

## Project Summary

File Name: Slope Stability Analysis.slmd  
 Slide2 Modeler Version: 9.038  
 Project Title: Sundown Condos Phase 2  
 Author: JAM  
 Company: AMMTEC Consultants, PLLC.  
 Date Created: 4/29/2025, 10:26:18 AM

### Currently Open Scenarios

| Group Name                                                                                                      | Scenario Name   | Global Minimum    | Compute Time    |
|-----------------------------------------------------------------------------------------------------------------|-----------------|-------------------|-----------------|
| Walls 1 and 5b Static          | Master Scenario | Spencer: 1.546170 | 00h:00m:02.77s  |
| Walls 1 and 5b Seismic         | Master Scenario | Spencer: 1.118860 | 00h:00m:03.574s |
| Wall 2 Static                  | Master Scenario | Spencer: 2.923670 | 00h:00m:01.505s |
| Wall 2 Seismic                 | Master Scenario | Spencer: 2.061630 | 00h:00m:01.818s |
| Wall 3 Static                  | Master Scenario | Spencer: 1.795230 | 00h:00m:01.845s |
| Wall 3 Seismic                 | Master Scenario | Spencer: 1.347990 | 00h:00m:03.208s |
| Wall 4 Static                 | Master Scenario | Spencer: 2.468560 | 00h:00m:01.250s |
| Wall 4 Seismic               | Master Scenario | Spencer: 1.729510 | 00h:00m:01.583s |
| Walls 5a and 6 Static        | Master Scenario | Spencer: 1.414540 | 00h:00m:01.459s |
| Walls 5a and 6 Seismic       | Master Scenario | Spencer: 1.080310 | 00h:00m:02.462s |
| Wall 7 Static                | Master Scenario | Spencer: 2.202750 | 00h:00m:01.77s  |
| Wall 7 Seismic               | Master Scenario | Spencer: 2.253550 | 00h:00m:02.44s  |
| Wall 8 Static                | Master Scenario | Spencer: 2.419700 | 00h:00m:01.122s |
| Wall 8 Seismic               | Master Scenario | Spencer: 1.713700 | 00h:00m:01.591s |
| Walls 9, 10, and 12a Static  | Master Scenario | Spencer: 1.386350 | 00h:00m:01.487s |
| Walls 9,10, and 12a Seismic  | Master Scenario | Spencer: 1.056600 | 00h:00m:02.779s |
| Walls 11 and 12b Static      | Master Scenario | Spencer: 1.471330 | 00h:00m:01.499s |
| Walls 11 and 12b Seismic     | Master Scenario | Spencer: 1.177750 | 00h:00m:03.348s |

## Seismic Loading

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### ◆ Walls 1 and 5b Static

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

### ◆ Walls 1 and 5b Seismic

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

### ◆ Wall 2 Static

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

### ◆ Wall 2 Seismic

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

### ◆ Wall 3 Static

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

### ◆ Wall 3 Seismic

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

### ◆ Wall 4 Static

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

### ◆ Wall 4 Seismic

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

### ◆ Walls 5a and 6 Static

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

### ◆ Walls 5a and 6 Seismic

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |



 **Wall 7 Static**

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

 **Wall 7 Seismic**

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

 **Wall 8 Static**

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

 **Wall 8 Seismic**

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

 **Walls 9, 10, and 12a Static**

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

 **Walls 9,10, and 12a Seismic**

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

 **Walls 11 and 12b Static**

|                               |    |
|-------------------------------|----|
| Advanced seismic analysis:    | No |
| Staged pseudostatic analysis: | No |

 **Walls 11 and 12b Seismic**

|                                        |       |
|----------------------------------------|-------|
| Advanced seismic analysis:             | No    |
| Staged pseudostatic analysis:          | No    |
| Seismic Load Coefficient (Horizontal): | 0.224 |

## Materials

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### Mass Wasting Colluvium

|               |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|
| Color         |  |
| Strength Type | Mohr-Coulomb                                                                      |
| Unit Weight   | 120 lbs/ft <sup>3</sup>                                                           |
| Cohesion      | 100 psf                                                                           |
| Phi           | 38 °                                                                              |
| Water Surface | Assigned per scenario                                                             |
| Ru Value      | 0                                                                                 |

### Gravel

|               |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|
| Color         |  |
| Strength Type | Mohr-Coulomb                                                                      |
| Unit Weight   | 135 lbs/ft <sup>3</sup>                                                           |
| Cohesion      | 0 psf                                                                             |
| Phi           | 40 °                                                                              |
| Water Surface | Assigned per scenario                                                             |
| Ru Value      | 0                                                                                 |

### Verti-Block

|               |                                                                                     |
|---------------|-------------------------------------------------------------------------------------|
| Color         |  |
| Strength Type | Mohr-Coulomb                                                                        |
| Unit Weight   | 120 lbs/ft <sup>3</sup>                                                             |
| Cohesion      | 3000 psf                                                                            |
| Phi           | 0 °                                                                                 |
| Water Surface | Assigned per scenario                                                               |
| Ru Value      | 0                                                                                   |

### Reinforced Fill

|               |                                                                                     |
|---------------|-------------------------------------------------------------------------------------|
| Color         |  |
| Strength Type | Mohr-Coulomb                                                                        |
| Unit Weight   | 120 lbs/ft <sup>3</sup>                                                             |
| Cohesion      | 135 psf                                                                             |
| Phi           | 38 °                                                                                |
| Water Surface | Assigned per scenario                                                               |
| Ru Value      | 0                                                                                   |

## Materials In Use

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| Material   | Wals 1 and 5b Stat ic | Wals 1 and 5b Seis mic | Wal I 2 Stat ic | Wal I 2 Seis mic | Wal I 3 Stat ic | Wal I 3 Seis mic | Wal I 4 Stat ic | Wal I 4 Seis mic | Wals 5a and 6 Stat ic | Wals 5a and 6 Seis mic | Wal I 7 Stat ic | Wal I 7 Seis mic | Wal I 8 Stat ic | Wal I 8 Seis mic | Wals 9, 10, and 12a Stat ic | Wals 9, 10, and 12a Seis mic | Wal Is 11 and 12b Stat ic | Wal Is 11 and 12b Seis mic |
|------------|-----------------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------------------|------------------------------|---------------------------|----------------------------|
| Mass Collu | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓               | ✓                | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓                           | ✓                            | ✓                         | ✓                          |
| Grave      | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓               | ✓                | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓                           | ✓                            | ✓                         | ✓                          |
| Verti      | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓               | ✓                | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓                           | ✓                            | ✓                         | ✓                          |
| Reinf      | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓               | ✓                | ✓                     | ✓                      | ✓               | ✓                | ✓               | ✓                | ✓                           | ✓                            | ✓                         | ✓                          |

## Support

### Mirafi 5XT

|                                            |                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------|
| Color                                      |  |
| Type                                       | Geosynthetic                                                                      |
| Force Application                          | Passive (Method B)                                                                |
| Force Orientation                          | Bisector of Parallel and Tangent                                                  |
| Selected Manufacturer                      | ACEGrid GG60-I                                                                    |
| Ultimate Tensile Strength                  | 4111 lbs/ft                                                                       |
| Creep Reduction Factor (RFcr)              | 1.44                                                                              |
| Installation Damage Factor (RFid)          | 1.05                                                                              |
| Deterioration in Service Factor (RFd)      | 1.1                                                                               |
| Factor of Safety (Fr)                      | 1.1                                                                               |
| Strip Coverage (%)                         | 100                                                                               |
| Long Term Design Strength                  | 2471.93 lbs/ft                                                                    |
| Anchorage                                  | None                                                                              |
| Input Type                                 | Friction Angle & Adhesion                                                         |
| Shear Strength Model                       | Linear                                                                            |
| Adhesion                                   | 0 psf                                                                             |
| Friction Angle                             | 34 °                                                                              |
| Material Dependent                         | No                                                                                |
| Use External Loads in Strength Computation | Yes                                                                               |
| Consider Sliding Along Interface           | No                                                                                |

### Mirafi 8XT

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| Color                                      |  |
| Type                                       | Geosynthetic                                                                        |
| Force Application                          | Passive (Method B)                                                                  |
| Force Orientation                          | Bisector of Parallel and Tangent                                                    |
| Selected Manufacturer                      | ACEGrid GG120-I                                                                     |
| Ultimate Tensile Strength                  | 8223 lbs/ft                                                                         |
| Creep Reduction Factor (RFcr)              | 1.43                                                                                |
| Installation Damage Factor (RFid)          | 1                                                                                   |
| Deterioration in Service Factor (RFd)      | 1.1                                                                                 |
| Factor of Safety (Fr)                      | 1.05                                                                                |
| Strip Coverage (%)                         | 100                                                                                 |
| Long Term Design Strength                  | 5227.34 lbs/ft                                                                      |
| Anchorage                                  | None                                                                                |
| Input Type                                 | Friction Angle & Adhesion                                                           |
| Shear Strength Model                       | Linear                                                                              |
| Adhesion                                   | 0 psf                                                                               |
| Friction Angle                             | 34 °                                                                                |
| Material Dependent                         | No                                                                                  |
| Use External Loads in Strength Computation | Yes                                                                                 |
| Consider Sliding Along Interface           | No                                                                                  |



## Global Minimums

### ◆ Walls 1 and 5b Static

Method: spencer

|                                   | FS                     | 1.546170 |
|-----------------------------------|------------------------|----------|
| Center:                           | -22.056, 87.825        |          |
| Radius:                           | 92.721                 |          |
| Left Slip Surface Endpoint:       | 12.536, 1.800          |          |
| Right Slip Surface Endpoint:      | 63.478, 52.035         |          |
| Resisting Moment:                 | 1.39152e+07 lb-ft      |          |
| Driving Moment:                   | 8.9998e+06 lb-ft       |          |
| Resisting Horizontal Force:       | 124723 lb              |          |
| Driving Horizontal Force:         | 80665.5 lb             |          |
| Passive Support Moment:           | 2.90639e+06 lb-ft      |          |
| Passive Horizontal Support Force: | 31331.4 lb             |          |
| Maximum Single Support Force:     | 5227.34 lb             |          |
| Total Support Force:              | 32589.3 lb             |          |
| Total Slice Area:                 | 1313.3 ft <sup>2</sup> |          |
| Surface Horizontal Width:         | 50.9421 ft             |          |
| Surface Average Height:           | 25.7802 ft             |          |

### ◆ Walls 1 and 5b Seismic

Method: spencer

|                                   | FS                      | 1.118860 |
|-----------------------------------|-------------------------|----------|
| Center:                           | -44.809, 142.390        |          |
| Radius:                           | 151.847                 |          |
| Left Slip Surface Endpoint:       | 12.535, 1.788           |          |
| Right Slip Surface Endpoint:      | 77.229, 52.035          |          |
| Resisting Moment:                 | 2.37236e+07 lb-ft       |          |
| Driving Moment:                   | 2.12034e+07 lb-ft       |          |
| Resisting Horizontal Force:       | 136508 lb               |          |
| Driving Horizontal Force:         | 122006 lb               |          |
| Passive Support Moment:           | 4.04033e+06 lb-ft       |          |
| Passive Horizontal Support Force: | 26594.8 lb              |          |
| Maximum Single Support Force:     | 5227.34 lb              |          |
| Total Support Force:              | 27402.5 lb              |          |
| Total Slice Area:                 | 1622.45 ft <sup>2</sup> |          |
| Surface Horizontal Width:         | 64.6942 ft              |          |
| Surface Average Height:           | 25.0788 ft              |          |

### ◆ Wall 2 Static

Method: spencer

| FS                           | 2.923670                |
|------------------------------|-------------------------|
| Center:                      | 26.072, 10.895          |
| Radius:                      | 6.859                   |
| Left Slip Surface Endpoint:  | 21.973, 5.395           |
| Right Slip Surface Endpoint: | 32.931, 10.895          |
| Resisting Moment:            | 35190.2 lb-ft           |
| Driving Moment:              | 12036.3 lb-ft           |
| Resisting Horizontal Force:  | 4166.13 lb              |
| Driving Horizontal Force:    | 1424.97 lb              |
| Total Slice Area:            | 37.2529 ft <sup>2</sup> |
| Surface Horizontal Width:    | 10.9581 ft              |
| Surface Average Height:      | 3.39957 ft              |

### ◆ Wall 2 Seismic

Method: spencer

| FS                           | 2.061630                |
|------------------------------|-------------------------|
| Center:                      | 26.037, 16.725          |
| Radius:                      | 12.313                  |
| Left Slip Surface Endpoint:  | 21.216, 5.395           |
| Right Slip Surface Endpoint: | 36.882, 10.895          |
| Resisting Moment:            | 75136.4 lb-ft           |
| Driving Moment:              | 36445.1 lb-ft           |
| Resisting Horizontal Force:  | 5496.44 lb              |
| Driving Horizontal Force:    | 2666.07 lb              |
| Total Slice Area:            | 49.6263 ft <sup>2</sup> |
| Surface Horizontal Width:    | 15.6658 ft              |
| Surface Average Height:      | 3.16782 ft              |

### ◆ Wall 3 Static

Method: spencer

| FS                                | 1.795230                |
|-----------------------------------|-------------------------|
| Center:                           | 20.568, 39.490          |
| Radius:                           | 34.114                  |
| Left Slip Surface Endpoint:       | 13.124, 6.198           |
| Right Slip Surface Endpoint:      | 54.009, 32.747          |
| Resisting Moment:                 | 1.52553e+06 lb-ft       |
| Driving Moment:                   | 849770 lb-ft            |
| Resisting Horizontal Force:       | 37829.6 lb              |
| Driving Horizontal Force:         | 21072.3 lb              |
| Passive Support Moment:           | 80186.4 lb-ft           |
| Passive Horizontal Support Force: | 2358.3 lb               |
| Maximum Single Support Force:     | 2471.93 lb              |
| Total Support Force:              | 2471.93 lb              |
| Total Slice Area:                 | 425.683 ft <sup>2</sup> |
| Surface Horizontal Width:         | 40.8846 ft              |
| Surface Average Height:           | 10.4118 ft              |

### ◆ Wall 3 Seismic

Method: spencer

| FS                                | 1.347990                |
|-----------------------------------|-------------------------|
| Center:                           | 20.515, 39.426          |
| Radius:                           | 34.040                  |
| Left Slip Surface Endpoint:       | 13.125, 6.199           |
| Right Slip Surface Endpoint:      | 53.884, 32.702          |
| Resisting Moment:                 | 1.45036e+06 lb-ft       |
| Driving Moment:                   | 1.07594e+06 lb-ft       |
| Resisting Horizontal Force:       | 37085.5 lb              |
| Driving Horizontal Force:         | 27511.6 lb              |
| Passive Support Moment:           | 87344.6 lb-ft           |
| Passive Horizontal Support Force: | 2573.93 lb              |
| Maximum Single Support Force:     | 2471.93 lb              |
| Total Support Force:              | 2702.04 lb              |
| Total Slice Area:                 | 422.834 ft <sup>2</sup> |
| Surface Horizontal Width:         | 40.7586 ft              |
| Surface Average Height:           | 10.3741 ft              |

#### ◆ Wall 4 Static

Method: spencer

| FS                           | 2.468560                |
|------------------------------|-------------------------|
| Center:                      | 9.919, 19.225           |
| Radius:                      | 12.554                  |
| Left Slip Surface Endpoint:  | 5.093, 7.636            |
| Right Slip Surface Endpoint: | 22.174, 16.505          |
| Resisting Moment:            | 105527 lb-ft            |
| Driving Moment:              | 42748.3 lb-ft           |
| Resisting Horizontal Force:  | 7136.2 lb               |
| Driving Horizontal Force:    | 2890.84 lb              |
| Total Slice Area:            | 69.3957 ft <sup>2</sup> |
| Surface Horizontal Width:    | 17.081 ft               |
| Surface Average Height:      | 4.06273 ft              |

#### ◆ Wall 4 Seismic

Method: spencer

| FS                           | 1.729510                |
|------------------------------|-------------------------|
| Center:                      | 9.779, 22.375           |
| Radius:                      | 15.656                  |
| Left Slip Surface Endpoint:  | 4.498, 7.636            |
| Right Slip Surface Endpoint: | 24.550, 17.185          |
| Resisting Moment:            | 146251 lb-ft            |
| Driving Moment:              | 84561.8 lb-ft           |
| Resisting Horizontal Force:  | 8253.91 lb              |
| Driving Horizontal Force:    | 4772.39 lb              |
| Total Slice Area:            | 81.9281 ft <sup>2</sup> |
| Surface Horizontal Width:    | 20.0516 ft              |
| Surface Average Height:      | 4.08585 ft              |

#### ◆ Walls 5a and 6 Static

Method: spencer

| FS                           | 1.414540                |
|------------------------------|-------------------------|
| Center:                      | 5.627, 61.881           |
| Radius:                      | 58.405                  |
| Left Slip Surface Endpoint:  | -8.127, 5.119           |
| Right Slip Surface Endpoint: | 63.768, 56.330          |
| Resisting Moment:            | 7.23468e+06 lb-ft       |
| Driving Moment:              | 5.1145e+06 lb-ft        |
| Resisting Horizontal Force:  | 100940 lb               |
| Driving Horizontal Force:    | 71358.8 lb              |
| Total Slice Area:            | 1355.94 ft <sup>2</sup> |
| Surface Horizontal Width:    | 71.8948 ft              |
| Surface Average Height:      | 18.86 ft                |

### ◆ Walls 5a and 6 Seismic

Method: spencer

| FS                                | 1.080310                |
|-----------------------------------|-------------------------|
| Center:                           | 4.201, 70.008           |
| Radius:                           | 65.375                  |
| Left Slip Surface Endpoint:       | -3.752, 5.119           |
| Right Slip Surface Endpoint:      | 68.424, 57.785          |
| Resisting Moment:                 | 7.8663e+06 lb-ft        |
| Driving Moment:                   | 7.28151e+06 lb-ft       |
| Resisting Horizontal Force:       | 103324 lb               |
| Driving Horizontal Force:         | 95643.2 lb              |
| Passive Support Moment:           | 172909 lb-ft            |
| Passive Horizontal Support Force: | 2643.86 lb              |
| Maximum Single Support Force:     | 2471.93 lb              |
| Total Support Force:              | 2689.06 lb              |
| Total Slice Area:                 | 1387.82 ft <sup>2</sup> |
| Surface Horizontal Width:         | 72.1755 ft              |
| Surface Average Height:           | 19.2284 ft              |

### ◆ Wall 7 Static

Method: spencer

| FS                                | 2.202750                |
|-----------------------------------|-------------------------|
| Center:                           | 1.599, 26.372           |
| Radius:                           | 22.053                  |
| Left Slip Surface Endpoint:       | -8.068, 6.551           |
| Right Slip Surface Endpoint:      | 23.652, 26.372          |
| Resisting Moment:                 | 741106 lb-ft            |
| Driving Moment:                   | 336446 lb-ft            |
| Resisting Horizontal Force:       | 28437.8 lb              |
| Driving Horizontal Force:         | 12910.1 lb              |
| Passive Support Moment:           | 52396.6 lb-ft           |
| Passive Horizontal Support Force: | 2382.9 lb               |
| Maximum Single Support Force:     | 2471.93 lb              |
| Total Support Force:              | 2471.93 lb              |
| Total Slice Area:                 | 290.601 ft <sup>2</sup> |
| Surface Horizontal Width:         | 31.7201 ft              |
| Surface Average Height:           | 9.16142 ft              |

### ◆ **Wall 7 Seismic**

**Method: spencer**

| FS                                | 2.253550                |
|-----------------------------------|-------------------------|
| Center:                           | -25.825, 60.432         |
| Radius:                           | 60.615                  |
| Left Slip Surface Endpoint:       | 2.090, 6.628            |
| Right Slip Surface Endpoint:      | 24.556, 26.729          |
| Resisting Moment:                 | 2.0166e+06 lb-ft        |
| Driving Moment:                   | 894854 lb-ft            |
| Resisting Horizontal Force:       | 29454.8 lb              |
| Driving Horizontal Force:         | 13070.4 lb              |
| Passive Support Moment:           | 655209 lb-ft            |
| Passive Horizontal Support Force: | 10810.8 lb              |
| Maximum Single Support Force:     | 2471.93 lb              |
| Total Support Force:              | 11370.4 lb              |
| Total Slice Area:                 | 160.878 ft <sup>2</sup> |
| Surface Horizontal Width:         | 22.4661 ft              |
| Surface Average Height:           | 7.1609 ft               |

### ◆ **Wall 8 Static**

**Method: spencer**

| FS                                | 2.419700                |
|-----------------------------------|-------------------------|
| Center:                           | 6.037, 23.266           |
| Radius:                           | 18.778                  |
| Left Slip Surface Endpoint:       | -2.734, 6.662           |
| Right Slip Surface Endpoint:      | 24.327, 19.012          |
| Resisting Moment:                 | 412620 lb-ft            |
| Driving Moment:                   | 170525 lb-ft            |
| Resisting Horizontal Force:       | 19128.4 lb              |
| Driving Horizontal Force:         | 7905.26 lb              |
| Passive Support Moment:           | 23.0345 lb-ft           |
| Passive Horizontal Support Force: | 1.22147 lb              |
| Maximum Single Support Force:     | 1.28562 lb              |
| Total Support Force:              | 1.28562 lb              |
| Total Slice Area:                 | 199.792 ft <sup>2</sup> |
| Surface Horizontal Width:         | 27.0606 ft              |
| Surface Average Height:           | 7.38313 ft              |

### ◆ **Wall 8 Seismic**

**Method: spencer**



| FS                           | 1.713700               |
|------------------------------|------------------------|
| Center:                      | 5.321, 26.608          |
| Radius:                      | 21.955                 |
| Left Slip Surface Endpoint:  | -3.855, 6.662          |
| Right Slip Surface Endpoint: | 25.921, 19.012         |
| Resisting Moment:            | 486269 lb-ft           |
| Driving Moment:              | 283754 lb-ft           |
| Resisting Horizontal Force:  | 19863.7 lb             |
| Driving Horizontal Force:    | 11591.2 lb             |
| Total Slice Area:            | 207.97 ft <sup>2</sup> |
| Surface Horizontal Width:    | 29.7751 ft             |
| Surface Average Height:      | 6.9847 ft              |

### ◆ Walls 9, 10, and 12a Static

Method: spencer

| FS                                | 1.386350               |
|-----------------------------------|------------------------|
| Center:                           | 8.794, 57.162          |
| Radius:                           | 53.887                 |
| Left Slip Surface Endpoint:       | 0.360, 3.939           |
| Right Slip Surface Endpoint:      | 61.691, 46.879         |
| Resisting Moment:                 | 4.56333e+06 lb-ft      |
| Driving Moment:                   | 3.29161e+06 lb-ft      |
| Resisting Horizontal Force:       | 68408.9 lb             |
| Driving Horizontal Force:         | 49344.6 lb             |
| Passive Support Moment:           | 53.2429 lb-ft          |
| Passive Horizontal Support Force: | 0.993763 lb            |
| Maximum Single Support Force:     | 1.06026 lb             |
| Total Support Force:              | 1.06026 lb             |
| Total Slice Area:                 | 920.86 ft <sup>2</sup> |
| Surface Horizontal Width:         | 61.3303 ft             |
| Surface Average Height:           | 15.0148 ft             |

### ◆ Walls 9,10, and 12a Seismic

Method: spencer

| FS                                | 1.056600               |
|-----------------------------------|------------------------|
| Center:                           | -1.719, 84.466         |
| Radius:                           | 80.545                 |
| Left Slip Surface Endpoint:       | 13.569, 5.385          |
| Right Slip Surface Endpoint:      | 69.518, 46.879         |
| Resisting Moment:                 | 6.55822e+06 lb-ft      |
| Driving Moment:                   | 6.20692e+06 lb-ft      |
| Resisting Horizontal Force:       | 69932.1 lb             |
| Driving Horizontal Force:         | 66186 lb               |
| Passive Support Moment:           | 389499 lb-ft           |
| Passive Horizontal Support Force: | 4836.15 lb             |
| Maximum Single Support Force:     | 2471.93 lb             |
| Total Support Force:              | 4952.99 lb             |
| Total Slice Area:                 | 918.79 ft <sup>2</sup> |
| Surface Horizontal Width:         | 55.9492 ft             |
| Surface Average Height:           | 16.4219 ft             |



### ◆ Walls 11 and 12b Static

**Method: spencer**

| FS                                | 1.471330                |
|-----------------------------------|-------------------------|
| Center:                           | 5.029, 53.600           |
| Radius:                           | 50.075                  |
| Left Slip Surface Endpoint:       | -10.671, 6.050          |
| Right Slip Surface Endpoint:      | 55.104, 53.600          |
| Resisting Moment:                 | 6.22691e+06 lb-ft       |
| Driving Moment:                   | 4.23216e+06 lb-ft       |
| Resisting Horizontal Force:       | 101237 lb               |
| Driving Horizontal Force:         | 68806.2 lb              |
| Passive Support Moment:           | 255698 lb-ft            |
| Passive Horizontal Support Force: | 5119.61 lb              |
| Maximum Single Support Force:     | 5227.34 lb              |
| Total Support Force:              | 5233.56 lb              |
| Total Slice Area:                 | 1289.91 ft <sup>2</sup> |
| Surface Horizontal Width:         | 65.7752 ft              |
| Surface Average Height:           | 19.6109 ft              |

### ◆ Walls 11 and 12b Seismic

**Method: spencer**

| FS                                | 1.177750               |
|-----------------------------------|------------------------|
| Center:                           | -5.444, 72.918         |
| Radius:                           | 67.104                 |
| Left Slip Surface Endpoint:       | 11.581, 8.009          |
| Right Slip Surface Endpoint:      | 58.820, 53.600         |
| Resisting Moment:                 | 7.25921e+06 lb-ft      |
| Driving Moment:                   | 6.1636e+06 lb-ft       |
| Resisting Horizontal Force:       | 93368.1 lb             |
| Driving Horizontal Force:         | 79276.4 lb             |
| Passive Support Moment:           | 1.35524e+06 lb-ft      |
| Passive Horizontal Support Force: | 20210.5 lb             |
| Maximum Single Support Force:     | 5227.34 lb             |
| Total Support Force:              | 20983.1 lb             |
| Total Slice Area:                 | 1059.4 ft <sup>2</sup> |
| Surface Horizontal Width:         | 47.2383 ft             |
| Surface Average Height:           | 22.4268 ft             |

## Global Minimum Support Data

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### ◆ Walls 1 and 5b Static

Method: spencer

Number of Supports: 23

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 12.5852,<br>2.30685 | 23          | 1.18483          | 21.8152           | 1.18483       | 21.8152       | 1225.27    |
| 12.7781,<br>4.31357 | 23          | 5.44693          | 17.5531           | 5.44693       | 17.5531       | 5227.34    |
| 12.9713,<br>6.32314 | 23          | 9.17983          | 13.8202           | 9.17983       | 13.8202       | 5227.34    |
| 13.1615,<br>8.30103 | 23          | 12.4543          | 10.5457           | 12.4543       | 10.5457       | 5227.34    |
| 13.3548,<br>10.3113 | 23          | 15.4646          | 7.53538           | 15.4646       | 7.53538       | 5227.34    |
| 13.5452,<br>12.2919 | 23          | 18.1703          | 4.82969           | 18.1703       | 4.82969       | 5227.34    |
| 13.7391,<br>14.3085 | 23          | 20.7043          | 2.29567           | 20.7043       | 2.29567       | 5227.34    |
| 13.9303,<br>16.2966 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.1221,<br>18.2917 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.3166,<br>20.3142 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.508,<br>22.3052  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.7009,<br>24.311  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 23.1496,<br>28.9807 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.3427,<br>30.9958 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.534,<br>32.9932  | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.7261,<br>34.9986 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.9173,<br>36.9943 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.1089,<br>38.9953 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.3008,<br>40.9979 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.4909,<br>42.9826 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.6838,<br>44.9962 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.8745,<br>46.9878 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.0671,<br>48.998  | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Walls 1 and 5b Seismic**

**Method: spencer**

Number of Supports: 23

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 12.5852,<br>2.30685 | 23          | 1.20576          | 21.7942           | 1.20576       | 21.7942       | 1265.78    |
| 12.7781,<br>4.31357 | 23          | 5.5977           | 17.4023           | 5.5977        | 17.4023       | 5227.34    |
| 12.9713,<br>6.32314 | 23          | 9.6201           | 13.3799           | 9.6201        | 13.3799       | 5227.34    |
| 13.1615,<br>8.30103 | 23          | 13.2836          | 9.71636           | 13.2836       | 9.71636       | 5227.34    |
| 13.3548,<br>10.3113 | 23          | 16.7524          | 6.24763           | 16.7524       | 6.24763       | 5227.34    |
| 13.5452,<br>12.2919 | 23          | 19.9494          | 3.05065           | 19.9494       | 3.05065       | 5227.34    |
| 13.7391,<br>14.3085 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 13.9303,<br>16.2966 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.1221,<br>18.2917 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.3166,<br>20.3142 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.508,<br>22.3052  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.7009,<br>24.311  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 23.1496,<br>28.9807 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.3427,<br>30.9958 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.534,<br>32.9932  | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.7261,<br>34.9986 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.9173,<br>36.9943 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.1089,<br>38.9953 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.3008,<br>40.9979 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.4909,<br>42.9826 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.6838,<br>44.9962 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.8745,<br>46.9878 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.0671,<br>48.998  | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |



◆ **Wall 2 Static**

No Supports Present

◆ **Wall 2 Seismic**

No Supports Present

◆ **Wall 3 Static**

**Method: spencer**

Number of Supports: 8

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 28.2147,<br>11.7053 | 14.5        | 12.143           | 2.35703           | 12.143        | 2.35703       | 2471.93    |
| 28.3961,<br>13.6992 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.5791,<br>15.7103 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.7603,<br>17.7014 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.9419,<br>19.697  | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.1244,<br>21.7023 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.3066,<br>23.7043 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.4892,<br>25.7107 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Wall 3 Seismic**

**Method: spencer**

Number of Supports: 8

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 28.2147,<br>11.7053 | 14.5        | 12.0508          | 2.44921           | 12.0508       | 2.44921       | 2471.93    |
| 28.3961,<br>13.6992 | 14.5        | 14.4053          | 0.094699          | 14.4053       | 0.094699      | 230.106    |
| 28.5791,<br>15.7103 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.7603,<br>17.7014 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.9419,<br>19.697  | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.1244,<br>21.7023 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.3066,<br>23.7043 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 29.4892,<br>25.7107 | 14.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

 **Wall 4 Static**

No Supports Present

 **Wall 4 Seismic**

No Supports Present

 **Walls 5a and 6 Static****Method: spencer**

Number of Supports: 16

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 11.6625,<br>7.99901 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 11.8441,<br>9.99549 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.0259,<br>11.9941 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.2089,<br>14.0055 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 22.6227,<br>19.3952 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 22.8058,<br>21.4066 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 22.9865,<br>23.3925 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.1695,<br>25.4023 | 23.0017     | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.3508,<br>27.3941 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.5343,<br>29.411  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.7147,<br>31.3922 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.8979,<br>33.4055 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.0787,<br>35.3921 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.2618,<br>37.4029 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.4431,<br>39.3954 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.6262,<br>41.4072 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Walls 5a and 6 Seismic****Method: spencer**

Number of Supports: 16

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 11.6625,<br>7.99901 | 16.5        | 13.2325          | 3.26755           | 13.2325       | 3.26755       | 2471.93    |
| 11.8441,<br>9.99549 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.0259,<br>11.9941 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.2089,<br>14.0055 | 16.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 22.6227,<br>19.3952 | 23          | 22.9571          | 0.0428811         | 22.9571       | 0.0428811     | 217.129    |
| 22.8058,<br>21.4066 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 22.9865,<br>23.3925 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.1695,<br>25.4023 | 23.0017     | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.3508,<br>27.3941 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.5343,<br>29.411  | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.7147,<br>31.3922 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 23.8979,<br>33.4055 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.0787,<br>35.3921 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.2618,<br>37.4029 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.4431,<br>39.3954 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.6262,<br>41.4072 | 23          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

 **Wall 7 Static****Method: spencer**

Number of Supports: 5

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 2.17435,<br>7.55487 | 13.5        | 10.9205          | 2.57954           | 10.9205       | 2.57954       | 2471.93    |
| 2.35564, 9.547      | 13.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 2.53849,<br>11.5564 | 13.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 2.71852,<br>13.5347 | 13.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 2.90234,<br>15.5547 | 13.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**◆ Wall 7 Seismic****Method: spencer**

Number of Supports: 5

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft) | Lo (ft) | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------|---------|------------|
| 2.17435,<br>7.55487 | 13.5        | 1.6332           | 11.8668           | 1.6332  | 11.8668 | 2111.64    |
| 2.35564, 9.547      | 13.5        | 4.75648          | 8.74352           | 4.75648 | 8.74352 | 2471.93    |
| 2.53849,<br>11.5564 | 13.5        | 7.48679          | 6.01321           | 7.48679 | 6.01321 | 2471.93    |
| 2.71852,<br>13.5347 | 13.5        | 9.85873          | 3.64127           | 9.85873 | 3.64127 | 2471.93    |
| 2.90234,<br>15.5547 | 13.5        | 12.0168          | 1.48321           | 12.0168 | 1.48321 | 1843       |

**◆ Wall 8 Static****Method: spencer**

Number of Supports: 5

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 6.46335,<br>7.99535 | 10.5        | 10.4993          | 0.000720881       | 10.4993       | 0.000720881   | 1.28562    |
| 6.64528,<br>9.99428 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 6.82813,<br>12.0033 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 7.00989,<br>14.0005 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 7.19259,<br>16.0079 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**◆ Wall 8 Seismic****Method: spencer**



Number of Supports: 5

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 6.46335,<br>7.99535 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 6.64528,<br>9.99428 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 6.82813,<br>12.0033 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 7.00989,<br>14.0005 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 7.19259,<br>16.0079 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Walls 9, 10, and 12a Static****Method: spencer**



Number of Supports: 17

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 13.6148,<br>5.88795 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 13.7982,<br>7.90293 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 13.9793,<br>9.89358 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.1616,<br>11.8968 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 27.6176,<br>16.9074 | 17          | 16.9998          | 0.000218527       | 16.9998       | 0.000218527   | 1.06026    |
| 27.7994,<br>18.9053 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 27.981, 20.901      | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.1631,<br>22.9024 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.3453,<br>24.9039 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.5272,<br>26.9031 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.7097,<br>28.9084 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.8923,<br>30.9155 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.3463,<br>35.9038 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.5288,<br>37.9095 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.7107,<br>39.9082 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.8932,<br>41.9147 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 41.0741,<br>43.9022 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Walls 9,10, and 12a Seismic**

**Method: spencer**

Number of Supports: 17

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 13.6148,<br>5.88795 | 9.5         | 2.35087          | 7.14913           | 2.35087       | 7.14913       | 2471.93    |
| 13.7982,<br>7.90293 | 9.5         | 9.49293          | 0.00707259        | 9.49293       | 0.00707259    | 9.132      |
| 13.9793,<br>9.89358 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 14.1616,<br>11.8968 | 9.5         | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 27.6176,<br>16.9074 | 17          | 14.5147          | 2.48531           | 14.5147       | 2.48531       | 2471.93    |
| 27.7994,<br>18.9053 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 27.981, 20.901      | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.1631,<br>22.9024 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.3453,<br>24.9039 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.5272,<br>26.9031 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.7097,<br>28.9084 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 28.8923,<br>30.9155 | 17          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.3463,<br>35.9038 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.5288,<br>37.9095 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.7107,<br>39.9082 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 40.8932,<br>41.9147 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 41.0741,<br>43.9022 | 10.5        | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

 **Walls 11 and 12b Static**
**Method: spencer**

Number of Supports: 21

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 11.5878,<br>8.08067 | 18          | 14.3072          | 3.69276           | 14.3072       | 3.69276       | 5227.34    |
| 11.7682,<br>10.0634 | 18          | 17.9991          | 0.00088265        | 17.9991       | 0.00088265    | 6.22074    |
| 11.9477,<br>12.0359 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.1315,<br>14.0552 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.3146,<br>16.0675 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.4961,<br>18.0618 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.6786,<br>20.0672 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.8585,<br>22.0444 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 24.2742,<br>26.6122 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.4557,<br>28.6073 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.6377,<br>30.6075 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.8195,<br>32.6054 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.0016,<br>34.6063 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.1833,<br>36.6027 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.3651,<br>38.6003 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.5464,<br>40.5927 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.7304,<br>42.6156 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.9104,<br>44.5937 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.0942,<br>46.6127 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.2748,<br>48.5975 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.4571,<br>50.6005 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

◆ **Walls 11 and 12b Seismic****Method: spencer**

Number of Supports: 21

**Mirafi 8XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 11.5878,<br>8.08067 | 18          | 0.256708         | 17.7433           | 0.256708      | 17.7433       | 82.1995    |
| 11.7682,<br>10.0634 | 18          | 6.28349          | 11.7165           | 6.28349       | 11.7165       | 5227.34    |
| 11.9477,<br>12.0359 | 18          | 10.8239          | 7.17612           | 10.8239       | 7.17612       | 5227.34    |
| 12.1315,<br>14.0552 | 18          | 14.644           | 3.35602           | 14.644        | 3.35602       | 5227.34    |
| 12.3146,<br>16.0675 | 18          | 17.8884          | 0.111565          | 17.8884       | 0.111565      | 677.851    |
| 12.4961,<br>18.0618 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.6786,<br>20.0672 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 12.8585,<br>22.0444 | 18          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

**Mirafi 5XT**

Support Type: Geosynthetic

| Start (x, y)        | Length (ft) | L Inside SS (ft) | L Outside SS (ft) | Li (ft)       | Lo (ft)       | Force (lb) |
|---------------------|-------------|------------------|-------------------|---------------|---------------|------------|
| 24.2742,<br>26.6122 | 21          | 18.8435          | 2.15646           | 18.8435       | 2.15646       | 2471.93    |
| 24.4557,<br>28.6073 | 21          | 20.4886          | 0.511406          | 20.4886       | 0.511406      | 2069.08    |
| 24.6377,<br>30.6075 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 24.8195,<br>32.6054 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.0016,<br>34.6063 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.1833,<br>36.6027 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.3651,<br>38.6003 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.5464,<br>40.5927 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.7304,<br>42.6156 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 25.9104,<br>44.5937 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.0942,<br>46.6127 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.2748,<br>48.5975 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |
| 26.4571,<br>50.6005 | 21          | Not Effective    | Not Effective     | Not Effective | Not Effective | 0          |

## Valid and Invalid Surfaces

---

### ◆ Walls 1 and 5b Static

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 6983 |
| Number of Invalid Surfaces: | 0    |

### ◆ Walls 1 and 5b Seismic

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 8415 |
| Number of Invalid Surfaces: | 0    |

### ◆ Wall 2 Static

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 6909 |
| Number of Invalid Surfaces: | 0    |

### ◆ Wall 2 Seismic

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 9595 |
| Number of Invalid Surfaces: | 0    |

### ◆ Wall 3 Static

**Method: spencer**

|                             |       |
|-----------------------------|-------|
| Number of Valid Surfaces:   | 11596 |
| Number of Invalid Surfaces: | 0     |

### ◆ Wall 3 Seismic

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 7673 |
| Number of Invalid Surfaces: | 0    |

### ◆ Wall 4 Static

**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 9322 |
| Number of Invalid Surfaces: | 0    |

### ◆ Wall 4 Seismic

**Method: spencer**

|                             |       |
|-----------------------------|-------|
| Number of Valid Surfaces:   | 10149 |
| Number of Invalid Surfaces: | 0     |

### ◆ Walls 5a and 6 Static



**Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 8078 |
| Number of Invalid Surfaces: | 0    |

 **Walls 5a and 6 Seismic****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 9663 |
| Number of Invalid Surfaces: | 0    |

 **Wall 7 Static****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 7197 |
| Number of Invalid Surfaces: | 0    |

 **Wall 7 Seismic****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 4399 |
| Number of Invalid Surfaces: | 0    |

 **Wall 8 Static****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 7521 |
| Number of Invalid Surfaces: | 0    |

 **Wall 8 Seismic****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 9051 |
| Number of Invalid Surfaces: | 0    |

 **Walls 9, 10, and 12a Static****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 9713 |
| Number of Invalid Surfaces: | 0    |

 **Walls 9,10, and 12a Seismic****Method: spencer**

|                             |       |
|-----------------------------|-------|
| Number of Valid Surfaces:   | 11673 |
| Number of Invalid Surfaces: | 0     |

 **Walls 11 and 12b Static****Method: spencer**

|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 5566 |
| Number of Invalid Surfaces: | 0    |

 **Walls 11 and 12b Seismic****Method: spencer**



|                             |      |
|-----------------------------|------|
| Number of Valid Surfaces:   | 5226 |
| Number of Invalid Surfaces: | 0    |

