



PERMIT PACKAGE

VARIO CONFIGURABLE MAIL SHELTERS

FLORENCE MANUFACTURING

Certus Project #: 01070016.110

Structural review by:..... Toby R. Taggart, P. E.

Date:..... October 21, 2010

These calculations were developed to verify the structural integrity of Florence Manufacturing’s VARIO line of mail shelters. The VARIO line of mail shelters are pre-engineered structures designed by Florence Manufacturing using Solidworks. Most of the structural elements of these shelters are extruded from 6063-T6 aluminum alloy; however the main supporting posts are ASTM A500, Grade B steel tube. Bolted connections of the assembly are made with Grade 8, zinc-plated steel fasteners. Florence Manufacturing retained CERTUS Architectural Engineering Group, Inc. to verify their engineering analysis and to provide these calculations to assist in the acquisition of a building permit where required. CERTUS used RISA-3D structural analysis software to perform the design verification.

This package is to serve as a representative sample of the analysis used to verify the structural integrity of each assembly in the current line of VARIO mail shelters. The calculations provided in this package are specific to the analysis of the VARIO IV, end-to-end, back-to-back (VAR4EBC) assembly with a pitched roof system. Listed below are the design criteria these calculations meet.

DESIGN CRITERIA

2009 International Building Code	Flat-roof Snow Load, $P_f = 67\text{psf}$
Basic Wind Speed, $V = 150\text{mph}$	Snow Exposure Factor, $C_e = 1.0$
Wind Importance Factor, $I_w = 0.87$	Snow Load Importance Factor, $I_s = 0.8$
Wind Exposure Category D	Thermal Factor, $C_t = 1.2$

Please note that these calculations are specific to a pitched roof system. A skylight dome may be used in lieu of the upper pitched roof. These calculations shall still apply if the skylight dome is used, as they will not be significantly affected.

Also please note that where these calculations are provided for single end-to-end models, they are also applicable to multiple end-to-end configurations.

TABLE OF CONTENTS

Product Overview	1
Assembly Drawings	2
Structural Analysis	6
Foundation Calculations	13
Architectural Specifications	Appendix A

Florence Product Information: Pad specifications, dimensions, and other product specifications are available to download at www.auth-florence.com

PRODUCT OVERVIEW

vario™ 4C configurable mail shelter

This permit package includes structural information related to Florence Manufacturing Company's vario™ mail shelter. The vario™ is a pre-engineered shelter manufactured by Florence designed to accommodate Florence's versatile™ line of 4C mailboxes. The shelter can also be used as a stand-alone shelter.



This permit package relates only to the shelter structure itself and does not include information specifically related to the Florence 4C mailbox products.

The vario™ shelter to the right shows the finished shelter product including the mailboxes. It is important to note that the exterior finishing material for the roof and side panels is furnished by others. Therefore, the material specifications for those surfaces are not included in this permit package.



