Applied
Earth
Sciences
GEOTECHNICAL & ENVIRONMENTAL ENGINEERING CONSULTANTS

April 17, 2006 89-492-02

PROCON
19528 Ventura Boulevard
Suite 303
Tarzana, California 91356

Attention: Mr. Phillip Broomandan, MS, CE, President

Subject: Supplement No. 3
Geotechnical Investigation
Proposed Single Family Residence
Portion Of Lot 3 Of Tract No. 5571
3725 Ventura Canyon Avenue
Sherman Oaks, California

Gentlemen:

INTRODUCTION

We are pleased to submit this Supplement No. 3 presenting the results of our additional geotechnical investigation for the subject project. This document supersedes our previous Supplement No. 3 issued on February 15, 2006.

The original report of geotechnical investigation for the subject project was issued by this office on January 3, 1990. Our Report Update was later issued on September 17, 2003. Our Supplement Nos. 1 and 2 were later issued on April 12, 2004 and December 6, 2005, presenting response to the City comments.

This submittal is in response to the latest Geology And Soils Report Correction Letter dated February 3, 2006, by the Grading Division of the Department of Building and safety of the City of Los Angeles (Log # 41904-02). For convenience, we have attached a copy of the Correction Letter with this Supplement No. 3. Our response is presented in the original order of the comments in the Review Letter.

RESPONSE TO COMMENTS

Response to Comment No. 1

As part of the proposed development, the entire site will be brought up into conformance with the current Code standard. This will require constructing a retaining wall along the street and backfilling to create a 2:1 (horizontal:vertical) slope. Our previous Site Plan and Cross Sections B-B' and D-D' have been revised to show the location of the new retaining wall. Revised copies of the Site Plan and Cross Sections B-B' and D-D' are enclosed with this Supplement No. 3 report.

As can be seen, the major portion of the steep cut slope along the front occurs within the required 5 feet dedication. As such, after the proposed retaining wall is constructed, only minor mount of fill will be placed behind this wall in order to create a 2:1 (horizontal:vertical) graded slope. The inclination of the fill slope above the steep front portion is already close to 2:1.

The minor new fill placed over the existing fill will be used strictly for landscaping. As such, fill should be classified as being non-structural.

Response to Comment No. 2

The undersigned Engineering Geologist inspected the subject site on February 16, 2006. We did not observe any popouts on the site slopes. What was observed was a small area of minor erosion, an area of less than 15 square feet. This erosion was the result of a small notch made in the slope and debris left on the slope from the excavation of the "deadman" hole used to provide an anchor with which to winch The drill rig up the slope in order to drill our boring B-3. This area lies directly upslope of B-3. This erosion also caused a very small tree to topple.

We recommend that this area be trimmed to a uniform gradient to blend into the adjacent slope and that the backfill placed in the "deadman" hole be compacted. Re-grading of the steeper portions of the slope is not recommended as most lies on the adjacent lot and removal of material could jeopardize the foundation of the wall on the adjacent lot, the configuration of which is unknown.

Response to Comment No. 3

Our Cross Section B-B' has been revised to show a 2:1 shaved slope. A copy of the revised section B-B' is enclosed with this Supplement No. 3.

Response to Comment No. 4

On the revised sections A-A', B-B' and D-D', the circle with a factor of safety of 1.5 are identified. All passive resistance should be taken below the planes having minimum factor of safety of 1.5.

Response to Comment No. 5

The proposed residence will be accessed through a driveway that will initiate from near the intersection of Ventura canyon Avenue and the existing driveway that provides access to the residence to the west. The existing minor wall that has encroached into the subject property will be removed as part of grading a driveway for the subject residence. Our previous Drawing No.1 has been revised to clearly show the location of the proposed driveway.

Response to Comment No. 6

All retaining walls associated with site grading work of the proposed project should conform with the new City Ordinance 176, 445 (effective March 9, 2005) or a written exemption be secured from the Zoning Administrator.

Response to Comment No. 7

The itemized responses are presented above and completes this Supplement No. 2.

-oOo-

Thank you for the opportunity to be of continued service on this project. Should you have any question regarding this Supplement No. 2, or wish to discuss the project further, please do not hesitate to call this office.

Respectfully submitted,

APPLIED EARTH SCIENCES

Caro J. Minas,
Geotechnical Engineer,
GE 601

REGISTERED PROFESSIONAL ENGINEER
CARO J. MINAS
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GEOTECHNICAL
STATE OF CALIFORNIA

Richard Crook, Jr.
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Enclosure: Engineering Calculation Sheets
Revised Geologic Map & Site Plan - Drawing No. 1
Revised Geologic Cross Sections A-A' Through D-D'- Drawing Nos. 2 Through 5
Copy of the City Geology And Soils Report Correction Letter

Distribution: (5)

SLOPE STABILITY FOR SECTION A-A' 89-492-02 VENTURA CANYON AVE.

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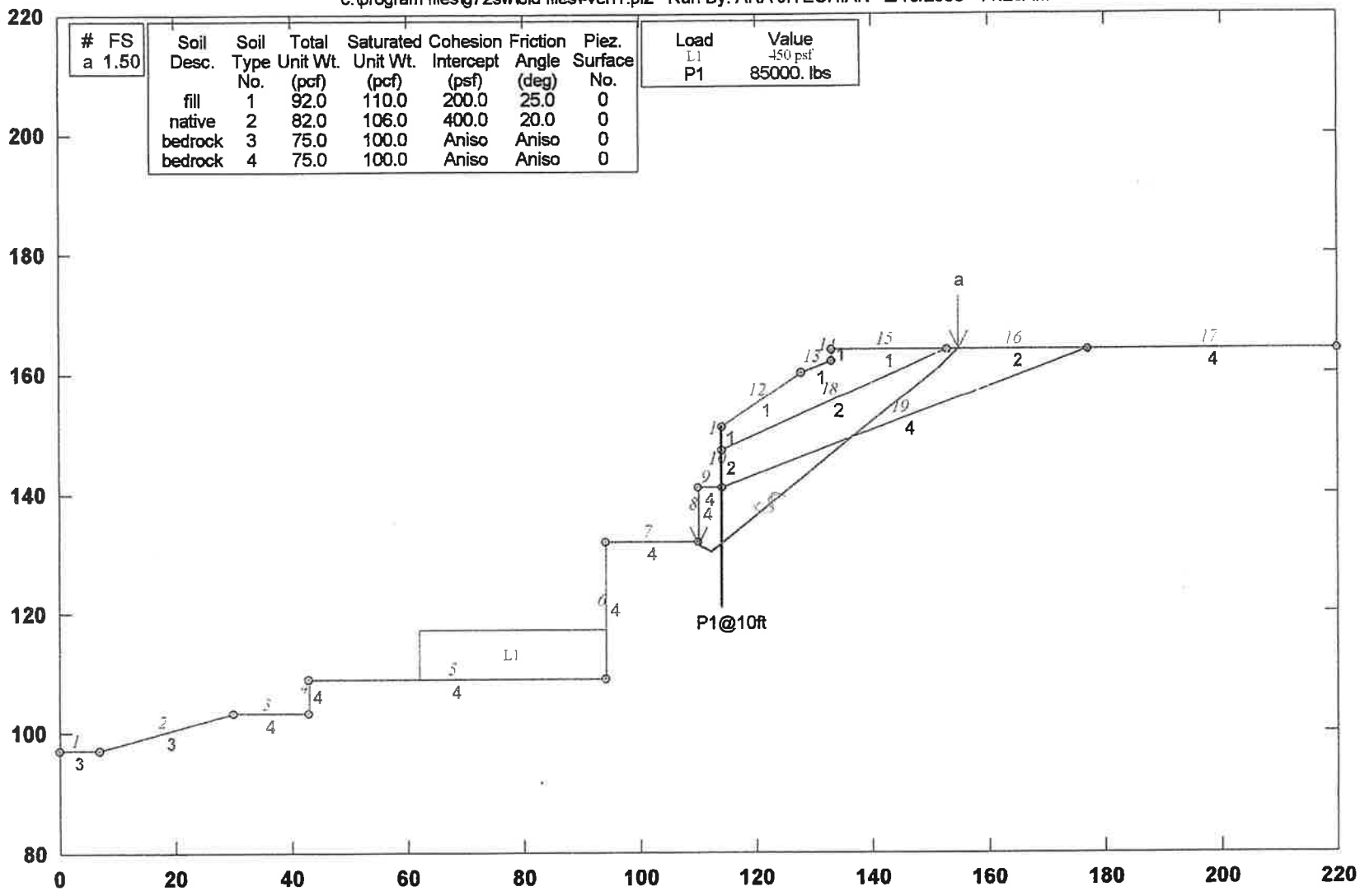

GSTABL7 v.2 FSmin=1.50

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

GSTABL7

*** GSTABL7 ***

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

** Original Version 1.0, January 1996; Current Version 2.004, June 2003 **

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SLOPE STABILITY ANALYSIS SYSTEM

Modified Bishop, Simplified Janbu, or GLE Method of Slices.
(Includes Spencer & Morgenstern-Price Type Analysis)
Including Pier/Pile, Reinforcement, Soil Nail, Tieback,
Nonlinear Undrained Shear Strength, Curved Phi Envelope,
Anisotropic Soil, Fiber-Reinforced Soil, Boundary Loads, Water
Surfaces, Pseudo-Static & Newmark Earthquake, and Applied Forces.

