Environmental Consultants
and Contractors

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

March 15, 2007
File No. 09199033.12

Susan J. Pelz, P.E.
Solid Waste Program Manager
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33637

Dept. of Environmental Protection

MAR 16 2007

Southwest District

Subject: Hardee County Existing Landfill
Height Increase

Dear Susan:

As you are aware Hardee County's existing landfill is quickly approaching capacity. Per the Florida Department of Environmental Protection (FDEP) approval obtained on February 27, 2007 in efforts to establish airspace availability within the existing landfill, FDEP allowed waste to be placed at a five foot minimum setback from the existing western perimeter liner to match what is currently being done along the north and east sides of the landfill. In addition, approval was obtained along the west side to change the sideslope from a 3.5 (Horizontal):1 (Vertical) to a 3 (Horizontal):1 (Vertical) to be consistent with the rest of the existing landfill.

Additional airspace will still be desperately needed by the County within the existing landfill area before construction of the Phase II Section I Landfill Expansion is completed and approval has been obtained from FDEP to begin placing waste. SCS and the County has examined additional opportunities to maximize the useable airspace within the existing disposal area until approval has been received to place waste in the Phase II Section I Landfill Expansion area. Additional airspace may be obtained by the County within the existing landfill area by increasing the final buildout elevation.

Therefore, SCS on behalf of the County, requests to increase the final buildout elevation of the existing landfill from Elevation 150 feet (top of intermediate cover) to Elevation 165.5 feet (top of intermediate cover). SCS has included revised Operations Drawings to account for this increase in the final buildout height to Elevation 165.5 feet (top of intermediate cover). Also, the revised Operations Drawings for the request for the height increase also includes the revisions to the western sideslope as mentioned above which approval was obtained from FDEP on February 27, 2007.

In addition, SCS has performed a slope stability analysis consisting of both the block and circular failure analysis for the north, south, east and west sides of the existing landfill for the request to increase the final buildout elevation from Elevation 150 feet (top of intermediate cover) to Elevation 165.5 feet (top of intermediate cover). SCS has kept all of the material properties the same as they were when the slope stability analysis was initially conducted by SCS and submitted to FDEP, but has now changed the final buildout elevation from Elevation 150 feet (top of intermediate cover) to Elevation 165.5 feet (top of intermediate cover). Please refer to Attachment A for a summary table indicating the Factor of Safety for the slope stability analysis conducted and the slope stability analysis output. Based on the increased height, SCS has determined the Factor of Safety for the block and circular failure analysis, both with and without equipment loading, is above the required 1.5 Factor of Safety at the proposed new Elevation 165.5 feet (top of intermediate cover).

Please let us know what would be required to begin implementing these proposed changes or if an email may be issued as was done on February 27, 2007 approving the requested changes so the County may begin working in the area when needed. Please do not hesitate to call should you have any questions or require additional information.

Sincerely,

Shane R. Fischer, P.E.
Project Manager
SCS ENGINEERS

for C. Ed Hilton, P.E.
Solid Waste Director
SCS ENGINEERS

cc: Teresa Carver, Hardee County Solid Waste Director

SRF/CEH:srf

ATTACHMENT A

CIRCULAR AND BLOCK SLOPE STABILITY ANALYSES
NORTH, EAST, SOUTH AND WEST SIDES OF EXISTING LANDFILL

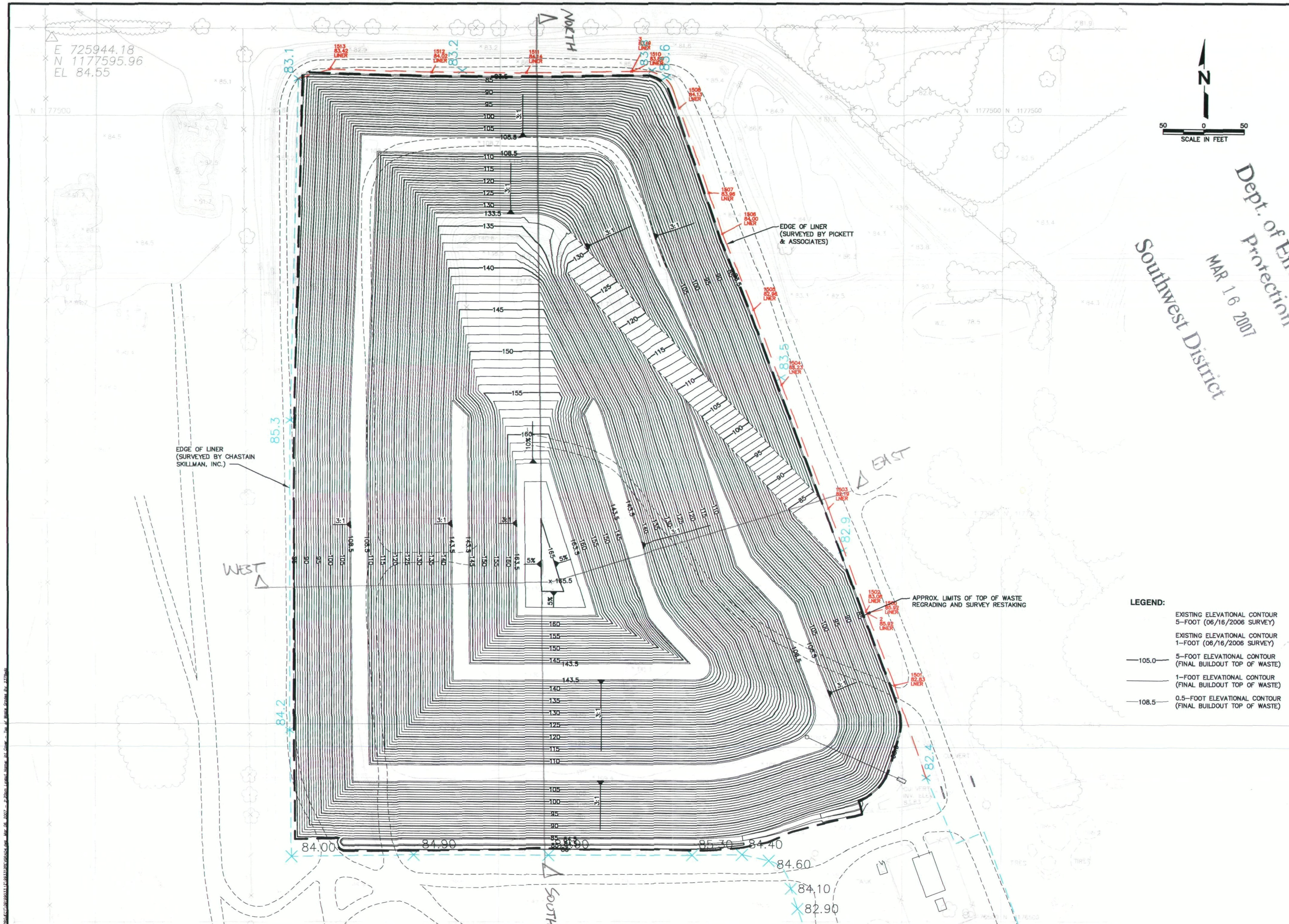
SCS ENGINEERS

Sheet 1 of 1

Client:	Project:		Job No.	
Hardee County	Hardee County Existing Landfill Final Buildout Permit Modification		09199033.12 Task 3	
Subject: Slope Stability Factor of Safety Summary Results		**By:** DHB		**Date:** 3/07/07
		Checked: SAF		**Date:** 3/8/07

	CIRCULAR MODE FACTOR SAFETY (FS)	BLOCK MODE FACTOR SAFETY (FS)
Modification North Side		
No Equipment	1.7	1.6
CAT 816F Compactor	1.6	1.5
Modification East Side		
No Equipment	1.6	1.5
CAT 816F Compactor	1.6	1.5
Modification South Side		
No Equipment	1.7	1.6
CAT 816F Compactor	1.6	1.6
Modification West Side		
No Equipment	1.6	1.6
CAT 816F Compactor	1.6	1.5

The slope stability calculations used to derive the Factor of Safety summary results listed in the above table have been reviewed and have been completed in accordance with good engineering practice and industry-accepted values.



DRAWING TITLE
SIDESLOPE AND ACCESS RAMP REGRADING (TOP OF WASTE)

PROJECT TITLE
HARDEE COUNTY LANDFILL OPERATIONS DRAWINGS

REV	DATE	DESCRIPTION	BY
△			
△			
△			
△			
△			

CERTIFICATE NO.

CLIENT
HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09199033.12	DWN. BY: SDA	Q/A RVW BY: SRF
DSN. BY: SRF	CHK. BY: SRF	APP. BY: RJD

CADD FILE: 993312REVGRAD4

DATE: NOVEMBER 2006

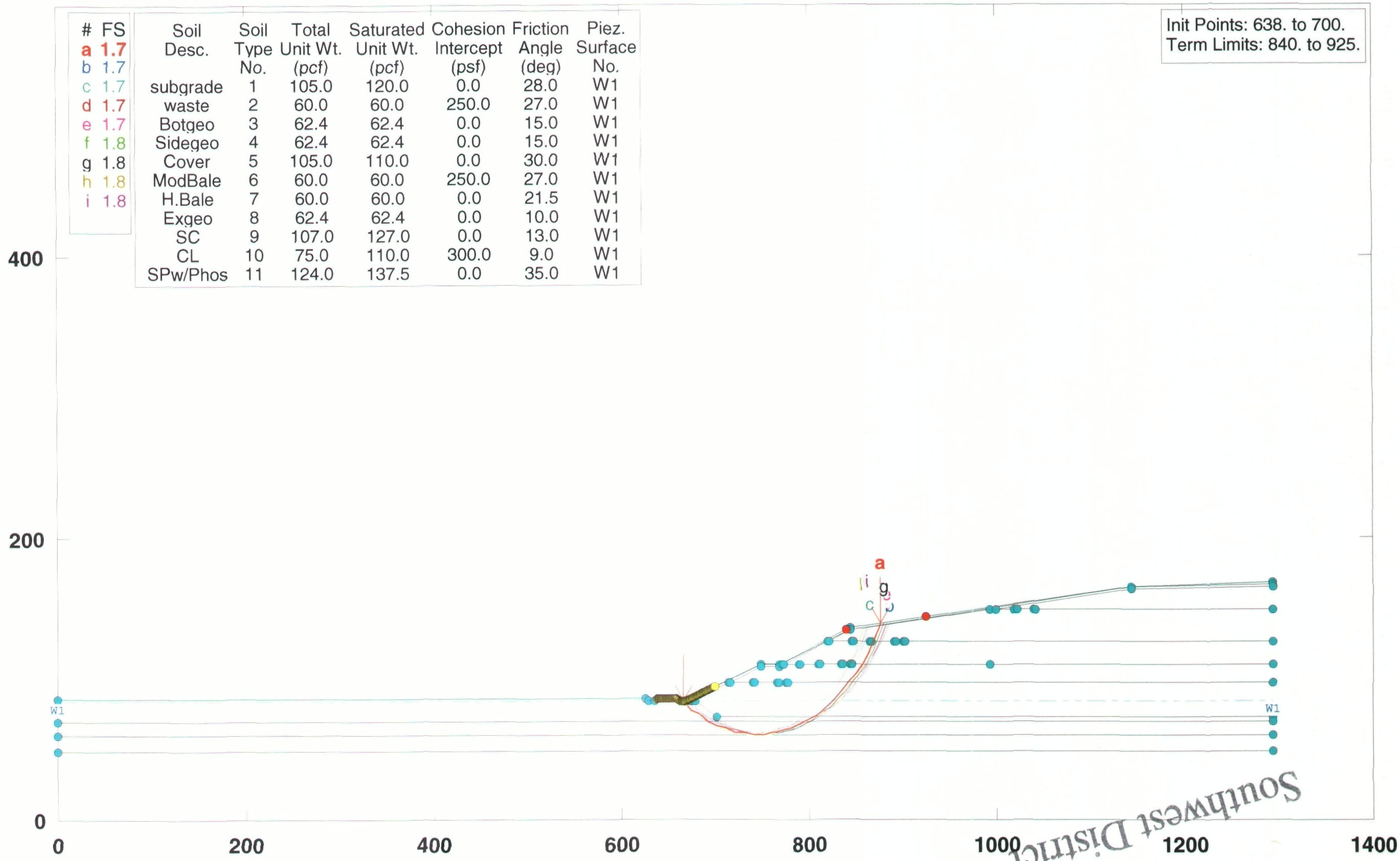
SCALE: AS SHOWN

DRAWING NO. 1 of 1

CIRCULAR SLOPE STABILITY ANALYSES
NORTH SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod North Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\NORTHS~1\NORTH.PL2 Run By: Dominique Bramlett 3/7/2007 1:46PM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.7

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:11AM
Run By: Shane R. Fischer
Input Data Filename: F:north.
Output Filename: F:north.OUT
Plotted Output Filename: F:north.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod North Slope

BOUNDARY COORDINATES
12 Top Boundaries
85 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	843.40	135.50	4
11	843.40	135.50	1143.70	165.50	4
12	1143.70	165.50	1293.80	167.50	4
13	667.50	83.50	669.10	83.50	1
14	669.10	83.50	748.60	110.00	5
15	748.60	110.00	768.60	110.00	5
16	768.60	110.00	843.60	135.00	5
17	843.60	135.00	1143.80	165.00	5
18	1143.80	165.00	1293.80	167.00	5
19	669.10	83.50	673.80	83.50	1
20	673.80	83.50	714.30	97.00	6
21	714.30	97.00	715.80	97.50	6
22	715.80	97.50	748.80	108.50	6
23	748.80	108.50	768.80	108.50	6
24	768.80	108.50	771.80	109.50	6
25	771.80	109.50	773.30	110.00	6
26	773.30	110.00	819.80	125.50	6
27	819.80	125.50	821.30	126.00	6
28	821.30	126.00	843.80	133.50	6
29	843.80	133.50	993.80	148.50	6
30	993.80	148.50	998.80	149.00	6
31	998.80	149.00	1143.80	163.50	6
32	1143.80	163.50	1293.80	165.50	6
33	998.80	149.00	1021.30	149.00	6
34	1021.30	149.00	1041.20	149.00	7
35	1041.20	149.00	1293.80	149.00	6
36	993.80	148.50	1019.50	148.50	6
37	1019.50	148.50	1021.30	149.00	7
38	1019.50	148.50	1039.70	148.50	6
39	1039.70	148.50	1041.20	149.00	6
40	1039.70	148.50	1293.80	148.50	6
41	821.30	126.00	847.30	126.00	6
42	847.30	126.00	867.20	126.00	7
43	867.20	126.00	892.20	126.00	6
44	892.20	126.00	902.20	126.00	7
45	902.20	126.00	1293.80	126.00	6
46	819.80	125.50	845.50	125.50	6
47	845.50	125.50	847.30	126.00	7
48	845.50	125.50	865.70	125.50	6
49	865.70	125.50	867.20	126.00	6

50	865.70	125.50	890.70	125.50	6
51	890.70	125.50	892.20	126.00	7
52	890.70	125.50	900.70	125.50	6
53	900.70	125.50	902.20	126.00	6
54	900.70	125.50	1293.80	125.50	6
55	773.30	110.00	791.30	110.00	6
56	791.30	110.00	811.20	110.00	7
57	811.20	110.00	836.20	110.00	6
58	836.20	110.00	846.20	110.00	7
59	846.20	110.00	993.20	110.00	6
60	771.80	109.50	789.50	109.50	6
61	789.50	109.50	791.30	110.00	7
62	789.50	109.50	809.70	109.50	6
63	809.70	109.50	811.20	110.00	6
64	809.70	109.50	834.70	109.50	6
65	834.70	109.50	836.70	110.00	7
66	834.70	109.50	844.70	109.50	6
67	844.70	109.50	846.20	110.00	6
68	844.70	109.50	1293.80	109.50	6
69	715.80	97.50	742.40	97.50	7
70	742.40	97.50	767.40	97.50	6
71	767.40	97.50	777.40	97.50	7
72	777.40	97.50	1293.80	97.50	6
73	714.30	97.00	740.90	97.00	6
74	740.90	97.00	742.40	97.50	6
75	740.90	97.00	765.90	97.00	6
76	765.90	97.00	767.40	97.50	7
77	765.90	97.00	775.90	97.00	6
78	775.90	97.00	777.40	97.50	6
79	775.90	97.00	1293.80	97.00	6
80	673.80	83.50	678.80	83.50	1
81	678.80	83.50	701.80	72.00	1
82	701.80	72.00	1293.80	72.00	1
83	.00	70.00	1293.80	70.00	9
84	.00	60.00	1293.80	60.00	10
85	.00	49.00	1293.80	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	1293.80	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	843.40	852.90	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random

Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 638.00 ft.
and X = 700.00 ft.
Each Surface Terminates Between X = 840.00 ft.
and X = 925.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 26 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	666.18	83.50
2	674.77	78.38
3	683.69	73.86
4	692.90	69.95
5	702.35	66.67
6	711.99	64.05
7	721.80	62.08
8	731.71	60.78
9	741.70	60.16
10	751.70	60.22
11	761.67	60.96
12	771.57	62.37
13	781.35	64.44
14	790.97	67.18
15	800.38	70.56
16	809.54	74.58
17	818.40	79.20
18	826.94	84.42
19	835.09	90.20
20	842.84	96.52
21	850.14	103.36
22	856.96	110.67
23	863.27	118.43
24	869.04	126.60
25	874.24	135.14
26	876.12	138.77

Circle Center At X = 745.9 ; Y = 207.5 and Radius, 147.4
*** 1.737 ***
Failure Surface Specified By 27 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	666.81	83.50
2	675.50	78.55
3	684.48	74.16
4	693.73	70.35
5	703.19	67.13
6	712.85	64.51
7	722.64	62.51
8	732.55	61.14
9	742.52	60.39
10	752.52	60.28
11	762.51	60.80
12	772.44	61.95
13	782.28	63.72
14	791.99	66.12
15	801.53	69.12
16	810.86	72.72
17	819.94	76.91
18	828.74	81.66
19	837.22	86.96
20	845.35	92.78

21	853.09	99.11
22	860.42	105.92
23	867.30	113.17
24	873.71	120.85
25	879.63	128.91
26	885.01	137.33
27	886.38	139.79

Circle Center At X = 749.3 ; Y = 218.2 and Radius, 158.0
*** 1.744 ***
Failure Surface Specified By 26 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	659.29	85.25
2	667.75	79.91
3	676.55	75.17
4	685.67	71.07
5	695.06	67.62
6	704.66	64.83
7	714.44	62.74
8	724.34	61.33
9	734.32	60.63
10	744.32	60.63
11	754.29	61.34
12	764.19	62.74
13	773.97	64.84
14	783.57	67.63
15	792.96	71.08
16	802.08	75.19
17	810.88	79.93
18	819.33	85.27
19	827.38	91.20
20	835.00	97.68
21	842.14	104.69
22	848.77	112.17
23	854.85	120.11
24	860.36	128.45
25	865.27	137.17
26	865.53	137.71

Circle Center At X = 739.3 ; Y = 202.4 and Radius, 141.9
*** 1.746 ***
Failure Surface Specified By 26 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	666.81	83.50
2	675.51	78.58
3	684.51	74.22
4	693.78	70.45
5	703.26	67.28
6	712.93	64.73
7	722.74	62.80
8	732.66	61.51
9	742.64	60.85
10	752.64	60.84
11	762.62	61.46
12	772.54	62.73
13	782.36	64.63
14	792.03	67.15
15	801.53	70.29
16	810.80	74.04
17	819.81	78.37
18	828.53	83.27
19	836.92	88.71
20	844.93	94.69
21	852.55	101.17
22	859.74	108.12
23	866.47	115.52
24	872.71	123.33
25	878.43	131.53

```
  26        883.26      139.48
Circle Center At X =  747.9 ; Y =  216.6  and Radius,  155.8
     ***     1.748   ***
Failure Surface Specified By 26 Coordinate Points
 Point      X-Surf      Y-Surf
  No.        (ft)        (ft)
   1        673.70       85.57
   2        682.17       80.25
   3        690.99       75.53
   4        700.11       71.44
   5        709.49       67.98
   6        719.09       65.19
   7        728.87       63.06
   8        738.76       61.62
   9        748.73       60.86
  10        758.73       60.80
  11        768.71       61.42
  12        778.63       62.74
  13        788.42       64.74
  14        798.06       67.41
  15        807.49       70.74
  16        816.66       74.72
  17        825.54       79.32
  18        834.08       84.53
  19        842.24       90.31
  20        849.98       96.64
  21        857.26      103.50
  22        864.05      110.84
  23        870.31      118.63
  24        876.02      126.84
  25        881.15      135.43
  26        883.21      139.48
Circle Center At X =  754.7 ; Y =  205.2  and Radius,  144.4
     ***     1.749   ***
Failure Surface Specified By 25 Coordinate Points
 Point      X-Surf      Y-Surf
  No.        (ft)        (ft)
   1        675.58       86.19
   2        683.83       80.55
   3        692.49       75.54
   4        701.50       71.20
   5        710.81       67.55
   6        720.36       64.61
   7        730.12       62.40
   8        740.01       60.93
   9        749.98       60.20
  10        759.98       60.23
  11        769.95       61.01
  12        779.83       62.54
  13        789.57       64.81
  14        799.11       67.81
  15        808.40       71.51
  16        817.39       75.90
  17        826.01       80.96
  18        834.23       86.65
  19        842.01       92.95
  20        849.28       99.81
  21        856.02      107.20
  22        862.18      115.07
  23        867.73      123.39
  24        872.64      132.10
  25        875.75      138.73
Circle Center At X =  754.6 ; Y =  192.9  and Radius,  132.8
     ***     1.750   ***
Failure Surface Specified By 26 Coordinate Points
 Point      X-Surf      Y-Surf
  No.        (ft)        (ft)
   1        670.57       84.52
```

```
   2        679.14       79.37
   3        688.04       74.82
   4        697.23       70.88
   5        706.67       67.58
   6        716.31       64.92
   7        726.11       62.93
   8        736.02       61.60
   9        746.00       60.95
  10        756.00       60.99
  11        765.98       61.70
  12        775.88       63.09
  13        785.67       65.14
  14        795.29       67.86
  15        804.71       71.23
  16        813.87       75.22
  17        822.75       79.84
  18        831.29       85.04
  19        839.45       90.81
  20        847.21       97.12
  21        854.52      103.95
  22        861.34      111.26
  23        867.66      119.01
  24        873.43      127.18
  25        878.64      135.71
  26        880.45      139.20
Circle Center At X =  750.5 ; Y =  208.0  and Radius,  147.1
      ***      1.750    ***
Failure Surface Specified By 24 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
   1        664.93       83.50
   2        673.38       78.16
   3        682.22       73.47
   4        691.38       69.47
   5        700.83       66.18
   6        710.49       63.62
   7        720.32       61.79
   8        730.27       60.73
   9        740.26       60.42
  10        750.25       60.87
  11        760.18       62.08
  12        769.98       64.05
  13        779.61       66.75
  14        789.01       70.18
  15        798.11       74.31
  16        806.88       79.12
  17        815.25       84.59
  18        823.19       90.67
  19        830.63       97.35
  20        837.55      104.57
  21        843.90      112.29
  22        849.65      120.48
  23        854.75      129.07
  24        858.69      137.03
Circle Center At X =  739.3 ; Y =  191.8  and Radius,  131.4
      ***      1.752    ***
Failure Surface Specified By 25 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
   1        663.68       83.50
   2        672.26       78.36
   3        681.18       73.85
   4        690.41       70.00
   5        699.90       66.83
   6        709.58       64.35
   7        719.42       62.57
   8        729.37       61.51
   9        739.36       61.17
```

10	749.35	61.56
11	759.29	62.66
12	769.13	64.48
13	778.80	67.00
14	788.27	70.21
15	797.49	74.10
16	806.39	78.65
17	814.95	83.82
18	823.11	89.60
19	830.83	95.96
20	838.08	102.85
21	844.80	110.25
22	850.98	118.12
23	856.57	126.41
24	861.55	135.08
25	862.67	137.43

Circle Center At X = 739.1 ; Y = 199.6 and Radius, 138.4

*** 1.752 ***

Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	663.05	83.50
2	671.57	78.27
3	680.46	73.68
4	689.66	69.77
5	699.13	66.55
6	708.81	64.04
7	718.65	62.26
8	728.60	61.21
9	738.59	60.90
10	748.58	61.33
11	758.51	62.50
12	768.33	64.41
13	777.98	67.03
14	787.40	70.37
15	796.56	74.40
16	805.39	79.09
17	813.85	84.43
18	821.88	90.38
19	829.46	96.90
20	836.53	103.98
21	843.06	111.55
22	849.00	119.59
23	854.34	128.05
24	859.03	136.88
25	859.11	137.07

Circle Center At X = 737.8 ; Y = 195.6 and Radius, 134.8

*** 1.755 ***

Hardee County Landfill Expansion Final Buildout -Mod North Slope

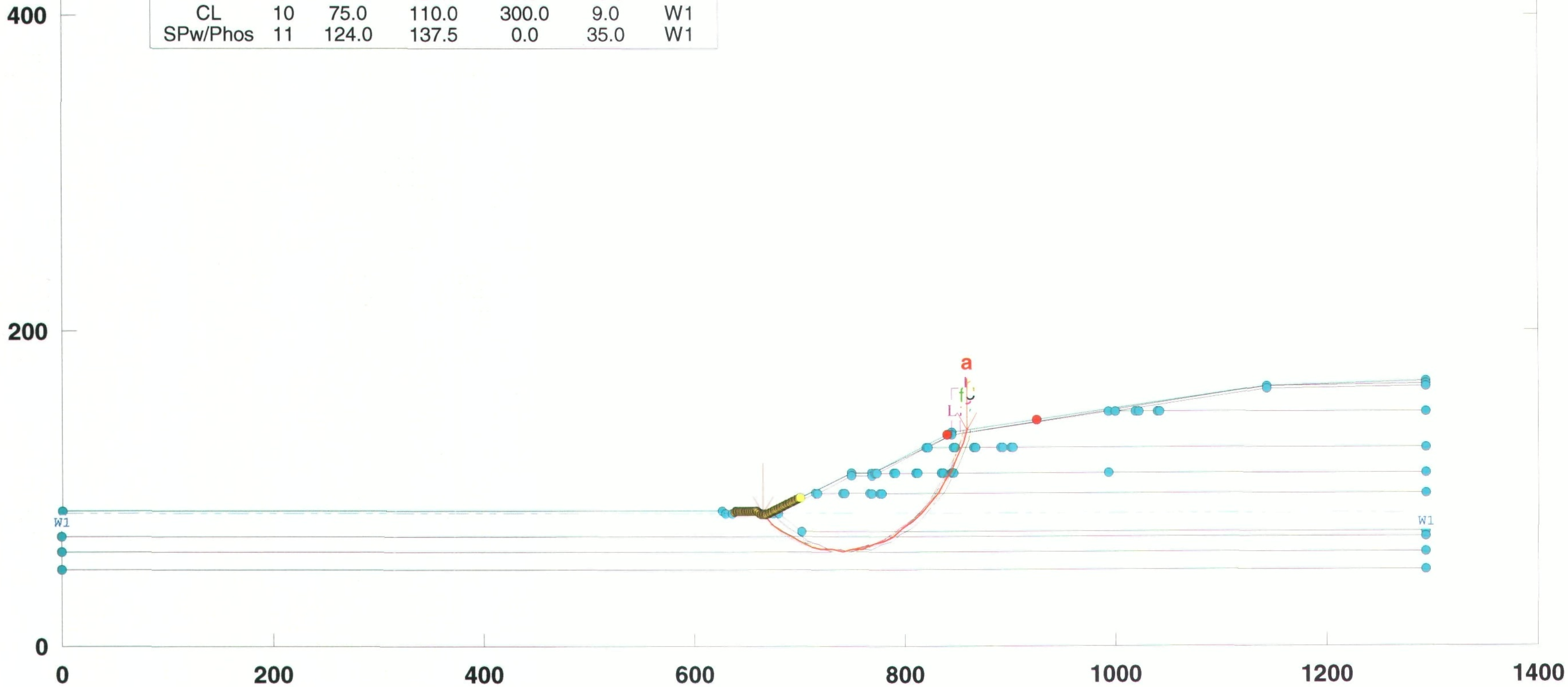
F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\NORTHS~1\NORTH.PL2 Run By: Dominique Bramlett 3/7/2007 1:47PM

#	FS
a	1.6
b	1.6
c	1.6
d	1.6
e	1.6
f	1.6
g	1.6
h	1.6
i	1.6
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

Load	Value
L1	1618 lb/sqft

Init Points: 638. to 700.
Term Limits: 840. to 925.



STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 1:47PM
Run By: Dominique Bramlett
Input Data Filename: F:NORTH.
Output Filename: F:NORTH.OUT
Plotted Output Filename: F:NORTH.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod North Slope

BOUNDARY COORDINATES
12 Top Boundaries
85 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	843.40	135.50	4
11	843.40	135.50	1143.70	165.50	4
12	1143.70	165.50	1293.80	167.50	4
13	667.50	83.50	669.10	83.50	1
14	669.10	83.50	748.60	110.00	5
15	748.60	110.00	768.60	110.00	5
16	768.60	110.00	843.60	135.00	5
17	843.60	135.00	1143.80	165.00	5
18	1143.80	165.00	1293.80	167.00	5
19	669.10	83.50	673.80	83.50	1
20	673.80	83.50	714.30	97.00	6
21	714.30	97.00	715.80	97.50	6
22	715.80	97.50	748.80	108.50	6
23	748.80	108.50	768.80	108.50	6
24	768.80	108.50	771.80	109.50	6
25	771.80	109.50	773.30	110.00	6
26	773.30	110.00	819.80	125.50	6
27	819.80	125.50	821.30	126.00	6
28	821.30	126.00	843.80	133.50	6
29	843.80	133.50	993.80	148.50	6
30	993.80	148.50	998.80	149.00	6
31	998.80	149.00	1143.80	163.50	6
32	1143.80	163.50	1293.80	165.50	6
33	998.80	149.00	1021.30	149.00	6
34	1021.30	149.00	1041.20	149.00	7
35	1041.20	149.00	1293.80	149.00	6
36	993.80	148.50	1019.50	148.50	6
37	1019.50	148.50	1021.30	149.00	7
38	1019.50	148.50	1039.70	148.50	6
39	1039.70	148.50	1041.20	149.00	6
40	1039.70	148.50	1293.80	148.50	6
41	821.30	126.00	847.30	126.00	6
42	847.30	126.00	867.20	126.00	7
43	867.20	126.00	892.20	126.00	6
44	892.20	126.00	902.20	126.00	7
45	902.20	126.00	1293.80	126.00	6
46	819.80	125.50	845.50	125.50	6
47	845.50	125.50	847.30	126.00	7
48	845.50	125.50	865.70	125.50	6
49	865.70	125.50	867.20	126.00	6

50	865.70	125.50	890.70	125.50	6
51	890.70	125.50	892.20	126.00	7
52	890.70	125.50	900.70	125.50	6
53	900.70	125.50	902.20	126.00	6
54	900.70	125.50	1293.80	125.50	6
55	773.30	110.00	791.30	110.00	6
56	791.30	110.00	811.20	110.00	7
57	811.20	110.00	836.20	110.00	6
58	836.20	110.00	846.20	110.00	7
59	846.20	110.00	993.20	110.00	6
60	771.80	109.50	789.50	109.50	6
61	789.50	109.50	791.30	110.00	7
62	789.50	109.50	809.70	109.50	6
63	809.70	109.50	811.20	110.00	6
64	809.70	109.50	834.70	109.50	6
65	834.70	109.50	836.70	110.00	7
66	834.70	109.50	844.70	109.50	6
67	844.70	109.50	846.20	110.00	6
68	844.70	109.50	1293.80	109.50	6
69	715.80	97.50	742.40	97.50	7
70	742.40	97.50	767.40	97.50	6
71	767.40	97.50	777.40	97.50	7
72	777.40	97.50	1293.80	97.50	6
73	714.30	97.00	740.90	97.00	6
74	740.90	97.00	742.40	97.50	6
75	740.90	97.00	765.90	97.00	6
76	765.90	97.00	767.40	97.50	7
77	765.90	97.00	775.90	97.00	6
78	775.90	97.00	777.40	97.50	6
79	775.90	97.00	1293.80	97.00	6
80	673.80	83.50	678.80	83.50	1
81	678.80	83.50	701.80	72.00	1
82	701.80	72.00	1293.80	72.00	1
83	.00	70.00	1293.80	70.00	9
84	.00	60.00	1293.80	60.00	10
85	.00	49.00	1293.80	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	1293.80	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	843.40	852.90	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.