## Slice Data

### ◆ Walls 1 and 5b Static

Global Minimum Query (spencer) - Safety Factor: 1.54617

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material   | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|-----------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.08748    | 708.921      | 22.2689                   | Verti-Block     | 3000                | 0                         | 1940.28            | 3000                 | 1111.09                  | 0                   | 1111.09                       | 1905.62                    | 1905.62                         |
| 2            | 1.08748    | 2125.7       | 22.997                    | Verti-Block     | 3000                | 0                         | 1940.28            | 3000                 | 2372.78                  | 0                   | 2372.78                       | 3196.26                    | 3196.26                         |
| 3            | 1.08748    | 3220.58      | 23.729                    | Verti-Block     | 3000                | 0                         | 1940.28            | 3000                 | 2727                     | 0                   | 2727                          | 3579.89                    | 3579.89                         |
| 4            | 1.02937    | 3071.62      | 24.4454                   | Reinforced Fill | 135                 | 38                        | 1372.13            | 2121.55              | 2542.67                  | 0                   | 2542.67                       | 3166.41                    | 3166.41                         |
| 5            | 1.02937    | 3012.88      | 25.1462                   | Reinforced Fill | 135                 | 38                        | 1326.25            | 2050.61              | 2451.86                  | 0                   | 2451.86                       | 3074.43                    | 3074.43                         |
| 6            | 1.02937    | 2952.23      | 25.8509                   | Reinforced Fill | 135                 | 38                        | 2100.37            | 3247.53              | 3983.86                  | 0                   | 3983.86                       | 5001.52                    | 5001.52                         |
| 7            | 1.02937    | 2889.65      | 26.5599                   | Reinforced Fill | 135                 | 38                        | 1235.65            | 1910.53              | 2272.57                  | 0                   | 2272.57                       | 2890.26                    | 2890.26                         |
| 8            | 1.02937    | 2825.09      | 27.2733                   | Reinforced Fill | 135                 | 38                        | 1190.92            | 1841.36              | 2184.05                  | 0                   | 2184.05                       | 2798.02                    | 2798.02                         |
| 9            | 1.02937    | 2758.52      | 27.9913                   | Reinforced Fill | 135                 | 38                        | 1146.54            | 1772.74              | 2096.22                  | 0                   | 2096.22                       | 2705.62                    | 2705.62                         |
| 10           | 1.02937    | 2694.19      | 28.7141                   | Reinforced Fill | 135                 | 38                        | 1833               | 2834.13              | 3454.72                  | 0                   | 3454.72                       | 4458.85                    | 4458.85                         |
| 11           | 1.02937    | 3193.13      | 29.442                    | Reinforced Fill | 135                 | 38                        | 1269.62            | 1963.05              | 2339.8                   | 0                   | 2339.8                        | 3056.42                    | 3056.42                         |
| 12           | 1.02937    | 4443.82      | 30.1751                   | Reinforced Fill | 135                 | 38                        | 1700.55            | 2629.34              | 3192.61                  | 0                   | 3192.61                       | 4181.36                    | 4181.36                         |
| 13           | 1.02937    | 5358.26      | 30.9137                   | Reinforced Fill | 135                 | 38                        | 2661.96            | 4115.85              | 5095.25                  | 0                   | 5095.25                       | 6689.27                    | 6689.27                         |
| 14           | 1.02937    | 5332.54      | 31.658                    | Reinforced Fill | 135                 | 38                        | 1954.63            | 3022.19              | 3695.44                  | 0                   | 3695.44                       | 4900.67                    | 4900.67                         |
| 15           | 1.02937    | 5248.17      | 32.4084                   | Reinforced Fill | 135                 | 38                        | 1892.86            | 2926.68              | 3573.18                  | 0                   | 3573.18                       | 4774.81                    | 4774.81                         |
| 16           | 1.02937    | 5166.26      | 33.165                    | Reinforced Fill | 135                 | 38                        | 2437.46            | 3768.73              | 4650.96                  | 0                   | 4650.96                       | 6243.87                    | 6243.87                         |
| 17           | 1.02937    | 5081.95      | 33.9283                   | Reinforced Fill | 135                 | 38                        | 1774.09            | 2743.04              | 3338.14                  | 0                   | 3338.14                       | 4531.55                    | 4531.55                         |
| 18           | 1.02937    | 4995.17      | 34.6984                   | Reinforced Fill | 135                 | 38                        | 1715.39            | 2652.29              | 3221.98                  | 0                   | 3221.98                       | 4409.7                     | 4409.7                          |
| 19           | 1.02937    | 4905.84      | 35.4758                   | Reinforced Fill | 135                 | 38                        | 2203.39            | 3406.82              | 4187.74                  | 0                   | 4187.74                       | 5758.01                    | 5758.01                         |
| 20           | 1.02937    | 4813.9       | 36.2608                   | Reinforced Fill | 135                 | 38                        | 1599.29            | 2472.78              | 2992.22                  | 0                   | 2992.22                       | 4165.33                    | 4165.33                         |
| 21           | 1.02937    | 4719.26      | 37.0538                   | Reinforced Fill | 135                 | 38                        | 1541.87            | 2383.99              | 2878.58                  | 0                   | 2878.58                       | 4042.73                    | 4042.73                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 22 | 1.02937  | 4621.85 | 37.8551 | Reinforced Fill        | 135 | 38 | 1975.66 | 3054.71 | 3737.05 | 0 | 3737.05 | 5272.58 | 5272.58 |
| 23 | 1.02937  | 4521.57 | 38.6652 | Reinforced Fill        | 135 | 38 | 1428.21 | 2208.26 | 2653.66 | 0 | 2653.66 | 3796.45 | 3796.45 |
| 24 | 1.02937  | 4418.32 | 39.4846 | Reinforced Fill        | 135 | 38 | 1371.96 | 2121.29 | 2542.34 | 0 | 2542.34 | 3672.68 | 3672.68 |
| 25 | 1.02937  | 4311.99 | 40.3138 | Reinforced Fill        | 135 | 38 | 1316.09 | 2034.9  | 2431.76 | 0 | 2431.76 | 3548.44 | 3548.44 |
| 26 | 1.02937  | 4202.49 | 41.1533 | Reinforced Fill        | 135 | 38 | 1260.59 | 1949.08 | 2321.92 | 0 | 2321.92 | 3423.67 | 3423.67 |
| 27 | 1.02937  | 4089.67 | 42.0037 | Reinforced Fill        | 135 | 38 | 1205.45 | 1863.83 | 2212.8  | 0 | 2212.8  | 3298.33 | 3298.33 |
| 28 | 1.02937  | 3973.41 | 42.8657 | Reinforced Fill        | 135 | 38 | 1150.67 | 1779.13 | 2104.39 | 0 | 2104.39 | 3172.37 | 3172.37 |
| 29 | 0.997522 | 3736.21 | 43.7261 | Mass Wasting Colluvium | 100 | 38 | 1075.11 | 1662.3  | 1999.66 | 0 | 1999.66 | 3027.99 | 3027.99 |
| 30 | 0.997522 | 3620.26 | 44.5853 | Mass Wasting Colluvium | 100 | 38 | 1022.88 | 1581.54 | 1896.28 | 0 | 1896.28 | 2904.46 | 2904.46 |
| 31 | 0.997522 | 3500.75 | 45.4575 | Mass Wasting Colluvium | 100 | 38 | 970.973 | 1501.29 | 1793.58 | 0 | 1793.58 | 2780.18 | 2780.18 |
| 32 | 0.997522 | 3377.51 | 46.3433 | Mass Wasting Colluvium | 100 | 38 | 919.427 | 1421.59 | 1691.55 | 0 | 1691.55 | 2655.13 | 2655.13 |
| 33 | 0.997522 | 3250.37 | 47.2438 | Mass Wasting Colluvium | 100 | 38 | 868.223 | 1342.42 | 1590.22 | 0 | 1590.22 | 2529.25 | 2529.25 |
| 34 | 0.997522 | 3119.12 | 48.1598 | Mass Wasting Colluvium | 100 | 38 | 817.375 | 1263.8  | 1489.6  | 0 | 1489.6  | 2402.49 | 2402.49 |
| 35 | 0.997522 | 2983.53 | 49.0925 | Mass Wasting Colluvium | 100 | 38 | 766.901 | 1185.76 | 1389.71 | 0 | 1389.71 | 2274.81 | 2274.81 |
| 36 | 0.997522 | 2843.37 | 50.0431 | Mass Wasting Colluvium | 100 | 38 | 716.803 | 1108.3  | 1290.57 | 0 | 1290.57 | 2146.13 | 2146.13 |
| 37 | 0.997522 | 2698.35 | 51.0129 | Mass Wasting Colluvium | 100 | 38 | 667.108 | 1031.46 | 1192.22 | 0 | 1192.22 | 2016.41 | 2016.41 |
| 38 | 0.997522 | 2548.16 | 52.0034 | Mass Wasting Colluvium | 100 | 38 | 617.833 | 955.275 | 1094.7  | 0 | 1094.7  | 1885.59 | 1885.59 |
| 39 | 0.997522 | 2392.46 | 53.0164 | Mass Wasting Colluvium | 100 | 38 | 569.002 | 879.774 | 998.062 | 0 | 998.062 | 1753.6  | 1753.6  |
| 40 | 0.997522 | 2230.85 | 54.0538 | Mass Wasting Colluvium | 100 | 38 | 520.643 | 805.003 | 902.364 | 0 | 902.364 | 1620.38 | 1620.38 |
| 41 | 0.997522 | 2062.87 | 55.1177 | Mass Wasting Colluvium | 100 | 38 | 472.79  | 731.014 | 807.66  | 0 | 807.66  | 1485.84 | 1485.84 |
| 42 | 0.997522 | 1888.01 | 56.2109 | Mass Wasting Colluvium | 100 | 38 | 425.478 | 657.862 | 714.032 | 0 | 714.032 | 1349.86 | 1349.86 |
| 43 | 0.997522 | 1705.67 | 57.3361 | Mass Wasting Colluvium | 100 | 38 | 378.748 | 585.609 | 621.553 | 0 | 621.553 | 1212.33 | 1212.33 |
| 44 | 0.997522 | 1515.13 | 58.497  | Mass Wasting Colluvium | 100 | 38 | 332.639 | 514.317 | 530.3   | 0 | 530.3   | 1073.05 | 1073.05 |
| 45 | 0.997522 | 1315.55 | 59.6977 | Mass Wasting Colluvium | 100 | 38 | 287.188 | 444.041 | 440.353 | 0 | 440.353 | 931.77  | 931.77  |
| 46 | 0.997522 | 1105.94 | 60.9431 | Mass Wasting Colluvium | 100 | 38 | 242.42  | 374.822 | 351.756 | 0 | 351.756 | 788.071 | 788.071 |

|    |          |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 47 | 0.997522 | 885.054 | 62.2395 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 198.332 | 306.655 | 264.506 | 0 | 264.506 | 641.305 | 641.305 |
| 48 | 0.997522 | 651.388 | 63.5942 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 154.867 | 239.451 | 178.489 | 0 | 178.489 | 490.388 | 490.388 |
| 49 | 0.997522 | 403.015 | 65.017  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 111.857 | 172.95  | 93.3716 | 0 | 93.3716 | 333.436 | 333.436 |
| 50 | 0.997522 | 137.441 | 66.5203 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 106.564 | 164.766 | 82.8966 | 0 | 82.8966 | 328.215 | 328.215 |

# **Walls 1 and 5b Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.11886**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.0872     | 708.344      | 22.4098                   | Verti-Block            | 3000                | 0                         | 2681.3             | 3000                 | 1973.23                  | 0                   | 1973.23                       | 3078.92                    | 3078.92                         |
| 2            | 1.0872     | 2124.39      | 22.8543                   | Verti-Block            | 3000                | 0                         | 2681.3             | 3000                 | 3261.12                  | 0                   | 3261.12                       | 4391.23                    | 4391.23                         |
| 3            | 1.0872     | 3221.16      | 23.3002                   | Verti-Block            | 3000                | 0                         | 2681.3             | 3000                 | 2897.1                   | 0                   | 2897.1                        | 4051.87                    | 4051.87                         |
| 4            | 1.28896    | 3841.92      | 23.7893                   | Reinforced Fill        | 135                 | 38                        | 1720.17            | 1924.63              | 2290.62                  | 0                   | 2290.62                       | 3048.92                    | 3048.92                         |
| 5            | 1.28896    | 3752.92      | 24.3219                   | Reinforced Fill        | 135                 | 38                        | 1643.31            | 1838.63              | 2180.55                  | 0                   | 2180.55                       | 2923.29                    | 2923.29                         |
| 6            | 1.28896    | 3661.68      | 24.8568                   | Reinforced Fill        | 135                 | 38                        | 4896.1             | 5478.05              | 6838.79                  | 0                   | 6838.79                       | 9107                       | 9107                            |
| 7            | 1.28896    | 3568.18      | 25.394                    | Reinforced Fill        | 135                 | 38                        | 1497.28            | 1675.25              | 1971.43                  | 0                   | 1971.43                       | 2682.2                     | 2682.2                          |
| 8            | 1.28896    | 3472.38      | 25.9336                   | Reinforced Fill        | 135                 | 38                        | 1427.83            | 1597.54              | 1871.97                  | 0                   | 1871.97                       | 2566.32                    | 2566.32                         |
| 9            | 1.28896    | 3507.97      | 26.4757                   | Reinforced Fill        | 135                 | 38                        | 4443.53            | 4971.69              | 6190.68                  | 0                   | 6190.68                       | 8403.79                    | 8403.79                         |
| 10           | 1.28896    | 5046.85      | 27.0203                   | Reinforced Fill        | 135                 | 38                        | 1888.49            | 2112.96              | 2531.68                  | 0                   | 2531.68                       | 3494.76                    | 3494.76                         |
| 11           | 1.28896    | 6672.49      | 27.5676                   | Reinforced Fill        | 135                 | 38                        | 2374.82            | 2657.09              | 3228.13                  | 0                   | 3228.13                       | 4467.95                    | 4467.95                         |
| 12           | 1.28896    | 6743.8       | 28.1177                   | Reinforced Fill        | 135                 | 38                        | 5119.22            | 5727.69              | 7158.3                   | 0                   | 7158.3                        | 9893.74                    | 9893.74                         |
| 13           | 1.28896    | 6631.34      | 28.6706                   | Reinforced Fill        | 135                 | 38                        | 2252.8             | 2520.57              | 3053.39                  | 0                   | 3053.39                       | 4285.26                    | 4285.26                         |
| 14           | 1.28896    | 6521.06      | 29.2264                   | Reinforced Fill        | 135                 | 38                        | 2167.67            | 2425.32              | 2931.47                  | 0                   | 2931.47                       | 4144.25                    | 4144.25                         |
| 15           | 1.28896    | 6408.23      | 29.7852                   | Reinforced Fill        | 135                 | 38                        | 4627.75            | 5177.8               | 6454.48                  | 0                   | 6454.48                       | 9103.23                    | 9103.23                         |
| 16           | 1.28896    | 6292.81      | 30.3472                   | Reinforced Fill        | 135                 | 38                        | 2004.62            | 2242.89              | 2697.98                  | 0                   | 2697.98                       | 3871.6                     | 3871.6                          |
| 17           | 1.28896    | 6174.76      | 30.9124                   | Reinforced Fill        | 135                 | 38                        | 4325.12            | 4839.2               | 6021.1                   | 0                   | 6021.1                        | 8610.9                     | 8610.9                          |
| 18           | 1.28896    | 6054.03      | 31.481                    | Reinforced Fill        | 135                 | 38                        | 1850.41            | 2070.35              | 2477.14                  | 0                   | 2477.14                       | 3610.23                    | 3610.23                         |
| 19           | 1.28896    | 5930.57      | 32.0531                   | Reinforced Fill        | 135                 | 38                        | 1776.36            | 1987.5               | 2371.09                  | 0                   | 2371.09                       | 3483.38                    | 3483.38                         |
| 20           | 1.28896    | 5804.33      | 32.6288                   | Reinforced Fill        | 135                 | 38                        | 1704.23            | 1906.8               | 2267.8                   | 0                   | 2267.8                        | 3358.91                    | 3358.91                         |
| 21           | 1.28896    | 5675.26      | 33.2082                   | Reinforced Fill        | 135                 | 38                        | 1633.93            | 1828.14              | 2167.12                  | 0                   | 2167.12                       | 3236.67                    | 3236.67                         |
| 22           | 0.761909   | 3292.89      | 33.6715                   | Mass Wasting Colluvium | 100                 | 38                        | 1534.87            | 1717.31              | 2070.06                  | 0                   | 2070.06                       | 3092.6                     | 3092.6                          |
| 23           | 1.40706    | 5957.71      | 34.1651                   | Reinforced Fill        | 135                 | 38                        | 1522.58            | 1703.55              | 2007.66                  | 0                   | 2007.66                       | 3041.05                    | 3041.05                         |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 24 | 1.33564 | 5504.39 | 34.7928 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1409.13 | 1576.62 | 1889.98 | 0 | 1889.98 | 2869.09 | 2869.09 |
| 25 | 1.33564 | 5353.93 | 35.4088 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1343.19 | 1502.84 | 1795.55 | 0 | 1795.55 | 2750.41 | 2750.41 |
| 26 | 1.33564 | 5199.99 | 36.0296 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1278.86 | 1430.86 | 1703.42 | 0 | 1703.42 | 2633.57 | 2633.57 |
| 27 | 1.33564 | 5042.48 | 36.6553 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1216.06 | 1360.6  | 1613.49 | 0 | 1613.49 | 2518.44 | 2518.44 |
| 28 | 1.33564 | 4881.33 | 37.2861 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1154.76 | 1292.01 | 1525.7  | 0 | 1525.7  | 2404.95 | 2404.95 |
| 29 | 1.33564 | 4716.44 | 37.9222 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1094.88 | 1225.02 | 1439.96 | 0 | 1439.96 | 2292.98 | 2292.98 |
| 30 | 1.33564 | 4547.71 | 38.5639 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1036.39 | 1159.58 | 1356.2  | 0 | 1356.2  | 2182.48 | 2182.48 |
| 31 | 1.33564 | 4375.05 | 39.2114 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 979.255 | 1095.65 | 1274.37 | 0 | 1274.37 | 2073.36 | 2073.36 |
| 32 | 1.33564 | 4198.33 | 39.865  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 923.412 | 1033.17 | 1194.4  | 0 | 1194.4  | 1965.53 | 1965.53 |
| 33 | 1.33564 | 4017.44 | 40.5248 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 868.832 | 972.101 | 1116.24 | 0 | 1116.24 | 1858.94 | 1858.94 |
| 34 | 1.33564 | 3832.27 | 41.1911 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 815.48  | 912.408 | 1039.83 | 0 | 1039.83 | 1753.51 | 1753.51 |
| 35 | 1.33564 | 3642.68 | 41.8644 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 763.325 | 854.054 | 965.148 | 0 | 965.148 | 1649.18 | 1649.18 |
| 36 | 1.33564 | 3448.53 | 42.5448 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 712.34  | 797.009 | 892.13  | 0 | 892.13  | 1545.89 | 1545.89 |
| 37 | 1.33564 | 3249.66 | 43.2326 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 662.498 | 741.243 | 820.754 | 0 | 820.754 | 1443.59 | 1443.59 |
| 38 | 1.33564 | 3045.93 | 43.9284 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 613.78  | 686.734 | 750.985 | 0 | 750.985 | 1342.22 | 1342.22 |
| 39 | 1.33564 | 2837.15 | 44.6324 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 566.164 | 633.458 | 682.793 | 0 | 682.793 | 1241.74 | 1241.74 |
| 40 | 1.33564 | 2623.15 | 45.345  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 519.634 | 581.398 | 616.162 | 0 | 616.162 | 1142.09 | 1142.09 |
| 41 | 1.33564 | 2403.72 | 46.0667 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 474.176 | 530.536 | 551.059 | 0 | 551.059 | 1043.23 | 1043.23 |
| 42 | 1.33564 | 2178.64 | 46.798  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 429.777 | 480.86  | 487.478 | 0 | 487.478 | 945.112 | 945.112 |
| 43 | 1.33564 | 1947.7  | 47.5394 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 386.424 | 432.354 | 425.393 | 0 | 425.393 | 847.683 | 847.683 |
| 44 | 1.33564 | 1710.63 | 48.2914 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 344.104 | 385.004 | 364.789 | 0 | 364.789 | 750.885 | 750.885 |
| 45 | 1.33564 | 1467.16 | 49.0546 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 302.804 | 338.795 | 305.643 | 0 | 305.643 | 654.651 | 654.651 |
| 46 | 1.33564 | 1217    | 49.8298 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 262.503 | 293.704 | 247.93  | 0 | 247.93  | 558.888 | 558.888 |
| 47 | 1.33564 | 959.815 | 50.6176 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 223.176 | 249.703 | 191.611 | 0 | 191.611 | 463.48  | 463.48  |
| 48 | 1.33564 | 695.253 | 51.4188 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 184.783 | 206.746 | 136.629 | 0 | 136.629 | 368.258 | 368.258 |



|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 49 | 1.33564 | 422.919 | 52.2343 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 147.266 | 164.769 | 82.901  | 0 | 82.901  | 272.99  | 272.99  |
| 50 | 1.33564 | 142.379 | 53.0651 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 111.186 | 124.402 | 31.2332 | 0 | 31.2332 | 179.132 | 179.132 |

## **Wall 2 Static**

**Global Minimum Query (spencer) - Safety Factor: 2.92367**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.224634   | 2.16292      | -35.5418                  | Mass Wasting Colluvium | 100                 | 38                        | 52.3645            | 153.097              | 67.9604                  | 0                   | 67.9604                       | 30.5515                    | 30.5515                         |
| 2            | 0.224634   | 6.3121       | -33.2666                  | Mass Wasting Colluvium | 100                 | 38                        | 58.5232            | 171.103              | 91.0071                  | 0                   | 91.0071                       | 52.6134                    | 52.6134                         |
| 3            | 0.224634   | 10.1211      | -31.0493                  | Mass Wasting Colluvium | 100                 | 38                        | 63.7054            | 186.254              | 110.399                  | 0                   | 110.399                       | 72.0467                    | 72.0467                         |
| 4            | 0.224634   | 13.614       | -28.8827                  | Mass Wasting Colluvium | 100                 | 38                        | 68.0831            | 199.052              | 126.781                  | 0                   | 126.781                       | 89.2243                    | 89.2243                         |
| 5            | 0.224634   | 16.8109      | -26.7604                  | Mass Wasting Colluvium | 100                 | 38                        | 71.7817            | 209.866              | 140.622                  | 0                   | 140.622                       | 104.424                    | 104.424                         |
| 6            | 0.224634   | 19.7287      | -24.6771                  | Mass Wasting Colluvium | 100                 | 38                        | 74.8953            | 218.969              | 152.274                  | 0                   | 152.274                       | 117.862                    | 117.862                         |
| 7            | 0.224634   | 22.3818      | -22.628                   | Mass Wasting Colluvium | 100                 | 38                        | 77.4971            | 226.576              | 162.011                  | 0                   | 162.011                       | 129.707                    | 129.707                         |
| 8            | 0.224634   | 24.7824      | -20.6092                  | Mass Wasting Colluvium | 100                 | 38                        | 79.6444            | 232.854              | 170.045                  | 0                   | 170.045                       | 140.094                    | 140.094                         |
| 9            | 0.224634   | 26.9408      | -18.6168                  | Mass Wasting Colluvium | 100                 | 38                        | 81.3823            | 237.935              | 176.548                  | 0                   | 176.548                       | 149.134                    | 149.134                         |
| 10           | 0.224634   | 28.866       | -16.6475                  | Mass Wasting Colluvium | 100                 | 38                        | 82.7481            | 241.928              | 181.659                  | 0                   | 181.659                       | 156.916                    | 156.916                         |
| 11           | 0.224634   | 30.5655      | -14.6982                  | Mass Wasting Colluvium | 100                 | 38                        | 83.7725            | 244.923              | 185.493                  | 0                   | 185.493                       | 163.518                    | 163.518                         |
| 12           | 0.224634   | 32.0457      | -12.7662                  | Mass Wasting Colluvium | 100                 | 38                        | 84.4808            | 246.994              | 188.144                  | 0                   | 188.144                       | 169.002                    | 169.002                         |
| 13           | 0.224634   | 33.3119      | -10.8489                  | Mass Wasting Colluvium | 100                 | 38                        | 84.8943            | 248.203              | 189.691                  | 0                   | 189.691                       | 173.421                    | 173.421                         |
| 14           | 0.224634   | 34.3686      | -8.94387                  | Mass Wasting Colluvium | 100                 | 38                        | 85.0308            | 248.602              | 190.202                  | 0                   | 190.202                       | 176.82                     | 176.82                          |
| 15           | 0.224634   | 35.2195      | -7.04872                  | Mass Wasting Colluvium | 100                 | 38                        | 84.9063            | 248.238              | 189.736                  | 0                   | 189.736                       | 179.237                    | 179.237                         |
| 16           | 0.224634   | 35.8673      | -5.16131                  | Mass Wasting Colluvium | 100                 | 38                        | 84.5331            | 247.147              | 188.34                   | 0                   | 188.34                        | 180.704                    | 180.704                         |
| 17           | 0.224634   | 36.7876      | -3.2795                   | Mass Wasting Colluvium | 100                 | 38                        | 84.5369            | 247.158              | 188.354                  | 0                   | 188.354                       | 183.51                     | 183.51                          |
| 18           | 0.224634   | 38.1077      | -1.40123                  | Mass Wasting Colluvium | 100                 | 38                        | 85.0568            | 248.678              | 190.299                  | 0                   | 190.299                       | 188.219                    | 188.219                         |
| 19           | 0.224634   | 38.2955      | 0.475534                  | Mass Wasting Colluvium | 100                 | 38                        | 84.1425            | 246.005              | 186.877                  | 0                   | 186.877                       | 187.576                    | 187.576                         |
| 20           | 0.224634   | 38.4944      | 2.35281                   | Mass Wasting Colluvium | 100                 | 38                        | 83.2703            | 243.455              | 183.614                  | 0                   | 183.614                       | 187.035                    | 187.035                         |
| 21           | 0.224634   | 77.8777      | 4.23261                   | Mass Wasting Colluvium | 100                 | 38                        | 129.996            | 380.065              | 358.466                  | 0                   | 358.466                       | 368.087                    | 368.087                         |
| 22           | 0.224634   | 143.87       | 6.117                     | Mass Wasting Colluvium | 100                 | 38                        | 207.031            | 605.291              | 646.741                  | 0                   | 646.741                       | 668.928                    | 668.928                         |

|    |           |         |         |                        |     |    |         |         |          |   |          |         |         |
|----|-----------|---------|---------|------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 23 | 0.224634  | 184.231 | 8.00807 | Mass Wasting Colluvium | 100 | 38 | 251.477 | 735.236 | 813.066  | 0 | 813.066  | 848.445 | 848.445 |
| 24 | 0.224634  | 183.802 | 9.90796 | Mass Wasting Colluvium | 100 | 38 | 247.266 | 722.923 | 797.307  | 0 | 797.307  | 840.497 | 840.497 |
| 25 | 0.224634  | 182.64  | 11.8189 | Mass Wasting Colluvium | 100 | 38 | 242.286 | 708.365 | 778.672  | 0 | 778.672  | 829.372 | 829.372 |
| 26 | 0.224634  | 181.266 | 13.7434 | Mass Wasting Colluvium | 100 | 38 | 237.151 | 693.35  | 759.451  | 0 | 759.451  | 817.453 | 817.453 |
| 27 | 0.224634  | 179.675 | 15.6838 | Mass Wasting Colluvium | 100 | 38 | 231.851 | 677.856 | 739.62   | 0 | 739.62   | 804.72  | 804.72  |
| 28 | 0.224634  | 177.862 | 17.6428 | Mass Wasting Colluvium | 100 | 38 | 226.38  | 661.859 | 719.146  | 0 | 719.146  | 791.144 | 791.144 |
| 29 | 0.226649  | 177.249 | 19.6324 | Gravel                 | 0   | 40 | 200.93  | 587.453 | 700.098  | 0 | 700.098  | 771.774 | 771.774 |
| 30 | 0.226649  | 174.635 | 21.656  | Gravel                 | 0   | 40 | 194.492 | 568.631 | 677.667  | 0 | 677.667  | 754.892 | 754.892 |
| 31 | 0.226649  | 171.736 | 23.7085 | Gravel                 | 0   | 40 | 187.824 | 549.134 | 654.434  | 0 | 654.434  | 736.916 | 736.916 |
| 32 | 0.226649  | 168.537 | 25.7938 | Gravel                 | 0   | 40 | 180.913 | 528.93  | 630.354  | 0 | 630.354  | 717.787 | 717.787 |
| 33 | 0.226649  | 165.024 | 27.9165 | Gravel                 | 0   | 40 | 173.749 | 507.986 | 605.394  | 0 | 605.394  | 697.454 | 697.454 |
| 34 | 0.245812  | 174.877 | 30.1755 | Reinforced Fill        | 135 | 38 | 198.108 | 579.202 | 568.552  | 0 | 568.552  | 683.74  | 683.74  |
| 35 | 0.245812  | 170.452 | 32.5816 | Reinforced Fill        | 135 | 38 | 190.351 | 556.524 | 539.525  | 0 | 539.525  | 661.173 | 661.173 |
| 36 | 0.245812  | 165.591 | 35.0543 | Reinforced Fill        | 135 | 38 | 182.259 | 532.865 | 509.244  | 0 | 509.244  | 637.121 | 637.121 |
| 37 | 0.0371833 | 24.6023 | 36.5017 | Mass Wasting Colluvium | 100 | 38 | 166.852 | 487.819 | 496.385  | 0 | 496.385  | 619.856 | 619.856 |
| 38 | 0.212347  | 138.049 | 37.8176 | Reinforced Fill        | 135 | 38 | 173.098 | 506.081 | 474.962  | 0 | 474.962  | 609.316 | 609.316 |
| 39 | 0.212347  | 133.671 | 40.0998 | Reinforced Fill        | 135 | 38 | 165.439 | 483.689 | 446.303  | 0 | 446.303  | 585.614 | 585.614 |
| 40 | 0.212347  | 128.917 | 42.4616 | Reinforced Fill        | 135 | 38 | 157.447 | 460.324 | 416.394  | 0 | 416.394  | 560.474 | 560.474 |
| 41 | 0.212347  | 123.744 | 44.9163 | Reinforced Fill        | 135 | 38 | 149.086 | 435.878 | 385.105  | 0 | 385.105  | 533.756 | 533.756 |
| 42 | 0.212347  | 118.095 | 47.4812 | Reinforced Fill        | 135 | 38 | 140.31  | 410.219 | 352.266  | 0 | 352.266  | 505.286 | 505.286 |
| 43 | 0.212347  | 111.9   | 50.1785 | Reinforced Fill        | 135 | 38 | 131.061 | 383.18  | 317.655  | 0 | 317.655  | 474.84  | 474.84  |
| 44 | 0.212347  | 105.06  | 53.0387 | Reinforced Fill        | 135 | 38 | 121.265 | 354.538 | 280.996  | 0 | 280.996  | 442.146 | 442.146 |
| 45 | 0.212347  | 97.4379 | 56.1043 | Reinforced Fill        | 135 | 38 | 110.816 | 323.99  | 241.896  | 0 | 241.896  | 406.835 | 406.835 |
| 46 | 0.212347  | 88.8292 | 59.4393 | Reinforced Fill        | 135 | 38 | 99.5666 | 291.1   | 199.799  | 0 | 199.799  | 368.421 | 368.421 |
| 47 | 0.212347  | 78.9036 | 63.1476 | Reinforced Fill        | 135 | 38 | 87.2848 | 255.192 | 153.838  | 0 | 153.838  | 326.241 | 326.241 |
| 48 | 0.212347  | 67.0533 | 67.4219 | Reinforced Fill        | 135 | 38 | 73.5639 | 215.077 | 102.493  | 0 | 102.493  | 279.41  | 279.41  |
| 49 | 0.212347  | 51.8503 | 72.7193 | Reinforced Fill        | 135 | 38 | 57.5036 | 168.121 | 42.3935  | 0 | 42.3935  | 227.236 | 227.236 |
| 50 | 0.212347  | 21.5768 | 82.8531 | Reinforced Fill        | 135 | 38 | 31.8677 | 93.1706 | -53.5391 | 0 | -53.5391 | 200.614 | 200.614 |

 **Wall 2 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 2.06163**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.313954   | 2.42048      | -22.2581                  | Mass Wasting Colluvium | 100                 | 38                        | 113.759            | 234.528              | 172.187                  | 0                   | 172.187                       | 125.629                    | 125.629                         |
| 2            | 0.313954   | 7.07427      | -20.688                   | Mass Wasting Colluvium | 100                 | 38                        | 120.277            | 247.967              | 189.39                   | 0                   | 189.39                        | 143.969                    | 143.969                         |
| 3            | 0.313954   | 11.3594      | -19.134                   | Mass Wasting Colluvium | 100                 | 38                        | 124.894            | 257.486              | 201.573                  | 0                   | 201.573                       | 158.242                    | 158.242                         |
| 4            | 0.313954   | 15.2867      | -17.5945                  | Mass Wasting Colluvium | 100                 | 38                        | 128.048            | 263.987              | 209.894                  | 0                   | 209.894                       | 169.289                    | 169.289                         |
| 5            | 0.313954   | 18.8656      | -16.068                   | Mass Wasting Colluvium | 100                 | 38                        | 130.053            | 268.122              | 215.186                  | 0                   | 215.186                       | 177.727                    | 177.727                         |
| 6            | 0.313954   | 22.1043      | -14.5532                  | Mass Wasting Colluvium | 100                 | 38                        | 131.142            | 270.367              | 218.06                   | 0                   | 218.06                        | 184.014                    | 184.014                         |
| 7            | 0.313954   | 25.0103      | -13.0486                  | Mass Wasting Colluvium | 100                 | 38                        | 131.487            | 271.078              | 218.97                   | 0                   | 218.97                        | 188.496                    | 188.496                         |
| 8            | 0.313954   | 27.5899      | -11.5532                  | Mass Wasting Colluvium | 100                 | 38                        | 131.218            | 270.522              | 218.257                  | 0                   | 218.257                       | 191.434                    | 191.434                         |
| 9            | 0.313954   | 29.8486      | -10.0657                  | Mass Wasting Colluvium | 100                 | 38                        | 130.432            | 268.902              | 216.185                  | 0                   | 216.185                       | 193.032                    | 193.032                         |
| 10           | 0.313954   | 31.7913      | -8.5851                   | Mass Wasting Colluvium | 100                 | 38                        | 129.207            | 266.377              | 212.953                  | 0                   | 212.953                       | 193.446                    | 193.446                         |
| 11           | 0.313954   | 33.4218      | -7.11022                  | Mass Wasting Colluvium | 100                 | 38                        | 127.602            | 263.069              | 208.719                  | 0                   | 208.719                       | 192.803                    | 192.803                         |
| 12           | 0.313954   | 34.7436      | -5.64006                  | Mass Wasting Colluvium | 100                 | 38                        | 125.666            | 259.077              | 203.61                   | 0                   | 203.61                        | 191.199                    | 191.199                         |
| 13           | 0.313954   | 35.7592      | -4.17362                  | Mass Wasting Colluvium | 100                 | 38                        | 123.436            | 254.479              | 197.724                  | 0                   | 197.724                       | 188.716                    | 188.716                         |
| 14           | 0.313954   | 36.4707      | -2.70991                  | Mass Wasting Colluvium | 100                 | 38                        | 120.942            | 249.337              | 191.143                  | 0                   | 191.143                       | 185.419                    | 185.419                         |
| 15           | 0.319945   | 38.8653      | -1.23404                  | Gravel                 | 0                   | 40                        | 59.63              | 122.935              | 146.509                  | 0                   | 146.509                       | 145.224                    | 145.224                         |
| 16           | 0.319945   | 40.0007      | 0.254964                  | Gravel                 | 0                   | 40                        | 59.0416            | 121.722              | 145.063                  | 0                   | 145.063                       | 145.326                    | 145.326                         |
| 17           | 0.319945   | 50.7401      | 1.74414                   | Gravel                 | 0                   | 40                        | 72.1507            | 148.748              | 177.271                  | 0                   | 177.271                       | 179.468                    | 179.468                         |
| 18           | 0.319945   | 161.099      | 3.2345                    | Gravel                 | 0                   | 40                        | 220.963            | 455.544              | 542.896                  | 0                   | 542.896                       | 555.383                    | 555.383                         |
| 19           | 0.319945   | 247.612      | 4.72705                   | Gravel                 | 0                   | 40                        | 327.955            | 676.122              | 805.77                   | 0                   | 805.77                        | 832.888                    | 832.888                         |
| 20           | 0.319945   | 248.036      | 6.22283                   | Gravel                 | 0                   | 40                        | 317.535            | 654.64               | 780.17                   | 0                   | 780.17                        | 814.793                    | 814.793                         |
| 21           | 0.319945   | 246.345      | 7.72288                   | Gravel                 | 0                   | 40                        | 305.086            | 628.974              | 749.581                  | 0                   | 749.581                       | 790.954                    | 790.954                         |
| 22           | 0.319945   | 244.286      | 9.22828                   | Gravel                 | 0                   | 40                        | 292.882            | 603.814              | 719.599                  | 0                   | 719.599                       | 767.183                    | 767.183                         |
| 23           | 0.319945   | 241.853      | 10.7401                   | Gravel                 | 0                   | 40                        | 280.887            | 579.086              | 690.128                  | 0                   | 690.128                       | 743.406                    | 743.406                         |
| 24           | 0.319945   | 239.041      | 12.2596                   | Gravel                 | 0                   | 40                        | 269.072            | 554.727              | 661.098                  | 0                   | 661.098                       | 719.566                    | 719.566                         |
| 25           | 0.319945   | 235.843      | 13.7879                   | Gravel                 | 0                   | 40                        | 257.409            | 530.682              | 632.441                  | 0                   | 632.441                       | 695.609                    | 695.609                         |
| 26           | 0.319945   | 232.254      | 15.3263                   | Gravel                 | 0                   | 40                        | 245.875            | 506.903              | 604.103                  | 0                   | 604.103                       | 671.488                    | 671.488                         |
| 27           | 0.264363   | 189.08       | 16.7404                   | Reinforced Fill        | 135                 | 38                        | 291.28             | 600.512              | 595.829                  | 0                   | 595.829                       | 683.441                    | 683.441                         |
| 28           | 0.264363   | 186.454      | 18.0296                   | Reinforced Fill        | 135                 | 38                        | 282.413            | 582.231              | 572.431                  | 0                   | 572.431                       | 664.354                    | 664.354                         |
| 29           | 0.292517   | 202.993      | 19.398                    | Mass Wasting Colluvium | 100                 | 38                        | 254.357            | 524.389              | 543.194                  | 0                   | 543.194                       | 632.757                    | 632.757                         |
| 30           | 0.292517   | 199.23       | 20.8478                   | Mass Wasting Colluvium | 100                 | 38                        | 244.886            | 504.864              | 518.204                  | 0                   | 518.204                       | 611.461                    | 611.461                         |

|    |          |         |         |                              |     |    |         |         |          |   |          |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 31 | 0.292517 | 195.168 | 22.3118 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 235.464 | 485.44  | 493.34   | 0 | 493.34   | 589.967 | 589.967 |
| 32 | 0.315896 | 205.844 | 23.8511 | Reinforced<br>Fill           | 135 | 38 | 243.856 | 502.74  | 470.685  | 0 | 470.685  | 578.498 | 578.498 |
| 33 | 0.315896 | 200.345 | 25.4688 | Reinforced<br>Fill           | 135 | 38 | 233.549 | 481.491 | 443.488  | 0 | 443.488  | 554.729 | 554.729 |
| 34 | 0.315896 | 194.428 | 27.1086 | Reinforced<br>Fill           | 135 | 38 | 223.273 | 460.306 | 416.373  | 0 | 416.373  | 530.67  | 530.67  |
| 35 | 0.315896 | 188.075 | 28.7728 | Reinforced<br>Fill           | 135 | 38 | 213.02  | 439.169 | 389.318  | 0 | 389.318  | 506.296 | 506.296 |
| 36 | 0.315896 | 181.265 | 30.4641 | Reinforced<br>Fill           | 135 | 38 | 202.782 | 418.062 | 362.304  | 0 | 362.304  | 481.581 | 481.581 |
| 37 | 0.315896 | 173.975 | 32.1852 | Reinforced<br>Fill           | 135 | 38 | 192.553 | 396.973 | 335.311  | 0 | 335.311  | 456.499 | 456.499 |
| 38 | 0.315896 | 166.178 | 33.9396 | Reinforced<br>Fill           | 135 | 38 | 182.326 | 375.889 | 308.324  | 0 | 308.324  | 431.025 | 431.025 |
| 39 | 0.315896 | 157.841 | 35.731  | Reinforced<br>Fill           | 135 | 38 | 172.097 | 354.8   | 281.332  | 0 | 281.332  | 405.137 | 405.137 |
| 40 | 0.315896 | 148.929 | 37.5637 | Reinforced<br>Fill           | 135 | 38 | 161.862 | 333.699 | 254.322  | 0 | 254.322  | 378.809 | 378.809 |
| 41 | 0.315896 | 139.398 | 39.4427 | Reinforced<br>Fill           | 135 | 38 | 151.617 | 312.579 | 227.29   | 0 | 227.29   | 352.019 | 352.019 |
| 42 | 0.315896 | 129.199 | 41.3739 | Reinforced<br>Fill           | 135 | 38 | 141.362 | 291.437 | 200.23   | 0 | 200.23   | 324.743 | 324.743 |
| 43 | 0.315896 | 118.27  | 43.3644 | Reinforced<br>Fill           | 135 | 38 | 131.097 | 270.274 | 173.142  | 0 | 173.142  | 296.96  | 296.96  |
| 44 | 0.319149 | 107.571 | 45.4336 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 105.041 | 216.555 | 149.184  | 0 | 149.184  | 255.827 | 255.827 |
| 45 | 0.319149 | 94.6749 | 47.5929 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 94.8731 | 195.593 | 122.354  | 0 | 122.354  | 226.227 | 226.227 |
| 46 | 0.319149 | 80.7402 | 49.8456 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 84.7244 | 174.67  | 95.5736  | 0 | 95.5736  | 195.993 | 195.993 |
| 47 | 0.319149 | 65.6154 | 52.209  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 74.6227 | 153.844 | 68.9176  | 0 | 68.9176  | 165.152 | 165.152 |
| 48 | 0.319149 | 49.1008 | 54.7061 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 64.6197 | 133.222 | 42.5221  | 0 | 42.5221  | 133.809 | 133.809 |
| 49 | 0.319149 | 30.9229 | 57.3686 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 54.8147 | 113.008 | 16.6491  | 0 | 16.6491  | 102.257 | 102.257 |
| 50 | 0.319149 | 10.6892 | 60.2419 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 45.2811 | 93.3529 | -8.50786 | 0 | -8.50786 | 70.6918 | 70.6918 |



 **Wall 3 Static**
**Global Minimum Query (spencer) - Safety Factor: 1.79523**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.830333   | 21.1207      | -11.8908                  | Mass Wasting Colluvium | 100                 | 38                        | 106.611            | 191.392              | 116.976                  | 0                   | 116.976                       | 94.5276                    | 94.5276                         |
| 2            | 0.830333   | 62.2954      | -10.4691                  | Mass Wasting Colluvium | 100                 | 38                        | 139.932            | 251.211              | 193.541                  | 0                   | 193.541                       | 167.684                    | 167.684                         |
| 3            | 0.830333   | 101.351      | -9.05388                  | Mass Wasting Colluvium | 100                 | 38                        | 168.886            | 303.189              | 260.071                  | 0                   | 260.071                       | 233.159                    | 233.159                         |
| 4            | 0.830333   | 138.316      | -7.64421                  | Mass Wasting Colluvium | 100                 | 38                        | 194.002            | 348.279              | 317.782                  | 0                   | 317.782                       | 291.744                    | 291.744                         |
| 5            | 0.830333   | 173.211      | -6.23919                  | Mass Wasting Colluvium | 100                 | 38                        | 215.723            | 387.272              | 367.692                  | 0                   | 367.692                       | 344.108                    | 344.108                         |
| 6            | 0.830333   | 206.055      | -4.83793                  | Mass Wasting Colluvium | 100                 | 38                        | 234.416            | 420.83               | 410.644                  | 0                   | 410.644                       | 390.804                    | 390.804                         |
| 7            | 0.830333   | 236.863      | -3.43956                  | Mass Wasting Colluvium | 100                 | 38                        | 250.392            | 449.512              | 447.355                  | 0                   | 447.355                       | 432.305                    | 432.305                         |
| 8            | 0.830333   | 265.645      | -2.04325                  | Mass Wasting Colluvium | 100                 | 38                        | 263.916            | 473.79               | 478.429                  | 0                   | 478.429                       | 469.013                    | 469.013                         |
| 9            | 0.830333   | 292.409      | -0.648143                 | Mass Wasting Colluvium | 100                 | 38                        | 275.211            | 494.067              | 504.383                  | 0                   | 504.383                       | 501.27                     | 501.27                          |
| 10           | 0.830333   | 317.159      | 0.746575                  | Mass Wasting Colluvium | 100                 | 38                        | 284.47             | 510.689              | 525.659                  | 0                   | 525.659                       | 529.366                    | 529.366                         |
| 11           | 0.830333   | 339.893      | 2.14174                   | Mass Wasting Colluvium | 100                 | 38                        | 291.86             | 523.955              | 542.637                  | 0                   | 542.637                       | 553.552                    | 553.552                         |
| 12           | 0.830333   | 360.608      | 3.53817                   | Mass Wasting Colluvium | 100                 | 38                        | 297.523            | 534.122              | 555.651                  | 0                   | 555.651                       | 574.048                    | 574.048                         |
| 13           | 0.830333   | 379.298      | 4.93671                   | Mass Wasting Colluvium | 100                 | 38                        | 301.585            | 541.415              | 564.985                  | 0                   | 564.985                       | 591.035                    | 591.035                         |
| 14           | 0.830333   | 395.95       | 6.33821                   | Mass Wasting Colluvium | 100                 | 38                        | 304.157            | 546.031              | 570.893                  | 0                   | 570.893                       | 604.678                    | 604.678                         |
| 15           | 0.830333   | 410.55       | 7.74353                   | Mass Wasting Colluvium | 100                 | 38                        | 305.332            | 548.142              | 573.596                  | 0                   | 573.596                       | 615.115                    | 615.115                         |
| 16           | 0.830333   | 423.08       | 9.15356                   | Mass Wasting Colluvium | 100                 | 38                        | 305.198            | 547.9                | 573.285                  | 0                   | 573.285                       | 622.463                    | 622.463                         |
| 17           | 0.830333   | 433.516      | 10.5692                   | Mass Wasting Colluvium | 100                 | 38                        | 303.827            | 545.439              | 570.137                  | 0                   | 570.137                       | 626.827                    | 626.827                         |
| 18           | 0.830333   | 446.31       | 11.9914                   | Mass Wasting Colluvium | 100                 | 38                        | 303.696            | 545.204              | 569.835                  | 0                   | 569.835                       | 634.34                     | 634.34                          |
| 19           | 0.830333   | 841.86       | 13.4212                   | Mass Wasting Colluvium | 100                 | 38                        | 504.105            | 904.985              | 1030.33                  | 0                   | 1030.33                       | 1150.63                    | 1150.63                         |
| 20           | 0.830333   | 1728.39      | 14.8595                   | Mass Wasting Colluvium | 100                 | 38                        | 945.16             | 1696.78              | 2043.79                  | 0                   | 2043.79                       | 2294.56                    | 2294.56                         |
| 21           | 0.830333   | 2192.39      | 16.3074                   | Mass Wasting Colluvium | 100                 | 38                        | 1153.35            | 2070.53              | 2522.16                  | 0                   | 2522.16                       | 2859.59                    | 2859.59                         |
| 22           | 0.830333   | 2167.63      | 17.7662                   | Mass Wasting Colluvium | 100                 | 38                        | 1113.23            | 1998.51              | 2429.98                  | 0                   | 2429.98                       | 2786.68                    | 2786.68                         |



|    |          |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 0.830333 | 2136.57 | 19.237  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1071.46 | 1923.51 | 2333.99 | 0 | 2333.99 | 2707.89 | 2707.89 |
| 24 | 0.830333 | 2103.63 | 20.7211 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1030.17 | 1849.4  | 2239.13 | 0 | 2239.13 | 2628.84 | 2628.84 |
| 25 | 0.830333 | 2071.08 | 22.2199 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 990.386 | 1777.97 | 2147.7  | 0 | 2147.7  | 2552.27 | 2552.27 |
| 26 | 0.830333 | 2035.99 | 23.7348 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 950.692 | 1706.71 | 2056.49 | 0 | 2056.49 | 2474.51 | 2474.51 |
| 27 | 0.830333 | 1998.28 | 25.2677 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 911.059 | 1635.56 | 1965.43 | 0 | 1965.43 | 2395.45 | 2395.45 |
| 28 | 0.830333 | 1957.84 | 26.8201 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 871.443 | 1564.44 | 1874.4  | 0 | 1874.4  | 2314.98 | 2314.98 |
| 29 | 0.830333 | 1914.56 | 28.3942 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 831.821 | 1493.31 | 1783.35 | 0 | 1783.35 | 2233.01 | 2233.01 |
| 30 | 0.830333 | 1868.33 | 29.992  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 792.155 | 1422.1  | 1692.21 | 0 | 1692.21 | 2149.42 | 2149.42 |
| 31 | 0.830333 | 1818.99 | 31.6159 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 752.422 | 1350.77 | 1600.91 | 0 | 1600.91 | 2064.1  | 2064.1  |
| 32 | 0.806321 | 1716.08 | 33.2444 | Reinforced<br>Fill           | 135 | 38 | 731.917 | 1313.96 | 1509    | 0 | 1509    | 1988.77 | 1988.77 |
| 33 | 0.806321 | 1663.32 | 34.8795 | Reinforced<br>Fill           | 135 | 38 | 799.107 | 1434.58 | 1663.39 | 0 | 1663.39 | 2220.43 | 2220.43 |
| 34 | 0.806321 | 1607.21 | 36.5478 | Reinforced<br>Fill           | 135 | 38 | 653.76  | 1173.65 | 1329.41 | 0 | 1329.41 | 1814.01 | 1814.01 |
| 35 | 0.806321 | 1547.54 | 38.253  | Reinforced<br>Fill           | 135 | 38 | 614.461 | 1103.1  | 1239.11 | 0 | 1239.11 | 1723.57 | 1723.57 |
| 36 | 0.806321 | 1484.45 | 39.9993 | Reinforced<br>Fill           | 135 | 38 | 575.129 | 1032.49 | 1148.73 | 0 | 1148.73 | 1631.31 | 1631.31 |
| 37 | 0.793759 | 1413.18 | 41.7771 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 524.18  | 941.024 | 1076.46 | 0 | 1076.46 | 1544.75 | 1544.75 |
| 38 | 0.793759 | 1370.63 | 43.5914 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 493.806 | 886.495 | 1006.67 | 0 | 1006.67 | 1476.77 | 1476.77 |
| 39 | 0.793759 | 1323.45 | 45.4622 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 462.608 | 830.487 | 934.984 | 0 | 934.984 | 1405.11 | 1405.11 |
| 40 | 0.793759 | 1271.14 | 47.3974 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 430.556 | 772.947 | 861.335 | 0 | 861.335 | 1329.52 | 1329.52 |
| 41 | 0.793759 | 1213.14 | 49.4066 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 397.62  | 713.82  | 785.654 | 0 | 785.654 | 1249.67 | 1249.67 |
| 42 | 0.793759 | 1148.71 | 51.502  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 363.767 | 653.046 | 707.867 | 0 | 707.867 | 1165.22 | 1165.22 |
| 43 | 0.793759 | 1076.94 | 53.6989 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 328.96  | 590.559 | 627.886 | 0 | 627.886 | 1075.69 | 1075.69 |
| 44 | 0.793759 | 996.613 | 56.0175 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 293.158 | 526.286 | 545.621 | 0 | 545.621 | 980.532 | 980.532 |
| 45 | 0.793759 | 906.095 | 58.4855 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 256.317 | 460.148 | 460.968 | 0 | 460.968 | 879.002 | 879.002 |
| 46 | 0.793759 | 803.06  | 61.142  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 218.384 | 392.049 | 373.806 | 0 | 373.806 | 770.094 | 770.094 |
| 47 | 0.793759 | 684.011 | 64.0466 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 179.285 | 321.857 | 283.964 | 0 | 283.964 | 652.311 | 652.311 |

|    |          |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 48 | 0.793759 | 543.202 | 67.2972 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 138.884 | 249.328 | 191.131 | 0 | 191.131 | 523.098 | 523.098 |
| 49 | 0.793759 | 369.767 | 71.0809 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 96.8069 | 173.791 | 94.4475 | 0 | 94.4475 | 376.89  | 376.89  |
| 50 | 0.793759 | 136.541 | 75.8684 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 57.5498 | 103.315 | 4.24307 | 0 | 4.24307 | 232.825 | 232.825 |