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Run By: ARA JITECHIAN
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Output Filename: C:\Program Files\G72SW\old files\-ven1.OUT
Unit System: English
Plotted Output Filename: C:\Program Files\G72SW\old files\-ven1.PLT
PROBLEM DESCRIPTION: SLOPE STABILITY FOR SECTION A-A'
89-492-02 VENTURA CANYON AVE.

BOUNDARY COORDINATES
17 Top Boundaries
19 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	97.00	7.00	97.00	3
2	7.00	97.00	30.00	103.00	3
3	30.00	103.00	43.00	103.00	4
4	43.00	103.00	43.01	109.00	4
5	43.01	109.00	94.00	109.00	4
6	94.00	109.00	94.01	132.00	4
7	94.01	132.00	110.00	132.00	4
8	110.00	132.00	110.01	141.00	4
9	110.01	141.00	114.00	141.00	4
10	114.00	141.00	114.01	147.00	2
11	114.01	147.00	114.02	151.00	1
12	114.02	151.00	128.00	160.00	1
13	128.00	160.00	133.00	162.00	1
14	133.00	162.00	133.01	164.00	1
15	133.01	164.00	153.00	164.00	1
16	153.00	164.00	177.00	164.00	2
17	177.00	164.00	220.00	164.00	4
18	114.00	147.00	153.00	164.00	2
19	114.00	141.00	177.00	164.00	4

User Specified Y-Origin = 80.00(ft)
Default X-Plus Value = 0.00(ft)
Default Y-Plus Value = 0.00(ft)

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	92.0	110.0	200.0	25.0	0.00	0.0	0
2	82.0	106.0	400.0	20.0	0.00	0.0	0
3	75.0	100.0	700.0	30.0	0.00	0.0	0
4	75.0	100.0	700.0	30.0	0.00	0.0	0

ANISOTROPIC STRENGTH PARAMETERS
2 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	19.0	700.00	30.00

2	21.0	145.00	26.00
3	90.0	700.00	30.00

Soil Type 4 Is Anisotropic
Number Of Direction Ranges Specified = 3

Direction Range No.	Counterclockwise Direction Limit (deg)	Cohesion Intercept (psf)	Friction Angle (deg)
1	37.0	700.00	30.00
2	39.0	145.00	26.00
3	90.0	700.00	30.00

ANISOTROPIC SOIL NOTES:
(1) An input value of 0.01 for C and/or Phi will cause Aniso C and/or Phi to be ignored in that range.
(2) An input value of 0.02 for Phi will set both Phi and C equal to zero, with no water weight in the tension crack.
(3) An input value of 0.03 for Phi will set both Phi and C equal to zero, with water weight in the tension crack.

BOUNDARY LOAD(S)
1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (psf)	Deflection (deg)
1	62.00	94.00	450.0	0.0

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

PIER/PILE LOAD(S)
1 Pier/Pile Load(s) Specified

Pier/Pile No.	X-Pos (ft)	Y-Pos (ft)	Load (lbs)	Spacing (ft)	Inclination (deg)	Length (ft)
1	114.02	151.00	85000.0	10.0	90.00	30.0

NOTE - An Equivalent Line Load Is Calculated For Each Row Of Piers/Piles Assuming A Uniform Distribution Of Load Horizontally Between Individual Piers/Piles.

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.
800 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 5.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	112.00	130.00	120.00	130.00	18.00
2	140.00	160.00	160.00	160.00	6.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Evaluated. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Simplified Janbu Method * *
Total Number of Trial Surfaces Attempted = 800
Number of Trial Surfaces With Valid FS = 800
Statistical Data On All Valid FS Values:
FS Max = 4.778 FS Min = 1.500 FS Ave = 2.731
Standard Deviation = 0.471 Coefficient of Variation = 17.26 %
Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	109.999	131.303
2	112.140	130.408
3	151.317	160.438
4	154.728	164.000

Factor of Safety
*** 1.500 ***
Individual data on the 12 slices

Slice	Width	Weight	Water Force Top	Water Force Bot	Tie Force Norm	Tie Force Tan	Earthquake Force Hor	Earthquake Force Ver	Surcharge Load

No.	(ft)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1	0.0	3.9	0.0	0.0	0.	0.	0.0	0.0	0.0
2	2.1	1621.1	0.0	0.0	0.	0.	0.0	0.0	0.0
3	1.9	1378.1	0.0	0.0	0.	0.	0.0	0.0	0.0
4	0.0	9.3	0.0	0.0	0.	0.	0.0	0.0	0.0
5	0.0	13.6	0.0	0.0	0.	0.	0.0	0.0	0.0
6	14.0	21110.4	0.0	0.0	0.	0.	0.0	0.0	0.0
7	5.0	7024.2	0.0	0.0	0.	0.	0.0	0.0	0.0
8	0.0	14.3	0.0	0.0	0.	0.	0.0	0.0	0.0
9	3.8	5339.3	0.0	0.0	0.	0.	0.0	0.0	0.0
10	14.5	11385.6	0.0	0.0	0.	0.	0.0	0.0	0.0
11	1.7	376.5	0.0	0.0	0.	0.	0.0	0.0	0.0
12	1.7	127.9	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	109.999	131.303
2	112.140	130.408
3	151.317	160.438
4	154.728	164.000

Factor of Safety
*** 1.500 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	109.999	131.322
2	112.990	129.806
3	149.965	158.303
4	153.360	161.974
5	155.195	164.000

Factor of Safety
*** 1.526 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	109.999	131.241
2	114.185	129.331
3	151.234	158.942
4	154.555	162.680
5	154.883	164.000

Factor of Safety
*** 1.580 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	110.000	132.019
2	112.777	129.625
3	149.706	158.935
4	151.767	163.490
5	152.258	164.000

Factor of Safety
*** 1.647 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	110.000	132.019
2	112.777	129.625
3	149.706	158.935
4	151.767	163.490
5	152.258	164.000

Factor of Safety
*** 1.647 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	110.003	134.288

2	112.677	134.165
3	147.933	160.881
4	150.532	164.000

Factor of Safety
*** 1.651 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	109.999	131.447
2	111.422	131.363
3	116.019	129.397
4	153.280	157.687
5	155.258	162.279
6	156.846	164.000

Factor of Safety
*** 1.709 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	110.000	131.657
2	110.685	130.992
3	114.875	128.263
4	154.091	158.879
5	156.357	163.336
6	156.499	164.000

Factor of Safety
*** 1.733 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	110.000	131.657
2	110.685	130.992
3	114.875	128.263
4	154.091	158.879
5	156.357	163.336
6	156.499	164.000

Factor of Safety
*** 1.733 ***

**** END OF GSTABL7 OUTPUT ****

SLOPE STABILITY FOR SECTION B-B' 89-492-02 VENTURA CANYON AVE.

