*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	4:17PM
Run By:	Username
Input Data Filename:	S:dd-dd'b.
Output Filename:	S:dd-dd'b.OUT
Unit System:	English

Plotted Output Filename: S:dd-dd'b.PLT

PROBLEM DESCRIPTION Mountain Gate / Section DD-DD'
, Static

BOUNDARY COORDINATES

14 Top Boundaries
40 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	215.00	85.00	160.00	3
2	85.00	160.00	232.00	200.00	1
3	232.00	200.00	295.00	225.00	1
4	295.00	225.00	315.00	225.00	1
5	315.00	225.00	429.00	300.00	1
6	429.00	300.00	480.00	340.00	1
7	480.00	340.00	510.00	360.00	1
8	510.00	360.00	600.00	420.00	1
9	600.00	420.00	635.00	440.00	1
10	635.00	440.00	685.00	455.00	1
11	685.00	455.00	740.00	430.00	2
12	740.00	430.00	835.00	430.00	2
13	835.00	430.00	870.00	420.00	2
14	870.00	420.00	950.00	420.00	2
15	85.00	160.00	200.00	175.00	3
16	200.00	175.00	265.00	200.00	4
17	265.00	200.00	315.00	220.00	4
18	315.00	220.00	400.00	250.00	4
19	400.00	250.00	500.00	290.00	4
20	500.00	290.00	565.00	325.00	4
21	565.00	325.00	600.00	346.00	4
22	600.00	346.00	645.00	375.00	4
23	645.00	375.00	675.00	415.00	4
24	675.00	415.00	685.00	455.00	4
25	85.00	158.00	200.00	173.00	3
26	200.00	173.00	265.00	198.00	3
27	265.00	198.00	315.00	218.00	3
28	315.00	218.00	400.00	248.00	3
29	400.00	248.00	500.00	288.00	3
30	500.00	288.00	565.00	323.00	3
31	565.00	323.00	600.00	344.00	3
32	600.00	344.00	645.00	373.00	3
33	645.00	373.00	675.00	413.00	2
34	675.00	413.00	685.00	453.00	2
35	645.00	373.00	725.00	392.00	3
36	725.00	392.00	760.00	392.00	3
37	760.00	392.00	815.00	403.00	3
38	815.00	403.00	855.00	403.00	3
39	855.00	403.00	892.00	410.00	3
40	892.00	410.00	950.00	400.00	3

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ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

3000 Trial Surfaces Have Been Generated.

7 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of

Sliding Block Is 15.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	315.00	219.00	315.10	220.00	0.00
2	400.00	249.00	400.10	249.00	0.00
3	500.00	289.00	500.00	289.00	0.00
4	565.00	324.00	565.10	324.00	0.00
5	600.00	345.00	600.10	345.00	0.00
6	645.00	374.00	645.10	374.00	0.00
7	850.00	400.00	910.00	400.00	25.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.581 ***

Individual data on the 26 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	8.0	2529.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.7	466.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	16.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	85.0	192253.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	67.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	29.0	124052.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	51.0	301123.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	20.0	148001.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	10.0	77971.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	55.0	456439.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.1	463.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	34.9	309783.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.1	568.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	34.9	309175.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	10.0	84876.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.9	7130.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	16.5	139649.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	12.6	110298.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	10.0	90472.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	40.0	305525.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.0	81849.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	5.0	23834.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	90.0	336443.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	16.5	37066.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	8.7	7685.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 9 Coordinate Points

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

1	306.31	225.00
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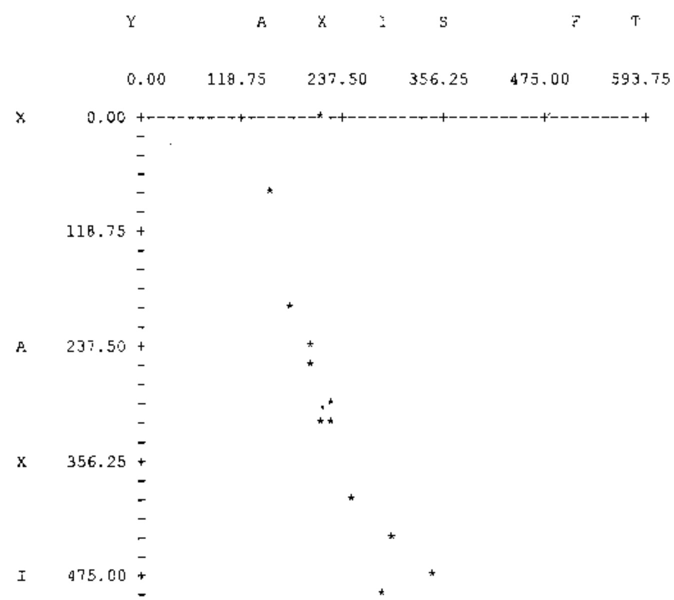
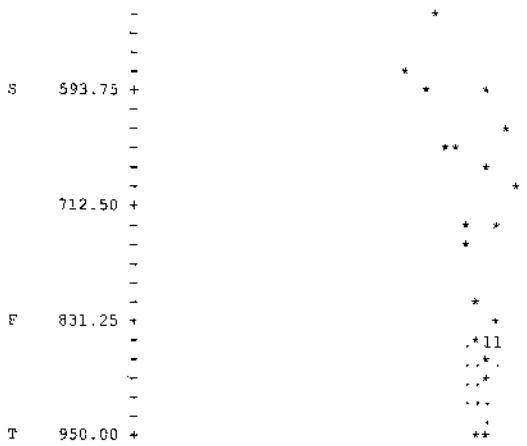



S
593.75
712.50
F
831.25
T
950.00

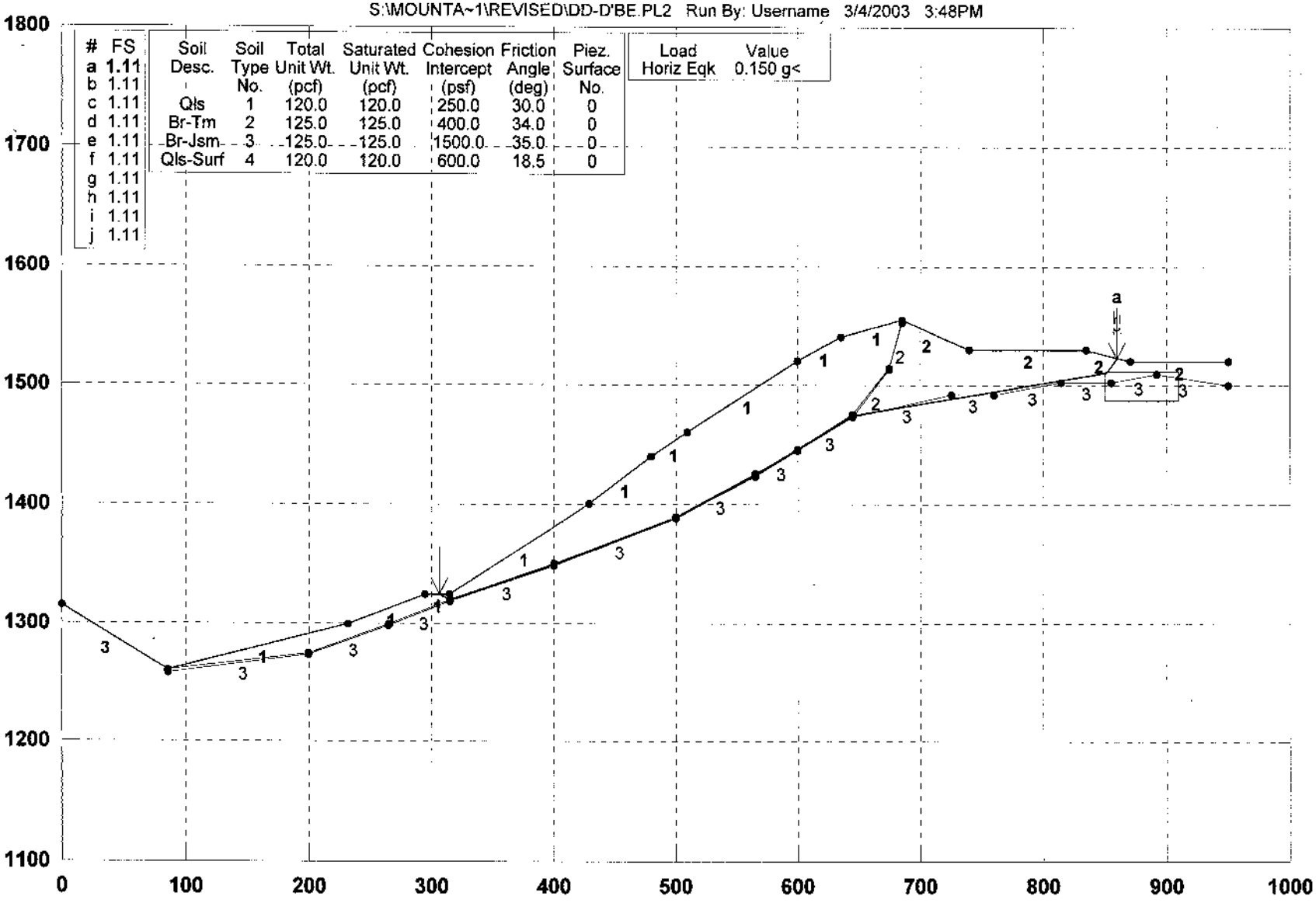
Mountain Gate/Section DD-DD' Pseudo Static

S:\MOUNTA~1\REVISED\DD-D'BE.PL2 Run By: Username 3/4/2003 3:48PM

#	FS
a	1.11
b	1.11
c	1.11
d	1.11
e	1.11
f	1.11
g	1.11
h	1.11
i	1.11
j	1.11

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

Load	Value
Horiz Eqk	0.150 g<



GSTABL7 FSmin=1.11

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-17

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1988, by Purdue University)

Run Date: 3/4/2003
Time of Run: 3:48PM
Run By: Username
Input Data Filename: S:dd-d'be.
Output Filename: S:dd-d'be.OUT
Unit System: English

Plotted Output Filename: S:dd-d'be.PLT

PROBLEM DESCRIPTION Mountain Gate/Section DD-DD'
Pseudo Static

BOUNDARY COORDINATES

14 Top Boundaries
40 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	215.00	85.00	160.00	3
2	85.00	160.00	232.00	200.00	1
3	232.00	200.00	295.00	225.00	1
4	295.00	225.00	315.00	225.00	1
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14	870.00	420.00	950.00	420.00	2
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ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 Trial Surfaces Have Been Generated.

7 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of
Sliding Block Is 15.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	315.00	219.00	315.10	220.00	0.00
2	400.00	249.00	400.10	249.00	0.00
3	500.00	289.00	500.00	289.00	0.00
4	565.00	324.00	565.10	324.00	0.00
5	600.00	345.00	600.10	345.00	0.00
6	645.00	374.00	645.10	374.00	0.00
7	850.00	400.00	910.00	400.00	25.00

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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 Simplified Janbu Method * *

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*** 1.110 ***

Individual data on the 25 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	8.0	2529.3	0.0	0.0	0.0	0.0	379.4	0.0	0.0
2	0.7	466.8	0.0	0.0	0.0	0.0	70.0	0.0	0.0
3	0.0	16.3	0.0	0.0	0.0	0.0	2.4	0.0	0.0
4	85.0	192253.3	0.0	0.0	0.0	0.0	28838.3	0.0	0.0
5	0.0	67.6	0.0	0.0	0.0	0.0	10.1	0.0	0.0
6	29.0	124052.1	0.0	0.0	0.0	0.0	18607.8	0.0	0.0
7	51.0	301123.7	0.0	0.0	0.0	0.0	45168.6	0.0	0.0
8	20.0	148001.7	0.0	0.0	0.0	0.0	22200.3	0.0	0.0
9	10.0	77971.9	0.0	0.0	0.0	0.0	11695.8	0.0	0.0
10	55.0	456439.7	0.0	0.0	0.0	0.0	68466.0	0.0	0.0
11	0.1	463.2	0.0	0.0	0.0	0.0	69.5	0.0	0.0
12	34.9	309783.3	0.0	0.0	0.0	0.0	46467.5	0.0	0.0
13	0.1	568.8	0.0	0.0	0.0	0.0	85.3	0.0	0.0
14	34.9	309175.2	0.0	0.0	0.0	0.0	46376.3	0.0	0.0
15	10.0	84876.0	0.0	0.0	0.0	0.0	12731.4	0.0	0.0
16	0.0	47.5	0.0	0.0	0.0	0.0	7.1	0.0	0.0
17	0.9	7130.2	0.0	0.0	0.0	0.0	1069.5	0.0	0.0
18	16.5	139849.9	0.0	0.0	0.0	0.0	20977.5	0.0	0.0
19	12.6	110298.7	0.0	0.0	0.0	0.0	16544.6	0.0	0.0
20	10.0	90472.6	0.0	0.0	0.0	0.0	13570.9	0.0	0.0
21	40.0	355525.7	0.0	0.0	0.0	0.0	45828.9	0.0	0.0
22	15.0	81849.1	0.0	0.0	0.0	0.0	12277.4	0.0	0.0
23	5.0	23814.9	0.0	0.0	0.0	0.0	3572.2	0.0	0.0
24	90.0	336443.2	0.0	0.0	0.0	0.0	50466.5	0.0	0.0
25	16.5	37066.9	0.0	0.0	0.0	0.0	5560.0	0.0	0.0
26	8.7	7685.1	0.0	0.0	0.0	0.0	1152.8	0.0	0.0

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
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4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

*** 1.110 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	400.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

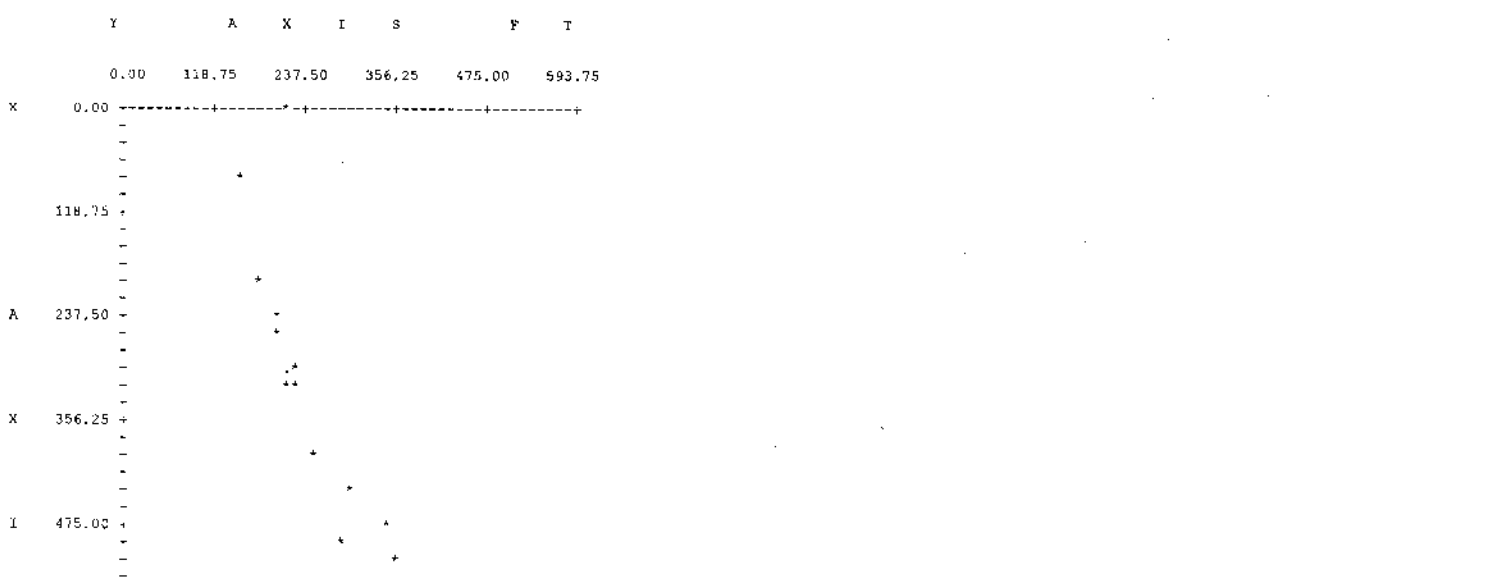
*** 1.110 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	306.31	225.00
2	315.02	219.24
3	403.02	249.00
4	500.00	289.00
5	565.05	324.00
6	600.06	345.00
7	645.01	374.00
8	851.53	411.19
9	860.27	422.78

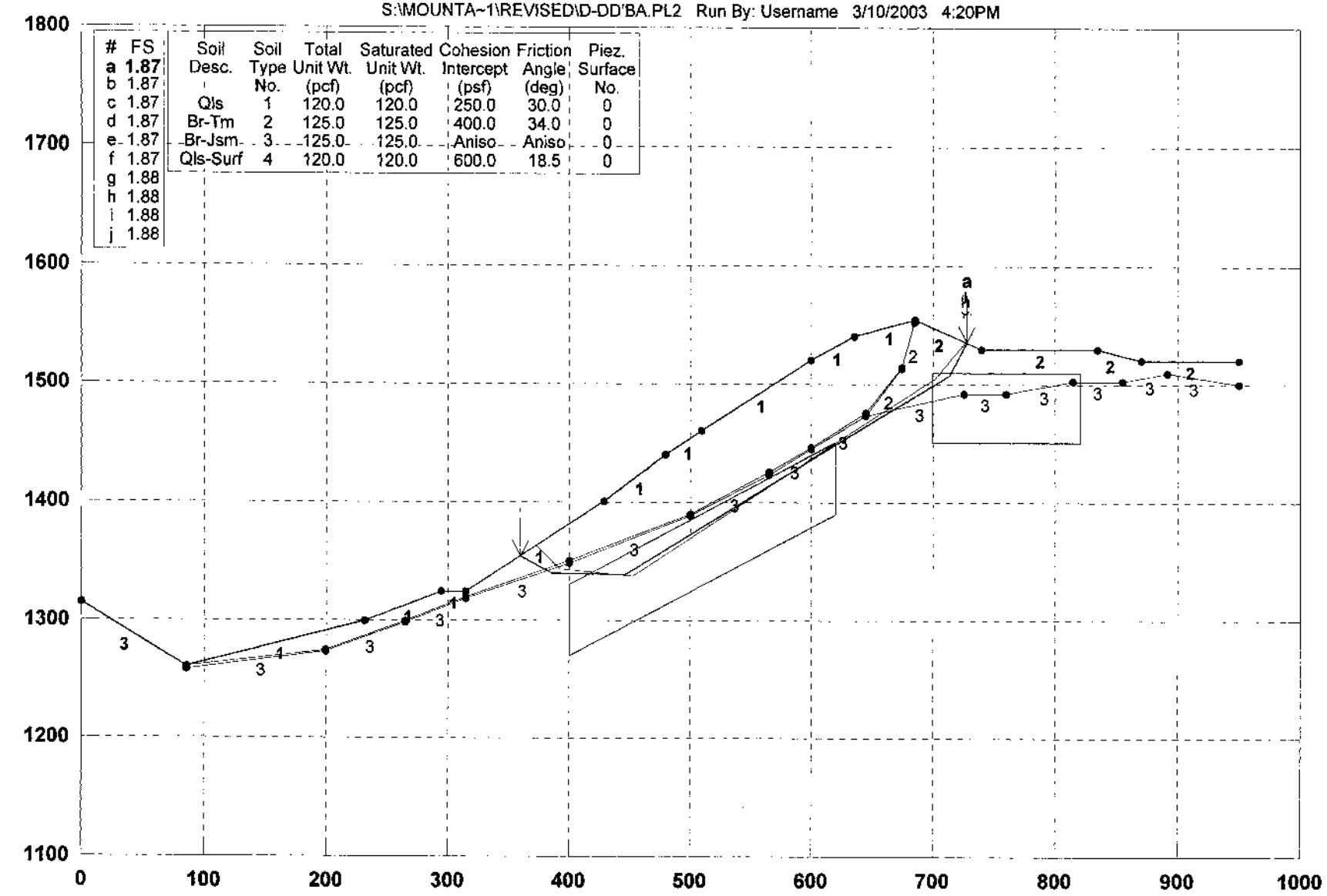
*** 1.110 ***

1



Mountain Gate / Section DD-DD' , Static

S:\MOUNTA~1\REVISED\D-DD'BA.PL2 Run By: Username 3/10/2003 4:20PM



#	FS
a	1.87
b	1.87
c	1.87
d	1.87
e	1.87
f	1.87
g	1.88
h	1.88
i	1.88
j	1.88

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	Aniso	Aniso	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

GSTABL7 FSmin=1.87

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-18

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	4:20PM
Run By:	Username
Input Data Filename:	S:d-dd'ba.
Output Filename:	S:d-dd'ba.OUT
Unit System:	English
Plotted Output Filename:	S:d-dd'ba.PLT

PROBLEM DESCRIPTION Mountain Gate / Section DD-DD'
, Static

BOUNDARY COORDINATES

14 Top Boundaries
40 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	215.00	85.00	160.00	3
2	85.00	160.00	232.00	200.00	1
3	232.00	200.00	295.00	225.00	1
4	295.00	225.00	315.00	225.00	1
5	315.00	225.00	429.00	300.00	1
6	429.00	300.00	480.00	340.00	1
7	480.00	340.00	510.00	360.00	1
8	510.00	360.00	600.00	420.00	1
9	600.00	420.00	635.00	440.00	1
10	635.00	440.00	685.00	455.00	1
11	685.00	455.00	740.00	430.00	2
12	740.00	430.00	835.00	430.00	2
13	835.00	430.00	870.00	420.00	2
14	870.00	420.00	950.00	420.00	2
15	85.00	160.00	200.00	175.00	3
16	200.00	175.00	265.00	200.00	4
17	265.00	200.00	315.00	220.00	4
18	315.00	220.00	400.00	250.00	4
19	400.00	250.00	500.00	290.00	4
20	500.00	290.00	565.00	325.00	4
21	565.00	325.00	600.00	346.00	4
22	600.00	346.00	645.00	375.00	4
23	645.00	375.00	675.00	415.00	4
24	675.00	415.00	685.00	455.00	4
25	85.00	158.00	200.00	173.00	3
26	200.00	173.00	265.00	198.00	3
27	265.00	198.00	315.00	218.00	3
28	315.00	218.00	400.00	248.00	3
29	400.00	248.00	500.00	288.00	3
30	500.00	288.00	565.00	323.00	3
31	565.00	323.00	600.00	344.00	3
32	600.00	344.00	645.00	373.00	3
33	645.00	373.00	675.00	413.00	2
34	675.00	413.00	685.00	453.00	2
35	645.00	373.00	725.00	392.00	3
36	725.00	392.00	760.00	392.00	3
37	760.00	392.00	815.00	403.00	3
38	815.00	403.00	855.00	403.00	3
39	855.00	403.00	892.00	410.00	3
40	892.00	410.00	950.00	400.00	3

ISOTROPIC SOIL PARAMETERS

4 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Preesure Constant (psf)	Piez. Surface No.
1	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	83.0	1500.0	35.0

2	88.0	0.0	35.0
3	90.0	1500.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 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 60.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	400.00	200.00	620.00	320.00	60.00
2	700.00	380.00	820.00	380.00	60.00

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 Simplified Janbu Method * *

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	359.93	254.56
2	386.40	239.56
3	446.39	238.73
4	714.23	406.76
5	727.51	435.68

*** 1.872 ***

Individual data on the 18 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	20.3	30389.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2.2	6846.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	4.0	14259.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	13.6	60768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	29.0	180592.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	17.4	143961.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	33.6	316761.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	20.0	195173.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	10.0	98158.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	55.0	547515.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	35.0	355340.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	35.0	354090.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	10.0	96049.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	24.8	227403.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	5.2	44779.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	10.0	84244.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	29.2	185493.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	13.3	29005.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	359.93	254.56
2	386.40	239.56
3	446.39	238.73
4	714.23	406.76
5	727.51	435.68

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	372.95	263.12
2	392.45	243.62
3	452.19	238.09
4	701.46	404.36
5	727.06	435.88

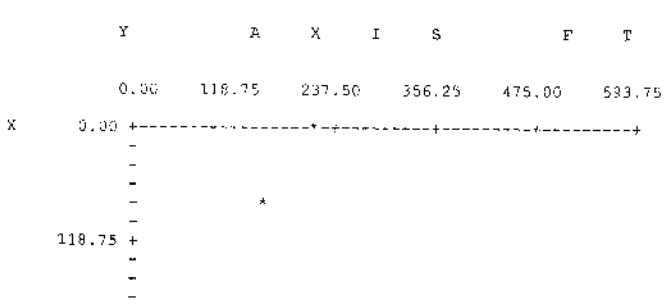
*** 1.881 ***

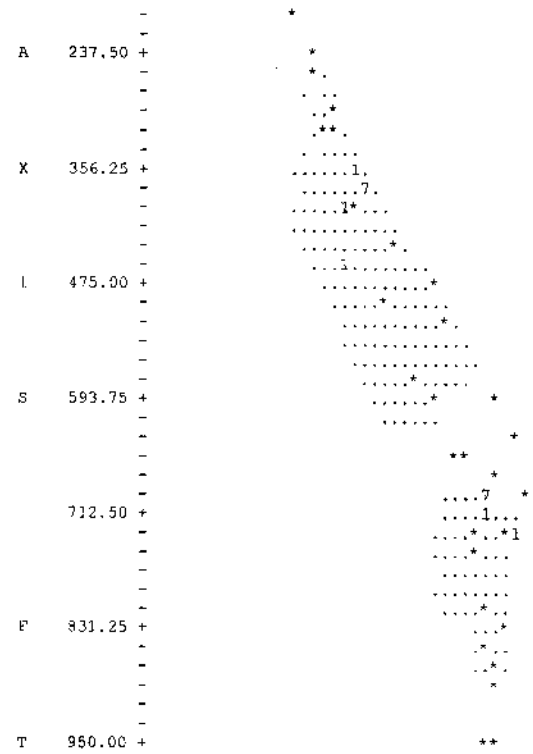
Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	372.95	263.12
2	392.45	243.62
3	452.19	238.09
4	701.46	404.36
5	727.06	435.88

*** 1.881 ***

1



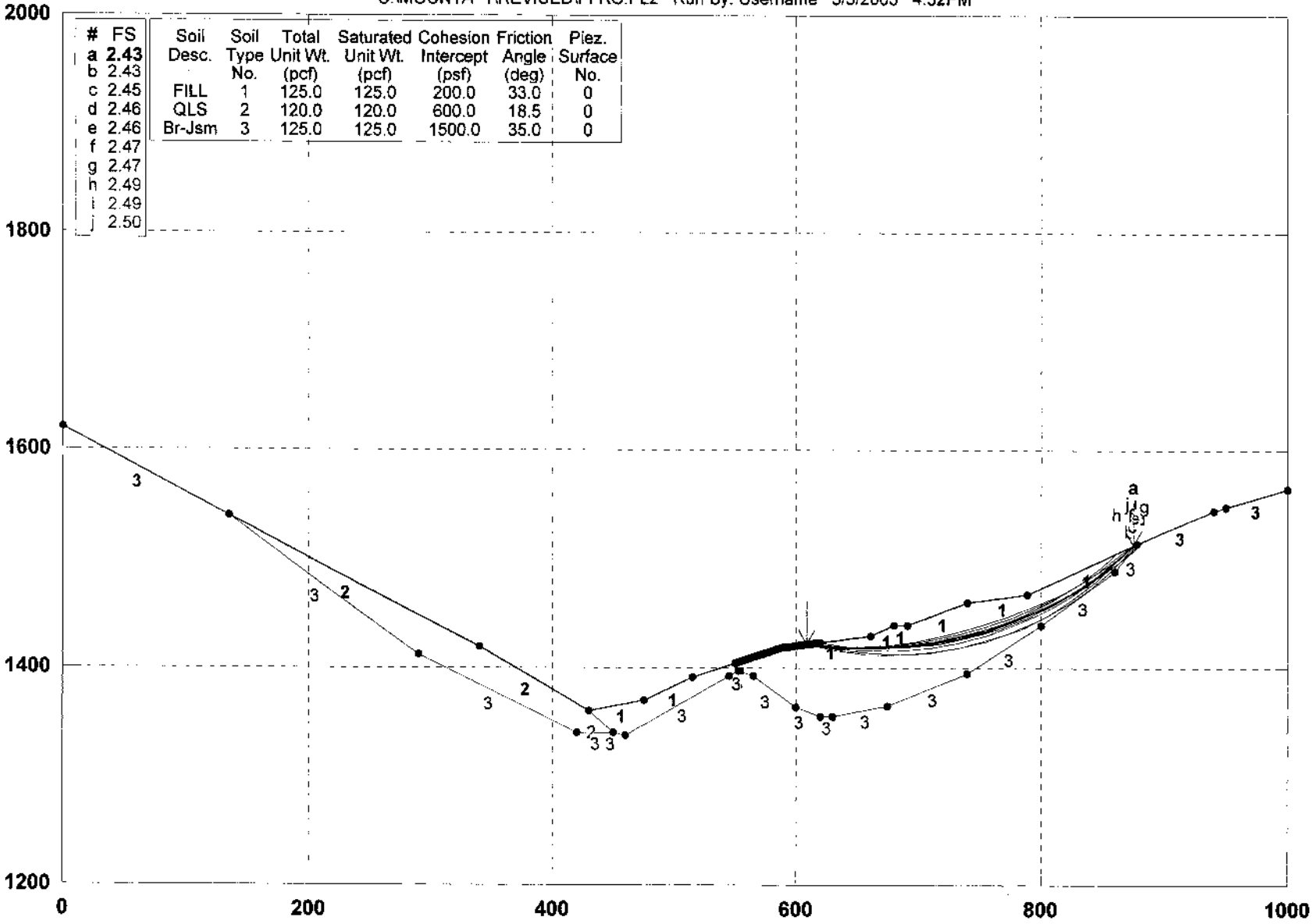


Mountain Gate / Section : F-F' ,Static

S:\MOUNTA~1\REVISED\FFRC.PL2 Run By: Username 3/5/2003 4:32PM

#	FS
a	2.43
b	2.43
c	2.45
d	2.46
e	2.46
f	2.47
g	2.47
h	2.49
i	2.49
j	2.50

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
FILL	1	125.0	125.0	200.0	33.0	0
QLS	2	120.0	120.0	600.0	18.5	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0



GSTABL7 FSmin=2.43

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

Figure E-19

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 3/5/2003
Time of Run: 4:32PM
Run By: Username
Input Data Filename: S:FFRc.
Output Filename: S:FFRc.OUT
Unit System: English

Plotted Output Filename: S:FFRc.PLT

PROBLEM DESCRIPTION Mountain Gate / Section : F-F'
,Static

BOUNDARY COORDINATES

14 Top Boundaries
30 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	420.00	135.00	340.00	3
2	135.00	340.00	340.00	220.00	2
3	340.00	220.00	430.00	160.00	2
4	430.00	160.00	475.00	170.00	1
5	475.00	170.00	515.00	191.00	1
6	515.00	191.00	588.00	219.00	1
7	588.00	219.00	661.00	230.00	1
8	661.00	230.00	680.00	240.00	1
9	680.00	240.00	691.00	240.00	1
10	691.00	240.00	740.00	261.00	1
11	740.00	261.00	789.00	269.00	1
12	789.00	269.00	878.00	315.00	1
13	878.00	315.00	940.00	345.00	3
14	940.00	345.00	1000.00	365.00	3
15	135.00	340.00	290.00	212.00	3
16	290.00	212.00	420.00	140.00	3
17	430.00	160.00	450.00	140.00	2
18	420.00	140.00	450.00	140.00	3
19	450.00	140.00	460.00	138.00	3
20	460.00	138.00	545.00	192.00	3
21	545.00	192.00	552.00	198.00	3
22	552.00	198.00	565.00	192.00	3
23	565.00	192.00	600.00	164.00	3
24	600.00	164.00	620.00	155.00	3
25	620.00	155.00	630.00	155.00	3
26	630.00	155.00	675.00	165.00	3
27	675.00	165.00	740.00	195.00	3
28	740.00	195.00	800.00	240.00	3
29	800.00	240.00	860.00	290.00	3
30	860.00	290.00	878.00	315.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	120.0	120.0	600.0	18.5	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

3600 Trial Surfaces Have Been Generated.

60 Surfaces Initiate From Each Of 60 Points Equally Spaced
Along The Ground Surface Between X = 550.00(ft)
and X = 620.00(ft)

Each Surface Terminates Between X = 740.00(ft)
and X = 950.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	609.32	222.21
2	634.14	219.19
3	659.12	218.25
4	684.09	219.43
5	708.88	222.72
6	733.30	228.07
7	757.18	235.47
8	780.35	244.86
9	802.65	256.16
10	823.91	269.31
11	843.99	284.20
12	862.75	300.73
13	874.86	313.30

Circle Center At X = 657.6 ; Y = 514.5 and Radius, 296.3

*** 2.430 ***

Individual data on the 17 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	24.8	10501.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	25.0	28472.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	1.9	2714.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	19.0	38497.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	4.1	10574.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6.9	17359.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	17.9	49832.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	24.4	83938.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	6.7	25516.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	17.2	63530.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	23.2	73944.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	8.7	22973.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	13.6	33807.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	21.3	50001.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20.1	38850.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	18.8	22979.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	12.1	4832.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	617.63	223.46
2	642.36	219.80
3	667.32	218.46
4	692.30	219.47
5	717.08	222.82
6	741.43	228.48
7	765.14	236.40
8	788.01	246.50
9	809.83	258.71
10	830.40	272.90
11	849.56	288.97
12	867.13	306.76
13	870.84	311.30

Circle Center At X = 669.0 ; Y = 484.8 and Radius, 266.3

*** 2.431 ***

Failure Surface Specified By 13 Coordinate Points

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

1	609.32	222.21
2	633.96	217.98
3	658.89	216.06
4	683.99	216.45
5	708.74	219.17
6	733.23	224.19
7	757.15	231.46
8	780.29	240.92
9	802.45	252.49
10	823.44	266.07
11	843.08	281.54
12	861.20	298.77
13	873.19	312.51

Circle Center At X = 667.1 ; Y = 484.7 and Radius, 268.8

*** 2.446 ***

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	606.95	221.86
2	631.81	219.17
3	656.80	218.47
4	681.76	219.75
5	706.55	223.02
6	731.00	228.25
7	754.95	235.40
8	778.26	244.43
9	800.78	255.29
10	822.36	267.91
11	842.88	282.20
12	862.19	298.08
13	880.18	315.44
14	881.13	316.51

Circle Center At X = 653.1 ; Y = 532.4 and Radius, 314.0

*** 2.463 ***

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	608.14	222.03
2	632.47	216.28
3	657.25	213.02
4	682.24	212.29
5	707.18	214.10
6	731.80	218.42
7	755.86	225.22
8	779.10	234.42
9	801.30	245.93
10	822.21	259.63
11	841.63	275.37
12	859.35	293.01
13	875.19	312.35
14	876.40	314.17

Circle Center At X = 676.9 ; Y = 458.3 and Radius, 246.1

*** 2.464 ***

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	606.95	221.86
2	631.87	219.91
3	656.87	219.87
4	681.80	221.75
5	706.52	225.52
6	730.87	231.17
7	754.72	238.67
8	777.93	247.97
9	800.35	259.02
10	821.87	271.75
11	842.35	286.08
12	861.68	301.94
13	872.16	311.98

Circle Center At X = 644.9 ; Y = 546.4 and Radius, 326.8

*** 2.469 ***

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	614.07	222.93
2	638.95	220.50
3	663.95	220.07
4	688.90	221.65
5	713.64	225.21
6	738.02	230.75
7	761.88	238.22
8	785.06	247.57
9	807.43	258.75
10	828.82	271.68
11	849.11	286.29
12	868.17	302.47
13	883.31	317.57

Circle Center At X = 656.8 ; Y = 532.1 and Radius, 312.1

*** 2.475 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	617.63	223.46
2	642.46	220.53
3	667.45	219.88
4	692.39	221.51
5	717.09	225.40
6	741.33	231.53
7	764.90	239.85
8	787.62	250.28
9	809.30	262.74
10	829.74	277.13
11	848.79	293.32
12	861.86	306.66

Circle Center At X = 662.2 ; Y = 492.6 and Radius, 273.0

*** 2.487 ***

1

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	599.83	220.78
2	624.79	219.38
3	649.79	219.70
4	674.71	221.76
5	699.42	225.53
6	723.81	231.01
7	747.77	238.16
8	771.17	246.96
9	793.90	257.35
10	815.87	269.30
11	836.95	282.73
12	857.05	297.60
13	876.08	313.82
14	876.49	314.22

Circle Center At X = 632.6 ; Y = 580.0 and Radius, 360.7

*** 2.490 ***

Failure Surface Specified By 13 Coordinate Points

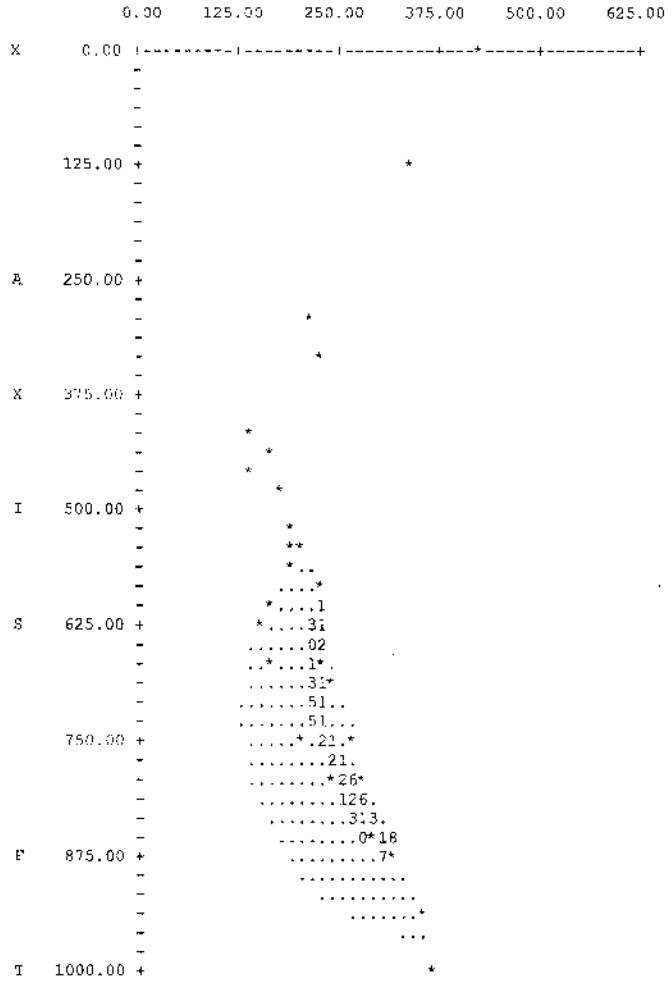
Point No.	X-Surf (ft)	Y-Surf (ft)
1	612.88	222.75
2	637.16	216.78
3	661.94	213.45
4	686.93	212.80
5	711.84	214.85
6	736.40	219.56
7	760.30	226.89
8	783.28	236.74
9	805.06	249.01
10	825.40	263.54
11	844.06	280.18
12	860.82	298.73
13	869.39	310.55

Circle Center At X = 680.4 ; Y = 444.9 and Radius, 232.2

*** 2.498 ***

1

Y A X I S F T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125.00
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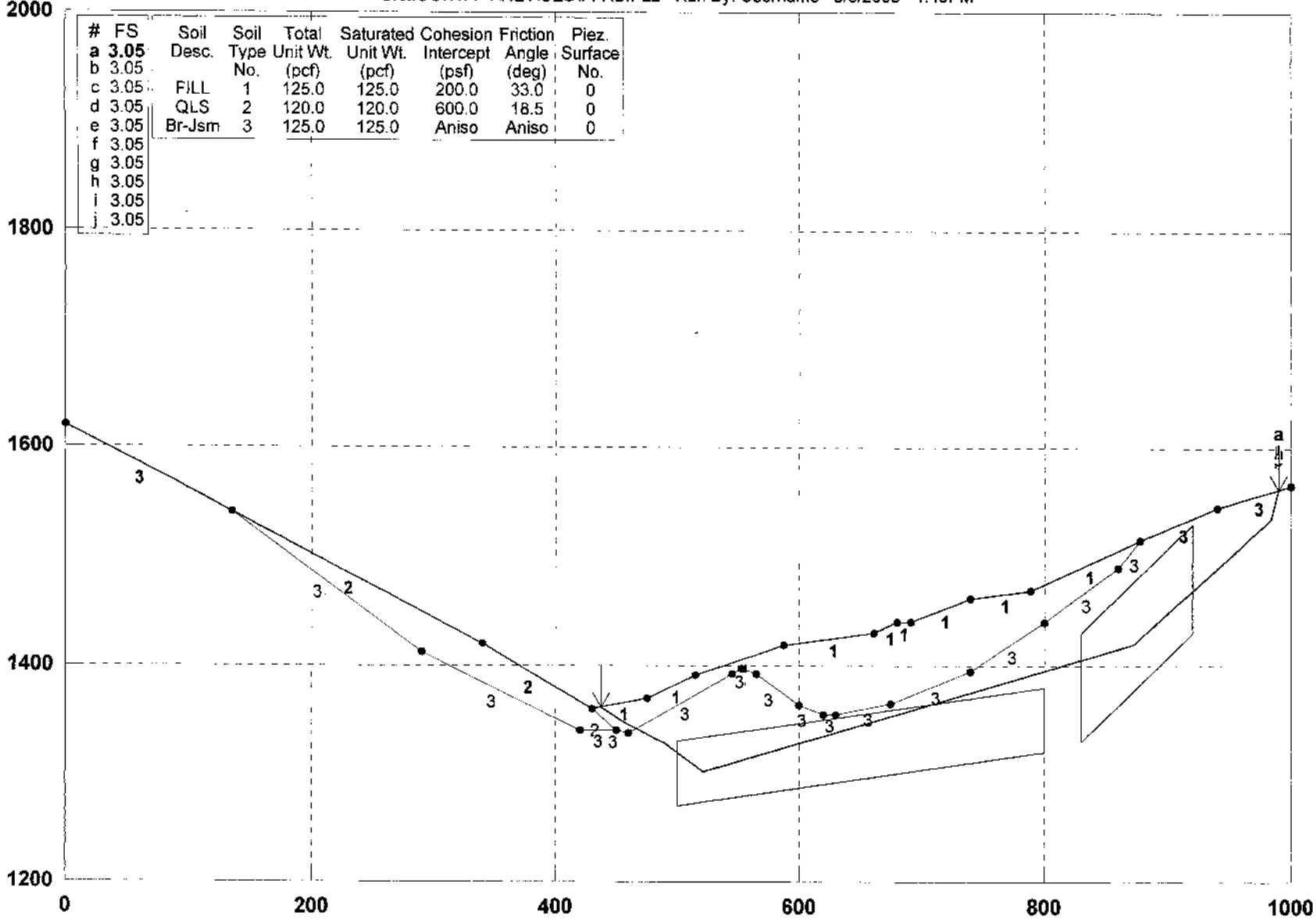
625.00
X 0.00
125.00
A 250.00
X 375.00
I 500.00
S 625.00
750.00
F 875.00
T 1000.00

Mountain Gate / Section : F-F' ,Static

S:\MOUNTA~1\REVISED\FFRB.PL2 Run By: Username 3/5/2003 4:40PM

#	FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
a	**3.05**							
b	3.05							
c	3.05	FILL	1	125.0	125.0	200.0	33.0	0
d	3.05	QLS	2	120.0	120.0	600.0	18.5	0
e	3.05	Br-Jsm	3	125.0	125.0	Aniso	Aniso	0
f	3.05							
g	3.05							
h	3.05							
i	3.05							
j	3.05							



GSTABL7 FSmin=3.05

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-20

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 3/5/2003
Time of Run: 4:40PM
Run By: Username
Input Data Filename: S:FFRb.
Output Filename: S:FFRb.OUT
Unit System: English

Plotted Output Filename: S:FFRb.PLT

PROBLEM DESCRIPTION Mountain Gate / Section : F-F' ,Static

BOUNDARY COORDINATES

14 Top Boundaries
30 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	420.00	135.00	340.00	3
2	135.00	340.00	340.00	220.00	2
3	340.00	220.00	430.00	160.00	2
4	430.00	160.00	475.00	170.00	1
5	475.00	170.00	515.00	191.00	1
6	515.00	191.00	588.00	219.00	1
7	588.00	219.00	661.00	230.00	1
8	661.00	230.00	680.00	240.00	1
9	680.00	240.00	691.00	240.00	1
10	691.00	240.00	740.00	261.00	1
11	740.00	261.00	789.00	269.00	1
12	789.00	269.00	878.00	315.00	1
13	878.00	315.00	940.00	345.00	3
14	940.00	345.00	1000.00	365.00	3
15	135.00	340.00	290.00	212.00	3
16	290.00	212.00	420.00	140.00	3
17	430.00	160.00	450.00	140.00	2
18	420.00	140.00	450.00	140.00	3
19	450.00	140.00	460.00	138.00	3
20	460.00	138.00	545.00	192.00	3
21	545.00	192.00	552.00	198.00	3
22	552.00	198.00	565.00	192.00	3
23	565.00	192.00	600.00	164.00	3
24	600.00	164.00	620.00	155.00	3
25	620.00	155.00	630.00	155.00	3
26	630.00	155.00	675.00	165.00	3
27	675.00	165.00	740.00	195.00	3
28	740.00	195.00	800.00	240.00	3
29	800.00	240.00	860.00	290.00	3
30	860.00	290.00	878.00	315.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	120.0	120.0	600.0	18.5	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	76.0	1500.0	35.0
2	80.0	0.0	35.0
3	90.0	1500.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

1

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 Simplified Janbu Method * *

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	63.08	182.05
2	88.08	182.14
3	112.95	184.68
4	137.44	189.67
5	161.33	197.05
6	184.38	206.74
7	206.35	218.65
8	227.05	232.68
9	246.26	248.67
10	261.57	264.21

*** 1.402 ***

Individual data on the 15 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	25.0	25908.4	0.0	0.0	0.0	0.0	3886.3	0.0	0.0
2	24.9	73358.3	0.0	0.0	0.0	0.0	11003.7	0.0	0.0
3	7.1	28429.1	0.0	0.0	0.0	0.0	4264.4	0.0	0.0
4	10.0	41078.1	0.0	0.0	0.0	0.0	6161.7	0.0	0.0
5	7.4	31239.7	0.0	0.0	0.0	0.0	4686.0	0.0	0.0
6	22.6	110884.7	0.0	0.0	0.0	0.0	16632.7	0.0	0.0
7	1.3	7187.6	0.0	0.0	0.0	0.0	1078.1	0.0	0.0

8	23.0	109772.2	0.0	0.0	0.0	0.0	16465.8	0.0	0.0
9	5.6	22308.2	0.0	0.0	0.0	0.0	3346.2	0.0	0.0
10	16.4	59385.0	0.0	0.0	0.0	0.0	8907.7	0.0	0.0
11	20.7	64712.9	0.0	0.0	0.0	0.0	9706.9	0.0	0.0
12	12.9	31308.5	0.0	0.0	0.0	0.0	4696.3	0.0	0.0
13	6.3	10910.9	0.0	0.0	0.0	0.0	1636.6	0.0	0.0
14	3.7	4403.9	0.0	0.0	0.0	0.0	660.6	0.0	0.0
15	11.6	5446.3	0.0	0.0	0.0	0.0	816.9	0.0	0.0

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	73.85	189.23
2	98.55	193.09
3	123.12	197.67
4	147.56	202.95
5	171.83	208.93
6	195.92	215.61
7	219.81	222.98
8	243.48	231.04
9	266.90	239.78
10	290.06	249.19
11	312.95	259.26
12	335.53	269.99
13	357.79	281.36
14	379.72	293.37
15	401.29	306.01
16	422.06	319.00

*** 1.414 ***

1

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	185.64
2	93.46	185.18
3	118.44	186.17

4	143.32	188.60
5	168.02	192.48
6	192.45	197.79
7	216.53	204.50
8	240.18	212.61
9	263.32	222.07
10	285.87	232.86
11	307.75	244.95
12	328.90	258.28
13	349.24	272.82
14	368.70	288.52
15	387.21	305.32
16	398.80	317.14

*** 1.420 ***

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	73.85	189.23
2	98.74	191.50
3	123.52	194.84
4	148.13	199.24
5	172.53	204.70
6	196.66	211.20
7	220.50	218.75
8	243.99	227.31
9	267.08	236.87
10	289.75	247.43
11	311.93	258.95
12	333.60	271.42
13	354.72	284.81
14	375.23	299.09
15	395.11	314.25
16	398.45	317.04

*** 1.421 ***

1

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	63.08	182.05

2	88.07	181.69
3	113.00	183.63
4	137.64	187.84
5	161.79	194.30
6	185.25	202.95
7	207.82	213.71
8	229.30	226.49
9	249.52	241.19
10	268.31	257.69
11	281.27	271.37

*** 1.424 ***

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	73.85	189.23
2	98.23	194.73
3	122.52	200.68
4	146.68	207.08
5	170.73	213.92
6	194.64	221.21
7	218.42	228.93
8	242.05	237.09
9	265.52	245.69
10	288.84	254.72
11	311.98	264.18
12	334.94	274.07
13	357.72	284.38
14	380.30	295.10
15	402.68	306.25
16	424.85	317.80
17	427.05	319.00

*** 1.435 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	185.64
2	93.31	188.41
3	118.07	191.86

4	142.73	195.99
5	167.26	200.78
6	191.66	206.25
7	215.90	212.37
8	239.96	219.16
9	263.82	226.60
10	287.48	234.69
11	310.90	243.43
12	334.08	252.79
13	356.99	262.79
14	379.63	273.41
15	401.96	284.65
16	423.98	296.49
17	445.67	308.92
18	462.18	319.00

*** 1.438 ***

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	185.64
2	92.75	191.56
3	116.82	198.30
4	140.66	205.86
5	164.22	214.22
6	187.48	223.37
7	210.42	233.31
8	233.01	244.02
9	255.23	255.49
10	277.04	267.70
11	285.84	273.03

*** 1.441 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	73.85	189.23
2	98.63	192.54
3	123.32	196.48
4	147.90	201.03

5	172.35	206.22
6	196.67	212.01
7	220.84	218.43
8	244.83	225.45
9	268.64	233.08
10	292.24	241.31
11	315.63	250.13
12	338.79	259.54
13	361.71	269.54
14	384.36	280.11
15	406.74	291.26
16	428.83	302.97
17	450.61	315.23
18	456.93	319.00

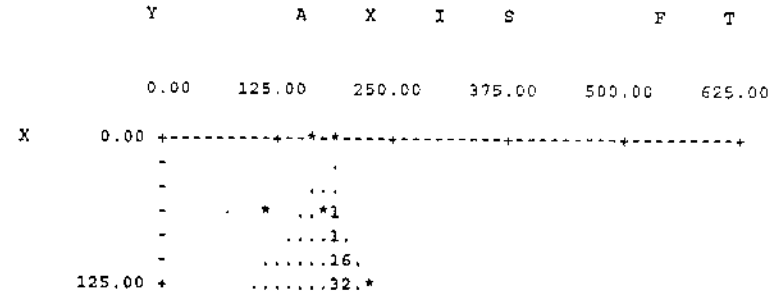
*** 1.444 ***

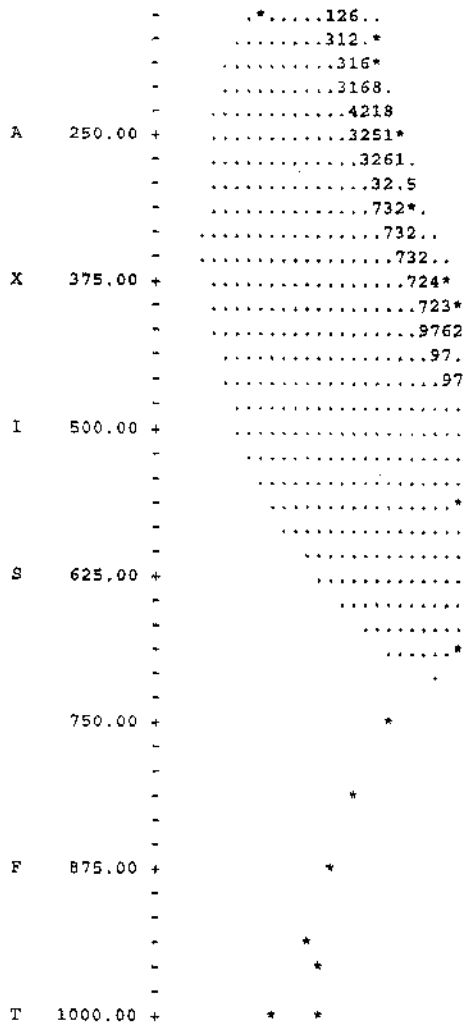
Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	185.64
2	93.41	184.09
3	118.38	185.48
4	143.00	189.78
5	166.95	196.95
6	189.90	206.87
7	211.52	219.42
8	231.52	234.42
9	249.62	251.66
10	259.36	263.40

*** 1.448 ***

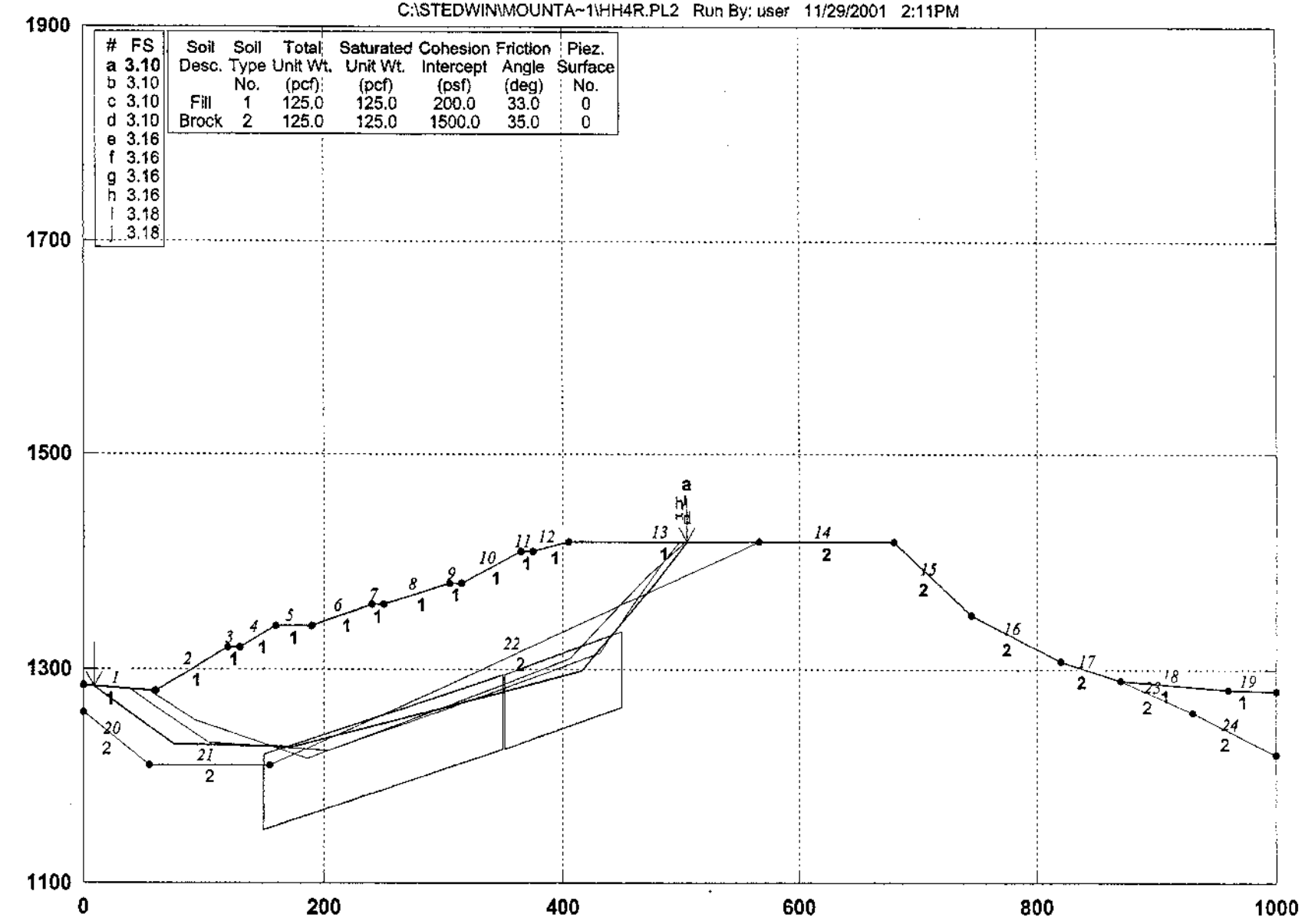
1




A 250.00
X 375.00
I 500.00
S 625.00
750.00
F 875.00
T 1000.00

Mountain Gate, 03-0381-001, X-Sec:H-H' Remove Qls Rebuild Slope

C:\STEDWIN\MOUNTA~1\HH4R.PL2 Run By: user 11/29/2001 2:11PM



#	FS
a	3.10
b	3.10
c	3.10
d	3.10
e	3.16
f	3.16
g	3.16
h	3.16
i	3.18
j	3.18

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Brock	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=3.10

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-23

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 2:11PM
Run By: user
Input Data Filename: C:hh4r.
Output Filename: C:hh4r.OUT
Unit System: English

Plotted Output Filename: C:hh4r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H'
Remove Qls Rebuild Slope

BOUNDARY COORDINATES

19 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	185.00	60.00	180.00	1
2	60.00	180.00	120.00	220.00	1
3	120.00	220.00	130.00	220.00	1
4	130.00	220.00	160.00	240.00	1
5	160.00	240.00	190.00	240.00	1
6	190.00	240.00	240.00	260.00	1
7	240.00	260.00	250.00	260.00	1
8	250.00	260.00	305.00	280.00	1
9	305.00	280.00	315.00	280.00	1
10	315.00	280.00	365.00	310.00	1
11	365.00	310.00	375.00	310.00	1
12	375.00	310.00	405.00	319.00	1
13	405.00	319.00	566.00	319.00	1
14	566.00	319.00	680.00	319.00	2
15	680.00	319.00	745.00	250.00	2
16	745.00	250.00	820.00	207.00	2
17	820.00	207.00	870.00	190.00	2
18	870.00	190.00	960.00	181.00	1
19	960.00	181.00	1000.00	180.00	1
20	0.00	160.00	55.00	110.00	2
21	55.00	110.00	155.00	110.00	2
22	155.00	110.00	566.00	319.00	2
23	870.00	190.00	930.00	160.00	2
24	930.00	160.00	1000.00	120.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	150.00	85.00	350.00	160.00	70.00
2	351.00	160.00	450.00	200.00	70.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

Individual data on the 19 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	51.1	120336.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	14.4	87500.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	45.6	427487.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	10.0	113884.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	30.0	381440.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.4	202335.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	15.6	215096.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	19.5	265781.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	30.5	425895.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	10.0	139801.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	55.0	771912.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	10.0	140894.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	50.0	743050.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.0	156326.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	30.0	463785.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.6	176847.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	54.5	574235.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	5.8	32280.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	28.0	70949.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43

3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

1

Failure Surface Specified By 6 Coordinate Points

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

1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.78	180.44
2	92.68	152.03
3	186.22	116.68
4	405.81	210.05
5	470.68	286.16
6	503.35	319.00

*** 3.181 ***

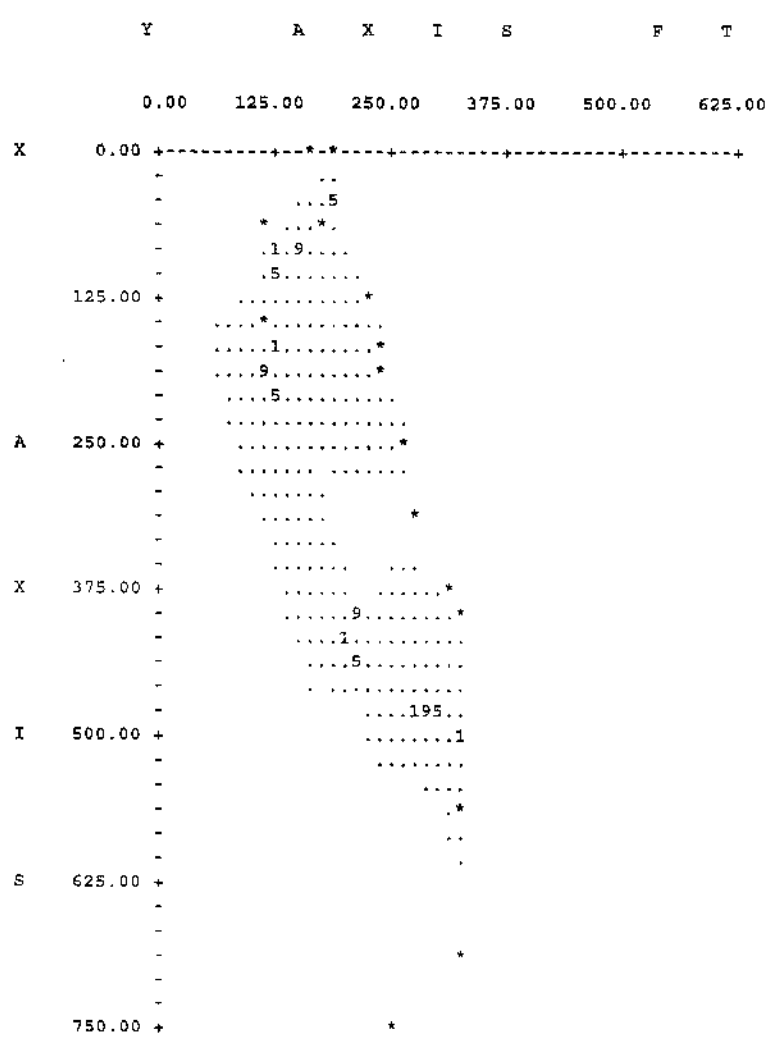
Failure Surface Specified By 6 Coordinate Points

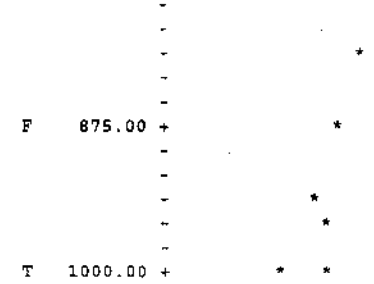
Point No.	X-Surf (ft)	Y-Surf (ft)

1	54.78	180.44
2	92.68	152.03
3	186.22	116.68
4	405.81	210.05
5	470.68	286.16
6	503.35	319.00

*** 3.181 ***

1





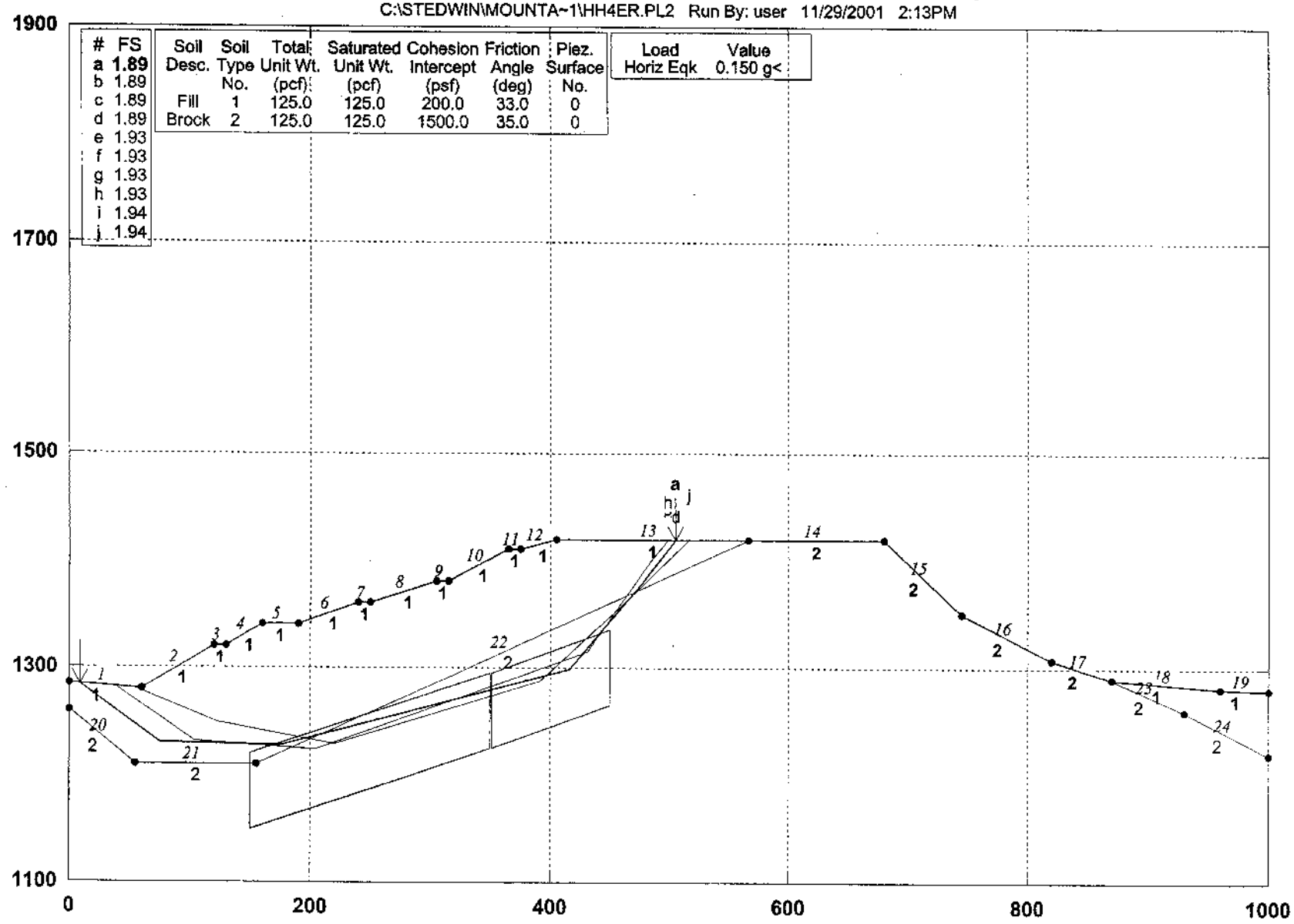
Mountain Gate, 03-0381-001, X-Sec:H-H' Remove Qls Rebuild Slope,PseudoStatic

