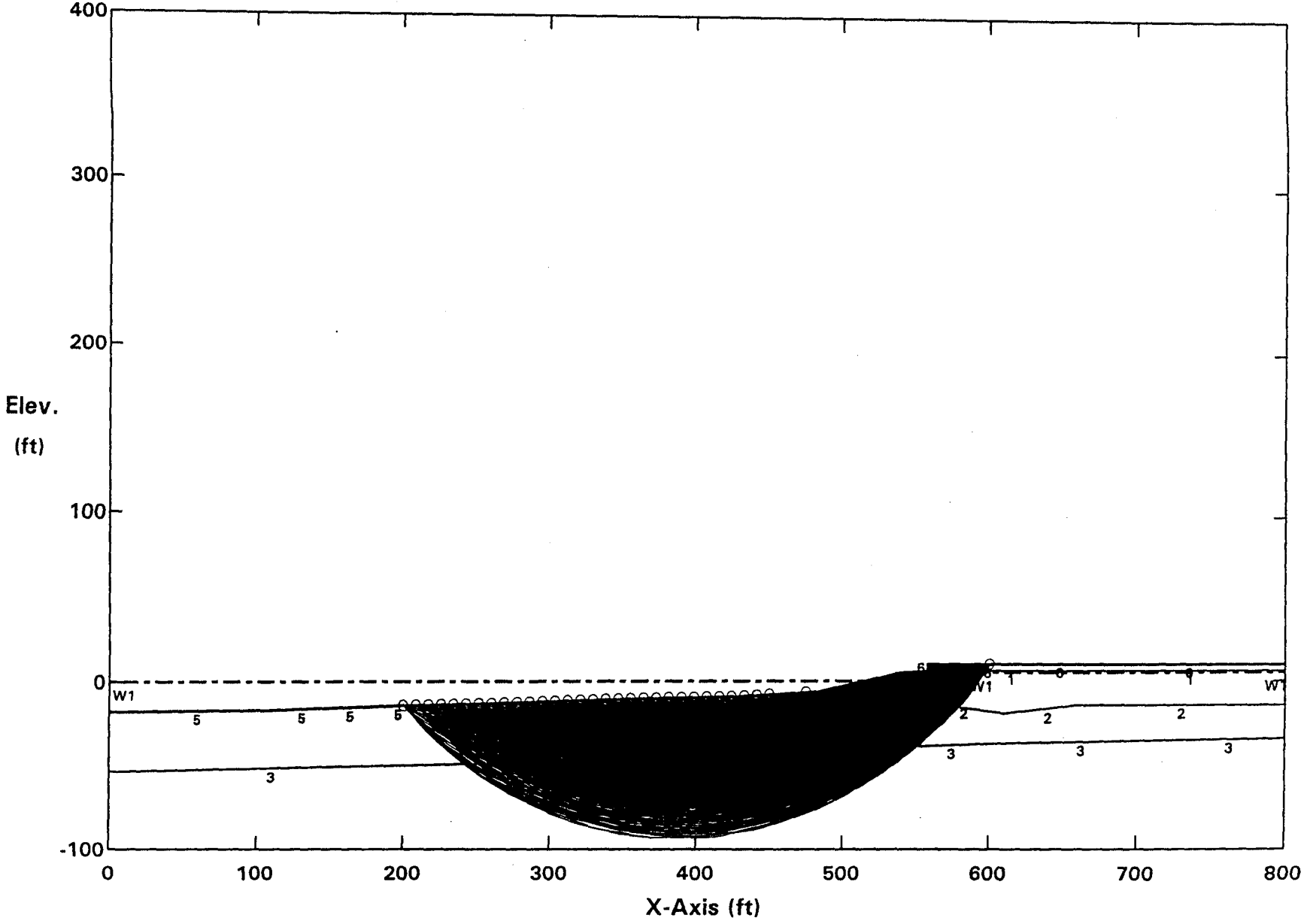
Previous

A-NAS - Section D-D', Comb. EQ Case1 Dynamic Bishop Circular Search, 0.12g

All surfaces evaluated. C:DDCMBBD1.PLT By: P.T. 07-01-02 6:17am



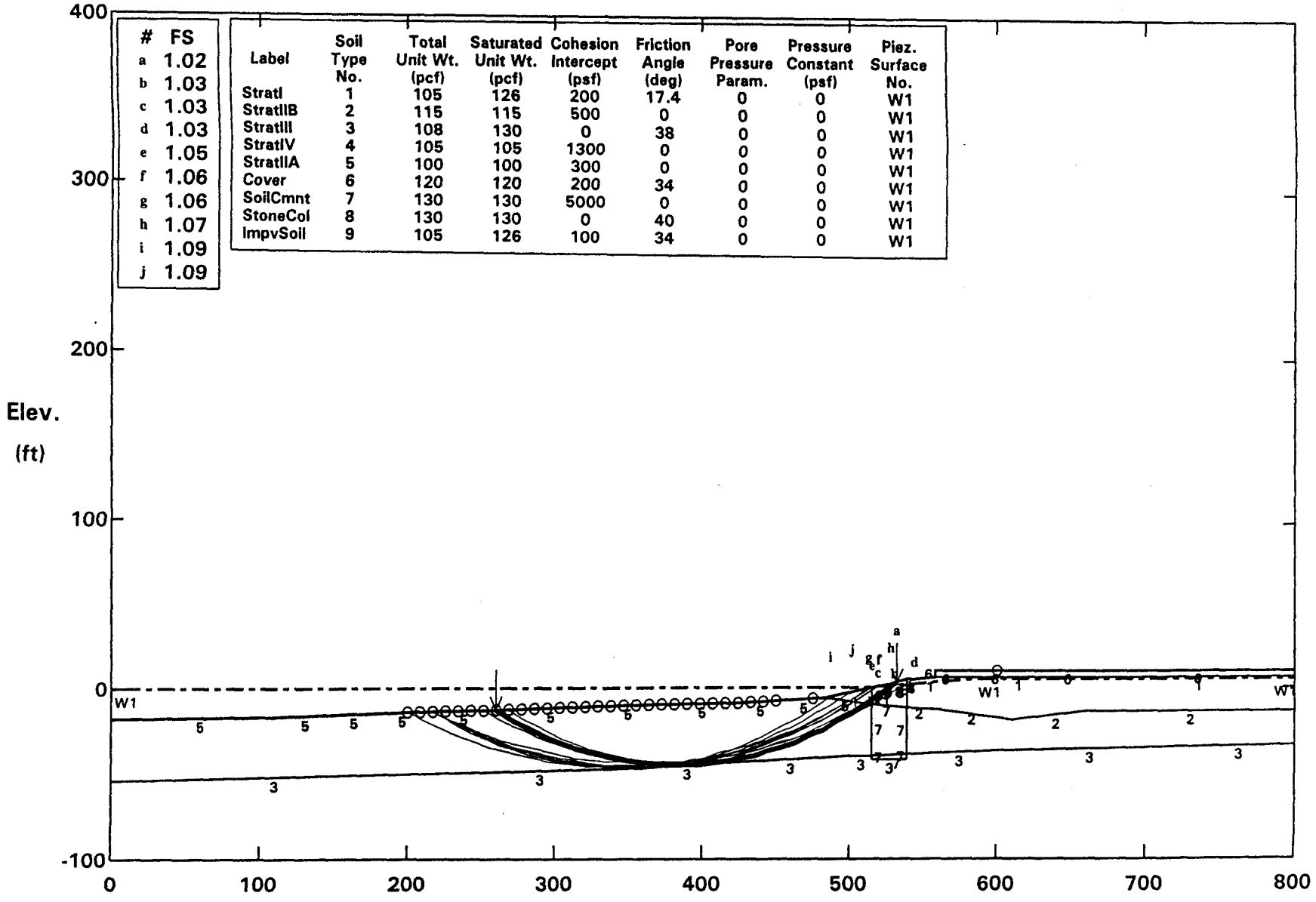
Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section D-D', Comb. EQ Case1 Dynamic Bishop Circular Search, 0.12g

Ten Most Critical. C:DDCMBBD1.PLT By: P.T. 07-01-02 6:17am

#	FS
a	1.02
b	1.03
c	1.03
d	1.03
e	1.05
f	1.06
g	1.06
h	1.07
i	1.09
j	1.09

Label	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.
StratI	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
StratIV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 1.02 X-Axis (ft)

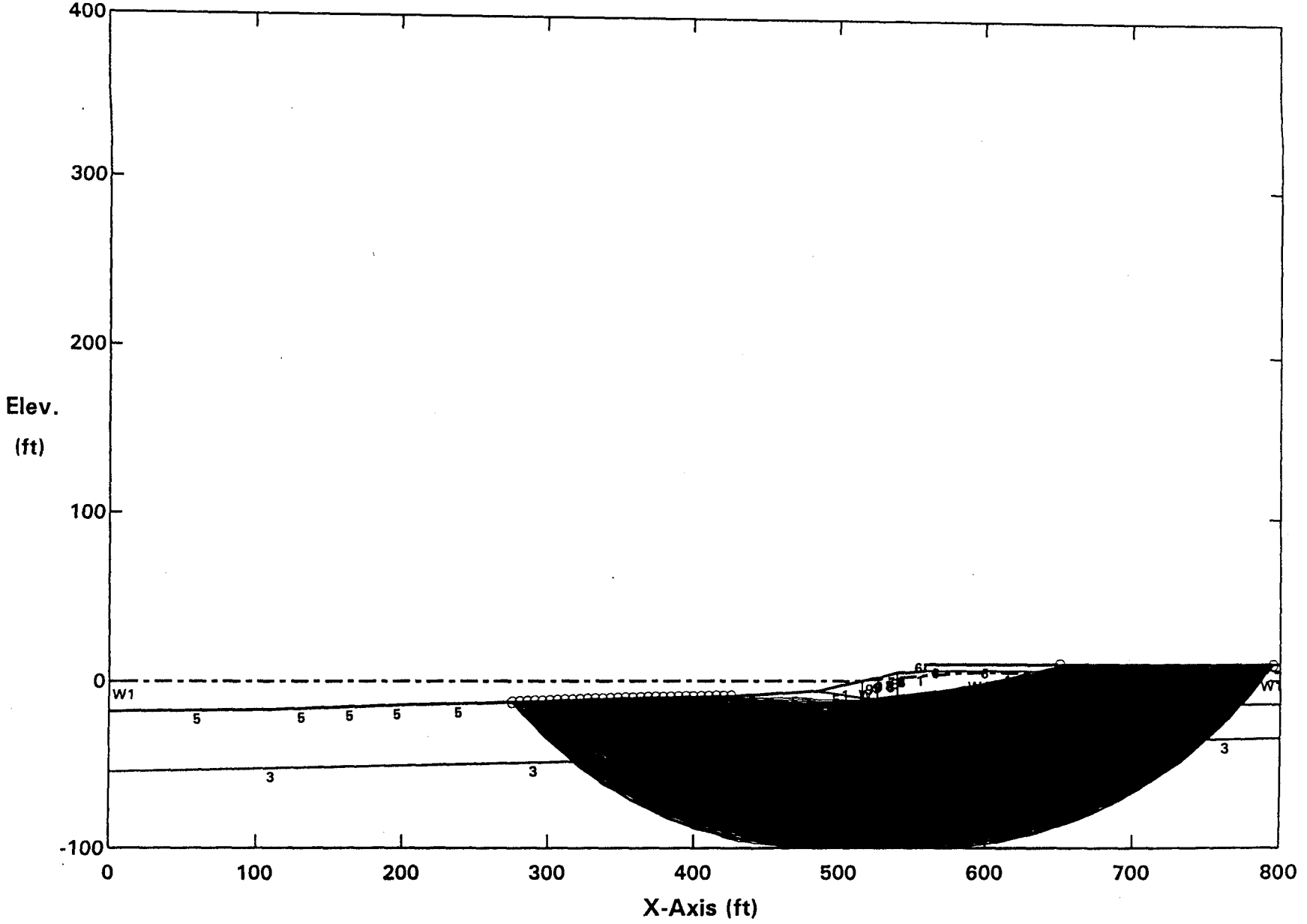
Factors Of Safety Calculated By The Modified Bishop Method

```
PROFIL        C:\GEO\STED\A-NAS\D-FINAL\DDCMBBD1.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', Comb. EQ Case1    Dynamic Bishop Circular Search, 0.12g
47 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 525. 102.1 9
525. 102.1 527. 102.5 9
527. 102.5 530. 103.1 8
530. 103.1 535. 104.1 8
535. 104.1 539. 104.6 8
539. 104.6 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 9
539. 104.6 539.1 88.4 8
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 539.1 88.4 7
539.1 88.4 560. 87. 2
539.1 88.4 539.2 61.2 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 539.2 61.2 7
539.2 61.2 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 58.5 514.9 60.45 7
539.2 61.2 539.3 58.5 7
514.8 58.5 539.3 58.5 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
```

```
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.12 0. 0.
CIRCL2-Bishop circular, search
30 100
200. 450. 475. 600. 0. 10. 0. 0.
```

A-NAS - Section D-D', Comb. EQ Case2 Dynamic Bishop Circular Search, 0.157g

All surfaces evaluated. C:DDCMBBD2.PLT By: P.T. 07-01-02 6:24am



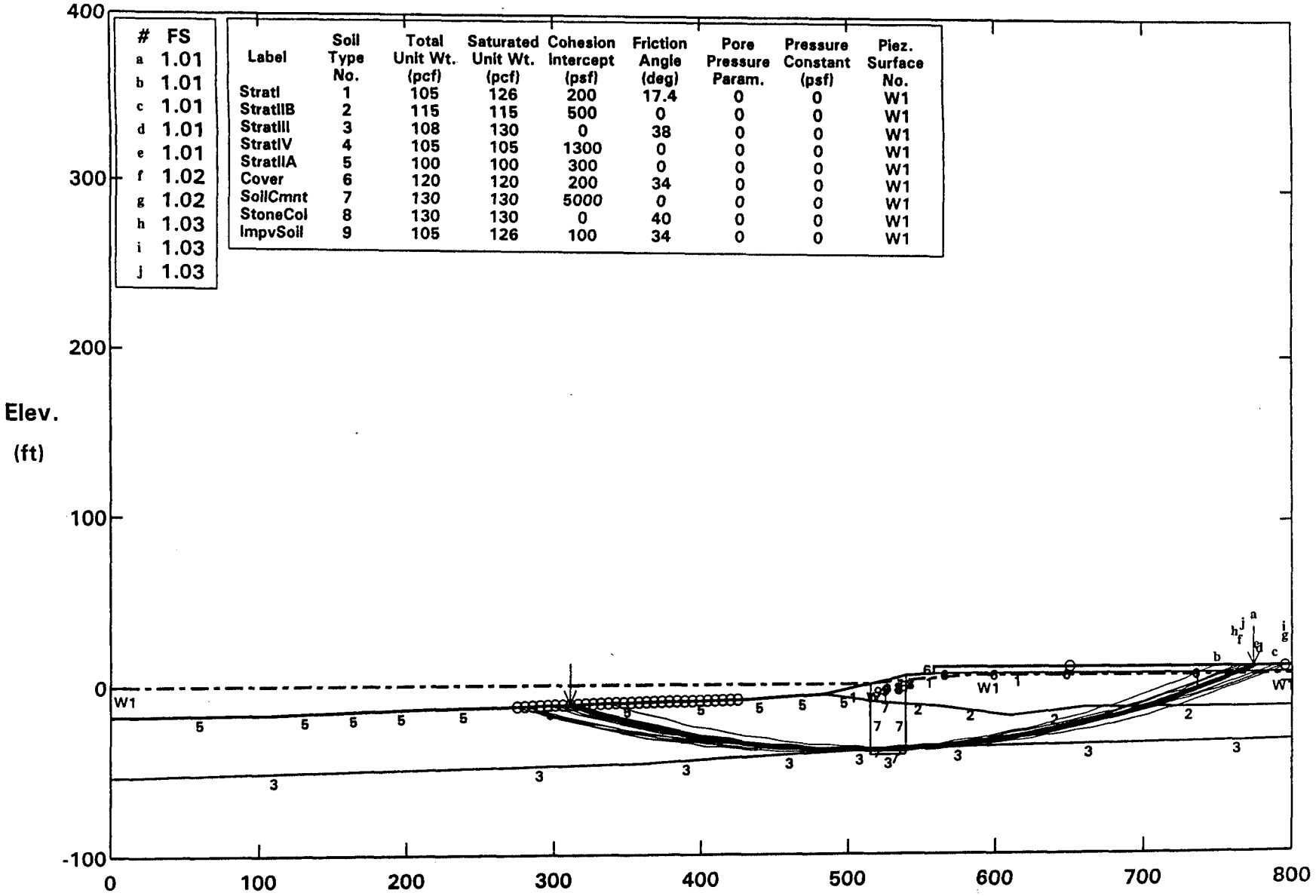
Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section D-D', Comb. EQ Case2 Dynamic Bishop Circular Search, 0.157g

Ten Most Critical. C:DDCMBBD2.PLT By: P.T. 07-01-02 6:24am

#	FS
a	1.01
b	1.01
c	1.01
d	1.01
e	1.01
f	1.02
g	1.02
h	1.03
i	1.03
j	1.03

Label	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.
StratI	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
StratIV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 1.01 X-Axis (ft)

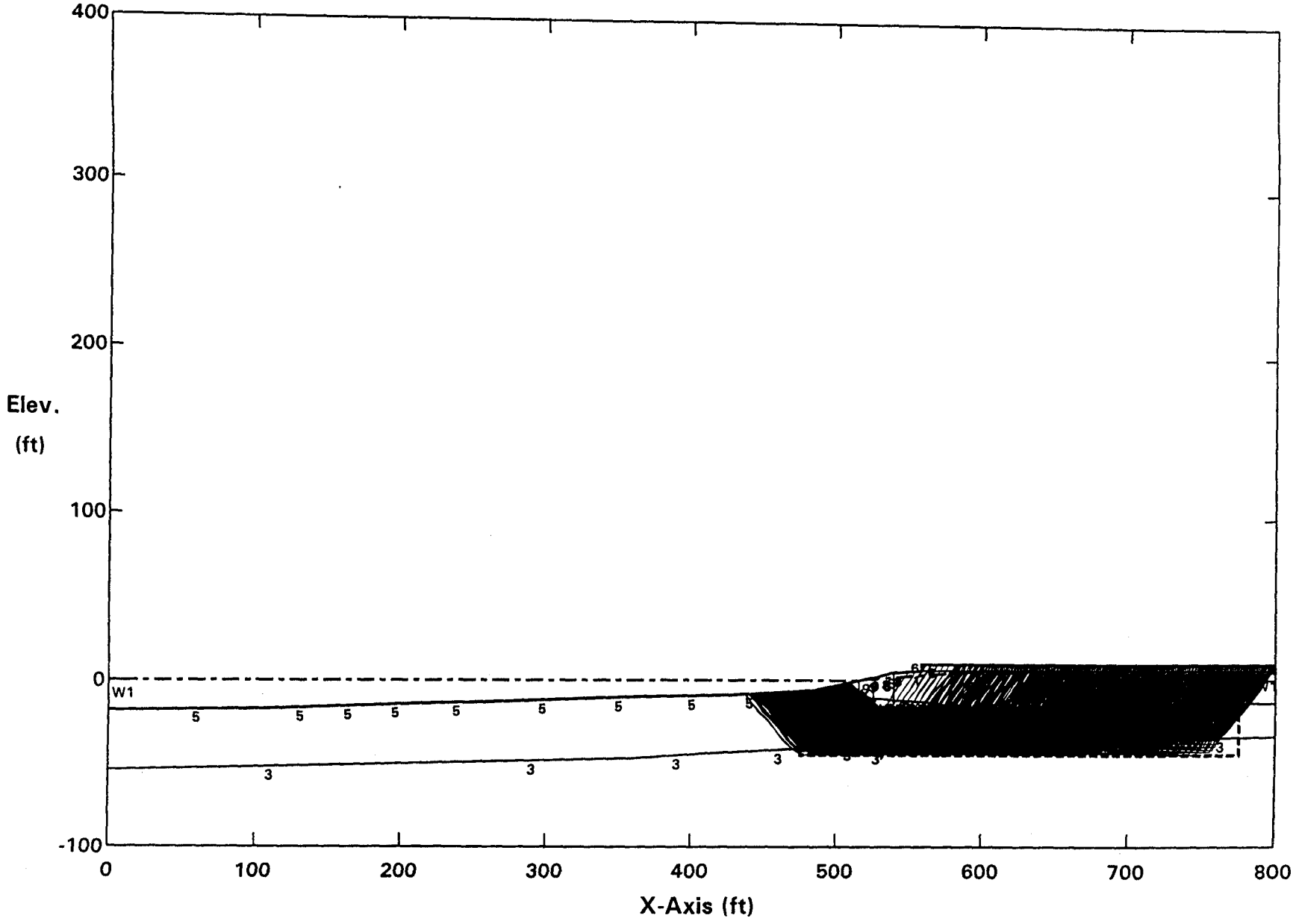
Factors Of Safety Calculated By The Modified Bishop Method

```
PROFIL        C:\GEO\STED\A-NAS\D-FINAL\DDCMBBD2.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', Comb. EQ Case2    Dynamic Bishop Circular Search, 0.157g
47 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 525. 102.1 9
525. 102.1 527. 102.5 9
527. 102.5 530. 103.1 8
530. 103.1 535. 104.1 8
535. 104.1 539. 104.6 8
539. 104.6 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 9
539. 104.6 539.1 88.4 8
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 539.1 88.4 7
539.1 88.4 560. 87. 2
539.1 88.4 539.2 61.2 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 539.2 61.2 7
539.2 61.2 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 58.5 514.9 60.45 7
539.2 61.2 539.3 58.5 7
514.8 58.5 539.3 58.5 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
```

```
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.157 0. 0.
CIRCL2-Bishop circular, search
30 100
275. 425. 650. 795. 0. 10. 0. 0.
```

A-NAS - Section D-D', Comb. EQ Dynamic Janbu Block Search, 0.15g

All surfaces evaluated. C:DDCMBJD.PLT By: P.T. 07-01-02 6:32am



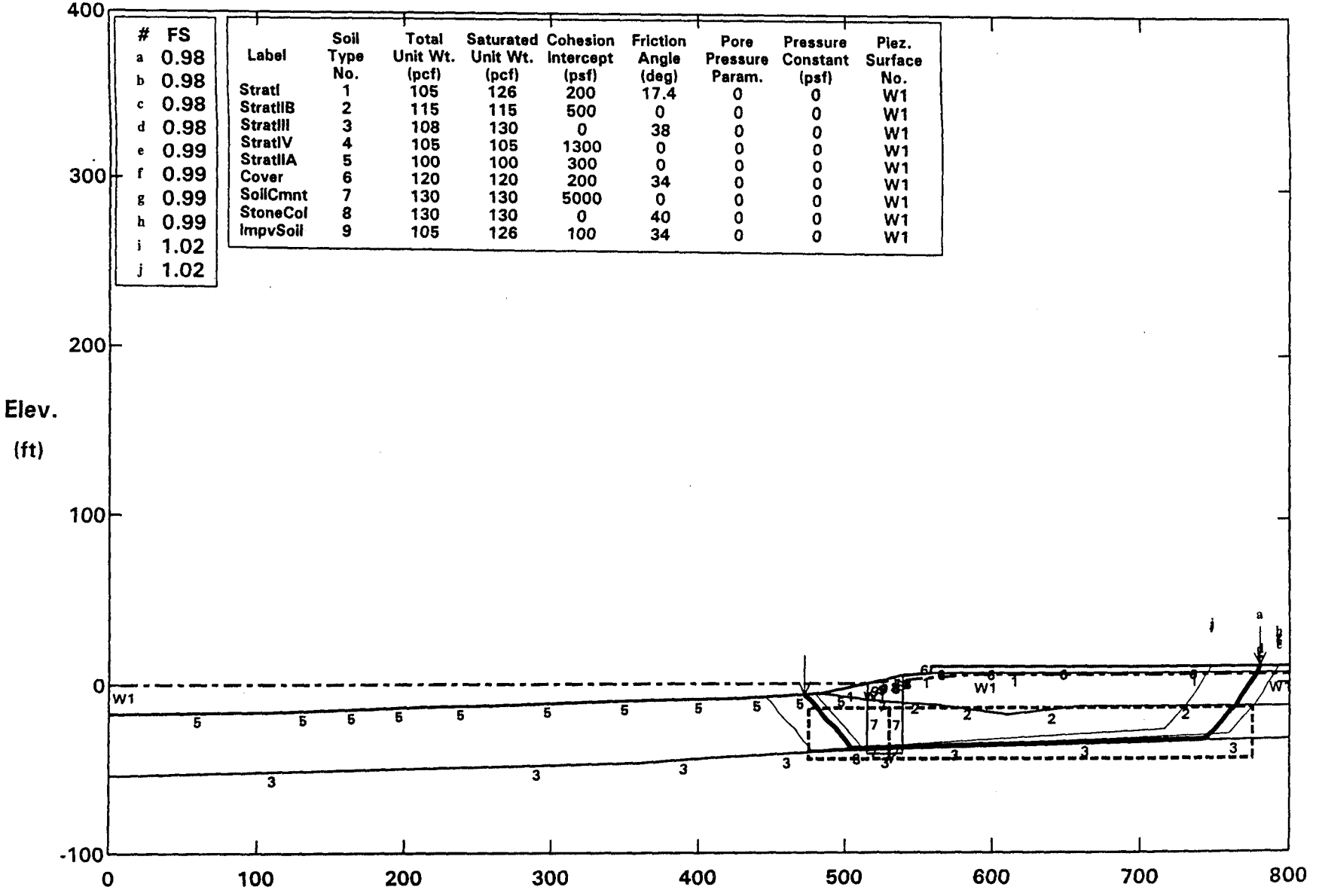
Factors Of Safety Calculated By The Modified Janbu Method

A-NAS - Section D-D', Comb. EQ Dynamic Janbu Block Search, 0.15g

Ten Most Critical. C:DDCMBJD.PLT By: P.T. 07-01-02 6:32am

#	FS
a	0.98
b	0.98
c	0.98
d	0.98
e	0.99
f	0.99
g	0.99
h	0.99
i	1.02
j	1.02

Label	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.
StratI	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
StratIV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 0.98 X-Axis (ft)

Factors Of Safety Cal' 'ated By The Modified Janbu Method

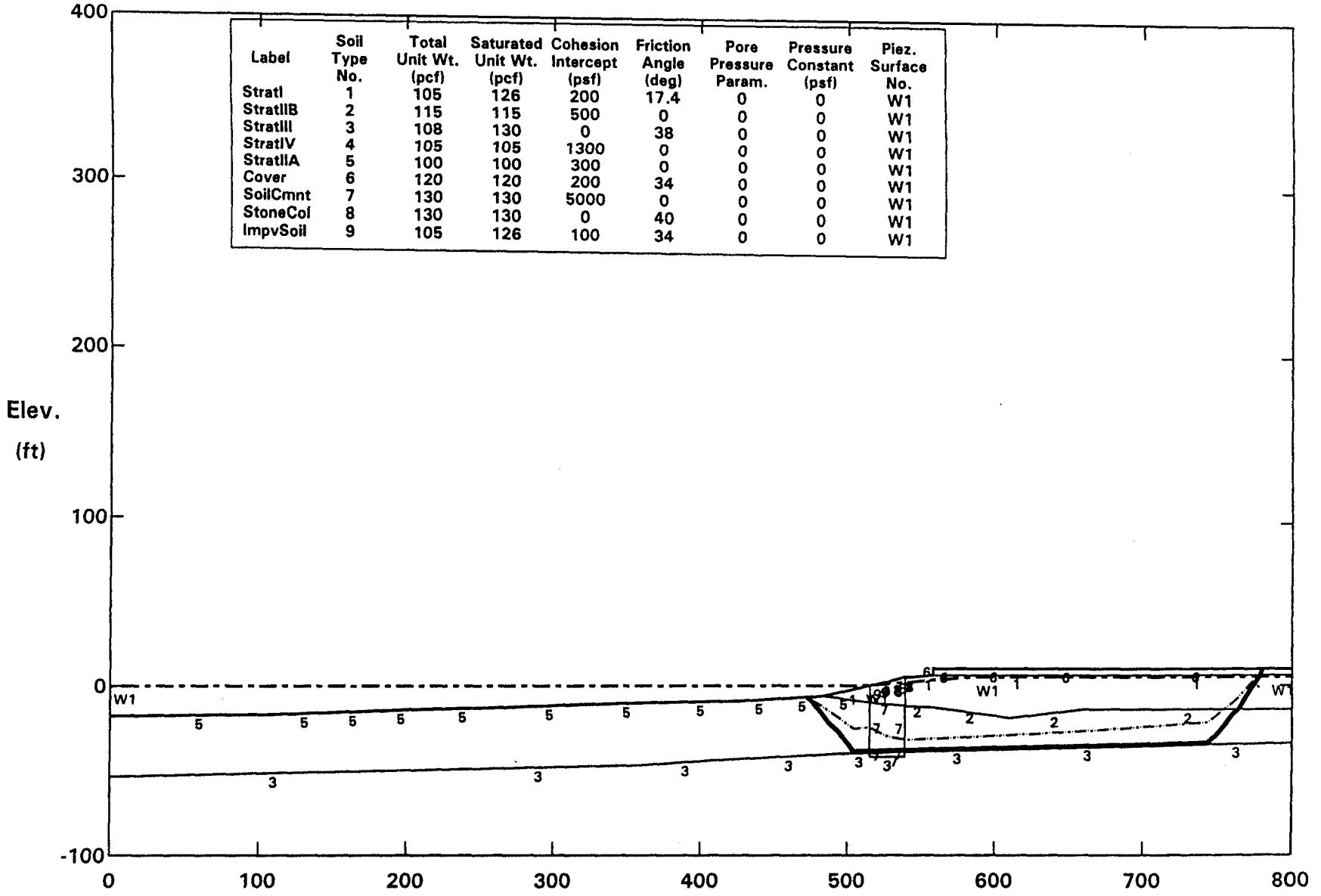
```
PROFIL        C:\GEO\STED\A-NAS\D-FINAL\DDCMBJD.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', Comb. EQ          Dynamic Janbu Block Search, 0.15g
47 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 525. 102.1 9
525. 102.1 527. 102.5 9
527. 102.5 530. 103.1 8
530. 103.1 535. 104.1 8
535. 104.1 539. 104.6 8
539. 104.6 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 9
539. 104.6 539.1 88.4 8
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 539.1 88.4 7
539.1 88.4 560. 87. 2
539.1 88.4 539.2 61.2 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 539.2 61.2 7
539.2 61.2 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 58.5 514.9 60.45 7
539.2 61.2 539.3 58.5 7
514.8 58.5 539.3 58.5 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
```

```
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.15 0. 0.
BLOCK2-Rankine block, search
0
4000 2 8.
475. 70. 529.9 70. 30.
530. 70. 775. 70. 30.
```

A-NAS - Section D-D', Comb. EQ (Blk) Spencer Dynamic Slope Stability Ky=.155

Surface #1-DDCMBJD.OUT. C:DDCMBSDB.PLT By: P.T. 07-01-02 6:35am

Label	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.
StratI	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
StratIV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FS=0.99 Theta=1.25 X-Axis (ft)

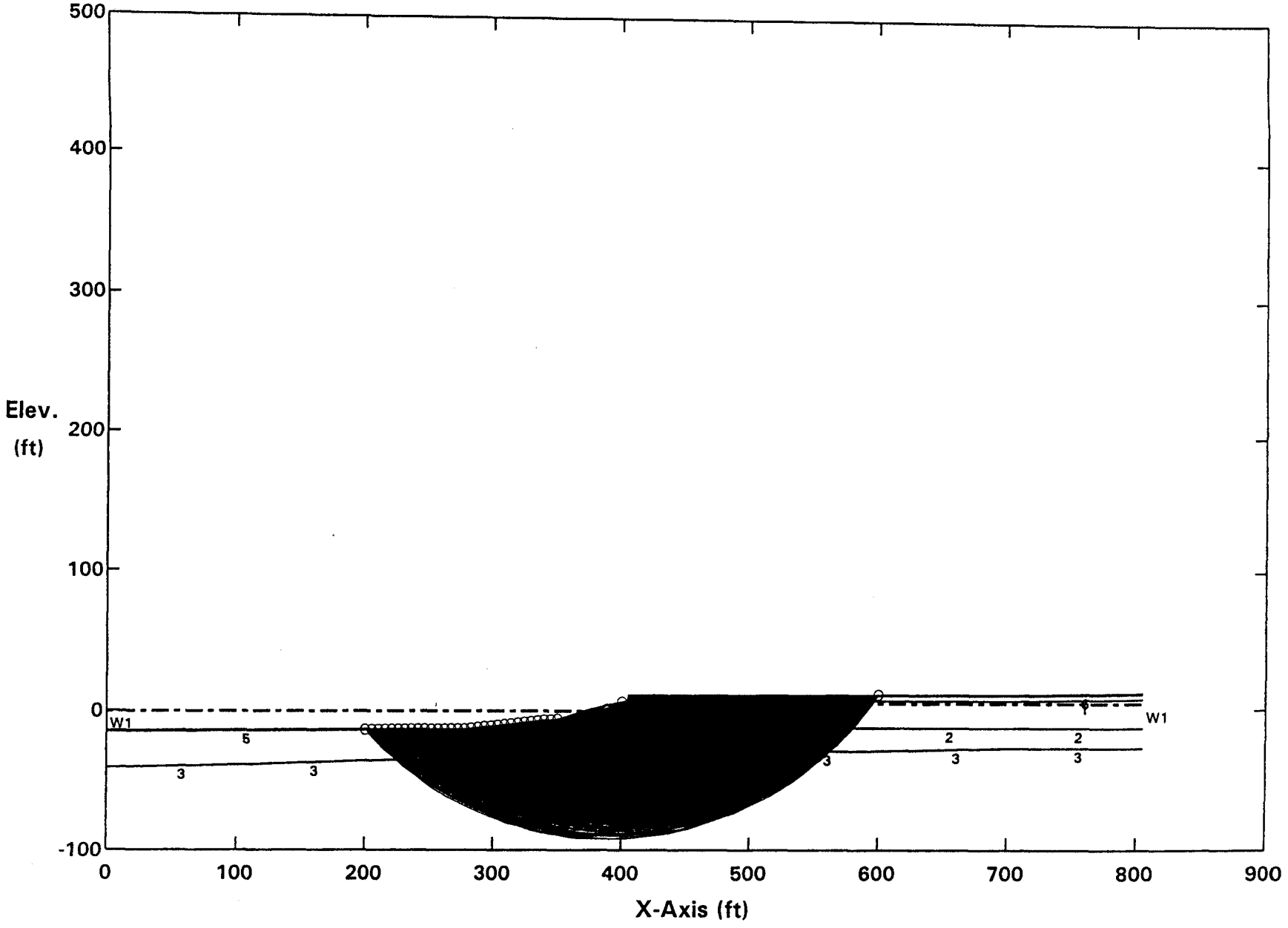
Factors Of Safety Calculated By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\D-FINAL\DDCMBSDB.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', Comb. EQ (Blk)    Spencer Dynamic Slope Stability Ky=.155
47 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 525. 102.1 9
525. 102.1 527. 102.5 9
527. 102.5 530. 103.1 8
530. 103.1 535. 104.1 8
535. 104.1 539. 104.6 8
539. 104.6 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 9
539. 104.6 539.1 88.4 8
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 539.1 88.4 7
539.1 88.4 560. 87. 2
539.1 88.4 539.2 61.2 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 539.2 61.2 7
539.2 61.2 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 58.5 514.9 60.45 7
539.2 61.2 539.3 58.5 7
514.8 58.5 539.3 58.5 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
```

```
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.15 0. 0.
SPENCR
4.
SURFAC #1-DDCMBJD.OUT
17
472.09 93.43
475.89 89.63
481.55 83.97
487.21 78.31
492.86 72.65
498.52 67.
504.18 61.34
743.34 65.72
749. 71.38
754.66 77.03
760.31 82.69
763.62 86.
768.38 92.43
773.14 98.86
777.9 105.29
778.19 105.68
780.31 109.68
EXECUT
```

A-NAS - Section F-F', Comb., Static Long-Term Bishop Circular Search

All surfaces evaluated. C:FFCMBBS2.PLT By: BH 07-01-02 6:56am



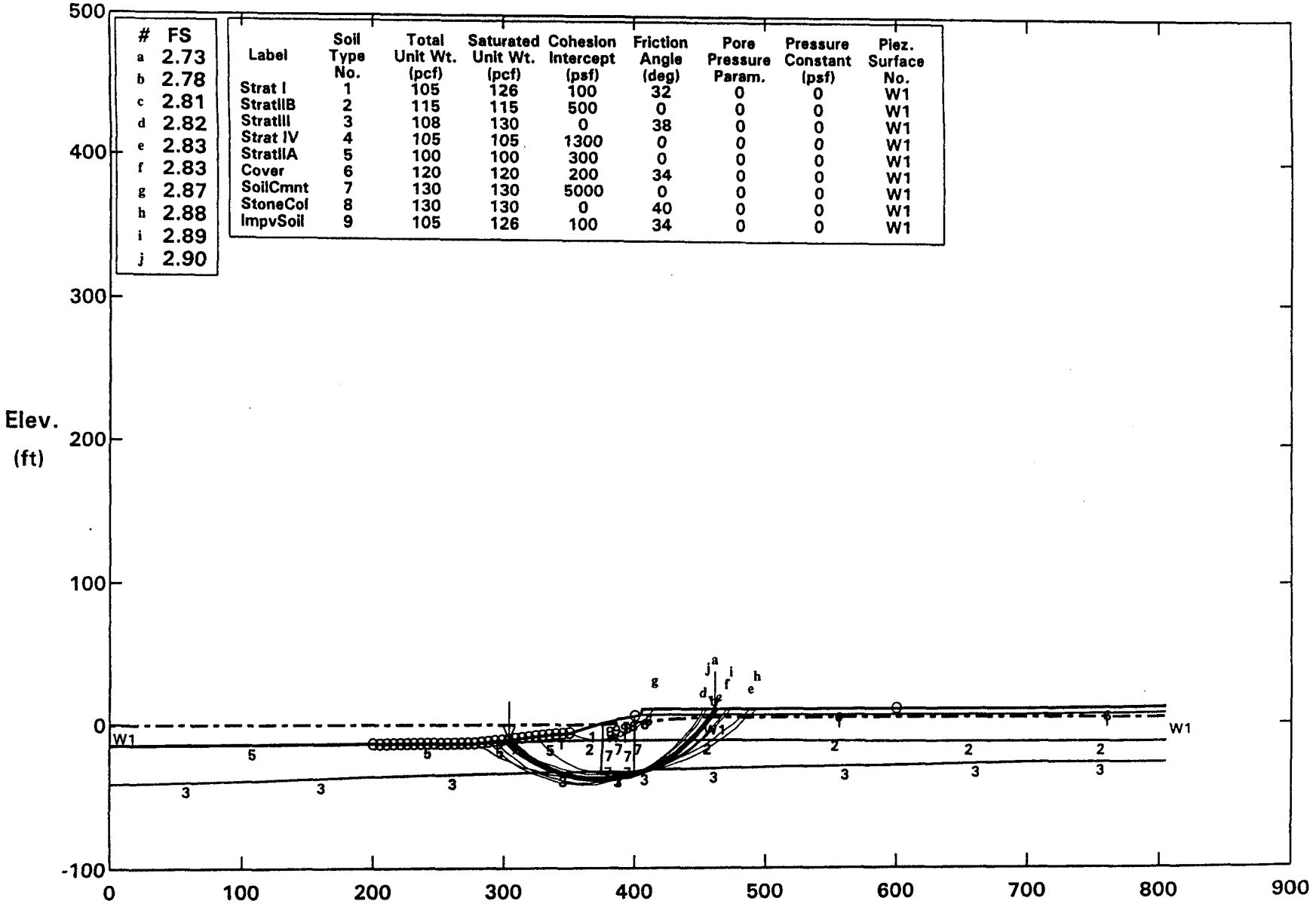
Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section F-F', Comb., Static Long-Term Bishop Circular Search

Ten Most Critical. C:FFCMBBS2.PLT By: BH 07-01-02 6:56am

#	FS
a	2.73
b	2.78
c	2.81
d	2.82
e	2.83
f	2.83
g	2.87
h	2.88
i	2.89
j	2.90

Label	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.
Strat I	1	105	126	100	32	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 2.73 X-Axis (ft)

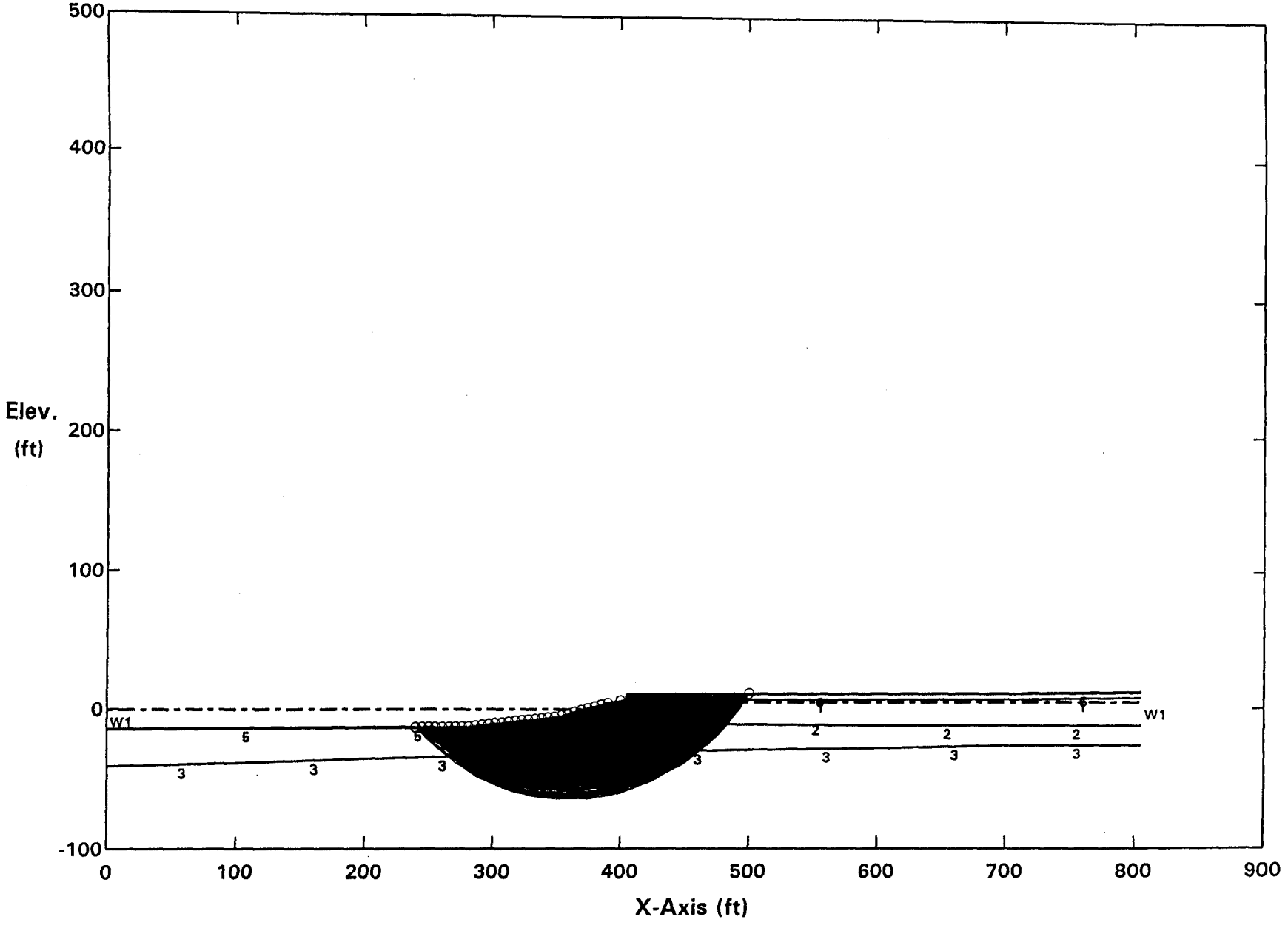
Factors Of Safety Calc[illegible]d By The Modified Bishop Method

```
PROFIL        C:\GEO\STED\A-NAS\F-FINAL\FFCMBBS2.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section F-F', Comb., Static     Long-Term Bishop Circular Search
40 12
0. 85.5 205. 86.5 5
205. 86.5 278. 87. 5
278. 87. 327. 92. 1
327. 92. 350. 94. 1
350. 94. 375. 100.5 1
375. 100.5 385. 103. 9
385. 103. 387. 103.5 9
387. 103.5 399. 105.9 8
399. 105.9 405. 107.1 8
405. 107.1 405.1 111.1 6
405.1 111.1 705. 111.1 6
705. 111.1 805. 112.1 6
374.9 88.7 375. 100.5 9
399. 105.9 399.1 88.95 8
405. 107.1 705. 107.1 1
705. 107.1 805. 108.1 1
278. 87. 305. 88. 5
305. 88. 355. 88.5 5
355. 88.5 374.9 88.7 2
374.8 67.4 374.9 88.7 7
374.9 88.7 399.1 88.95 7
399.1 88.95 405. 89. 7
399.1 88.95 399.2 67.9 7
405. 89. 505. 88.5 2
505. 88.5 605. 88. 2
605. 88. 705. 88. 2
705. 88. 805. 88. 2
0. 59. 105. 61.5 3
105. 61.5 205. 64.5 3
205. 64.5 305. 66. 3
305. 66. 374.8 67.4 3
374.8 67.4 399.2 67.9 7
399.2 67.9 405. 68. 3
405. 68. 505. 70. 3
505. 70. 605. 71. 3
605. 71. 705. 73. 3
705. 73. 805. 73.5 3
374.7 66. 374.8 67.4 7
399.2 67.9 399.3 66. 7
374.7 66. 399.3 66. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
375. 100.
450. 105.
805. 105.
CIRCL2-Bishop circular, search
30 100
200. 350. 400. 600. 0. 10. 0. 0.
```

A-NAS - Section F-F', Comb. Post-EQ Static Bishop Circular Search

All surfaces evaluated. C:FFCMBBSE.PLT By: BH 07-01-02 4:16pm



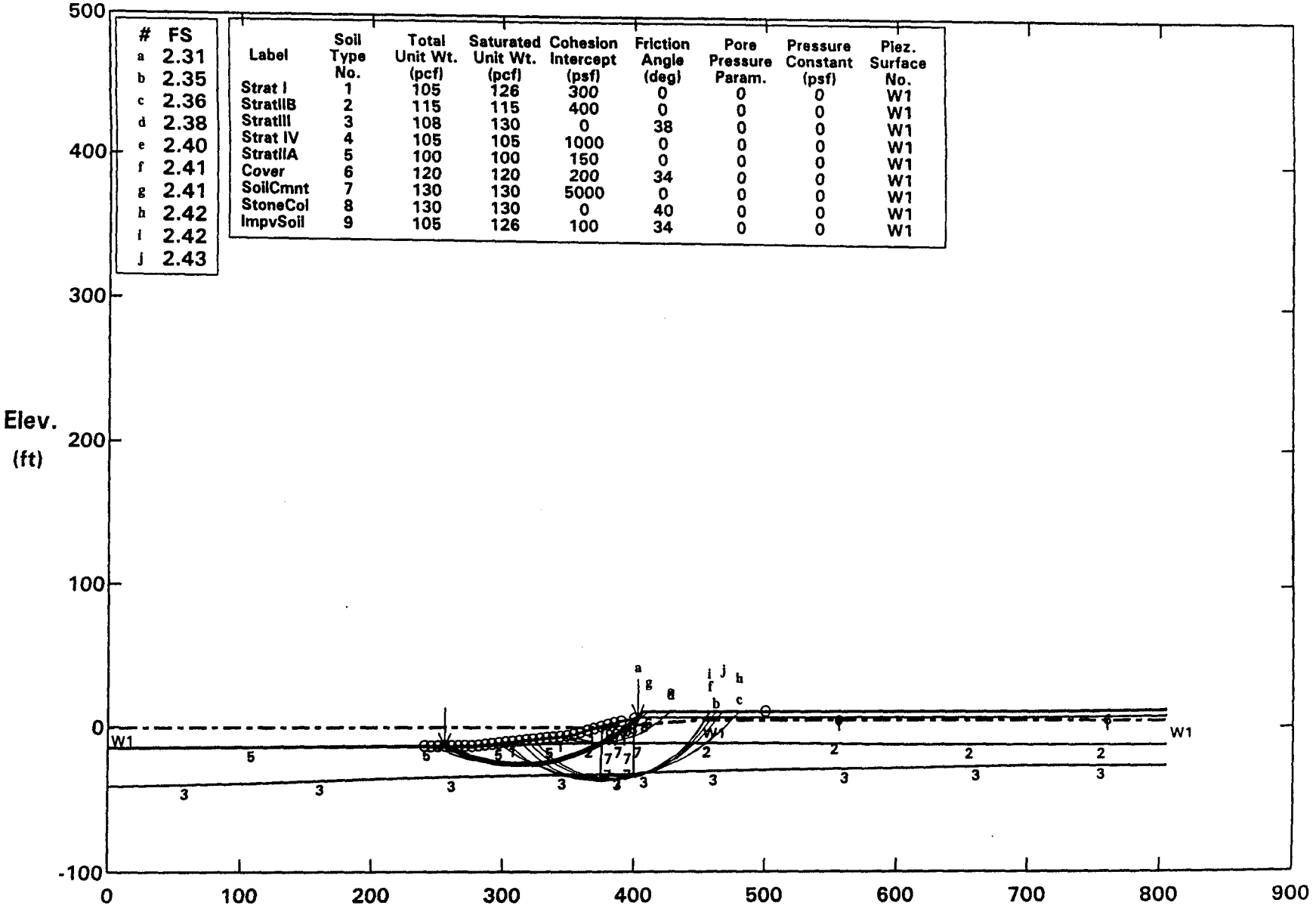
Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section F-F', Comb. Post-EQ Static Bishop Circular Search

Ten Most Critical. C:FFCMBBSE.PLT By: BH 07-01-02 4:16pm

#	FS
a	2.31
b	2.35
c	2.36
d	2.38
e	2.40
f	2.41
g	2.41
h	2.42
i	2.42
j	2.43

Label	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.
Strat I	1	105	126	300	0	0	0	W1
StratIIB	2	115	115	400	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	150	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 2.31 X-Axis (ft)

Factors Of Safety Calc[illegible]d By The Modified Bishop Method

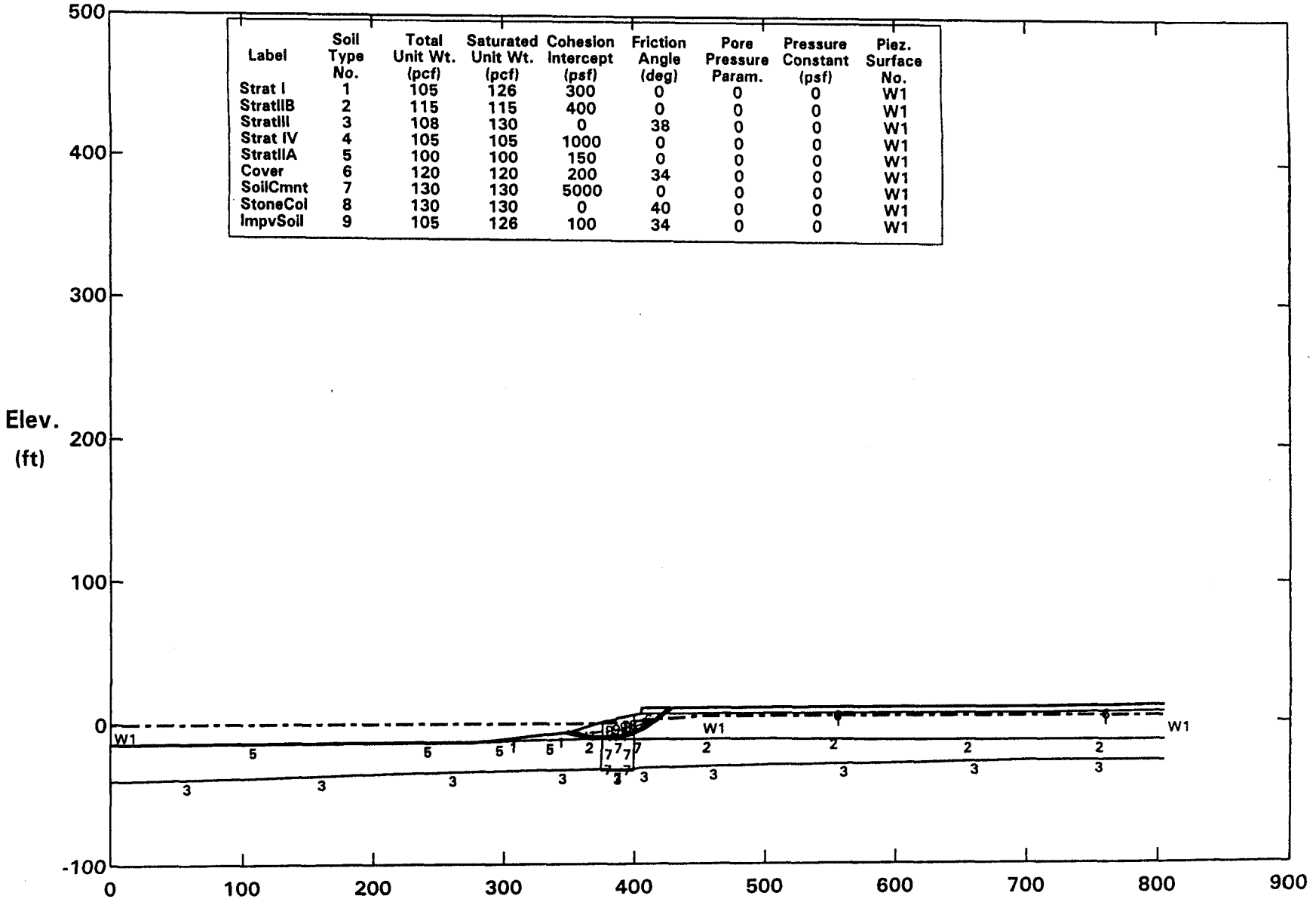
```
PROFIL        C:\GEO\STED\A-NAS\F-FINAL\FFCMBBSE.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section F-F', Comb. Post-EQ     Static Bishop Circular Search
40 12
0. 85.5 205. 86.5 5
205. 86.5 278. 87. 5
278. 87. 327. 92. 1
327. 92. 350. 94. 1
350. 94. 375. 100.5 1
375. 100.5 385. 103. 9
385. 103. 387. 103.5 9
387. 103.5 399. 105.9 8
399. 105.9 405. 107.1 8
405. 107.1 405.1 111.1 6
405.1 111.1 705. 111.1 6
705. 111.1 805. 112.1 6
374.9 88.7 375. 100.5 9
399. 105.9 399.1 88.95 8
405. 107.1 705. 107.1 1
705. 107.1 805. 108.1 1
278. 87. 305. 88. 5
305. 88. 355. 88.5 5
355. 88.5 374.9 88.7 2
374.8 67.4 374.9 88.7 7
374.9 88.7 399.1 88.95 7
399.1 88.95 405. 89. 7
399.1 88.95 399.2 67.9 7
405. 89. 505. 88.5 2
505. 88.5 605. 88. 2
605. 88. 705. 88. 2
705. 88. 805. 88. 2
0. 59. 105. 61.5 3
105. 61.5 205. 64.5 3
205. 64.5 305. 66. 3
305. 66. 374.8 67.4 3
374.8 67.4 399.2 67.9 7
399.2 67.9 405. 68. 3
405. 68. 505. 70. 3
505. 70. 605. 71. 3
605. 71. 705. 73. 3
705. 73. 805. 73.5 3
374.7 66. 374.8 67.4 7
399.2 67.9 399.3 66. 7
374.7 66. 399.3 66. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
375. 100.
450. 105.
805. 105.
CIRCL2-Bishop circular, search
30 100
240. 390. 400. 500. 0. 10. 0. 0.
```

A-NAS - Section F-F', Comb. Post-EQ Spencer Static Slope Stability

Surface #1-FFCMBBSE.OUT. C:FFCMBSSE.PLT By: BH 07-01-02 4:24pm

Label	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.
Strat I	1	105	126	300	0	0	0	W1
StratIIB	2	115	115	400	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	150	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FS = 2.37 Theta = 9.97 X-Axis (ft)

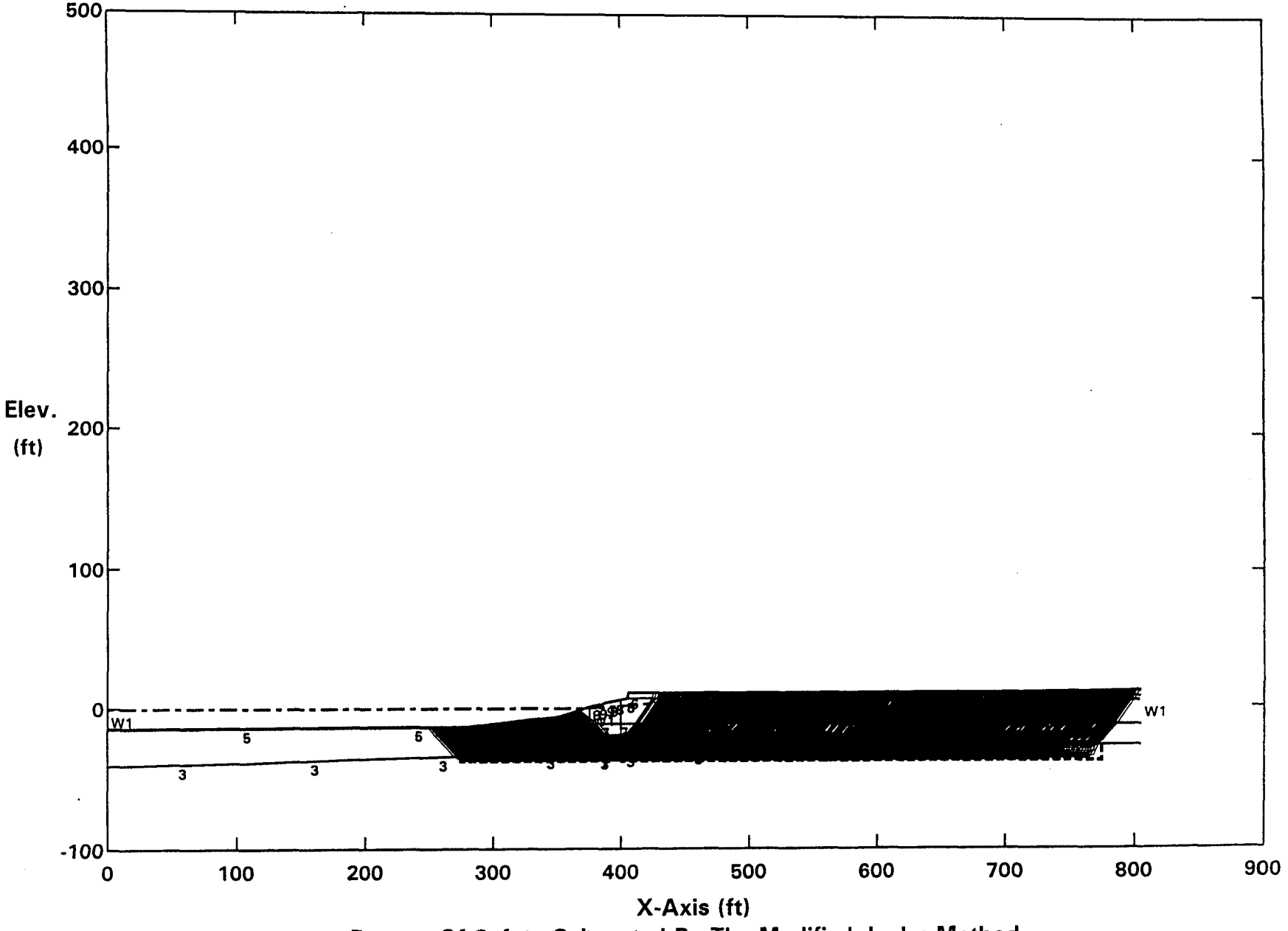
Factors Of Safety Calculated By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\F-FINAL\FFCMBSSE.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section F-F', Comb. Post-EQ     Spencer Static Slope Stability
40 12
0. 85.5 205. 86.5 5
205. 86.5 278. 87. 5
278. 87. 327. 92. 1
327. 92. 350. 94. 1
350. 94. 375. 100.5 1
375. 100.5 385. 103. 9
385. 103. 387. 103.5 9
387. 103.5 399. 105.9 8
399. 105.9 405. 107.1 8
405. 107.1 405.1 111.1 6
405.1 111.1 705. 111.1 6
705. 111.1 805. 112.1 6
374.9 88.7 375. 100.5 9
399. 105.9 399.1 88.95 8
405. 107.1 705. 107.1 1
705. 107.1 805. 108.1 1
278. 87. 305. 88. 5
305. 88. 355. 88.5 5
355. 88.5 374.9 88.7 2
374.8 67.4 374.9 88.7 7
374.9 88.7 399.1 88.95 7
399.1 88.95 405. 89. 7
399.1 88.95 399.2 67.9 7
405. 89. 505. 88.5 2
505. 88.5 605. 88. 2
605. 88. 705. 88. 2
705. 88. 805. 88. 2
0. 59. 105. 61.5 3
105. 61.5 205. 64.5 3
205. 64.5 305. 66. 3
305. 66. 374.8 67.4 3
374.8 67.4 399.2 67.9 7
399.2 67.9 405. 68. 3
405. 68. 505. 70. 3
505. 70. 605. 71. 3
605. 71. 705. 73. 3
705. 73. 805. 73.5 3
374.7 66. 374.8 67.4 7
399.2 67.9 399.3 66. 7
374.7 66. 399.3 66. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
375. 100.
450. 105.
805. 105.
SPENCR
4.
SURBIS #1-FFCMBBSE.OUT
10
348.62 93.88
358.22 91.07
368.1 89.55
378.1 89.35
388.04 90.47
397.74 92.89
407.04 96.56
415.78 101.43
423.79 107.41
427.57 111.1
EXECUT
```

A-NAS - Section F-F', Comb. EQ Dynamic Janbu Block Search, 0.155g

All surfaces evaluated. C:FFCMBJD.PLT By: BH 07-01-02 6:44am



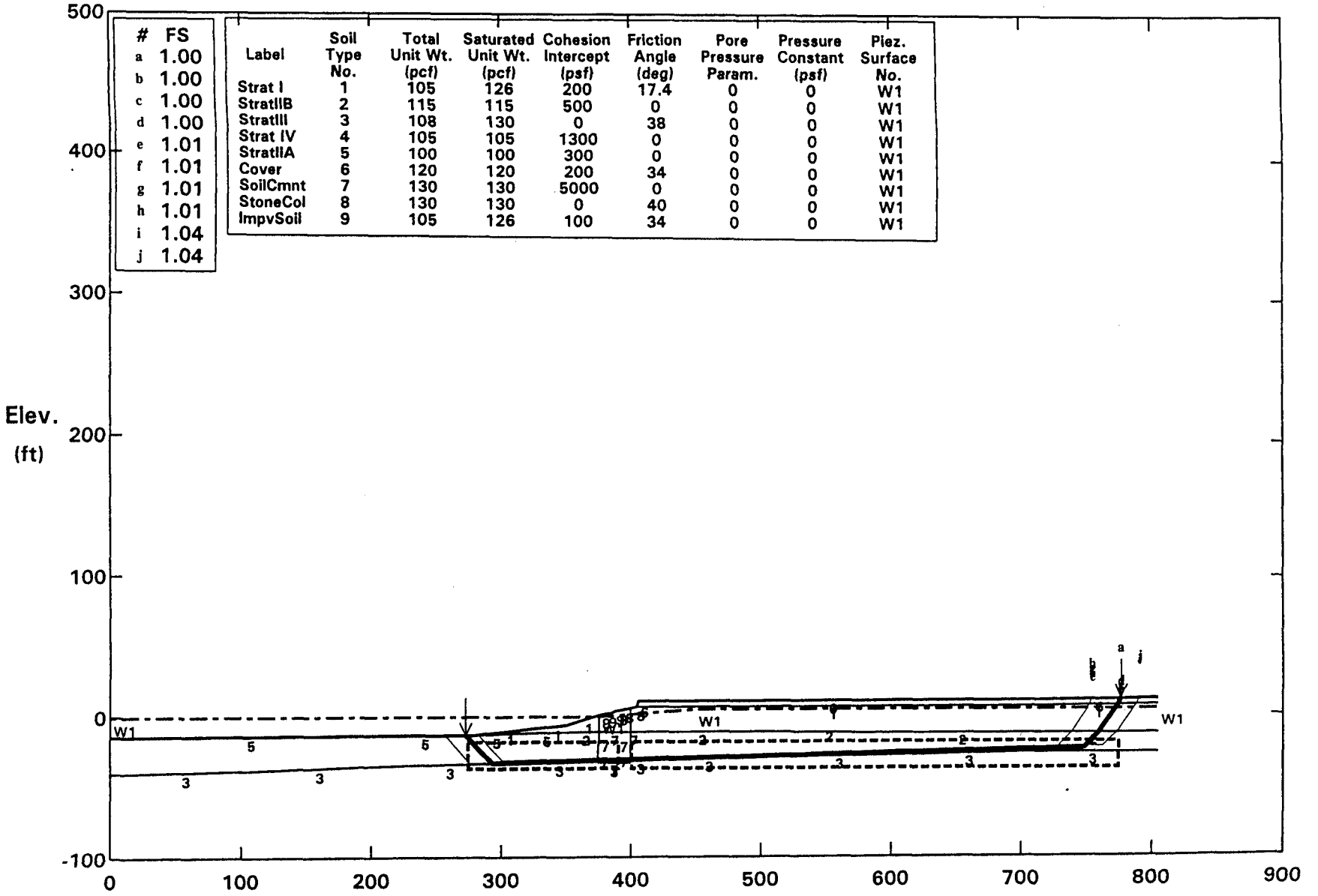
Factors Of Safety Cal ''d By The Modified Janbu Method

A-NAS - Section F-F', Comb. EQ Dynamic Janbu Block Search, 0.155g

Ten Most Critical. C:FFCMBJD.PLT By: BH 07-01-02 6:44am

#	FS
a	1.00
b	1.00
c	1.00
d	1.00
e	1.01
f	1.01
g	1.01
h	1.01
i	1.04
j	1.04

Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 1.00 X-Axis (ft)

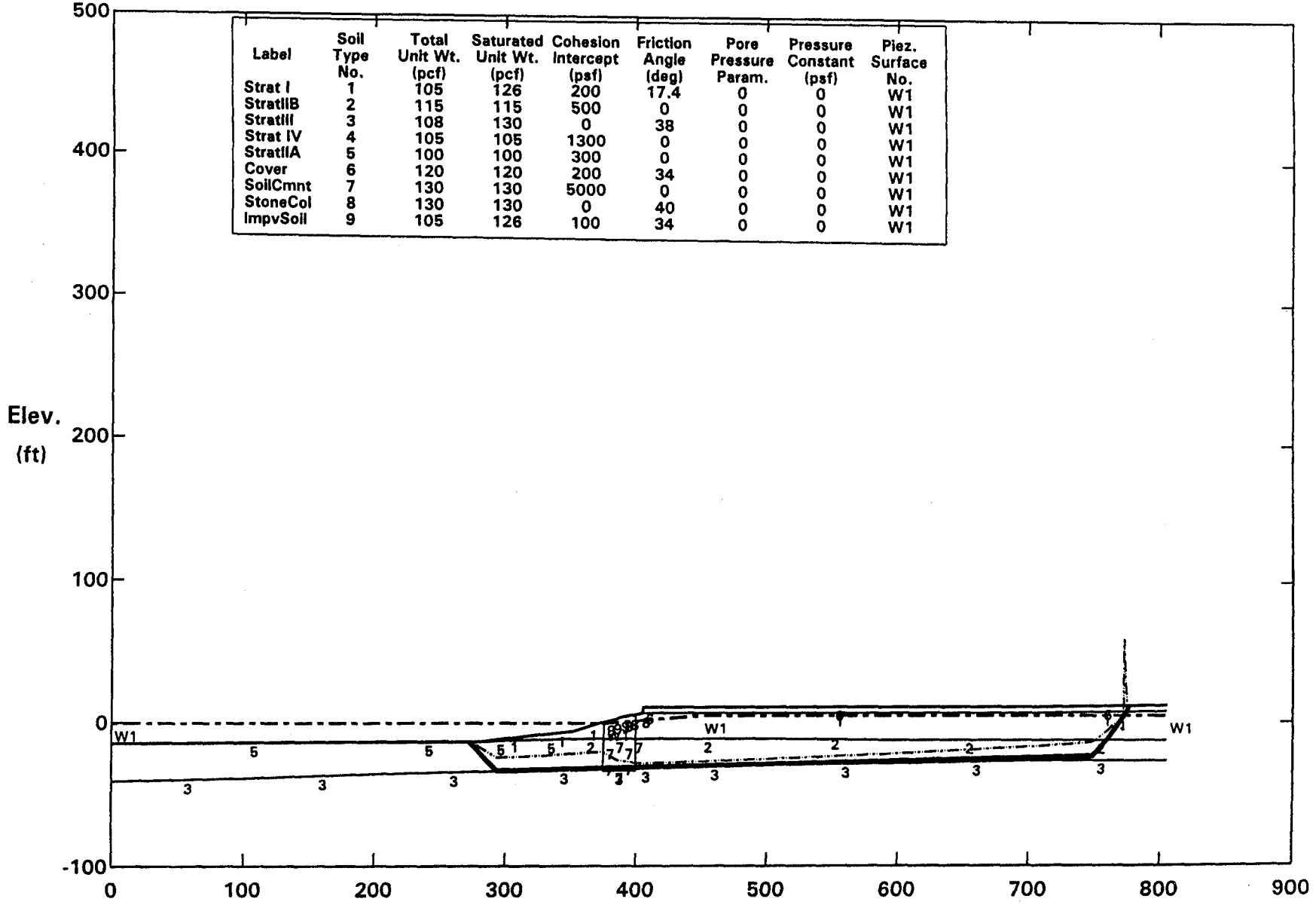
Factors Of Safety Calculated By The Modified Janbu Method

```
PROFIL        C:\GEO\STED\A-NAS\F-FINAL\FFCMBJD.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section F-F', Comb. EQ          Dynamic Janbu Block Search, 0.155g
40 12
0. 85.5 205. 86.5 5
205. 86.5 278. 87. 5
278. 87. 327. 92. 1
327. 92. 350. 94. 1
350. 94. 375. 100.5 1
375. 100.5 385. 103. 9
385. 103. 387. 103.5 9
387. 103.5 399. 105.9 8
399. 105.9 405. 107.1 8
405. 107.1 405.1 111.1 6
405.1 111.1 705. 111.1 6
705. 111.1 805. 112.1 6
374.9 88.7 375. 100.5 9
399. 105.9 399.1 88.95 8
405. 107.1 705. 107.1 1
705. 107.1 805. 108.1 1
278. 87. 305. 88. 5
305. 88. 355. 88.5 5
355. 88.5 374.9 88.7 2
374.8 67.4 374.9 88.7 7
374.9 88.7 399.1 88.95 7
399.1 88.95 405. 89. 7
399.1 88.95 399.2 67.9 7
405. 89. 505. 88.5 2
505. 88.5 605. 88. 2
605. 88. 705. 88. 2
705. 88. 805. 88. 2
0. 59. 105. 61.5 3
105. 61.5 205. 64.5 3
205. 64.5 305. 66. 3
305. 66. 374.8 67.4 3
374.8 67.4 399.2 67.9 7
399.2 67.9 405. 68. 3
405. 68. 505. 70. 3
505. 70. 605. 71. 3
605. 71. 705. 73. 3
705. 73. 805. 73.5 3
374.7 66. 374.8 67.4 7
399.2 67.9 399.3 66. 7
374.7 66. 399.3 66. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
375. 100.
450. 105.
805. 105.
EQUAKE
0.155 0. 0.
BLOCK2-Rankine block, search
0
4000 2 10.
275. 72. 390. 72. 20.
400. 72. 775. 72. 20.
```

A-NAS - Section F-F', Comb. EQ (Blk) Spencer Dynamic Slope Stability Ky = .155g

Surface #1-FFCMBJD.OUT. C:FFCMBSDB.PLT By: BH 07-01-02 6:46am



Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1

PCSTABL5M FS = 1.01 Theta = 1.34 X-Axis (ft)

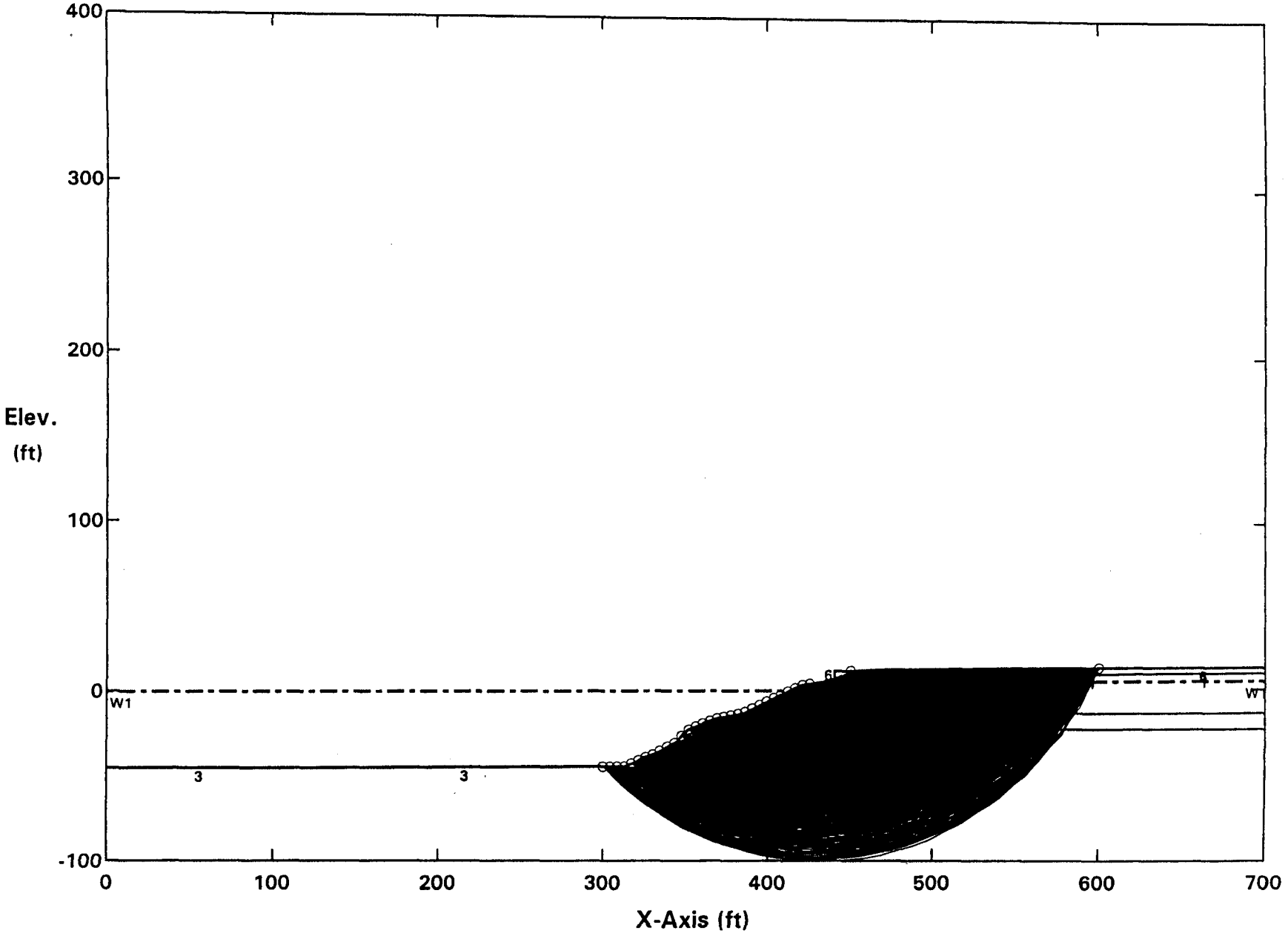
Factors Of Safety Calc[illegible]d By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\F-FINAL\FFCMBSDB.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section F-F', Comb. EQ (Blk)    Spencer Dynamic Slope Stability Ky=.155g
40 12
0. 85.5 205. 86.5 5
205. 86.5 278. 87. 5
278. 87. 327. 92. 1
327. 92. 350. 94. 1
350. 94. 375. 100.5 1
375. 100.5 385. 103. 9
385. 103. 387. 103.5 9
387. 103.5 399. 105.9 8
399. 105.9 405. 107.1 8
405. 107.1 405.1 111.1 6
405.1 111.1 705. 111.1 6
705. 111.1 805. 112.1 6
374.9 88.7 375. 100.5 9
399. 105.9 399.1 88.95 8
405. 107.1 705. 107.1 1
705. 107.1 805. 108.1 1
278. 87. 305. 88. 5
305. 88. 355. 88.5 5
355. 88.5 374.9 88.7 2
374.8 67.4 374.9 88.7 7
374.9 88.7 399.1 88.95 7
399.1 88.95 405. 89. 7
399.1 88.95 399.2 67.9 7
405. 89. 505. 88.5 2
505. 88.5 605. 88. 2
605. 88. 705. 88. 2
705. 88. 805. 88. 2
0. 59. 105. 61.5 3
105. 61.5 205. 64.5 3
205. 64.5 305. 66. 3
305. 66. 374.8 67.4 3
374.8 67.4 399.2 67.9 7
399.2 67.9 405. 68. 3
405. 68. 505. 70. 3
505. 70. 605. 71. 3
605. 71. 705. 73. 3
705. 73. 805. 73.5 3
374.7 66. 374.8 67.4 7
399.2 67.9 399.3 66. 7
374.7 66. 399.3 66. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
375. 100.
450. 105.
805. 105.
EQUAKE
0.155 0. 0.
SPENCR
2.
SURFAC #1-FFCMBJD.OUT
11
272.73 86.96
279.18 80.51
286.26 73.44
293.33 66.36
748.15 76.
755.22 83.07
760.15 88.
766.1 96.04
772.05 104.08
774.8 107.8
776.94 111.82
EXECUT
```

A-NAS - Section G-G', Comb., Static Long-Term Bishop Circular Search

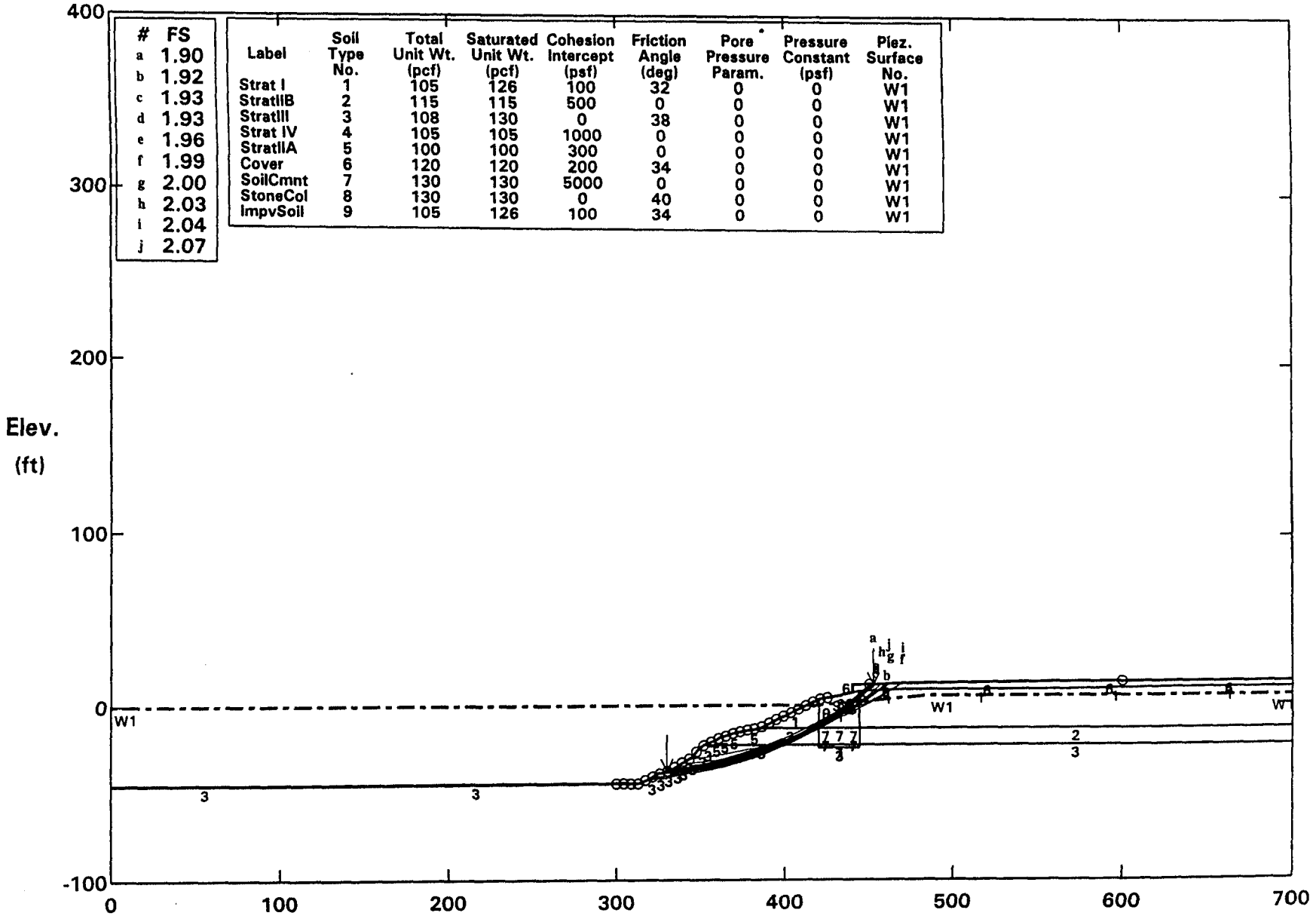
All surfaces evaluated. C:GGCMBBS1.PLT By: P.T. 07-01-02 7:18am



Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section G-G', Comb., Static Long-Term Bishop Circular Search

Ten Most Critical. C:GGCMBBS1.PLT By: P.T. 07-01-02 7:18am



#	FS
a	1.90
b	1.92
c	1.93
d	1.93
e	1.96
f	1.99
g	2.00
h	2.03
i	2.04
j	2.07

Label	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.
Strat I	1	105	126	100	32	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1

PCSTABL5M FSmin = 1.90 X-Axis (ft)

Factors Of Safety Cal[illegible]d By The Modified Bishop Method

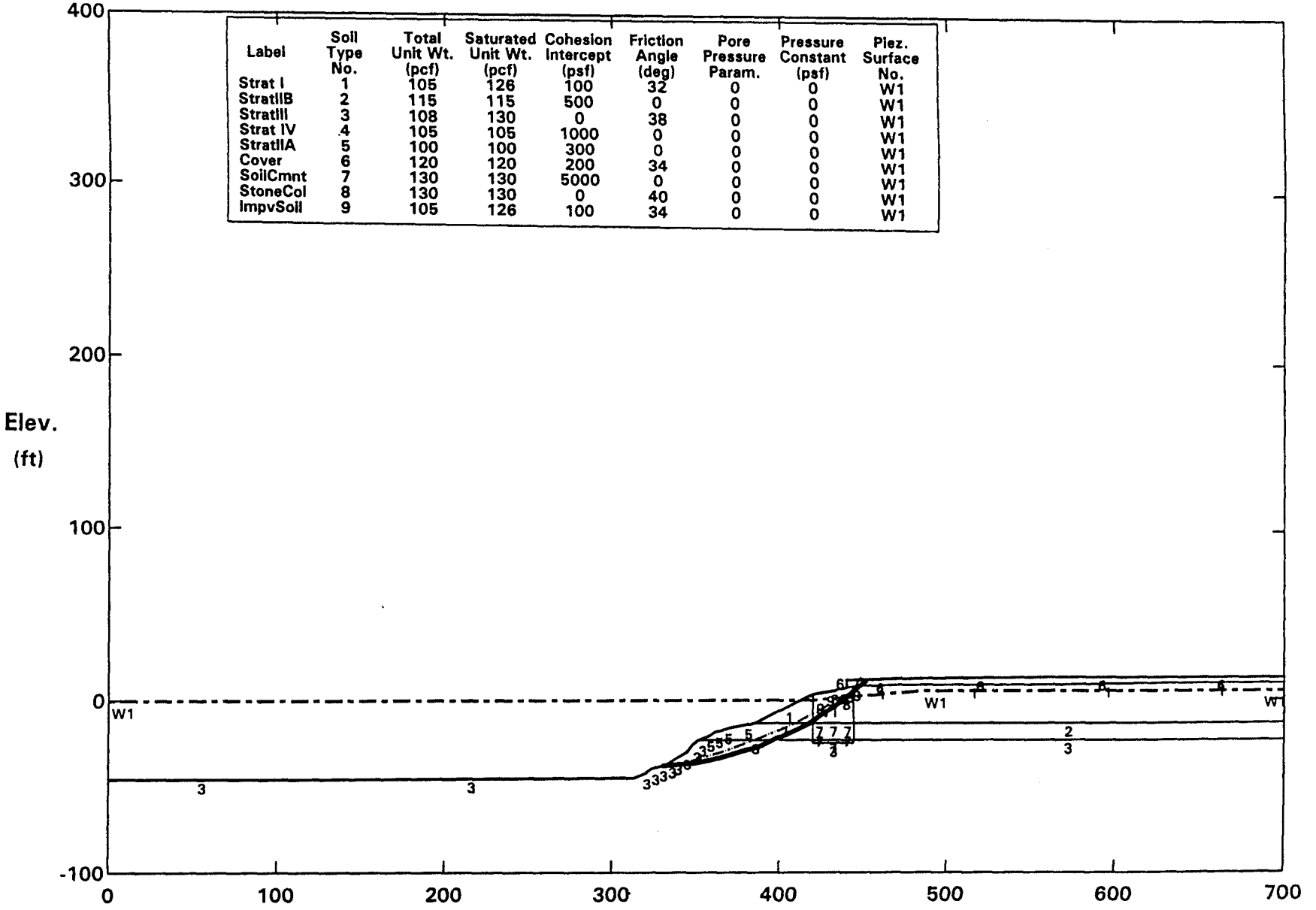
```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBBS1.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb., Static     Long-Term Bishop Circular Search
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
CIRCL2-Bishop circular, search
30 100
300. 425. 450. 600. 0. 10. 0. 0.
```

A-NAS - Section G-G', Comb., Static Long-Term Spencer Circular Search

Surface #1-GGCMBBS1.OUT. C:GGCMBSS1.PLT By: P.T. 07-01-02 7:19am

Label	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.
Strat I	1	105	126	100	32	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FS = 2.12 Theta = 17.29 X-Axis (ft)

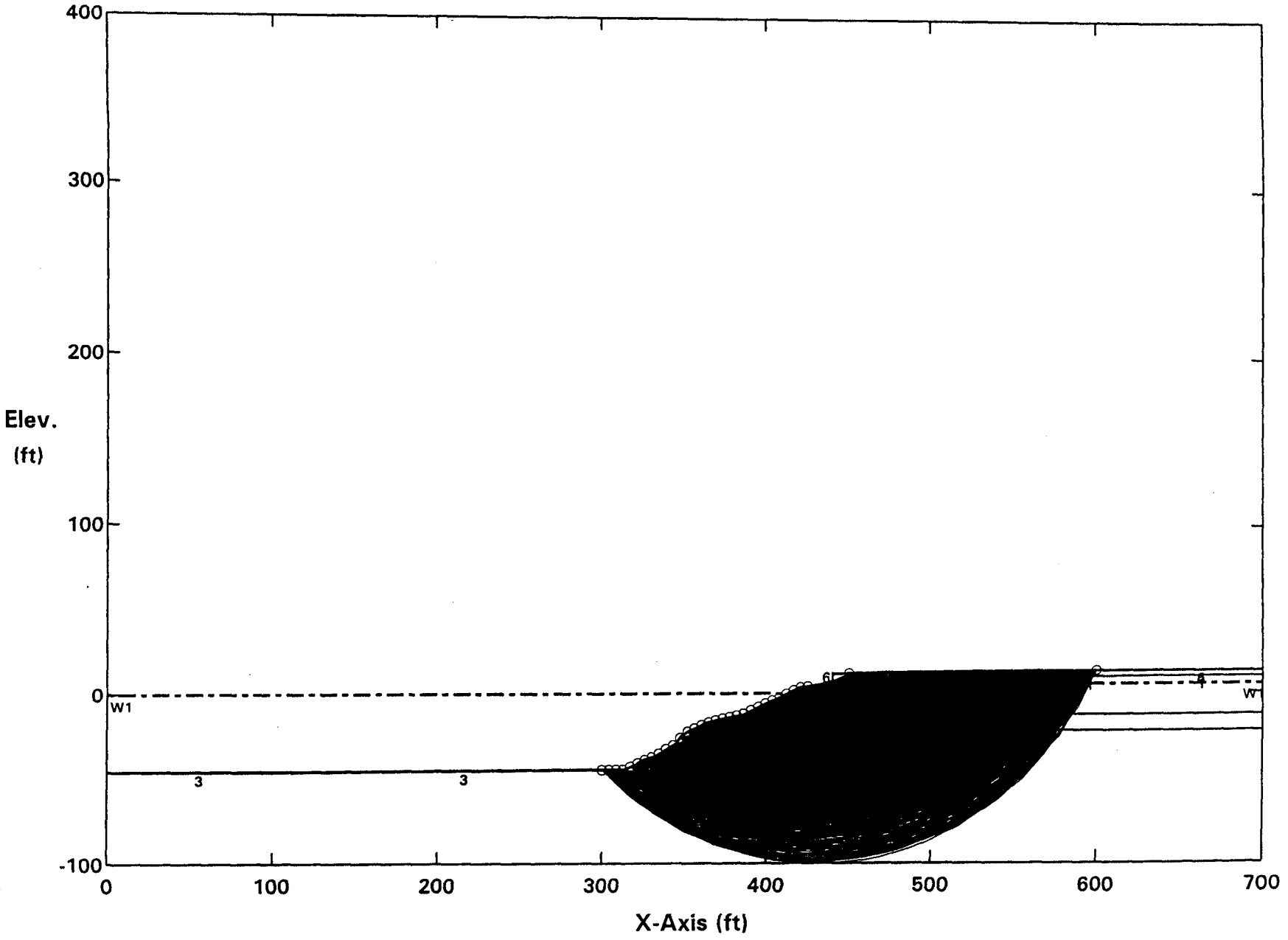
Factors Of Safety Calculated By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBSS1.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb., Static     Long-Term Spencer Circular Search
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
SPENCR
10.
SURBIS #1-GGCMBBS1.OUT
15
330.17 62.09
340.15 62.82
350.07 64.04
359.92 65.76
369.67 67.98
379.3 70.67
388.79 73.85
398.1 77.49
407.22 81.6
416.12 86.15
424.78 91.15
433.18 96.57
441.3 102.41
449.12 108.64
452.35 111.48
EXECUT
```

