ACKNOWLEDGEMENTS

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LIST OF SYMBOLS

A	area
A_m	mean diameter area
A_{mb}	mean diameter area at base
ARCL	arc length
$ARCL^1$	angle of arc subtended by ARCL
A_{TE}	area at top edge
Ce	wind exposure factor
Cg	wind gust factor
Cp	wind external pressure factor
Cn	wind shape factor
D	diameter
D_B	base diameter
D_i, D_{in}	inside diameter
D_m	mean diameter
D_{mb}	mean base diameter
D_{mt}	mean top diameter
D_{mi}	$(D_{mb} + D_{mt})/2$
D_o, D_{out}	outside diameter
DL	dead load
D_T	top edge diameter
E	modulus of elasticity
EL	elevation
F_x	shear force
f_{bc}	compression bending stress
f_{bt}	tensile bending stress
f_{bx}	bending stress at distance x
H	stack height
h	elevation, height
d	H-h
J1, J2, J3 ...Jn	joint
LL	live load
M	moment
p	qCeCgCpCn

P_{DL}	joint dead load
P_j	joint load
q	Montreal reference wind, 1/100 wind - 9.2 PSF
R	radius
R_i	inside radius
R_m	mean radius
R_o	outside radius
S	section modulus
t	plate thickness
Tang.	tangential force
Ux, Uy, Uz	joint displacements in nodal coordinate system
V	total shear force
Vol	volumn
Y	yield stress
x, y, z	local directions
α	angle
β	angle
ϕ_1, ϕ_2	angle
σ_a	axial stress
σ_b	bending stress
σ_{DL}	dead load stress
σ_t	tangential shear stress
θ	angle
$\Delta\theta$	change in angle θ
ρ_s	steel density

SECTION I

THE STACK STRUCTURE, LOADS AND MODELS I AND II

1.1: THE STACK STRUCTURE

The stack structure analyzed may be seen in Fig. 1.1.1. Except for the plate thickness of the stack, all dimensions shown were established during preliminary discussions of the analysis problem. The calculation of the model plate thickness may be found in Section A.4 of the Appendix.

1.2: THE APPLIED LOADS

The loads initially considered were self weight dead load, lateral wind, and earthquake. Preliminary calculations in accordance to the National Building Code of Canada concluded that overturning moments due to wind governed over seismic. Subsequently, the static stress analysis presented herein was based on the structure dead load and wind applied North to South and East to West. Fig. 1.2.1 reflects the wind distribution utilized. The determination of this distribution may be found in Section A.2.

1.3.1: THE ANSYS ELEMENT USED IN MODELS I AND II

Prior to formulating the finite element Models I and II, an element meeting the requirements of the analysis had to be chosen from the ANSYS element library. The requirements were thin plate behavior, membrane and bending stress capability, and topology establishment described by an element thickness and a two dimensional mesh location at the midsurface of the element plane.

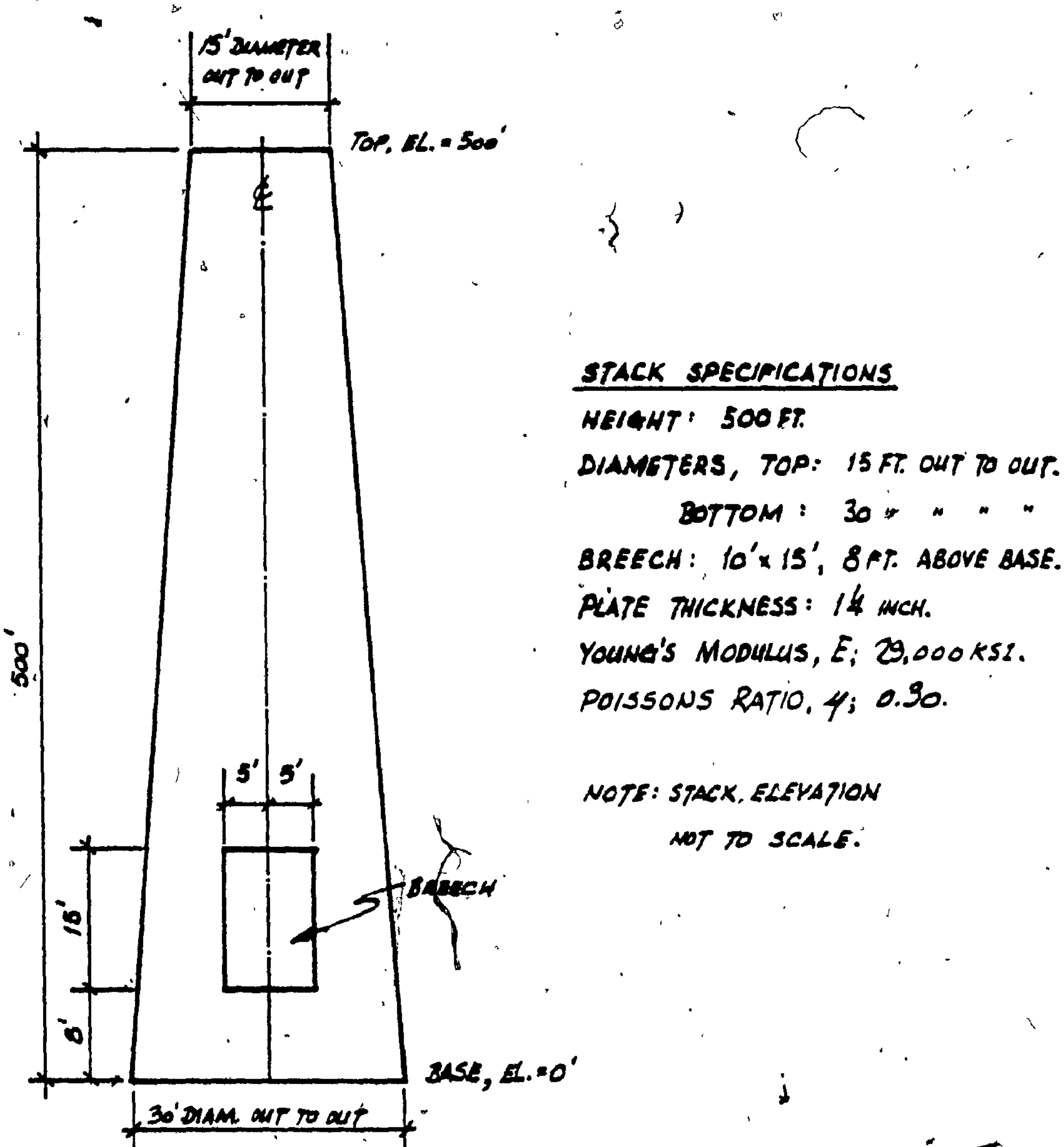


FIG. 1.1.1 STACK STRUCTURE

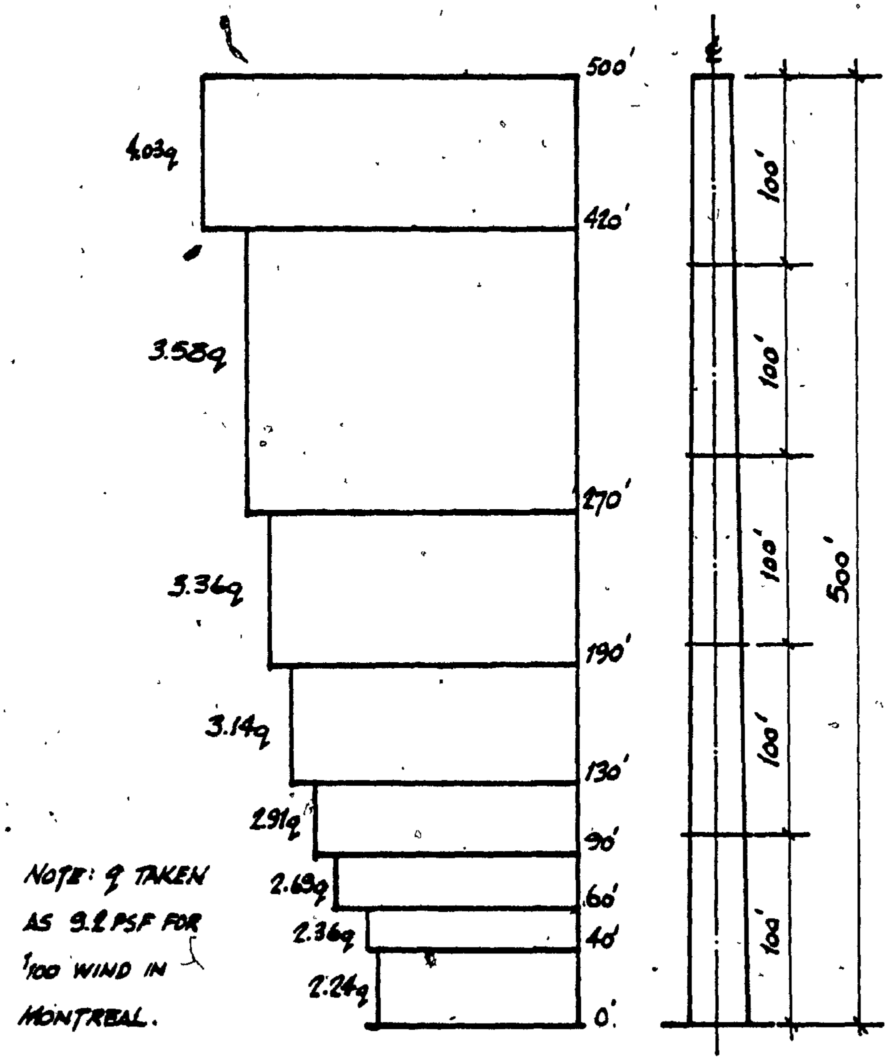


FIG. 1.2.1 STACK LATERAL WIND LOAD

The two ANSYS library elements satisfying these requirements were the Stiff 63 and Stiff 13 elements; the former being a four jointed quadralateral, and the latter a three jointed triangular isoparametric elastic flat shell element. Each of these elements has six degrees of freedom (6 DOF) per joint; three orthogonal translations and three rotations. More specific information about these elements may be found in an ANSYS User's Manual.

1.3.2: MODEL I.

Proceeding element selection, the following assumptions were made to formulate Model I.

1. It was assumed that a minimum height of nearly two base diameters was sufficient elevation for the model top edge to negate the effects of the breech of the top edge displacements. A height of 50 Ft was subsequently chosen.
2. Because there was little difference between stack diameters at its base and elevation 50 Ft, it was considered acceptable to use a cylinder with a diameter equal to the mean of the stack base and 50 Ft elevation diameters.
3. Because the stack diameter at elevation 50 Ft yielded a large cross sectional area and moment of inertia, even with a relatively thin plate thickness, the effects of loads placed at the model top edge were considered insignificant, provided plate stresses could be maintained below acceptable allowable values.

4. Since it was difficult to estimate the degree of constraint provided to the model top edge by the portion of the stack above the 50 Ft elevation, it was assumed that no constraint at the top edge would not adversely affect the model performance.

Fig. 1.3.2.1 shows the relation of Model I (and II) to the stack structure. Fig. 1.3.2.2 shows Model I in perspective and opened up as Figs. 1.3.2.3 and 1.3.2.4. Fig. 1.3.2.5 reflects the cylindrical cross section.

The forces applied to the Model I top edge joints to represent the applied load cases are shown in Table 1.3.2.1. These loads were determined during the early stages of the analysis to initiate the analysis solution as soon as possible. A data check conducted at a later date verified the applied joint forces with insignificant variations.

The principles used to determine the applied loads appear in Appendix A.6.2 for Model I, and A.6.3 for Model II. The data checks for Models I and II appear in A.6.6 and A.6.7.

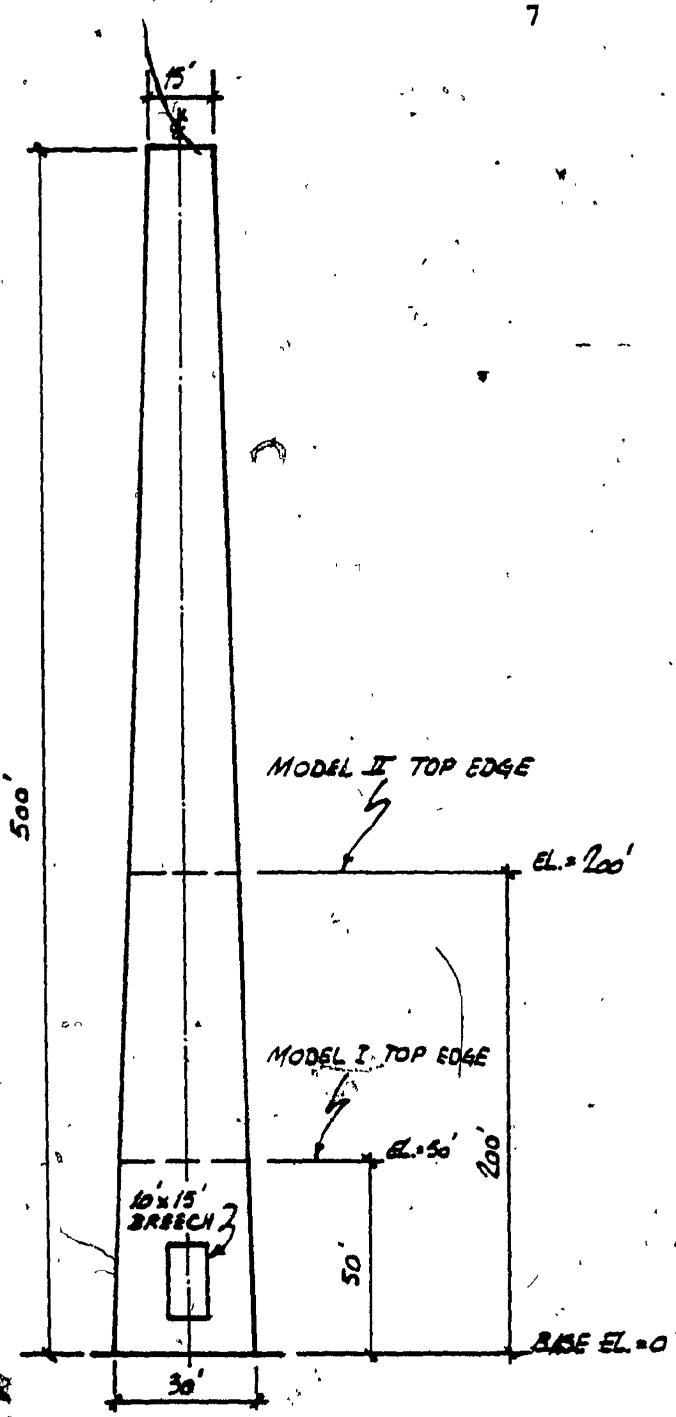


FIG. 1.3.2.1 MODEL I (AND II) LOCATION ON STACK STRUCTURE

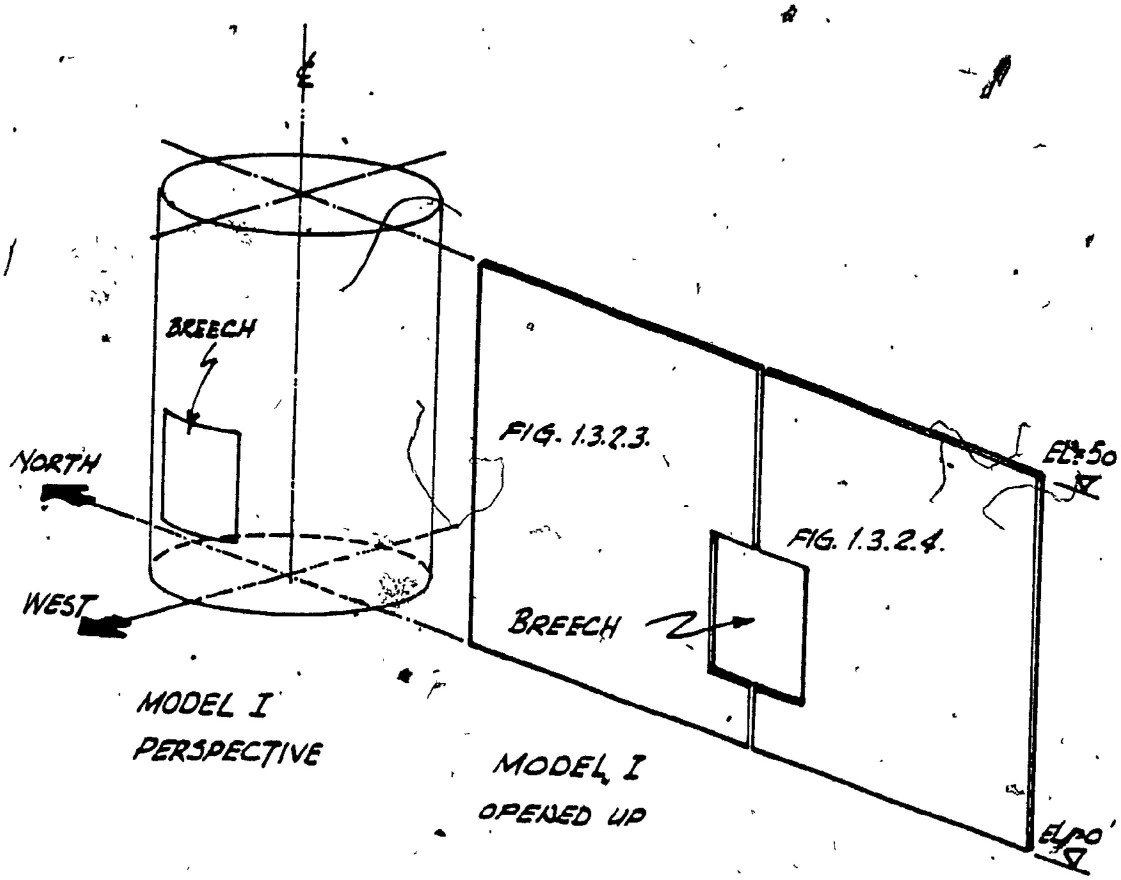
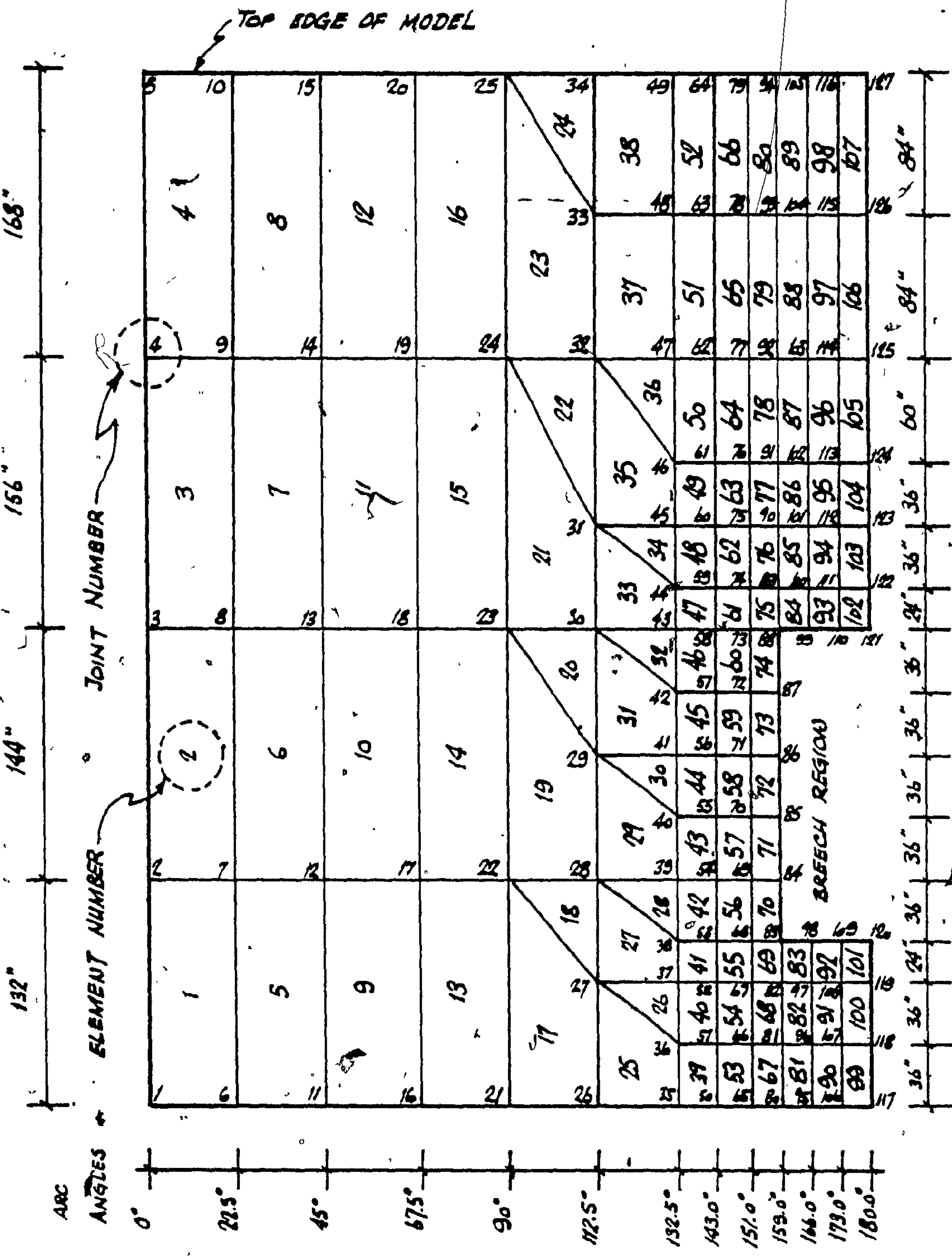
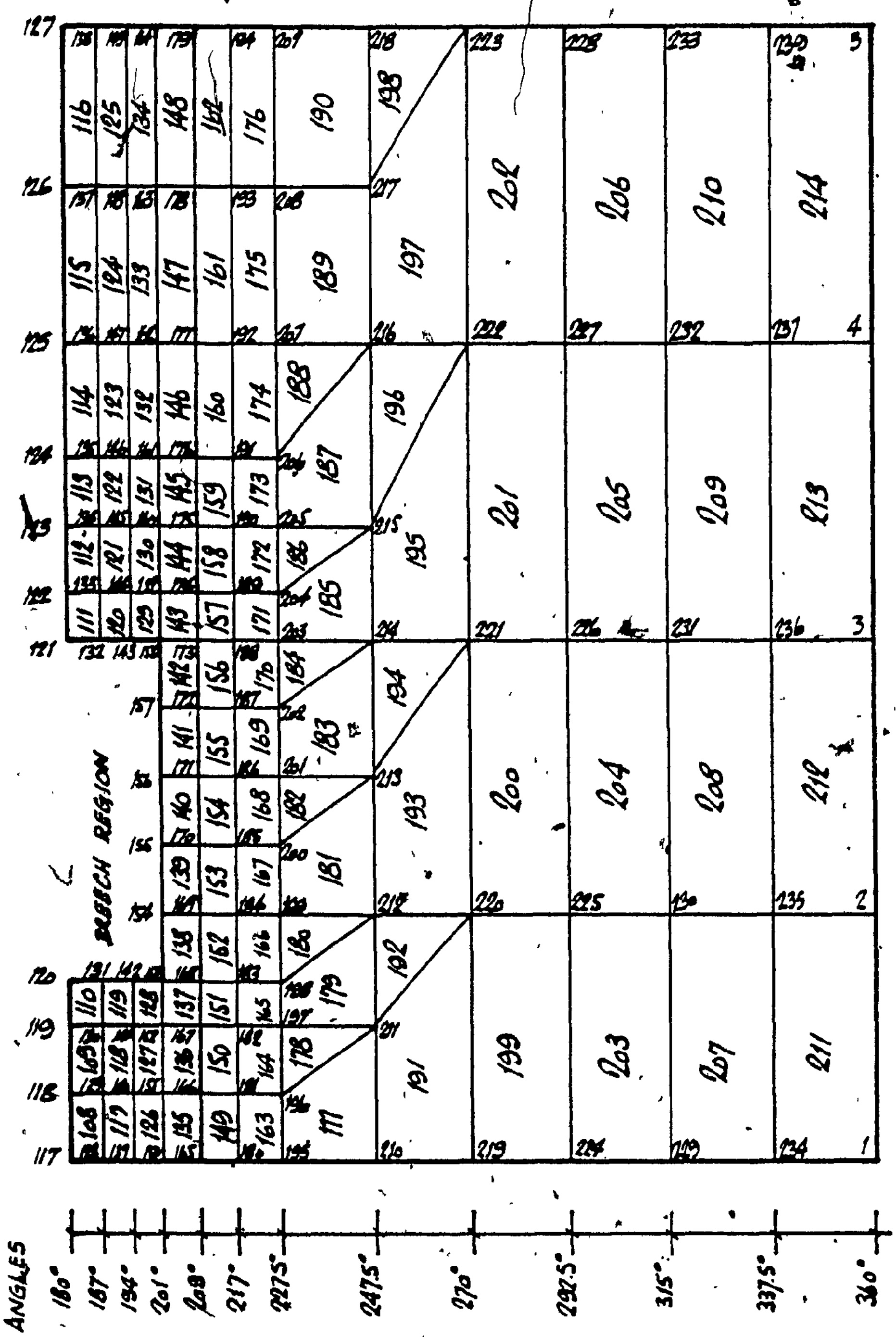


FIG. 1.3.2.2 MODEL I ORIENTATION OF FIGS. 1.3.2.3 AND 1.3.2.4



0° To 180° HALF MODEL

FIG. 1.3.2.3 MODEL I, ELEVATION



180° To 360° HALF MODEL

FIG. 1.3.2.4 MODEL I, ELEVATION

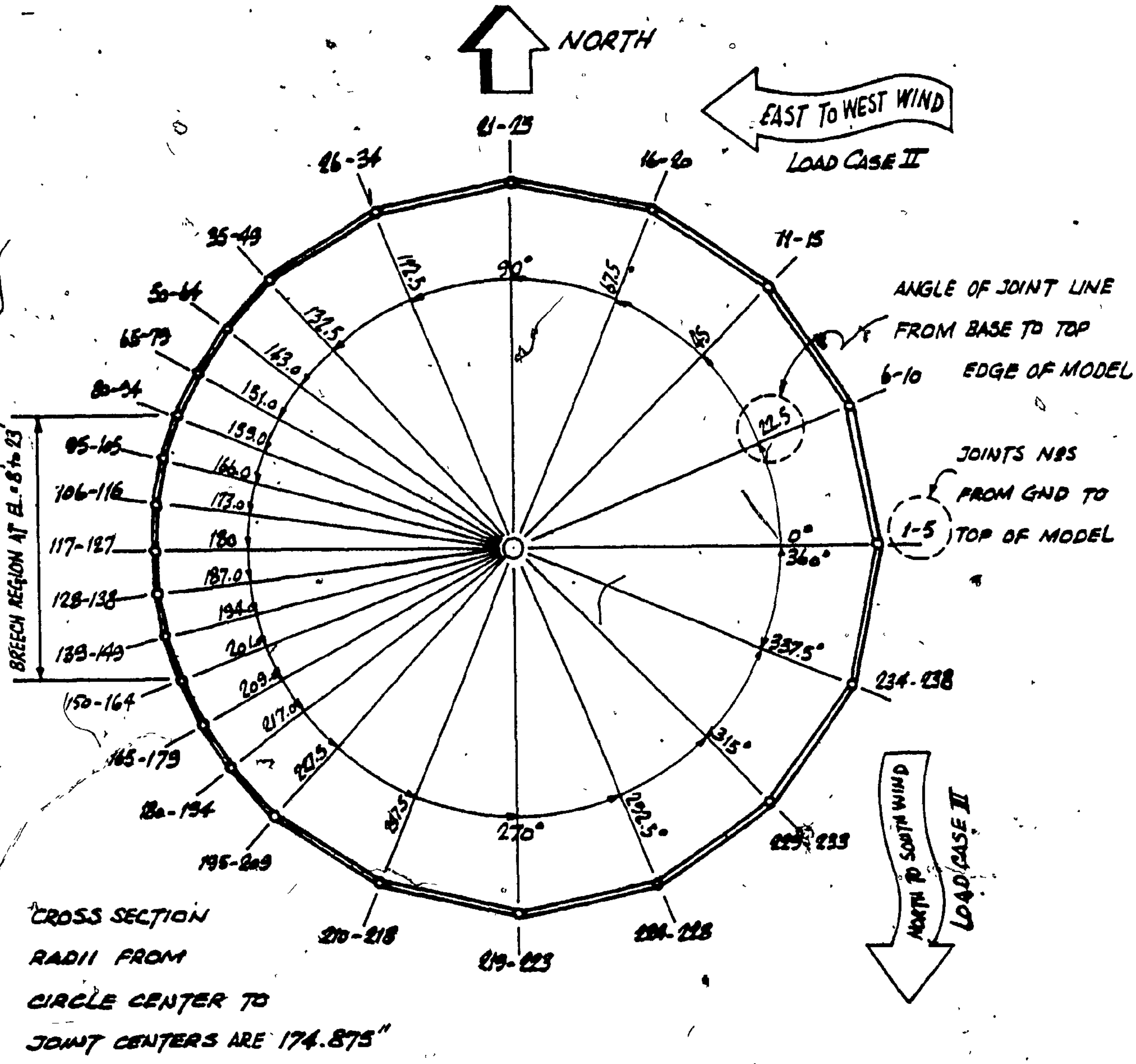


FIG. 1.3.2.5 MODEL I, PLAN CROSS SECTION

TABLE 1.3.2.1

MODEL I TOP EDGE JOINT FORCES

Top Edge Joint No.	LOAD CASE 1 Vertical Dead Load Lbs.	Joint Angle θ Deg.	LOAD CASE 2 East to West Wind — Flexural Vertical Lbs.	LOAD CASE 2 Flexural Mom. K-Ft	LOAD CASE 2 Shear Tangent Lbs.	LOAD CASE 3 North to South Wind — Flexural Vertical Lbs.	LOAD CASE 3 Flexural Mom. K-Ft	LOAD CASE 3 Shear Tangent Lbs.
5	-97750	0	61460	896	0	0	0	-4045
10	"	22½	56780	764	1663	23520	131	-3746
15	"	45	43460	448	2897	43460	448	-2897
20	"	67½	23520	131	3746	56780	764	-1664
25	"	90	0	0	4045	61460	896	0
34	-92330	112½	-22210	124	3557	53630	722	1528
49	-66260	132½	-28140	277	2120	30710	330	1794
64	-40170	143	-20180	235	1030	15210	133	133[illegible]
79	-34750	151	-19110	244	709	10590	75	1273
94	-32580	159	-19130	260	499	7340	38	1271
105	-30420	166	-18550	262	314	4630	16	1235
116	"	173	-18980	274	168	2330	4	1264
127	"	180	-19120	279	0	0	0	1273
138	"	187	-18980	274	- 168	- 2330	4	1264
149	"	194	-18550	262	- 314	- 4630	16	1235
164	-32580	201	-19130	260	- 499	- 7340	38	1271
179	-34750	209	-19110	244	- 709	-10590	75	1273
194	-40170	217	-20180	235	-1030	-15210	133	1333
209	-66260	227½	-28140	277	-2120	-30710	330	1794
218	-92330	247½	-22210	123	-3557	-53630	722	1528
223	-97750	270	0	0	-4045	-61460	896	0
228	"	292½	23520	131	-3746	-56780	764	-1664
233	"	315	43460	448	-2897	-43460	448	-2897
238	"	337½	56780	764	-1663	-23520	131	-3746
Σ	1564×10^3			7214			7116	

1.3.3: MODEL II

Utilizing the same elements employed in Model I, Model II was developed to remove the assumptions used in forming Model I as a means of verifying the assumptions. Subsequently, Model II employed a 200 Ft height, tapered as required, and loaded with the Model I governing load combination of dead load and East to West Wind, with q = 9.2 PSF.

Fig. 1.3.3.1 shows Model II in perspective and opened up as Figs. 1.3.3.2 to 1.3.3.6. Figs. 1.3.3.7 and 1.3.3.8 reflect the Model II cross sections. Table 1.3.3.1 summarizes the cross section joint forces defined with respect to angular location and elevation. Note that dead load was only applied at the 200 Ft elevation to represent the stack material above 200 Ft because the weight of the stack below 200 Ft was automatically determined by the ANSYS program.

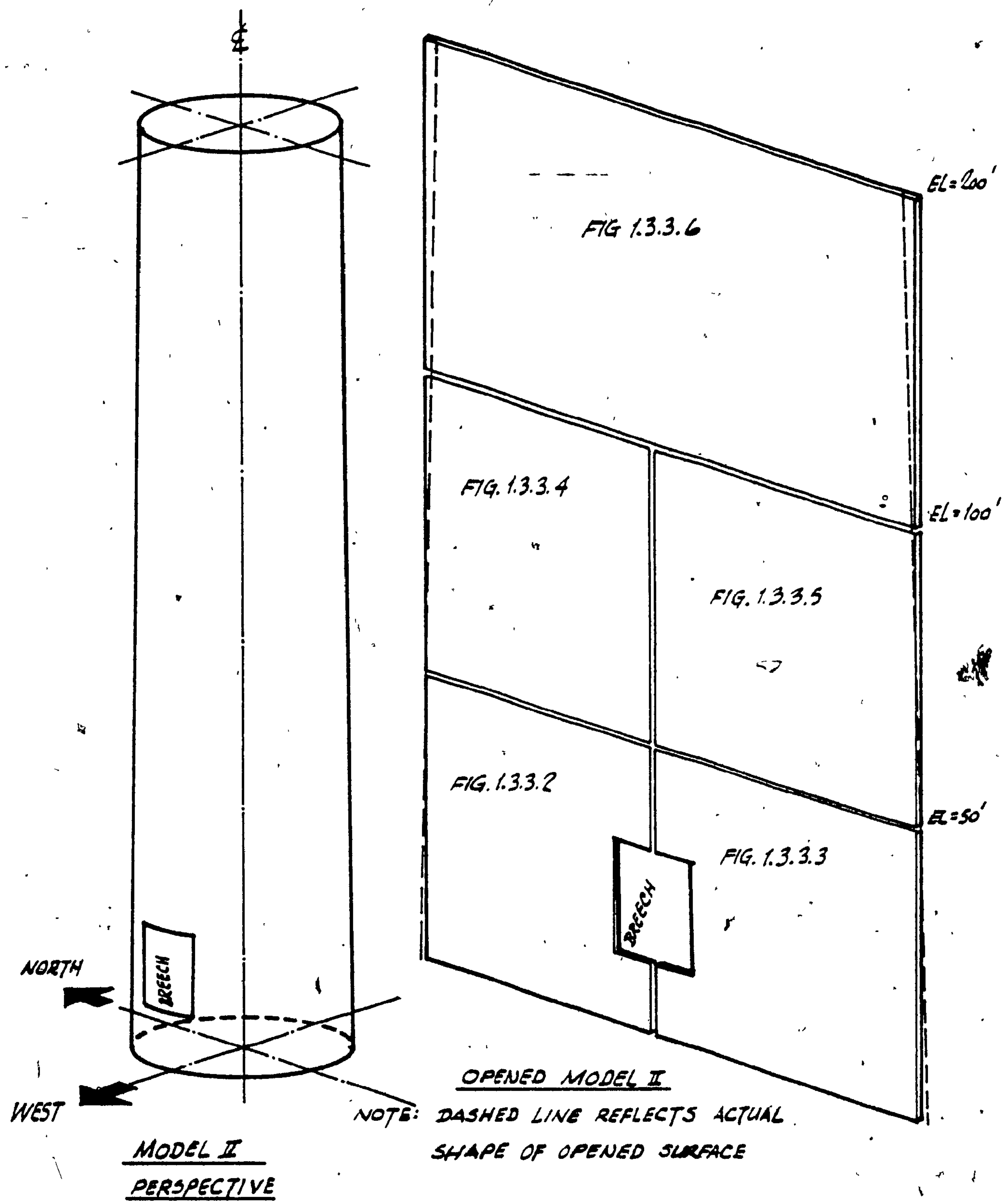


FIG. 1.3.3.1 MODEL II ORIENTATION OF FIG . 1.3.3.2 TO FIG . 1.3.3.6

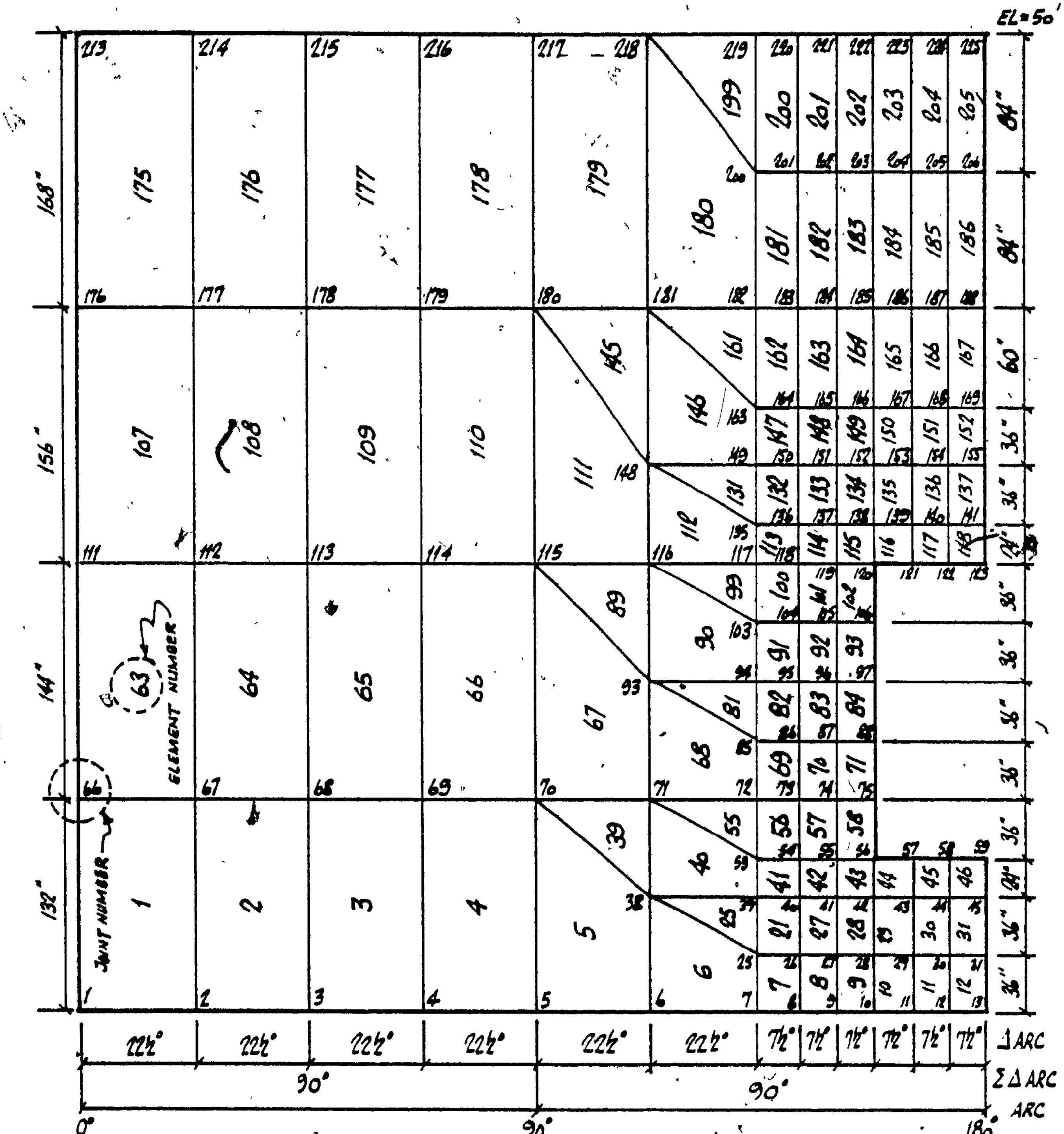


FIG. 1.3.3.2 HALF ELEVATION, MODEL II,
EL 0' TO 50'

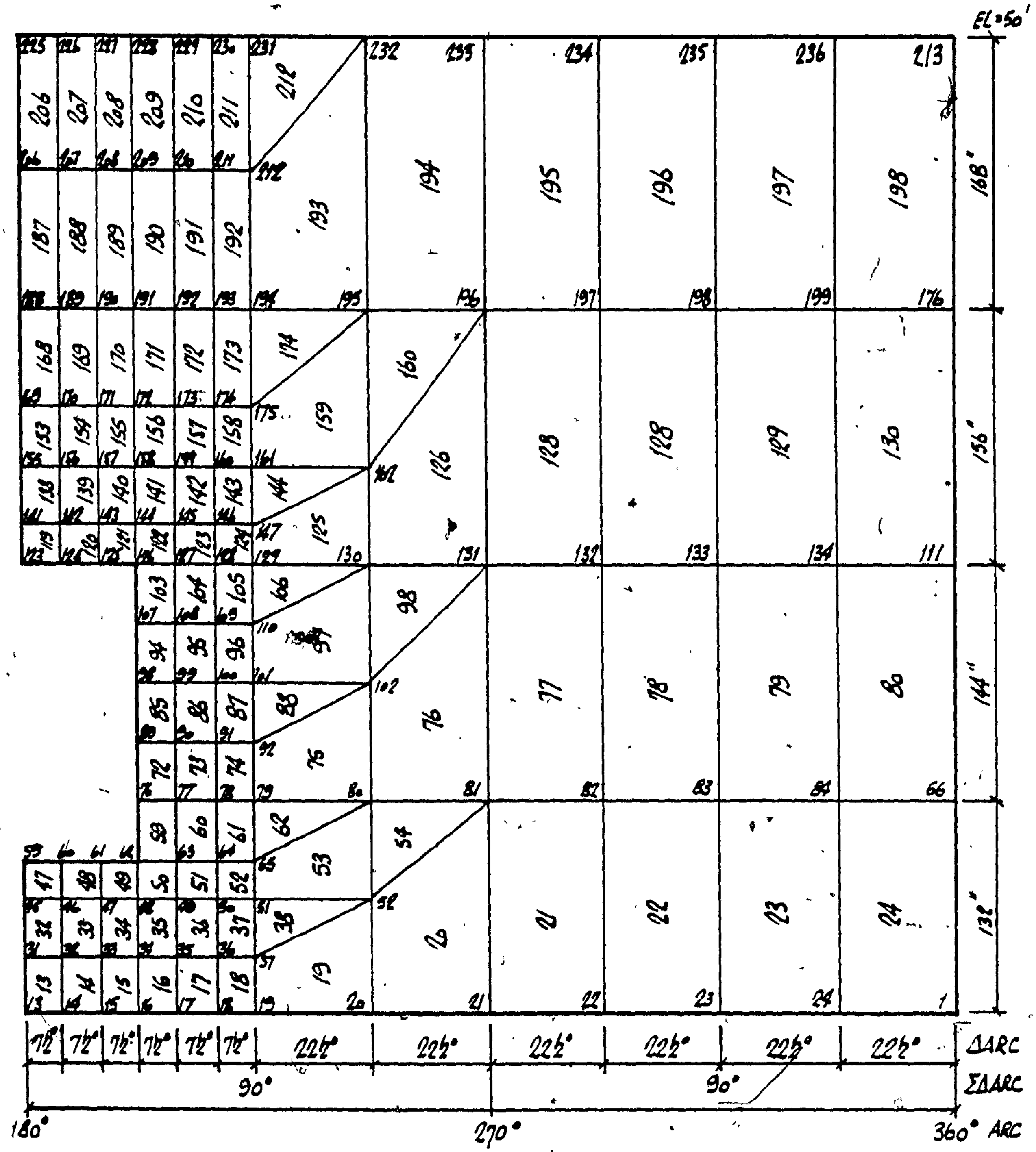


FIG. 1.3.3.3 HALF ELEVATION, MODEL II,
EL 0' TO 50'

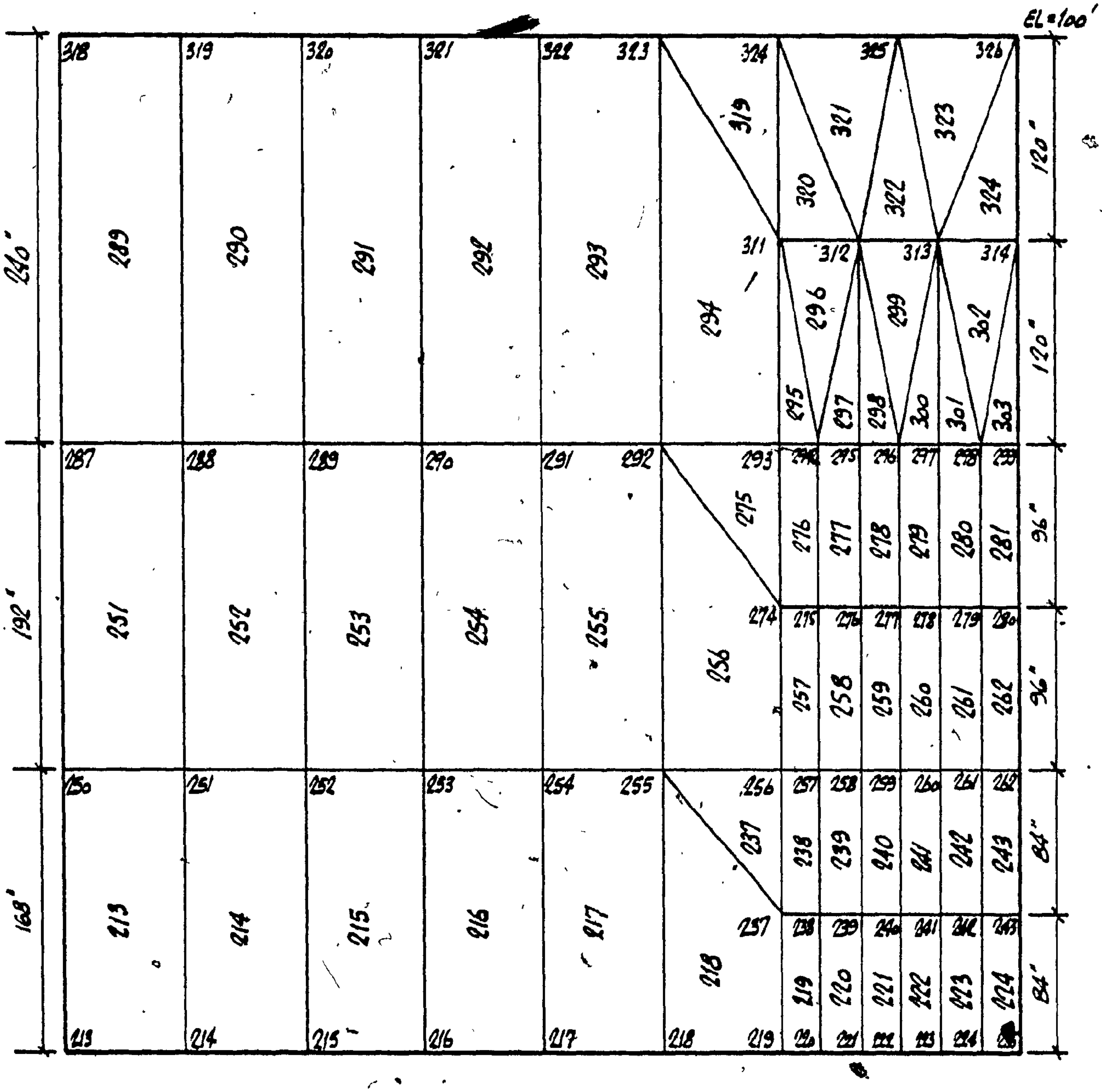


FIG. 1.3.3.4 HALF ELEVATION, MODEL II,
EL 50' TO 100'

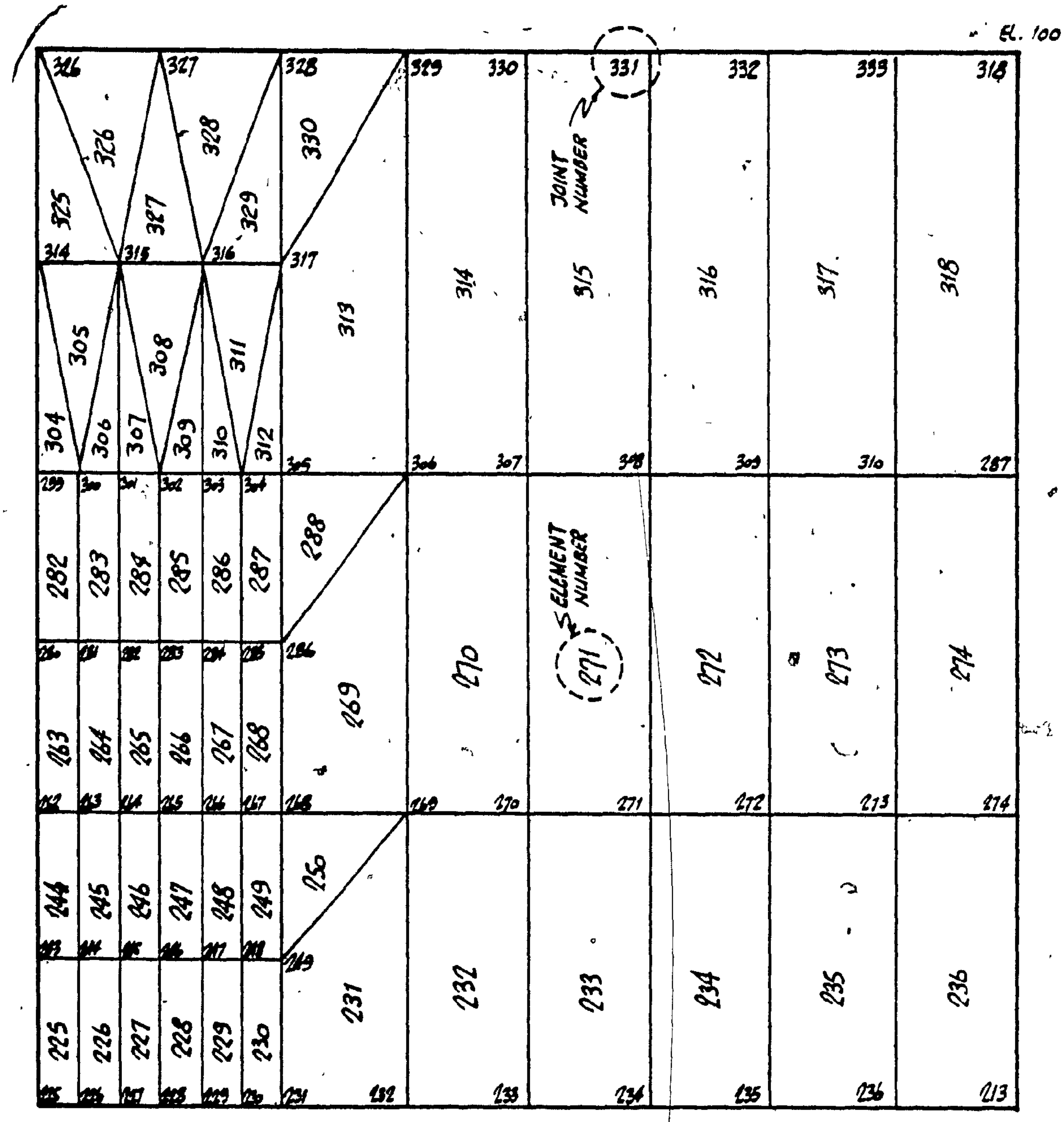


FIG. 1.3.3.5 HALF ELEVATION, MODEL II, EL 50' TO 100'

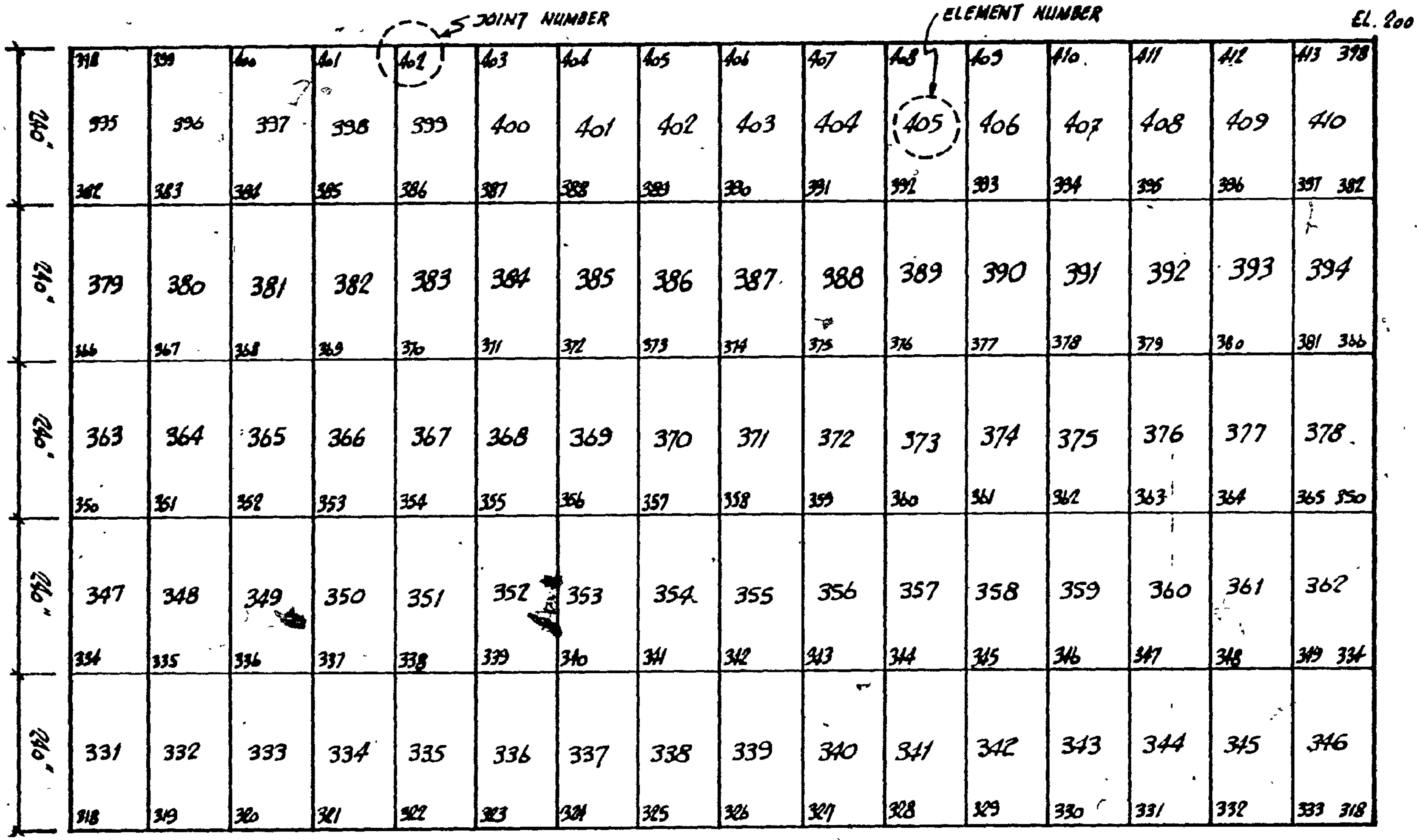
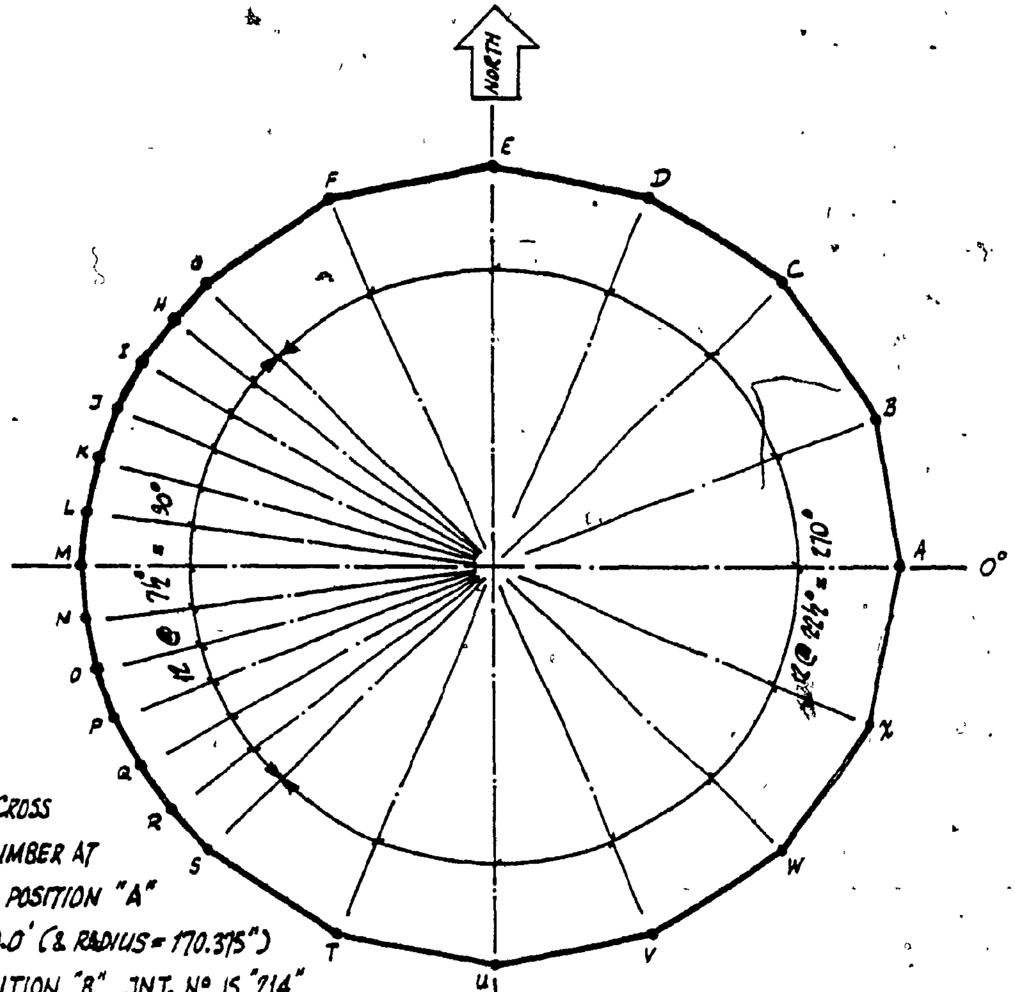


FIG. 1.3.3.6 TOTAL ELEVATION, MODEL II, EL 100' TO 200'



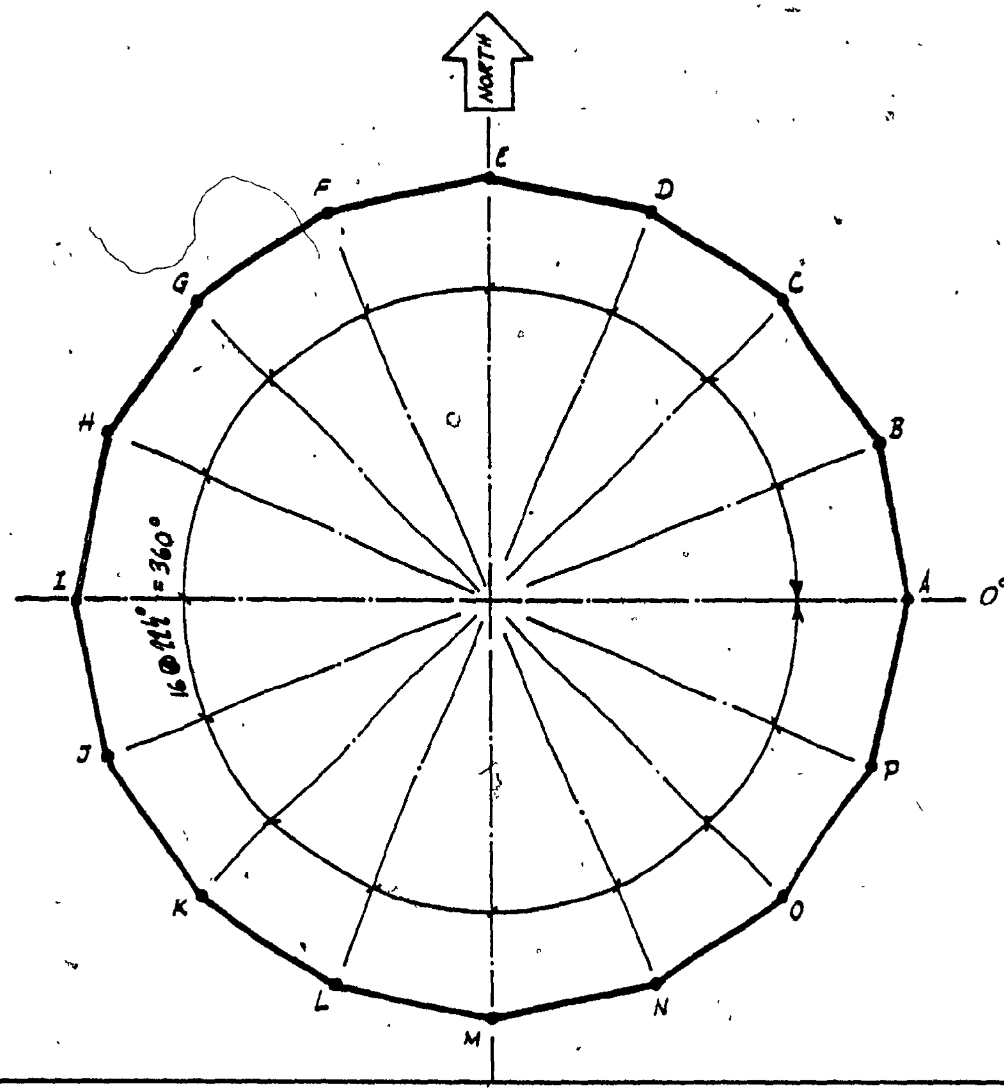
NOTE:
BY EXAMPLE, THE CROSS SECTION JOINT NUMBER AT CROSS SECTIONAL POSITION "A" AT ELEVATION = 50.0' (& RADIUS = 170.375") IS "213", FOR POSITION "B", JNT. Nº IS "214".

		JOINT LOCATIONS											
ELEV.	RADIUS	A	B	C	D	E	F	G	H	I	J	K	L
0.0'	179.375"	1	2	3	4	5	6	7	8	9	10	11	12
50.0'	170.375"	213	214	215	216	217	218	219	220	221	222	223	224
80.0'	164.975"	287	288	289	290	291	292	293	294	295	296	297	298

		JOINT LOCATIONS											
ELEV.	RADIUS	M	N	O	P	Q	R	S	T	U	V	W	X
0.0'	179.375"	13	14	15	16	17	18	19	20	21	22	23	24
50.0'	170.375"	225	226	227	228	229	230	231	232	233	234	235	236
80.0'	164.975"	299	300	301	302	303	304	305	306	307	308	309	310

TABLE OF CROSS SECTIONAL JOINT NUMBERS W.R.T CROSS SECTION, ELEVATION (& RADIUS).

FIG. 1.3.3.7 MODEL II CROSS SECTION AT EL 0', 50' AND 80'



		JOINT LOCATIONS															
ELEV.	RADIUS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
120.0'	157.775'	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349
160.0'	150.575'	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381
200.0'	143.375'	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413

TABLE OF CROSS SECTIONAL JOINT NUMBERS W.R.T. CROSS SECTION ELEVATION (& RADIUS)

FIG. 1.3.3.8 MODEL II CROSS SECTION AT EL 120', 160' AND 200'

TABLE 1.3.3.1

SUMMARY OF MODEL II JOINT FORCES AT PRESCRIBED ELEVATIONS

Elev.	50 Ft		80 Ft		120 Ft		160 Ft		200 Ft			
Joint Angle	LL Lbs.	Tang. Lbs.	LL Lbs.	Tang. Lbs.	LL Lbs.	Tang. Lbs.	LL Lbs.	Tang. Lbs.	DL Lbs.	LL Lbs.	Tang. Lbs.	DL+LL Lbs.
0	2704	0	5190	0	5595	0	5783	0	-58405	294448	0	236043
22½	2498	1023	4795	1435	5169	1480	5343	1462	"	272034	9838	213629
45	1912	1781	3670	2497	3956	2575	4089	2545	"	208206	17125	149801
67½	1035	2302	1986	3228	2141	3329	2213	3290	"	112680	22138	54275
90	0	2486	0	3487	0	3596	0	3554	"	0	23909	- 58405
112½	-1035	2302	-1986	3228	-2141	3329	-2213	3290	"	-112680	22138	-171085
135	-1275	1340	-2447	1880	-3956	2575	-4089	2545	-58405	-208206	17125	-266611
142½	- 715	512	-1373	717	-	-	-	-	-	-	-	-
150	- 781	421	-1498	590	-	-	-	-	-	-	-	-
157½	- 833	323	-1598	454	-5169	1480	-5343	1462	-58405	-272034	9838	-330439
165	- 871	221	-1671	310	-	-	-	-	-	-	-	-
172½	- 894	118	-1715	166	-	-	-	-	-	-	-	-
180	- 901	0	-1730	0	-5595	0	-5783	0	-58405	-294448	0	-352853
187½	- 894	- 118	-1715	- 166	-	-	-	-	-	-	-	-
195	- 871	- 221	-1671	- 310	-	-	-	-	-	-	-	-
202½	- 833	- 323	-1598	- 454	-5169	-1480	-5343	-1462	-58405	-272034	- 9838	-330439
210	- 781	- 421	-1498	- 590	-	-	-	-	-	-	-	-
217½	- 715	- 512	-1373	- 717	-	-	-	-	-	-	-	-
225	-1275	-1340	-2447	-1880	-3956	-2575	-4089	-2545	-58405	-208206	-17125	-266611
247½	-1035	-2302	-1986	-3228	-2141	-3329	-2213	-3290	"	-112680	-22138	-171085
270	0	-2486	0	-3487	0	-3596	0	-3554	"	0	-23909	- 58405
292½	1035	-2302	1986	-3228	2141	-3329	2213	-3290	"	112680	-22138	54275
315	1912	-1781	3670	-2497	3956	-2575	4089	-2545	"	208206	-17125	149801
337½	2498	-1023	4795	-1435	5169	-1480	5343	-1462	-58405	272034	- 9838	213629

LL = Vertical Live Load, due to Wind Shear Tang. = Tangential Load, due to Wind Shear DL = Vertical Dead Load

SECTION II

ANALYSIS RESULTS

By comparing the results of Model I and Model II, it was apparent that Model II was more representative of the actual stack behavior. The single most revealing comparison towards this conclusion may be seen in Fig. 2.1 where Model I and Model II cross sectional translations at stack elevation 50 Ft. are plotted together. Because the dead load plus East to West Wind, the governing load combination for the breech region, yielded excessive if not unrealistic cross sectional translations for Model I, it was decided that Model I could be discounted henceforth. The tabular summary of Model I ANSYS analysis translations at the 50 Ft elevation cross section for the three applied loads and two load combinations may be seen in Tables 2.1a and 2.1b. The translations at the 50 Ft elevation for Model II may be found in the ANSYS analysis output in Appendix D. Note that Model II was loaded directly with the Model I governing load combination of dead load plus East to West Wind, with q = 9.2 PSF.

Concentrating on Model II, Fig. 2.2 reflects the cross sectional translations at elevations 200 Ft and 100 Ft. Note that the 200 Ft elevation is the Model II top free edge. Fig. 2.3 reflects the elements investigated to determine the analysis results about the breech region. Figs. 2.4 and 2.5 display the translations in the plate about the breech region. Fig. 2.4, an elevation view, depicts vertical and tangential translations, Uz and Uy, respectively, and Fig. 2.5 the radial, or Ux translation. Note that all translations are in global coordinates.

TABLE 2.1a

MODEL I TOP EDGE DEFLECTIONS

Joint No.	Dead Load			(E→W) Wind			(N→S) Wind		
	Ux	Uy	Uz	Ux	Uy	Uz	Ux	Uy	Uz
5	-0.019	~0.0	-0.025	-0.049	~0.0	0.017	~0.0	-0.033	~0.0
10	-0.005	0.006	-0.025	-0.037	0.017	0.016	-0.017	-0.030	0.007
15	0.028	0.002	-0.026	-0.007	0.025	0.011	-0.027	-0.021	0.012
20	0.043	-0.011	-0.026	0.017	0.023	0.006	-0.023	-0.012	0.015
25	-0.022	-0.014	-0.023	-0.011	0.021	0.001	-0.018	-0.004	0.017
34	-0.155	0.022	-0.021	-0.099	0.043	-0.003	-0.047	0.009	0.017
49	-0.210	0.087	-0.027	-0.125	0.083	-0.012	-0.079	0.030	0.013
64	-0.121	0.118	-0.036	-0.057	0.100	-0.021	-0.074	0.044	0.010
79	0.007	0.126	-0.05	0.034	0.102	-0.028	-0.059	0.054	0.007
94	0.160	0.114	-0.054	0.141	0.090	-0.035	-0.041	0.060	0.005
105	0.285	0.087	-0.060	0.227	0.068	-0.039	-0.026	0.065	0.003
116	0.374	0.047	-0.064	0.287	0.036	-0.043	-0.012	0.067	0.001
127	0.405	~0.0	-0.066	0.308	~0.0	-0.044	~0.0	0.068	~0.0
138	0.374	-0.047	-0.064	0.287	-0.036	-0.043	0.012	0.067	-0.001
149	0.285	-0.087	-0.060	0.227	-0.068	-0.039	0.026	0.065	-0.003
164	0.160	-0.114	-0.054	0.141	-0.090	-0.035	0.041	0.060	-0.005
179	0.007	-0.126	-0.045	0.034	-0.102	-0.028	0.059	0.054	-0.007
194	-0.121	-0.118	-0.036	-0.057	-0.100	-0.021	0.074	0.044	-0.010
209	-0.210	-0.087	-0.027	-0.125	-0.083	-0.012	0.079	0.030	-0.013
218	-0.155	-0.022	-0.021	-0.099	-0.043	-0.003	0.047	0.009	-0.017
223	-0.022	0.014	-0.023	-0.011	-0.021	0.001	0.018	-0.004	-0.017
228	0.043	0.011	-0.026	0.017	-0.023	0.006	0.023	-0.012	-0.015
233	0.028	-0.002	-0.026	-0.007	-0.025	0.011	0.027	-0.021	-0.012
238	-0.005	-0.006	-0.025	-0.037	-0.017	0.016	0.017	-0.030	-0.007

Note: All deflections in inches and in nodal coordinate system

Ux = Radial, Uy = Tangential, Uz = Vertical

TABLE 2.1b

MODEL I TOP EDGE DEFLECTIONS

Joint No.	DL + [9.2(E→W)Wind]			DL + [9.2(N→S)Wind]		
	Ux	Uy	Uz	Ux	Uy	Uz
5	-0.470	0.0	0.131	-0.019	-0.304	-0.025
10	-0.345	0.162	0.122	-0.161	-0.270	0.039
15	-0.036	0.232	0.075	-0.220	-0.191	0.084
20	0.199	0.201	0.029	-0.169	-0.121	0.112
25	-0.123	0.179	-0.014	-0.188	-0.051	0.133
34	-1.066	0.418	-0.049	-0.587	0.105	0.135
49	-1.360	0.851	-0.137	-0.937	0.363	0.093
64	-0.645	1.038	-0.229	-0.802	0.523	0.056
79	0.320	1.064	-0.308	-0.536	0.623	0.014
94	1.457	0.942	-0.376	-0.217	0.666	-0.008
105	2.373	0.713	-0.419	0.046	0.685	-0.032
116	3.014	0.378	-0.460	0.264	0.663	-0.055
127	3.239	[illegible]	-0.471	0.405	0.626	-0.066
138	3.014	-0.378	-0.460	0.484	0.569	-0.073
149	2.373	-0.713	-0.419	0.524	0.511	-0.088
164	1.457	-0.942	-0.376	0.537	0.438	-0.100
179	0.320	-1.064	-0.303	0.550	0.371	-0.109
194	-0.645	-1.038	-0.229	0.560	0.287	-0.128
209	-1.360	-0.851	-0.137	0.517	0.189	-0.147
218	-1.066	-0.418	-0.049	0.277	0.061	-0.177
223	-0.123	-0.179	-0.014	0.144	-0.023	-0.179
228	0.199	-0.201	0.029	0.255	-0.099	-0.164
233	-0.036	-0.232	0.075	0.[illegible]76	-0.195	-0.136
238	-0.345	-0.162	0.122	0.151	-0.282	-0.089

Note: All deflections in inches and in nodal coordinate system
Ux = Radial, Uy = Tangential, Uz = Vertical, DL = Vertical Dead Load

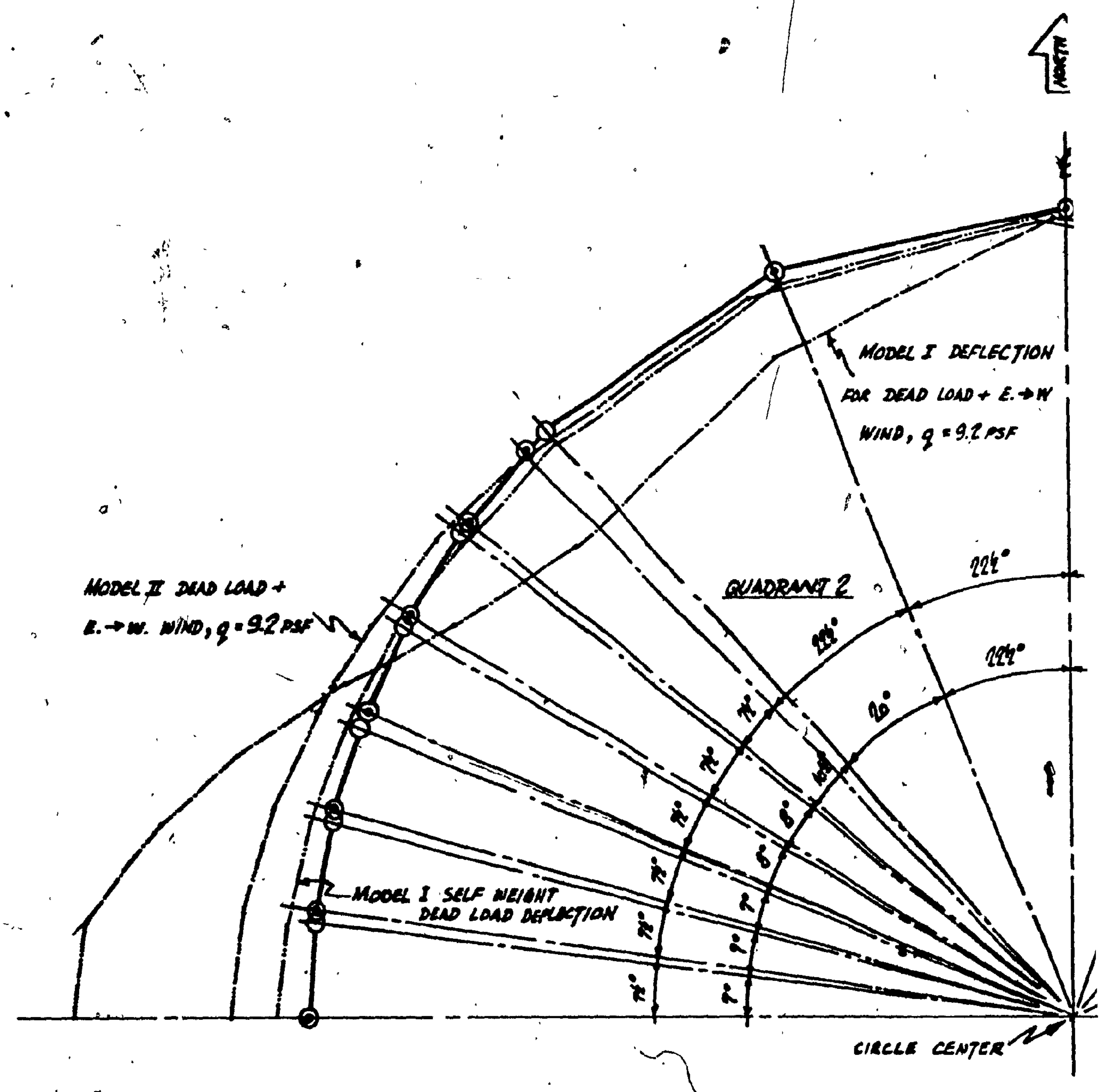
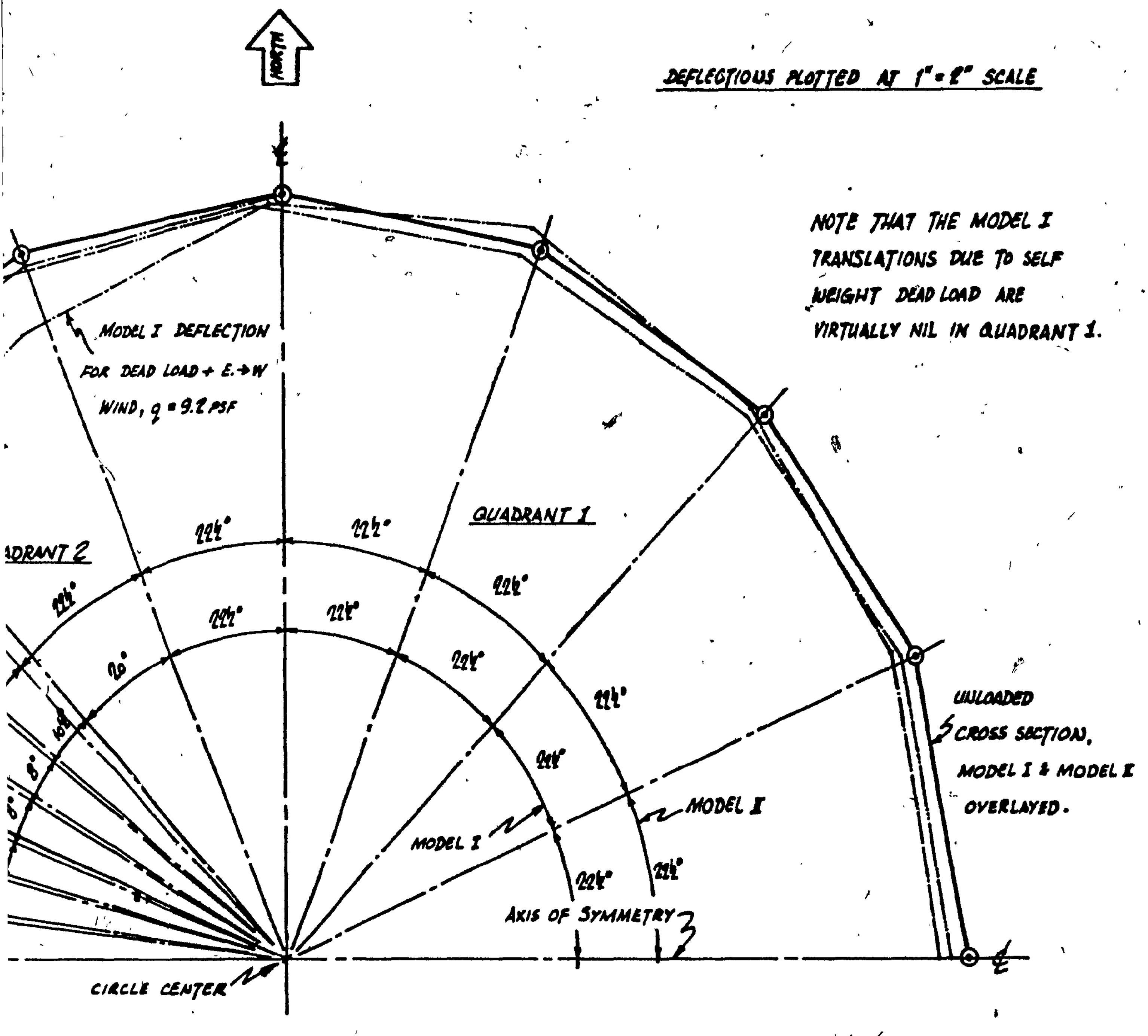


FIG. 2.1 MODEL I AND II CROSS



ODEL I AND II CROSS SECTIONAL TRANSLATIONS AT EL. = 50 FT.

