ENGINEERING DESIGN GROUP
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2121 Montiel Road, San Marcos, CA 92069
760.839.7302

Date: March 4, 2019

To: dasMOD LLC.
c/o Sven Simon
1650 N. Coast Highway 101
Encinitas, CA 92024
E: sven@dasmond.com
P: (619) 577-4610

Re: Proposed new hotel building to be located at APN 216-030-48, La Costa Avenue, La Costa California

Subject: Addendum No. 1

1.0 PURPOSE

We have prepared the following addendum to our original report (Appendix A), to address City comments discussed with City geotechnical consultant. As part of this update slope stability calculations of the rear slope have been conducted and additional conclusions and recommendations pertaining to the development of the site.

2.0 HILLSIDE/INLAND BLUFF OVERLAY

As indicated in our original report, the site lies within the City of Encinitas Hillside/Inland Bluff Overlay Zone. The regulations of the Hillside/Inland Bluff Overlay Zone apply where site specific analysis indicates that 10% or more of the area of the parcel exceeds 25%. Based upon our review of the site slope analysis, the site slopes greater than 25% is less than 10% of the site. As such, the 25 ft. setback from top of bluff setback does not apply.

3.0 SLOPE STABILITY

A computer-generated slope stability analysis was performed of the rear slope at the site. Slope stability calculations were run along two cross sections, A-A and B-B, utilizing Bishop's Simplified Method. The soil strength parameters used in our analysis are presented below. These values are based on documented soil parameters, laboratory test results of soil profiles from nearby sites, our experience in this area and our professional judgement.

Soil Type	Unit Weight	Cohesion	Friction Angle
Fill	105	0	30
Terrace Deposit	120	200	32
Santiago Formation	120	800	32

Based on our slope analysis in the area of sloped, deep undocumented fills along Section A-A have a global minimum factor of safety against global slope stability **less** than 1.5 for static conditions and less than 1.1 for pseudo static conditions. Other portions of the rear slope, where fills are less deep, such as along Section B-B have a global minimum factor of safety against global slope stability **greater** than 1.5 for static conditions and less than 1.1 for pseudo static conditions.

New foundations associated with proposed new walls at the rear (slope side) of the bioretention area, shall be sufficiently deepened to maintain minimum distance to daylight from slope instability, anticipated to be 6-8 feet below adjacent grade.

4.0 BIORETENTION AREA RECOMMENDATIONS

Based upon our review of the preliminary civil plans, bioretention areas are proposed along the top of the rear slope. We understand permission to perform offsite grading onto Cal-Trans owned property to the north will not be granted.

In consideration of the bioretention area location relative to rear steep slopes and areas of global slope stability factors of safety less than 1.5 and 1.1 , static and pseudo static respectively, we recommend proposed walls along the outside (rear) edge, be deepened to competent material, anticipated to be approximately 6-8 feet below existing grade. In consideration of limiting grading in areas of oversteepened slopes, we anticipate portions of the wall will be deepened with caisson type foundations. New caisson type foundations will extend approximately 6-7 feet below existing grade, depending on structural loading requirements. See deep foundation design parameters provided herein.

Beyond deepened foundations, we anticipate existing fills will be removed, replaced and recompacted as part of creation of the new building pad and per the recommendations of our original report.

5.0 DEEP FOUNDATIONS

Deep foundation design parameters and recommendations are provided for the design of new deep foundations for new retaining wall improvements along the top of slope.

5.1 Proposed new foundations are to be founded directly in competent sandstone material, anticipated total depth of 8 feet below lowest adjacent proposed grade.

5.2 Caissons should extend a minimum of 3 feet into competent sandstone materials beyond the point of fixity. Skin friction values provided herein are to be used only for that portion of the caisson which lies below the point of fixity. Depth of fixity is anticipated to be at approximately 4-5 feet below existing adjacent grade.

5.3 Caissons should be designed based on an allowable skin friction value of 400 psf - adhesion (neglecting caisson weight) for that portion of caisson lying below the point of fixity, to a maximum bearing capacity of 65 kip per caisson. Skin friction value to be confirmed based upon additional investigation in the area of proposed development. With skin friction design (only), the bottom of caisson excavation shall be cleaned utilizing driller cleaning bucket. Hand cleaning of excavation is not required. Cleanliness of caisson excavations are to be inspected prior to placement of steel.

5.4 Caissons may be designed using a passive earth pressure of 300 pcf below point of fixity only, anticipated to be 8 feet below lowest adjacent grade.

5.5 Bearing values may be increased by 33% when considering wind, seismic, or other short duration loadings.

5.6 Caissons should be designed with a minimum diameter of 12 inches and be reinforced in accordance with the recommendations of the structural engineer.

5.7 Caissons may be designed with an arching effect of two (2) pier diameters total.

5.8 For footings adjacent to slopes a minimum of 13 feet horizontal setback in competent material should be maintained. A setback measurement should be taken at the horizontal distance from the bottom of the footing to slope daylight. Where this condition cannot be met, it should be brought to the attention of the Engineering Design Group for review.

5.9 Caisson embedment into sandstone and should be verified by a representative of this office prior to removal of excavation equipment, placing reinforcement or concrete.

5.10 Caissons shall not be out of plumb by more than 2% of their total length.

5.11 Caissons excavations should be cleaned of all loose soil debris subsequent to excavation and prior to the placement of reinforcing steel. The contractor should utilize a clean out bucket to remove loose debris in the bottom of the excavations.

5.12 All excavations should be performed in general accordance with the contents of this report, applicable codes, OSHA requirements and applicable city and/or county standards.

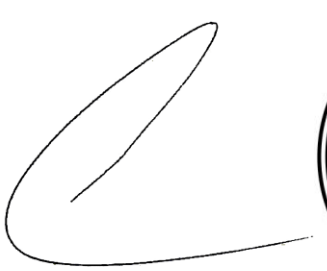
5.13 Caissons excavations should be continuously observed by representative of Engineering Design Group to verify depth of embedment and cleanliness of the excavation bottom.

5.14 The proper installation of caissons will be of great importance. Care in drilling, placement of steel, and the pouring of concrete will be essential to avoid excessive erosion of caissons boring walls within the upper fills.

5.15 Concrete placement by pumping or tremie tube may be considered. Both clean out and concrete placement should be addressed in the specifications. Caissons excavations should be observed by our office prior to the installation of reinforcement. Caissons excavations should be properly shored prior to allowing any personnel into the excavation.

If you have any questions regarding this addendum, please feel free to contact our office.

Sincerely,
ENGINEERING DESIGN GROUP



Steven Norris
California ***GE#2590***

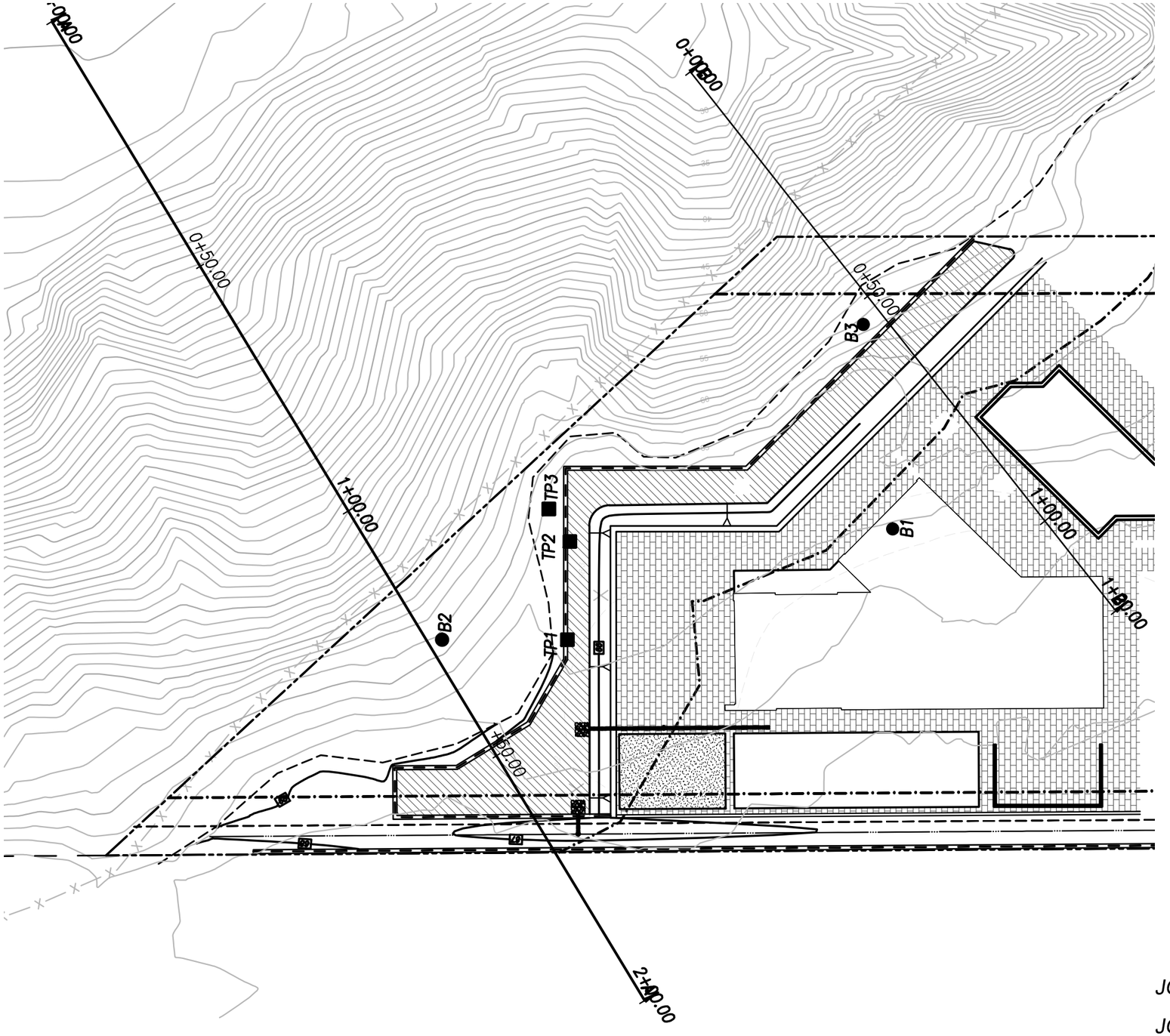
Erin E. Rist
California ***RCE #65122***

Attachments:

Appendix A
References
Appendix B
Figure No.3; Geologic Map
Figure No.4; Geologic/Geotechnical Cross Section A-A
Figure No. 5; Geologic/Geotechnical Cross Section B-B
Appendix C
Slope Stability Calculations – Section A-A – Static and Pseudo Static
Slope Stability Calculations – Section A-A – Static and Pseudo Static

APPENDIX A

APPENDIX B



GEOLOGIC SITE PLAN

0 20 40 Feet

SCALE: 1"=20 FT

N

LEGEND

B2 ● Borings

TP1 ■ Test Pits

JOB NAME:	dasMOD LA COSTA HOTEL
JOB ADDRESS:	516 LA COSTA AVENUE, ENCINITAS, CA 92024
JOB NO.:	185881-1
DATE.:	2-27-19

FIGURE 3

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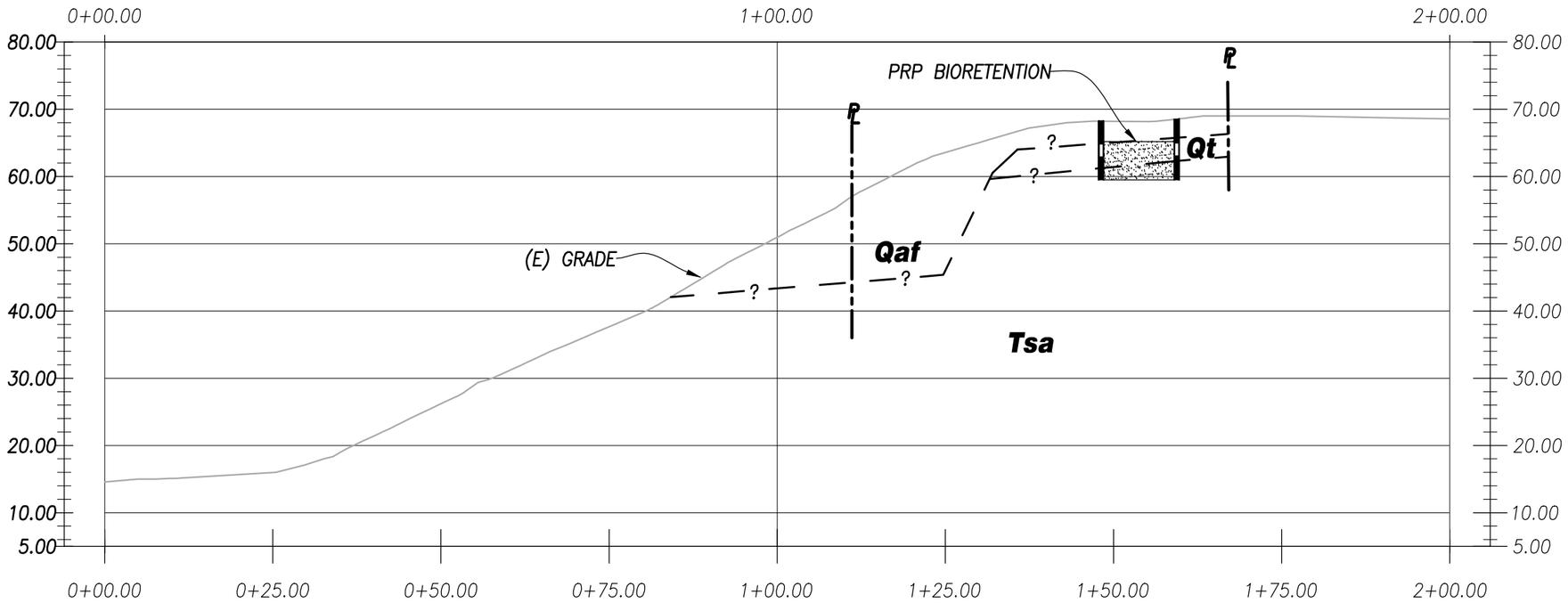