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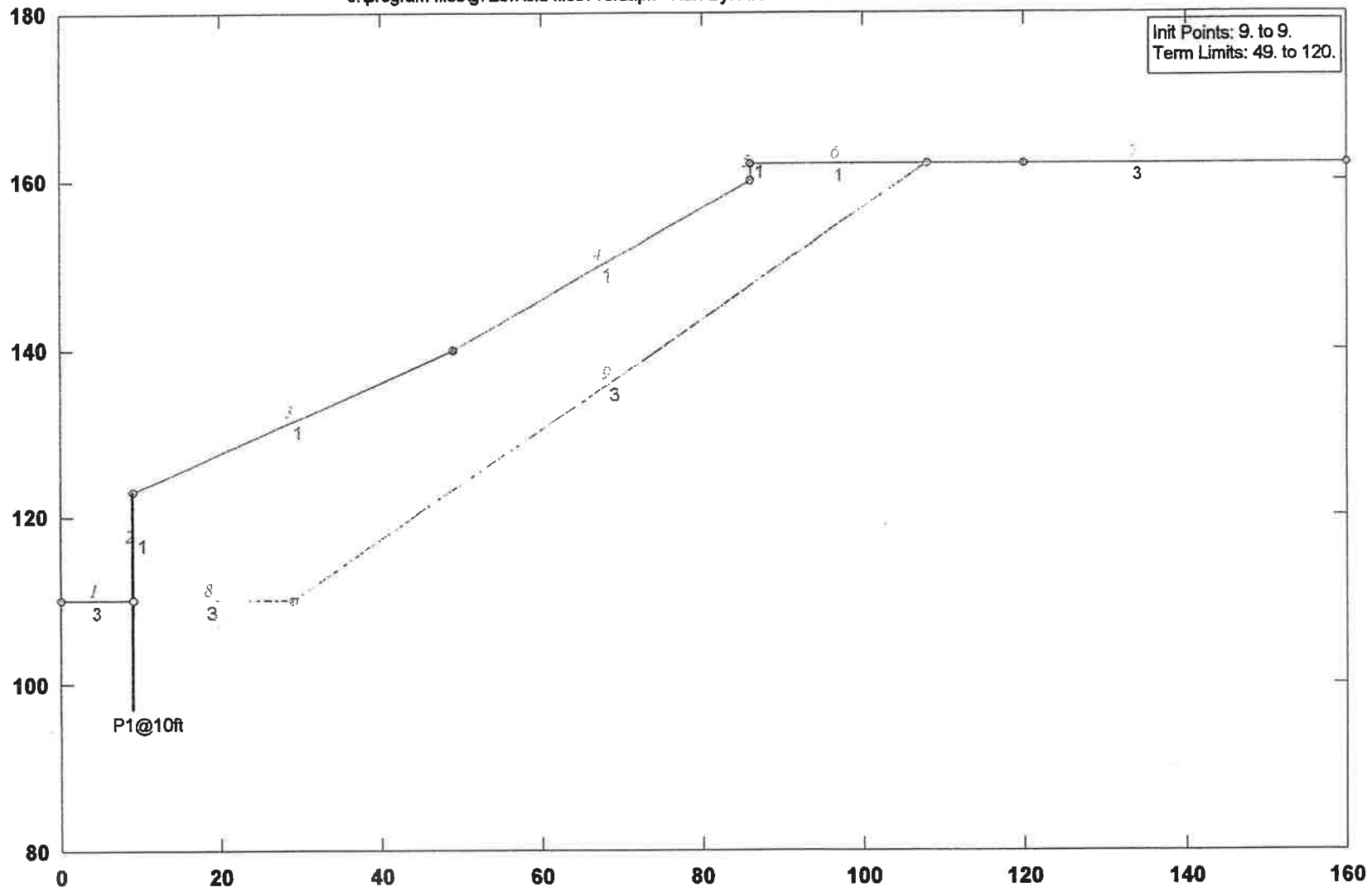

GSTABL7

SLOPE STABILITY FOR SECTION B-B' 89-492-02 VENTURA CANYON AVE.

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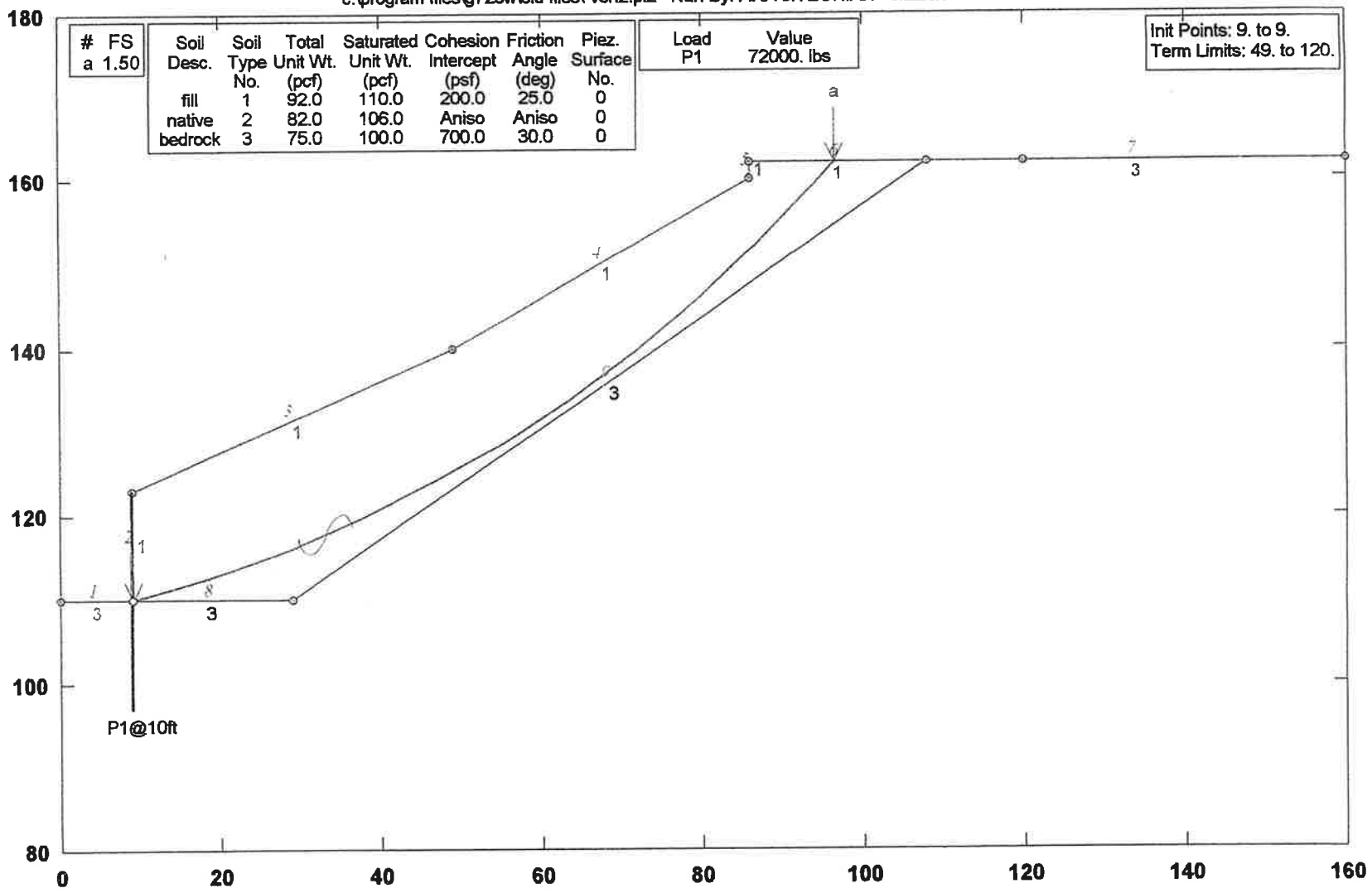

GSTABL7 v.2 FSmin=1.50

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

*** GSTABL7 ***
** GSTABL7 by Garry H. Gregory, P.E. **
** Original Version 1.0, January 1996; Current Version 2.004, June 2003 **

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SLOPE STABILITY ANALYSIS SYSTEM

Modified Bishop, Simplified Janbu, or GLE Method of Slices.
(Includes Spencer & Morgenstern-Price Type Analysis)
Including Pier/Pile, Reinforcement, Soil Nail, Tieback,
Nonlinear Undrained Shear Strength, Curved Phi Envelope,
Anisotropic Soil, Fiber-Reinforced Soil, Boundary Loads, Water
Surfaces, Pseudo-Static & Newmark Earthquake, and Applied Forces.

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Run By: ARA JITECHIAN
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Output Filename: C:\Program Files\G72SW\old files\-ven2.OUT
Unit System: English
Plotted Output Filename: C:\Program Files\G72SW\old files\-ven2.PLT
PROBLEM DESCRIPTION: SLOPE STABILITY FOR SECTION B-B'
89-492-02 VENTURA CANYON AVE.