5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 638.00 ft.
and X = 700.00 ft.
Each Surface Terminates Between X = 840.00 ft.
and X = 925.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	664.93	83.50
2	673.38	78.16
3	682.22	73.47
4	691.38	69.47
5	700.83	66.18
6	710.49	63.62
7	720.32	61.79
8	730.27	60.73
9	740.26	60.42
10	750.25	60.87
11	760.18	62.08
12	769.98	64.05
13	779.61	66.75
14	789.01	70.18
15	798.11	74.31
16	806.88	79.12
17	815.25	84.59
18	823.19	90.67
19	830.63	97.35
20	837.55	104.57
21	843.90	112.29
22	849.65	120.48
23	854.75	129.07
24	858.69	137.03

Circle Center At X = 739.3 ; Y = 191.8 and Radius, 131.4
*** 1.602 ***
Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	663.05	83.50
2	671.57	78.27
3	680.46	73.68
4	689.66	69.77
5	699.13	66.55
6	708.81	64.04
7	718.65	62.26
8	728.60	61.21
9	738.59	60.90
10	748.58	61.33
11	758.51	62.50
12	768.33	64.41
13	777.98	67.03
14	787.40	70.37
15	796.56	74.40
16	805.39	79.09
17	813.85	84.43
18	821.88	90.38
19	829.46	96.90
20	836.53	103.98
21	843.06	111.55
22	849.00	119.59
23	854.34	128.05

24	859.03	136.88
25	859.11	137.07

Circle Center At X = 737.8 ; Y = 195.6 and Radius, 134.8
*** 1.606 ***
Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	659.29	85.25
2	667.68	79.81
3	676.45	75.00
4	685.55	70.86
5	694.93	67.40
6	704.55	64.65
7	714.34	62.61
8	724.25	61.31
9	734.24	60.75
10	744.24	60.93
11	754.19	61.85
12	764.06	63.51
13	773.77	65.89
14	783.28	68.99
15	792.53	72.79
16	801.47	77.26
17	810.06	82.38
18	818.25	88.12
19	825.99	94.46
20	833.23	101.35
21	839.95	108.76
22	846.09	116.65
23	851.64	124.97
24	856.55	133.68
25	858.10	136.97

Circle Center At X = 736.8 ; Y = 195.5 and Radius, 134.8
*** 1.607 ***
Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	664.93	83.50
2	673.40	78.18
3	682.25	73.53
4	691.44	69.58
5	700.90	66.35
6	710.59	63.86
7	720.44	62.13
8	730.39	61.17
9	740.39	60.98
10	750.37	61.57
11	760.28	62.92
12	770.05	65.04
13	779.63	67.91
14	788.96	71.51
15	797.98	75.82
16	806.65	80.82
17	814.90	86.47
18	822.68	92.74
19	829.96	99.60
20	836.69	107.00
21	842.82	114.90
22	848.32	123.25
23	853.17	132.00
24	855.31	136.69

Circle Center At X = 737.8 ; Y = 190.1 and Radius, 129.1
*** 1.607 ***
Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.82	84.94
2	680.08	79.30

3	688.77	74.35
4	697.83	70.12
5	707.20	66.64
6	716.83	63.93
7	726.64	62.02
8	736.58	60.91
9	746.58	60.60
10	756.56	61.12
11	766.48	62.44
12	776.25	64.56
13	785.82	67.47
14	795.12	71.14
15	804.09	75.56
16	812.67	80.70
17	820.81	86.51
18	828.44	92.96
19	835.53	100.02
20	842.02	107.62
21	847.88	115.73
22	853.05	124.29
23	857.52	133.24
24	859.05	137.06

Circle Center At X = 745.3 ; Y = 183.6 and Radius, 123.0
*** 1.607 ***
Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	667.44	83.50
2	675.76	77.96
3	684.51	73.12
4	693.62	68.99
5	703.03	65.62
6	712.69	63.01
7	722.52	61.19
8	732.47	60.17
9	742.47	59.96
10	752.45	60.55
11	762.35	61.94
12	772.11	64.13
13	781.66	67.10
14	790.94	70.83
15	799.88	75.30
16	808.44	80.47
17	816.56	86.31
18	824.17	92.79
19	831.24	99.87
20	837.72	107.49
21	843.56	115.61
22	848.72	124.17
23	853.18	133.12
24	854.58	136.62

Circle Center At X = 740.1 ; Y = 183.8 and Radius, 123.9
*** 1.608 ***
Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	673.07	85.36
2	681.31	79.69
3	689.98	74.71
4	699.02	70.44
5	708.38	66.91
6	717.99	64.14
7	727.79	62.15
8	737.72	60.96
9	747.71	60.57
10	757.70	60.99
11	767.63	62.21
12	777.42	64.22

13	787.03	67.01
14	796.37	70.56
15	805.40	74.86
16	814.06	79.87
17	822.29	85.55
18	830.03	91.88
19	837.24	98.81
20	843.86	106.30
21	849.87	114.30
22	855.21	122.75
23	859.86	131.61
24	862.32	137.39

Circle Center At X = 747.6 ; Y = 184.9 and Radius, 124.3

*** 1.611 ***

Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	663.68	83.50
2	672.26	78.36
3	681.18	73.85
4	690.41	70.00
5	699.90	66.83
6	709.58	64.35
7	719.42	62.57
8	729.37	61.51
9	739.36	61.17
10	749.35	61.56
11	759.29	62.66
12	769.13	64.48
13	778.80	67.00
14	788.27	70.21
15	797.49	74.10
16	806.39	78.65
17	814.95	83.82
18	823.11	89.60
19	830.83	95.96
20	838.08	102.85
21	844.80	110.25
22	850.98	118.12
23	856.57	126.41
24	861.55	135.08
25	862.67	137.43

Circle Center At X = 739.1 ; Y = 199.6 and Radius, 138.4

*** 1.612 ***

Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	656.79	85.50
2	665.15	80.02
3	673.90	75.17
4	682.98	70.98
5	692.34	67.46
6	701.94	64.65
7	711.71	62.55
8	721.62	61.18
9	731.60	60.54
10	741.60	60.63
11	751.56	61.47
12	761.44	63.03
13	771.17	65.32
14	780.71	68.32
15	790.01	72.01
16	799.00	76.38
17	807.65	81.40
18	815.91	87.04
19	823.73	93.27
20	831.07	100.07
21	837.88	107.38

22	844.14	115.18
23	849.81	123.42
24	854.86	132.05
25	857.23	136.88

Circle Center At X = 735.3 ; Y = 196.2 and Radius, 135.7

*** 1.613 ***

Failure Surface Specified By 26 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	659.29	85.25
2	667.75	79.91
3	676.55	75.17
4	685.67	71.07
5	695.06	67.62
6	704.66	64.83
7	714.44	62.74
8	724.34	61.33
9	734.32	60.63
10	744.32	60.63
11	754.29	61.34
12	764.19	62.74
13	773.97	64.84
14	783.57	67.63
15	792.96	71.08
16	802.08	75.19
17	810.88	79.93
18	819.33	85.27
19	827.38	91.20
20	835.00	97.68
21	842.14	104.69
22	848.77	112.17
23	854.85	120.11
24	860.36	128.45
25	865.27	137.17
26	865.53	137.71

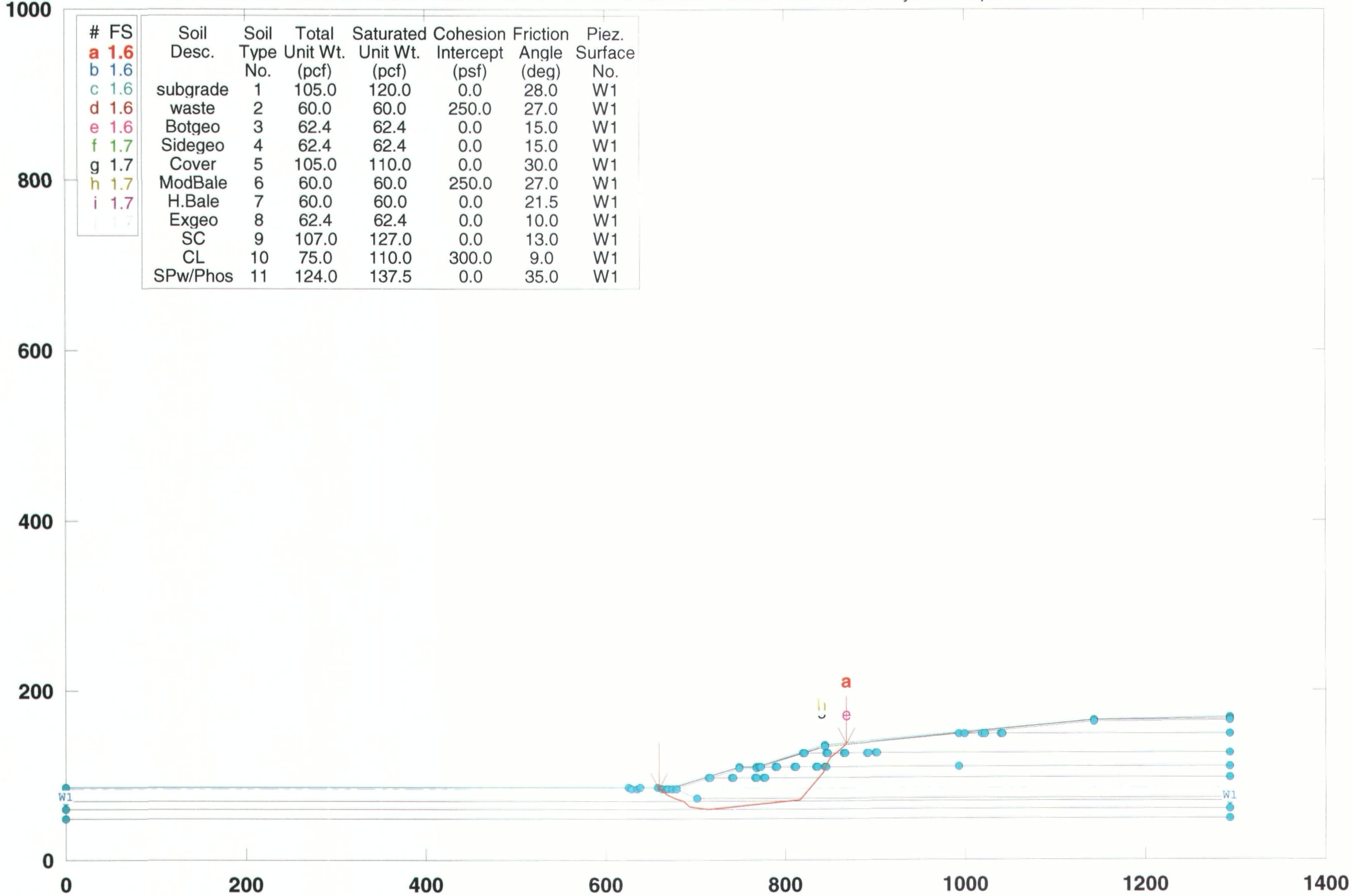
Circle Center At X = 739.3 ; Y = 202.4 and Radius, 141.9

*** 1.615 ***

BLOCK SLOPE STABILITY ANALYSES
NORTH SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod North Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\NORTHS~1\BNORTH.PL2 Run By: Dominique Bramlett 3/7/2007 1:41PM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:12AM
Run By: Shane R. Fischer
Input Data Filename: F:bnorth.
Output Filename: F:bnorth.OUT
Plotted Output Filename: F:bnorth.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod North Slope

BOUNDARY COORDINATES
12 Top Boundaries
85 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	843.40	135.50	4
11	843.40	135.50	1143.70	165.50	4
12	1143.70	165.50	1293.80	167.50	4
13	667.50	83.50	669.10	83.50	1
14	669.10	83.50	748.60	110.00	5
15	748.60	110.00	768.60	110.00	5
16	768.60	110.00	843.60	135.00	5
17	843.60	135.00	1143.80	165.00	5
18	1143.80	165.00	1293.80	167.00	5
19	669.10	83.50	673.80	83.50	1
20	673.80	83.50	714.30	97.00	6
21	714.30	97.00	715.80	97.50	6
22	715.80	97.50	748.80	108.50	6
23	748.80	108.50	768.80	108.50	6
24	768.80	108.50	771.80	109.50	6
25	771.80	109.50	773.30	110.00	6
26	773.30	110.00	819.80	125.50	6
27	819.80	125.50	821.30	126.00	6
28	821.30	126.00	843.80	133.50	6
29	843.80	133.50	993.80	148.50	6
30	993.80	148.50	998.80	149.00	6
31	998.80	149.00	1143.80	163.50	6
32	1143.80	163.50	1293.80	165.50	6
33	998.80	149.00	1021.30	149.00	6
34	1021.30	149.00	1041.20	149.00	7
35	1041.20	149.00	1293.80	149.00	6
36	993.80	148.50	1019.50	148.50	6
37	1019.50	148.50	1021.30	149.00	7
38	1019.50	148.50	1039.70	148.50	6
39	1039.70	148.50	1041.20	149.00	6
40	1039.70	148.50	1293.80	148.50	6
41	821.30	126.00	847.30	126.00	6
42	847.30	126.00	867.20	126.00	7
43	867.20	126.00	892.20	126.00	6
44	892.20	126.00	902.20	126.00	7
45	902.20	126.00	1293.80	126.00	6
46	819.80	125.50	845.50	125.50	6
47	845.50	125.50	847.30	126.00	7
48	845.50	125.50	865.70	125.50	6
49	865.70	125.50	867.20	126.00	6

50	865.70	125.50	890.70	125.50	6
51	890.70	125.50	892.20	126.00	7
52	890.70	125.50	900.70	125.50	6
53	900.70	125.50	902.20	126.00	6
54	900.70	125.50	1293.80	125.50	6
55	773.30	110.00	791.30	110.00	6
56	791.30	110.00	811.20	110.00	7
57	811.20	110.00	836.20	110.00	6
58	836.20	110.00	846.20	110.00	7
59	846.20	110.00	993.20	110.00	6
60	771.80	109.50	789.50	109.50	6
61	789.50	109.50	791.30	110.00	7
62	789.50	109.50	809.70	109.50	6
63	809.70	109.50	811.20	110.00	6
64	809.70	109.50	834.70	109.50	6
65	834.70	109.50	836.70	110.00	7
66	834.70	109.50	844.70	109.50	6
67	844.70	109.50	846.20	110.00	6
68	844.70	109.50	1293.80	109.50	6
69	715.80	97.50	742.40	97.50	7
70	742.40	97.50	767.40	97.50	6
71	767.40	97.50	777.40	97.50	7
72	777.40	97.50	1293.80	97.50	6
73	714.30	97.00	740.90	97.00	6
74	740.90	97.00	742.40	97.50	6
75	740.90	97.00	765.90	97.00	6
76	765.90	97.00	767.40	97.50	7
77	765.90	97.00	775.90	97.00	6
78	775.90	97.00	777.40	97.50	6
79	775.90	97.00	1293.80	97.00	6
80	673.80	83.50	678.80	83.50	1
81	678.80	83.50	701.80	72.00	1
82	701.80	72.00	1293.80	72.00	1
83	.00	70.00	1293.80	70.00	9
84	.00	60.00	1293.80	60.00	10
85	.00	49.00	1293.80	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	1293.80	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	843.40	852.90	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random

Technique For Generating Sliding Block Surfaces, Has Been Specified.
1000 Trial Surfaces Have Been Generated.
2 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	1148.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Modified Janbu Method * *

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.644 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
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*** 1.644 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
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3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79

```
    8        714.10       59.06
    9        817.26       71.74
   10        823.19       79.80
   11        829.79       87.31
   12        835.31       95.64
   13        842.29      102.81
   14        845.79      112.17
   15        851.16      120.61
   16        858.16      127.75
   17        865.20      134.85
   18        867.78      137.94
      ***     1.644   ***
Failure Surface Specified By 18 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
    1        660.38       84.71
    2        660.82       84.29
    3        668.44       77.82
    4        677.45       73.48
    5        686.60       69.44
    6        694.61       63.44
    7        704.25       60.79
    8        714.10       59.06
    9        817.26       71.74
   10        823.19       79.80
   11        829.79       87.31
   12        835.31       95.64
   13        842.29      102.81
   14        845.79      112.17
   15        851.16      120.61
   16        858.16      127.75
   17        865.20      134.85
   18        867.78      137.94
      ***     1.644   ***
Failure Surface Specified By 18 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
    1        660.38       84.71
    2        660.82       84.29
    3        668.44       77.82
    4        677.45       73.48
    5        686.60       69.44
    6        694.61       63.44
    7        704.25       60.79
    8        714.10       59.06
    9        817.26       71.74
   10        823.19       79.80
   11        829.79       87.31
   12        835.31       95.64
   13        842.29      102.81
   14        845.79      112.17
   15        851.16      120.61
   16        858.16      127.75
   17        865.20      134.85
   18        867.78      137.94
      ***     1.644   ***
Failure Surface Specified By 17 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
    1        672.83       85.28
    2        676.47       83.63
    3        683.64       76.67
    4        690.79       69.67
    5        697.99       62.74
    6        707.75       60.53
    7        716.12       55.07
    8        793.10       69.80
    9        799.65       77.36
```

10	805.19	85.69
11	811.92	93.08
12	818.45	100.66
13	824.97	108.24
14	830.11	116.82
15	835.02	125.53
16	840.70	133.76
17	840.79	134.63

*** 1.718 ***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	672.83	85.28
2	676.47	83.63
3	683.64	76.67
4	690.79	69.67
5	697.99	62.74
6	707.75	60.53
7	716.12	55.07
8	793.10	69.80
9	799.65	77.36
10	805.19	85.69
11	811.92	93.08
12	818.45	100.66
13	824.97	108.24
14	830.11	116.82
15	835.02	125.53
16	840.70	133.76
17	840.79	134.63

*** 1.718 ***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	672.83	85.28
2	676.47	83.63
3	683.64	76.67
4	690.79	69.67
5	697.99	62.74
6	707.75	60.53
7	716.12	55.07
8	793.10	69.80
9	799.65	77.36
10	805.19	85.69
11	811.92	93.08
12	818.45	100.66
13	824.97	108.24
14	830.11	116.82
15	835.02	125.53
16	840.70	133.76
17	840.79	134.63

*** 1.718 ***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	672.83	85.28
2	676.47	83.63
3	683.64	76.67
4	690.79	69.67
5	697.99	62.74
6	707.75	60.53
7	716.12	55.07
8	793.10	69.80
9	799.65	77.36
10	805.19	85.69
11	811.92	93.08
12	818.45	100.66
13	824.97	108.24
14	830.11	116.82

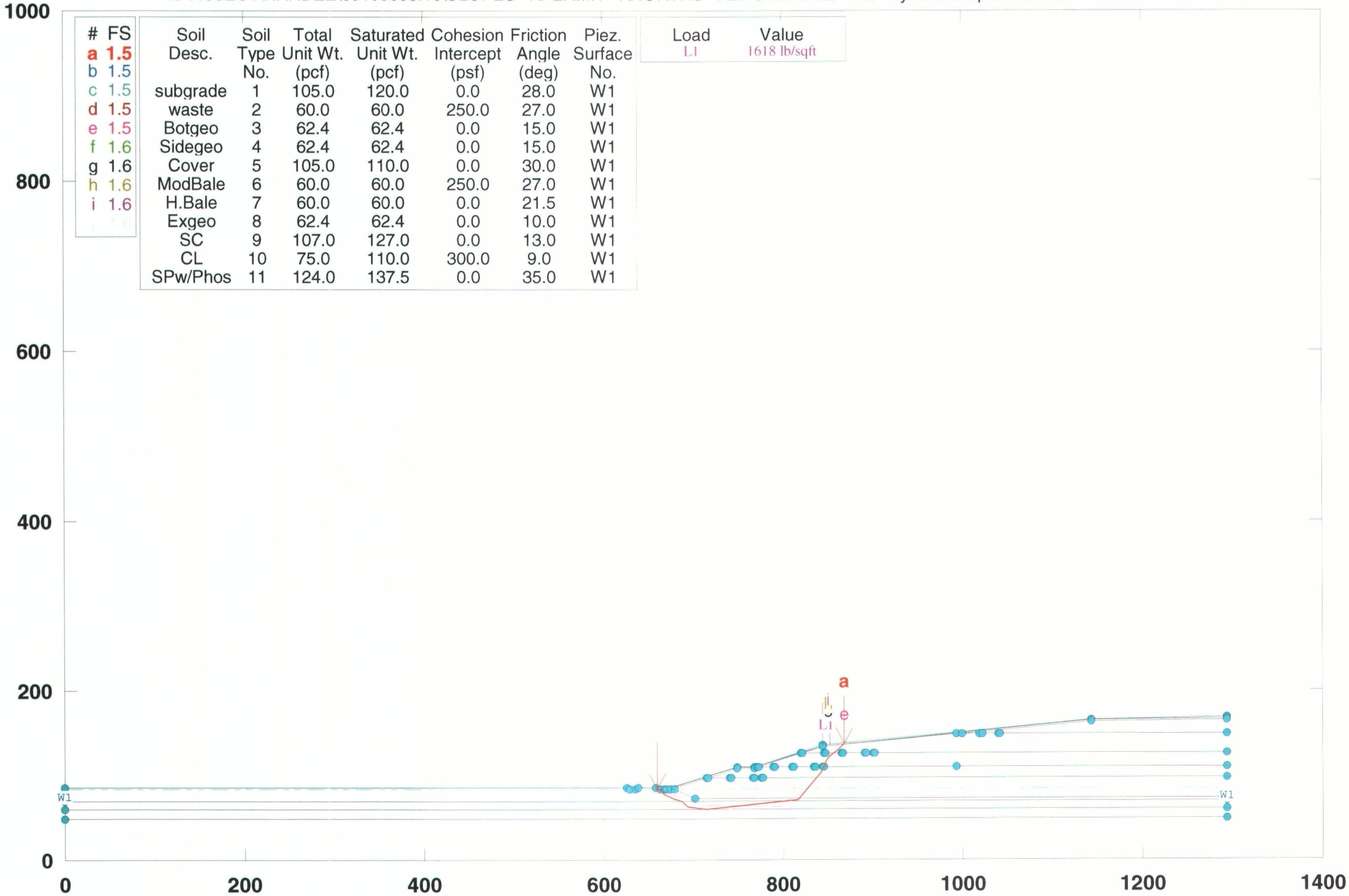
15	835.02	125.53
16	840.70	133.76
17	840.79	134.63
***	1.718	***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	672.83	85.28
2	676.47	83.63
3	683.64	76.67
4	690.79	69.67
5	697.99	62.74
6	707.75	60.53
7	716.12	55.07
8	793.10	69.80
9	799.65	77.36
10	805.19	85.69
11	811.92	93.08
12	818.45	100.66
13	824.97	108.24
14	830.11	116.82
15	835.02	125.53
16	840.70	133.76
17	840.79	134.63
***	1.718	***

Hardee County Landfill Expansion Final Buildout -Mod North Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\NORTHS~1\BNORTH.PL2 Run By: Dominique Bramlett 3/7/2007 1:41PM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.5

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 1:41PM
Run By: Dominique Bramlett
Input Data Filename: F:bnorth.
Output Filename: F:bnorth.OUT
Plotted Output Filename: F:bnorth.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod North Slope

BOUNDARY COORDINATES
12 Top Boundaries
85 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
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3	629.80	83.50	634.80	83.50	1
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5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	843.40	135.50	4
11	843.40	135.50	1143.70	165.50	4
12	1143.70	165.50	1293.80	167.50	4
13	667.50	83.50	669.10	83.50	1
14	669.10	83.50	748.60	110.00	5
15	748.60	110.00	768.60	110.00	5
16	768.60	110.00	843.60	135.00	5
17	843.60	135.00	1143.80	165.00	5
18	1143.80	165.00	1293.80	167.00	5
19	669.10	83.50	673.80	83.50	1
20	673.80	83.50	714.30	97.00	6
21	714.30	97.00	715.80	97.50	6
22	715.80	97.50	748.80	108.50	6
23	748.80	108.50	768.80	108.50	6
24	768.80	108.50	771.80	109.50	6
25	771.80	109.50	773.30	110.00	6
26	773.30	110.00	819.80	125.50	6
27	819.80	125.50	821.30	126.00	6
28	821.30	126.00	843.80	133.50	6
29	843.80	133.50	993.80	148.50	6
30	993.80	148.50	998.80	149.00	6
31	998.80	149.00	1143.80	163.50	6
32	1143.80	163.50	1293.80	165.50	6
33	998.80	149.00	1021.30	149.00	6
34	1021.30	149.00	1041.20	149.00	7
35	1041.20	149.00	1293.80	149.00	6
36	993.80	148.50	1019.50	148.50	6
37	1019.50	148.50	1021.30	149.00	7
38	1019.50	148.50	1039.70	148.50	6
39	1039.70	148.50	1041.20	149.00	6
40	1039.70	148.50	1293.80	148.50	6
41	821.30	126.00	847.30	126.00	6
42	847.30	126.00	867.20	126.00	7
43	867.20	126.00	892.20	126.00	6
44	892.20	126.00	902.20	126.00	7
45	902.20	126.00	1293.80	126.00	6
46	819.80	125.50	845.50	125.50	6
47	845.50	125.50	847.30	126.00	7
48	845.50	125.50	865.70	125.50	6
49	865.70	125.50	867.20	126.00	6

50	865.70	125.50	890.70	125.50	6
51	890.70	125.50	892.20	126.00	7
52	890.70	125.50	900.70	125.50	6
53	900.70	125.50	902.20	126.00	6
54	900.70	125.50	1293.80	125.50	6
55	773.30	110.00	791.30	110.00	6
56	791.30	110.00	811.20	110.00	7
57	811.20	110.00	836.20	110.00	6
58	836.20	110.00	846.20	110.00	7
59	846.20	110.00	993.20	110.00	6
60	771.80	109.50	789.50	109.50	6
61	789.50	109.50	791.30	110.00	7
62	789.50	109.50	809.70	109.50	6
63	809.70	109.50	811.20	110.00	6
64	809.70	109.50	834.70	109.50	6
65	834.70	109.50	836.70	110.00	7
66	834.70	109.50	844.70	109.50	6
67	844.70	109.50	846.20	110.00	6
68	844.70	109.50	1293.80	109.50	6
69	715.80	97.50	742.40	97.50	7
70	742.40	97.50	767.40	97.50	6
71	767.40	97.50	777.40	97.50	7
72	777.40	97.50	1293.80	97.50	6
73	714.30	97.00	740.90	97.00	6
74	740.90	97.00	742.40	97.50	6
75	740.90	97.00	765.90	97.00	6
76	765.90	97.00	767.40	97.50	7
77	765.90	97.00	775.90	97.00	6
78	775.90	97.00	777.40	97.50	6
79	775.90	97.00	1293.80	97.00	6
80	673.80	83.50	678.80	83.50	1
81	678.80	83.50	701.80	72.00	1
82	701.80	72.00	1293.80	72.00	1
83	.00	70.00	1293.80	70.00	9
84	.00	60.00	1293.80	60.00	10
85	.00	49.00	1293.80	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	1293.80	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	843.40	852.90	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Sliding Block Surfaces, Has Been

Specified.
1000 Trial Surfaces Have Been Generated.
2 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of
Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	1148.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Janbu Method * *

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.457 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.457 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06

9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.457 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.457 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	660.38	84.71
2	660.82	84.29
3	668.44	77.82
4	677.45	73.48
5	686.60	69.44
6	694.61	63.44
7	704.25	60.79
8	714.10	59.06
9	817.26	71.74
10	823.19	79.80
11	829.79	87.31
12	835.31	95.64
13	842.29	102.81
14	845.79	112.17
15	851.16	120.61
16	858.16	127.75
17	865.20	134.85
18	867.78	137.94

*** 1.457 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	664.61	83.50
2	668.55	80.83
3	677.73	76.85
4	687.36	74.17
5	696.69	70.57
6	706.15	67.34
7	715.84	64.87
8	800.76	63.10
9	807.29	70.67
10	812.64	79.12

```
   11        813.88        89.04
   12        820.05        96.92
   13        824.71       105.77
   14        831.27       113.32
   15        837.98       120.73
   16        844.78       128.06
   17        850.84       136.01
   18        850.89       136.25
       ***     1.602   ***
Failure Surface Specified By 18 Coordinate Points
  Point      X-Surf       Y-Surf
   No.        (ft)         (ft)
    1        664.61        83.50
    2        668.55        80.83
    3        677.73        76.85
    4        687.36        74.17
    5        696.69        70.57
    6        706.15        67.34
    7        715.84        64.87
    8        800.76        63.10
    9        807.29        70.67
   10        812.64        79.12
   11        813.88        89.04
   12        820.05        96.92
   13        824.71       105.77
   14        831.27       113.32
   15        837.98       120.73
   16        844.78       128.06
   17        850.84       136.01
   18        850.89       136.25
       ***     1.602   ***
Failure Surface Specified By 18 Coordinate Points
  Point      X-Surf       Y-Surf
   No.        (ft)         (ft)
    1        664.61        83.50
    2        668.55        80.83
    3        677.73        76.85
    4        687.36        74.17
    5        696.69        70.57
    6        706.15        67.34
    7        715.84        64.87
    8        800.76        63.10
    9        807.29        70.67
   10        812.64        79.12
   11        813.88        89.04
   12        820.05        96.92
   13        824.71       105.77
   14        831.27       113.32
   15        837.98       120.73
   16        844.78       128.06
   17        850.84       136.01
   18        850.89       136.25
       ***     1.602   ***
Failure Surface Specified By 18 Coordinate Points
  Point      X-Surf       Y-Surf
   No.        (ft)         (ft)
    1        664.61        83.50
    2        668.55        80.83
    3        677.73        76.85
    4        687.36        74.17
    5        696.69        70.57
    6        706.15        67.34
    7        715.84        64.87
    8        800.76        63.10
    9        807.29        70.67
   10        812.64        79.12
   11        813.88        89.04
   12        820.05        96.92
```