SECTION A–A

SCALE: 1"=20'–0"

LEGEND

Qaf	Fill
Qt	Terrace Deposit
Tsa	Santiago Formation

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JOB NO.: 185881-1

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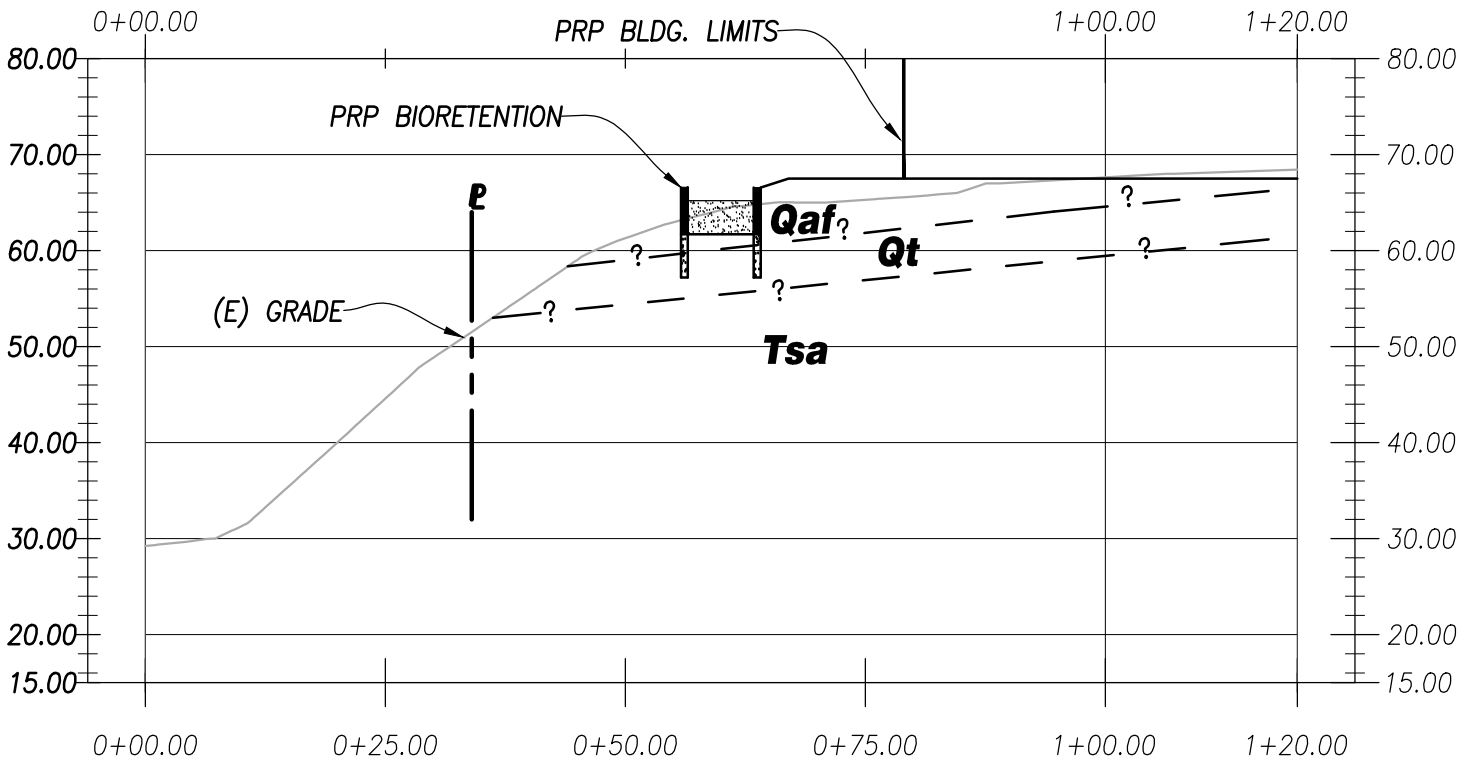
FIGURE 4



SECTION B–B

SCALE: 1"=20'

LEGEND

Qaf	Fill
Qt	Terrace Deposit
Tsa	Santiago Formation

JOB NAME:	dasMOD LA COSTA HOTEL
JOB ADDRESS:	516 LA COSTA AVENUE ENCINITAS, CA
JOB NO.:	185881-1
DATE:	2-28-19

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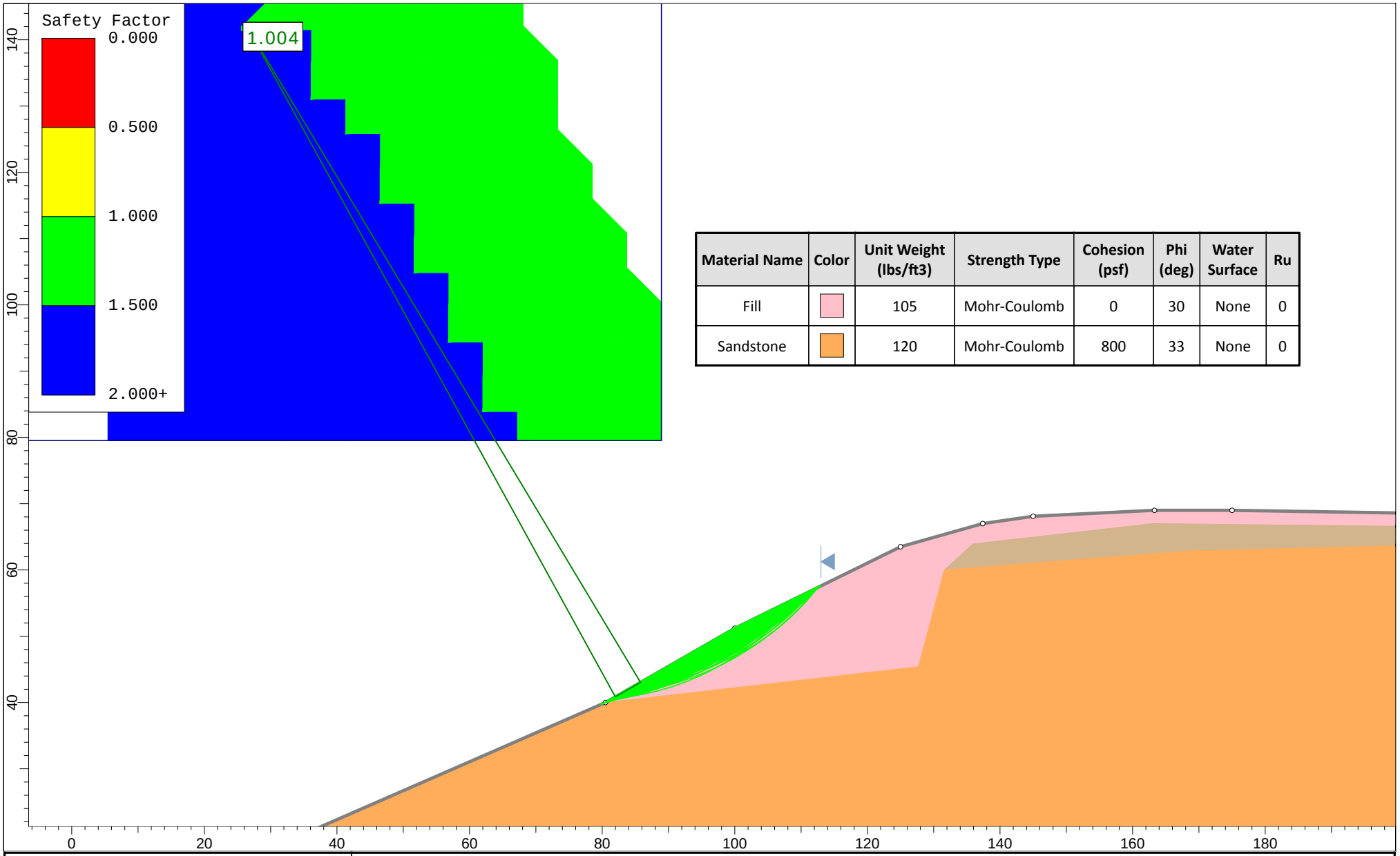
FIGURE 5

APPENDIX C

SECTION A-A

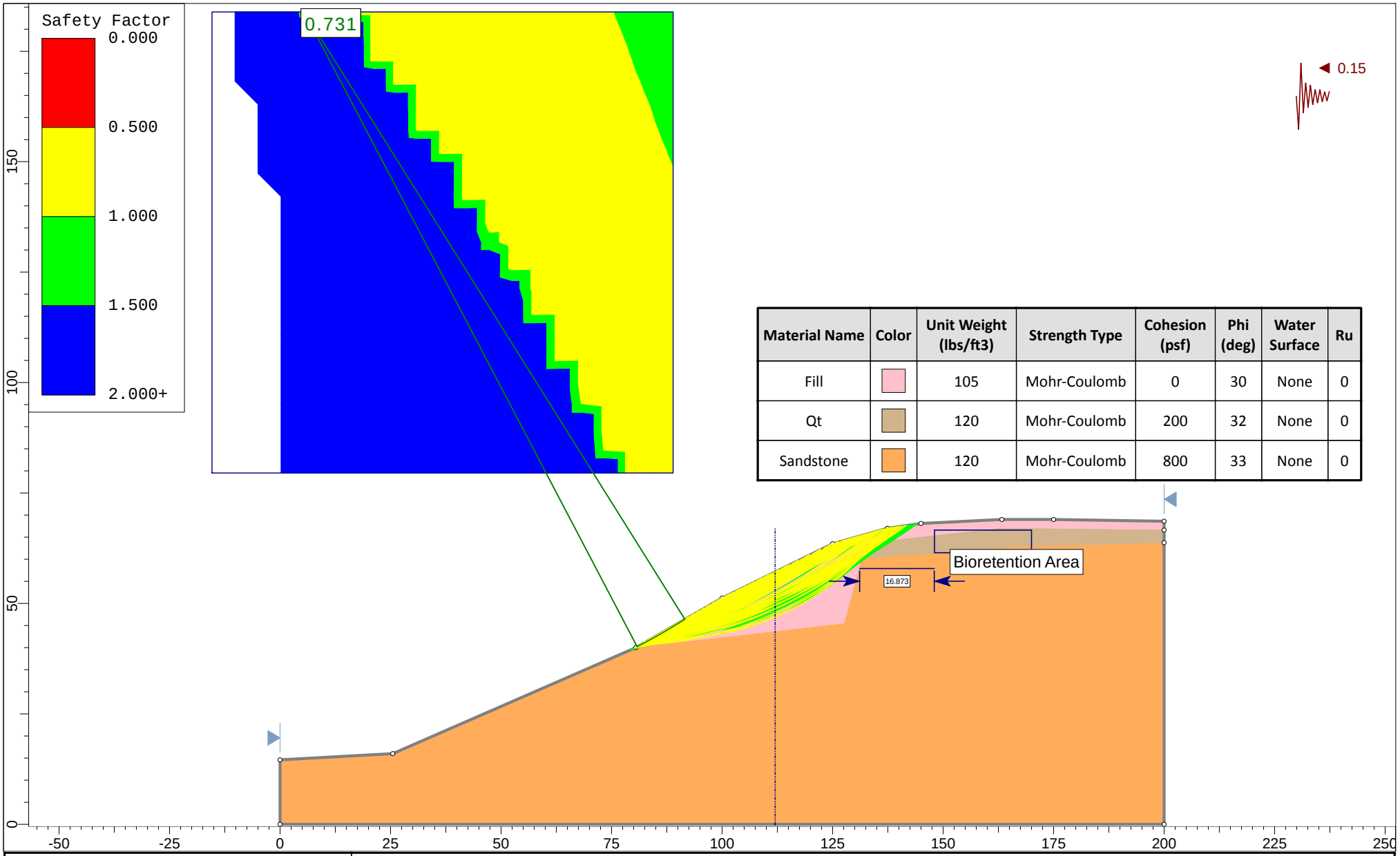


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
Fill		105	Mohr-Coulomb	0	30	None	0
Sandstone		120	Mohr-Coulomb	800	33	None	0

rocscience

SLIDEINTERPRET 8.018

Project	SLIDE - An Interactive Slope Stability Program		
Analysis Description			
Drawn By		Scale 1:240	Company
Date	1/28/2019, 2:31:02 PM		File Name SECTION A-A.slmd