2 of 2

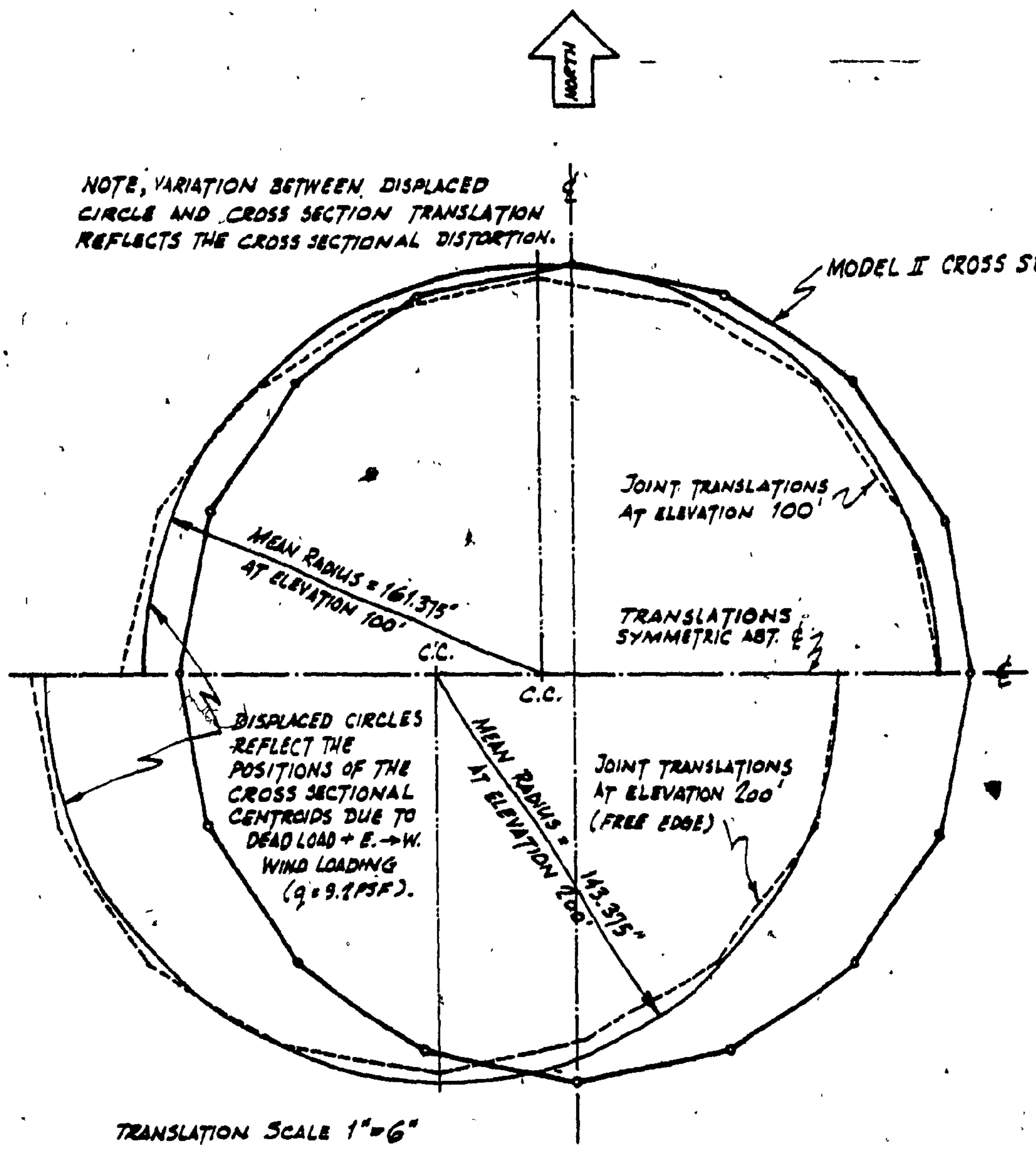


FIG. 2.2 JOINT DISPLACEMENTS OF CROSS SECTION AT 100' AND 200' ELEVATIONS, MODEL II

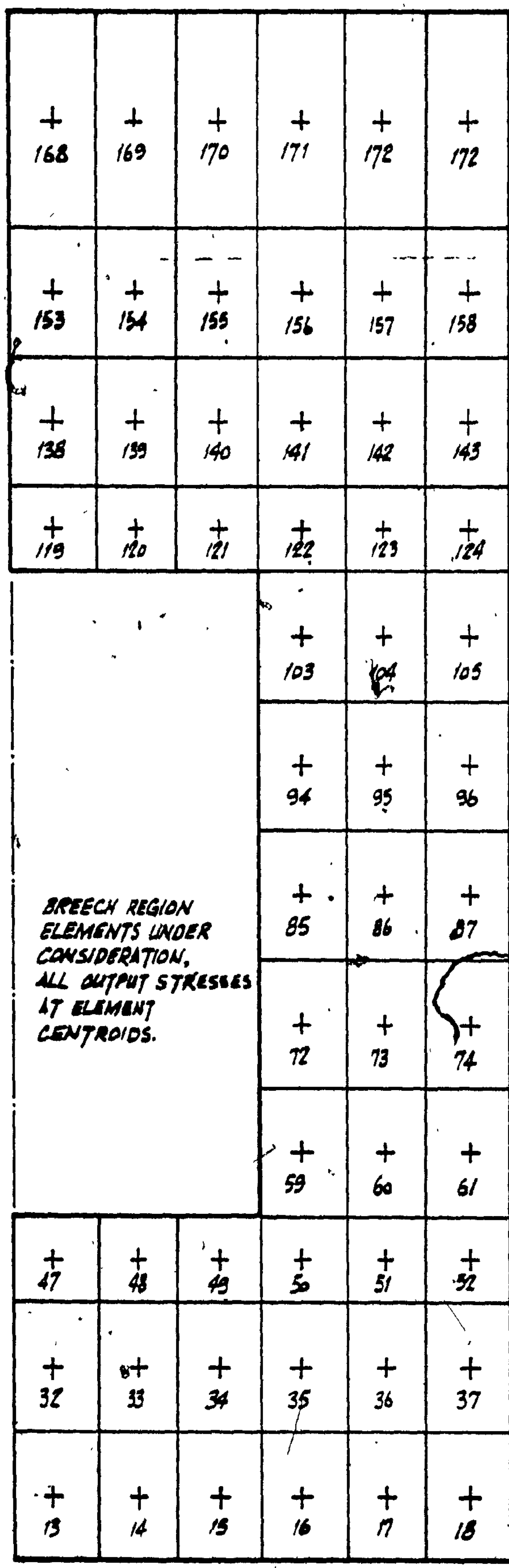


FIG. 2.3
MODEL II BREECH
REGION ELEMENTS

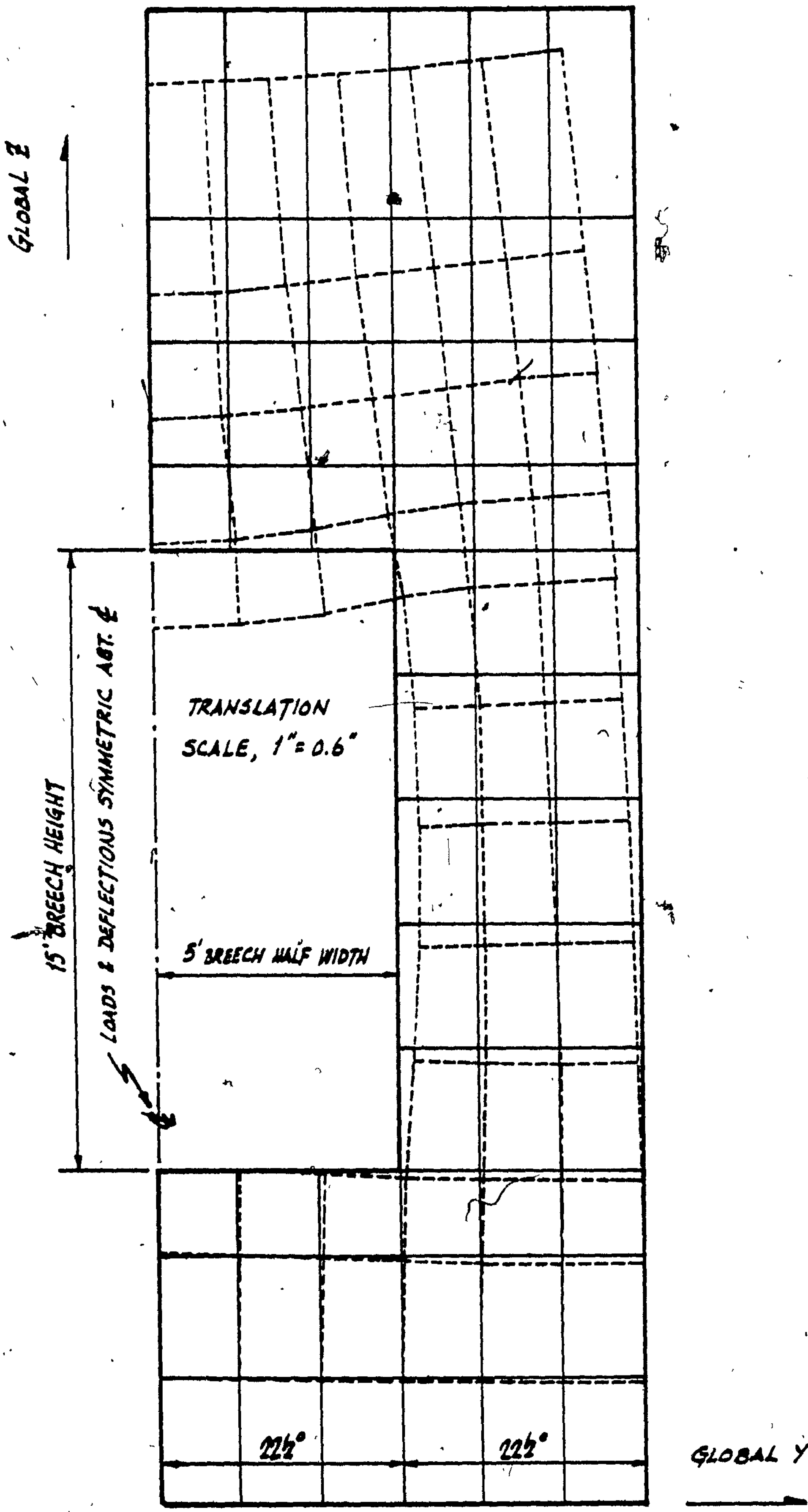


FIG. 2.4 MODEL II VERTICAL(Z) AND TANGENTIAL(Y) TRANSLATIONS IN GLOBAL COORDINATES

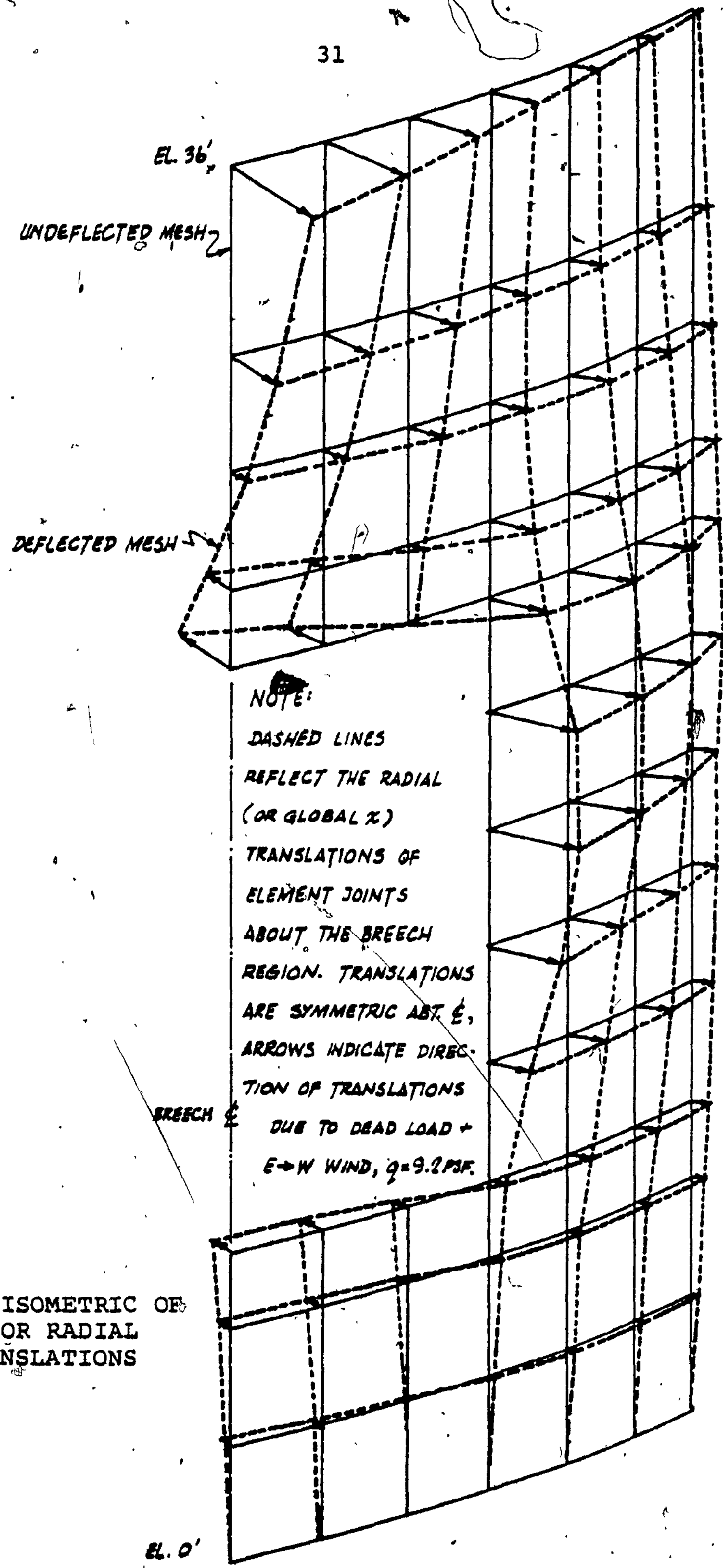
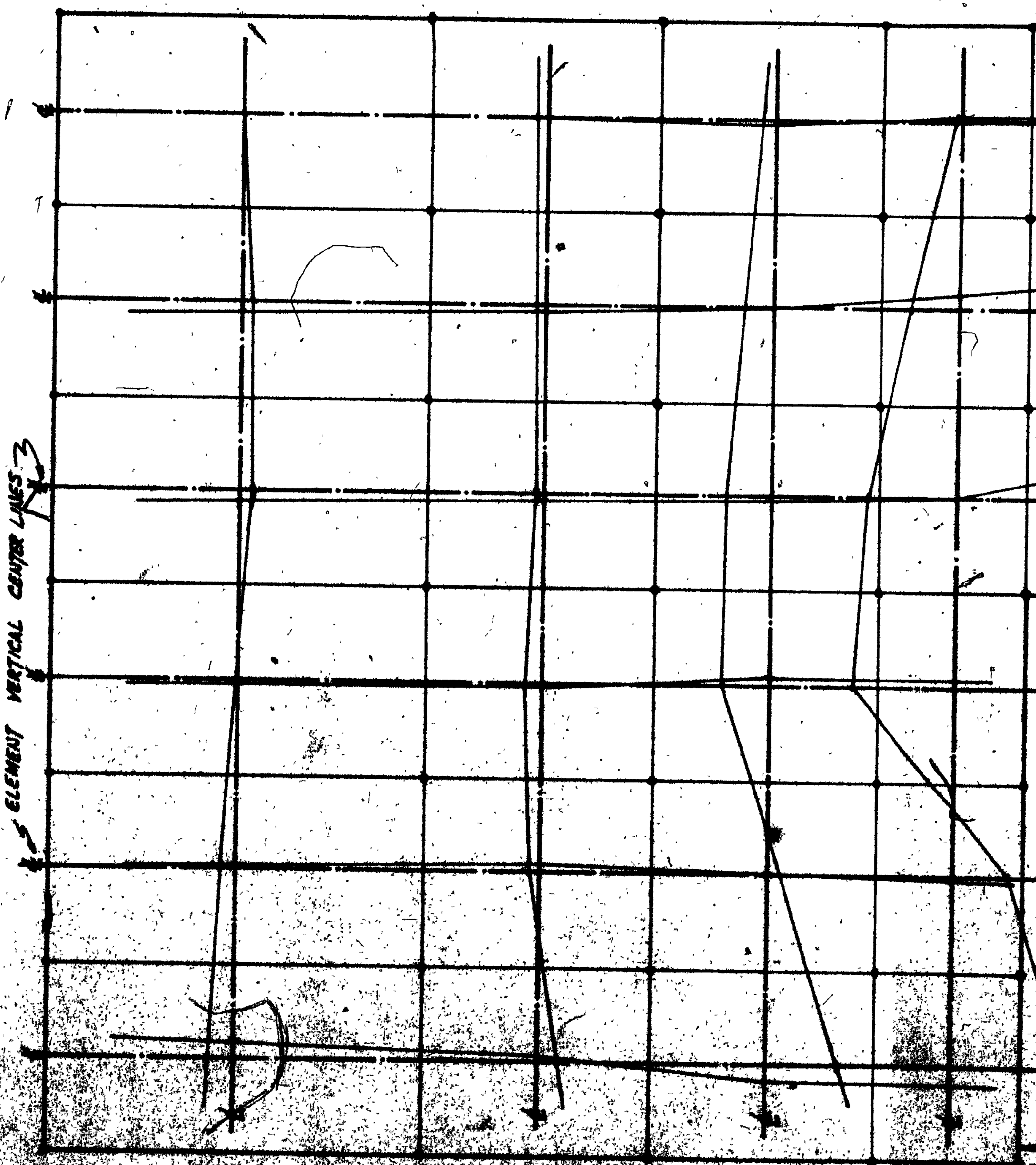
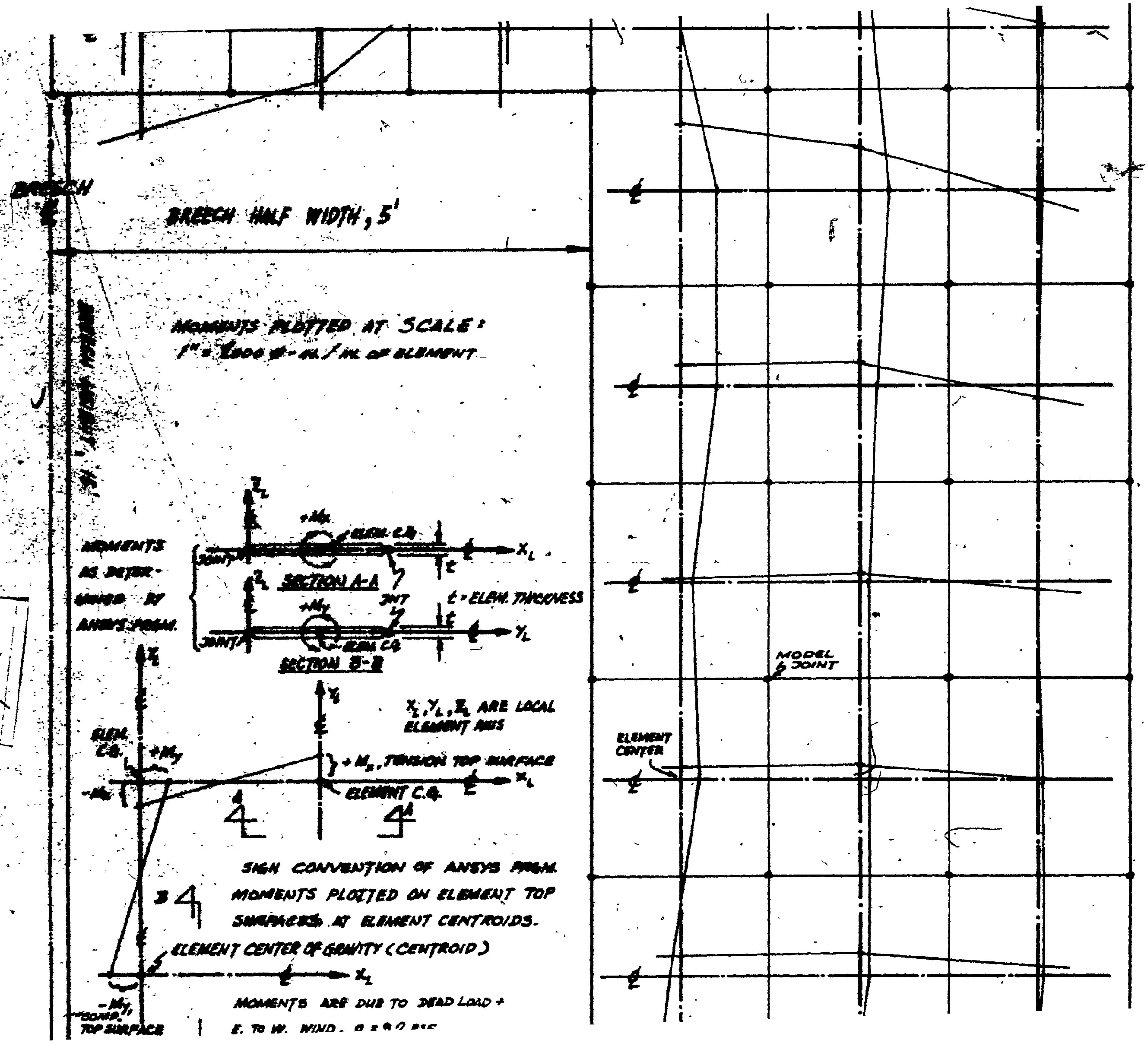


FIG. 2.5
MODEL II ISOMETRIC OF
GLOBAL X OR RADIAL
JOINT TRANSLATIONS

Figs. 2.6, 2.7 and 2.8 reflect the bending moments in the plate material, where M_x and M_y yield the flexural stresses in x and y local element axis directions respectively. The moments are in #-In per inch of plate.

The membrane and bending stresses may be seen in Figs. 2.9 to 2.12. Tension is positive, and for the bending stresses, only the top surface values at each element centroid have been plotted. Stresses are in PSI in the local element x and y directions.


ELEMENT VERTICAL CENTER LINES


BREECH ℄
BREECH HALF WIDTH, 5'
MOMENTS PLOTTED AT SCALE:
MOMENTS AS DETERMINED BY ANSYS PRGM.
SECTION A-A
t = ELEM. THICKNESS
SECTION B-B
MODEL ℄ JOINT
X, Y, Z ARE LOCAL ELEMENT AXIS
ELEMENT CENTER
+Mx, TENSION TOP SURFACE
ELEMENT C.G.
SIGN CONVENTION OF ANSYS PRGM.
MOMENTS PLOTTED ON ELEMENT TOP SURFACES AT ELEMENT CENTROIDS.
ELEMENT CENTER OF GRAVITY (CENTROID)
MOMENTS ARE DUE TO DEAD LOAD +
-My, COMP. TOP SURFACE

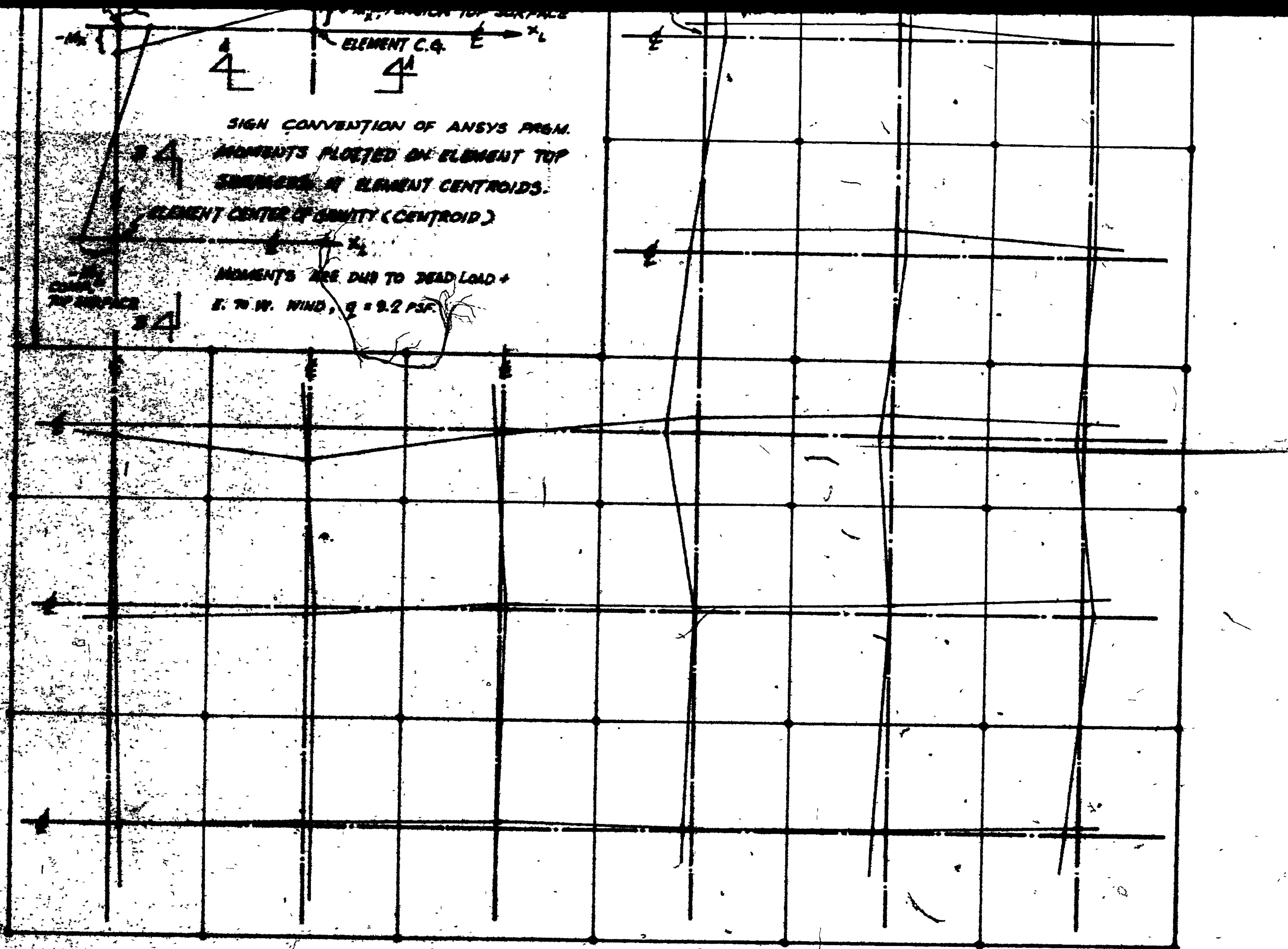


FIG. 2.6 MODEL II MOMENTS AT ELEMENT CENTERS

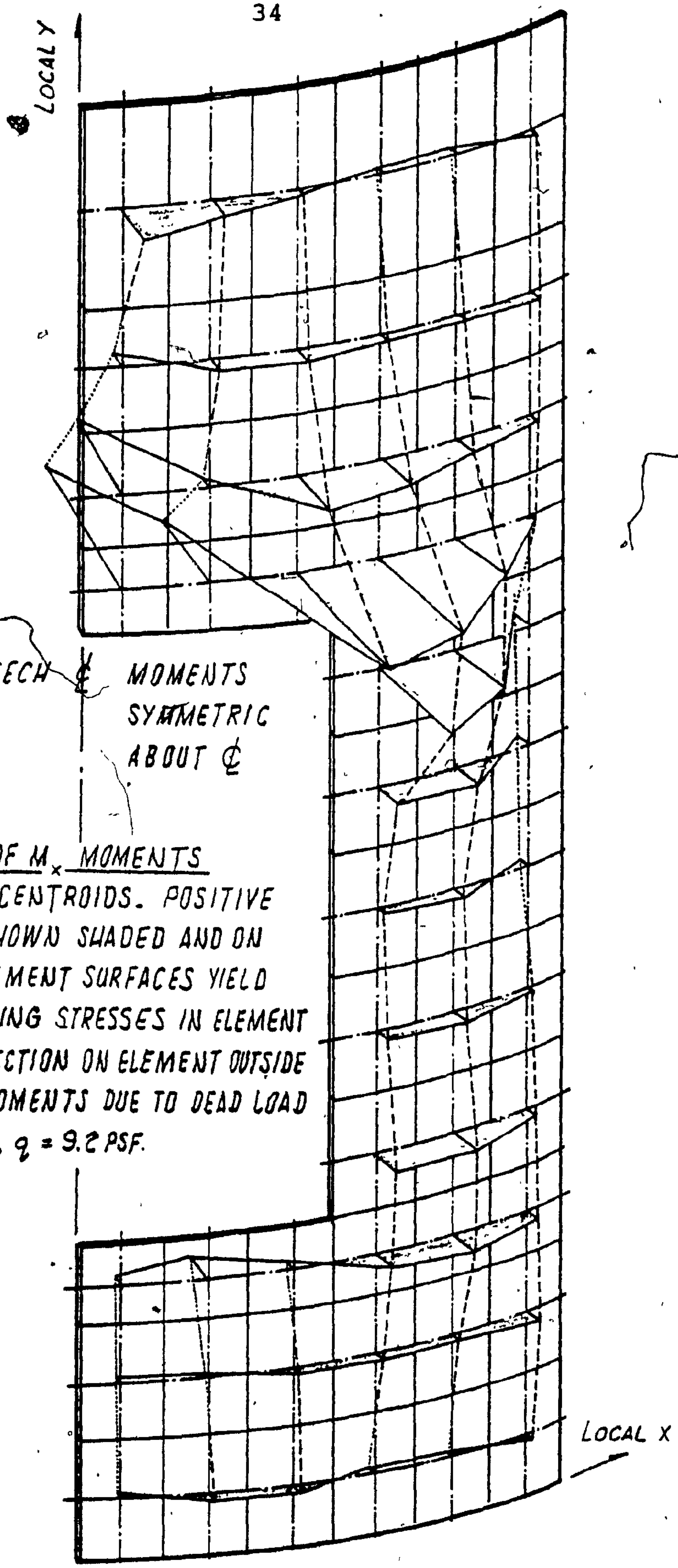


FIG. 2.7
MODEL II
<u>ISOMETRIC OF M_x MOMENTS</u>
AT ELEMENT CENTROIDS. POSITIVE MOMENTS SHOWN SHADED AND ON OUTSIDE ELEMENT SURFACES YIELD TENSILE BENDING STRESSES IN ELEMENT LOCAL X DIRECTION ON ELEMENT OUTSIDE SURFACES. MOMENTS DUE TO DEAD LOAD + E→W WIND, q = 9.2 PSF.

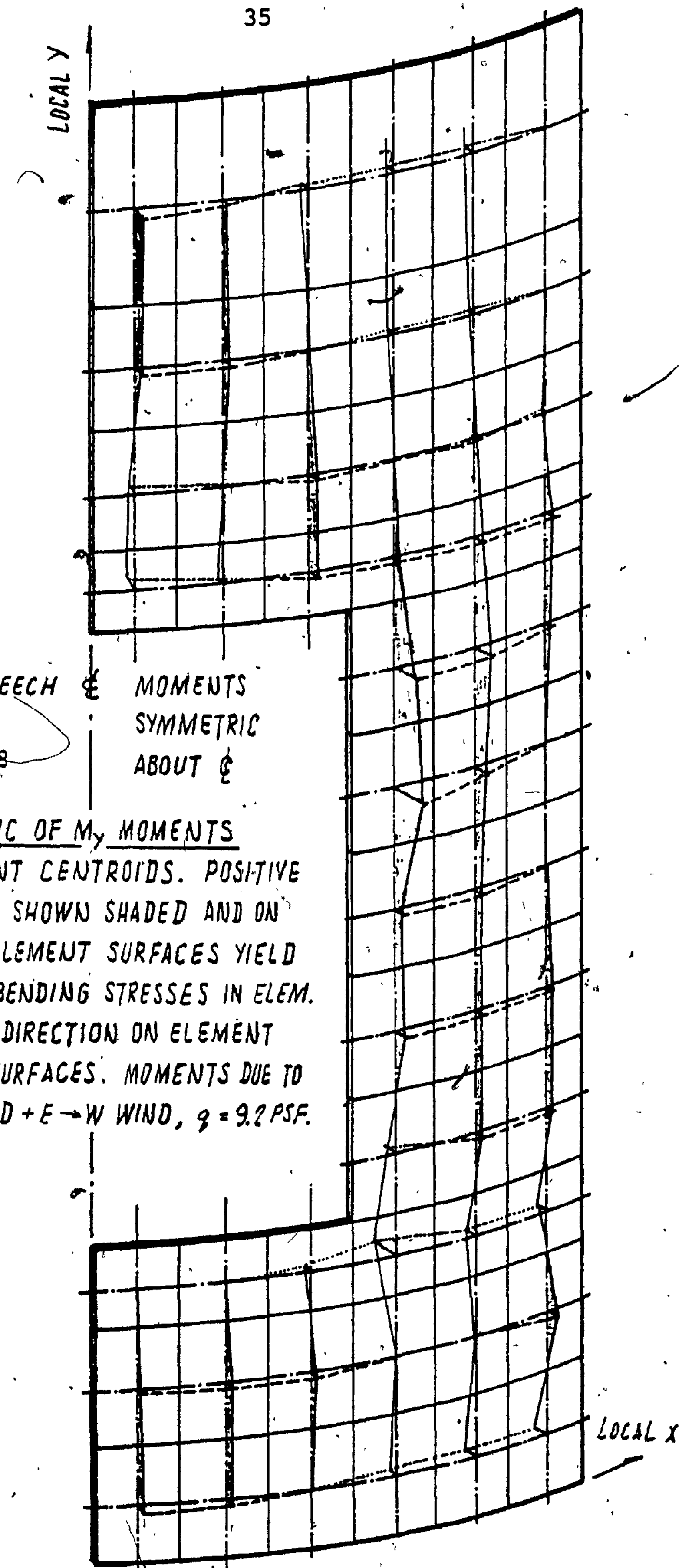


FIG. 2.8
MODEL II
<u>ISOMETRIC OF M_y MOMENTS</u>
AT ELEMENT CENTROIDS. POSITIVE MOMENTS SHOWN SHADED AND ON OUTSIDE ELEMENT SURFACES YIELD TENSILE BENDING STRESSES IN ELEM. LOCAL Y DIRECTION ON ELEMENT OUTSIDE SURFACES. MOMENTS DUE TO DEAD LOAD + E → W WIND, q = 9.2 PSF.

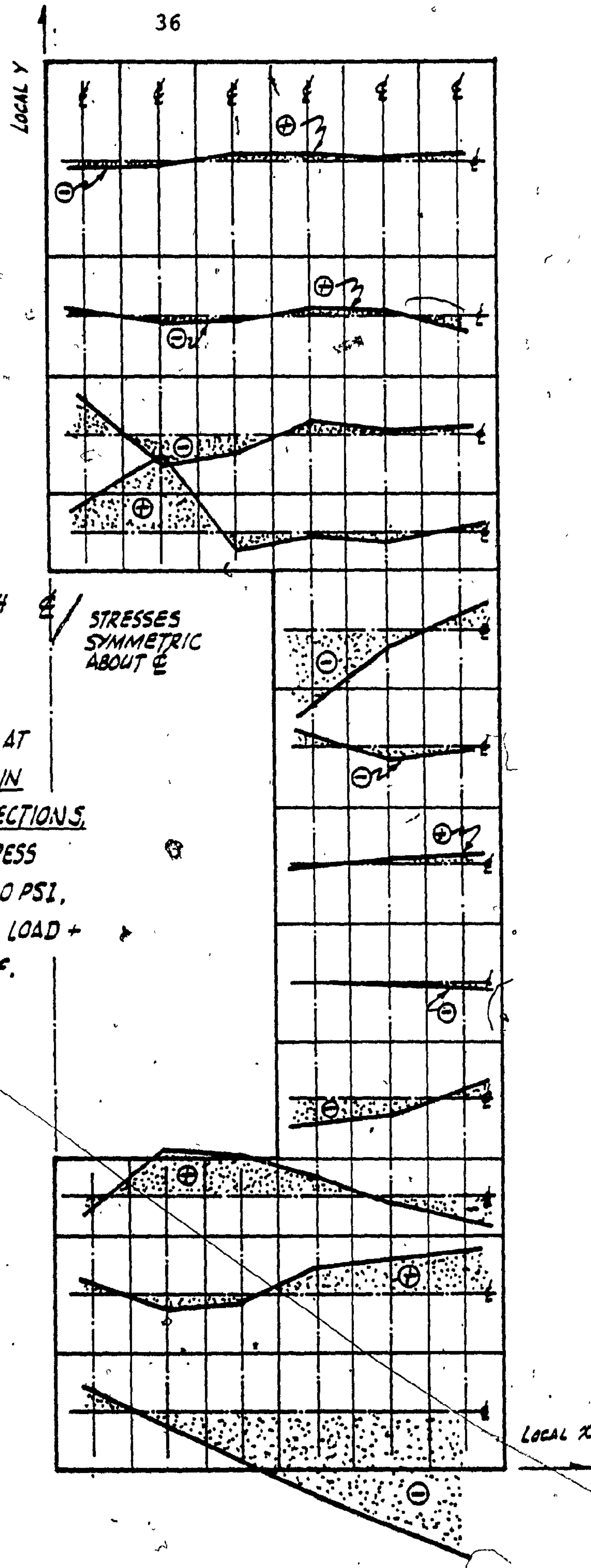


FIG. 2.9
MODEL II
MEMBRANE STRESSES AT CENTER OF ELEMENTS IN LOCAL ELEMENT X DIRECTIONS. ⊕ IS TENSION, AND STRESS PLOT SCALE IS 1" = 2000 PSI. STRESSES DUE TO DEAD LOAD + E→W WIND, $q = 9.2$ PSF.

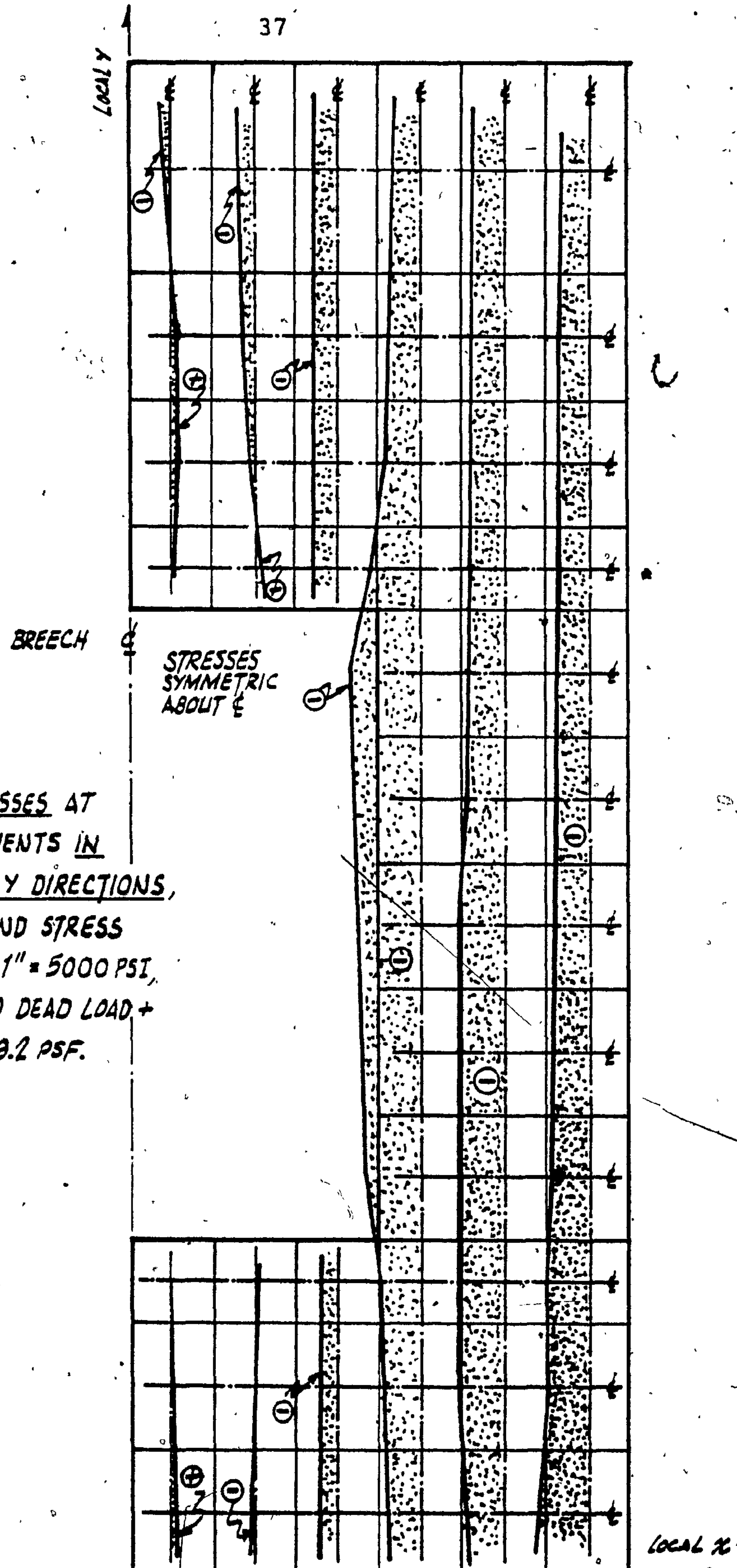


FIG. 2.10
MODEL II
MEMBRANE STRESSES AT CENTER OF ELEMENTS IN LOCAL ELEMENT Y DIRECTIONS, ⊕ IS TENSION, AND STRESS PLOT SCALE IS 1" = 5000 PSI, STRESSES DUE TO DEAD LOAD + E→W WIND, q = 9.2 PSF.

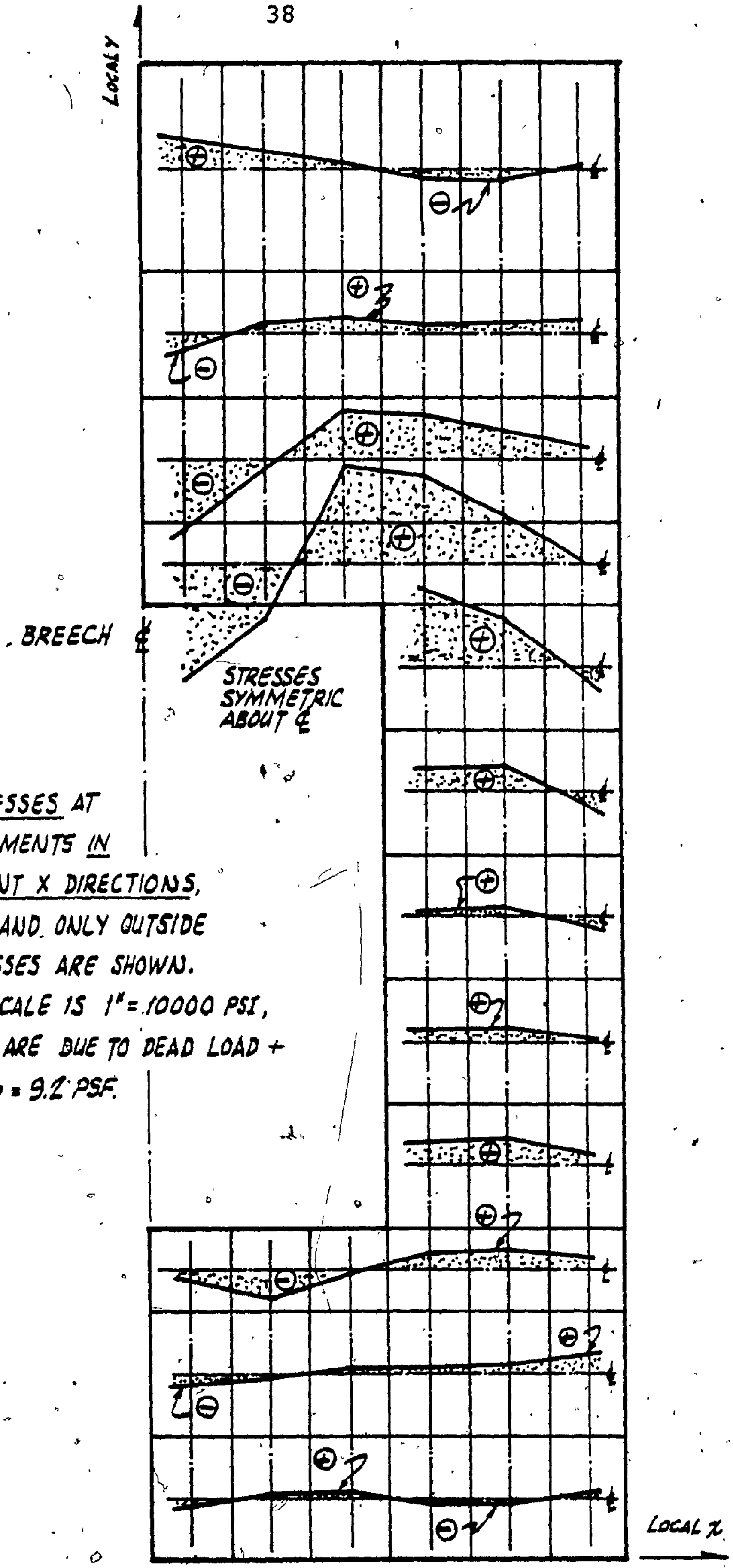


FIG. 2.11
MODEL II
BENDING STRESSES AT CENTER OF ELEMENTS IN LOCAL ELEMENT X DIRECTIONS, ⊕ IS TENSION, AND ONLY OUTSIDE SURFACE STRESSES ARE SHOWN. STRESS PLOT SCALE IS 1" = 10000 PSI, AND STRESSES ARE DUE TO DEAD LOAD + E → W WIND, q = 9.2 PSF.

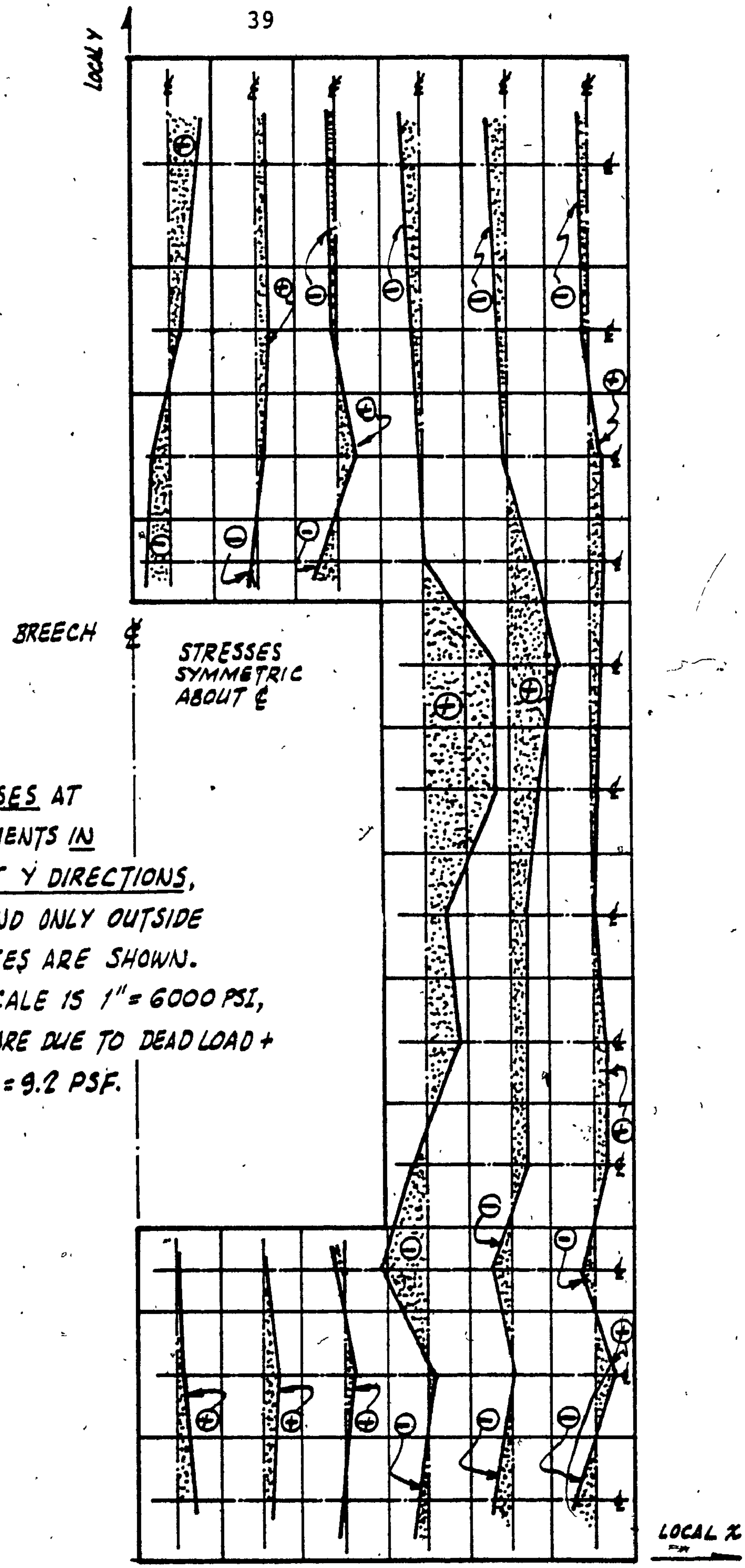


FIG. 2.12

MODEL II

BENDING STRESSES AT CENTER OF ELEMENTS IN LOCAL ELEMENT Y DIRECTIONS, ⊕ IS TENSION, AND ONLY OUTSIDE SURFACE STRESSES ARE SHOWN. STRESS PLOT SCALE IS 1" = 6000 PSI, AND STRESSES ARE DUE TO DEAD LOAD + E→W WIND, q = 9.2 PSF.

SECTION III

CONCLUSIONS AND RECOMMENDATIONS

The objective of this section is threefold. Firstly, it presents conclusions drawn from the analysis reflecting the behavior of the stack about the breech region due to the applied governing load combination of dead load plus East to West Wind; secondly, it presents the modelling recommendations; and thirdly, it presents recommendations for stiffening the breech opening to counter the resulting deflections and stresses about the breech region.

3.1: ANALYSIS CONCLUSIONS

Two models were employed to test the applicability of the short Model I and the assumptions with which Model I was developed. Fig. 2.1 summarizes the representative behavior of Models I and II by comparing the cross sectional deformations of both models at the 50 Ft stack elevation due to the applied governing load case. Although the cross sectional deformations are similar and expected in shape, due to the presence of lateral (tangential) shear, the magnitude of Model I displacements are unrealistically excessive. The primary causes of the Model I behavior may be found in its development assumptions. Specifically, Model I lacked the true stiffness of the stack at the 50 Ft elevation, and furthermore, the cross sectional tangential shear was unrealistically concentrated totally at the Model I top edge. To negate these factors Model II elevated the top free edge to the 200 Ft elevation. This in turn increased the stiffness of the stack model by providing material above the 50 Ft elevation of Model I, stiffening the cross section appropriately. In addition, having greater height, Model II was loaded with more loads of lower magnitude at multiple elevations, reducing the localized concentrations of loads and therefore the associated edge distortions.

Close investigation of the Model II cross sectional displacements at 50, 200 and 100 Ft elevations, Figs. 2.2 and 2.3 respectively, reveals an egg or pear shaping of the cross section. This is anticipated behavior for a circular cross section undergoing lateral shear forces. Furthermore, it should be pointed out that Model II reflects more or less the same cross sectional distortion at all three elevations reviewed, which indicates consistency of cross sectional displacements, especially since the 100 Ft elevation was not a loaded elevation.

Accepting Model II results as satisfactory and reflective of total stack behavior when loaded with the governing load combination of self weight dead load plus East to West Wind, with q = 9.2 PSF, the following conclusions based on the deflections, moments and stresses about the breech may be sighted.

By reviewing Figs. 2.1, 2.2, 2.4 and 2.5, it is obvious that the effects of the breech opening are localized within different areas about the breech. Below the breech, between elevation zero and eight feet, there are small deflections and forces in the longitudinal and tangential stack directions.

This is acceptable since this region is not directly loaded and is only reflecting the influence of the adjacent areas. To the sides of the breech, there are vertical and tangential deflections and forces reflecting localized behavior very similar to a column with end constraints loaded bi-axially or in two directions. It should be noted that this behavior seems to diminish very quickly and yields significantly smaller deflections and forces in the longitudinal direction within an angular arc of 45 degrees to the left and right of the breech center line. Furthermore, Figs. 2.9 to 2.12 reveal that the upper corners of the regions to the breech sides sustain significantly high values of membrane and bending stress, appearing simultaneously in both the longitudinal and tangential stack directions. Although these stresses are not necessarily the highest values present within their categories, their simultaneous existence at significant intensities makes the upper corners along the breech sides a critical location of stress concentration. This is also expected because the opening has compelled the forces to seek an alternative path to ground, and subsequently the upper corner is bottlenecking the loads before distribution further down from this region. Above the breech opening center line, the figures of deflections and stresses indicate very large bending in the cross section and vertical translations but very small values of longitudinal membrane stress. This is due to large tangential compressive membrane plate forces and arch action on axial loads downwardly approaching the opening. Just above the breech opening, the vertical deflections from the breech center to the corners indicate the behavior of a beam element fixed to the side regions which were already sighted with behavior similar to that of a column. Discounting the cross sectional deflections above and to the sides of the breech, and considering only Fig. 2.4, the overall deflection pattern is indicative of a rigid frame being loaded vertically and horizontally by loads applied symmetrically about the frame center line, as illustrated in Fig. 3.1.1. With this prevailing behavior, the (following) stiffening recommendations in 3.3 were developed.

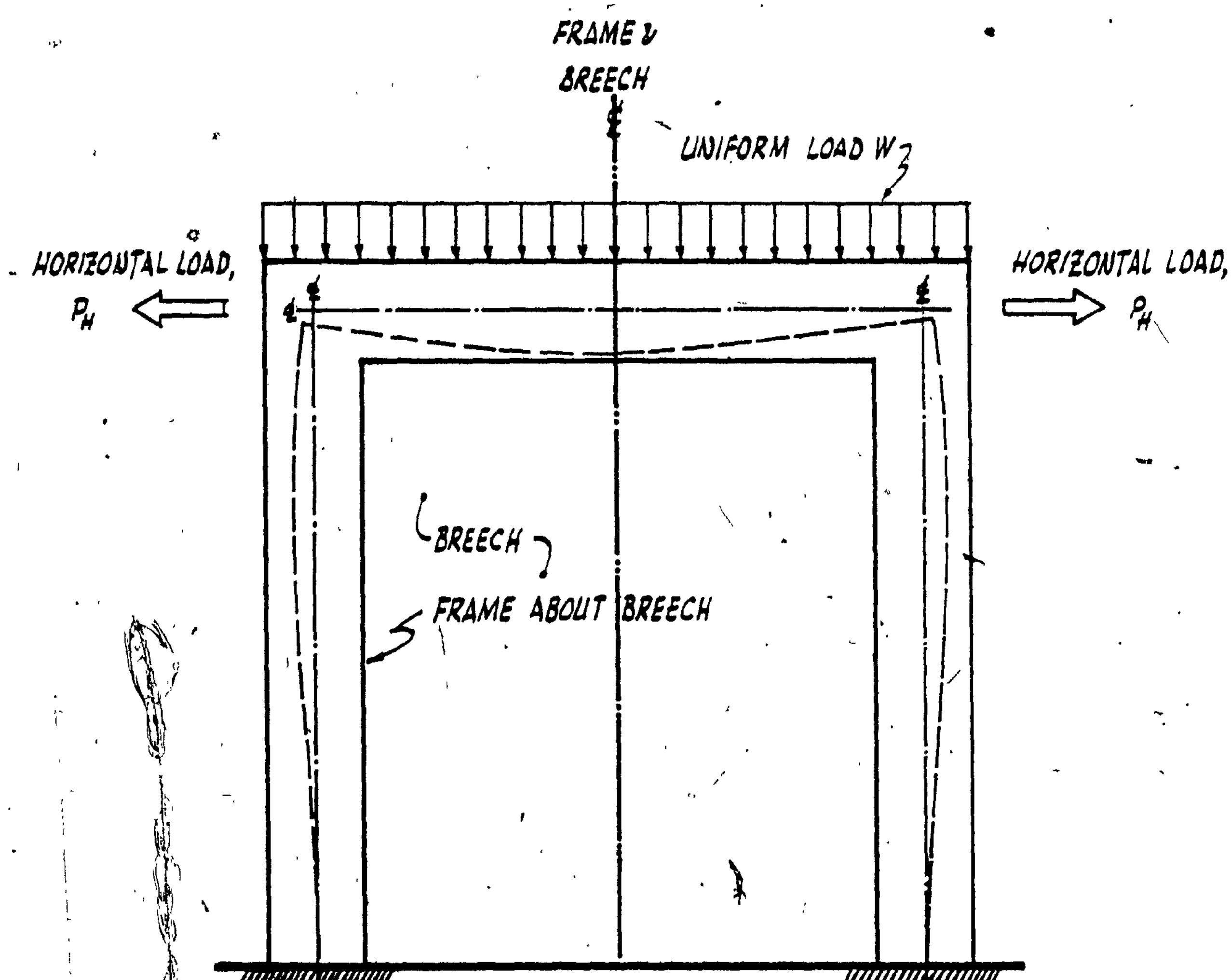


FIG. 3.1.1 ANALOGOUS FRAME ACTION ABOUT BREECH OPENING

3.2: MODELLING RECOMMENDATIONS

The program used is not of great importance in the finite element analysis of a simple structure such as a breeched steel stack. Attention should be given to the type of element to be used, the mesh layout, and the overall assumptions governing the model boundary conditions, size, and loading schemes. In this analysis two seperate models were employed using the ANSYS program. The models basically differed from each other in size. By elevating the top free edge from 50 to 200 Ft, Model II verified the inadequate representation of the cross sectional stiffness at the 50 Ft elevation in Model I. In addition, it could also be sighted that Model II allowed for a better loading scheme by providing more elevations at which loads could be applied, possibly discounting the local effects at the 50 Ft elevation at which the total load was directly applied on Model I. In view of these two points, partial models of similar steel stacks should be modelled with not less than 40% of the total structure height above the breech. This will provide sufficient height over which the effects of the breech will subside, and more elevations at which a greater number of lower magnitude loads may be applied. If greater insight into the stress distributions is required, especially in the breech corners, a finer mesh in the regions of interest becomes necessary. However, for all intents and purposes, the mesh size implemented in this analysis seemed to be generally adequate. Similar element proportioning should yield acceptable results in other similar models.

The primary modelling goal should be to make the model as representative as possible without excessive expense. It is entirely possible to improve results by a very small percentage at a multiple increase in cost. On the other hand, it is also possible to develop a model that is relatively inexpensive, and still capable of yielding satisfactory results. The cost of the two models utilized in this analysis was, in total, under $650.00, with approximately an equal division per model due to the fact that Model II had only one applied load case, but was much larger in the number of joints and elements used. Note that had Model II been used initially with all loads, as applied to Model I, the total cost would have been significantly reduced.

3.3: STIFFENING RECOMMENDATIONS

The following recommendations are based on the resulting deflected shape of the breech region. Since absolute deflection and stress values are a function of stack, material sizes and applied loads, it is obvious that the absolute magnitude of deflections and stresses found in this analysis are of little importance in comparison to general deflection and stress patterns developed. Primarily it is felt that if deflections can be reduced with stiffeners, bending stresses can be reduced if not removed from the stack plate, permitting the stack plate to be designed for an increased membrane stress with the stiffeners to sustain the bending stresses.

In addition to longitudinal stiffeners, it is felt that cross sectionally stiffening the stack above the opening at a few elevations will provide better redistribution of downward forces by maintaining the circular cross section under load, and also by reducing the bending and membrane stresses in the stack plate in the tangential direction. Note that these tangential stresses were highest just above the breech opening where the longitudinal membrane stresses were minimal. Furthermore, since the sides of the breech opening reflect column action with high longitudinal membrane and bending stresses, it is recommended that the side regions contain longitudinal stiffener reinforcement with increased spacing at further distances from the breech. Thirdly, since the highest tangential membrane stress in compression appears to be at the base, a base cross section stiffener is also recommended. However, this will more than likely already exist to facilitate anchoring. Fig. 3.3.1 reflects the stiffener cage recommendations shown in perspective with the stack plate removed.

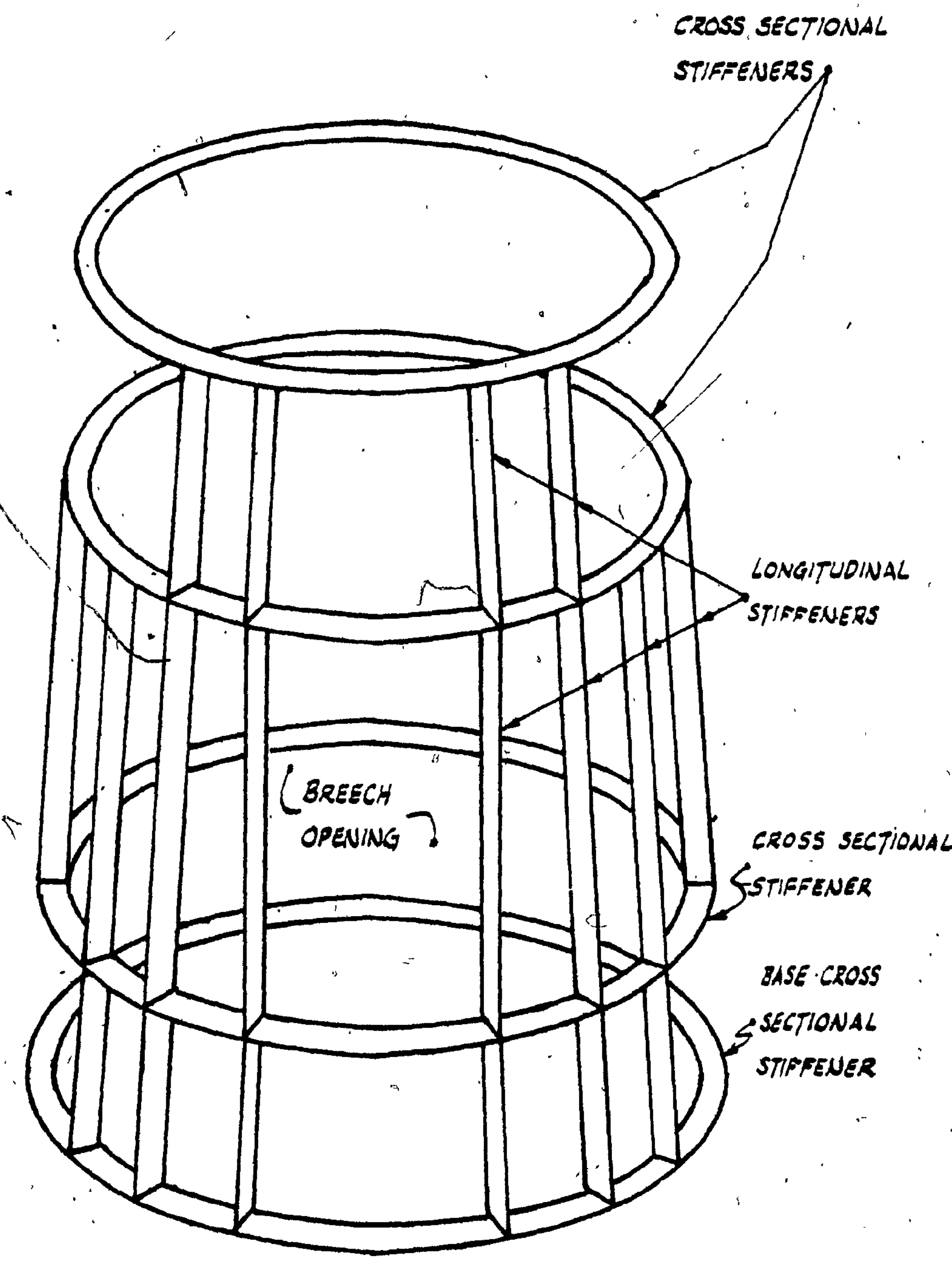


FIG. 3.3.1 STIFFENER RECOMMENDATIONS

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APPENDIX A

A.1: EXACT CALCULATION OF STACK SELF WEIGHT DEAD LOAD, MODELS I AND II

Since neither Model I nor II modelled the entire stack in height, and because the model weights were determined by the ANSYS program, only the dead load of the stack above the top of each model was found as follows.

$$DL = Vol \times \rho_s \qquad (A.1.1)$$

where Vol = the volumn of the stack above the top of model elevation, In^3

= Amd

Am = the average mean area of the stack cross section at the half height of stack above the top of model elevation, In^2

= πDmt

Dm = the average mean diameter at the same elevation of Am, In

$$= 12\left[D_B - \left\{\frac{D_B - D_T}{H} \times h\right\}\right] - t \qquad (A.1.2)$$

where D_B = stack base diameter, 30 Ft

D_T = stack top diameter, 15 Ft

H = stack height, 500 Ft

h = the elevation of Am and Dm, Ft

d = the height of stack from the top of model to the top of stack, Ft, d = 24H-24h, In

t = the stack plate thickness, In

ρ_s = the plate density, 0.284 PCI

See Fig. A.1.1

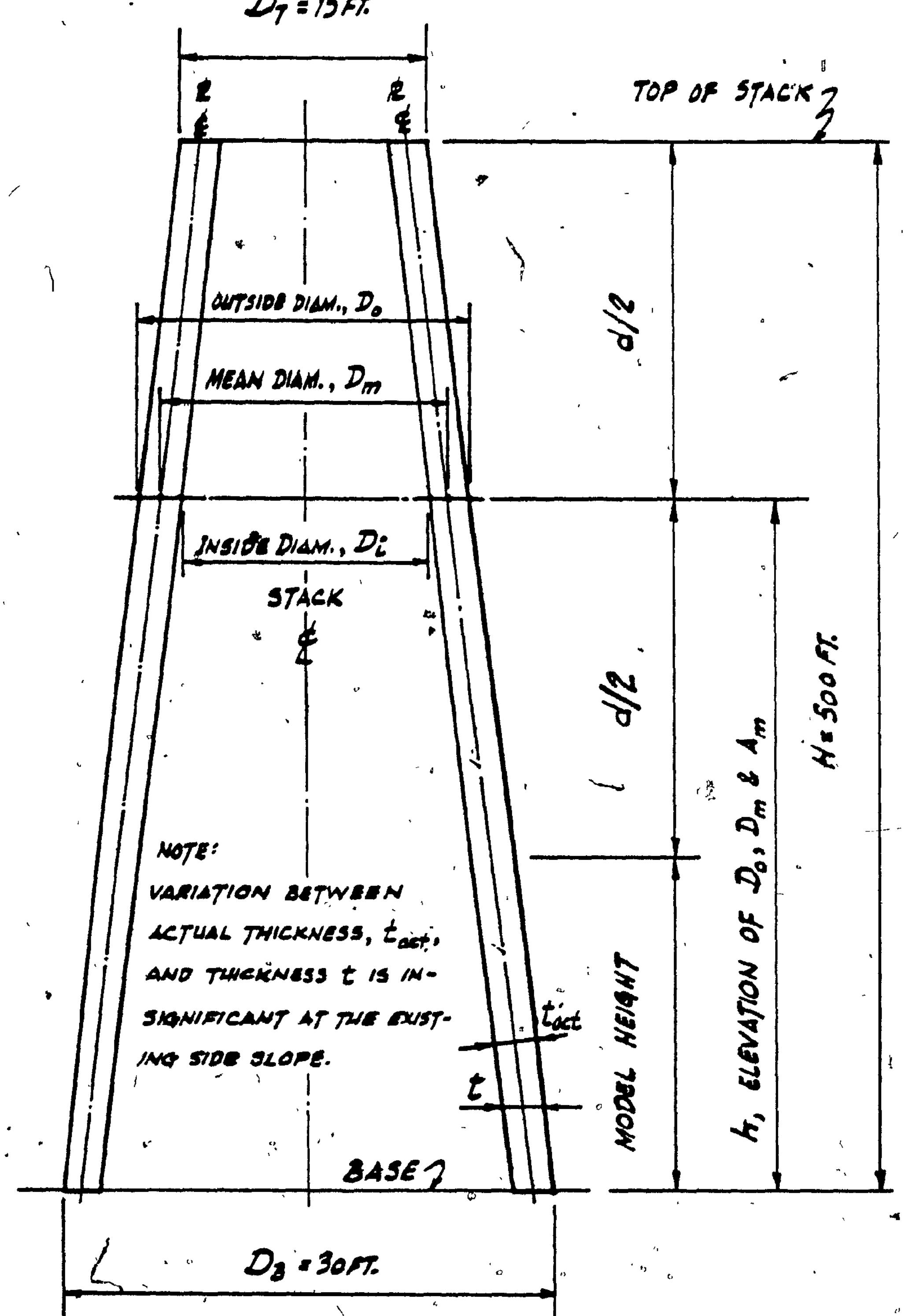

FIG. A.1.1 STACK GEOMETRY USED TO DETERMINE SELF WEIGHT WITH RESPECT TO PLATE THICKNESS AND MODEL HEIGHT

Therefore,

$$DL = \pi D m t d \rho_s = 0.8922 d D m t = 0.8922(24)(H-h) D m t$$
$$= 21.41 D m t (H-h) \qquad (A.1.3)$$

Equations A.1.2 and A.1.3 yield the following Tables for dead load determination.

TABLE A.1.1

HEIGHTS AND OUTSIDE DIAMETERS

Item	Stack	Model I	Model II
Top Elevation(Ft)	500	50	200
d(Ft)	0	450	300
h(Ft)	250	275	350
Do(In)	270	261	234
H-h(Ft)	250	225	150
21.41(H-h)(In)	5352.5	4817.25	3211.5

TABLE A.1.2

MEAN DIAMETERS AND SELF WEIGHTS FOR PLATE THICKNESS OF 1, 1¼ AND 1½ INCHES

Plate t	Stack		Model I		Model II	
In	Dm In	DL #	Dm In	DL #	Dm In	DL #
1	269	1439823	260	1252485	233	748280
1¼	268¾	1798105	259¾	1564101	232¾	934346
1½	268½	2155719	259½	1875115	232½	1120011

Since preliminary dead load calculations indicated a required plate thickness of 1¼" with dead loads of 1,572,000# and 934,480# for Model I and Model II, respectively; and because these values varied from the respective Table A.1.2 values by only 0.5% and 0.01%, no effort was made to change the joint loads determined by the preliminary dead load calculations for the Model I and Model II computer input data.

To determine a model plate thickness, the dead load stress, maximum at the base, was found as follows.

$$\sigma_{DL} = DL/A_{mb} \tag{A.1.4}$$

where σ_{DL} = the dead load stress, PSI

DL = the dead load stress, #

A_{mb} = the mean area of the cross section at the base of the stack

= $\pi D_{mb} t$

D_{mb} = $12D_B - t$ = stack mean base diameter, In

Therefore,

$$\sigma_{DL} = DL/\pi D_{mb} t$$

Table A.1.3 verifies the observation of load and area being very linearly proportioned to plate thickness, which can be made by inspecting equations A.1.1 to A.1.3.

TABLE A.1.3

BASE DEAD LOAD STRESSES FOR t=1, 1¼ AND 1½ INCHES

Plate t	1"	1¼"	1½"
DL, #	1440000	1800000	2160000
D_{mb}, In	359	358¾	358½
$\pi D_{mb} t$ (In²)	1128	1409	1689
σ_{DL} (PSI)	1277	1278	1279

Similarly, the dead load stresses at the top of the models were determined as follows.

TABLE A.1.4

MODEL I AND MODEL II DEAD LOAD STRESSES

Model	Plate t	1	1¼	1½
I	DL,#	1252500	1564100	1875100
	Dm,In	260	259¾	259½
	πDmt,In^2	817	1020	1223
	σ_{DL},PSI	1533	1533	1533
II	DL,#	748300	934300	1120000
	Dm,In	233	232¾	232½
	πDmt,In^2	732	914	1096
	σ_{DL},PSI	1022	1022	1022

However, since Model I was modelled as a straight sided cylinder, the model mean diameter became the average of the top of model and stack base mean diameters.

i.e. $$D_{mI} = (D_{mb} + D_{mT})/2$$

For the 1¼ inch plate, the D_{mI} for Model I was

$$(358\tfrac{3}{4} + 340.75)/2 = 349.75"$$

The area, Am, was

$$349.75(\pi)(1.25) = 1373 \text{ In}$$

Therefore, the Model I top edge stress, which was used to determine the Model I vertical top edge load joint forces, was $$1564000/1373 = 1139 \text{ PSI}$$

A.2: STACK LATERAL WIND LOAD

Preliminary calculations indicated that wind governed. The lateral wind to which the stack was subjected was determined in accordance to the National Building Code of Canada as follows.

General Equation $p = qCeCgCpCn$ (A.2.1)

where Ce (exposure factor) varied as follows

TABLE A.2.1

Height (Ft)	40	60	90	130	190	270	420	740
Ce	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.8

where Cg (gust factor) was taken as 2.0,

Cp (external pressure coefficient) was taken as

$1.0 - (-0.6) = 1.6$,

Cn (shape factor) was taken as 0.7 .

For Cn $D_{AVG} \simeq (30 + 15)/2 = 22.5$

$H/D_{AVG} = 500/22.5 = 22.\overline{2}$

yielding $Cn = 0.7$

with $\text{Area} = 500 \times 22.\overline{2} \simeq 11{,}111.0\ \text{Ft}^2$

Therefore, the general equation varied with respect to height as follows.

TABLE A.2.2

Height (Ft)	40	60	90	130	190	270	420	720
p	2.24q	2.46q	2.69q	2.91q	3.14q	3.36q	3.58q	4.03q

From these values the overturning wind moments and lateral shears were determined for Model I and Model II.

A.3: MODEL I WIND LOADS

The wind moments and shears for Model I were determined tabularly in accordance to Fig. 1.2.1 and may be seen in Table A.3.1.

TABLE A.3.1

LATERAL WIND SHEARS AND OVERTURNING MOMENTS FOR MODEL I BASE AND TOP

Stack Elevation Ft	Elevation Difference Ft	Average		Lateral		Moment Arm To		Moment About	
		Diameter Ft	Area Ft^2	Wind qPSF	Shear q#	Base Ft	EL-50' Ft	Base q#-FT	EL-50' q#-Ft
0									
	40	29.4	1176	2.24	2634	20	0	52680	0
40									
	20	28.5	570	2.46	701	50	5	70100	3500
60									
	30	27.8	833	2.69	2239	75	25	167925	55975
90									
	40	26.7	1068	2.91	3108	110	60	341880	186480
130									
	60	25.2	1512	3.14	4748	160	110	759680	522280
190									
	80	23.1	1848	3.36	6209	230	180	1428070	1117620
270									
	150	19.7	2948	3.58	10552	345	295	3640440	3112840
420									
	80	16.2	1296	4.03	5223	460	410	2402580	2141430
500									
Total at Base					36115			8863355	
Total at El-50'					32780				7140125

Note: The values shown are for q = 1.0 PSF. For actual values, they must be multiplied by chosen value of q. For Model I, the analysis stresses due to the unit wind were multiplied by q = 9.2, the 1/100 wind for Montreal.

A.4: MINIMUM REQUIRED STACK PLATE THICKNESS

The minimum required plate thickness in the stack was found as follows.

$$\sigma_{max} = \sigma_a + \sigma_b = \frac{0.047tE}{D[1+0.004E/Y]} \leq 15000 \text{ PSI} \qquad (A.4.1)^{1}$$

where σ_a = the maximum axial stress (DL), PSI

σ_b = the maximum flexural stress (Wind), PSI

t = the minimum plate thickness, In

E = Young's modulus, 29,000,000 PSI

D = mean stack diameter, at the base ~ 29.9'

T = material yield stress, 40,000 PSI

Therefore,

$$\sigma_{max} = \frac{0.047\times29000000}{29.9\times12\left[1+0.004\times\frac{29000000}{40000}\right]} \times t = 11689t$$

Having previously determined the dead load self weight stresses for Model I, the flexural wind stresses were found at the stack base, where they were maximum as follows.

$$\sigma_b = M/S$$

where σ_b = the bending stress, PSI

M = the bending moment at base

= 12×9.2×8863355 #-In

S = the section modulus of the stack base

[1]Humphreys & Glasgow Ltd., Design of Self-Supporting Steel Stacks, No. M-19-1300-010/1, Issue 1, Sept. 1963, p. 2.

TABLE A.4.1

SUMMARY OF MAXIMUM AXIAL AND FLEXURAL STRESSES IN STACK PLATE AT BASE ELEVATION

Plate t(In)	D_{out} In	D_{out}^4 10^{10} In^4	D_{in} In	D_{in}^4 10^{10} In^4	S In^3	M 10^8 #-In	σ_b PSI	σ_a PSI	$\sigma_a+\sigma_b$ PSI	Allow. PSI
1	360	1.68	358	1.64	100943	9.785	9694	1278	10972	11689
1¼	"	"	357.5	1.63	125915	"	7771	"	9049	14611
1½	"	"	357	1.63	150784	"	6490	"	7768	15000

Although all plate thicknesses considered were below respective allowable stresses, the 1¼ inch plate was chosen as the model material thickness for both Models I and II to realistically accommodate such things as corrosion. Note that the actual plate thickness was not of great importance since this was not a design problem, but an analysis, from which relative displacement shapes and stress distributions were being sought. In reality any reasonable thickness would have sufficed, however, since a fix on stresses to be expected in regions far removed from the breech discontinuity was required, the exercise of determining an acceptable plate thickness, and the respective stress, was carried out. By comparing the analysis stresses in regions far removed from the discontinuity to those found for a plate thickness of 1¼ inch, a measure of the models' performance was determined.

A.5: MODEL II LATERAL WIND

Wind forces for Model II, determined with respect to the wind distribution shown in Fig. A.5.1 with q = 9.2PSF, were as shown in Table A.5.1.