Florence Manufacturing

vario™

Model Assembly Drawings

VARIO IV 4C Configurable Mail Shelter

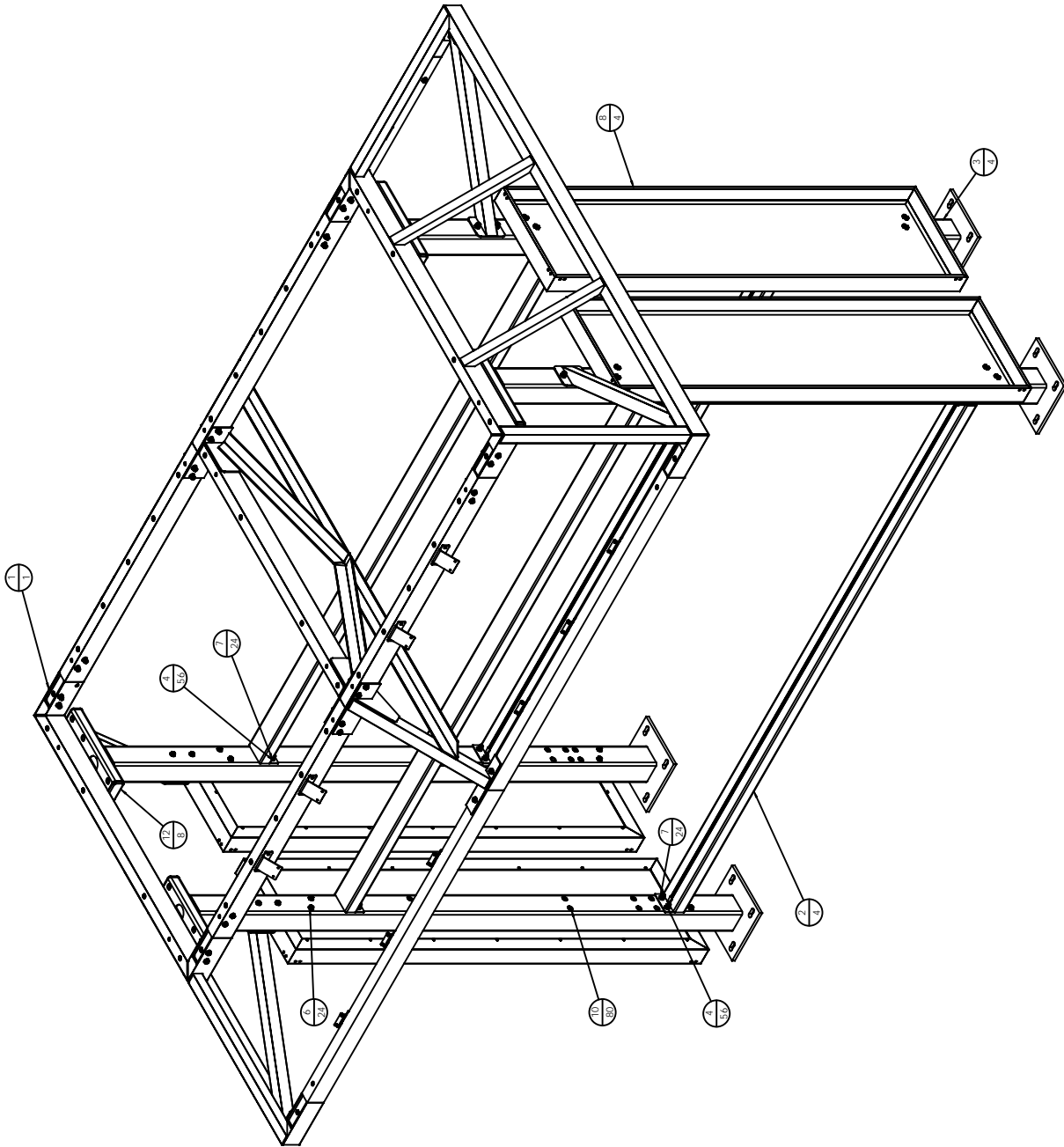
end-to-end, back-to-back configuration

ASTM A500, Grade B vertical steel tube posts

6063-T6 aluminum alloy extrusions

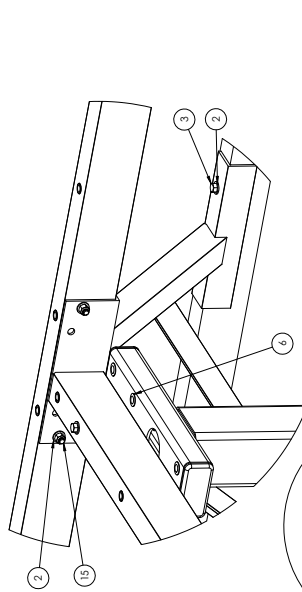
Grade 8, zinc-plated steel fasteners

ITEM #	QTY	PART #	DESCRIPTION
1		48048	ROOF ASSEMBLY, VARIO 4, DOUBLE SIDED
2		48024	MOUNTING BEAM WELDMENT, VARIO 4, SINGLE & DOUBLE SIDED
3		48034	W/48024, DOUBLE SIDED, 3/8" DIA. X 1/8" THICK
4		48034	W/48024, DOUBLE SIDED, 3/8" DIA. X 1/8" THICK
5		48174	CAP SCREW, HEX HEAD, 3/8" DIA. X 1.5" LG, STEEL, GRADE B, ZINC PLATED
6		48174	CAP SCREW, HEX HEAD, 3/8" DIA. X 1.5" LG, STEEL, GRADE B, ZINC PLATED
7		48177	NUT, HEX, 3/8" DIA, LOCK, NYLON INSERT, STEEL, GRADE B, ZINC PLATED
8		48034	SIDE PANEL ASSEMBLY, SINGLE & DOUBLE SIDED
9		48192	CAP SCREW, THIN HEX HEAD, 3/8" DIA. X 5.00" LG, STEEL, GRADE B, ZINC PLATED
10		48245	PLUG, 50 DIA. X .188" THICK
11		48245	PLUG, 50 DIA. X .188" THICK
12		48140	CAP PLUG, 2X 4 TUBING

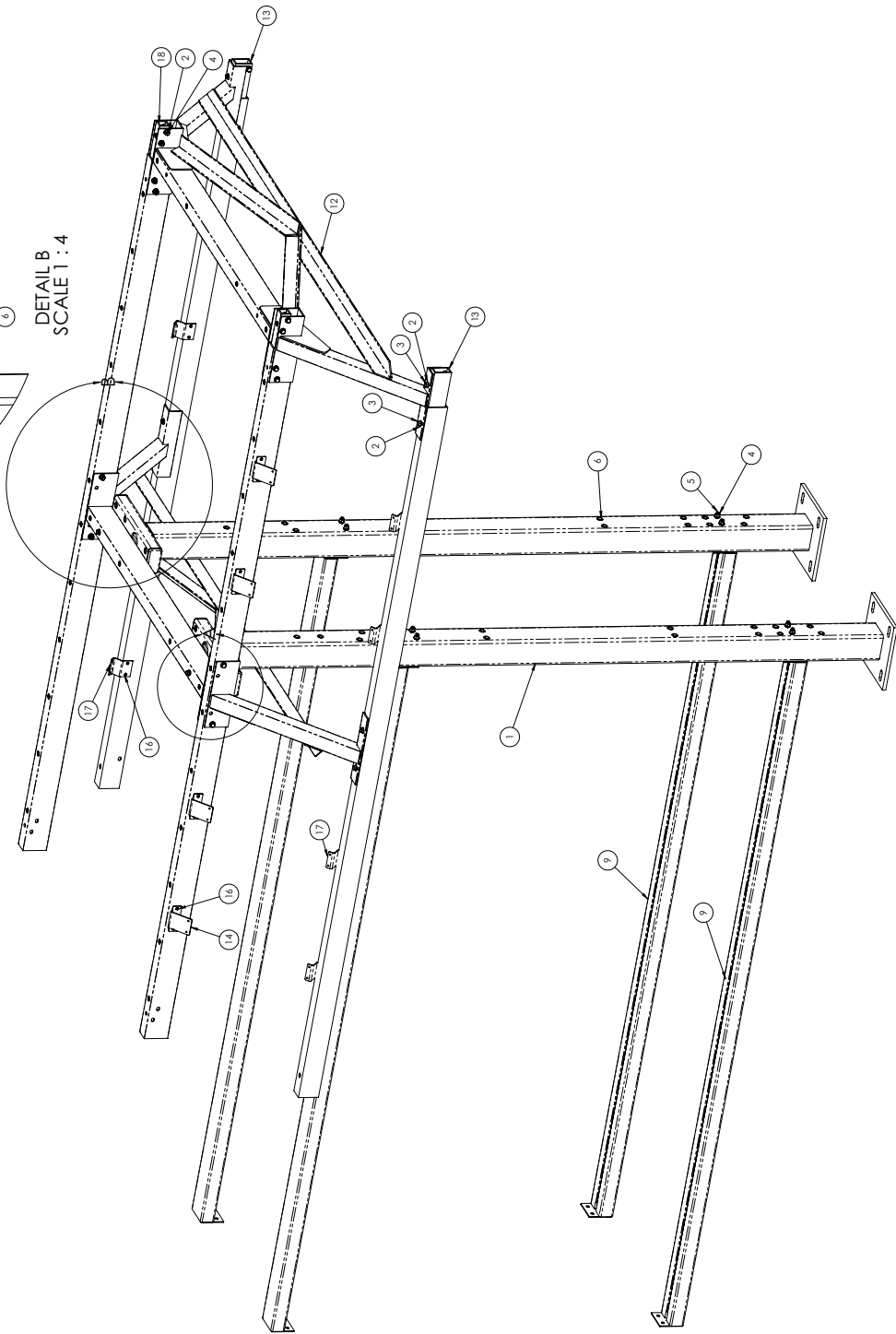


AUTHORITY AUTH FLORENCE <small>10000 W. 10TH AVENUE, SUITE 100, DENVER, CO 80202</small>		DRAWING NO. C 1011
DATE 07/01/2007	REVISION 07/01/2007	PROJECT NO. 48056
DRAWN BY 118	CHECKED BY 118	SCALE AS SHOWN
PROJECT NAME 357748-899		SHEET NO. 1