A-NAS - Section G-G', Comb. Post-EQ Static Bishop Circular Search

All surfaces evaluated. C:GGCMBBSE.PLT By: P.T. 07-01-02 4:20pm



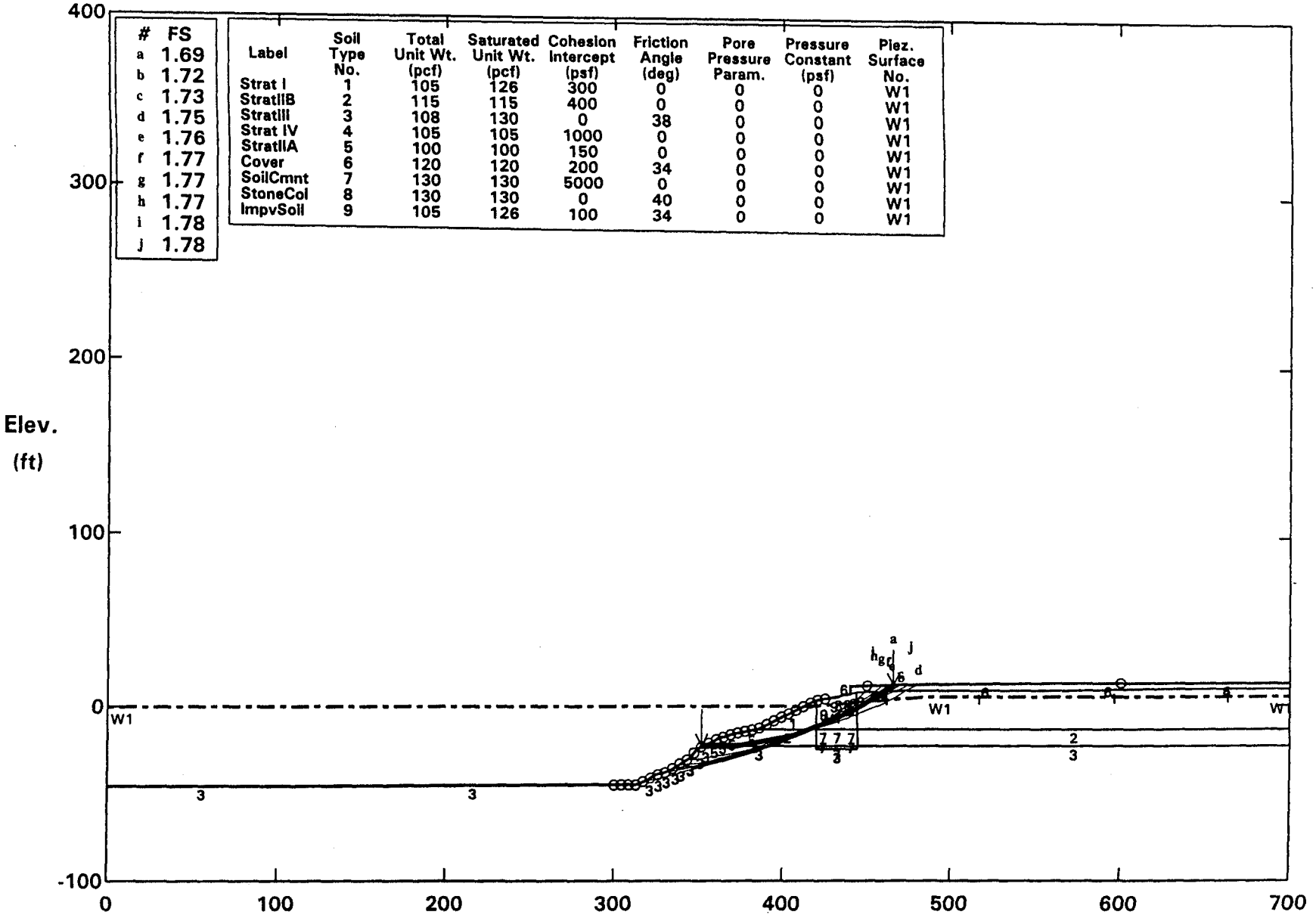
Factors Of Safety Calc 1 By The Modified Bishop Method

A-NAS - Section G-G', Comb. Post-EQ Static Bishop Circular Search

Ten Most Critical. C:GGCMBBSE.PLT By: P.T. 07-01-02 4:20pm

#	FS
a	1.69
b	1.72
c	1.73
d	1.75
e	1.76
f	1.77
g	1.77
h	1.77
i	1.78
j	1.78

Label	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.
Strat I	1	105	126	300	0	0	0	W1
StratIIB	2	115	115	400	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	150	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 1.69 X-Axis (ft)

Factors Of Safety Calculated By The Modified Bishop Method

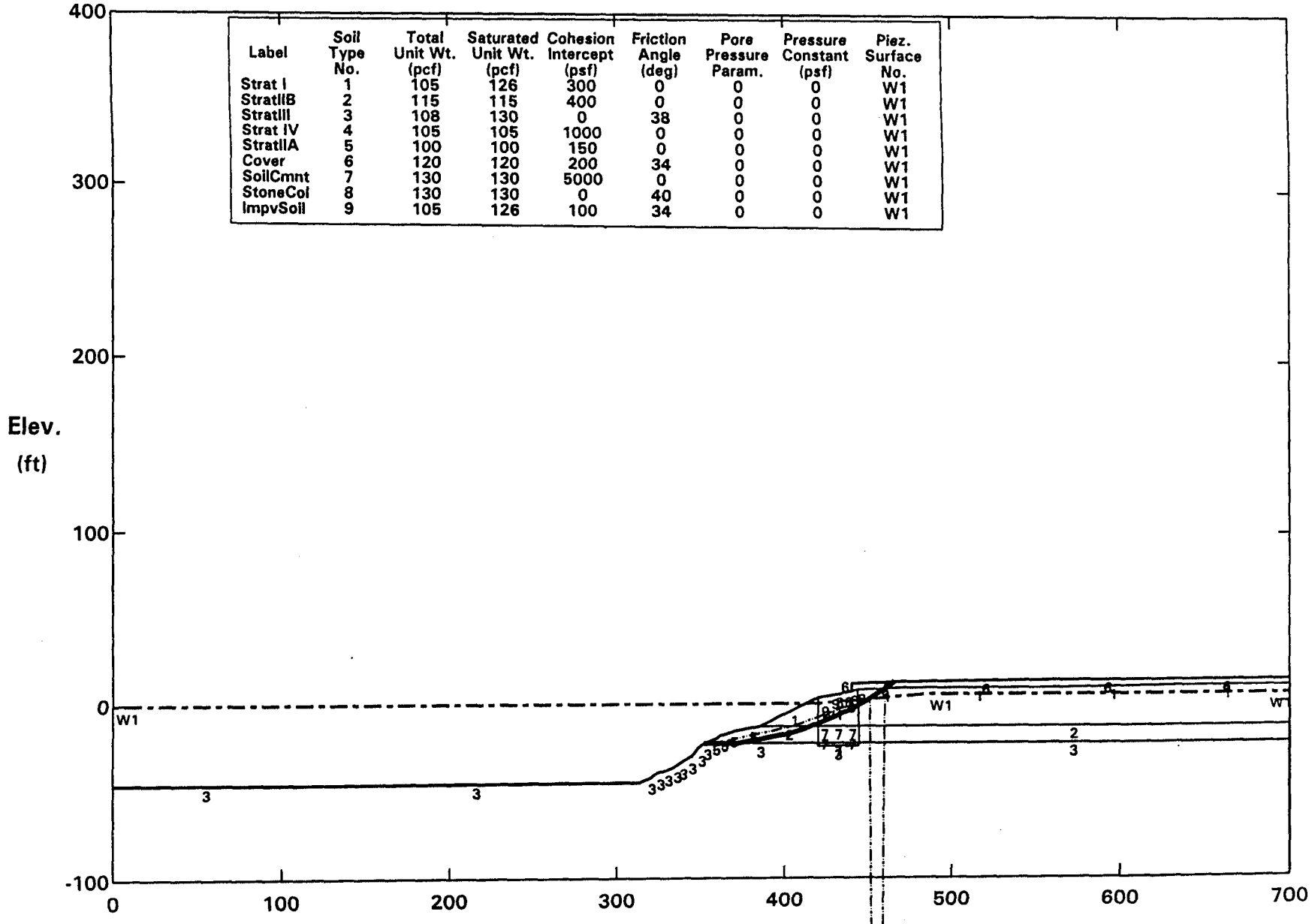
```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBBSE.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. Post-EQ     Static Bishop Circular Search
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
CIRCL2-Bishop circular, search
30 100
300. 425. 450. 600. 0. 10. 0. 0.
```

A-NAS - Section G-G', Comb. Post-EQ Static Spencer Circular Search

Surface #1-GGCMBBSE.OUT. C:GGCMBSSE.PLT By: P.T. 07-01-02 4:23pm

Label	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.
Strat I	1	105	126	300	0	0	0	W1
StratIIB	2	115	115	400	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1000	0	0	0	W1
StratIIA	5	100	100	150	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FS = 1.75 Theta = 13.47 X-Axis (ft)

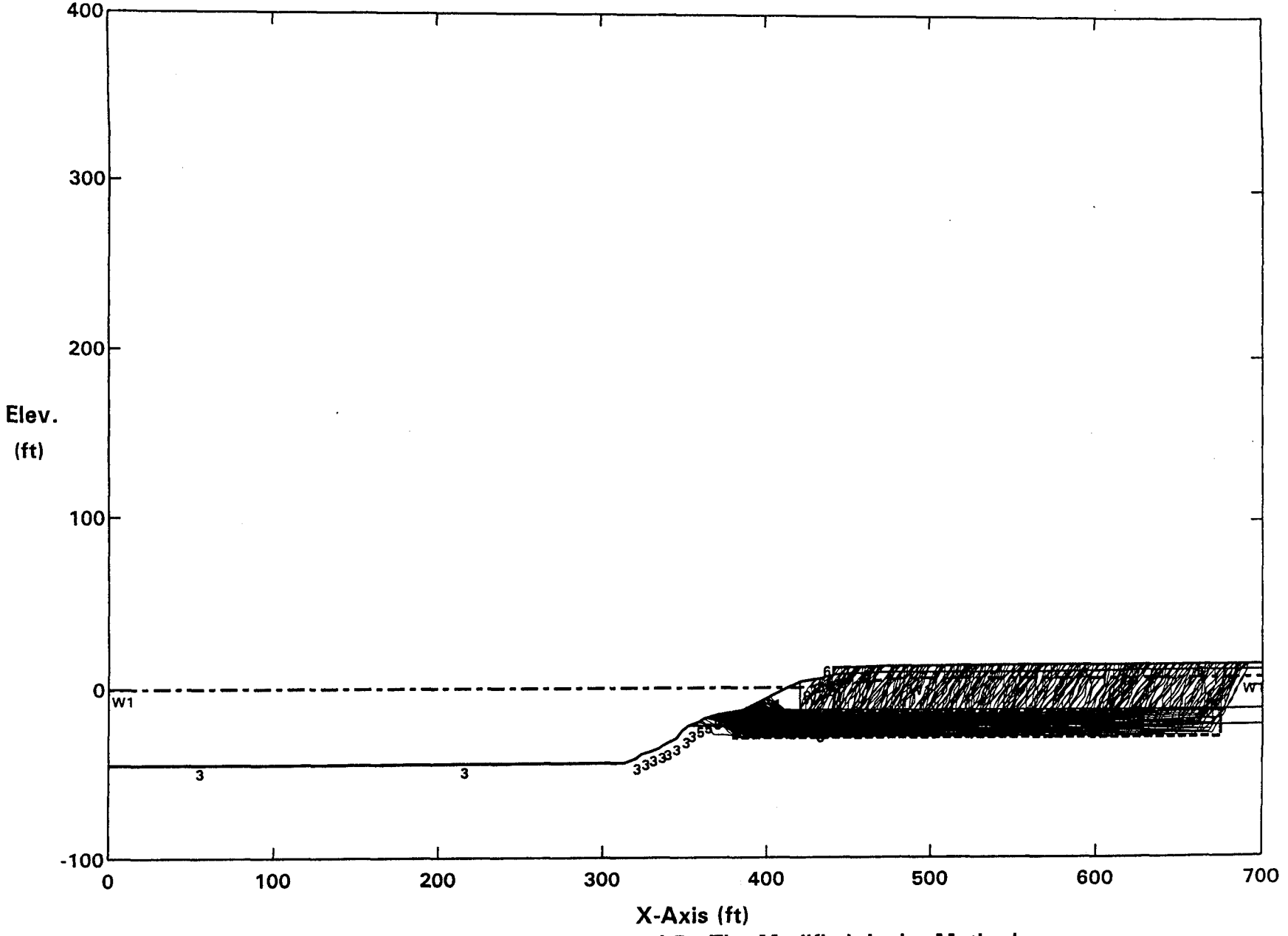
Factors Of Safety Cal[illegible]d By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBSSE.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. Post-EQ     Static Spencer Circular Search
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
SPENCR
15.
SURBIS #1-GGCMBBSE.OUT
14
351.72 76.79
361.72 76.82
371.71 77.38
381.65 78.47
391.52 80.09
401.29 82.22
410.93 84.87
420.42 88.03
429.72 91.69
438.82 95.84
447.69 100.46
456.3 105.55
464.63 111.08
465.73 111.9
EXECUT
```

A-NAS - Section G-G', Comb. EQ Dynamic Janbu Block Search, 0.22g

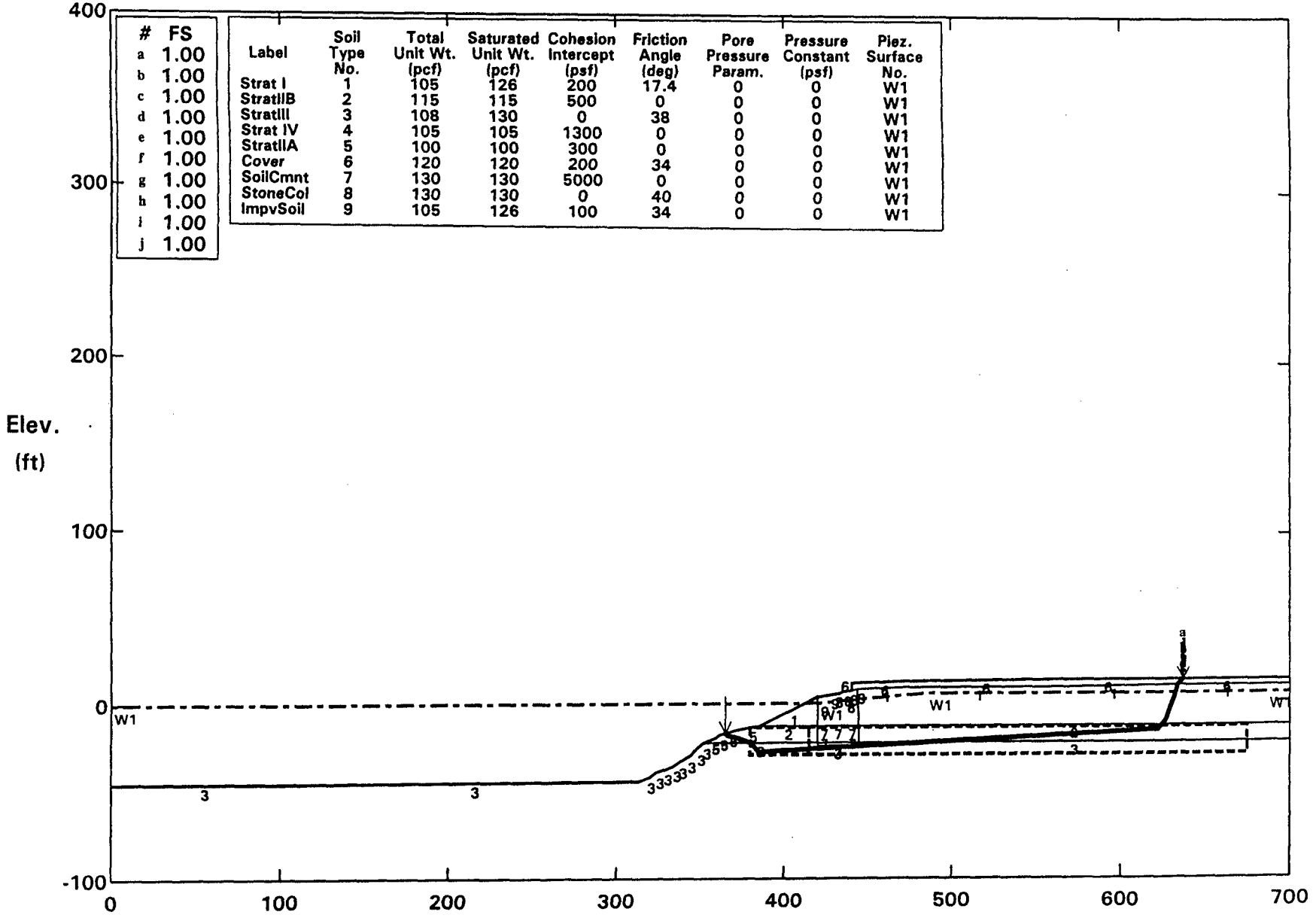
All surfaces evaluated. C:GGCMBJD.PLT By: P.T. 07-01-02 7:03am



Factors Of Safety Calculated By The Modified Janbu Method

A-NAS - Section G-G', Comb. EQ Dynamic Janbu Block Search, 0.22g

Ten Most Critical. C:GGCMBJD.PLT By: P.T. 07-01-02 7:03am



#	FS
a	1.00
b	1.00
c	1.00
d	1.00
e	1.00
f	1.00
g	1.00
h	1.00
i	1.00
j	1.00

Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1

PCSTABL5M FSmin = 1.00 X-Axis (ft)

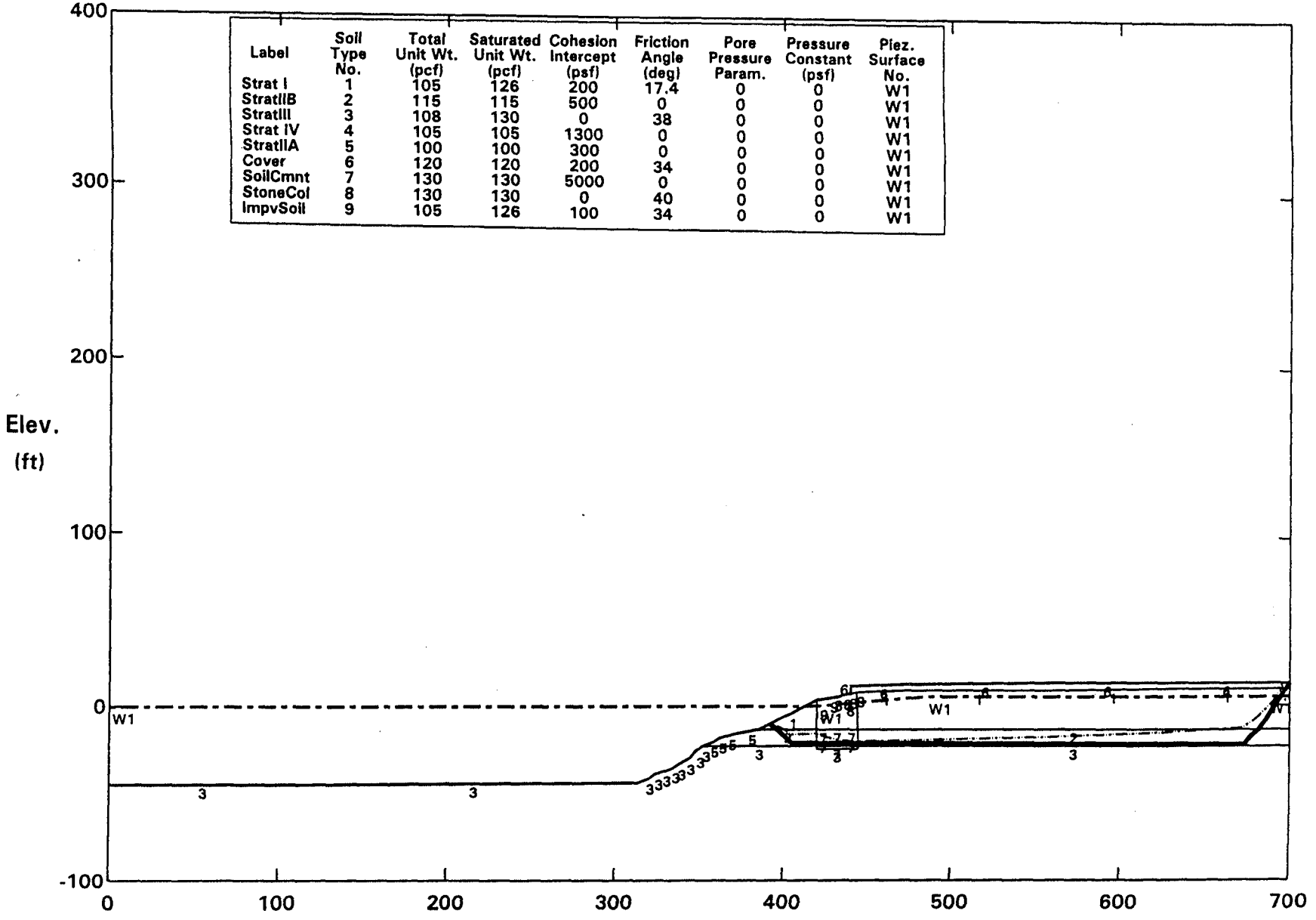
Factors Of Safety Calc[illegible]d By The Modified Janbu Method

```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBJD.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. EQ          Dynamic Janbu Block Search, 0.22g
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
EQUAKE
0.22 0. 0.
BLOCK -Sliding block, search
0
3000 2 7.
380. 78. 414.9 78. 16.
415. 78. 675. 78. 16.
```

A-NAS - Section G-G', Comb. EQ (Blk) Spencer Dynamic Slope Stability Ky=.21g

Surface #1-GGCMBJD.OUT. C:GGCMBSDB.PLT By: P.T. 07-01-02 7:06am



Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1

PCSTABL5M FS=1.00 Theta=.8 X-Axis (ft)

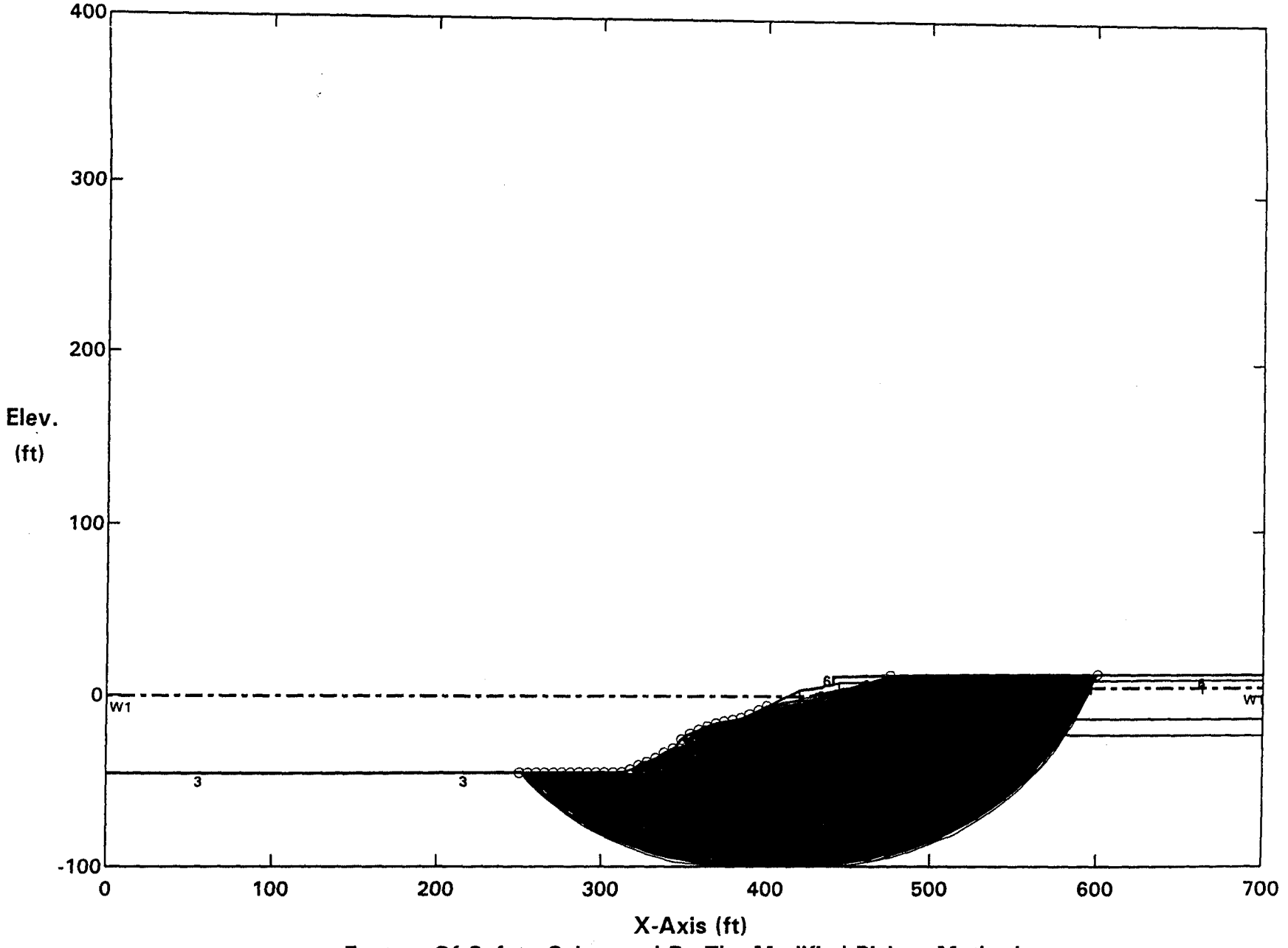
Factors Of Safety Calculated By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBSDB.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. EQ (Blk)     Spencer Dynamic Slope Stability Ky=.21g
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
EQUAKE
0.205 0. 0.
SPENCR
4.
SURFAC #1-GGCMBJD.OUT
12
392.21 90.31
396.68 87.
400.24 83.44
405.19 78.49
672.64 78.2
677.59 83.15
681.43 87.
685.6 92.63
689.76 98.25
693.92 103.88
697.79 109.1
699.91 113.1
EXECUT
```

A-NAS - Section G-G', Comb. EQ Dynamic Bishop Circular Search, 0.18g

All surfaces evaluated. C:GGCMBBD.PLT By: P.T. 07-01-02 7:09am



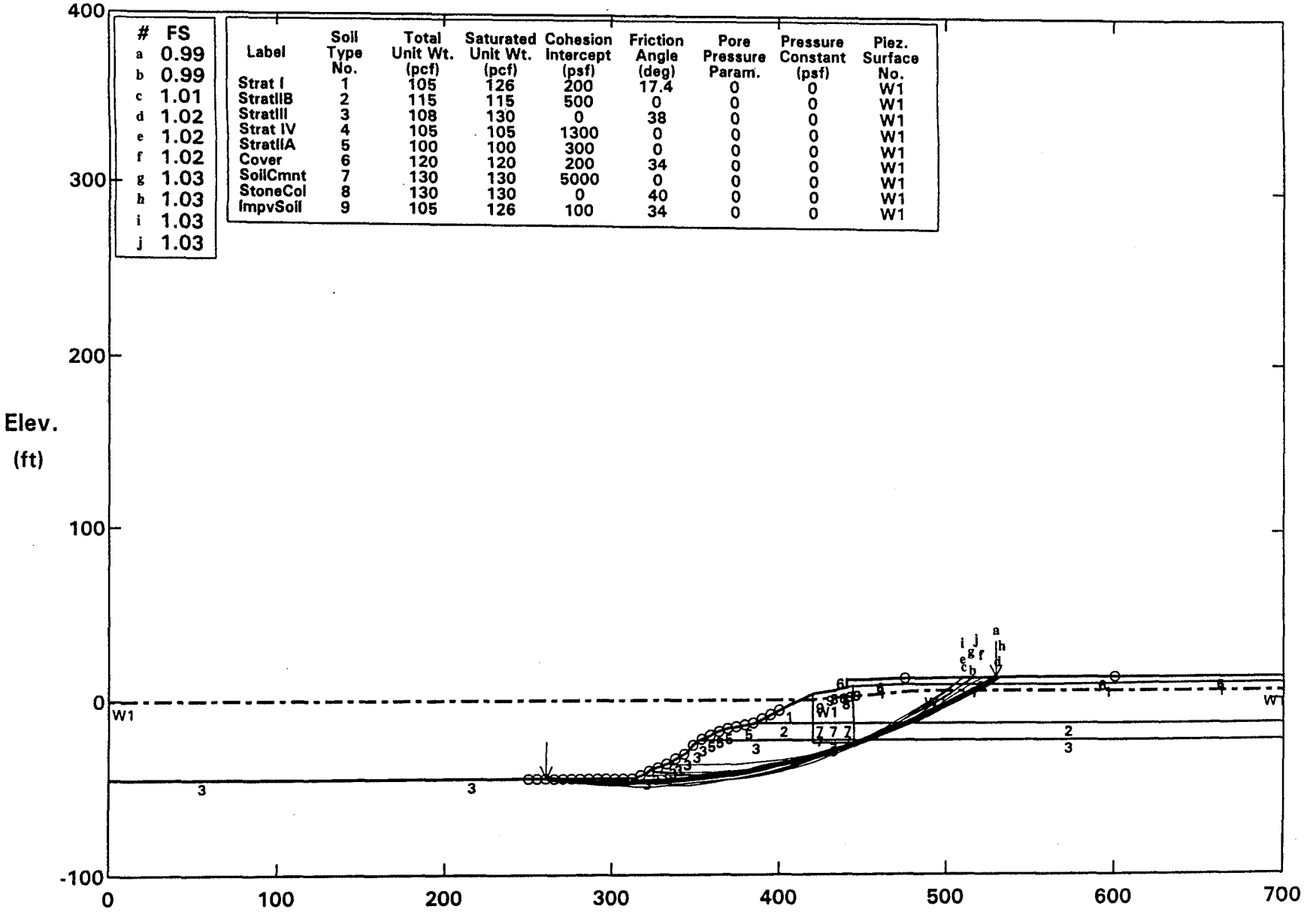
Factors Of Safety Calc d By The Modified Bishop Method

A-NAS - Section G-G', Comb. EQ Dynamic Bishop Circular Search, 0.18g

Ten Most Critical. C:GGCMBBD.PLT By: P.T. 07-01-02 7:09am

#	FS
a	0.99
b	0.99
c	1.01
d	1.02
e	1.02
f	1.02
g	1.03
h	1.03
i	1.03
j	1.03

Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FSmin = 0.99 X-Axis (ft)

Factors Of Safety Calculated By The Modified Bishop Method

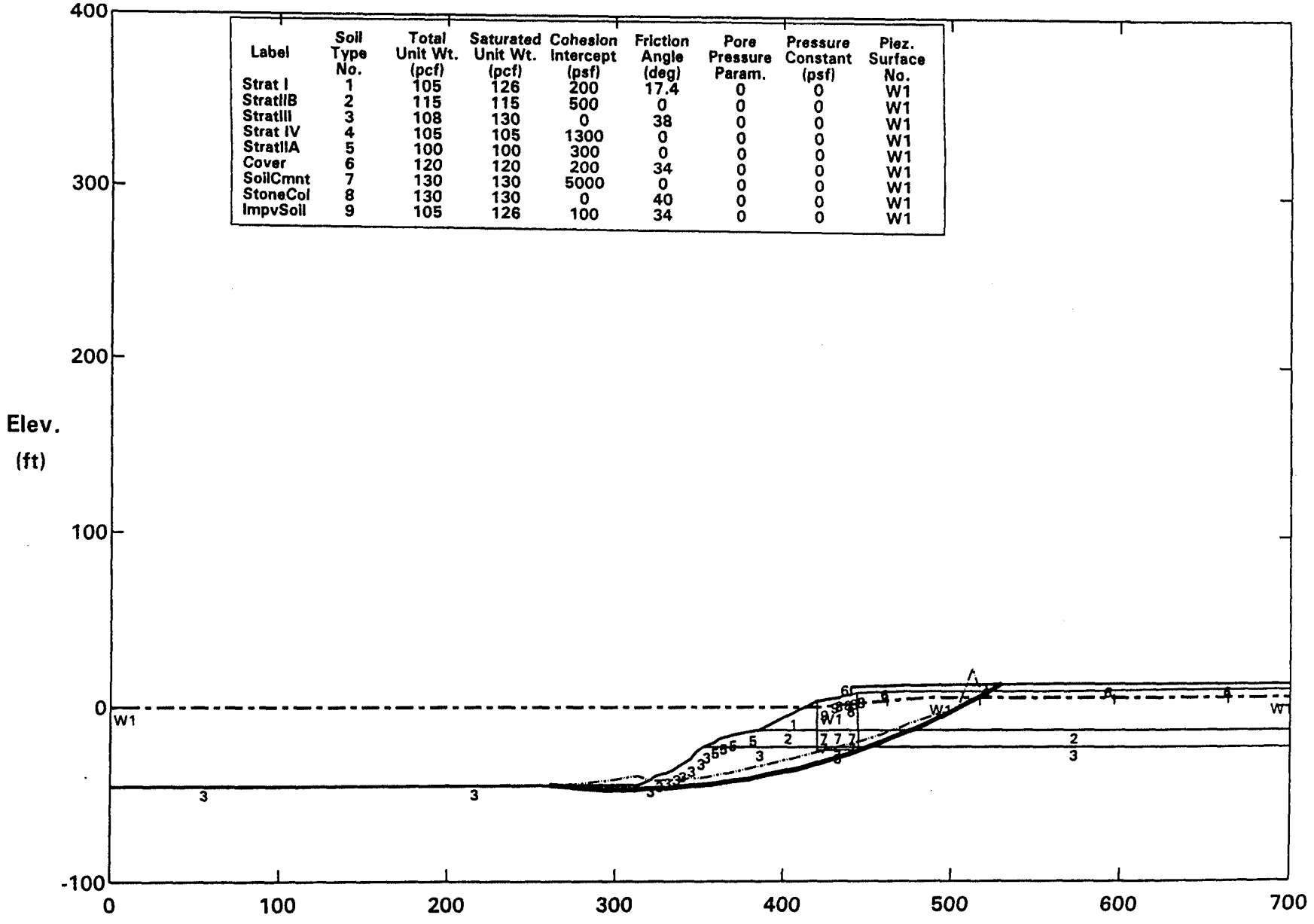
```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBBD.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. EQ          Dynamic Bishop Circular Search, 0.18g
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
EQUAKE
0.18 0. 0.
CIRCL2-Bishop circular, search
30 100
250. 400. 475. 600. 0. 10. 0. 0.
```

A-NAS - Section G-G', Comb. EQ Spencer Dynamic Slope Stability Ky = .19g

Surface #1-GGCMBBD.OUT. C:GGCMBSD.PLT By: P.T. 07-01-02 7:11am

Label	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.
Strat I	1	105	126	200	17.4	0	0	W1
StratIIB	2	115	115	500	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
Strat IV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	300	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
SoilCmnt	7	130	130	5000	0	0	0	W1
StoneCol	8	130	130	0	40	0	0	W1
ImpvSoil	9	105	126	100	34	0	0	W1



PCSTABL5M FS = 1.01 Theta = 12.01 X-Axis (ft)

Factors Of Safety Calc d By Spencer`s Method of Slices

```
PROFIL        C:\GEO\STED\A-NAS\G-FINAL\GGCMBSD.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section G-G', Comb. EQ          Spencer Dynamic Slope Stability Ky=.19g
42 24
0. 54. 110. 54. 3
110. 54. 313. 55. 3
313. 55. 320. 58. 3
320. 58. 324. 60. 3
324. 60. 330. 62. 3
330. 62. 334. 64. 3
334. 64. 337. 66. 3
337. 66. 345. 70. 3
345. 70. 348. 74. 3
348. 74. 352. 77. 3
352. 77. 359. 80. 5
359. 80. 361. 81. 5
361. 81. 370. 84. 5
370. 84. 385. 87. 5
385. 87. 420. 103.1 1
420. 103.1 432. 104.9 9
432. 104.9 433. 105.1 8
433. 105.1 435. 106.1 8
435. 106.1 440. 107.1 8
440. 107.1 440.1 111.1 6
440.1 111.1 472. 112.1 6
472. 112.1 560. 112.7 6
560. 112.7 625. 113.1 6
625. 113.1 700. 113.1 6
419.9 87. 420. 103.1 9
440. 107.1 444. 107.7 8
444. 107.7 472. 108.1 1
444. 107.7 444.1 87. 8
472. 108.1 560. 108.7 1
560. 108.7 625. 109.1 1
625. 109.1 700. 109.1 1
385. 87. 420. 87. 2
419.8 77. 419.9 87. 7
420. 87. 444.1 87. 7
444.1 87. 700. 87. 2
444.1 87. 444.2 77. 7
352. 77. 419.8 77. 3
419.8 77. 444.2 77. 7
444.1 77. 700. 77. 3
419.7 75. 419.8 77. 7
444.2 77. 444.3 75. 7
419.7 75. 444.3 75. 3
SOIL  Strat I StratIIBStratIIIStrat IVStratIIACover   SoilCmntStoneColImpvSoil
9
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 5000. 0. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
105. 126. 100. 34. 0. 0. 1
```

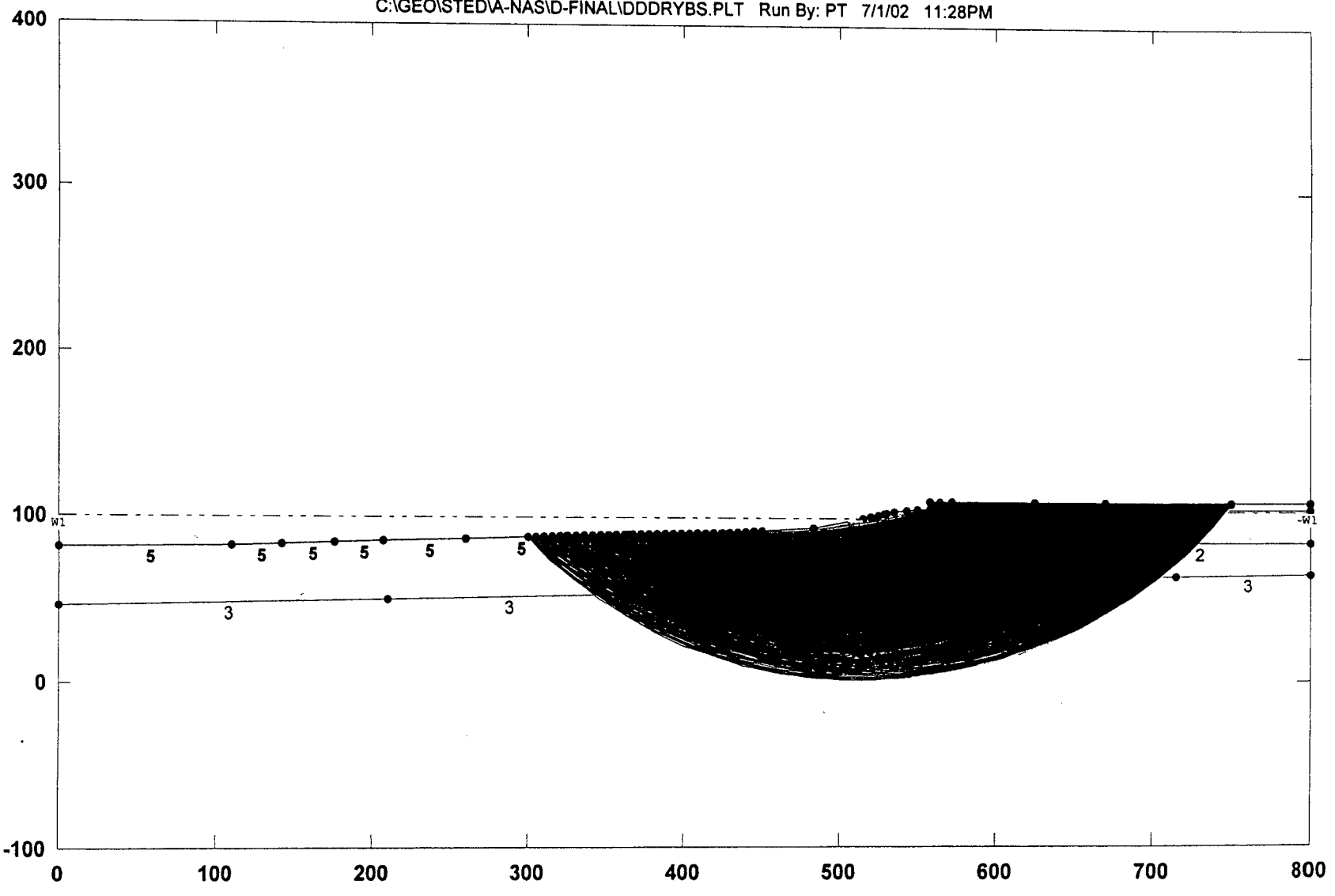
```
WATER
1 62.4
4
0. 100.
420. 100.
485. 105.
700. 105.
EQUAKE
0.187 0. 0.
SPENCR
15.
SURBIS #1-GGCMBBD.OUT
29
260.35 54.74
270.31 53.89
280.29 53.26
290.28 52.85
300.28 52.66
310.28 52.69
320.28 52.94
330.26 53.41
340.24 54.1
350.2 55.01
360.14 56.14
370.04 57.49
379.92 59.05
389.76 60.84
399.56 62.84
409.31 65.05
419.01 67.48
428.65 70.12
438.24 72.98
447.76 76.04
457.21 79.32
466.58 82.8
475.88 86.49
485.09 90.38
494.21 94.47
503.24 98.76
512.18 103.26
521.01 107.94
529.14 112.49
EXECUT
```

APPENDIX A6

ALTERNATIVE 6 – CONCRETE WALL

A-NAS, Section D-D', Dry Concrete Col's Long-Term Static Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBS.PLT Run By: PT 7/1/02 11:28PM



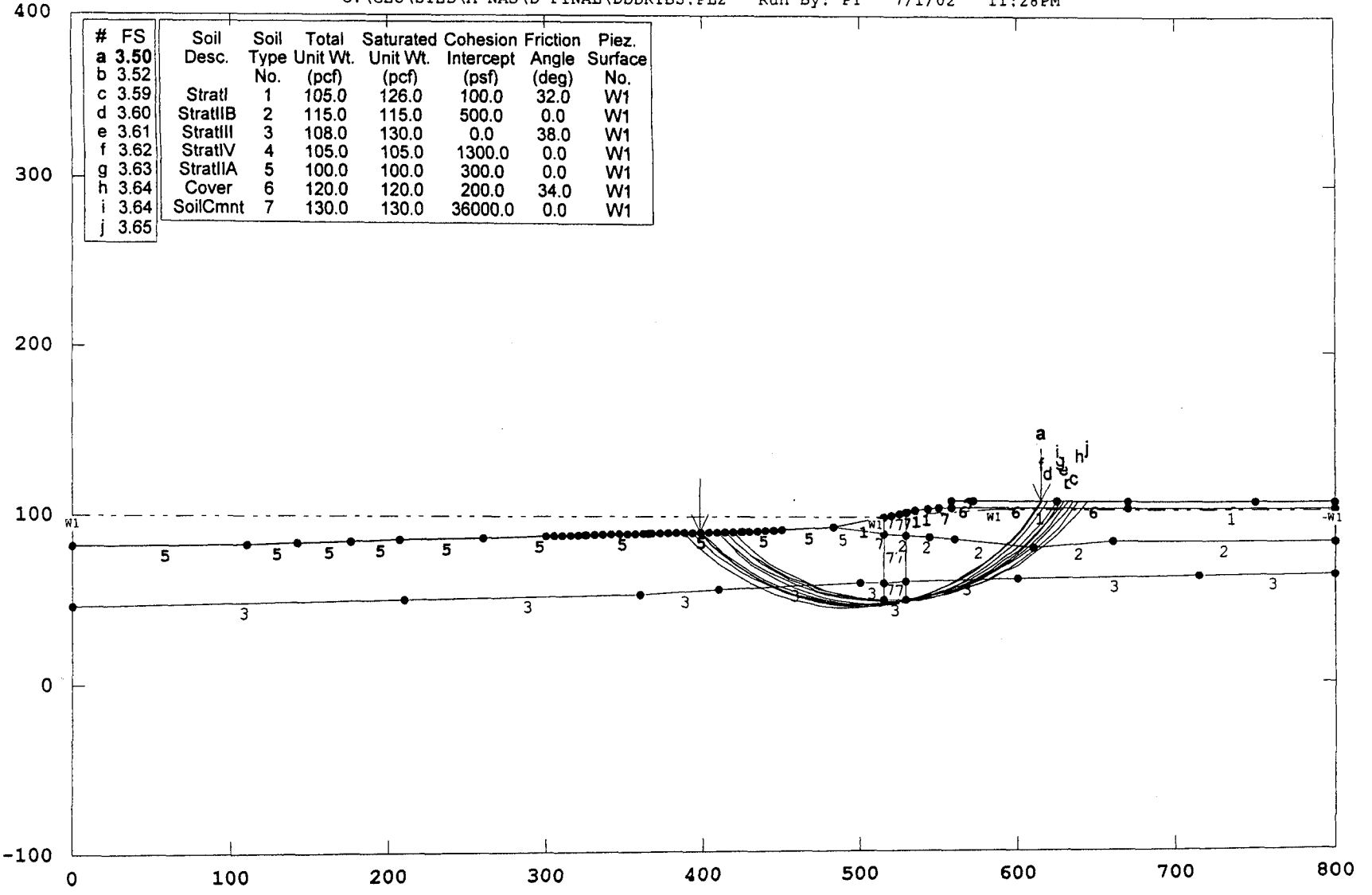
GSTABL7

A-NAS, Section D-D', Dry Concrete Col's Long-Term Static Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBS.PL2 Run By: PT 7/1/02 11:28PM

#	FS
a	3.50
b	3.52
c	3.59
d	3.60
e	3.61
f	3.62
g	3.63
h	3.64
i	3.64
j	3.65

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1



GSTABL7 v.2 FSmin=3.50

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

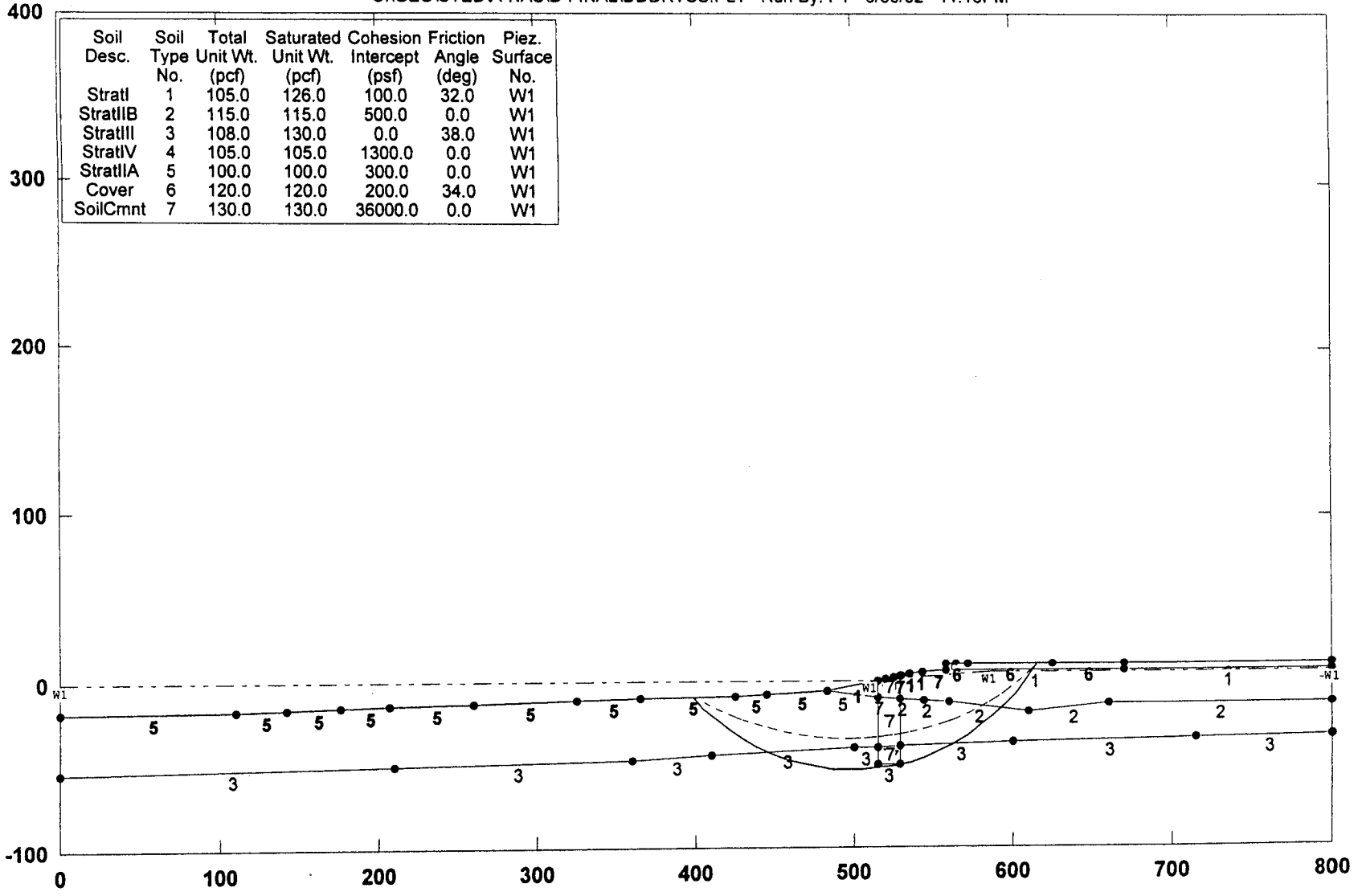
```
PROFIL  c:\geo\sted\a-nas\d-final\dddrybs.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', Dry Concrete Col's Long-Term Static Bishop Circular Search
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 100. 32. 0. 0. 1
```

```
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 36000. 0. 0. 0. 1
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS, Section D-D', Dry Concrete Col's Long-Term Static Spencer Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDDRYSS.PLT Run By: PT 6/30/02 11:13PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1



GSTABL7 v.2 FSmin=3.56

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

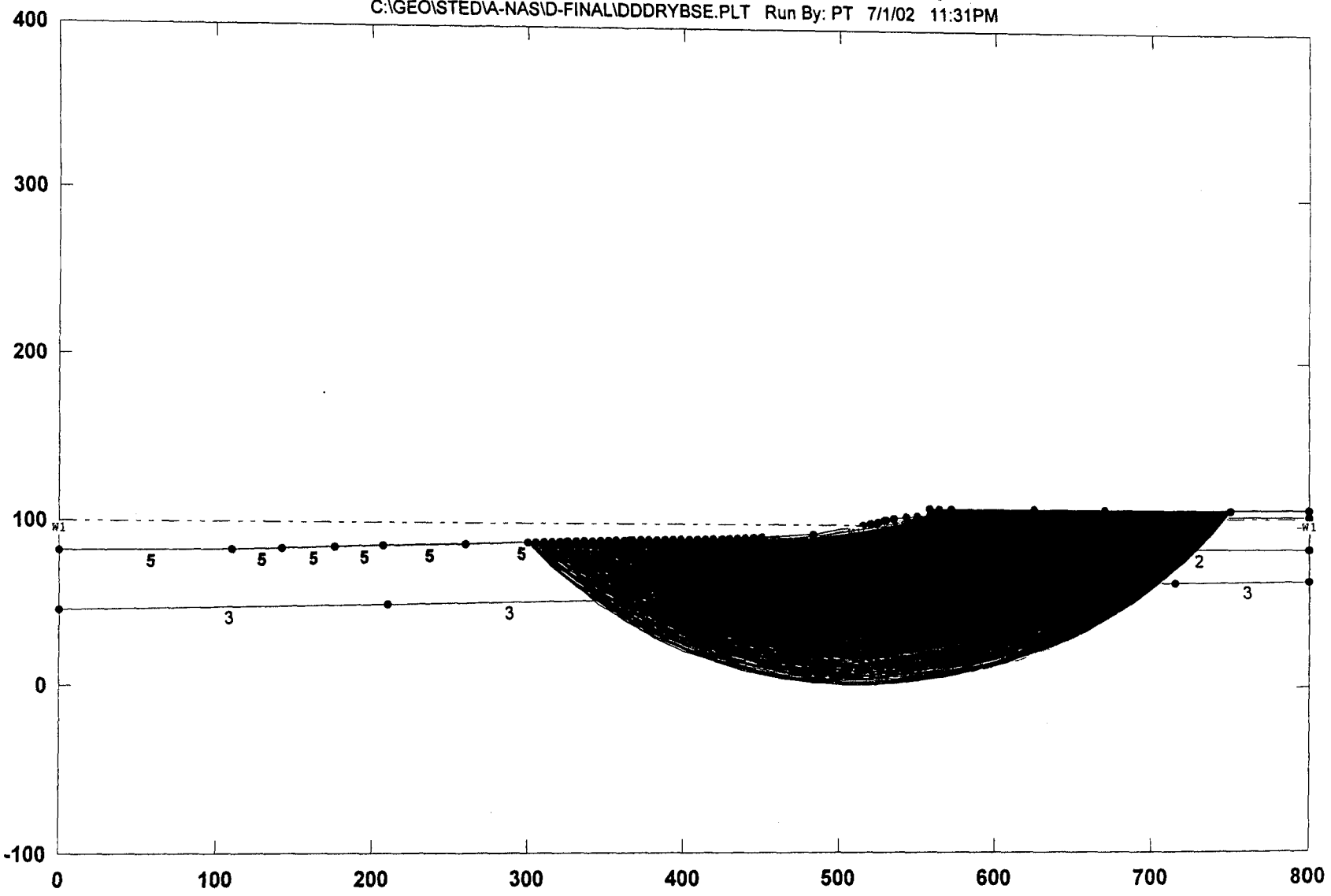
GSTABL7

```
PROFIL  C:\geo\sted\a-nas\d-final\dddryss.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', Dry Concrete Col's Long-Term Static Spencer Circular Search
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 100. 32. 0. 0. 1
```

```
 115. 115. 500. 0. 0. 0. 1
 108. 130. 0. 38. 0. 0. 1
 105. 105. 1300. 0. 0. 0. 1
 100. 100. 300. 0. 0. 0. 1
 120. 120. 200. 34. 0. 0. 1
 130. 130. 36000. 0. 0. 0. 1
 WATER
 1 62.4
 4 0.5
 0. 100.
 510. 100.
 585. 105.
 800. 105.
 GLEMS
 10.
 1       Water filled tension crack (0=no,1=yes)
 0       Force Distribution (0=Single slice,1=Entire failure surf)
 0       Select Method (0=Spencer,1=Morgenstern-Price)
 2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
 1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
 0       Trial Lambda Adjustment option (0=no, 1=yes)
 SURBIS
 27
 398.28 90.55
 405.35 83.48
 412.91 76.94
 420.93 70.97
 429.36 65.59
 438.16 60.84
 447.28 56.74
 456.68 53.31
 466.29 50.57
 476.08 48.53
 486. 47.21
 495.98 46.61
 505.98 46.73
 515.94 47.58
 525.82 49.15
 535.55 51.43
 545.1 54.41
 554.4 58.07
 563.42 62.4
 572.1 67.37
 580.39 72.96
 588.26 79.13
 595.66 85.86
 602.55 93.1
 608.9 100.83
 614.68 108.99
 615.35 110.1
 EXECUT
```

A-NAS - Section D-D', Dry Concrete Col'sPost-EQ, Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBSE.PLT Run By: PT 7/1/02 11:31PM



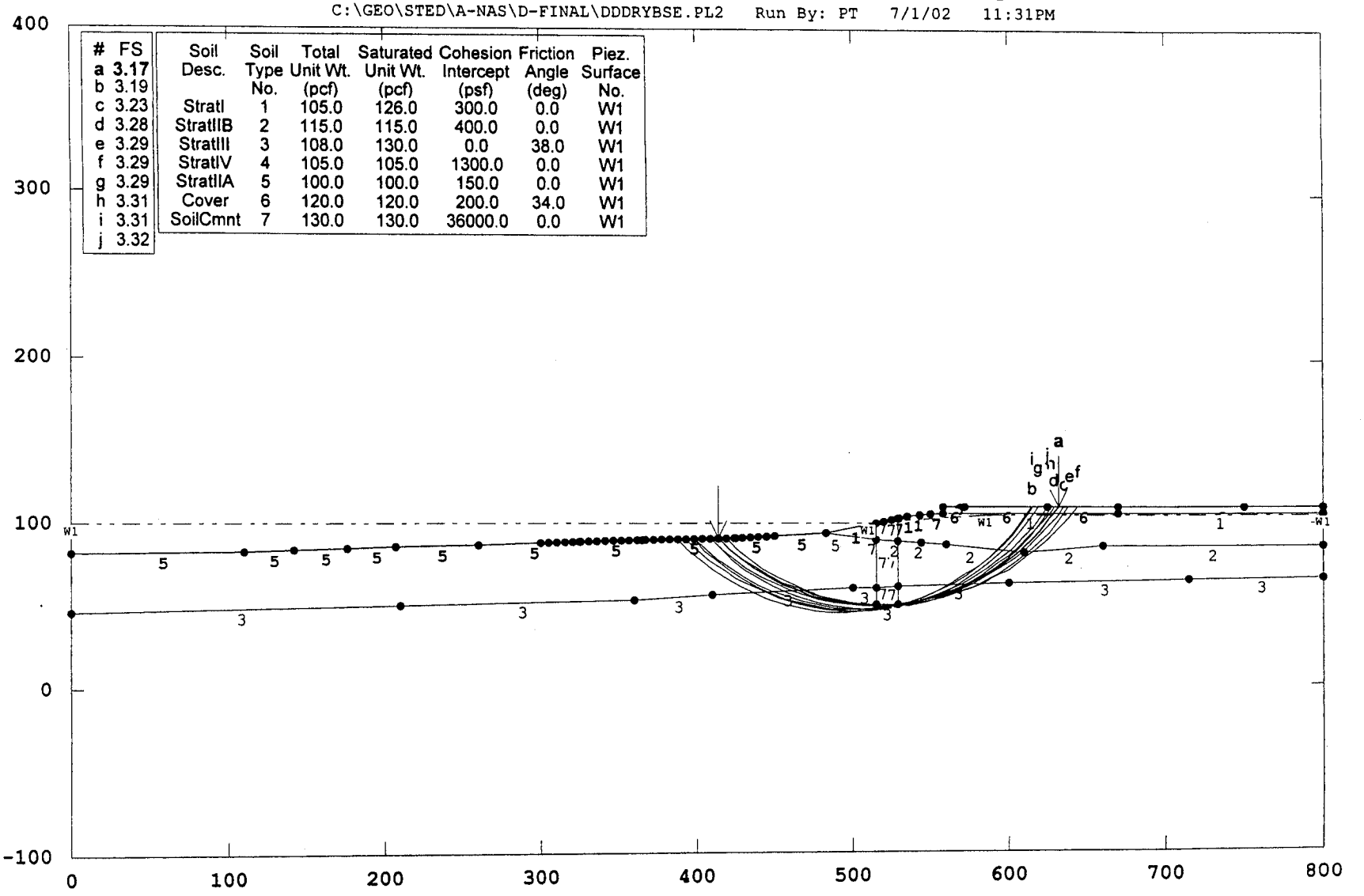
GSTABL7

A-NAS - Section D-D', Dry Concrete Col'sPost-EQ, Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBSE.PL2 Run By: PT 7/1/02 11:31PM

#	FS
a	3.17
b	3.19
c	3.23
d	3.28
e	3.29
f	3.29
g	3.29
h	3.31
i	3.31
j	3.32

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1



GSTABL7 v.2 FSmin=3.17

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

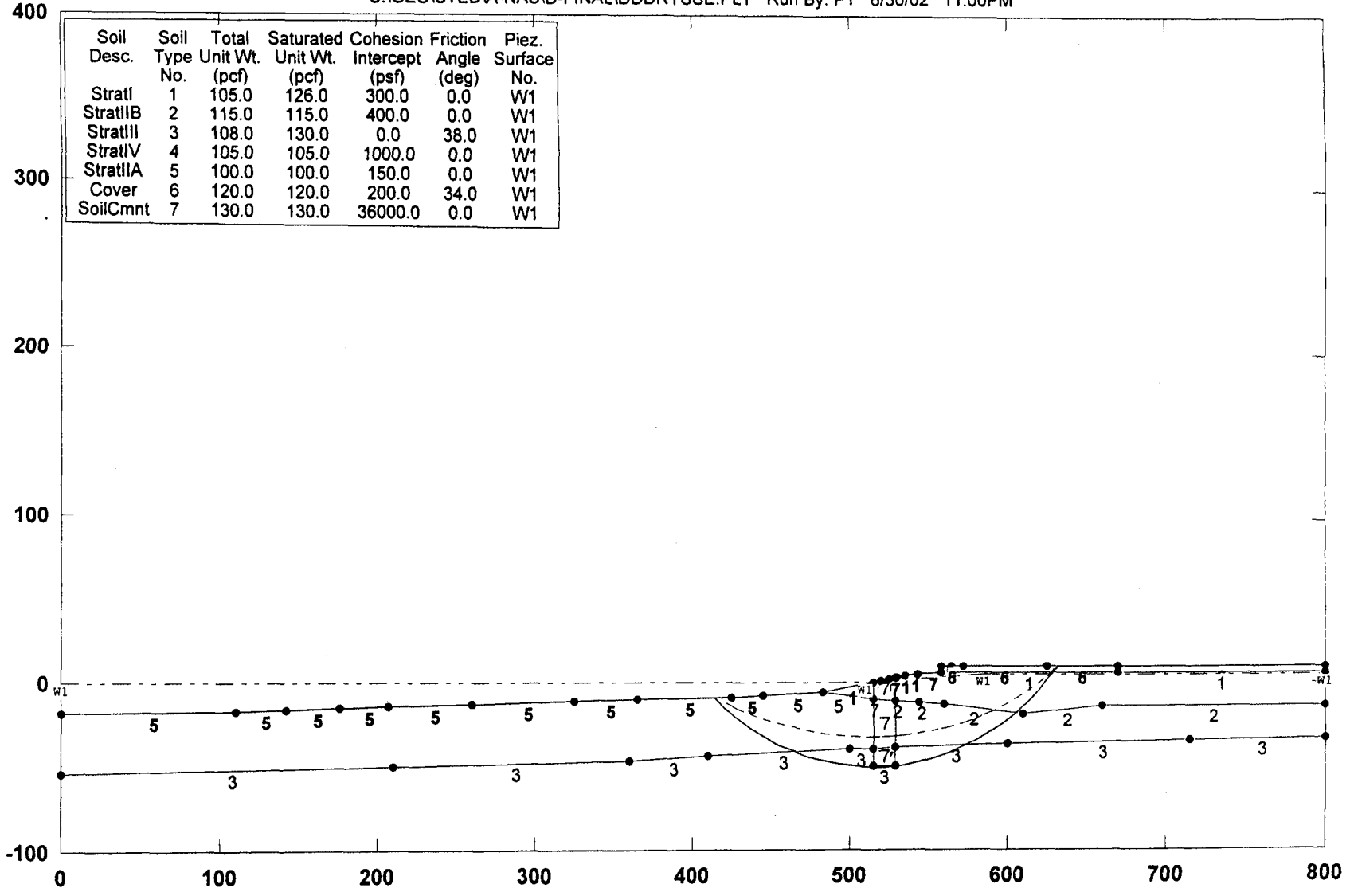
```
PROFIL  c:\geo\sted\a-nas\d-final\dddrybse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', Dry Concrete Col'sPost-EQ, Bishop Circular Search
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 300. 0. 0. 0. 1
```

```
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 36000. 0. 0. 0. 1
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS - Section D-D', Dry Concrete Col'sPost-EQ Spencer Static Slope Stability

C:\GEO\STED\A-NAS\D-FINAL\DDDRYSSE.PLT Run By: PT 6/30/02 11:00PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1000.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1



GSTABL7 v.2 FSmin=3.24

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

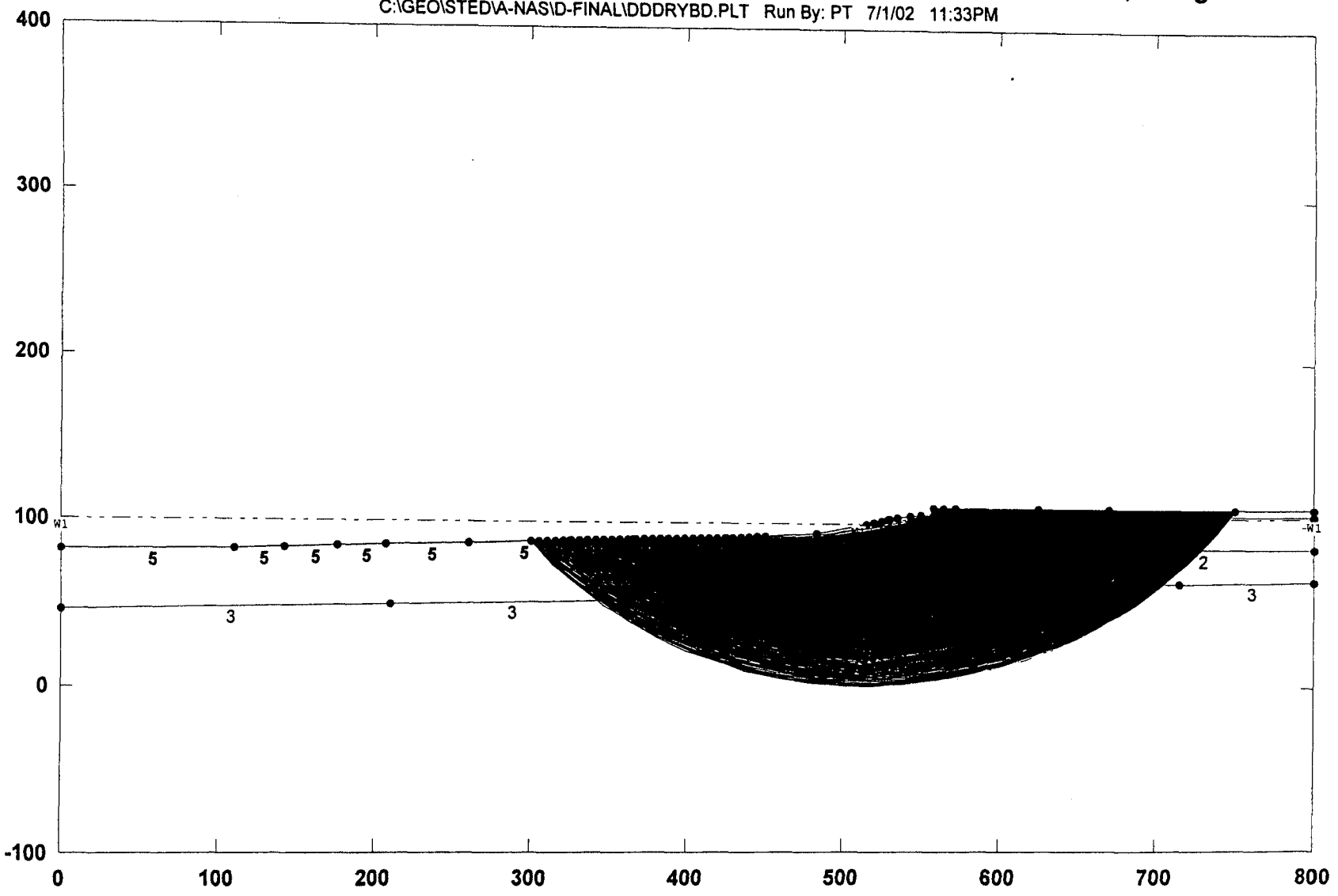
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\d-final\dddrysse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', Dry Concrete Col'sPost-EQ Spencer Static Slope Stability
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 300. 0. 0. 0. 1
```

```
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 36000. 0. 0. 0. 1
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
GLEMS
5.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
26
413.79 90.81
421.13 84.02
428.92 77.75
437.13 72.03
445.71 66.91
454.64 62.4
463.85 58.52
473.32 55.29
482.99 52.73
492.81 50.85
502.74 49.66
512.72 49.16
522.72 49.36
532.68 50.26
542.55 51.86
552.29 54.13
561.85 57.08
571.17 60.69
580.22 64.94
588.96 69.81
597.33 75.28
605.3 81.32
612.83 87.9
619.88 94.99
626.42 102.55
632.08 110.1
EXECUT
```

A-NAS - Section D-D', Dry Concrete Col'sDynamic Bishop Circular Search, 0.25g

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBD.PLT Run By: PT 7/1/02 11:33PM



GSTABL7

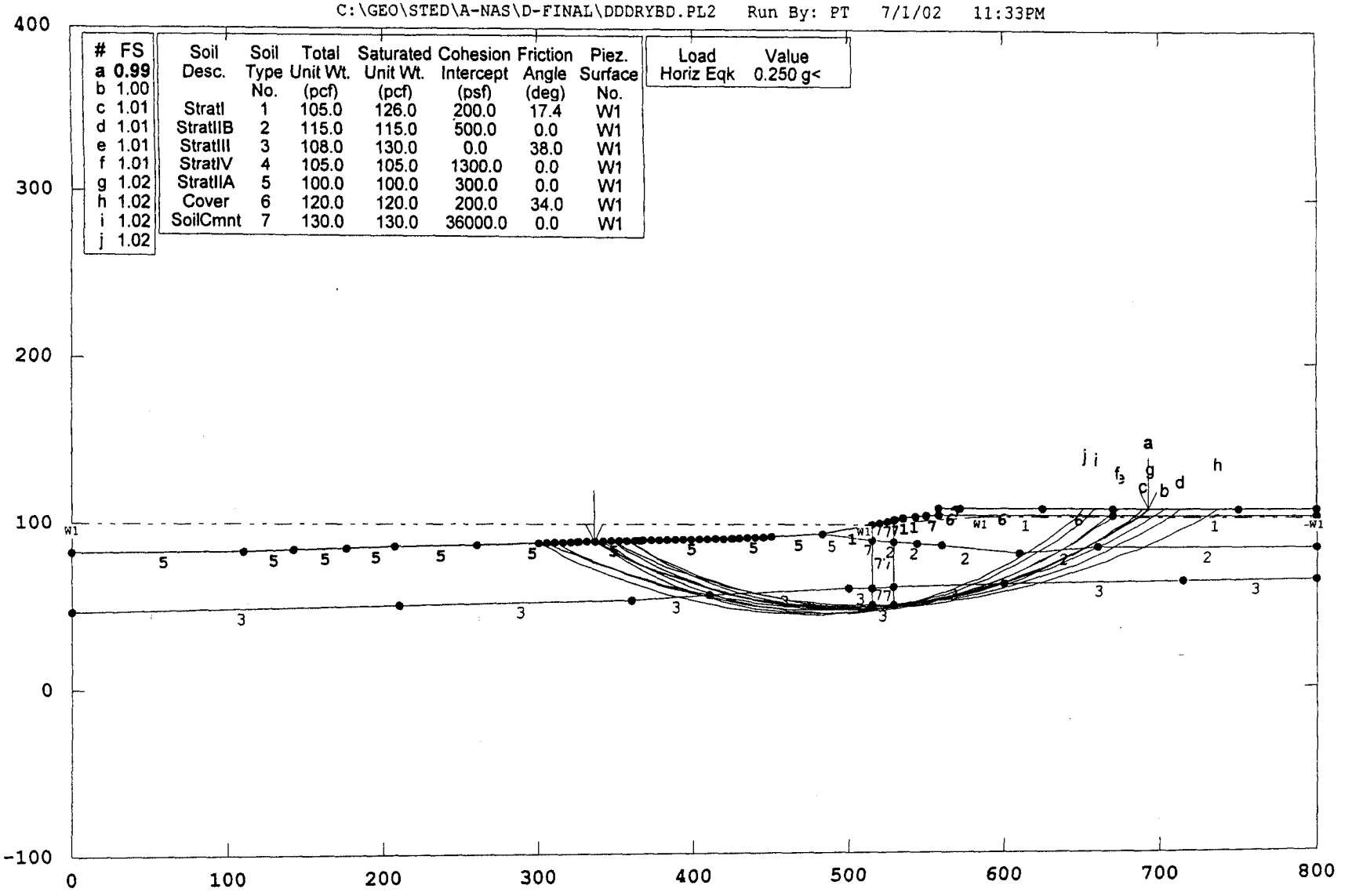
A-NAS - Section D-D', Dry Concrete Col'sDynamic Bishop Circular Search, 0.25g

C:\GEO\STED\A-NAS\D-FINAL\DDDRYBD.PL2 Run By: PT 7/1/02 11:33PM

#	FS
a	0.99
b	1.00
c	1.01
d	1.01
e	1.01
f	1.01
g	1.02
h	1.02
i	1.02
j	1.02

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1

Load	Value
Horiz Eqk	0.250 g<



GSTABL7 v.2 FSmin=0.99

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

```
PROFIL  c:\geo\sted\a-nas\d-final\dddrybd.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', Dry Concrete Col'sDynamic Bishop Circular Search, 0.25g
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 200. 17.4 0. 0. 1
```

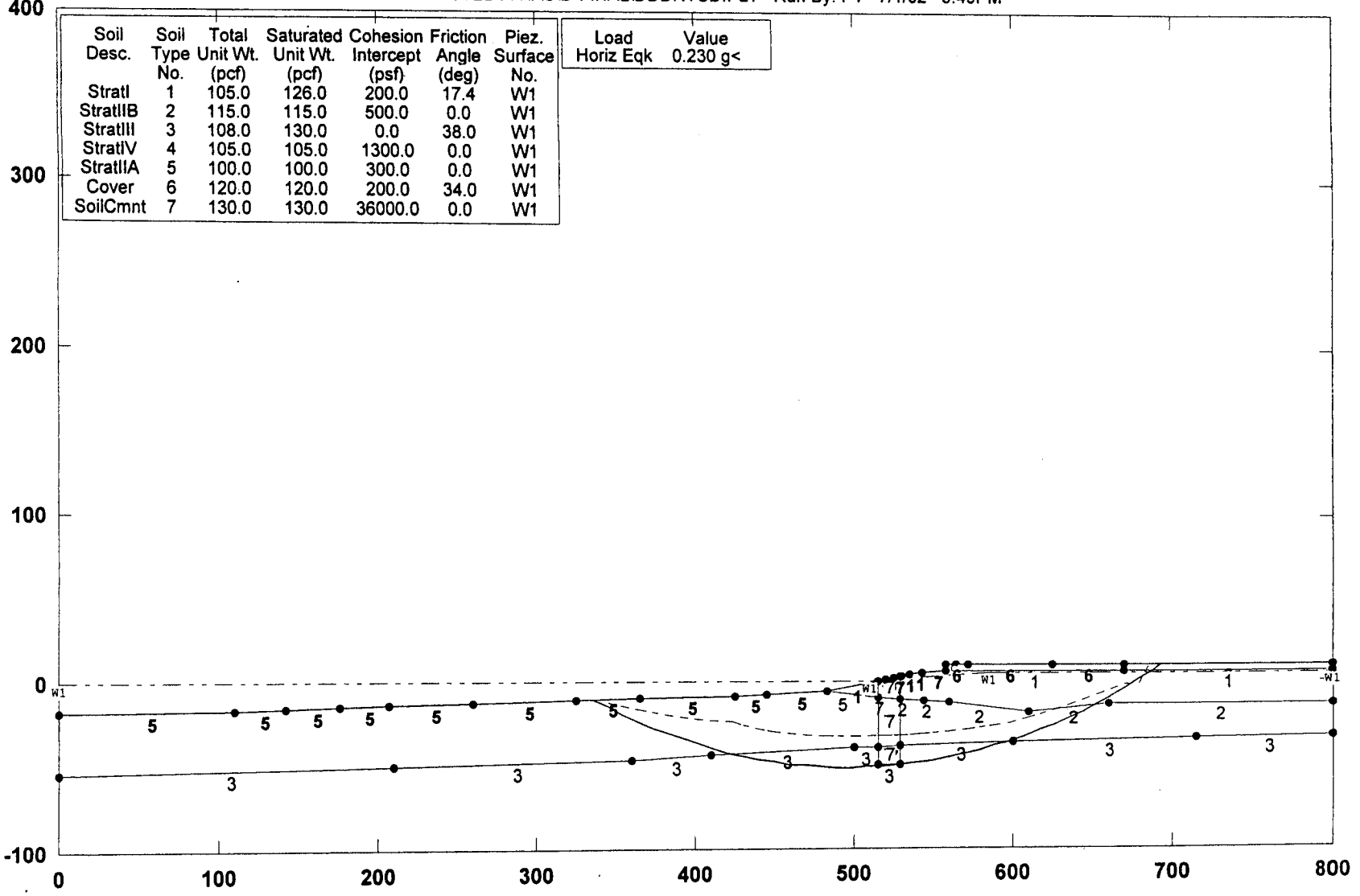
```
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 36000. 0. 0. 0. 1
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.25 0. 0.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS - Section D-D', Dry Concrete Col'sSpencer Dynamic Slope Stability, Ky=0.23

C:\GEO\STED\A-NAS\D-FINAL\DDDRYSD.PLT Run By: PT 7/1/02 9:49PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
SoilCmnt	7	130.0	130.0	36000.0	0.0	W1

Load	Value
Horiz Eqk	0.230 g<



GSTABL7 v.2 FSmin=1.01

Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

```
PROFIL  c:\geo\sted\a-nas\d-final\dddrysd.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', Dry Concrete Col'sSpencer Dynamic Slope Stability, Ky=0.23
48 23
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 520. 101.15 7
520. 101.15 525. 102.1 7
525. 102.1 529. 103. 7
529. 103. 530. 103.1 7
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 7
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
529. 103. 529.1 89. 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 529.1 89. 7
529.1 89. 543.9 88. 2
529.1 89. 529.2 60.9 7
543.9 88. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 529.2 60.9 7
529.2 60.9 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 50. 514.9 60.45 7
529.2 60.9 529.3 50. 7
514.8 50. 529.3 50. 3
0.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   SoilCmnt
7
105. 126. 200. 17.4 0. 0. 1
```

```
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 36000. 0. 0. 0. 1
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.23 0. 0.
GLEMS
4.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
39
336.21 89.28
345.07 84.65
354.07 80.28
363.19 76.18
372.42 72.35
381.77 68.79
391.22 65.51
400.76 62.51
410.38 59.79
420.08 57.36
429.84 55.21
439.67 53.35
449.55 51.78
459.46 50.5
469.42 49.51
479.39 48.82
489.38 48.42
499.38 48.31
509.38 48.5
519.37 48.99
529.34 49.76
539.28 50.83
549.19 52.19
559.05 53.85
568.86 55.79
578.61 58.02
588.29 60.53
597.89 63.33
607.4 66.42
616.82 69.77
626.14 73.41
635.34 77.32
```

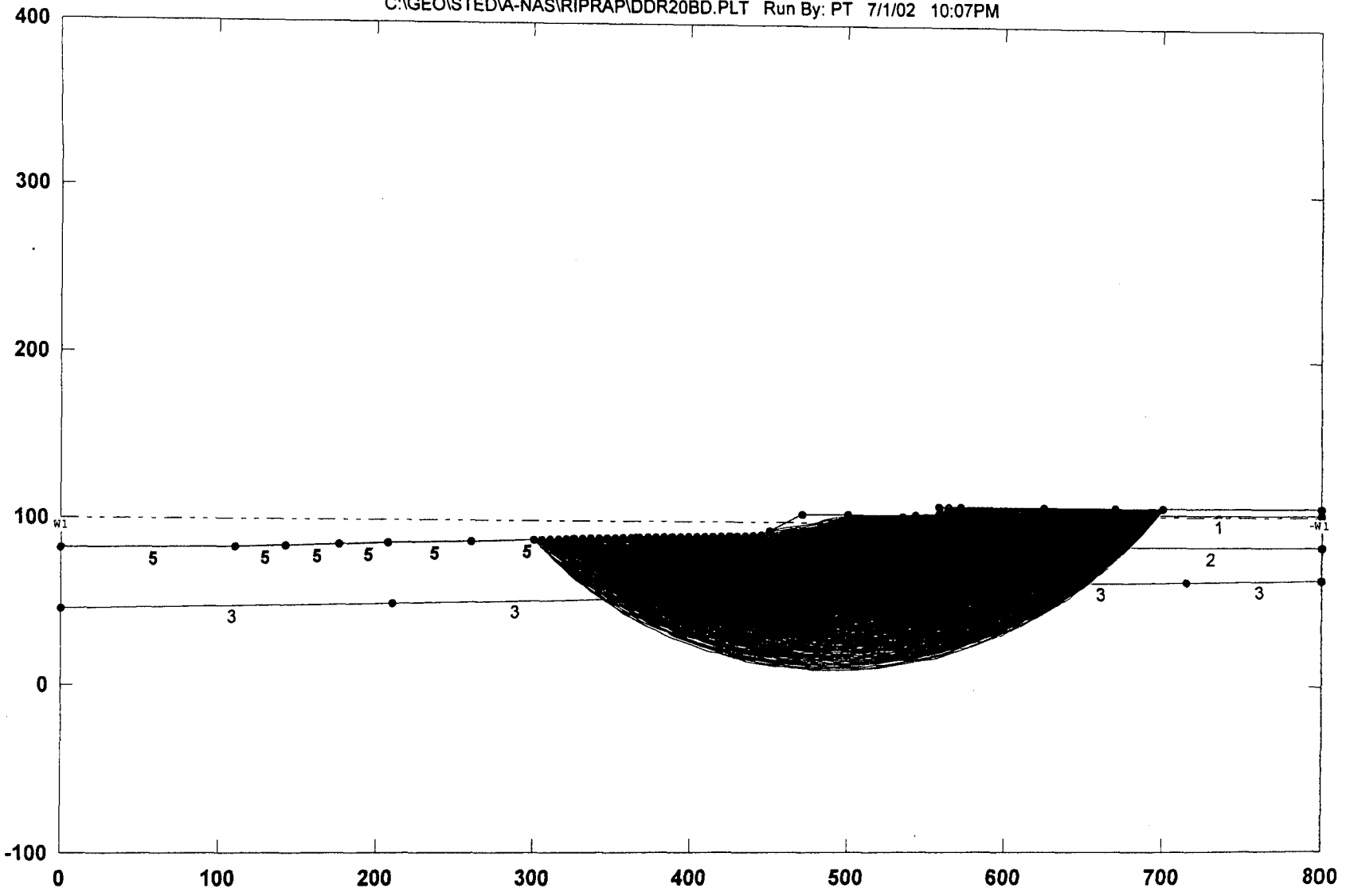
```
644.43 81.49
653.39 85.94
662.21 90.64
670.89 95.6
679.42 100.82
687.8 106.28
693.17 110.01
EXECUT
```

APPENDIX A7

ALTERNATIVE 7 – EXCAVATION WITH RIPRAP

A-NAS - Section D-D', 20 ft Rip-Rap Dynamic Bishop Circular Search, 0.03g

C:\GEO\STED\A-NAS\RIPRAP\DDR20BD.PLT Run By: PT 7/1/02 10:07PM



GSTABL7

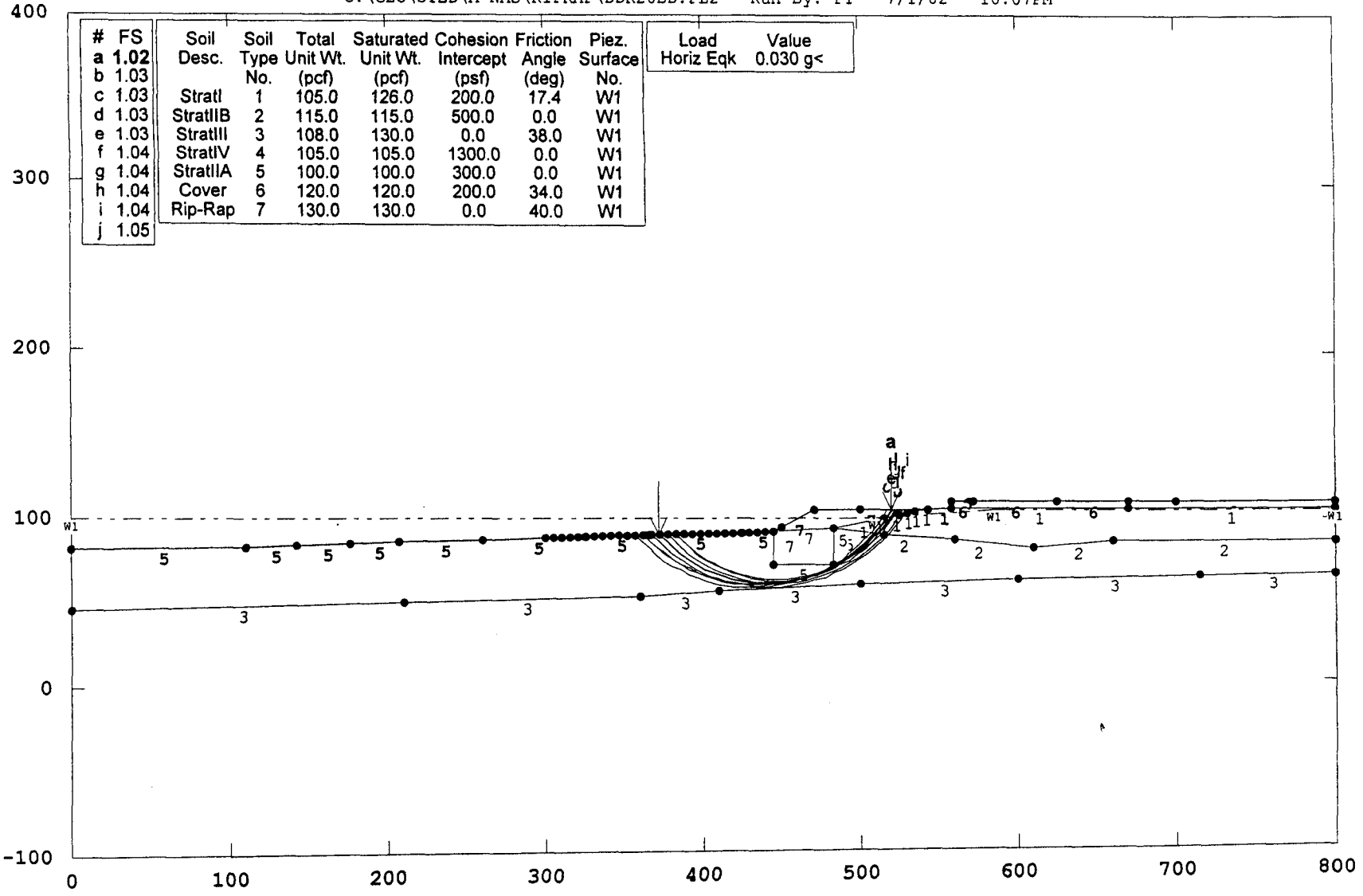
A-NAS - Section D-D', 20 ft Rip-Rap Dynamic Bishop Circular Search, 0.03g

C:\GEO\STED\A-NAS\RIPRAP\DDR20BD.PL2 Run By: PT 7/1/02 10:07PM

#	FS
a	1.02
b	1.03
c	1.03
d	1.03
e	1.03
f	1.04
g	1.04
h	1.04
i	1.04
j	1.05

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1

Load	Value
Horiz Eqk	0.030 g<



GSTABL7 v.2 FSmin=1.02

Safety Factors Are Calculated By The Modified Bishop Method

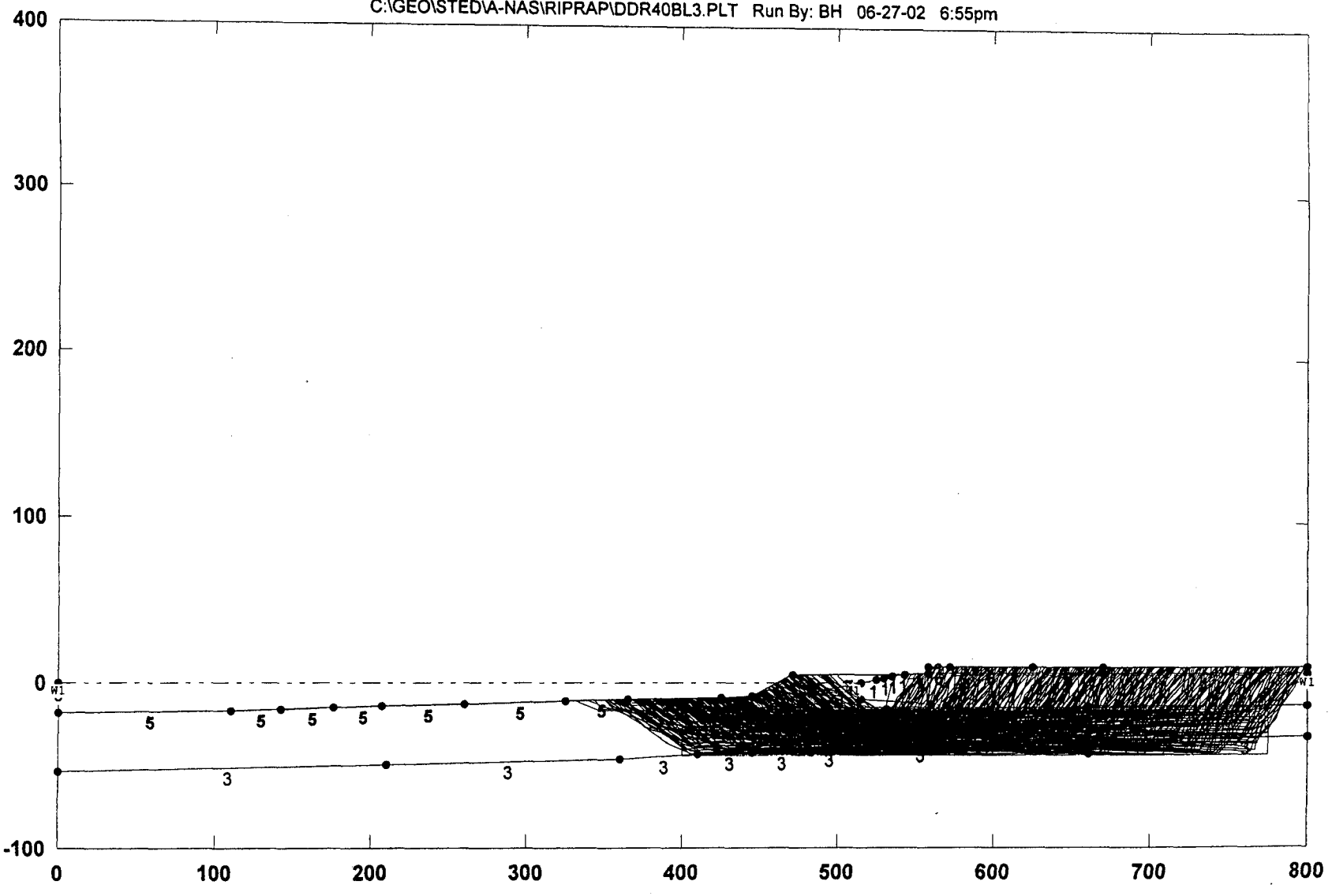
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr20bd.in Version G7v.2 [GSTABL72.EXE] /O(0, -
100)
e
A-NAS - Section D-D', 20 ft Rip-Rap     Dynamic Bishop Circular Search, 0.03g
40 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 72. 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
444.9 72. 482.9 72. 5
482.9 72. 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
WATER
1 62.4
```