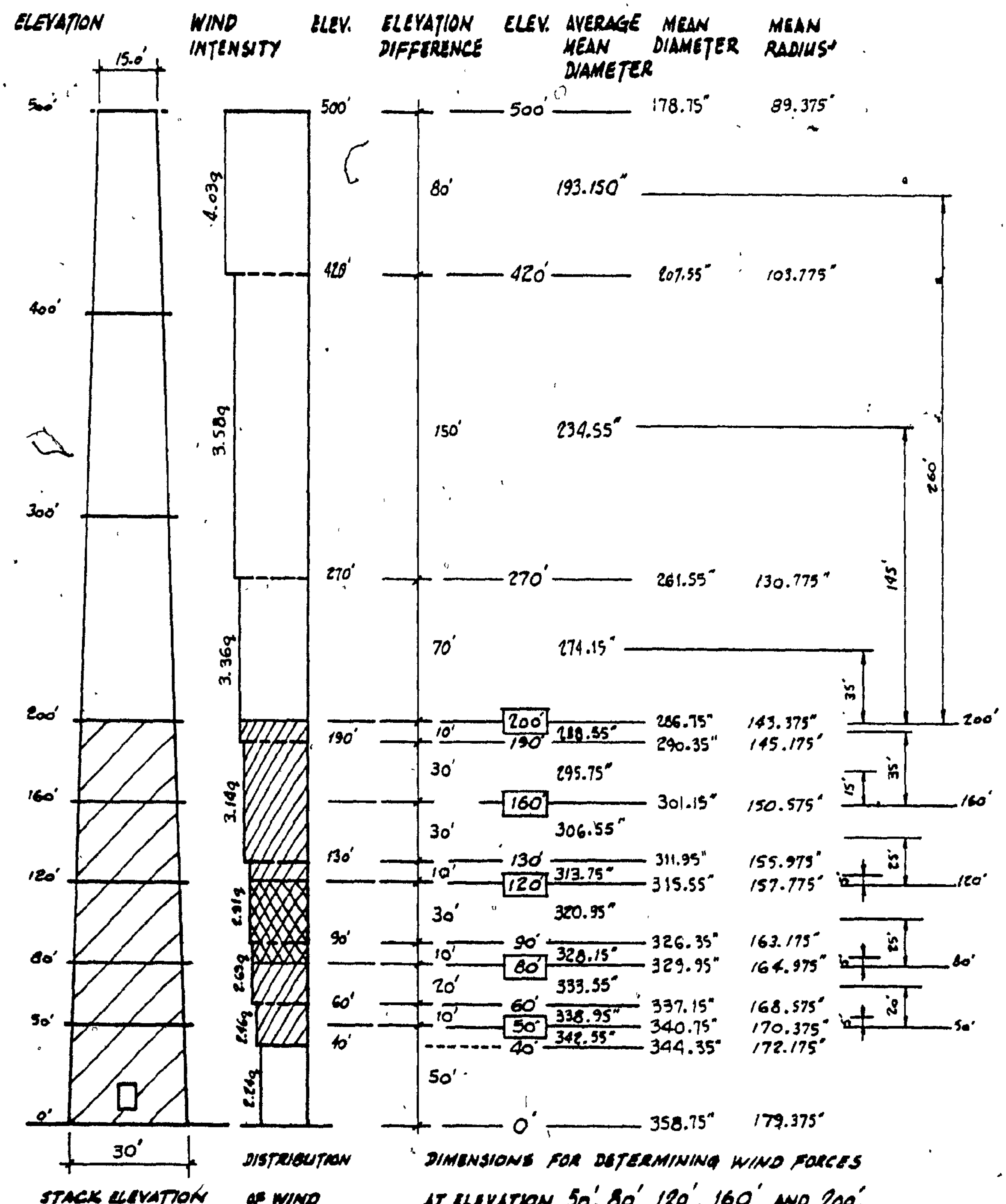

FIG. A.5.1 MODEL II DIMENSIONS REQUIRED TO DETERMINE WIND FORCES AT MODEL ELEVATIONS SHOWN BOXED IN

TABLE A.5.1

WIND FORCES ON MODEL II FOR q=9.2PSF AT ELEVATIONS 50', 80', 120', 160' AND 200'

Stack Elevation Ft	Wind Intensity qPSF	Elevation Difference Ft	Average Diameter Ft	Shear q#	Moment Arm Ft	Moment q#-Ft	Shears and Moments for q=9.2PSF
200	4.03	80	16.096	5189	260	1349231	
200	3.58	150	19.546	10496	145	1521936	
200	3.36	70	22.846	5373	35	188067	EL = 200'
Σ				21059		3059220	V=21059q=193743# M=3059220q=28144824#-Ft
160	3.36	10	24.046	808	35	28278	
160	3.14	30	24.646	2322	15	34825	EL = 160'
Σ				3130		63102	V=3130q=28796# M=63102q=580538#-Ft
120	3.14	30	25.546	2406	25	60160	
120	2.91	10	26.146	761	5	3804	EL = 120'
Σ				3167		63965	V=3167q=29136# M=63965q=588478#-Ft
80	2.91	30	26.746	2335	25	58373	
80	2.69	10	27.346	736	5	3678	EL = 80'
Σ				3071		62051	V=3071q=28253# M=62051q=570869#-Ft
50	2.69	20	27.796	1495	20	29908	
50	2.46	10	28.246	695	5	3474	EL = 50'
Σ				2190		33383	V=2190q=20148# M=33383q=307124#-Ft

A.6.1: LOAD SUMMARY FOR MODELS I AND II

A summary of the loads applied to each model at respective elevations may be seen tabularized in Table A.6.1.1. Joint loads at specific elevations for each model were resolved from these loads.

TABLE A.6.1.1

MODELS I AND II LOADS AT RESPECTIVE MODEL ELEVATIONS

Model	q	E Ft	LOAD Type P,# V,# M,#-Ft	LOAD CASE Self Weight DL	LOAD CASE Wind E+W	LOAD CASE Wind N+S	Approximate DL applied by ANSYS #
I	1.0 PSF	50	P	1564000	-	-	235000*
			V	-	32780	32780	
			M	-	7140000	7140000	
II	9.2 PSF	50	P	-	-	-	
			V	-	20148	-	
			M	-	307124	-	
"	"	80	P	-	-	-	
			V	-	28253	-	
			M	-	570869	-	
"	"	120	P	-	-	-	
			V	-	29136	-	
			M	-	588478	-	
"	"	160	P	-	-	-	
			V	-	28796	-	
			M	-	580538	-	
"	"	200	P	934480	-	-	864000*
			V	-	193743	-	
			M	-	28144824	-	

* Estimated by Vol×ρ_s, since the models are faceted and not truely cylindrical there will be slight variation between these values and what ANSYS determined.

E = Elevation, P = Axial, V = Shear, M = Moment

Note: The load cases of DL and E+W Wind (q=9.2PSF) were combined into a single load combination for Model II.

Table A.6.1.2 summarizes the stack dimensions which were required to determine the joint forces using the elevations and loads prescribed in Table A.6.1.1.

TABLE A.6.1.2

RADIAL DIMENSIONS AND SECTION MODULII FOR MODELS I AND II AT THE ELEVATIONS WHERE JOINT LOADS WERE APPLIED

Model	h Ft	t In	D_B Ft	D_T Ft	H Ft	Ro In	Ri In	Rm In	S In^3
I	25*	$1\frac{1}{4}$	30	15	500	175.5	174.25	174.875	119666
II	50	"	"	"	"	171.0	169.75	170.375	113576
	80	"	"	"	"	165.6	164.35	164.975	106478
	120	"	"	"	"	158.4	157.15	157.775	97370
	160	"	"	"	"	151.2	149.95	150.575	88669
	200	"	"	"	"	144.0	142.75	143.375	80376

* Because Model I was cylindrical, the diameter at the top edge where joint forces were applied was the average of stack diameters at the base and elevation 50 Ft.. The average of these two diameters coincides, of course, with a stack height of 25 Ft., which was utilized in Equation A.1.2

A.6.2: MODEL I JOINT LOADS

The Model I top edge vertical uniform and varying line loads from which top edge joint loads were determined are shown in Fig. A.6.2.1.

The lateral shear load due to wind was respectively applied tangentially to the top edge with a sinosoidal distribution to correspond to the appropriate wind direction. Fig. A.6.2.2 reflects the lateral shear applied along the top edge.

A.6.2.1: CALCULATION OF LOAD CASE 1 (DL) JOINT FORCES

The vertical joint loads applied to top edge joints were determined by the following equation.

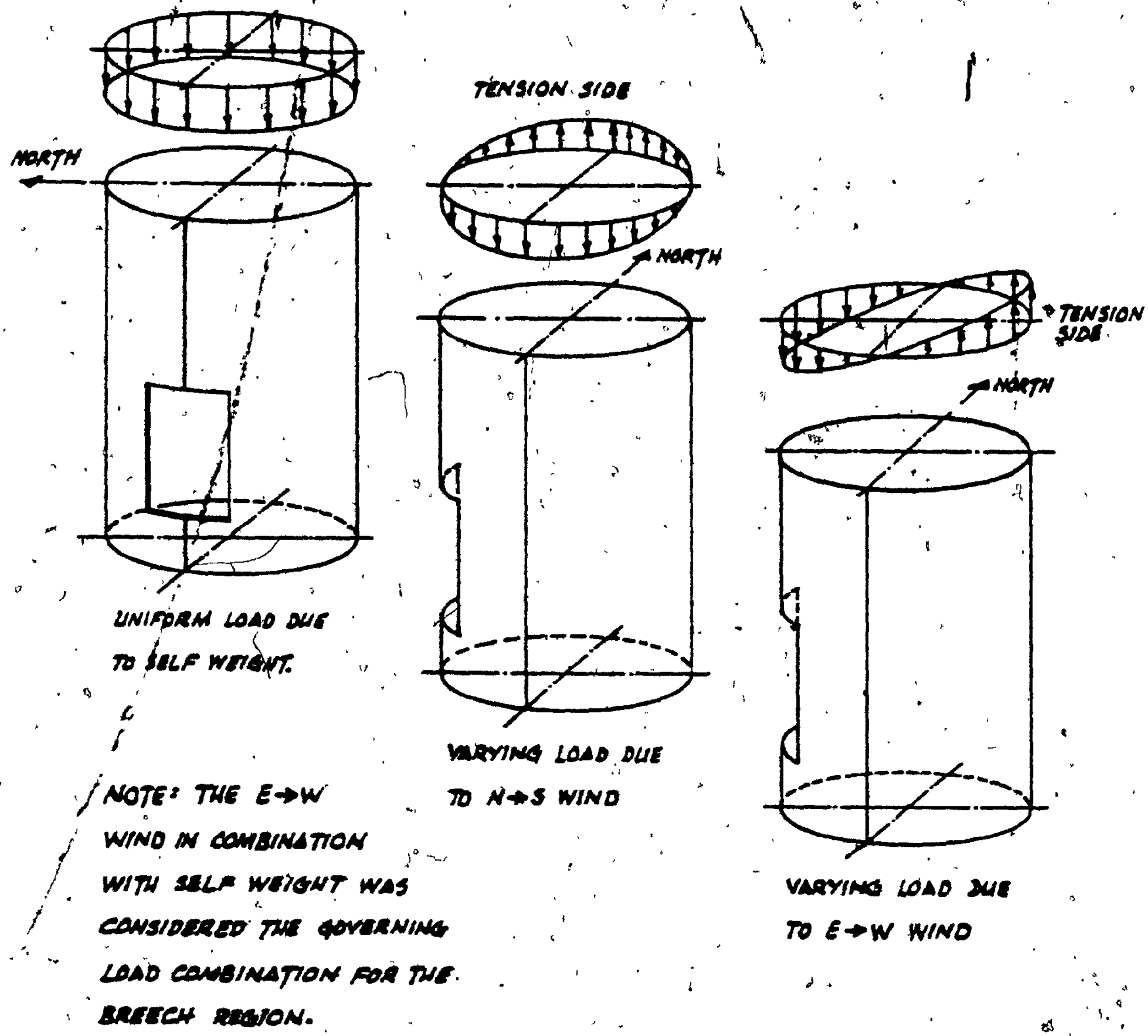

FIG. A.6.2.1 MODEL I TOP EDGE VERTICAL LINE LOADS DUE TO LATERAL WIND AND SELF WEIGHT DEAD LOAD

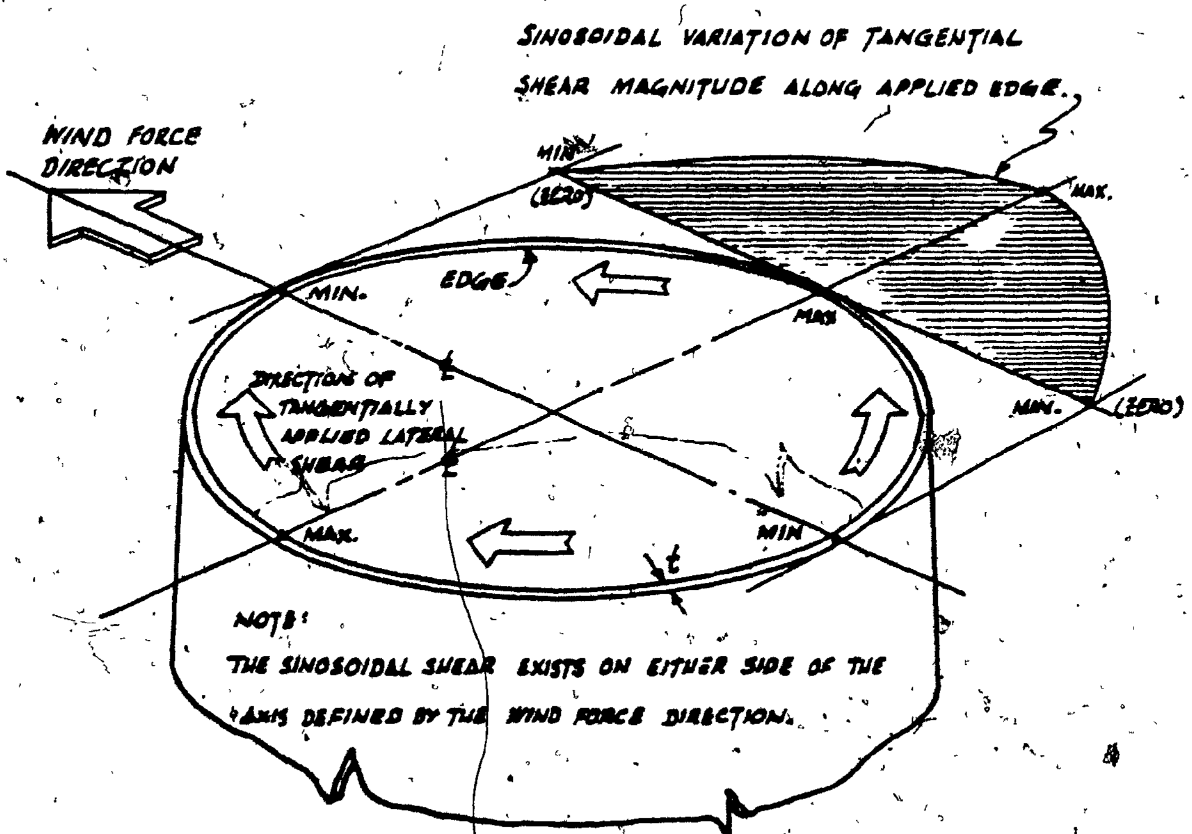

FIG. A.6.2.2 LATERAL SHEAR ALONG CYLINDRICAL CROSS SECTION

$$P_J = ARCL \times t \times \sigma_{DL} = ARCL \times t \times P_{DL}/A_{TE} \quad (A.6.2.1.1)$$

where P_J = joint load, #

ARCL = arc length supported by joint

e.g. Joint 5, ARCL' = $22\frac{1}{2}^0$ = 0.3927 Radians,

and Joint 105, ARCL' = $7\frac{1}{2}^0$ = 0.1309 Radians,

therefore $ARCL_5$ = ARCL'(R) = 0.3927 × 174.875"

= 68.67"

and $ARCL_{105}$ = 0.1309 × 174.875 = 22.89"

t = plate thickness, $1\frac{1}{4}$"

σ_{DL} = uniform DL stress = $P_{DL}/A_{TE} \cong$ 1139 PSI*

P_{DL} = total top edge dead load = 1,564,000#

A_{TE} = top edge area = $2\pi Rt = 2\pi(174.875)(1.25)$ = 1373 In^2

A summary of the top edge joint loads is in Table A.6.2.1.1.

TABLE A.6.2.1.1

MODEL I TOP EDGE SELF WEIGHT JOINT LOADS FOR LOAD CASE 1

Joint Nos.	ARCL' RADS	ARCL IN	tARCL IN^2	P_J #	Factor F	FP_J (F_Z)
5,10,15, 20,25,223, 228,233, 238	0.3927	68.67	85.84	97750	9	879750
34,218	0.3709	64.86	81.08	92330	2	184660
49,209	0.2662	46.55	58.19	66260	2	132520
64,194	0.1614	28.22	35.28	40170	2	80340
79,179	0.1396	24.41	30.52	34750	2	69500
94,164	0.1309	22.89	28.61	32580	2	65160
105,116, 127,138, 149	0.1222	21.37	26.71	30420	5	152100 Σ=1564030.

A.6.2.2: VERTICAL JOINT LOADS DUE TO WIND MOMENT, TANGENTIAL HORIZONTAL JOINT LOADS DUE TO WIND SHEAR

With respect to Fig. A.6.2.2.1, the following equations were used to determine the vertical flexural and horizontal tangential shear loads at the joints along the Model I top edge for East to West (Load Case II) and North to South (Load Case III) Winds.

For moment,

$$P_b = M \times (\phi_2 - \phi_1) \times t \times (R_m \text{Cos}\theta)/S \qquad \text{(A.6.2.2.1)}$$

where M = the wind moment = 7,140,000#-Ft = 85,680,000#-In

S = the section modulus of the cylinder

$= \pi[(R_o{}^4 - R_i{}^4)/R_o]/4$

$R_o = R_m + t/2$

$R_i = R_m - t/2$

For shear,

$$\sigma_t = (V\text{Sin}\theta)/(\pi R_m t) \text{ and } \sigma_x = \sigma_t \text{Sin}\theta = (V\text{Sin}^2\theta)/(\pi R_m t)$$

therefore $dF_x = [(V\text{Sin}^2\theta)/(\pi R_m t)]dA$ and $dA = tR_m d\theta$

$$dF_x = [(V\text{Sin}^2\theta)/(\pi R_m t)](tR_m d\theta)$$

$$= [(V\text{Sin}^2\theta)/\pi]d\theta$$

therefore

$$F_x = \frac{V}{\pi}\int_{\phi_1}^{\phi_2} \text{Sin}^2\theta d\theta = \frac{V}{\pi}\Big|\theta - \text{Sin}\theta\text{Cos}\theta\Big|_{\phi_1}^{\phi_2}$$

therefore per side,

$$F_x = \frac{V}{2\pi}\left[(\phi_2 - \text{Sin}\phi_2\text{Cos}\phi_2) - (\phi_1 - \text{Sin}\phi_1\text{Cos}\phi_1)\right]$$

and $F_t = F_x/\text{Sin}((\phi_1 + \phi_2)/2)$,

where $0^0 < (\phi_1 + \phi_2)/2 < \pm 180^0$

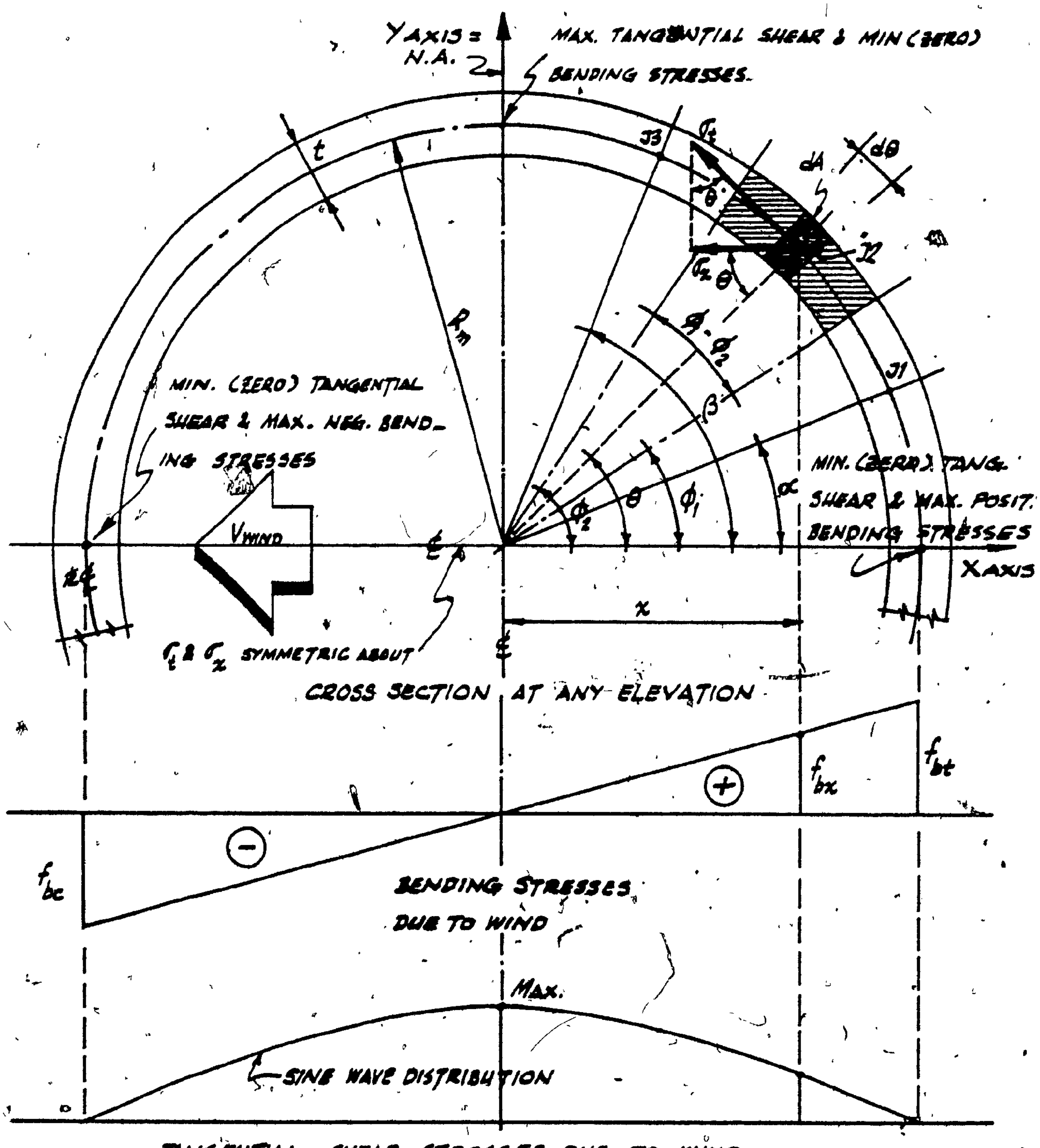

FIG. A.6.2.2.1 DESCRIPTION OF VARIABLES USED IN EQUATIONS FOR VERTICAL FLEXURAL AND HORIZONTAL TANGENTIAL SHEAR JOINT FORCES

The nomenclature for Fig. A.6.2.2.1 variables is as follows.

J1,J2,J3 — typical joints on cross section

α — angular location of J1

β — same as α, but for J3

θ — same as α, but for J2

ϕ_1 — $(\alpha+\theta)/2$

ϕ_2 — $(\theta+\beta)/2$

$(\phi_1-\phi_2)$ — the arc over which $\int dA$ is taken

R_m — the radius to the center line of plate of thickness t

$(\phi_1-\phi_2)R_m$ — the arc length supported by J2

σ_t — tangential horizontal wind shear

f_{bc} — $-f_{bt}$ — compression and tension maximum bending stresses

f_{bx} — bending stress at J2, and considered average bending stress over arc length supported by J2

x — perpendicular distance of J2 from y or neutral axis

— $R_m \cos\theta$

The following Tables reflect the variables utilized in the solution of joint forces with an SR52 programmable calculator.

TABLE A.6.2.2.1

SR52 INPUT DATA (See Fig. A.6.2.2.2)

Model I East to West Wind

h Ft	M #-Ft	V #	t In	Rm In	Ro In	Ri In	S In^3
50	7,140,000	32780	1¼	174.875	175.5	174.25	119666

JN	θ	ϕ_2	ϕ_1	h
5	0	11¼	- 11¼	50
10	22½	33¾	11¼	"
15	45	56¼	33¾	"
20	67½	78¾	56¼	"
25	90	101¼	78¾	"
34	112½	122½	101¼	"
49	132½	137¾	122½	"
64	143	147	137¾	"
79	151	155	147	"
94	159	162½	155	"
105	166	169½	162½	"
116	173	176½	169½	"
127	180	183½	176½	"
138	187	190½	183½	"
149	194	197½	190½	"
164	201	205	197½	"
179	209	213	205	"
194	217	222½	213	"
209	227½	237½	222½	"
218	247½	258¾	237½	"
223	270	281¼	258¾	"
228	292½	303¾	281¼	"
233	315	326¼	303¾	"
238	337½	348¾	326¼	"

Table A.6.2.2.2 contains similar information for North to South Wind.

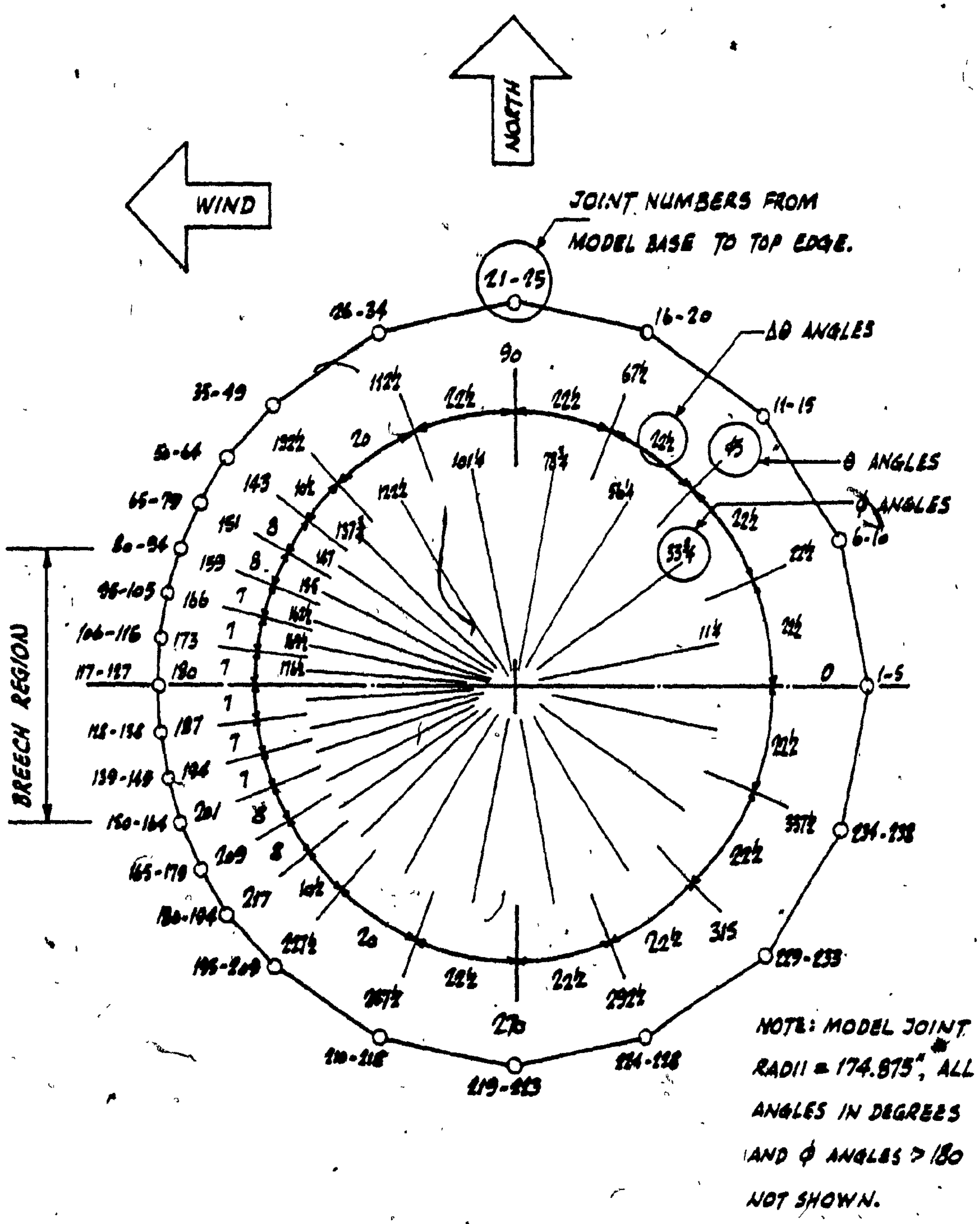

FIG. A.6.2.2.2 MODEL I CROSS SECTIONAL JOINT ANGLES FOR EAST TO WEST WIND

TABLE A.6.2.2.2

SR52 INPUT DATA (See Fig. A.6.2.2.3)

Model I North to South Wind

h Ft	M #-Ft	V #	t In	Rm In	Ro In	Ri In	S In^3
50	7,140,000	32780	1¼	174.875	175.5	174.25	119666

Jn	θ	ϕ_2	ϕ_1	h
25	0	11¼	- 11¼	50
34	22½	32¼	11¼	"
49	42½	47¾	32¼	"
64	53	57	47¾	"
79	61	65	57	"
94	69	72½	65	"
105	76	79½	72½	"
116	83	86½	79½	"
127	90	93½	86½	"
138	97	100½	93½	"
149	104	107½	100½	"
164	111	115	107½	"
179	119	123	115	"
194	127	132¼	123	"
209	137½	147¼	132¼	"
218	157½	168¾	147¼	"
223	180	292¼	168¾	"
228	202½	213¾	292¼	"
233	225	236¼	213¾	"
238	247½	258¾	236¼	"
5	270	281¼	258¾	"
10	292½	303¾	281¼	"
15	315	326¼	303¾	"
20	337½	348¾	326¼	"

The sign convention of the tangential shear equation A.6.2.2.2 yields componential shears positive in the direction of the applied shear for integrations from 0 to 180° and 0 to -180°. Realizing the integration across the limits yield an undefined result, and realizing the results should be zero at the points on a cylinder which intersect a diametric axis

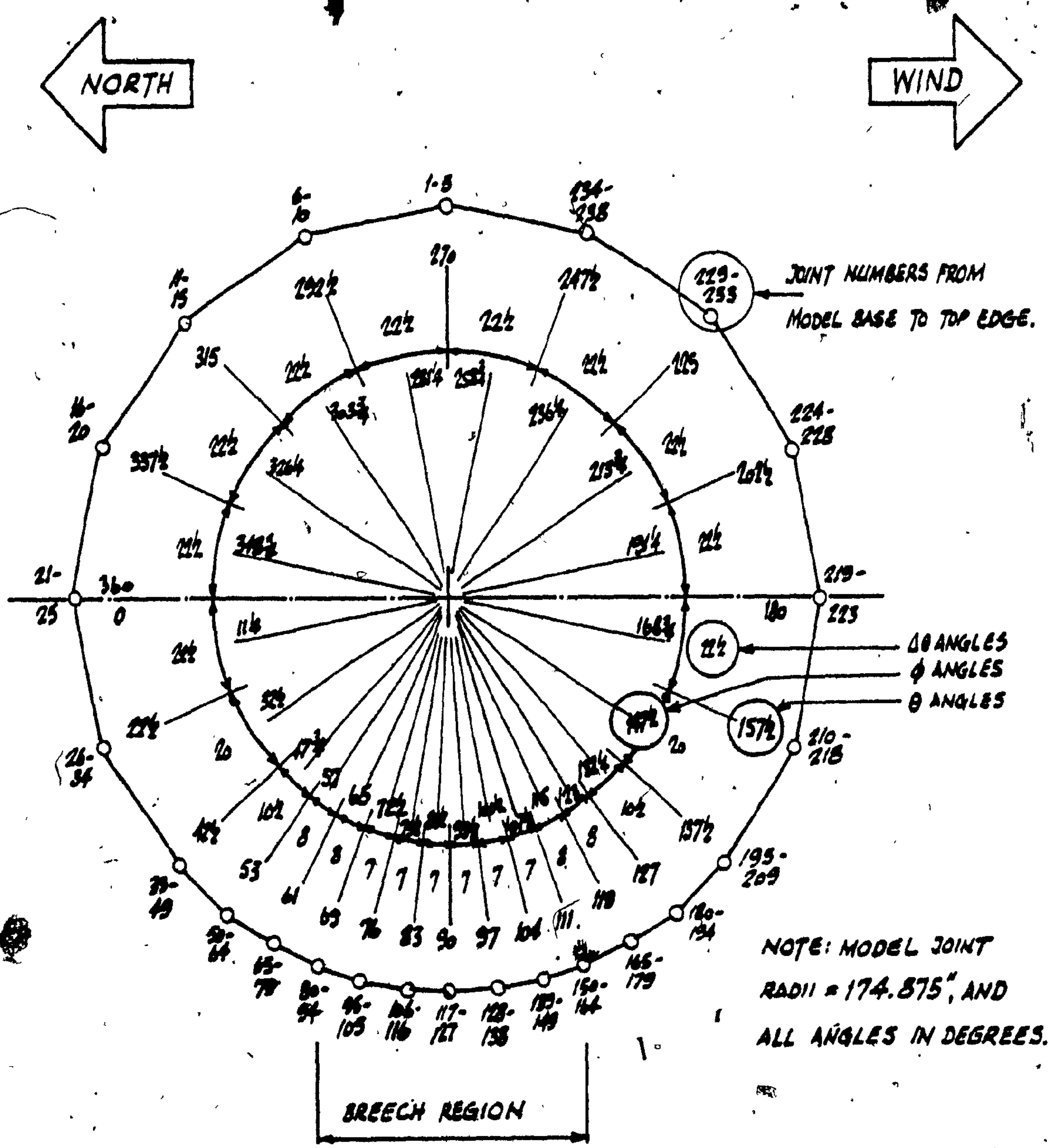

FIG. A.6.2.2.3 MODEL I CROSS SECTIONAL JOINT ANGLES FOR NORTH TO SOUTH WIND parallel to the direction of applied wind, it was an easy task to program the SR52 to handle this discontinuity. The effect of having positive ϕ_2 angles larger than positive ϕ_1 angles in the third and fourth quadrants of a circle is the same as reversing the limits of the integral, which yields negative results. However, since the tangential shear forces were applied using the ANSYS cylindrical coordinate sign convention, where counter clockwise rotation is positive, the net results of reversing the sign of the tangential force (to negative) after $(\phi_1 + \phi_2)/2 > 180^0$ were beneficial because the calculator's output matched the input sign convention required by the ANSYS program.

A.6.3: MODEL II JOINT LOADS

Model II was a tapered cylinder of 200 Ft elevation, with only one load combination applied - Dead Load + E+W Wind. Because a single load combination was applied, the wind was taken with q = 9.2PSF for determining the appropriate moments and horizontal shears at the elevations at which joints were loaded. This simplified output interpretation, and the chosen load case, was that which governed in the Model I analysis.

The methods of determining the joint forces at the chosen elevations were identical to those used for Model I, utilizing the Model II summaries of Applied Loads - Table A.6.1.1, Section Properties - Table A.6.1.2, and the Procedures and Equations outlined in Section A.6.2.

Table A.6.3.1 summarizes the Model II data which was required to resolve joint force due to wind moment and shear at elevations 50, 80, 120, 160 and 200 Ft respectively.

The vertical joint forces due to the dead load of the stack above elevation 200 Ft was determined as follows.

A.6.3.1: MODEL II TOP EDGE DEAD LOAD JOINT FORCES

The top edge, at elevation 200 Ft, was loaded with 934,480#. The configuration of the Model II top edge was 16 joints, each $22\frac{1}{2}^{\circ}$ apart from adjacent joints. Therefore, the dead load joint forces per joint were

$$\frac{\Sigma DL}{16} = \frac{934,480}{16} = 58405\#/\text{Joint}$$

A.6.5.4 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	127.	PRT	149.	PRT
ANGLES θ	180.	PRT	194.	PRT
ϕ_2	183.5	PRT	197.5	PRT
ϕ_1	176.5	PRT	190.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-19121.49444	PRT	-18553.50434	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	-314.1794764	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	76.00689448	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	16363.08145	PRT	16459.55891	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.141440801	PRT	3.160237055	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.137517057	PRT	3.14566825	PRT

JOINT NUMBER	138.	PRT	164.	PRT
ANGLES θ	187.	PRT	201.	PRT
ϕ_2	190.5	PRT	205.	PRT
ϕ_1	183.5	PRT	197.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-18978.96573	PRT	-19126.55673	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-167.9713978	PRT	-498.993810	PRT
COMPONENT IN DIRECTION OF WIND, #	20.47056396	PRT	180.8543405	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	16383.55202	PRT	16640.41325	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.14566825	PRT	3.194902745	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.141744506	PRT	3.160237055	PRT

A.6.5.5 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	172.	PRT	209.	PRT
ANGLES θ	209.	PRT	227.5	PRT
ϕ_2	213.	PRT	237.5	PRT
ϕ_1	205.	PRT	222.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-19113.18385	PRT	-28143.42708	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-708.898359	PRT	-2119.9364	PRT
COMPONENT IN DIRECTION OF WIND, #	343.6807442	PRT	1620.988755	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	16984.094	PRT	19233.83493	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.260778578	PRT	3.69200308	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.194902745	PRT	3.381296163	PRT

JOINT NUMBER	194.	PRT	218.	PRT
ANGLES θ	217.	PRT	247.5	PRT
ϕ_2	222.25	PRT	258.75	PRT
ϕ_1	213.	PRT	237.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-20179.67376	PRT	-22213.77591	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-1029.912606	PRT	-3556.933709	PRT
COMPONENT IN DIRECTION OF WIND, #	628.7521786	PRT	3300.830613	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	17612.84618	PRT	22534.66554	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.381296163	PRT	4.324697723	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.260778578	PRT	3.69200308	PRT

A.6.5.6 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	223.	PRT	233.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	43460.1591	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-4045.247366	PRT	-2897.370036	PRT
COMPONENT IN DIRECTION OF WIND, #	4045.247366	PRT	2048.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	26579.91291	PRT	32089.14974	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	228.	PRT	238.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	23520.46861	PRT	56783.43432	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3745.603949	PRT	-1664.595643	PRT
COMPONENT IN DIRECTION OF WIND, #	3460.486826	PRT	637.0131742	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	30040.39974	PRT	32726.16291	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

A.6.6: INPUT DATA CHECK OF MODEL I TOP EDGE JOINT FORCES DUE TO NORTH→SOUTH WIND (LOAD CASE III)

As in Section A.6.5, the following data check was generated for Load Case II on Model I.

A.6.6.1 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR NORTH TO SOUTH WIND.

JOINT NUMBER	5.	PRT	15.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	43460.1591	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-4045.247366	PRT	-2897.370036	PRT
COMPONENT IN DIRECTION OF WIND, #	4045.247366	PRT	2048.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	26529.24473	PRT	32038.48156	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	10.	PRT	20.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	29520.46861	PRT	56783.43432	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3745.603949	PRT	-1664.595643	PRT
COMPONENT IN DIRECTION OF WIND, #	3460.486826	PRT	637.0131742	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	29989.73156	PRT	32675.49473	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

A.6.6.2 - MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
NORTH TO SOUTH WIND

JOINT NUMBER	25.	PRT	49.	PRT
ANGLES θ	0.	PRT	42.5	PRT
ϕ_2	11.25	PRT	47.75	PRT
ϕ_1	-11.25	PRT	32.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	61461.94642	PRT	30713.16123	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	1794.07641	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1156.20569	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	0.	PRT	1725.236188	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	0.	PRT	.3356966186	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	0.	PRT	.1140781134	PRT

JOINT NUMBER	34.	PRT	64.	PRT
ANGLES θ	22.5	PRT	53.	PRT
ϕ_2	32.5	PRT	57.	PRT
ϕ_1	11.25	PRT	47.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	53628.79908	PRT	15206.47489	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1527.258751	PRT	1333.010712	PRT
COMPONENT IN DIRECTION OF WIND, #	569.0304979	PRT	1055.775599	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	569.0304979	PRT	2781.011787	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.1140781134	PRT	.5380649448	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.0050078247	PRT	.3356966186	PRT

A.6.6.3 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
NORTH TO SOUTH WIND

JOINT NUMBER	79.	PRT	105.	PRT
ANGLES θ	61.	PRT	76.	PRT
ϕ_2	65.	PRT	79.5	PRT
ϕ_1	57.	PRT	72.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	10594.61081	PRT	4625.908182	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1272.791061	PRT	1235.469611	PRT
COMPONENT IN DIRECTION OF WIND, #	1113.208145	PRT	1198.770883	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	3894.219932	PRT	6277.969808	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.7514417922	PRT	1.208352781	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.5380649448	PRT	.9785754895	PRT

JOINT NUMBER	94.	PRT	116.	PRT
ANGLES θ	69.	PRT	83.	PRT
ϕ_2	72.5	PRT	86.5	PRT
ϕ_1	65.	PRT	79.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	7341.997237	PRT	2330.323973	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1271.425952	PRT	1263.726842	PRT
COMPONENT IN DIRECTION OF WIND, #	1184.978993	PRT	1254.307214	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	5079.198924	PRT	7532.277021	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.9785754895	PRT	1.448775131	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.7514417922	PRT	1.208352781	PRT

A.6.6.4 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
NORTH TO SOUTH WIND

JOINT NUMBER	127.	PRT	149.	PRT
ANGLES θ	90.	PRT	104.	PRT
ϕ_2	93.5	PRT	107.5	PRT
ϕ_1	86.5	PRT	100.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-4625.908182	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1273.193323	PRT	1235.469611	PRT
COMPONENT IN DIRECTION OF WIND, #	1273.193323	PRT	1198.770883	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	8805.470344	PRT	11258.54844	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.692817522	PRT	2.163017164	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.448775131	PRT	1.933239873	PRT

JOINT NUMBER	138.	PRT	164.	PRT
ANGLES θ	97.	PRT	111.	PRT
ϕ_2	100.5	PRT	115.	PRT
ϕ_1	93.5	PRT	107.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-2330.323972	PRT	-7341.997237	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1263.726842	PRT	1271.425952	PRT
COMPONENT IN DIRECTION OF WIND, #	1254.307214	PRT	1184.978993	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	10059.77756	PRT	12443.52743	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.933239873	PRT	2.390150861	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.692817522	PRT	2.163017164	PRT

A.6.6.5 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
NORTH TO SOUTH WIND

JOINT NUMBER	179.	PRT	209.	PRT
ANGLES θ	119.	PRT	137.5	PRT
ϕ_2	123.	PRT	147.5	PRT
ϕ_1	115.	PRT	132.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-10594.61081	PRT	-30713.16123	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1272.791061	PRT	1794.07641	PRT
COMPONENT IN DIRECTION OF WIND, #	1113.208145	PRT	1156.20569	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	13556.73558	PRT	15768.71687	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.603527709	PRT	3.02751454	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	2.390150861	PRT	2.805896035	PRT

JOINT NUMBER	194.	PRT	218.	PRT
ANGLES θ	127.	PRT	157.5	PRT
ϕ_2	132.25	PRT	168.75	PRT
ϕ_1	123.	PRT	147.5	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-15206.47489	PRT	-53628.79908	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1333.010712	PRT	1527.258751	PRT
COMPONENT IN DIRECTION OF WIND, #	1055.775599	PRT	569.0304979	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	14612.51118	PRT	16337.74737	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.805896035	PRT	3.136584829	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	2.603527709	PRT	3.02751454	PRT

A.6.6.6 MODEL I: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
NORTH TO SOUTH WIND

JOINT NUMBER	223.	PRT	233.	PRT
ANGLES θ	180.	PRT	225.	PRT
ϕ_2	191.25	PRT	236.25	PRT
ϕ_1	168.75	PRT	213.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-61461.94642	PRT	-43460.1591	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	0.	PRT	-2897.370036	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	2048.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, # .	16337.74737	PRT	19023.51054	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.135584829	PRT	3.661400592	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.02751454	PRT	3.26870151	PRT

JOINT NUMBER	228.	PRT	238.	PRT
ANGLES θ	202.5	PRT	247.5	PRT
ϕ_2	213.75	PRT	258.75	PRT
ϕ_1	191.25	PRT	236.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	7140000.	PRT	7140000.	PRT
SHEAR, #	32780.	PRT	32780.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	174.875	PRT	174.875	PRT
OUTSIDE, In	175.5	PRT	175.5	PRT
INSIDE, In	174.25	PRT	174.25	PRT
SECTION MODULUS, In^3	119666.	PRT	119666.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-56783.43482	PRT	-23520.46881	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	-1664.595643	PRT	-3745.603947	PRT
COMPONENT IN DIRECTION OF WIND, #	637.0131742	PRT	3460.486826	PRT
SUM OF COMPONENTS IN WIND DIRECTION # ..	16974.76054	PRT	22483.99737	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.26870151	PRT	4.324697723	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.146600478	PRT	3.661400592	PRT

A.6.7: INPUT DATA CHECK OF MODEL II JOINT FORCES DUE TO EAST-WEST WIND (LOAD CASE 3)

Again with the procedures of Section A.6.2.2, the SR52 was utilized to generate the joint forces applied to Model II to represent the applied wind load. Note that a wind pressure of q = 9.2PSF was utilized in forming the joint forces in the Model II load combination.

A.6.7.1 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	213.	PRT	215.	PRT
ANGLES θ	0.	PRT	45.	PRT
ϕ_2	11.25	PRT	56.25	PRT
ϕ_1	-11.25	PRT	33.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	2713.839752	PRT	1918.974492	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	1780.848428	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1259.25	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	0.	PRT	1650.785736	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	0.	PRT	0.519807938	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	0.	PRT	.1271088563	PRT

JOINT NUMBER	214.	PRT	216.	PRT
ANGLES θ	22.5	PRT	67.5	PRT
ϕ_2	33.75	PRT	78.75	PRT
ϕ_1	11.25	PRT	56.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	2507.261002	PRT	1038.541511	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1023.132185	PRT	2302.209529	PRT
COMPONENT IN DIRECTION OF WIND, #	391.5357362	PRT	2126.964264	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	391.5357362	PRT	3777.75	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	.1271088563	PRT	1.18310507	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	.0050078247	PRT	0.519807938	PRT

A.6.7.2 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	217.	PRT	219.	PRT
ANGLES θ	90.	PRT	135.	PRT
ϕ_2	101.25	PRT	138.75	PRT
ϕ_1	78.75	PRT	123.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-1279.316328	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	2486.38328	PRT	1260.679868	PRT
COMPONENT IN DIRECTION OF WIND, #	2486.38328	PRT	947.829309	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	6264.13328	PRT	9338.926853	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.958487584	PRT	2.917366768	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.18310507	PRT	2.621784716	PRT

JOINT NUMBER	218.	PRT	220.	PRT
ANGLES θ	112.5	PRT	142.5	PRT
ϕ_2	123.75	PRT	146.25	PRT
ϕ_1	101.25	PRT	138.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1038.541511	PRT	-717.6779441	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	2302.209529	PRT	511.5644259	PRT
COMPONENT IN DIRECTION OF WIND, #	2126.964264	PRT	311.4206909	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	8391.097544	PRT	9650.347544	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.621784716	PRT	3.014483797	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.958487584	PRT	2.917366768	PRT

A.6.7.3 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	221.	PRT	223.	PRT
ANGLES θ	150.	PRT	165.	PRT
ϕ_2	153.75	PRT	168.75	PRT
ϕ_1	146.25	PRT	161.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-783.4180557	PRT	-873.7893017	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	420.9476905	PRT	221.2861391	PRT
COMPONENT IN DIRECTION OF WIND, #	210.4738453	PRT	57.27306722	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	9860.821389	PRT	10041.88328	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	3.080120395	PRT	3.136584829	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	3.014483797	PRT	3.118724133	PRT

JOINT NUMBER	222.	PRT	224.	PRT
ANGLES θ	157.5	PRT	172.5	PRT
ϕ_2	161.25	PRT	176.25	PRT
ϕ_1	153.75	PRT	168.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-835.7536672	PRT	-896.874159	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	323.4757851	PRT	118.4399423	PRT
COMPONENT IN DIRECTION OF WIND, #	123.7888237	PRT	15.45951468	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	9984.610213	PRT	10057.34279	PRT
ϕ_{2r} - $Sin\phi_2$ $Cos\phi_2$ FACTOR	3.118724133	PRT	3.141405903	PRT
ϕ_{1r} - $Sin\phi_1$ $Cos\phi_1$ FACTOR	3.080120395	PRT	3.136584829	PRT

A.6.7.4 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	225.	PRT	227.	PRT
ANGLES θ	180.	PRT	195.	PRT
ϕ_2	183.75	PRT	198.75	PRT
ϕ_1	176.25	PRT	191.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-904.6132507	PRT	-873.7893017	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	-221.286139	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	57.2730672	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	10057.34279	PRT	10130.07538	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.141405903	PRT	3.164461174	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.136584829	PRT	3.146600478	PRT

JOINT NUMBER	226.	PRT	228.	PRT
ANGLES θ	187.5	PRT	202.5	PRT
ϕ_2	191.25	PRT	206.25	PRT
ϕ_1	183.75	PRT	198.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-896.874159	PRT	-835.7536672	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-118.4399423	PRT	-323.475785	PRT
COMPONENT IN DIRECTION OF WIND, #	15.45951468	PRT	123.7888237	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	10072.80231	PRT	10253.8642	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.146600478	PRT	3.203064912	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.141779404	PRT	3.164461174	PRT

A.6.7.5 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	229.	PRT	231.	PRT
ANGLES θ	210.	PRT	225.	PRT
ϕ_2	213.75	PRT	236.25	PRT
ϕ_1	206.25	PRT	221.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-783.4180557	PRT	-1279.316328	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	-420.9476905	PRT	-1260.679868	PRT
COMPONENT IN DIRECTION OF WIND, #	210.4738453	PRT	947.829309	PRT
SUM OF COMPONENTS IN WIND DIRECTION, # .	10464.33805	PRT	11723.58805	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.26870151	PRT	3.661400592	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.203064912	PRT	3.365818539	PRT

JOINT NUMBER	230.	PRT	232.	PRT
ANGLES θ	217.5	PRT	247.5	PRT
ϕ_2	221.25	PRT	258.75	PRT
ϕ_1	213.75	PRT	236.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-717.6779441	PRT	-1038.541511	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	-511.5644259	PRT	-2302.209529	PRT
COMPONENT IN DIRECTION OF WIND, #	311.4206909	PRT	2126.964264	PRT
SUM OF COMPONENTS IN WIND DIRECTION # ..	10775.75874	PRT	13850.55231	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.365818539	PRT	4.324697723	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.26870151	PRT	3.661400592	PRT

A.6.7.6 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	233.	PRT	235.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	1918.974492	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-2486.38328	PRT	-1780.848428	PRT
COMPONENT IN DIRECTION OF WIND, #	2486.38328	PRT	1259.25	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	16336.93559	PRT	19723.14985	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	234.	PRT	236.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	50.	PRT	50.	PRT
MOMENT, #-Ft	307124.	PRT	307124.	PRT
SHEAR, #	20148.	PRT	20148.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	170.375	PRT	170.375	PRT
OUTSIDE, In	171.	PRT	171.	PRT
INSIDE, In	169.75	PRT	169.75	PRT
SECTION MODULUS, In^3	113576.	PRT	113576.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	1038.541511	PRT	2507.261002	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-2302.209529	PRT	-1023.132185	PRT
COMPONENT IN DIRECTION OF WIND, #	2126.964264	PRT	391.5357362	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	18463.89985	PRT	20114.68559	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

A.6.7.7 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	287.	PRT	289.	PRT
ANGLES θ	0.	PRT	45.	PRT
ϕ_2	11.25	PRT	56.25	PRT
ϕ_1	11.25	PRT	33.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	5210.097574	PRT	3684.095325	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	2497.235986	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1765.8125	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	0.	PRT	2314.852561	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	0.	PRT	0.519807938	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	0.	PRT	.1271088563	PRT

JOINT NUMBER	288.	PRT	290.	PRT
ANGLES θ	22.5	PRT	67.5	PRT
ϕ_2	33.75	PRT	78.75	PRT
ϕ_1	11.25	PRT	56.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	4813.502511	PRT	1993.818023	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1434.710821	PRT	3228.326674	PRT
COMPONENT IN DIRECTION OF WIND, #	549.0400613	PRT	2982.584999	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	549.0400613	PRT	5297.4375	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.1271088563	PRT	1.18310507	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.0050078247	PRT	0.519807938	PRT

A.6.7.8 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	291.	PRT	293.	PRT
ANGLES θ	90.	PRT	135.	PRT
ϕ_2	101.25	PRT	138.75	PRT
ϕ_1	78.75	PRT	123.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-2456.06355	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3486.588585	PRT	1767.817565	PRT
COMPONENT IN DIRECTION OF WIND, #	3486.588585	PRT	1329.115618	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	8784.026085	PRT	13095.72664	PRT
ϕ_{2r} – $\sin\phi_2 \cos\phi_2$ FACTOR	1.958487584	PRT	2.917366768	PRT
ϕ_{1r} – $\sin\phi_1 \cos\phi_1$ FACTOR	1.183100507	PRT	2.621784716	PRT

JOINT NUMBER	292.	PRT	294.	PRT
ANGLES θ	112.5	PRT	142.5	PRT
ϕ_2	123.75	PRT	146.25	PRT
ϕ_1	101.25	PRT	138.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1993.818023	PRT	-1377.816104	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3228.326674	PRT	717.3530735	PRT
COMPONENT IN DIRECTION OF WIND, #	2982.584939	PRT	436.6968821	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	11766.61102	PRT	13532.42352	PRT
ϕ_{2r} – $\sin\phi_2 \cos\phi_2$ FACTOR	2.621784716	PRT	3.014483797	PRT
ϕ_{1r} – $\sin\phi_1 \cos\phi_1$ FACTOR	1.958487584	PRT	2.917366768	PRT

A.6.7.9 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	295.	PRT	297.	PRT
ANGLES θ	150.	PRT	165.	PRT
ϕ_2	153.75	PRT	168.75	PRT
ϕ_1	146.25	PRT	161.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1504.025618	PRT	-1677.522601	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	590.283656	PRT	310.3036177	PRT
COMPONENT IN DIRECTION OF WIND, #	295.141828	PRT	80.31248602	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	13827.56535	PRT	14081.46358	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.080120395	PRT	3.136584829	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.014483797	PRT	3.118724133	PRT

JOINT NUMBER	296.	PRT	298.	PRT
ANGLES θ	157.5	PRT	172.5	PRT
ϕ_2	161.25	PRT	176.25	PRT
ϕ_1	153.75	PRT	168.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1604.500837	PRT	-1721.841489	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	453.6014173	PRT	166.0851544	PRT
COMPONENT IN DIRECTION OF WIND, #	173.5857473	PRT	21.67846279	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	14001.1511	PRT	14103.14205	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.118724133	PRT	3.141405903	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.080120395	PRT	3.136584829	PRT

A.6.7.10 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	299.	PRT	301.	PRT
ANGLES θ	180.	PRT	195.	PRT
ϕ_2	183.75	PRT	198.75	PRT
ϕ_1	176.25	PRT	191.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1736.699191	PRT	-1677.522601	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	0.	PRT	-310.3036176	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	80.31248599	PRT
SUM OF COMPONENTS IN WIND DIRECTION, # .	14103.14205	PRT	14205.133	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.141405903	PRT	3.164461174	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.136584829	PRT	3.146600478	PRT

JOINT NUMBER	300.	PRT	302.	PRT
ANGLES θ	187.5	PRT	202.5	PRT
ϕ_2	191.25	PRT	206.25	PRT
ϕ_1	183.75	PRT	198.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1721.841489	PRT	-1604.500837	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	-166.0851544	PRT	-453.6014172	PRT
COMPONENT IN DIRECTION OF WIND, #	21.67846279	PRT	173.5857473	PRT
SUM OF COMPONENTS IN WIND DIRECTION # ..	14124.82051	PRT	14378.71874	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.146600478	PRT	3.203064912	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.141779404	PRT	3.164461174	PRT

A.6.7.11 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	303.	PRT	305.	PRT
ANGLES θ	210.	PRT	225.	PRT
ϕ_2	213.75	PRT	236.25	PRT
ϕ_1	206.25	PRT	221.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1504.025618	PRT	-2456.06355	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-590.283656	PRT	-1767.817565	PRT
COMPONENT IN DIRECTION OF WIND, #	295.141828	PRT	1329.115618	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	14673.86057	PRT	16439.67307	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.26870151	PRT	3.661400592	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.203064912	PRT	3.36581853[illegible]	PRT

JOINT NUMBER	304.	PRT	306.	PRT
ANGLES θ	217.5	PRT	247.5	PRT
ϕ_2	221.25	PRT	258.75	PRT
ϕ_1	213.75	PRT	236.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-1377.816104	PRT	-1993.818023	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-717.2530735	PRT	-3228.326674	PRT
COMPONENT IN DIRECTION OF WIND, #	436.6968821	PRT	2982.584939	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	15110.55745	PRT	19422.25801	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.365818539	PRT	4.324697723	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.26870151	PRT	3.661400592	PRT

A.6.7.12 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	307.	PRT	309.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	3684.095325	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3486.588585	PRT	-2497.235986	PRT
COMPONENT IN DIRECTION OF WIND, #	3486.588585	PRT	1765.8125	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	22908.8466	PRT	27657.24403	PRT
ϕ_{2r} - $\sin\phi_2$ $\cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $\sin\phi_1$ $\cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	308.	PRT	310.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	80.	PRT	80.	PRT
MOMENT, #-Ft	570869.	PRT	570869.	PRT
SHEAR, #	28253.	PRT	28253.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	164.975	PRT	164.975	PRT
OUTSIDE, In	165.6	PRT	165.6	PRT
INSIDE, In	164.35	PRT	164.35	PRT
SECTION MODULUS, In^3	106478.	PRT	106478.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	1993.818023	PRT	4813.502511	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3228.326674	PRT	-1434.710831	PRT
COMPONENT IN DIRECTION OF WIND, #	2982.584939	PRT	549.0400613	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	25891.43153	PRT	28206.2841	PRT
ϕ_{2r} - $\sin\phi_2$ $\cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $\sin\phi_1$ $\cos\phi_1$ FACTOR	5.100080237	PRT	6.156076450	PRT

A.6.7.13 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	334.	PRT	336.	PRT
ANGLES θ_0	0.	PRT	45.	PRT
ϕ_2	11.25	PRT	56.25	PRT
ϕ_1	-11.25	PRT	33.75	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	5616.870294	PRT	3971.727074	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	2575.282897	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1821.	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	0.	PRT	2387.199385	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	0.	PRT	0.519807938	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	0.	PRT	.1271088563	PRT

JOINT NUMBER	335.	PRT	337.	PRT
ANGLES θ	22.5	PRT	67.5	PRT
ϕ_2	33.75	PRT	78.75	PRT
ϕ_1	11.25	PRT	56.25	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	5189.311501	PRT	2149.483283	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	1479.550295	PRT	3329.222595	PRT
COMPONENT IN DIRECTION OF WIND, #	566.199385.	PRT	3075.800615	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	566.1993851	PRT	5463.	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.1271088563	PRT	1.18310507	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.0050078247	PRT	0.519807938	PRT

A.6.7.14 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	338.	PRT	340.	PRT
ANGLES θ	90.	PRT	135.	PRT
ϕ_2	101.25	PRT	146.25	PRT
ϕ_1	78.75	PRT	123.75	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-3971.727074	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3595.556048	PRT	2575.282897	PRT
COMPONENT IN DIRECTION OF WIND, #	3595.556048	PRT	1821.	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	9058.556048	PRT	13955.35666	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.958487584	PRT	3.014483797	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.18310507	PRT	2.621784716	PRT

JOINT NUMBER	339.	PRT	341.	PRT
ANGLES θ	112.5	PRT	157.5	PRT
ϕ_2	123.75	PRT	168.75	PRT
ϕ_1	101.25	PRT	146.25	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-2149.483203	PRT	-5189.311501	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3329.222595	PRT	1479.550295	PRT
COMPONENT IN DIRECTION OF WIND, #	3075.800615	PRT	566.1993851	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	12134.35666	PRT	14521.55605	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.621784716	PRT	3.136584829	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.958487584	PRT	3.014483797	PRT

A.6.7.15 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	342.	PRT	344.	PRT
ANGLES θ	180.	PRT	225.	PRT
ϕ_2	191.25	PRT	236.25	PRT
ϕ_1	168.75	PRT	213.75	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-5616.870294	PRT	-3971.727074	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	-2575.282897	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1821.	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	14521.55605	PRT	16908.75543	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.136584829	PRT	3.661400592	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.014483797	PRT	3.26870151	PRT

JOINT NUMBER	343.	PRT	345.	PRT
ANGLES θ	202.5	PRT	247.5	PRT
ϕ_2	213.75	PRT	258.75	PRT
ϕ_1	191.25	PRT	236.25	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-5189.311501	PRT	-2149.483203	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-1479.550295	PRT	-3329.222595	PRT
COMPONENT IN DIRECTION OF WIND, #	566.1993851	PRT	3075.800615	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	15087.75543	PRT	19984.55605	PRT
ϕ_{2r} - Sinϕ_2 Cosϕ_2 FACTOR	3.26870151	PRT	4.324697723	PRT
ϕ_{1r} - Sinϕ_1 Cosϕ_1 FACTOR	3.146600478	PRT	3.661400592	PRT

A.6.7.16 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	346.	PRT	348.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	3971[illegible]727074	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3595.556048	PRT	-2575.282897	PRT
COMPONENT IN DIRECTION OF WIND, #	3595.556048	PRT	1821.	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	23580.11209	PRT	28476.91271	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	347.	PRT	349.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	120.	PRT	120.	PRT
MOMENT, #-Ft	588478.	PRT	588478.	PRT
SHEAR, #	29136.	PRT	29136.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	157.775	PRT	157.775	PRT
OUTSIDE, In	158.4	PRT	158.4	PRT
INSIDE, In	157.15	PRT	157.15	PRT
SECTION MODULUS, In^3	97370.	PRT	97370.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	2149.483203	PRT	5189.311501	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3329.222595	PRT	-1479.550295	PRT
COMPONENT IN DIRECTION OF WIND, #	3075.800615	PRT	566.1993851	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	26655.91271	PRT	29043.11209	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

A.6.7.17 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	366.	PRT	368.	PRT
ANGLES θ	0.	PRT	45.	PRT
ϕ_2	11.25	PRT	56.25	PRT
ϕ_1	-11.25	PRT	33.75	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	5807.147518	PRT	4106.273389	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	0.	PRT	2545.230859	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1799.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, # .	0.	PRT	2359.342171	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	0.	PRT	0.519807938	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	0.	PRT	.1271088563	PRT

JOINT NUMBER	367.	PRT	369.	PRT
ANGLES θ	22.5	PRT	67.5	PRT
ϕ_2	33.75	PRT	78.75	PRT
ϕ_1	11.25	PRT	56.25	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	5365.104734	PRT	2222.299144	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, # ...	1462.284812	PRT	3290.372524	PRT
COMPONENT IN DIRECTION OF WIND, #	559.592171	PRT	3039.907829	PRT
SUM OF COMPONENTS IN WIND DIRECTION # ..	559.592171	PRT	5399.25	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.1271088563	PRT	1.18310507	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.0050078247	PRT	0.519807938	PRT

A.6.7.18 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	370.	PRT	372.	PRT
ANGLES θ	90.	PRT	135.	PRT
ϕ_2	101.25	PRT	146.25	PRT
ϕ_1	78.75	PRT	123.75	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-4106.273389	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3553.598021	PRT	2545.230859	PRT
COMPONENT IN DIRECTION OF WIND, #	3553.598021	PRT	1799.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, # ..	8952.848021	PRT	13792.50585	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.958487584	PRT	3.014483797	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.18310507	PRT	2.621784716	PRT
JOINT NUMBER	371.	PRT	373.	PRT
ANGLES θ	112.5	PRT	157.5	PRT
ϕ_2	123.75	PRT	168.75	PRT
ϕ_1	101.25	PRT	146.25	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-2223.299144	PRT	-5365.104734	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	3290.372524	PRT	1462.284812	PRT
COMPONENT IN DIRECTION OF WIND, #	3039.907829	PRT	559.592171	PRT
SUM OF COMPONENTS IN WIND DIRECTION # ...	11992.75585	PRT	14352.09802	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.621784716	PRT	3.136584829	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.958487584	PRT	3.014483797	PRT

A.6.7.19 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	374.	PRT	376.	PRT
ANGLES θ	180.	PRT	225.	PRT
ϕ_2	191.25	PRT	236.25	PRT
ϕ_1	168.75	PRT	213.75	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-5807.147518	PRT	-4106.273389	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	-2545.230859	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	1799.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	14352.09802	PRT	16711.44019	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.136584829	PRT	3.661400592	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.014483797	PRT	3.26870151	PRT

JOINT NUMBER	375.	PRT	377.	PRT
ANGLES θ	202.5	PRT	247.5	PRT
ϕ_2	213.75	PRT	258.75	PRT
ϕ_1	191.25	PRT	236.25	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-5365.104731	PRT	-2222.299144	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-1462.284812	PRT	-3290.372524	PRT
COMPONENT IN DIRECTION OF WIND, #	559.5921709	PRT	3039.907829	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	14911.69019	PRT	19751.34802	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	3.26870151	PRT	4.324697723	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	3.146600478	PRT	3.661400592	PRT

A.6.7.20 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	378.	PRT	380.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538.	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	4106.273389	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3553.598021	PRT	-2545.230859	PRT
COMPONENT IN DIRECTION OF WIND, #	3553.598021	PRT	1799.75	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	23304.94604	PRT	28144.60387	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	379.	PRT	381.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	160.	PRT	160.	PRT
MOMENT, #-Ft	580538	PRT	580538.	PRT
SHEAR, #	28796.	PRT	28796.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	150.575	PRT	150.575	PRT
OUTSIDE, In	151.2	PRT	151.2	PRT
INSIDE, In	149.95	PRT	149.95	PRT
SECTION MODULUS, In^3	88669.	PRT	88669.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	2222.299144	PRT	5365.104734	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-3290.372524	PRT	-1462.284812	PRT
COMPONENT IN DIRECTION OF WIND, #	3039.907829	PRT	559.592171	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	26344.85387	PRT	28704.19604	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

A.6.7.21 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	398.	PRT	400.	PRT
ANGLES θ	0.	PRT	45.	PRT
ϕ_2	11.25	PRT	56.25	PRT
ϕ_1	-11.25	PRT	33.75	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	295730.9127	PRT	209113.3338	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	17124.80041	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	12109.0625	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	0.	PRT	15874.10574	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	0.	PRT	0.519807938	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	0.	PRT	.1271088563	PRT

JOINT NUMBER	399.	PRT	401.	PRT
ANGLES θ	22.5	PRT	67.5	PRT
ϕ_2	33.75	PRT	78.75	PRT
ϕ_1	11.25	PRT	56.25	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	273219.7374	PRT	113171.3207	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	9838.582119	PRT	22138.25617	PRT
COMPONENT IN DIRECTION OF WIND, #	3765.043241	PRT	20453.08176	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	3765.043241	PRT	36327.1875	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	.1271088563	PRT	1.18310507	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	.0050078247	PRT	0.519807938	PRT

A.6.7.22 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	402.	PRT	404.	PRT
ANGLES θ	90.	PRT	135.	PRT
ϕ_2	101.25	PRT	146.25	PRT
ϕ_1	78.75	PRT	123.75	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	-209113.3338	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	23909.2877	PRT	17124.80041	PRT
COMPONENT IN DIRECTION OF WIND, #	23909.2877	PRT	12109.0625	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	60236.4752	PRT	92798.61946	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	1.958487584	PRT	3.014483797	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.18310507	PRT	2.621784716	PRT

JOINT NUMBER	403.	PRT	405.	PRT
ANGLES θ	112.5	PRT	157.5	PRT
ϕ_2	123.75	PRT	168.75	PRT
ϕ_1	101.25	PRT	146.25	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-113171.3203	PRT	-273219.7374	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	22138.25617	PRT	9838.532119	PRT
COMPONENT IN DIRECTION OF WIND, #	20453.08176	PRT	3765.043241	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	80689.55696	PRT	96563.6627	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	2.621784716	PRT	3.136584829	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	1.958487584	PRT	3.014483797	PRT

A.6.7.23 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR
EAST TO WEST WIND

JOINT NUMBER	406.	PRT	408.	PRT
ANGLES θ	180.	PRT	225.	PRT
ϕ_2	191.25	PRT	236.25	PRT
ϕ_1	168.75	PRT	213.75	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-295730.9127	PRT	-209113.3338	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	0.	PRT	-17124.80041	PRT
COMPONENT IN DIRECTION OF WIND, #	0.	PRT	12109.0625	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	96563.6627	PRT	112437.7684	PRT
ϕ_{2r} - $Sin\phi_2 Cos\phi_2$ FACTOR	3.136584829	PRT	3.661400592	PRT
ϕ_{1r} - $Sin\phi_1 Cos\phi_1$ FACTOR	3.014483797	PRT	3.26870151	PRT

JOINT NUMBER	407.	PRT	409.	PRT
ANGLES θ	202.5	PRT	247.5	PRT
ϕ_2	213.75	PRT	258.75	PRT
ϕ_1	191.25	PRT	236.25	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	-273219.7374	PRT	-113171.3207	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-9838.532119	PRT	-22138.25617	PRT
COMPONENT IN DIRECTION OF WIND, #	3765.043241	PRT	20453.08176	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	100328.7059	PRT	132890.8502	PRT
ϕ_{2r} - $Sin\phi_2 Cos\phi_2$ FACTOR	3.26870151	PRT	4.324697723	PRT
ϕ_{1r} - $Sin\phi_1 Cos\phi_1$ FACTOR	3.146600478	PRT	3.661400592	PRT

A.6.7.24 MODEL II: JOINT FORCES DUE TO WIND MOMENT AND SHEAR EAST TO WEST WIND

JOINT NUMBER	410.	PRT	412.	PRT
ANGLES θ	270.	PRT	315.	PRT
ϕ_2	281.25	PRT	326.25	PRT
ϕ_1	258.75	PRT	303.75	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	0.	PRT	209113.3338	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-23909.2877	PRT	-17124.80041	PRT
COMPONENT IN DIRECTION OF WIND, #	23909.2877	PRT	12109.0625	PRT
SUM OF COMPONENTS IN WIND DIRECTION, #	156800.1379	PRT	189362.38[illegible]	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.100080237	PRT	6.156076451	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	4.324697723	PRT	5.763377369	PRT

JOINT NUMBER	411.	PRT	413.	PRT
ANGLES θ	292.5	PRT	337.5	PRT
ϕ_2	303.75	PRT	348.75	PRT
ϕ_1	281.25	PRT	326.25	PRT
ELEVATION, Ft	200.	PRT	200.	PRT
MOMENT, #-Ft	28144824.	PRT	28144824.	PRT
SHEAR, #	193745.	PRT	193745.	PRT
PLATE THICKNESS, In	1.25	PRT	1.25	PRT
MODEL RADII, MEAN, In	143.375	PRT	143.375	PRT
OUTSIDE, In	144.	PRT	144.	PRT
INSIDE, In	142.75	PRT	142.75	PRT
SECTION MODULUS, In^3	80376.	PRT	80376.	PRT
VERTICAL JNT FORCE DUE TO MOM., #	113171.3207	PRT	273219.7374	PRT
TANGENTIAL JNT FORCE DUE TO SHEAR, #	-22138.25617	PRT	-9838.532119	PRT
COMPONENT IN DIRECTION OF WIND, #	20453.08176	PRT	3765.043241	PRT
SUM OF COMPONENTS IN WIND DIRECTION #	177253.2197	PRT	193127.3254	PRT
ϕ_{2r} - $\sin\phi_2 \cos\phi_2$ FACTOR	5.763377369	PRT	6.278177483	PRT
ϕ_{1r} - $\sin\phi_1 \cos\phi_1$ FACTOR	5.100080237	PRT	6.156076451	PRT

APPENDIX B

B.1: MODEL I ELEMENT STRESSES FOR LOAD CASE 1,2,3,1+2, AND 1+3 FOR ELEMENTS ABOUT AND ADJACENT TO THE BREECH.

The following Tables reflect the analysis stresses due to the three applied load cases as well as two load combinations with Wind q = 9.2 PSF.