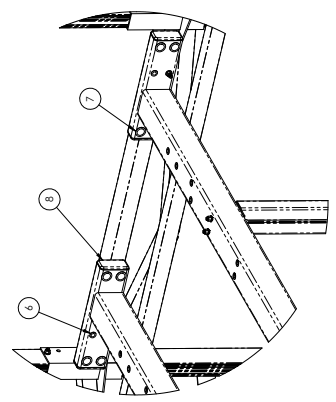
ITEM #	QTY	PART #	DESCRIPTION
1	2	48004	POST WELDMENT, DOUBLE SIDED 90MPH
2	60	48175	WASHER, .406 I.D., .813 O.D., .068 THK STEEL, ZINC PLATED
3	60	48176	CAP SCREW, HEX HEAD, 3/8-16 X 1.5 LG, STEEL, GRADE 8, ZINC PLATED
4	72	48177	NUT, HEX 3/8-16, LOCK, NYLON INSERT, STEEL, GRADE 8, ZINC PLATED
5	2	48178	WASHER, .406 I.D., .813 O.D., .068 THK STEEL, ZINC PLATED
6	4	48179	PLUG, 5/8" DIA, X 1.88 THK
7	8	48180	CAP SCREW, HEX HEAD, 3/8-16 X 3.25 LG, STEEL, GRADE 8, ZINC PLATED
8	4	48181	CAP PLUG, 2 X 4 TUBING
9	4	48026	MOUNTING BEAM WELDMENT, VARIO 4, SINGLE & DOUBLE SIDED
10	2	48081	STRINGER ASSEMBLY, TOP, VARIO 4 END TO END, SINGLE & DOUBLE SIDED
11	2	48083	STRINGER ASSEMBLY, BOTTOM, VARIO 4 END TO END, SINGLE & DOUBLE SIDED
12	2	48028	CENTER TRUS ASSEMBLY, DOUBLE SIDED
13	2	48039	LINK ASSEMBLY, BOTTOM, SINGLE & DOUBLE SIDED
14	8	48189	ROOF MOUNTING BRACKET, TOP
15	12	48190	CAP SCREW, HEX HEAD, 3/8-16 X 3.25 LG, STEEL, GRADE 8, ZINC PLATED
16	32	92229	SCREW, 10-32 X .75 PHMS SST/STPTEE
17	8	48190	ROOF MOUNTING BRACKET, BOTTOM
18	2	48080	LINK ASSEMBLY, TOP, SINGLE & DOUBLE SIDED
19	2	48179	CAP SCREW, HEX HEAD, 3/8-16 X 6.50 LG, STEEL, GRADE 8, ZINC PLATED



