003896	-25232.	871.7328	6.434E-06	576.5429	8.091E+09	-16.0330	19752.
0.000								
384.000	0.003891	-21233.	794.1382	-7.349E-06	485.1539	8.091E+09	-16.2981	20105.
0.000								
388.800	0.003826	-17609.	715.8917	-1.887E-05	402.3449	8.091E+09	-16.3046	20457.
0.000								
393.600	0.003710	-14360.	638.1585	-2.835E-05	328.1195	8.091E+09	-16.0842	20810.
0.000								
398.400	0.003553	-11482.	561.9568	-3.602E-05	262.3617	8.091E+09	-15.6665	21162.
0.000								
403.200	0.003364	-8965.2702	488.1669	-4.208E-05	204.8516	8.091E+09	-15.0793	21515.
0.000								
408.000	0.003149	-6795.7825	417.5415	-4.676E-05	155.2800	8.091E+09	-14.3479	21867.
0.000								
412.800	0.002915	-4956.8714	350.7174	-5.024E-05	113.2618	8.091E+09	-13.4955	22220.
0.000								
417.600	0.002667	-3428.8959	288.2269	-5.273E-05	78.3484	8.091E+09	-12.5422	22572.
0.000								
422.400	0.002409	-2189.8935	230.5113	-5.440E-05	50.0379	8.091E+09	-11.5059	22925.
0.000								
427.200	0.002145	-1215.9873	177.9337	-5.541E-05	27.7847	8.091E+09	-10.4014	23277.
0.000								
432.000	0.001877	-481.7303	130.7915	-5.591E-05	11.0073	8.091E+09	-9.2411	23630.
0.000								
436.800	0.001608	39.6112	89.3297	-5.604E-05	0.9051	8.091E+09	-8.0346	23983.
0.000								
441.600	0.001339	375.8351	53.7526	-5.592E-05	8.5876	8.091E+09	-6.7892	24335.
0.000								
446.400	0.001071	555.6364	24.2353	-5.564E-05	12.6960	8.091E+09	-5.5097	24688.
0.000								
451.200	0.000805	608.4935	0.9339	-5.530E-05	13.9038	8.091E+09	-4.1992	25040.
0.000								
456.000	0.000540	564.6015	-16.0050	-5.495E-05	12.9008	8.091E+09	-2.8587	25393.
0.000								
460.800	0.000277	454.8452	-26.4370	-5.465E-05	10.3930	8.091E+09	-1.4880	25745.
0.000								
465.600	1.575E-05	310.8062	-30.2137	-5.442E-05	7.1018	8.091E+09	-0.0857	26098.
0.000								
470.400	-0.000245	164.7937	-27.1788	-5.428E-05	3.7654	8.091E+09	1.3502	26450.
0.000								
475.200	-0.000505	49.8902	-17.1660	-5.422E-05	1.1400	8.091E+09	2.8218	26803.
0.000								
480.000	-0.000766	0.000	0.000	-5.420E-05	0.000	8.091E+09	4.3307	13578.
0.000								

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 11:

Pile-head deflection = 4.0082396 inches
 Computed slope at pile head = -0.0352291 radians
 Maximum bending moment = 2050266. inch-lbs
 Maximum shear force = 23682. lbs
 Depth of maximum bending moment = 115.2000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 22
 Number of zero deflection points = 3

 Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
 Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
 Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
 Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
 Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Pile-head Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or Rotation y(inches)	Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Pile-head Deflection in-lbs	Maximum Moment lbs
1	1	V = 210.0000 -0.00016793	M = 0.000	0.0000000	0.01514065	11065.	
2	1	V = 2016.0000 -0.00163308	M = 0.000	0.0000000	0.14783931	107440.	
3	1	V = 3088.0000 -0.00254519	M = 0.000	0.0000000	0.23169054	167075.	
4	1	V = 5198.0000 -0.00451800	M = 0.000	0.0000000	0.41840353	294674.	
5	1	V = 7092.0000 -0.00656691	M = 0.000	0.0000000	0.62102372	424771.	
6	1	V = 11620. -0.01262720	M = 0.000	0.0000000	1.26361497	796613.	
7	1	V = 14710. -0.01758122	M = 0.000	0.0000000	1.82504699	1086887.	

8	1	V =	17134.	M =	0.000	0.0000000	2.33351690	1331309.
17134.		-0.02188421						
9	1	V =	19470.	M =	0.000	0.0000000	2.88038133	1578788.
19470.		-0.02636294						
10	1	V =	21731.	M =	0.000	0.0000000	3.46307657	1827992.
21731.		-0.03099828						
11	1	V =	23682.	M =	0.000	0.0000000	4.00823962	2050266.
23682.		-0.03522911						

The analysis ended normally.

APPENDIX K: LPILE ANALYSIS FOR TP6 (P-MULTIPLIER OF 0.16)

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 572.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	2.924E-08	572.0000	-0.000701	6.681E-10	8.091E+09	0.000	
0.000	0.000	2745.6000	572.0000	-0.000700	62.7355	8.091E+09	0.000	
0.000	0.000	5491.2000	572.0000	-0.000697	125.4710	8.091E+09	0.000	
0.000	0.000	8236.8000	570.3608	-0.000693	188.2065	8.091E+09	-0.6830	
47.7020	0.000	10967.	563.9943	-0.000688	250.5824	8.091E+09	-1.9697	
144.5463	0.000	13651.	551.7432	-0.000680	311.9213	8.091E+09	-3.1349	
242.2093	0.000	16263.	534.2101	-0.000671	371.6099	8.091E+09	-4.1706	
339.9962	0.000	18780.	512.0232	-0.000661	429.1029	8.091E+09	-5.0739	
437.4037	0.000	21179.	485.8253	-0.000649	483.9247	8.091E+09	-5.8419	
533.7587	0.000	23443.	456.2872	-0.000636	535.6710	8.091E+09	-6.4656	
627.6133	0.000	25559.	423.9508	-0.000621	584.0135	8.091E+09	-7.0079	
724.4736	0.000	27513.	389.1437	-0.000606	628.6667	8.091E+09	-7.4951	
827.3289	0.000	29295.	352.2722	-0.000589	669.3741	8.091E+09	-7.8681	
929.8234	0.000	30895.	313.8678	-0.000571	705.9393	8.091E+09	-8.1337	
1031.9472	0.000							

67.200	0.0351	32308.	274.4292	-0.000552	738.2225	8.091E+09	-8.2990
1133.7176	0.000						
72.000	0.0325	33530.	234.4199	-0.000533	766.1367	8.091E+09	-8.3715
1235.1642	0.000						
76.800	0.0300	34559.	194.2672	-0.000512	789.6436	8.091E+09	-8.3587
1336.3210	0.000						
81.600	0.0276	35395.	154.3627	-0.000492	808.7501	8.091E+09	-8.2682
1437.2229	0.000						
86.400	0.0253	36040.	115.0612	-0.000470	823.5038	8.091E+09	-8.1074
1537.9027	0.000						
91.200	0.0231	36499.	76.6820	-0.000449	833.9894	8.091E+09	-7.8839
1638.3908	0.000						
96.000	0.0210	36777.	39.5088	-0.000427	840.3244	8.091E+09	-7.6049
1738.7145	0.000						
100.800	0.0190	36879.	3.7907	-0.000405	842.6558	8.091E+09	-7.2776
1838.8981	0.000						
105.600	0.0171	36813.	-30.2568	-0.000383	841.1559	8.091E+09	-6.9089
1938.9630	0.000						
110.400	0.0153	36588.	-62.4511	-0.000362	836.0188	8.091E+09	-6.5054
2038.9278	0.000						
115.200	0.0136	36213.	-92.6409	-0.000340	827.4569	8.091E+09	-6.0737
2138.8087	0.000						
120.000	0.0120	35699.	-120.7051	-0.000319	815.6976	8.091E+09	-5.6197
2238.6197	0.000						
124.800	0.0106	35055.	-146.5511	-0.000298	800.9797	8.091E+09	-5.1495
2338.3726	0.000						
129.600	0.009191	34292.	-170.1137	-0.000277	783.5509	8.091E+09	-4.6683
2438.0779	0.000						
134.400	0.007909	33422.	-191.3530	-0.000257	763.6644	8.091E+09	-4.1814
2537.7442	0.000						
139.200	0.006722	32455.	-210.2528	-0.000238	741.5767	8.091E+09	-3.6935
2637.3788	0.000						
144.000	0.005628	31403.	-226.8188	-0.000219	717.5445	8.091E+09	-3.2090
2736.9881	0.000						
148.800	0.004623	30277.	-241.0771	-0.000200	691.8229	8.091E+09	-2.7319
2836.5771	0.000						
153.600	0.003704	29089.	-253.0719	-0.000183	664.6630	8.091E+09	-2.2659
2936.1502	0.000						
158.400	0.002868	27848.	-262.8639	-0.000166	636.3103	8.091E+09	-1.8141
3035.7110	0.000						
163.200	0.002112	26565.	-270.5284	-0.000150	607.0026	8.091E+09	-1.3794
3135.2624	0.000						
168.000	0.001431	25251.	-276.1535	-0.000134	576.9686	8.091E+09	-0.9644
3234.8067	0.000						
172.800	0.000822	23914.	-279.8384	-0.000120	546.4269	8.091E+09	-0.5710
3334.3458	0.000						
177.600	0.000281	22564.	-281.6914	-0.000106	515.5847	8.091E+09	-0.2011
3433.8812	0.000						
182.400	-0.000196	21210.	-281.8286	-9.301E-05	484.6366	8.091E+09	0.1439
3533.4142	0.000						
187.200	-0.000612	19859.	-280.3719	-8.083E-05	453.7642	8.091E+09	0.4630
3632.9454	0.000						
192.000	-0.000971	18518.	-277.4477	-6.944E-05	423.1356	8.091E+09	0.7554
3732.4753	0.000						

196.800	-0.001278	17195.	-273.1852	-5.885E-05	392.9047	8.091E+09	1.0206
3832.0044	0.000						
201.600	-0.001536	15896.	-267.7156	-4.903E-05	363.2111	8.091E+09	1.2584
3931.5332	0.000						
206.400	-0.001749	14625.	-261.1700	-3.998E-05	334.1800	8.091E+09	1.4689
4031.0619	0.000						
211.200	-0.001920	13389.	-253.6788	-3.167E-05	305.9222	8.091E+09	1.6524
4130.5908	0.000						
216.000	-0.002053	12190.	-245.3704	-2.408E-05	278.5344	8.091E+09	1.8094
4230.1201	0.000						
220.800	-0.002151	11033.	-236.3705	-1.719E-05	252.0991	8.091E+09	1.9406
4329.6499	0.000						
225.600	-0.002218	9920.8180	-226.8007	-1.098E-05	226.6854	8.091E+09	2.0468
4429.1804	0.000						
230.400	-0.002257	8855.7545	-216.7781	-5.409E-06	202.3492	8.091E+09	2.1292
4528.7115	0.000						
235.200	-0.002270	7839.7486	-206.4145	-4.564E-07	179.1340	8.091E+09	2.1889
4628.2432	0.000						
240.000	-0.002261	6874.1752	-195.8160	3.908E-06	157.0712	8.091E+09	2.2271
4727.7756	0.000						
244.800	-0.002233	5959.9151	-185.0821	7.715E-06	136.1809	8.091E+09	2.2453
4827.3085	0.000						
249.600	-0.002187	5097.3872	-174.3056	1.099E-05	116.4726	8.091E+09	2.2449
4926.8420	0.000						
254.400	-0.002127	4286.5818	-163.5721	1.378E-05	97.9461	8.091E+09	2.2274
5026.3759	0.000						
259.200	-0.002055	3527.0953	-152.9599	1.610E-05	80.5922	8.091E+09	2.1943
5125.9102	0.000						
264.000	-0.001973	2818.1666	-142.5398	1.798E-05	64.3936	8.091E+09	2.1474
5225.4447	0.000						
268.800	-0.001882	2158.7136	-132.3746	1.945E-05	49.3254	8.091E+09	2.0881
5324.9795	0.000						
273.600	-0.001786	1547.3703	-122.5197	2.055E-05	35.3566	8.091E+09	2.0181
5424.5144	0.000						
278.400	-0.001685	982.5247	-111.0688	2.130E-05	22.4502	8.091E+09	2.7531
7843.0069	0.000						
283.200	-0.001581	481.1102	-98.1147	2.174E-05	10.9931	8.091E+09	2.6444
8027.3325	0.000						
288.000	-0.001476	40.6235	-85.7069	2.189E-05	0.9282	8.091E+09	2.5255
8211.6576	0.000						
292.800	-0.001371	-341.6763	-73.8900	2.180E-05	7.8071	8.091E+09	2.3982
8395.9822	0.000						
297.600	-0.001267	-668.7204	-62.6990	2.150E-05	15.2799	8.091E+09	2.2647
8580.3062	0.000						
302.400	-0.001165	-943.5862	-52.1599	2.103E-05	21.5604	8.091E+09	2.1266
8764.6297	0.000						
307.200	-0.001065	-1169.4553	-42.2905	2.040E-05	26.7214	8.091E+09	1.9857
8948.9527	0.000						
312.000	-0.000969	-1349.5747	-33.1007	1.965E-05	30.8371	8.091E+09	1.8434
9133.2749	0.000						
316.800	-0.000876	-1487.2219	-24.5935	1.881E-05	33.9822	8.091E+09	1.7012
9317.5968	0.000						
321.600	-0.000788	-1585.6725	-16.7657	1.790E-05	36.2318	8.091E+09	1.5603
9501.9184	0.000						

326.400	-0.000705	-1648.1727	-9.6086	1.694E-05	37.6599	8.091E+09	1.4218
9686.2398	0.000						
331.200	-0.000626	-1677.9147	-3.1087	1.595E-05	38.3394	8.091E+09	1.2865
9870.5611	0.000						
336.000	-0.000551	-1678.0163	1.4690	1.496E-05	38.3418	8.091E+09	0.6209
5404.8129	0.000						
340.800	-0.000482	-1663.8125	4.2884	1.397E-05	38.0172	8.091E+09	0.5538
5515.4050	0.000						
345.600	-0.000417	-1636.8480	6.7916	1.299E-05	37.4011	8.091E+09	0.4892
5625.9972	0.000						
350.400	-0.000357	-1598.6133	8.9905	1.203E-05	36.5275	8.091E+09	0.4271
5736.5893	0.000						
355.200	-0.000302	-1550.5392	10.8980	1.109E-05	35.4290	8.091E+09	0.3677
5847.1814	0.000						
360.000	-0.000251	-1493.9927	12.5277	1.019E-05	34.1369	8.091E+09	0.3113
5957.7734	0.000						
364.800	-0.000204	-1430.2730	13.8940	9.323E-06	32.6810	8.091E+09	0.2580
6068.3655	0.000						
369.600	-0.000161	-1360.6099	15.0116	8.495E-06	31.0892	8.091E+09	0.2077
6178.9575	0.000						
374.400	-0.000122	-1286.1620	15.8952	7.710E-06	29.3881	8.091E+09	0.1605
6289.5496	0.000						
379.200	-8.731E-05	-1208.0161	16.5598	6.970E-06	27.6025	8.091E+09	0.1164
6400.1416	0.000						
384.000	-5.557E-05	-1127.1879	17.0201	6.278E-06	25.7556	8.091E+09	0.0754
6510.7336	0.000						
388.800	-2.705E-05	-1044.6228	17.2906	5.633E-06	23.8691	8.091E+09	0.0373
6621.3256	0.000						
393.600	-1.494E-06	-961.1982	17.3852	5.038E-06	21.9629	8.091E+09	0.002095
6731.9176	0.000						
398.400	2.132E-05	-877.7253	17.3172	4.493E-06	20.0556	8.091E+09	-0.0304
6842.5096	0.000						
403.200	4.164E-05	-794.9528	17.0995	3.997E-06	18.1642	8.091E+09	-0.0603
6953.1016	0.000						
408.000	5.969E-05	-713.5699	16.7439	3.549E-06	16.3047	8.091E+09	-0.0878
7063.6936	0.000						
412.800	7.571E-05	-634.2109	16.2615	3.150E-06	14.4914	8.091E+09	-0.1132
7174.2856	0.000						
417.600	8.993E-05	-557.4591	15.6624	2.796E-06	12.7376	8.091E+09	-0.1365
7284.8776	0.000						
422.400	0.000103	-483.8519	14.9556	2.487E-06	11.0558	8.091E+09	-0.1580
7395.4696	0.000						
427.200	0.000114	-413.8852	14.1493	2.221E-06	9.4571	8.091E+09	-0.1780
7506.0615	0.000						
432.000	0.000124	-348.0188	13.2504	1.995E-06	7.9520	8.091E+09	-0.1966
7616.6535	0.000						
436.800	0.000133	-286.6813	12.2650	1.807E-06	6.5505	8.091E+09	-0.2140
7727.2455	0.000						
441.600	0.000141	-230.2752	11.1978	1.653E-06	5.2617	8.091E+09	-0.2306
7837.8375	0.000						
446.400	0.000149	-179.1820	10.0529	1.532E-06	4.0942	8.091E+09	-0.2464
7948.4295	0.000						
451.200	0.000156	-133.7669	8.8332	1.439E-06	3.0565	8.091E+09	-0.2618
8059.0215	0.000						