### ◆ Wall 3 Seismic

**Global Minimum Query (spencer) - Safety Factor: 1.34799**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.801502   | 19.6501      | -11.8491                  | Mass Wasting Colluvium | 100                 | 38                        | 437.066            | 589.16               | 626.096                  | 0                   | 626.096                       | 534.397                    | 534.397                         |
| 2            | 0.801502   | 57.9891      | -10.4739                  | Mass Wasting Colluvium | 100                 | 38                        | 498.694            | 672.235              | 732.427                  | 0                   | 732.427                       | 640.235                    | 640.235                         |
| 3            | 0.801502   | 94.4184      | -9.10472                  | Mass Wasting Colluvium | 100                 | 38                        | 535.399            | 721.713              | 795.757                  | 0                   | 795.757                       | 709.955                    | 709.955                         |
| 4            | 0.801502   | 128.961      | -7.74078                  | Mass Wasting Colluvium | 100                 | 38                        | 555.647            | 749.006              | 830.689                  | 0                   | 830.689                       | 755.16                     | 755.16                          |
| 5            | 0.801502   | 161.638      | -6.38124                  | Mass Wasting Colluvium | 100                 | 38                        | 564.976            | 761.582              | 846.786                  | 0                   | 846.786                       | 783.601                    | 783.601                         |
| 6            | 0.801502   | 192.465      | -5.0253                   | Mass Wasting Colluvium | 100                 | 38                        | 567.029            | 764.349              | 850.328                  | 0                   | 850.328                       | 800.467                    | 800.467                         |
| 7            | 0.801502   | 221.454      | -3.67218                  | Mass Wasting Colluvium | 100                 | 38                        | 564.206            | 760.544              | 845.459                  | 0                   | 845.459                       | 809.248                    | 809.248                         |
| 8            | 0.801502   | 248.617      | -2.32111                  | Mass Wasting Colluvium | 100                 | 38                        | 558.093            | 752.304              | 834.912                  | 0                   | 834.912                       | 812.291                    | 812.291                         |
| 9            | 0.801502   | 273.959      | -0.971332                 | Mass Wasting Colluvium | 100                 | 38                        | 549.738            | 741.041              | 820.495                  | 0                   | 820.495                       | 811.175                    | 811.175                         |
| 10           | 0.801502   | 297.485      | 0.377909                  | Mass Wasting Colluvium | 100                 | 38                        | 539.831            | 727.687              | 803.403                  | 0                   | 803.403                       | 806.964                    | 806.964                         |
| 11           | 0.801502   | 319.195      | 1.72736                   | Mass Wasting Colluvium | 100                 | 38                        | 528.828            | 712.855              | 784.419                  | 0                   | 784.419                       | 800.367                    | 800.367                         |
| 12           | 0.801502   | 339.087      | 3.07777                   | Mass Wasting Colluvium | 100                 | 38                        | 517.029            | 696.95               | 764.061                  | 0                   | 764.061                       | 791.861                    | 791.861                         |
| 13           | 0.801502   | 357.155      | 4.42989                   | Mass Wasting Colluvium | 100                 | 38                        | 504.629            | 680.235              | 742.666                  | 0                   | 742.666                       | 781.76                     | 781.76                          |
| 14           | 0.801502   | 373.391      | 5.7845                    | Mass Wasting Colluvium | 100                 | 38                        | 491.756            | 662.882              | 720.456                  | 0                   | 720.456                       | 770.272                    | 770.272                         |
| 15           | 0.801502   | 387.783      | 7.14235                   | Mass Wasting Colluvium | 100                 | 38                        | 478.492            | 645.002              | 697.571                  | 0                   | 697.571                       | 757.53                     | 757.53                          |
| 16           | 0.801502   | 400.316      | 8.50426                   | Mass Wasting Colluvium | 100                 | 38                        | 464.891            | 626.669              | 674.106                  | 0                   | 674.106                       | 743.62                     | 743.62                          |
| 17           | 0.801502   | 410.972      | 9.87102                   | Mass Wasting Colluvium | 100                 | 38                        | 450.99             | 607.93               | 650.121                  | 0                   | 650.121                       | 728.596                    | 728.596                         |
| 18           | 0.801502   | 420.388      | 11.2435                   | Mass Wasting Colluvium | 100                 | 38                        | 437.31             | 589.49               | 626.518                  | 0                   | 626.518                       | 713.453                    | 713.453                         |
| 19           | 0.801502   | 466.743      | 12.6225                   | Mass Wasting Colluvium | 100                 | 38                        | 451.352            | 608.418              | 650.746                  | 0                   | 650.746                       | 751.821                    | 751.821                         |
| 20           | 0.801502   | 1086.97      | 14.009                    | Mass Wasting Colluvium | 100                 | 38                        | 857.84             | 1156.36              | 1352.09                  | 0                   | 1352.09                       | 1566.11                    | 1566.11                         |
| 21           | 0.801502   | 1888.52      | 15.404                    | Mass Wasting Colluvium | 100                 | 38                        | 1344.89            | 1812.9               | 2192.41                  | 0                   | 2192.41                       | 2562.96                    | 2562.96                         |
| 22           | 0.801502   | 2107.97      | 16.8084                   | Mass Wasting Colluvium | 100                 | 38                        | 1423.2             | 1918.46              | 2327.53                  | 0                   | 2327.53                       | 2757.45                    | 2757.45                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 0.801502 | 2083.63 | 18.2232 | Mass Wasting Colluvium | 100 | 38 | 1347.7  | 1816.69 | 2197.27 | 0 | 2197.27 | 2640.98 | 2640.98 |
| 24 | 0.801502 | 2052.77 | 19.6497 | Mass Wasting Colluvium | 100 | 38 | 1273.6  | 1716.8  | 2069.41 | 0 | 2069.41 | 2524.17 | 2524.17 |
| 25 | 0.801502 | 2022.54 | 21.089  | Mass Wasting Colluvium | 100 | 38 | 1204.72 | 1623.95 | 1950.57 | 0 | 1950.57 | 2415.16 | 2415.16 |
| 26 | 0.801502 | 1991.68 | 22.5423 | Mass Wasting Colluvium | 100 | 38 | 1139.82 | 1536.47 | 1838.59 | 0 | 1838.59 | 2311.71 | 2311.71 |
| 27 | 0.801502 | 1958.51 | 24.0112 | Mass Wasting Colluvium | 100 | 38 | 1077.66 | 1452.68 | 1731.35 | 0 | 1731.35 | 2211.41 | 2211.41 |
| 28 | 0.801502 | 1922.96 | 25.497  | Mass Wasting Colluvium | 100 | 38 | 1017.97 | 1372.22 | 1628.37 | 0 | 1628.37 | 2113.86 | 2113.86 |
| 29 | 0.801502 | 1884.94 | 27.0014 | Mass Wasting Colluvium | 100 | 38 | 960.497 | 1294.74 | 1529.2  | 0 | 1529.2  | 2018.62 | 2018.62 |
| 30 | 0.801502 | 1844.34 | 28.5263 | Mass Wasting Colluvium | 100 | 38 | 905.022 | 1219.96 | 1433.49 | 0 | 1433.49 | 1925.41 | 1925.41 |
| 31 | 0.801502 | 1801.07 | 30.0736 | Mass Wasting Colluvium | 100 | 38 | 851.364 | 1147.63 | 1340.9  | 0 | 1340.9  | 1833.9  | 1833.9  |
| 32 | 0.801502 | 1755    | 31.6455 | Mass Wasting Colluvium | 100 | 38 | 799.358 | 1077.53 | 1251.17 | 0 | 1251.17 | 1743.82 | 1743.82 |
| 33 | 0.82609  | 1757.49 | 33.2694 | Reinforced Fill        | 135 | 38 | 777.212 | 1047.67 | 1168.17 | 0 | 1168.17 | 1678.11 | 1678.11 |
| 34 | 0.82609  | 1702.01 | 34.9492 | Reinforced Fill        | 135 | 38 | 1248.33 | 1682.74 | 1981.02 | 0 | 1981.02 | 2853.46 | 2853.46 |
| 35 | 0.82609  | 1642.91 | 36.6642 | Reinforced Fill        | 135 | 38 | 676.302 | 911.648 | 994.061 | 0 | 994.061 | 1497.5  | 1497.5  |
| 36 | 0.82609  | 1579.96 | 38.4184 | Reinforced Fill        | 135 | 38 | 627.79  | 846.254 | 910.364 | 0 | 910.364 | 1408.27 | 1408.27 |
| 37 | 0.82609  | 1513.3  | 40.2163 | Reinforced Fill        | 135 | 38 | 618.903 | 834.275 | 895.031 | 0 | 895.031 | 1418.35 | 1418.35 |
| 38 | 0.844619 | 1493.37 | 42.0846 | Mass Wasting Colluvium | 100 | 38 | 513.274 | 691.888 | 757.583 | 0 | 757.583 | 1221.11 | 1221.11 |
| 39 | 0.844619 | 1444.15 | 44.0312 | Mass Wasting Colluvium | 100 | 38 | 475.838 | 641.425 | 692.992 | 0 | 692.992 | 1153    | 1153    |
| 40 | 0.844619 | 1389.2  | 46.0441 | Mass Wasting Colluvium | 100 | 38 | 438.498 | 591.091 | 628.568 | 0 | 628.568 | 1083.35 | 1083.35 |
| 41 | 0.844619 | 1327.87 | 48.1334 | Mass Wasting Colluvium | 100 | 38 | 401.21  | 540.827 | 564.233 | 0 | 564.233 | 1011.91 | 1011.91 |
| 42 | 0.844619 | 1259.34 | 50.3118 | Mass Wasting Colluvium | 100 | 38 | 363.929 | 490.573 | 499.911 | 0 | 499.911 | 938.449 | 938.449 |
| 43 | 0.844619 | 1182.61 | 52.5952 | Mass Wasting Colluvium | 100 | 38 | 326.608 | 440.264 | 435.519 | 0 | 435.519 | 862.63  | 862.63  |
| 44 | 0.844619 | 1096.31 | 55.0051 | Mass Wasting Colluvium | 100 | 38 | 289.187 | 389.821 | 370.954 | 0 | 370.954 | 784.034 | 784.034 |
| 45 | 0.844619 | 998.623 | 57.5703 | Mass Wasting Colluvium | 100 | 38 | 251.589 | 339.139 | 306.084 | 0 | 306.084 | 702.07  | 702.07  |
| 46 | 0.844619 | 886.932 | 60.3322 | Mass Wasting Colluvium | 100 | 38 | 213.714 | 288.085 | 240.738 | 0 | 240.738 | 615.909 | 615.909 |
| 47 | 0.844619 | 757.308 | 63.3537 | Mass Wasting Colluvium | 100 | 38 | 175.473 | 236.536 | 174.758 | 0 | 174.758 | 524.463 | 524.463 |

|    |          |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 48 | 0.844619 | 603.249 | 66.7391 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 137.038 | 184.726 | 108.445 | 0 | 108.445 | 427.242 | 427.242 |
| 49 | 0.844619 | 412.339 | 70.6894 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 100.465 | 135.425 | 45.342  | 0 | 45.342  | 332.054 | 332.054 |
| 50 | 0.844619 | 152.797 | 75.7232 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 83.873  | 113.06  | 16.7159 | 0 | 16.7159 | 346.319 | 346.319 |

# **Wall 4 Static**

## **Global Minimum Query (spencer) - Safety Factor: 2.46856**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.340456   | 2.77737      | -21.7696                  | Mass Wasting Colluvium | 100                 | 38                        | 61.0379            | 150.676              | 64.862                   | 0                   | 64.862                        | 40.4861                    | 40.4861                         |
| 2            | 0.340456   | 8.10055      | -20.1056                  | Mass Wasting Colluvium | 100                 | 38                        | 67.5633            | 166.784              | 85.4796                  | 0                   | 85.4796                       | 60.7474                    | 60.7474                         |
| 3            | 0.340456   | 12.9678      | -18.4591                  | Mass Wasting Colluvium | 100                 | 38                        | 73.0559            | 180.343              | 102.834                  | 0                   | 102.834                       | 78.4482                    | 78.4482                         |
| 4            | 0.340456   | 17.3928      | -16.8283                  | Mass Wasting Colluvium | 100                 | 38                        | 77.6347            | 191.646              | 117.301                  | 0                   | 117.301                       | 93.82                      | 93.82                           |
| 5            | 0.340456   | 21.3872      | -15.2114                  | Mass Wasting Colluvium | 100                 | 38                        | 81.3981            | 200.936              | 129.192                  | 0                   | 129.192                       | 107.06                     | 107.06                          |
| 6            | 0.340456   | 24.9616      | -13.6068                  | Mass Wasting Colluvium | 100                 | 38                        | 84.429             | 208.418              | 138.769                  | 0                   | 138.769                       | 118.333                    | 118.333                         |
| 7            | 0.340456   | 28.1249      | -12.0131                  | Mass Wasting Colluvium | 100                 | 38                        | 86.7972            | 214.264              | 146.251                  | 0                   | 146.251                       | 127.781                    | 127.781                         |
| 8            | 0.340456   | 30.8848      | -10.4287                  | Mass Wasting Colluvium | 100                 | 38                        | 88.5618            | 218.62               | 151.826                  | 0                   | 151.826                       | 135.526                    | 135.526                         |
| 9            | 0.340456   | 33.248       | -8.85236                  | Mass Wasting Colluvium | 100                 | 38                        | 89.7738            | 221.612              | 155.656                  | 0                   | 155.656                       | 141.674                    | 141.674                         |
| 10           | 0.340456   | 35.2199      | -7.28275                  | Mass Wasting Colluvium | 100                 | 38                        | 90.4774            | 223.349              | 157.879                  | 0                   | 157.879                       | 146.316                    | 146.316                         |
| 11           | 0.340456   | 36.8052      | -5.71863                  | Mass Wasting Colluvium | 100                 | 38                        | 90.7108            | 223.925              | 158.616                  | 0                   | 158.616                       | 149.532                    | 149.532                         |
| 12           | 0.340456   | 38.0073      | -4.15877                  | Mass Wasting Colluvium | 100                 | 38                        | 90.507             | 223.422              | 157.973                  | 0                   | 157.973                       | 151.392                    | 151.392                         |
| 13           | 0.340456   | 38.829       | -2.602                    | Mass Wasting Colluvium | 100                 | 38                        | 89.8953            | 221.912              | 156.041                  | 0                   | 156.041                       | 151.955                    | 151.955                         |
| 14           | 0.343905   | 41.1053      | -1.03928                  | Gravel                 | 0                   | 40                        | 47.5844            | 117.465              | 139.99                   | 0                   | 139.99                        | 139.127                    | 139.127                         |
| 15           | 0.343905   | 42.1207      | 0.530546                  | Gravel                 | 0                   | 40                        | 47.6626            | 117.658              | 140.219                  | 0                   | 140.219                       | 140.66                     | 140.66                          |
| 16           | 0.343905   | 85.2061      | 2.10077                   | Gravel                 | 0                   | 40                        | 94.2837            | 232.745              | 277.375                  | 0                   | 277.375                       | 280.833                    | 280.833                         |
| 17           | 0.343905   | 235.184      | 3.67257                   | Gravel                 | 0                   | 40                        | 254.57             | 628.421              | 748.922                  | 0                   | 748.922                       | 765.262                    | 765.262                         |
| 18           | 0.343905   | 307.949      | 5.24715                   | Gravel                 | 0                   | 40                        | 326.163            | 805.153              | 959.543                  | 0                   | 959.543                       | 989.496                    | 989.496                         |
| 19           | 0.343905   | 306.26       | 6.82572                   | Gravel                 | 0                   | 40                        | 317.472            | 783.699              | 933.977                  | 0                   | 933.977                       | 971.978                    | 971.978                         |
| 20           | 0.343905   | 304.124      | 8.40951                   | Gravel                 | 0                   | 40                        | 308.608            | 761.817              | 907.898                  | 0                   | 907.898                       | 953.521                    | 953.521                         |
| 21           | 0.343905   | 301.537      | 9.99981                   | Gravel                 | 0                   | 40                        | 299.568            | 739.502              | 881.304                  | 0                   | 881.304                       | 934.125                    | 934.125                         |
| 22           | 0.343905   | 298.49       | 11.5979                   | Gravel                 | 0                   | 40                        | 290.352            | 716.752              | 854.193                  | 0                   | 854.193                       | 913.783                    | 913.783                         |
| 23           | 0.343905   | 294.979      | 13.2053                   | Gravel                 | 0                   | 40                        | 280.959            | 693.565              | 826.558                  | 0                   | 826.558                       | 892.484                    | 892.484                         |
| 24           | 0.343905   | 290.993      | 14.8233                   | Gravel                 | 0                   | 40                        | 271.388            | 669.938              | 798.4                    | 0                   | 798.4                         | 870.221                    | 870.221                         |
| 25           | 0.290424   | 242.474      | 16.3258                   | Reinforced Fill        | 135                 | 38                        | 300.277            | 741.253              | 775.969                  | 0                   | 775.969                       | 863.923                    | 863.923                         |
| 26           | 0.290424   | 239.376      | 17.7121                   | Reinforced Fill        | 135                 | 38                        | 292.582            | 722.256              | 751.652                  | 0                   | 751.652                       | 845.095                    | 845.095                         |
| 27           | 0.287127   | 234.731      | 19.1013                   | Mass Wasting Colluvium | 100                 | 38                        | 271.817            | 670.996              | 730.841                  | 0                   | 730.841                       | 824.973                    | 824.973                         |
| 28           | 0.287127   | 233.997      | 20.4943                   | Mass Wasting Colluvium | 100                 | 38                        | 266.818            | 658.657              | 715.047                  | 0                   | 715.047                       | 814.776                    | 814.776                         |
| 29           | 0.287127   | 232.988      | 21.9                      | Mass Wasting Colluvium | 100                 | 38                        | 261.615            | 645.813              | 698.607                  | 0                   | 698.607                       | 803.776                    | 803.776                         |



|    |          |         |         |                        |     |    |         |         |          |   |          |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 30 | 0.351313 | 283.269 | 23.4804 | Reinforced Fill        | 135 | 38 | 269.587 | 665.491 | 678.998  | 0 | 678.998  | 796.107 | 796.107 |
| 31 | 0.351313 | 280.795 | 25.2409 | Reinforced Fill        | 135 | 38 | 262.519 | 648.045 | 656.667  | 0 | 656.667  | 780.428 | 780.428 |
| 32 | 0.351313 | 277.76  | 27.0273 | Reinforced Fill        | 135 | 38 | 255.136 | 629.818 | 633.337  | 0 | 633.337  | 763.489 | 763.489 |
| 33 | 0.351313 | 274.139 | 28.8426 | Reinforced Fill        | 135 | 38 | 247.43  | 610.796 | 608.992  | 0 | 608.992  | 745.257 | 745.257 |
| 34 | 0.351313 | 269.899 | 30.6902 | Reinforced Fill        | 135 | 38 | 239.395 | 590.961 | 583.603  | 0 | 583.603  | 725.691 | 725.691 |
| 35 | 0.351313 | 265.007 | 32.574  | Reinforced Fill        | 135 | 38 | 231.022 | 570.291 | 557.147  | 0 | 557.147  | 704.744 | 704.744 |
| 36 | 0.351313 | 259.421 | 34.4982 | Reinforced Fill        | 135 | 38 | 222.301 | 548.763 | 529.593  | 0 | 529.593  | 682.366 | 682.366 |
| 37 | 0.351313 | 253.092 | 36.468  | Reinforced Fill        | 135 | 38 | 213.219 | 526.344 | 500.897  | 0 | 500.897  | 658.487 | 658.487 |
| 38 | 0.351313 | 245.965 | 38.4893 | Reinforced Fill        | 135 | 38 | 203.763 | 503.001 | 471.021  | 0 | 471.021  | 633.039 | 633.039 |
| 39 | 0.351313 | 237.971 | 40.5691 | Reinforced Fill        | 135 | 38 | 193.915 | 478.69  | 439.903  | 0 | 439.903  | 605.926 | 605.926 |
| 40 | 0.351313 | 229.028 | 42.7158 | Reinforced Fill        | 135 | 38 | 183.654 | 453.36  | 407.482  | 0 | 407.482  | 577.046 | 577.046 |
| 41 | 0.356548 | 222.214 | 44.9569 | Mass Wasting Colluvium | 100 | 38 | 160.502 | 396.21  | 379.13   | 0 | 379.13   | 539.391 | 539.391 |
| 42 | 0.356548 | 210.692 | 47.3068 | Mass Wasting Colluvium | 100 | 38 | 149.352 | 368.684 | 343.899  | 0 | 343.899  | 505.789 | 505.789 |
| 43 | 0.356548 | 197.77  | 49.7667 | Mass Wasting Colluvium | 100 | 38 | 137.693 | 339.903 | 307.062  | 0 | 307.062  | 469.807 | 469.807 |
| 44 | 0.356548 | 183.225 | 52.359  | Mass Wasting Colluvium | 100 | 38 | 125.477 | 309.747 | 268.465  | 0 | 268.465  | 431.159 | 431.159 |
| 45 | 0.356548 | 166.757 | 55.1142 | Mass Wasting Colluvium | 100 | 38 | 112.641 | 278.06  | 227.906  | 0 | 227.906  | 389.458 | 389.458 |
| 46 | 0.356548 | 147.936 | 58.0758 | Mass Wasting Colluvium | 100 | 38 | 99.093  | 244.617 | 185.102  | 0 | 185.102  | 344.151 | 344.151 |
| 47 | 0.356548 | 126.117 | 61.3098 | Mass Wasting Colluvium | 100 | 38 | 84.6984 | 209.083 | 139.62   | 0 | 139.62   | 294.388 | 294.388 |
| 48 | 0.356548 | 100.238 | 64.9252 | Mass Wasting Colluvium | 100 | 38 | 69.2287 | 170.895 | 90.7419  | 0 | 90.7419  | 238.699 | 238.699 |
| 49 | 0.356548 | 68.2918 | 69.13   | Mass Wasting Colluvium | 100 | 38 | 52.2258 | 128.923 | 37.0193  | 0 | 37.0193  | 174     | 174     |
| 50 | 0.356548 | 25.2332 | 74.4514 | Mass Wasting Colluvium | 100 | 38 | 32.6093 | 80.4979 | -24.9616 | 0 | -24.9616 | 92.2372 | 92.2372 |

 **Wall 4 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 1.72951**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.420536   | 3.63257      | -18.8981                  | Mass Wasting Colluvium | 100                 | 38                        | 158.903            | 274.825              | 223.766                  | 0                   | 223.766                       | 169.367                    | 169.367                         |
| 2            | 0.420536   | 10.5658      | -17.2788                  | Mass Wasting Colluvium | 100                 | 38                        | 166.485            | 287.938              | 240.55                   | 0                   | 240.55                        | 188.763                    | 188.763                         |
| 3            | 0.420536   | 16.8439      | -15.6737                  | Mass Wasting Colluvium | 100                 | 38                        | 170.986            | 295.722              | 250.512                  | 0                   | 250.512                       | 202.535                    | 202.535                         |
| 4            | 0.420536   | 22.4828      | -14.0811                  | Mass Wasting Colluvium | 100                 | 38                        | 173.214            | 299.575              | 255.444                  | 0                   | 255.444                       | 211.996                    | 211.996                         |
| 5            | 0.420536   | 27.4967      | -12.4996                  | Mass Wasting Colluvium | 100                 | 38                        | 173.733            | 300.473              | 256.595                  | 0                   | 256.595                       | 218.08                     | 218.08                          |
| 6            | 0.420536   | 31.8977      | -10.9276                  | Mass Wasting Colluvium | 100                 | 38                        | 172.944            | 299.108              | 254.848                  | 0                   | 254.848                       | 221.458                    | 221.458                         |
| 7            | 0.420536   | 35.6962      | -9.36401                  | Mass Wasting Colluvium | 100                 | 38                        | 171.134            | 295.978              | 250.84                   | 0                   | 250.84                        | 222.62                     | 222.62                          |
| 8            | 0.420536   | 38.9009      | -7.80739                  | Mass Wasting Colluvium | 100                 | 38                        | 168.514            | 291.446              | 245.039                  | 0                   | 245.039                       | 221.934                    | 221.934                         |
| 9            | 0.420536   | 41.5192      | -6.25655                  | Mass Wasting Colluvium | 100                 | 38                        | 165.235            | 285.776              | 237.782                  | 0                   | 237.782                       | 219.667                    | 219.667                         |
| 10           | 0.420536   | 43.5568      | -4.7103                   | Mass Wasting Colluvium | 100                 | 38                        | 161.415            | 279.169              | 229.325                  | 0                   | 229.325                       | 216.025                    | 216.025                         |
| 11           | 0.420536   | 45.0183      | -3.16748                  | Mass Wasting Colluvium | 100                 | 38                        | 157.139            | 271.774              | 219.86                   | 0                   | 219.86                        | 211.164                    | 211.164                         |
| 12           | 0.420536   | 45.9069      | -1.62696                  | Mass Wasting Colluvium | 100                 | 38                        | 152.474            | 263.706              | 209.534                  | 0                   | 209.534                       | 205.203                    | 205.203                         |
| 13           | 0.382533   | 43.6673      | -0.15716                  | Gravel                 | 0                   | 40                        | 71.6717            | 123.957              | 147.727                  | 0                   | 147.727                       | 147.53                     | 147.53                          |
| 14           | 0.382533   | 44.4193      | 1.24295                   | Gravel                 | 0                   | 40                        | 69.7527            | 120.638              | 143.771                  | 0                   | 143.771                       | 145.284                    | 145.284                         |
| 15           | 0.382533   | 147.886      | 2.64381                   | Gravel                 | 0                   | 40                        | 222.568            | 384.934              | 458.747                  | 0                   | 458.747                       | 469.024                    | 469.024                         |
| 16           | 0.382533   | 316.066      | 4.04625                   | Gravel                 | 0                   | 40                        | 456.598            | 789.69               | 941.116                  | 0                   | 941.116                       | 973.415                    | 973.415                         |
| 17           | 0.382533   | 339.167      | 5.45113                   | Gravel                 | 0                   | 40                        | 470.962            | 814.533              | 970.723                  | 0                   | 970.723                       | 1015.67                    | 1015.67                         |
| 18           | 0.382533   | 337.036      | 6.8593                    | Gravel                 | 0                   | 40                        | 450.398            | 778.967              | 928.337                  | 0                   | 928.337                       | 982.516                    | 982.516                         |
| 19           | 0.382533   | 334.412      | 8.27165                   | Gravel                 | 0                   | 40                        | 430.546            | 744.633              | 887.419                  | 0                   | 887.419                       | 950.011                    | 950.011                         |
| 20           | 0.382533   | 331.29       | 9.68909                   | Gravel                 | 0                   | 40                        | 411.318            | 711.378              | 847.787                  | 0                   | 847.787                       | 918.015                    | 918.015                         |
| 21           | 0.382533   | 327.663      | 11.1125                   | Gravel                 | 0                   | 40                        | 392.637            | 679.07               | 809.285                  | 0                   | 809.285                       | 886.407                    | 886.407                         |
| 22           | 0.382533   | 323.526      | 12.543                    | Gravel                 | 0                   | 40                        | 374.438            | 647.595              | 771.772                  | 0                   | 771.772                       | 855.078                    | 855.078                         |
| 23           | 0.485364   | 404.136      | 14.1761                   | Reinforced Fill        | 135                 | 38                        | 419.801            | 726.05               | 756.509                  | 0                   | 756.509                       | 862.548                    | 862.548                         |
| 24           | 0.401383   | 330.868      | 15.8557                   | Mass Wasting Colluvium | 100                 | 38                        | 378.94             | 655.381              | 710.854                  | 0                   | 710.854                       | 818.481                    | 818.481                         |
| 25           | 0.401383   | 330.606      | 17.3888                   | Mass Wasting Colluvium | 100                 | 38                        | 367.459            | 635.524              | 685.441                  | 0                   | 685.441                       | 800.517                    | 800.517                         |
| 26           | 0.401383   | 329.79       | 18.935                    | Mass Wasting Colluvium | 100                 | 38                        | 355.961            | 615.638              | 659.988                  | 0                   | 659.988                       | 782.103                    | 782.103                         |
| 27           | 0.389229   | 318.473      | 20.4717                   | Reinforced Fill        | 135                 | 38                        | 367.647            | 635.85               | 641.058                  | 0                   | 641.058                       | 778.309                    | 778.309                         |
| 28           | 0.389229   | 316.604      | 22.0001                   | Reinforced Fill        | 135                 | 38                        | 356.059            | 615.807              | 615.406                  | 0                   | 615.406                       | 759.264                    | 759.264                         |

|    |          |         |         |                        |     |    |         |         |          |   |          |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 29 | 0.389229 | 314.168 | 23.5452 | Reinforced Fill        | 135 | 38 | 344.41  | 595.66  | 589.617  | 0 | 589.617  | 739.694 | 739.694 |
| 30 | 0.389229 | 311.145 | 25.1086 | Reinforced Fill        | 135 | 38 | 332.687 | 575.386 | 563.669  | 0 | 563.669  | 719.573 | 719.573 |
| 31 | 0.389229 | 307.512 | 26.6924 | Reinforced Fill        | 135 | 38 | 320.882 | 554.969 | 537.536  | 0 | 537.536  | 698.869 | 698.869 |
| 32 | 0.389229 | 303.245 | 28.2985 | Reinforced Fill        | 135 | 38 | 308.983 | 534.389 | 511.196  | 0 | 511.196  | 677.555 | 677.555 |
| 33 | 0.389229 | 298.315 | 29.9292 | Reinforced Fill        | 135 | 38 | 296.981 | 513.631 | 484.624  | 0 | 484.624  | 655.597 | 655.597 |
| 34 | 0.389229 | 292.69  | 31.5871 | Reinforced Fill        | 135 | 38 | 284.866 | 492.678 | 457.808  | 0 | 457.808  | 632.97  | 632.97  |
| 35 | 0.389229 | 286.333 | 33.2752 | Reinforced Fill        | 135 | 38 | 272.631 | 471.518 | 430.722  | 0 | 430.722  | 609.638 | 609.638 |
| 36 | 0.399154 | 286.216 | 35.0189 | Mass Wasting Colluvium | 100 | 38 | 239.778 | 414.699 | 402.795  | 0 | 402.795  | 570.808 | 570.808 |
| 37 | 0.399154 | 277.826 | 36.8232 | Mass Wasting Colluvium | 100 | 38 | 227.242 | 393.017 | 375.044  | 0 | 375.044  | 545.186 | 545.186 |
| 38 | 0.399154 | 268.483 | 38.6712 | Mass Wasting Colluvium | 100 | 38 | 214.552 | 371.07  | 346.953  | 0 | 346.953  | 518.665 | 518.665 |
| 39 | 0.399154 | 258.114 | 40.5682 | Mass Wasting Colluvium | 100 | 38 | 201.702 | 348.846 | 318.508  | 0 | 318.508  | 491.194 | 491.194 |
| 40 | 0.399154 | 246.63  | 42.5207 | Mass Wasting Colluvium | 100 | 38 | 188.684 | 326.331 | 289.69   | 0 | 289.69   | 462.713 | 462.713 |
| 41 | 0.399154 | 233.924 | 44.5364 | Mass Wasting Colluvium | 100 | 38 | 175.492 | 303.515 | 260.488  | 0 | 260.488  | 433.163 | 433.163 |
| 42 | 0.399154 | 219.866 | 46.6247 | Mass Wasting Colluvium | 100 | 38 | 162.119 | 280.386 | 230.883  | 0 | 230.883  | 402.466 | 402.466 |
| 43 | 0.399154 | 204.296 | 48.797  | Mass Wasting Colluvium | 100 | 38 | 148.559 | 256.935 | 200.868  | 0 | 200.868  | 370.548 | 370.548 |
| 44 | 0.399154 | 187.01  | 51.0682 | Mass Wasting Colluvium | 100 | 38 | 134.813 | 233.16  | 170.436  | 0 | 170.436  | 337.321 | 337.321 |
| 45 | 0.399154 | 167.743 | 53.4573 | Mass Wasting Colluvium | 100 | 38 | 120.883 | 209.068 | 139.601  | 0 | 139.601  | 302.71  | 302.71  |
| 46 | 0.399154 | 146.143 | 55.9899 | Mass Wasting Colluvium | 100 | 38 | 106.792 | 184.698 | 108.408  | 0 | 108.408  | 266.674 | 266.674 |
| 47 | 0.399154 | 121.718 | 58.7018 | Mass Wasting Colluvium | 100 | 38 | 92.5977 | 160.149 | 76.9869  | 0 | 76.9869  | 229.294 | 229.294 |
| 48 | 0.399154 | 93.7466 | 61.646  | Mass Wasting Colluvium | 100 | 38 | 78.4498 | 135.68  | 45.6679  | 0 | 45.6679  | 191.036 | 191.036 |
| 49 | 0.399154 | 61.0854 | 64.9065 | Mass Wasting Colluvium | 100 | 38 | 64.7449 | 111.977 | 15.3299  | 0 | 15.3299  | 153.586 | 153.586 |
| 50 | 0.399154 | 21.7026 | 68.634  | Mass Wasting Colluvium | 100 | 38 | 57.2268 | 98.9744 | -1.31272 | 0 | -1.31272 | 144.969 | 144.969 |

# **Walls 5a and 6 Static**

## **Global Minimum Query (spencer) - Safety Factor: 1.41454**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.4843     | 30.2131      | -12.8743                  | Mass Wasting Colluvium | 100                 | 38                        | 175.748            | 248.603              | 190.204                  | 0                   | 190.204                       | 150.035                    | 150.035                         |
| 2            | 1.4843     | 87.0438      | -11.3848                  | Mass Wasting Colluvium | 100                 | 38                        | 214.912            | 304.002              | 261.11                   | 0                   | 261.11                        | 217.836                    | 217.836                         |
| 3            | 1.4843     | 136.739      | -9.903                    | Mass Wasting Colluvium | 100                 | 38                        | 243.657            | 344.663              | 313.155                  | 0                   | 313.155                       | 270.617                    | 270.617                         |
| 4            | 1.4843     | 179.403      | -8.42788                  | Mass Wasting Colluvium | 100                 | 38                        | 263.83             | 373.198              | 349.678                  | 0                   | 349.678                       | 310.587                    | 310.587                         |
| 5            | 1.4843     | 215.122      | -6.95837                  | Mass Wasting Colluvium | 100                 | 38                        | 276.873            | 391.648              | 373.293                  | 0                   | 373.293                       | 339.501                    | 339.501                         |
| 6            | 1.4843     | 243.969      | -5.49345                  | Mass Wasting Colluvium | 100                 | 38                        | 283.928            | 401.627              | 386.065                  | 0                   | 386.065                       | 358.759                    | 358.759                         |
| 7            | 1.4843     | 266          | -4.03212                  | Mass Wasting Colluvium | 100                 | 38                        | 285.904            | 404.423              | 389.643                  | 0                   | 389.643                       | 369.49                     | 369.49                          |
| 8            | 1.4843     | 281.259      | -2.57342                  | Mass Wasting Colluvium | 100                 | 38                        | 283.535            | 401.072              | 385.355                  | 0                   | 385.355                       | 372.611                    | 372.611                         |
| 9            | 1.4843     | 289.776      | -1.11639                  | Mass Wasting Colluvium | 100                 | 38                        | 277.418            | 392.419              | 374.279                  | 0                   | 374.279                       | 368.873                    | 368.873                         |
| 10           | 1.4843     | 292.145      | 0.339921                  | Mass Wasting Colluvium | 100                 | 38                        | 268.361            | 379.607              | 357.88                   | 0                   | 357.88                        | 359.472                    | 359.472                         |
| 11           | 1.4843     | 335.858      | 1.79645                   | Mass Wasting Colluvium | 100                 | 38                        | 282.023            | 398.933              | 382.617                  | 0                   | 382.617                       | 391.462                    | 391.462                         |
| 12           | 1.4843     | 403.51       | 3.25415                   | Mass Wasting Colluvium | 100                 | 38                        | 306.758            | 433.922              | 427.4                    | 0                   | 427.4                         | 444.841                    | 444.841                         |
| 13           | 1.4843     | 466.521      | 4.71395                   | Mass Wasting Colluvium | 100                 | 38                        | 327.206            | 462.846              | 464.422                  | 0                   | 464.422                       | 491.403                    | 491.403                         |
| 14           | 1.4843     | 1324.86      | 6.17683                   | Mass Wasting Colluvium | 100                 | 38                        | 721.889            | 1021.14              | 1179                     | 0                   | 1179                          | 1257.13                    | 1257.13                         |
| 15           | 1.4843     | 2508.14      | 7.64377                   | Mass Wasting Colluvium | 100                 | 38                        | 1235.24            | 1747.3               | 2108.45                  | 0                   | 2108.45                       | 2274.23                    | 2274.23                         |
| 16           | 1.4843     | 2465.94      | 9.11578                   | Mass Wasting Colluvium | 100                 | 38                        | 1173.61            | 1660.12              | 1996.87                  | 0                   | 1996.87                       | 2185.18                    | 2185.18                         |
| 17           | 1.4843     | 2429.03      | 10.5939                   | Mass Wasting Colluvium | 100                 | 38                        | 1117.98            | 1581.43              | 1896.14                  | 0                   | 1896.14                       | 2105.24                    | 2105.24                         |
| 18           | 1.4843     | 2407.78      | 12.0791                   | Mass Wasting Colluvium | 100                 | 38                        | 1071.98            | 1516.36              | 1812.86                  | 0                   | 1812.86                       | 2042.26                    | 2042.26                         |
| 19           | 1.4843     | 2379.34      | 13.5727                   | Mass Wasting Colluvium | 100                 | 38                        | 1025.63            | 1450.8               | 1728.94                  | 0                   | 1728.94                       | 1976.55                    | 1976.55                         |
| 20           | 1.4843     | 2343.58      | 15.0757                   | Mass Wasting Colluvium | 100                 | 38                        | 978.919            | 1384.72              | 1644.37                  | 0                   | 1644.37                       | 1908.06                    | 1908.06                         |
| 21           | 1.4843     | 2452.36      | 16.5895                   | Mass Wasting Colluvium | 100                 | 38                        | 987.932            | 1397.47              | 1660.68                  | 0                   | 1660.68                       | 1955                       | 1955                            |
| 22           | 1.4843     | 4605.44      | 18.1152                   | Mass Wasting Colluvium | 100                 | 38                        | 1725.3             | 2440.51              | 2995.71                  | 0                   | 2995.71                       | 3560.13                    | 3560.13                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 1.81745  | 8251.94 | 19.829  | Reinforced Fill        | 135 | 38 | 2426.4  | 3432.24 | 4220.27 | 0 | 4220.27 | 5095.21 | 5095.21 |
| 24 | 1.81745  | 8227.84 | 21.7365 | Reinforced Fill        | 135 | 38 | 2325.99 | 3290.2  | 4038.48 | 0 | 4038.48 | 4965.81 | 4965.81 |
| 25 | 1.40314  | 6284.64 | 23.4464 | Mass Wasting Colluvium | 100 | 38 | 2196.57 | 3107.13 | 3848.95 | 0 | 3848.95 | 4801.6  | 4801.6  |
| 26 | 1.40314  | 6250.57 | 24.9558 | Mass Wasting Colluvium | 100 | 38 | 2119.07 | 2997.51 | 3708.64 | 0 | 3708.64 | 4694.79 | 4694.79 |
| 27 | 1.40314  | 6208.87 | 26.4839 | Mass Wasting Colluvium | 100 | 38 | 2041.53 | 2887.82 | 3568.24 | 0 | 3568.24 | 4585.39 | 4585.39 |
| 28 | 1.40314  | 6159.24 | 28.0326 | Mass Wasting Colluvium | 100 | 38 | 1963.83 | 2777.91 | 3427.57 | 0 | 3427.57 | 4473.19 | 4473.19 |
| 29 | 1.40314  | 6101.36 | 29.604  | Mass Wasting Colluvium | 100 | 38 | 1885.88 | 2667.65 | 3286.44 | 0 | 3286.44 | 4357.94 | 4357.94 |
| 30 | 1.40314  | 6034.83 | 31.2002 | Mass Wasting Colluvium | 100 | 38 | 1807.58 | 2556.9  | 3144.69 | 0 | 3144.69 | 4239.41 | 4239.41 |
| 31 | 1.40314  | 5959.21 | 32.8239 | Mass Wasting Colluvium | 100 | 38 | 1728.86 | 2445.54 | 3002.15 | 0 | 3002.15 | 4117.35 | 4117.35 |
| 32 | 1.40314  | 5874.02 | 34.4779 | Mass Wasting Colluvium | 100 | 38 | 1649.61 | 2333.44 | 2858.67 | 0 | 2858.67 | 3991.48 | 3991.48 |
| 33 | 1.40314  | 5778.68 | 36.1654 | Mass Wasting Colluvium | 100 | 38 | 1569.75 | 2220.48 | 2714.1  | 0 | 2714.1  | 3861.53 | 3861.53 |
| 34 | 1.40314  | 5672.54 | 37.8901 | Mass Wasting Colluvium | 100 | 38 | 1489.21 | 2106.55 | 2568.27 | 0 | 2568.27 | 3727.17 | 3727.17 |
| 35 | 1.40314  | 5554.82 | 39.6562 | Mass Wasting Colluvium | 100 | 38 | 1407.89 | 1991.52 | 2421.03 | 0 | 2421.03 | 3588.07 | 3588.07 |
| 36 | 1.40314  | 5424.63 | 41.4687 | Mass Wasting Colluvium | 100 | 38 | 1325.71 | 1875.27 | 2272.25 | 0 | 2272.25 | 3443.85 | 3443.85 |
| 37 | 0.555213 | 2107.99 | 42.7582 | Reinforced Fill        | 135 | 38 | 1290.61 | 1825.62 | 2163.89 | 0 | 2163.89 | 3357.26 | 3357.26 |
| 38 | 1.40094  | 5211.99 | 44.0858 | Mass Wasting Colluvium | 100 | 38 | 1209.48 | 1710.86 | 2061.8  | 0 | 2061.8  | 3233.29 | 3233.29 |
| 39 | 1.40094  | 5047.76 | 46.0324 | Mass Wasting Colluvium | 100 | 38 | 1125.02 | 1591.38 | 1908.88 | 0 | 1908.88 | 3075.18 | 3075.18 |
| 40 | 1.40094  | 4866.56 | 48.0502 | Mass Wasting Colluvium | 100 | 38 | 1039.39 | 1470.26 | 1753.85 | 0 | 1753.85 | 2910.24 | 2910.24 |
| 41 | 1.40094  | 4666.36 | 50.1507 | Mass Wasting Colluvium | 100 | 38 | 952.5   | 1347.35 | 1596.54 | 0 | 1596.54 | 2737.77 | 2737.77 |
| 42 | 1.40094  | 4444.54 | 52.3482 | Mass Wasting Colluvium | 100 | 38 | 864.26  | 1222.53 | 1436.77 | 0 | 1436.77 | 2556.94 | 2556.94 |
| 43 | 1.40094  | 4197.74 | 54.6613 | Mass Wasting Colluvium | 100 | 38 | 774.542 | 1095.62 | 1274.34 | 0 | 1274.34 | 2366.7  | 2366.7  |
| 44 | 1.40094  | 3921.43 | 57.1152 | Mass Wasting Colluvium | 100 | 38 | 683.231 | 966.458 | 1109.01 | 0 | 1109.01 | 2165.74 | 2165.74 |
| 45 | 1.40094  | 3609.31 | 59.7449 | Mass Wasting Colluvium | 100 | 38 | 590.186 | 834.841 | 940.553 | 0 | 940.553 | 1952.35 | 1952.35 |
| 46 | 1.40094  | 3252.44 | 62.6023 | Mass Wasting Colluvium | 100 | 38 | 495.271 | 700.58  | 768.708 | 0 | 768.708 | 1724.28 | 1724.28 |
| 47 | 1.40094  | 2837.03 | 65.7705 | Mass Wasting Colluvium | 100 | 38 | 398.323 | 563.444 | 593.18  | 0 | 593.18  | 1478.27 | 1478.27 |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 48 | 1.40094 | 2335.69 | 69.3985 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 298.639 | 422.437 | 412.7   | 0 | 412.7   | 1207.15 | 1207.15 |
| 49 | 1.40094 | 1690.2  | 73.8183 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 194.576 | 275.236 | 224.293 | 0 | 224.293 | 894.829 | 894.829 |
| 50 | 1.40094 | 660.588 | 80.4155 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 81.8235 | 115.743 | 20.1496 | 0 | 20.1496 | 504.719 | 504.719 |



