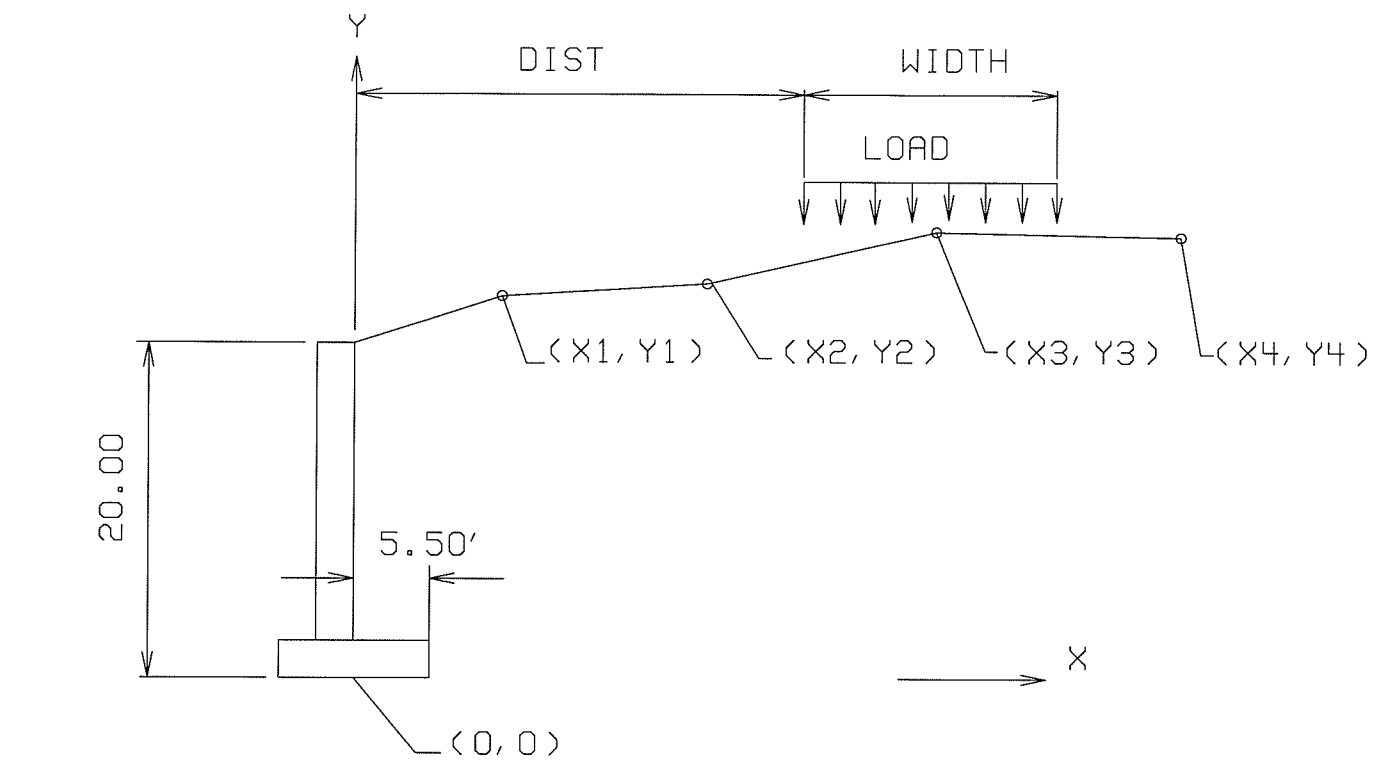


FIRM: YOUR FIRM
 MADE BY: YOU DATE: 12-10-2010
 TITLE: Example TRIALWEG Output

JOB NO.
 CHECKED BY:

SHEET NO: 1
 DATE:

=====



SURFACE GEOMETRY:

Point No.	X (ft)	Y (ft)
1	6.000	20.000
2	10.000	23.000
3	30.000	23.000

DESIGN DATA:

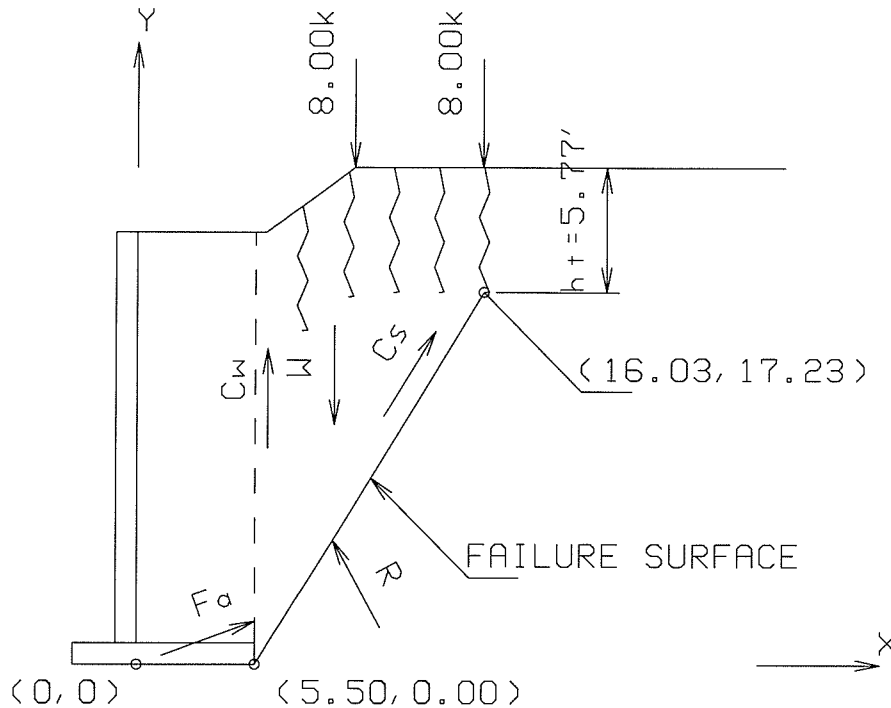
Permanent or temporary condition: Permanent
 Coloumb Analysis. Friction angle against surface, $\delta = 20.000$ degrees

Backfill properties:
 Unit Weight = .120 kcf
 Drained Internal Angle of Friction, $\phi = 30.000$ degrees
 Long term cohesion, c = .200 ksf

Load No.	Distance (ft)	Width (ft)	Load
1	10.00		8.000 k (concentrated)
2	16.00		8.000 k (concentrated)

=====

TRIAL WEDGE METHOD:



SOLUTION BASED ON 100 TRIAL WEDGE ITERATIONS:

Total Active Force, $F_a = 7.55$ k/ft
 Horiz. Component, $F_{aH} = 7.10$ k/ft acting at $Y = 1.99$ ft from bot
 Vert. Component, $F_{aV} = 2.58$ k/ft

DETAILED CALCULATION:

Depth of tension crack,

$$h_t = \frac{2 \cdot c}{\gamma \cdot (K_a)^{.5}}$$

$$= \frac{2 \cdot .200}{(.120 \cdot (.333)^{.5})} = 5.774$$
 ft

Cohesion along pressure face:
 Length = 14.226 ft
 $C_w = 14.226 \text{ ft} \cdot .200 \text{ ksf} = 2.845$ k/ft

Cohesion along failure surface:
 Length = 20.193 ft
 $C_s = 20.193 \text{ ft} \cdot .200 \text{ ksf} = 4.039$ k/ft

Weight of failure wedge behind pressure face,
 $W = 17.78$ k/ft

Surcharge force on top of wedge,
 $W_{\text{surcharge}} = 8.00$ k/ft

Direction of R: Angle = $90 + \rho - \phi = 118.55$ degrees
 Direction of F_a : Angle = $90 - \alpha + \delta = 20.00$ degrees

FIRM: YOUR FIRM
 MADE BY: YOU DATE: 12-10-2010
 TITLE: Example TRIALWEG Output

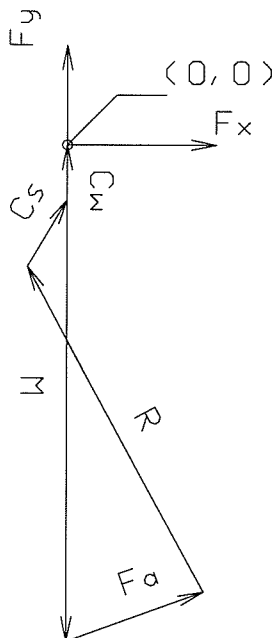
JOB NO.
 CHECKED BY:

SHEET NO: 3
 DATE:

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TRIAL WEDGE METHOD:

DETAIL OF FORCE VECTORS:



Vector	Force (k)	From Point		To Point	
		F _{X1}	F _{Y1}	F _{X2}	F _{Y2}
Cw	2.845	0.000	-2.845	0.000	0.000
Cs	4.039	-2.096	-6.297	0.000	-2.845
W+Sur.	25.780	0.000	0.000	0.000	-25.780
Fa	7.555	0.000	-25.780	7.099	-23.196
R	19.238	7.099	-23.196	-2.096	-6.297

PRESSURE DISTRIBUTION:

Y (ft)	Total Pressure (ksf)	Horiz. Component acting to left (ksf)	Vert. Component acting down (ksf)
20.00	0.000	0.000	0.000
18.00	0.000	0.000	0.000
16.00	0.000	0.000	0.000
14.00	2.846	2.674	.973
12.00	2.760	2.594	.944
10.00	2.957	2.778	1.011
8.00	2.930	2.753	1.002
6.00	3.001	2.820	1.026
4.00	3.071	2.886	1.051
2.00	3.143	2.953	1.075
0.00	55.679	52.321	19.043