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
Fill		105	Mohr-Coulomb	0	30	None	0
Qt		120	Mohr-Coulomb	200	32	None	0
Sandstone		120	Mohr-Coulomb	800	33	None	0

rocscience

SLIDEINTERPRET 8.018

Project	SLIDE - An Interactive Slope Stability Program		
Analysis Description			
Drawn By		Scale 1:360	Company
Date	1/28/2019, 2:31:02 PM		File Name SECTION A-A.slmd

Slide Analysis Information

SECTION A-A

Project Summary

File Name:	SECTION A-A.slmd
Slide Modeler Version:	8.018
Project Title:	SLIDE - An Interactive Slope Stability Program
Date Created:	1/28/2019, 2:31:02 PM

Currently Open Scenarios

Group Name	Scenario Name	Global Minimum	Compute Time
SECTION A-A	Master Scenario	Bishop Simplified: 1.004060 Janbu Simplified: 1.005300	00h:00m:00.340s
	Pseudo Static	Bishop Simplified: 0.730678 Janbu Simplified: 0.728735	00h:00m:00.160s

General Settings

Units of Measurement:	Imperial Units
Time Units:	days
Permeability Units:	feet/second
Data Output:	Standard
Failure Direction:	Right to Left

Analysis Options

All Open Scenarios

Slices Type:	Vertical

Analysis Methods Used

	Bishop simplified
	Janbu simplified
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

All Open Scenarios

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft3]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

All Open Scenarios

Pseudo-random Seed:	10116
Random Number Generation Method:	Park and Miller v.3

Surface Options

All Open Scenarios	
Surface Type:	Circular
Search Method:	Grid Search
Radius Increment:	10
Composite Surfaces:	Disabled
Reverse Curvature:	Invalid Surfaces
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

SECTION A-A - Master Scenario		SECTION A-A - Pseudo Static	
Advanced seismic analysis:	No	Advanced seismic analysis:	No
Staged pseudostatic analysis:	No	Staged pseudostatic analysis:	No
		Seismic Load Coefficient (Horizontal):	0.15

Materials

Property	Fill	Qt	Sandstone
Color			
Strength Type	Mohr-Coulomb	Mohr-Coulomb	Mohr-Coulomb
Unit Weight [lbs/ft3]	105	120	120
Cohesion [psf]	0	200	800
Friction Angle [°]	30	32	33
Water Surface	Assigned per scenario	Assigned per scenario	Assigned per scenario
Ru Value	0	0	0

Materials In Use

Material	Master Scenario	Pseudo Static
Fill	✓	✓
Qt	✓	✓
Sandstone	✓	✓

Global Minimums

SECTION A-A - Master Scenario

Method: bishop simplified

FS	1.004060
Center:	26.340, 142.132
Radius:	115.558
Left Slip Surface Endpoint:	81.985, 40.853
Right Slip Surface Endpoint:	85.783, 43.034
Resisting Moment:	367.309 lb-ft
Driving Moment:	365.825 lb-ft
Total Slice Area:	0.0605418 ft2
Surface Horizontal Width:	3.79735 ft
Surface Average Height:	0.0159432 ft

Method: janbu simplified

FS	1.005300
Center:	26.340, 142.132
Radius:	115.558
Left Slip Surface Endpoint:	81.985, 40.853
Right Slip Surface Endpoint:	85.783, 43.034
Resisting Horizontal Force:	2.75987 lb
Driving Horizontal Force:	2.74531 lb
Total Slice Area:	0.0605418 ft2
Surface Horizontal Width:	3.79735 ft
Surface Average Height:	0.0159432 ft

SECTION A-A - Pseudo Static

Method: bishop simplified

FS	0.730678
Center:	5.475, 183.863
Radius:	162.237
Left Slip Surface Endpoint:	80.816, 40.181
Right Slip Surface Endpoint:	91.619, 46.386
Resisting Moment:	7762.64 lb-ft
Driving Moment:	10623.9 lb-ft
Total Slice Area:	0.993324 ft2
Surface Horizontal Width:	10.8034 ft
Surface Average Height:	0.0919456 ft

Method: janbu simplified

FS	0.728735
Center:	5.475, 183.863
Radius:	162.237
Left Slip Surface Endpoint:	80.816, 40.181
Right Slip Surface Endpoint:	91.619, 46.386
Resisting Horizontal Force:	41.3979 lb
Driving Horizontal Force:	56.8079 lb
Total Slice Area:	0.993324 ft2
Surface Horizontal Width:	10.8034 ft
Surface Average Height:	0.0919456 ft

Valid/Invalid Surfaces

SECTION A-A - Master Scenario

Method: bishop simplified

Number of Valid Surfaces: 3412
Number of Invalid Surfaces: 1439

Error Codes:

Error Code -102 reported for 3 surfaces
Error Code -106 reported for 98 surfaces
Error Code -108 reported for 161 surfaces
Error Code -1000 reported for 1177 surfaces

Method: janbu simplified

Number of Valid Surfaces: 3342
Number of Invalid Surfaces: 1509

Error Codes:

Error Code -102 reported for 3 surfaces
Error Code -106 reported for 98 surfaces
Error Code -108 reported for 209 surfaces
Error Code -111 reported for 22 surfaces
Error Code -1000 reported for 1177 surfaces

SECTION A-A - Pseudo Static

Method: bishop simplified

Number of Valid Surfaces: 4103
Number of Invalid Surfaces: 748

Error Codes:

Error Code -102 reported for 3 surfaces
Error Code -103 reported for 146 surfaces
Error Code -106 reported for 34 surfaces
Error Code -108 reported for 92 surfaces
Error Code -1000 reported for 473 surfaces

Method: janbu simplified

Number of Valid Surfaces: 4069
Number of Invalid Surfaces: 782

Error Codes:

Error Code -102 reported for 3 surfaces
Error Code -103 reported for 146 surfaces
Error Code -106 reported for 34 surfaces
Error Code -108 reported for 110 surfaces
Error Code -111 reported for 16 surfaces
Error Code -1000 reported for 473 surfaces

Error Codes

The following errors were encountered during the computation:

-102 = Two surface / slope intersections, but resulting arc is actually outside soil region.
-103 = Two surface / slope intersections, but one or more surface / nonslope external polygon intersections lie between them. This usually occurs when the slip surface extends past the bottom of the soil region, but may also occur on a benched slope model with two sets of Slope Limits.
-106 = Average slice width is less than 0.0001 * (maximum horizontal extent of soil region). This limitation is imposed to avoid numerical errors which may result from too many slices, or too small a slip region.
-108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
-111 = safety factor equation did not converge
-1000 = No valid slip surface is generated

Slice Data

SECTION A-A - Master Scenario

- **Global Minimum Query (bishop simplified) - Safety Factor: 1.00406**

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	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	0.075947	0.00740181	28.8071	Fill	0	30	0.0425362	0.0427089	0.073974	0	0.073974	0.0973653	0.0973653
2	0.075947	0.0219094	28.8501	Fill	0	30	0.125854	0.126365	0.218871	0	0.218871	0.288203	0.288203
3	0.075947	0.0358247	28.8931	Fill	0	30	0.205699	0.206534	0.357727	0	0.357727	0.471246	0.471246
4	0.075947	0.0491469	28.9361	Fill	0	30	0.282071	0.283216	0.490545	0	0.490545	0.646488	0.646488
5	0.075947	0.0618753	28.9791	Fill	0	30	0.354971	0.356412	0.617324	0	0.617324	0.813919	0.813919
6	0.075947	0.0740091	29.0222	Fill	0	30	0.424399	0.426122	0.738065	0	0.738065	0.973528	0.973528
7	0.075947	0.0855476	29.0653	Fill	0	30	0.490355	0.492346	0.852768	0	0.852768	1.12531	1.12531
8	0.075947	0.0964901	29.1083	Fill	0	30	0.552838	0.555083	0.961432	0	0.961432	1.26924	1.26924
9	0.075947	0.106836	29.1515	Fill	0	30	0.61185	0.614334	1.06406	0	1.06406	1.40533	1.40533
10	0.075947	0.116584	29.1946	Fill	0	30	0.667389	0.670099	1.16065	0	1.16065	1.53356	1.53356
11	0.075947	0.125734	29.2377	Fill	0	30	0.719458	0.722379	1.2512	0	1.2512	1.65391	1.65391
12	0.075947	0.134284	29.2809	Fill	0	30	0.768054	0.771172	1.33571	0	1.33571	1.76639	1.76639
13	0.075947	0.142235	29.3241	Fill	0	30	0.813178	0.81648	1.41419	0	1.41419	1.87097	1.87097
14	0.075947	0.149585	29.3673	Fill	0	30	0.854831	0.858302	1.48663	0	1.48663	1.96765	1.96765
15	0.075947	0.156334	29.4105	Fill	0	30	0.893012	0.896638	1.55303	0	1.55303	2.05643	2.05643
16	0.075947	0.162481	29.4537	Fill	0	30	0.927722	0.931489	1.61338	0	1.61338	2.13727	2.13727
17	0.075947	0.168025	29.497	Fill	0	30	0.958961	0.962854	1.66772	0	1.66772	2.2102	2.2102
18	0.075947	0.172966	29.5402	Fill	0	30	0.986728	0.990734	1.716	0	1.716	2.27518	2.27518
19	0.075947	0.177301	29.5835	Fill	0	30	1.01103	1.01513	1.75826	0	1.75826	2.33222	2.33222
20	0.075947	0.181032	29.6268	Fill	0	30	1.03185	1.03604	1.79447	0	1.79447	2.38129	2.38129
21	0.075947	0.184157	29.6702	Fill	0	30	1.0492	1.05346	1.82465	0	1.82465	2.42238	2.42238
22	0.075947	0.186675	29.7135	Fill	0	30	1.06308	1.0674	1.84879	0	1.84879	2.4555	2.4555
23	0.075947	0.188585	29.7569	Fill	0	30	1.07349	1.07785	1.8669	0	1.8669	2.48062	2.48062
24	0.075947	0.189887	29.8003	Fill	0	30	1.08043	1.08482	1.87897	0	1.87897	2.49774	2.49774
25	0.075947	0.19058	29.8437	Fill	0	30	1.08391	1.08831	1.885	0	1.885	2.50686	2.50686
26	0.075947	0.190663	29.8871	Fill	0	30	1.0839	1.0883	1.885	0	1.885	2.50794	2.50794
27	0.075947	0.190135	29.9305	Fill	0	30	1.08043	1.08482	1.87896	0	1.87896	2.501	2.501
28	0.075947	0.188996	29.974	Fill	0	30	1.07348	1.07784	1.86688	0	1.86688	2.48601	2.48601
29	0.075947	0.187244	30.0175	Fill	0	30	1.06307	1.06739	1.84877	0	1.84877	2.46297	2.46297
30	0.075947	0.184879	30.061	Fill	0	30	1.04918	1.05344	1.82462	0	1.82462	2.43185	2.43185
31	0.075947	0.1819	30.1045	Fill	0	30	1.03182	1.03601	1.79442	0	1.79442	2.39266	2.39266
32	0.075947	0.178307	30.148	Fill	0	30	1.011	1.0151	1.75821	0	1.75821	2.3454	2.3454
33	0.075947	0.174098	30.1916	Fill	0	30	0.986698	0.990704	1.71595	0	1.71595	2.29003	2.29003
34	0.075947	0.169272	30.2352	Fill	0	30	0.958928	0.962821	1.66765	0	1.66765	2.22655	2.22655
35	0.075947	0.163829	30.2788	Fill	0	30	0.927686	0.931452	1.61332	0	1.61332	2.15496	2.15496
36	0.075947	0.157769	30.3224	Fill	0	30	0.892974	0.896599	1.55296	0	1.55296	2.07524	2.07524
37	0.075947	0.151089	30.366	Fill	0	30	0.85479	0.85826	1.48655	0	1.48655	1.98737	1.98737
38	0.075947	0.14379	30.4097	Fill	0	30	0.813135	0.816436	1.41411	0	1.41411	1.89136	1.89136
39	0.075947	0.13587	30.4533	Fill	0	30	0.768009	0.771127	1.33563	0	1.33563	1.78718	1.78718
40	0.075947	0.127329	30.497	Fill	0	30	0.719411	0.722332	1.25111	0	1.25111	1.67483	1.67483
41	0.075947	0.118166	30.5407	Fill	0	30	0.667344	0.670053	1.16056	0	1.16056	1.5543	1.5543
42	0.075947	0.108379	30.5845	Fill	0	30	0.611803	0.614287	1.06398	0	1.06398	1.42557	1.42557
43	0.075947	0.0979692	30.6282	Fill	0	30	0.552793	0.555037	0.961352	0	0.961352	1.28864	1.28864
44	0.075947	0.0869343	30.672	Fill	0	30	0.49031	0.492301	0.85269	0	0.85269	1.14349	1.14349
45	0.075947	0.0752738	30.7158	Fill	0	30	0.424356	0.426079	0.73799	0	0.73799	0.990113	0.990113
46	0.075947	0.062987	30.7596	Fill	0	30	0.354931	0.356372	0.617255	0	0.617255	0.828497	0.828497
47	0.075947	0.0500728	30.8034	Fill	0	30	0.282034	0.283179	0.490481	0	0.490481	0.65863	0.65863
48	0.075947	0.0365305	30.8473	Fill	0	30	0.205666	0.206501	0.35767	0	0.35767	0.480502	0.480502
49	0.075947	0.0223593	30.8911	Fill	0	30	0.125826	0.126337	0.218821	0	0.218821	0.2941	0.2941
50	0.075947	0.00755813	30.935	Fill	0	30	0.0425141	0.0426867	0.0739357	0	0.0739357	0.0994151	0.0994151