B.1.1

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	39.1	39.2	40.1	40.2	41.1	41.2
TOP	LC1	-295.	-2556.	243.	-2020.	92.	-2108.
SURFACE	LC2	-179.	-1505.	148.	-1116.	36.	-1216.
STRESSES	LC3	79.	799.	-110.	722.	-125.	735.
	LC4	-1941.8	-16402.	1604.6	-12287.2	423.2	-13295.2
	LC5	431.8	4794.8	-769.	4622.4	-1058.	4654.
BOTTOM	LC1	-346.	-2319.	-92.	-2200.	-178.	-2091.
SURFACE	LC2	-205.	-1346.	-49.	-1217.	-107.	-1201.
STRESSES	LC3	106.	727.	67.	776.	148.	738.
	LC4	-2232.	-14702.2	-542.8	-13396.4	-1162.4	-13140.2
	LC5	629.2	4369.4	524.4	4939.2	1183.6	4698.6
MEMBRANE	LC1	-320.5	-2437.5	75.5	-2110.	-43.	-2099.5
STRESSES	LC4	-2086.9	-15552.1	530.9	-12841.8	-369.6	-13217.7
	LC5	530.5	4582.1	-122.3	4780.8	62.8	4676.3
TOP	LC1	25.5	-118.5	167.5	90.	135.	-8.5
BENDING	LC4	145.1	-849.9	1073.7	554.6	792.8	-77.5
STRESSES	LC5	-98.7	212.7	-646.7	-158.4	-1120.8	-22.3
BOTTOM	LC1	-25.5	118.5	-167.5	-90.	-135.	8.5
BENDING	LC4	-145.1	849.9	-1073.7	-554.6	-792.8	77.5
STRESSES	LC5	98.7	-212.7	646.7	158.4	1120.8	22.3

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.2

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	42.1	42.2	43.1	43.2	44.1	44.2
TOP SURFACE STRESSES	LC1	82.	-1782.	-55.	-1700.	-166.	-1539.
	LC2	38.	-948.	-61.	-921.	-119.	-791.
	LC3	-136.	698.	-80.	644.	35.	612.
	LC4	431.6	-10503.6	-616.2	-10173.2	-1260.8	-8816.2
	LC5	-1169.2	4639.6	-791.	4224.8	156.	4091.4
BOTTOM SURFACE STRESSES	LC1	-69.	-1877.	44.	-1770.	171.	-1552.
	LC2	-12.	-995.	45.	-959.	134.	-789.
	LC3	170.	738.	85.	657.	-25.	585.
	LC4	-179.4	-11031.	458.	-10592.8	1403.8	-8810.8
	LC5	1495.	4912.6	826.	4274.4	-59.	3830.
MEMBRANE STRESSES	LC1	6.5	-1829.5	-5.5	-1735.	2.5	-1545.5
	LC4	126.1	-10767.3	-79.1	-10383.	71.5	-8813.5
	LC5	162.9	4776.1	17.5	4249.6	48.5	3960.7
TOP BENDING STRESSES	LC1	75.5	47.5	-49.5	35.	-168.5	6.5
	LC4	305.5	263.7	-537.1	209.8	-1332.3	-2.7
	LC5	-1332.1	-136.5	-808.5	-24.8	107.5	130.7
BOTTOM BENDING STRESSES	LC1	-75.5	-47.5	49.5	-35.	168.5	-6.5
	LC4	-305.5	-263.7	537.1	-209.8	1332.3	2.7
	LC5	1332.1	136.5	808.5	24.8	-107.5	-130.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.3

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	45.1	45.2	46.1	46.2	47.1	47.2
TOP SURFACE STRESSES	LC1	-222.	-1365.	-220.	-1281.	-150.	-1270.
	LC2	-168.	-734.	-159.	-634.	-132.	-661.
	LC3	121.	513.	191.	517.	163.	439.
	LC4	-1767.6	-8117.8	-1682.8	-7113.8	-1364.4	-7351.2
	LC5	891.2	3354.6	1537.2	3475.4	1349.6	2768.8
BOTTOM SURFACE STRESSES	LC1	249.	-1407.	270.	-1333.	190.	-1318.
	LC2	172.	-743.	201.	-646.	146.	-668.
	LC3	-145.	457.	-212.	431.	-209.	370.
	LC4	1831.4	-8242.6	2119.2	-7276.2	1533.2	-7463.6
	LC5	-1085.	2797.4	-1680.4	2632.2	-1732.8	2086.
MEMBRANE STRESSES	LC1	13.5	-1386.	25.	-1307.	20.	-1294.
	LC4	31.9	-8180.2	218.2	-7195.	84.4	-7407.4
	LC5	-96.9	3076.	-71.6	3053.8	-191.6	2427.4
TOP BENDING STRESSES	LC1	-235.5	21.	-245.	26.	-170.	24.
	LC4	-1799.5	62.4	-1901.	81.2	-1448.8	56.2
	LC5	988.1	278.6	1608.8	421.6	1541.2	341.4
BOTTOM BENDING STRESSES	LC1	235.5	-21.	245.	-26.	170.	-24.
	LC4	1799.5	-62.4	1901.	-81.2	1448.8	-56.2
	LC5	-988.1	-278.6	-1608.8	-421.6	-1541.2	-341.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.4

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	48.1	48.2	49.1	49.2	50.1	50.2
TOP	LC1	[illegible]	-1347.	-152.	-1477.	-366.	-1434.
SURFACE	LC2	-90.	-680.	-154.	-820.	-286.	-725.
STRESSES	LC3	101.	470.	-12.	404.	-78.	459.
	LC4	-921.	-7603.	-1568.8	-9021.	-2997.2	-8104.
	LC5	836.2	2977.	-262.4	2239.8	-1083.6	2788.8
BOTTOM	LC1	69.	-1385.	139.	-1308.	368.	-1305.
SURFACE	LC2	88.	-679.	128.	-670.	300.	-605.
STRESSES	LC3	-98.	434.	-8.	430.	85.	503.
	LC4	878.6	-7631.8	1316.6	-7472.	3128.	-6871.
	LC5	-832.6	2607.8	65.4	2648.	1450.	3322.6
MEMBRANE	LC1	-12.	-1366.	-6.5	-1392.5	1.	-1369.5
STRESSES	LC4	-21.2	-7617.4	-126.1	-8246.5	65.4	-7487.5
	LC5	1.8	2792.4	-98.5	2443.9	33.2	3055.7
TOP	LC1	-81.	19.	-145.5	-84.5	-367.	-64.5
BENDING	LC4	-899.8	14.4	-1442.7	-774.5	-3062.6	-616.5
STRESSES	LC5	834.4	184.6	[illegible]	-204.1	-1116.8	-266.9
BOTTOM	LC1	81.	-19.	145.5	84.5	367.	64.5
BENDING	LC4	899.8	-14.4	1442.7	774.5	3062.6	616.5
STRESSES	LC5	-834.4	-184.6	163.9	204.1	1116.8	266.9

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.5

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	53.1	53.2	54.1	54.2	55.1	55.2
TOP SURFACE STRESSES	LC1	-303.	-2581.	212.	-2578.	270.	-2718.
	LC2	-189.	-1636.	140.	-1631.	186.	-1671.
	LC3	51.	415.	-39.	432.	-71.	605.
	LC4	-2041.8	-17632.2	1500.	-17583.2	1981.2	-18091.2
	LC5	166.2	1237.	-146.8	1396.4	383.2	2848.
BOTTOM SURFACE STRESSES	LC1	-269.	-2305.	-64.	-2592.	-327.	-2507.
	LC2	-170.	-1442.	-50.	-1627.	-218.	-1553.
	LC3	37.	388.	12.	464.	94.	456.
	LC4	-1833.	-15571.4	-524.	-17560.4	-2332.6	-16794.6
	LC5	71.4	1264.6	46.4	1676.8	537.8	1688.2
MEMBRANE STRESSES	LC1	-286.	-2443.	74.	-2585.	-28.5	-2612.5
	LC4	-1937.4	-16601.8	488.	-17571.8	-175.7	-17442.9
	LC5	118.8	1250.8	-50.2	1536.6	77.3	2268.1
TOP BENDING STRESSES	LC1	-17.	-138.	138.	7.	298.5	-105.5
	LC4	-104.4	-1030.4	1012.	-11.4	2156.9	-648.3
	LC5	47.4	-13.8	-96.6	-140.2	-460.5	579.9
BOTTOM BENDING STRESSES	LC1	17.	138.	-138.	-7.	-298.5	105.5
	LC4	104.4	1030.4	-1012.	11.4	-2156.9	648.3
	LC5	-47.4	13.8	96.6	140.2	460.5	-579.9

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.6

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	56.1	56.2	57.1	57.2	58.1	58.2
TOP	LC1	343.	-2409.	213.	-2328.	169.	-2218.
SURFACE	LC2	223.	-1471.	134.	-1421.	98.	-1365.
STRESSES	LC3	-90.	668.	-56.	535.	-19.	417.
	LC4	2294.6	-15942.2	1445.8	-15401.2	1070.6	-14776.
	LC5	-485.	3736.6	-302.2	2594.	-5.8	16[illegible]8.4
BOTTOM	LC1	-425.	-2635.	-249.	-2622.	-160.	-254[illegible]
SURFACE	LC2	-279.	-1640.	-155.	-1615.	-97.	-156[illegible]
STRESSES	LC3	119.	504.	55.	473.	16.	4[illegible].
	LC4	-2991.8	-17723.	-1675.	-17480.	-1052.4	-16981.8
	LC5	669.8	2001.8	257.	1729.6	-12.8	1399.8
MEMBRANE	LC1	-41.	-2522.	-18.	-2475.	4.5	-2382.5
STRESSES	LC4	-298.0	-16832.6	-114.6	-16440.6	9.1	-15878.9
	LC5	92.4	2869.2	-22.6	2161.8	-9.3	1509.1
TOP	LC1	384.	113.	231.	147.	164.5	164.5
BENDING	LC4	2693.2	890.4	1560.4	1039.4	1061.5	1102.9
STRESSES	LC5	-577.4	867.4	-279.6	432.2	3.5	109.3
BOTTOM	LC1	-384.	-113.	-231.	-147.	-164.5	-164.5
BENDING	LC4	-2693.2	-890.4	-1560.4	-1039.4	-1061.5	-1102.9
STRESSES	LC5	577.4	-867.4	279.6	-432.2	-3.5	-109.3

Note: .1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.7

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	59.1	59.2	60.1	60.2	61.1	61.2
TOP	LC1	299.	-1960.	607.	-1522.	655.	-1846.
SURFACE	LC2	179.	-1186.	357.	-927.	378.	-1118.
STRESSES	LC3	-5.	308.	-61.	106.	-127.	175.
	LC4	1945.8	-12871.2	3891.4	-10050.4	4132.6	-12131.6
	LC5	253.	873.6	45.8	-546.8	-513.4	-236.
BOTTOM	LC1	-375.	-2549.	-671.	-2388.	-727.	-2377.
SURFACE	LC2	-225.	-1546.	-402.	-1445.	-416.	-1411.
STRESSES	LC3	24.	412.	42.	364.	119.	420.
	LC4	-2445.	-16772.2	-4369.4	-15682.	-4554.2	-15358.2
	LC5	-154.2	1241.4	-284.6	960.8	367.8	1487.
MEMBRANE	LC1	-38.	-2254.5	-32.	-1955.	-36.	-2111.5
STRESSES	LC4	-249.6	-14821.7	-239.	-12866.2	-210.8	-13744.9
	LC5	49.4	1057.5	-119.4	207.	-72.8	625.5
TOP	LC1	337.	294.5	639.	433.	691.	265.5
BENDING	LC4	2195.4	1950.5	4130.4	2815.8	4343.4	1613.3
STRESSES	LC5	203.6	-183.9	165.2	-753.8	-440.6	-861.5
BOTTOM	LC1	-337.	-294.5	-639.	-433.	-691.	-265.5
BENDING	LC4	-2195.4	-1950.5	-4130.4	-2815.8	-4343.4	-1613.3
STRESSES	LC5	-203.6	183.9	-165.2	753.8	440.6	861.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.8

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	62.1	62.2	63.1	63.2	64.1	64.2
TOP SURFACE STRESSES	LC1	413.	-2024.	31.	-2018.	-343.	-1809.
	LC2	216.	-1228.	-24.	-1196.	-269.	-1077.
	LC3	-205.	271.	-243.	299.	-253.	202.
	LC4	2400.2	-13321.6	-189.8	-13021.2	-2817.8	-11717.4
	LC5	-1473.	469.2	-2204.6	732.8	-2670.6	969.4
BOTTOM SURFACE STRESSES	LC1	-431.	-2129.	-36.	-1834.	361.	-1582.
	LC2	-228.	-1259.	28.	-1046.	281.	-893.
	LC3	203.	407.	257.	466.	256.	454.
	LC4	-2528.6	-13711.8	221.6	-11457.2	2946.2	-9797.6
	LC5	1436.6	1615.4	2328.4	2453.2	2716.2	2594.8
MEMBRANE STRESSES	LC1	-9.	-2076.5	-2.5	-1926.	9.	-1695.5
	LC4	-64.2	-13516.7	15.9	-12239.2	64.2	-10757.5
	LC5	-18.2	1042.3	61.9	1593.	22.8	1782.1
TOP BENDING STRESSES	LC1	422.	52.5	33.5	-92.	-352.	-113.5
	LC4	2464.4	195.1	-205.7	-782.	-2882.	-959.9
	LC5	-1454.8	-573.1	-2266.5	-860.2	-2693.4	-812.7
BOTTOM BENDING STRESSES	LC1	-422.	-52.5	-33.5	92.	352.	113.5
	LC4	-2464.4	-195.1	205.7	782.	2882.	959.9
	LC5	1454.8	573.1	2266.5	860.2	2693.4	812.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.9

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	[illegible]	67.2	68.1	68.2	69.2	69.1
TOP SURFACE STRESSES	LC1	-256.	-1998.	152.	-2079.	-2795.	271.
	LC2	-168.	-1332.	119.	-1383.	-1845.	214.
	LC3	5.	26.	40.	-10.	186.	110.
	LC4	-1801.6	-14252.4	1246.8	-14802.6	-19769.	2239.8
	LC5	-210.	-1758.8	520.	-2171.	-10831.8	1283.
BOTTOM SURFACE STRESSES	LC1	-184.	-1807.	-24.	-2098.	-2007.	-197.
	LC2	-125.	-1188.	-30.	-1381.	-1358.	-172.
	LC3	-1.	61.	0.	94.	-203.	-129.
	LC4	-1334.	-12736.6	-300.	-14803.2	-14500.6	-1779.4
	LC5	-193.2	-1245.8	-24.	-1233.2	-3874.6	-1383.8
MEMBRANE STRESSES	LC1	-220.	-1902.5	64.	-2088.5	-2401.	37.
	LC4	-1567.8	-13494.5	473.4	-14802.9	-17134.8	230.2
	LC5	-201.6	-1502.3	248.	-1702.1	-2479.2	-50.4
TOP BENDING STRESSES	LC1	-36.	-95.5	88.	9.5	-394.	234.
	LC4	-233.8	-757.9	773.4	0.3	-2634.2	2009.6
	LC5	-8.4	-256.5	272.	-468.9	1395.4	1333.4
BOTTOM BENDING STRESSES	LC1	36.	95.5	-88.	-9.5	394.	-234.
	LC4	233.8	757.9	-773.4	-0.3	2634.2	-2009.6
	LC5	8.4	256.5	-272.	468.9	-1395.4	-1333.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.10

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	70.1	70.2	71.1	71.2	72.1	72.2
TOP SURFACE STRESSES	LC1	259.	-3437.	190.	-3355.	59.	-3574.
	LC2	192.	-2272.	127.	-2140.	36.	-2322.
	LC3	44.	151.	-10.	121.	-7.	274.
	LC4	2025.4	-24339.4	1358.4	-22943.	390.2	-24936.4
	LC5	663.8	-2047.8	98.	-2141.8	-5.4	-1053.2
BOTTOM SURFACE STRESSES	LC1	-391.	-3201.	-189.	-3822.	-66.	-3992.
	LC2	-296.	-2180.	-125.	-2527.	-40.	-2582.
	LC3	-146.	-447.	26.	7.	6.	296.
	LC4	-3114.2	-23257.	-1339.	-27070.4	-434.	-27746.4
	LC5	-1734.2	-7313.4	50.2	-3757.6	-10.8	-1268.8
MEMBRANE STRESSES	LC1	-66.	-3319.	0.5	-3538.5	-3.5	-3783.
	LC4	-544.4	-23798.2	9.7	-25006.7	-21.9	-26341.4
	LC5	-535.2	-4680.6	74.1	-2949.7	-8.1	-1161.
TOP BENDING STRESSES	LC1	325.	-118.	189.5	283.5	62.5	209.
	LC4	2569.8	-541.2	1348.7	2063.7	412.1	1405.
	LC5	1199.	2632.8	23.9	807.9	2.7	107.8
BOTTOM BENDING STRESSES	LC1	-325.	118.	-189.5	-283.5	-62.5	-209.
	LC4	-2569.8	541.2	-1348.7	-2063.7	-412.1	-1405.
	LC5	-1199.	-2632.8	-23.9	-807.9	-2.7	-107.8

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind,q=1.0PSF,
LC3 = N→S Wind,q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.11

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	73.1	73.2	74.1	74.2	75.1	75.2
TOP	LC1	330.	-3449.	258.	-3803.	1282.	-2882.
SURFACE	LC2	203.	-2222.	525.	-2420.	780.	-1822.
STRESSES	LC3	-43.	374.	-266.	371.	-533.	213.
	LC4	2197.6	-23891.4	5688.	-26067.	8458.	-19644.4
	LC5	-65.6	-8.2	-1589.2	-389.8	-3621.6	-922.4
BOTTOM	LC1	-293.	-4647.	-1296.	-4913.	-1338.	-2999.
SURFACE	LC2	-180.	-2958.	-797.	-3082.	-814.	-1862.
STRESSES	LC3	30.	636.	392.	1094.	563.	748.
	LC4	-1949.	-31860.6	-8628.4	-33267.4	-8826.8	-20129.4
	LC5	-17.	1204.2	2310.4	5151.8	3841.6	3882.6
MEMBRANE	LC1	18.5	-4048.	-219.	-4358.	-28.	-2940.5
STRESSES	LC4	124.3	-27876.	-1470.2	-29667.2	-184.4	-19886.9
	LC5	-41.3	598.	360.6	2381.	110.	1480.1
TOP	LC1	311.5	599.	1077.	555.	1310.	58.5
BENDING	LC4	2073.3	3984.6	7158.2	3600.2	8642.4	242.5
STRESSES	LC5	-24.3	-606.2	-1949.8	-2770.8	-3731.6	-2402.5
BOTTOM	LC1	-311.5	-599.	-1077.	-555.	-1310.	-58.5
BENDING	LC4	-2073.3	-3984.6	-7158.2	-3600.2	-8642.4	-242.5
STRESSES	LC5	24.3	606.2	1949.8	2770.8	3731.6	2402.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.12

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	76.1	76.2	77.1	77.2	78.2	78.1
TOP SURFACE STRESSES	LC1	709.	-2363.	155.	-2039.	-1774.	-136.
	LC2	420.	-1475.	75.	-1262.	-1088.	-99.
	LC3	-497.	291.	-423.	224.	247.	-340.
	LC4	4573.	-15933.	845.	-13649.4	-11783.6	-1046.8
	LC5	-3863.4	314.2	-3736.6	21.8	498.4	-3264.
BOTTOM SURFACE STRESSES	LC1	-648.	-2374.	-135.	-1939.	-1577.	165.
	LC2	-377.	-1456.	-59.	-1181.	-946.	117.
	LC3	481.	498.	436.	489.	442.	350.
	LC4	-4116.4	-15769.2	-677.8	-12804.2	-10280.2	1241.4
	LC5	3777.2	2207.6	3876.2	2559.8	2489.4	3385.
MEMBRANE STRESSES	LC1	30.5	-2368.5	10.	-1989.	-1675.5	14.5
	LC4	228.3	-15851.1	83.6	-13226.8	-11031.9	97.3
	LC5	-43.1	1260.9	69.8	1290.8	1493.9	60.5
TOP BENDING STRESSES	LC1	678.5	5.5	145.	-50.	-98.5	-150.5
	LC4	4344.7	-81.9	761.4	-422.6	-751.7	-1144.1
	LC5	-3820.3	-946.7	-3806.4	-1269.	-995.5	-3324.5
BOTTOM BENDING STRESSES	LC1	-678.5	-5.5	-145.	50.	98.5	150.5
	LC4	-4344.7	81.9	-761.4	422.6	751.7	1144.1
	LC5	3820.3	946.7	3806.4	1269.	995.5	3324.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.13

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	81.1	81.2	82.1	82.2	83.1	83.2
TOP SURFACE STRESSES	LC1	-108.	-1062.	45.	-938.	159.	-923.
	LC2	-75.	-740.	52.	-654.	156.	-646.
	LC3	-31.	-239.	132.	-177.	238.	-187.
	LC4	-798.	-7870.	523.4	-6954.8	1594.2	-6866.2
	LC5	-393.2	-3260.8	1259.4	-2566.4	2348.6	-2643.4
BOTTOM SURFACE STRESSES	LC1	-154.	-1037.	-101.	-1094.	43.	-792.
	LC2	-105.	-704.	-84.	-757.	-44.	-564.
	LC3	-23.	-132.	-72.	-189.	-390.	-241.
	LC4	-1120.	-7513.8	-873.8	-8058.4	-361.8	-5980.8
	LC5	-365.6	-2251.4	-763.4	-2832.8	-3545.	-3009.2
MEMBRANE STRESSES	LC1	-131.	-1049.5	-28.	-1016.	101.	-857.5
	LC4	-959.	-7691.9	-175.2	-7506.6	616.2	-6423.5
	LC5	-379.4	-2756.1	248.	-2699.6	-598.2	-2826.3
TOP BENDING STRESSES	LC1	23.	-12.5	73.	78.	58.	-65.5
	LC4	161.	-178.1	698.6	551.8	978.	-442.7
	LC5	-13.8	-504.7	1011.4	133.2	2946.8	182.9
BOTTOM BENDING STRESSES	LC1	-23.	12.5	-73.	-78.	-58.	[illegible].5
	LC4	-161.	178.1	-698.6	-551.8	-978.	442.7
	LC5	13.8	504.7	-1011.4	-133.2	-2946.8	-182.9

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.14

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	84.1	84.2	85.1	85.2	86.2	86.1
TOP SURFACE STRESSES	LC1	1493.	-1404.	674.	-1473.	-1449.	327.
	LC2	936.	-883.	433.	-926.	-901.	226.
	LC3	-972.	185.	-709.	112.	187.	-500.
	LC4	10104.2	-9527.6	4657.6	-9992.2	-9738.2	2406.2
	LC5	-7449.4	298.	-5848.8	-442.6	271.4	-4273.
BOTTOM SURFACE STRESSES	LC1	-1653.	-1695.	-764.	-1751.	-1556.	-333.
	LC2	-1033.	-1063.	-490.	-1098.	-979.	-230.
	LC3	1120.	510.	727.	554.	439.	522.
	LC4	-11156.6	-11474.6	-5272.	-11852.6	-10562.8	-2449.
	LC5	8651.	2997.	5924.4	3345.8	2482.8	4469.4
MEMBRANE STRESSES	LC1	-80.	-1549.5	-45.	-1612.	-1502.5	-3.
	LC4	-526.2	-10501.1	-307.2	-10922.4	-10150.5	-21.4
	LC5	600.8	1647.5	37.8	1451.6	1377.1	98.2
TOP BENDING STRESSES	LC1	1573.	145.5	719.	139.	53.5	330.
	LC4	10630.4	973.5	4964.8	930.2	412.3	2427.6
	LC5	-8050.2	-1349.5	-5886.6	-1894.2	-1105.7	-4371.2
BOTTOM BENDING STRESSES	LC1	-1573.	-145.5	-719.	-139.	-53.5	-330.
	LC4	-10630.4	-973.5	-4964.8	-930.2	-412.3	-2427.6
	LC5	8050.2	1349.5	5886.6	1894.2	1105.7	4371.2

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.15

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	87.1	87.2	90.1	90.2	91.1	91.2
TOP SURFACE STRESSES	LC1	253.	-1320.	-17.	-171.	-93.	-16.
	LC2	190.	-816.	-14.	-134.	-65.	-24.
	LC3	-364.	-187.	-8.	-259.	89.	-121.
	LC4	2001.	-8827.2	-145.8	-1403.8	-691.	-236.8
	LC5	-3095.8	400.4	-90.6	-2553.8	725.8	-1129.2
BOTTOM SURFACE STRESSES	LC1	-240.	-1360.	-68.	-299.	1.	-208.
	LC2	-184.	-851.	-47.	-209.	-1.	-150.
	LC3	378.	401.	-51.	-169.	-109.	-168.
	LC4	-1932.8	-9189.2	-500.4	-2221.8	-8.2	-1588.
	LC5	3237.6	2329.2	-537.2	-1853.8	-1001.8	-1753.6
MEMBRANE STRESSES	LC1	6.5	-1340.	-42.5	-235.	-46.	-112.
	LC4	34.1	-9008.2	-323.1	-1812.8	-349.6	-912.4
	LC5	70.9	1364.8	-313.9	-2203.8	-138.	-1441.4
TOP BENDING STRESSES	LC1	246.5	20.	25.5	64.	-47.	96.
	LC4	1966.9	181.	177.3	409	-341.4	675.6
	LC5	-3166.7	-964.4	223.3	-350.	863.8	312.2
BOTTOM BENDING STRESSES	LC1	-246.5	-20.	-25.5	-64.	47.	-96.
	LC4	-1966.9	-181.	-177.3	-409.	341.4	-675.6
	LC5	3166.7	964.4	-223.3	350.	-863.8	-312.2

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.16

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	92.1	92.2	93.1	93.2	94.1	94.2
TOP SURFACE STRESSES	LC1	-289.	93.	-439.	94.	-69.	-397.
	LC2	-199.	61.	-231.	65.	8.	-240.
	LC3	122.	1.	-610.	-120.	-543.	-42.
	LC4	-2119.8	654.2	-2564.2	692.	4.6	-2605.
	LC5	833.4	102.2	-6051.	1010.	-5064.6	-783.4
BOTTOM SURFACE STRESSES	LC1	523.	106.	915.	109.	-116.	-478.
	LC2	365.	74.	530.	59.	-129.	-319.
	LC3	-87.	-24.	551.	110.	638.	336.
	LC4	3881.	786.8	5791.	651.8	-1302.8	-3412.8
	LC5	-277.4	-114.8	5984.2	1121.	5753.6	2613.2
MEMBRANE STRESSES	LC1	117.	99.5	238.	101.5	-92.5	-437.5
	LC4	880.6	720.5	1613.4	671.9	-649.1	-3008.9
	LC5	278.	-6.3	-33.4	55.5	344.5	914.9
TOP BENDING STRESSES	LC1	-406.	-6.5	-677.	-7.5	23.5	40.5
	LC4	-3000.4	-66.3	-4177.6	20.1	653.7	403.9
	LC5	555.4	108.5	-6017.6	-1065.5	-5409.1	-1698.3
BOTTOM BENDING STRESSES	LC1	406.	6.5	677.	7.5	-23.5	-40.5
	LC4	3000.4	66.3	4177.6	-20.1	-653.7	-403.9
	LC5	-555.4	-108.5	6017.6	1065.5	5409.1	1698.3

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.17

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	95.1	95.2	96.1	96.2	99.1	99.2
TOP	LC1	394.	-480.	660.	-675.	-11.	401.
SURFACE	LC2	309.	-289.	483.	-413.	-13.	269.
STRESSES	LC3	-450.	83.	-286.	128.	-5.	-110.
	LC4	3236.8	-3138.8	5103.6	-4474.6	-130.6	2875.8
	LC5	-3746.	283.6	-1971.2	502.6	-57.	-611.
BOTTOM	LC1	-413.	-932.	-681.	-1015.	76.	185.
SURFACE	LC2	-324.	-612.	-498.	-659.	54.	127.
STRESSES	LC3	473.	325.	305.	288.	-30.	-74.
	LC4	-3393.0	-6562.4	-5262.6	-7077.8	572.0	1353.4
	LC5	3938.6	2058.	2125.	1634.6	-200.	-495.8
MEMBRANE	LC1	-9.5	-706.	-10.5	-845.	32.5	293.
STRESSES	LC4	-78.5	-4850.6	-79.5	-5776.2	221.1	2114.6
	LC5	96.3	1170.3	76.9	1068.6	-128.5	-553.4
TOP	LC1	403.5	226.	670.5	170.	-43.5	108.
BENDING	LC4	3315.1	1711.8	5183.1	1301.6	-351.7	761.2
STRESSES	LC5	-3842.1	-887.2	-2048.1	-566.	71.5	-57.6
BOTTOM	LC1	-403.5	-226.	-670.5	-170.	43.5	-108.
BENDING	LC4	-3315.1	-1711.8	-5183.1	-1301.6	351.7	-761.2
STRESSES	LC5	3842.1	887.2	2048.1	566.	-71.5	57.6

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.18

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT/STRESSES

ELEMENT NO	STRESS DIRECTION	100.1	100.2	101.2	101.1	102.2	102.1
TOP SURFACE STRESSES	LC1	-186.	257.	37.	-290.	-132.	-1499.
	LC2	-148.	174.	20.	-240.	-73.	-869.
	LC3	31.	-24.	-10.	17.	-32.	-190.
	LC4	-1547.6	1857.8	221.	-2498.	-803.6	-9493.8
	LC5	99.2	36.2	-55.	-133.6	-426.4	-3247.
BOTTOM SURFACE STRESSES	LC1	227.	191.	62.	256.	239.	1787.
	LC2	177.	136.	51.	230.	135.	1049.
	LC3	-33.	-51.	15.	8.	52.	163.
	LC4	1855.4	1442.2	531.2	2372.	1481.	11437.8
	LC5	-76.6	-278.2	200.	329.6	717.4	3286.6
MEMBRANE STRESSES	LC1	20.5	224.	49.5	-17.	53.5	144.
	LC4	153.9	1650.	376.1	-63.	338.7	972.
	LC5	11.3	-121.	72.5	98.	145.5	19.8
TOP BENDING STRESSES	LC1	-206.5	33.	-12.5	-273.	-185.5	-1643.
	LC4	-1701.5	207.8	-155.1	-2435.	-1142.3	-10465.8
	LC5	87.9	157.2	-127.5	-231.6	-571.9	-3266.8
BOTTOM BENDING STRESSES	LC1	206.5	-33.	12.5	273.	185.5	1643.
	LC4	1701.5	-207.8	155.1	2435.	1142.3	10465.8
	LC5	-87.9	-157.2	127.5	231.6	571.9	3266.8

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.19

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	103.1	103.2	104.1	104.2	105.1	105.2
TOP	LC1	-712.	11.	229.	237.	919.	-186.
SURFACE	LC2	-370.	23.	230.	167.	866.	-106.
STRESSES	LC3	-203.	-57.	-178.	18.	-112.	45.
	LC4	-4116.	222.6	2345.	1773.4	7046.2	-1161.2
	LC5	-2579.6	-513.4	-1408.6	402.6	-111.4	228.
BOTTOM	LC1	877.	297.	-243.	-373.	-967.	-748.
SURFACE	LC2	467.	157.	-242.	-272.	-700.	-504.
STRESSES	LC3	227.	94.	199.	119.	120.	106.
	LC4	5173.4	1741.4	-2469.4	-2875.4	-7407.	-5384.0
	LC5	2965.4	1161.8	1587.8	721.8	137.	227.2
MEMBRANE	LC1	82.5	154.	-7.	-68.	-24.	-467.
STRESSES	LC4	528.7	982.	-62.2	-551.	-120.4	-3273.
	LC5	192.9	324.2	89.6	562.2	12.8	227.6
TOP	LC1	-794.5	-143.	236.	305.	943.	281.
BENDING	LC4	-4644.7	-759.4	2407.2	2324.4	7226.6	2111.8
STRESSES	LC5	-2772.5	-837.6	-1498.2	-159.6	-124.2	0.4
BOTTOM	LC1	794.5	143.	-236.	-305.	-943.	-281.
BENDING	LC4	4644.7	759.4	-2407.2	-2324.4	-7226.6	-2111.8
STRESSES	LC5	2772.5	837.6	1498.2	159.6	124.2	-0.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.20

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	108.1	108.2	109.1	109.2	110.1	110.2
TOP SURFACE STRESSES	LC1	-11.	401.	-186.	257.	-290.	37.
	LC2	-13.	269.	-148.	174.	-240.	20.
	LC3	5.	110.	-31.	24.	-17.	10.
	LC4	-130.6	2875.8	-1547.6	1857.8	-2498.	221.
	LC5	35.	1413.	-471.2	477.8	-446.4	129.
BOTTOM SURFACE STRESSES	LC1	76.	185.	227.	191.	256.	62.
	LC2	54.	127.	177.	136.	230.	51.
	LC3	30.	74.	33.	51.	-8.	15.
	LC4	572.8	1353.4	1855.4	1442.2	2372.	531.2
	LC5	352.	865.8	530.6	660.2	182.4	200.
MEMBRANE STRESSES	LC1	32.5	293.	20.5	224.	-17.	49.5
	LC4	221.1	2114.6	153.9	1650.	-63.	376.1
	LC5	193.5	1139.4	29.7	569.	-132.	164.5
TOP BENDING STRESSES	LC1	-43.5	108.	-206.5	33.	-273.	-12.5
	LC4	-351.7	761.2	-1701.5	207.8	-2435.	-155.1
	LC5	-158.5	273.6	-500.9	-91.2	-314.4	-35.5
BOTTOM BENDING STRESSES	LC1	43.5	-108.	206.5	-33.	273.	12.5
	LC4	351.7	-761.2	1701.5	-207.8	2435.	155.1
	LC5	158.5	-273.6	500.9	91.2	314.4	35.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.21

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	111.1	111.2	112.1	112.2	113.1	113.2
TOP	LC1	-1499.	-132.	-712.	11.	229.	237.
SURFACE	LC2	-869.	-73.	-370.	23.	230.	167.
STRESSES	LC3	190.	32.	203.	57.	178.	-18.
	LC4	-9493.8	-803.6	-4116.	222.6	2345.	1773.4
	LC5	249.	162.4	1155.6	535.4	1866.6	71.4
BOTTOM	LC1	1787.	239.	877.	297.	-243.	-373.
SURFACE	LC2	1049.	135.	467.	157.	-242.	-272.
STRESSES	LC3	-163.	-52.	-227.	-94.	-199.	-119.
	LC4	11437.8	1481.	5173.4	1741.4	-2469.4	-2875.4
	LC5	287.4	-239.4	-1211.4	-567.8	-2073.8	-1467.8
MEMBRANE	LC1	144.	53.5	82.5	154.	-7.	-68.
STRESSES	LC4	972.	338.7	528.7	982.	-62.2	-551.
	LC5	268.2	-38.5	-27.9	-16.2	-103.6	-698.2
TOP	LC1	-1643.	-185.5	-794.5	-143.	236.	305.
BENDING	LC4	-10465.8	-1142.3	-4644.7	-759.4	2407.2	2324.4
STRESSES	LC5	-19.2	200.9	1183.5	551.6	1970.2	769.6
BOTTOM	LC1	1643.	185.5	794.5	143.	-236.	-305.
BENDING	LC4	10465.8	1142.3	4644.7	759.4	-2407.2	-2324.4
STRESSES	LC5	19.2	-200.9	-1183.5	-551.6	-1970.2	-769.6

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.22

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	114.1	114.2	117.1	117.2	118.1	118.2
TOP SURFACE STRESSES	LC1	919.	-186.	-17.	-171.	-93.	-16.
	LC2	666.	-106.	-14.	-134.	-65.	-24.
	LC3	112.	-45.	8.	259.	-89.	121.
	LC4	7046.2	-1161.2	-145.8	-1403.8	-691.	-236.8
	LC5	1949.4	-600.	56.6	2211.8	-911.8	1097.2
BOTTOM SURFACE STRESSES	LC1	-967.	-748.	-68.	-299.	1.	-208.
	LC2	-700.	-504.	-47.	-209.	-1.	-150.
	LC3	-120.	-106.	51.	169.	109.	168.
	LC4	-7407.	-5384.8	-500.4	-2221.8	-8.2	-1588.
	LC5	-2071.	-1723.2	401.2	1255.8	1003.8	1337.6
MEMBRANE STRESSES	LC1	-24.	-467.	-42.5	-235.	-46.	-112.
	LC4	-180.4	-3273.	-323.1	-1812.8	-349.6	-912.4
	LC5	-60.8	-1161.6	228.9	1733.8	46.	1217.4
TOP BENDING STRESSES	LC1	943.	281.	25.5	64.	-47.	96.
	LC4	7226.6	2111.8	177.3	409.	-341.4	675.6
	LC5	2010.2	561.6	-172.3	478.	-957.8	-120.2
BOTTOM BENDING STRESSES	LC1	-943.	-281.	-25.5	-64.	47.	-96.
	LC4	-7226.6	-2111.8	-177.3	-409.	341.4	-675.6
	LC5	-2010.2	-561.6	172.3	-478.	957.8	120.2

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.23

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	119.1	119.2	120.1	120.2	121.1	121.2
TOP	LC1	-289.	93.	-439.	94.	-69.	-397.
SURFACE	LC2	-199.	61.	-231.	65.	8.	-240.
STRESSES	LC3	-122.	-1.	610.	120.	543.	42.
	LC4	-2119.8	654.2	-2564.2	692.	4.6	-2605.
	LC5	-1411.4	83.8	5173.	1198.	4926.6	-10.6
BOTTOM	LC1	523.	106.	915.	109.	-116.	-478.
SURFACE	LC2	365.	74.	530.	59.	-129.	-319.
STRESSES	LC3	87.	24.	-551.	-110.	-638.	-336.
	LC4	3881.	786.8	5791.	651.8	-1302.8	-3412.8
	LC5	1323.4	326.8	-4154.2	-903.	-5985.6	-3569.2
MEMBRANE	LC1	117.	99.5	238.	101.5	-92.5	-437.5
STRESSES	LC4	880.6	720.5	1613.4	671.9	-649.1	-3008.9
	LC5	-44.	205.3	509.4	147.5	-529.5	-1789.9
TOP	LC1	-406.	-6.5	-677.	-7.5	23.5	40.5
BENDING	LC4	-3000.4	-66.3	-4177.6	20.1	653.7	403.9
STRESSES	LC5	-1367.4	-121.5	4663.6	1050.5	5456.1	1779.3
BOTTOM	LC1	406.	6.5	677.	7.5	-23.5	-40.5
BENDING	LC4	3000.4	66.3	4177.6	-20.1	-653.7	-403.9
STRESSES	LC5	1367.4	121.5	-4663.6	-1050.5	-5456.1	-1779.3

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.24

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	12[illegible]	122.2	123.1	123.2	126.1	126.2
TOP SURFACE STRESSES	LC1	394.	-480.	660.	-675.	-108.	-1062.
	LC2	309.	-289.	483.	-413.	-75.	-740.
	LC3	450.	-83.	286.	-128.	31.	239.
	LC4	3236.8	-3138.8	5103.6	-4474.6	-798.	-7870.
	LC5	4534.	-1243.6	3291.2	-1852.6	177.2	1136.8
BOTTOM SURFACE STRESSES	LC1	-413.	-932.	-681.	-1015.	-154.	-1037.
	LC2	-324.	-612.	-498.	-659.	-105.	-704.
	LC3	-473.	-325.	-305.	-288.	23.	132.
	LC4	-3393.8	-6562.4	-5262.6	-7077.8	-1120.	-7513.8
	LC5	-4764.6	-3922.	-3487.	-3664.6	57.6	177.4
MEMBRANE STRESSES	LC1	-9.5	-706.	-10.5	-845.	-131.	-1049.5
	LC4	-78.5	-4850.6	-79.5	-5776.2	-959.	-7691.9
	LC5	-115.3	-2582.8	-97.9	-2758.6	117.4	657.1
TOP BENDING STRESSES	LC1	403.5	226.	670.5	170.	23.	-12.5
	LC4	3315.3	1711.8	5183.1	1301.6	161.	-178.1
	LC5	4649.3	1339.2	3389.1	906.	59.8	479.7
BOTTOM BENDING STRESSES	LC1	-403.5	-226.	-670.5	-170.	-23.	12.5
	LC4	-3315.3	-1711.8	-5183.1	-1301.6	-161.	178.1
	LC5	-4649.3	-1339.2	-3389.1	-906.	-59.8	-479.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.25

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	127.1	127.2	128.1	128.2	129.1	129.2
TOP SURFACE STRESSES	LC1	45.	-938.	159.	-923.	1493.	-1404.
	LC2	52.	-654.	156.	-646.	936.	-883.
	LC3	-132.	177.	-238.	187.	972.	-185.
	LC4	523.4	-6954.8	1594.2	-6866.2	10104.2	-9527.6
	LC5	-1169.4	690.4	-2030.6	797.4	10435.4	-3106.
BOTTOM SURFACE STRESSES	LC1	-101.	-1094.	43.	-792.	-1653.	-1695.
	LC2	-84.	-757.	-44.	-564.	-1033.	-1063.
	LC3	72.	189.	390.	241.	-1120.	-510.
	LC4	-873.8	-8058.4	-361.8	-5980.8	-11156.6	-11474.6
	LC5	561.4	644.8	3631.	1425.2	-11957.	-6387.
MEMBRANE STRESSES	LC1	-28.	-1016.	101.	-857.5	-80.	-1549.5
	LC4	-175.2	-7506.6	616.2	-6423.5	-526.2	-10501.1
	LC5	-304.	667.6	800.2	1111.3	-760.8	-4746.5
TOP BENDING STRESSES	LC1	73.	78.	58.	-65.5	1573.	145.5
	LC4	698.6	551.8	978.	-442.7	10630.4	973.5
	LC5	-865.4	22.8	-2830.8	-313.9	11196.2	1640.5
BOTTOM BENDING STRESSES	LC1	-73.	-78.	-58.	65.5	-1573.	-145.5
	LC4	-698.6	-551.8	-978.	442.7	-10630.4	-973.5
	LC5	865.4	-22.8	2830.8	313.9	-11196.2	-1640.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI.

B.1.26

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	130.1	130.2	131.1	131.2	132.1	132.2
TOP SURFACE STRESSES	LC1	674.	-1473.	327.	-1449.	253.	-1320.
	LC2	433.	-926.	226.	-901.	190.	-816.
	LC3	709.	-112.	500.	-187.	364.	-187.
	LC4	4657.6	-9992.2	2406.2	-9738.2	2001.	-8827.2
	LC5	7196.8	-2503.4	4927.	-3169.4	3601.8	-3040.4
BOTTOM SURFACE STRESSES	LC1	-764.	-1751.	-333.	-1556.	-240.	-1360.
	LC2	-490.	-1098.	-230.	-979.	-184.	-851.
	LC3	-727.	-554.	-522.	-439.	-378.	-401.
	LC4	-5272.	-11852.6	-2449.	-10562.8	-1932.8	-9189.2
	LC5	-7452.4	-6847.8	-5135.4	-5594.8	-3717.6	-5049.2
MEMBRANE STRESSES	LC1	-45.	-1612.	-3.	-1502.5	6.5	-1340.
	LC4	-807.2	-10922.4	-21.4	-10150.5	34.1	-9008.2
	LC5	-127.8	-4675.6	-104.2	-4382.1	-57.9	-4044.8
TOP BENDING STRESSES	LC1	719.	139.	-3.	53.5	246.5	20.
	LC4	4964.8	930.2	2427.6	412.3	1966.9	181.
	LC5	7324.6	2172.2	5031.2	1212.7	3659.7	1004.4
BOTTOM BENDING STRESSES	LC1	-719.	-139.	-330.	-53.5	-246.5	-20.
	LC4	-4964.8	-930.2	-2427.6	-412.3	-1966.9	-181.
	LC5	-7324.6	-2172.2	-5031.2	-1212.7	-3659.7	-1004.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.27
50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO.	STRESS DIRECTION	135.1	135.2	136.1	136.2	137.1	137.2
TOP	LC1	-256.	-1998.	152.	-2079.	271.	-2795.
SURFACE	LC2	-168.	-1332.	119.	-1383.	214.	-1845.
STRESSES	LC3	-5.	-26.	-40.	10.	-110.	-186.
	LC4	-1801.6	-14252.4	1246.8	-14802.6	2239.8	-19769.
	LC5	-302.	-2237.2	-216.	-1987.	-741.	-4506.2
BOTTOM	LC1	-184.	-1807.	-24.	-2098.	-197.	-2007.
SURFACE	LC2	-125.	-1188.	-30.	-1381.	-172.	-1358.
STRESSES	LC3	1.	-61.	0.	-94.	129.	203.
	LC4	-1334.	-12736.6	-300.	-14803.2	-1779.4	-14500.6
	LC5	-174.8	-2368.2	-24.	-2962.8	989.8	-139.4
MEMBRANE	LC1	-220.	-1902.5	64.	-2088.5	37.	-2401.
STRESSES	LC4	-1567.8	-13494.5	473.4	-14802.9	230.2	-17134.8
	LC5	-238.4	-2302.7	-120.	-2474.9	124.4	-2322.8
TOP	LC1	-36.	-95.5	88.	9.5	234.	-394.
BENDING	LC4	-233.8	-757.9	773.4	0.3	2009.6	-2634.2
STRESSES	LC5	-63.6	65.5	-96.	487.9	-865.4	-2183.4
BOTTOM	LC1	36.	95.5	-88.	-9.5	-234.	394.
BENDING	LC4	233.8	757.9	-773.4	-0.3	-2009.6	2634.2
STRESSES	LC5	63.6	-65.5	96.	-487.9	865.4	2183.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.28

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	138.1	138.2	139.1	139.2	140.1	140.2
TOP SURFACE STRESSES	LC1	259.	-3437.	190.	-3255.	59.	-3574.
	LC2	192.	-2272.	127.	-2140.	36.	-2322.
	LC3	-44.	-151.	10.	-121.	7.	-274.
	LC4	2025.4	-24339.4	1358.4	-22943.	390.2	-24936.4
	LC5	-145.8	-4826.2	282.	-4368.2	123.4	-6094.8
BOTTOM SURFACE STRESSES	LC1	-391.	-3201.	-189.	-3822.	-66.	-3992.
	LC2	-296.	-2180.	-125.	-2527.	-40.	-2582.
	LC3	146.	447.	-26.	-7.	-6.	-296.
	LC4	-3114.2	-23257.	-1339.	-27070.4	-434.	-27746.4
	LC5	952.2	911.4	-428.2	-3886.4	-121.2	-6715.2
MEMBRANE STRESSES	LC1	-66.	-3319.	0.5	-3538.5	-3.5	-3783.
	LC4	-544.4	-23798.2	[illegible]	-25006.7	-21.9	-26341.4
	LC5	403.2	-1957.4	-73.1	-4127.3	1.1	-6405.
TOP BENDING STRESSES	LC1	325.	-118.	189.5	283.5	62.5	209.
	LC4	2569.8	-541.2	1348.7	2063.7	412.1	1405.
	LC5	-549.	-2868.8	355.1	-240.9	122.3	310.2
BOTTOM BENDING STRESSES	LC1	-325.	118.	-189.5	-283.5	-62.5	-209.
	LC4	-2569.8	541.2	-1348.7	-2063.7	-412.1	-1405.
	LC5	549.	2868.8	-355.1	240.9	-122.3	-310.2

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.29

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	141.1	141.2	142.1	142.2	143.1	143.2
TOP SURFACE STRESSES	LC1	330.	-3449.	858.	-3803.	1282.	-2882.
	LC2	203.	-2222.	525.	-2420.	780.	-1822.
	LC3	43.	-374.	266.	-371.	533.	-213.
	LC4	2197.6	-23891.4	5688.	-26067.	8458.	-19644.4
	LC5	725.6	-6889.8	3305.2	-7216.2	6185.6	-4841.6
BOTTOM SURFACE STRESSES	LC1	-293.	-4647.	-1296.	-4913.	-1338.	-2999.
	LC2	-180.	-2958.	-797.	-3082.	-814.	-1862.
	LC3	-30.	-636.	-392.	-1094.	-563.	-748.
	LC4	-1949.	-31860.6	-8628.4	-33267.4	-8826.8	-20129.4
	LC5	-569.	-10498.2	-4902.4	-14977.8	-6517.6	-9880.6
MEMBRANE STRESSES	LC1	18.5	-4048.	-219.	-4358.	-28.	-2940.5
	LC4	124.3	-27876.	-1470.2	-29667.2	-184.4	-19886.9
	LC5	78.3	-8694.	-798.6	-11097.	-166.	-7361.1
TOP BENDING STRESSES	LC1	311.5	599.	1077.	555.	1310.	58.5
	LC4	2073.3	3984.6	7158.2	3600.2	8642.4	242.5
	LC5	647.3	1804.2	4103.8	3880.8	6351.6	2519.5
BOTTOM BENDING STRESSES	LC1	-311.5	-599.	-1077.	-555.	-1310.	-58.5
	LC4	-2073.3	-3984.6	-7158.2	-3600.2	-8642.4	-242.5
	LC5	-647.3	-1804.2	-4103.8	-3880.8	-6351.6	-2519.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.30

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	144.1	144.2	145.1	145.2	146.1	146.2
TOP SURFACE STRESSES	LC1	709.	-2363.	155.	-2039.	-136.	-1774.
	LC2	420.	-1475.	75.	-1262.	-99.	-1088.
	LC3	497.	-291.	423.	-224.	340.	-247.
	LC4	4573.	-15933.	845.	-13649.4	-1046.8	-11783.6
	LC5	5281.4	-5040.2	4046.6	-4099.8	2992.	-4046.4
BOTTOM SURFACE STRESSES	LC1	-648.	-2374.	-135.	-1939.	165.	-1577.
	LC2	-377.	-1456.	-59.	-1181.	117.	-946.
	LC3	-481.	-498.	-436.	-489.	-350.	-442.
	LC4	-4116.4	-15769.2	-677.8	-12804.2	1241.4	-10280.2
	LC5	-5073.2	-6955.6	-4146.2	-6487.8	-3055.	-5643.4
MEMBRANE STRESSES	LC1	30.5	-2368.5	10.	-1989.	14.5	-1675.5
	LC4	228.3	-15851.1	83.6	-13226.8	97.3	-11031.9
	LC5	104.1	-5997.9	-49.8	-5268.8	-31.5	-4844.9
TOP BENDING STRESSES	LC1	678.5	5.5	145.	-50.	-150.5	-98.5
	LC4	4344.7	-81.9	761.4	-422.6	-1144.1	-751.7
	LC5	5177.3	957.7	4096.4	1169.	3023.5	798.5
BOTTOM BENDING STRESSES	LC1	-678.5	-5.5	-145.	50.	150.5	98.5
	LC4	-4344.7	81.9	-761.4	422.6	1144.1	751.7
	LC5	-5177.3	-957.7	-4096.4	-1169.	-3023.5	-798.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.31

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	149.1	149.2	150.1	150.2	151.1	151.2
TOP SURFACE STRESSES	LC1	-303.	-2581.	212.	-2578.	270.	-2718.
	LC2	-189.	-1636.	140.	-1631.	186.	-1671.
	LC3	-51.	-415.	39.	-432.	71.	-605.
	LC4	-2041.8	-17632.2	1500.	-17583.2	1981.2	-18091.2
	LC5	-772.2	-6399.	570.8	-6552.4	923.2	-8284.
BOTTOM SURFACE STRESSES	LC1	-269.	-2305.	-64.	-2592.	-327.	-2507.
	LC2	-170.	-1442.	-50.	-1627.	-218.	-1553.
	LC3	-37.	-388.	-12.	-464.	-94.	-456.
	LC4	-1833.	-15571.4	-524.	-17560.4	-2332.6	-16794.6
	LC5	-609.4	-5874.6	-174.4	-6860.8	-1191.8	-6702.2
MEMBRANE STRESSES	LC1	-286.	-2443.	74.	-2585.	-28.5	-2612.5
	LC4	-1937.4	-16601.8	488.	-17571.8	-175.7	-17442.9
	LC5	-690.8	-6136.8	198.2	-6706.6	-134.3	-7493.1
TOP BENDING STRESSES	LC1	-17.	-138.	138.	7.	298.5	-105.5
	LC4	-104.4	-1030.4	1012.	-11.4	2156.9	-648.3
	LC5	-81.4	-262.2	372.6	154.2	1057.5	-790.9
BOTTOM BENDING STRESSES	LC1	17.	138.	-138.	-7.	-298.5	105.5
	LC4	104.4	1030.4	-1012.	11.4	-2156.9	648.3
	LC5	81.4	262.2	-372.6	-154.2	-1057.5	790.9

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.32

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	152.1	152.2	153.1	153.2	154.1	154.2
TOP	LC1	343.	-2409.	213.	-2328.	169.	-2218.
SURFACE	LC2	223.	-1471.	134.	-1421.	98.	-1365.
STRESSES	LC3	90.	-668.	56.	-535.	19.	-417.
	LC4	2394.6	-15942.2	1445.8	-15401.2	1070.6	-14776.
	LC5	1171.	-8554.6	728.2	-7250.	343.8	-6054.4
BOTTOM	LC1	-425.	-2635.	-249.	-2622.	-160.	-2547.
SURFACE	LC2	-279.	-1640.	-155.	-1615.	-97.	-1569.
STRESSES	LC3	-119.	-504.	-55.	-473.	-16.	-429.
	LC4	-2991.8	-17723.	-1675.	-17480.	-1052.4	-16981.8
	LC5	-1519.8	-7271.8	-755.	-6973.6	-307.2	-6493.8
MEMBRANE	LC1	-41.	-2522.	-18.	-2475.	4.5	-2382.5
STRESSES	LC4	-298.6	-16832.6	-114.6	-16440.6	9.1	-15878.9
	LC5	-174.4	-7913.2	-13.4	-7111.8	18.3	-6274.1
TOP	LC1	384.	113.	231.	147.	164.5	164.5
BENDING	LC4	2693.2	890.4	1560.4	1039.4	1061.5	1102.9
STRESSES	LC5	1345.4	-641.4	741.6	-138.2	325.5	219.7
BOTTOM	LC1	-384.	-113.	-231.	-147.	-164.5	-164.5
BENDING	LC4	-2693.2	-890.4	-1560.4	-1039.4	-1061.5	-1102.9
STRESSES	LC5	-1345.4	641.4	-741.6	138.2	-325.5	-219.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.33

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	155.1	155.2	156.1	156.2	157.1	157.2
TOP SURFACE STRESSES	LC1	299.	-1960.	607.	-1522.	655.	-1846.
	LC2	179.	-1186.	357.	-927.	378.	-1118.
	LC3	5.	-308.	61.	-106.	127.	-175.
	LC4	1945.8	-12871.2	3891.4	-10050.4	4132.6	-12131.6
	LC5	345.	-4793.5	1168.2	-2497.2	1823.4	-3456.
BOTTOM SURFACE STRESSES	LC1	-375.	-2549.	-671.	-2388.	-727.	-2377.
	LC2	-225.	-1546.	-402.	-1445.	-416.	-1411.
	LC3	-24.	-412.	-42.	-364.	-119.	-420.
	LC4	-2445.	-16772.2	-4369.4	-15682.	-4554.2	-15358.2
	LC5	-595.8	-6339.4	-1057.4	-5736.8	-1821.8	-6241.
MEMBRANE STRESSES	LC1	-38.	-2254.5	-32.	-1955.	-36.	-2111.5
	LC4	-249.6	-14821.7	-239.	-12866.2	-210.8	-13744.9
	LC5	-125.4	-5566.5	55.4	-4117.	0.8	-4848.5
TOP BENDING STRESSES	LC1	337.	294.5	639.	433.	691.	265.5
	LC4	2195.4	1950.5	4130.4	2815.8	4343.4	1613.3
	LC5	470.4	772.9	1112.8	1619.8	1822.6	1392.5
BOTTOM BENDING STRESSES	LC1	-337.	-294.5	-639.	-433.	-691.	-265.5
	LC4	-2195.4	-1950.5	-4130.4	-2815.8	-4343.4	-1613.3
	LC5	-470.4	-772.9	-1112.8	-1619.8	-1822.6	-1392.5

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.34

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	158.1	158.2	159.1	159.2	160.1	160.2
TOP SURFACE STRESSES	LC1	413.	-2024.	31.	-2018.	-343.	-1809.
	LC2	216.	-1228.	-24.	-1196.	-269.	-1077.
	LC3	205.	-271.	243.	-299.	253.	-302.
	LC4	2400.2	-13321.6	-189.8	-13021.2	-2817.8	-11717.4
	LC5	2299.	-4517.2	2266.6	-4768.8	1984.6	-4587.4
BOTTOM SURFACE STRESSES	LC1	-431.	-2129.	-36.	-1834.	361.	-1582.
	LC2	-228.	-1259.	28.	-1046.	281.	-893.
	LC3	-203.	-407.	-257.	-468.	-256.	-454.
	LC4	-2528.6	-13711.8	221.6	-11457.2	2946.2	-9797.6
	LC5	-2298.6	-5873.4	-2400.4	-6121.2	-1994.2	-5758.8
MEMBRANE STRESSES	LC1	-9.	-2076.5	-2.5	-1926.	9.	-1695.5
	LC4	-64.2	-13516.7	15.9	-12239.2	64.2	-10757.5
	LC5	0.2	-5195.3	-66.9	-5445.	-4.8	-5173.1
TOP BENDING STRESSES	LC1	422.	52.5	33.5	-92.	-352.	-113.5
	LC4	2464.4	195.1	-205.7	-782.	-2882.	-959.9
	LC5	2298.8	678.1	2333.5	676.2	1989.4	585.7
BOTTOM BENDING STRESSES	LC1	-422.	-52.5	-33.5	92.	352.	113.5
	LC4	-2464.4	-195.1	205.7	782.	2882.	959.9
	LC5	-2299.8	-678.1	-2333.5	-676.2	-1989.4	-585.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.35

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	163.1	163.2	164.1	164.2	165.1	165.2
TOP SURFACE STRESSES	LC1	-295.	-2556.	243.	-2020.	92.	-2108.
	LC2	-179.	-1505.	148.	-1116.	36.	-1216.
	LC3	-79.	-799.	110.	-722.	125.	-735.
	LC4	-1941.8	-16402.	1604.6	-12287.3	423.2	-13295.2
	LC5	-1021.8	-9906.8	1255.	-8662.4	1242.	-8870.
BOTTOM SURFACE STRESSES	LC1	-846.	-2319.	-92.	-2200.	-178.	-2091.
	LC2	-205.	-1346.	-49.	-1217.	-107.	-1201.
	LC3	-106.	-727.	-67.	-776.	-148.	-738.
	LC4	-2232.	-14702.2	-542.8	-13396.4	-1162.4	-13140.2
	LC5	-1321.2	-9007.4	-708.4	-9339.2	-1599.6	-8880.6
MEMBRANE STRESSES	LC1	-320.5	-2437.5	75.5	-2110.	-43.	-2099.5
	LC4	-2086.9	-15552.1	530.9	-12841.8	-369.6	-13217.7
	LC5	-1171.5	-[illegible]57.1	273.3	-9000.8	-148.8	-8875.3
TOP BENDING STRESSES	LC1	25.5	-118.5	167.5	90.	135.	-8.5
	LC4	145.1	-849.9	1073.7	554.6	792.8	-77.5
	LC5	149.7	-449.7	981.7	338.4	1390.8	5.3
BOTTOM BENDING STRESSES	LC1	-25.5	118.5	-167.5	-90.	-135.	8.5
	LC4	-145.1	849.9	-1073.7	-554.6	-792.8	77.5
	LC5	-149.7	449.7	-981.7	-338.4	-1390.8	-5.3

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E+W Wind, q=1.0PSF,
LC3 = N+S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.36

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	166.1	166.2	167.1	167.2	168.1	168.2
TOP	LC1	82.	-1782.	-55.	-1700.	-166.	-1539.
SURFACE	LC2	38.	-948.	-61.	-921.	-119.	-791.
STRESSES	LC3	136.	-698.	80.	-644.	-35.	-612.
	LC4	431.6	-10503.6	-616.2	-10173.2	-1260.8	-8816.2
	LC5	1333.2	-8203.6	681.	-7624.8	-488.	-7169.4
BOTTOM	LC1	-69.	-1877.	44.	-1770.	171.	-1552.
SURFACE	LC2	-12.	-995.	45.	-959.	134.	-789.
STRESSES	LC3	-170.	-738.	-85.	-657.	25.	-585.
	LC4	-179.4	-11031.	458.	-10592.8	1403.8	-8810.8
	LC5	-1633.	-8666.6	-738.	-7814.4	401.	-6934.
MEMBRANE	LC1	6.5	-1829.5	-5.5	-1735.	2.5	-1545.5
STRESSES	LC4	126.1	-10767.3	-79.1	-10383.	71.5	-8813.5
	LC5	-149.9	-8435.1	-28.5	-7719.6	-43.5	-7051.7
TOP	LC1	75.5	47.5	-49.5	35.	-168.5	6.5
BENDING	LC4	305.5	263.7	-537.1	209.8	-1332.3	-2.7
STRESSES	LC5	1483.1	231.5	709.5	94.8	-444.5	-117.7
BOTTOM	LC1	-75.5	-47.5	49.5	-35.	168.5	-6.5
BENDING	LC4	-305.5	-263.7	537.1	-209.8	1332.3	2.7
STRESSES	LC5	-1483.1	-231.5	-709.5	-94.8	444.5	117.7

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.37

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	169.1	169.2	170.1	170.2	171.1	171.2
TOP SURFACE STRESSES	LC1	-222.	-1365.	-220.	-1281.	-150.	-1270.
	LC2	-168.	-734.	-159.	-634.	-132.	-661.
	LC3	-121.	-513.	-191.	-517.	-163.	-439.
	LC4	-1767.6	-8117.8	-1682.8	-7113.8	-1364.4	-7351.2
	LC5	-1335.2	-6084.6	-1977.2	-6037.4	-1649.6	-5308.3
BOTTOM SURFACE STRESSES	LC1	249.	-1407.	270.	-1333.	190.	-1319.
	LC2	172.	-743.	201.	-646.	146.	-669.
	LC3	145.	-457.	212.	-431.	209.	-370.
	LC4	1831.4	-8242.6	2119.2	-7276.2	1533.2	-7463.6
	LC5	1583.	-5611.4	2220.4	-5298.2	2112.8	-4722.
MEMBRANE STRESSES	LC1	13.5	-1386.	25.	-1307.	20.	-1294.
	LC4	31.9	-8180.2	218.2	-7195.	84.4	-7407.4
	LC5	123.9	-5848.	121.6	-5667.8	231.6	-5015.4
TOP BENDING STRESSES	LC1	-235.5	21.	-245.	25.	-170.	24.
	LC4	-1799.5	62.4	-1901.	81.2	-1448.8	56.2
	LC5	-1459.1	-236.6	-2098.8	-369.6	-1881.2	-293.4
BOTTOM BENDING STRESSES	LC1	235.5	-21.	245.	-26.	170.	-24.
	LC4	1799.5	-62.4	1901.	-81.2	1448.8	-56.2
	LC5	1459.1	236.6	2098.8	369.6	1881.2	293.4

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.1.38

50 FT TALL BREECHED STEEL STACK MODEL CENTER OF ELEMENT STRESSES

ELEMENT NO	STRESS DIRECTION	172.1	172.2	173.1	173.2	174.1	174.2
TOP SURFACE STRESSES	LC1	-93.	-1347.	-152.	-1477.	-366.	-1434.
	LC2	-90.	-680.	-154.	-820.	-286.	-725.
	LC3	-101.	-470.	12.	-404.	78.	-453.
	LC4	-921.	-7603.	-1568.8	-9021.	-2997.2	-8104.
	LC5	-1022.2	-5671.	-41.6	-5193.8	351.6	-5656.8
BOTTOM SURFACE STRESSES	LC1	69.	-1385.	139.	-1308.	363.	-1305.
	LC2	83.	-673.	123.	-670.	300.	-605.
	LC3	93.	-434.	3.	-430.	-85.	-503.
	LC4	878.6	-7631.8	1316.6	-7472.	3123.	-6871.
	LC5	970.6	-5377.8	212.6	-5264.	-414.	-5932.6
MEMBRANE STRESSES	LC1	-12.	-1366.	-6.5	-1392.5	1.	-1369.5
	LC4	-21.2	-7617.4	-126.1	-8246.5	65.4	-7487.5
	LC5	-25.8	-5524.4	85.5	-5228.9	-31.2	-5794.7
TOP BENDING STRESSES	LC1	-81.	19.	-145.5	-84.5	-367.	-64.5
	LC4	-899.8	14.4	-1442.7	-774.5	-3062.6	-616.5
	LC5	-996.4	-146.6	-127.1	35.1	382.8	137.9
BOTTOM BENDING STRESSES	LC1	81.	-19.	145.5	84.5	367.	64.5
	LC4	899.8	-14.4	1442.7	774.5	3062.6	616.5
	LC5	996.4	146.6	127.1	-35.1	-382.8	-137.9

Note: 1 = Local element x stresses, 2 = Local element y stresses
LC = Load case, LC1 = Dead load, LC2 = E→W Wind, q=1.0PSF,
LC3 = N→S Wind, q=1.0PSF, LC4 = LC1 + 9.2LC2, LC5 = LC1 + 9.2LC3
Top Surface = Stack outside surface, Bottom Surface = Stack inside surface
All stresses are in PSI

B.2: MODEL II ELEMENT STRESSES FOR LOAD CASE 1+2 FOR ELEMENTS ABOUT AND ADJACENT TO THE BREECH

The following tables reflect the analysis stresses due to dead load self weight and East→West Wind at q = 9.2 PSF.

B.2.1 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	13.	PRT
TOP SURF STRESS IN X	24.	PRT
TOP SURF STRESS IN Y	2110.	PRT
BOT SURF STRESS IN X	398.	PRT
BOT SURF STRESS IN Y	1107.	PRT
MEMBRANE STRESS IN X	211.	PRT
TOP SURF BENDING STRESS IN X	-187.	PRT
BOT SURF BENDING STRESS IN X	187.	PRT
MEMBRANE STRESS IN Y	1608.5	PRT
TOP SURF BENDING STRESS IN Y	501.5	PRT
BOT SURF BENDING STRESS IN Y	-501.5	PRT

ELEMENT NUMBER	14.	PRT
TOP SURF STRESS IN X	-61.	PRT
TOP SURF STRESS IN Y	-751.	PRT
BOT SURF STRESS IN X	-352.	PRT
BOT SURF STRESS IN Y	-1335.	PRT
MEMBRANE STRESS IN X	-206.5	PRT
TOP SURF BENDING STRESS IN X	145.5	PRT
BOT SURF BENDING STRESS IN X	-145.5	PRT
MEMBRANE STRESS IN Y	-1043.	PRT
TOP SURF BENDING STRESS IN Y	292.	PRT
BOT SURF BENDING STRESS IN Y	-292.	PRT

ELEMENT NUMBER	15.	PRT
TOP SURF STRESS IN X	-574.	PRT
TOP SURF STRESS IN Y	-5437.	PRT
BOT SURF STRESS IN X	-807.	PRT
BOT SURF STRESS IN Y	-5331.	PRT
MEMBRANE STRESS IN X	-690.5	PRT
TOP SURF BENDING STRESS IN X	116.5	PRT
BOT SURF BENDING STRESS IN X	-116.5	PRT
MEMBRANE STRESS IN Y	-5384.	PRT
TOP SURF BENDING STRESS IN Y	-53.	PRT
BOT SURF BENDING STRESS IN Y	53.	PRT

B.2.2 200 FT TALL BREECHED STEEL STACK
MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	16.	PRT
TOP SURF STRESS IN X	-1382.	PRT
TOP SURF STRESS IN Y	-10367.	PRT
BOT SURF STRESS IN X	-943.	PRT
BOT SURF STRESS IN Y	-9446.	PRT
MEMBRANE STRESS IN X	-1162.5	PRT
TOP SURF BENDING STRESS IN X	-219.5	PRT
BOT SURF BENDING STRESS IN X	219.5	PRT
MEMBRANE STRESS IN Y	-9906.5	PRT
TOP SURF BENDING STRESS IN Y	-460.5	PRT
BOT SURF BENDING STRESS IN Y	460.5	PRT

ELEMENT NUMBER	17.	PRT
TOP SURF STRESS IN X	-1721.	PRT
TOP SURF STRESS IN Y	-13682.	PRT
BOT SURF STRESS IN X	-1309.	PRT
BOT SURF STRESS IN Y	-12253.	PRT
MEMBRANE STRESS IN X	-1515.	PRT
TOP SURF BENDING STRESS IN X	-206.	PRT
BOT SURF BENDING STRESS IN X	206.	PRT
MEMBRANE STRESS IN Y	-12967.5	PRT
TOP SURF BENDING STRESS IN Y	-714.5	PRT
BOT SURF BENDING STRESS IN Y	714.5	PRT

ELEMENT NUMBER	18.	PRT
TOP SURF STRESS IN X	-1747.	PRT
TOP SURF STRESS IN Y	-15157.	PRT
BOT SURF STRESS IN X	-2051.	PRT
BOT SURF STRESS IN Y	-13595.	PRT
MEMBRANE STRESS IN X	-1899.	PRT
TOP SURF BENDING STRESS IN X	152.	PRT
BOT SURF BENDING STRESS IN X	-152.	PRT
MEMBRANE STRESS IN Y	-14376.	PRT
TOP SURF BENDING STRESS IN Y	-781.	PRT
BOT SURF BENDING STRESS IN Y	781.	PRT

B.2.3 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	32.	PRT
TOP SURF STRESS IN X	-639.	PRT
TOP SURF STRESS IN Y	1224.	PRT
BOT SURF STRESS IN X	801.	PRT
BOT SURF STRESS IN Y	933.	PRT
MEMBRANE STRESS IN X	81.	PRT
TOP SURF BENDING STRESS IN X	-720.	PRT
BOT SURF BENDING STRESS IN X	720.	PRT
MEMBRANE STRESS IN Y	1078.5	PRT
TOP SURF BENDING STRESS IN Y	145.5	PRT
BOT SURF BENDING STRESS IN Y	-145.5	PRT
ELEMENT NUMBER	33.	PRT
TOP SURF STRESS IN X	-420.	PRT
TOP SURF STRESS IN Y	151.	PRT
BOT SURF STRESS IN X	17.	PRT
BOT SURF STRESS IN Y	-858.	PRT
MEMBRANE STRESS IN X	-201.5	PRT
TOP SURF BENDING STRESS IN X	-218.5	PRT
BOT SURF BENDING STRESS IN X	218.5	PRT
MEMBRANE STRESS IN Y	-353.5	PRT
TOP SURF BENDING STRESS IN Y	504.5	PRT
BOT SURF BENDING STRESS IN Y	-504.5	PRT
ELEMENT NUMBER	34.	PRT
TOP SURF STRESS IN X	165.	PRT
TOP SURF STRESS IN Y	-4693.	PRT
BOT SURF STRESS IN X	-396.	PRT
BOT SURF STRESS IN Y	-5517.	PRT
MEMBRANE STRESS IN X	-115.5	PRT
TOP SURF BENDING STRESS IN X	280.5	PRT
BOT SURF BENDING STRESS IN X	-280.5	PRT
MEMBRANE STRESS IN Y	-5105.	PRT
TOP SURF BENDING STRESS IN Y	412.	PRT
BOT SURF BENDING STRESS IN Y	-412.	PRT

B.2.4 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	35.	PRT
TOP SURF STRESS IN X	604.	PRT
TOP SURF STRESS IN Y	-10848.	PRT
BOT SURF STRESS IN X	69.	PRT
BOT SURF STRESS IN Y	-10949.	PRT
MEMBRANE STRESS IN X	336.5	PRT
TOP SURF BENDING STRESS IN X	267.5	PRT
BOT SURF BENDING STRESS IN X	-267.5	PRT
MEMBRANE STRESS IN Y	-10898.5	PRT
TOP SURF BENDING STRESS IN Y	50.5	PRT
BOT SURF BENDING STRESS IN Y	-50.5	PRT

ELEMENT NUMBER	36.	PRT
TOP SURF STRESS IN X	860.	PRT
TOP SURF STRESS IN Y	-13872.	PRT
BOT SURF STRESS IN X	-31.	PRT
BOT SURF STRESS IN Y	-13891.	PRT
MEMBRANE STRESS IN X	414.5	PRT
TOP SURF BENDING STRESS IN X	445.5	PRT
BOT SURF BENDING STRESS IN X	-445.5	PRT
MEMBRANE STRESS IN Y	-13881.5	PRT
TOP SURF BENDING STRESS IN Y	9.5	PRT
BOT SURF BENDING STRESS IN Y	-9.5	PRT

ELEMENT NUMBER	37.	PRT
TOP SURF STRESS IN X	1602.	PRT
TOP SURF STRESS IN Y	-11737.	PRT
BOT SURF STRESS IN X	-575.	PRT
BOT SURF STRESS IN Y	-13089.	PRT
MEMBRANE STRESS IN X	513.5	PRT
TOP SURF BENDING STRESS IN X	1088.5	PRT
BOT SURF BENDING STRESS IN X	-1088.5	PRT
MEMBRANE STRESS IN Y	-12413.	PRT
TOP SURF BENDING STRESS IN Y	676.	PRT
BOT SURF BENDING STRESS IN Y	-676.	PRT

B.2.5 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	47.	PRT
TOP SURF STRESS IN X	-779.	PRT
TOP SURF STRESS IN Y	201.	PRT
BOT SURF STRESS IN X	434.	PRT
BOT SURF STRESS IN Y	187.	PRT
MEMBRANE STRESS IN X	-172.5	PRT
TOP SURF BENDING STRESS IN X	-606.5	PRT
BOT SURF BENDING STRESS IN X	606.5	PRT
MEMBRANE STRESS IN Y	194.	PRT
TOP SURF BENDING STRESS IN Y	7.	PRT
BOT SURF BENDING STRESS IN Y	-7.	PRT
ELEMENT NUMBER	48.	PRT
TOP SURF STRESS IN X	-1390.	PRT
TOP SURF STRESS IN Y	629.	PRT
BOT SURF STRESS IN X	2485.	PRT
BOT SURF STRESS IN Y	578.	PRT
MEMBRANE STRESS IN X	547.5	PRT
TOP SURF BENDING STRESS IN X	-1937.5	PRT
BOT SURF BENDING STRESS IN X	1937.5	PRT
MEMBRANE STRESS IN Y	603.5	PRT
TOP SURF BENDING STRESS IN Y	25.5	PRT
BOT SURF BENDING STRESS IN Y	-25.5	PRT
ELEMENT NUMBER	49.	PRT
TOP SURF STRESS IN X	391.	PRT
TOP SURF STRESS IN Y	-4567.	PRT
BOT SURF STRESS IN X	588.	PRT
BOT SURF STRESS IN Y	-3993.	PRT
MEMBRANE STRESS IN X	489.5	PRT
TOP SURF BENDING STRESS IN X	-98.5	PRT
BOT SURF BENDING STRESS IN X	98.5	PRT
MEMBRANE STRESS IN Y	-4280.	PRT
TOP SURF BENDING STRESS IN Y	-287.	PRT
BOT SURF BENDING STRESS IN Y	287.	PRT

B.2.6 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	50.	PRT
TOP SURF STRESS IN X	1153.	PRT
TOP SURF STRESS IN Y	-14400.	PRT
BOT SURF STRESS IN X	-721.	PRT
BOT SURF STRESS IN Y	-10614.	PRT
MEMBRANE STRESS IN X	216.	PRT
TOP SURF BENDING STRESS IN X	937.	PRT
BOT SURF BENDING STRESS IN X	-937.	PRT
MEMBRANE STRESS IN Y	-12507.	PRT
TOP SURF BENDING STRESS IN Y	-1893.	PRT
BOT SURF BENDING STRESS IN Y	1893.	PRT
ELEMENT NUMBER	51.	PRT
TOP SURF STRESS IN X	1130.	PRT
TOP SURF STRESS IN Y	-14689.	PRT
BOT SURF STRESS IN X	-1338.	PRT
BOT SURF STRESS IN Y	-13392.	PRT
MEMBRANE STRESS IN X	-104.	PRT
TOP SURF BENDING STRESS IN X	1234.	PRT
BOT SURF BENDING STRESS IN X	-1234.	PRT
MEMBRANE STRESS IN Y	-14040.5	PRT
TOP SURF BENDING STRESS IN Y	-648.5	PRT
BOT SURF BENDING STRESS IN Y	648.5	PRT
ELEMENT NUMBER	52.	PRT
TOP SURF STRESS IN X	432.	PRT
TOP SURF STRESS IN Y	-13617.	PRT
BOT SURF STRESS IN X	-1148.	PRT
BOT SURF STRESS IN Y	-12943.	PRT
MEMBRANE STRESS IN X	-358.	PRT
TOP SURF BENDING STRESS IN X	790.	PRT
BOT SURF BENDING STRESS IN X	-790.	PRT
MEMBRANE STRESS IN Y	-13280.	PRT
TOP SURF BENDING STRESS IN Y	-337.	PRT
BOT SURF BENDING STRESS IN Y	337.	PRT

B.2.7 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	59.	PRT
TOP SURF STRESS IN X	1103.	PRT
TOP SURF STRESS IN Y	-17878.	PRT
BOT SURF STRESS IN X	-1854.	PRT
BOT SURF STRESS IN Y	-16963.	PRT
MEMBRANE STRESS IN X	-375.5	PRT
TOP SURF BENDING STRESS IN X	1478.5	PRT
BOT SURF BENDING STRESS IN X	-1478.5	PRT
MEMBRANE STRESS IN Y	-17420.5	PRT
TOP SURF BENDING STRESS IN Y	-457.5	PRT
BOT SURF BENDING STRESS IN Y	457.5	PRT
ELEMENT NUMBER	60.	PRT
TOP SURF STRESS IN X	1461.	PRT
TOP SURF STRESS IN Y	-13436.	PRT
BOT SURF STRESS IN X	-1940.	PRT
BOT SURF STRESS IN Y	-14459.	PRT
MEMBRANE STRESS IN X	-239.5	PRT
TOP SURF BENDING STRESS IN X	1700.5	PRT
BOT SURF BENDING STRESS IN X	-1700.5	PRT
MEMBRANE STRESS IN Y	-13947.5	PRT
TOP SURF BENDING STRESS IN Y	511.5	PRT
BOT SURF BENDING STRESS IN Y	-511.5	PRT
ELEMENT NUMBER	61.	PRT
TOP SURF STRESS IN X	706.	PRT
TOP SURF STRESS IN Y	-10917.	PRT
BOT SURF STRESS IN X	-515.	PRT
BOT SURF STRESS IN Y	-11472.	PRT
MEMBRANE STRESS IN X	95.5	PRT
TOP SURF BENDING STRESS IN X	610.5	PRT
BOT SURF BENDING STRESS IN X	-610.5	PRT
MEMBRANE STRESS IN Y	-11194.5	PRT
TOP SURF BENDING STRESS IN Y	277.5	PRT
BOT SURF BENDING STRESS IN Y	-277.5	PRT

B.2.8 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	72.	PRT
TOP SURF STRESS IN X	834.	PRT
TOP SURF STRESS IN Y	-17076.	PRT
BOT SURF STRESS IN X	-828.	PRT
BOT SURF STRESS IN Y	-19629.	PRT
MEMBRANE STRESS IN X	3.	PRT
TOP SURF BENDING STRESS IN X	831.	PRT
BOT SURF BENDING STRESS IN X	-831.	PRT
MEMBRANE STRESS IN Y	-18352.5	PRT
TOP SURF BENDING STRESS IN Y	1276.5	PRT
BOT SURF BENDING STRESS IN Y	-1276.5	PRT

ELEMENT NUMBER	73.	PRT
TOP SURF STRESS IN X	859.	PRT
TOP SURF STRESS IN Y	-13327.	PRT
BOT SURF STRESS IN X	-977.	PRT
BOT SURF STRESS IN Y	-14530.	PRT
MEMBRANE STRESS IN X	-59.	PRT
TOP SURF BENDING STRESS IN X	918.	PRT
BOT SURF BENDING STRESS IN X	-918.	PRT
MEMBRANE STRESS IN Y	-13928.5	PRT
TOP SURF BENDING STRESS IN Y	601.5	PRT
BOT SURF BENDING STRESS IN Y	-601.5	PRT

ELEMENT NUMBER	74.	PRT
TOP SURF STRESS IN X	-50.	PRT
TOP SURF STRESS IN Y	-10867.	PRT
BOT SURF STRESS IN X	-94.	PRT
BOT SURF STRESS IN Y	-11309.	PRT
MEMBRANE STRESS IN X	-72.	PRT
TOP SURF BENDING STRESS IN X	22.	PRT
BOT SURF BENDING STRESS IN X	-22.	PRT
MEMBRANE STRESS IN Y	-11088.	PRT
TOP SURF BENDING STRESS IN Y	221.	PRT
BOT SURF BENDING STRESS IN Y	-221.	PRT

B.2.9 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	85.	PRT
TOP SURF STRESS IN X	177.	PRT
TOP SURF STRESS IN Y	-18591.	PRT
BOT SURF STRESS IN X	-201.	PRT
BOT SURF STRESS IN Y	-20121.	PRT
MEMBRANE STRESS IN X	-12.	PRT
TOP SURF BENDING STRESS IN X	189.	PRT
BOT SURF BENDING STRESS IN X	-189.	PRT
MEMBRANE STRESS IN Y	-19356.	PRT
TOP SURF BENDING STRESS IN Y	765.	PRT
BOT SURF BENDING STRESS IN Y	-765.	PRT
ELEMENT NUMBER	86.	PRT
TOP SURF STRESS IN X	594.	PRT
TOP SURF STRESS IN Y	-13197.	PRT
BOT SURF STRESS IN X	-576.	PRT
BOT SURF STRESS IN Y	-14435.	PRT
MEMBRANE STRESS IN X	9.	PRT
TOP SURF BENDING STRESS IN X	585.	PRT
BOT SURF BENDING STRESS IN X	-585.	PRT
MEMBRANE STRESS IN Y	-13816.	PRT
TOP SURF BENDING STRESS IN Y	619.	PRT
BOT SURF BENDING STRESS IN Y	-619.	PRT
ELEMENT NUMBER	87.	PRT
TOP SURF STRESS IN X	-469.	PRT
TOP SURF STRESS IN Y	-9972.	PRT
BOT SURF STRESS IN X	608.	PRT
BOT SURF STRESS IN Y	-10076.	PRT
MEMBRANE STRESS IN X	69.5	PRT
TOP SURF BENDING STRESS IN X	-538.5	PRT
BOT SURF BENDING STRESS IN X	538.5	PRT
MEMBRANE STRESS IN Y	-10024.	PRT
TOP SURF BENDING STRESS IN Y	52.	PRT
BOT SURF BENDING STRESS IN Y	-52.	PRT

B.2.10 200 FT TALL BREECHED STEEL STACK

MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	94.	PRT
TOP SURF STRESS IN X	1378.	PRT
TOP SURF STRESS IN Y	-17872.	PRT
BOT SURF STRESS IN X	-1223.	PRT
BOT SURF STRESS IN Y	-23200.	PRT
MEMBRANE STRESS IN X	77.5	PRT
TOP SURF BENDING STRESS IN X	1300.5	PRT
BOT SURF BENDING STRESS IN X	-1300.5	PRT
MEMBRANE STRESS IN Y	-20536.	PRT
TOP SURF BENDING STRESS IN Y	2664.	PRT
BOT SURF BENDING STRESS IN Y	-2664.	PRT
ELEMENT NUMBER	95.	PRT
TOP SURF STRESS IN X	1301.	PRT
TOP SURF STRESS IN Y	-11932.	PRT
BOT SURF STRESS IN X	-1698.	PRT
BOT SURF STRESS IN Y	-14526.	PRT
MEMBRANE STRESS IN X	-198.5	PRT
TOP SURF BENDING STRESS IN X	1499.5	PRT
BOT SURF BENDING STRESS IN X	-1499.5	PRT
MEMBRANE STRESS IN Y	-13229.	PRT
TOP SURF BENDING STRESS IN Y	1297.	PRT
BOT SURF BENDING STRESS IN Y	-1297.	PRT
ELEMENT NUMBER	96.	PRT
TOP SURF STRESS IN X	-869.	PRT
TOP SURF STRESS IN Y	-9795.	PRT
BOT SURF STRESS IN X	804.	PRT
BOT SURF STRESS IN Y	-10037.	PRT
MEMBRANE STRESS IN X	-32.5	PRT
TOP SURF BENDING STRESS IN X	-836.5	PRT
BOT SURF BENDING STRESS IN X	836.5	PRT
MEMBRANE STRESS IN Y	-9916.	PRT
TOP SURF BENDING STRESS IN Y	121.	PRT
BOT SURF BENDING STRESS IN Y	-121.	PRT

B.2.11 200 FT TALL BREECHED STEEL STACK
MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	103.	PRT
TOP SURF STRESS IN X	3674.	PRT
TOP SURF STRESS IN Y	-19472.	PRT
BOT SURF STRESS IN X	-5703.	PRT
BOT SURF STRESS IN Y	-24487.	PRT
MEMBRANE STRESS IN X	-1014.5	PRT
TOP SURF BENDING STRESS IN X	4688.5	PRT
BOT SURF BENDING STRESS IN X	-4688.5	PRT
MEMBRANE STRESS IN Y	-21979.5	PRT
TOP SURF BENDING STRESS IN Y	2507.5	PRT
BOT SURF BENDING STRESS IN Y	-2507.5	PRT
ELEMENT NUMBER	104.	PRT
TOP SURF STRESS IN X	2701.	PRT
TOP SURF STRESS IN Y	-10011.	PRT
BOT SURF STRESS IN X	-3117.	PRT
BOT SURF STRESS IN Y	-13908.	PRT
MEMBRANE STRESS IN X	-208.	PRT
TOP SURF BENDING STRESS IN X	2909.	PRT
BOT SURF BENDING STRESS IN X	-2909.	PRT
MEMBRANE STRESS IN Y	-11959.5	PRT
TOP SURF BENDING STRESS IN Y	1948.5	PRT
BOT SURF BENDING STRESS IN Y	-1948.5	PRT
ELEMENT NUMBER	105.	PRT
TOP SURF STRESS IN X	-509.	PRT
TOP SURF STRESS IN Y	-8732.	PRT
BOT SURF STRESS IN X	857.	PRT
BOT SURF STRESS IN Y	-9207.	PRT
MEMBRANE STRESS IN X	174.	PRT
TOP SURF BENDING STRESS IN X	-683.	PRT
BOT SURF BENDING STRESS IN X	683.	PRT
MEMBRANE STRESS IN Y	-8969.5	PRT
TOP SURF BENDING STRESS IN Y	237.5	PRT
BOT SURF BENDING STRESS IN Y	-237.5	PRT

B.2.12 200 FT TALL BREECHED STEEL STACK
MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	119.	PRT
TOP SURF STRESS IN X	-6627.	PRT
TOP SURF STRESS IN Y	-711.	PRT
BOT SURF STRESS IN X	7394.	PRT
BOT SURF STRESS IN Y	1150.	PRT
MEMBRANE STRESS IN X	383.5	PRT
TOP SURF BENDING STRESS IN X	-7010.5	PRT
BOT SURF BENDING STRESS IN X	7010.5	PRT
MEMBRANE STRESS IN Y	219.5	PRT
TOP SURF BENDING STRESS IN Y	-930.5	PRT
BOT SURF BENDING STRESS IN Y	930.5	PRT

ELEMENT NUMBER	120.	PRT
TOP SURF STRESS IN X	-2531.	PRT
TOP SURF STRESS IN Y	614.	PRT
BOT SURF STRESS IN X	4522.	PRT
BOT SURF STRESS IN Y	671.	PRT
MEMBRANE STRESS IN X	995.5	PRT
TOP SURF BENDING STRESS IN X	-3526.5	PRT
BOT SURF BENDING STRESS IN X	3526.5	PRT
MEMBRANE STRESS IN Y	642.5	PRT
TOP SURF BENDING STRESS IN Y	-28.5	PRT
BOT SURF BENDING STRESS IN Y	28.5	PRT

ELEMENT NUMBER	121.	PRT
TOP SURF STRESS IN X	5759.	PRT
TOP SURF STRESS IN Y	-6478.	PRT
BOT SURF STRESS IN X	-6258.	PRT
BOT SURF STRESS IN Y	-7597.	PRT
MEMBRANE STRESS IN X	-249.5	PRT
TOP SURF BENDING STRESS IN X	6008.5	PRT
BOT SURF BENDING STRESS IN X	-6008.5	PRT
MEMBRANE STRESS IN Y	-7037.5	PRT
TOP SURF BENDING STRESS IN Y	559.5	PRT
BOT SURF BENDING STRESS IN Y	-559.5	PRT

B.2.13 200 FT TALL BREECHED STEEL STACK
MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	122.	PRT
TOP SURF STRESS IN X	5521.	PRT
TOP SURF STRESS IN Y	-14824.	PRT
BOT SURF STRESS IN X	-5618.	PRT
BOT SURF STRESS IN Y	-15033.	PRT
MEMBRANE STRESS IN X	-48.5	PRT
TOP SURF BENDING STRESS IN X	5569.5	PRT
BOT SURF BENDING STRESS IN X	-5569.5	PRT
MEMBRANE STRESS IN Y	-14928.5	PRT
TOP SURF BENDING STRESS IN Y	104.5	PRT
BOT SURF BENDING STRESS IN Y	-104.5	PRT
ELEMENT NUMBER	123.	PRT
TOP SURF STRESS IN X	2851.	PRT
TOP SURF STRESS IN Y	-11460.	PRT
BOT SURF STRESS IN X	-3090.	PRT
BOT SURF STRESS IN Y	-13496.	PRT
MEMBRANE STRESS IN X	-119.5	PRT
TOP SURF BENDING STRESS IN X	2970.5	PRT
BOT SURF BENDING STRESS IN X	-2970.5	PRT
MEMBRANE STRESS IN Y	-12478.	PRT
TOP SURF BENDING STRESS IN Y	1018.	PRT
BOT SURF BENDING STRESS IN Y	-1018.	PRT
ELEMENT NUMBER	124.	PRT
TOP SURF STRESS IN X	39.	PRT
TOP SURF STRESS IN Y	-9047.	PRT
BOT SURF STRESS IN X	-31.	PRT
BOT SURF STRESS IN Y	-9610.	PRT
MEMBRANE STRESS IN X	4.	PRT
TOP SURF BENDING STRESS IN X	35.	PRT
BOT SURF BENDING STRESS IN X	-35.	PRT
MEMBRANE STRESS IN Y	-9328.5	PRT
TOP SURF BENDING STRESS IN Y	281.5	PRT
BOT SURF BENDING STRESS IN Y	-281.5	PRT

B.2.14 200 FT TALL BREECHED STEEL STACK
MODEL CENTER OF ELEMENT STRESSES

ELEMENT NUMBER	138.	PRT
TOP SURF STRESS IN X	-4057.	PRT
TOP SURF STRESS IN Y	118.	PRT
BOT SURF STRESS IN X	4806.	PRT
BOT SURF STRESS IN Y	1674.	PRT
MEMBRANE STRESS IN X	374.5	PRT
TOP SURF BENDING STRESS IN X	-4431.5	PRT
BOT SURF BENDING STRESS IN X	4431.5	PRT
MEMBRANE STRESS IN Y	896.	PRT
TOP SURF BENDING STRESS IN Y	-778.	PRT
BOT SURF BENDING STRESS IN Y	778.	PRT
ELEMENT NUMBER	139.	PRT
TOP SURF STRESS IN X	-1057.	PRT
TOP SURF STRESS IN Y	-1475.	PRT
BOT SURF STRESS IN X	247.	PRT
BOT SURF STRESS IN Y	-1753.	PRT
MEMBRANE STRESS IN X	-405.	PRT
TOP SURF BENDING STRESS IN X	-652.	PRT
BOT SURF BENDING STRESS IN X	652.	PRT
MEMBRANE STRESS IN Y	-1614.	PRT
TOP SURF BENDING STRESS IN Y	139.	PRT
BOT SURF BENDING STRESS IN Y	-139.	PRT
ELEMENT NUMBER	140.	PRT
TOP SURF STRESS IN X	2575.	PRT
TOP SURF STRESS IN Y	-6945.	PRT
BOT SURF STRESS IN X	-3061.	PRT
BOT SURF STRESS IN Y	-8231.	PRT
MEMBRANE STRESS IN X	-243.	PRT
TOP SURF BENDING STRESS IN X	2818.	PRT
BOT SURF BENDING STRESS IN X	-2818.	PRT
MEMBRANE STRESS IN Y	-7588.	PRT
TOP SURF BENDING STRESS IN Y	643.	PRT
BOT SURF BENDING STRESS IN Y	-643.	PRT

C.1.1 MODEL I JOINT DEFLECTIONS

Joint No.	117.	119.	121.	123.
Ux-LC1	0.	-0.01909	-0.06724	0.06459
Ux-LC2	0.	-0.01327	-0.02626	0.06293
Ux-LC3	0.	0.	0.	0.
Ux-LC4	0.	-0.141174	-0.308832	0.642546
Ux-LC5	0.	-0.01909	-0.06724	0.06459
Uy-LC1	0.	0.	0.	0.
Uy-LC2	0.	0.	0.	0.
Uy-LC3	0.	-0.0007	0.05631	0.05668
Uy-LC4	0.	0.	0.	0.
Uy-LC5	0.	-0.00644	0.518052	0.521456
Uz-LC1	0.	0.00083	-0.05977	-0.05948
Uz-LC2	0.	0.00057	-0.03992	-0.03975
Uz-LC3	0.	0.	0.	0.
Uz-LC4	0.	0.006074	-0.427034	-0.42518
Uz-LC5	0.	0.00083	-0.05977	-0.05948

Joint No.	118.	120.	122.	124.
Ux-LC1	-0.00587	-0.02985	-0.01196	0.12746
Ux-LC2	-0.00398	-0.02096	0.01094	0.10632
Ux-LC3	0.	0.	0.	0.
Ux-LC4	-0.042486	-0.222682	0.088688	1.105604
Ux-LC5	-0.00587	-0.02985	-0.01196	0.12746
Uy-LC1	0.	0.	0.	0.
Uy-LC2	0.	0.	0.	0.
Uy-LC3	-0.00018	-0.00109	0.05643	0.05722
Uy-LC4	0.	0.	0.	0.
Uy-LC5	-0.001656	-0.010028	0.519156	0.526424
Uz-LC1	0.00053	0.0009	-0.0597	-0.05931
Uz-LC2	0.00037	0.00063	-0.03988	-0.03965
Uz-LC3	0.	0.	0.	0.
Uz-LC4	0.003934	0.006696	-0.426596	-0.42409
Uz-LC5	0.00053	0.0009	-0.0597	-0.05931

Note: LC1 — Dead load, LC2 — Unit Wind, E→W,
LC3 — Unit Wind, N→S, LC4 — LC1 + 9.2 LC2,
LC5 — LC1 + 9.2 LC3, Ux — Global radial translation, In
Uy — Global tangential translation, In
Uz — Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.2 MODEL I JOINT DEFLECTIONS

Joint No.	125.	127.	129.	131.
Ux-LC1	0.21168	0.40544	-0.00355	-0.02725
Ux-LC2	0.16599	0.30888	-0.00228	-0.01838
Ux-LC3	0.	0.	-0.00198	-0.0062
Ux-LC4	1.738788	3.247136	-0.024526	-0.196346
Ux-LC5	0.21168	0.40544	-0.021766	-0.08429
Uy-LC1	0.	0.	0.00049	0.00343
Uy-LC2	0.	0.	0.00033	0.00237
Uy-LC3	0.05891	0.06764	-0.00007	-0.00073
Uy-LC4	0.	0.	0.003526	0.025234
Uy-LC5	0.541972	0.622288	-0.000154	-0.003286
Uz-LC1	-0.06002	-0.06558	0.00017	0.00043
Uz-LC2	-0.04012	-0.04367	0.00011	0.00028
Uz-LC3	0.	0.	0.00021	0.00033
Uz-LC4	-0.429124	-0.467344	0.001182	0.003006
Uz-LC5	-0.06002	-0.06558	0.002102	0.003466

Joint No.	126.	128.	130.	132.
Ux-LC1	0.30998	0.	-0.01537	-0.0421
Ux-LC2	0.23784	0.	-0.01025	-0.01146
Ux-LC3	0.	0.	-0.00464	0.04421
Ux-LC4	2.498108	0.	-0.10967	-0.147532
Ux-LC5	0.30998	0.	-0.058058	0.364632
Uy-LC1	0.	0.	0.00212	0.00682
Uy-LC2	0.	0.	0.00145	0.0024
Uy-LC3	0.06267	0.	-0.00041	0.05364
Uy-LC4	0.	0.	0.01546	0.0289
Uy-LC5	0.576564	0.	-0.001652	0.500308
Uz-LC1	-0.06243	0.	0.00042	-0.0568
Uz-LC2	-0.04167	0.	0.00028	-0.03791
Uz-LC3	0.	0.	0.00031	-0.00012
Uz-LC4	-0.445794	0.	0.002996	-0.405572
Uz-LC5	-0.06243	0.	0.003272	-0.057904

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.3 MODEL I JOINT DEFLECTIONS

Joint No.	133.	135.	137.	139.
Ux-LC1	0.00551	0.11991	0.28491	0.
Ux-LC2	0.02085	0.10032	0.2206	0.
Ux-LC3	0.04185	0.03232	0.01843	0.
Ux-LC4	0.19733	1.042854	2.31443	0.
Ux-LC5	0.39053	0.417254	0.454466	0.
Uy-LC1	0.00045	-0.01511	-0.03621	0.
Uy-LC2	-0.00191	-0.01262	-0.02793	0.
Uy-LC3	0.05386	0.05526	0.06156	0.
Uy-LC4	-0.017122	-0.131214	-0.293166	0.
Uy-LC5	0.495962	0.493282	0.530142	0.
Uz-LC1	-0.05686	-0.05708	-0.06092	0.
Uz-LC2	-0.03795	-0.03811	-0.04057	0.
Uz-LC3	-0.00015	-0.00035	-0.00101	0.
Uz-LC4	-0.406	-0.407692	-0.434164	0.
Uz-LC5	-0.05824	-0.0603	-0.070212	0.