456.000	0.000163	-94.3836	7.5405	1.371E-06	2.1566	8.091E+09	-0.2768
8169.6135	0.000						
460.800	0.000169	-61.3781	6.1761	1.325E-06	1.4025	8.091E+09	-0.2917
8280.2055	0.000						
465.600	0.000175	-35.0930	4.7403	1.297E-06	0.8019	8.091E+09	-0.3065
8390.7974	0.000						
470.400	0.000182	-15.8709	3.2330	1.281E-06	0.3626	8.091E+09	-0.3215
8501.3894	0.000						
475.200	0.000188	-4.0566	1.6532	1.275E-06	0.0927	8.091E+09	-0.3367
8611.9814	0.000						
480.000	0.000194	0.000	0.000	1.274E-06	0.000	8.091E+09	-0.3521
4361.2867	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.0787818 inches
 Computed slope at pile head = -0.0007005 radians
 Maximum bending moment = 36879. inch-lbs
 Maximum shear force = 572.0000000 lbs
 Depth of maximum bending moment = 100.8000000 inches below pile head
 Depth of maximum shear force = 4.8000000 inches below pile head
 Number of iterations = 6
 Number of zero deflection points = 2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 2

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 1602.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	0.2329 0.000	-5.848E-08	1602.0000	-0.002046	1.336E-09	8.091E+09	0.000	

4.800	0.2231	7689.6000	1602.0000	-0.002044	175.7032	8.091E+09	0.000
0.000	0.000						
9.600	0.2133	15379.	1602.0000	-0.002037	351.4065	8.091E+09	0.000
0.000	0.000						
14.400	0.2035	23069.	1598.2664	-0.002025	527.1097	8.091E+09	-1.5557
36.6910	0.000						
19.200	0.1938	30723.	1583.1847	-0.002009	701.9939	8.091E+09	-4.7284
117.0947	0.000						
24.000	0.1842	38267.	1553.2143	-0.001989	874.3889	8.091E+09	-7.7593
202.1683	0.000						
28.800	0.1747	45633.	1509.4158	-0.001964	1042.6990	8.091E+09	-10.4901
288.1671	0.000						
33.600	0.1654	52758.	1453.4829	-0.001935	1205.4866	8.091E+09	-12.8153
371.9740	0.000						
38.400	0.1562	59587.	1387.6262	-0.001902	1361.5275	8.091E+09	-14.6249
449.5416	0.000						
43.200	0.1471	66079.	1314.7746	-0.001864	1509.8691	8.091E+09	-15.7299
513.2252	0.000						
48.000	0.1383	72209.	1235.9855	-0.001823	1649.9297	8.091E+09	-17.0989
593.6214	0.000						
52.800	0.1296	77944.	1149.0293	-0.001779	1780.9885	8.091E+09	-19.1329
708.5569	0.000						
57.600	0.1212	83239.	1053.1503	-0.001731	1901.9748	8.091E+09	-20.8167
824.5235	0.000						
62.400	0.1130	88055.	950.0640	-0.001680	2012.0021	8.091E+09	-22.1359
940.3250	0.000						
67.200	0.1051	92360.	841.5094	-0.001627	2110.3759	8.091E+09	-23.0951
1055.2112	0.000						
72.000	0.0974	96133.	729.1738	-0.001571	2196.5913	8.091E+09	-23.7113
1168.7627	0.000						
76.800	0.0900	99360.	614.6453	-0.001513	2270.3237	8.091E+09	-24.0089
1280.7902	0.000						
81.600	0.0829	102034.	499.3853	-0.001453	2331.4167	8.091E+09	-24.0161
1391.2553	0.000						
86.400	0.0760	104154.	384.7164	-0.001392	2379.8663	8.091E+09	-23.7626
1500.2133	0.000						
91.200	0.0695	105727.	271.8183	-0.001330	2415.8061	8.091E+09	-23.2783
1607.7727	0.000						
96.000	0.0633	106764.	161.7294	-0.001267	2439.4910	8.091E+09	-22.5921
1714.0684	0.000						
100.800	0.0573	107280.	55.3516	-0.001203	2451.2822	8.091E+09	-21.7319
1819.2445	0.000						
105.600	0.0517	107295.	-46.5424	-0.001139	2451.6326	8.091E+09	-20.7239
1923.4438	0.000						
110.400	0.0464	106833.	-143.3025	-0.001076	2441.0729	8.091E+09	-19.5928
2026.8012	0.000						
115.200	0.0414	105919.	-234.3927	-0.001013	2420.1985	8.091E+09	-18.3615
2129.4407	0.000						
120.000	0.0367	104583.	-319.3839	-0.000950	2389.6577	8.091E+09	-17.0515
2231.4735	0.000						
124.800	0.0323	102853.	-397.9458	-0.000889	2350.1401	8.091E+09	-15.6826
2332.9982	0.000						
129.600	0.0281	100762.	-469.8395	-0.000828	2302.3664	8.091E+09	-14.2731
2434.1011	0.000						

134.400	0.0243	98343.	-534.9108	-0.000769	2247.0786	8.091E+09	-12.8399
2534.8567	0.000						
139.200	0.0208	95627.	-593.0825	-0.000712	2185.0311	8.091E+09	-11.3983
2635.3288	0.000						
144.000	0.0175	92649.	-644.3481	-0.000656	2116.9830	8.091E+09	-9.9624
2735.5717	0.000						
148.800	0.0145	89442.	-688.7650	-0.000602	2043.6903	8.091E+09	-8.5447
2835.6312	0.000						
153.600	0.0117	86037.	-726.4484	-0.000550	1965.8991	8.091E+09	-7.1567
2935.5456	0.000						
158.400	0.009185	82468.	-757.5648	-0.000500	1884.3403	8.091E+09	-5.8085
3035.3467	0.000						
163.200	0.006903	78764.	-782.3262	-0.000452	1799.7236	8.091E+09	-4.5088
3135.0608	0.000						
168.000	0.004846	74957.	-800.9843	-0.000406	1712.7333	8.091E+09	-3.2654
3234.7090	0.000						
172.800	0.003001	71075.	-813.8249	-0.000363	1624.0238	8.091E+09	-2.0848
3334.3085	0.000						
177.600	0.001359	67145.	-821.1625	-0.000322	1534.2168	8.091E+09	-0.9725
3433.8731	0.000						
182.400	-9.129E-05	63192.	-823.3352	-0.000283	1443.8979	8.091E+09	0.0672
3533.4144	0.000						
187.200	-0.001362	59241.	-820.6998	-0.000247	1353.6143	8.091E+09	1.0309
3632.9382	0.000						
192.000	-0.002464	55313.	-813.6272	-0.000213	1263.8734	8.091E+09	1.9160
3732.4496	0.000						
196.800	-0.003409	51430.	-802.4979	-0.000182	1175.1412	8.091E+09	2.7212
3831.9531	0.000						
201.600	-0.004207	47609.	-787.6979	-0.000152	1087.8416	8.091E+09	3.4455
3931.4523	0.000						
206.400	-0.004869	43868.	-769.6150	-0.000125	1002.3559	8.091E+09	4.0891
4030.9502	0.000						
211.200	-0.005407	40221.	-748.6350	-0.000100	919.0228	8.091E+09	4.6526
4130.4492	0.000						
216.000	-0.005830	36681.	-725.1388	-7.726E-05	838.1391	8.091E+09	5.1375
4229.9512	0.000						
220.800	-0.006148	33259.	-699.4991	-5.651E-05	759.9601	8.091E+09	5.5457
4329.4573	0.000						
225.600	-0.006372	29966.	-672.0779	-3.776E-05	684.7006	8.091E+09	5.8798
4428.9684	0.000						
230.400	-0.006511	26807.	-643.2242	-2.092E-05	612.5366	8.091E+09	6.1426
4528.4849	0.000						
235.200	-0.006573	23791.	-613.2716	-5.907E-06	543.6063	8.091E+09	6.3376
4628.0070	0.000						
240.000	-0.006568	20920.	-582.5370	7.355E-06	478.0125	8.091E+09	6.4685
4727.5345	0.000						
244.800	-0.006503	18198.	-551.3186	1.896E-05	415.8240	8.091E+09	6.5392
4827.0670	0.000						
249.600	-0.006386	15627.	-519.8948	2.899E-05	357.0781	8.091E+09	6.5540
4926.6041	0.000						
254.400	-0.006224	13207.	-488.5232	3.755E-05	301.7825	8.091E+09	6.5174
5026.1452	0.000						
259.200	-0.006025	10938.	-457.4398	4.471E-05	249.9181	8.091E+09	6.4340
5125.6896	0.000						

264.000	-0.005795	8816.0020	-426.8580	5.057E-05	201.4409	8.091E+09	6.3084
5225.2366	0.000						
268.800	-0.005540	6839.7564	-396.9689	5.521E-05	156.2848	8.091E+09	6.1454
5324.7856	0.000						
273.600	-0.005265	5005.1007	-367.9404	5.872E-05	114.3639	8.091E+09	5.9498
5424.3359	0.000						
278.400	-0.004976	3307.5286	-334.1483	6.119E-05	75.5753	8.091E+09	8.1302
7842.7031	0.000						
283.200	-0.004678	1797.2774	-295.8621	6.270E-05	41.0668	8.091E+09	7.8223
8027.0712	0.000						
288.000	-0.004374	467.2523	-259.1300	6.338E-05	10.6765	8.091E+09	7.4827
8211.4350	0.000						
292.800	-0.004069	-690.3710	-224.0896	6.331E-05	15.7746	8.091E+09	7.1175
8395.7944	0.000						
297.600	-0.003766	-1684.0082	-190.8503	6.261E-05	38.4787	8.091E+09	6.7323
8580.1494	0.000						
302.400	-0.003468	-2522.5335	-159.4945	6.136E-05	57.6385	8.091E+09	6.3326
8764.4999	0.000						
307.200	-0.003177	-3215.1555	-130.0800	5.966E-05	73.4646	8.091E+09	5.9234
8948.8464	0.000						
312.000	-0.002895	-3771.3019	-102.6415	5.758E-05	86.1722	8.091E+09	5.5093
9133.1854	0.000						
316.800	-0.002624	-4200.5141	-77.1927	5.522E-05	95.9795	8.091E+09	5.0944
9317.5216	0.000						
321.600	-0.002365	-4512.3517	-53.7286	5.263E-05	103.1048	8.091E+09	4.6823
9501.8559	0.000						
326.400	-0.002119	-4716.3085	-32.2279	4.990E-05	107.7651	8.091E+09	4.2763
9686.1886	0.000						
331.200	-0.001886	-4821.7395	-12.6552	4.707E-05	110.1742	8.091E+09	3.8790
9870.5196	0.000						
336.000	-0.001667	-4837.7987	1.1600	4.420E-05	110.5411	8.091E+09	1.8774
5404.8068	0.000						
340.800	-0.001462	-4810.6037	9.6974	4.134E-05	109.9197	8.091E+09	1.6799
5515.4004	0.000						
345.600	-0.001270	-4744.7040	17.3027	3.851E-05	108.4139	8.091E+09	1.4890
5625.9937	0.000						
350.400	-0.001092	-4644.4973	24.0095	3.572E-05	106.1243	8.091E+09	1.3055
5736.5867	0.000						
355.200	-0.000927	-4514.2126	29.8542	3.300E-05	103.1473	8.091E+09	1.1298
5847.1795	0.000						
360.000	-0.000775	-4357.8966	34.8759	3.037E-05	99.5756	8.091E+09	0.9625
5957.7721	0.000						
364.800	-0.000636	-4179.4036	39.1155	2.784E-05	95.4971	8.091E+09	0.8039
6068.3645	0.000						
369.600	-0.000508	-3982.3878	42.6151	2.542E-05	90.9954	8.091E+09	0.6542
6178.9569	0.000						
374.400	-0.000392	-3770.2985	45.4177	2.312E-05	86.1493	8.091E+09	0.5135
6289.5492	0.000						
379.200	-0.000286	-3546.3783	47.5662	2.095E-05	81.0328	8.091E+09	0.3817
6400.1414	0.000						
384.000	-0.000191	-3313.6634	49.1033	1.891E-05	75.7154	8.091E+09	0.2588
6510.7335	0.000						
388.800	-0.000105	-3074.9866	50.0710	1.702E-05	70.2618	8.091E+09	0.1444
6621.3256	0.000						

393.600	-2.739E-05	-2832.9822	50.5098	1.527E-05	64.7321	8.091E+09	0.0384
6731.9176	0.000						
398.400	4.186E-05	-2590.0929	50.4587	1.366E-05	59.1822	8.091E+09	-0.0597
6842.5096	0.000						
403.200	0.000104	-2348.5784	49.9549	1.219E-05	53.6638	8.091E+09	-0.1503
6953.1016	0.000						
408.000	0.000159	-2110.5260	49.0330	1.087E-05	48.2244	8.091E+09	-0.2339
7063.6935	0.000						
412.800	0.000208	-1877.8619	47.7252	9.688E-06	42.9081	8.091E+09	-0.3110
7174.2854	0.000						
417.600	0.000252	-1652.3637	46.0612	8.640E-06	37.7556	8.091E+09	-0.3823
7284.8774	0.000						
422.400	0.000291	-1435.6743	44.0674	7.724E-06	32.8044	8.091E+09	-0.4484
7395.4693	0.000						
427.200	0.000326	-1229.3164	41.7675	6.934E-06	28.0892	8.091E+09	-0.5099
7506.0612	0.000						
432.000	0.000358	-1034.7066	39.1818	6.262E-06	23.6425	8.091E+09	-0.5674
7616.6530	0.000						
436.800	0.000386	-853.1707	36.3279	5.702E-06	19.4945	8.091E+09	-0.6217
7727.2449	0.000						
441.600	0.000412	-685.9590	33.2198	5.246E-06	15.6738	8.091E+09	-0.6733
7837.8368	0.000						
446.400	0.000437	-534.2604	29.8689	4.884E-06	12.2076	8.091E+09	-0.7229
7948.4287	0.000						
451.200	0.000459	-399.2173	26.2835	4.607E-06	9.1219	8.091E+09	-0.7710
8059.0206	0.000						
456.000	0.000481	-281.9388	22.4691	4.405E-06	6.4422	8.091E+09	-0.8183
8169.6124	0.000						
460.800	0.000502	-183.5136	18.4289	4.267E-06	4.1932	8.091E+09	-0.8651
8280.2043	0.000						
465.600	0.000522	-105.0213	14.1637	4.181E-06	2.3997	8.091E+09	-0.9120
8390.7961	0.000						
470.400	0.000542	-47.5424	9.6723	4.136E-06	1.0863	8.091E+09	-0.9593
8501.3880	0.000						
475.200	0.000561	-12.1668	4.9523	4.118E-06	0.2780	8.091E+09	-1.0073
8611.9798	0.000						
480.000	0.000581	0.000	0.000	4.115E-06	0.000	8.091E+09	-1.0561
4361.2858	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

Pile-head deflection	=	0.2328897 inches
Computed slope at pile head	=	-0.0020459 radians
Maximum bending moment	=	107295. inch-lbs
Maximum shear force	=	1602.0000000 lbs
Depth of maximum bending moment	=	105.6000000 inches below pile head
Depth of maximum shear force	=	9.6000000 inches below pile head
Number of iterations	=	7

Number of zero deflection points = 2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 3