# **Walls 5a and 6 Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.08031**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.43673    | 13.7921      | -6.35426                  | Mass Wasting Colluvium | 100                 | 38                        | 730.269            | 788.917              | 881.772                  | 0                   | 881.772                       | 800.45                     | 800.45                          |
| 2            | 1.43673    | 38.613       | -5.08868                  | Mass Wasting Colluvium | 100                 | 38                        | 717.142            | 774.736              | 863.621                  | 0                   | 863.621                       | 799.76                     | 799.76                          |
| 3            | 1.43673    | 57.9235      | -3.82558                  | Mass Wasting Colluvium | 100                 | 38                        | 685.319            | 740.357              | 819.618                  | 0                   | 819.618                       | 773.792                    | 773.792                         |
| 4            | 1.43673    | 71.7522      | -2.56435                  | Mass Wasting Colluvium | 100                 | 38                        | 642.113            | 693.681              | 759.875                  | 0                   | 759.875                       | 731.117                    | 731.117                         |
| 5            | 1.43673    | 80.119       | -1.30435                  | Mass Wasting Colluvium | 100                 | 38                        | 592.492            | 640.075              | 691.264                  | 0                   | 691.264                       | 677.773                    | 677.773                         |
| 6            | 1.43673    | 83.0363      | -0.0449901                | Mass Wasting Colluvium | 100                 | 38                        | 539.786            | 583.136              | 618.387                  | 0                   | 618.387                       | 617.963                    | 617.963                         |
| 7            | 1.43673    | 80.5081      | 1.21435                   | Mass Wasting Colluvium | 100                 | 38                        | 486.194            | 525.24               | 544.283                  | 0                   | 544.283                       | 554.589                    | 554.589                         |
| 8            | 1.43673    | 98.665       | 2.47428                   | Mass Wasting Colluvium | 100                 | 38                        | 468.117            | 505.712              | 519.287                  | 0                   | 519.287                       | 539.515                    | 539.515                         |
| 9            | 1.43673    | 158.571      | 3.73541                   | Mass Wasting Colluvium | 100                 | 38                        | 501.112            | 541.356              | 564.91                   | 0                   | 564.91                        | 597.626                    | 597.626                         |
| 10           | 1.43673    | 213.964      | 4.99835                   | Mass Wasting Colluvium | 100                 | 38                        | 520.401            | 562.194              | 591.582                  | 0                   | 591.582                       | 637.096                    | 637.096                         |
| 11           | 1.43673    | 442.844      | 6.26373                   | Mass Wasting Colluvium | 100                 | 38                        | 704.797            | 761.399              | 846.551                  | 0                   | 846.551                       | 923.91                     | 923.91                          |
| 12           | 1.43673    | 2040.98      | 7.53219                   | Mass Wasting Colluvium | 100                 | 38                        | 2084               | 2251.37              | 2753.63                  | 0                   | 2753.63                       | 3029.19                    | 3029.19                         |
| 13           | 1.43673    | 2185.05      | 8.80438                   | Mass Wasting Colluvium | 100                 | 38                        | 2031.92            | 2195.1               | 2681.6                   | 0                   | 2681.6                        | 2996.32                    | 2996.32                         |
| 14           | 0.373473   | 560.559      | 9.60748                   | Gravel                 | 0                   | 40                        | 2001.8             | 2162.56              | 2577.24                  | 0                   | 2577.24                       | 2916.09                    | 2916.09                         |
| 15           | 1.63073    | 2417.4       | 10.5003                   | Mass Wasting Colluvium | 100                 | 38                        | 1784.6             | 1927.92              | 2339.63                  | 0                   | 2339.63                       | 2670.4                     | 2670.4                          |
| 16           | 1.63073    | 2391.83      | 11.9575                   | Mass Wasting Colluvium | 100                 | 38                        | 1621.84            | 1752.09              | 2114.58                  | 0                   | 2114.58                       | 2458.06                    | 2458.06                         |
| 17           | 1.63073    | 2358.3       | 13.4227                   | Mass Wasting Colluvium | 100                 | 38                        | 1476.23            | 1594.79              | 1913.25                  | 0                   | 1913.25                       | 2265.55                    | 2265.55                         |
| 18           | 1.34716    | 1916.97      | 14.7679                   | Reinforced Fill        | 135                 | 38                        | 1420.6             | 1534.69              | 1791.52                  | 0                   | 1791.52                       | 2166.01                    | 2166.01                         |
| 19           | 1.34716    | 1953.73      | 15.9925                   | Reinforced Fill        | 135                 | 38                        | 1358.18            | 1467.26              | 1705.21                  | 0                   | 1705.21                       | 2094.47                    | 2094.47                         |
| 20           | 1.34716    | 3585.15      | 17.2247                   | Reinforced Fill        | 135                 | 38                        | 2159.8             | 2333.25              | 2813.63                  | 0                   | 2813.63                       | 3483.22                    | 3483.22                         |
| 21           | 1.34716    | 5675.21      | 18.4651                   | Reinforced Fill        | 135                 | 38                        | 4649.84            | 5023.27              | 6256.7                   | 0                   | 6256.7                        | 7809.37                    | 7809.37                         |
| 22           | 1.34716    | 5968.59      | 19.7146                   | Reinforced Fill        | 135                 | 38                        | 3069.6             | 3316.12              | 4071.65                  | 0                   | 4071.65                       | 5171.61                    | 5171.61                         |
| 23           | 1.34716    | 5884.52      | 20.974                    | Reinforced Fill        | 135                 | 38                        | 2868.51            | 3098.88              | 3793.59                  | 0                   | 3793.59                       | 4893.21                    | 4893.21                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 24 | 1.49955  | 6503.66 | 22.3166 | Mass Wasting Colluvium | 100 | 38 | 2643.29 | 2855.57 | 3526.97 | 0 | 3526.97 | 4611.96 | 4611.96 |
| 25 | 1.49955  | 6471.31 | 23.7448 | Mass Wasting Colluvium | 100 | 38 | 2483.8  | 2683.27 | 3306.43 | 0 | 3306.43 | 4399.06 | 4399.06 |
| 26 | 1.49955  | 6430.89 | 25.1889 | Mass Wasting Colluvium | 100 | 38 | 2334.73 | 2522.23 | 3100.31 | 0 | 3100.31 | 4198.4  | 4198.4  |
| 27 | 1.49955  | 6382.1  | 26.6503 | Mass Wasting Colluvium | 100 | 38 | 2194.71 | 2370.97 | 2906.72 | 0 | 2906.72 | 4008.16 | 4008.16 |
| 28 | 1.49955  | 6324.63 | 28.1307 | Mass Wasting Colluvium | 100 | 38 | 2062.57 | 2228.22 | 2724    | 0 | 2724    | 3826.74 | 3826.74 |
| 29 | 1.49955  | 6258.14 | 29.6319 | Mass Wasting Colluvium | 100 | 38 | 1937.31 | 2092.89 | 2550.79 | 0 | 2550.79 | 3652.76 | 3652.76 |
| 30 | 1.49955  | 6182.21 | 31.1558 | Mass Wasting Colluvium | 100 | 38 | 1818.05 | 1964.06 | 2385.88 | 0 | 2385.88 | 3485.02 | 3485.02 |
| 31 | 1.49955  | 6096.39 | 32.7046 | Mass Wasting Colluvium | 100 | 38 | 1704.07 | 1840.92 | 2228.28 | 0 | 2228.28 | 3322.47 | 3322.47 |
| 32 | 1.49955  | 6000.16 | 34.2809 | Mass Wasting Colluvium | 100 | 38 | 1594.75 | 1722.82 | 2077.11 | 0 | 2077.11 | 3164.19 | 3164.19 |
| 33 | 1.49955  | 5892.96 | 35.8873 | Mass Wasting Colluvium | 100 | 38 | 1489.54 | 1609.16 | 1931.64 | 0 | 1931.64 | 3009.38 | 3009.38 |
| 34 | 1.49955  | 5774.09 | 37.527  | Mass Wasting Colluvium | 100 | 38 | 1388    | 1499.47 | 1791.24 | 0 | 1791.24 | 2857.33 | 2857.33 |
| 35 | 0.799074 | 3024.48 | 38.8049 | Reinforced Fill        | 135 | 38 | 1350.2  | 1458.63 | 1694.17 | 0 | 1694.17 | 2779.94 | 2779.94 |
| 36 | 1.52368  | 5655.78 | 40.1275 | Mass Wasting Colluvium | 100 | 38 | 1278.41 | 1381.08 | 1639.7  | 0 | 1639.7  | 2717.28 | 2717.28 |
| 37 | 1.52368  | 5498.44 | 41.8979 | Mass Wasting Colluvium | 100 | 38 | 1142.51 | 1234.27 | 1451.8  | 0 | 1451.8  | 2476.84 | 2476.84 |
| 38 | 1.52368  | 5325.32 | 43.7188 | Mass Wasting Colluvium | 100 | 38 | 1049.8  | 1134.11 | 1323.6  | 0 | 1323.6  | 2327.47 | 2327.47 |
| 39 | 1.52368  | 5134.94 | 45.597  | Mass Wasting Colluvium | 100 | 38 | 959.438 | 1036.49 | 1198.65 | 0 | 1198.65 | 2178.29 | 2178.29 |
| 40 | 1.52368  | 4925.54 | 47.5404 | Mass Wasting Colluvium | 100 | 38 | 871.193 | 941.159 | 1076.64 | 0 | 1076.64 | 2028.72 | 2028.72 |
| 41 | 1.52368  | 4694.92 | 49.5589 | Mass Wasting Colluvium | 100 | 38 | 784.843 | 847.874 | 957.235 | 0 | 957.235 | 1878.08 | 1878.08 |
| 42 | 1.52368  | 4440.39 | 51.6648 | Mass Wasting Colluvium | 100 | 38 | 700.147 | 756.376 | 840.125 | 0 | 840.125 | 1725.55 | 1725.55 |
| 43 | 1.52368  | 4158.53 | 53.8739 | Mass Wasting Colluvium | 100 | 38 | 616.859 | 666.399 | 724.956 | 0 | 724.956 | 1570.07 | 1570.07 |
| 44 | 1.52368  | 3846.1  | 56.207  | Mass Wasting Colluvium | 100 | 38 | 534.835 | 577.788 | 611.54  | 0 | 611.54  | 1410.68 | 1410.68 |
| 45 | 1.52368  | 3495.97 | 58.6926 | Mass Wasting Colluvium | 100 | 38 | 453.612 | 490.042 | 499.231 | 0 | 499.231 | 1245.08 | 1245.08 |
| 46 | 1.52368  | 3098.8  | 61.3714 | Mass Wasting Colluvium | 100 | 38 | 372.832 | 402.774 | 387.533 | 0 | 387.533 | 1070.54 | 1070.54 |
| 47 | 1.52368  | 2641.16 | 64.3052 | Mass Wasting Colluvium | 100 | 38 | 292.472 | 315.96  | 276.416 | 0 | 276.416 | 884.268 | 884.268 |
| 48 | 1.52368  | 2100.78 | 67.5975 | Mass Wasting Colluvium | 100 | 38 | 213.658 | 230.817 | 167.438 | 0 | 167.438 | 685.749 | 685.749 |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 49 | 1.52368 | 1434.83 | 71.4489 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 142.121 | 153.534 | 68.5208 | 0 | 68.5208 | 492.019 | 492.019 |
| 50 | 1.52368 | 531.635 | 76.3858 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 199.276 | 215.28  | 147.551 | 0 | 147.551 | 970.369 | 970.369 |

 **Wall 7 Static**
**Global Minimum Query (spencer) - Safety Factor: 2.20275**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.623702   | 10.9361      | -25.1055                  | Mass Wasting Colluvium | 100                 | 38                        | 92.5066            | 203.769              | 132.818                  | 0                   | 132.818                       | 89.4737                    | 89.4737                         |
| 2            | 0.623702   | 31.9377      | -23.3283                  | Mass Wasting Colluvium | 100                 | 38                        | 113.313            | 249.6                | 191.479                  | 0                   | 191.479                       | 142.613                    | 142.613                         |
| 3            | 0.623702   | 51.2323      | -21.5746                  | Mass Wasting Colluvium | 100                 | 38                        | 130.023            | 286.409              | 238.593                  | 0                   | 238.593                       | 187.18                     | 187.18                          |
| 4            | 0.623702   | 68.8836      | -19.8419                  | Mass Wasting Colluvium | 100                 | 38                        | 143.404            | 315.884              | 276.319                  | 0                   | 276.319                       | 224.572                    | 224.572                         |
| 5            | 0.623702   | 84.9473      | -18.1279                  | Mass Wasting Colluvium | 100                 | 38                        | 154.033            | 339.296              | 306.286                  | 0                   | 306.286                       | 255.857                    | 255.857                         |
| 6            | 0.623702   | 99.4715      | -16.4306                  | Mass Wasting Colluvium | 100                 | 38                        | 162.351            | 357.618              | 329.736                  | 0                   | 329.736                       | 281.86                     | 281.86                          |
| 7            | 0.623702   | 112.499      | -14.748                   | Mass Wasting Colluvium | 100                 | 38                        | 168.7              | 371.605              | 347.64                   | 0                   | 347.64                        | 303.231                    | 303.231                         |
| 8            | 0.623702   | 124.065      | -13.0783                  | Mass Wasting Colluvium | 100                 | 38                        | 173.354            | 381.855              | 360.758                  | 0                   | 360.758                       | 320.487                    | 320.487                         |
| 9            | 0.623702   | 134.201      | -11.4198                  | Mass Wasting Colluvium | 100                 | 38                        | 176.526            | 388.843              | 369.702                  | 0                   | 369.702                       | 334.045                    | 334.045                         |
| 10           | 0.623702   | 142.935      | -9.77102                  | Mass Wasting Colluvium | 100                 | 38                        | 178.392            | 392.954              | 374.964                  | 0                   | 374.964                       | 344.243                    | 344.243                         |
| 11           | 0.623702   | 150.289      | -8.13036                  | Mass Wasting Colluvium | 100                 | 38                        | 179.097            | 394.505              | 376.949                  | 0                   | 376.949                       | 351.363                    | 351.363                         |
| 12           | 0.623702   | 156.282      | -6.49638                  | Mass Wasting Colluvium | 100                 | 38                        | 178.756            | 393.755              | 375.988                  | 0                   | 375.988                       | 355.633                    | 355.633                         |
| 13           | 0.623702   | 160.927      | -4.86771                  | Mass Wasting Colluvium | 100                 | 38                        | 177.47             | 390.921              | 372.361                  | 0                   | 372.361                       | 357.248                    | 357.248                         |
| 14           | 0.623702   | 164.237      | -3.24296                  | Mass Wasting Colluvium | 100                 | 38                        | 175.32             | 386.187              | 366.303                  | 0                   | 366.303                       | 356.369                    | 356.369                         |
| 15           | 0.623702   | 166.22       | -1.62083                  | Mass Wasting Colluvium | 100                 | 38                        | 172.38             | 379.709              | 358.012                  | 0                   | 358.012                       | 353.134                    | 353.134                         |
| 16           | 0.623702   | 170.466      | 0                         | Mass Wasting Colluvium | 100                 | 38                        | 171.158            | 377.019              | 354.569                  | 0                   | 354.569                       | 354.569                    | 354.569                         |
| 17           | 0.623702   | 305.478      | 1.62083                   | Mass Wasting Colluvium | 100                 | 38                        | 256.972            | 566.046              | 596.513                  | 0                   | 596.513                       | 603.784                    | 603.784                         |
| 18           | 0.623702   | 796.982      | 3.24296                   | Mass Wasting Colluvium | 100                 | 38                        | 568.934            | 1253.22              | 1476.06                  | 0                   | 1476.06                       | 1508.3                     | 1508.3                          |
| 19           | 0.623702   | 1130.96      | 4.86771                   | Mass Wasting Colluvium | 100                 | 38                        | 765.239            | 1685.63              | 2029.51                  | 0                   | 2029.51                       | 2094.68                    | 2094.68                         |
| 20           | 0.623702   | 1133.93      | 6.49638                   | Mass Wasting Colluvium | 100                 | 38                        | 748.065            | 1647.8               | 1981.1                   | 0                   | 1981.1                        | 2066.28                    | 2066.28                         |
| 21           | 0.623702   | 1127.94      | 8.13036                   | Mass Wasting Colluvium | 100                 | 38                        | 726.21             | 1599.66              | 1919.47                  | 0                   | 1919.47                       | 2023.21                    | 2023.21                         |
| 22           | 0.623702   | 1120.53      | 9.77102                   | Mass Wasting Colluvium | 100                 | 38                        | 704.397            | 1551.61              | 1857.98                  | 0                   | 1857.98                       | 1979.28                    | 1979.28                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 0.623702 | 1107.84 | 11.4198 | Mass Wasting Colluvium | 100 | 38 | 680.404 | 1498.76 | 1790.32 | 0 | 1790.32 | 1927.76 | 1927.76 |
| 24 | 0.623702 | 1106.51 | 13.0783 | Mass Wasting Colluvium | 100 | 38 | 663.607 | 1461.76 | 1742.97 | 0 | 1742.97 | 1897.13 | 1897.13 |
| 25 | 0.623702 | 1113.24 | 14.748  | Mass Wasting Colluvium | 100 | 38 | 651.676 | 1435.48 | 1709.33 | 0 | 1709.33 | 1880.87 | 1880.87 |
| 26 | 0.623702 | 1118.51 | 16.4306 | Mass Wasting Colluvium | 100 | 38 | 639.201 | 1408    | 1674.16 | 0 | 1674.16 | 1862.65 | 1862.65 |
| 27 | 0.623702 | 1122.28 | 18.1279 | Mass Wasting Colluvium | 100 | 38 | 626.167 | 1379.29 | 1637.42 | 0 | 1637.42 | 1842.42 | 1842.42 |
| 28 | 0.623702 | 1124.51 | 19.8419 | Mass Wasting Colluvium | 100 | 38 | 612.566 | 1349.33 | 1599.07 | 0 | 1599.07 | 1820.12 | 1820.12 |
| 29 | 0.623702 | 1125.15 | 21.5746 | Mass Wasting Colluvium | 100 | 38 | 598.384 | 1318.09 | 1559.08 | 0 | 1559.08 | 1795.69 | 1795.69 |
| 30 | 0.623702 | 1124.15 | 23.3283 | Mass Wasting Colluvium | 100 | 38 | 583.602 | 1285.53 | 1517.4  | 0 | 1517.4  | 1769.08 | 1769.08 |
| 31 | 0.623702 | 1121.44 | 25.1055 | Mass Wasting Colluvium | 100 | 38 | 568.203 | 1251.61 | 1474    | 0 | 1474    | 1740.23 | 1740.23 |
| 32 | 0.655573 | 1173.86 | 26.9557 | Reinforced Fill        | 135 | 38 | 567.477 | 1250.01 | 1427.15 | 0 | 1427.15 | 1715.75 | 1715.75 |
| 33 | 0.655573 | 1166.73 | 28.8839 | Reinforced Fill        | 135 | 38 | 549.722 | 1210.9  | 1377.08 | 0 | 1377.08 | 1680.34 | 1680.34 |
| 34 | 0.655573 | 1157.32 | 30.8486 | Reinforced Fill        | 135 | 38 | 618.963 | 1363.42 | 1572.3  | 0 | 1572.3  | 1941.98 | 1941.98 |
| 35 | 0.655573 | 1145.48 | 32.8544 | Reinforced Fill        | 135 | 38 | 511.911 | 1127.61 | 1270.49 | 0 | 1270.49 | 1601.08 | 1601.08 |
| 36 | 0.655573 | 1131.04 | 34.9068 | Reinforced Fill        | 135 | 38 | 491.792 | 1083.3  | 1213.76 | 0 | 1213.76 | 1556.93 | 1556.93 |
| 37 | 0.655573 | 1113.82 | 37.0119 | Reinforced Fill        | 135 | 38 | 470.807 | 1037.07 | 1154.6  | 0 | 1154.6  | 1509.53 | 1509.53 |
| 38 | 0.655573 | 1093.58 | 39.1771 | Reinforced Fill        | 135 | 38 | 448.907 | 988.829 | 1092.85 | 0 | 1092.85 | 1458.67 | 1458.67 |
| 39 | 0.649697 | 1060.56 | 41.401  | Mass Wasting Colluvium | 100 | 38 | 411.73  | 906.939 | 1032.84 | 0 | 1032.84 | 1395.84 | 1395.84 |
| 40 | 0.649697 | 1033.89 | 43.6937 | Mass Wasting Colluvium | 100 | 38 | 388.247 | 855.212 | 966.627 | 0 | 966.627 | 1337.56 | 1337.56 |
| 41 | 0.649697 | 1003.25 | 46.0778 | Mass Wasting Colluvium | 100 | 38 | 363.675 | 801.085 | 897.348 | 0 | 897.348 | 1274.97 | 1274.97 |
| 42 | 0.649697 | 968.104 | 48.5702 | Mass Wasting Colluvium | 100 | 38 | 337.923 | 744.359 | 824.742 | 0 | 824.742 | 1207.64 | 1207.64 |
| 43 | 0.649697 | 927.767 | 51.1926 | Mass Wasting Colluvium | 100 | 38 | 310.88  | 684.79  | 748.497 | 0 | 748.497 | 1135.05 | 1135.05 |
| 44 | 0.649697 | 881.3   | 53.9747 | Mass Wasting Colluvium | 100 | 38 | 282.407 | 622.072 | 668.222 | 0 | 668.222 | 1056.56 | 1056.56 |
| 45 | 0.649697 | 827.389 | 56.9579 | Mass Wasting Colluvium | 100 | 38 | 252.326 | 555.81  | 583.41  | 0 | 583.41  | 971.333 | 971.333 |
| 46 | 0.649697 | 764.073 | 60.2048 | Mass Wasting Colluvium | 100 | 38 | 220.39  | 485.465 | 493.373 | 0 | 493.373 | 878.271 | 878.271 |
| 47 | 0.649697 | 688.218 | 63.8166 | Mass Wasting Colluvium | 100 | 38 | 186.244 | 410.25  | 397.102 | 0 | 397.102 | 775.879 | 775.879 |

|    |          |         |         |                              |     |    |         |         |          |   |          |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 48 | 0.649697 | 594.076 | 67.9816 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 149.253 | 328.766 | 292.807  | 0 | 292.807  | 661.878 | 661.878 |
| 49 | 0.649697 | 467.853 | 73.1455 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 107.683 | 237.199 | 175.606  | 0 | 175.606  | 531.049 | 531.049 |
| 50 | 0.649697 | 197.128 | 83.0289 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 39.8579 | 87.7969 | -15.6193 | 0 | -15.6193 | 310.354 | 310.354 |



 **Wall 7 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 2.25355**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material   | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|-----------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.462384   | 134.241      | 27.6679                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 645.179                  | 0                   | 645.179                       | 1343.14                    | 1343.14                         |
| 2            | 0.462384   | 402.58       | 28.1625                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 899.215                  | 0                   | 899.215                       | 1611.89                    | 1611.89                         |
| 3            | 0.462384   | 641.24       | 28.6594                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 1125.34                  | 0                   | 1125.34                       | 1852.94                    | 1852.94                         |
| 4            | 0.462384   | 668.69       | 29.1587                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 2110.81                  | 0                   | 2110.81                       | 2853.55                    | 2853.55                         |
| 5            | 0.462384   | 654.227      | 29.6604                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 1091.84                  | 0                   | 1091.84                       | 1849.94                    | 1849.94                         |
| 6            | 0.462384   | 639.467      | 30.1647                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 1051.17                  | 0                   | 1051.17                       | 1824.87                    | 1824.87                         |
| 7            | 0.462384   | 624.403      | 30.6715                   | Verti-Block     | 3000                | 0                         | 1331.23            | 3000                 | 1008.85                  | 0                   | 1008.85                       | 1798.38                    | 1798.38                         |
| 8            | 0.44738    | 589.516      | 31.1727                   | Reinforced Fill | 135                 | 38                        | 282.326            | 636.236              | 641.553                  | 0                   | 641.553                       | 812.352                    | 812.352                         |
| 9            | 0.44738    | 574.843      | 31.6683                   | Reinforced Fill | 135                 | 38                        | 274.21             | 617.946              | 618.144                  | 0                   | 618.144                       | 787.289                    | 787.289                         |
| 10           | 0.44738    | 563.698      | 32.1665                   | Reinforced Fill | 135                 | 38                        | 267.498            | 602.821              | 598.784                  | 0                   | 598.784                       | 767.018                    | 767.018                         |
| 11           | 0.44738    | 557.812      | 32.6674                   | Reinforced Fill | 135                 | 38                        | 761.9              | 1716.98              | 2024.84                  | 0                   | 2024.84                       | 2513.36                    | 2513.36                         |
| 12           | 0.44738    | 551.675      | 33.1712                   | Reinforced Fill | 135                 | 38                        | 257.988            | 581.388              | 571.35                   | 0                   | 571.35                        | 739.988                    | 739.988                         |
| 13           | 0.44738    | 545.236      | 33.6779                   | Reinforced Fill | 135                 | 38                        | 253.206            | 570.612              | 557.559                  | 0                   | 557.559                       | 726.285                    | 726.285                         |
| 14           | 0.44738    | 538.489      | 34.1876                   | Reinforced Fill | 135                 | 38                        | 248.403            | 559.788              | 543.703                  | 0                   | 543.703                       | 712.439                    | 712.439                         |
| 15           | 0.44738    | 531.429      | 34.7004                   | Reinforced Fill | 135                 | 38                        | 243.58             | 548.92               | 529.793                  | 0                   | 529.793                       | 698.458                    | 698.458                         |
| 16           | 0.44738    | 524.05       | 35.2164                   | Reinforced Fill | 135                 | 38                        | 238.74             | 538.012              | 515.832                  | 0                   | 515.832                       | 684.347                    | 684.347                         |
| 17           | 0.44738    | 516.346      | 35.7357                   | Reinforced Fill | 135                 | 38                        | 233.883            | 527.068              | 501.824                  | 0                   | 501.824                       | 670.108                    | 670.108                         |
| 18           | 0.44738    | 508.31       | 36.2584                   | Reinforced Fill | 135                 | 38                        | 664.334            | 1497.11              | 1743.42                  | 0                   | 1743.42                       | 2230.68                    | 2230.68                         |
| 19           | 0.44738    | 499.936      | 36.7846                   | Reinforced Fill | 135                 | 38                        | 224.131            | 505.09               | 473.693                  | 0                   | 473.693                       | 641.27                     | 641.27                          |
| 20           | 0.44738    | 491.217      | 37.3145                   | Reinforced Fill | 135                 | 38                        | 219.239            | 494.067              | 459.585                  | 0                   | 459.585                       | 626.689                    | 626.689                         |
| 21           | 0.44738    | 482.145      | 37.8481                   | Reinforced Fill | 135                 | 38                        | 214.341            | 483.028              | 445.455                  | 0                   | 445.455                       | 612.003                    | 612.003                         |
| 22           | 0.44738    | 472.714      | 38.3857                   | Reinforced Fill | 135                 | 38                        | 209.438            | 471.979              | 431.313                  | 0                   | 431.313                       | 597.226                    | 597.226                         |
| 23           | 0.44738    | 462.914      | 38.9272                   | Reinforced Fill | 135                 | 38                        | 204.534            | 460.927              | 417.167                  | 0                   | 417.167                       | 582.365                    | 582.365                         |
| 24           | 0.44738    | 452.738      | 39.4729                   | Reinforced Fill | 135                 | 38                        | 581.167            | 1309.69              | 1503.53                  | 0                   | 1503.53                       | 1982.15                    | 1982.15                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 25 | 0.44738  | 442.176 | 40.0229 | Reinforced Fill        | 135 | 38 | 194.732 | 438.838 | 388.895 | 0 | 388.895 | 552.427 | 552.427 |
| 26 | 0.44738  | 431.219 | 40.5774 | Reinforced Fill        | 135 | 38 | 189.841 | 427.816 | 374.788 | 0 | 374.788 | 537.371 | 537.371 |
| 27 | 0.44738  | 419.858 | 41.1366 | Reinforced Fill        | 135 | 38 | 184.96  | 416.817 | 360.709 | 0 | 360.709 | 522.268 | 522.268 |
| 28 | 0.44738  | 408.081 | 41.7005 | Reinforced Fill        | 135 | 38 | 180.093 | 405.848 | 346.669 | 0 | 346.669 | 507.128 | 507.128 |
| 29 | 0.44738  | 395.879 | 42.2694 | Reinforced Fill        | 135 | 38 | 424.779 | 957.261 | 1052.45 | 0 | 1052.45 | 1438.55 | 1438.55 |
| 30 | 0.44738  | 383.239 | 42.8436 | Reinforced Fill        | 135 | 38 | 170.408 | 384.024 | 318.736 | 0 | 318.736 | 476.776 | 476.776 |
| 31 | 0.44738  | 370.149 | 43.4231 | Reinforced Fill        | 135 | 38 | 165.596 | 373.179 | 304.854 | 0 | 304.854 | 461.577 | 461.577 |
| 32 | 0.44738  | 356.596 | 44.0082 | Reinforced Fill        | 135 | 38 | 160.805 | 362.382 | 291.035 | 0 | 291.035 | 446.367 | 446.367 |
| 33 | 0.44738  | 342.567 | 44.5991 | Reinforced Fill        | 135 | 38 | 156.035 | 351.633 | 277.277 | 0 | 277.277 | 431.144 | 431.144 |
| 34 | 0.44738  | 328.046 | 45.1961 | Reinforced Fill        | 135 | 38 | 151.286 | 340.93  | 263.578 | 0 | 263.578 | 415.903 | 415.903 |
| 35 | 0.44738  | 313.019 | 45.7994 | Reinforced Fill        | 135 | 38 | 146.552 | 330.263 | 249.926 | 0 | 249.926 | 400.626 | 400.626 |
| 36 | 0.44738  | 297.468 | 46.4094 | Reinforced Fill        | 135 | 38 | 141.83  | 319.62  | 236.302 | 0 | 236.302 | 385.287 | 385.287 |
| 37 | 0.44738  | 281.376 | 47.0262 | Reinforced Fill        | 135 | 38 | 137.107 | 308.977 | 222.681 | 0 | 222.681 | 369.845 | 369.845 |
| 38 | 0.478782 | 282.658 | 47.6725 | Mass Wasting Colluvium | 100 | 38 | 116.689 | 262.965 | 208.586 | 0 | 208.586 | 336.702 | 336.702 |
| 39 | 0.478782 | 262.874 | 48.349  | Mass Wasting Colluvium | 100 | 38 | 111.729 | 251.787 | 194.278 | 0 | 194.278 | 319.896 | 319.896 |
| 40 | 0.478782 | 242.35  | 49.0346 | Mass Wasting Colluvium | 100 | 38 | 106.709 | 240.474 | 179.798 | 0 | 179.798 | 302.702 | 302.702 |
| 41 | 0.478782 | 221.054 | 49.7299 | Mass Wasting Colluvium | 100 | 38 | 101.582 | 228.921 | 165.01  | 0 | 165.01  | 284.919 | 284.919 |
| 42 | 0.315532 | 133.677 | 50.3135 | Reinforced Fill        | 135 | 38 | 112.06  | 252.533 | 150.436 | 0 | 150.436 | 285.477 | 285.477 |
| 43 | 0.447173 | 172.515 | 50.882  | Mass Wasting Colluvium | 100 | 38 | 92.8499 | 209.242 | 139.823 | 0 | 139.823 | 254.001 | 254.001 |
| 44 | 0.447173 | 152.107 | 51.5569 | Mass Wasting Colluvium | 100 | 38 | 87.4877 | 197.158 | 124.356 | 0 | 124.356 | 234.568 | 234.568 |
| 45 | 0.447173 | 130.977 | 52.242  | Mass Wasting Colluvium | 100 | 38 | 81.7327 | 184.189 | 107.757 | 0 | 107.757 | 213.285 | 213.285 |
| 46 | 0.447173 | 109.076 | 52.9378 | Mass Wasting Colluvium | 100 | 38 | 75.4303 | 169.986 | 89.578  | 0 | 89.578  | 189.452 | 189.452 |
| 47 | 0.447173 | 86.3654 | 53.645  | Mass Wasting Colluvium | 100 | 38 | 68.3836 | 154.106 | 69.2524 | 0 | 69.2524 | 162.158 | 162.158 |
| 48 | 0.447173 | 62.8044 | 54.3643 | Mass Wasting Colluvium | 100 | 38 | 60.3344 | 135.966 | 46.035  | 0 | 46.035  | 130.198 | 130.198 |
| 49 | 0.447173 | 38.3474 | 55.0964 | Mass Wasting Colluvium | 100 | 38 | 50.9437 | 114.804 | 18.9486 | 0 | 18.9486 | 91.9647 | 91.9647 |

|    |          |         |         |                              |     |    |         |         |          |   |          |          |          |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|----------|----------|
| 50 | 0.447173 | 12.9445 | 55.8421 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 15.0527 | 33.9221 | -84.5758 | 0 | -84.5758 | -62.3913 | -62.3913 |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|----------|----------|

# **Wall 8 Static**

**Global Minimum Query (spencer) - Safety Factor: 2.4197**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.548165   | 9.1491       | -26.9061                  | Mass Wasting Colluvium | 100                 | 38                        | 72.1162            | 174.5                | 95.3551                  | 0                   | 95.3551                       | 58.7588                    | 58.7588                         |
| 2            | 0.548165   | 26.7226      | -25.0452                  | Mass Wasting Colluvium | 100                 | 38                        | 87.9861            | 212.9                | 144.505                  | 0                   | 144.505                       | 103.392                    | 103.392                         |
| 3            | 0.548165   | 42.8788      | -23.2121                  | Mass Wasting Colluvium | 100                 | 38                        | 101.277            | 245.06               | 185.668                  | 0                   | 185.668                       | 142.235                    | 142.235                         |
| 4            | 0.548165   | 57.6775      | -21.4039                  | Mass Wasting Colluvium | 100                 | 38                        | 112.371            | 271.904              | 220.027                  | 0                   | 220.027                       | 175.981                    | 175.981                         |
| 5            | 0.548165   | 71.1706      | -19.6177                  | Mass Wasting Colluvium | 100                 | 38                        | 121.569            | 294.161              | 248.515                  | 0                   | 248.515                       | 205.184                    | 205.184                         |
| 6            | 0.548165   | 83.4031      | -17.8513                  | Mass Wasting Colluvium | 100                 | 38                        | 129.114            | 312.416              | 271.88                   | 0                   | 271.88                        | 230.298                    | 230.298                         |
| 7            | 0.548165   | 94.414       | -16.1022                  | Mass Wasting Colluvium | 100                 | 38                        | 135.201            | 327.146              | 290.732                  | 0                   | 290.732                       | 251.703                    | 251.703                         |
| 8            | 0.548165   | 104.237      | -14.3684                  | Mass Wasting Colluvium | 100                 | 38                        | 139.992            | 338.739              | 305.573                  | 0                   | 305.573                       | 269.711                    | 269.711                         |
| 9            | 0.548165   | 112.901      | -12.648                   | Mass Wasting Colluvium | 100                 | 38                        | 143.622            | 347.521              | 316.813                  | 0                   | 316.813                       | 284.584                    | 284.584                         |
| 10           | 0.548165   | 120.432      | -10.9391                  | Mass Wasting Colluvium | 100                 | 38                        | 146.201            | 353.762              | 324.8                    | 0                   | 324.8                         | 296.542                    | 296.542                         |
| 11           | 0.548165   | 126.85       | -9.24005                  | Mass Wasting Colluvium | 100                 | 38                        | 147.825            | 357.692              | 329.83                   | 0                   | 329.83                        | 305.781                    | 305.781                         |
| 12           | 0.548165   | 132.172      | -7.54913                  | Mass Wasting Colluvium | 100                 | 38                        | 148.574            | 359.504              | 332.15                   | 0                   | 332.15                        | 312.46                     | 312.46                          |
| 13           | 0.548165   | 136.413      | -5.8648                   | Mass Wasting Colluvium | 100                 | 38                        | 148.518            | 359.368              | 331.976                  | 0                   | 331.976                       | 316.72                     | 316.72                          |
| 14           | 0.548165   | 139.584      | -4.18555                  | Mass Wasting Colluvium | 100                 | 38                        | 147.715            | 357.427              | 329.492                  | 0                   | 329.492                       | 318.682                    | 318.682                         |
| 15           | 0.548165   | 141.695      | -2.5099                   | Mass Wasting Colluvium | 100                 | 38                        | 146.219            | 353.807              | 324.858                  | 0                   | 324.858                       | 318.449                    | 318.449                         |
| 16           | 0.548165   | 145.774      | -0.836396                 | Mass Wasting Colluvium | 100                 | 38                        | 146.126            | 353.58               | 324.568                  | 0                   | 324.568                       | 322.435                    | 322.435                         |
| 17           | 0.548165   | 185.694      | 0.836396                  | Mass Wasting Colluvium | 100                 | 38                        | 169.775            | 410.805              | 397.812                  | 0                   | 397.812                       | 400.291                    | 400.291                         |
| 18           | 0.548165   | 519.32       | 2.5099                    | Mass Wasting Colluvium | 100                 | 38                        | 382.638            | 925.87               | 1057.07                  | 0                   | 1057.07                       | 1073.84                    | 1073.84                         |
| 19           | 0.548165   | 882.917      | 4.18555                   | Mass Wasting Colluvium | 100                 | 38                        | 605.149            | 1464.28              | 1746.19                  | 0                   | 1746.19                       | 1790.48                    | 1790.48                         |
| 20           | 0.548165   | 952.905      | 5.8648                    | Mass Wasting Colluvium | 100                 | 38                        | 635.93             | 1538.76              | 1841.54                  | 0                   | 1841.54                       | 1906.86                    | 1906.86                         |
| 21           | 0.548165   | 948.664      | 7.54913                   | Mass Wasting Colluvium | 100                 | 38                        | 620.217            | 1500.74              | 1792.86                  | 0                   | 1792.86                       | 1875.06                    | 1875.06                         |
| 22           | 0.548165   | 943.341      | 9.24005                   | Mass Wasting Colluvium | 100                 | 38                        | 604.344            | 1462.33              | 1743.71                  | 0                   | 1743.71                       | 1842.02                    | 1842.02                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 0.548165 | 936.821 | 10.9391 | Mass Wasting Colluvium | 100 | 38 | 588.238 | 1423.36 | 1693.83 | 0 | 1693.83 | 1807.52 | 1807.52 |
| 24 | 0.548165 | 925.83  | 12.648  | Mass Wasting Colluvium | 100 | 38 | 570.038 | 1379.32 | 1637.46 | 0 | 1637.46 | 1765.38 | 1765.38 |
| 25 | 0.548165 | 916.618 | 14.3684 | Mass Wasting Colluvium | 100 | 38 | 553.341 | 1338.92 | 1585.74 | 0 | 1585.74 | 1727.49 | 1727.49 |
| 26 | 0.548165 | 906.795 | 16.1022 | Mass Wasting Colluvium | 100 | 38 | 536.74  | 1298.75 | 1534.32 | 0 | 1534.32 | 1689.27 | 1689.27 |
| 27 | 0.548165 | 895.784 | 17.8513 | Mass Wasting Colluvium | 100 | 38 | 519.907 | 1258.02 | 1482.19 | 0 | 1482.19 | 1649.63 | 1649.63 |
| 28 | 0.548165 | 883.551 | 19.6177 | Mass Wasting Colluvium | 100 | 38 | 502.831 | 1216.7  | 1429.31 | 0 | 1429.31 | 1608.54 | 1608.54 |
| 29 | 0.548165 | 870.058 | 21.4039 | Mass Wasting Colluvium | 100 | 38 | 485.502 | 1174.77 | 1375.64 | 0 | 1375.64 | 1565.94 | 1565.94 |
| 30 | 0.548165 | 855.259 | 23.2121 | Mass Wasting Colluvium | 100 | 38 | 467.901 | 1132.18 | 1321.13 | 0 | 1321.13 | 1521.79 | 1521.79 |
| 31 | 0.548165 | 839.103 | 25.0452 | Mass Wasting Colluvium | 100 | 38 | 450.017 | 1088.91 | 1265.74 | 0 | 1265.74 | 1476.02 | 1476.02 |
| 32 | 0.548165 | 821.53  | 26.9061 | Mass Wasting Colluvium | 100 | 38 | 431.836 | 1044.91 | 1209.43 | 0 | 1209.43 | 1428.57 | 1428.57 |
| 33 | 0.523242 | 766.43  | 28.7545 | Reinforced Fill        | 135 | 38 | 427.578 | 1034.61 | 1151.45 | 0 | 1151.45 | 1386.07 | 1386.07 |
| 34 | 0.523242 | 747.704 | 30.5925 | Reinforced Fill        | 135 | 38 | 409.481 | 990.82  | 1095.4  | 0 | 1095.4  | 1337.49 | 1337.49 |
| 35 | 0.523242 | 727.541 | 32.466  | Reinforced Fill        | 135 | 38 | 391.066 | 946.263 | 1038.37 | 0 | 1038.37 | 1287.18 | 1287.18 |
| 36 | 0.523242 | 705.851 | 34.3794 | Reinforced Fill        | 135 | 38 | 372.318 | 900.898 | 980.304 | 0 | 980.304 | 1235.04 | 1235.04 |
| 37 | 0.530455 | 691.763 | 36.3515 | Mass Wasting Colluvium | 100 | 38 | 339.878 | 822.404 | 924.636 | 0 | 924.636 | 1174.77 | 1174.77 |
| 38 | 0.530455 | 665.961 | 38.3889 | Mass Wasting Colluvium | 100 | 38 | 320.281 | 774.983 | 863.94  | 0 | 863.94  | 1117.69 | 1117.69 |
| 39 | 0.530455 | 638.174 | 40.4855 | Mass Wasting Colluvium | 100 | 38 | 300.286 | 726.603 | 802.016 | 0 | 802.016 | 1058.35 | 1058.35 |
| 40 | 0.530455 | 608.21  | 42.6499 | Mass Wasting Colluvium | 100 | 38 | 279.862 | 677.181 | 738.759 | 0 | 738.759 | 996.555 | 996.555 |
| 41 | 0.530455 | 575.838 | 44.8926 | Mass Wasting Colluvium | 100 | 38 | 258.975 | 626.642 | 674.072 | 0 | 674.072 | 932.078 | 932.078 |
| 42 | 0.530455 | 540.769 | 47.2268 | Mass Wasting Colluvium | 100 | 38 | 237.59  | 574.897 | 607.84  | 0 | 607.84  | 864.655 | 864.655 |
| 43 | 0.530455 | 502.634 | 49.669  | Mass Wasting Colluvium | 100 | 38 | 215.663 | 521.839 | 539.93  | 0 | 539.93  | 793.953 | 793.953 |
| 44 | 0.530455 | 460.951 | 52.2412 | Mass Wasting Colluvium | 100 | 38 | 193.139 | 467.338 | 470.171 | 0 | 470.171 | 719.535 | 719.535 |
| 45 | 0.530455 | 415.066 | 54.973  | Mass Wasting Colluvium | 100 | 38 | 169.948 | 411.224 | 398.348 | 0 | 398.348 | 640.817 | 640.817 |
| 46 | 0.530455 | 364.058 | 57.9065 | Mass Wasting Colluvium | 100 | 38 | 145.998 | 353.271 | 324.172 | 0 | 324.172 | 556.971 | 556.971 |
| 47 | 0.530455 | 306.548 | 61.1048 | Mass Wasting Colluvium | 100 | 38 | 121.153 | 293.155 | 247.228 | 0 | 247.228 | 466.741 | 466.741 |

|    |          |         |         |                              |     |    |         |         |          |   |          |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 48 | 0.530455 | 240.288 | 64.6718 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 95.2015 | 230.359 | 166.852  | 0 | 166.852  | 367.996 | 367.996 |
| 49 | 0.530455 | 161.084 | 68.8025 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 67.7406 | 163.912 | 81.8033  | 0 | 81.8033  | 256.471 | 256.471 |
| 50 | 0.530455 | 58.776  | 73.9737 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 38.1324 | 92.269  | -9.89523 | 0 | -9.89523 | 122.858 | 122.858 |



