

Shear Wall Analysis

Job:
Description:
Time: 3:42 PM 10/8/2008

Designed By:
Checked By:
Program: Shear Wall Analysis 2.0

F L O O R D A T A										
Level Number	Height	Mass Data			Wind Data					
		Weight	C.M. X	C.M. Z	Area X	Area Z	C.P. X	C.P. Z	Force X	Force Z
	Ft	K	Ft	Ft	Ft^2	Ft^2	Ft	Ft	K	K
1	12.00				120.00	600.00	50.00	10.00	3.44	17.20

B U I L D I N G D A T A										
Building Data										
=====										
Building X Dimension : 100.000 Ft Z Dimension : 20.000 Ft										
Modulus : 3.6e+03 K /In ^2 Poisson's Ratio : 0.2500										
Wind Data										
=====										
I : 1.0000 Wind Speed : 90.000 mph Wind Exposure : C										

L E V E L S H E A R S & M O M E N T S - U B C 1994								
Level Number	Shear X	Seismic Forces		Wind Forces			Shear Z	Moment X
		Moment Z	Shear Z	Moment X	Shear X	Moment Z		
	K	Ft-K	K	Ft-K	K	Ft-K	K	Ft-K
1		0.00		0.00		0.00		0.00
0	0.00	0.00	0.00	0.00	3.44	-41.27	17.20	206.37

W A L L E L E M E N T D A T A									
Element Number	Last Level	Segment Number	Length	Thickness	Angle	Begin X	Begin Z	End X	End Z
1	1	1	20.000	6.000	0.000	0.000	0.000	0.000	20.000
**** Composite Properties @ Base ****									
Shear Center: Xcg : 0.000 Ft Zcg : 10.000 Ft									
Flexural Center: Xcg : 0.000 Ft Zcg : 10.000 Ft									
Avx : 0.000 Ft^2 Avz : 10.000 Ft^2									
Ixx : 333.333 Ft^4 Izz : 0.000 Ft^4 Ixz : 0.000 Ft^4									
2	1	1	20.000	6.000	0.000	100.000	0.000	100.000	20.000
**** Composite Properties @ Base ****									
Shear Center: Xcg : 100.000 Ft Zcg : 10.000 Ft									
Flexural Center: Xcg : 100.000 Ft Zcg : 10.000 Ft									
Avx : 0.000 Ft^2 Avz : 10.000 Ft^2									
Ixx : 333.333 Ft^4 Izz : 0.000 Ft^4 Ixz : 0.000 Ft^4									
3	1	1	10.000	6.000	90.000	45.000	20.000	55.000	20.000
**** Composite Properties @ Base ****									
Shear Center: Xcg : 50.000 Ft Zcg : 20.000 Ft									
Flexural Center: Xcg : 50.000 Ft Zcg : 20.000 Ft									
Avx : 5.000 Ft^2 Avz : 0.000 Ft^2									
Ixx : 0.000 Ft^4 Izz : 41.667 Ft^4 Ixz : 0.000 Ft^4									

4 1 1 10.000 6.000 90.000 45.000 0.000 55.000 0.000

**** Composite Properties @ Base ****

Shear Center: Xcg : 50.000 Ft Zcg : 0.000 Ft
 Flexural Center: Xcg : 50.000 Ft Zcg : 0.000 Ft
 Avx : 5.000 Ft^2 Avz : 0.000 Ft^2
 Ixx : 0.000 Ft^4 Izz : 41.667 Ft^4 Ixz : 0.000 Ft^4

L E V E L S T I F F N E S S D A T A

Level Number	C.R. X	C.R. Z	J (equiv)	Ax (UBC 34-9)
	Ft	Ft	Ft^4	
1	50.000	10.000	2.41e+04	1.000

E L E M E N T S H E A R S & M O M E N T S

Elem No.	Level No.	Forces in X Direction		Forces in Z Direction	
		SHEAR X	MOMENT Z	SHEAR Z	MOMENT X
		K	K -Ft	K	K -Ft
1	1	0.00	0.00	-8.60	-103.18
2	1	0.00	0.00	-8.60	-103.18
3	1	-1.72	20.64	0.00	0.00
4	1	-1.72	20.64	0.00	0.00

**** All Forces Balance - Analysis OK ****