13	824.71	105.77
14	831.27	113.32
15	837.98	120.73
16	844.78	128.06
17	850.84	136.01
18	850.89	136.25

*** 1.602 ***

Failure Surface Specified By 17 Coordinate Points

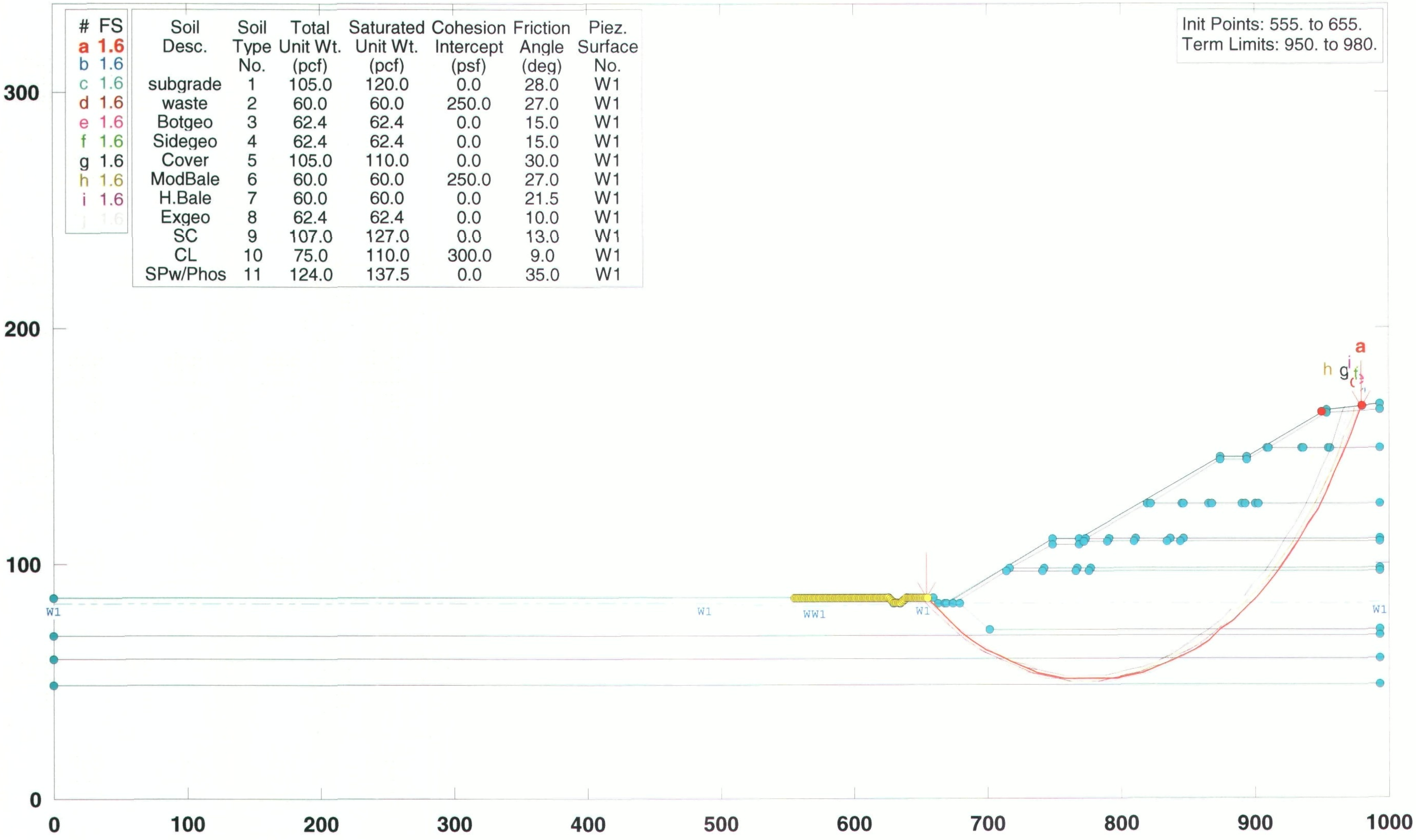
Point No.	X-Surf (ft)	Y-Surf (ft)
1	672.36	85.12
2	674.63	84.24
3	682.40	77.94
4	691.47	73.73
5	699.90	68.35
6	707.30	61.63
7	716.70	58.23
8	819.62	65.83
9	821.73	75.61
10	828.70	82.79
11	835.10	90.47
12	841.34	98.28
13	842.61	108.20
14	846.92	117.23
15	852.92	125.23
16	853.67	135.20
17	854.69	136.63

*** 1.611 ***

CIRCULAR SLOPE STABILITY ANALYSES
EAST SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout - Mod East Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\EASTSI~1\EAST.PL2 Run By: Dominique Bramlett 3/7/2007 11:45AM



#	FS
a	1.6
b	1.6
c	1.6
d	1.6
e	1.6
f	1.6
g	1.6
h	1.6
i	1.6
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:13AM
Run By: Shane R. Fischer
Input Data Filename: F:east.
Output Filename: F:east.OUT
Plotted Output Filename: F:east.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout - Mod East Slope

BOUNDARY COORDINATES
13 Top Boundaries
88 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	873.50	145.50	4
11	873.50	145.50	893.50	145.50	4
12	893.50	145.50	953.50	165.50	4
13	953.50	165.50	993.20	167.50	4
14	667.50	83.50	669.10	83.50	1
15	669.10	83.50	748.60	110.00	5
16	748.60	110.00	768.60	110.00	5
17	768.60	110.00	873.60	145.00	5
18	873.60	145.00	893.60	145.00	5
19	893.60	145.00	953.60	165.00	5
20	953.60	165.00	993.20	167.00	5
21	669.10	83.50	673.80	83.50	1
22	673.80	83.50	714.30	97.00	6
23	714.30	97.00	715.80	97.50	6
24	715.80	97.50	748.80	108.50	6
25	748.80	108.50	768.80	108.50	6
26	768.80	108.50	771.80	109.50	6
27	771.80	109.50	773.30	110.00	6
28	773.30	110.00	819.80	125.50	6
29	819.80	125.50	821.30	126.00	6
30	821.30	126.00	873.90	143.50	6
31	873.90	143.50	893.90	143.50	6
32	893.90	143.50	908.80	148.50	6
33	908.80	148.50	910.30	149.00	6
34	910.30	149.00	953.90	163.50	6
35	953.90	163.50	993.20	165.50	6
36	910.30	149.00	936.30	149.00	6
37	936.30	149.00	956.20	149.00	7
38	956.20	149.00	993.20	149.00	6
39	908.80	148.50	934.50	148.50	6
40	934.50	148.50	936.30	149.00	7
41	934.50	148.50	954.70	148.50	6
42	954.70	148.50	956.20	149.00	6
43	954.70	148.50	993.20	148.50	6
44	821.30	126.00	847.30	126.00	6
45	847.30	126.00	867.20	126.00	7
46	867.20	126.00	892.20	126.00	6
47	892.20	126.00	902.20	126.00	7
48	902.20	126.00	993.20	126.00	6
49	819.80	125.50	845.50	125.50	6

50	845.50	125.50	847.30	126.00	7
51	845.50	125.50	865.70	125.50	6
52	865.70	125.50	867.20	126.00	6
53	865.70	125.50	890.70	125.50	6
54	890.70	125.50	892.20	126.00	7
55	890.70	125.50	900.70	125.50	6
56	900.70	125.50	902.20	126.00	6
57	900.70	125.50	993.20	125.50	6
58	773.30	110.00	791.30	110.00	6
59	791.30	110.00	811.20	110.00	7
60	811.20	110.00	836.20	110.00	6
61	836.20	110.00	846.20	110.00	7
62	846.20	110.00	993.20	110.00	6
63	771.80	109.50	789.50	109.50	6
64	789.50	109.50	791.30	110.00	7
65	789.50	109.50	809.70	109.50	6
66	809.70	109.50	811.20	110.00	6
67	809.70	109.50	834.70	109.50	6
68	834.70	109.50	836.70	110.00	7
69	834.70	109.50	844.70	109.50	6
70	844.70	109.50	846.20	110.00	6
71	844.70	109.50	993.20	109.50	6
72	715.80	97.50	742.40	97.50	7
73	742.40	97.50	767.40	97.50	6
74	767.40	97.50	777.40	97.50	7
75	777.40	97.50	993.20	97.50	6
76	714.30	97.00	740.90	97.00	6
77	740.90	97.00	742.40	97.50	6
78	740.90	97.00	765.90	97.00	6
79	765.90	97.00	767.40	97.50	7
80	765.90	97.00	775.90	97.00	6
81	775.90	97.00	777.40	97.50	6
82	775.90	97.00	993.20	97.00	6
83	673.80	83.50	678.80	83.50	1
84	678.80	83.50	701.80	72.00	1
85	701.80	72.00	993.20	72.00	1
86	.00	70.00	993.20	70.00	9
87	.00	60.00	993.20	60.00	10
88	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	973.00	982.50	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.
SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.
Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	653.99	85.50
2	662.59	80.41
3	671.41	75.68
4	680.42	71.34
5	689.60	67.39
6	698.95	63.84
7	708.44	60.69
8	718.06	57.94
9	727.78	55.62
10	737.60	53.71
11	747.49	52.22
12	757.43	51.15
13	767.41	50.51
14	777.41	50.30
15	787.40	50.52
16	797.38	51.17
17	807.33	52.24
18	817.21	53.73
19	827.03	55.65
20	836.75	57.98
21	846.37	60.73
22	855.85	63.89
23	865.20	67.45
24	874.38	71.41
25	883.39	75.75
26	892.20	80.48
27	900.80	85.58
28	909.18	91.05
29	917.31	96.86
30	925.19	103.02
31	932.80	109.51
32	940.12	116.32
33	947.14	123.44
34	953.86	130.85
35	960.25	138.54
36	966.30	146.50
37	972.01	154.71
38	977.37	163.16
39	979.47	166.81

Circle Center At X = 777.3 ; Y = 284.0 and Radius, 233.7
*** 1.590 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)

1	648.94	85.50
2	657.52	80.37
3	666.31	75.60
4	675.29	71.20
5	684.45	67.19
6	693.77	63.57
7	703.24	60.35
8	712.83	57.52
9	722.54	55.11
10	732.33	53.10
11	742.21	51.52
12	752.14	50.34
13	762.11	49.59
14	772.10	49.26
15	782.10	49.35
16	792.09	49.87
17	802.05	50.80
18	811.95	52.15
19	821.80	53.92
20	831.56	56.10
21	841.21	58.69
22	850.75	61.69
23	860.16	65.09
24	869.41	68.88
25	878.50	73.06
26	887.40	77.61
27	896.10	82.54
28	904.59	87.83
29	912.84	93.47
30	920.85	99.46
31	928.60	105.78
32	936.08	112.42
33	943.27	119.37
34	950.16	126.61
35	956.74	134.15
36	963.00	141.95
37	968.92	150.01
38	974.50	158.31
39	979.71	166.82

Circle Center At X = 774.9 ; Y = 286.3 and Radius, 237.1

*** 1.592 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	85.50
2	661.59	80.41
3	670.41	75.70
4	679.42	71.37
5	688.61	67.43
6	697.96	63.89
7	707.46	60.75
8	717.08	58.02
9	726.81	55.70
10	736.62	53.80
11	746.51	52.33
12	756.46	51.28
13	766.44	50.66
14	776.44	50.46
15	786.44	50.69
16	796.41	51.36
17	806.35	52.44
18	816.24	53.96
19	826.05	55.89
20	835.77	58.24
21	845.38	61.01
22	854.86	64.19
23	864.20	67.77
24	873.37	71.74

25	882.37	76.11
26	891.17	80.85
27	899.76	85.97
28	908.13	91.46
29	916.25	97.29
30	924.11	103.47
31	931.70	109.98
32	939.01	116.80
33	946.02	123.94
34	952.71	131.37
35	959.08	139.08
36	965.12	147.05
37	970.80	155.27
38	976.14	163.74
39	977.85	166.73

Circle Center At X = 776.0 ; Y = 283.9 and Radius, 233.5
*** 1.594 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	649.95	85.50
2	658.53	80.37
3	667.33	75.62
4	676.33	71.25
5	685.50	67.28
6	694.84	63.70
7	704.32	60.52
8	713.93	57.75
9	723.65	55.40
10	733.46	53.47
11	743.35	51.97
12	753.29	50.89
13	763.27	50.23
14	773.27	50.01
15	783.27	50.22
16	793.24	50.85
17	803.19	51.92
18	813.08	53.41
19	822.89	55.32
20	832.62	57.66
21	842.23	60.41
22	851.72	63.57
23	861.06	67.13
24	870.24	71.10
25	879.24	75.45
26	888.05	80.19
27	896.64	85.30
28	905.01	90.78
29	913.14	96.61
30	921.00	102.78
31	928.60	109.29
32	935.90	116.11
33	942.91	123.25
34	949.61	130.68
35	955.97	138.39
36	962.01	146.36
37	967.69	154.59
38	973.01	163.06
39	975.03	166.58

Circle Center At X = 773.5 ; Y = 282.7 and Radius, 232.7
*** 1.598 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.50
2	657.56	80.43
3	666.38	75.72
4	675.39	71.39

5	684.58	67.44
6	693.93	63.88
7	703.41	60.72
8	713.02	57.96
9	722.74	55.61
10	732.55	53.66
11	742.43	52.13
12	752.37	51.02
13	762.35	50.33
14	772.34	50.05
15	782.34	50.20
16	792.33	50.77
17	802.28	51.75
18	812.18	53.16
19	822.01	54.98
20	831.76	57.21
21	841.41	59.84
22	850.93	62.89
23	860.32	66.32
24	869.56	70.16
25	878.63	74.37
26	887.51	78.96
27	896.19	83.93
28	904.66	89.25
29	912.89	94.92
30	920.88	100.94
31	928.61	107.29
32	936.06	113.95
33	943.23	120.92
34	950.10	128.19
35	956.66	135.74
36	962.89	143.56
37	968.79	151.63
38	974.35	159.95
39	978.49	166.76

Circle Center At X = 773.9 ; Y = 287.9 and Radius, 237.8

*** 1.599 ***

Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	655.00	85.50
2	663.66	80.51
3	672.54	75.90
4	681.60	71.67
5	690.83	67.83
6	700.22	64.40
7	709.75	61.37
8	719.40	58.75
9	729.16	56.54
10	739.00	54.76
11	748.91	53.40
12	758.86	52.47
13	768.85	51.97
14	778.85	51.89
15	788.84	52.25
16	798.81	53.03
17	808.74	54.24
18	818.61	55.87
19	828.39	57.92
20	838.08	60.40
21	847.66	63.28
22	857.10	66.58
23	866.39	70.27
24	875.51	74.37
25	884.45	78.84
26	893.20	83.70
27	901.72	88.93
28	910.01	94.52

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  29        918.06      100.46
  30        925.84      106.74
  31        933.34      113.35
  32        940.56      120.27
  33        947.47      127.50
  34        954.07      135.02
  35        960.33      142.81
  36        966.26      150.86
  37        971.84      159.16
  38        976.42      166.65
Circle Center At X =  775.6 ; Y =  285.0  and Radius,  233.1
      ***     1.601   ***
Failure Surface Specified By 38 Coordinate Points
 Point      X-Surf      Y-Surf
  No.        (ft)        (ft)
   1        653.99       85.50
   2        662.58       80.38
   3        671.39       75.65
   4        680.41       71.33
   5        689.61       67.41
   6        698.97       63.91
   7        708.49       60.83
   8        718.13       58.18
   9        727.88       55.97
  10        737.73       54.20
  11        747.64       52.88
  12        757.60       52.00
  13        767.59       51.56
  14        777.59       51.58
  15        787.58       52.05
  16        797.54       52.96
  17        807.44       54.32
  18        817.28       56.13
  19        827.02       58.37
  20        836.66       61.05
  21        846.16       64.16
  22        855.52       67.69
  23        864.71       71.64
  24        873.71       76.00
  25        882.50       80.76
  26        891.07       85.91
  27        899.41       91.43
  28        907.48       97.33
  29        915.29      103.58
  30        922.80      110.18
  31        930.01      117.11
  32        936.91      124.35
  33        943.47      131.90
  34        949.68      139.74
  35        955.54      147.84
  36        961.02      156.20
  37        966.13      164.80
  38        966.86      166.17
Circle Center At X =  772.2 ; Y =  274.1  and Radius,  222.6
      ***     1.606   ***
Failure Surface Specified By 37 Coordinate Points
 Point      X-Surf      Y-Surf
  No.        (ft)        (ft)
   1        653.99       85.50
   2        662.37       80.05
   3        671.02       75.02
   4        679.89       70.42
   5        688.98       66.25
   6        698.27       62.53
   7        707.72       59.27
   8        717.32       56.47
   9        727.05       54.15
  10        736.87       52.30
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11	746.78	50.93
12	756.74	50.05
13	766.73	49.65
14	776.73	49.74
15	786.71	50.32
16	796.66	51.38
17	806.54	52.93
18	816.33	54.96
19	826.01	57.46
20	835.56	60.43
21	844.95	63.86
22	854.17	67.75
23	863.18	72.08
24	871.97	76.85
25	880.52	82.04
26	888.81	87.64
27	896.81	93.63
28	904.51	100.01
29	911.89	106.76
30	918.93	113.86
31	925.62	121.29
32	931.94	129.04
33	937.87	137.09
34	943.41	145.42
35	948.53	154.01
36	953.23	162.84
37	954.50	165.55

Circle Center At X = 769.9 ; Y = 254.7 and Radius, 205.1

*** 1.611 ***

Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	85.50
2	661.64	80.50
3	670.51	75.88
4	679.57	71.65
5	688.80	67.82
6	698.20	64.39
7	707.73	61.38
8	717.39	58.78
9	727.15	56.61
10	737.00	54.86
11	746.91	53.54
12	756.87	52.65
13	766.86	52.20
14	776.86	52.19
15	786.85	52.60
16	796.82	53.46
17	806.73	54.74
18	816.59	56.46
19	826.35	58.60
20	836.02	61.16
21	845.56	64.14
22	854.97	67.54
23	864.22	71.34
24	873.30	75.54
25	882.18	80.13
26	890.86	85.10
27	899.31	90.44
28	907.52	96.15
29	915.48	102.21
30	923.16	108.61
31	930.56	115.34
32	937.66	122.38
33	944.45	129.72
34	950.91	137.36
35	957.03	145.26
36	962.80	153.43

37	968.21	161.84
38	970.86	166.37

Circle Center At X = 772.2 ; Y = 282.0 and Radius, 229.9
*** 1.611 ***

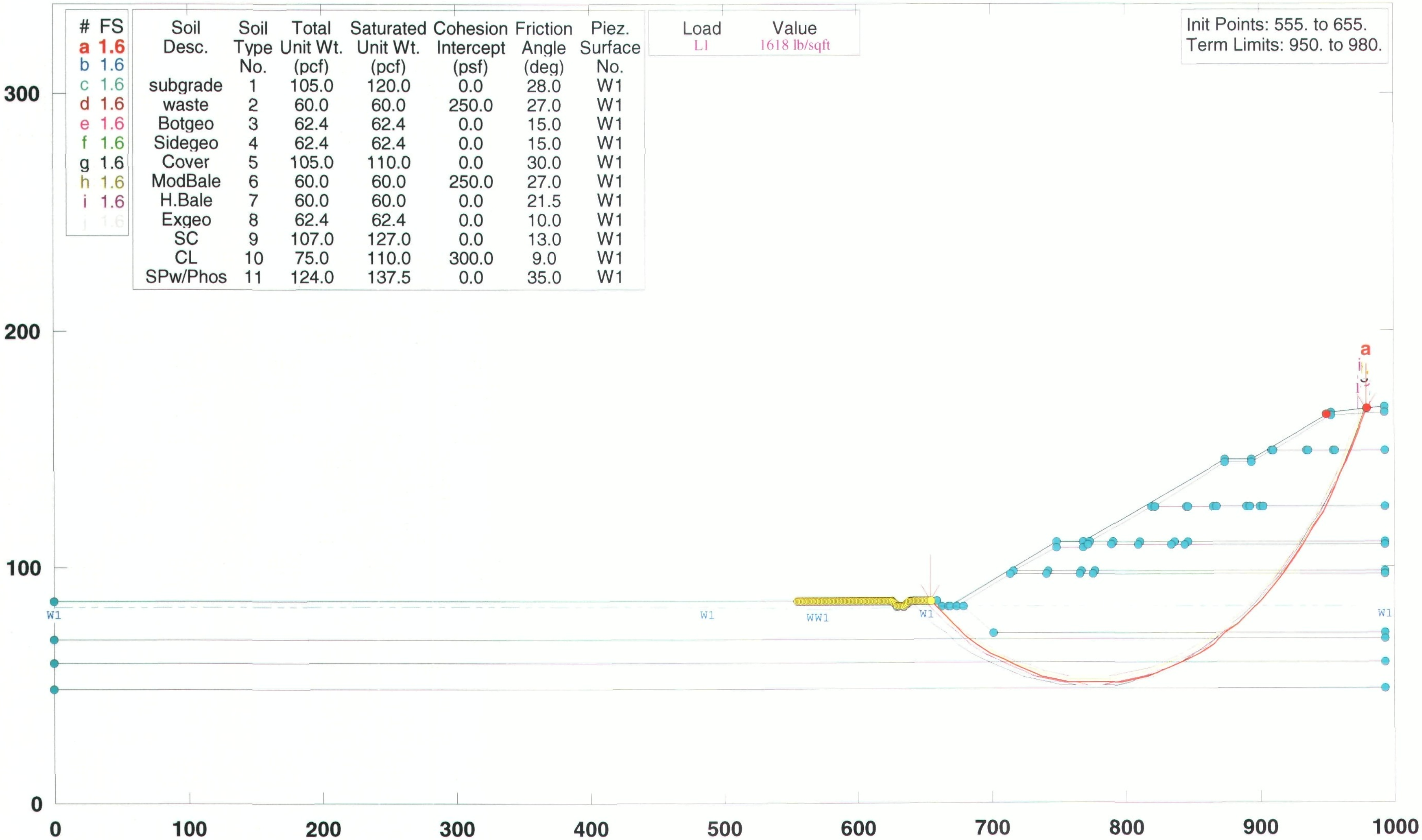
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	647.93	85.50
2	656.58	80.48
3	665.43	75.84
4	674.48	71.57
5	683.69	67.68
6	693.06	64.19
7	702.57	61.10
8	712.20	58.41
9	721.94	56.13
10	731.76	54.27
11	741.66	52.82
12	751.60	51.79
13	761.59	51.17
14	771.58	50.99
15	781.58	51.22
16	791.56	51.87
17	801.50	52.95
18	811.39	54.45
19	821.21	56.36
20	830.93	58.68
21	840.55	61.41
22	850.05	64.55
23	859.40	68.08
24	868.60	72.00
25	877.62	76.31
26	886.46	81.00
27	895.09	86.06
28	903.49	91.47
29	911.66	97.24
30	919.58	103.34
31	927.24	109.77
32	934.62	116.52
33	941.70	123.58
34	948.48	130.93
35	954.95	138.56
36	961.09	146.45
37	966.89	154.60
38	972.34	162.98
39	974.45	166.56

Circle Center At X = 771.1 ; Y = 287.9 and Radius, 236.9
*** 1.611 ***

Hardee County Landfill Expansion Final Buildout - Mod East Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\EASTSI~1\EAST.PL2 Run By: Dominique Bramlett 3/7/2007 11:46AM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

** **STABL6H** **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 11:46AM
Run By: Dominique Bramlett
Input Data Filename: F:east.
Output Filename: F:east.OUT
Plotted Output Filename: F:east.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout - Mod East Slope

BOUNDARY COORDINATES
13 Top Boundaries
88 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	873.50	145.50	4
11	873.50	145.50	893.50	145.50	4
12	893.50	145.50	953.50	165.50	4
13	953.50	165.50	993.20	167.50	4
14	667.50	83.50	669.10	83.50	1
15	669.10	83.50	748.60	110.00	5
16	748.60	110.00	768.60	110.00	5
17	768.60	110.00	873.60	145.00	5
18	873.60	145.00	893.60	145.00	5
19	893.60	145.00	953.60	165.00	5
20	953.60	165.00	993.20	167.00	5
21	669.10	83.50	673.80	83.50	1
22	673.80	83.50	714.30	97.00	6
23	714.30	97.00	715.80	97.50	6
24	715.80	97.50	748.80	108.50	6
25	748.80	108.50	768.80	108.50	6
26	768.80	108.50	771.80	109.50	6
27	771.80	109.50	773.30	110.00	6
28	773.30	110.00	819.80	125.50	6
29	819.80	125.50	821.30	126.00	6
30	821.30	126.00	873.90	143.50	6
31	873.90	143.50	893.90	143.50	6
32	893.90	143.50	908.80	148.50	6
33	908.80	148.50	910.30	149.00	6
34	910.30	149.00	953.90	163.50	6
35	953.90	163.50	993.20	165.50	6
36	910.30	149.00	936.30	149.00	6
37	936.30	149.00	956.20	149.00	7
38	956.20	149.00	993.20	149.00	6
39	908.80	148.50	934.50	148.50	6
40	934.50	148.50	936.30	149.00	7
41	934.50	148.50	954.70	148.50	6
42	954.70	148.50	956.20	149.00	6
43	954.70	148.50	993.20	148.50	6
44	821.30	126.00	847.30	126.00	6
45	847.30	126.00	867.20	126.00	7
46	867.20	126.00	892.20	126.00	6
47	892.20	126.00	902.20	126.00	7
48	902.20	126.00	993.20	126.00	6
49	819.80	125.50	845.50	125.50	6

50	845.50	125.50	847.30	126.00	7
51	845.50	125.50	865.70	125.50	6
52	865.70	125.50	867.20	126.00	6
53	865.70	125.50	890.70	125.50	6
54	890.70	125.50	892.20	126.00	7
55	890.70	125.50	900.70	125.50	6
56	900.70	125.50	902.20	126.00	6
57	900.70	125.50	993.20	125.50	6
58	773.30	110.00	791.30	110.00	6
59	791.30	110.00	811.20	110.00	7
60	811.20	110.00	836.20	110.00	6
61	836.20	110.00	846.20	110.00	7
62	846.20	110.00	993.20	110.00	6
63	771.80	109.50	789.50	109.50	6
64	789.50	109.50	791.30	110.00	7
65	789.50	109.50	809.70	109.50	6
66	809.70	109.50	811.20	110.00	6
67	809.70	109.50	834.70	109.50	6
68	834.70	109.50	836.70	110.00	7
69	834.70	109.50	844.70	109.50	6
70	844.70	109.50	846.20	110.00	6
71	844.70	109.50	993.20	109.50	6
72	715.80	97.50	742.40	97.50	7
73	742.40	97.50	767.40	97.50	6
74	767.40	97.50	777.40	97.50	7
75	777.40	97.50	993.20	97.50	6
76	714.30	97.00	740.90	97.00	6
77	740.90	97.00	742.40	97.50	6
78	740.90	97.00	765.90	97.00	6
79	765.90	97.00	767.40	97.50	7
80	765.90	97.00	775.90	97.00	6
81	775.90	97.00	777.40	97.50	6
82	775.90	97.00	993.20	97.00	6
83	673.80	83.50	678.80	83.50	1
84	678.80	83.50	701.80	72.00	1
85	701.80	72.00	993.20	72.00	1
86	.00	70.00	993.20	70.00	9
87	.00	60.00	993.20	60.00	10
88	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	973.00	982.50	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.
Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	653.99	85.50
2	662.59	80.41
3	671.41	75.68
4	680.42	71.34
5	689.60	67.39
6	698.95	63.84
7	708.44	60.69
8	718.06	57.94
9	727.78	55.62
10	737.60	53.71
11	747.49	52.22
12	757.43	51.15
13	767.41	50.51
14	777.41	50.30
15	787.40	50.52
16	797.38	51.17
17	807.33	52.24
18	817.21	53.73
19	827.03	55.65
20	836.75	57.98
21	846.37	60.73
22	855.85	63.89
23	865.20	67.45
24	874.38	71.41
25	883.39	75.75
26	892.20	80.48
27	900.80	85.58
28	909.18	91.05
29	917.31	96.86
30	925.19	103.02
31	932.80	109.51
32	940.12	116.32
33	947.14	123.44
34	953.86	130.85
35	960.25	138.54
36	966.30	146.50
37	972.01	154.71
38	977.37	163.16
39	979.47	166.81

Circle Center At X = 777.3 ; Y = 284.0 and Radius, 233.7
*** 1.552 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.50

2	657.52	80.37
3	666.31	75.60
4	675.29	71.20
5	684.45	67.19
6	693.77	63.57
7	703.24	60.35
8	712.83	57.52
9	722.54	55.11
10	732.33	53.10
11	742.21	51.52
12	752.14	50.34
13	762.11	49.59
14	772.10	49.26
15	782.10	49.35
16	792.09	49.87
17	802.05	50.80
18	811.95	52.15
19	821.80	53.92
20	831.56	56.10
21	841.21	58.69
22	850.75	61.69
23	860.16	65.09
24	869.41	68.88
25	878.50	73.06
26	887.40	77.61
27	896.10	82.54
28	904.59	87.83
29	912.84	93.47
30	920.85	99.46
31	928.60	105.78
32	936.08	112.42
33	943.27	119.37
34	950.16	126.61
35	956.74	134.15
36	963.00	141.95
37	968.92	150.01
38	974.50	158.31
39	979.71	166.82

Circle Center At X = 774.9 ; Y = 286.3 and Radius, 237.1

*** 1.553 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	85.50
2	661.59	80.41
3	670.41	75.70
4	679.42	71.37
5	688.61	67.43
6	697.96	63.89
7	707.46	60.75
8	717.08	58.02
9	726.81	55.70
10	736.62	53.80
11	746.51	52.33
12	756.46	51.28
13	766.44	50.66
14	776.44	50.46
15	786.44	50.69
16	796.41	51.36
17	806.35	52.44
18	816.24	53.96
19	826.05	55.89
20	835.77	58.24
21	845.38	61.01
22	854.86	64.19
23	864.20	67.77
24	873.37	71.74
25	882.37	76.11