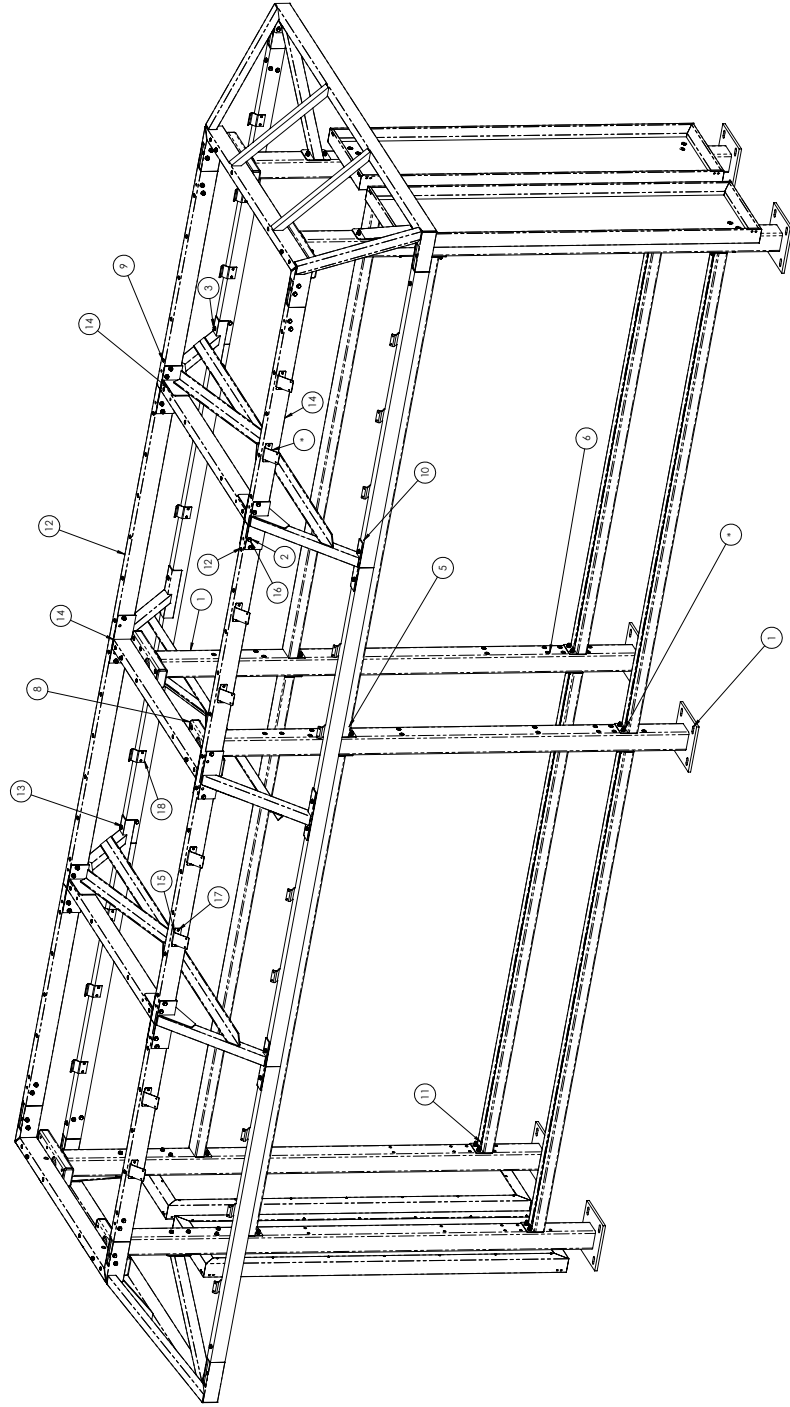
DETAIL A
SCALE 1 : 4



DETAIL B
SCALE 1 : 4



RECORD DRAWING - VARIO 4 STANDARD TOP
 BACK TO BACK, END TO END
 AUTH: **AE** FLORENCE
 DATE: 07/11/2007 07/11/2007
 DRAWING NO: 1118.76
 SHEET NO: 1 OF 2
 PROJECT NO: 1118.76
 48447



PROJECT: STRUTTURA IN ACCIAIO E LEGNAMI CLIENT: STUDIO A202 DATE: 07/11/2007 DRAWING: 112 SCALE: 1:118,76	PROJECT: STRUTTURA IN ACCIAIO E LEGNAMI CLIENT: STUDIO A202 DATE: 07/11/2007 DRAWING: 112 SCALE: 1:118,76	PROJECT: STRUTTURA IN ACCIAIO E LEGNAMI CLIENT: STUDIO A202 DATE: 07/11/2007 DRAWING: 112 SCALE: 1:118,76	PROJECT: STRUTTURA IN ACCIAIO E LEGNAMI CLIENT: STUDIO A202 DATE: 07/11/2007 DRAWING: 112 SCALE: 1:118,76
--	--	--	--

Structural Analysis

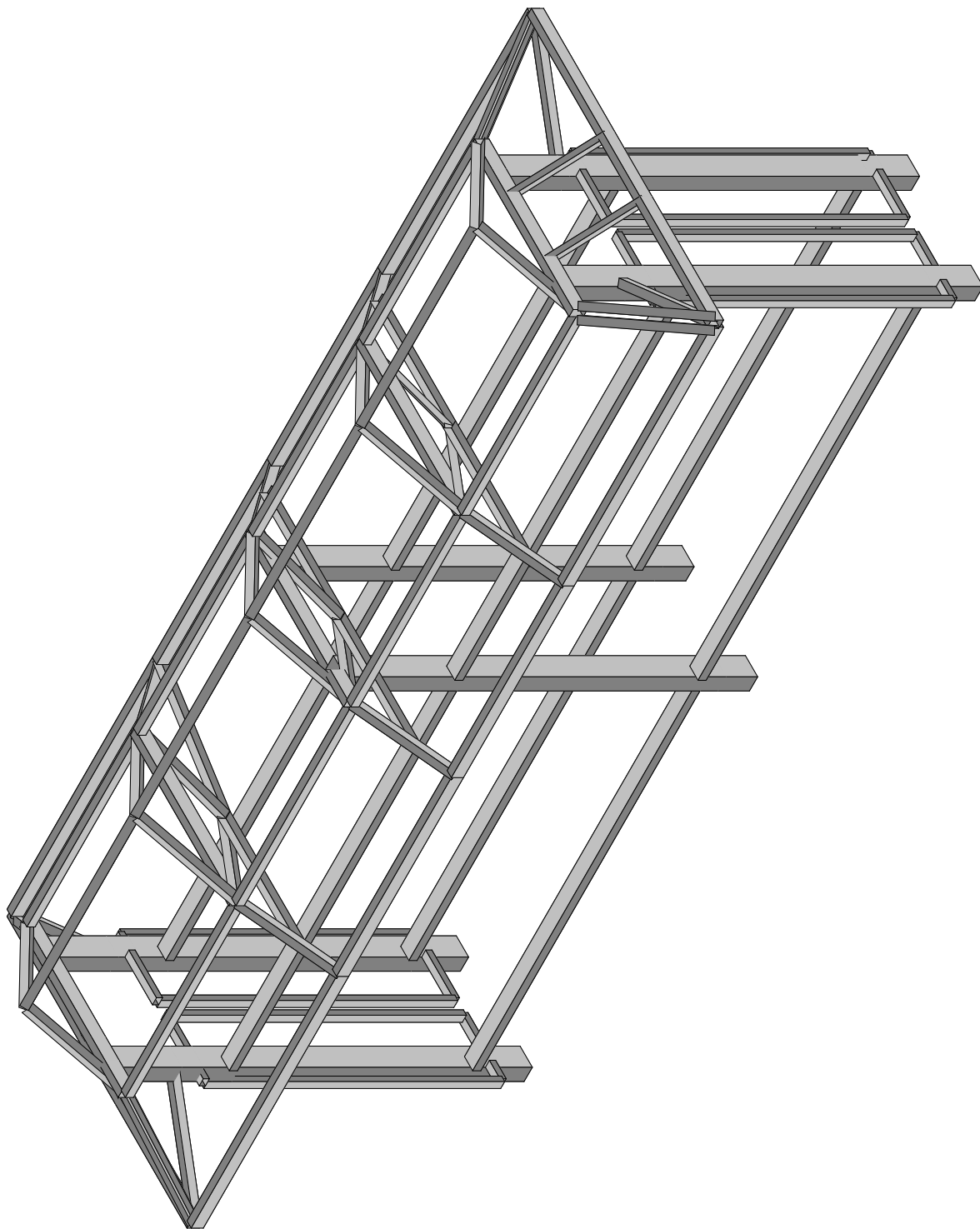
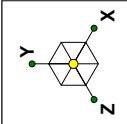
Structural analysis performed using RISA-3D structural analysis software

VARIO IV 4C Configurable Mail Shelter

end-to-end, back-to-back configuration

As previously stated, these calculations are to serve as a representative sample of the procedure to be used to analyze each assembly in the VARIO line of mail shelters. The following calculations are specific to the VAR4EBC assembly. For all current assemblies, the structural shapes used in the shelter's roof framing are identical. The support post sizes and configurations do vary based on the assembly and rated wind speed. Following is a summarization of those post configurations:

ASSEMBLY	DESIGN WIND SPEED	POST CONFIGURATION
VAR1SCS VAR2SCS VAR3SCS	90mph	single TS6x4x3/16
VAR3ESC VAR4SCS VAR4ESC	150mph	single TS7x4x1/4
VAR1BSC VAR2BSC VAR3BSC	90mph	double TS4x4x1/8
VAR3EBC VAR4BSC VAR4EBC	150mph	double TS6x4x3/16



Certus AE Group, Inc.