Joint No.	134.	136.	138.	140.
Ux-LC1	0.06827	0.19429	0.37355	0.00062
Ux-LC2	0.06406	0.15371	0.28722	0.00074
Ux-LC3	0.03746	0.02545	0.01237	-0.00245
Ux-LC4	0.657622	1.608422	3.015974	0.007428
Ux-LC5	0.412902	0.42843	0.487354	-0.02192
Uy-LC1	-0.00813	-0.02468	-0.04741	0.00071
Uy-LC2	-0.00777	-0.01946	-0.03631	0.00045
Uy-LC3	0.05439	0.05737	0.06689	0.00015
Uy-LC4	-0.079614	-0.203712	-0.381462	0.00485
Uy-LC5	0.492258	0.503124	0.567978	0.00209
Uz-LC1	-0.05675	-0.05828	-0.0641	-0.00073
Uz-LC2	-0.03789	-0.03889	-0.04257	-0.00051
Uz-LC3	-0.00018	-0.00066	-0.00129	0.0003
Uz-LC4	-0.485338	-0.416068	-0.455744	-0.005422
Uz-LC5	-0.058406	-0.064352	-0.075968	0.00203

Note: LC1 – Dead load, LC2 – Unit Wind, E→W,
LC3 – Unit Wind, N→S, LC4 – LC1 + 9.2 LC2,
LC5 – LC1 + 9.2 LC3, Ux – Global radial translation, In
Uy – Global tangential translation, In
Uz – Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.4 MODEL I JOINT DEFLECTIONS

Joint No.	141.	143.	145.	147.
Ux-LC1	-0.00493	0.0246	0.07105	0.14765
Ux-LC2	-0.00218	0.02781	0.0626	0.12059
Ux-LC3	-0.0077	0.07982	0.06498	0.04712
Ux-LC4	-0.024986	0.280452	0.64697	1.257078
Ux-LC5	-0.07577	0.758944	0.668866	0.581154
Uy-LC1	0.0033	0.00829	-0.0165	-0.04538
Uy-LC2	0.00217	0.00165	-0.01542	-0.0361
Uy-LC3	0.00035	0.04614	0.04816	0.05297
Uy-LC4	0.023264	0.02347	-0.158364	-0.3775
Uy-LC5	0.00652	0.432778	0.426572	0.441944
Uz-LC1	-0.00121	-0.0487	-0.04971	-0.05341
Uz-LC2	-0.00087	-0.03242	-0.03306	-0.03539
Uz-LC3	0.00056	-0.00043	-0.0007	-0.00158
Uz-LC4	-0.009214	-0.346964	-0.353862	-0.378998
Uz-LC5	0.003942	-0.052656	-0.05615	-0.067946

Joint No.	142.	144.	146.	148.
Ux-LC1	-0.01334	0.04444	0.09824	0.21638
Ux-LC2	-0.0071	0.04246	0.08323	0.17329
Ux-LC3	-0.01204	0.0736	0.05739	0.03592
Ux-LC4	-0.07866	0.435072	0.863956	1.810648
Ux-LC5	-0.124108	0.72156	0.626228	0.546844
Uy-LC1	0.0061	-0.0027	-0.0283	-0.06666
Uy-LC2	0.00406	-0.00585	-0.02376	-0.05189
Uy-LC3	0.00035	0.04676	0.04981	0.05827
Uy-LC4	0.043452	-0.05652	-0.246892	-0.544048
Uy-LC5	0.00932	0.427492	0.429952	0.469424
Uz-LC1	-0.00112	-0.04859	-0.05113	-0.05661
Uz-LC2	-0.00081	-0.03236	-0.03396	-0.03738
Uz-LC3	0.00056	-0.00041	-0.00104	-0.00223
Uz-LC4	-0.008572	-0.346302	-0.363562	-0.400506
Uz-LC5	0.004032	-0.052362	-0.060698	-0.077126

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.5 MODEL I JOINT DEFLECTIONS

Joint No.	149.	150.	152.	154.
Ux-LC1	0.28522	0.	0.00594	0.06357
Ux-LC2	0.22705	0.	0.00565	0.04578
Ux-LC3	0.0261	0.	-0.00646	0.00334
Ux-LC4	2.37408	0.	0.05792	0.484746
Ux-LC5	0.52534	0.	-0.053492	0.094298
Uy-LC1	-0.08746	0.	0.00338	0.01354
Uy-LC2	-0.06762	0.	0.00206	0.00805
Uy-LC3	0.06458	0.	0.00113	0.00683
Uy-LC4	-0.709564	0.	0.022332	0.0876
Uy-LC5	0.506676	0.	0.013776	0.076376
Uz-LC1	-0.05987	0.	-0.0038	-0.01012
Uz-LC2	-0.03939	0.	-0.00259	-0.007
Uz-LC3	-0.00278	0.	0.00036	0.00162
Uz-LC4	-0.422258	0.	-0.027628	-0.07452
Uz-LC5	-0.085446	0.	-0.000488	0.004784

Joint No.	151.	153.	155.
Ux-LC1	0.00317	0.01417	0.10952
Ux-LC2	0.00254	0.01256	0.07544
Ux-LC3	-0.00149	-0.01185	0.0318
Ux-LC4	0.026538	0.129722	0.803568
Ux-LC5	-0.010538	-0.09485	0.40208
Uy-LC1	0.00075	0.00644	0.01856
Uy-LC2	0.00044	0.00398	0.0104
Uy-LC3	0.00034	0.00191	0.01424
Uy-LC4	0.004798	0.043056	0.11424
Uy-LC5	0.003878	0.024012	0.149568
Uz-LC1	-0.00178	-0.00536	-0.01527
Uz-LC2	-0.00121	-0.00369	-0.01046
Uz-LC3	0.00015	0.00068	0.00192
Uz-LC4	-0.012912	-0.039308	-0.111502
Uz-LC5	-0.0004	0.000896	0.002394

Note: LC1 = Dead load, LC2 = Unit Wind, E+W,
LC3 = Unit Wind, N+S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.6 MODEL I JOINT DEFLECTIONS

Joint No.	156.	158.	160.	162.
Ux-LC1	0.13599	0.08962	0.06259	0.08524
Ux-LC2	0.09231	0.06543	0.05294	0.07577
Ux-LC3	0.06206	0.09386	0.07776	0.06224
Ux-LC4	0.985242	0.691576	0.549638	0.782324
Ux-LC5	0.706942	0.953132	0.777982	0.657848
Uy-LC1	0.01943	0.00158	-0.02432	-0.05933
Uy-LC2	0.00985	-0.00398	-0.10226	-0.04793
Uy-LC3	0.02248	0.03549	0.03949	0.04634
Uy-LC4	0.11005	-0.034116	-0.229112	-0.500296
Uy-LC5	0.226246	0.328088	0.338988	0.366998
Uz-LC1	-0.0211	-0.0353	-0.04078	-0.04636
Uz-LC2	-0.0143	-0.02337	-0.0268	-0.03026
Uz-LC3	0.00165	-0.00072	-0.00181	-0.00291
Uz-LC4	-0.15266	-0.250304	-0.28734	-0.324752
Uz-LC5	-0.00592	-0.041924	-0.057432	-0.073132

Joint No.	157.	159.	161.	163.
Ux-LC1	0.13073	0.06991	0.06654	0.12169
Ux-LC2	0.08964	0.05475	0.05843	0.10741
Ux-LC3	0.08635	0.08598	0.07146	0.05125
Ux-LC4	0.955418	0.57361	0.604096	1.109862
Ux-LC5	0.92515	0.860926	0.723972	0.59319
Uy-LC1	0.01423	-0.0094	-0.03807	-0.08709
Uy-LC2	0.00534	-0.01161	-0.03223	-0.06891
Uy-LC3	0.03011	0.03707	0.04199	0.05299
Uy-LC4	0.063358	-0.116212	-0.334586	-0.721062
Uy-LC5	0.291242	0.331644	0.348238	0.400418
Uz-LC1	-0.02757	-0.03794	-0.0431	-0.05014
Uz-LC2	-0.01846	-0.02502	-0.02824	-0.03255
Uz-LC3	0.00082	-0.00128	-0.00224	-0.00378
Uz-LC4	-0.197402	-0.268124	-0.302998	-0.3496
Uz-LC5	-0.020026	-0.049716	-0.063708	-0.084916

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.7 MODEL I JOINT DEFLECTIONS

Joint No.	164.	166.	168.	170.
Ux-LC1	0.16038	0.00574	0.02965	0.08324
Ux-LC2	0.14135	0.00417	0.02186	0.05695
Ux-LC3	0.04149	-0.0001	-0.00131	0.02871
Ux-LC4	1.4608	0.044104	0.230762	0.60718
Ux-LC5	0.542088	0.00482	0.017598	0.347372
Uy-LC1	-0.11447	0.00072	0.00408	0.00601
Uy-LC2	-0.09	0.00036	0.00203	0.00175
Uy-LC3	0.0605	0.00047	0.00288	0.01006
Uy-LC4	-0.94247	0.004032	0.022756	0.02211
Uy-LC5	0.44213	0.005044	0.030576	0.098562
Uz-LC1	-0.05351	-0.00015	-0.00843	-0.0155
Uz-LC2	-0.03455	-0.00181	-0.00546	-0.00996
Uz-LC3	-0.00456	-0.00025	-0.00864	-0.00193
Uz-LC4	-0.37137	-0.016802	-0.058662	-0.107132
Uz-LC5	-0.095462	-0.00245	-0.087918	-0.033256

Joint No.	165.	167.	169.	171.
Ux-LC1	0.	0.01528	0.05797	0.1003
Ux-LC2	0.	0.01153	0.04073	0.06784
Ux-LC3	0.	-0.00149	0.00958	0.04969
Ux-LC4	0.	0.121356	0.432686	0.724428
Ux-LC5	0.	0.001572	0.146106	0.557448
Uy-LC1	0.	0.00247	0.0059	0.00389
Uy-LC2	0.	0.00124	0.00258	-0.00071
Uy-LC3	0.	0.00165	0.00589	0.01476
Uy-LC4	0.	0.013878	0.029636	-0.002642
Uy-LC5	0.	0.01765	0.060088	0.139682
Uz-LC1	0.	-0.006	-0.01186	-0.01905
Uz-LC2	0.	-0.00389	-0.00763	-0.01221
Uz-LC3	0.	-0.00056	-0.00148	-0.00237
Uz-LC4	0.	-0.041788	-0.082056	-0.131382
Uz-LC5	0.	-0.011152	-0.025476	-0.040854

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.8 MODEL I JOINT DEFLECTIONS

Joint No.	172.	174.	176.	178.
Ux-LC1	0.10424	0.06617	0.02608	0.00847
Ux-LC2	0.07064	0.04836	0.02708	0.02744
Ux-LC3	0.06839	0.07856	0.07397	0.06425
Ux-LC4	0.754128	0.511082	0.275216	0.260918
Ux-LC5	0.733428	0.788922	0.706604	0.59957
Uy-LC1	-0.00108	-0.01821	-0.04407	-0.09586
Uy-LC2	-0.00516	-0.01838	-0.03792	-0.07814
Uy-LC3	0.01946	0.02569	0.0319	0.04499
Uy-LC4	-0.048552	-0.187306	-0.392934	-0.814748
Uy-LC5	0.177952	0.218138	0.24941	0.318048
Uz-LC1	-0.02265	-0.02779	-0.03348	-0.0413
Uz-LC2	-0.01449	-0.0177	-0.02117	-0.02578
Uz-LC3	-0.0028	-0.00325	-0.00416	-0.00594
Uz-LC4	-0.155958	-0.19063	-0.228244	-0.278476
Uz-LC5	-0.04841	-0.05769	-0.071752	-0.095948

Joint No.	173.	175.	177.	179.
Ux-LC1	0.08784	0.04112	0.01301	0.00683
Ux-LC2	0.06107	0.03441	0.02301	0.03436
Ux-LC3	0.07884	0.07625	0.07001	0.05935
Ux-LC4	0.649684	0.357692	0.224702	0.322942
Ux-LC5	0.813168	0.74262	0.657102	0.55285
Uy-LC1	-0.0101	-0.03103	-0.06581	-0.12586
Uy-LC2	-0.01226	-0.02803	-0.0546	-0.10212
Uy-LC3	0.0235	0.02881	0.03718	0.05359
Uy-LC4	-0.122892	-0.288906	-0.56813	-1.065364
Uy-LC5	0.2061	0.234022	0.276246	0.366616
Uz-LC1	-0.02557	-0.03085	-0.03717	-0.04476
Uz-LC2	-0.01632	-0.01957	-0.02338	-0.02771
Uz-LC3	-0.00302	-0.00371	-0.00491	-0.00698
Uz-LC4	-0.175714	-0.210894	-0.252266	-0.299692
Uz-LC5	-0.053354	-0.064982	-0.082342	-0.108976

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.9 MODEL I JOINT DEFLECTIONS

Joint No.	180.	182.	184.	186.
Ux-LC1	0.	0.01809	0.0417	0.05949
Ux-LC2	0.	0.01247	0.02849	0.04019
Ux-LC3	0.	0.0039	0.01406	0.03622
Ux-LC4	0.	0.132814	0.303808	0.429238
Ux-LC5	0.	0.05397	0.171052	0.392714
Uy-LC1	0.	0.00081	-0.00046	-0.00663
Uy-LC2	0.	-0.00001	-0.00189	-0.0079
Uy-LC3	0.	0.0016	0.00438	0.00853
Uy-LC4	0.	0.000718	-0.017848	-0.07936
Uy-LC5	0.	0.01553	0.039836	0.071796
Uz-LC1	0.	-0.00633	-0.01101	-0.01587
Uz-LC2	0.	-0.00387	-0.00664	-0.00946
Uz-LC3	0.	-0.00153	-0.00292	-0.00434
Uz-LC4	0.	-0.041934	-0.072098	-0.102902
Uz-LC5	0.	-0.020406	-0.037874	-0.055798

Joint No.	181.	183.	185.
Ux-LC1	0.00838	0.02773	0.05274
Ux-LC2	0.00549	0.01909	0.03574
Ux-LC3	0.001758	0.00697	0.02435
Ux-LC4	0.058888	0.202358	0.381548
Ux-LC5	0.024536	0.091854	0.27676
Uy-LC1	0.00049	0.00067	-0.00289
Uy-LC2	0.00016	-0.00047	-0.00436
Uy-LC3	0.00049	0.00261	0.00647
Uy-LC4	0.001962	-0.003654	-0.043002
Uy-LC5	0.004998	0.024682	0.056634
Uz-LC1	-0.00306	-0.00821	-0.0135
Uz-LC2	-0.00188	-0.00497	-0.00806
Uz-LC3	-0.00071	-0.00209	-0.00373
Uz-LC4	-0.020356	-0.053934	-0.087652
Uz-LC5	-0.009592	-0.027438	-0.047816

Note: LC1 – Dead load, LC2 – Unit Wind, E→W,
LC3 – Unit Wind, N→S, LC4 – LC1 + 9.2 LC2,
LC5 – LC1 + 9.2 LC3, Ux – Global radial translation, In
Uy – Global tangential translation, In
Uz – Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.10 MODEL I JOINT DEFLECTIONS

Joint No.	187.	189.	191.	193.
Ux-LC1	0.05906	0.03384	-0.01234	-0.08386
Ux-LC2	0.04006	0.02489	-0.00207	-0.03963
Ux-LC3	0.0472	0.05891	0.06511	0.07059
Ux-LC4	0.427612	0.262828	-0.031384	-0.448456
Ux-LC5	0.4933	0.575812	0.586672	0.565568
Uy-LC1	-0.01205	-0.02466	-0.04455	-0.09023
Uy-LC2	-0.01262	-0.02317	-0.03938	-0.0771
Uy-LC3	0.01144	0.01616	0.02227	0.03566
Uy-LC4	-0.128154	-0.237824	-0.406846	-0.79955
Uy-LC5	0.093198	0.124012	0.160334	0.237842
Uz-LC1	-0.01784	-0.021	-0.02524	-0.03258
Uz-LC2	-0.01056	-0.01236	-0.01475	-0.01879
Uz-LC3	-0.0048	-0.00542	-0.00631	-0.00835
Uz-LC4	-0.114992	-0.134712	-0.16094	-0.205448
Uz-LC5	-0.062	-0.070864	-0.083292	-0.1094

Joint No.	188.	190.	192.	194.
Ux-LC1	0.04743	0.0102	-0.04539	-0.12077
Ux-LC2	0.03303	0.01101	-0.02039	-0.05725
Ux-LC3	0.05519	0.06262	0.06795	0.07363
Ux-LC4	0.351306	0.111492	-0.232978	-0.64747
Ux-LC5	0.555178	0.586304	0.57975	0.556626
Uy-LC1	-0.01909	-0.03412	-0.06315	-0.11759
Uy-LC2	-0.01856	-0.03092	-0.05456	-0.10036
Uy-LC3	0.0142	0.01918	0.02763	0.04434
Uy-LC4	-0.189842	-0.318584	-0.565102	-1.040902
Uy-LC5	0.11155	0.142336	0.191046	0.290338
Uz-LC1	-0.01974	-0.02309	-0.02858	-0.03608
Uz-LC2	-0.01166	-0.01357	-0.01663	-0.02061
Uz-LC3	-0.00516	-0.00581	-0.00712	-0.00957
Uz-LC4	-0.127012	-0.147934	-0.181576	-0.225692
Uz-LC5	-0.067212	-0.076542	-0.094084	-0.124124

Note: LC1 = Dead load, LC2 = Unit Wind, E→W,
LC3 = Unit Wind, N→S, LC4 = LC1 + 9.2 LC2,
LC5 = LC1 + 9.2 LC3, Ux = Global radial translation, In
Uy = Global tangential translation, In
Uz = Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.11 MODEL I JOINT DEFLECTIONS

Joint No.	195.	197.	200.	202.
Ux-LC1	0.	0.01061	0.01007	-0.00251
Ux-LC2	0.	0.00664	0.0068	-0.00095
Ux-LC3	0.	0.00623	0.01604	0.02372
Ux-LC4	0.	0.071698	0.07263	-0.01125
Ux-LC5	0.	0.067936	0.157638	0.215714
Uy-LC1	0.	-0.00117	-0.00811	-0.01678
Uy-LC2	0.	-0.0014	-0.00797	-0.01597
Uy-LC3	0.	0.00092	0.00296	0.00509
Uy-LC4	0.	-0.01405	-0.081434	-0.163704
Uy-LC5	0.	0.007294	0.019122	0.030048
Uz-LC1	0.	-0.00478	-0.00991	-0.01286
Uz-LC2	0.	-0.00245	-0.005	-0.0063
Uz-LC3	0.	-0.00217	-0.00457	-0.00619
Uz-LC4	0.	-0.02732	-0.05591	-0.07082
Uz-LC5	0.	-0.024744	-0.051954	-0.069808

Joint No.	196.	198.	201.	203.
Ux-LC1	0.00738	0.0112	0.00539	-0.01259
Ux-LC2	0.0043	0.00691	0.00407	-0.00682
Ux-LC3	0.00346	0.00858	0.01948	0.02875
Ux-LC4	0.04694	0.074772	0.042834	-0.075334
Ux-LC5	0.039212	0.090136	0.184606	0.25191
Uy-LC1	-0.00005	-0.00227	-0.01216	-0.02184
Uy-LC2	-0.00022	-0.00249	-0.01172	-0.02075
Uy-LC3	0.00031	0.0014	0.00392	0.00666
Uy-LC4	-0.002074	-0.025178	-0.119984	-0.21274
Uy-LC5	0.002802	0.01061	0.023904	0.039432
Uz-LC1	-0.00274	-0.00635	-0.01138	-0.01422
Uz-LC2	-0.00152	-0.00335	-0.00557	-0.00681
Uz-LC3	-0.00111	-0.00282	-0.00544	-0.00701
Uz-LC4	-0.016724	-0.03717	-0.062634	-0.076872
Uz-LC5	-0.012952	-0.032294	-0.061428	-0.078712

Note: LC1 – Dead load, LC2 – Unit Wind, E→W,
LC3 – Unit Wind, ~~N→S~~, LC4 – LC1 + 9.2 LC2,
LC5 – LC1 + 9.2 LC3, Ux – Global radial translation, In
Uy – Global tangential translation, In
Uz – Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

C.1.12 MODEL I JOINT DEFLECTIONS

Joint No.	204.	206.	208.
Ux-LC1	-0.02061	-0.05486	-0.15074
Ux-LC2	-0.01185	-0.03322	-0.09138
Ux-LC3	0.03286	0.04508	0.06722
Ux-LC4	-0.12963	-0.360484	-0.991436
Ux-LC5	0.281702	0.359876	0.467684
Uy-LC1	-0.02542	-0.0379	-0.06823
Uy-LC2	-0.02414	-0.03589	-0.06482
Uy-LC3	0.00788	0.0123	0.02314
Uy-LC4	-0.247508	-0.368088	-0.664574
Uy-LC5	0.047076	0.07526	0.144658
Uz-LC1	-0.01512	-0.01771	-0.02356
Uz-LC2	-0.00721	-0.00834	-0.01081
Uz-LC3	-0.00743	-0.00871	-0.01131
Uz-LC4	-0.081452	-0.094438	-0.123012
Uz-LC5	-0.083476	-0.097842	-0.127612

Joint No.	205.	207.	209.
Ux-LC1	-0.03588	-0.0929	-0.20964
Ux-LC2	-0.02128	-0.05596	-0.12594
Ux-LC3	0.0388	0.05434	0.0792
Ux-LC4	-0.231656	-0.607732	-1.368288
Ux-LC5	0.32108	0.407028	0.519
Uy-LC1	-0.03133	-0.05001	-0.08681
Uy-LC2	-0.02976	-0.04733	-0.08333
Uy-LC3	0.01001	0.01655	0.03045
Uy-LC4	-0.305122	-0.485446	-0.853446
Uy-LC5	0.060762	0.10225	0.19333
Uz-LC1	-0.01641	-0.02004	-0.02697
Uz-LC2	-0.00769	-0.00922	-0.01243
Uz-LC3	-0.00817	-0.00989	-0.01277
Uz-LC4	-0.087158	-0.104864	-0.141326
Uz-LC5	-0.091574	-0.111028	-0.144454

Note: LC1 — Dead load, LC2 — Unit Wind, E→W, LC3 — Unit Wind, N→S, LC4 — LC1 + 9.2 LC2, LC5 — LC1 + 9.2 LC3, Ux — Global radial translation, In
Uy — Global tangential translation, In
Uz — Global vertical translation, In
Global coordinate system is the same as Nodal cylindrical coordinate system.

APPENDIX D

D.1: MODEL II ANSYS ANALYSIS

This appendix contains the entire Model II ANSYS analysis output.

```
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.41 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
```

START-346

HAADU09

AYVAZYAN

```
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
* S.M.A. * S.M.A. *...START JOB 346......1.50.53 PM 11 MAY 77....RM39.PR1.....HAADU09 ....AYVAZYAN .............* S.M.A. * S.M.A. *
```

TX HAADUU9,A986697E005,1161,810-0032-26-78-00005,REMOTE 39,AYVAZYAN ,6582,
HAADUU9 DBCU 05/11/77 09.38.26 7600 DU

```
          **********  ANSYS INPUT DATA LISTING  **********

         6     12    18    24    30    36    42    48    54    60    66    72    78
         V     V     V     V     V     V     V     V     V     V     V     V     V
 1  BREECHED STEEL STACK ANSYS ANALYSIS FOR DL + 9.2PSF E TO W LAT.WIND
 2  HEA                                                                       100000
 3     1   0   0 1   2 1
 4  70.             70.
 5     1 63
 6     0
 7  1.25
 8  0.0
 9       1     2    67    66                                           1     4  1
10       5     6    38    70                                           1
11       6     7    25    38                                           1
12       7     8    26    25                                           1    12  1
13      19    20    52    37                                           1
14      20    21    81    52                                           1
15      21    22    82    81                                           1     3  1
16      24     1    66    84                                           1
17      39    38    25    25                                           1
18      25    26    40    39                                           1    12  1
19      52    51    37    37                                           1
20      71    70    38    38                                           1
21      38    39    53    71                                           1
22      39    40    54    53                                           1    12  1
23      51    52    80    65                                           1
24      81    80    52    52                                           1
25      72    71    53    53                                           1
26      53    54    73    72                                           1     3  1
27      62    63    77    76                                           1     3  1
28      80    79    65    65                                           1
29      66    67   112   111                                           1     4  1
30      70    71    93   115                                           1
31      71    72    85    93                                           1
32      72    73    86    85                                           1     3  1
33      76    77    90    89                                           1     3  1
34      79    80   102    92                                           1
35      80    81   131   102                                           1
36      81    82   132   131                                           1     3  1
37      84    66   111   134                                           1
38      94    95    85    85                                           1
39      85    86    95    94                                           1     3  1
40      89    90    99    98                                           1     3  1
41     102   101    92    92                                           1
42     116   115    93    93                                           1
43      93    94   103   116                                           1
44      94    95   104   103                                           1     3  1
45      98    99   108   107                                           1     3  1
46     101   102   130   110                                           1
47     131   130   102   102                                           1
48     117   116   103   103                                           1
49     103   104   118   117                                           1     3  1
50     107   108   127   126                                           1     3  1
         A     A     A     A     A     A     A     A     A     A     A     A     A
```