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	110.00	9.00	110.00	3
2	9.00	110.00	9.01	123.00	1
3	9.01	123.00	49.00	140.00	1
4	49.00	140.00	86.00	160.00	1
5	86.00	160.00	86.01	162.00	1
6	86.01	162.00	108.00	162.00	1
7	108.00	162.00	160.00	162.00	3
8	9.00	110.00	29.00	110.00	3
9	29.00	110.00	108.00	162.00	3

User Specified Y-Origin = 80.00(ft)
Default X-Plus Value = 0.00(ft)
Default Y-Plus Value = 0.00(ft)

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	92.0	110.0	200.0	25.0	0.00	0.0	0
2	82.0	106.0	400.0	20.0	0.00	0.0	0
3	75.0	100.0	700.0	30.0	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	18.0	700.00	30.00
2	20.0	145.00	26.00
3	90.0	700.00	30.00

ANISOTROPIC SOIL NOTES:
(1) An input value of 0.01 for C and/or Phi will cause Aniso C and/or Phi to be ignored in that range.
(2) An input value of 0.02 for Phi will set both Phi and C equal to zero, with no water weight in the tension crack.
(3) An input value of 0.03 for Phi will set both Phi and C equal to zero, with water weight in the tension crack.

PIER/PILE LOAD(S)
1 Pier/Pile Load(s) Specified

Pier/Pile No.	X-Pos (ft)	Y-Pos (ft)	Load (lbs)	Spacing (ft)	Inclination (deg)	Length (ft)
1	9.01	123.00	72000.0	10.0	90.00	26.0

NOTE - An Equivalent Line Load Is Calculated For Each Row Of Piers/Piles
Assuming A Uniform Distribution Of Load Horizontally Between
Individual Piers/Piles.
A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
800 Trial Surfaces Have Been Generated.
800 Surface(s) Initiate(s) From Each Of 1 Points Equally Spaced
Along The Ground Surface Between X = 9.00(ft)
and X = 9.00(ft)
Each Surface Terminates Between X = 49.00(ft)
and X = 120.00(ft)
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 100.00(ft)
10.00(ft) Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Evaluated. They Are
Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Total Number of Trial Surfaces Attempted = 800
Number of Trial Surfaces With Valid FS = 800
Statistical Data On All Valid FS Values:
FS Max = 3.776 FS Min = 1.505 FS Ave = 2.713
Standard Deviation = 0.735 Coefficient of Variation = 27.08 %
Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.637	112.668
3	28.107	115.883
4	37.376	119.634
5	46.417	123.909
6	55.198	128.693
7	63.691	133.972
8	71.869	139.728
9	79.704	145.942
10	87.171	152.593
11	94.246	159.661
12	96.334	162.000

Circle Center At X = -32.556 ; Y = 279.132 ; and Radius = 174.162
Factor of Safety
*** 1.505 ***
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	0.0	6.0	0.0	0.0	0.	0.	0.0	0.0	0.0
2	9.6	12144.0	0.0	0.0	0.	0.	0.0	0.0	0.0
3	9.5	12919.0	0.0	0.0	0.	0.	0.0	0.0	0.0
4	9.3	13073.7	0.0	0.0	0.	0.	0.0	0.0	0.0
5	9.0	12649.2	0.0	0.0	0.	0.	0.0	0.0	0.0
6	2.6	3526.5	0.0	0.0	0.	0.	0.0	0.0	0.0
7	6.2	8364.9	0.0	0.0	0.	0.	0.0	0.0	0.0
8	8.5	11183.7	0.0	0.0	0.	0.	0.0	0.0	0.0
9	8.2	10007.0	0.0	0.0	0.	0.	0.0	0.0	0.0
10	7.8	8393.6	0.0	0.0	0.	0.	0.0	0.0	0.0
11	6.3	5533.3	0.0	0.0	0.	0.	0.0	0.0	0.0
12	0.0	8.7	0.0	0.0	0.	0.	0.0	0.0	0.0
13	1.2	1059.9	0.0	0.0	0.	0.	0.0	0.0	0.0
14	7.1	3822.7	0.0	0.0	0.	0.	0.0	0.0	0.0
15	2.1	224.7	0.0	0.0	0.	0.	0.0	0.0	0.0

Failure Surface Specified By 12 Coordinate Points

Point	X-Surf	Y-Surf

No.	(ft)	(ft)
1	9.000	110.000
2	18.637	112.668
3	28.107	115.883
4	37.377	119.634
5	46.417	123.909
6	55.198	128.693
7	63.691	133.972
8	71.869	139.728
9	79.704	145.941
10	87.171	152.593
11	94.245	159.660
12	96.334	162.000

Circle Center At X = -32.552 ; Y = 279.125 ; and Radius = 174.155

Factor of Safety

*** 1.505 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.475	113.198
3	27.821	116.754
4	37.026	120.661
5	46.077	124.914
6	54.959	129.508
7	63.662	134.434
8	72.171	139.688
9	80.474	145.260
10	88.561	151.142
11	96.419	157.328
12	101.912	162.000

Circle Center At X = -70.255 ; Y = 360.618 ; and Radius = 262.852

Factor of Safety

*** 1.513 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.781	112.081
3	28.377	114.895
4	37.733	118.425
5	46.795	122.653
6	55.513	127.553
7	63.835	133.098
8	71.714	139.255
9	79.106	145.990
10	85.968	153.265
11	92.260	161.037
12	92.926	162.000

Circle Center At X = -13.517 ; Y = 240.069 ; and Radius = 132.004

Factor of Safety

*** 1.517 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.404	113.402
3	27.684	117.126
4	36.831	121.169
5	45.832	125.525
6	54.677	130.190
7	63.356	135.157
8	71.859	140.421
9	80.174	145.976
10	88.293	151.814
11	96.205	157.930

12	101.111	162.000

Circle Center At X = -84.302 ; Y = 382.853 ; and Radius = 288.364

Factor of Safety

*** 1.522 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.427	113.337
3	27.710	117.055
4	36.834	121.147
5	45.784	125.608
6	54.546	130.429
7	63.103	135.602
8	71.444	141.119
9	79.552	146.971
10	87.416	153.149
11	95.023	159.641
12	97.569	162.000

Circle Center At X = -67.851 ; Y = 342.324 ; and Radius = 244.705

Factor of Safety

*** 1.524 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.427	113.337
3	27.710	117.055
4	36.834	121.148
5	45.784	125.608
6	54.545	130.429
7	63.103	135.602
8	71.444	141.120
9	79.552	146.972
10	87.416	153.149
11	95.023	159.641
12	97.569	162.000

Circle Center At X = -67.857 ; Y = 342.335 ; and Radius = 244.717

Factor of Safety

*** 1.524 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.655	112.605
3	28.121	115.829
4	37.358	119.659
5	46.328	124.079
6	54.994	129.070
7	63.318	134.612
8	71.266	140.680
9	78.805	147.250
10	85.904	154.294
11	92.531	161.782
12	92.700	162.000

Circle Center At X = -26.357 ; Y = 260.274 ; and Radius = 154.377

Factor of Safety

*** 1.524 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.655	112.605
3	28.121	115.829
4	37.358	119.659
5	46.328	124.079

6	54.994	129.070
7	63.318	134.611
8	71.267	140.680
9	78.805	147.249
10	85.904	154.294
11	92.531	161.782
12	92.700	162.000

Circle Center At X = -26.354 ; Y = 260.269 ; and Radius = 154.371

Factor of Safety

*** 1.524 ***

Failure Surface Specified By 12 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	9.000	110.000
2	18.378	113.471
3	27.626	117.276
4	36.732	121.409
5	45.684	125.865
6	54.471	130.639
7	63.082	135.724
8	71.505	141.114
9	79.730	146.802
10	87.746	152.780
11	95.543	159.042
12	98.968	162.000

Circle Center At X = -82.786 ; Y = 372.633 ; and Radius = 278.210

Factor of Safety

*** 1.528 ***

**** END OF GSTABL7 OUTPUT ****

SLOPE STABILITY FOR SECTION D-D' 89-492-02 VENTURA CANYON AVE.