```
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.03 0. 0.
CIRCL2-Bishop circular, search
30 100
300. 450. 500. 700.
0. 6. 0. 0.
```

A-NAS - Section D-D', 40 ft Rip-Rap Static Block Search, Janbu

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL3.PLT Run By: BH 06-27-02 6:55pm



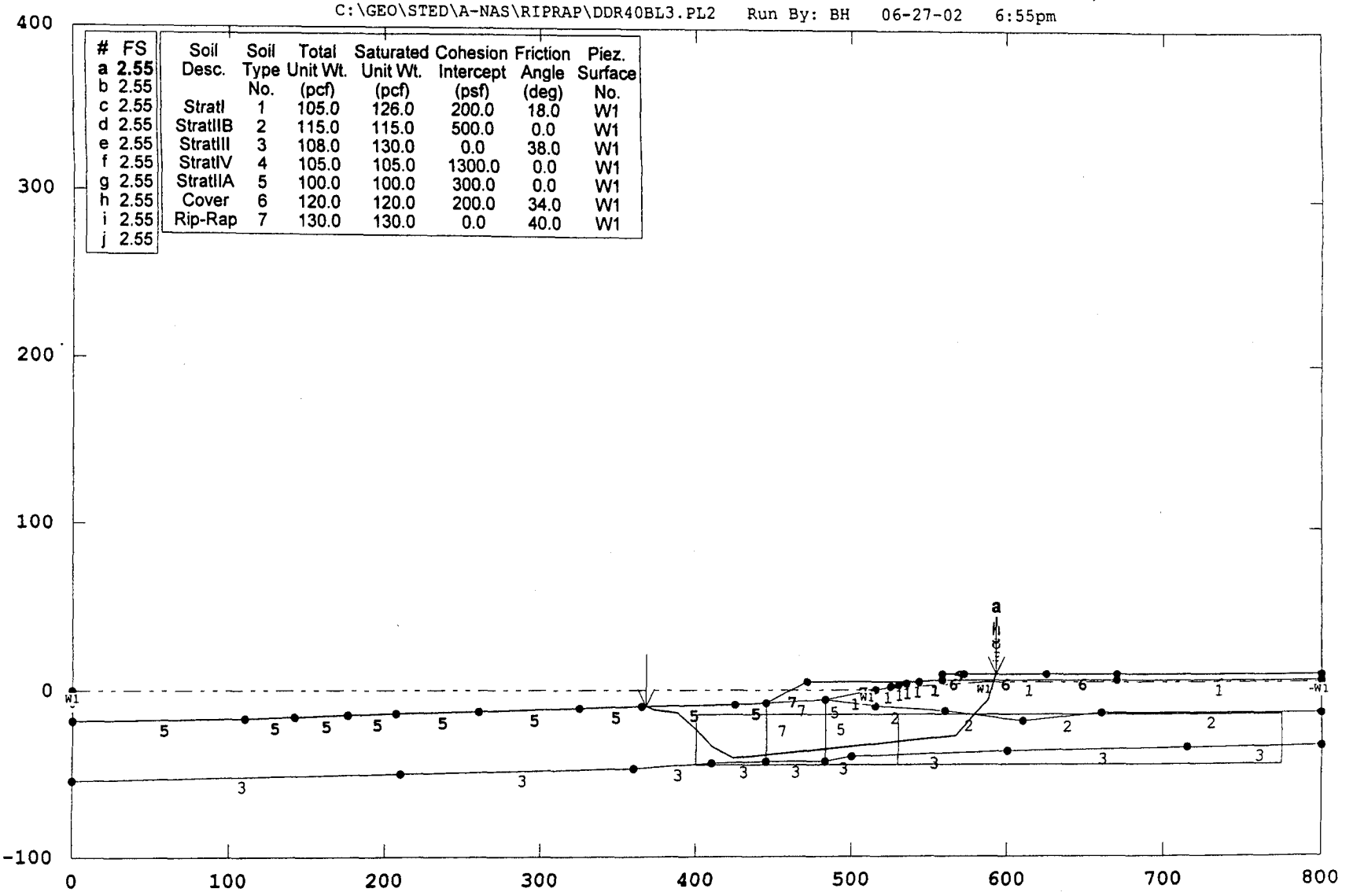
GSTABL7

A-NAS - Section D-D', 40 ft Rip-Rap Static Block Search, Janbu

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL3.PL2 Run By: BH 06-27-02 6:55pm

#	FS
a	2.55
b	2.55
c	2.55
d	2.55
e	2.55
f	2.55
g	2.55
h	2.55
i	2.55
j	2.55

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	18.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1



PCSTABL5M FSmin=2.55

Safety Factors Are Calculated By The Modified Janbu Method

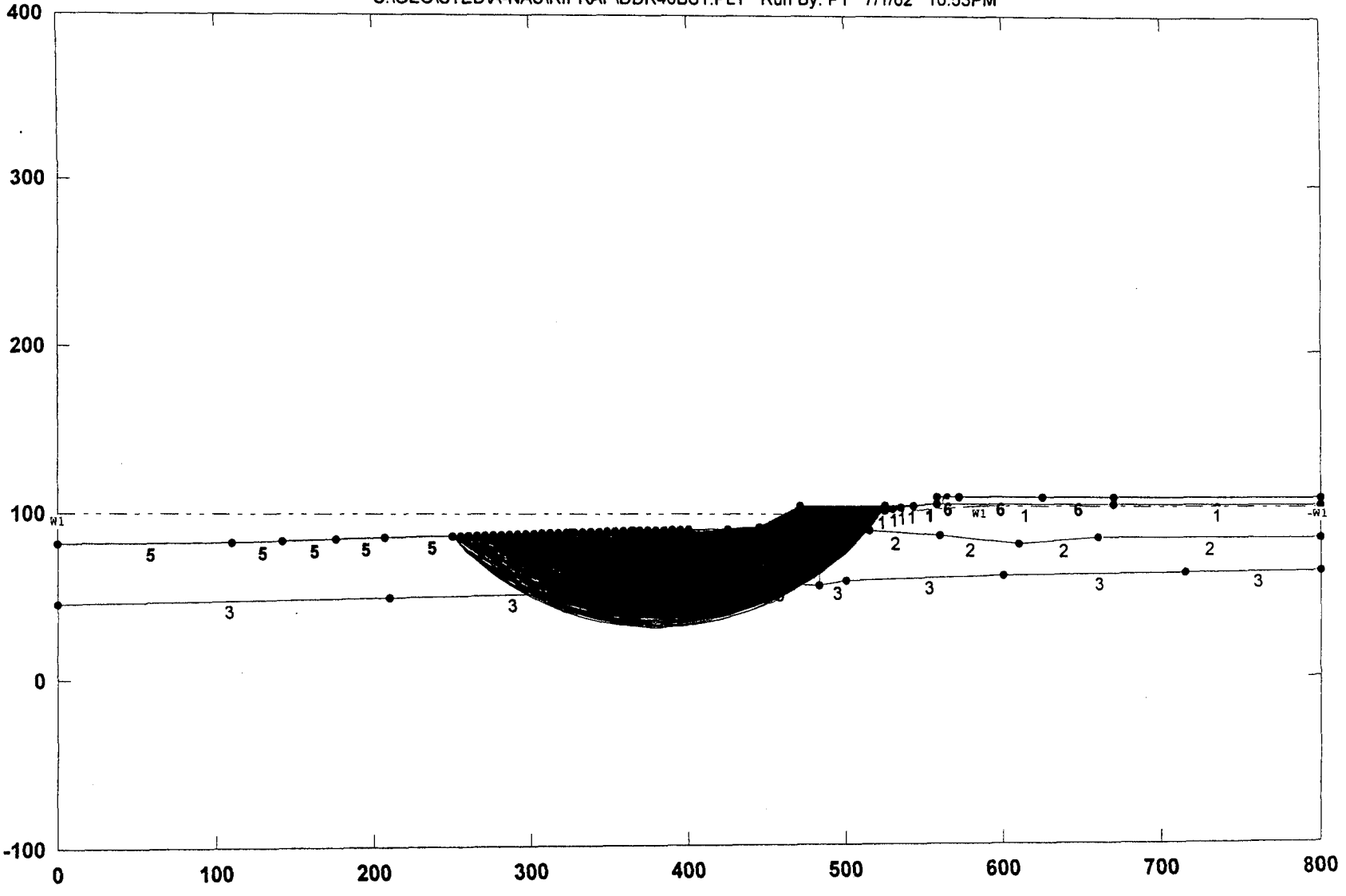
GSTABL7

```
PROFIL        C:\GEO\STED\A-NAS\RIPRAP\DDR40BL3.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', 40 ft Rip-Rap     Static Block Search, Janbu
42 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
0. 100. 0. 100. 0
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 200. 18. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
WATER
1 62.4
```

```
4
0. 100.
510. 100.
585. 105.
800. 105.
BLOCK -Sliding block, search
0
4000 2 15.
400. 70. 529.9 70. 30.
530. 70. 775. 70. 30.
```

A-NAS - Section D-D', 40 ft Rip-Rap Static Long-Term Bishop Circular Search

C:\GEO\STED\A-NAS\RIPRAP\DDR40BS1.PLT Run By: PT 7/1/02 10:53PM



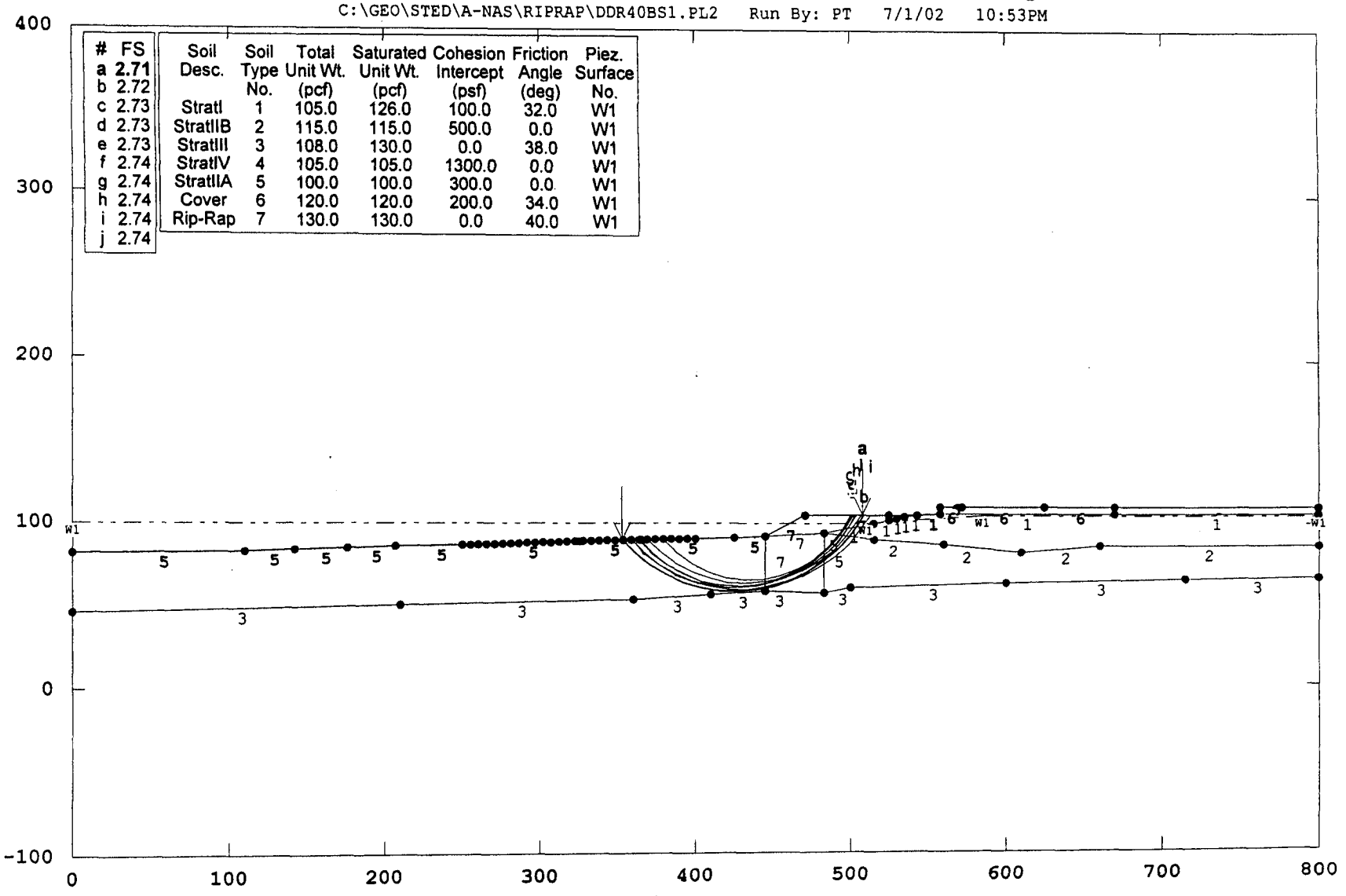
GSTABL7

A-NAS - Section D-D', 40 ft Rip-Rap Static Long-Term Bishop Circular Search

C:\GEO\STED\A-NAS\RIPRAP\DDR40BS1.PL2 Run By: PT 7/1/02 10:53PM

#	FS
a	2.71
b	2.72
c	2.73
d	2.73
e	2.73
f	2.74
g	2.74
h	2.74
i	2.74
j	2.74

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1



GSTABL7 v.2 FSmin=2.71

Safety Factors Are Calculated By The Modified Bishop Method

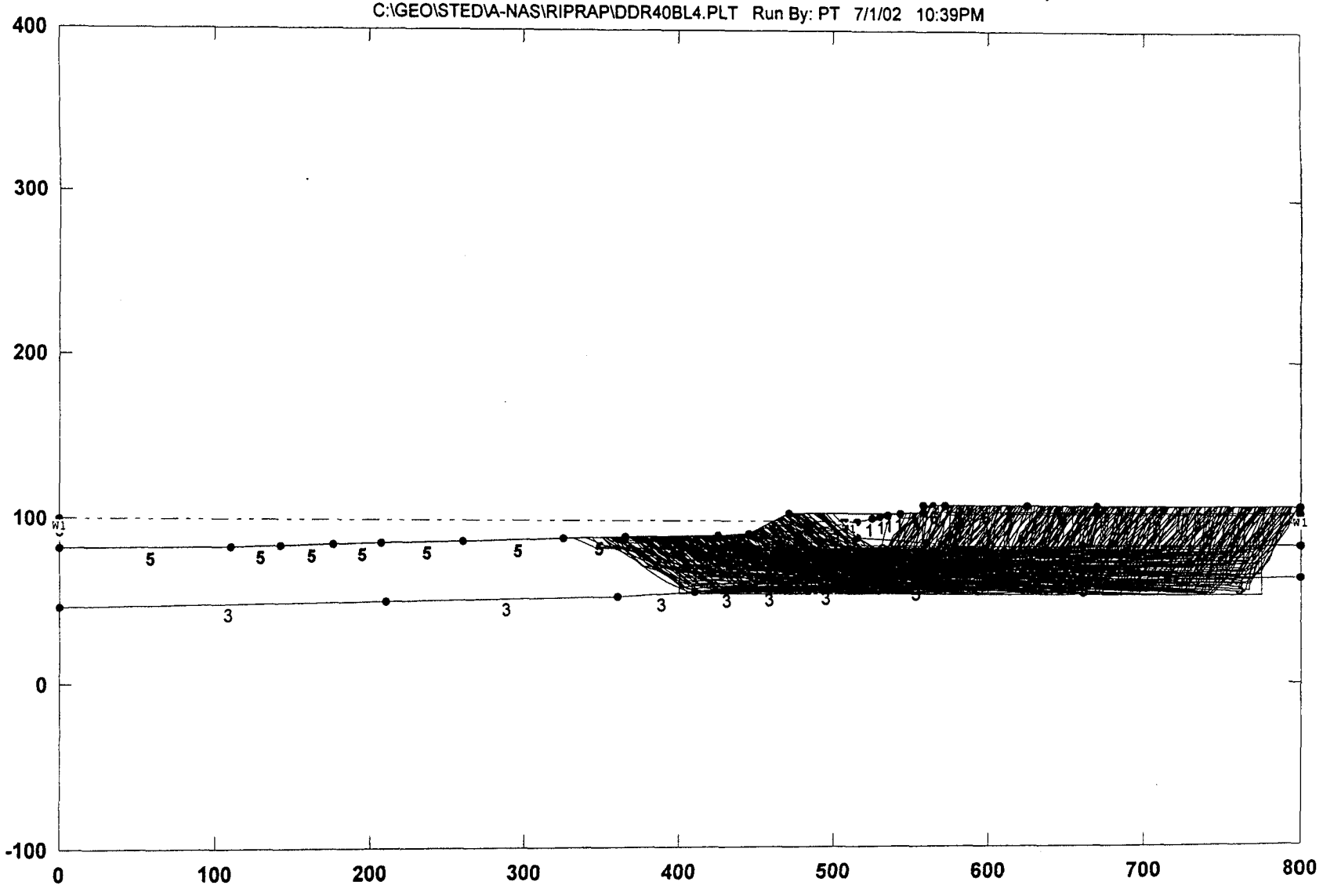
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr40bs1.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', 40 ft Rip-Rap     Static Long-Term Bishop Circular Search
41 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
WATER
```

```
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
250. 400. 425. 525.
0. 12. 0. 0.
```

A-NAS - Section D-D', 40 ft Rip-Rap Post-EQ Static Block Search, Janbu

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL4.PLT Run By: PT 7/1/02 10:39PM



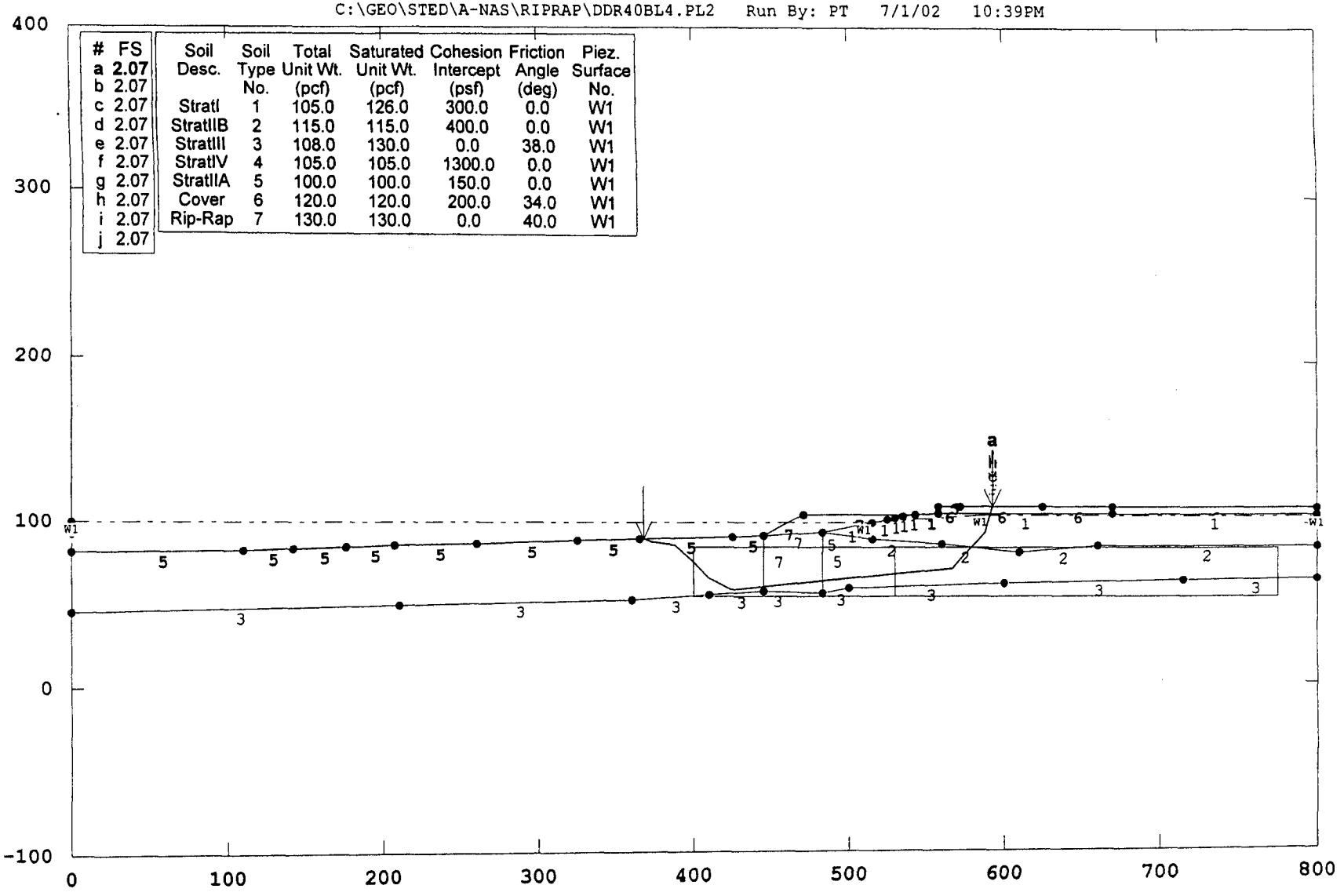
GSTABL7

A-NAS - Section D-D', 40 ft Rip-Rap Post-EQ Static Block Search, Janbu

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL4.PL2 Run By: PT 7/1/02 10:39PM

#	FS
a	**2.07**
b	2.07
c	2.07
d	2.07
e	2.07
f	2.07
g	2.07
h	2.07
i	2.07
j	2.07

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1



GSTABL7 v.2 FSmin=2.07

Safety Factors Are Calculated By The Simplified Janbu Method

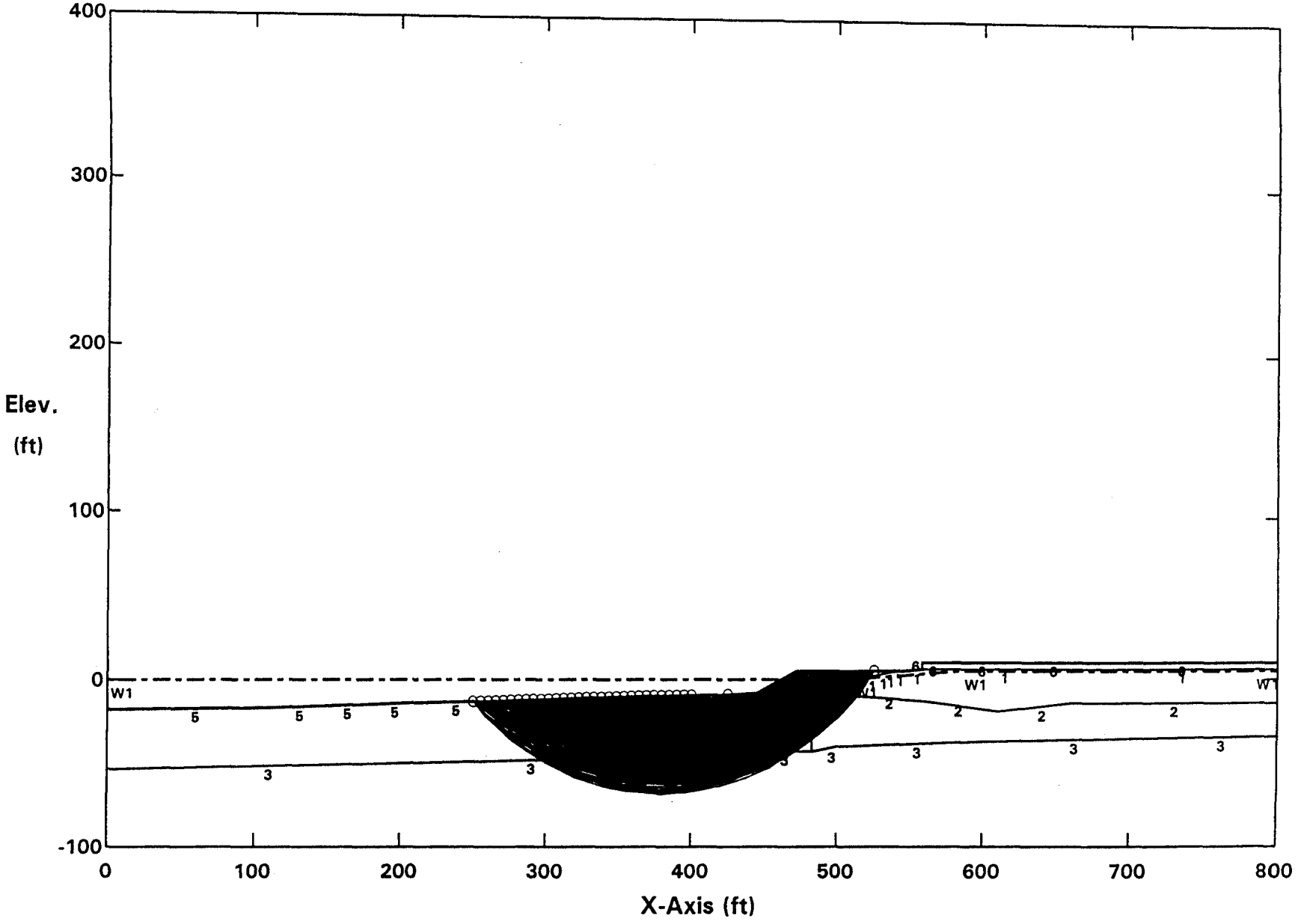
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr40bl4.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', 40 ft Rip-Rap     Post-EQ Static Block Search, Janbu
42 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
0. 100. 0. 100. 0
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
```

```
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
BLOCK -Sliding block, search
0
4000 2 15.
400. 70. 529.9 70. 30.
530. 70. 775. 70. 30.
```

A-NAS - Section D-D', 40 ft Rip-Rap, Post-EQ Static Bishop Circular Search

All surfaces evaluated. C:DDR40BS2.PLT By: BH 07-01-02 11:15pm



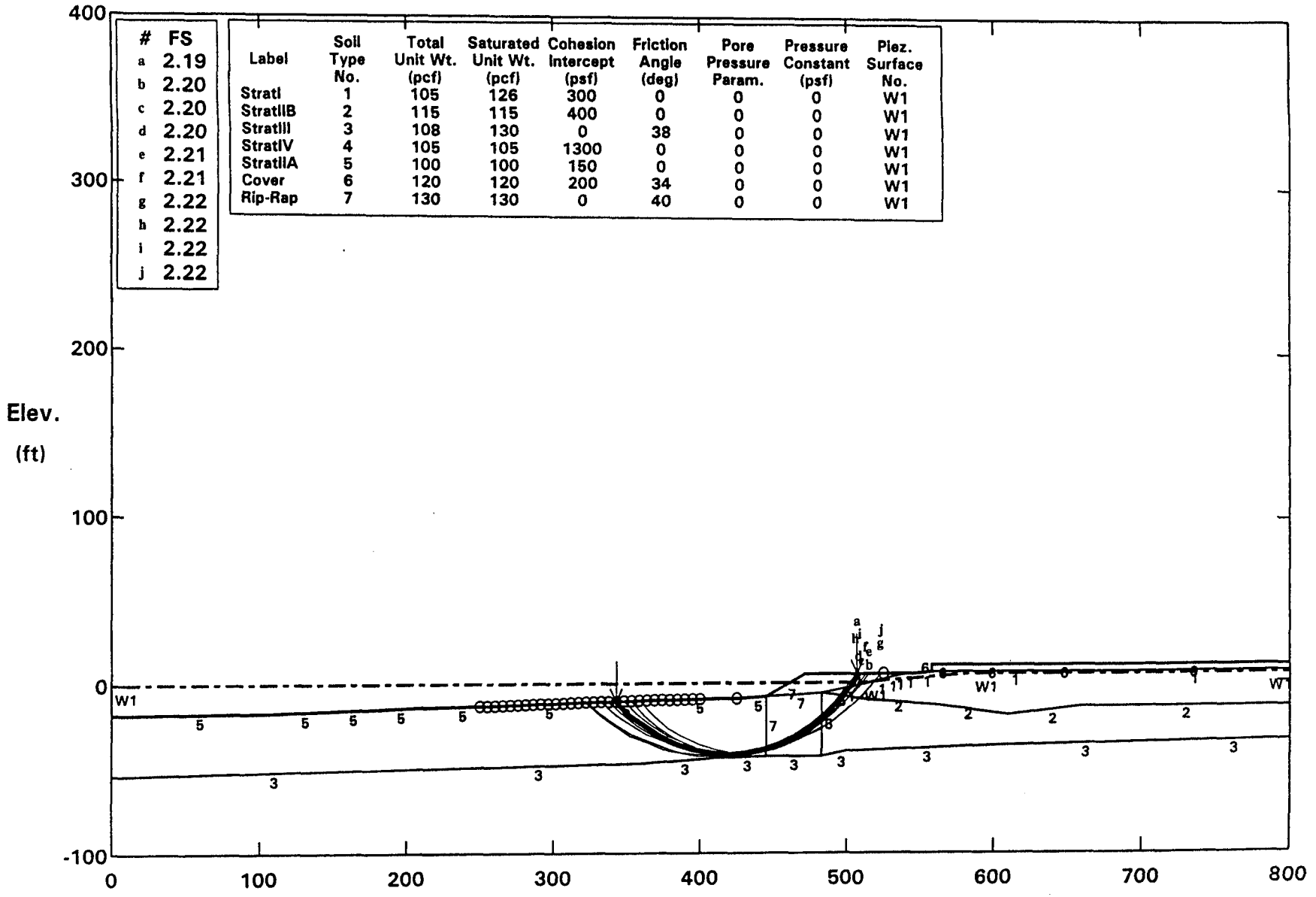
Factors Of Safety Calculated By The Modified Bishop Method

A-NAS - Section D-D', 40 ft Rip-Rap, Post-EQ Static Bishop Circular Search

Ten Most Critical. C:DDR40BS2.PLT By: BH 07-01-02 11:15pm

#	FS
a	2.19
b	2.20
c	2.20
d	2.20
e	2.21
f	2.21
g	2.22
h	2.22
i	2.22
j	2.22

Label	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.
StratI	1	105	126	300	0	0	0	W1
StratIIB	2	115	115	400	0	0	0	W1
StratIII	3	108	130	0	38	0	0	W1
StratIV	4	105	105	1300	0	0	0	W1
StratIIA	5	100	100	150	0	0	0	W1
Cover	6	120	120	200	34	0	0	W1
Rip-Rap	7	130	130	0	40	0	0	W1



PCSTABL5M FSmin = 2.19 X-Axis (ft)

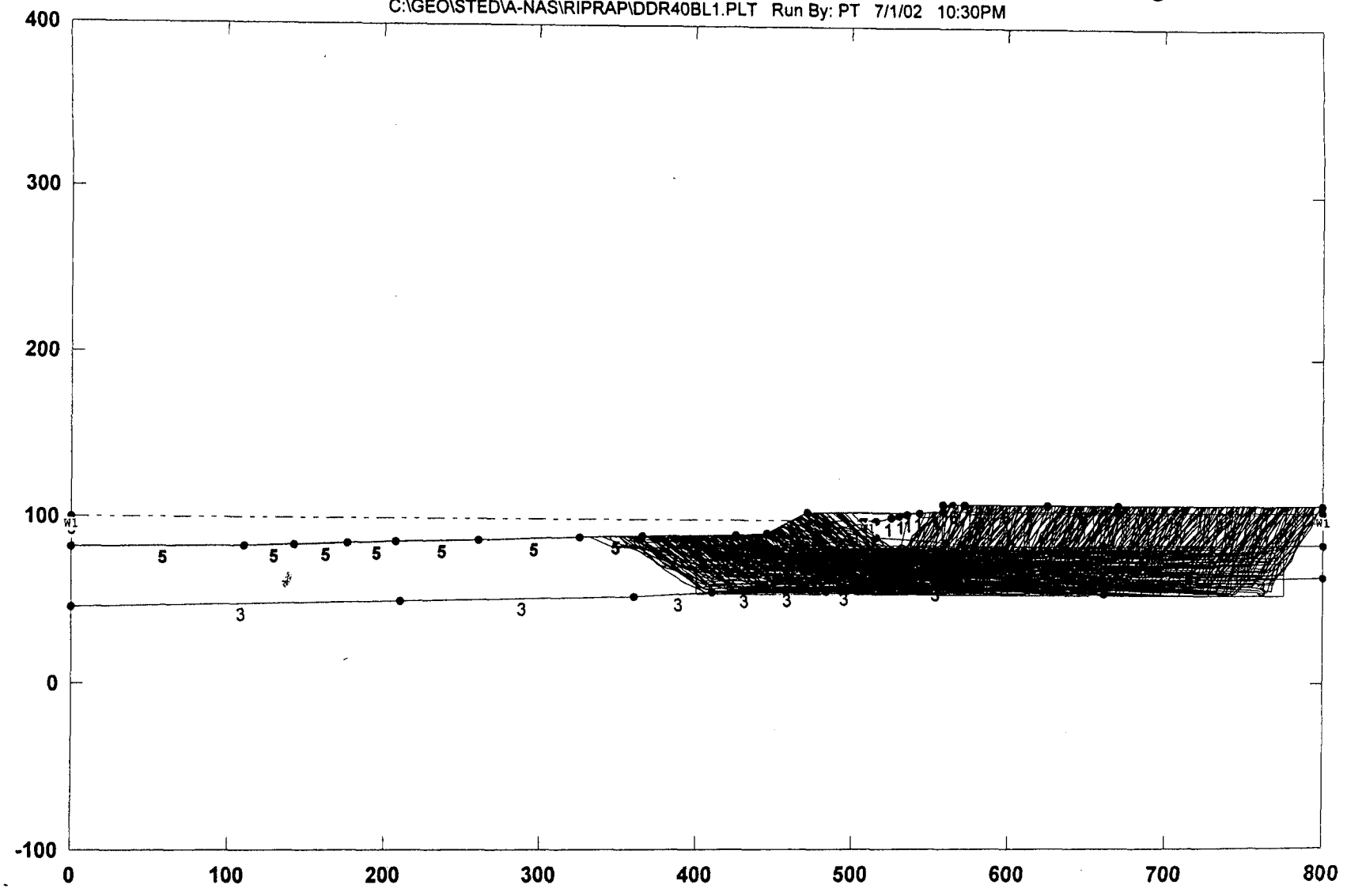
Factors Of Safety Calc' 'ated By The Modified Bishop Method

```
PROFIL        C:\GEO\STED\A-NAS\RIPRAP\DDR40BS2.IN  PCSTABL Version 5M /O(0. ,-
100. )
A-NAS - Section D-D', 40 ft Rip-Rap,    Post-EQ Static Bishop Circular Search
41 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
WATER
1 62.4
4
```

```
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2-Bishop circular, search
30 100
250. 400. 425. 525. 0. 12. 0. 0.
```

A-NAS - Section D-D', 40 ft Rip-Rap Dynamic Block Search, Janbu, 0.12g

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL1.PLT Run By: PT 7/1/02 10:30PM



GSTABL7

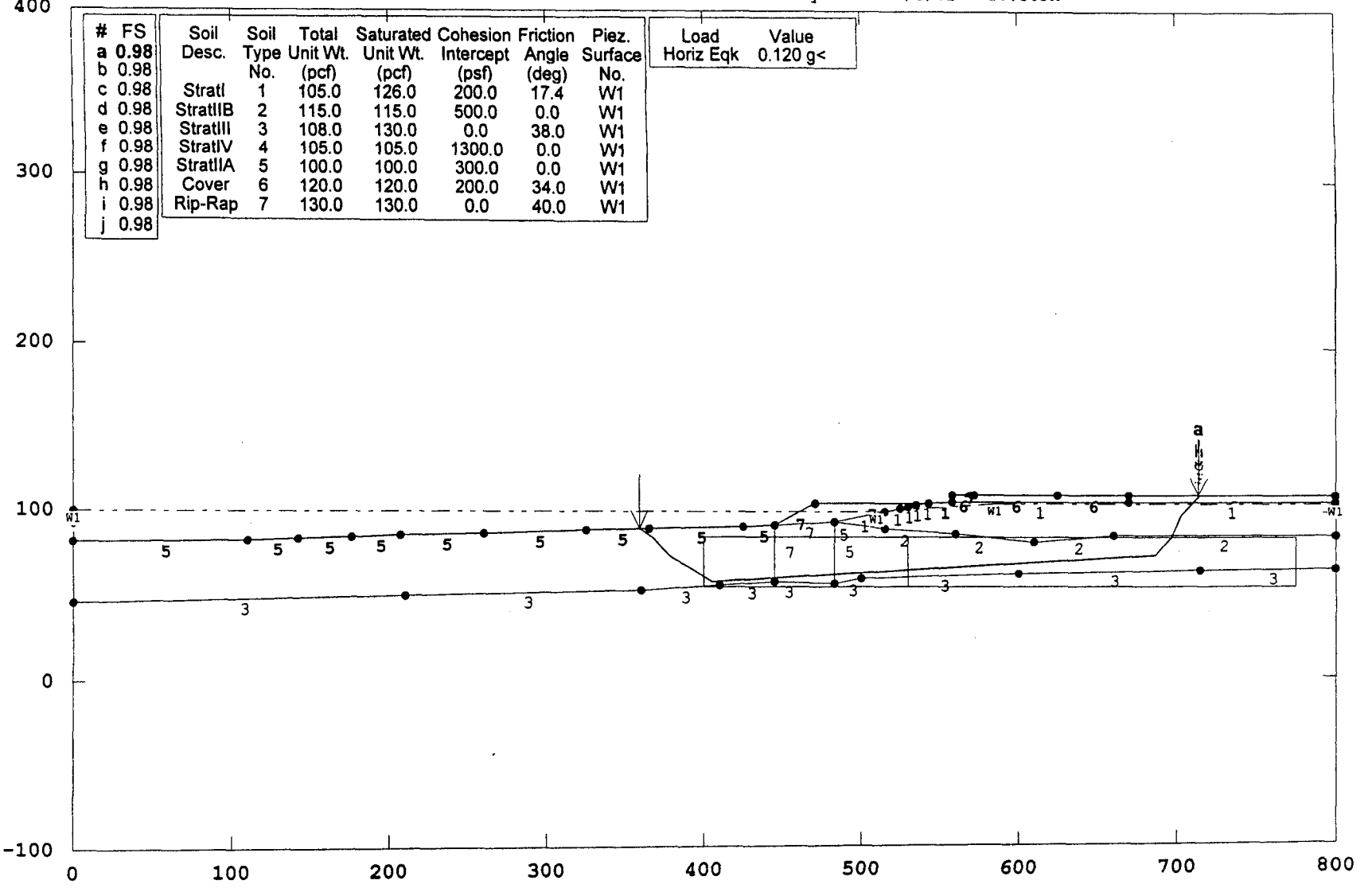
A-NAS - Section D-D', 40 ft Rip-Rap Dynamic Block Search, Janbu, 0.12g

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL1.PL2 Run By: PT 7/1/02 10:30PM

#	FS
a	0.98
b	0.98
c	0.98
d	0.98
e	0.98
f	0.98
g	0.98
h	0.98
i	0.98
j	0.98

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1

Load	Value
Horiz Eqk	0.120 g<



GSTABL7 v.2 FSmin=0.98

Safety Factors Are Calculated By The Simplified Janbu Method

GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr40bl1.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', 40 ft Rip-Rap     Dynamic Block Search, Janbu, 0.12g
42 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
0. 100. 0. 100. 0
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
```

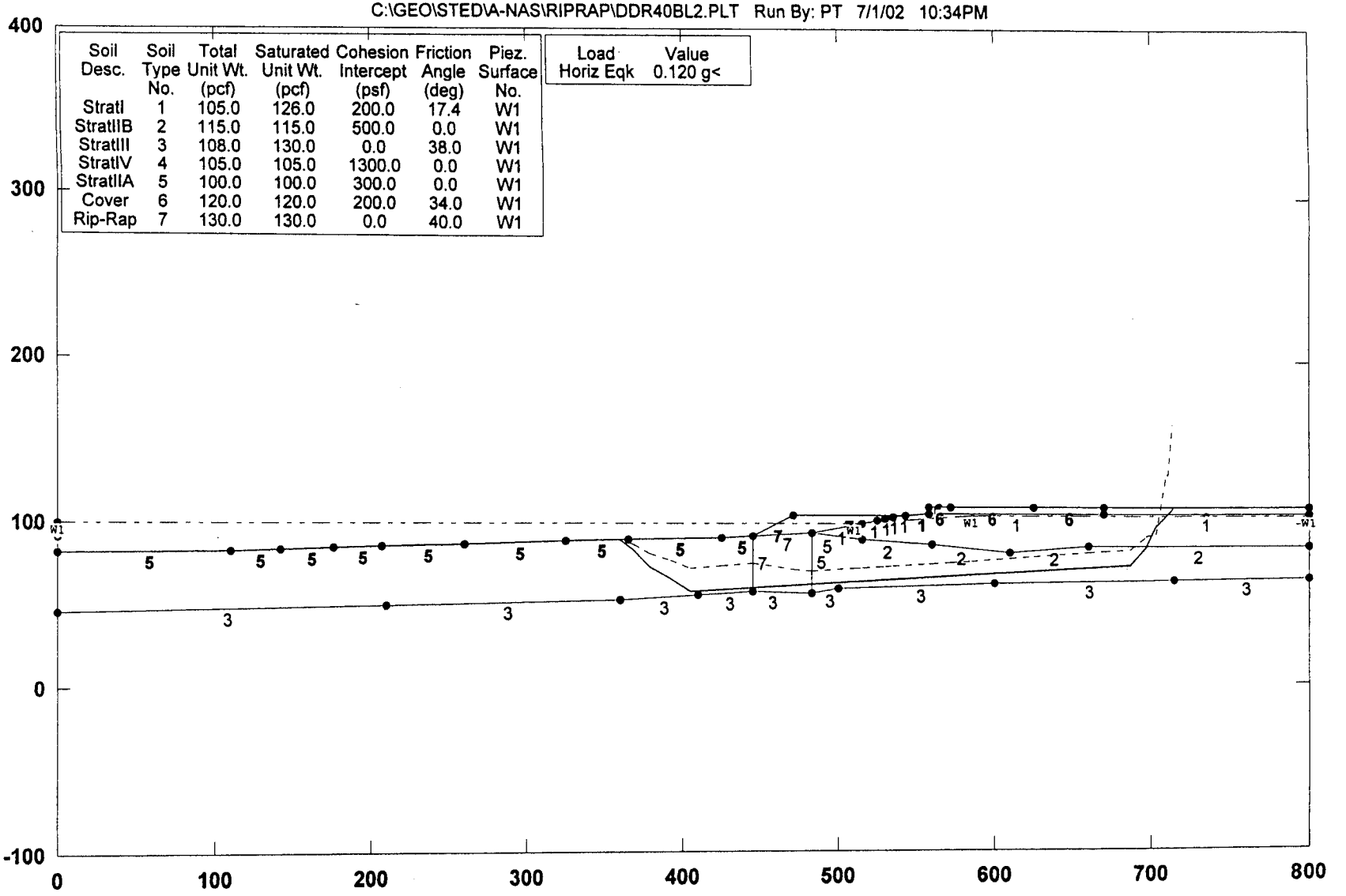
```
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.12 0. 0.
BLOCK -Sliding block, search
0
4000 2 15.
400. 70. 529.9 70. 30.
530. 70. 775. 70. 30.
```

A-NAS - Section D-D', 40 ft Rip-Rap Dynamic Block Search, Spencer, Ky=0.12g

C:\GEO\STED\A-NAS\RIPRAP\DDR40BL2.PLT Run By: PT 7/1/02 10:34PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1

Load	Value
Horiz Eqk	0.120 g<



GSTABL7 v.2 FSmin=0.99

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

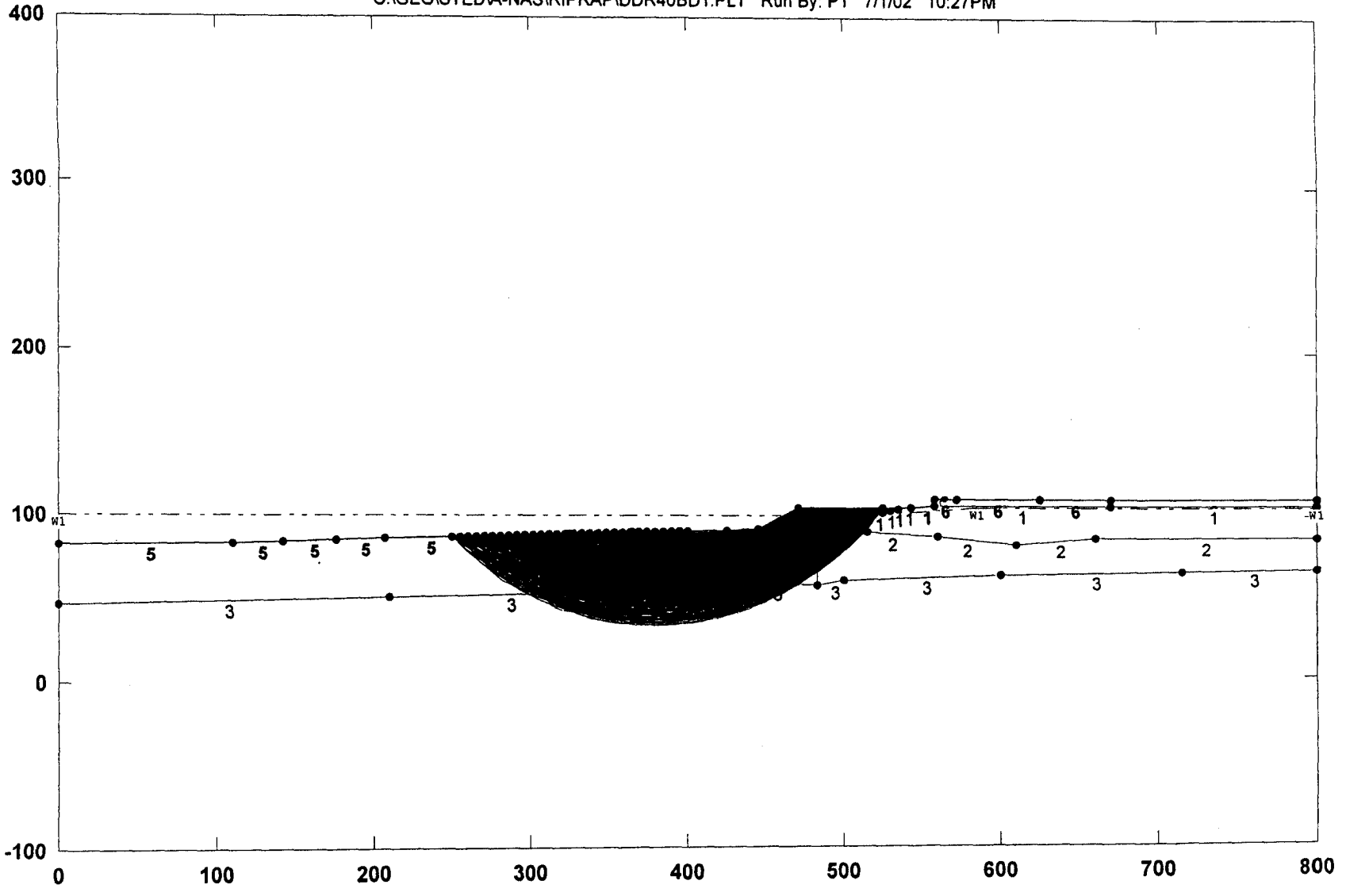
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr40bl2.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', 40 ft Rip-Rap     Dynamic Block Search, Spencer, Ky=0.12g
42 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
0. 100. 0. 100. 0
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
```

```
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.12 0. 0.
GLEMS
10.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURFAC #1-DDR40BLD.OUT
0
10
358.76 89.84
368.26 84.06
378.87 73.46
392.09 66.37
404.69 58.23
686.58 73.57
696.71 84.63
703.14 98.18
713.74 108.79
713.9 109.93
EXECUT
```

A-NAS - Section D-D', 40 ft Rip-Rap Dynamic Bishop Circular Search, 0.126g

C:\GEO\STED\A-NAS\RIPRAP\DDR40BD1.PLT Run By: PT 7/1/02 10:27PM



GSTABL7

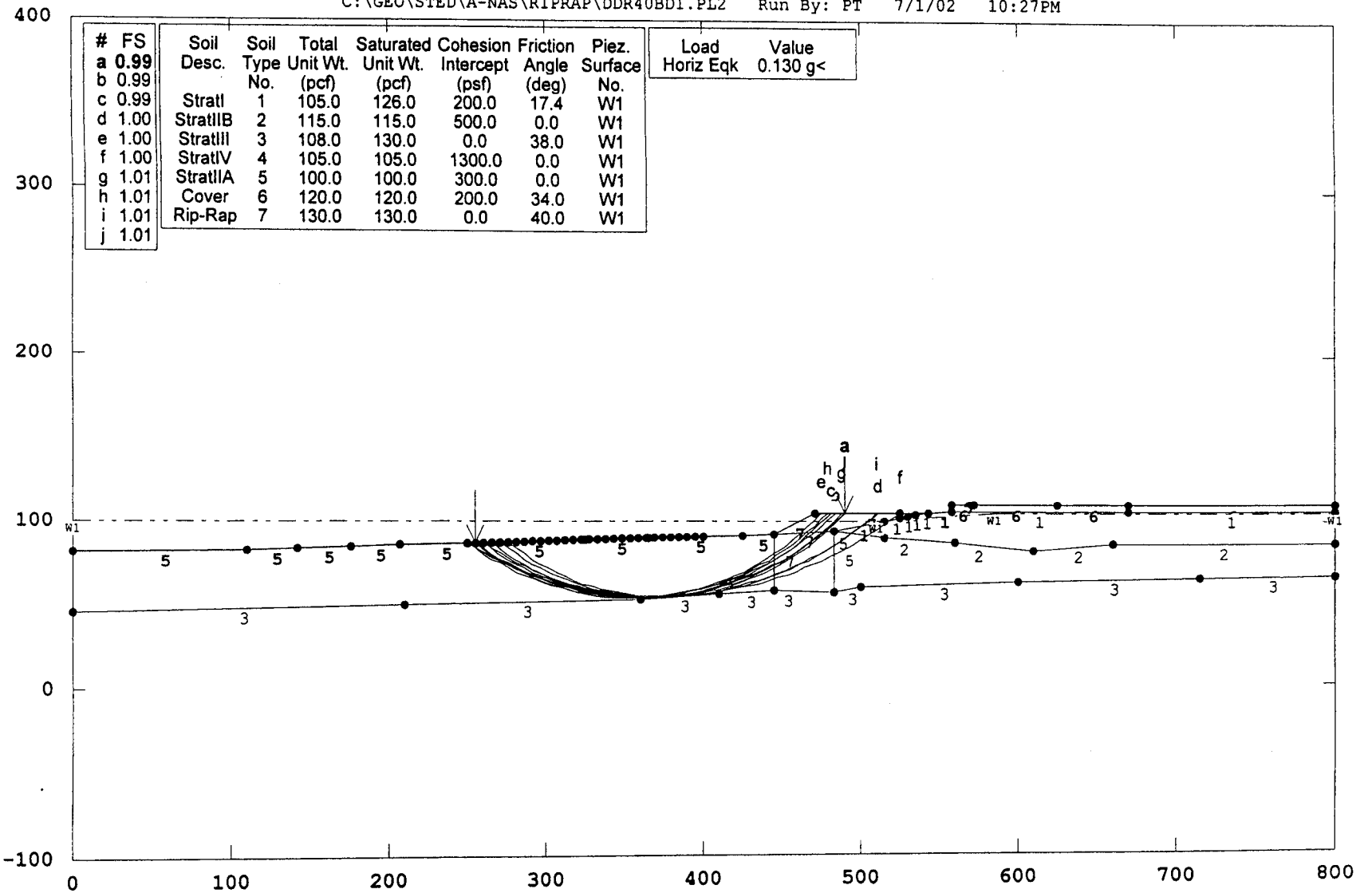
A-NAS - Section D-D', 40 ft Rip-Rap Dynamic Bishop Circular Search, 0.126g

C:\GEO\STED\A-NAS\RIPRAP\DDR40BD1.PL2 Run By: PT 7/1/02 10:27PM

#	FS
a	0.99
b	0.99
c	0.99
d	1.00
e	1.00
f	1.00
g	1.01
h	1.01
i	1.01
j	1.01

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Rip-Rap	7	130.0	130.0	0.0	40.0	W1

Load	Value
Horiz Eqk	0.130 g<



GSTABL7 v.2 FSmin=0.99

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

```
PROFIL  c:\geo\sted\a-nas\riprap\ddr40bd1.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', 40 ft Rip-Rap     Dynamic Bishop Circular Search, 0.126g
41 17
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 471. 105.1 7
471. 105.1 543. 105.1 7
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
444.9 57.5 445. 92. 7
445. 92. 483. 94. 7
483. 94. 515. 100.2 1
515. 100.2 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
482.9 56.75 483. 94. 5
483. 94. 515. 90. 5
515. 90. 560. 87. 2
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 444.9 57.5 3
444.9 57.5 482.9 56.75 3
482.9 56.75 500. 60. 3
500. 60. 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Rip-Rap
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
130. 130. 0. 40. 0. 0. 1
WATER
```

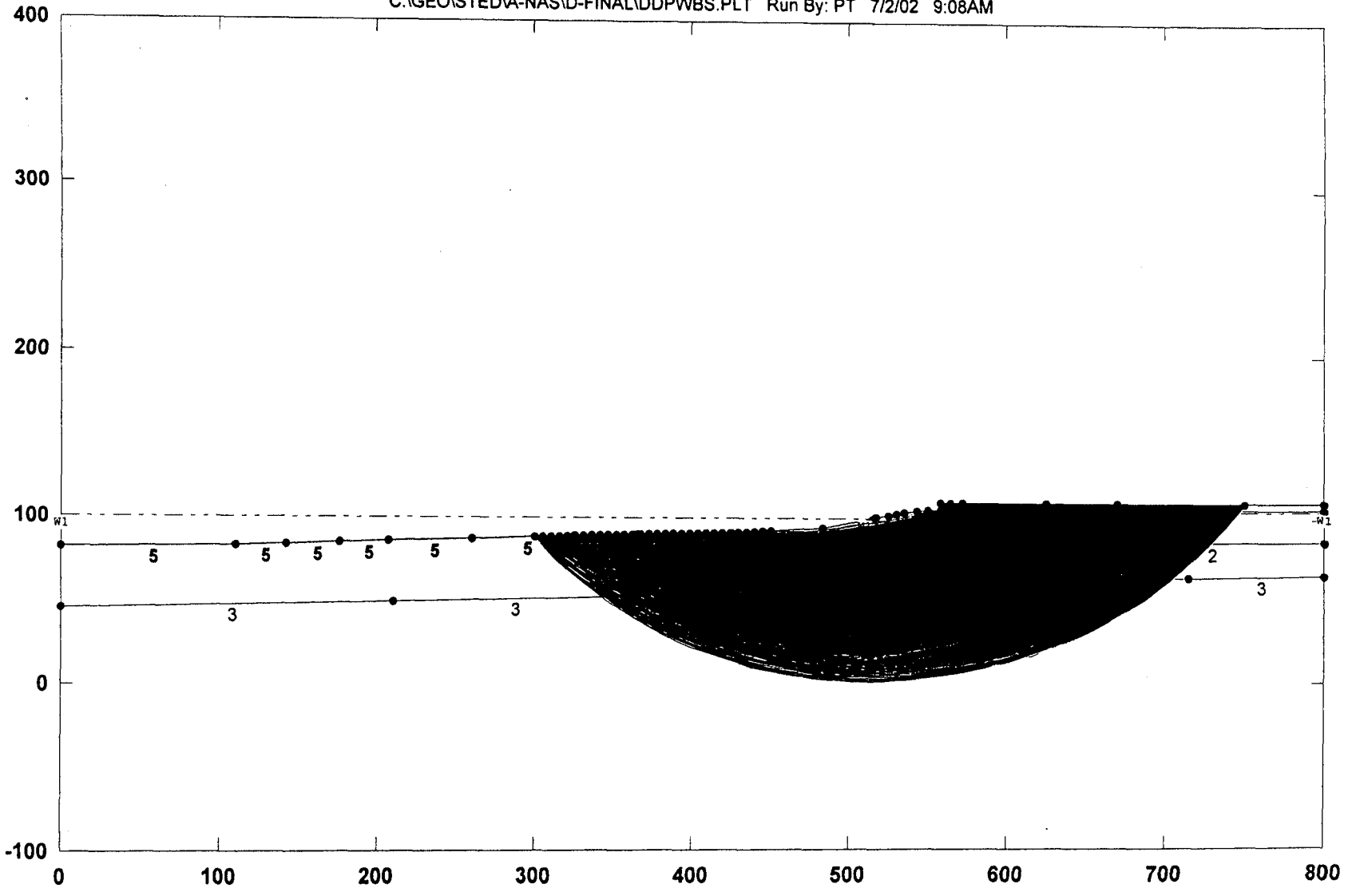
```
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.13 0. 0.
CIRCL2-Bishop circular, search
30 100
250. 400. 425. 525.
0. 6. 0. 0.
```

APPENDIX A8

ALTERNATIVE 8 – DRILLED CONCRETE PIERS WITH STONE COLUMNS

A-NAS - Section D-D', PierWall Static (Long-Term) Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPWBS.PLT Run By: PT 7/2/02 9:08AM



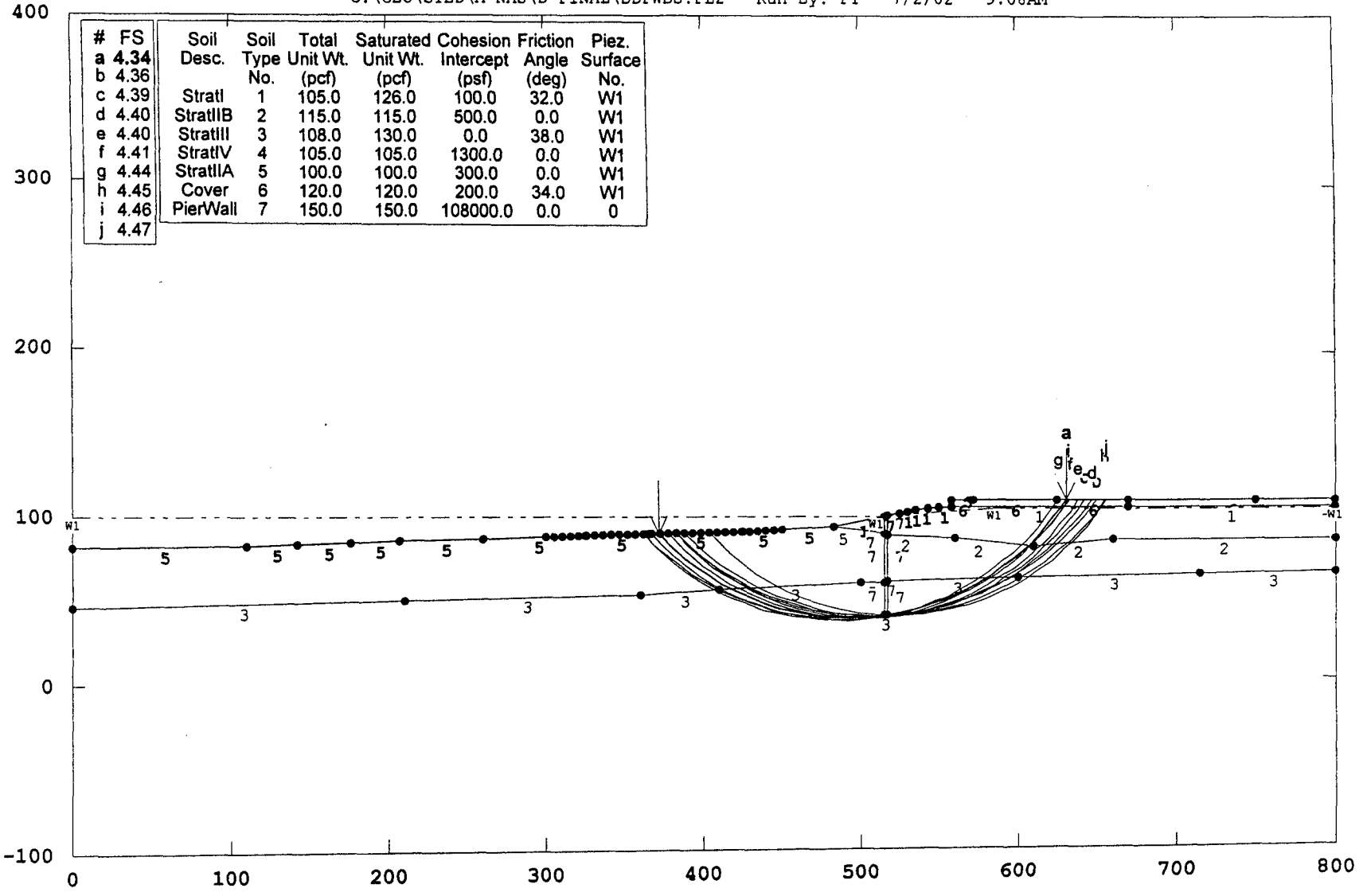
GSTABL7

A-NAS - Section D-D', PierWall Static (Long-Term) Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPWBS.PL2 Run By: PT 7/2/02 9:08AM

#	FS
a	4.34
b	4.36
c	4.39
d	4.40
e	4.40
f	4.41
g	4.44
h	4.45
i	4.46
j	4.47

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PierWall	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.34

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

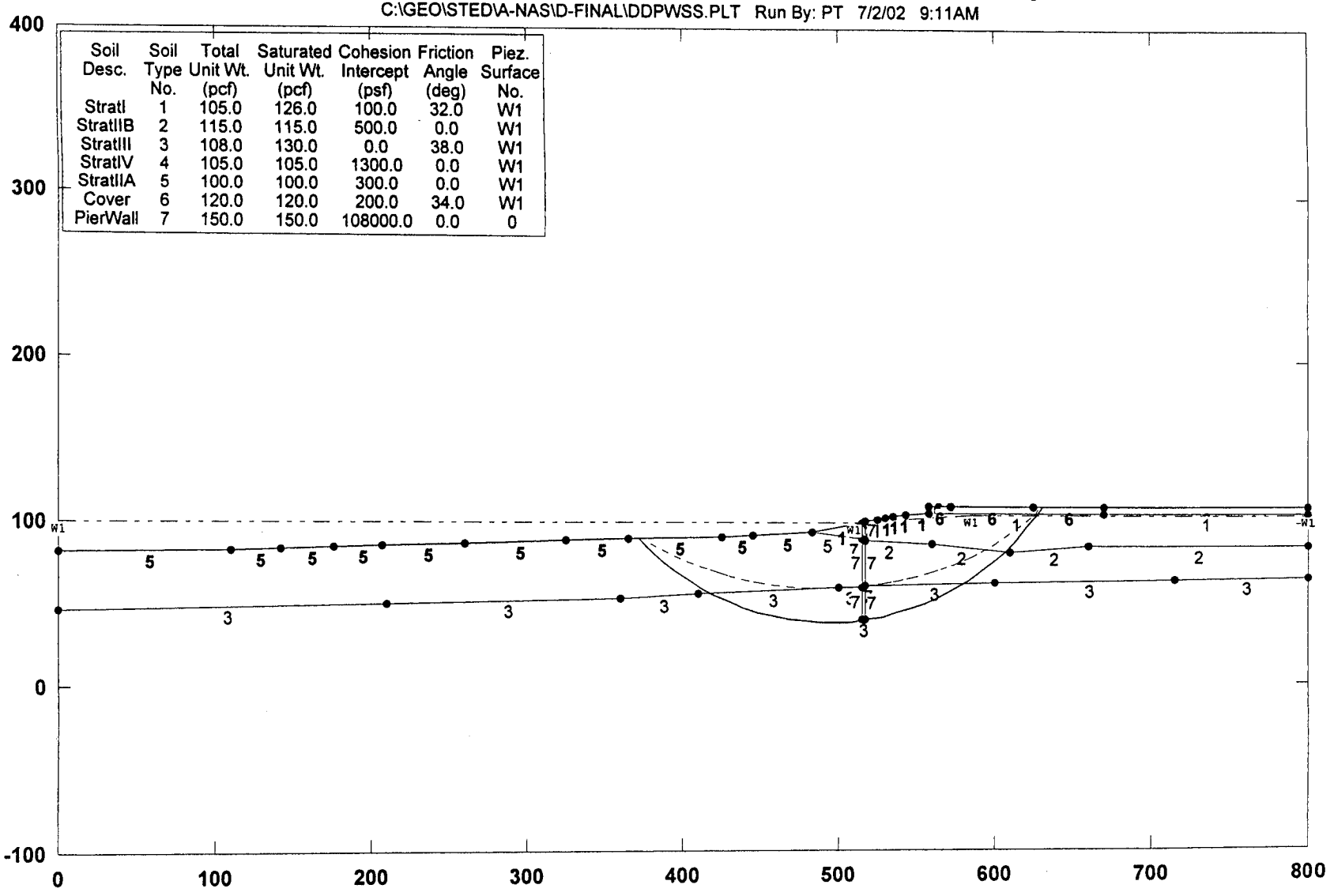
```
PROFIL  c:\geo\sted\a-nas\d-final\ddpwbs.in Version G7v.2 [GSTABL72.EXE] /O(0, -
100)
e
A-NAS - Section D-D', PierWall Static   (Long-Term) Bishop Circular Search
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 516.9 100.8 7
516.9 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
516.9 100.8 517. 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517. 88.9 7
517. 88.9 560. 87. 2
517. 88.9 517.1 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.1 60.5 7
517.1 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.1 60.5 517.2 40. 7
514.8 40. 517.2 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PierWall
7
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS - Section D-D', PierWall Static (Long-Term) Spencer Stability Anal Meth.

C:\GEO\STED\A-NAS\D-FINAL\DDPWSS.PLT Run By: PT 7/2/02 9:11AM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PierWall	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.39

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

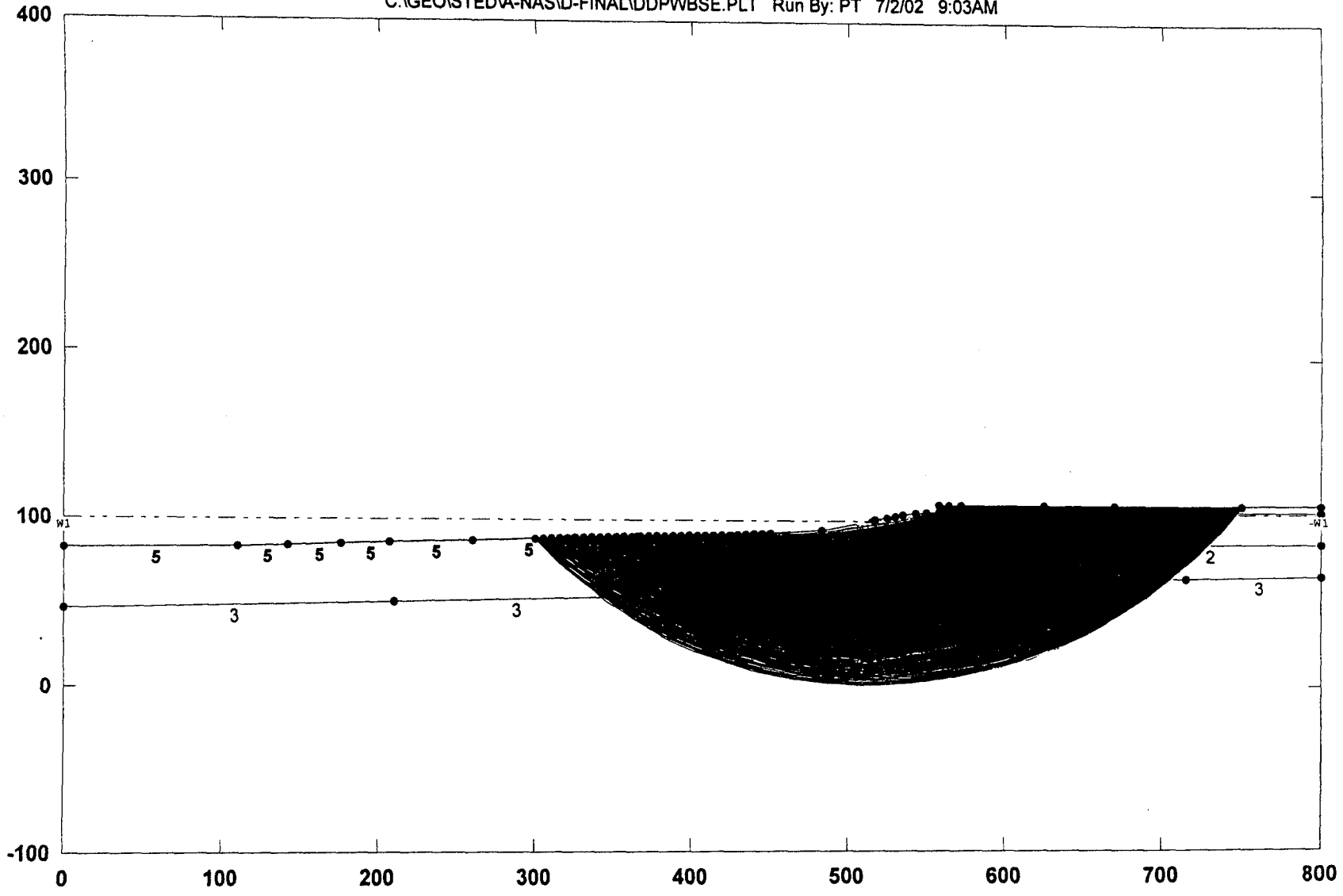
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\d-final\ddpwss.in Version G7v.2 [GSTABL72.EXE] /O(0, -
100)
e
A-NAS - Section D-D', PierWall Static   (Long-Term) Spencer Stability Anal Meth.
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 516.9 100.8 7
516.9 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
516.9 100.8 517. 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517. 88.9 7
517. 88.9 560. 87. 2
517. 88.9 517.1 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.1 60.5 7
517.1 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.1 60.5 517.2 40. 7
514.8 40. 517.2 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PierWall
7
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
GLEMS
10.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
31
372.41 90.12
379.49 83.05
386.97 76.42
394.84 70.25
403.07 64.57
411.62 59.38
420.47 54.73
429.58 50.61
438.92 47.05
448.47 44.05
458.17 41.64
468. 39.81
477.93 38.57
487.9 37.94
497.9 37.91
507.89 38.47
517.82 39.64
527.66 41.4
537.38 43.75
546.95 46.68
556.31 50.18
565.45 54.23
574.33 58.83
582.92 63.95
591.19 69.58
599.1 75.7
606.63 82.28
613.75 89.3
620.43 96.74
626.66 104.57
630.54 110.1
EXECUT
```

A-NAS - Section D-D', PierWall Post-EQ Static Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPWBSE.PLT Run By: PT 7/2/02 9:03AM



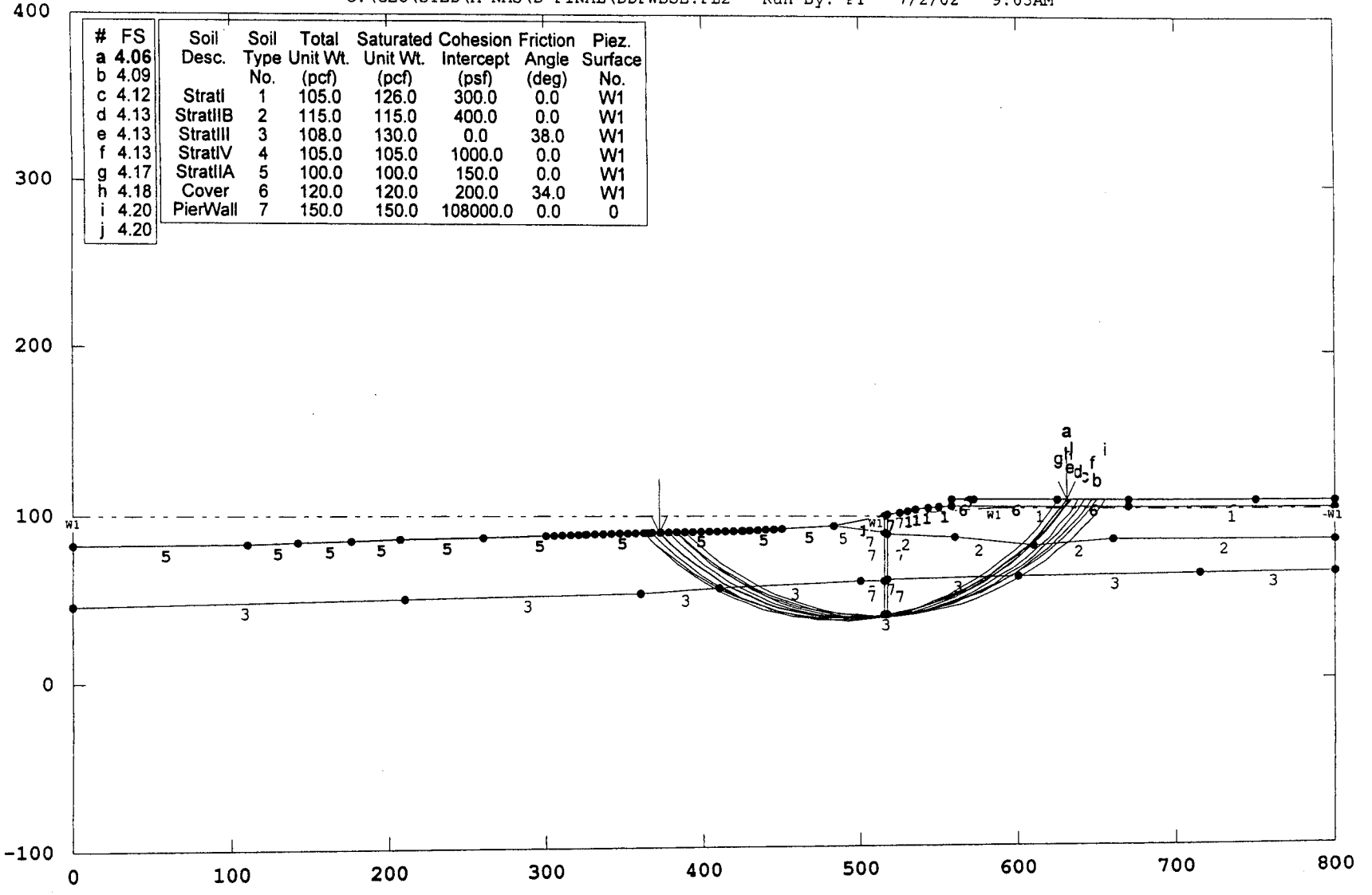
GSTABL7

A-NAS - Section D-D', PierWall Post-EQ Static Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPWBSE.PL2 Run By: PT 7/2/02 9:03AM

#	FS
a	4.06
b	4.09
c	4.12
d	4.13
e	4.13
f	4.13
g	4.17
h	4.18
i	4.20
j	4.20

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1000.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PierWall	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.06

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

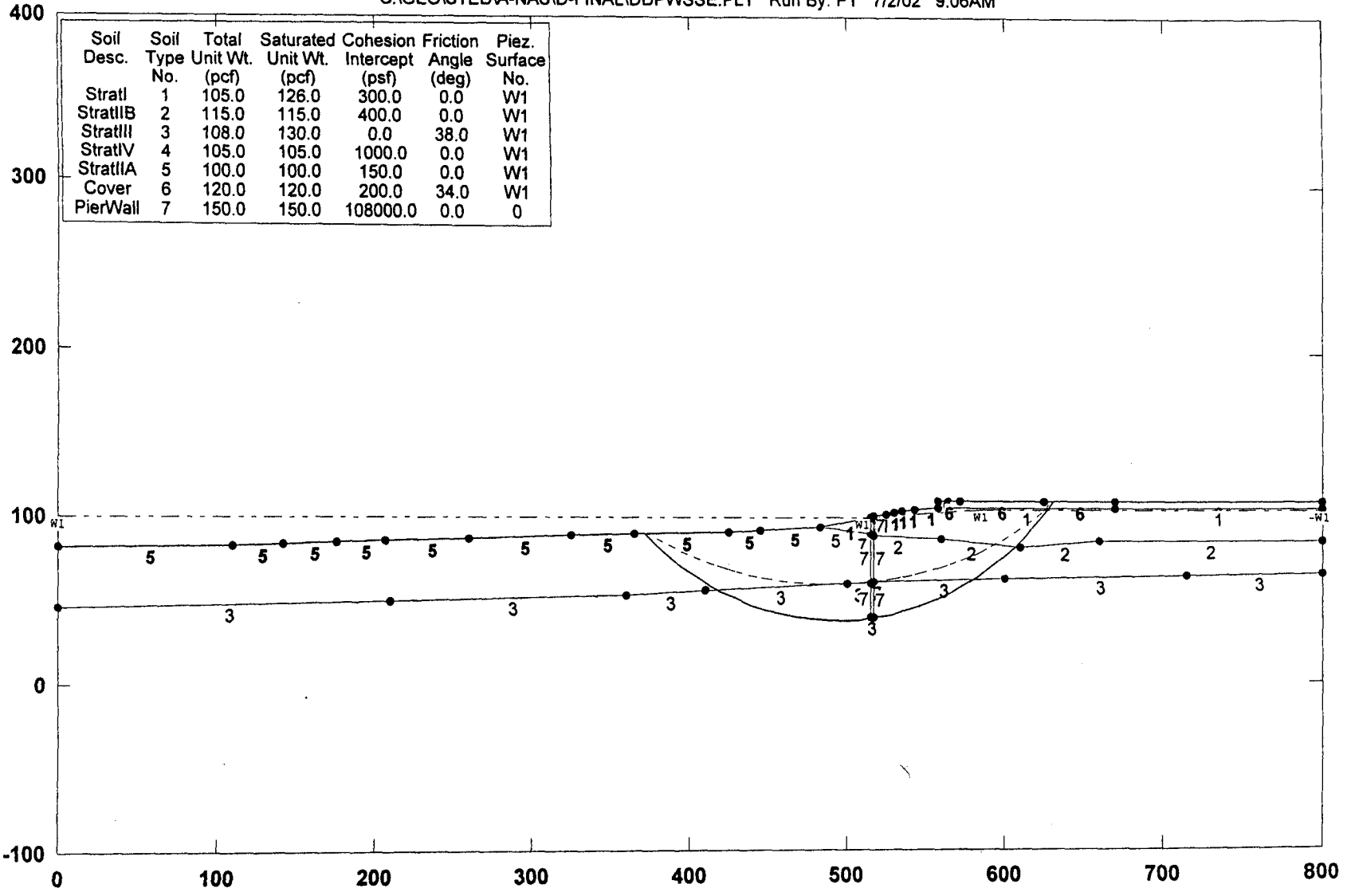
```
PROFIL  C:\geo\sted\a-nas\d-final\ddpwbse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', PierWall Post-EQ  Static Bishop Circular Search
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 516.9 100.8 7
516.9 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
516.9 100.8 517. 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517. 88.9 7
517. 88.9 560. 87. 2
517. 88.9 517.1 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.1 60.5 7
517.1 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.1 60.5 517.2 40. 7
514.8 40. 517.2 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PierWall
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS - Section D-D', PierWall Post-EQ Static Spencer Stability Analysis

C:\GEO\STED\A-NAS\D-FINAL\DDPWSSE.PLT Run By: PT 7/2/02 9:06AM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1000.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PierWall	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.13

Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

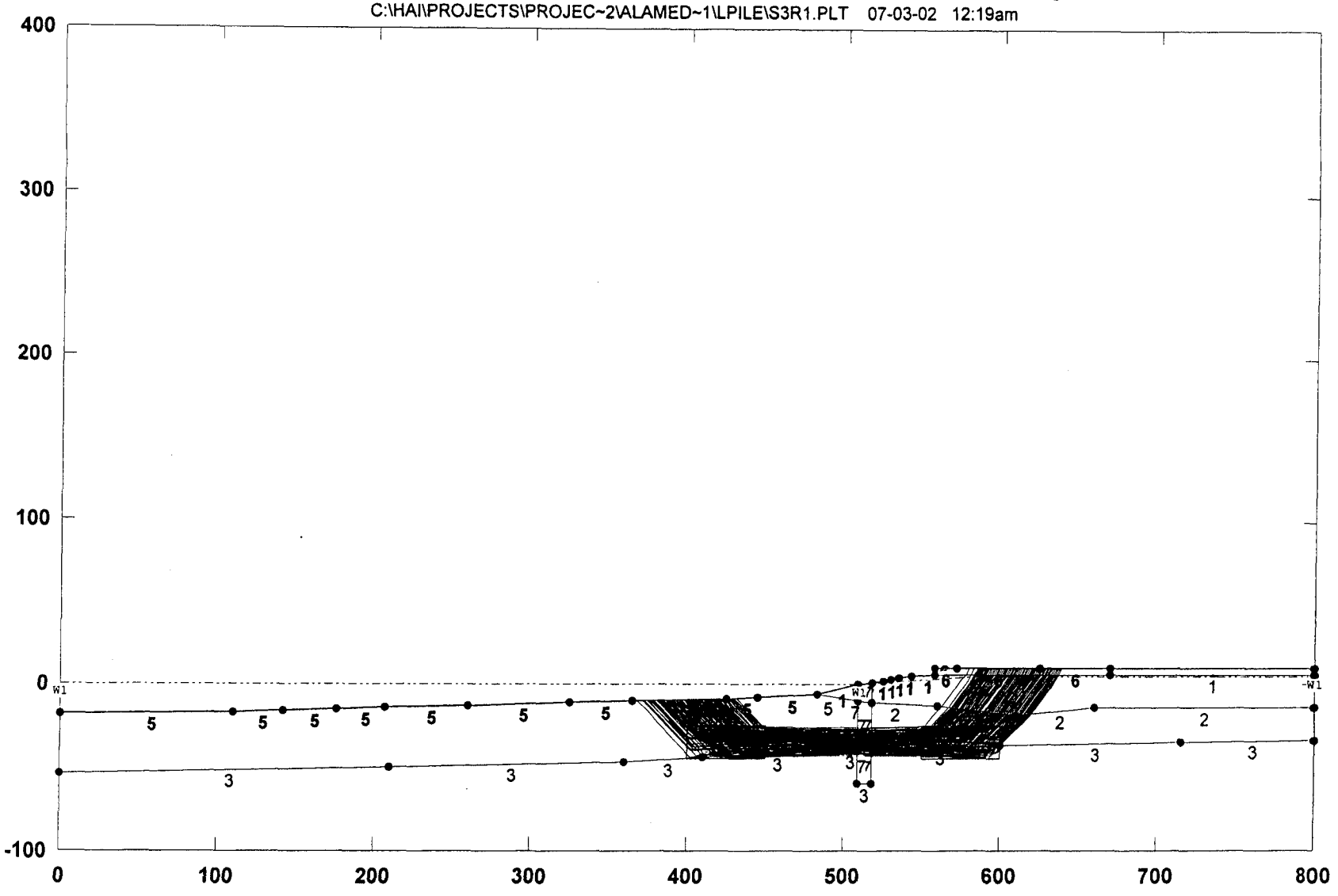
GSTABL7

```
PROFIL  C:\geo\sted\a-nas\d-final\ddpwsse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS - Section D-D', PierWall Post-EQ  Static Spencer Stability Analysis
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 516.9 100.8 7
516.9 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
516.9 100.8 517. 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517. 88.9 7
517. 88.9 560. 87. 2
517. 88.9 517.1 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.1 60.5 7
517.1 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.1 60.5 517.2 40. 7
514.8 40. 517.2 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PierWall
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
GLEMS
10.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
31
372.41 90.12
379.49 83.05
386.97 76.42
394.84 70.25
403.07 64.57
411.62 59.38
420.47 54.73
429.58 50.61
438.92 47.05
448.47 44.05
458.17 41.64
468. 39.81
477.93 38.57
487.9 37.94
497.9 37.91
507.89 38.47
517.82 39.64
527.66 41.4
537.38 43.75
546.95 46.68
556.31 50.18
565.45 54.23
574.33 58.83
582.92 63.95
591.19 69.58
599.1 75.7
606.63 82.28
613.75 89.3
620.43 96.74
626.66 104.57
630.54 110.1
EXECUT
```

Section D-D', Drilled Piers, R = 300 kis, Rankine Block Search, Ky = 0.141

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S3R1.PLT 07-03-02 12:19am



GSTABL7

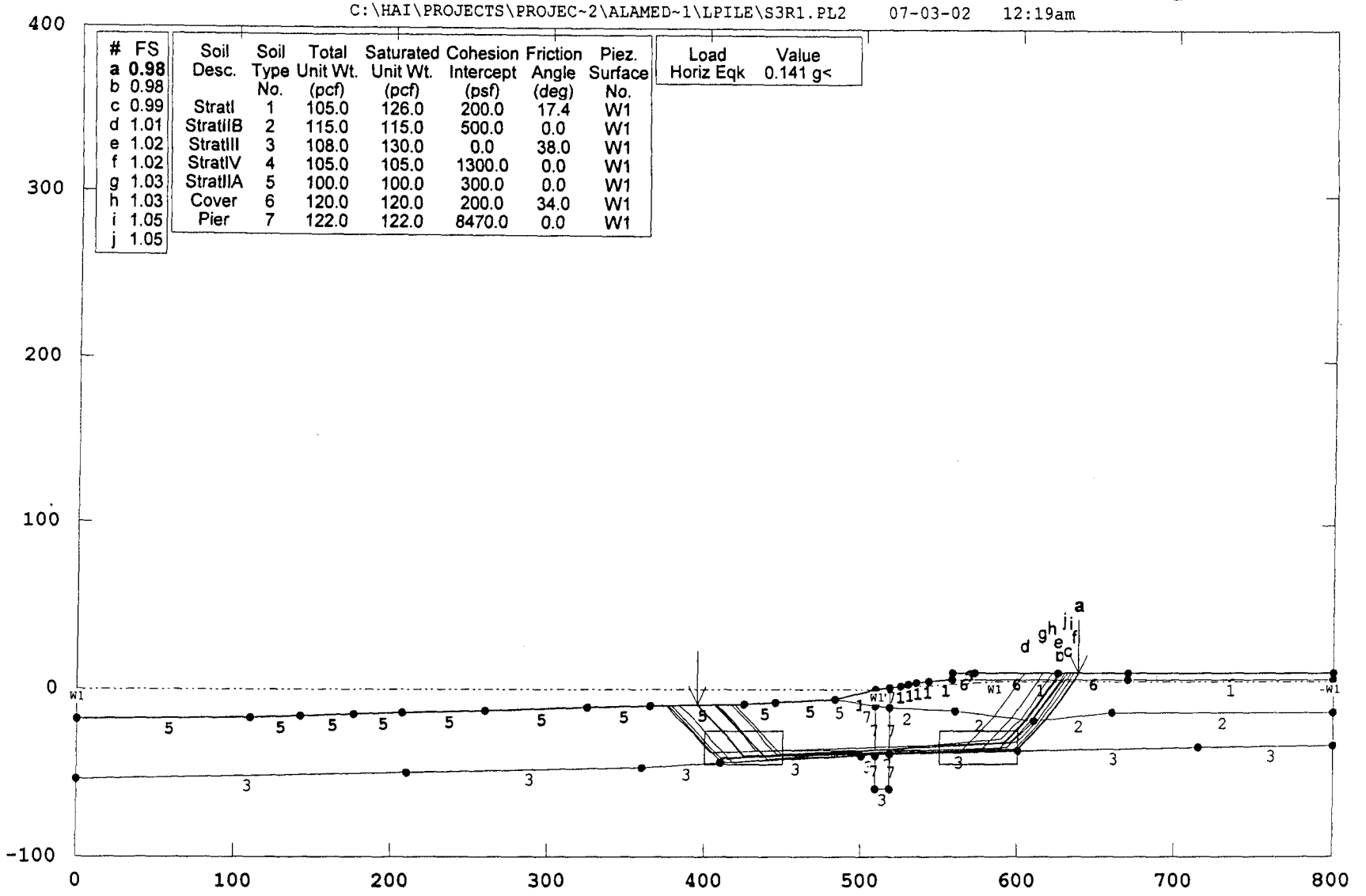
Section D-D', Drilled Piers, R = 300 kis, Rankine Block Search, Ky = 0.141