26	891.17	80.85
27	899.76	85.97
28	908.13	91.46
29	916.25	97.29
30	924.11	103.47
31	931.70	109.98
32	939.01	116.80
33	946.02	123.94
34	952.71	131.37
35	959.08	139.08
36	965.12	147.05
37	970.80	155.27
38	976.14	163.74
39	977.85	166.73

Circle Center At X = 776.0 ; Y = 283.9 and Radius, 233.5

*** 1.564 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.50
2	657.56	80.43
3	666.38	75.72
4	675.39	71.39
5	684.58	67.44
6	693.93	63.88
7	703.41	60.72
8	713.02	57.96
9	722.74	55.61
10	732.55	53.66
11	742.43	52.13
12	752.37	51.02
13	762.35	50.33
14	772.34	50.05
15	782.34	50.20
16	792.33	50.77
17	802.28	51.75
18	812.18	53.16
19	822.01	54.98
20	831.76	57.21
21	841.41	59.84
22	850.93	62.89
23	860.32	66.32
24	869.56	70.16
25	878.63	74.37
26	887.51	78.96
27	896.19	83.93
28	904.66	89.25
29	912.89	94.92
30	920.88	100.94
31	928.61	107.29
32	936.06	113.95
33	943.23	120.92
34	950.10	128.19
35	956.66	135.74
36	962.89	143.56
37	968.79	151.63
38	974.35	159.95
39	978.49	166.76

Circle Center At X = 773.9 ; Y = 287.9 and Radius, 237.8

*** 1.566 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	653.99	85.50
2	662.77	80.71
3	671.74	76.29
4	680.88	72.25
5	690.19	68.58

```
    6        699.63       65.30
    7        709.21       62.41
    8        718.89       59.92
    9        728.67       57.83
   10        738.53       56.14
   11        748.44       54.86
   12        758.41       53.99
   13        768.40       53.54
   14        778.40       53.49
   15        788.39       53.85
   16        798.36       54.63
   17        808.29       55.82
   18        818.16       57.41
   19        827.96       59.41
   20        837.67       61.81
   21        847.27       64.61
   22        856.74       67.81
   23        866.08       71.39
   24        875.26       75.35
   25        884.27       79.69
   26        893.10       84.39
   27        901.72       89.45
   28        910.13       94.87
   29        918.30      100.62
   30        926.24      106.71
   31        933.91      113.12
   32        941.32      119.84
   33        948.44      126.86
   34        955.27      134.17
   35        961.79      141.75
   36        967.99      149.59
   37        973.86      157.69
   38        979.40      166.02
   39        979.89      166.83
Circle Center At X =  774.5 ; Y =  296.2  and Radius,   242.7
     ***     1.576   ***
Failure Surface Specified By 38 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
    1        655.00       85.50
    2        663.66       80.51
    3        672.54       75.90
    4        681.60       71.67
    5        690.83       67.83
    6        700.22       64.40
    7        709.75       61.37
    8        719.40       58.75
    9        729.16       56.54
   10        739.00       54.76
   11        748.91       53.40
   12        758.86       52.47
   13        768.85       51.97
   14        778.85       51.89
   15        788.84       52.25
   16        798.81       53.03
   17        808.74       54.24
   18        818.61       55.87
   19        828.39       57.92
   20        838.08       60.40
   21        847.66       63.28
   22        857.10       66.58
   23        866.39       70.27
   24        875.51       74.37
   25        884.45       78.84
   26        893.20       83.70
   27        901.72       88.93
   28        910.01       94.52
   29        918.06      100.46
```

30	925.84	106.74
31	933.34	113.35
32	940.56	120.27
33	947.47	127.50
34	954.07	135.02
35	960.33	142.81
36	966.26	150.86
37	971.84	159.16
38	976.42	166.65

Circle Center At X = 775.6 ; Y = 285.0 and Radius, 233.1
*** 1.579 ***
Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	639.85	85.50
2	648.47	80.44
3	657.30	75.74
4	666.31	71.40
5	675.48	67.42
6	684.81	63.82
7	694.28	60.61
8	703.87	57.78
9	713.57	55.34
10	723.36	53.30
11	733.22	51.66
12	743.15	50.41
13	753.11	49.58
14	763.10	49.14
15	773.10	49.12
16	783.10	49.49
17	793.06	50.28
18	802.99	51.46
19	812.87	53.05
20	822.67	55.04
21	832.38	57.43
22	841.99	60.20
23	851.47	63.37
24	860.82	66.91
25	870.02	70.84
26	879.05	75.13
27	887.90	79.78
28	896.56	84.80
29	905.00	90.15
30	913.22	95.85
31	921.20	101.87
32	928.93	108.22
33	936.40	114.87
34	943.59	121.82
35	950.49	129.05
36	957.09	136.56
37	963.39	144.34
38	969.36	152.36
39	975.00	160.61
40	978.86	166.78

Circle Center At X = 768.8 ; Y = 295.5 and Radius, 246.4
*** 1.581 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	85.50
2	661.72	80.65
3	670.67	76.18
4	679.79	72.07
5	689.07	68.36
6	698.50	65.03
7	708.06	62.09
8	717.73	59.56
9	727.50	57.43

10	737.35	55.71
11	747.27	54.40
12	757.23	53.51
13	767.22	53.03
14	777.22	52.96
15	787.21	53.32
16	797.18	54.09
17	807.11	55.27
18	816.98	56.86
19	826.78	58.87
20	836.48	61.28
21	846.08	64.09
22	855.55	67.30
23	864.88	70.90
24	874.05	74.89
25	883.05	79.25
26	891.86	83.99
27	900.46	89.08
28	908.84	94.53
29	916.99	100.33
30	924.90	106.46
31	932.54	112.91
32	939.90	119.68
33	946.98	126.74
34	953.75	134.10
35	960.22	141.73
36	966.36	149.62
37	972.16	157.76
38	977.63	166.14
39	977.98	166.73

Circle Center At X = 773.7 ; Y = 293.1 and Radius, 240.2

*** 1.584 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	649.95	85.50
2	658.53	80.37
3	667.33	75.62
4	676.33	71.25
5	685.50	67.28
6	694.84	63.70
7	704.32	60.52
8	713.93	57.75
9	723.65	55.40
10	733.46	53.47
11	743.35	51.97
12	753.29	50.89
13	763.27	50.23
14	773.27	50.01
15	783.27	50.22
16	793.24	50.85
17	803.19	51.92
18	813.08	53.41
19	822.89	55.32
20	832.62	57.66
21	842.23	60.41
22	851.72	63.57
23	861.06	67.13
24	870.24	71.10
25	879.24	75.45
26	888.05	80.19
27	896.64	85.30
28	905.01	90.78
29	913.14	96.61
30	921.00	102.78
31	928.60	109.29
32	935.90	116.11
33	942.91	123.25

34	949.61	130.68
35	955.97	138.39
36	962.01	146.36
37	967.69	154.59
38	973.01	163.06
39	975.03	166.58

Circle Center At X = 773.5 ; Y = 282.7 and Radius, 232.7
*** 1.585 ***

Failure Surface Specified By 39 Coordinate Points

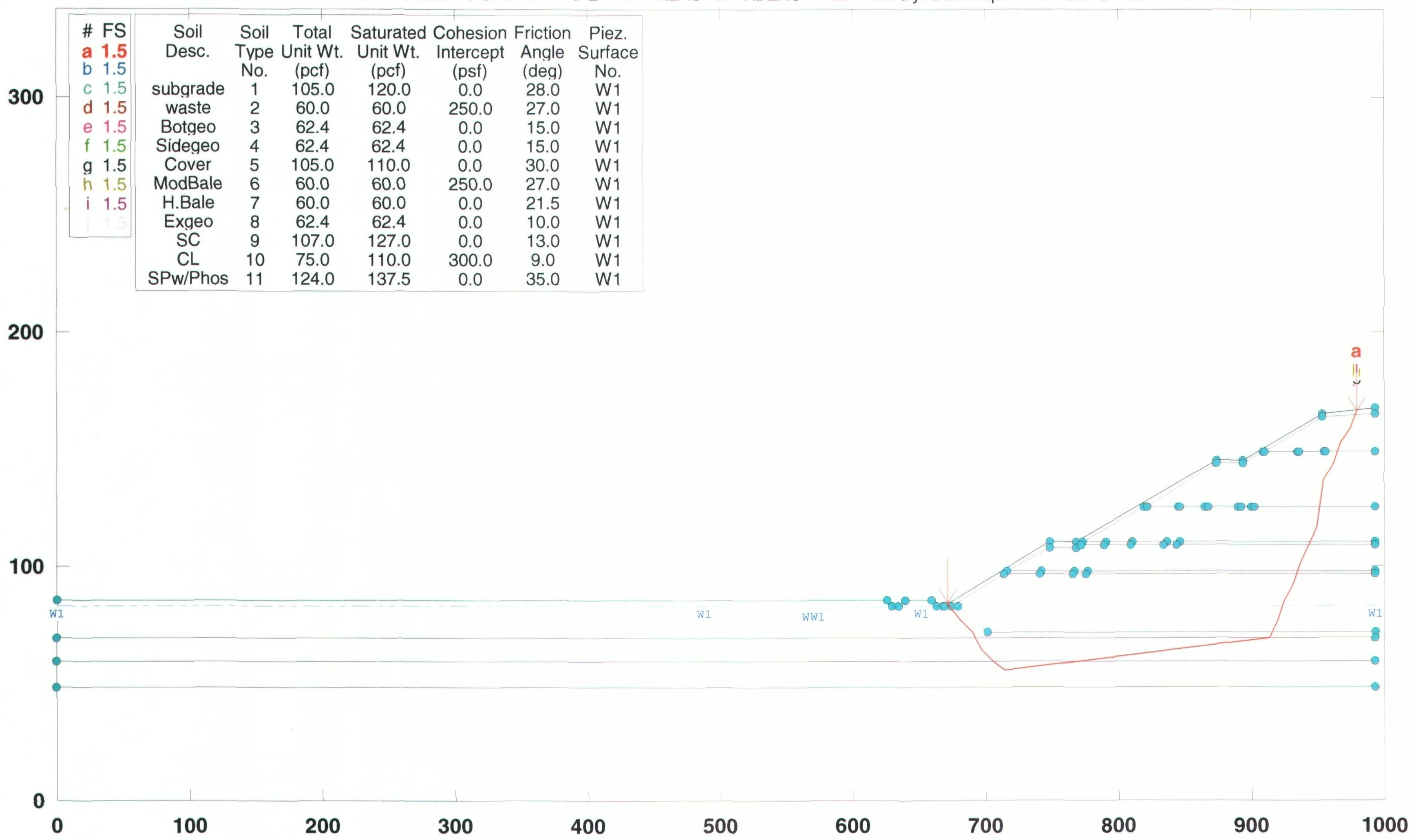
Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	85.50
2	661.82	80.83
3	670.84	76.51
4	680.03	72.57
5	689.37	69.00
6	698.85	65.81
7	708.45	63.01
8	718.15	60.60
9	727.95	58.58
10	737.82	56.96
11	747.74	55.74
12	757.71	54.93
13	767.70	54.52
14	777.70	54.51
15	787.69	54.91
16	797.66	55.71
17	807.59	56.91
18	817.46	58.52
19	827.25	60.52
20	836.96	62.92
21	846.56	65.71
22	856.05	68.88
23	865.39	72.44
24	874.59	76.37
25	883.62	80.67
26	892.46	85.33
27	901.11	90.35
28	909.55	95.71
29	917.77	101.41
30	925.75	107.44
31	933.48	113.78
32	940.95	120.44
33	948.14	127.39
34	955.04	134.62
35	961.64	142.13
36	967.94	149.90
37	973.92	157.92
38	979.56	166.17
39	979.98	166.83

Circle Center At X = 772.9 ; Y = 301.5 and Radius, 247.1
*** 1.587 ***

BLOCK SLOPE STABILITY ANALYSES
EAST SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout - Mod East Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\EASTSI~1\BEAST.PL2 Run By: Dominique Bramlett 3/7/2007 11:39AM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.5

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:14AM
Run By: Shane R. Fischer
Input Data Filename: F:beast.
Output Filename: F:beast.OUT
Plotted Output Filename: F:beast.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout - Mod East Slope

BOUNDARY COORDINATES
13 Top Boundaries
88 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	873.50	145.50	4
11	873.50	145.50	893.50	145.50	4
12	893.50	145.50	953.50	165.50	4
13	953.50	165.50	993.20	167.50	4
14	667.50	83.50	669.10	83.50	1
15	669.10	83.50	748.60	110.00	5
16	748.60	110.00	768.60	110.00	5
17	768.60	110.00	873.60	145.00	5
18	873.60	145.00	893.60	145.00	5
19	893.60	145.00	953.60	165.00	5
20	953.60	165.00	993.20	167.00	5
21	669.10	83.50	673.80	83.50	1
22	673.80	83.50	714.30	97.00	6
23	714.30	97.00	715.80	97.50	6
24	715.80	97.50	748.80	108.50	6
25	748.80	108.50	768.80	108.50	6
26	768.80	108.50	771.80	109.50	6
27	771.80	109.50	773.30	110.00	6
28	773.30	110.00	819.80	125.50	6
29	819.80	125.50	821.30	126.00	6
30	821.30	126.00	873.90	143.50	6
31	873.90	143.50	893.90	143.50	6
32	893.90	143.50	908.80	148.50	6
33	908.80	148.50	910.30	149.00	6
34	910.30	149.00	953.90	163.50	6
35	953.90	163.50	993.20	165.50	6
36	910.30	149.00	936.30	149.00	6
37	936.30	149.00	956.20	149.00	7
38	956.20	149.00	993.20	149.00	6
39	908.80	148.50	934.50	148.50	6
40	934.50	148.50	936.30	149.00	7
41	934.50	148.50	954.70	148.50	6
42	954.70	148.50	956.20	149.00	6
43	954.70	148.50	993.20	148.50	6
44	821.30	126.00	847.30	126.00	6
45	847.30	126.00	867.20	126.00	7
46	867.20	126.00	892.20	126.00	6
47	892.20	126.00	902.20	126.00	7
48	902.20	126.00	993.20	126.00	6
49	819.80	125.50	845.50	125.50	6

50	845.50	125.50	847.30	126.00	7
51	845.50	125.50	865.70	125.50	6
52	865.70	125.50	867.20	126.00	6
53	865.70	125.50	890.70	125.50	6
54	890.70	125.50	892.20	126.00	7
55	890.70	125.50	900.70	125.50	6
56	900.70	125.50	902.20	126.00	6
57	900.70	125.50	993.20	125.50	6
58	773.30	110.00	791.30	110.00	6
59	791.30	110.00	811.20	110.00	7
60	811.20	110.00	836.20	110.00	6
61	836.20	110.00	846.20	110.00	7
62	846.20	110.00	993.20	110.00	6
63	771.80	109.50	789.50	109.50	6
64	789.50	109.50	791.30	110.00	7
65	789.50	109.50	809.70	109.50	6
66	809.70	109.50	811.20	110.00	6
67	809.70	109.50	834.70	109.50	6
68	834.70	109.50	836.70	110.00	7
69	834.70	109.50	844.70	109.50	6
70	844.70	109.50	846.20	110.00	6
71	844.70	109.50	993.20	109.50	6
72	715.80	97.50	742.40	97.50	7
73	742.40	97.50	767.40	97.50	6
74	767.40	97.50	777.40	97.50	7
75	777.40	97.50	993.20	97.50	6
76	714.30	97.00	740.90	97.00	6
77	740.90	97.00	742.40	97.50	6
78	740.90	97.00	765.90	97.00	6
79	765.90	97.00	767.40	97.50	7
80	765.90	97.00	775.90	97.00	6
81	775.90	97.00	777.40	97.50	6
82	775.90	97.00	993.20	97.00	6
83	673.80	83.50	678.80	83.50	1
84	678.80	83.50	701.80	72.00	1
85	701.80	72.00	993.20	72.00	1
86	.00	70.00	993.20	70.00	9
87	.00	60.00	993.20	60.00	10
88	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	973.00	982.50	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.
SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Sliding Block Surfaces, Has Been
Specified.
1000 Trial Surfaces Have Been Generated.
2 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of
Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Janbu Method * *
Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.28	84.76
2	673.42	82.67
3	681.50	76.78
4	690.00	71.52
5	697.38	64.77
6	705.85	59.45
7	715.39	56.45
8	914.27	69.32
9	919.89	77.59
10	925.46	85.90
11	932.26	93.23
12	936.79	102.15
13	943.58	109.49
14	950.29	116.90
15	952.46	126.66
16	955.04	136.32
17	961.91	143.59
18	967.11	152.13
19	974.14	159.25
20	979.85	166.83

*** 1.527 ***

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.28	84.76
2	673.42	82.67
3	681.50	76.78
4	690.00	71.52
5	697.38	64.77
6	705.85	59.45
7	715.39	56.45
8	914.27	69.32
9	919.89	77.59
10	925.46	85.90
11	932.26	93.23
12	936.79	102.15
13	943.58	109.49
14	950.29	116.90
15	952.46	126.66
16	955.04	136.32
17	961.91	143.59
18	967.11	152.13
19	974.14	159.25
20	979.85	166.83

*** 1.527 ***

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.28	84.76
2	673.42	82.67
3	681.50	76.78
4	690.00	71.52
5	697.38	64.77
6	705.85	59.45
7	715.39	56.45
8	914.27	69.32
9	919.89	77.59
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12	936.79	102.15
13	943.58	109.49
14	950.29	116.90
15	952.46	126.66
16	955.04	136.32
17	961.91	143.59
18	967.11	152.13
19	974.14	159.25
20	979.85	166.83

*** 1.527 ***

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.28	84.76
2	673.42	82.67
3	681.50	76.78
4	690.00	71.52
5	697.38	64.77
6	705.85	59.45
7	715.39	56.45
8	914.27	69.32
9	919.89	77.59
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*** 1.527 ***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	677.10	86.70
2	681.53	83.05
3	689.86	77.53
4	698.32	72.19
5	707.22	67.62
6	716.27	63.39
7	810.70	62.84
8	817.71	69.96
9	824.15	77.62
10	830.87	85.02
11	836.72	93.13
12	841.94	101.66
13	847.91	109.68
14	854.29	117.38
15	857.88	126.72
16	861.41	136.07
17	865.32	142.77

*** 1.536 ***

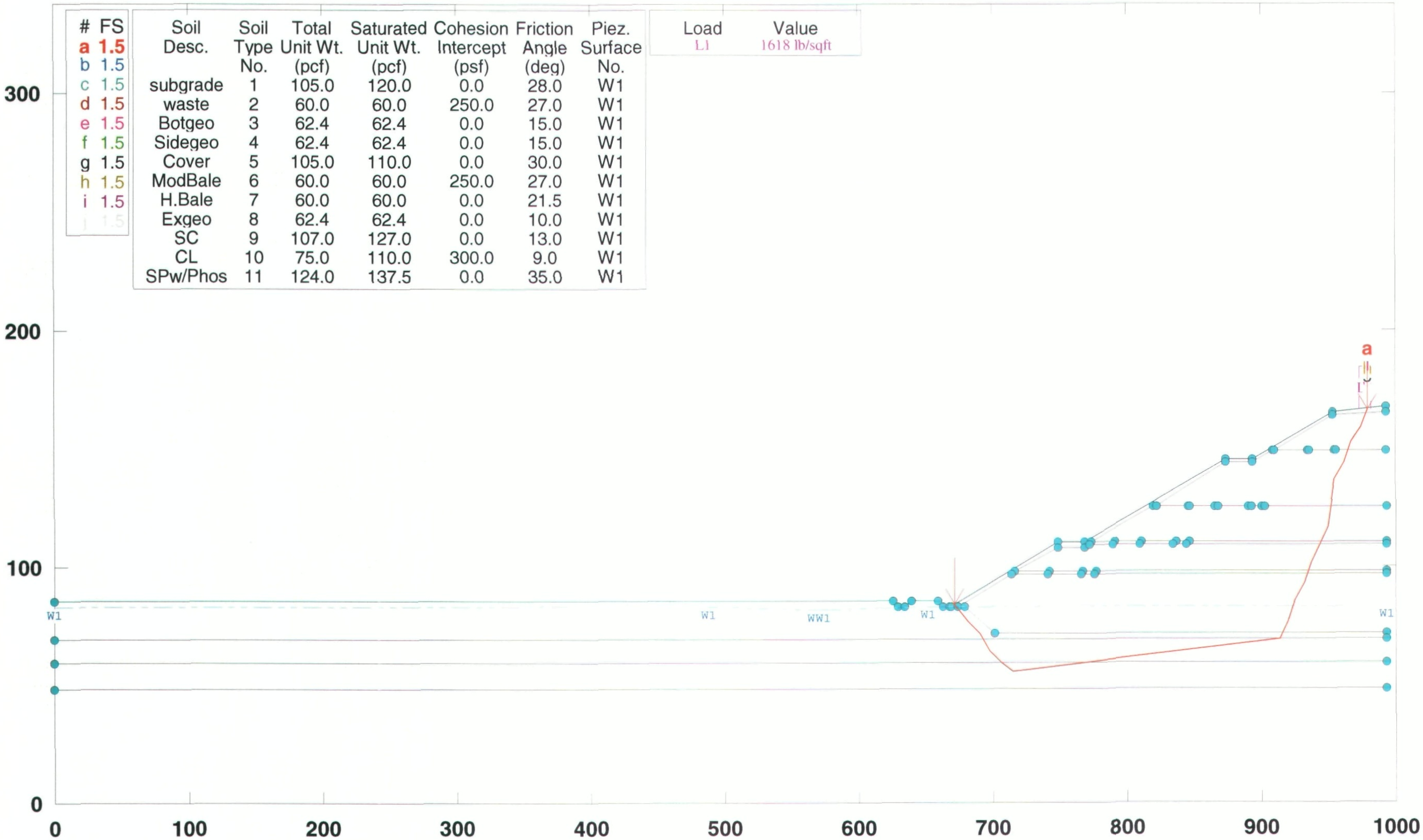
Hardee County Landfill Expansion Final Buildout - Mod East Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\EASTSI~1\BEAST.PL2 Run By: Dominique Bramlett 3/7/2007 11:40AM

#	FS
a	1.5
b	1.5
c	1.5
d	1.5
e	1.5
f	1.5
g	1.5
h	1.5
i	1.5
j	1.5

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

Load	Value
L1	1618 lb/sqft



STABL6H FSmin=1.5

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 11:40AM
Run By: Dominique Bramlett
Input Data Filename: F:beast.
Output Filename: F:beast.OUT
Plotted Output Filename: F:beast.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout - Mod East Slope

BOUNDARY COORDINATES
13 Top Boundaries
88 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.50	625.80	85.50	1
2	625.80	85.50	629.80	83.50	1
3	629.80	83.50	634.80	83.50	1
4	634.80	83.50	638.80	85.50	1
5	638.80	85.50	658.80	85.50	1
6	658.80	85.50	662.80	83.50	1
7	662.80	83.50	667.50	83.50	1
8	667.50	83.50	748.50	110.50	4
9	748.50	110.50	768.50	110.50	4
10	768.50	110.50	873.50	145.50	4
11	873.50	145.50	893.50	145.50	4
12	893.50	145.50	953.50	165.50	4
13	953.50	165.50	993.20	167.50	4
14	667.50	83.50	669.10	83.50	1
15	669.10	83.50	748.60	110.00	5
16	748.60	110.00	768.60	110.00	5
17	768.60	110.00	873.60	145.00	5
18	873.60	145.00	893.60	145.00	5
19	893.60	145.00	953.60	165.00	5
20	953.60	165.00	993.20	167.00	5
21	669.10	83.50	673.80	83.50	1
22	673.80	83.50	714.30	97.00	6
23	714.30	97.00	715.80	97.50	6
24	715.80	97.50	748.80	108.50	6
25	748.80	108.50	768.80	108.50	6
26	768.80	108.50	771.80	109.50	6
27	771.80	109.50	773.30	110.00	6
28	773.30	110.00	819.80	125.50	6
29	819.80	125.50	821.30	126.00	6
30	821.30	126.00	873.90	143.50	6
31	873.90	143.50	893.90	143.50	6
32	893.90	143.50	908.80	148.50	6
33	908.80	148.50	910.30	149.00	6
34	910.30	149.00	953.90	163.50	6
35	953.90	163.50	993.20	165.50	6
36	910.30	149.00	936.30	149.00	6
37	936.30	149.00	956.20	149.00	7
38	956.20	149.00	993.20	149.00	6
39	908.80	148.50	934.50	148.50	6
40	934.50	148.50	936.30	149.00	7
41	934.50	148.50	954.70	148.50	6
42	954.70	148.50	956.20	149.00	6
43	954.70	148.50	993.20	148.50	6
44	821.30	126.00	847.30	126.00	6
45	847.30	126.00	867.20	126.00	7
46	867.20	126.00	892.20	126.00	6
47	892.20	126.00	902.20	126.00	7
48	902.20	126.00	993.20	126.00	6
49	819.80	125.50	845.50	125.50	6

50	845.50	125.50	847.30	126.00	7
51	845.50	125.50	865.70	125.50	6
52	865.70	125.50	867.20	126.00	6
53	865.70	125.50	890.70	125.50	6
54	890.70	125.50	892.20	126.00	7
55	890.70	125.50	900.70	125.50	6
56	900.70	125.50	902.20	126.00	6
57	900.70	125.50	993.20	125.50	6
58	773.30	110.00	791.30	110.00	6
59	791.30	110.00	811.20	110.00	7
60	811.20	110.00	836.20	110.00	6
61	836.20	110.00	846.20	110.00	7
62	846.20	110.00	993.20	110.00	6
63	771.80	109.50	789.50	109.50	6
64	789.50	109.50	791.30	110.00	7
65	789.50	109.50	809.70	109.50	6
66	809.70	109.50	811.20	110.00	6
67	809.70	109.50	834.70	109.50	6
68	834.70	109.50	836.70	110.00	7
69	834.70	109.50	844.70	109.50	6
70	844.70	109.50	846.20	110.00	6
71	844.70	109.50	993.20	109.50	6
72	715.80	97.50	742.40	97.50	7
73	742.40	97.50	767.40	97.50	6
74	767.40	97.50	777.40	97.50	7
75	777.40	97.50	993.20	97.50	6
76	714.30	97.00	740.90	97.00	6
77	740.90	97.00	742.40	97.50	6
78	740.90	97.00	765.90	97.00	6
79	765.90	97.00	767.40	97.50	7
80	765.90	97.00	775.90	97.00	6
81	775.90	97.00	777.40	97.50	6
82	775.90	97.00	993.20	97.00	6
83	673.80	83.50	678.80	83.50	1
84	678.80	83.50	701.80	72.00	1
85	701.80	72.00	993.20	72.00	1
86	.00	70.00	993.20	70.00	9
87	.00	60.00	993.20	60.00	10
88	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	973.00	982.50	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

1000 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.