Slice Number	Width [ft]	Weight [lbs]	[
1	0.216068	0.12019	
2	0.216068	0.35586	
3	0.216068	0.582098	
4	0.216068	0.798881	
5	0.216068	1.00619	
6	0.216068	1.20399	
7	0.216068	1.39228	
8	0.216068	1.57101	
9	0.216068	1.74018	
10	0.216068	1.89975	
11	0.216068	2.04971	
12	0.216068	2.19003	
13	0.216068	2.32068	
14	0.216068	2.44165	
15	0.216068	2.5529	
16	0.216068	2.65441	
17	0.216068	2.74616	
18	0.216068	2.82813	
19	0.216068	2.90028	
20	0.216068	2.9626	
21	0.216068	3.01505	
22	0.216068	3.05762	
23	0.216068	3.09027	
24	0.216068	3.11299	
25	0.216068	3.12573	
26	0.216068	3.12849	
27	0.216068	3.12123	
28	0.216068	3.10392	
29	0.216068	3.07654	
30	0.216068	3.03906	
31	0.216068	2.99146	
32	0.216068	2.9337	
33	0.216068	2.86576	
34	0.216068	2.78761	
35	0.216068	2.69923	
36	0.216068	2.60058	
37	0.216068	2.49164	
38	0.216068	2.37238	
39	0.216068	2.24276	
40	0.216068	2.10277	
41	0.216068	1.95236	
42	0.216068	1.79152	
43	0.216068	1.62021	
44	0.216068	1.4384	
45	0.216068	1.24607	
46	0.216068	1.04317	
47	0.216068	0.829688	
48	0.216068	0.605584	
49	0.216068	0.370829	
50	0.216068	0.125393	

- **Global Minimum Query (janbu simplified) - Safety Factor: 1.0053**

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	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	0.075947	0.00740181	28.8071	Fill	0	30	0.0425378	0.0427633	0.0740682	0	0.0740682	0.0974604	0.0974604
2	0.075947	0.0219094	28.8501	Fill	0	30	0.125859	0.126526	0.21915	0	0.21915	0.288484	0.288484
3	0.075947	0.0358247	28.8931	Fill	0	30	0.205707	0.206797	0.358183	0	0.358183	0.471707	0.471707
4	0.075947	0.0491469	28.9361	Fill	0	30	0.282083	0.283578	0.491173	0	0.491173	0.647123	0.647123
5	0.075947	0.0618753	28.9791	Fill	0	30	0.354988	0.356869	0.618115	0	0.618115	0.814718	0.814718
6	0.075947	0.0740091	29.0222	Fill	0	30	0.424419	0.426668	0.739012	0	0.739012	0.974485	0.974485
7	0.075947	0.0855476	29.0653	Fill	0	30	0.490379	0.492978	0.853862	0	0.853862	1.12641	1.12641
8	0.075947	0.0964901	29.1083	Fill	0	30	0.552866	0.555796	0.962668	0	0.962668	1.27049	1.27049
9	0.075947	0.106836	29.1515	Fill	0	30	0.611882	0.615125	1.06543	0	1.06543	1.40672	1.40672
10	0.075947	0.116584	29.1946	Fill	0	30	0.667426	0.670963	1.16215	0	1.16215	1.53507	1.53507
11	0.075947	0.125734	29.2377	Fill	0	30	0.719498	0.723311	1.25282	0	1.25282	1.65555	1.65555
12	0.075947	0.134284	29.2809	Fill	0	30	0.768098	0.772169	1.33743	0	1.33743	1.76813	1.76813
13	0.075947	0.142235	29.3241	Fill	0	30	0.813226	0.817536	1.41601	0	1.41601	1.87282	1.87282
14	0.075947	0.149585	29.3673	Fill	0	30	0.854883	0.859414	1.48855	0	1.48855	1.96961	1.96961
15	0.075947	0.156334	29.4105	Fill	0	30	0.893068	0.897801	1.55503	0	1.55503	2.05847	2.05847
16	0.075947	0.162481	29.4537	Fill	0	30	0.927782	0.932699	1.61548	0	1.61548	2.13941	2.13941
17	0.075947	0.168025	29.497	Fill	0	30	0.959024	0.964107	1.66988	0	1.66988	2.2124	2.2124
18	0.075947	0.172966	29.5402	Fill	0	30	0.986795	0.992025	1.71823	0	1.71823	2.27745	2.27745
19	0.075947	0.177301	29.5835	Fill	0	30	1.01109	1.01645	1.76055	0	1.76055	2.33455	2.33455
20	0.075947	0.181032	29.6268	Fill	0	30	1.03192	1.03739	1.79681	0	1.79681	2.38366	2.38366
21	0.075947	0.184157	29.6702	Fill	0	30	1.04928	1.05484	1.82704	0	1.82704	2.42481	2.42481
22	0.075947	0.186675	29.7135	Fill	0	30	1.06317	1.0688	1.85122	0	1.85122	2.45797	2.45797
23	0.075947	0.188585	29.7569	Fill	0	30	1.07358	1.07927	1.86935	0	1.86935	2.48312	2.48312
24	0.075947	0.189887	29.8003	Fill	0	30	1.08052	1.08625	1.88144	0	1.88144	2.50026	2.50026
25	0.075947	0.19058	29.8437	Fill	0	30	1.08399	1.08974	1.88748	0	1.88748	2.50939	2.50939
26	0.075947	0.190663	29.8871	Fill	0	30	1.08399	1.08974	1.88747	0	1.88747	2.51047	2.51047
27	0.075947	0.190135	29.9305	Fill	0	30	1.08052	1.08625	1.88143	0	1.88143	2.50353	2.50353
28	0.075947	0.188996	29.974	Fill	0	30	1.07358	1.07927	1.86934	0	1.86934	2.48853	2.48853
29	0.075947	0.187244	30.0175	Fill	0	30	1.06317	1.0688	1.85121	0	1.85121	2.46546	2.46546
30	0.075947	0.184879	30.061	Fill	0	30	1.04928	1.05484	1.82703	0	1.82703	2.43432	2.43432
31	0.075947	0.1819	30.1045	Fill	0	30	1.03192	1.03739	1.79681	0	1.79681	2.3951	2.3951
32	0.075947	0.178307	30.148	Fill	0	30	1.01109	1.01645	1.76055	0	1.76055	2.34779	2.34779
33	0.075947	0.174098	30.1916	Fill	0	30	0.98679	0.99202	1.71823	0	1.71823	2.29236	2.29236
34	0.075947	0.169272	30.2352	Fill	0	30	0.959018	0.964101	1.66987	0	1.66987	2.22882	2.22882
35	0.075947	0.163829	30.2788	Fill	0	30	0.927776	0.932693	1.61547	0	1.61547	2.15716	2.15716
36	0.075947	0.157769	30.3224	Fill	0	30	0.893061	0.897794	1.55502	0	1.55502	2.07735	2.07735
37	0.075947	0.151089	30.366	Fill	0	30	0.854875	0.859406	1.48853	0	1.48853	1.9894	1.9894
38	0.075947	0.14379	30.4097	Fill	0	30	0.813218	0.817528	1.41599	0	1.41599	1.89329	1.89329
39	0.075947	0.13587	30.4533	Fill	0	30	0.768088	0.772159	1.33742	0	1.33742	1.78901	1.78901
40	0.075947	0.127329	30.497	Fill	0	30	0.719488	0.723301	1.25279	0	1.25279	1.67655	1.67655
41	0.075947	0.118166	30.5407	Fill	0	30	0.667415	0.670952	1.16212	0	1.16212	1.55589	1.55589
42	0.075947	0.108379	30.5845	Fill	0	30	0.61187	0.615113	1.06541	0	1.06541	1.42704	1.42704
43	0.075947	0.0979692	30.6282	Fill	0	30	0.552854	0.555784	0.962646	0	0.962646	1.28997	1.28997
44	0.075947	0.0869343	30.672	Fill	0	30	0.490365	0.492964	0.853839	0	0.853839	1.14467	1.14467
45	0.075947	0.0752738	30.7158	Fill	0	30	0.424405	0.426654	0.738987	0	0.738987	0.991138	0.991138
46	0.075947	0.062987	30.7596	Fill	0	30	0.354973	0.356854	0.618089	0	0.618089	0.829356	0.829356
47	0.075947	0.0500728	30.8034	Fill	0	30	0.282068	0.283563	0.491145	0	0.491145	0.659314	0.659314
48	0.075947	0.0365305	30.8473	Fill	0	30	0.205691	0.206781	0.358155	0	0.358155	0.481001	0.481001
49	0.075947	0.0223593	30.8911	Fill	0	30	0.125841	0.126508	0.219119	0	0.219119	0.294406	0.294406
50	0.075947	0.00755813	30.935	Fill	0	30	0.0425193	0.0427447	0.0740361	0	0.0740361	0.0995187	0.0995187

Slice Number	Width [ft]	Weight [lbs]	[
1	0.216068	0.12019	
2	0.216068	0.35586	
3	0.216068	0.582098	
4	0.216068	0.798881	
5	0.216068	1.00619	
6	0.216068	1.20399	
7	0.216068	1.39228	
8	0.216068	1.57101	
9	0.216068	1.74018	
10	0.216068	1.89975	
11	0.216068	2.04971	
12	0.216068	2.19003	
13	0.216068	2.32068	
14	0.216068	2.44165	
15	0.216068	2.5529	
16	0.216068	2.65441	
17	0.216068	2.74616	
18	0.216068	2.82813	
19	0.216068	2.90028	
20	0.216068	2.9626	
21	0.216068	3.01505	
22	0.216068	3.05762	
23	0.216068	3.09027	
24	0.216068	3.11299	
25	0.216068	3.12573	
26	0.216068	3.12849	
27	0.216068	3.12123	
28	0.216068	3.10392	
29	0.216068	3.07654	
30	0.216068	3.03906	
31	0.216068	2.99146	
32	0.216068	2.9337	
33	0.216068	2.86576	
34	0.216068	2.78761	
35	0.216068	2.69923	
36	0.216068	2.60058	
37	0.216068	2.49164	
38	0.216068	2.37238	
39	0.216068	2.24276	
40	0.216068	2.10277	
41	0.216068	1.95236	
42	0.216068	1.79152	
43	0.216068	1.62021	
44	0.216068	1.4384	
45	0.216068	1.24607	
46	0.216068	1.04317	
47	0.216068	0.829688	
48	0.216068	0.605584	
49	0.216068	0.370829	
50	0.216068	0.125393	

Interslice Data

SECTION A-A - Master Scenario

- **Global Minimum Query (bishop simplified) - Safety Factor: 1.00406**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	81.9854	40.8532	0	0	0
2	82.0614	40.8949	0.00015413	0	0
3	82.1373	40.9368	0.000593912	0	0
4	82.2133	40.9787	0.00128612	0	0
5	82.2892	41.0207	0.00219882	0	0
6	82.3652	41.0627	0.0033014	0	0
7	82.4411	41.1049	0.00456458	0	0
8	82.5171	41.1471	0.00596036	0	0
9	82.593	41.1894	0.00746209	0	0
10	82.669	41.2317	0.00904444	0	0
11	82.7449	41.2742	0.0106834	0	0
12	82.8209	41.3167	0.0123563	0	0
13	82.8968	41.3593	0.0140418	0	0
14	82.9728	41.4019	0.0157198	0	0
15	83.0487	41.4447	0.0173718	0	0
16	83.1246	41.4875	0.0189804	0	0
17	83.2006	41.5304	0.0205296	0	0
18	83.2765	41.5733	0.0220048	0	0
19	83.3525	41.6164	0.0233928	0	0
20	83.4284	41.6595	0.0246815	0	0
21	83.5044	41.7027	0.0258606	0	0
22	83.5803	41.7459	0.0269207	0	0
23	83.6563	41.7893	0.027854	0	0
24	83.7322	41.8327	0.0286542	0	0
25	83.8082	41.8762	0.0293161	0	0
26	83.8841	41.9198	0.0298361	0	0
27	83.9601	41.9634	0.0302118	0	0
28	84.036	42.0071	0.0304423	0	0
29	84.112	42.051	0.0305281	0	0
30	84.1879	42.0948	0.0304709	0	0
31	84.2639	42.1388	0.0302742	0	0
32	84.3398	42.1828	0.0299424	0	0
33	84.4157	42.2269	0.0294817	0	0
34	84.4917	42.2711	0.0288996	0	0
35	84.5676	42.3154	0.0282048	0	0
36	84.6436	42.3597	0.0274077	0	0
37	84.7195	42.4041	0.02652	0	0
38	84.7955	42.4486	0.0255548	0	0
39	84.8714	42.4932	0.0245267	0	0
40	84.9474	42.5379	0.0234517	0	0
41	85.0233	42.5826	0.0223471	0	0
42	85.0993	42.6274	0.0212319	0	0
43	85.1752	42.6723	0.0201263	0	0
44	85.2512	42.7173	0.0190521	0	0
45	85.3271	42.7623	0.0180324	0	0
46	85.4031	42.8074	0.017092	0	0
47	85.479	42.8526	0.0162569	0	0
48	85.555	42.8979	0.0155547	0	0
49	85.6309	42.9433	0.0150145	0	0
50	85.7068	42.9887	0.0146667	0	0
51	85.7828	43.0342	0	0	0