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S3R1.PL2 07-03-02 12:19am

#	FS
a	0.98
b	0.98
c	0.99
d	1.01
e	1.02
f	1.02
g	1.03
h	1.03
i	1.05
j	1.05

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Pier	7	122.0	122.0	8470.0	0.0	W1

Load	Value
Horiz Eqk	0.141 g<



PCSTABL5M FSmin=0.98

Safety Factors Are Calculated By The Modified Janbu Method

GSTABL7

```
PROFIL        C:\PCSTBL5M\HAI\S3R1.DAT  PCSTABL Version 5M /O(0. ,-100. )
Section D-D', Drilled Piers, R = 300 kis, Rankine Block Search, Ky = 0.141
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 509.1 100.2 1
509.1 100.2 518. 100.8 7
518. 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
509. 90. 509.1 100.2 7
518. 100.8 518.1 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 509. 90. 5
508.9 60.45 509. 90. 7
509. 90. 518.1 88.9 7
518.1 88.9 560. 87. 2
518.1 88.9 518.2 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 508.9 60.45 3
508.9 60.45 518.2 60.5 7
518.2 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
508.8 40. 508.9 60.45 7
518.2 60.5 518.3 40. 7
508.8 40. 518.3 40. 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Pier
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
122. 122. 8470. 0. 0. 0. 1
```

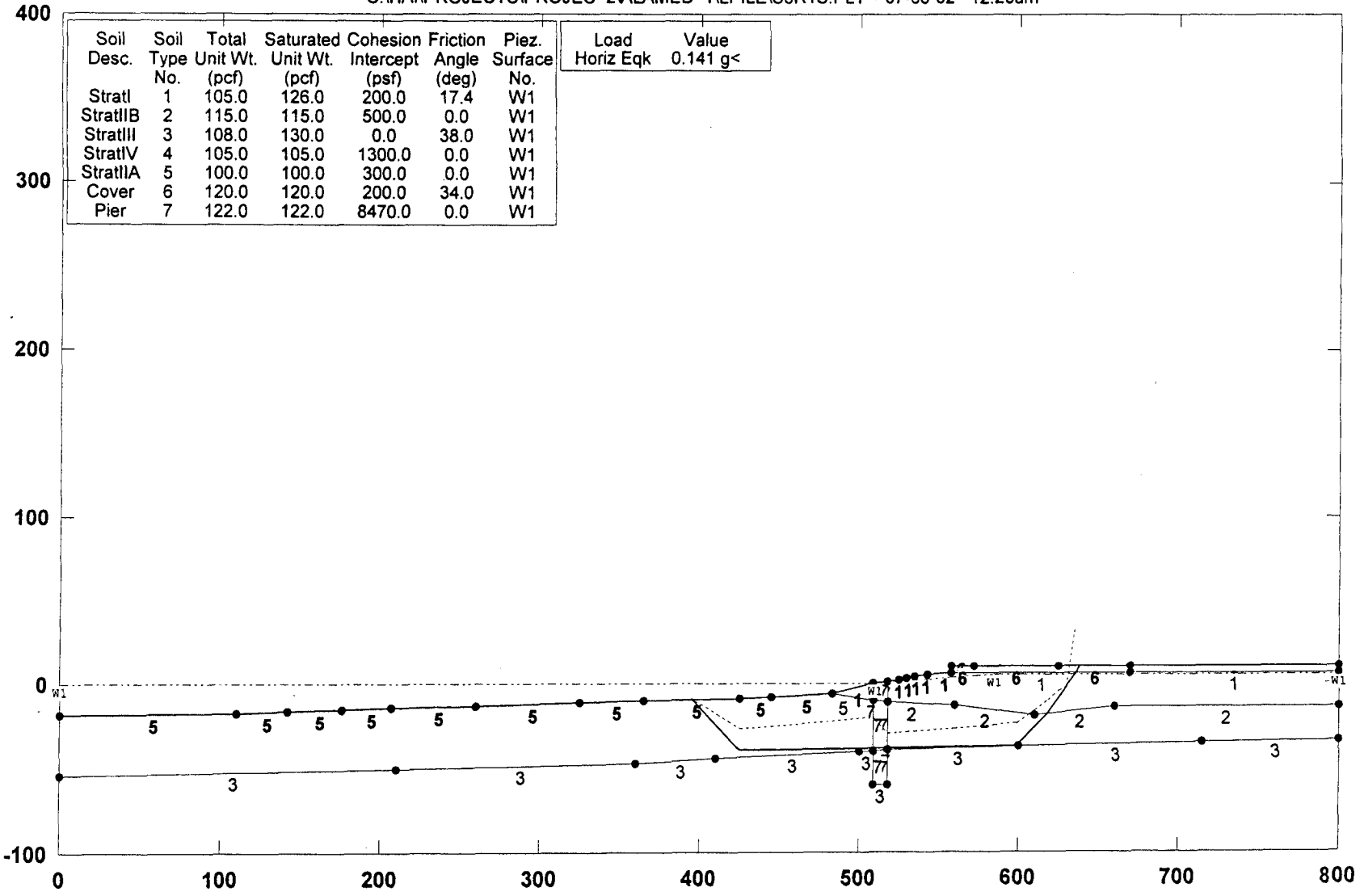
```
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.141 0. 0.
BLOCK2-Rankine block, search
0
200 2 10.
400. 65. 450. 65. 20.
550. 65. 600. 65. 20.
```

Section D-D', Drilled Piers, R = 300 kis, Rankine Block Search, Ky = 0.141

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S3R1S.PLT 07-03-02 12:20am

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
Pier	7	122.0	122.0	8470.0	0.0	W1

Load	Value
Horiz Eqk	0.141 g<



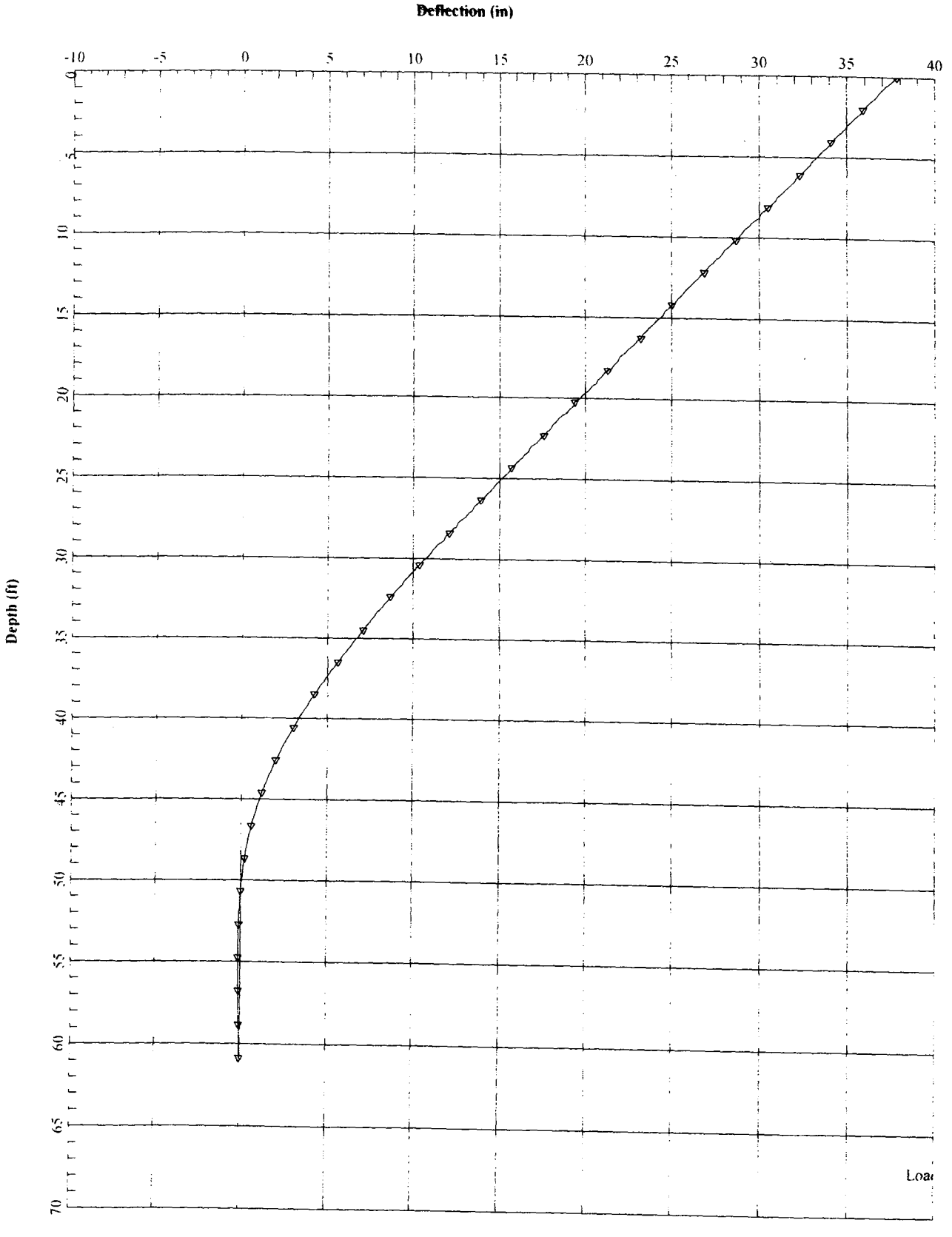
PCSTABL5M FSmin=1.01

Factor Of Safety Is Calculated By Spencer`s Method of Slices

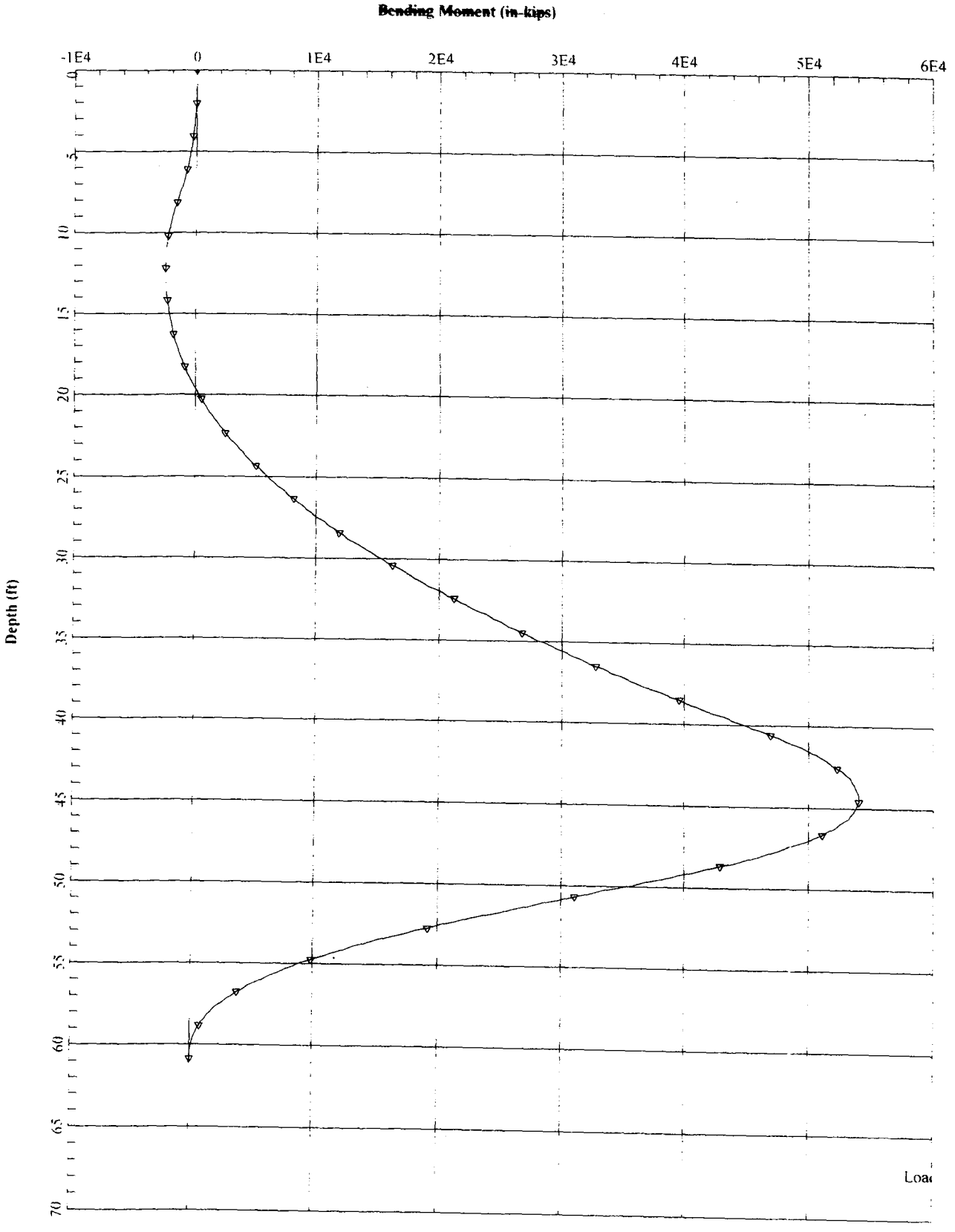
GSTABL7

```
PROFIL        C:\PCSTBL5M\HAI\S3R1S.DAT  PCSTABL Version 5M /O(0. ,-100. )
Section D-D', Drilled Piers, R = 300 kis, Rankine Block Search, Ky = 0.141
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 509.1 100.2 1
509.1 100.2 518. 100.8 7
518. 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
509. 90. 509.1 100.2 7
518. 100.8 518.1 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 509. 90. 5
508.9 60.45 509. 90. 7
509. 90. 518.1 88.9 7
518.1 88.9 560. 87. 2
518.1 88.9 518.2 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 508.9 60.45 3
508.9 60.45 518.2 60.5 7
518.2 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
508.8 40. 508.9 60.45 7
518.2 60.5 518.3 40. 7
508.8 40. 518.3 40. 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   Pier
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
122. 122. 8470. 0. 0. 0. 1
```

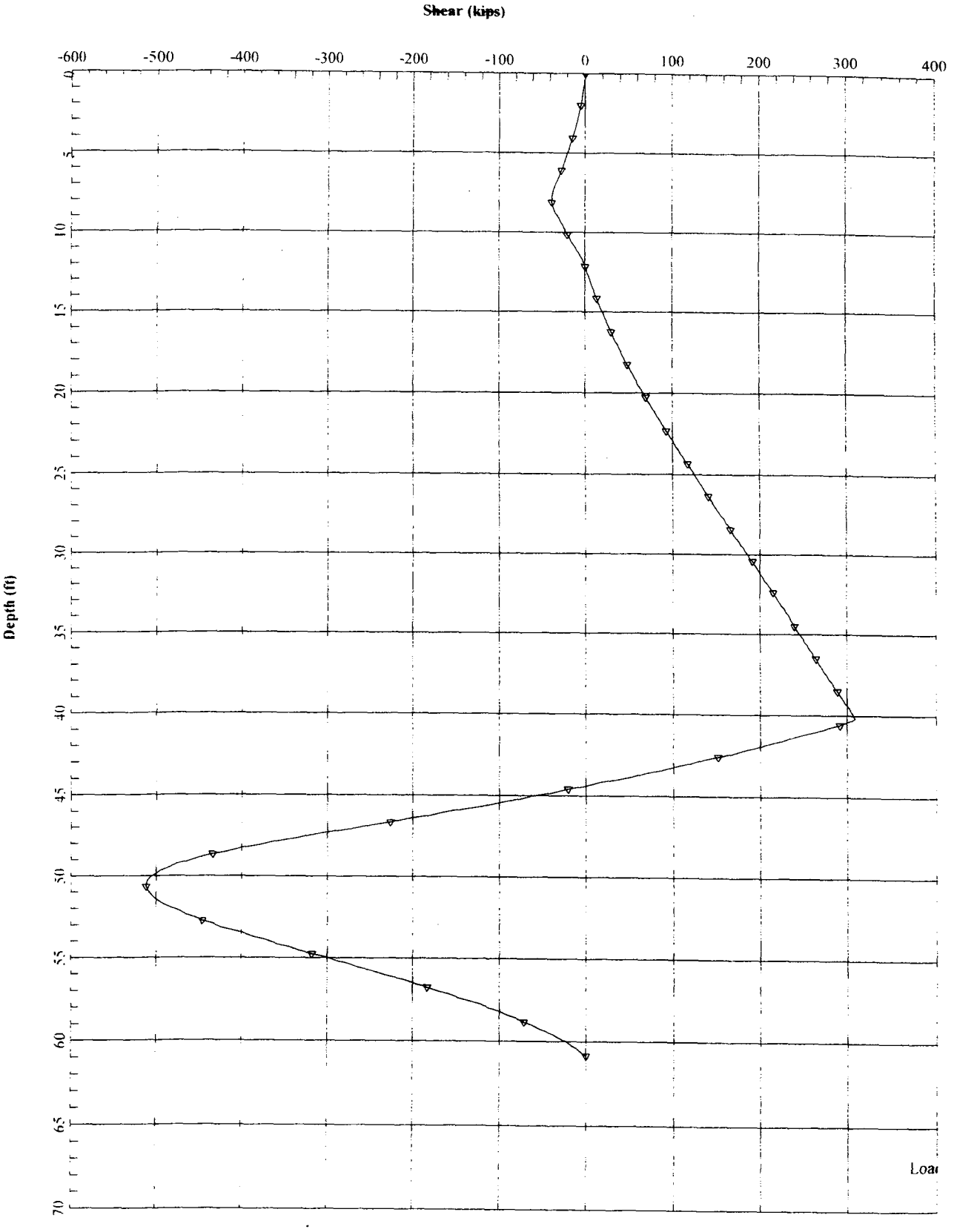
```
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.141 0. 0.
SPENCR
10.
SURFAC #1-S3R1.OUT
15
395.25 90.5
396.97 88.78
404.04 81.71
411.11 74.64
418.18 67.57
425.25 60.5
598.86 62.95
598.87 62.97
605.94 70.04
613.01 77.11
618.14 82.23
624.06 90.29
629.98 98.35
635.67 106.1
637.8 110.1
EXECUT
```



TWO-ROW DRILLED PIERS: D = 3', S = 8', SOIL MOVEMENT = 30.7"



TWO-ROW DRILLED PIERS: D = 3', S = 8', SOIL MOVEMENT = 30.7"



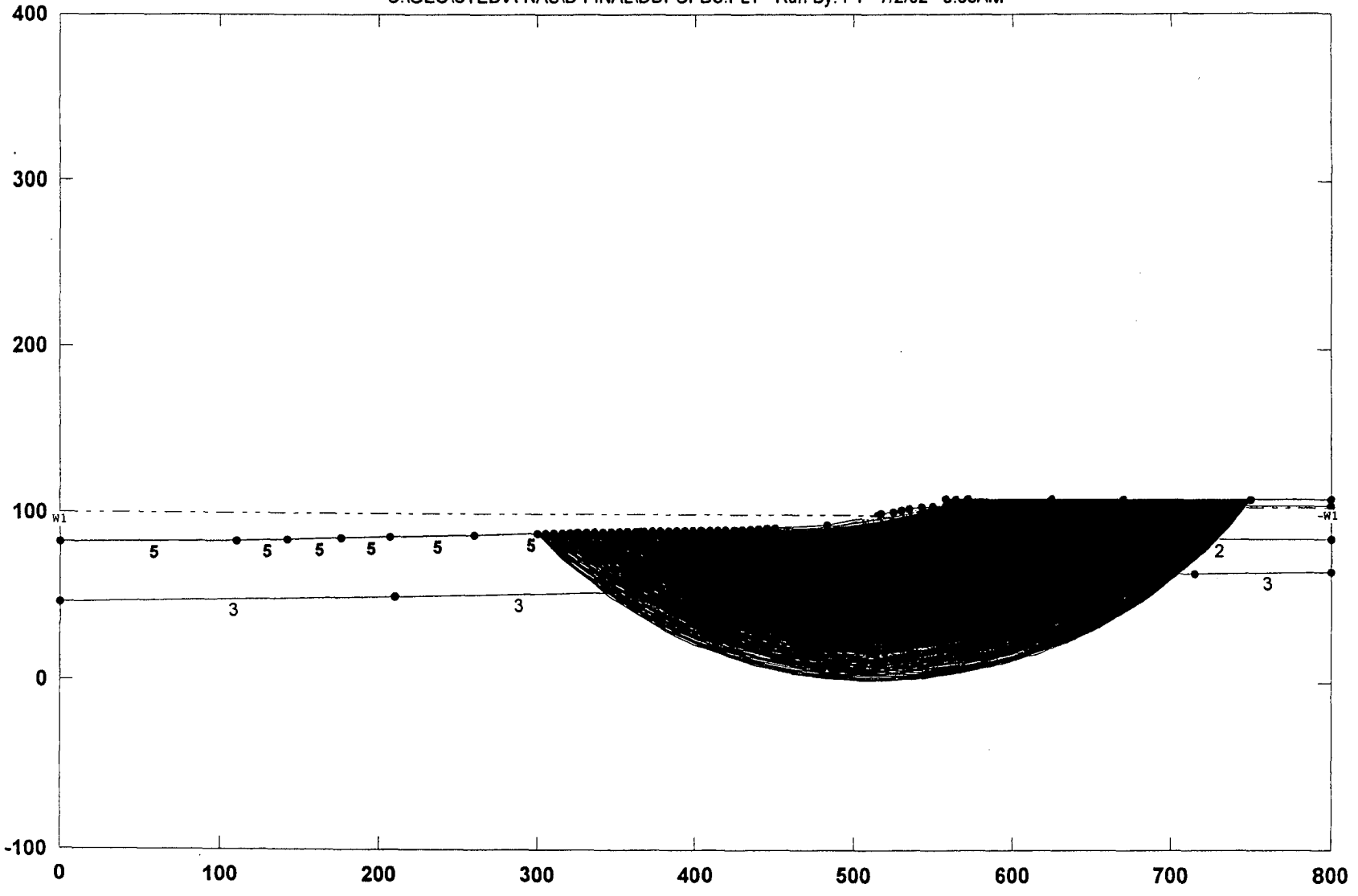
TWO-ROW DRILLED PIERS: D = 3', S = 8', SOIL MOVEMENT = 30.7"

APPENDIX A9

ALTERNATIVE 9 – PRE-CAST CONCRETE PILES

A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPCPBS.PLT Run By: PT 7/2/02 9:30AM



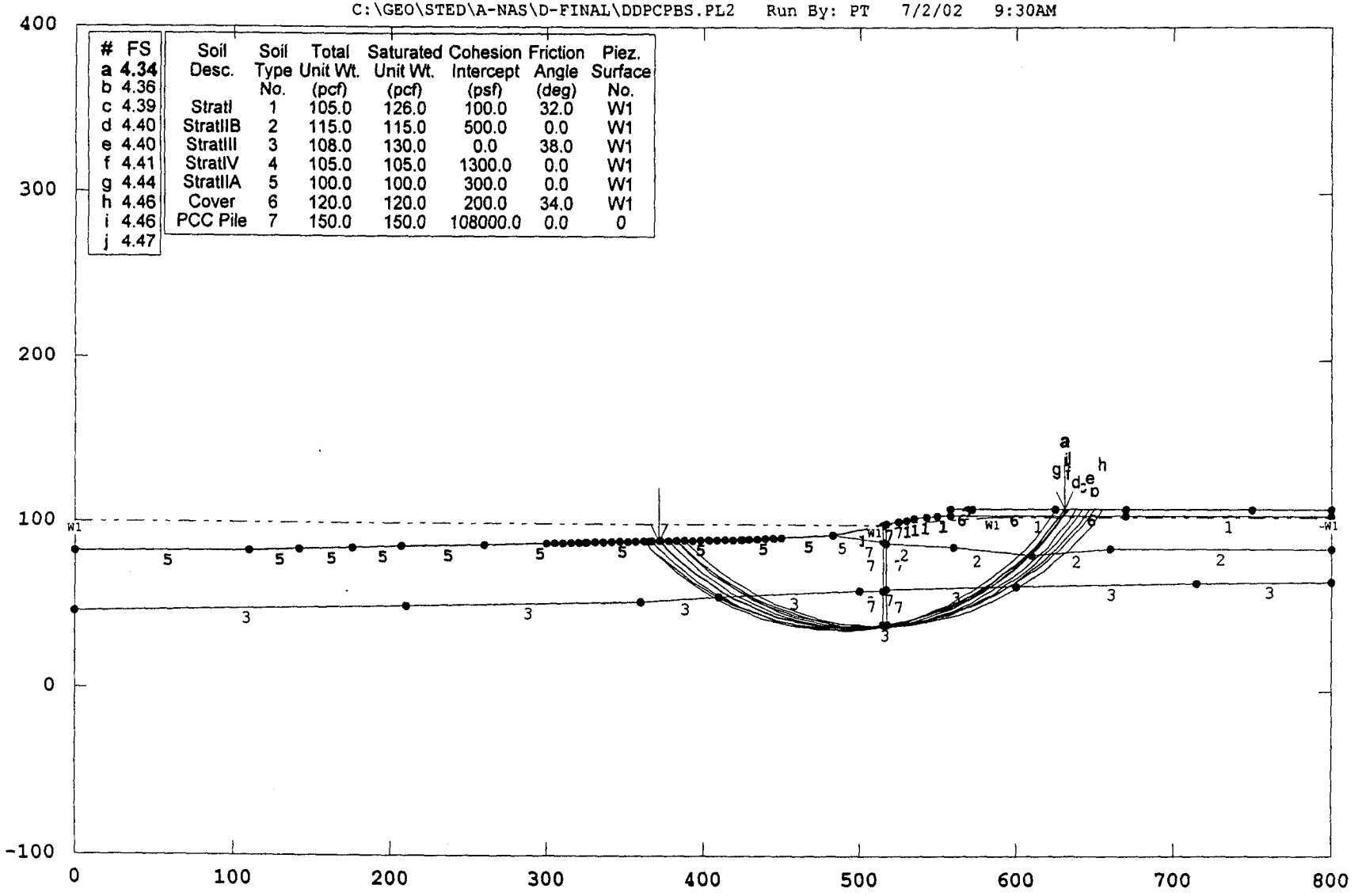
GSTABL7

A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPCPBS.PL2 Run By: PT 7/2/02 9:30AM

#	FS
a	**4.34**
b	4.36
c	4.39
d	4.40
e	4.40
f	4.41
g	4.44
h	4.46
i	4.46
j	4.47

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PCC Pile	7	150.0	150.0	108000.0	0.0	0



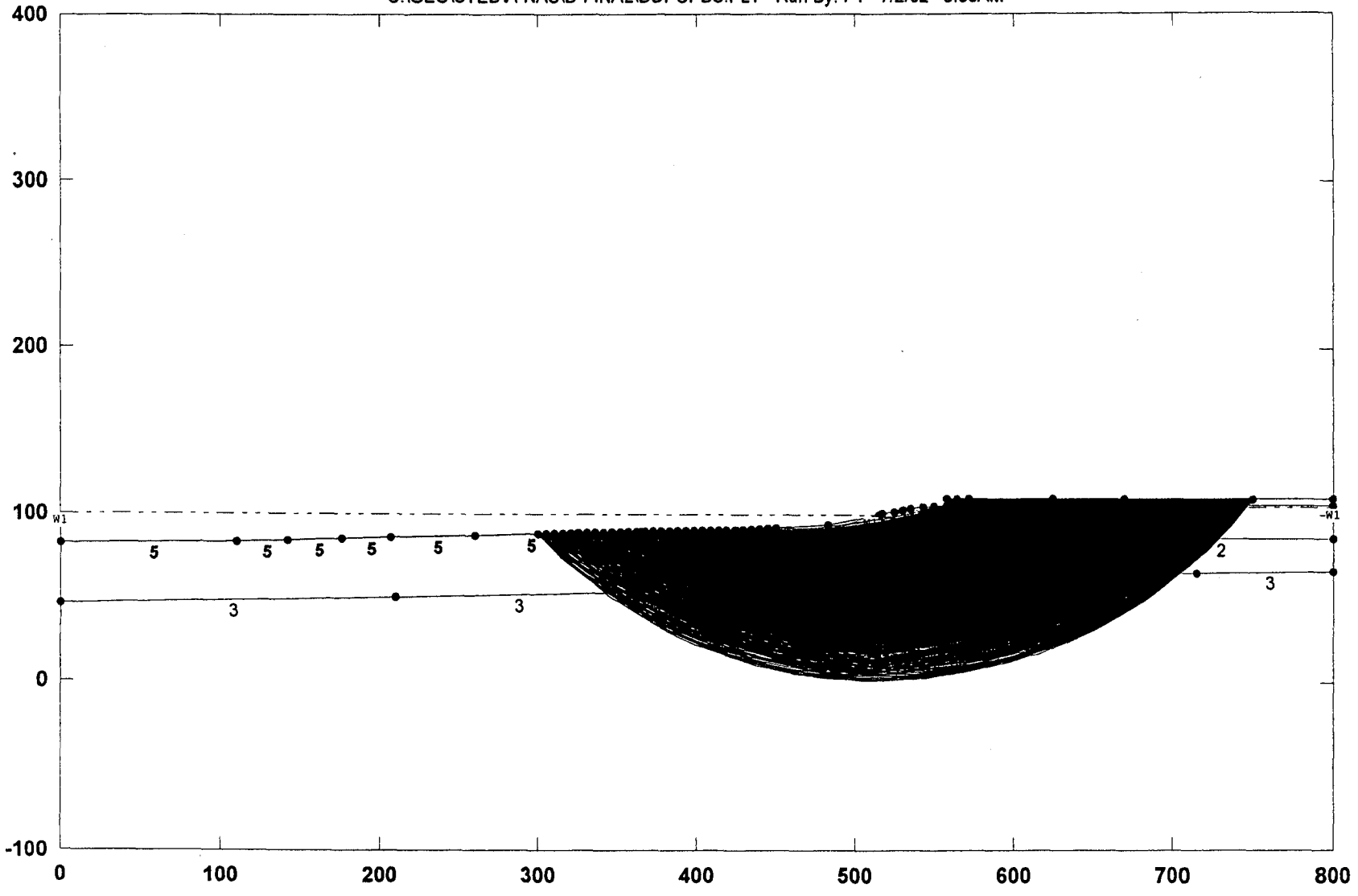
GSTABL7 v.2 FSmin=4.34

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPCPBS.PLT Run By: PT 7/2/02 9:30AM



GSTABL7

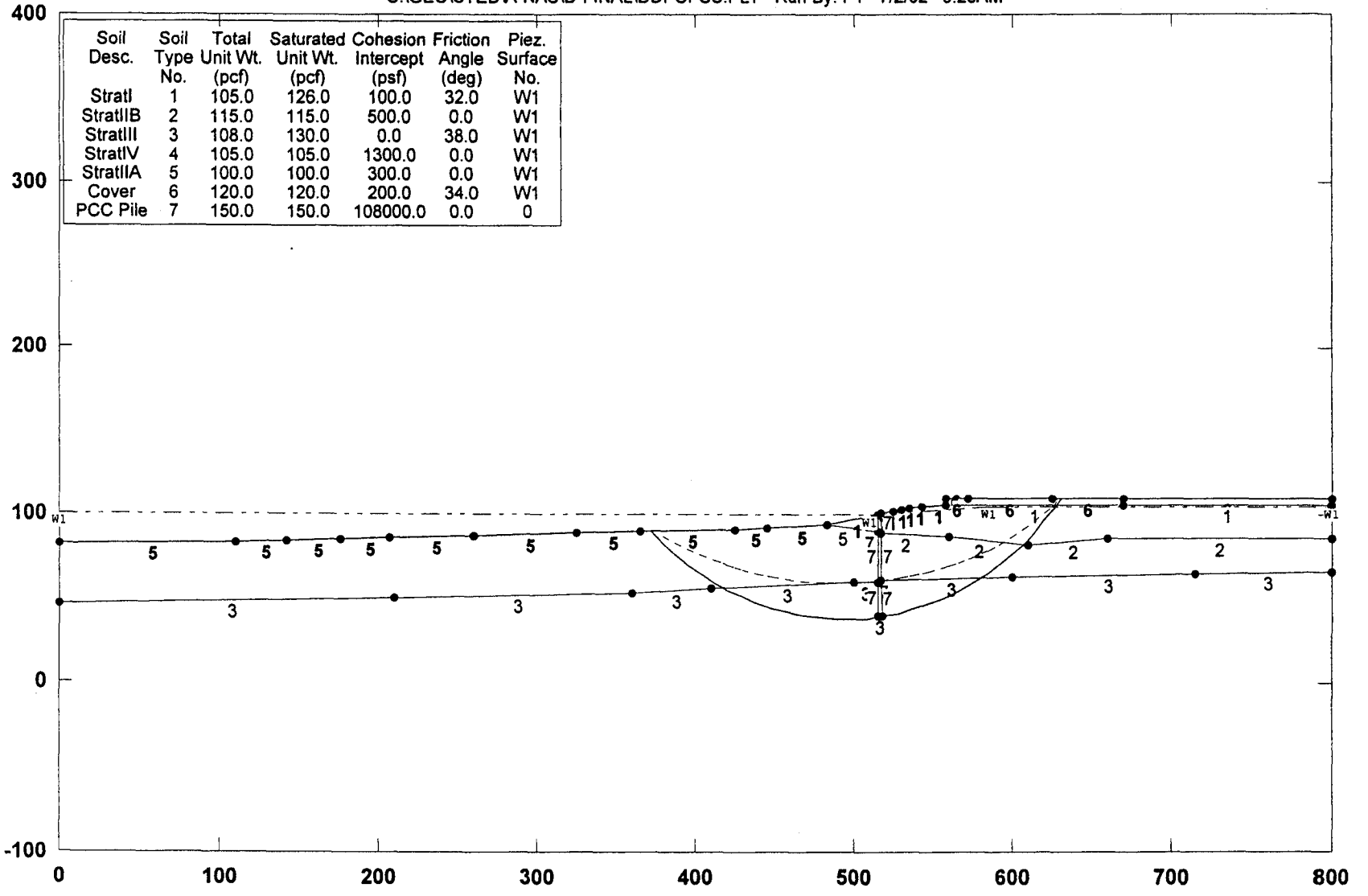
```
PROFIL  c:\geo\sted\a-nas\d-final\ddpcpbs.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Bishop Circular Search
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 517.2 100.8 7
517.2 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
517.2 100.8 517.3 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517.3 88.9 7
517.3 88.9 560. 87. 2
517.3 88.9 517.4 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.4 60.5 7
517.4 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.4 60.5 517.5 40. 7
514.8 40. 517.5 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PCC Pile
7
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Spencer Stab. Anal. Method

C:\GEO\STED\A-NAS\D-FINAL\DDPCPSS.PLT Run By: PT 7/2/02 9:23AM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	100.0	32.0	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PCC Pile	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.39

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

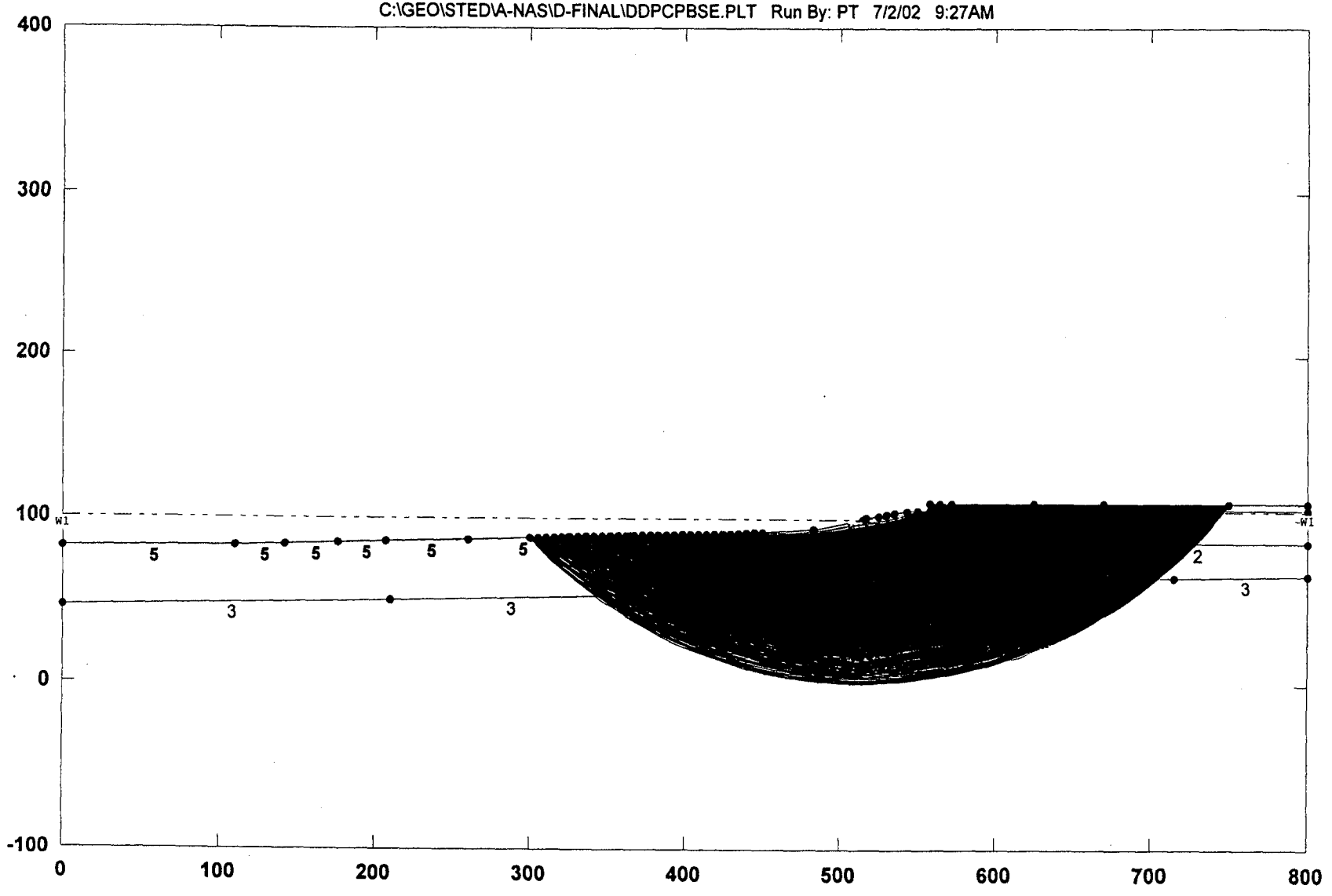
GSTABL7

```
PROFIL  C:\geo\sted\a-nas\d-final\ddpcpss.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', P Conc Pile-Static (Long-Term) Spencer Stab. Anal. Method
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 517.2 100.8 7
517.2 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
517.2 100.8 517.3 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517.3 88.9 7
517.3 88.9 560. 87. 2
517.3 88.9 517.4 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.4 60.5 7
517.4 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.4 60.5 517.5 40. 7
514.8 40. 517.5 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PCC Pile
7
105. 126. 100. 32. 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
GLEMS
10.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
31
372.41 90.12
379.49 83.05
386.97 76.42
394.84 70.25
403.07 64.57
411.62 59.38
420.47 54.73
429.58 50.61
438.92 47.05
448.47 44.05
458.17 41.64
468. 39.81
477.93 38.57
487.9 37.94
497.9 37.91
507.89 38.47
517.82 39.64
527.66 41.4
537.38 43.75
546.95 46.68
556.31 50.18
565.45 54.23
574.33 58.83
582.92 63.95
591.19 69.58
599.1 75.7
606.63 82.28
613.75 89.3
620.43 96.74
626.66 104.57
630.54 110.1
EXECUT
```

A-NAS, Section D-D', Prec Concrete Pile Post EQ Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPCPBSE.PLT Run By: PT 7/2/02 9:27AM



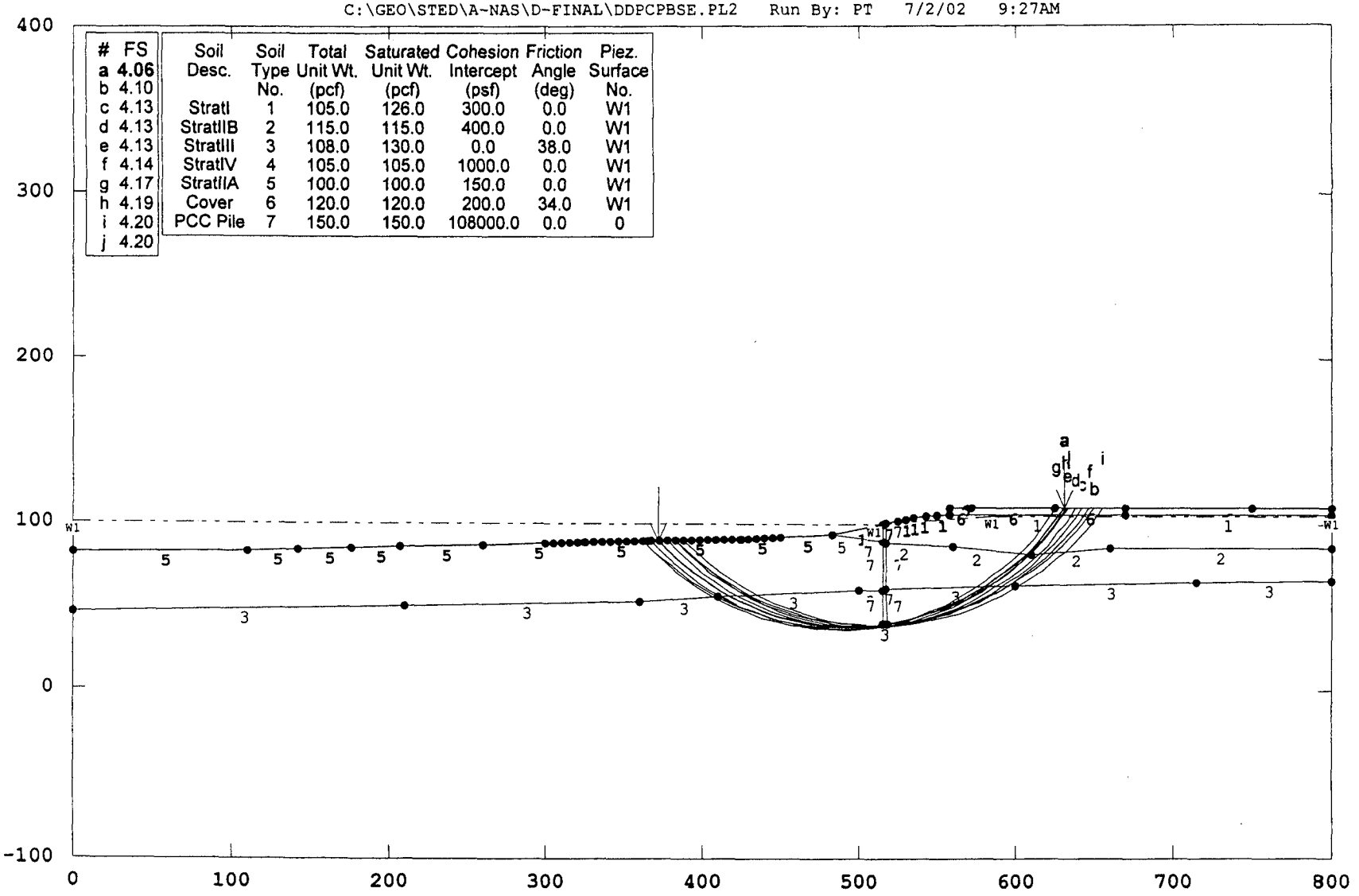
GSTABL7

A-NAS, Section D-D', Prec Concrete Pile Post EQ Bishop Circular Search

C:\GEO\STED\A-NAS\D-FINAL\DDPCPBSE.PL2 Run By: PT 7/2/02 9:27AM

#	FS
a	4.06
b	4.10
c	4.13
d	4.13
e	4.13
f	4.14
g	4.17
h	4.19
i	4.20
j	4.20

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1000.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PCC Pile	7	150.0	150.0	108000.0	0.0	0



GSTABL7 v.2 FSmin=4.06

Safety Factors Are Calculated By The Modified Bishop Method

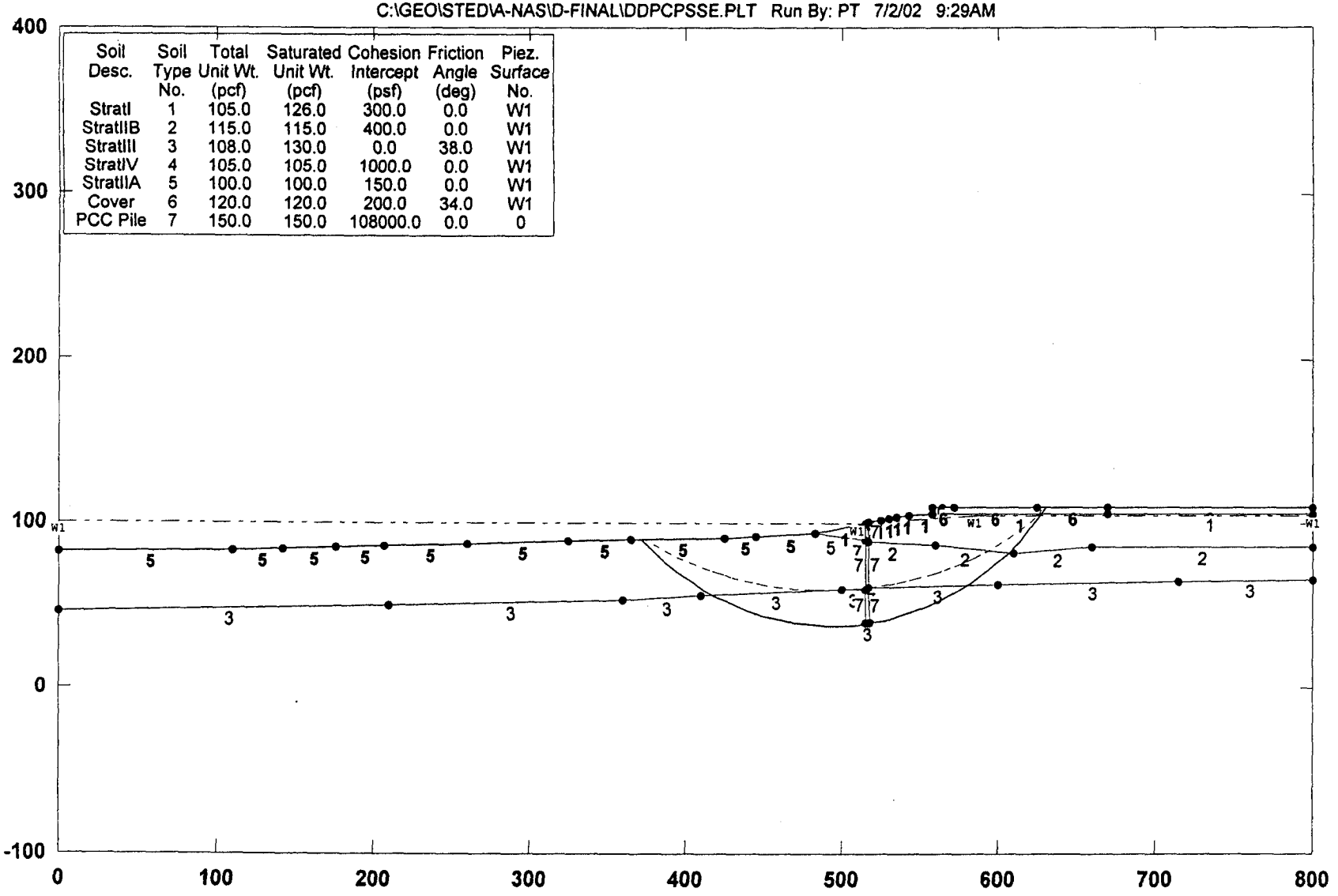
GSTABL7

```
PROFIL  c:\geo\sted\a-nas\d-final\ddpcpbse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', Prec Concrete Pile Post EQ Bishop Circular Search
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 517.2 100.8 7
517.2 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
517.2 100.8 517.3 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517.3 88.9 7
517.3 88.9 560. 87. 2
517.3 88.9 517.4 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.4 60.5 7
517.4 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.4 60.5 517.5 40. 7
514.8 40. 517.5 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PCC Pile
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
CIRCL2
30 100
300. 450. 550. 750.
0. 10. 0. 0.
```

A-NAS, Section D-D', Prec Concrete Pile Post EQ Spencer Stability Analy. Method

C:\GEO\STED\A-NAS\D-FINAL\DDPCPSSE.PLT Run By: PT 7/2/02 9:29AM



Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	300.0	0.0	W1
StratIIB	2	115.0	115.0	400.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1000.0	0.0	W1
StratIIA	5	100.0	100.0	150.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
PCC Pile	7	150.0	150.0	108000.0	0.0	0

GSTABL7 v.2 FSmin=4.13

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

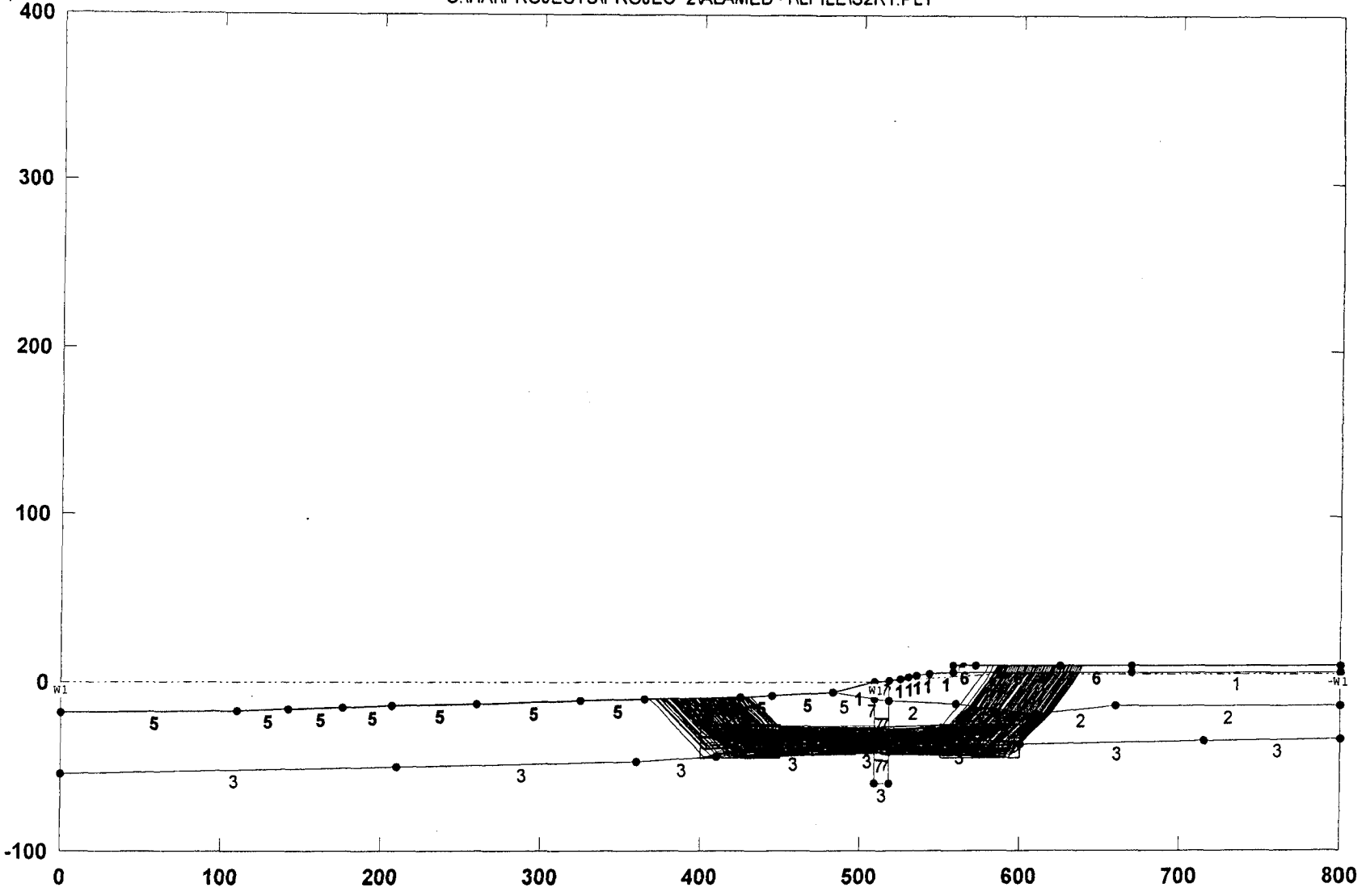
GSTABL7

```
PROFIL  C:\geo\sted\a-nas\d-final\ddpcpsse.in Version G7v.2 [GSTABL72.EXE] /O(0,
-100)
e
A-NAS, Section D-D', Prec Concrete Pile Post EQ Spencer Stability Analy. Method
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 515.1 100.2 1
515.1 100.2 517.2 100.8 7
517.2 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
515. 90. 515.1 100.2 7
517.2 100.8 517.3 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 515. 90. 5
514.9 60.45 515. 90. 7
515. 90. 517.3 88.9 7
517.3 88.9 560. 87. 2
517.3 88.9 517.4 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 514.9 60.45 3
514.9 60.45 517.4 60.5 7
517.4 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
514.8 40. 514.9 60.45 7
517.4 60.5 517.5 40. 7
514.8 40. 517.5 40. 3
-100.
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   PCC Pile
7
105. 126. 300. 0. 0. 0. 1
115. 115. 400. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
```

```
105. 105. 1000. 0. 0. 0. 1
100. 100. 150. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
150. 150. 108000. 0. 0. 0. 0
WATER
1 62.4
4 0.5
0. 100.
510. 100.
585. 105.
800. 105.
GLEMS
10.
1       Water filled tension crack (0=no,1=yes)
0       Force Distribution (0=Single slice,1=Entire failure surf)
0       Select Method (0=Spencer,1=Morgenstern-Price)
2       ki function (Spencer=1 or 2, M-P=1, 2, 3, 4, or 5=user)
1.000   Lambda Coefficient (adjusts ki, 0.4 to 1.0)
0       Trial Lambda Adjustment option (0=no, 1=yes)
SURBIS
31
372.41 90.12
379.49 83.05
386.97 76.42
394.84 70.25
403.07 64.57
411.62 59.38
420.47 54.73
429.58 50.61
438.92 47.05
448.47 44.05
458.17 41.64
468. 39.81
477.93 38.57
487.9 37.94
497.9 37.91
507.89 38.47
517.82 39.64
527.66 41.4
537.38 43.75
546.95 46.68
556.31 50.18
565.45 54.23
574.33 58.83
582.92 63.95
591.19 69.58
599.1 75.7
606.63 82.28
613.75 89.3
620.43 96.74
626.66 104.57
630.54 110.1
EXECUT
```

Section D-D', Driven Piles, R = 150 kis , Rankine Block Search, Ky = 0.150

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S2R1.PLT



GSTABL7

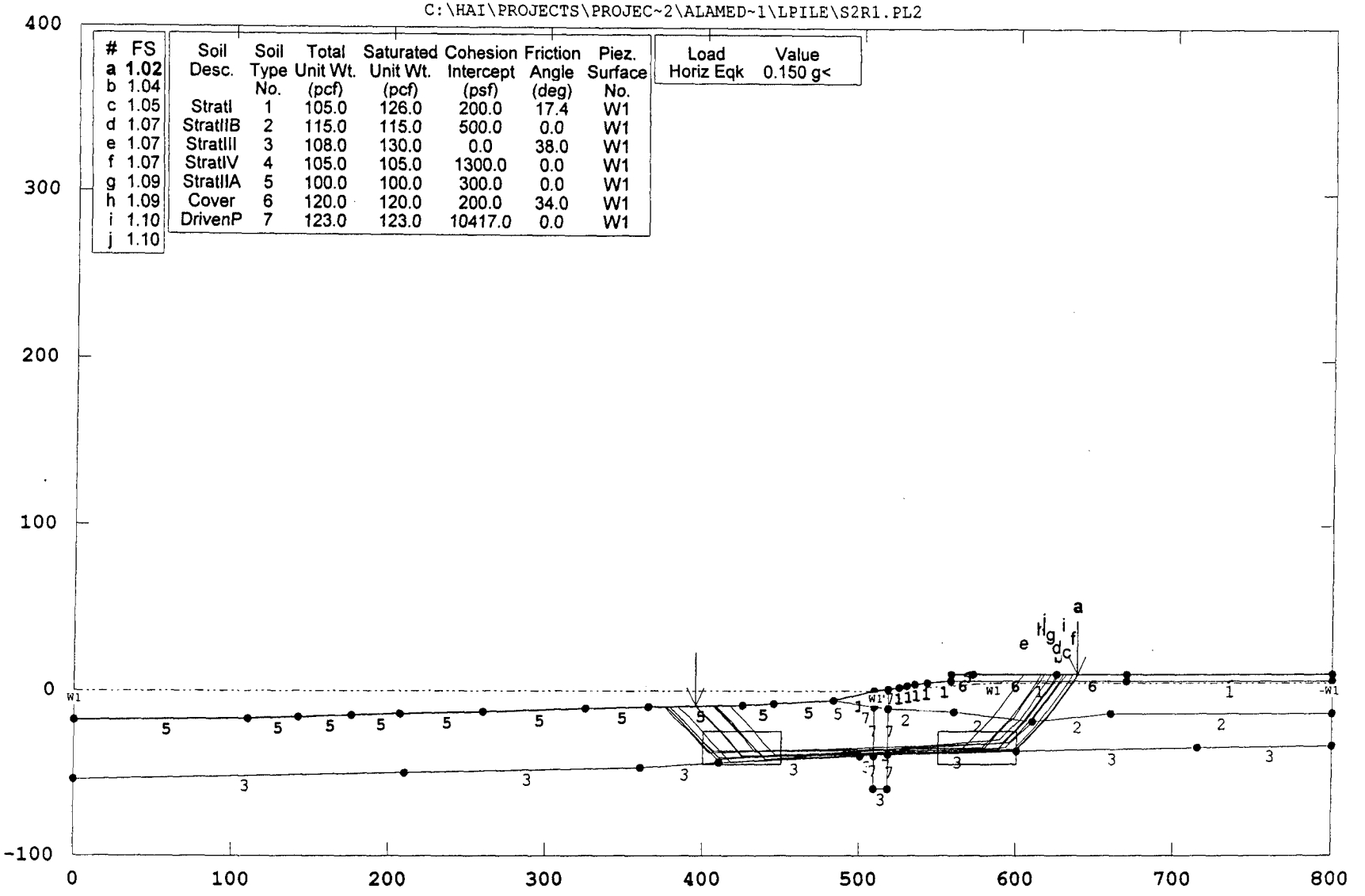
Section D-D', Driven Piles, R = 150 kis , Rankine Block Search, Ky = 0.150

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S2R1.PL2

#	FS
a	1.02
b	1.04
c	1.05
d	1.07
e	1.07
f	1.07
g	1.09
h	1.09
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.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
DrivenP	7	123.0	123.0	10417.0	0.0	W1

Load	Value
Horiz Eqk	0.150 g<



PCSTABL5M FSmin=1.02

Safety Factors Are Calculated By The Modified Janbu Method

GSTABL7

```
PROFIL        C:\PCSTBL5M\HAI\S2R1.DAT  PCSTABL Version 5M /O(0. ,-100. )
Section D-D', Driven Piles, R = 150 kis , Rankine Block Search, Ky = 0.150
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 509.1 100.2 1
509.1 100.2 518. 100.8 7
518. 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
509. 90. 509.1 100.2 7
518. 100.8 518.1 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 509. 90. 5
508.9 60.45 509. 90. 7
509. 90. 518.1 88.9 7
518.1 88.9 560. 87. 2
518.1 88.9 518.2 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 508.9 60.45 3
508.9 60.45 518.2 60.5 7
518.2 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
508.8 40. 508.9 60.45 7
518.2 60.5 518.3 40. 7
508.8 40. 518.3 40. 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   DrivenP
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
123. 123. 10417. 0. 0. 0. 1
```

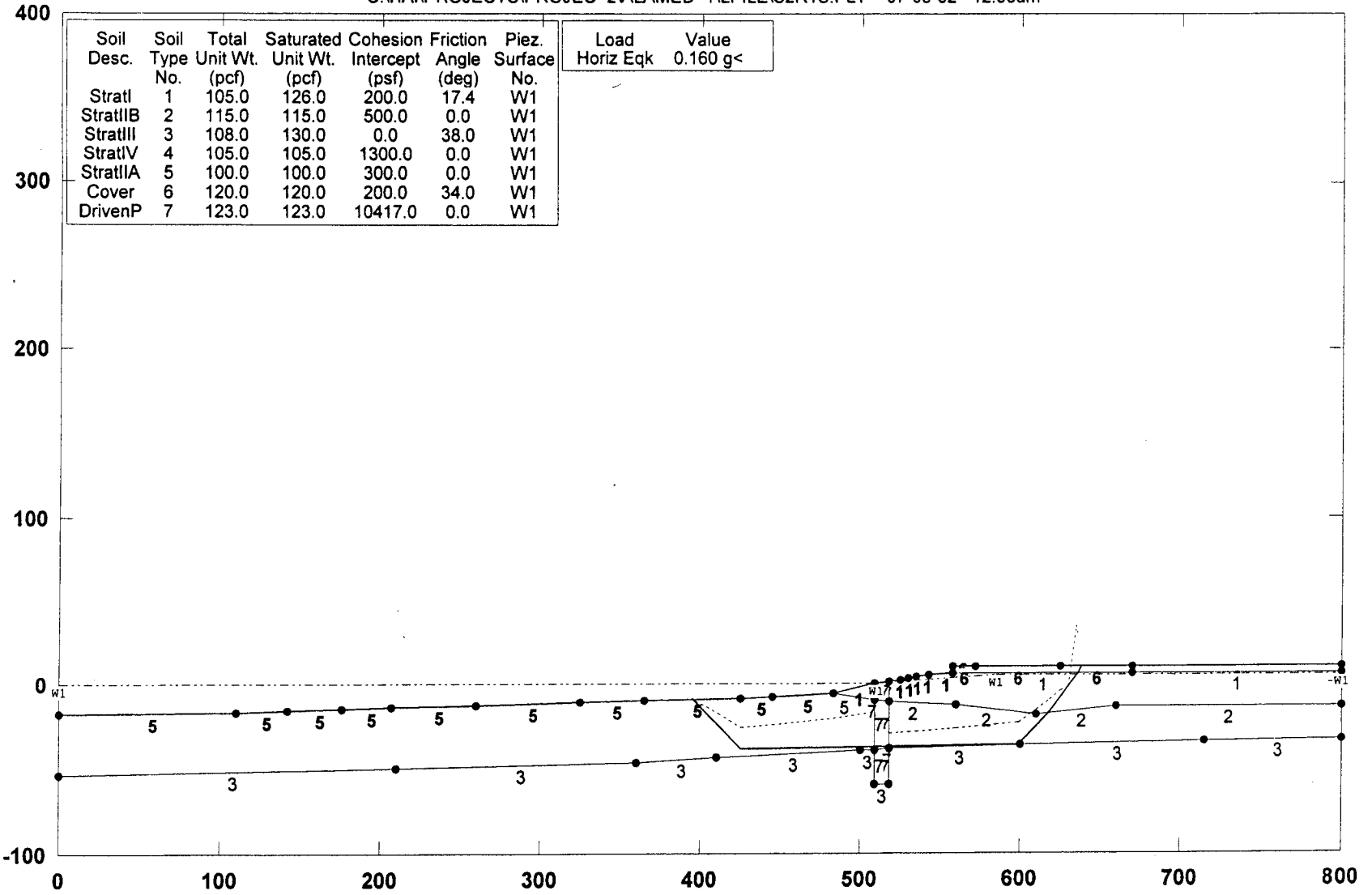
```
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.15 0. 0.
BLOCK2-Rankine block, search
0
200 2 10.
400. 65. 450. 65. 20.
550. 65. 600. 65. 20.
```

Section D-D', Driven Piles, R = 140 kis , Rankine Block Search, Ky = 0.160

C:\HAI\PROJECTS\PROJEC~2\ALAMED~1\LPILE\S2R1S.PLT 07-03-02 12:09am

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
StratI	1	105.0	126.0	200.0	17.4	W1
StratIIB	2	115.0	115.0	500.0	0.0	W1
StratIII	3	108.0	130.0	0.0	38.0	W1
StratIV	4	105.0	105.0	1300.0	0.0	W1
StratIIA	5	100.0	100.0	300.0	0.0	W1
Cover	6	120.0	120.0	200.0	34.0	W1
DrivenP	7	123.0	123.0	10417.0	0.0	W1

Load	Value
Horiz Eqk	0.160 g<



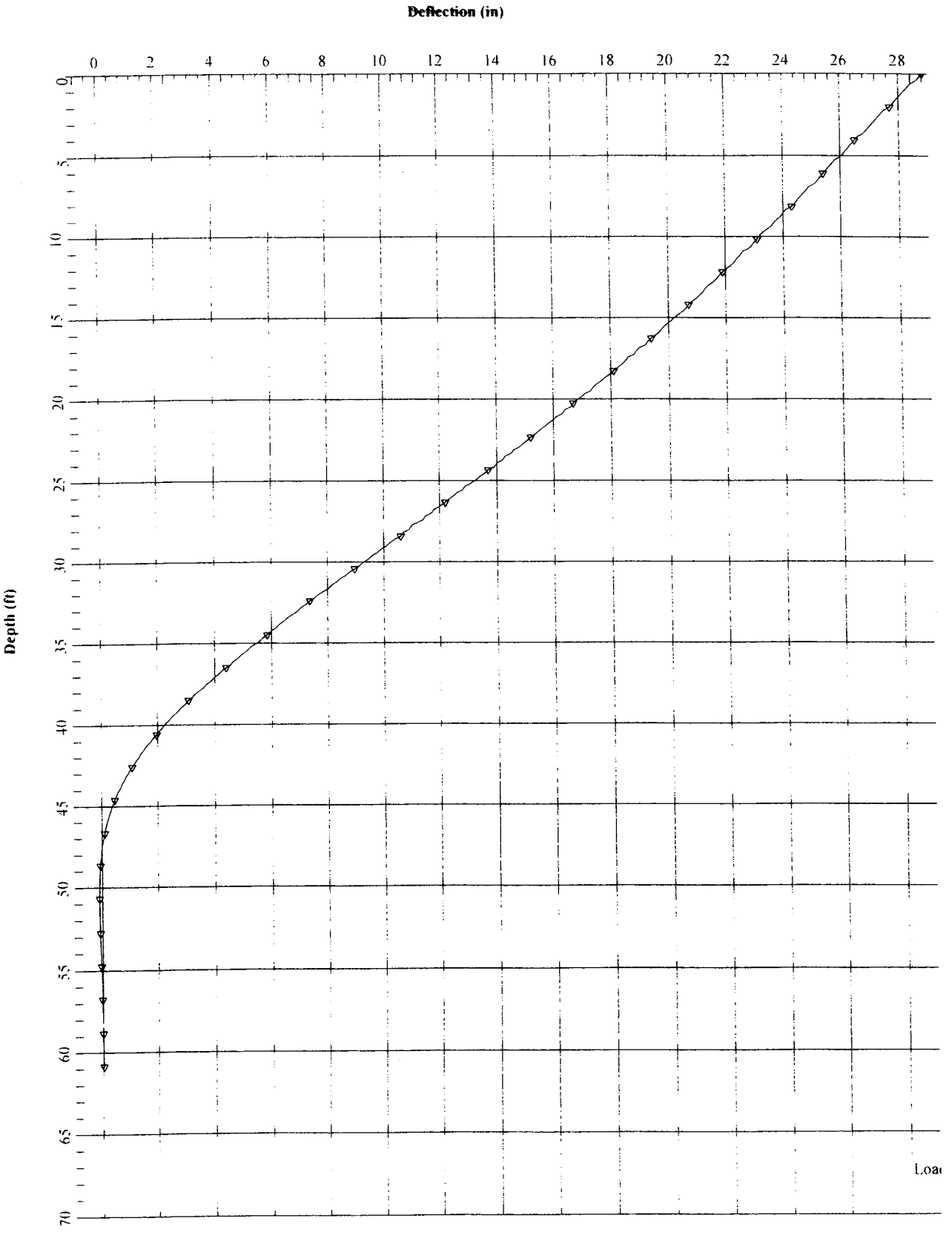
PCSTABL5M FSmin=1.01

Factor Of Safety Is Calculated By Spencer`s Method of Slices

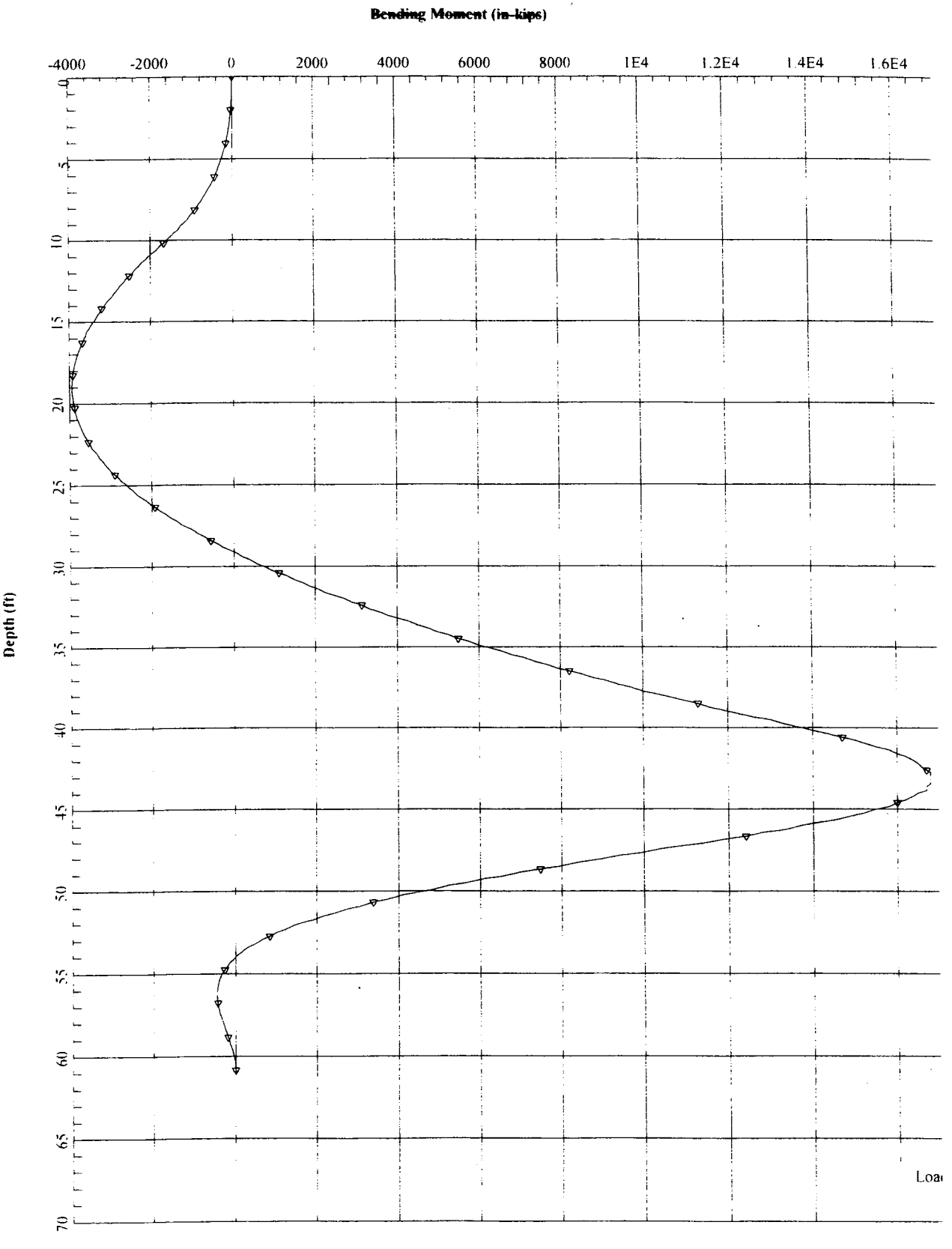
GSTABL7