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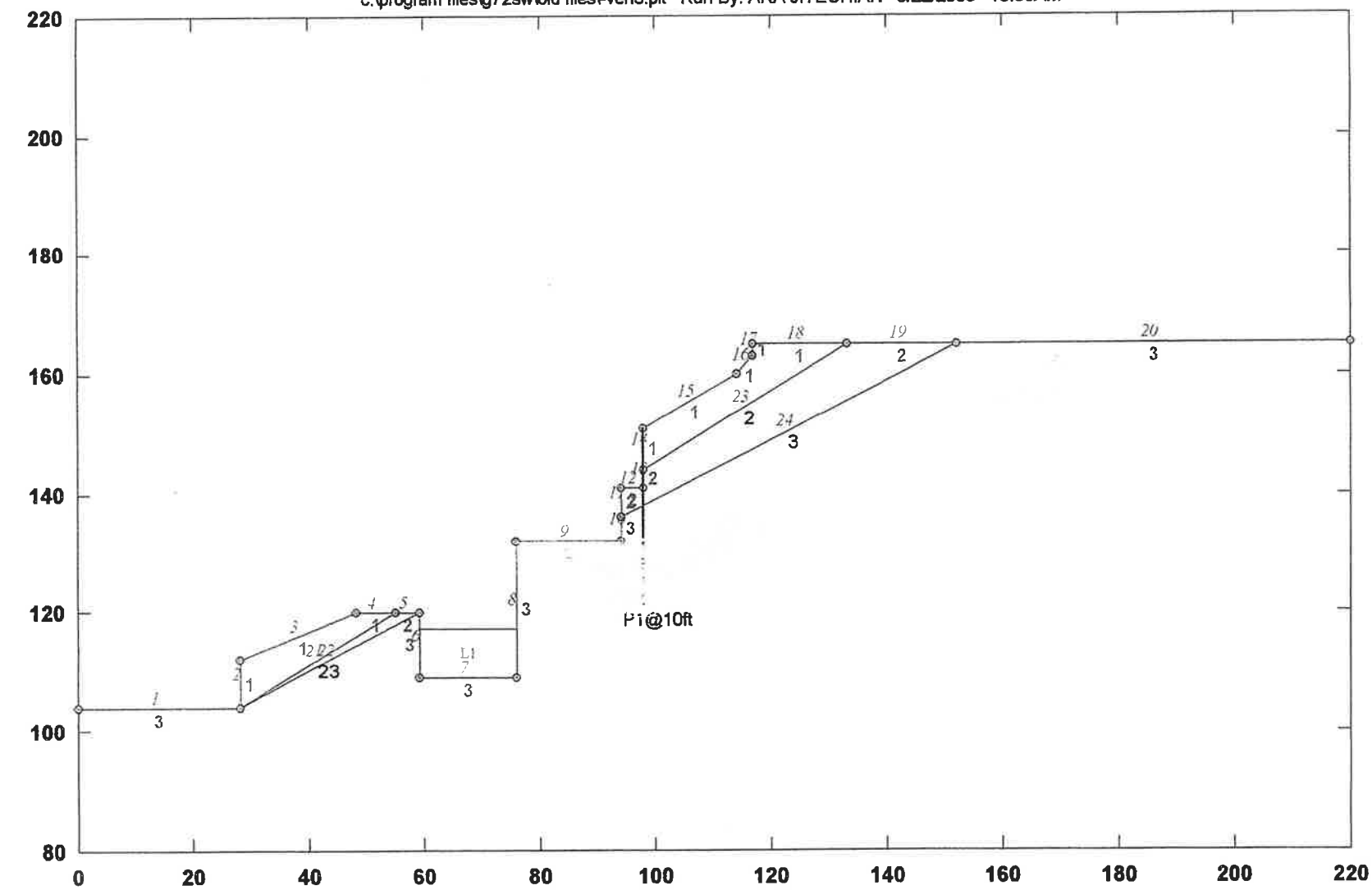

GSTABL7

SLOPE STABILITY FOR SECTION D-D' 89-492-02 VENTURA CANYON AVE.

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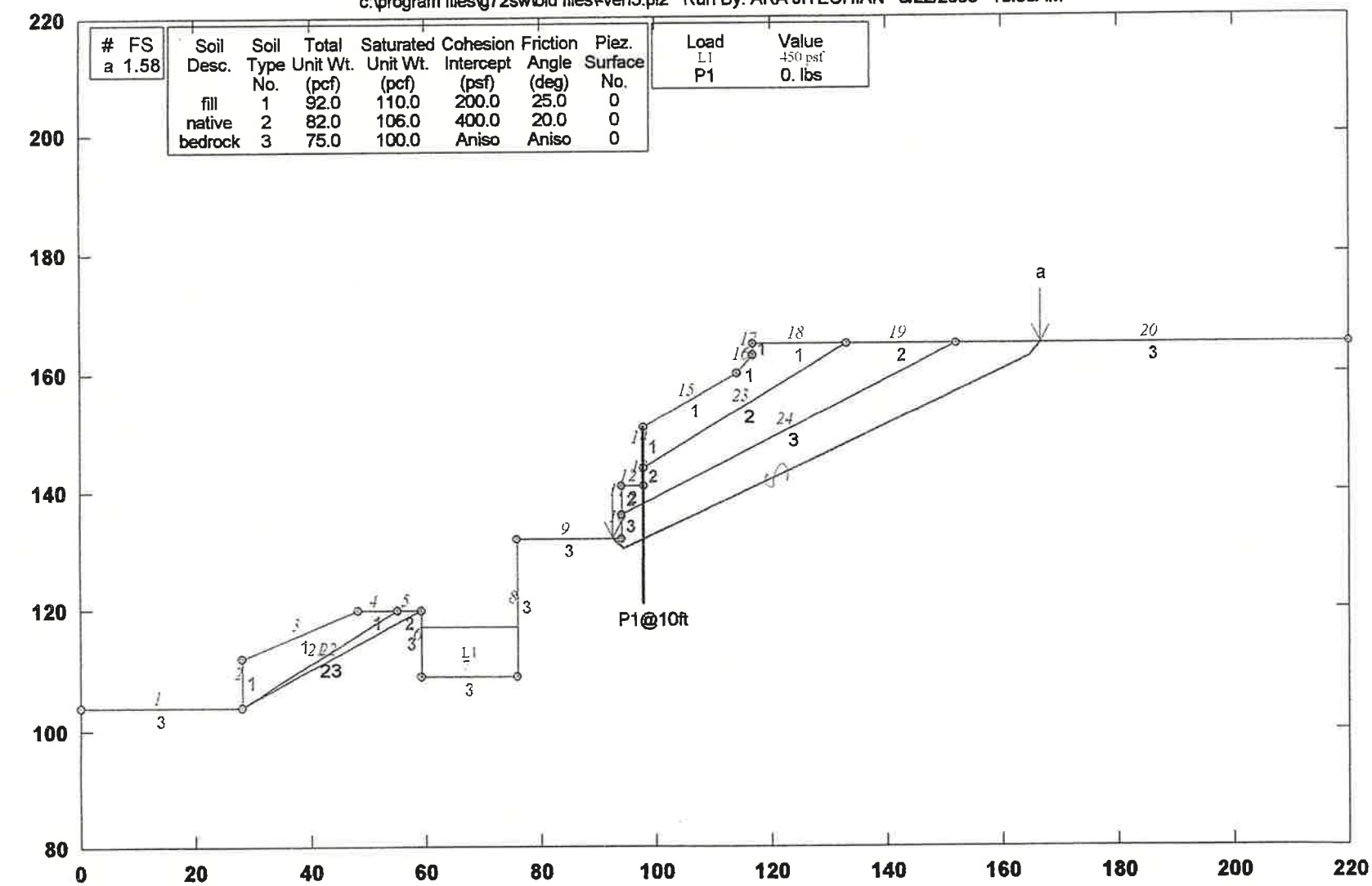


GSTABL7 v.2 FSmin=1.58

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

GSTABL7

*** GSTABL7 ***
** GSTABL7 by Garry H. Gregory, P.E. **
** Original Version 1.0, January 1996; Current Version 2.004, June 2003 **

SLOPE STABILITY ANALYSIS SYSTEM
Modified Bishop, Simplified Janbu, or GLE Method of Slices.
(Includes Spencer & Morgenstern-Price Type Analysis)
Including Pier/Pile, Reinforcement, Soil Nail, Tieback,
Nonlinear Undrained Shear Strength, Curved Phi Envelope,
Anisotropic Soil, Fiber-Reinforced Soil, Boundary Loads, Water
Surfaces, Pseudo-Static & Newmark Earthquake, and Applied Forces.

Analysis Run Date: 3/22/2006
Time of Run: 10:50AM
Run By: ARA JITECHIAN
Input Data Filename: C:\Program Files\G72SW\old files\-ven3.in
Output Filename: C:\Program Files\G72SW\old files\-ven3.OUT
Unit System: English
Plotted Output Filename: C:\Program Files\G72SW\old files\-ven3.PLT
PROBLEM DESCRIPTION: SLOPE STABILITY FOR SECTION D-D'
89-492-02 VENTURA CANYON AVE.