SECTION A-A - Pseudo Static

- **Global Minimum Query (bishop simplified) - Safety Factor: 0.730678**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	80.8158	40.1814	0	0	0
2	81.0319	40.2949	0.00416587	0	0
3	81.2479	40.4088	0.0159465	0	0
4	81.464	40.5231	0.0343109	0	0
5	81.6801	40.6379	0.0582709	0	0
6	81.8961	40.7531	0.0868817	0	0
7	82.1122	40.8687	0.119242	0	0
8	82.3283	40.9847	0.154494	0	0
9	82.5443	41.1011	0.191823	0	0
10	82.7604	41.218	0.230459	0	0
11	82.9765	41.3352	0.269676	0	0
12	83.1925	41.4529	0.308792	0	0
13	83.4086	41.5711	0.347169	0	0
14	83.6247	41.6896	0.384213	0	0
15	83.8407	41.8086	0.419376	0	0
16	84.0568	41.928	0.452154	0	0
17	84.2729	42.0479	0.482089	0	0
18	84.4889	42.1681	0.508767	0	0
19	84.705	42.2888	0.53182	0	0
20	84.9211	42.41	0.550924	0	0
21	85.1371	42.5315	0.565804	0	0
22	85.3532	42.6535	0.576229	0	0
23	85.5693	42.776	0.582012	0	0
24	85.7854	42.8989	0.583018	0	0
25	86.0014	43.0222	0.579152	0	0
26	86.2175	43.1459	0.57037	0	0
27	86.4336	43.2701	0.556673	0	0
28	86.6496	43.3948	0.538111	0	0
29	86.8657	43.5199	0.51478	0	0
30	87.0818	43.6454	0.486823	0	0
31	87.2978	43.7714	0.454431	0	0
32	87.5139	43.8978	0.417844	0	0
33	87.73	44.0247	0.37735	0	0
34	87.946	44.152	0.333284	0	0
35	88.1621	44.2798	0.286032	0	0
36	88.3782	44.408	0.236027	0	0
37	88.5942	44.5367	0.183751	0	0
38	88.8103	44.6658	0.129736	0	0
39	89.0264	44.7954	0.0745644	0	0
40	89.2424	44.9254	0.0188673	0	0
41	89.4585	45.0559	-0.0366738	0	0
42	89.6746	45.1869	-0.0913271	0	0
43	89.8906	45.3183	-0.14431	0	0
44	90.1067	45.4502	-0.19479	0	0
45	90.3228	45.5825	-0.241882	0	0
46	90.5388	45.7153	-0.28465	0	0
47	90.7549	45.8486	-0.322108	0	0
48	90.971	45.9824	-0.353216	0	0
49	91.187	46.1166	-0.376882	0	0
50	91.4031	46.2512	-0.391962	0	0
51	91.6192	46.3864	0	0	0

- **Global Minimum Query (janbu simplified) - Safety Factor: 1.0053**

- **Global Minimum Query (janbu simplified) - Safety Factor: 0.728735**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	81.9854	40.8532	0	0	0
2	82.0614	40.8949	0.000137189	0	0
3	82.1373	40.9368	0.000526829	0	0
4	82.2133	40.9787	0.00113705	0	0
5	82.2892	41.0207	0.00193727	0	0
6	82.3652	41.0627	0.00289826	0	0
7	82.4411	41.1049	0.00399207	0	0
8	82.5171	41.1471	0.0051921	0	0
9	82.593	41.1894	0.00647303	0	0
10	82.669	41.2317	0.00781091	0	0
11	82.7449	41.2742	0.00918311	0	0
12	82.8209	41.3167	0.0105683	0	0
13	82.8968	41.3593	0.0119465	0	0
14	82.9728	41.4019	0.0132991	0	0
15	83.0487	41.4447	0.0146089	0	0
16	83.1246	41.4875	0.0158598	0	0
17	83.2006	41.5304	0.0170372	0	0
18	83.2765	41.5733	0.018128	0	0
19	83.3525	41.6164	0.0191202	0	0
20	83.4284	41.6595	0.0200033	0	0
21	83.5044	41.7027	0.0207682	0	0
22	83.5803	41.7459	0.021407	0	0
23	83.6563	41.7893	0.0219133	0	0
24	83.7322	41.8327	0.022282	0	0
25	83.8082	41.8762	0.0225095	0	0
26	83.8841	41.9198	0.0225935	0	0
27	83.9601	41.9634	0.0225329	0	0
28	84.036	42.0071	0.0223285	0	0
29	84.112	42.051	0.0219818	0	0
30	84.1879	42.0948	0.0214963	0	0
31	84.2639	42.1388	0.0208766	0	0
32	84.3398	42.1828	0.0201287	0	0
33	84.4157	42.2269	0.01926	0	0
34	84.4917	42.2711	0.0182796	0	0
35	84.5676	42.3154	0.0171975	0	0
36	84.6436	42.3597	0.0160256	0	0
37	84.7195	42.4041	0.014777	0	0
38	84.7955	42.4486	0.0134661	0	0
39	84.8714	42.4932	0.012109	0	0
40	84.9474	42.5379	0.0107231	0	0
41	85.0233	42.5826	0.00932721	0	0
42	85.0993	42.6274	0.0079416	0	0
43	85.1752	42.6723	0.00658802	0	0
44	85.2512	42.7173	0.00528963	0	0
45	85.3271	42.7623	0.00407106	0	0
46	85.4031	42.8074	0.00295839	0	0
47	85.479	42.8526	0.00197917	0	0
48	85.555	42.8979	0.0011624	0	0
49	85.6309	42.9433	0.000538564	0	0
50	85.7068	42.9887	0.000139607	0	0
51	85.7828	43.0342	0	0	0

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	80.8158	40.1814	0	0	0
2	81.0319	40.2949	0.00459642	0	0
3	81.2479	40.4088	0.0176512	0	0
4	81.464	40.5231	0.0380984	0	0
5	81.6801	40.6379	0.0649154	0	0
6	81.8961	40.7531	0.0971227	0	0
7	82.1122	40.8687	0.133784	0	0
8	82.3283	40.9847	0.174007	0	0
9	82.5443	41.1011	0.216942	0	0
10	82.7604	41.218	0.261785	0	0
11	82.9765	41.3352	0.307775	0	0
12	83.1925	41.4529	0.354194	0	0
13	83.4086	41.5711	0.400369	0	0
14	83.6247	41.6896	0.445673	0	0
15	83.8407	41.8086	0.489523	0	0
16	84.0568	41.928	0.531378	0	0
17	84.2729	42.0479	0.570747	0	0
18	84.4889	42.1681	0.607179	0	0
19	84.705	42.2888	0.640273	0	0
20	84.9211	42.41	0.66967	0	0
21	85.1371	42.5315	0.695058	0	0
22	85.3532	42.6535	0.716172	0	0
23	85.5693	42.776	0.732791	0	0
24	85.7854	42.8989	0.744741	0	0
25	86.0014	43.0222	0.751897	0	0
26	86.2175	43.1459	0.754176	0	0
27	86.4336	43.2701	0.751545	0	0
28	86.6496	43.3948	0.744018	0	0
29	86.8657	43.5199	0.731656	0	0
30	87.0818	43.6454	0.714566	0	0
31	87.2978	43.7714	0.692904	0	0
32	87.5139	43.8978	0.666875	0	0
33	87.73	44.0247	0.636731	0	0
34	87.946	44.152	0.602771	0	0
35	88.1621	44.2798	0.565344	0	0
36	88.3782	44.408	0.524849	0	0
37	88.5942	44.5367	0.481732	0	0
38	88.8103	44.6658	0.436489	0	0
39	89.0264	44.7954	0.389666	0	0
40	89.2424	44.9254	0.341858	0	0
41	89.4585	45.0559	0.293711	0	0
42	89.6746	45.1869	0.24592	0	0
43	89.8906	45.3183	0.199232	0	0
44	90.1067	45.4502	0.154442	0	0
45	90.3228	45.5825	0.112401	0	0
46	90.5388	45.7153	0.0740053	0	0
47	90.7549	45.8486	0.0402074	0	0
48	90.971	45.9824	0.0120097	0	0
49	91.187	46.1166	-0.00953331	0	0
50	91.4031	46.2512	-0.0233143	0	0
51	91.6192	46.3864	0	0	0

Entity Information

Group: SECTION A-A

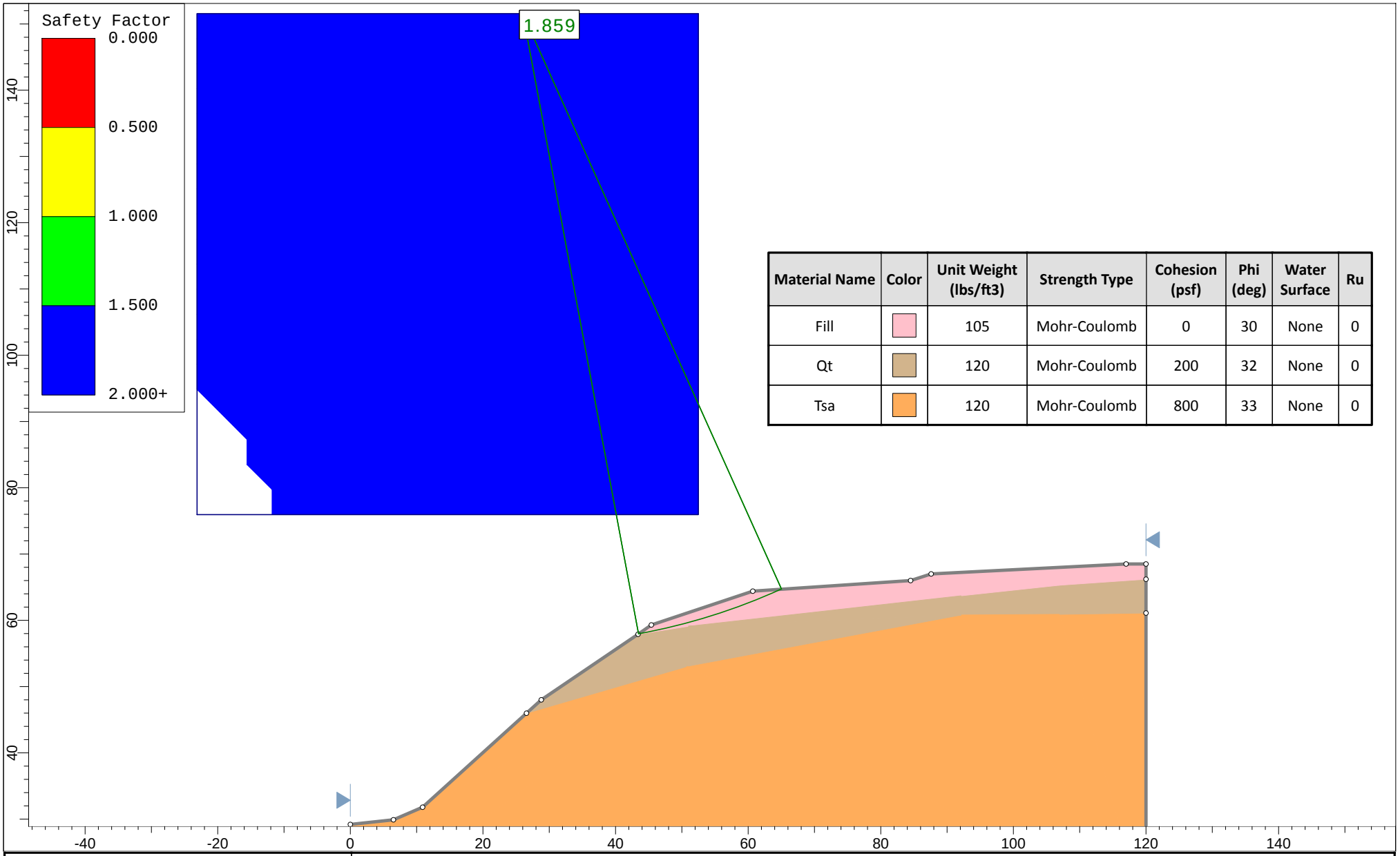
Shared Entities

Type	Coordinates	
	X	Y
External Boundary	0	14.6
	0	0
	200	0
	200	63.7567
	200	66.6
	200	68.6
	175	69
	163.3	69
	145	68.1
	137.4	67
	125	63.5
	100	51.2
	80.5	40
	25.5	16

	X	Y
Material Boundary	80.5	40
	127.7	45.4
	131.6	60
	135.916	63.941
	163	67
	200	66.6