```
PROFIL        C:\PCSTBL5M\S2R1S.DAT  PCSTABL Version 5M /O(0. ,-100. )
Section D-D', Driven Piles, R = 140 kis , Rankine Block Search, Ky = 0.160
46 22
0. 82.3 110. 83. 5
110. 83. 142. 84. 5
142. 84. 176. 85. 5
176. 85. 207. 86. 5
207. 86. 260. 87. 5
260. 87. 325. 89. 5
325. 89. 365. 90. 5
365. 90. 425. 91. 5
425. 91. 445. 92. 5
445. 92. 483. 94. 5
483. 94. 509.1 100.2 1
509.1 100.2 518. 100.8 7
518. 100.8 525. 102.1 1
525. 102.1 530. 103.1 1
530. 103.1 535. 104.1 1
535. 104.1 543. 105.1 1
543. 105.1 558. 106.1 1
558. 106.1 558.1 110.1 6
558.1 110.1 572. 110.1 6
572. 110.1 625. 110.1 6
625. 110.1 670. 110.1 6
670. 110.1 800. 109.6 6
509. 90. 509.1 100.2 7
518. 100.8 518.1 88.9 7
558. 106.1 670. 106.1 1
670. 106.1 800. 105.6 1
483. 94. 509. 90. 5
508.9 60.45 509. 90. 7
509. 90. 518.1 88.9 7
518.1 88.9 560. 87. 2
518.1 88.9 518.2 60.5 7
560. 87. 610. 81.5 2
610. 81.5 660. 86. 2
660. 86. 800. 86. 2
0. 46. 210. 50. 3
210. 50. 360. 53. 3
360. 53. 410. 56. 3
410. 56. 500. 60. 3
500. 60. 508.9 60.45 3
508.9 60.45 518.2 60.5 7
518.2 60.5 600. 63. 3
600. 63. 715. 65. 3
715. 65. 800. 66. 3
508.8 40. 508.9 60.45 7
518.2 60.5 518.3 40. 7
508.8 40. 518.3 40. 3
SOIL  StratI  StratIIBStratIIIStratIV StratIIACover   DrivenP
7
105. 126. 200. 17.4 0. 0. 1
115. 115. 500. 0. 0. 0. 1
108. 130. 0. 38. 0. 0. 1
105. 105. 1300. 0. 0. 0. 1
100. 100. 300. 0. 0. 0. 1
120. 120. 200. 34. 0. 0. 1
123. 123. 10417. 0. 0. 0. 1
```

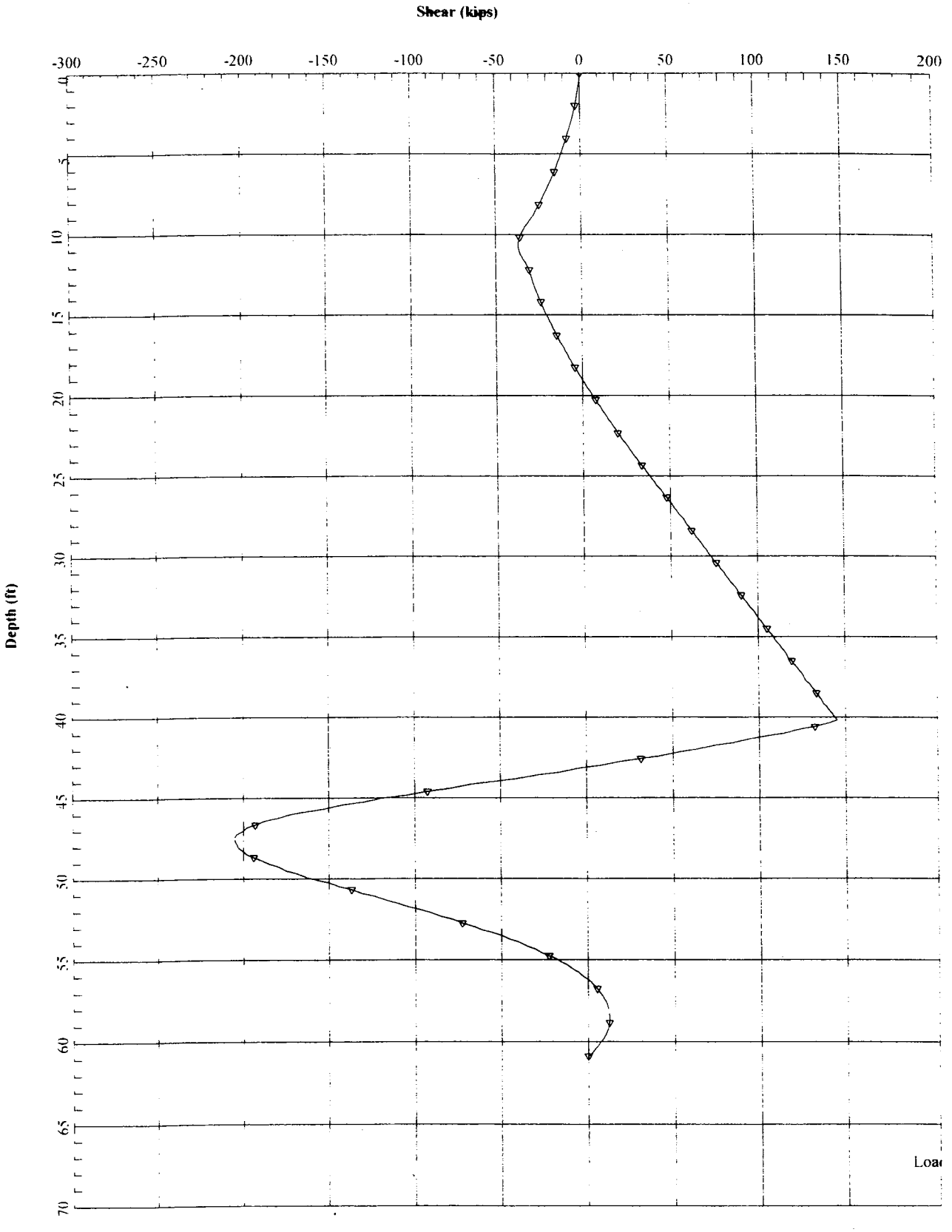
```
WATER
1 62.4
4
0. 100.
510. 100.
585. 105.
800. 105.
EQUAKE
0.16 0. 0.
SPENCR
10.
SURFAC #1-S2R1.OUT
15
395.25 90.5
396.97 88.78
404.04 81.71
411.11 74.64
418.18 67.57
425.25 60.5
598.86 62.95
598.87 62.97
605.94 70.04
613.01 77.11
618.14 82.23
624.06 90.29
629.98 98.35
635.67 106.1
637.8 110.1
EXECUT
```



FOUR-ROW DRIVEN PILES: D = 2', Ss = 6', Sr = 4', SOIL MOVEMENT = 22.8"



FOUR-ROW DRIVEN PILES: D = 2', Ss = 6', Sr = 4', SOIL MOVEMENT = 22.8"



FOUR-ROW DRIVEN PILES: D = 2', Ss = 6', Sr = 4', SOIL MOVEMENT = 22.8"

APPENDIX B

COST ESTIMATES

APPENDIX B2

ALTERNATIVE 2 – STONE COLUMNS WITH SURCHARGE

Proposal

Job Description: Alt 2-Stone Clmn w/ Surch

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	150,000.00	**150,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	64,000.00	**64,000.00**
4	Stone Column Const	150,000.000	LF	94.00	**14,100,000.00**
5	Contamianted Soil Plcmnt	40,000.0000	CY	16.00	**640,000.00**
6	Surcharge Placement	534,000.000	CY	18.00	**9,612,000.00**
7	Water Treatment System	1.0000	LS	210,000.00	**210,000.00**
8	Hydro-Seeding Restoration	20.0000	AC	1,000.00	**20,000.00**
90	Engineering - Oversight	24.0000	MO	21,000.00	**504,000.00**
95	Const. Project Support	24.0000	MO	110,000.00	**2,640,000.00**
99	Demobilization	1.0000	EA	26,000.00	**26,000.00**
				GRAND TOTAL	**28,020,000.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A2STONE (Alt 2-Stone Clmn w/ Surch)

Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					120,000		120,000	120,000				30,000.00	150,000	30,000.00	150,000
10	Engineering - Design	1.00	LS					120,000		120,000								
2	Pre-Construction Work	1.0000	LS	40,817.06					2,000.00	42,817.06	42,817.06				10,704.26	53,521.32	11,182.94	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,132.26						12,132.26								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,231.63						2,231.63								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,210.13		1,400.00	1,286.99	41,500.00	2,700.00	51,097.12	51,097.12				12,774.28	63,871.40	12,902.88	64,000.00
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					31,500.00		31,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,210.13		1,400.00	1,286.99		2,700.00	9,597.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					20.00		20.00								
4	Stone Column Const	150,000.0	LF					75.00		75.00	75.00				18.75	93.75	19.00	94.00
130	Stone Column Installation	150000	LF					75.00		75.00								
5	Contamianted Soil Plcmnt	40,000.00	CY	2.23	3.48	7.44				13.15	13.15				3.29	16.44	2.85	16.00
135	Contaminated soil placeme	40000.0	CY	2.23	3.48	7.44				13.15								
6	Surcharge Placement	534,000.0	CY						14.40	14.40	14.40				3.60	18.00	3.60	18.00
140	Surcharge Placement	534000	CY															
140 2	Common fill	534000	CY						14.40	14.40								
7	Water Treatment System	1.0000	LS				48,600.00	115,535	3,950.00	168,085	168,085				42,021.25	210,106	41,915.00	210,000
150	Water Treatment Syst.	1.00	LS															
150 1	Temp Dwtr & Trt System	1.00	LS				48,600.00	62,735.00	3,950.00	115,285								
150 2	Temp Water Treat Syst Ops	2640000	GL					0.02		0.02								
8	Hydro-Seeding Restoration	20.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	20.00	AC					800.00		800.00								
90	Engineering - Oversight	24.0000	MO	16,109.30					929.50	17,038.80	17,038.80				4,259.70	21,298.50	3,961.20	21,000.00
900	Engineering - Oversight	24.00	MO	16,109.30					929.50	17,038.80								
95	Const. Project Support	24.0000	MO	66,291.51		21.25	7,214.14	5,312.50	9,292.17	88,131.57	88,131.57				22,032.89	110,164	21,868.43	110,000
950	Construction Proj Support	24.00	MO															
950 13	Indirect Project Costs	24.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	24.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	24.00	MO															
950 13 1 4 1	WEATHER	24.00	MO															
950 13 2	CONST EQUIP & TOOLS	24.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	24.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	24.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	24.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	24.00	MO															
950 13 6 1	OFFICE TRAILERS	24.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	24.00	MO															
950 13 6 2 1	Connex Boxes	24.00	MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	24.00	MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00	LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	24.00	MO				350.00			350.00								
950 13 6 8	TOILETS	24.00	MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00	LS						500.00	500.00								
950 13 6 12	LIENT TRAILERS	24.00	MO															
950 13 6 16	FFICE EQUIP/FURNISHING	1.00	LS						.00.00	2,000.00								

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actu- Markup	Actual Price
950 13 6 18	TESTING LABORATORY	24.00 MO															
950 13 6 27	HAUL ROAD MAINTENANCE	24.00 MO															
950 13 6 28	EMERGENCY EQUIPMENT	24.00 MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	24.00 MO															
950 13 7 1	POWER	24.00 MO						500.00	500.00								
950 13 7 2	WATER	24.00 MO						200.00	200.00								
950 13 7 3	SANITARY	24.00 MO															
950 13 7 4	TELEPHONE	24.00 MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	24.00 MO															
950 13 8 1	JANITORIAL AND CLEANUP	24.00 MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	24.00 MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	24.00 MO															
950 13 8 4	MEDICAL/FIRST AID	24.00 MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00 LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00 LS						400.00	400.00								
950 13 8 8	REPRODUCTION AND PHOTO	24.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	24.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	24.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	24.00 MO															
950 13 9 1	IT/WAN COST	24.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	24.00 MO															
950 13 10 1	PICKUP TRUCKS	24.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	24.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	20,002.01			500.00		922.50	21,424.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	24.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,704.40						2,704.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	24.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	24.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	24.00 MO															
950 14 1 1	PROGRAM MANAGER	24.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	24.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	24.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	24.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	24.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	24.00 MO															
950 14 4 13	SURVEYORS	24.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	24.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	24.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	24.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	24.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	24.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	24.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	24.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	24.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	24.00 MO															
950 14 6 1	PROCUREMENT MANAGER	24.00 MO															
950 14 6 2	BUYERS	24.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	24.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	24.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	24.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	24.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	24.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	24.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	24.00 MO															
950 14 6 9	FINANCIAL SERVICES	24.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	24.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	11,500.00	2,700.00	20,427.49	20,427.49				5,106.87	25,534.36	5,572.51	26,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					11,500.00		11,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								
	Extended Totals by Category		2,116,177	139,155	299,584	224,942	11,682,035	7,946,270	22,408,164	22,408,164				5,602,041	28,010,205	5,611,836	28,020,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Cost/Price Review - Unit

Code	Description		Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
			Percent															
Direct Cost		22,408,164	80.00															
Direct Cost Escalation		0	0.00															
Escalated Direct Cost		22,408,164	80.00															
Job Overhead		0	0.00															
Job Overhead Escalation		0	0.00															
Escalated Job Overhead		0	0.00															
Indirect		0	0.00															
Tax & Add-On		0	0.00															
Finance		0	0.00															
Bond		0	0.00															
Total Business Overhead		0	0.00															
Markup on Direct		5,602,041	20.00															
Markup on Job Overhead		0	0.00															
Total Markup		5,602,041	20.00															
Total Cut/Add		0	0.00															
Target Bid Price		28,010,205	100.00															
Bid Price		28,020,000	100.03															
Difference		-9,795	-0.03															

(c) Copyright 1988 to 2002 Har[illegible]ar Co[illegible]n All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						120,000			120,000	120,000
	Engineering - Design													
				U						120,000			120,000	120,000
				T						120,000			120,000	120,000
	Bid Item bid quantity and cost:	1.00	LS	T						120,000			120,000	120,000
10	Engineering - Design	1.00	LS							120,000			120,000	120,000
										120,000			120,000	120,000
10	**Engineering - Design**	**1.00**	**LS**							**120,000**			**120,000**	**120,000**
Detailed														

Note: Engineering Design Cost Breakdown:
Design Reports (30%, 60%, 90%, 100%): $40,000
Technical Specifications: $30,000
Construction Drawings: $50,000
Total: $120,000

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	USFWENCFWENC Engr Costs	120,000	LS	U						1.00			1.00	120,000
		Resource List:		T						120,000			120,000	120,000

Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2				Pre-Construction Work	1.00	LS	T	40,817						2,000		42,817	42,817
				Pre-Construction Work													
							U	40,817						2,000.00		42,817	42,817
							T	40,817						2,000		42,817	42,817
				Bid Item bid quantity and cost:	1.00	LS	T	40,817						2,000		42,817	42,817
20				Pre-Construction Work	1.00	LS											
20	1			Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
								3,120.07						2,000.00		5,120.07	5,120
20	2			Bonding & Insurance	1.00	LS											
20	3			Submittals	1.00	LS											
20	3	1		Site HASP	1.00	LS											
20	3	1	1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
								4,966.60								4,966.60	4,967
20	3	1	2	HASP - Final	1.00	LS		985.36								985.36	985
								985.36								985.36	985
20	3	2		Work Plan	1.00	LS											
20	3	2	1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
								8,244.84								8,244.84	8,245
20	3	2	2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
								3,029.03								3,029.03	3,029
20	3	3		Erosion & Sed Cntrl Plan	1.00	LS											
20	3	3	1	Eros & Sed Cont - Draft	1.00	LS		12,132								12,132	12,132
								12,132								12,132	12,132
20	3	3	2	Eros & Sed Cont - Final	1.00	LS		2,231.63								2,231.63	2,232
								2,231.63								2,231.63	2,232
20	3	4		Project Schedule	1.00	LS											
20	3	4	1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
								4,512.19								4,512.19	4,512
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
								1,595.07								1,595.07	1,595
20				**Pre-Construction Work**	**1.00**	**LS**		**40,817**						**2,000.00**		**42,817**	**42,817**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	**1**			**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				3.0 Days	0.3333 LS/Da		3.0000 Da/LS	1706.69 Cost/Da									
				24.0 Hours	0.0417 LS/Hr		24.0000 Hr/LS	213.34 Cost/Hr									
				32.0 Man-Hr	0.0313 LS/MH		32.0000 MH/LS	160.00 Cost/MH									

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120

20 2 Bonding & Insurance 1.00 LS
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 Submittals 1.00 LS 37,696 37,696 37,697
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 Site HASP 1.00 LS 5,951.96 5,951.96 5,952
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 1 HASP - Draft 1.00 LS 4,966.60 4,966.60 4,967
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	993.32 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	124.16 Cost/Hr
52.0 Man-Hr	0.0192 LS/MH	52.0000 MH/LS	95.51 Cost/MH

1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66		86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96		82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00		162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07		130.07	520
			Resource List:		T	4,967		4,967	4,967

20 3 1 2 HASP - Final 1.00 LS 985.36 985.36 985
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	985.36 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	123.17 Cost/Hr
10.0 Man-Hr	0.1000 LS/MH	10.0000 MH/LS	98.54 Cost/MH

1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66		86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00		162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07		130.07	130
			Resource List:		T	985		985	985

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	2		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	3	2	1	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		5.0 Days		0.2000 LS/Da	5.0000 Da/LS			1648.97 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			206.12 Cost/Hr									
		84.0 Man-Hr		0.0119 LS/MH	84.0000 MH/LS			98.15 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0	L90HEI00		Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0	L90HE800		Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0	L90FXX02		Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0	L90HE800		Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0	L90HXX08		Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20	3	2	2	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		3.0 Days		0.3333 LS/Da	3.0000 Da/LS			1009.68 Cost/Da									
		24.0 Hours		0.0417 LS/Hr	24.0000 Hr/LS			126.21 Cost/Hr									
		36.0 Man-Hr		0.0278 LS/MH	36.0000 MH/LS			84.14 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0	L90HEI00		Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90FXX02		Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90HXX08		Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20	3	3		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,363**								**14,363**	**14,364**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	3	3	1	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,132**								**12,132**	**12,132**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				5.0 Days 0.2000 LS/Da	5.0000 Da/LS			2426.45 Cost/Da									
				40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			303.31 Cost/Hr									
				120.0 Man-Hr 0.0083 LS/MH	120.0000 MH/LS			101.10 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
	1.0			L90HEI00 Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
	1.0			L90HE800 Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
	1.0			L90HDP00 Home - Senior Designer	16.00	HR	U	88.14								88.14	1,410
	1.0			L90HED00 Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	12,132								12,132	12,132
20 Detailed	**3**	**3**	**2**	**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,231.63**								**2,231.63**	**2,232**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				1.0 Days 1.0000 LS/Da	1.0000 Da/LS			2231.63 Cost/Da									
				8.0 Hours 0.1250 LS/Hr	8.0000 Hr/LS			278.95 Cost/Hr									
				23.0 Man-Hr 0.0435 LS/MH	23.0000 MH/LS			97.03 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
	1.0			L90HDP00 Home - Senior Designer	4.00	HR	U	88.14								88.14	353
	1.0			L90HED00 Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	2,232								2,232	2,232
20 Detailed	**3**	**4**		**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20 Detailed	**3**	**4**	**1**	**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				1.5 Days 0.6667 LS/Da	1.5000 Da/LS			3008.13 Cost/Da									
				12.0 Hours 0.0833 LS/Hr	12.0000 Hr/LS			376.02 Cost/Hr									
				36.0 Man-Hr 0.0278 LS/MH	36.0000 MH/LS			125.34 Cost/MH									
	1.0			L90FXX02 Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
	1.0			L90HED00 Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
	1.0			L90HE800 Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hard[illegible]ar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	4	2	**Const. Schedule - Final**	**1.00**	**LS**		**1,595.07**								**1,595.07**	**1,595**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

0.8 Days	1.3333 LS/Da	0.7500 Da/LS	2126.76 Cost/Da	
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr	
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH	

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96							82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97							139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59							164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07							130.07	260
			Resource List:		T	1,595							1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,210		1,287	1,400		41,500	2,700		51,097	51,097
			Mobilization													
						U	4,210.13		1,286.99	1,400.00		41,500	2,700.00		51,097	51,097
						T	4,210		1,287	1,400		41,500	2,700		51,097	51,097
			Bid Item bid quantity and cost:	1.00	EA	T	4,210		1,287	1,400		41,500	2,700		51,097	51,097
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							31,500			31,500	31,500
												31,500			31,500	31,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
							4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							10,000			20.00	10,000
												20.00			20.00	10,000
30			**Mobilization**	**1.00**	**EA**		**4,210.13**		**1,286.99**	**1,400.00**		**41,500**	**2,700.00**		**51,097**	**51,097**
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**31,500**			**31,500**	**31,500**
Detailed																

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 20k mob for subcontractor

1.0	UEEPTRNSFWENC Eqp Transport/Setup	10,000	LS	U					1.00			1.00	10,000
1.0	UERNTRSMRental Equip Transp-Small	2.00	EA	U					150.00			150.00	300
1.0	UERNTRLGRental Equip Transp-Large	2.00	EA	U					600.00			600.00	1,200
1.0	UEEPTRNSFWENC Eqp Transport/Setup	20,000	LS	U					1.00			1.00	20,000
		Resource List:		T					31,500			31,500	31,500

30	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**	**9,597.12**	**9,597**
Detailed															

(c) Copyright 1988 to 2002 Hans Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
			8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
30 Detailed	2	1	**Site Setup/Preparation**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00	800.00	2,400
1.0	UOCONMOB	Conex Box Mob	1.00	EA	U							300.00	300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U				10.00				10.00	1,400
			Resource List:		T				1,400			2,700	4,100	4,100

CREW Cost Detail

3.8 Days	0.2667 LS/Da	3.7500 Da/LS	1465.90 Cost/Da		
30.0 Hours	0.0333 LS/Hr	30.0000 Hr/LS	183.24 Cost/Hr		
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	45.81 Cost/MH		

1.0	L010490	OPERATOR DOZER	30.00	HR	U	42.69							42.69	1,281
3.0	L060100	GENERAL LABORER	90.00	HR	U	32.55							32.55	2,930
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U			42.90					42.90	1,287
			Resource List:		T	4,210		1,287					5,497	5,497

30 Detailed	3		**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**											

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	3	1	**Mob Personnel**	**1.00**	**LS**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	4		**Perimeter Fencing**	**500.00**	**LF**							**10,000**			**20.00**	**10,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	USFENCE Fencing Installation	500.00	LF	U						20.00			20.00	10,000
		Resource List:		T						10,000			10,000	10,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4		Stone Column Const	150,000	LF	T						11250000			75	11250000
		Stone Column Const													
					U						75.00			75.00	11250000
					T						11250000			75	11250000
		Bid Item bid quantity and cost:	150,000	LF	T						11250000			75	11250000
130		Stone Column Installation	150,000	LF							11250000			75.00	11250000
											75.00			75.00	11250000
130		**Stone Column Installation**	**150,000**	**LF**							**11250000**			**75.00**	**11250000**
Detailed															
	Note:	Area approximately 38' x 4,000' with a 3' stone column every 7' in eahc direction for a total of 3,432 columns. Drains average 40' over the common fill for a total VLF of 150,000. Columns extend from top of sand layer to bottom of urcharge area.													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh								
LIST Cost Detail															
1.0	UDRILL3'	Drill 3' caisson w/stone	150,000	LF	U						75.00			75.00	11250000
			Resource List:		T						11250000			11250000	11250000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5	Contamianted Soil Plcmnt	40,000	CY	T	89,219	139,155		297,674					13	526,048
	Contamianted Soil Plcmnt													
				U	2.23	3.48		7.44					13.15	526,048
				T	89,219	139,155		297,674					13	526,048
	Bid Item bid quantity and cost:	40,000	CY	T	89,219	139,155		297,674					13	526,048
135	Contaminated soil placeme	40,000	CY		89,218	139,155		297,674					13.15	526,048
					2.23	3.48		7.44					13.15	526,048
135	**Contaminated soil placeme**	**40,000**	**CY**		**89,218**	**139,155**		**297,674**					**13.15**	**526,048**

Detailed

Note: Contaminated soils to be excavated and placed over existing landfill areas. Common fill to be used as cover.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCMNFILL	Common Fill	37,209	TN	U			8.00					8.00	297,674
			Resource List:		T			297,674					297,674	297,674

CREW Cost Detail

625.0 Days	64.0000 CY/Da	0.0156 Da/CY	365.40 Cost/Da	
5000.0 Hours	8.0000 CY/Hr	0.1250 Hr/CY	45.67 Cost/Hr	
2500.0 Man-Hr	16.0000 CY/MH	0.0625 MH/CY	91.35 Cost/MH	

0.5	L010101	OPERATOR GROUP 1	2,500.00	HR	U	35.69							35.69	89,219
1.0	ELOA_202	CAT IT28F INTRG-FW	5,000.00	HR	U		14.43						14.43	72,150
0.5	EDOZ_305	Komatsu D65PX LGP-FW	2,500.00	HR	U		26.80						26.80	67,005
			Resource List:		T	89,219	139,155						228,374	228,374

(c) Copyright 1988 to 2002 H... ...ollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
6		Surcharge Placement	534,000	CY	T					7689600				14	7689600
		Surcharge Placement													
					U					14.40				14.40	7689600
					T					7689600				14	7689600
		Bid Item bid quantity and cost:	534,000	CY	T					7689600				14	7689600
140		Surcharge Placement	534,000	CY											
140	2	Common fill	534,000	CY						7689600				14.40	7689600
										14.40				14.40	7689600
140		**Surcharge Placement**	**534,000**	**CY**						**7689600**				**14.40**	**7689600**
Detailed															
		Note: Surcharge area is 200' x 4,000' x 18' deep for a total of 534,000 cy addtional fill.													
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
140	**2**	**Common fill**	**534,000**	**CY**						**7689600**				**14.40**	**7689600**
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail															
		Note: Quantity includes 20% shrinkage/compaction factor.													
	1.0	UFILL Common fill installed	640,800	CY	U					12.00				12.00	7689600
			Resource List:		T					7689600				7689600	7689600

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
7		Water Treatment System	1.00	LS	T			48,600			115,535		3,950	168,085	168,085
		Water Treatment System													
					U			48,600			115,535		3,950	168,085	168,085
					T			48,600			115,535		3,950	168,085	168,085
		Bid Item bid quantity and cost:	1.00	LS	T			48,600			115,535		3,950	168,085	168,085
150		Water Treatment Syst.	1.00	LS											
150	1	Temp Dwtr & Trt System	1.00	LS				48,600			62,735		3,950	115,285	115,285
								48,600			62,735		3,950	115,285	115,285
150	2	Temp Water Treat Syst Ops	2640000	GL							52,800			0.02	52,800
											0.02			0.02	52,800
150 Detailed		**Water Treatment Syst.**	**1.00**	**LS**				**48,600**			**115,535**		**3,950**	**168,085**	**168,085**
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk			8.00 Pay-Hrs/Sh							
150 Detailed	**1**	**Temp Dwtr & Trt System**	**1.00**	**LS**				**48,600**			**62,735**		**3,950**	**115,285**	**115,285**
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		50.00 Hours/Wk			10.00 Pay-Hrs/Sh							
LIST Cost Detail															
	Note:	Cost includes the following:													
		FW Design: review of vendor schematic/spec validation included elsewhere													
		Include 3 Month Rental to incorporate delivery/setup/cleanup time:													
		FW estimated equipment:													
		FW Installation 16hours x $75/hr = $1,200													
		Materials: 1LS = $500													
		Vendor Pricing: (TIGG Corp)													
		Mob & Setup, and Starutp Training: $8,305													
		System Rental: $2,745/mo x 18 months = $49,410													
		System Demob: $2,720													
		Additional Costs:													
		Electrical Hookup - Electrician @ $75/hr x 8 hrs = $600 + $400 allowance for materials = $1,000.													
		Plastic & Haybale Berm around Treatment Syst. - Assume $1000 material costs.													
		Total: $59,135 + tax of ((2745)*.08)x18 ($3,950)													
	1.0 UH2OSET	Water Treatment Sys Setup	1.00	LS	U						59,135		3,950	63,085	63,085
	1.0 URFRACTN	Frac Tank Rental	1,620.00	DA	U			30.00						30.00	48,600
	1.0 UOFRCMOB	Frac Tank Mob/Demob	6.00	EA	U						600.00			600.00	3,600
			Resource List:		T			48,600			62,735		3,950	115,285	115,285
150 Detailed	**2**	**Temp Water Treat Syst Ops**	**2640000**	**GL**							**52,800**			**0.02**	**52,800**

(c) Copyright 1988 to 2002 Haru Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk			8.00 Pay-Hrs/Sh							
LIST Cost Detail															
	Note:	Bag Filters @ ~$9 ea x 1/10,000 gal = ~$0.0009/gal Sampling - batch sampling - 1 test/20,000 gal @ $299/test = $0.015/gal. Cost ~$0.016/gal for sampling & filters - use system ops cost of ~0.02/gal.													
1.0	UH2OFILT	Filter Change Cost	2640000	GL	U						0.02			0.02	52,800
			Resource List:		T						52,800			52,800	52,800

Note: O&M:
Bag Filters - @ $4.50 each x 2 filters = $9/changeout
Anayltical Testing - $299/sample.
Carbon useage calculated at 38 lbs/day (10 hrs x 60 min/hr x 100 gal/min = 60,000 gal/day) = 0.63 lbs/kgal (1,000 gals). Each unit holds 1,500

(All labor to be provided by onsite crews)
0 - 200,000 gals
Assume 2 filter changeouts & 4 samples: 2 x $9 + 4 x $299 = $1,214 = $0.006/gal.
200,000 - 500,000 gals
Assume 3 filter changeouts & 1 sample = 3 x $9 + 1 x $299 = $326 = $0.001/gal.
>500,000 gals.

For O&M Cost use 200,000 - 500,000 gals cost calcs - $0.001/gal for filter changeout only.

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8	Hydro-Seeding Restoration	20.00	AC	T						16,000			800	16,000
	Hydro-Seeding Restoration													
				U						800.00			800.00	16,000
				T						16,000			800	16,000
	Bid Item bid quantity and cost:	20.00	AC	T						16,000			800	16,000
220	Hydro-Seeding Restoration	20.00	AC							16,000			800.00	16,000
										800.00			800.00	16,000
220	**Hydro-Seeding Restoration**	**20.00**	**AC**							**16,000**			**800.00**	**16,000**
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	USHDYROSHydroseeding Subcontract	20.00	AC	U						800.00			800.00	16,000
	Resource List:			T						16,000			16,000	16,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	24.00	MO	T	386,623						22,308		17,039	408,931
	Engineering - Oversight													
				U	16,109						929.50		17,038	408,931
				T	386,623						22,308		17,039	408,931
	Bid Item bid quantity and cost:	24.00	MO	T	386,623						22,308		17,039	408,931
900	Engineering - Oversight	24.00	MO		386,623						22,308		17,038	408,931
					16,109						929.50		17,038	408,931
900	**Engineering - Oversight**	**24.00**	**MO**		**386,623**						**22,308**		**17,038**	**408,931**

—Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMEALS	Meals	528.00	DA	U						25.00		25.00	13,200
1.0	UTMILES	Mileage	26,400	MI	U						0.35		0.35	9,108
			Resource List:		T						22,308		22,308	22,308

CREW Cost Detail

528.0 Days 0.0455 MO/Da 22.0000 Da/MO 732.24 Cost/Da
5280.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 73.22 Cost/Hr
5808.0 Man-Hr 0.0041 MO/MH 242.0000 MH/MO 66.57 Cost/MH

1.0	L90FEG00	Field - Engineer	5,280.00	HR	U	60.22							60.22	317,946
0.1	L90HXX08	Home - Proj Manager	528.00	HR	U	130.07							130.07	68,677
			Resource List:		T	386,623							386,623	386,623

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	24.00	MO	T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158
	Const. Project Support													
				U	66,291		7,214.14	21.25	1,509.58	5,312.50	7,782.58		88,131	2115158
				T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158
	Bid Item bid quantity and cost:	24.00	MO	T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158

(c) Copyright 1988 to 2002 Hav... ...ar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Construction Proj Support	24.00	MO											
950	13				Indirect Project Costs	24.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	24.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	24.00	MO											
950	13	1	4	1	WEATHER	24.00	MO											
950	13	2			CONST EQUIP & TOOLS	24.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	24.00	MO				18,480						770.00	18,480
											770.00						770.00	18,480
950	13	2	6		SMALL TOOLS	24.00	MO						12,000				500.00	12,000
													500.00				500.00	12,000
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	24.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	24.00	MO											
950	13	6	1		OFFICE TRAILERS	24.00	MO				12,000						500.00	12,000
											500.00						500.00	12,000
950	13	6	2		STORAGE FACILITIES	24.00	MO											
950	13	6	2	1	Connex Boxes	24.00	MO				7,200.00						300.00	7,200
											300.00						300.00	7,200
950	13	6	3		DECON FOR PERSONNEL	24.00	MO				8,400.00						350.00	8,400
											350.00						350.00	8,400
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	24.00	MO				8,400.00						350.00	8,400
											350.00						350.00	8,400
950	13	6	8		TOILETS	24.00	MO				7,200.00						300.00	7,200
											300.00						300.00	7,200
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	24.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	24.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	24.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	24.00	MO						2,400.00				100.00	2,400
													100.00				100.00	2,400
950	13	7			TEMPORARY UTILITIES	24.00	MO											
950	13	7	1		POWER	24.00	MO								12,000		500.00	12,000
															500.00		500.00	12,000
950	13	7	2		WATER	24.00	MO								4,800.00		200.00	4,800
															200.00		200.00	4,800
950	13	7	3		SANITARY	24.00	MO											
950	13	7	4		TELEPHONE	24.00	MO								16,800		700.00	16,800
															700.00		700.00	16,800
950	13	8			OPERATING SUPPLY/SERV	24.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	24.00	MO				4,800.00						200.00	4,800
										200.00						200.00	4,800
950	13	8	2	OFFICE & ENGINEERING SUP	24.00	MO						5,280.00				220.00	5,280
												220.00				220.00	5,280
950	13	8	3	FACILITIES MAINT & REPAIR	24.00	MO											
950	13	8	4	MEDICAL/FIRST AID	24.00	MO						7,200.00				300.00	7,200
												300.00				300.00	7,200
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	24.00	MO				24,000				2,400.00		1,100.00	26,400
										1,000.00				100.00		1,100.00	26,400
950	13	8	9	POSTAGE	24.00	MO								3,600.00		150.00	3,600
														150.00		150.00	3,600
950	13	8	10	FREIGHT ON SUPPLIES	24.00	MO								6,000.00		250.00	6,000
														250.00		250.00	6,000
950	13	9		COMPUTER AND DATA	24.00	MO											
950	13	9	1	IT/WAN COST	24.00	MO								49,488		2,062.00	49,488
														2,062.00		2,062.00	49,488
950	13	10		VEHICLES FOR PERSONNEL	24.00	MO											
950	13	10	1	PICKUP TRUCKS	24.00	MO				82,159						3,423.30	82,159
										3,423.30						3,423.30	82,159
950	13	12		HEALTH & SAFETY	24.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		20,002		500.00				922.50		21,424	21,425
								20,002		500.00				922.50		21,424	21,425
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	24.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,704.40								2,704.40	2,704
								2,704.40								2,704.40	2,704
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	24.00	MO								85,656		3,569.00	85,656
														3,569.00		3,569.00	85,656
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	24.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	24.00	MO											
950	14	1	1	PROGRAM MANAGER	24.00	MO		73,168								3,048.68	73,168
								3,048.68								3,048.68	73,168
950	14	1	2	SENIOR PROJECT MANAGER	24.00	MO		381,097								15,879	381,097
								15,879								15,879	381,097
950	14	1	3	PROJECT SUPERINTENDENT	24.00	MO		438,045								18,251	438,046
								18,251								18,251	438,046
950	14	2		ADMINISTRATION	24.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	24.00	MO		100,848								4,202.01	100,848
								4,202.01								4,202.01	100,848
950	14	4		ENGINEERING	24.00	MO											
950	14	4	13	SURVEYORS	24.00	MO							120,000			5,000.00	120,000
													5,000.00			5,000.00	120,000
950	14			HEALTH & SAFETY	24.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	24.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	24.00	MO		3,888.01								162.00	3,888
									162.00								162.00	3,888
950	14	5	1	3	ESQ AUDIT/INSPECTION	24.00	MO		33,278						2,856.00		1,505.58	36,134
									1,386.58						119.00		1,505.58	36,134
950	14	5	4		SITE S&H OFFICER	24.00	MO		239,123								9,963.49	239,124
									9,963.49								9,963.49	239,124
950	14	5	7		REGULATORY COMPLIANCE	24.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	24.00	MO		15,552								648.00	15,552
									648.00								648.00	15,552
950	14	5	7	3	ESQ AUDIT/INSPECTION	24.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	24.00	MO											
950	14	6	1		PROCUREMENT MANAGER	24.00	MO											
950	14	6	2		BUYERS	24.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	24.00	MO		41,597								1,733.23	41,598
									1,733.23								1,733.23	41,598
950	14	6	4		PROJECT CONTROLS MANAGER	24.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	24.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	24.00	MO		199,863								8,327.63	199,863
									8,327.63								8,327.63	199,863
950	14	6	6		ESTIMATOR	24.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	24.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	24.00	MO											
950	14	6	9		FINANCIAL SERVICES	24.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	24.00	MO		6,243.39								260.14	6,243
									260.14								260.14	6,243
950 Detailed					**Construction Proj Support**	**24.00**	**MO**		**1590996**		**173,139**	**510.00**	**36,230**	**127,500**	**186,782**		**88,131**	**2115158**

Note: On-site construction is 24 months with 5 crews working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**13**				**Indirect Project Costs**	**24.00**	**MO**		**27,102**		**173,139**	**510.00**	**36,230**	**7,500.00**	**183,866**		**17,847**	**428,349**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	1			**CRAFT PAYROLLRELATEDCOST**	**24.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	1	4		**NON PRODUCTIVE-SHOW UP**	**24.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	1	4	1	**WEATHER**	**24.00**	**MO**											

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	2			**CONST EQUIP & TOOLS**	**24.00**	**MO**				**18,480**		**18,450**			**1,538.75**		**36,930**
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 1	**HEAVY EQUIPMENT**	**1.00**	**LS**											
—Detailed														

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 2	**LIGHT EQUIPMENT**	**24.00**	**MO**				**18,480**						**770.00**	**18,480**
—Detailed														

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWSP	Power Washer	24.00	MO	U			550.00					550.00	13,200
1.0	URPUMP2"	Submersible Pump	24.00	MO	U			110.00					110.00	2,640
1.0	URPUMP2"	Submersible Pump	24.00	MO	U			110.00					110.00	2,640
		Resource List:			T			18,480					18,480	18,480

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 6	**SMALL TOOLS**	**24.00**	**MO**						**12,000**				**500.00**	**12,000**
—Detailed														

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	12,000	LS	U				1.00				1.00	12,000
		Resource List:			T				12,000				12,000	12,000

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 8	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**
—Detailed														

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	UOPPE_C PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0	UOPPE_D PPE-Level D	300.00	DA	U					20.00				20.00	6,000
		Resource List:		T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**24.00**	**MO**											
	Note: ********** No additional costs included for on-site security. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**24.00**	**MO**		**1,077.88**		**43,200**	**510.00**	**4,900.00**			**2,070.33**		**49,688**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 1 Detailed	**OFFICE TRAILERS**	**24.00**	**MO**				**12,000**					**500.00**		**12,000**
	Note: ********** (1) trailer for FWENC. **********													
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	UROFFTRLOffice Trailer -12x60	24.00	MO	U			500.00					500.00		12,000
		Resource List:		T			12,000					12,000		12,000
950 13 6 2 Detailed	**STORAGE FACILITIES**	**24.00**	**MO**				**7,200.00**					**300.00**		**7,200**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 2 1 Detailed	**Connex Boxes**	**24.00**	**MO**				**7,200.00**					**300.00**		**7,200**
	Note: ********** (1) connex box for storage of small tools/equipment. **********													
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	URCONNEXConnex Box	48.00	MO	U			150.00					150.00		7,200
		Resource List:		T			7,200					7,200		7,200

(c) Copyright 19[illegible] Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**24.00**	**MO**				**8,400.00**						**350.00**	**8,400**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	24.00	MO	U			350.00					350.00	8,400
			Resource List:		T			8,400					8,400	8,400

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
- Surrounding soils to create bermed area
- 20 mil poly (excess poly used to cover pad during non-use)
- 6" crushed stone
- plywood to displace weight of equipment
- Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U			10.00					10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U			200.00					200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U			11.00					11.00	110
			Resource List:		T			510					510	510

CREW Cost Detail

1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da	
10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr	
30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH	

2.0	L060100	GENERAL LABORER	20.00	HR	U			32.55					32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U			42.69					42.69	427
			Resource List:		T			1,078					1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**24.00**	**MO**				**8,400.00**				**350.00**	**8,400**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	24.00	MO	U			350.00					350.00	8,400
			Resource List:		T			8,400					8,400	8,400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**24.00**	**MO**				**7,200.00**						**300.00**	**7,200**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	24.00	MO	U			300.00						300.00	7,200
	Resource List:			T			7,200						7,200	7,200
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**
	Note: ********** Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**24.00**	**MO**											
	Note: ********** Include rental of (1) trailer for use by client/engineer. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**
	Note: ********** Office furniture/equipment. Up to (4) field staff at $500/each. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**24.00**	**MO**											
	Note: ********** No QC testing laboratory included at this time. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 27 Detailed	**HAUL ROAD MAINTENANCE**	**24.00**	**MO**											
	Note: **********													
	Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 28 Detailed	**EMERGENCY EQUIPMENT**	**24.00**	**MO**						**2,400.00**				**100.00**	**2,400**
	Note: **********													
	Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	UOSFTYSP Safety Supplies	24.00	MO	U					100.00				100.00	2,400
	Resource List:			T					2,400				2,400	2,400
950 13 7 Detailed	**TEMPORARY UTILITIES**	**24.00**	**MO**								**33,600**	**1,400.00**		**33,600**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 7 1 Detailed	**POWER**	**24.00**	**MO**								**12,000**	**500.00**		**12,000**
	Note: **********													
	Allowance for electrical charges.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	UOELECT Electrical Charges-Month	24.00	MO	U							500.00		500.00	12,000
	Resource List:			T							12,000		12,000	12,000
950 13 7 2 Detailed	**WATER**	**24.00**	**MO**								**4,800.00**		**200.00**	**4,800**
	Note: **********													
	Include allowance for potable water supply.													
	**********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0 UOPOTWTR	Potable Water	24.00	MO	U							200.00		200.00	4,800
		Resource List:		T							4,800		4,800	4,800
950 13 7 3 Detailed	**SANITARY**	**24.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 7 4 Detailed	**TELEPHONE**	**24.00**	**MO**								**16,800**		**700.00**	**16,800**
	Note: ********** Include allowance for up to (3) cell phones and (1) office phone/fax/data line. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0 UOOFFPHN	Monthly Office Phone	24.00	MO	U							500.00		500.00	12,000
1.0 UOCELLPH	Monthly Cell Ph.	48.00	MO	U							100.00		100.00	4,800
		Resource List:		T							16,800		16,800	16,800
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**24.00**	**MO**				**28,800**		**12,880**		**14,000**		**2,320.00**	**55,680**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**24.00**	**MO**				**4,800.00**						**200.00**	**4,800**
	Note: ********** On-site labor to perform cleanup. Allow for 1 dumpster on-site at $200/month including disposal of debris. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0 UODUMP	Dumpster	24.00	MO	U			200.00						200.00	4,800
		Resource List:		T			4,800						4,800	4,800
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**24.00**	**MO**						**5,280.00**				**220.00**	**5,280**
	Note: ********** Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOOFFSUPOffice Supplies($/prs/mo)	96.00	MO	U					55.00				55.00	5,280
		Resource List:		T					5,280				5,280	5,280
950 13 8 3 Detailed	**FACILITIES MAINT & REPAIR**	**24.00**	**MO**											
	Note: **********													
	No Facilities Maintenance & Repair costs are anticipated at this time.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 4 Detailed	**MEDICAL/FIRST AID**	**24.00**	**MO**						**7,200.00**				**300.00**	**7,200**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UO1STAID 1st Aid Supplies	24.00	MO	U					300.00				300.00	7,200
		Resource List:		T					7,200				7,200	7,200
950 13 8 5 Detailed	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
	Note: **********													
	Include allowance for site radios for on-site/emergency communication.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UORADIO Radio	1.00	LS	U							2,000.00		2,000.00	2,000
		Resource List:		T							2,000		2,000	2,000
950 13 8 6 Detailed	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
	Note: **********													
	Include allowance for purchase of site fax.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
		Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8 Detailed	**REPRODUCTION AND PHOTO**	**24.00**	**MO**				**24,000**				**2,400.00**		**1,100.00**	**26,400**

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	24.00	MO	U					100.00		100.00	2,400
1.0	URCOPIER	Copier Rental	24.00	MO	U		1,000.00					1,000.00	24,000
		Resource List:			T		24,000			2,400		26,400	26,400

950 13 8 9 Detailed	**POSTAGE**	**24.00**	**MO**								**3,600.00**		**150.00**	**3,600**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	24.00	MO	U					150.00		150.00	3,600
		Resource List:			T					3,600		3,600	3,600

950 13 8 10 Detailed	**FREIGHT ON SUPPLIES**	**24.00**	**MO**								**6,000.00**		**250.00**	**6,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	24.00	MO	U					250.00		250.00	6,000
		Resource List:			T					6,000		6,000	6,000

950 13 9 Detailed	**COMPUTER AND DATA**	**24.00**	**MO**								**49,488**		**2,062.00**	**49,488**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1 Detailed	**IT/WAN COST**	**24.00**	**MO**								**49,488**		**2,062.00**	**49,488**

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	4,800.00	HR	U					10.31		10.31	49,488
		Resource List:			T					49,488		49,488	49,488

(c) Copyright 1988 to 2002 Haro Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**10**		**VEHICLES FOR PERSONNEL**	**24.00**	**MO**				**82,159**						**3,423.30**	**82,159**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	**13**	**10**	**1**	**PICKUP TRUCKS**	**24.00**	**MO**				**82,159**						**3,423.30**	**82,159**
Detailed																	
		Note:		**********													
				Include (3) Pickup Trucks for site personnel.													
				**********													
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																	
		528.0 Days		0.0455 MO/Da	22.0000 Da/MO			155.60 Cost/Da									
		4224.0 Hours		0.0057 MO/Hr	176.0000 Hr/MO			19.45 Cost/Hr									
	3.0	RPUTRK05		F-250 4X4 3/4 TON PICKUP	12,672	HR	U			6.48						6.48	82,159
					Resource List:		T			82,159						82,159	82,159
950	**13**	**12**		**HEALTH & SAFETY**	**24.00**	**MO**		**20,002**		**500.00**			**7,500.00**	**922.50**		**1,205.19**	**28,925**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	**13**	**12**	**1**	**HEALTH & SAFETY TRAINING**	**1.00**	**LS**		**20,002**		**500.00**				**922.50**		**21,424**	**21,425**
Detailed																	
		Note:		**********													
				In the event the crew is local hire requiring 40-hour Haz Woper Training: - Include CIH time for training crew w/ perdiem & travel (local). - Include rental of hotel conference room for 1 week to give training. - Include training for (10) site crew members.													
				**********													
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
	1.0	URCONFRM		Conference Room Rental	1.00	WK	U			500.00						500.00	500
	1.0	UTPERDEM		Perdiem-Meals & Lodging	5.00	DA	U							150.00		150.00	750
	1.0	UTMILES		Mileage	500.00	MI	U							0.35		0.35	173
					Resource List:		T			500				923		1,423	1,423
CREW Cost Detail																	
		5.0 Days		0.2000 LS/Da	5.0000 Da/LS			4000.40 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			500.05 Cost/Hr									
		440.0 Man-Hr		0.0023 LS/MH	440.0000 MH/LS			45.46 Cost/MH									
	4.0	L010101		OPERATOR GROUP 1	160.00	HR	U	35.69								35.69	5,710
	6.0	L060100		GENERAL LABORER	240.00	HR	U	32.55								32.55	7,812
	1.0	L90HXX04		Home - CIH Support	40.00	HR	U	162.00								162.00	6,480
					Resource List:		T	20,002								20,002	20,002

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 12 3 Detailed	**H&S MEDICAL EXAMS**	**1.00**	**LS**							**7,500.00**			**7,500.00**	**7,500**

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U					750.00			750.00	7,500
			Resource List:		T					7,500			7,500	7,500

950 13 13 Detailed	**MISCELLANEOUS COST**	**24.00**	**MO**		**6,022.93**						**85,856**	**3,828.29**	**91,879**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 13 1 Detailed	**ON-SITE TRAINING PROGRAM**	**1.00**	**LS**		**2,704.40**							**2,704.40**	**2,704**

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2704.40 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	338.05 Cost/Hr	
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	33.81 Cost/MH	

4.0	L010101	OPERATOR GROUP 1	32.00	HR	U	35.69							35.69	1,142
6.0	L060100	GENERAL LABORER	48.00	HR	U	32.55							32.55	1,562
			Resource List:		T	2,704							2,704	2,704

950 13 13 3 Detailed	**CRAFT QUALIFICATIONS**	**1.00**	**LS**		**3,318.53**							**3,318.53**	**3,319**

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90FXX02			Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950	**13**	**13**	**4**	**PER-DIEM**	**24.00**	**MO**								**85,656**		**3,569.00**	**85,656**
Detailed																	

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMILES	Mileage	4,800.00	MI	U							0.35		0.35	1,656
1.0	UTMEALS	Meals	1,056.00	DA	U							25.00		25.00	26,400
1.0	UTAPTMNT	Apartment Rental-Furn/Utl	48.00	MO	U							1,200.00		1,200.00	57,600
			Resource List:		T							85,656		85,656	85,656
950	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**						**200.00**		**200.00**	**200**
Detailed															

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPRSIGN	Project Signs	1.00	LS	U							200.00		200.00	200
			Resource List:		T							200		200	200
950	**14**			**Professional Services**	**24.00**	**MO**		**1563894**					**120,000**	**2,915.50**		**70,283**	**1686809**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**		**SUPERVISION/MANAGEMENT**	**24.00**	**MO**		**892,311**								**37,179**	**892,311**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**	**1**	**PROGRAM MANAGER**	**24.00**	**MO**		**73,168**								**3,048.68**	**73,168**
Detailed																	

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
	48.0 Days 0.5000 MO/Da 2.0000 Da/MO 1524.34 Cost/Da													
	384.0 Hours 0.0625 MO/Hr 16.0000 Hr/MO 190.54 Cost/Hr													
	384.0 Man-Hr 0.0625 MO/MH 16.0000 MH/MO 190.54 Cost/MH													
1.0	L90HXX01 Home - Program Manager	384.00	HR	U	190.54								190.54	73,168
	Resource List:			T	73,168								73,168	73,168
950 14 1 2 Detailed	**SENIOR PROJECT MANAGER**	**24.00**	**MO**		**381,097**								**15,879**	**381,097**
	Note: ********** Project Manager at 100% FTE for project duration - **********													
CREW Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
	528.0 Days 0.0455 MO/Da 22.0000 Da/MO 721.78 Cost/Da													
	4224.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 90.22 Cost/Hr													
	4224.0 Man-Hr 0.0057 MO/MH 176.0000 MH/MO 90.22 Cost/MH													
1.0	L90FXX01 Field-Proj Manager	4,224.00	HR	U	90.22								90.22	381,097
	Resource List:			T	381,097								381,097	381,097
950 14 1 3 Detailed	**PROJECT SUPERINTENDENT**	**24.00**	**MO**		**438,045**								**18,251**	**438,046**
	Note: ********** Site Supervisor for duration of all field work. **********													
CREW Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
	660.0 Days 0.0364 MO/Da 27.5000 Da/MO 663.71 Cost/Da													
	5280.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 82.96 Cost/Hr													
	5280.0 Man-Hr 0.0045 MO/MH 220.0000 MH/MO 82.96 Cost/MH													
1.0	L90FXX02 Field-Proj Superintendent	5,280.00	HR	U	82.96								82.96	438,046
	Resource List:			T	438,046								438,046	438,046
950 14 2 Detailed	**ADMINISTRATION**	**24.00**	**MO**		**100,848**								**4,202.01**	**100,848**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	2	2	**ADMINISTRATIVE CLERKS**	**24.00**	**MO**		**100,848**								**4,202.01**	**100,848**
Detailed																	

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

528.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da
4224.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr
4224.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH

1.0	L90FC300	Field - Clerk	4,224.00	HR	U	23.88								23.88	100,848
			Resource List:		T	100,848								100,848	100,848

950	14	4		**ENGINEERING**	**24.00**	**MO**							**120,000**			**5,000.00**	**120,000**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	14	4	13	**SURVEYORS**	**24.00**	**MO**							**120,000**			**5,000.00**	**120,000**
Detailed																	

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	120,000	LS	U								1.00			1.00	120,000
			Resource List:		T								120,000			120,000	120,000

950	14	5		**HEALTH & SAFETY**	**24.00**	**MO**		**293,785**						**2,856.00**		**12,360**	**296,642**
Detailed																	

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**24.00**	**MO**		**37,814**						**2,856.00**		**1,694.58**	**40,670**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 5 1 1	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed														

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da	
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr	
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH	

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00							162.00	648
			Resource List:		T	648							648	648

950 14 5 1 2	**ONGOING SUPPORT**	**24.00**	**MO**		**3,888.01**								**162.00**	**3,888**
Detailed														

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
3.0 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da	
24.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr	
24.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH	

1.0	L90HXX04	Home - CIH Support	24.00	HR	U	162.00							162.00	3,888
			Resource List:		T	3,888							3,888	3,888

950 14 5 1 3	**ESQ AUDIT/INSPECTION**	**24.00**	**MO**		**33,278**						**2,856.00**		**1,505.58**	**36,134**
Detailed														

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
48.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da	
384.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr	
384.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH	

1.0	L90HXX05	Home - H&S Staff	384.00	HR	U	86.66							86.66	33,278
1.0	UTMEALS	Meals	48.00	DA	U						25.00		25.00	1,200
1.0	UTMILES	Mileage	4,800.00	MI	U						0.35		0.35	1,656
			Resource List:		T	33,278					2,856		36,134	36,134

(c) Copyright 1988 to 2002 ... ar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	4		**SITE S&H OFFICER**	**24.00**	**MO**		**239,123**								**9,963.49**	**239,124**
Detailed																		

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

CREW Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
600.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da	
4800.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr	
4800.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH	

1.0	L90FEI00	Field - Assoc Engr.	4,800.00	HR	U	49.82								49.82	239,124
			Resource List:		T	239,124								239,124	239,124

950	14	5	7		**REGULATORY COMPLIANCE**	**24.00**	**MO**		**16,848**								**702.00**	**16,848**
Detailed																		

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh

950	14	5	7	1	**PROJECT KICKOFF**	**1.00**	**LS**		**1,296.00**								**1,296.00**	**1,296**
Detailed																		

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr	
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH	

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00								162.00	1,296
			Resource List:		T	1,296								1,296	1,296

950	14	5	7	2	**ONGOING SUPPORT**	**24.00**	**MO**		**15,552**								**648.00**	**15,552**
Detailed																		

Note: **********

Include (8) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
12.0 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da	
96.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr	
96.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90HXX06			Home - Regl Compliance	96.00	HR	U	162.00								162.00	15,552
						Resource List:		T	15,552								15,552	15,552
950 Detailed	**14**	**5**	**7**	**3**	**ESQ AUDIT/INSPECTION**	**24.00**	**MO**											

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**			**PROJECT SUPPORT SERVICES**	**24.00**	**MO**		**276,948**						**59.50**		**11,541**	**277,008**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**1**		**PROCUREMENT MANAGER**	**24.00**	**MO**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**		**BUYERS**	**24.00**	**MO**		**65,869**							**2,744.54**		**65,869**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**							**24,271**		**24,271**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH

	1.0	L90HXX02			Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
	1.0	L90HXX03			Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
						Resource List:		T	24,271								24,271	24,271
950 Detailed	**14**	**6**	**2**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**41,597**							**1,733.23**		**41,598**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					60.0 Days 0.4000 MO/Da 2.5000 Da/MO 693.29 Cost/Da													
					480.0 Hours 0.0500 MO/Hr 20.0000 Hr/MO 86.66 Cost/Hr													
					480.0 Man-Hr 0.0500 MO/MH 20.0000 MH/MO 86.66 Cost/MH													
	1.0				L90HXX03 Home - Procurement Agent	480.00	HR	U	86.66								86.66	41,598
					Resource List:			T	41,598								41,598	41,598
950	**14**	**6**	**4**		**PROJECT CONTROLS MANAGER**	**24.00**	**MO**											
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**14**	**6**	**5**		**PROJECT CONTROLS ENGINEER**	**24.00**	**MO**		**202,916**							**8,454.86**		**202,917**
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**14**	**6**	**5**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**							**3,053.46**		**3,053**
Detailed																		
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da 5.0000 Da/LS 610.69 Cost/Da													
					40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 76.34 Cost/Hr													
					40.0 Man-Hr 0.0250 LS/MH 40.0000 MH/LS 76.34 Cost/MH													
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
					Resource List:			T	3,053								3,053	3,053
950	**14**	**6**	**5**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**199,863**							**8,327.63**		**199,863**
Detailed																		
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					654.5 Days 0.0367 MO/Da 27.2727 Da/MO 305.35 Cost/Da													
					5236.4 Hours 0.0046 MO/Hr 218.1818 Hr/MO 38.17 Cost/Hr													
					2618.2 Man-Hr 0.0092 MO/MH 109.0909 MH/MO 76.34 Cost/MH													
	0.5				L90FXX05 Field - Cost/Scheduler	2,618.18	HR	U	76.34								76.34	199,863
					Resource List:			T	199,863								199,863	199,863

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 6 6	**ESTIMATOR**	**24.00**	**MO**											
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8	**HOME OFFICE FLD ACCT SUPT**	**24.00**	**MO**		**878.81**						**59.50**		**39.10**	**938**
Detailed														
	Note: **********													
	Hours per (TBD) response to Project Services Budget Request.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8 1	**PROJECT KICKOFF**	**1.00**	**LS**		**878.81**						**59.50**		**938.31**	**938**
Detailed														
	Note: **********													
	Include (1) day for training of on-site staff.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
	1.0 Days 1.0000 LS/Da 1.0000 Da/LS 938.31 Cost/Da													
	8.0 Hours 0.1250 LS/Hr 8.0000 Hr/LS 117.29 Cost/Hr													
	8.0 Man-Hr 0.1250 LS/MH 8.0000 MH/LS 117.29 Cost/MH													
1.0	L90HEF00 Home - Senior Engr	8.00	HR	U	109.85								109.85	879
1.0	UTMEALS Meals	1.00	DA	U							25.00		25.00	25
1.0	UTMILES Mileage	100.00	MI	U							0.35		0.35	35
		Resource List:		T	879						60		938	938
950 14 6 8 2	**ONGOING SUPPORT**	**24.00**	**MO**											
Detailed														
	Note: **********													
	Support required for craft payroll processing.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 9	**FINANCIAL SERVICES**	**24.00**	**MO**		**7,283.96**								**303.50**	**7,284**
Detailed														
	Note: **********													
	Hours per (TBD) response to project services budget request.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**6**	**9**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
Detailed																		
LIST Cost Detail		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			1040.57 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			130.07 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
						Resource List:		T	1,041								1,041	1,041
950	**14**	**6**	**9**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**6,243.39**								**260.14**	**6,243**
Detailed																		
LIST Cost Detail		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		6.0 Days			4.0000 MO/Da	0.2500 Da/MO			1040.57 Cost/Da									
		48.0 Hours			0.5000 MO/Hr	2.0000 Hr/MO			130.07 Cost/Hr									
		48.0 Man-Hr			0.5000 MO/MH	2.0000 MH/MO			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	48.00	HR	U	130.07								130.07	6,243
						Resource List:		T	6,243								6,243	6,243

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			11,500	2,700		20,427	20,427
		Demobilization													
					U	4,311.50		1,915.99			11,500	2,700.00		20,427	20,427
					T	4,312		1,916			11,500	2,700		20,427	20,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			11,500	2,700		20,427	20,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							11,500			11,500	11,500
											11,500			11,500	11,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230 Detailed		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**11,500**	**2,700.00**		**20,427**	**20,427**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

230 Detailed	**1**	***DEMOB OF CONSTRUCTION EQP***	**1.00**	**LS**							**11,500**			**11,500**	**11,500**

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail															
1.0	UEEPTRNS	FWENC Eqp Transport/Setup	10,000	LS	U						1.00			1.00	10,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
				Resource List:	T						11,500			11,500	11,500
230 Detailed	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 Ha... Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMO	Bonnex Box Mob	1.00	EA	U							300.00		300.00	300
			Resource List:		T							2,700		2,700	2,700
230	**3**	**DEMOB OF PERSONNEL**	**1.00**	**LS**											
Detailed															
	Note:	**********													
		No personnel demobilization charges are anticipated.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
230	**4**	**FINAL SITE CLEANUP**	**1.00**	**LS**		**4,311.50**		**1,915.99**						**6,227.49**	**6,227**
Detailed															
	Note:	**********													
		One operator and two laborers to support final site cleanup operations. Include ~1 dumpster load of clean debris for disposal.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UODUMP	Dumpster	1.00	MO	U			200.00						200.00	200
			Resource List:		T			200						200	200
CREW Cost Detail															
	5.0 Days	0.2000 LS/Da	5.0000 Da/LS			1205.50 Cost/Da									
	40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS			150.69 Cost/Hr									
	120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS			50.23 Cost/MH									
1.0	L010490	OPERATOR DOZER	40.00	HR	U	42.69								42.69	1,708
1.0	RDOZER20	JOHN DEERE 750C LGP	40.00	HR	U			42.90						42.90	1,716
2.0	L060100	GENERAL LABORER	80.00	HR	U	32.55								32.55	2,604
			Resource List:		T	4,312		1,716						6,027	6,027

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Alternative #2 - Stone Columns with a Cap Surcharge
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 55,000	$ 51,400	$ 51,400	Allowance for water treatment, sampling and analysis, surcharge repairs, and inspections.
2	$ 55,000	$ 48,040	$ 99,440	
3	$ 55,000	$ 44,900	$ 144,340	
4	$ 55,000	$ 41,960	$ 186,300	
5	$ 55,000	$ 39,210	$ 225,510	
6	$ 55,000	$ 36,650	$ 262,160	
7	$ 55,000	$ 34,250	$ 296,410	
8	$ 55,000	$ 32,010	$ 328,420	
9	$ 55,000	$ 29,920	$ 358,340	
10	$ 55,000	$ 27,960	$ 386,300	
11	$ 55,000	$ 26,130	$ 412,430	
12	$ 55,000	$ 24,420	$ 436,850	
13	$ 55,000	$ 22,820	$ 459,670	
14	$ 55,000	$ 21,330	$ 481,000	
15	$ 55,000	$ 19,930	$ 500,930	
16	$ 55,000	$ 18,630	$ 519,560	
17	$ 55,000	$ 17,410	$ 536,970	
18	$ 55,000	$ 16,270	$ 553,240	
19	$ 55,000	$ 15,210	$ 568,450	
20	$ 55,000	$ 14,210	$ 582,660	
21	$ 55,000	$ 13,280	$ 595,940	
22	$ 55,000	$ 12,410	$ 608,350	
23	$ 55,000	$ 11,600	$ 619,950	
24	$ 55,000	$ 10,840	$ 630,790	
25	$ 55,000	$ 10,130	$ 640,920	
26	$ 55,000	$ 9,470	$ 650,390	
27	$ 55,000	$ 8,850	$ 659,240	
28	$ 55,000	$ 8,270	$ 667,510	
29	$ 55,000	$ 7,730	$ 675,240	
30	$ 55,000	$ 7,230	$ 682,470	

APPENDIX B4

ALTERNATIVE 4 – STONE COLUMNS WITH SURCHARGE AND SHEET PILES

Proposal

Job Description: Alt 4-Stone Clmn/Surch/SP

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	244,000.00	**244,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	89,000.00	**89,000.00**
4	Sheetpile Installation	240,000.000	SF	30.00	**7,200,000.00**
5	Sheetpile Anchors	400.0000	EA	2,000.00	**800,000.00**
6	Stone Column Const	150,000.000	LF	94.00	**14,100,000.00**
7	Contamianted Soil Placement	40,000.0000	CY	16.00	**640,000.00**
8	Surcharge Placement	149,000.000	CY	18.00	**2,682,000.00**
9	Water Treatment System	1.0000	LS	210,000.00	**210,000.00**
10	Hydro-Seeding Restoration	20.0000	AC	1,000.00	**20,000.00**
90	Engineering - Oversight	24.0000	MO	21,000.00	**504,000.00**
95	Const. Project Support	24.0000	MO	110,000.00	**2,640,000.00**
99	Demobilization	1.0000	EA	26,000.00	**26,000.00**
				GRAND TOTAL	**29,209,000.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A4STNSHT (Alt 4-Stone Clmn/Surch/SP)

Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					195,000		195,000	195,000				48,750.00	243,750	49,000.00	244,000
10	Engineering - Design	1.00	LS					195,000		195,000								
2	Pre-Construction Work	1.0000	LS	40,817.06					2,000.00	42,817.06	42,817.06				10,704.26	53,521.32	11,182.94	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,132.26						12,132.26								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,231.63						2,231.63								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,210.13		1,400.00	1,286.99	61,500.00	2,700.00	71,097.12	71,097.12				17,774.28	88,871.40	17,902.88	89,000.00
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					51,500.00		51,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,210.13		1,400.00	1,286.99		2,700.00	9,597.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					20.00		20.00								
4	Sheetpile Installation	240,000.0	SF					24.00		24.00	24.00				6.00	30.00	6.00	30.00
120	Sheetpile Installation	240000	SF					24.00		24.00								
5	Sheetpile Anchors	400.0000	EA					1,600.00		1,600.00	1,600.00				400.00	2,000.00	400.00	2,000.00
125	Sheetpile Anchors	400.00	EA					1,600.00		1,600.00								
6	Stone Column Const	150,000.0	LF					75.00		75.00	75.00				18.75	93.75	19.00	94.00
130	Stone Column Install	150000	LF					75.00		75.00								
7	Contamianted Soil Ptcmnt	40,000.00	CY	2.23	3.48	7.44				13.15	13.15				3.29	16.44	2.85	16.00
135	Contaminated soil placeme	40000.0	CY	2.23	3.48	7.44				13.15								
8	Surcharge Placement	149,000.0	CY						14.40	14.40	14.40				3.60	18.00	3.60	18.00
140	Surcharge Placement	149000	CY															
140 2	Common fill	149000	CY						14.40	14.40								
9	Water Treatment System	1.0000	LS				48,600.00	115,535	3,950.00	168,085	168,085				42,021.25	210,106	41,915.00	210,000
150	Water Treatment Syst.	1.00	LS															
150 1	Temp Dwtr & Trt System	1.00	LS				48,600.00	62,735.00	3,950.00	115,285								
150 2	Temp Water Treat Syst Ops	2640000	GL					0.02		0.02								
10	Hydro-Seeding Restoration	20.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	20.00	AC					800.00		800.00								
90	Engineering - Oversight	24.0000	MO	16,109.30					929.50	17,038.80	17,038.80				4,259.70	21,298.50	3,961.20	21,000.00
900	Engineering - Oversight	24.00	MO	16,109.30					929.50	17,038.80								
95	Const. Project Support	24.0000	MO	66,291.51		21.25	7,214.14	5,312.50	9,292.17	88,131.57	88,131.57				22,032.89	110,164	21,868.43	110,000
950	Construction Proj Support	24.00	MO															
950 13	Indirect Project Costs	24.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	24.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	24.00	MO															
950 13 1 4 1	WEATHER	24.00	MO															
950 13 2	CONST EQUIP & TOOLS	24.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	24.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	24.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	24.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	24.00	MO															
950 13 6 1	OFFICE TRAILERS	24.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	24.00	MO															

(c) Copyright 1968 to 2002 Ha. r Corporation All Rights Reserved

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
950 13 6 2 1	Connex Boxes	24.00 MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	24.00 MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00 LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	24.00 MO				350.00			350.00								
950 13 6 8	TOILETS	24.00 MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00 LS						500.00	500.00								
950 13 6 12	CLIENT TRAILERS	24.00 MO															
950 13 6 16	OFFICE EQUIP/FURNISHING	1.00 LS						2,000.00	2,000.00								
950 13 6 18	TESTING LABORATORY	24.00 MO															
950 13 6 27	HAUL ROAD MAINTENANCE	24.00 MO															
950 13 6 28	EMERGENCY EQUIPMENT	24.00 MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	24.00 MO															
950 13 7 1	POWER	24.00 MO						500.00	500.00								
950 13 7 2	WATER	24.00 MO						200.00	200.00								
950 13 7 3	SANITARY	24.00 MO															
950 13 7 4	TELEPHONE	24.00 MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	24.00 MO															
950 13 8 1	JANITORIAL AND CLEANUP	24.00 MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	24.00 MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	24.00 MO															
950 13 8 4	MEDICAL/FIRST AID	24.00 MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00 LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00 LS						400.00	400.00								
950 13 8 8	REPRODUCTION AND PHOTO	24.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	24.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	24.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	24.00 MO															
950 13 9 1	IT/WAN COST	24.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	24.00 MO															
950 13 10 1	PICKUP TRUCKS	24.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	24.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	20,002.01			500.00		922.50	21,424.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	24.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,704.40						2,704.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	24.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	24.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	24.00 MO															
950 14 1 1	PROGRAM MANAGER	24.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	24.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	24.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	24.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	24.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	24.00 MO															
950 14 4 13	SURVEYORS	24.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	24.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	24.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	24.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	24.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	24.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	24.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	24.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	24.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	24.00 MO															
950 14 6 1	PROCUREMENT MANAGER	24.00 MO															
950 14 6 2	BUYERS	24.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	24.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	24.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	24.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	24.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	24.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	24.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	24.00 MO															
950 14 6 9	FINANCIAL SERVICES	24.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	24.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	11,500.00	2,700.00	20,427.49	20,427.49				5,106.87	25,534.36	5,572.51	26,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					11,500.00		11,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Cost/Price Review - Unit

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
	Extended Totals by Category		2,116,177	139,155	299,584	224,942	18,177,035	2,402,270	23,359,164	23,359,164				5,839,791	29,198,955	5,849,836	29,209,000

		Percent
Direct Cost	23,359,164	80.00
Direct Cost Escalation	0	0.00
Escalated Direct Cost	23,359,164	80.00
Job Overhead	0	0.00
Job Overhead Escalation	0	0.00
Escalated Job Overhead	0	0.00
Indirect	0	0.00
Tax & Add-On	0	0.00
Finance	0	0.00
Bond	0	0.00
Total Business Overhead	0	0.00
Markup on Direct	5,839,791	20.00
Markup on Job Overhead	0	0.00
Total Markup	5,839,791	20.00
Total Cut/Add	0	0.00
Target Bid Price	29,198,955	100.00
Bid Price	0	0.00
Difference	29,198,955	100.00

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Engr Estimate Report

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						195,000			195,000	195,000
	Engineering - Design													
				U						195,000			195,000	195,000
				T						195,000			195,000	195,000
	Bid Item bid quantity and cost:	1.00	LS	T						195,000			195,000	195,000
10	Engineering - Design	1.00	LS							195,000			195,000	195,000
										195,000			195,000	195,000
10	**Engineering - Design**	**1.00**	**LS**							**195,000**			**195,000**	**195,000**
Detailed														

Note: Engineering Design Cost Breakdown:
Field Investigation: $45,000
Compatibility Testing: $10,000
Design Reports (30%, 60%, 90%, 100%): $60,000
Technical Specifications: $30,000
Construction Drawings: $50,000
Total: $195,000

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USFWENCE	FWENC Engr Costs	195,000	LS	U					1.00			1.00	195,000
			Resource List:		T					195,000			195,000	195,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2				Pre-Construction Work	1.00	LS	T	40,817						2,000		42,817	42,817
				Pre-Construction Work													
							U	40,817						2,000.00		42,817	42,817
							T	40,817						2,000		42,817	42,817
				Bid Item bid quantity and cost:	1.00	LS	T	40,817						2,000		42,817	42,817
20				Pre-Construction Work	1.00	LS											
20	1			Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
								3,120.07						2,000.00		5,120.07	5,120
20	2			Bonding & Insurance	1.00	LS											
20	3			Submittals	1.00	LS											
20	3	1		Site HASP	1.00	LS											
20	3	1	1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
								4,966.60								4,966.60	4,967
20	3	1	2	HASP - Final	1.00	LS		985.36								985.36	985
								985.36								985.36	985
20	3	2		Work Plan	1.00	LS											
20	3	2	1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
								8,244.84								8,244.84	8,245
20	3	2	2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
								3,029.03								3,029.03	3,029
20	3	3		Erosion & Sed Cntrl Plan	1.00	LS											
20	3	3	1	Eros & Sed Cont - Draft	1.00	LS		12,132								12,132	12,132
								12,132								12,132	12,132
20	3	3	2	Eros & Sed Cont - Final	1.00	LS		2,231.63								2,231.63	2,232
								2,231.63								2,231.63	2,232
20	3	4		Project Schedule	1.00	LS											
20	3	4	1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
								4,512.19								4,512.19	4,512
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
								1,595.07								1,595.07	1,595
20				**Pre-Construction Work**	**1.00**	**LS**		**40,817**						**2,000.00**		**42,817**	**42,817**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	**1**			**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				3.0 Days	0.3333 LS/Da		3.0000 Da/LS	1706.69 Cost/Da									
				24.0 Hours	0.0417 LS/Hr		24.0000 Hr/LS	213.34 Cost/Hr									
				32.0 Man-Hr	0.0313 LS/MH		32.0000 MH/LS	160.00 Cost/MH									

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120

20 2 Bonding & Insurance 1.00 LS
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 Submittals 1.00 LS 37,696 37,696 37,697
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 Site HASP 1.00 LS 5,951.96 5,951.96 5,952
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 1 HASP - Draft 1.00 LS 4,966.60 4,966.60 4,967
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	993.32 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	124.16 Cost/Hr
52.0 Man-Hr	0.0192 LS/MH	52.0000 MH/LS	95.51 Cost/MH

1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66		86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96		82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00		162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07		130.07	520
			Resource List:		T	4,967		4,967	4,967

20 3 1 2 HASP - Final 1.00 LS 985.36 985.36 985
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	985.36 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	123.17 Cost/Hr
10.0 Man-Hr	0.1000 LS/MH	10.0000 MH/LS	98.54 Cost/MH

1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66		86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00		162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07		130.07	130
			Resource List:		T	985		985	985

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	2		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	3	2	1	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
				5.0 Days 0.2000 LS/Da 5.0000 Da/LS 1648.97 Cost/Da													
				40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 206.12 Cost/Hr													
				84.0 Man-Hr 0.0119 LS/MH 84.0000 MH/LS 98.15 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0			L90HEI00 Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0			L90HE800 Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HE800 Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0			L90HXX08 Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20	3	2	2	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
				3.0 Days 0.3333 LS/Da 3.0000 Da/LS 1009.68 Cost/Da													
				24.0 Hours 0.0417 LS/Hr 24.0000 Hr/LS 126.21 Cost/Hr													
				36.0 Man-Hr 0.0278 LS/MH 36.0000 MH/LS 84.14 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20	3	3		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,363**								**14,363**	**14,364**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	3	3	1	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,132**								**12,132**	**12,132**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				5.0 Days 0.2000 LS/Da	5.0000 Da/LS			2426.45 Cost/Da									
				40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			303.31 Cost/Hr									
				120.0 Man-Hr 0.0083 LS/MH	120.0000 MH/LS			101.10 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
	1.0			L90HEI00 Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
	1.0			L90HE800 Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
	1.0			L90HDP00 Home - Senior Designer	16.00	HR	U	88.14								88.14	1,410
	1.0			L90HED00 Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	12,132								12,132	12,132
20 Detailed	**3**	**3**	**2**	**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,231.63**								**2,231.63**	**2,232**
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
				1.0 Days 1.0000 LS/Da	1.0000 Da/LS			2231.63 Cost/Da									
				8.0 Hours 0.1250 LS/Hr	8.0000 Hr/LS			278.95 Cost/Hr									
				23.0 Man-Hr 0.0435 LS/MH	23.0000 MH/LS			97.03 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
	1.0			L90HDP00 Home - Senior Designer	4.00	HR	U	88.14								88.14	353
	1.0			L90HED00 Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	2,232								2,232	2,232
20 Detailed	**3**	**4**		**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20 Detailed	**3**	**4**	**1**	**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
				1.5 Days 0.6667 LS/Da	1.5000 Da/LS			3008.13 Cost/Da									
				12.0 Hours 0.0833 LS/Hr	12.0000 Hr/LS			376.02 Cost/Hr									
				36.0 Man-Hr 0.0278 LS/MH	36.0000 MH/LS			125.34 Cost/MH									
	1.0			L90FXX02 Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
	1.0			L90HED00 Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
	1.0			L90HE800 Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	4	2	**Const. Schedule - Final**	**1.00**	**LS**		**1,595.07**								**1,595.07**	**1,595**
Detailed																	

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.8 Days	1.3333 LS/Da	0.7500 Da/LS	2126.76 Cost/Da
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96								82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97								139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07								130.07	260
			Resource List:		T	1,595								1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,210		1,287	1,400		61,500	2,700		71,097	71,097
			Mobilization													
						U	4,210.13		1,286.99	1,400.00		61,500	2,700.00		71,097	71,097
						T	4,210		1,287	1,400		61,500	2,700		71,097	71,097
			Bid Item bid quantity and cost:	1.00	EA	T	4,210		1,287	1,400		61,500	2,700		71,097	71,097
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							51,500			51,500	51,500
												51,500			51,500	51,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
							4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							10,000			20.00	10,000
												20.00			20.00	10,000
30 Detailed			**Mobilization**	**1.00**	**EA**		**4,210.13**		**1,286.99**	**1,400.00**		**61,500**	**2,700.00**		**71,097**	**71,097**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**51,500**			**51,500**	**51,500**

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 40k mob for subcontractor

1.0	UEEPTRNS	FWENC Eqp Transport/Setup	10,000	LS	U						1.00		1.00	10,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00		150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00		600.00	1,200
1.0	UEEPTRNS	FWENC Eqp Transport/Setup	40,000	LS	U						1.00		1.00	40,000
			Resource List:		T						51,500		51,500	51,500

30 Detailed	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
			8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
30 Detailed	2	1	**Site Setup/Preparation**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Conex Box Mob	1.00	EA	U							300.00		300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U					10.00				10.00	1,400
			Resource List:		T					1,400		2,700		4,100	4,100

CREW Cost Detail

3.8 Days	0.2667 LS/Da	3.7500 Da/LS	1465.90 Cost/Da	
30.0 Hours	0.0333 LS/Hr	30.0000 Hr/LS	183.24 Cost/Hr	
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	45.81 Cost/MH	

1.0	L010490	OPERATOR DOZER	30.00	HR	U		42.69							42.69	1,281
3.0	L060100	GENERAL LABORER	90.00	HR	U		32.55							32.55	2,930
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U				42.90					42.90	1,287
			Resource List:		T		4,210		1,287					5,497	5,497

30 Detailed	3		**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**										

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	3	1	**Mob Personnel**	**1.00**	**LS**										

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	4		**Perimeter Fencing**	**500.00**	**LF**							**10,000**		**20.00**	**10,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0	USFENCE Fencing Installation	500.00	LF	U						20.00			20.00	10,000
	Resource List:			T						10,000			10,000	10,000

(c) Copyright 1988 to 2002 Ha... ...ar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4	Sheetpile Installation	240,000	SF	T						5760000			24	5760000
	Sheetpile Installation													
				U						24.00			24.00	5760000
				T						5760000			24	5760000
	Bid Item bid quantity and cost:	240,000	SF	T						5760000			24	5760000
120	Sheetpile Installation	240,000	SF							5760000			24.00	5760000
										24.00			24.00	5760000
120	**Sheetpile Installation**	**240,000**	**SF**							**5760000**			**24.00**	**5760000**

Detailed

Note: Area approximately 60' deep x 4,000' long watertight sheets.
Sheetpile length of 60' with tiebacks every 10' extending 20' into earth from top of sheets.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSHEETW	Watertight Sheeting	240,000	SF	U					24.00			24.00	5760000
		Resource List:			T					5760000			5760000	5760000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5	Sheetpile Anchors	400.00	EA	T						640,000			1,600	640,000
	Sheetpile Anchors													
				U						1,600.00			1,600.00	640,000
				T						640,000			1,600	640,000
	Bid Item bid quantity and cost:	400.00	EA	T						640,000			1,600	640,000
125	Sheetpile Anchors	400.00	EA							640,000			1,600.00	640,000
										1,600.00			1,600.00	640,000
125	**Sheetpile Anchors**	**400.00**	**EA**							**640,000**			**1,600.00**	**640,000**

Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSHEETASheetpiling Sub-WallAnchr	400.00	EA	U						1,600.00			1,600.00	640,000
	Resource List:			T						640,000			640,000	640,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
6		Stone Column Const	150,000	LF	T						11250000			75	11250000
		Stone Column Const													
					U						75.00			75.00	11250000
					T						11250000			75	11250000
		Bid Item bid quantity and cost:	150,000	LF	T						11250000			75	11250000
130		Stone Column Install	150,000	LF							11250000			75.00	11250000
											75.00			75.00	11250000
130		**Stone Column Install**	**150,000**	**LF**							**11250000**			**75.00**	**11250000**
Detailed															
	Note:	Area approximately 38' x 4,000' with a 3' stone column every 7' in each direction for a total of 3,432 Drains average 40' over the common fill for a total VLF of 150,000 Columns extend from top of sand layer to bottom of surcharge area.													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk			8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UDRILL3'	Drill 3' caisson w/stone	150,000	LF	U						75.00			75.00	11250000
			Resource List:		T						11250000			11250000	11250000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
7	Contamianted Soil Plcmnt	40,000	CY	T	89,219	139,155		297,674					13	526,048
	Contamianted Soil Placement													
				U	2.23	3.48		7.44					13.15	526,048
				T	89,219	139,155		297,674					13	526,048
	Bid Item bid quantity and cost:	40,000	CY	T	89,219	139,155		297,674					13	526,048
135	Contaminated soil placeme	40,000	CY		89,218	139,155		297,674					13.15	526,048
					2.23	3.48		7.44					13.15	526,048
135	**Contaminated soil placeme**	**40,000**	**CY**		**89,218**	**139,155**		**297,674**					**13.15**	**526,048**

Detailed

Note: Contaminated soil to be excavated and placed onto existing landfill. Common fill to be imported for cover.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCMNFILL	Common Fill	37,209	TN	U			8.00					8.00	297,674
			Resource List:		T			297,674					297,674	297,674

CREW Cost Detail

625.0 Days	64.0000 CY/Da	0.0156 Da/CY	365.40 Cost/Da	
5000.0 Hours	8.0000 CY/Hr	0.1250 Hr/CY	45.67 Cost/Hr	
2500.0 Man-Hr	16.0000 CY/MH	0.0625 MH/CY	91.35 Cost/MH	

0.5	L010101	OPERATOR GROUP 1	2,500.00	HR	U	35.69							35.69	89,219
1.0	ELOA_202	CAT IT28F INTRG-FW	5,000.00	HR	U		14.43						14.43	72,150
0.5	EDOZ_305	Komatsu D65PX LGP-FW	2,500.00	HR	U		26.80						26.80	67,005
			Resource List:		T	89,219	139,155						228,374	228,374

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8		Surcharge Placement	149,000	CY	T					2145600				14	2145600
		Surcharge Placement													
					U					14.40				14.40	2145600
					T					2145600				14	2145600
		Bid Item bid quantity and cost:	149,000	CY	T					2145600				14	2145600
140		Surcharge Placement	149,000	CY											
140	2	Common fill	149,000	CY						2145600				14.40	2145600
										14.40				14.40	2145600
140		**Surcharge Placement**	**149,000**	**CY**						**2145600**				**14.40**	**2145600**
Detailed															

Note: Surcharge area is 200' x 4,000' x 5' deep for a total of 149,000 cy addtional fill.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

140	**2**	**Common fill**	**149,000**	**CY**						**2145600**				**14.40**	**2145600**
Detailed															

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

Note: Quantity includes 20% shrinkage/compaction factor.

1.0	UFILL	Common fill installed	178,800	CY	U					12.00				12.00	2145600
			Resource List:		T					2145600				2145600	2145600

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
9		Water Treatment System	1.00	LS	T			48,600			115,535		3,950	168,085	168,085
		Water Treatment System													
					U			48,600			115,535		3,950	168,085	168,085
					T			48,600			115,535		3,950	168,085	168,085
		Bid Item bid quantity and cost:	1.00	LS	T			48,600			115,535		3,950	168,085	168,085
150		Water Treatment Syst.	1.00	LS											
150	1	Temp Dwtr & Trt System	1.00	LS				48,600			62,735		3,950	115,285	115,285
								48,600			62,735		3,950	115,285	115,285
150	2	Temp Water Treat Syst Ops	2640000	GL							52,800			0.02	52,800
											0.02			0.02	52,800
150 Detailed		**Water Treatment Syst.**	**1.00**	**LS**				**48,600**			**115,535**		**3,950**	**168,085**	**168,085**
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
150 Detailed	**1**	**Temp Dwtr & Trt System**	**1.00**	**LS**				**48,600**			**62,735**		**3,950**	**115,285**	**115,285**
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							

LIST Cost Detail

Note: Cost includes the following:

FW Design: review of vendor schematic/spec validation included elsewhere
Include 3 Month Rental to incorporate delivery/setup/cleanup time:
FW estimated equipment:
FW Installation 16hours x $75/hr = $1,200
Materials: 1LS = $500
Vendor Pricing: (TIGG Corp)
Mob & Setup, and Starutp Training: $8,305
System Rental: $2,745/mo x 18 months = $49,410
System Demob: $2,720

Additional Costs:
Electrical Hookup - Electrician @ $75/hr x 8 hrs = $600 + $400 allowance for materials = $1,000.
Plastic & Haybale Berm around Treatment Syst. - Assume $1000 material costs.

Total: $59,135 + tax of ((2745)*.08)x18 ($3,950)

1.0	UH2OSET	Water Treatment Sys Setup	1.00	LS	U						59,135		3,950	63,085	63,085
1.0	URFRACTN	Frac Tank Rental	1,620.00	DA	U			30.00						30.00	48,600
1.0	UOFRCMOB	Frac Tank Mob/Demob	6.00	EA	U						600.00			600.00	3,600
		Resource List:			T			48,600			62,735		3,950	115,285	115,285
150 Detailed	**2**	**Temp Water Treat Syst Ops**	**2640000**	**GL**							**52,800**			**0.02**	**52,800**

(c) Copyright 1988 to 2002 Hardy Collar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
	Note:	Bag Filters @ ~$9 ea x 1/10,000 gal = ~$0.0009/gal Sampling - batch sampling - 1 test/20,000 gal @ $299/test = $0.015/gal. Cost ~$0.016/gal for sampling & filters - use system ops cost of ~0.02/gal.													
1.0	UH2OFILT	Filter Change Cost	2640000	GL	U						0.02			0.02	52,800
			Resource List:		T						52,800			52,800	52,800

Note: O&M:
Bag Filters - @ $4.50 each x 2 filters = $9/changeout
Anayltical Testing - $299/sample.
Carbon useage calculated at 38 lbs/day (10 hrs x 60 min/hr x 100 gal/min = 60,000 gal/day) = 0.63 lbs/kgal (1,000 gals). Each unit holds 1,500

(All labor to be provided by onsite crews)
0 - 200,000 gals
Assume 2 filter changeouts & 4 samples: 2 x $9 + 4 x $299 = $1,214 = $0.006/gal.
200,000 - 500,000 gals
Assume 3 filter changeouts & 1 sample = 3 x $9 + 1 x $299 = $326 = $0.001/gal.
>500,000 gals.

For O&M Cost use 200,000 - 500,000 gals cost calcs - $0.001/gal for filter changeout only.

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
10	Hydro-Seeding Restoration	20.00	AC	T						16,000			800	16,000
	Hydro-Seeding Restoration													
				U						800.00			800.00	16,000
				T						16,000			800	16,000
	Bid Item bid quantity and cost:	20.00	AC	T						16,000			800	16,000
220	Hydro-Seeding Restoration	20.00	AC							16,000			800.00	16,000
										800.00			800.00	16,000
220	**Hydro-Seeding Restoration**	**20.00**	**AC**							**16,000**			**800.00**	**16,000**

Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USHDYROS	Hydroseeding Subcontract	20.00	AC	U						800.00			800.00	16,000
			Resource List:		T						16,000			16,000	16,000

(c) Copyright 1988 to 2002 Haru Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	24.00	MO	T	386,623						22,308		17,039	408,931
	Engineering - Oversight													
				U	16,109						929.50		17,038	408,931
				T	386,623						22,308		17,039	408,931
	Bid Item bid quantity and cost:	24.00	MO	T	386,623						22,308		17,039	408,931
900	Engineering - Oversight	24.00	MO		386,623						22,308		17,038	408,931
					16,109						929.50		17,038	408,931
900	**Engineering - Oversight**	**24.00**	**MO**		**386,623**						**22,308**		**17,038**	**408,931**

Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMEALS	Meals	528.00	DA	U						25.00		25.00	13,200
1.0	UTMILES	Mileage	26,400	MI	U						0.35		0.35	9,108
		Resource List:			T						22,308		22,308	22,308

CREW Cost Detail

528.0 Days 0.0455 MO/Da 22.0000 Da/MO 732.24 Cost/Da
5280.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 73.22 Cost/Hr
5808.0 Man-Hr 0.0041 MO/MH 242.0000 MH/MO 66.57 Cost/MH

1.0	L90FEG00	Field - Engineer	5,280.00	HR	U	60.22							60.22	317,946
0.1	L90HXX08	Home - Proj Manager	528.00	HR	U	130.07							130.07	68,677
		Resource List:			T	386,623							386,623	386,623

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	24.00	MO	T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158
	Const. Project Support													
				U	66,291		7,214.14	21.25	1,509.58	5,312.50	7,782.58		88,131	2115158
				T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158
	Bid Item bid quantity and cost:	24.00	MO	T	1590996		173,139	510	36,230	127,500	186,782		88,132	2115158

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Construction Proj Support	24.00	MO											
950	13				Indirect Project Costs	24.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	24.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	24.00	MO											
950	13	1	4	1	WEATHER	24.00	MO											
950	13	2			CONST EQUIP & TOOLS	24.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	24.00	MO				18,480						770.00	18,480
											770.00						770.00	18,480
950	13	2	6		SMALL TOOLS	24.00	MO						12,000				500.00	12,000
													500.00				500.00	12,000
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	24.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	24.00	MO											
950	13	6	1		OFFICE TRAILERS	24.00	MO				12,000						500.00	12,000
											500.00						500.00	12,000
950	13	6	2		STORAGE FACILITIES	24.00	MO											
950	13	6	2	1	Connex Boxes	24.00	MO				7,200.00						300.00	7,200
											300.00						300.00	7,200
950	13	6	3		DECON FOR PERSONNEL	24.00	MO				8,400.00						350.00	8,400
											350.00						350.00	8,400
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	24.00	MO				8,400.00						350.00	8,400
											350.00						350.00	8,400
950	13	6	8		TOILETS	24.00	MO				7,200.00						300.00	7,200
											300.00						300.00	7,200
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	24.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	24.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	24.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	24.00	MO						2,400.00				100.00	2,400
													100.00				100.00	2,400
950	13	7			TEMPORARY UTILITIES	24.00	MO											
950	13	7	1		POWER	24.00	MO								12,000		500.00	12,000
															500.00		500.00	12,000
950	13	7	2		WATER	24.00	MO								4,800.00		200.00	4,800
															200.00		200.00	4,800
950	13	7	3		SANITARY	24.00	MO											
950	13	7	4		TELEPHONE	24.00	MO								16,800		700.00	16,800
															700.00		700.00	16,800
950	13	8			OPERATING SUPPLY/SERV	24.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	24.00	MO				4,800.00						200.00	4,800
										200.00						200.00	4,800
950	13	8	2	OFFICE & ENGINEERING SUP	24.00	MO						5,280.00				220.00	5,280
												220.00				220.00	5,280
950	13	8	3	FACILITIES MAINT & REPAIR	24.00	MO											
950	13	8	4	MEDICAL/FIRST AID	24.00	MO						7,200.00				300.00	7,200
												300.00				300.00	7,200
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	24.00	MO				24,000				2,400.00		1,100.00	26,400
										1,000.00				100.00		1,100.00	26,400
950	13	8	9	POSTAGE	24.00	MO								3,600.00		150.00	3,600
														150.00		150.00	3,600
950	13	8	10	FREIGHT ON SUPPLIES	24.00	MO								6,000.00		250.00	6,000
														250.00		250.00	6,000
950	13	9		COMPUTER AND DATA	24.00	MO											
950	13	9	1	IT/WAN COST	24.00	MO								49,488		2,062.00	49,488
														2,062.00		2,062.00	49,488
950	13	10		VEHICLES FOR PERSONNEL	24.00	MO											
950	13	10	1	PICKUP TRUCKS	24.00	MO				82,159						3,423.30	82,159
										3,423.30						3,423.30	82,159
950	13	12		HEALTH & SAFETY	24.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		20,002		500.00				922.50		21,424	21,425
								20,002		500.00				922.50		21,424	21,425
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	24.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,704.40								2,704.40	2,704
								2,704.40								2,704.40	2,704
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	24.00	MO								85,656		3,569.00	85,656
														3,569.00		3,569.00	85,656