C:\STEDWIN\MOUNTA~1\HH4ER.PL2 Run By: user 11/29/2001 2:13PM

#	FS
a	1.89
b	1.89
c	1.89
d	1.89
e	1.93
f	1.93
g	1.93
h	1.93
i	1.94
j	1.94

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Brock	2	125.0	125.0	1500.0	35.0	0

Load	Value
Horiz Eqk	0.150 g<



GSTABL7 FSmin=1.89

Safety Factors Are Calculated By The Simplified Janbu Method

STED

Figure E-24

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 2:13PM
Run By: user
Input Data Filename: C:hh4er.
Output Filename: C:hh4er.OUT
Unit System: English

Plotted Output Filename: C:hh4er.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H'
Remove Qls Rebuild Slope,PseudoStatic

BOUNDARY COORDINATES

19 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	185.00	60.00	180.00	1
2	60.00	180.00	120.00	220.00	1
3	120.00	220.00	130.00	220.00	1
4	130.00	220.00	160.00	240.00	1
5	160.00	240.00	190.00	240.00	1
6	190.00	240.00	240.00	260.00	1
7	240.00	260.00	250.00	260.00	1
8	250.00	260.00	305.00	280.00	1
9	305.00	280.00	315.00	280.00	1
10	315.00	280.00	365.00	310.00	1
11	365.00	310.00	375.00	310.00	1
12	375.00	310.00	405.00	319.00	1
13	405.00	319.00	566.00	319.00	1
14	566.00	319.00	680.00	319.00	2
15	680.00	319.00	745.00	250.00	2
16	745.00	250.00	820.00	207.00	2
17	820.00	207.00	870.00	190.00	2
18	870.00	190.00	960.00	181.00	1
19	960.00	181.00	1000.00	180.00	1
20	0.00	160.00	55.00	110.00	2
21	55.00	110.00	155.00	110.00	2
22	155.00	110.00	566.00	319.00	2
23	870.00	190.00	930.00	160.00	2
24	930.00	160.00	1000.00	120.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	150.00	85.00	350.00	160.00	70.00
2	351.00	160.00	450.00	200.00	70.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 1.886 ***

Individual data on the 19 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	51.1	120336.9	0.0	0.0	0.0	0.0	18050.5	0.0	0.0
2	14.4	87500.1	0.0	0.0	0.0	0.0	13125.0	0.0	0.0
3	45.6	427487.4	0.0	0.0	0.0	0.0	64123.1	0.0	0.0
4	10.0	113884.9	0.0	0.0	0.0	0.0	17082.7	0.0	0.0
5	30.0	381440.8	0.0	0.0	0.0	0.0	57216.1	0.0	0.0
6	14.4	202335.8	0.0	0.0	0.0	0.0	30350.4	0.0	0.0
7	15.6	215096.5	0.0	0.0	0.0	0.0	32264.5	0.0	0.0
8	19.5	265781.1	0.0	0.0	0.0	0.0	39867.2	0.0	0.0
9	30.5	425895.2	0.0	0.0	0.0	0.0	63884.3	0.0	0.0
10	10.0	139801.2	0.0	0.0	0.0	0.0	20970.2	0.0	0.0
11	55.0	771912.5	0.0	0.0	0.0	0.0	*******	0.0	0.0

12	10.0	140894.2	0.0	0.0	0.0	0.0	21134.1	0.0	0.0
13	50.0	743050.9	0.0	0.0	0.0	0.0	*******	0.0	0.0
14	10.0	156326.2	0.0	0.0	0.0	0.0	23448.9	0.0	0.0
15	30.0	463785.4	0.0	0.0	0.0	0.0	69567.8	0.0	0.0
16	11.6	176847.6	0.0	0.0	0.0	0.0	26527.1	0.0	0.0
17	54.5	574235.3	0.0	0.0	0.0	0.0	86135.3	0.0	0.0
18	5.8	32280.5	0.0	0.0	0.0	0.0	4842.1	0.0	0.0
19	28.0	70949.4	0.0	0.0	0.0	0.0	10642.4	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 1.886 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 1.886 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 1.886 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 1.928 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 1.928 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 1.928 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 1.928 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.42	180.47
2	122.05	148.97
3	220.10	129.35
4	391.26	187.46
5	461.70	258.44
6	516.65	319.00

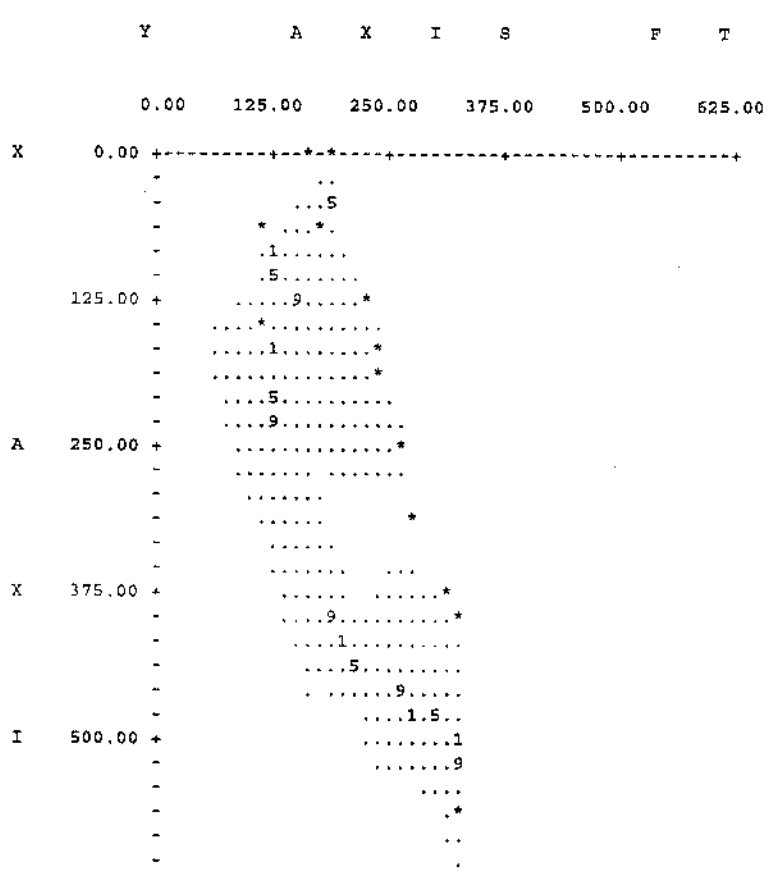
*** 1.938 ***

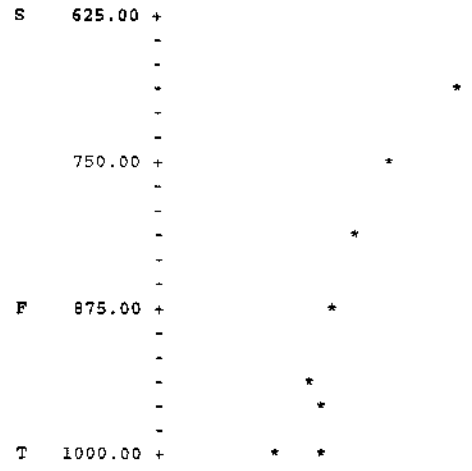
Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.42	180.47
2	122.05	148.97
3	220.10	129.35
4	391.26	187.46
5	461.70	258.44
6	516.65	319.00

*** 1.938 ***

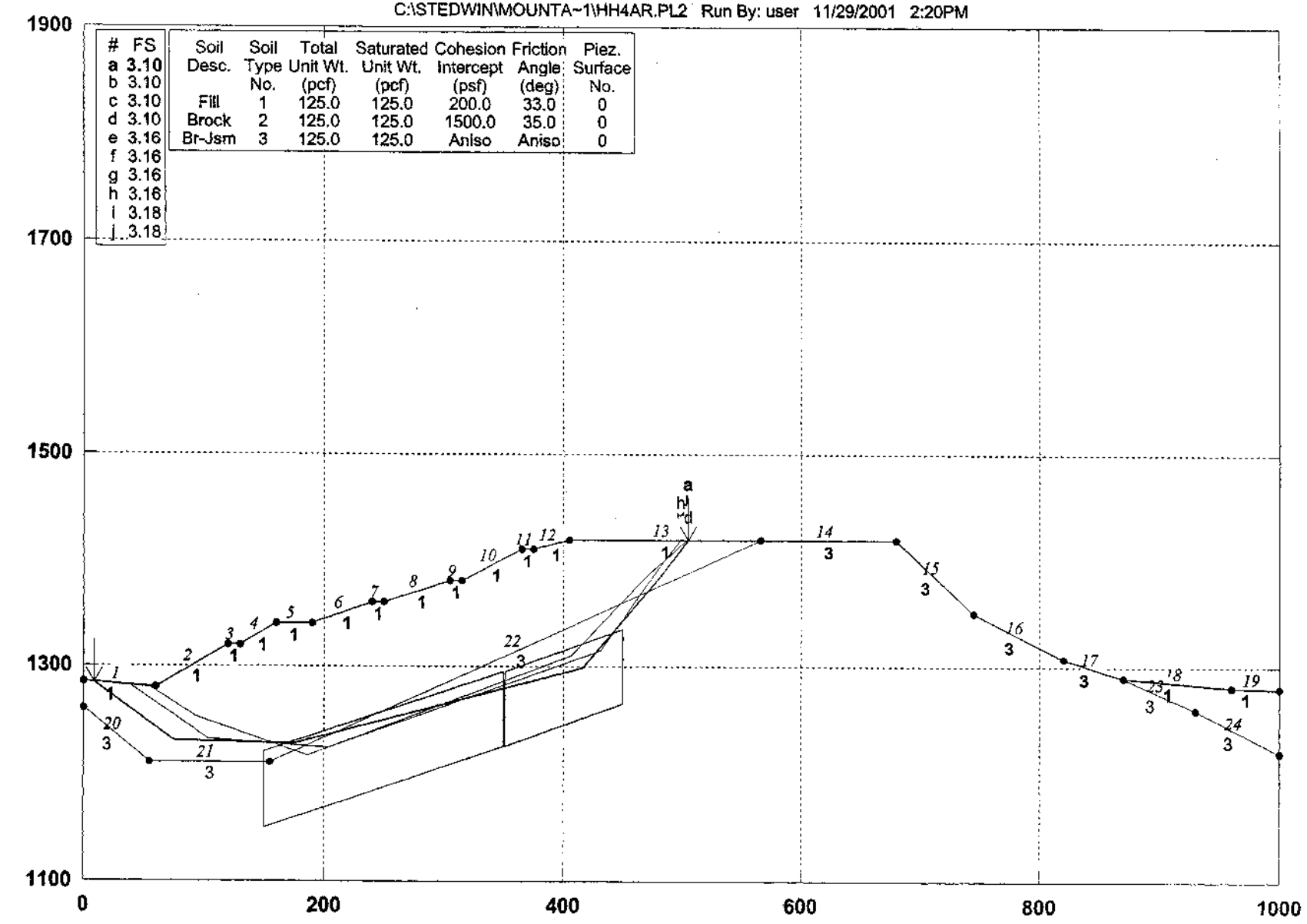
1





Mountain Gate, 03-0381-001, X-Sec:H-H' Lower Strength of Joints

C:\STEDWIN\MOUNTA~1\HH4AR.PL2 Run By: user 11/29/2001 2:20PM



#	FS
a	3.10
b	3.10
c	3.10
d	3.10
e	3.16
f	3.16
g	3.16
h	3.16
i	3.18
j	3.18

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Brock	2	125.0	125.0	1500.0	35.0	0
Br-Jsm	3	125.0	125.0	Aniso	Aniso	0

GSTABL7 FSmin=3.10

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-25

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 2:20PM
Run By: user
Input Data Filename: C:hh4ar.
Output Filename: C:hh4ar.OUT
Unit System: English

Plotted Output Filename: C:hh4ar.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H'
Lower Strength of Joints

BOUNDARY COORDINATES

19 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	185.00	60.00	180.00	1
2	60.00	180.00	120.00	220.00	1
3	120.00	220.00	130.00	220.00	1
4	130.00	220.00	160.00	240.00	1
5	160.00	240.00	190.00	240.00	1
6	190.00	240.00	240.00	260.00	1
7	240.00	260.00	250.00	260.00	1
8	250.00	260.00	305.00	280.00	1
9	305.00	280.00	315.00	280.00	1
10	315.00	280.00	365.00	310.00	1
11	365.00	310.00	375.00	310.00	1
12	375.00	310.00	405.00	319.00	1
13	405.00	319.00	566.00	319.00	1
14	566.00	319.00	680.00	319.00	3
15	680.00	319.00	745.00	250.00	3
16	745.00	250.00	820.00	207.00	3
17	820.00	207.00	870.00	190.00	3
18	870.00	190.00	960.00	181.00	1
19	960.00	181.00	1000.00	180.00	1
20	0.00	160.00	55.00	110.00	3
21	55.00	110.00	155.00	110.00	3
22	155.00	110.00	566.00	319.00	3
23	870.00	190.00	930.00	160.00	3
24	930.00	160.00	1000.00	120.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0
3	125.0	125.0	0.0	0.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	0.0	1500.0	35.0
2	75.0	1500.0	35.0
3	90.0	0.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	150.00	85.00	350.00	160.00	70.00
2	351.00	160.00	450.00	200.00	70.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

Individual data on the 19 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	51.1	120336.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	14.4	87500.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	45.6	427487.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	10.0	113884.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	30.0	381440.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

6	14.4	202335.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	15.6	215096.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	19.5	265781.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	30.5	425895.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	10.0	139801.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	55.0	771912.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	10.0	140894.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	50.0	743050.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.0	156326.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	30.0	463785.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.6	176847.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	54.5	574235.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	5.8	32280.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	28.0	70949.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43

3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 3.100 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92

2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 3.165 ***

1

Failure Surface Specified By 6 Coordinate Points

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

1	54.78	180.44
2	92.68	152.03
3	186.22	116.68
4	405.81	210.05
5	470.68	286.16
6	503.35	319.00

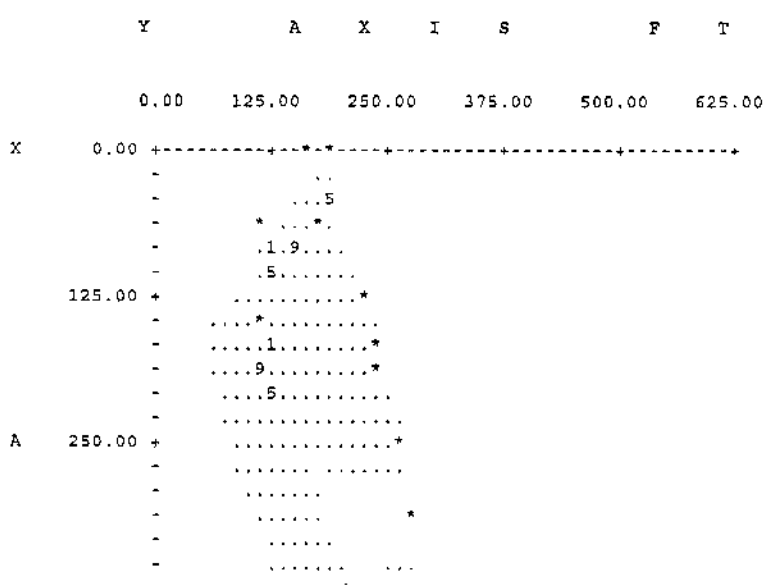
*** 3.181 ***

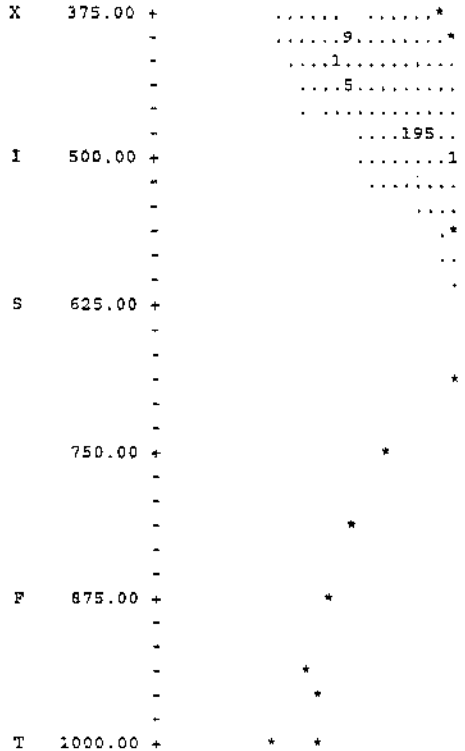
Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.78	180.44
2	92.68	152.03
3	186.22	116.68
4	405.81	210.05
5	470.68	286.16
6	503.35	319.00

*** 3.181 ***

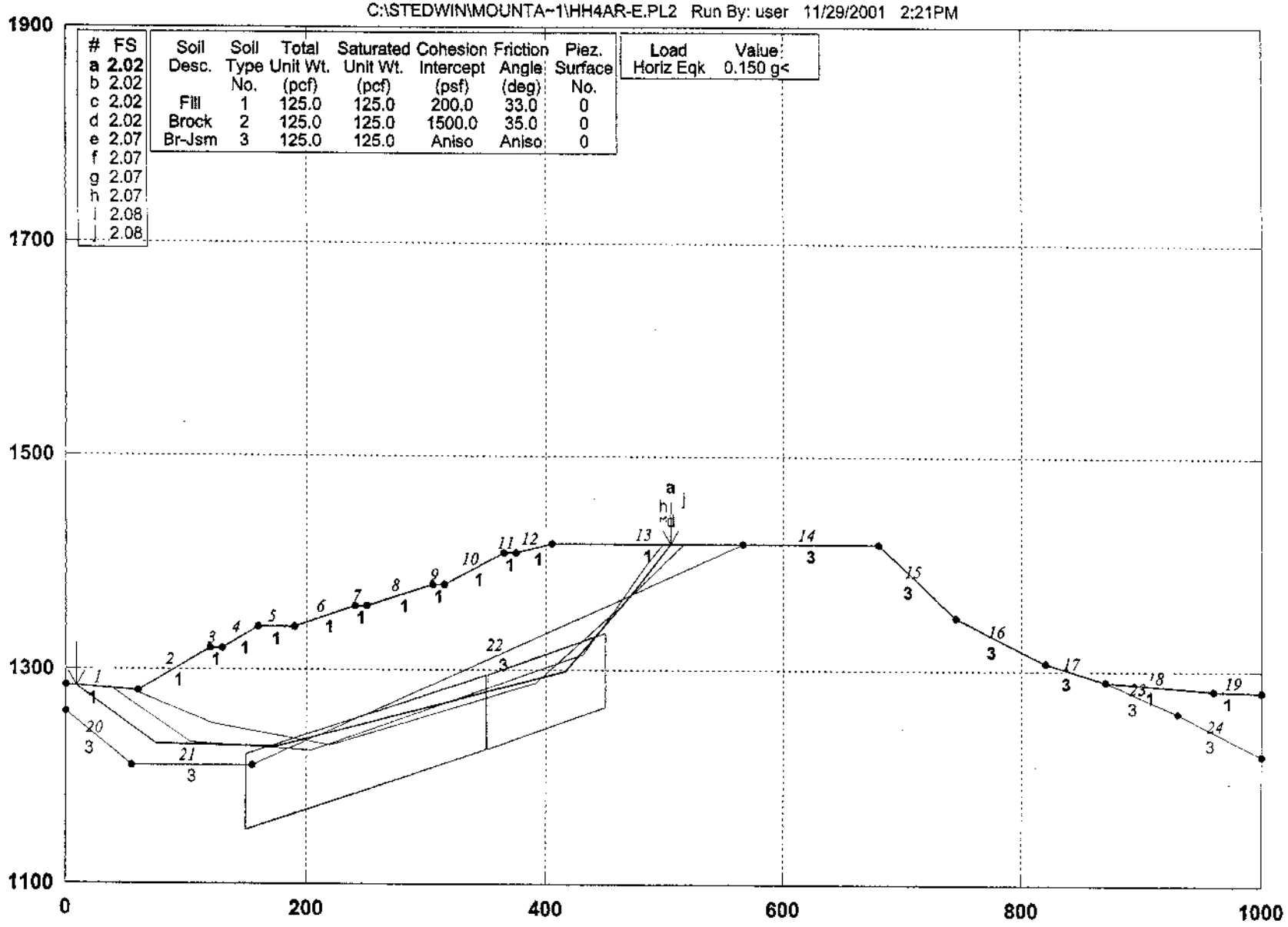
1





Mountain Gate, 03-0381-001, X-Sec:H-H' Lower Strength of Joints,Pseudo Static

C:\STEDWIN\MOUNTA~1\HH4AR-E.PL2 Run By: user 11/29/2001 2:21PM



GSTABL7 FSmin=2.02

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-26

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	11/29/2001
Time of Run:	2:21PM
Run By:	user
Input Data Filename:	C:hh4ar-e.
Output Filename:	C:hh4ar-e.OUT
Unit System:	English
Plotted Output Filename:	C:hh4ar-e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H'
Lower Strength of Joints,Pseudo Static

BOUNDARY COORDINATES

19 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	185.00	60.00	180.00	1
2	60.00	180.00	120.00	220.00	1
3	120.00	220.00	130.00	220.00	1
4	130.00	220.00	160.00	240.00	1
5	160.00	240.00	190.00	240.00	1
6	190.00	240.00	240.00	260.00	1
7	240.00	260.00	250.00	260.00	1
8	250.00	260.00	305.00	280.00	1
9	305.00	280.00	315.00	280.00	1
10	315.00	280.00	365.00	310.00	1
11	365.00	310.00	375.00	310.00	1
12	375.00	310.00	405.00	319.00	1
13	405.00	319.00	566.00	319.00	1
14	566.00	319.00	680.00	319.00	3
15	680.00	319.00	745.00	250.00	3
16	745.00	250.00	820.00	207.00	3
17	820.00	207.00	870.00	190.00	3

18	870.00	190.00	960.00	181.00	1
19	960.00	181.00	1000.00	180.00	1
20	0.00	160.00	55.00	110.00	3
21	55.00	110.00	155.00	110.00	3
22	155.00	110.00	566.00	319.00	3
23	870.00	190.00	930.00	160.00	3
24	930.00	160.00	1000.00	120.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0
3	125.0	125.0	0.0	0.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	0.0	1500.0	35.0
2	75.0	1500.0	35.0
3	90.0	0.0	35.0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	150.00	85.00	350.00	160.00	70.00
2	351.00	160.00	450.00	200.00	70.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 2.018 ***

Individual data on the 19 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	51.1	120336.9	0.0	0.0	0.0	0.0	18050.5	0.0	0.0
2	14.4	87500.1	0.0	0.0	0.0	0.0	13125.0	0.0	0.0
3	45.6	427487.4	0.0	0.0	0.0	0.0	64123.1	0.0	0.0
4	10.0	113884.9	0.0	0.0	0.0	0.0	17082.7	0.0	0.0
5	30.0	381440.8	0.0	0.0	0.0	0.0	57216.1	0.0	0.0
6	14.4	202335.8	0.0	0.0	0.0	0.0	30350.4	0.0	0.0
7	15.6	215096.5	0.0	0.0	0.0	0.0	32264.5	0.0	0.0
8	19.5	265781.1	0.0	0.0	0.0	0.0	39867.2	0.0	0.0
9	30.5	425895.2	0.0	0.0	0.0	0.0	63884.3	0.0	0.0
10	10.0	139801.2	0.0	0.0	0.0	0.0	20970.2	0.0	0.0
11	55.0	771912.5	0.0	0.0	0.0	0.0	*******	0.0	0.0
12	10.0	140894.2	0.0	0.0	0.0	0.0	21134.1	0.0	0.0
13	50.0	743050.9	0.0	0.0	0.0	0.0	*******	0.0	0.0
14	10.0	156326.2	0.0	0.0	0.0	0.0	23448.9	0.0	0.0
15	30.0	463785.4	0.0	0.0	0.0	0.0	69567.8	0.0	0.0
16	11.6	176847.6	0.0	0.0	0.0	0.0	26527.1	0.0	0.0
17	54.5	574235.3	0.0	0.0	0.0	0.0	86135.3	0.0	0.0
18	5.8	32280.5	0.0	0.0	0.0	0.0	4842.1	0.0	0.0
19	28.0	70949.4	0.0	0.0	0.0	0.0	10642.4	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 2.018 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 2.018 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	8.93	184.26
2	74.45	130.43
3	174.40	127.39
4	416.59	198.65
5	476.89	278.42
6	504.87	319.00

*** 2.018 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 2.072 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 2.072 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 2.072 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.94	181.92
2	103.75	131.20
3	203.50	124.15
4	431.77	215.24
5	485.59	299.52
6	498.13	319.00

*** 2.072 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.42	180.47
2	122.05	148.97
3	220.10	129.35
4	391.26	187.46
5	461.70	258.44
6	516.65	319.00

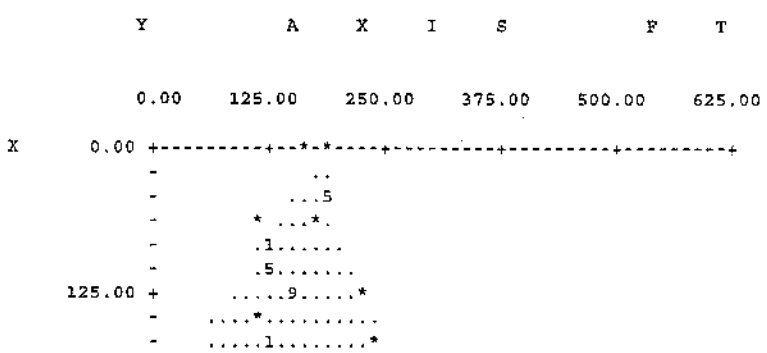
*** 2.077 ***

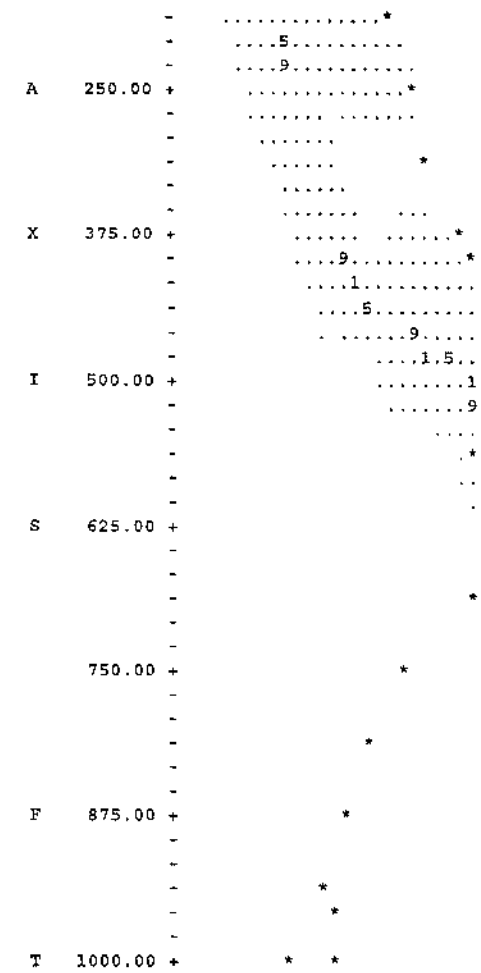
Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	54.42	180.47
2	122.05	148.97
3	220.10	129.35
4	391.26	187.46
5	461.70	258.44
6	516.65	319.00

*** 2.077 ***

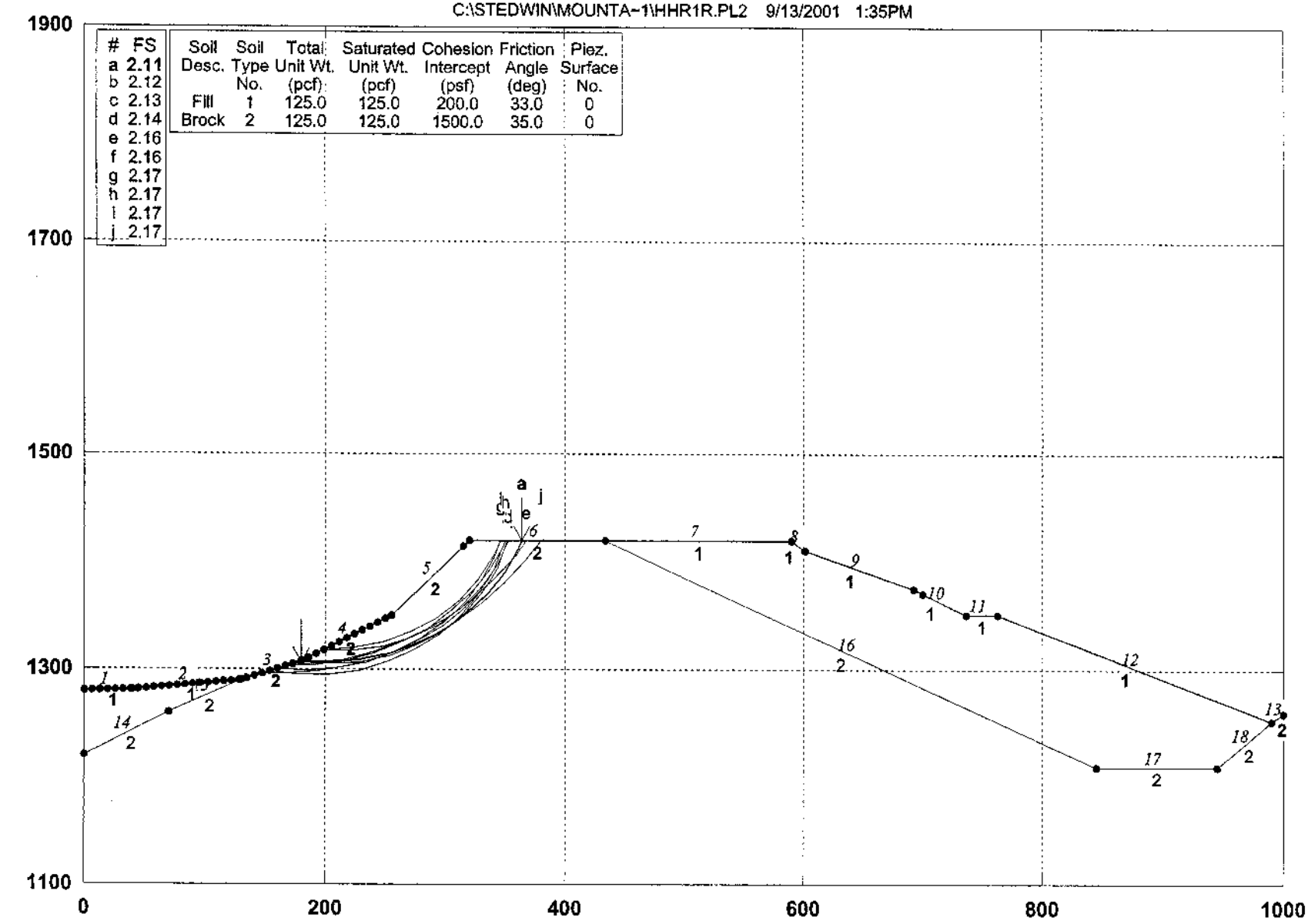
1





Mountain Gate, 03-0381-001, X-Sec:H-H' Right

C:\STEDWIN\MOUNTA~1\HHR1R.PL2 9/13/2001 1:35PM



#	FS
a	2.11
b	2.12
c	2.13
d	2.14
e	2.16
f	2.16
g	2.17
h	2.17
i	2.17
j	2.17

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Brock	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=2.11

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-27

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 1:35PM
Run By:
Input Data Filename: C:hhr1r.
Output Filename: C:hhr1r.OUT
Unit System: English

Plotted Output Filename: C:hhr1r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H' Right

BOUNDARY COORDINATES

13 Top Boundaries
18 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	180.00	40.00	181.00	1
2	40.00	181.00	130.00	190.00	1
3	130.00	190.00	180.00	207.00	2
4	180.00	207.00	255.00	250.00	2
5	255.00	250.00	320.00	319.00	2
6	320.00	319.00	434.00	319.00	2
7	434.00	319.00	590.00	319.00	1
8	590.00	319.00	601.00	310.00	1
9	601.00	310.00	692.00	275.00	1
10	692.00	275.00	736.00	251.00	1
11	736.00	251.00	762.00	251.00	1
12	762.00	251.00	990.00	153.00	1
13	990.00	153.00	1000.00	160.00	2
14	0.00	120.00	70.00	160.00	2
15	70.00	160.00	130.00	190.00	2
16	434.00	319.00	845.00	110.00	2
17	845.00	110.00	945.00	110.00	2

18	945.00	110.00	990.00	153.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 0.00(ft)
and X = 250.00(ft)

Each Surface Terminates Between X = 315.00(ft)
and X = 700.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 11 Coordinate Points

Point	X-Surf	Y-Surf

No.	(ft)	(ft)
1	179.49	206.83
2	204.47	205.97
3	229.33	208.61
4	253.58	214.69
5	276.74	224.11
6	298.36	236.66
7	318.01	252.12
8	335.31	270.16
9	349.93	290.45
10	361.56	312.57
11	363.86	319.00

Circle Center At X = 198.1 ; Y = 384.4 and Radius, 178.6

*** 2.105 ***

Individual data on the 13 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.5	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	24.5	23333.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	24.9	64852.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	24.2	92698.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	1.4	6139.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	21.7	113730.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	21.6	146374.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	19.7	152475.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	2.0	16101.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15.3	108773.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	14.6	70676.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	11.6	25436.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	2.3	924.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	179.49	206.83
2	204.47	205.83
3	229.30	208.71
4	253.39	215.40
5	276.15	225.75
6	297.03	239.49
7	315.54	256.30
8	331.22	275.77
9	343.70	297.43
10	351.99	319.00

Circle Center At X = 198.4 ; Y = 366.4 and Radius, 160.7

*** 2.117 ***

1

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	179.49	206.83
2	204.37	204.41
3	229.31	206.18
4	253.60	212.09
5	276.56	221.98
6	297.55	235.56
7	315.98	252.45
8	331.33	272.19
9	343.16	294.21
10	351.16	317.89
11	351.34	319.00

Circle Center At X = 206.3 ; Y = 353.6 and Radius, 149.2

*** 2.135 ***

Failure Surface Specified By 9 Coordinate Points

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

1	198.72	217.73
2	223.72	217.56
3	248.39	221.60
4	272.03	229.74
5	293.96	241.74
6	313.55	257.27
7	330.26	275.87
8	343.59	297.02
9	352.70	319.00

Circle Center At X = 212.2 ; Y = 365.0 and Radius, 147.9

*** 2.138 ***

1

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	166.67	202.47
2	191.57	204.63
3	216.13	209.31
4	240.09	216.46
5	263.20	226.00
6	285.22	237.83
7	305.93	251.83
8	325.11	267.87
9	342.57	285.76
10	358.13	305.33
11	366.89	319.00

Circle Center At X = 157.8 ; Y = 448.6 and Radius, 246.3

*** 2.161 ***

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	166.67	202.47
2	191.65	203.41
3	216.31	207.52
4	240.24	214.74
5	263.06	224.95

6	284.40	237.99
7	303.89	253.64
8	321.24	271.64
9	336.16	291.70
10	348.39	313.50
11	350.61	319.00

Circle Center At X = 171.8 ; Y = 398.3 and Radius, 195.9

*** 2.164 ***

1

Failure Surface Specified By 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	160.26	200.29
2	185.21	198.72
3	210.12	200.82
4	234.46	206.53
5	257.70	215.74
6	279.34	228.25
7	298.93	243.79
8	316.03	262.02
9	330.29	282.56
10	341.38	304.96
11	345.93	319.00

Circle Center At X = 183.4 ; Y = 369.3 and Radius, 170.6

*** 2.166 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	153.86	198.11
2	178.62	194.74
3	203.62	195.11
4	228.28	199.22
5	252.04	206.97
6	274.39	218.18
7	294.80	232.62
8	312.82	249.94
9	328.05	269.77

10	340.14	291.65
11	348.83	315.09
12	349.64	319.00

Circle Center At X = 188.7 ; Y = 360.6 and Radius, 166.2

*** 2.167 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	198.72	217.73
2	223.66	219.38
3	248.02	225.03
4	271.14	234.53
5	292.44	247.62
6	311.35	263.98
7	327.37	283.17
8	340.10	304.68
9	345.69	319.00

Circle Center At X = 201.0 ; Y = 372.4 and Radius, 154.7

*** 2.168 ***

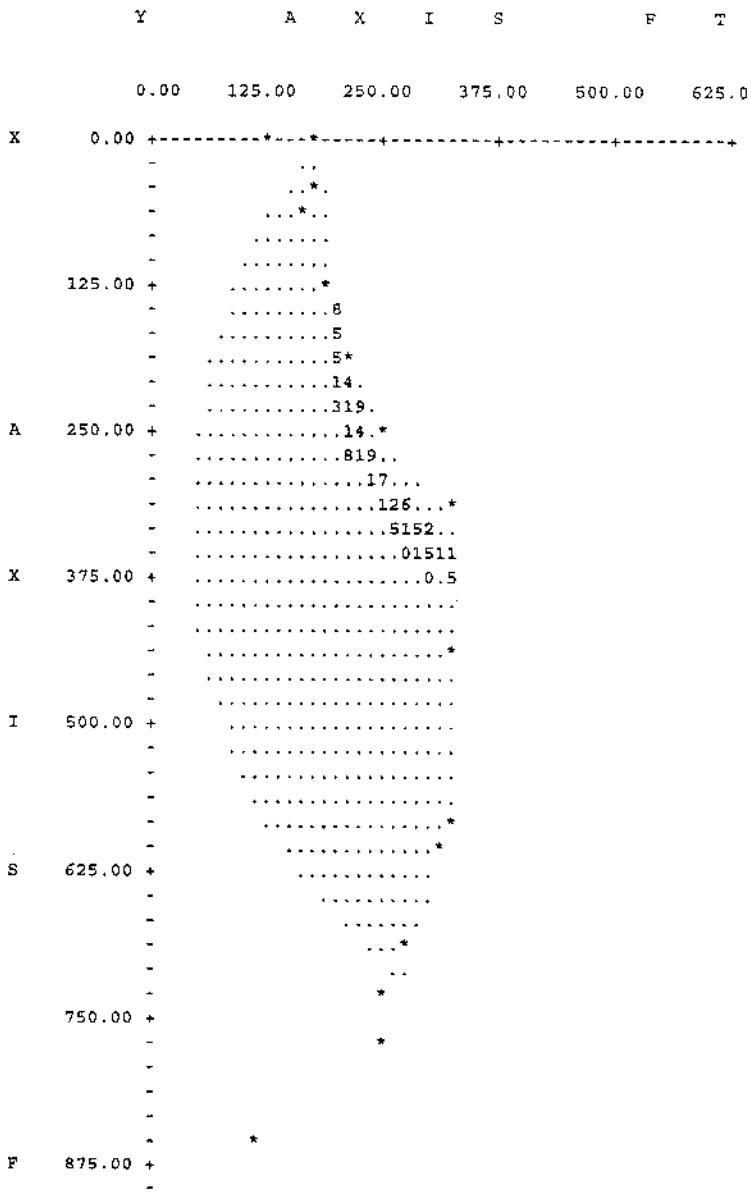
Failure Surface Specified By 12 Coordinate Points

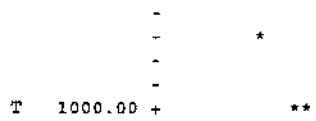
Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.44	195.93
2	172.43	196.40
3	197.27	199.21
4	221.75	204.32
5	245.63	211.70
6	268.72	221.28
7	290.82	232.97
8	311.73	246.68
9	331.26	262.28
10	349.25	279.64
11	365.54	298.60
12	379.99	319.00

Circle Center At X = 154.9 ; Y = 463.1 and Radius, 267.3

*** 2.168 ***

1

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Mountain Gate, 03-0381-001, X-Sec:H-H' Right, Pseudostatic

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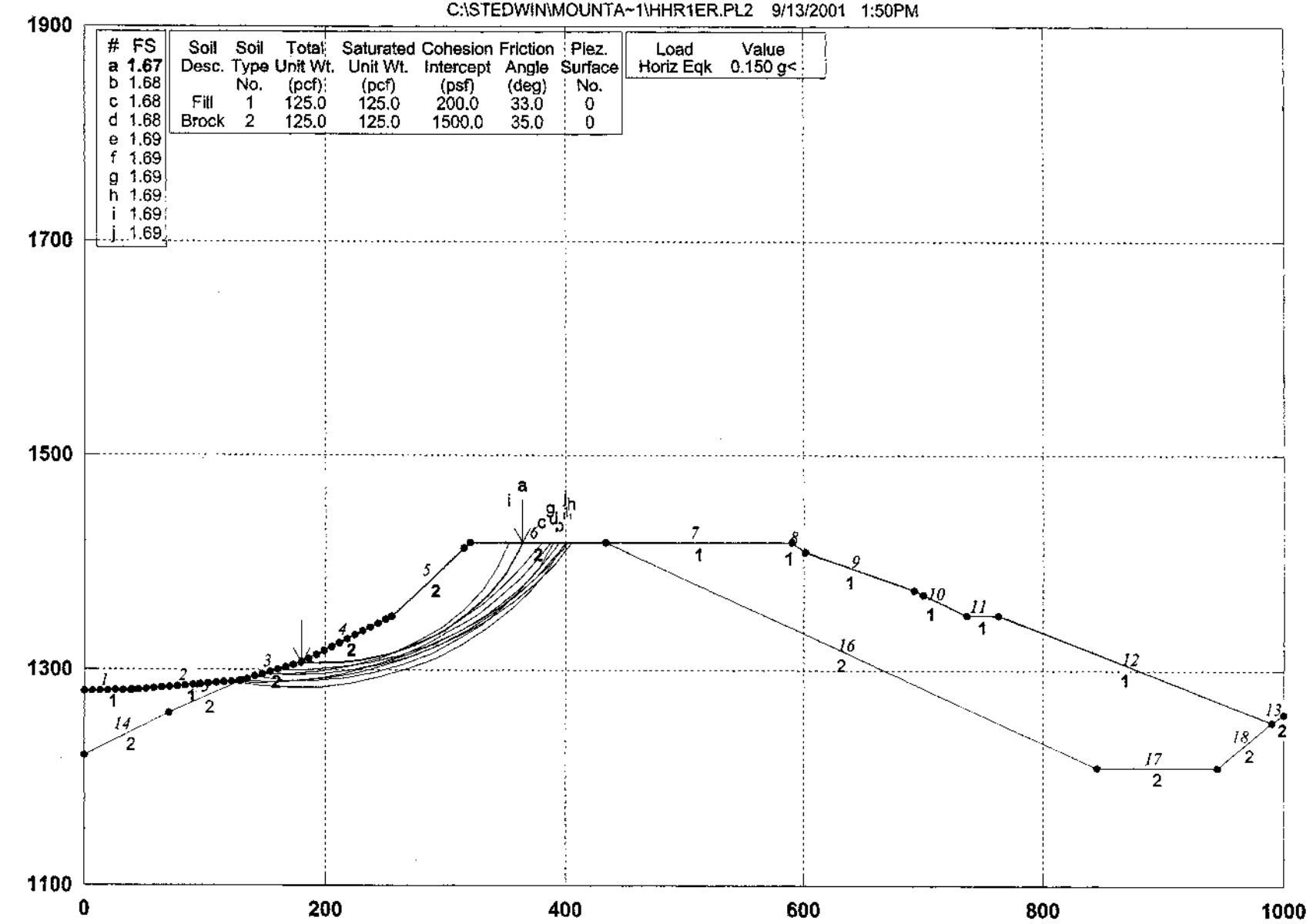


GSTABL7 FSmin=1.67

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-28

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 1:50PM
Run By:
Input Data Filename: C:hhr1er.
Output Filename: C:hhr1er.OUT
Unit System: English

Plotted Output Filename: C:hhr1er.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H' Right, Pseudostatic

BOUNDARY COORDINATES

13 Top Boundaries
18 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	180.00	40.00	181.00	1
2	40.00	181.00	130.00	190.00	1
3	130.00	190.00	180.00	207.00	2
4	180.00	207.00	255.00	250.00	2
5	255.00	250.00	320.00	319.00	2
6	320.00	319.00	434.00	319.00	2
7	434.00	319.00	590.00	319.00	1
8	590.00	319.00	601.00	310.00	1
9	601.00	310.00	692.00	275.00	1
10	692.00	275.00	736.00	251.00	1
11	736.00	251.00	762.00	251.00	1
12	762.00	251.00	990.00	153.00	1
13	990.00	153.00	1000.00	160.00	2
14	0.00	120.00	70.00	160.00	2
15	70.00	160.00	130.00	190.00	2
16	434.00	319.00	845.00	110.00	2
17	845.00	110.00	945.00	110.00	2

18	945.00	110.00	990.00	153.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 0.00(ft)
and X = 250.00(ft)

Each Surface Terminates Between X = 315.00(ft)
and X = 700.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 11 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	179.49	206.83
2	204.47	205.97
3	229.33	208.61
4	253.58	214.69
5	276.74	224.11
6	298.36	236.66
7	318.01	252.12
8	335.31	270.16
9	349.93	290.45
10	361.56	312.57
11	363.86	319.00

Circle Center At X = 198.1 ; Y = 384.4 and Radius, 178.6

*** 1.668 ***

Individual data on the 13 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.5	6.1	0.0	0.0	0.0	0.0	0.9	0.0	0.0
2	24.5	23333.3	0.0	0.0	0.0	0.0	3500.0	0.0	0.0
3	24.9	64852.7	0.0	0.0	0.0	0.0	9727.9	0.0	0.0
4	24.2	92698.5	0.0	0.0	0.0	0.0	13904.8	0.0	0.0
5	1.4	6139.2	0.0	0.0	0.0	0.0	920.9	0.0	0.0
6	21.7	113730.6	0.0	0.0	0.0	0.0	17059.6	0.0	0.0
7	21.6	146374.0	0.0	0.0	0.0	0.0	21956.1	0.0	0.0
8	19.7	152475.4	0.0	0.0	0.0	0.0	22871.3	0.0	0.0
9	2.0	16101.7	0.0	0.0	0.0	0.0	2415.3	0.0	0.0

10	15.3	108773.3	0.0	0.0	0.0	0.0	16316.0	0.0	0.0
11	14.6	70676.4	0.0	0.0	0.0	0.0	10601.5	0.0	0.0
12	11.6	25436.7	0.0	0.0	0.0	0.0	3815.5	0.0	0.0
13	2.3	924.3	0.0	0.0	0.0	0.0	138.7	0.0	0.0

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.44	195.93
2	172.42	195.06
3	197.38	196.53
4	222.09	200.33
5	246.33	206.42
6	269.91	214.75
7	292.59	225.25
8	314.20	237.82
9	334.54	252.36
10	353.43	268.73
11	370.71	286.80
12	386.22	306.41
13	394.39	319.00

Circle Center At X = 169.2 ; Y = 462.2 and Radius, 267.1

*** 1.677 ***

1

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.44	195.93
2	172.43	196.40
3	197.27	199.21
4	221.75	204.32
5	245.63	211.70
6	268.72	221.28
7	290.82	232.97
8	311.73	246.68
9	331.26	262.28
10	349.25	279.64
11	365.54	298.60
12	379.99	319.00

Circle Center At X = 154.9 ; Y = 463.1 and Radius, 267.3

*** 1.685 ***

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	141.03	193.75
2	165.81	190.50
3	190.81	189.95
4	215.71	192.13
5	240.24	196.99
6	264.09	204.48
7	286.98	214.52
8	308.65	226.98
9	328.85	241.72
10	347.32	258.57
11	363.86	277.32
12	378.26	297.75
13	390.01	319.00

Circle Center At X = 183.3 ; Y = 419.9 and Radius, 230.1

*** 1.685 ***

1

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	128.21	189.82
2	153.18	188.76
3	178.16	189.78
4	202.97	192.86
5	227.44	197.99
6	251.40	205.13
7	274.68	214.24
8	297.13	225.24
9	318.59	238.07
10	338.90	252.64
11	357.95	268.84
12	375.58	286.56
13	391.68	305.68

14	401.12	319.00

Circle Center At X = 153.6 ; Y = 489.1 and Radius, 300.3

*** 1.686 ***

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	160.26	200.29
2	185.26	200.00
3	210.18	202.00
4	234.81	206.26
5	258.95	212.75
6	282.40	221.42
7	304.96	232.19
8	326.45	244.97
9	346.68	259.66
10	365.48	276.13
11	382.70	294.26
12	398.20	313.87
13	401.54	319.00

Circle Center At X = 175.9 ; Y = 473.6 and Radius, 273.7

*** 1.688 ***

1

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	115.39	188.54
2	140.36	187.36
3	165.34	188.29
4	190.15	191.35
5	214.62	196.49
6	238.56	203.68
7	261.81	212.88
8	284.19	224.02
9	305.55	237.01
10	325.73	251.77
11	344.59	268.18
12	361.99	286.13

13	377.81	305.49
14	387.05	319.00

Circle Center At X = 141.9 ; Y = 481.3 and Radius, 294.0

*** 1.689 ***

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.44	195.93
2	172.42	194.91
3	197.39	196.10
4	222.16	199.50
5	246.53	205.06
6	270.31	212.76
7	293.32	222.53
8	315.38	234.30
9	336.32	247.97
10	355.96	263.43
11	374.16	280.57
12	390.78	299.24
13	405.45	319.00

Circle Center At X = 171.4 ; Y = 477.7 and Radius, 282.7

*** 1.691 ***

1

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	179.49	206.83
2	204.47	205.83
3	229.30	208.71
4	253.39	215.40
5	276.15	225.75
6	297.03	239.49
7	315.54	256.30
8	331.22	275.77
9	343.70	297.43
10	351.99	319.00

Circle Center At X = 198.4 ; Y = 366.4 and Radius, 160.7

*** 1.693 ***

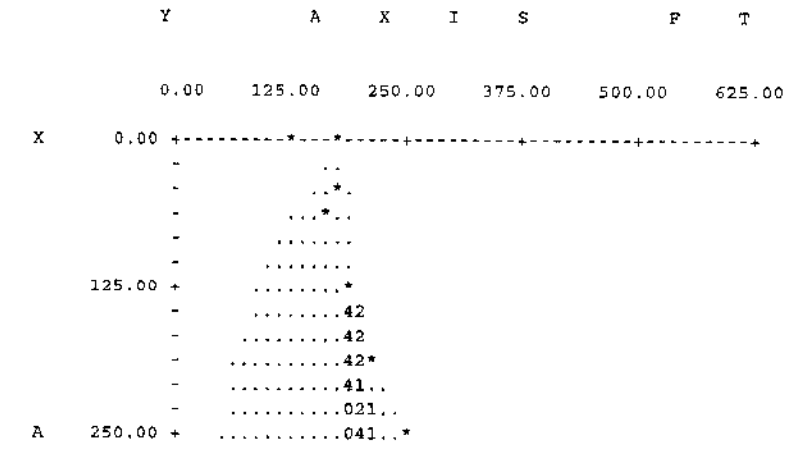
Failure Surface Specified By 15 Coordinate Points

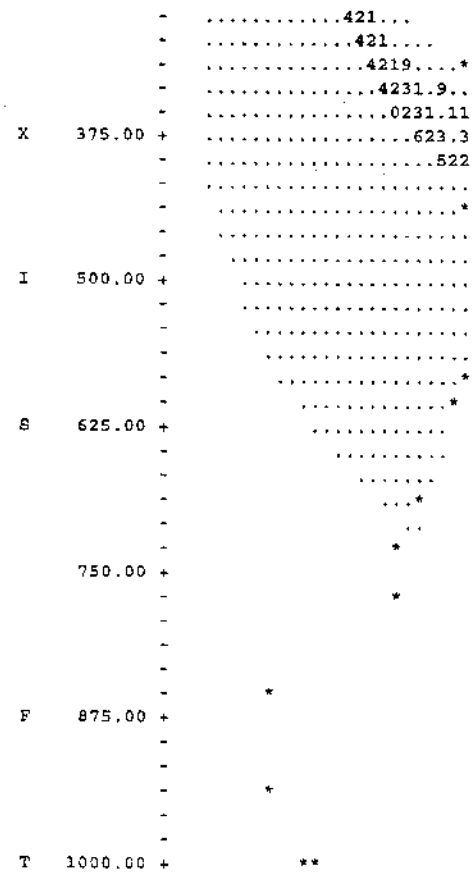
Point No.	X-Surf (ft)	Y-Surf (ft)
1	121.80	189.18
2	146.46	185.08
3	171.40	183.43
4	196.39	184.24
5	221.17	187.50
6	245.52	193.19
7	269.18	201.25
8	291.94	211.60
9	313.57	224.13
10	333.86	238.74
11	352.62	255.27
12	369.65	273.57
13	384.81	293.45
14	397.93	314.73
15	400.01	319.00

Circle Center At X = 175.7 ; Y = 437.1 and Radius, 253.7

*** 1.694 ***

1




X
375.00
I
500.00
S
625.00
750.00
F
875.00
T
1000.00

Mountain Gate, 03-0381-001, X-Sec:H-H' Right

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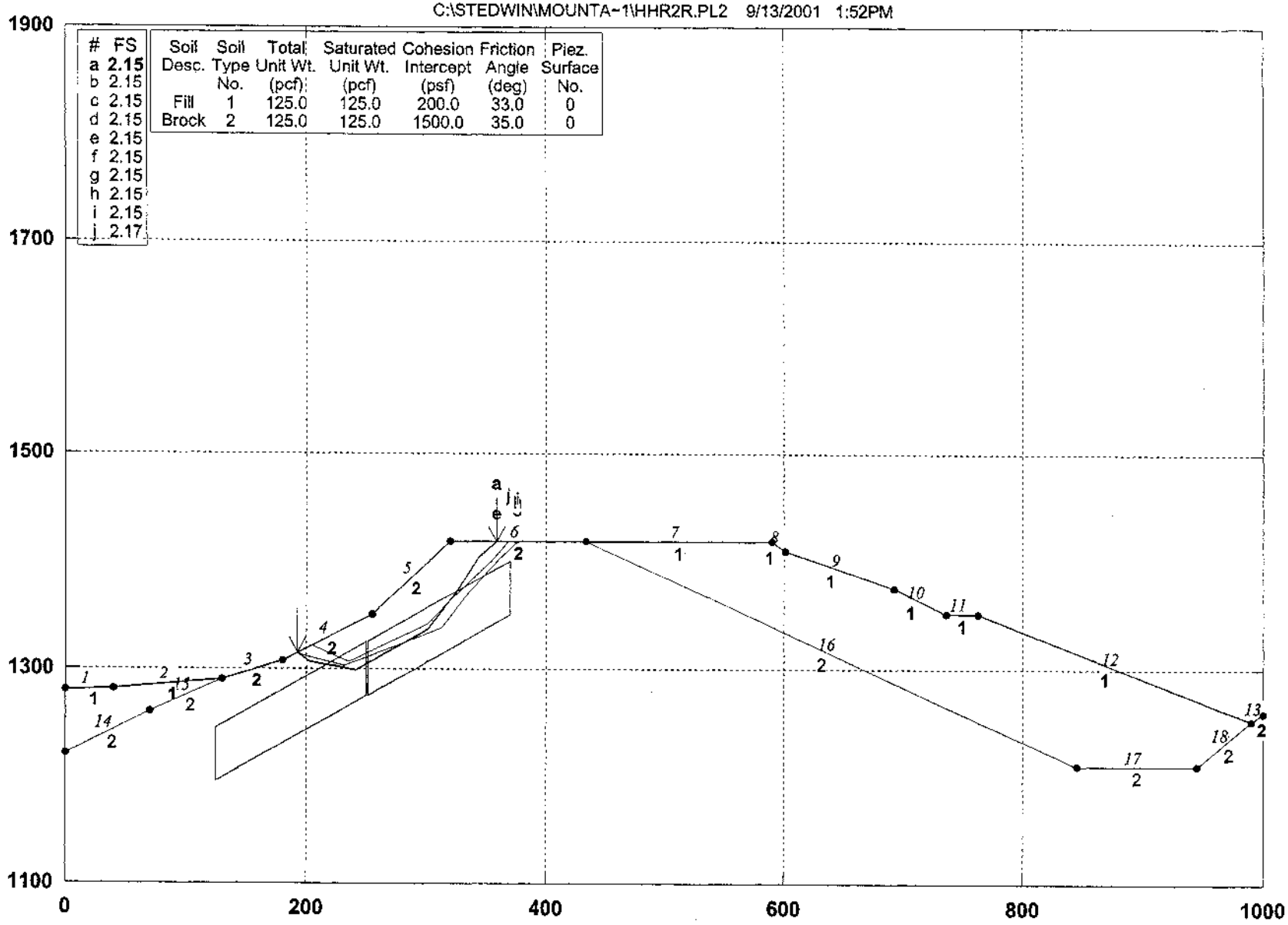


#	FS
a	2.15
b	2.15
c	2.15
d	2.15
e	2.15
f	2.15
g	2.15
h	2.15
i	2.15
j	2.17

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Brock	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=2.15

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-29

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 1:52PM
Run By:
Input Data Filename: C:hhr2r.
Output Filename: C:hhr2r.OUT
Unit System: English

Plotted Output Filename: C:hhr2r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H' Right

BOUNDARY COORDINATES

13 Top Boundaries
18 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	180.00	40.00	181.00	1
2	40.00	181.00	130.00	190.00	1
3	130.00	190.00	180.00	207.00	2
4	180.00	207.00	255.00	250.00	2
5	255.00	250.00	320.00	319.00	2
6	320.00	319.00	434.00	319.00	2
7	434.00	319.00	590.00	319.00	1
8	590.00	319.00	601.00	310.00	1
9	601.00	310.00	692.00	275.00	1
10	692.00	275.00	736.00	251.00	1
11	736.00	251.00	762.00	251.00	1
12	762.00	251.00	990.00	153.00	1
13	990.00	153.00	1000.00	160.00	2
14	0.00	120.00	70.00	160.00	2
15	70.00	160.00	130.00	190.00	2
16	434.00	319.00	845.00	110.00	2
17	845.00	110.00	945.00	110.00	2

18	945.00	110.00	990.00	153.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	125.00	120.00	250.00	200.00	50.00
2	251.00	200.00	370.00	275.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 7 Coordinate Points

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

1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28
7	358.92	319.00

*** 2.148 ***

Individual data on the 8 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	9.2	7570.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	39.2	139242.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	13.6	73474.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	46.3	307689.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	18.7	139575.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	4.2	28338.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	20.1	82885.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	14.6	14325.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28
7	358.92	319.00

*** 2.148 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28
7	358.92	319.00

*** 2.148 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28
7	358.92	319.00

*** 2.148 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28

7	358.92	319.00

*** 2.148 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 2.155 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 2.155 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07

3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 2.155 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 2.155 ***

Failure Surface Specified By 6 Coordinate Points

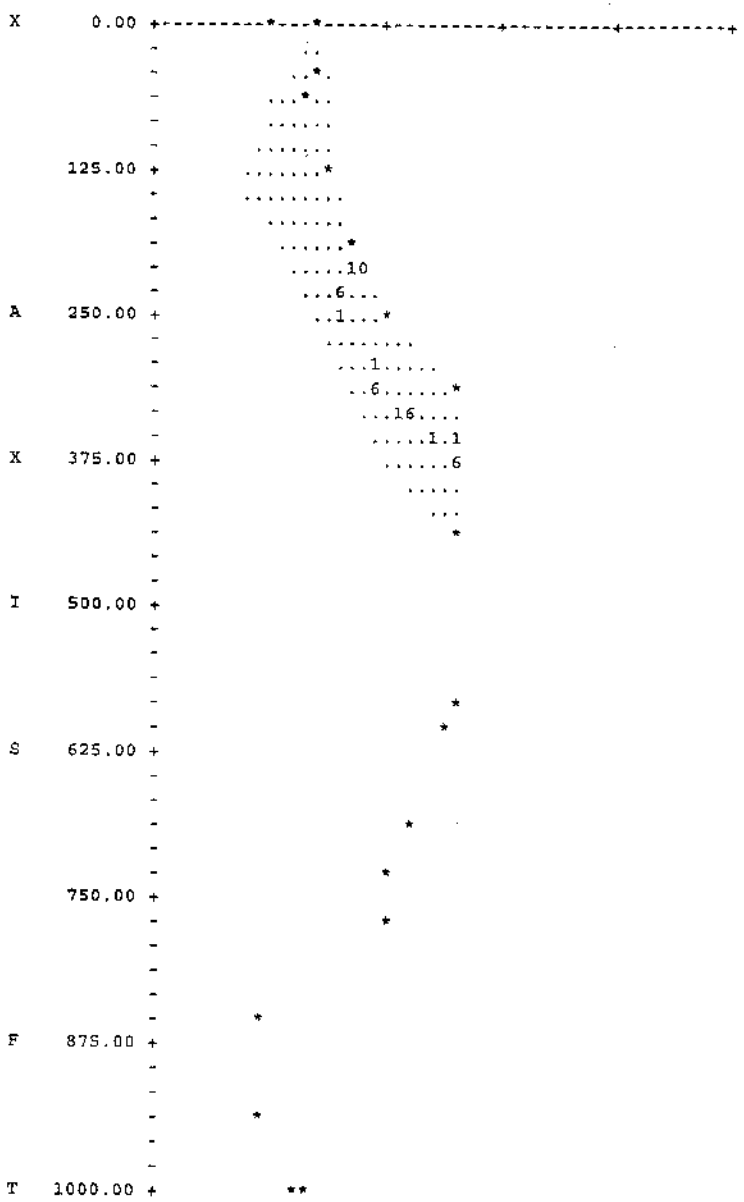
Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 2.168 ***

1

Y A X I S F T

0.00 125.00 250.00 375.00 500.00 625.00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I
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S
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750.00
F
875.00
T
1000.00

Mountain Gate, 03-0381-001, X-Sec:H-H' Right, Pseudostatic

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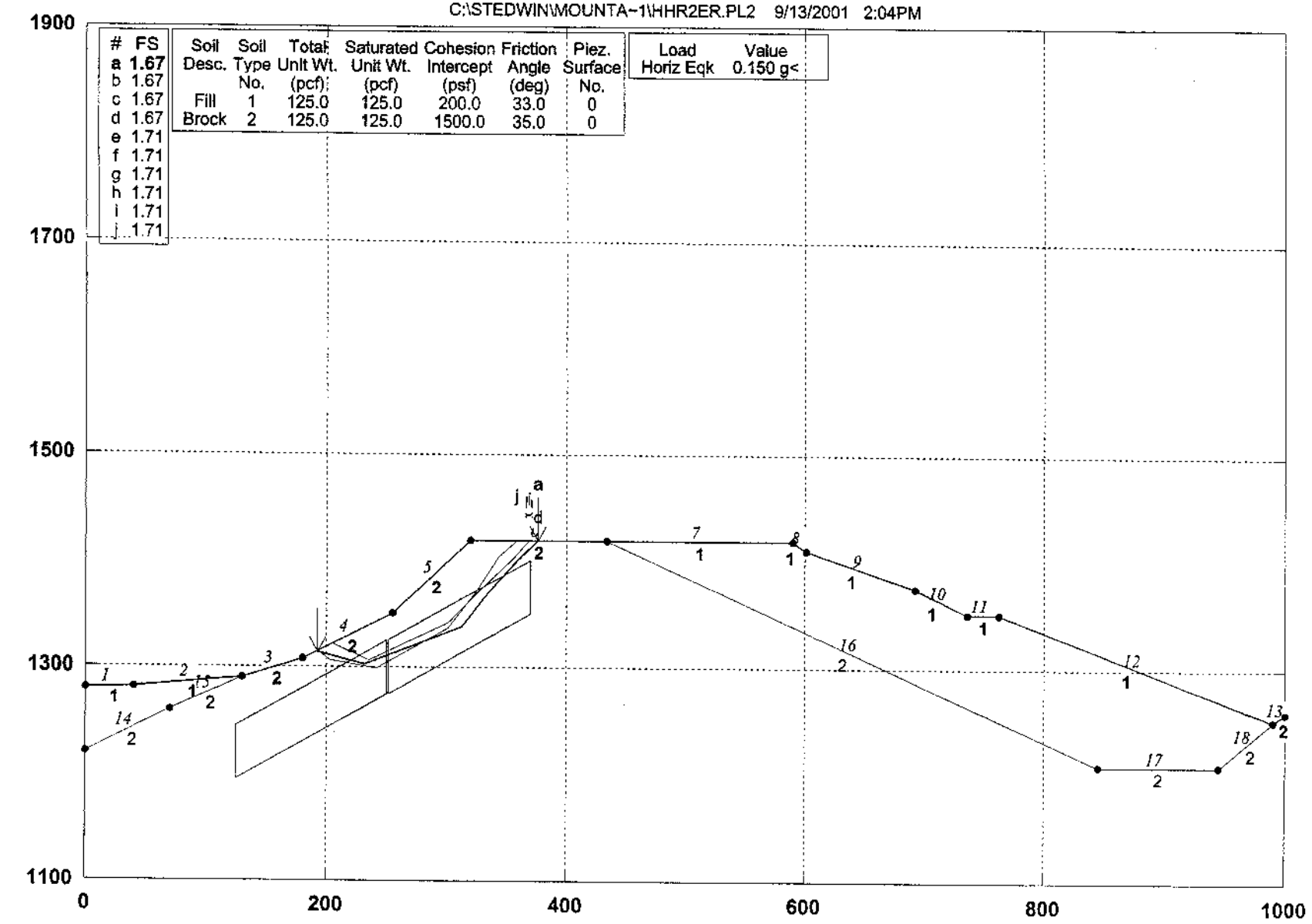