	X	Y
Material Boundary	131.6	60
	170	63
	200	63.7567

SECTION B-B

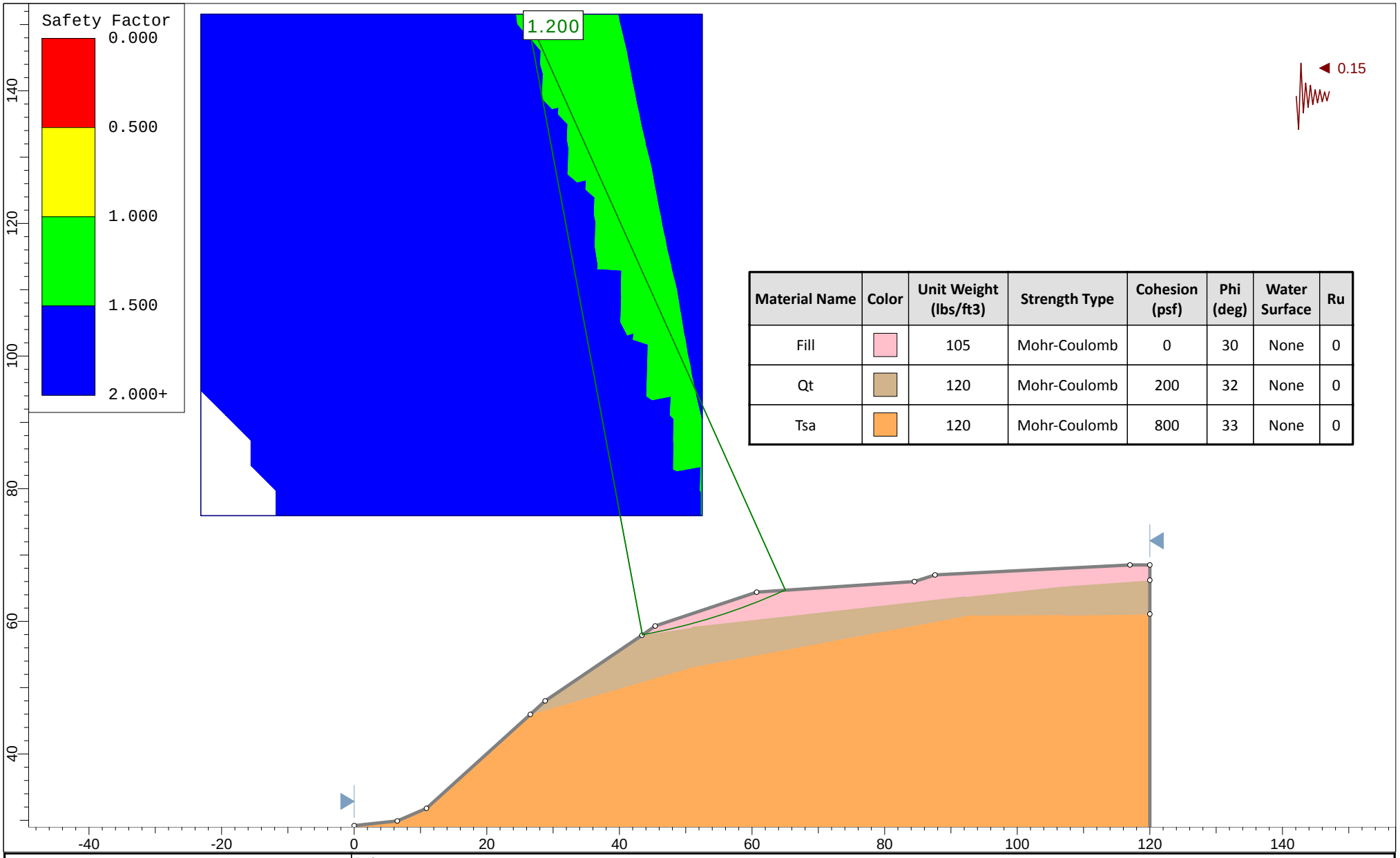


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
Fill		105	Mohr-Coulomb	0	30	None	0
Qt		120	Mohr-Coulomb	200	32	None	0
Tsa		120	Mohr-Coulomb	800	33	None	0

rocscience

SLIDEINTERPRET 8.018

Project	SLIDE - An Interactive Slope Stability Program		
Analysis Description			
Drawn By		Scale 1:240	Company
Date	2/28/2019, 4:27:35 PM		File Name SECTION B-B.slmd



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
Fill		105	Mohr-Coulomb	0	30	None	0
Qt		120	Mohr-Coulomb	200	32	None	0
Tsa		120	Mohr-Coulomb	800	33	None	0

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SLIDEINTERPRET 8.018

Project	SLIDE - An Interactive Slope Stability Program		
Analysis Description			
Drawn By		Scale 1:240	Company
Date	2/28/2019, 4:27:35 PM		File Name SECTION B-B.slmd

Slide Analysis Information

SECTION B-B

Project Summary

File Name:	SECTION B-B.slmd
Slide Modeler Version:	8.018
Project Title:	SLIDE - An Interactive Slope Stability Program
Date Created:	2/28/2019, 4:27:35 PM

Currently Open Scenarios

Group Name	Scenario Name	Global Minimum	Compute Time
Group 1	Master Scenario	Bishop Simplified: 1.858890 Janbu Simplified: 1.852210	00h:00m:00.427s
	Pseudo Static	Bishop Simplified: 1.200160 Janbu Simplified: 1.193490	00h:00m:00.122s

General Settings

Units of Measurement:	Imperial Units
Time Units:	days
Permeability Units:	feet/second
Data Output:	Standard
Failure Direction:	Right to Left

Analysis Options

All Open Scenarios

Slices Type:	Vertical

Analysis Methods Used

	Bishop simplified
	Janbu simplified
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

All Open Scenarios

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft3]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

All Open Scenarios

Pseudo-random Seed:	10116
Random Number Generation Method:	Park and Miller v.3

Surface Options

All Open Scenarios	
Surface Type:	Circular
Search Method:	Grid Search
Radius Increment:	10
Composite Surfaces:	Disabled
Reverse Curvature:	Invalid Surfaces
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Group 1 - Master Scenario		Group 1 - Pseudo Static	
Advanced seismic analysis:	No	Advanced seismic analysis:	No
Staged pseudostatic analysis:	No	Staged pseudostatic analysis:	No
		Seismic Load Coefficient (Horizontal):	0.15

Materials

Property	Fill	Qt	Tsa
Color			
Strength Type	Mohr-Coulomb	Mohr-Coulomb	Mohr-Coulomb
Unit Weight [lbs/ft3]	105	120	120
Cohesion [psf]	0	200	800
Friction Angle [°]	30	32	33
Water Surface	Assigned per scenario	Assigned per scenario	Assigned per scenario
Ru Value	0	0	0

Materials In Use

Material	Master Scenario	Pseudo Static
Fill	✓	✓
Qt	✓	✓
Tsa	✓	✓

Global Minimums

Group 1 - Master Scenario

Method: bishop simplified

FS	1.858890
Center:	26.017, 151.545
Radius:	95.212
Left Slip Surface Endpoint:	43.463, 57.944
Right Slip Surface Endpoint:	65.028, 64.691
Resisting Moment:	149242 lb-ft
Driving Moment:	80285.4 lb-ft
Total Slice Area:	27.0298 ft2
Surface Horizontal Width:	21.5645 ft
Surface Average Height:	1.25344 ft

Method: janbu simplified

FS	1.852210
Center:	26.017, 151.545
Radius:	95.212
Left Slip Surface Endpoint:	43.463, 57.944
Right Slip Surface Endpoint:	65.028, 64.691
Resisting Horizontal Force:	1493.83 lb
Driving Horizontal Force:	806.51 lb
Total Slice Area:	27.0298 ft2
Surface Horizontal Width:	21.5645 ft
Surface Average Height:	1.25344 ft

Group 1 - Pseudo Static

Method: bishop simplified

FS	1.200160
Center:	26.017, 151.545
Radius:	95.212
Left Slip Surface Endpoint:	43.463, 57.944
Right Slip Surface Endpoint:	65.028, 64.691
Resisting Moment:	142361 lb-ft
Driving Moment:	118618 lb-ft
Total Slice Area:	27.0298 ft2
Surface Horizontal Width:	21.5645 ft
Surface Average Height:	1.25344 ft

Method: janbu simplified

FS	1.193490
Center:	26.017, 151.545
Radius:	95.212
Left Slip Surface Endpoint:	43.463, 57.944
Right Slip Surface Endpoint:	65.028, 64.691
Resisting Horizontal Force:	1424.22 lb
Driving Horizontal Force:	1193.33 lb
Total Slice Area:	27.0298 ft2
Surface Horizontal Width:	21.5645 ft
Surface Average Height:	1.25344 ft

Valid/Invalid Surfaces

Group 1 - Master Scenario

Method: bishop simplified

Number of Valid Surfaces: 4715
Number of Invalid Surfaces: 136

Error Codes:

Error Code -103 reported for 7 surfaces
Error Code -106 reported for 1 surface
Error Code -108 reported for 7 surfaces
Error Code -1000 reported for 121 surfaces

Method: janbu simplified

Number of Valid Surfaces: 4692
Number of Invalid Surfaces: 159

Error Codes:

Error Code -103 reported for 7 surfaces
Error Code -106 reported for 1 surface
Error Code -108 reported for 9 surfaces
Error Code -111 reported for 21 surfaces
Error Code -1000 reported for 121 surfaces

Group 1 - Pseudo Static

Method: bishop simplified

Number of Valid Surfaces: 4716
Number of Invalid Surfaces: 135

Error Codes:

Error Code -103 reported for 7 surfaces
Error Code -106 reported for 1 surface
Error Code -108 reported for 6 surfaces
Error Code -1000 reported for 121 surfaces

Method: janbu simplified

Number of Valid Surfaces: 4696
Number of Invalid Surfaces: 155

Error Codes:

Error Code -103 reported for 7 surfaces
Error Code -106 reported for 1 surface
Error Code -108 reported for 6 surfaces
Error Code -111 reported for 20 surfaces
Error Code -1000 reported for 121 surfaces

Error Codes

The following errors were encountered during the computation:

-103 = Two surface / slope intersections, but one or more surface / nonslope external polygon intersections lie between them. This usually occurs when the slip surface extends past the bottom of the soil region, but may also occur on a benched slope model with two sets of Slope Limits.
-106 = Average slice width is less than 0.0001 * (maximum horizontal extent of soil region). This limitation is imposed to avoid numerical errors which may result from too many slices, or too small a slip region.
-108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
-111 = safety factor equation did not converge
-1000 = No valid slip surface is generated