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 2213.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	5.848E-08	2213.0000	-0.002940	1.336E-09	8.091E+09	0.000	
4.800	0.000	10622.	2213.0000	-0.002937	242.7161	8.091E+09	0.000	
9.600	0.000	21245.	2213.0000	-0.002928	485.4323	8.091E+09	0.000	
14.400	0.000	31867.	2208.6734	-0.002912	728.1484	8.091E+09	-1.8028	
19.200	0.000	42448.	2190.7631	-0.002890	969.9155	8.091E+09	-5.6598	
24.000	0.000	52899.	2154.4091	-0.002862	1208.7029	8.091E+09	-9.4877	
28.800	0.000	63130.	2100.4873	-0.002827	1442.4955	8.091E+09	-12.9797	
33.600	0.000	73063.	2031.1663	-0.002787	1669.4549	8.091E+09	-15.9041	
38.400	0.000	82630.	1949.7432	-0.002741	1888.0417	8.091E+09	-18.0222	
43.200	0.000	91781.	1860.9388	-0.002689	2097.1406	8.091E+09	-18.9797	
48.000	0.000	100495.	1765.7841	-0.002632	2296.2476	8.091E+09	-20.6681	
52.800	0.000	108732.	1658.7762	-0.002570	2484.4738	8.091E+09	-23.9185	
57.600	0.000	116419.	1537.0122	-0.002503	2660.1082	8.091E+09	-26.8165	
62.400	0.000	123488.	1402.4094	-0.002432	2821.6249	8.091E+09	-29.2680	
67.200	0.000	129882.	1257.2409	-0.002357	2967.7335	8.091E+09	-31.2189	
970.3027	0.000							

72.000	0.1433	135557.	1103.9539	-0.002278	3097.4068	8.091E+09	-32.6507
1093.5985	0.000						
76.800	0.1326	140480.	945.0199	-0.002196	3209.8911	8.091E+09	-33.5718
1215.5590	0.000						
81.600	0.1222	144629.	782.8243	-0.002112	3304.7015	8.091E+09	-34.0097
1335.6005	0.000						
86.400	0.1123	147995.	619.5926	-0.002025	3381.6074	8.091E+09	-34.0035
1453.4327	0.000						
91.200	0.1028	150577.	457.3471	-0.001936	3440.6121	8.091E+09	-33.5988
1568.9754	0.000						
96.000	0.0937	152386.	297.8862	-0.001846	3481.9287	8.091E+09	-32.8432
1682.2886	0.000						
100.800	0.0851	153437.	142.7797	-0.001756	3505.9549	8.091E+09	-31.7844
1793.5184	0.000						
105.600	0.0769	153756.	-6.6263	-0.001664	3513.2481	8.091E+09	-30.4681
1902.8578	0.000						
110.400	0.0691	153373.	-149.1990	-0.001573	3504.5014	8.091E+09	-28.9372
2010.5194	0.000						
115.200	0.0618	152324.	-284.0040	-0.001483	3480.5206	8.091E+09	-27.2316
2116.7180	0.000						
120.000	0.0549	150647.	-410.2909	-0.001393	3442.2037	8.091E+09	-25.3880
2221.6591	0.000						
124.800	0.0484	148385.	-527.4776	-0.001304	3390.5213	8.091E+09	-23.4398
2325.5327	0.000						
129.600	0.0423	145583.	-635.1354	-0.001217	3326.4989	8.091E+09	-21.4176
2428.5101	0.000						
134.400	0.0367	142288.	-732.9746	-0.001132	3251.2013	8.091E+09	-19.3487
2530.7431	0.000						
139.200	0.0315	138547.	-820.8311	-0.001048	3165.7174	8.091E+09	-17.2582
2632.3639	0.000						
144.000	0.0266	134408.	-898.6542	-0.000967	3071.1480	8.091E+09	-15.1681
2733.4865	0.000						
148.800	0.0222	129920.	-966.4943	-0.000889	2968.5933	8.091E+09	-13.0986
2834.2079	0.000						
153.600	0.0181	125130.	-1024.4922	-0.000813	2859.1428	8.091E+09	-11.0672
2934.6102	0.000						
158.400	0.0144	120084.	-1072.8687	-0.000740	2743.8659	8.091E+09	-9.0896
3034.7618	0.000						
163.200	0.0110	114830.	-1111.9147	-0.000671	2623.8038	8.091E+09	-7.1795
3134.7193	0.000						
168.000	0.007937	109410.	-1141.9821	-0.000604	2499.9621	8.091E+09	-5.3486
3234.5291	0.000						
172.800	0.005192	103867.	-1163.4752	-0.000541	2373.3045	8.091E+09	-3.6069
3334.2282	0.000						
177.600	0.002743	98241.	-1176.8420	-0.000481	2244.7482	8.091E+09	-1.9627
3433.8469	0.000						
182.400	0.000574	92569.	-1182.5670	-0.000424	2115.1585	8.091E+09	-0.4227
3533.4128	0.000						
187.200	-0.001331	86888.	-1181.1632	-0.000371	1985.3464	8.091E+09	1.0077
3632.9386	0.000						
192.000	-0.002990	81230.	-1173.1656	-0.000321	1856.0647	8.091E+09	2.3247
3732.4352	0.000						
196.800	-0.004416	75626.	-1159.1247	-0.000275	1728.0068	8.091E+09	3.5257
3831.9125	0.000						

201.600	-0.005628	70103.	-1139.6000	-0.000232	1601.8051	8.091E+09	4.6095
3931.3786	0.000						
206.400	-0.006640	64686.	-1115.1548	-0.000192	1478.0301	8.091E+09	5.5759
4030.8400	0.000						
211.200	-0.007468	59397.	-1086.3508	-0.000155	1357.1905	8.091E+09	6.4258
4130.3022	0.000						
216.000	-0.008126	54257.	-1053.7430	-0.000121	1239.7337	8.091E+09	7.1608
4229.7693	0.000						
220.800	-0.008630	49281.	-1017.8756	-9.040E-05	1126.0469	8.091E+09	7.7839
4329.2443	0.000						
225.600	-0.008994	44485.	-979.2781	-6.258E-05	1016.4578	8.091E+09	8.2984
4428.7291	0.000						
230.400	-0.009231	39880.	-938.4618	-3.756E-05	911.2375	8.091E+09	8.7085
4528.2248	0.000						
235.200	-0.009355	35476.	-895.9162	-1.521E-05	810.6017	8.091E+09	9.0189
4627.7320	0.000						
240.000	-0.009377	31279.	-852.1068	4.594E-06	714.7139	8.091E+09	9.2350
4727.2505	0.000						
244.800	-0.009311	27296.	-807.4730	2.197E-05	623.6879	8.091E+09	9.3625
4826.7796	0.000						
249.600	-0.009166	23528.	-762.4252	3.704E-05	537.5908	8.091E+09	9.4074
4926.3184	0.000						
254.400	-0.008955	19976.	-717.3444	4.995E-05	456.4463	8.091E+09	9.3763
5025.8658	0.000						
259.200	-0.008687	16641.	-672.5798	6.081E-05	380.2379	8.091E+09	9.2756
5125.4204	0.000						
264.000	-0.008371	13519.	-628.4488	6.976E-05	308.9126	8.091E+09	9.1123
5224.9809	0.000						
268.800	-0.008017	10608.	-585.2358	7.691E-05	242.3846	8.091E+09	8.8931
5324.5458	0.000						
273.600	-0.007633	7901.2065	-543.1918	8.240E-05	180.5383	8.091E+09	8.6252
5424.1138	0.000						
278.400	-0.007226	5393.2481	-494.1571	8.635E-05	123.2328	8.091E+09	11.8059
7842.3226	0.000						
283.200	-0.006804	3157.2979	-438.5167	8.888E-05	72.1426	8.091E+09	11.3776
8026.7421	0.000						
288.000	-0.006373	1183.4878	-385.0469	9.017E-05	27.0421	8.091E+09	10.9015
8211.1531	0.000						
292.800	-0.005938	-539.1521	-333.9561	9.036E-05	12.3193	8.091E+09	10.3863
8395.5553	0.000						
297.600	-0.005505	-2022.4911	-285.4117	8.960E-05	46.2128	8.091E+09	9.8405
8579.9484	0.000						
302.400	-0.005078	-3279.1049	-239.5419	8.803E-05	74.9258	8.091E+09	9.2719
8764.3327	0.000						
307.200	-0.004660	-4322.0931	-196.4382	8.577E-05	98.7575	8.091E+09	8.6879
8948.7085	0.000						
312.000	-0.004255	-5164.9111	-156.1585	8.296E-05	118.0154	8.091E+09	8.0953
9133.0687	0.000						
316.800	-0.003864	-5821.2145	-118.7300	7.970E-05	133.0116	8.091E+09	7.5000
9317.4228	0.000						
321.600	-0.003489	-6304.7188	-84.1522	7.611E-05	144.0594	8.091E+09	6.9074
9501.7733	0.000						
326.400	-0.003133	-6629.0757	-52.4006	7.227E-05	151.4708	8.091E+09	6.3224
9686.1203	0.000						

331.200	-0.002796	-6807.7643	-23.4296	6.828E-05	155.5538	8.091E+09	5.7488
9870.4638	0.000						
336.000	-0.002478	-6854.0001	-2.9370	6.423E-05	156.6102	8.091E+09	2.7898
5404.7985	0.000						
340.800	-0.002179	-6835.9599	9.7675	6.017E-05	156.1980	8.091E+09	2.5038
5515.3939	0.000						
345.600	-0.001900	-6760.2322	21.1212	5.614E-05	154.4677	8.091E+09	2.2269
5625.9888	0.000						
350.400	-0.001640	-6633.1968	31.1701	5.216E-05	151.5650	8.091E+09	1.9601
5736.5830	0.000						
355.200	-0.001399	-6460.9996	39.9650	4.828E-05	147.6304	8.091E+09	1.7044
5847.1768	0.000						
360.000	-0.001177	-6249.5324	47.5607	4.451E-05	142.7985	8.091E+09	1.4604
5957.7700	0.000						
364.800	-0.000972	-6004.4166	54.0147	4.087E-05	137.1977	8.091E+09	1.2287
6068.3631	0.000						
369.600	-0.000784	-5730.9915	59.3865	3.739E-05	130.9501	8.091E+09	1.0095
6178.9559	0.000						
374.400	-0.000613	-5434.3066	63.7368	3.408E-05	124.1710	8.091E+09	0.8031
6289.5485	0.000						
379.200	-0.000457	-5119.1180	67.1269	3.095E-05	116.9691	8.091E+09	0.6094
6400.1410	0.000						
384.000	-0.000316	-4789.8884	69.6175	2.801E-05	109.4464	8.091E+09	0.4283
6510.7333	0.000						
388.800	-0.000188	-4450.7903	71.2683	2.527E-05	101.6982	8.091E+09	0.2595
6621.3255	0.000						
393.600	-7.318E-05	-4105.7127	72.1375	2.273E-05	93.8133	8.091E+09	0.1026
6731.9176	0.000						
398.400	3.010E-05	-3758.2704	72.2808	2.040E-05	85.8745	8.091E+09	-0.0429
6842.5096	0.000						
403.200	0.000123	-3411.8167	71.7514	1.827E-05	77.9582	8.091E+09	-0.1777
6953.1016	0.000						
408.000	0.000206	-3069.4569	70.5991	1.635E-05	70.1354	8.091E+09	-0.3024
7063.6934	0.000						
412.800	0.000280	-2734.0655	68.8701	1.463E-05	62.4719	8.091E+09	-0.4180
7174.2853	0.000						
417.600	0.000346	-2408.3037	66.6069	1.310E-05	55.0284	8.091E+09	-0.5251
7284.8771	0.000						
422.400	0.000405	-2094.6394	63.8475	1.177E-05	47.8614	8.091E+09	-0.6247
7395.4689	0.000						
427.200	0.000459	-1795.3673	60.6259	1.061E-05	41.0232	8.091E+09	-0.7177
7506.0607	0.000						
432.000	0.000507	-1512.6303	56.9714	9.633E-06	34.5628	8.091E+09	-0.8050
7616.6525	0.000						
436.800	0.000551	-1248.4415	52.9089	8.814E-06	28.5262	8.091E+09	-0.8877
7727.2442	0.000						
441.600	0.000592	-1004.7052	48.4586	8.146E-06	22.9570	8.091E+09	-0.9666
7837.8360	0.000						
446.400	0.000630	-783.2390	43.6365	7.616E-06	17.8966	8.091E+09	-1.0426
7948.4277	0.000						
451.200	0.000665	-585.7944	38.4544	7.209E-06	13.3851	8.091E+09	-1.1166
8059.0194	0.000						
456.000	0.000699	-414.0765	32.9200	6.913E-06	9.4614	8.091E+09	-1.1894
8169.6111	0.000						

460.800	0.000731	-269.7627	27.0372	6.710E-06	6.1639	8.091E+09	-1.2617
8280.2028	0.000						
465.600	0.000763	-154.5193	20.8069	6.584E-06	3.5307	8.091E+09	-1.3342
8390.7945	0.000						
470.400	0.000795	-70.0163	14.2271	6.518E-06	1.5998	8.091E+09	-1.4074
8501.3861	0.000						
475.200	0.000826	-17.9395	7.2934	6.492E-06	0.4099	8.091E+09	-1.4816
8611.9777	0.000						
480.000	0.000857	0.000	0.000	6.486E-06	0.000	8.091E+09	-1.5573
4361.2847	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

Pile-head deflection = 0.3386455 inches
 Computed slope at pile head = -0.0029404 radians
 Maximum bending moment = 153756. inch-lbs
 Maximum shear force = 2213.0000000 lbs
 Depth of maximum bending moment = 105.6000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 8
 Number of zero deflection points = 2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 4

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 3442.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X inches	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00 0.000	0.5959 0.000	-6.238E-07	3442.0000	-0.005025	1.425E-08	8.091E+09	0.000	
4.800 0.000	0.5718 0.000	16522.	3442.0000	-0.005020	377.5097	8.091E+09	0.000	

9.600	0.5477	33043.	3442.0000	-0.005005	755.0194	8.091E+09	0.000
0.000	0.000						
14.400	0.5237	49565.	3437.3123	-0.004981	1132.5290	8.091E+09	-1.9532
17.9021	0.000						
19.200	0.4999	66041.	3417.3778	-0.004946	1509.0104	8.091E+09	-6.3528
61.0027	0.000						
24.000	0.4762	82372.	3375.8680	-0.004902	1882.1474	8.091E+09	-10.9430
110.2978	0.000						
28.800	0.4528	98450.	3313.0794	-0.004849	2249.5234	8.091E+09	-15.2189
161.3289	0.000						
33.600	0.4297	114177.	3231.6237	-0.004786	2608.8874	8.091E+09	-18.7209
209.1365	0.000						
38.400	0.4069	129473.	3136.3308	-0.004713	2958.3957	8.091E+09	-20.9844
247.5640	0.000						
43.200	0.3844	144286.	3034.4387	-0.004632	3296.8567	8.091E+09	-21.4706
268.0856	0.000						
48.000	0.3624	158604.	2926.6977	-0.004542	3624.0145	8.091E+09	-23.4215
310.2212	0.000						
52.800	0.3408	172382.	2802.3231	-0.004444	3938.8420	8.091E+09	-28.4013
399.9950	0.000						
57.600	0.3197	185506.	2653.8193	-0.004338	4238.7177	8.091E+09	-33.4753
502.5498	0.000						
62.400	0.2992	197859.	2481.2251	-0.004224	4520.9701	8.091E+09	-38.4389
616.7193	0.000						
67.200	0.2792	209326.	2285.5859	-0.004103	4782.9864	8.091E+09	-43.0774
740.6393	0.000						
72.000	0.2598	219801.	2068.9405	-0.003976	5022.3245	8.091E+09	-47.1915
871.9617	0.000						
76.800	0.2410	229188.	1834.1956	-0.003843	5236.8185	8.091E+09	-50.6189
1008.1415	0.000						
81.600	0.2229	237409.	1584.9148	-0.003705	5424.6641	8.091E+09	-53.2481
1146.7230	0.000						
86.400	0.2054	244403.	1325.0633	-0.003562	5584.4772	8.091E+09	-55.0233
1285.5655	0.000						
91.200	0.1887	250129.	1058.7525	-0.003415	5715.3232	8.091E+09	-55.9395
1422.9760	0.000						
96.000	0.1727	254567.	790.0169	-0.003265	5816.7197	8.091E+09	-56.0336
1557.7500	0.000						
100.800	0.1573	257714.	522.6439	-0.003113	5888.6172	8.091E+09	-55.3718
1689.1407	0.000						
105.600	0.1428	259584.	260.0583	-0.002960	5931.3642	8.091E+09	-54.0388
1816.7862	0.000						
110.400	0.1289	260210.	5.2592	-0.002806	5945.6623	8.091E+09	-52.1275
1940.6198	0.000						
115.200	0.1158	259635.	-239.2045	-0.002652	5932.5178	8.091E+09	-49.7323
2060.7822	0.000						
120.000	0.1035	257914.	-471.2280	-0.002498	5893.1916	8.091E+09	-46.9441
2177.5465	0.000						
124.800	0.0919	255111.	-689.1273	-0.002346	5829.1517	8.091E+09	-43.8473
2291.2585	0.000						
129.600	0.0810	251298.	-891.6053	-0.002196	5742.0282	8.091E+09	-40.5186
2402.2933	0.000						
134.400	0.0708	246552.	-1077.7133	-0.002048	5633.5737	8.091E+09	-37.0265
2511.0254	0.000						