********** ANSYS INPUT DATA LISTING **********

	6	12	18	24	30	36	42	48	54	60	66	72	78
	V	V	V	V	V	V	V	V	V	V	V	V	V
51	130	129	110	110							1		
52	111	112	177	176							1	4	1
53	115	116	148	180							1		
54	116	117	135	148							1		
55	117	118	136	135							1	12	1
56	129	130	162	147							1		
57	130	131	196	162							1		
58	131	132	197	196							1	3	1
59	134	111	176	199							1		
60	149	190	135	135							1		
61	135	136	150	149							1	12	1
62	162	161	147	147							1		
63	181	180	148	148							1		
64	148	149	163	181							1		
65	149	150	164	193							1	12	1
66	161	162	195	195							1		
67	196	195	162	162							1		
68	182	181	183	163							1		
69	163	164	183	182							1	12	1
70	195	194	175	175							1		
71												-3	37 38
72	176	177	214	213							1	5	1
73	181	182	200	218							1		
74	182	183	201	200							1	12	1
75	194	195	232	212							1		
76	195	196	233	232							1	4	1
77	199	176	213	236							1		
78	219	218	200	200							1		
79	200	201	220	219							1	12	1
80	232	231	212	212							1		
81	287	288	319	318							1	5	1
82	292	293	311	323							1		
83	293	294	311	311							1		
84	312	311	294	294							1		
85	294	295	312	312							1		
86	295	296	312	312							1		
87	313	312	296	296							1		
88	296	297	313	313							1		
89	297	298	313	313							1		
90	314	313	298	298							1		
91	298	299	314	314							1		
92	299	300	314	314							1		
93	315	314	300	300							1		
94	300	301	315	315							1		
95	301	302	315	315							1		
96	316	315	302	302							1		
97	302	303	316	316							1		
98	303	304	316	316							1		
99	317	316	304	304							1		
100	304	305	317	317							1		
	A	A	A	A	A	A	A	A	A	A	A	A	A

```
          **********  ANSYS INPUT DATA LISTING  **********
          6     12    18      24    30     36    42     48    54    60    66    72     78
          V     V     V       V     V      V     V      V     V     V     V     V      V
101      305   306   329     317                                            1
102      306   307   330     329                                            1      4  1
103      310   287   318     333                                            1
104                                                                                -3  1  2
105      324   323   311     311                                            1
106      311   312   324     324                                            1
107                                                                                -3  1  2
108      314   315   326     326                                            1
109      327   326   315     315                                            1
110                                                                                -5 16 16
111      318   319   335     334                                            1      15  1
112      333   318   334     349                                            1
113       -1
114        1 1        179.375       0.0          0.0
115        7 1  1     179.375       135.0        0.0
116        8 1        179.375       142.5        0.0
117       19 1  1     179.375       225.0        0.0
118       20 1        179.375       247.5        0.0
119       24 1  1     179.375       337.5        0.0
120       25 1        178.835       135.0        36.0
121       37 1  1     178.835       225.0        36.0
122       38 1        178.295       112.5        72.0
123       39 1        178.295       135.0        72.0
124       51 1  1     178.295       225.0        72.0
125       52 1        178.295       247.5        72.0
126       53 1        177.935       135.0        96.0
127       65 1  1     177.935       225.0        96.0
128       66 1        177.395       0.0          132.0
129       72 1  1     177.395       135.0        132.0
130       73 1        177.395       142.5        132.0
131       75 1  1     177.395       157.5        132.0
132       76 1        177.395       202.5        132.0
133       79 1  1     177.395       225.0        132.0
134       80 1        177.395       247.5        132.0
135       84 1  1     177.395       337.5        132.0
136       85 1        176.855       135.0        168.0
137       88 1  1     176.855       157.5        168.0
138       89 1        176.855       202.5        168.0
139       92 1  1     176.855       225.0        168.0
140       93 1        176.315       112.5        204.0
141       94 1        176.315       135.0        204.0
142       97 1  1     176.315       157.5        204.0
143       98 1        176.315       202.5        204.0
144      101 1  1     176.315       225.0        204.0
145      102 1        176.315       247.5        204.0
146      103 1        175.775       135.0        240.0
147      106 1  1     175.775       157.5        240.0
148      107 1        175.775       202.5        240.0
149      110 1  1     175.775       225.0        240.0
150      111 1        175.235       0.0          276.0
          A     A     A       A     A      A     A      A     A     A     A     A      A
```

```
*********** ANSYS INPUT DATA LISTING **********

            6     12     18     24     30     36     42     48     54     60     66     72     78
            V      V      V      V      V      V      V      V      V      V      V      V      V
151       116  1  1    175.235        112.5         276.0
152       117  1       175.235        135.0         276.0
153       129  1  1    175.235        225.0         276.0
154       130  1       175.235        247.5         276.0
155       134  1  1    175.235        337.5         276.0
156       135  1       174.875        135.0         300.0
157       147  1  1    174.875        225.0         300.0
158       148  1       174.335        112.5         336.0
159       149  1       174.335        135.0         336.0
160       161  1  1    174.335        225.0         336.0
161       162  1       174.335        247.5         336.0
162       163  1       173.795        135.0         372.0
163       175  1  1    173.795        225.0         372.0
164       176  1       172.895        0.0           432.0
165       181  1  1    172.895        112.5         432.0
166       182  1       172.895        135.0         432.0
167       194  1  1    172.895        225.0         432.0
168       195  1       172.895        247.5         432.0
169       199  1  1    172.895        337.5         432.0
170       200  1       171.635        135.0         516.0
171       212  1  1    171.635        225.0         516.0
172       213  1       170.375        0.0           600.0
173       218  1  1    170.375        112.5         600.0
174       219  1       170.375        135.0         600.0
175       231  1  1    170.375        225.0         600.0
176       232  1       170.375        247.5         600.0
177       236  1  1    170.375        337.5         600.0
178       237  1       169.115        135.0         684.0
179       249  1  1    169.115        225.0         684.0
180       250  1       167.855        0.0           768.0
181       255  1  1    167.855        112.5         768.0
182       256  1       167.855        135.0         768.0
183       268  1  1    167.855        225.0         768.0
184       269  1       167.855        247.5         768.0
185       273  1  1    167.855        337.5         768.0
186       274  1       166.415        135.0         864.0
187       286  1  1    166.415        225.0         864.0
188       287  1       164.975        0.0           960.0
189       292  1  1    164.975        112.5         960.0
190       293  1       164.975        135.0         960.0
191       305  1  1    164.975        225.0         960.0
192       306  1       164.975        247.5         960.0
193       310  1  1    164.975        337.5         960.0
194       311  1       163.175        135.0         1080.0
195       317  1  1    163.175        225.0         1080.0
196       318  1       161.375          0.0         1200.0
197       333  1  1    161.375        337.5         1200.0
198       334  1       157.775        0.0           1440.0
199       349  1  1    157.775        337.5         1440.0
200       350  1       154.175        0.0           1680.0
            A      A      A      A      A      A      A      A      A      A      A      A      A
```

```
          **********  ANSYS INPUT DATA LISTING  **********
      6    12    18    24    30    36    42    48    54    60    66    72    78
      V     V     V     V     V     V     V     V     V     V     V     V     V
    365 1 1    154.175     337.5       1680.0
    366 1      150.575     0.0         1920.0
    381 1 1    150.575     337.5       1920.0
    382 1      146.975     0.0         2160.0
    397 1 1    146.975     337.5       2160.0
    398 1      143.375     0.0         2400.0
    413 1 1    143.375     337.5       2400.0
     -1
 EX            29.00E+06
 ALPX          0.0
 NUXY          0.3
 DENS          0.284
 END
   1  0  1  1                            1.0                            1
 LOAD COMBINATION, DL + 9.2PSF E TO W LATERAL WIND
      1 UX     0.0                      24      1  UY    UZ    ROTX  ROTY  ROTZ
         END
    213 FZ     2704.
    214 FZ     2498.                   236     22
    215 FZ     1912.                   235     20
    216 FZ     1035.                   234     18
    218 FZ     -1035.                  232     14
    219 FZ     -1275.                  231     12
    220 FZ     -715.                   230     10
    221 FZ     -781.                   229      8
    222 FZ     -833.                   228      6
    223 FZ     -871.                   227      4
    224 FZ     -894.                   226      2
    225 FZ     -901.
    214 FY     1023.
    215 FY     1781.
    216 FY     2302.                   218      2
    217 FY     2486.
    219 FY     1340.
    220 FY     512.
    221 FY     421.
    222 FY     323.
    223 FY     221.
    224 FY     118.
    226 FY     -118.
    227 FY     -221.
    228 FY     -323.
    229 FY     -421.
    230 FY     -512.
    231 FY     -1340.
    232 FY     -2302.                  234      2
    233 FY     -2486.
    235 FY     -1781.
    236 FY     -1023.
      A     A     A     A     A     A     A     A     A     A     A     A     A
```

```
          **********  ANSYS INPUT DATA LISTING  **********
              6     12     18     24     30     36     42     48     54     60     66     72     78
              V      V      V      V      V      V      V      V      V      V      V      V      V
251         287 FZ        5190.
252         288 FZ        4795.                       310    22
253         289 FZ        3670.                       309    20
254         290 FZ        1986.                       308    18
255         292 FZ       -1986.                       306    14
256         293 FZ       -2447.                       305    12
257         294 FZ       -1373.                       304    10
258         295 FZ       -1498.                       303     8
259         296 FZ       -1598.                       302     6
260         297 FZ       -1671.                       301     4
261         298 FZ       -1715.                       300     2
262         299 FZ       -1730.
263         288 FY        1435.
264         289 FY        2497.
265         290 FY        3228.                       292     2
266         291 FY        3487.
267         293 FY        1880.
268         294 FY         717.
269         295 FY         590.
270         296 FY         454.
271         297 FY         310.
272         298 FY         166.
273         300 FY        -166.
274         301 FY        -310.
275         302 FY        -454.
276         303 FY        -590.
277         304 FY        -717.
278         305 FY       -1880.
279         306 FY       -3228.                       308     2
280         307 FY       -3487.
281         309 FY       -2497.
282         310 FY       -1435.
283         334 FZ        5595.
284         335 FZ        5169.                       349    14
285         336 FZ        3956.                       348    12
286         337 FZ        2141.                       347    10
287         339 FZ       -2141.                       345     6
288         340 FZ       -3956.                       344     4
289         341 FZ       -5169.                       343     2
290         342 FZ       -5595.
291         335 FY        1480.                       341     6
292         336 FY        2575.                       340     4
293         337 FY        3329.                       339     2
294         338 FY        3596.
295         343 FY       -1480.                       349     6
296         344 FY       -2575.                       348     4
297         345 FY       -3329.                       347     2
298         346 FY       -3596.
299         366 FZ        5783.
300         367 FZ        5343.                       381    14
              A      A      A      A      A      A      A      A      A      A      A      A      A
```

```
**********  ANSYS INPUT DATA LISTING  **********

              6     12    18    24    30    36    42    48    54    60    66    72    78
              V     V     V     V     V     V     V     V     V     V     V     V     V
 301        368 FZ      4089.                     380   12
 302        369 FZ      2213.                     379   10
 303        371 FZ     -2213.                     377    6
 304        372 FZ     -4089.                     376    4
 305        373 FZ     -5343.                     375    2
 306        374 FZ     -5783.
 307        367 FY      1462.                     373    6
 308        368 FY      2545.                     372    4
 309        369 FY      3290.                     371    2
 310        370 FY      3554.
 311        375 FY     -1462.                     381    6
 312        376 FY     -2545.                     380    4
 313        377 FY     -3290.                     379    2
 314        378 FY     -3554.
 315        398 FZ    236043.
 316        399 FZ    213629.                     413   14
 317        400 FZ    149801.                     412   12
 318        401 FZ     54275.                     411   10
 319        402 FZ    -58405.                     410    8
 320        403 FZ   -171085.                     409    6
 321        404 FZ   -266611.                     408    4
 322        405 FZ   -330439.                     407    2
 323        406 FZ   -352853.
 324        399 FY      9838.                     405    6
 325        400 FY     17125.                     404    4
 326        401 FY     22138.                     403    2
 327        402 FY     23909.
 328        407 FY     -9838.                     413    6
 329        408 FY    -17125.                     412    4
 330        409 FY    -22138.                     411    2
 331        410 FY    -23909.
 332            END
 333          0
 334     FINISH
```

```
        ANSYS - ENGINEERING ANALYSIS SYSTEM  UP186 REV 2 U+N7600   JAN 1,1972
SWANSON ANALYSIS SYSTEMS, INC.    ELIZABETH, PENNSYLVANIA  15037    PHONE (412) 751-1940

                                                        9.6425    5/11/77
                                                 CP =   2.582     PP =    0.000

THE ANSYS PROGRAM IS IN A STATE OF CONTINUOUS DEVELOPMENT,
MODIFICATION, AND CHECKING.  RECENT ADDITIONS/IMPROVEMENTS
ARE TABULATED BELOW.  NEITHER SWANSON ANALYSIS SYSTEMS,INC
NOR THE CORPORATION SUPPLYING THE COMPUTER FACILITIES FOR
THIS ANALYSIS ASSUME ANY RESPONSIBILITY FOR THE VALIDITY,
ACCURACY, OR APPLICABILITY OF ANY RESULTS OBTAINED FROM
THE ANSYS SYSTEM.  THE USER MUST VERIFY HIS OWN RESULTS.

SWANSON ANALYSIS SYSTEMS,INC. IS ENDEAVORING TO MAKE THE
ANSYS PROGRAM AS COMPLETE, ACCURATE, AND EASY TO USE AS
POSSIBLE.  SUGGESTIONS AND COMMENTS ARE WELCOMED.  ANY
ERRORS ENCOUNTERED IN EITHER THE DOCUMENTATION OR THE
RESULTS SHOULD BE IMMEDIATELY BROUGHT TO OUR ATTENTION.

      **********  AVAILABLE DOCUMENTATION  **********

USERS MANUAL - 5/01/75, DOCUMENTS PROGRAM THROUGH UP148
UPDATE NO. 1 - 7/18/75, DOCUMENTS PROG. FROM UP149 TO 161
UPDATE NO. 2 - 2/09/76, DOCUMENTS PROG. FROM UP162 TO 175
UPDATE NO. 3 - 3/22/77, DOCUMENTS PROG. FROM UP176 TO 185

INTRODUCTORY MANUAL - 6/01/75, BASIC LINEAR ELASTIC INPUT
EXAMPLES MANUAL     - 8/14/74, 8 PROBLEMS SOLVED IN DETAIL
VERIFICATION MANUAL - 6/01/76, SEE NOTICE BELOW

REV. 3 USERS MAN. SUPPLEMENT - 12/01/76, DOCUMENTS REV. 3

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:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
:     NEW ISSUE - THE ANSYS VERIFICATION MANUAL           :
:                                                         :
: * 126 TYPICAL ENGINEERING PROBLEMS SOLVED               :
: * EACH PROBLEM REFERENCED TO A TEXTBOOK                 :
: * ANSYS RESULTS COMPARED WITH THEORETICAL RESULTS       :
: * STATIC,DYNAMIC,PLASTIC,THERMAL,FLUID, ELECTRIC PROBS. :
: * COMPLETE DATA INPUT AND SKETCHES WITH EACH PROBLEM    :
: * EXTENSIVE CROSS-REFERENCE INDEX FOR EASY PROB. IDENT. :
: * 450 PAGES, CALL (412) 751-1940 TO ORDER               :
:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

UPDATE:
 LEVEL                NEW ANSYS FEATURES

UP177 POST7 FORCES AND STRESSES ADDED FOR STIF3
UP178 SECTION PLOT CAPABILITY ADDED TO GEOMETRY PLOTS
UP179 EXTRA ANSYS DECKS MAY BE STACKED AFTER PREP4 DATA
UP179 COORDINATE AXES ADDED TO GEOMETRY PLOTS
UP179 CONSTRAINT EQUATIONS MAY BE READ FROM ALTERNATE FILE
UP179 STIF77 TEMPERATURE PLOTS AVAILABLE IN POST1
UP180 LARGE ROTATION CAPABILITY ADDED TO STIF11
UP180 GAUSS POINT STRESS PRINTOUT OPTION ADDED TO STIF45
UP180 VERIFICATION MANUAL NOW AVAILABLE, 126 PROBS, 450 PG
UP181 RIGID REGION CONSTRAINT EQUATION GENERATOR AVAILABLE
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UP181 STRESSES AND NODE NUMBERS ADDED TO TAPE10 FOR STIF9
UP181 SASI ANNOUNCES THE ADDITION OF MIKE WHEELER TO STAFF
UP184 POST1 ALLOWS USER SPECIFICATION OF CONTOUR LINES
UP184 POWER FUNCTION CREEP LAW ADDED W/ LINEAR INTERPOL.
UP184 SPECIFIC HEAT COMPUTED AT INT. POINTS,STIF55 AND 70
UP184 MORE STRAINS,STRESSES ADDED TO TAPE10 FOR STIF20,60
UP185 60 SCALE FACTORS MAY BE USED IN S.E. STRESS PASS
UP185 TIME AND THRESHOLD DELTEMP DEPENDENT ADDED-STIF34
UP185 SPECIFIC HEAT COMPUTED AT EACH INT. PT.-STIF67,77
UP185 FORCES ON TAPE10 ADDED TO STIF62
UP185 PLASTICITY CAPABILITY ADDED TO STIF85
UP185 UPDATE PKG. NO.3 DOCUMENTING ABOVE FEATURES IS AVAIL
UP186 POST12 NOW ALLOWS SIX MATERIAL TABLES
UP186 POST12 ALLOWABLE STRESS OPTION S-A ,THERMAL EFFECTS
UP186 RADIATION CREEP AND SWELLING ADDED FOR 20PC CW 316SS
UP186 STRESSES ADDED TO STIF20 AND STIF60 PRINTOUT
UP186 ANSYS REV. 3 USERS MAN. SUPPLEMENT AVAILABLE, 180 PG.
UP187 VON MISES STRESS PLOTS ADDED TO POST5
UP187 STERLING POWER FUNCTION CREEP LAW ADDED
UP187 NEW OPTIONS FOR FILM COEF. EVALUATION - STIF55
UP187 SASI ANNOUNCES THE ADDITION OF BARRY COTTON TO STAFF
UP187 SASI ADDS TWX SERVICE  710-789-3883 ANSYS EXBH
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                      ANSYS - ENGINEERING ANALYSIS SYSTEM  UP188 REV 2 B+N7600   JAN 1,1972
         SWANSON ANALYSIS SYSTEMS, INC.     ELIZABETH, PENNSYLVANIA  15037    PHONE (412) 751-1940

BREECHED STEEL STACK ANSYS ANALYSIS FOR DL + 9.2PSF E TO W LAT.WIND               9.6425    5/11/77
                                                                          CP =    2.594    PP =   0.000

***** ANALYST = HEA

          ***** ANALYSIS OPTIONS (CARDS C1 AND C2) *****
                                        VALUE          VARIABLE    COLUMNS
                                                         NAME
NUMBER OF LOAD STEPS . . . .              1            NSTEPS       1-4
ANALYSIS TYPE . . . . . . . .             0            K20          5-7
ELEMENT CONSTANT TABLE . . .              1            K18         11-12
REACTION FORCE KEY. . . . . .             2            K15         15-16
BOUNDARY CONDITION KEY. . . .             1            K17          18

REFERENCE TEMPERATURE . . . .         70.00            TREF         1-12
UNIFORM TEMPERATURE . . . . .         70.00            TUNIF       13-24
CORE SIZE PARAMETER. . . . . .00100000                 ICORE       73-80  (CARD B)

BLOCK SIZES . . . . . . . . .           500     500     1500     500     500     500     0     0
CORE SIZE REQUESTED(OCTAL). . . 00114000
LCM SIZE REQUESTED(OCTAL) . . . 00100000

          ***** ELEMENT TYPES (CARD D) *****
TYPE   STIF        DESCRIPTION                    KEYSUB OPTIONS          KC     INOTPR
                                                1B 1A  1   2B 2A  2
  1     63   QUAD FLAT SHELL ELEM 8/01/73       -0  0  0   -0  0  0        0       0

          ***** TABLE OF ELEMENT REAL CONSTANTS (CARD D2) *****
  NO.
  1    1.2500

          ***** ELEMENT DEFINITIONS (CARD E) *****
ELEMENT     NODES                                    MAT   TYPE              ELEMENT REAL CONSTANTS
                                                                 THCK
    1      1    2   67   66                           1     1    1.25
    2      2    3   68   67                           1     1    1.25
    3      3    4   69   68                           1     1    1.25
    4      4    5   70   69                           1     1    1.25
    5      5    6   38   70                           1     1    1.25
    6      6    7   25   38                           1     1    1.25
    7      7    8   26   25                           1     1    1.25
    8      8    9   27   26                           1     1    1.25
    9      9   10   28   27                           1     1    1.25
   10     10   11   29   28                           1     1    1.25
   11     11   12   30   29                           1     1    1.25
   12     12   13   31   30                           1     1    1.25
   13     13   14   32   31                           1     1    1.25
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14	14	15	33	32	1	1	1.25
15	15	16	34	33	1	1	1.25
16	16	17	35	34	1	1	1.25
17	17	18	36	35	1	1	1.25
18	18	19	37	36	1	1	1.25
19	19	20	52	37	1	1	1.25
20	20	21	81	52	1	1	1.25
21	21	22	82	81	1	1	1.25
22	22	23	83	82	1	1	1.25
23	23	24	84	83	1	1	1.25
24	24	1	66	84	1	1	1.25
25	39	38	25	25	1	1	1.25
26	25	26	40	39	1	1	1.25
27	26	27	41	40	1	1	1.25
28	27	28	42	41	1	1	1.25
29	28	29	43	42	1	1	1.25
30	29	30	44	43	1	1	1.25
31	30	31	45	44	1	1	1.25
32	31	32	46	45	1	1	1.25
33	32	33	47	46	1	1	1.25
34	33	34	48	47	1	1	1.25
35	34	35	49	48	1	1	1.25
36	35	36	50	49	1	1	1.25
37	36	37	51	50	1	1	1.25
38	52	51	37	37	1	1	1.25
39	71	70	38	38	1	1	1.25
40	38	39	53	71	1	1	1.25
41	39	40	54	53	1	1	1.25
42	40	41	55	54	1	1	1.25
43	41	42	56	55	1	1	1.25
44	42	43	57	56	1	1	1.25
45	43	44	58	57	1	1	1.25
46	44	45	59	58	1	1	1.25
47	45	46	60	59	1	1	1.25
48	46	47	61	60	1	1	1.25
49	47	48	62	61	1	1	1.25
50	48	49	63	62	1	1	1.25
51	49	50	64	63	1	1	1.25
52	50	51	65	64	1	1	1.25
53	51	52	80	65	1	1	1.25
54	81	80	52	52	1	1	1.25
55	72	71	53	53	1	1	1.25
56	53	54	73	72	1	1	1.25
57	54	55	74	73	1	1	1.25
58	55	56	75	74	1	1	1.25
59	62	63	77	76	1	1	1.25
60	63	64	78	77	1	1	1.25
61	64	65	79	78	1	1	1.25
62	80	79	[illegible]	65	1	1	1.25
63	66	67	112	111	1	1	1.25
64	67	68	113	112	1	1	1.25
65	68	69	114	113	1	1	1.25
66	69	70	115	114	1	1	1.25
67	70	71	93	115	1	1	1.25
68	71	72	85	93	1	1	1.25
69	72	73	86	85	1	1	1.25
70	73	74	87	86	1	1	1.25
71	74	75	88	87	1	1	1.25
72	76	77	90	89	1	1	1.25
73	77	78	91	90	1	1	1.25
74	78	79	92	91	1	1	1.25
75	79	80	102	92	1	1	1.25
76	80	81	131	102	1	1	1.25
77	81	82	132	131	1	1	1.25
78	82	83	133	132	1	1	1.25
79	83	84	134	133	1	1	1.25

80	84	66	111	134	1	1	1.25
81	94	93	85	85	1	1	1.25
82	85	86	95	94	1	1	1.25
83	86	87	96	95	1	1	1.25
84	87	88	97	96	1	1	1.25
85	89	90	98	98	1	1	1.25
86	90	91	100	99	1	1	1.25
87	91	92	101	100	1	1	1.25
88	102	101	92	92	1	1	1.25
89	116	115	93	93	1	1	1.25
90	93	94	103	116	1	1	1.25
91	94	95	104	103	1	1	1.25
92	95	96	105	104	1	1	1.25
93	96	97	106	105	1	1	1.25
94	98	99	108	107	1	1	1.25
95	99	100	109	108	1	1	1.25
96	100	101	110	109	1	1	1.25
97	101	102	130	110	1	1	1.25
98	131	130	102	102	1	1	1.25
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107	111	112	177	176	1	1	1.25
108	112	113	178	177	1	1	1.25
109	113	114	179	178	1	1	1.25
110	114	115	180	179	1	1	1.25
111	115	116	148	180	1	1	1.25
112	116	117	135	146	1	1	1.25
113	117	118	136	135	1	1	1.25
114	118	119	137	136	1	1	1.25
115	119	120	138	137	1	1	1.25
116	120	121	139	138	1	1	1.25
117	121	122	140	139	1	1	1.25
118	122	123	141	140	1	1	1.25
119	123	124	142	141	1	1	1.25
120	124	125	143	142	1	1	1.25
121	125	126	144	143	1	1	1.25
122	126	127	145	144	1	1	1.25
123	127	128	146	145	1	1	1.25
124	128	129	147	146	1	1	1.25
125	129	130	162	147	1	1	1.25
126	130	131	196	162	1	1	1.25
127	131	132	197	196	1	1	1.25
128	132	133	198	197	1	1	1.25
129	133	134	199	198	1	1	1.25
130	134	111	176	199	1	1	1.25
131	149	148	135	135	1	1	1.25
132	135	136	150	149	1	1	1.25
133	136	137	151	150	1	1	1.25
134	137	138	152	151	1	1	1.25
135	138	139	153	152	1	1	1.25
136	139	140	154	153	1	1	1.25
137	140	141	155	154	1	1	1.25
138	141	142	156	155	1	1	1.25
139	142	143	157	156	1	1	1.25
140	143	144	158	157	1	1	1.25
141	144	145	159	158	1	1	1.25
142	145	146	160	159	1	1	1.25
143	146	147	161	160	1	1	1.25
144	162	161	147	147	1	1	1.25
145	181	180	148	148	1	1	1.25

146	148	149	163	181	1	1	1.25
147	149	150	164	163	1	1	1.25
148	150	151	165	164	1	1	1.25
149	151	152	166	165	1	1	1.25
150	152	153	167	166	1	1	1.25
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155	157	158	172	171	1	1	1.25
156	158	159	173	172	1	1	1.25
157	159	160	174	173	1	1	1.25
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166	167	168	187	186	1	1	1.25
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172	173	174	193	192	1	1	1.25
173	174	175	194	193	1	1	1.25
174	195	194	175	175	1	1	1.25
175	176	177	214	213	1	1	1.25
176	177	178	215	214	1	1	1.25
177	178	179	216	215	1	1	1.25
178	179	180	217	216	1	1	1.25
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182	183	184	202	201	1	1	1.25
183	184	185	203	202	1	1	1.25
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192	193	194	212	211	1	1	1.25
193	194	195	232	212	1	1	1.25
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198	199	176	213	236	1	1	1.25
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211	211	212	231	230	1	1	1.25

212	232	231	212	212	1	1	1.25
213	213	214	251	250	1	1	1.25
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233	233	234	271	270	1	1	1.25
234	234	235	272	271	1	1	1.25
235	235	236	273	272	1	1	1.25
236	236	213	250	273	1	1	1.25
237	256	255	237	237	1	1	1.25
238	237	238	257	256	1	1	1.25
239	238	239	258	257	1	1	1.25
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250	269	268	249	249	1	1	1.25
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252	251	252	289	288	1	1	1.25
253	252	253	290	289	1	1	1.25
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256	255	256	274	292	1	1	1.25
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269	268	269	306	286	1	1	1.25
270	269	270	307	306	1	1	1.25
271	270	271	308	307	1	1	1.25
272	271	272	309	308	1	1	1.25
273	272	273	310	309	1	1	1.25
274	273	250	287	310	1	1	1.25
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277	275	276	295	294	1	1	1.25

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310	303	304	316	316	1	1	1.25
311	317	316	304	304	1	1	1.25
312	304	305	317	317	1	1	1.25
313	305	306	324	317	1	1	1.25
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315	307	308	331	330	1	1	1.25
316	308	309	332	331	1	1	1.25
317	309	310	333	332	1	1	1.25
318	310	287	318	333	1	1	1.25
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322	312	313	325	325	1	1	1.25
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328	328	327	316	316	1	1	1.25
329	316	317	328	328	1	1	1.25
330	329	328	317	317	1	1	1.25
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332	319	320	336	335	1	1	1.25
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336	323	324	340	339	1	1	1.25
337	324	325	341	340	1	1	1.25
338	325	326	342	341	1	1	1.25
339	326	327	343	342	1	1	1.25
340	327	328	344	343	1	1	1.25
341	328	329	345	344	1	1	1.25
342	329	330	346	345	1	1	1.25
343	330	331	347	346	1	1	1.25

344	331	332	348	347	1	1	1.25
345	332	333	349	348	1	1	1.25
346	333	318	334	349	1	1	1.25
347	334	335	351	350	1	1	1.25
348	335	336	352	351	1	1	1.25
349	336	337	353	352	1	1	1.25
350	337	338	354	353	1	1	1.25
351	338	339	355	354	1	1	1.25
352	339	340	356	355	1	1	1.25
353	340	341	357	356	1	1	1.25
354	341	342	358	357	1	1	1.25
355	342	343	359	358	1	1	1.25
356	343	344	360	359	1	1	1.25
357	344	345	361	360	1	1	1.25
358	345	346	362	361	1	1	1.25
359	346	347	363	362	1	1	1.25
360	347	348	364	363	1	1	1.25
361	348	349	365	364	1	1	1.25
362	349	334	350	365	1	1	1.25
363	350	351	367	366	1	1	1.25
364	351	352	368	367	1	1	1.25
365	352	353	369	368	1	1	1.25
366	353	354	370	369	1	1	1.25
367	354	355	371	370	1	1	1.25
368	355	356	372	371	1	1	1.25
369	356	357	373	372	1	1	1.25
370	357	358	374	373	1	1	1.25
371	358	359	375	374	1	1	1.25
372	359	360	376	375	1	1	1.25
373	360	361	377	376	1	1	1.25
374	361	362	378	377	1	1	1.25
375	362	363	379	378	1	1	1.25
376	363	364	380	379	1	1	1.25
377	364	365	381	380	1	1	1.25
378	365	350	366	381	1	1	1.25
379	366	367	383	382	1	1	1.25
380	367	368	384	383	1	1	1.25
381	368	369	385	384	1	1	1.25
382	369	370	386	385	1	1	1.25
383	370	371	387	386	1	1	1.25
384	371	372	388	387	1	1	1.25
385	372	373	389	388	1	1	1.25
386	373	374	390	389	1	1	1.25
387	374	375	391	390	1	1	1.25
388	375	376	392	391	1	1	1.25
389	376	377	393	392	1	1	1.25
390	377	378	394	393	1	1	1.25
391	378	379	395	394	1	1	1.25
392	379	380	396	395	1	1	1.25
393	380	381	397	396	1	1	1.25
394	381	366	382	397	1	1	1.25
395	382	383	399	398	1	1	1.25
396	383	384	400	399	1	1	1.25
397	384	385	401	400	1	1	1.25
398	385	386	402	401	1	1	1.25
399	386	387	403	402	1	1	1.25
400	387	388	404	403	1	1	1.25
401	388	389	405	404	1	1	1.25
402	389	390	406	405	1	1	1.25
403	390	391	407	406	1	1	1.25
404	391	392	408	407	1	1	1.25
405	392	393	409	408	1	1	1.25
406	393	394	410	409	1	1	1.25
407	394	395	411	410	1	1	1.25
408	395	396	412	411	1	1	1.25
409	396	397	413	412	1	1	1.25

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410  397  382  398  413                    1    1  1.25
NUMBER OF ELEMENTS =   410     MAXIMUM NODE POINT USED =   413

        *** ELEMENT STIFFNESS FORMULATION TIME ESTIMATE (CDC 7600) ***
TYPE      STIF      NUMBER   TIME(EACH)   TIME(ALL)
  1        [illegible]3        410        .0346        14.170
                         TOTAL TIME =       14.170 SECONDS.
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ANSYS - ENGINEERING ANALYSIS SYSTEM UP188 REV 2 B+W7600 JAN 1,1972
SWANSON ANALYSIS SYSTEMS, INC. ELIZABETH, PENNSYLVANIA 15037 PHONE (412) 751-1940

BREECHED STEEL STACK ANSYS ANALYSIS FOR DL + 9.2PSF E TO W LAT.WIND CP = 9.7850 3.074 5/11/77 PP = 0.000

***** NODE DEFINITIONS (CARD F) *****

NODE	LOCATION X (OR R)	Y (OR THETA)	Z (OR PHI)	ROTATION (DEGREES) THXY (OR RT)	THYZ (TZ OR TP)	THXZ (RZ OR RP)	
1	179.38	0.	0.	-0.	-0.	-0.	CYLINDRICAL
1	179.38	0.	0.	0.	-0.	-0.	
2	179.38	22.500	0.	0.	0.	0.	CYLINDRICAL
2	165.72	68.644	0.	22.500	0.	0.	
3	179.38	45.000	0.	0.	0.	0.	CYLINDRICAL
3	126.84	126.84	0.	45.000	0.	0.	
4	179.38	67.500	0.	0.	0.	0.	CYLINDRICAL
4	68.644	165.72	0.	67.500	0.	0.	
5	179.38	90.000	0.	0.	0.	0.	CYLINDRICAL
5	-.91542E-09	179.38	0.	90.000	0.	0.	
6	179.38	112.50	0.	0.	0.	0.	CYLINDRICAL
6	-68.644	165.72	0.	112.50	0.	0.	
7	179.38	135.00	0.	0.	0.	0.	CYLINDRICAL
7	-126.84	126.84	0.	135.00	0.	0.	
8	179.38	142.50	0.	-0.	-0.	-0.	CYLINDRICAL
8	-142.31	109.20	0.	142.50	-0.	-0.	
9	179.38	150.00	0.	0.	0.	0.	CYLINDRICAL
9	-155.34	89.687	0.	150.00	0.	0.	
10	179.38	157.50	0.	0.	0.	0.	CYLINDRICAL
10	-165.72	68.644	0.	157.50	0.	0.	
11	179.38	165.00	0.	0.	0.	0.	CYLINDRICAL
11	-173.26	46.426	0.	165.00	0.	0.	
12	179.38	172.50	0.	0.	0.	0.	CYLINDRICAL
12	-177.84	23.413	0.	172.50	0.	0.	
13	179.38	180.00	0.	0.	0.	0.	CYLINDRICAL
13	-179.38	-.18308E-08	0.	180.00	0.	0.	
14	179.38	187.50	0.	0.	0.	0.	CYLINDRICAL
14	-177.84	-23.413	0.	187.50	0.	0.	
15	179.38	195.00	0.	0.	0.	0.	CYLINDRICAL
15	-173.26	-46.426	0.	195.00	0.	0.	
16	179.38	202.50	0.	0.	0.	0.	CYLINDRICAL
16	-165.72	-68.644	0.	202.50	0.	0.	
17	179.38	210.00	0.	0.	0.	0.	CYLINDRICAL
17	-155.34	-89.688	0.	210.00	0.	0.	
18	179.38	217.50	0.	0.	0.	0.	CYLINDRICAL
18	-142.31	-109.20	0.	217.50	0.	0.	
19	179.38	225.00	0.	0.	0.	0.	CYLINDRICAL
19	-126.84	-126.84	0.	225.00	-0.	-0.	
20	179.38	247.50	0.	-0.	-0.	-0.	CYLINDRICAL
20	-68.644	-165.72	0.	247.50	-0.	-0.	
21	179.38	270.00	0.	0.	0.	0.	CYLINDRICAL
21	.27450E-08	-179.38	0.	270.00	0.	0.	
22	179.38	292.50	0.	0.	0.	0.	CYLINDRICAL
22	68.644	-165.72	0.	292.50	0.	0.	
23	179.38	315.00	0.	0.	0.	0.	CYLINDRICAL
23	126.84	-126.84	0.	315.00	0.	0.	
24	179.38	337.50	0.	0.	0.	0.	CYLINDRICAL
24	165.72	-68.644	0.	337.50	0.	0.	
25	178.84	135.00	36.000	-0.	-0.	-0.	CYLINDRICAL
25	-126.46	126.46	36.000	135.00	-0.	-0.	

26	178.84	142.50	36.000	0.	0.	0.	CYLINDRICAL
26	-141.88	108.87	36.000	142.50	0.	0.	
27	178.84	150.00	36.000	0.	0.	0.	CYLINDRICAL
27	-154.88	89.417	36.000	150.00	0.	0.	
28	178.84	157.50	36.000	0.	0.	0.	CYLINDRICAL
28	-165.22	68.437	36.000	157.50	0.	0.	
29	178.84	165.00	36.000	0.	0.	0.	CYLINDRICAL
29	-172.74	46.286	36.000	165.00	0.	0.	
30	178.84	172.50	36.000	0.	0.	0.	CYLINDRICAL
30	-177.31	23.343	36.000	172.50	0.	0.	
31	178.84	180.00	36.000	0.	0.	0.	CYLINDRICAL
31	-178.84	-.18253E-08	36.000	180.00	0.	0.	
32	178.84	187.50	36.000	0.	0.	0.	CYLINDRICAL
32	-177.31	-23.343	36.000	187.50	0.	0.	
33	178.84	195.00	36.000	0.	0.	0.	CYLINDRICAL
33	-172.74	-46.286	36.000	195.00	0.	0.	
34	178.84	202.50	36.000	0.	0.	0.	CYLINDRICAL
34	-165.22	-68.437	36.000	202.50	0.	0.	
35	178.84	210.00	36.000	0.	0.	0.	CYLINDRICAL
35	-154.88	-89.418	36.000	210.00	0.	0.	
36	178.84	217.50	36.000	0.	0.	0.	CYLINDRICAL
36	-141.88	-108.87	36.000	217.50	0.	0.	
37	178.84	225.00	36.000	0.	0.	0.	CYLINDRICAL
37	-126.46	-126.46	36.000	225.00	0.	0.	
38	178.30	112.50	72.000	-0.	-0.	-0.	CYLINDRICAL
38	-68.231	164.72	72.000	112.50	-0.	-0.	
39	178.30	135.00	72.000	-0.	-0.	-0.	CYLINDRICAL
39	-126.07	126.07	72.000	135.00	-0.	-0.	
40	178.30	142.50	72.000	0.	0.	0.	CYLINDRICAL
40	-141.45	108.54	72.000	142.50	0.	0.	
41	178.30	150.00	72.000	0.	0.	0.	CYLINDRICAL
41	-154.41	89.147	72.000	150.00	0.	0.	
42	178.30	157.50	72.000	0.	0.	0.	CYLINDRICAL
42	-164.72	68.231	72.000	157.50	0.	0.	
43	178.30	165.00	72.000	0.	0.	0.	CYLINDRICAL
43	-172.22	46.146	72.000	165.00	0.	0.	
44	178.30	172.50	72.000	0.	0.	0.	CYLINDRICAL
44	-176.77	23.272	72.000	172.50	0.	0.	
45	178.30	180.00	72.000	0.	0.	0.	CYLINDRICAL
45	-178.30	-.18198E-08	72.000	180.00	0.	0.	
46	178.30	187.50	72.000	0.	0.	0.	CYLINDRICAL
46	-176.77	-23.272	72.000	187.50	0.	0.	
47	178.30	195.00	72.000	0.	0.	0.	CYLINDRICAL
47	-172.22	-46.146	72.000	195.00	0.	0.	
48	178.30	202.50	72.000	0.	0.	0.	CYLINDRICAL
48	-164.72	-68.231	72.000	202.50	0.	0.	
49	178.30	210.00	72.000	0.	0.	0.	CYLINDRICAL
49	-154.41	-89.148	72.000	210.00	0.	0.	
50	178.30	217.50	72.000	0.	0.	0.	CYLINDRICAL
50	-141.45	-108.54	72.000	217.50	0.	0.	
51	178.30	225.00	72.000	0.	0.	0.	CYLINDRICAL
51	-126.07	-126.07	72.000	225.00	0.	0.	
52	178.30	247.50	72.000	-0.	-0.	-0.	CYLINDRICAL
52	-68.231	-164.72	72.000	247.50	-0.	-0.	
53	177.94	135.00	96.000	-0.	-0.	-0.	CYLINDRICAL
53	-125.82	125.82	96.000	135.00	-0.	-0.	
54	177.94	142.50	96.000	0.	0.	0.	CYLINDRICAL
54	-141.17	108.32	96.000	142.50	0.	0.	
55	177.94	150.00	96.000	0.	0.	0.	CYLINDRICAL
55	-154.10	88.967	96.000	150.00	0.	0.	
56	177.94	157.50	96.000	0.	0.	0.	CYLINDRICAL
56	-164.39	68.093	96.000	157.50	0.	0.	
57	177.94	165.00	96.000	0.	0.	0.	CYLINDRICAL
57	-171.87	46.053	96.000	165.00	0.	0.	
58	177.94	172.50	96.000	0.	0.	0.	CYLINDRICAL
58	-176.41	23.225	96.000	172.50	0.	0.	

59	177.94	180.00	96.000	0.	0.	0.	CYLINDRICAL
59	-177.94	-.18162E-08	96.000	180.00	0.	0.	
60	177.94	187.50	96.000	0.	0.	0.	CYLINDRICAL
60	-176.41	-23.225	96.000	187.50	0.	0.	
61	177.94	195.00	96.000	0.	0.	0.	CYLINDRICAL
61	-171.87	-46.053	96.000	195.00	0.	0.	
62	177.94	202.50	96.000	0.	0.	0.	CYLINDRICAL
62	-164.39	-68.093	96.000	202.50	0.	0.	
63	177.94	210.00	96.000	0.	0.	0.	CYLINDRICAL
63	-154.10	-88.468	96.000	210.00	0.	0.	
64	177.94	217.50	96.000	0.	0.	0.	CYLINDRICAL
64	-141.17	-108.32	96.000	217.50	0.	0.	
65	177.94	225.00	96.000	0.	0.	0.	CYLINDRICAL
65	-125.82	-125.82	96.000	225.00	0.	0.	
66	177.40	0.	132.00	-0.	-0.	-0.	CYLINDRICAL
66	177.40	0.	132.00	0.	-0.	-0.	
67	177.40	22.500	132.00	0.	0.	0.	CYLINDRICAL
67	163.89	67.886	132.00	22.500	0.	0.	
68	177.40	45.000	132.00	0.	0.	0.	CYLINDRICAL
68	125.44	125.44	132.00	45.000	0.	0.	
69	177.40	67.500	132.00	0.	0.	0.	CYLINDRICAL
69	67.886	163.89	132.00	67.500	0.	0.	
70	177.40	90.000	132.00	0.	0.	0.	CYLINDRICAL
70	-.90552E-09	177.40	132.00	90.000	0.	0.	
71	177.40	112.50	132.00	0.	0.	0.	CYLINDRICAL
71	-67.886	163.89	132.00	112.50	0.	0.	
72	177.40	135.00	132.00	0.	0.	0.	CYLINDRICAL
72	-125.44	125.44	132.00	135.00	0.	0.	
73	177.40	142.50	132.00	-0.	-0.	-0.	CYLINDRICAL
73	-140.74	107.99	132.00	142.50	-0.	-0.	
74	177.40	150.00	132.00	0.	0.	0.	CYLINDRICAL
74	-153.63	88.697	132.00	150.00	0.	0.	
75	177.40	157.50	132.00	0.	0.	0.	CYLINDRICAL
75	-163.89	67.886	132.00	157.50	0.	0.	
76	177.40	202.50	132.00	-0.	-0.	-0.	CYLINDRICAL
76	-163.89	-67.886	132.00	202.50	-0.	-0.	
77	177.40	210.00	132.00	0.	0.	0.	CYLINDRICAL
77	-153.63	-88.698	132.00	210.00	0.	0.	
78	177.40	217.50	132.00	0.	0.	0.	CYLINDRICAL
78	-140.74	-107.99	132.00	217.50	0.	0.	
79	177.40	225.00	132.00	0.	0.	0.	CYLINDRICAL
79	-125.44	-125.44	132.00	225.00	0.	0.	
80	177.40	247.50	132.00	-0.	-0.	-0.	CYLINDRICAL
80	-67.886	-163.89	132.00	247.50	-0.	-0.	
81	177.40	270.00	132.00	0.	0.	0.	CYLINDRICAL
81	.27147E-08	-177.40	132.00	270.00	0.	0.	
82	177.40	292.50	132.00	0.	0.	0.	CYLINDRICAL
82	67.886	-163.89	132.00	292.50	0.	0.	
83	177.40	315.00	132.00	0.	0.	0.	CYLINDRICAL
83	125.44	-125.44	132.00	315.00	0.	0.	
84	177.40	337.50	132.00	0.	0.	0.	CYLINDRICAL
84	163.89	-67.886	132.00	337.50	0.	0.	
85	176.86	135.00	168.00	-0.	-0.	-0.	CYLINDRICAL
85	-125.06	125.06	168.00	135.00	-0.	-0.	
86	176.86	142.50	168.00	0.	0.	0.	CYLINDRICAL
86	-140.31	107.66	168.00	142.50	0.	0.	
87	176.86	150.00	168.00	0.	0.	0.	CYLINDRICAL
87	-153.16	88.427	168.00	150.00	0.	0.	
88	176.86	157.50	168.00	0.	0.	0.	CYLINDRICAL
88	-163.59	67.679	168.00	157.50	0.	0.	
89	176.86	202.50	168.00	-0.	-0.	-0.	CYLINDRICAL
89	-163.59	-67.679	168.00	202.50	-0.	-0.	
90	176.86	210.00	168.00	0.	0.	0.	CYLINDRICAL
90	-153.16	-88.428	168.00	210.00	0.	0.	
91	176.86	217.50	168.00	0.	0.	0.	CYLINDRICAL
91	-140.31	-107.66	168.00	217.50	0.	0.	

92	176.86	225.00	168.00	0.	0.	0.	CYLINDRICAL
92	-125.06	-125.06	168.00	225.00	0.	0.	
93	-176.32	112.50	204.00	-0.	-0.	-0.	CYLINDRICAL
93	-67.473	162.89	204.00	112.50	-0.	-0.	
94	176.32	135.00	204.00	-0.	-0.	-0.	CYLINDRICAL
94	-124.67	124.67	204.00	135.00	-0.	-0.	
95	176.32	142.50	204.00	0.	0.	0.	CYLINDRICAL
95	-139.88	107.33	204.00	142.50	0.	0.	
96	176.32	150.00	204.00	0.	0.	0.	CYLINDRICAL
96	-152.69	88.157	204.00	150.00	0.	0.	
97	176.32	157.50	204.00	0.	0.	0.	CYLINDRICAL
97	-162.89	67.473	204.00	157.50	0.	0.	
98	176.32	202.50	204.00	-0.	-0.	-0.	CYLINDRICAL
98	-162.89	-67.473	204.00	202.50	-0.	-0.	
99	176.32	210.00	204.00	0.	0.	0.	CYLINDRICAL
99	-152.69	-88.158	204.00	210.00	0.	0.	
100	176.32	217.50	204.00	0.	0.	0.	CYLINDRICAL
100	-139.88	-107.33	204.00	217.50	0.	0.	
101	176.32	225.00	204.00	0.	0.	0.	CYLINDRICAL
101	-124.67	-124.67	204.00	225.00	0.	0.	
102	176.32	247.50	204.00	-0.	-0.	-0.	CYLINDRICAL
102	-67.473	-162.89	204.00	247.50	-0.	-0.	
103	175.78	135.00	240.00	-0.	-0.	-0.	CYLINDRICAL
103	-124.29	124.29	240.00	135.00	-0.	-0.	
104	175.78	142.50	240.00	0.	0.	0.	CYLINDRICAL
104	-139.45	107.01	240.00	142.50	0.	0.	
105	175.78	150.00	240.00	0.	0.	0.	CYLINDRICAL
105	-152.23	87.887	240.00	150.00	0.	0.	
106	175.78	157.50	240.00	0.	0.	0.	CYLINDRICAL
106	-162.39	67.266	240.00	157.50	0.	0.	
107	175.78	202.50	240.00	-0.	-0.	-0.	CYLINDRICAL
107	-162.39	-67.266	240.00	202.50	-0.	-0.	
108	175.78	210.00	240.00	0.	0.	0.	CYLINDRICAL
108	-152.23	-87.888	240.00	210.00	0.	0.	
109	175.78	217.50	240.00	0.	0.	0.	CYLINDRICAL
109	-139.45	-107.01	240.00	217.50	0.	0.	
110	175.78	225.00	240.00	0.	0.	0.	CYLINDRICAL
110	-124.29	-124.29	240.00	225.00	0.	0.	
111	175.24	0.	276.00	-0.	-0.	-0.	CYLINDRICAL
111	175.24	0.	276.00	0.	-0.	-0.	
112	175.24	22.500	276.00	0.	0.	0.	CYLINDRICAL
112	161.90	67.060	276.00	22.500	0.	0.	
113	175.24	45.000	276.00	0.	0.	0.	CYLINDRICAL
113	123.91	123.91	276.00	45.000	0.	0.	
114	175.24	67.500	276.00	0.	0.	0.	CYLINDRICAL
114	67.060	161.90	276.00	67.500	0.	0.	
115	175.24	90.000	276.00	0.	0.	0.	CYLINDRICAL
115	-.69450E-09	175.24	276.00	90.000	0.	0.	
116	175.24	112.50	276.00	0.	0.	0.	CYLINDRICAL
116	-67.060	161.90	276.00	112.50	0.	0.	
117	175.24	135.00	276.00	-0.	-0.	-0.	CYLINDRICAL
117	-123.91	123.91	276.00	135.00	-0.	-0.	
118	175.24	142.50	276.00	0.	0.	0.	CYLINDRICAL
118	-139.02	106.68	276.00	142.50	0.	0.	
119	175.24	150.00	276.00	0.	0.	0.	CYLINDRICAL
119	-151.76	87.617	276.00	150.00	0.	0.	
120	175.24	157.50	276.00	0.	0.	0.	CYLINDRICAL
120	-161.90	67.060	276.00	157.50	0.	0.	
121	175.24	165.00	276.00	0.	0.	0.	CYLINDRICAL
121	-169.26	45.354	276.00	165.00	0.	0.	
122	175.24	172.50	276.00	0.	0.	0.	CYLINDRICAL
122	-173.74	22.873	276.00	172.50	0.	0.	
123	175.24	180.00	276.00	0.	0.	0.	CYLINDRICAL
123	-175.24	-.17686E-08	276.00	180.00	0.	0.	
124	175.24	187.50	276.00	0.	0.	0.	CYLINDRICAL
124	-173.74	-22.873	276.00	187.50	0.	0.	

125	175.24	195.00	276.00	0.	0.	0.	CYLINDRICAL
125	-169.26	-45.354	276.00	195.00	0.	0.	
126	175.24	202.50	276.00	0.	0.	0.	CYLINDRICAL
126	-161.90	-67.060	276.00	202.50	0.	0.	
127	175.24	210.00	276.00	0.	0.	0.	CYLINDRICAL
127	-151.76	-87.618	276.00	210.00	0.	0.	
128	175.24	217.50	276.00	0.	0.	0.	CYLINDRICAL
128	-139.02	-106.68	276.00	217.50	0.	0.	
129	175.24	225.00	276.00	0.	0.	0.	CYLINDRICAL
129	-123.91	-123.91	276.00	225.00	0.	0.	
130	175.24	247.50	276.00	-0.	-0.	-0.	CYLINDRICAL
130	-67.060	-161.90	276.00	247.50	-0.	-0.	
131	175.24	270.00	276.00	0.	0.	0.	CYLINDRICAL
131	.26816E-08	-175.24	276.00	270.00	0.	0.	
132	175.24	292.50	276.00	0.	0.	0.	CYLINDRICAL
132	67.060	-161.90	276.00	292.50	0.	0.	
133	175.24	315.00	276.00	0.	0.	0.	CYLINDRICAL
133	123.91	-123.91	276.00	315.00	0.	0.	
134	175.24	337.50	276.00	0.	0.	0.	CYLINDRICAL
134	161.90	-67.060	276.00	337.50	0.	0.	
135	174.88	135.00	300.00	-0.	-0.	-0.	CYLINDRICAL
135	-123.66	123.66	300.00	135.00	-0.	-0.	
136	174.88	142.50	300.00	0.	0.	0.	CYLINDRICAL
136	-138.74	106.46	300.00	142.50	0.	0.	
137	174.88	150.00	300.00	0.	0.	0.	CYLINDRICAL
137	-151.45	87.437	300.00	150.00	0.	0.	
138	174.88	157.50	300.00	0.	0.	0.	CYLINDRICAL
138	-161.56	66.922	300.00	157.50	0.	0.	
139	174.88	165.00	300.00	0.	0.	0.	CYLINDRICAL
139	-168.92	45.261	300.00	165.00	0.	0.	
140	174.88	172.50	300.00	0.	0.	0.	CYLINDRICAL
140	-173.38	22.826	300.00	172.50	0.	0.	
141	174.88	180.00	300.00	0.	0.	0.	CYLINDRICAL
141	-174.88	-.17849E-08	300.00	180.00	0.	0.	
142	174.88	187.50	300.00	0.	0.	0.	CYLINDRICAL
142	-173.38	-22.826	300.00	187.50	0.	0.	
143	174.88	195.00	300.00	0.	0.	0.	CYLINDRICAL
143	-168.92	-45.261	300.00	195.00	0.	0.	
144	174.88	202.50	300.00	0.	0.	0.	CYLINDRICAL
144	-161.56	-66.922	300.00	202.50	0.	0.	
145	174.88	210.00	300.00	0.	0.	0.	CYLINDRICAL
145	-151.45	-87.438	300.00	210.00	0.	0.	
146	174.88	217.50	300.00	0.	0.	0.	CYLINDRICAL
146	-138.74	-106.46	300.00	217.50	0.	0.	
147	174.88	225.00	300.00	0.	0.	0.	CYLINDRICAL
147	-123.66	-123.66	300.00	225.00	0.	0.	
148	174.34	112.50	336.00	-0.	-0.	-0.	CYLINDRICAL
148	-66.715	161.06	336.00	112.50	-0.	-0.	
149	174.34	135.00	336.00	-0.	-0.	-0.	CYLINDRICAL
149	-123.27	123.27	336.00	135.00	-0.	-0.	
150	174.34	142.50	336.00	0.	0.	0.	CYLINDRICAL
150	-138.31	106.13	336.00	142.50	0.	0.	
151	174.34	150.00	336.00	0.	0.	0.	CYLINDRICAL
151	-150.98	87.167	336.00	150.00	0.	0.	
152	174.34	157.50	336.00	0.	0.	0.	CYLINDRICAL
152	-161.06	66.715	336.00	157.50	0.	0.	
153	174.34	165.00	336.00	0.	0.	0.	CYLINDRICAL
153	-168.39	45.121	336.00	165.00	0.	0.	
154	174.34	172.50	336.00	0.	0.	0.	CYLINDRICAL
154	-172.84	22.755	336.00	172.50	0.	0.	
155	174.34	180.00	336.00	0.	0.	0.	CYLINDRICAL
155	-174.34	-.17794E-08	336.00	180.00	0.	0.	
156	174.34	187.50	336.00	0.	0.	0.	CYLINDRICAL
156	-172.84	-22.755	336.00	187.50	0.	0.	
157	174.34	195.00	336.00	0.	0.	0.	CYLINDRICAL
157	-168.39	-45.121	336.00	195.00	0.	0.	

158	174.34	202.50	336.00	0.	0.	0.	CYLINDRICAL
158	-161.06	-66.715	336.00	202.50	0.	0.	
159	174.34	210.00	336.00	0.	0.	0.	CYLINDRICAL
159	-150.98	-87.168	336.00	210.00	0.	0.	
160	174.34	217.50	336.00	0.	0.	0.	CYLINDRICAL
160	-138.31	-106.13	336.00	217.50	0.	0.	
161	174.34	225.00	336.00	0.	0.	0.	CYLINDRICAL
161	-123.27	-123.27	336.00	225.00	0.	0.	
162	174.34	247.50	336.00	-0.	-0.	-0.	CYLINDRICAL
162	-66.715	-161.06	336.00	247.50	-0.	-0.	
163	173.80	135.00	372.00	-0.	-0.	-0.	CYLINDRICAL
163	-122.89	122.89	372.00	135.00	-0.	-0.	
164	173.80	142.50	372.00	0.	0.	0.	CYLINDRICAL
164	-137.88	105.80	372.00	142.50	0.	0.	
165	173.80	150.00	372.00	0.	0.	0.	CYLINDRICAL
165	-150.51	86.897	372.00	150.00	0.	0.	
166	173.80	157.50	372.00	0.	0.	0.	CYLINDRICAL
166	-160.57	66.508	372.00	157.50	0.	0.	
167	173.80	165.00	372.00	0.	0.	0.	CYLINDRICAL
167	-167.87	44.981	372.00	165.00	0.	0.	
168	173.80	172.50	372.00	0.	0.	0.	CYLINDRICAL
168	-172.31	22.685	372.00	172.50	0.	0.	
169	173.80	180.00	372.00	0.	0.	0.	CYLINDRICAL
169	-173.80	-.17739E-08	372.00	180.00	0.	0.	
170	173.80	187.50	372.00	0.	0.	0.	CYLINDRICAL
170	-172.31	-22.685	372.00	187.50	0.	0.	
171	173.80	195.00	372.00	0.	0.	0.	CYLINDRICAL
171	-167.87	-44.981	372.00	195.00	0.	0.	
172	173.80	202.50	372.00	0.	0.	0.	CYLINDRICAL
172	-160.57	-66.508	372.00	202.50	0.	0.	
173	173.80	210.00	372.00	0.	0.	0.	CYLINDRICAL
173	-150.51	-86.898	372.00	210.00	0.	0.	
174	173.80	217.50	372.00	0.	0.	0.	CYLINDRICAL
174	-137.88	-105.80	372.00	217.50	0.	0.	
175	173.80	225.00	372.00	0.	0.	0.	CYLINDRICAL
175	-122.89	-122.89	372.00	225.00	0.	0.	
176	172.90	0.	432.00	-0.	-0.	-0.	CYLINDRICAL
176	172.90	0.	432.00	0.	-0.	-0.	
177	172.90	22.500	432.00	0.	0.	0.	CYLINDRICAL
177	159.73	66.164	432.00	22.500	0.	0.	
178	172.90	45.000	432.00	0.	0.	0.	CYLINDRICAL
178	122.26	122.26	432.00	45.000	0.	0.	
179	172.90	67.500	432.00	0.	0.	0.	CYLINDRICAL
179	66.164	159.73	432.00	67.500	0.	0.	
180	172.90	90.000	432.00	0.	0.	0.	CYLINDRICAL
180	-.88235E-09	172.90	432.00	90.000	0.	0.	
181	172.90	112.50	432.00	0.	0.	0.	CYLINDRICAL
181	-66.164	159.73	432.00	112.50	0.	0.	
182	172.90	135.00	432.00	-0.	-0.	-0.	CYLINDRICAL
182	-122.26	122.26	432.00	135.00	-0.	-0.	
183	172.90	142.50	432.00	0.	0.	0.	CYLINDRICAL
183	-137.17	105.25	432.00	142.50	0.	0.	
184	172.90	150.00	432.00	0.	0.	0.	CYLINDRICAL
184	-149.73	86.447	432.00	150.00	0.	0.	
185	172.90	157.50	432.00	0.	0.	0.	CYLINDRICAL
185	-159.73	66.164	432.00	157.50	0.	0.	
186	172.90	165.00	432.00	0.	0.	0.	CYLINDRICAL
186	-167.00	44.749	432.00	165.00	0.	0.	
187	172.90	172.50	432.00	0.	0.	0.	CYLINDRICAL
187	-171.42	22.567	432.00	172.50	0.	0.	
188	172.90	180.00	432.00	0.	0.	0.	CYLINDRICAL
188	-172.90	-.17647E-08	432.00	180.00	0.	0.	
189	172.90	187.50	432.00	0.	0.	0.	CYLINDRICAL
189	-171.42	-22.567	432.00	187.50	0.	0.	
190	172.90	195.00	432.00	0.	0.	0.	CYLINDRICAL
190	-167.00	-44.749	432.00	195.00	0.	0.	

191	172.90	202.50	432.00	0.	0.	0.	CYLINDRICAL
191	-159.73	-66.164	432.00	202.50	0.	0.	
192	172.90	210.00	432.00	0.	0.	0.	CYLINDRICAL
192	-149.73	-86.448	432.00	210.00	0.	0.	
193	172.90	217.50	432.00	0.	0.	0.	CYLINDRICAL
193	-137.17	-105.25	432.00	217.50	0.	0.	
194	172.90	225.00	432.00	0.	0.	0.	CYLINDRICAL
194	-122.26	-122.26	432.00	225.00	0.	0.	
195	172.90	247.50	432.00	-0.	-0.	-0.	CYLINDRICAL
195	-66.164	-159.73	432.00	247.50	-0.	-0.	
196	172.90	270.00	432.00	0.	0.	0.	CYLINDRICAL
196	.26458E-08	-172.90	432.00	270.00	0.	0.	
197	172.90	292.50	432.00	0.	0.	0.	CYLINDRICAL
197	66.164	-159.73	432.00	292.50	0.	0.	
198	172.90	315.00	432.00	0.	0.	0.	CYLINDRICAL
198	122.26	-122.26	432.00	315.00	0.	0.	
199	172.90	337.50	432.00	0.	0.	0.	CYLINDRICAL
199	159.73	-66.164	432.00	337.50	0.	0.	
200	171.64	135.00	516.00	-0.	-0.	-0.	CYLINDRICAL
200	-121.36	121.36	516.00	135.00	-0.	-0.	
201	171.64	142.50	516.00	0.	0.	0.	CYLINDRICAL
201	-136.17	104.48	516.00	142.50	0.	-0.	
202	171.64	150.00	516.00	0.	0.	0.	CYLINDRICAL
202	-148.64	85.817	516.00	150.00	0.	0.	
203	171.64	157.50	516.00	0.	0.	0.	CYLINDRICAL
203	-158.57	65.682	516.00	157.50	0.	0.	
204	171.64	165.00	516.00	0.	0.	0.	CYLINDRICAL
204	-165.79	44.422	516.00	165.00	0.	0.	
205	171.64	172.50	516.00	0.	0.	0.	CYLINDRICAL
205	-170.17	22.403	516.00	172.50	0.	0.	
206	171.64	180.00	516.00	0.	0.	0.	CYLINDRICAL
206	-171.64	-.17518E-08	516.00	180.00	0.	0.	
207	171.64	187.50	516.00	0.	0.	0.	CYLINDRICAL
207	-170.17	-22.403	516.00	187.50	0.	0.	
208	171.64	195.00	516.00	0.	0.	0.	CYLINDRICAL
208	-165.79	-44.422	516.00	195.00	0.	0.	
209	171.64	202.50	516.00	0.	0.	0.	CYLINDRICAL
209	-158.57	-65.682	516.00	202.50	0.	0.	
210	171.64	210.00	516.00	0.	0.	0.	CYLINDRICAL
210	-148.64	-85.818	516.00	210.00	0.	0.	
211	171.64	217.50	516.00	0.	0.	0.	CYLINDRICAL
211	-136.17	-104.48	516.00	217.50	0.	0.	
212	171.64	225.00	516.00	0.	0.	0.	CYLINDRICAL
212	-121.36	-121.36	516.00	225.00	0.	0.	
213	170.38	0.	600.00	-0.	-0.	-0.	CYLINDRICAL
213	170.38	0.	600.00	0.	-0.	-0.	
214	170.38	22.500	600.00	0.	0.	0.	CYLINDRICAL
214	157.41	65.200	600.00	22.500	0.	0.	
215	170.38	45.000	600.00	0.	0.	0.	CYLINDRICAL
215	120.47	120.47	600.00	45.000	0.	0.	
216	170.38	67.500	600.00	0.	0.	0.	CYLINDRICAL
216	65.200	157.41	600.00	67.500	0.	0.	
217	170.38	90.000	600.00	0.	0.	0.	CYLINDRICAL
217	-.86949E-09	170.38	600.00	90.000	0.	0.	
218	170.38	112.50	600.00	0.	0.	0.	CYLINDRICAL
218	-65.200	157.41	600.00	112.50	0.	0.	
219	170.38	135.00	600.00	-0.	-0.	-0.	CYLINDRICAL
219	-120.47	120.47	600.00	135.00	-0.	-0.	
220	170.38	142.50	600.00	0.	0.	0.	CYLINDRICAL
220	-135.17	103.72	600.00	142.50	0.	0.	
221	170.38	150.00	600.00	0.	0.	0.	CYLINDRICAL
221	-147.55	85.187	600.00	150.00	0.	0.	
222	170.38	157.50	600.00	0.	0.	0.	CYLINDRICAL
222	-157.41	65.208	600.00	157.50	0.	0.	
223	170.38	165.00	600.00	0.	0.	0.	CYLINDRICAL
223	-164.57	44.096	600.00	165.00	0.	0.	

224	170.38	172.50	600.00	0.	0.	0.	CYLINDRICAL
224	-168.92	22.238	600.00	172.50	0.	0.	
225	170.38	180.00	600.00	0.	0.	0.	CYLINDRICAL
225	-170.38	-.17390E-08	600.00	180.00	0.	0.	
226	170.38	187.50	600.00	0.	0.	0.	CYLINDRICAL
226	-168.92	-22.238	600.00	187.50	0.	0.	
227	170.38	195.00	600.00	0.	0.	0.	CYLINDRICAL
227	-164.57	-44.096	600.00	195.00	0.	0.	
228	170.38	202.50	600.00	0.	0.	0.	CYLINDRICAL
228	-157.41	-65.200	600.00	202.50	0.	0.	
229	170.38	210.00	600.00	0.	0.	0.	CYLINDRICAL
229	-147.55	-85.188	600.00	210.00	0.	0.	
230	170.38	217.50	600.00	0.	0.	0.	CYLINDRICAL
230	-135.17	-103.72	600.00	217.50	0.	0.	
231	170.38	225.00	600.00	0.	0.	0.	CYLINDRICAL
231	-120.47	-120.47	600.00	225.00	0.	0.	
232	170.38	247.50	600.00	-0.	-0.	-0.	CYLINDRICAL
232	-65.200	-157.41	600.00	247.50	-0.	-0.	
233	170.38	270.00	600.00	0.	0.	0.	CYLINDRICAL
233	.26073E-08	-170.38	600.00	270.00	0.	0.	
234	170.38	292.50	600.00	0.	0.	0.	CYLINDRICAL
234	65.200	-157.41	600.00	292.50	0.	0.	
235	170.38	315.00	600.00	0.	0.	0.	CYLINDRICAL
235	120.47	-120.47	600.00	315.00	0.	0.	
236	170.38	337.50	600.00	0.	0.	0.	CYLINDRICAL
236	157.41	-65.200	600.00	337.50	0.	0.	
237	169.12	135.00	684.00	-0.	-0.	-0.	CYLINDRICAL
237	-119.58	119.58	684.00	135.00	-0.	-0.	
238	169.12	142.50	684.00	0.	0.	0.	CYLINDRICAL
238	-134.17	102.95	684.00	142.50	0.	0.	
239	169.12	150.00	684.00	0.	0.	0.	CYLINDRICAL
239	-146.46	84.557	684.00	150.00	0.	0.	
240	169.12	157.50	684.00	0.	0.	0.	CYLINDRICAL
240	-156.24	64.718	684.00	157.50	0.	0.	
241	169.12	165.00	684.00	0.	0.	0.	CYLINDRICAL
241	-163.35	43.770	684.00	165.00	0.	0.	
242	169.12	172.50	684.00	0.	0.	0.	CYLINDRICAL
242	-167.67	22.074	684.00	172.50	0.	0.	
243	169.12	180.00	684.00	0.	0.	0.	CYLINDRICAL
243	-169.12	-.17261E-08	684.00	180.00	0.	0.	
244	169.12	187.50	684.00	0.	0.	0.	CYLINDRICAL
244	-167.67	-22.074	684.00	187.50	0.	0.	
245	169.12	195.00	684.00	0.	0.	0.	CYLINDRICAL
245	-163.35	-43.770	684.00	195.00	0.	0.	
246	169.12	202.50	684.00	0.	0.	0.	CYLINDRICAL
246	-156.24	-64.718	684.00	202.50	0.	0.	
247	169.12	210.00	684.00	0.	0.	0.	CYLINDRICAL
247	-146.46	-84.558	684.00	210.00	0.	0.	
248	169.12	217.50	684.00	0.	0.	0.	CYLINDRICAL
248	-134.17	-102.95	684.00	217.50	0.	0.	
249	169.12	225.00	684.00	0.	0.	0.	CYLINDRICAL
249	-119.58	-119.58	684.00	225.00	0.	0.	
250	167.86	[illegible]	768.00	-0.	-0.	-0.	CYLINDRICAL
250	167.86	0.	768.00	0.	-0.	-0.	
251	167.86	22.500	768.00	0.	0.	0.	CYLINDRICAL
251	155.08	64.235	768.00	22.500	0.	0.	
252	167.86	45.000	768.00	0.	0.	0.	CYLINDRICAL
252	118.69	118.69	768.00	45.000	0.	0.	
253	167.86	67.500	768.00	0.	0.	0.	CYLINDRICAL
253	64.235	155.08	768.00	67.500	0.	0.	
254	167.86	90.000	768.00	0.	0.	0.	CYLINDRICAL
254	-.85663E-09	167.86	768.00	90.000	0.	0.	
255	167.86	112.50	768.00	0.	0.	0.	CYLINDRICAL
255	-64.235	155.08	768.00	112.50	0.	0.	
256	167.86	135.00	768.00	-0.	-0.	-0.	CYLINDRICAL
256	-118.69	118.69	768.00	135.00	-0.	-0.	

257	167.86	142.50	768.00	0.	0.	0.	CYLINDRICAL
257	-133.17	102.18	768.00	142.50	0.	0.	
258	167.86	150.00	768.00	0.	0.	0.	CYLINDRICAL
258	-145.37	83.927	768.00	150.00	0.	0.	
259	167.86	157.50	768.00	0.	0.	0.	CYLINDRICAL
259	-155.08	64.235	768.00	157.50	0.	0.	
260	167.86	165.00	768.00	0.	0.	0.	CYLINDRICAL
260	-162.14	43.444	768.00	165.00	0.	0.	
261	167.86	172.50	768.00	0.	0.	0.	CYLINDRICAL
261	-166.42	21.909	768.00	172.50	0.	0.	
262	167.86	180.00	768.00	0.	0.	0.	CYLINDRICAL
262	-167.86	-.17133E-08	768.00	180.00	0.	0.	
263	167.86	187.50	768.00	0.	0.	0.	CYLINDRICAL
263	-166.42	-21.909	768.00	187.50	0.	0.	
264	167.86	195.00	768.00	0.	0.	0.	CYLINDRICAL
264	-162.14	-43.444	768.00	195.00	0.	0.	
265	167.86	202.50	768.00	0.	0.	0.	CYLINDRICAL
265	-155.08	-64.235	768.00	202.50	0.	0.	
266	167.86	210.00	768.00	0.	0.	0.	CYLINDRICAL
266	-145.37	-83.928	768.00	210.00	0.	0.	
267	167.86	217.50	768.00	0.	0.	0.	CYLINDRICAL
267	-133.17	-102.18	768.00	217.50	0.	0.	
268	167.86	225.00	768.00	0.	0.	0.	CYLINDRICAL
268	-118.69	-118.69	768.00	225.00	0.	0.	
269	167.86	247.50	768.00	-0.	-0.	-0.	CYLINDRICAL
269	-64.235	-155.08	768.00	247.50	-0.	-0.	
270	167.86	270.00	768.00	0.	0.	0.	CYLINDRICAL
270	.25687E-08	-167.86	768.00	270.00	0.	0.	
271	167.86	292.50	768.00	0.	0.	0.	CYLINDRICAL
271	64.235	-155.08	768.00	292.50	0.	0.	
272	167.86	315.00	768.00	0.	0.	0.	CYLINDRICAL
272	118.69	-118.69	768.00	315.00	0.	0.	
273	167.86	337.50	768.00	0.	0.	0.	CYLINDRICAL
273	155.08	-64.235	768.00	337.50	0.	0.	
274	166.42	135.00	864.00	-0.	-0.	-0.	CYLINDRICAL
274	-117.67	117.67	864.00	135.00	-0.	-0.	
275	166.42	142.50	864.00	0.	0.	0.	CYLINDRICAL
275	-132.03	101.31	864.00	142.50	0.	0.	
276	166.42	150.00	864.00	0.	0.	0.	CYLINDRICAL
276	-144.12	83.207	864.00	150.00	0.	0.	
277	166.42	157.50	864.00	0.	0.	0.	CYLINDRICAL
277	-153.75	63.684	864.00	157.50	0.	0.	
278	166.42	165.00	864.00	0.	0.	0.	CYLINDRICAL
278	-160.74	43.071	864.00	165.00	0.	0.	
279	166.42	172.50	864.00	0.	0.	0.	CYLINDRICAL
279	-164.99	21.722	864.00	172.50	0.	0.	
280	166.42	180.00	864.00	0.	0.	0.	CYLINDRICAL
280	-166.42	-.16986E-08	864.00	180.00	0.	0.	
281	166.42	187.50	864.00	0.	0.	0.	CYLINDRICAL
281	-164.99	-21.722	864.00	187.50	0.	0.	
282	166.42	195.00	864.00	0.	0.	0.	CYLINDRICAL
282	-160.74	-43.071	864.00	195.00	0.	0.	
283	166.42	202.50	864.00	0.	0.	0.	CYLINDRICAL
283	-153.75	-63.684	864.00	202.50	0.	0.	
284	166.42	210.00	864.00	0.	0.	0.	CYLINDRICAL
284	-144.12	-83.208	864.00	210.00	0.	0.	
285	166.42	217.50	864.00	0.	0.	0.	CYLINDRICAL
285	-132.03	-101.31	864.00	217.50	0.	0.	
286	166.42	225.00	864.00	0.	0.	0.	CYLINDRICAL
286	-117.67	-117.67	864.00	225.00	0.	0.	
287	164.98	0.	960.00	-0.	-0.	-0.	CYLINDRICAL
287	164.98	0.	960.00	0.	-0.	-0.	
288	164.98	22.500	960.00	0.	0.	0.	CYLINDRICAL
288	152.42	63.133	960.00	22.500	0.	0.	
289	164.98	45.000	960.00	0.	0.	0.	CYLINDRICAL
289	116.65	116.65	960.00	45.000	0.	0.	

290	164.98	67.500	960.00	0.	0.	0.	CYLINDRICAL
290	63.133	152.42	960.00	67.500	0.	0.	
291	164.98	90.000	960.00	0.	0.	0.	CYLINDRICAL
291	-.84194E-09	164.98	960.00	90.000	0.	0.	
292	164.98	112.50	960.00	0.	0.	0.	CYLINDRICAL
292	-63.133	152.42	960.00	112.50	0.	0.	
293	164.98	135.00	960.00	-0.	-0.	-0.	CYLINDRICAL
293	-116.65	116.65	960.00	135.00	-0.	-0.	
294	164.98	142.50	960.00	0.	0.	0.	CYLINDRICAL
294	-130.88	100.43	960.00	142.50	0.	0.	
295	164.98	150.00	960.00	0.	0.	0.	CYLINDRICAL
295	-142.87	82.487	960.00	150.00	0.	0.	
296	164.98	157.50	960.00	0.	0.	0.	CYLINDRICAL
296	-152.42	63.133	960.00	157.50	0.	0.	
297	164.98	165.00	960.00	0.	0.	0.	CYLINDRICAL
297	-159.35	42.699	960.00	165.00	0.	0.	
298	164.98	172.50	960.00	0.	0.	0.	CYLINDRICAL
298	-163.56	21.534	960.00	172.50	0.	0.	
299	164.98	180.00	960.00	0.	0.	0.	CYLINDRICAL
299	-164.98	-.16839E-08	960.00	180.00	0.	0.	
300	164.98	187.50	960.00	0.	0.	0.	CYLINDRICAL
300	-163.56	-21.534	960.00	187.50	0.	0.	
301	164.98	195.00	960.00	0.	0.	0.	CYLINDRICAL
301	-159.35	-42.699	960.00	195.00	0.	0.	
302	164.98	202.50	960.00	0.	0.	0.	CYLINDRICAL
302	-152.42	-63.133	960.00	202.50	0.	0.	
303	164.98	210.00	960.00	0.	0.	0.	CYLINDRICAL
303	-142.87	-82.488	960.00	210.00	0.	0.	
304	164.98	217.50	960.00	0.	0.	0.	CYLINDRICAL
304	-130.88	-100.43	960.00	217.50	0.	0.	
305	164.98	225.00	960.00	0.	0.	0.	CYLINDRICAL
305	-116.65	-116.65	960.00	225.00	0.	0.	
306	164.98	247.50	960.00	-0.	-0.	-0.	CYLINDRICAL
306	-63.133	-152.42	960.00	247.50	-0.	-0.	
307	164.98	270.00	960.00	0.	0.	0.	CYLINDRICAL
307	.25256E-08	-164.98	960.00	270.00	0.	0.	
308	164.98	292.50	960.00	0.	0.	0.	CYLINDRICAL
308	63.133	-152.42	960.00	292.50	0.	0.	
309	164.98	315.00	960.00	0.	0.	0.	CYLINDRICAL
309	116.65	-116.65	960.00	315.00	0.	0.	
310	164.98	337.50	960.00	0.	0.	0.	CYLINDRICAL
310	152.42	-63.133	960.00	337.50	0.	0.	
311	163.18	135.00	1080.0	-0.	-0.	-0.	CYLINDRICAL
311	-115.38	115.38	1080.0	135.00	-0.	-0.	
312	163.18	150.00	1080.0	0.	0.	0.	CYLINDRICAL
312	-141.31	81.587	1080.0	150.00	0.	0.	
313	163.18	165.00	1080.0	0.	0.	0.	CYLINDRICAL
313	-157.61	42.233	1080.0	165.00	0.	0.	
314	163.18	180.00	1080.0	0.	0.	0.	CYLINDRICAL
314	-163.18	-.16655E-08	1080.0	180.00	0.	0.	
315	163.18	195.00	1080.0	0.	0.	0.	CYLINDRICAL
315	-157.61	-42.233	1080.0	195.00	0.	0.	
316	163.18	210.00	1080.0	0.	0.	0.	CYLINDRICAL
316	-141.31	-81.588	1080.0	210.00	0.	0.	
317	163.18	225.00	1080.0	0.	0.	0.	CYLINDRICAL
317	-115.38	-115.38	1080.0	225.00	0.	0.	
318	161.38	0.	1200.0	-0.	-0.	-0.	CYLINDRICAL
318	161.38	0.	1200.0	0.	-0.	-0.	
319	161.38	22.500	1200.0	0.	0.	0.	CYLINDRICAL
319	149.09	61.756	1200.0	22.500	0.	0.	
320	161.38	45.000	1200.0	0.	0.	0.	CYLINDRICAL
320	114.11	114.11	1200.0	45.000	0.	0.	
321	161.38	67.500	1200.0	0.	0.	0.	CYLINDRICAL
321	61.756	149.09	1200.0	67.500	0.	0.	
322	161.38	90.000	1200.0	0.	0.	0.	CYLINDRICAL
322	-.62356E-09	161.38	1200.0	90.000	0.	0.	

323	161.38	112.50	1200.0	0.	0.	0.	CYLINDRICAL
323	-61.756	149.09	1200.0	112.50	0.	0.	
324	161.38	135.00	1200.0	0.	0.	0.	CYLINDRICAL
324	-114.11	114.11	1200.0	135.00	0.	0.	
325	161.38	157.50	1200.0	0.	0.	0.	CYLINDRICAL
325	-149.09	61.756	1200.0	157.50	0.	0.	
326	161.38	180.00	1200.0	0.	0.	0.	CYLINDRICAL
326	-161.38	-.16471E-08	1200.0	180.00	0.	0.	
327	161.38	202.50	1200.0	0.	0.	0.	CYLINDRICAL
327	-149.09	-61.756	1200.0	202.50	0.	0.	
328	161.38	225.00	1200.0	0.	0.	0.	CYLINDRICAL
328	-114.11	-114.11	1200.0	225.00	0.	0.	
329	161.38	247.50	1200.0	0.	0.	0.	CYLINDRICAL
329	-61.756	-149.09	1200.0	247.50	0.	0.	
330	161.38	270.00	1200.0	0.	0.	0.	CYLINDRICAL
330	.24695E-08	-161.38	1200.0	270.00	0.	0.	
331	161.38	292.50	1200.0	0.	0.	0.	CYLINDRICAL
331	61.756	-149.09	1200.0	292.50	0.	0.	
332	161.38	315.00	1200.0	0.	0.	0.	CYLINDRICAL
332	114.11	-114.11	1200.0	315.00	0.	0.	
333	161.38	337.50	1200.0	0.	0.	0.	CYLINDRICAL
333	149.09	-61.756	1200.0	337.50	0.	0.	
334	157.78	0.	1440.0	-0.	-0.	-0.	CYLINDRICAL
334	157.78	0.	1440.0	0.	-0.	-0.	
335	157.78	22.500	1440.0	0.	0.	0.	CYLINDRICAL
335	145.77	60.378	1440.0	22.500	0.	0.	
336	157.78	45.000	1440.0	0.	0.	0.	CYLINDRICAL
336	111.56	111.56	1440.0	45.000	0.	0.	
337	157.78	67.500	1440.0	0.	0.	0.	CYLINDRICAL
337	60.378	145.77	1440.0	67.500	0.	0.	
338	157.78	90.000	1440.0	0.	0.	0.	CYLINDRICAL
338	-.80519E-09	157.78	1440.0	90.000	0.	0.	
339	157.78	112.50	1440.0	0.	0.	0.	CYLINDRICAL
339	-60.378	145.77	1440.0	112.50	0.	0.	
340	157.78	135.00	1440.0	0.	0.	0.	CYLINDRICAL
340	-111.56	111.56	1440.0	135.00	0.	0.	
341	157.78	157.50	1440.0	0.	0.	0.	CYLINDRICAL
341	-145.77	60.378	1440.0	157.50	0.	0.	
342	157.78	180.00	1440.0	0.	0.	0.	CYLINDRICAL
342	-157.78	-.16104E-08	1440.0	180.00	0.	0.	
343	157.78	202.50	1440.0	0.	0.	0.	CYLINDRICAL
343	-145.77	-60.378	1440.0	202.50	0.	0.	
344	157.78	225.00	1440.0	0.	0.	0.	CYLINDRICAL
344	-111.56	-111.56	1440.0	225.00	0.	0.	
345	157.78	247.50	1440.0	0.	0.	0.	CYLINDRICAL
345	-60.378	-145.77	1440.0	247.50	0.	0.	
346	157.78	270.00	1440.0	0.	0.	0.	CYLINDRICAL
346	.24145E-08	-157.78	1440.0	270.00	0.	0.	
347	157.78	292.50	1440.0	0.	0.	0.	CYLINDRICAL
347	60.378	-145.77	1440.0	292.50	0.	0.	
348	157.78	315.00	1440.0	0.	0.	0.	CYLINDRICAL
348	111.56	-111.56	1440.0	315.00	0.	0.	
349	157.78	337.50	1440.0	0.	0.	0.	CYLINDRICAL
349	145.77	-60.378	1440.0	337.50	0.	0.	
350	154.18	0.	1680.0	-0.	-0.	-0.	CYLINDRICAL
350	154.18	0.	1680.0	0.	-0.	-0.	
351	154.18	22.500	1680.0	0.	0.	0.	CYLINDRICAL
351	142.44	59.000	1680.0	22.500	0.	0.	
352	154.18	45.000	1680.0	0.	0.	0.	CYLINDRICAL
352	109.02	109.02	1680.0	45.000	0.	0.	
353	154.18	67.500	1680.0	0.	0.	0.	CYLINDRICAL
353	59.000	142.44	1680.0	67.500	0.	0.	
354	154.18	90.000	1680.0	0.	0.	0.	CYLINDRICAL
354	-.78682E-09	154.18	1680.0	90.000	0.	0.	
355	154.18	112.50	1680.0	0.	0.	0.	CYLINDRICAL
355	-59.000	142.44	1680.0	112.50	0.	0.	

356	154.18	135.00	1680.0	0.	0.	0.	CYLINDRICAL
356	-109.02	109.02	1680.0	135.00	0.	0.	
357	154.18	157.50	1680.0	0.	0.	0.	CYLINDRICAL
357	-142.44	59.000	1680.0	157.50	0.	0.	
358	154.18	180.00	1680.0	0.	0.	0.	CYLINDRICAL
358	-154.18	-.15736E-08	1680.0	180.00	0.	0.	
359	154.18	202.50	1680.0	0.	0.	0.	CYLINDRICAL
359	-142.44	-59.000	1680.0	202.50	0.	0.	
360	154.18	225.00	1680.0	0.	0.	0.	CYLINDRICAL
360	-109.02	-109.02	1680.0	225.00	0.	0.	
361	154.18	247.50	1680.0	0.	0.	0.	CYLINDRICAL
361	-59.000	-142.44	1680.0	247.50	0.	0.	
362	154.18	270.00	1680.0	0.	0.	0.	CYLINDRICAL
362	.23594E-08	-154.18	1680.0	270.00	0.	0.	
363	154.18	292.50	1680.0	0.	0.	0.	CYLINDRICAL
363	59.000	-142.44	1680.0	292.50	0.	0.	
364	154.18	315.00	1680.0	0.	0.	0.	CYLINDRICAL
364	109.02	-109.02	1680.0	315.00	0.	0.	
365	154.18	337.50	1680.0	0.	0.	0.	CYLINDRICAL
365	142.44	-59.000	1680.0	337.50	0.	0.	
366	150.58	0.	1920.0	-0.	-0.	-0.	CYLINDRICAL
366	150.58	0.	1920.0	0.	-0.	-0.	
367	150.58	22.500	1920.0	0.	0.	0.	CYLINDRICAL
367	139.11	57.623	1920.0	22.500	0.	0.	
368	150.58	45.000	1920.0	0.	0.	0.	CYLINDRICAL
368	106.47	106.47	1920.0	45.000	0.	0.	
369	150.58	67.500	1920.0	0.	0.	0.	CYLINDRICAL
369	57.623	139.11	1920.0	67.500	0.	0.	
370	150.58	90.000	1920.0	0.	0.	0.	CYLINDRICAL
370	-.76845E-09	150.58	1920.0	90.000	0.	0.	
371	150.58	112.50	1920.0	0.	0.	0.	CYLINDRICAL
371	-57.623	139.11	1920.0	112.50	0.	0.	
372	150.58	135.00	1920.0	0.	0.	0.	CYLINDRICAL
372	-106.47	106.47	1920.0	135.00	0.	0.	
373	150.58	157.50	1920.0	0.	0.	0.	CYLINDRICAL
373	-139.11	57.623	1920.0	157.50	0.	0.	
374	150.58	180.00	1920.0	0.	0.	0.	CYLINDRICAL
374	-150.58	-.15369E-08	1920.0	180.00	0.	0.	
375	150.58	202.50	1920.0	0.	0.	0.	CYLINDRICAL
375	-139.11	-57.623	1920.0	202.50	0.	0.	
376	150.58	225.00	1920.0	0.	0.	0.	CYLINDRICAL
376	-106.47	-106.47	1920.0	225.00	0.	0.	
377	150.58	247.50	1920.0	0.	0.	0.	CYLINDRICAL
377	-57.623	-139.11	1920.0	247.50	0.	0.	
378	150.58	270.00	1920.0	0.	0.	0.	CYLINDRICAL
378	.23043E-08	-150.58	1920.0	270.00	0.	0.	
379	150.58	292.50	1920.0	0.	0.	0.	CYLINDRICAL
379	57.623	-139.11	1920.0	292.50	0.	0.	
380	150.58	315.00	1920.0	0.	0.	0.	CYLINDRICAL
380	106.47	-106.47	1920.0	315.00	0.	0.	
381	150.58	337.50	1920.0	0.	0.	0.	CYLINDRICAL
381	139.11	-57.623	1920.0	337.50	0.	0.	
382	146.98	0.	2160.0	-0.	-0.	-0.	CYLINDRICAL
382	146.98	0.	2160.0	0.	-0.	-0.	
383	146.98	22.500	2160.0	0.	0.	0.	CYLINDRICAL
383	135.79	56.245	2160.0	22.500	0.	0.	
384	146.98	45.000	2160.0	0.	0.	0.	CYLINDRICAL
384	103.93	103.93	2160.0	45.000	0.	0.	
385	146.98	67.500	2160.0	0.	0.	0.	CYLINDRICAL
385	56.245	135.79	2160.0	67.500	0.	0.	
386	146.98	90.000	2160.0	0.	0.	0.	CYLINDRICAL
386	-.75007E-09	146.98	2160.0	90.000	0.	0.	
387	146.98	112.50	2160.0	0.	0.	0.	CYLINDRICAL
387	-56.245	135.79	2160.0	112.50	0.	0.	
388	146.98	135.00	2160.0	0.	0.	0.	CYLINDRICAL
388	-103.93	103.93	2160.0	135.00	0.	0.	

388	146.98	157.50	2160.0	0.	0.	0.	CYLINDRICAL
389	-135.79	56.245	2160.0	157.50	0.	0.	
390	146.98	180.00	2160.0	0.	0.	0.	CYLINDRICAL
390	-146.98	-.15001E-08	2160.0	180.00	0.	0.	
391	146.98	202.50	2160.0	0.	0.	0.	CYLINDRICAL
391	-135.79	-56.245	2160.0	202.50	0.	0.	
392	146.98	225.00	2160.0	0.	0.	0.	CYLINDRICAL
392	-103.93	-103.93	2160.0	225.00	0.	0.	
393	146.98	247.50	2160.0	0.	0.	0.	CYLINDRICAL
393	-56.245	-135.79	2160.0	247.50	0.	0.	
394	146.98	270.00	2160.0	0.	0.	0.	CYLINDRICAL
394	.22492E-08	-146.98	2160.0	270.00	0.	0.	
395	146.98	292.50	2160.0	0.	0.	0.	CYLINDRICAL
395	56.245	-135.79	2160.0	292.50	0.	0.	
396	146.98	315.00	2160.0	0.	0.	0.	CYLINDRICAL
396	103.93	-103.93	2160.0	315.00	0.	0.	
397	146.98	337.50	2160.0	0.	0.	0.	CYLINDRICAL
397	135.79	-56.245	2160.0	337.50	0.	0.	
398	143.38	0.	2400.0	-0.	-0.	-0.	CYLINDRICAL
398	143.38	0.	2400.0	0.	-0.	-0.	
399	143.38	22.500	2400.0	0.	0.	0.	CYLINDRICAL
399	132.46	54.867	2400.0	22.500	0.	0.	
400	143.38	45.000	2400.0	0.	0.	0.	CYLINDRICAL
400	101.38	101.38	2400.0	45.000	0.	0.	
401	143.38	67.500	2400.0	0.	0.	0.	CYLINDRICAL
401	54.867	132.46	2400.0	67.500	0.	0.	
402	143.38	90.000	2400.0	0.	0.	0.	CYLINDRICAL
402	-.73170E-09	143.38	2400.0	90.000	0.	0.	
403	143.38	112.50	2400.0	0.	0.	0.	CYLINDRICAL
403	-54.867	132.46	2400.0	112.50	0.	0.	
404	143.38	135.00	2400.0	0.	0.	0.	CYLINDRICAL
404	-101.38	101.38	2400.0	135.00	0.	0.	
405	143.38	157.50	2400.0	0.	0.	0.	CYLINDRICAL
405	-132.46	54.867	2400.0	157.50	0.	0.	
406	143.38	180.00	2400.0	0.	0.	0.	CYLINDRICAL
406	-143.38	-.14634E-08	2400.0	180.00	0.	0.	
407	143.38	202.50	2400.0	0.	0.	0.	CYLINDRICAL
407	-132.46	-54.867	2400.0	202.50	0.	0.	
408	143.38	225.00	2400.0	0.	0.	0.	CYLINDRICAL
408	-101.38	-101.38	2400.0	225.00	0.	0.	
409	143.38	247.50	2400.0	0.	0.	0.	CYLINDRICAL
409	-54.867	-132.46	2400.0	247.50	0.	0.	
410	143.38	270.00	2400.0	0.	0.	0.	CYLINDRICAL
410	.21941E-08	-143.38	2400.0	270.00	0.	0.	
411	143.38	292.50	2400.0	0.	0.	0.	CYLINDRICAL
411	54.867	-132.46	2400.0	292.50	0.	0.	
412	143.38	315.00	2400.0	0.	0.	0.	CYLINDRICAL
412	101.38	-101.38	2400.0	315.00	0.	0.	
413	143.38	337.50	2400.0	0.	0.	0.	CYLINDRICAL
413	132.46	-54.867	2400.0	337.50	0.	0.	

XMIN= -179.4 XMAX= 179.4 YMIN= -179.4 YMAX= 179.4 ZMIN= 0. ZMAX= 2400.

***** MATERIAL PROPERTIES. (CARD H) *****

MATERIAL 1

EX = .290000E+08
ALPX = 0.
NUXY = .300000
DENS = .284000

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            ANSYS - ENGINEERING ANALYSIS SYSTEM  UP188 REV 2 B+W7600   JAN 1,1972
   SWANSON ANALYSIS SYSTEMS, INC.    ELIZABETH, PENNSYLVANIA  15037    PHONE (412) 751-1940

LOAD COMBINATION, DL + 9.2PSF E TO W LATERAL WIND                           4.7853    5/11/77
                                                                   CP =   3.525    PP =   0.000

LOAD STEP NUMBER =    1

          ***** LOAD STEP OPTIONS (CARDS L AND M) *****

                                          VALUE        VARIABLE     COLUMNS
                                                         NAME
LOAD STEP KEY . . . . . . . . .             1           KDIS          2-3
TEMPERATURE KEY . . . . . . . .             0           KTEMP         4-6
NUMBER OF ITERATIONS. . . . . .             1           NITTER        7-9
STRESS PRINTOUT FREQUENCY . . .             1           NPRINT       10-12
TIME AT END OF LOAD STEP. . .  -0.                      TIME         13-24
DISPL. PRINTOUT FREQUENCY . . .             1           NDPRNT       71-72  (CARD M)
MC CARD KEY . . . . . . . . . .             1           ITLE          78    (CARD M)

COORDINATE ACCELERATIONS        -0.          -0.          1.0000

          ***** SPECIFIED DISPLACEMENTS (CARD N) *****

  NO.        NODE     DIRECTION         VALUE
   1           1         UX          0.
   2           2         UX          0.
   3           3         UX          0.
   4           4         UX          0.
   5           5         UX          0.
   6           6         UX          0.
   7           7         UX          0.
   8           8         UX          0.
   9           9         UX          0.
  10          10         UX          0.
  11          11         UX          0.
  12          12         UX          0.
  13          13         UX          0.
  14          14         UX          0.
  15          15         UX          0.
  16          16         UX          0.
  17          17         UX          0.
  18          18         UX          0.
  19          19         UX          0.
  20          20         UX          0.
  21          21         UX          0.
  22          22         UX          0.
  23          23         UX          0.
  24          24         UX          0.
  25           1         UY          0.
  26           2         UY          0.
  27           3         UY          0.
  28           4         UY          0.
  29           5         UY          0.
  30           6         UY          0.
  31           7         UY          0.
  32           8         UY          0.
  33           9         UY          0.
  34          10         UY          0.
  35          11         UY          0.
  36          12         UY          0.
  37          13         UY          0.
```

38	14	UY	0.
39	15	UY	0.
40	16	UY	0.
41	17	UY	0.
42	18	UY	0.
43	19	UY	0.
44	20	UY	0.
45	21	UY	0.
46	22	UY	0.
47	23	UY	0.
48	24	UY	0.
49	1	UZ	0.
50	2	UZ	0.
51	3	UZ	0.
52	4	UZ	0.
53	5	UZ	0.
54	6	UZ	0.
55	7	UZ	0.
56	8	UZ	0.
57	9	UZ	0.
58	10	UZ	0.
59	11	UZ	0.
60	12	UZ	0.
61	13	UZ	0.
62	14	UZ	0.
63	15	UZ	0.
64	16	UZ	0.
65	17	UZ	0.
66	18	UZ	0.
67	19	UZ	0.
68	20	UZ	0.
69	21	UZ	0.
70	22	UZ	0.
71	23	UZ	0.
72	24	UZ	0.
73	1	ROTX	0.
74	2	ROTX	0.
75	3	ROTX	0.
76	4	ROTX	0.
77	5	ROTX	0.
78	6	ROTX	0.
79	7	ROTX	0.
80	8	ROTX	0.
81	9	ROTX	0.
82	10	ROTX	0.
83	11	ROTX	0.
84	12	ROTX	0.
85	13	ROTX	0.
86	14	ROTX	0.
87	15	ROTX	0.
88	16	ROTX	0.
89	17	ROTX	0.
90	18	ROTX	0.
91	19	ROTX	0.
92	20	ROTX	0.
93	21	ROTX	0.
94	22	ROTX	0.
95	23	ROTX	0.
96	24	ROTX	0.
97	1	ROTY	0.
98	2	ROTY	0.
99	3	ROTY	0.
100	4	ROTY	0.
101	5	ROTY	0.
102	6	ROTY	0.
103	7	ROTY	0.

104	8	ROTY	0.
105	9	ROTY	0.
106	10	ROTY	0.
107	11	ROTY	0.
108	12	ROTY	0.
109	13	ROTY	0.
110	14	ROTY	0.
111	15	ROTY	0.
112	16	ROTY	0.
113	17	ROTY	0.
114	18	ROTY	0.
115	19	ROTY	0.
116	20	ROTY	0.
117	21	ROTY	0.
118	22	ROTY	0.
119	23	ROTY	0.
120	24	ROTY	0.
121	1	ROTZ	0.
122	2	ROTZ	0.
123	3	ROTZ	0.
124	4	ROTZ	0.
125	5	ROTZ	0.
126	6	ROTZ	0.
127	7	ROTZ	0.
128	8	ROTZ	0.
129	9	ROTZ	0.
130	10	ROTZ	0.
131	11	ROTZ	0.
132	12	ROTZ	0.
133	13	ROTZ	0.
134	14	ROTZ	0.
135	15	ROTZ	0.
136	16	ROTZ	0.
137	17	ROTZ	0.
138	18	ROTZ	0.
139	19	ROTZ	0.
140	20	ROTZ	0.
141	21	ROTZ	0.
142	22	ROTZ	0.
143	23	ROTZ	0.
144	24	ROTZ	0.

***** SPECIFIED FORCES (CARD U) *****

NO.	NODE	DIRECTION	VALUE
1	213	FZ	2704.00
2	214	FZ	2498.00
3	236	FZ	2498.00
4	215	FZ	1912.00
5	235	FZ	1912.00
6	216	FZ	1035.00
7	234	FZ	1035.00
8	218	FZ	-1035.00
9	232	FZ	-1035.00
10	219	FZ	-1275.00
11	231	FZ	-1275.00
12	220	FZ	-715.000
13	230	FZ	-715.000
14	221	FZ	-781.000
15	229	FZ	-781.000
16	222	FZ	-833.000
17	228	FZ	-833.000
18	223	FZ	-871.000

19	227	FZ	-671.000
20	224	FZ	-894.000
21	226	FZ	-894.000
22	225	FZ	-901.000
23	214	FY	1023.00
24	215	FY	1781.00
25	216	FY	2302.00
26	218	FY	2302.00
27	217	FY	2486.00
28	219	FY	1340.00
29	220	FY	512.000
30	221	FY	421.000
31	222	FY	323.000
32	223	FY	221.000
33	224	FY	118.000
34	226	FY	-118.000
35	227	FY	-221.000
36	228	FY	-323.000
37	229	FY	-421.000
38	230	FY	-512.000
39	231	FY	-1340.00
40	232	FY	-2302.00
41	234	FY	-2302.00
42	233	FY	-2486.00
43	235	FY	-1781.00
44	236	FY	-1023.00
45	287	FZ	5190.00
46	288	FZ	4795.00
47	310	FZ	4795.00
48	289	FZ	3670.00
49	309	FZ	3670.00
50	290	FZ	1986.00
51	308	FZ	1986.00
52	292	FZ	-1986.00
53	306	FZ	-1986.00
54	293	FZ	-2447.00
55	305	FZ	-2447.00
56	294	FZ	-1373.00
57	304	FZ	-1373.00
58	295	FZ	-1498.00
59	303	FZ	-1498.00
60	296	FZ	-1598.00
61	302	FZ	-1598.00
62	297	FZ	-1671.00
63	301	FZ	-1671.00
64	298	FZ	-1715.00
65	300	FZ	-1715.00
66	299	FZ	-1730.00
67	288	FY	1435.00
68	289	FY	2497.00
69	290	FY	3228.00
70	292	FY	3228.00
71	291	FY	3887.00
72	293	FY	1880.00
73	294	FY	717.000
74	295	FY	590.000
75	296	FY	454.000
76	297	FY	310.000
77	298	FY	166.000
78	300	FY	-166.000
79	301	FY	-310.000
80	302	FY	-454.000
81	303	FY	-590.000
82	304	FY	-717.000
83	305	FY	-1880.00
84	306	FY	-3228.00

85	306	FY	-3228.00
86	307	FY	-3487.00
87	309	FY	-2497.00
88	310	FY	-1435.00
89	334	FZ	5595.00
90	335	FZ	5169.00
91	349	FZ	5169.00
92	336	FZ	3956.00
93	348	FZ	3956.00
94	337	FZ	2141.00
95	347	FZ	2141.00
96	339	FZ	-2141.00
97	345	FZ	-2141.00
98	340	FZ	-3956.00
99	344	FZ	-3956.00
100	341	FZ	-5169.00
101	343	FZ	-5169.00
102	342	FZ	-5595.00
103	335	FY	1480.00
104	341	FY	1480.00
105	336	FY	2575.00
106	340	FY	2575.00
107	337	FY	3329.00
108	339	FY	3329.00
109	338	FY	3596.00
110	343	FY	-1480.00
111	349	FY	-1480.00
112	344	FY	-2575.00
113	348	FY	-2575.00
114	345	FY	-3329.00
115	347	FY	-3329.00
116	346	FY	-3596.00
117	365	FZ	5783.00
118	367	FZ	5343.00
119	361	FZ	5343.00
120	366	FZ	4089.00
121	360	FZ	4089.00
122	369	FZ	2213.00
123	374	FZ	2213.00
124	371	FZ	-2213.00
125	377	FZ	-2213.00
126	372	FZ	-4089.00
127	376	FZ	-4089.00
128	373	FZ	-5343.00
129	375	FZ	-5343.00
130	374	FZ	-5783.00
131	367	FY	1462.00
132	373	FY	1462.00
133	368	FY	2545.00
134	372	FY	2545.00
135	369	FY	3290.00
136	371	FY	3290.00
137	370	FY	3554.00
138	375	FY	-1462.00
139	361	FY	-1462.00
140	376	FY	-2545.00
141	360	FY	-2545.00
142	377	FY	-3290.00
143	379	FY	-3290.00
144	378	FY	-3554.00
145	398	FZ	236043.
146	399	FZ	213629.
147	413	FZ	213629.
148	400	FZ	149801.
149	412	FZ	149801.
150	401	FZ	54275.0

151	411	FZ	54275.0
152	402	FZ	-58405.0
153	410	FZ	-58405.0
154	403	FZ	-171085.
155	409	FZ	-171085.
156	404	FZ	-266611.
157	408	FZ	-266611.
158	405	FZ	-330439.
159	407	FZ	-330439.
160	406	FZ	-352853.
161	399	FY	9838.00
162	405	FY	9838.00
163	400	FY	17125.0
164	404	FY	17125.0
165	401	FY	22138.0
166	403	FY	22138.0
167	402	FY	23909.0
168	407	FY	-9838.00
169	413	FY	-9838.00
170	408	FY	-17125.0
171	412	FY	-17125.0
172	409	FY	-22138.0
173	411	FY	-22138.0
174	410	FY	-23909.0

***** LOAD SUMMARY - 144 DISPLACEMENTS 174 FORCES 0 PRESSURES *****

MAXIMUM STIFFNESS = .480896E+09 MINIMUM STIFFNESS = .167016E+08

MAXIMUM WAVE FRONT (EQUATIONS) USED 162
MAXIMUM WAVE FRONT FOR THIS CORE SIZE 235

LCM CORE REQUIRED(OCTAL)00043563

LCM CORE REQUIRED FOR RANDOM NODE ORDER INPUT (OCTAL) 00006626

TIMES AT START OF BACK SUBSTITUTION CP= 69.971 PP= 0.000 STEP= 1 ITERATION= 1

ANSYS - ENGINEERING ANALYSIS SYSTEM UP188 REV 2 8+N7600 JAN 1,1972
SWANSON ANALYSIS SYSTEMS, INC. ELIZABETH, PENNSYLVANIA 15037 PHONE (412) 751-1940

LOAD COMBINATION, DL + 9.2PSF E TO H LATERAL WIND

10.8044 5/11/77
CP = 71.391 PP = 0.000

***** DISPLACEMENT SOLUTION ***** TIME = 0. LOAD STEP= 1 ITERATION= 1 CUM. ITER.= 1

NOTE - ALL DISPLACEMENTS ARE IN NODAL COORDINATE SYSTEMS. SOME NODAL COORD. SYSTEMS MAY NOT BE PARALLEL TO THE GLOBAL CARTESIAN SYSTEM. SEE F CARD PRINTOUT FOR ROTATION ANGLES.

NODE	UX	UY	UZ	ROTX	ROTY	ROTZ
1	0.	0.	0.	0.	0.	0.
2	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.	0.
25	.474287E-01	-.110552E-02	-.169117E-01	-.555736E-03	.155787E-02	-.449004E-03
26	.415804E-01	-.303058E-02	-.160423E-01	.186903E-02	.157338E-02	.587666E-03
27	.266075E-01	-.365398E-02	-.140126E-01	.890856E-03	.108766E-02	.595519E-03
28	.158522E-01	-.350679E-02	-.908847E-02	.763336E-03	.490199E-03	.384554E-03
29	.535123E-02	-.339926E-02	-.344976E-02	.886046E-03	-.148902E-03	.731183E-03
30	-.163391E-01	-.250681E-02	.849257E-03	-.183495E-02	-.902126E-03	.898127E-03
31	-.200191E-01	.114347E-09	.231407E-02	-.306949E-07	-.119899E-02	-.414812E-04
32	-.163391E-01	.250681E-02	.849257E-03	-.183499E-02	-.902127E-03	-.898128E-03
33	.535123E-02	.339926E-02	-.344976E-02	-.886047E-03	-.148902E-03	-.731183E-03
34	.158522E-01	.350679E-02	-.908847E-02	-.763302E-03	.490198E-03	-.384554E-03
35	.266075E-01	.365398E-02	-.140126E-01	-.890812E-03	.108766E-02	-.595518E-03
36	.415804E-01	.303058E-02	-.160423E-01	-.186895E-02	.157338E-02	-.587665E-03
37	.474287E-01	.110552E-02	-.169117E-01	.555740E-03	.155787E-02	.449004E-03
38	.698712E-02	.103727E-01	-.130252E-01	.106926E-02	-.214274E-03	-.756863E-03
39	.800640E-01	.185302E-02	-.295937E-01	.973677E-04	.542841E-03	-.110177E-02
40	.911275E-01	-.643580E-02	-.333347E-01	-.589704E-03	.140060E-02	.162825E-03
41	.691634E-01	-.133956E-01	-.301193E-01	.180173E-02	.153326E-02	.130932E-02
42	.259814E-01	-.167408E-01	-.195063E-01	-.228743E-02	.421870E-03	.210243E-02
43	-.255580E-01	-.159791E-01	-.593494E-02	-.293905E-03	-.150831E-02	.219081E-02
44	-.700062E-01	-.100416E-01	.133862E-02	.148051E-02	-.186634E-02	.111510E-02
45	-.820550E-01	.240961E-09	.282918E-02	-.410409E-07	-.169820E-02	-.450739E-09
46	-.700062E-01	.100416E-01	.133862E-02	-.148060E-02	-.186634E-02	-.111511E-02
47	-.255580E-01	.159791E-01	-.593494E-02	.293840E-03	-.150831E-02	-.219081E-02
48	.259814E-01	.167408E-01	-.195063E-01	.228796E-02	.421871E-03	-.210243E-02
49	.691634E-01	.133956E-01	-.301193E-01	-.180166E-02	.153326E-02	-.130932E-02
50	.911275E-01	.643580E-02	-.333347E-01	.589757E-03	.140060E-02	-.162825E-03
51	.800640E-01	-.185302E-02	-.295937E-01	-.973653E-04	.542842E-03	.110177E-02

52	.698712E-02	-.103727E-01	-.130252E-01	-.106926E-02	-.214274E-03	.756683E-03
53	.977602E-01	.501297E-02	-.407525E-01	-.155412E-02	.111523E-02	-.214835E-02
54	.139878	-.765538E-02	-.429865E-01	-.839575E-03	.225921E-02	-.112646E-02
55	.136789	-.227200E-01	-.419147E-01	.705757E-03	.343322E-02	.145041E-02
56	.625599E-01	-.322872E-01	-.269614E-01	.188882E-01	.283229E-02	.472737E-02
57	-.741883E-01	-.294584E-01	-.599086E-02	.444099E-02	-.215864E-02	.442190E-02
58	-.122414	-.156566E-01	.605217E-03	-.626986E-03	-.237822E-02	.455072E-03
59	-.122864	.382156E-09	.257716E-02	-.477369E-07	-.182645E-02	-.113858E-08
60	-.122414	.156566E-01	.605217E-03	.626863E-03	-.237821E-02	-.455075E-03
61	-.741883E-01	.294584E-01	-.599086E-02	-.444110E-02	-.215864E-02	-.442190E-02
62	.625599E-01	.322872E-01	-.269614E-01	-.188879E-01	.283229E-02	-.472736E-02
63	.136789	.227200E-01	-.419147E-01	-.705621E-03	.343322E-02	-.145041E-02
64	.139878	.765538E-02	-.429865E-01	.839686E-03	.225921E-02	.112646E-02
65	.977603E-01	-.501297E-02	-.407525E-01	.155413E-02	.111523E-02	.214835E-02
66	-.318750E-01	.488252E-11	.297926E-01	-.819698E-04	-.356914E-03	-.919232E-11
67	-.291657E-01	.614571E-02	.271507E-01	-.141702E-03	-.323454E-03	-.515189E-04
68	-.207813E-01	.111499E-01	.196140E-01	-.242762E-03	-.233009E-03	-.780156E-04
69	-.112437E-01	.145505E-01	.855134E-02	-.165078E-03	-.167459E-03	-.270399E-06
70	-.158874E-01	.195347E-01	-.479009E-02	.314239E-03	-.395461E-03	.436583E-03
71	-.195246E-01	.318012E-01	-.230964E-01	-.722168E-03	-.886905E-03	-.113569E-02
72	.139111	.147171E-01	-.517227E-01	-.647661E-03	.106166E-02	-.329822E-02
73	.215452	-.588128E-02	-.581345E-01	-.210862E-02	.208301E-02	-.296400E-02
74	.268347	-.343244E-01	-.581170E-01	-.659420E-02	.399964E-02	-.164815E-02
75	.278497	-.658740E-01	-.485293E-01	.352148E-02	.638144E-02	-.370409E-03
76	.278496	.658740E-01	-.485293E-01	.306174E-02	.681292E-02	.469154E-03
77	.268347	.343244E-01	-.581170E-01	.659440E-02	.399964E-02	.164816E-02
78	.215452	.588128E-02	-.581345E-01	.210872E-02	.208301E-02	.296400E-02
79	.139111	-.147171E-01	-.517227E-01	.647669E-03	.106166E-02	.329822E-02
80	-.195246E-01	-.318012E-01	-.230964E-01	.722192E-03	-.886906E-03	.113569E-02
81	-.158874E-01	-.195347E-01	-.479009E-02	-.314239E-03	-.395461E-03	-.436583E-03
82	-.112437E-01	-.145505E-01	.855134E-02	.165077E-03	-.167459E-03	.270401E-06
83	-.207813E-01	-.111499E-01	.196140E-01	.242761E-03	-.233009E-03	.780156E-04
84	-.291657E-01	-.614571E-02	.271507E-01	.141701E-03	-.323454E-03	.515184E-04
85	.164294	.283715E-01	-.641652E-01	-.106008E-02	.610695E-03	-.442951E-02
86	.276704	.190556E-02	-.718464E-01	-.148111E-02	.161260E-02	-.489121E-02
87	.384849	-.382560E-01	-.762531E-01	.207958E-03	.276751E-02	-.439332E-02
88	.475976	-.901490E-01	-.712610E-01	.241104E-03	.418634E-02	-.439201E-02
89	.475978	.901490E-01	-.712610E-01	.394259E-02	.446055E-02	.445477E-02
90	.384849	.382560E-01	-.762531E-01	-.207867E-03	.276750E-02	.439332E-02
91	.276704	-.190556E-02	-.718464E-01	.148119E-02	.161260E-02	.489121E-02
92	.164294	-.283715E-01	-.641652E-01	.106009E-02	.610696E-03	.442951E-02
93	-.528088E-01	.663987E-01	-.388218E-01	.153635E-02	-.367859E-03	-.109026E-02
94	.179830	.471007E-01	-.740065E-01	-.147362E-02	.263236E-03	-.539600E-02
95	.326965	.162256E-01	-.859923E-01	-.900087E-03	.104416E-02	-.634797E-02
96	.468745	-.326271E-01	-.944415E-01	-.420289E-02	.189665E-02	-.585942E-02
97	.592132	-.974379E-01	-.981296E-01	-.175411E-02	.207829E-02	-.593769E-02
98	.592132	.974379E-01	-.981296E-01	.370881E-02	.220641E-02	.596721E-02
99	.468745	.326271E-01	-.944415E-01	.420300E-02	.189665E-02	.565942E-02
100	.326965	-.162256E-01	-.859923E-01	.900134E-03	.104416E-02	.634797E-02
101	.179830	-.471007E-01	-.740065E-01	.147362E-02	.263237E-03	.539600E-02
102	-.528088E-01	-.663987E-01	-.388218E-01	-.153835E-02	-.367859E-03	.109026E-02
103	.179590	.698895E-01	-.858289E-01	-.100889E-03	-.256234E-04	-.565802E-02
104	.347026	.377139E-01	-.984732E-01	-.327712E-04	-.114265E-03	-.711632E-02
105	.496373	-.148660E-01	-.113949	.640111E-02	-.954668E-03	-.473600E-02
106	.572464	-.797155E-01	-.129559	-.366154E-02	-.330442E-02	-.349401E-02
107	.572464	.797155E-01	-.129559	.132694E-03	-.355571E-02	.344107E-02
108	.496373	.148660E-01	-.113949	-.640118E-02	-.954670E-03	.473679E-02
109	.347026	-.377139E-01	-.984732E-01	.327684E-04	-.114265E-03	.711632E-02
110	.179590	-.698895E-01	-.858289E-01	.100886E-03	-.256237E-04	.565802E-02
111	-.761000E-01	.704258E-12	.628780E-01	-.580791E-09	-.316039E-03	-.531697E-11
112	-.696859E-01	.247230E-01	.573113E-01	-.110594E-03	-.291900E-03	-.439798E-04
113	-.510729E-01	.852127E-01	.415970E-01	-.134566E-03	-.252311E-03	-.616501E-04
114	-.559133E-01	.599697E-01	.179020E-01	-.280257E-03	-.276251E-03	.405537E-03
115	-.649660E-01	.795776E-01	-.124021E-01	-.554787E-03	-.364299E-03	.117275E-02
116	-.715556E-01	.111870	-.514349E-01	-.176070E-02	-.551350E-03	-.816185E-03
117	.175017	-.969550E-01	-.953531E-01	.262412E-03	-.476874E-03	-.513159E-02

118	.319634	.667391E-01	-.111832	.263356E-02	-.157623E-02	-.574524E-02
119	.430708	.202183E-01	-.131528	.434492E-02	-.346761E-02	-.210852E-02
120	.391371	-.300208E-01	-.169504	-.922419E-02	-.494351E-02	.627931E-02
121	.526541E-01	-.576626E-01	-.233838	-.156103E-01	.342828E-02	.161648E-01
122	-.263329	-.421650E-01	-.272522	-.716157E-02	.818362E-02	.948169E-02
123	-.377375	.153326E-07	-.286466	.236532E-06	.927016E-02	.168577E-06
124	-.263329	.421650E-01	-.272522	.716149E-02	.818363E-02	-.948189E-02
125	.526541E-01	.576626E-01	-.233838	.156105E-01	.342829E-02	-.161848E-01
126	.391371	.300208E-01	-.169504	.922381E-02	-.494352E-02	-.627932E-02
127	.430708	-.202183E-01	-.131528	-.434507E-02	-.346761E-02	.210852E-02
128	.319635	-.667341E-01	-.111832	-.263364E-02	-.157623E-02	.574524E-02
129	.175017	-.969558E-01	-.953531E-01	-.262413E-03	-.476874E-03	.513159E-02
130	-.715556E-01	-.111870	-.514349E-01	.178071E-02	-.551350E-03	.818165E-03
131	-.649606E-01	-.795776E-01	-.124021E-01	.554785E-03	-.364299E-03	-.117275E-02
132	-.339133E-01	-.599697E-01	.179028E-01	.280257E-03	-.276251E-03	-.405537E-03
133	-.510729E-01	-.452127E-01	.415970E-01	.134565E-03	-.252311E-03	.616501E-04
134	-.696839E-01	-.247230E-01	.573113E-01	.110593E-03	-.291900E-03	.439796E-04
135	.163901	.116718	-.102758	.241230E-03	-.657126E-03	-.429771E-02
136	.276823	.900623E-01	-.120682	-.126484E-03	-.193619E-02	-.377468E-02
137	.341288	.526218E-01	-.145262	-.375902E-02	-.309260E-02	-.696275E-03
138	.300725	.139061E-01	-.183163	-.407406E-02	-.202944E-02	.471738E-02
139	.134918	-.131621E-01	-.231833	.150054E-02	.302870E-02	.955985E-02
140	-.816605E-01	-.170716E-01	-.269998	-.310655E-02	.670539E-02	.740819E-02
141	-.173735	.148106E-07	-.283039	.186163E-06	.790183E-02	.258824E-08
142	-.816603E-01	.170716E-01	-.269998	.310686E-02	.670539E-02	-.740819E-02
143	.134918	.131621E-01	-.231833	-.150040E-02	.302870E-02	-.955985E-02
144	.300725	-.139061E-01	-.183163	.407402E-02	-.202944E-02	-.471738E-02
145	.341288	-.526218E-01	-.145262	.375667E-02	-.309260E-02	.696273E-03
146	.276823	-.900623E-01	-.120682	.126392E-03	-.193619E-02	.377468E-02
147	.163901	-.116718	-.102758	-.241235E-03	-.657127E-03	.429771E-02
148	-.849467E-01	-.154787	-.642734E-01	.155784E-03	.217209E-04	-.945272E-03
149	.130555	.150552	-.112746	-.669881E-03	-.105119E-02	-.295458E-02
150	.211707	.130012	-.135524	-.262824E-02	-.158481E-02	-.186016E-02
151	.252335	.102314	-.163128	-.317048E-02	-.146293E-02	-.490455E-03
152	.259248	.714825E-01	-.197891	-.156096E-02	-.163187E-03	.956522E-03
153	.226196	.413897E-01	-.235021	-.305151E-02	.243204E-02	.278751E-02
154	.151246	.171945E-01	-.265654	-.197019E-02	.559546E-02	.312152E-02
155	.108576	.137154E-07	-.277706	.154064E-06	.686996E-02	.199367E-08
156	.151246	-.171945E-01	-.265654	.197046E-02	.559546E-02	-.312152E-02
157	.226196	-.413897E-01	-.235021	.305161E-02	.243205E-02	-.278751E-02
158	.259248	-.714825E-01	-.197891	.156097E-02	-.163185E-03	-.956521E-03
159	.252336	-.102314	-.163128	.317041E-02	-.146293E-02	.490455E-03
160	.211707	-.130012	-.135524	.262817E-02	-.158481E-02	.186015E-02
161	.130555	-.150552	-.112746	.669878E-03	-.105119E-02	.295456E-02
162	-.849467E-01	-.154787	-.642734E-01	-.155766E-03	.217210E-04	.945272E-03
163	.986206E-01	.187674	-.126062	-.103343E-02	-.943177E-03	-.195547E-02
164	.160575	.173052	-.149494	-.333748E-03	-.975087E-03	-.149840E-02
165	.213411	.151144	-.178320	-.207731E-02	-.474446E-03	-.144176E-02
166	.266022	.122108	-.209620	-.353097E-02	.759379E-03	-.154921E-02
167	.311638	.859378E-01	-.240169	-.254992E-02	.247477E-02	-.107301E-02
168	.335682	.442624E-01	-.263631	-.362502E-02	.438500E-02	-.347837E-03
169	.340693	.124789E-07	-.272655	.110514E-06	.534036E-02	.940134E-09
170	.335642	-.442623E-01	-.263631	.362516E-02	.438500E-02	.347839E-03
171	.311638	-.859378E-01	-.240169	.255003E-02	.247477E-02	.107301E-02
172	.266022	-.122107	-.209620	.353096E-02	.759379E-03	.154921E-02
173	.213411	-.151144	-.178320	.207731E-02	-.474446E-03	.144176E-02
174	.160575	-.173052	-.149494	.333706E-03	-.975088E-03	.149840E-02
175	.986207E-01	-.187674	-.126062	.103343E-02	-.943177E-03	.195547E-02
176	-.164329	-.526193E-11	.968140E-01	-.148315E-08	-.776178E-03	-.102571E-10
177	-.150461	.581182E-01	.883421E-01	-.309508E-03	-.715319E-03	-.589844E-04
178	-.114758	.107150	.642174E-01	-.570545E-03	-.584331E-03	.822064E-04
179	-.916677E-01	.145996	.271384E-01	-.804025E-03	-.470916E-03	.970297E-03
180	-.124606	.169003	-.235714E-01	-.781352E-03	-.329628E-03	.151291E-02
181	-.108102	.236499	-.792562E-01	.154226E-04	-.511582E-03	.918713E-04
182	.516197E-01	.257184	-.143956	-.211539E-02	-.743361E-03	-.170161E-02
183	.122281	.247965	-.171825	-.211388E-02	-.204718E-03	-.195022E-02