* * Safety Factors Are Calculated By The Modified Janbu Method * *

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	671.28	84.76
2	673.42	82.67
3	681.50	76.78
4	690.00	71.52
5	697.38	64.77
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***	1.480	***

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19	974.14	159.25
20	979.85	166.83
***	1.480	***

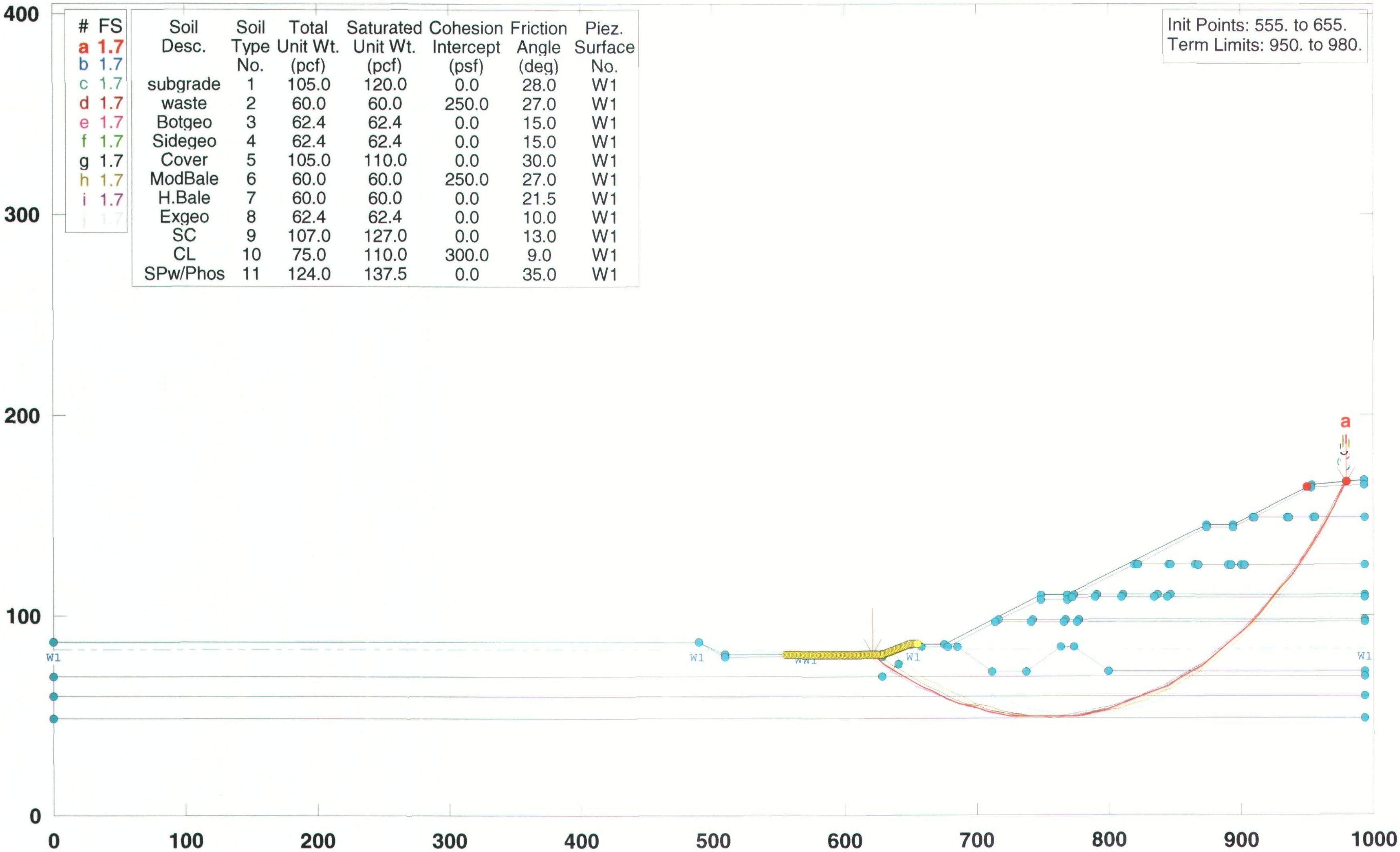
Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	677.10	86.70
2	681.53	83.05
3	689.86	77.53
4	698.32	72.19
5	707.22	67.62
6	716.27	63.39
7	810.70	62.84
8	817.71	69.96
9	824.15	77.62
10	830.87	85.02
11	836.72	93.13
12	841.94	101.66
13	847.91	109.68
14	854.29	117.38
15	857.88	126.72
16	861.41	136.07
17	865.32	142.77
***	1.536	***

CIRCULAR SLOPE STABILITY ANALYSES
SOUTH SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod South Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\SOUTHS~1\SOUTH.PL2 Run By: Dominique Bramlett 3/7/2007 2:28PM



STABL6H FSmin=1.7

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:22AM
Run By: Shane R. Fischer
Input Data Filename: F:south.
Output Filename: F:south.OUT
Plotted Output Filename: F:south.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod South Slope

BOUNDARY COORDINATES
11 Top Boundaries
100 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	87.00	489.50	87.00	1
2	489.50	87.00	509.00	80.50	3
3	509.00	80.50	628.00	80.50	3
4	628.00	80.50	650.00	86.00	3
5	650.00	86.00	675.00	86.00	3
6	675.00	86.00	748.50	110.50	4
7	748.50	110.50	768.50	110.50	4
8	768.50	110.50	873.50	145.50	4
9	873.50	145.50	893.50	145.50	4
10	893.50	145.50	953.50	165.50	4
11	953.50	165.50	993.20	167.50	4
12	489.40	86.50	489.50	87.00	1
13	489.40	86.50	508.90	80.00	1
14	508.90	80.00	628.10	80.00	1
15	628.10	80.00	650.10	85.50	1
16	650.10	85.50	675.10	85.50	1
17	675.10	85.50	748.60	110.00	5
18	748.60	110.00	768.60	110.00	5
19	768.60	110.00	873.60	145.00	5
20	873.60	145.00	893.60	145.00	5
21	893.60	145.00	953.60	165.00	5
22	953.60	165.00	993.20	167.00	5
23	.00	70.00	628.00	70.00	9
24	628.00	70.00	640.00	76.00	1
25	640.00	76.00	658.00	85.00	8
26	658.00	85.00	658.60	85.00	8
27	658.60	85.00	678.30	85.00	1
28	678.30	85.00	714.30	97.00	6
29	714.30	97.00	715.80	97.50	6
30	715.80	97.50	748.80	108.50	6
31	748.80	108.50	768.80	108.50	6
32	768.80	108.50	771.80	109.50	6
33	771.80	109.50	773.30	110.00	6
34	773.30	110.00	819.80	125.50	6
35	819.80	125.50	821.30	126.00	6
36	821.30	126.00	873.90	143.50	6
37	873.90	143.50	893.90	143.50	6
38	893.90	143.50	908.80	148.50	6
39	908.80	148.50	910.30	149.00	6
40	910.30	149.00	953.90	163.50	6
41	953.90	163.50	993.20	165.50	6
42	910.30	149.00	936.30	149.00	6
43	936.30	149.00	956.20	149.00	7
44	956.20	149.00	993.20	149.00	6
45	908.80	148.50	934.50	148.50	6
46	934.50	148.50	936.30	149.00	7
47	934.50	148.50	954.70	148.50	6
48	954.70	148.50	956.20	149.00	6
49	954.70	148.50	993.20	148.50	6

50	821.30	126.00	847.30	126.00	6
51	847.30	126.00	867.20	126.00	7
52	867.20	126.00	892.20	126.00	6
53	892.20	126.00	902.20	126.00	7
54	902.20	126.00	993.20	126.00	6
55	819.80	125.50	845.50	125.50	6
56	845.50	125.50	847.30	126.00	7
57	845.50	125.50	865.70	125.50	6
58	865.70	125.50	867.20	126.00	6
59	865.70	125.50	890.70	125.50	6
60	890.70	125.50	892.20	126.00	7
61	890.70	125.50	900.70	125.50	6
62	900.70	125.50	902.20	126.00	6
63	900.70	125.50	993.20	125.50	6
64	773.30	110.00	791.30	110.00	6
65	791.30	110.00	811.20	110.00	7
66	811.20	110.00	836.20	110.00	6
67	836.20	110.00	846.20	110.00	7
68	846.20	110.00	993.20	110.00	6
69	771.80	109.50	789.50	109.50	6
70	789.50	109.50	791.30	110.00	7
71	789.50	109.50	809.70	109.50	6
72	809.70	109.50	811.20	110.00	6
73	809.70	109.50	834.70	109.50	6
74	834.70	109.50	836.70	110.00	7
75	834.70	109.50	844.70	109.50	6
76	844.70	109.50	846.20	110.00	6
77	844.70	109.50	993.20	109.50	6
78	715.80	97.50	742.40	97.50	7
79	742.40	97.50	767.40	97.50	6
80	767.40	97.50	777.40	97.50	7
81	777.40	97.50	993.20	97.50	6
82	714.30	97.00	740.90	97.00	6
83	740.90	97.00	742.40	97.50	6
84	740.90	97.00	765.90	97.00	6
85	765.90	97.00	767.40	97.50	7
86	765.90	97.00	775.90	97.00	6
87	775.90	97.00	777.40	97.50	6
88	775.90	97.00	993.20	97.00	6
89	678.30	85.00	685.00	85.00	1
90	685.00	85.00	711.00	72.00	1
91	711.00	72.00	738.00	72.00	1
92	738.00	72.00	764.00	85.00	1
93	764.00	85.00	774.00	85.00	1
94	774.00	85.00	800.00	72.00	1
95	800.00	72.00	993.20	72.00	1
96	640.00	76.00	640.60	76.00	1
97	640.60	76.00	658.60	85.00	1
98	628.00	70.00	993.20	70.00	9
99	.00	60.00	993.20	60.00	10
100	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40
Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)
1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.
SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED
A Critical Failure Surface Searching Method, Using A Random Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.
Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	620.66	80.50
2	629.62	76.07
3	638.74	71.96
4	647.99	68.17
5	657.38	64.72
6	666.88	61.60
7	676.48	58.81
8	686.18	56.37
9	695.96	54.28
10	705.80	52.53
11	715.70	51.13
12	725.65	50.08
13	735.63	49.38
14	745.62	49.04
15	755.62	49.05
16	765.61	49.42
17	775.59	50.14
18	785.53	51.21
19	795.43	52.63
20	805.27	54.40
21	815.04	56.52
22	824.73	58.98
23	834.33	61.79
24	843.83	64.93
25	853.20	68.41
26	862.45	72.22
27	871.56	76.35
28	880.51	80.80
29	889.30	85.56
30	897.92	90.64
31	906.35	96.01
32	914.59	101.68

33	922.62	107.64
34	930.44	113.88
35	938.03	120.39
36	945.38	127.16
37	952.49	134.20
38	959.35	141.47
39	965.94	148.99
40	972.27	156.74
41	978.32	164.70
42	979.81	166.83

Circle Center At X = 750.3 ; Y = 331.5 and Radius, 282.5

*** 1.670 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	653.99	86.00
2	662.54	80.82
3	671.31	76.02
4	680.28	71.59
5	689.43	67.56
6	698.75	63.93
7	708.21	60.70
8	717.81	57.89
9	727.52	55.49
10	737.32	53.51
11	747.20	51.96
12	757.14	50.83
13	767.11	50.13
14	777.11	49.87
15	787.11	50.03
16	797.09	50.63
17	807.04	51.66
18	816.93	53.11
19	826.75	55.00
20	836.48	57.30
21	846.10	60.02
22	855.60	63.15
23	864.95	66.69
24	874.14	70.63
25	883.16	74.96
26	891.97	79.68
27	900.58	84.77
28	908.96	90.23
29	917.09	96.05
30	924.97	102.21
31	932.57	108.71
32	939.89	115.53
33	946.90	122.65
34	953.60	130.08
35	959.98	137.78
36	966.01	145.75
37	971.70	153.98
38	977.03	162.44
39	979.52	166.81

Circle Center At X = 778.3 ; Y = 281.6 and Radius, 231.8

*** 1.674 ***

Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	618.63	80.50
2	627.60	76.08
3	636.72	71.98
4	645.99	68.20
5	655.38	64.76
6	664.88	61.66
7	674.49	58.89
8	684.19	56.47
9	693.98	54.40

10	703.83	52.67
11	713.73	51.30
12	723.68	50.28
13	733.66	49.61
14	743.65	49.30
15	753.65	49.34
16	763.64	49.74
17	773.61	50.50
18	783.55	51.61
19	793.45	53.07
20	803.28	54.89
21	813.04	57.05
22	822.72	59.56
23	832.31	62.41
24	841.79	65.60
25	851.14	69.12
26	860.37	72.98
27	869.45	77.16
28	878.38	81.66
29	887.15	86.48
30	895.73	91.61
31	904.13	97.03
32	912.33	102.76
33	920.32	108.77
34	928.10	115.06
35	935.64	121.62
36	942.95	128.45
37	950.00	135.54
38	956.81	142.87
39	963.34	150.44
40	969.61	158.23
41	975.59	166.25
42	975.85	166.63

Circle Center At X = 747.4 ; Y = 330.4 and Radius, 281.1

*** 1.674 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	633.79	81.95
2	642.61	77.25
3	651.62	72.89
4	660.78	68.89
5	670.09	65.23
6	679.53	61.94
7	689.09	59.01
8	698.76	56.45
9	708.52	54.27
10	718.35	52.46
11	728.25	51.02
12	738.19	49.97
13	748.17	49.30
14	758.17	49.01
15	768.16	49.11
16	778.15	49.59
17	788.12	50.45
18	798.04	51.70
19	807.91	53.32
20	817.70	55.32
21	827.42	57.70
22	837.03	60.45
23	846.54	63.56
24	855.91	67.03
25	865.15	70.86
26	874.23	75.05
27	883.15	79.58
28	891.88	84.44
29	900.43	89.64
30	908.76	95.17

31	916.88	101.00
32	924.77	107.15
33	932.42	113.59
34	939.81	120.32
35	946.95	127.33
36	953.80	134.61
37	960.38	142.15
38	966.65	149.93
39	972.63	157.95
40	978.30	166.19
41	978.66	166.77

Circle Center At X = 760.6 ; Y = 309.7 and Radius, 260.7

*** 1.674 ***

Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	616.61	80.50
2	625.61	76.13
3	634.75	72.07
4	644.02	68.33
5	653.42	64.92
6	662.94	61.83
7	672.55	59.08
8	682.25	56.66
9	692.03	54.58
10	701.88	52.84
11	711.78	51.44
12	721.73	50.38
13	731.70	49.67
14	741.69	49.31
15	751.69	49.30
16	761.69	49.63
17	771.67	50.30
18	781.61	51.33
19	791.52	52.69
20	801.37	54.40
21	811.16	56.45
22	820.87	58.84
23	830.49	61.56
24	840.01	64.62
25	849.42	68.00
26	858.71	71.71
27	867.86	75.74
28	876.87	80.08
29	885.72	84.73
30	894.41	89.69
31	902.92	94.94
32	911.24	100.49
33	919.36	106.32
34	927.28	112.43
35	934.98	118.81
36	942.46	125.45
37	949.69	132.35
38	956.69	139.49
39	963.44	146.88
40	969.92	154.49
41	976.14	162.32
42	979.45	166.81

Circle Center At X = 747.2 ; Y = 337.7 and Radius, 288.4

*** 1.674 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	632.78	81.69
2	641.62	77.02
3	650.63	72.69
4	659.80	68.70
5	669.12	65.07

6	678.57	61.80
7	688.14	58.90
8	697.81	56.36
9	707.57	54.20
10	717.41	52.41
11	727.31	51.00
12	737.26	49.97
13	747.24	49.32
14	757.24	49.06
15	767.23	49.17
16	777.22	49.67
17	787.18	50.56
18	797.10	51.82
19	806.97	53.46
20	816.76	55.48
21	826.47	57.88
22	836.08	60.64
23	845.58	63.77
24	854.95	67.26
25	864.18	71.11
26	873.26	75.31
27	882.16	79.85
28	890.89	84.73
29	899.43	89.94
30	907.75	95.48
31	915.87	101.33
32	923.75	107.49
33	931.38	113.94
34	938.77	120.68
35	945.89	127.70
36	952.74	134.99
37	959.30	142.53
38	965.57	150.32
39	971.54	158.35
40	977.20	166.59
41	977.26	166.70

Circle Center At X = 759.2 ; Y = 310.0 and Radius, 261.0

*** 1.674 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	625.71	80.50
2	634.66	76.05
3	643.77	71.92
4	653.02	68.13
5	662.41	64.68
6	671.91	61.57
7	681.52	58.81
8	691.23	56.40
9	701.02	54.35
10	710.87	52.65
11	720.78	51.31
12	730.73	50.33
13	740.71	49.72
14	750.71	49.47
15	760.71	49.58
16	770.70	50.06
17	780.66	50.90
18	790.59	52.10
19	800.47	53.66
20	810.28	55.58
21	820.02	57.85
22	829.67	60.48
23	839.22	63.46
24	848.65	66.78
25	857.95	70.44
26	867.12	74.44
27	876.13	78.77

28	884.98	83.42
29	893.66	88.40
30	902.15	93.68
31	910.44	99.27
32	918.52	105.16
33	926.39	111.34
34	934.02	117.80
35	941.41	124.53
36	948.56	131.53
37	955.44	138.78
38	962.06	146.28
39	968.40	154.01
40	974.45	161.97
41	977.80	166.72

Circle Center At X = 752.6 ; Y = 324.4 and Radius, 275.0
*** 1.674 ***
Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	628.74	80.68
2	637.67	76.18
3	646.76	72.02
4	655.99	68.19
5	665.37	64.70
6	674.86	61.56
7	684.46	58.77
8	694.16	56.34
9	703.95	54.26
10	713.80	52.55
11	723.71	51.20
12	733.66	50.22
13	743.64	49.60
14	753.64	49.35
15	763.63	49.47
16	773.62	49.95
17	783.59	50.81
18	793.51	52.03
19	803.39	53.61
20	813.19	55.56
21	822.92	57.87
22	832.56	60.53
23	842.10	63.55
24	851.51	66.91
25	860.80	70.62
26	869.95	74.67
27	878.93	79.05
28	887.76	83.76
29	896.40	88.79
30	904.85	94.14
31	913.10	99.79
32	921.13	105.74
33	928.94	111.99
34	936.52	118.52
35	943.85	125.32
36	950.92	132.39
37	957.73	139.71
38	964.27	147.28
39	970.52	155.08
40	976.48	163.11
41	979.00	166.78

Circle Center At X = 755.4 ; Y = 321.0 and Radius, 271.7
*** 1.674 ***
Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	617.62	80.50
2	626.63	76.15
3	635.78	72.12

4	645.07	68.41
5	654.48	65.02
6	664.00	61.96
7	673.62	59.23
8	683.33	56.83
9	693.11	54.78
10	702.96	53.06
11	712.87	51.68
12	722.81	50.65
13	732.79	49.97
14	742.78	49.62
15	752.78	49.63
16	762.78	49.98
17	772.75	50.68
18	782.70	51.72
19	792.60	53.10
20	802.45	54.83
21	812.24	56.90
22	821.94	59.30
23	831.56	62.04
24	841.08	65.11
25	850.48	68.51
26	859.76	72.23
27	868.91	76.27
28	877.91	80.63
29	886.76	85.29
30	895.44	90.26
31	903.94	95.52
32	912.26	101.08
33	920.37	106.92
34	928.28	113.04
35	935.98	119.42
36	943.45	126.07
37	950.68	132.98
38	957.67	140.13
39	964.41	147.52
40	970.89	155.14
41	977.10	162.97
42	979.94	166.83

Circle Center At X = 747.6 ; Y = 338.4 and Radius, 288.9

*** 1.677 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	621.67	80.50
2	630.62	76.05
3	639.73	71.94
4	648.99	68.15
5	658.38	64.71
6	667.89	61.61
7	677.50	58.86
8	687.21	56.46
9	697.00	54.42
10	706.86	52.74
11	716.77	51.41
12	726.72	50.45
13	736.70	49.85
14	746.70	49.62
15	756.70	49.75
16	766.69	50.24
17	776.65	51.10
18	786.58	52.32
19	796.45	53.90
20	806.26	55.84
21	815.99	58.14
22	825.64	60.79
23	835.18	63.79
24	844.60	67.14

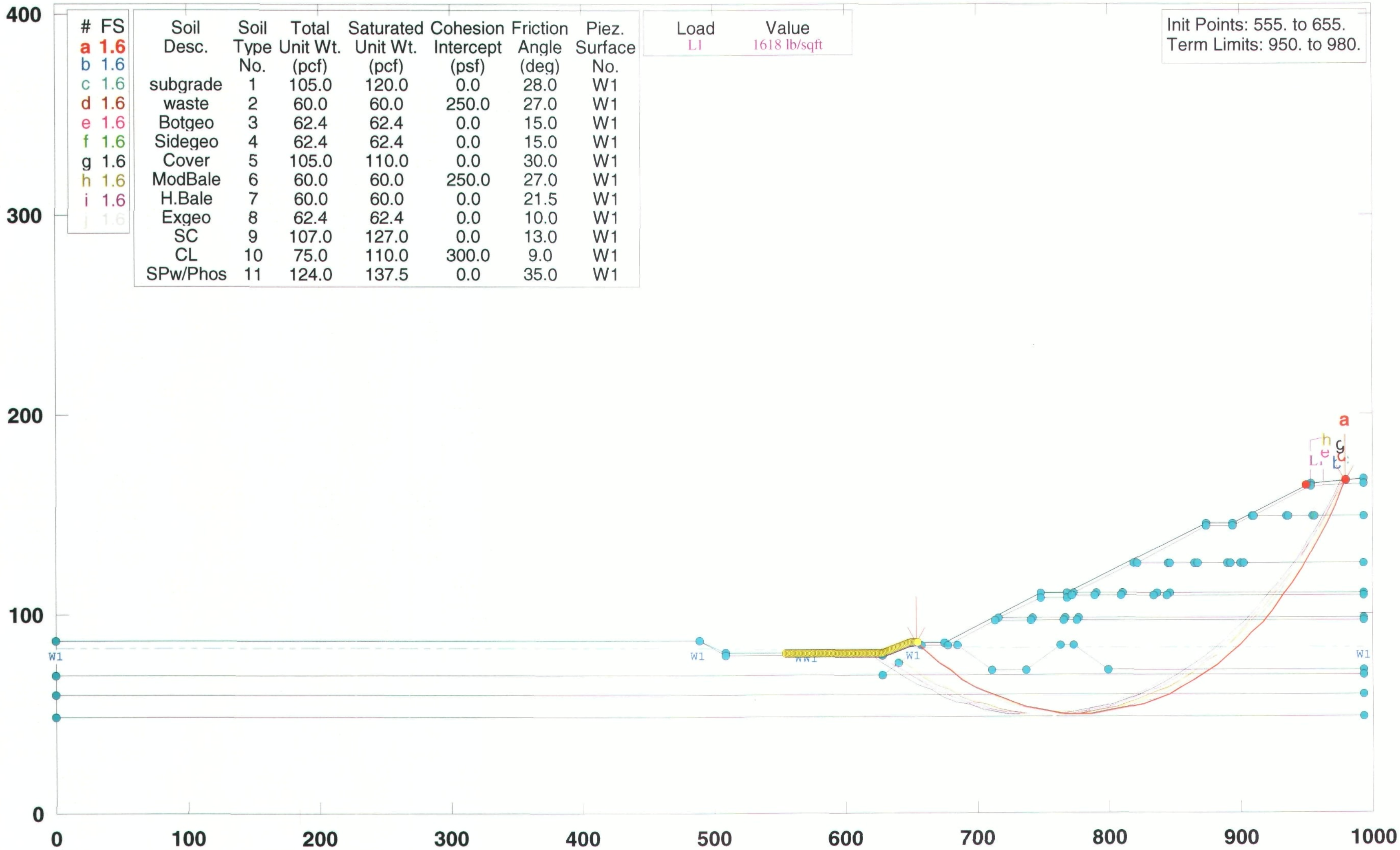
25	853.90	70.82
26	863.05	74.84
27	872.05	79.20
28	880.89	83.88
29	889.55	88.88
30	898.03	94.19
31	906.30	99.80
32	914.36	105.71
33	922.21	111.92
34	929.82	118.40
35	937.19	125.16
36	944.31	132.18
37	951.17	139.46
38	957.76	146.98
39	964.07	154.74
40	970.09	162.72
41	972.71	166.47

Circle Center At X = 748.1 ; Y = 324.0 and Radius, 274.3

*** 1.678 ***

Hardee County Landfill Expansion Final Buildout -Mod South Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\SOUTHS~1\SOUTH.PL2 Run By: Dominique Bramlett 3/7/2007 2:29PM



STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 2:29PM
Run By: Dominique Bramlett
Input Data Filename: F:SOUTH.
Output Filename: F:SOUTH.OUT
Plotted Output Filename: F:SOUTH.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod South Slope

BOUNDARY COORDINATES
11 Top Boundaries
100 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	87.00	489.50	87.00	1
2	489.50	87.00	509.00	80.50	3
3	509.00	80.50	628.00	80.50	3
4	628.00	80.50	650.00	86.00	3
5	650.00	86.00	675.00	86.00	3
6	675.00	86.00	748.50	110.50	4
7	748.50	110.50	768.50	110.50	4
8	768.50	110.50	873.50	145.50	4
9	873.50	145.50	893.50	145.50	4
10	893.50	145.50	953.50	165.50	4
11	953.50	165.50	993.20	167.50	4
12	489.40	86.50	489.50	87.00	1
13	489.40	86.50	508.90	80.00	1
14	508.90	80.00	628.10	80.00	1
15	628.10	80.00	650.10	85.50	1
16	650.10	85.50	675.10	85.50	1
17	675.10	85.50	748.60	110.00	5
18	748.60	110.00	768.60	110.00	5
19	768.60	110.00	873.60	145.00	5
20	873.60	145.00	893.60	145.00	5
21	893.60	145.00	953.60	165.00	5
22	953.60	165.00	993.20	167.00	5
23	.00	70.00	628.00	70.00	9
24	628.00	70.00	640.00	76.00	1
25	640.00	76.00	658.00	85.00	8
26	658.00	85.00	658.60	85.00	8
27	658.60	85.00	678.30	85.00	1
28	678.30	85.00	714.30	97.00	6
29	714.30	97.00	715.80	97.50	6
30	715.80	97.50	748.80	108.50	6
31	748.80	108.50	768.80	108.50	6
32	768.80	108.50	771.80	109.50	6
33	771.80	109.50	773.30	110.00	6
34	773.30	110.00	819.80	125.50	6
35	819.80	125.50	821.30	126.00	6
36	821.30	126.00	873.90	143.50	6
37	873.90	143.50	893.90	143.50	6
38	893.90	143.50	908.80	148.50	6
39	908.80	148.50	910.30	149.00	6
40	910.30	149.00	953.90	163.50	6
41	953.90	163.50	993.20	165.50	6
42	910.30	149.00	936.30	149.00	6
43	936.30	149.00	956.20	149.00	7
44	956.20	149.00	993.20	149.00	6
45	908.80	148.50	934.50	148.50	6
46	934.50	148.50	936.30	149.00	7
47	934.50	148.50	954.70	148.50	6
48	954.70	148.50	956.20	149.00	6
49	954.70	148.50	993.20	148.50	6

50	821.30	126.00	847.30	126.00	6
51	847.30	126.00	867.20	126.00	7
52	867.20	126.00	892.20	126.00	6
53	892.20	126.00	902.20	126.00	7
54	902.20	126.00	993.20	126.00	6
55	819.80	125.50	845.50	125.50	6
56	845.50	125.50	847.30	126.00	7
57	845.50	125.50	865.70	125.50	6
58	865.70	125.50	867.20	126.00	6
59	865.70	125.50	890.70	125.50	6
60	890.70	125.50	892.20	126.00	7
61	890.70	125.50	900.70	125.50	6
62	900.70	125.50	902.20	126.00	6
63	900.70	125.50	993.20	125.50	6
64	773.30	110.00	791.30	110.00	6
65	791.30	110.00	811.20	110.00	7
66	811.20	110.00	836.20	110.00	6
67	836.20	110.00	846.20	110.00	7
68	846.20	110.00	993.20	110.00	6
69	771.80	109.50	789.50	109.50	6
70	789.50	109.50	791.30	110.00	7
71	789.50	109.50	809.70	109.50	6
72	809.70	109.50	811.20	110.00	6
73	809.70	109.50	834.70	109.50	6
74	834.70	109.50	836.70	110.00	7
75	834.70	109.50	844.70	109.50	6
76	844.70	109.50	846.20	110.00	6
77	844.70	109.50	993.20	109.50	6
78	715.80	97.50	742.40	97.50	7
79	742.40	97.50	767.40	97.50	6
80	767.40	97.50	777.40	97.50	7
81	777.40	97.50	993.20	97.50	6
82	714.30	97.00	740.90	97.00	6
83	740.90	97.00	742.40	97.50	6
84	740.90	97.00	765.90	97.00	6
85	765.90	97.00	767.40	97.50	7
86	765.90	97.00	775.90	97.00	6
87	775.90	97.00	777.40	97.50	6
88	775.90	97.00	993.20	97.00	6
89	678.30	85.00	685.00	85.00	1
90	685.00	85.00	711.00	72.00	1
91	711.00	72.00	738.00	72.00	1
92	738.00	72.00	764.00	85.00	1
93	764.00	85.00	774.00	85.00	1
94	774.00	85.00	800.00	72.00	1
95	800.00	72.00	993.20	72.00	1
96	640.00	76.00	640.60	76.00	1
97	640.60	76.00	658.60	85.00	1
98	628.00	70.00	993.20	70.00	9
99	.00	60.00	993.20	60.00	10
100	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40
Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)
1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.
Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	653.99	86.00
2	662.54	80.82
3	671.31	76.02
4	680.28	71.59
5	689.43	67.56
6	698.75	63.93
7	708.21	60.70
8	717.81	57.89
9	727.52	55.49
10	737.32	53.51
11	747.20	51.96
12	757.14	50.83
13	767.11	50.13
14	777.11	49.87
15	787.11	50.03
16	797.09	50.63
17	807.04	51.66
18	816.93	53.11
19	826.75	55.00
20	836.48	57.30
21	846.10	60.02
22	855.60	63.15
23	864.95	66.69
24	874.14	70.63
25	883.16	74.96
26	891.97	79.68
27	900.58	84.77
28	908.96	90.23
29	917.09	96.05
30	924.97	102.21
31	932.57	108.71
32	939.89	115.53
33	946.90	122.65

34	953.60	130.08
35	959.98	137.78
36	966.01	145.75
37	971.70	153.98
38	977.03	162.44
39	979.52	166.81

Circle Center At X = 778.3 ; Y = 281.6 and Radius, 231.8

*** 1.618 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	651.97	86.00
2	660.48	80.76
3	669.22	75.90
4	678.17	71.43
5	687.31	67.36
6	696.61	63.70
7	706.07	60.45
8	715.66	57.63
9	725.37	55.23
10	735.17	53.26
11	745.05	51.72
12	754.99	50.62
13	764.97	49.96
14	774.97	49.75
15	784.97	49.97
16	794.94	50.64
17	804.88	51.74
18	814.76	53.28
19	824.57	55.26
20	834.27	57.67
21	843.86	60.50
22	853.32	63.76
23	862.62	67.43
24	871.75	71.50
25	880.70	75.98
26	889.43	80.84
27	897.95	86.09
28	906.22	91.71
29	914.24	97.68
30	921.98	104.01
31	929.44	110.67
32	936.60	117.65
33	943.44	124.94
34	949.96	132.53
35	956.13	140.40
36	961.95	148.53
37	967.41	156.91
38	972.49	165.52
39	973.00	166.48

Circle Center At X = 774.9 ; Y = 276.3 and Radius, 226.5

*** 1.619 ***

Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	620.66	80.50
2	629.62	76.07
3	638.74	71.96
4	647.99	68.17
5	657.38	64.72
6	666.88	61.60
7	676.48	58.81
8	686.18	56.37
9	695.96	54.28
10	705.80	52.53
11	715.70	51.13
12	725.65	50.08
13	735.63	49.38

14	745.62	49.04
15	755.62	49.05
16	765.61	49.42
17	775.59	50.14
18	785.53	51.21
19	795.43	52.63
20	805.27	54.40
21	815.04	56.52
22	824.73	58.98
23	834.33	61.79
24	843.83	64.93
25	853.20	68.41
26	862.45	72.22
27	871.56	76.35
28	880.51	80.80
29	889.30	85.56
30	897.92	90.64
31	906.35	96.01
32	914.59	101.68
33	922.62	107.64
34	930.44	113.88
35	938.03	120.39
36	945.38	127.16
37	952.49	134.20
38	959.35	141.47
39	965.94	148.99
40	972.27	156.74
41	978.32	164.70
42	979.81	166.83

Circle Center At X = 750.3 ; Y = 331.5 and Radius, 282.5
*** 1.620 ***
Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	632.78	81.69
2	641.62	77.02
3	650.63	72.69
4	659.80	68.70
5	669.12	65.07
6	678.57	61.80
7	688.14	58.90
8	697.81	56.36
9	707.57	54.20
10	717.41	52.41
11	727.31	51.00
12	737.26	49.97
13	747.24	49.32
14	757.24	49.06
15	767.23	49.17
16	777.22	49.67
17	787.18	50.56
18	797.10	51.82
19	806.97	53.46
20	816.76	55.48
21	826.47	57.88
22	836.08	60.64
23	845.58	63.77
24	854.95	67.26
25	864.18	71.11
26	873.26	75.31
27	882.16	79.85
28	890.89	84.73
29	899.43	89.94
30	907.75	95.48
31	915.87	101.33
32	923.75	107.49
33	931.38	113.94
34	938.77	120.68

35	945.89	127.70
36	952.74	134.99
37	959.30	142.53
38	965.57	150.32
39	971.54	158.35
40	977.20	166.59
41	977.26	166.70