GSTABL7 FSmin=1.67

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-30

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 2:04PM
Run By:
Input Data Filename: C:hhr2er.
Output Filename: C:hhr2er.OUT
Unit System: English

Plotted Output Filename: C:hhr2er.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:H-H' Right, Pseudostatic

BOUNDARY COORDINATES

13 Top Boundaries
18 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	180.00	40.00	181.00	1
2	40.00	181.00	130.00	190.00	1
3	130.00	190.00	180.00	207.00	2
4	180.00	207.00	255.00	250.00	2
5	255.00	250.00	320.00	319.00	2
6	320.00	319.00	434.00	319.00	2
7	434.00	319.00	590.00	319.00	1
8	590.00	319.00	601.00	310.00	1
9	601.00	310.00	692.00	275.00	1
10	692.00	275.00	736.00	251.00	1
11	736.00	251.00	762.00	251.00	1
12	762.00	251.00	990.00	153.00	1
13	990.00	153.00	1000.00	160.00	2
14	0.00	120.00	70.00	160.00	2
15	70.00	160.00	130.00	190.00	2
16	434.00	319.00	845.00	110.00	2
17	845.00	110.00	945.00	110.00	2

18	945.00	110.00	990.00	153.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	125.00	120.00	250.00	200.00	50.00
2	251.00	200.00	370.00	275.00	50.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 1.674 ***

Individual data on the 8 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.1	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2	38.2	81386.4	0.0	0.0	0.0	0.0	12208.0	0.0	0.0
3	24.3	108669.6	0.0	0.0	0.0	0.0	16300.4	0.0	0.0
4	57.8	403491.8	0.0	0.0	0.0	0.0	60523.8	0.0	0.0
5	7.2	65914.1	0.0	0.0	0.0	0.0	9887.1	0.0	0.0
6	15.5	116801.3	0.0	0.0	0.0	0.0	17520.2	0.0	0.0
7	24.3	100475.4	0.0	0.0	0.0	0.0	15071.3	0.0	0.0
8	16.1	17357.3	0.0	0.0	0.0	0.0	2603.6	0.0	0.0

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13

2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 1.674 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 1.674 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	192.43	214.13
2	192.55	214.07
3	230.71	202.06
4	312.76	237.10
5	335.52	270.00
6	359.79	301.79
7	375.93	319.00

*** 1.674 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 1.708 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 1.708 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 1.708 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 1.708 ***

1

Failure Surface Specified By 6 Coordinate Points

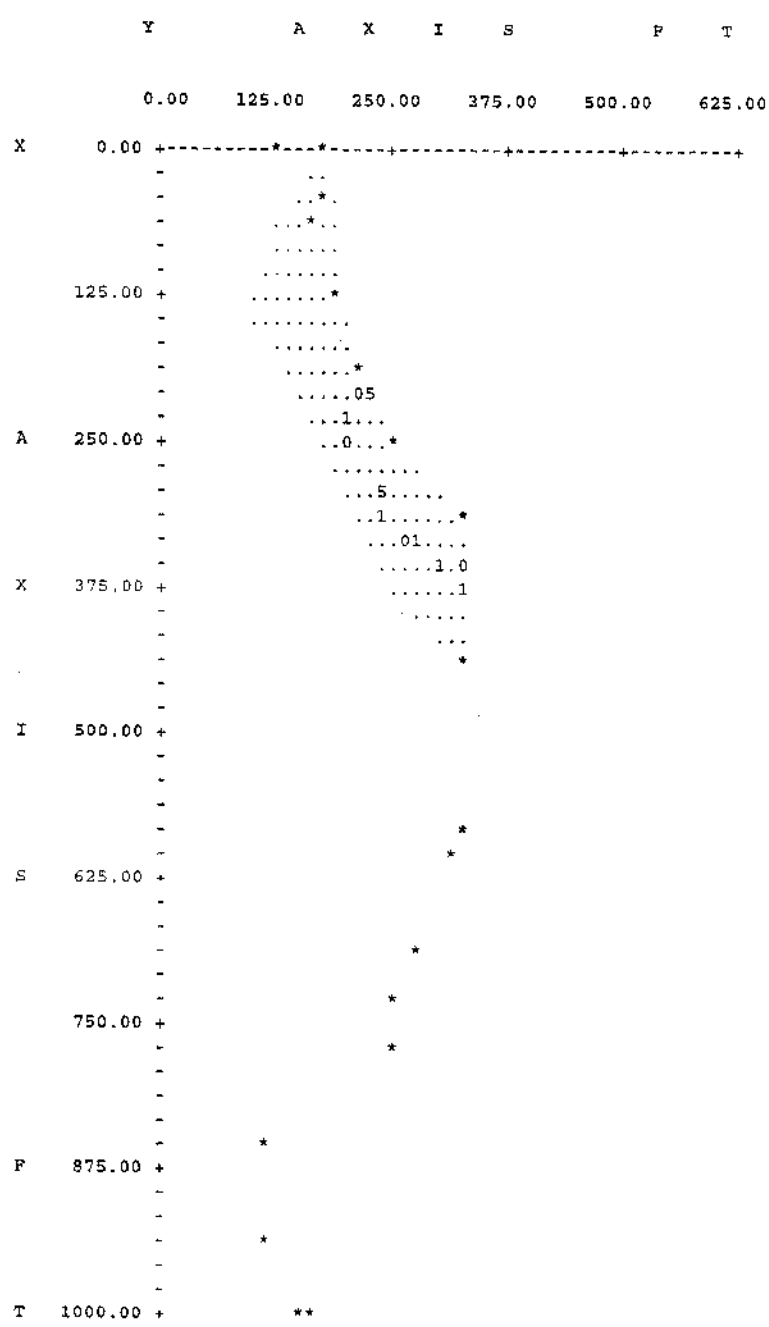
Point No.	X-Surf (ft)	Y-Surf (ft)
1	204.42	221.00
2	235.28	206.14
3	301.78	241.29
4	327.67	271.78
5	355.38	300.63
6	368.89	319.00

*** 1.708 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	193.04	214.48
2	202.21	206.52
3	241.42	198.61
4	301.34	235.90
5	324.25	268.69
6	344.33	303.28
7	358.92	319.00

*** 1.711 ***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125.00
A 250.00
X 375.00
I 500.00
S 625.00
750.00
F 875.00
T 1000.00

Mountain Gate, 03-0381-001, X-Sec:I-I'

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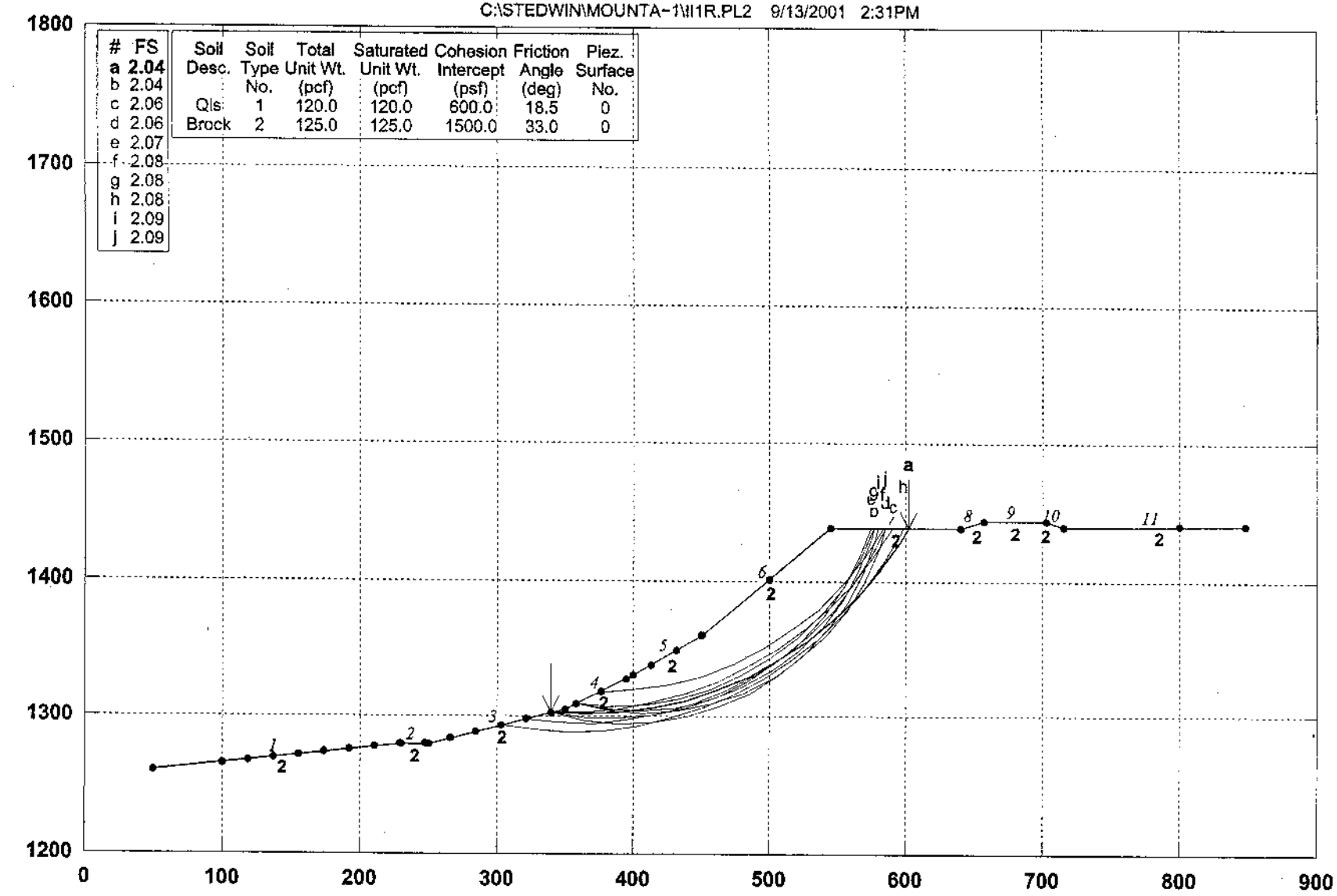

#	FS
a	**2.04**
b	2.04
c	2.06
d	2.06
e	2.07
f	2.08
g	2.08
h	2.08
i	2.09
j	2.09

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	600.0	18.5	0
Brock	2	125.0	125.0	1500.0	33.0	0

GSTABL7 FSmin=2.04

Safety Factors Are Calculated By The Modified Bishop Method

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Figure E-31

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 2:31PM
Run By:
Input Data Filename: C:iilr.
Output Filename: C:iilr.OUT
Unit System: English

Plotted Output Filename: C:iilr.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:I-I'

BOUNDARY COORDINATES

11 Top Boundaries
11 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	60.00	230.00	80.00	2
2	230.00	80.00	250.00	80.00	2
3	250.00	80.00	350.00	105.00	2
4	350.00	105.00	400.00	130.00	2
5	400.00	130.00	450.00	160.00	2
6	450.00	160.00	545.00	238.00	2
7	545.00	238.00	640.00	239.00	2
8	640.00	239.00	657.00	244.00	2
9	657.00	244.00	703.00	244.00	2
10	703.00	244.00	716.00	240.00	2
11	716.00	240.00	848.00	241.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	33.0	0.00	0.0	0

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced Along The Ground Surface Between X = 100.00(ft)
and X = 450.00(ft)

Each Surface Terminates Between X = 500.00(ft)
and X = 800.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	364.45	101.34
3	389.42	102.58
4	414.18	106.06
5	438.52	111.77

6	462.24	119.66
7	485.15	129.66
8	507.07	141.69
9	527.81	155.65
10	547.20	171.43
11	565.08	188.90
12	581.32	207.91
13	595.76	228.31
14	601.73	238.60

Circle Center At X = 363.5 ; Y = 376.7 and Radius, 275.4

*** 2.042 ***

Individual data on the 17 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	10.5	2015.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	14.5	12600.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	25.0	51530.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	10.6	31777.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	14.2	51730.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	24.3	112232.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	11.5	61536.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	12.2	72521.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	22.9	156939.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	21.9	170345.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	20.7	172898.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	17.2	146773.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	2.2	18537.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	17.9	129559.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	16.2	80943.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	14.4	36742.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

17	6.0	3809.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	357.90	108.95
2	382.84	107.24
3	407.80	108.55
4	432.43	112.86
5	456.35	120.11
6	479.23	130.20
7	500.72	142.97
8	520.52	158.24
9	538.33	175.78
10	553.89	195.35
11	566.98	216.64
12	576.93	238.34

Circle Center At X = 384.5 ; Y = 314.0 and Radius, 286.8

*** 2.044 ***

1

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	364.47	102.62
3	389.35	105.09
4	413.91	109.75
5	437.96	116.57
6	461.32	125.49
7	483.79	136.45
8	505.20	149.36
9	525.38	164.11
10	544.18	180.59
11	561.44	198.68
12	577.03	218.22
13	590.44	238.48

Circle Center At X = 349.1 ; Y = 384.0 and Radius, 281.8

*** 2.056 ***

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	321.05	97.76
2	345.90	94.99
3	370.90	94.73
4	395.79	97.00
5	420.33	101.77
6	444.27	108.99
7	467.35	118.59
8	489.35	130.47
9	510.03	144.51
10	529.20	160.56
11	546.64	178.47
12	562.19	198.05
13	575.68	219.10
14	585.47	238.43

Circle Center At X = 361.0 ; Y = 341.6 and Radius, 247.1

*** 2.062 ***

1

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	364.20	98.69
3	389.19	98.08
4	414.07	100.55
5	438.46	106.06
6	461.98	114.53
7	484.27	125.84
8	505.01	139.80
9	523.87	156.21
10	540.57	174.82
11	554.85	195.34
12	566.50	217.46
13	574.37	238.31

Circle Center At X = 381.6 ; Y = 300.6 and Radius, 202.7

*** 2.065 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	376.32	118.16
2	401.28	119.44
3	425.98	123.33
4	450.13	129.80
5	473.46	138.77
6	495.73	150.14
7	516.67	163.79
8	536.07	179.56
9	553.70	197.28
10	569.38	216.76
11	582.92	237.77
12	583.24	238.40

Circle Center At X = 376.7 ; Y = 355.7 and Radius, 237.5

*** 2.075 ***

1

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	357.90	108.95
2	382.52	104.63
3	407.50	103.73
4	432.38	106.27
5	456.67	112.18
6	479.92	121.37
7	501.69	133.66
8	521.57	148.82
9	539.19	166.55
10	554.21	186.54
11	566.35	208.39
12	575.38	231.70
13	576.95	238.34

Circle Center At X = 401.5 ; Y = 285.7 and Radius, 182.0

*** 2.077 ***

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	302.63	93.16
2	327.38	89.60
3	352.34	88.31
4	377.32	89.31
5	402.11	92.59
6	426.49	98.12
7	450.26	105.85
8	473.23	115.71
9	495.21	127.64
10	516.00	141.52
11	535.43	157.25
12	553.35	174.68
13	569.61	193.67
14	584.06	214.08
15	596.58	235.71
16	597.90	238.56

Circle Center At X = 354.0 ; Y = 361.4 and Radius, 273.2

*** 2.081 ***

1

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	363.83	96.72
3	388.71	94.31
4	413.70	95.17
5	438.36	99.28
6	462.27	106.57
7	485.02	116.93
8	506.23	130.17
9	525.53	146.06
10	542.58	164.34
11	557.10	184.69
12	568.84	206.76
13	577.60	230.18
14	579.49	238.36

Circle Center At X = 394.7 ; Y = 284.6 and Radius, 190.4

*** 2.094 ***

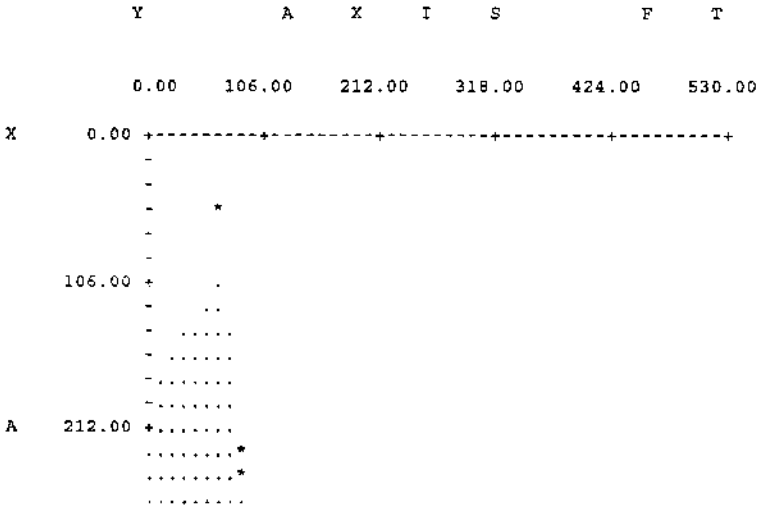
Failure Surface Specified By 13 Coordinate Points

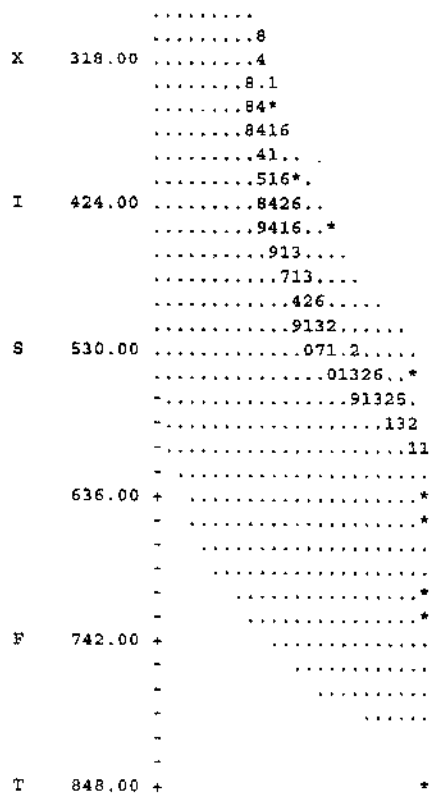
Point No.	X-Surf (ft)	Y-Surf (ft)
1	357.90	108.95
2	382.36	103.82
3	407.30	102.05
4	432.25	103.70
5	456.74	108.71
6	480.32	117.01
7	502.56	128.43
8	523.04	142.77
9	541.39	159.75
10	557.25	179.07
11	570.35	200.36
12	580.43	223.24
13	584.78	238.42

Circle Center At X = 407.7 ; Y = 285.7 and Radius, 183.6

*** 2.094 ***

1

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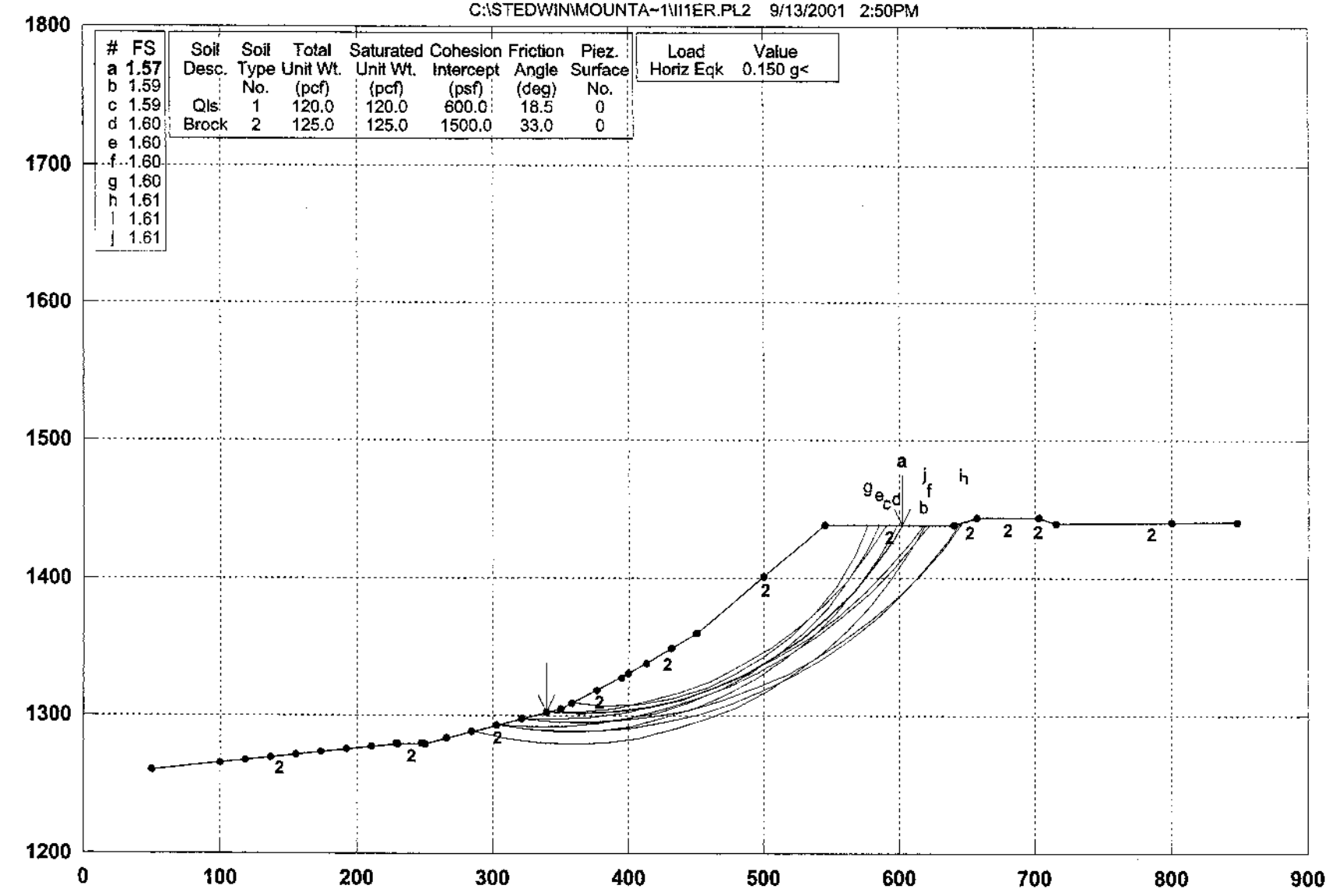
Mountain Gate, 03-0381-001, X-Sec:I-I' Pseudostatic

C:\STEDWIN\MOUNTA~1\II1ER.PL2 9/13/2001 2:50PM



#	FS
a	1.57
b	1.59
c	1.59
d	1.60
e	1.60
f	1.60
g	1.60
h	1.61
i	1.61
j	1.61

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	600.0	18.5	0
Brock	2	125.0	125.0	1500.0	33.0	0

Load	Value
Horiz Eqk	0.150 g<

GSTABL7 FSmin=1.57

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-32

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 2:50PM
Run By:
Input Data Filename: C:iiler.
Output Filename: C:iiler.OUT
Unit System: English

Plotted Output Filename: C:iiler.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:I-I'
Pseudostatic

BOUNDARY COORDINATES

11 Top Boundaries
11 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	60.00	230.00	80.00	2
2	230.00	80.00	250.00	80.00	2
3	250.00	80.00	350.00	105.00	2
4	350.00	105.00	400.00	130.00	2
5	400.00	130.00	450.00	160.00	2
6	450.00	160.00	545.00	238.00	2
7	545.00	238.00	640.00	239.00	2
8	640.00	239.00	657.00	244.00	2
9	657.00	244.00	703.00	244.00	2
10	703.00	244.00	716.00	240.00	2
11	716.00	240.00	848.00	241.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	33.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced
Along The Ground Surface Between X = 100.00(ft)
and X = 450.00(ft)

Each Surface Terminates Between X = 500.00(ft)
and X = 800.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	364.45	101.34
3	389.42	102.58
4	414.18	106.06
5	438.52	111.77
6	462.24	119.66
7	485.15	129.66
8	507.07	141.69
9	527.81	155.65
10	547.20	171.43
11	565.08	188.90
12	581.32	207.91
13	595.76	228.31
14	601.73	238.60

Circle Center At X = 363.5 ; Y = 376.7 and Radius, 275.4

*** 1.570 ***

Individual data on the 17 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	10.5	2015.9	0.0	0.0	0.0	0.0	302.4	0.0	0.0
2	14.5	12600.8	0.0	0.0	0.0	0.0	1890.1	0.0	0.0
3	25.0	51530.9	0.0	0.0	0.0	0.0	7729.6	0.0	0.0
4	10.6	31777.7	0.0	0.0	0.0	0.0	4766.7	0.0	0.0
5	14.2	51730.0	0.0	0.0	0.0	0.0	7759.5	0.0	0.0
6	24.3	112232.7	0.0	0.0	0.0	0.0	16834.9	0.0	0.0
7	11.5	61536.6	0.0	0.0	0.0	0.0	9230.5	0.0	0.0
8	12.2	72521.5	0.0	0.0	0.0	0.0	10878.2	0.0	0.0
9	22.9	156939.9	0.0	0.0	0.0	0.0	23541.0	0.0	0.0
10	21.9	170345.9	0.0	0.0	0.0	0.0	25551.9	0.0	0.0
11	20.7	172898.4	0.0	0.0	0.0	0.0	25934.8	0.0	0.0

12	17.2	146773.1	0.0	0.0	0.0	0.0	22016.0	0.0	0.0
13	2.2	18537.3	0.0	0.0	0.0	0.0	2780.6	0.0	0.0
14	17.9	129559.7	0.0	0.0	0.0	0.0	19434.0	0.0	0.0
15	16.2	80943.8	0.0	0.0	0.0	0.0	12141.6	0.0	0.0
16	14.4	36742.1	0.0	0.0	0.0	0.0	5511.3	0.0	0.0
17	6.0	3809.7	0.0	0.0	0.0	0.0	571.4	0.0	0.0

Failure Surface Specified By 15 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	321.05	97.76
2	346.05	97.29
3	371.01	98.64
4	395.81	101.79
5	420.32	106.74
6	444.40	113.45
7	467.93	121.90
8	490.79	132.03
9	512.85	143.79
10	533.99	157.13
11	554.12	171.96
12	573.11	188.22
13	590.87	205.81
14	607.31	224.65
15	617.93	238.77

Circle Center At X = 340.0 ; Y = 441.3 and Radius, 344.1

*** 1.590 ***

1

Failure Surface Specified By 13 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	339.47	102.37
2	364.47	102.62
3	389.35	105.09
4	413.91	109.75
5	437.96	116.57
6	461.32	125.49

7	483.79	136.45
8	505.20	149.36
9	525.38	164.11
10	544.18	180.59
11	561.44	198.68
12	577.03	218.22
13	590.44	238.48

Circle Center At X = 349.1 ; Y = 384.0 and Radius, 281.8

*** 1.590 ***

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	302.63	93.16
2	327.38	89.60
3	352.34	88.31
4	377.32	89.31
5	402.11	92.59
6	426.49	98.12
7	450.26	105.85
8	473.23	115.71
9	495.21	127.64
10	516.00	141.52
11	535.43	157.25
12	553.35	174.68
13	569.61	193.67
14	584.06	214.08
15	596.58	235.71
16	597.90	238.56

Circle Center At X = 354.0 ; Y = 361.4 and Radius, 273.2

*** 1.599 ***

1

Failure Surface Specified By 14 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	321.05	97.76
2	345.90	94.99
3	370.90	94.73

4	395.79	97.00
5	420.33	101.77
6	444.27	108.99
7	467.35	118.59
8	489.35	130.47
9	510.03	144.51
10	529.20	160.56
11	546.64	178.47
12	562.19	198.05
13	575.68	219.10
14	585.47	238.43

Circle Center At X = 361.0 ; Y = 341.6 and Radius, 247.1

*** 1.600 ***

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	302.63	93.16
2	327.60	91.99
3	352.60	92.55
4	377.49	94.85
5	402.17	98.87
6	426.50	104.59
7	450.38	111.99
8	473.69	121.03
9	496.32	131.66
10	518.16	143.83
11	539.09	157.49
12	559.03	172.57
13	577.88	189.00
14	595.54	206.70
15	611.93	225.57
16	621.90	238.81

Circle Center At X = 332.1 ; Y = 451.3 and Radius, 359.4

*** 1.602 ***

1

Failure Surface Specified By 12 Coordinate Points

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

1	357.90	108.95
2	382.84	107.24
3	407.80	108.55
4	432.43	112.86
5	456.35	120.11
6	479.23	130.20
7	500.72	142.97
8	520.52	158.24
9	538.33	175.78
10	553.89	195.35
11	566.98	216.64
12	576.93	238.34

Circle Center At X = 384.5 ; Y = 314.0 and Radius, 206.8

*** 1.602 ***

Failure Surface Specified By 16 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	321.05	97.76
2	345.95	95.49
3	370.95	95.02
4	395.91	96.36
5	420.71	99.49
6	445.23	104.40
7	469.32	111.07
8	492.87	119.46
9	515.75	129.52
10	537.85	141.21
11	559.05	154.47
12	579.24	169.21
13	598.31	185.38
14	616.16	202.88
15	632.71	221.62
16	647.67	241.26

Circle Center At X = 365.0 ; Y = 441.3 and Radius, 346.3

*** 1.611 ***

1

Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	302.63	93.16
2	327.43	89.97
3	352.39	88.58
4	377.39	88.99
5	402.29	91.22
6	426.96	95.23
7	451.28	101.02
8	475.12	108.55
9	498.35	117.79
10	520.86	128.68
11	542.51	141.16
12	563.21	155.18
13	582.84	170.66
14	601.31	187.52
15	618.50	205.67
16	634.34	225.01
17	645.29	240.56

Circle Center At X = 359.1 ; Y = 434.2 and Radius, 345.7

*** 1.612 ***

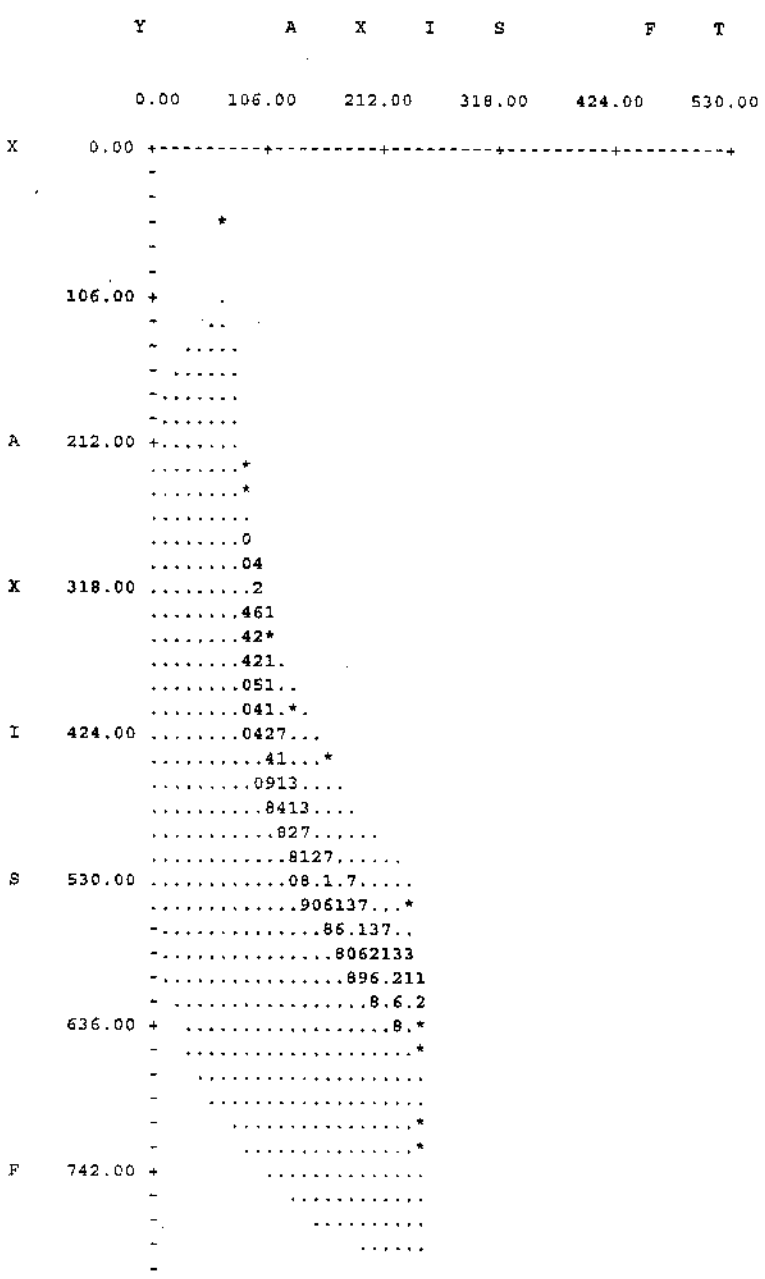
Failure Surface Specified By 17 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	284.21	88.55
2	308.69	83.49
3	333.52	80.52
4	358.50	79.64
5	383.47	80.87
6	408.25	84.20
7	432.66	89.60
8	456.52	97.04
9	479.68	106.46
10	501.96	117.80
11	523.21	130.98
12	543.27	145.90
13	562.00	162.45
14	579.27	180.53
15	594.96	199.99
16	608.96	220.71
17	619.06	238.78

Circle Center At X = 356.4 ; Y = 376.2 and Radius, 296.6

*** 1.612 ***

1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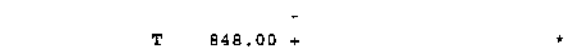
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Mountain Gate, 03-0381-001, X-Sec:I-I'

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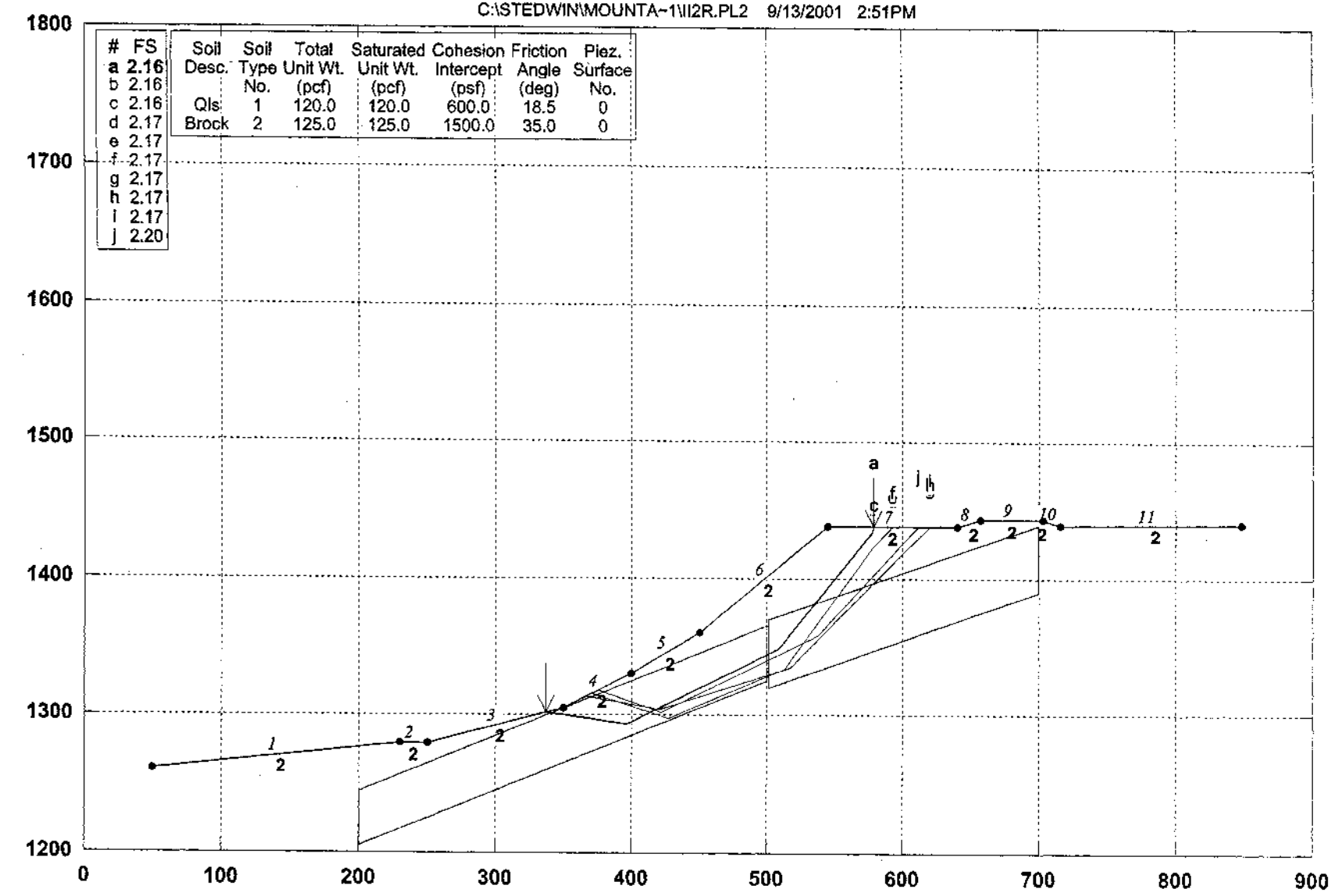


GSTABL7 FSmin=2.16

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-33

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 2:51PM
Run By:
Input Data Filename: C:ii2r.
Output Filename: C:ii2r.OUT
Unit System: English

Plotted Output Filename: C:ii2r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:I-I'

BOUNDARY COORDINATES

11 Top Boundaries
11 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	60.00	230.00	80.00	2
2	230.00	80.00	250.00	80.00	2
3	250.00	80.00	350.00	105.00	2
4	350.00	105.00	400.00	130.00	2
5	400.00	130.00	450.00	160.00	2
6	450.00	160.00	545.00	238.00	2
7	545.00	238.00	640.00	239.00	2
8	640.00	239.00	657.00	244.00	2
9	657.00	244.00	703.00	244.00	2
10	703.00	244.00	716.00	240.00	2
11	716.00	240.00	848.00	241.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 110.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	25.00	500.00	145.00	40.00
2	501.00	145.00	700.00	215.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48
3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 2.161 ***

Individual data on the 8 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	13.0	4097.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	46.3	115133.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3.7	15869.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	50.0	235351.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	59.1	373231.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	35.9	236250.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	32.6	99765.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	1.7	435.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48
3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 2.161 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48

3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 2.161 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01
5	592.40	238.50

*** 2.171 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01
5	592.40	238.50

*** 2.171 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01

5	592.40	238.50

*** 2.171 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

*** 2.175 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

*** 2.175 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

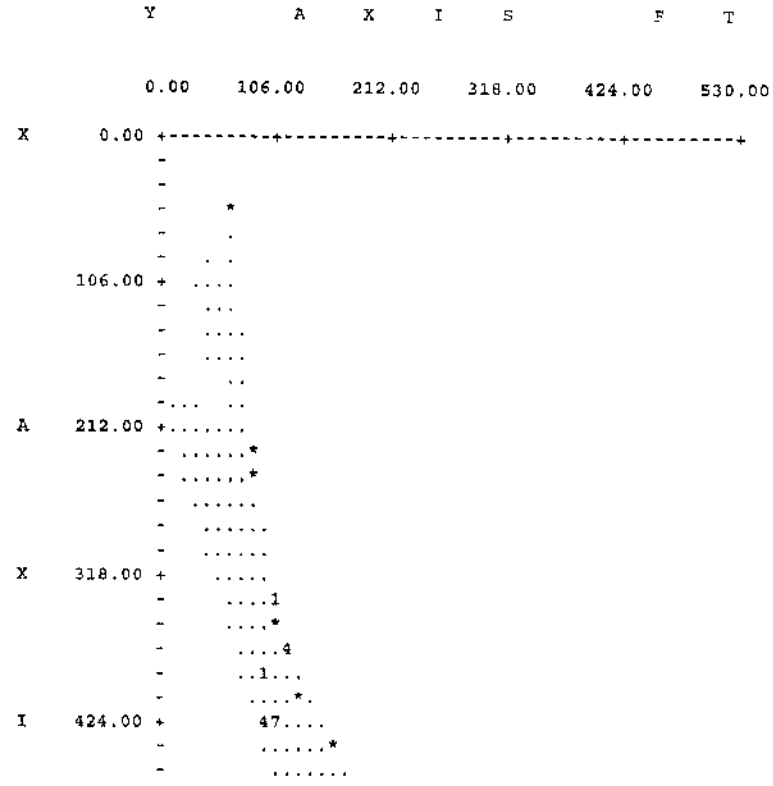
*** 2.175 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	376.15	118.07
2	422.20	101.45
3	537.52	157.51
4	611.29	238.70

*** 2.202 ***

1



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             -
             -
T    848.00  +                      *
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Mountain Gate, 03-0381-001, X-Sec:I-I' psedostatic

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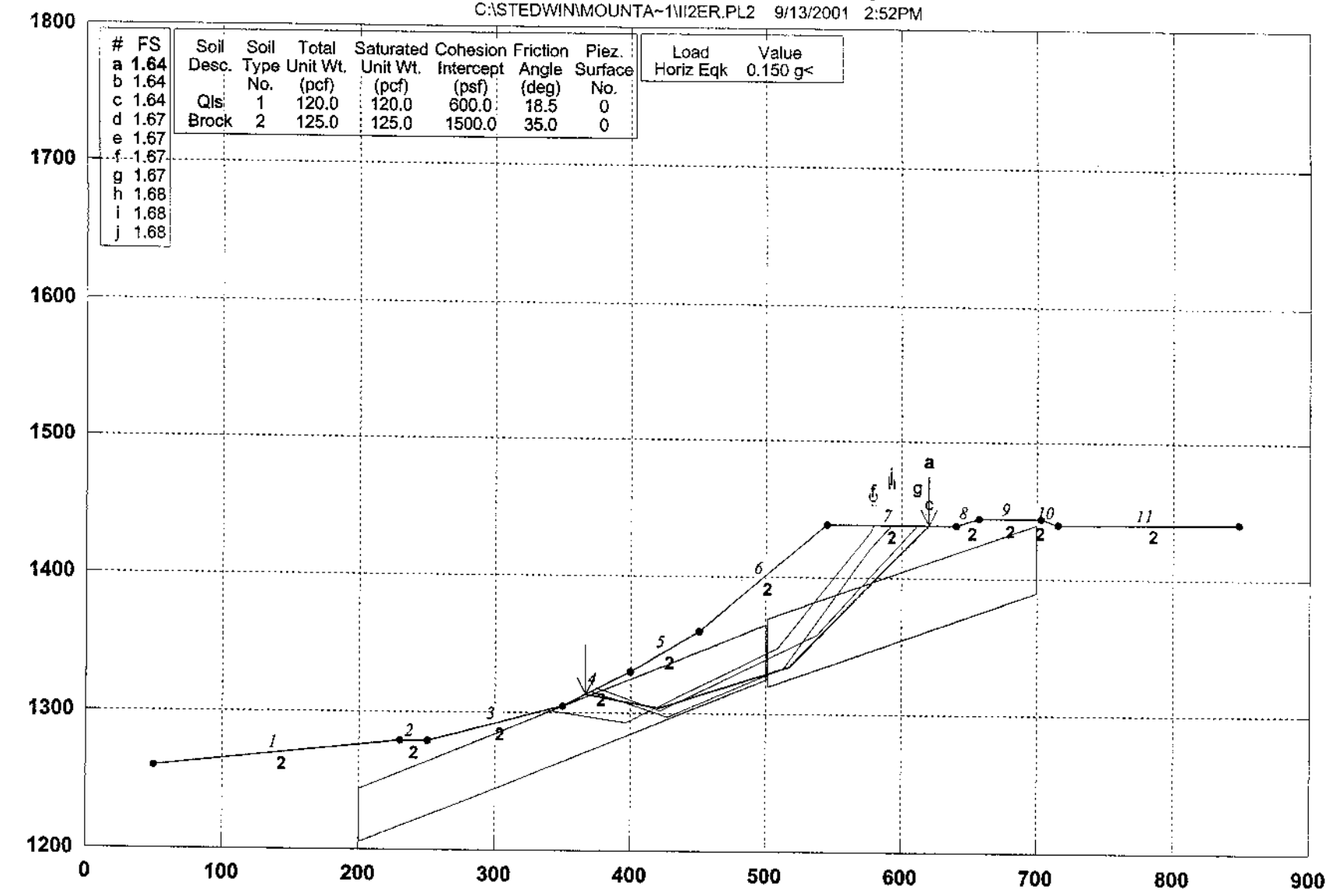


GSTABL7 FSmin=1.64

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-34

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 2:52PM
Run By:
Input Data Filename: C:ii2er.
Output Filename: C:ii2er.OUT
Unit System: English

Plotted Output Filename: C:ii2er.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:I-I' psedostatic

BOUNDARY COORDINATES

11 Top Boundaries
11 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	60.00	230.00	80.00	2
2	230.00	80.00	250.00	80.00	2
3	250.00	80.00	350.00	105.00	2
4	350.00	105.00	400.00	130.00	2
5	400.00	130.00	450.00	160.00	2
6	450.00	160.00	545.00	238.00	2
7	545.00	238.00	640.00	239.00	2
8	640.00	239.00	657.00	244.00	2
9	657.00	244.00	703.00	244.00	2
10	703.00	244.00	716.00	240.00	2
11	716.00	240.00	848.00	241.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 110.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	25.00	500.00	145.00	40.00
2	501.00	145.00	700.00	215.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

*** 1.637 ***

Individual data on the 7 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	33.6	47077.5	0.0	0.0	0.0	0.0	7061.6	0.0	0.0
2	20.3	76490.5	0.0	0.0	0.0	0.0	11473.6	0.0	0.0
3	29.7	156341.9	0.0	0.0	0.0	0.0	23451.3	0.0	0.0
4	66.8	527015.4	0.0	0.0	0.0	0.0	79052.3	0.0	0.0
5	28.2	272461.2	0.0	0.0	0.0	0.0	40869.2	0.0	0.0
6	49.6	311780.0	0.0	0.0	0.0	0.0	46767.0	0.0	0.0
7	26.0	41875.8	0.0	0.0	0.0	0.0	6281.4	0.0	0.0

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

*** 1.637 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	366.35	113.18
2	420.29	104.26
3	516.83	134.98
4	594.59	212.77
5	620.61	238.80

*** 1.637 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48
3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 1.666 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48
3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 1.666 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	337.03	101.76
2	396.34	93.48
3	509.10	148.04
4	577.57	234.14
5	579.22	238.36

*** 1.666 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	376.15	118.07
2	422.20	101.45
3	537.52	157.51
4	611.29	238.70

*** 1.670 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01
5	592.40	238.50

*** 1.678 ***

1

Failure Surface Specified By 5 Coordinate Points

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

No.	(ft)	(ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01
5	592.40	238.50

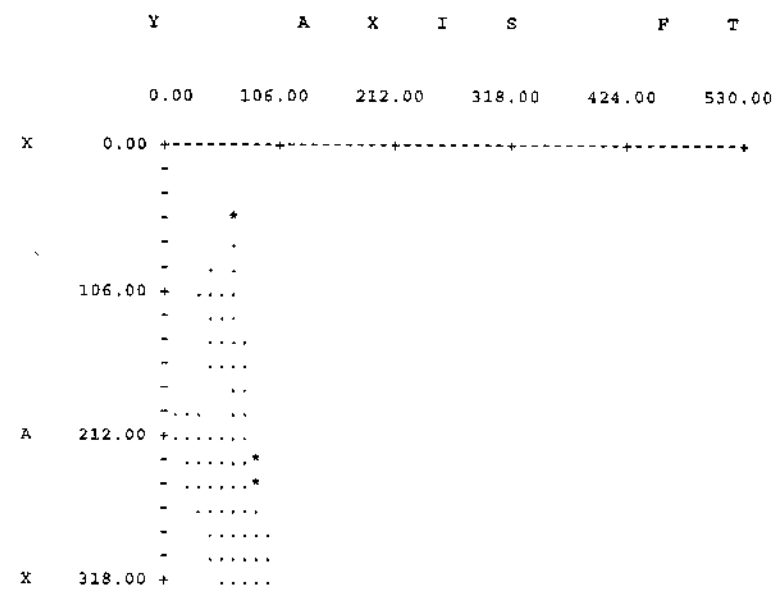
*** 1.678 ***

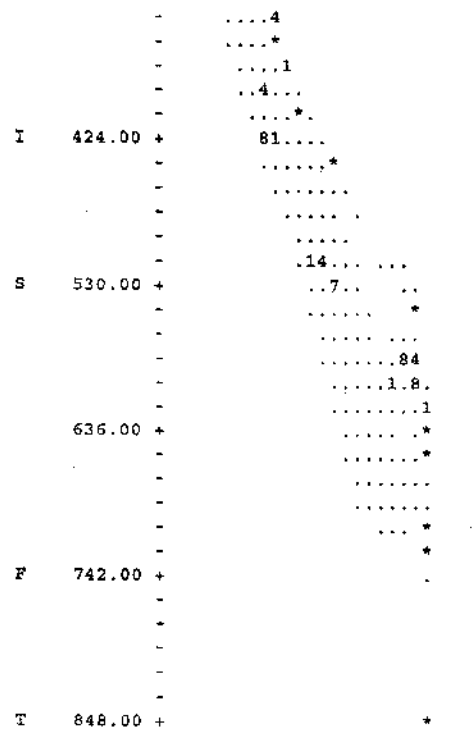
Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	371.40	115.70
2	427.03	97.38
3	513.52	133.96
4	578.10	223.01
5	592.40	238.50

*** 1.678 ***

1




I 424.00
S 530.00
636.00
F 742.00
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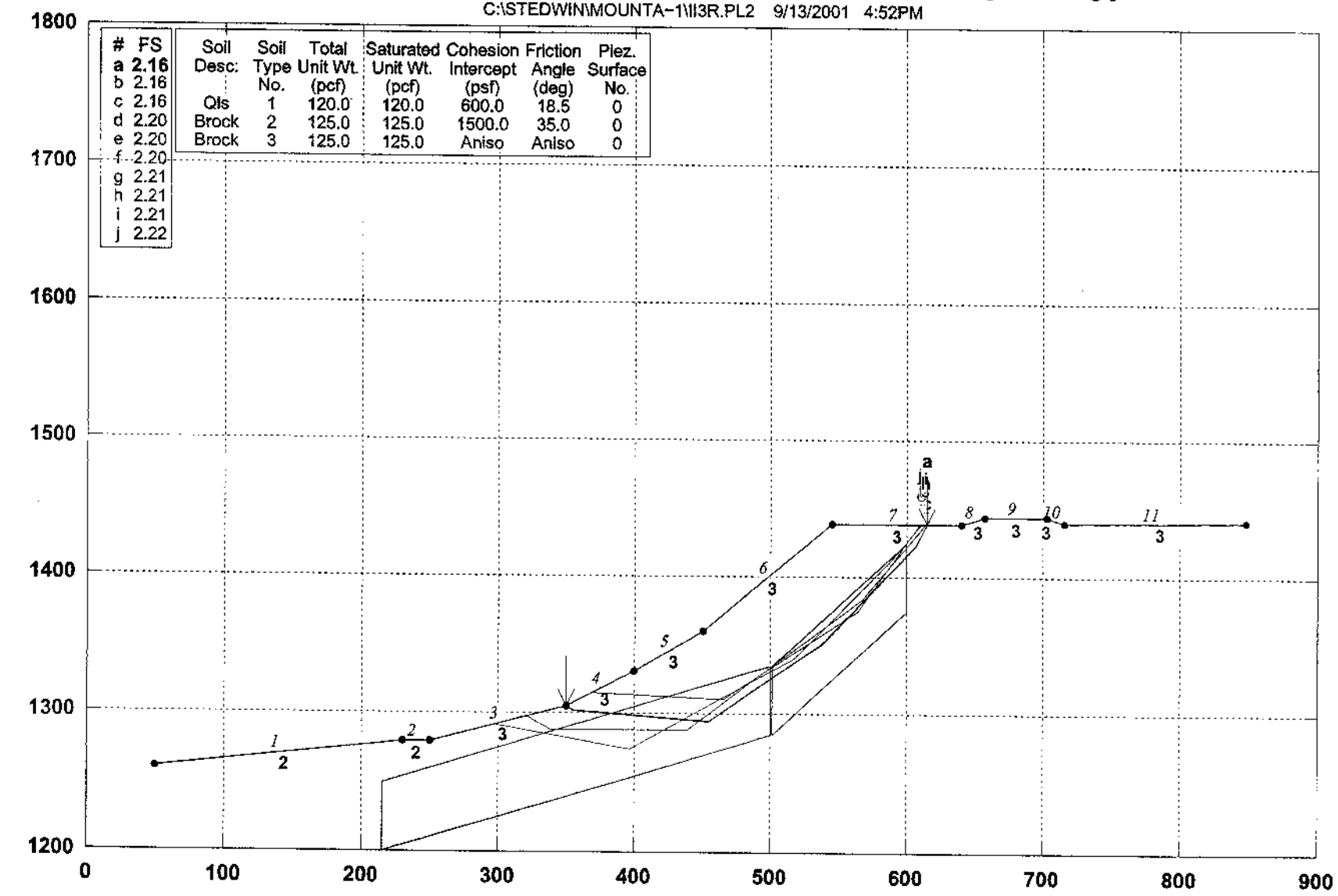
Mountain Gate, 03-0381-001, X-Sec:I-I' Assume Lower strength along joints

C:\STEDWIN\MOUNTA~1\II3R.PL2 9/13/2001 4:52PM



GSTABL7 FSmin=2.16

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-35

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 4:52PM
Run By:
Input Data Filename: C:ii3r.
Output Filename: C:ii3r.OUT
Unit System: English

Plotted Output Filename: C:ii3r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:I-I'
Assume Lower strength along joints

BOUNDARY COORDINATES

11 Top Boundaries
11 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	60.00	230.00	80.00	2
2	230.00	80.00	250.00	80.00	2
3	250.00	80.00	350.00	105.00	3
4	350.00	105.00	400.00	130.00	3
5	400.00	130.00	450.00	160.00	3
6	450.00	160.00	545.00	238.00	3
7	545.00	238.00	640.00	239.00	3
8	640.00	239.00	657.00	244.00	3
9	657.00	244.00	703.00	244.00	3
10	703.00	244.00	716.00	240.00	3
11	716.00	240.00	848.00	241.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	0.0	1500.0	35.0
2	80.0	1500.0	35.0
3	90.0	0.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	215.00	25.00	500.00	110.00	50.00
2	501.00	110.00	600.00	200.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	349.94	104.98
2	354.97	101.32
3	454.76	94.78
4	537.64	150.15
5	606.15	222.99
6	614.64	238.73

*** 2.161 ***

Individual data on the 9 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.0	1934.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	45.0	106382.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	50.0	301683.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	4.8	39836.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	82.9	781796.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7.4	74484.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	61.2	365690.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	8.5	8307.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point X-Surf Y-Surf

No.	(ft)	(ft)
1	349.94	104.98
2	354.97	101.32
3	454.76	94.78
4	537.64	150.15
5	606.15	222.99
6	614.64	238.73

*** 2.161 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	349.94	104.98
2	354.97	101.32
3	454.76	94.78
4	537.64	150.15
5	606.15	222.99
6	614.64	238.73

*** 2.161 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	297.77	91.94
2	298.42	91.33
3	396.93	74.18
4	516.97	139.82
5	587.65	210.56
6	610.57	238.69

*** 2.205 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	297.77	91.94
2	298.42	91.33
3	396.93	74.18
4	516.97	139.82
5	587.65	210.56
6	610.57	238.69

*** 2.205 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	297.77	91.94
2	298.42	91.33
3	396.93	74.18
4	516.97	139.82
5	587.65	210.56
6	610.57	238.69

*** 2.205 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	320.98	97.75
2	338.62	88.38
3	438.61	87.53
4	567.61	183.55
5	613.39	238.72

*** 2.207 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	320.98	97.75
2	338.62	88.38
3	438.61	87.53
4	567.61	183.55
5	613.39	238.72

*** 2.207 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	320.98	97.75
2	338.62	88.38
3	438.61	87.53
4	567.61	183.55
5	613.39	238.72

*** 2.207 ***

Failure Surface Specified By 4 Coordinate Points

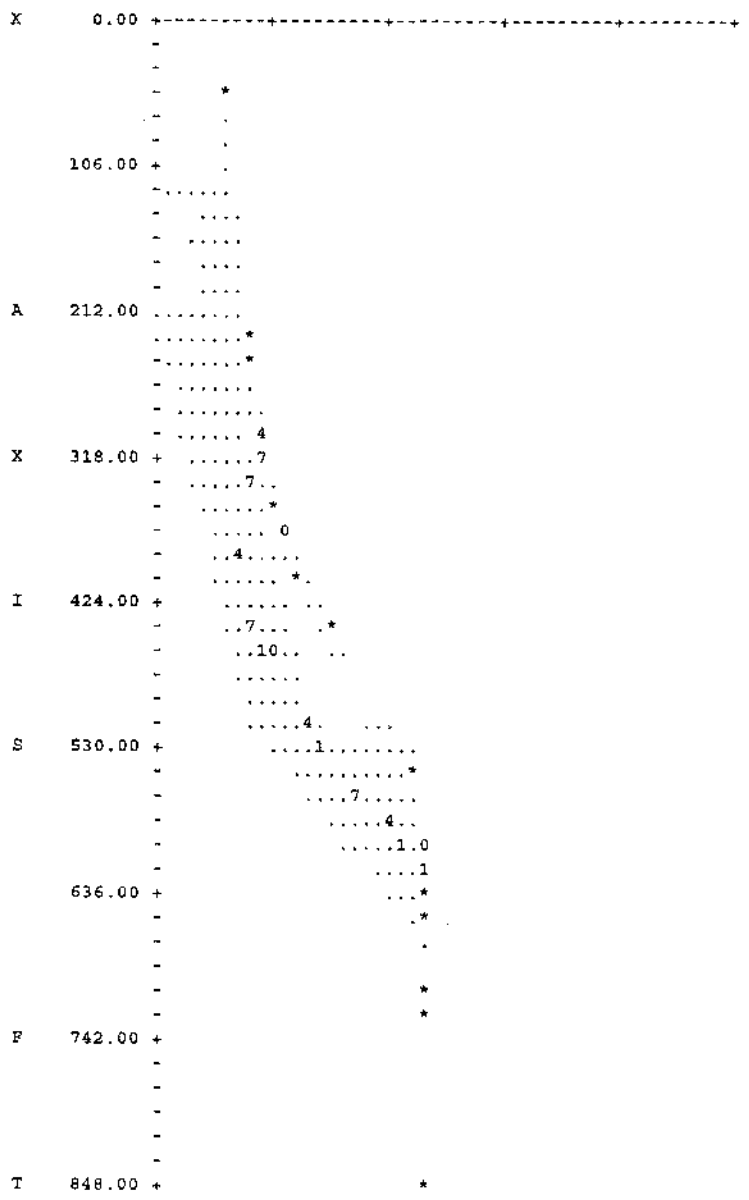
Point No.	X-Surf (ft)	Y-Surf (ft)
1	369.87	114.93
2	465.40	110.13
3	563.96	175.41
4	609.19	238.68

*** 2.216 ***

1

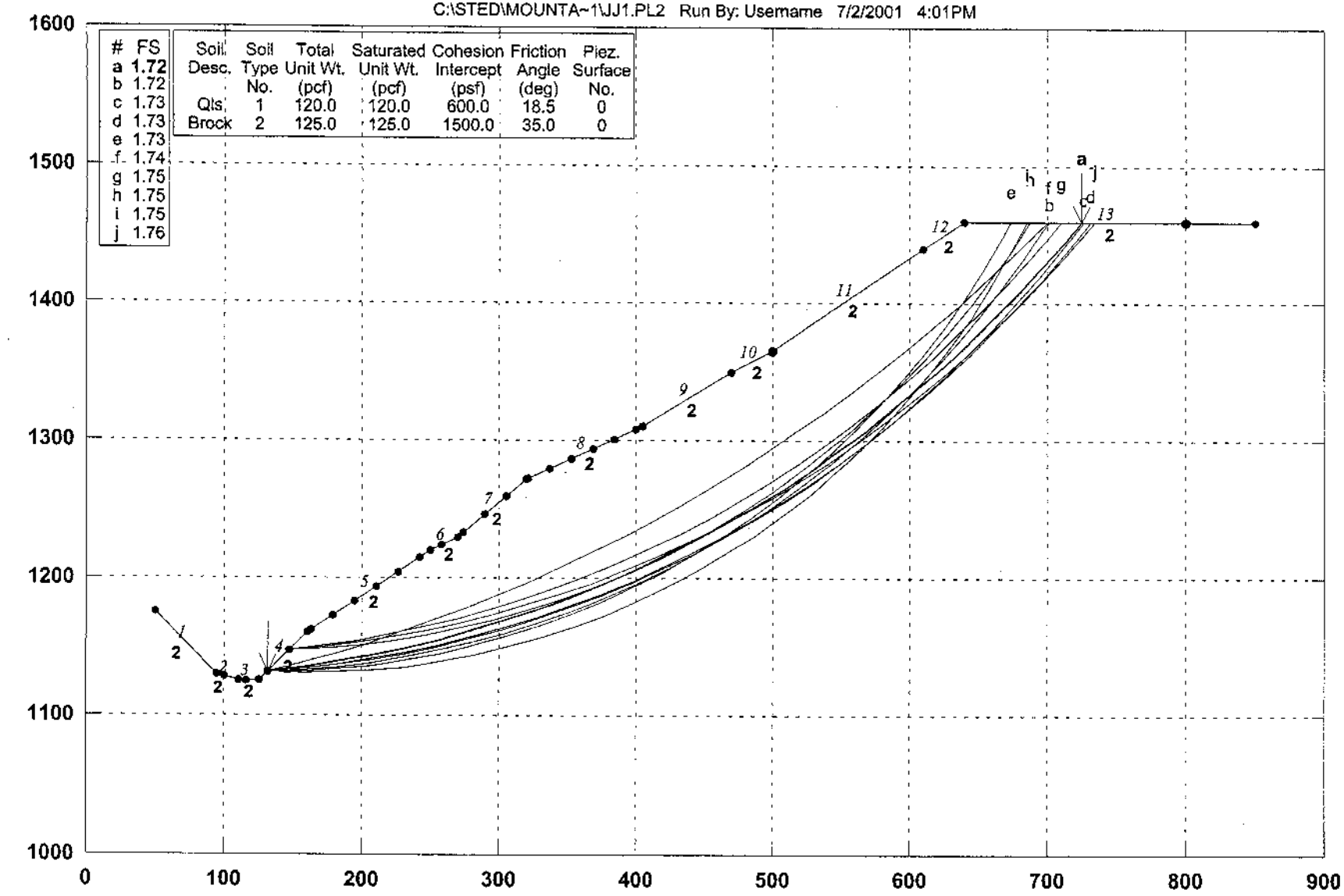
Y A X I S F T

0.00 106.00 212.00 318.00 424.00 530.00


X 0.00
106.00
A 212.00
X 318.00
I 424.00
S 530.00
636.00
F 742.00
T 848.00

Mountain Gate, 03-0381-001, X-Sec:J-J'

C:\STED\MOUNTA~1\JJ1.PL2 Run By: Username 7/2/2001 4:01PM



GSTABL7 FSmin=1.72

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-36

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	7/2/2001
Time of Run:	4:01PM
Run By:	Username
Input Data Filename:	C:jj1.
Output Filename:	C:jj1.OUT
Unit System:	English
Plotted Output Filename:	C:jj1.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:J-J'

BOUNDARY COORDINATES

13 Top Boundaries
13 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	175.00	95.00	130.00	2
2	95.00	130.00	110.00	125.00	2
3	110.00	125.00	125.00	125.00	2
4	125.00	125.00	160.00	160.00	2
5	160.00	160.00	250.00	220.00	2
6	250.00	220.00	270.00	230.00	2
7	270.00	230.00	320.00	272.00	2
8	320.00	272.00	405.00	310.00	2
9	405.00	310.00	470.00	350.00	2
10	470.00	350.00	500.00	365.00	2
11	500.00	365.00	610.00	440.00	2
12	610.00	440.00	640.00	460.00	2
13	640.00	460.00	850.00	460.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced Along The Ground Surface Between X = 100.00(ft)
and X = 400.00(ft)

Each Surface Terminates Between X = 500.00(ft)
and X = 800.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.37	134.80
3	181.06	138.71

4	205.63	143.32
5	230.07	148.61
6	254.34	154.59
7	278.44	161.25
8	302.34	168.58
9	326.03	176.58
10	349.48	185.24
11	372.68	194.56
12	395.61	204.52
13	418.25	215.13
14	440.58	226.36
15	462.59	238.22
16	484.26	250.69
17	505.56	263.76
18	526.50	277.43
19	547.04	291.68
20	567.17	306.50
21	586.88	321.88
22	606.15	337.81
23	624.96	354.27
24	643.31	371.26
25	661.17	388.75
26	678.53	406.74
27	695.38	425.21
28	711.71	444.14
29	724.63	460.00

Circle Center At X = 29.3 ; Y = 1016.0 and Radius, 890.3

*** 1.718 ***

Individual data on the 37 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	24.8	33425.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	3.6	10477.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	21.1	78925.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	24.6	126595.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	24.4	160649.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	19.9	155190.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.3	36385.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

8	15.7	135692.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	8.4	77501.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	23.9	245621.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	17.7	205333.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	6.0	73662.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	23.5	290291.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	23.2	291339.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	22.9	289862.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	9.4	118808.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	13.2	168971.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	22.3	291113.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	22.0	292656.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	7.4	99478.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	14.3	190621.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.7	207722.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	5.6	72912.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	20.9	275616.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	20.5	270917.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	20.1	263849.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	19.7	254550.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	19.3	243174.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	3.9	47747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	15.0	181921.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	15.0	176215.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	3.3	37332.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	17.9	178597.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	17.4	135115.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	16.9	92738.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	16.3	51686.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