## **Wall 8 Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.7137**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 0.591973   | 9.29924      | -23.8586                  | Mass Wasting Colluvium | 100                 | 38                        | 252.803            | 433.228              | 426.513                  | 0                   | 426.513                       | 314.705                    | 314.705                         |
| 2            | 0.591973   | 27.1704      | -22.1798                  | Mass Wasting Colluvium | 100                 | 38                        | 274.096            | 469.718              | 473.217                  | 0                   | 473.217                       | 361.473                    | 361.473                         |
| 3            | 0.591973   | 43.6123      | -20.5209                  | Mass Wasting Colluvium | 100                 | 38                        | 285.261            | 488.851              | 497.707                  | 0                   | 497.707                       | 390.934                    | 390.934                         |
| 4            | 0.591973   | 58.6727      | -18.8797                  | Mass Wasting Colluvium | 100                 | 38                        | 290.188            | 497.295              | 508.514                  | 0                   | 508.514                       | 409.276                    | 409.276                         |
| 5            | 0.591973   | 72.3937      | -17.2545                  | Mass Wasting Colluvium | 100                 | 38                        | 291.159            | 498.96               | 510.645                  | 0                   | 510.645                       | 420.212                    | 420.212                         |
| 6            | 0.591973   | 84.812       | -15.6435                  | Mass Wasting Colluvium | 100                 | 38                        | 289.541            | 496.186              | 507.095                  | 0                   | 507.095                       | 426.017                    | 426.017                         |
| 7            | 0.591973   | 95.9597      | -14.0451                  | Mass Wasting Colluvium | 100                 | 38                        | 286.165            | 490.401              | 499.691                  | 0                   | 499.691                       | 428.102                    | 428.102                         |
| 8            | 0.591973   | 105.865      | -12.4578                  | Mass Wasting Colluvium | 100                 | 38                        | 281.55             | 482.492              | 489.568                  | 0                   | 489.568                       | 427.367                    | 427.367                         |
| 9            | 0.591973   | 114.551      | -10.8801                  | Mass Wasting Colluvium | 100                 | 38                        | 276.022            | 473.019              | 477.443                  | 0                   | 477.443                       | 424.389                    | 424.389                         |
| 10           | 0.591973   | 122.04       | -9.3108                   | Mass Wasting Colluvium | 100                 | 38                        | 269.793            | 462.345              | 463.781                  | 0                   | 463.781                       | 419.548                    | 419.548                         |
| 11           | 0.591973   | 128.348      | -7.74849                  | Mass Wasting Colluvium | 100                 | 38                        | 263.003            | 450.708              | 448.886                  | 0                   | 448.886                       | 413.1                      | 413.1                           |
| 12           | 0.591973   | 133.49       | -6.19196                  | Mass Wasting Colluvium | 100                 | 38                        | 255.746            | 438.272              | 432.967                  | 0                   | 432.967                       | 405.221                    | 405.221                         |
| 13           | 0.591973   | 137.478      | -4.64                     | Mass Wasting Colluvium | 100                 | 38                        | 248.087            | 425.147              | 416.169                  | 0                   | 416.169                       | 396.034                    | 396.034                         |
| 14           | 0.591973   | 140.32       | -3.09145                  | Mass Wasting Colluvium | 100                 | 38                        | 240.075            | 411.416              | 398.594                  | 0                   | 398.594                       | 385.628                    | 385.628                         |
| 15           | 0.591973   | 142.023      | -1.54516                  | Mass Wasting Colluvium | 100                 | 38                        | 231.743            | 397.138              | 380.32                   | 0                   | 380.32                        | 374.069                    | 374.069                         |
| 16           | 0.591973   | 142.814      | 0                         | Mass Wasting Colluvium | 100                 | 38                        | 223.335            | 382.73               | 361.878                  | 0                   | 361.878                       | 361.878                    | 361.878                         |
| 17           | 0.591973   | 146.118      | 1.54516                   | Mass Wasting Colluvium | 100                 | 38                        | 217.98             | 373.552              | 350.13                   | 0                   | 350.13                        | 356.01                     | 356.01                          |
| 18           | 0.591973   | 283.62       | 3.09145                   | Mass Wasting Colluvium | 100                 | 38                        | 330.747            | 566.801              | 597.477                  | 0                   | 597.477                       | 615.34                     | 615.34                          |
| 19           | 0.591973   | 731.158      | 4.64                      | Mass Wasting Colluvium | 100                 | 38                        | 694.865            | 1190.79              | 1396.15                  | 0                   | 1396.15                       | 1452.54                    | 1452.54                         |
| 20           | 0.591973   | 1011.71      | 6.19196                   | Mass Wasting Colluvium | 100                 | 38                        | 895.11             | 1533.95              | 1835.36                  | 0                   | 1835.36                       | 1932.47                    | 1932.47                         |
| 21           | 0.591973   | 1010.09      | 7.74849                   | Mass Wasting Colluvium | 100                 | 38                        | 860.658            | 1474.91              | 1759.81                  | 0                   | 1759.81                       | 1876.92                    | 1876.92                         |
| 22           | 0.591973   | 1003.78      | 9.3108                    | Mass Wasting Colluvium | 100                 | 38                        | 824.946            | 1413.71              | 1681.48                  | 0                   | 1681.48                       | 1816.73                    | 1816.73                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 0.591973 | 996.295 | 10.8801 | Mass Wasting Colluvium | 100 | 38 | 790.605 | 1354.86 | 1606.15 | 0 | 1606.15 | 1758.11 | 1758.11 |
| 24 | 0.591973 | 984.46  | 12.4578 | Mass Wasting Colluvium | 100 | 38 | 755.272 | 1294.31 | 1528.65 | 0 | 1528.65 | 1695.51 | 1695.51 |
| 25 | 0.591973 | 973.264 | 14.0451 | Mass Wasting Colluvium | 100 | 38 | 722.384 | 1237.95 | 1456.51 | 0 | 1456.51 | 1637.22 | 1637.22 |
| 26 | 0.591973 | 962.116 | 15.6435 | Mass Wasting Colluvium | 100 | 38 | 691.3   | 1184.68 | 1388.32 | 0 | 1388.32 | 1581.9  | 1581.9  |
| 27 | 0.591973 | 949.698 | 17.2545 | Mass Wasting Colluvium | 100 | 38 | 661.008 | 1132.77 | 1321.88 | 0 | 1321.88 | 1527.19 | 1527.19 |
| 28 | 0.591973 | 935.977 | 18.8797 | Mass Wasting Colluvium | 100 | 38 | 631.419 | 1082.06 | 1256.98 | 0 | 1256.98 | 1472.92 | 1472.92 |
| 29 | 0.591973 | 920.916 | 20.5209 | Mass Wasting Colluvium | 100 | 38 | 602.446 | 1032.41 | 1193.43 | 0 | 1193.43 | 1418.93 | 1418.93 |
| 30 | 0.591973 | 904.475 | 22.1798 | Mass Wasting Colluvium | 100 | 38 | 574.015 | 983.69  | 1131.07 | 0 | 1131.07 | 1365.09 | 1365.09 |
| 31 | 0.591973 | 886.603 | 23.8586 | Mass Wasting Colluvium | 100 | 38 | 546.062 | 935.787 | 1069.76 | 0 | 1069.76 | 1311.27 | 1311.27 |
| 32 | 0.601008 | 880.323 | 25.5726 | Reinforced Fill        | 135 | 38 | 540.484 | 926.228 | 1012.73 | 0 | 1012.73 | 1271.37 | 1271.37 |
| 33 | 0.601008 | 858.754 | 27.3248 | Reinforced Fill        | 135 | 38 | 512.572 | 878.395 | 951.502 | 0 | 951.502 | 1216.34 | 1216.34 |
| 34 | 0.601008 | 835.491 | 29.1051 | Reinforced Fill        | 135 | 38 | 485.001 | 831.146 | 891.027 | 0 | 891.027 | 1161.03 | 1161.03 |
| 35 | 0.601008 | 810.446 | 30.9168 | Reinforced Fill        | 135 | 38 | 457.728 | 784.408 | 831.205 | 0 | 831.205 | 1105.33 | 1105.33 |
| 36 | 0.601326 | 783.926 | 32.764  | Mass Wasting Colluvium | 100 | 38 | 409.855 | 702.369 | 770.997 | 0 | 770.997 | 1034.77 | 1034.77 |
| 37 | 0.601326 | 754.968 | 34.651  | Mass Wasting Colluvium | 100 | 38 | 383.37  | 656.982 | 712.904 | 0 | 712.904 | 977.877 | 977.877 |
| 38 | 0.601326 | 723.87  | 36.582  | Mass Wasting Colluvium | 100 | 38 | 357.079 | 611.927 | 655.238 | 0 | 655.238 | 920.254 | 920.254 |
| 39 | 0.601326 | 690.472 | 38.5626 | Mass Wasting Colluvium | 100 | 38 | 330.958 | 567.163 | 597.941 | 0 | 597.941 | 861.788 | 861.788 |
| 40 | 0.601326 | 654.581 | 40.5995 | Mass Wasting Colluvium | 100 | 38 | 304.986 | 522.654 | 540.972 | 0 | 540.972 | 802.372 | 802.372 |
| 41 | 0.601326 | 615.965 | 42.7007 | Mass Wasting Colluvium | 100 | 38 | 279.145 | 478.371 | 484.293 | 0 | 484.293 | 741.887 | 741.887 |
| 42 | 0.601326 | 574.343 | 44.8757 | Mass Wasting Colluvium | 100 | 38 | 253.425 | 434.294 | 427.878 | 0 | 427.878 | 680.205 | 680.205 |
| 43 | 0.601326 | 529.364 | 47.1365 | Mass Wasting Colluvium | 100 | 38 | 227.819 | 390.413 | 371.712 | 0 | 371.712 | 617.187 | 617.187 |
| 44 | 0.601326 | 480.587 | 49.4982 | Mass Wasting Colluvium | 100 | 38 | 202.328 | 346.729 | 315.799 | 0 | 315.799 | 552.679 | 552.679 |
| 45 | 0.601326 | 427.437 | 51.9803 | Mass Wasting Colluvium | 100 | 38 | 176.962 | 303.259 | 260.16  | 0 | 260.16  | 486.501 | 486.501 |
| 46 | 0.601326 | 369.148 | 54.6092 | Mass Wasting Colluvium | 100 | 38 | 151.749 | 260.052 | 204.857 | 0 | 204.857 | 418.461 | 418.461 |
| 47 | 0.601326 | 304.657 | 57.4215 | Mass Wasting Colluvium | 100 | 38 | 126.744 | 217.202 | 150.011 | 0 | 150.011 | 348.36  | 348.36  |

|    |          |         |         |                              |     |    |         |         |           |   |           |         |         |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|-----------|---|-----------|---------|---------|
| 48 | 0.601326 | 232.403 | 60.471  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 102.07  | 174.918 | 95.891    | 0 | 95.891    | 276.087 | 276.087 |
| 49 | 0.601326 | 149.926 | 63.8433 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 78.0207 | 133.704 | 43.1391   | 0 | 43.1391   | 202.001 | 202.001 |
| 50 | 0.601326 | 52.8752 | 67.6909 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 57.9893 | 99.3763 | -0.798238 | 0 | -0.798238 | 140.53  | 140.53  |

# **Walls 9, 10, and 12a Static**

**Global Minimum Query (spencer) - Safety Factor: 1.38635**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.22921    | 19.7716      | -8.34372                  | Mass Wasting Colluvium | 100                 | 38                        | 145.273            | 201.399              | 129.785                  | 0                   | 129.785                       | 108.478                    | 108.478                         |
| 2            | 1.22921    | 57.1898      | -7.02479                  | Mass Wasting Colluvium | 100                 | 38                        | 172.625            | 239.318              | 178.32                   | 0                   | 178.32                        | 157.048                    | 157.048                         |
| 3            | 1.22921    | 90.3761      | -5.70959                  | Mass Wasting Colluvium | 100                 | 38                        | 194.34             | 269.423              | 216.852                  | 0                   | 216.852                       | 197.421                    | 197.421                         |
| 4            | 1.22921    | 119.363      | -4.3974                   | Mass Wasting Colluvium | 100                 | 38                        | 211.056            | 292.597              | 246.513                  | 0                   | 246.513                       | 230.282                    | 230.282                         |
| 5            | 1.22921    | 144.175      | -3.08752                  | Mass Wasting Colluvium | 100                 | 38                        | 223.319            | 309.598              | 268.273                  | 0                   | 268.273                       | 256.228                    | 256.228                         |
| 6            | 1.22921    | 164.832      | -1.77925                  | Mass Wasting Colluvium | 100                 | 38                        | 231.603            | 321.083              | 282.973                  | 0                   | 282.973                       | 275.779                    | 275.779                         |
| 7            | 1.22921    | 181.346      | -0.471918                 | Mass Wasting Colluvium | 100                 | 38                        | 236.32             | 327.622              | 291.343                  | 0                   | 291.343                       | 289.396                    | 289.396                         |
| 8            | 1.22921    | 193.723      | 0.835173                  | Mass Wasting Colluvium | 100                 | 38                        | 237.827            | 329.711              | 294.017                  | 0                   | 294.017                       | 297.484                    | 297.484                         |
| 9            | 1.22921    | 201.96       | 2.1427                    | Mass Wasting Colluvium | 100                 | 38                        | 236.439            | 327.787              | 291.554                  | 0                   | 291.554                       | 300.4                      | 300.4                           |
| 10           | 1.22921    | 206.052      | 3.45134                   | Mass Wasting Colluvium | 100                 | 38                        | 232.433            | 322.233              | 284.446                  | 0                   | 284.446                       | 298.464                    | 298.464                         |
| 11           | 1.39624    | 422.18       | 4.851                     | Gravel                 | 0                   | 40                        | 248.911            | 345.078              | 411.248                  | 0                   | 411.248                       | 432.372                    | 432.372                         |
| 12           | 1.39624    | 1912.48      | 6.34285                   | Gravel                 | 0                   | 40                        | 1084.19            | 1503.07              | 1791.29                  | 0                   | 1791.29                       | 1911.81                    | 1911.81                         |
| 13           | 1.39624    | 2028.7       | 7.83903                   | Gravel                 | 0                   | 40                        | 1106.57            | 1534.1               | 1828.27                  | 0                   | 1828.27                       | 1980.62                    | 1980.62                         |
| 14           | 0.0944356  | 135.906      | 8.63912                   | Reinforced Fill        | 135                 | 38                        | 1107.18            | 1534.94              | 1791.84                  | 0                   | 1791.84                       | 1960.05                    | 1960.05                         |
| 15           | 1.22729    | 1750.3       | 9.35117                   | Mass Wasting Colluvium | 100                 | 38                        | 1047.63            | 1452.38              | 1730.97                  | 0                   | 1730.97                       | 1903.49                    | 1903.49                         |
| 16           | 1.22729    | 1718.38      | 10.6764                   | Mass Wasting Colluvium | 100                 | 38                        | 999.466            | 1385.61              | 1645.51                  | 0                   | 1645.51                       | 1833.93                    | 1833.93                         |
| 17           | 1.22729    | 1682.12      | 12.0075                   | Mass Wasting Colluvium | 100                 | 38                        | 951.369            | 1318.93              | 1560.16                  | 0                   | 1560.16                       | 1762.51                    | 1762.51                         |
| 18           | 1.22729    | 1641.46      | 13.3451                   | Mass Wasting Colluvium | 100                 | 38                        | 903.351            | 1252.36              | 1474.95                  | 0                   | 1474.95                       | 1689.25                    | 1689.25                         |
| 19           | 1.11371    | 1450.67      | 14.6276                   | Reinforced Fill        | 135                 | 38                        | 888.47             | 1231.73              | 1403.75                  | 0                   | 1403.75                       | 1635.64                    | 1635.64                         |
| 20           | 1.27444    | 1609.97      | 15.9442                   | Mass Wasting Colluvium | 100                 | 38                        | 811.079            | 1124.44              | 1311.23                  | 0                   | 1311.23                       | 1542.94                    | 1542.94                         |
| 21           | 1.27444    | 1551.66      | 17.3588                   | Mass Wasting Colluvium | 100                 | 38                        | 761.538            | 1055.76              | 1223.32                  | 0                   | 1223.32                       | 1461.37                    | 1461.37                         |
| 22           | 1.27444    | 1488.33      | 18.7843                   | Mass Wasting Colluvium | 100                 | 38                        | 712.253            | 987.432              | 1135.86                  | 0                   | 1135.86                       | 1378.11                    | 1378.11                         |
| 23           | 1.27444    | 1615.05      | 20.222                    | Mass Wasting Colluvium | 100                 | 38                        | 743.098            | 1030.19              | 1190.6                   | 0                   | 1190.6                        | 1464.33                    | 1464.33                         |
| 24           | 1.27444    | 3315.31      | 21.6732                   | Mass Wasting Colluvium | 100                 | 38                        | 1394.99            | 1933.94              | 2347.34                  | 0                   | 2347.34                       | 2901.71                    | 2901.71                         |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 25 | 1.27444 | 4179.3  | 23.1391 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1684.13 | 2334.8  | 2860.42 | 0 | 2860.42 | 3580.12 | 3580.12 |
| 26 | 1.27444 | 4087.02 | 24.6213 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1597.94 | 2215.3  | 2707.47 | 0 | 2707.47 | 3439.78 | 3439.78 |
| 27 | 1.27444 | 3990.99 | 26.1212 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1513.85 | 2098.72 | 2558.25 | 0 | 2558.25 | 3300.57 | 3300.57 |
| 28 | 1.27444 | 3892.17 | 27.6407 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1432.13 | 1985.43 | 2413.24 | 0 | 2413.24 | 3163.23 | 3163.23 |
| 29 | 1.27444 | 3786.71 | 29.1816 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1351.4  | 1873.52 | 2270    | 0 | 2270    | 3024.7  | 3024.7  |
| 30 | 1.27444 | 3674.32 | 30.746  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1271.62 | 1762.91 | 2128.42 | 0 | 2128.42 | 2884.84 | 2884.84 |
| 31 | 1.27444 | 3554.66 | 32.3363 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1192.74 | 1653.55 | 1988.45 | 0 | 1988.45 | 2743.53 | 2743.53 |
| 32 | 1.27444 | 3427.68 | 33.955  | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1114.83 | 1545.54 | 1850.2  | 0 | 1850.2  | 2600.89 | 2600.89 |
| 33 | 1.27444 | 3499.01 | 35.6052 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1098.41 | 1522.78 | 1821.07 | 0 | 1821.07 | 2607.61 | 2607.61 |
| 34 | 1.27444 | 4797.32 | 37.2902 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1428.78 | 1980.79 | 2407.3  | 0 | 2407.3  | 3495.35 | 3495.35 |
| 35 | 1.27444 | 4839.53 | 39.0139 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1389.51 | 1926.35 | 2337.63 | 0 | 2337.63 | 3463.39 | 3463.39 |
| 36 | 1.30281 | 4772.34 | 40.801  | Reinforced<br>Fill           | 135 | 38 | 1316.31 | 1824.87 | 2162.93 | 0 | 2162.93 | 3299.18 | 3299.18 |
| 37 | 1.21702 | 4291.02 | 42.5949 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1200.5  | 1664.31 | 2002.22 | 0 | 2002.22 | 3105.94 | 3105.94 |
| 38 | 1.21702 | 4122.35 | 44.3791 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1112.58 | 1542.42 | 1846.22 | 0 | 1846.22 | 2934.94 | 2934.94 |
| 39 | 1.21702 | 3942.65 | 46.2196 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 1025.31 | 1421.44 | 1691.36 | 0 | 1691.36 | 2761.28 | 2761.28 |
| 40 | 1.21702 | 3750.79 | 48.1241 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 938.63  | 1301.27 | 1537.56 | 0 | 1537.56 | 2584.56 | 2584.56 |
| 41 | 1.21702 | 3545.36 | 50.1021 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 852.476 | 1181.83 | 1384.68 | 0 | 1384.68 | 2404.3  | 2404.3  |
| 42 | 1.21702 | 3324.64 | 52.1658 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 766.77  | 1063.01 | 1232.6  | 0 | 1232.6  | 2219.89 | 2219.89 |
| 43 | 1.21702 | 3086.4  | 54.3303 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 681.43  | 944.701 | 1081.17 | 0 | 1081.17 | 2030.54 | 2030.54 |
| 44 | 1.21702 | 2827.74 | 56.6159 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 596.345 | 826.743 | 930.19  | 0 | 930.19  | 1835.14 | 1835.14 |
| 45 | 1.21702 | 2544.68 | 59.05   | Mass<br>Wasting<br>Colluvium | 100 | 38 | 511.364 | 708.929 | 779.392 | 0 | 779.392 | 1632.13 | 1632.13 |
| 46 | 1.21702 | 2231.64 | 61.6717 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 426.271 | 590.961 | 628.402 | 0 | 628.402 | 1419.14 | 1419.14 |
| 47 | 1.21702 | 1880.13 | 64.5406 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 340.733 | 472.375 | 476.618 | 0 | 476.618 | 1192.29 | 1192.29 |
| 48 | 1.21702 | 1476.19 | 67.7553 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 254.175 | 352.376 | 323.026 | 0 | 323.026 | 944.478 | 944.478 |
| 49 | 1.21702 | 993.238 | 71.5047 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 165.496 | 229.436 | 165.671 | 0 | 165.671 | 660.421 | 660.421 |

|    |         |         |         |                              |     |    |         |         |          |   |          |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|
| 50 | 1.21702 | 363.783 | 76.2721 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 70.2483 | 97.3887 | -3.34234 | 0 | -3.34234 | 284.219 | 284.219 |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|---------|---------|



# **Walls 9,10, and 12a Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.0566**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.01982    | 670.476      | 11.3113                   | Verti-Block            | 3000                | 0                         | 2839.3             | 3000                 | 2517.82                  | 0                   | 2517.82                       | 3085.75                    | 3085.75                         |
| 2            | 1.01982    | 1245.93      | 12.0521                   | Verti-Block            | 3000                | 0                         | 2839.3             | 3000                 | 2804.59                  | 0                   | 2804.59                       | 3410.79                    | 3410.79                         |
| 3            | 1.01982    | 1218.44      | 12.7949                   | Verti-Block            | 3000                | 0                         | 2839.3             | 3000                 | 4556.95                  | 0                   | 4556.95                       | 5201.76                    | 5201.76                         |
| 4            | 1.09601    | 1276.84      | 13.5679                   | Reinforced Fill        | 135                 | 38                        | 1245.14            | 1315.61              | 1511.12                  | 0                   | 1511.12                       | 1811.61                    | 1811.61                         |
| 5            | 1.09601    | 1240.98      | 14.3714                   | Reinforced Fill        | 135                 | 38                        | 1176.2             | 1242.77              | 1417.88                  | 0                   | 1417.88                       | 1719.25                    | 1719.25                         |
| 6            | 1.09601    | 1202.96      | 15.1777                   | Reinforced Fill        | 135                 | 38                        | 1109.61            | 1172.41              | 1327.83                  | 0                   | 1327.83                       | 1628.84                    | 1628.84                         |
| 7            | 1.09601    | 1162.76      | 15.9871                   | Reinforced Fill        | 135                 | 38                        | 1045.27            | 1104.43              | 1240.82                  | 0                   | 1240.82                       | 1540.29                    | 1540.29                         |
| 8            | 1.09601    | 1120.35      | 16.7998                   | Reinforced Fill        | 135                 | 38                        | 983.067            | 1038.71              | 1156.69                  | 0                   | 1156.69                       | 1453.49                    | 1453.49                         |
| 9            | 1.09601    | 1075.7       | 17.616                    | Reinforced Fill        | 135                 | 38                        | 922.903            | 975.139              | 1075.33                  | 0                   | 1075.33                       | 1368.37                    | 1368.37                         |
| 10           | 1.14658    | 1075.08      | 18.455                    | Mass Wasting Colluvium | 100                 | 38                        | 814.278            | 860.366              | 973.225                  | 0                   | 973.225                       | 1244.97                    | 1244.97                         |
| 11           | 1.14658    | 1021.1       | 19.317                    | Mass Wasting Colluvium | 100                 | 38                        | 750.407            | 792.88               | 886.844                  | 0                   | 886.844                       | 1149.88                    | 1149.88                         |
| 12           | 1.14658    | 964.459      | 20.1837                   | Mass Wasting Colluvium | 100                 | 38                        | 694.539            | 733.85               | 811.291                  | 0                   | 811.291                       | 1066.61                    | 1066.61                         |
| 13           | 1.14658    | 959.613      | 21.0552                   | Mass Wasting Colluvium | 100                 | 38                        | 670.106            | 708.034              | 778.247                  | 0                   | 778.247                       | 1036.22                    | 1036.22                         |
| 14           | 1.14658    | 2121.88      | 21.9318                   | Mass Wasting Colluvium | 100                 | 38                        | 1259.66            | 1330.96              | 1575.55                  | 0                   | 1575.55                       | 2082.75                    | 2082.75                         |
| 15           | 1.14658    | 3335.19      | 22.8139                   | Mass Wasting Colluvium | 100                 | 38                        | 1834.59            | 1938.43              | 2353.08                  | 0                   | 2353.08                       | 3124.8                     | 3124.8                          |
| 16           | 1.14658    | 3331.92      | 23.7017                   | Mass Wasting Colluvium | 100                 | 38                        | 1773.47            | 1873.85              | 2270.42                  | 0                   | 2270.42                       | 3048.98                    | 3048.98                         |
| 17           | 1.14658    | 3253.69      | 24.5956                   | Mass Wasting Colluvium | 100                 | 38                        | 1679.42            | 1774.47              | 2143.22                  | 0                   | 2143.22                       | 2911.96                    | 2911.96                         |
| 18           | 1.14658    | 3179.97      | 25.4959                   | Mass Wasting Colluvium | 100                 | 38                        | 1592.21            | 1682.33              | 2025.3                   | 0                   | 2025.3                        | 2784.6                     | 2784.6                          |
| 19           | 1.14658    | 3103.19      | 26.403                    | Mass Wasting Colluvium | 100                 | 38                        | 1508.02            | 1593.37              | 1911.43                  | 0                   | 1911.43                       | 2660.11                    | 2660.11                         |
| 20           | 1.14658    | 3023.29      | 27.3173                   | Mass Wasting Colluvium | 100                 | 38                        | 1426.66            | 1507.41              | 1801.41                  | 0                   | 1801.41                       | 2538.31                    | 2538.31                         |
| 21           | 1.14658    | 2940.18      | 28.2392                   | Mass Wasting Colluvium | 100                 | 38                        | 1347.99            | 1424.29              | 1695.02                  | 0                   | 1695.02                       | 2418.99                    | 2418.99                         |
| 22           | 1.14658    | 2853.79      | 29.1692                   | Mass Wasting Colluvium | 100                 | 38                        | 1271.87            | 1343.86              | 1592.07                  | 0                   | 1592.07                       | 2302                       | 2302                            |
| 23           | 1.14658    | 2764.02      | 30.1077                   | Mass Wasting Colluvium | 100                 | 38                        | 1198.15            | 1265.97              | 1492.38                  | 0                   | 1492.38                       | 2187.14                    | 2187.14                         |

|    |         |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 24 | 1.14658 | 2692.36 | 31.0551 | Mass Wasting Colluvium | 100 | 38 | 1134.85 | 1199.08 | 1406.75 | 0 | 1406.75 | 2090.13 | 2090.13 |
| 25 | 1.10289 | 3489.42 | 31.9937 | Reinforced Fill        | 135 | 38 | 1484.13 | 1568.13 | 1834.32 | 0 | 1834.32 | 2761.48 | 2761.48 |
| 26 | 1.10289 | 3981.3  | 32.9236 | Reinforced Fill        | 135 | 38 | 2496.84 | 2638.16 | 3203.9  | 0 | 3203.9  | 4820.64 | 4820.64 |
| 27 | 1.10289 | 3885.04 | 33.8633 | Reinforced Fill        | 135 | 38 | 1540.43 | 1627.62 | 1910.46 | 0 | 1910.46 | 2944.16 | 2944.16 |
| 28 | 1.10289 | 3777.86 | 34.8135 | Reinforced Fill        | 135 | 38 | 1458.61 | 1541.17 | 1799.82 | 0 | 1799.82 | 2814.09 | 2814.09 |
| 29 | 1.12289 | 3739.37 | 35.7836 | Mass Wasting Colluvium | 100 | 38 | 1341.43 | 1417.36 | 1686.15 | 0 | 1686.15 | 2653.04 | 2653.04 |
| 30 | 1.12289 | 3628.3  | 36.7745 | Mass Wasting Colluvium | 100 | 38 | 1265.73 | 1337.37 | 1583.76 | 0 | 1583.76 | 2529.77 | 2529.77 |
| 31 | 1.12289 | 3513.12 | 37.7785 | Mass Wasting Colluvium | 100 | 38 | 1191.99 | 1259.46 | 1484.04 | 0 | 1484.04 | 2407.93 | 2407.93 |
| 32 | 1.12289 | 3393.67 | 38.7962 | Mass Wasting Colluvium | 100 | 38 | 1120.13 | 1183.53 | 1386.85 | 0 | 1386.85 | 2287.33 | 2287.33 |
| 33 | 1.12289 | 3269.75 | 39.8287 | Mass Wasting Colluvium | 100 | 38 | 1050.03 | 1109.46 | 1292.05 | 0 | 1292.05 | 2167.79 | 2167.79 |
| 34 | 1.12289 | 3141.18 | 40.877  | Mass Wasting Colluvium | 100 | 38 | 981.609 | 1037.17 | 1199.52 | 0 | 1199.52 | 2049.13 | 2049.13 |
| 35 | 1.12289 | 3007.72 | 41.9422 | Mass Wasting Colluvium | 100 | 38 | 914.796 | 966.573 | 1109.17 | 0 | 1109.17 | 1931.18 | 1931.18 |
| 36 | 1.12289 | 2869.13 | 43.0254 | Mass Wasting Colluvium | 100 | 38 | 849.517 | 897.6   | 1020.88 | 0 | 1020.88 | 1813.77 | 1813.77 |
| 37 | 1.12289 | 2725.14 | 44.1282 | Mass Wasting Colluvium | 100 | 38 | 785.716 | 830.188 | 934.595 | 0 | 934.595 | 1696.76 | 1696.76 |
| 38 | 1.12289 | 2575.43 | 45.2519 | Mass Wasting Colluvium | 100 | 38 | 723.345 | 764.286 | 850.248 | 0 | 850.248 | 1579.98 | 1579.98 |
| 39 | 1.12289 | 2419.67 | 46.3983 | Mass Wasting Colluvium | 100 | 38 | 662.371 | 699.861 | 767.79  | 0 | 767.79  | 1463.31 | 1463.31 |
| 40 | 1.12289 | 2257.47 | 47.5694 | Mass Wasting Colluvium | 100 | 38 | 602.778 | 636.895 | 687.197 | 0 | 687.197 | 1346.62 | 1346.62 |
| 41 | 1.12289 | 2088.39 | 48.7673 | Mass Wasting Colluvium | 100 | 38 | 544.568 | 575.391 | 608.47  | 0 | 608.47  | 1229.81 | 1229.81 |
| 42 | 1.12289 | 1911.94 | 49.9946 | Mass Wasting Colluvium | 100 | 38 | 487.768 | 515.376 | 531.657 | 0 | 531.657 | 1112.84 | 1112.84 |
| 43 | 1.12289 | 1727.52 | 51.254  | Mass Wasting Colluvium | 100 | 38 | 432.432 | 456.908 | 456.821 | 0 | 456.821 | 995.697 | 995.697 |
| 44 | 1.12289 | 1534.48 | 52.5489 | Mass Wasting Colluvium | 100 | 38 | 378.653 | 400.085 | 384.092 | 0 | 384.092 | 878.436 | 878.436 |
| 45 | 1.12289 | 1332.03 | 53.8833 | Mass Wasting Colluvium | 100 | 38 | 326.571 | 345.055 | 313.656 | 0 | 313.656 | 761.222 | 761.222 |
| 46 | 1.12289 | 1119.25 | 55.2618 | Mass Wasting Colluvium | 100 | 38 | 276.385 | 292.028 | 245.785 | 0 | 245.785 | 644.367 | 644.367 |
| 47 | 1.12289 | 895.022 | 56.69   | Mass Wasting Colluvium | 100 | 38 | 228.376 | 241.302 | 180.859 | 0 | 180.859 | 528.395 | 528.395 |
| 48 | 1.12289 | 658.003 | 58.1746 | Mass Wasting Colluvium | 100 | 38 | 182.938 | 193.292 | 119.409 | 0 | 119.409 | 414.166 | 414.166 |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 49 | 1.12289 | 406.519 | 59.7242 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 140.612 | 148.571 | 62.1679 | 0 | 62.1679 | 303.03  | 303.03  |
| 50 | 1.12289 | 138.465 | 61.3494 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 103.768 | 109.641 | 12.3403 | 0 | 12.3403 | 202.265 | 202.265 |

# **Walls 11 and 12b Static**

**Global Minimum Query (spencer) - Safety Factor: 1.47133**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.31367    | 32.6164      | -17.4844                  | Mass Wasting Colluvium | 100                 | 38                        | 190.579            | 280.405              | 230.908                  | 0                   | 230.908                       | 170.876                    | 170.876                         |
| 2            | 1.31367    | 94.7572      | -15.9149                  | Mass Wasting Colluvium | 100                 | 38                        | 243.154            | 357.76               | 329.917                  | 0                   | 329.917                       | 260.585                    | 260.585                         |
| 3            | 1.31367    | 150.785      | -14.3575                  | Mass Wasting Colluvium | 100                 | 38                        | 282.72             | 415.974              | 404.428                  | 0                   | 404.428                       | 332.061                    | 332.061                         |
| 4            | 1.31367    | 200.835      | -12.811                   | Mass Wasting Colluvium | 100                 | 38                        | 311.89             | 458.893              | 459.362                  | 0                   | 459.362                       | 388.44                     | 388.44                          |
| 5            | 1.31367    | 245.021      | -11.2738                  | Mass Wasting Colluvium | 100                 | 38                        | 332.641            | 489.424              | 498.44                   | 0                   | 498.44                        | 432.13                     | 432.13                          |
| 6            | 1.31367    | 283.445      | -9.7449                   | Mass Wasting Colluvium | 100                 | 38                        | 346.483            | 509.791              | 524.509                  | 0                   | 524.509                       | 465.004                    | 465.004                         |
| 7            | 1.31367    | 316.191      | -8.22294                  | Mass Wasting Colluvium | 100                 | 38                        | 354.59             | 521.719              | 539.775                  | 0                   | 539.775                       | 488.533                    | 488.533                         |
| 8            | 1.31367    | 346.754      | -6.70681                  | Mass Wasting Colluvium | 100                 | 38                        | 360.328            | 530.161              | 550.582                  | 0                   | 550.582                       | 508.209                    | 508.209                         |
| 9            | 1.31367    | 383.855      | -5.19538                  | Mass Wasting Colluvium | 100                 | 38                        | 369.972            | 544.351              | 568.743                  | 0                   | 568.743                       | 535.103                    | 535.103                         |
| 10           | 1.31367    | 416.51       | -3.68757                  | Mass Wasting Colluvium | 100                 | 38                        | 375.835            | 552.978              | 579.786                  | 0                   | 579.786                       | 555.563                    | 555.563                         |
| 11           | 1.31367    | 443.697      | -2.18232                  | Mass Wasting Colluvium | 100                 | 38                        | 377.767            | 555.82               | 583.423                  | 0                   | 583.423                       | 569.028                    | 569.028                         |
| 12           | 1.31367    | 465.436      | -0.67857                  | Mass Wasting Colluvium | 100                 | 38                        | 376.262            | 553.606              | 580.589                  | 0                   | 580.589                       | 576.133                    | 576.133                         |
| 13           | 1.31367    | 481.739      | 0.824709                  | Mass Wasting Colluvium | 100                 | 38                        | 371.728            | 546.935              | 572.051                  | 0                   | 572.051                       | 577.402                    | 577.402                         |
| 14           | 1.31367    | 492.605      | 2.32856                   | Mass Wasting Colluvium | 100                 | 38                        | 364.506            | 536.308              | 558.449                  | 0                   | 558.449                       | 573.271                    | 573.271                         |
| 15           | 1.31367    | 498.022      | 3.83401                   | Mass Wasting Colluvium | 100                 | 38                        | 354.878            | 522.143              | 540.319                  | 0                   | 540.319                       | 564.102                    | 564.102                         |
| 16           | 1.31367    | 497.968      | 5.34213                   | Mass Wasting Colluvium | 100                 | 38                        | 343.088            | 504.795              | 518.114                  | 0                   | 518.114                       | 550.196                    | 550.196                         |
| 17           | 1.31367    | 517.596      | 6.85397                   | Mass Wasting Colluvium | 100                 | 38                        | 341.679            | 502.722              | 515.461                  | 0                   | 515.461                       | 556.53                     | 556.53                          |
| 18           | 1.31367    | 1908.85      | 8.37062                   | Mass Wasting Colluvium | 100                 | 38                        | 988.67             | 1454.66              | 1733.89                  | 0                   | 1733.89                       | 1879.37                    | 1879.37                         |
| 19           | 1.31367    | 3402.15      | 9.8932                    | Mass Wasting Colluvium | 100                 | 38                        | 1637.83            | 2409.79              | 2956.39                  | 0                   | 2956.39                       | 3242.04                    | 3242.04                         |
| 20           | 1.31367    | 3399.53      | 11.4229                   | Mass Wasting Colluvium | 100                 | 38                        | 1582.88            | 2328.94              | 2852.92                  | 0                   | 2852.92                       | 3172.74                    | 3172.74                         |
| 21           | 1.31367    | 3349.04      | 12.9609                   | Mass Wasting Colluvium | 100                 | 38                        | 1510.26            | 2222.09              | 2716.15                  | 0                   | 2716.15                       | 3063.74                    | 3063.74                         |
| 22           | 1.31367    | 3298.42      | 14.5084                   | Mass Wasting Colluvium | 100                 | 38                        | 1441.36            | 2120.72              | 2586.4                   | 0                   | 2586.4                        | 2959.39                    | 2959.39                         |

|    |         |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 23 | 1.31367 | 3241.8  | 16.0669 | Mass Wasting Colluvium | 100 | 38 | 1373.5  | 2020.87 | 2458.6  | 0 | 2458.6  | 2854.18 | 2854.18 |
| 24 | 1.31367 | 3179.06 | 17.6377 | Mass Wasting Colluvium | 100 | 38 | 1306.55 | 1922.36 | 2332.52 | 0 | 2332.52 | 2747.92 | 2747.92 |
| 25 | 1.31367 | 3110.04 | 19.2223 | Mass Wasting Colluvium | 100 | 38 | 1240.38 | 1825.01 | 2207.92 | 0 | 2207.92 | 2640.41 | 2640.41 |
| 26 | 1.31367 | 3035.02 | 20.8223 | Mass Wasting Colluvium | 100 | 38 | 1175.08 | 1728.93 | 2084.93 | 0 | 2084.93 | 2531.83 | 2531.83 |
| 27 | 1.24569 | 2980.68 | 22.3972 | Reinforced Fill        | 135 | 38 | 1203.69 | 1771.03 | 2094.02 | 0 | 2094.02 | 2590.08 | 2590.08 |
| 28 | 1.24569 | 4587.9  | 23.9479 | Reinforced Fill        | 135 | 38 | 2208.51 | 3249.44 | 3986.3  | 0 | 3986.3  | 4967.18 | 4967.18 |
| 29 | 1.24569 | 6389    | 25.5174 | Reinforced Fill        | 135 | 38 | 2323.19 | 3418.18 | 4202.28 | 0 | 4202.28 | 5311.26 | 5311.26 |
| 30 | 1.24569 | 6666.32 | 27.1077 | Reinforced Fill        | 135 | 38 | 2347.49 | 3453.93 | 4248.04 | 0 | 4248.04 | 5449.71 | 5449.71 |
| 31 | 1.24569 | 6563.75 | 28.721  | Reinforced Fill        | 135 | 38 | 2242.9  | 3300.04 | 4051.06 | 0 | 4051.06 | 5280.08 | 5280.08 |
| 32 | 1.33638 | 6923.97 | 30.4203 | Mass Wasting Colluvium | 100 | 38 | 2113.5  | 3109.65 | 3852.17 | 0 | 3852.17 | 5093.16 | 5093.16 |
| 33 | 1.33638 | 6793.55 | 32.2106 | Mass Wasting Colluvium | 100 | 38 | 2004.74 | 2949.64 | 3647.37 | 0 | 3647.37 | 4910.34 | 4910.34 |
| 34 | 1.33638 | 6653.66 | 34.0369 | Mass Wasting Colluvium | 100 | 38 | 1897.13 | 2791.3  | 3444.71 | 0 | 3444.71 | 4726.12 | 4726.12 |
| 35 | 1.33638 | 6503.71 | 35.9035 | Mass Wasting Colluvium | 100 | 38 | 1790.11 | 2633.84 | 3243.16 | 0 | 3243.16 | 4539.15 | 4539.15 |
| 36 | 1.33638 | 6342.97 | 37.8152 | Mass Wasting Colluvium | 100 | 38 | 1683.5  | 2476.98 | 3042.39 | 0 | 3042.39 | 4348.97 | 4348.97 |
| 37 | 1.33638 | 6170.6  | 39.7779 | Mass Wasting Colluvium | 100 | 38 | 1577.14 | 2320.49 | 2842.1  | 0 | 2842.1  | 4155.09 | 4155.09 |
| 38 | 1.33638 | 5985.59 | 41.7984 | Mass Wasting Colluvium | 100 | 38 | 1470.86 | 2164.12 | 2641.96 | 0 | 2641.96 | 3956.99 | 3956.99 |
| 39 | 1.33638 | 5786.72 | 43.8849 | Mass Wasting Colluvium | 100 | 38 | 1364.51 | 2007.64 | 2441.67 | 0 | 2441.67 | 3754.07 | 3754.07 |
| 40 | 1.33638 | 5572.51 | 46.0473 | Mass Wasting Colluvium | 100 | 38 | 1257.9  | 1850.79 | 2240.91 | 0 | 2240.91 | 3545.66 | 3545.66 |
| 41 | 1.33638 | 5341.11 | 48.2983 | Mass Wasting Colluvium | 100 | 38 | 1150.88 | 1693.32 | 2039.36 | 0 | 2039.36 | 3331    | 3331    |
| 42 | 1.33638 | 5090.15 | 50.6536 | Mass Wasting Colluvium | 100 | 38 | 1043.25 | 1534.96 | 1836.66 | 0 | 1836.66 | 3109.15 | 3109.15 |
| 43 | 1.33638 | 4816.55 | 53.134  | Mass Wasting Colluvium | 100 | 38 | 934.8   | 1375.4  | 1632.44 | 0 | 1632.44 | 2879.02 | 2879.02 |
| 44 | 1.33638 | 4516.18 | 55.7677 | Mass Wasting Colluvium | 100 | 38 | 825.315 | 1214.31 | 1426.25 | 0 | 1426.25 | 2639.19 | 2639.19 |
| 45 | 1.33638 | 4183.19 | 58.5942 | Mass Wasting Colluvium | 100 | 38 | 714.509 | 1051.28 | 1217.58 | 0 | 1217.58 | 2387.87 | 2387.87 |
| 46 | 1.33638 | 3808.89 | 61.673  | Mass Wasting Colluvium | 100 | 38 | 602.021 | 885.771 | 1005.74 | 0 | 1005.74 | 2122.55 | 2122.55 |
| 47 | 1.33638 | 3379.26 | 65.1007 | Mass Wasting Colluvium | 100 | 38 | 487.308 | 716.991 | 789.714 | 0 | 789.714 | 1839.56 | 1839.56 |

|    |         |         |         |                              |     |    |         |         |         |   |         |         |         |
|----|---------|---------|---------|------------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 48 | 1.33638 | 2868.44 | 69.0563 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 369.353 | 543.44  | 567.578 | 0 | 567.578 | 1532.61 | 1532.61 |
| 49 | 1.33638 | 2215.65 | 73.9645 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 245.248 | 360.841 | 333.862 | 0 | 333.862 | 1187.15 | 1187.15 |
| 50 | 1.33638 | 921.413 | 83.3666 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 76.6333 | 112.753 | 16.3229 | 0 | 16.3229 | 675.285 | 675.285 |