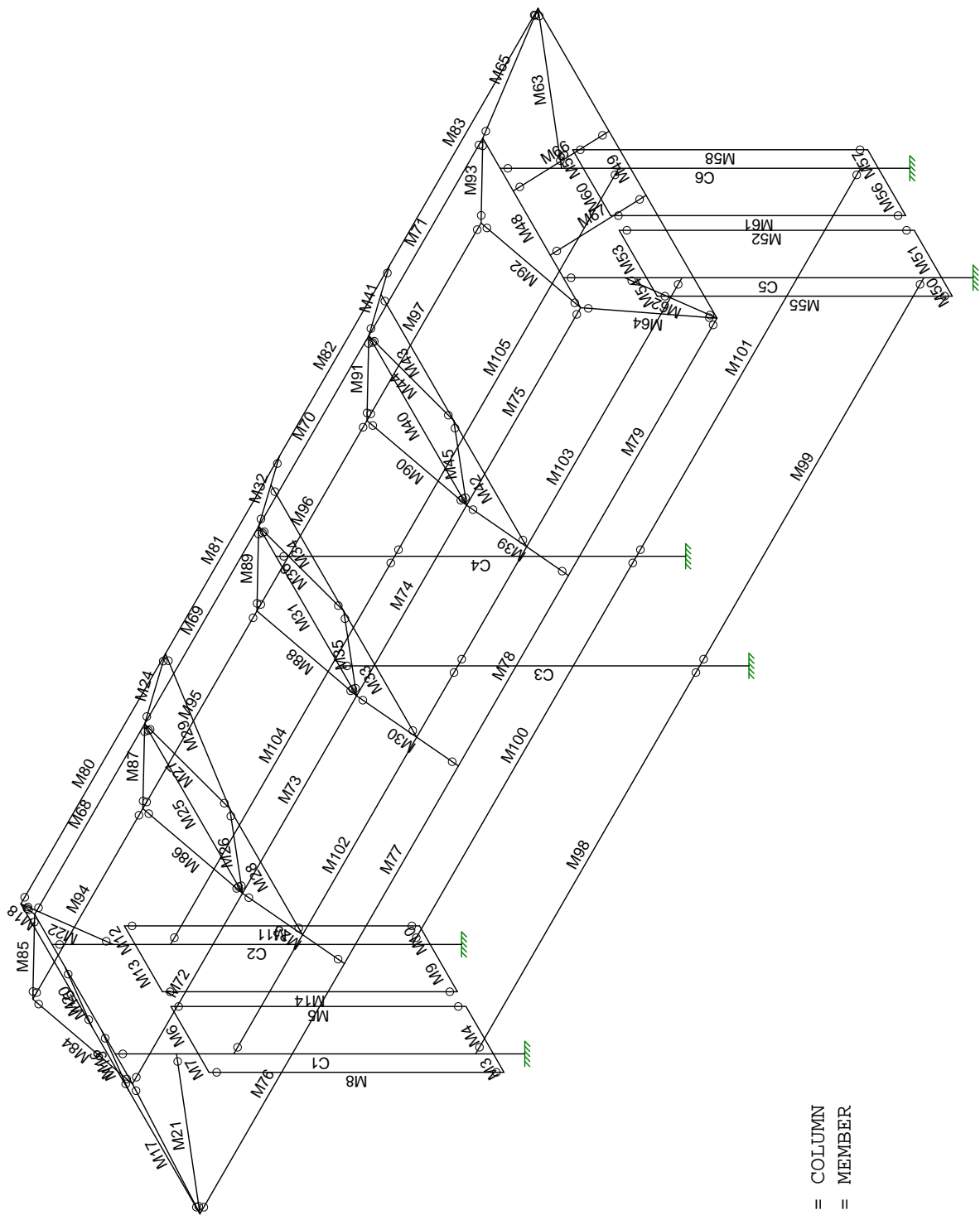
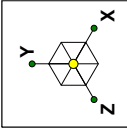
Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008 at 3:09 PM

01070016.110

3-D struct model to accommodate analysis pages 10 thru 12

VAR4EBC.r3d



C = COLUMN
M = MEMBER

Certus AE Group, Inc.