37	12.9	12805.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.54	132.93
3	181.44	135.17
4	206.25	138.29
5	230.92	142.30
6	255.44	147.17
7	279.77	152.92
8	303.88	159.53
9	327.74	166.99
10	351.32	175.30
11	374.59	184.44
12	397.52	194.40
13	420.08	205.17
14	442.25	216.74
15	463.99	229.09
16	485.27	242.20
17	506.08	256.06
18	526.37	270.65
19	546.14	285.96
20	565.35	301.96
21	583.98	318.63
22	602.00	335.96
23	619.40	353.91
24	636.15	372.47
25	652.22	391.62
26	667.61	411.32
27	682.28	431.57
28	696.23	452.31
29	701.00	460.00

Circle Center At X = 106.1 ; Y = 833.9 and Radius, 702.7

*** 1.720 ***

1

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.49	133.67

3	181.33	136.54
4	206.06	140.18
5	230.67	144.59
6	255.13	149.76
7	279.41	155.69
8	303.50	162.37
9	327.38	169.80
10	351.00	177.97
11	374.37	186.87
12	397.44	196.49
13	420.20	206.83
14	442.63	217.87
15	464.71	229.60
16	486.41	242.02
17	507.71	255.10
18	528.60	268.84
19	549.05	283.22
20	569.04	298.24
21	588.55	313.86
22	607.57	330.09
23	626.07	346.90
24	644.04	364.28
25	661.46	382.21
26	678.32	400.67
27	694.59	419.65
28	710.26	439.13
29	725.32	459.09
30	725.97	460.00

Circle Center At X = 76.8 ; Y = 932.8 and Radius, 803.1

*** 1.725 ***

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.46	133.98
3	181.27	137.11
4	205.96	140.99
5	230.54	145.60
6	254.96	150.94
7	279.21	157.01
8	303.27	163.80
9	327.12	171.31
10	350.73	179.52
11	374.09	188.43
12	397.17	198.04
13	419.95	208.33
14	442.42	219.29

15	464.55	230.92
16	486.32	243.21
17	507.72	256.14
18	528.72	269.70
19	549.31	283.88
20	569.46	298.67
21	589.17	314.06
22	608.41	330.02
23	627.16	346.56
24	645.41	363.64
25	663.14	381.26
26	680.34	399.41
27	697.00	418.05
28	713.08	437.19
29	728.59	456.80
30	730.97	460.00

Circle Center At X = 63.8 ; Y = 966.5 and Radius, 837.7

*** 1.726 ***

1

Failure Surface Specified By 28 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.57	132.20
3	181.52	133.84
4	206.38	136.48
5	231.11	140.13
6	255.67	144.78
7	280.03	150.42
8	304.14	157.04
9	327.96	164.63
10	351.45	173.18
11	374.58	182.67
12	397.30	193.09
13	419.59	204.42
14	441.39	216.65
15	462.69	229.75
16	483.43	243.70
17	503.60	258.48
18	523.15	274.06
19	542.05	290.42
20	560.27	307.53
21	577.79	325.37
22	594.57	343.90
23	610.59	363.10
24	625.81	382.93
25	640.22	403.36

26	653.79	424.35
27	666.50	445.88
28	674.09	460.00

Circle Center At X = 128.8 ; Y = 748.5 and Radius, 616.9

*** 1.730 ***

Failure Surface Specified By 28 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	155.74	138.00
3	179.77	144.91
4	203.64	152.32
5	227.36	160.21
6	250.92	168.60
7	274.29	177.47
8	297.48	186.82
9	320.46	196.65
10	343.24	206.94
11	365.81	217.71
12	388.14	228.94
13	410.24	240.63
14	432.10	252.77
15	453.70	265.36
16	475.03	278.39
17	496.09	291.86
18	516.87	305.76
19	537.36	320.09
20	557.55	334.83
21	577.43	349.99
22	596.99	365.56
23	616.22	381.52
24	635.13	397.88
25	653.69	414.63
26	671.90	431.76
27	689.76	449.25
28	700.28	460.00

Circle Center At X = -167.0 ; Y = 1305.3 and Radius, 1211.1

*** 1.741 ***

1

Failure Surface Specified By 28 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.37	147.37
2	172.17	150.50
3	196.87	154.38
4	221.44	158.99
5	245.86	164.34
6	270.11	170.42
7	294.17	177.23
8	318.01	184.75
9	341.61	192.99
10	364.96	201.93
11	388.03	211.57
12	410.79	221.89
13	433.24	232.90
14	455.35	244.57
15	477.10	256.90
16	498.46	269.88
17	519.43	283.49
18	539.98	297.73
19	560.10	312.57
20	579.76	328.02
21	598.94	344.04
22	617.64	360.64
23	635.83	377.79
24	653.50	395.48
25	670.63	413.69
26	687.21	432.40
27	703.21	451.60
28	709.79	460.00

Circle Center At X = 55.6 ; Y = 974.7 and Radius, 832.4

*** 1.748 ***

Failure Surface Specified By 28 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.37	147.37
2	172.34	148.67
3	197.23	150.91
4	222.03	154.08
5	246.69	158.20
6	271.18	163.24
7	295.46	169.20
8	319.49	176.08
9	343.25	183.86

10	366.70	192.53
11	389.80	202.08
12	412.53	212.50
13	434.84	223.77
14	456.72	235.87
15	478.12	248.79
16	499.02	262.51
17	519.39	277.01
18	539.19	292.27
19	558.40	308.27
20	576.99	324.98
21	594.94	342.38
22	612.22	360.45
23	628.81	379.15
24	644.67	398.47
25	659.80	418.38
26	674.16	438.84
27	687.74	459.83
28	687.84	460.00

Circle Center At X = 125.5 ; Y = 808.6 and Radius, 661.6

*** 1.751 ***

1

Failure Surface Specified By 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	131.58	131.58
2	156.57	130.91
3	181.57	131.31
4	206.52	132.79
5	231.39	135.33
6	256.13	138.93
7	280.70	143.59
8	305.04	149.29
9	329.11	156.03
10	352.87	163.80
11	376.28	172.57
12	399.30	182.34
13	421.87	193.09
14	443.96	204.79
15	465.53	217.43
16	486.54	230.97
17	506.95	245.41
18	526.73	260.71
19	545.83	276.83
20	564.22	293.76
21	581.88	311.47
22	598.75	329.91

23	614.83	349.06
24	630.07	368.88
25	644.44	389.33
26	657.93	410.38
27	670.51	431.99
28	682.15	454.11
29	684.93	460.00

Circle Center At X = 159.7 ; Y = 714.8 and Radius, 583.9

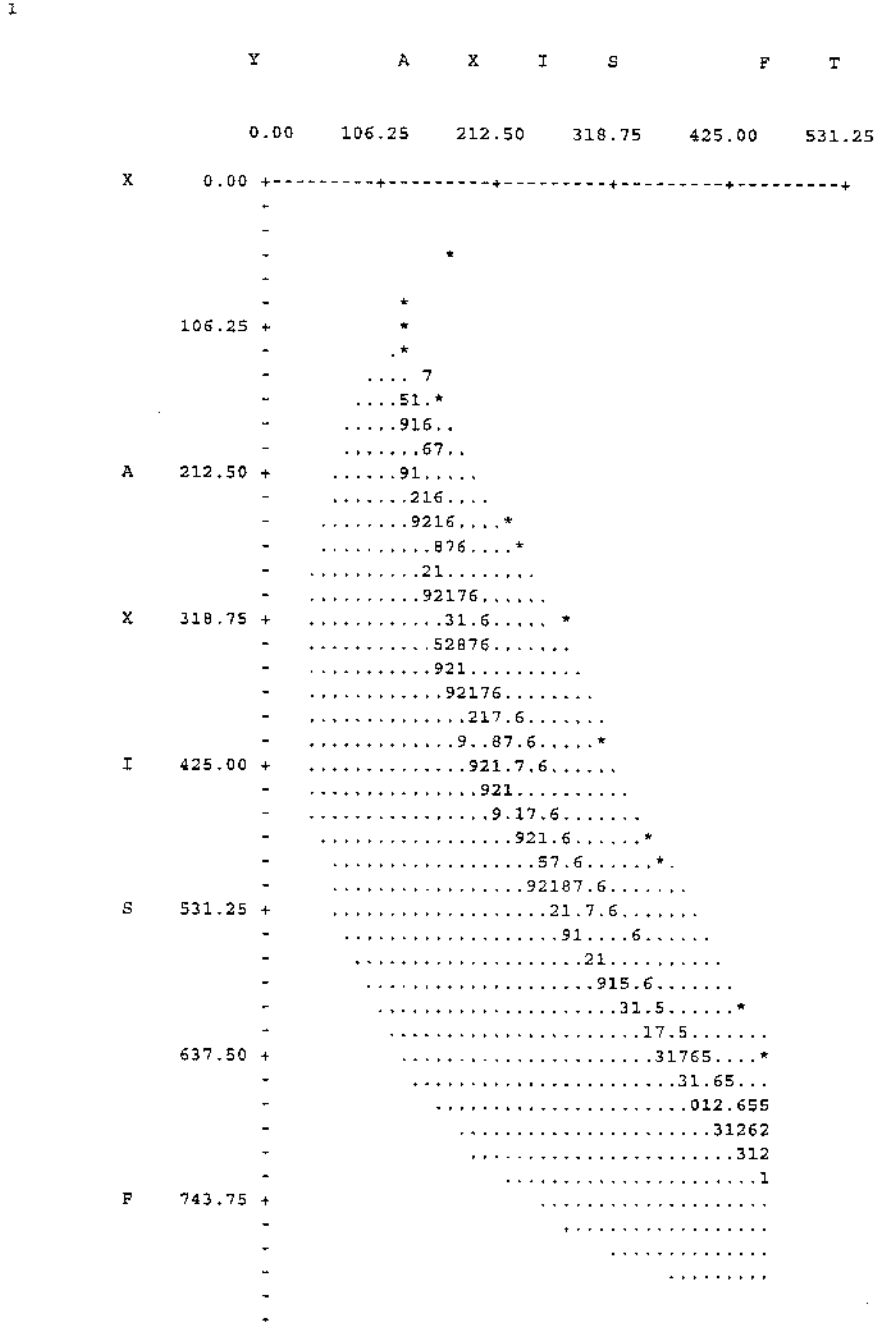
*** 1.753 ***

Failure Surface Specified By 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	147.37	147.37
2	172.24	149.86
3	197.04	153.09
4	221.72	157.05
5	246.28	161.73
6	270.68	167.14
7	294.92	173.27
8	318.97	180.12
9	342.80	187.67
10	366.40	195.92
11	389.74	204.87
12	412.81	214.50
13	435.58	224.81
14	458.04	235.79
15	480.17	247.43
16	501.94	259.72
17	523.34	272.65
18	544.35	286.20
19	564.94	300.37
20	585.11	315.14
21	604.84	330.51
22	624.10	346.44
23	642.88	362.94
24	661.16	379.99
25	678.94	397.58
26	696.18	415.68
27	712.88	434.28
28	729.03	453.36
29	734.31	460.00

Circle Center At X = 75.5 ; Y = 989.8 and Radius, 845.5

*** 1.765 ***



Mountain Gate, 03-0381-001, X-Sec:J-J'

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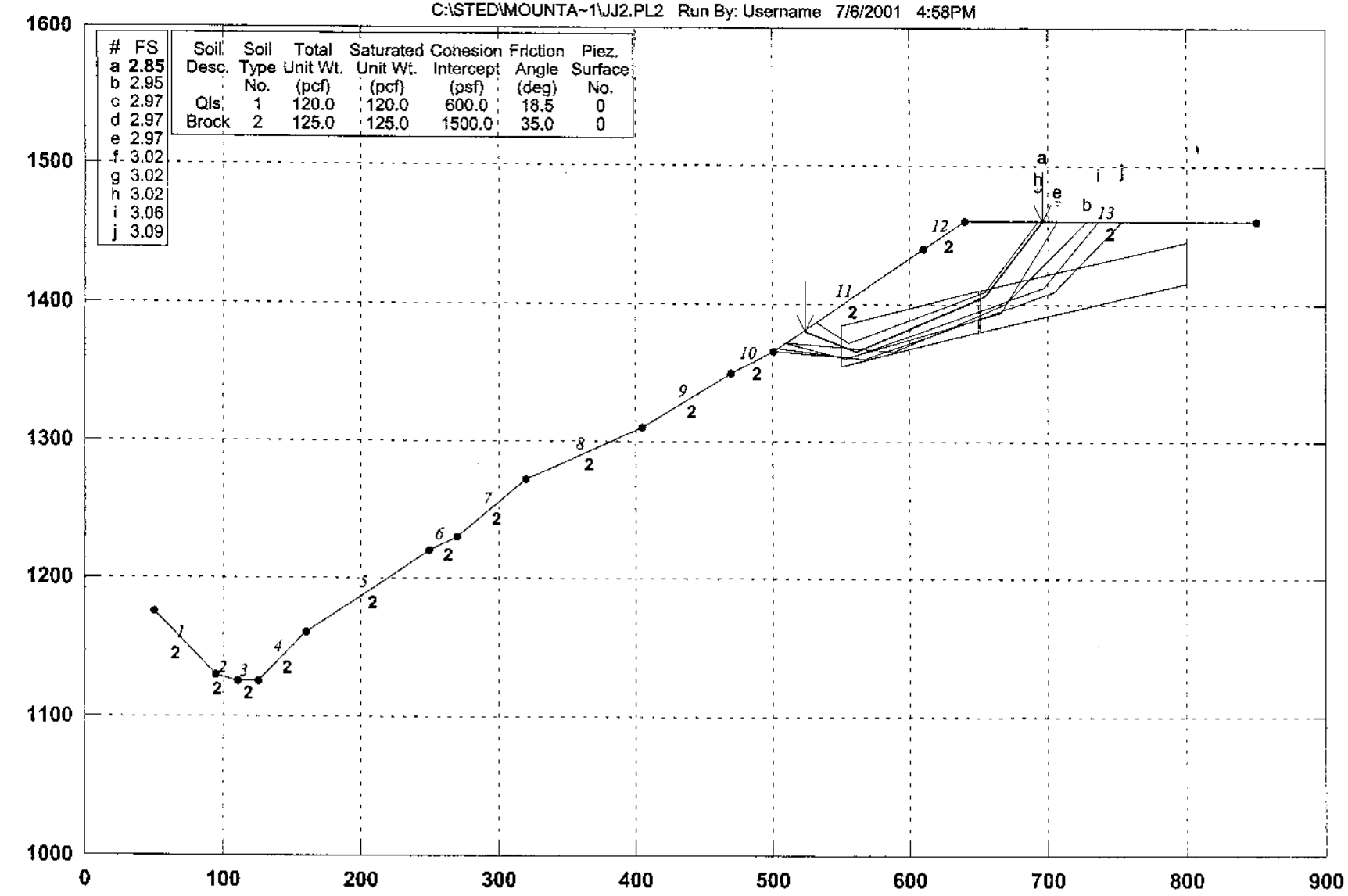


GSTABL7 FSmin=2.85

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-37

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/6/2001
Time of Run: 4:58PM
Run By: Username
Input Data Filename: C:jj2.
Output Filename: C:jj2.OUT
Unit System: English

Plotted Output Filename: C:jj2.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:J-J'

BOUNDARY COORDINATES

13 Top Boundaries
13 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	175.00	95.00	130.00	2
2	95.00	130.00	110.00	125.00	2
3	110.00	125.00	125.00	125.00	2
4	125.00	125.00	160.00	160.00	2
5	160.00	160.00	250.00	220.00	2
6	250.00	220.00	270.00	230.00	2
7	270.00	230.00	320.00	272.00	2
8	320.00	272.00	405.00	310.00	2
9	405.00	310.00	470.00	350.00	2
10	470.00	350.00	500.00	365.00	2
11	500.00	365.00	610.00	440.00	2
12	610.00	440.00	640.00	460.00	2
13	640.00	460.00	850.00	460.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	550.00	370.00	650.00	395.00	30.00
2	651.00	395.00	800.00	430.00	30.00

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 Simplified Janbu Method * *

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	523.31	380.90
2	560.64	365.81
3	654.26	406.13
4	696.07	460.00

*** 2.848 ***

Individual data on the 5 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	37.3	94557.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	49.4	288358.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	30.0	211776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	14.3	101534.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	41.8	140767.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	510.85	372.39
2	588.47	366.00
3	668.96	400.24
4	728.33	460.00

*** 2.952 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36
3	665.91	394.33
4	706.73	460.00

*** 2.966 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36
3	665.91	394.33
4	706.73	460.00

*** 2.966 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36
3	665.91	394.33
4	706.73	460.00

*** 2.966 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	532.26	387.00
2	555.73	371.46
3	654.81	409.33
4	692.99	460.00

*** 3.021 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	532.26	387.00
2	555.73	371.46
3	654.81	409.33
4	692.99	460.00

*** 3.021 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	532.26	387.00
2	555.73	371.46
3	654.81	409.33
4	692.99	460.00

*** 3.021 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	509.32	371.36
2	553.95	360.08
3	697.26	412.05
4	736.76	460.00

*** 3.057 ***

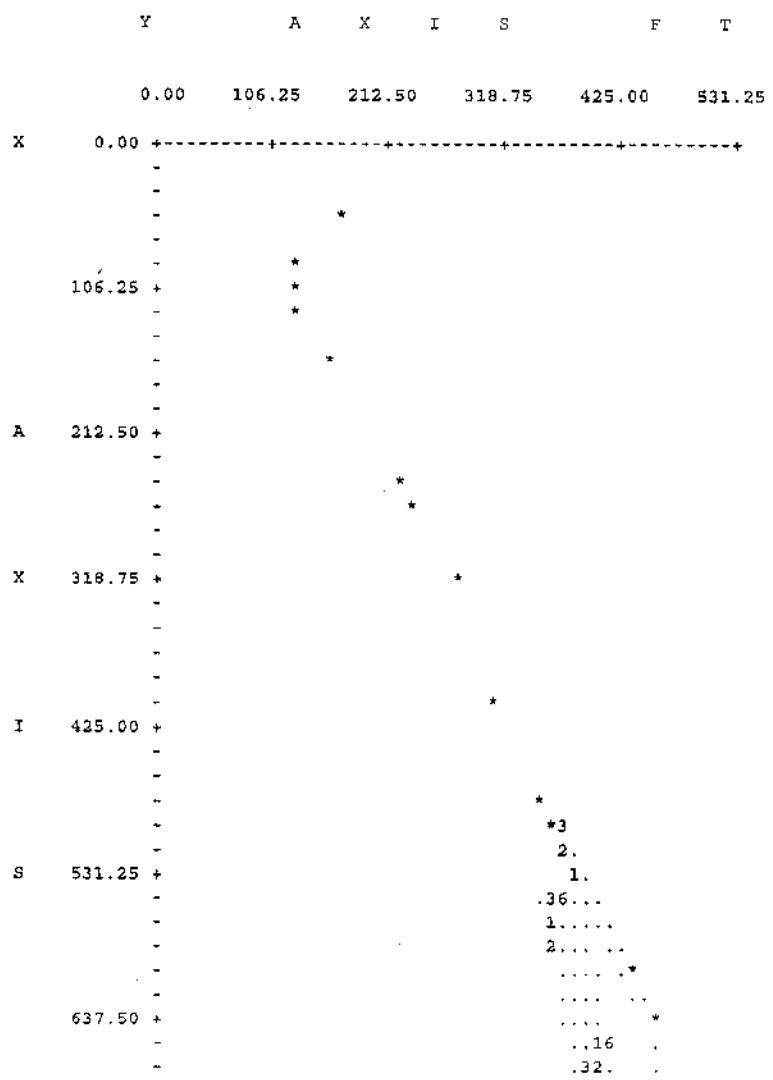
Failure Surface Specified By 4 Coordinate Points

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

1	501.38	365.94
2	567.86	360.17
3	704.61	409.11
4	752.90	460.00

*** 3.086 ***

1



Mountain Gate, 03-0381-001, X-Sec:J-J' Pseudostatic

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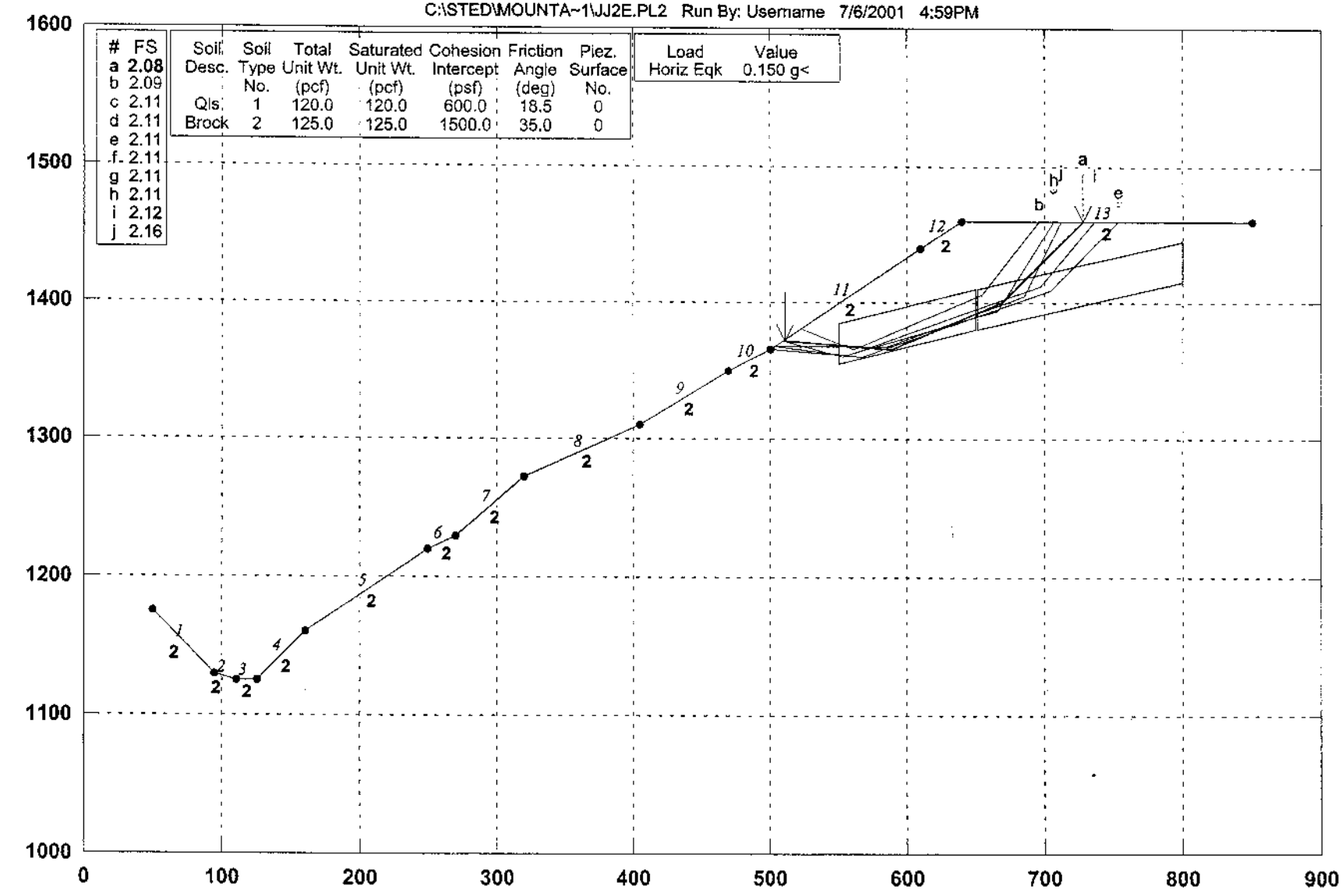


GSTABL7 FSmin=2.08

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-38

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/6/2001
Time of Run: 4:59PM
Run By: Username
Input Data Filename: C:jj2e.
Output Filename: C:jj2e.OUT
Unit System: English

Plotted Output Filename: C:jj2e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:J-J'
Pseudostatic

BOUNDARY COORDINATES

13 Top Boundaries
13 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below End
1	50.00	175.00	95.00	130.00	2
2	95.00	130.00	110.00	125.00	2
3	110.00	125.00	125.00	125.00	2
4	125.00	125.00	160.00	160.00	2
5	160.00	160.00	250.00	220.00	2
6	250.00	220.00	270.00	230.00	2
7	270.00	230.00	320.00	272.00	2
8	320.00	272.00	405.00	310.00	2
9	405.00	310.00	470.00	350.00	2
10	470.00	350.00	500.00	365.00	2
11	500.00	365.00	610.00	440.00	2
12	610.00	440.00	640.00	460.00	2
13	640.00	460.00	850.00	460.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	550.00	370.00	650.00	395.00	30.00
2	651.00	395.00	800.00	430.00	30.00

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 Simplified Janbu Method * *

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	510.85	372.39
2	588.47	366.00
3	668.96	400.24
4	728.33	460.00

*** 2.076 ***

Individual data on the 5 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	77.6	287797.9	0.0	0.0	0.0	0.0	43169.7	0.0	0.0
2	21.5	167073.8	0.0	0.0	0.0	0.0	25061.1	0.0	0.0
3	30.0	256735.4	0.0	0.0	0.0	0.0	38510.3	0.0	0.0
4	29.0	238653.2	0.0	0.0	0.0	0.0	35798.0	0.0	0.0
5	59.4	221778.5	0.0	0.0	0.0	0.0	33266.8	0.0	0.0

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	523.31	380.90
2	560.64	365.81
3	654.26	406.13
4	696.07	460.00

*** 2.085 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	501.38	365.94
2	567.86	360.17
3	704.61	409.11
4	752.90	460.00

*** 2.105 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	501.38	365.94
2	567.86	360.17
3	704.61	409.11
4	752.90	460.00

*** 2.105 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	501.38	365.94
2	567.86	360.17
3	704.61	409.11
4	752.90	460.00

*** 2.105 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36

3	665.91	394.33
4	706.73	460.00

*** 2.106 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36
3	665.91	394.33
4	706.73	460.00

*** 2.106 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	504.11	367.80
2	555.95	361.36
3	665.91	394.33
4	706.73	460.00

*** 2.106 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	509.32	371.36
2	553.95	360.08
3	697.26	412.05
4	736.76	460.00

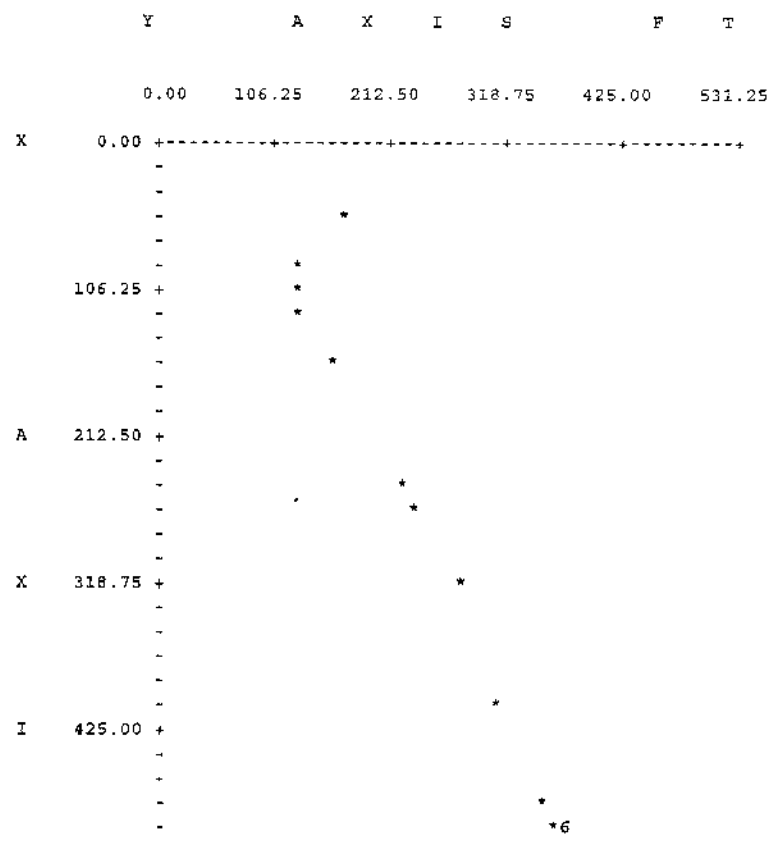
*** 2.115 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	503.67	367.50
2	585.83	367.25
3	684.82	405.16
4	711.99	460.00

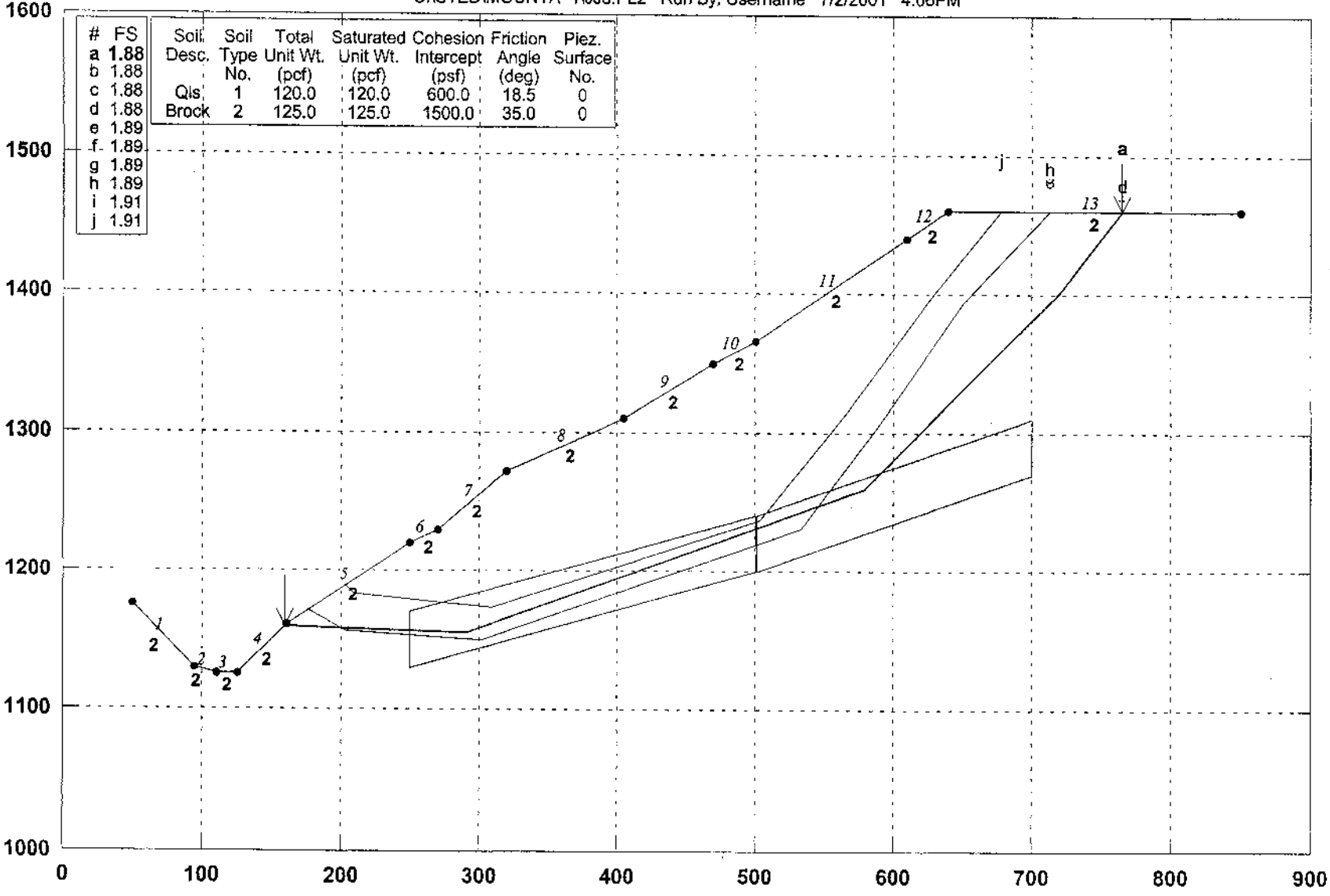
*** 2.163 ***

1



Mountain Gate, 03-0381-001, X-Sec:J-J'

C:\STED\MOUNTA~1\JJ3.PL2 Run By: Username 7/2/2001 4:06PM



#	FS
a	1.88
b	1.88
c	1.88
d	1.88
e	1.89
f	1.89
g	1.89
h	1.89
i	1.91
j	1.91

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	600.0	18.5	0
Brock	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=1.88

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-39

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/2/2001
Time of Run: 4:06PM
Run By: Username
Input Data Filename: C:jj3.
Output Filename: C:jj3.OUT
Unit System: English

Plotted Output Filename: C:jj3.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:J-J'

BOUNDARY COORDINATES

13 Top Boundaries
13 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	175.00	95.00	130.00	2
2	95.00	130.00	110.00	125.00	2
3	110.00	125.00	125.00	125.00	2
4	125.00	125.00	160.00	160.00	2
5	160.00	160.00	250.00	220.00	2
6	250.00	220.00	270.00	230.00	2
7	270.00	230.00	320.00	272.00	2
8	320.00	272.00	405.00	310.00	2
9	405.00	310.00	470.00	350.00	2
10	470.00	350.00	500.00	365.00	2
11	500.00	365.00	610.00	440.00	2
12	610.00	440.00	640.00	460.00	2
13	640.00	460.00	850.00	460.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	250.00	150.00	500.00	220.00	40.00
2	501.00	220.00	700.00	290.00	40.00

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 Simplified Janbu Method * *

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73

5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.875 ***

Individual data on the 15 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.6	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	31.6	47276.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	58.4	316274.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	20.0	171689.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	21.6	224788.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	28.4	352404.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	85.0	1165269.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	65.0	987004.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	30.0	494077.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	78.7	1440418.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	31.3	601772.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	30.0	539398.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	9.3	156180.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	70.6	829636.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	44.6	163367.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84

3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.875 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.875 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.875 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.887 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.887 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.887 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.887 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	203.19	188.79
2	209.74	182.24
3	309.31	173.02
4	503.42	237.09
5	566.46	314.72
6	626.06	395.01
7	678.02	460.00

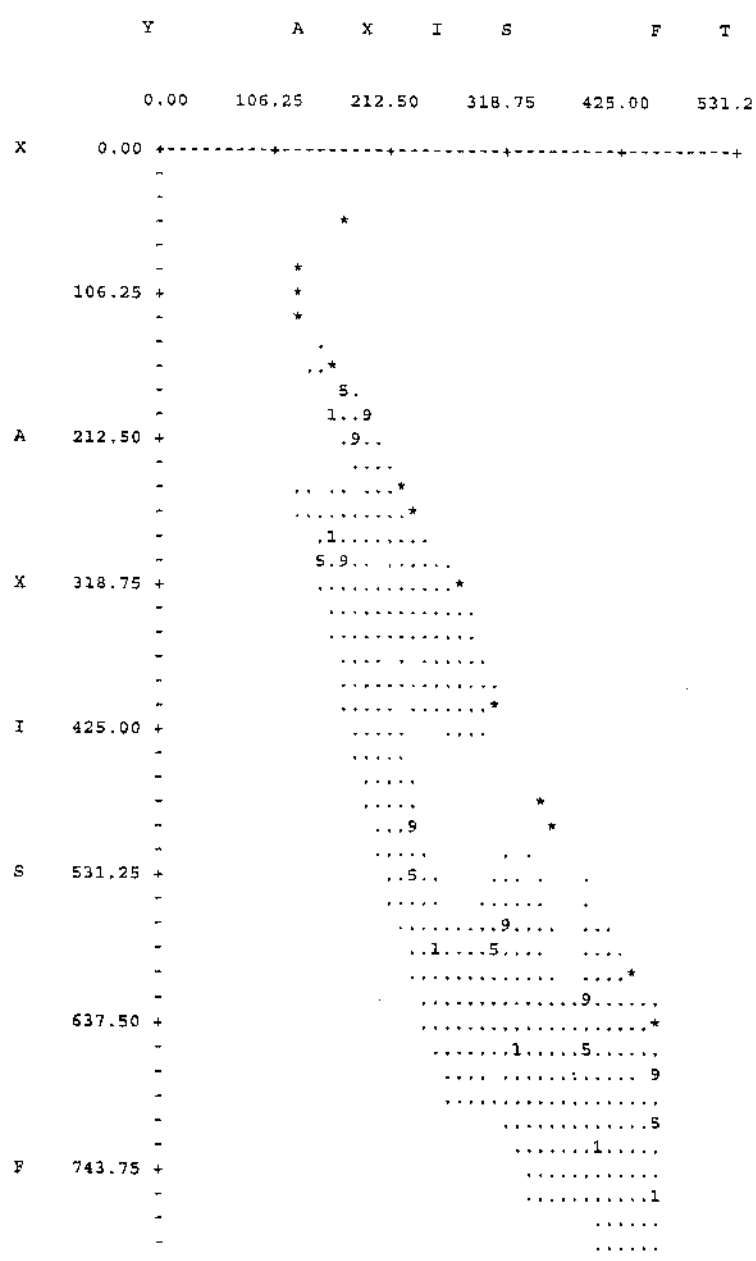
*** 1.914 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	203.19	188.79
2	209.74	182.24
3	309.31	173.02
4	503.42	237.09
5	566.46	314.72
6	626.06	395.01
7	678.02	460.00

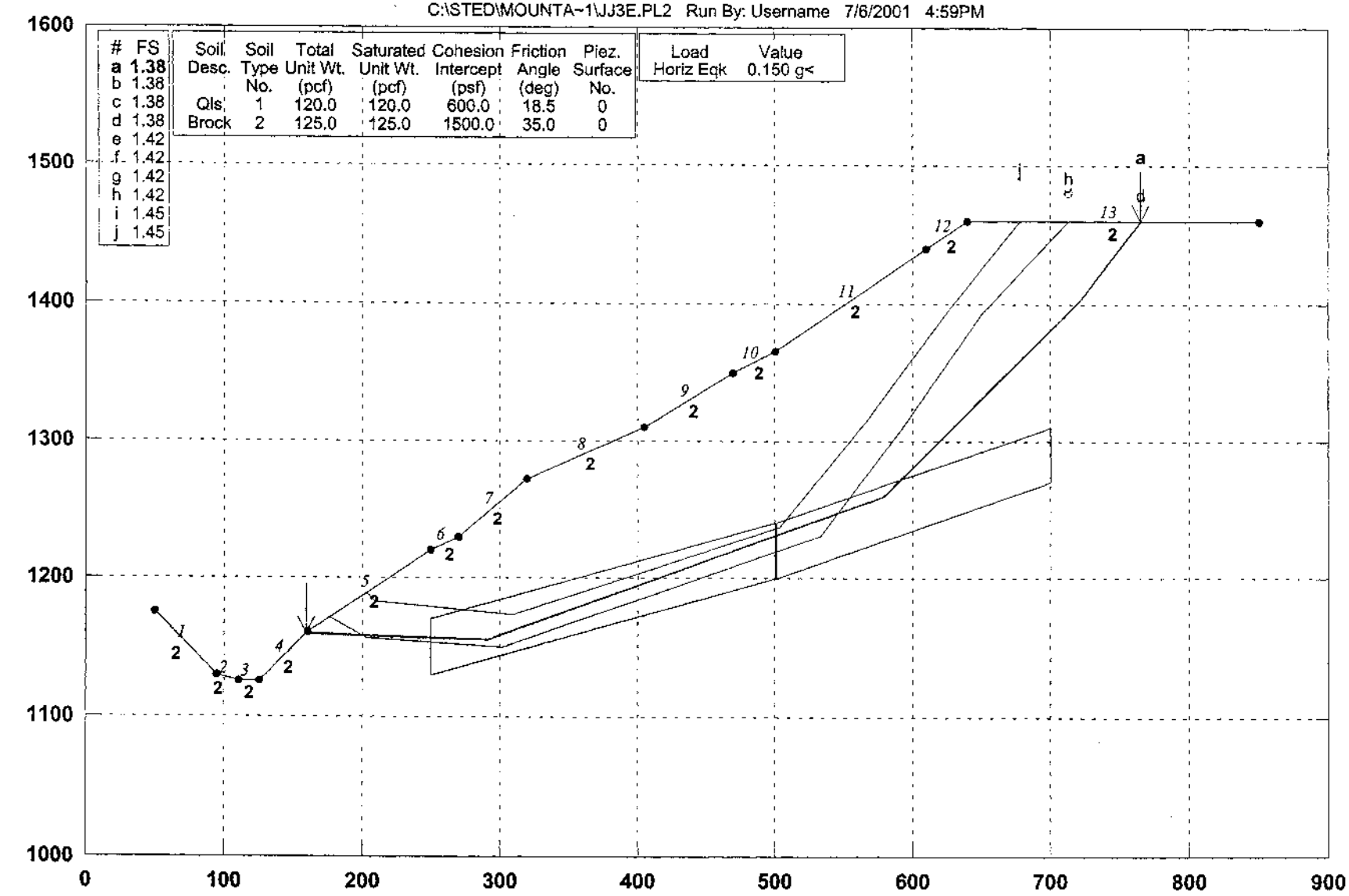
*** 1.914 ***

1


Y A X I S F T
0.00 106.25 212.50 318.75 425.00 531.25
X 0.00
106.25
A 212.50
X 318.75
I 425.00
S 531.25
637.50
F 743.75
T 850.00

Mountain Gate, 03-0381-001, X-Sec:J-J' Pseudostatic

C:\STED\MOUNTA~1\JJ3E.PL2 Run By: Username 7/6/2001 4:59PM



GSTABL7 FSmin=1.38

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-40

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/6/2001
Time of Run: 4:59PM
Run By: Username
Input Data Filename: C:jj3e.
Output Filename: C:jj3e.OUT
Unit System: English

Plotted Output Filename: C:jj3e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:J-J'
Pseudostatic

BOUNDARY COORDINATES

13 Top Boundaries
13 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	50.00	175.00	95.00	130.00	2
2	95.00	130.00	110.00	125.00	2
3	110.00	125.00	125.00	125.00	2
4	125.00	125.00	160.00	160.00	2
5	160.00	160.00	250.00	220.00	2
6	250.00	220.00	270.00	230.00	2
7	270.00	230.00	320.00	272.00	2
8	320.00	272.00	405.00	310.00	2
9	405.00	310.00	470.00	350.00	2
10	470.00	350.00	500.00	365.00	2
11	500.00	365.00	610.00	440.00	2
12	610.00	440.00	640.00	460.00	2
13	640.00	460.00	850.00	460.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	250.00	150.00	500.00	220.00	40.00
2	501.00	220.00	700.00	290.00	40.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.384 ***

Individual data on the 15 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.6	26.1	0.0	0.0	0.0	0.0	3.9	0.0	0.0
2	31.6	47276.8	0.0	0.0	0.0	0.0	7091.5	0.0	0.0
3	58.4	316274.7	0.0	0.0	0.0	0.0	47441.2	0.0	0.0
4	20.0	171689.0	0.0	0.0	0.0	0.0	25753.4	0.0	0.0
5	21.6	224788.3	0.0	0.0	0.0	0.0	33718.3	0.0	0.0
6	28.4	352404.6	0.0	0.0	0.0	0.0	52860.7	0.0	0.0
7	85.0	1165269.5	0.0	0.0	0.0	0.0	*******	0.0	0.0
8	65.0	987004.5	0.0	0.0	0.0	0.0	*******	0.0	0.0
9	30.0	494077.5	0.0	0.0	0.0	0.0	74111.6	0.0	0.0
10	78.7	1440418.1	0.0	0.0	0.0	0.0	*******	0.0	0.0
11	31.3	601772.3	0.0	0.0	0.0	0.0	90265.9	0.0	0.0
12	30.0	539398.5	0.0	0.0	0.0	0.0	80909.8	0.0	0.0
13	9.3	156180.4	0.0	0.0	0.0	0.0	23427.1	0.0	0.0
14	70.6	829636.8	0.0	0.0	0.0	0.0	*******	0.0	0.0
15	44.6	163367.8	0.0	0.0	0.0	0.0	24505.2	0.0	0.0

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.384 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.384 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	159.37	159.37
2	191.64	157.84
3	291.61	155.62
4	578.72	259.73
5	649.32	330.56
6	719.90	401.39
7	764.50	460.00

*** 1.384 ***

*** 1.384 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.421 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.421 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06

4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.421 ***

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.53	171.02
2	202.44	156.52
3	302.23	150.06
4	533.54	230.14
5	592.95	310.59
6	649.89	392.79
7	713.34	460.00

*** 1.421 ***

1

Failure Surface Specified By 7 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	203.19	188.79
2	209.74	182.24
3	309.31	173.02
4	503.42	237.09
5	566.46	314.72
6	626.06	395.01
7	678.02	460.00

*** 1.453 ***

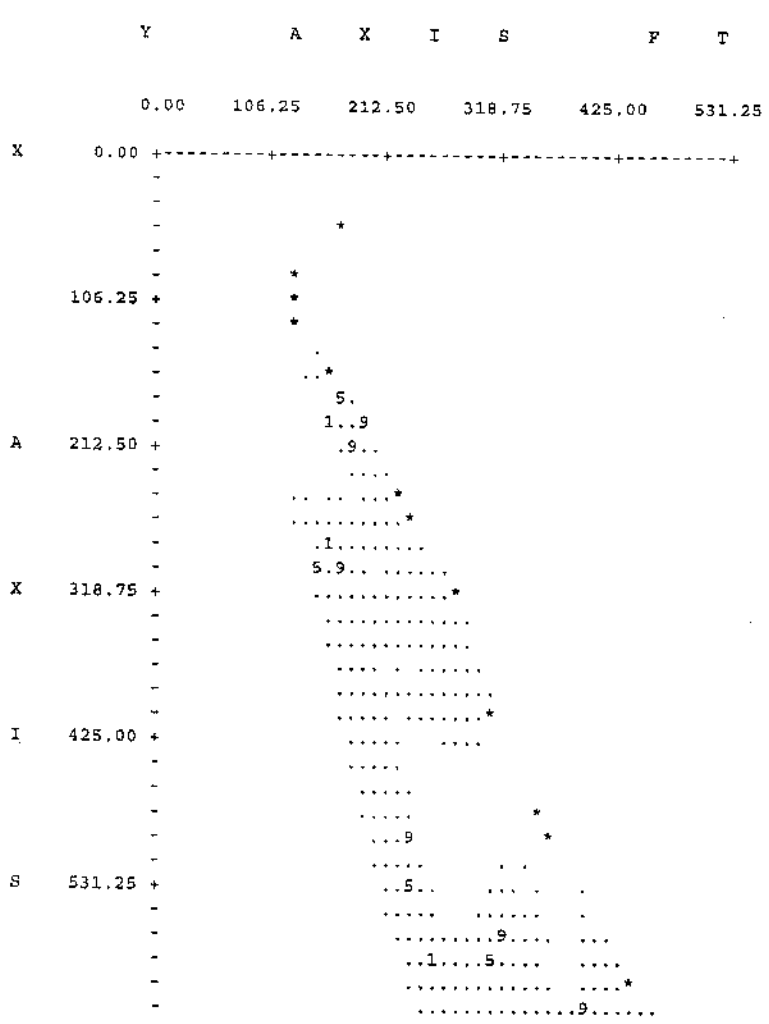
Failure Surface Specified By 7 Coordinate Points

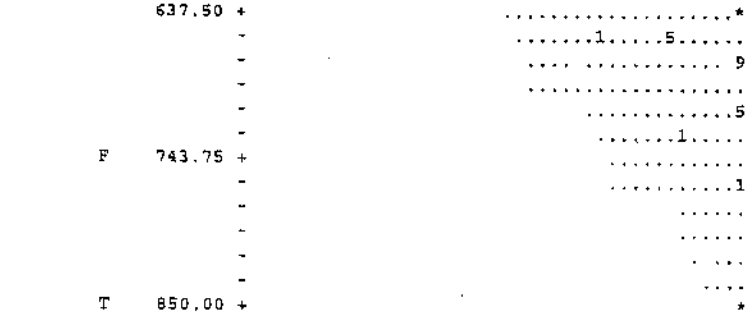
Point No.	X-Surf (ft)	Y-Surf (ft)

1	203.19	188.79
2	209.74	182.24
3	309.31	173.02
4	503.42	237.09
5	566.46	314.72
6	626.06	395.01
7	678.02	460.00

*** 1.453 ***

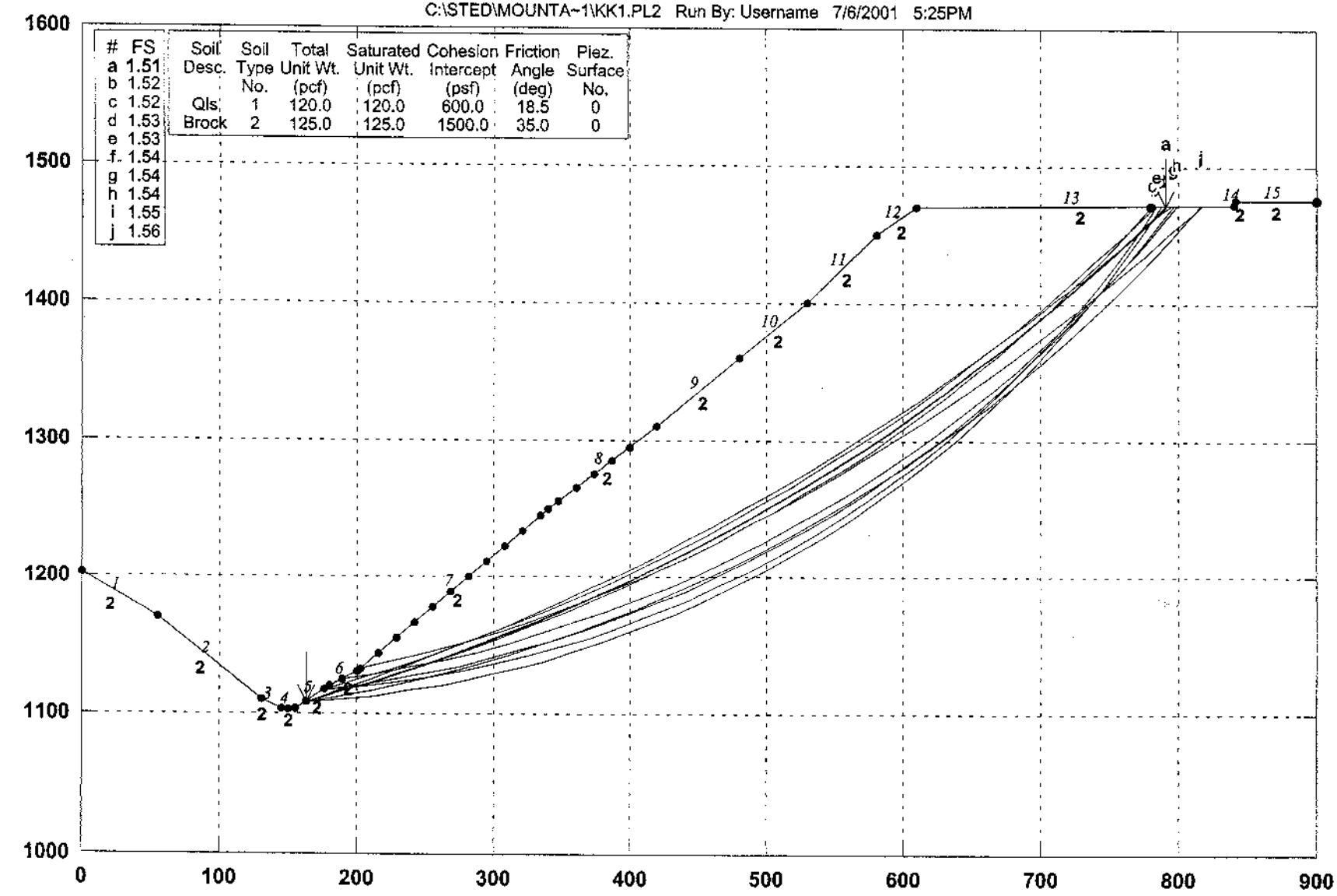
1





Mountain Gate, 03-0381-001, X-Sec:K-K' Setback FS=1.5

C:\STED\MOUNTA~1\KK1.PL2 Run By: Username 7/6/2001 5:25PM



#	FS
a	1.51
b	1.52
c	1.52
d	1.53
e	1.53
f	1.54
g	1.54
h	1.54
i	1.55
j	1.56

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	600.0	18.5	0
Brock	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=1.51

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-41

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/13/2001
Time of Run: 3:13PM
Run By: Username
Input Data Filename: C:kk1.
Output Filename: C:kk1.OUT
Unit System: English

Plotted Output Filename: C:kk1.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:K-K'
Setback FS=1.5

BOUNDARY COORDINATES

15 Top Boundaries
15 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	203.00	55.00	170.00	2
2	55.00	170.00	130.00	110.00	2
3	130.00	110.00	145.00	103.00	2
4	145.00	103.00	155.00	103.00	2
5	155.00	103.00	180.00	120.00	2
6	180.00	120.00	200.00	130.00	2
7	200.00	130.00	340.00	250.00	2
8	340.00	250.00	420.00	310.00	2
9	420.00	310.00	480.00	360.00	2
10	480.00	360.00	530.00	400.00	2
11	530.00	400.00	580.00	450.00	2
12	580.00	450.00	610.00	470.00	2
13	610.00	470.00	840.00	472.00	2
14	840.00	472.00	841.00	476.00	2
15	841.00	476.00	900.00	476.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced Along The Ground Surface Between X = 150.00(ft)
and X = 400.00(ft)

Each Surface Terminates Between X = 780.00(ft)
and X = 900.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55

2	187.20	115.41
3	211.12	122.68
4	234.90	130.37
5	258.55	138.48
6	282.06	146.99
7	305.41	155.92
8	328.61	165.25
9	351.63	174.98
10	374.49	185.11
11	397.17	195.64
12	419.65	206.56
13	441.95	217.87
14	464.04	229.56
15	485.93	241.64
16	507.61	254.10
17	529.06	266.94
18	550.29	280.15
19	571.28	293.72
20	592.03	307.66
21	612.54	321.96
22	632.80	336.61
23	652.80	351.61
24	672.53	366.96
25	691.99	382.65
26	711.18	398.68
27	730.09	415.03
28	748.70	431.72
29	767.03	448.73
30	785.05	466.05
31	790.60	471.57

Circle Center At X = -218.6 ; Y = 1492.3 and Radius, 1435.5

*** 1.513 ***

Individual data on the 38 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	16.8	6997.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	7.2	6677.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	12.8	15115.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.1	19138.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	23.8	68968.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

6	23.6	105321.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	23.5	139638.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	23.4	171905.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	23.2	202113.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	11.4	110321.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	11.6	119030.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	22.9	249276.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	22.7	266432.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	22.5	281702.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.3	4460.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	21.9	293150.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	22.1	314246.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	16.0	238109.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	5.9	90730.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	21.7	340121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21.5	349009.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.9	15565.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	20.3	345649.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	21.0	377493.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	8.7	162399.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	12.0	226235.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	18.0	337062.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	2.5	47335.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	20.3	356581.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	20.0	315407.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	19.7	274231.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	19.5	233132.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	19.2	192192.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	18.9	151494.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

35	18.6	111118.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	18.3	71150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	18.0	31670.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	5.5	1897.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	200.30	124.56
3	224.15	132.04
4	247.87	139.94
5	271.44	148.26
6	294.87	157.00
7	318.13	166.15
8	341.23	175.71
9	364.16	185.67
10	386.91	196.04
11	409.47	206.81
12	431.84	217.97
13	454.01	229.53
14	475.97	241.48
15	497.71	253.82
16	519.24	266.53
17	540.54	279.63
18	561.60	293.10
19	582.42	306.93
20	602.99	321.14
21	623.31	335.70
22	643.37	350.63
23	663.16	365.90
24	682.68	381.52
25	701.92	397.49
26	720.87	413.79
27	739.53	430.42
28	757.90	447.38
29	775.97	464.66
30	782.87	471.50

Circle Center At X = -211.1 ; Y = 1477.9 and Radius, 1414.5

*** 1.516 ***

1

Failure Surface Specified By 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	202.63	132.26
2	227.00	137.86
3	251.23	144.02
4	275.30	150.74
5	299.22	158.02
6	322.96	165.85
7	346.52	174.24
8	369.87	183.16
9	393.01	192.63
10	415.92	202.63
11	438.59	213.16
12	461.02	224.21
13	483.18	235.78
14	505.07	247.86
15	526.67	260.45
16	547.97	273.53
17	568.97	287.10
18	589.64	301.16
19	609.98	315.69
20	629.98	330.69
21	649.62	346.16
22	668.91	362.07
23	687.81	378.43
24	706.34	395.22
25	724.46	412.43
26	742.19	430.06
27	759.50	448.10
28	776.38	466.54
29	780.71	471.48

Circle Center At X = -26.4 ; Y = 1185.0 and Radius, 1077.3

*** 1.517 ***

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	188.09	110.41
3	212.95	113.04
4	237.72	116.45
5	262.36	120.64
6	286.87	125.58
7	311.21	131.30
8	335.36	137.76

9	359.29	144.98
10	382.99	152.94
11	406.43	161.64
12	429.59	171.06
13	452.44	181.20
14	474.96	192.05
15	497.13	203.59
16	518.94	215.83
17	540.35	228.73
18	561.35	242.30
19	581.91	256.52
20	602.02	271.37
21	621.66	286.84
22	640.80	302.92
23	659.44	319.58
24	677.54	336.82
25	695.10	354.62
26	712.10	372.95
27	728.51	391.81
28	744.33	411.17
29	759.54	431.01
30	774.12	451.32
31	787.71	471.55

Circle Center At X = 116.0 ; Y = 908.4 and Radius, 801.3

*** 1.530 ***

1

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	201.23	119.55
3	226.07	122.38
4	250.81	126.00
5	275.42	130.40
6	299.88	135.57
7	324.16	141.52
8	348.24	148.22
9	372.10	155.69
10	395.71	163.90
11	419.06	172.86
12	442.10	182.55
13	464.83	192.96
14	487.22	204.08
15	509.25	215.91
16	530.89	228.42
17	552.12	241.61
18	572.93	255.47

19	593.29	269.98
20	613.19	285.12
21	632.59	300.88
22	651.49	317.25
23	669.86	334.21
24	687.68	351.74
25	704.95	369.82
26	721.63	388.44
27	737.72	407.57
28	753.19	427.21
29	768.04	447.32
30	782.25	467.89
31	784.58	471.52

Circle Center At X = 123.9 ; Y = 907.3 and Radius, 791.5

*** 1.534 ***

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	186.86	116.51
3	210.44	124.81
4	233.90	133.44
5	257.24	142.39
6	280.46	151.67
7	303.54	161.27
8	326.49	171.20
9	349.29	181.44
10	371.95	192.00
11	394.46	202.88
12	416.82	214.07
13	439.01	225.57
14	461.05	237.38
15	482.91	249.50
16	504.61	261.92
17	526.13	274.65
18	547.47	287.67
19	568.62	300.99
20	589.59	314.61
21	610.36	328.52
22	630.94	342.71
23	651.32	357.20
24	671.49	371.96
25	691.46	387.01
26	711.21	402.33
27	730.75	417.93
28	750.06	433.80
29	769.16	449.94

30	788.02	466.35
31	793.90	471.60

Circle Center At X = -394.9 ; Y = 1807.7 and Radius, 1788.4

*** 1.537 ***

1

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	201.11	120.70
3	225.81	124.59
4	250.39	129.15
5	274.83	134.39
6	299.12	140.30
7	323.24	146.88
8	347.17	154.11
9	370.89	162.01
10	394.39	170.55
11	417.64	179.74
12	440.63	189.56
13	463.34	200.01
14	485.75	211.08
15	507.85	222.77
16	529.62	235.06
17	551.05	247.94
18	572.11	261.41
19	592.79	275.45
20	613.08	290.06
21	632.96	305.22
22	652.42	320.92
23	671.43	337.15
24	689.99	353.90
25	708.09	371.15
26	725.70	388.89
27	742.82	407.11
28	759.43	425.80
29	775.52	444.93
30	791.07	464.50
31	796.42	471.62

Circle Center At X = 72.3 ; Y = 1019.9 and Radius, 908.4

*** 1.537 ***

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	189.47	124.74
2	214.15	128.74
3	238.72	133.38
4	263.16	138.65
5	287.45	144.54
6	311.59	151.06
7	335.55	158.20
8	359.31	165.95
9	382.87	174.31
10	406.21	183.28
11	429.31	192.84
12	452.15	202.99
13	474.73	213.73
14	497.02	225.05
15	519.02	236.94
16	540.70	249.38
17	562.05	262.39
18	583.06	275.93
19	603.72	290.02
20	624.00	304.63
21	643.91	319.76
22	663.41	335.39
23	682.51	351.52
24	701.19	368.14
25	719.43	385.24
26	737.23	402.79
27	754.57	420.80
28	771.44	439.25
29	787.83	458.13
30	798.96	471.64

Circle Center At X = 46.4 ; Y = 1084.9 and Radius, 970.7

*** 1.543 ***

1

Failure Surface Specified By 32 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	187.81	112.71
3	212.36	117.45
4	236.79	122.74

5	261.09	128.60
6	285.25	135.02
7	309.26	142.00
8	333.10	149.53
9	356.76	157.60
10	380.23	166.22
11	403.49	175.38
12	426.54	185.07
13	449.35	195.29
14	471.92	206.04
15	494.24	217.30
16	516.30	229.08
17	538.07	241.36
18	559.56	254.14
19	580.74	267.41
20	601.62	281.16
21	622.17	295.40
22	642.39	310.11
23	662.26	325.27
24	681.78	340.90
25	700.93	356.96
26	719.71	373.47
27	738.10	390.41
28	756.09	407.76
29	773.68	425.53
30	790.86	443.69
31	807.61	462.25
32	815.83	471.79

Circle Center At X = -4.9 ; Y = 1178.4 and Radius, 1083.0

*** 1.548 ***

Failure Surface Specified By 32 Coordinate Points

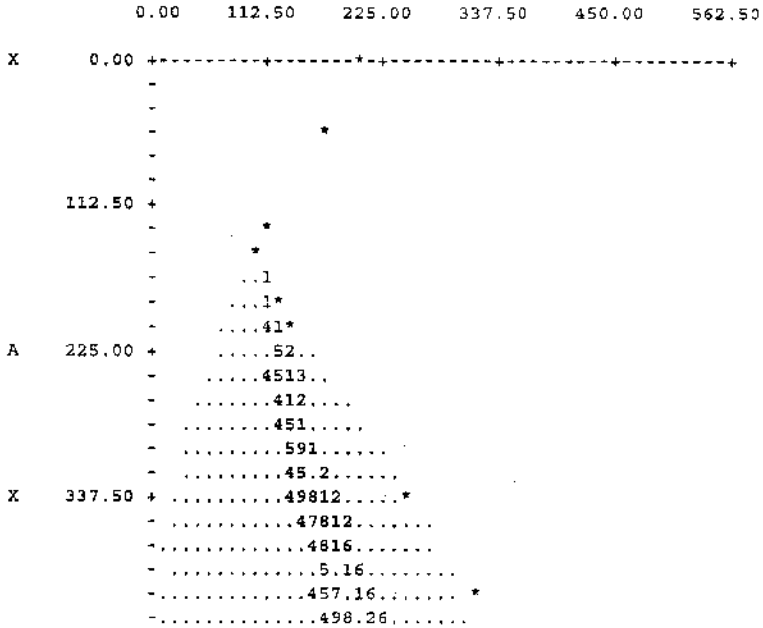
Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	187.21	115.38
3	211.14	122.60
4	234.96	130.19
5	258.66	138.15
6	282.23	146.49
7	305.66	155.20
8	328.96	164.28
9	352.10	173.72
10	375.10	183.53
11	397.94	193.70
12	420.61	204.23
13	443.12	215.11
14	465.45	226.35

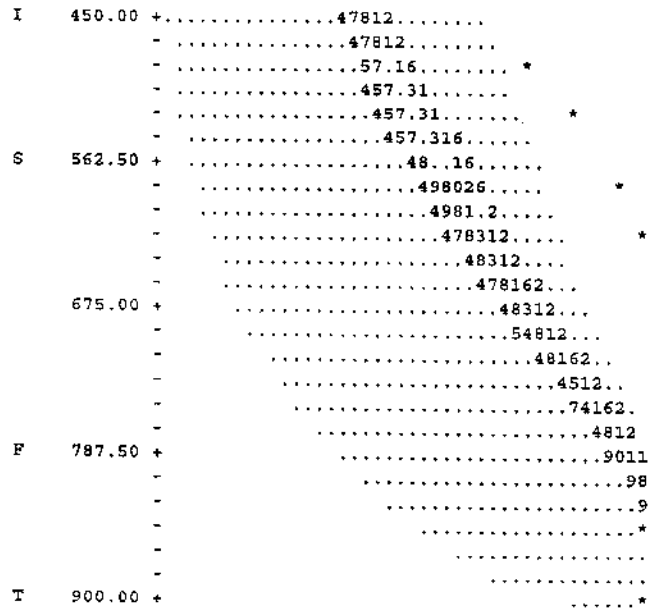
15	487.60	237.94
16	509.57	249.88
17	531.34	262.16
18	552.92	274.79
19	574.29	287.75
20	595.46	301.05
21	616.42	314.68
22	637.16	328.64
23	657.67	342.93
24	677.96	357.54
25	698.02	372.46
26	717.83	387.71
27	737.41	403.26
28	756.74	419.12
29	775.81	435.28
30	794.63	451.74
31	813.18	468.49
32	816.73	471.80