Circle Center At X = 759.2 ; Y = 310.0 and Radius, 261.0

*** 1.621 ***

Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	625.71	80.50
2	634.59	75.92
3	643.65	71.69
4	652.87	67.81
5	662.23	64.29
6	671.72	61.13
7	681.32	58.34
8	691.03	55.93
9	700.82	53.89
10	710.68	52.23
11	720.60	50.96
12	730.56	50.07
13	740.55	49.56
14	750.54	49.44
15	760.54	49.71
16	770.52	50.36
17	780.47	51.40
18	790.36	52.83
19	800.20	54.63
20	809.96	56.81
21	819.63	59.37
22	829.19	62.30
23	838.63	65.60
24	847.93	69.26
25	857.09	73.27
26	866.09	77.64
27	874.91	82.35
28	883.54	87.40
29	891.97	92.78
30	900.18	98.48
31	908.17	104.50
32	915.92	110.82
33	923.43	117.43
34	930.67	124.33
35	937.63	131.50
36	944.32	138.94
37	950.71	146.63
38	956.80	154.56
39	962.58	162.72
40	964.76	166.07

Circle Center At X = 748.6 ; Y = 308.1 and Radius, 258.7

*** 1.621 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	633.79	81.95
2	642.61	77.25
3	651.62	72.89
4	660.78	68.89
5	670.09	65.23
6	679.53	61.94
7	689.09	59.01
8	698.76	56.45
9	708.52	54.27
10	718.35	52.46
11	728.25	51.02

12	738.19	49.97
13	748.17	49.30
14	758.17	49.01
15	768.16	49.11
16	778.15	49.59
17	788.12	50.45
18	798.04	51.70
19	807.91	53.32
20	817.70	55.32
21	827.42	57.70
22	837.03	60.45
23	846.54	63.56
24	855.91	67.03
25	865.15	70.86
26	874.23	75.05
27	883.15	79.58
28	891.88	84.44
29	900.43	89.64
30	908.76	95.17
31	916.88	101.00
32	924.77	107.15
33	932.42	113.59
34	939.81	120.32
35	946.95	127.33
36	953.80	134.61
37	960.38	142.15
38	966.65	149.93
39	972.63	157.95
40	978.30	166.19
41	978.66	166.77

Circle Center At X = 760.6 ; Y = 309.7 and Radius, 260.7

*** 1.621 ***

Failure Surface Specified By 42 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	618.63	80.50
2	627.60	76.08
3	636.72	71.98
4	645.99	68.20
5	655.38	64.76
6	664.88	61.66
7	674.49	58.89
8	684.19	56.47
9	693.98	54.40
10	703.83	52.67
11	713.73	51.30
12	723.68	50.28
13	733.66	49.61
14	743.65	49.30
15	753.65	49.34
16	763.64	49.74
17	773.61	50.50
18	783.55	51.61
19	793.45	53.07
20	803.28	54.89
21	813.04	57.05
22	822.72	59.56
23	832.31	62.41
24	841.79	65.60
25	851.14	69.12
26	860.37	72.98
27	869.45	77.16
28	878.38	81.66
29	887.15	86.48
30	895.73	91.61
31	904.13	97.03
32	912.33	102.76
33	920.32	108.77

34	928.10	115.06
35	935.64	121.62
36	942.95	128.45
37	950.00	135.54
38	956.81	142.87
39	963.34	150.44
40	969.61	158.23
41	975.59	166.25
42	975.85	166.63

Circle Center At X = 747.4 ; Y = 330.4 and Radius, 281.1

*** 1.622 ***

Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	655.00	86.00
2	663.48	80.70
3	672.19	75.79
4	681.12	71.29
5	690.25	67.21
6	699.56	63.55
7	709.02	60.33
8	718.63	57.55
9	728.35	55.21
10	738.17	53.33
11	748.07	51.90
12	758.02	50.93
13	768.01	50.42
14	778.01	50.37
15	788.00	50.78
16	797.96	51.65
17	807.87	52.98
18	817.71	54.77
19	827.46	57.01
20	837.09	59.70
21	846.59	62.83
22	855.93	66.39
23	865.10	70.38
24	874.08	74.79
25	882.84	79.61
26	891.37	84.83
27	899.65	90.44
28	907.66	96.42
29	915.39	102.77
30	922.82	109.47
31	929.92	116.50
32	936.70	123.85
33	943.13	131.51
34	949.20	139.46
35	954.90	147.67
36	960.21	156.15
37	965.13	164.85
38	965.77	166.12

Circle Center At X = 774.1 ; Y = 266.9 and Radius, 216.6

*** 1.622 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	625.71	80.50
2	634.66	76.05
3	643.77	71.92
4	653.02	68.13
5	662.41	64.68
6	671.91	61.57
7	681.52	58.81
8	691.23	56.40
9	701.02	54.35
10	710.87	52.65
11	720.78	51.31

12	730.73	50.33
13	740.71	49.72
14	750.71	49.47
15	760.71	49.58
16	770.70	50.06
17	780.66	50.90
18	790.59	52.10
19	800.47	53.66
20	810.28	55.58
21	820.02	57.85
22	829.67	60.48
23	839.22	63.46
24	848.65	66.78
25	857.95	70.44
26	867.12	74.44
27	876.13	78.77
28	884.98	83.42
29	893.66	88.40
30	902.15	93.68
31	910.44	99.27
32	918.52	105.16
33	926.39	111.34
34	934.02	117.80
35	941.41	124.53
36	948.56	131.53
37	955.44	138.78
38	962.06	146.28
39	968.40	154.01
40	974.45	161.97
41	977.80	166.72

Circle Center At X = 752.6 ; Y = 324.4 and Radius, 275.0

*** 1.623 ***

Failure Surface Specified By 41 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	628.74	80.68
2	637.67	76.18
3	646.76	72.02
4	655.99	68.19
5	665.37	64.70
6	674.86	61.56
7	684.46	58.77
8	694.16	56.34
9	703.95	54.26
10	713.80	52.55
11	723.71	51.20
12	733.66	50.22
13	743.64	49.60
14	753.64	49.35
15	763.63	49.47
16	773.62	49.95
17	783.59	50.81
18	793.51	52.03
19	803.39	53.61
20	813.19	55.56
21	822.92	57.87
22	832.56	60.53
23	842.10	63.55
24	851.51	66.91
25	860.80	70.62
26	869.95	74.67
27	878.93	79.05
28	887.76	83.76
29	896.40	88.79
30	904.85	94.14
31	913.10	99.79
32	921.13	105.74
33	928.94	111.99

34	936.52	118.52
35	943.85	125.32
36	950.92	132.39
37	957.73	139.71
38	964.27	147.28
39	970.52	155.08
40	976.48	163.11
41	979.00	166.78

Circle Center At X = 755.4 ; Y = 321.0 and Radius, 271.7

*** 1.623 ***

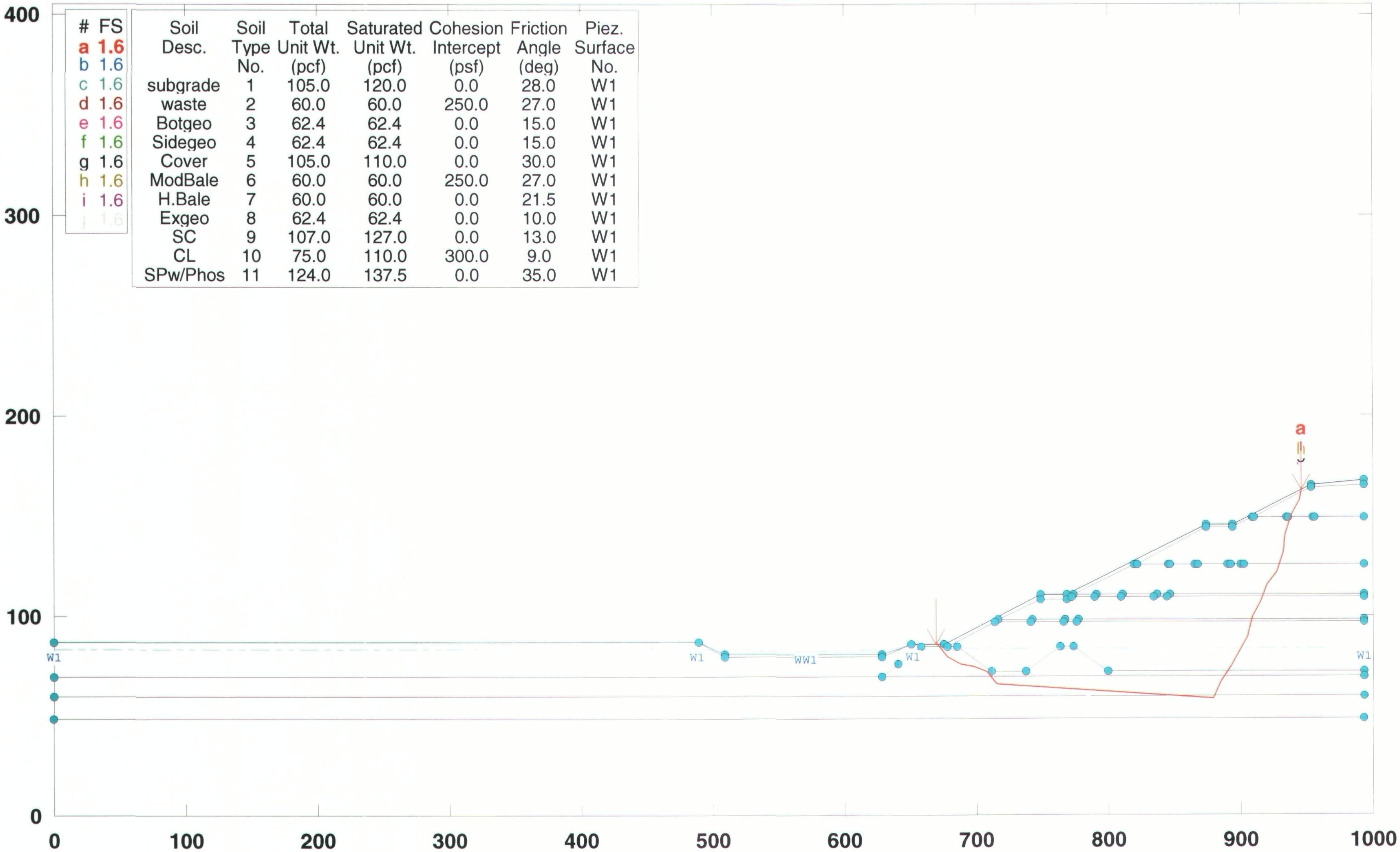
BLOCK SLOPE STABILITY ANALYSES
SOUTH SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod South Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\SOUTHS~1\BSOUTH.PL2 Run By: Dominique Bramlett 3/7/2007 2:26PM

#	FS
a	1.6
b	1.6
c	1.6
d	1.6
e	1.6
f	1.6
g	1.6
h	1.6
i	1.6
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1



STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

** STABL6H **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:25AM
Run By: Shane R. Fischer
Input Data Filename: F:bsouth.
Output Filename: F:bsouth.OUT
Plotted Output Filename: F:bsouth.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod South Slope

BOUNDARY COORDINATES
11 Top Boundaries
100 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	87.00	489.50	87.00	1
2	489.50	87.00	509.00	80.50	3
3	509.00	80.50	628.00	80.50	3
4	628.00	80.50	650.00	86.00	3
5	650.00	86.00	675.00	86.00	3
6	675.00	86.00	748.50	110.50	4
7	748.50	110.50	768.50	110.50	4
8	768.50	110.50	873.50	145.50	4
9	873.50	145.50	893.50	145.50	4
10	893.50	145.50	953.50	165.50	4
11	953.50	165.50	993.20	167.50	4
12	489.40	86.50	489.50	87.00	1
13	489.40	86.50	508.90	80.00	1
14	508.90	80.00	628.10	80.00	1
15	628.10	80.00	650.10	85.50	1
16	650.10	85.50	675.10	85.50	1
17	675.10	85.50	748.60	110.00	5
18	748.60	110.00	768.60	110.00	5
19	768.60	110.00	873.60	145.00	5
20	873.60	145.00	893.60	145.00	5
21	893.60	145.00	953.60	165.00	5
22	953.60	165.00	993.20	167.00	5
23	.00	70.00	628.00	70.00	9
24	628.00	70.00	640.00	76.00	1
25	640.00	76.00	658.00	85.00	8
26	658.00	85.00	658.60	85.00	8
27	658.60	85.00	678.30	85.00	1
28	678.30	85.00	714.30	97.00	6
29	714.30	97.00	715.80	97.50	6
30	715.80	97.50	748.80	108.50	6
31	748.80	108.50	768.80	108.50	6
32	768.80	108.50	771.80	109.50	6
33	771.80	109.50	773.30	110.00	6
34	773.30	110.00	819.80	125.50	6
35	819.80	125.50	821.30	126.00	6
36	821.30	126.00	873.90	143.50	6
37	873.90	143.50	893.90	143.50	6
38	893.90	143.50	908.80	148.50	6
39	908.80	148.50	910.30	149.00	6
40	910.30	149.00	953.90	163.50	6
41	953.90	163.50	993.20	165.50	6
42	910.30	149.00	936.30	149.00	6
43	936.30	149.00	956.20	149.00	7
44	956.20	149.00	993.20	149.00	6
45	908.80	148.50	934.50	148.50	6
46	934.50	148.50	936.30	149.00	7
47	934.50	148.50	954.70	148.50	6
48	954.70	148.50	956.20	149.00	6
49	954.70	148.50	993.20	148.50	6

50	821.30	126.00	847.30	126.00	6
51	847.30	126.00	867.20	126.00	7
52	867.20	126.00	892.20	126.00	6
53	892.20	126.00	902.20	126.00	7
54	902.20	126.00	993.20	126.00	6
55	819.80	125.50	845.50	125.50	6
56	845.50	125.50	847.30	126.00	7
57	845.50	125.50	865.70	125.50	6
58	865.70	125.50	867.20	126.00	6
59	865.70	125.50	890.70	125.50	6
60	890.70	125.50	892.20	126.00	7
61	890.70	125.50	900.70	125.50	6
62	900.70	125.50	902.20	126.00	6
63	900.70	125.50	993.20	125.50	6
64	773.30	110.00	791.30	110.00	6
65	791.30	110.00	811.20	110.00	7
66	811.20	110.00	836.20	110.00	6
67	836.20	110.00	846.20	110.00	7
68	846.20	110.00	993.20	110.00	6
69	771.80	109.50	789.50	109.50	6
70	789.50	109.50	791.30	110.00	7
71	789.50	109.50	809.70	109.50	6
72	809.70	109.50	811.20	110.00	6
73	809.70	109.50	834.70	109.50	6
74	834.70	109.50	836.70	110.00	7
75	834.70	109.50	844.70	109.50	6
76	844.70	109.50	846.20	110.00	6
77	844.70	109.50	993.20	109.50	6
78	715.80	97.50	742.40	97.50	7
79	742.40	97.50	767.40	97.50	6
80	767.40	97.50	777.40	97.50	7
81	777.40	97.50	993.20	97.50	6
82	714.30	97.00	740.90	97.00	6
83	740.90	97.00	742.40	97.50	6
84	740.90	97.00	765.90	97.00	6
85	765.90	97.00	767.40	97.50	7
86	765.90	97.00	775.90	97.00	6
87	775.90	97.00	777.40	97.50	6
88	775.90	97.00	993.20	97.00	6
89	678.30	85.00	685.00	85.00	1
90	685.00	85.00	711.00	72.00	1
91	711.00	72.00	738.00	72.00	1
92	738.00	72.00	764.00	85.00	1
93	764.00	85.00	774.00	85.00	1
94	774.00	85.00	800.00	72.00	1
95	800.00	72.00	993.20	72.00	1
96	640.00	76.00	640.60	76.00	1
97	640.60	76.00	658.60	85.00	1
98	628.00	70.00	993.20	70.00	9
99	.00	60.00	993.20	60.00	10
100	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40
Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)
1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.
SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED
A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.
1000 Trial Surfaces Have Been Generated.
2 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Modified Janbu Method * *
Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32

8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)

1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82

19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.635 ***

Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	659.51	86.00
2	664.40	81.30
3	674.33	80.14
4	682.63	74.57
5	692.33	72.12
6	700.81	66.82
7	707.94	59.81
8	717.57	57.10
9	882.46	63.68
10	888.13	71.92
11	891.66	81.27

12	898.01	89.00
13	904.86	96.29
14	911.85	103.44
15	918.51	110.90
16	925.47	118.08
17	931.53	126.03
18	937.11	134.33
19	939.27	144.10
20	946.34	151.18
21	951.56	159.71
22	956.42	165.65
***	1.638	***

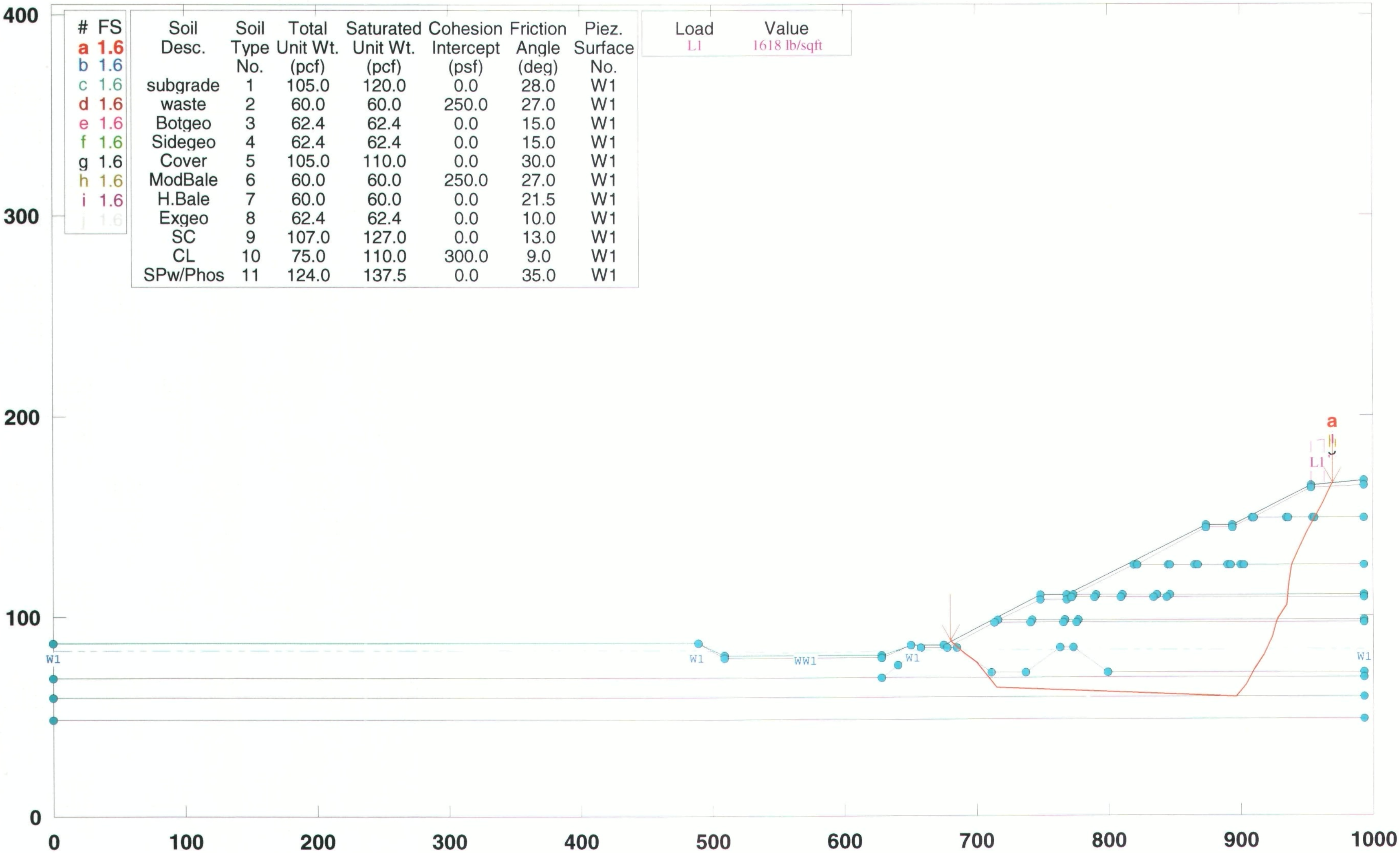
Hardee County Landfill Expansion Final Buildout -Mod South Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\SOUTHS~1\BSOUTH.PL2 Run By: Dominique Bramlett 3/7/2007 2:24PM

#	FS
a	1.6
b	1.6
c	1.6
d	1.6
e	1.6
f	1.6
g	1.6
h	1.6
i	1.6
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

Load	Value
L1	1618 lb/sqft



STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

** **STABL6H** **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 2:24PM
Run By: Dominique Bramlett
Input Data Filename: F:bsouth.
Output Filename: F:bsouth.OUT
Plotted Output Filename: F:bsouth.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod South Slope

BOUNDARY COORDINATES
11 Top Boundaries
100 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	87.00	489.50	87.00	1
2	489.50	87.00	509.00	80.50	3
3	509.00	80.50	628.00	80.50	3
4	628.00	80.50	650.00	86.00	3
5	650.00	86.00	675.00	86.00	3
6	675.00	86.00	748.50	110.50	4
7	748.50	110.50	768.50	110.50	4
8	768.50	110.50	873.50	145.50	4
9	873.50	145.50	893.50	145.50	4
10	893.50	145.50	953.50	165.50	4
11	953.50	165.50	993.20	167.50	4
12	489.40	86.50	489.50	87.00	1
13	489.40	86.50	508.90	80.00	1
14	508.90	80.00	628.10	80.00	1
15	628.10	80.00	650.10	85.50	1
16	650.10	85.50	675.10	85.50	1
17	675.10	85.50	748.60	110.00	5
18	748.60	110.00	768.60	110.00	5
19	768.60	110.00	873.60	145.00	5
20	873.60	145.00	893.60	145.00	5
21	893.60	145.00	953.60	165.00	5
22	953.60	165.00	993.20	167.00	5
23	.00	70.00	628.00	70.00	9
24	628.00	70.00	640.00	76.00	1
25	640.00	76.00	658.00	85.00	8
26	658.00	85.00	658.60	85.00	8
27	658.60	85.00	678.30	85.00	1
28	678.30	85.00	714.30	97.00	6
29	714.30	97.00	715.80	97.50	6
30	715.80	97.50	748.80	108.50	6
31	748.80	108.50	768.80	108.50	6
32	768.80	108.50	771.80	109.50	6
33	771.80	109.50	773.30	110.00	6
34	773.30	110.00	819.80	125.50	6
35	819.80	125.50	821.30	126.00	6
36	821.30	126.00	873.90	143.50	6
37	873.90	143.50	893.90	143.50	6
38	893.90	143.50	908.80	148.50	6
39	908.80	148.50	910.30	149.00	6
40	910.30	149.00	953.90	163.50	6
41	953.90	163.50	993.20	165.50	6
42	910.30	149.00	936.30	149.00	6
43	936.30	149.00	956.20	149.00	7
44	956.20	149.00	993.20	149.00	6
45	908.80	148.50	934.50	148.50	6
46	934.50	148.50	936.30	149.00	7
47	934.50	148.50	954.70	148.50	6
48	954.70	148.50	956.20	149.00	6
49	954.70	148.50	993.20	148.50	6

50	821.30	126.00	847.30	126.00	6
51	847.30	126.00	867.20	126.00	7
52	867.20	126.00	892.20	126.00	6
53	892.20	126.00	902.20	126.00	7
54	902.20	126.00	993.20	126.00	6
55	819.80	125.50	845.50	125.50	6
56	845.50	125.50	847.30	126.00	7
57	845.50	125.50	865.70	125.50	6
58	865.70	125.50	867.20	126.00	6
59	865.70	125.50	890.70	125.50	6
60	890.70	125.50	892.20	126.00	7
61	890.70	125.50	900.70	125.50	6
62	900.70	125.50	902.20	126.00	6
63	900.70	125.50	993.20	125.50	6
64	773.30	110.00	791.30	110.00	6
65	791.30	110.00	811.20	110.00	7
66	811.20	110.00	836.20	110.00	6
67	836.20	110.00	846.20	110.00	7
68	846.20	110.00	993.20	110.00	6
69	771.80	109.50	789.50	109.50	6
70	789.50	109.50	791.30	110.00	7
71	789.50	109.50	809.70	109.50	6
72	809.70	109.50	811.20	110.00	6
73	809.70	109.50	834.70	109.50	6
74	834.70	109.50	836.70	110.00	7
75	834.70	109.50	844.70	109.50	6
76	844.70	109.50	846.20	110.00	6
77	844.70	109.50	993.20	109.50	6
78	715.80	97.50	742.40	97.50	7
79	742.40	97.50	767.40	97.50	6
80	767.40	97.50	777.40	97.50	7
81	777.40	97.50	993.20	97.50	6
82	714.30	97.00	740.90	97.00	6
83	740.90	97.00	742.40	97.50	6
84	740.90	97.00	765.90	97.00	6
85	765.90	97.00	767.40	97.50	7
86	765.90	97.00	775.90	97.00	6
87	775.90	97.00	777.40	97.50	6
88	775.90	97.00	993.20	97.00	6
89	678.30	85.00	685.00	85.00	1
90	685.00	85.00	711.00	72.00	1
91	711.00	72.00	738.00	72.00	1
92	738.00	72.00	764.00	85.00	1
93	764.00	85.00	774.00	85.00	1
94	774.00	85.00	800.00	72.00	1
95	800.00	72.00	993.20	72.00	1
96	640.00	76.00	640.60	76.00	1
97	640.60	76.00	658.60	85.00	1
98	628.00	70.00	993.20	70.00	9
99	.00	60.00	993.20	60.00	10
100	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40
Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)
1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.
A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.
1000 Trial Surfaces Have Been Generated.
2 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Modified Janbu Method * *
Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36

```
     9        910.53        73.70
    10        917.10        81.24
    11        923.66        88.78
    12        927.91        97.84
    13        934.59       105.28
    14        935.57       115.23
    15        937.98       124.93
    16        943.82       133.05
    17        949.53       141.25
    18        956.05       148.84
    19        962.12       156.79
    20        968.48       164.50
    21        969.44       166.30
        ***     1.577    ***
Failure Surface Specified By 21 Coordinate Points
   Point      X-Surf       Y-Surf
    No.        (ft)         (ft)
     1        680.58        87.86
     2        681.92        86.52
     3        690.87        82.06
     4        699.63        77.23
     5        707.59        71.19
     6        715.38        64.91
     7        896.98        58.99
     8        903.73        66.36
     9        910.53        73.70
    10        917.10        81.24
    11        923.66        88.78
    12        927.91        97.84
    13        934.59       105.28
    14        935.57       115.23
    15        937.98       124.93
    16        943.82       133.05
    17        949.53       141.25
    18        956.05       148.84
    19        962.12       156.79
    20        968.48       164.50
    21        969.44       166.30
        ***     1.577    ***
Failure Surface Specified By 21 Coordinate Points
   Point      X-Surf       Y-Surf
    No.        (ft)         (ft)
     1        680.58        87.86
     2        681.92        86.52
     3        690.87        82.06
     4        699.63        77.23
     5        707.59        71.19
     6        715.38        64.91
     7        896.98        58.99
     8        903.73        66.36
     9        910.53        73.70
    10        917.10        81.24
    11        923.66        88.78
    12        927.91        97.84
    13        934.59       105.28
    14        935.57       115.23
    15        937.98       124.93
    16        943.82       133.05
    17        949.53       141.25
    18        956.05       148.84
    19        962.12       156.79
    20        968.48       164.50
    21        969.44       166.30
        ***     1.577    ***
Failure Surface Specified By 21 Coordinate Points
   Point      X-Surf       Y-Surf
    No.        (ft)         (ft)
     1        680.58        87.86
```

2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79

20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.577 ***

Failure Surface Specified By 22 Coordinate Points

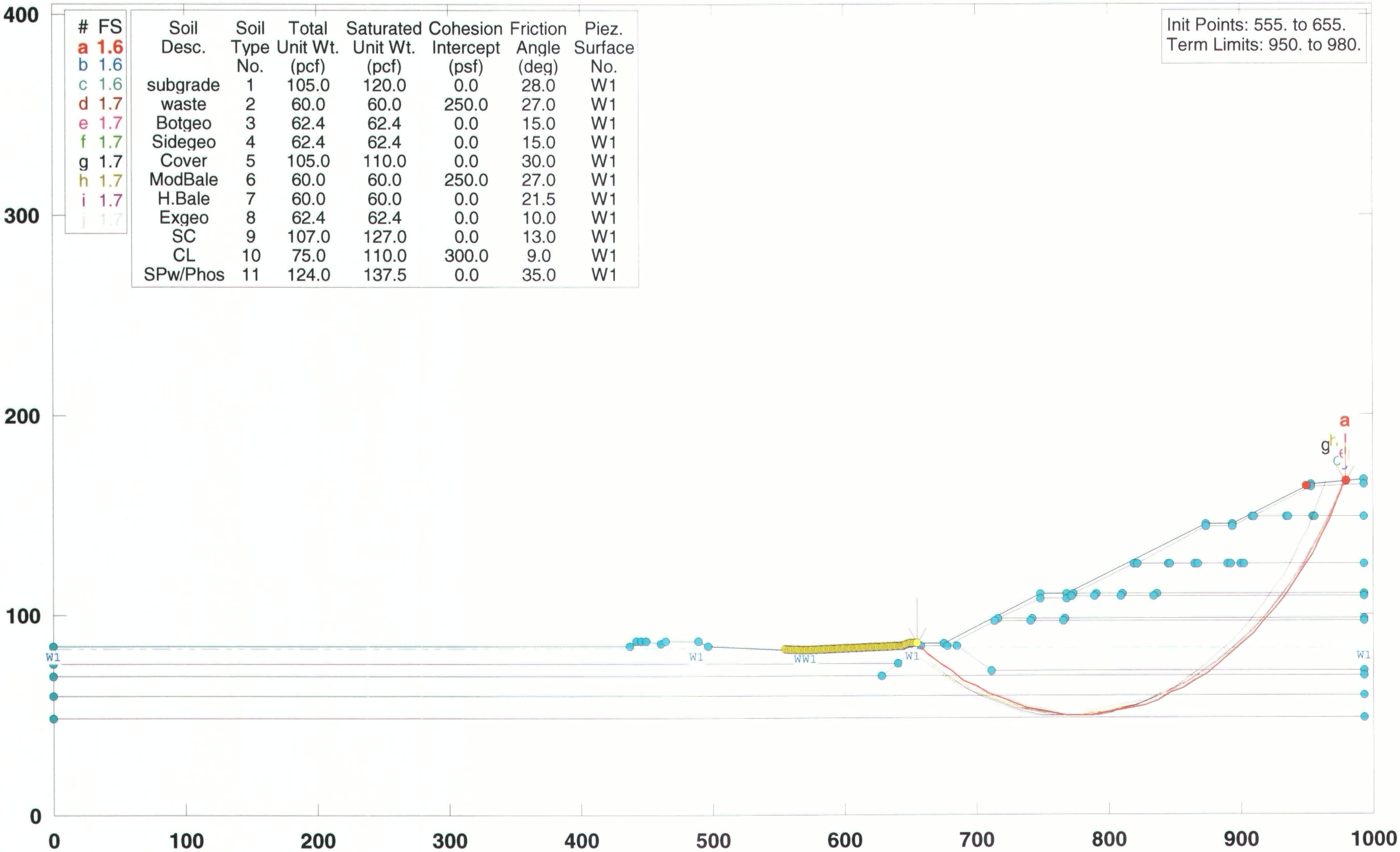
Point No.	X-Surf (ft)	Y-Surf (ft)
1	659.51	86.00
2	664.40	81.30
3	674.33	80.14
4	682.63	74.57
5	692.33	72.12
6	700.81	66.82
7	707.94	59.81
8	717.57	57.10
9	882.46	63.68
10	888.13	71.92
11	891.66	81.27
12	898.01	89.00