139.200	0.0613	240952.	-1246.8123	-0.001903	5505.6266	8.091E+09	-33.4314
2617.8101	0.000						
144.000	0.0525	234582.	-1398.5350	-0.001762	5360.0794	8.091E+09	-29.7864
2722.9723	0.000						
148.800	0.0444	227526.	-1532.7517	-0.001625	5198.8512	8.091E+09	-26.1373
2826.8015	0.000						
153.600	0.0369	219868.	-1649.5385	-0.001492	5023.8629	8.091E+09	-22.5239
2929.5503	0.000						
158.400	0.0301	211691.	-1749.1494	-0.001364	4837.0169	8.091E+09	-18.9806
3031.4356	0.000						
163.200	0.0238	203076.	-1831.9907	-0.001241	4640.1785	8.091E+09	-15.5366
3132.6407	0.000						
168.000	0.0181	194104.	-1898.5986	-0.001124	4435.1609	8.091E+09	-12.2167
3233.3185	0.000						
172.800	0.0130	184850.	-1949.6190	-0.001011	4223.7117	8.091E+09	-9.0418
3333.5910	0.000						
177.600	0.008428	175387.	-1985.7891	-0.000904	4007.5025	8.091E+09	-6.0291
3433.5545	0.000						
182.400	0.004337	165786.	-2007.9215	-0.000803	3788.1193	8.091E+09	-3.1927
3533.3253	0.000						
187.200	0.000718	156111.	-2016.8884	-0.000708	3567.0552	8.091E+09	-0.5435
3632.9447	0.000						
192.000	-0.002456	146424.	-2013.6085	-0.000618	3345.7050	8.091E+09	1.9101
3732.4498	0.000						
196.800	-0.005214	136780.	-1999.0342	-0.000534	3125.3605	8.091E+09	4.1625
3831.8731	0.000						
201.600	-0.007582	127233.	-1974.1404	-0.000456	2907.2072	8.091E+09	6.2099
3931.2424	0.000						
206.400	-0.009588	117829.	-1939.9137	-0.000383	2692.3232	8.091E+09	8.0512
4030.5814	0.000						
211.200	-0.0113	108610.	-1897.3427	-0.000316	2481.6778	8.091E+09	9.6867
4129.9091	0.000						
216.000	-0.0126	99614.	-1847.4093	-0.000254	2276.1319	8.091E+09	11.1189
4229.2406	0.000						
220.800	-0.0137	90875.	-1791.0801	-0.000197	2076.4396	8.091E+09	12.3516
4328.5876	0.000						
225.600	-0.0145	82420.	-1729.2994	-0.000146	1883.2498	8.091E+09	13.3903
4427.9582	0.000						
230.400	-0.0151	74273.	-1662.9827	-9.961E-05	1697.1094	8.091E+09	14.2416
4527.3580	0.000						
235.200	-0.0155	66455.	-1593.0107	-5.787E-05	1518.4665	8.091E+09	14.9134
4626.7897	0.000						
240.000	-0.0157	58981.	-1520.2243	-2.066E-05	1347.6748	8.091E+09	15.4143
4726.2545	0.000						
244.800	-0.0157	51861.	-1445.4202	1.222E-05	1184.9980	8.091E+09	15.7541
4825.7515	0.000						
249.600	-0.0155	45105.	-1369.3470	4.098E-05	1030.6149	8.091E+09	15.9431
4925.2788	0.000						
254.400	-0.0153	38715.	-1292.7025	6.584E-05	884.6251	8.091E+09	15.9922
5024.8336	0.000						
259.200	-0.0149	32695.	-1216.1305	8.703E-05	747.0544	8.091E+09	15.9128
5124.4122	0.000						
264.000	-0.0144	27041.	-1140.2193	0.000105	617.8610	8.091E+09	15.7168
5224.0108	0.000						

268.800	-0.0139	21749.	-1065.5001	0.000119	496.9417	8.091E+09	15.4162
5323.6252	0.000						
273.600	-0.0133	16812.	-992.4455	0.000131	384.1384	8.091E+09	15.0232
5423.2515	0.000						
278.400	-0.0126	12221.	-906.8139	0.000139	279.2440	8.091E+09	20.6567
7840.8307	0.000						
283.200	-0.0120	8106.2895	-809.2469	0.000145	185.2244	8.091E+09	19.9963
8025.4381	0.000						
288.000	-0.0113	4452.2615	-715.0713	0.000149	101.7318	8.091E+09	19.2436
8210.0249	0.000						
292.800	-0.0105	1241.6049	-624.6929	0.000151	28.3700	8.091E+09	18.4141
8394.5886	0.000						
297.600	-0.009804	-1544.7908	-538.4445	0.000151	35.2976	8.091E+09	17.5228
8579.1281	0.000						
302.400	-0.009083	-3927.4618	-456.5890	0.000149	89.7404	8.091E+09	16.5837
8763.6431	0.000						
307.200	-0.008374	-5928.0449	-379.3242	0.000146	135.4526	8.091E+09	15.6100
8948.1342	0.000						
312.000	-0.007681	-7568.9740	-306.7872	0.000142	172.9470	8.091E+09	14.6138
9132.5772	0.000						
316.800	-0.007010	-8873.2018	-239.0594	0.000137	202.7479	8.091E+09	13.6061
9317.0024	0.000						
321.600	-0.006364	-9863.9443	-176.1720	0.000132	225.3858	8.091E+09	12.5969
9501.4176	0.000						
326.400	-0.005746	-10564.	-118.1120	0.000126	241.3921	8.091E+09	11.5948
9685.8227	0.000						
331.200	-0.005158	-10998.	-64.8278	0.000119	251.2943	8.091E+09	10.6070
9870.2177	0.000						
336.000	-0.004602	-11187.	-26.9350	0.000113	255.6124	8.091E+09	5.1817
5404.7614	0.000						
340.800	-0.004077	-11256.	-3.2549	0.000106	257.2026	8.091E+09	4.6850
5515.3648	0.000						
345.600	-0.003585	-11218.	18.0732	9.928E-05	256.3264	8.091E+09	4.2017
5625.9661	0.000						
350.400	-0.003124	-11083.	37.1187	9.266E-05	253.2381	8.091E+09	3.7339
5736.5658	0.000						
355.200	-0.002695	-10862.	53.9601	8.615E-05	248.1842	8.091E+09	3.2833
5847.1636	0.000						
360.000	-0.002297	-10565.	68.6833	7.979E-05	241.4017	8.091E+09	2.8514
5957.7600	0.000						
364.800	-0.001929	-10202.	81.3804	7.363E-05	233.1182	8.091E+09	2.4391
6068.3556	0.000						
369.600	-0.001590	-9783.6239	92.1476	6.771E-05	223.5505	8.091E+09	2.0472
6178.9505	0.000						
374.400	-0.001279	-9317.7313	101.0841	6.204E-05	212.9052	8.091E+09	1.6763
6289.5448	0.000						
379.200	-0.000995	-8813.2168	108.2905	5.666E-05	201.3773	8.091E+09	1.3264
6400.1386	0.000						
384.000	-0.000735	-8278.1421	113.8677	5.159E-05	189.1511	8.091E+09	0.9974
6510.7319	0.000						
388.800	-0.000499	-7720.0869	117.9151	4.685E-05	176.3998	8.091E+09	0.6890
6621.3248	0.000						
393.600	-0.000286	-7146.1569	120.5301	4.244E-05	163.2858	8.091E+09	0.4006
6731.9173	0.000						

398.400	-9.208E-05	-6562.9980	121.8065	3.837E-05	149.9610	8.091E+09	0.1313
6842.5096	0.000						
403.200	8.275E-05	-5976.8146	121.8338	3.465E-05	136.5670	8.091E+09	-0.1199
6953.1016	0.000						
408.000	0.000241	-5393.3931	120.6965	3.128E-05	123.2361	8.091E+09	-0.3540
7063.6934	0.000						
412.800	0.000383	-4818.1283	118.4729	2.825E-05	110.0916	8.091E+09	-0.5725
7174.2850	0.000						
417.600	0.000512	-4256.0536	115.2348	2.556E-05	97.2485	8.091E+09	-0.7767
7284.8766	0.000						
422.400	0.000628	-3711.8741	111.0471	2.319E-05	84.8143	8.091E+09	-0.9682
7395.4680	0.000						
427.200	0.000734	-3190.0012	105.9672	2.115E-05	72.8898	8.091E+09	-1.1485
7506.0593	0.000						
432.000	0.000831	-2694.5893	100.0446	1.940E-05	61.5699	8.091E+09	-1.3193
7616.6506	0.000						
436.800	0.000921	-2229.5733	93.3211	1.794E-05	50.9446	8.091E+09	-1.4822
7727.2418	0.000						
441.600	0.001004	-1798.7064	85.8308	1.675E-05	41.0995	8.091E+09	-1.6388
7837.8329	0.000						
446.400	0.001081	-1405.5978	77.5997	1.580E-05	32.1172	8.091E+09	-1.7908
7948.4240	0.000						
451.200	0.001155	-1053.7494	68.6466	1.507E-05	24.0776	8.091E+09	-1.9397
8059.0150	0.000						
456.000	0.001226	-746.5907	58.9830	1.453E-05	17.0592	8.091E+09	-2.0868
8169.6060	0.000						
460.800	0.001295	-487.5121	48.6142	1.417E-05	11.1394	8.091E+09	-2.2336
8280.1969	0.000						
465.600	0.001362	-279.8946	37.5392	1.394E-05	6.3954	8.091E+09	-2.3810
8390.7876	0.000						
470.400	0.001429	-127.1362	25.7522	1.382E-05	2.9050	8.091E+09	-2.5302
8501.3784	0.000						
475.200	0.001495	-32.6738	13.2433	1.377E-05	0.7466	8.091E+09	-2.6818
8611.9690	0.000						
480.000	0.001561	0.000	0.000	1.376E-05	0.000	8.091E+09	-2.8363
4361.2797	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

Pile-head deflection	=	0.5958754 inches
Computed slope at pile head	=	-0.0050248 radians
Maximum bending moment	=	260210. inch-lbs
Maximum shear force	=	3442.0000001 lbs
Depth of maximum bending moment	=	110.4000000 inches below pile head
Depth of maximum shear force	=	4.8000000 inches below pile head
Number of iterations	=	11
Number of zero deflection points	=	2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 5

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 4512.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	6.238E-07	4512.0000	-0.007141	1.425E-08	8.091E+09	0.000	
4.800	0.000	21658.	4512.0000	-0.007135	494.8645	8.091E+09	0.000	
9.600	0.000	43315.	4512.0000	-0.007116	989.7290	8.091E+09	0.000	
14.400	0.000	64973.	4507.2773	-0.007083	1484.5935	8.091E+09	-1.9678	
19.200	0.000	86585.	4487.0854	-0.007039	1978.4221	8.091E+09	-6.4455	
24.000	0.000	108049.	4444.7852	-0.006981	2468.8574	8.091E+09	-11.1796	
28.800	0.000	129255.	4380.4625	-0.006910	2953.4073	8.091E+09	-15.6216	
33.600	0.000	150101.	4296.8052	-0.006828	3429.7331	8.091E+09	-19.2357	
38.400	0.000	170504.	4199.0769	-0.006732	3895.9323	8.091E+09	-21.4845	
43.200	0.000	190412.	4095.1727	-0.006625	4350.8209	8.091E+09	-21.8089	
48.000	0.000	209818.	3985.7200	-0.006507	4794.2282	8.091E+09	-23.7964	
52.800	0.000	228675.	3858.4491	-0.006377	5225.1079	8.091E+09	-29.2332	
57.600	0.000	246859.	3704.0648	-0.006236	5640.5977	8.091E+09	-35.0936	
62.400	0.000	264234.	3520.8104	-0.006084	6037.6124	8.091E+09	-41.2624	
67.200	0.000	280659.	3307.6059	-0.005922	6412.9045	8.091E+09	-47.5728	
72.000	0.000	295987.	3064.2895	-0.005751	6763.1518	8.091E+09	-53.8090	
662.4563	0.000							

76.800	0.3627	310076.	2791.8165	-0.005571	7085.0712	8.091E+09	-59.7214
790.3510	0.000						
81.600	0.3364	322789.	2492.3642	-0.005384	7375.5503	8.091E+09	-65.0504
928.1828	0.000						
86.400	0.3110	334003.	2169.3071	-0.005189	7631.7834	8.091E+09	-69.5567
1073.4787	0.000						
91.200	0.2866	343614.	1827.0550	-0.004988	7851.3983	8.091E+09	-73.0483
1223.4714	0.000						
96.000	0.2631	351542.	1470.7799	-0.004782	8032.5568	8.091E+09	-75.3997
1375.4101	0.000						
100.800	0.2407	357734.	1106.0791	-0.004571	8174.0210	8.091E+09	-76.5590
1526.8341	0.000						
105.600	0.2193	362161.	738.6321	-0.004358	8275.1805	8.091E+09	-76.5439
1675.7603	0.000						
110.400	0.1988	364824.	373.8987	-0.004142	8336.0435	8.091E+09	-75.4284
1820.7665	0.000						
115.200	0.1795	365750.	16.8866	-0.003925	8357.1970	8.091E+09	-73.3266
1960.9824	0.000						
120.000	0.1612	364987.	-327.9986	-0.003709	8339.7476	8.091E+09	-70.3756
2096.0180	0.000						
124.800	0.1439	362601.	-657.0305	-0.003493	8285.2489	8.091E+09	-66.7211
2225.8592	0.000						
129.600	0.1276	358679.	-967.1777	-0.003279	8195.6248	8.091E+09	-62.5069
2350.7590	0.000						
134.400	0.1124	353317.	-1256.0778	-0.003068	8073.0938	8.091E+09	-57.8681
2471.1383	0.000						
139.200	0.0982	346621.	-1521.9850	-0.002860	7920.0981	8.091E+09	-52.9266
2587.5075	0.000						
144.000	0.0849	338706.	-1763.7051	-0.002657	7739.2391	8.091E+09	-47.7901
2700.4070	0.000						
148.800	0.0727	329689.	-1980.5259	-0.002459	7533.2208	8.091E+09	-42.5519
2810.3671	0.000						
153.600	0.0613	319692.	-2172.1495	-0.002266	7304.8011	8.091E+09	-37.2913
2917.8832	0.000						
158.400	0.0509	308837.	-2338.6306	-0.002079	7056.7493	8.091E+09	-32.0758
3023.4018	0.000						
163.200	0.0414	297242.	-2480.3201	-0.001900	6791.8112	8.091E+09	-26.9615
3127.3145	0.000						
168.000	0.0327	285025.	-2597.8161	-0.001727	6512.6791	8.091E+09	-21.9952
3229.9576	0.000						
172.800	0.0248	272303.	-2691.9213	-0.001562	6221.9677	8.091E+09	-17.2154
3331.6002	0.000						
177.600	0.0177	259183.	-2763.6061	-0.001404	5922.1931	8.091E+09	-12.6533
3432.4402	0.000						
182.400	0.0113	245772.	-2813.9774	-0.001254	5615.7573	8.091E+09	-8.3347
3532.8068	0.000						
187.200	0.005654	232169.	-2844.2504	-0.001112	5304.9336	8.091E+09	-4.2790
3632.7915	0.000						
192.000	0.000645	218467.	-2855.7231	-0.000979	4991.8572	8.091E+09	-0.5012
3732.4779	0.000						
196.800	-0.003743	204754.	-2849.7552	-0.000853	4678.5169	8.091E+09	2.9878
3831.9408	0.000						
201.600	-0.007547	191110.	-2827.7503	-0.000736	4366.7496	8.091E+09	6.1809
3931.2453	0.000						