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	24.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	24.00	MO											
950	14	1	1	PROGRAM MANAGER	24.00	MO		73,168								3,048.68	73,168
								3,048.68								3,048.68	73,168
950	14	1	2	SENIOR PROJECT MANAGER	24.00	MO		381,097								15,879	381,097
								15,879								15,879	381,097
950	14	1	3	PROJECT SUPERINTENDENT	24.00	MO		438,045								18,251	438,046
								18,251								18,251	438,046
950	14	2		ADMINISTRATION	24.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	24.00	MO		100,848								4,202.01	100,848
								4,202.01								4,202.01	100,848
950	14	4		ENGINEERING	24.00	MO											
950	14	4	13	SURVEYORS	24.00	MO							120,000			5,000.00	120,000
													5,000.00			5,000.00	120,000
950	14			HEALTH & SAFETY	24.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	24.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	24.00	MO		3,888.01								162.00	3,888
									162.00								162.00	3,888
950	14	5	1	3	ESQ AUDIT/INSPECTION	24.00	MO		33,278						2,856.00		1,505.58	36,134
									1,386.58						119.00		1,505.58	36,134
950	14	5	4		SITE S&H OFFICER	24.00	MO		239,123								9,963.49	239,124
									9,963.49								9,963.49	239,124
950	14	5	7		REGULATORY COMPLIANCE	24.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	24.00	MO		15,552								648.00	15,552
									648.00								648.00	15,552
950	14	5	7	3	ESQ AUDIT/INSPECTION	24.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	24.00	MO											
950	14	6	1		PROCUREMENT MANAGER	24.00	MO											
950	14	6	2		BUYERS	24.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	24.00	MO		41,597								1,733.23	41,598
									1,733.23								1,733.23	41,598
950	14	6	4		PROJECT CONTROLS MANAGER	24.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	24.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	24.00	MO		199,863								8,327.63	199,863
									8,327.63								8,327.63	199,863
950	14	6	6		ESTIMATOR	24.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	24.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	24.00	MO											
950	14	6	9		FINANCIAL SERVICES	24.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	24.00	MO		6,243.39								260.14	6,243
									260.14								260.14	6,243
950 Detailed					**Construction Proj Support**	**24.00**	**MO**		**1590996**		**173,139**	**510.00**	**36,230**	**127,500**	**186,782**		**88,131**	**2115158**

Note: On-site construction is 24 months with 5 crews working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**13**				**Indirect Project Costs**	**24.00**	**MO**		**27,102**		**173,139**	**510.00**	**36,230**	**7,500.00**	**183,866**		**17,847**	**428,349**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1			CRAFT PAYROLLRELATEDCOST	24.00	MO											
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4		NON PRODUCTIVE-SHOW UP	24.00	MO											
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4	1	WEATHER	24.00	MO											

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	2			CONST EQUIP & TOOLS	24.00	MO				18,480		18,450			1,538.75		36,930
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	1	**HEAVY EQUIPMENT**	**1.00**	**LS**											
Detailed																	

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	2	**LIGHT EQUIPMENT**	**24.00**	**MO**				**18,480**						**770.00**	**18,480**
Detailed																	

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWSP	Power Washer	24.00	MO	U				550.00					550.00	13,200
1.0	URPUMP2"	Submersible Pump	24.00	MO	U				110.00					110.00	2,640
1.0	URPUMP2"	Submersible Pump	24.00	MO	U				110.00					110.00	2,640
			Resource List:		T				18,480					18,480	18,480

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	6	**SMALL TOOLS**	**24.00**	**MO**						**12,000**				**500.00**	**12,000**
Detailed																	

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	12,000	LS	U							1.00			1.00	12,000
			Resource List:		T							12,000			12,000	12,000

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	8	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**
Detailed																	

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UOPPE_C	PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0 UOPPE_D	PPE-Level D	300.00	DA	U					20.00				20.00	6,000
	Resource List:			T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**24.00**	**MO**											
	Note: **********													
	No additional costs included for on-site security.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**24.00**	**MO**		**1,077.88**		**43,200**	**510.00**	**4,900.00**				**2,070.33**	**49,688**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 1 Detailed	**OFFICE TRAILERS**	**24.00**	**MO**				**12,000**						**500.00**	**12,000**
	Note: **********													
	(1) trailer for FWENC.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UROFFTRL	Office Trailer -12x60	24.00	MO	U			500.00						500.00	12,000
	Resource List:			T			12,000						12,000	12,000
950 13 6 2 Detailed	**STORAGE FACILITIES**	**24.00**	**MO**				**7,200.00**						**300.00**	**7,200**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 2 1 Detailed	**Connex Boxes**	**24.00**	**MO**				**7,200.00**						**300.00**	**7,200**
	Note: **********													
	(1) connex box for storage of small tools/equipment.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 URCONNEX	Connex Box	48.00	MO	U			150.00						150.00	7,200
	Resource List:			T			7,200						7,200	7,200

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**24.00**	**MO**				**8,400.00**						**350.00**	**8,400**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	URBRKTRL	Lunch/Break Trailer	24.00	MO	U			350.00						350.00	8,400
		Resource List:			T			8,400						8,400	8,400

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
Surrounding soils to create bermed area
20 mil poly (excess poly used to cover pad during non-use)
6" crushed stone
plywood to displace weight of equipment
Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U					10.00				10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U					200.00				200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U					11.00				11.00	110
		Resource List:			T					510				510	510

CREW Cost Detail

1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da	
10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr	
30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH	

2.0	L060100	GENERAL LABORER	20.00	HR	U			32.55						32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U			42.69						42.69	427
		Resource List:			T			1,078						1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**24.00**	**MO**				**8,400.00**				**350.00**	**8,400**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	URBRKTRL	Lunch/Break Trailer	24.00	MO	U			350.00						350.00	8,400
		Resource List:			T			8,400						8,400	8,400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**24.00**	**MO**				**7,200.00**						**300.00**	**7,200**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	24.00	MO	U			300.00						300.00	7,200
	Resource List:			T			7,200						7,200	7,200
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**

Note: **********

Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**24.00**	**MO**											

Note: **********

Include rental of (1) trailer for use by client/engineer.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**

Note: **********

Office furniture/equipment. Up to (4) field staff at $500/each.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**24.00**	**MO**											

Note: **********

No QC testing laboratory included at this time.

****

(c) Copyright 1988 to 2002 Hard Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**13**	**6**	**27**	**HAUL ROAD MAINTENANCE**	**24.00**	**MO**											
				Note: ********** Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**13**	**6**	**28**	**EMERGENCY EQUIPMENT**	**24.00**	**MO**						**2,400.00**				**100.00**	**2,400**
				Note: ********** Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
	1.0			UOSFTYSP Safety Supplies	24.00	MO	U					100.00				100.00	2,400
					Resource List:		T					2,400				2,400	2,400
950 Detailed	**13**	**7**		**TEMPORARY UTILITIES**	**24.00**	**MO**								**33,600**		**1,400.00**	**33,600**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**13**	**7**	**1**	**POWER**	**24.00**	**MO**								**12,000**		**500.00**	**12,000**
				Note: ********** Allowance for electrical charges. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
	1.0			UOELECT Electrical Charges-Month	24.00	MO	U							500.00		500.00	12,000
					Resource List:		T							12,000		12,000	12,000
950 Detailed	**13**	**7**	**2**	**WATER**	**24.00**	**MO**								**4,800.00**		**200.00**	**4,800**
				Note: ********** Include allowance for potable water supply. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UOPOTWTR	Potable Water	24.00	MO	U							200.00		200.00	4,800
		Resource List:		T							4,800		4,800	4,800
950 13 7 3 Detailed	**SANITARY**	**24.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 7 4 Detailed	**TELEPHONE**	**24.00**	**MO**								**16,800**		**700.00**	**16,800**

Note: **********

Include allowance for up to (3) cell phones and (1) office phone/fax/data line.

****

	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UOOFFPHN	Monthly Office Phone	24.00	MO	U							500.00		500.00	12,000
1.0 UOCELLPH	Monthly Cell Ph.	48.00	MO	U							100.00		100.00	4,800
		Resource List:		T							16,800		16,800	16,800
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**24.00**	**MO**				**28,800**		**12,880**		**14,000**		**2,320.00**	**55,680**
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**24.00**	**MO**				**4,800.00**						**200.00**	**4,800**

Note: **********
On-site labor to perform cleanup.
Allow for 1 dumpster on-site at $200/month including disposal of debris.

****

	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UODUMP	Dumpster	24.00	MO	U			200.00						200.00	4,800
		Resource List:		T			4,800						4,800	4,800
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**24.00**	**MO**						**5,280.00**				**220.00**	**5,280**

Note: **********

Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0				UOOFFSUPOffice Supplies($/prs/mo)	96.00	MO	U					55.00				55.00	5,280
					Resource List:		T					5,280				5,280	5,280
950 Detailed	**13**	**8**	**3**	**FACILITIES MAINT & REPAIR**	**24.00**	**MO**											
				Note: **********													
				No Facilities Maintenance & Repair costs are anticipated at this time.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	**13**	**8**	**4**	**MEDICAL/FIRST AID**	**24.00**	**MO**						**7,200.00**				**300.00**	**7,200**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0				UO1STAID 1st Aid Supplies	24.00	MO	U					300.00				300.00	7,200
					Resource List:		T					7,200				7,200	7,200
950 Detailed	**13**	**8**	**5**	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
				Note: **********													
				Include allowance for site radios for on-site/emergency communication.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0				UORADIO Radio	1.00	LS	U							2,000.00		2,000.00	2,000
					Resource List:		T							2,000		2,000	2,000
950 Detailed	**13**	**8**	**6**	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
				Note: **********													
				Include allowance for purchase of site fax.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0				UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
					Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8 Detailed	**REPRODUCTION AND PHOTO**	**24.00**	**MO**				**24,000**				**2,400.00**		**1,100.00**	**26,400**

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	24.00	MO	U						100.00		100.00	2,400
1.0	URCOPIER	Copier Rental	24.00	MO	U		1,000.00						1,000.00	24,000
			Resource List:		T		24,000				2,400		26,400	26,400

950 13 8 9 Detailed	**POSTAGE**	**24.00**	**MO**								**3,600.00**		**150.00**	**3,600**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	24.00	MO	U						150.00		150.00	3,600
			Resource List:		T						3,600		3,600	3,600

950 13 8 10 Detailed	**FREIGHT ON SUPPLIES**	**24.00**	**MO**								**6,000.00**		**250.00**	**6,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	24.00	MO	U						250.00		250.00	6,000
			Resource List:		T						6,000		6,000	6,000

950 13 9 Detailed	**COMPUTER AND DATA**	**24.00**	**MO**								**49,488**		**2,062.00**	**49,488**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1 Detailed	**IT/WAN COST**	**24.00**	**MO**								**49,488**		**2,062.00**	**49,488**

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	4,800.00	HR	U						10.31		10.31	49,488
			Resource List:		T						49,488		49,488	49,488

(c) Copyright 1988 to 2002 Hard... Corporation All Rights Reserved

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A4STNSHT (A' ' '

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 12 3	**H&S MEDICAL EXAMS**	**1.00**	**LS**							**7,500.00**			**7,500.00**	**7,500**
Detailed														

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U					750.00			750.00	7,500
			Resource List:		T					7,500			7,500	7,500

950 13 13	**MISCELLANEOUS COST**	**24.00**	**MO**		**6,022.93**						**85,856**		**3,828.29**	**91,879**
Detailed														

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 13 1	**ON-SITE TRAINING PROGRAM**	**1.00**	**LS**		**2,704.40**								**2,704.40**	**2,704**
Detailed														

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2704.40 Cost/Da											
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	338.05 Cost/Hr											
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	33.81 Cost/MH											
4.0	L010101	OPERATOR GROUP 1	32.00	HR	U	35.69							35.69	1,142
6.0	L060100	GENERAL LABORER	48.00	HR	U	32.55							32.55	1,562
			Resource List:		T	2,704							2,704	2,704

950 13 13 3	**CRAFT QUALIFICATIONS**	**1.00**	**LS**		**3,318.53**								**3,318.53**	**3,319**
Detailed														

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 Hard... ...ar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90FXX02		Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950	**13**	**13**	**4**	**PER-DIEM**	**24.00**	**MO**								**85,656**		**3,569.00**	**85,656**
Detailed																	

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMILES	Mileage	4,800.00	MI	U							0.35	0.35	1,656
1.0	UTMEALS	Meals	1,056.00	DA	U							25.00	25.00	26,400
1.0	UTAPTMNT	Apartment Rental-Furn/Utl	48.00	MO	U							1,200.00	1,200.00	57,600
			Resource List:		T							85,656	85,656	85,656

950	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**								**200.00**		**200.00**	**200**
Detailed																	

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPRSIGN	Project Signs	1.00	LS	U							200.00	200.00	200
			Resource List:		T							200	200	200

950	**14**			**Professional Services**	**24.00**	**MO**		**1563894**					**120,000**	**2,915.50**		**70,283**	**1686809**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**		**SUPERVISION/MANAGEMENT**	**24.00**	**MO**		**892,311**								**37,179**	**892,311**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**	**1**	**PROGRAM MANAGER**	**24.00**	**MO**		**73,168**								**3,048.68**	**73,168**
Detailed																	

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				48.0 Days 0.5000 MO/Da 2.0000 Da/MO 1524.34 Cost/Da													
				384.0 Hours 0.0625 MO/Hr 16.0000 Hr/MO 190.54 Cost/Hr													
				384.0 Man-Hr 0.0625 MO/MH 16.0000 MH/MO 190.54 Cost/MH													
	1.0		L90HXX01	Home - Program Manager	384.00	HR	U	190.54								190.54	73,168
					Resource List:		T	73,168								73,168	73,168
950 Detailed	**14**	**1**	**2**	**SENIOR PROJECT MANAGER**	**24.00**	**MO**		**381,097**								**15,879**	**381,097**
				Note: **********													
				Project Manager at 100% FTE for project duration -													
				**********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				528.0 Days 0.0455 MO/Da 22.0000 Da/MO 721.78 Cost/Da													
				4224.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 90.22 Cost/Hr													
				4224.0 Man-Hr 0.0057 MO/MH 176.0000 MH/MO 90.22 Cost/MH													
	1.0		L90FXX01	Field-Proj Manager	4,224.00	HR	U	90.22								90.22	381,097
					Resource List:		T	381,097								381,097	381,097
950 Detailed	**14**	**1**	**3**	**PROJECT SUPERINTENDENT**	**24.00**	**MO**		**438,045**								**18,251**	**438,046**
				Note: **********													
				Site Supervisor for duration of all field work.													
				**********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				660.0 Days 0.0364 MO/Da 27.5000 Da/MO 663.71 Cost/Da													
				5280.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 82.96 Cost/Hr													
				5280.0 Man-Hr 0.0045 MO/MH 220.0000 MH/MO 82.96 Cost/MH													
	1.0		L90FXX02	Field-Proj Superintendent	5,280.00	HR	U	82.96								82.96	438,046
					Resource List:		T	438,046								438,046	438,046
950 Detailed	**14**	**2**		**ADMINISTRATION**	**24.00**	**MO**		**100,848**								**4,202.01**	**100,848**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	2	2	**ADMINISTRATIVE CLERKS**	**24.00**	**MO**		**100,848**								**4,202.01**	**100,848**

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

528.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da	
4224.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr	
4224.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH	

1.0	L90FC300	Field - Clerk	4,224.00	HR	U	23.88								23.88	100,848
			Resource List:		T	100,848								100,848	100,848

950 Detailed	14	4		**ENGINEERING**	**24.00**	**MO**							**120,000**			**5,000.00**	**120,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	4	13	**SURVEYORS**	**24.00**	**MO**							**120,000**			**5,000.00**	**120,000**

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	120,000	LS	U								1.00			1.00	120,000
			Resource List:		T								120,000			120,000	120,000

950 Detailed	14	5		**HEALTH & SAFETY**	**24.00**	**MO**		**293,785**						**2,856.00**		**12,360**	**296,642**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**24.00**	**MO**		**37,814**						**2,856.00**		**1,694.58**	**40,670**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**5**	**1**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed																		

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00				162.00	648
			Resource List:		T	648				648	648

950	**14**	**5**	**1**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**3,888.01**								**162.00**	**3,888**
Detailed																		

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

3.0 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da
24.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr
24.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	24.00	HR	U	162.00				162.00	3,888
			Resource List:		T	3,888				3,888	3,888

950	**14**	**5**	**1**	**3**	**ESQ AUDIT/INSPECTION**	**24.00**	**MO**		**33,278**						**2,856.00**		**1,505.58**	**36,134**
Detailed																		

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

48.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da
384.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr
384.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH

1.0	L90HXX05	Home - H&S Staff	384.00	HR	U	86.66				86.66	33,278
1.0	UTMEALS	Meals	48.00	DA	U				25.00	25.00	1,200
1.0	UTMILES	Mileage	4,800.00	MI	U				0.35	0.35	1,656
			Resource List:		T	33,278			2,856	36,134	36,134

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**5**	**4**		**SITE S&H OFFICER**	**24.00**	**MO**		**239,123**								**9,963.49**	**239,124**
Detailed																		

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

600.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da
4800.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr
4800.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH

1.0	L90FEI00	Field - Assoc Engr.	4,800.00	HR	U	49.82								49.82	239,124
			Resource List:		T	239,124								239,124	239,124

950	**14**	**5**	**7**		**REGULATORY COMPLIANCE**	**24.00**	**MO**		**16,848**								**702.00**	**16,848**
Detailed																		

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**5**	**7**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,296.00**								**1,296.00**	**1,296**
Detailed																		

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00								162.00	1,296
			Resource List:		T	1,296								1,296	1,296

950	**14**	**5**	**7**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**15,552**								**648.00**	**15,552**
Detailed																		

Note: **********

Include (8) hour(s)/month for general support.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

12.0 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da
96.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr
96.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90HXX06	Home - Regl Compliance	96.00	HR	U	162.00								162.00	15,552
				Resource List:		T	15,552								15,552	15,552
950 Detailed	**14 5 7 3**		**ESQ AUDIT/INSPECTION**	**24.00**	**MO**											

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6**		**PROJECT SUPPORT SERVICES**	**24.00**	**MO**		**276,948**						**59.50**		**11,541**	**277,008**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 1**		**PROCUREMENT MANAGER**	**24.00**	**MO**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 2**		**BUYERS**	**24.00**	**MO**		**65,869**								**2,744.54**	**65,869**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 2 1**		**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**								**24,271**	**24,271**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH

	1.0	L90HXX02	Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
	1.0	L90HXX03	Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
				Resource List:		T	24,271								24,271	24,271
950 Detailed	**14 6 2 2**		**ONGOING SUPPORT**	**24.00**	**MO**		**41,597**								**1,733.23**	**41,598**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					60.0 Days 0.4000 MO/Da 2.5000 Da/MO 693.29 Cost/Da													
					480.0 Hours 0.0500 MO/Hr 20.0000 Hr/MO 86.66 Cost/Hr													
					480.0 Man-Hr 0.0500 MO/MH 20.0000 MH/MO 86.66 Cost/MH													
	1.0				L90HXX03 Home - Procurement Agent	480.00	HR	U	86.66								86.66	41,598
						Resource List:		T	41,598								41,598	41,598
950 Detailed	**14**	**6**	**4**		**PROJECT CONTROLS MANAGER**	**24.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**14**	**6**	**5**		**PROJECT CONTROLS ENGINEER**	**24.00**	**MO**		**202,916**								**8,454.86**	**202,917**
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**14**	**6**	**5**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**								**3,053.46**	**3,053**
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da 5.0000 Da/LS 610.69 Cost/Da													
					40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 76.34 Cost/Hr													
					40.0 Man-Hr 0.0250 LS/MH 40.0000 MH/LS 76.34 Cost/MH													
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
						Resource List:		T	3,053								3,053	3,053
950 Detailed	**14**	**6**	**5**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**199,863**								**8,327.63**	**199,863**
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					654.5 Days 0.0367 MO/Da 27.2727 Da/MO 305.35 Cost/Da													
					5236.4 Hours 0.0046 MO/Hr 218.1818 Hr/MO 38.17 Cost/Hr													
					2618.2 Man-Hr 0.0092 MO/MH 109.0909 MH/MO 76.34 Cost/MH													
	0.5				L90FXX05 Field - Cost/Scheduler	2,618.18	HR	U	76.34								76.34	199,863
						Resource List:		T	199,863								199,863	199,863

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 6 6		**ESTIMATOR**	**24.00**	**MO**											
Detailed															
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh										
950 14 6 8		**HOME OFFICE FLD ACCT SUPT**	**24.00**	**MO**		**878.81**						**59.50**		**39.10**	**938**
Detailed															
	Note:	**********													
		Hours per (TBD) response to Project Services Budget Request.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh										
950 14 6 8 1		**PROJECT KICKOFF**	**1.00**	**LS**		**878.81**						**59.50**		**938.31**	**938**
Detailed															
	Note:	**********													
		Include (1) day for training of on-site staff.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh										
LIST Cost Detail															
	1.0 Days	1.0000 LS/Da	1.0000 Da/LS	938.31 Cost/Da											
	8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	117.29 Cost/Hr											
	8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	117.29 Cost/MH											
1.0	L90HEF00	Home - Senior Engr	8.00	HR	U	109.85								109.85	879
1.0	UTMEALS	Meals	1.00	DA	U							25.00		25.00	25
1.0	UTMILES	Mileage	100.00	MI	U							0.35		0.35	35
			Resource List:		T	879						60		938	938
950 14 6 8 2		**ONGOING SUPPORT**	**24.00**	**MO**											
Detailed															
	Note:	**********													
		Support required for craft payroll processing.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh										
950 14 6 9		**FINANCIAL SERVICES**	**24.00**	**MO**		**7,283.96**								**303.50**	**7,284**
Detailed															
	Note:	**********													
		Hours per (TBD) response to project services budget request.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh										

(c) Copyright 1988 to 2002 Ha[illegible]lar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**6**	**9**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			1040.57 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			130.07 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
						Resource List:		T	1,041								1,041	1,041
950	**14**	**6**	**9**	**2**	**ONGOING SUPPORT**	**24.00**	**MO**		**6,243.39**								**260.14**	**6,243**
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		6.0 Days			4.0000 MO/Da	0.2500 Da/MO			1040.57 Cost/Da									
		48.0 Hours			0.5000 MO/Hr	2.0000 Hr/MO			130.07 Cost/Hr									
		48.0 Man-Hr			0.5000 MO/MH	2.0000 MH/MO			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	48.00	HR	U	130.07								130.07	6,243
						Resource List:		T	6,243								6,243	6,243

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			11,500	2,700		20,427	20,427
		Demobilization													
					U	4,311.50		1,915.99			11,500	2,700.00		20,427	20,427
					T	4,312		1,916			11,500	2,700		20,427	20,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			11,500	2,700		20,427	20,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							11,500			11,500	11,500
											11,500			11,500	11,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230 Detailed		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**11,500**	**2,700.00**		**20,427**	**20,427**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

230 Detailed	**1**	**DEMOB OF CONSTRUCTION EQP**	**1.00**	**LS**							**11,500**			**11,500**	**11,500**

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UEEPTRNS	FWENC Eqp Transport/Setup	10,000	LS	U						1.00			1.00	10,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
			Resource List:		T						11,500			11,500	11,500
230 Detailed	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 Ha. ..lar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Connex Box Mob	1.00	EA	U							300.00		300.00	300
			Resource List:		T							2,700		2,700	2,700
230	**3**	**DEMOB OF PERSONNEL**	**1.00**	**LS**											
Detailed															
	Note:	**********													
		No personnel demobilization charges are anticipated.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
230	**4**	**FINAL SITE CLEANUP**	**1.00**	**LS**		**4,311.50**		**1,915.99**						**6,227.49**	**6,227**
Detailed															
	Note:	**********													
		One operator and two laborers to support final site cleanup operations. Include ~1 dumpster load of clean debris for disposal.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UODUMP	Dumpster	1.00	MO	U			200.00						200.00	200
			Resource List:		T			200						200	200
CREW Cost Detail															
	5.0 Days	0.2000 LS/Da	5.0000 Da/LS			1205.50 Cost/Da									
	40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS			150.69 Cost/Hr									
	120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS			50.23 Cost/MH									
1.0	L010490	OPERATOR DOZER	40.00	HR	U	42.69								42.69	1,708
1.0	RDOZER20	JOHN DEERE 750C LGP	40.00	HR	U			42.90						42.90	1,716
2.0	L060100	GENERAL LABORER	80.00	HR	U	32.55								32.55	2,604
			Resource List:		T	4,312		1,716						6,027	6,027

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Alternative #4 - Stone Columns with a Cap Surcharge and a Sheet Pile Wall
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 55,000	$ 51,400	$ 51,400	Allowance for water treatment, sampling and analysis, surcharge repairs, and inspections.
2	$ 55,000	$ 48,040	$ 99,440	
3	$ 55,000	$ 44,900	$ 144,340	
4	$ 55,000	$ 41,960	$ 186,300	
5	$ 55,000	$ 39,210	$ 225,510	
6	$ 55,000	$ 36,650	$ 262,160	
7	$ 55,000	$ 34,250	$ 296,410	
8	$ 55,000	$ 32,010	$ 328,420	
9	$ 55,000	$ 29,920	$ 358,340	
10	$ 55,000	$ 27,960	$ 386,300	
11	$ 55,000	$ 26,130	$ 412,430	
12	$ 55,000	$ 24,420	$ 436,850	
13	$ 55,000	$ 22,820	$ 459,670	
14	$ 55,000	$ 21,330	$ 481,000	
15	$ 55,000	$ 19,930	$ 500,930	
16	$ 55,000	$ 18,630	$ 519,560	
17	$ 55,000	$ 17,410	$ 536,970	
18	$ 55,000	$ 16,270	$ 553,240	
19	$ 55,000	$ 15,210	$ 568,450	
20	$ 55,000	$ 14,210	$ 582,660	
21	$ 55,000	$ 13,280	$ 595,940	
22	$ 55,000	$ 12,410	$ 608,350	
23	$ 55,000	$ 11,600	$ 619,950	
24	$ 55,000	$ 10,840	$ 630,790	
25	$ 55,000	$ 10,130	$ 640,920	
26	$ 55,000	$ 9,470	$ 650,390	
27	$ 55,000	$ 8,850	$ 659,240	
28	$ 55,000	$ 8,270	$ 667,510	
29	$ 55,000	$ 7,730	$ 675,240	
30	$ 55,000	$ 7,230	$ 682,470	

APPENDIX B5

ALTERNATIVE 5 – SOIL CEMENT GRAVITY WALL AND STONE COLUMNS

Proposal

Job Description: Alt 5-Soil Cmnt Wl w/ StC

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	219,000.00	**219,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	76,000.00	**76,000.00**
4	Wtr Trt System	1.0000	LS	93,000.00	**93,000.00**
5	Stone Column Installation	31,000.0000	LF	94.00	**2,914,000.00**
6	Placement-Contaminated Soil	8,300.0000	CY	17.00	**141,100.00**
7	Soil Mixing	90,000.0000	CY	95.00	**8,550,000.00**
8	Hydro-Seeding Restoration	4.0000	AC	1,000.00	**4,000.00**
90	Engineering - Oversight	12.0000	MO	21,000.00	**252,000.00**
95	Const. Project Support	12.0000	MO	114,000.00	**1,368,000.00**
99	Demobilization	1.0000	EA	19,000.00	**19,000.00**
			GRAND TOTAL		**13,690,100.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
ASSOILMX (Alt 5-Soil Cmnt Wl w/ StC)

Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					175,000		175,000	175,000				43,750.00	218,750	44,000.00	219,000
10	Engineering - Design	1.00	LS					175,000		175,000								
2	Pre-Construction Work	1.0000	LS	40,817.06					2,000.00	42,817.06	42,817.06				10,704.26	53,521.32	11,182.94	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,132.26						12,132.26								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,231.63						2,231.63								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,210.13		1,400.00	1,286.99	51,500.00	2,700.00	61,097.12	61,097.12				15,274.28	76,371.40	14,902.88	76,000.00
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					31,500.00		31,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,210.13		1,400.00	1,286.99		2,700.00	9,597.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					40.00		40.00								
4	Wtr Trt System	1.0000	LS				24,300.00	48,030.00	1,975.00	74,305.00	74,305.00				18,576.25	92,881.25	18,695.00	93,000.00
140	Water Treatment Syst	1.00	LS															
140 1	Temp Dwtr & Trt System	1.00	LS				24,300.00	38,030.00	1,975.00	64,305.00								
140 2	Temp Water Treat Syst Ops	500000	GL					0.02		0.02								
5	Stone Column Installation	31,000.00	LF					75.00		75.00	75.00				18.75	93.75	19.00	94.00
100	Stone Column Install	31000.0	LF					75.00		75.00								
6	Plcmnt-Contaminated Soil	8,300.000	CY	2.67	3.48	7.44				13.59	13.59				3.40	16.99	3.41	17.00
150	Contaminated soil placeme	8300.00	CY	2.67	3.48	7.44				13.59								
7	Soil Mixing	90,000.00	CY					76.00		76.00	76.00				19.00	95.00	19.00	95.00
160	Soil Mixing	90000.0	CY					76.00		76.00								
8	Hydro-Seeding Restoration	4.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	4.00	AC					800.00		800.00								
90	Engineering - Oversight	12.0000	MO	16,109.30					929.50	17,038.80	17,038.80				4,259.70	21,298.50	3,961.20	21,000.00
900	Engineering - Oversight	12.00	MO	16,109.30					929.50	17,038.80								
95	Const. Project Support	12.0000	MO	68,832.31		42.50	7,234.97	5,625.00	9,814.33	91,549.12	91,549.12				22,887.28	114,436	22,450.88	114,000
950	Const. Project Support	12.00	MO															
950 13	Indirect Project Costs	12.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	12.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	12.00	MO															
950 13 1 4 1	WEATHER	12.00	MO															
950 13 2	CONST EQUIP & TOOLS	12.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	12.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	12.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	12.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	12.00	MO															
950 13 6 1	OFFICE TRAILERS	12.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	12.00	MO															
950 13 6 2 1	Connex Boxes	12.00	MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	12.00	MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00	LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	12.00	MO				350.00			350.00								
950 13 6 8	TOILETS	12.00	MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00	LS						500.00	500.00								
950 13 6 12	CLIENT TRAILERS	12.00	MO															
950 13 6 16	OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00	2,000.00								
950 13 6 18	TESTING LABORATORY	12.00	MO															

(c) Copyright 1988 to 2002 Haru Dollar Corporation All Rights Reserved

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
950 13 6 27	HAUL ROAD MAINTENANCE	12.00 MO															
950 13 6 28	EMERGENCY EQUIPMENT	12.00 MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	12.00 MO															
950 13 7 1	POWER	12.00 MO						500.00	500.00								
950 13 7 2	WATER	12.00 MO						200.00	200.00								
950 13 7 3	SANITARY	12.00 MO															
950 13 7 4	TELEPHONE	12.00 MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	12.00 MO															
950 13 8 1	JANITORIAL AND CLEANUP	12.00 MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	12.00 MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	12.00 MO															
950 13 8 4	MEDICAL/FIRST AID	12.00 MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00 LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00 LS						400.00	400.00								
950 13 8 8	REPRODUCTION AND PHOTO	12.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	12.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	12.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	12.00 MO															
950 13 9 1	IT/WAN COST	12.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	12.00 MO															
950 13 10 1	PICKUP TRUCKS	12.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	12.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	21,122.01			500.00		922.50	22,544.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	12.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,928.40						2,928.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	12.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	12.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	12.00 MO															
950 14 1 1	PROGRAM MANAGER	12.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	12.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	12.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	12.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	12.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	12.00 MO															
950 14 4 13	SURVEYORS	12.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	12.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	12.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	12.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	12.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	12.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	12.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	12.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	12.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	12.00 MO															
950 14 6 1	PROCUREMENT MANAGER	12.00 MO															
950 14 6 2	BUYERS	12.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	12.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	12.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	12.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	12.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	12.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	12.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	12.00 MO															
950 14 6 9	FINANCIAL SERVICES	12.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	12.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	6,500.00	2,700.00	15,427.49	15,427.49				3,856.87	19,284.36	3,572.51	19,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					6,500.00		6,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								
	Extended Totals by Category		1,090,782	28,875	63,677	114,323	9,516,730	138,301	10,952,688	10,952,688				2,738,172	13,690,860	2,737,412	13,690,100

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A5SOILMX (Alt 5-Soil Cmnt Wl w/ StC)

Cost/Price Review - Unit

Code	Description		Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
			Percent															
Direct Cost		10,952,688	80.00															
Direct Cost Escalation		0	0.00															
Escalated Direct Cost		10,952,688	80.00															
Job Overhead		0	0.00															
Job Overhead Escalation		0	0.00															
Escalated Job Overhead		0	0.00															
Indirect		0	0.00															
Tax & Add-On		0	0.00															
Finance		0	0.00															
Bond		0	0.00															
Total Business Overhead		0	0.00															
Markup on Direct		2,738,172	20.00															
Markup on Job Overhead		0	0.00															
Total Markup		2,738,172	20.00															
Total Cut/Add		0	0.00															
Target Bid Price		13,690,860	100.00															
Bid Price		13,690,100	99.99															
Difference		760	0.01															

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						175,000			175,000	175,000
	Engineering - Design													
				U						175,000			175,000	175,000
				T						175,000			175,000	175,000
	Bid Item bid quantity and cost:	1.00	LS	T						175,000			175,000	175,000
10	Engineering - Design	1.00	LS							175,000			175,000	175,000
										175,000			175,000	175,000
10	**Engineering - Design**	**1.00**	**LS**							**175,000**			**175,000**	**175,000**
Detailed														

Note: Engineering Design Cost Breakdown:
Field Sampling: $15,000
compatibility Testing: $20,000
Design Reports (30%, 60%, 90%, 100%): $60,000
Technical Specifications: $30,000
Construction Drawings: $50,000
Tota;: $175,000

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USFWENCFWENC Engr Costs	175,000	LS	U						1.00			1.00	175,000
	Resource List:			T						175,000			175,000	175,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2				Pre-Construction Work	1.00	LS	T	40,817						2,000		42,817	42,817
				Pre-Construction Work													
							U	40,817						2,000.00		42,817	42,817
							T	40,817						2,000		42,817	42,817
				Bid Item bid quantity and cost:	1.00	LS	T	40,817						2,000		42,817	42,817
20				Pre-Construction Work	1.00	LS											
20	1			Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
								3,120.07						2,000.00		5,120.07	5,120
20	2			Bonding & Insurance	1.00	LS											
20	3			Submittals	1.00	LS											
20	3	1		Site HASP	1.00	LS											
20	3	1	1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
								4,966.60								4,966.60	4,967
20	3	1	2	HASP - Final	1.00	LS		985.36								985.36	985
								985.36								985.36	985
20	3	2		Work Plan	1.00	LS											
20	3	2	1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
								8,244.84								8,244.84	8,245
20	3	2	2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
								3,029.03								3,029.03	3,029
20	3	3		Erosion & Sed Cntrl Plan	1.00	LS											
20	3	3	1	Eros & Sed Cont - Draft	1.00	LS		12,132								12,132	12,132
								12,132								12,132	12,132
20	3	3	2	Eros & Sed Cont - Final	1.00	LS		2,231.63								2,231.63	2,232
								2,231.63								2,231.63	2,232
20	3	4		Project Schedule	1.00	LS											
20	3	4	1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
								4,512.19								4,512.19	4,512
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
								1,595.07								1,595.07	1,595
20 Detailed				**Pre-Construction Work**	**1.00**	**LS**		**40,817**						**2,000.00**		**42,817**	**42,817**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 Detailed	**1**			**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

3.0 Days	0.3333 LS/Da	3.0000 Da/LS	1706.69 Cost/Da
24.0 Hours	0.0417 LS/Hr	24.0000 Hr/LS	213.34 Cost/Hr
32.0 Man-Hr	0.0313 LS/MH	32.0000 MH/LS	160.00 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120
20	**2**	**Bonding & Insurance**	**1.00**	**LS**											
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	**3**	**Submittals**	**1.00**	**LS**		**37,696**								**37,696**	**37,697**
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	**3 1**	**Site HASP**	**1.00**	**LS**		**5,951.96**								**5,951.96**	**5,952**
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	**3 1 1**	**HASP - Draft**	**1.00**	**LS**		**4,966.60**								**4,966.60**	**4,967**
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail															
		5.0 Days 0.2000 LS/Da 5.0000 Da/LS 993.32 Cost/Da													
		40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 124.16 Cost/Hr													
		52.0 Man-Hr 0.0192 LS/MH 52.0000 MH/LS 95.51 Cost/MH													
1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66								86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96								82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00								162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07								130.07	520
			Resource List:		T	4,967								4,967	4,967
20	**3 1 2**	**HASP - Final**	**1.00**	**LS**		**985.36**								**985.36**	**985**
Detailed															
		8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail															
		1.0 Days 1.0000 LS/Da 1.0000 Da/LS 985.36 Cost/Da													
		8.0 Hours 0.1250 LS/Hr 8.0000 Hr/LS 123.17 Cost/Hr													
		10.0 Man-Hr 0.1000 LS/MH 10.0000 MH/LS 98.54 Cost/MH													
1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66								86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00								162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07								130.07	130
			Resource List:		T	985								985	985

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	**3**	**2**		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	**3**	**2**	**1**	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
				5.0 Days 0.2000 LS/Da 5.0000 Da/LS 1648.97 Cost/Da													
				40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 206.12 Cost/Hr													
				84.0 Man-Hr 0.0119 LS/MH 84.0000 MH/LS 98.15 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0			L90HEI00 Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0			L90HE800 Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HE800 Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0			L90HXX08 Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20	**3**	**2**	**2**	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
				3.0 Days 0.3333 LS/Da 3.0000 Da/LS 1009.68 Cost/Da													
				24.0 Hours 0.0417 LS/Hr 24.0000 Hr/LS 126.21 Cost/Hr													
				36.0 Man-Hr 0.0278 LS/MH 36.0000 MH/LS 84.14 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20	**3**	**3**		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,363**								**14,363**	**14,364**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20	**3**	**3**	**1**	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,132**								**12,132**	**12,132**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				5.0 Days 0.2000 LS/Da	5.0000 Da/LS			2426.45 Cost/Da									
				40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			303.31 Cost/Hr									
				120.0 Man-Hr 0.0083 LS/MH	120.0000 MH/LS			101.10 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
	1.0			L90HEI00 Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
	1.0			L90HE800 Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
	1.0			L90HDP00 Home - Senior Designer	16.00	HR	U	88.14								88.14	1,410
	1.0			L90HED00 Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	12,132								12,132	12,132
20	**3**	**3**	**2**	**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,231.63**								**2,231.63**	**2,232**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				1.0 Days 1.0000 LS/Da	1.0000 Da/LS			2231.63 Cost/Da									
				8.0 Hours 0.1250 LS/Hr	8.0000 Hr/LS			278.95 Cost/Hr									
				23.0 Man-Hr 0.0435 LS/MH	23.0000 MH/LS			97.03 Cost/MH									
	1.0			L90HEH00 Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
	1.0			L90HDP00 Home - Senior Designer	4.00	HR	U	88.14								88.14	353
	1.0			L90HED00 Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	2,232								2,232	2,232
20	**3**	**4**		**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	**3**	**4**	**1**	**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				1.5 Days 0.6667 LS/Da	1.5000 Da/LS			3008.13 Cost/Da									
				12.0 Hours 0.0833 LS/Hr	12.0000 Hr/LS			376.02 Cost/Hr									
				36.0 Man-Hr 0.0278 LS/MH	36.0000 MH/LS			125.34 Cost/MH									
	1.0			L90FXX02 Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
	1.0			L90HED00 Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
	1.0			L90HE800 Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
	1.0			L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
					Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	4	2	**Const. Schedule - Final**	**1.00**	**LS**		**1,595.07**								**1,595.07**	**1,595**
Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

0.8 Days	1.3333 LS/Da	0.7500 Da/LS	2126.76 Cost/Da
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96								82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97								139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07								130.07	260
			Resource List:		T	1,595								1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,210		1,287	1,400		51,500	2,700		61,097	61,097
			Mobilization													
						U	4,210.13		1,286.99	1,400.00		51,500	2,700.00		61,097	61,097
						T	4,210		1,287	1,400		51,500	2,700		61,097	61,097
			Bid Item bid quantity and cost:	1.00	EA	T	4,210		1,287	1,400		51,500	2,700		61,097	61,097
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							31,500			31,500	31,500
												31,500			31,500	31,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
							4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							20,000			40.00	20,000
												40.00			40.00	20,000
30 Detailed			**Mobilization**	**1.00**	**EA**		**4,210.13**		**1,286.99**	**1,400.00**		**51,500**	**2,700.00**		**61,097**	**61,097**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**31,500**			**31,500**	**31,500**

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 20k mob for wick subcontractor

	1.0		UEEPTRNSFWENC Eqp Transport/Setup	10,000	LS	U						1.00			1.00	10,000
	1.0		UERNTRSMRental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
	1.0		UERNTRLGRental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
	1.0		UEEPTRNSFWENC Eqp Transport/Setup	20,000	LS	U						1.00			1.00	20,000
					Resource List:	T						31,500			31,500	31,500
30 Detailed	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
			8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
30 Detailed	2	1	**Site Setup/Preparation**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Conex Box Mob	1.00	EA	U							300.00		300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U					10.00				10.00	1,400
			Resource List:		T					1,400		2,700		4,100	4,100

CREW Cost Detail

3.8 Days	0.2667 LS/Da	3.7500 Da/LS	1465.90 Cost/Da		
30.0 Hours	0.0333 LS/Hr	30.0000 Hr/LS	183.24 Cost/Hr		
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	45.81 Cost/MH		

1.0	L010490	OPERATOR DOZER	30.00	HR	U		42.69							42.69	1,281
3.0	L060100	GENERAL LABORER	90.00	HR	U		32.55							32.55	2,930
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U				42.90					42.90	1,287
			Resource List:		T		4,210		1,287					5,497	5,497

30 Detailed	3		**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**											

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	3	1	**Mob Personnel**	**1.00**	**LS**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	4		**Perimeter Fencing**	**500.00**	**LF**							**20,000**			**40.00**	**20,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	USFENCE Fencing Installation	1,000.00	LF	U						20.00			20.00	20,000
		Resource List:		T						20,000			20,000	20,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4		Wtr Trt System	1.00	LS	T			24,300			48,030		1,975	74,305	74,305
		Wtr Trt System													
					U			24,300			48,030		1,975	74,305	74,305
					T			24,300			48,030		1,975	74,305	74,305
		Bid Item bid quantity and cost:	1.00	LS	T			24,300			48,030		1,975	74,305	74,305
140		Water Treatment Syst	1.00	LS											
140	1	Temp Dwtr & Trt System	1.00	LS				24,300			38,030		1,975	64,305	64,305
								24,300			38,030		1,975	64,305	64,305
140	2	Temp Water Treat Syst Ops	500,000	GL							10,000			0.02	10,000
											0.02			0.02	10,000
140 Detailed		**Water Treatment Syst**	**1.00**	**LS**				**24,300**			**48,030**		**1,975**	**74,305**	**74,305**
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk			8.00 Pay-Hrs/Sh							
140 Detailed	**1**	**Temp Dwtr & Trt System**	**1.00**	**LS**				**24,300**			**38,030**		**1,975**	**64,305**	**64,305**
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		50.00 Hours/Wk			10.00 Pay-Hrs/Sh							

LIST Cost Detail

Note: Cost includes the following:

FW Design: review of vendor schematic/spec validation included elsewhere
Include 3 Month Rental to incorporate delivery/setup/cleanup time:
FW estimated equipment:
FW Installation 16hours x $75/hr = $1,200
Materials: 1LS = $500
Vendor Pricing: (TIGG Corp)
Mob & Setup, and Starutp Training: $8,305
System Rental: $2,745/mo x 9 months = $24,705
System Demob: $2,720

Additional Costs:
Electrical Hookup - Electrician @ $75/hr x 8 hrs = $600 + $400 allowance for materials = $1,000.
Plastic & Haybale Berm around Treatment Syst. - Assume $1000 material costs.

Total: $34,430 + tax of ((2745)*.08)x9 ($1,975)

1.0	UH2OSET	Water Treatment Sys Setup	1.00	LS	U						34,430		1,975	36,405	36,405
1.0	URFRACTN	Frac Tank Rental	810.00	DA	U			30.00						30.00	24,300
1.0	UOFRCMOB	Frac Tank Mob/Demob	6.00	EA	U						600.00			600.00	3,600
		Resource List:			T			24,300			38,030		1,975	64,305	64,305
140 Detailed	**2**	**Temp Water Treat Syst Ops**	**500,000**	**GL**							**10,000**			**0.02**	**10,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
	Note:	Bag Filters @ ~$9 ea x 1/10,000 gal = ~$0.0009/gal Sampling - batch sampling - 1 test/20,000 gal @ $299/test = $0.015/gal. Cost ~$0.016/gal for sampling & filters - use system ops cost of ~0.02/gal.													
1.0	UH2OFILT	Filter Change Cost	500,000	GL	U						0.02			0.02	10,000
			Resource List:		T						10,000			10,000	10,000

Note: O&M:
Bag Filters - @ $4.50 each x 2 filters = $9/changeout
Anayltical Testing - $299/sample.
Carbon useage calculated at 38 lbs/day (10 hrs x 60 min/hr x 100 gal/min = 60,000 gal/day) = 0.63 lbs/kgal (1,000 gals). Each unit holds 1,500

(All labor to be provided by onsite crews)
0 - 200,000 gals
Assume 2 filter changeouts & 4 samples: 2 x $9 + 4 x $299 = $1,214 = $0.006/gal.
200,000 - 500,000 gals
Assume 3 filter changeouts & 1 sample = 3 x $9 + 1 x $299 = $326 = $0.001/gal.
>500,000 gals.

For O&M Cost use 200,000 - 500,000 gals cost calcs - $0.001/gal for filter changeout only.

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5		Stone Column Installation	31,000	LF	T						2325000			75	2325000
		Stone Column Installation													
					U						75.00			75.00	2325000
					T						2325000			75	2325000
		Bid Item bid quantity and cost:	31,000	LF	T						2325000			75	2325000
100		Stone Column Install	31,000	LF							2325000			75.00	2325000
											75.00			75.00	2325000
100		**Stone Column Install**	**31,000**	**LF**							**2325000**			**75.00**	**2325000**
Detailed															
	Note:	Area aproximately 25' x 4,000' with a 3' stone column every 7' in each direction for a total of 2,288 Columns average 13' within the common fill for a total VLF of 31,000.													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		40.00 Hours/Wk			8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UDRILL3'	Drill 3' caisson w/stone	31,000	LF	U						75.00			75.00	2325000
				Resource List:	T						2325000			2325000	2325000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
6	Plcmnt-Contaminated Soil	8,300.00	CY	T	22,144	28,875		61,767					14	112,786
	Placement-Contaminated Soil													
				U	2.67	3.48		7.44					13.59	112,786
				T	22,144	28,875		61,767					14	112,786
	Bid Item bid quantity and cost:	8,300.00	CY	T	22,144	28,875		61,767					14	112,786
150	Contaminated soil placeme	8,300.00	CY		22,144	28,874		61,767					13.59	112,786
					2.67	3.48		7.44					13.59	112,786
150	**Contaminated soil placeme**	**8,300.00**	**CY**		**22,144**	**28,874**		**61,767**					**13.59**	**112,786**

Detailed

Note: Contaminated soil to be excavated and placed on the existing landfill. Common fill to be imported and used as cover.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCMNFILL	Common Fill	7,720.93	TN	U			8.00					8.00	61,767
			Resource List:		T			61,767					61,767	61,767

CREW Cost Detail

129.7 Days	64.0000 CY/Da	0.0156 Da/CY	393.40 Cost/Da		
1037.5 Hours	8.0000 CY/Hr	0.1250 Hr/CY	49.17 Cost/Hr		
518.8 Man-Hr	16.0000 CY/MH	0.0625 MH/CY	98.35 Cost/MH		

0.5	L010101	OPERATOR GROUP 1	518.75	HR	U	42.69							42.69	22,144
1.0	ELOA_202	CAT IT28F INTRG-FW	1,037.50	HR	U		14.43						14.43	14,971
0.5	EDOZ_305	Komatsu D65PX LGP-FW	518.75	HR	U		26.80						26.80	13,904
			Resource List:		T	22,144	28,875						51,019	51,019

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
7	Soil Mixing	90,000	CY	T						6840000			76	6840000
	Soil Mixing													
				U						76.00			76.00	6840000
				T						6840000			76	6840000
	Bid Item bid quantity and cost:	90,000	CY	T						6840000			76	6840000
160	Soil Mixing	90,000	CY							6840000			76.00	6840000
										76.00			76.00	6840000
160	**Soil Mixing**	**90,000**	**CY**							**6840000**			**76.00**	**6840000**
Detailed														

Note: Soil Mixing area 25' x 4,000' only within the Yong Bay Mud, avg. of 23' in depth.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USINSITU	Insitu Stabilization-Augr	90,000	CY	U						76.00			76.00	6840000
		Resource List:			T						6840000			6840000	6840000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8	Hydro-Seeding Restoration	4.00	AC	T						3,200			800	3,200
	Hydro-Seeding Restoration													
				U						800.00			800.00	3,200
				T						3,200			800	3,200
	Bid Item bid quantity and cost:	4.00	AC	T						3,200			800	3,200
220	Hydro-Seeding Restoration	4.00	AC							3,200.00			800.00	3,200
										800.00			800.00	3,200
220	**Hydro-Seeding Restoration**	**4.00**	**AC**							**3,200.00**			**800.00**	**3,200**
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day			5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	USHDYROS Hydroseeding Subcontract	4.00	AC	U						800.00			800.00	3,200
		Resource List:		T						3,200			3,200	3,200

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	12.00	MO	T	193,312						11,154		17,039	204,466
	Engineering - Oversight													
				U	16,109						929.50		17,038	204,466
				T	193,312						11,154		17,039	204,466
	Bid Item bid quantity and cost:	12.00	MO	T	193,312						11,154		17,039	204,466
900	Engineering - Oversight	12.00	MO		193,311						11,154		17,038	204,466
					16,109						929.50		17,038	204,466
900	**Engineering - Oversight**	**12.00**	**MO**		**193,311**						**11,154**		**17,038**	**204,466**

Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMEALS	Meals	264.00	DA	U						25.00		25.00	6,600
1.0	UTMILES	Mileage	13,200	MI	U						0.35		0.35	4,554
		Resource List:			T						11,154		11,154	11,154

CREW Cost Detail

264.0 Days	0.0455 MO/Da	22.0000 Da/MO	732.24 Cost/Da											
2640.0 Hours	0.0045 MO/Hr	220.0000 Hr/MO	73.22 Cost/Hr											
2904.0 Man-Hr	0.0041 MO/MH	242.0000 MH/MO	66.57 Cost/MH											
1.0	L90FEG00	Field - Engineer	2,640.00	HR	U	60.22							60.22	158,973
0.1	L90HXX08	Home - Proj Manager	264.00	HR	U	130.07							130.07	34,339
		Resource List:			T	193,312							193,312	193,312

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	12.00	MO	T	825,988		86,820	510	22,790	67,500	94,982		91,549	1098589
	Const. Project Support													
				U	68,832		7,234.97	42.50	1,899.17	5,625.00	7,915.17		91,549	1098589
				T	825,988		86,820	510	22,790	67,500	94,982		91,549	1098589
	Bid Item bid quantity and cost:	12.00	MO	T	825,988		86,820	510	22,790	67,500	94,982		91,549	1098589

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Const. Project Support	12.00	MO											
950	13				Indirect Project Costs	12.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	12.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	12.00	MO											
950	13	1	4	1	WEATHER	12.00	MO											
950	13	2			CONST EQUIP & TOOLS	12.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	12.00	MO				9,240.00						770.00	9,240
											770.00						770.00	9,240
950	13	2	6		SMALL TOOLS	12.00	MO						6,000.00				500.00	6,000
													500.00				500.00	6,000
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	12.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	12.00	MO											
950	13	6	1		OFFICE TRAILERS	12.00	MO				6,000.00						500.00	6,000
											500.00						500.00	6,000
950	13	6	2		STORAGE FACILITIES	12.00	MO											
950	13	6	2	1	Connex Boxes	12.00	MO				3,600.00						300.00	3,600
											300.00						300.00	3,600
950	13	6	3		DECON FOR PERSONNEL	12.00	MO				4,200.00						350.00	4,200
											350.00						350.00	4,200
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	12.00	MO				4,200.00						350.00	4,200
											350.00						350.00	4,200
950	13	6	8		TOILETS	12.00	MO				3,600.00						300.00	3,600
											300.00						300.00	3,600
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	12.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	12.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	12.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	12.00	MO						1,200.00				100.00	1,200
													100.00				100.00	1,200
950	13	7			TEMPORARY UTILITIES	12.00	MO											
950	13	7	1		POWER	12.00	MO								6,000.00		500.00	6,000
															500.00		500.00	6,000
950	13	7	2		WATER	12.00	MO								2,400.00		200.00	2,400
															200.00		200.00	2,400
950	13	7	3		SANITARY	12.00	MO											
950	13	7	4		TELEPHONE	12.00	MO								8,400.00		700.00	8,400
															700.00		700.00	8,400
950	13	8			OPERATING SUPPLY/SERV	12.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	12.00	MO				2,400.00						200.00	2,400
										200.00						200.00	2,400
950	13	8	2	OFFICE & ENGINEERING SUP	12.00	MO						2,640.00				220.00	2,640
												220.00				220.00	2,640
950	13	8	3	FACILITIES MAINT & REPAIR	12.00	MO											
950	13	8	4	MEDICAL/FIRST AID	12.00	MO						3,600.00				300.00	3,600
												300.00				300.00	3,600
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	12.00	MO				12,000				1,200.00		1,100.00	13,200
										1,000.00				100.00		1,100.00	13,200
950	13	8	9	POSTAGE	12.00	MO								1,800.00		150.00	1,800
														150.00		150.00	1,800
950	13	8	10	FREIGHT ON SUPPLIES	12.00	MO								3,000.00		250.00	3,000
														250.00		250.00	3,000
950	13	9		COMPUTER AND DATA	12.00	MO											
950	13	9	1	IT/WAN COST	12.00	MO								24,744		2,062.00	24,744
														2,062.00		2,062.00	24,744
950	13	10		VEHICLES FOR PERSONNEL	12.00	MO											
950	13	10	1	PICKUP TRUCKS	12.00	MO				41,079						3,423.30	41,080
										3,423.30						3,423.30	41,080
950	13	12		HEALTH & SAFETY	12.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		21,122		500.00				922.50		22,544	22,545
								21,122		500.00				922.50		22,544	22,545
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	12.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,928.40								2,928.40	2,928
								2,928.40								2,928.40	2,928
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	12.00	MO								42,828		3,569.00	42,828
														3,569.00		3,569.00	42,828
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	12.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	12.00	MO											
950	14	1	1	PROGRAM MANAGER	12.00	MO		36,584								3,048.68	36,584
								3,048.68								3,048.68	36,584
950	14	1	2	SENIOR PROJECT MANAGER	12.00	MO		190,548								15,879	190,549
								15,879								15,879	190,549
950	14	1	3	PROJECT SUPERINTENDENT	12.00	MO		219,022								18,251	219,023
								18,251								18,251	219,023
950	14	2		ADMINISTRATION	12.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	12.00	MO		50,424								4,202.01	50,424
								4,202.01								4,202.01	50,424
950	14	4		ENGINEERING	12.00	MO											
950	14	4	13	SURVEYORS	12.00	MO							60,000			5,000.00	60,000
													5,000.00			5,000.00	60,000
950	14			HEALTH & SAFETY	12.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	12.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	12.00	MO		1,944.00								162.00	1,944
									162.00								162.00	1,944
950	14	5	1	3	ESQ AUDIT/INSPECTION	12.00	MO		16,639						1,428.00		1,505.58	18,067
									1,386.58						119.00		1,505.58	18,067
950	14	5	4		SITE S&H OFFICER	12.00	MO		119,561								9,963.49	119,562
									9,963.49								9,963.49	119,562
950	14	5	7		REGULATORY COMPLIANCE	12.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	12.00	MO		7,776.01								648.00	7,776
									648.00								648.00	7,776
950	14	5	7	3	ESQ AUDIT/INSPECTION	12.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	12.00	MO											
950	14	6	1		PROCUREMENT MANAGER	12.00	MO											
950	14	6	2		BUYERS	12.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	12.00	MO		20,798								1,733.23	20,799
									1,733.23								1,733.23	20,799
950	14	6	4		PROJECT CONTROLS MANAGER	12.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	12.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	12.00	MO		99,931								8,327.63	99,932
									8,327.63								8,327.63	99,932
950	14	6	6		ESTIMATOR	12.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	12.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	12.00	MO											
950	14	6	9		FINANCIAL SERVICES	12.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	12.00	MO		3,121.70								260.14	3,122
									260.14								260.14	3,122
950 Detailed					**Const. Project Support**	**12.00**	**MO**		**825,987**		**86,819**	**510.00**	**22,790**	**67,500**	**94,982**		**91,549**	**1098589**

Note: On-site construction is 12 months with 3 crews working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**13**				**Indirect Project Costs**	**12.00**	**MO**		**28,446**		**86,819**	**510.00**	**22,790**	**7,500.00**	**93,494**		**19,963**	**239,561**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1			CRAFT PAYROLLRELATEDCOST	12.00	MO											
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4		NON PRODUCTIVE-SHOW UP	12.00	MO											
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4	1	WEATHER	12.00	MO											

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	2			CONST EQUIP & TOOLS	12.00	MO				9,240.00		12,450			1,807.50		21,690
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	13	2	1	**HEAVY EQUIPMENT**	**1.00**	**LS**											

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	13	2	2	**LIGHT EQUIPMENT**	**12.00**	**MO**				**9,240.00**						**770.00**	**9,240**

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWSP	Power Washer	12.00	MO	U					550.00					550.00	6,600
1.0	URPUMP2"	Submersible Pump	12.00	MO	U					110.00					110.00	1,320
1.0	URPUMP2"	Submersible Pump	12.00	MO	U					110.00					110.00	1,320
			Resource List:		T					9,240					9,240	9,240

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	13	2	6	**SMALL TOOLS**	**12.00**	**MO**						**6,000.00**				**500.00**	**6,000**

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	6,000.00	LS	U							1.00			1.00	6,000
			Resource List:		T							6,000			6,000	6,000

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	13	2	8	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0	UOPPE_C PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0	UOPPE_D PPE-Level D	300.00	DA	U					20.00				20.00	6,000
	Resource List:			T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**12.00**	**MO**											
	Note: ********** No additional costs included for on-site security. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**12.00**	**MO**		**1,077.88**		**21,600**	**510.00**	**3,700.00**			**2,240.66**	**26,888**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 1 Detailed	**OFFICE TRAILERS**	**12.00**	**MO**				**6,000.00**					**500.00**	**6,000**
	Note: ********** (1) trailer for FWENC. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0	UROFFTRLOffice Trailer -12x60	12.00	MO	U			500.00					500.00	6,000
	Resource List:			T			6,000					6,000	6,000
950 13 6 2 Detailed	**STORAGE FACILITIES**	**12.00**	**MO**				**3,600.00**					**300.00**	**3,600**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 2 1 Detailed	**Connex Boxes**	**12.00**	**MO**				**3,600.00**					**300.00**	**3,600**
	Note: ********** (1) connex box for storage of small tools/equipment. **********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0	URCONNEXConnex Box	24.00	MO	U			150.00					150.00	3,600
	Resource List:			T			3,600					3,600	3,600

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**12.00**	**MO**				**4,200.00**						**350.00**	**4,200**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	12.00	MO	U			350.00						350.00	4,200
		Resource List:			T			4,200						4,200	4,200

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
Surrounding soils to create bermed area
20 mil poly (excess poly used to cover pad during non-use)
6" crushed stone
plywood to displace weight of equipment
Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U						10.00			10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U						200.00			200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U						11.00			11.00	110
		Resource List:			T						510			510	510

CREW Cost Detail

	1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da											
	10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr											
	30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH											
2.0	L060100	GENERAL LABORER	20.00	HR	U	32.55								32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U	42.69								42.69	427
		Resource List:			T	1,078								1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**12.00**	**MO**				**4,200.00**				**350.00**	**4,200**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	12.00	MO	U			350.00						350.00	4,200
		Resource List:			T			4,200						4,200	4,200

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**12.00**	**MO**				**3,600.00**						**300.00**	**3,600**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	12.00	MO	U			300.00						300.00	3,600
	Resource List:			T			3,600						3,600	3,600
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**

Note: **********

Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**12.00**	**MO**											

Note: **********

Include rental of (1) trailer for use by client/engineer.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**

Note: **********

Office furniture/equipment. Up to (4) field staff at $500/each.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**12.00**	**MO**											

Note: **********

No QC testing laboratory included at this time.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	6	27	**HAUL ROAD MAINTENANCE**	**12.00**	**MO**											

Note: **********

Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	13	6	28	**EMERGENCY EQUIPMENT**	**12.00**	**MO**						**1,200.00**				**100.00**	**1,200**

Note: **********

Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOSFTYSP	Safety Supplies	12.00	MO	U							100.00				100.00	1,200
			Resource List:		T							1,200				1,200	1,200

950 Detailed	13	7		**TEMPORARY UTILITIES**	**12.00**	**MO**								**16,800**		**1,400.00**	**16,800**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	13	7	1	**POWER**	**12.00**	**MO**								**6,000.00**		**500.00**	**6,000**

Note: **********

Allowance for electrical charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOELECT	Electrical Charges-Month	12.00	MO	U									500.00		500.00	6,000
			Resource List:		T									6,000		6,000	6,000

950 Detailed	13	7	2	**WATER**	**12.00**	**MO**								**2,400.00**		**200.00**	**2,400**

Note: **********

Include allowance for potable water supply.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
1.0	UOPOTWTRotable Water	12.00	MO	U							200.00		200.00	2,400
		Resource List:		T							2,400		2,400	2,400
950 13 7 3 Detailed	**SANITARY**	**12.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 7 4 Detailed	**TELEPHONE**	**12.00**	**MO**								**8,400.00**		**700.00**	**8,400**
	Note: ********** Include allowance for up to (3) cell phones and (1) office phone/fax/data line. **********													
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
1.0	UOOFFPHNMonthly Office Phone	12.00	MO	U							500.00		500.00	6,000
1.0	UOCELLPHMonthly Cell Ph.	24.00	MO	U							100.00		100.00	2,400
		Resource List:		T							8,400		8,400	8,400
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**12.00**	**MO**				**14,400**		**6,640.00**		**8,000.00**		**2,420.00**	**29,040**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**12.00**	**MO**				**2,400.00**						**200.00**	**2,400**
	Note: ********** On-site labor to perform cleanup. Allow for 1 dumpster on-site at $200/month including disposal of debris. **********													
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
1.0	UODUMP Dumpster	12.00	MO	U			200.00						200.00	2,400
		Resource List:		T			2,400						2,400	2,400
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**12.00**	**MO**						**2,640.00**				**220.00**	**2,640**
	Note: ********** Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOOFFSUPOffice Supplies($/prs/mo)	48.00	MO	U					55.00				55.00	2,640
		Resource List:		T					2,640				2,640	2,640
950 13 8 3 Detailed	**FACILITIES MAINT & REPAIR**	**12.00**	**MO**											
	Note: **********													
	No Facilities Maintenance & Repair costs are anticipated at this time.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 4 Detailed	**MEDICAL/FIRST AID**	**12.00**	**MO**						**3,600.00**				**300.00**	**3,600**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UO1STAID 1st Aid Supplies	12.00	MO	U					300.00				300.00	3,600
		Resource List:		T					3,600				3,600	3,600
950 13 8 5 Detailed	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
	Note: **********													
	Include allowance for site radios for on-site/emergency communication.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UORADIO Radio	1.00	LS	U							2,000.00		2,000.00	2,000
		Resource List:		T							2,000		2,000	2,000
950 13 8 6 Detailed	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
	Note: **********													
	Include allowance for purchase of site fax.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
		Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8 Detailed	**REPRODUCTION AND PHOTO**	**12.00**	**MO**				**12,000**				**1,200.00**		**1,100.00**	**13,200**

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	12.00	MO	U						100.00		100.00	1,200
1.0	URCOPIER	Copier Rental	12.00	MO	U		1,000.00						1,000.00	12,000
			Resource List:		T		12,000				1,200		13,200	13,200

950 13 8 9 Detailed	**POSTAGE**	**12.00**	**MO**								**1,800.00**		**150.00**	**1,800**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	12.00	MO	U						150.00		150.00	1,800
			Resource List:		T						1,800		1,800	1,800

950 13 8 10 Detailed	**FREIGHT ON SUPPLIES**	**12.00**	**MO**								**3,000.00**		**250.00**	**3,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	12.00	MO	U						250.00		250.00	3,000
			Resource List:		T						3,000		3,000	3,000

950 13 9 Detailed	**COMPUTER AND DATA**	**12.00**	**MO**								**24,744**		**2,062.00**	**24,744**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1 Detailed	**IT/WAN COST**	**12.00**	**MO**								**24,744**		**2,062.00**	**24,744**

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	2,400.00	HR	U						10.31		10.31	24,744
			Resource List:		T						24,744		24,744	24,744

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**10**		**VEHICLES FOR PERSONNEL**	**12.00**	**MO**				**41,079**						**3,423.30**	**41,080**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	**13**	**10**	**1**	**PICKUP TRUCKS**	**12.00**	**MO**				**41,079**						**3,423.30**	**41,080**
Detailed																	
		Note:		**********													
				Include (3) Pickup Trucks for site personnel.													
				**********													
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																	
		264.0 Days		0.0455 MO/Da	22.0000 Da/MO			155.60 Cost/Da									
		2112.0 Hours		0.0057 MO/Hr	176.0000 Hr/MO			19.45 Cost/Hr									
	3.0	RPUTRK05		F-250 4X4 3/4 TON PICKUP	6,336.00	HR	U			6.48						6.48	41,080
					Resource List:		T			41,080						41,080	41,080
950	**13**	**12**		**HEALTH & SAFETY**	**12.00**	**MO**		**21,122**		**500.00**			**7,500.00**	**922.50**		**2,503.71**	**30,045**
Detailed																	
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	**13**	**12**	**1**	**HEALTH & SAFETY TRAINING**	**1.00**	**LS**		**21,122**		**500.00**				**922.50**		**22,544**	**22,545**
Detailed																	
		Note:		**********													
				In the event the crew is local hire requiring 40-hour Haz Woper Training: - Include CIH time for training crew w/ perdiem & travel (local). - Include rental of hotel conference room for 1 week to give training. - Include training for (10) site crew members.													
				**********													
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
	1.0	URCONFRM		Conference Room Rental	1.00	WK	U			500.00						500.00	500
	1.0	UTPERDEM		Perdiem-Meals & Lodging	5.00	DA	U							150.00		150.00	750
	1.0	UTMILES		Mileage	500.00	MI	U							0.35		0.35	173
					Resource List:		T			500				923		1,423	1,423
CREW Cost Detail																	
		5.0 Days		0.2000 LS/Da	5.0000 Da/LS			4224.40 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			528.05 Cost/Hr									
		440.0 Man-Hr		0.0023 LS/MH	440.0000 MH/LS			48.00 Cost/MH									
	4.0	L010101		OPERATOR GROUP 1	160.00	HR	U	42.69								42.69	6,830
	6.0	L060100		GENERAL LABORER	240.00	HR	U	32.55								32.55	7,812
	1.0	L90HXX04		Home - CIH Support	40.00	HR	U	162.00								162.00	6,480
					Resource List:		T	21,122								21,122	21,122

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	13	12	3	**H&S MEDICAL EXAMS**	**1.00**	**LS**							**7,500.00**			**7,500.00**	**7,500**

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U						750.00			750.00	7,500
			Resource List:		T						7,500			7,500	7,500

950 Detailed	13	13		**MISCELLANEOUS COST**	**12.00**	**MO**		**6,246.93**						**43,028**	**4,106.24**	**49,275**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	13	13	1	**ON-SITE TRAINING PROGRAM**	**1.00**	**LS**		**2,928.40**							**2,928.40**	**2,928**

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2928.40 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	366.05 Cost/Hr
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	36.61 Cost/MH

4.0	L010101	OPERATOR GROUP 1	32.00	HR	U			42.69							42.69	1,366
6.0	L060100	GENERAL LABORER	48.00	HR	U			32.55							32.55	1,562
			Resource List:		T			2,928							2,928	2,928

950 Detailed	13	13	3	**CRAFT QUALIFICATIONS**	**1.00**	**LS**		**3,318.53**							**3,318.53**	**3,319**

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90FXX02			Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950	**13**	**13**	**4**	**PER-DIEM**	**12.00**	**MO**								**42,828**		**3,569.00**	**42,828**
—Detailed																	

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMILES	Mileage	2,400.00	MI	U							0.35		0.35	828
1.0	UTMEALS	Meals	528.00	DA	U							25.00		25.00	13,200
1.0	UTAPTMNT	Apartment Rental-Furn/Utl	24.00	MO	U							1,200.00		1,200.00	28,800
			Resource List:		T							42,828		42,828	42,828
950	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**						**200.00**		**200.00**	**200**
—Detailed															

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPRSIGN	Project Signs	1.00	LS	U							200.00		200.00	200
			Resource List:		T							200		200	200
950	**14**			**Professional Services**	**12.00**	**MO**		**797,540**					**60,000**	**1,487.50**		**71,585**	**859,028**
—Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**		**SUPERVISION/MANAGEMENT**	**12.00**	**MO**		**446,155**								**37,179**	**446,156**
—Detailed																	

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**14**	**1**	**1**	**PROGRAM MANAGER**	**12.00**	**MO**		**36,584**								**3,048.68**	**36,584**
—Detailed																	

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				24.0 Days 0.5000 MO/Da 2.0000 Da/MO 1524.34 Cost/Da													
				192.0 Hours 0.0625 MO/Hr 16.0000 Hr/MO 190.54 Cost/Hr													
				192.0 Man-Hr 0.0625 MO/MH 16.0000 MH/MO 190.54 Cost/MH													
	1.0		L90HXX01	Home - Program Manager	192.00	HR	U	190.54								190.54	36,584
					Resource List:		T	36,584								36,584	36,584
950 Detailed	**14**	**1**	**2**	**SENIOR PROJECT MANAGER**	**12.00**	**MO**		**190,548**								**15,879**	**190,549**
				Note: ********** Project Manager at 100% FTE for project duration - **********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				264.0 Days 0.0455 MO/Da 22.0000 Da/MO 721.78 Cost/Da													
				2112.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 90.22 Cost/Hr													
				2112.0 Man-Hr 0.0057 MO/MH 176.0000 MH/MO 90.22 Cost/MH													
	1.0		L90FXX01	Field-Proj Manager	2,112.00	HR	U	90.22								90.22	190,549
					Resource List:		T	190,549								190,549	190,549
950 Detailed	**14**	**1**	**3**	**PROJECT SUPERINTENDENT**	**12.00**	**MO**		**219,022**								**18,251**	**219,023**
				Note: ********** Site Supervisor for duration of all field work. **********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				330.0 Days 0.0364 MO/Da 27.5000 Da/MO 663.71 Cost/Da													
				2640.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 82.96 Cost/Hr													
				2640.0 Man-Hr 0.0045 MO/MH 220.0000 MH/MO 82.96 Cost/MH													
	1.0		L90FXX02	Field-Proj Superintendent	2,640.00	HR	U	82.96								82.96	219,023
					Resource List:		T	219,023								219,023	219,023
950 Detailed	**14**	**2**		**ADMINISTRATION**	**12.00**	**MO**		**50,424**								**4,202.01**	**50,424**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	2	2	**ADMINISTRATIVE CLERKS**	**12.00**	**MO**		**50,424**								**4,202.01**	**50,424**

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

264.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da
2112.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr
2112.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH

1.0	L90FC300	Field - Clerk	2,112.00	HR	U	23.88								23.88	50,424
			Resource List:		T	50,424								50,424	50,424

950 Detailed	14	4		**ENGINEERING**	**12.00**	**MO**							**60,000**			**5,000.00**	**60,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	4	13	**SURVEYORS**	**12.00**	**MO**							**60,000**			**5,000.00**	**60,000**

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	60,000	LS	U								1.00			1.00	60,000
			Resource List:		T								60,000			60,000	60,000

950 Detailed	14	5		**HEALTH & SAFETY**	**12.00**	**MO**		**147,864**						**1,428.00**		**12,441**	**149,293**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**12.00**	**MO**		**19,231**						**1,428.00**		**1,721.58**	**20,659**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**5**	**1**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed																		

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00						162.00	648
			Resource List:		T	648						648	648

950	**14**	**5**	**1**	**2**	**ONGOING SUPPORT**	**12.00**	**MO**		**1,944.00**								**162.00**	**1,944**
Detailed																		

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

1.5 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da
12.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr
12.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	12.00	HR	U	162.00						162.00	1,944
			Resource List:		T	1,944						1,944	1,944

950	**14**	**5**	**1**	**3**	**ESQ AUDIT/INSPECTION**	**12.00**	**MO**		**16,639**						**1,428.00**		**1,505.58**	**18,067**
Detailed																		

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

24.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da
192.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr
192.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH

1.0	L90HXX05	Home - H&S Staff	192.00	HR	U	86.66						86.66	16,639
1.0	UTMEALS	Meals	24.00	DA	U					25.00		25.00	600
1.0	UTMILES	Mileage	2,400.00	MI	U					0.35		0.35	828
			Resource List:		T	16,639				1,428		18,067	18,067

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	**14**	**5**	**4**		**SITE S&H OFFICER**	**12.00**	**MO**		**119,561**								**9,963.49**	**119,562**

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

CREW Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
300.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da	
2400.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr	
2400.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH	

1.0	L90FEI00	Field - Assoc Engr.	2,400.00	HR	U	49.82										49.82	119,562
			Resource List:		T	119,562										119,562	119,562

950 Detailed	**14**	**5**	**7**		**REGULATORY COMPLIANCE**	**12.00**	**MO**		**9,072.01**							**756.00**	**9,072**

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh

950 Detailed	**14**	**5**	**7**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,296.00**							**1,296.00**	**1,296**

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr	
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH	

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00										162.00	1,296
			Resource List:		T	1,296										1,296	1,296

950 Detailed	**14**	**5**	**7**	**2**	**ONGOING SUPPORT**	**12.00**	**MO**		**7,776.01**							**648.00**	**7,776**

Note: **********

Include (8) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
6.0 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da	
48.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr	
48.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90HXX06			Home - Regl Compliance	48.00	HR	U	162.00								162.00	7,776
						Resource List:		T	7,776								7,776	7,776
950 Detailed	**14**	**5**	**7**	**3**	**ESQ AUDIT/INSPECTION**	**12.00**	**MO**											

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**			**PROJECT SUPPORT SERVICES**	**12.00**	**MO**		**153,096**						**59.50**		**12,762**	**153,156**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**1**		**PROCUREMENT MANAGER**	**12.00**	**MO**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**		**BUYERS**	**12.00**	**MO**		**45,070**								**3,755.85**	**45,070**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**								**24,271**	**24,271**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH

	1.0	L90HXX02			Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
	1.0	L90HXX03			Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
						Resource List:		T	24,271								24,271	24,271
950 Detailed	**14**	**6**	**2**	**2**	**ONGOING SUPPORT**	**12.00**	**MO**		**20,798**								**1,733.23**	**20,799**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					30.0 Days 0.4000 MO/Da 2.5000 Da/MO 693.29 Cost/Da													
					240.0 Hours 0.0500 MO/Hr 20.0000 Hr/MO 86.66 Cost/Hr													
					240.0 Man-Hr 0.0500 MO/MH 20.0000 MH/MO 86.66 Cost/MH													
	1.0				L90HXX03 Home - Procurement Agent	240.00	HR	U	86.66								86.66	20,799
					Resource List:			T	20,799								20,799	20,799
950 Detailed	**14**	**6**	**4**		**PROJECT CONTROLS MANAGER**	**12.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**14**	**6**	**5**		**PROJECT CONTROLS ENGINEER**	**12.00**	**MO**		**102,985**								**8,582.08**	**102,985**
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	**14**	**6**	**5**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**								**3,053.46**	**3,053**
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da 5.0000 Da/LS 610.69 Cost/Da													
					40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 76.34 Cost/Hr													
					40.0 Man-Hr 0.0250 LS/MH 40.0000 MH/LS 76.34 Cost/MH													
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
					Resource List:			T	3,053								3,053	3,053
950 Detailed	**14**	**6**	**5**	**2**	**ONGOING SUPPORT**	**12.00**	**MO**		**99,931**								**8,327.63**	**99,932**
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					327.3 Days 0.0367 MO/Da 27.2727 Da/MO 305.35 Cost/Da													
					2618.2 Hours 0.0046 MO/Hr 218.1818 Hr/MO 38.17 Cost/Hr													
					1309.1 Man-Hr 0.0092 MO/MH 109.0909 MH/MO 76.34 Cost/MH													
	0.5				L90FXX05 Field - Cost/Scheduler	1,309.09	HR	U	76.34								76.34	99,932
					Resource List:			T	99,932								99,932	99,932

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	6	6		**ESTIMATOR**	**12.00**	**MO**											
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	8		**HOME OFFICE FLD ACCT SUPT**	**12.00**	**MO**		**878.81**						**59.50**		**78.19**	**938**
Detailed																		
			Note:		**********													
					Hours per (TBD) response to Project Services Budget Request.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	8	1	**PROJECT KICKOFF**	**1.00**	**LS**		**878.81**						**59.50**		**938.31**	**938**
Detailed																		
			Note:		**********													
					Include (1) day for training of on-site staff.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			938.31 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			117.29 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			117.29 Cost/MH									
	1.0	L90HEF00			Home - Senior Engr	8.00	HR	U	109.85								109.85	879
	1.0	UTMEALS			Meals	1.00	DA	U							25.00		25.00	25
	1.0	UTMILES			Mileage	100.00	MI	U							0.35		0.35	35
						Resource List:		T	879						60		938	938
950	14	6	8	2	**ONGOING SUPPORT**	**12.00**	**MO**											
Detailed																		
			Note:		**********													
					Support required for craft payroll processing.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	9		**FINANCIAL SERVICES**	**12.00**	**MO**		**4,162.26**								**346.86**	**4,162**
Detailed																		
			Note:		**********													
					Hours per (TBD) response to project services budget request.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**6**	**9**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
—Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			1040.57 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			130.07 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
						Resource List:		T	1,041								1,041	1,041
950	**14**	**6**	**9**	**2**	**ONGOING SUPPORT**	**12.00**	**MO**		**3,121.70**								**260.14**	**3,122**
—Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		3.0 Days			4.0000 MO/Da	0.2500 Da/MO			1040.57 Cost/Da									
		24.0 Hours			0.5000 MO/Hr	2.0000 Hr/MO			130.07 Cost/Hr									
		24.0 Man-Hr			0.5000 MO/MH	2.0000 MH/MO			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	24.00	HR	U	130.07								130.07	3,122
						Resource List:		T	3,122								3,122	3,122

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			6,500	2,700		15,427	15,427
		Demobilization													
					U	4,311.50		1,915.99			6,500.00	2,700.00		15,427	15,427
					T	4,312		1,916			6,500	2,700		15,427	15,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			6,500	2,700		15,427	15,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							6,500.00			6,500.00	6,500
											6,500.00			6,500.00	6,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**6,500.00**	**2,700.00**		**15,427**	**15,427**
Detailed															

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

230	**1**	**DEMOB OF CONSTRUCTION EQP**	**1.00**	**LS**							**6,500.00**			**6,500.00**	**6,500**
Detailed															

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail															
1.0	UEEPTRNS	FWENC Eqp Transport/Setup	5,000.00	LS	U						1.00			1.00	5,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
			Resource List:		T						6,500			6,500	6,500

230	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**
Detailed															

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Bonnex Box Mob	1.00	EA	U							300.00		300.00	300
			Resource List:		T							2,700		2,700	2,700
230	**3**	**DEMOB OF PERSONNEL**	**1.00**	**LS**											
Detailed															

Note: **********

No personnel demobilization charges are anticipated.

****

	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
230	**4**	**FINAL SITE CLEANUP**	**1.00**	**LS**		**4,311.50**		**1,915.99**						**6,227.49**	**6,227**
Detailed															

Note: **********

One operator and two laborers to support final site cleanup operations.
Include ~1 dumpster load of clean debris for disposal.

****

	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UODUMP	Dumpster	1.00	MO	U			200.00						200.00	200
			Resource List:		T			200						200	200
CREW Cost Detail															
	5.0 Days	0.2000 LS/Da	5.0000 Da/LS			1205.50 Cost/Da									
	40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS			150.69 Cost/Hr									
	120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS			50.23 Cost/MH									
1.0	L010490	OPERATOR DOZER	40.00	HR	U	42.69								42.69	1,708
1.0	RDOZER20	JOHN DEERE 750C LGP	40.00	HR	U			42.90						42.90	1,716
2.0	L060100	GENERAL LABORER	80.00	HR	U	32.55								32.55	2,604
			Resource List:		T	4,312		1,716						6,027	6,027

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Alternative #5 - Soil Cement Gravity Wall w/ stone columns
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 10,000	$ 9,350	$ 9,350	Allowance for inspections.
2	$ 10,000	$ 8,730	$ 18,080	
3	$ 10,000	$ 8,160	$ 26,240	
4	$ 10,000	$ 7,630	$ 33,870	
5	$ 10,000	$ 7,130	$ 41,000	
6	$ 10,000	$ 6,660	$ 47,660	
7	$ 10,000	$ 6,230	$ 53,890	
8	$ 10,000	$ 5,820	$ 59,710	
9	$ 10,000	$ 5,440	$ 65,150	
10	$ 10,000	$ 5,080	$ 70,230	
11	$ 10,000	$ 4,750	$ 74,980	
12	$ 10,000	$ 4,440	$ 79,420	
13	$ 10,000	$ 4,150	$ 83,570	
14	$ 10,000	$ 3,880	$ 87,450	
15	$ 10,000	$ 3,620	$ 91,070	
16	$ 10,000	$ 3,390	$ 94,460	
17	$ 10,000	$ 3,170	$ 97,630	
18	$ 10,000	$ 2,960	$ 100,590	
19	$ 10,000	$ 2,770	$ 103,360	
20	$ 10,000	$ 2,580	$ 105,940	
21	$ 10,000	$ 2,420	$ 108,360	
22	$ 10,000	$ 2,260	$ 110,620	
23	$ 10,000	$ 2,110	$ 112,730	
24	$ 10,000	$ 1,970	$ 114,700	
25	$ 10,000	$ 1,840	$ 116,540	
26	$ 10,000	$ 1,720	$ 118,260	
27	$ 10,000	$ 1,610	$ 119,870	
28	$ 10,000	$ 1,500	$ 121,370	
29	$ 10,000	$ 1,410	$ 122,780	
30	$ 10,000	$ 1,310	$ 124,090	

APPENDIX B6

ALTERNATIVE 6 – CONCRETE WALL

Proposal

Job Description: Alt 6-Dry Concrete Wall

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	175,000.00	**175,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	64,000.00	**64,000.00**
4	Dry Concrete Wall	80,000.0000	CY	106.00	**8,480,000.00**
5	Contaminated Soil Placement	80,000.0000	CY	20.00	**1,600,000.00**
6	Slide Rail System	9.0000	MO	50,000.00	**450,000.00**
7	Water Treatment System	1.0000	LS	170,000.00	**170,000.00**
8	Hydro-Seeding Restoration	20.0000	AC	1,000.00	**20,000.00**
90	Engineering - Oversight	9.0000	MO	21,000.00	**189,000.00**
95	Const. Project Support	9.0000	MO	117,000.00	**1,053,000.00**
99	Demobilization	1.0000	EA	19,000.00	**19,000.00**
				GRAND TOTAL	**12,274,000.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A6CNWALL (Alt 6-Dry Concrete Wall)
Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					140,000		140,000	140,000				35,000.00	175,000	35,000.00	175,000
10	Engineering - Design	1.00	LS					140,000		140,000								
2	Pre-Construction Work	1.0000	LS	40,873.26					2,000.00	42,873.26	42,873.26				10,718.31	53,591.57	11,126.74	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,177.22						12,177.22								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,242.87						2,242.87								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,465.13		1,400.00	1,286.99	41,500.00	2,700.00	51,352.12	51,352.12				12,838.03	64,190.15	12,647.88	64,000.00
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					31,500.00		31,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,465.13		1,400.00	1,286.99		2,700.00	9,852.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					20.00		20.00								
4	Dry Concrete Wall	80,000.00	CY	4.89		74.69	5.45			85.03	85.03				21.26	106.29	20.97	106.00
140	Dry Concrete Wall	80000.0	CY															
140 1	Excavation	80000.0	CY	4.89		74.69	5.45			85.03								
5	Contaminated Soil Placmnt	80,000.00	CY	3.22	0.93	8.00	3.88			16.04	16.04				4.01	20.04	3.96	20.00
150	Contaminated soil placeme	80000.0	CY	3.22	0.93	8.00	3.88			16.04								
6	Slide Rail System	9.0000	MO					40,000.00		40,000.00	40,000.00				10,000.00	50,000.00	10,000.00	50,000.00
160	Slide Rail System	9.00	MO					40,000.00		40,000.00								
7	Water Treatment System	1.0000	LS				24,300.00	110,030	1,975.00	136,305	136,305				34,076.25	170,381	33,695.00	170,000
225	Water Treatment Syst	1.00	LS															
225 1	Treatment System	1.00	LS				24,300.00	38,030.00	1,975.00	64,305.00								
225 2	System O&M	3600000	GL					0.02		0.02								
8	Hydro-Seeding Restoration	20.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	20.00	AC					800.00		800.00								
90	Engineering - Oversight	9.0000	MO	16,109.30					929.50	17,038.80	17,038.80				4,259.70	21,298.50	3,961.20	21,000.00
900	Engineering - Oversight	9.00	MO	16,109.30					929.50	17,038.80								
95	Const. Project Support	9.0000	MO	70,339.51		56.67	7,248.86	5,833.33	10,162.44	93,640.81	93,640.81				23,410.20	117,051	23,359.19	117,000
950	Const. Project Support	9.00	MO															
950 13	Indirect Project Costs	9.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	9.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	9.00	MO															
950 13 1 4 1	WEATHER	9.00	MO															
950 13 2	CONST EQUIP & TOOLS	9.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	9.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	9.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	9.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	9.00	MO															
950 13 6 1	OFFICE TRAILERS	9.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	9.00	MO															
950 13 6 2 1	Connex Boxes	9.00	MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	9.00	MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00	LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	9.00	MO				350.00			350.00								
950 13 6 8	TOILETS	9.00	MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00	LS						500.00	500.00								
950 13 6 12	CLIENT TRAILERS	9.00	MO															
950 13 6 16	OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00	2,000.00								

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
950 13 6 18	TESTING LABORATORY	9.00 MO															
950 13 6 27	HAUL ROAD MAINTENANCE	9.00 MO															
950 13 6 28	EMERGENCY EQUIPMENT	9.00 MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	9.00 MO															
950 13 7 1	POWER	9.00 MO						500.00	500.00								
950 13 7 2	WATER	9.00 MO						200.00	200.00								
950 13 7 3	SANITARY	9.00 MO															
950 13 7 4	TELEPHONE	9.00 MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	9.00 MO															
950 13 8 1	JANITORIAL AND CLEANUP	9.00 MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	9.00 MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	9.00 MO															
950 13 8 4	MEDICAL/FIRST AID	9.00 MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00 LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00 LS						400.00	400.00								
950 13 8 8	REPRODUCTION AND PHOTO	9.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	9.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	9.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	9.00 MO															
950 13 9 1	IT/WAN COST	9.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	9.00 MO															
950 13 10 1	PICKUP TRUCKS	9.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	9.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	20,002.01			500.00		922.50	21,424.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	9.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,704.40						2,704.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	9.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	9.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	9.00 MO															
950 14 1 1	PROGRAM MANAGER	9.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	9.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	9.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	9.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	9.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	9.00 MO															
950 14 4 13	SURVEYORS	9.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	9.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	9.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	9.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	9.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	9.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	9.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	9.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	9.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	9.00 MO															