## ◆ Walls 11 and 12b Seismic

**Global Minimum Query (spencer) - Safety Factor: 1.17775**

| Slice Number | Width [ft] | Weight [lbs] | Angle of Slice Base [deg] | Base Material          | Base Cohesion [psf] | Base Friction Angle [deg] | Shear Stress [psf] | Shear Strength [psf] | Base Normal Stress [psf] | Pore Pressure [psf] | Effective Normal Stress [psf] | Base Vertical Stress [psf] | Effective Vertical Stress [psf] |
|--------------|------------|--------------|---------------------------|------------------------|---------------------|---------------------------|--------------------|----------------------|--------------------------|---------------------|-------------------------------|----------------------------|---------------------------------|
| 1            | 1.02691    | 678.174      | 15.1517                   | Verti-Block            | 3000                | 0                         | 2547.23            | 3000                 | 2625.12                  | 0                   | 2625.12                       | 3314.88                    | 3314.88                         |
| 2            | 1.02691    | 1921.45      | 16.0621                   | Verti-Block            | 3000                | 0                         | 2547.23            | 3000                 | 3027.54                  | 0                   | 3027.54                       | 3760.93                    | 3760.93                         |
| 3            | 1.02691    | 2133.12      | 16.9767                   | Verti-Block            | 3000                | 0                         | 2547.23            | 3000                 | 3030.85                  | 0                   | 3030.85                       | 3808.49                    | 3808.49                         |
| 4            | 0.936115   | 1909.96      | 17.8549                   | Reinforced Fill        | 135                 | 38                        | 1534.17            | 1806.87              | 2139.89                  | 0                   | 2139.89                       | 2634.08                    | 2634.08                         |
| 5            | 0.936115   | 1875.23      | 18.6967                   | Reinforced Fill        | 135                 | 38                        | 1439.68            | 1695.58              | 1997.46                  | 0                   | 1997.46                       | 2484.67                    | 2484.67                         |
| 6            | 0.936115   | 1838.78      | 19.5427                   | Reinforced Fill        | 135                 | 38                        | 1352.17            | 1592.52              | 1865.55                  | 0                   | 1865.55                       | 2345.51                    | 2345.51                         |
| 7            | 0.936115   | 1800.57      | 20.3931                   | Reinforced Fill        | 135                 | 38                        | 6540.78            | 7703.4               | 9687.11                  | 0                   | 9687.11                       | 12118.7                    | 12118.7                         |
| 8            | 0.936115   | 1760.58      | 21.2483                   | Reinforced Fill        | 135                 | 38                        | 1194.84            | 1407.22              | 1628.36                  | 0                   | 1628.36                       | 2092.97                    | 2092.97                         |
| 9            | 0.936115   | 1718.77      | 22.1084                   | Reinforced Fill        | 135                 | 38                        | 1123.68            | 1323.41              | 1521.1                   | 0                   | 1521.1                        | 1977.57                    | 1977.57                         |
| 10           | 0.936115   | 1675.12      | 22.9739                   | Reinforced Fill        | 135                 | 38                        | 1056.81            | 1244.66              | 1420.3                   | 0                   | 1420.3                        | 1868.33                    | 1868.33                         |
| 11           | 0.936115   | 1629.59      | 23.8449                   | Reinforced Fill        | 135                 | 38                        | 993.793            | 1170.44              | 1325.3                   | 0                   | 1325.3                        | 1764.54                    | 1764.54                         |
| 12           | 0.936115   | 1582.15      | 24.7218                   | Reinforced Fill        | 135                 | 38                        | 5009.8             | 5900.29              | 7379.23                  | 0                   | 7379.23                       | 9685.79                    | 9685.79                         |
| 13           | 0.936115   | 1537.11      | 25.6049                   | Reinforced Fill        | 135                 | 38                        | 879.767            | 1036.15              | 1153.41                  | 0                   | 1153.41                       | 1575.02                    | 1575.02                         |
| 14           | 0.936115   | 1845.83      | 26.4947                   | Reinforced Fill        | 135                 | 38                        | 980.811            | 1155.15              | 1305.74                  | 0                   | 1305.74                       | 1794.64                    | 1794.64                         |
| 15           | 0.936115   | 2921.65      | 27.3913                   | Reinforced Fill        | 135                 | 38                        | 1390.01            | 1637.09              | 1922.6                   | 0                   | 1922.6                        | 2642.84                    | 2642.84                         |
| 16           | 0.936115   | 4014.9       | 28.2953                   | Reinforced Fill        | 135                 | 38                        | 5133.79            | 6046.32              | 7566.14                  | 0                   | 7566.14                       | 10329.9                    | 10329.9                         |
| 17           | 0.936115   | 4416.06      | 29.207                    | Reinforced Fill        | 135                 | 38                        | 1863.22            | 2194.41              | 2635.93                  | 0                   | 2635.93                       | 3677.55                    | 3677.55                         |
| 18           | 0.936115   | 4349.72      | 30.1269                   | Reinforced Fill        | 135                 | 38                        | 1772.17            | 2087.17              | 2498.66                  | 0                   | 2498.66                       | 3527.06                    | 3527.06                         |
| 19           | 0.936115   | 4287.35      | 31.0555                   | Reinforced Fill        | 135                 | 38                        | 1687.41            | 1987.35              | 2370.9                   | 0                   | 2370.9                        | 3387.03                    | 3387.03                         |
| 20           | 0.936115   | 4222.84      | 31.9933                   | Reinforced Fill        | 135                 | 38                        | 1967.16            | 2316.82              | 2792.6                   | 0                   | 2792.6                        | 4021.5                     | 4021.5                          |
| 21           | 0.936115   | 4155.93      | 32.9407                   | Reinforced Fill        | 135                 | 38                        | 1528.61            | 1800.32              | 2131.51                  | 0                   | 2131.51                       | 3121.95                    | 3121.95                         |
| 22           | 0.936115   | 4086.53      | 33.8984                   | Reinforced Fill        | 135                 | 38                        | 1453.96            | 1712.4               | 2018.98                  | 0                   | 2018.98                       | 2995.94                    | 2995.94                         |
| 23           | 0.914741   | 3923.74      | 34.8557                   | Mass Wasting Colluvium | 100                 | 38                        | 1342.36            | 1580.97              | 1895.55                  | 0                   | 1895.55                       | 2830.46                    | 2830.46                         |

|    |          |         |         |                        |     |    |         |         |         |   |         |         |         |
|----|----------|---------|---------|------------------------|-----|----|---------|---------|---------|---|---------|---------|---------|
| 24 | 0.914741 | 3852.55 | 35.8132 | Mass Wasting Colluvium | 100 | 38 | 1275.47 | 1502.18 | 1794.71 | 0 | 1794.71 | 2715.05 | 2715.05 |
| 25 | 0.914741 | 3778.79 | 36.7824 | Mass Wasting Colluvium | 100 | 38 | 1210.92 | 1426.16 | 1697.41 | 0 | 1697.41 | 2602.71 | 2602.71 |
| 26 | 0.914741 | 3702.36 | 37.764  | Mass Wasting Colluvium | 100 | 38 | 1148.57 | 1352.73 | 1603.43 | 0 | 1603.43 | 2493.19 | 2493.19 |
| 27 | 0.914741 | 3623.16 | 38.7588 | Mass Wasting Colluvium | 100 | 38 | 1088.3  | 1281.74 | 1512.55 | 0 | 1512.55 | 2386.28 | 2386.28 |
| 28 | 0.914741 | 3541.07 | 39.7676 | Mass Wasting Colluvium | 100 | 38 | 1029.96 | 1213.03 | 1424.61 | 0 | 1424.61 | 2281.76 | 2281.76 |
| 29 | 0.914741 | 3455.97 | 40.7915 | Mass Wasting Colluvium | 100 | 38 | 973.441 | 1146.47 | 1339.42 | 0 | 1339.42 | 2179.42 | 2179.42 |
| 30 | 0.914741 | 3367.71 | 41.8315 | Mass Wasting Colluvium | 100 | 38 | 918.656 | 1081.95 | 1256.84 | 0 | 1256.84 | 2079.12 | 2079.12 |
| 31 | 0.914741 | 3276.13 | 42.8886 | Mass Wasting Colluvium | 100 | 38 | 865.503 | 1019.35 | 1176.71 | 0 | 1176.71 | 1980.66 | 1980.66 |
| 32 | 0.914741 | 3181.08 | 43.9641 | Mass Wasting Colluvium | 100 | 38 | 813.898 | 958.568 | 1098.91 | 0 | 1098.91 | 1883.9  | 1883.9  |
| 33 | 0.914741 | 3082.35 | 45.0596 | Mass Wasting Colluvium | 100 | 38 | 763.764 | 899.523 | 1023.35 | 0 | 1023.35 | 1788.7  | 1788.7  |
| 34 | 1.01404  | 3296.75 | 46.2383 | Reinforced Fill        | 135 | 38 | 1353.45 | 1594.03 | 1867.47 | 0 | 1867.47 | 3280.73 | 3280.73 |
| 35 | 1.01404  | 3164.99 | 47.5051 | Reinforced Fill        | 135 | 38 | 693.281 | 816.512 | 872.299 | 0 | 872.299 | 1629.02 | 1629.02 |
| 36 | 1.01404  | 3027.16 | 48.8032 | Reinforced Fill        | 135 | 38 | 1088.52 | 1282.01 | 1468.11 | 0 | 1468.11 | 2711.66 | 2711.66 |
| 37 | 0.947647 | 2698.68 | 50.0911 | Mass Wasting Colluvium | 100 | 38 | 561.526 | 661.337 | 718.479 | 0 | 718.479 | 1389.84 | 1389.84 |
| 38 | 0.947647 | 2566.83 | 51.3698 | Mass Wasting Colluvium | 100 | 38 | 516.742 | 608.593 | 650.969 | 0 | 650.969 | 1297.58 | 1297.58 |
| 39 | 0.947647 | 2428.71 | 52.6852 | Mass Wasting Colluvium | 100 | 38 | 473.234 | 557.351 | 585.383 | 0 | 585.383 | 1206.26 | 1206.26 |
| 40 | 0.947647 | 2283.74 | 54.0416 | Mass Wasting Colluvium | 100 | 38 | 431.036 | 507.653 | 521.772 | 0 | 521.772 | 1115.95 | 1115.95 |
| 41 | 0.947647 | 2131.23 | 55.4439 | Mass Wasting Colluvium | 100 | 38 | 390.268 | 459.638 | 460.316 | 0 | 460.316 | 1026.97 | 1026.97 |
| 42 | 0.947647 | 1970.35 | 56.898  | Mass Wasting Colluvium | 100 | 38 | 351.21  | 413.637 | 401.436 | 0 | 401.436 | 940.149 | 940.149 |
| 43 | 0.947647 | 1800.08 | 58.4111 | Mass Wasting Colluvium | 100 | 38 | 314.441 | 370.333 | 346.011 | 0 | 346.011 | 857.35  | 857.35  |
| 44 | 0.947647 | 1619.16 | 59.9924 | Mass Wasting Colluvium | 100 | 38 | 281.094 | 331.058 | 295.74  | 0 | 295.74  | 782.46  | 782.46  |
| 45 | 0.947647 | 1425.98 | 61.6535 | Mass Wasting Colluvium | 100 | 38 | 253.207 | 298.214 | 253.702 | 0 | 253.702 | 723.045 | 723.045 |
| 46 | 0.947647 | 1218.46 | 63.4095 | Mass Wasting Colluvium | 100 | 38 | 234.039 | 275.64  | 224.809 | 0 | 224.809 | 692.368 | 692.368 |
| 47 | 0.947647 | 993.774 | 65.2809 | Mass Wasting Colluvium | 100 | 38 | 227.17  | 267.549 | 214.453 | 0 | 214.453 | 707.921 | 707.921 |
| 48 | 0.947647 | 747.941 | 67.2966 | Mass Wasting Colluvium | 100 | 38 | 228.767 | 269.43  | 216.86  | 0 | 216.86  | 763.655 | 763.655 |

|    |          |         |         |                              |     |    |         |         |          |   |          |          |          |
|----|----------|---------|---------|------------------------------|-----|----|---------|---------|----------|---|----------|----------|----------|
| 49 | 0.947647 | 475.037 | 69.5002 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 186.366 | 219.493 | 152.944  | 0 | 152.944  | 651.409  | 651.409  |
| 50 | 0.947647 | 165.46  | 71.9622 | Mass<br>Wasting<br>Colluvium | 100 | 38 | 0       | 0       | -206.647 | 0 | -206.647 | -206.647 | -206.647 |

## Interslice Data

### ◆ Walls 1 and 5b Static

Global Minimum Query (spencer) - Safety Factor: 1.54617

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 12.5364           | 1.79951                    | 0                             | 0                            | 0                            |
| 2            | 13.6239           | 2.24483                    | 1608.76                       | 1373.14                      | 40.4821                      |
| 3            | 14.7114           | 2.70637                    | 3393.72                       | 2896.68                      | 40.4821                      |
| 4            | 15.7988           | 3.1844                     | 4193.68                       | 3579.48                      | 40.4821                      |
| 5            | 16.8282           | 3.65233                    | 4412                          | 3765.82                      | 40.4821                      |
| 6            | 17.8576           | 4.13553                    | 4588.26                       | 3916.26                      | 40.4821                      |
| 7            | 18.8869           | 4.63427                    | 8051.92                       | 6872.64                      | 40.4821                      |
| 8            | 19.9163           | 5.14884                    | 8150.57                       | 6956.84                      | 40.4821                      |
| 9            | 20.9457           | 5.67952                    | 8213.65                       | 7010.68                      | 40.4821                      |
| 10           | 21.975            | 6.22665                    | 8243.35                       | 7036.03                      | 40.4821                      |
| 11           | 23.0044           | 6.79054                    | 11451.5                       | 9774.36                      | 40.4822                      |
| 12           | 24.0338           | 7.37155                    | 11395                         | 9726.09                      | 40.4821                      |
| 13           | 25.0631           | 7.97005                    | 11229.3                       | 9584.68                      | 40.4822                      |
| 14           | 26.0925           | 8.58645                    | 14078.9                       | 12016.9                      | 40.4821                      |
| 15           | 27.1219           | 9.22116                    | 13739.2                       | 11727                        | 40.4822                      |
| 16           | 28.1512           | 9.87462                    | 13346.7                       | 11392                        | 40.4822                      |
| 17           | 29.1806           | 10.5473                    | 15959.6                       | 13622.2                      | 40.4822                      |
| 18           | 30.21             | 11.2398                    | 15468.7                       | 13203.2                      | 40.4822                      |
| 19           | 31.2393           | 11.9525                    | 14932.7                       | 12745.6                      | 40.482                       |
| 20           | 32.2687           | 12.6861                    | 17341.9                       | 14802                        | 40.4821                      |
| 21           | 33.2981           | 13.4411                    | 16723.8                       | 14274.4                      | 40.482                       |
| 22           | 34.3274           | 14.2183                    | 16068.8                       | 13715.4                      | 40.4822                      |
| 23           | 35.3568           | 15.0184                    | 18304.5                       | 15623.6                      | 40.482                       |
| 24           | 36.3862           | 15.842                     | 17584.4                       | 15009                        | 40.4821                      |
| 25           | 37.4155           | 16.6901                    | 16836.2                       | 14370.4                      | 40.4821                      |
| 26           | 38.4449           | 17.5635                    | 16062.9                       | 13710.4                      | 40.4822                      |
| 27           | 39.4743           | 18.4632                    | 15267.6                       | 13031.5                      | 40.4821                      |
| 28           | 40.5036           | 19.3901                    | 14453.5                       | 12336.6                      | 40.482                       |
| 29           | 41.533            | 20.3455                    | 13623.8                       | 11628.4                      | 40.4819                      |
| 30           | 42.5305           | 21.2997                    | 12785                         | 10912.5                      | 40.4821                      |
| 31           | 43.528            | 22.2828                    | 11937.8                       | 10189.4                      | 40.4821                      |
| 32           | 44.5255           | 23.2964                    | 11085.5                       | 9461.91                      | 40.4821                      |
| 33           | 45.5231           | 24.3418                    | 10231.4                       | 8732.93                      | 40.4822                      |
| 34           | 46.5206           | 25.4207                    | 9379.18                       | 8005.51                      | 40.4821                      |
| 35           | 47.5181           | 26.5348                    | 8532.48                       | 7282.81                      | 40.4821                      |
| 36           | 48.5156           | 27.6861                    | 7695.21                       | 6568.17                      | 40.4821                      |
| 37           | 49.5132           | 28.8767                    | 6871.47                       | 5865.08                      | 40.4821                      |
| 38           | 50.5107           | 30.1091                    | 6065.59                       | 5177.23                      | 40.4821                      |
| 39           | 51.5082           | 31.386                     | 5282.15                       | 4508.53                      | 40.4821                      |
| 40           | 52.5057           | 32.7106                    | 4526.01                       | 3863.14                      | 40.4822                      |
| 41           | 53.5032           | 34.0863                    | 3802.41                       | 3245.51                      | 40.4821                      |
| 42           | 54.5008           | 35.5171                    | 3116.93                       | 2660.43                      | 40.4821                      |
| 43           | 55.4983           | 37.0078                    | 2475.65                       | 2113.07                      | 40.4821                      |
| 44           | 56.4958           | 38.5638                    | 1885.2                        | 1609.09                      | 40.482                       |
| 45           | 57.4933           | 40.1914                    | 1352.87                       | 1154.73                      | 40.4821                      |
| 46           | 58.4909           | 41.8983                    | 886.827                       | 756.943                      | 40.4821                      |
| 47           | 59.4884           | 43.6937                    | 496.371                       | 423.673                      | 40.4821                      |
| 48           | 60.4859           | 45.5888                    | 192.331                       | 164.162                      | 40.482                       |
| 49           | 61.4834           | 47.5978                    | -12.2413                      | -10.4485                     | 40.4822                      |
| 50           | 62.4809           | 49.7386                    | -100.899                      | -86.121                      | 40.482                       |
| 51           | 63.4785           | 52.035                     | 0                             | 0                            | 0                            |

# **Walls 1 and 5b Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.11886**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 12.5352           | 1.7875                     | 0                             | 0                            | 0                            |
| 2            | 13.6224           | 2.23583                    | 1880.83                       | 2854.71                      | 56.621                       |
| 3            | 14.7096           | 2.69406                    | 3943.67                       | 5985.68                      | 56.6211                      |
| 4            | 15.7968           | 3.16229                    | 4789.79                       | 7269.92                      | 56.6211                      |
| 5            | 17.0858           | 3.7305                     | 4851.75                       | 7363.97                      | 56.6211                      |
| 6            | 18.3748           | 4.31308                    | 4865.48                       | 7384.81                      | 56.6211                      |
| 7            | 19.6637           | 4.91021                    | 10854.6                       | 16475.1                      | 56.6212                      |
| 8            | 20.9527           | 5.52209                    | 10785                         | 16369.4                      | 56.6211                      |
| 9            | 22.2416           | 6.14891                    | 10679.9                       | 16209.9                      | 56.6211                      |
| 10           | 23.5306           | 6.79088                    | 16213.1                       | 24608.2                      | 56.6211                      |
| 11           | 24.8196           | 7.44821                    | 15860.2                       | 24072.6                      | 56.6212                      |
| 12           | 26.1085           | 8.12114                    | 15263.8                       | 23167.4                      | 56.6212                      |
| 13           | 27.3975           | 8.80989                    | 19974                         | 30316.4                      | 56.6211                      |
| 14           | 28.6864           | 9.51471                    | 19249.2                       | 29216.4                      | 56.6211                      |
| 15           | 29.9754           | 10.2359                    | 18477.2                       | 28044.6                      | 56.6211                      |
| 16           | 31.2644           | 10.9736                    | 22778.5                       | 34573.1                      | 56.6211                      |
| 17           | 32.5533           | 11.7283                    | 21924.8                       | 33277.4                      | 56.6211                      |
| 18           | 33.8423           | 12.5001                    | 25989.9                       | 39447.3                      | 56.6211                      |
| 19           | 35.1312           | 13.2894                    | 25071.1                       | 38052.8                      | 56.6211                      |
| 20           | 36.4202           | 14.0964                    | 24125.7                       | 36617.9                      | 56.6211                      |
| 21           | 37.7092           | 14.9217                    | 23157.6                       | 35148.5                      | 56.6211                      |
| 22           | 38.9981           | 15.7654                    | 22170.5                       | 33650.2                      | 56.621                       |
| 23           | 39.76             | 16.273                     | 21555.2                       | 32716.3                      | 56.621                       |
| 24           | 41.1671           | 17.228                     | 20452.4                       | 31042.5                      | 56.621                       |
| 25           | 42.5027           | 18.156                     | 19353.3                       | 29374.4                      | 56.6211                      |
| 26           | 43.8384           | 19.1055                    | 18248.8                       | 27697.9                      | 56.6211                      |
| 27           | 45.174            | 20.077                     | 17142.6                       | 26018.9                      | 56.621                       |
| 28           | 46.5097           | 21.0709                    | 16038.6                       | 24343.3                      | 56.6211                      |
| 29           | 47.8453           | 22.0879                    | 14940.7                       | 22677                        | 56.6212                      |
| 30           | 49.1809           | 23.1285                    | 13852.7                       | 21025.6                      | 56.6211                      |
| 31           | 50.5166           | 24.1934                    | 12778.4                       | 19395                        | 56.6211                      |
| 32           | 51.8522           | 25.2831                    | 11721.6                       | 17791.1                      | 56.6213                      |
| 33           | 53.1879           | 26.3985                    | 10686.2                       | 16219.4                      | 56.621                       |
| 34           | 54.5235           | 27.5402                    | 9675.86                       | 14686                        | 56.6211                      |
| 35           | 55.8592           | 28.7092                    | 8694.54                       | 13196.5                      | 56.621                       |
| 36           | 57.1948           | 29.9061                    | 7746.09                       | 11757                        | 56.6211                      |
| 37           | 58.5304           | 31.1319                    | 6834.42                       | 10373.2                      | 56.621                       |
| 38           | 59.8661           | 32.3876                    | 5963.49                       | 9051.36                      | 56.6211                      |
| 39           | 61.2017           | 33.6741                    | 5137.33                       | 7797.41                      | 56.6211                      |
| 40           | 62.5374           | 34.9928                    | 4360.01                       | 6617.6                       | 56.6211                      |
| 41           | 63.873            | 36.3446                    | 3635.68                       | 5518.22                      | 56.6211                      |
| 42           | 65.2086           | 37.7309                    | 2968.59                       | 4505.71                      | 56.6211                      |
| 43           | 66.5443           | 39.1531                    | 2363.09                       | 3586.68                      | 56.621                       |
| 44           | 67.8799           | 40.6127                    | 1823.62                       | 2767.88                      | 56.6211                      |
| 45           | 69.2156           | 42.1114                    | 1354.78                       | 2056.28                      | 56.6211                      |
| 46           | 70.5512           | 43.6508                    | 961.307                       | 1459.07                      | 56.6211                      |
| 47           | 71.8869           | 45.233                     | 648.126                       | 983.722                      | 56.6211                      |
| 48           | 73.2225           | 46.8601                    | 420.374                       | 638.042                      | 56.6211                      |
| 49           | 74.5581           | 48.5343                    | 283.456                       | 430.228                      | 56.6211                      |
| 50           | 75.8938           | 50.2583                    | 243.102                       | 368.98                       | 56.6212                      |
| 51           | 77.2294           | 52.035                     | 0                             | 0                            | 0                            |



 **Wall 2 Static**
**Global Minimum Query (spencer) - Safety Factor: 2.92367**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 21.9728           | 5.395                      | 0                             | 0                            | 0                            |
| 2            | 22.1974           | 5.23452                    | 22.6822                       | 4.70186                      | 11.7111                      |
| 3            | 22.4221           | 5.08715                    | 49.255                        | 10.2102                      | 11.7111                      |
| 4            | 22.6467           | 4.95192                    | 78.5117                       | 16.2749                      | 11.7111                      |
| 5            | 22.8713           | 4.828                      | 109.533                       | 22.7054                      | 11.7111                      |
| 6            | 23.096            | 4.71472                    | 141.605                       | 29.3536                      | 11.7111                      |
| 7            | 23.3206           | 4.61151                    | 174.164                       | 36.1029                      | 11.7111                      |
| 8            | 23.5452           | 4.51788                    | 206.762                       | 42.8602                      | 11.7111                      |
| 9            | 23.7699           | 4.4334                     | 239.038                       | 49.5507                      | 11.7111                      |
| 10           | 23.9945           | 4.35773                    | 270.699                       | 56.1139                      | 11.7111                      |
| 11           | 24.2191           | 4.29056                    | 301.51                        | 62.5007                      | 11.7111                      |
| 12           | 24.4438           | 4.23164                    | 331.279                       | 68.6717                      | 11.7111                      |
| 13           | 24.6684           | 4.18074                    | 359.854                       | 74.595                       | 11.7111                      |
| 14           | 24.893            | 4.13769                    | 387.111                       | 80.2453                      | 11.7111                      |
| 15           | 25.1177           | 4.10234                    | 412.958                       | 85.6031                      | 11.7111                      |
| 16           | 25.3423           | 4.07456                    | 437.322                       | 90.6537                      | 11.7111                      |
| 17           | 25.567            | 4.05427                    | 460.154                       | 95.3865                      | 11.7111                      |
| 18           | 25.7916           | 4.0414                     | 481.59                        | 99.83                        | 11.7111                      |
| 19           | 26.0162           | 4.03591                    | 501.764                       | 104.012                      | 11.7111                      |
| 20           | 26.2409           | 4.03777                    | 520.338                       | 107.862                      | 11.7111                      |
| 21           | 26.4655           | 4.047                      | 537.369                       | 111.393                      | 11.7112                      |
| 22           | 26.6901           | 4.06362                    | 560.644                       | 116.217                      | 11.7111                      |
| 23           | 26.9148           | 4.0877                     | 591.633                       | 122.641                      | 11.7111                      |
| 24           | 27.1394           | 4.1193                     | 622.492                       | 129.038                      | 11.7111                      |
| 25           | 27.364            | 4.15854                    | 646.815                       | 134.08                       | 11.7111                      |
| 26           | 27.5887           | 4.20554                    | 664.7                         | 137.787                      | 11.7111                      |
| 27           | 27.8133           | 4.26048                    | 676.308                       | 140.194                      | 11.7112                      |
| 28           | 28.0379           | 4.32356                    | 681.798                       | 141.332                      | 11.7112                      |
| 29           | 28.2626           | 4.395                      | 681.33                        | 141.235                      | 11.7112                      |
| 30           | 28.4892           | 4.47585                    | 670.318                       | 138.952                      | 11.7111                      |
| 31           | 28.7159           | 4.56584                    | 653.464                       | 135.458                      | 11.7111                      |
| 32           | 28.9425           | 4.66538                    | 630.944                       | 130.79                       | 11.7111                      |
| 33           | 29.1692           | 4.77491                    | 602.948                       | 124.987                      | 11.7112                      |
| 34           | 29.3958           | 4.895                      | 569.672                       | 118.089                      | 11.7111                      |
| 35           | 29.6416           | 5.03793                    | 537.163                       | 111.35                       | 11.7111                      |
| 36           | 29.8874           | 5.19502                    | 499.251                       | 103.491                      | 11.7111                      |
| 37           | 30.1332           | 5.36748                    | 456.275                       | 94.5825                      | 11.7111                      |
| 38           | 30.1704           | 5.395                      | 448.828                       | 93.0387                      | 11.7111                      |
| 39           | 30.3828           | 5.55982                    | 407.344                       | 84.4394                      | 11.7111                      |
| 40           | 30.5951           | 5.73863                    | 362.71                        | 75.1871                      | 11.7111                      |
| 41           | 30.8075           | 5.93295                    | 315.268                       | 65.3527                      | 11.7111                      |
| 42           | 31.0198           | 6.14467                    | 265.424                       | 55.0204                      | 11.7111                      |
| 43           | 31.2322           | 6.37626                    | 213.673                       | 44.2928                      | 11.7111                      |
| 44           | 31.4445           | 6.63093                    | 160.637                       | 33.2988                      | 11.7111                      |
| 45           | 31.6569           | 6.91312                    | 107.122                       | 22.2055                      | 11.7111                      |
| 46           | 31.8692           | 7.22918                    | 54.2268                       | 11.2408                      | 11.7111                      |
| 47           | 32.0815           | 7.5888                     | 3.54126                       | 0.734076                     | 11.7111                      |
| 48           | 32.2939           | 8.00822                    | -42.4264                      | -8.79467                     | 11.7111                      |
| 49           | 32.5062           | 8.5189                     | -79.1292                      | -16.4029                     | 11.7111                      |
| 50           | 32.7186           | 9.20148                    | -95.8416                      | -19.8673                     | 11.7112                      |
| 51           | 32.9309           | 10.895                     | 0                             | 0                            | 0                            |

 **Wall 2 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 2.06163**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 21.2164           | 5.395                      | 0                             | 0                            | 0                            |
| 2            | 21.5303           | 5.26651                    | 57.3723                       | 38.0715                      | 33.5677                      |
| 3            | 21.8443           | 5.14795                    | 116.082                       | 77.0303                      | 33.5677                      |
| 4            | 22.1582           | 5.03902                    | 174.786                       | 115.986                      | 33.5678                      |
| 5            | 22.4722           | 4.93946                    | 232.544                       | 154.313                      | 33.5677                      |
| 6            | 22.7861           | 4.84903                    | 288.693                       | 191.573                      | 33.5677                      |
| 7            | 23.1001           | 4.76753                    | 342.773                       | 227.46                       | 33.5678                      |
| 8            | 23.414            | 4.69477                    | 394.471                       | 261.766                      | 33.5678                      |
| 9            | 23.728            | 4.63059                    | 443.58                        | 294.354                      | 33.5677                      |
| 10           | 24.0419           | 4.57486                    | 489.977                       | 325.142                      | 33.5677                      |
| 11           | 24.3559           | 4.52746                    | 533.599                       | 354.089                      | 33.5677                      |
| 12           | 24.6699           | 4.4883                     | 574.431                       | 381.185                      | 33.5677                      |
| 13           | 24.9838           | 4.45729                    | 612.497                       | 406.445                      | 33.5677                      |
| 14           | 25.2978           | 4.43438                    | 647.851                       | 429.906                      | 33.5678                      |
| 15           | 25.6117           | 4.41952                    | 680.571                       | 451.618                      | 33.5677                      |
| 16           | 25.9317           | 4.41263                    | 691.993                       | 459.198                      | 33.5678                      |
| 17           | 26.2516           | 4.41406                    | 701.756                       | 465.676                      | 33.5677                      |
| 18           | 26.5715           | 4.4238                     | 711.796                       | 472.338                      | 33.5677                      |
| 19           | 26.8915           | 4.44188                    | 736.737                       | 488.889                      | 33.5677                      |
| 20           | 27.2114           | 4.46834                    | 765.1                         | 507.711                      | 33.5678                      |
| 21           | 27.5314           | 4.50322                    | 784.129                       | 520.338                      | 33.5677                      |
| 22           | 27.8513           | 4.54661                    | 794.239                       | 527.047                      | 33.5678                      |
| 23           | 28.1713           | 4.59859                    | 796.014                       | 528.225                      | 33.5678                      |
| 24           | 28.4912           | 4.65928                    | 790.014                       | 524.243                      | 33.5677                      |
| 25           | 28.8112           | 4.7288                     | 776.775                       | 515.458                      | 33.5677                      |
| 26           | 29.1311           | 4.80732                    | 756.818                       | 502.215                      | 33.5678                      |
| 27           | 29.4511           | 4.895                      | 730.653                       | 484.852                      | 33.5677                      |
| 28           | 29.7154           | 4.97452                    | 718.086                       | 476.512                      | 33.5677                      |
| 29           | 29.9798           | 5.06056                    | 701.879                       | 465.758                      | 33.5677                      |
| 30           | 30.2723           | 5.16356                    | 675.018                       | 447.934                      | 33.5678                      |
| 31           | 30.5648           | 5.27496                    | 644.448                       | 427.647                      | 33.5677                      |
| 32           | 30.8573           | 5.395                      | 610.53                        | 405.14                       | 33.5677                      |
| 33           | 31.1732           | 5.53466                    | 575.877                       | 382.145                      | 33.5678                      |
| 34           | 31.4891           | 5.68513                    | 538.202                       | 357.144                      | 33.5677                      |
| 35           | 31.805            | 5.84684                    | 497.996                       | 330.464                      | 33.5678                      |
| 36           | 32.1209           | 6.02031                    | 455.764                       | 302.439                      | 33.5677                      |
| 37           | 32.4368           | 6.20612                    | 412.033                       | 273.42                       | 33.5678                      |
| 38           | 32.7527           | 6.40493                    | 367.351                       | 243.769                      | 33.5677                      |
| 39           | 33.0686           | 6.61753                    | 322.296                       | 213.872                      | 33.5678                      |
| 40           | 33.3845           | 6.84478                    | 277.484                       | 184.135                      | 33.5678                      |
| 41           | 33.7004           | 7.08773                    | 233.574                       | 154.997                      | 33.5678                      |
| 42           | 34.0163           | 7.34761                    | 191.277                       | 126.929                      | 33.5677                      |
| 43           | 34.3322           | 7.62585                    | 151.372                       | 100.449                      | 33.5679                      |
| 44           | 34.6481           | 7.92421                    | 114.721                       | 76.1275                      | 33.5678                      |
| 45           | 34.9672           | 8.24822                    | 75.8808                       | 50.3535                      | 33.5677                      |
| 46           | 35.2864           | 8.59765                    | 42.2618                       | 28.0444                      | 33.5678                      |
| 47           | 35.6055           | 8.97592                    | 15.1192                       | 10.0329                      | 33.5677                      |
| 48           | 35.9247           | 9.3875                     | -4.07817                      | -2.70622                     | 33.5677                      |
| 49           | 36.2438           | 9.83835                    | -13.5816                      | -9.0126                      | 33.5678                      |
| 50           | 36.563            | 10.3368                    | -11.2763                      | -7.48283                     | 33.5678                      |
| 51           | 36.8821           | 10.895                     | 0                             | 0                            | 0                            |



 **Wall 3 Static**
**Global Minimum Query (spencer) - Safety Factor: 1.79523**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 13.1241           | 6.19833                    | 0                             | 0                            | 0                            |
| 2            | 13.9544           | 6.02349                    | 109.022                       | 58.0988                      | 28.0536                      |
| 3            | 14.7848           | 5.87006                    | 254.97                        | 135.875                      | 28.0534                      |
| 4            | 15.6151           | 5.73775                    | 429.687                       | 228.983                      | 28.0534                      |
| 5            | 16.4454           | 5.62631                    | 626.274                       | 333.746                      | 28.0535                      |
| 6            | 17.2758           | 5.53553                    | 838.87                        | 447.04                       | 28.0535                      |
| 7            | 18.1061           | 5.46525                    | 1062.48                       | 566.201                      | 28.0534                      |
| 8            | 18.9364           | 5.41535                    | 1292.82                       | 688.955                      | 28.0535                      |
| 9            | 19.7668           | 5.38572                    | 1526.25                       | 813.35                       | 28.0535                      |
| 10           | 20.5971           | 5.37633                    | 1759.63                       | 937.718                      | 28.0534                      |
| 11           | 21.4274           | 5.38715                    | 1990.27                       | 1060.63                      | 28.0535                      |
| 12           | 22.2578           | 5.4182                     | 2215.89                       | 1180.86                      | 28.0534                      |
| 13           | 23.0881           | 5.46954                    | 2434.54                       | 1297.38                      | 28.0534                      |
| 14           | 23.9184           | 5.54126                    | 2644.57                       | 1409.31                      | 28.0535                      |
| 15           | 24.7488           | 5.63349                    | 2844.6                        | 1515.91                      | 28.0535                      |
| 16           | 25.5791           | 5.7464                     | 3033.5                        | 1616.57                      | 28.0534                      |
| 17           | 26.4094           | 5.8802                     | 3210.35                       | 1710.82                      | 28.0535                      |
| 18           | 27.2398           | 6.03513                    | 3374.43                       | 1798.26                      | 28.0535                      |
| 19           | 28.0701           | 6.21149                    | 3526.24                       | 1879.16                      | 28.0535                      |
| 20           | 28.9004           | 6.40963                    | 3740.89                       | 1993.55                      | 28.0535                      |
| 21           | 29.7308           | 6.62993                    | 4075.85                       | 2172.05                      | 28.0535                      |
| 22           | 30.5611           | 6.87286                    | 4421.33                       | 2356.16                      | 28.0535                      |
| 23           | 31.3914           | 7.13891                    | 4699.68                       | 2504.49                      | 28.0534                      |
| 24           | 32.2218           | 7.42866                    | 4913.54                       | 2618.46                      | 28.0535                      |
| 25           | 33.0521           | 7.74277                    | 5066.06                       | 2699.74                      | 28.0535                      |
| 26           | 33.8824           | 8.08195                    | 5160.37                       | 2750                         | 28.0535                      |
| 27           | 34.7128           | 8.44705                    | 5199.37                       | 2770.78                      | 28.0535                      |
| 28           | 35.5431           | 8.83897                    | 5185.96                       | 2763.64                      | 28.0535                      |
| 29           | 36.3734           | 9.25877                    | 5123.07                       | 2730.12                      | 28.0535                      |
| 30           | 37.2038           | 9.70762                    | 5013.67                       | 2671.82                      | 28.0535                      |
| 31           | 38.0341           | 10.1869                    | 4860.8                        | 2590.36                      | 28.0535                      |
| 32           | 38.8644           | 10.698                     | 4667.6                        | 2487.4                       | 28.0535                      |
| 33           | 39.6708           | 11.2265                    | 4460.52                       | 2377.04                      | 28.0534                      |
| 34           | 40.4771           | 11.7886                    | 5483.91                       | 2922.42                      | 28.0535                      |
| 35           | 41.2834           | 12.3863                    | 5216.76                       | 2780.05                      | 28.0535                      |
| 36           | 42.0897           | 13.022                     | 4924.75                       | 2624.43                      | 28.0534                      |
| 37           | 42.8961           | 13.6986                    | 4611.54                       | 2457.52                      | 28.0534                      |
| 38           | 43.6898           | 14.4077                    | 4264.48                       | 2272.57                      | 28.0535                      |
| 39           | 44.4836           | 15.1634                    | 3895.96                       | 2076.18                      | 28.0534                      |
| 40           | 45.2773           | 15.97                      | 3509.13                       | 1870.04                      | 28.0535                      |
| 41           | 46.0711           | 16.8332                    | 3107.63                       | 1656.08                      | 28.0535                      |
| 42           | 46.8648           | 17.7595                    | 2695.66                       | 1436.54                      | 28.0535                      |
| 43           | 47.6586           | 18.7574                    | 2278.13                       | 1214.03                      | 28.0534                      |
| 44           | 48.4524           | 19.838                     | 1860.94                       | 991.707                      | 28.0534                      |
| 45           | 49.2461           | 21.0155                    | 1451.25                       | 773.381                      | 28.0535                      |
| 46           | 50.0399           | 22.3101                    | 1058.06                       | 563.848                      | 28.0535                      |
| 47           | 50.8336           | 23.7505                    | 693.072                       | 369.343                      | 28.0535                      |
| 48           | 51.6274           | 25.3813                    | 372.366                       | 198.436                      | 28.0534                      |
| 49           | 52.4212           | 27.2786                    | 120.035                       | 63.9674                      | 28.0534                      |
| 50           | 53.2149           | 29.5944                    | -21.8102                      | -11.6228                     | 28.0534                      |
| 51           | 54.0087           | 32.7472                    | 0                             | 0                            | 0                            |

### ◆ Wall 3 Seismic

**Global Minimum Query (spencer) - Safety Factor: 1.34799**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 13.1255           | 6.19875                    | 0                             | 0                            | 0                            |
| 2            | 13.927            | 6.03059                    | 450.957                       | 434.236                      | 43.9178                      |
| 3            | 14.7285           | 5.88242                    | 945.928                       | 910.855                      | 43.9179                      |
| 4            | 15.53             | 5.75397                    | 1455.83                       | 1401.85                      | 43.9178                      |
| 5            | 16.3315           | 5.64502                    | 1962.49                       | 1889.73                      | 43.9179                      |
| 6            | 17.133            | 5.55538                    | 2454.72                       | 2363.7                       | 43.9178                      |
| 7            | 17.9345           | 5.4849                     | 2925.7                        | 2817.23                      | 43.918                       |
| 8            | 18.736            | 5.43346                    | 3371.5                        | 3246.49                      | 43.9178                      |
| 9            | 19.5375           | 5.40098                    | 3789.94                       | 3649.42                      | 43.9179                      |
| 10           | 20.339            | 5.38739                    | 4180.05                       | 4025.06                      | 43.9178                      |
| 11           | 21.1405           | 5.39267                    | 4541.55                       | 4373.16                      | 43.9179                      |
| 12           | 21.942            | 5.41685                    | 4874.66                       | 4693.92                      | 43.9179                      |
| 13           | 22.7435           | 5.45994                    | 5179.9                        | 4987.84                      | 43.9179                      |
| 14           | 23.545            | 5.52203                    | 5457.97                       | 5255.6                       | 43.9179                      |
| 15           | 24.3465           | 5.60323                    | 5709.71                       | 5498.01                      | 43.9179                      |
| 16           | 25.148            | 5.70366                    | 5936.04                       | 5715.95                      | 43.9179                      |
| 17           | 25.9495           | 5.82351                    | 6137.95                       | 5910.37                      | 43.9179                      |
| 18           | 26.751            | 5.96298                    | 6316.44                       | 6082.25                      | 43.9179                      |
| 19           | 27.5525           | 6.12231                    | 6472.72                       | 6232.73                      | 43.9179                      |
| 20           | 28.354            | 6.3018                     | 6612.89                       | 6367.7                       | 43.9179                      |
| 21           | 29.1555           | 6.50177                    | 6786.13                       | 6534.52                      | 43.9179                      |
| 22           | 29.957            | 6.7226                     | 6956.16                       | 6698.24                      | 43.9179                      |
| 23           | 30.7585           | 6.96472                    | 7060.38                       | 6798.59                      | 43.9178                      |
| 24           | 31.56             | 7.2286                     | 7093.29                       | 6830.29                      | 43.9179                      |
| 25           | 32.3615           | 7.51478                    | 7061.34                       | 6799.53                      | 43.9179                      |
| 26           | 33.163            | 7.82388                    | 6970.32                       | 6711.87                      | 43.9178                      |
| 27           | 33.9645           | 8.15656                    | 6825.46                       | 6572.39                      | 43.9179                      |
| 28           | 34.766            | 8.5136                     | 6631.77                       | 6385.88                      | 43.9179                      |
| 29           | 35.5675           | 8.89585                    | 6393.95                       | 6156.88                      | 43.9179                      |
| 30           | 36.3691           | 9.30426                    | 6116.51                       | 5889.72                      | 43.9178                      |
| 31           | 37.1706           | 9.73991                    | 5803.76                       | 5588.57                      | 43.9179                      |
| 32           | 37.9721           | 10.204                     | 5459.89                       | 5257.45                      | 43.9179                      |
| 33           | 38.7736           | 10.698                     | 5088.99                       | 4900.3                       | 43.9179                      |
| 34           | 39.5996           | 11.24                      | 4703.77                       | 4529.36                      | 43.9178                      |
| 35           | 40.4257           | 11.8174                    | 5958.49                       | 5737.56                      | 43.9179                      |
| 36           | 41.2518           | 12.4323                    | 5537.49                       | 5332.17                      | 43.9179                      |
| 37           | 42.0779           | 13.0875                    | 5105.39                       | 4916.09                      | 43.9178                      |
| 38           | 42.904            | 13.786                     | 4812.45                       | 4634.01                      | 43.9178                      |
| 39           | 43.7486           | 14.5487                    | 4333.31                       | 4172.64                      | 43.9179                      |
| 40           | 44.5932           | 15.3653                    | 3845.6                        | 3703.02                      | 43.9179                      |
| 41           | 45.4379           | 16.2413                    | 3353.93                       | 3229.57                      | 43.9178                      |
| 42           | 46.2825           | 17.1837                    | 2863.37                       | 2757.2                       | 43.9178                      |
| 43           | 47.1271           | 18.2015                    | 2379.65                       | 2291.42                      | 43.9179                      |
| 44           | 47.9717           | 19.306                     | 1909.38                       | 1838.59                      | 43.918                       |
| 45           | 48.8163           | 20.5125                    | 1460.35                       | 1406.2                       | 43.9178                      |
| 46           | 49.661            | 21.8418                    | 1042.11                       | 1003.47                      | 43.9178                      |
| 47           | 50.5056           | 23.3246                    | 666.88                        | 642.153                      | 43.9178                      |
| 48           | 51.3502           | 25.0078                    | 351.187                       | 338.166                      | 43.9179                      |
| 49           | 52.1948           | 26.9727                    | 118.647                       | 114.248                      | 43.9179                      |
| 50           | 53.0394           | 29.3831                    | 1.78657                       | 1.72033                      | 43.9179                      |
| 51           | 53.8841           | 32.7023                    | 0                             | 0                            | 0                            |