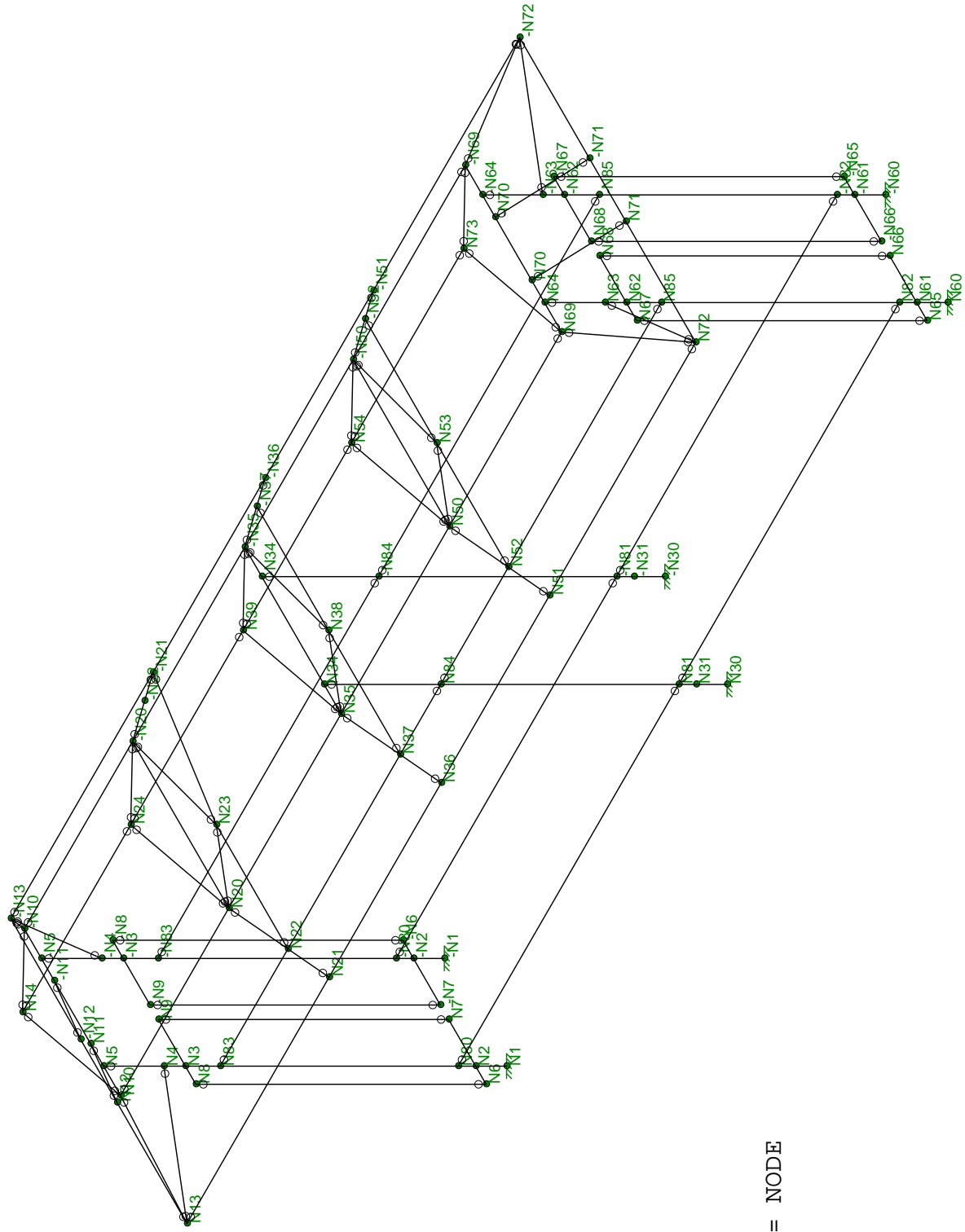
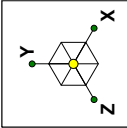
Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008 at 3:25 PM

01070016.110

3-D structural model to accomodate analysis pages 10 thru 12

VAR4EBC.r3d



N = NODE

Certus AE Group, Inc.

Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008 at 3:23 PM

01070016.110

3-d structural model to accomodate analysis pages 10 thru 12

VAR4EBC.r3d

Company : Certus AE Group, Inc.
 Designer :
 Job Number : 01070016.110 Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008
 4:07 PM
 Checked By: _____

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	ALUM 6063-T6	10600	4077	.3	1.29	.173
2	A500 Grade B	29000	11154	.3	.65	.49

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]	Footing
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
2	-N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
3	N30	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
4	-N30	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
5	N60	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
6	-N60	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	

Load Combinations

	Description	SolvePD...	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1													
2													
3	IBC 16-12 (a)	Yes		DL	1	2	1						Y -1
4													
5													
6	IBC 16-12 (b)	Yes		DL	1	2	-1						Y -1
7													
8	IBC 16-12 (b)	Yes		DL	1	2	1	3	1				Y -1
9													
10													
11													
12	IBC 16-13 (e...)	Yes		DL	1	2	.75	LL .75	SL .75				Y -1
13													
14													
15	IBC 16-13 (e...)	Yes		DL	1	2	-.75	LL .75	SL .75				Y -1
16													
17	IBC 16-13 (e...)	Yes		DL	1	2	.75	LL .75	SL .75	3	.75		Y -1
18	IBC 16-13 (e...)	Yes		DL	1	4	.75	LL .75	SL .75	3	.75		Y -1
19													
20													
21	IBC 16-14 (a)	Yes		DL	.6	2	1						Y -1
22													
23													
24	IBC 16-14 (b)	Yes		DL	.6	2	-1						Y -1
25													
26	IBC 16-14 (b)	Yes		DL	.6	2	1	3	1				Y -1
27													
28													
29													

Joint Reactions

	LC	Joint Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	3	N1	-.01	1.035	-.93	-5.446	-.022	.026
2	3	-N1	.004	.776	-1.122	-5.74	-.025	-.007
3	3	N30	0	1.872	-2.329	-14.69	-.001	-.001
4	3	-N30	0	1.902	-2.646	-15.111	-.002	-.001
5	3	N60	.01	1.02	-.933	-5.471	.019	-.028
6	3	-N60	-.005	.788	-1.122	-5.76	.021	.005
7	3	Totals:	0	7.393	-9.081			
8	3	COG (ft):	X: 9.204	Y: 6.178	Z: .002			
9	6	N1	.007	.795	.976	5.575	.029	-.013

Company : Certus AE Group, Inc.
 Designer :
 Job Number : 01070016.110 Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008
 4:07 PM
 Checked By: _____

Joint Reactions (Continued)