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	104.00	28.00	104.00	3
2	28.00	104.00	28.01	112.00	1
3	28.01	112.00	48.00	120.00	1
4	48.00	120.00	55.00	120.00	1
5	55.00	120.00	59.00	120.00	2
6	59.00	120.00	59.01	109.00	3
7	59.01	109.00	76.00	109.00	3
8	76.00	109.00	76.01	132.00	3
9	76.01	132.00	94.00	132.00	3
10	94.00	132.00	94.01	136.00	3
11	94.01	136.00	94.02	141.00	2
12	94.02	141.00	98.00	141.00	2
13	98.00	141.00	98.01	144.00	2
14	98.01	144.00	98.02	151.00	1
15	98.02	151.00	114.00	160.00	1
16	114.00	160.00	117.00	163.00	1
17	117.00	163.00	117.01	165.00	1
18	117.01	165.00	133.00	165.00	1
19	133.00	165.00	152.00	165.00	2
20	152.00	165.00	220.00	165.00	3
21	28.00	104.00	55.00	120.00	2
22	28.00	104.00	59.00	120.00	3
23	98.01	144.00	133.00	165.00	2
24	94.01	136.00	152.00	165.00	3

User Specified Y-Origin = 80.00(ft)
Default X-Plus Value = 0.00(ft)
Default Y-Plus Value = 0.00(ft)

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	92.0	110.0	200.0	25.0	0.00	0.0	0
2	82.0	106.0	400.0	20.0	0.00	0.0	0
3	75.0	100.0	700.0	30.0	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	24.0	700.00	30.00
2	26.0	145.00	26.00
3	90.0	700.00	30.00

ANISOTROPIC SOIL NOTES:
(1) An input value of 0.01 for C and/or Phi will cause Aniso C and/or Phi to be ignored in that range.
(2) An input value of 0.02 for Phi will set both Phi and C equal to zero, with no water weight in the tension crack.
(3) An input value of 0.03 for Phi will set both Phi and C equal to zero, with water weight in the tension crack.

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (psf)	Deflection (deg)
1	59.01	76.00	450.0	0.0

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

PIER/PILE LOAD(S)

1 Pier/Pile Load(s) Specified

Pier/Pile No.	X-Pos (ft)	Y-Pos (ft)	Load (lbs)	Spacing (ft)	Inclination (deg)	Length (ft)
1	98.02	151.00	0.0	10.0	90.00	30.0

NOTE - An Equivalent Line Load Is Calculated For Each Row Of Piers/Piles Assuming A Uniform Distribution Of Load Horizontally Between Individual Piers/Piles.

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.
500 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 5.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	90.00	125.00	100.00	125.00	12.00
2	160.00	157.00	170.00	157.00	12.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Evaluated. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Simplified Janbu Method * *
Total Number of Trial Surfaces Attempted = 500
Number of Trial Surfaces With Valid FS = 500
Statistical Data On All Valid FS Values:
FS Max = 5.173 FS Min = 1.584 FS Ave = 3.058
Standard Deviation = 0.566 Coefficient of Variation = 18.52 %
Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	92.272	132.000
2	94.243	130.410
3	164.609	162.686
4	166.787	165.000

Factor of Safety
*** 1.584 ***

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	1.7	90.4	0.0	0.0	0.	0.	0.0	0.0	0.0
2	0.0	2.6	0.0	0.0	0.	0.	0.0	0.0	0.0
3	0.0	6.1	0.0	0.0	0.	0.	0.0	0.0	0.0

4	0.2	183.0	0.0	0.0	0.	0.	0.0	0.0	0.0
5	3.8	2845.1	0.0	0.0	0.	0.	0.0	0.0	0.0
6	0.0	8.1	0.0	0.0	0.	0.	0.0	0.0	0.0
7	0.0	12.5	0.0	0.0	0.	0.	0.0	0.0	0.0
8	16.0	26181.5	0.0	0.0	0.	0.	0.0	0.0	0.0
9	3.0	5321.2	0.0	0.0	0.	0.	0.0	0.0	0.0
10	0.0	19.4	0.0	0.0	0.	0.	0.0	0.0	0.0
11	16.0	26838.4	0.0	0.0	0.	0.	0.0	0.0	0.0
12	19.0	18380.2	0.0	0.0	0.	0.	0.0	0.0	0.0
13	12.6	4923.0	0.0	0.0	0.	0.	0.0	0.0	0.0
14	2.2	189.1	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	92.272	132.000
2	94.243	130.410
3	164.609	162.686
4	166.787	165.000

Factor of Safety
*** 1.584 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	91.752	132.000
2	94.506	129.649
3	163.544	162.205
4	165.022	165.000

Factor of Safety
*** 1.620 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	92.838	132.000
2	96.833	130.038
3	161.281	160.743
4	164.811	164.284
5	165.322	165.000

Factor of Safety
*** 1.663 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	86.829	132.000
2	87.025	131.955
3	91.249	129.280
4	160.952	161.696
5	163.888	165.000

Factor of Safety
*** 1.691 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	88.703	132.000
2	89.832	130.904
3	94.438	128.957
4	160.117	160.108
5	162.507	164.499
6	162.982	165.000

Factor of Safety
*** 1.700 ***

Failure Surface Specified By 6 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	88.703	132.000
2	89.832	130.904
3	94.438	128.957

4	160.117	160.108
5	162.507	164.499
6	162.982	165.000

Factor of Safety
*** 1.700 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	92.184	132.000
2	95.368	128.937
3	164.973	162.079
4	166.979	165.000

Factor of Safety
*** 1.702 ***

Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	94.000	131.990
2	97.463	129.552
3	169.294	162.929
4	171.329	165.000

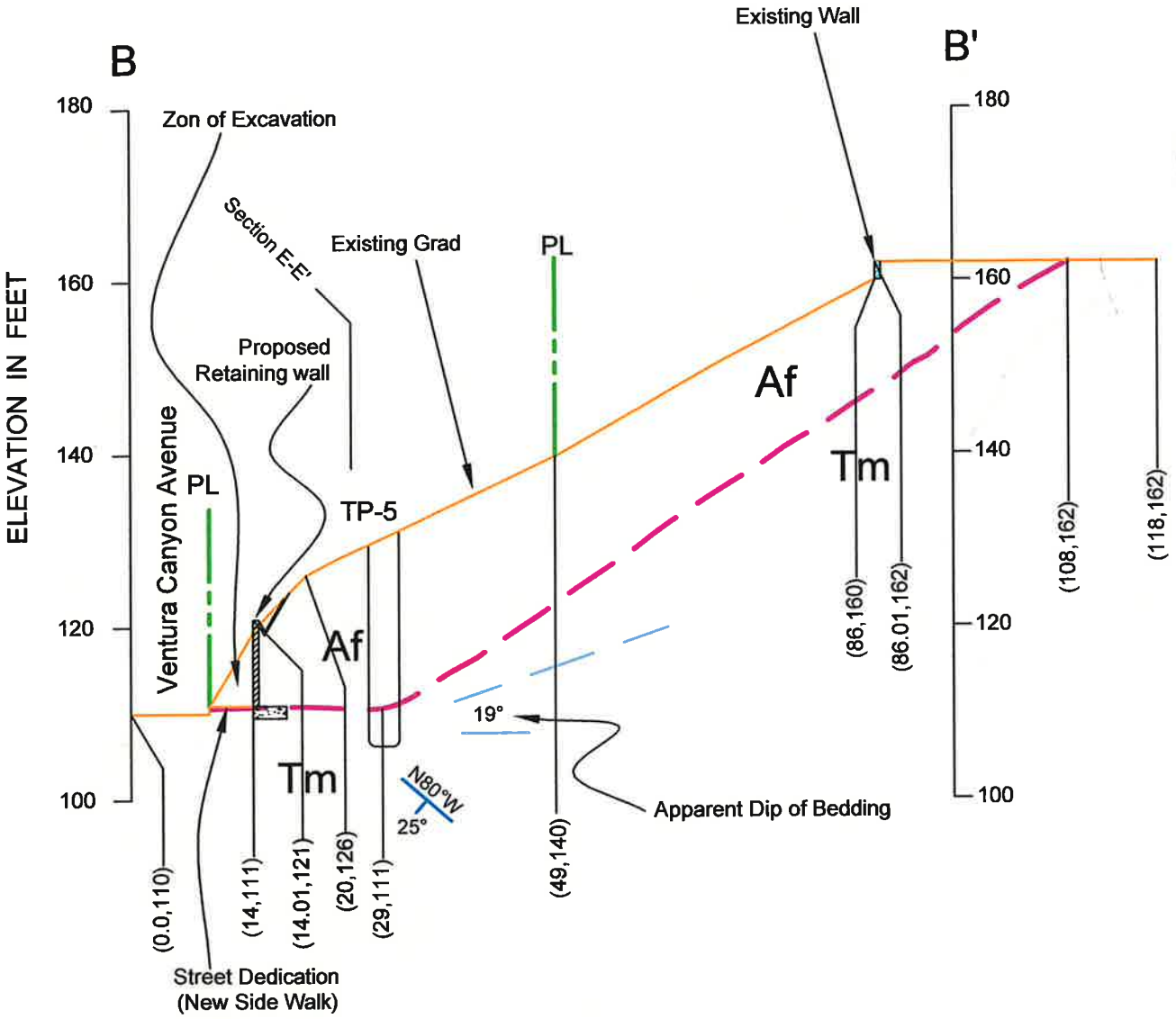
Factor of Safety
*** 1.716 ***

Failure Surface Specified By 5 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	83.349	132.000
2	85.534	130.715
3	90.085	128.644
4	161.486	162.818
5	163.366	165.000