 **Wall 4 Static**
**Global Minimum Query (spencer) - Safety Factor: 2.46856**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 5.09318           | 7.636                      | 0                             | 0                            | 0                            |
| 2            | 5.43363           | 7.50004                    | 29.5878                       | 11.6419                      | 21.4781                      |
| 3            | 5.77409           | 7.37541                    | 63.2302                       | 24.8791                      | 21.4781                      |
| 4            | 6.11455           | 7.26176                    | 99.7751                       | 39.2584                      | 21.4781                      |
| 5            | 6.455             | 7.15879                    | 138.27                        | 54.405                       | 21.4781                      |
| 6            | 6.79546           | 7.06622                    | 177.927                       | 70.0086                      | 21.4781                      |
| 7            | 7.13592           | 6.98381                    | 218.09                        | 85.8118                      | 21.4781                      |
| 8            | 7.47637           | 6.91136                    | 258.22                        | 101.601                      | 21.478                       |
| 9            | 7.81683           | 6.8487                     | 297.868                       | 117.202                      | 21.4781                      |
| 10           | 8.15728           | 6.79568                    | 336.668                       | 132.468                      | 21.478                       |
| 11           | 8.49774           | 6.75217                    | 374.323                       | 147.285                      | 21.4782                      |
| 12           | 8.8382            | 6.71807                    | 410.597                       | 161.557                      | 21.4781                      |
| 13           | 9.17865           | 6.69332                    | 445.304                       | 175.213                      | 21.4781                      |
| 14           | 9.51911           | 6.67785                    | 478.306                       | 188.198                      | 21.478                       |
| 15           | 9.86301           | 6.67161                    | 495.535                       | 194.977                      | 21.478                       |
| 16           | 10.2069           | 6.67479                    | 511.47                        | 201.248                      | 21.4781                      |
| 17           | 10.5508           | 6.68741                    | 540.377                       | 212.622                      | 21.4781                      |
| 18           | 10.8947           | 6.70948                    | 611.344                       | 240.545                      | 21.4781                      |
| 19           | 11.2386           | 6.74107                    | 693.144                       | 272.731                      | 21.4781                      |
| 20           | 11.5825           | 6.78223                    | 763.816                       | 300.538                      | 21.4781                      |
| 21           | 11.9264           | 6.83307                    | 823.728                       | 324.111                      | 21.4781                      |
| 22           | 12.2703           | 6.89371                    | 873.252                       | 343.597                      | 21.4781                      |
| 23           | 12.6143           | 6.96429                    | 912.76                        | 359.142                      | 21.4781                      |
| 24           | 12.9582           | 7.04499                    | 942.629                       | 370.895                      | 21.4781                      |
| 25           | 13.3021           | 7.136                      | 963.243                       | 379.006                      | 21.4781                      |
| 26           | 13.5925           | 7.22107                    | 984.391                       | 387.327                      | 21.4781                      |
| 27           | 13.8829           | 7.31382                    | 999.597                       | 393.31                       | 21.4781                      |
| 28           | 14.17             | 7.41326                    | 1004.93                       | 395.408                      | 21.4781                      |
| 29           | 14.4572           | 7.52058                    | 1004.76                       | 395.341                      | 21.4781                      |
| 30           | 14.7443           | 7.636                      | 999.195                       | 393.152                      | 21.4781                      |
| 31           | 15.0956           | 7.78861                    | 990.228                       | 389.624                      | 21.4781                      |
| 32           | 15.4469           | 7.95423                    | 973.644                       | 383.098                      | 21.4781                      |
| 33           | 15.7982           | 8.13345                    | 949.723                       | 373.686                      | 21.4781                      |
| 34           | 16.1495           | 8.32692                    | 918.774                       | 361.509                      | 21.4781                      |
| 35           | 16.5009           | 8.53544                    | 881.14                        | 346.701                      | 21.4781                      |
| 36           | 16.8522           | 8.75989                    | 837.203                       | 329.413                      | 21.4781                      |
| 37           | 17.2035           | 9.00132                    | 787.395                       | 309.815                      | 21.4781                      |
| 38           | 17.5548           | 9.26098                    | 732.198                       | 288.097                      | 21.4781                      |
| 39           | 17.9061           | 9.54032                    | 672.168                       | 264.477                      | 21.4781                      |
| 40           | 18.2574           | 9.8411                     | 607.939                       | 239.205                      | 21.4781                      |
| 41           | 18.6087           | 10.1655                    | 540.251                       | 212.572                      | 21.4781                      |
| 42           | 18.9653           | 10.5215                    | 462.47                        | 181.967                      | 21.478                       |
| 43           | 19.3218           | 10.908                     | 382.781                       | 150.612                      | 21.478                       |
| 44           | 19.6784           | 11.3294                    | 302.445                       | 119.003                      | 21.4781                      |
| 45           | 20.0349           | 11.7917                    | 223.047                       | 87.7619                      | 21.4781                      |
| 46           | 20.3915           | 12.303                     | 146.642                       | 57.699                       | 21.4781                      |
| 47           | 20.748            | 12.8753                    | 76.0237                       | 29.913                       | 21.4781                      |
| 48           | 21.1046           | 13.5268                    | 15.2414                       | 5.99701                      | 21.4781                      |
| 49           | 21.4611           | 14.2889                    | -29.2363                      | -11.5036                     | 21.4781                      |
| 50           | 21.8177           | 15.224                     | -45.2453                      | -17.8026                     | 21.4781                      |
| 51           | 22.1742           | 16.5055                    | 0                             | 0                            | 0                            |

 **Wall 4 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 1.72951**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 4.49817           | 7.636                      | 0                             | 0                            | 0                            |
| 2            | 4.91871           | 7.49203                    | 98.0745                       | 70.3652                      | 35.6582                      |
| 3            | 5.33924           | 7.36122                    | 197.029                       | 141.362                      | 35.6582                      |
| 4            | 5.75978           | 7.24322                    | 294.56                        | 211.337                      | 35.6582                      |
| 5            | 6.18031           | 7.13774                    | 389.147                       | 279.2                        | 35.6582                      |
| 6            | 6.60085           | 7.04451                    | 479.805                       | 344.245                      | 35.6583                      |
| 7            | 7.02139           | 6.96332                    | 565.917                       | 406.027                      | 35.6582                      |
| 8            | 7.44192           | 6.89397                    | 647.122                       | 464.289                      | 35.6582                      |
| 9            | 7.86246           | 6.83631                    | 723.243                       | 518.903                      | 35.6582                      |
| 10           | 8.28299           | 6.7902                     | 794.236                       | 569.838                      | 35.6582                      |
| 11           | 8.70353           | 6.75555                    | 860.153                       | 617.132                      | 35.6582                      |
| 12           | 9.12407           | 6.73228                    | 921.119                       | 660.873                      | 35.6582                      |
| 13           | 9.5446            | 6.72034                    | 977.314                       | 701.191                      | 35.6582                      |
| 14           | 9.92714           | 6.71929                    | 995.043                       | 713.911                      | 35.6582                      |
| 15           | 10.3097           | 6.72759                    | 1010.52                       | 725.017                      | 35.6583                      |
| 16           | 10.6922           | 6.74525                    | 1054.24                       | 756.383                      | 35.6582                      |
| 17           | 11.0747           | 6.77231                    | 1132.24                       | 812.348                      | 35.6583                      |
| 18           | 11.4573           | 6.80882                    | 1200.59                       | 861.382                      | 35.6581                      |
| 19           | 11.8398           | 6.85483                    | 1254.27                       | 899.901                      | 35.6583                      |
| 20           | 12.2223           | 6.91044                    | 1294.34                       | 928.648                      | 35.6582                      |
| 21           | 12.6049           | 6.97576                    | 1321.75                       | 948.311                      | 35.6582                      |
| 22           | 12.9874           | 7.05089                    | 1337.4                        | 959.542                      | 35.6582                      |
| 23           | 13.3699           | 7.136                      | 1342.16                       | 962.957                      | 35.6582                      |
| 24           | 13.8553           | 7.2586                     | 1362.18                       | 977.321                      | 35.6582                      |
| 25           | 14.2567           | 7.3726                     | 1358.78                       | 974.884                      | 35.6583                      |
| 26           | 14.6581           | 7.4983                     | 1345.73                       | 965.516                      | 35.6582                      |
| 27           | 15.0594           | 7.636                      | 1323.53                       | 949.59                       | 35.6582                      |
| 28           | 15.4487           | 7.78131                    | 1301.82                       | 934.012                      | 35.6582                      |
| 29           | 15.8379           | 7.93857                    | 1272.39                       | 912.902                      | 35.6583                      |
| 30           | 16.2271           | 8.10817                    | 1235.77                       | 886.624                      | 35.6582                      |
| 31           | 16.6164           | 8.29057                    | 1192.46                       | 855.551                      | 35.6582                      |
| 32           | 17.0056           | 8.48627                    | 1143                          | 820.063                      | 35.6581                      |
| 33           | 17.3948           | 8.69584                    | 1087.93                       | 780.558                      | 35.6583                      |
| 34           | 17.7841           | 8.91992                    | 1027.85                       | 737.448                      | 35.6582                      |
| 35           | 18.1733           | 9.15925                    | 963.345                       | 691.169                      | 35.6582                      |
| 36           | 18.5625           | 9.41469                    | 895.061                       | 642.177                      | 35.6582                      |
| 37           | 18.9617           | 9.69437                    | 813.784                       | 583.864                      | 35.6582                      |
| 38           | 19.3608           | 9.99323                    | 729.966                       | 523.727                      | 35.6582                      |
| 39           | 19.76             | 10.3127                    | 644.436                       | 462.362                      | 35.6582                      |
| 40           | 20.1591           | 10.6544                    | 558.102                       | 400.42                       | 35.6582                      |
| 41           | 20.5583           | 11.0204                    | 471.967                       | 338.621                      | 35.6582                      |
| 42           | 20.9574           | 11.4132                    | 387.153                       | 277.769                      | 35.6581                      |
| 43           | 21.3566           | 11.8356                    | 304.928                       | 218.776                      | 35.6582                      |
| 44           | 21.7557           | 12.2915                    | 226.754                       | 162.689                      | 35.6583                      |
| 45           | 22.1549           | 12.7857                    | 154.338                       | 110.733                      | 35.6583                      |
| 46           | 22.554            | 13.3242                    | 89.7187                       | 64.3702                      | 35.6582                      |
| 47           | 22.9532           | 13.9158                    | 35.3844                       | 25.3872                      | 35.6583                      |
| 48           | 23.3524           | 14.5723                    | -5.54821                      | -3.98066                     | 35.6582                      |
| 49           | 23.7515           | 15.312                     | -29.0824                      | -20.8657                     | 35.6582                      |
| 50           | 24.1507           | 16.1643                    | -30.0472                      | -21.5579                     | 35.6582                      |
| 51           | 24.5498           | 17.1846                    | 0                             | 0                            | 0                            |



# **Walls 5a and 6 Static**

**Global Minimum Query (spencer) - Safety Factor: 1.41454**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -8.12706          | 5.119                      | 0                             | 0                            | 0                            |
| 2            | -6.64276          | 4.77975                    | 324.717                       | 199.892                      | 31.616                       |
| 3            | -5.15845          | 4.48087                    | 720.928                       | 443.793                      | 31.6159                      |
| 4            | -3.67415          | 4.22174                    | 1162.8                        | 715.806                      | 31.616                       |
| 5            | -2.18985          | 4.00182                    | 1630.3                        | 1003.59                      | 31.6159                      |
| 6            | -0.705542         | 3.82066                    | 2107.82                       | 1297.55                      | 31.616                       |
| 7            | 0.778761          | 3.67791                    | 2583.28                       | 1590.23                      | 31.6159                      |
| 8            | 2.26306           | 3.57328                    | 3047.32                       | 1875.89                      | 31.6159                      |
| 9            | 3.74737           | 3.50657                    | 3492.79                       | 2150.12                      | 31.616                       |
| 10           | 5.23167           | 3.47765                    | 3914.33                       | 2409.61                      | 31.6159                      |
| 11           | 6.71598           | 3.48645                    | 4308.47                       | 2652.24                      | 31.6159                      |
| 12           | 8.20028           | 3.53301                    | 4708.19                       | 2898.3                       | 31.6159                      |
| 13           | 9.68458           | 3.6174                     | 5126.27                       | 3155.66                      | 31.6159                      |
| 14           | 11.1689           | 3.73979                    | 5553.84                       | 3418.87                      | 31.6159                      |
| 15           | 12.6532           | 3.90043                    | 6433.18                       | 3960.18                      | 31.6159                      |
| 16           | 14.1375           | 4.09964                    | 7841.91                       | 4827.38                      | 31.6159                      |
| 17           | 15.6218           | 4.3378                     | 9103.82                       | 5604.19                      | 31.6159                      |
| 18           | 17.1061           | 4.61542                    | 10232.6                       | 6299.03                      | 31.6158                      |
| 19           | 18.5904           | 4.93306                    | 11243.8                       | 6921.51                      | 31.6158                      |
| 20           | 20.0747           | 5.2914                     | 12142.6                       | 7474.83                      | 31.6159                      |
| 21           | 21.559            | 5.69122                    | 12934.4                       | 7962.26                      | 31.6159                      |
| 22           | 23.0433           | 6.13342                    | 13662.7                       | 8410.56                      | 31.6158                      |
| 23           | 24.5276           | 6.619                      | 14762.3                       | 9087.46                      | 31.6159                      |
| 24           | 26.3451           | 7.27436                    | 16394.9                       | 10092.5                      | 31.6159                      |
| 25           | 28.1625           | 7.99896                    | 17685.1                       | 10886.7                      | 31.6159                      |
| 26           | 29.5657           | 8.6075                     | 18417                         | 11337.3                      | 31.616                       |
| 27           | 30.9688           | 9.26048                    | 18961                         | 11672.2                      | 31.616                       |
| 28           | 32.372            | 9.95956                    | 19323.7                       | 11895.4                      | 31.6159                      |
| 29           | 33.7751           | 10.7067                    | 19511.4                       | 12010.9                      | 31.6158                      |
| 30           | 35.1782           | 11.5039                    | 19530.7                       | 12022.8                      | 31.6158                      |
| 31           | 36.5814           | 12.3537                    | 19388.1                       | 11935.1                      | 31.616                       |
| 32           | 37.9845           | 13.2587                    | 19090.4                       | 11751.8                      | 31.6159                      |
| 33           | 39.3877           | 14.2223                    | 18644.6                       | 11477.4                      | 31.616                       |
| 34           | 40.7908           | 15.2479                    | 18057.8                       | 11116.1                      | 31.6158                      |
| 35           | 42.1939           | 16.3399                    | 17337.6                       | 10672.8                      | 31.6159                      |
| 36           | 43.5971           | 17.503                     | 16492.1                       | 10152.3                      | 31.6159                      |
| 37           | 45.0002           | 18.743                     | 15529.8                       | 9559.94                      | 31.6159                      |
| 38           | 45.5554           | 19.2564                    | 15133.6                       | 9316.05                      | 31.6159                      |
| 39           | 46.9564           | 20.6133                    | 14025.9                       | 8634.17                      | 31.6159                      |
| 40           | 48.3573           | 22.0657                    | 12825.5                       | 7895.24                      | 31.616                       |
| 41           | 49.7583           | 23.6243                    | 11544.3                       | 7106.5                       | 31.6158                      |
| 42           | 51.1592           | 25.3029                    | 10195.4                       | 6276.14                      | 31.6158                      |
| 43           | 52.5602           | 27.1186                    | 8794.2                        | 5413.59                      | 31.6159                      |
| 44           | 53.9611           | 29.0944                    | 7358.65                       | 4529.89                      | 31.6159                      |
| 45           | 55.362            | 31.2612                    | 5910.35                       | 3638.33                      | 31.6159                      |
| 46           | 56.763            | 33.663                     | 4476.06                       | 2755.4                       | 31.6159                      |
| 47           | 58.1639           | 36.3659                    | 3090.32                       | 1902.36                      | 31.6159                      |
| 48           | 59.5649           | 39.4789                    | 1800.36                       | 1108.28                      | 31.616                       |
| 49           | 60.9658           | 43.2057                    | 679.589                       | 418.346                      | 31.6159                      |
| 50           | 62.3668           | 48.0336                    | -131.371                      | -80.8703                     | 31.6159                      |
| 51           | 63.7677           | 56.3301                    | 0                             | 0                            | 0                            |

# **Walls 5a and 6 Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.08031**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -3.7519           | 5.119                      | 0                             | 0                            | 0                            |
| 2            | -2.31517          | 4.95901                    | 1182.71                       | 1376.46                      | 49.3295                      |
| 3            | -0.878439         | 4.83107                    | 2310.48                       | 2688.99                      | 49.3296                      |
| 4            | 0.558292          | 4.735                      | 3356.66                       | 3906.55                      | 49.3295                      |
| 5            | 1.99502           | 4.67065                    | 4308.09                       | 5013.84                      | 49.3295                      |
| 6            | 3.43175           | 4.63794                    | 5160.37                       | 6005.74                      | 49.3295                      |
| 7            | 4.86848           | 4.63681                    | 5914.68                       | 6883.62                      | 49.3295                      |
| 8            | 6.30521           | 4.66726                    | 6575.61                       | 7652.83                      | 49.3295                      |
| 9            | 7.74194           | 4.72935                    | 7190.96                       | 8368.98                      | 49.3295                      |
| 10           | 9.17867           | 4.82315                    | 7819.33                       | 9100.3                       | 49.3296                      |
| 11           | 10.6154           | 4.9488                     | 8441.55                       | 9824.45                      | 49.3295                      |
| 12           | 12.0521           | 5.1065                     | 9217.13                       | 10727.1                      | 49.3296                      |
| 13           | 13.4889           | 5.29647                    | 11218.2                       | 13056                        | 49.3296                      |
| 14           | 14.9256           | 5.519                      | 13038.9                       | 15174.9                      | 49.3295                      |
| 15           | 15.2991           | 5.58222                    | 13494.8                       | 15705.5                      | 49.3295                      |
| 16           | 16.9298           | 5.88446                    | 15143.9                       | 17624.8                      | 49.3296                      |
| 17           | 18.5605           | 6.22982                    | 16511.3                       | 19216.2                      | 49.3296                      |
| 18           | 20.1913           | 6.619                      | 17635.5                       | 20524.6                      | 49.3296                      |
| 19           | 21.5384           | 6.97413                    | 18475.5                       | 21502.2                      | 49.3296                      |
| 20           | 22.8856           | 7.36023                    | 19201.4                       | 22346.9                      | 49.3294                      |
| 21           | 24.2327           | 7.77788                    | 20120.3                       | 23416.5                      | 49.3296                      |
| 22           | 25.5799           | 8.22772                    | 24530.4                       | 28549                        | 49.3296                      |
| 23           | 26.9271           | 8.71046                    | 25345.5                       | 29497.5                      | 49.3294                      |
| 24           | 28.2742           | 9.22689                    | 25916                         | 30161.6                      | 49.3296                      |
| 25           | 29.7738           | 9.84241                    | 26235.1                       | 30533                        | 49.3296                      |
| 26           | 31.2733           | 10.5021                    | 26313.1                       | 30623.7                      | 49.3295                      |
| 27           | 32.7729           | 11.2073                    | 26172.1                       | 30459.6                      | 49.3295                      |
| 28           | 34.2724           | 11.9599                    | 25832                         | 30063.8                      | 49.3295                      |
| 29           | 35.772            | 12.7616                    | 25311.1                       | 29457.6                      | 49.3296                      |
| 30           | 37.2715           | 13.6146                    | 24626.3                       | 28660.5                      | 49.3295                      |
| 31           | 38.7711           | 14.5212                    | 23793.1                       | 27690.8                      | 49.3294                      |
| 32           | 40.2706           | 15.4841                    | 22826.4                       | 26565.8                      | 49.3295                      |
| 33           | 41.7702           | 16.5062                    | 21740.3                       | 25301.8                      | 49.3295                      |
| 34           | 43.2698           | 17.5912                    | 20548.6                       | 23914.8                      | 49.3294                      |
| 35           | 44.7693           | 18.743                     | 19264.6                       | 22420.5                      | 49.3295                      |
| 36           | 45.5684           | 19.3856                    | 18572.7                       | 21615.3                      | 49.3296                      |
| 37           | 47.0921           | 20.6699                    | 17328.3                       | 20167                        | 49.3295                      |
| 38           | 48.6157           | 22.0369                    | 15845.4                       | 18441.2                      | 49.3295                      |
| 39           | 50.1394           | 23.4939                    | 14316.7                       | 16662.1                      | 49.3296                      |
| 40           | 51.6631           | 25.0497                    | 12757.3                       | 14847.2                      | 49.3295                      |
| 41           | 53.1868           | 26.7149                    | 11183                         | 13015                        | 49.3295                      |
| 42           | 54.7105           | 28.5026                    | 9610.78                       | 11185.2                      | 49.3295                      |
| 43           | 56.2341           | 30.4295                    | 8059.56                       | 9379.88                      | 49.3295                      |
| 44           | 57.7578           | 32.5169                    | 6550.59                       | 7623.71                      | 49.3295                      |
| 45           | 59.2815           | 34.7936                    | 5108.24                       | 5945.07                      | 49.3295                      |
| 46           | 60.8052           | 37.2989                    | 3762.63                       | 4379.02                      | 49.3295                      |
| 47           | 62.3289           | 40.0902                    | 2552.42                       | 2970.56                      | 49.3296                      |
| 48           | 63.8525           | 43.2569                    | 1529.2                        | 1779.72                      | 49.3296                      |
| 49           | 65.3762           | 46.9532                    | 763.884                       | 889.023                      | 49.3295                      |
| 50           | 66.8999           | 51.4935                    | 346.995                       | 403.84                       | 49.3295                      |
| 51           | 68.4236           | 57.7848                    | 0                             | 0                            | 0                            |



 **Wall 7 Static**
**Global Minimum Query (spencer) - Safety Factor: 2.20275**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -8.06814          | 6.551                      | 0                             | 0                            | 0                            |
| 2            | -7.44444          | 6.25876                    | 96.474                        | 45.7299                      | 25.3615                      |
| 3            | -6.82074          | 5.98979                    | 218.606                       | 103.622                      | 25.3615                      |
| 4            | -6.19703          | 5.74317                    | 358.492                       | 169.93                       | 25.3616                      |
| 5            | -5.57333          | 5.51811                    | 510.066                       | 241.778                      | 25.3616                      |
| 6            | -4.94963          | 5.31392                    | 668.617                       | 316.933                      | 25.3615                      |
| 7            | -4.32593          | 5.12999                    | 830.459                       | 393.648                      | 25.3615                      |
| 8            | -3.70223          | 4.96581                    | 992.687                       | 470.547                      | 25.3616                      |
| 9            | -3.07853          | 4.82091                    | 1153.01                       | 546.542                      | 25.3616                      |
| 10           | -2.45482          | 4.69493                    | 1309.62                       | 620.776                      | 25.3615                      |
| 11           | -1.83112          | 4.58752                    | 1461.08                       | 692.573                      | 25.3616                      |
| 12           | -1.20742          | 4.49842                    | 1606.3                        | 761.409                      | 25.3616                      |
| 13           | -0.583719         | 4.4274                     | 1744.43                       | 826.881                      | 25.3615                      |
| 14           | 0.039983          | 4.37428                    | 1874.82                       | 888.691                      | 25.3616                      |
| 15           | 0.663685          | 4.33894                    | 1997.05                       | 946.626                      | 25.3615                      |
| 16           | 1.28739           | 4.32129                    | 2110.81                       | 1000.55                      | 25.3615                      |
| 17           | 1.91109           | 4.32129                    | 2217.49                       | 1051.12                      | 25.3616                      |
| 18           | 2.53479           | 4.33894                    | 2367.14                       | 1122.06                      | 25.3617                      |
| 19           | 3.15849           | 4.37428                    | 2669.6                        | 1265.42                      | 25.3615                      |
| 20           | 3.78219           | 4.4274                     | 3038.78                       | 1440.42                      | 25.3615                      |
| 21           | 4.40589           | 4.49842                    | 3364.35                       | 1594.75                      | 25.3616                      |
| 22           | 5.0296            | 4.58752                    | 3645.97                       | 1728.24                      | 25.3616                      |
| 23           | 5.6533            | 4.69493                    | 3885.46                       | 1841.76                      | 25.3616                      |
| 24           | 6.277             | 4.82091                    | 4084.01                       | 1935.87                      | 25.3615                      |
| 25           | 6.9007            | 4.96581                    | 4245.1                        | 2012.23                      | 25.3615                      |
| 26           | 7.5244            | 5.12999                    | 4370.65                       | 2071.74                      | 25.3615                      |
| 27           | 8.1481            | 5.31392                    | 4461.14                       | 2114.64                      | 25.3616                      |
| 28           | 8.77181           | 5.51811                    | 4517.09                       | 2141.16                      | 25.3616                      |
| 29           | 9.39551           | 5.74317                    | 4539.02                       | 2151.55                      | 25.3615                      |
| 30           | 10.0192           | 5.98979                    | 4527.49                       | 2146.09                      | 25.3616                      |
| 31           | 10.6429           | 6.25876                    | 4483.11                       | 2125.05                      | 25.3615                      |
| 32           | 11.2666           | 6.551                      | 4406.52                       | 2088.75                      | 25.3616                      |
| 33           | 11.9222           | 6.88439                    | 4302.51                       | 2039.44                      | 25.3615                      |
| 34           | 12.5778           | 7.24605                    | 4164.63                       | 1974.09                      | 25.3616                      |
| 35           | 13.2333           | 7.6376                     | 5036.29                       | 2387.27                      | 25.3616                      |
| 36           | 13.8889           | 8.06097                    | 4833.79                       | 2291.28                      | 25.3616                      |
| 37           | 14.5445           | 8.51842                    | 4600.75                       | 2180.82                      | 25.3616                      |
| 38           | 15.2001           | 9.01264                    | 4338.58                       | 2056.54                      | 25.3615                      |
| 39           | 15.8556           | 9.54688                    | 4048.84                       | 1919.2                       | 25.3615                      |
| 40           | 16.5053           | 10.1197                    | 3724.56                       | 1765.49                      | 25.3616                      |
| 41           | 17.155            | 10.7404                    | 3376.63                       | 1600.57                      | 25.3616                      |
| 42           | 17.8047           | 11.415                     | 3007.4                        | 1425.55                      | 25.3616                      |
| 43           | 18.4544           | 12.1512                    | 2619.66                       | 1241.75                      | 25.3615                      |
| 44           | 19.1041           | 12.959                     | 2216.84                       | 1050.81                      | 25.3615                      |
| 45           | 19.7538           | 13.8524                    | 1803.21                       | 854.747                      | 25.3616                      |
| 46           | 20.4035           | 14.8513                    | 1384.31                       | 656.182                      | 25.3616                      |
| 47           | 21.0532           | 15.9859                    | 967.601                       | 458.656                      | 25.3616                      |
| 48           | 21.7029           | 17.3073                    | 563.825                       | 267.26                       | 25.3615                      |
| 49           | 22.3526           | 18.9138                    | 190.317                       | 90.213                       | 25.3616                      |
| 50           | 23.0023           | 21.0584                    | -116.359                      | -55.1556                     | 25.3615                      |
| 51           | 23.652            | 26.3718                    | 0                             | 0                            | 0                            |

 **Wall 7 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 2.25355**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 2.08999           | 6.62784                    | 0                             | 0                            | 0                            |
| 2            | 2.55238           | 6.87026                    | 430.394                       | 544.281                      | 51.6646                      |
| 3            | 3.01476           | 7.1178                     | 734.497                       | 928.854                      | 51.6646                      |
| 4            | 3.47714           | 7.37052                    | 923.333                       | 1167.66                      | 51.6646                      |
| 5            | 3.93953           | 7.6285                     | 1752.73                       | 2216.52                      | 51.6645                      |
| 6            | 4.40191           | 7.89182                    | 1935.56                       | 2447.72                      | 51.6644                      |
| 7            | 4.8643            | 8.16055                    | 2126.7                        | 2689.45                      | 51.6646                      |
| 8            | 5.32668           | 8.43479                    | 2327.05                       | 2942.81                      | 51.6645                      |
| 9            | 5.77406           | 8.70544                    | 2147.94                       | 2716.31                      | 51.6646                      |
| 10           | 6.22144           | 8.9814                     | 1971.53                       | 2493.22                      | 51.6646                      |
| 11           | 6.66882           | 9.26277                    | 1796.72                       | 2272.15                      | 51.6645                      |
| 12           | 7.1162            | 9.54962                    | 2485.17                       | 3142.77                      | 51.6645                      |
| 13           | 7.56358           | 9.84206                    | 2310.17                       | 2921.47                      | 51.6646                      |
| 14           | 8.01096           | 10.1402                    | 2135.35                       | 2700.39                      | 51.6646                      |
| 15           | 8.45834           | 10.4441                    | 1960.87                       | 2479.74                      | 51.6646                      |
| 16           | 8.90572           | 10.7539                    | 1786.91                       | 2259.75                      | 51.6646                      |
| 17           | 9.3531            | 11.0696                    | 1613.67                       | 2040.67                      | 51.6646                      |
| 18           | 9.80048           | 11.3915                    | 1441.34                       | 1822.73                      | 51.6645                      |
| 19           | 10.2479           | 11.7197                    | 2095.71                       | 2650.25                      | 51.6645                      |
| 20           | 10.6952           | 12.0542                    | 1925.76                       | 2435.34                      | 51.6646                      |
| 21           | 11.1426           | 12.3952                    | 1757.31                       | 2222.31                      | 51.6645                      |
| 22           | 11.59             | 12.7428                    | 1590.56                       | 2011.44                      | 51.6646                      |
| 23           | 12.0374           | 13.0972                    | 1425.71                       | 1802.97                      | 51.6646                      |
| 24           | 12.4848           | 13.4585                    | 1262.98                       | 1597.18                      | 51.6646                      |
| 25           | 12.9321           | 13.827                     | 1900.64                       | 2403.58                      | 51.6647                      |
| 26           | 13.3795           | 14.2027                    | 1742.8                        | 2203.96                      | 51.6645                      |
| 27           | 13.8269           | 14.5858                    | 1587.72                       | 2007.85                      | 51.6646                      |
| 28           | 14.2743           | 14.9766                    | 1435.64                       | 1815.53                      | 51.6646                      |
| 29           | 14.7217           | 15.3752                    | 1286.79                       | 1627.29                      | 51.6646                      |
| 30           | 15.169            | 15.7819                    | 1723.4                        | 2179.43                      | 51.6646                      |
| 31           | 15.6164           | 16.1968                    | 1581.71                       | 2000.25                      | 51.6646                      |
| 32           | 16.0638           | 16.6202                    | 1443.96                       | 1826.05                      | 51.6646                      |
| 33           | 16.5112           | 17.0523                    | 1310.41                       | 1657.16                      | 51.6646                      |
| 34           | 16.9586           | 17.4935                    | 1181.31                       | 1493.89                      | 51.6644                      |
| 35           | 17.4059           | 17.9439                    | 1056.92                       | 1336.6                       | 51.6647                      |
| 36           | 17.8533           | 18.404                     | 937.538                       | 1185.62                      | 51.6645                      |
| 37           | 18.3007           | 18.8739                    | 823.444                       | 1041.34                      | 51.6647                      |
| 38           | 18.7481           | 19.3541                    | 714.956                       | 904.142                      | 51.6646                      |
| 39           | 19.2269           | 19.8798                    | 597.984                       | 756.217                      | 51.6646                      |
| 40           | 19.7056           | 20.4181                    | 488.13                        | 617.294                      | 51.6645                      |
| 41           | 20.1844           | 20.9695                    | 385.895                       | 488.007                      | 51.6646                      |
| 42           | 20.6632           | 21.5347                    | 291.863                       | 369.093                      | 51.6646                      |
| 43           | 20.9787           | 21.9149                    | 240.152                       | 303.699                      | 51.6646                      |
| 44           | 21.4259           | 22.4648                    | 166.231                       | 210.217                      | 51.6645                      |
| 45           | 21.8731           | 23.0282                    | 101.313                       | 128.122                      | 51.6647                      |
| 46           | 22.3203           | 23.6055                    | 46.3871                       | 58.6617                      | 51.6646                      |
| 47           | 22.7674           | 24.1976                    | 2.7202                        | 3.43999                      | 51.6645                      |
| 48           | 23.2146           | 24.8051                    | -28.053                       | -35.4761                     | 51.6645                      |
| 49           | 23.6618           | 25.4289                    | -43.7987                      | -55.3884                     | 51.6646                      |
| 50           | 24.109            | 26.0698                    | -41.7031                      | -52.7383                     | 51.6646                      |
| 51           | 24.5561           | 26.7289                    | 0                             | 0                            | 0                            |

 **Wall 8 Static**
**Global Minimum Query (spencer) - Safety Factor: 2.4197**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -2.7341           | 6.662                      | 0                             | 0                            | 0                            |
| 2            | -2.18593          | 6.38383                    | 66.0741                       | 24.8716                      | 20.6273                      |
| 3            | -1.63777          | 6.12769                    | 151.34                        | 56.9673                      | 20.6273                      |
| 4            | -1.0896           | 5.89261                    | 250.528                       | 94.3036                      | 20.6273                      |
| 5            | -0.541437         | 5.67774                    | 359.428                       | 135.296                      | 20.6274                      |
| 6            | 0.00672759        | 5.48236                    | 474.653                       | 178.669                      | 20.6274                      |
| 7            | 0.554893          | 5.30582                    | 593.457                       | 223.389                      | 20.6273                      |
| 8            | 1.10306           | 5.14757                    | 713.608                       | 268.617                      | 20.6274                      |
| 9            | 1.65122           | 5.00715                    | 833.29                        | 313.667                      | 20.6273                      |
| 10           | 2.19939           | 4.88414                    | 951.025                       | 357.985                      | 20.6274                      |
| 11           | 2.74755           | 4.77819                    | 1065.61                       | 401.119                      | 20.6274                      |
| 12           | 3.29572           | 4.68901                    | 1176.09                       | 442.706                      | 20.6274                      |
| 13           | 3.84388           | 4.61637                    | 1281.7                        | 482.459                      | 20.6274                      |
| 14           | 4.39205           | 4.56006                    | 1381.84                       | 520.154                      | 20.6274                      |
| 15           | 4.94021           | 4.51995                    | 1476.07                       | 555.622                      | 20.6273                      |
| 16           | 5.48838           | 4.49592                    | 1564.06                       | 588.744                      | 20.6274                      |
| 17           | 6.03654           | 4.48792                    | 1646.8                        | 619.887                      | 20.6273                      |
| 18           | 6.58471           | 4.49592                    | 1736.72                       | 653.735                      | 20.6273                      |
| 19           | 7.13287           | 4.51995                    | 1921.16                       | 723.163                      | 20.6273                      |
| 20           | 7.68104           | 4.56006                    | 2182.97                       | 821.716                      | 20.6274                      |
| 21           | 8.2292            | 4.61637                    | 2428.03                       | 913.96                       | 20.6274                      |
| 22           | 8.77737           | 4.68901                    | 2637.92                       | 992.965                      | 20.6273                      |
| 23           | 9.32553           | 4.77819                    | 2813.84                       | 1059.19                      | 20.6274                      |
| 24           | 9.8737            | 4.88414                    | 2956.98                       | 1113.07                      | 20.6274                      |
| 25           | 10.4219           | 5.00715                    | 3068.16                       | 1154.92                      | 20.6274                      |
| 26           | 10.97             | 5.14757                    | 3148.94                       | 1185.33                      | 20.6274                      |
| 27           | 11.5182           | 5.30582                    | 3200.5                        | 1204.73                      | 20.6273                      |
| 28           | 12.0664           | 5.48236                    | 3223.95                       | 1213.56                      | 20.6274                      |
| 29           | 12.6145           | 5.67774                    | 3220.44                       | 1212.24                      | 20.6274                      |
| 30           | 13.1627           | 5.89261                    | 3191.12                       | 1201.2                       | 20.6273                      |
| 31           | 13.7109           | 6.12769                    | 3137.14                       | 1180.88                      | 20.6273                      |
| 32           | 14.259            | 6.38383                    | 3059.73                       | 1151.74                      | 20.6273                      |
| 33           | 14.8072           | 6.662                      | 2960.12                       | 1114.25                      | 20.6274                      |
| 34           | 15.3304           | 6.94911                    | 2853.34                       | 1074.06                      | 20.6274                      |
| 35           | 15.8537           | 7.25847                    | 2728.83                       | 1027.19                      | 20.6274                      |
| 36           | 16.3769           | 7.59137                    | 2587.86                       | 974.125                      | 20.6274                      |
| 37           | 16.9002           | 7.94937                    | 2431.82                       | 915.385                      | 20.6273                      |
| 38           | 17.4306           | 8.33976                    | 2251.72                       | 847.593                      | 20.6274                      |
| 39           | 17.9611           | 8.76002                    | 2058.61                       | 774.901                      | 20.6273                      |
| 40           | 18.4915           | 9.21284                    | 1854.8                        | 698.183                      | 20.6273                      |
| 41           | 19.022            | 9.70147                    | 1642.33                       | 618.208                      | 20.6274                      |
| 42           | 19.5524           | 10.2299                    | 1423.54                       | 535.85                       | 20.6274                      |
| 43           | 20.0829           | 10.8033                    | 1201.11                       | 452.121                      | 20.6273                      |
| 44           | 20.6133           | 11.4281                    | 978.204                       | 368.216                      | 20.6274                      |
| 45           | 21.1438           | 12.113                     | 758.691                       | 285.587                      | 20.6274                      |
| 46           | 21.6742           | 12.8698                    | 547.406                       | 206.055                      | 20.6274                      |
| 47           | 22.2047           | 13.7156                    | 350.69                        | 132.007                      | 20.6274                      |
| 48           | 22.7352           | 14.6768                    | 177.372                       | 66.7666                      | 20.6274                      |
| 49           | 23.2656           | 15.7975                    | 40.8935                       | 15.3932                      | 20.6274                      |
| 50           | 23.7961           | 17.1653                    | -35.0459                      | -13.192                      | 20.6274                      |
| 51           | 24.3265           | 19.012                     | 0                             | 0                            | 0                            |

 **Wall 8 Seismic**
**Global Minimum Query (spencer) - Safety Factor: 1.7137**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -3.85457          | 6.662                      | 0                             | 0                            | 0                            |
| 2            | -3.2626           | 6.40019                    | 259.381                       | 184.148                      | 35.3729                      |
| 3            | -2.67062          | 6.15885                    | 529.914                       | 376.213                      | 35.3729                      |
| 4            | -2.07865          | 5.93727                    | 799.454                       | 567.573                      | 35.3729                      |
| 5            | -1.48668          | 5.73483                    | 1061.21                       | 753.405                      | 35.3728                      |
| 6            | -0.894704         | 5.55097                    | 1311.4                        | 931.033                      | 35.373                       |
| 7            | -0.30273          | 5.3852                     | 1548.03                       | 1099.03                      | 35.373                       |
| 8            | 0.289243          | 5.23711                    | 1770.1                        | 1256.69                      | 35.373                       |
| 9            | 0.881216          | 5.10633                    | 1977.24                       | 1403.75                      | 35.373                       |
| 10           | 1.47319           | 4.99255                    | 2169.46                       | 1540.21                      | 35.3729                      |
| 11           | 2.06516           | 4.89549                    | 2347                          | 1666.26                      | 35.373                       |
| 12           | 2.65714           | 4.81494                    | 2510.25                       | 1782.16                      | 35.373                       |
| 13           | 3.24911           | 4.75072                    | 2659.7                        | 1888.26                      | 35.3729                      |
| 14           | 3.84108           | 4.70267                    | 2795.9                        | 1984.95                      | 35.3729                      |
| 15           | 4.43305           | 4.6707                     | 2919.47                       | 2072.68                      | 35.3729                      |
| 16           | 5.02503           | 4.65473                    | 3031.05                       | 2151.89                      | 35.3728                      |
| 17           | 5.617             | 4.65473                    | 3131.39                       | 2223.14                      | 35.373                       |
| 18           | 6.20897           | 4.6707                     | 3222.23                       | 2287.63                      | 35.3729                      |
| 19           | 6.80095           | 4.70267                    | 3335.58                       | 2368.1                       | 35.3729                      |
| 20           | 7.39292           | 4.75072                    | 3516.46                       | 2496.52                      | 35.3729                      |
| 21           | 7.98489           | 4.81494                    | 3702.35                       | 2628.49                      | 35.3729                      |
| 22           | 8.57687           | 4.89549                    | 3844.32                       | 2729.28                      | 35.3729                      |
| 23           | 9.16884           | 4.99255                    | 3945.1                        | 2800.83                      | 35.3729                      |
| 24           | 9.76081           | 5.10633                    | 4007.65                       | 2845.23                      | 35.3728                      |
| 25           | 10.3528           | 5.23711                    | 4034.74                       | 2864.47                      | 35.3729                      |
| 26           | 10.9448           | 5.3852                     | 4029.08                       | 2860.45                      | 35.3729                      |
| 27           | 11.5367           | 5.55097                    | 3993.06                       | 2834.87                      | 35.3728                      |
| 28           | 12.1287           | 5.73483                    | 3928.95                       | 2789.37                      | 35.373                       |
| 29           | 12.7207           | 5.93727                    | 3838.97                       | 2725.48                      | 35.3729                      |
| 30           | 13.3127           | 6.15885                    | 3725.23                       | 2644.73                      | 35.3729                      |
| 31           | 13.9046           | 6.40019                    | 3589.78                       | 2548.57                      | 35.3729                      |
| 32           | 14.4966           | 6.662                      | 3434.67                       | 2438.45                      | 35.3729                      |
| 33           | 15.0976           | 6.9496                     | 3271.37                       | 2322.51                      | 35.3729                      |
| 34           | 15.6986           | 7.26013                    | 3091.89                       | 2195.09                      | 35.3729                      |
| 35           | 16.2996           | 7.59472                    | 2898.39                       | 2057.71                      | 35.3728                      |
| 36           | 16.9006           | 7.95466                    | 2693.03                       | 1911.92                      | 35.3729                      |
| 37           | 17.502            | 8.34165                    | 2465.75                       | 1750.57                      | 35.373                       |
| 38           | 18.1033           | 8.75727                    | 2231.1                        | 1583.97                      | 35.3729                      |
| 39           | 18.7046           | 9.20356                    | 1991.46                       | 1413.84                      | 35.3729                      |
| 40           | 19.3059           | 9.68295                    | 1749.35                       | 1241.95                      | 35.3728                      |
| 41           | 19.9073           | 10.1983                    | 1507.48                       | 1070.24                      | 35.373                       |
| 42           | 20.5086           | 10.7532                    | 1268.79                       | 900.78                       | 35.3729                      |
| 43           | 21.1099           | 11.352                     | 1036.5                        | 735.862                      | 35.3728                      |
| 44           | 21.7112           | 11.9999                    | 814.201                       | 578.043                      | 35.3729                      |
| 45           | 22.3126           | 12.7039                    | 606.004                       | 430.234                      | 35.3729                      |
| 46           | 22.9139           | 13.473                     | 416.679                       | 295.822                      | 35.3729                      |
| 47           | 23.5152           | 14.3195                    | 251.93                        | 178.858                      | 35.3729                      |
| 48           | 24.1165           | 15.2605                    | 118.808                       | 84.3478                      | 35.3729                      |
| 49           | 24.7179           | 16.3221                    | 26.3904                       | 18.7359                      | 35.3729                      |
| 50           | 25.3192           | 17.5465                    | -13.051                       | -9.26557                     | 35.3729                      |
| 51           | 25.9205           | 19.012                     | 0                             | 0                            | 0                            |