Circle Center At X = -257.9 ; Y = 1635.6 and Radius, 1584.1

*** 1.559 ***

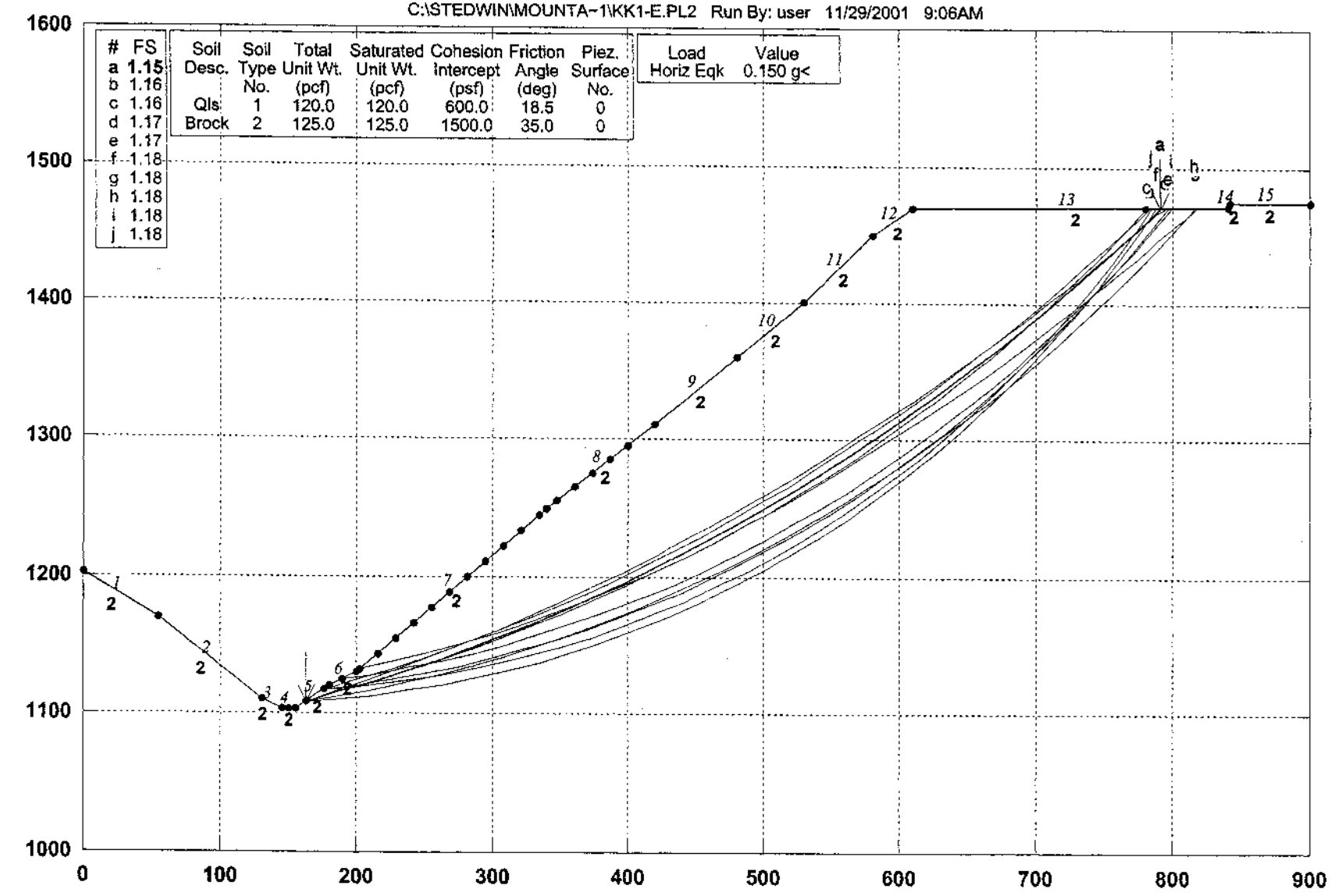
1




I 450.00
S 562.50
675.00
F 787.50
T 900.00

Mountain Gate, 03-0381-001, X-Sec:K-K' Setback FS=1.5,Pseudo Static

C:\STEDWIN\MOUNTA~1\KK1-E.PL2 Run By: user 11/29/2001 9:06AM



GSTABL7 FSmin=1.15

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-42

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 9:06AM
Run By: user
Input Data Filename: C:kk1-e.
Output Filename: C:kk1-e.OUT
Unit System: English

Plotted Output Filename: C:kk1-e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:K-K'
Setback FS=1.5,Pseudo Static

BOUNDARY COORDINATES

15 Top Boundaries
15 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	203.00	55.00	170.00	2
2	55.00	170.00	130.00	110.00	2
3	130.00	110.00	145.00	103.00	2
4	145.00	103.00	155.00	103.00	2
5	155.00	103.00	180.00	120.00	2
6	180.00	120.00	200.00	130.00	2
7	200.00	130.00	340.00	250.00	2
8	340.00	250.00	420.00	310.00	2
9	420.00	310.00	480.00	360.00	2
10	480.00	360.00	530.00	400.00	2
11	530.00	400.00	580.00	450.00	2
12	580.00	450.00	610.00	470.00	2
13	610.00	470.00	840.00	472.00	2
14	840.00	472.00	841.00	476.00	2
15	841.00	476.00	900.00	476.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced
Along The Ground Surface Between X = 150.00(ft)
and X = 400.00(ft)

Each Surface Terminates Between X = 780.00(ft)
and X = 900.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

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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 * *

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6	282.06	146.99
7	305.41	155.92
8	328.61	165.25
9	351.63	174.98
10	374.49	185.11
11	397.17	195.64
12	419.65	206.56
13	441.95	217.87
14	464.04	229.56
15	485.93	241.64
16	507.61	254.10
17	529.06	266.94
18	550.29	280.15
19	571.28	293.72
20	592.03	307.66
21	612.54	321.96
22	632.80	336.61
23	652.80	351.61
24	672.53	366.96
25	691.99	382.65
26	711.18	398.68
27	730.09	415.03
28	748.70	431.72
29	767.03	448.73
30	785.05	466.05
31	790.60	471.57

Circle Center At X = -218.6 ; Y = 1492.3 and Radius, 1435.5

*** 1.154 ***

Individual data on the 38 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	16.8	6997.2	0.0	0.0	0.0	0.0	1049.6	0.0	0.0
2	7.2	6677.6	0.0	0.0	0.0	0.0	1001.6	0.0	0.0
3	12.8	15115.1	0.0	0.0	0.0	0.0	2267.3	0.0	0.0
4	11.1	19138.8	0.0	0.0	0.0	0.0	2870.8	0.0	0.0
5	23.8	68968.3	0.0	0.0	0.0	0.0	10345.2	0.0	0.0
6	23.6	105321.3	0.0	0.0	0.0	0.0	15798.2	0.0	0.0
7	23.5	139638.1	0.0	0.0	0.0	0.0	20945.7	0.0	0.0
8	23.4	171905.4	0.0	0.0	0.0	0.0	25785.8	0.0	0.0
9	23.2	202113.9	0.0	0.0	0.0	0.0	30317.1	0.0	0.0
10	11.4	110321.2	0.0	0.0	0.0	0.0	16548.2	0.0	0.0
11	11.6	119030.1	0.0	0.0	0.0	0.0	17854.5	0.0	0.0
12	22.9	249276.3	0.0	0.0	0.0	0.0	37391.5	0.0	0.0
13	22.7	266432.6	0.0	0.0	0.0	0.0	39964.9	0.0	0.0
14	22.5	281702.2	0.0	0.0	0.0	0.0	42255.3	0.0	0.0
15	0.3	4460.3	0.0	0.0	0.0	0.0	669.0	0.0	0.0
16	21.9	293150.7	0.0	0.0	0.0	0.0	43972.6	0.0	0.0
17	22.1	314246.5	0.0	0.0	0.0	0.0	47137.0	0.0	0.0
18	16.0	238109.9	0.0	0.0	0.0	0.0	35716.5	0.0	0.0
19	5.9	90730.6	0.0	0.0	0.0	0.0	13609.6	0.0	0.0
20	21.7	340121.0	0.0	0.0	0.0	0.0	51018.2	0.0	0.0
21	21.5	349009.9	0.0	0.0	0.0	0.0	52351.5	0.0	0.0
22	0.9	15565.2	0.0	0.0	0.0	0.0	2334.8	0.0	0.0
23	20.3	345649.8	0.0	0.0	0.0	0.0	51847.5	0.0	0.0
24	21.0	377493.9	0.0	0.0	0.0	0.0	56624.1	0.0	0.0
25	8.7	162399.4	0.0	0.0	0.0	0.0	24359.9	0.0	0.0
26	12.0	226235.1	0.0	0.0	0.0	0.0	33935.3	0.0	0.0
27	18.0	337062.2	0.0	0.0	0.0	0.0	50559.3	0.0	0.0
28	2.5	47335.3	0.0	0.0	0.0	0.0	7100.3	0.0	0.0
29	20.3	356581.3	0.0	0.0	0.0	0.0	53487.2	0.0	0.0

30	20.0	315407.9	0.0	0.0	0.0	0.0	47311.2	0.0	0.0
31	19.7	274231.7	0.0	0.0	0.0	0.0	41134.8	0.0	0.0
32	19.5	233132.3	0.0	0.0	0.0	0.0	34969.8	0.0	0.0
33	19.2	192192.6	0.0	0.0	0.0	0.0	28828.9	0.0	0.0
34	18.9	151494.2	0.0	0.0	0.0	0.0	22724.1	0.0	0.0
35	18.6	111118.8	0.0	0.0	0.0	0.0	16667.8	0.0	0.0
36	18.3	71150.0	0.0	0.0	0.0	0.0	10672.5	0.0	0.0
37	18.0	31670.1	0.0	0.0	0.0	0.0	4750.5	0.0	0.0
38	5.5	1897.7	0.0	0.0	0.0	0.0	284.7	0.0	0.0

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	200.30	124.56
3	224.15	132.04
4	247.87	139.94
5	271.44	148.26
6	294.87	157.00
7	318.13	166.15
8	341.23	175.71
9	364.16	185.67
10	386.91	196.04
11	409.47	206.81
12	431.84	217.97
13	454.01	229.53
14	475.97	241.48
15	497.71	253.82
16	519.24	266.53
17	540.54	279.63
18	561.60	293.10
19	582.42	306.93
20	602.99	321.14
21	623.31	335.70
22	643.37	350.63
23	663.16	365.90
24	682.68	381.52
25	701.92	397.49
26	720.87	413.79
27	739.53	430.42
28	757.90	447.38
29	775.97	464.66
30	782.87	471.50

Circle Center At X = -211.1 ; Y = 1477.9 and Radius, 1414.5

*** 1.156 ***

1

Failure Surface Specified By 29 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	202.63	132.26
2	227.00	137.86
3	251.23	144.02
4	275.30	150.74
5	299.22	158.02
6	322.96	165.85
7	346.52	174.24
8	369.87	183.16
9	393.01	192.63
10	415.92	202.63
11	438.59	213.16
12	461.02	224.21
13	483.18	235.78
14	505.07	247.86
15	526.67	260.45
16	547.97	273.53
17	568.97	287.10
18	589.64	301.16
19	609.98	315.69
20	629.98	330.69
21	649.62	346.16
22	668.91	362.07
23	687.81	378.43
24	706.34	395.22
25	724.46	412.43
26	742.19	430.06
27	759.50	448.10
28	776.38	466.54
29	780.71	471.48

Circle Center At X = -26.4 ; Y = 1185.0 and Radius, 1077.3

*** 1.158 ***

Failure Surface Specified By 31 Coordinate Points

Point	X-Surf	Y-Surf

No.	(ft)	(ft)
1	163.16	108.55
2	186.86	116.51
3	210.44	124.81
4	233.90	133.44
5	257.24	142.39
6	280.46	151.67
7	303.54	161.27
8	326.49	171.20
9	349.29	181.44
10	371.95	192.00
11	394.46	202.88
12	416.82	214.07
13	439.01	225.57
14	461.05	237.38
15	482.91	249.50
16	504.61	261.92
17	526.13	274.65
18	547.47	287.67
19	568.62	300.99
20	589.59	314.61
21	610.36	328.52
22	630.94	342.71
23	651.32	357.20
24	671.49	371.96
25	691.46	387.01
26	711.21	402.33
27	730.75	417.93
28	750.06	433.80
29	769.16	449.94
30	788.02	466.35
31	793.90	471.60

Circle Center At X = -394.9 ; Y = 1807.7 and Radius, 1788.4

*** 1.167 ***

1

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	201.11	120.70
3	225.81	124.59
4	250.39	129.15
5	274.83	134.39
6	299.12	140.30
7	323.24	146.88
8	347.17	154.11

9	370.89	162.01
10	394.39	170.55
11	417.64	179.74
12	440.63	189.56
13	463.34	200.01
14	485.75	211.08
15	507.85	222.77
16	529.62	235.06
17	551.05	247.94
18	572.11	261.41
19	592.79	275.45
20	613.08	290.06
21	632.96	305.22
22	652.42	320.92
23	671.43	337.15
24	689.99	353.90
25	708.09	371.15
26	725.70	388.89
27	742.82	407.11
28	759.43	425.80
29	775.52	444.93
30	791.07	464.50
31	796.42	471.62

Circle Center At X = 72.3 ; Y = 1019.9 and Radius, 908.4

*** 1.175 ***

Failure Surface Specified By 31 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	188.09	110.41
3	212.95	113.04
4	237.72	116.45
5	262.36	120.64
6	286.87	125.58
7	311.21	131.30
8	335.36	137.76
9	359.29	144.98
10	382.99	152.94
11	406.43	161.64
12	429.59	171.06
13	452.44	181.20
14	474.96	192.05
15	497.13	203.59
16	518.94	215.83
17	540.35	228.73
18	561.35	242.30
19	581.91	256.52

20	602.02	271.37
21	621.66	286.84
22	640.80	302.92
23	659.44	319.58
24	677.54	336.82
25	695.10	354.62
26	712.10	372.95
27	728.51	391.81
28	744.33	411.17
29	759.54	431.01
30	774.12	451.32
31	787.71	471.55

Circle Center At X = 116.0 ; Y = 908.4 and Radius, 801.3

*** 1.176 ***

1

Failure Surface Specified By 32 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	187.21	115.38
3	211.14	122.60
4	234.96	130.19
5	258.66	138.15
6	282.23	146.49
7	305.66	155.20
8	328.96	164.28
9	352.10	173.72
10	375.10	183.53
11	397.94	193.70
12	420.61	204.23
13	443.12	215.11
14	465.45	226.35
15	487.60	237.94
16	509.57	249.88
17	531.34	262.16
18	552.92	274.79
19	574.29	287.75
20	595.46	301.05
21	616.42	314.68
22	637.16	328.64
23	657.67	342.93
24	677.96	357.54
25	698.02	372.46
26	717.83	387.71
27	737.41	403.26
28	756.74	419.12
29	775.81	435.28

30	794.63	451.74
31	813.18	468.49
32	816.73	471.80

Circle Center At X = -257.9 ; Y = 1635.6 and Radius, 1584.1

*** 1.177 ***

Failure Surface Specified By 32 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	163.16	108.55
2	187.81	112.71
3	212.36	117.45
4	236.79	122.74
5	261.09	128.60
6	285.25	135.02
7	309.26	142.00
8	333.10	149.53
9	356.76	157.60
10	380.23	166.22
11	403.49	175.38
12	426.54	185.07
13	449.35	195.29
14	471.92	206.04
15	494.24	217.30
16	516.30	229.08
17	538.07	241.36
18	559.56	254.14
19	580.74	267.41
20	601.62	281.16
21	622.17	295.40
22	642.39	310.11
23	662.26	325.27
24	681.78	340.90
25	700.93	356.96
26	719.71	373.47
27	738.10	390.41
28	756.09	407.76
29	773.68	425.53
30	790.86	443.69
31	807.61	462.25
32	815.83	471.79

Circle Center At X = -4.9 ; Y = 1178.4 and Radius, 1083.0

*** 1.177 ***

1

Failure Surface Specified By 30 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	189.47	124.74
2	214.15	128.74
3	238.72	133.38
4	263.16	138.65
5	287.45	144.54
6	311.59	151.06
7	335.55	158.20
8	359.31	165.95
9	382.87	174.31
10	406.21	183.28
11	429.31	192.84
12	452.15	202.99
13	474.73	213.73
14	497.02	225.05
15	519.02	236.94
16	540.70	249.38
17	562.05	262.39
18	583.06	275.93
19	603.72	290.02
20	624.00	304.63
21	643.91	319.76
22	663.41	335.39
23	682.51	351.52
24	701.19	368.14
25	719.43	385.24
26	737.23	402.79
27	754.57	420.80
28	771.44	439.25
29	787.83	458.13
30	798.96	471.64

Circle Center At X = 46.4 ; Y = 1084.9 and Radius, 970.7

*** 1.177 ***

Failure Surface Specified By 31 Coordinate Points

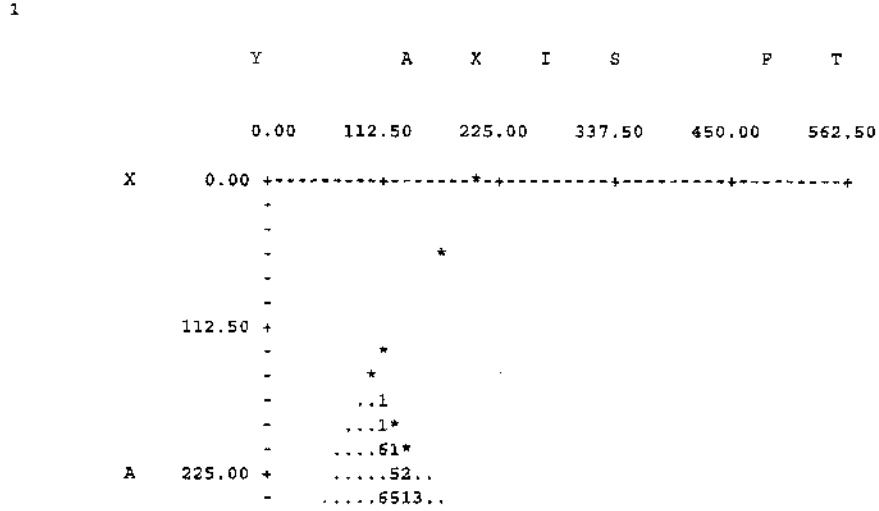
Point No.	X-Surf (ft)	Y-Surf (ft)
1	176.32	117.50
2	201.23	119.55
3	226.07	122.38

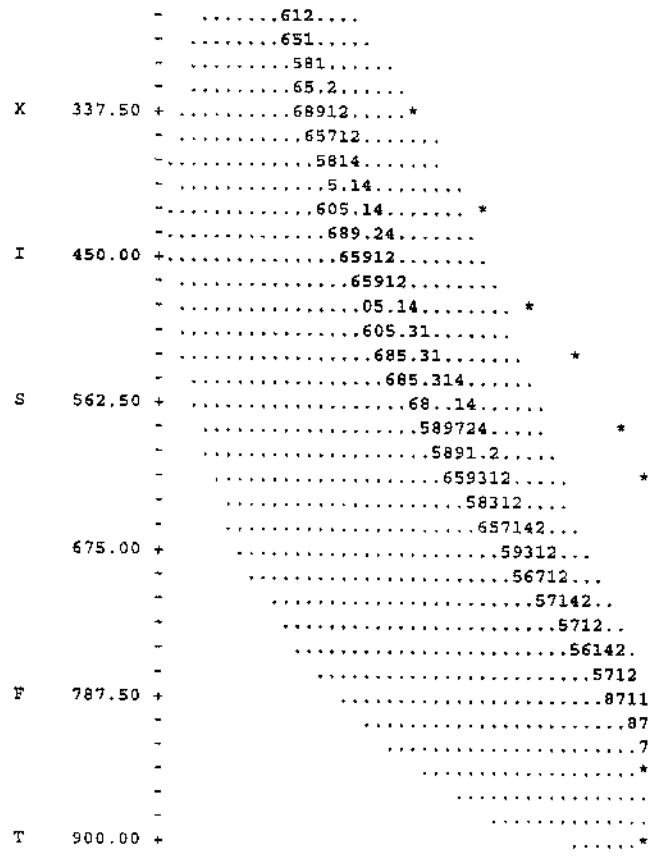
4	250.81	126.00
5	275.42	130.40
6	299.88	135.57
7	324.16	141.52
8	348.24	148.22
9	372.10	155.69
10	395.71	163.90
11	419.06	172.86
12	442.10	182.55
13	464.83	192.96
14	487.22	204.08
15	509.25	215.91
16	530.89	228.42
17	552.12	241.61
18	572.93	255.47
19	593.29	269.98
20	613.19	285.12
21	632.59	300.88
22	651.49	317.25
23	669.86	334.21
24	687.68	351.74
25	704.95	369.82
26	721.63	388.44
27	737.72	407.57
28	753.19	427.21
29	768.04	447.32
30	782.25	467.89
31	784.58	471.52

Circle Center At X = 123.9 ; Y = 907.3 and Radius, 791.5

*** 1.179 ***

1

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F
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T
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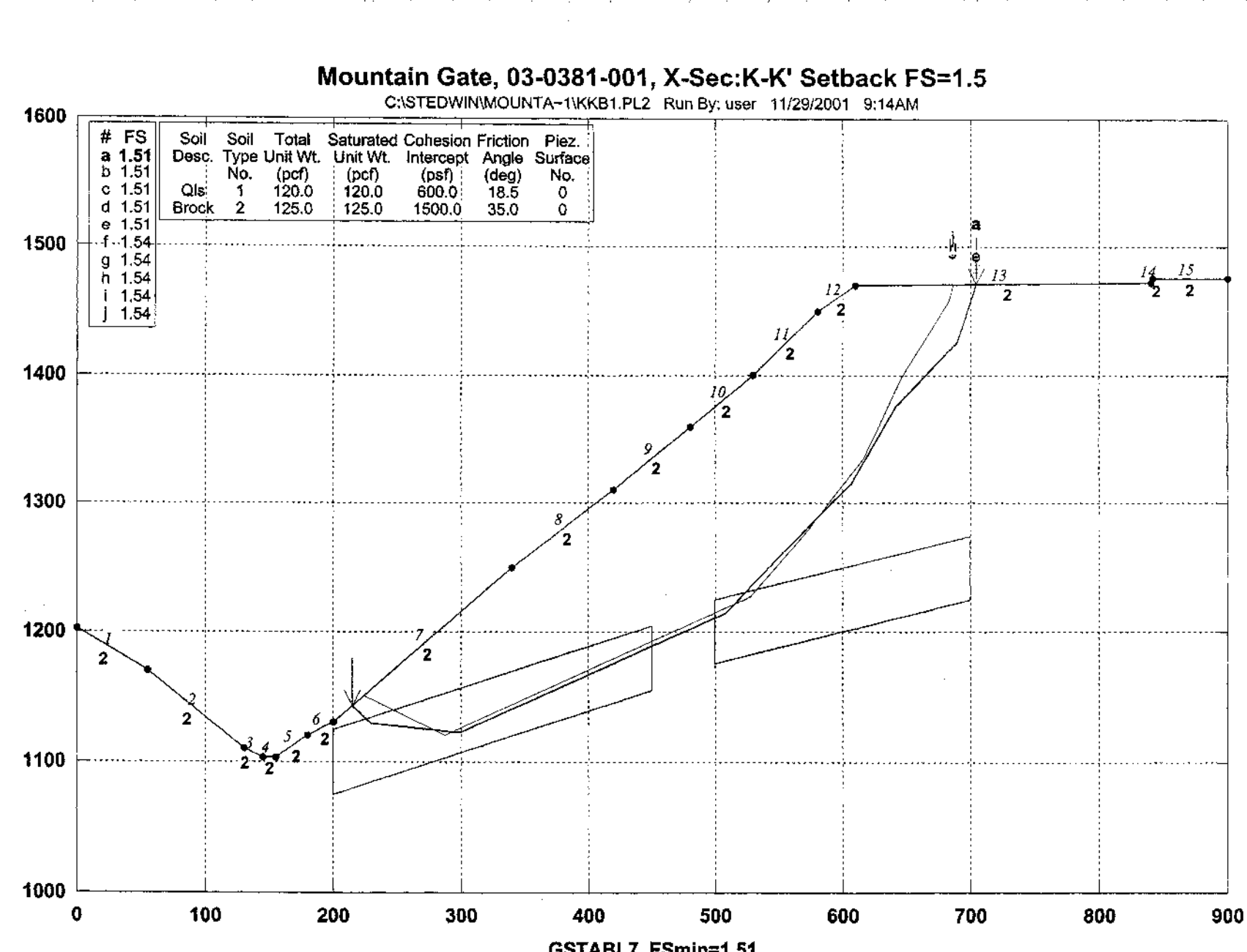


STED

Figure E-43

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 9:14AM
Run By: user
Input Data Filename: C:kkb1.
Output Filename: C:kkb1.OUT
Unit System: English

Plotted Output Filename: C:kkb1.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec;K-K'
Setback FS=1.5

BOUNDARY COORDINATES

15 Top Boundaries
15 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	203.00	55.00	170.00	2
2	55.00	170.00	130.00	110.00	2
3	130.00	110.00	145.00	103.00	2
4	145.00	103.00	155.00	103.00	2
5	155.00	103.00	180.00	120.00	2
6	180.00	120.00	200.00	130.00	2
7	200.00	130.00	340.00	250.00	2
8	340.00	250.00	420.00	310.00	2
9	420.00	310.00	480.00	360.00	2
10	480.00	360.00	530.00	400.00	2
11	530.00	400.00	580.00	450.00	2
12	580.00	450.00	610.00	470.00	2
13	610.00	470.00	840.00	472.00	2
14	840.00	472.00	841.00	476.00	2
15	841.00	476.00	900.00	476.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 70.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	100.00	450.00	180.00	50.00
2	500.00	200.00	700.00	250.00	50.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03

3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.509 ***

Individual data on the 14 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.3	25540.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	69.7	522006.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	40.3	511106.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	80.0	1221587.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	60.0	1096430.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	29.0	590665.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	21.0	435524.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	27.3	555458.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	22.7	457926.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	26.6	521517.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.4	64563.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	31.2	473261.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	48.5	419341.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	14.2	39209.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 9 Coordinate Points

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

1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.509 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.509 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.509 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.509 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	223.81	150.41
2	286.47	120.76
3	527.67	226.84
4	573.40	279.84
5	616.86	334.71
6	645.64	398.52
7	683.42	457.45
8	686.16	470.66

*** 1.544 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	223.81	150.41
2	286.47	120.76

3	527.67	226.84
4	573.40	279.84
5	616.86	334.71
6	645.64	398.52
7	683.42	457.45
8	686.16	470.66

*** 1.544 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	223.81	150.41
2	286.47	120.76
3	527.67	226.84
4	573.40	279.84
5	616.86	334.71
6	645.64	398.52
7	683.42	457.45
8	686.16	470.66

*** 1.544 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	223.81	150.41
2	286.47	120.76
3	527.67	226.84
4	573.40	279.84
5	616.86	334.71
6	645.64	398.52
7	683.42	457.45
8	686.16	470.66

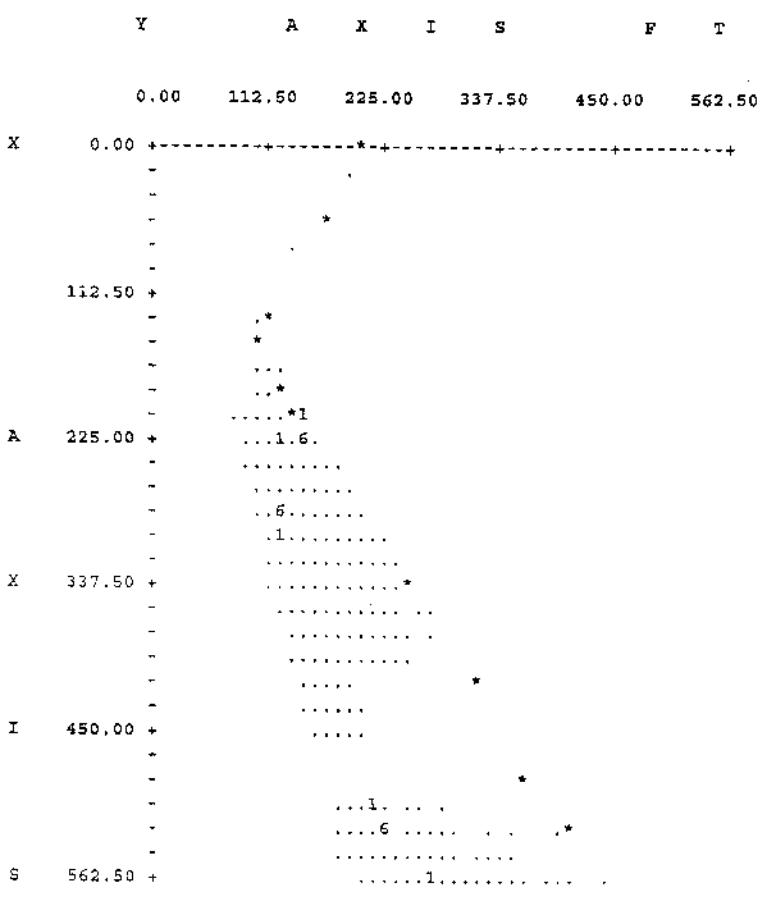
*** 1.544 ***

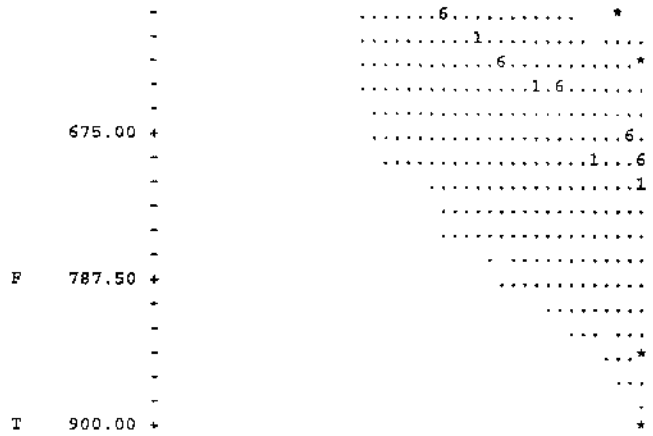
Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	223.81	150.41
2	286.47	120.76
3	527.67	226.84
4	573.40	279.84
5	616.86	334.71
6	645.64	398.52
7	683.42	457.45
8	686.16	470.66

*** 1.544 ***

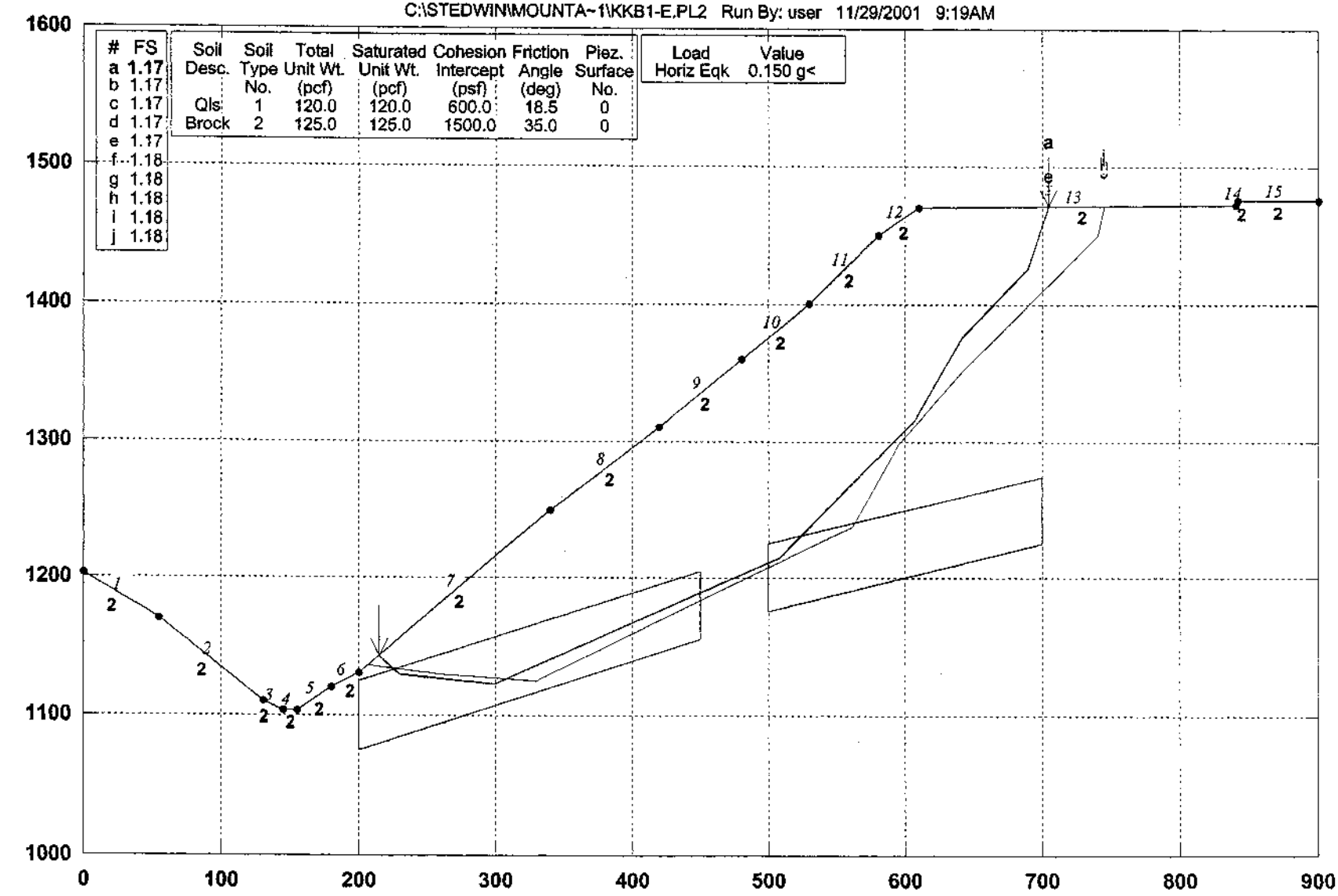
1





Mountain Gate, 03-0381-001, X-Sec:K-K' Setback FS=1.5, Pseudo Static

C:\STEDWIN\MOUNTA~1\KKB1-E.PL2 Run By: user 11/29/2001 9:19AM



GSTABL7 FSmin=1.17

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

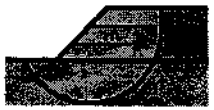


Figure E-44

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 9:19AM
Run By: user
Input Data Filename: C:kkbl-e.
Output Filename: C:kkbl-e.OUT
Unit System: English

Plotted Output Filename: C:kkbl-e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:K-K'
Setback FS=1.5, Pseudo Static

BOUNDARY COORDINATES

15 Top Boundaries
15 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	203.00	55.00	170.00	2
2	55.00	170.00	130.00	110.00	2
3	130.00	110.00	145.00	103.00	2
4	145.00	103.00	155.00	103.00	2
5	155.00	103.00	180.00	120.00	2
6	180.00	120.00	200.00	130.00	2
7	200.00	130.00	340.00	250.00	2
8	340.00	250.00	420.00	310.00	2
9	420.00	310.00	480.00	360.00	2
10	480.00	360.00	530.00	400.00	2
11	530.00	400.00	580.00	450.00	2
12	580.00	450.00	610.00	470.00	2
13	610.00	470.00	840.00	472.00	2
14	840.00	472.00	841.00	476.00	2
15	841.00	476.00	900.00	476.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	120.0	120.0	600.0	18.5	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 70.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	100.00	450.00	180.00	50.00
2	500.00	200.00	700.00	250.00	50.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.167 ***

Individual data on the 14 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.3	25540.1	0.0	0.0	0.0	0.0	3831.0	0.0	0.0
2	69.7	522006.9	0.0	0.0	0.0	0.0	78301.0	0.0	0.0
3	40.3	511106.4	0.0	0.0	0.0	0.0	76666.0	0.0	0.0
4	80.0	1221587.5	0.0	0.0	0.0	0.0	*******	0.0	0.0
5	60.0	1096430.0	0.0	0.0	0.0	0.0	*******	0.0	0.0
6	29.0	590665.9	0.0	0.0	0.0	0.0	88599.9	0.0	0.0
7	21.0	435524.1	0.0	0.0	0.0	0.0	65328.6	0.0	0.0
8	27.3	555458.1	0.0	0.0	0.0	0.0	83318.7	0.0	0.0
9	22.7	457926.3	0.0	0.0	0.0	0.0	68689.0	0.0	0.0
10	26.6	521517.9	0.0	0.0	0.0	0.0	78227.7	0.0	0.0
11	3.4	64563.1	0.0	0.0	0.0	0.0	9684.5	0.0	0.0
12	31.2	473261.8	0.0	0.0	0.0	0.0	70989.3	0.0	0.0
13	48.5	419341.4	0.0	0.0	0.0	0.0	62901.2	0.0	0.0

14	14.2	39209.2	0.0	0.0	0.0	0.0	5881.4	0.0	0.0

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.167 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.167 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03

3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.167 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	214.74	142.64
2	230.04	129.03
3	299.72	122.32
4	508.97	214.90
5	557.35	265.49
6	606.57	315.26
7	641.18	376.11
8	689.70	426.57
9	703.91	470.82

*** 1.167 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	206.76	135.80
2	259.62	128.98
3	329.50	124.92
4	560.93	237.36
5	595.51	298.22
6	641.26	351.20
7	690.75	400.70
8	739.99	450.46
9	744.59	471.17

*** 1.178 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	206.76	135.80
2	259.62	128.98
3	329.50	124.92
4	560.93	237.36
5	595.51	298.22
6	641.26	351.20
7	690.75	400.70
8	739.99	450.46
9	744.59	471.17

*** 1.178 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	206.76	135.80
2	259.62	128.98
3	329.50	124.92
4	560.93	237.36
5	595.51	298.22
6	641.26	351.20
7	690.75	400.70
8	739.99	450.46
9	744.59	471.17

*** 1.178 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	206.76	135.80
2	259.62	128.98
3	329.50	124.92

4	560.93	237.36
5	595.51	298.22
6	641.26	351.20
7	690.75	400.70
8	739.99	450.46
9	744.59	471.17

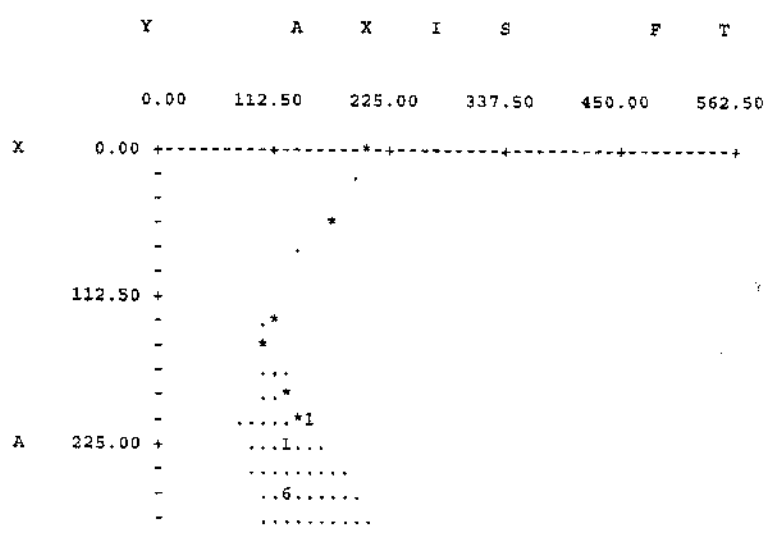
*** 1.178 ***

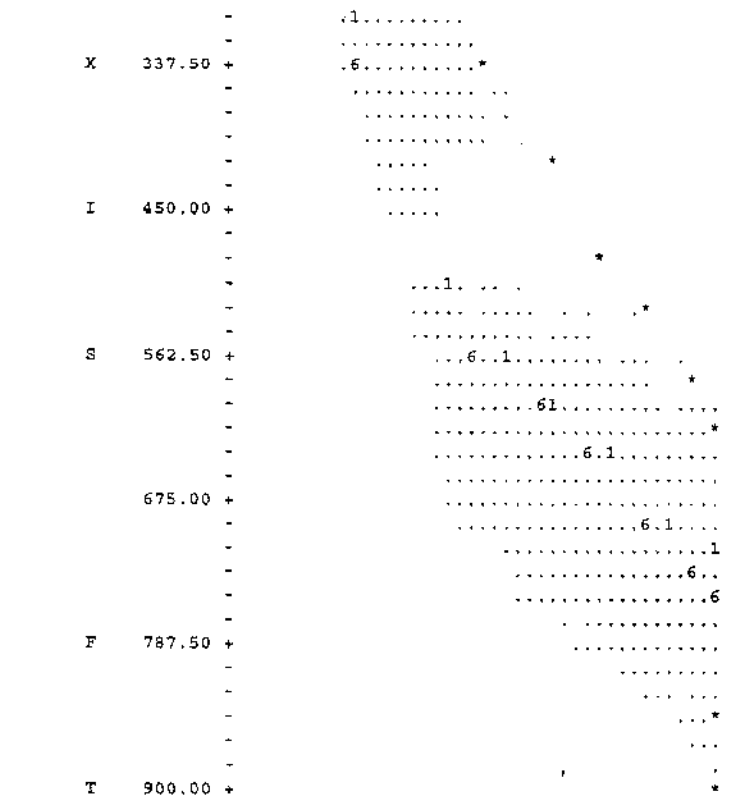
Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	206.76	135.80
2	259.62	128.98
3	329.50	124.92
4	560.93	237.36
5	595.51	298.22
6	641.26	351.20
7	690.75	400.70
8	739.99	450.46
9	744.59	471.17

*** 1.178 ***

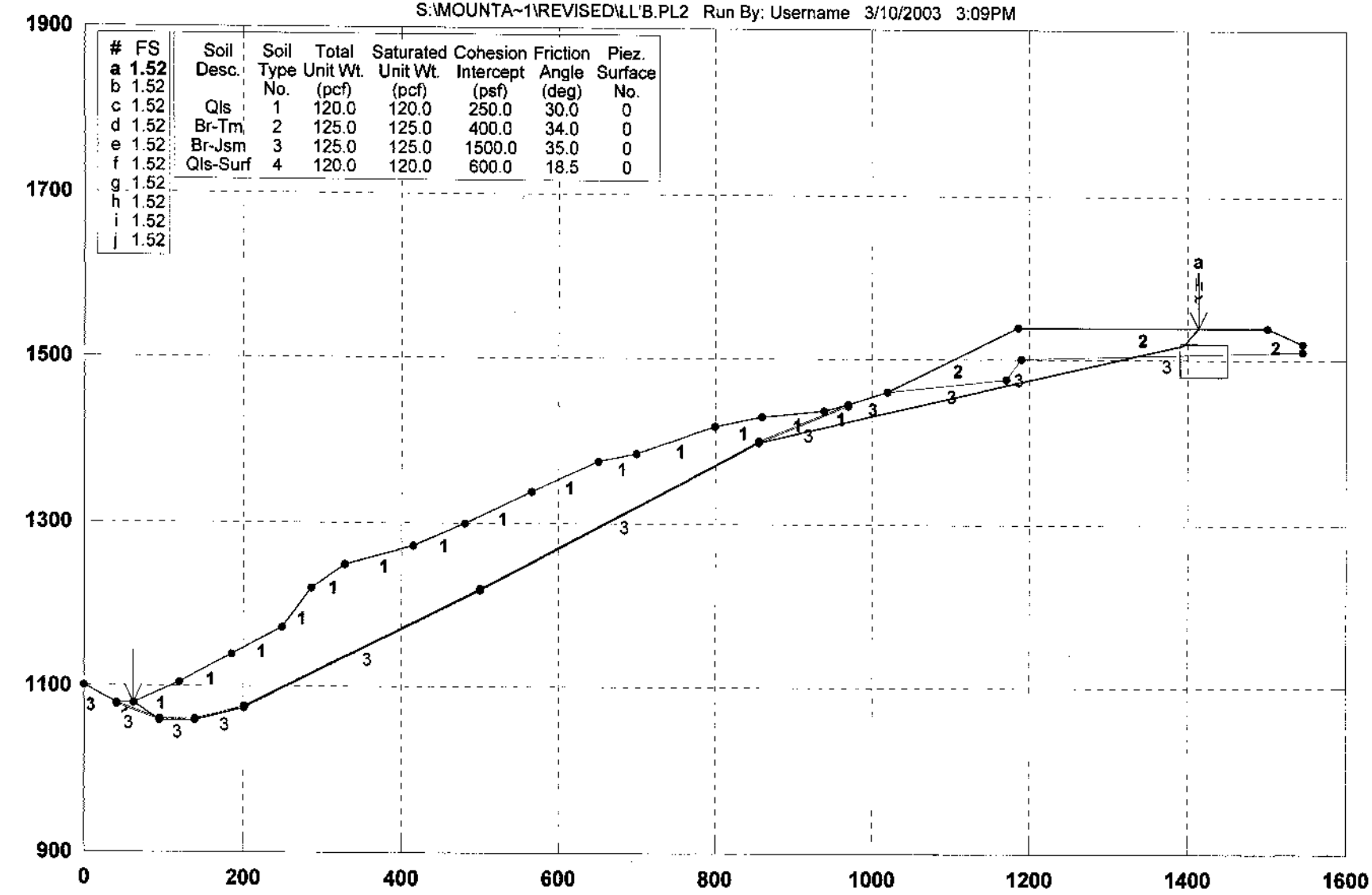
1





Mountain Gate/ Section L-L' , Static

S:\MOUNTA~1\REVISED\LL'B.PL2 Run By: Username 3/10/2003 3:09PM



#	FS
a	1.52
b	1.52
c	1.52
d	1.52
e	1.52
f	1.52
g	1.52
h	1.52
i	1.52
j	1.52

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

GSTABL7 FSmin=1.52

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-45

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	3:09PM
Run By:	Username
Input Data Filename:	S:ll'b.
Output Filename:	S:ll'b.OUT
Unit System:	English
Plotted Output Filename:	S:ll'b.PLT

PROBLEM DESCRIPTION Mountain Gate/ Section L-L'
, Static

BOUNDARY COORDINATES

20 Top Boundaries
35 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	200.00	40.00	179.00	3
2	40.00	179.00	62.00	180.00	1
3	62.00	180.00	119.00	205.00	1
4	119.00	205.00	185.00	240.00	1
5	185.00	240.00	250.00	272.00	1
6	250.00	272.00	285.00	320.00	1
7	285.00	320.00	329.00	350.00	1
8	329.00	350.00	415.00	373.00	1
9	415.00	373.00	480.00	400.00	1
10	480.00	400.00	565.00	439.00	1
11	565.00	439.00	650.00	475.00	1
12	650.00	475.00	700.00	485.00	1
13	700.00	485.00	800.00	518.00	1
14	800.00	518.00	860.00	530.00	1
15	860.00	530.00	938.00	537.00	1
16	938.00	537.00	970.00	545.00	1
17	970.00	545.00	1020.00	561.00	3
18	1020.00	561.00	1185.00	640.00	2
19	1185.00	640.00	1500.00	640.00	2
20	1500.00	640.00	1545.00	620.00	2
21	40.00	179.00	95.00	160.00	3
22	95.00	160.00	140.00	160.00	4
23	140.00	160.00	200.00	175.00	4
24	200.00	175.00	500.00	320.00	4
25	500.00	320.00	856.00	500.00	4
26	856.00	500.00	970.00	545.00	4
27	40.00	177.00	95.00	158.00	3
28	95.00	158.00	140.00	158.00	3
29	140.00	158.00	200.00	173.00	3
30	200.00	173.00	500.00	318.00	3
31	500.00	318.00	856.00	498.00	3
32	856.00	498.00	970.00	543.00	3
33	1020.00	561.00	1170.00	575.00	3
34	1170.00	575.00	1190.00	600.00	3
35	1190.00	600.00	1545.00	611.00	3

ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 Trial Surfaces Have Been Generated.

6 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)

1	95.00	159.00	95.10	159.00	0.00
2	140.00	159.00	140.10	159.00	0.00
3	200.00	174.00	200.10	174.00	0.00
4	500.00	319.00	500.10	319.00	0.00
5	856.00	499.00	856.10	499.00	0.00
6	1390.00	600.00	1450.00	600.00	40.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

Individual data on the 34 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	29.6	56734.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3.4	13684.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	195.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	24.0	117126.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	21.0	129951.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	45.0	342592.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	15.0	128825.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	91.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	50.0	441607.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	35.0	375423.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	44.0	577097.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	86.0	1077289.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	65.0	724652.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	20.0	217091.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.1	767.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	64.9	691020.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	85.0	853529.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	50.0	435291.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	100.0	673505.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	56.0	260638.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.1	197.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	3.9	14283.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.7	6218.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	76.3	229881.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	32.0	80244.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	50.0	144514.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	150.0	840162.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	15.0	123702.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	5.0	42089.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	140.1	896880.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	64.7	230137.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

34 19.8 26411.3 0.0 0.0 0.0 0.0 0.0 0.0
0.0

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

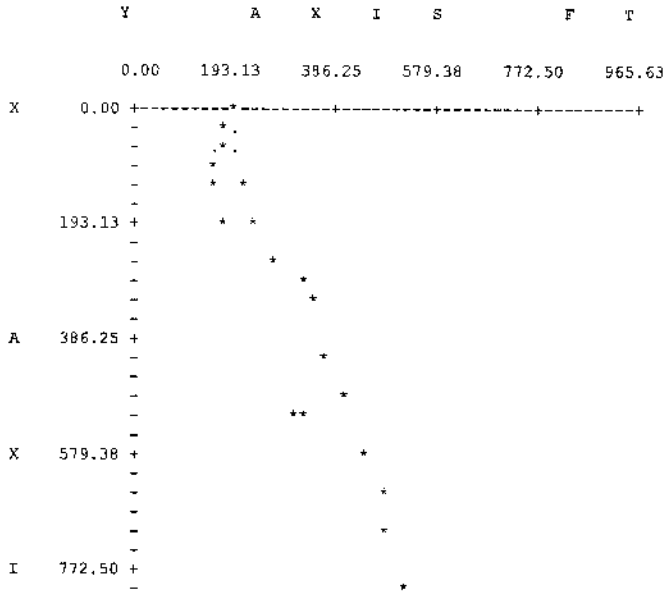
*** 1.521 ***

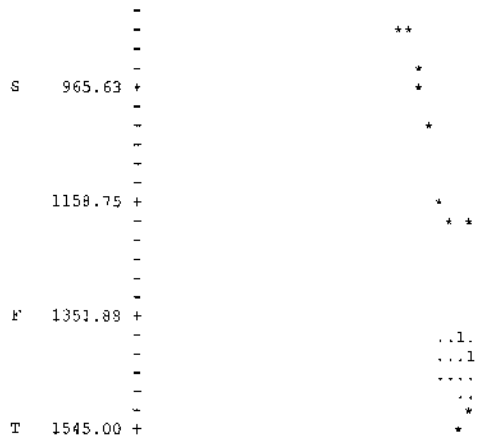
Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1394.73	618.71
8	1414.58	640.00

*** 1.521 ***

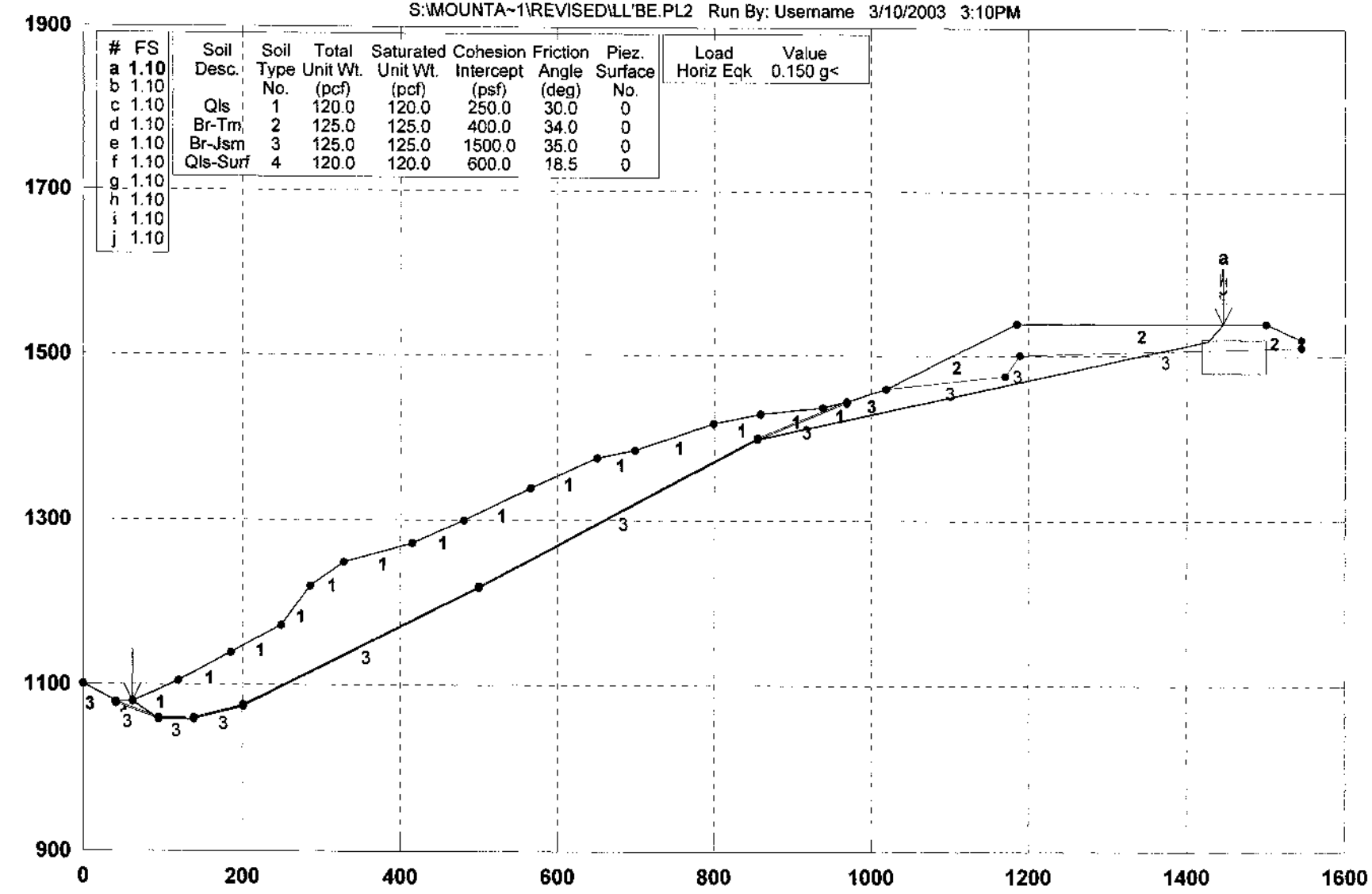
1




S
965.63
1158.75
F
1351.88
T
1545.00

Mountain Gate/ Section L-L' , Pseudo Static

S:\MOUNTA~1\REVISED\LL'BE.PL2 Run By: Username 3/10/2003 3:10PM



#	FS
a	1.10
b	1.10
c	1.10
d	1.10
e	1.10
f	1.10
g	1.10
h	1.10
i	1.10
j	1.10

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

Load	Value
Horiz Eqk	0.150 g<

GSTABL7 FSmin=1.10

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-46

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 2.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	3:10PM
Run By:	Username
Input Data Filename:	S:ll'be.
Output Filename:	S:ll'be.OUT
Unit System:	English

Plotted Output Filename: S:ll'be.PLT

PROBLEM DESCRIPTION Mountain Gate/ Section L-L'
, Pseudo Static

BOUNDARY COORDINATES

20 Top Boundaries
35 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	200.00	40.00	179.00	3
2	40.00	179.00	62.00	180.00	1
3	62.00	180.00	119.00	205.00	1
4	119.00	205.00	185.00	240.00	1
5	185.00	240.00	250.00	272.00	1
6	250.00	272.00	285.00	320.00	1
7	285.00	320.00	329.00	350.00	1
8	329.00	350.00	415.00	373.00	1
9	415.00	373.00	480.00	400.00	1
10	480.00	400.00	565.00	439.00	1
11	565.00	439.00	650.00	475.00	1
12	650.00	475.00	700.00	485.00	1
13	700.00	485.00	800.00	518.00	1
14	800.00	518.00	860.00	530.00	1
15	860.00	530.00	938.00	537.00	1
16	938.00	537.00	970.00	545.00	1
17	970.00	545.00	1020.00	561.00	3
18	1020.00	561.00	1185.00	640.00	2
19	1185.00	640.00	1500.00	640.00	2
20	1500.00	640.00	1545.00	620.00	2
21	40.00	179.00	95.00	160.00	3
22	95.00	160.00	140.00	160.00	4
23	140.00	160.00	200.00	175.00	4
24	200.00	175.00	500.00	320.00	4
25	500.00	320.00	856.00	500.00	4
26	856.00	500.00	970.00	545.00	4
27	40.00	177.00	95.00	158.00	3
28	95.00	158.00	140.00	158.00	3
29	140.00	158.00	200.00	173.00	3
30	200.00	173.00	500.00	318.00	3
31	500.00	318.00	856.00	498.00	3
32	856.00	498.00	970.00	543.00	3
33	1020.00	561.00	1170.00	575.00	3
34	1170.00	575.00	1190.00	600.00	3
35	1190.00	600.00	1545.00	611.00	3

1

ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

3000 Trial Surfaces Have Been Generated.

6 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	95.00	159.00	95.10	159.00	0.00
2	140.00	159.00	140.10	159.00	0.00
3	200.00	174.00	200.10	174.00	0.00
4	500.00	319.00	500.10	319.00	0.00
5	856.00	499.00	856.10	499.00	0.00
6	1420.00	600.00	1500.00	600.00	40.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Individual data on the 34 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	0.2	1.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
2	29.6	56734.4	0.0	0.0	0.0	0.0	8510.2	0.0	0.0
3	3.4	13684.7	0.0	0.0	0.0	0.0	2052.7	0.0	0.0
4	0.0	195.8	0.0	0.0	0.0	0.0	29.4	0.0	0.0
5	24.0	117126.2	0.0	0.0	0.0	0.0	17568.9	0.0	0.0
6	21.0	129951.8	0.0	0.0	0.0	0.0	19492.8	0.0	0.0
7	0.0	7.1	0.0	0.0	0.0	0.0	1.1	0.0	0.0
8	45.0	342592.2	0.0	0.0	0.0	0.0	51388.8	0.0	0.0
9	15.0	128825.3	0.0	0.0	0.0	0.0	19323.8	0.0	0.0
10	0.0	91.4	0.0	0.0	0.0	0.0	13.7	0.0	0.0
11	50.0	441607.2	0.0	0.0	0.0	0.0	66241.1	0.0	0.0
12	35.0	375423.7	0.0	0.0	0.0	0.0	56313.6	0.0	0.0
13	44.0	577097.5	0.0	0.0	0.0	0.0	86564.6	0.0	0.0
14	86.0	1077288.5	0.0	0.0	0.0	0.0	*******	0.0	0.0
15	65.0	724652.1	0.0	0.0	0.0	0.0	*******	0.0	0.0
16	20.0	217091.6	0.0	0.0	0.0	0.0	32563.7	0.0	0.0
17	0.1	767.1	0.0	0.0	0.0	0.0	115.1	0.0	0.0
18	64.9	691020.7	0.0	0.0	0.0	0.0	*******	0.0	0.0
19	85.0	853529.8	0.0	0.0	0.0	0.0	*******	0.0	0.0
20	50.0	435291.5	0.0	0.0	0.0	0.0	65293.7	0.0	0.0
21	100.0	673505.9	0.0	0.0	0.0	0.0	*******	0.0	0.0
22	56.0	260638.1	0.0	0.0	0.0	0.0	39095.7	0.0	0.0
23	0.1	197.2	0.0	0.0	0.0	0.0	29.6	0.0	0.0
24	3.9	14294.8	0.0	0.0	0.0	0.0	2144.2	0.0	0.0
25	1.3	4871.3	0.0	0.0	0.0	0.0	730.7	0.0	0.0
26	76.7	236380.3	0.0	0.0	0.0	0.0	35457.0	0.0	0.0
27	32.0	85065.3	0.0	0.0	0.0	0.0	12759.8	0.0	0.0
28	50.0	155200.6	0.0	0.0	0.0	0.0	23280.1	0.0	0.0

29	150.0	895291.9	0.0	0.0	0.0	0.0	*******	0.0
0.0								
30	15.0	131119.2	0.0	0.0	0.0	0.0	19667.9	0.0
0.0								
31	5.0	44639.7	0.0	0.0	0.0	0.0	6695.8	0.0
0.0								
32	172.7	1139048.5	0.0	0.0	0.0	0.0	*******	0.0
0.0								
33	63.6	222483.4	0.0	0.0	0.0	0.0	33372.5	0.0
0.0								
34	19.8	26411.3	0.0	0.0	0.0	0.0	3961.7	0.0
0.0								

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99

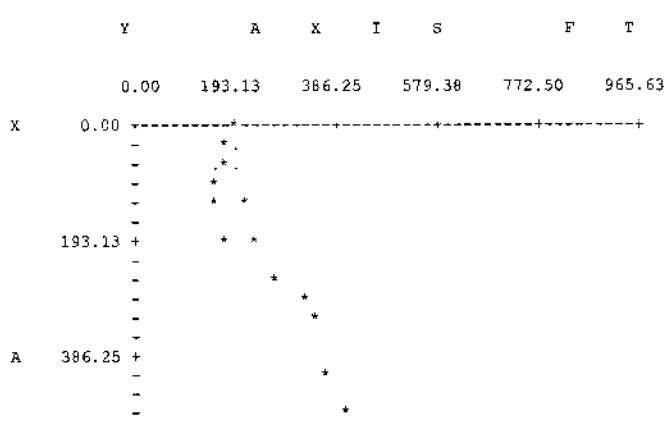
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

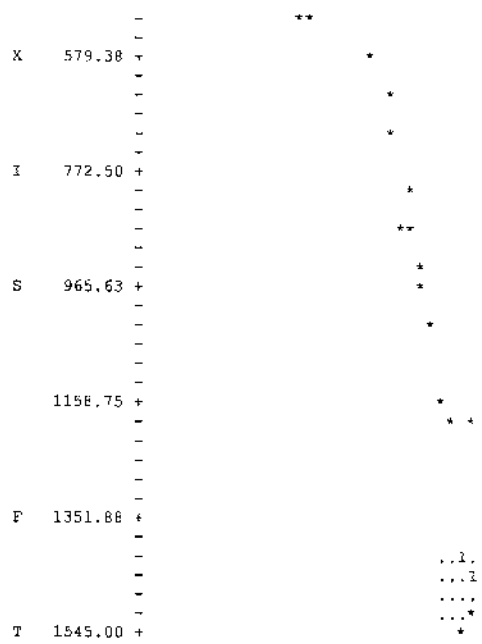
*** 1.097 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	61.83	179.99
2	95.05	159.00
3	140.00	159.00
4	200.01	174.00
5	500.07	319.00
6	856.05	499.00
7	1426.30	618.71
8	1446.15	640.00

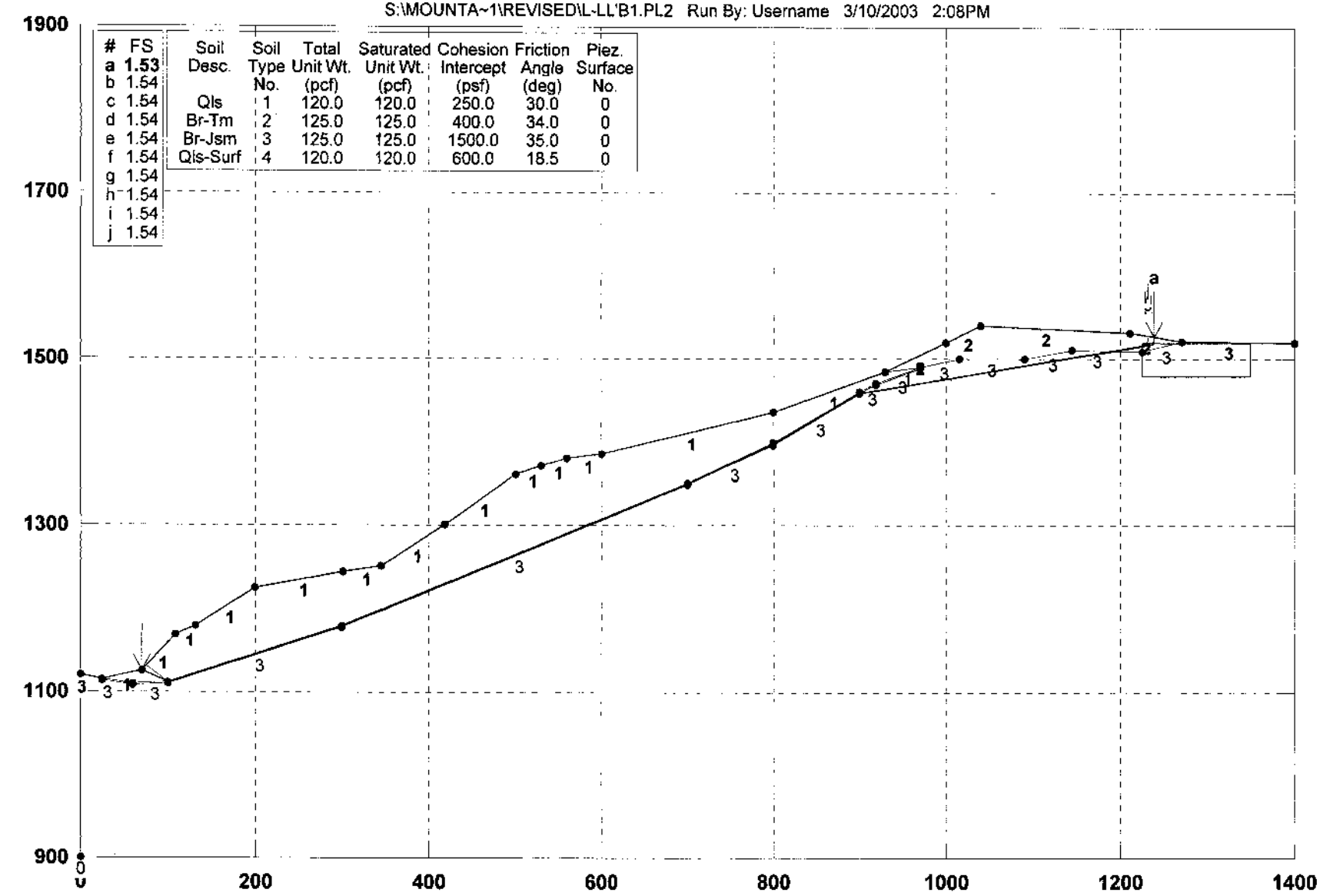
*** 1.097 ***




X 579.38
I 772.50
S 965.63
1158.75
F 1351.88
T 1545.00

Mountain Gate: Section: LL-LL' , Static

S:\MOUNTA~1\REVISED\L-LL'B1.PL2 Run By: Username 3/10/2003 2:08PM



#	FS
a	1.53
b	1.54
c	1.54
d	1.54
e	1.54
f	1.54
g	1.54
h	1.54
i	1.54
j	1.54

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

GSTABL7 FSmin=1.53

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-49

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	2:08PM
Run By:	Username
Input Data Filename:	S:l-ll'bl.
Output Filename:	S:l-ll'bl.OUT
Unit System:	English
Plotted Output Filename:	S:l-ll'bl.PLT