Slice Data

Group 1 - Master Scenario

- Global Minimum Query (bishop simplified) - Safety Factor: 1.85889

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	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	0.43129	4.99241	10.6901	Fill	0	30	3.3962	6.31317	10.9347	0	10.9347	11.5758	11.5758
2	0.43129	14.9305	10.9544	Fill	0	30	10.1426	18.854	32.656	0	32.656	34.6192	34.6192
3	0.43129	24.7752	11.2189	Fill	0	30	16.8067	31.2418	54.1125	0	54.1125	57.446	57.446
4	0.43129	34.5261	11.4836	Fill	0	30	23.3885	43.4767	75.3039	0	75.3039	80.0553	80.0553
5	0.43129	43.2531	11.7485	Fill	0	30	29.2591	54.3895	94.2054	0	94.2054	100.291	100.291
6	0.43129	46.5154	12.0138	Fill	0	30	31.4217	58.4094	101.168	0	101.168	107.855	107.855
7	0.43129	48.822	12.2792	Fill	0	30	32.9334	61.2195	106.035	0	106.035	113.203	113.203
8	0.43129	51.0339	12.545	Fill	0	30	34.3768	63.9026	110.683	0	110.683	118.332	118.332
9	0.43129	53.1506	12.811	Fill	0	30	35.7519	66.4589	115.11	0	115.11	123.24	123.24
10	0.43129	55.1718	13.0773	Fill	0	30	37.059	68.8886	119.319	0	119.319	127.927	127.927
11	0.43129	57.0974	13.3439	Fill	0	30	38.2979	71.1916	123.308	0	123.308	132.392	132.392
12	0.43129	58.9269	13.6108	Fill	0	30	39.4688	73.3682	127.078	0	127.078	136.634	136.634
13	0.43129	60.66	13.878	Fill	0	30	40.5718	75.4185	130.629	0	130.629	140.653	140.653
14	0.43129	62.2965	14.1455	Fill	0	30	41.6068	77.3425	133.961	0	133.961	144.447	144.447
15	0.43129	63.8359	14.4133	Fill	0	30	42.574	79.1403	137.075	0	137.075	148.017	148.017
16	0.43129	65.2779	14.6814	Fill	0	30	43.4733	80.812	139.971	0	139.971	151.361	151.361
17	0.43129	66.6222	14.9499	Fill	0	30	44.3048	82.3577	142.648	0	142.648	154.477	154.477
18	0.43129	67.8684	15.2187	Fill	0	30	45.0685	83.7773	145.106	0	145.106	157.367	157.367
19	0.43129	69.0161	15.4878	Fill	0	30	45.7644	85.071	147.347	0	147.347	160.028	160.028
20	0.43129	70.065	15.7573	Fill	0	30	46.3927	86.2389	149.37	0	149.37	162.461	162.461
21	0.43129	71.0146	16.0272	Fill	0	30	46.9532	87.2809	151.175	0	151.175	164.663	164.663
22	0.43129	71.8645	16.2974	Fill	0	30	47.4461	88.197	152.762	0	152.762	166.633	166.633
23	0.43129	72.6145	16.568	Fill	0	30	47.8712	88.9873	154.131	0	154.131	168.373	168.373
24	0.43129	73.2639	16.8389	Fill	0	30	48.2287	89.6518	155.282	0	155.282	169.878	169.878
25	0.43129	73.8124	17.1103	Fill	0	30	48.5185	90.1906	156.215	0	156.215	171.15	171.15
26	0.43129	74.2596	17.3821	Fill	0	30	48.7406	90.6035	156.93	0	156.93	172.187	172.187
27	0.43129	74.605	17.6542	Fill	0	30	48.895	90.8905	157.427	0	157.427	172.988	172.988
28	0.43129	74.8482	17.9268	Fill	0	30	48.9818	91.0518	157.706	0	157.706	173.552	173.552
29	0.43129	74.9886	18.1998	Fill	0	30	49.0009	91.0872	157.768	0	157.768	173.878	173.878
30	0.43129	75.0258	18.4732	Fill	0	30	48.9521	90.9966	157.611	0	157.611	173.964	173.964
31	0.43129	74.9594	18.7471	Fill	0	30	48.8356	90.7801	157.236	0	157.236	173.81	173.81
32	0.43129	74.7887	19.0214	Fill	0	30	48.6514	90.4376	156.642	0	156.642	173.415	173.415
33	0.43129	74.5133	19.2961	Fill	0	30	48.3994	89.9691	155.831	0	155.831	172.776	172.776
34	0.43129	74.1328	19.5713	Fill	0	30	48.0794	89.3744	154.801	0	154.801	171.894	171.894
35	0.43129	73.6464	19.847	Fill	0	30	47.6916	88.6534	153.552	0	153.552	170.766	170.766
36	0.43129	73.0537	20.1232	Fill	0	30	47.2358	87.8062	152.085	0	152.085	169.392	169.392
37	0.43129	72.3542	20.3998	Fill	0	30	46.7121	86.8326	150.399	0	150.399	167.77	167.77
38	0.43129	71.5472	20.677	Fill	0	30	46.1203	85.7325	148.493	0	148.493	165.899	165.899
39	0.43129	70.6322	20.9547	Fill	0	30	45.4604	84.5058	146.368	0	146.368	163.778	163.778
40	0.43129	69.6054	21.2328	Fill	0	30	44.7303	83.1487	144.018	0	144.018	161.397	161.397
41	0.43129	65.697	21.5115	Fill	0	30	42.1532	78.3581	135.72	0	135.72	152.335	152.335
42	0.43129	59.2569	21.7908	Fill	0	30	37.9617	70.5667	122.225	0	122.225	137.402	137.402
43	0.43129	52.7062	22.0706	Fill	0	30	33.7124	62.6676	108.543	0	108.543	122.212	122.212
44	0.43129	46.0444	22.3509	Fill	0	30	29.405	54.6607	94.6751	0	94.6751	106.765	106.765
45	0.43129	39.2708	22.6318	Fill	0	30	25.0396	46.5459	80.6198	0	80.6198	91.0591	91.0591
46	0.43129	32.3846	22.9133	Fill	0	30	20.6162	38.3232	66.3777	0	66.3777	75.0919	75.0919
47	0.43129	25.3853	23.1953	Fill	0	30	16.1346	29.9924	51.9484	0	51.9484	58.8621	58.8621
48	0.43129	18.272	23.478	Fill	0	30	11.5949	21.5536	37.3319	0	37.3319	42.3682	42.3682
49	0.43129	11.044	23.7613	Fill	0	30	6.99692	13.0065	22.528	0	22.528	25.6084	25.6084
50	0.43129	3.70063	24.0452	Fill	0	30	2.34075	4.35119	7.53648	0	7.53648	8.58085	8.58085

- Global Min

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material
1	0.43129	4.99241	10.6901	Fill
2	0.43129	14.9305	10.9544	Fill
3	0.43129	24.7752	11.2189	Fill
4	0.43129	34.5261	11.4836	Fill
5	0.43129	43.2531	11.7485	Fill
6	0.43129	46.5154	12.0138	Fill
7	0.43129	48.822	12.2792	Fill
8	0.43129	51.0339	12.545	Fill
9	0.43129	53.1506	12.811	Fill
10	0.43129	55.1718	13.0773	Fill
11	0.43129	57.0974	13.3439	Fill
12	0.43129	58.9269	13.6108	Fill
13	0.43129	60.66	13.878	Fill
14	0.43129	62.2965	14.1455	Fill
15	0.43129	63.8359	14.4133	Fill
16	0.43129	65.2779	14.6814	Fill
17	0.43129	66.6222	14.9499	Fill
18	0.43129	67.8684	15.2187	Fill
19	0.43129	69.0161	15.4878	Fill
20	0.43129	70.065	15.7573	Fill
21	0.43129	71.0146	16.0272	Fill
22	0.43129	71.8645	16.2974	Fill
23	0.43129	72.6145	16.568	Fill
24	0.43129	73.2639	16.8389	Fill
25	0.43129	73.8124	17.1103	Fill
26	0.43129	74.2596	17.3821	Fill
27	0.43129	74.605	17.6542	Fill
28	0.43129	74.8482	17.9268	Fill
29	0.43129	74.9886	18.1998	Fill
30	0.43129	75.0258	18.4732	Fill
31	0.43129	74.9594	18.7471	Fill
32	0.43129	74.7887	19.0214	Fill
33	0.43129	74.5133	19.2961	Fill
34	0.43129	74.1328	19.5713	Fill
35	0.43129	73.6464	19.847	Fill
36	0.43129	73.0537	20.1232	Fill
37	0.43129	72.3542	20.3998	Fill
38	0.43129	71.5472	20.677	Fill
39	0.43129	70.6322	20.9547	Fill
40	0.43129	69.6054	21.2328	Fill
41	0.43129	65.697	21.5115	Fill
42	0.43129	59.2569	21.7908	Fill
43	0.43129	52.7062	22.0706	Fill
44	0.43129	46.0444	22.3509	Fill
45	0.43129	39.2708	22.6318	Fill
46	0.43129	32.3846	22.9133	Fill
47	0.43129	25.3853	23.1953	Fill
48	0.43129	18.272	23.478	Fill
49	0.43129	11.044	23.7613	Fill
50	0.43129	3.70063	24.0452	Fill

- Global Minimum Query (janbu simplified) - Safety Factor: 1.85221

- Global Mir

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	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	0.43129	4.99241	10.6901	Fill	0	30	3.40817	6.31265	10.9338	0	10.9338	11.5772	11.5772
2	0.43129	14.9305	10.9544	Fill	0	30	10.1784	18.8525	32.6535	0	32.6535	34.6236	34.6236
3	0.43129	24.7752	11.2189	Fill	0	30	16.8659	31.2392	54.1079	0	54.1079	57.4532	57.4532
4	0.43129	34.5261	11.4836	Fill	0	30	23.4708	43.4729	75.2973	0	75.2973	80.0655	80.0655
5	0.43129	43.2531	11.7485	Fill	0	30	29.3621	54.3847	94.197	0	94.197	100.304	100.304
6	0.43129	46.5154	12.0138	Fill	0	30	31.5321	58.4041	101.159	0	101.159	107.869	107.869
7	0.43129	48.822	12.2792	Fill	0	30	33.0491	61.2138	106.025	0	106.025	113.219	113.219
8	0.43129	51.0339	12.545	Fill	0	30	34.4974	63.8965	110.672	0	110.672	118.348	118.348
9	0.43129	53.1506	12.811	Fill	0	30	35.8774	66.4525	115.099	0	115.099	123.257	123.257
10	0.43129	55.1718	13.0773	Fill	0	30	37.189	68.8818	119.307	0	119.307	127.945	127.945
11	0.43129	57.0974	13.3439	Fill	0	30	38.4322	71.1845	123.295	0	123.295	132.411	132.411
12	0.43129	58.9269	13.6108	Fill	0	30	39.6071	73.3607	127.065	0	127.065	136.654	136.654
13	0.43129	60.66	13.878	Fill	0	30	40.7138	75.4106	130.615	0	130.615	140.674	140.674
14	0.43129	62.2965	14.1455	Fill	0	30	41.7524	77.3343	133.947	0	133.947	144.469	144.469
15	0.43129	63.8359	14.4133	Fill	0	30	42.7229	79.1317	137.06	0	137.06	148.04	148.04
16	0.43129	65.2779	14.6814	Fill	0	30	43.6252	80.8031	139.955	0	139.955	151.385	151.385
17	0.43129	66.6222	14.9499	Fill	0	30	44.4595	82.3484	142.632	0	142.632	154.503	154.503
18	0.43129	67.8684	15.2187	Fill	0	30	45.2258	83.7677	145.09	0	145.09	157.393	157.393
19	0.43129	69.0161	15.4878	Fill	0	30	45.9242	85.0612	147.33	0	147.33	160.056	160.056
20	0.43129	70.065	15.7573	Fill	0	30	46.5545	86.2287	149.352	0	149.352	162.489	162.489
21	0.43129	71.0146	16.0272	Fill	0	30	47.1169	87.2704	151.157	0	151.157	164.692	164.692
22	0.43129	71.8645	16.2974	Fill	0	30	47.6113	88.1862	152.743	0	152.743	166.663	166.663
23	0.43129	72.6145	16.568	Fill	0	30	48.0379	88.9763	154.112	0	154.112	168.403	168.403
24	0.43129	73.2639	16.8389	Fill	0	30	48.3965	89.6405	155.262	0	155.262	169.91	169.91
25	0.43129	73.8124	17.1103	Fill	0	30	48.6872	90.179	156.195	0	156.195	171.182	171.182
26	0.43129	74.2596	17.3821	Fill	0	30	48.9101	90.5917	156.91	0	156.91	172.22	172.22
27	0.43129	74.605	17.6542	Fill	0	30	49.065	90.8786	157.406	0	157.406	173.022	173.022
28	0.43129	74.8482	17.9268	Fill	0	30	49.1519	91.0396	157.685	0	157.685	173.586	173.586
29	0.43129	74.9886	18.1998	Fill	0	30	49.1709	91.0748	157.746	0	157.746	173.912	173.912
30	0.43129	75.0258	18.4732	Fill	0	30	49.1219	90.9841	157.589	0	157.589	174	174
31	0.43129	74.9594	18.7471	Fill	0	30	49.0049	90.7674	157.214	0	157.214	173.846	173.846
32	0.43129	74.7887	19.0214	Fill	0	30	48.82	90.4248	156.62	0	156.62	173.451	173.451
33	0.43129	74.5133	19.2961	Fill	0	30	48.5669	89.9561	155.809	0	155.809	172.813	172.813
34	0.43129	74.1328	19.5713	Fill	0	30	48.2458	89.3613	154.778	0	154.778	171.931	171.931
35	0.43129	73.6464	19.847	Fill	0	30	47.8565	88.6403	153.53	0	153.53	170.803	170.803
36	0.43129	73.0537	20.1232	Fill	0	30	47.3991	87.7931	152.062	0	152.062	169.43	169.43
37	0.43129	72.3542	20.3998	Fill	0	30	46.8734	86.8194	150.376	0	150.376	167.808	167.808
38	0.43129	71.5472	20.677	Fill	0	30	46.2795	85.7193	148.47	0	148.47	165.937	165.937
39	0.43129	70.6322	20.9547	Fill	0	30	45.6172	84.4926	146.346	0	146.346	163.815	163.815
40	0.43129	69.6054	21.2328	Fill	0	30	44.8845	83.1356	143.995	0	143.995	161.434	161.434
41	0.43129	65.697	21.5115	Fill	0	30	42.2984	78.3456	135.698	0	135.698	152.37	152.37
42	0.43129	59.2569	21.7908	Fill	0	30	38.0925	70.5553	122.205	0	122.205	137.434	137.434
43	0.43129	52.7062	22.0706	Fill	0	30	33.8284	62.6573	108.526	0	108.526	122.242	122.242
44	0.43129	46.0444	22.3509	Fill	0	30	29.5062	54.6516	94.6594	0	94.6594	106.791	106.791
45	0.43129	39.2708	22.6318	Fill	0	30	25.1257	46.5381	80.6063	0	80.6063	91.0815	91.0815
46	0.43129	32.3846	22.9133	Fill	0	30	20.687	38.3166	66.3664	0	66.3664	75.1105	75.1105
47	0.43129	25.3853	23.1953	Fill	0	30	16.19	29.9873	51.9394	0	51.9394	58.8769	58.8769
48	0.43129	18.272	23.478	Fill	0	30	11.6346	21.5498	37.3253	0	37.3253	42.3789	42.3789
49	0.43129	11.044	23.7613	Fill	0	30	7.02091	13.0042	22.524	0	22.524	25.6149	25.6149
50	0.43129	3.70063	24.0452	Fill	0	30	2.34877	4.35041	7.53514	0	7.53514	8.5831	8.5831