Factor of Safety
*** 1.717 ***

**** END OF GSTABL7 OUTPUT ****



EXPLANATION

Af = Artificial Fill

Qsw = Colluvial Soil

Tm = Bedrock, Modelo Formation

= Contact, Approximately Located

25° = Strike & Dip Bedding

← N 48° E →

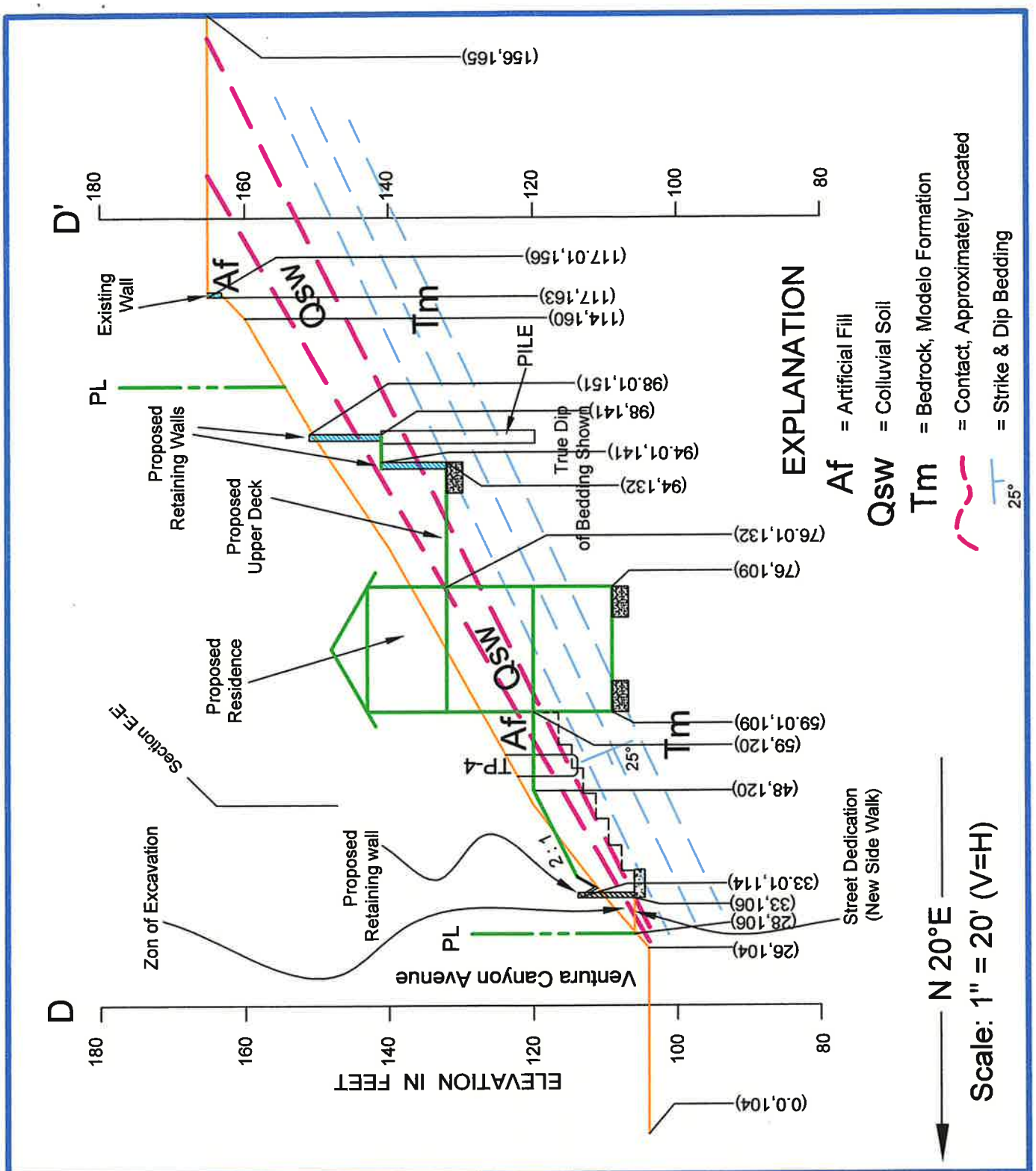
Scale: 1" = 20' (V=H)

GEOLOGIC CROSS SECTION B-B'

Proposed Single Family Residence

3725 Ventura Canyon Avenue, Sherman Oaks, California

FOR. PROCON	DATE 4/17/2006	PROJECT No. 89-492-02	
APPLIED EARTH SCIENCES GEOTECHNICAL ENGINEERING CONSULTANTS		SHEET No. 1	Supp. No. 3

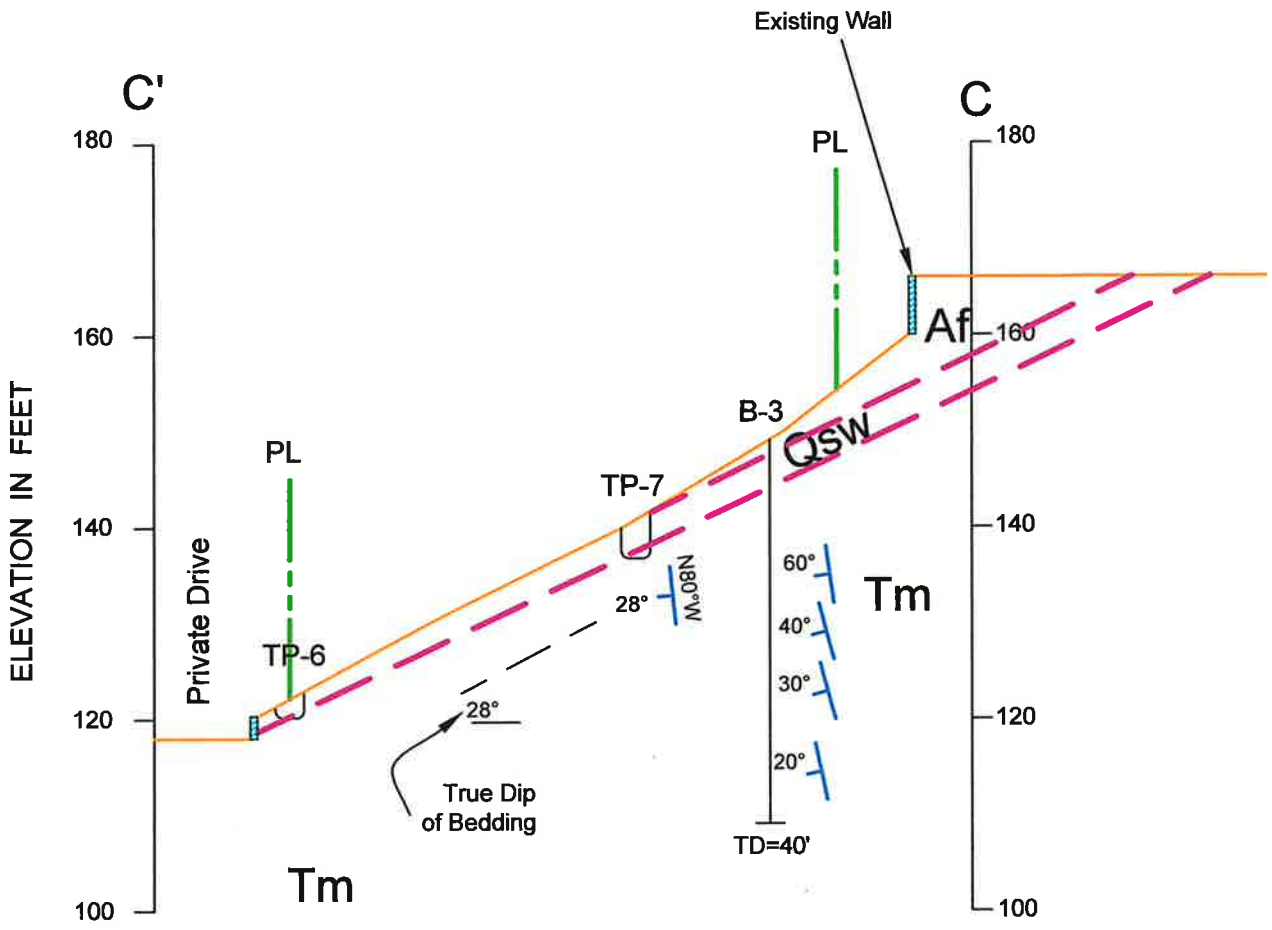


GEOLOGIC CROSS SECTION D-D'