PROBLEM DESCRIPTION Mountain Gate: Section: LL-LL'
, Static

BOUNDARY COORDINATES

19 Top Boundaries
44 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	221.00	25.00	215.00	3
2	25.00	215.00	70.00	225.00	1
3	70.00	225.00	109.00	270.00	1
4	109.00	270.00	131.00	280.00	1
5	131.00	280.00	200.00	325.00	1
6	200.00	325.00	301.00	345.00	1
7	301.00	345.00	345.00	352.00	1
8	345.00	352.00	419.00	400.00	1
9	419.00	400.00	500.00	460.00	1
10	500.00	460.00	530.00	470.00	1
11	530.00	470.00	560.00	480.00	1
12	560.00	480.00	600.00	485.00	1
13	600.00	485.00	800.00	536.00	1
14	800.00	536.00	929.00	585.00	1
15	929.00	585.00	1000.00	620.00	2
16	1000.00	620.00	1040.00	640.00	2
17	1040.00	640.00	1211.00	631.00	2
18	1211.00	631.00	1270.00	621.00	2
19	1270.00	621.00	1400.00	620.00	3
20	25.00	215.00	60.00	210.00	4
21	60.00	210.00	100.00	212.00	4
22	100.00	212.00	300.00	280.00	4
23	300.00	280.00	700.00	450.00	4
24	700.00	450.00	800.00	498.00	4
25	800.00	498.00	900.00	560.00	4
26	900.00	560.00	919.00	570.00	4
27	929.00	585.00	970.00	590.00	1
28	919.00	570.00	970.00	590.00	4
29	25.00	213.00	60.00	208.00	3
30	60.00	208.00	100.00	210.00	3
31	100.00	210.00	300.00	278.00	3
32	300.00	278.00	700.00	448.00	3
33	700.00	448.00	800.00	496.00	3
34	800.00	496.00	900.00	558.00	3
35	900.00	558.00	919.00	568.00	3
36	919.00	568.00	970.00	588.00	3
37	0.00	0.00	0.00	0.00	0
38	0.00	0.00	0.00	0.00	0
39	0.00	0.00	0.00	0.00	0
40	970.00	590.00	1015.00	600.00	3
41	1015.00	600.00	1090.00	600.00	3
42	1090.00	600.00	1145.00	610.00	3
43	1145.00	610.00	1225.00	609.00	3
44	1225.00	609.00	1270.00	621.00	3

1

ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

3000 Trial Surfaces Have Been Generated.

6 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	100.00	211.00	100.10	211.00	0.00
2	300.00	279.00	300.10	280.00	0.00
3	700.00	449.00	700.10	449.00	0.00
4	800.00	497.00	800.10	497.00	0.00
5	900.00	559.00	900.10	559.00	0.00
6	1225.00	600.00	1350.00	600.00	40.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.42	225.48
2	100.09	211.00
3	300.02	279.25
4	700.02	449.00
5	800.02	497.00
6	900.05	559.00
7	1236.92	618.59
8	1239.35	626.19

*** 1.530 ***

Individual data on the 34 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	27.8	76170.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.8	10044.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.1	529.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	9.9	55957.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	22.0	151018.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	69.0	572753.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	100.0	872768.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	193.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	1.0	7661.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	44.0	314179.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	74.0	550245.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	81.0	807481.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	30.0	340273.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	30.0	330439.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	40.0	405288.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	100.0	839731.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	140.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	100.0	602974.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	100.0	324080.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.1	93.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	2.8	5105.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	16.2	33610.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	10.0	24173.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	41.0	138666.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	30.0	144670.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	85768.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	25.0	163140.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

29	50.0	315660.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	55.0	264381.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	40.5	139185.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	25.5	63509.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	25.9	40522.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	2.4	1216.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	74.82	230.56
2	100.04	211.00
3	300.09	279.91
4	700.02	449.00
5	800.07	497.00
6	900.03	559.00
7	1229.45	618.43
8	1232.64	627.33

*** 1.537 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	74.82	230.56
2	100.04	211.00
3	300.09	279.91
4	700.02	449.00
5	800.07	497.00
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7	1229.45	618.43
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6	900.03	559.00
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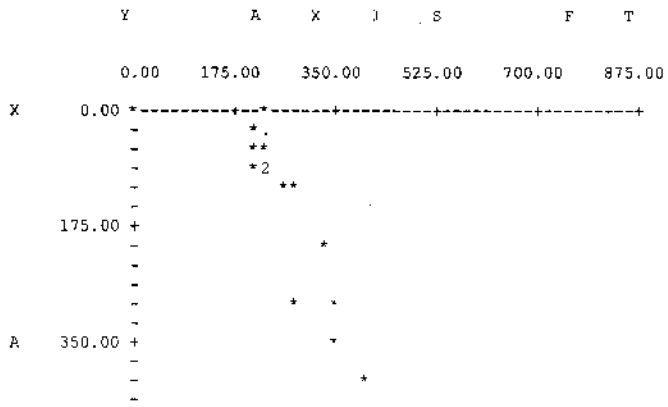
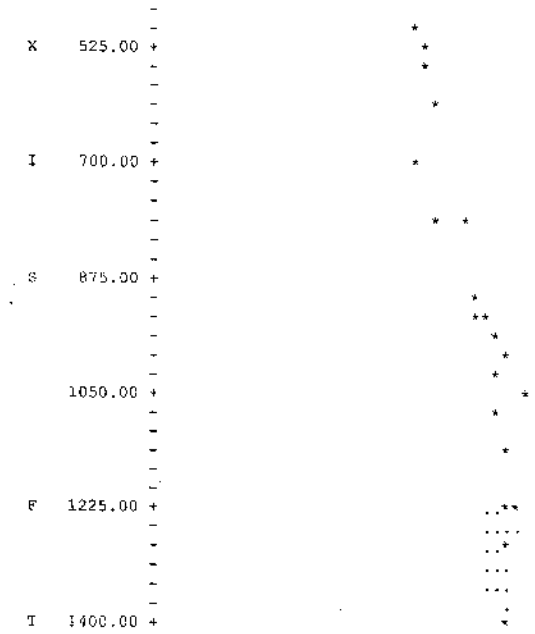
*** 1.537 ***

1




X 525.00
I 700.00
S 875.00
1050.00
F 1225.00
T 1400.00

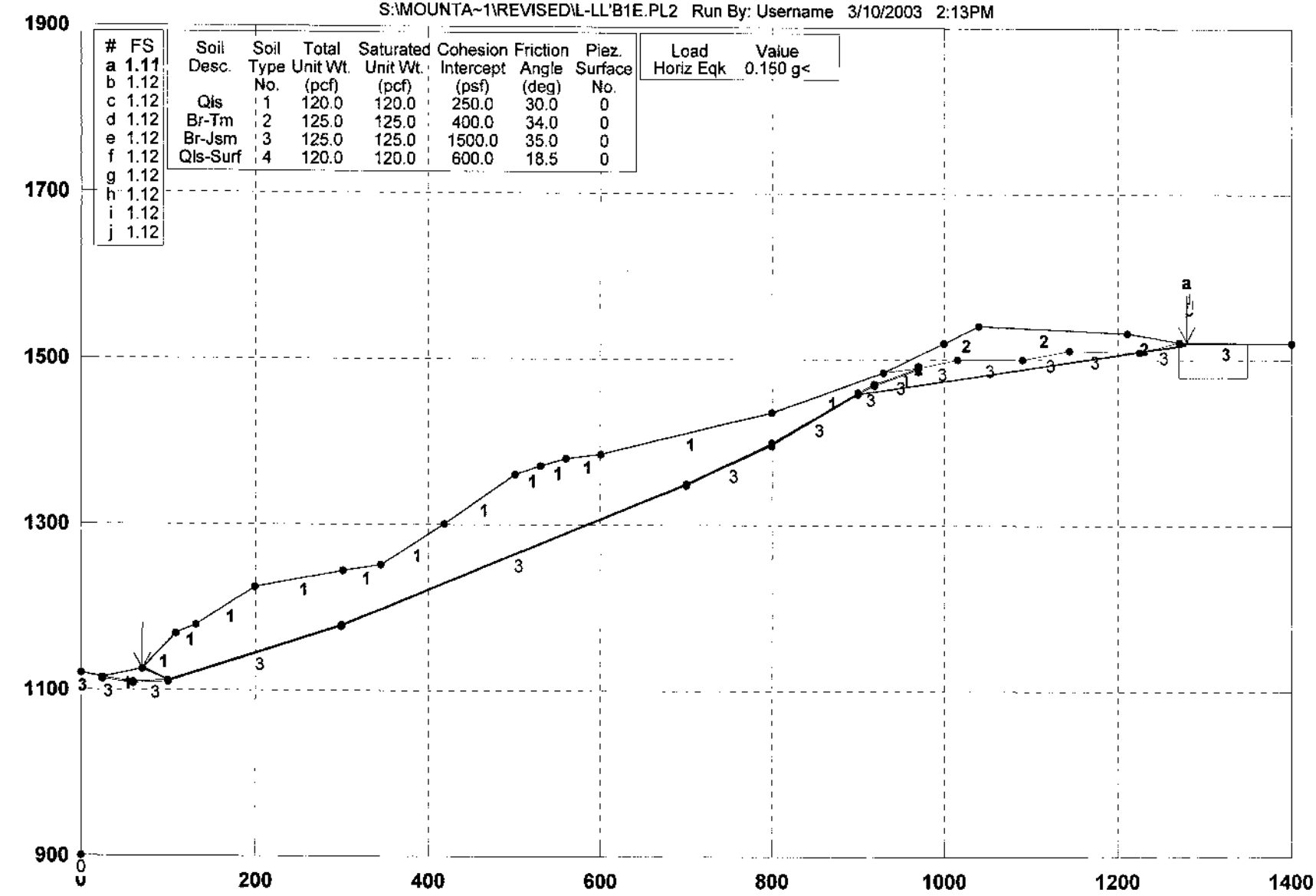
Mountain Gate: Section: LL-LL' , Pseudo Static

S:\MOUNTA~1\REVISED\L-LL'B1E.PL2 Run By: Username 3/10/2003 2:13PM

#	FS
a	1.11
b	1.12
c	1.12
d	1.12
e	1.12
f	1.12
g	1.12
h	1.12
i	1.12
j	1.12

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Qls	1	120.0	120.0	250.0	30.0	0
Br-Tm	2	125.0	125.0	400.0	34.0	0
Br-Jsm	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

Load	Value
Horiz Eqk	0.150 g<



GSTABL7 FSmin=1.11

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-50

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	2:13PM
Run By:	Username
Input Data Filename:	S:\1-11'ble.
Output Filename:	S:\1-11'ble.OUT
Unit System:	English
Plotted Output Filename:	S:\1-11'ble.PLT

PROBLEM DESCRIPTION Mountain Gate: Section: LL-LL'
, Pseudo Static

BOUNDARY COORDINATES

19 Top Boundaries
44 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	221.00	25.00	215.00	3
2	25.00	215.00	70.00	225.00	1
3	70.00	225.00	109.00	270.00	1
4	109.00	270.00	131.00	280.00	1
5	131.00	280.00	200.00	325.00	1
6	200.00	325.00	301.00	345.00	1
7	301.00	345.00	345.00	352.00	1
8	345.00	352.00	419.00	400.00	1
9	419.00	400.00	500.00	460.00	1
10	500.00	460.00	530.00	470.00	1
11	530.00	470.00	560.00	480.00	1
12	560.00	480.00	600.00	485.00	1
13	600.00	485.00	800.00	536.00	1
14	800.00	536.00	929.00	585.00	1
15	929.00	585.00	1000.00	620.00	2
16	1000.00	620.00	1040.00	640.00	2
17	1040.00	640.00	1211.00	631.00	2
18	1211.00	631.00	1270.00	621.00	2
19	1270.00	621.00	1400.00	620.00	3
20	25.00	215.00	60.00	210.00	4
21	60.00	210.00	100.00	212.00	4
22	100.00	212.00	300.00	280.00	4
23	300.00	280.00	700.00	450.00	4
24	700.00	450.00	800.00	498.00	4
25	800.00	498.00	900.00	560.00	4
26	900.00	560.00	919.00	570.00	4
27	929.00	585.00	970.00	590.00	1
28	919.00	570.00	970.00	590.00	4
29	25.00	213.00	60.00	208.00	3
30	60.00	208.00	100.00	210.00	3
31	100.00	210.00	300.00	278.00	3
32	300.00	278.00	700.00	448.00	3
33	700.00	448.00	800.00	496.00	3
34	800.00	496.00	900.00	558.00	3
35	900.00	558.00	919.00	568.00	3
36	919.00	568.00	970.00	588.00	3
37	0.00	0.00	0.00	0.00	0
38	0.00	0.00	0.00	0.00	0
39	0.00	0.00	0.00	0.00	0
40	970.00	590.00	1015.00	600.00	3
41	1015.00	600.00	1090.00	600.00	3
42	1090.00	600.00	1145.00	610.00	3
43	1145.00	610.00	1225.00	609.00	3
44	1225.00	609.00	1270.00	621.00	3

ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 Trial Surfaces Have Been Generated.

6 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	100.00	211.00	100.10	211.00	0.00
2	300.00	279.00	300.10	280.00	0.00
3	700.00	449.00	700.10	449.00	0.00
4	800.00	497.00	800.10	497.00	0.00
5	900.00	559.00	900.10	559.00	0.00
6	1270.00	600.00	1350.00	600.00	40.00

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 Simplified Janbu Method * *

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.42	225.48
2	100.09	211.00
3	300.02	279.25
4	700.02	449.00
5	800.02	497.00
6	900.05	559.00
7	1277.63	618.59
8	1278.38	620.94

*** 1.113 ***

Individual data on the 36 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	27.8	76170.9	0.0	0.0	0.0	0.0	11425.6	0.0	0.0
2	1.8	10044.1	0.0	0.0	0.0	0.0	1506.6	0.0	0.0
3	0.1	529.1	0.0	0.0	0.0	0.0	79.4	0.0	0.0
4	8.9	55957.3	0.0	0.0	0.0	0.0	8393.6	0.0	0.0
5	22.0	151018.8	0.0	0.0	0.0	0.0	22652.8	0.0	0.0
6	69.0	572753.0	0.0	0.0	0.0	0.0	85913.0	0.0	0.0
7	100.0	872768.2	0.0	0.0	0.0	0.0	*******	0.0	0.0
8	0.0	193.3	0.0	0.0	0.0	0.0	29.0	0.0	0.0
9	1.0	7661.2	0.0	0.0	0.0	0.0	1149.2	0.0	0.0
10	44.0	314179.2	0.0	0.0	0.0	0.0	47126.9	0.0	0.0
11	74.0	550245.1	0.0	0.0	0.0	0.0	82536.8	0.0	0.0
12	81.0	807481.4	0.0	0.0	0.0	0.0	*******	0.0	0.0
13	30.0	340273.7	0.0	0.0	0.0	0.0	51041.1	0.0	0.0
14	30.0	330439.5	0.0	0.0	0.0	0.0	49565.9	0.0	0.0
15	40.0	405288.3	0.0	0.0	0.0	0.0	60793.2	0.0	0.0
16	100.0	839731.9	0.0	0.0	0.0	0.0	*******	0.0	0.0
17	0.0	140.6	0.0	0.0	0.0	0.0	21.1	0.0	0.0
18	100.0	602974.9	0.0	0.0	0.0	0.0	90446.2	0.0	0.0
19	0.0	98.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
20	100.0	324080.1	0.0	0.0	0.0	0.0	48612.0	0.0	0.0
21	0.1	93.9	0.0	0.0	0.0	0.0	14.1	0.0	0.0
22	2.6	4845.0	0.0	0.0	0.0	0.0	726.7	0.0	0.0
23	16.3	34298.6	0.0	0.0	0.0	0.0	5144.8	0.0	0.0
24	10.0	24744.5	0.0	0.0	0.0	0.0	3711.7	0.0	0.0

25	41.0	143500.0	0.0	0.0	0.0	0.0	21525.0	0.0	0.0
26	30.0	150745.5	0.0	0.0	0.0	0.0	22611.8	0.0	0.0
27	15.0	89610.2	0.0	0.0	0.0	0.0	13441.5	0.0	0.0
28	25.0	170736.3	0.0	0.0	0.0	0.0	25610.4	0.0	0.0
29	50.0	335321.1	0.0	0.0	0.0	0.0	50298.2	0.0	0.0
30	55.0	292892.0	0.0	0.0	0.0	0.0	43933.8	0.0	0.0
31	66.0	246426.5	0.0	0.0	0.0	0.0	36964.0	0.0	0.0
32	6.5	17651.0	0.0	0.0	0.0	0.0	2647.6	0.0	0.0
33	19.3	42670.6	0.0	0.0	0.0	0.0	6400.6	0.0	0.0
34	33.2	37537.3	0.0	0.0	0.0	0.0	5630.6	0.0	0.0
35	7.6	2844.4	0.0	0.0	0.0	0.0	426.7	0.0	0.0
36	0.7	109.9	0.0	0.0	0.0	0.0	16.5	0.0	0.0

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
6	900.00	559.00
7	1280.56	619.51
8	1281.96	620.91

*** 1.116 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
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*** 1.116 ***

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1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
6	900.00	559.00
7	1280.56	619.51
8	1281.96	620.91

*** 1.116 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
6	900.00	559.00
7	1280.56	619.51
8	1281.96	620.91

*** 1.116 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
6	900.00	559.00
7	1280.56	619.51
8	1281.96	620.91

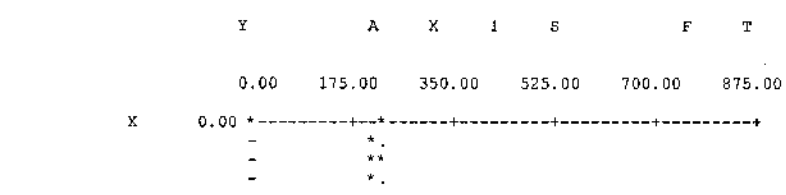
*** 1.116 ***

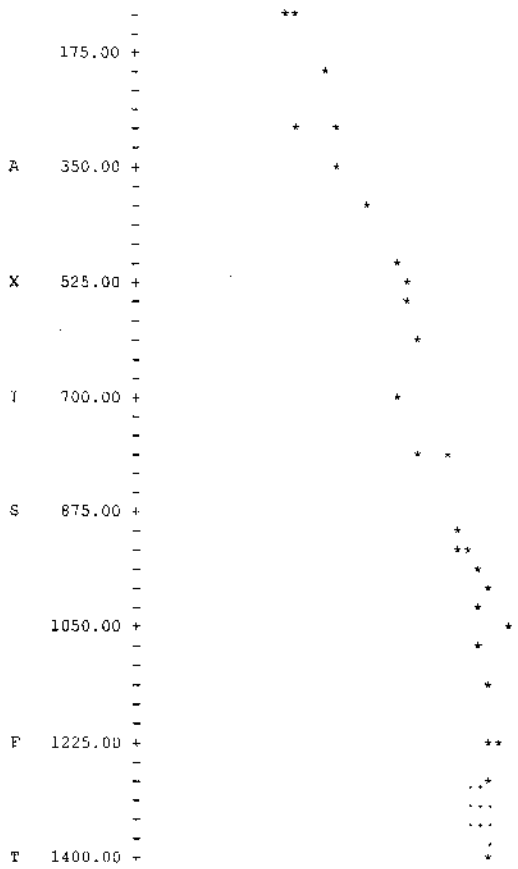
1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	72.33	227.69
2	100.07	211.00
3	300.07	279.74
4	700.07	449.00
5	800.08	497.00
6	900.00	559.00
7	1280.56	619.51
8	1281.96	620.91

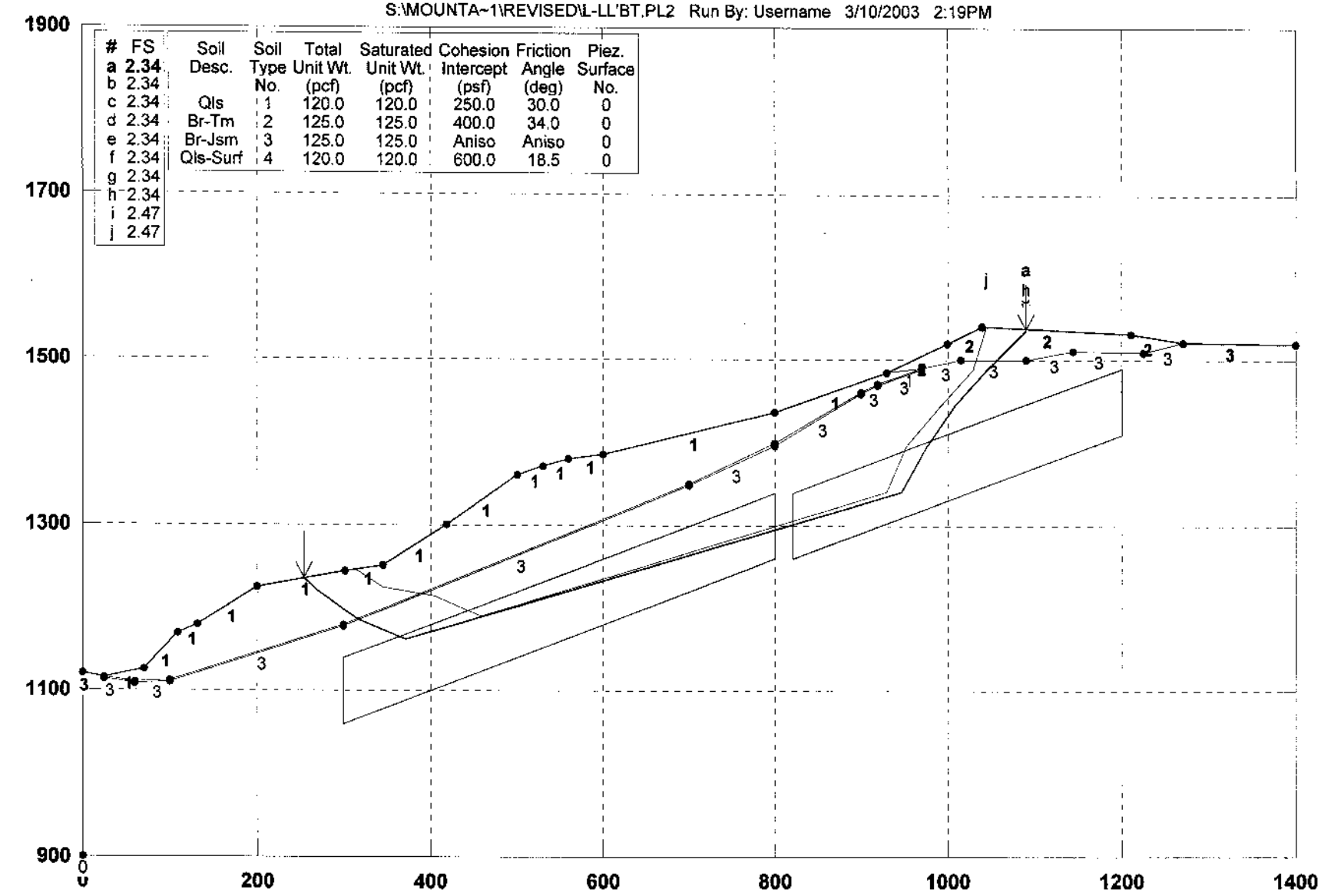
*** 1.116 ***




175.00
A 350.00
X 525.00
I 700.00
S 875.00
1050.00
F 1225.00
T 1400.00

Mountain Gate: Section: LL-LL' , Static

S:\MOUNTA~1\REVISED\L-LL'BT.PL2 Run By: Username 3/10/2003 2:19PM



#	FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
a	2.34							
b	2.34							
c	2.34	Qls	1	120.0	120.0	250.0	30.0	0
d	2.34	Br-Tm	2	125.0	125.0	400.0	34.0	0
e	2.34	Br-Jsm	3	125.0	125.0	Aniso	Aniso	0
f	2.34	Qls-Surf	4	120.0	120.0	600.0	18.5	0
g	2.34							
h	2.34							
i	2.47							
j	2.47							

GSTABL7 FSmin=2.34

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-51

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	2:19PM
Run By:	Username
Input Data Filename:	S:\l-ll'bt.
Output Filename:	S:\l-ll'bt.OUT
Unit System:	English
Plotted Output Filename:	S:\l-ll'bt.PLT

PROBLEM DESCRIPTION Mountain Gate: Section; LL-LL'
, Static

BOUNDARY COORDINATES

19 Top Boundaries
44 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	221.00	25.00	215.00	3
2	25.00	215.00	70.00	225.00	1
3	70.00	225.00	109.00	270.00	1
4	109.00	270.00	131.00	280.00	1
5	131.00	280.00	200.00	325.00	1
6	200.00	325.00	301.00	345.00	1
7	301.00	345.00	345.00	352.00	1
8	345.00	352.00	419.00	400.00	1
9	419.00	400.00	500.00	460.00	1
10	500.00	460.00	530.00	470.00	1
11	530.00	470.00	560.00	480.00	1
12	560.00	480.00	600.00	485.00	1
13	600.00	485.00	800.00	536.00	1
14	800.00	536.00	929.00	585.00	1
15	929.00	585.00	1000.00	620.00	2
16	1000.00	620.00	1040.00	640.00	2
17	1040.00	640.00	1211.00	631.00	2
18	1211.00	631.00	1270.00	621.00	2
19	1270.00	621.00	1400.00	620.00	3
20	25.00	215.00	60.00	210.00	4
21	60.00	210.00	100.00	212.00	4
22	100.00	212.00	300.00	280.00	4
23	300.00	280.00	700.00	450.00	4
24	700.00	450.00	800.00	498.00	4
25	800.00	498.00	900.00	560.00	4
26	900.00	560.00	919.00	570.00	4
27	929.00	585.00	970.00	590.00	1
28	919.00	570.00	970.00	590.00	4
29	25.00	213.00	60.00	208.00	3
30	60.00	208.00	100.00	210.00	3
31	100.00	210.00	300.00	278.00	3
32	300.00	278.00	700.00	448.00	3
33	700.00	448.00	800.00	496.00	3
34	800.00	496.00	900.00	558.00	3
35	900.00	558.00	919.00	568.00	3
36	919.00	568.00	970.00	588.00	3
37	0.00	0.00	0.00	0.00	0
38	0.00	0.00	0.00	0.00	0
39	0.00	0.00	0.00	0.00	0
40	970.00	590.00	1015.00	600.00	3
41	1015.00	600.00	1090.00	600.00	3
42	1090.00	600.00	1145.00	610.00	3
43	1145.00	610.00	1225.00	609.00	3
44	1225.00	609.00	1270.00	621.00	3

ISOTROPIC SOIL PARAMETERS

4 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	120.0	120.0	250.0	30.0	0.00	0.0	0
2	125.0	125.0	400.0	34.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction	Counterclockwise	Cohesion	Friction

Range No.	Direction Limit (deg)	Intercept (psf)	Angle (deg)
1	15.0	1500.0	35.0
2	19.0	0.0	35.0
3	90.0	1500.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 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 60.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	300.00	200.00	800.00	400.00	80.00
2	870.00	400.00	1200.00	550.00	80.00

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 Simplified Janbu Method * *

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

Individual data on the 28 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	13.8	13126.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	33.0	124952.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	14.6	94619.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.3	1888.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	2.0	14553.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	27.2	230334.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	25.9	291068.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	48.1	671997.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	81.0	1382711.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	30.0	576976.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	30.0	579928.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	40.0	757829.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	100.0	1820534.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	100.0	1760709.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	100.0	1780666.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	19.0	349362.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	10.0	185199.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	17.4	327168.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	23.6	402436.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	5.5	81633.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

21	24.5	307290.4	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
22	7.3	75766.9	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
23	7.7	73567.8	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
24	25.0	207419.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
25	7.3	49309.4	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
26	9.8	54407.8	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
27	32.1	83903.5	0.0	0.0	0.0	0.0	0.0	0.0
0.0								
28	2.5	620.6	0.0	0.0	0.0	0.0	0.0	0.0
0.0								

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

1

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

1

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

1

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	254.19	335.73
2	268.02	322.65
3	315.86	286.43
4	370.89	262.53
5	946.43	441.38
6	975.55	493.84
7	1007.31	544.75
8	1047.26	589.52
9	1088.14	633.43
10	1090.60	637.34

*** 2.336 ***

1

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	313.75	347.03
2	344.84	324.76
3	404.06	315.10
4	458.78	290.50
5	930.10	440.25
6	951.97	496.12
7	990.40	542.20
8	1029.63	587.60
9	1045.09	639.73

*** 2.470 ***

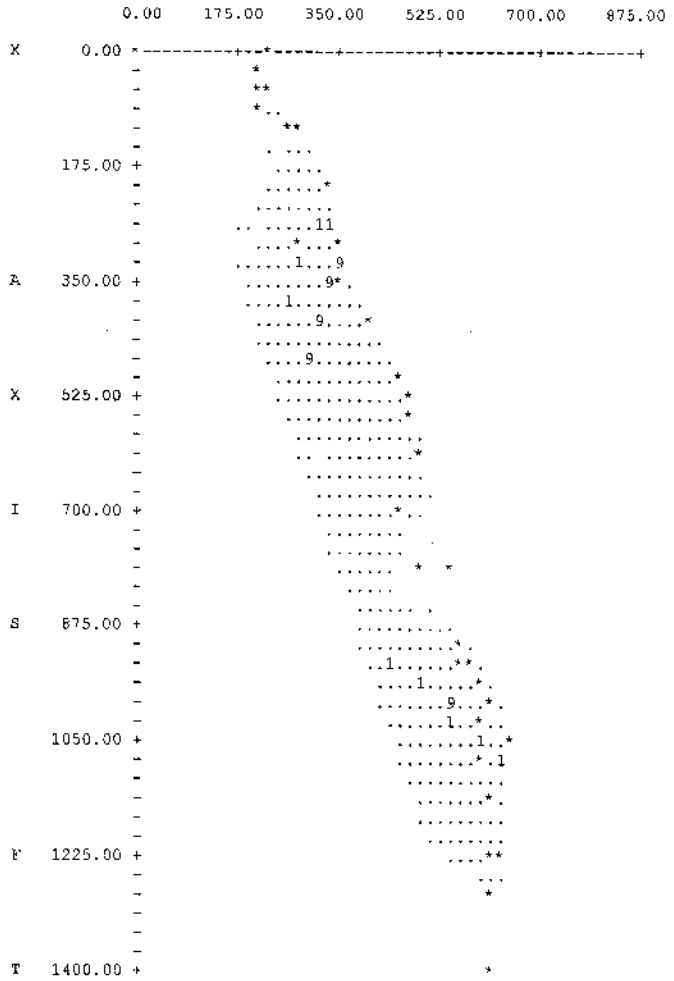
Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	313.75	347.03
2	344.84	324.76
3	404.06	315.10
4	458.78	290.50
5	930.10	440.25
6	951.97	496.12
7	990.40	542.20
8	1029.63	587.60
9	1045.09	639.73

*** 2.470 ***

1

Y A X I S F T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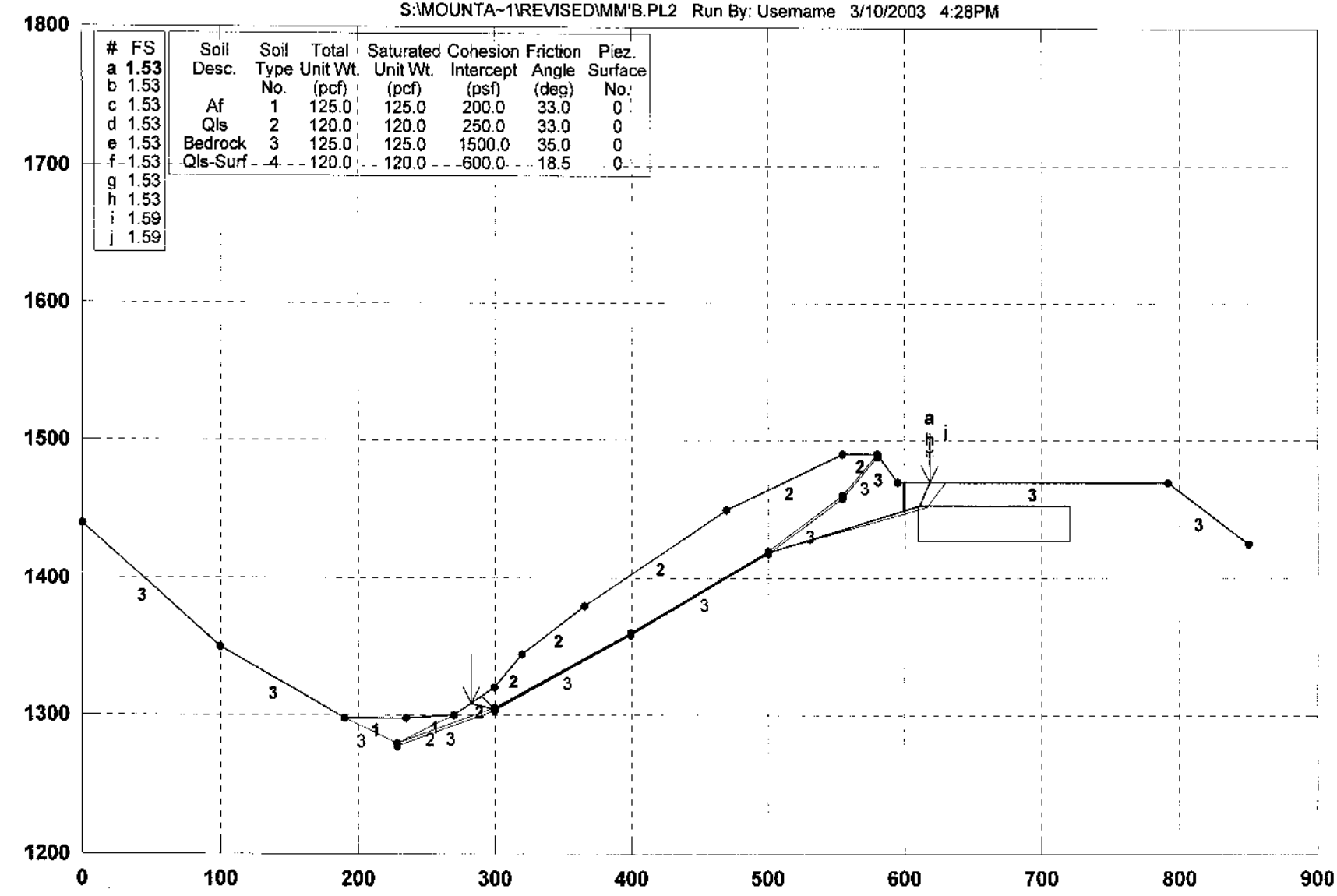
175.00
350.00
525.00
700.00
875.00
X 0.00
175.00
A 350.00
X 525.00
I 700.00
S 875.00
1050.00
F 1225.00
T 1400.00

Mountain Gate / Section M-M' , Static

S:\MOUNTA~1\REVISED\MM'B.PL2 Run By: Username 3/10/2003 4:28PM



#	FS
a	1.53
b	1.53
c	1.53
d	1.53
e	1.53
f	1.53
g	1.53
h	1.53
i	1.59
j	1.59

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Af	1	125.0	125.0	200.0	33.0	0
Qls	2	120.0	120.0	250.0	33.0	0
Bedrock	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

GSTABL7 FSmin=1.53

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-52

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 3/10/2003
Time of Run: 4:28PM
Run By: Username
Input Data Filename: S:mm'b.
Output Filename: S:mm'b.OUT
Unit System: English

Plotted Output Filename: S:mm'b.PLT

PROBLEM DESCRIPTION Mountain Gate / Section M-M'
, Static

BOUNDARY COORDINATES

13 Top Boundaries
25 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below End
1	0.00	240.00	100.00	150.00	3
2	100.00	150.00	190.00	98.00	3
3	190.00	98.00	235.00	98.00	1
4	235.00	98.00	270.00	100.00	1
5	270.00	100.00	300.00	120.00	2
6	300.00	120.00	320.00	145.00	2
7	320.00	145.00	365.00	180.00	2
8	365.00	180.00	470.00	250.00	2
9	470.00	250.00	555.00	290.00	2
10	555.00	290.00	580.00	290.00	2
11	580.00	290.00	595.00	270.00	3
12	595.00	270.00	792.00	270.00	3
13	792.00	270.00	850.00	225.00	3
14	190.00	98.00	228.00	80.00	3
15	228.00	80.00	270.00	100.00	2
16	228.00	80.00	300.00	105.00	4
17	300.00	105.00	400.00	160.00	4
18	400.00	160.00	500.00	220.00	4
19	500.00	220.00	555.00	260.00	4
20	555.00	260.00	580.00	290.00	4
21	228.00	78.00	300.00	103.00	3
22	300.00	103.00	400.00	158.00	3
23	400.00	158.00	500.00	218.00	3
24	500.00	218.00	555.00	258.00	3
25	555.00	258.00	580.00	288.00	3

ISOTROPIC SOIL PARAMETERS

4 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	120.0	120.0	250.0	33.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 Trial Surfaces Have Been Generated.

4 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 25.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	300.00	104.00	300.10	104.00	0.00
2	400.00	159.00	400.10	159.00	0.00
3	500.00	219.00	500.10	219.00	0.00
4	610.00	240.00	720.00	240.00	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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

Individual data on the 16 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.9	13813.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.7	3074.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	70.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	20.0	55176.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	45.0	189768.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	35.0	177685.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	128.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	70.0	392113.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	30.0	169588.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.1	499.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	2.2	11936.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	52.7	319061.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	25.0	156138.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	15.0	64883.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	15.6	39052.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	7.4	8167.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00

4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27

2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.528 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	290.11	113.41
2	300.06	104.00
3	400.07	159.00
4	500.09	219.00
5	616.12	252.16
6	629.88	270.00

*** 1.592 ***

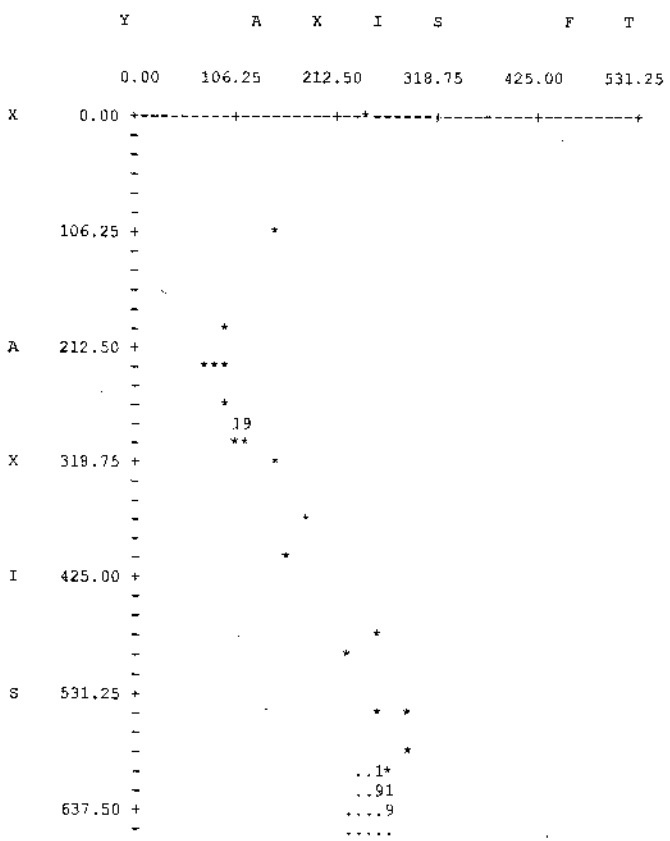
Failure Surface Specified By 6 Coordinate Points

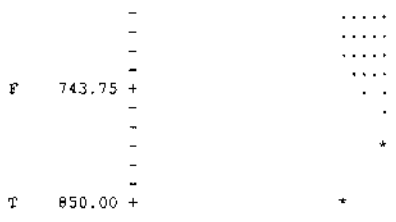
Point No.	X-Surf (ft)	Y-Surf (ft)

1	290.11	113.41
2	300.06	104.00
3	400.07	159.00
4	500.09	219.00
5	616.12	252.16
6	629.88	270.00

*** 1.592 ***

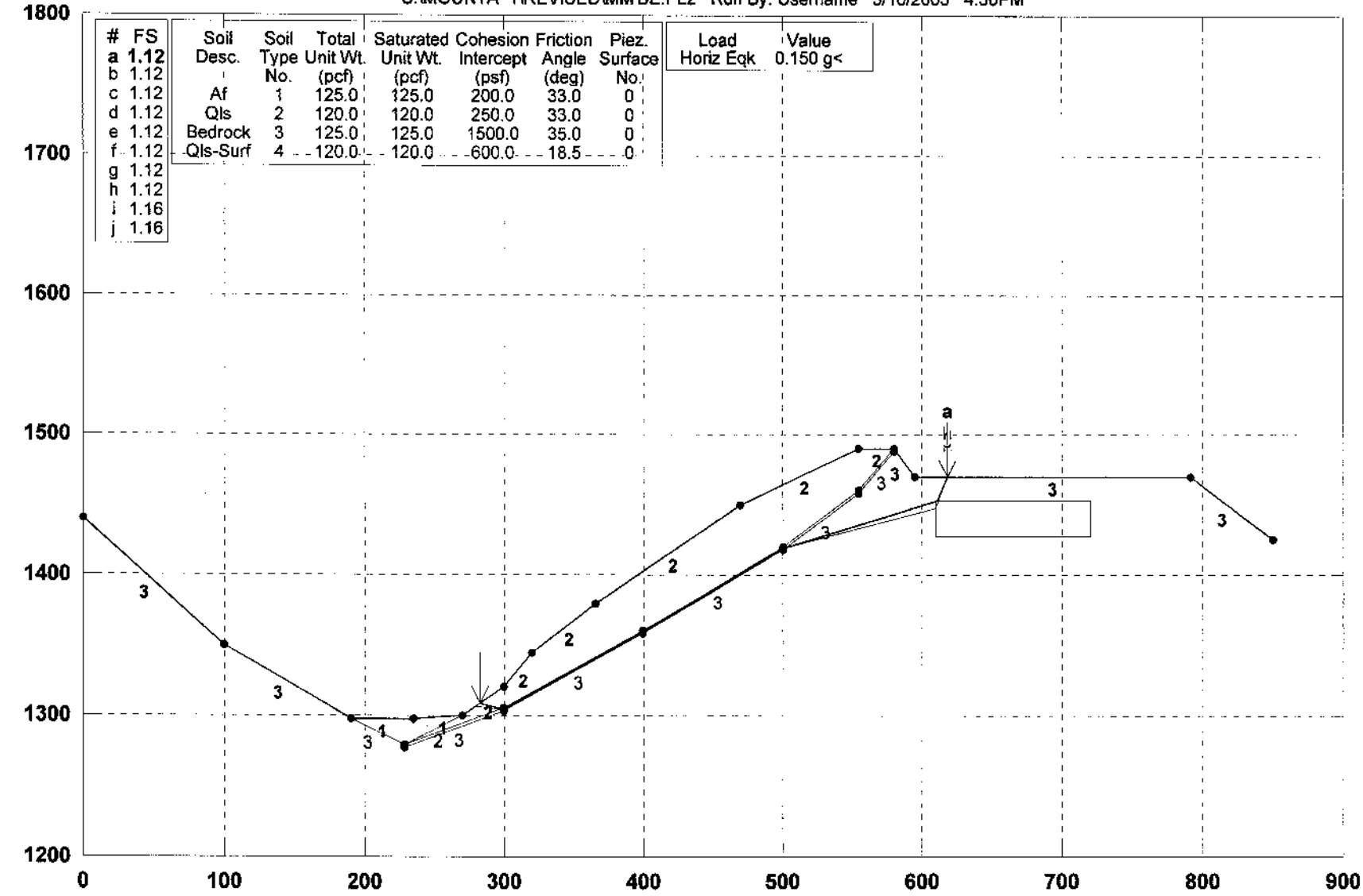
1





Mountain Gate / Section M-M' , Pseudo Static

S:\MOUNTA~1\REVISED\MM'BE.PL2 Run By: Username 3/10/2003 4:30PM



#	FS
a	1.12
b	1.12
c	1.12
d	1.12
e	1.12
f	1.12
g	1.12
h	1.12
i	1.16
j	1.16

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Af	1	125.0	125.0	200.0	33.0	0
Qls	2	120.0	120.0	250.0	33.0	0
Bedrock	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0

Load	Value
Horiz Eqk	0.150 g<

GSTABL7 FSmin=1.12

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-53

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 3/10/2003
Time of Run: 4:30PM
Run By: Username
Input Data Filename: S:mm'be.
Output Filename: S:mm'be.OUT
Unit System: English

Plotted Output Filename: S:mm'be:PLT

PROBLEM DESCRIPTION Mountain Gate / Section M-M'
, Pseudo Static

BOUNDARY COORDINATES

13 Top Boundaries
25 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	240.00	100.00	150.00	3
2	100.00	150.00	190.00	98.00	3
3	190.00	98.00	235.00	98.00	1
4	235.00	98.00	270.00	100.00	1
5	270.00	100.00	300.00	120.00	2
6	300.00	120.00	320.00	145.00	2
7	320.00	145.00	365.00	180.00	2
8	365.00	180.00	470.00	250.00	2
9	470.00	250.00	555.00	290.00	2
10	555.00	290.00	580.00	290.00	2
11	580.00	290.00	595.00	270.00	3
12	595.00	270.00	792.00	270.00	3
13	792.00	270.00	850.00	225.00	3
14	190.00	98.00	228.00	80.00	3
15	228.00	80.00	270.00	100.00	2
16	228.00	80.00	300.00	105.00	4
17	300.00	105.00	400.00	160.00	4
18	400.00	160.00	500.00	220.00	4
19	500.00	220.00	555.00	260.00	4
20	555.00	260.00	580.00	290.00	4
21	228.00	78.00	300.00	103.00	3
22	300.00	103.00	400.00	158.00	3
23	400.00	158.00	500.00	218.00	3
24	500.00	218.00	555.00	258.00	3
25	555.00	258.00	580.00	288.00	3

1

ISOTROPIC SOIL PARAMETERS

4 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	120.0	120.0	250.0	33.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

3000 Trial Surfaces Have Been Generated.

4 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of
Sliding Block Is 25.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)

1	300.00	104.00	300.10	104.00	0.00
2	400.00	159.00	400.10	159.00	0.00
3	500.00	219.00	500.10	219.00	0.00
4	610.00	240.00	720.00	240.00	25.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

Individual data on the 16 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.9	13813.7	0.0	0.0	0.0	0.0	2072.1	0.0	0.0
2	1.7	3074.2	0.0	0.0	0.0	0.0	461.1	0.0	0.0
3	0.0	70.9	0.0	0.0	0.0	0.0	10.6	0.0	0.0
4	20.0	55176.1	0.0	0.0	0.0	0.0	8276.4	0.0	0.0
5	45.0	189768.4	0.0	0.0	0.0	0.0	28465.3	0.0	0.0
6	35.0	177685.9	0.0	0.0	0.0	0.0	26652.9	0.0	0.0
7	0.0	128.3	0.0	0.0	0.0	0.0	19.2	0.0	0.0
8	70.0	392113.1	0.0	0.0	0.0	0.0	58817.0	0.0	0.0
9	30.0	169588.8	0.0	0.0	0.0	0.0	25438.3	0.0	0.0
10	0.1	499.9	0.0	0.0	0.0	0.0	75.0	0.0	0.0
11	2.2	11936.5	0.0	0.0	0.0	0.0	1790.5	0.0	0.0
12	52.7	319081.1	0.0	0.0	0.0	0.0	47862.2	0.0	0.0
13	25.0	156138.2	0.0	0.0	0.0	0.0	23420.7	0.0	0.0
14	15.0	64883.7	0.0	0.0	0.0	0.0	9732.6	0.0	0.0
15	15.6	39052.8	0.0	0.0	0.0	0.0	5857.9	0.0	0.0
16	7.4	8167.9	0.0	0.0	0.0	0.0	1225.2	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.40	108.27
2	300.04	104.00
3	400.02	159.00
4	500.09	219.00
5	610.64	252.38
6	618.06	270.00

*** 1.116 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	279.50	106.33
2	300.06	104.00
3	400.03	159.00
4	500.06	219.00
5	610.21	247.99
6	618.24	270.00

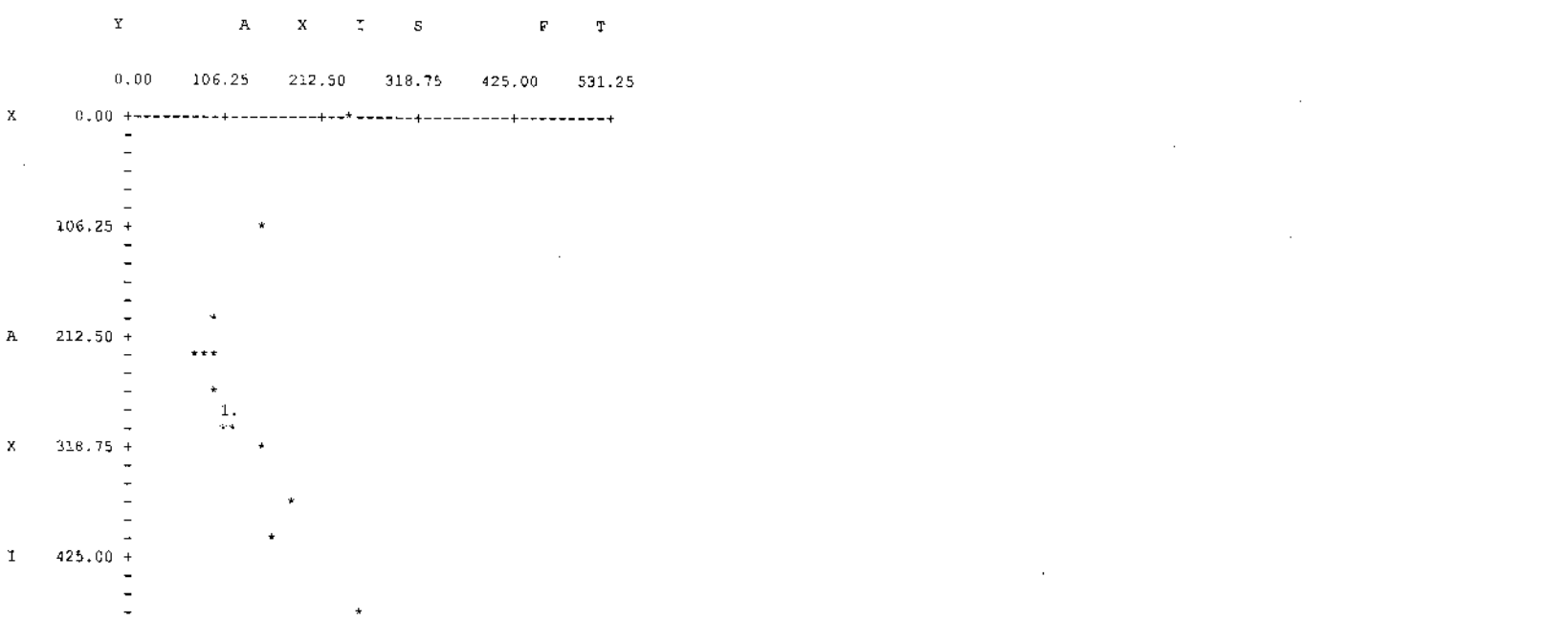
*** 1.160 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	279.50	106.33
2	300.06	104.00
3	400.03	159.00
4	500.06	219.00
5	610.21	247.99
6	618.24	270.00

*** 1.160 ***

1

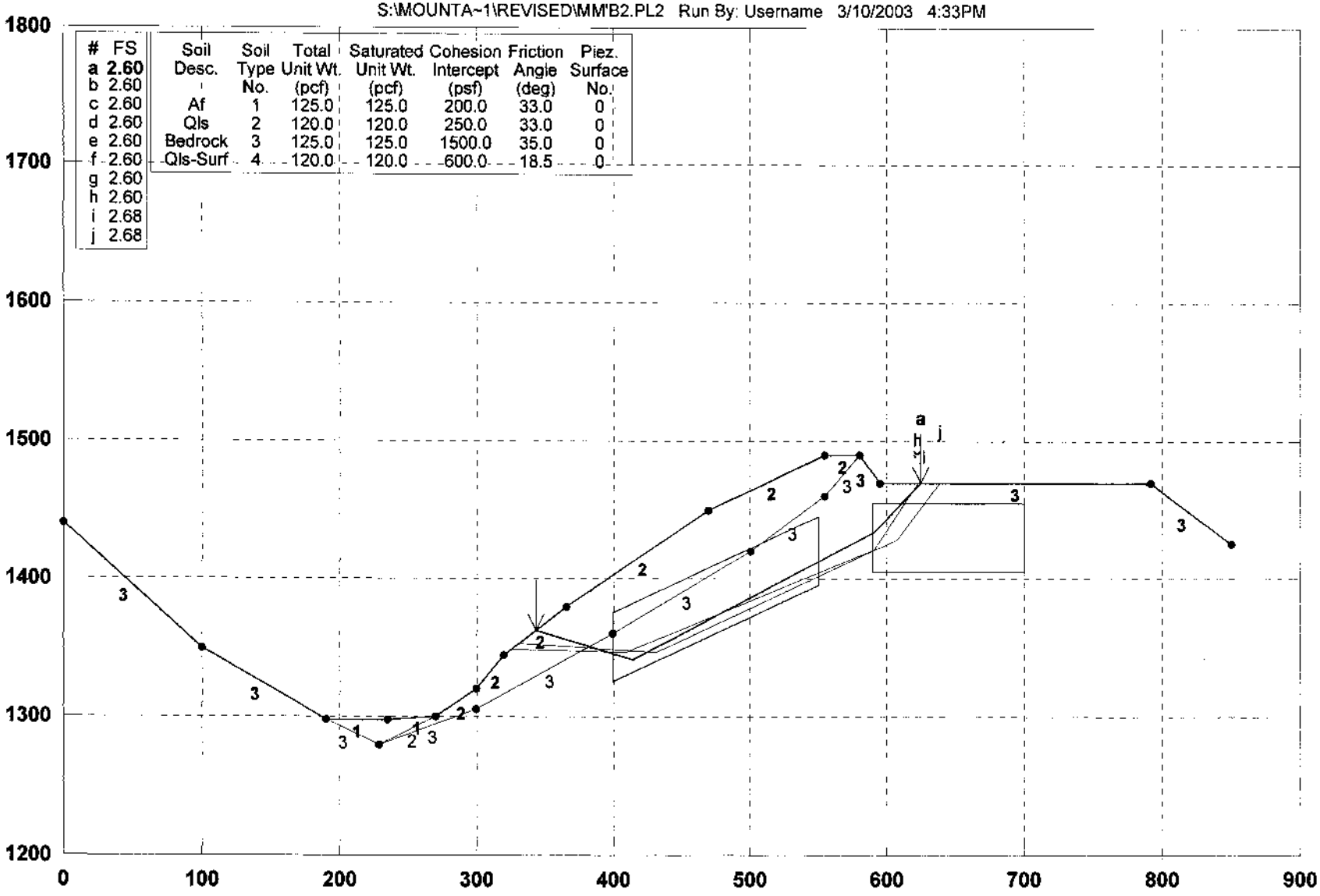


Mountain Gate / Section M-M' , Static

S:\MOUNTA~1\REVISED\MM'B2.PL2 Run By: Username 3/10/2003 4:33PM

#	FS
a	2.60
b	2.60
c	2.60
d	2.60
e	2.60
f	2.60
g	2.60
h	2.60
i	2.68
j	2.68

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Af	1	125.0	125.0	200.0	33.0	0
Qls	2	120.0	120.0	250.0	33.0	0
Bedrock	3	125.0	125.0	1500.0	35.0	0
Qls-Surf	4	120.0	120.0	600.0	18.5	0



GSTABL7 FSmin=2.60

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

GSTABL7

Figure E-54

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/10/2003
Time of Run:	4:33PM
Run By:	Username
Input Data Filename:	S:mm'b2.
Output Filename:	S:mm'b2.OUT
Unit System:	English
Plotted Output Filename:	S:mm'b2.PLT

PROBLEM DESCRIPTION Mountain Gate / Section M-M'
, Static

BOUNDARY COORDINATES

13 Top Boundaries
20 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	240.00	100.00	150.00	3
2	100.00	150.00	190.00	98.00	3
3	190.00	98.00	235.00	98.00	1
4	235.00	98.00	270.00	100.00	1
5	270.00	100.00	300.00	120.00	2
6	300.00	120.00	320.00	145.00	2
7	320.00	145.00	365.00	180.00	2
8	365.00	180.00	470.00	250.00	2
9	470.00	250.00	555.00	290.00	2
10	555.00	290.00	580.00	290.00	2
11	580.00	290.00	595.00	270.00	3
12	595.00	270.00	792.00	270.00	3
13	792.00	270.00	850.00	225.00	3
14	190.00	98.00	228.00	80.00	3
15	228.00	80.00	270.00	100.00	2
16	228.00	80.00	300.00	105.00	3
17	300.00	105.00	400.00	160.00	3
18	400.00	160.00	500.00	220.00	3
19	500.00	220.00	555.00	260.00	3
20	555.00	260.00	580.00	290.00	3

1

ISOTROPIC SOIL PARAMETERS

4 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	120.0	120.0	250.0	33.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0
4	120.0	120.0	600.0	18.5	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

3000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	400.00	150.00	550.00	220.00	50.00
2	590.00	230.00	700.00	230.00	50.00

The Factor Of Safety For The Trial Failure Surface Defined By The Coordinates Listed Below Is Misleading.