184	.210843	.228397	-.199208	-.149512E-02	.567573E-03	-.327739E-02
185	.329945	.195011	-.226034	-.219694E-02	.150108E-02	-.462688E-02
186	.463759	.144532	-.248635	-.311314E-02	.256610E-02	-.480083E-02
187	.572879	.774741E-01	-.263965	.127306E-02	.326500E-02	-.309372E-02
188	.615319	.114429E-07	-.269414	.163351E-07	.341122E-02	-.682344E-10
189	.572879	-.774741E-01	-.263965	-.127299E-02	.326500E-02	.309373E-02
190	.463759	-.144532	-.248635	.311318E-02	.256610E-02	.480085E-02
191	.329945	-.195011	-.226034	.219901E-02	.150108E-02	.462689E-02
192	.210843	-.228397	-.199288	.149511E-02	.567574E-03	.327739E-02
193	.122281	-.247965	-.171825	.211390E-02	-.204717E-03	.195022E-02
194	.518197E-01	-.257184	-.143956	.211539E-02	-.743381E-03	.170161E-02
195	-.108102	-.238499	-.792562E-01	-.154208E-04	-.511582E-03	-.918710E-04
196	-.124606	-.189003	-.235714E-01	.781351E-03	-.329628E-03	-.151291E-02
197	-.916677E-01	-.145996	.271384E-01	.804023E-03	-.470916E-03	-.970297E-03
198	-.110758	-.107150	.642174E-01	.576543E-03	-.584331E-03	-.822064E-04
199	-.150461	-.581182E-01	.883421E-01	.309505E-03	-.715319E-03	.589044E-04
200	.126391E-01	.359113	-.172498	-.783973E-04	-.208281E-05	-.224869E-02
201	.128896	.351910	-.197923	-.109378E-02	.451372E-03	-.400517E-02
202	.284227	.326838	-.223370	-.213620E-02	.118763E-02	-.586556E-02
203	.473204	.278967	-.244671	-.691478E-03	.186789E-02	-.710062E-02
204	.666396	.205686	-.260525	.147457E-02	.216947E-02	-.666527E-02
205	.814725	.109652	-.270055	-.231155E-02	.241087E-02	-.411760E-02
206	.870720	.999397E-08	-.273193	.517283E-07	.261669E-02	.331592E-09
207	.814725	-.109652	-.270055	.231157E-02	.241087E-02	.411780E-02
208	.666396	-.205686	-.260525	-.147450E-02	.216947E-02	.666527E-02
209	.473204	-.278967	-.244671	.691478E-03	.186789E-02	.710062E-02
210	.284227	-.326838	-.223370	.213625E-02	.118763E-02	.586556E-02
211	.128846	-.351910	-.197923	.109377E-02	.451371E-03	.400517E-02
212	.126391E-01	-.359113	-.172498	.783981E-04	-.208254E-05	.224869E-02
213	-.298829	-.428455E-11	.131820	-.135860E-06	-.802200E-03	-.255133E-11
214	-.273373	.109234	.120409	-.226646E-03	-.773851E-03	-.106769E-04
215	-.219273	.203762	.874988E-04	-.543198E-03	-.706685E-03	.454297E-03
216	-.182280	.281642	.350561E-01	-.767727E-03	-.610392E-03	.136941E-02
217	-.180722	.353835	-.331422E-01	-.854220E-03	-.487996E-03	.215582E-02
218	-.174417	.426738	-.112397	-.389624E-03	-.516148E-03	.151897E-02
219	.228467E-01	.463462	-.194888	-.408440E-02	.222045E-03	-.369594E-02
220	.189408	.451405	-.221479	-.211930E-02	.987634E-03	-.589355E-02
221	.399593	.414562	-.243396	-.127236E-03	.149626E-02	-.763490E-02
222	.630856	.348587	-.261025	-.596297E-03	.178625E-02	-.617779E-02
223	.845403	.253179	-.273324	-.195504E-02	.203873E-02	-.697750E-02
224	.998561	.133487	-.280417	.283274E-02	.196701E-02	-.400184E-02
225	1.05426	.953230E-08	-.282736	-.131131E-07	.176145E-02	-.158498E-09
226	.998561	-.133487	-.280417	-.283268E-02	.196701E-02	.400184E-02
227	.845403	-.253179	-.273324	.195505E-02	.203873E-02	.697750E-02
228	.630856	-.348587	-.261025	.596375E-03	.178625E-02	.617779E-02
229	.399593	-.414562	-.243396	.127229E-03	.149626E-02	.763490E-02
230	.189408	-.451405	-.221479	.211935E-02	.987636E-03	.589355E-02
231	.228467E-01	-.463462	-.194888	.408440E-02	.222094E-03	.369594E-02
232	-.174417	-.426738	-.112397	.389623E-03	-.516148E-03	-.151897E-02
233	-.180722	-.353835	-.331422E-01	.854218E-03	-.487995E-03	-.215582E-02
234	-.182280	-.281642	.350561E-01	.767724E-03	-.610392E-03	-.136941E-02
235	-.219273	-.203762	.874988E-01	.543195E-03	-.706685E-03	-.454297E-03
236	-.273373	-.109234	.120409	.226644E-03	-.773851E-03	.106769E-04
237	.771259E-01	.567658	-.218409	.141106E-02	.113110E-02	-.481663E-02
238	.285475	.545640	-.241510	-.173100E-03	.127155E-02	-.715775E-02
239	.530412	.493794	-.261669	-.164822E-02	.156491E-02	-.848422E-02
240	.781909	.409287	-.276840	-.389639E-03	.177282E-02	-.843268E-02
241	1.00237	.293706	-.287240	.163776E-02	.166907E-02	-.603449E-02
242	1.15412	.153627	-.293201	-.358902E-02	.173532E-02	-.387162E-02
243	1.20827	.821176E-08	-.295080	.549044E-07	.193999E-02	.423481E-09
244	1.15412	-.153627	-.293201	.358902E-02	.173532E-02	.387162E-02
245	1.00237	-.293706	-.287240	-.163769E-02	.166907E-02	.603449E-02
246	.781909	-.409287	-.276840	.389621E-03	.177282E-02	.843268E-02
247	.530412	-.493794	-.261669	.164829E-02	.156491E-02	.848422E-02
248	.285475	-.545640	-.241510	.173088E-03	.127155E-02	.715775E-02
249	.771259E-01	-.567658	-.218409	-.141105E-02	.113110E-02	.481663E-02

250	-.468270	.202344E-10	.164980	-.206501E-08	-.125430E-02	-.104713E-11
251	-.436202	.175877	.150747	-.564964E-03	-.118502E-02	.175268E-03
252	-.362792	.331502	.108921	-.976945E-03	-.100837E-02	.812687E-03
253	-.294164	.460287	.421558E-01	-.122707E-02	-.764357E-03	.194335E-02
254	-.258791	.570411	-.443986E-01	-.156986E-02	-.405625E-03	.288670E-02
255	-.192888	.662745	-.143644	.470716E-03	-.120233E-03	.130980E-02
256	.170749	.672456	-.236284	-.390497E-02	.103689E-02	-.555050E-02
257	.403334	.636367	-.260424	-.173580E-02	.152003E-02	-.764467E-02
258	.666420	.567792	-.278947	.239596E-03	.164937E-02	-.870674E-02
259	.926678	.464837	-.292833	-.825662E-03	.163551E-02	-.837027E-02
260	1.14669	.330322	-.302193	-.273259E-02	.176119E-02	-.654170E-02
261	1.29368	.171680	-.307454	.381565E-02	.159068E-02	-.353369E-02
262	1.34522	.835520E-08	-.309223	-.319262E-07	.129967E-02	-.341025E-09
263	1.29368	-.171680	-.307454	-.381558E-02	.159064E-02	.353369E-02
264	1.14669	-.330322	-.302193	.273258E-02	.176120E-02	.654170E-02
265	.926678	-.464837	-.292833	.625753E-03	.163551E-02	.837027E-02
266	.666420	-.567792	-.278947	-.239619E-03	.164937E-02	.870674E-02
267	.403334	-.636367	-.260424	.173580E-02	.152003E-02	.764467E-02
268	.170749	-.672456	-.236284	.390497E-02	.103689E-02	.555050E-02
269	-.192886	-.662745	-.143644	-.470717E-03	-.120233E-03	-.130980E-02
270	-.258791	-.570411	-.443986E-01	.156988E-02	-.405625E-03	-.288670E-02
271	-.294164	-.460287	.421558E-01	.122707E-02	-.764357E-03	-.194335E-02
272	-.362792	-.331502	.108921	.976941E-03	-.100837E-02	-.812687E-03
273	-.436202	-.175877	.150747	.564965E-03	-.118502E-02	-.175268E-03
274	.299770	.794149	-.256801	.117994E-02	.163132E-02	-.618637E-02
275	.557538	.739424	-.279594	-.244146E-03	.165423E-02	-.789330E-02
276	.832141	.649774	-.297964	-.166388E-02	.176916E-02	-.857054E-02
277	1.09174	.525100	-.311297	-.108086E-03	.178835E-02	-.778073E-02
278	1.30347	.369490	-.320066	.242903E-02	.149630E-02	-.593298E-02
279	1.44240	.190886	-.325061	-.462818E-02	.151262E-02	-.325144E-02
280	1.49048	.630972E-08	-.326539	.626041E-07	.176227E-02	.465462E-09
281	1.44240	-.190886	-.325061	.462815E-02	.151262E-02	.325144E-02
282	1.30347	-.369490	-.320066	-.242896E-02	.149630E-02	.593298E-02
283	1.09174	-.525100	-.311297	.108038E-03	.178834E-02	.778073E-02
284	.832141	-.649774	-.297964	.166397E-02	.176916E-02	.857054E-02
285	.557538	-.739424	-.279594	.244105E-03	.165423E-02	.789330E-02
286	.299770	-.794149	-.256801	-.117993E-02	.163133E-02	.618637E-02
287	-.712775	.713299E-10	.200932	-.146603E-08	-.130452E-02	.514783E-11
288	-.671712	.271629	.183326	-.422344E-03	-.128494E-02	.477661E-03
289	-.571189	.515800	.131475	-.885958E-03	-.120162E-02	.138271E-02
290	-.457919	.718817	.487512E-01	-.134435E-02	-.977351E-03	.266791E-02
291	-.348360	.879431	-.586669E-01	-.161888E-02	-.435776E-03	.312633E-02
292	-.129342	.976750	-.175993	.621388E-03	.107266E-03	.130626E-03
293	.444888	.918892	-.274050	-.268999E-02	.137523E-02	-.652849E-02
294	.724122	.843613	-.297817	-.105481E-02	.161704E-02	-.816788E-02
295	1.00504	.731675	-.316068	-.503420E-03	.183296E-02	-.809464E-02
296	1.26040	.584569	-.329360	-.139400E-03	.158375E-02	-.723781E-02
297	1.46125	.407607	-.338450	-.313662E-02	.192404E-02	-.516853E-02
298	1.58659	.209248	-.343491	.517450E-02	.136843E-02	-.257022E-02
299	1.62852	.623487E-08	-.345310	-.109248E-07	.127404E-02	.116191E-08
300	1.58659	-.209248	-.343491	-.517432E-02	.136844E-02	.257022E-02
301	1.46129	-.407607	-.338450	.313669E-02	.192404E-02	.516853E-02
302	1.26040	-.584569	-.329360	.139616E-03	.158375E-02	.723781E-02
303	1.00504	-.731675	-.316068	.503488E-03	.183296E-02	.809465E-02
304	.724122	-.843613	-.297817	.105500E-02	.181704E-02	.816788E-02
305	.444888	-.918892	-.274050	.269000E-02	.137523E-02	.652850E-02
306	-.129342	-.976750	-.175993	-.621387E-03	-.107265E-03	-.130626E-03
307	-.348360	-.879431	-.586669E-01	.161887E-02	-.435778E-03	-.312633E-02
308	-.457919	-.718817	.487512E-01	.134435E-02	-.977351E-03	-.266791E-02
309	-.571189	-.515800	.131475	.865955E-03	-.120162E-02	-.138271E-02
310	-.671712	-.271629	.183326	.422341E-03	-.128494E-02	-.477661E-03
311	.648446	1.07891	-.295414	.124540E-02	.166366E-02	-.656936E-02
312	1.22671	.854768	-.357586	-.159463E-02	.195789E-02	-.746499E-02
313	1.66824	.456421	-.360915	.244300E-02	.195818E-02	-.433566E-02
314	1.82054	.461540E-08	-.369063	.740311E-07	.242257E-02	.224362E-08
315	1.66824	-.456421	-.360915	-.244290E-02	.195817E-02	.433567E-02

316	1.22671	-.834768	-.337586	.159473E-02	.195789E-02	.746494E-02
317	.646446	-1.07891	-.295414	-.124539E-02	.166369E-02	.655937E-02
318	-1.09376	.146672E-09	.242288	-.205294E-08	-.191618E-02	-.146794E-11
319	-1.05975	.420867	.220472	-.826124E-03	-.182778E-02	.969755E-03
320	-.698873	.803664	.156275	-.149745E-02	-.156045E-02	.229912E-02
321	-.706751	1.12157	.539578E-01	-.203339E-02	-.103983E-02	.340551E-02
322	-.432866	1.34854	-.757641E-01	-.236641E-02	-.106647E-03	.247221E-02
323	.653792E-01	1.42360	-.210300	-.256504E-03	.728189E-03	-.170429E-02
324	.861099	1.24272	-.314119	-.167499E-02	.161134E-02	-.597591E-02
325	1.69036	.738982	-.373561	-.103850E-02	.184922E-02	-.560813E-02
326	2.04480	.279315E-08	-.392578	-.103476E-08	.217198E-02	.703422E-09
327	1.69036	-.738982	-.373561	.103649E-02	.184922E-02	.560813E-02
328	.861099	-1.24272	-.314119	.187500E-02	.161134E-02	.597591E-02
329	.653792E-01	-1.42360	-.210300	.256502E-03	.728189E-03	.170430E-02
330	-.432866	-1.34854	-.757641E-01	.236641E-02	-.106647E-03	-.247221E-02
331	-.706751	-1.12157	.539578E-01	.203339E-02	-.103983E-02	-.340551E-02
332	-.898873	-.803664	.156275	.149744E-02	-.156045E-02	-.229912E-02
333	-1.05975	-.420867	.220472	.826120E-03	-.182778E-02	-.969756E-03
334	-1.56177	.175681E-09	.279974	-.189226E-08	-.202666E-02	-.581951E-12
335	-1.49262	.604361	.253918	-.648308E-03	-.198314E-02	.165058E-02
336	-1.29798	1.15694	.177337	-.142566E-02	-.175485E-02	.321031E-02
337	-.979603	1.60872	.569270E-01	-.216772E-02	-.113189E-02	.361550E-02
338	-.466922	1.89671	-.904658E-01	-.234453E-02	-.971736E-04	.136767E-02
339	.326603	1.92617	-.235256	-.334219E-02	.124051E-02	-.257700E-02
340	1.29786	1.60563	-.350375	-.684346E-03	.203893E-02	-.529896E-02
341	2.15451	.922555	-.418872	-.194686E-03	.198544E-02	-.452230E-02
342	2.50471	.432508E-09	-.440744	.353454E-08	.188369E-02	-.960554E-11
343	2.15451	-.922555	-.418872	.194697E-03	.198544E-02	.452230E-02
344	1.29786	-1.60563	-.350375	.684341E-03	.203893E-02	.529896E-02
345	.326603	-1.92617	-.235256	.334220E-02	.124051E-02	.257700E-02
346	-.466922	-1.89671	-.904658E-01	.234453E-02	-.971736E-04	-.136767E-02
347	-.979603	-1.60872	.569270E-01	.216772E-02	-.113189E-02	-.361550E-02
348	-1.29798	-1.15694	.177337	.142565E-02	-.175485E-02	-.321031E-02
349	-1.49262	-.604361	.253918	.648304E-03	-.198314E-02	-.165058E-02
350	-2.11994	.152534E-09	.313040	-.268782E-08	-.271110E-02	-.170697E-12
351	-2.03029	.822631	.282732	-.119611E-02	-.254700E-02	.232623E-02
352	-1.75468	1.57326	.194507	-.216597E-02	-.200764E-02	.384325E-02
353	-1.25354	2.17051	.569850E-01	-.265865E-02	-.106225E-02	.335395E-02
354	-.461410	2.51178	-.101454	-.280838E-02	.151781E-03	.600209E-03
355	.606334	2.46434	-.257601	-.129624E-02	.107927E-02	-.291062E-02
356	1.76574	2.01499	-.382673	-.247962E-02	.179350E-02	-.487944E-02
357	2.68292	1.13342	-.460814	-.138528E-02	.239482E-02	-.364677E-02
358	3.03462	-.146515E-08	-.486811	.845525E-09	.256906E-02	.131520E-09
359	2.68292	-1.13342	-.460814	.138528E-02	.239482E-02	.364677E-02
360	1.76574	-2.01499	-.382673	.247963E-02	.179351E-02	.487944E-02
361	.606334	-2.46434	-.257601	.129624E-02	.107927E-02	.291061E-02
362	-.461410	-2.51178	-.101454	.280838E-02	.151781E-03	-.600209E-03
363	-1.25354	-2.17051	.569850E-01	.265864E-02	-.106225E-02	-.335345E-02
364	-1.75468	-1.57326	.194507	.216596E-02	-.200764E-02	-.384325E-02
365	-2.03029	-.822631	.282732	.119611E-02	-.254700E-02	-.232623E-02
366	-2.77034	.526616E-10	.341462	-.236367E-08	-.275056E-02	.166727E-10
367	-2.64799	1.07524	.307240	-.949122E-03	-.260672E-02	.282945E-02
368	-2.25420	2.04837	.209013	-.187583E-02	-.210953E-02	.413579E-02
369	-1.52774	2.79962	.615041E-01	-.266914E-02	-.118566E-02	.306628E-02
370	-.442049	3.19151	-.110534	-.288257E-02	.123835E-04	.875983E-04
371	.906846	3.10026	-.277401	-.370054E-02	.137948E-02	-.308849E-02
372	2.26199	2.47215	-.412804	-.126721E-02	.231029E-02	-.438085E-02
373	3.27485	1.37387	-.499422	-.575021E-03	.255552E-02	-.309024E-02
374	3.64994	-.301671E-08	-.529081	.397399E-08	.260818E-02	.131372E-09
375	3.27485	-1.37387	-.499422	.575030E-03	.255552E-02	.309024E-02
376	2.26199	-2.47215	-.412804	.126721E-02	.231028E-02	.438085E-02
377	.906846	-3.10026	-.277401	.370055E-02	.137948E-02	.308849E-02
378	-.442049	-3.19151	-.110534	.288256E-02	.123835E-04	-.875984E-04
379	-1.52774	-2.79962	.615041E-01	.266919E-02	-.118565E-02	-.306628E-02
380	-2.25420	-2.04837	.209013	.187583E-02	-.210953E-02	-.413579E-02
381	-2.64799	-1.07524	.307240	.949116E-03	-.260672E-02	-.282945E-02

382	-3.50570	-.938520E-10	.364394	-.313604E-08	-.345533E-02	.276730E-10
383	-3.35553	1.35852	.327115	-.153268E-02	-.315069E-02	.308555E-02
384	-2.79051	2.57525	.221231	-.267743E-02	-.233744E-02	.423999E-02
385	-1.81193	3.48975	.640069E-01	-.318380E-02	-.114163E-02	.280452E-02
386	-.416402	3.93302	-.118171	-.326890E-02	.213127E-03	-.267919E-03
387	1.22477	3.77334	-.295175	-.182578E-02	.125526E-02	-.303903E-02
388	2.79454	2.97595	-.440118	-.277039E-02	.210804E-02	-.402755E-02
389	3.92808	1.64161	-.534067	-.155951E-02	.267142E-02	-.273417E-02
390	4.34145	-.467663E-08	-.566477	.115631E-08	.313696E-02	.146354E-09
391	3.92808	-1.64161	-.534067	.155951E-02	.267142E-02	.273417E-02
392	2.79454	-2.97595	-.440118	.277040E-02	.210804E-02	.402755E-02
393	1.22477	-3.77334	-.295175	.182578E-02	.125526E-02	.303903E-02
394	-.416402	-3.93302	-.118171	.326890E-02	.213127E-03	.267919E-03
395	-1.81193	-3.48975	.640069E-01	.318360E-02	-.114163E-02	-.280452E-02
396	-2.79051	-2.57525	.221231	.267743E-02	-.233744E-02	-.423999E-02
397	-3.35553	-1.35852	.327115	.153268E-02	-.315069E-02	-.308555E-02
398	-4.31271	-.305892E-09	.382735	-.278317E-08	-.325603E-02	.362304E-10
399	-4.08383	1.66838	.343296	-.142605E-02	-.305650E-02	.323290E-02
400	-3.36572	3.14874	.231590	-.258689E-02	-.244015E-02	.424491E-02
401	-2.11382	4.23789	.663231E-01	-.330017E-02	-.138262E-02	.256925E-02
402	-.390105	4.73597	-.124962	-.332636E-02	-.260094E-04	-.539854E-03
403	1.56208	4.50375	-.311306	-.391702E-02	.152103E-02	-.303368E-02
404	3.36671	3.52507	-.464757	-.147263E-02	.265456E-02	-.360624E-02
405	4.64016	1.93476	-.564799	-.659640E-03	.309214E-02	-.239682E-02
406	5.10004	-.644764E-08	-.599470	.445973E-08	.322647E-02	.239314E-09
407	4.64016	-1.93476	-.564799	.659651E-03	.309214E-02	.239682E-02
408	3.36671	-3.52507	-.464757	.147263E-02	.265456E-02	.360629E-02
409	1.56208	-4.50375	-.311306	.391702E-02	.152103E-02	.303368E-02
410	-.390105	-4.73597	-.124962	.332635E-02	-.260094E-04	.539853E-03
411	-2.11382	-4.23789	.663231E-01	.330017E-02	-.138262E-02	-.256925E-02
412	-3.36572	-3.14874	.231590	.258688E-02	-.244015E-02	-.429491E-02
413	-4.08383	-1.66838	.343296	.142605E-02	-.305650E-02	-.323290E-02

MAXIMUM VALUL

NODES	406	402	406	56	123	125
DISPL	5.10004	4.73597	-.599470	.188882E-01	.927018E-02	-.161848E-01

48360 WORDS WRITTEN TO BLOCKS 1 AND 2
366507 WORDS WRITTEN TO BLOCK 3
2334 ACTIVE DEGREES OF FREEDOM
135.0 R.M.S. WAVEFRONT

MATRIX SOLUTION TIME ESTIMATE(CDC7600) = 42.53 SECONDS.

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                 ANSYS - ENGINEERING ANALYSIS SYSTEM  UP188 REV 2 B+W7600    JAN 1,1972
     SWANSON ANALYSIS SYSTEMS, INC.     ELIZABETH, PENNSYLVANIA  15037.   PHONE (412) 751-1940

 LOAD COMBINATION, DL + 9.2PSF E TO W LATERAL WIND
                                                                      10.8047     5/11/77
                                                               CP =   71.559    PP =   0.000

 ***** ELEMENT STRESSES *****  TIME =   0.          LOAD STEP=   1   ITERATION=  1   CUM. ITER.=   1

LINE ELEMENT STRESSES ASSUME WEIGHT IS CONCENTRATED AT NODAL POINTS
REACTION FORCES AND ELEMENT FORCES ASSUME DISTRIBUTED WEIGHTS

ELEM    1  NODES=      1    2   67   66  MATERIAL=  1  AREA=    9188.5      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=      -0.      -0.  MX,MY,MXY=       2.      13.      -1.  XC,YC,ZC=   171.6       34.13         66.00
TOP STR  SX,SY,SXY=    757.   6627.      66.   SMAX,SMIN,TAUMAX=    6628.     756.    2936.   A=    .6  VM=    6284.
MID STR  SX,SY,SXY=    748.   6577.      64.   SMAX,SMIN,TAUMAX=    6578.     747.    2915.   A=    .6  VM=    6238.
BOT STR  SX,SY,SXY=    739.   6526.      62.   SMAX,SMIN,TAUMAX=    6527.     738.    2894.   A=    .6  VM=    6191.

ELEM    2  NODES=      2    3   68   67  MATERIAL=  1  AREA=    9188.5      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=       0.      -0.  MX,MY,MXY=       2.      11.      -2.  XC,YC,ZC=   145.5       97.20         66.00
TOP STR  SX,SY,SXY=    622.   5442.     182.   SMAX,SMIN,TAUMAX=    5449.     615.    2417.   A=   2.2  VM=    5169.
MID STR  SX,SY,SXY=    613.   5400.     176.   SMAX,SMIN,TAUMAX=    5407.     606.    2400.   A=   2.1  VM=    5131.
BOT STR  SX,SY,SXY=    603.   5359.     170.   SMAX,SMIN,TAUMAX=    5365.     597.    2384.   A=   2.0  VM=    5093.

ELEM    3  NODES=      3    4   69   68  MATERIAL=  1  AREA=    9188.5      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=       0.      -0.  MX,MY,MXY=       5.       8.      -1.  XC,YC,ZC=    97.20     145.5          66.00
TOP STR  SX,SY,SXY=    390.   3288.     257.   SMAX,SMIN,TAUMAX=    3310.     367.    1472.   A=   5.0  VM=    3143.
MID STR  SX,SY,SXY=    370.   3256.     252.   SMAX,SMIN,TAUMAX=    3278.     348.    1465.   A=   5.0  VM=    3118.
BOT STR  SX,SY,SXY=    350.   3224.     247.   SMAX,SMIN,TAUMAX=    3245.     329.    1458.   A=   4.9  VM=    3094.

ELEM    4  NODES=      4    5   70   69  MATERIAL=  1  AREA=    9188.5      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=       0.       0.  MX,MY,MXY=      19.      14.       5.  XC,YC,ZC=    34.13     171.6          66.00
TOP STR  SX,SY,SXY=    130.    528.     300.   SMAX,SMIN,TAUMAX=     689.     -30.     360.   A=  28.2  VM=     704.
MID STR  SX,SY,SXY=     58.    475.     318.   SMAX,SMIN,TAUMAX=     647.    -114.     380.   A=  28.4  VM=     711.
BOT STR  SX,SY,SXY=    -14.    422.     337.   SMAX,SMIN,TAUMAX=     606.    -197.     401.   A=  28.6  VM=     725.

ELEM    5  NODES=      5    6   38   70  MATERIAL=  1  AREA=    7111.8      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=      -1.       1.  MX,MY,MXY=     -44.      -2.      -8.  XC,YC,ZC=   -34.22     171.8          51.00
TOP STR  SX,SY,SXY=  -1177.  -2823.     784.   SMAX,SMIN,TAUMAX=    -863.   -3137.    1137.   A=  68.2  VM=    2807.
MID STR  SX,SY,SXY=  -1008.  -2817.     753.   SMAX,SMIN,TAUMAX=    -736.   -3090.    1177.   A=  70.1  VM=    2795.
BOT STR  SX,SY,SXY=   -839.  -2812.     721.   SMAX,SMIN,TAUMAX=    -604.   -3047.    1222.   A=  71.9  VM=    2795.

ELEM    6  NODES=      6    7   25   38  MATERIAL=  1  AREA=    3772.2      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=       7.      19.  MX,MY,MXY=     -28.     -74.     -52.  XC,YC,ZC=   -97.54     145.9          27.00
TOP STR  SX,SY,SXY=  -1683.  -9009.     779.   SMAX,SMIN,TAUMAX=   -1601.   -9091.    3745.   A=  84.0  VM=    8406.
MID STR  SX,SY,SXY=  -1576.  -8726.     580.   SMAX,SMIN,TAUMAX=   -1530.   -8773.    3622.   A=  85.4  VM=    8117.
BOT STR  SX,SY,SXY=  -1470.  -8444.     380.   SMAX,SMIN,TAUMAX=   -1449.   -8465.    3508.   A=  86.9  VM=    7841.

ELEM    7  NODES=      7    8   26   25  MATERIAL=  1  AREA=    843.50      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=     -11.      32.  MX,MY,MXY=      40.    -203.      16.  XC,YC,ZC=  -134.4      117.8          18.00
TOP STR  SX,SY,SXY=  -1747. -15157.    -532.   SMAX,SMIN,TAUMAX=   -1726.  -15178.    6726.   A=-87.7  VM=   14593.
MID STR  SX,SY,SXY=  -1699. -14376.    -472.   SMAX,SMIN,TAUMAX=   -1681.  -14394.    6356.   A=-87.8  VM=   13551.
BOT STR  SX,SY,SXY=  -2051. -13595.    -412.   SMAX,SMIN,TAUMAX=   -2036.  -13609.    5787.   A=-88.0  VM=   12714.

ELEM    8  NODES=      8    9   27   26  MATERIAL=  1  AREA=    843.50      TTOP,TBOT=    70.   70.  PRESS=     -0.          63
   NX,NY=      -2.      21.  MX,MY,MXY=     -54.    -186.      55.  XC,YC,ZC=  -148.6       99.29          18.00
TOP STR  SX,SY,SXY=  -1721. -13682.    -862.   SMAX,SMIN,TAUMAX=   -1659.  -13744.    6042.   A=-85.9  VM=   12994.
MID STR  SX,SY,SXY=  -1515. -12968.    -650.   SMAX,SMIN,TAUMAX=   -1478.  -13004.    5763.   A=-86.8  VM=   12332.
BOT STR  SX,SY,SXY=  -1309. -12253.    -438.   SMAX,SMIN,TAUMAX=   -1292.  -12271.    5490.   A=-87.7  VM=   11679.

ELEM    9  NODES=      9   10   28   27  MATERIAL=  1  AREA=    843.50      TTOP,TBOT=    70.   70.  PRESS=      0.          63
   NX,NY=       4.      14.  MX,MY,MXY=     -57.    -120.      44.  XC,YC,ZC=  -160.3       79.05          16.00
TOP STR  SX,SY,SXY=  -1382. -10367.    -175.   SMAX,SMIN,TAUMAX=   -1378.  -10370.    4496.   A=-88.9  VM=    9754.
MID STR  SX,SY,SXY=  -1162.  -9907.      -7.   SMAX,SMIN,TAUMAX=   -1162.   -9907.    4372.   A=-90.0  VM=    9380.
BOT STR  SX,SY,SXY=   -943.  -9446.     160.   SMAX,SMIN,TAUMAX=    -940.   -9449.    4255.   A=  88.9  VM=    9016.
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ELEM  10  NODES=   10  11   29  28  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=      9.    15.  MX,MY,MXY=   30.    -14.  [illegible]5.  XC,YC,ZC=  -169.2      57.45      18.00
TOP STR  SX,SY,SXY=  -574.  -5437.     33.   SMAX,SMIN,[illegible]MAX=  -573.  -5437.  2432.  A= 89.6  VM=  5174.
MID STR  SX,SY,SXY=  -690.  -5384.    204.   SMAX,SMIN,[illegible]MAX=  -682.  -5392.  2355.  A= 87.5  VM=  5066.
BOT STR  SX,SY,SXY=  -807.  -5331.    375.   SMAX,SMIN,[illegible]MAX=  -776.  -5362.  2293.  A= 85.3  VM=  5019.

ELEM  11  NODES=   11  12   30  29  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     -6.     7.  MX,MY,MXY=   38.     76.    82.  XC,YC,ZC=  -175.3      34.87      18.00
TOP STR  SX,SY,SXY=   -61.   -751.   -347.   SMAX,SMIN,TAUMAX=     84.   -895.   490.  A=-67.4  VM=   940.
MID STR  SX,SY,SXY=  -206.  -1043.    -34.   SMAX,SMIN,TAUMAX=   -205.  -1044.   419.  A=-87.7  VM=   958.
BOT STR  SX,SY,SXY=  -352.  -1335.    280.   SMAX,SMIN,TAUMAX=   -278.  -1409.   565.  A= 75.2  VM=  1293.

ELEM  12  NODES=   12  13   31  30  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     -5.    -7.  MX,MY,MXY=  -49.    131.    44.  XC,YC,ZC=  -178.3      11.69      18.00
TOP STR  SX,SY,SXY=    24.   2110.   -290.   SMAX,SMIN,TAUMAX=   2150.    -16.  1083.  A= -7.8  VM=  2158.
MID STR  SX,SY,SXY=   211.   1608.   -120.   SMAX,SMIN,TAUMAX=   1619.    201.   709.  A= -4.9  VM=  1528.
BOT STR  SX,SY,SXY=   398.   1107.     50.   SMAX,SMIN,TAUMAX=   1110.    394.   358.  A=  4.0  VM=   975.

ELEM  13  NODES=   13  14   32  31  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=      5.    -7.  MX,MY,MXY=  -49.    131.   -44.  XC,YC,ZC=  -178.3     -11.69      18.00
TOP STR  SX,SY,SXY=    24.   2110.    290.   SMAX,SMIN,TAUMAX=   2150.    -16.  1083.  A=  7.8  VM=  2158.
MID STR  SX,SY,SXY=   211.   1608.    120.   SMAX,SMIN,TAUMAX=   1619.    201.   709.  A=  4.9  VM=  1528.
BOT STR  SX,SY,SXY=   398.   1107.    -50.   SMAX,SMIN,TAUMAX=   1110.    394.   358.  A= -4.0  VM=   975.

ELEM  14  NODES=   14  15   33  32  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=      6.     7.  MX,MY,MXY=   38.     76.   -82.  XC,YC,ZC=  -175.3     -34.87      18.00
TOP STR  SX,SY,SXY=   -61.   -751.    347.   SMAX,SMIN,TAUMAX=     84.   -895.   490.  A= 67.4  VM=   940.
MID STR  SX,SY,SXY=  -206.  -1043.     34.   SMAX,SMIN,TAUMAX=   -205.  -1044.   419.  A= 87.7  VM=   958.
BOT STR  SX,SY,SXY=  -352.  -1335.   -280.   SMAX,SMIN,TAUMAX=   -278.  -1409.   565.  A=-75.2  VM=  1293.

ELEM  15  NODES=   15  16   34  33  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     -9.    15.  MX,MY,MXY=   30.    -14.   -45.  XC,YC,ZC=  -169.2     -57.45      18.00
TOP STR  SX,SY,SXY=  -574.  -5437.    -33.   SMAX,SMIN,TAUMAX=   -573.  -5437.  2432.  A=-89.6  VM=  5174.
MID STR  SX,SY,SXY=  -690.  -5384.   -204.   SMAX,SMIN,TAUMAX=   -682.  -5392.  2355.  A=-87.5  VM=  5066.
BOT STR  SX,SY,SXY=  -807.  -5331.   -375.   SMAX,SMIN,TAUMAX=   -776.  -5362.  2293.  A=-85.3  VM=  5019.

ELEM  16  NODES=   16  17   35  34  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     -4.    14.  MX,MY,MXY=  -57.   -120.   -44.  XC,YC,ZC=  -160.3     -79.05      18.00
TOP STR  SX,SY,SXY= -1382. -10367.    175.   SMAX,SMIN,TAUMAX=  -1378. -10370.  4496.  A= 88.9  VM=  9754.
MID STR  SX,SY,SXY= -1162.  -9907.      7.   SMAX,SMIN,TAUMAX=  -1162.  -9907.  4372.  A= 90.0  VM=  9380.
BOT STR  SX,SY,SXY=  -943.  -9446.   -160.   SMAX,SMIN,TAUMAX=   -940.  -9449.  4255.  A=-88.9  VM=  9016.

ELEM  17  NODES=   17  18   36  35  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=      2.    21.  MX,MY,MXY=  -54.   -186.   -55.  XC,YC,ZC=  -148.6     -99.29      18.00
TOP STR  SX,SY,SXY= -1721. -13682.    862.   SMAX,SMIN,TAUMAX=  -1659. -13744.  6042.  A= 85.9  VM= 12994.
MID STR  SX,SY,SXY= -1515. -12968.    650.   SMAX,SMIN,TAUMAX=  -1478. -13004.  5763.  A= 86.8  VM= 12332.
BOT STR  SX,SY,SXY= -1309. -12253.    438.   SMAX,SMIN,TAUMAX=  -1292. -12271.  5490.  A= 87.7  VM= 11679.

ELEM  18  NODES=   18  19   37  36  MATERIAL=  1  AREA=   843.50        TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     11.    32.  MX,MY,MXY=   40.   -203.   -16.  XC,YC,ZC=  -134.4    -117.8       18.00
TOP STR  SX,SY,SXY= -1747. -15157.    532.   SMAX,SMIN,TAUMAX=  -1726. -15178.  6726.  A= 87.7  VM= 14393.
MID STR  SX,SY,SXY= -1899. -14376.    472.   SMAX,SMIN,TAUMAX=  -1881. -14394.  6256.  A= 87.8  VM= 13551.
BOT STR  SX,SY,SXY= -2051. -13595.    412.   SMAX,SMIN,TAUMAX=  -2036. -13609.  5787.  A= 88.0  VM= 12714.

ELEM  19  NODES=   19  20   52  37  MATERIAL=  1  AREA=  3772.2         TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=     -7.    19.  MX,MY,MXY=  -28.    -74.    52.  XC,YC,ZC=   -97.54   -145.9       27.00
TOP STR  SX,SY,SXY= -1683.  -9009.   -779.   SMAX,SMIN,TAUMAX=  -1601.  -9091.  3745.  A=-84.0  VM=  8406.
MID STR  SX,SY,SXY= -1576.  -8726.   -580.   SMAX,SMIN,TAUMAX=  -1530.  -8773.  3622.  A=-85.4  VM=  8117.
BOT STR  SX,SY,SXY= -1470.  -8444.   -380.   SMAX,SMIN,TAUMAX=  -1449.  -8465.  3508.  A=-86.9  VM=  7841.

ELEM  20  NODES=   20  21   81  52  MATERIAL=  1  AREA=  7111.8         TTOP,TBOT=   70.   70.  PRESS=    0.      63
   NX,NY=      1.     1.  MX,MY,MXY=  -44.     -2.     8.  XC,YC,ZC=   -34.22   -171.8       51.00
TOP STR  SX,SY,SXY= -1177.  -2823.   -784.   SMAX,SMIN,TAUMAX=   -863.  -3137.  1137.  A=-68.2  VM=  2807.
MID STR  SX,SY,SXY= -1008.  -2817.   -753.   SMAX,SMIN,TAUMAX=   -736.  -3090.  1177.  A=-70.1  VM=  2795.
BOT STR  SX,SY,SXY=  -839.  -2812.   -721.   SMAX,SMIN,TAUMAX=   -604.  -3047.  1222.  A=-71.9  VM=  2795.
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ELEM  21  NODES=   21   22   82   81  MATERIAL=  1  AREA=   9188.5       TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      -0.       0.   MX,MY,MXY=    19.     14.      -5.   XC,YC,ZC=    34.13    -171.6       66.00
TOP STR  SX,SY,SXY=    130.     528.     -300.   SMAX,SMIN,TAUMAX=    689.     -30.     360.   A=-28.2   VM=     704.
MID STR  SX,SY,SXY=     58.     475.     -318.   SMAX,SMIN,TAUMAX=    647.    -114.     380.   A=-28.4   VM=     711.
BOT STR  SX,SY,SXY=    -14.     422.     -337.   SMAX,SMIN,TAUMAX=    606.    -197.     401.   A=-28.6   VM=     725.

ELEM  22  NODES=   22   23   83   82  MATERIAL=  1  AREA=   9188.5       TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      -0.      -0.   MX,MY,MXY=     5.      8.       1.   XC,YC,ZC=    97.20    -145.5       66.00
TOP STR  SX,SY,SXY=    390.    3288.     -257.   SMAX,SMIN,TAUMAX=   3310.     367.    1472.   A= -5.0   VM=    3143.
MID STR  SX,SY,SXY=    370.    3256.     -252.   SMAX,SMIN,TAUMAX=   3278.     348.    1465.   A= -5.0   VM=    3118.
BOT STR  SX,SY,SXY=    350.    3224.     -247.   SMAX,SMIN,TAUMAX=   3245.     329.    1458.   A= -4.9   VM=    3094.

ELEM  23  NODES=   23   24   84   83  MATERIAL=  1  AREA=   9188.5       TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      -0.      -0.   MX,MY,MXY=     2.     11.       2.   XC,YC,ZC=   -145.5     -97.20      66.00
TOP STR  SX,SY,SXY=    623.    5442.     -182.   SMAX,SMIN,TAUMAX=   5449.     615.    2417.   A= -2.2   VM=    5169.
MID STR  SX,SY,SXY=    613.    5400.     -176.   SMAX,SMIN,TAUMAX=   5407.     606.    2400.   A= -2.1   VM=    5131.
BOT STR  SX,SY,SXY=    603.    5359.     -170.   SMAX,SMIN,TAUMAX=   5365.     597.    2384.   A= -2.0   VM=    5093.

ELEM  24  NODES=   24    1   66   84  MATERIAL=  1  AREA=   9188.5       TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=       0.      -0.   MX,MY,MXY=     2.     13.       1.   XC,YC,ZC=    171.6     -34.13      66.00
TOP STR  SX,SY,SXY=    757.    6627.      -66.   SMAX,SMIN,TAUMAX=   6628.     756.    2936.   A=  -.6   VM=    6284.
MID STR  SX,SY,SXY=    748.    6577.      -64.   SMAX,SMIN,TAUMAX=   6578.     747.    2915.   A=  -.6   VM=    6238.
BOT STR  SX,SY,SXY=    739.    6526.      -62.   SMAX,SMIN,TAUMAX=   6527.     738.    2894.   A=  -.6   VM=    6191.

ELEM  25  NODES=   39   38   25   25  MATERIAL=  1  AREA=   1252.3       TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      -1.       6.   MX,MY,MXY=    12.     74.     -59.   XC,YC,ZC=   -111.8      135.9       54.00
TOP STR  SX,SY,SXY=    499.  -10186.      281.   SMAX,SMIN,TAUMAX=    507.  -10193.    5350.   A= 88.5   VM=   10456.
MID STR  SX,SY,SXY=    455.  -10471.       56.   SMAX,SMIN,TAUMAX=    455.  -10472.    5463.   A= 89.7   VM=   10706.
BOT STR  SX,SY,SXY=    410.  -10757.     -169.   SMAX,SMIN,TAUMAX=    413.  -10759.    5586.   A=-89.1   VM=   10972.

ELEM  26  NODES=   25   26   40   39  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=     -11.     -11.   MX,MY,MXY=   283.    176.     -69.   XC,YC,ZC=   -134.0      117.5       54.00
TOP STR  SX,SY,SXY=   1602.  -11737.     -336.   SMAX,SMIN,TAUMAX=   1610.  -11745.    6678.   A=-88.6   VM=   12626.
MID STR  SX,SY,SXY=    514.  -12413.     -604.   SMAX,SMIN,TAUMAX=    542.  -12441.    6491.   A=-87.3   VM=   12721.
BOT STR  SX,SY,SXY=   -575.  -13089.     -870.   SMAX,SMIN,TAUMAX=   -515.  -13150.    6317.   A=-86.0   VM=   12900.

ELEM  27  NODES=   26   27   41   40  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=     -14.      -8.   MX,MY,MXY=   116.      3.      21.   XC,YC,ZC=   -148.2      98.99       54.00
TOP STR  SX,SY,SXY=    868.  -13872.     -808.   SMAX,SMIN,TAUMAX=    904.  -13916.    7410.   A=-86.9   VM=   14369.
MID STR  SX,SY,SXY=    415.  -13881.     -725.   SMAX,SMIN,TAUMAX=    451.  -13918.    7185.   A=-87.1   VM=   14149.
BOT STR  SX,SY,SXY=    -31.  -13891.     -643.   SMAX,SMIN,TAUMAX=     -1.  -13921.    6960.   A=-87.4   VM=   13920.

ELEM  28  NODES=   27   28   42   41  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=       1.      -4.   MX,MY,MXY=    70.     13.     131.   XC,YC,ZC=   -159.8      78.81       54.00
TOP STR  SX,SY,SXY=    604.  -10848.     -488.   SMAX,SMIN,TAUMAX=    625.  -10868.    5747.   A=-87.6   VM=   11194.
MID STR  SX,SY,SXY=    336.  -10898.       13.   SMAX,SMIN,TAUMAX=    336.  -10898.    5617.   A= 89.9   VM=   11071.
BOT STR  SX,SY,SXY=     69.  -10949.      515.   SMAX,SMIN,TAUMAX=     93.  -10973.    5533.   A= 87.3   VM=   11020.

ELEM  29  NODES=   28   29   43   42  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      14.      11.   MX,MY,MXY=    73.    107.     174.   XC,YC,ZC=   -168.7      57.27       54.00
TOP STR  SX,SY,SXY=    165.   -4693.     -277.   SMAX,SMIN,TAUMAX=    181.   -4709.    2445.   A=-86.7   VM=    4802.
MID STR  SX,SY,SXY=   -115.   -5105.      392.   SMAX,SMIN,TAUMAX=    -84.   -5136.    2526.   A= 85.5   VM=    5094.
BOT STR  SX,SY,SXY=   -396.   -5517.     1062.   SMAX,SMIN,TAUMAX=   -184.   -5729.    2772.   A= 78.7   VM=    5639.

ELEM  30  NODES=   29   30   44   43  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=     -19.     -11.   MX,MY,MXY=   -57.    131.      87.   XC,YC,ZC=   -174.8      34.76       54.00
TOP STR  SX,SY,SXY=   -420.     151.     -682.   SMAX,SMIN,TAUMAX=    606.    -874.     740.   A=-33.7   VM=    1288.
MID STR  SX,SY,SXY=   -201.    -353.     -348.   SMAX,SMIN,TAUMAX=     79.    -634.     357.   A=-51.2   VM=     677.
BOT STR  SX,SY,SXY=     17.    -858.      -14.   SMAX,SMIN,TAUMAX=     17.    -858.     438.   A=-89.1   VM=     867.

ELEM  31  NODES=   30   31   45   44  MATERIAL=  1  AREA=    840.96      TTOP,TBOT=   70.   70.   PRESS=      0.          63
   NX,NY=      -3.      -2.   MX,MY,MXY=  -188.     36.      -0.   XC,YC,ZC=   -177.8      11.65       54.00
TOP STR  SX,SY,SXY=   -639.    1224.     -375.   SMAX,SMIN,TAUMAX=   1297.    -711.    1004.   A=-11.0   VM=    1764.
MID STR  SX,SY,SXY=    -81.    1078.     -376.   SMAX,SMIN,TAUMAX=   1204.     -44.     624.   A=-18.5   VM=    1227.
BOT STR  SX,SY,SXY=    601.     933.     -376.   SMAX,SMIN,TAUMAX=   1249.     485.     382.   A=-40.1   VM=    1090.
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ELEM   32  NODES=    31   32   46   45  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=        3.     -2.   MX,MY,MXY=    -188.      38.       0.   XC,YC,ZC=   -177.8     -11.65       54.00
TOP STR   SX,SY,SXY=   -639.   1224.     375.   SMAX,SMIN,TAUMAX=   1297.    -711.    1004.   A= 11.0   VM=   1764.
MID STR   SX,SY,SXY=     81.   1078.     376.   SMAX,SMIN,TAUMAX=   1204.     -44.     624.   A= 18.5   VM=   1227.
BOT STR   SX,SY,SXY=    801.    933.     376.   SMAX,SMIN,TAUMAX=   1249.     485.     382.   A= 40.1   VM=   1090.

ELEM   33  NODES=    32   33   47   46  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       19.    -11.   MX,MY,MXY=     -57.     131.     -87.   XC,YC,ZC=   -174.8     -34.76       54.00
TOP STR   SX,SY,SXY=   -420.    151.     682.   SMAX,SMIN,TAUMAX=    606.    -874.     740.   A= 33.7   VM=   1288.
MID STR   SX,SY,SXY=   -201.   -353.     348.   SMAX,SMIN,TAUMAX=     79.    -634.     357.   A= 51.2   VM=    677.
BOT STR   SX,SY,SXY=     17.   -858.      14.   SMAX,SMIN,TAUMAX=     17.    -858.     438.   A= 89.1   VM=    867.

ELEM   34  NODES=    33   34   48   47  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=      -14.    -11.   MX,MY,MXY=      73.     107.    -174.   XC,YC,ZC=   -168.7     -57.27       54.00
TOP STR   SX,SY,SXY=    165.  -4693.     277.   SMAX,SMIN,TAUMAX=    181.   -4709.    2445.   A= 86.7   VM=   4802.
MID STR   SX,SY,SXY=   -115.  -5105.    -392.   SMAX,SMIN,TAUMAX=    -84.   -5136.    2526.   A=-85.5   VM=   5094.
BOT STR   SX,SY,SXY=   -396.  -5517.   -1062.   SMAX,SMIN,TAUMAX=   -184.   -5729.    2772.   A=-78.7   VM=   5639.

ELEM   35  NODES=    34   35   49   48  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       -1.     -4.   MX,MY,MXY=      70.      15.    -131.   XC,YC,ZC=   -159.8     -78.81       54.00
TOP STR   SX,SY,SXY=    604. -10848.     488.   SMAX,SMIN,TAUMAX=    625.  -10868.    5747.   A= 87.6   VM=  11194.
MID STR   SX,SY,SXY=    336. -10898.     -13.   SMAX,SMIN,TAUMAX=    336.  -10898.    5617.   A=-89.9   VM=  11071.
BOT STR   SX,SY,SXY=     69. -10949.    -515.   SMAX,SMIN,TAUMAX=     93.  -10973.    5533.   A=-87.3   VM=  11020.

ELEM   36  NODES=    35   36   50   49  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       14.     -8.   MX,MY,MXY=     116.       3.     -21.   XC,YC,ZC=   -148.2     -98.99       54.00
TOP STR   SX,SY,SXY=    860. -13872.     808.   SMAX,SMIN,TAUMAX=    904.  -13916.    7410.   A= 86.9   VM=  14369.
MID STR   SX,SY,SXY=    415. -13881.     725.   SMAX,SMIN,TAUMAX=    451.  -13918.    7185.   A= 87.1   VM=  14149.
BOT STR   SX,SY,SXY=    -31. -13891.     643.   SMAX,SMIN,TAUMAX=     -1.  -13921.    6960.   A= 87.4   VM=  13920.

ELEM   37  NODES=    36   37   51   50  MATERIAL=  1  AREA=   840.96       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       11.    -11.   MX,MY,MXY=     283.     176.      69.   XC,YC,ZC=   -134.0     -117.5       54.00
TOP STR   SX,SY,SXY=   1602. -11737.     338.   SMAX,SMIN,TAUMAX=   1610.  -11745.    6678.   A= 88.6   VM=  12628.
MID STR   SX,SY,SXY=    514. -12413.     604.   SMAX,SMIN,TAUMAX=    542.  -12441.    6491.   A= 87.3   VM=  12721.
BOT STR   SX,SY,SXY=   -575. -13089.     870.   SMAX,SMIN,TAUMAX=   -515.  -13150.    6317.   A= 86.0   VM=  12900.

ELEM   38  NODES=    52   51   37   37  MATERIAL=  1  AREA=   1252.3       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=        1.      6.   MX,MY,MXY=      12.      74.      59.   XC,YC,ZC=   -111.8     -135.9       54.00
TOP STR   SX,SY,SXY=    499. -10186.    -281.   SMAX,SMIN,TAUMAX=    507.  -10193.    5350.   A=-88.5   VM=  10456.
MID STR   SX,SY,SXY=    455. -10471.     -56.   SMAX,SMIN,TAUMAX=    455.  -10472.    5463.   A=-89.7   VM=  10706.
BOT STR   SX,SY,SXY=    410. -10757.    -169.   SMAX,SMIN,TAUMAX=    413.  -10759.    5586.   A= 89.1   VM=  10972.

ELEM   39  NODES=    71   70   38   38  MATERIAL=  1  AREA=   2076.7       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=        8.      2.   MX,MY,MXY=     -84.      95.      26.   XC,YC,ZC=   -51.09      161.7       102.0
TOP STR   SX,SY,SXY=    495.  -4064.     -69.   SMAX,SMIN,TAUMAX=    496.   -4065.    2280.   A=-89.1   VM=   4334.
MID STR   SX,SY,SXY=    817.  -4429.      30.   SMAX,SMIN,TAUMAX=    818.   -4429.    2623.   A= 89.7   VM=   4890.
BOT STR   SX,SY,SXY=   1140.  -4795.     129.   SMAX,SMIN,TAUMAX=   1142.   -4797.    2970.   A= 88.8   VM=   5459.

ELEM   40  NODES=    58   59   53   71  MATERIAL=  1  AREA=   2917.9       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       -1.      5.   MX,MY,MXY=     -80.     -23.     -75.   XC,YC,ZC=   -97.00      145.1       93.00
TOP STR   SX,SY,SXY=    -39.  -7298.     950.   SMAX,SMIN,TAUMAX=     83.   -7420.    3752.   A= 82.7   VM=   7462.
MID STR   SX,SY,SXY=    268.  -7209.     661.   SMAX,SMIN,TAUMAX=    327.   -7268.    3797.   A= 85.0   VM=   7436.
BOT STR   SX,SY,SXY=    576.  -7121.     373.   SMAX,SMIN,TAUMAX=    594.   -7139.    3867.   A= 87.2   VM=   7454.

ELEM   41  NODES=    59   40   54   53  MATERIAL=  1  AREA=   559.23       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       14.      6.   MX,MY,MXY=     206.     -88.    -186.   XC,YC,ZC=   -133.6      117.2       84.00
TOP STR   SX,SY,SXY=    432. -13617.      16.   SMAX,SMIN,TAUMAX=    432.  -13617.    7024.   A= 89.9   VM=  13838.
MID STR   SX,SY,SXY=   -358. -13280.    -700.   SMAX,SMIN,TAUMAX=   -320.  -13318.    6499.   A=-86.9   VM=  13160.
BOT STR   SX,SY,SXY=  -1148. -12943.   -1416.   SMAX,SMIN,TAUMAX=   -980.  -13111.    6065.   A=-83.2   VM=  12649.

ELEM   42  NODES=    40   41   55   54  MATERIAL=  1  AREA=   559.23       TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=       -5.     32.   MX,MY,MXY=     321.    -169.    -116.   XC,YC,ZC=   -147.8      98.74       84.00
TOP STR   SX,SY,SXY=   1130. -14689.    -607.   SMAX,SMIN,TAUMAX=   1153.  -14712.    7933.   A=-87.8   VM=  15322.
MID STR   SX,SY,SXY=   -104. -14041.   -1054.   SMAX,SMIN,TAUMAX=    -25.  -14120.    7048.   A=-85.7   VM=  14108.
BOT STR   SX,SY,SXY=  -1338. -13392.   -1501.   SMAX,SMIN,TAUMAX=  -1154.  -13576.    6211.   A=-83.0   VM=  13038.
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ELEM  43  NODES=   41   42   56   55  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=     -14.      -9.  MX,MY,MXY=     244.   -493.     164.  XC,YC,ZC=  -159.4     78.61       84.00
TOP STR   SX,SY,SXY=   1153.  -14400.     -350.    SMAX,SMIN,TAUMAX=     1161.  -14407.     7784.   A=-88.7   VM=   15022.
MID STR   SX,SY,SXY=    216.  -12507.      281.    SMAX,SMIN,TAUMAX=      222.  -12513.     6368.   A= 88.7   VM=   12626.
BOT STR   SX,SY,SXY=   -721.  -10614.      911.    SMAX,SMIN,TAUMAX=     -638.  -10697.     5030.   A= 84.8   VM=   10393.

ELEM  44  NODES=   42   43   57   56  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=     -80.       6.  MX,MY,MXY=     -26.    -75.     488.  XC,YC,ZC=  -168.5     57.13       84.00
TOP STR   SX,SY,SXY=    391.   -4567.     -982.    SMAX,SMIN,TAUMAX=      579.   -4754.     2666.   A=-79.2   VM=    5068.
MID STR   SX,SY,SXY=    490.   -4280.      894.    SMAX,SMIN,TAUMAX=      652.   -4442.     2547.   A= 79.7   VM=    4801.
BOT STR   SX,SY,SXY=    588.   -3993.     2769.    SMAX,SMIN,TAUMAX=     1891.   -5297.     3594.   A= 64.8   VM=    6453.

ELEM  45  NODES=   43   44   58   57  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=      19.     -19.  MX,MY,MXY=    -505.      7.      34.  XC,YC,ZC=  -174.3     34.67       84.00
TOP STR   SX,SY,SXY=  -1390.     629.     -980.    SMAX,SMIN,TAUMAX=     1027.   -1788.     1407.   A=-22.1   VM=    2467.
MID STR   SX,SY,SXY=    547.     604.     -850.    SMAX,SMIN,TAUMAX=     1426.    -275.      851.   A=-44.1   VM=    1582.
BOT STR   SX,SY,SXY=   2485.     578.     -720.    SMAX,SMIN,TAUMAX=     2726.     337.     1195.   A=-71.5   VM=    2574.

ELEM  46  NODES=   44   45   59   58  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=      20.       4.  MX,MY,MXY=    -158.      2.     -71.  XC,YC,ZC=  -177.4     11.62       84.00
TOP STR   SX,SY,SXY=   -779.     201.       23.    SMAX,SMIN,TAUMAX=      202.    -779.      490.   A=  1.4   VM=     897.
MID STR   SX,SY,SXY=   -172.     194.     -251.    SMAX,SMIN,TAUMAX=      321.    -300.      310.   A=-26.9   VM=     538.
BOT STR   SX,SY,SXY=    434.     187.     -525.    SMAX,SMIN,TAUMAX=      850.    -229.      539.   A=-51.6   VM=     984.

ELEM  47  NODES=   45   46   60   59  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=     -20.       4.  MX,MY,MXY=    -158.      2.      71.  XC,YC,ZC=  -177.4    -11.62       84.00
TOP STR   SX,SY,SXY=   -779.     201.      -23.    SMAX,SMIN,TAUMAX=      202.    -779.      490.   A= -1.4   VM=     897.
MID STR   SX,SY,SXY=   -172.     194.      251.    SMAX,SMIN,TAUMAX=      321.    -300.      310.   A= 26.9   VM=     538.
BOT STR   SX,SY,SXY=    434.     187.      525.    SMAX,SMIN,TAUMAX=      850.    -229.      539.   A= 51.6   VM=     984.

ELEM  48  NODES=   46   47   61   60  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=     -19.     -19.  MX,MY,MXY=    -505.      7.     -34.  XC,YC,ZC=  -174.3    -34.67       84.00
TOP STR   SX,SY,SXY=  -1390.     629.      980.    SMAX,SMIN,TAUMAX=     1027.   -1788.     1407.   A= 22.1   VM=    2467.
MID STR   SX,SY,SXY=    547.     604.      850.    SMAX,SMIN,TAUMAX=     1426.    -275.      851.   A= 44.1   VM=    1582.
BOT STR   SX,SY,SXY=   2485.     578.      720.    SMAX,SMIN,TAUMAX=     2726.     337.     1195.   A= 71.5   VM=    2574.

ELEM  49  NODES=   47   48   62   61  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=      80.       6.  MX,MY,MXY=     -26.    -75.    -488.  XC,YC,ZC=  -168.3    -57.13       84.00
TOP STR   SX,SY,SXY=    391.   -4567.      982.    SMAX,SMIN,TAUMAX=      579.   -4754.     2666.   A= 79.2   VM=    5068.
MID STR   SX,SY,SXY=    490.   -4280.     -894.    SMAX,SMIN,TAUMAX=      652.   -4442.     2547.   A=-79.7   VM=    4801.
BOT STR   SX,SY,SXY=    588.   -3993.    -2769.    SMAX,SMIN,TAUMAX=     1891.   -5297.     3594.   A=-64.8   VM=    6453.

ELEM  50  NODES=   48   49   63   62  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=      14.      -9.  MX,MY,MXY=     244.   -493.    -164.  XC,YC,ZC=  -159.4    -78.61       84.00
TOP STR   SX,SY,SXY=   1153.  -14400.      350.    SMAX,SMIN,TAUMAX=     1161.  -14407.     7784.   A= 88.7   VM=   15022.
MID STR   SX,SY,SXY=    216.  -12507.     -281.    SMAX,SMIN,TAUMAX=      222.  -12513.     6368.   A=-88.7   VM=   12626.
BOT STR   SX,SY,SXY=   -721.  -10614.     -911.    SMAX,SMIN,TAUMAX=     -638.  -10697.     5030.   A=-84.8   VM=   10393.

ELEM  51  NODES=   49   50   64   63  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=       5.      32.  MX,MY,MXY=     321.   -169.     116.  XC,YC,ZC=  -147.8    -98.74       84.00
TOP STR   SX,SY,SXY=   1130.  -14689.      607.    SMAX,SMIN,TAUMAX=     1153.  -14712.     7933.   A= 87.8   VM=   15322.
MID STR   SX,SY,SXY=   -104.  -14041.     1054.    SMAX,SMIN,TAUMAX=      -25.  -14120.     7048.   A= 85.7   VM=   14108.
BOT STR   SX,SY,SXY=  -1338.  -13392.     1501.    SMAX,SMIN,TAUMAX=    -1154.  -13576.     6211.   A= 83.0   VM=   13036.

ELEM  52  NODES=   50   51   65   64  MATERIAL=  1  AREA=    559.23       TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=     -14.       6.  MX,MY,MXY=     206.    -88.     186.  XC,YC,ZC=  -133.6   -117.2        84.00
TOP STR   SX,SY,SXY=    432.  -13617.      -16.    SMAX,SMIN,TAUMAX=      432.  -13617.     7024.   A=-89.9   VM=   13838.
MID STR   SX,SY,SXY=   -358.  -13280.      700.    SMAX,SMIN,TAUMAX=     -320.  -13318.     6499.   A= 86.9   VM=   13160.
BOT STR   SX,SY,SXY=  -1148.  -12943.     1416.    SMAX,SMIN,TAUMAX=     -980.  -13111.     6065.   A= 83.2   VM=   12649.

ELEM  53  NODES=   51   52   80   65  MATERIAL=  1  AREA=   2917.9        TTOP,TBOT=    70.    70.   PRESS=     0.          63
    NX,NY=       1.       3.  MX,MY,MXY=     -80.    -23.      75.  XC,YC,ZC=   -97.00   -145.1        93.00
TOP STR   SX,SY,SXY=    -39.   -7298.     -950.    SMAX,SMIN,TAUMAX=       83.   -7420.     3752.   A=-82.7   VM=    7462.
MID STR   SX,SY,SXY=    268.   -7209.     -661.    SMAX,SMIN,TAUMAX=      327.   -7268.     3797.   A=-85.0   VM=    7436.
BOT STR   SX,SY,SXY=    576.   -7121.     -373.    SMAX,SMIN,TAUMAX=      594.   -7139.     3867.   A=-87.2   VM=    7454.
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ELEM   54  NODES=   81   80    52   52  MATERIAL=  1  AREA=    2076.7        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      -0.       2.  MX,MY,MXY=     -84.       95.      -26.  XC,YC,ZC=   -51.09       -167.7        102.0
TOP STR   SX,SY,SXY=   495.   -4064.      69.    SMAX,SMIN,TAUMAX=     496.   -4065.    2280.   A= 89.1   VM=    4334.
MID STR   SX,SY,SXY=   817.   -4429.     -30.    SMAX,SMIN,TAUMAX=     818.   -4429.    2623.   A=-89.7   VM=    4890.
BOT STR   SX,SY,SXY=  1140.   -4796.    -129.    SMAX,SMIN,TAUMAX=    1142.   -4797.    2970.   A=-88.8   VM=    5459.

ELEM   55  NODES=   72   71    53   53  MATERIAL=  1  AREA=    1246.0        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=       0.     -10.  MX,MY,MXY=    -168.      -42.     -103.  XC,YC,ZC=  -111.2        135.2        114.0
TOP STR   SX,SY,SXY=  -694.   -9507.     888.    SMAX,SMIN,TAUMAX=    -605.   -9596.    4495.   A= 84.3   VM=    9308.
MID STR   SX,SY,SXY=   -49.   -9346.     491.    SMAX,SMIN,TAUMAX=     -23.   -9372.    4674.   A= 87.0   VM=    9360.
BOT STR   SX,SY,SXY=   596.   -9184.      94.    SMAX,SMIN,TAUMAX=     596.   -9185.    4891.   A= 89.5   VM=    9497.

ELEM   56  NODES=   53   54    73   72  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      21.      -1.  MX,MY,MXY=     159.       72.     -146.  XC,YC,ZC=  -133.3        116.9        114.0
TOP STR   SX,SY,SXY=   706.  -10918.     183.    SMAX,SMIN,TAUMAX=     709.  -10921.    5815.   A= 89.1   VM=   11293.
MID STR   SX,SY,SXY=    96.  -11195.    -377.    SMAX,SMIN,TAUMAX=     108.  -11208.    5658.   A=-88.1   VM=   11262.
BOT STR   SX,SY,SXY=  -515.  -11472.    -937.    SMAX,SMIN,TAUMAX=    -435.  -11551.    5558.   A=-85.1   VM=   11340.

ELEM   57  NODES=   54   55    74   73  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      16.      -3.  MX,MY,MXY=     443.      133.     -237.  XC,YC,ZC=  -147.4         98.49        114.0
TOP STR   SX,SY,SXY=  1461.  -13436.      25.    SMAX,SMIN,TAUMAX=    1461.  -13436.    7448.   A= 89.9   VM=   14223.
MID STR   SX,SY,SXY=  -240.  -13947.    -886.    SMAX,SMIN,TAUMAX=    -183.  -14004.    6911.   A=-86.3   VM=   13914.
BOT STR   SX,SY,SXY= -1940.  -14459.   -1795.    SMAX,SMIN,TAUMAX=   -1688.  -14711.    6512.   A=-82.0   VM=   13944.

ELEM   58  NODES=   55   56    75   74  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=     -24.      12.  MX,MY,MXY=     385.     -119.     -355.  XC,YC,ZC=  -159.0         78.41        114.0
TOP STR   SX,SY,SXY=  1103.  -17878.    1315.    SMAX,SMIN,TAUMAX=    1194.  -17969.    9582.   A= 86.1   VM=   18595.
MID STR   SX,SY,SXY=  -376.  -17421.     -48.    SMAX,SMIN,TAUMAX=    -375.  -17421.    8523.   A=-89.8   VM=   17236.
BOT STR   SX,SY,SXY= -1854.  -16963.   -1412.    SMAX,SMIN,TAUMAX=   -1724.  -17094.    7685.   A=-84.7   VM=   16301.

ELEM   59  NODES=   62   63    77   76  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      24.     -12.  MX,MY,MXY=     385.     -119.      355.  XC,YC,ZC=  -159.0        -78.41        114.0
TOP STR   SX,SY,SXY=  1103.  -17878.   -1315.    SMAX,SMIN,TAUMAX=    1194.  -17969.    9582.   A=-86.1   VM=   18595.
MID STR   SX,SY,SXY=  -376.  -17421.      48.    SMAX,SMIN,TAUMAX=    -375.  -17421.    8523.   A= 89.8   VM=   17236.
BOT STR   SX,SY,SXY= -1854.  -16963.    1412.    SMAX,SMIN,TAUMAX=   -1724.  -17094.    7685.   A= 84.7   VM=   16301.

ELEM   60  NODES=   63   64    78   77  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=     -16.      -3.  MX,MY,MXY=     443.      133.      237.  XC,YC,ZC=  -147.4        -98.49        114.0
TOP STR   SX,SY,SXY=  1461.  -13436.     -23.    SMAX,SMIN,TAUMAX=    1461.  -13436.    7448.   A=-89.9   VM=   14223.
MID STR   SX,SY,SXY=  -240.  -13947.     886.    SMAX,SMIN,TAUMAX=    -183.  -14004.    6911.   A= 86.3   VM=   13914.
BOT STR   SX,SY,SXY= -1940.  -14459.    1795.    SMAX,SMIN,TAUMAX=   -1688.  -14711.    6512.   A= 82.0   VM=   13944.

ELEM   61  NODES=   64   65    79   78  MATERIAL=  1  AREA=    836.72        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=     -21.      -1.  MX,MY,MXY=     159.       72.      146.  XC,YC,ZC=  -133.3       -116.9        114.0
TOP STR   SX,SY,SXY=   706.  -10918.    -183.    SMAX,SMIN,TAUMAX=     709.  -10921.    5815.   A=-89.1   VM=   11293.
MID STR   SX,SY,SXY=    96.  -11195.     377.    SMAX,SMIN,TAUMAX=     108.  -11208.    5658.   A= 88.1   VM=   11262.
BOT STR   SX,SY,SXY=  -515.  -11472.     937.    SMAX,SMIN,TAUMAX=    -435.  -11551.    5558.   A= 85.1   VM=   11340.

ELEM   62  NODES=   80   79    65   65  MATERIAL=  1  AREA=    1246.0        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      -0.     -10.  MX,MY,MXY=    -168.      -42.      103.  XC,YC,ZC=  -111.2       -135.2        114.0
TOP STR   SX,SY,SXY=  -694.   -9507.    -888.    SMAX,SMIN,TAUMAX=    -605.   -9596.    4495.   A=-84.3   VM=    9308.
MID STR   SX,SY,SXY=   -49.   -9346.    -491.    SMAX,SMIN,TAUMAX=     -23.   -9372.    4674.   A=-87.0   VM=    9360.
BOT STR   SX,SY,SXY=   596.   -9184.     -94.    SMAX,SMIN,TAUMAX=     596.   -9185.    4891.   A=-89.5   VM=    9497.

ELEM   63  NODES=   66   67   112  111  MATERIAL=  1  AREA=    9907.5        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=      -0.       0.  MX,MY,MXY=      -4.       -3.       -0.  XC,YC,ZC=   169.6         33.74        204.0
TOP STR   SX,SY,SXY=  -208.    6428.      65.    SMAX,SMIN,TAUMAX=    6429.    -208.    3319.   A=    .6   VM=    6536.
MID STR   SX,SY,SXY=  -192.    6438.      65.    SMAX,SMIN,TAUMAX=    6439.    -193.    3316.   A=    .6   VM=    6537.
BOT STR   SX,SY,SXY=  -176.    6448.      65.    SMAX,SMIN,TAUMAX=    6448.    -177.    3313.   A=    .6   VM=    6538.

ELEM   64  NODES=   67   68   113  112  MATERIAL=  1  AREA=    9907.5        TTOP,TBOT=    70.    70.  PRESS=     0.      63
   NX,NY=       0.       0.  MX,MY,MXY=      -2.       -1.        0.  XC,YC,ZC=   143.8         96.07        204.0
TOP STR   SX,SY,SXY=  -164.    5306.     180.    SMAX,SMIN,TAUMAX=    5312.    -170.    2741.   A=   1.9   VM=    5399.
MID STR   SX,SY,SXY=  -156.    5310.     181.    SMAX,SMIN,TAUMAX=    5316.    -162.    2739.   A=   1.9   VM=    5399.
BOT STR   SX,SY,SXY=  -149.    5314.     181.    SMAX,SMIN,TAUMAX=    5320.    -155.    2737.   A=   1.9   VM=    5399.
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ELEM   65  NODES=   68   69  114  113  MATERIAL=  1  AREA=   9907.5        TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=        1.       0.  MX,MY,MXY=     21.       9.        3.  XC,YC,ZC=    96.07         143.6          204.0
TOP STR  SX,SY,SXY=     -14.    3241.     245.   SMAX,SMIN,TAUMAX=    3259.     -33.    1646.   A=  4.3   VM=    3276.
MID STR  SX,SY,SXY=     -96.    3206.     258.   SMAX,SMIN,TAUMAX=    3226.    -116.    1671.   A=  4.4   VM=    3280.
BOT STR  SX,SY,SXY=    -178.    3171.     271.   SMAX,SMIN,TAUMAX=    3193.    -200.    1696.   A=  4.6   VM=    3297.

ELEM   66  NODES=   69   70  115  114  MATERIAL=  1  AREA=   9907.5        TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=       -0.       0.  MX,MY,MXY=     46.      18.       16.  XC,YC,ZC=    33.74         169.6          204.0
TOP STR  SX,SY,SXY=     164.     347.     289.   SMAX,SMIN,TAUMAX=     559.     -48.     303.   A= 36.2   VM=     584.
MID STR  SX,SY,SXY=     -14.     279.     350.   SMAX,SMIN,TAUMAX=     513.    -247.     380.   A= 33.6   VM=     671.
BOT STR  SX,SY,SXY=    -192.     212.     411.   SMAX,SMIN,TAUMAX=     468.    -448.     458.   A= 31.9   VM=     794.

ELEM   67  NODES=   70   71   93  115  MATERIAL=  1  AREA=   7445.8        TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=      -10.      -1.  MX,MY,MXY=   -112.     -47.       11.  XC,YC,ZC=   -33.84         169.9          186.0
TOP STR  SX,SY,SXY=   -1136.   -3363.     727.   SMAX,SMIN,TAUMAX=    -920.   -3579.    1330.   A= 73.4   VM=    3219.
MID STR  SX,SY,SXY=    -705.   -3184.     770.   SMAX,SMIN,TAUMAX=    -485.   -3404.    1459.   A= 74.1   VM=    3169.
BOT STR  SX,SY,SXY=    -274.   -3005.     813.   SMAX,SMIN,TAUMAX=     -50.   -3229.    1589.   A= 74.6   VM=    3204.

ELEM   68  NODES=   71   72   85   93  MATERIAL=  1  AREA=   3730.5        TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=       -1.       1.  MX,MY,MXY=   -217.     -35.      -64.  XC,YC,ZC=   -96.46         144.3          159.0
TOP STR  SX,SY,SXY=    -871.   -7680.     792.   SMAX,SMIN,TAUMAX=    -780.   -7771.    3495.   A= 83.4   VM=    7411.
MID STR  SX,SY,SXY=     -37.   -7544.     546.   SMAX,SMIN,TAUMAX=       2.   -7583.    3793.   A= 85.9   VM=    7585.
BOT STR  SX,SY,SXY=     797.   -7408.     299.   SMAX,SMIN,TAUMAX=     808.   -7419.    4113.   A= 87.9   VM=    7854.

ELEM   69  NODES=   72   73   86   85  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=       21.      -8.  MX,MY,MXY=      6.      58.     -154.  XC,YC,ZC=  -132.9          116.5          150.0
TOP STR  SX,SY,SXY=     -50.  -10867.     224.   SMAX,SMIN,TAUMAX=     -46.  -10872.    5413.   A= 88.8   VM=   10849.
MID STR  SX,SY,SXY=     -72.  -11088.    -369.   SMAX,SMIN,TAUMAX=     -60.  -11100.    5520.   A=-88.1   VM=   11070.
BOT STR  SX,SY,SXY=     -94.  -11309.    -961.   SMAX,SMIN,TAUMAX=     -13.  -11391.    5689.   A=-85.1   VM=   11384.

ELEM   70  NODES=   73   74   87   86  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=       12.      -7.  MX,MY,MXY=    239.     157.     -225.  XC,YC,ZC=  -147.0           96.19         150.0
TOP STR  SX,SY,SXY=     859.  -13327.     355.   SMAX,SMIN,TAUMAX=     868.  -13336.    7102.   A= 88.6   VM=   13790.
MID STR  SX,SY,SXY=     -59.  -13928.    -511.   SMAX,SMIN,TAUMAX=     -40.  -13947.    6953.   A=-87.9   VM=   13927.
BOT STR  SX,SY,SXY=    -977.  -14530.   -1377.   SMAX,SMIN,TAUMAX=    -839.  -14668.    6915.   A=-84.3   VM=   14267.

ELEM   71  NODES=   74   75   88   87  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=      -21.     -12.  MX,MY,MXY=    216.     332.     -345.  XC,YC,ZC=  -158.5           78.17         150.0
TOP STR  SX,SY,SXY=     834.  -17076.     875.   SMAX,SMIN,TAUMAX=     876.  -17119.    8998.   A= 87.2   VM=   17574.
MID STR  SX,SY,SXY=       3.  -18353.    -448.   SMAX,SMIN,TAUMAX=      14.  -18363.    9189.   A=-88.6   VM=   18370.
BOT STR  SX,SY,SXY=    -828.  -19629.   -1772.   SMAX,SMIN,TAUMAX=    -662.  -19794.    9566.   A=-84.7   VM=   19471.

ELEM   72  NODES=   76   77   90   89  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=       21.     -12.  MX,MY,MXY=    216.     332.      345.  XC,YC,ZC=  -158.5          -78.17         150.0
TOP STR  SX,SY,SXY=     834.  -17076.    -875.   SMAX,SMIN,TAUMAX=     876.  -17119.    8998.   A=-87.2   VM=   17574.
MID STR  SX,SY,SXY=       3.  -18353.     448.   SMAX,SMIN,TAUMAX=      14.  -18363.    9189.   A= 88.6   VM=   18370.
BOT STR  SX,SY,SXY=    -828.  -19629.    1772.   SMAX,SMIN,TAUMAX=    -662.  -19794.    9566.   A= 84.7   VM=   19471.

ELEM   73  NODES=   77   78   91   90  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=      -12.      -7.  MX,MY,MXY=    239.     157.      225.  XC,YC,ZC=  -147.0          -96.19         150.0
TOP STR  SX,SY,SXY=     859.  -13327.    -355.   SMAX,SMIN,TAUMAX=     868.  -13336.    7102.   A=-88.6   VM=   13790.
MID STR  SX,SY,SXY=     -59.  -13928.     511.   SMAX,SMIN,TAUMAX=     -40.  -13947.    6953.   A= 87.9   VM=   13927.
BOT STR  SX,SY,SXY=    -977.  -14530.    1377.   SMAX,SMIN,TAUMAX=    -839.  -14668.    6915.   A= 84.3   VM=   14267.

ELEM   74  NODES=   78   79   92   91  MATERIAL=  1  AREA=    834.18       TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=      -21.      -8.  MX,MY,MXY=      6.      58.      154.  XC,YC,ZC=  -132.9         -116.5          150.0
TOP STR  SX,SY,SXY=     -50.  -10867.    -224.   SMAX,SMIN,TAUMAX=     -46.  -10872.    5413.   A=-88.8   VM=   10849.
MID STR  SX,SY,SXY=     -72.  -11088.     369.   SMAX,SMIN,TAUMAX=     -60.  -11100.    5520.   A= 88.1   VM=   11070.
BOT STR  SX,SY,SXY=     -94.  -11309.     961.   SMAX,SMIN,TAUMAX=     -13.  -11391.    5689.   A= 85.1   VM=   11384.

ELEM   75  NODES=   79   80  102   92  MATERIAL=  1  AREA=   3730.5        TTOP,TBOT=   70.    70.   PRESS=     0.          63
   NX,NY=        1.       1.  MX,MY,MXY=   -217.     -35.       64.  XC,YC,ZC=   -96.46        -144.3          159.0
TOP STR  SX,SY,SXY=    -871.   -7680.    -792.   SMAX,SMIN,TAUMAX=    -780.   -7771.    3495.   A=-83.4   VM=    7411.
MID STR  SX,SY,SXY=     -37.   -7544.    -546.   SMAX,SMIN,TAUMAX=       2.   -7583.    3793.   A=-85.9   VM=    7585.
BOT STR  SX,SY,SXY=     797.   -7408.    -299.   SMAX,SMIN,TAUMAX=     808.   -7419.    4113.   A=-87.9   VM=    7854.
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ELEM  76  NODES=   80   81  131  102  MATERIAL=  1  AREA=   7445.8     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     10.     -1.  MX,MY,MXY=  -112.     -47.     -11.   XC,YC,ZC=  -33.84     -169.9      186.0
TOP STR  SX,SY,SXY=  -1136.  -3363.   -727.   SMAX,SMIN,TAUMAX=   -920.  -3579.   1330.  A=-73.4  VM=   3219.
MID STR  SX,SY,SXY=   -705.  -3184.   -770.   SMAX,SMIN,TAUMAX=   -485.  -3404.   1459.  A=-74.1  VM=   3189.
BOT STR  SX,SY,SXY=   -274.  -3005.   -813.   SMAX,SMIN,TAUMAX=    -50.  -3229.   1589.  A=-74.6  VM=   3204.

ELEM  77  NODES=   81   82  132  131  MATERIAL=  1  AREA=   9907.5     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=      0.      0.  MX,MY,MXY=    46.      18.     -16.   XC,YC,ZC=   33.74     -169.6      204.0
TOP STR  SX,SY,SXY=    164.    347.   -289.   SMAX,SMIN,TAUMAX=    559.    -48.    303.  A=-36.2  VM=    584.
MID STR  SX,SY,SXY=    -14.    279.   -350.   SMAX,SMIN,TAUMAX=    513.   -247.    380.  A=-33.6  VM=    671.
BOT STR  SX,SY,SXY=   -192.    212.   -411.   SMAX,SMIN,TAUMAX=    468.   -448.    458.  A=-31.9  VM=    794.