LC	Joint Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
10	6	-N1	-0.009	1.017	1.076	5.635	.013	.026
11	6	N30	0	1.905	2.326	14.665	.001	-.005
12	6	-N30	0	1.869	2.649	15.134	0	.003
13	6	N60	-.006	.778	.977	5.57	-.029	.005
14	6	-N60	.008	1.03	1.078	5.636	-.015	-.023
15	6	Totals:	0	7.393	9.081			
16	6	COG (ft):	X: 9.204	Y: 6.178	Z: .002			
17	8	N1	-.008	.434	-.96	-5.527	-.026	.018
18	8	-N1	.007	.201	-1.092	-5.675	-.018	-.019
19	8	N30	0	.415	-2.327	-14.674	-.001	.003
20	8	-N30	0	.45	-2.648	-15.126	-.001	-.002
21	8	N60	.007	.44	-.961	-5.532	.025	-.014
22	8	-N60	-.007	.195	-1.094	-5.681	.017	.016
23	8	Totals:	0	2.134	-9.081			
24	8	COG (ft):	X: 9.21	Y: .967	Z: -.005			
25	12	N1	-.011	2.084	-.639	-3.923	-.007	.036
26	12	-N1	-.003	1.839	-.899	-4.436	-.033	.018
27	12	N30	.001	4.492	-1.75	-11.051	0	-.008
28	12	-N30	-.001	4.502	-1.981	-11.303	-.003	.002
29	12	N60	.014	2.03	-.644	-3.982	.002	-.05
30	12	-N60	0	1.884	-.897	-4.478	.022	-.018
31	12	Totals:	0	16.832	-6.811			
32	12	COG (ft):	X: 9.202	Y: 7.364	Z: .004			
33	15	N1	.002	1.904	.791	4.343	.031	.007
34	15	-N1	-.013	2.019	.749	4.095	-.005	.043
35	15	N30	.002	4.517	1.74	10.966	0	-.011
36	15	-N30	-.001	4.477	1.99	11.381	-.001	.004
37	15	N60	.002	1.849	.788	4.3	-.034	-.025
38	15	-N60	.009	2.065	.752	4.069	-.005	-.039
39	15	Totals:	0	16.832	6.811			
40	15	COG (ft):	X: 9.202	Y: 7.364	Z: .004			
41	17	N1	-.009	1.633	-.661	-3.984	-.011	.03
42	17	-N1	0	1.408	-.877	-4.387	-.028	.009
43	17	N30	0	3.399	-1.749	-11.038	0	-.006
44	17	-N30	0	3.413	-1.982	-11.314	-.002	0
45	17	N60	.011	1.596	-.665	-4.027	.007	-.039
46	17	-N60	-.002	1.439	-.876	-4.419	.019	-.01
47	17	Totals:	0	12.887	-6.811			
48	17	COG (ft):	X: 9.203	Y: 7.08	Z: .004			
49	18	N1	.33	1.551	.138	.897	-.079	-1.327
50	18	-N1	.32	1.49	.063	.713	.115	-1.269
51	18	N30	.241	3.41	-.002	-.01	.037	-1.274
52	18	-N30	.236	3.402	.005	.047	.017	-1.206
53	18	N60	.328	1.49	.06	.117	-.15	-1.342
54	18	-N60	.322	1.544	-.061	-.189	.18	-1.289
55	18	Totals:	1.777	12.887	.203			
56	18	COG (ft):	X: 9.203	Y: 7.08	Z: .004			
57	21	N1	-.009	.734	-.939	-5.469	-.023	.024
58	21	-N1	.005	.483	-1.113	-5.722	-.023	-.011
59	21	N30	0	1.198	-2.328	-14.686	-.001	0
60	21	-N30	0	1.229	-2.647	-15.115	-.002	-.001
61	21	N60	.01	.725	-.941	-5.488	.021	-.024
62	21	-N60	-.005	.49	-1.114	-5.738	.02	.008
63	21	Totals:	0	4.859	-9.081			
64	21	COG (ft):	X: 9.203	Y: 6.094	Z: .002			
65	24	N1	.008	.494	.968	5.552	.028	-.015
66	24	-N1	-.008	.723	1.084	5.653	.015	.022
67	24	N30	0	1.231	2.326	14.67	.001	-.004
68	24	-N30	0	1.196	2.648	15.13	0	.002
69	24	N60	-.007	.484	.969	5.553	-.027	.009

Company : Certus AE Group, Inc.
 Designer :
 Job Number : 01070016.110 Vario 4C Configurable Mail Shelters - VAR4EBC

Jan 20, 2008
 4:07 PM
 Checked By: _____

Joint Reactions (Continued)

	LC	Joint Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
70	24	-N60	.007	.731	1.086	5.658	-.016	-.019
71	24	Totals:	0	4.859	9.081			
72	24	COG (ft):	X: 9.203	Y: 6.094	Z: .002			
73	26	N1	-.008	.133	-.968	-5.55	-.027	.016
74	26	-N1	.008	-.092	-1.084	-5.657	-.015	-.022
75	26	N30	0	-.26	-2.326	-14.669	-.001	.004
76	26	-N30	0	-.222	-2.648	-15.13	0	-.003
77	26	N60	.007	.146	-.969	-5.549	.027	-.009
78	26	-N60	-.007	-.104	-1.086	-5.659	.016	.019
79	26	Totals:	0	-.4	-9.081			
80	26	COG (ft):	X: 9.174	Y: 35.025	Z: .044			