Failure Surface Defined By 4 Coordinate Points

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

1	496.00	262.24
2	546.59	213.28
3	685.41	221.43
4	708.35	270.00

Factor Of Safety For The Preceding Specified 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 Simplified Janbu Method * *

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	342.79	162.73
2	414.42	140.99
3	590.85	234.16
4	624.91	270.00

*** 2.600 ***

Individual data on the 11 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	22.2	31990.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	17.9	70004.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	17.1	102773.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	14.4	113928.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	55.6	513848.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	30.0	288578.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	55.0	514740.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	25.0	211163.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	10.9	69824.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	4.1	18882.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	29.9	58833.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	342.79	162.73
2	414.42	140.99
3	590.85	234.16
4	624.91	270.00

*** 2.600 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	342.79	162.73
2	414.42	140.99
3	590.85	234.16
4	624.91	270.00

*** 2.600 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	342.79	162.73

2	414.42	140.99
3	590.85	234.16
4	624.91	270.00

*** 2.600 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.40	148.42
2	409.51	146.34
3	591.12	220.90
4	622.32	270.00

*** 2.602 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.40	148.42
2	409.51	146.34
3	591.12	220.90
4	622.32	270.00

*** 2.602 ***

1

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.40	148.42
2	409.51	146.34
3	591.12	220.90
4	622.32	270.00

*** 2.602 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.40	148.42
2	409.51	146.34
3	591.12	220.90
4	622.32	270.00

*** 2.602 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	330.73	153.34
2	331.55	152.88
3	431.34	146.42
4	607.99	228.37
5	638.73	270.00

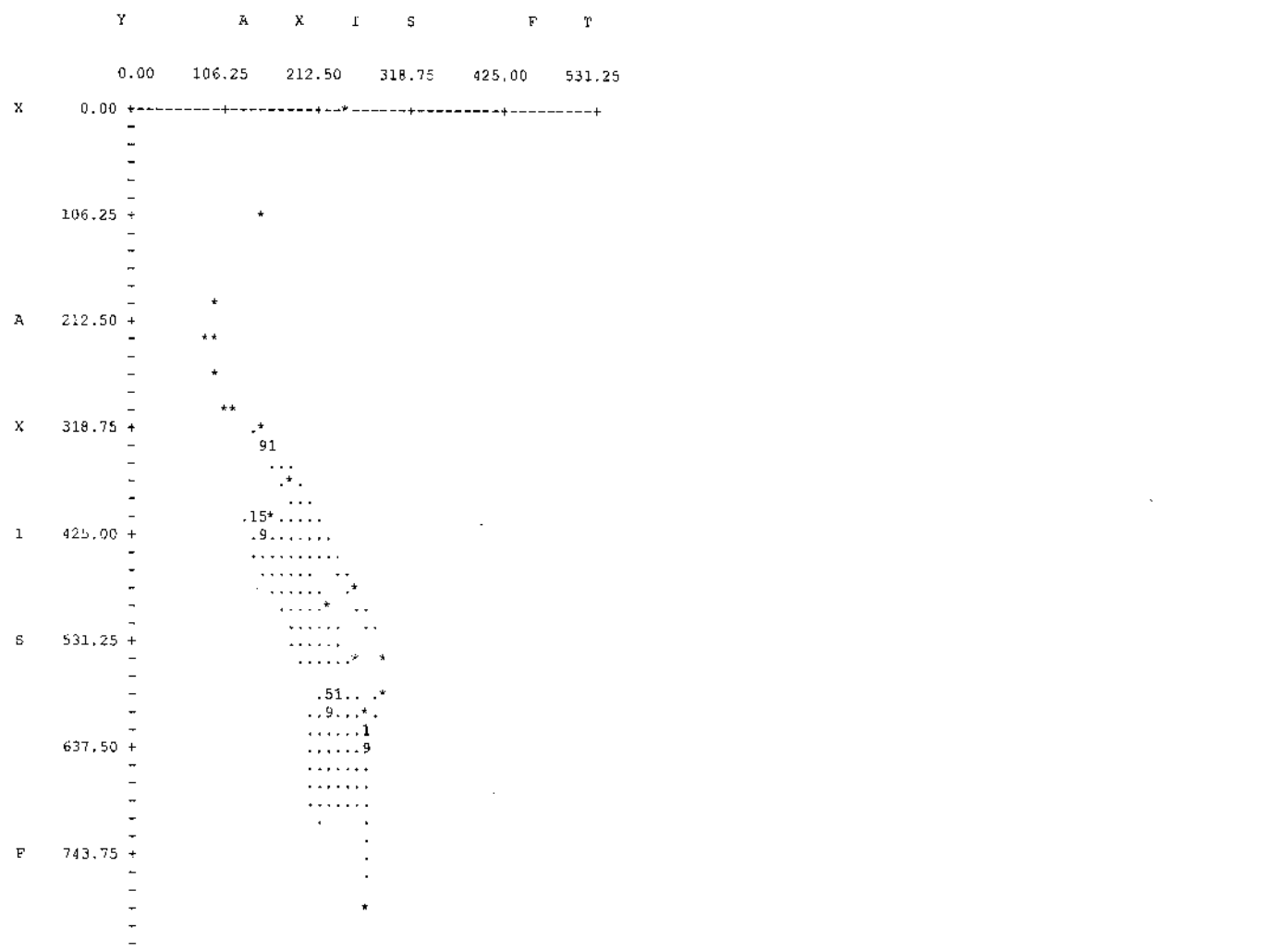
*** 2.679 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	330.73	153.34
2	331.55	152.88
3	431.34	146.42
4	607.99	228.37
5	638.73	270.00

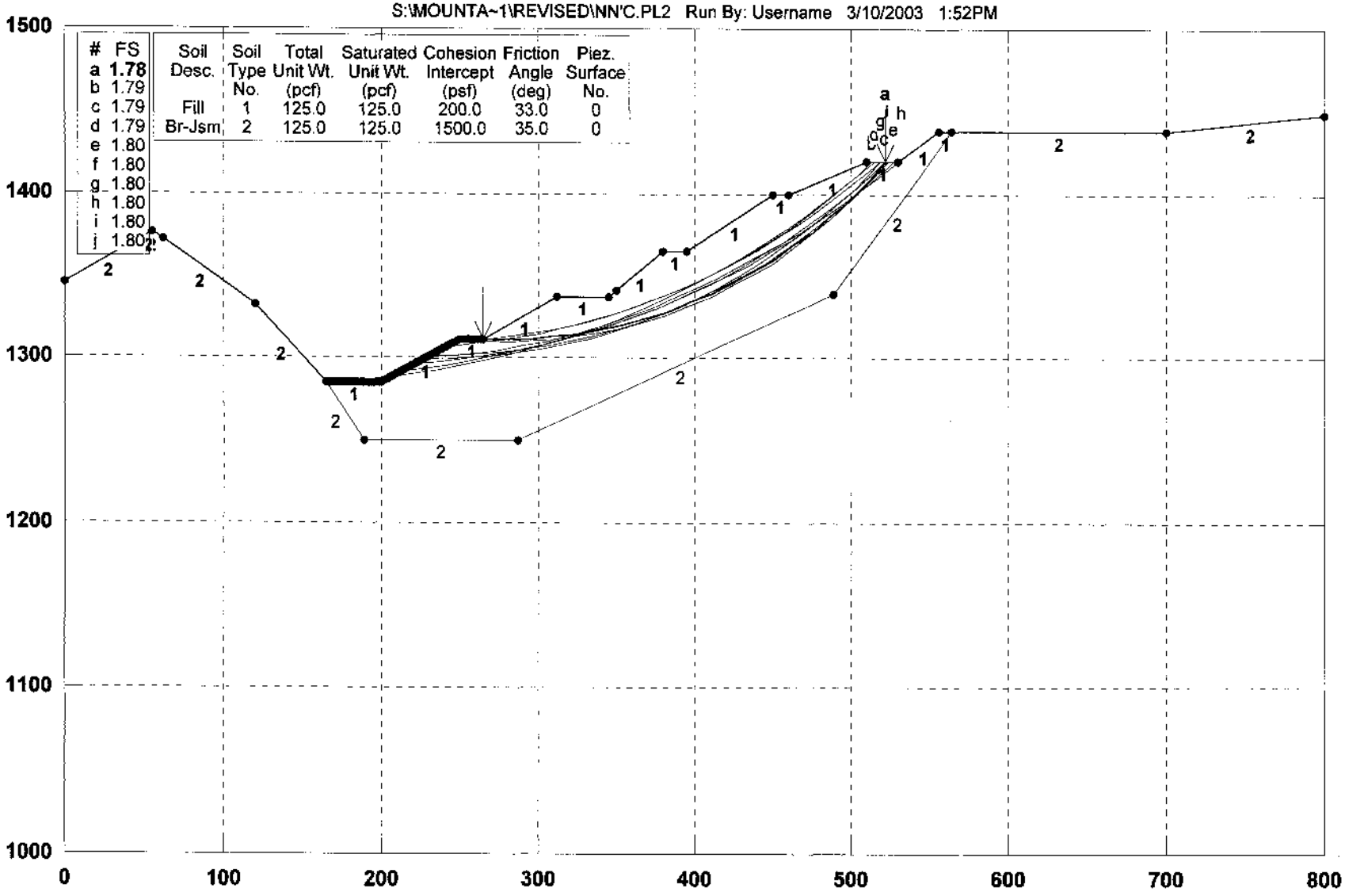
*** 2.679 ***

1


Y A X I S F T
0.00 106.25 212.50 318.75 425.00 531.25
X 0.00
106.25
A 212.50
X 318.75
I 425.00
S 531.25
637.50
F 743.75
T 850.00

Mountain Gate / Section N-N' , Static

S:\MOUNTA~1\REVISED\NN'C.PL2 Run By: Username 3/10/2003 1:52PM



#	FS
a	1.78
b	1.79
c	1.79
d	1.79
e	1.80
f	1.80
g	1.80
h	1.80
i	1.80
j	1.80

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Br-Jsm	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=1.78

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

Figure E-55

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 3/10/2003
Time of Run: 1:52PM
Run By: Username
Input Data Filename: S:nn'c.
Output Filename: S:nn'c.OUT
Unit System: English

Plotted Output Filename: S:nn'c.PLT

PROBLEM DESCRIPTION Mountain Gate / Section N-N'
, Static

BOUNDARY COORDINATES

20 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	345.00	48.00	372.00	2
2	48.00	372.00	55.00	376.00	2
3	55.00	376.00	62.00	372.00	2
4	62.00	372.00	120.00	332.00	2
5	120.00	332.00	165.00	285.00	2
6	165.00	285.00	200.00	285.00	1
7	200.00	285.00	250.00	311.00	1
8	250.00	311.00	265.00	311.00	1
9	265.00	311.00	312.00	337.00	1
10	312.00	337.00	345.00	337.00	1
11	345.00	337.00	380.00	365.00	1
12	380.00	365.00	395.00	365.00	1
13	395.00	365.00	450.00	400.00	1
14	450.00	400.00	460.00	400.00	1
15	460.00	400.00	510.00	420.00	1
16	510.00	420.00	530.00	420.00	1
17	530.00	420.00	556.00	438.00	1
18	556.00	438.00	564.00	438.00	1
19	564.00	438.00	700.00	438.00	2
20	700.00	438.00	800.00	448.00	2
21	165.00	285.00	189.00	250.00	2
22	189.00	250.00	267.00	250.00	2
23	267.00	250.00	489.00	339.00	2
24	489.00	339.00	564.00	438.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

3600 Trial Surfaces Have Been Generated.

60 Surfaces Initiate From Each Of 60 Points Equally Spaced Along The Ground Surface Between X = 165.00(ft)
and X = 265.00(ft)

Each Surface Terminates Between X = 350.00(ft)
and X = 700.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

15.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	265.00	311.00
2	280.00	310.83
3	294.99	311.34
4	309.94	312.53
5	324.83	314.39
6	339.61	316.92
7	354.27	320.12
8	368.76	323.97
9	383.07	328.48
10	397.16	333.63
11	411.00	339.41
12	424.57	345.81
13	437.83	352.82
14	450.76	360.42
15	463.34	368.60
16	475.53	377.33
17	487.31	386.61
18	498.67	396.41
19	509.57	406.72
20	519.99	417.51
21	522.19	420.00

Circle Center At X = 276.2 ; Y = 642.6 and Radius, 331.8

*** 1.784 ***

Individual data on the 27 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.0	7936.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	15.0	23159.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	15.0	36997.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	2.1	6110.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	12.8	37546.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.8	39452.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	5.4	13127.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	9.3	25027.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	14.5	51042.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	11.2	48825.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.1	14203.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	11.9	51206.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	2.2	8758.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	13.8	59271.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	13.6	62550.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	13.3	64189.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	12.2	60450.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.8	3783.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	9.2	42244.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	3.3	13825.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	12.2	46956.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	11.8	39182.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	11.4	30775.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	10.9	21909.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.4	700.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	10.0	9571.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	2.2	342.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	246.36	309.11
2	261.32	310.11
3	276.24	311.64
4	291.10	313.68
5	305.88	316.25
6	320.56	319.33

7	335.13	322.93
8	349.55	327.03
9	363.83	331.63
10	377.94	336.73
11	391.86	342.32
12	405.57	348.40
13	419.06	354.95
14	432.32	361.97
15	445.32	369.45
16	458.05	377.38
17	470.50	385.75
18	482.65	394.55
19	494.48	403.77
20	505.98	413.40
21	513.32	420.00

Circle Center At X = 225.2 ; Y = 737.1 and Radius, 428.5

*** 1.793 ***

1

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	229.41	300.29
2	244.38	301.12
3	259.33	302.44
4	274.22	304.24
5	289.04	306.53
6	303.78	309.30
7	318.43	312.54
8	332.96	316.27
9	347.36	320.46
10	361.62	325.13
11	375.72	330.25
12	389.64	335.83
13	403.37	341.86
14	416.90	348.34
15	430.21	355.25
16	443.29	362.60
17	456.13	370.36
18	468.70	378.54
19	481.00	387.13
20	493.01	396.11
21	504.73	405.48
22	516.13	415.23
23	521.36	420.00

Circle Center At X = 211.5 ; Y = 760.2 and Radius, 460.2

*** 1.793 ***

Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	205.68	287.95
2	220.56	289.80
3	235.40	292.02
4	250.17	294.63
5	264.87	297.62
6	279.49	300.99
7	294.01	304.74
8	308.43	308.86
9	322.74	313.35
10	336.94	318.21
11	351.00	323.43
12	364.92	329.02
13	378.69	334.97
14	392.30	341.26
15	405.75	347.91
16	419.02	354.91
17	432.10	362.24
18	444.99	369.91
19	457.68	377.91
20	470.16	386.23
21	482.42	394.88
22	494.45	403.84
23	506.24	413.11
24	514.57	420.00

Circle Center At X = 141.9 ; Y = 864.4 and Radius, 579.9

*** 1.795 ***

1

Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	220.93	295.89
2	235.89	297.05
3	250.80	298.65
4	265.67	300.67
5	280.46	303.12

6	295.19	305.98
7	309.82	309.27
8	324.36	312.98
9	338.78	317.10
10	353.08	321.64
11	367.24	326.58
12	381.26	331.92
13	395.11	337.66
14	408.80	343.80
15	422.31	350.33
16	435.62	357.24
17	448.73	364.53
18	461.62	372.19
19	474.29	380.22
20	486.73	388.61
21	498.92	397.35
22	510.85	406.44
23	522.52	415.86
24	527.36	420.00

Circle Center At X = 187.8 ; Y = 818.1 and Radius, 523.3

*** 1.796 ***

Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	241.27	306.46
2	256.22	307.76
3	271.11	309.52
4	285.94	311.76
5	300.70	314.45
6	315.36	317.61
7	329.92	321.23
8	344.36	325.31
9	358.66	329.83
10	372.81	334.81
11	386.80	340.22
12	400.61	346.07
13	414.23	352.36
14	427.65	359.07
15	440.84	366.19
16	453.81	373.73
17	466.54	381.67
18	479.01	390.01
19	491.21	398.73
20	503.13	407.84
21	514.76	417.31
22	517.86	420.00

Circle Center At X = 207.6 ; Y = 782.2 and Radius, 476.9

*** 1.798 ***

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	227.71	299.41
2	242.71	299.40
3	257.70	299.96
4	272.66	301.09
5	287.56	302.79
6	302.39	305.06
7	317.12	307.89
8	331.73	311.29
9	346.20	315.24
10	360.51	319.74
11	374.64	324.78
12	388.56	330.36
13	402.26	336.46
14	415.72	343.09
15	428.92	350.22
16	441.83	357.85
17	454.44	365.97
18	466.73	374.57
19	478.69	383.63
20	490.29	393.14
21	501.52	403.08
22	512.36	413.44
23	518.72	420.00

Circle Center At X = 235.6 ; Y = 692.1 and Radius, 392.8

*** 1.799 ***

Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	212.46	291.48
2	227.35	293.25
3	242.20	295.37
4	257.00	297.85

5	271.73	300.69
6	286.38	303.87
7	300.96	307.41
8	315.45	311.30
9	329.84	315.54
10	344.12	320.12
11	358.29	325.04
12	372.34	330.30
13	386.25	335.89
14	400.03	341.82
15	413.66	348.08
16	427.14	354.67
17	440.46	361.57
18	453.60	368.79
19	466.57	376.33
20	479.36	384.18
21	491.95	392.33
22	504.34	400.78
23	516.53	409.53
24	528.50	418.56
25	532.44	421.69

Circle Center At X = 146.3 ; Y = 912.4 and Radius, 624.4

*** 1.800 ***

1

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	231.10	301.17
2	246.10	301.18
3	261.09	301.75
4	276.05	302.87
5	290.96	304.55
6	305.79	306.79
7	320.53	309.57
8	335.15	312.89
9	349.65	316.76
10	363.99	321.17
11	378.15	326.10
12	392.12	331.56
13	405.88	337.53
14	419.41	344.01
15	432.69	350.99
16	445.70	358.46
17	458.42	366.41
18	470.84	374.82
19	482.93	383.69
20	494.69	393.00
21	506.10	402.74
22	517.13	412.90
23	524.29	420.00

Circle Center At X = 238.3 ; Y = 704.6 and Radius, 403.5

*** 1.800 ***

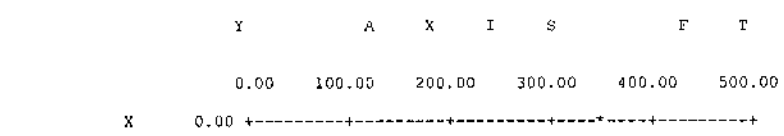
Failure Surface Specified By 22 Coordinate Points

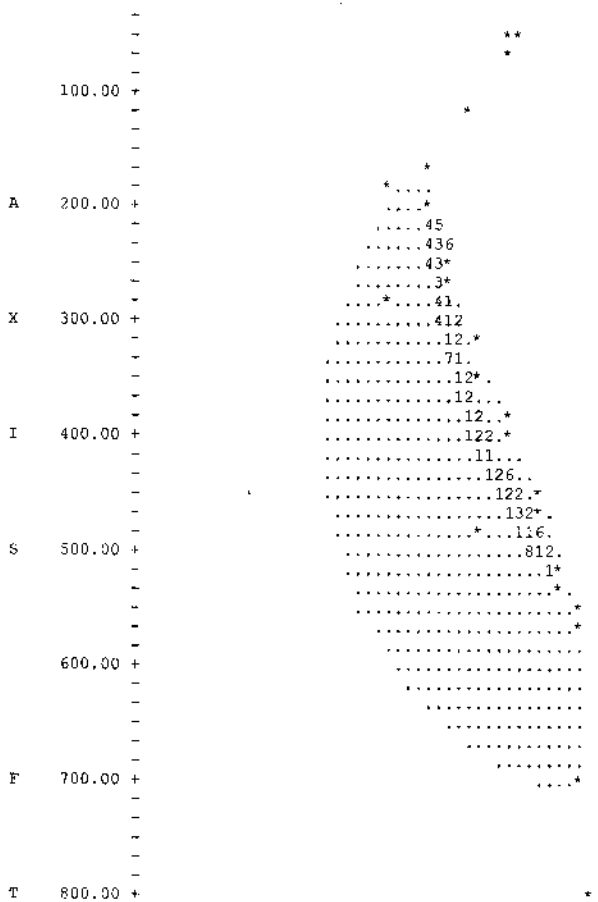
Point No.	X-Surf (ft)	Y-Surf (ft)
1	249.75	310.87
2	264.71	309.83
3	279.71	309.48
4	294.70	309.84
5	309.67	310.88
6	324.56	312.63
7	339.36	315.06
8	354.04	318.18
9	368.55	321.98
10	382.87	326.45
11	396.96	331.58
12	410.80	337.36
13	424.36	343.78
14	437.61	350.82
15	450.51	358.47
16	463.04	366.71
17	475.18	375.53
18	486.89	384.89
19	498.16	394.80
20	508.95	405.21
21	519.25	416.12
22	522.59	420.00

Circle Center At X = 279.7 ; Y = 631.7 and Radius, 322.2

*** 1.802 ***

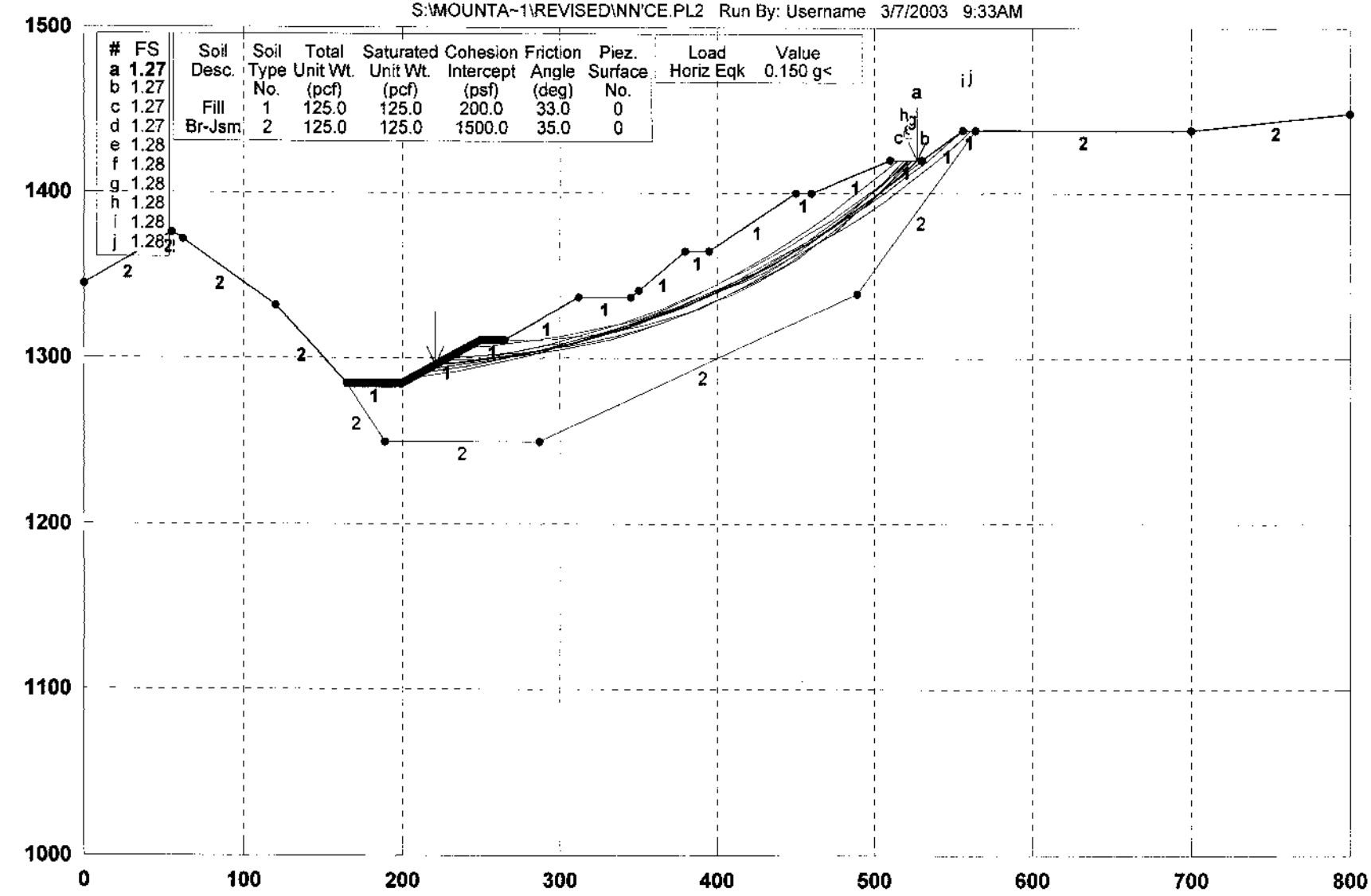
1




100.00
A 200.00
X 300.00
I 400.00
S 500.00
600.00
F 700.00
T 800.00

Mountain Gate / Section N-N' Pseudo Static

S:\MOUNTA~1\REVISED\NN'CE.PL2 Run By: Username 3/7/2003 9:33AM



#	FS
a	**1.27**
b	1.27
c	1.27
d	1.27
e	1.28
f	1.28
g	1.28
h	1.28
i	1.28
j	1.28

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Br-Jsm	2	125.0	125.0	1500.0	35.0	0

Load: Horiz Eqk 0.150 g<

GSTABL7 FSmin=1.27

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

Figure E-56

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/7/2003
Time of Run:	9:33AM
Run By:	Username
Input Data Filename:	S:NN'ce.
Output Filename:	S:NN'ce.OUT
Unit System:	English
Plotted Output Filename:	S:NN'ce.PLT

PROBLEM DESCRIPTION Mountain Gate / Section N-N'
Pseudo Static

BOUNDARY COORDINATES

20 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	345.00	48.00	372.00	2
2	48.00	372.00	55.00	376.00	2
3	55.00	376.00	62.00	372.00	2
4	62.00	372.00	120.00	332.00	2
5	120.00	332.00	165.00	285.00	2
6	165.00	285.00	200.00	285.00	1
7	200.00	285.00	250.00	311.00	1
8	250.00	311.00	265.00	311.00	1
9	265.00	311.00	312.00	337.00	1
10	312.00	337.00	345.00	337.00	1
11	345.00	337.00	380.00	365.00	1
12	380.00	365.00	395.00	365.00	1
13	395.00	365.00	450.00	400.00	1
14	450.00	400.00	460.00	400.00	1
15	460.00	400.00	510.00	420.00	1
16	510.00	420.00	530.00	420.00	1
17	530.00	420.00	556.00	438.00	1
18	556.00	438.00	564.00	438.00	1
19	564.00	438.00	700.00	438.00	2
20	700.00	438.00	800.00	448.00	2
21	165.00	285.00	189.00	250.00	2
22	189.00	250.00	287.00	250.00	2
23	287.00	250.00	489.00	339.00	2
24	489.00	339.00	564.00	438.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

3600 Trial Surfaces Have Been Generated.

60 Surfaces Initiate From Each Of 60 Points Equally Spaced
Along The Ground Surface Between X = 165.00(ft)
and X = 265.00(ft)

Each Surface Terminates Between X = 350.00(ft)
and X = 700.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

15.00(ft) Line Segments Define Each Trial Failure Surface.

1

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	220.93	295.89
2	235.89	297.05
3	250.80	298.65
4	265.67	300.67
5	280.46	303.12
6	295.19	305.98
7	309.82	309.27
8	324.36	312.98
9	338.78	317.10
10	353.08	321.64
11	367.24	326.58
12	381.26	331.92
13	395.11	337.66
14	408.80	343.80
15	422.31	350.33
16	435.62	357.24
17	448.73	364.53
18	461.62	372.19
19	474.29	380.22
20	486.73	388.61
21	498.92	397.35
22	510.85	406.44
23	522.52	415.86
24	527.36	420.00

Circle Center At X = 187.8 ; Y = 818.1 and Radius, 523.3

*** 1.272 ***

Individual data on the 32 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	15.0	6177.3	0.0	0.0	0.0	0.0	926.6	0.0	0.0
2	14.1	16800.9	0.0	0.0	0.0	0.0	2520.1	0.0	0.0
3	0.8	1242.9	0.0	0.0	0.0	0.0	186.4	0.0	0.0
4	14.2	20209.2	0.0	0.0	0.0	0.0	3031.4	0.0	0.0
5	0.7	878.3	0.0	0.0	0.0	0.0	131.7	0.0	0.0
6	14.8	25102.2	0.0	0.0	0.0	0.0	3765.3	0.0	0.0
7	14.7	35110.0	0.0	0.0	0.0	0.0	5266.5	0.0	0.0
8	14.6	44121.4	0.0	0.0	0.0	0.0	6618.2	0.0	0.0
9	2.2	7307.4	0.0	0.0	0.0	0.0	1096.1	0.0	0.0
10	12.4	39535.1	0.0	0.0	0.0	0.0	5930.3	0.0	0.0
11	14.4	39586.5	0.0	0.0	0.0	0.0	5938.0	0.0	0.0
12	6.2	14704.2	0.0	0.0	0.0	0.0	2205.6	0.0	0.0
13	8.1	20070.2	0.0	0.0	0.0	0.0	3010.5	0.0	0.0
14	14.2	44296.6	0.0	0.0	0.0	0.0	6644.5	0.0	0.0
15	12.8	49260.2	0.0	0.0	0.0	0.0	7389.0	0.0	0.0
16	1.3	5234.2	0.0	0.0	0.0	0.0	785.1	0.0	0.0
17	13.7	51932.9	0.0	0.0	0.0	0.0	7789.9	0.0	0.0
18	0.1	389.0	0.0	0.0	0.0	0.0	58.3	0.0	0.0
19	13.7	49089.3	0.0	0.0	0.0	0.0	7363.4	0.0	0.0
20	13.5	52354.0	0.0	0.0	0.0	0.0	7853.1	0.0	0.0
21	13.3	54626.0	0.0	0.0	0.0	0.0	8193.9	0.0	0.0
22	13.1	55932.2	0.0	0.0	0.0	0.0	8389.8	0.0	0.0
23	1.3	5515.8	0.0	0.0	0.0	0.0	827.4	0.0	0.0
24	10.0	39676.7	0.0	0.0	0.0	0.0	5951.5	0.0	0.0
25	1.6	5805.3	0.0	0.0	0.0	0.0	870.8	0.0	0.0
26	12.7	42723.9	0.0	0.0	0.0	0.0	6408.6	0.0	0.0
27	12.4	36977.2	0.0	0.0	0.0	0.0	5546.6	0.0	0.0

28	12.2	30702.5	0.0	0.0	0.0	0.0	4605.4	0.0
0.0								
29	11.1	22458.8	0.0	0.0	0.0	0.0	3368.8	0.0
0.0								
30	0.9	1483.2	0.0	0.0	0.0	0.0	222.5	0.0
0.0								
31	11.7	12910.7	0.0	0.0	0.0	0.0	1936.6	0.0
0.0								
32	4.8	1250.5	0.0	0.0	0.0	0.0	187.6	0.0
0.0								

Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	212.46	291.48
2	227.35	293.25
3	242.20	295.37
4	257.00	297.85
5	271.73	300.69
6	286.38	303.87
7	300.96	307.41
8	315.45	311.30
9	329.84	315.54
10	344.12	320.12
11	358.29	325.04
12	372.34	330.30
13	386.25	335.89
14	400.03	341.82
15	413.66	348.08
16	427.14	354.67
17	440.46	361.57
18	453.60	368.79
19	466.57	376.33
20	479.36	384.18
21	491.95	392.33
22	504.34	400.78
23	516.53	409.53
24	528.50	418.56
25	532.44	421.69

Circle Center At X = 146.3 ; Y = 912.4 and Radius, 624.4

*** 1.273 ***

1

Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	205.68	287.95
2	220.56	289.80
3	235.40	292.02
4	250.17	294.63
5	264.87	297.62
6	279.49	300.99
7	294.01	304.74
8	308.43	308.86
9	322.74	313.35
10	336.94	318.21
11	351.00	323.43
12	364.92	329.02
13	378.69	334.97
14	392.30	341.26
15	405.75	347.91
16	419.02	354.91
17	432.10	362.24
18	444.99	369.91
19	457.68	377.91
20	470.16	386.23
21	482.42	394.88
22	494.45	403.84
23	506.24	413.11
24	514.57	420.00

Circle Center At X = 141.9 ; Y = 864.4 and Radius, 579.9

*** 1.274 ***

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	229.41	300.29
2	244.38	301.12
3	259.33	302.44
4	274.22	304.24
5	289.04	306.53
6	303.78	309.30
7	318.43	312.54
8	332.96	316.27
9	347.36	320.46
10	361.62	325.13
11	375.72	330.25
12	389.64	335.83
13	403.37	341.86
14	416.90	348.34
15	430.21	355.25
16	443.29	362.60
17	456.13	370.36

18	468.70	378.54
19	481.00	387.13
20	493.01	396.11
21	504.73	405.48
22	516.13	415.23
23	521.36	420.00

Circle Center At X = 211.5 ; Y = 760.2 and Radius, 460.2

*** 1.275 ***

1

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	265.00	311.00
2	280.00	310.83
3	294.99	311.34
4	309.94	312.53
5	324.83	314.39
6	339.61	316.92
7	354.27	320.12
8	368.76	323.97
9	383.07	328.48
10	397.16	333.63
11	411.00	339.41
12	424.57	345.81
13	437.83	352.82
14	450.76	360.42
15	463.34	368.60
16	475.53	377.33
17	487.31	386.61
18	498.67	396.41
19	509.57	406.72
20	519.99	417.51
21	522.19	420.00

Circle Center At X = 276.2 ; Y = 642.6 and Radius, 331.8

*** 1.276 ***

Failure Surface Specified By 24 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	219.24	295.00
2	234.12	296.67
3	248.95	299.12
4	263.72	301.73
5	278.43	304.70
6	293.05	308.04
7	307.58	311.75
8	322.02	315.82
9	336.35	320.24
10	350.57	325.02
11	364.67	330.15
12	378.63	335.64
13	392.45	341.46
14	406.12	347.63
15	419.64	354.14
16	432.98	360.99
17	446.16	368.16
18	459.15	375.66
19	471.95	383.48
20	484.55	391.62
21	496.94	400.07
22	509.12	408.82
23	521.09	417.88
24	523.74	420.00

Circle Center At X = 151.7 ; Y = 893.0 and Radius, 601.8

*** 1.278 ***

1

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	231.10	301.17
2	246.10	301.18
3	261.09	301.75
4	276.05	302.87
5	290.96	304.55
6	305.79	306.79
7	320.53	309.57
8	335.15	312.89
9	349.65	316.76
10	363.99	321.17
11	378.15	326.10
12	392.12	331.56
13	405.88	337.53
14	419.41	344.01
15	432.69	350.99
16	445.70	358.46

17	458.42	366.41
18	470.84	374.82
19	482.93	383.69
20	494.69	393.00
21	506.10	402.74
22	517.13	412.90
23	524.29	420.00

Circle Center At X = 238.3 ; Y = 704.6 and Radius, 403.5

*** 1.280 ***

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	227.71	299.41
2	242.71	299.40
3	257.70	299.96
4	272.66	301.09
5	287.56	302.79
6	302.39	305.06
7	317.12	307.89
8	331.73	311.29
9	346.20	315.24
10	360.51	319.74
11	374.64	324.78
12	388.56	330.36
13	402.26	336.46
14	415.72	343.09
15	428.92	350.22
16	441.83	357.85
17	454.44	365.97
18	466.73	374.57
19	478.69	383.63
20	490.29	393.14
21	501.52	403.08
22	512.36	413.44
23	518.72	420.00

Circle Center At X = 235.6 ; Y = 692.1 and Radius, 392.8

*** 1.281 ***

Failure Surface Specified By 27 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	215.85	293.24
2	230.75	294.95
3	245.61	297.01
4	260.41	299.43
5	275.15	302.20
6	289.82	305.33
7	304.42	308.80
8	318.92	312.62
9	333.33	316.79
10	347.63	321.31
11	361.83	326.17
12	375.90	331.36
13	389.84	336.89
14	403.65	342.75
15	417.31	348.95
16	430.82	355.46
17	444.17	362.30
18	457.35	369.46
19	470.36	376.93
20	483.18	384.71
21	495.82	392.80
22	508.25	401.18
23	520.49	409.87
24	532.51	418.84
25	544.31	428.10
26	555.89	437.63
27	556.31	438.00

Circle Center At X = 152.1 ; Y = 915.9 and Radius, 625.9

*** 1.281 ***

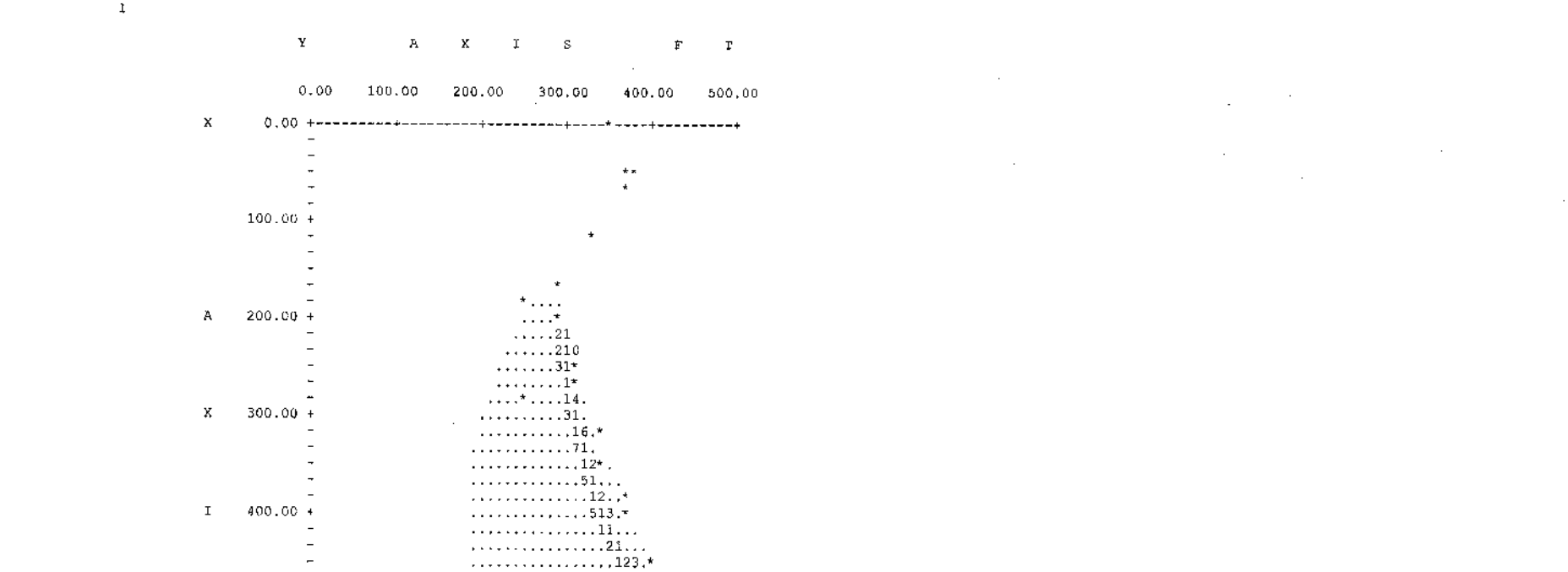
Failure Surface Specified By 25 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	241.27	306.46
2	256.24	307.48
3	271.17	308.92
4	286.05	310.79
5	300.87	313.08
6	315.63	315.80
7	330.29	318.93
8	344.87	322.49
9	359.33	326.46
10	373.68	330.84
11	387.89	335.64

12	401.96	340.83
13	415.88	346.43
14	429.63	352.42
15	443.20	358.81
16	456.58	365.58
17	469.77	372.73
18	482.75	380.25
19	495.51	388.15
20	508.03	396.40
21	520.31	405.01
22	532.35	413.97
23	544.12	423.26
24	555.62	432.89
25	561.37	438.00

Circle Center At X = 213.3 ; Y = 830.0 and Radius, 524.2

*** 1.281 ***



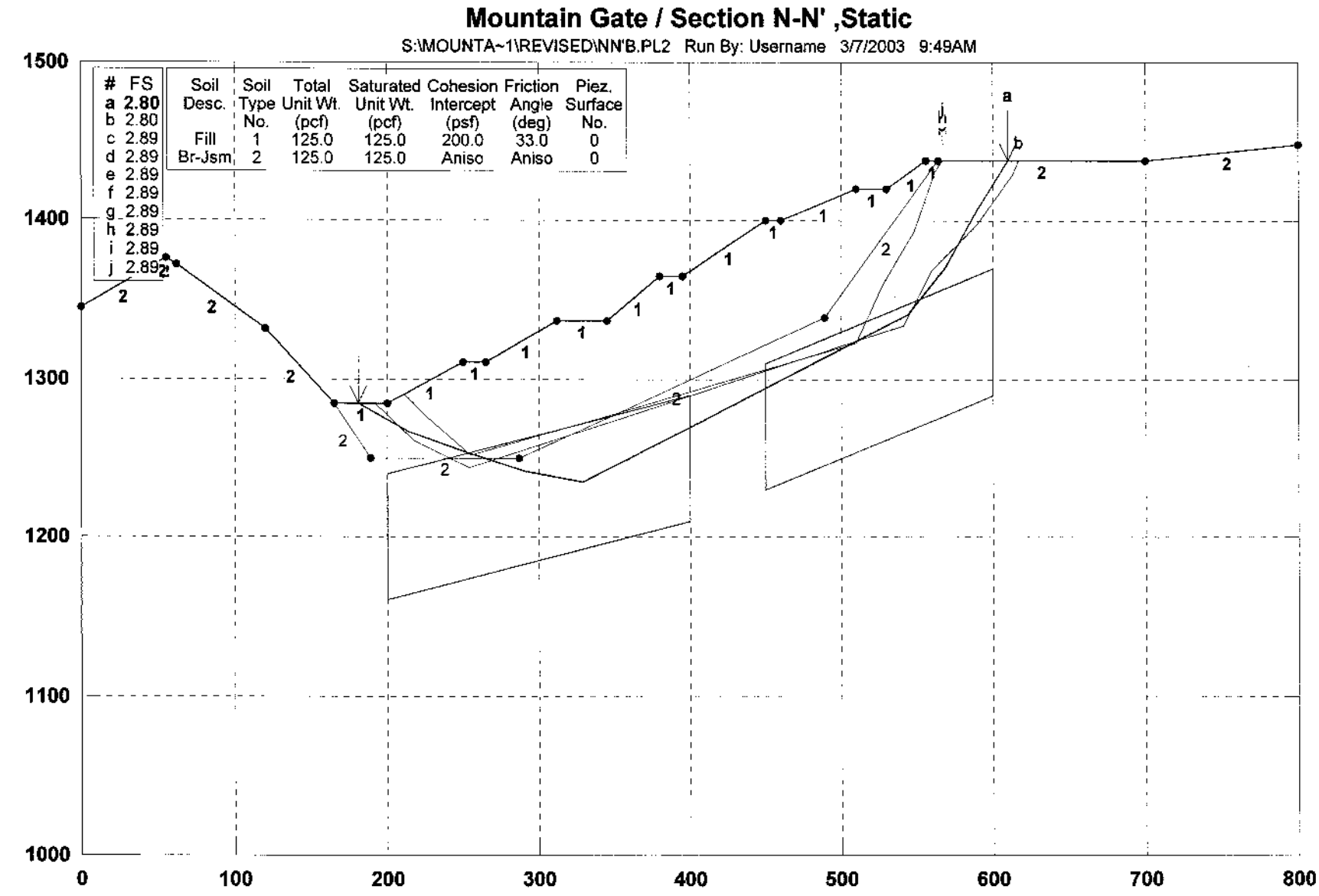

Mountain Gate / Section N-N' ,Static
S:\MOUNTA~1\REVISED\NN'B.PL2 Run By: Username 3/7/2003 9:49AM
FS
a 2.80
b 2.80
c 2.89
d 2.89
e 2.89
f 2.89
g 2.89
h 2.89
i 2.89
j 2.89
Soil Desc. | Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Friction Angle (deg) | Piez. Surface No.
Fill | 1 | 125.0 | 125.0 | 200.0 | 33.0 | 0
Br-Jsm | 2 | 125.0 | 125.0 | Aniso | Aniso | 0
1500
1400
1300
1200
1100
1000
0
100
200
300
400
500
600
700
800
GSTABL7 FSmin=2.80
Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0
GSTABL7

Figure E-57

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	3/7/2003
Time of Run:	9:49AM
Run By:	Username
Input Data Filename:	S:NN'b.
Output Filename:	S:NN'b.OUT
Unit System:	English
Plotted Output Filename:	S:NN'b.PLT

PROBLEM DESCRIPTION Mountain Gate / Section N-N'
,Static

BOUNDARY COORDINATES

20 Top Boundaries
24 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	345.00	48.00	372.00	2
2	48.00	372.00	55.00	376.00	2
3	55.00	376.00	62.00	372.00	2
4	62.00	372.00	120.00	332.00	2
5	120.00	332.00	165.00	285.00	2
6	165.00	285.00	200.00	285.00	1
7	200.00	285.00	250.00	311.00	1
8	250.00	311.00	265.00	311.00	1
9	265.00	311.00	312.00	337.00	1
10	312.00	337.00	345.00	337.00	1
11	345.00	337.00	380.00	365.00	1
12	380.00	365.00	395.00	365.00	1
13	395.00	365.00	450.00	400.00	1
14	450.00	400.00	460.00	400.00	1
15	460.00	400.00	510.00	420.00	1
16	510.00	420.00	530.00	420.00	1
17	530.00	420.00	556.00	438.00	1
18	556.00	438.00	564.00	438.00	1
19	564.00	438.00	700.00	438.00	2
20	700.00	438.00	800.00	448.00	2
21	165.00	285.00	189.00	250.00	2
22	189.00	250.00	287.00	250.00	2
23	287.00	250.00	489.00	339.00	2
24	489.00	339.00	564.00	438.00	2

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 2 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	5.0	1500.0	35.0
2	9.0	0.0	35.0
3	90.0	1500.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

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

3000 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 40.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	200.00	400.00	250.00	80.00
2	450.00	270.00	600.00	330.00	90.00

1

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 Simplified Janbu Method * *

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	181.17	285.00
2	213.82	266.98
3	251.57	253.74
4	289.73	241.74
5	329.09	234.63
6	543.52	340.67
7	569.01	371.49
8	588.86	406.22
9	610.22	438.00

*** 2.797 ***

Individual data on the 24 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	18.8	12234.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	13.8	30756.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	36.2	185222.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.6	11171.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	11.9	87940.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	1.5	11740.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	22.0	195320.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	2.7	27866.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	22.3	253657.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	17.1	215379.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	15.9	195771.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	35.0	436835.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	15.0	190285.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	55.0	699040.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	10.0	128884.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	29.0	359835.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	21.0	254369.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	20.0	227414.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	13.5	147647.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	12.5	133323.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	8.0	77410.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	5.0	43591.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	19.8	121923.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	21.4	42431.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	191.73	285.00
2	218.44	261.40
3	254.24	243.55
4	540.99	334.01
5	560.46	368.95
6	588.74	397.25
7	612.56	429.38
8	616.54	438.00

*** 2.801 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	210.97	290.70
2	224.39	277.71
3	254.97	251.92
4	509.61	323.23
5	526.69	359.40
6	548.20	393.13
7	562.04	430.66
8	567.08	438.00

*** 2.893 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	210.97	290.70
2	224.39	277.71
3	254.97	251.92
4	509.61	323.23
5	526.69	359.40
6	548.20	393.13
7	562.04	430.66
8	567.08	438.00

*** 2.893 ***

1

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	210.97	290.70
2	224.39	277.71
3	254.97	251.92
4	509.61	323.23
5	526.69	359.40
6	548.20	393.13
7	562.04	430.66
8	567.08	438.00

*** 2.893 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	210.97	290.70
2	224.39	277.71
3	254.97	251.92
4	509.61	323.23
5	526.69	359.40
6	548.20	393.13
7	562.04	430.66
8	567.08	438.00

*** 2.893 ***

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*** 2.893 ***

Failure Surface Specified By 8 Coordinate Points

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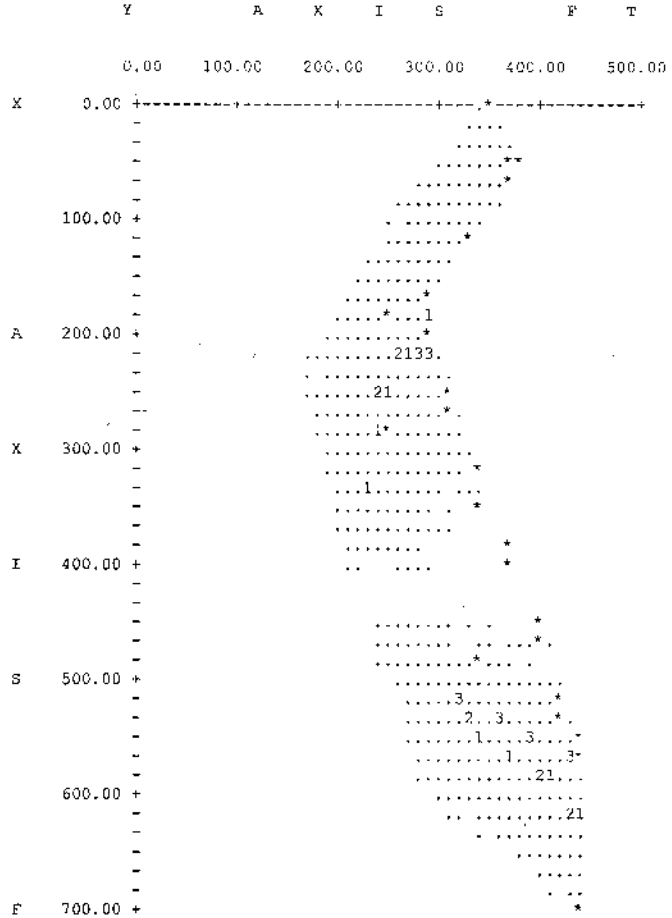
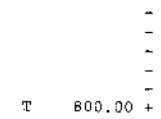
4	509.61	323.23
5	526.69	359.40
6	548.20	393.13
7	562.04	430.66

8 567.08 438.00

*** 2.893 ***

1

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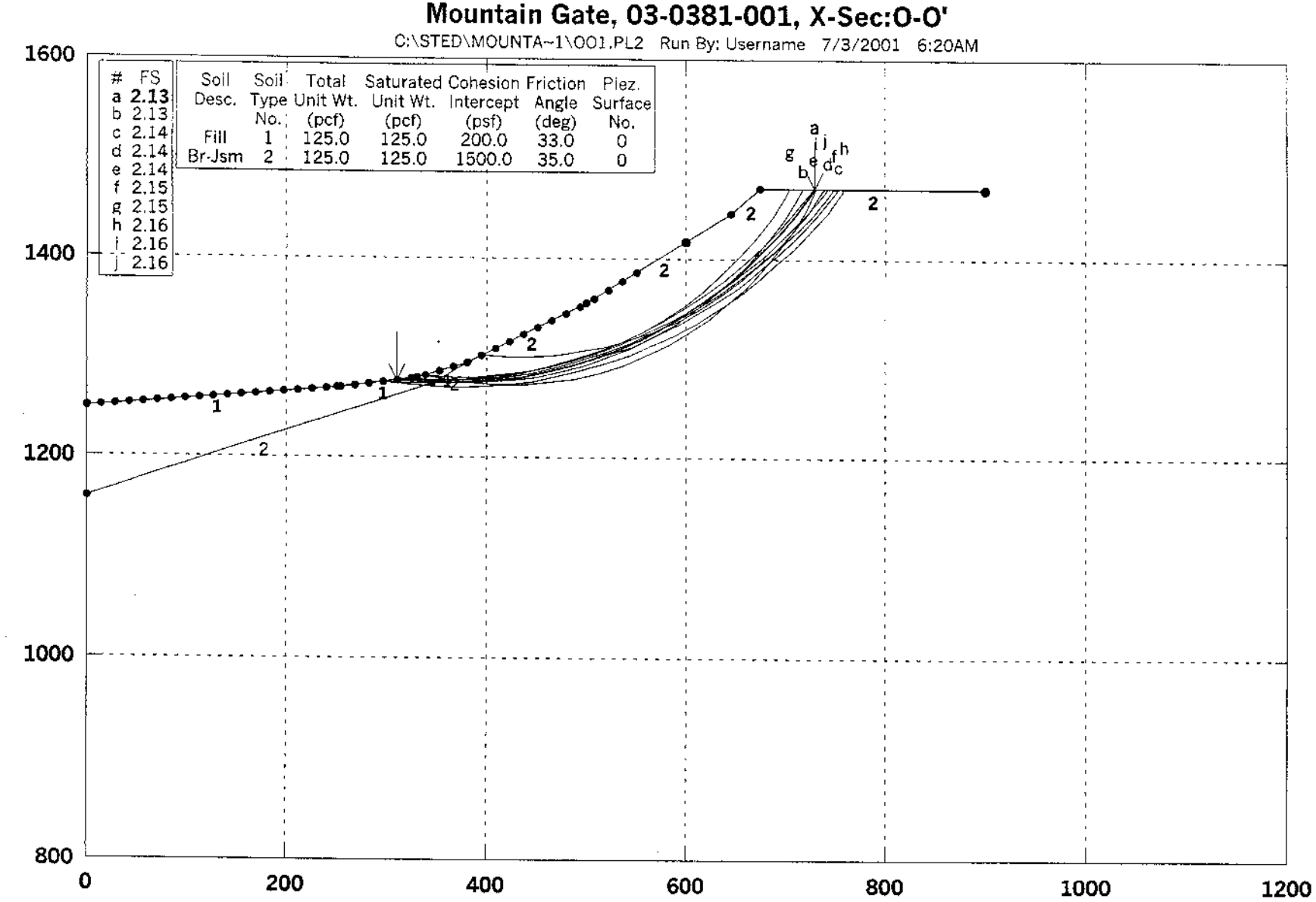


STED

Figure E-58

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	7/3/2001
Time of Run:	6:20AM
Run By:	Username
Input Data Filename:	C:001.
Output Filename:	C:001.OUT
Unit System:	English
Plotted Output Filename:	C:001.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:O-O'

BOUNDARY COORDINATES

7 Top Boundaries
9 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	450.00	250.00	470.00	1
2	250.00	470.00	330.00	480.00	1
3	330.00	480.00	380.00	495.00	1
4	380.00	495.00	500.00	555.00	2
5	500.00	555.00	645.00	645.00	2
6	645.00	645.00	675.00	670.00	2
7	675.00	670.00	900.00	670.00	2
8	0.00	360.00	345.00	475.00	2
9	345.00	475.00	380.00	495.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 0.00(ft)
and X = 550.00(ft)

Each Surface Terminates Between X = 600.00(ft)
and X = 900.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.17	475.49
3	360.17	474.84
4	385.15	475.59
5	410.06	477.73
6	434.61	481.25
7	459.33	486.15

8	483.53	492.40
9	507.35	500.00
10	530.71	508.91
11	553.54	519.10
12	575.76	530.56
13	597.31	543.23
14	618.11	557.09
15	638.12	572.09
16	657.26	588.17
17	675.47	605.30
18	692.70	623.41
19	708.89	642.46
20	723.99	662.38
21	729.13	670.00

Circle Center At X = 359.3 ; Y = 923.2 and Radius, 448.4

*** 2.129 ***

Individual data on the 26 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	19.7	5039.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.2	3279.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	10.2	9874.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	14.8	21778.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	19.8	41861.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	5.2	13384.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	24.9	84516.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	24.8	113634.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	24.5	137400.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	24.2	155639.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	16.5	114967.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	7.4	53724.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	23.4	182080.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

14	22.8	191561.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	22.2	195253.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	21.5	193433.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	20.8	186478.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	20.0	174869.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	6.9	58390.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	12.3	102781.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	17.7	146587.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.5	3795.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	17.2	119829.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	16.2	75011.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	15.1	33187.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	5.1	2443.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.36	479.29
2	349.19	476.39
3	374.16	475.08
4	399.15	475.39
5	424.08	477.30
6	448.83	480.81
7	473.31	485.91
8	497.40	492.57
9	521.02	500.77
10	544.07	510.46
11	566.44	521.62
12	588.04	534.20
13	608.80	548.14
14	628.61	563.38
15	647.40	579.87
16	665.10	597.53
17	681.62	616.30
18	696.89	636.09
19	710.87	656.81
20	718.57	670.00

Circle Center At X = 382.0 ; Y = 863.0 and Radius, 388.0

*** 2.131 ***

1

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.36	479.29
2	349.32	477.88
3	374.32	477.74
4	399.29	478.88
5	424.18	481.29
6	448.90	484.97
7	473.41	489.90
8	497.64	496.08
9	521.52	503.49
10	544.98	512.10
11	567.98	521.90
12	590.45	532.86
13	612.33	544.95
14	633.57	558.15
15	654.10	572.41
16	673.88	587.70
17	692.86	603.98
18	710.97	621.20
19	728.19	639.33
20	744.46	658.31
21	753.48	670.00

Circle Center At X = 364.5 ; Y = 967.5 and Radius, 489.8

*** 2.138 ***

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.24	476.64
3	360.24	476.97
4	385.19	478.51
5	410.04	481.26
6	434.72	485.21
7	459.19	490.36
8	483.37	496.70
9	507.22	504.20

10	530.67	512.85
11	553.68	522.64
12	576.18	533.53
13	598.13	545.50
14	619.47	558.52
15	640.15	572.57
16	660.13	587.60
17	679.35	603.59
18	697.77	620.49
19	715.34	638.27
20	732.03	656.88
21	742.69	670.00

Circle Center At X = 341.1 ; Y = 990.7 and Radius, 514.1

*** 2.140 ***

1

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.24	476.52
3	360.23	476.80
4	385.18	478.39
5	410.02	481.27
6	434.67	485.44
7	459.07	490.89
8	483.15	497.60
9	506.85	505.55
10	530.11	514.73
11	552.85	525.10
12	575.03	536.65
13	596.57	549.33
14	617.43	563.11
15	637.54	577.96
16	656.85	593.84
17	675.31	610.70
18	692.86	628.50
19	709.47	647.19
20	725.08	666.72
21	727.44	670.00

Circle Center At X = 342.2 ; Y = 956.8 and Radius, 480.3

*** 2.141 ***

Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	296.15	475.77
2	321.12	474.49
3	346.12	474.38
4	371.10	475.43
5	396.00	477.66
6	420.77	481.04
7	445.35	485.58
8	469.70	491.27
9	493.75	498.08
10	517.46	506.02
11	540.77	515.05
12	563.63	525.16
13	586.00	536.33
14	607.82	548.54
15	629.04	561.75
16	649.62	575.94
17	669.52	591.08
18	688.69	607.13
19	707.08	624.05
20	724.67	641.83
21	741.40	660.40
22	749.27	670.00

Circle Center At X = 336.1 ; Y = 1008.2 and Radius, 533.9

*** 2.150 ***

1

Failure Surface Specified By 19 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	338.46	482.54
2	363.42	481.01
3	388.41	481.10
4	413.36	482.82
5	438.13	486.16
6	462.64	491.10
7	486.77	497.63
8	510.43	505.71
9	533.51	515.31
10	555.92	526.39
11	577.56	538.91
12	598.35	552.80

13	618.18	568.02
14	636.98	584.50
15	654.67	602.16
16	671.18	620.94
17	686.43	640.75
18	700.36	661.51
19	705.29	670.00

Circle Center At X = 374.5 ; Y = 865.1 and Radius, 384.3

*** 2.153 ***

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	296.15	475.77
2	320.97	472.73
3	345.91	470.97
4	370.90	470.50
5	395.89	471.32
6	420.80	473.42
7	445.57	476.80
8	470.13	481.46
9	494.42	487.37
10	518.38	494.53
11	541.93	502.92
12	565.02	512.50
13	587.58	523.27
14	609.56	535.18
15	630.90	548.21
16	651.54	562.32
17	671.42	577.47
18	690.50	593.63
19	708.71	610.75
20	726.02	628.79
21	742.38	647.69
22	757.75	667.41
23	759.56	670.00

Circle Center At X = 367.5 ; Y = 955.5 and Radius, 485.0

*** 2.156 ***

1

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	338.46	482.54
2	362.96	477.56
3	387.76	474.36
4	412.72	472.97
5	437.71	473.39
6	462.61	475.61
7	487.29	479.64
8	511.61	485.44
9	535.44	492.98
10	558.67	502.23
11	581.16	513.13
12	602.81	525.64
13	623.50	539.67
14	643.11	555.17
15	661.56	572.05
16	678.73	590.22
17	694.54	609.58
18	708.91	630.04
19	721.76	651.49
20	731.11	670.00

Circle Center At X = 419.5 ; Y = 817.8 and Radius, 344.9

*** 2.161 ***

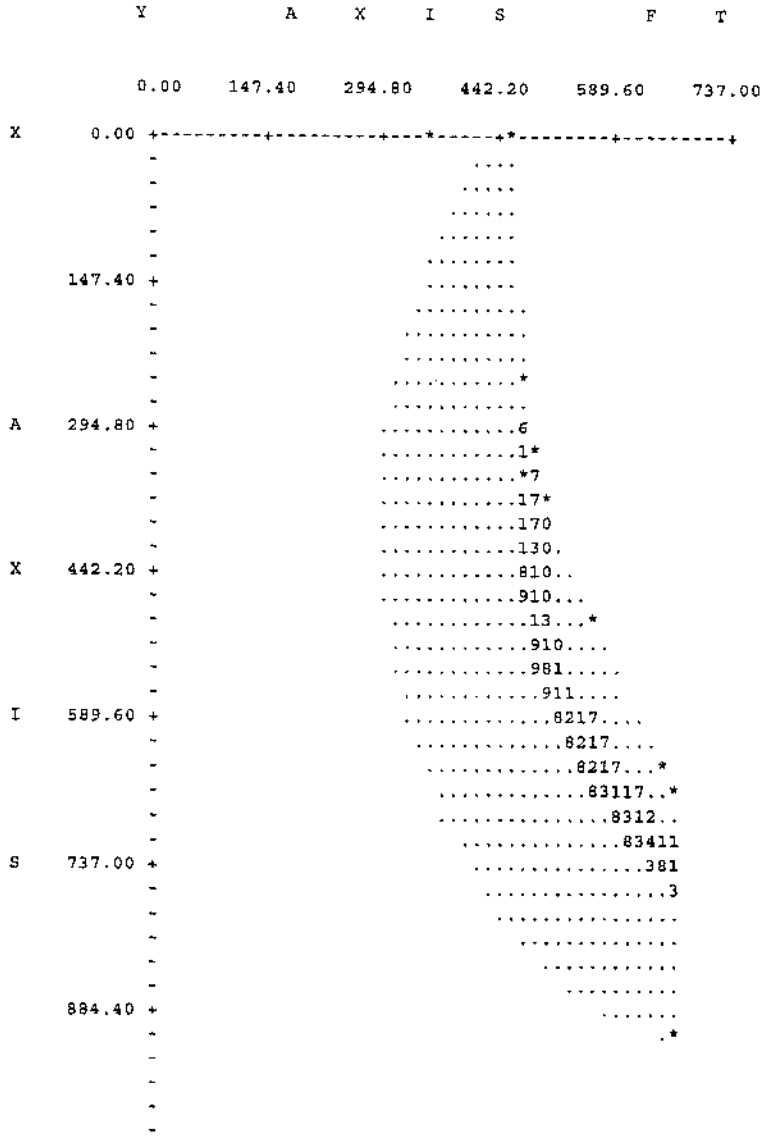
Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	394.87	502.44
2	419.82	500.86
3	444.82	500.99
4	469.76	502.82
5	494.50	506.35
6	518.96	511.56
7	543.00	518.42
8	566.51	526.91
9	589.39	536.98
10	611.54	548.58
11	632.84	561.67
12	653.19	576.18
13	672.52	592.05
14	690.71	609.19
15	707.70	627.54
16	723.39	647.00
17	737.72	667.48
18	739.23	670.00

Circle Center At X = 430.5 ; Y = 866.9 and Radius, 366.2

*** 2.161 ***

1



Mountain Gate, 03-0381-001, X-Sec:O-O' Pseudostatic

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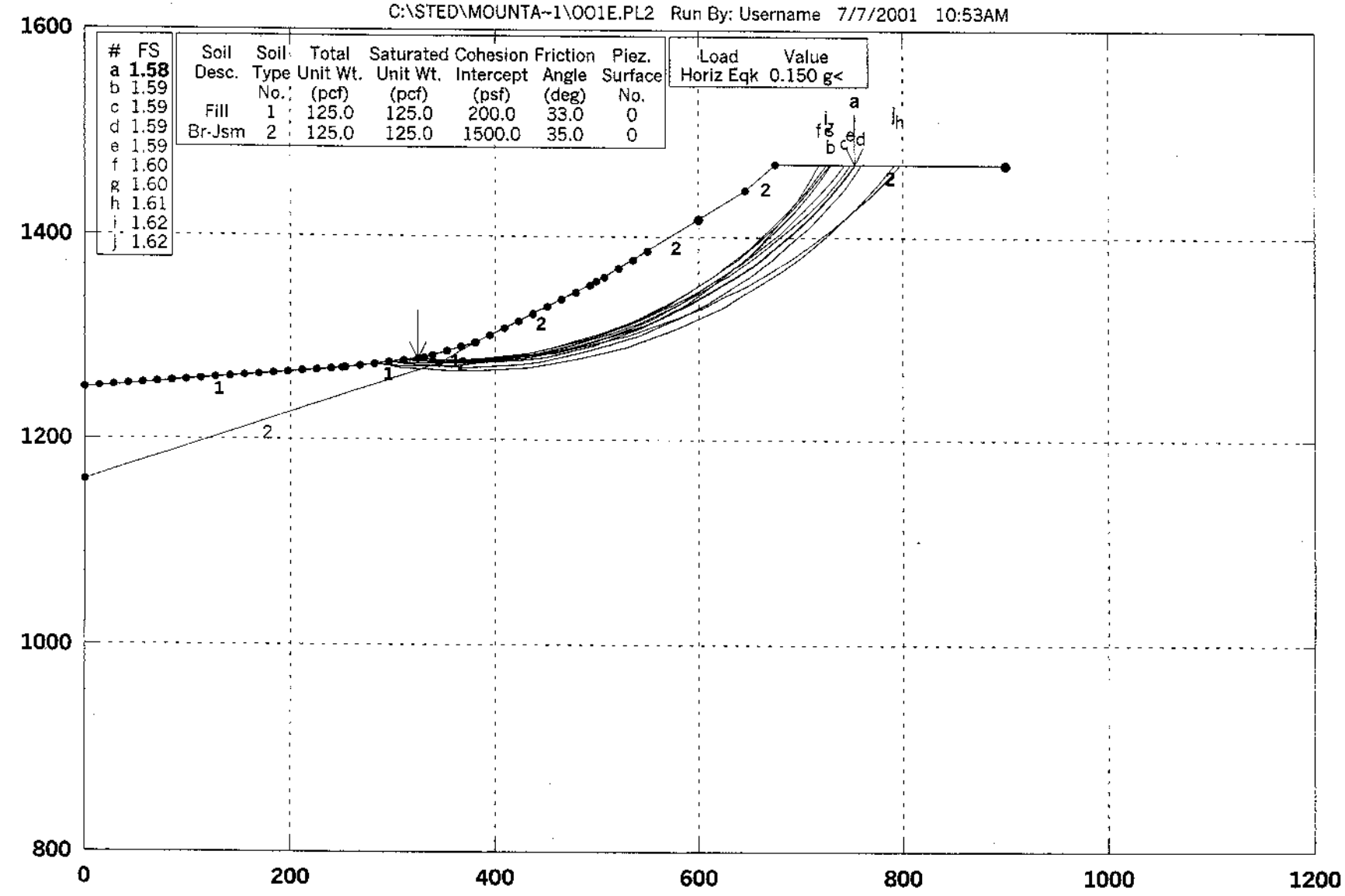


GSTABL7 FSmin=1.58

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-59

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date:	7/7/2001
Time of Run:	10:53AM
Run By:	Username
Input Data Filename:	C:oole.
Output Filename:	C:oole.OUT
Unit System:	English
Plotted Output Filename:	C:oole.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:O-O'
Pseudostatic

BOUNDARY COORDINATES

7 Top Boundaries
9 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	450.00	250.00	470.00	1
2	250.00	470.00	330.00	480.00	1
3	330.00	480.00	380.00	495.00	1
4	380.00	495.00	500.00	555.00	2
5	500.00	555.00	645.00	645.00	2
6	645.00	645.00	675.00	670.00	2
7	675.00	670.00	900.00	670.00	2
8	0.00	360.00	345.00	475.00	2
9	345.00	475.00	380.00	495.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced
Along The Ground Surface Between X = 0.00(ft)
and X = 550.00(ft)

Each Surface Terminates Between X = 600.00(ft)
and X = 900.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.36	479.29
2	349.32	477.88
3	374.32	477.74
4	399.29	478.88
5	424.18	481.29
6	448.90	484.97
7	473.41	489.90
8	497.64	496.08
9	521.52	503.49
10	544.98	512.10
11	567.98	521.90
12	590.45	532.86
13	612.33	544.95
14	633.57	558.15
15	654.10	572.41
16	673.88	587.70
17	692.86	603.98
18	710.97	621.20
19	728.19	639.33
20	744.46	658.31
21	753.48	670.00

Circle Center At X = 364.5 ; Y = 967.5 and Radius, 489.8

*** 1.583 ***

Individual data on the 26 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	5.6	361.1	0.0	0.0	0.0	0.0	54.2	0.0	0.0
2	19.3	10793.4	0.0	0.0	0.0	0.0	1619.0	0.0	0.0
3	0.7	718.3	0.0	0.0	0.0	0.0	107.8	0.0	0.0
4	24.3	35947.8	0.0	0.0	0.0	0.0	5392.2	0.0	0.0
5	5.7	11557.0	0.0	0.0	0.0	0.0	1733.5	0.0	0.0
6	19.3	51565.3	0.0	0.0	0.0	0.0	7734.8	0.0	0.0
7	24.9	95743.5	0.0	0.0	0.0	0.0	14361.5	0.0	0.0
8	24.7	124075.5	0.0	0.0	0.0	0.0	18611.3	0.0	0.0
9	24.5	147492.9	0.0	0.0	0.0	0.0	22123.9	0.0	0.0
10	24.2	165854.7	0.0	0.0	0.0	0.0	24878.2	0.0	0.0
11	2.4	17113.8	0.0	0.0	0.0	0.0	2567.1	0.0	0.0
12	21.5	165480.9	0.0	0.0	0.0	0.0	24822.1	0.0	0.0
13	23.5	199034.1	0.0	0.0	0.0	0.0	29855.1	0.0	0.0
14	23.0	210036.1	0.0	0.0	0.0	0.0	31505.4	0.0	0.0
15	22.5	215671.9	0.0	0.0	0.0	0.0	32350.8	0.0	0.0
16	21.9	216138.9	0.0	0.0	0.0	0.0	32420.8	0.0	0.0
17	21.2	221718.6	0.0	0.0	0.0	0.0	31757.8	0.0	0.0
18	11.4	113368.6	0.0	0.0	0.0	0.0	17005.3	0.0	0.0
19	9.1	90502.2	0.0	0.0	0.0	0.0	13575.3	0.0	0.0
20	19.8	199709.2	0.0	0.0	0.0	0.0	29956.4	0.0	0.0
21	1.1	11371.9	0.0	0.0	0.0	0.0	1705.8	0.0	0.0
22	17.9	164457.3	0.0	0.0	0.0	0.0	24668.6	0.0	0.0
23	18.1	130025.3	0.0	0.0	0.0	0.0	19503.8	0.0	0.0
24	17.2	85509.0	0.0	0.0	0.0	0.0	12826.4	0.0	0.0
25	16.3	43070.5	0.0	0.0	0.0	0.0	6460.6	0.0	0.0
26	9.0	6593.0	0.0	0.0	0.0	0.0	989.0	0.0	0.0

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.17	475.49
3	360.17	474.84
4	385.15	475.59
5	410.06	477.73
6	434.81	481.25
7	459.33	486.15
8	483.53	492.40
9	507.35	500.00
10	530.71	508.91
11	553.54	519.10
12	575.76	530.56
13	597.31	543.23
14	618.11	557.09

15	638.12	572.09
16	657.26	588.17
17	675.47	605.30
18	692.70	623.41
19	708.89	642.46
20	723.99	662.38
21	729.13	670.00

Circle Center At X = 359.3 ; Y = 923.2 and Radius, 448.4

*** 1.589 ***

1

Failure Surface Specified By 21 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.24	476.64
3	360.24	476.97
4	385.19	478.51
5	410.04	481.26
6	434.72	485.21
7	459.19	490.36
8	483.37	496.70
9	507.22	504.20
10	530.67	512.85
11	553.68	522.64
12	576.18	533.53
13	598.13	545.50
14	619.47	558.52
15	640.15	572.57
16	660.13	587.60
17	679.35	603.59
18	697.77	620.49
19	715.34	638.27
20	732.03	656.88
21	742.69	670.00

Circle Center At X = 341.1 ; Y = 990.7 and Radius, 514.1

*** 1.589 ***

Failure Surface Specified By 23 Coordinate Points

Point	X-Surf	Y-Surf

No.	(ft)	(ft)
1	296.15	475.77
2	320.97	472.73
3	345.91	470.97
4	370.90	470.50
5	395.89	471.32
6	420.80	473.42
7	445.57	476.80
8	470.13	481.46
9	494.42	487.37
10	518.38	494.53
11	541.93	502.92
12	565.02	512.50
13	587.58	523.27
14	609.56	535.18
15	630.90	548.21
16	651.54	562.32
17	671.42	577.47
18	690.50	593.63
19	708.71	610.75
20	726.02	628.79
21	742.38	647.69
22	757.75	667.41
23	759.56	670.00