13	904.86	96.29
14	911.85	103.44
15	918.51	110.90
16	925.47	118.08
17	931.53	126.03
18	937.11	134.33
19	939.27	144.10
20	946.34	151.18
21	951.56	159.71
22	956.42	165.65
***	1.612	***

CIRCULAR SLOPE STABILITY ANALYSES
WEST SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod West Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\WESTSI~1\WEST.PL2 Run By: Dominique Bramlett 3/7/2007 3:56PM



#	FS
a	1.6
b	1.6
c	1.6
d	1.7
e	1.7
f	1.7
g	1.7
h	1.7
i	1.7
j	1.7

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:03AM
Run By: Shane R. Fischer
Input Data Filename: F:west.
Output Filename: F:west.OUT
Plotted Output Filename: F:west.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod West Slope

BOUNDARY COORDINATES
18 Top Boundaries
99 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	436.50	85.00	1
2	436.50	85.00	442.50	87.00	1
3	442.50	87.00	445.50	87.00	1
4	445.50	87.00	450.00	86.50	1
5	450.00	86.50	460.00	85.50	1
6	460.00	85.50	464.50	87.00	1
7	464.50	87.00	489.50	87.00	1
8	489.50	87.00	497.00	84.50	3
9	497.00	84.50	570.50	82.50	3
10	570.50	82.50	644.10	84.50	3
11	644.10	84.50	650.00	86.00	3
12	650.00	86.00	675.00	86.00	3
13	675.00	86.00	748.50	110.50	4
14	748.50	110.50	768.50	110.50	4
15	768.50	110.50	873.50	145.50	4
16	873.50	145.50	893.50	145.50	4
17	893.50	145.50	953.50	165.50	4
18	953.50	165.50	993.20	167.50	4
19	489.40	86.50	489.50	87.00	1
20	489.40	86.50	496.90	84.00	1
21	496.90	84.00	570.50	82.00	1
22	570.50	82.00	644.10	84.00	1
23	644.10	84.00	650.10	85.50	1
24	650.10	85.50	675.10	85.50	1
25	675.10	85.50	748.60	110.00	5
26	748.60	110.00	768.60	110.00	5
27	768.60	110.00	873.60	145.00	5
28	873.60	145.00	893.60	145.00	5
29	893.60	145.00	953.60	165.00	5
30	953.60	165.00	993.20	167.00	5
31	.00	76.00	640.00	76.00	1
32	640.00	76.00	658.00	85.00	8
33	658.00	85.00	658.60	85.00	8
34	658.60	85.00	678.30	85.00	1
35	678.30	85.00	714.30	97.00	6
36	714.30	97.00	715.80	97.50	6
37	715.80	97.50	748.80	108.50	6
38	748.80	108.50	768.80	108.50	6
39	768.80	108.50	771.80	109.50	6
40	771.80	109.50	773.30	110.00	6
41	773.30	110.00	819.80	125.50	6
42	819.80	125.50	821.30	126.00	6
43	821.30	126.00	873.90	143.50	6
44	873.90	143.50	893.90	143.50	6
45	893.90	143.50	908.80	148.50	6
46	908.80	148.50	910.30	149.00	6
47	910.30	149.00	953.90	163.50	6
48	953.90	163.50	993.20	165.50	6
49	910.30	149.00	936.30	149.00	6

50	936.30	149.00	956.20	149.00	7
51	956.20	149.00	993.20	149.00	6
52	908.80	148.50	934.50	148.50	6
53	934.50	148.50	936.30	149.00	7
54	934.50	148.50	954.70	148.50	6
55	954.70	148.50	956.20	149.00	6
56	954.70	148.50	993.20	148.50	6
57	821.30	126.00	847.30	126.00	6
58	847.30	126.00	867.20	126.00	7
59	867.20	126.00	892.20	126.00	6
60	892.20	126.00	902.20	126.00	7
61	902.20	126.00	993.20	126.00	6
62	819.80	125.50	845.50	125.50	6
63	845.50	125.50	847.30	126.00	7
64	845.50	125.50	865.70	125.50	6
65	865.70	125.50	867.20	126.00	6
66	865.70	125.50	890.70	125.50	6
67	890.70	125.50	892.20	126.00	7
68	890.70	125.50	900.70	125.50	6
69	900.70	125.50	902.20	126.00	6
70	900.70	125.50	993.20	125.50	6
71	773.30	110.00	791.30	110.00	6
72	791.30	110.00	811.20	110.00	7
73	811.20	110.00	836.20	110.00	6
74	836.20	110.00	993.20	110.00	7
75	771.80	109.50	789.50	109.50	6
76	789.50	109.50	791.30	110.00	7
77	789.50	109.50	809.70	109.50	6
78	809.70	109.50	811.20	110.00	6
79	809.70	109.50	834.70	109.50	6
80	834.70	109.50	836.70	110.00	7
81	834.70	109.50	993.20	109.50	6
82	715.80	97.50	742.40	97.50	6
83	742.40	97.50	767.40	97.50	7
84	767.40	97.50	993.20	97.50	6
85	714.30	97.00	740.90	97.00	6
86	740.90	97.00	742.40	97.50	6
87	740.90	97.00	765.90	97.00	7
88	765.90	97.00	767.40	97.50	6
89	765.90	97.00	993.20	97.00	6
90	678.30	85.00	685.00	85.00	1
91	685.00	85.00	711.00	72.00	1
92	711.00	72.00	993.20	72.00	1
93	.00	70.00	628.00	70.00	9
94	628.00	70.00	640.00	76.00	1
95	640.00	76.00	640.60	76.00	1
96	640.60	76.00	658.60	85.00	1
97	628.00	70.00	993.20	70.00	9
98	.00	60.00	993.20	60.00	10
99	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.

5000 Trial Surfaces Have Been Generated.

50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.

Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.

10.00 ft. Line Segments Define Each Trial Failure Surface.

Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.

* * Safety Factors Are Calculated By The Modified Bishop Method * *

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	655.00	86.00
2	663.55	80.82
3	672.32	76.02
4	681.29	71.60
5	690.45	67.57
6	699.77	63.95
7	709.23	60.73
8	718.83	57.92
9	728.54	55.53
10	738.35	53.56
11	748.23	52.03
12	758.17	50.91
13	768.14	50.24
14	778.14	49.99
15	788.14	50.18
16	798.12	50.80
17	808.06	51.85
18	817.95	53.33
19	827.77	55.24
20	837.49	57.57
21	847.11	60.32
22	856.60	63.48
23	865.94	67.05
24	875.11	71.02
25	884.11	75.39
26	892.91	80.14
27	901.49	85.27
28	909.85	90.76
29	917.96	96.61
30	925.81	102.81
31	933.38	109.34
32	940.66	116.19
33	947.64	123.36

34	954.30	130.81
35	960.64	138.55
36	966.63	146.56
37	972.27	154.81
38	977.55	163.31
39	979.52	166.81

Circle Center At X = 778.8 ; Y = 280.9 and Radius, 230.9

*** 1.639 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	650.96	86.00
2	659.51	80.82
3	668.28	76.02
4	677.25	71.60
5	686.40	67.57
6	695.72	63.93
7	705.18	60.69
8	714.77	57.87
9	724.48	55.46
10	734.28	53.47
11	744.16	51.90
12	754.09	50.75
13	764.06	50.04
14	774.06	49.75
15	784.06	49.89
16	794.04	50.46
17	803.99	51.46
18	813.89	52.88
19	823.72	54.73
20	833.46	57.00
21	843.09	59.68
22	852.60	62.78
23	861.97	66.28
24	871.18	70.17
25	880.21	74.47
26	889.05	79.14
27	897.68	84.19
28	906.09	89.60
29	914.26	95.37
30	922.17	101.49
31	929.81	107.94
32	937.17	114.71
33	944.23	121.79
34	950.98	129.17
35	957.41	136.83
36	963.50	144.76
37	969.25	152.94
38	974.64	161.37
39	977.75	166.72

Circle Center At X = 775.8 ; Y = 282.7 and Radius, 233.0

*** 1.643 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	86.00
2	661.49	80.76
3	670.24	75.90
4	679.18	71.44
5	688.32	67.37
6	697.63	63.72
7	707.09	60.48
8	716.68	57.66
9	726.39	55.27
10	736.20	53.31
11	746.08	51.79
12	756.03	50.71
13	766.00	50.07

14	776.00	49.87
15	786.00	50.12
16	795.98	50.81
17	805.91	51.94
18	815.79	53.51
19	825.59	55.51
20	835.28	57.95
21	844.86	60.81
22	854.31	64.10
23	863.60	67.80
24	872.72	71.91
25	881.64	76.42
26	890.36	81.32
27	898.85	86.60
28	907.10	92.25
29	915.09	98.26
30	922.81	104.62
31	930.24	111.32
32	937.36	118.34
33	944.16	125.66
34	950.64	133.29
35	956.77	141.19
36	962.54	149.35
37	967.95	157.76
38	972.98	166.41
39	973.02	166.48

Circle Center At X = 775.4 ; Y = 275.5 and Radius, 225.7

*** 1.645 ***

Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	645.91	84.96
2	654.57	79.96
3	663.42	75.31
4	672.46	71.04
5	681.67	67.14
6	691.03	63.63
7	700.53	60.50
8	710.15	57.77
9	719.88	55.44
10	729.69	53.51
11	739.57	51.98
12	749.51	50.87
13	759.48	50.16
14	769.48	49.87
15	779.48	49.98
16	789.47	50.51
17	799.42	51.45
18	809.33	52.80
19	819.17	54.56
20	828.94	56.72
21	838.60	59.29
22	848.16	62.24
23	857.58	65.59
24	866.85	69.33
25	875.97	73.44
26	884.91	77.93
27	893.65	82.78
28	902.19	87.98
29	910.51	93.54
30	918.59	99.43
31	926.42	105.65
32	933.98	112.19
33	941.28	119.03
34	948.28	126.17
35	954.98	133.59
36	961.38	141.28
37	967.44	149.22

38	973.18	157.41
39	978.58	165.83
40	979.14	166.79

Circle Center At X = 771.6 ; Y = 292.5 and Radius, 242.7

*** 1.654 ***

Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	640.86	84.41
2	649.53	79.44
3	658.40	74.82
4	667.45	70.57
5	676.67	66.68
6	686.03	63.17
7	695.53	60.04
8	705.14	57.29
9	714.86	54.94
10	724.67	52.98
11	734.55	51.42
12	744.48	50.26
13	754.45	49.50
14	764.44	49.15
15	774.44	49.20
16	784.43	49.65
17	794.40	50.51
18	804.32	51.77
19	814.18	53.43
20	823.96	55.48
21	833.66	57.93
22	843.25	60.77
23	852.71	63.99
24	862.04	67.60
25	871.22	71.57
26	880.22	75.92
27	889.05	80.62
28	897.67	85.68
29	906.09	91.08
30	914.28	96.82
31	922.23	102.89
32	929.93	109.27
33	937.37	115.95
34	944.53	122.94
35	951.40	130.20
36	957.97	137.74
37	964.23	145.53
38	970.18	153.58
39	975.79	161.85
40	978.85	166.78

Circle Center At X = 768.2 ; Y = 296.6 and Radius, 247.5

*** 1.655 ***

Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	646.92	85.22
2	655.58	80.23
3	664.45	75.60
4	673.50	71.35
5	682.72	67.47
6	692.09	63.97
7	701.59	60.86
8	711.21	58.15
9	720.94	55.83
10	730.76	53.92
11	740.64	52.41
12	750.58	51.31
13	760.56	50.62
14	770.56	50.35
15	780.55	50.48

16	790.54	51.03
17	800.49	51.98
18	810.40	53.35
19	820.24	55.12
20	830.00	57.30
21	839.66	59.88
22	849.21	62.85
23	858.63	66.21
24	867.90	69.96
25	877.01	74.09
26	885.94	78.58
27	894.68	83.45
28	903.21	88.66
29	911.52	94.23
30	919.59	100.13
31	927.41	106.36
32	934.97	112.91
33	942.26	119.76
34	949.25	126.90
35	955.95	134.33
36	962.33	142.03
37	968.39	149.98
38	974.12	158.18
39	979.51	166.61
40	979.63	166.82

Circle Center At X = 772.3 ; Y = 293.1 and Radius, 242.8

*** 1.656 ***

Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.73
2	657.39	80.39
3	666.08	75.44
4	674.98	70.89
5	684.09	66.75
6	693.37	63.03
7	702.81	59.73
8	712.39	56.87
9	722.09	54.44
10	731.89	52.46
11	741.78	50.93
12	751.72	49.85
13	761.70	49.22
14	771.70	49.04
15	781.69	49.32
16	791.67	50.06
17	801.59	51.25
18	811.46	52.89
19	821.24	54.97
20	830.91	57.50
21	840.46	60.47
22	849.87	63.86
23	859.11	67.68
24	868.17	71.92
25	877.02	76.57
26	885.66	81.61
27	894.06	87.04
28	902.20	92.85
29	910.07	99.02
30	917.65	105.54
31	924.92	112.40
32	931.88	119.59
33	938.50	127.08
34	944.77	134.87
35	950.69	142.93
36	956.23	151.26
37	961.38	159.83
38	964.76	166.07

Circle Center At X = 770.5 ; Y = 268.8 and Radius, 219.8
*** 1.657 ***
Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	650.96	86.00
2	659.52	80.83
3	668.30	76.05
4	677.28	71.65
5	686.45	67.66
6	695.78	64.07
7	705.27	60.90
8	714.88	58.14
9	724.61	55.82
10	734.42	53.92
11	744.32	52.46
12	754.26	51.44
13	764.25	50.85
14	774.25	50.71
15	784.24	51.01
16	794.21	51.74
17	804.15	52.92
18	814.01	54.53
19	823.80	56.57
20	833.49	59.05
21	843.06	61.95
22	852.50	65.26
23	861.78	68.99
24	870.88	73.13
25	879.80	77.66
26	888.50	82.58
27	896.98	87.88
28	905.22	93.54
29	913.20	99.57
30	920.91	105.94
31	928.33	112.64
32	935.45	119.67
33	942.25	127.00
34	948.72	134.62
35	954.85	142.52
36	960.63	150.68
37	966.04	159.09
38	970.27	166.34

Circle Center At X = 772.5 ; Y = 277.7 and Radius, 227.0
*** 1.658 ***
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	86.00
2	661.66	81.04
3	670.54	76.44
4	679.61	72.22
5	688.84	68.39
6	698.23	64.94
7	707.75	61.89
8	717.40	59.25
9	727.14	57.01
10	736.97	55.17
11	746.87	53.76
12	756.82	52.76
13	766.81	52.17
14	776.80	52.01
15	786.80	52.26
16	796.78	52.93
17	806.72	54.02
18	816.61	55.52
19	826.42	57.44
20	836.15	59.77

21	845.76	62.50
22	855.26	65.63
23	864.62	69.16
24	873.82	73.08
25	882.85	77.37
26	891.69	82.05
27	900.33	87.09
28	908.75	92.48
29	916.93	98.23
30	924.87	104.31
31	932.55	110.72
32	939.95	117.44
33	947.06	124.47
34	953.87	131.79
35	960.37	139.39
36	966.55	147.26
37	972.39	155.37
38	977.89	163.73
39	979.74	166.82

Circle Center At X = 775.8 ; Y = 290.7 and Radius, 238.7

*** 1.659 ***

Failure Surface Specified By 39 Coordinate Points

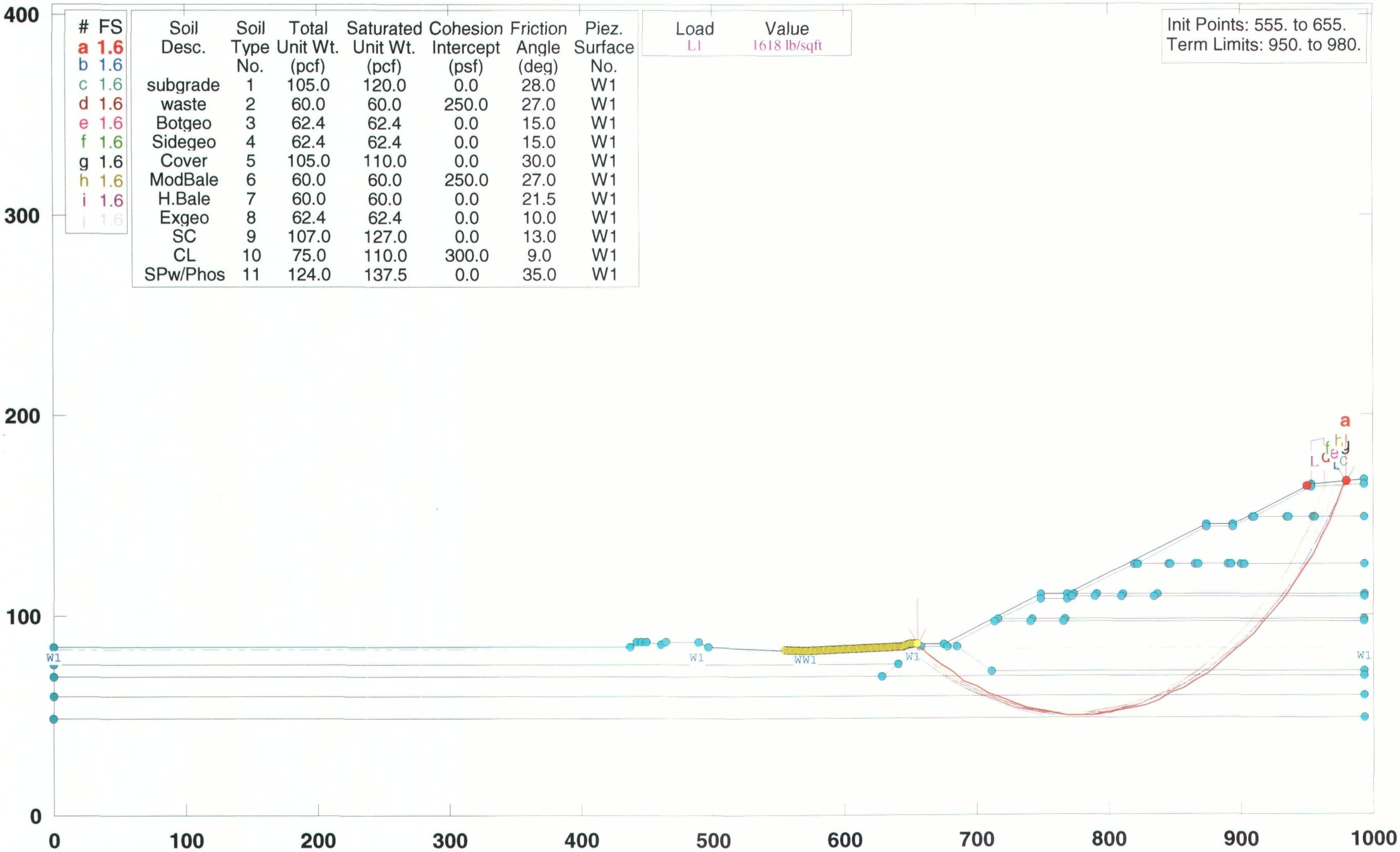
Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.73
2	657.56	80.66
3	666.39	75.97
4	675.41	71.65
5	684.60	67.72
6	693.96	64.19
7	703.46	61.07
8	713.08	58.35
9	722.81	56.04
10	732.63	54.15
11	742.52	52.68
12	752.47	51.64
13	762.45	51.01
14	772.45	50.82
15	782.44	51.05
16	792.42	51.71
17	802.36	52.79
18	812.25	54.30
19	822.06	56.23
20	831.78	58.57
21	841.40	61.33
22	850.88	64.49
23	860.23	68.06
24	869.41	72.02
25	878.41	76.37
26	887.22	81.10
27	895.82	86.20
28	904.20	91.66
29	912.34	97.48
30	920.22	103.63
31	927.83	110.12
32	935.15	116.93
33	942.18	124.04
34	948.90	131.45
35	955.30	139.13
36	961.36	147.08
37	967.08	155.29
38	972.44	163.73
39	974.06	166.54

Circle Center At X = 772.0 ; Y = 285.2 and Radius, 234.4

*** 1.659 ***

Hardee County Landfill Expansion Final Buildout -Mod West Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\WESTSI~1\WEST.PL2 Run By: Dominique Bramlett 3/7/2007 3:57PM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Bishop Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 3:57PM
Run By: Dominique Bramlett
Input Data Filename: F:WEST.
Output Filename: F:WEST.OUT
Plotted Output Filename: F:WEST.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod West Slope

BOUNDARY COORDINATES
18 Top Boundaries
99 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	436.50	85.00	1
2	436.50	85.00	442.50	87.00	1
3	442.50	87.00	445.50	87.00	1
4	445.50	87.00	450.00	86.50	1
5	450.00	86.50	460.00	85.50	1
6	460.00	85.50	464.50	87.00	1
7	464.50	87.00	489.50	87.00	1
8	489.50	87.00	497.00	84.50	3
9	497.00	84.50	570.50	82.50	3
10	570.50	82.50	644.10	84.50	3
11	644.10	84.50	650.00	86.00	3
12	650.00	86.00	675.00	86.00	3
13	675.00	86.00	748.50	110.50	4
14	748.50	110.50	768.50	110.50	4
15	768.50	110.50	873.50	145.50	4
16	873.50	145.50	893.50	145.50	4
17	893.50	145.50	953.50	165.50	4
18	953.50	165.50	993.20	167.50	4
19	489.40	86.50	489.50	87.00	1
20	489.40	86.50	496.90	84.00	1
21	496.90	84.00	570.50	82.00	1
22	570.50	82.00	644.10	84.00	1
23	644.10	84.00	650.10	85.50	1
24	650.10	85.50	675.10	85.50	1
25	675.10	85.50	748.60	110.00	5
26	748.60	110.00	768.60	110.00	5
27	768.60	110.00	873.60	145.00	5
28	873.60	145.00	893.60	145.00	5
29	893.60	145.00	953.60	165.00	5
30	953.60	165.00	993.20	167.00	5
31	.00	76.00	640.00	76.00	1
32	640.00	76.00	658.00	85.00	8
33	658.00	85.00	658.60	85.00	8
34	658.60	85.00	678.30	85.00	1
35	678.30	85.00	714.30	97.00	6
36	714.30	97.00	715.80	97.50	6
37	715.80	97.50	748.80	108.50	6
38	748.80	108.50	768.80	108.50	6
39	768.80	108.50	771.80	109.50	6
40	771.80	109.50	773.30	110.00	6
41	773.30	110.00	819.80	125.50	6
42	819.80	125.50	821.30	126.00	6
43	821.30	126.00	873.90	143.50	6
44	873.90	143.50	893.90	143.50	6
45	893.90	143.50	908.80	148.50	6
46	908.80	148.50	910.30	149.00	6
47	910.30	149.00	953.90	163.50	6
48	953.90	163.50	993.20	165.50	6
49	910.30	149.00	936.30	149.00	6

50	936.30	149.00	956.20	149.00	7
51	956.20	149.00	993.20	149.00	6
52	908.80	148.50	934.50	148.50	6
53	934.50	148.50	936.30	149.00	7
54	934.50	148.50	954.70	148.50	6
55	954.70	148.50	956.20	149.00	6
56	954.70	148.50	993.20	148.50	6
57	821.30	126.00	847.30	126.00	6
58	847.30	126.00	867.20	126.00	7
59	867.20	126.00	892.20	126.00	6
60	892.20	126.00	902.20	126.00	7
61	902.20	126.00	993.20	126.00	6
62	819.80	125.50	845.50	125.50	6
63	845.50	125.50	847.30	126.00	7
64	845.50	125.50	865.70	125.50	6
65	865.70	125.50	867.20	126.00	6
66	865.70	125.50	890.70	125.50	6
67	890.70	125.50	892.20	126.00	7
68	890.70	125.50	900.70	125.50	6
69	900.70	125.50	902.20	126.00	6
70	900.70	125.50	993.20	125.50	6
71	773.30	110.00	791.30	110.00	6
72	791.30	110.00	811.20	110.00	7
73	811.20	110.00	836.20	110.00	6
74	836.20	110.00	993.20	110.00	7
75	771.80	109.50	789.50	109.50	6
76	789.50	109.50	791.30	110.00	7
77	789.50	109.50	809.70	109.50	6
78	809.70	109.50	811.20	110.00	6
79	809.70	109.50	834.70	109.50	6
80	834.70	109.50	836.70	110.00	7
81	834.70	109.50	993.20	109.50	6
82	715.80	97.50	742.40	97.50	6
83	742.40	97.50	767.40	97.50	7
84	767.40	97.50	993.20	97.50	6
85	714.30	97.00	740.90	97.00	6
86	740.90	97.00	742.40	97.50	6
87	740.90	97.00	765.90	97.00	7
88	765.90	97.00	767.40	97.50	6
89	765.90	97.00	993.20	97.00	6
90	678.30	85.00	685.00	85.00	1
91	685.00	85.00	711.00	72.00	1
92	711.00	72.00	993.20	72.00	1
93	.00	70.00	628.00	70.00	9
94	628.00	70.00	640.00	76.00	1
95	640.00	76.00	640.60	76.00	1
96	640.60	76.00	658.60	85.00	1
97	628.00	70.00	993.20	70.00	9
98	.00	60.00	993.20	60.00	10
99	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed
Force Acting On A Horizontally Projected Surface.
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
5000 Trial Surfaces Have Been Generated.
50 Surfaces Initiate From Each Of100 Points Equally Spaced
Along The Ground Surface Between X = 555.00 ft.
and X = 655.00 ft.
Each Surface Terminates Between X = 950.00 ft.
and X = 980.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	655.00	86.00
2	663.55	80.82
3	672.32	76.02
4	681.29	71.60
5	690.45	67.57
6	699.77	63.95
7	709.23	60.73
8	718.83	57.92
9	728.54	55.53
10	738.35	53.56
11	748.23	52.03
12	758.17	50.91
13	768.14	50.24
14	778.14	49.99
15	788.14	50.18
16	798.12	50.80
17	808.06	51.85
18	817.95	53.33
19	827.77	55.24
20	837.49	57.57
21	847.11	60.32
22	856.60	63.48
23	865.94	67.05
24	875.11	71.02
25	884.11	75.39
26	892.91	80.14
27	901.49	85.27
28	909.85	90.76
29	917.96	96.61
30	925.81	102.81
31	933.38	109.34
32	940.66	116.19
33	947.64	123.36
34	954.30	130.81

35	960.64	138.55
36	966.63	146.56
37	972.27	154.81
38	977.55	163.31
39	979.52	166.81

Circle Center At X = 778.8 ; Y = 280.9 and Radius, 230.9

*** 1.585 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	652.98	86.00
2	661.49	80.76
3	670.24	75.90
4	679.18	71.44
5	688.32	67.37
6	697.63	63.72
7	707.09	60.48
8	716.68	57.66
9	726.39	55.27
10	736.20	53.31
11	746.08	51.79
12	756.03	50.71
13	766.00	50.07
14	776.00	49.87
15	786.00	50.12
16	795.98	50.81
17	805.91	51.94
18	815.79	53.51
19	825.59	55.51
20	835.28	57.95
21	844.86	60.81
22	854.31	64.10
23	863.60	67.80
24	872.72	71.91
25	881.64	76.42
26	890.36	81.32
27	898.85	86.60
28	907.10	92.25
29	915.09	98.26
30	922.81	104.62
31	930.24	111.32
32	937.36	118.34
33	944.16	125.66
34	950.64	133.29
35	956.77	141.19
36	962.54	149.35
37	967.95	157.76
38	972.98	166.41
39	973.02	166.48

Circle Center At X = 775.4 ; Y = 275.5 and Radius, 225.7

*** 1.588 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	650.96	86.00
2	659.51	80.82
3	668.28	76.02
4	677.25	71.60
5	686.40	67.57
6	695.72	63.93
7	705.18	60.69
8	714.77	57.87
9	724.48	55.46
10	734.28	53.47
11	744.16	51.90
12	754.09	50.75
13	764.06	50.04
14	774.06	49.75

15	784.06	49.89
16	794.04	50.46
17	803.99	51.46
18	813.89	52.88
19	823.72	54.73
20	833.46	57.00
21	843.09	59.68
22	852.60	62.78
23	861.97	66.28
24	871.18	70.17
25	880.21	74.47
26	889.05	79.14
27	897.68	84.19
28	906.09	89.60
29	914.26	95.37
30	922.17	101.49
31	929.81	107.94
32	937.17	114.71
33	944.23	121.79
34	950.98	129.17
35	957.41	136.83
36	963.50	144.76
37	969.25	152.94
38	974.64	161.37
39	977.75	166.72

Circle Center At X = 775.8 ; Y = 282.7 and Radius, 233.0

*** 1.589 ***

Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	648.94	85.73
2	657.39	80.39
3	666.08	75.44
4	674.98	70.89
5	684.09	66.75
6	693.37	63.03
7	702.81	59.73
8	712.39	56.87
9	722.09	54.44
10	731.89	52.46
11	741.78	50.93
12	751.72	49.85
13	761.70	49.22
14	771.70	49.04
15	781.69	49.32
16	791.67	50.06
17	801.59	51.25
18	811.46	52.89
19	821.24	54.97
20	830.91	57.50
21	840.46	60.47
22	849.87	63.86
23	859.11	67.68
24	868.17	71.92
25	877.02	76.57
26	885.66	81.61
27	894.06	87.04
28	902.20	92.85
29	910.07	99.02
30	917.65	105.54
31	924.92	112.40
32	931.88	119.59
33	938.50	127.08
34	944.77	134.87
35	950.69	142.93
36	956.23	151.26
37	961.38	159.83
38	964.76	166.07