950 14 6 1	PROCUREMENT MANAGER	9.00 MO															
950 14 6 2	BUYERS	9.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	9.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	9.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	9.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	9.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	9.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	9.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	9.00 MO															
950 14 6 9	FINANCIAL SERVICES	9.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	9.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	6,500.00	2,700.00	15,427.49	15,427.49				3,856.87	19,284.36	3,572.51	19,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					6,500.00		6,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								
	Extended Totals by Category		1,476,792	74,218	6,616,910	839,856	726,530	109,203	9,843,508	9,843,508				2,460,877	12,304,385	2,430,492	12,274,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A6CNWALL (Alt 6-Dry Concrete Wall)

Cost/Price Review - Unit

Code	Description		Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
			Percent															
Direct Cost		9,843,508	80.00															
Direct Cost Escalation		0	0.00															
Escalated Direct Cost		9,843,508	80.00															
Job Overhead		0	0.00															
Job Overhead Escalation		0	0.00															
Escalated Job Overhead		0	0.00															
Indirect		0	0.00															
Tax & Add-On		0	0.00															
Finance		0	0.00															
Bond		0	0.00															
Total Business Overhead		0	0.00															
Markup on Direct		2,460,877	20.00															
Markup on Job Overhead		0	0.00															
Total Markup		2,460,877	20.00															
Total Cut/Add		0	0.00															
Target Bid Price		12,304,385	100.00															
Bid Price		0	0.00															
Difference		12,304,385	100.00															

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						140,000			140,000	140,000
	Engineering - Design													
				U						140,000			140,000	140,000
				T						140,000			140,000	140,000
	Bid Item bid quantity and cost:	1.00	LS	T						140,000			140,000	140,000
10	Engineering - Design	1.00	LS							140,000			140,000	140,000
										140,000			140,000	140,000
10	**Engineering - Design**	**1.00**	**LS**							**140,000**			**140,000**	**140,000**
Detailed														

Note: Engineering Design Cost Breakdown:
Compatibility Testing: $20,000
Design Reports (30%, 60%, 90%, 100%): $40,000
Technical Specifications: $30,000
Construction Drawings: $50,000
Total: $140,000

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USFWENCE	FWENC Engr Costs	140,000	LS	U					1.00			1.00	140,000
			Resource List:		T					140,000			140,000	140,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2				Pre-Construction Work	1.00	LS	T	40,873						2,000		42,873	42,873
				Pre-Construction Work													
							U	40,873						2,000.00		42,873	42,873
							T	40,873						2,000		42,873	42,873
				Bid Item bid quantity and cost:	1.00	LS	T	40,873						2,000		42,873	42,873
20				Pre-Construction Work	1.00	LS											
20	1			Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
								3,120.07						2,000.00		5,120.07	5,120
20	2			Bonding & Insurance	1.00	LS											
20	3			Submittals	1.00	LS											
20	3	1		Site HASP	1.00	LS											
20	3	1	1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
								4,966.60								4,966.60	4,967
20	3	1	2	HASP - Final	1.00	LS		985.36								985.36	985
								985.36								985.36	985
20	3	2		Work Plan	1.00	LS											
20	3	2	1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
								8,244.84								8,244.84	8,245
20	3	2	2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
								3,029.03								3,029.03	3,029
20	3	3		Erosion & Sed Cntrl Plan	1.00	LS											
20	3	3	1	Eros & Sed Cont - Draft	1.00	LS		12,177								12,177	12,177
								12,177								12,177	12,177
20	3	3	2	Eros & Sed Cont - Final	1.00	LS		2,242.87								2,242.87	2,243
								2,242.87								2,242.87	2,243
20	3	4		Project Schedule	1.00	LS											
20	3	4	1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
								4,512.19								4,512.19	4,512
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
								1,595.07								1,595.07	1,595
20 Detailed				**Pre-Construction Work**	**1.00**	**LS**		**40,873**						**2,000.00**		**42,873**	**42,873**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 Detailed	**1**			**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

2.4 Days	0.4167 LS/Da	2.4000 Da/LS	2133.36 Cost/Da
24.0 Hours	0.0417 LS/Hr	24.0000 Hr/LS	213.34 Cost/Hr
32.0 Man-Hr	0.0313 LS/MH	32.0000 MH/LS	160.00 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120

20 2 Bonding & Insurance 1.00 LS
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 Submittals 1.00 LS 37,753 37,753 37,753
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 1 Site HASP 1.00 LS 5,951.96 5,951.96 5,952
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 1 1 HASP - Draft 1.00 LS 4,966.60 4,966.60 4,967
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

4.0 Days	0.2500 LS/Da	4.0000 Da/LS	1241.65 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	124.16 Cost/Hr
52.0 Man-Hr	0.0192 LS/MH	52.0000 MH/LS	95.51 Cost/MH

1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66	86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96	82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00	162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07	130.07	520
			Resource List:		T	4,967	4,967	4,967

20 3 1 2 HASP - Final 1.00 LS 985.36 985.36 985
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

0.8 Days	1.2500 LS/Da	0.8000 Da/LS	1231.70 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	123.17 Cost/Hr
10.0 Man-Hr	0.1000 LS/MH	10.0000 MH/LS	98.54 Cost/MH

1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66	86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00	162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07	130.07	130
			Resource List:		T	985	985	985

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	2		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20	3	2	1	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		4.0 Days		0.2500 LS/Da	4.0000 Da/LS			2061.21 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			206.12 Cost/Hr									
		84.0 Man-Hr		0.0119 LS/MH	84.0000 MH/LS			98.15 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0	L90HEI00		Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0	L90HE800		Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0	L90FXX02		Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0	L90HE800		Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0	L90HXX08		Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20	3	2	2	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		2.4 Days		0.4167 LS/Da	2.4000 Da/LS			1262.10 Cost/Da									
		24.0 Hours		0.0417 LS/Hr	24.0000 Hr/LS			126.21 Cost/Hr									
		36.0 Man-Hr		0.0278 LS/MH	36.0000 MH/LS			84.14 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0	L90HEI00		Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90FXX02		Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90HXX08		Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20	3	3		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,420**								**14,420**	**14,420**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20	3	3	1	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,177**								**12,177**	**12,177**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4.0 Days	0.2500 LS/Da	4.0000	Da/LS		3044.31 Cost/Da									
40.0 Hours	0.0250 LS/Hr	40.0000	Hr/LS		304.43 Cost/Hr									
120.0 Man-Hr	0.0083 LS/MH	120.0000	MH/LS		101.48 Cost/MH									
1.0 L90HEH00	Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
1.0 L90HEI00	Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
1.0 L90HE800	Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
1.0 L90HDP00	Home - Senior Designer	16.00	HR	U	90.95								90.95	1,455
1.0 L90HED00	Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
1.0 L90FXX02	Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
1.0 L90HXX08	Home - Proj Manager	4.00	HR	U	130.07								130.07	520
		Resource List:		T	12,177								12,177	12,177
20 3 3 2	**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,242.87**								**2,242.87**	**2,243**
Detailed														
10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail														
0.8 Days	1.2500 LS/Da	0.8000	Da/LS		2803.59 Cost/Da									
8.0 Hours	0.1250 LS/Hr	8.0000	Hr/LS		280.36 Cost/Hr									
23.0 Man-Hr	0.0435 LS/MH	23.0000	MH/LS		97.52 Cost/MH									
1.0 L90HEH00	Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
1.0 L90HEI00	Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
1.0 L90HE800	Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
1.0 L90HDP00	Home - Senior Designer	4.00	HR	U	90.95								90.95	364
1.0 L90HED00	Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
1.0 L90FXX02	Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
1.0 L90HXX08	Home - Proj Manager	1.00	HR	U	130.07								130.07	130
		Resource List:		T	2,243								2,243	2,243
20 3 4	**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
Detailed														
10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20 3 4 1	**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
Detailed														
10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.2 Days	0.8333 LS/Da	1.2000	Da/LS		3760.16 Cost/Da									
12.0 Hours	0.0833 LS/Hr	12.0000	Hr/LS		376.02 Cost/Hr									
36.0 Man-Hr	0.0278 LS/MH	36.0000	MH/LS		125.34 Cost/MH									
1.0 L90FXX02	Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
1.0 L90HED00	Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
1.0 L90HE800	Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
1.0 L90HXX08	Home - Proj Manager	4.00	HR	U	130.07								130.07	520
		Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
Detailed																	

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

0.6 Days	1.6667 LS/Da	0.6000 Da/LS	2658.45 Cost/Da
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96						82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97						139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59						164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07						130.07	260
			Resource List:		T	1,595						1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,465		1,287	1,400		41,500	2,700		51,352	51,352
			Mobilization													
						U	4,465.13		1,286.99	1,400.00		41,500	2,700.00		51,352	51,352
						T	4,465		1,287	1,400		41,500	2,700		51,352	51,352
			Bid Item bid quantity and cost:	1.00	EA	T	4,465		1,287	1,400		41,500	2,700		51,352	51,352
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							31,500			31,500	31,500
												31,500			31,500	31,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,465.13		1,286.99	1,400.00			2,700.00		9,852.12	9,852
							4,465.13		1,286.99	1,400.00			2,700.00		9,852.12	9,852
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							10,000			20.00	10,000
												20.00			20.00	10,000
30 Detailed			**Mobilization**	**1.00**	**EA**		**4,465.13**		**1,286.99**	**1,400.00**		**41,500**	**2,700.00**		**51,352**	**51,352**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

30 Detailed	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**31,500**			**31,500**	**31,500**

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 20k mob for subcontractor

1.0	UEEPTRNS	FWENC Eqp Transport/Setup	10,000	LS	U						1.00			1.00	10,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
1.0	UEEPTRNS	FWENC Eqp Transport/Setup	20,000	LS	U						1.00			1.00	20,000
			Resource List:		T						31,500			31,500	31,500
30 Detailed	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,465.13**		**1,286.99**	**1,400.00**			**2,700.00**	**9,852.12**	**9,852**

(c) Copyright 1988 to 2002 Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
			10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh													
30 Detailed	2	1	**Site Setup/Preparation**	**1.00**	**LS**		**4,465.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,852.12**	**9,852**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00	800.00	2,400
1.0	UOCONMOB	Bonnex Box Mob	1.00	EA	U							300.00	300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U					10.00			10.00	1,400
			Resource List:		T					1,400		2,700	4,100	4,100

CREW Cost Detail

3.0 Days		0.3333 LS/Da	3.0000 Da/LS			1917.37 Cost/Da									
30.0 Hours		0.0333 LS/Hr	30.0000 Hr/LS			191.74 Cost/Hr									
120.0 Man-Hr		0.0083 LS/MH	120.0000 MH/LS			47.93 Cost/MH									
1.0	L010490	OPERATOR DOZER	30.00	HR	U		45.19						45.19	1,356
3.0	L060100	GENERAL LABORER	90.00	HR	U		34.55						34.55	3,110
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U				42.90				42.90	1,287
			Resource List:		T		4,465		1,287				5,752	5,752

30 Detailed	3		**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**											

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	3	1	**Mob Personnel**	**1.00**	**LS**											

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

30 Detailed	4		**Perimeter Fencing**	**500.00**	**LF**							**10,000**			**20.00**	**10,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	10.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
1.0	USFENCE Fencing Installation	500.00	LF	U						20.00			20.00	10,000
	Resource List:			T						10,000			10,000	10,000

(c) Copyright 1988 to 2002 Ha... Collar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4		Dry Concrete Wall	80,000	CY	T	391,275		436,354	5975000					85	6802629
		Dry Concrete Wall													
					U	4.89		5.45	74.69					85.03	6802629
					T	391,275		436,354	5975000					85	6802629
		Bid Item bid quantity and cost:	80,000	CY	T	391,275		436,354	5975000					85	6802629
140		Dry Concrete Wall	80,000	CY											
140	1	Excavation	80,000	CY		391,275		436,354	5975000					85.03	6802629
						4.89		5.45	74.69					85.03	6802629
140 Detailed		**Dry Concrete Wall**	**80,000**	**CY**		**391,275**		**436,354**	**5975000**					**85.03**	**6802629**

Note: Area approximately 14' wide x 35' deep x 4,000' for a total of 80,000 cy.
Backfill includes 100,000 tons of sand/gravel mix, and 25,000 tons of cement.

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

140 Detailed	**1**	**Excavation**	**80,000**	**CY**		**391,275**		**436,354**	**5975000**					**85.03**	**6802629**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MGRAVEL	Gravel Surfacing	100,000	TN	U				9.75					9.75	975,000
1.0	MCEMENT	Cement	25,000	TN	U				200.00					200.00	5000000
		Resource List:			T				5975000					5975000	5975000

CREW Cost Detail

180.0 Days	444.4444 CY/Da	0.0023 Da/CY	4597.94 Cost/Da
1800.0 Hours	44.4444 CY/Hr	0.0225 Hr/CY	459.79 Cost/Hr
10800.0 Man-Hr	7.4074 CY/MH	0.1350 MH/CY	76.63 Cost/MH

1.0	REXCAV07	CAT 350 EXCAVATOR, 3.50CY	1,800.00	HR	U			106.77						106.77	192,186
1.0	REXCAV06	CAT 345 EXCAVATOR, 2.50CY	1,800.00	HR	U			100.13						100.13	180,235
2.0	L010101	OPERATOR GROUP 1	3,600.00	HR	U	39.59								39.59	142,515
4.0	L060100	GENERAL LABORER	7,200.00	HR	U	34.55								34.55	248,760
2.0	RPUMPS08	SELF PRIMING TRSH PUMP 6"	3,600.00	HR	U			17.76						17.76	63,933
		Resource List:			T	391,275		436,354						827,629	827,629

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5	Contaminated Soil Placmnt	80,000	CY	T	257,828	74,218	310,759	640,000					16	1282805
	Contaminated Soil Placement													
				U	3.22	0.93	3.88	8.00					16.04	1282805
				T	257,828	74,218	310,759	640,000					16	1282805
	Bid Item bid quantity and cost:	80,000	CY	T	257,828	74,218	310,759	640,000					16	1282805
150	Contaminated soil placeme	80,000	CY		257,827	74,217	310,759	640,000					16.04	1282805
					3.22	0.93	3.88	8.00					16.04	1282805
150	**Contaminated soil placeme**	**80,000**	**CY**		**257,827**	**74,217**	**310,759**	**640,000**					**16.04**	**1282805**

Detailed

Note: Excavated soil planed on-site with 2' of common fill cover.

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCMNFILL	Common Fill	80,000	TN	U				8.00				8.00	640,000
			Resource List:		T				640,000				640,000	640,000

CREW Cost Detail

180.0 Days	444.4444 CY/Da	0.0023 Da/CY	3571.14 Cost/Da	
1800.0 Hours	44.4444 CY/Hr	0.0225 Hr/CY	357.11 Cost/Hr	
7200.0 Man-Hr	11.1111 CY/MH	0.0900 MH/CY	89.28 Cost/MH	

1.0	L010101	OPERATOR GROUP 1	1,800.00	HR	U	39.59							39.59	71,258
1.0	ELOA_202	CAT IT28F INTRG-FW	1,800.00	HR	U		14.43						14.43	25,974
1.0	EDOZ_305	Komatsu D65PX LGP-FW	1,800.00	HR	U		26.80						26.80	48,244
2.0	RDUTRK06	CAT D350D, 18CY-24CY	3,600.00	HR	U			86.32					86.32	310,759
3.0	L060100	GENERAL LABORER	5,400.00	HR	U	34.55							34.55	186,570
			Resource List:		T	257,828	74,218	310,759					642,805	642,805

(c) Copyright 1988 to 2002, Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
6	Slide Rail System	9.00	MO	T						360,000			40,000	360,000
	Slide Rail System													
				U						40,000			40,000	360,000
				T						360,000			40,000	360,000
	Bid Item bid quantity and cost:	9.00	MO	T						360,000			40,000	360,000
160	Slide Rail System	9.00	MO							360,000			40,000	360,000
										40,000			40,000	360,000
160	**Slide Rail System**	**9.00**	**MO**							**360,000**			**40,000**	**360,000**

Detailed

Note: Temporary Shoring - Slide Rail Trench Support System

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URAIL	Slide rail system	9.00	MO	U					40,000			40,000	360,000
			Resource List:		T					360,000			360,000	360,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
7		Water Treatment System	1.00	LS	T			24,300			110,030		1,975	136,305	136,305
		Water Treatment System													
					U			24,300			110,030		1,975	136,305	136,305
					T			24,300			110,030		1,975	136,305	136,305
		Bid Item bid quantity and cost:	1.00	LS	T			24,300			110,030		1,975	136,305	136,305
225		Water Treatment Syst	1.00	LS											
225	1	Treatment System	1.00	LS				24,300			38,030		1,975	64,305	64,305
								24,300			38,030		1,975	64,305	64,305
225	2	System O&M	3600000	GL							72,000			0.02	72,000
											0.02			0.02	72,000
225 Detailed		**Water Treatment Syst**	**1.00**	**LS**				**24,300**			**110,030**		**1,975**	**136,305**	**136,305**
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		50.00 Hours/Wk			10.00 Pay-Hrs/Sh							
225 Detailed	**1**	**Treatment System**	**1.00**	**LS**				**24,300**			**38,030**		**1,975**	**64,305**	**64,305**
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk		50.00 Hours/Wk			10.00 Pay-Hrs/Sh							

LIST Cost Detail

Note: Cost includes the following:

FW Design: review of vendor schematic/spec validation included elsewhere
Include 3 Month Rental to incorporate delivery/setup/cleanup time:
FW estimated equipment:
FW Installation 16hours x $75/hr = $1,200
Materials: 1LS = $500
Vendor Pricing: (TIGG Corp)
Mob & Setup, and Starutp Training: $8,305
System Rental: $2,745/mo x 9 months = $24,705
System Demob: $2,720

Additional Costs:
Electrical Hookup - Electrician @ $75/hr x 8 hrs = $600 + $400 allowance for materials = $1,000.
Plastic & Haybale Berm around Treatment Syst. - Assume $1000 material costs.

Total: $34,430 + tax of ((2745)*.08)x9 ($1,975)

1.0	UH2OSET	Water Treatment Sys Setup	1.00	LS	U						34,430		1,975	36,405	36,405
1.0	URFRACTN	Frac Tank Rental	810.00	DA	U			30.00						30.00	24,300
1.0	UOFRCMOB	Frac Tank Mob/Demob	6.00	EA	U						600.00			600.00	3,600
		Resource List:			T			24,300			38,030		1,975	64,305	64,305
225 Detailed	**2**	**System O&M**	**3600000**	**GL**							**72,000**			**0.02**	**72,000**

(c) Copyright 1988 to 2002 P... ...ilar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh													
LIST Cost Detail														
	Note: Bag Filters @ ~$9 ea x 1/10,000 gal = ~$0.0009/gal Sampling - batch sampling - 1 test/20,000 gal @ $299/test = $0.015/gal. Cost ~$0.016/gal for sampling & filters - use system ops cost of ~0.02/gal.													
1.0	UH2OFILT Filter Change Cost	3600000	GL	U						0.02			0.02	72,000
	Resource List:			T						72,000			72,000	72,000

Note: O&M:
Bag Filters - @ $4.50 each x 2 filters = $9/changeout
Anayltical Testing - $299/sample.
Carbon useage calculated at 38 lbs/day (10 hrs x 60 min/hr x 100 gal/min = 60,000 gal/day) = 0.63 lbs/kgal (1,000 gals). Each unit holds 1,500

(All labor to be provided by onsite crews)
0 - 200,000 gals
Assume 2 filter changeouts & 4 samples: 2 x $9 + 4 x $299 = $1,214 = $0.006/gal.
200,000 - 500,000 gals
Assume 3 filter changeouts & 1 sample = 3 x $9 + 1 x $299 = $326 = $0.001/gal.
>500,000 gals.

For O&M Cost use 200,000 - 500,000 gals cost calcs - $0.001/gal for filter changeout only.

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8	Hydro-Seeding Restoration	20.00	AC	T						16,000			800	16,000
	Hydro-Seeding Restoration													
				U						800.00			800.00	16,000
				T						16,000			800	16,000
	Bid Item bid quantity and cost:	20.00	AC	T						16,000			800	16,000
220	Hydro-Seeding Restoration	20.00	AC							16,000			800.00	16,000
										800.00			800.00	16,000
220	**Hydro-Seeding Restoration**	**20.00**	**AC**							**16,000**			**800.00**	**16,000**
Detailed														
	10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	USHDYROSHydroseeding Subcontract	20.00	AC	U						800.00			800.00	16,000
	Resource List:			T						16,000			16,000	16,000

(c) Copyright 1988 to 2002 Hardinge Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	9.00	MO	T	144,984						8,366		17,039	153,349
	Engineering - Oversight													
				U	16,109						929.50		17,038	153,349
				T	144,984						8,366		17,039	153,349
	Bid Item bid quantity and cost:	9.00	MO	T	144,984						8,366		17,039	153,349
900	Engineering - Oversight	9.00	MO		144,983						8,365.50		17,038	153,349
					16,109						929.50		17,038	153,349
900	**Engineering - Oversight**	**9.00**	**MO**		**144,983**						**8,365.50**		**17,038**	**153,349**

Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMEALS	Meals	198.00	DA	U						25.00		25.00	4,950
1.0	UTMILES	Mileage	9,900.00	MI	U						0.35		0.35	3,416
		Resource List:			T						8,366		8,366	8,366

CREW Cost Detail

198.0 Days	0.0455 MO/Da	22.0000 Da/MO	732.24 Cost/Da											
1980.0 Hours	0.0045 MO/Hr	220.0000 Hr/MO	73.22 Cost/Hr											
2178.0 Man-Hr	0.0041 MO/MH	242.0000 MH/MO	66.57 Cost/MH											
1.0	L90FEG00	Field - Engineer	1,980.00	HR	U	60.22							60.22	119,230
0.1	L90HXX08	Home - Proj Manager	198.00	HR	U	130.07							130.07	25,754
		Resource List:			T	144,984							144,984	144,984

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	9.00	MO	T	633,056		65,240	510	19,430	52,500	72,032		93,641	842,767
	Const. Project Support													
				U	70,339		7,248.86	56.67	2,158.89	5,833.33	8,003.56		93,640	842,767
				T	633,056		65,240	510	19,430	52,500	72,032		93,641	842,767
	Bid Item bid quantity and cost:	9.00	MO	T	633,056		65,240	510	19,430	52,500	72,032		93,641	842,767

(c) Copyright 1988 to 2002 Ha... ...liar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Const. Project Support	9.00	MO											
950	13				Indirect Project Costs	9.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	9.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	9.00	MO											
950	13	1	4	1	WEATHER	9.00	MO											
950	13	2			CONST EQUIP & TOOLS	9.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	9.00	MO				6,930.00						770.00	6,930
											770.00						770.00	6,930
950	13	2	6		SMALL TOOLS	9.00	MO						4,500.00				500.00	4,500
													500.00				500.00	4,500
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	9.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	9.00	MO											
950	13	6	1		OFFICE TRAILERS	9.00	MO				4,500.00						500.00	4,500
											500.00						500.00	4,500
950	13	6	2		STORAGE FACILITIES	9.00	MO											
950	13	6	2	1	Connex Boxes	9.00	MO				2,700.00						300.00	2,700
											300.00						300.00	2,700
950	13	6	3		DECON FOR PERSONNEL	9.00	MO				3,150.00						350.00	3,150
											350.00						350.00	3,150
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	9.00	MO				3,150.00						350.00	3,150
											350.00						350.00	3,150
950	13	6	8		TOILETS	9.00	MO				2,700.00						300.00	2,700
											300.00						300.00	2,700
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	9.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	9.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	9.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	9.00	MO						900.00				100.00	900
													100.00				100.00	900
950	13	7			TEMPORARY UTILITIES	9.00	MO											
950	13	7	1		POWER	9.00	MO								4,500.00		500.00	4,500
															500.00		500.00	4,500
950	13	7	2		WATER	9.00	MO								1,800.00		200.00	1,800
															200.00		200.00	1,800
950	13	7	3		SANITARY	9.00	MO											
950	13	7	4		TELEPHONE	9.00	MO								6,300.00		700.00	6,300
															700.00		700.00	6,300
950	13	8			OPERATING SUPPLY/SERV	9.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	9.00	MO				1,800.00						200.00	1,800
										200.00						200.00	1,800
950	13	8	2	OFFICE & ENGINEERING SUP	9.00	MO						1,980.00				220.00	1,980
												220.00				220.00	1,980
950	13	8	3	FACILITIES MAINT & REPAIR	9.00	MO											
950	13	8	4	MEDICAL/FIRST AID	9.00	MO						2,700.00				300.00	2,700
												300.00				300.00	2,700
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	9.00	MO				9,000.00				900.00		1,100.00	9,900
										1,000.00				100.00		1,100.00	9,900
950	13	8	9	POSTAGE	9.00	MO								1,350.00		150.00	1,350
														150.00		150.00	1,350
950	13	8	10	FREIGHT ON SUPPLIES	9.00	MO								2,250.00		250.00	2,250
														250.00		250.00	2,250
950	13	9		COMPUTER AND DATA	9.00	MO											
950	13	9	1	IT/WAN COST	9.00	MO								18,558		2,062.00	18,558
														2,062.00		2,062.00	18,558
950	13	10		VEHICLES FOR PERSONNEL	9.00	MO											
950	13	10	1	PICKUP TRUCKS	9.00	MO				30,809						3,423.30	30,810
										3,423.30						3,423.30	30,810
950	13	12		HEALTH & SAFETY	9.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		20,002		500.00				922.50		21,424	21,425
								20,002		500.00				922.50		21,424	21,425
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	9.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,704.40								2,704.40	2,704
								2,704.40								2,704.40	2,704
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	9.00	MO								32,121		3,569.00	32,121
														3,569.00		3,569.00	32,121
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	9.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	9.00	MO											
950	14	1	1	PROGRAM MANAGER	9.00	MO		27,438								3,048.68	27,438
								3,048.68								3,048.68	27,438
950	14	1	2	SENIOR PROJECT MANAGER	9.00	MO		142,911								15,879	142,912
								15,879								15,879	142,912
950	14	1	3	PROJECT SUPERINTENDENT	9.00	MO		164,267								18,251	164,267
								18,251								18,251	164,267
950	14	2		ADMINISTRATION	9.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	9.00	MO		37,818								4,202.01	37,818
								4,202.01								4,202.01	37,818
950	14	4		ENGINEERING	9.00	MO											
950	14	4	13	SURVEYORS	9.00	MO							45,000			5,000.00	45,000
													5,000.00			5,000.00	45,000
950	14	[illegible]		HEALTH & SAFETY	9.00	MO											

(c) Copyright 1988 to 2002 [illegible] Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	9.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	9.00	MO		1,458.00								162.00	1,458
									162.00								162.00	1,458
950	14	5	1	3	ESQ AUDIT/INSPECTION	9.00	MO		12,479						1,071.00		1,505.58	13,550
									1,386.58						119.00		1,505.58	13,550
950	14	5	4		SITE S&H OFFICER	9.00	MO		89,671								9,963.49	89,671
									9,963.49								9,963.49	89,671
950	14	5	7		REGULATORY COMPLIANCE	9.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	9.00	MO		5,832.01								648.00	5,832
									648.00								648.00	5,832
950	14	5	7	3	ESQ AUDIT/INSPECTION	9.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	9.00	MO											
950	14	6	1		PROCUREMENT MANAGER	9.00	MO											
950	14	6	2		BUYERS	9.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	9.00	MO		15,599								1,733.23	15,599
									1,733.23								1,733.23	15,599
950	14	6	4		PROJECT CONTROLS MANAGER	9.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	9.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	9.00	MO		74,948								8,327.63	74,949
									8,327.63								8,327.63	74,949
950	14	6	6		ESTIMATOR	9.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	9.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	9.00	MO											
950	14	6	9		FINANCIAL SERVICES	9.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	9.00	MO		2,341.27								260.14	2,341
									260.14								260.14	2,341
950 Detailed					**Const. Project Support**	**9.00**	**MO**		**633,055**		**65,239**	**510.00**	**19,430**	**52,500**	**72,032**		**93,640**	**842,767**

Note: On-site construction is 9 months with 1 crew(s) working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**13**				**Indirect Project Costs**	**9.00**	**MO**		**27,102**		**65,239**	**510.00**	**19,430**	**7,500.00**	**70,901**		**21,187**	**190,684**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1		CRAFT PAYROLLRELATEDCOST	9.00	MO											
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4	NON PRODUCTIVE-SHOW UP	9.00	MO											
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4 1	WEATHER	9.00	MO											

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	2		CONST EQUIP & TOOLS	9.00	MO				6,930.00		10,950				1,986.67	17,880
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 F... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**2**	**1**	**HEAVY EQUIPMENT**	**1.00**	**LS**											
Detailed																	

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**2**	**2**	**LIGHT EQUIPMENT**	**9.00**	**MO**				**6,930.00**						**770.00**	**6,930**
Detailed																	

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWS	Power Washer	9.00	MO	U			550.00				550.00	4,950
1.0	URPUMP2"	Submersible Pump	9.00	MO	U			110.00				110.00	990
1.0	URPUMP2"	Submersible Pump	9.00	MO	U			110.00				110.00	990
			Resource List:		T			6,930				6,930	6,930

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**2**	**6**	**SMALL TOOLS**	**9.00**	**MO**						**4,500.00**				**500.00**	**4,500**
Detailed																	

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	4,500.00	LS	U			1.00				1.00	4,500
			Resource List:		T			4,500				4,500	4,500

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**2**	**8**	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**
Detailed																	

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UOPPE_C	PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0 UOPPE_D	PPE-Level D	300.00	DA	U					20.00				20.00	6,000
	Resource List:			T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**9.00**	**MO**											
	Note: ********** No additional costs included for on-site security. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**9.00**	**MO**		**1,077.88**		**16,200**	**510.00**	**3,400.00**				**2,354.21**	**21,188**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 1 Detailed	**OFFICE TRAILERS**	**9.00**	**MO**				**4,500.00**						**500.00**	**4,500**
	Note: ********** (1) trailer for FWENC. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UROFFTRL	Office Trailer -12x60	9.00	MO	U			500.00						500.00	4,500
	Resource List:			T			4,500						4,500	4,500
950 13 6 2 Detailed	**STORAGE FACILITIES**	**9.00**	**MO**				**2,700.00**						**300.00**	**2,700**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 2 1 Detailed	**Connex Boxes**	**9.00**	**MO**				**2,700.00**						**300.00**	**2,700**
	Note: ********** (1) connex box for storage of small tools/equipment. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 URCONNEX	Connex Box	18.00	MO	U			150.00						150.00	2,700
	Resource List:			T			2,700						2,700	2,700

(c) Copyright 1988 to 2002 Ha... ollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**9.00**	**MO**				**3,150.00**						**350.00**	**3,150**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	9.00	MO	U			350.00						350.00	3,150
			Resource List:		T			3,150						3,150	3,150

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
Surrounding soils to create bermed area
20 mil poly (excess poly used to cover pad during non-use)
6" crushed stone
plywood to displace weight of equipment
Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U						10.00			10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U						200.00			200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U						11.00			11.00	110
			Resource List:		T						510			510	510

CREW Cost Detail

	1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da											
	10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr											
	30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH											
2.0	L060100	GENERAL LABORER	20.00	HR	U			32.55						32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U			42.69						42.69	427
			Resource List:		T			1,078						1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**9.00**	**MO**				**3,150.00**				**350.00**	**3,150**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	9.00	MO	U			350.00						350.00	3,150
			Resource List:		T			3,150						3,150	3,150

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**9.00**	**MO**				**2,700.00**						**300.00**	**2,700**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	9.00	MO	U			300.00						300.00	2,700
	Resource List:			T			2,700						2,700	2,700
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**
	Note: ********** Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**9.00**	**MO**											
	Note: ********** Include rental of (1) trailer for use by client/engineer. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**
	Note: ********** Office furniture/equipment. Up to (4) field staff at $500/each. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**9.00**	**MO**											
	Note: ********** No QC testing laboratory included at this time. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	13	6	27	**HAUL ROAD MAINTENANCE**	**9.00**	**MO**											
Detailed				Note: **********													
				Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	13	6	28	**EMERGENCY EQUIPMENT**	**9.00**	**MO**						**900.00**				**100.00**	**900**
Detailed				Note: **********													
				Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
1.0				UOSFTYSP Safety Supplies	9.00	MO	U					100.00				100.00	900
					Resource List:		T					900				900	900
950	13	7		**TEMPORARY UTILITIES**	**9.00**	**MO**								**12,600**	**1,400.00**		**12,600**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	13	7	1	**POWER**	**9.00**	**MO**								**4,500.00**	**500.00**		**4,500**
Detailed				Note: **********													
				Allowance for electrical charges.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
1.0				UOELECT Electrical Charges-Month	9.00	MO	U							500.00		500.00	4,500
					Resource List:		T							4,500		4,500	4,500
950	13	7	2	**WATER**	**9.00**	**MO**								**1,800.00**	**200.00**		**1,800**
Detailed				Note: **********													
				Include allowance for potable water supply.													
				**********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UOPOTWTR	Potable Water	9.00	MO	U							200.00		200.00	1,800
	Resource List:			T							1,800		1,800	1,800
950 13 7 3 Detailed	**SANITARY**	**9.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 7 4 Detailed	**TELEPHONE**	**9.00**	**MO**								**6,300.00**		**700.00**	**6,300**

Note: **********

Include allowance for up to (3) cell phones and (1) office phone/fax/data line.

****

	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UOOFFPHN	Monthly Office Phone	9.00	MO	U							500.00		500.00	4,500
1.0 UOCELLPH	Monthly Cell Ph.	18.00	MO	U							100.00		100.00	1,800
	Resource List:			T							6,300		6,300	6,300
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**9.00**	**MO**				**10,800**		**5,080.00**		**6,500.00**		**2,486.67**	**22,380**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**9.00**	**MO**				**1,800.00**						**200.00**	**1,800**

Note: **********
On-site labor to perform cleanup.
Allow for 1 dumpster on-site at $200/month including disposal of debris.

****

	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UODUMP	Dumpster	9.00	MO	U			200.00						200.00	1,800
	Resource List:			T			1,800						1,800	1,800
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**9.00**	**MO**						**1,980.00**				**220.00**	**1,980**

Note: **********

Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects.

****

(c) Copyright 1988 to 2002 Ha... ...iar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOOFFSUPOffice Supplies($/prs/mo)	36.00	MO	U					55.00				55.00	1,980
		Resource List:		T					1,980				1,980	1,980
950 13 8 3 Detailed	**FACILITIES MAINT & REPAIR**	**9.00**	**MO**											
	Note: **********													
	No Facilities Maintenance & Repair costs are anticipated at this time.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 4 Detailed	**MEDICAL/FIRST AID**	**9.00**	**MO**						**2,700.00**				**300.00**	**2,700**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UO1STAID 1st Aid Supplies	9.00	MO	U					300.00				300.00	2,700
		Resource List:		T					2,700				2,700	2,700
950 13 8 5 Detailed	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
	Note: **********													
	Include allowance for site radios for on-site/emergency communication.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UORADIO Radio	1.00	LS	U							2,000.00		2,000.00	2,000
		Resource List:		T							2,000		2,000	2,000
950 13 8 6 Detailed	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
	Note: **********													
	Include allowance for purchase of site fax.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
		Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8 Detailed	**REPRODUCTION AND PHOTO**	**9.00**	**MO**				**9,000.00**				**900.00**		**1,100.00**	**9,900**

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	9.00	MO	U						100.00		100.00	900
1.0	URCOPIER	Copier Rental	9.00	MO	U			1,000.00					1,000.00	9,000
			Resource List:		T			9,000			900		9,900	9,900

950 13 8 9 Detailed	**POSTAGE**	**9.00**	**MO**								**1,350.00**		**150.00**	**1,350**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	9.00	MO	U						150.00		150.00	1,350
			Resource List:		T						1,350		1,350	1,350

950 13 8 10 Detailed	**FREIGHT ON SUPPLIES**	**9.00**	**MO**								**2,250.00**		**250.00**	**2,250**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	9.00	MO	U						250.00		250.00	2,250
			Resource List:		T						2,250		2,250	2,250

950 13 9 Detailed	**COMPUTER AND DATA**	**9.00**	**MO**								**18,558**		**2,062.00**	**18,558**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1 Detailed	**IT/WAN COST**	**9.00**	**MO**								**18,558**		**2,062.00**	**18,558**

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	1,800.00	HR	U						10.31		10.31	18,558
			Resource List:		T						18,558		18,558	18,558

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**10**		**VEHICLES FOR PERSONNEL**	**9.00**	**MO**				**30,809**						**3,423.30**	**30,810**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**13**	**10**	**1**	**PICKUP TRUCKS**	**9.00**	**MO**				**30,809**						**3,423.30**	**30,810**
Detailed																	
				Note: **********													
				Include (3) Pickup Trucks for site personnel.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																	
				198.0 Days 0.0455 MO/Da 22.0000 Da/MO 155.60 Cost/Da													
				1584.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 19.45 Cost/Hr													
	3.0			RPUTRK05 F-250 4X4 3/4 TON PICKUP	4,752.00	HR	U			6.48						6.48	30,810
				Resource List:			T			30,810						30,810	30,810
950	**13**	**12**		**HEALTH & SAFETY**	**9.00**	**MO**		**20,002**		**500.00**			**7,500.00**	**922.50**		**3,213.83**	**28,925**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**13**	**12**	**1**	**HEALTH & SAFETY TRAINING**	**1.00**	**LS**		**20,002**		**500.00**				**922.50**		**21,424**	**21,425**
Detailed																	
				Note: **********													
				In the event the crew is local hire requiring 40-hour Haz Woper Training: - Include CIH time for training crew w/ perdiem & travel (local). - Include rental of hotel conference room for 1 week to give training. - Include training for (10) site crew members.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
	1.0			URCONFRM Conference Room Rental	1.00	WK	U			500.00						500.00	500
	1.0			UTPERDEM Perdiem-Meals & Lodging	5.00	DA	U							150.00		150.00	750
	1.0			UTMILES Mileage	500.00	MI	U							0.35		0.35	173
				Resource List:			T			500				923		1,423	1,423
CREW Cost Detail																	
				5.0 Days 0.2000 LS/Da 5.0000 Da/LS 4000.40 Cost/Da													
				40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 500.05 Cost/Hr													
				440.0 Man-Hr 0.0023 LS/MH 440.0000 MH/LS 45.46 Cost/MH													
	4.0			L010101 OPERATOR GROUP 1	160.00	HR	U	35.69								35.69	5,710
	6.0			L060100 GENERAL LABORER	240.00	HR	U	32.55								32.55	7,812
	1.0			L90HXX04 Home - CIH Support	40.00	HR	U	162.00								162.00	6,480
				Resource List:			T	20,002								20,002	20,002

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 12 3	**H&S MEDICAL EXAMS**	1.00	LS							7,500.00			7,500.00	7,500
Detailed														

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U					750.00			750.00	7,500
			Resource List:		T					7,500			7,500	7,500

950 13 13	**MISCELLANEOUS COST**	9.00	MO		6,022.93						32,321		4,260.44	38,344
Detailed														

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 13 1	**ON-SITE TRAINING PROGRAM**	1.00	LS		2,704.40								2,704.40	2,704
Detailed														

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2704.40 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	338.05 Cost/Hr
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	33.81 Cost/MH

4.0	L010101	OPERATOR GROUP 1	32.00	HR	U	35.69							35.69	1,142
6.0	L060100	GENERAL LABORER	48.00	HR	U	32.55							32.55	1,562
			Resource List:		T	2,704							2,704	2,704

950 13 13 3	**CRAFT QUALIFICATIONS**	1.00	LS		3,318.53								3,318.53	3,319
Detailed														

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 h... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0			L90FXX02 Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950 Detailed	**13**	**13**	**4**	**PER-DIEM**	**9.00**	**MO**								**32,121**		**3,569.00**	**32,121**

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMILES	Mileage	1,800.00	MI	U							0.35		0.35	621
1.0	UTMEALS	Meals	396.00	DA	U							25.00		25.00	9,900
1.0	UTAPTMNT	Apartment Rental-Furn/Utl	18.00	MO	U							1,200.00		1,200.00	21,600
			Resource List:		T							32,121		32,121	32,121

950 Detailed	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**								**200.00**		**200.00**	**200**

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPRSIGN	Project Signs	1.00	LS	U							200.00		200.00	200
			Resource List:		T							200		200	200

950 Detailed	**14**			**Professional Services**	**9.00**	**MO**		**605,952**					**45,000**	**1,130.50**		**72,453**	**652,083**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**		**SUPERVISION/MANAGEMENT**	**9.00**	**MO**		**334,616**								**37,179**	**334,617**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**	**1**	**PROGRAM MANAGER**	**9.00**	**MO**		**27,438**								**3,048.68**	**27,438**

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		18.0 Days		0.5000 MO/Da	2.0000 Da/MO			1524.34 Cost/Da									
		144.0 Hours		0.0625 MO/Hr	16.0000 Hr/MO			190.54 Cost/Hr									
		144.0 Man-Hr		0.0625 MO/MH	16.0000 MH/MO			190.54 Cost/MH									
	1.0	L90HXX01		Home - Program Manager	144.00	HR	U	190.54								190.54	27,438
					Resource List:		T	27,438								27,438	27,438
950 Detailed	**14**	**1**	**2**	**SENIOR PROJECT MANAGER**	**9.00**	**MO**		**142,911**								**15,879**	**142,912**
		Note:		**********													
				Project Manager at 100% FTE for project duration -													
				**********													
CREW Cost Detail		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		198.0 Days		0.0455 MO/Da	22.0000 Da/MO			721.78 Cost/Da									
		1584.0 Hours		0.0057 MO/Hr	176.0000 Hr/MO			90.22 Cost/Hr									
		1584.0 Man-Hr		0.0057 MO/MH	176.0000 MH/MO			90.22 Cost/MH									
	1.0	L90FXX01		Field-Proj Manager	1,584.00	HR	U	90.22								90.22	142,912
					Resource List:		T	142,912								142,912	142,912
950 Detailed	**14**	**1**	**3**	**PROJECT SUPERINTENDENT**	**9.00**	**MO**		**164,267**								**18,251**	**164,267**
		Note:		**********													
				Site Supervisor for duration of all field work.													
				**********													
CREW Cost Detail		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		247.5 Days		0.0364 MO/Da	27.5000 Da/MO			663.71 Cost/Da									
		1980.0 Hours		0.0045 MO/Hr	220.0000 Hr/MO			82.96 Cost/Hr									
		1980.0 Man-Hr		0.0045 MO/MH	220.0000 MH/MO			82.96 Cost/MH									
	1.0	L90FXX02		Field-Proj Superintendent	1,980.00	HR	U	82.96								82.96	164,267
					Resource List:		T	164,267								164,267	164,267
950 Detailed	**14**	**2**		**ADMINISTRATION**	**9.00**	**MO**		**37,818**								**4,202.01**	**37,818**
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 H... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	2	2	**ADMINISTRATIVE CLERKS**	**9.00**	**MO**		**37,818**								**4,202.01**	**37,818**

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

198.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da
1584.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr
1584.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH

1.0	L90FC300	Field - Clerk	1,584.00	HR	U	23.88									23.88	37,818
			Resource List:		T	37,818									37,818	37,818

950 Detailed	14	4		**ENGINEERING**	**9.00**	**MO**							**45,000**		**5,000.00**	**45,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	4	13	**SURVEYORS**	**9.00**	**MO**							**45,000**		**5,000.00**	**45,000**

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	45,000	LS	U								1.00		1.00	45,000
			Resource List:		T								45,000		45,000	45,000

950 Detailed	14	5		**HEALTH & SAFETY**	**9.00**	**MO**		**111,384**						**1,071.00**	**12,495**	**112,456**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**9.00**	**MO**		**14,585**						**1,071.00**	**1,739.58**	**15,656**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**5**	**1**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed																		

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00						162.00	648
				Resource List:	T	648						648	648

950	**14**	**5**	**1**	**2**	**ONGOING SUPPORT**	**9.00**	**MO**		**1,458.00**								**162.00**	**1,458**
Detailed																		

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.1 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da
9.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr
9.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	9.00	HR	U	162.00						162.00	1,458
				Resource List:	T	1,458						1,458	1,458

950	**14**	**5**	**1**	**3**	**ESQ AUDIT/INSPECTION**	**9.00**	**MO**		**12,479**						**1,071.00**		**1,505.58**	**13,550**
Detailed																		

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

18.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da
144.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr
144.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH

1.0	L90HXX05	Home - H&S Staff	144.00	HR	U	86.66						86.66	12,479
1.0	UTMEALS	Meals	18.00	DA	U					25.00		25.00	450
1.0	UTMILES	Mileage	1,800.00	MI	U					0.35		0.35	621
				Resource List:	T	12,479				1,071		13,550	13,550

(c) Copyright 1988 to 2002 Ha... ...ollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	5	4		**SITE S&H OFFICER**	**9.00**	**MO**		**89,671**								**9,963.49**	**89,671**

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

CREW Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
225.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da	
1800.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr	
1800.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH	

1.0	L90FEI00	Field - Assoc Engr.	1,800.00	HR	U	49.82										49.82	89,671
				Resource List:	T	89,671										89,671	89,671

950 Detailed	14	5	7		**REGULATORY COMPLIANCE**	**9.00**	**MO**		**7,128.01**							**792.00**	**7,128**

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

950 Detailed	14	5	7	1	**PROJECT KICKOFF**	**1.00**	**LS**		**1,296.00**							**1,296.00**	**1,296**

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr	
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH	

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00										162.00	1,296
				Resource List:	T	1,296										1,296	1,296

950 Detailed	14	5	7	2	**ONGOING SUPPORT**	**9.00**	**MO**		**5,832.01**							**648.00**	**5,832**

Note: **********

Include (8) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
4.5 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da	
36.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr	
36.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90HXX06	Home - Regl Compliance	36.00	HR	U	162.00								162.00	5,832
				Resource List:		T	5,832								5,832	5,832
950 Detailed	**14 5 7 3**		**ESQ AUDIT/INSPECTION**	**9.00**	**MO**											

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6**		**PROJECT SUPPORT SERVICES**	**9.00**	**MO**		**122,133**						**59.50**		**13,576**	**122,193**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 1**		**PROCUREMENT MANAGER**	**9.00**	**MO**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 2**		**BUYERS**	**9.00**	**MO**		**39,870**							**4,430.06**		**39,871**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14 6 2 1**		**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**							**24,271**		**24,271**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH

	1.0	L90HXX02	Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
	1.0	L90HXX03	Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
				Resource List:		T	24,271								24,271	24,271
950 Detailed	**14 6 2 2**		**ONGOING SUPPORT**	**9.00**	**MO**		**15,599**							**1,733.23**		**15,599**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					22.5 Days 0.4000 MO/Da	2.5000 Da/MO			693.29 Cost/Da									
					180.0 Hours 0.0500 MO/Hr	20.0000 Hr/MO			86.66 Cost/Hr									
					180.0 Man-Hr 0.0500 MO/MH	20.0000 MH/MO			86.66 Cost/MH									
	1.0				L90HXX03 Home - Procurement Agent	180.00	HR	U	86.66								86.66	15,599
						Resource List:		T	15,599								15,599	15,599
950 Detailed	14	6	4		**PROJECT CONTROLS MANAGER**	**9.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	14	6	5		**PROJECT CONTROLS ENGINEER**	**9.00**	**MO**		**78,002**								**8,666.90**	**78,002**
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	14	6	5	1	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**								**3,053.46**	**3,053**
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da	5.0000 Da/LS			610.69 Cost/Da									
					40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			76.34 Cost/Hr									
					40.0 Man-Hr 0.0250 LS/MH	40.0000 MH/LS			76.34 Cost/MH									
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
						Resource List:		T	3,053								3,053	3,053
950 Detailed	14	6	5	2	**ONGOING SUPPORT**	**9.00**	**MO**		**74,948**								**8,327.63**	**74,949**
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																		
					245.5 Days 0.0367 MO/Da	27.2727 Da/MO			305.35 Cost/Da									
					1963.6 Hours 0.0046 MO/Hr	218.1818 Hr/MO			38.17 Cost/Hr									
					981.8 Man-Hr 0.0092 MO/MH	109.0909 MH/MO			76.34 Cost/MH									
	0.5				L90FXX05 Field - Cost/Scheduler	981.82	HR	U	76.34								76.34	74,949
						Resource List:		T	74,949								74,949	74,949

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 6 6	ESTIMATOR	9.00	MO											
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8	HOME OFFICE FLD ACCT SUPT	9.00	MO		878.81						59.50		104.26	938
Detailed														
	Note: **********													
	Hours per (TBD) response to Project Services Budget Request.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8 1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
Detailed														
	Note: **********													
	Include (1) day for training of on-site staff.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
	1.0 Days 1.0000 LS/Da 1.0000 Da/LS 938.31 Cost/Da													
	8.0 Hours 0.1250 LS/Hr 8.0000 Hr/LS 117.29 Cost/Hr													
	8.0 Man-Hr 0.1250 LS/MH 8.0000 MH/LS 117.29 Cost/MH													
1.0	L90HEF00 Home - Senior Engr	8.00	HR	U	109.85								109.85	879
1.0	UTMEALS Meals	1.00	DA	U							25.00		25.00	25
1.0	UTMILES Mileage	100.00	MI	U							0.35		0.35	35
	Resource List:			T	879						60		938	938
950 14 6 8 2	ONGOING SUPPORT	9.00	MO											
Detailed														
	Note: **********													
	Support required for craft payroll processing.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 9	FINANCIAL SERVICES	9.00	MO		3,381.84								375.76	3,382
Detailed														
	Note: **********													
	Hours per (TBD) response to project services budget request.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 6 9 1	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
	1.0 Days 1.0000 LS/Da 1.0000 Da/LS 1040.57 Cost/Da													
	8.0 Hours 0.1250 LS/Hr 8.0000 Hr/LS 130.07 Cost/Hr													
	8.0 Man-Hr 0.1250 LS/MH 8.0000 MH/LS 130.07 Cost/MH													
1.0	L90HXX07 Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
	Resource List:			T	1,041								1,041	1,041
950 14 6 9 2	**ONGOING SUPPORT**	**9.00**	**MO**		**2,341.27**								**260.14**	**2,341**
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
	2.3 Days 4.0000 MO/Da 0.2500 Da/MO 1040.57 Cost/Da													
	18.0 Hours 0.5000 MO/Hr 2.0000 Hr/MO 130.07 Cost/Hr													
	18.0 Man-Hr 0.5000 MO/MH 2.0000 MH/MO 130.07 Cost/MH													
1.0	L90HXX07 Home - Cost Services	18.00	HR	U	130.07								130.07	2,341
	Resource List:			T	2,341								2,341	2,341

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			6,500	2,700		15,427	15,427
		Demobilization													
					U	4,311.50		1,915.99			6,500.00	2,700.00		15,427	15,427
					T	4,312		1,916			6,500	2,700		15,427	15,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			6,500	2,700		15,427	15,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							6,500.00			6,500.00	6,500
											6,500.00			6,500.00	6,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230 Detailed		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**6,500.00**	**2,700.00**		**15,427**	**15,427**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

230 Detailed	**1**	**DEMOB OF CONSTRUCTION EQP**	**1.00**	**LS**							**6,500.00**			**6,500.00**	**6,500**

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UEEPTRNS	FWENC Eqp Transport/Setup	5,000.00	LS	U						1.00			1.00	5,000
1.0	UERNTRSM	Rental Equip Transp-Small	2.00	EA	U						150.00			150.00	300
1.0	UERNTRLG	Rental Equip Transp-Large	2.00	EA	U						600.00			600.00	1,200
		Resource List:			T						6,500			6,500	6,500

230 Detailed	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMO	Bonnex Box Mob	1.00	EA	U							300.00		300.00	300
			Resource List:		T							2,700		2,700	2,700
230	**3**	**DEMOB OF PERSONNEL**	**1.00**	**LS**											
Detailed															

Note: **********

No personnel demobilization charges are anticipated.

****

	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
230	**4**	**FINAL SITE CLEANUP**	**1.00**	**LS**		**4,311.50**		**1,915.99**						**6,227.49**	**6,227**
Detailed															

Note: **********

One operator and two laborers to support final site cleanup operations.
Include ~1 dumpster load of clean debris for disposal.

****

LIST Cost Detail	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	UODUMP	Dumpster	1.00	MO	U			200.00						200.00	200
			Resource List:		T			200						200	200

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	1205.50 Cost/Da	
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	150.69 Cost/Hr	
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	50.23 Cost/MH	

1.0	L010490	OPERATOR DOZER	40.00	HR	U	42.69								42.69	1,708
1.0	RDOZER20	JOHN DEERE 750C LGP	40.00	HR	U			42.90						42.90	1,716
2.0	L060100	GENERAL LABORER	80.00	HR	U	32.55								32.55	2,604
			Resource List:		T	4,312		1,716						6,027	6,027

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Alternative #6 - Dry concrete wall
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 10,000	$ 9,350	$ 9,350	Allowance for inspections.
2	$ 10,000	$ 8,730	$ 18,080	
3	$ 10,000	$ 8,160	$ 26,240	
4	$ 10,000	$ 7,630	$ 33,870	
5	$ 10,000	$ 7,130	$ 41,000	
6	$ 10,000	$ 6,660	$ 47,660	
7	$ 10,000	$ 6,230	$ 53,890	
8	$ 10,000	$ 5,820	$ 59,710	
9	$ 10,000	$ 5,440	$ 65,150	
10	$ 10,000	$ 5,080	$ 70,230	
11	$ 10,000	$ 4,750	$ 74,980	
12	$ 10,000	$ 4,440	$ 79,420	
13	$ 10,000	$ 4,150	$ 83,570	
14	$ 10,000	$ 3,880	$ 87,450	
15	$ 10,000	$ 3,620	$ 91,070	
16	$ 10,000	$ 3,390	$ 94,460	
17	$ 10,000	$ 3,170	$ 97,630	
18	$ 10,000	$ 2,960	$ 100,590	
19	$ 10,000	$ 2,770	$ 103,360	
20	$ 10,000	$ 2,580	$ 105,940	
21	$ 10,000	$ 2,420	$ 108,360	
22	$ 10,000	$ 2,260	$ 110,620	
23	$ 10,000	$ 2,110	$ 112,730	
24	$ 10,000	$ 1,970	$ 114,700	
25	$ 10,000	$ 1,840	$ 116,540	
26	$ 10,000	$ 1,720	$ 118,260	
27	$ 10,000	$ 1,610	$ 119,870	
28	$ 10,000	$ 1,500	$ 121,370	
29	$ 10,000	$ 1,410	$ 122,780	
30	$ 10,000	$ 1,310	$ 124,090	

APPENDIX B8

ALTERNATIVE 8 – DRILLED CONCRETE PIERS WITH STONE COLUMNS

Proposal

Job Description: Alt 8-Drilled Conc Piers

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	175,000.00	**175,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	118,000.00	**118,000.00**
4	Wtr Trt System	1.0000	LS	93,000.00	**93,000.00**
5	Placement-Contaminated Soils	8,300.0000	CY	17.00	**141,100.00**
6	Drilled Concrete Caissons	54,000.0000	LF	156.00	**8,424,000.00**
7	Stone Columns	8,000.0000	LF	94.00	**752,000.00**
8	Hydro-Seeding Restoration	20.0000	AC	1,000.00	**20,000.00**
90	Engineering - Oversight	11.0000	MO	21,000.00	**231,000.00**
95	Const. Project Support	11.0000	MO	115,000.00	**1,265,000.00**
99	Demobilization	1.0000	EA	67,000.00	**67,000.00**
				GRAND TOTAL	**11,340,100.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A8CAISON (Alt 8-Drilled Conc Piers)
Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					140,000		140,000	140,000				35,000.00	175,000	35,000.00	175,000
10	Engineering - Design	1.00	LS					140,000		140,000								
2	Pre-Construction Work	1.0000	LS	40,873.26					2,000.00	42,873.26	42,873.26				10,718.31	53,591.57	11,126.74	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,177.22						12,177.22								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,242.87						2,242.87								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,465.13		1,400.00	1,286.99	84,500.00	2,700.00	94,352.12	94,352.12				23,588.03	117,940	23,647.88	118,000
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					64,500.00		64,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,465.13		1,400.00	1,286.99		2,700.00	9,852.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					40.00		40.00								
4	Wtr Trt System	1.0000	LS				24,300.00	48,030.00	1,975.00	74,305.00	74,305.00				18,576.25	92,881.25	18,695.00	93,000.00
180	Water Treatment System	1.00	LS															
180 1	Temp Water Trt System	1.00	LS				24,300.00	38,030.00	1,975.00	64,305.00								
180 2	Temp Water Treat Syst Ops	500000	GL					0.02		0.02								
5	Placement-Contaminat Soil	8,300.000	CY	2.67	3.48	7.44				13.59	13.59				3.40	16.99	3.41	17.00
150	Contaminated soil placeme	8300.00	CY	2.67	3.48	7.44				13.59								
6	Drilled Concrete Caissons	54,000.00	LF					125.00		125.00	125.00				31.25	156.25	31.00	156.00
170	Drilled Concrete Caissons	54000.0	LF					125.00		125.00								
7	Stone Columns	8,000.000	LF					75.00		75.00	75.00				18.75	93.75	19.00	94.00
175	Stone Columns	8000.00	LF					75.00		75.00								
8	Hydro-Seeding Restoration	20.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	20.00	AC					800.00		800.00								
90	Engineering - Oversight	11.0000	MO	16,109.30					929.50	17,038.80	17,038.80				4,259.70	21,298.50	3,961.20	21,000.00
900	Engineering - Oversight	11.00	MO	16,109.30					929.50	17,038.80								
95	Const. Project Support	11.0000	MO	89,284.09		46.36	7,238.76	5,681.82	9,909.27	92,160.31	92,160.31				23,040.08	115,200	22,839.69	115,000
950	Const. Project Support	11.00	MO															
950 13	Indirect Project Costs	11.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	11.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	11.00	MO															
950 13 1 4 1	WEATHER	11.00	MO															
950 13 2	CONST EQUIP & TOOLS	11.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	11.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	11.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	11.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	11.00	MO															
950 13 6 1	OFFICE TRAILERS	11.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	11.00	MO															
950 13 6 2 1	Connex Boxes	11.00	MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	11.00	MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00	LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	11.00	MO				350.00			350.00								
950 13 6 8	TOILETS	11.00	MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00	LS						500.00	500.00								
950 13 6 12	CLIENT TRAILERS	11.00	MO															
950 13 6 16	OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00	2,000.00								
950 13 6 18	TESTING LABORATORY	11.00	MO															

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
950 13 6 27	HAUL ROAD MAINTENANCE	11.00 MO															
950 13 6 28	EMERGENCY EQUIPMENT	11.00 MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	11.00 MO															
950 13 7 1	POWER	11.00 MO						500.00	500.00								
950 13 7 2	WATER	11.00 MO						200.00	200.00								
950 13 7 3	SANITARY	11.00 MO															
950 13 7 4	TELEPHONE	11.00 MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	11.00 MO															
950 13 8 1	JANITORIAL AND CLEANUP	11.00 MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	11.00 MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	11.00 MO															
950 13 8 4	MEDICAL/FIRST AID	11.00 MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00 LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00 LS						400.00	400.00								
950 13 8 8	REPRODUCTION AND PHOTO	11.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	11.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	11.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	11.00 MO															
950 13 9 1	IT/WAN COST	11.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	11.00 MO															
950 13 10 1	PICKUP TRUCKS	11.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	11.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	21,122.01			500.00		922.50	22,544.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	11.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,928.40						2,928.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	11.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	11.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	11.00 MO															
950 14 1 1	PROGRAM MANAGER	11.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	11.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	11.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	11.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	11.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	11.00 MO															
950 14 4 13	SURVEYORS	11.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	11.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	11.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	11.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	11.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	11.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	11.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	11.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	11.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	11.00 MO															
950 14 6 1	PROCUREMENT MANAGER	11.00 MO															
950 14 6 2	BUYERS	11.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	11.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	11.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	11.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	11.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	11.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	11.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	11.00 MO															
950 14 6 9	FINANCIAL SERVICES	11.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	11.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	44,500.00	2,700.00	53,427.49	53,427.49				13,356.87	66,784.36	13,572.51	67,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					44,500.00		44,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								
	Extended Totals by Category		1,011,121	28,875	63,677	107,129	7,745,530	128,602	9,084,934	9,084,934				2,271,234	11,356,168	2,255,166	11,340,100

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A8CAISON (Alt 8-Drilled Conc Piers)

Cost/Price Review - Unit

Code	Description		Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
			Percent															
Direct Cost		9,084,934	80.00															
Direct Cost Escalation		0	0.00															
Escalated Direct Cost		9,084,934	80.00															
Job Overhead		0	0.00															
Job Overhead Escalation		0	0.00															
Escalated Job Overhead		0	0.00															
Indirect		0	0.00															
Tax & Add-On		0	0.00															
Finance		0	0.00															
Bond		0	0.00															
Total Business Overhead		0	0.00															
Markup on Direct		2,271,234	20.00															
Markup on Job Overhead		0	0.00															
Total Markup		2,271,234	20.00															
Total Cut/Add		0	0.00															
Target Bid Price		11,356,168	100.00															
Bid Price		11,340,100	99.86															
Difference		16,068	0.14															

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						140,000			140,000	140,000
	Engineering - Design													
				U						140,000			140,000	140,000
				T						140,000			140,000	140,000
	Bid Item bid quantity and cost:	1.00	LS	T						140,000			140,000	140,000
10	Engineering - Design	1.00	LS							140,000			140,000	140,000
										140,000			140,000	140,000
10	**Engineering - Design**	**1.00**	**LS**							**140,000**			**140,000**	**140,000**
Detailed														

Note: Engineering Design Cost Breakdown
Compatibility Testing: $20,000
Desing Reports (30%, 60%, 90%, 100%): $40,000
Technical Specifications: $30,000
Construction Drawings: $50,000
Total: $140,000

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USFWENCEFWENC Engr Costs	140,000	LS	U						1.00			1.00	140,000
		Resource List:		T						140,000			140,000	140,000

(c) Copyright 1988 to 2002 Ha... Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2	Pre-Construction Work	1.00	LS	T	40,873						2,000		42,873	42,873
	Pre-Construction Work													
				U	40,873						2,000.00		42,873	42,873
				T	40,873						2,000		42,873	42,873
	Bid Item bid quantity and cost:	1.00	LS	T	40,873						2,000		42,873	42,873
20	Pre-Construction Work	1.00	LS											
20 1	Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
					3,120.07						2,000.00		5,120.07	5,120
20 2	Bonding & Insurance	1.00	LS											
20 3	Submittals	1.00	LS											
20 3 1	Site HASP	1.00	LS											
20 3 1 1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
					4,966.60								4,966.60	4,967
20 3 1 2	HASP - Final	1.00	LS		985.36								985.36	985
					985.36								985.36	985
20 3 2	Work Plan	1.00	LS											
20 3 2 1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
					8,244.84								8,244.84	8,245
20 3 2 2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
					3,029.03								3,029.03	3,029
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS											
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS		12,177								12,177	12,177
					12,177								12,177	12,177
20 3 3 2	Eros & Sed Cont - Final	1.00	LS		2,242.87								2,242.87	2,243
					2,242.87								2,242.87	2,243
20 3 4	Project Schedule	1.00	LS											
20 3 4 1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
					4,512.19								4,512.19	4,512
20 3 4 2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
					1,595.07								1,595.07	1,595
20 Detailed	**Pre-Construction Work**	**1.00**	**LS**		**40,873**						**2,000.00**		**42,873**	**42,873**
	10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh													
20 1 Detailed	**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**
	10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh													
LIST Cost Detail														
	2.4 Days 0.4167 LS/Da 2.4000 Da/LS 2133.36 Cost/Da													
	24.0 Hours 0.0417 LS/Hr 24.0000 Hr/LS 213.34 Cost/Hr													
	32.0 Man-Hr 0.0313 LS/MH 32.0000 MH/LS 160.00 Cost/MH													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120

20 2 Bonding & Insurance 1.00 LS
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 Submittals 1.00 LS 37,753 37,753 37,753
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 1 Site HASP 1.00 LS 5,951.96 5,951.96 5,952
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

20 3 1 1 HASP - Draft 1.00 LS 4,966.60 4,966.60 4,967
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

4.0 Days	0.2500 LS/Da	4.0000 Da/LS	1241.65 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	124.16 Cost/Hr
52.0 Man-Hr	0.0192 LS/MH	52.0000 MH/LS	95.51 Cost/MH

1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66	86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96	82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00	162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07	130.07	520
			Resource List:		T	4,967	4,967	4,967

20 3 1 2 HASP - Final 1.00 LS 985.36 985.36 985
Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

0.8 Days	1.2500 LS/Da	0.8000 Da/LS	1231.70 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	123.17 Cost/Hr
10.0 Man-Hr	0.1000 LS/MH	10.0000 MH/LS	98.54 Cost/MH

1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66	86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00	162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07	130.07	130
			Resource List:		T	985	985	985

(c) Copyright 1988 to 2002 Hall Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	3	2		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20	3	2	1	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		4.0 Days		0.2500 LS/Da	4.0000 Da/LS			2061.21 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			206.12 Cost/Hr									
		84.0 Man-Hr		0.0119 LS/MH	84.0000 MH/LS			98.15 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0	L90HEI00		Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0	L90HE800		Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0	L90FXX02		Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0	L90HE800		Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0	L90HXX08		Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20	3	2	2	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	
		2.4 Days		0.4167 LS/Da	2.4000 Da/LS			1262.10 Cost/Da									
		24.0 Hours		0.0417 LS/Hr	24.0000 Hr/LS			126.21 Cost/Hr									
		36.0 Man-Hr		0.0278 LS/MH	36.0000 MH/LS			84.14 Cost/MH									
	1.0	L90HEH00		Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0	L90HEI00		Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90FXX02		Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0	L90HE800		Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0	L90HXX08		Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20	3	3		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,420**								**14,420**	**14,420**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20	3	3	1	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,177**								**12,177**	**12,177**
Detailed																	
		10.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	4.0 Days 0.2500 LS/Da	4.0000	Da/LS		3044.31 Cost/Da									
	40.0 Hours 0.0250 LS/Hr	40.0000	Hr/LS		304.43 Cost/Hr									
	120.0 Man-Hr 0.0083 LS/MH	120.0000	MH/LS		101.48 Cost/MH									
1.0	L90HEH00 Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
1.0	L90HEI00 Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
1.0	L90HE800 Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
1.0	L90HDP00 Home - Senior Designer	16.00	HR	U	90.95								90.95	1,455
1.0	L90HED00 Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
1.0	L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
1.0	L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
		Resource List:		T	12,177								12,177	12,177
20 3 3 2 Detailed	**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,242.87**								**2,242.87**	**2,243**
	10.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail														
	0.8 Days 1.2500 LS/Da	0.8000	Da/LS		2803.59 Cost/Da									
	8.0 Hours 0.1250 LS/Hr	8.0000	Hr/LS		280.36 Cost/Hr									
	23.0 Man-Hr 0.0435 LS/MH	23.0000	MH/LS		97.52 Cost/MH									
1.0	L90HEH00 Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
1.0	L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
1.0	L90HE800 Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
1.0	L90HDP00 Home - Senior Designer	4.00	HR	U	90.95								90.95	364
1.0	L90HED00 Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
1.0	L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
1.0	L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
		Resource List:		T	2,243								2,243	2,243
20 3 4 Detailed	**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
	10.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
20 3 4 1 Detailed	**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
	10.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail														
	1.2 Days 0.8333 LS/Da	1.2000	Da/LS		3760.16 Cost/Da									
	12.0 Hours 0.0833 LS/Hr	12.0000	Hr/LS		376.02 Cost/Hr									
	36.0 Man-Hr 0.0278 LS/MH	36.0000	MH/LS		125.34 Cost/MH									
1.0	L90FXX02 Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
1.0	L90HED00 Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
1.0	L90HE800 Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
1.0	L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
		Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hi... ...ollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	**3**	**4**	**2**	**Const. Schedule - Final**	**1.00**	**LS**		**1,595.07**								**1,595.07**	**1,595**
Detailed																	

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

0.6 Days	1.6667 LS/Da	0.6000 Da/LS	2658.45 Cost/Da
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96						82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97						139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59						164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07						130.07	260
			Resource List:		T	1,595						1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,465		1,287	1,400		84,500	2,700		94,352	94,352
			Mobilization													
						U	4,465.13		1,286.99	1,400.00		84,500	2,700.00		94,352	94,352
						T	4,465		1,287	1,400		84,500	2,700		94,352	94,352
			Bid Item bid quantity and cost:	1.00	EA	T	4,465		1,287	1,400		84,500	2,700		94,352	94,352
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							64,500			64,500	64,500
												64,500			64,500	64,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,465.13		1,286.99	1,400.00			2,700.00		9,852.12	9,852
							4,465.13		1,286.99	1,400.00			2,700.00		9,852.12	9,852
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							20,000			40.00	20,000
												40.00			40.00	20,000
30 Detailed			**Mobilization**	**1.00**	**EA**		**4,465.13**		**1,286.99**	**1,400.00**		**84,500**	**2,700.00**		**94,352**	**94,352**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

30 Detailed	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**64,500**			**64,500**	**64,500**

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 20k mob for subcontractor

1.0		UEEPTRNS	FWENC Eqp Transport/Setup	40,000	LS	U						1.00			1.00	40,000
1.0		UERNTRSM	Rental Equip Transp-Small	6.00	EA	U						150.00			150.00	900
1.0		UERNTRLG	Rental Equip Transp-Large	6.00	EA	U						600.00			600.00	3,600
1.0		UEEPTRNS	FWENC Eqp Transport/Setup	20,000.	LS	U						1.00			1.00	20,000
				Resource List:		T						64,500			64,500	64,500
30 Detailed	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,465.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,852.12**	**9,852**

(c) Copyright 1988 to 2002 H... Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
			10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh													
30 Detailed	2	1	**Site Setup/Preparation**	**1.00**	**LS**		**4,465.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,852.12**	**9,852**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Conex Box Mob	1.00	EA	U							300.00		300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U					10.00				10.00	1,400
			Resource List:		T					1,400		2,700		4,100	4,100

CREW Cost Detail

3.0 Days	0.3333 LS/Da	3.0000 Da/LS	1917.37 Cost/Da		
30.0 Hours	0.0333 LS/Hr	30.0000 Hr/LS	191.74 Cost/Hr		
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	47.93 Cost/MH		

1.0	L010490	OPERATOR DOZER	30.00	HR	U		45.19							45.19	1,356
3.0	L060100	GENERAL LABORER	90.00	HR	U		34.55							34.55	3,110
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U				42.90					42.90	1,287
			Resource List:		T		4,465		1,287					5,752	5,752

30 Detailed	3		**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**										

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	3	1	**Mob Personnel**	**1.00**	**LS**										

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

30 Detailed	4		**Perimeter Fencing**	**500.00**	**LF**							**20,000**		**40.00**	**20,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	10.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 USFENCE	Fencing Installation	1,000.00	LF	U						20.00			20.00	20,000
		Resource List:		T						20,000			20,000	20,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4		Wtr Trt System	1.00	LS	T			24,300			48,030		1,975	74,305	74,305
		Wtr Trt System													
					U			24,300			48,030		1,975	74,305	74,305
					T			24,300			48,030		1,975	74,305	74,305
		Bid Item bid quantity and cost:	1.00	LS	T			24,300			48,030		1,975	74,305	74,305
180		Water Treatment System	1.00	LS											
180	1	Temp Water Trt System	1.00	LS				24,300			38,030		1,975	64,305	64,305
								24,300			38,030		1,975	64,305	64,305
180	2	Temp Water Treat Syst Ops	500,000	GL							10,000			0.02	10,000
											0.02			0.02	10,000
180		**Water Treatment System**	**1.00**	**LS**				**24,300**			**48,030**		**1,975**	**74,305**	**74,305**
Detailed															

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

180	**1**	**Temp Water Trt System**	**1.00**	**LS**				**24,300**			**38,030**		**1,975**	**64,305**	**64,305**
Detailed															

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

Note: Cost includes the following:

FW Design: review of vendor schematic/spec validation included elsewhere
Include 3 Month Rental to incorporate delivery/setup/cleanup time:
FW estimated equipment:
FW Installation 16hours x $75/hr = $1,200
Materials: 1LS = $500
Vendor Pricing: (TIGG Corp)
Mob & Setup, and Starutp Training: $8,305
System Rental: $2,745/mo x 9 months = $24,705
System Demob: $2,720

Additional Costs:
Electrical Hookup - Electrician @ $75/hr x 8 hrs = $600 + $400 allowance for materials = $1,000.
Plastic & Haybale Berm around Treatment Syst. - Assume $1000 material costs.

Total: $34,430 + tax of ((2745)*.08)x9 ($1,975)

1.0	UH2OSET	Water Treatment Sys Setup	1.00	LS	U						34,430		1,975	36,405	36,405
1.0	URFRACTN	Frac Tank Rental	810.00	DA	U			30.00						30.00	24,300
1.0	UOFRCMOB	Frac Tank Mob/Demob	6.00	EA	U						600.00			600.00	3,600
			Resource List:		T			24,300			38,030		1,975	64,305	64,305
180	**2**	**Temp Water Treat Syst Ops**	**500,000**	**GL**							**10,000**			**0.02**	**10,000**
Detailed															

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail															
	Note:	Bag Filters @ ~$9 ea x 1/10,000 gal = ~$0.0009/gal Sampling - batch sampling - 1 test/20,000 gal @ $299/test = $0.015/gal. Cost ~$0.016/gal for sampling & filters - use system ops cost of ~0.02/gal.													
1.0	UH2OFILT	*Filter Change Cost*	500,000	GL	U						0.02			0.02	10,000
			Resource List:		T						10,000			10,000	10,000

Note: O&M:
Bag Filters - @ $4.50 each x 2 filters = $9/changeout
Anayltical Testing - $299/sample.
Carbon useage calculated at 38 lbs/day (10 hrs x 60 min/hr x 100 gal/min = 60,000 gal/day) = 0.63 lbs/kgal (1,000 gals). Each unit holds 1,500

(All labor to be provided by onsite crews)
0 - 200,000 gals
Assume 2 filter changeouts & 4 samples: 2 x $9 + 4 x $299 = $1,214 = $0.006/gal.
200,000 - 500,000 gals
Assume 3 filter changeouts & 1 sample = 3 x $9 + 1 x $299 = $326 = $0.001/gal.
>500,000 gals.

For O&M Cost use 200,000 - 500,000 gals cost calcs - $0.001/gal for filter changeout only.

(c) Copyright 1988 to 2002 F... Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5	Placement-Contaminat Soil	8,300.00	CY	T	22,144	28,875		61,767					14	112,786
	Placement-Contaminated Soils													
				U	2.67	3.48		7.44					13.59	112,786
				T	22,144	28,875		61,767					14	112,786
	Bid Item bid quantity and cost:	8,300.00	CY	T	22,144	28,875		61,767					14	112,786
150	Contaminated soil placeme	8,300.00	CY		22,144	28,874		61,767					13.59	112,786
					2.67	3.48		7.44					13.59	112,786
150	**Contaminated soil placeme**	**8,300.00**	**CY**		**22,144**	**28,874**		**61,767**					**13.59**	**112,786**

Detailed

Note: Supply common fill for cover material.

Contaminated soil to be excavated and placed on the existing landfill. Common fill to be imported and used as cover.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCMNFILL	Common Fill	7,720.93	TN	U			8.00					8.00	61,767
			Resource List:		T			61,767					61,767	61,767

CREW Cost Detail

	129.7 Days	64.0000 CY/Da	0.0156 Da/CY	393.40 Cost/Da										
	1037.5 Hours	8.0000 CY/Hr	0.1250 Hr/CY	49.17 Cost/Hr										
	518.8 Man-Hr	16.0000 CY/MH	0.0625 MH/CY	98.35 Cost/MH										
0.5	L010101	OPERATOR GROUP 1	518.75	HR	U	42.69							42.69	22,144
1.0	ELOA_202	CAT IT28F INTRG-FW	1,037.50	HR	U		14.43						14.43	14,971
0.5	EDOZ_305	Komatsu D65PX LGP-FW	518.75	HR	U		26.80						26.80	13,904
			Resource List:		T	22,144	28,875						51,019	51,019

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
6	Drilled Concrete Caissons	54,000	LF	T						6750000			125	6750000
	Drilled Concrete Caissons													
				U						125.00			125.00	6750000
				T						6750000			125	6750000
	Bid Item bid quantity and cost:	54,000	LF	T						6750000			125	6750000
170	Drilled Concrete Caissons	54,000	LF							6750000			125.00	6750000
										125.00			125.00	6750000
170	**Drilled Concrete Caissons**	**54,000**	**LF**							**6750000**			**125.00**	**6750000**

Detailed

Note: Area coverstwo row(s) x 4,000' with an average depth of 60', spaced every 9'.
Caissons extend into the sannd layer to top of Young Bay Mud at the toe of the slope.

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USPGROUT	Concrete Cassions	54,000	LF	U						125.00			125.00	6750000
			Resource List:		T						6750000			6750000	6750000

(c) Copyright 1988 to 2002 Ha... ...ollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
7	Stone Columns	8,000.00	LF	T						600,000			75	600,000
	Stone Columns													
				U						75.00			75.00	600,000
				T						600,000			75	600,000
	Bid Item bid quantity and cost:	8,000.00	LF	T						600,000			75	600,000
175	Stone Columns	8,000.00	LF							600,000			75.00	600,000
										75.00			75.00	600,000
175	**Stone Columns**	**8,000.00**	**LF**							**600,000**			**75.00**	**600,000**

Detailed

Note: Approximately 4,000' with a 3' diam. stone column every 5' on center for a total of 800 columns. Columns extend 10'.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UDRILL3'	Drill 3' caisson w/stone	8,000.00	LF	U					75.00			75.00	600,000
			Resource List:		T					600,000			600,000	600,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8	Hydro-Seeding Restoration	20.00	AC	T						16,000			800	16,000
	Hydro-Seeding Restoration													
				U						800.00			800.00	16,000
				T						16,000			800	16,000
	Bid Item bid quantity and cost:	20.00	AC	T						16,000			800	16,000
220	Hydro-Seeding Restoration	20.00	AC							16,000			800.00	16,000
										800.00			800.00	16,000
220	**Hydro-Seeding Restoration**	**20.00**	**AC**							**16,000**			**800.00**	**16,000**
Detailed														
	10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	USHDYROSHydroseeding Subcontract	20.00	AC	U						800.00			800.00	16,000
	Resource List:			T						16,000			16,000	16,000

(c) Copyright 1988 to 2002 Ha... ...ar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	11.00	MO	T	177,202						10,225		17,039	187,427
	Engineering - Oversight													
				U	16,109						929.50		17,038	187,427
				T	177,202						10,225		17,039	187,427
	Bid Item bid quantity and cost:	11.00	MO	T	177,202						10,225		17,039	187,427
900	Engineering - Oversight	11.00	MO		177,202						10,224		17,038	187,427
					16,109						929.50		17,038	187,427
900	**Engineering - Oversight**	**11.00**	**MO**		**177,202**						**10,224**		**17,038**	**187,427**

Detailed

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMEALS	Meals	242.00	DA	U						25.00		25.00	6,050
1.0	UTMILES	Mileage	12,100	MI	U						0.35		0.35	4,175
			Resource List:		T						10,225		10,225	10,225

CREW Cost Detail

242.0 Days	0.0455 MO/Da	22.0000 Da/MO	732.24 Cost/Da	
2420.0 Hours	0.0045 MO/Hr	220.0000 Hr/MO	73.22 Cost/Hr	
2662.0 Man-Hr	0.0041 MO/MH	242.0000 MH/MO	66.57 Cost/MH	

1.0	L90FEG00	Field - Engineer	2,420.00	HR	U	60.22							60.22	145,725
0.1	L90HXX08	Home - Proj Manager	242.00	HR	U	130.07							130.07	31,477
			Resource List:		T	177,202							177,202	177,202

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	11.00	MO	T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763
	Const. Project Support													
				U	69,284		7,238.76	46.36	1,970.00	5,681.82	7,939.27		92,160	1013763
				T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763
	Bid Item bid quantity and cost:	11.00	MO	T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763

(c) Copyright 1988 to 2002 H... ...ollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Const. Project Support	11.00	MO											
950	13				Indirect Project Costs	11.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	11.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	11.00	MO											
950	13	1	4	1	WEATHER	11.00	MO											
950	13	2			CONST EQUIP & TOOLS	11.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	11.00	MO				8,470.00						770.00	8,470
											770.00						770.00	8,470
950	13	2	6		SMALL TOOLS	11.00	MO						5,500.00				500.00	5,500
													500.00				500.00	5,500
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	11.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	11.00	MO											
950	13	6	1		OFFICE TRAILERS	11.00	MO				5,500.00						500.00	5,500
											500.00						500.00	5,500
950	13	6	2		STORAGE FACILITIES	11.00	MO											
950	13	6	2	1	Connex Boxes	11.00	MO				3,300.00						300.00	3,300
											300.00						300.00	3,300
950	13	6	3		DECON FOR PERSONNEL	11.00	MO				3,850.00						350.00	3,850
											350.00						350.00	3,850
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	11.00	MO				3,850.00						350.00	3,850
											350.00						350.00	3,850
950	13	6	8		TOILETS	11.00	MO				3,300.00						300.00	3,300
											300.00						300.00	3,300
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	11.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	11.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	11.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	11.00	MO						1,100.00				100.00	1,100
													100.00				100.00	1,100
950	13	7			TEMPORARY UTILITIES	11.00	MO											
950	13	7	1		POWER	11.00	MO								5,500.00		500.00	5,500
															500.00		500.00	5,500
950	13	7	2		WATER	11.00	MO								2,200.00		200.00	2,200
															200.00		200.00	2,200
950	13	7	3		SANITARY	11.00	MO											
950	13	7	4		TELEPHONE	11.00	MO								7,700.00		700.00	7,700
															700.00		700.00	7,700
950	13	8			OPERATING SUPPLY/SERV	11.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	11.00	MO				2,200.00						200.00	2,200
										200.00						200.00	2,200
950	13	8	2	OFFICE & ENGINEERING SUP	11.00	MO						2,420.00				220.00	2,420
												220.00				220.00	2,420
950	13	8	3	FACILITIES MAINT & REPAIR	11.00	MO											
950	13	8	4	MEDICAL/FIRST AID	11.00	MO						3,300.00				300.00	3,300
												300.00				300.00	3,300
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	11.00	MO				11,000				1,100.00		1,100.00	12,100
										1,000.00				100.00		1,100.00	12,100
950	13	8	9	POSTAGE	11.00	MO								1,650.00		150.00	1,650
														150.00		150.00	1,650
950	13	8	10	FREIGHT ON SUPPLIES	11.00	MO								2,750.00		250.00	2,750
														250.00		250.00	2,750
950	13	9		COMPUTER AND DATA	11.00	MO											
950	13	9	1	IT/WAN COST	11.00	MO								22,682		2,062.00	22,682
														2,062.00		2,062.00	22,682
950	13	10		VEHICLES FOR PERSONNEL	11.00	MO											
950	13	10	1	PICKUP TRUCKS	11.00	MO				37,656						3,423.30	37,656
										3,423.30						3,423.30	37,656
950	13	12		HEALTH & SAFETY	11.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		21,122		500.00				922.50		22,544	22,545
								21,122		500.00				922.50		22,544	22,545
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	11.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,928.40								2,928.40	2,928
								2,928.40								2,928.40	2,928
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	11.00	MO								39,259		3,569.00	39,259
														3,569.00		3,569.00	39,259
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	11.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	11.00	MO											
950	14	1	1	PROGRAM MANAGER	11.00	MO		33,535								3,048.68	33,535
								3,048.68								3,048.68	33,535
950	14	1	2	SENIOR PROJECT MANAGER	11.00	MO		174,669								15,879	174,670
								15,879								15,879	174,670
950	14	1	3	PROJECT SUPERINTENDENT	11.00	MO		200,770								18,251	200,771
								18,251								18,251	200,771
950	14	2		ADMINISTRATION	11.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	11.00	MO		46,222								4,202.01	46,222
								4,202.01								4,202.01	46,222
950	14	4		ENGINEERING	11.00	MO											
950	14	4	13	SURVEYORS	11.00	MO							55,000			5,000.00	55,000
													5,000.00			5,000.00	55,000
950	14			HEALTH & SAFETY	11.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	11.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	11.00	MO		1,782.00								162.00	1,782
									162.00								162.00	1,782
950	14	5	1	3	ESQ AUDIT/INSPECTION	11.00	MO		15,252						1,309.00		1,505.58	16,561
									1,386.58						119.00		1,505.58	16,561
950	14	5	4		SITE S&H OFFICER	11.00	MO		109,598								9,963.49	109,598
									9,963.49								9,963.49	109,598
950	14	5	7		REGULATORY COMPLIANCE	11.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	11.00	MO		7,128.01								648.00	7,128
									648.00								648.00	7,128
950	14	5	7	3	ESQ AUDIT/INSPECTION	11.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	11.00	MO											
950	14	6	1		PROCUREMENT MANAGER	11.00	MO											
950	14	6	2		BUYERS	11.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	11.00	MO		19,065								1,733.23	19,066
									1,733.23								1,733.23	19,066
950	14	6	4		PROJECT CONTROLS MANAGER	11.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	11.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	11.00	MO		91,603								8,327.63	91,604
									8,327.63								8,327.63	91,604
950	14	6	6		ESTIMATOR	11.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	11.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	11.00	MO											
950	14	6	9		FINANCIAL SERVICES	11.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	11.00	MO		2,861.55								260.14	2,862
									260.14								260.14	2,862
950 Detailed					**Const. Project Support**	**11.00**	**MO**		**762,125**		**79,626**	**510.00**	**21,670**	**62,500**	**87,332**		**92,160**	**1013763**

Note: On-site construction is 11 months with 2 crews working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**13**				**Indirect Project Costs**	**11.00**	**MO**		**28,446**		**79,626**	**510.00**	**21,670**	**7,500.00**	**85,963**		**20,337**	**223,717**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1		**CRAFT PAYROLLRELATEDCOST**	**11.00**	**MO**											
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4	**NON PRODUCTIVE-SHOW UP**	**11.00**	**MO**											
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	1	4 1	**WEATHER**	**11.00**	**MO**											

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	13	2		**CONST EQUIP & TOOLS**	**11.00**	**MO**				**8,470.00**		**11,950**				**1,856.36**	**20,420**
				8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	1	**HEAVY EQUIPMENT**	**1.00**	**LS**											
—Detailed																	

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	2	**LIGHT EQUIPMENT**	**11.00**	**MO**				**8,470.00**						**770.00**	**8,470**
—Detailed																	

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWS	Power Washer	11.00	MO	U			550.00				550.00	6,050
1.0	URPUMP2"	Submersible Pump	11.00	MO	U			110.00				110.00	1,210
1.0	URPUMP2"	Submersible Pump	11.00	MO	U			110.00				110.00	1,210
			Resource List:		T			8,470				8,470	8,470

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	6	**SMALL TOOLS**	**11.00**	**MO**						**5,500.00**				**500.00**	**5,500**
—Detailed																	

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	5,500.00	LS	U							1.00			1.00	5,500
			Resource List:		T							5,500			5,500	5,500

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	2	8	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**
—Detailed																	

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UOPPE_C	PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0 UOPPE_D	PPE-Level D	300.00	DA	U					20.00				20.00	6,000
	Resource List:			T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**11.00**	**MO**											
	Note: **********													
	No additional costs included for on-site security.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**11.00**	**MO**		**1,077.88**		**19,800**	**510.00**	**3,600.00**				**2,271.63**	**24,988**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 1 Detailed	**OFFICE TRAILERS**	**11.00**	**MO**				**5,500.00**						**500.00**	**5,500**
	Note: **********													
	(1) trailer for FWENC.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 UROFFTRL	Office Trailer -12x60	11.00	MO	U			500.00						500.00	5,500
	Resource List:			T			5,500						5,500	5,500
950 13 6 2 Detailed	**STORAGE FACILITIES**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 2 1 Detailed	**Connex Boxes**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	Note: **********													
	(1) connex box for storage of small tools/equipment.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
1.0 URCONNEX	Connex Box	22.00	MO	U			150.00						150.00	3,300
	Resource List:			T			3,300						3,300	3,300

(c) Copyright 1988 to 2002 ... Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**11.00**	**MO**				**3,850.00**						**350.00**	**3,850**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	URBRKTRL	Lunch/Break Trailer	11.00	MO	U			350.00						350.00	3,850
			Resource List:		T			3,850						3,850	3,850

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
Surrounding soils to create bermed area
20 mil poly (excess poly used to cover pad during non-use)
6" crushed stone
plywood to displace weight of equipment
Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U					10.00				10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U					200.00				200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U					11.00				11.00	110
			Resource List:		T					510				510	510

CREW Cost Detail

1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da
10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr
30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH

2.0	L060100	GENERAL LABORER	20.00	HR	U			32.55						32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U			42.69						42.69	427
			Resource List:		T			1,078						1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**11.00**	**MO**				**3,850.00**				**350.00**	**3,850**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.0	URBRKTRL	Lunch/Break Trailer	11.00	MO	U			350.00						350.00	3,850
			Resource List:		T			3,850						3,850	3,850

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	11.00	MO	U			300.00						300.00	3,300
	Resource List:			T			3,300						3,300	3,300
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**

Note: **********

Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc.

****

	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**11.00**	**MO**											

Note: **********

Include rental of (1) trailer for use by client/engineer.

****

	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**

Note: **********

Office furniture/equipment. Up to (4) field staff at $500/each.

****

	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**11.00**	**MO**											

Note: **********

No QC testing laboratory included at this time.

****

(c) Copyright 1988 to 2002 Ha... ...ar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	13	6	27	**HAUL ROAD MAINTENANCE**	**11.00**	**MO**											
Detailed				Note: ********** Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	13	6	28	**EMERGENCY EQUIPMENT**	**11.00**	**MO**						**1,100.00**				**100.00**	**1,100**
Detailed				Note: ********** Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0				UOSFTYSP Safety Supplies	11.00	MO	U					100.00				100.00	1,100
					Resource List:		T					1,100				1,100	1,100