# **Walls 9, 10, and 12a Static**

**Global Minimum Query (spencer) - Safety Factor: 1.38635**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 0.360363          | 3.93881                    | 0                             | 0                            | 0                            |
| 2            | 1.58957           | 3.75853                    | 201.569                       | 129.269                      | 32.6726                      |
| 3            | 2.81878           | 3.60706                    | 440.295                       | 282.368                      | 32.6727                      |
| 4            | 4.04799           | 3.48417                    | 705.296                       | 452.317                      | 32.6727                      |
| 5            | 5.27719           | 3.38964                    | 987.449                       | 633.266                      | 32.6727                      |
| 6            | 6.5064            | 3.32334                    | 1279.13                       | 820.323                      | 32.6726                      |
| 7            | 7.73561           | 3.28515                    | 1573.98                       | 1009.42                      | 32.6727                      |
| 8            | 8.96482           | 3.27503                    | 1866.77                       | 1197.19                      | 32.6727                      |
| 9            | 10.194            | 3.29295                    | 2153.19                       | 1380.87                      | 32.6726                      |
| 10           | 11.4232           | 3.33894                    | 2429.76                       | 1558.24                      | 32.6726                      |
| 11           | 12.6524           | 3.41307                    | 2693.74                       | 1727.54                      | 32.6727                      |
| 12           | 14.0487           | 3.53157                    | 2991.77                       | 1918.67                      | 32.6727                      |
| 13           | 15.4449           | 3.68677                    | 4224.16                       | 2709.02                      | 32.6727                      |
| 14           | 16.8412           | 3.879                      | 5414.3                        | 3472.27                      | 32.6726                      |
| 15           | 16.9356           | 3.89335                    | 5492.92                       | 3522.69                      | 32.6726                      |
| 16           | 18.1629           | 4.09545                    | 6425.95                       | 4121.06                      | 32.6727                      |
| 17           | 19.3902           | 4.32683                    | 7269.11                       | 4661.79                      | 32.6727                      |
| 18           | 20.6175           | 4.58786                    | 8026.85                       | 5147.74                      | 32.6727                      |
| 19           | 21.8447           | 4.879                      | 8703.62                       | 5581.76                      | 32.6727                      |
| 20           | 22.9585           | 5.16967                    | 9282.88                       | 5953.24                      | 32.6726                      |
| 21           | 24.2329           | 5.53377                    | 9836.82                       | 6308.5                       | 32.6727                      |
| 22           | 25.5073           | 5.93215                    | 10317.8                       | 6616.99                      | 32.6728                      |
| 23           | 26.7818           | 6.36562                    | 10731.2                       | 6882.06                      | 32.6726                      |
| 24           | 28.0562           | 6.83508                    | 11117.2                       | 7129.6                       | 32.6726                      |
| 25           | 29.3307           | 7.34155                    | 11702.2                       | 7504.76                      | 32.6725                      |
| 26           | 30.6051           | 7.88617                    | 12285.8                       | 7879.09                      | 32.6727                      |
| 27           | 31.8795           | 8.47023                    | 12736.4                       | 8168.07                      | 32.6727                      |
| 28           | 33.154            | 9.09516                    | 13062.7                       | 8377.32                      | 32.6727                      |
| 29           | 34.4284           | 9.76257                    | 13273.2                       | 8512.28                      | 32.6726                      |
| 30           | 35.7029           | 10.4743                    | 13376                         | 8578.22                      | 32.6726                      |
| 31           | 36.9773           | 11.2324                    | 13379.4                       | 8580.42                      | 32.6727                      |
| 32           | 38.2518           | 12.0392                    | 13291.8                       | 8524.24                      | 32.6727                      |
| 33           | 39.5262           | 12.8974                    | 13121.6                       | 8415.1                       | 32.6727                      |
| 34           | 40.8006           | 13.8099                    | 12856.5                       | 8245.05                      | 32.6726                      |
| 35           | 42.0751           | 14.7805                    | 12337                         | 7911.88                      | 32.6726                      |
| 36           | 43.3495           | 15.813                     | 11690.2                       | 7497.08                      | 32.6726                      |
| 37           | 44.6523           | 16.9376                    | 10969.5                       | 7034.93                      | 32.6728                      |
| 38           | 45.8694           | 18.0565                    | 10187                         | 6533.07                      | 32.6726                      |
| 39           | 47.0864           | 19.2474                    | 9339.29                       | 5989.42                      | 32.6726                      |
| 40           | 48.3034           | 20.5174                    | 8436.35                       | 5410.35                      | 32.6726                      |
| 41           | 49.5204           | 21.8749                    | 7488.83                       | 4802.7                       | 32.6727                      |
| 42           | 50.7374           | 23.3306                    | 6508.39                       | 4173.92                      | 32.6726                      |
| 43           | 51.9545           | 24.8976                    | 5507.94                       | 3532.33                      | 32.6727                      |
| 44           | 53.1715           | 26.5932                    | 4502.22                       | 2887.34                      | 32.6727                      |
| 45           | 54.3885           | 28.44                      | 3508.47                       | 2250.03                      | 32.6726                      |
| 46           | 55.6055           | 30.4695                    | 2547.66                       | 1633.85                      | 32.6726                      |
| 47           | 56.8226           | 32.7271                    | 1646.61                       | 1056                         | 32.6728                      |
| 48           | 58.0396           | 35.2833                    | 842.034                       | 540.009                      | 32.6727                      |
| 49           | 59.2566           | 38.2588                    | 189.487                       | 121.521                      | 32.6727                      |
| 50           | 60.4736           | 41.8971                    | -212.306                      | -136.155                     | 32.6727                      |
| 51           | 61.6906           | 46.879                     | 0                             | 0                            | 0                            |

# **Walls 9,10, and 12a Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.0566**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 13.5691           | 5.38515                    | 0                             | 0                            | 0                            |
| 2            | 14.5889           | 5.58914                    | 2237.94                       | 2449.26                      | 47.5814                      |
| 3            | 15.6087           | 5.80688                    | 4249.92                       | 4651.21                      | 47.5813                      |
| 4            | 16.6285           | 6.03848                    | 8148.28                       | 8917.66                      | 47.5813                      |
| 5            | 17.7245           | 6.30298                    | 8830.16                       | 9663.93                      | 47.5813                      |
| 6            | 18.8205           | 6.58381                    | 9445.87                       | 10337.8                      | 47.5814                      |
| 7            | 19.9165           | 6.88113                    | 10000.4                       | 10944.6                      | 47.5811                      |
| 8            | 21.0125           | 7.19513                    | 10498.3                       | 11489.6                      | 47.5814                      |
| 9            | 22.1085           | 7.52604                    | 10944.4                       | 11977.8                      | 47.5813                      |
| 10           | 23.2045           | 7.87405                    | 11342.8                       | 12413.9                      | 47.5815                      |
| 11           | 24.3511           | 8.25669                    | 11673.8                       | 12776.1                      | 47.5814                      |
| 12           | 25.4977           | 8.6586                     | 11950.9                       | 13079.3                      | 47.5812                      |
| 13           | 26.6443           | 9.08009                    | 12190.9                       | 13342                        | 47.5813                      |
| 14           | 27.7909           | 9.52148                    | 12402.4                       | 13573.5                      | 47.5814                      |
| 15           | 28.9375           | 9.98315                    | 12647.1                       | 13841.3                      | 47.5814                      |
| 16           | 30.084            | 10.4655                    | 12873.1                       | 14088.6                      | 47.5813                      |
| 17           | 31.2306           | 10.9688                    | 13021.7                       | 14251.3                      | 47.5814                      |
| 18           | 32.3772           | 11.4936                    | 13097.7                       | 14334.5                      | 47.5815                      |
| 19           | 33.5238           | 12.0404                    | 13107.5                       | 14345.1                      | 47.5812                      |
| 20           | 34.6704           | 12.6097                    | 13057.1                       | 14290                        | 47.5813                      |
| 21           | 35.8169           | 13.2019                    | 12952.3                       | 14175.3                      | 47.5813                      |
| 22           | 36.9635           | 13.8177                    | 12798.8                       | 14007.2                      | 47.5811                      |
| 23           | 38.1101           | 14.4577                    | 12602                         | 13791.9                      | 47.5813                      |
| 24           | 39.2567           | 15.1226                    | 12367.4                       | 13535.1                      | 47.5812                      |
| 25           | 40.4033           | 15.813                     | 12097                         | 13239.2                      | 47.5812                      |
| 26           | 41.5062           | 16.502                     | 11691.8                       | 12795.8                      | 47.5814                      |
| 27           | 42.609            | 17.2161                    | 13515.2                       | 14791.4                      | 47.5814                      |
| 28           | 43.7119           | 17.9562                    | 12933.6                       | 14154.8                      | 47.5813                      |
| 29           | 44.8148           | 18.7231                    | 12319.2                       | 13482.4                      | 47.5813                      |
| 30           | 45.9377           | 19.5325                    | 11626.3                       | 12724.1                      | 47.5813                      |
| 31           | 47.0606           | 20.3717                    | 10908.7                       | 11938.8                      | 47.5815                      |
| 32           | 48.1835           | 21.2421                    | 10171.5                       | 11131.9                      | 47.5813                      |
| 33           | 49.3064           | 22.1448                    | 9419.88                       | 10309.3                      | 47.5812                      |
| 34           | 50.4292           | 23.0813                    | 8659.02                       | 9476.63                      | 47.5813                      |
| 35           | 51.5521           | 24.0531                    | 7894.18                       | 8639.57                      | 47.5813                      |
| 36           | 52.675            | 25.0621                    | 7130.71                       | 7804.01                      | 47.5813                      |
| 37           | 53.7979           | 26.1102                    | 6374.04                       | 6975.9                       | 47.5813                      |
| 38           | 54.9208           | 27.1994                    | 5629.78                       | 6161.36                      | 47.5813                      |
| 39           | 56.0437           | 28.3322                    | 4903.68                       | 5366.7                       | 47.5813                      |
| 40           | 57.1666           | 29.5113                    | 4201.75                       | 4598.49                      | 47.5813                      |
| 41           | 58.2895           | 30.7397                    | 3530.22                       | 3863.55                      | 47.5813                      |
| 42           | 59.4123           | 32.0209                    | 2895.64                       | 3169.05                      | 47.5813                      |
| 43           | 60.5352           | 33.3588                    | 2304.91                       | 2522.55                      | 47.5814                      |
| 44           | 61.6581           | 34.7581                    | 1765.33                       | 1932.02                      | 47.5814                      |
| 45           | 62.781            | 36.2241                    | 1284.64                       | 1405.93                      | 47.5811                      |
| 46           | 63.9039           | 37.763                     | 871.054                       | 953.301                      | 47.5813                      |
| 47           | 65.0268           | 39.3823                    | 533.342                       | 583.702                      | 47.5813                      |
| 48           | 66.1497           | 41.0911                    | 280.797                       | 307.31                       | 47.5813                      |
| 49           | 67.2725           | 42.9003                    | 123.222                       | 134.857                      | 47.5813                      |
| 50           | 68.3954           | 44.8238                    | 70.8124                       | 77.4986                      | 47.5813                      |
| 51           | 69.5183           | 46.879                     | 0                             | 0                            | 0                            |



# **Walls 11 and 12b Static**

**Global Minimum Query (spencer) - Safety Factor: 1.47133**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | -10.6709          | 6.05                       | 0                             | 0                            | 0                            |
| 2            | -9.35722          | 5.63619                    | 345.6                         | 201.12                       | 30.197                       |
| 3            | -8.04355          | 5.26162                    | 788.209                       | 458.694                      | 30.197                       |
| 4            | -6.72988          | 4.92536                    | 1295.14                       | 753.701                      | 30.1971                      |
| 5            | -5.4162           | 4.62663                    | 1841.58                       | 1071.7                       | 30.1971                      |
| 6            | -4.10253          | 4.36476                    | 2408.55                       | 1401.64                      | 30.197                       |
| 7            | -2.78886          | 4.13915                    | 2981.48                       | 1735.06                      | 30.1971                      |
| 8            | -1.47518          | 3.94931                    | 3549.19                       | 2065.43                      | 30.197                       |
| 9            | -0.16151          | 3.79483                    | 4107.01                       | 2390.06                      | 30.1971                      |
| 10           | 1.15216           | 3.67538                    | 4660.37                       | 2712.08                      | 30.1971                      |
| 11           | 2.46584           | 3.59072                    | 5202.57                       | 3027.61                      | 30.1971                      |
| 12           | 3.77951           | 3.54066                    | 5727.43                       | 3333.05                      | 30.1971                      |
| 13           | 5.09318           | 3.5251                     | 6230.13                       | 3625.59                      | 30.197                       |
| 14           | 6.40686           | 3.54401                    | 6707.04                       | 3903.13                      | 30.1971                      |
| 15           | 7.72053           | 3.59743                    | 7155.46                       | 4164.08                      | 30.197                       |
| 16           | 9.0342            | 3.68547                    | 7573.51                       | 4407.36                      | 30.197                       |
| 17           | 10.3479           | 3.80831                    | 7960.01                       | 4632.29                      | 30.1971                      |
| 18           | 11.6615           | 3.96621                    | 8326.92                       | 4845.81                      | 30.1971                      |
| 19           | 12.9752           | 4.1595                     | 9288.94                       | 5405.65                      | 30.197                       |
| 20           | 14.2889           | 4.38862                    | 10760.5                       | 6262.02                      | 30.1971                      |
| 21           | 15.6026           | 4.65405                    | 12080.1                       | 7029.94                      | 30.197                       |
| 22           | 16.9162           | 4.95639                    | 13240.4                       | 7705.18                      | 30.197                       |
| 23           | 18.2299           | 5.29633                    | 14252.3                       | 8294.05                      | 30.197                       |
| 24           | 19.5436           | 5.67468                    | 15124.2                       | 8801.44                      | 30.197                       |
| 25           | 20.8573           | 6.09235                    | 15864.2                       | 9232.09                      | 30.197                       |
| 26           | 22.1709           | 6.5504                     | 16480.3                       | 9590.64                      | 30.1971                      |
| 27           | 23.4846           | 7.05                       | 16980.5                       | 9881.68                      | 30.197                       |
| 28           | 24.7303           | 7.56337                    | 17403                         | 10127.6                      | 30.1971                      |
| 29           | 25.976            | 8.11662                    | 21420.8                       | 12465.7                      | 30.197                       |
| 30           | 27.2217           | 8.71125                    | 21812.4                       | 12693.6                      | 30.197                       |
| 31           | 28.4674           | 9.34891                    | 22024.2                       | 12816.8                      | 30.1969                      |
| 32           | 29.713            | 10.0315                    | 22049.4                       | 12831.6                      | 30.1972                      |
| 33           | 31.0494           | 10.8162                    | 21851.7                       | 12716.5                      | 30.1971                      |
| 34           | 32.3858           | 11.6581                    | 21456.7                       | 12486.6                      | 30.197                       |
| 35           | 33.7222           | 12.5608                    | 20879.5                       | 12150.7                      | 30.197                       |
| 36           | 35.0586           | 13.5283                    | 20131                         | 11715.1                      | 30.197                       |
| 37           | 36.3949           | 14.5654                    | 19222.5                       | 11186.5                      | 30.1972                      |
| 38           | 37.7313           | 15.678                     | 18165.6                       | 10571.4                      | 30.1971                      |
| 39           | 39.0677           | 16.8728                    | 16972.2                       | 9876.88                      | 30.197                       |
| 40           | 40.4041           | 18.1581                    | 15655                         | 9110.37                      | 30.1971                      |
| 41           | 41.7405           | 19.5443                    | 14227.8                       | 8279.77                      | 30.197                       |
| 42           | 43.0769           | 21.0441                    | 12705.2                       | 7393.71                      | 30.197                       |
| 43           | 44.4132           | 22.6741                    | 11103.8                       | 6461.79                      | 30.197                       |
| 44           | 45.7496           | 24.4562                    | 9442.33                       | 5494.92                      | 30.1971                      |
| 45           | 47.086            | 26.4203                    | 7742.69                       | 4505.82                      | 30.1971                      |
| 46           | 48.4224           | 28.6091                    | 6031.26                       | 3509.86                      | 30.197                       |
| 47           | 49.7588           | 31.0883                    | 4341.44                       | 2526.48                      | 30.1971                      |
| 48           | 51.0951           | 33.9673                    | 2718.22                       | 1581.85                      | 30.197                       |
| 49           | 52.4315           | 37.459                     | 1229.43                       | 715.46                       | 30.197                       |
| 50           | 53.7679           | 42.1086                    | 4.43851                       | 2.58297                      | 30.1971                      |
| 51           | 55.1043           | 53.6                       | 0                             | 0                            | 0                            |

◆ **Walls 11 and 12b Seismic**

**Global Minimum Query (spencer) - Safety Factor: 1.17775**

| Slice Number | X coordinate [ft] | Y coordinate - Bottom [ft] | Interslice Normal Force [lbs] | Interslice Shear Force [lbs] | Interslice Force Angle [deg] |
|--------------|-------------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| 1            | 11.5813           | 8.0094                     | 0                             | 0                            | 0                            |
| 2            | 12.6082           | 8.28748                    | 1803.55                       | 2783.62                      | 57.0602                      |
| 3            | 13.6351           | 8.58314                    | 3094.26                       | 4775.72                      | 57.0602                      |
| 4            | 14.662            | 8.89664                    | 4282.52                       | 6609.7                       | 57.0602                      |
| 5            | 15.5982           | 9.19819                    | 4645.83                       | 7170.44                      | 57.0602                      |
| 6            | 16.5343           | 9.51499                    | 4940.94                       | 7625.92                      | 57.0602                      |
| 7            | 17.4704           | 9.84727                    | 5175.19                       | 7987.46                      | 57.0602                      |
| 8            | 18.4065           | 10.1953                    | 11893                         | 18355.8                      | 57.0602                      |
| 9            | 19.3426           | 10.5593                    | 12024.6                       | 18558.9                      | 57.0602                      |
| 10           | 20.2787           | 10.9396                    | 12113.2                       | 18695.7                      | 57.0602                      |
| 11           | 21.2148           | 11.3364                    | 12163.8                       | 18773.8                      | 57.0602                      |
| 12           | 22.151            | 11.7502                    | 12180.9                       | 18800.2                      | 57.0603                      |
| 13           | 23.0871           | 12.1812                    | 17672.2                       | 27275.5                      | 57.0602                      |
| 14           | 24.0232           | 12.6298                    | 17634.2                       | 27216.8                      | 57.0602                      |
| 15           | 24.9593           | 13.0964                    | 17529.7                       | 27055.6                      | 57.0602                      |
| 16           | 25.8954           | 13.5814                    | 17244.2                       | 26614.9                      | 57.0602                      |
| 17           | 26.8315           | 14.0854                    | 21642.3                       | 33403.1                      | 57.0603                      |
| 18           | 27.7677           | 14.6087                    | 21018.2                       | 32439.8                      | 57.0602                      |
| 19           | 28.7038           | 15.152                     | 20345.8                       | 31401.9                      | 57.0601                      |
| 20           | 29.6399           | 15.7157                    | 19628.8                       | 30295.3                      | 57.0602                      |
| 21           | 30.576            | 16.3005                    | 19444.8                       | 30011.4                      | 57.0602                      |
| 22           | 31.5121           | 16.907                     | 18652.3                       | 28788.2                      | 57.0602                      |
| 23           | 32.4482           | 17.536                     | 17828.3                       | 27516.4                      | 57.0602                      |
| 24           | 33.363            | 18.1731                    | 16969.9                       | 26191.5                      | 57.0601                      |
| 25           | 34.2777           | 18.8331                    | 16089.2                       | 24832.3                      | 57.0602                      |
| 26           | 35.1924           | 19.517                     | 15189.8                       | 23444.2                      | 57.0603                      |
| 27           | 36.1072           | 20.2256                    | 14275.1                       | 22032.4                      | 57.0602                      |
| 28           | 37.0219           | 20.96                      | 13348.4                       | 20602.1                      | 57.0602                      |
| 29           | 37.9367           | 21.7213                    | 12413                         | 19158.4                      | 57.0602                      |
| 30           | 38.8514           | 22.5106                    | 11472.2                       | 17706.4                      | 57.0603                      |
| 31           | 39.7662           | 23.3294                    | 10529.3                       | 16251                        | 57.0601                      |
| 32           | 40.6809           | 24.1791                    | 9587.44                       | 14797.4                      | 57.0602                      |
| 33           | 41.5956           | 25.0614                    | 8650                          | 13350.5                      | 57.0602                      |
| 34           | 42.5104           | 25.978                     | 7720.28                       | 11915.6                      | 57.0602                      |
| 35           | 43.5244           | 27.0368                    | 8307.44                       | 12821.8                      | 57.0602                      |
| 36           | 44.5385           | 28.1437                    | 7336.14                       | 11322.7                      | 57.0602                      |
| 37           | 45.5525           | 29.3021                    | 7661.19                       | 11824.4                      | 57.0602                      |
| 38           | 46.5001           | 30.4352                    | 6774.86                       | 10456.4                      | 57.0602                      |
| 39           | 47.4478           | 31.621                     | 5917.74                       | 9133.52                      | 57.0602                      |
| 40           | 48.3954           | 32.8643                    | 5094.44                       | 7862.83                      | 57.0602                      |
| 41           | 49.3431           | 34.1706                    | 4309.83                       | 6651.84                      | 57.0602                      |
| 42           | 50.2907           | 35.5465                    | 3568.96                       | 5508.39                      | 57.0603                      |
| 43           | 51.2384           | 37.0001                    | 2876.97                       | 4440.35                      | 57.0602                      |
| 44           | 52.186            | 38.5412                    | 2238.57                       | 3455.03                      | 57.0601                      |
| 45           | 53.1337           | 40.182                     | 1657.03                       | 2557.48                      | 57.0602                      |
| 46           | 54.0813           | 41.9386                    | 1131.96                       | 1747.08                      | 57.0602                      |
| 47           | 55.029            | 43.8318                    | 655.242                       | 1011.31                      | 57.0602                      |
| 48           | 55.9766           | 45.8903                    | 206.496                       | 318.709                      | 57.0602                      |
| 49           | 56.9243           | 48.1554                    | -235.413                      | -363.34                      | 57.0602                      |
| 50           | 57.8719           | 50.69                      | -552.836                      | -853.255                     | 57.0602                      |
| 51           | 58.8196           | 53.6                       | 0                             | 0                            | 0                            |

## Discharge Sections

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## Entity Information

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### ◆ Walls 1 and 5b Static

Shared Entities

| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -54.151, 1.785<br>-54.151, -27.496<br>91.431, -27.496<br>91.431, 52.035<br>53.0816, 52.035<br>28.358, 52.035<br>25.358, 52.035<br>23.083, 28.285<br>18.083, 28.285<br>15.083, 28.285<br>12.535, 1.785                                                                                      |
| Material Boundary | 12.535, 1.785<br>12.535, 0.285<br>15.535, 0.285<br>18.083, 28.285                                                                                                                                                                                                                          |
| Material Boundary | 23.083, 28.285<br>23.083, 27.035<br>26.083, 27.035<br>28.358, 52.035                                                                                                                                                                                                                       |
| Material Boundary | 12.535, 0.285<br>12.035, 0.285<br>11.735, -0.215<br>16.335, -0.215<br>16.035, 0.285<br>15.535, 0.285                                                                                                                                                                                       |
| Material Boundary | 23.083, 27.035<br>22.583, 27.035<br>22.283, 26.535<br>26.883, 26.535<br>26.583, 27.035<br>26.083, 27.035                                                                                                                                                                                   |
| Material Boundary | 16.035, 0.285<br>16.535, 1.785<br>35.563, 1.785<br>36.1615, 8.30103<br>38.1615, 8.30103<br>39.055, 16.273<br>41.055, 16.273<br>41.993, 24.265<br>43.993, 24.265<br>44.857, 32.965<br>46.857, 32.965<br>47.704, 40.98<br>49.704, 40.98<br>50.66, 48.924<br>52.66, 48.924<br>53.0816, 52.035 |

◆ **Walls 1 and 5b Seismic**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -54.151, 1.785<br>-54.151, -27.496<br>91.431, -27.496<br>91.431, 52.035<br>53.0816, 52.035<br>28.358, 52.035<br>25.358, 52.035<br>23.083, 28.285<br>18.083, 28.285<br>15.083, 28.285<br>12.535, 1.785                                                                                      |
| Material Boundary | 12.535, 1.785<br>12.535, 0.285<br>15.535, 0.285<br>18.083, 28.285                                                                                                                                                                                                                          |
| Material Boundary | 23.083, 28.285<br>23.083, 27.035<br>26.083, 27.035<br>28.358, 52.035                                                                                                                                                                                                                       |
| Material Boundary | 12.535, 0.285<br>12.035, 0.285<br>11.735, -0.215<br>16.335, -0.215<br>16.035, 0.285<br>15.535, 0.285                                                                                                                                                                                       |
| Material Boundary | 23.083, 27.035<br>22.583, 27.035<br>22.283, 26.535<br>26.883, 26.535<br>26.583, 27.035<br>26.083, 27.035                                                                                                                                                                                   |
| Material Boundary | 16.035, 0.285<br>16.535, 1.785<br>35.563, 1.785<br>36.1615, 8.30103<br>38.1615, 8.30103<br>39.055, 16.273<br>41.055, 16.273<br>41.993, 24.265<br>43.993, 24.265<br>44.857, 32.965<br>46.857, 32.965<br>47.704, 40.98<br>49.704, 40.98<br>50.66, 48.924<br>52.66, 48.924<br>53.0816, 52.035 |

## ◆ **Wall 2 Static**

### Shared Entities

| Type              | Coordinates (x,y) |
|-------------------|-------------------|
| External Boundary | 9.021, 5.395      |
|                   | 9.672, -2.994     |
|                   | 46.268, -2.994    |
|                   | 46.268, 10.895    |
|                   | 35.397, 10.895    |
|                   | 34.943, 10.895    |
|                   | 29.943, 10.895    |
|                   | 26.943, 10.895    |
| Material Boundary | 26.4425, 5.395    |
|                   | 26.397, 4.895     |
|                   | 29.397, 4.895     |
|                   | 29.943, 10.895    |
| Material Boundary | 26.397, 4.895     |
|                   | 25.897, 4.895     |
|                   | 25.597, 4.395     |
|                   | 30.197, 4.395     |
|                   | 29.897, 4.895     |
|                   | 29.397, 4.895     |
| Material Boundary | 29.897, 4.895     |
|                   | 30.147, 5.395     |
|                   | 34.397, 5.395     |
|                   | 34.943, 10.895    |

## ◆ **Wall 2 Seismic**

### Shared Entities

| Type              | Coordinates (x,y) |
|-------------------|-------------------|
| External Boundary | 9.021, 5.395      |
|                   | 9.672, -2.994     |
|                   | 46.268, -2.994    |
|                   | 46.268, 10.895    |
|                   | 35.397, 10.895    |
|                   | 34.943, 10.895    |
|                   | 29.943, 10.895    |
|                   | 26.943, 10.895    |
| Material Boundary | 26.4425, 5.395    |
|                   | 26.397, 4.895     |
|                   | 29.397, 4.895     |
|                   | 29.943, 10.895    |
| Material Boundary | 26.397, 4.895     |
|                   | 25.897, 4.895     |
|                   | 25.597, 4.395     |
|                   | 30.197, 4.395     |
|                   | 29.897, 4.895     |
|                   | 29.397, 4.895     |
| Material Boundary | 29.897, 4.895     |
|                   | 30.147, 5.395     |
|                   | 34.397, 5.395     |
|                   | 34.943, 10.895    |

## ◆ **Wall 3 Static**

### Shared Entities



| Type              | Coordinates (x,y)                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | 3.806, 6.198<br>3.806, -7.27<br>65.912, -7.27<br>65.912, 33.198<br>55.261, 33.198<br>48.4413, 30.7429<br>42.761, 28.698<br>32.761, 28.698<br>29.761, 28.698<br>28.123, 10.698<br>13.123, 6.198 |
| Material Boundary | 28.123, 10.698<br>28.123, 9.698<br>31.123, 9.698<br>32.761, 28.698                                                                                                                             |
| Material Boundary | 28.123, 9.698<br>27.623, 9.698<br>27.323, 9.198<br>31.923, 9.198<br>31.623, 9.698<br>31.123, 9.698                                                                                             |
| Material Boundary | 31.623, 9.698<br>31.873, 10.698<br>42.623, 10.698<br>43.2603, 17.7014<br>45.2603, 17.7014<br>46.012, 25.708<br>48.012, 25.708<br>48.4413, 30.7429                                              |

◆ **Wall 3 Seismic**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | 3.806, 6.198<br>3.806, -7.27<br>65.912, -7.27<br>65.912, 33.198<br>55.261, 33.198<br>48.4413, 30.7429<br>42.761, 28.698<br>32.761, 28.698<br>29.761, 28.698<br>28.123, 10.698<br>13.123, 6.198 |
| Material Boundary | 28.123, 10.698<br>28.123, 9.698<br>31.123, 9.698<br>32.761, 28.698                                                                                                                             |
| Material Boundary | 28.123, 9.698<br>27.623, 9.698<br>27.323, 9.198<br>31.923, 9.198<br>31.623, 9.698<br>31.123, 9.698                                                                                             |
| Material Boundary | 31.623, 9.698<br>31.873, 10.698<br>42.623, 10.698<br>43.2603, 17.7014<br>45.2603, 17.7014<br>46.012, 25.708<br>48.012, 25.708<br>48.4413, 30.7429                                              |

◆ **Wall 4 Static**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -3.762, 7.636<br>-3.762, -1.015<br>33.191, -1.015<br>33.191, 19.655<br>20.9815, 16.1645<br>13.886, 14.136<br>10.886, 14.136<br>10.294, 7.636 |
| Material Boundary | 10.294, 7.636<br>10.294, 7.136<br>13.294, 7.136<br>13.886, 14.136                                                                            |
| Material Boundary | 10.294, 7.136<br>9.794, 7.136<br>9.494, 6.636<br>14.094, 6.636<br>13.794, 7.136<br>13.294, 7.136                                             |
| Material Boundary | 13.794, 7.136<br>14.044, 7.636<br>18.453, 7.636<br>18.8532, 14.136<br>20.8532, 14.136<br>20.9815, 16.1645                                    |

#### ◆ **Wall 4 Seismic**

##### Shared Entities

| Type              | Coordinates (x,y)                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -3.762, 7.636<br>-3.762, -1.015<br>33.191, -1.015<br>33.191, 19.655<br>20.9815, 16.1645<br>13.886, 14.136<br>10.886, 14.136<br>10.294, 7.636 |
| Material Boundary | 10.294, 7.636<br>10.294, 7.136<br>13.294, 7.136<br>13.886, 14.136                                                                            |
| Material Boundary | 10.294, 7.136<br>9.794, 7.136<br>9.494, 6.636<br>14.094, 6.636<br>13.794, 7.136<br>13.294, 7.136                                             |
| Material Boundary | 13.794, 7.136<br>14.044, 7.636<br>18.453, 7.636<br>18.8532, 14.136<br>20.8532, 14.136<br>20.9815, 16.1645                                    |

#### ◆ **Walls 5a and 6 Static**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -29.568, 5.119<br>-29.568, -18.746<br>79.674, -18.746<br>79.674, 61.3<br>57.315, 54.314<br>27.986, 45.36<br>24.986, 45.36<br>22.574, 18.86<br>15.574, 18.019<br>12.574, 18.019<br>11.537, 6.619<br>6.537, 5.119                                                                          |
| Material Boundary | 22.574, 18.86<br>22.574, 17.36<br>25.574, 17.36<br>27.986, 45.36                                                                                                                                                                                                                         |
| Material Boundary | 22.574, 17.36<br>22.074, 17.36<br>21.774, 16.86<br>26.374, 16.86<br>26.074, 17.36<br>25.574, 17.36                                                                                                                                                                                       |
| Material Boundary | 14.537, 6.019<br>15.574, 18.019                                                                                                                                                                                                                                                          |
| Material Boundary | 11.537, 6.619<br>11.537, 6.019<br>14.537, 6.019                                                                                                                                                                                                                                          |
| Material Boundary | 11.537, 6.019<br>11.037, 6.019<br>10.737, 5.519<br>15.337, 5.519<br>15.037, 6.019<br>14.537, 6.019                                                                                                                                                                                       |
| Material Boundary | 15.037, 6.019<br>15.287, 6.619<br>28.037, 6.619<br>28.7089, 14.0055<br>30.7089, 14.0055<br>31.24, 18.743<br>45.504, 18.743<br>46.37, 27.387<br>48.37, 27.387<br>49.178, 35.421<br>51.178, 35.421<br>51.988, 43.344<br>53.988, 43.344<br>54.97, 50.983<br>56.97, 50.983<br>57.315, 54.314 |

◆ **Walls 5a and 6 Seismic****Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -29.568, 5.119<br>-29.568, -18.746<br>79.674, -18.746<br>79.674, 61.3<br>57.315, 54.314<br>27.986, 45.36<br>24.986, 45.36<br>22.574, 18.86<br>15.574, 18.019<br>12.574, 18.019<br>11.537, 6.619<br>6.537, 5.119                                                                          |
| Material Boundary | 22.574, 18.86<br>22.574, 17.36<br>25.574, 17.36<br>27.986, 45.36                                                                                                                                                                                                                         |
| Material Boundary | 22.574, 17.36<br>22.074, 17.36<br>21.774, 16.86<br>26.374, 16.86<br>26.074, 17.36<br>25.574, 17.36                                                                                                                                                                                       |
| Material Boundary | 14.537, 6.019<br>15.574, 18.019                                                                                                                                                                                                                                                          |
| Material Boundary | 11.537, 6.619<br>11.537, 6.019<br>14.537, 6.019                                                                                                                                                                                                                                          |
| Material Boundary | 11.537, 6.019<br>11.037, 6.019<br>10.737, 5.519<br>15.337, 5.519<br>15.037, 6.019<br>14.537, 6.019                                                                                                                                                                                       |
| Material Boundary | 15.037, 6.019<br>15.287, 6.619<br>28.037, 6.619<br>28.7089, 14.0055<br>30.7089, 14.0055<br>31.24, 18.743<br>45.504, 18.743<br>46.37, 27.387<br>48.37, 27.387<br>49.178, 35.421<br>51.178, 35.421<br>51.988, 43.344<br>53.988, 43.344<br>54.97, 50.983<br>56.97, 50.983<br>57.315, 54.314 |

 **Wall 7 Static**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -16.691, 6.551<br>-16.691, -7.64<br>26.357, -7.64<br>26.357, 27.44<br>21.277, 25.434<br>6.266, 19.551<br>3.266, 19.551<br>2.083, 6.551          |
| Material Boundary | 2.083, 6.551<br>2.083, 5.551<br>5.083, 5.551<br>6.266, 19.551                                                                                   |
| Material Boundary | 2.083, 5.551<br>1.583, 5.551<br>1.283, 5.051<br>5.883, 5.051<br>5.583, 5.551<br>5.083, 5.551                                                    |
| Material Boundary | 5.583, 5.551<br>5.833, 6.551<br>15.583, 6.551<br>16.2185, 13.5347<br>18.2185, 13.5347<br>18.9465, 21.5347<br>20.9465, 21.5347<br>21.277, 25.434 |

### ◆ **Wall 7 Seismic**

#### **Shared Entities**



| Type              | Coordinates (x,y)                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -16.691, 6.551<br>-16.691, -7.64<br>26.357, -7.64<br>26.357, 27.44<br>21.277, 25.434<br>6.266, 19.551<br>3.266, 19.551<br>2.083, 6.551          |
| Material Boundary | 2.083, 6.551<br>2.083, 5.551<br>5.083, 5.551<br>6.266, 19.551                                                                                   |
| Material Boundary | 2.083, 5.551<br>1.583, 5.551<br>1.283, 5.051<br>5.883, 5.051<br>5.583, 5.551<br>5.083, 5.551                                                    |
| Material Boundary | 5.583, 5.551<br>5.833, 6.551<br>15.583, 6.551<br>16.2185, 13.5347<br>18.2185, 13.5347<br>18.9465, 21.5347<br>20.9465, 21.5347<br>21.277, 25.434 |

### ◆ **Wall 8 Static**

#### Shared Entities

| Type              | Coordinates (x,y)                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -5.933, 6.662<br>-8.821, 6.662<br>-8.821, -2.373<br>31.614, -2.373<br>31.614, 19.012<br>19.9068, 19.012<br>10.466, 19.012<br>7.466, 19.012<br>6.342, 6.662 |
| Material Boundary | 6.342, 6.662<br>6.283, 6.012<br>9.283, 6.012<br>10.466, 19.012                                                                                             |
| Material Boundary | 6.283, 6.012<br>5.783, 6.012<br>5.483, 5.512<br>10.083, 5.512<br>9.783, 6.012<br>9.283, 6.012                                                              |
| Material Boundary | 9.783, 6.012<br>10.033, 6.662<br>16.783, 6.662<br>17.511, 14.662<br>19.511, 14.662<br>19.9068, 19.012                                                      |

## ◆ **Wall 8 Seismic**

### Shared Entities

| Type              | Coordinates (x,y) |
|-------------------|-------------------|
| External Boundary | -5.933, 6.662     |
|                   | -8.821, 6.662     |
|                   | -8.821, -2.373    |
|                   | 31.614, -2.373    |
|                   | 31.614, 19.012    |
|                   | 19.9068, 19.012   |
|                   | 10.466, 19.012    |
|                   | 7.466, 19.012     |
| Material Boundary | 6.342, 6.662      |
|                   | 6.283, 6.012      |
|                   | 9.283, 6.012      |
|                   | 10.466, 19.012    |
| Material Boundary | 6.283, 6.012      |
|                   | 5.783, 6.012      |
|                   | 5.483, 5.512      |
|                   | 10.083, 5.512     |
|                   | 9.783, 6.012      |
|                   | 9.283, 6.012      |
| Material Boundary | 9.783, 6.012      |
|                   | 10.033, 6.662     |
|                   | 16.783, 6.662     |
|                   | 17.511, 14.662    |
|                   | 19.511, 14.662    |
|                   | 19.9068, 19.012   |

## ◆ **Walls 9, 10, and 12a Static**

### Shared Entities

| Type              | Coordinates (x,y) |
|-------------------|-------------------|
| External Boundary | -8.911, 3.879     |
|                   | -50.551, 3.879    |
|                   | -50.551, -36.018  |
|                   | 89.168, -36.018   |
|                   | 89.168, 46.879    |
|                   | 55.3835, 46.879   |
|                   | 44.345, 46.879    |
|                   | 41.345, 46.879    |
|                   | 40.253, 34.879    |
|                   | 32.253, 34.879    |
|                   | 29.253, 34.879    |
|                   | 27.524, 15.879    |
|                   | 17.524, 15.879    |
|                   | 14.524, 15.879    |
|                   | 13.523, 4.879     |
|                   | -0.477, 3.879     |
| Material Boundary | 40.253, 34.879    |
|                   | 40.162, 33.879    |
|                   | 43.162, 33.879    |
|                   | 44.345, 46.879    |

|                   |                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Boundary | 27.524, 15.879<br>27.433, 14.879<br>30.433, 14.879<br>32.253, 34.879                                                                                                                                                                                                                     |
| Material Boundary | 13.523, 4.879<br>13.432, 3.879<br>16.432, 3.879<br>17.524, 15.879                                                                                                                                                                                                                        |
| Material Boundary | 40.162, 33.879<br>39.662, 33.879<br>39.362, 33.379<br>43.962, 33.379<br>43.662, 33.879<br>43.162, 33.879                                                                                                                                                                                 |
| Material Boundary | 27.433, 14.879<br>26.933, 14.879<br>26.633, 14.379<br>31.233, 14.379<br>30.933, 14.879<br>30.433, 14.879                                                                                                                                                                                 |
| Material Boundary | 13.432, 3.879<br>12.932, 3.879<br>12.632, 3.379<br>17.232, 3.379<br>16.932, 3.879<br>16.432, 3.879                                                                                                                                                                                       |
| Material Boundary | 16.932, 3.879<br>17.182, 4.879<br>22.932, 4.879<br>23.66, 12.879<br>31.687, 12.879<br>32.075, 15.813<br>44.55, 15.813<br>45.278, 23.813<br>47.278, 23.813<br>48.006, 31.813<br>50.006, 31.813<br>50.334, 35.346<br>52.334, 35.346<br>53.062, 43.346<br>55.062, 43.346<br>55.3835, 46.879 |

◆ **Walls 9,10, and 12a Seismic**

**Shared Entities**

| Type | Coordinates (x,y) |
|------|-------------------|
|------|-------------------|

|                   |                                                                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -8.911, 3.879<br>-50.551, 3.879<br>-50.551, -36.018<br>89.168, -36.018<br>89.168, 46.879<br>55.3835, 46.879<br>44.345, 46.879<br>41.345, 46.879<br>40.253, 34.879<br>32.253, 34.879<br>29.253, 34.879<br>27.524, 15.879<br>17.524, 15.879<br>14.524, 15.879<br>13.523, 4.879<br>-0.477, 3.879 |
| Material Boundary | 40.253, 34.879<br>40.162, 33.879<br>43.162, 33.879<br>44.345, 46.879                                                                                                                                                                                                                          |
| Material Boundary | 27.524, 15.879<br>27.433, 14.879<br>30.433, 14.879<br>32.253, 34.879                                                                                                                                                                                                                          |
| Material Boundary | 13.523, 4.879<br>13.432, 3.879<br>16.432, 3.879<br>17.524, 15.879                                                                                                                                                                                                                             |
| Material Boundary | 40.162, 33.879<br>39.662, 33.879<br>39.362, 33.379<br>43.962, 33.379<br>43.662, 33.879<br>43.162, 33.879                                                                                                                                                                                      |
| Material Boundary | 27.433, 14.879<br>26.933, 14.879<br>26.633, 14.379<br>31.233, 14.379<br>30.933, 14.879<br>30.433, 14.879                                                                                                                                                                                      |
| Material Boundary | 13.432, 3.879<br>12.932, 3.879<br>12.632, 3.379<br>17.232, 3.379<br>16.932, 3.879<br>16.432, 3.879                                                                                                                                                                                            |

|                   |                 |
|-------------------|-----------------|
| Material Boundary | 16.932, 3.879   |
|                   | 17.182, 4.879   |
|                   | 22.932, 4.879   |
|                   | 23.66, 12.879   |
|                   | 31.687, 12.879  |
|                   | 32.075, 15.813  |
|                   | 44.55, 15.813   |
|                   | 45.278, 23.813  |
|                   | 47.278, 23.813  |
|                   | 48.006, 31.813  |
|                   | 50.006, 31.813  |
|                   | 50.334, 35.346  |
|                   | 52.334, 35.346  |
|                   | 53.062, 43.346  |
|                   | 55.062, 43.346  |
|                   | 55.3835, 46.879 |

◆ **Walls 11 and 12b Static**

**Shared Entities**

| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -8.16, 6.05<br>-34.127, 6.05<br>-34.127, -18.195<br>65.56, -18.195<br>65.56, 53.6<br>53.6726, 53.6<br>29.73, 53.6<br>26.73, 53.6<br>24.223, 26.05<br>16.223, 26.05<br>13.223, 26.05<br>11.494, 7.05<br>-1.006, 6.05                                                                          |
| Material Boundary | 24.223, 26.05<br>24.091, 24.6<br>27.091, 24.6<br>29.73, 53.6                                                                                                                                                                                                                                 |
| Material Boundary | 11.494, 7.05<br>11.403, 6.05<br>14.403, 6.05<br>16.223, 26.05                                                                                                                                                                                                                                |
| Material Boundary | 11.403, 6.05<br>10.903, 6.05<br>10.603, 5.55<br>15.203, 5.55<br>14.903, 6.05<br>14.403, 6.05                                                                                                                                                                                                 |
| Material Boundary | 24.091, 24.6<br>23.591, 24.6<br>23.291, 24.1<br>27.891, 24.1<br>27.591, 24.6<br>27.091, 24.6                                                                                                                                                                                                 |
| Material Boundary | 14.903, 6.05<br>15.153, 7.05<br>29.403, 7.05<br>30.1315, 14.0552<br>32.1315, 14.0552<br>32.8595, 22.0552<br>34.8595, 22.0552<br>35.182, 25.978<br>45.25, 25.978<br>45.978, 33.978<br>47.887, 33.978<br>48.615, 41.978<br>50.615, 41.978<br>51.343, 49.978<br>53.343, 49.978<br>53.6726, 53.6 |

◆ **Walls 11 and 12b Seismic**

**Shared Entities**



| Type              | Coordinates (x,y)                                                                                                                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Boundary | -8.16, 6.05<br>-34.127, 6.05<br>-34.127, -18.195<br>65.56, -18.195<br>65.56, 53.6<br>53.6726, 53.6<br>29.73, 53.6<br>26.73, 53.6<br>24.223, 26.05<br>16.223, 26.05<br>13.223, 26.05<br>11.494, 7.05<br>-1.006, 6.05                                                                          |
| Material Boundary | 24.223, 26.05<br>24.091, 24.6<br>27.091, 24.6<br>29.73, 53.6                                                                                                                                                                                                                                 |
| Material Boundary | 11.494, 7.05<br>11.403, 6.05<br>14.403, 6.05<br>16.223, 26.05                                                                                                                                                                                                                                |
| Material Boundary | 11.403, 6.05<br>10.903, 6.05<br>10.603, 5.55<br>15.203, 5.55<br>14.903, 6.05<br>14.403, 6.05                                                                                                                                                                                                 |
| Material Boundary | 24.091, 24.6<br>23.591, 24.6<br>23.291, 24.1<br>27.891, 24.1<br>27.591, 24.6<br>27.091, 24.6                                                                                                                                                                                                 |
| Material Boundary | 14.903, 6.05<br>15.153, 7.05<br>29.403, 7.05<br>30.1315, 14.0552<br>32.1315, 14.0552<br>32.8595, 22.0552<br>34.8595, 22.0552<br>35.182, 25.978<br>45.25, 25.978<br>45.978, 33.978<br>47.887, 33.978<br>48.615, 41.978<br>50.615, 41.978<br>51.343, 49.978<br>53.343, 49.978<br>53.6726, 53.6 |