206.400	-0.0108	177608.	-2791.1382	-0.000626	4058.2362	8.091E+09	9.0742
4030.4470	0.000						
211.200	-0.0136	164315.	-2741.3597	-0.000525	3754.4999	8.091E+09	11.6669
4129.5926	0.000						
216.000	-0.0158	151290.	-2679.8525	-0.000431	3456.9057	8.091E+09	13.9611
4228.7196	0.000						
220.800	-0.0177	138588.	-2608.0386	-0.000345	3166.6613	8.091E+09	15.9614
4327.8577	0.000						
225.600	-0.0192	126253.	-2527.3126	-0.000267	2884.8198	8.091E+09	17.6744
4427.0291	0.000						
230.400	-0.0203	114326.	-2439.0321	-0.000196	2612.2831	8.091E+09	19.1091
4526.2494	0.000						
235.200	-0.0210	102839.	-2344.5086	-0.000131	2349.8063	8.091E+09	20.2758
4625.5288	0.000						
240.000	-0.0215	91819.	-2244.9990	-7.337E-05	2098.0038	8.091E+09	21.1866
4724.8724	0.000						
244.800	-0.0217	81287.	-2141.6995	-2.202E-05	1857.3549	8.091E+09	21.8549
4824.2814	0.000						
249.600	-0.0217	71258.	-2035.7392	2.323E-05	1628.2116	8.091E+09	22.2952
4923.7540	0.000						
254.400	-0.0215	61743.	-1928.1752	6.268E-05	1410.8057	8.091E+09	22.5231
5023.2858	0.000						
259.200	-0.0211	52748.	-1819.9887	9.664E-05	1205.2571	8.091E+09	22.5547
5122.8707	0.000						
264.000	-0.0206	44272.	-1712.0809	0.000125	1011.5824	8.091E+09	22.4069
5222.5013	0.000						
268.800	-0.0199	36312.	-1605.2713	0.000149	829.7038	8.091E+09	22.0971
5322.1698	0.000						
273.600	-0.0192	28861.	-1500.2948	0.000169	659.4583	8.091E+09	21.6431
5421.8679	0.000						
278.400	-0.0183	21909.	-1376.5905	0.000184	500.6069	8.091E+09	29.9004
7838.4031	0.000						
283.200	-0.0174	15646.	-1235.0389	0.000195	357.4965	8.091E+09	29.0795
8023.2876	0.000						
288.000	-0.0164	10053.	-1097.7793	0.000202	229.6951	8.091E+09	28.1120
8208.1401	0.000						
292.800	-0.0155	5107.0497	-965.4612	0.000207	116.6933	8.091E+09	27.0206
8392.9534	0.000						
297.600	-0.0145	784.1131	-838.6268	0.000209	17.9166	8.091E+09	25.8271
8577.7231	0.000						
302.400	-0.0134	-2943.7674	-717.7161	0.000208	67.2635	8.091E+09	24.5524
8762.4472	0.000						
307.200	-0.0125	-6105.9617	-603.0723	0.000205	139.5179	8.091E+09	23.2159
8947.1257	0.000						
312.000	-0.0115	-8733.2611	-494.9481	0.000201	199.5503	8.091E+09	21.8358
9131.7032	0.000						
316.800	-0.0105	-10857.	-393.5132	0.000195	248.0872	8.091E+09	20.4287
9316.2450	0.000						
321.600	-0.009604	-12511.	-298.8613	0.000188	285.8694	8.091E+09	19.0096
9500.7680	0.000						
326.400	-0.008718	-13727.	-211.0189	0.000180	313.6439	8.091E+09	17.5914
9685.2712	0.000						
331.200	-0.007872	-14537.	-129.9543	0.000172	332.1574	8.091E+09	16.1855
9869.7547	0.000						

336.000	-0.007066	-14974.	-72.0135	0.000163	342.1500	8.091E+09	7.9565
5404.6906	0.000						
340.800	-0.006304	-15228.	-35.5348	0.000154	347.9539	8.091E+09	7.2430
5515.3080	0.000						
345.600	-0.005584	-15315.	-2.4432	0.000145	349.9447	8.091E+09	6.5452
5625.9213	0.000						
350.400	-0.004909	-15252.	27.3445	0.000136	348.4898	8.091E+09	5.8663
5736.5308	0.000						
355.200	-0.004276	-15053.	53.9259	0.000127	343.9466	8.091E+09	5.2093
5847.1363	0.000						
360.000	-0.003687	-14734.	77.4112	0.000118	336.6609	8.091E+09	4.5763
5957.7385	0.000						
364.800	-0.003140	-14310.	97.9201	0.000110	326.9661	8.091E+09	3.9691
6068.3391	0.000						
369.600	-0.002633	-13794.	115.5801	0.000101	315.1817	8.091E+09	3.3892
6178.9382	0.000						
374.400	-0.002165	-13200.	130.5240	9.346E-05	301.6130	8.091E+09	2.8374
6289.5360	0.000						
379.200	-0.001736	-12541.	142.8879	8.583E-05	286.5506	8.091E+09	2.3142
6400.1325	0.000						
384.000	-0.001342	-11828.	152.8091	7.860E-05	270.2699	8.091E+09	1.8196
6510.7280	0.000						
388.800	-0.000981	-11074.	160.4242	7.180E-05	253.0312	8.091E+09	1.3533
6621.3225	0.000						
393.600	-0.000652	-10288.	165.8675	6.547E-05	235.0800	8.091E+09	0.9147
6731.9162	0.000						
398.400	-0.000353	-9481.5069	169.2691	5.960E-05	216.6473	8.091E+09	0.5026
6842.5092	0.000						
403.200	-8.000E-05	-8663.2250	170.7535	5.422E-05	197.9500	8.091E+09	0.1159
6953.1016	0.000						
408.000	0.000168	-7842.2730	170.4386	4.933E-05	179.1917	8.091E+09	-0.2471
7063.6935	0.000						
412.800	0.000394	-7027.0149	168.4338	4.491E-05	160.5635	8.091E+09	-0.5882
7174.2850	0.000						
417.600	0.000599	-6225.3083	164.8400	4.098E-05	142.2449	8.091E+09	-0.9093
7284.8762	0.000						
422.400	0.000787	-5444.5510	159.7478	3.752E-05	124.4051	8.091E+09	-1.2125
7395.4670	0.000						
427.200	0.000959	-4691.7295	153.2374	3.452E-05	107.2035	8.091E+09	-1.5001
7506.0577	0.000						
432.000	0.001118	-3973.4715	145.3782	3.195E-05	90.7917	8.091E+09	-1.7745
7616.6481	0.000						
436.800	0.001266	-3296.0990	136.2280	2.979E-05	75.3141	8.091E+09	-2.0380
7727.2384	0.000						
441.600	0.001404	-2665.6830	125.8334	2.802E-05	60.9094	8.091E+09	-2.2930
7837.8284	0.000						
446.400	0.001535	-2088.0984	114.2298	2.661E-05	47.7119	8.091E+09	-2.5418
7948.4183	0.000						
451.200	0.001660	-1569.0773	101.4415	2.553E-05	35.8526	8.091E+09	-2.7866
8059.0080	0.000						
456.000	0.001780	-1114.2604	87.4825	2.473E-05	25.4603	8.091E+09	-3.0296
8169.5975	0.000						
460.800	0.001897	-729.2457	72.3570	2.418E-05	16.6629	8.091E+09	-3.2726
8280.1868	0.000						

465.600	0.002012	-419.6328	56.0608	2.384E-05	9.5884	8.091E+09	-3.5175
8390.7759	0.000						
470.400	0.002126	-191.0621	38.5818	2.366E-05	4.3657	8.091E+09	-3.7654
8501.3647	0.000						
475.200	0.002239	-49.2471	19.9023	2.359E-05	1.1253	8.091E+09	-4.0177
8611.9532	0.000						
480.000	0.002352	0.000	0.000	2.357E-05	0.000	8.091E+09	-4.2749
4361.2707	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

Pile-head deflection = 0.8701950 inches
 Computed slope at pile head = -0.0071413 radians
 Maximum bending moment = 365750. inch-lbs
 Maximum shear force = 4512.000000 lbs
 Depth of maximum bending moment = 115.2000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 13
 Number of zero deflection points = 2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 6

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 5298.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X inches	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00	1.1007	2.339E-07	5298.0000	-0.008857	5.345E-09	8.091E+09	0.000	
0.000	0.000							
4.800	1.0582	25430.	5298.0000	-0.008850	581.0710	8.091E+09	0.000	
0.000	0.000							
9.600	1.0157	50861.	5298.0000	-0.008827	1162.1419	8.091E+09	0.000	
0.000	0.000							

14.400	0.9734	76291.	5293.2747	-0.008789	1743.2129	8.091E+09	-1.9689
9.7086	0.000						
19.200	0.9313	101676.	5273.0578	-0.008737	2323.2474	8.091E+09	-6.4549
33.2674	0.000						
24.000	0.8896	126913.	5230.6665	-0.008669	2899.8836	8.091E+09	-11.2082
60.4790	0.000						
28.800	0.8481	151891.	5166.1473	-0.008586	3470.6194	8.091E+09	-15.6749
88.7128	0.000						
33.600	0.8071	176508.	5082.1970	-0.008489	4033.1031	8.091E+09	-19.3044
114.8042	0.000						
38.400	0.7666	200680.	4984.1560	-0.008377	4585.4239	8.091E+09	-21.5460
134.9028	0.000						
43.200	0.7267	224355.	4880.0242	-0.008251	5126.4018	8.091E+09	-21.8423
144.2713	0.000						
48.000	0.6874	247528.	4770.4030	-0.008111	5655.8808	8.091E+09	-23.8332
166.4174	0.000						
52.800	0.6488	270151.	4642.7807	-0.007957	6172.8128	8.091E+09	-29.3428
217.0711	0.000						
57.600	0.6110	292099.	4487.4743	-0.007790	6674.2972	8.091E+09	-35.3682
277.8361	0.000						
62.400	0.5741	313231.	4302.1256	-0.007611	7157.1620	8.091E+09	-41.8604
350.0174	0.000						
67.200	0.5380	333399.	4084.7063	-0.007419	7617.9893	8.091E+09	-48.7310
434.7989	0.000						
72.000	0.5028	352444.	3833.7343	-0.007216	8053.1621	8.091E+09	-55.8407
533.0494	0.000						
76.800	0.4687	370203.	3548.5359	-0.007001	8458.9374	8.091E+09	-62.9920
645.1063	0.000						
81.600	0.4356	386510.	3229.5135	-0.006777	8831.5506	8.091E+09	-69.9340
770.5844	0.000						
86.400	0.4036	401206.	2878.3637	-0.006543	9167.3469	8.091E+09	-76.3784
908.2687	0.000						
91.200	0.3728	414143.	2498.1875	-0.006301	9462.9336	8.091E+09	-82.0283
1056.1376	0.000						
96.000	0.3432	425189.	2093.4505	-0.006052	9715.3364	8.091E+09	-86.6121
1211.5320	0.000						
100.800	0.3147	434240.	1669.7814	-0.005797	9922.1421	8.091E+09	-89.9166
1371.4424	0.000						
105.600	0.2875	441219.	1233.6378	-0.005538	10082.	8.091E+09	-91.8099
1532.8477	0.000						
110.400	0.2615	446083.	791.8942	-0.005275	10193.	8.091E+09	-92.2499
1693.0279	0.000						
115.200	0.2369	448821.	351.4233	-0.005009	10255.	8.091E+09	-91.2796
1849.7887	0.000						
120.000	0.2135	449456.	-81.2713	-0.004743	10270.	8.091E+09	-89.0099
2001.5696	0.000						
124.800	0.1913	448041.	-500.3318	-0.004476	10237.	8.091E+09	-85.5987
2147.4435	0.000						
129.600	0.1705	444653.	-900.7190	-0.004212	10160.	8.091E+09	-81.2293
2287.0378	0.000						
134.400	0.1509	439394.	-1278.2899	-0.003949	10040.	8.091E+09	-76.0919
2420.4145	0.000						
139.200	0.1326	432381.	-1629.7994	-0.003691	9879.6836	8.091E+09	-70.3704
2547.9409	0.000						

144.000	0.1155	423748.	-1952.8493	-0.003437	9682.4081	8.091E+09	-64.2337
2670.1727	0.000						
148.800	0.0996	413634.	-2245.8065	-0.003188	9451.3167	8.091E+09	-57.8318
2787.7587	0.000						
153.600	0.0849	402188.	-2507.7079	-0.002946	9189.7796	8.091E+09	-51.2938
2901.3720	0.000						
158.400	0.0713	389560.	-2738.1634	-0.002712	8901.2388	8.091E+09	-44.7293
3011.6625	0.000						
163.200	0.0588	375902.	-2937.2639	-0.002485	8589.1502	8.091E+09	-38.2293
3119.2288	0.000						
168.000	0.0474	361362.	-3105.4989	-0.002266	8256.9358	8.091E+09	-31.8687
3224.6033	0.000						
172.800	0.0371	346089.	-3243.6835	-0.002056	7907.9440	8.091E+09	-25.7082
3328.2143	0.000						
177.600	0.0277	330223.	-3352.8949	-0.001855	7545.4181	8.091E+09	-19.7966
3430.3517	0.000						
182.400	0.0193	313901.	-3434.4257	-0.001664	7172.4703	8.091E+09	-14.1746
3531.6565	0.000						
187.200	0.0117	297253.	-3489.7360	-0.001483	6792.0602	8.091E+09	-8.8714
3632.2777	0.000						
192.000	0.005028	280400.	-3520.4107	-0.001312	6406.9798	8.091E+09	-3.9097
3732.3534	0.000						
196.800	-0.000869	263457.	-3528.1296	-0.001150	6019.8411	8.091E+09	0.6935
3832.0089	0.000						
201.600	-0.006015	246530.	-3514.6410	-0.000999	5633.0675	8.091E+09	4.9267
3931.3548	0.000						
206.400	-0.0105	229716.	-3481.7375	-0.000858	5248.8876	8.091E+09	8.7830
4030.4869	0.000						
211.200	-0.0143	213105.	-3431.2349	-0.000726	4869.3315	8.091E+09	12.2597
4129.4864	0.000						
216.000	-0.0174	196776.	-3364.9524	-0.000605	4496.2296	8.091E+09	15.3580
4228.4202	0.000						
220.800	-0.0201	180801.	-3284.6961	-0.000493	4131.2129	8.091E+09	18.0822
4327.3419	0.000						
225.600	-0.0222	165243.	-3192.2429	-0.000390	3775.7156	8.091E+09	20.4399
4426.2929	0.000						
230.400	-0.0238	150156.	-3089.3279	-0.000297	3430.9790	8.091E+09	22.4413
4525.3036	0.000						
235.200	-0.0250	135586.	-2977.6319	-0.000212	3098.0566	8.091E+09	24.0987
4624.3947	0.000						
240.000	-0.0258	121571.	-2858.7711	-0.000136	2777.8210	8.091E+09	25.4266
4723.5788	0.000						
244.800	-0.0263	108141.	-2734.2879	-6.751E-05	2470.9713	8.091E+09	26.4414
4822.8615	0.000						
249.600	-0.0265	95321.	-2605.6432	-7.155E-06	2178.0417	8.091E+09	27.1606
4922.2428	0.000						
254.400	-0.0264	83127.	-2474.2094	4.578E-05	1899.4109	8.091E+09	27.6034
5021.7181	0.000						
259.200	-0.0260	71569.	-2341.2652	9.166E-05	1635.3119	8.091E+09	27.7900
5121.2797	0.000						
264.000	-0.0255	60651.	-2207.9902	0.000131	1385.8431	8.091E+09	27.7413
5220.9174	0.000						
268.800	-0.0248	50372.	-2075.4617	0.000164	1150.9786	8.091E+09	27.4789
5320.6196	0.000						