Circle Center At X = 770.5 ; Y = 268.8 and Radius, 219.8
*** 1.593 ***
Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	650.96	86.00
2	659.52	80.83
3	668.30	76.05
4	677.28	71.65
5	686.45	67.66
6	695.78	64.07
7	705.27	60.90
8	714.88	58.14
9	724.61	55.82
10	734.42	53.92
11	744.32	52.46
12	754.26	51.44
13	764.25	50.85
14	774.25	50.71
15	784.24	51.01
16	794.21	51.74
17	804.15	52.92
18	814.01	54.53
19	823.80	56.57
20	833.49	59.05
21	843.06	61.95
22	852.50	65.26
23	861.78	68.99
24	870.88	73.13
25	879.80	77.66
26	888.50	82.58
27	896.98	87.88
28	905.22	93.54
29	913.20	99.57
30	920.91	105.94
31	928.33	112.64
32	935.45	119.67
33	942.25	127.00
34	948.72	134.62
35	954.85	142.52
36	960.63	150.68
37	966.04	159.09
38	970.27	166.34

Circle Center At X = 772.5 ; Y = 277.7 and Radius, 227.0
*** 1.597 ***
Failure Surface Specified By 38 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	649.95	85.99
2	658.48	80.77
3	667.23	75.94
4	676.20	71.50
5	685.35	67.48
6	694.67	63.86
7	704.15	60.67
8	713.76	57.90
9	723.48	55.56
10	733.30	53.67
11	743.19	52.21
12	753.14	51.20
13	763.13	50.63
14	773.13	50.52
15	783.12	50.84
16	793.09	51.62
17	803.02	52.84
18	812.88	54.51
19	822.65	56.61
20	832.33	59.15

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   21        841.87        62.12
   22        851.28        65.51
   23        860.53        69.32
   24        869.59        73.54
   25        878.46        78.17
   26        887.11        83.18
   27        895.53        88.58
   28        903.70        94.34
   29        911.60       100.47
   30        919.22       106.95
   31        926.55       113.75
   32        933.56       120.88
   33        940.24       128.32
   34        946.59       136.05
   35        952.58       144.05
   36        958.21       152.32
   37        963.47       160.83
   38        966.44       166.15
Circle Center At X =  770.8 ; Y =  274.0  and Radius,  223.5
      ***     1.599   ***
Failure Surface Specified By 40 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
    1        645.91        84.96
    2        654.57        79.96
    3        663.42        75.31
    4        672.46        71.04
    5        681.67        67.14
    6        691.03        63.63
    7        700.53        60.50
    8        710.15        57.77
    9        719.88        55.44
   10        729.69        53.51
   11        739.57        51.98
   12        749.51        50.87
   13        759.48        50.16
   14        769.48        49.87
   15        779.48        49.98
   16        789.47        50.51
   17        799.42        51.45
   18        809.33        52.80
   19        819.17        54.56
   20        828.94        56.72
   21        838.60        59.29
   22        848.16        62.24
   23        857.58        65.59
   24        866.85        69.33
   25        875.97        73.44
   26        884.91        77.93
   27        893.65        82.78
   28        902.19        87.98
   29        910.51        93.54
   30        918.59        99.43
   31        926.42       105.65
   32        933.98       112.19
   33        941.28       119.03
   34        948.28       126.17
   35        954.98       133.59
   36        961.38       141.28
   37        967.44       149.22
   38        973.18       157.41
   39        978.58       165.83
   40        979.14       166.79
Circle Center At X =  771.6 ; Y =  292.5  and Radius,  242.7
      ***     1.601   ***
Failure Surface Specified By 39 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
```

1	648.94	85.73
2	657.56	80.66
3	666.39	75.97
4	675.41	71.65
5	684.60	67.72
6	693.96	64.19
7	703.46	61.07
8	713.08	58.35
9	722.81	56.04
10	732.63	54.15
11	742.52	52.68
12	752.47	51.64
13	762.45	51.01
14	772.45	50.82
15	782.44	51.05
16	792.42	51.71
17	802.36	52.79
18	812.25	54.30
19	822.06	56.23
20	831.78	58.57
21	841.40	61.33
22	850.88	64.49
23	860.23	68.06
24	869.41	72.02
25	878.41	76.37
26	887.22	81.10
27	895.82	86.20
28	904.20	91.66
29	912.34	97.48
30	920.22	103.63
31	927.83	110.12
32	935.15	116.93
33	942.18	124.04
34	948.90	131.45
35	955.30	139.13
36	961.36	147.08
37	967.08	155.29
38	972.44	163.73
39	974.06	166.54

Circle Center At X = 772.0 ; Y = 285.2 and Radius, 234.4

*** 1.602 ***

Failure Surface Specified By 40 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	646.92	85.22
2	655.58	80.23
3	664.45	75.60
4	673.50	71.35
5	682.72	67.47
6	692.09	63.97
7	701.59	60.86
8	711.21	58.15
9	720.94	55.83
10	730.76	53.92
11	740.64	52.41
12	750.58	51.31
13	760.56	50.62
14	770.56	50.35
15	780.55	50.48
16	790.54	51.03
17	800.49	51.98
18	810.40	53.35
19	820.24	55.12
20	830.00	57.30
21	839.66	59.88
22	849.21	62.85
23	858.63	66.21
24	867.90	69.96

25	877.01	74.09
26	885.94	78.58
27	894.68	83.45
28	903.21	88.66
29	911.52	94.23
30	919.59	100.13
31	927.41	106.36
32	934.97	112.91
33	942.26	119.76
34	949.25	126.90
35	955.95	134.33
36	962.33	142.03
37	968.39	149.98
38	974.12	158.18
39	979.51	166.61
40	979.63	166.82

Circle Center At X = 772.3 ; Y = 293.1 and Radius, 242.8
*** 1.602 ***
Failure Surface Specified By 40 Coordinate Points

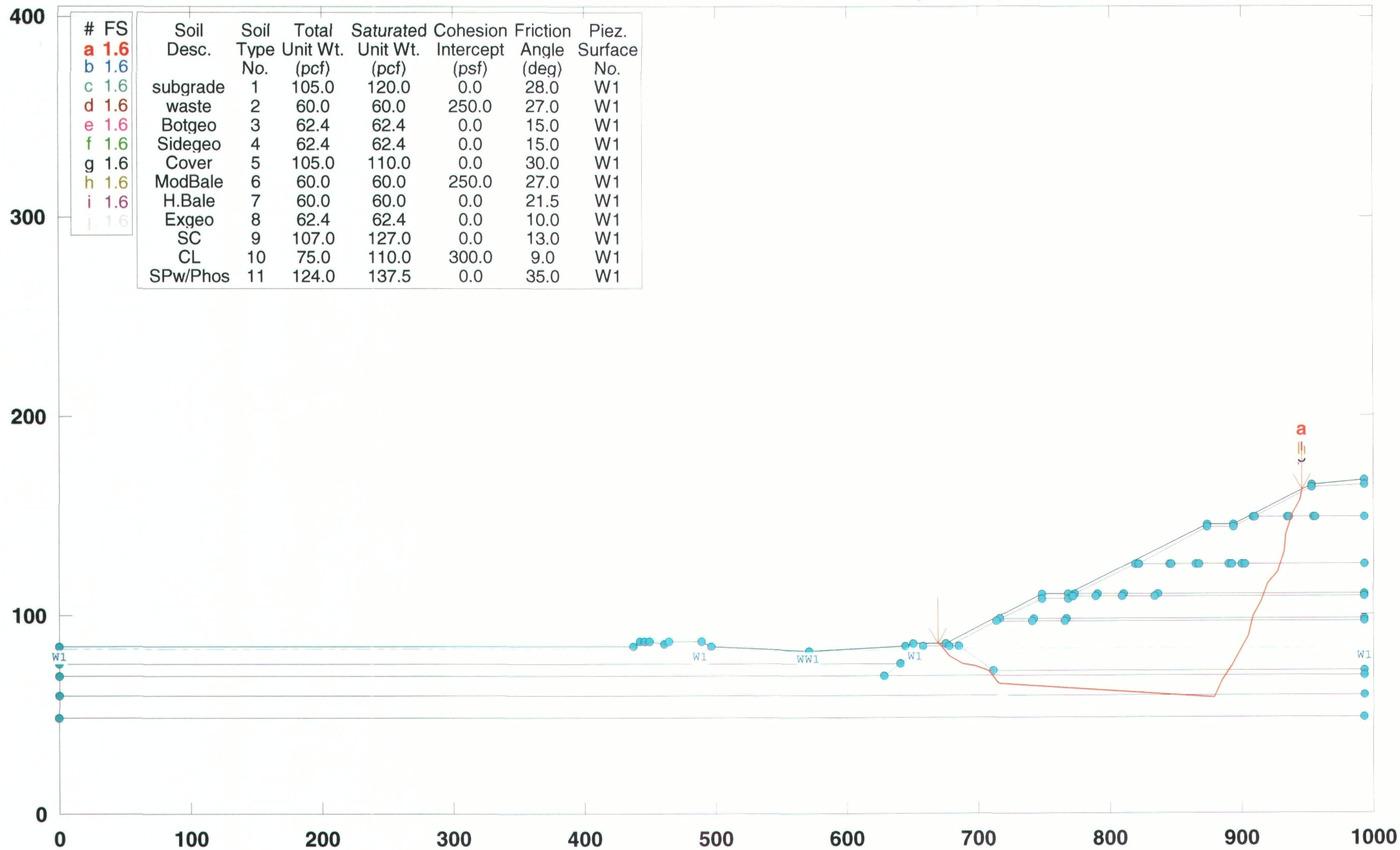
Point No.	X-Surf (ft)	Y-Surf (ft)
1	640.86	84.41
2	649.53	79.44
3	658.40	74.82
4	667.45	70.57
5	676.67	66.68
6	686.03	63.17
7	695.53	60.04
8	705.14	57.29
9	714.86	54.94
10	724.67	52.98
11	734.55	51.42
12	744.48	50.26
13	754.45	49.50
14	764.44	49.15
15	774.44	49.20
16	784.43	49.65
17	794.40	50.51
18	804.32	51.77
19	814.18	53.43
20	823.96	55.48
21	833.66	57.93
22	843.25	60.77
23	852.71	63.99
24	862.04	67.60
25	871.22	71.57
26	880.22	75.92
27	889.05	80.62
28	897.67	85.68
29	906.09	91.08
30	914.28	96.82
31	922.23	102.89
32	929.93	109.27
33	937.37	115.95
34	944.53	122.94
35	951.40	130.20
36	957.97	137.74
37	964.23	145.53
38	970.18	153.58
39	975.79	161.85
40	978.85	166.78

Circle Center At X = 768.2 ; Y = 296.6 and Radius, 247.5
*** 1.602 ***

BLOCK SLOPE STABILITY ANALYSES
WEST SIDE OF EXISTING LANDFILL

Hardee County Landfill Expansion Final Buildout -Mod West Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\WESTSI~1\BWEST.PL2 Run By: Dominique Bramlett 3/7/2007 3:55PM



#	FS
a	1.6
b	1.6
c	1.6
d	1.6
e	1.6
f	1.6
g	1.6
h	1.6
i	1.6
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

STABL6H FSmin=1.6

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

** **STABL6H** **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/8/2007
Time of Run: 11:07AM
Run By: Shane R. Fischer
Input Data Filename: F:bwest.
Output Filename: F:bwest.OUT
Plotted Output Filename: F:bwest.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod West Slope

BOUNDARY COORDINATES
18 Top Boundaries
99 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	436.50	85.00	1
2	436.50	85.00	442.50	87.00	1
3	442.50	87.00	445.50	87.00	1
4	445.50	87.00	450.00	86.50	1
5	450.00	86.50	460.00	85.50	1
6	460.00	85.50	464.50	87.00	1
7	464.50	87.00	489.50	87.00	1
8	489.50	87.00	497.00	84.50	3
9	497.00	84.50	570.50	82.50	3
10	570.50	82.50	644.10	84.50	3
11	644.10	84.50	650.00	86.00	3
12	650.00	86.00	675.00	86.00	3
13	675.00	86.00	748.50	110.50	4
14	748.50	110.50	768.50	110.50	4
15	768.50	110.50	873.50	145.50	4
16	873.50	145.50	893.50	145.50	4
17	893.50	145.50	953.50	165.50	4
18	953.50	165.50	993.20	167.50	4
19	489.40	86.50	489.50	87.00	1
20	489.40	86.50	496.90	84.00	1
21	496.90	84.00	570.50	82.00	1
22	570.50	82.00	644.10	84.00	1
23	644.10	84.00	650.10	85.50	1
24	650.10	85.50	675.10	85.50	1
25	675.10	85.50	748.60	110.00	5
26	748.60	110.00	768.60	110.00	5
27	768.60	110.00	873.60	145.00	5
28	873.60	145.00	893.60	145.00	5
29	893.60	145.00	953.60	165.00	5
30	953.60	165.00	993.20	167.00	5
31	.00	76.00	640.00	76.00	1
32	640.00	76.00	658.00	85.00	8
33	658.00	85.00	658.60	85.00	8
34	658.60	85.00	678.30	85.00	1
35	678.30	85.00	714.30	97.00	6
36	714.30	97.00	715.80	97.50	6
37	715.80	97.50	748.80	108.50	6
38	748.80	108.50	768.80	108.50	6
39	768.80	108.50	771.80	109.50	6
40	771.80	109.50	773.30	110.00	6
41	773.30	110.00	819.80	125.50	6
42	819.80	125.50	821.30	126.00	6
43	821.30	126.00	873.90	143.50	6
44	873.90	143.50	893.90	143.50	6
45	893.90	143.50	908.80	148.50	6
46	908.80	148.50	910.30	149.00	6
47	910.30	149.00	953.90	163.50	6
48	953.90	163.50	993.20	165.50	6
49	910.30	149.00	936.30	149.00	6

50	936.30	149.00	956.20	149.00	7
51	956.20	149.00	993.20	149.00	6
52	908.80	148.50	934.50	148.50	6
53	934.50	148.50	936.30	149.00	7
54	934.50	148.50	954.70	148.50	6
55	954.70	148.50	956.20	149.00	6
56	954.70	148.50	993.20	148.50	6
57	821.30	126.00	847.30	126.00	6
58	847.30	126.00	867.20	126.00	7
59	867.20	126.00	892.20	126.00	6
60	892.20	126.00	902.20	126.00	7
61	902.20	126.00	993.20	126.00	6
62	819.80	125.50	845.50	125.50	6
63	845.50	125.50	847.30	126.00	7
64	845.50	125.50	865.70	125.50	6
65	865.70	125.50	867.20	126.00	6
66	865.70	125.50	890.70	125.50	6
67	890.70	125.50	892.20	126.00	7
68	890.70	125.50	900.70	125.50	6
69	900.70	125.50	902.20	126.00	6
70	900.70	125.50	993.20	125.50	6
71	773.30	110.00	791.30	110.00	6
72	791.30	110.00	811.20	110.00	7
73	811.20	110.00	836.20	110.00	6
74	836.20	110.00	993.20	110.00	7
75	771.80	109.50	789.50	109.50	6
76	789.50	109.50	791.30	110.00	7
77	789.50	109.50	809.70	109.50	6
78	809.70	109.50	811.20	110.00	6
79	809.70	109.50	834.70	109.50	6
80	834.70	109.50	836.70	110.00	7
81	834.70	109.50	993.20	109.50	6
82	715.80	97.50	742.40	97.50	6
83	742.40	97.50	767.40	97.50	7
84	767.40	97.50	993.20	97.50	6
85	714.30	97.00	740.90	97.00	6
86	740.90	97.00	742.40	97.50	6
87	740.90	97.00	765.90	97.00	7
88	765.90	97.00	767.40	97.50	6
89	765.90	97.00	993.20	97.00	6
90	678.30	85.00	685.00	85.00	1
91	685.00	85.00	711.00	72.00	1
92	711.00	72.00	993.20	72.00	1
93	.00	70.00	628.00	70.00	9
94	628.00	70.00	640.00	76.00	1
95	640.00	76.00	640.60	76.00	1
96	640.60	76.00	658.60	85.00	1
97	628.00	70.00	993.20	70.00	9
98	.00	60.00	993.20	60.00	10
99	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

1000 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.

* * Safety Factors Are Calculated By The Modified Janbu Method * *

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96

9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00

2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03
***	1.588	***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03
***	1.588	***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83

20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97
14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03

*** 1.588 ***

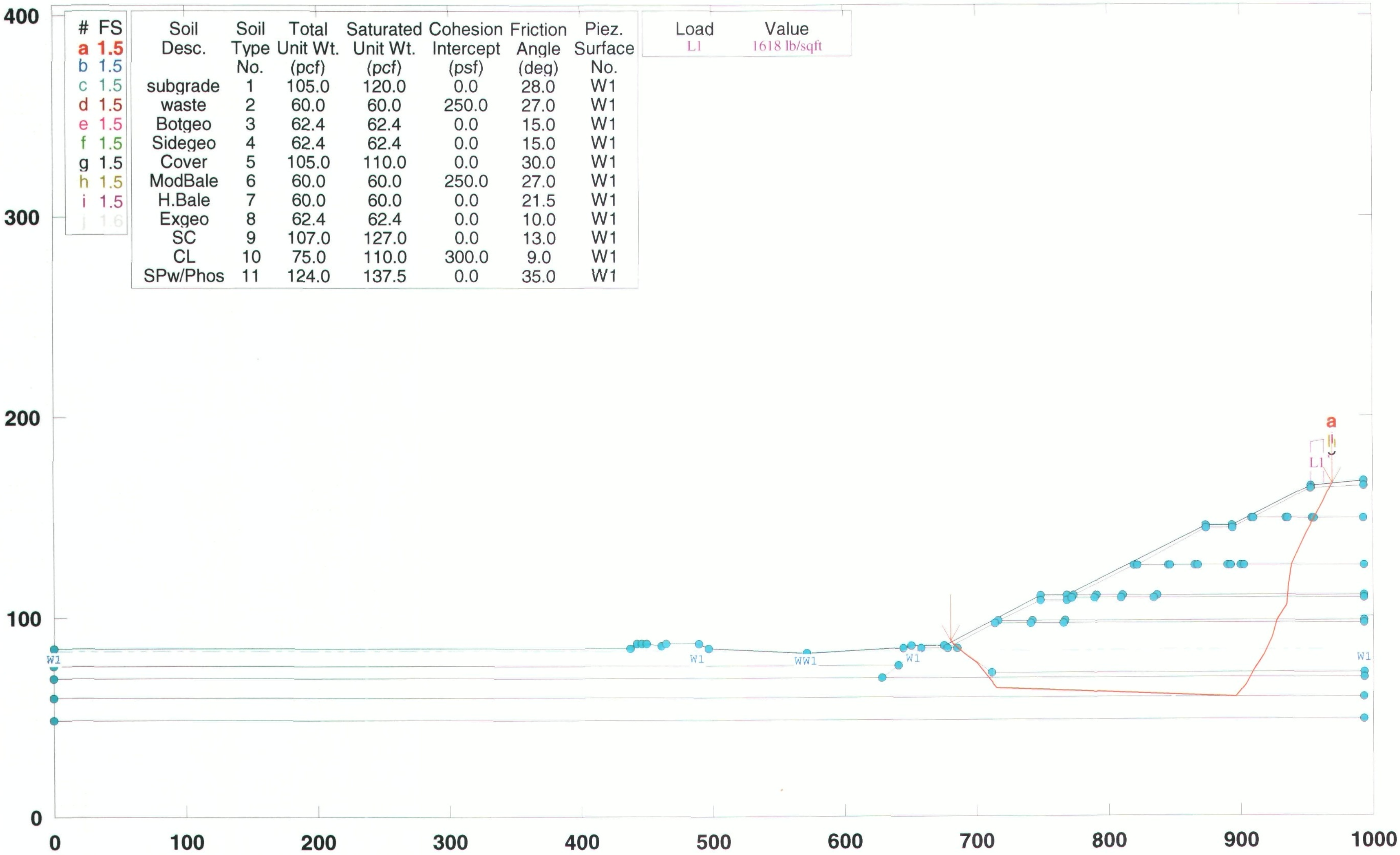
Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	651.38	86.00
2	652.18	85.22
3	662.08	83.82
4	671.82	81.56
5	679.94	75.72
6	689.84	74.34
7	699.77	73.13
8	707.82	67.20
9	714.93	60.16
10	856.95	61.96
11	863.68	69.36
12	870.45	76.72

13	877.31	83.99
14	881.92	92.86
15	888.75	100.18
16	895.08	107.92
17	900.49	116.33
18	907.14	123.80
19	914.16	130.92
20	914.70	140.90
21	919.09	149.89
22	920.57	154.52
***	1.602	***

Hardee County Landfill Expansion Final Buildout -Mod West Slope

F:\PROJECT\HARDEE\09199033.16\SLOPES~1\PERMIT~1\WESTSI~1\BWEST.PL2 Run By: Dominique Bramlett 3/7/2007 3:54PM



#	FS
a	1.5
b	1.5
c	1.5
d	1.5
e	1.5
f	1.5
g	1.5
h	1.5
i	1.5
j	1.6

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
subgrade	1	105.0	120.0	0.0	28.0	W1
waste	2	60.0	60.0	250.0	27.0	W1
Botgeo	3	62.4	62.4	0.0	15.0	W1
Sidegeo	4	62.4	62.4	0.0	15.0	W1
Cover	5	105.0	110.0	0.0	30.0	W1
ModBale	6	60.0	60.0	250.0	27.0	W1
H.Bale	7	60.0	60.0	0.0	21.5	W1
Exgeo	8	62.4	62.4	0.0	10.0	W1
SC	9	107.0	127.0	0.0	13.0	W1
CL	10	75.0	110.0	300.0	9.0	W1
SPw/Phos	11	124.0	137.5	0.0	35.0	W1

Load	Value
L1	1618 lb/sqft

STABL6H FSmin=1.5

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

**** STABL6H ****
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 3/7/2007
Time of Run: 3:54PM
Run By: Dominique Bramlett
Input Data Filename: F:bwest.
Output Filename: F:bwest.OUT
Plotted Output Filename: F:bwest.PLT
PROBLEM DESCRIPTION Hardee County Landfill Expansion
Final Buildout -Mod West Slope

BOUNDARY COORDINATES
18 Top Boundaries
99 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	436.50	85.00	1
2	436.50	85.00	442.50	87.00	1
3	442.50	87.00	445.50	87.00	1
4	445.50	87.00	450.00	86.50	1
5	450.00	86.50	460.00	85.50	1
6	460.00	85.50	464.50	87.00	1
7	464.50	87.00	489.50	87.00	1
8	489.50	87.00	497.00	84.50	3
9	497.00	84.50	570.50	82.50	3
10	570.50	82.50	644.10	84.50	3
11	644.10	84.50	650.00	86.00	3
12	650.00	86.00	675.00	86.00	3
13	675.00	86.00	748.50	110.50	4
14	748.50	110.50	768.50	110.50	4
15	768.50	110.50	873.50	145.50	4
16	873.50	145.50	893.50	145.50	4
17	893.50	145.50	953.50	165.50	4
18	953.50	165.50	993.20	167.50	4
19	489.40	86.50	489.50	87.00	1
20	489.40	86.50	496.90	84.00	1
21	496.90	84.00	570.50	82.00	1
22	570.50	82.00	644.10	84.00	1
23	644.10	84.00	650.10	85.50	1
24	650.10	85.50	675.10	85.50	1
25	675.10	85.50	748.60	110.00	5
26	748.60	110.00	768.60	110.00	5
27	768.60	110.00	873.60	145.00	5
28	873.60	145.00	893.60	145.00	5
29	893.60	145.00	953.60	165.00	5
30	953.60	165.00	993.20	167.00	5
31	.00	76.00	640.00	76.00	1
32	640.00	76.00	658.00	85.00	8
33	658.00	85.00	658.60	85.00	8
34	658.60	85.00	678.30	85.00	1
35	678.30	85.00	714.30	97.00	6
36	714.30	97.00	715.80	97.50	6
37	715.80	97.50	748.80	108.50	6
38	748.80	108.50	768.80	108.50	6
39	768.80	108.50	771.80	109.50	6
40	771.80	109.50	773.30	110.00	6
41	773.30	110.00	819.80	125.50	6
42	819.80	125.50	821.30	126.00	6
43	821.30	126.00	873.90	143.50	6
44	873.90	143.50	893.90	143.50	6
45	893.90	143.50	908.80	148.50	6
46	908.80	148.50	910.30	149.00	6
47	910.30	149.00	953.90	163.50	6
48	953.90	163.50	993.20	165.50	6
49	910.30	149.00	936.30	149.00	6

50	936.30	149.00	956.20	149.00	7
51	956.20	149.00	993.20	149.00	6
52	908.80	148.50	934.50	148.50	6
53	934.50	148.50	936.30	149.00	7
54	934.50	148.50	954.70	148.50	6
55	954.70	148.50	956.20	149.00	6
56	954.70	148.50	993.20	148.50	6
57	821.30	126.00	847.30	126.00	6
58	847.30	126.00	867.20	126.00	7
59	867.20	126.00	892.20	126.00	6
60	892.20	126.00	902.20	126.00	7
61	902.20	126.00	993.20	126.00	6
62	819.80	125.50	845.50	125.50	6
63	845.50	125.50	847.30	126.00	7
64	845.50	125.50	865.70	125.50	6
65	865.70	125.50	867.20	126.00	6
66	865.70	125.50	890.70	125.50	6
67	890.70	125.50	892.20	126.00	7
68	890.70	125.50	900.70	125.50	6
69	900.70	125.50	902.20	126.00	6
70	900.70	125.50	993.20	125.50	6
71	773.30	110.00	791.30	110.00	6
72	791.30	110.00	811.20	110.00	7
73	811.20	110.00	836.20	110.00	6
74	836.20	110.00	993.20	110.00	7
75	771.80	109.50	789.50	109.50	6
76	789.50	109.50	791.30	110.00	7
77	789.50	109.50	809.70	109.50	6
78	809.70	109.50	811.20	110.00	6
79	809.70	109.50	834.70	109.50	6
80	834.70	109.50	836.70	110.00	7
81	834.70	109.50	993.20	109.50	6
82	715.80	97.50	742.40	97.50	6
83	742.40	97.50	767.40	97.50	7
84	767.40	97.50	993.20	97.50	6
85	714.30	97.00	740.90	97.00	6
86	740.90	97.00	742.40	97.50	6
87	740.90	97.00	765.90	97.00	7
88	765.90	97.00	767.40	97.50	6
89	765.90	97.00	993.20	97.00	6
90	678.30	85.00	685.00	85.00	1
91	685.00	85.00	711.00	72.00	1
92	711.00	72.00	993.20	72.00	1
93	.00	70.00	628.00	70.00	9
94	628.00	70.00	640.00	76.00	1
95	640.00	76.00	640.60	76.00	1
96	640.60	76.00	658.60	85.00	1
97	628.00	70.00	993.20	70.00	9
98	.00	60.00	993.20	60.00	10
99	.00	49.00	993.20	49.00	11

ISOTROPIC SOIL PARAMETERS

11 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	120.0	.0	28.0	.00	.0	1
2	60.0	60.0	250.0	27.0	.00	.0	1
3	62.4	62.4	.0	15.0	.00	.0	1
4	62.4	62.4	.0	15.0	.00	.0	1
5	105.0	110.0	.0	30.0	.00	.0	1
6	60.0	60.0	250.0	27.0	.00	.0	1
7	60.0	60.0	.0	21.5	.00	.0	1
8	62.4	62.4	.0	10.0	.00	.0	1
9	107.0	127.0	.0	13.0	.00	.0	1
10	75.0	110.0	300.0	9.0	.00	.0	1
11	124.0	137.5	.0	35.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 6 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	83.50
2	487.50	83.50
3	567.50	81.60
4	573.50	81.60
5	652.00	83.50
6	993.20	83.50

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	953.50	963.00	1618.0	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

1000 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	713.00	66.00	718.00	66.00	25.00
2	745.80	66.00	978.00	66.00	25.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Examined. They Are Ordered - Most Critical First.

* * Safety Factors Are Calculated By The Modified Janbu Method * *

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.538 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70

10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
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21	969.44	166.30

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7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
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Point No.	X-Surf (ft)	Y-Surf (ft)
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4	699.63	77.23
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19	962.12	156.79
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*** 1.538 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52

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     3        690.87       82.06
     4        699.63       77.23
     5        707.59       71.19
     6        715.38       64.91
     7        896.98       58.99
     8        903.73       66.36
     9        910.53       73.70
    10        917.10       81.24
    11        923.66       88.78
    12        927.91       97.84
    13        934.59      105.28
    14        935.57      115.23
    15        937.98      124.93
    16        943.82      133.05
    17        949.53      141.25
    18        956.05      148.84
    19        962.12      156.79
    20        968.48      164.50
    21        969.44      166.30
        ***     1.538   ***
Failure Surface Specified By 21 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
     1        680.58       87.86
     2        681.92       86.52
     3        690.87       82.06
     4        699.63       77.23
     5        707.59       71.19
     6        715.38       64.91
     7        896.98       58.99
     8        903.73       66.36
     9        910.53       73.70
    10        917.10       81.24
    11        923.66       88.78
    12        927.91       97.84
    13        934.59      105.28
    14        935.57      115.23
    15        937.98      124.93
    16        943.82      133.05
    17        949.53      141.25
    18        956.05      148.84
    19        962.12      156.79
    20        968.48      164.50
    21        969.44      166.30
        ***     1.538   ***
Failure Surface Specified By 21 Coordinate Points
  Point      X-Surf      Y-Surf
   No.        (ft)        (ft)
     1        680.58       87.86
     2        681.92       86.52
     3        690.87       82.06
     4        699.63       77.23
     5        707.59       71.19
     6        715.38       64.91
     7        896.98       58.99
     8        903.73       66.36
     9        910.53       73.70
    10        917.10       81.24
    11        923.66       88.78
    12        927.91       97.84
    13        934.59      105.28
    14        935.57      115.23
    15        937.98      124.93
    16        943.82      133.05
    17        949.53      141.25
    18        956.05      148.84
    19        962.12      156.79
    20        968.48      164.50
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21	969.44	166.30

*** 1.538 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.538 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	680.58	87.86
2	681.92	86.52
3	690.87	82.06
4	699.63	77.23
5	707.59	71.19
6	715.38	64.91
7	896.98	58.99
8	903.73	66.36
9	910.53	73.70
10	917.10	81.24
11	923.66	88.78
12	927.91	97.84
13	934.59	105.28
14	935.57	115.23
15	937.98	124.93
16	943.82	133.05
17	949.53	141.25
18	956.05	148.84
19	962.12	156.79
20	968.48	164.50
21	969.44	166.30

*** 1.538 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	669.76	86.00
2	670.37	85.42
3	678.43	79.50
4	687.82	76.07
5	697.76	74.94
6	707.43	72.39
7	714.50	65.32
8	879.23	58.96
9	885.43	66.81
10	892.29	74.08
11	898.61	81.83
12	904.73	89.75
13	908.58	98.97

14	915.08	106.57
15	920.54	114.95
16	927.50	122.13
17	932.04	131.04
18	934.13	140.82
19	938.47	149.83
20	945.37	157.07
21	946.08	163.03
***	1.588	***