Proposed Single Family Residence

3725 Ventura Canyon Avenue, Sherman Oaks, California

FOR. PROCON	DATE 4/17/2006	PROJECT No. 89-492-02	
APPLIED EARTH SCIENCES GEOTECHNICAL ENGINEERING CONSULTANTS		SHEET No. 2	Supp. No. 3



EXPLANATION

Af = Artificial Fill

Qsw = Colluvial Soil

Tm = Bedrock, Modelo Formation

= Contact, Approximately Located

30° = Strike & Dip of Bedding

N 05° E

Scale: 1" = 20' (V=H)

GEOLOGIC CROSS SECTION C-C'

Proposed Single Family Residence

3725 Ventura Canyon Avenue, Sherman Oaks, California

FOR. PROCON	DATE 4/17/2006	PROJECT No. 89-492-02	
APPLIED EARTH SCIENCES GEOTECHNICAL ENGINEERING CONSULTANTS		DRAWING No. 4	Supp. No. 3

CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

ANDREW A. ADELMAN, P.E.
GENERAL MANAGER
RAYMOND CHAN
EXECUTIVE OFFICER

GEOLOGY AND SOILS REPORT APPROVAL LETTER

June 8, 2006

Log # 41904-03
SOILS/GEOLOGY FILE - 2

V. C. P. Investment LLC
17201 Oak View Drive
Encino, CA 91316

TRACT: 5571
LOT: 3 (arb 9)
LOCATION: 3721 Ventura Canyon Avenue

CURRENT REFERENCE REPORT/LETTER(S)	REPORT NO.	DATE(S) OF DOCUMENT	PREPARED BY
Geology/Soils Report Update	89-492-02	04/17/2006	Applied Earth Sci.

PREVIOUS REFERENCE REPORT/LETTER(S)	REPORT NO.	DATE(S) OF DOCUMENT	PREPARED BY
Department Letter	Log # 41904-02	02/03/2006	LADBS
Geology/Soils Report Update	89-492-02	12/06/2005	Applied Earth Sci.
Department Letter	Log # 41904-01	06/07/2004	LADBS
Geology/Soils Report Update	89-492-02	04/12/2004	Applied Earth Sci.
Department Letter	Log # 41904	12/19/2003	LADBS
Geology/Soils Report Update	89-492-02	09/17/2003	Applied Earth Sci.
Geology/Soils Report	"	01/03/1990	"

The referenced reports concerning the proposed construction of a 2-story single-family residence on the subject lot have been reviewed by the Grading Division of the Department of Building and Safety.

Ordinance No. 176, 445 places limitations on the number of walls detached from a building that are planned in hillside areas and on the individual/cumulative wall height(s). A copy of the ordinance may be obtained from the City Planning web site at http://cityplanning.lacity.org. Please also be informed that the Grading Division will not make the final determination with regard to compliance with and/or exemption from the requirements of the Ordinance.

The reports are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2002 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The final plans shall be verified to ensure compliance with the requirements of Ordinance 176, 445. Alternatively, seek written exemption from the Zoning Administrator.

2. All new graded slopes shall be no steeper than 2H:1V (7010.2 & 7011.2). Please be informed that this includes all fill slopes steeper than 2H:1V including but not limited to the slope above the new retaining wall shown on the most-recent geologic cross-section B-B'.

3. The final plans shall include details with regard to the grading recommendations provided in response 2, on page 2 of the 04/17/2006 report. The final plans shall identify the required erosion control and drainage devices required in section 7013 of the Code and include the grading details 1 through 6 contained in section 7006.1 of the Code.

4. Existing uncertified fill or the existing soil shall not be used for support of footings, concrete slabs or new fill. (7011.3 & 1806.1)

5. All footings shall be founded in competent bedrock below the 1.5 factor of safety line, as shown on the geologic cross-sections included on the report dated 04/17/2006.

6. The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans which clearly indicates that the geologist and soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in their reports.

7. All recommendations of the reports which are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.

8. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit. (7006.1)

9. Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Constituent Service Division for the proposed removal of support and/or retaining of slopes adjoining the public way (3301.2.3.3)

10. Footings adjacent to a descending slope steeper than 3:1 in gradient shall be located a distance of one-third the vertical height of the slope but need not exceed 40 feet measured horizontally from the footing bottom to the face of the slope. (1806.5.3)

11. Buildings adjacent to ascending slopes shall be set back from the toe of the slope a level distance equal to one half the vertical height of the slope, but need not exceed 15 feet in accordance with Code Section 1806.5.2.

12. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety. (3301.1)

13. Prior to excavation, an initial inspection shall be called at which time sequence of shoring, protection fences and dust and traffic control will be scheduled.

14. Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation. (3301.2.1)

15. Installation of shoring shall be performed under the inspection and approval of the soils engineer and deputy grading inspector. (7006.2)

16. The geologist and soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading. (7008.2)

17. All loose foundation excavation material shall be removed prior to commencement of framing. Slopes disturbed by construction activities shall be restored. (7005.3)

18. Pile supporting the southern wall spaced at 10 feet on center shall be designed for a minimum unbalanced force of 100 kips, as recommended, as specified on page 9 of the report dated 012/06/2005.

19. All other retaining walls (except the southern wall) shall be designed for a minimum EFP as recommended, as specified on pages 10-11 of the report dated 01/03/1990.

20. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted to the street in an acceptable manner and in a non-erosive device. (7013.11)

21. The rear yard retaining walls shall be provided with a minimum freeboard of 24 inches, as recommended, as specified on page 7 of the report dated 09/17/2003.

22. The recommended equivalent fluid pressure (EFP) for the proposed retaining wall shall apply from the top of the freeboard to the bottom of the wall footing.

23. All retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soil report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record. (7015.5 & 108.9)

24. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector. (7015.5 & 108.9)

25. The dwelling shall be connected to the public sewer system. (P/BC 2001-27)

26. A grading permit shall be obtained. (106.1.2)

27. For grading involving import or export of more than 1000 cubic yards of earth materials within the *grading hillside area*, approval is required by the Board of Building and Safety. Application for approval of the haul route must be filed with the Grading Division. Processing time for application is approximately 8 weeks to hearing plus 10-day appeal period.

28. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Inspection Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cu yd. (7007.1)

29. All roof and pad drainage shall be conducted to the street in an acceptable manner. (7013.10)

30. All graded, brushed or bare slopes shall be planted with low-water consumption, native-type plant varieties. (7012)

31. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density (D1556). Placement of gravel in lieu of compacted fill is allowed only if complying with Section 91.7011.3 of the Code.(7011.3)

32. Prior to the placing of compacted fill, a representative of the consulting soils engineer shall inspect and approve the bottom excavations. He shall post a notice on the job site for the LADBS Grading Inspector and the Contractor stating that the soil inspected meets the conditions of the report, but that no fill shall be placed until the LADBS Grading Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be filed in the final compaction report filed with the Grading Engineering Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Engineering Division of the Department upon completion of the compaction. The engineer's certificate of compliance shall include the grading permit number and the legal description as described in the permit (7011.3).

33. Prior to the pouring of concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. He shall post a notice on the job site for the LADBS Building Inspector and the Contractor stating that the work so inspected meets the conditions of the report, but that no concrete shall be poured until the LADBS Building Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Department upon completion of the work. (108.9 & 7008.2)

34. The LABC Soil Type underlying the site is S_C. (1636A)

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