950	13	7		**TEMPORARY UTILITIES**	**11.00**	**MO**								**15,400**		**1,400.00**	**15,400**
Detailed				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	13	7	1	**POWER**	**11.00**	**MO**								**5,500.00**		**500.00**	**5,500**
Detailed				Note: ********** Allowance for electrical charges. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0				UOELECT Electrical Charges-Month	11.00	MO	U							500.00		500.00	5,500
					Resource List:		T							5,500		5,500	5,500
950	13	7	2	**WATER**	**11.00**	**MO**								**2,200.00**		**200.00**	**2,200**
Detailed				Note: ********** Include allowance for potable water supply. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOPOTWTR Potable Water	11.00	MO	U							200.00		200.00	2,200
		Resource List:		T							2,200		2,200	2,200
950 13 7 3 Detailed	**SANITARY**	**11.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 7 4 Detailed	**TELEPHONE**	**11.00**	**MO**								**7,700.00**		**700.00**	**7,700**

Note: **********

Include allowance for up to (3) cell phones and (1) office phone/fax/data line.

****

	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOOFFPHN Monthly Office Phone	11.00	MO	U							500.00		500.00	5,500
1.0	UOCELLPH Monthly Cell Ph.	22.00	MO	U							100.00		100.00	2,200
		Resource List:		T							7,700		7,700	7,700
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**11.00**	**MO**				**13,200**		**6,120.00**		**7,500.00**		**2,438.18**	**26,820**
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**11.00**	**MO**				**2,200.00**						**200.00**	**2,200**

Note: **********
On-site labor to perform cleanup.
Allow for 1 dumpster on-site at $200/month including disposal of debris.

****

	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UODUMP Dumpster	11.00	MO	U			200.00						200.00	2,200
		Resource List:		T			2,200						2,200	2,200
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**11.00**	**MO**						**2,420.00**				**220.00**	**2,420**

Note: **********

Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOOFFSUPOffice Supplies($/prs/mo)	44.00	MO	U					55.00				55.00	2,420
		Resource List:		T					2,420				2,420	2,420
950 13 8 3 Detailed	**FACILITIES MAINT & REPAIR**	**11.00**	**MO**											
	Note: **********													
	No Facilities Maintenance & Repair costs are anticipated at this time.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 4 Detailed	**MEDICAL/FIRST AID**	**11.00**	**MO**						**3,300.00**				**300.00**	**3,300**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	*UO1STAID 1st Aid Supplies*	11.00	MO	U					300.00				300.00	3,300
		Resource List:		T					3,300				3,300	3,300
950 13 8 5 Detailed	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
	Note: **********													
	Include allowance for site radios for on-site/emergency communication.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UORADIO Radio	1.00	LS	U							*2,000.00*		*2,000.00*	2,000
		Resource List:		T							2,000		2,000	2,000
950 13 8 6 Detailed	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
	Note: **********													
	Include allowance for purchase of site fax.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
		Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8	**REPRODUCTION AND PHOTO**	**11.00**	**MO**				**11,000**				**1,100.00**		**1,100.00**	**12,100**
Detailed														

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	11.00	MO	U						100.00		100.00	1,100
1.0	URCOPIER	Copier Rental	11.00	MO	U			1,000.00					1,000.00	11,000
			Resource List:		T			11,000			1,100		12,100	12,100

950 13 8 9	**POSTAGE**	**11.00**	**MO**								**1,650.00**		**150.00**	**1,650**
Detailed														

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	11.00	MO	U						150.00		150.00	1,650
			Resource List:		T						1,650		1,650	1,650

950 13 8 10	**FREIGHT ON SUPPLIES**	**11.00**	**MO**								**2,750.00**		**250.00**	**2,750**
Detailed														

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	11.00	MO	U						250.00		250.00	2,750
			Resource List:		T						2,750		2,750	2,750

950 13 9	**COMPUTER AND DATA**	**11.00**	**MO**								**22,682**		**2,062.00**	**22,682**
Detailed														

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1	**IT/WAN COST**	**11.00**	**MO**								**22,682**		**2,062.00**	**22,682**
Detailed														

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	2,200.00	HR	U						10.31		10.31	22,682
			Resource List:		T						22,682		22,682	22,682

(c) Copyright 1988 to 2002 Har... ...ar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	**13**	**10**		**VEHICLES FOR PERSONNEL**	**11.00**	**MO**				**37,656**						**3,423.30**	**37,656**
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	**13**	**10**	**1**	**PICKUP TRUCKS**	**11.00**	**MO**				**37,656**						**3,423.30**	**37,656**

Note: **********

Include (3) Pickup Trucks for site personnel.

****

		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																	
		242.0 Days		0.0455 MO/Da	22.0000 Da/MO			155.60 Cost/Da									
		1936.0 Hours		0.0057 MO/Hr	176.0000 Hr/MO			19.45 Cost/Hr									
	3.0	RPUTRK05	F-250 4X4 3/4 TON PICKUP		5,808.00	HR	U			6.48						6.48	37,656
					Resource List:		T			37,656						37,656	37,656
950 Detailed	**13**	**12**		**HEALTH & SAFETY**	**11.00**	**MO**		**21,122**		**500.00**			**7,500.00**	**922.50**		**2,731.32**	**30,045**
		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	**13**	**12**	**1**	**HEALTH & SAFETY TRAINING**	**1.00**	**LS**		**21,122**		**500.00**				**922.50**		**22,544**	**22,545**

Note: **********

In the event the crew is local hire requiring 40-hour Haz Woper Training:
- Include CIH time for training crew w/ perdiem & travel (local).
- Include rental of hotel conference room for 1 week to give training.
- Include training for (10) site crew members.

****

		8.00 Hrs/Shift		1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
	1.0	URCONFRM	Conference Room Rental		1.00	WK	U			500.00						500.00	500
	1.0	UTPERDEM	Perdiem-Meals & Lodging		5.00	DA	U							150.00		150.00	750
	1.0	UTMILES	Mileage		500.00	MI	U							0.35		0.35	173
					Resource List:		T			500				923		1,423	1,423
CREW Cost Detail																	
		5.0 Days		0.2000 LS/Da	5.0000 Da/LS			4224.40 Cost/Da									
		40.0 Hours		0.0250 LS/Hr	40.0000 Hr/LS			528.05 Cost/Hr									
		440.0 Man-Hr		0.0023 LS/MH	440.0000 MH/LS			48.00 Cost/MH									
	4.0	L010101	OPERATOR GROUP 1		160.00	HR	U	42.69								42.69	6,830
	6.0	L060100	GENERAL LABORER		240.00	HR	U	32.55								32.55	7,812
	1.0	L90HXX04	Home - CIH Support		40.00	HR	U	162.00								162.00	6,480
					Resource List:		T	21,122								21,122	21,122

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 12 3 Detailed	**H&S MEDICAL EXAMS**	**1.00**	**LS**							**7,500.00**			**7,500.00**	**7,500**

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U					750.00			750.00	7,500
			Resource List:		T					7,500			7,500	7,500

950 13 13 Detailed	**MISCELLANEOUS COST**	**11.00**	**MO**		**6,246.93**						**39,459**		**4,155.08**	**45,706**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 13 1 Detailed	**ON-SITE TRAINING PROGRAM**	**1.00**	**LS**		**2,928.40**								**2,928.40**	**2,928**

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2928.40 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	366.05 Cost/Hr
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	36.61 Cost/MH

4.0	L010101	OPERATOR GROUP 1	32.00	HR	U	42.69							42.69	1,366
6.0	L060100	GENERAL LABORER	48.00	HR	U	32.55							32.55	1,562
			Resource List:		T	2,928							2,928	2,928

950 13 13 3 Detailed	**CRAFT QUALIFICATIONS**	**1.00**	**LS**		**3,318.53**								**3,318.53**	**3,319**

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0			L90FXX02	Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950 Detailed	**13**	**13**	**4**	**PER-DIEM**	**11.00**	**MO**								**39,259**		**3,569.00**	**39,259**

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UTMILES	Mileage	2,200.00	MI	U							0.35		0.35	759
1.0	UTMEALS	Meals	484.00	DA	U							25.00		25.00	12,100
1.0	UTAPTMNT	Apartment Rental-Furn/Utl	22.00	MO	U							1,200.00		1,200.00	26,400
			Resource List:		T							39,259		39,259	39,259

950 Detailed	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**							**200.00**		**200.00**	**200**

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPRSIGN	Project Signs	1.00	LS	U							200.00		200.00	200
			Resource List:		T							200		200	200

950 Detailed	**14**			**Professional Services**	**11.00**	**MO**		**733,678**					**55,000**	**1,368.50**	**71,822**	**790,047**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**		**SUPERVISION/MANAGEMENT**	**11.00**	**MO**		**408,976**							**37,179**	**408,976**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**	**1**	**PROGRAM MANAGER**	**11.00**	**MO**		**33,535**							**3,048.68**	**33,535**

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				22.0 Days 0.5000 MO/Da 2.0000 Da/MO 1524.34 Cost/Da													
				176.0 Hours 0.0625 MO/Hr 16.0000 Hr/MO 190.54 Cost/Hr													
				176.0 Man-Hr 0.0625 MO/MH 16.0000 MH/MO 190.54 Cost/MH													
	1.0		L90HXX01	Home - Program Manager	176.00	HR	U	190.54								190.54	33,535
					Resource List:		T	33,535								33,535	33,535
950 Detailed	**14**	**1**	**2**	**SENIOR PROJECT MANAGER**	**11.00**	**MO**		**174,669**								**15,879**	**174,670**
				Note: ********** Project Manager at 100% FTE for project duration - **********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				242.0 Days 0.0455 MO/Da 22.0000 Da/MO 721.78 Cost/Da													
				1936.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 90.22 Cost/Hr													
				1936.0 Man-Hr 0.0057 MO/MH 176.0000 MH/MO 90.22 Cost/MH													
	1.0		L90FXX01	Field-Proj Manager	1,936.00	HR	U	90.22								90.22	174,670
					Resource List:		T	174,670								174,670	174,670
950 Detailed	**14**	**1**	**3**	**PROJECT SUPERINTENDENT**	**11.00**	**MO**		**200,770**								**18,251**	**200,771**
				Note: ********** Site Supervisor for duration of all field work. **********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				302.5 Days 0.0364 MO/Da 27.5000 Da/MO 663.71 Cost/Da													
				2420.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 82.96 Cost/Hr													
				2420.0 Man-Hr 0.0045 MO/MH 220.0000 MH/MO 82.96 Cost/MH													
	1.0		L90FXX02	Field-Proj Superintendent	2,420.00	HR	U	82.96								82.96	200,771
					Resource List:		T	200,771								200,771	200,771
950 Detailed	**14**	**2**		**ADMINISTRATION**	**11.00**	**MO**		**46,222**								**4,202.01**	**46,222**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Haru Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	2	2	**ADMINISTRATIVE CLERKS**	**11.00**	**MO**		**46,222**								**4,202.01**	**46,222**

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

242.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da
1936.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr
1936.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH

1.0	L90FC300	Field - Clerk	1,936.00	HR	U	23.88								23.88	46,222
			Resource List:		T	46,222								46,222	46,222

950 Detailed	14	4		**ENGINEERING**	**11.00**	**MO**							**55,000**			**5,000.00**	**55,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	4	13	**SURVEYORS**	**11.00**	**MO**							**55,000**			**5,000.00**	**55,000**

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	55,000	LS	U								1.00			1.00	55,000
			Resource List:		T								55,000			55,000	55,000

950 Detailed	14	5		**HEALTH & SAFETY**	**11.00**	**MO**		**135,704**						**1,309.00**		**12,455**	**137,014**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**11.00**	**MO**		**17,682**						**1,309.00**		**1,726.49**	**18,991**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**5**	**1**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed																		

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00						162.00	648
				Resource List:	T	648						648	648

950	**14**	**5**	**1**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**1,782.00**								**162.00**	**1,782**
Detailed																		

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.4 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da
11.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr
11.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	11.00	HR	U	162.00						162.00	1,782
				Resource List:	T	1,782						1,782	1,782

950	**14**	**5**	**1**	**3**	**ESQ AUDIT/INSPECTION**	**11.00**	**MO**		**15,252**						**1,309.00**		**1,505.58**	**16,561**
Detailed																		

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

22.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da
176.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr
176.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH

1.0	L90HXX05	Home - H&S Staff	176.00	HR	U	86.66						86.66	15,252
1.0	UTMEALS	Meals	22.00	DA	U						25.00	25.00	550
1.0	UTMILES	Mileage	2,200.00	MI	U						0.35	0.35	759
				Resource List:	T	15,252					1,309	16,561	16,561

(c) Copyright 1988 to 2002 H. ..lar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	4		**SITE S&H OFFICER**	**11.00**	**MO**		**109,598**								**9,963.49**	**109,598**
Detailed																		

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

275.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da
2200.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr
2200.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH

1.0	L90FEI00	Field - Assoc Engr.	2,200.00	HR	U	49.82								49.82	109,598
			Resource List:		T	109,598								109,598	109,598

950	14	5	7		**REGULATORY COMPLIANCE**	**11.00**	**MO**		**8,424.01**								**765.82**	**8,424**
Detailed																		

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	14	5	7	1	**PROJECT KICKOFF**	**1.00**	**LS**		**1,296.00**								**1,296.00**	**1,296**
Detailed																		

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00								162.00	1,296
			Resource List:		T	1,296								1,296	1,296

950	14	5	7	2	**ONGOING SUPPORT**	**11.00**	**MO**		**7,128.01**								**648.00**	**7,128**
Detailed																		

Note: **********

Include (8) hour(s)/month for general support.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

5.5 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da
44.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr
44.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX06		Home - Regl Compliance	44.00	HR	U	162.00								162.00	7,128
				Resource List:		T	7,128								7,128	7,128
950 14 5 7 3			**ESQ AUDIT/INSPECTION**	**11.00**	**MO**											
Detailed																

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 14 6			**PROJECT SUPPORT SERVICES**	**11.00**	**MO**		**142,775**						**59.50**		**12,984**	**142,835**
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 14 6 1			**PROCUREMENT MANAGER**	**11.00**	**MO**											
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 14 6 2			**BUYERS**	**11.00**	**MO**		**43,337**								**3,939.73**	**43,337**
Detailed																

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 14 6 2 1			**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**								**24,271**	**24,271**
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da	
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr	
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH	

1.0	L90HXX02		Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
1.0	L90HXX03		Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
				Resource List:		T	24,271								24,271	24,271
950 14 6 2 2			**ONGOING SUPPORT**	**11.00**	**MO**		**19,065**								**1,733.23**	**19,066**
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					27.5 Days 0.4000 MO/Da	2.5000 Da/MO			693.29 Cost/Da									
					220.0 Hours 0.0500 MO/Hr	20.0000 Hr/MO			86.66 Cost/Hr									
					220.0 Man-Hr 0.0500 MO/MH	20.0000 MH/MO			86.66 Cost/MH									
	1.0				L90HXX03 Home - Procurement Agent	220.00	HR	U	86.66								86.66	19,066
						Resource List:		T	19,066								19,066	19,066
950 Detailed	**14**	**6**	**4**		**PROJECT CONTROLS MANAGER**	**11.00**	**MO**											
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	**14**	**6**	**5**		**PROJECT CONTROLS ENGINEER**	**11.00**	**MO**		**94,657**								**8,605.22**	**94,657**
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 Detailed	**14**	**6**	**5**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**								**3,053.46**	**3,053**
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da	5.0000 Da/LS			610.69 Cost/Da									
					40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			76.34 Cost/Hr									
					40.0 Man-Hr 0.0250 LS/MH	40.0000 MH/LS			76.34 Cost/MH									
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
						Resource List:		T	3,053								3,053	3,053
950 Detailed	**14**	**6**	**5**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**91,603**								**8,327.63**	**91,604**
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
CREW Cost Detail																		
					300.0 Days 0.0367 MO/Da	27.2727 Da/MO			305.35 Cost/Da									
					2400.0 Hours 0.0046 MO/Hr	218.1818 Hr/MO			38.17 Cost/Hr									
					1200.0 Man-Hr 0.0092 MO/MH	109.0909 MH/MO			76.34 Cost/MH									
	0.5				L90FXX05 Field - Cost/Scheduler	1,200.00	HR	U	76.34								76.34	91,604
						Resource List:		T	91,604								91,604	91,604

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	6	6		**ESTIMATOR**	**11.00**	**MO**											
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	8		**HOME OFFICE FLD ACCT SUPT**	**11.00**	**MO**		**878.81**						**59.50**		**85.30**	**938**
Detailed																		
		Note:			**********													
					Hours per (TBD) response to Project Services Budget Request.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	8	1	**PROJECT KICKOFF**	**1.00**	**LS**		**878.81**						**59.50**		**938.31**	**938**
Detailed																		
		Note:			**********													
					Include (1) day for training of on-site staff.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			938.31 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			117.29 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			117.29 Cost/MH									
	1.0	L90HEF00			Home - Senior Engr	8.00	HR	U	109.85								109.85	879
	1.0	UTMEALS			Meals	1.00	DA	U							25.00		25.00	25
	1.0	UTMILES			Mileage	100.00	MI	U							0.35		0.35	35
						Resource List:		T	879						60		938	938
950	14	6	8	2	**ONGOING SUPPORT**	**11.00**	**MO**											
Detailed																		
		Note:			**********													
					Support required for craft payroll processing.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950	14	6	9		**FINANCIAL SERVICES**	**11.00**	**MO**		**3,902.12**								**354.74**	**3,902**
Detailed																		
		Note:			**********													
					Hours per (TBD) response to project services budget request.													
					**********													
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 H... ...ular Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**6**	**9**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		1.0 Days			1.0000 LS/Da	1.0000 Da/LS			1040.57 Cost/Da									
		8.0 Hours			0.1250 LS/Hr	8.0000 Hr/LS			130.07 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH	8.0000 MH/LS			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
						Resource List:		T	1,041								1,041	1,041
950	**14**	**6**	**9**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**2,861.55**								**260.14**	**2,862**
Detailed																		
		8.00 Hrs/Shift			1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
		2.8 Days			4.0000 MO/Da	0.2500 Da/MO			1040.57 Cost/Da									
		22.0 Hours			0.5000 MO/Hr	2.0000 Hr/MO			130.07 Cost/Hr									
		22.0 Man-Hr			0.5000 MO/MH	2.0000 MH/MO			130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	22.00	HR	U	130.07								130.07	2,862
						Resource List:		T	2,862								2,862	2,862

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			44,500	2,700		53,427	53,427
		Demobilization													
					U	4,311.50		1,915.99			44,500	2,700.00		53,427	53,427
					T	4,312		1,916			44,500	2,700		53,427	53,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			44,500	2,700		53,427	53,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							44,500			44,500	44,500
											44,500			44,500	44,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230 Detailed		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**44,500**	**2,700.00**		**53,427**	**53,427**

10.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 50.00 Hours/Wk 10.00 Pay-Hrs/Sh

230 Detailed	**1**	**DEMOB OF CONSTRUCTION EQP**	**1.00**	**LS**							**44,500**			**44,500**	**44,500**

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

10.00 Hrs/Shift 1.00 Shift/Day 4.00 Day/Wk 40.00 Hours/Wk 10.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UEEPTRNS	FWENC Eqp Transport/Setup	40,000	LS	U						1.00			1.00	40,000
1.0	UERNTRSM	Rental Equip Transp-Small	6.00	EA	U						150.00			150.00	900
1.0	UERNTRLG	Rental Equip Transp-Large	6.00	EA	U						600.00			600.00	3,600
		Resource List:			T						44,500			44,500	44,500
230 Detailed	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 ... Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	10.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			50.00 Hours/Wk		10.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UOTRLTRN	Trailer Trnsp/Setup/Trdwn	3.00	EA	U							800.00		800.00	2,400
1.0	UOCONMOB	Connex Box Mob	1.00	EA	U							300.00		300.00	300
			Resource List:		T							2,700		2,700	2,700
230	**3**	**DEMOB OF PERSONNEL**	**1.00**	**LS**											
Detailed															
	Note:	**********													
		No personnel demobilization charges are anticipated.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
230	**4**	**FINAL SITE CLEANUP**	**1.00**	**LS**		**4,311.50**		**1,915.99**						**6,227.49**	**6,227**
Detailed															
	Note:	**********													
		One operator and two laborers to support final site cleanup operations. Include ~1 dumpster load of clean debris for disposal.													
		**********													
	8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail															
1.0	UODUMP	Dumpster	1.00	MO	U			200.00						200.00	200
			Resource List:		T			200						200	200
CREW Cost Detail															
	5.0 Days	0.2000 LS/Da	5.0000 Da/LS			1205.50 Cost/Da									
	40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS			150.69 Cost/Hr									
	120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS			50.23 Cost/MH									
1.0	L010490	OPERATOR DOZER	40.00	HR	U	42.69								42.69	1,708
1.0	RDOZER20	JOHN DEERE 750C LGP	40.00	HR	U			42.90						42.90	1,716
2.0	L060100	GENERAL LABORER	80.00	HR	U	32.55								32.55	2,604
			Resource List:		T	4,312		1,716						6,027	6,027

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Alternative #8 - Drilled Concrete Caissons
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 10,000	$ 9,350	$ 9,350	Allowance for inspections.
2	$ 10,000	$ 8,730	$ 18,080	
3	$ 10,000	$ 8,160	$ 26,240	
4	$ 10,000	$ 7,630	$ 33,870	
5	$ 10,000	$ 7,130	$ 41,000	
6	$ 10,000	$ 6,660	$ 47,660	
7	$ 10,000	$ 6,230	$ 53,890	
8	$ 10,000	$ 5,820	$ 59,710	
9	$ 10,000	$ 5,440	$ 65,150	
10	$ 10,000	$ 5,080	$ 70,230	
11	$ 10,000	$ 4,750	$ 74,980	
12	$ 10,000	$ 4,440	$ 79,420	
13	$ 10,000	$ 4,150	$ 83,570	
14	$ 10,000	$ 3,880	$ 87,450	
15	$ 10,000	$ 3,620	$ 91,070	
16	$ 10,000	$ 3,390	$ 94,460	
17	$ 10,000	$ 3,170	$ 97,630	
18	$ 10,000	$ 2,960	$ 100,590	
19	$ 10,000	$ 2,770	$ 103,360	
20	$ 10,000	$ 2,580	$ 105,940	
21	$ 10,000	$ 2,420	$ 108,360	
22	$ 10,000	$ 2,260	$ 110,620	
23	$ 10,000	$ 2,110	$ 112,730	
24	$ 10,000	$ 1,970	$ 114,700	
25	$ 10,000	$ 1,840	$ 116,540	
26	$ 10,000	$ 1,720	$ 118,260	
27	$ 10,000	$ 1,610	$ 119,870	
28	$ 10,000	$ 1,500	$ 121,370	
29	$ 10,000	$ 1,410	$ 122,780	
30	$ 10,000	$ 1,310	$ 124,090	

APPENDIX B9

ALTERNATIVE 9 – PRE-CAST CONCRETE PILES

Proposal

Job Description: Alt 9-Precast Conc Piles

Proposal Date:
Time:

From: FOSTER WHEELER ENVIRONMENTAL CORPORATION

Bid Item Number	Bid Item Description	Quantity	UM	Unit Price	Total Price
1	Engineering - Design	1.0000	LS	175,000.00	**175,000.00**
2	Pre-Construction Work	1.0000	LS	54,000.00	**54,000.00**
3	Mobilization	1.0000	EA	93,000.00	**93,000.00**
4	Driven concrete piles	162,000.000	LF	81.00	**13,122,000.00**
5	Hydro-Seeding Restoration	10.0000	AC	1,000.00	**10,000.00**
90	Engineering - Oversight	11.0000	MO	21,000.00	**231,000.00**
95	Const. Project Support	11.0000	MO	115,000.00	**1,265,000.00**
99	Demobilization	1.0000	EA	42,000.00	**42,000.00**
				GRAND TOTAL	**14,992,000.00**

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A9PILES (Alt 9-Precast Conc Piles)

Cost/Price Review - Unit

Code	Description	Quantity	UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
1	Engineering - Design	1.0000	LS					140,000		140,000	140,000				35,000.00	175,000	35,000.00	175,000
10	Engineering - Design	1.00	LS					140,000		140,000								
2	Pre-Construction Work	1.0000	LS	40,817.06					2,000.00	42,817.06	42,817.06				10,704.26	53,521.32	11,182.94	54,000.00
20	Pre-Construction Work	1.00	LS															
20 1	Permitting	1.00	LS	3,120.07					2,000.00	5,120.07								
20 2	Bonding & Insurance	1.00	LS															
20 3	Submittals	1.00	LS															
20 3 1	Site HASP	1.00	LS															
20 3 1 1	HASP - Draft	1.00	LS	4,966.60						4,966.60								
20 3 1 2	HASP - Final	1.00	LS	985.36						985.36								
20 3 2	Work Plan	1.00	LS															
20 3 2 1	Workplan - Draft	1.00	LS	8,244.84						8,244.84								
20 3 2 2	Workplan - Final	1.00	LS	3,029.03						3,029.03								
20 3 3	Erosion & Sed Cntrl Plan	1.00	LS															
20 3 3 1	Eros & Sed Cont - Draft	1.00	LS	12,132.26						12,132.26								
20 3 3 2	Eros & Sed Cont - Final	1.00	LS	2,231.63						2,231.63								
20 3 4	Project Schedule	1.00	LS															
20 3 4 1	Const. Schedule - Draft	1.00	LS	4,512.19						4,512.19								
20 3 4 2	Const. Schedule - Final	1.00	LS	1,595.07						1,595.07								
3	Mobilization	1.0000	EA	4,210.13		1,400.00	1,286.99	64,500.00	2,700.00	74,097.12	74,097.12				18,524.28	92,621.40	18,902.88	93,000.00
30	Mobilization	1.00	EA															
30 1	MOB OF CONSTRUCTION EQUIP	1.00	LS					44,500.00		44,500.00								
30 2	MOB OF FACILITIES	1.00	LS															
30 2 1	Site Setup/Preparation	1.00	LS	4,210.13		1,400.00	1,286.99		2,700.00	9,597.12								
30 3	MOBILIZATION OF PERSONNEL	1.00	LS															
30 3 1	Mob Personnel	1.00	LS															
30 4	Perimeter Fencing	500.00	LF					40.00		40.00								
4	Driven concrete piles	162,000.0	LF					65.00		65.00	65.00				16.25	81.25	16.00	81.00
170	Driven concrete piles	162000	LF					65.00		65.00								
5	Hydro-Seeding Restoration	10.0000	AC					800.00		800.00	800.00				200.00	1,000.00	200.00	1,000.00
220	Hydro-Seeding Restoration	10.00	AC					800.00		800.00								
90	Engineering - Oversight	11.0000	MO	12,525.23			1,044.20		3,000.00	16,569.44	16,569.44				4,142.36	20,711.80	4,430.56	21,000.00
900	Engineering - Oversight	11.00	MO	12,525.23			1,044.20		3,000.00	16,569.44								
95	Const. Project Support	11.0000	MO	69,284.09		46.36	7,238.76	5,681.82	9,909.27	92,160.31	92,160.31				23,040.08	115,200	22,839.69	115,000
950	Const. Project Support	11.00	MO															
950 13	Indirect Project Costs	11.00	MO															
950 13 1	CRAFT PAYROLLRELATEDCOST	11.00	MO															
950 13 1 4	NON PRODUCTIVE-SHOW UP	11.00	MO															
950 13 1 4 1	WEATHER	11.00	MO															
950 13 2	CONST EQUIP & TOOLS	11.00	MO															
950 13 2 1	HEAVY EQUIPMENT	1.00	LS															
950 13 2 2	LIGHT EQUIPMENT	11.00	MO				770.00			770.00								
950 13 2 6	SMALL TOOLS	11.00	MO						500.00	500.00								
950 13 2 8	PPE	1.00	LS						6,450.00	6,450.00								
950 13 5	SECURITY	11.00	MO															
950 13 6	TEMP CONSTRUCTION FAC.	11.00	MO															
950 13 6 1	OFFICE TRAILERS	11.00	MO				500.00			500.00								
950 13 6 2	STORAGE FACILITIES	11.00	MO															
950 13 6 2 1	Connex Boxes	11.00	MO				300.00			300.00								
950 13 6 3	DECON FOR PERSONNEL	11.00	MO				350.00			350.00								
950 13 6 4	DECON FOR CONST EQUIP	1.00	LS	1,077.88		510.00				1,587.88								
950 13 6 5	LUNCH/BREAK TRAILER	11.00	MO				350.00			350.00								
950 13 6 8	TOILETS	11.00	MO				300.00			300.00								
950 13 6 9	BARRICADES	1.00	LS						500.00	500.00								
950 13 6 12	CLIENT TRAILERS	11.00	MO															
950 13 6 16	OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00	2,000.00								
950 13 6 18	TESTING LABORATORY	11.00	MO															
950 13 6 27	HAUL ROAD MAINTENANCE	11.00	MO															
950 13 6 28	EMERGENCY EQUIPMENT	11.00	MO						100.00	100.00								
950 13 7	TEMPORARY UTILITIES	11.00	MO															
950 13 7 1	POWER	11.00	MO						500.00	500.00								
950 13 7 2	WATER	11.00	MO						200.00	200.00								
950 13 7 3	SANITARY	11.00	MO															
950 13 7 4	TELEPHONE	11.00	MO						700.00	700.00								
950 13 8	OPERATING SUPPLY/SERV	11.00	MO															
950 13 8 1	JANITORIAL AND CLEANUP	11.00	MO				200.00			200.00								
950 13 8 2	OFFICE & ENGINEERING SUP	11.00	MO						220.00	220.00								
950 13 8 3	FACILITIES MAINT & REPAIR	11.00	MO															
950 13 8 4	MEDICAL/FIRST AID	11.00	MO						300.00	300.00								
950 13 8 5	RADIOS (LS)	1.00	LS						2,000.00	2,000.00								
950 13 8 6	FAX (LS)	1.00	LS						400.00	400.00								

(c) Copyright 1988 to 2002 H[illegible] Dollar Corporation All Rights Reserved

FOSTER WHEELER F NMENTAL CORPORATION
ASPILES
Cost/P. view - Unit

Code	Description	Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
950 13 8 8	REPRODUCTION AND PHOTO	11.00 MO				1,000.00		100.00	1,100.00								
950 13 8 9	POSTAGE	11.00 MO						150.00	150.00								
950 13 8 10	FREIGHT ON SUPPLIES	11.00 MO						250.00	250.00								
950 13 9	COMPUTER AND DATA	11.00 MO															
950 13 9 1	IT/WAN COST	11.00 MO						2,062.00	2,062.00								
950 13 10	VEHICLES FOR PERSONNEL	11.00 MO															
950 13 10 1	PICKUP TRUCKS	11.00 MO				3,423.30			3,423.30								
950 13 12	HEALTH & SAFETY	11.00 MO															
950 13 12 1	HEALTH & SAFETY TRAINING	1.00 LS	21,122.01			500.00		922.50	22,544.51								
950 13 12 3	H&S MEDICAL EXAMS	1.00 LS					7,500.00		7,500.00								
950 13 13	MISCELLANEOUS COST	11.00 MO															
950 13 13 1	ON-SITE TRAINING PROGRAM	1.00 LS	2,928.40						2,928.40								
950 13 13 3	CRAFT QUALIFICATIONS	1.00 LS	3,318.53						3,318.53								
950 13 13 4	PER-DIEM	11.00 MO						3,569.00	3,569.00								
950 13 13 5	PROJECT SIGNS	1.00 LS						200.00	200.00								
950 14	Professional Services	11.00 MO															
950 14 1	SUPERVISION/MANAGEMENT	11.00 MO															
950 14 1 1	PROGRAM MANAGER	11.00 MO	3,048.68						3,048.68								
950 14 1 2	SENIOR PROJECT MANAGER	11.00 MO	15,879.06						15,879.06								
950 14 1 3	PROJECT SUPERINTENDENT	11.00 MO	18,251.90						18,251.90								
950 14 2	ADMINISTRATION	11.00 MO															
950 14 2 2	ADMINISTRATIVE CLERKS	11.00 MO	4,202.01						4,202.01								
950 14 4	ENGINEERING	11.00 MO															
950 14 4 13	SURVEYORS	11.00 MO					5,000.00		5,000.00								
950 14 5	HEALTH & SAFETY	11.00 MO															
950 14 5 1	CERTIFIED INDUSTRIAL HYG	11.00 MO															
950 14 5 1 1	PROJECT KICKOFF	1.00 LS	648.00						648.00								
950 14 5 1 2	ONGOING SUPPORT	11.00 MO	162.00						162.00								
950 14 5 1 3	ESQ AUDIT/INSPECTION	11.00 MO	1,386.58					119.00	1,505.58								
950 14 5 4	SITE S&H OFFICER	11.00 MO	9,963.49						9,963.49								
950 14 5 7	REGULATORY COMPLIANCE	11.00 MO															
950 14 5 7 1	PROJECT KICKOFF	1.00 LS	1,296.00						1,296.00								
950 14 5 7 2	ONGOING SUPPORT	11.00 MO	648.00						648.00								
950 14 5 7 3	ESQ AUDIT/INSPECTION	11.00 MO															
950 14 6	PROJECT SUPPORT SERVICES	11.00 MO															
950 14 6 1	PROCUREMENT MANAGER	11.00 MO															
950 14 6 2	BUYERS	11.00 MO															
950 14 6 2 1	PROJECT KICKOFF	1.00 LS	24,271.49						24,271.49								
950 14 6 2 2	ONGOING SUPPORT	11.00 MO	1,733.23						1,733.23								
950 14 6 4	PROJECT CONTROLS MANAGER	11.00 MO															
950 14 6 5	PROJECT CONTROLS ENGINEER	11.00 MO															
950 14 6 5 1	PROJECT KICKOFF	1.00 LS	3,053.46						3,053.46								
950 14 6 5 2	ONGOING SUPPORT	11.00 MO	8,327.63						8,327.63								
950 14 6 6	ESTIMATOR	11.00 MO															
950 14 6 8	HOME OFFICE FLD ACCT SUPT	11.00 MO															
950 14 6 8 1	PROJECT KICKOFF	1.00 LS	878.81					59.50	938.31								
950 14 6 8 2	ONGOING SUPPORT	11.00 MO															
950 14 6 9	FINANCIAL SERVICES	11.00 MO															
950 14 6 9 1	PROJECT KICKOFF	1.00 LS	1,040.57						1,040.57								
950 14 6 9 2	ONGOING SUPPORT	11.00 MO	260.14						260.14								
99	Demobilization	1.0000 EA	4,311.50			1,915.99	24,500.00	2,700.00	33,427.49	33,427.49				8,356.87	41,784.36	8,572.51	42,000.00
230	Demobilization	1.00 EA															
230 1	DEMOB OF CONSTRUCTION EQP	1.00 LS					24,500.00		24,500.00								
230 2	DEMOB OF FACILITIES	1.00 LS						2,700.00	2,700.00								
230 3	DEMOB OF PERSONNEL	1.00 LS															
230 4	FINAL SITE CLEANUP	1.00 LS	4,311.50			1,915.99			6,227.49								
	Extended Totals by Category		949,241		1,910	94,316	10,829,500	149,402	12,024,369	12,024,369				3,006,092	15,030,461	2,967,631	14,992,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

FOSTER WHEELER ENVIRONMENTAL CORPORATION
A9PILES (Alt 9-Precast Conc Piles)

Cost/Price Review - Unit

Code	Description		Quantity UM	Unit Labor	Unit Equip	Unit Material	Unit Rental	Unit Subcont	Unit Supply/ Other/Tax	Total	Esc Direct Cost	Esc Job OH	Business OH	Cut/Add	Balanced Markup	Balanced Price	Actual Markup	Actual Price
			Percent															
Direct Cost		12,024,369	80.00															
Direct Cost Escalation		0	0.00															
Escalated Direct Cost		12,024,369	80.00															
Job Overhead		0	0.00															
Job Overhead Escalation		0	0.00															
Escalated Job Overhead		0	0.00															
Indirect		0	0.00															
Tax & Add-On		0	0.00															
Finance		0	0.00															
Bond		0	0.00															
Total Business Overhead		0	0.00															
Markup on Direct		3,006,092	20.00															
Markup on Job Overhead		0	0.00															
Total Markup		3,006,092	20.00															
Total Cut/Add		0	0.00															
Target Bid Price		15,030,461	100.00															
Bid Price		14,992,000	99.74															
Difference		38,461	0.26															

(c) Copyright 1988 to 2002 ...ollar Corporation All Rights Reserved

General Layout	Combine Labor Base and Burden	Y
	Combine Equipment Ownership and Operation	Y
	Remove all blank lines	N
	Print costs	Y
	Bid Items always start new page	Y
	Show bid and forecast cost	N
Bid Item Layout	Bid Items	Y
	Full Description	Y
	Unit Cost	Y
	Total Cost	Y
	Bid quantity and cost	Y
	Unit cost by Activity	Y
	Total cost by Activity	Y
Activity Layout	Activities	Y
	Awardee	N
	Note	Y
	Shift Arrangments	Y
	Rate Adjustments	N
	Code and Tag Assignments	N
	Schedule status	N
	Daily production	N
	Shift production	N
	Hourly production	N
	Man-hour production	N
	Equipment-hour production	N
	Immediate Unit Cost	N
	Immediate Total Cost	N
	WBS Fragment Unit Cost	N
	WBS Fragment Total Cost	N
	Unit Cost Contribution to Superior Activity	N
	Unit Cost Contribution to Bid Item	N
	Last user to modify activity	N
Cost Detail Layout	Cost Details	Y
	Resource Awardee	N
	Note	Y
	Daily production	Y
	Shift production	N
	Hourly production	Y
	Man-hour production	Y
	Equipment-hour production	N
	Resource Shift Cost	N
	Resource Total Cost	N
	Resource Unit Cost Contribution to Activity	N
	Resource Unit Cost Contribution to Bid Item	N
	Resource-List Unit Cost	N
	Resource-List Shift Cost	N
	Resource-List Total Cost	Y
	Resource-List Unit Cost Contribution to Activity	N
	Resource-List Unit Cost Contribution to Bid Item	N
	Summarize bid item resources	N

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1	Engineering - Design	1.00	LS	T						140,000			140,000	140,000
	Engineering - Design													
				U						140,000			140,000	140,000
				T						140,000			140,000	140,000
	Bid Item bid quantity and cost:	1.00	LS	T						140,000			140,000	140,000
10	Engineering - Design	1.00	LS							140,000			140,000	140,000
										140,000			140,000	140,000
10	**Engineering - Design**	**1.00**	**LS**							**140,000**			**140,000**	**140,000**
Detailed														

Note: Enginering Design Cost Breakdown:
Compatibility Testing: $20,000
Design Reports (30%, 60%, 90%, 100%): $40,000
Technical Specifications: $30,000
Contruction Drawings: $50,000
Total: $140,000.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USFWENCE	FWENC Engr Costs	140,000	LS	U					1.00			1.00	140,000
			Resource List:		T					140,000			140,000	140,000

(c) Copyright 1988 to 2002 H... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
2				Pre-Construction Work	1.00	LS	T	40,817						2,000		42,817	42,817
				Pre-Construction Work													
							U	40,817						2,000.00		42,817	42,817
							T	40,817						2,000		42,817	42,817
				Bid Item bid quantity and cost:	1.00	LS	T	40,817						2,000		42,817	42,817
20				Pre-Construction Work	1.00	LS											
20	1			Permitting	1.00	LS		3,120.07						2,000.00		5,120.07	5,120
								3,120.07						2,000.00		5,120.07	5,120
20	2			Bonding & Insurance	1.00	LS											
20	3			Submittals	1.00	LS											
20	3	1		Site HASP	1.00	LS											
20	3	1	1	HASP - Draft	1.00	LS		4,966.60								4,966.60	4,967
								4,966.60								4,966.60	4,967
20	3	1	2	HASP - Final	1.00	LS		985.36								985.36	985
								985.36								985.36	985
20	3	2		Work Plan	1.00	LS											
20	3	2	1	Workplan - Draft	1.00	LS		8,244.84								8,244.84	8,245
								8,244.84								8,244.84	8,245
20	3	2	2	Workplan - Final	1.00	LS		3,029.03								3,029.03	3,029
								3,029.03								3,029.03	3,029
20	3	3		Erosion & Sed Cntrl Plan	1.00	LS											
20	3	3	1	Eros & Sed Cont - Draft	1.00	LS		12,132								12,132	12,132
								12,132								12,132	12,132
20	3	3	2	Eros & Sed Cont - Final	1.00	LS		2,231.63								2,231.63	2,232
								2,231.63								2,231.63	2,232
20	3	4		Project Schedule	1.00	LS											
20	3	4	1	Const. Schedule - Draft	1.00	LS		4,512.19								4,512.19	4,512
								4,512.19								4,512.19	4,512
20	3	4	2	Const. Schedule - Final	1.00	LS		1,595.07								1,595.07	1,595
								1,595.07								1,595.07	1,595
20				**Pre-Construction Work**	**1.00**	**LS**		**40,817**						**2,000.00**		**42,817**	**42,817**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	**1**			**Permitting**	**1.00**	**LS**		**3,120.07**						**2,000.00**		**5,120.07**	**5,120**
Detailed																	
				8.00 Hrs/Shift	1.00 Shift/Day		5.00 Day/Wk	40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																	
				3.0 Days	0.3333 LS/Da		3.0000 Da/LS	1706.69 Cost/Da									
				24.0 Hours	0.0417 LS/Hr		24.0000 Hr/LS	213.34 Cost/Hr									
				32.0 Man-Hr	0.0313 LS/MH		32.0000 MH/LS	160.00 Cost/MH									

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
1.0	L90HXX08	Home - Proj Manager	8.00	HR	U	130.07								130.07	1,041
1.0	L90HEG00	Home - Engineer	24.00	HR	U	86.65								86.65	2,080
1.0	UOPERMIT	Permit Fees	2,000.00	LS	U							1.00		1.00	2,000
			Resource List:		T	3,120						2,000		5,120	5,120

20 2 Bonding & Insurance 1.00 LS
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 Submittals 1.00 LS 37,696 37,696 37,697
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 Site HASP 1.00 LS 5,951.96 5,951.96 5,952
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

20 3 1 1 HASP - Draft 1.00 LS 4,966.60 4,966.60 4,967
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	993.32 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	124.16 Cost/Hr
52.0 Man-Hr	0.0192 LS/MH	52.0000 MH/LS	95.51 Cost/MH

1.0	L90HXX05	Home - H&S Staff	40.00	HR	U	86.66								86.66	3,466
1.0	L90FXX02	Field-Proj Superintendent	4.00	HR	U	82.96								82.96	332
1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00								162.00	648
1.0	L90HXX08	Home - Proj Manager	4.00	HR	U	130.07								130.07	520
			Resource List:		T	4,967								4,967	4,967

20 3 1 2 HASP - Final 1.00 LS 985.36 985.36 985
Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	985.36 Cost/Da
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	123.17 Cost/Hr
10.0 Man-Hr	0.1000 LS/MH	10.0000 MH/LS	98.54 Cost/MH

1.0	L90HXX05	Home - H&S Staff	8.00	HR	U	86.66								86.66	693
1.0	L90HXX04	Home - CIH Support	1.00	HR	U	162.00								162.00	162
1.0	L90HXX08	Home - Proj Manager	1.00	HR	U	130.07								130.07	130
			Resource List:		T	985								985	985

(c) Copyright 1988 to 2002 Hans Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20 Detailed	3	2		**Work Plan**	**1.00**	**LS**		**11,273**								**11,273**	**11,274**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20 Detailed	3	2	1	**Workplan - Draft**	**1.00**	**LS**		**8,244.84**								**8,244.84**	**8,245**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail				5.0 Days 0.2000 LS/Da 5.0000 Da/LS 1648.97 Cost/Da													
				40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 206.12 Cost/Hr													
				84.0 Man-Hr 0.0119 LS/MH 84.0000 MH/LS 98.15 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	40.00	HR	U	79.72								79.72	3,189
	1.0			L90HEI00 Home - Assoc Engr.	14.00	HR	U	71.68								71.68	1,004
	1.0			L90HE800 Home - Senior Supv Engr	16.00	HR	U	164.59								164.59	2,633
	1.0			L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0			L90HE800 Home - Senior Supv Engr	2.00	HR	U	164.59								164.59	329
	1.0			L90HXX08 Home - Proj Manager	2.00	HR	U	130.07								130.07	260
					Resource List:		T	8,245								8,245	8,245
20 Detailed	3	2	2	**Workplan - Final**	**1.00**	**LS**		**3,029.03**								**3,029.03**	**3,029**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail				3.0 Days 0.3333 LS/Da 3.0000 Da/LS 1009.68 Cost/Da													
				24.0 Hours 0.0417 LS/Hr 24.0000 Hr/LS 126.21 Cost/Hr													
				36.0 Man-Hr 0.0278 LS/MH 36.0000 MH/LS 84.14 Cost/MH													
	1.0			L90HEH00 Home - Senior Assc Engr	24.00	HR	U	79.72								79.72	1,913
	1.0			L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0			L90HE800 Home - Senior Supv Engr	1.00	HR	U	164.59								164.59	165
	1.0			L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
					Resource List:		T	3,029								3,029	3,029
20 Detailed	3	3		**Erosion & Sed Cntrl Plan**	**1.00**	**LS**		**14,363**								**14,363**	**14,364**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
20 Detailed	3	3	1	**Eros & Sed Cont - Draft**	**1.00**	**LS**		**12,132**								**12,132**	**12,132**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					5.0 Days 0.2000 LS/Da	5.0000 Da/LS			2426.45 Cost/Da									
					40.0 Hours 0.0250 LS/Hr	40.0000 Hr/LS			303.31 Cost/Hr									
					120.0 Man-Hr 0.0083 LS/MH	120.0000 MH/LS			101.10 Cost/MH									
	1.0				L90HEH00 Home - Senior Assc Engr	18.00	HR	U	79.72								79.72	1,435
	1.0				L90HEI00 Home - Assoc Engr.	40.00	HR	U	71.68								71.68	2,867
	1.0				L90HE800 Home - Senior Supv Engr	24.00	HR	U	164.59								164.59	3,950
	1.0				L90HDP00 Home - Senior Designer	16.00	HR	U	88.14								88.14	1,410
	1.0				L90HED00 Home - Supervising Engr	8.00	HR	U	139.97								139.97	1,120
	1.0				L90FXX02 Field-Proj Superintendent	10.00	HR	U	82.96								82.96	830
	1.0				L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
						Resource List:		T	12,132								12,132	12,132
20	**3**	**3**	**2**		**Eros & Sed Cont - Final**	**1.00**	**LS**		**2,231.63**								**2,231.63**	**2,232**
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
					1.0 Days 1.0000 LS/Da	1.0000 Da/LS			2231.63 Cost/Da									
					8.0 Hours 0.1250 LS/Hr	8.0000 Hr/LS			278.95 Cost/Hr									
					23.0 Man-Hr 0.0435 LS/MH	23.0000 MH/LS			97.03 Cost/MH									
	1.0				L90HEH00 Home - Senior Assc Engr	4.00	HR	U	79.72								79.72	319
	1.0				L90HEI00 Home - Assoc Engr.	8.00	HR	U	71.68								71.68	573
	1.0				L90HE800 Home - Senior Supv Engr	3.00	HR	U	164.59								164.59	494
	1.0				L90HDP00 Home - Senior Designer	4.00	HR	U	88.14								88.14	353
	1.0				L90HED00 Home - Supervising Engr	2.00	HR	U	139.97								139.97	280
	1.0				L90FXX02 Field-Proj Superintendent	1.00	HR	U	82.96								82.96	83
	1.0				L90HXX08 Home - Proj Manager	1.00	HR	U	130.07								130.07	130
						Resource List:		T	2,232								2,232	2,232
20	**3**	**4**			**Project Schedule**	**1.00**	**LS**		**6,107.26**								**6,107.26**	**6,107**
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
20	**3**	**4**	**1**		**Const. Schedule - Draft**	**1.00**	**LS**		**4,512.19**								**4,512.19**	**4,512**
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail																		
					1.5 Days 0.6667 LS/Da	1.5000 Da/LS			3008.13 Cost/Da									
					12.0 Hours 0.0833 LS/Hr	12.0000 Hr/LS			376.02 Cost/Hr									
					36.0 Man-Hr 0.0278 LS/MH	36.0000 MH/LS			125.34 Cost/MH									
	1.0				L90FXX02 Field-Proj Superintendent	12.00	HR	U	82.96								82.96	996
	1.0				L90HED00 Home - Supervising Engr	12.00	HR	U	139.97								139.97	1,680
	1.0				L90HE800 Home - Senior Supv Engr	8.00	HR	U	164.59								164.59	1,317
	1.0				L90HXX08 Home - Proj Manager	4.00	HR	U	130.07								130.07	520
						Resource List:		T	4,512								4,512	4,512

(c) Copyright 1988 to 2002 Hu... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
20	**3**	**4**	**2**	**Const. Schedule - Final**	**1.00**	**LS**		**1,595.07**								**1,595.07**	**1,595**
Detailed																	

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.8 Days	1.3333 LS/Da	0.7500 Da/LS	2126.76 Cost/Da
6.0 Hours	0.1667 LS/Hr	6.0000 Hr/LS	265.84 Cost/Hr
12.0 Man-Hr	0.0833 LS/MH	12.0000 MH/LS	132.92 Cost/MH

1.0	L90FXX02	Field-Proj Superintendent	2.00	HR	U	82.96						82.96	166
1.0	L90HED00	Home - Supervising Engr	6.00	HR	U	139.97						139.97	840
1.0	L90HE800	Home - Senior Supv Engr	2.00	HR	U	164.59						164.59	329
1.0	L90HXX08	Home - Proj Manager	2.00	HR	U	130.07						130.07	260
			Resource List:		T	1,595						1,595	1,595

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code			Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
3			Mobilization	1.00	EA	T	4,210		1,287	1,400		64,500	2,700		74,097	74,097
			Mobilization													
						U	4,210.13		1,286.99	1,400.00		64,500	2,700.00		74,097	74,097
						T	4,210		1,287	1,400		64,500	2,700		74,097	74,097
			Bid Item bid quantity and cost:	1.00	EA	T	4,210		1,287	1,400		64,500	2,700		74,097	74,097
30			Mobilization	1.00	EA											
30	1		MOB OF CONSTRUCTION EQUIP	1.00	LS							44,500			44,500	44,500
												44,500			44,500	44,500
30	2		MOB OF FACILITIES	1.00	LS											
30	2	1	Site Setup/Preparation	1.00	LS		4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
							4,210.13		1,286.99	1,400.00			2,700.00		9,597.12	9,597
30	3		MOBILIZATION OF PERSONNEL	1.00	LS											
30	3	1	Mob Personnel	1.00	LS											
30	4		Perimeter Fencing	500.00	LF							20,000			40.00	20,000
												40.00			40.00	20,000
30 Detailed			**Mobilization**	**1.00**	**EA**		**4,210.13**		**1,286.99**	**1,400.00**		**64,500**	**2,700.00**		**74,097**	**74,097**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

30 Detailed	**1**		**MOB OF CONSTRUCTION EQUIP**	**1.00**	**LS**							**44,500**			**44,500**	**44,500**

Note: **********

Include:
FW Equipment Mob & Setup Costs
Rental Equipment Mob Costs - Sm. Equip Charge of $150 ea; Lg. Equip Charge of $600 ea

Charges are currently plugged.

****
****

Do not delete this activity - Project Support Schedule Logic tied to this activity.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

Note: 20k mob for subcontractor

1.0	UEEPTRNSFWENC Eqp Transport/Setup	20,000	LS	U								1.00			1.00	20,000
1.0	UERNTRSMRental Equip Transp-Small	6.00	EA	U								150.00			150.00	900
1.0	UERNTRLGRental Equip Transp-Large	6.00	EA	U								600.00			600.00	3,600
1.0	UEEPTRNSFWENC Eqp Transport/Setup	20,000	LS	U								1.00			1.00	20,000
			Resource List:	T								44,500			44,500	44,500
30 Detailed	**2**		**MOB OF FACILITIES**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

(c) Copyright 1988 to 2002 Ha... Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
30 2 1 Detailed	**Site Setup/Preparation**	**1.00**	**LS**		**4,210.13**		**1,286.99**	**1,400.00**			**2,700.00**		**9,597.12**	**9,597**

Note: **********

Support Area = 10,000 sq. ft
3" of crushed stone will be placed (1.5 ton/cy)

Field Trailers Mobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

Small material staging area to be developed.

****

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOTRLTRNT	Trailer Trnsp/Setup/Trdwn	3.00	EA	U						800.00		800.00	2,400
1.0	UOCONMOB	Conex Box Mob	1.00	EA	U						300.00		300.00	300
1.0	MCRAGG	Crushed Aggregate	140.00	TN	U			10.00					10.00	1,400
			Resource List:		T			1,400			2,700		4,100	4,100

CREW Cost Detail

3.8 Days	0.2667 LS/Da	3.7500 Da/LS	1465.90 Cost/Da	
30.0 Hours	0.0333 LS/Hr	30.0000 Hr/LS	183.24 Cost/Hr	
120.0 Man-Hr	0.0083 LS/MH	120.0000 MH/LS	45.81 Cost/MH	

1.0	L010490	OPERATOR DOZER	30.00	HR	U		42.69						42.69	1,281
3.0	L060100	GENERAL LABORER	90.00	HR	U		32.55						32.55	2,930
1.0	RDOZER20	JOHN DEERE 750C LGP	30.00	HR	U			42.90					42.90	1,287
			Resource List:		T		4,210	1,287					5,497	5,497

30 3 Detailed	**MOBILIZATION OF PERSONNEL**	**1.00**	**LS**											

Note: **********

No personnel mobilization charges are anticipated.

****

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

30 3 1 Detailed	**Mob Personnel**	**1.00**	**LS**											

8.00 Hrs/Shift | 1.00 Shift/Day | 5.00 Day/Wk | 40.00 Hours/Wk | 8.00 Pay-Hrs/Sh

30 4 Detailed	**Perimeter Fencing**	**500.00**	**LF**							**20,000**			**40.00**	**20,000**

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0	USFENCE Fencing Installation	1,000.00	LF	U						20.00			20.00	20,000
	Resource List:			T						20,000			20,000	20,000

(c) Copyright 1988 to 2002 H... ...ollar Corporation All Rights Reserved

Code		Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
4		Driven concrete piles	162,000	LF	T						10530000			65	10530000
		Driven concrete piles													
					U						65.00			65.00	10530000
					T						10530000			65	10530000
		Bid Item bid quantity and cost:	162,000	LF	T						10530000			65	10530000
170		Driven concrete piles	162,000	LF							10530000			65.00	10530000
											65.00			65.00	10530000
170		**Driven concrete piles**	**162,000**	**LF**							**10530000**			**65.00**	**10530000**
Detailed															

Note: Area covers (4) rows x 4,000' with an average depth of 60', spaced every 6'; totaling 2,700 piles.
Caissons extend into the sand layer to top of Young Bay Mud at the toe of the slope.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UPILES	Driven Precast 24 piles	162,000	LF	U						65.00			65.00	10530000
			Resource List:		T						10530000			10530000	10530000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
5	Hydro-Seeding Restoration	10.00	AC	T						8,000			800	8,000
	Hydro-Seeding Restoration													
				U						800.00			800.00	8,000
				T						8,000			800	8,000
	Bid Item bid quantity and cost:	10.00	AC	T						8,000			800	8,000
220	Hydro-Seeding Restoration	10.00	AC							8,000.00			800.00	8,000
										800.00			800.00	8,000
220	**Hydro-Seeding Restoration**	**10.00**	**AC**							**8,000.00**			**800.00**	**8,000**
Detailed														

Note: Include minimal restoration costs for re-seeding of areas disturbed during construction activities.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USHDYROS	Hydroseeding Subcontract	10.00	AC	U					800.00			800.00	8,000
		Resource List:			T					8,000			8,000	8,000

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
90	Engineering - Oversight	11.00	MO	T	137,778		11,486				33,000		16,569	182,264
	Engineering - Oversight													
				U	12,525		1,044.20				3,000.00		16,569	182,264
				T	137,778		11,486				33,000		16,569	182,264
	Bid Item bid quantity and cost:	11.00	MO	T	137,778		11,486				33,000		16,569	182,264
900	Engineering - Oversight	11.00	MO		137,777		11,486				33,000		16,569	182,264
					12,525		1,044.20				3,000.00		16,569	182,264
900	**Engineering - Oversight**	**11.00**	**MO**		**137,777**		**11,486**				**33,000**		**16,569**	**182,264**

Detailed

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

220.0 Days 0.0500 MO/Da 20.0000 Da/MO 202.21 Cost/Da
1760.0 Hours 0.0063 MO/Hr 160.0000 Hr/MO 25.28 Cost/Hr

1.0	RPUTRK04	F-250 4X2 3/4 TON PICKUP	1,760.00	HR	U		6.53						6.53	11,486
1.0	UTPERDEM	Perdiem-Meals & Lodging	220.00	DA	U						150.00		150.00	33,000
		Resource List:			T		11,486				33,000		44,486	44,486

CREW Cost Detail

275.0 Days 0.0400 MO/Da 25.0000 Da/MO 501.01 Cost/Da
2200.0 Hours 0.0050 MO/Hr 200.0000 Hr/MO 62.63 Cost/Hr
1650.0 Man-Hr 0.0067 MO/MH 150.0000 MH/MO 83.50 Cost/MH

0.5	L90FEG00	Field - Engineer	1,100.00	HR	U	60.22							60.22	66,239
0.3	L90HXX08	Home - Proj Manager	550.00	HR	U	130.07							130.07	71,539
		Resource List:			T	137,778							137,778	137,778

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
95	Const. Project Support	11.00	MO	T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763
	Const. Project Support													
				U	69,284		7,238.76	46.36	1,970.00	5,681.82	7,939.27		92,160	1013763
				T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763
	Bid Item bid quantity and cost:	11.00	MO	T	762,125		79,626	510	21,670	62,500	87,332		92,160	1013763

(c) Copyright 1988 to 2002 F... Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950					Const. Project Support	11.00	MO											
950	13				Indirect Project Costs	11.00	MO											
950	13	1			CRAFT PAYROLLRELATEDCOST	11.00	MO											
950	13	1	4		NON PRODUCTIVE-SHOW UP	11.00	MO											
950	13	1	4	1	WEATHER	11.00	MO											
950	13	2			CONST EQUIP & TOOLS	11.00	MO											
950	13	2	1		HEAVY EQUIPMENT	1.00	LS											
950	13	2	2		LIGHT EQUIPMENT	11.00	MO				8,470.00						770.00	8,470
											770.00						770.00	8,470
950	13	2	6		SMALL TOOLS	11.00	MO						5,500.00				500.00	5,500
													500.00				500.00	5,500
950	13	2	8		PPE	1.00	LS						6,450.00				6,450.00	6,450
													6,450.00				6,450.00	6,450
950	13	5			SECURITY	11.00	MO											
950	13	6			TEMP CONSTRUCTION FAC.	11.00	MO											
950	13	6	1		OFFICE TRAILERS	11.00	MO				5,500.00						500.00	5,500
											500.00						500.00	5,500
950	13	6	2		STORAGE FACILITIES	11.00	MO											
950	13	6	2	1	Connex Boxes	11.00	MO				3,300.00						300.00	3,300
											300.00						300.00	3,300
950	13	6	3		DECON FOR PERSONNEL	11.00	MO				3,850.00						350.00	3,850
											350.00						350.00	3,850
950	13	6	4		DECON FOR CONST EQUIP	1.00	LS		1,077.88			510.00					1,587.88	1,588
									1,077.88			510.00					1,587.88	1,588
950	13	6	5		LUNCH/BREAK TRAILER	11.00	MO				3,850.00						350.00	3,850
											350.00						350.00	3,850
950	13	6	8		TOILETS	11.00	MO				3,300.00						300.00	3,300
											300.00						300.00	3,300
950	13	6	9		BARRICADES	1.00	LS						500.00				500.00	500
													500.00				500.00	500
950	13	6	12		CLIENT TRAILERS	11.00	MO											
950	13	6	16		OFFICE EQUIP/FURNISHING	1.00	LS						2,000.00				2,000.00	2,000
													2,000.00				2,000.00	2,000
950	13	6	18		TESTING LABORATORY	11.00	MO											
950	13	6	27		HAUL ROAD MAINTENANCE	11.00	MO											
950	13	6	28		EMERGENCY EQUIPMENT	11.00	MO						1,100.00				100.00	1,100
													100.00				100.00	1,100
950	13	7			TEMPORARY UTILITIES	11.00	MO											
950	13	7	1		POWER	11.00	MO								5,500.00		500.00	5,500
															500.00		500.00	5,500
950	13	7	2		WATER	11.00	MO								2,200.00		200.00	2,200
															200.00		200.00	2,200
950	13	7	3		SANITARY	11.00	MO											
950	13	7	4		TELEPHONE	11.00	MO								7,700.00		700.00	7,700
															700.00		700.00	7,700
950	13	8			OPERATING SUPPLY/SERV	11.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	8	1	JANITORIAL AND CLEANUP	11.00	MO				2,200.00						200.00	2,200
										200.00						200.00	2,200
950	13	8	2	OFFICE & ENGINEERING SUP	11.00	MO						2,420.00				220.00	2,420
												220.00				220.00	2,420
950	13	8	3	FACILITIES MAINT & REPAIR	11.00	MO											
950	13	8	4	MEDICAL/FIRST AID	11.00	MO						3,300.00				300.00	3,300
												300.00				300.00	3,300
950	13	8	5	RADIOS (LS)	1.00	LS								2,000.00		2,000.00	2,000
														2,000.00		2,000.00	2,000
950	13	8	6	FAX (LS)	1.00	LS						400.00				400.00	400
												400.00				400.00	400
950	13	8	8	REPRODUCTION AND PHOTO	11.00	MO				11,000				1,100.00		1,100.00	12,100
										1,000.00				100.00		1,100.00	12,100
950	13	8	9	POSTAGE	11.00	MO								1,650.00		150.00	1,650
														150.00		150.00	1,650
950	13	8	10	FREIGHT ON SUPPLIES	11.00	MO								2,750.00		250.00	2,750
														250.00		250.00	2,750
950	13	9		COMPUTER AND DATA	11.00	MO											
950	13	9	1	IT/WAN COST	11.00	MO								22,682		2,062.00	22,682
														2,062.00		2,062.00	22,682
950	13	10		VEHICLES FOR PERSONNEL	11.00	MO											
950	13	10	1	PICKUP TRUCKS	11.00	MO				37,656						3,423.30	37,656
										3,423.30						3,423.30	37,656
950	13	12		HEALTH & SAFETY	11.00	MO											
950	13	12	1	HEALTH & SAFETY TRAINING	1.00	LS		21,122		500.00				922.50		22,544	22,545
								21,122		500.00				922.50		22,544	22,545
950	13	12	3	H&S MEDICAL EXAMS	1.00	LS							7,500.00			7,500.00	7,500
													7,500.00			7,500.00	7,500
950	13	13		MISCELLANEOUS COST	11.00	MO											
950	13	13	1	ON-SITE TRAINING PROGRAM	1.00	LS		2,928.40								2,928.40	2,928
								2,928.40								2,928.40	2,928
950	13	13	3	CRAFT QUALIFICATIONS	1.00	LS		3,318.53								3,318.53	3,319
								3,318.53								3,318.53	3,319
950	13	13	4	PER-DIEM	11.00	MO								39,259		3,569.00	39,259
														3,569.00		3,569.00	39,259
950	13	13	5	PROJECT SIGNS	1.00	LS								200.00		200.00	200
														200.00		200.00	200
950	14			Professional Services	11.00	MO											
950	14	1		SUPERVISION/MANAGEMENT	11.00	MO											
950	14	1	1	PROGRAM MANAGER	11.00	MO		33,535								3,048.68	33,535
								3,048.68								3,048.68	33,535
950	14	1	2	SENIOR PROJECT MANAGER	11.00	MO		174,669								15,879	174,670
								15,879								15,879	174,670
950	14	1	3	PROJECT SUPERINTENDENT	11.00	MO		200,770								18,251	200,771
								18,251								18,251	200,771
950	14	2		ADMINISTRATION	11.00	MO											
950	14	2	2	ADMINISTRATIVE CLERKS	11.00	MO		46,222								4,202.01	46,222
								4,202.01								4,202.01	46,222
950	14	4		ENGINEERING	11.00	MO											
950	14	4	13	SURVEYORS	11.00	MO							55,000			5,000.00	55,000
													5,000.00			5,000.00	55,000
950	14			HEALTH & SAFETY	11.00	MO											

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1		CERTIFIED INDUSTRIAL HYG	11.00	MO											
950	14	5	1	1	PROJECT KICKOFF	1.00	LS		648.00								648.00	648
									648.00								648.00	648
950	14	5	1	2	ONGOING SUPPORT	11.00	MO		1,782.00								162.00	1,782
									162.00								162.00	1,782
950	14	5	1	3	ESQ AUDIT/INSPECTION	11.00	MO		15,252						1,309.00		1,505.58	16,561
									1,386.58						119.00		1,505.58	16,561
950	14	5	4		SITE S&H OFFICER	11.00	MO		109,598								9,963.49	109,598
									9,963.49								9,963.49	109,598
950	14	5	7		REGULATORY COMPLIANCE	11.00	MO											
950	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00								1,296.00	1,296
									1,296.00								1,296.00	1,296
950	14	5	7	2	ONGOING SUPPORT	11.00	MO		7,128.01								648.00	7,128
									648.00								648.00	7,128
950	14	5	7	3	ESQ AUDIT/INSPECTION	11.00	MO											
950	14	6			PROJECT SUPPORT SERVICES	11.00	MO											
950	14	6	1		PROCUREMENT MANAGER	11.00	MO											
950	14	6	2		BUYERS	11.00	MO											
950	14	6	2	1	PROJECT KICKOFF	1.00	LS		24,271								24,271	24,271
									24,271								24,271	24,271
950	14	6	2	2	ONGOING SUPPORT	11.00	MO		19,065								1,733.23	19,066
									1,733.23								1,733.23	19,066
950	14	6	4		PROJECT CONTROLS MANAGER	11.00	MO											
950	14	6	5		PROJECT CONTROLS ENGINEER	11.00	MO											
950	14	6	5	1	PROJECT KICKOFF	1.00	LS		3,053.46								3,053.46	3,053
									3,053.46								3,053.46	3,053
950	14	6	5	2	ONGOING SUPPORT	11.00	MO		91,603								8,327.63	91,604
									8,327.63								8,327.63	91,604
950	14	6	6		ESTIMATOR	11.00	MO											
950	14	6	8		HOME OFFICE FLD ACCT SUPT	11.00	MO											
950	14	6	8	1	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
									878.81						59.50		938.31	938
950	14	6	8	2	ONGOING SUPPORT	11.00	MO											
950	14	6	9		FINANCIAL SERVICES	11.00	MO											
950	14	6	9	1	PROJECT KICKOFF	1.00	LS		1,040.57								1,040.57	1,041
									1,040.57								1,040.57	1,041
950	14	6	9	2	ONGOING SUPPORT	11.00	MO		2,861.55								260.14	2,862
									260.14								260.14	2,862
950					**Const. Project Support**	**11.00**	**MO**		**762,125**		**79,626**	**510.00**	**21,670**	**62,500**	**87,332**		**92,160**	**1013763**
Detailed																		

Note: On-site construction is 11 months with 2 crews working 8 hrs/day, days/wk.

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	**13**				**Indirect Project Costs**	**11.00**	**MO**		**28,446**		**79,626**	**510.00**	**21,670**	**7,500.00**	**85,963**		**20,337**	**223,717**
Detailed																		

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 1	CRAFT PAYROLLRELATEDCOST	11.00	MO											
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 1 4	NON PRODUCTIVE-SHOW UP	11.00	MO											
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 1 4 1	WEATHER	11.00	MO											
Detailed														

Note: **********

Includes Show Up Time:

Include 2 weather days/mo. Must pay 2 hr. showup time if craft not called off the day before.

No showup time if announcement made prior to scheduled call out time.
Assumption that announcements will be made, except for 1 day/mo.

Assume total avg. crew of 10 over project duration.
Use Operator Grade 1 as average rate of pay.
10 x 2 hrs/day x 1 day/mo = 20 hrs/mo (@ operator rate)

****

Includes Site Support Crew for Rain Events:

Include cost for 1 oper. & 1 labor for site maintenance during rain events.
2 days/month.
2 days x 10 hrs/day x 1 month = 20 hrs/mo (@ both laborer & operator rates)

****

Severe weather covered in risk analysis.

****

	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 2	CONST EQUIP & TOOLS	11.00	MO				8,470.00		11,950				1,856.36	20,420
Detailed														
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 1 Detailed	**HEAVY EQUIPMENT**	**1.00**	**LS**											

Note: **********

Equipment Adjustment - Adjustment to ensure coverage of full rental/depreciation for equipment full monthly/weekly charges are covered and for lost time due to weather impact.

Costs to be calculated using the Equipment Schedule.
Costs currently plugged at $10,000.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 2 Detailed	**LIGHT EQUIPMENT**	**11.00**	**MO**				**8,470.00**						**770.00**	**8,470**

Note: **********

Include common small equipemnt under this activity:
1. Power Washer
2. Decon pump
3. Site pump

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URPWRWS	Power Washer	11.00	MO	U		550.00						550.00	6,050
1.0	URPUMP2"	Submersible Pump	11.00	MO	U		110.00						110.00	1,210
1.0	URPUMP2"	Submersible Pump	11.00	MO	U		110.00						110.00	1,210
		Resource List:			T		8,470						8,470	8,470

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 6 Detailed	**SMALL TOOLS**	**11.00**	**MO**						**5,500.00**				**500.00**	**5,500**

Note: **********

Include ~$500/month for small tools/consumeables allowance.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	SSMTOOL	Small Tools/Consumables	5,500.00	LS	U				1.00				1.00	5,500
		Resource List:			T				5,500				5,500	5,500

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 2 8 Detailed	**PPE**	**1.00**	**LS**						**6,450.00**				**6,450.00**	**6,450**

Note: **********

Include allowance for (10) sets of initial Level C PPE supply to be prepared for any Level C work which may be required. Include Level D PPE for ~10 site crew for ~30 days of site work.

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UOPPE_C	PPE-Level C	10.00	DA	U					45.00				45.00	450
1.0 UOPPE_D	PPE-Level D	300.00	DA	U					20.00				20.00	6,000
	Resource List:			T					6,450				6,450	6,450
950 13 5 Detailed	**SECURITY**	**11.00**	**MO**											
	Note: **********													
	No additional costs included for on-site security.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 Detailed	**TEMP CONSTRUCTION FAC.**	**11.00**	**MO**		**1,077.88**		**19,800**	**510.00**	**3,600.00**				**2,271.63**	**24,988**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 1 Detailed	**OFFICE TRAILERS**	**11.00**	**MO**				**5,500.00**						**500.00**	**5,500**
	Note: **********													
	(1) trailer for FWENC.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 UROFFTRL	Office Trailer -12x60	11.00	MO	U			500.00						500.00	5,500
	Resource List:			T			5,500						5,500	5,500
950 13 6 2 Detailed	**STORAGE FACILITIES**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 6 2 1 Detailed	**Connex Boxes**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	Note: **********													
	(1) connex box for storage of small tools/equipment.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00	Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail														
1.0 URCONNEX	Connex Box	22.00	MO	U			150.00						150.00	3,300
	Resource List:			T			3,300						3,300	3,300

(c) Copyright 1988 to 2002 ... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**13**	**6**	**3**	**DECON FOR PERSONNEL**	**11.00**	**MO**				**3,850.00**						**350.00**	**3,850**
Detailed																	

Note: **********

No shower trailers anticipated at this time.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	11.00	MO	U			350.00						350.00	3,850
			Resource List:		T			3,850						3,850	3,850

950	**13**	**6**	**4**	**DECON FOR CONST EQUIP**	**1.00**	**LS**		**1,077.88**			**510.00**			**1,587.88**	**1,588**
Detailed															

Note: **********

A simple Heavy Equipment Decon Pad will be constructed (20'x40') using:
Surrounding soils to create bermed area
20 mil poly (excess poly used to cover pad during non-use)
6" crushed stone
plywood to displace weight of equipment
Equipment 2" pump& Pressure washer - Included under light equipment (13.2.2)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	MCRAGG	Crushed Aggregate	20.00	TN	U						10.00			10.00	200
1.0	MVISQUEE	Visqueen 20mil 40x100	1.00	EA	U						200.00			200.00	200
1.0	MPLYWOOD	Plywood Sheeting 1/2"	10.00	EA	U						11.00			11.00	110
			Resource List:		T						510			510	510

CREW Cost Detail

	1.3 Days	0.8000 LS/Da	1.2500 Da/LS	862.30 Cost/Da											
	10.0 Hours	0.1000 LS/Hr	10.0000 Hr/LS	107.79 Cost/Hr											
	30.0 Man-Hr	0.0333 LS/MH	30.0000 MH/LS	35.93 Cost/MH											
2.0	L060100	GENERAL LABORER	20.00	HR	U			32.55						32.55	651
1.0	L010510	OPERATOR BACKHOE	10.00	HR	U			42.69						42.69	427
			Resource List:		T			1,078						1,078	1,078

950	**13**	**6**	**5**	**LUNCH/BREAK TRAILER**	**11.00**	**MO**				**3,850.00**				**350.00**	**3,850**
Detailed															

Note: **********

(1) lunch/break trailer for on-site personnel.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	URBRKTRL	Lunch/Break Trailer	11.00	MO	U			350.00						350.00	3,850
			Resource List:		T			3,850						3,850	3,850

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 6 8 Detailed	**TOILETS**	**11.00**	**MO**				**3,300.00**						**300.00**	**3,300**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	URPRTAJH Port-a-John Unit(s) (4)	11.00	MO	U			300.00						300.00	3,300
	Resource List:			T			3,300						3,300	3,300
950 13 6 9 Detailed	**BARRICADES**	**1.00**	**LS**						**500.00**				**500.00**	**500**

Note: **********

Include allowance for purchase of misc. traffic control devices for on-site and off-site such as barricades/signs/plastic drums, etc.

****

	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	500.00	LS	U					1.00				1.00	500
	Resource List:			T					500				500	500
950 13 6 12 Detailed	**CLIENT TRAILERS**	**11.00**	**MO**											

Note: **********

Include rental of (1) trailer for use by client/engineer.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 6 16 Detailed	**OFFICE EQUIP/FURNISHING**	**1.00**	**LS**						**2,000.00**				**2,000.00**	**2,000**

Note: **********

Office furniture/equipment. Up to (4) field staff at $500/each.

****

	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	SMSCSUPL Misc. Supplies/Materials	2,000.00	LS	U					1.00				1.00	2,000
	Resource List:			T					2,000				2,000	2,000
950 13 6 18 Detailed	**TESTING LABORATORY**	**11.00**	**MO**											

Note: **********

No QC testing laboratory included at this time.

****

(c) Copyright 1988 to 2002 i... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	6	27	**HAUL ROAD MAINTENANCE**	**11.00**	**MO**											
				Note: ********** Include 50 tons/mo for additional stone placement on haul roads - maintenance to be performed by on-site crew during slow downs in daily operations. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	6	28	**EMERGENCY EQUIPMENT**	**11.00**	**MO**						**1,100.00**				**100.00**	**1,100**
				Note: ********** Include monthly allowances for emergency equipment such as Eye and Body Wash Stations, Emergency Showers, Fire Extinguishers and Sorbents. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0				UOSFTYSPSafety Supplies	11.00	MO	U					100.00				100.00	1,100
					Resource List:		T					1,100				1,100	1,100
950 Detailed	13	7		**TEMPORARY UTILITIES**	**11.00**	**MO**								**15,400**	**1,400.00**		**15,400**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 Detailed	13	7	1	**POWER**	**11.00**	**MO**								**5,500.00**	**500.00**		**5,500**
				Note: ********** Allowance for electrical charges. **********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0				UOELECT Electrical Charges-Month	11.00	MO	U							500.00		500.00	5,500
					Resource List:		T							5,500		5,500	5,500
950 Detailed	13	7	2	**WATER**	**11.00**	**MO**								**2,200.00**		**200.00**	**2,200**
				Note: ********** Include allowance for potable water supply. **********													

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	UOPOTWTR Potable Water	11.00	MO	U							200.00		200.00	2,200
	Resource List:			T							2,200		2,200	2,200
950 13 7 3 Detailed	**SANITARY**	**11.00**	**MO**											
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 7 4 Detailed	**TELEPHONE**	**11.00**	**MO**								**7,700.00**		**700.00**	**7,700**
	Note: ********** Include allowance for up to (3) cell phones and (1) office phone/fax/data line. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	UOOFFPHN Monthly Office Phone	11.00	MO	U							500.00		500.00	5,500
1.0	UOCELLPH Monthly Cell Ph.	22.00	MO	U							100.00		100.00	2,200
	Resource List:			T							7,700		7,700	7,700
950 13 8 Detailed	**OPERATING SUPPLY/SERV**	**11.00**	**MO**				**13,200**		**6,120.00**		**7,500.00**		**2,438.18**	**26,820**
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 13 8 1 Detailed	**JANITORIAL AND CLEANUP**	**11.00**	**MO**				**2,200.00**						**200.00**	**2,200**
	Note: ********** On-site labor to perform cleanup. Allow for 1 dumpster on-site at $200/month including disposal of debris. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail 1.0	UODUMP Dumpster	11.00	MO	U			200.00						200.00	2,200
	Resource List:			T			2,200						2,200	2,200
950 13 8 2 Detailed	**OFFICE & ENGINEERING SUP**	**11.00**	**MO**						**2,420.00**				**220.00**	**2,420**
	Note: ********** Include office supplies for (4) site personnel. Use $55/mo/person - based on past FWENC projects. **********													

(c) Copyright 1988 to 2002 H... ...ollar Corporation All Rights Reserved

Code	Description	Quantity	UM	UT	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	UOOFFSUPOffice Supplies($/prs/mo)	44.00	MO	U					55.00				55.00	2,420
		Resource List:		T					2,420				2,420	2,420
950 13 8 3 Detailed	**FACILITIES MAINT & REPAIR**	**11.00**	**MO**											
	Note: **********													
	No Facilities Maintenance & Repair costs are anticipated at this time.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
950 13 8 4 Detailed	**MEDICAL/FIRST AID**	**11.00**	**MO**						**3,300.00**				**300.00**	**3,300**
LIST Cost Detail	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
1.0	UO1STAID 1st Aid Supplies	11.00	MO	U					300.00				300.00	3,300
		Resource List:		T					3,300				3,300	3,300
950 13 8 5 Detailed	**RADIOS (LS)**	**1.00**	**LS**								**2,000.00**		**2,000.00**	**2,000**
	Note: **********													
	Include allowance for site radios for on-site/emergency communication.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UORADIO Radio	1.00	LS	U							2,000.00		2,000.00	2,000
		Resource List:		T							2,000		2,000	2,000
950 13 8 6 Detailed	**FAX (LS)**	**1.00**	**LS**						**400.00**				**400.00**	**400**
	Note: **********													
	Include allowance for purchase of site fax.													
	**********													
	8.00 Hrs/Shift 1.00 Shift/Day	5.00 Day/Wk			40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
LIST Cost Detail 1.0	UOFAX Fax/Copier Purchase	1.00	EA	U					400.00				400.00	400
		Resource List:		T					400				400	400

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 13 8 8 Detailed	**REPRODUCTION AND PHOTO**	**11.00**	**MO**				**11,000**				**1,100.00**		**1,100.00**	**12,100**

Note: **********

Include rental of full-size copier camera, and allowance for monthly site photo printing costs.
(If project duration warrants, the monthly photo budget can be utilized for purchase of a site digital camera.)

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPHOTO	Site Photos/Video	11.00	MO	U						100.00	100.00	1,100
1.0	URCOPIER	Copier Rental	11.00	MO	U		1,000.00					1,000.00	11,000
			Resource List:		T		11,000				1,100	12,100	12,100

950 13 8 9 Detailed	**POSTAGE**	**11.00**	**MO**								**1,650.00**	**150.00**	**1,650**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOPOSTGE	Postage/Shipping	11.00	MO	U						150.00	150.00	1,650
			Resource List:		T						1,650	1,650	1,650

950 13 8 10 Detailed	**FREIGHT ON SUPPLIES**	**11.00**	**MO**								**2,750.00**	**250.00**	**2,750**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOFEDEX	Overnight Shipments	11.00	MO	U						250.00	250.00	2,750
			Resource List:		T						2,750	2,750	2,750

950 13 9 Detailed	**COMPUTER AND DATA**	**11.00**	**MO**								**22,682**	**2,062.00**	**22,682**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 13 9 1 Detailed	**IT/WAN COST**	**11.00**	**MO**								**22,682**	**2,062.00**	**22,682**

Note: **********

Include 20% of Field/Home Office hours for computer charges.
Total hours: currently plugged at 1000 hrs. = 200 hrs./mo of information services charges.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UFINFOSV	FWENC Info. Services Ch.	2,200.00	HR	U						10.31	10.31	22,682
			Resource List:		T						22,682	22,682	22,682

(c) Copyright 1988 to 2002 Hand Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	10		**VEHICLES FOR PERSONNEL**	**11.00**	**MO**				**37,656**						**3,423.30**	**37,656**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	13	10	1	**PICKUP TRUCKS**	**11.00**	**MO**				**37,656**						**3,423.30**	**37,656**
Detailed																	
				Note: **********													
				Include (3) Pickup Trucks for site personnel.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																	
				242.0 Days 0.0455 MO/Da 22.0000 Da/MO 155.60 Cost/Da													
				1936.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 19.45 Cost/Hr													
	3.0		RPUTRK05	F-250 4X4 3/4 TON PICKUP	5,808.00	HR	U			6.48						6.48	37,656
					Resource List:		T			37,656						37,656	37,656
950	13	12		**HEALTH & SAFETY**	**11.00**	**MO**		**21,122**		**500.00**			**7,500.00**	**922.50**		**2,731.32**	**30,045**
Detailed																	
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	13	12	1	**HEALTH & SAFETY TRAINING**	**1.00**	**LS**		**21,122**		**500.00**				**922.50**		**22,544**	**22,545**
Detailed																	
				Note: **********													
				In the event the crew is local hire requiring 40-hour Haz Woper Training: - Include CIH time for training crew w/ perdiem & travel (local). - Include rental of hotel conference room for 1 week to give training. - Include training for (10) site crew members.													
				**********													
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail																	
	1.0		URCONFRM	Conference Room Rental	1.00	WK	U			500.00						500.00	500
	1.0		UTPERDEM	Perdiem-Meals & Lodging	5.00	DA	U							150.00		150.00	750
	1.0		UTMILES	Mileage	500.00	MI	U							0.35		0.35	173
					Resource List:		T			500				923		1,423	1,423
CREW Cost Detail																	
				5.0 Days 0.2000 LS/Da 5.0000 Da/LS 4224.40 Cost/Da													
				40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 528.05 Cost/Hr													
				440.0 Man-Hr 0.0023 LS/MH 440.0000 MH/LS 48.00 Cost/MH													
	4.0		L010101	OPERATOR GROUP 1	160.00	HR	U	42.69								42.69	6,830
	6.0		L060100	GENERAL LABORER	240.00	HR	U	32.55								32.55	7,812
	1.0		L90HXX04	Home - CIH Support	40.00	HR	U	162.00								162.00	6,480
					Resource List:		T	21,122								21,122	21,122

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	13	12	3	**H&S MEDICAL EXAMS**	**1.00**	**LS**							**7,500.00**			**7,500.00**	**7,500**
Detailed																	

Note: **********

Include (1) entrance/exit medical exam (including drug screen) for all craft for duration of project.
Est. crew size of 10 over duration of project.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UOMEDEXM	Ent/Exit Medical Exams	10.00	EA	U						750.00			750.00	7,500
			Resource List:		T						7,500			7,500	7,500

950	13	13		**MISCELLANEOUS COST**	**11.00**	**MO**		**6,246.93**						**39,459**	**4,155.08**	**45,706**
Detailed																

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950	13	13	1	**ON-SITE TRAINING PROGRAM**	**1.00**	**LS**		**2,928.40**							**2,928.40**	**2,928**
Detailed																

Note: **********

Include cost for (1) day of site orientation for site crew.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

1.0 Days	1.0000 LS/Da	1.0000 Da/LS	2928.40 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	366.05 Cost/Hr	
80.0 Man-Hr	0.0125 LS/MH	80.0000 MH/LS	36.61 Cost/MH	

4.0	L010101	OPERATOR GROUP 1	32.00	HR	U	42.69									42.69	1,366
6.0	L060100	GENERAL LABORER	48.00	HR	U	32.55									32.55	1,562
			Resource List:		T	2,928									2,928	2,928

950	13	13	3	**CRAFT QUALIFICATIONS**	**1.00**	**LS**		**3,318.53**							**3,318.53**	**3,319**
Detailed																

Note: **********

Include 1 week for Supt. to hire/interview crew. (Assumption that crew is local hire (non-union))

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

5.0 Days	0.2000 LS/Da	5.0000 Da/LS	663.71 Cost/Da
40.0 Hours	0.0250 LS/Hr	40.0000 Hr/LS	82.96 Cost/Hr
40.0 Man-Hr	0.0250 LS/MH	40.0000 MH/LS	82.96 Cost/MH

(c) Copyright 1988 to 2002 h... ...ollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90FXX02		Field-Proj Superintendent	40.00	HR	U	82.96								82.96	3,319
					Resource List:		T	3,319								3,319	3,319
950 Detailed	**13**	**13**	**4**	**PER-DIEM**	**11.00**	**MO**								**39,259**		**3,569.00**	**39,259**

Note: **********

Include Perdiem for:
- Controls Engineer & SHSO - fulltime (Include 1 2-bedroom apt rental)
- Superintendent & QC/Field Engr to be local.

Include allowance for mileage/expenses for Project Manager visit - 2 visits/month @ 100 miles/visit.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

	1.0	UTMILES		Mileage	2,200.00	MI	U							0.35		0.35	759
	1.0	UTMEALS		Meals	484.00	DA	U							25.00		25.00	12,100
	1.0	UTAPTMNT		Apartment Rental-Furn/Utl	22.00	MO	U							1,200.00		1,200.00	26,400
					Resource List:		T							39,259		39,259	39,259
950 Detailed	**13**	**13**	**5**	**PROJECT SIGNS**	**1.00**	**LS**								**200.00**		**200.00**	**200**

Note: **********

Include allowance for Project & Safety Signs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

	1.0	UOPRSIGN		Project Signs	1.00	LS	U							200.00		200.00	200
					Resource List:		T							200		200	200
950 Detailed	**14**			**Professional Services**	**11.00**	**MO**		**733,678**					**55,000**	**1,368.50**		**71,822**	**790,047**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**		**SUPERVISION/MANAGEMENT**	**11.00**	**MO**		**408,976**								**37,179**	**408,976**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**1**	**1**	**PROGRAM MANAGER**	**11.00**	**MO**		**33,535**								**3,048.68**	**33,535**

Note: **********

Include 16 hrs/mo for Program Manager -

****

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
LIST Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				22.0 Days 0.5000 MO/Da 2.0000 Da/MO 1524.34 Cost/Da													
				176.0 Hours 0.0625 MO/Hr 16.0000 Hr/MO 190.54 Cost/Hr													
				176.0 Man-Hr 0.0625 MO/MH 16.0000 MH/MO 190.54 Cost/MH													
	1.0			L90HXX01 Home - Program Manager	176.00	HR	U	190.54								190.54	33,535
				Resource List:			T	33,535								33,535	33,535
950 Detailed	**14**	**1**	**2**	**SENIOR PROJECT MANAGER**	**11.00**	**MO**		**174,669**								**15,879**	**174,670**
				Note: **********													
				Project Manager at 100% FTE for project duration -													
				**********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				242.0 Days 0.0455 MO/Da 22.0000 Da/MO 721.78 Cost/Da													
				1936.0 Hours 0.0057 MO/Hr 176.0000 Hr/MO 90.22 Cost/Hr													
				1936.0 Man-Hr 0.0057 MO/MH 176.0000 MH/MO 90.22 Cost/MH													
	1.0			L90FXX01 Field-Proj Manager	1,936.00	HR	U	90.22								90.22	174,670
				Resource List:			T	174,670								174,670	174,670
950 Detailed	**14**	**1**	**3**	**PROJECT SUPERINTENDENT**	**11.00**	**MO**		**200,770**								**18,251**	**200,771**
				Note: **********													
				Site Supervisor for duration of all field work.													
				**********													
CREW Cost Detail				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
				302.5 Days 0.0364 MO/Da 27.5000 Da/MO 663.71 Cost/Da													
				2420.0 Hours 0.0045 MO/Hr 220.0000 Hr/MO 82.96 Cost/Hr													
				2420.0 Man-Hr 0.0045 MO/MH 220.0000 MH/MO 82.96 Cost/MH													
	1.0			L90FXX02 Field-Proj Superintendent	2,420.00	HR	U	82.96								82.96	200,771
				Resource List:			T	200,771								200,771	200,771
950 Detailed	**14**	**2**		**ADMINISTRATION**	**11.00**	**MO**		**46,222**								**4,202.01**	**46,222**
				8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 H... Dollar Corporation All Rights Reserved

Code				Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	2	2	**ADMINISTRATIVE CLERKS**	**11.00**	**MO**		**46,222**								**4,202.01**	**46,222**

Note: **********

Site clerk included - fulltime for project duration (@ 40 hrs/wk).

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

CREW Cost Detail

242.0 Days	0.0455 MO/Da	22.0000 Da/MO	191.00 Cost/Da	
1936.0 Hours	0.0057 MO/Hr	176.0000 Hr/MO	23.88 Cost/Hr	
1936.0 Man-Hr	0.0057 MO/MH	176.0000 MH/MO	23.88 Cost/MH	

1.0	L90FC300	Field - Clerk	1,936.00	HR	U	23.88								23.88	46,222
			Resource List:		T	46,222								46,222	46,222

950 Detailed	14	4		**ENGINEERING**	**11.00**	**MO**							**55,000**			**5,000.00**	**55,000**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	4	13	**SURVEYORS**	**11.00**	**MO**							**55,000**			**5,000.00**	**55,000**

Note: **********

Include allowance of $5000/month for survey costs.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	USSURVEY	Survey Subcontractor	55,000	LS	U								1.00			1.00	55,000
			Resource List:		T								55,000			55,000	55,000

950 Detailed	14	5		**HEALTH & SAFETY**	**11.00**	**MO**		**135,704**						**1,309.00**		**12,455**	**137,014**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	14	5	1	**CERTIFIED INDUSTRIAL HYG**	**11.00**	**MO**		**17,682**						**1,309.00**		**1,726.49**	**18,991**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	14	5	1	1	**PROJECT KICKOFF**	**1.00**	**LS**		**648.00**								**648.00**	**648**
Detailed																		

Note: **********

Include (4) hours for CIH review of SHSP.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

0.5 Days	2.0000 LS/Da	0.5000 Da/LS	1296.00 Cost/Da
4.0 Hours	0.2500 LS/Hr	4.0000 Hr/LS	162.00 Cost/Hr
4.0 Man-Hr	0.2500 LS/MH	4.0000 MH/LS	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	4.00	HR	U	162.00				162.00	648
			Resource List:		T	648				648	648

950	14	5	1	2	**ONGOING SUPPORT**	**11.00**	**MO**		**1,782.00**								**162.00**	**1,782**
Detailed																		

Note: **********

Include (1) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

1.4 Days	8.0000 MO/Da	0.1250 Da/MO	1296.00 Cost/Da
11.0 Hours	1.0000 MO/Hr	1.0000 Hr/MO	162.00 Cost/Hr
11.0 Man-Hr	1.0000 MO/MH	1.0000 MH/MO	162.00 Cost/MH

1.0	L90HXX04	Home - CIH Support	11.00	HR	U	162.00				162.00	1,782
			Resource List:		T	1,782				1,782	1,782

950	14	5	1	3	**ESQ AUDIT/INSPECTION**	**11.00**	**MO**		**15,252**						**1,309.00**		**1,505.58**	**16,561**
Detailed																		

Note: **********

Include (1) H&S ESQ Audit.

****

LIST Cost Detail

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

22.0 Days	0.5000 MO/Da	2.0000 Da/MO	752.79 Cost/Da
176.0 Hours	0.0625 MO/Hr	16.0000 Hr/MO	94.10 Cost/Hr
176.0 Man-Hr	0.0625 MO/MH	16.0000 MH/MO	94.10 Cost/MH

1.0	L90HXX05	Home - H&S Staff	176.00	HR	U	86.66				86.66	15,252
1.0	UTMEALS	Meals	22.00	DA	U				25.00	25.00	550
1.0	UTMILES	Mileage	2,200.00	MI	U				0.35	0.35	759
			Resource List:		T	15,252			1,309	16,561	16,561

(c) Copyright 1988 to 2002 Hand Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 Detailed	14	5	4		SITE S&H OFFICER	11.00	MO		109,598								9,963.49	109,598

Note: **********

Site Health & Safety Officer - include fulltime for duration of field activities.

****

CREW Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
275.0 Days	0.0400 MO/Da	25.0000 Da/MO	398.54 Cost/Da	
2200.0 Hours	0.0050 MO/Hr	200.0000 Hr/MO	49.82 Cost/Hr	
2200.0 Man-Hr	0.0050 MO/MH	200.0000 MH/MO	49.82 Cost/MH	

1.0	L90FEI00	Field - Assoc Engr.	2,200.00	HR	U	49.82										49.82	109,598
			Resource List:		T	109,598										109,598	109,598

950 Detailed	14	5	7		REGULATORY COMPLIANCE	11.00	MO		8,424.01							765.82	8,424

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh

950 Detailed	14	5	7	1	PROJECT KICKOFF	1.00	LS		1,296.00							1,296.00	1,296

Note: **********

Include (8) hours for review of EHS/SPCC Plans.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
1.0 Days	1.0000 LS/Da	1.0000 Da/LS	1296.00 Cost/Da	
8.0 Hours	0.1250 LS/Hr	8.0000 Hr/LS	162.00 Cost/Hr	
8.0 Man-Hr	0.1250 LS/MH	8.0000 MH/LS	162.00 Cost/MH	

1.0	L90HXX06	Home - Regl Compliance	8.00	HR	U	162.00										162.00	1,296
			Resource List:		T	1,296										1,296	1,296

950 Detailed	14	5	7	2	ONGOING SUPPORT	11.00	MO		7,128.01							648.00	7,128

Note: **********

Include (8) hour(s)/month for general support.

****

LIST Cost Detail

8.00 Hrs/Shift	1.00 Shift/Day	5.00 Day/Wk	40.00 Hours/Wk	8.00 Pay-Hrs/Sh
5.5 Days	2.0000 MO/Da	0.5000 Da/MO	1296.00 Cost/Da	
44.0 Hours	0.2500 MO/Hr	4.0000 Hr/MO	162.00 Cost/Hr	
44.0 Man-Hr	0.2500 MO/MH	4.0000 MH/MO	162.00 Cost/MH	

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
	1.0	L90HXX06			Home - Regl Compliance	44.00	HR	U	162.00								162.00	7,128
						Resource List:		T	7,128								7,128	7,128
950 Detailed	**14**	**5**	**7**	**3**	**ESQ AUDIT/INSPECTION**	**11.00**	**MO**											

Note: **********

(1) ESQ Audit included under 14.5.1.3. No additional costs included.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**			**PROJECT SUPPORT SERVICES**	**11.00**	**MO**		**142,775**						**59.50**		**12,984**	**142,835**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**1**		**PROCUREMENT MANAGER**	**11.00**	**MO**											

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**		**BUYERS**	**11.00**	**MO**		**43,337**							**3,939.73**		**43,337**

Note: **********

Hours per (TBD) response to Project Services Budget Request.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

950 Detailed	**14**	**6**	**2**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**24,271**							**24,271**		**24,271**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

20.0 Days	0.0500 LS/Da	20.0000 Da/LS	1213.57 Cost/Da
160.0 Hours	0.0063 LS/Hr	160.0000 Hr/LS	151.70 Cost/Hr
240.0 Man-Hr	0.0042 LS/MH	240.0000 MH/LS	101.13 Cost/MH

	1.0	L90HXX02			Home - Procurement Mngr	80.00	HR	U	130.07								130.07	10,406
	1.0	L90HXX03			Home - Procurement Agent	160.00	HR	U	86.66								86.66	13,866
						Resource List:		T	24,271								24,271	24,271
950 Detailed	**14**	**6**	**2**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**19,065**							**1,733.23**		**19,066**

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

(c) Copyright 1988 to 2002 Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
					27.5 Days 0.4000 MO/Da 2.5000 Da/MO 693.29 Cost/Da													
					220.0 Hours 0.0500 MO/Hr 20.0000 Hr/MO 86.66 Cost/Hr													
					220.0 Man-Hr 0.0500 MO/MH 20.0000 MH/MO 86.66 Cost/MH													
	1.0				L90HXX03 Home - Procurement Agent	220.00	HR	U	86.66								86.66	19,066
						Resource List:		T	19,066								19,066	19,066
950	**14**	**6**	**4**		**PROJECT CONTROLS MANAGER**	**11.00**	**MO**											
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**14**	**6**	**5**		**PROJECT CONTROLS ENGINEER**	**11.00**	**MO**		**94,657**								**8,605.22**	**94,657**
Detailed																		
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950	**14**	**6**	**5**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**3,053.46**								**3,053.46**	**3,053**
Detailed																		
					Note: **********													
					Include 1 week for pre-mob project setup.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					5.0 Days 0.2000 LS/Da 5.0000 Da/LS 610.69 Cost/Da													
					40.0 Hours 0.0250 LS/Hr 40.0000 Hr/LS 76.34 Cost/Hr													
					40.0 Man-Hr 0.0250 LS/MH 40.0000 MH/LS 76.34 Cost/MH													
	1.0				L90FXX05 Field - Cost/Scheduler	40.00	HR	U	76.34								76.34	3,053
						Resource List:		T	3,053								3,053	3,053
950	**14**	**6**	**5**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**91,603**								**8,327.63**	**91,604**
Detailed																		
					Note: **********													
					To include fulltime Cost/Scheduler.													
					**********													
					8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
CREW Cost Detail																		
					300.0 Days 0.0367 MO/Da 27.2727 Da/MO 305.35 Cost/Da													
					2400.0 Hours 0.0046 MO/Hr 218.1818 Hr/MO 38.17 Cost/Hr													
					1200.0 Man-Hr 0.0092 MO/MH 109.0909 MH/MO 76.34 Cost/MH													
	0.5				L90FXX05 Field - Cost/Scheduler	1,200.00	HR	U	76.34								76.34	91,604
						Resource List:		T	91,604								91,604	91,604

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code	Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950 14 6 6 Detailed	ESTIMATOR	11.00	MO											
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8 Detailed	HOME OFFICE FLD ACCT SUPT	11.00	MO		878.81						59.50		85.30	938
	Note: ********** Hours per (TBD) response to Project Services Budget Request. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 8 1 Detailed	PROJECT KICKOFF	1.00	LS		878.81						59.50		938.31	938
	Note: ********** Include (1) day for training of on-site staff. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
LIST Cost Detail														
	1.0 Days 1.0000 LS/Da 1.0000 Da/LS 938.31 Cost/Da													
	8.0 Hours 0.1250 LS/Hr 8.0000 Hr/LS 117.29 Cost/Hr													
	8.0 Man-Hr 0.1250 LS/MH 8.0000 MH/LS 117.29 Cost/MH													
1.0	L90HEF00 Home - Senior Engr	8.00	HR	U	109.85								109.85	879
1.0	UTMEALS Meals	1.00	DA	U							25.00		25.00	25
1.0	UTMILES Mileage	100.00	MI	U							0.35		0.35	35
		Resource List:		T	879						60		938	938
950 14 6 8 2 Detailed	ONGOING SUPPORT	11.00	MO											
	Note: ********** Support required for craft payroll processing. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													
950 14 6 9 Detailed	FINANCIAL SERVICES	11.00	MO		3,902.12								354.74	3,902
	Note: ********** Hours per (TBD) response to project services budget request. **********													
	8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh													

(c) Copyright 1988 to 2002 Hans Dollar Corporation All Rights Reserved

Code					Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
950	**14**	**6**	**9**	**1**	**PROJECT KICKOFF**	**1.00**	**LS**		**1,040.57**								**1,040.57**	**1,041**
Detailed																		
LIST Cost Detail		8.00 Hrs/Shift			1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		1.0 Days			1.0000 LS/Da		1.0000 Da/LS		1040.57 Cost/Da									
		8.0 Hours			0.1250 LS/Hr		8.0000 Hr/LS		130.07 Cost/Hr									
		8.0 Man-Hr			0.1250 LS/MH		8.0000 MH/LS		130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	8.00	HR	U	130.07								130.07	1,041
						Resource List:		T	1,041								1,041	1,041
950	**14**	**6**	**9**	**2**	**ONGOING SUPPORT**	**11.00**	**MO**		**2,861.55**								**260.14**	**2,862**
Detailed																		
LIST Cost Detail		8.00 Hrs/Shift			1.00 Shift/Day		5.00 Day/Wk		40.00 Hours/Wk		8.00 Pay-Hrs/Sh							
		2.8 Days			4.0000 MO/Da		0.2500 Da/MO		1040.57 Cost/Da									
		22.0 Hours			0.5000 MO/Hr		2.0000 Hr/MO		130.07 Cost/Hr									
		22.0 Man-Hr			0.5000 MO/MH		2.0000 MH/MO		130.07 Cost/MH									
	1.0	L90HXX07			Home - Cost Services	22.00	HR	U	130.07								130.07	2,862
						Resource List:		T	2,862								2,862	2,862

(c) Copyright 1988 to 2002 Hard Dollar Corporation All Rights Reserved

Code		Description	Quantity	UM	U T	Labor	Equipmnt	Rentals	Material	Supply	Subcon	Other	Tax	Unit	Extended
99		Demobilization	1.00	EA	T	4,312		1,916			24,500	2,700		33,427	33,427
		Demobilization													
					U	4,311.50		1,915.99			24,500	2,700.00		33,427	33,427
					T	4,312		1,916			24,500	2,700		33,427	33,427
		Bid Item bid quantity and cost:	1.00	EA	T	4,312		1,916			24,500	2,700		33,427	33,427
230		Demobilization	1.00	EA											
230	1	DEMOB OF CONSTRUCTION EQP	1.00	LS							24,500			24,500	24,500
											24,500			24,500	24,500
230	2	DEMOB OF FACILITIES	1.00	LS								2,700.00		2,700.00	2,700
												2,700.00		2,700.00	2,700
230	3	DEMOB OF PERSONNEL	1.00	LS											
230	4	FINAL SITE CLEANUP	1.00	LS		4,311.50		1,915.99						6,227.49	6,227
						4,311.50		1,915.99						6,227.49	6,227
230		**Demobilization**	**1.00**	**EA**		**4,311.50**		**1,915.99**			**24,500**	**2,700.00**		**33,427**	**33,427**
Detailed															

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

230	**1**	**DEMOB OF CONSTRUCTION EQP**	**1.00**	**LS**							**24,500**			**24,500**	**24,500**
Detailed															

Note: **********

Include:
FW Equipment Demob & Teardown Costs
Rental Equipment Demob Costs - Sm. Equip Charge of $100 ea; Lg. Equip Charge of $300 ea

Costs are currently plugged.

****

8.00 Hrs/Shift 1.00 Shift/Day 5.00 Day/Wk 40.00 Hours/Wk 8.00 Pay-Hrs/Sh

LIST Cost Detail

1.0	UEEPTRNSFWENC Eqp Transport/Setup	20,000	LS	U							1.00			1.00	20,000
1.0	UERNTRSMRental Equip Transp-Small	6.00	EA	U							150.00			150.00	900
1.0	UERNTRLGRental Equip Transp-Large	6.00	EA	U							600.00			600.00	3,600
		Resource List:		T							24,500			24,500	24,500

230	**2**	**DEMOB OF FACILITIES**	**1.00**	**LS**								**2,700.00**		**2,700.00**	**2,700**
Detailed															

Note: **********

Field Trailers Demobilized will consist of the following:
FW Field Office
Engineer/Client Field Office
Break Trailer
Conex Box

****

(c) Copyright 1988 to 2002 Dollar Corporation All Rights Reserved

FOSTER WHEELER F' ' ONMENTAL CORPORATION
A9PILES ' ' '

Alternative #9 - Precast Piles
30-Year O&M Costs

Year	Cost	Discounted Cost	Cummulative Total	Comments
1	$ 10,000	$ 9,350	$ 9,350	Allowance for inspections.
2	$ 10,000	$ 8,730	$ 18,080	
3	$ 10,000	$ 8,160	$ 26,240	
4	$ 10,000	$ 7,630	$ 33,870	
5	$ 10,000	$ 7,130	$ 41,000	
6	$ 10,000	$ 6,660	$ 47,660	
7	$ 10,000	$ 6,230	$ 53,890	
8	$ 10,000	$ 5,820	$ 59,710	
9	$ 10,000	$ 5,440	$ 65,150	
10	$ 10,000	$ 5,080	$ 70,230	
11	$ 10,000	$ 4,750	$ 74,980	
12	$ 10,000	$ 4,440	$ 79,420	
13	$ 10,000	$ 4,150	$ 83,570	
14	$ 10,000	$ 3,880	$ 87,450	
15	$ 10,000	$ 3,620	$ 91,070	
16	$ 10,000	$ 3,390	$ 94,460	
17	$ 10,000	$ 3,170	$ 97,630	
18	$ 10,000	$ 2,960	$ 100,590	
19	$ 10,000	$ 2,770	$ 103,360	
20	$ 10,000	$ 2,580	$ 105,940	
21	$ 10,000	$ 2,420	$ 108,360	
22	$ 10,000	$ 2,260	$ 110,620	
23	$ 10,000	$ 2,110	$ 112,730	
24	$ 10,000	$ 1,970	$ 114,700	
25	$ 10,000	$ 1,840	$ 116,540	
26	$ 10,000	$ 1,720	$ 118,260	
27	$ 10,000	$ 1,610	$ 119,870	
28	$ 10,000	$ 1,500	$ 121,370	
29	$ 10,000	$ 1,410	$ 122,780	
30	$ 10,000	$ 1,310	$ 124,090	

ATTACHMENT 1

HUSHMAND ASSOCIATES, INC. (HAI) COVER LETTER

HUSHMAND ASSOCIATES, INCORPORATED
Geotechnical, Earthquake and Environmental Engineers

September 24, 2003

FOSTER WHEELER
1940 E. Deere Ave., Suite 200
Santa Ana, California 92705
Attn.: Mr. Abid Loan, P.E., Lead Office Engineer

SUBJECT: Draft Final Feasibility Study Report, Operable Unit-3, Site 1, 1943-1956 Disposal Area, Alameda Point, Alameda, California, Volume II Geotechnical and Seismic
DCN: FWSD-RAC-03-1368

Dear Mr. Loan:

Hushmand Associates, Inc. (HAI) is pleased to provide Foster Wheeler Environmental Corporation (FWENC) with detailed technical analyses and input in joint preparation of the subject report per our Subcontract Numbers 036506 and 043084.

HAI's contribution in preparing the subject report is as follows:

Provided input for preparation of Sections 1.2.3, 2.1 through 2.4, 3.1, 4.1, 4.3, 4.4, and 5.0.
Performed technical analysis of nine selected remedial alternatives and prepared Section 4.2.
Reviewed the complete report and provided comments.
Prepared Appendix A (Appendices A-1 through A-9).

This work was performed in accordance with standard geotechnical engineering practices and procedures. HAI appreciates the opportunity of being of service to FWENC. Should you need additional information or any clarifications please call either of the undersigned.

Sincerely yours,

HUSHMAND ASSOCIATES, INC.

Ben Hushmand

Ben Hushmand, Ph.D., RCE 44777

Julio E. Badel

Julio E. Badel, RCE 51326

Opti\c\HAI\Project-2001\AI-NAS\Report\Draft LetterFS-3.wpd

15451 Red Hill Avenue, Suite A • Tustin, California 92780 • (714) 247-1655 • Fax (714) 247-1652
www.hushmand-associates.com