FOUNDATION CALCULATIONS

LC	dist b/w CR's 1 & 2 (ft)	dist b/w CR's A & B (ft)	dist b/w CR's B & C (ft)	POST (reactions from RISA file)												Totals						TOTAL											
				A1			A2			B1			B2			C1			C2			A (total)			B (total)			C (total)					
				M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)	M (k)	V (k)	P (k)			
3	2.60	9.21	9.21	-4.4	-0.8	0.7	-4.5	-1.0	0.6	-17.6	-2.7	1.8	-17.0	-2.9	1.9	-4.7	-0.8	0.7	-4.6	-1.0	0.6	8.9	1.7	1.3	34.7	5.6	3.8	9.5	1.8	1.3	53.1	9.1	6.3
6	2.60	9.21	9.21	4.0	0.8	0.6	4.8	1.0	0.7	16.2	2.5	1.9	18.4	3.0	1.8	4.1	0.8	0.6	5.1	1.0	0.7	8.9	1.7	1.3	34.7	5.6	3.8	9.5	1.8	1.3	53.1	9.1	6.3
8	2.60	9.21	9.21	-4.1	-0.8	0.2	-4.7	-1.0	0.2	-16.6	-2.6	0.1	-18.0	-3.0	0.2	-4.3	-0.8	0.3	-5.0	-1.0	0.1	8.9	1.7	0.4	34.7	5.6	0.3	9.5	1.8	0.4	53.1	9.1	1.1
12	2.60	9.21	9.21	-3.7	-0.6	1.5	-2.9	-0.7	1.4	-15.1	-2.2	4.9	-10.9	-1.9	5.0	-4.3	-0.7	1.5	-2.7	-0.7	1.4	6.7	1.3	2.9	26.0	4.2	10.0	7.1	1.3	2.9	39.9	6.8	15.8
15	2.60	9.21	9.21	2.6	0.6	1.4	4.1	0.7	1.5	10.2	1.7	5.0	15.7	2.5	4.9	2.3	0.5	1.4	4.6	0.8	1.5	6.7	1.3	2.9	26.0	4.2	10.0	7.1	1.3	2.9	39.9	6.8	15.8
17	2.60	9.21	9.21	-3.5	-0.6	1.2	-3.0	-0.7	1.1	-14.3	-2.1	3.6	-11.6	-2.0	3.7	-4.0	-0.7	1.2	-3.0	-0.7	1.1	6.7	1.3	2.2	26.0	4.2	7.4	7.1	1.3	2.2	39.9	6.8	11.8
18	2.60	9.21	9.21	0.3	0.1	1.1	1.3	0.1	1.1	-1.7	-0.2	3.7	1.7	0.2	3.7	-0.6	0.0	1.1	0.6	0.0	1.1	1.6	0.2	2.2	0.1	0.0	7.4	0.1	0.0	2.2	1.8	0.2	11.8
21	2.60	9.21	9.21	-4.3	-0.8	0.4	-4.5	-1.0	0.3	-17.3	-2.6	1.1	-17.3	-2.9	1.2	-4.6	-0.8	0.5	-4.7	-1.0	0.3	8.9	1.7	0.8	34.7	5.6	2.3	9.5	1.8	0.8	53.1	9.1	3.8
24	2.60	9.21	9.21	4.1	0.8	0.4	4.7	1.0	0.4	16.5	2.5	1.2	18.1	3.0	1.1	4.3	0.8	0.3	5.0	1.0	0.5	8.9	1.7	0.8	34.7	5.6	2.3	9.5	1.8	0.8	53.1	9.1	3.8
26	2.60	9.21	9.21	-4.1	-0.8	0.0	-4.8	-1.0	-0.1	-16.3	-2.5	-0.7	-18.2	-3.0	-0.5	-4.2	-0.8	0.0	-5.1	-1.0	-0.2	8.9	1.7	-0.1	34.7	5.6	-1.2	9.5	1.8	-0.1	53.1	9.1	-1.5

LC	sliding coeff= 0.33												f _c (psi) = 4000																	
	Footings						Overturning						Sliding						Bearing						Concrete					
	B (ft)	L (ft)	t (in)	wt (k)	M _{lower} (k*ft)	M _{res} (k*ft)	FS _{over}	Results	V _{slide} (k)	V _{res} (k)	FS _{slide}	Results	P _{int} (k)	e (ft)	B/6 (ft)	qh (ksf)	Results	ql (ksf)	d (in)	phiV _n (k)	V _u (k)	V _{results}	phiM _n (k*ft)	M _u (k*ft)	M _{results}					
3	5.0	23.4	20.0	29.3	53.1	89.0	1.68	>1.5_OK	9.1	11.7	1.29	MARGINAL	35.6	1.5	0.8	1.006	MARGINAL	0.254	20.0	2.2	1.7	OK	21.2	2.5	OK					
6	5.0	23.4	20.0	29.3	53.1	89.0	1.68	>1.5_OK	9.1	11.7	1.29	MARGINAL	35.6	1.5	0.8	1.006	MARGINAL	0.254	20.0	2.2	1.7	OK	21.2	2.5	OK					
8	5.0	23.4	20.0	29.3	53.1	75.9	1.43	MARGINAL	9.1	10.0	1.10	MARGINAL	30.3	1.8	0.8	1.153	MARGINAL	0.203	20.0	2.2	2.0	OK	21.2	2.9	OK					
12	5.0	23.4	20.0	29.3	39.9	112.6	2.83	>1.5_OK	6.8	14.9	2.18	>1.5_OK	45.0	0.9	0.8	0.794	<1.0ksf_OK	0.379	20.0	2.2	1.3	OK	21.2	1.9	OK					
15	5.0	23.4	20.0	29.3	39.8	112.6	2.83	>1.5_OK	6.8	14.9	2.18	>1.5_OK	45.0	0.9	0.8	0.794	<1.0ksf_OK	0.379	20.0	2.2	1.3	OK	21.2	1.9	OK					
17	5.0	23.4	20.0	29.3	39.9	102.7	2.58	>1.5_OK	6.8	13.6	1.99	>1.5_OK	41.1	1.0	0.8	0.765	<1.0ksf_OK	0.337	20.0	2.2	1.2	OK	21.2	1.8	OK					
18	5.0	23.4	20.0	29.3	1.8	102.7	57.19	>1.5_OK	0.2	13.6	64.89	>1.5_OK	41.1	0.0	0.8	0.333	<1.0ksf_OK	0.369	20.0	2.2	0.4	OK	21.2	0.7	OK					
21	5.0	23.4	20.0	29.3	53.1	82.7	1.56	>1.5_OK	9.1	10.9	1.20	MARGINAL	33.1	1.6	0.8	1.054	MARGINAL	0.229	20.0	2.2	1.8	OK	21.2	2.6	OK					
24	5.0	23.4	20.0	29.3	53.1	82.7	1.56	>1.5_OK	9.1	10.9	1.20	MARGINAL	33.1	1.6	0.8	1.054	MARGINAL	0.229	20.0	2.2	1.8	OK	21.2	2.6	OK					
26	5.0	23.4	20.0	29.3	53.1	69.5	1.31	MARGINAL	9.1	9.2	1.01	MARGINAL	27.8	1.9	0.8	1.343	MARGINAL	0.180	20.0	2.2	2.4	1.12	21.2	3.4	OK					

These foundation calculations are specific to the VAR4EBC assembly at the 150mph design wind speed. The results are similar or even more conservative for the other 150mph rated assemblies. Similar design checks have been run for the 90mph wind rated assemblies and their foundations.

Structural engineering analysis verification provided by:

CERTUS GROUP

900 S. Kansas Ave, Suite 400
Topeka, Kansas 66612

office 785-291-0400
fax 785-291-0401

***For more downloadable product
information, brochures and technical specifications visit
www.florencemailboxes.com***

AF FLORENCE
manufacturing company

5935 Corporate Drive • Manhattan, KS 66503
www.florencemailboxes.com • 800.275.1747

A GIBRALTAR INDUSTRIES COMPANY 