273.600	-0.0239	40727.	-1944.6519	0.000191	930.5805	8.091E+09	27.0252
5420.3741	0.000						
278.400	-0.0230	31704.	-1789.8447	0.000212	724.4098	8.091E+09	37.4778
7835.7496	0.000						
283.200	-0.0219	23544.	-1612.0938	0.000229	537.9694	8.091E+09	36.5850
8020.9090	0.000						
288.000	-0.0208	16227.	-1439.1013	0.000241	370.7892	8.091E+09	35.4953
8206.0317	0.000						
292.800	-0.0196	9728.7005	-1271.7432	0.000248	222.2956	8.091E+09	34.2373
8391.1041	0.000						
297.600	-0.0184	4018.7461	-1110.7609	0.000252	91.8262	8.091E+09	32.8387
8576.1171	0.000						
302.400	-0.0172	-934.6039	-956.7651	0.000253	21.3552	8.091E+09	31.3262
8761.0660	0.000						
307.200	-0.0159	-5166.1987	-810.2432	0.000251	118.0449	8.091E+09	29.7246
8945.9487	0.000						
312.000	-0.0147	-8712.9385	-671.5673	0.000247	199.0860	8.091E+09	28.0570
9130.6724	0.000						
316.800	-0.0136	-11613.	-541.0023	0.000241	265.3564	8.091E+09	26.3451
9315.3423	0.000						
321.600	-0.0124	-13907.	-418.7144	0.000234	317.7574	8.091E+09	24.6082
9499.9852	0.000						
326.400	-0.0113	-15633.	-304.7828	0.000225	357.2034	8.091E+09	22.8633
9684.5992	0.000						
331.200	-0.0103	-16832.	-199.2105	0.000215	384.6130	8.091E+09	21.1251
9869.1837	0.000						
336.000	-0.009265	-17545.	-123.4732	0.000205	400.9012	8.091E+09	10.4321
5404.6022	0.000						
340.800	-0.008306	-18018.	-75.5324	0.000195	411.6975	8.091E+09	9.5432
5515.2362	0.000						
345.600	-0.007398	-18270.	-31.8199	0.000184	417.4696	8.091E+09	8.6703
5625.8637	0.000						
350.400	-0.006541	-18323.	7.7513	0.000173	418.6773	8.091E+09	7.8177
5736.4852	0.000						
355.200	-0.005738	-18196.	43.2876	0.000162	415.7693	8.091E+09	6.9891
5847.1000	0.000						
360.000	-0.004985	-17908.	74.9123	0.000151	409.1820	8.091E+09	6.1878
5957.7094	0.000						
364.800	-0.004284	-17477.	102.7623	0.000141	399.3370	8.091E+09	5.4164
6068.3162	0.000						
369.600	-0.003633	-16921.	126.9855	0.000131	386.6405	8.091E+09	4.6766
6178.9207	0.000						
374.400	-0.003030	-16258.	147.7374	0.000121	371.4821	8.091E+09	3.9700
6289.5229	0.000						
379.200	-0.002473	-15503.	165.1789	0.000111	354.2336	8.091E+09	3.2973
6400.1231	0.000						
384.000	-0.001960	-14672.	179.4738	0.000102	335.2493	8.091E+09	2.6589
6510.7215	0.000						
388.800	-0.001489	-13780.	190.7856	9.402E-05	314.8652	8.091E+09	2.0544
6621.3184	0.000						
393.600	-0.001058	-12841.	199.2759	8.613E-05	293.3996	8.091E+09	1.4833
6731.9138	0.000						
398.400	-0.000662	-11867.	205.1023	7.880E-05	271.1531	8.091E+09	0.9444
6842.5081	0.000						

403.200	-0.000301	-10872.	208.4157	7.205E-05	248.4094	8.091E+09	0.4362
6953.1013	0.000						
408.000	2.924E-05	-9866.1430	209.3593	6.590E-05	225.4361	8.091E+09	-0.0430
7063.6936	0.000						
412.800	0.000332	-8861.7139	208.0668	6.035E-05	202.4854	8.091E+09	-0.4955
7174.2852	0.000						
417.600	0.000609	-7868.7015	204.6609	5.538E-05	179.7956	8.091E+09	-0.9236
7284.8761	0.000						
422.400	0.000863	-6896.9692	199.2523	5.100E-05	157.5920	8.091E+09	-1.3300
7395.4665	0.000						
427.200	0.001098	-5955.8796	191.9387	4.719E-05	136.0886	8.091E+09	-1.7174
7506.0565	0.000						
432.000	0.001316	-5054.3577	182.8043	4.393E-05	115.4894	8.091E+09	-2.0886
7616.6460	0.000						
436.800	0.001520	-4200.9582	171.9192	4.118E-05	95.9896	8.091E+09	-2.4468
7727.2352	0.000						
441.600	0.001712	-3403.9331	159.3393	3.892E-05	77.7780	8.091E+09	-2.7948
7837.8240	0.000						
446.400	0.001894	-2671.3009	145.1062	3.712E-05	61.0378	8.091E+09	-3.1356
7948.4124	0.000						
451.200	0.002068	-2010.9136	129.2478	3.573E-05	45.9483	8.091E+09	-3.4720
8059.0005	0.000						
456.000	0.002237	-1430.5221	111.7787	3.471E-05	32.6867	8.091E+09	-3.8067
8169.5882	0.000						
460.800	0.002401	-937.8381	92.7012	3.401E-05	21.4291	8.091E+09	-4.1422
8280.1755	0.000						
465.600	0.002563	-540.5903	72.0066	3.357E-05	12.3522	8.091E+09	-4.4806
8390.7623	0.000						
470.400	0.002724	-246.5745	49.6765	3.334E-05	5.6341	8.091E+09	-4.8237
8501.3487	0.000						
475.200	0.002883	-63.6956	25.6848	3.325E-05	1.4554	8.091E+09	-5.1729
8611.9346	0.000						
480.000	0.003043	0.000	0.000	3.323E-05	0.000	8.091E+09	-5.5291
4361.2599	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 6:

Pile-head deflection	=	1.1006781 inches
Computed slope at pile head	=	-0.0088573 radians
Maximum bending moment	=	449456. inch-lbs
Maximum shear force	=	5298.0000000 lbs
Depth of maximum bending moment	=	120.0000000 inches below pile head
Depth of maximum shear force	=	4.8000000 inches below pile head
Number of iterations	=	14
Number of zero deflection points	=	2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 7

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 6424.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.00	1.4732	4.679E-07	6424.0000	-0.0115	1.069E-08	8.091E+09	0.000	
0.000	0.000							
4.800	1.4178	30835.	6424.0000	-0.0115	704.5677	8.091E+09	0.000	
0.000	0.000							
9.600	1.3625	61670.	6424.0000	-0.0115	1409.1355	8.091E+09	0.000	
0.000	0.000							
14.400	1.3074	92506.	6419.2744	-0.0115	2113.7032	8.091E+09	-1.9690	
7.2290	0.000							
19.200	1.2525	123295.	6399.0535	-0.0114	2817.2344	8.091E+09	-6.4564	
24.7423	0.000							
24.000	1.1980	153937.	6356.6450	-0.0113	3517.3666	8.091E+09	-11.2138	
44.9288	0.000							
28.800	1.1440	184319.	6292.0849	-0.0112	4211.5952	8.091E+09	-15.6863	
65.8184	0.000							
33.600	1.0904	214341.	6208.0717	-0.0111	4897.5658	8.091E+09	-19.3192	
85.0424	0.000							
38.400	1.0375	243917.	6109.9661	-0.0110	5573.3658	8.091E+09	-21.5581	
99.7393	0.000							
43.200	0.9853	272996.	6005.7924	-0.0108	6237.8165	8.091E+09	-21.8476	
106.4377	0.000							
48.000	0.9338	301572.	5896.1448	-0.0106	6890.7654	8.091E+09	-23.8389	
122.5394	0.000							
52.800	0.8832	329599.	5768.4541	-0.0104	7531.1644	8.091E+09	-29.3656	
159.5964	0.000							
57.600	0.8335	356949.	5612.9184	-0.0102	8156.1037	8.091E+09	-35.4410	
204.0911	0.000							
62.400	0.7849	383483.	5426.9255	-0.0100	8762.3852	8.091E+09	-42.0561	
257.1955	0.000							
67.200	0.7373	409048.	5207.9371	-0.009786	9346.5261	8.091E+09	-49.1891	
320.2185	0.000							
72.000	0.6909	433479.	4953.5784	-0.009536	9904.7714	8.091E+09	-56.7938	
394.5477	0.000							
76.800	0.6458	456602.	4661.7876	-0.009272	10433.	8.091E+09	-64.7857	
481.5379	0.000							

81.600	0.6019	478233.	4331.0375	-0.008995	10927.	8.091E+09	-73.0268
582.3378	0.000						
86.400	0.5594	498180.	3960.6204	-0.008705	11383.	8.091E+09	-81.3136
697.6706	0.000						
91.200	0.5184	516255.	3550.9677	-0.008404	11796.	8.091E+09	-89.3750
827.5996	0.000						
96.000	0.4788	532270.	3103.9477	-0.008093	12162.	8.091E+09	-96.8833
971.3376	0.000						
100.800	0.4407	546052.	2623.0725	-0.007773	12477.	8.091E+09	-103.4814
1127.1607	0.000						
105.600	0.4041	557451.	2113.5454	-0.007446	12737.	8.091E+09	-108.8216
1292.4797	0.000						
110.400	0.3692	566342.	1582.1095	-0.007112	12941.	8.091E+09	-112.6101
1464.0747	0.000						
115.200	0.3359	572639.	1036.6987	-0.006775	13085.	8.091E+09	-114.6444
1638.4539	0.000						
120.000	0.3042	576295.	485.9463	-0.006434	13168.	8.091E+09	-114.8358
1812.2514	0.000						
124.800	0.2741	577304.	-61.3680	-0.006092	13191.	8.091E+09	-113.2118
1982.5722	0.000						
129.600	0.2457	575706.	-596.8398	-0.005750	13155.	8.091E+09	-109.9014
2147.2176	0.000						
134.400	0.2189	571575.	-1112.8609	-0.005409	13060.	8.091E+09	-105.1074
2304.7673	0.000						
139.200	0.1938	565022.	-1602.9022	-0.005072	12910.	8.091E+09	-99.0765
2454.5370	0.000						
144.000	0.1702	556187.	-2061.6550	-0.004740	12709.	8.091E+09	-92.0705
2596.4537	0.000						
148.800	0.1483	545230.	-2485.0526	-0.004413	12458.	8.091E+09	-84.3452
2730.8955	0.000						
153.600	0.1278	532330.	-2870.2058	-0.004093	12163.	8.091E+09	-76.1354
2858.5324	0.000						
158.400	0.1090	517676.	-3215.2852	-0.003782	11829.	8.091E+09	-67.6477
2980.1902	0.000						
163.200	0.0915	501464.	-3519.3785	-0.003479	11458.	8.091E+09	-59.0578
3096.7468	0.000						
168.000	0.0756	483890.	-3782.3446	-0.003187	11057.	8.091E+09	-50.5114
3209.0601	0.000						
172.800	0.0609	465153.	-4004.6725	-0.002906	10628.	8.091E+09	-42.1253
3317.8362	0.000						
177.600	0.0477	445445.	-4187.3522	-0.002636	10178.	8.091E+09	-33.9913
3423.4579	0.000						
182.400	0.0356	424955.	-4331.7940	-0.002377	9709.9829	8.091E+09	-26.1928
3527.4058	0.000						
187.200	0.0248	403860.	-4439.7339	-0.002132	9227.9883	8.091E+09	-18.7821
3629.9444	0.000						
192.000	0.0152	382333.	-4513.1316	-0.001898	8736.1058	8.091E+09	-11.8003
3731.3268	0.000						
196.800	0.006612	360534.	-4554.1211	-0.001678	8238.0110	8.091E+09	-5.2787
3831.7881	0.000						
201.600	-0.000928	338614.	-4564.9649	-0.001471	7737.1373	8.091E+09	0.7604
3931.5411	0.000						
206.400	-0.007505	316710.	-4548.0145	-0.001276	7236.6639	8.091E+09	6.3023
4030.7739	0.000						

211.200	-0.0132	294953.	-4505.6752	-0.001095	6739.5083	8.091E+09	11.3391
4129.6490	0.000						
216.000	-0.0180	273456.	-4440.3759	-0.000926	6248.3222	8.091E+09	15.8690
4228.3035	0.000						
220.800	-0.0221	252325.	-4354.5421	-0.000770	5765.4904	8.091E+09	19.8951
4326.8500	0.000						
225.600	-0.0254	231652.	-4250.5731	-0.000627	5293.1323	8.091E+09	23.4253
4425.3781	0.000						
230.400	-0.0281	211519.	-4130.8219	-0.000495	4833.1066	8.091E+09	26.4711
4523.9565	0.000						
235.200	-0.0302	191996.	-3997.5776	-0.000375	4387.0166	8.091E+09	29.0474
4622.6356	0.000						
240.000	-0.0317	173143.	-3853.0506	-0.000267	3956.2186	8.091E+09	31.1722
4721.4493	0.000						
244.800	-0.0327	155007.	-3699.3592	-0.000170	3541.8313	8.091E+09	32.8659
4820.4176	0.000						
249.600	-0.0333	137629.	-3538.5187	-8.302E-05	3144.7463	8.091E+09	34.1510
4919.5491	0.000						
254.400	-0.0335	121037.	-3372.4312	-6.294E-06	2765.6401	8.091E+09	35.0521
5018.8430	0.000						
259.200	-0.0334	105254.	-3202.8779	6.083E-05	2404.9872	8.091E+09	35.5951
5118.2912	0.000						
264.000	-0.0329	90290.	-3031.5119	0.000119	2063.0733	8.091E+09	35.8074
5217.8801	0.000						
268.800	-0.0322	76151.	-2859.8526	0.000168	1740.0104	8.091E+09	35.7173
5317.5926	0.000						
273.600	-0.0313	62835.	-2689.2809	0.000209	1435.7508	8.091E+09	35.3542
5417.4091	0.000						
278.400	-0.0302	50334.	-2486.0734	0.000243	1150.1036	8.091E+09	49.3156
7830.4052	0.000						
283.200	-0.0290	38969.	-2251.5145	0.000269	890.4186	8.091E+09	48.4172
8016.0514	0.000						
288.000	-0.0276	28719.	-2021.9532	0.000290	656.2230	8.091E+09	47.2333
8201.6693	0.000						
292.800	-0.0262	19558.	-1798.6688	0.000304	446.8934	8.091E+09	45.8018
8387.2298	0.000						
297.600	-0.0247	11452.	-1582.7607	0.000313	261.6763	8.091E+09	44.1599
8572.7123	0.000						
302.400	-0.0232	4363.6550	-1375.1536	0.000318	99.7072	8.091E+09	42.3431
8758.1031	0.000						
307.200	-0.0217	-1749.2902	-1176.6055	0.000319	39.9703	8.091E+09	40.3853
8943.3948	0.000						
312.000	-0.0201	-6931.7575	-987.7183	0.000316	158.3869	8.091E+09	38.3177
9128.4100	0.000						
316.800	-0.0186	-11231.	-808.9473	0.000311	256.6311	8.091E+09	36.1703
9313.3380	0.000						
321.600	-0.0172	-14698.	-640.6109	0.000303	335.8334	8.091E+09	33.9699
9498.2268	0.000						
326.400	-0.0157	-17381.	-482.9066	0.000293	397.1522	8.091E+09	31.7402
9683.0716	0.000						
331.200	-0.0144	-19334.	-335.9258	0.000282	441.7613	8.091E+09	29.5018
9867.8696	0.000						
336.000	-0.0130	-20606.	-229.9334	0.000271	470.8392	8.091E+09	14.6617
5404.3960	0.000						