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material
1	0.43129	4.99241	10.6901	Fill
2	0.43129	14.9305	10.9544	Fill
3	0.43129	24.7752	11.2189	Fill
4	0.43129	34.5261	11.4836	Fill
5	0.43129	43.2531	11.7485	Fill
6	0.43129	46.5154	12.0138	Fill
7	0.43129	48.822	12.2792	Fill
8	0.43129	51.0339	12.545	Fill
9	0.43129	53.1506	12.811	Fill
10	0.43129	55.1718	13.0773	Fill
11	0.43129	57.0974	13.3439	Fill
12	0.43129	58.9269	13.6108	Fill
13	0.43129	60.66	13.878	Fill
14	0.43129	62.2965	14.1455	Fill
15	0.43129	63.8359	14.4133	Fill
16	0.43129	65.2779	14.6814	Fill
17	0.43129	66.6222	14.9499	Fill
18	0.43129	67.8684	15.2187	Fill
19	0.43129	69.0161	15.4878	Fill
20	0.43129	70.065	15.7573	Fill
21	0.43129	71.0146	16.0272	Fill
22	0.43129	71.8645	16.2974	Fill
23	0.43129	72.6145	16.568	Fill
24	0.43129	73.2639	16.8389	Fill
25	0.43129	73.8124	17.1103	Fill
26	0.43129	74.2596	17.3821	Fill
27	0.43129	74.605	17.6542	Fill
28	0.43129	74.8482	17.9268	Fill
29	0.43129	74.9886	18.1998	Fill
30	0.43129	75.0258	18.4732	Fill
31	0.43129	74.9594	18.7471	Fill
32	0.43129	74.7887	19.0214	Fill
33	0.43129	74.5133	19.2961	Fill
34	0.43129	74.1328	19.5713	Fill
35	0.43129	73.6464	19.847	Fill
36	0.43129	73.0537	20.1232	Fill
37	0.43129	72.3542	20.3998	Fill
38	0.43129	71.5472	20.677	Fill
39	0.43129	70.6322	20.9547	Fill
40	0.43129	69.6054	21.2328	Fill
41	0.43129	65.697	21.5115	Fill
42	0.43129	59.2569	21.7908	Fill
43	0.43129	52.7062	22.0706	Fill
44	0.43129	46.0444	22.3509	Fill
45	0.43129	39.2708	22.6318	Fill
46	0.43129	32.3846	22.9133	Fill
47	0.43129	25.3853	23.1953	Fill
48	0.43129	18.272	23.478	Fill
49	0.43129	11.044	23.7613	Fill
50	0.43129	3.70063	24.0452	Fill

Interslice Data

Group 1 - Master Scenario

- **Global Minimum Query (bishop simplified) - Safety Factor: 1.85889**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	43.4633	57.9443	0	0	0
2	43.8946	58.0258	0.573807	0	0
3	44.3259	58.1092	2.22013	0	0
4	44.7572	58.1948	4.83629	0	0
5	45.1885	58.2824	8.32089	0	0
6	45.6198	58.3721	12.4843	0	0
7	46.0511	58.4639	16.7445	0	0
8	46.4824	58.5577	20.988	0	0
9	46.9137	58.6537	25.1853	0	0
10	47.3449	58.7518	29.3083	0	0
11	47.7762	58.852	33.3303	0	0
12	48.2075	58.9543	37.2256	0	0
13	48.6388	59.0587	40.9701	0	0
14	49.0701	59.1653	44.5407	0	0
15	49.5014	59.274	47.916	0	0
16	49.9327	59.3848	51.0754	0	0
17	50.364	59.4978	54	0	0
18	50.7953	59.613	56.6722	0	0
19	51.2266	59.7303	59.0755	0	0
20	51.6578	59.8498	61.1948	0	0
21	52.0891	59.9715	63.0166	0	0
22	52.5204	60.0954	64.5284	0	0
23	52.9517	60.2215	65.7192	0	0
24	53.383	60.3498	66.5795	0	0
25	53.8143	60.4803	67.1009	0	0
26	54.2456	60.6131	67.2766	0	0
27	54.6769	60.7481	67.1012	0	0
28	55.1082	60.8854	66.5706	0	0
29	55.5395	61.0249	65.6822	0	0
30	55.9707	61.1667	64.4347	0	0
31	56.402	61.3108	62.8284	0	0
32	56.8333	61.4571	60.8651	0	0
33	57.2646	61.6058	58.5479	0	0
34	57.6959	61.7568	55.8815	0	0
35	58.1272	61.9102	52.8722	0	0
36	58.5585	62.0658	49.5275	0	0
37	58.9898	62.2239	45.8569	0	0
38	59.4211	62.3843	41.871	0	0
39	59.8523	62.547	37.5824	0	0
40	60.2836	62.7122	33.005	0	0
41	60.7149	62.8798	28.1547	0	0
42	61.1462	63.0498	23.2554	0	0
43	61.5775	63.2222	18.546	0	0
44	62.0088	63.3971	14.098	0	0
45	62.4401	63.5744	9.98528	0	0
46	62.8714	63.7542	6.28342	0	0
47	63.3027	63.9365	3.07009	0	0
48	63.734	64.1213	0.425002	0	0
49	64.1652	64.3086	-1.57006	0	0
50	64.5965	64.4985	-2.83121	0	0
51	65.0278	64.6909	0	0	0

Group 1 - Pseudo Static

- **Global Minimum Query (bishop simplified) - Safety Factor: 1.20016**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	43.4633	57.9443	0	0	0
2	43.8946	58.0258	0.587648	0	0
3	44.3259	58.1092	2.27139	0	0
4	44.7572	58.1948	4.94323	0	0
5	45.1885	58.2824	8.49672	0	0
6	45.6198	58.3721	12.7358	0	0
7	46.0511	58.4639	17.0664	0	0
8	46.4824	58.5577	21.3723	0	0
9	46.9137	58.6537	25.6235	0	0
10	47.3449	58.7518	29.7911	0	0
11	47.7762	58.852	33.8476	0	0
12	48.2075	58.9543	37.7671	0	0
13	48.6388	59.0587	41.5248	0	0
14	49.0701	59.1653	45.0976	0	0
15	49.5014	59.274	48.4635	0	0
16	49.9327	59.3848	51.602	0	0
17	50.364	59.4978	54.4942	0	0
18	50.7953	59.613	57.1222	0	0
19	51.2266	59.7303	59.4699	0	0
20	51.6578	59.8498	61.5223	0	0
21	52.0891	59.9715	63.266	0	0
22	52.5204	60.0954	64.6889	0	0
23	52.9517	60.2215	65.7804	0	0
24	53.383	60.3498	66.5312	0	0
25	53.8143	60.4803	66.9337	0	0
26	54.2456	60.6131	66.9813	0	0
27	54.6769	60.7481	66.6694	0	0
28	55.1082	60.8854	65.9943	0	0
29	55.5395	61.0249	64.9541	0	0
30	55.9707	61.1667	63.5482	0	0
31	56.402	61.3108	61.7777	0	0
32	56.8333	61.4571	59.645	0	0
33	57.2646	61.6058	57.154	0	0
34	57.6959	61.7568	54.3102	0	0
35	58.1272	61.9102	51.1205	0	0
36	58.5585	62.0658	47.5936	0	0
37	58.9898	62.2239	43.7394	0	0
38	59.4211	62.3843	39.5696	0	0
39	59.8523	62.547	35.0974	0	0
40	60.2836	62.7122	30.3377	0	0
41	60.7149	62.8798	25.307	0	0
42	61.1462	63.0498	20.2374	0	0
43	61.5775	63.2222	15.3746	0	0
44	62.0088	63.3971	10.7908	0	0
45	62.4401	63.5744	6.56032	0	0
46	62.8714	63.7542	2.75904	0	0
47	63.3027	63.9365	-0.535187	0	0
48	63.734	64.1213	-3.24266	0	0
49	64.1652	64.3086	-5.28175	0	0
50	64.5965	64.4985	-6.5689	0	0
51	65.0278	64.6909	0	0	0

- **Global Minimum Query (janbu simplified) - Safety Factor: 1.85221**

- **Global Minimum Query (janbu simplified) - Safety Factor: 1.19349**

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	43.4633	57.9443	0	0	0
2	43.8946	58.0258	0.575909	0	0
3	44.3259	58.1092	2.22851	0	0
4	44.7572	58.1948	4.85508	0	0
5	45.1885	58.2824	8.35418	0	0
6	45.6198	58.3721	12.5357	0	0
7	46.0511	58.4639	16.8154	0	0
8	46.4824	58.5577	21.0793	0	0
9	46.9137	58.6537	25.298	0	0
10	47.3449	58.7518	29.4432	0	0
11	47.7762	58.852	33.4882	0	0
12	48.2075	58.9543	37.4074	0	0
13	48.6388	59.0587	41.1765	0	0
14	49.0701	59.1653	44.7724	0	0
15	49.5014	59.274	48.1736	0	0
16	49.9327	59.3848	51.3596	0	0
17	50.364	59.4978	54.3114	0	0
18	50.7953	59.613	57.0113	0	0
19	51.2266	59.7303	59.4428	0	0
20	51.6578	59.8498	61.5909	0	0
21	52.0891	59.9715	63.4418	0	0
22	52.5204	60.0954	64.9831	0	0
23	52.9517	60.2215	66.2038	0	0
24	53.383	60.3498	67.0942	0	0
25	53.8143	60.4803	67.6461	0	0
26	54.2456	60.6131	67.8525	0	0
27	54.6769	60.7481	67.7079	0	0
28	55.1082	60.8854	67.2083	0	0
29	55.5395	61.0249	66.351	0	0
30	55.9707	61.1667	65.1347	0	0
31	56.402	61.3108	63.5596	0	0
32	56.8333	61.4571	61.6274	0	0
33	57.2646	61.6058	59.3414	0	0
34	57.6959	61.7568	56.706	0	0
35	58.1272	61.9102	53.7274	0	0
36	58.5585	62.0658	50.4135	0	0
37	58.9898	62.2239	46.7732	0	0
38	59.4211	62.3843	42.8175	0	0
39	59.8523	62.547	38.5587	0	0
40	60.2836	62.7122	34.0108	0	0
41	60.7149	62.8798	29.1895	0	0
42	61.1462	63.0498	24.3178	0	0
43	61.5775	63.2222	19.6331	0	0
44	62.0088	63.3971	15.2072	0	0
45	62.4401	63.5744	11.1137	0	0
46	62.8714	63.7542	7.42832	0	0
47	63.3027	63.9365	4.22858	0	0
48	63.734	64.1213	1.59415	0	0
49	64.1652	64.3086	-0.39323	0	0
50	64.5965	64.4985	-1.64973	0	0
51	65.0278	64.6909	0	0	0

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	43.4633	57.9443	0	0	0
2	43.8946	58.0258	0.600407	0	0
3	44.3259	58.1092	2.32222	0	0
4	44.7572	58.1948	5.05707	0	0
5	45.1885	58.2824	8.69817	0	0
6	45.6198	58.3721	13.0468	0	0
7	46.0511	58.4639	17.4948	0	0
8	46.4824	58.5577	21.9238	0	0
9	46.9137	58.6537	26.3033	0	0
10	47.3449	58.7518	30.6042	0	0
11	47.7762	58.852	34.7989	0	0
12	48.2075	58.9543	38.8611	0	0
13	48.6388	59.0587	42.7657	0	0
14	49.0701	59.1653	46.4894	0	0
15	49.5014	59.274	50.0101	0	0
16	49.9327	59.3848	53.3069	0	0
17	50.364	59.4978	56.3606	0	0
18	50.7953	59.613	59.1532	0	0
19	51.2266	59.7303	61.6682	0	0
20	51.6578	59.8498	63.8905	0	0
21	52.0891	59.9715	65.8063	0	0
22	52.5204	60.0954	67.4035	0	0
23	52.9517	60.2215	68.671	0	0
24	53.383	60.3498	69.5994	0	0
25	53.8143	60.4803	70.1808	0	0
26	54.2456	60.6131	70.4084	0	0
27	54.6769	60.7481	70.2773	0	0
28	55.1082	60.8854	69.7836	0	0
29	55.5395	61.0249	68.9251	0	0
30	55.9707	61.1667	67.7012	0	0
31	56.402	61.3108	66.1124	0	0
32	56.8333	61.4571	64.161	0	0
33	57.2646	61.6058	61.8507	0	0
34	57.6959	61.7568	59.1868	0	0
35	58.1272	61.9102	56.1759	0	0
36	58.5585	62.0658	52.8264	0	0
37	58.9898	62.2239	49.148	0	0
38	59.4211	62.3843	45.1521	0	0
39	59.8523	62.547	40.8518	0	0
40	60.2836	62.7122	36.2616	0	0
41	60.7149	62.8798	31.3979	0	0
42	61.1462	63.0498	26.4857	0	0
43	61.5775	63.2222	21.7648	0	0
44	62.0088	63.3971	17.3072	0	0
45	62.4401	63.5744	13.1868	0	0
46	62.8714	63.7542	9.47942	0	0
47	63.3027	63.9365	6.26257	0	0
48	63.734	64.1213	3.61572	0	0
49	64.1652	64.3086	1.62025	0	0
50	64.5965	64.4985	0.359453	0	0
51	65.0278	64.6909	0	0	0

Entity Information

Group: Group 1

Shared Entities

Type	Coordinates	
	X	Y
External Boundary	0	29.2
	0	15
	120	15
	120	61.1
	120	66.2
	120	68.5
	117	68.5
	87.6	67
	84.5	66
	60.7	64.4
	45.4	59.3
	43.4	57.9
	28.8	48
	26.565	45.9772
	10.9	31.8
	6.5	29.9

Type	X	Y
Material Boundary	43.4	57.9
	51	59.1
	92.1	63.7
	107	65.3
	120	66.2

Type	X	Y
Material Boundary	26.565	45.9772
	51	53.1
	92.1	60.8
	107	60.9
	120	61.1