Circle Center At X = 367.5 ; Y = 955.5 and Radius, 485.0

*** 1.590 ***

1

Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	296.15	475.77
2	321.12	474.49
3	346.12	474.38
4	371.10	475.43
5	396.00	477.66
6	420.77	481.04
7	445.35	485.58
8	469.70	491.27
9	493.75	498.08
10	517.46	506.02
11	540.77	515.05
12	563.63	525.16
13	586.00	536.33
14	607.82	548.54
15	629.04	561.75
16	649.62	575.94

17	669.52	591.08
18	688.69	607.13
19	707.08	624.05
20	724.67	641.83
21	741.40	660.40
22	749.27	670.00

Circle Center At X = 336.1 ; Y = 1008.2 and Radius, 533.9

*** 1.590 ***

Failure Surface Specified By 20 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	324.36	479.29
2	349.19	476.39
3	374.16	475.08
4	399.15	475.39
5	424.08	477.30
6	448.83	480.81
7	473.31	485.91
8	497.40	492.57
9	521.02	500.77
10	544.07	510.46
11	566.44	521.62
12	588.04	534.20
13	608.80	548.14
14	628.61	563.38
15	647.40	579.87
16	665.10	597.53
17	681.62	616.30
18	696.89	636.09
19	710.87	656.81
20	718.57	670.00

Circle Center At X = 382.0 ; Y = 863.0 and Radius, 388.0

*** 1.600 ***

1

Failure Surface Specified By 21 Coordinate Points

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

1	310.26	477.53
2	335.24	476.52
3	360.23	476.80
4	385.18	478.39
5	410.02	481.27
6	434.67	485.44
7	459.07	490.89
8	483.15	497.60
9	506.85	505.55
10	530.11	514.73
11	552.85	525.10
12	575.03	536.65
13	596.57	549.33
14	617.43	563.11
15	637.54	577.96
16	656.85	593.84
17	675.31	610.70
18	692.86	628.50
19	709.47	647.19
20	725.08	666.72
21	727.44	670.00

Circle Center At X = 342.2 ; Y = 956.8 and Radius, 480.3

*** 1.601 ***

Failure Surface Specified By 23 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	310.26	477.53
2	335.22	476.23
3	360.22	475.97
4	385.21	476.74
5	410.14	478.55
6	434.98	481.38
7	459.68	485.25
8	484.20	490.13
9	508.50	496.03
10	532.52	502.93
11	556.25	510.82
12	579.62	519.68
13	602.61	529.51
14	625.17	540.27
15	647.27	551.97
16	668.86	564.57
17	689.91	578.05
18	710.39	592.40
19	730.25	607.58
20	749.47	623.57
21	768.01	640.34

22	785.83	657.87
23	797.19	670.00

Circle Center At X = 354.1 ; Y = 1079.2 and Radius, 603.2

*** 1.614 ***

1

Failure Surface Specified By 22 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.05	474.01
2	306.98	472.10
3	331.97	471.46
4	356.96	472.11
5	381.89	474.03
6	406.68	477.23
7	431.28	481.69
8	455.62	487.40
9	479.64	494.35
10	503.26	502.52
11	526.44	511.89
12	549.11	522.43
13	571.21	534.11
14	592.69	546.91
15	613.48	560.79
16	633.54	575.72
17	652.80	591.65
18	671.23	608.55
19	688.76	626.36
20	705.37	645.05
21	720.99	664.57
22	724.90	670.00

Circle Center At X = 331.9 ; Y = 959.7 and Radius, 488.2

*** 1.615 ***

Failure Surface Specified By 24 Coordinate Points

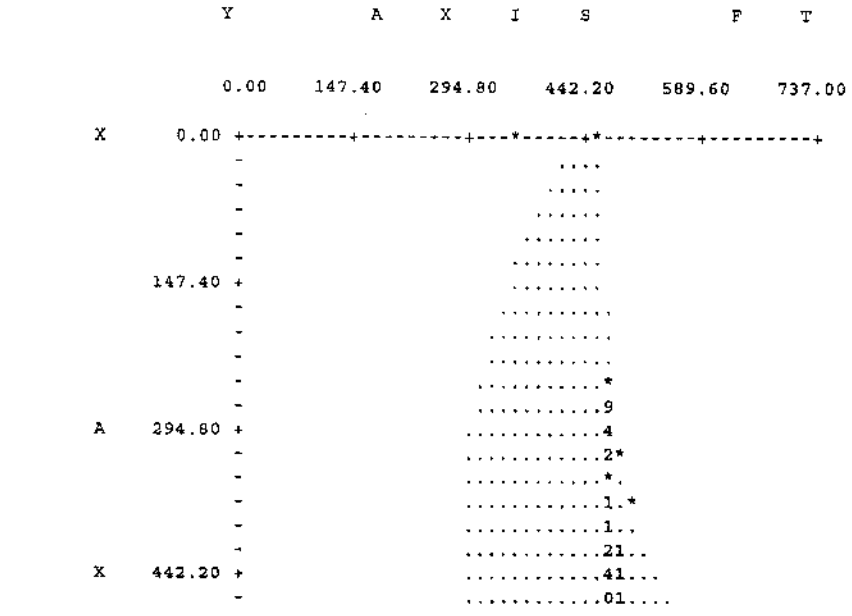
Point No.	X-Surf (ft)	Y-Surf (ft)
1	282.05	474.01
2	306.82	470.59

3	331.71	468.32
4	356.69	467.20
5	381.69	467.23
6	406.66	468.41
7	431.55	470.74
8	456.31	474.22
9	480.88	478.83
10	505.21	484.57
11	529.26	491.42
12	552.96	499.37
13	576.27	508.41
14	599.14	518.51
15	621.52	529.65
16	643.36	541.81
17	664.62	554.97
18	685.25	569.09
19	705.21	584.14
20	724.45	600.10
21	742.94	616.93
22	760.63	634.59
23	777.50	653.05
24	791.61	670.00

Circle Center At X = 368.6 ; Y = 1009.5 and Radius, 542.4

*** 1.617 ***

1



Mountain Gate, 03-0381-001, X-Sec:O-O'

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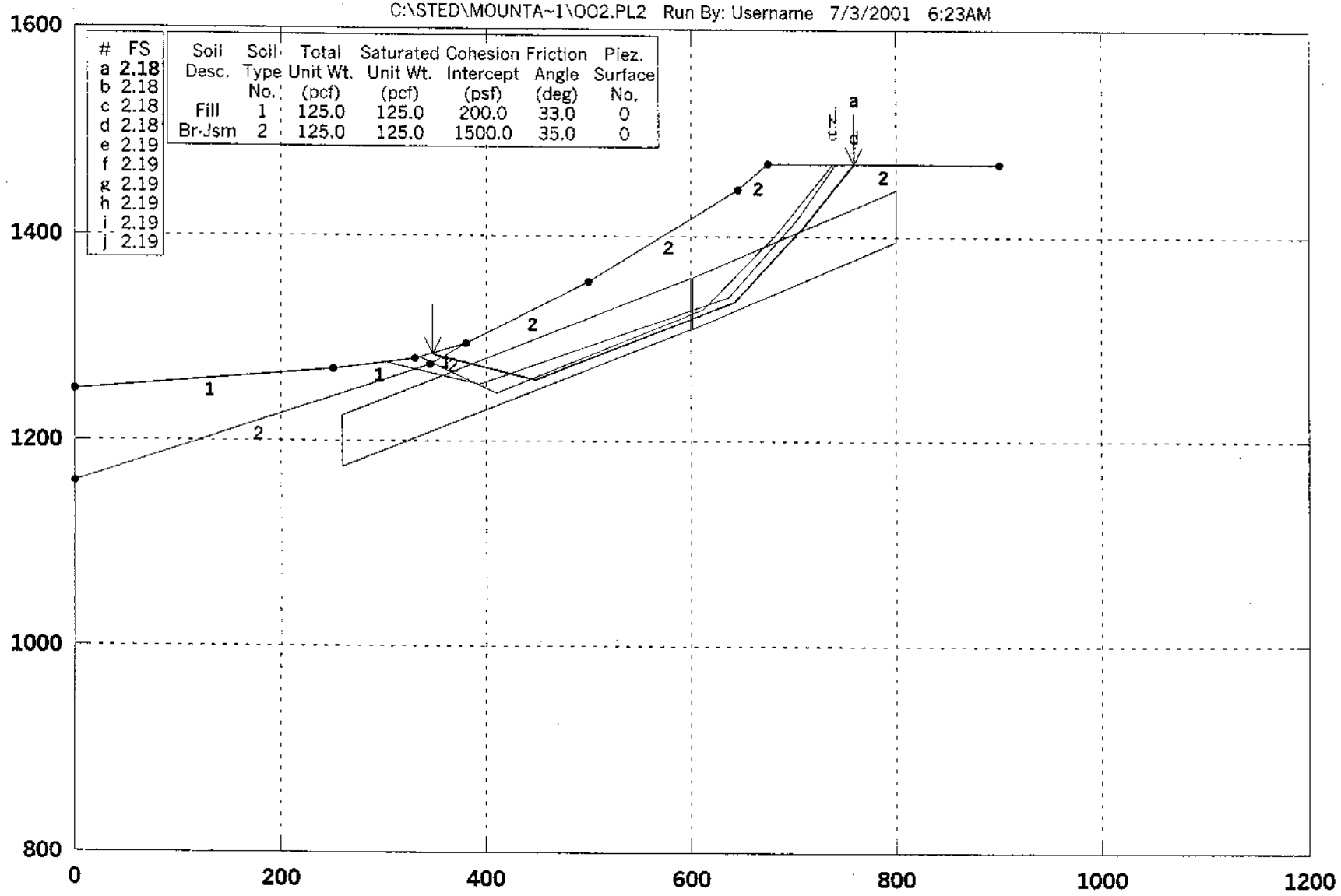


GSTABL7 FSmin=2.18

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-60

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/3/2001
Time of Run: 6:23AM
Run By: Username
Input Data Filename: C:002.
Output Filename: C:002.OUT
Unit System: English

Plotted Output Filename: C:002.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:O-O'

BOUNDARY COORDINATES

7 Top Boundaries
9 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	450.00	250.00	470.00	1
2	250.00	470.00	330.00	480.00	1
3	330.00	480.00	380.00	495.00	1
4	380.00	495.00	500.00	555.00	2
5	500.00	555.00	645.00	645.00	2
6	645.00	645.00	675.00	670.00	2
7	675.00	670.00	900.00	670.00	2
8	0.00	360.00	345.00	475.00	2
9	345.00	475.00	380.00	495.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	260.00	400.00	600.00	535.00	50.00
2	601.00	535.00	800.00	620.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

Individual data on the 10 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	3.7	773.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.4	3270.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	23.2	36445.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	68.6	379937.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	51.4	466050.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	143.3	1637111.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	1.7	23370.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	30.0	384362.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	34.9	343635.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	49.7	184009.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	335.32	481.60
2	410.22	446.74
3	612.26	528.83
4	681.82	600.67
5	737.77	670.00

*** 2.186 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	335.32	481.60
2	410.22	446.74
3	612.26	528.83
4	681.82	600.67
5	737.77	670.00

*** 2.186 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	335.32	481.60
2	410.22	446.74
3	612.26	528.83
4	681.82	600.67
5	737.77	670.00

*** 2.186 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	335.32	481.60
2	410.22	446.74
3	612.26	528.83
4	681.82	600.67
5	737.77	670.00

*** 2.186 ***

1

Failure Surface Specified By 5 Coordinate Points

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

No.	(ft)	(ft)
1	303.91	476.74
2	393.62	455.29
3	636.75	541.15
4	702.64	616.36
5	740.88	670.00

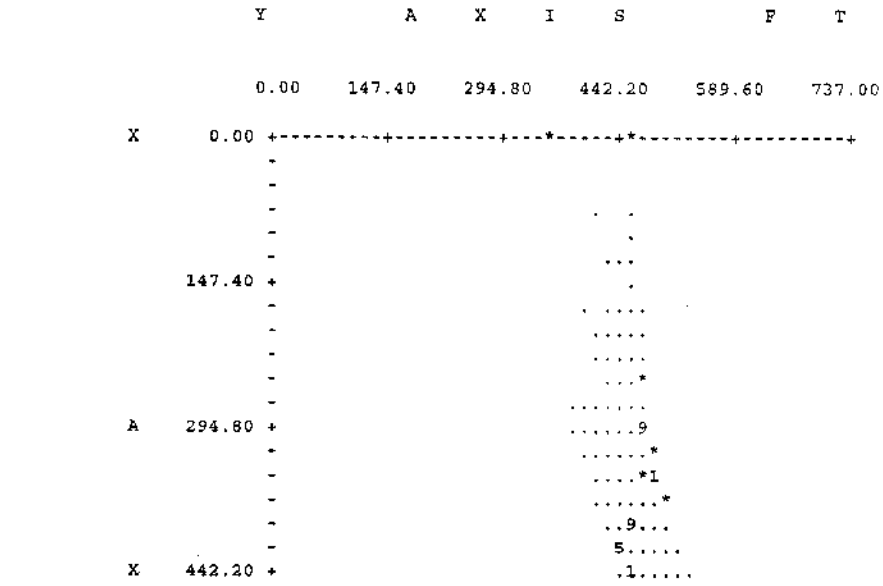
*** 2.191 ***

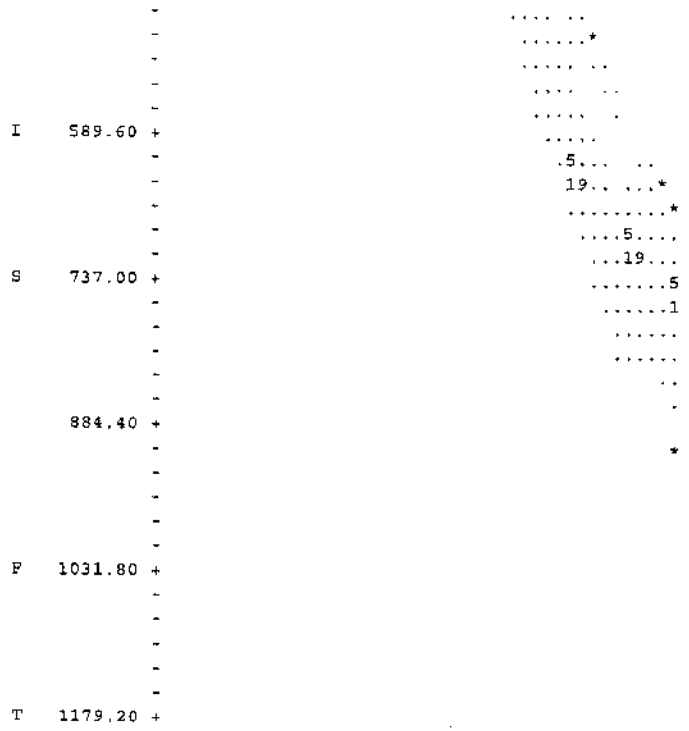
Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	303.91	476.74
2	393.62	455.29
3	636.75	541.15
4	702.64	616.36
5	740.88	670.00

*** 2.191 ***

1

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T 1179.20

Mountain Gate, 03-0381-001, X-Sec:O-O' Pseudostatic

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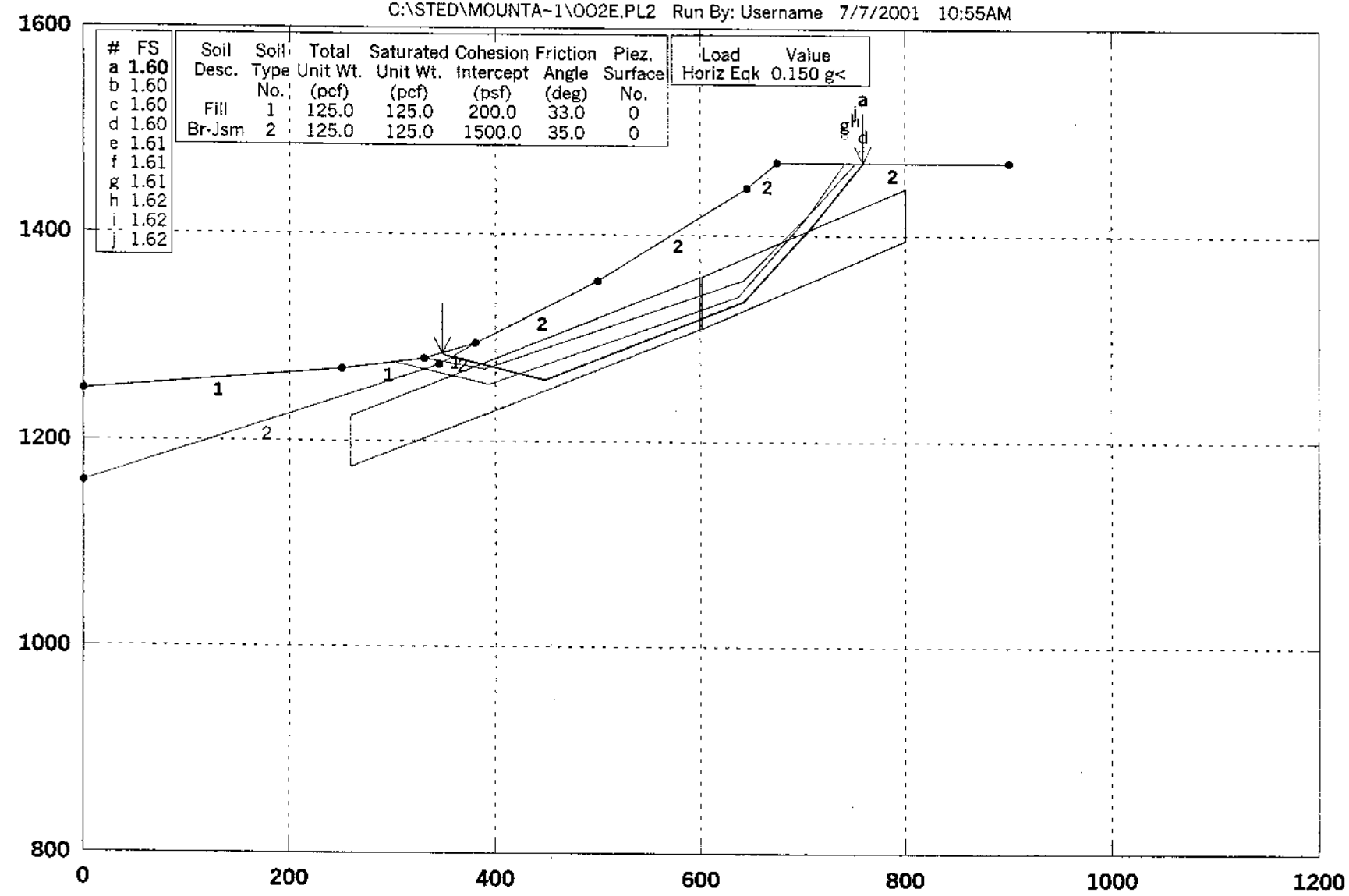


GSTABL7 FSmin=1.60

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-61

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/7/2001
Time of Run: 10:55AM
Run By: Username
Input Data Filename: C:oo2e.
Output Filename: C:oo2e.OUT
Unit System: English

Plotted Output Filename: C:oo2e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:O-O'
Pseudostatic

BOUNDARY COORDINATES

7 Top Boundaries
9 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	450.00	250.00	470.00	1
2	250.00	470.00	330.00	480.00	1
3	330.00	480.00	380.00	495.00	1
4	380.00	495.00	500.00	555.00	2
5	500.00	555.00	645.00	645.00	2
6	645.00	645.00	675.00	670.00	2
7	675.00	670.00	900.00	670.00	2
8	0.00	360.00	345.00	475.00	2
9	345.00	475.00	380.00	495.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	260.00	400.00	600.00	535.00	50.00
2	601.00	535.00	800.00	620.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point	X-Surf	Y-Surf

No.	(ft)	(ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 1.604 ***

Individual data on the 10 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	3.7	773.3	0.0	0.0	0.0	0.0	116.0	0.0	0.0
2	5.4	3270.9	0.0	0.0	0.0	0.0	490.6	0.0	0.0
3	23.2	36445.9	0.0	0.0	0.0	0.0	5466.9	0.0	0.0
4	68.6	379937.9	0.0	0.0	0.0	0.0	56990.7	0.0	0.0
5	51.4	466050.7	0.0	0.0	0.0	0.0	69907.6	0.0	0.0
6	143.3	1637111.9	0.0	0.0	0.0	0.0	*******	0.0	0.0
7	1.7	23370.3	0.0	0.0	0.0	0.0	3505.5	0.0	0.0
8	30.0	384362.9	0.0	0.0	0.0	0.0	57654.4	0.0	0.0
9	34.9	343635.3	0.0	0.0	0.0	0.0	51545.3	0.0	0.0
10	49.7	184009.4	0.0	0.0	0.0	0.0	27601.4	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 1.604 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 1.604 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 1.604 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	303.91	476.74
2	393.62	455.29
3	636.75	541.15
4	702.64	616.36
5	740.88	670.00

*** 1.613 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	303.91	476.74
2	393.62	455.29
3	636.75	541.15
4	702.64	616.36
5	740.88	670.00

*** 1.613 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	303.91	476.74
2	393.62	455.29
3	636.75	541.15
4	702.64	616.36
5	740.88	670.00

*** 1.613 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	331.22	480.37
2	389.47	469.92
3	642.87	556.73
4	713.25	627.76
5	752.04	670.00

*** 1.621 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	331.22	480.37
2	389.47	469.92
3	642.87	556.73
4	713.25	627.76
5	752.04	670.00

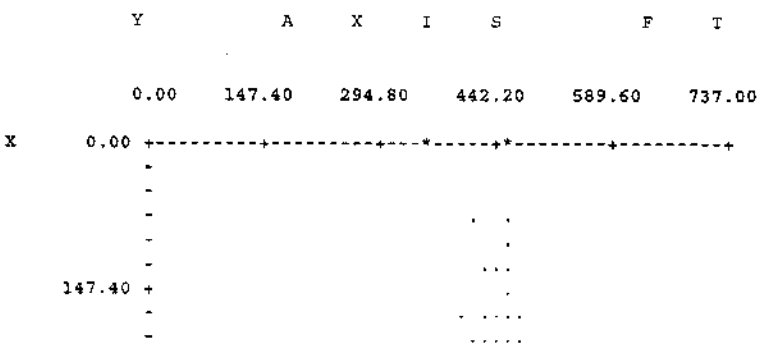
*** 1.621 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	331.22	480.37
2	389.47	469.92
3	642.87	556.73
4	713.25	627.76
5	752.04	670.00

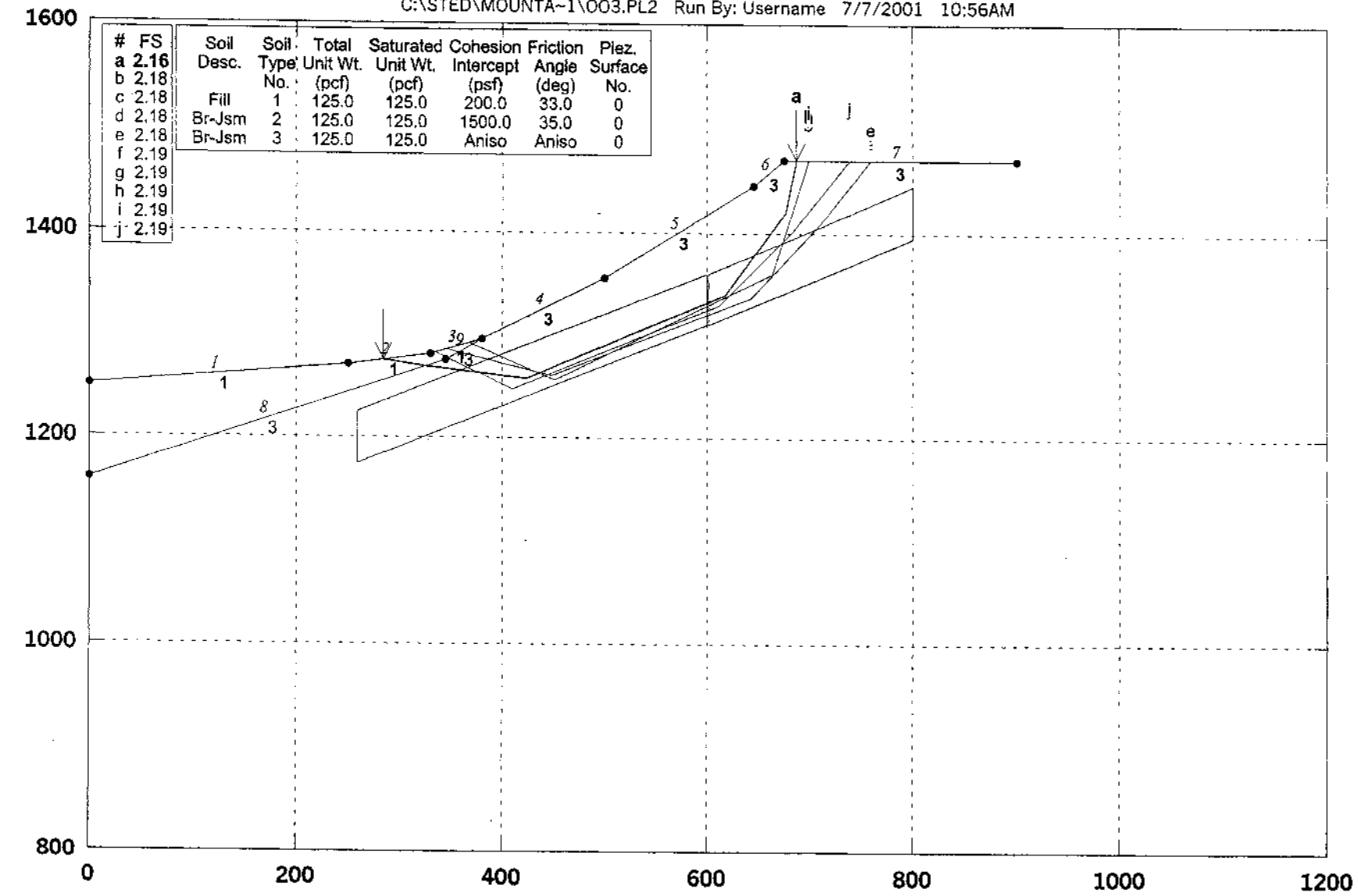
*** 1.621 ***

1



Mountain Gate, 03-0381-001, X-Sec:O-O' assume lower strength along joint

C:\STED\MOUNTA~1\003.PL2 Run By: Username 7/7/2001 10:56AM



#	FS
a	2.16
b	2.18
c	2.18
d	2.18
e	2.18
f	2.19
g	2.19
h	2.19
i	2.19
j	2.19

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Fill	1	125.0	125.0	200.0	33.0	0
Br-Jsm	2	125.0	125.0	1500.0	35.0	0
Br-Jsm	3	125.0	125.0	Aniso	Aniso	0

GSTABL7 FSmin=2.16

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-30

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 7/7/2001
Time of Run: 10:56AM
Run By: Username
Input Data Filename: C:oo3.
Output Filename: C:oo3.OUT
Unit System: English

Plotted Output Filename: C:oo3.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:O-O'
assume lower strength along joint

BOUNDARY COORDINATES

7 Top Boundaries
9 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	450.00	250.00	470.00	1
2	250.00	470.00	330.00	480.00	1
3	330.00	480.00	380.00	495.00	1
4	380.00	495.00	500.00	555.00	3
5	500.00	555.00	645.00	645.00	3
6	645.00	645.00	675.00	670.00	3
7	675.00	670.00	900.00	670.00	3
8	0.00	360.00	345.00	475.00	3
9	345.00	475.00	380.00	495.00	3

1

ISOTROPIC SOIL PARAMETERS

3 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	125.0	125.0	200.0	33.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0
3	125.0	125.0	1500.0	35.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
1 soil type(s)

Soil Type 3 Is Anisotropic

Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	0.0	1500.0	35.0
2	70.0	1500.0	35.0
3	90.0	0.0	35.0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 100.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	260.00	400.00	600.00	535.00	50.00
2	601.00	535.00	800.00	620.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	283.81	474.23
2	323.50	468.70
3	422.76	456.54
4	617.65	538.98
5	676.05	620.16
6	687.60	670.00

*** 2.156 ***

Individual data on the 12 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	39.7	26015.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.9	2547.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	4.6	6627.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	15.0	28622.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	35.0	112997.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	42.8	248689.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	77.2	606464.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	117.7	1138470.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	27.3	268425.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	30.0	223701.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	1.1	6657.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	11.5	35965.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

1

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	347.69	485.31
2	351.39	483.07
3	448.57	459.50
4	643.26	536.29
5	709.93	610.82
6	759.67	670.00

*** 2.180 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	368.40	491.52
2	450.73	455.89
3	663.95	560.38
4	693.54	655.91
5	697.94	670.00

*** 2.186 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	368.40	491.52
2	450.73	455.89
3	663.95	560.38
4	693.54	655.91
5	697.94	670.00

*** 2.186 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	368.40	491.52
2	450.73	455.89
3	663.95	560.38
4	693.54	655.91
5	697.94	670.00

*** 2.186 ***

1

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	368.40	491.52
2	450.73	455.89
3	663.95	560.38
4	693.54	655.91
5	697.94	670.00

*** 2.186 ***

Failure Surface Specified By 5 Coordinate Points

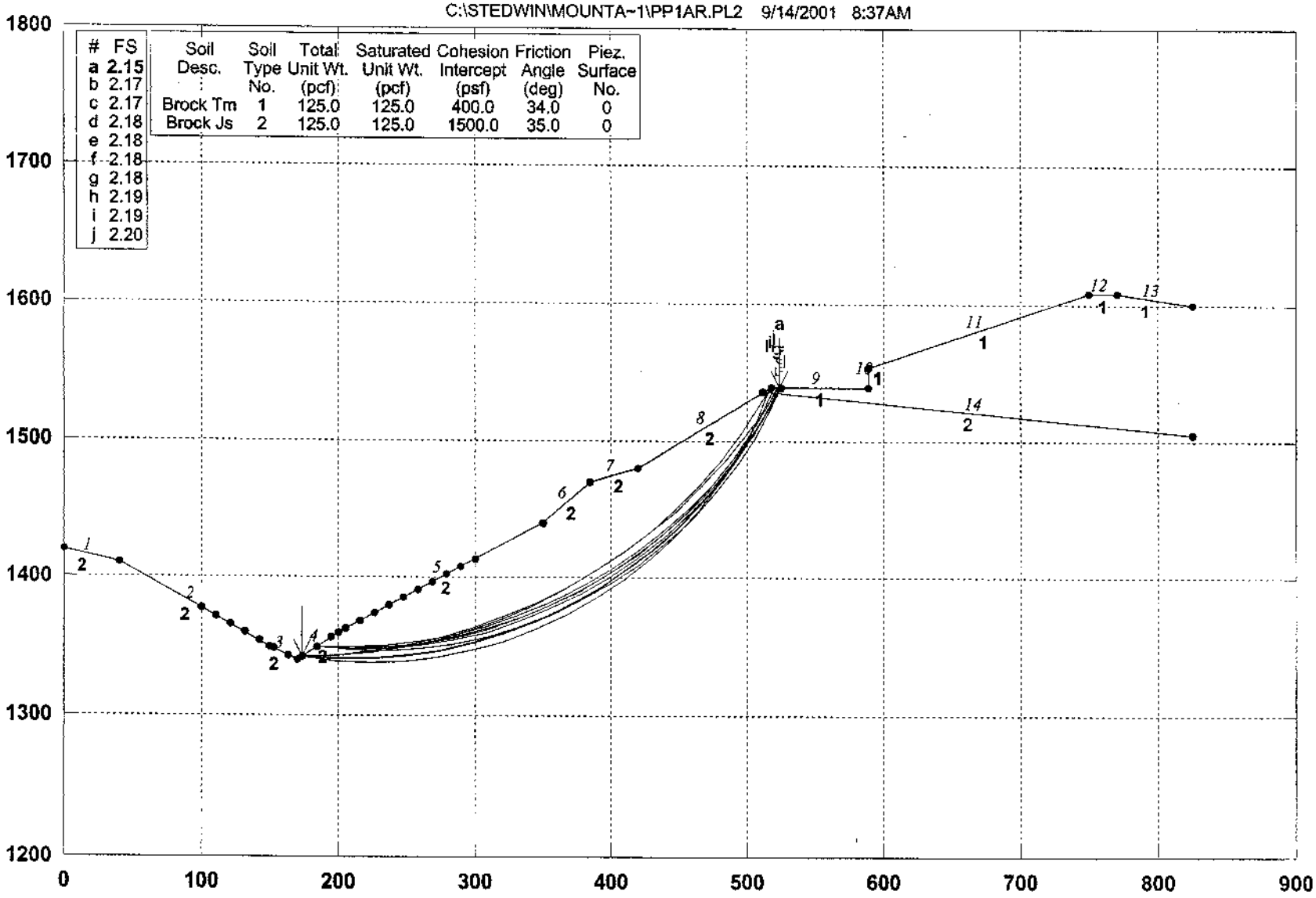
Point No.	X-Surf (ft)	Y-Surf (ft)
1	335.32	481.60
2	410.22	446.74
3	612.26	528.83
4	681.82	600.67
5	737.77	670.00

*** 2.186 ***

1

Mountain Gate, 03-0381-001, X-Sec:P-P'

C:\STEDWIN\MOUNTA~1\PP1AR.PL2 9/14/2001 8:37AM



GSTABL7 FSmin=2.15

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-63

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/14/2001
Time of Run: 8:37AM
Run By:
Input Data Filename: C:pplar.
Output Filename: C:pplar.OUT
Unit System: English

Plotted Output Filename: C:pplar.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:P-P'

BOUNDARY COORDINATES

13 Top Boundaries
14 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	220.00	40.00	210.00	2
2	40.00	210.00	150.00	150.00	2
3	150.00	150.00	170.00	140.00	2
4	170.00	140.00	200.00	160.00	2
5	200.00	160.00	350.00	240.00	2
6	350.00	240.00	385.00	270.00	2
7	385.00	270.00	420.00	280.00	2
8	420.00	280.00	518.00	339.00	2
9	518.00	339.00	589.00	339.00	1
10	589.00	339.00	589.10	354.00	1
11	589.10	354.00	750.00	408.00	1
12	750.00	408.00	770.00	408.00	1
13	770.00	408.00	825.00	400.00	1
14	511.00	336.00	825.00	305.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	400.0	34.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced Along The Ground Surface Between X = 100.00(ft)
and X = 300.00(ft)

Each Surface Terminates Between X = 350.00(ft)
and X = 525.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 19 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.63	140.82

3	223.63	140.98
4	248.55	142.92
5	273.28	146.65
6	297.66	152.14
7	321.60	159.37
8	344.95	168.29
9	367.61	178.86
10	389.44	191.03
11	410.35	204.74
12	430.23	219.91
13	448.96	236.46
14	466.46	254.31
15	482.64	273.37
16	497.41	293.54
17	510.69	314.72
18	522.42	336.80
19	523.40	339.00

Circle Center At X = 209.0 ; Y = 489.2 and Radius, 348.6

*** 2.153 ***

Individual data on the 25 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	24.9	28481.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.4	3203.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	23.6	75025.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	24.9	116207.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	24.7	147395.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	24.4	171293.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	23.9	187617.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	23.4	196316.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.0	43661.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	17.6	160185.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	17.4	171411.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	4.4	44899.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

13	20.9	199608.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	9.6	84657.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	10.2	85740.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	18.7	148978.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	17.5	125389.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	16.2	99074.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	14.8	71434.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	13.3	43946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.3	764.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	7.0	13123.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.4	3135.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	1.0	379.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.0	133.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.66	143.53
3	223.53	146.08
4	248.20	150.12
5	272.59	155.61
6	296.61	162.55
7	320.17	170.92
8	343.19	180.67
9	365.59	191.77
10	387.28	204.19
11	408.20	217.88
12	428.26	232.80
13	447.40	248.88
14	465.55	266.08
15	482.64	284.33
16	498.61	303.56
17	513.40	323.71
18	523.28	339.00

Circle Center At X = 168.4 ; Y = 561.0 and Radius, 418.6

*** 2.170 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.20	148.59
3	234.18	149.45
4	259.04	152.07
5	283.66	156.41
6	307.92	162.47
7	331.69	170.22
8	354.86	179.61
9	377.31	190.60
10	398.94	203.13
11	419.64	217.15
12	439.31	232.59
13	457.85	249.36
14	475.16	267.39
15	491.18	286.59
16	505.80	306.86
17	518.98	328.11
18	524.71	339.00

Circle Center At X = 209.5 ; Y = 504.7 and Radius, 356.1

*** 2.173 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.21	149.06
3	234.17	150.35
4	259.00	153.33
5	283.56	157.98
6	307.75	164.29
7	331.46	172.23
8	354.57	181.76
9	376.98	192.84
10	398.59	205.41
11	419.30	219.41
12	439.01	234.80
13	457.63	251.48

14	475.07	269.39
15	491.26	288.44
16	506.12	308.54
17	519.58	329.61
18	524.72	339.00

Circle Center At X = 202.9 ; Y = 516.5 and Radius, 367.5

*** 2.176 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.17	147.99
3	234.16	148.33
4	259.07	150.49
5	283.75	154.46
6	308.08	160.23
7	331.92	167.75
8	355.15	177.00
9	377.64	187.92
10	399.27	200.45
11	419.93	214.52
12	439.51	230.06
13	457.91	247.00
14	475.01	265.23
15	490.74	284.66
16	505.02	305.18
17	517.75	326.70
18	523.87	339.00

Circle Center At X = 217.2 ; Y = 489.6 and Radius, 341.7

*** 2.177 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.10	147.09
3	234.09	146.62

4	259.05	148.06
5	283.82	151.42
6	308.27	156.67
7	332.23	163.78
8	355.59	172.71
9	378.19	183.40
10	399.90	195.79
11	420.59	209.81
12	440.15	225.38
13	458.46	242.41
14	475.41	260.79
15	490.90	280.41
16	504.83	301.17
17	517.14	322.93
18	524.66	339.00

Circle Center At X = 227.8 ; Y = 471.7 and Radius, 325.2

*** 2.181 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.19	148.39
3	234.18	149.10
4	259.05	151.60
5	283.68	155.88
6	307.94	161.92
7	331.71	169.68
8	354.85	179.13
9	377.26	190.22
10	398.82	202.88
11	419.41	217.06
12	438.93	232.68
13	457.27	249.66
14	474.36	267.92
15	490.08	287.35
16	504.38	307.86
17	517.16	329.34
18	522.01	339.00

Circle Center At X = 211.9 ; Y = 495.9 and Radius, 347.5

*** 2.183 ***

Failure Surface Specified By 19 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.50	139.40
3	223.47	138.32
4	248.46	139.24
5	273.29	142.14
6	297.81	147.01
7	321.87	153.81
8	345.30	162.51
9	367.98	173.05
10	389.74	185.35
11	410.45	199.35
12	429.98	214.95
13	448.21	232.06
14	465.03	250.56
15	480.31	270.35
16	493.97	291.28
17	505.93	313.24
18	516.09	336.08
19	516.89	338.33

Circle Center At X = 224.5 ; Y = 452.2 and Radius, 313.9

*** 2.192 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.67	143.16
3	223.57	145.44
4	248.27	149.29
5	272.68	154.68
6	296.71	161.60
7	320.25	170.02
8	343.21	179.90
9	365.51	191.22
10	387.04	203.91
11	407.74	217.93
12	427.51	233.24
13	446.28	249.75
14	463.97	267.42
15	480.51	286.16

16	495.84	305.91
17	509.89	326.59
18	516.81	338.28

Circle Center At X = 175.1 ; Y = 538.4 and Radius, 396.0

*** 2.194 ***

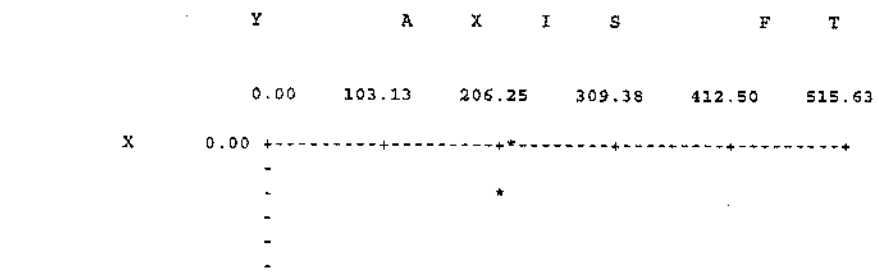
Failure Surface Specified By 18 Coordinate Points

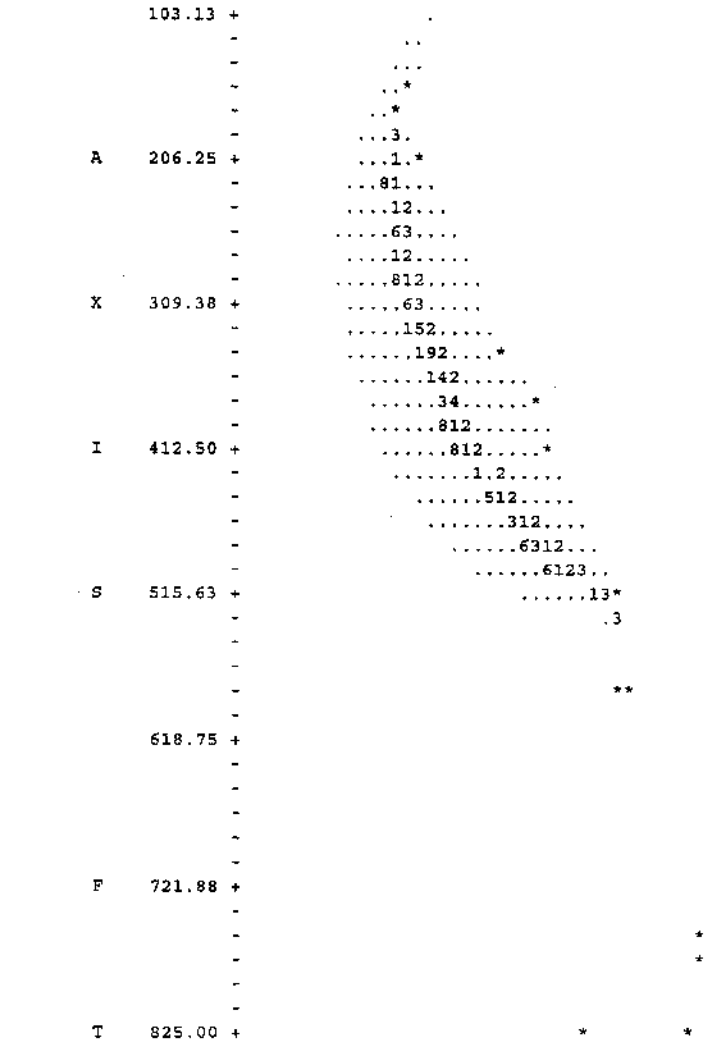
Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.09	147.04
3	234.09	146.57
4	259.04	148.06
5	283.80	151.51
6	308.22	156.89
7	332.13	164.18
8	355.40	173.31
9	377.88	184.25
10	399.44	196.92
11	419.93	211.25
12	439.23	227.13
13	457.22	244.49
14	473.80	263.20
15	488.85	283.16
16	502.29	304.24
17	514.04	326.31
18	519.56	339.00

Circle Center At X = 227.7 ; Y = 464.0 and Radius, 317.5

*** 2.198 ***

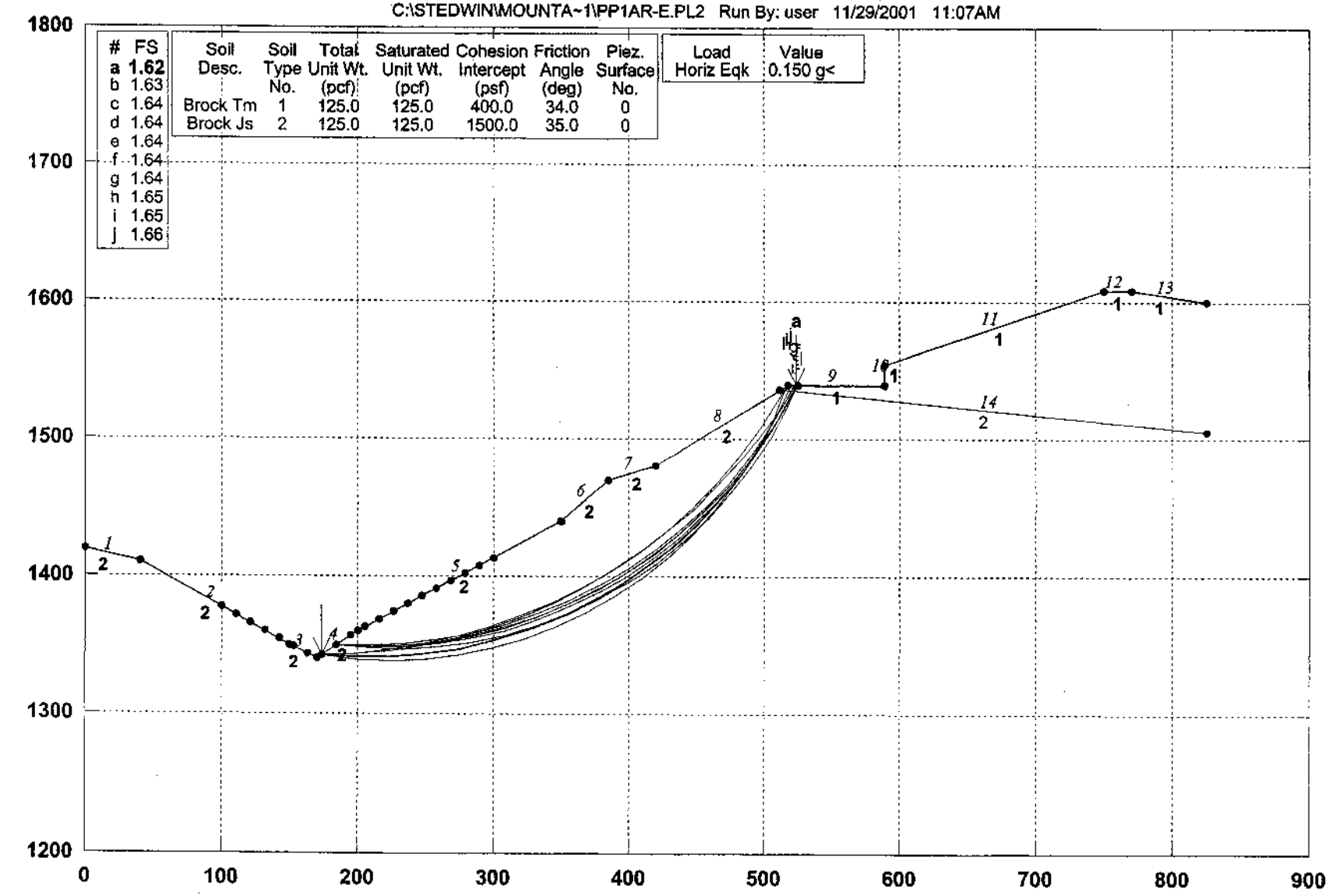
1





Mountain Gate, 03-0381-001, X-Sec:P-P' Pseudo Static

C:\STEDWIN\MOUNTA~1\PP1AR-E.PL2 Run By: user 11/29/2001 11:07AM



GSTABL7 FSmin=1.62

Safety Factors Are Calculated By The Modified Bishop Method

STED

Figure E-64

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer's Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 11/29/2001
Time of Run: 11:07AM
Run By: user
Input Data Filename: C:pplar-e.
Output Filename: C:pplar-e.OUT
Unit System: English

Plotted Output Filename: C:pplar-e.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:P-P'
Pseudo Static

BOUNDARY COORDINATES

13 Top Boundaries
14 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	220.00	40.00	210.00	2
2	40.00	210.00	150.00	150.00	2
3	150.00	150.00	170.00	140.00	2
4	170.00	140.00	200.00	160.00	2
5	200.00	160.00	350.00	240.00	2
6	350.00	240.00	385.00	270.00	2
7	385.00	270.00	420.00	280.00	2
8	420.00	280.00	518.00	339.00	2
9	518.00	339.00	589.00	339.00	1
10	589.00	339.00	589.10	354.00	1
11	589.10	354.00	750.00	408.00	1
12	750.00	408.00	770.00	408.00	1
13	770.00	408.00	825.00	400.00	1
14	511.00	336.00	825.00	305.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	400.0	34.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

A Horizontal Earthquake Loading Coefficient
Of0.150 Has Been Assigned

A Vertical Earthquake Loading Coefficient
Of0.000 Has Been Assigned

Cavitation Pressure = 0.0(psf)

1

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

2000 Trial Surfaces Have Been Generated.

100 Surfaces Initiate From Each Of 20 Points Equally Spaced
Along The Ground Surface Between X = 100.00(ft)
and X = 300.00(ft)

Each Surface Terminates Between X = 350.00(ft)
and X = 525.00(ft)

Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 0.00(ft)

25.00(ft) Line Segments Define Each Trial Failure Surface.

1

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 19 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.63	140.82
3	223.63	140.98
4	248.55	142.92
5	273.28	146.65
6	297.66	152.14
7	321.60	159.37
8	344.95	168.29
9	367.61	178.86
10	389.44	191.03
11	410.35	204.74
12	430.23	219.91
13	448.96	236.46
14	466.46	254.31
15	482.64	273.37
16	497.41	293.54
17	510.69	314.72
18	522.42	336.80
19	523.40	339.00

Circle Center At X = 209.0 ; Y = 489.2 and Radius, 348.6

*** 1.621 ***

Individual data on the 25 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	24.9	28481.5	0.0	0.0	0.0	0.0	4272.2	0.0	0.0
2	1.4	3203.1	0.0	0.0	0.0	0.0	480.5	0.0	0.0
3	23.6	75025.0	0.0	0.0	0.0	0.0	11253.7	0.0	0.0
4	24.9	116207.6	0.0	0.0	0.0	0.0	17431.1	0.0	0.0
5	24.7	147395.5	0.0	0.0	0.0	0.0	22109.3	0.0	0.0
6	24.4	171293.4	0.0	0.0	0.0	0.0	25694.0	0.0	0.0
7	23.9	187617.2	0.0	0.0	0.0	0.0	28142.6	0.0	0.0

8	23.4	196316.3	0.0	0.0	0.0	0.0	29447.5	0.0	0.0
9	5.0	43661.5	0.0	0.0	0.0	0.0	6549.2	0.0	0.0
10	17.6	160185.6	0.0	0.0	0.0	0.0	24027.8	0.0	0.0
11	17.4	171411.2	0.0	0.0	0.0	0.0	25711.7	0.0	0.0
12	4.4	44899.2	0.0	0.0	0.0	0.0	6734.9	0.0	0.0
13	20.9	199608.6	0.0	0.0	0.0	0.0	29941.3	0.0	0.0
14	9.6	84657.5	0.0	0.0	0.0	0.0	12698.6	0.0	0.0
15	10.2	85740.8	0.0	0.0	0.0	0.0	12861.1	0.0	0.0
16	18.7	148978.4	0.0	0.0	0.0	0.0	22346.8	0.0	0.0
17	17.5	125389.3	0.0	0.0	0.0	0.0	18808.4	0.0	0.0
18	16.2	99074.9	0.0	0.0	0.0	0.0	14861.2	0.0	0.0
19	14.8	71434.0	0.0	0.0	0.0	0.0	10715.1	0.0	0.0
20	13.3	43946.4	0.0	0.0	0.0	0.0	6592.0	0.0	0.0
21	0.3	764.1	0.0	0.0	0.0	0.0	114.6	0.0	0.0
22	7.0	13123.8	0.0	0.0	0.0	0.0	1968.6	0.0	0.0
23	3.4	3135.7	0.0	0.0	0.0	0.0	470.3	0.0	0.0
24	1.0	379.1	0.0	0.0	0.0	0.0	56.9	0.0	0.0
25	1.0	133.9	0.0	0.0	0.0	0.0	20.1	0.0	0.0

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.66	143.53
3	223.53	146.08
4	248.20	150.12
5	272.59	155.61
6	296.61	162.55
7	320.17	170.92
8	343.19	180.67
9	365.59	191.77
10	387.28	204.19
11	408.20	217.88
12	428.26	232.80
13	447.40	248.88

14	465.55	266.08
15	482.64	284.33
16	498.61	303.56
17	513.40	323.71
18	523.28	339.00

Circle Center At X = 168.4 ; Y = 561.0 and Radius, 418.6

*** 1.632 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.20	148.59
3	234.18	149.45
4	259.04	152.07
5	283.66	156.41
6	307.92	162.47
7	331.69	170.22
8	354.86	179.61
9	377.31	190.60
10	398.94	203.13
11	419.64	217.15
12	439.31	232.59
13	457.85	249.36
14	475.16	267.39
15	491.18	286.59
16	505.80	306.86
17	518.98	328.11
18	524.71	339.00

Circle Center At X = 209.5 ; Y = 504.7 and Radius, 356.1

*** 1.636 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.21	149.06
3	234.17	150.35

4	259.00	153.33
5	283.56	157.98
6	307.75	164.29
7	331.46	172.23
8	354.57	181.76
9	376.98	192.84
10	398.59	205.41
11	419.30	219.41
12	439.01	234.80
13	457.63	251.48
14	475.07	269.39
15	491.26	288.44
16	506.12	308.54
17	519.58	329.61
18	524.72	339.00

Circle Center At X = 202.9 ; Y = 516.5 and Radius, 367.5

*** 1.637 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.17	147.99
3	234.16	148.33
4	259.07	150.49
5	283.75	154.46
6	308.08	160.23
7	331.92	167.75
8	355.15	177.00
9	377.64	187.92
10	399.27	200.45
11	419.93	214.52
12	439.51	230.06
13	457.91	247.00
14	475.01	265.23
15	490.74	284.66
16	505.02	305.18
17	517.75	326.70
18	523.87	339.00

Circle Center At X = 217.2 ; Y = 489.6 and Radius, 341.7

*** 1.639 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.10	147.09
3	234.09	146.62
4	259.05	148.06
5	283.82	151.42
6	308.27	156.67
7	332.23	163.78
8	355.59	172.71
9	378.19	183.40
10	399.90	195.79
11	420.59	209.81
12	440.15	225.38
13	458.46	242.41
14	475.41	260.79
15	490.90	280.41
16	504.83	301.17
17	517.14	322.93
18	524.66	339.00

Circle Center At X = 227.8 ; Y = 471.7 and Radius, 325.2

*** 1.642 ***

1

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.19	148.39
3	234.18	149.10
4	259.05	151.60
5	283.68	155.88
6	307.94	161.92
7	331.71	169.68
8	354.85	179.13
9	377.26	190.22
10	398.82	202.88
11	419.41	217.06
12	438.93	232.68
13	457.27	249.66
14	474.36	267.92
15	490.08	287.35
16	504.38	307.86

17	517.16	329.34
18	522.01	339.00

Circle Center At X = 211.9 ; Y = 495.9 and Radius, 347.5

*** 1.643 ***

Failure Surface Specified By 18 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.67	143.16
3	223.57	145.44
4	248.27	149.29
5	272.68	154.68
6	296.71	161.60
7	320.25	170.02
8	343.21	179.90
9	365.51	191.22
10	387.04	203.91
11	407.74	217.93
12	427.51	233.24
13	446.28	249.75
14	463.97	267.42
15	480.51	286.16
16	495.84	305.91
17	509.89	326.59
18	516.81	338.28

Circle Center At X = 175.1 ; Y = 538.4 and Radius, 396.0

*** 1.650 ***

1

Failure Surface Specified By 19 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	173.68	142.46
2	198.50	139.40
3	223.47	138.32
4	248.46	139.24
5	273.29	142.14
6	297.81	147.01

7	321.87	153.81
8	345.30	162.51
9	367.98	173.05
10	389.74	185.35
11	410.45	199.35
12	429.98	214.95
13	448.21	232.06
14	465.03	250.56
15	480.31	270.35
16	493.97	291.28
17	505.93	313.24
18	516.09	336.08
19	516.89	338.33

Circle Center At X = 224.5 ; Y = 452.2 and Radius, 313.9

*** 1.651 ***

Failure Surface Specified By 18 Coordinate Points

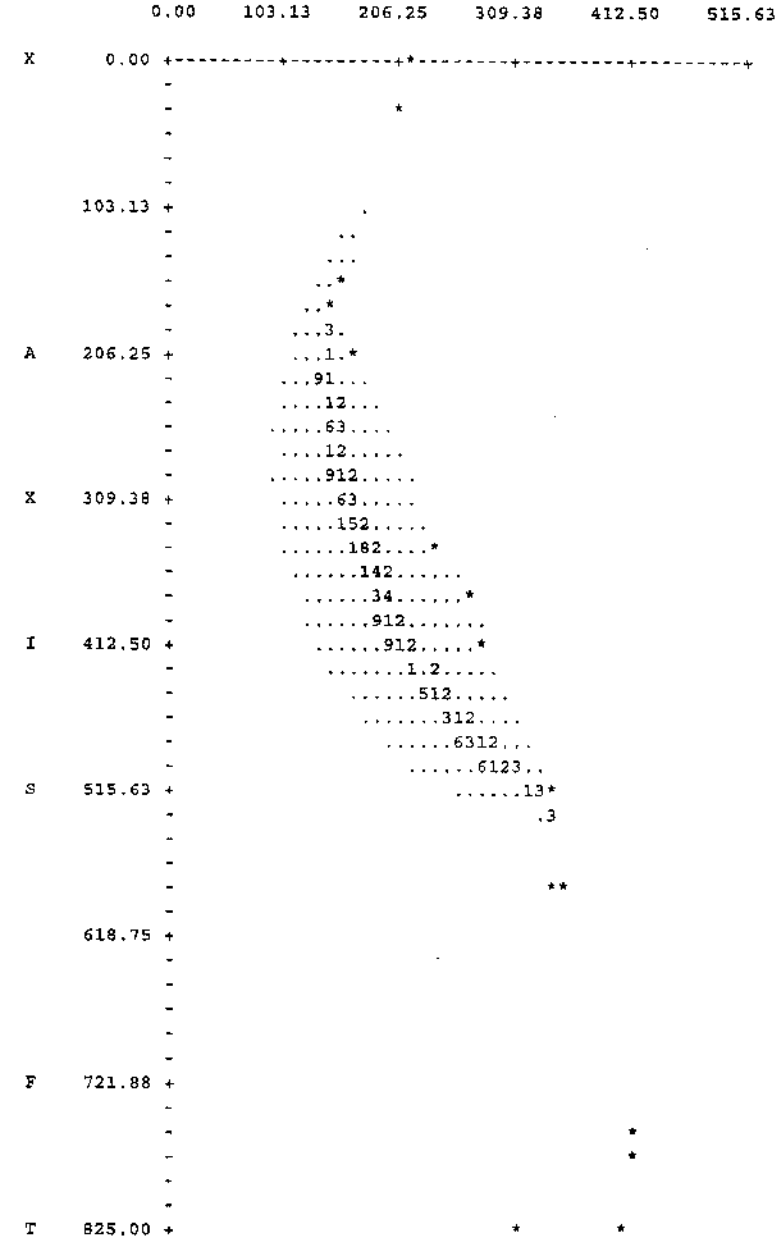
Point No.	X-Surf (ft)	Y-Surf (ft)
1	184.21	149.47
2	209.09	147.04
3	234.09	146.57
4	259.04	148.06
5	283.80	151.51
6	308.22	156.89
7	332.13	164.18
8	355.40	173.31
9	377.88	184.25
10	399.44	196.92
11	419.93	211.25
12	439.23	227.13
13	457.22	244.49
14	473.80	263.20
15	488.85	283.16
16	502.29	304.24
17	514.04	326.31
18	519.56	339.00

Circle Center At X = 227.7 ; Y = 464.0 and Radius, 317.5

*** 1.656 ***

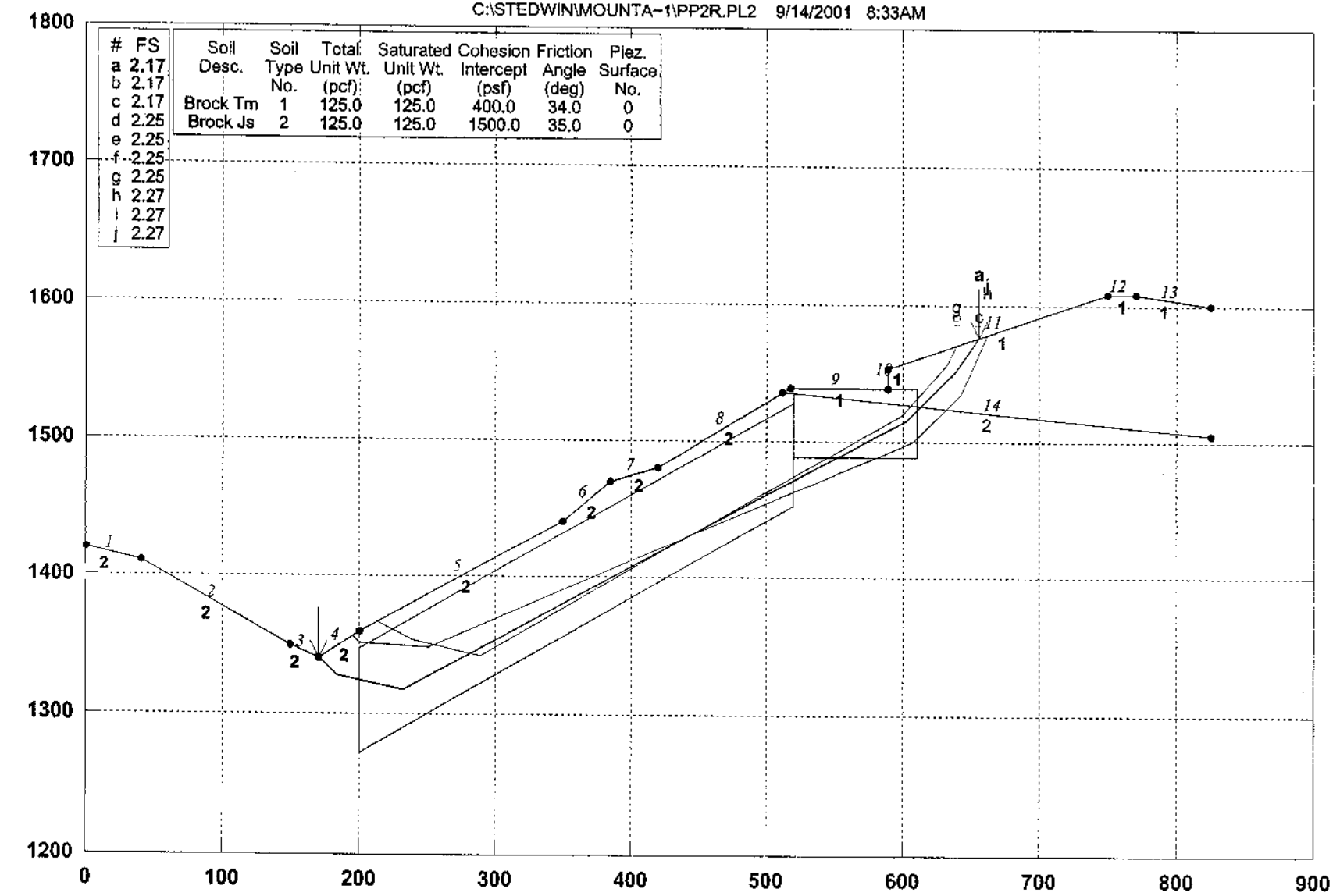
1

Y A X I S F T



Mountain Gate, 03-0381-001, X-Sec:P-P'

C:\STEDWIN\MOUNTA~1\PP2R.PL2 9/14/2001 8:33AM



#	FS
a	2.17
b	2.17
c	2.17
d	2.25
e	2.25
f	2.25
g	2.25
h	2.27
i	2.27
j	2.27

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Brock Tm	1	125.0	125.0	400.0	34.0	0
Brock Js	2	125.0	125.0	1500.0	35.0	0

GSTABL7 FSmin=2.17

Safety Factors Are Calculated By The Simplified Janbu Method for the case of c & phi both > 0

STED

Figure E-65

*** GSTABL7 ***

** GSTABL7 by Garry H. Gregory, P.E. **

** Version 1.0, January 1996; Version 1.16, May 2000 **

--Slope Stability Analysis--
Simplified Janbu, Modified Bishop
or Spencer`s Method of Slices
(Based on STABL6-1986, by Purdue University)

Run Date: 9/14/2001
Time of Run: 8:33AM
Run By:
Input Data Filename: C:pp2r.
Output Filename: C:pp2r.OUT
Unit System: English

Plotted Output Filename: C:pp2r.PLT

PROBLEM DESCRIPTION Mountain Gate, 03-0381-001, X-Sec:P-P'

BOUNDARY COORDINATES

13 Top Boundaries
14 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	220.00	40.00	210.00	2
2	40.00	210.00	150.00	150.00	2
3	150.00	150.00	170.00	140.00	2
4	170.00	140.00	200.00	160.00	2
5	200.00	160.00	350.00	240.00	2
6	350.00	240.00	385.00	270.00	2
7	385.00	270.00	420.00	280.00	2
8	420.00	280.00	518.00	339.00	2
9	518.00	339.00	589.00	339.00	1
10	589.00	339.00	589.10	354.00	1
11	589.10	354.00	750.00	408.00	1
12	750.00	408.00	770.00	408.00	1
13	770.00	408.00	825.00	400.00	1
14	511.00	336.00	825.00	305.00	2

1

ISOTROPIC SOIL PARAMETERS

2 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	125.0	125.0	400.0	34.0	0.00	0.0	0
2	125.0	125.0	1500.0	35.0	0.00	0.0	0

Janbus Empirical Coef is being used for the case of c & phi both > 0

1

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

2000 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 50.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	200.00	110.00	520.00	290.00	75.00
2	520.10	314.00	610.00	314.00	50.00

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 Simplified Janbu Method * *

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	170.29	140.19
2	183.10	127.94
3	232.01	117.58