340.800	-0.0118	-21541.	-162.3380	0.000258	492.1983	8.091E+09	13.5030
5515.0665	0.000						
345.600	-0.0105	-22165.	-100.2723	0.000245	506.4488	8.091E+09	12.3577
5625.7255	0.000						
350.400	-0.009399	-22504.	-43.6571	0.000232	514.1936	8.091E+09	11.2320
5736.3741	0.000						
355.200	-0.008317	-22584.	7.6155	0.000219	516.0252	8.091E+09	10.1316
5847.0102	0.000						
360.000	-0.007300	-22430.	53.6779	0.000205	512.5231	8.091E+09	9.0611
5957.6359	0.000						
364.800	-0.006347	-22068.	94.6833	0.000192	504.2507	8.091E+09	8.0245
6068.2572	0.000						
369.600	-0.005457	-21521.	130.8017	0.000179	491.7538	8.091E+09	7.0248
6178.8742	0.000						
374.400	-0.004628	-20813.	162.2161	0.000167	475.5587	8.091E+09	6.0645
6289.4872	0.000						
379.200	-0.003859	-19964.	189.1186	0.000154	456.1709	8.091E+09	5.1449
6400.0966	0.000						
384.000	-0.003146	-18997.	211.7072	0.000143	434.0746	8.091E+09	4.2670
6510.7025	0.000						
388.800	-0.002487	-17932.	230.1820	0.000132	409.7319	8.091E+09	3.4309
6621.3055	0.000						
393.600	-0.001879	-16787.	244.7424	0.000122	383.5831	8.091E+09	2.6360
6731.9057	0.000						
398.400	-0.001320	-15582.	255.5836	0.000112	356.0465	8.091E+09	1.8812
6842.5035	0.000						
403.200	-0.000804	-14334.	262.8944	0.000103	327.5196	8.091E+09	1.1649
6953.0993	0.000						
408.000	-0.000330	-13058.	266.8542	9.501E-05	298.3794	8.091E+09	0.4850
7063.6932	0.000						
412.800	0.000108	-11772.	267.6312	8.765E-05	268.9838	8.091E+09	-0.1613
7174.2856	0.000						
417.600	0.000512	-10489.	265.3798	8.104E-05	239.6732	8.091E+09	-0.7768
7284.8766	0.000						
422.400	0.000886	-9224.3520	260.2397	7.519E-05	210.7715	8.091E+09	-1.3649
7395.4664	0.000						
427.200	0.001234	-7990.9252	252.3338	7.009E-05	182.5883	8.091E+09	-1.9292
7506.0551	0.000						
432.000	0.001559	-6801.9471	241.7676	6.570E-05	155.4208	8.091E+09	-2.4734
7616.6429	0.000						
436.800	0.001864	-5669.9563	228.6281	6.200E-05	129.5555	8.091E+09	-3.0014
7727.2299	0.000						
441.600	0.002154	-4607.1178	212.9836	5.895E-05	105.2702	8.091E+09	-3.5171
7837.8160	0.000						
446.400	0.002430	-3625.3137	194.8838	5.651E-05	82.8365	8.091E+09	-4.0245
7948.4013	0.000						
451.200	0.002696	-2736.2331	174.3599	5.462E-05	62.5215	8.091E+09	-4.5272
8058.9857	0.000						
456.000	0.002955	-1951.4590	151.4252	5.323E-05	44.5898	8.091E+09	-5.0289
8169.5693	0.000						
460.800	0.003207	-1282.5514	126.0766	5.227E-05	29.3056	8.091E+09	-5.5330
8280.1519	0.000						
465.600	0.003457	-741.1236	98.2960	5.167E-05	16.9343	8.091E+09	-6.0423
8390.7335	0.000						

470.400	0.003704	-338.9102	68.0520	5.135E-05	7.7439	8.091E+09	-6.5593
8501.3140	0.000						
475.200	0.003950	-87.8240	35.3031	5.123E-05	2.0067	8.091E+09	-7.0860
8611.8933	0.000						
480.000	0.004195	0.000	0.000	5.120E-05	0.000	8.091E+09	-7.6236
4361.2357	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 7:

Pile-head deflection	=	1.4731948 inches
Computed slope at pile head	=	-0.0115382 radians
Maximum bending moment	=	577304. inch-lbs
Maximum shear force	=	6424.0000000 lbs
Depth of maximum bending moment	=	124.8000000 inches below pile head
Depth of maximum shear force	=	0.0000000 inches below pile head
Number of iterations	=	16
Number of zero deflection points	=	2

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 8

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head	=	8236.000 lbs
Applied moment at pile head	=	0.000 in-lbs
Axial thrust load on pile head	=	0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	-1.560E-07	8236.0000	-0.0164	3.563E-09	8.091E+09	0.000	
4.800	0.000	39533.	8236.0000	-0.0164	903.3032	8.091E+09	0.000	
9.600	0.000	79066.	8236.0000	-0.0163	1806.6065	8.091E+09	0.000	
14.400	0.000	118598.	8231.2744	-0.0163	2709.9097	8.091E+09	-1.9690	
4.8648	0.000							

19.200	1.8648	158086.	8211.0533	-0.0162	3612.1763	8.091E+09	-6.4565
16.6188	0.000						
24.000	1.7873	197425.	8168.6438	-0.0161	4511.0439	8.091E+09	-11.2141
30.1163	0.000						
28.800	1.7104	236505.	8104.0810	-0.0160	5404.0079	8.091E+09	-15.6870
44.0233	0.000						
33.600	1.6342	275224.	8020.0635	-0.0158	6288.7133	8.091E+09	-19.3203
56.7492	0.000						
38.400	1.5587	313497.	7921.9537	-0.0156	7163.2476	8.091E+09	-21.5588
66.3905	0.000						
43.200	1.4841	351274.	7817.7778	-0.0154	8026.4322	8.091E+09	-21.8478
70.6611	0.000						
48.000	1.4105	388548.	7708.1291	-0.0152	8878.1150	8.091E+09	-23.8392
81.1233	0.000						
52.800	1.3381	425272.	7580.4343	-0.0150	9717.2476	8.091E+09	-29.3670
105.3465	0.000						
57.600	1.2668	461320.	7424.8792	-0.0147	10541.	8.091E+09	-35.4476
134.3115	0.000						
62.400	1.1969	496551.	7238.8113	-0.0144	11346.	8.091E+09	-42.0807
168.7621	0.000						
67.200	1.1283	530813.	7019.5804	-0.0141	12129.	8.091E+09	-49.2655
209.5758	0.000						
72.000	1.0613	563939.	6764.5459	-0.0138	12886.	8.091E+09	-56.9989
257.7847	0.000						
76.800	0.9959	595752.	6471.0947	-0.0135	13613.	8.091E+09	-65.2724
314.5917	0.000						
81.600	0.9322	626062.	6136.6839	-0.0131	14305.	8.091E+09	-74.0654
381.3693	0.000						
86.400	0.8703	654665.	5758.9261	-0.0127	14959.	8.091E+09	-83.3337
459.6288	0.000						
91.200	0.8102	681347.	5335.7390	-0.0123	15568.	8.091E+09	-92.9942
550.9387	0.000						
96.000	0.7521	705888.	4865.5793	-0.0119	16129.	8.091E+09	-102.9057
656.7787	0.000						
100.800	0.6960	728057.	4347.7655	-0.0115	16636.	8.091E+09	-112.8501
778.3235	0.000						
105.600	0.6419	747626.	3782.8735	-0.0110	17083.	8.091E+09	-122.5216
916.1730	0.000						
110.400	0.5900	764373.	3173.1512	-0.0106	17466.	8.091E+09	-131.5293
1070.0732	0.000						
115.200	0.5403	778089.	2522.8715	-0.0101	17779.	8.091E+09	-139.4205
1238.6999	0.000						
120.000	0.4927	788592.	1838.5216	-0.009667	18019.	8.091E+09	-145.7252
1419.5872	0.000						
124.800	0.4475	795738.	1128.7425	-0.009197	18182.	8.091E+09	-150.0160
1609.2616	0.000						
129.600	0.4044	799428.	403.9769	-0.008724	18267.	8.091E+09	-151.9696
1803.5872	0.000						
134.400	0.3637	799617.	-324.1438	-0.008249	18271.	8.091E+09	-151.4140
1998.2545	0.000						
139.200	0.3253	796316.	-1043.5747	-0.007776	18195.	8.091E+09	-148.3488
2189.2944	0.000						
144.000	0.2891	789598.	-1742.6556	-0.007305	18042.	8.091E+09	-142.9349
2373.4939	0.000						

148.800	0.2551	779587.	-2410.8026	-0.006840	17813.	8.091E+09	-135.4597
2548.6298	0.000						
153.600	0.2234	766455.	-3039.0019	-0.006381	17513.	8.091E+09	-126.2900
2713.5072	0.000						
158.400	0.1939	750412.	-3620.0751	-0.005931	17147.	8.091E+09	-115.8239
2867.8415	0.000						
163.200	0.1665	731702.	-4148.7387	-0.005492	16719.	8.091E+09	-104.4526
3012.0511	0.000						
168.000	0.1411	710585.	-4621.5048	-0.005064	16236.	8.091E+09	-92.5333
3147.0259	0.000						
172.800	0.1178	687335.	-5036.4662	-0.004649	15705.	8.091E+09	-80.3673
3273.5997	0.000						
177.600	0.0965	662234.	-5392.9972	-0.004249	15132.	8.091E+09	-68.1873
3391.6210	0.000						
182.400	0.0770	635563.	-5691.6970	-0.003864	14522.	8.091E+09	-56.2710
3505.5442	0.000						
187.200	0.0594	607594.	-5934.1502	-0.003495	13883.	8.091E+09	-44.7512
3615.8469	0.000						
192.000	0.0435	578595.	-6122.5183	-0.003144	13221.	8.091E+09	-33.7355
3723.0379	0.000						
196.800	0.0292	548818.	-6259.4225	-0.002809	12540.	8.091E+09	-23.3080
3827.6276	0.000						
201.600	0.0165	518504.	-6347.8379	-0.002492	11848.	8.091E+09	-13.5318
3930.1059	0.000						
206.400	0.005301	487879.	-6390.9987	-0.002194	11148.	8.091E+09	-4.4519
4030.9265	0.000						
211.200	-0.004535	457151.	-6392.3169	-0.001914	10446.	8.091E+09	3.9026
4130.4972	0.000						
216.000	-0.0131	426513.	-6355.3135	-0.001652	9745.5819	8.091E+09	11.5155
4229.1750	0.000						
220.800	-0.0204	396140.	-6283.5601	-0.001408	9051.5787	8.091E+09	18.3817
4327.2639	0.000						
225.600	-0.0266	366190.	-6180.6313	-0.001181	8367.2526	8.091E+09	24.5053
4425.0163	0.000						
230.400	-0.0317	336806.	-6050.0644	-0.000973	7695.8273	8.091E+09	29.8976
4522.6359	0.000						
235.200	-0.0359	308110.	-5895.3268	-0.000782	7040.1417	8.091E+09	34.5764
4620.2811	0.000						
240.000	-0.0392	280210.	-5719.7888	-0.000607	6402.6588	8.091E+09	38.5644
4718.0703	0.000						
244.800	-0.0417	253200.	-5526.7008	-0.000449	5785.4783	8.091E+09	41.8889
4816.0863	0.000						
249.600	-0.0435	227154.	-5319.1744	-0.000306	5190.3503	8.091E+09	44.5804
4914.3818	0.000						
254.400	-0.0447	202136.	-5100.1665	-0.000179	4618.6917	8.091E+09	46.6728
5012.9842	0.000						
259.200	-0.0453	178193.	-4872.4663	-6.619E-05	4071.6041	8.091E+09	48.2023
5111.9001	0.000						
264.000	-0.0453	155360.	-4638.6832	3.275E-05	3549.8926	8.091E+09	49.2073
5211.1199	0.000						
268.800	-0.0449	133661.	-4401.2378	0.000118	3054.0865	8.091E+09	49.7282
5310.6218	0.000						
273.600	-0.0442	113108.	-4162.3539	0.000192	2584.4598	8.091E+09	49.8067
5410.3749	0.000						

278.400	-0.0431	93703.	-3874.3269	0.000253	2141.0540	8.091E+09	70.2045
7817.3943	0.000						
283.200	-0.0418	75915.	-3538.7192	0.000303	1734.6075	8.091E+09	69.6320
8003.9351	0.000						
288.000	-0.0402	59731.	-3206.9947	0.000344	1364.8188	8.091E+09	68.5865
8190.5422	0.000						
292.800	-0.0385	45127.	-2881.2933	0.000375	1031.1376	8.091E+09	67.1224
8377.1391	0.000						
297.600	-0.0366	32070.	-2563.4947	0.000398	732.7932	8.091E+09	65.2937
8563.6667	0.000						
302.400	-0.0346	20518.	-2255.2228	0.000413	468.8227	8.091E+09	63.1529
8750.0808	0.000						
307.200	-0.0326	10420.	-1957.8544	0.000422	238.0991	8.091E+09	60.7506
8936.3511	0.000						
312.000	-0.0306	1722.4846	-1672.5360	0.000426	39.3578	8.091E+09	58.1321
9122.0569	0.000						
316.800	-0.0285	-5636.0066	-1400.1907	0.000425	128.7797	8.091E+09	55.3451
9307.6082	0.000						
321.600	-0.0265	-11719.	-1141.5271	0.000420	267.7808	8.091E+09	52.4314
9493.1094	0.000						
326.400	-0.0245	-16595.	-897.0655	0.000411	379.1792	8.091E+09	49.4276
9678.5448	0.000						
331.200	-0.0226	-20331.	-667.1603	0.000400	464.5564	8.091E+09	46.3662
9863.9032	0.000						
336.000	-0.0207	-22999.	-500.0324	0.000387	525.5240	8.091E+09	23.2704
5403.7614	0.000						
340.800	-0.0188	-25131.	-392.2273	0.000373	574.2410	8.091E+09	21.6484
5514.5339	0.000						
345.600	-0.0171	-26765.	-292.2087	0.000358	611.5610	8.091E+09	20.0260
5625.2830	0.000						
350.400	-0.0154	-27937.	-199.9540	0.000342	638.3383	8.091E+09	18.4135
5736.0103	0.000						
355.200	-0.0138	-28684.	-115.3927	0.000325	655.4219	8.091E+09	16.8204
5846.7092	0.000						
360.000	-0.0123	-29044.	-38.4123	0.000308	663.6503	8.091E+09	15.2548
5957.3834	0.000						
364.800	-0.0109	-29053.	31.1361	0.000290	663.8478	8.091E+09	13.7237
6068.0486	0.000						
369.600	-0.009503	-28746.	93.4321	0.000273	656.8205	8.091E+09	12.2330
6178.7048	0.000						
374.400	-0.008233	-28156.	148.6802	0.000256	643.3530	8.091E+09	10.7871
6289.3523	0.000						
379.200	-0.007042	-27318.	197.1040	0.000240	624.2067	8.091E+09	9.3895
6399.9916	0.000						
384.000	-0.005929	-26264.	238.9410	0.000224	600.1173	8.091E+09	8.0426
6510.6232	0.000						
388.800	-0.004892	-25024.	274.4371	0.000209	571.7939	8.091E+09	6.7475
6621.2477	0.000						
393.600	-0.003925	-23629.	303.8418	0.000194	539.9182	8.091E+09	5.5045
6731.8656	0.000						
398.400	-0.003025	-22108.	327.4034	0.000181	505.1447	8.091E+09	4.3129
6842.4776	0.000						
403.200	-0.002189	-20486.	345.3646	0.000168	468.1007	8.091E+09	3.1710
6953.0843	0.000						

408.000	-0.001411	-18792.	357.9583	0.000157	429.3873	8.091E+09	2.0764
7063.6862	0.000						
412.800	-0.000686	-17050.	365.4038	0.000146	389.5808	8.091E+09	1.0259
7174.2838	0.000						
417.600	-1.038E-05	-15284.	367.9038	0.000136	349.2342	8.091E+09	0.0158
7284.8776	0.000						
422.400	0.000622	-13518.	365.6412	0.000128	308.8793	8.091E+09	-0.9585
7395.4680	0.000						
427.200	0.001216	-11774.	358.7766	0.000120	269.0290	8.091E+09	-1.9017
7506.0553	0.000						
432.000	0.001777	-10074.	347.4466	0.000114	230.1799	8.091E+09	-2.8191
7616.6397	0.000						
436.800	0.002308	-8438.4894	331.7621	0.000108	192.8149	8.091E+09	-3.7161
7727.2215	0.000						
441.600	0.002816	-6888.8410	311.8072	0.000104	157.4063	8.091E+09	-4.5984
7837.8006	0.000						
446.400	0.003304	-5445.1401	287.6392	0.000100	124.4185	8.091E+09	-5.4716
7948.3772	0.000						
451.200	0.003777	-4127.5050	259.2883	9.724E-05	94.3113	8.091E+09	-6.3413
8058.9512	0.000						
456.000	0.004238	-2955.9725	226.7588	9.514E-05	67.5424	8.091E+09	-7.2127
8169.5224	0.000						
460.800	0.004690	-1950.6201	190.0305	9.369E-05	44.5706	8.091E+09	-8.0908
8280.0907	0.000						
465.600	0.005137	-1131.6800	149.0604	9.277E-05	25.8583	8.091E+09	-8.9801
8390.6560	0.000						
470.400	0.005581	-519.6407	103.7861	9.228E-05	11.8735	8.091E+09	-9.8842
8501.2179	0.000						
475.200	0.006023	-135.3337	54.1292	9.209E-05	3.0923	8.091E+09	-10.8061
8611.7763	0.000						
480.000	0.006465	0.000	0.000	9.205E-05	0.000	8.091E+09	-11.7477
4361.1654	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 8:

Pile-head deflection = 2.1781427 inches
 Computed slope at pile head = -0.0163775 radians
 Maximum bending moment = 799617. inch-lbs
 Maximum shear force = 8236.000000 lbs
 Depth of maximum bending moment = 134.400000 inches below pile head
 Depth of maximum shear force = 9.600000 inches below pile head
 Number of iterations = 18
 Number of zero deflection points = 2

 Computed Values of Pile Loading and Deflection

for Lateral Loading for Load Case Number 9

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 9780.000 lbs
 Applied moment at pile head = 0.000 in-lbs
 Axial thrust load on pile head = 0.000 lbs

Depth Distrib. X Lat. Load inches lb/inch	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in ²	Soil Res. p lb/in	Soil Spr. Es*h lb/inch
0.000	0.000	4.679E-07	9780.0000	-0.0210	1.069E-08	8.091E+09	0.000	
4.800	0.000	46944.	9780.0000	-0.0210	1072.6452	8.091E+09	0.000	
9.600	0.000	93888.	9780.0000	-0.0209	2145.2903	8.091E+09	0.000	
14.400	0.000	140832.	9775.2744	-0.0209	3217.9355	8.091E+09	-1.9690	
19.200	0.000	187731.	9755.0533	-0.0208	4289.5441	8.091E+09	-6.4565	
24.000	0.000	234481.	9712.6439	-0.0206	5357.7536	8.091E+09	-11.2141	
28.800	0.000	280972.	9648.0811	-0.0205	6420.0595	8.091E+09	-15.6870	
33.600	0.000	327102.	9564.0637	-0.0203	7474.1069	8.091E+09	-19.3202	
38.400	0.000	372787.	9465.9540	-0.0201	8517.9831	8.091E+09	-21.5588	
43.200	0.000	417975.	9361.7782	-0.0199	9550.5097	8.091E+09	-21.8478	
48.000	0.000	462660.	9252.1296	-0.0196	10572.	8.091E+09	-23.8391	
52.800	0.000	506796.	9124.4349	-0.0193	11580.	8.091E+09	-29.3670	
57.600	0.000	550255.	8968.8799	-0.0190	12573.	8.091E+09	-35.4476	
62.400	0.000	592897.	8782.8112	-0.0187	13547.	8.091E+09	-42.0810	
67.200	0.000	634570.	8563.5756	-0.0183	14500.	8.091E+09	-49.2672	
72.000	0.000	675107.	8308.5201	-0.0179	15426.	8.091E+09	-57.0059	
76.800	0.000	714331.	8014.9936	-0.0175	16322.	8.091E+09	-65.2968	
81.600	0.000	752051.	7680.3507	-0.0171	17184.	8.091E+09	-74.1377	
278.5248	0.000							

86.400	1.1968	788063.	7301.9650	-0.0166	18007.	8.091E+09	-83.5230
334.9805	0.000						
91.200	1.1182	822150.	6877.2594	-0.0161	18786.	8.091E+09	-93.4377
401.0865	0.000						
96.000	1.0420	854085.	6403.7733	-0.0156	19515.	8.091E+09	-103.8482
478.4011	0.000						
100.800	0.9681	883626.	5879.2878	-0.0151	20190.	8.091E+09	-114.6874
568.6254	0.000						
105.600	0.8968	910526.	5302.0372	-0.0146	20805.	8.091E+09	-125.8337
673.4999	0.000						
110.400	0.8281	934526.	4671.0271	-0.0140	21353.	8.091E+09	-137.0872
794.6223	0.000						
115.200	0.7620	955368.	3986.4605	-0.0135	21830.	8.091E+09	-148.1489
933.1838	0.000						
120.000	0.6987	972796.	3250.2405	-0.0129	22228.	8.091E+09	-158.6095
1089.6442	0.000						
124.800	0.6381	986570.	2466.4738	-0.0123	22543.	8.091E+09	-167.9600
1263.4047	0.000						
129.600	0.5804	996474.	1641.8598	-0.0117	22769.	8.091E+09	-175.6292
1452.5712	0.000						
134.400	0.5254	1002332.	785.8327	-0.0111	22903.	8.091E+09	-181.0487
1653.9091	0.000						
139.200	0.4734	1004018.	-89.6477	-0.0105	22941.	8.091E+09	-183.7348
1863.0620	0.000						
144.000	0.4242	1001471.	-970.6897	-0.009955	22883.	8.091E+09	-183.3660
2075.0265	0.000						
148.800	0.3778	994699.	-1842.3749	-0.009363	22728.	8.091E+09	-179.8362
2284.7816	0.000						
153.600	0.3343	983784.	-2689.8187	-0.008776	22479.	8.091E+09	-173.2654
2487.9114	0.000						
158.400	0.2936	968877.	-3499.1872	-0.008196	22138.	8.091E+09	-163.9714
2681.0657	0.000						
163.200	0.2556	950192.	-4258.5038	-0.007627	21711.	8.091E+09	-152.4105
2862.1711	0.000						
168.000	0.2203	927995.	-4958.1507	-0.007070	21204.	8.091E+09	-139.1090
3030.3960	0.000						
172.800	0.1877	902594.	-5590.9848	-0.006527	20624.	8.091E+09	-124.5718
3185.1875	0.000						
177.600	0.1577	874322.	-6152.0055	-0.006000	19978.	8.091E+09	-109.1868
3323.7651	0.000						
182.400	0.1301	843535.	-6638.8659	-0.005490	19274.	8.091E+09	-93.6717
3455.2896	0.000						
187.200	0.1050	810589.	-7051.5894	-0.005000	18522.	8.091E+09	-78.2965
3580.1855	0.000						
192.000	0.0821	775839.	-7391.3998	-0.004529	17728.	8.091E+09	-63.2912
3699.0737	0.000						
196.800	0.0615	739631.	-7660.5242	-0.004080	16900.	8.091E+09	-48.8440
3812.6945	0.000						
201.600	0.0430	702298.	-7861.9964	-0.003652	16047.	8.091E+09	-35.1027
3921.8407	0.000						
206.400	0.0264	664156.	-7999.4698	-0.003247	15176.	8.091E+09	-22.1779
4027.3048	0.000						
211.200	0.0118	625503.	-8077.0518	-0.002864	14292.	8.091E+09	-10.1479
4129.8406	0.000						

216.000	-0.001063	586617.	-8099.1592	-0.002505	13404.	8.091E+09	0.9365
4230.1376	0.000						
220.800	-0.0122	547751.	-8070.3990	-0.002168	12516.	8.091E+09	11.0469
4328.8055	0.000						
225.600	-0.0219	509141.	-7995.4698	-0.001855	11634.	8.091E+09	20.1736
4426.3684	0.000						
230.400	-0.0301	470995.	-7879.0832	-0.001564	10762.	8.091E+09	28.3209
4523.2636	0.000						
235.200	-0.0369	433502.	-7725.9010	-0.001296	9905.2785	8.091E+09	35.5050
4619.8453	0.000						
240.000	-0.0425	396826.	-7540.4868	-0.001049	9067.2674	8.091E+09	41.7509
4716.3913	0.000						
244.800	-0.0470	361113.	-7327.2665	-0.000824	8251.2362	8.091E+09	47.0908
4813.1104	0.000						
249.600	-0.0504	326485.	-7090.4985	-0.000620	7459.9961	8.091E+09	51.5625
4910.1510	0.000						
254.400	-0.0529	293044.	-6834.2489	-0.000437	6695.9011	8.091E+09	55.2082
5007.6099	0.000						
259.200	-0.0546	260876.	-6562.3724	-0.000272	5960.8705	8.091E+09	58.0737
5105.5408	0.000						
264.000	-0.0555	230045.	-6278.4958	-0.000127	5256.4129	8.091E+09	60.2082
5203.9618	0.000						
268.800	-0.0558	200602.	-5986.0051	9.458E-07	4583.6521	8.091E+09	61.6630
5302.8636	0.000						
273.600	-0.0555	172580.	-5688.0339	0.000112	3943.3538	8.091E+09	62.4917
5402.2153	0.000						
278.400	-0.0547	145997.	-5324.5045	0.000206	3335.9543	8.091E+09	88.9789
7801.7739	0.000						
283.200	-0.0535	121464.	-4897.0658	0.000285	2775.3979	8.091E+09	89.1206
7988.9263	0.000						
288.000	-0.0520	98985.	-4470.5777	0.000351	2261.7592	8.091E+09	88.5828
8176.3670	0.000						
292.800	-0.0502	78547.	-4048.1352	0.000404	1794.7551	8.091E+09	87.4349
8363.9519	0.000						
297.600	-0.0481	60123.	-3632.5008	0.000445	1373.7812	8.091E+09	85.7461
8551.5627	0.000						
302.400	-0.0459	43675.	-3226.1066	0.000475	997.9485	8.091E+09	83.5848
8739.1058	0.000						
307.200	-0.0436	29153.	-2831.0611	0.000497	666.1191	8.091E+09	81.0175
8926.5103	0.000						
312.000	-0.0411	16497.	-2449.1752	0.000511	376.9415	8.091E+09	78.1016
9113.0006	0.000						
316.800	-0.0387	5640.4240	-2081.9605	0.000517	128.8807	8.091E+09	74.9045
9299.2796	0.000						
321.600	-0.0362	-3490.0870	-1730.6299	0.000518	79.7466	8.091E+09	71.4833
9485.5273	0.000						
326.400	-0.0337	-10974.	-1396.1380	0.000514	250.7414	8.091E+09	67.8884
9671.7094	0.000						
331.200	-0.0312	-16893.	-1079.2107	0.000505	385.9962	8.091E+09	64.1646
9857.7997	0.000						
336.000	-0.0288	-21334.	-847.3018	0.000494	487.4715	8.091E+09	32.4641
5402.7655	0.000						
340.800	-0.0265	-25027.	-696.3265	0.000480	571.8560	8.091E+09	30.4422
5513.6817	0.000						

345.600	-0.0242	-28019.	-555.1158	0.000464	640.2141	8.091E+09	28.3956
5624.5606	0.000						
350.400	-0.0220	-30356.	-423.7523	0.000447	693.6233	8.091E+09	26.3392
5735.4042	0.000						
355.200	-0.0199	-32087.	-302.2499	0.000429	733.1662	8.091E+09	24.2868
5846.1966	0.000						
360.000	-0.0179	-33258.	-190.5601	0.000409	759.9233	8.091E+09	22.2506
5956.9434	0.000						
364.800	-0.0160	-33916.	-88.5798	0.000389	774.9665	8.091E+09	20.2412
6067.6759	0.000						
369.600	-0.0142	-34108.	3.8415	0.000369	779.3537	8.091E+09	18.2676
6178.3937	0.000						
374.400	-0.0125	-33879.	86.8934	0.000349	774.1238	8.091E+09	16.3373
6289.0970	0.000						
379.200	-0.0108	-33274.	160.7978	0.000329	760.2932	8.091E+09	14.4562
6399.7861	0.000						
384.000	-0.009311	-32336.	225.8009	0.000310	738.8521	8.091E+09	12.6284
6510.4615	0.000						
388.800	-0.007871	-31106.	282.1662	0.000291	710.7627	8.091E+09	10.8571
6621.1239	0.000						
393.600	-0.006520	-29627.	330.1677	0.000273	676.9576	8.091E+09	9.1435
6731.7741	0.000						
398.400	-0.005253	-27937.	370.0833	0.000256	638.3388	8.091E+09	7.4880
6842.4132	0.000						
403.200	-0.004066	-26074.	402.1885	0.000240	595.7780	8.091E+09	5.8892
6953.0418	0.000						
408.000	-0.002953	-24076.	426.7505	0.000225	550.1168	8.091E+09	4.3450
7063.6610	0.000						
412.800	-0.001908	-21977.	444.0231	0.000211	502.1682	8.091E+09	2.8519
7174.2715	0.000						
417.600	-0.000926	-19813.	454.2415	0.000199	452.7182	8.091E+09	1.4057
7284.8742	0.000						
422.400	-7.617E-07	-17617.	457.6180	0.000188	402.5281	8.091E+09	0.001174
7395.4696	0.000						
427.200	0.000875	-15420.	454.3386	0.000178	352.3375	8.091E+09	-1.3676
7506.0583	0.000						
432.000	0.001706	-13255.	444.5598	0.000169	302.8668	8.091E+09	-2.7070
7616.6408	0.000						
436.800	0.002500	-11152.	428.4058	0.000162	254.8211	8.091E+09	-4.0239
7727.2173	0.000						
441.600	0.003261	-9142.1788	405.9672	0.000156	208.8939	8.091E+09	-5.3255
7837.7880	0.000						
446.400	0.003997	-7254.8862	377.3000	0.000151	165.7702	8.091E+09	-6.6191
7948.3529	0.000						
451.200	0.004712	-5520.0988	342.4253	0.000147	126.1313	8.091E+09	-7.9120
8058.9119	0.000						
456.000	0.005412	-3967.6035	301.3301	0.000145	90.6576	8.091E+09	-9.2110
8169.4648	0.000						
460.800	0.006100	-2627.3296	253.9691	0.000143	60.0331	8.091E+09	-10.5227
8280.0113	0.000						
465.600	0.006781	-1529.4999	200.2671	0.000141	34.9483	8.091E+09	-11.8531
8390.5509	0.000						
470.400	0.007457	-704.7655	140.1227	0.000141	16.1035	8.091E+09	-13.2071
8501.0831	0.000						

475.200	0.008131	-184.3222	73.4131	0.000140	4.2117	8.091E+09	-14.5886
8611.6074	0.000						
480.000	0.008805	0.000	0.000	0.000140	0.000	8.091E+09	-16.0002
4361.0616	0.000						

* The above values of total stress are combined axial and bending stress.

Output Verification: Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 9:

Pile-head deflection = 2.8828211 inches
 Computed slope at pile head = -0.0209907 radians
 Maximum bending moment = 1004018. inch-lbs
 Maximum shear force = 9780.0000001 lbs
 Depth of maximum bending moment = 139.2000000 inches below pile head
 Depth of maximum shear force = 9.6000000 inches below pile head
 Number of iterations = 20
 Number of zero deflection points = 2

 Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
 Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
 Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
 Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
 Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case No.	Load Type No.	Pile-head Condition 1 Pile-head V(lbs) or Rotation y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Pile-head Deflection in-lbs	Maximum Moment lbs
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1	1	V = 572.0000	M = 0.000	0.0000000	0.07878183		36879.
572.0000		-0.00070053					
2	1	V = 1602.0000	M = 0.000	0.0000000	0.23288973		107295.
1602.0000		-0.00204591					
3	1	V = 2213.0000	M = 0.000	0.0000000	0.33864548		153756.
2213.0000		-0.00294035					

4	1	V = 3442.0000	M =	0.000	0.0000000	0.59587538	260210.
3442.0000		-0.00502477					
5	1	V = 4512.0000	M =	0.000	0.0000000	0.87019496	365750.
4512.0000		-0.00714129					
6	1	V = 5298.0000	M =	0.000	0.0000000	1.10067813	449456.
5298.0000		-0.00885728					
7	1	V = 6424.0000	M =	0.000	0.0000000	1.47319478	577304.
6424.0000		-0.01153819					
8	1	V = 8236.0000	M =	0.000	0.0000000	2.17814267	799617.
8236.0000		-0.01637751					
9	1	V = 9780.0000	M =	0.000	0.0000000	2.88282105	1004018.
9780.0000		-0.02099073					

The analysis ended normally.