ELEM  78  NODES=   82   83  133  132  MATERIAL=  1  AREA=   9907.5     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     -1.      0.  MX,MY,MXY=    21.       9.      -3.   XC,YC,ZC=   96.07     -143.8      204.0
TOP STR  SX,SY,SXY=    -14.   3241.   -245.   SMAX,SMIN,TAUMAX=   3259.    -33.   1646.  A= -4.3  VM=   3276.
MID STR  SX,SY,SXY=    -96.   3206.   -258.   SMAX,SMIN,TAUMAX=   3226.   -116.   1671.  A= -4.4  VM=   3286.
BOT STR  SX,SY,SXY=   -178.   3171.   -271.   SMAX,SMIN,TAUMAX=   3193.   -200.   1696.  A= -4.6  VM=   3297.

ELEM  79  NODES=   83   84  134  133  MATERIAL=  1  AREA=   9907.5     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     -0.      0.  MX,MY,MXY=    -2.      -1      -0.   XC,YC,ZC=  143.8      -96.07      204.0
TOP STR  SX,SY,SXY=   -164.   5306.   -180.   SMAX,SMIN,TAUMAX=   5312.   -170.   2741.  A= -1.9  VM=   5399.
MID STR  SX,SY,SXY=   -156.   5310.   -181.   SMAX,SMIN,TAUMAX=   5316.   -162.   2739.  A= -1.9  VM=   5399.
BOT STR  SX,SY,SXY=   -149.   5314.   -181.   SMAX,SMIN,TAUMAX=   5320.   -155.   2737.  A= -1.9  VM=   5399.

ELEM  80  NODES=   84   66  111  134  MATERIAL=  1  AREA=   9907.5     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=      0.      0.  MX,MY,MXY=    -4.      -3.       6.   XC,YC,ZC=  169.6      -33.74      204.0
TOP STR  SX,SY,SXY=   -208.   6428.    -65.   SMAX,SMIN,TAUMAX=   6429.   -208.   3319.  A=  -.6  VM=   6536.
MID STR  SX,SY,SXY=   -192.   6438.    -65.   SMAX,SMIN,TAUMAX=   6439.   -193.   3316.  A=  -.6  VM=   6537.
BOT STR  SX,SY,SXY=   -176.   6448.    -65.   SMAX,SMIN,TAUMAX=   6448.   -177.   3313.  A=  -.6  VM=   6536.

ELEM  81  NODES=   94   93   85   85  MATERIAL=  1  AREA=   1238.4     TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=      4.     -5.  MX,MY,MXY=  -293.      13.     -54.   XC,YC,ZC= -110.6       134.4      186.0
TOP STR  SX,SY,SXY=  -1087.  -8051.    643.   SMAX,SMIN,TAUMAX=  -1028.  -8110.   3541.  A= 84.8  VM=   7648.
MID STR  SX,SY,SXY=     38.  -8099.    437.   SMAX,SMIN,TAUMAX=     61.  -8122.   4092.  A= 86.9  VM=   8153.
BOT STR  SX,SY,SXY=   1163.  -8147.    231.   SMAX,SMIN,TAUMAX=   1169.  -8153.   4661.  A= 88.6  VM=   8796.

ELEM  82  NODES=   85   86   95   94  MATERIAL=  1  AREA=    831.64    TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     34.     -1.  MX,MY,MXY=  -140.      14.    -129.   XC,YC,ZC= -132.5       116.2      186.0
TOP STR  SX,SY,SXY=   -469.  -9972.    267.   SMAX,SMIN,TAUMAX=   -462.  -9979.   4759.  A= 88.4  VM=   9757.
MID STR  SX,SY,SXY=     70. -10024.   -229.   SMAX,SMIN,TAUMAX=     75. -10029.   5052.  A=-88.7  VM=  10067.
BOT STR  SX,SY,SXY=    608. -10076.   -725.   SMAX,SMIN,TAUMAX=    657. -10125.   5391.  A=-86.1  VM=  10469.

ELEM  83  NODES=   86   87   96   95  MATERIAL=  1  AREA=    831.64    TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     11.      2.  MX,MY,MXY=   152.     161.    -145.   XC,YC,ZC= -146.5        97.90      186.0
TOP STR  SX,SY,SXY=    594. -13197.     -7.   SMAX,SMIN,TAUMAX=    594. -13197.   6895.  A=-90.0  VM=  13504.
MID STR  SX,SY,SXY=      9. -13816.   -566.   SMAX,SMIN,TAUMAX=     32. -13839.   6936.  A=-87.7  VM=  13855.
BOT STR  SX,SY,SXY=   -576. -14435.  -1124.   SMAX,SMIN,TAUMAX=   -485. -14526.   7020.  A=-85.4  VM=  14289.

ELEM  84  NODES=   87   88   97   96  MATERIAL=  1  AREA=    831.64    TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=    -12.      0.  MX,MY,MXY=    49.     199.    -135.   XC,YC,ZC= -158.0        77.93      186.0
TOP STR  SX,SY,SXY=    177. -18591.     70.   SMAX,SMIN,TAUMAX=    177. -18591.   9384.  A= 89.8  VM=  18680.
MID STR  SX,SY,SXY=    -12. -19356.   -450.   SMAX,SMIN,TAUMAX=     -1. -19366.   9682.  A=-88.7  VM=  19366.
BOT STR  SX,SY,SXY=   -201. -20121.   -969.   SMAX,SMIN,TAUMAX=   -153. -20168.  10007.  A=-87.2  VM=  20091.

ELEM  85  NODES=   89   90   99   98  MATERIAL=  1  AREA=    831.64    TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=     12.      0.  MX,MY,MXY=    49.     199.     135.   XC,YC,ZC= -158.0       -77.93      186.0
TOP STR  SX,SY,SXY=    177. -18591.    -70.   SMAX,SMIN,TAUMAX=    177. -18591.   9384.  A=-89.8  VM=  18680.
MID STR  SX,SY,SXY=    -12. -19356.    450.   SMAX,SMIN,TAUMAX=     -1. -19366.   9682.  A= 88.7  VM=  19366.
BOT STR  SX,SY,SXY=   -201. -20121.    969.   SMAX,SMIN,TAUMAX=   -153. -20168.  10007.  A= 87.2  VM=  20091.

ELEM  86  NODES=   90   91  100   99  MATERIAL=  1  AREA=    831.64    TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=    -11.      2.  MX,MY,MXY=   152.     161.     145.   XC,YC,ZC= -146.5       -97.90      186.0
TOP STR  SX,SY,SXY=    594. -13197.      7.   SMAX,SMIN,TAUMAX=    594. -13197.   6895.  A= 90.0  VM=  13504.
MID STR  SX,SY,SXY=      9. -13816.    566.   SMAX,SMIN,TAUMAX=     32. -13839.   6936.  A= 87.7  VM=  13855.
BOT STR  SX,SY,SXY=   -576. -14435.   1124.   SMAX,SMIN,TAUMAX=   -485. -14526.   7020.  A= 85.4  VM=  14289.
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ELEM  87  NODES=   91   92  101  100  MATERIAL=  1  AREA=    631.64       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -34.      -1.  MX,MY,MXY=     -140.      14.     129.  XC,YC,ZC=  -132.5       -116.2        186.0
TOP STR  SX,SY,SXY=    -469.  -9972.    -267.   SMAX,SMIN,TAUMAX=    -462.  -9979.   4759.    A=-88.4  VM=   9757.
MID STR  SX,SY,SXY=      70. -10024.     229.   SMAX,SMIN,TAUMAX=      75. -10029.   5052.    A= 68.7  VM=  10067.
BOT STR  SX,SY,SXY=     608. -10076.     725.   SMAX,SMIN,TAUMAX=     657. -10125.   5391.    A= 86.1  VM=  10469.

ELEM  88  NODES=  102  101   92   92  MATERIAL=  1  AREA=   1238.4        TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       -4.      -5.  MX,MY,MXY=     -293.      13.      58.  XC,YC,ZC=  -110.6       -134.4        186.0
TOP STR  SX,SY,SXY=   -1087.  -8051.    -643.   SMAX,SMIN,TAUMAX=   -1026.  -8110.   3541.    A=-84.6  VM=   7686.
MID STR  SX,SY,SXY=      38.  -8099.    -437.   SMAX,SMIN,TAUMAX=      61.  -8122.   4092.    A=-86.9  VM=   8153.
BOT STR  SX,SY,SXY=    1163.  -8147.    -231.   SMAX,SMIN,TAUMAX=    1169.  -8153.   4661.    A=-88.6  VM=   8796.

ELEM  89  NODES=  116  115   93   93  MATERIAL=  1  AREA=   2461.7        TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=        7.       0.  MX,MY,MXY=     -145.      46.      37.  XC,YC,ZC=   -50.50       105.7        240.0
TOP STR  SX,SY,SXY=     156.  -4577.     -59.   SMAX,SMIN,TAUMAX=     157.  -4578.   2567.    A=-89.3  VM=   4658.
MID STR  SX,SY,SXY=     712.  -4752.      82.   SMAX,SMIN,TAUMAX=     713.  -4753.   2733.    A= 89.1  VM=   5147.
BOT STR  SX,SY,SXY=    1268.  -4927.     223.   SMAX,SMIN,TAUMAX=    1276.  -4935.   3105.    A= 87.9  VM=   5681.

ELEM  90  NODES=   93   94  103  116  MATERIAL=  1  AREA=   3707.7        TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       -8.      -2.  MX,MY,MXY=     -334.     -83.      -8.  XC,YC,ZC=   -95.87       143.4        231.0
TOP STR  SX,SY,SXY=   -1266.  -6800.     513.   SMAX,SMIN,TAUMAX=   -1219.  -6847.   2814.    A= 84.8  VM=   6326.
MID STR  SX,SY,SXY=      14.  -6482.     480.   SMAX,SMIN,TAUMAX=      50.  -6518.   3284.    A= 85.8  VM=   6543.
BOT STR  SX,SY,SXY=    1295.  -6164.     448.   SMAX,SMIN,TAUMAX=    1322.  -6191.   3757.    A= 86.6  VM=   6947.

ELEM  91  NODES=   94   95  104  103  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       52.      -5.  MX,MY,MXY=     -218.      31.     -69.  XC,YC,ZC=  -132.1        115.8        222.0
TOP STR  SX,SY,SXY=    -869.  -9795.     254.   SMAX,SMIN,TAUMAX=    -862.  -9803.   4470.    A= 88.4  VM=   9401.
MID STR  SX,SY,SXY=     -33.  -9916.     -12.   SMAX,SMIN,TAUMAX=     -33.  -9916.   4942.    A=-89.9  VM=   9900.
BOT STR  SX,SY,SXY=     804. -10037.    -279.   SMAX,SMIN,TAUMAX=     811. -10044.   5428.    A=-88.5  VM=  10473.

ELEM  92  NODES=   95   96  105  104  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       37.      14.  MX,MY,MXY=      391.     338.     -15.  XC,YC,ZC=  -146.1         97.60        222.0
TOP STR  SX,SY,SXY=    1301. -11932.    -644.   SMAX,SMIN,TAUMAX=    1332. -11964.   6648.    A=-87.2  VM=  12682.
MID STR  SX,SY,SXY=    -199. -13229.    -702.   SMAX,SMIN,TAUMAX=    -161. -13267.   6553.    A=-86.9  VM=  13187.
BOT STR  SX,SY,SXY=   -1698. -14526.    -760.   SMAX,SMIN,TAUMAX=   -1653. -14570.   6459.    A=-86.6  VM=  13816.

ELEM  93  NODES=   96   97  106  105  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -42.      25.  MX,MY,MXY=      339.     694.     204.  XC,YC,ZC=  -157.6         77.70        222.0
TOP STR  SX,SY,SXY=    1378. -17872.   -1227.   SMAX,SMIN,TAUMAX=    1456. -17950.   9703.    A=-86.4  VM=  18721.
MID STR  SX,SY,SXY=      77. -20536.    -443.   SMAX,SMIN,TAUMAX=      87. -20546.  10316.    A=-88.8  VM=  20589.
BOT STR  SX,SY,SXY=   -1223. -23200.     342.   SMAX,SMIN,TAUMAX=   -1218. -23206.  10994.    A= 89.1  VM=  22621.

ELEM  94  NODES=   98   99  108  107  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       42.      25.  MX,MY,MXY=      339.     694.    -204.  XC,YC,ZC=  -157.6        -77.70        222.0
TOP STR  SX,SY,SXY=    1378. -17872.    1227.   SMAX,SMIN,TAUMAX=    1456. -17950.   9703.    A= 86.4  VM=  18721.
MID STR  SX,SY,SXY=      77. -20536.     443.   SMAX,SMIN,TAUMAX=      87. -20546.  10316.    A= 88.8  VM=  20589.
BOT STR  SX,SY,SXY=   -1223. -23200.    -342.   SMAX,SMIN,TAUMAX=   -1218. -23206.  10994.    A=-89.1  VM=  22621.

ELEM  95  NODES=   99  100  109  108  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -37.      14.  MX,MY,MXY=      391.     338.      15.  XC,YC,ZC=  -146.1        -97.60        222.0
TOP STR  SX,SY,SXY=    1301. -11932.     644.   SMAX,SMIN,TAUMAX=    1332. -11964.   6648.    A= 87.2  VM=  12682.
MID STR  SX,SY,SXY=    -199. -13229.     702.   SMAX,SMIN,TAUMAX=    -161. -13267.   6553.    A= 86.9  VM=  13187.
BOT STR  SX,SY,SXY=   -1698. -14526.     760.   SMAX,SMIN,TAUMAX=   -1653. -14570.   6459.    A= 86.6  VM=  13816.

ELEM  96  NODES=  100  101  110  109  MATERIAL=  1  AREA=    829.09       TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -52.      -3.  MX,MY,MXY=     -218.      31.      69.  XC,YC,ZC=  -132.1       -115.8        222.0
TOP STR  SX,SY,SXY=    -869.  -9795.    -254.   SMAX,SMIN,TAUMAX=    -862.  -9803.   4470.    A=-88.4  VM=   9401.
MID STR  SX,SY,SXY=     -33.  -9916.      12.   SMAX,SMIN,TAUMAX=     -33.  -9916.   4942.    A= 89.9  VM=   9900.
BOT STR  SX,SY,SXY=     804. -10037.     279.   SMAX,SMIN,TAUMAX=     811. -10044.   5428.    A= 88.5  VM=  10473.

ELEM  97  NODES=  101  102  130  110  MATERIAL=  1  AREA=   3707.7        TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=        8.      -2.  MX,MY,MXY=     -334.     -83.       8.  XC,YC,ZC=   -95.87      -143.4        231.0
TOP STR  SX,SY,SXY=   -1266.  -6800.    -513.   SMAX,SMIN,TAUMAX=   -1219.  -6847.   2814.    A=-84.8  VM=   6326.
MID STR  SX,SY,SXY=      14.  -6482.    -480.   SMAX,SMIN,TAUMAX=      50.  -6518.   3284.    A=-85.8  VM=   6543.
BOT STR  SX,SY,SXY=    1295.  -6164.    -448.   SMAX,SMIN,TAUMAX=    1322.  -6191.   3757.    A=-86.6  VM=   6947.
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ELEM   98  NODES=  131  130  102  102  MATERIAL=  1  AREA=   2461.7        TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=     -7.      0.   MX,MY,MXY=   -145.      46.     -37.  XC,YC,ZC=  -50.50        -165.7         240.0
TOP STR   SX,SY,SXY=    156.  -4577.     59.   SMAX,SMIN,TAUMAX=    157.  -4578.   2367.   A= 89.3   VM=    4658.
MID STR   SX,SY,SXY=    712.  -4752.    -82.   SMAX,SMIN,TAUMAX=    713.  -4753.   2733.   A=-89.1   VM=    5147.
BOT STR   SX,SY,SXY=   1268.  -4927.   -223.   SMAX,SMIN,TAUMAX=   1276.  -4935.   3105.   A=-87.9   VM=    5681.

ELEM   99  NODES=  117  116  103  103  MATERIAL=  1  AREA=   1230.9        TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=      2.      1.   MX,MY,MXY=   -310.      13.      45.  XC,YC,ZC= -109.9         133.6          258.0
TOP STR   SX,SY,SXY=  -1109.  -7537.    131.   SMAX,SMIN,TAUMAX=  -1107.  -7540.   3217.   A= 88.8   VM=    7052.
MID STR   SX,SY,SXY=     80.  -7589.    304.   SMAX,SMIN,TAUMAX=     92.  -7601.   3847.   A= 87.7   VM=    7648.
BOT STR   SX,SY,SXY=   1269.  -7641.    477.   SMAX,SMIN,TAUMAX=   1295.  -7666.   4481.   A= 86.9   VM=    8389.

ELEM  100  NODES=  103  104  116  117  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=     55.      6.   MX,MY,MXY=   -178.      62.     107.  XC,YC,ZC= -131.7         115.5          258.0
TOP STR   SX,SY,SXY=   -509.  -8732.   -113.   SMAX,SMIN,TAUMAX=   -508.  -8733.   4113.   A=-89.2   VM=    8491.
MID STR   SX,SY,SXY=    174.  -8969.    297.   SMAX,SMIN,TAUMAX=    183.  -8979.   4581.   A= 88.1   VM=    9072.
BOT STR   SX,SY,SXY=    857.  -9207.    708.   SMAX,SMIN,TAUMAX=    906.  -9257.   5081.   A= 86.0   VM=    9741.

ELEM  101  NODES=  104  105  119  118  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=     68.      9.   MX,MY,MXY=    757.     507.     181.  XC,YC,ZC= -145.6          97.30         258.0
TOP STR   SX,SY,SXY=   2701. -10011.   -636.   SMAX,SMIN,TAUMAX=   2733. -10042.   6387.   A=-87.1   VM=   11651.
MID STR   SX,SY,SXY=   -206. -11959.     60.   SMAX,SMIN,TAUMAX=   -208. -11959.   5876.   A= 89.7   VM=   11857.
BOT STR   SX,SY,SXY=  -3117. -13908.    755.   SMAX,SMIN,TAUMAX=  -3064. -13960.   5448.   A= 86.0   VM=   12709.

ELEM  102  NODES=  105  106  120  119  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=    -11.     22.   MX,MY,MXY=   1221.     653.     512.  XC,YC,ZC= -157.1          77.46         258.0
TOP STR   SX,SY,SXY=   3674. -19472.  -3205.   SMAX,SMIN,TAUMAX=   4110. -19908.  12009.   A=-82.3   VM=   22250.
MID STR   SX,SY,SXY=  -1014. -21979.  -1240.   SMAX,SMIN,TAUMAX=   -941. -22053.  10556.   A=-86.6   VM=   21597.
BOT STR   SX,SY,SXY=  -5703. -24487.    725.   SMAX,SMIN,TAUMAX=  -5675. -24515.   9420.   A= 87.8   VM=   22227.

ELEM  103  NODES=  107  108  127  126  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=     11.     22.   MX,MY,MXY=   1221.     653.    -512.  XC,YC,ZC= -157.1         -77.46         258.0
TOP STR   SX,SY,SXY=   3674. -19472.   3205.   SMAX,SMIN,TAUMAX=   4110. -19908.  12009.   A= 82.3   VM=   22250.
MID STR   SX,SY,SXY=  -1014. -21979.   1240.   SMAX,SMIN,TAUMAX=   -941. -22053.  10556.   A= 86.6   VM=   21597.
BOT STR   SX,SY,SXY=  -5703. -24487.   -725.   SMAX,SMIN,TAUMAX=  -5675. -24515.   9420.   A=-87.8   VM=   22227.

ELEM  104  NODES=  108  109  128  127  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=    -68.      9.   MX,MY,MXY=    757.     507.    -181.  XC,YC,ZC= -145.6         -97.30         258.0
TOP STR   SX,SY,SXY=   2701. -10011.    636.   SMAX,SMIN,TAUMAX=   2733. -10042.   6387.   A= 87.1   VM=   11651.
MID STR   SX,SY,SXY=   -206. -11959.    -60.   SMAX,SMIN,TAUMAX=   -208. -11959.   5876.   A=-89.7   VM=   11857.
BOT STR   SX,SY,SXY=  -3117. -13908.   -755.   SMAX,SMIN,TAUMAX=  -3064. -13960.   5448.   A=-86.0   VM=   12709.

ELEM  105  NODES=  109  110  129  128  MATERIAL=  1  AREA=    826.55       TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=    -55.      6.   MX,MY,MXY=   -178.      62.    -107.  XC,YC,ZC= -131.7        -115.5          258.0
TOP STR   SX,SY,SXY=   -509.  -8732.    113.   SMAX,SMIN,TAUMAX=   -508.  -8733.   4113.   A= 89.2   VM=    8491.
MID STR   SX,SY,SXY=    174.  -8969.   -297.   SMAX,SMIN,TAUMAX=    183.  -8979.   4581.   A=-88.1   VM=    9072.
BOT STR   SX,SY,SXY=    857.  -9207.   -708.   SMAX,SMIN,TAUMAX=    906.  -9257.   5081.   A=-86.0   VM=    9741.

ELEM  106  NODES=  130  129  110  110  MATERIAL=  1  AREA=   1230.9        TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=     -2.      1.   MX,MY,MXY=   -310.      13.     -45.  XC,YC,ZC= -109.9        -133.6          258.0
TOP STR   SX,SY,SXY=  -1109.  -7537.   -131.   SMAX,SMIN,TAUMAX=  -1107.  -7540.   3217.   A=-88.8   VM=    7052.
MID STR   SX,SY,SXY=     80.  -7589.   -304.   SMAX,SMIN,TAUMAX=     92.  -7601.   3847.   A=-87.7   VM=    7648.
BOT STR   SX,SY,SXY=   1269.  -7641.   -477.   SMAX,SMIN,TAUMAX=   1295.  -7666.   4481.   A=-86.9   VM=    8389.

ELEM  107  NODES=  111  112  177  176  MATERIAL=  1  AREA=  10596.         TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=      0.     -0.   MX,MY,MXY=      1.      14.      -0.  XC,YC,ZC=  167.4          33.31         354.0
TOP STR   SX,SY,SXY=     52.   6341.     66.   SMAX,SMIN,TAUMAX=   6342.     51.   3145.   A=   .6    VM=    6316.
MID STR   SX,SY,SXY=     49.   6288.     66.   SMAX,SMIN,TAUMAX=   6288.     49.   3120.   A=   .6    VM=    6264.
BOT STR   SX,SY,SXY=     47.   6234.     65.   SMAX,SMIN,TAUMAX=   6235.     46.   3094.   A=   .6    VM=    6212.

ELEM  108  NODES=  112  113  178  177  MATERIAL=  1  AREA=  10596.         TTOP,TBOT=   70.   70.   PRESS=     0.          63
    NX,NY=      0.      0.   MX,MY,MXY=      9.      14.       1.  XC,YC,ZC=  141.9          94.85         354.0
TOP STR   SX,SY,SXY=     74.   5255.    178.   SMAX,SMIN,TAUMAX=   5261.     68.   2597.   A=  2.0    VM=    5227.
MID STR   SX,SY,SXY=     41.   5199.    182.   SMAX,SMIN,TAUMAX=   5206.     34.   2586.   A=  2.0    VM=    5169.
BOT STR   SX,SY,SXY=      8.   5144.    185.   SMAX,SMIN,TAUMAX=   5150.      1.   2575.   A=  2.1    VM=    5150.
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ELEM  109  NODES=  113  114   179  178   MATERIAL=  1  AREA=   10596.      TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=        2.       0.   MX,MY,MXY=      54.      24.   [illegible]8.  XC,YC,ZC=   94.85        141.9        354.0
TOP STR  SX,SY,SXY=     237.    3232.     245.    SMAX,SMIN,TAUMAX=    3252.     217.    1517.   A=  4.6   VM=   3149.
MID STR  SX,SY,SXY=      28.    3138.     276.    SMAX,SMIN,TAUMAX=    3162.       4.    1579.   A=  5.0   VM=   3160.
BOT STR  SX,SY,SXY=    -181.    3044.     306.    SMAX,SMIN,TAUMAX=    3073.    -210.    1642.   A=  5.4   VM=   3183.

ELEM  110  NODES=  114  115   180  179   MATERIAL=  1  AREA=   10596.      TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       -2.      -0.   MX,MY,MXY=      51.   [illegible]      13.   XC,YC,ZC=   33.31        167.4        354.0
TOP STR  SX,SY,SXY=     172.      41.     325.    SMAX,SMIN,TAUMAX=     438.    -225.     331.   A= 50.7   VM=    584.
MID STR  SX,SY,SXY=     -22.     -23.     375.    SMAX,SMIN,TAUMAX=     353.    -397.     375.   A= 45.0   VM=    650.
BOT STR  SX,SY,SXY=    -216.     -87.     425.    SMAX,SMIN,TAUMAX=     279.    -581.     430.   A= 40.7   VM=    760.

ELEM  111  NODES=  115  116   148  180   MATERIAL=  1  AREA=    7357.7     TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       -9.      -0.   MX,MY,MXY=    -130.     -47.       7.   XC,YC,ZC=  -33.44        167.8        330.0
TOP STR  SX,SY,SXY=   -1276.   -3495.     872.    SMAX,SMIN,TAUMAX=    -474.   -3796.    1411.   A= 70.9   VM=   3415.
MID STR  SX,SY,SXY=    -778.   -3316.     898.    SMAX,SMIN,TAUMAX=    -493.   -3601.    1554.   A= 72.4   VM=   3382.
BOT STR  SX,SY,SXY=    -281.   -3137.     924.    SMAX,SMIN,TAUMAX=      -8.   -3409.    1701.   A= 73.6   VM=   3405.

ELEM  112  NODES=  116  117   135  148   MATERIAL=  1  AREA=    2867.8     TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       -1.      -6.   MX,MY,MXY=    -261.     -73.      51.   XC,YC,ZC=  -95.33        142.6        297.0
TOP STR  SX,SY,SXY=    -892.   -7110.     122.    SMAX,SMIN,TAUMAX=    -889.   -7113.    3112.   A= 88.9   VM=   6712.
MID STR  SX,SY,SXY=     109.   -6830.     320.    SMAX,SMIN,TAUMAX=     123.   -6844.    3484.   A= 87.4   VM=   6907.
BOT STR  SX,SY,SXY=    1109.   -6549.     517.    SMAX,SMIN,TAUMAX=    1144.   -6584.    3864.   A= 86.2   VM=   7224.

ELEM  113  NODES=  117  118   136  135   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       47.       3.   MX,MY,MXY=       9.      73.     215.   XC,YC,ZC= -131.3         115.2        288.0
TOP STR  SX,SY,SXY=      39.   -9047.    -546.    SMAX,SMIN,TAUMAX=      72.   -9080.    4576.   A=-86.6   VM=   9116.
MID STR  SX,SY,SXY=       4.   -9329.     281.    SMAX,SMIN,TAUMAX=      12.   -9337.    4675.   A= 88.3   VM=   9343.
BOT STR  SX,SY,SXY=     -31.   -9610.    1109.    SMAX,SMIN,TAUMAX=      95.   -9737.    4916.   A= 83.5   VM=   9785.

ELEM  114  NODES=  118  119   137  136   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       55.     -32.   MX,MY,MXY=     774.     265.     303.   XC,YC,ZC= -145.2          97.05        288.0
TOP STR  SX,SY,SXY=    2851.  -11460.    -319.    SMAX,SMIN,TAUMAX=    2859.  -11468.    7163.   A=-88.7   VM=  13132.
MID STR  SX,SY,SXY=    -119.  -12478.    -845.    SMAX,SMIN,TAUMAX=     -62.  -12536.    6237.   A= 86.1   VM=  12505.
BOT STR  SX,SY,SXY=   -3090.  -13496.    2008.    SMAX,SMIN,TAUMAX=   -2716.  -13870.    5577.   A= 79.4   VM=  12731.

ELEM  115  NODES=  119  120   138  137   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       28.     -32.   MX,MY,MXY=    1450.      27.      43.   XC,YC,ZC= -156.7          77.26        288.0
TOP STR  SX,SY,SXY=    5521.  -14824.    -657.    SMAX,SMIN,TAUMAX=    5543.  -14845.   10194.   A=-88.2   VM=  18256.
MID STR  SX,SY,SXY=     -48.  -14928.    -494.    SMAX,SMIN,TAUMAX=     -32.  -14945.    7456.   A=-88.1   VM=  14929.
BOT STR  SX,SY,SXY=   -5618.  -15033.    -331.    SMAX,SMIN,TAUMAX=   -5607.  -15044.    4719.   A=-88.0   VM=  13169.

ELEM  116  NODES=  120  121   139  138   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=     -225.     -21.   MX,MY,MXY=    1565.     146.    -494.   XC,YC,ZC= -165.4          50.15        288.0
TOP STR  SX,SY,SXY=    5759.   -6478.    1242.    SMAX,SMIN,TAUMAX=    5883.   -6603.    6243.   A= 84.3   VM=  10819.
MID STR  SX,SY,SXY=    -250.   -7038.   -2576.    SMAX,SMIN,TAUMAX=     617.   -7904.    4261.   A=-71.4   VM=   8230.
BOT STR  SX,SY,SXY=   -6258.   -7597.   -6393.    SMAX,SMIN,TAUMAX=    -500.  -13356.    6428.   A=-48.0   VM=  13113.

ELEM  117  NODES=  121  122   140  139   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=      -99.      32.   MX,MY,MXY=    -918.      -7.    -618.   XC,YC,ZC= -171.3          34.08        288.0
TOP STR  SX,SY,SXY=   -2531.     614.    3212.    SMAX,SMIN,TAUMAX=    2618.   -4534.    3576.   A= 32.0   VM=   6208.
MID STR  SX,SY,SXY=     995.     642.     837.    SMAX,SMIN,TAUMAX=    1675.     -37.     856.   A= 51.0   VM=   1693.
BOT STR  SX,SY,SXY=    4522.     671.   -1537.    SMAX,SMIN,TAUMAX=    5060.     132.    2464.   A=-70.7   VM=   4995.

ELEM  118  NODES=  122  123   141  140   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=      -23.      -9.   MX,MY,MXY=   -1826.    -242.    -137.   XC,YC,ZC= -174.3          11.42        288.0
TOP STR  SX,SY,SXY=   -6627.    -711.     841.    SMAX,SMIN,TAUMAX=    -594.   -6744.    3075.   A=  7.9   VM=   6468.
MID STR  SX,SY,SXY=     384.     219.     316.    SMAX,SMIN,TAUMAX=     628.     -25.     327.   A= 52.3   VM=    641.
BOT STR  SX,SY,SXY=    7394.    1150.    -209.    SMAX,SMIN,TAUMAX=    7401.    1143.    3129.   A=-88.1   VM=   6901.

ELEM  119  NODES=  123  124   142  141   MATERIAL=  1  AREA=     549.62    TTOP,TBOT=   70.    70.   PRESS=     0.      63
     NX,NY=       23.      -9.   MX,MY,MXY=   -1826.    -242.     137.   XC,YC,ZC= -174.3         -11.42        288.0
TOP STR  SX,SY,SXY=   -6627.    -711.    -841.    SMAX,SMIN,TAUMAX=    -594.   -6744.    3075.   A= -7.9   VM=   6468.
MID STR  SX,SY,SXY=     384.     219.    -316.    SMAX,SMIN,TAUMAX=     628.     -25.     327.   A=-52.3   VM=    641.
BOT STR  SX,SY,SXY=    7394.    1150.     209.    SMAX,SMIN,TAUMAX=    7401.    1143.    3129.   A= 88.1   VM=   6901.
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ELEM 120  NODES=  124  125   143  142  MATERIAL=  1  AREA=    549.62         TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       99.     32.   MX,MY,MXY=     -918.     -7.      618.   XC,YC,ZC=  -171.3         -34.08        288.0
TOP STR  SX,SY,SXY=   -2531.    614.   -3212.   SMAX,SMIN,TAUMAX=    2618.   -4534.    3576.    A=-32.0   VM=    6267.
MID STR  SX,SY,SXY=     995.    642.    -837.   SMAX,SMIN,TAUMAX=    1675.     -37.     856.    A=-51.0   VM=    1693.
BOT STR  SX,SY,SXY=    4522.    671.    1537.   SMAX,SMIN,TAUMAX=    5060.     132.    2464.    A= 70.7   VM=    4995.

ELEM 121  NODES=  125  126   144  143  MATERIAL=  1  AREA=    549.62         TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      223.    -21.   MX,MY,MXY=     1565.    146.      994.   XC,YC,ZC=  -165.4         -56.15        288.0
TOP STR  SX,SY,SXY=    5759.  -6478.   -1242.   SMAX,SMIN,TAUMAX=    5883.   -6603.    6243.    A=-84.3   VM=   10819.
MID STR  SX,SY,SXY=    -250.  -7038.    2576.   SMAX,SMIN,TAUMAX=     617.   -7904.    4261.    A= 71.4   VM=    8230.
BOT STR  SX,SY,SXY=   -6258.  -7597.    6393.   SMAX,SMIN,TAUMAX=    -500.  -13356.    6428.    A= 48.0   VM=   13113.

ELEM 122  NODES=  126  127   145  144  MATERIAL=  1  AREA=    549.62         TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -28.    -32.   MX,MY,MXY=     1450.     27.      -43.   XC,YC,ZC=  -156.7         -77.26        288.0
TOP STR  SX,SY,SXY=    5521. -14824.     657.   SMAX,SMIN,TAUMAX=    5543.  -14845.   10194.    A= 88.2   VM=   18258.
MID STR  SX,SY,SXY=     -48. -14928.     494.   SMAX,SMIN,TAUMAX=     -32.  -14945.    7456.    A= 88.1   VM=   14929.
BOT STR  SX,SY,SXY=   -5618. -15033.     331.   SMAX,SMIN,TAUMAX=   -5607.  -15044.    4719.    A= 88.0   VM=   13169.

ELEM 123  NODES=  127  128   146  145  MATERIAL=  1  AREA=    549.62         TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -55.    -32.   MX,MY,MXY=      774.    265.     -303.   XC,YC,ZC=  -145.2         -97.05        288.0
TOP STR  SX,SY,SXY=    2851. -11460.     319.   SMAX,SMIN,TAUMAX=    2859.  -11468.    7163.    A= 88.7   VM=   13132.
MID STR  SX,SY,SXY=    -119. -12478.    -845.   SMAX,SMIN,TAUMAX=     -62.  -12536.    6237.    A=-86.1   VM=   12505.
BOT STR  SX,SY,SXY=   -3090. -13496.   -2008.   SMAX,SMIN,TAUMAX=   -2716.  -13870.    5577.    A=-79.4   VM=   12731.

ELEM 124  NODES=  128  129   147  146  MATERIAL=  1  AREA=    549.62         TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=      -47.      3.   MX,MY,MXY=        9.     73.     -215.   XC,YC,ZC=  -131.3        -115.2         288.0
TOP STR  SX,SY,SXY=      39.  -9047.     546.   SMAX,SMIN,TAUMAX=      72.   -9080.    4576.    A= 86.6   VM=    9116.
MID STR  SX,SY,SXY=       4.  -9329.    -281.   SMAX,SMIN,TAUMAX=      12.   -9337.    4675.    A=-88.3   VM=    9343.
BOT STR  SX,SY,SXY=     -31.  -9610.   -1109.   SMAX,SMIN,TAUMAX=      95.   -9737.    4916.    A=-83.5   VM=    9785.

ELEM 125  NODES=  129  130   162  147  MATERIAL=  1  AREA=   2867.8          TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=        1.     -6.   MX,MY,MXY=     -261.    -73.      -51.   XC,YC,ZC=   -95.33       -142.6         297.0
TOP STR  SX,SY,SXY=    -892.  -7110.    -122.   SMAX,SMIN,TAUMAX=    -889.   -7113.    3112.    A=-88.9   VM=    6712.
MID STR  SX,SY,SXY=     109.  -6830.    -320.   SMAX,SMIN,TAUMAX=     123.   -6844.    3484.    A=-87.4   VM=    6967.
BOT STR  SX,SY,SXY=    1109.  -6549.    -517.   SMAX,SMIN,TAUMAX=    1144.   -6584.    3864.    A=-86.2   VM=    7224.

ELEM 126  NODES=  130  131   196  162  MATERIAL=  1  AREA=   7357.7          TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=        9.     -0.   MX,MY,MXY=     -130.    -47.       -7.   XC,YC,ZC=   -33.44       -167.6         330.0
TOP STR  SX,SY,SXY=   -1276.  -3495.    -872.   SMAX,SMIN,TAUMAX=    -974.   -3796.    1411.    A=-70.9   VM=    3415.
MID STR  SX,SY,SXY=    -778.  -3316.    -898.   SMAX,SMIN,TAUMAX=    -493.   -3601.    1554.    A=-72.4   VM=    3382.
BOT STR  SX,SY,SXY=    -281.  -3137.    -924.   SMAX,SMIN,TAUMAX=      -8.   -3409.    1701.    A=-73.6   VM=    3405.

ELEM 127  NODES=  131  132   197  196  MATERIAL=  1  AREA=  10596.           TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=        2.     -0.   MX,MY,MXY=       51.     17.      -13.   XC,YC,ZC=    33.31       -167.4         354.0
TOP STR  SX,SY,SXY=     172.     41.    -325.   SMAX,SMIN,TAUMAX=     438.    -225.     331.    A=-50.7   VM=     584.
MID STR  SX,SY,SXY=     -22.    -23.    -375.   SMAX,SMIN,TAUMAX=     353.    -397.     375.    A=-45.0   VM=     650.
BOT STR  SX,SY,SXY=    -216.    -87.    -425.   SMAX,SMIN,TAUMAX=     279.    -581.     430.    A=-40.7   VM=     760.

ELEM 128  NODES=  132  133   198  197  MATERIAL=  1  AREA=  10596.           TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       -2.      0.   MX,MY,MXY=       54.     24.       -8.   XC,YC,ZC=    94.85       -141.9         354.0
TOP STR  SX,SY,SXY=     237.   3232.    -245.   SMAX,SMIN,TAUMAX=    3252.     217.    1517.    A= -4.6   VM=    3149.
MID STR  SX,SY,SXY=      28.   3138.    -276.   SMAX,SMIN,TAUMAX=    3162.       4.    1579.    A= -5.0   VM=    3160.
BOT STR  SX,SY,SXY=    -181.   3044.    -306.   SMAX,SMIN,TAUMAX=    3073.    -210.    1642.    A= -5.4   VM=    3163.

ELEM 129  NODES=  133  134   199  198  MATERIAL=  1  AREA=  10596.           TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       -0.      0.   MX,MY,MXY=        9.     14.       -1.   XC,YC,ZC=   141.9         -94.85        354.0
TOP STR  SX,SY,SXY=      74.   5255.    -178.   SMAX,SMIN,TAUMAX=    5261.      68.    2597.    A= -2.0   VM=    5227.
MID STR  SX,SY,SXY=      41.   5199.    -182.   SMAX,SMIN,TAUMAX=    5206.      34.    2586.    A= -2.0   VM=    5189.
BOT STR  SX,SY,SXY=       8.   5144.    -185.   SMAX,SMIN,TAUMAX=    5150.       1.    2575.    A= -2.1   VM=    5150.

ELEM 130  NODES=  134  111   176  199  MATERIAL=  1  AREA=  10596.           TTOP,TBOT=    70.    70.   PRESS=     0.        63
   NX,NY=       -0.     -0.   MX,MY,MXY=        1.     14.        0.   XC,YC,ZC=   167.4         -33.31        354.0
TOP STR  SX,SY,SXY=      52.   6341.     -66.   SMAX,SMIN,TAUMAX=    6342.      51.    3145.    A=  -.6   VM=    6316.
MID STR  SX,SY,SXY=      49.   6288.     -66.   SMAX,SMIN,TAUMAX=    6288.      49.    3120.    A=  -.6   VM=    6264.
BOT STR  SX,SY,SXY=      47.   6234.     -65.   SMAX,SMIN,TAUMAX=    6235.      46.    3094.    A=  -.6   VM=    6212.
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ELEM 131  NODES=  149  148   135  135  MATERIAL=  1  AREA=    1224.5         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      -6.      -1.  MX,MY,MXY=    -147.     -31.      76.  XC,YC,ZC=    -109.3       132.9         318.0
TOP STR  SX,SY,SXY=   -335.   -7765.      10.   SMAX,SMIN,TAUMAX=   -335.  -7765.    3715.    A= 89.9   VM=   7603.
MID STR  SX,SY,SXY=    228.   -7645.     302.   SMAX,SMIN,TAUMAX=    240.  -7657.    3948.    A= 87.8   VM=   7779.
BOT STR  SX,SY,SXY=    791.   -7525.     595.   SMAX,SMIN,TAUMAX=    834.  -7568.    4201.    A= 85.9   VM=   8017.

ELEM 132  NODES=  155  136   150  149  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      23.       5.  MX,MY,MXY=     190.      67.     179.  XC,YC,ZC=    -131.0       114.9         318.0
TOP STR  SX,SY,SXY=    762.   -9176.    -173.   SMAX,SMIN,TAUMAX=    765.  -9179.    4972.    A=-89.0   VM=   9584.
MID STR  SX,SY,SXY=     32.   -9432.     515.   SMAX,SMIN,TAUMAX=     60.  -9460.    4760.    A= 86.9   VM=   9490.
BOT STR  SX,SY,SXY=   -696.   -9687.    1203.   SMAX,SMIN,TAUMAX=   -540.  -9846.    4653.    A= 82.5   VM=   9587.

ELEM 133  NODES=  136  137   151  150  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=       7.      -9.  MX,MY,MXY=     464.      -4.     127.  XC,YC,ZC=    -144.9       96.80         318.0
TOP STR  SX,SY,SXY=   1777.  -12256.      92.   SMAX,SMIN,TAUMAX=   1778. -12257.    7017.    A= 89.6   VM=  13236.
MID STR  SX,SY,SXY=     -5.  -12242.     580.   SMAX,SMIN,TAUMAX=     23. -12270.    6146.    A= 87.3   VM=  12281.
BOT STR  SX,SY,SXY=  -1787.  -12229.    1068.   SMAX,SMIN,TAUMAX=  -1679. -12337.    5329.    A= 84.2   VM=  11589.

ELEM 134  NODES=  137  138   152  151  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=       8.     -20.  MX,MY,MXY=     698.     -27.    -169.  XC,YC,ZC=    -156.3       77.06         318.0
TOP STR  SX,SY,SXY=   2834.  -12397.     150.   SMAX,SMIN,TAUMAX=   2835. -12399.    7617.    A= 89.4   VM=  14033.
MID STR  SX,SY,SXY=    154.  -12292.    -500.   SMAX,SMIN,TAUMAX=    174. -12312.    6243.    A=-87.7   VM=  12400.
BOT STR  SX,SY,SXY=  -2526.  -12186.   -1150.   SMAX,SMIN,TAUMAX=  -2391. -12321.    4965.    A=-83.3   VM=  11317.

ELEM 135  NODES=  138  139   153  152  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=       6.     -20.  MX,MY,MXY=     734.     167.    -551.  XC,YC,ZC=    -165.0       50.00         318.0
TOP STR  SX,SY,SXY=   2575.   -6945.     595.   SMAX,SMIN,TAUMAX=   2612.  -6982.    4797.    A= 86.4   VM=   8592.
MID STR  SX,SY,SXY=   -243.   -7588.   -1520.   SMAX,SMIN,TAUMAX=     59.  -7890.    3975.    A=-78.8   VM=   7920.
BOT STR  SX,SY,SXY=  -3061.   -8231.   -3635.   SMAX,SMIN,TAUMAX=  -1185. -10107.    4461.    A=-62.7   VM=   9569.

ELEM 136  NODES=  139  140   154  153  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=     -87.      15.  MX,MY,MXY=    -170.      36.    -575.  XC,YC,ZC=    -170.9       33.99         318.0
TOP STR  SX,SY,SXY=  -1057.   -1475.    1644.   SMAX,SMIN,TAUMAX=    392.  -2923.    1657.    A= 48.6   VM=   3137.
MID STR  SX,SY,SXY=   -405.   -1614.    -564.   SMAX,SMIN,TAUMAX=   -183.  -1836.     827.    A=-68.5   VM=   1752.
BOT STR  SX,SY,SXY=    247.   -1753.   -2773.   SMAX,SMIN,TAUMAX=   2194.  -3701.    2947.    A=-54.9   VM=   5160.

ELEM 137  NODES=  140  141   155  154  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=     -39.      33.  MX,MY,MXY=   -1154.    -203.    -203.  XC,YC,ZC=    -173.9       11.40         318.0
TOP STR  SX,SY,SXY=  -4057.     118.     939.   SMAX,SMIN,TAUMAX=    319.  -4258.    2289.    A= 12.1   VM=   4427.
MID STR  SX,SY,SXY=    375.     896.     161.   SMAX,SMIN,TAUMAX=    942.    329.     306.    A= 15.9   VM=    828.
BOT STR  SX,SY,SXY=   4806.    1674.    -617.   SMAX,SMIN,TAUMAX=   4923.   1557.    1683.    A=-79.2   VM=   4359.

ELEM 138  NODES=  141  142   156  155  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      39.      33.  MX,MY,MXY=   -1154.    -203.     203.  XC,YC,ZC=    -173.9      -11.40         318.0
TOP STR  SX,SY,SXY=  -4057.     118.    -939.   SMAX,SMIN,TAUMAX=    319.  -4258.    2289.    A=-12.1   VM=   4427.
MID STR  SX,SY,SXY=    375.     896.    -161.   SMAX,SMIN,TAUMAX=    942.    329.     306.    A=-15.9   VM=    828.
BOT STR  SX,SY,SXY=   4806.    1674.     617.   SMAX,SMIN,TAUMAX=   4923.   1557.    1683.    A= 79.2   VM=   4359.

ELEM 139  NODES=  142  143   157  156  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      87.      15.  MX,MY,MXY=    -170.      36.     575.  XC,YC,ZC=    -170.9      -33.99         318.0
TOP STR  SX,SY,SXY=  -1057.   -1475.   -1644.   SMAX,SMIN,TAUMAX=    392.  -2923.    1657.    A=-48.6   VM=   3137.
MID STR  SX,SY,SXY=   -405.   -1614.     564.   SMAX,SMIN,TAUMAX=   -183.  -1836.     827.    A= 68.5   VM=   1752.
BOT STR  SX,SY,SXY=    247.   -1753.    2773.   SMAX,SMIN,TAUMAX=   2194.  -3701.    2947.    A= 54.9   VM=   5160.

ELEM 140  NODES=  143  144   158  157  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      -6.     -20.  MX,MY,MXY=     734.     167.     551.  XC,YC,ZC=    -165.0      -50.00         318.0
TOP STR  SX,SY,SXY=   2575.   -6945.    -595.   SMAX,SMIN,TAUMAX=   2612.  -6982.    4797.    A=-86.4   VM=   8592.
MID STR  SX,SY,SXY=   -243.   -7588.    1520.   SMAX,SMIN,TAUMAX=     59.  -7890.    3975.    A= 78.8   VM=   7920.
BOT STR  SX,SY,SXY=  -3061.   -8231.    3635.   SMAX,SMIN,TAUMAX=  -1185. -10107.    4461.    A= 62.7   VM=   9569.

ELEM 141  NODES=  144  145   159  158  MATERIAL=  1  AREA=    822.31         TTOP,TBOT=   70.    70.   PRESS=    0.        63
    NX,NY=      -8.     -20.  MX,MY,MXY=     698.     -27.     169.  XC,YC,ZC=    -156.3      -77.06         318.0
TOP STR  SX,SY,SXY=   2834.  -12397.    -150.   SMAX,SMIN,TAUMAX=   2835. -12399.    7617.    A=-89.4   VM=  14033.
MID STR  SX,SY,SXY=    154.  -12292.     500.   SMAX,SMIN,TAUMAX=    174. -12312.    6243.    A= 87.7   VM=  12400.
BOT STR  SX,SY,SXY=  -2526.  -12186.    1150.   SMAX,SMIN,TAUMAX=  -2391. -12321.    4965.    A= 83.3   VM=  11317.
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ELEM 142  NODES=  145  146  160  159  MATERIAL=  1  AREA=   822.31      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=     -7.      -9.  MX,MY,MXY=    464.      -4.    -127.   XC,YC,ZC=  -144.9        -96.80        318.0
TOP STR  SX,SY,SXY=    1777.  -12256.    -92.   SMAX,SMIN,TAUMAX=   1778.  -12257.    7017.   A=-89.6  VM=  13230.
MID STR  SX,SY,SXY=      -5.  -12242.   -580.   SMAX,SMIN,TAUMAX=     23.  -12270.    6146.   A=-87.3  VM=  12261.
BOT STR  SX,SY,SXY=   -1787.  -12229.  -1068.   SMAX,SMIN,TAUMAX=  -1679.  -12337.    5329.   A=-84.2  VM=  11589.

ELEM 143  NODES=  146  147  161  160  MATERIAL=  1  AREA=   822.31      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=    -23.       5.  MX,MY,MXY=    190.      67.    -179.   XC,YC,ZC=  -131.0       -114.9         318.0
TOP STR  SX,SY,SXY=     762.   -9176.    173.   SMAX,SMIN,TAUMAX=    765.   -9179.    4972.   A= 89.0  VM=   9584.
MID STR  SX,SY,SXY=      32.   -9432.   -515.   SMAX,SMIN,TAUMAX=     60.   -9460.    4760.   A=-86.9  VM=   9490.
BOT STR  SX,SY,SXY=    -698.   -9687.  -1203.   SMAX,SMIN,TAUMAX=   -540.   -9846.    4653.   A=-82.5  VM=   9567.

ELEM 144  NODES=  162  161  147  147  MATERIAL=  1  AREA=  1224.5       TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=      6.      -1.  MX,MY,MXY=   -147.     -31.     -76.   XC,YC,ZC=  -109.3       -132.9         318.0
TOP STR  SX,SY,SXY=    -335.   -7765.    -10.   SMAX,SMIN,TAUMAX=   -335.   -7765.    3715.   A=-89.9  VM=   7603.
MID STR  SX,SY,SXY=     228.   -7645.   -302.   SMAX,SMIN,TAUMAX=    240.   -7657.    3948.   A=-87.8  VM=   7779.
BOT STR  SX,SY,SXY=     791.   -7525.   -595.   SMAX,SMIN,TAUMAX=    834.   -7568.    4201.   A=-85.9  VM=   8017.

ELEM 145  NODES=  181  180  148  148  MATERIAL=  1  AREA=  3238.4       TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=      4.       2.  MX,MY,MXY=    -96.       8.      40.   XC,YC,ZC=   -49.90       163.7         364.0
TOP STR  SX,SY,SXY=    -340.   -4381.   -181.   SMAX,SMIN,TAUMAX=   -332.   -4389.    2028.   A=-87.4  VM=   4232.
MID STR  SX,SY,SXY=      29.   -4412.    -27.   SMAX,SMIN,TAUMAX=     29.   -4412.    2220.   A=-89.6  VM=   4426.
BOT STR  SX,SY,SXY=     397.   -4443.    126.   SMAX,SMIN,TAUMAX=    401.   -4446.    2423.   A= 88.5  VM=   4660.

ELEM 146  NODES=  148  149  163  181  MATERIAL=  1  AREA=  4479.8       TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=      4.      -2.  MX,MY,MXY=   -110.     -51.      76.   XC,YC,ZC=   -94.76       141.7         369.0
TOP STR  SX,SY,SXY=    -815.   -6333.    284.   SMAX,SMIN,TAUMAX=   -801.   -6347.    2773.   A= 87.1  VM=   5987.
MID STR  SX,SY,SXY=    -394.   -6137.    576.   SMAX,SMIN,TAUMAX=   -337.   -6195.    2929.   A= 84.3  VM=   6033.
BOT STR  SX,SY,SXY=      28.   -5942.    868.   SMAX,SMIN,TAUMAX=    152.   -6066.    3109.   A= 81.9  VM=   6143.

ELEM 147  NODES=  149  150  164  163  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=      1.      -8.  MX,MY,MXY=    159.     -11.      77.   XC,YC,ZC=  -130.6        114.5         354.0
TOP STR  SX,SY,SXY=     416.  -10546.    298.   SMAX,SMIN,TAUMAX=    424.  -10556.    5490.   A= 88.4  VM=  10774.
MID STR  SX,SY,SXY=    -195.  -10507.    592.   SMAX,SMIN,TAUMAX=   -161.  -10541.    5190.   A= 86.7  VM=  10461.
BOT STR  SX,SY,SXY=    -807.  -10466.    886.   SMAX,SMIN,TAUMAX=   -726.  -10547.    4911.   A= 84.8  VM=  10203.

ELEM 148  NODES=  150  151  165  164  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=     -9.     -10.  MX,MY,MXY=    133.     -59.     -25.   XC,YC,ZC=  -144.4         96.50         354.0
TOP STR  SX,SY,SXY=     536.  -11419.    391.   SMAX,SMIN,TAUMAX=    549.  -11432.    5990.   A= 88.1  VM=  11716.
MID STR  SX,SY,SXY=      25.  -11191.    295.   SMAX,SMIN,TAUMAX=     32.  -11199.    5616.   A= 88.5  VM=  11215.
BOT STR  SX,SY,SXY=    -487.  -10963.    199.   SMAX,SMIN,TAUMAX=   -483.  -10967.    5242.   A= 88.9  VM=  10734.

ELEM 149  NODES=  151  152  166  165  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=      7.     -12.  MX,MY,MXY=    115.     -77.    -169.   XC,YC,ZC=  -155.8         76.82         354.0
TOP STR  SX,SY,SXY=     485.  -10930.    195.   SMAX,SMIN,TAUMAX=    488.  -10934.    5711.   A= 89.0  VM=  11186.
MID STR  SX,SY,SXY=      42.  -10634.   -455.   SMAX,SMIN,TAUMAX=     61.  -10653.    5357.   A=-87.6  VM=  10684.
BOT STR  SX,SY,SXY=    -401.  -10337.  -1105.   SMAX,SMIN,TAUMAX=   -280.  -10459.    5089.   A=-83.7  VM=  10322.

ELEM 150  NODES=  152  153  167  166  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=     17.      -9.  MX,MY,MXY=    240.      -2.    -315.   XC,YC,ZC=  -164.5         55.83         354.0
TOP STR  SX,SY,SXY=    -884.   -7371.    172.   SMAX,SMIN,TAUMAX=    887.   -7375.    4131.   A= 88.8  VM=   7856.
MID STR  SX,SY,SXY=     -38.   -7365.  -1037.   SMAX,SMIN,TAUMAX=    106.   -7509.    3807.   A=-82.1  VM=   7562.
BOT STR  SX,SY,SXY=    -960.   -7358.  -2245.   SMAX,SMIN,TAUMAX=   -250.   -8067.    3908.   A=-72.5  VM=   7945.

ELEM 151  NODES=  153  154  168  167  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=    -28.       4.  MX,MY,MXY=    150.     131.    -397.   XC,YC,ZC=  -170.4         33.89         354.0
TOP STR  SX,SY,SXY=     529.   -2401.    578.   SMAX,SMIN,TAUMAX=    639.   -2511.    1575.   A= 79.2  VM=   2884.
MID STR  SX,SY,SXY=     -49.   -29[illegible]3.   -945.   SMAX,SMIN,TAUMAX=    235.   -3188.    1712.   A=-73.2  VM=   3312.
BOT STR  SX,SY,SXY=    -[illegible]27.   -340[illegible].  -2468.   SMAX,SMIN,TAUMAX=    816.   -4848.    2832.   A=-59.7  VM=   5304.

ELEM 152  NODES=  154  155  169  168  MATERIAL=  1  AREA=   819.77      TTOP,TBOT=    70.    70.   PRESS=     0.      65
     NX,NY=    -25.      20.  MX,MY,MXY=   -266.      94.    -190.   XC,YC,ZC=  -173.5         11.36         354.0
TOP STR  SX,SY,SXY=    -970.     707.    387.   SMAX,SMIN,TAUMAX=    792.   -1056.     924.   A= 12.4  VM=   1606.
MID STR  SX,SY,SXY=      50.     347.   -341.   SMAX,SMIN,TAUMAX=    571.    -174.     372.   A=-33.2  VM=    675.
BOT STR  SX,SY,SXY=    1071.     -12.  -1070.   SMAX,SMIN,TAUMAX=   1729.    -670.    1200.   A=-58.4  VM=   2144.
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ELEM 153  NODES=  155  156  170  169  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        25.       20.  MX,MY,MXY=   -266.     94.     190.  XC,YC,ZC=  -173.3         -11.36        354.0
TOP STR  SX,SY,SXY=   -970.     707.    -387.   SMAX,SMIN,TAUMAX=    792.  -1056.     924.   A=-12.4   VM=   1606.
MID STR  SX,SY,SXY=     50.     347.     341.   SMAX,SMIN,TAUMAX=    571.   -174.     372.   A= 33.2   VM=    675.
BOT STR  SX,SY,SXY=   1071.     -12.    1070.   SMAX,SMIN,TAUMAX=   1729.   -670.    1200.   A= 58.4   VM=   2144.

ELEM 154  NODES=  156  157  171  170  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        28.        4.  MX,MY,MXY=    150.    131.     397.  XC,YC,ZC=  -170.4         -33.89        354.0
TOP STR  SX,SY,SXY=    529.   -2401.    -578.   SMAX,SMIN,TAUMAX=    639.  -2511.    1575.   A=-79.2   VM=   2884.
MID STR  SX,SY,SXY=    -49.   -2903.     945.   SMAX,SMIN,TAUMAX=    235.  -3188.    1712.   A= 73.2   VM=   3312.
BOT STR  SX,SY,SXY=   -627.   -3405.    2468.   SMAX,SMIN,TAUMAX=    816.  -4848.    2832.   A= 59.7   VM=   5304.

ELEM 155  NODES=  157  158  172  171  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=       -17.       -9.  MX,MY,MXY=    240.     -2.     315.  XC,YC,ZC=  -164.5         -55.83        354.0
TOP STR  SX,SY,SXY=    884.   -7371.    -172.   SMAX,SMIN,TAUMAX=    887.  -7375.    4131.   A=-88.8   VM=   7856.
MID STR  SX,SY,SXY=    -38.   -7365.    1037.   SMAX,SMIN,TAUMAX=    106.  -7509.    3807.   A= 82.1   VM=   7562.
BOT STR  SX,SY,SXY=   -960.   -7358.    2245.   SMAX,SMIN,TAUMAX=   -250.  -8067.    3908.   A= 72.5   VM=   7945.

ELEM 156  NODES=  158  159  173  172  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        -7.      -12.  MX,MY,MXY=    115.    -77.     169.  XC,YC,ZC=  -155.8         -76.82        354.0
TOP STR  SX,SY,SXY=    485.  -10930.    -195.   SMAX,SMIN,TAUMAX=    488. -10934.    5711.   A=-89.0   VM=  11186.
MID STR  SX,SY,SXY=     42.  -10634.     455.   SMAX,SMIN,TAUMAX=     61. -10653.    5357.   A= 87.6   VM=  10684.
BOT STR  SX,SY,SXY=   -401.  -10337.    1105.   SMAX,SMIN,TAUMAX=   -280. -10459.    5089.   A= 83.7   VM=  10322.

ELEM 157  NODES=  159  160  174  173  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=         9.      -10.  MX,MY,MXY=    133.    -59.      25.  XC,YC,ZC=  -144.4         -96.50        354.0
TOP STR  SX,SY,SXY=    536.  -11419.    -391.   SMAX,SMIN,TAUMAX=    549. -11432.    5990.   A=-88.1   VM=  11716.
MID STR  SX,SY,SXY=     25.  -11191.    -295.   SMAX,SMIN,TAUMAX=     32. -11199.    5616.   A=-88.5   VM=  11215.
BOT STR  SX,SY,SXY=   -487.  -10963.    -199.   SMAX,SMIN,TAUMAX=   -483. -10967.    5242.   A=-88.9   VM=  10734.

ELEM 158  NODES=  160  161  175  174  MATERIAL= 1  AREA=   819.77        TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        -1.       -8.  MX,MY,MXY=    159.    -11.     -77.  XC,YC,ZC=  -130.6        -114.5         354.0
TOP STR  SX,SY,SXY=    416.  -10548.    -298.   SMAX,SMIN,TAUMAX=    424. -10556.    5490.   A=-88.4   VM=  10774.
MID STR  SX,SY,SXY=   -195.  -10507.    -592.   SMAX,SMIN,TAUMAX=   -161. -10541.    5190.   A=-86.7   VM=  10461.
BOT STR  SX,SY,SXY=   -807.  -10466.    -886.   SMAX,SMIN,TAUMAX=   -726. -10547.    4911.   A=-84.8   VM=  10203.

ELEM 159  NODES=  161  162  195  175  MATERIAL= 1  AREA=  4479.8         TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        -4.       -2.  MX,MY,MXY=   -110.    -51.     -76.  XC,YC,ZC=   -94.76        -141.7        369.0
TOP STR  SX,SY,SXY=   -815.   -6333.    -284.   SMAX,SMIN,TAUMAX=   -801.  -6347.    2773.   A=-87.1   VM=   5987.
MID STR  SX,SY,SXY=   -394.   -6137.    -576.   SMAX,SMIN,TAUMAX=   -337.  -6195.    2929.   A=-84.3   VM=   6033.
BOT STR  SX,SY,SXY=     28.   -5942.    -868.   SMAX,SMIN,TAUMAX=    152.  -6066.    3109.   A=-81.9   VM=   6143.

ELEM 160  NODES=  196  195  162  162  MATERIAL= 1  AREA=  3238.4         TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        -4.        2.  MX,MY,MXY=    -96.      8.     -40.  XC,YC,ZC=   -49.90        -163.7        384.0
TOP STR  SX,SY,SXY=   -340.   -4381.     181.   SMAX,SMIN,TAUMAX=   -332.  -4389.    2028.   A= 87.4   VM=   4232.
MID STR  SX,SY,SXY=     29.   -4412.      27.   SMAX,SMIN,TAUMAX=     29.  -4412.    2220.   A= 89.6   VM=   4426.
BOT STR  SX,SY,SXY=    397.   -4443.    -126.   SMAX,SMIN,TAUMAX=    401.  -4446.    2423.   A=-88.5   VM=   4660.

ELEM 161  NODES=  182  181  163  163  MATERIAL= 1  AREA=  2024.0         TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=        -2.       -3.  MX,MY,MXY=   -140.    -52.      17.  XC,YC,ZC=  -108.6          131.9        402.0
TOP STR  SX,SY,SXY=    176.   -8291.      65.   SMAX,SMIN,TAUMAX=    177.  -8292.    4234.   A= 89.6   VM=   8382.
MID STR  SX,SY,SXY=    714.   -8091.     129.   SMAX,SMIN,TAUMAX=    716.  -8093.    4404.   A= 89.2   VM=   8474.
BOT STR  SX,SY,SXY=   1251.   -7891.     193.   SMAX,SMIN,TAUMAX=   1255.  -7895.    4575.   A= 88.8   VM=   8592.

ELEM 162  NODES=  163  164  183  182  MATERIAL= 1  AREA=  1360.6         TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=       -13.       -1.  MX,MY,MXY=     10.    -33.      -2.  XC,YC,ZC=  -130.0          114.0        402.0
TOP STR  SX,SY,SXY=    125.   -9512.     558.   SMAX,SMIN,TAUMAX=    157.  -9544.    4850.   A= 86.7   VM=   9623.
MID STR  SX,SY,SXY=     65.   -9384.     552.   SMAX,SMIN,TAUMAX=    117.  -9416.    4767.   A= 86.7   VM=   9475.
BOT STR  SX,SY,SXY=     45.   -9257.     545.   SMAX,SMIN,TAUMAX=     77.  -9289.    4683.   A= 86.7   VM=   9328.

ELEM 163  NODES=  164  165  184  183  MATERIAL= 1  AREA=  1360.6         TTOP,TBOT=   70.   70.  PRESS=    0.        63
    NX,NY=       -10.       -4.  MX,MY,MXY=   -169.   -126.     -69.  XC,YC,ZC=  -143.8           96.10        402.0
TOP STR  SX,SY,SXY=   -632.  -10806.     426.   SMAX,SMIN,TAUMAX=   -615. -10818.    5101.   A= 87.6   VM=  10524.
MID STR  SX,SY,SXY=     16.  -10309.     159.   SMAX,SMIN,TAUMAX=     18. -10311.    5165.   A= 89.1   VM=  10321.
BOT STR  SX,SY,SXY=    664.   -9818.    -107.   SMAX,SMIN,TAUMAX=    665.  -9819.    5242.   A=-89.4   VM=  10168.
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ELEM 164  NODES=  165  166  185  184  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=      9.     -3.  MX,MY,MXY=  -186.   -128.   -147.  XC,YC,ZC=  -155.1     76.50     402.0
TOP STR  SX,SY,SXY=   -649.  -9725.    155.  SMAX,SMIN,TAUMAX=   -646.  -9728.   4541.  A= 89.0  VM=   9421.
MID STR  SX,SY,SXY=     66.  -9234.   -409.  SMAX,SMIN,TAUMAX=     84.  -9252.   4668.  A=-87.5  VM=   9295.
BOT STR  SX,SY,SXY=    782.  -8744.   -973.  SMAX,SMIN,TAUMAX=    880.  -8842.   4861.  A=-84.2  VM=   9313.

ELEM 165  NODES=  166  167  186  185  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     23.     -2.  MX,MY,MXY=    26.    -20.   -205.  XC,YC,ZC=  -163.8     55.60     402.0
TOP STR  SX,SY,SXY=    129.  -6862.    -86.  SMAX,SMIN,TAUMAX=    130.  -6863.   3497.  A=-89.3  VM=   6929.
MID STR  SX,SY,SXY=     29.  -6786.   -867.  SMAX,SMIN,TAUMAX=    138.  -6894.   3516.  A=-82.9  VM=   6964.
BOT STR  SX,SY,SXY=    -71.  -6709.  -1646.  SMAX,SMIN,TAUMAX=    315.  -7096.   3706.  A=-76.8  VM=   7258.

ELEM 166  NODES=  167  168  187  186  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     10.      2.  MX,MY,MXY=   283.    111.   -202.  XC,YC,ZC=  -169.7     33.75     402.0
TOP STR  SX,SY,SXY=   1066.  -3116.   -138.  SMAX,SMIN,TAUMAX=   1071.  -3121.   2096.  A=-86.1  VM=   3772.
MID STR  SX,SY,SXY=    -19.  -3543.   -913.  SMAX,SMIN,TAUMAX=    204.  -3765.   1984.  A=-76.3  VM=   3871.
BOT STR  SX,SY,SXY=  -1104.  -3969.  -1687.  SMAX,SMIN,TAUMAX=   -323.  -4750.   2213.  A=-65.2  VM=   4597.

ELEM 167  NODES=  168  169  188  187  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=      3.     10.  MX,MY,MXY=   435.    263.    -89.  XC,YC,ZC=  -172.6     11.31     402.0
TOP STR  SX,SY,SXY=   1629.   -155.    -57.  SMAX,SMIN,TAUMAX=   1631.   -157.    894.  A=-88.2  VM=   1715.
MID STR  SX,SY,SXY=    -40.  -1164.   -399.  SMAX,SMIN,TAUMAX=     87.  -1291.    689.  A=-72.3  VM=   1337.
BOT STR  SX,SY,SXY=  -1709.  -2172.   -742.  SMAX,SMIN,TAUMAX=  -1164.  -2717.    777.  A=-53.7  VM=   2361.

ELEM 168  NODES=  169  170  189  188  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     -3.     10.  MX,MY,MXY=   435.    263.     89.  XC,YC,ZC=  -172.6    -11.31     402.0
TOP STR  SX,SY,SXY=   1629.   -155.     57.  SMAX,SMIN,TAUMAX=   1631.   -157.    894.  A= 88.2  VM=   1715.
MID STR  SX,SY,SXY=    -40.  -1164.    399.  SMAX,SMIN,TAUMAX=     87.  -1291.    689.  A= 72.3  VM=   1337.
BOT STR  SX,SY,SXY=  -1709.  -2172.    742.  SMAX,SMIN,TAUMAX=  -1164.  -2717.    777.  A= 53.7  VM=   2361.

ELEM 169  NODES=  170  171  190  189  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=    -10.      2.  MX,MY,MXY=   283.    111.    202.  XC,YC,ZC=  -169.7    -33.75     402.0
TOP STR  SX,SY,SXY=   1066.  -3116.    138.  SMAX,SMIN,TAUMAX=   1071.  -3121.   2096.  A= 86.1  VM=   3772.
MID STR  SX,SY,SXY=    -19.  -3543.    913.  SMAX,SMIN,TAUMAX=    204.  -3765.   1984.  A= 76.3  VM=   3871.
BOT STR  SX,SY,SXY=  -1104.  -3969.   1687.  SMAX,SMIN,TAUMAX=   -323.  -4750.   2213.  A= 65.2  VM=   4597.

ELEM 170  NODES=  171  172  191  190  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=    -23.     -2.  MX,MY,MXY=    26.    -20.    205.  XC,YC,ZC=  -163.8    -55.60     402.0
TOP STR  SX,SY,SXY=    129.  -6862.     86.  SMAX,SMIN,TAUMAX=    130.  -6863.   3497.  A= 89.3  VM=   6929.
MID STR  SX,SY,SXY=     29.  -6786.    867.  SMAX,SMIN,TAUMAX=    138.  -6894.   3516.  A= 82.9  VM=   6964.
BOT STR  SX,SY,SXY=    -71.  -6709.   1648.  SMAX,SMIN,TAUMAX=    315.  -7096.   3706.  A= 76.8  VM=   7258.

ELEM 171  NODES=  172  173  192  191  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     -9.     -3.  MX,MY,MXY=  -186.   -128.    147.  XC,YC,ZC=  -155.1    -76.50     402.0
TOP STR  SX,SY,SXY=   -649.  -9725.   -155.  SMAX,SMIN,TAUMAX=   -646.  -9728.   4541.  A=-89.0  VM=   9421.
MID STR  SX,SY,SXY=     66.  -9234.    409.  SMAX,SMIN,TAUMAX=     84.  -9252.   4668.  A= 87.5  VM=   9295.
BOT STR  SX,SY,SXY=    782.  -8744.    973.  SMAX,SMIN,TAUMAX=    880.  -8842.   4861.  A= 84.2  VM=   9313.

ELEM 172  NODES=  173  174  193  192  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     10.     -4.  MX,MY,MXY=  -169.   -128.     69.  XC,YC,ZC=  -143.8    -96.10     402.0
TOP STR  SX,SY,SXY=   -632. -10800.   -426.  SMAX,SMIN,TAUMAX=   -615. -10816.   5101.  A=-87.6  VM=  10524.
MID STR  SX,SY,SXY=     16. -10309.   -159.  SMAX,SMIN,TAUMAX=     18. -10311.   5165.  A=-89.1  VM=  10321.
BOT STR  SX,SY,SXY=    664.  -9818.    107.  SMAX,SMIN,TAUMAX=    665.  -9819.   5242.  A= 89.4  VM=  10166.

ELEM 173  NODES=  174  175  194  193  MATERIAL= 1  AREA=   1360.6    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=     13.     -1.  MX,MY,MXY=    10.    -33.      2.  XC,YC,ZC=  -130.0    -114.6     402.0
TOP STR  SX,SY,SXY=    125.  -9512.   -558.  SMAX,SMIN,TAUMAX=    157.  -9544.   4850.  A=-86.7  VM=   9623.
MID STR  SX,SY,SXY=     85.  -9384.   -552.  SMAX,SMIN,TAUMAX=    117.  -9416.   4767.  A=-86.7  VM=   9475.
BOT STR  SX,SY,SXY=     45.  -9257.   -545.  SMAX,SMIN,TAUMAX=     77.  -9289.   4683.  A=-86.7  VM=   9328.

ELEM 174  NODES=  195  194  175  175  MATERIAL= 1  AREA=   2024.0    TTOP,TBOT=   70.   70.  PRESS=     0.     63
    NX,NY=      2.     -3.  MX,MY,MXY=  -140.    -52.    -17.  XC,YC,ZC=  -108.6    -131.9     402.0
TOP STR  SX,SY,SXY=    176.  -8291.    -65.  SMAX,SMIN,TAUMAX=    177.  -8292.   4234.  A=-89.6  VM=   8382.
MID STR  SX,SY,SXY=    714.  -8091.   -129.  SMAX,SMIN,TAUMAX=    716.  -8093.   4404.  A=-89.2  VM=   8474.
BOT STR  SX,SY,SXY=   1251.  -7891.   -193.  SMAX,SMIN,TAUMAX=   1255.  -7895.   4575.  A=-88.8  VM=   8592.
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ELEM 175 NODES= 176 177 214 213 MATERIAL= 1 AREA= 11252.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        0.     0.  MX,MY,MXY=     -2.      0.      0.  XC,YC,ZC=   165.1        32.84        516.0
TOP STR  SX,SY,SXY=   -19.   6116.    64.  SMAX,SMIN,TAUMAX=   6117.    -19.   3068.  A=   .6  VM=   6127.
MID STR  SX,SY,SXY=    -9.   6116.    66.  SMAX,SMIN,TAUMAX=   6116.    -10.   3063.  A=   .6  VM=   6121.
BOT STR  SX,SY,SXY=    -0.   6115.    67.  SMAX,SMIN,TAUMAX=   6116.     -1.   3058.  A=   .6  VM=   6116.

ELEM 176 NODES= 177 178 215 214 MATERIAL= 1 AREA= 11252.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        1.     0.  MX,MY,MXY=     24.     10.      4.  XC,YC,ZC=   140.0        93.52        516.0
TOP STR  SX,SY,SXY=    87.   5107.   171.  SMAX,SMIN,TAUMAX=   5113.     82.   2516.  A=  2.0  VM=   5072.
MID STR  SX,SY,SXY=    -6.   5069.   186.  SMAX,SMIN,TAUMAX=   5075.    -13.   2544.  A=  2.1  VM=   5082.
BOT STR  SX,SY,SXY=   -99.   5031.   200.  SMAX,SMIN,TAUMAX=   5038.   -107.   2573.  A=  2.2  VM=   5093.

ELEM 177 NODES= 178 179 216 215 MATERIAL= 1 AREA= 11252.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        1.     0.  MX,MY,MXY=     71.     25.     10.  XC,YC,ZC=    93.52       140.0         516.0
TOP STR  SX,SY,SXY=   261.   3037.   263.  SMAX,SMIN,TAUMAX=   3062.    236.   1413.  A=  5.4  VM=   2951.
MID STR  SX,SY,SXY=   -12.   2941.   301.  SMAX,SMIN,TAUMAX=   2972.    -42.   1507.  A=  5.8  VM=   2993.
BOT STR  SX,SY,SXY=  -284.   2846.   339.  SMAX,SMIN,TAUMAX=   2882.   -320.   1601.  A=  6.1  VM=   3055.

ELEM 178 NODES= 179 180 217 216 MATERIAL= 1 AREA= 11252.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -2.     0.  MX,MY,MXY=     53.     20.      9.  XC,YC,ZC=    32.84       165.1         516.0
TOP STR  SX,SY,SXY=   212.    128.   338.  SMAX,SMIN,TAUMAX=    511.   -171.    341.  A= 48.6  VM=    614.
MID STR  SX,SY,SXY=    10.     50.   374.  SMAX,SMIN,TAUMAX=    404.   -344.    374.  A= 43.5  VM=    649.
BOT STR  SX,SY,SXY=  -192.    -27.   409.  SMAX,SMIN,TAUMAX=    308.   -527.    417.  A= 39.3  VM=    731.

ELEM 179 NODES= 180 181 218 217 MATERIAL= 1 AREA= 11252.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -4.     0.  MX,MY,MXY=    -80.    -21.     24.  XC,YC,ZC=   -32.84       165.1         516.0
TOP STR  SX,SY,SXY=  -192.  -3573.   362.  SMAX,SMIN,TAUMAX=   -154.  -3611.   1729.  A= 84.0  VM=   3537.
MID STR  SX,SY,SXY=   113.  -3493.   453.  SMAX,SMIN,TAUMAX=    169.  -3549.   1859.  A= 82.9  VM=   3637.
BOT STR  SX,SY,SXY=   419.  -3414.   545.  SMAX,SMIN,TAUMAX=    495.  -3490.   1992.  A= 82.1  VM=   3762.

ELEM 180 NODES= 181 182 200 218 MATERIAL= 1 AREA=  8459.6      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -5.    -2.  MX,MY,MXY=   -191.    -81.     12.  XC,YC,ZC=   -93.75       140.2         495.0
TOP STR  SX,SY,SXY= -1577.  -7483.   636.  SMAX,SMIN,TAUMAX=  -1509.  -7550.   3021.  A= 83.9  VM=   6920.
MID STR  SX,SY,SXY=  -843.  -7173.   681.  SMAX,SMIN,TAUMAX=   -770.  -7245.   3237.  A= 83.9  VM=   6892.
BOT STR  SX,SY,SXY=  -109.  -6863.   727.  SMAX,SMIN,TAUMAX=    -31.  -6940.   3454.  A= 83.9  VM=   6924.

ELEM 181 NODES= 182 183 201 200 MATERIAL= 1 AREA=  1893.0      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=      -14.    -3.  MX,MY,MXY=   -235.   -108.    -60.  XC,YC,ZC=  -129.2        113.3         474.0
TOP STR  SX,SY,SXY=  -986.  -9785.   480.  SMAX,SMIN,TAUMAX=   -960.  -9811.   4426.  A= 86.9  VM=   9368.
MID STR  SX,SY,SXY=   -82.  -9371.   251.  SMAX,SMIN,TAUMAX=    -76.  -9378.   4651.  A= 88.5  VM=   9340.
BOT STR  SX,SY,SXY=   821.  -8957.    21.  SMAX,SMIN,TAUMAX=    821.  -8957.   4889.  A= 89.9  VM=   9394.

ELEM 182 NODES= 183 184 202 201 MATERIAL= 1 AREA=  1893.0      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -5.    -1.  MX,MY,MXY=   -377.   -146.   -100.  XC,YC,ZC=  -142.9         95.50        474.0
TOP STR  SX,SY,SXY= -1358.  -9400.   366.  SMAX,SMIN,TAUMAX=  -1341.  -9417.   4038.  A= 87.4  VM=   8823.
MID STR  SX,SY,SXY=    88.  -8841.   -19.  SMAX,SMIN,TAUMAX=     88.  -8841.   4465.  A=-89.9  VM=   8885.
BOT STR  SX,SY,SXY=  1534.  -8281.  -403.  SMAX,SMIN,TAUMAX=   1551.  -8298.   4924.  A=-87.7  VM=   9172.

ELEM 183 NODES= 184 185 203 202 MATERIAL= 1 AREA=  1893.0      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       16.     0.  MX,MY,MXY=   -309.   -124.   -109.  XC,YC,ZC=  -154.2         76.03        474.0
TOP STR  SX,SY,SXY= -1096.  -8383.    25.  SMAX,SMIN,TAUMAX=  -1096.  -8384.   3644.  A= 89.8  VM=   7893.
MID STR  SX,SY,SXY=    89.  -7907.  -394.  SMAX,SMIN,TAUMAX=    109.  -7926.   4017.  A=-87.2  VM=   7981.
BOT STR  SX,SY,SXY=  1274.  -7430.  -813.  SMAX,SMIN,TAUMAX=   1349.  -7505.   4427.  A=-84.7  VM=   8263.

ELEM 184 NODES= 185 166 204 203 MATERIAL= 1 AREA=  1893.0      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       32.     1.  MX,MY,MXY=     27.      3.    -95.  XC,YC,ZC=  -162.8         55.25        474.0
TOP STR  SX,SY,SXY=   158.  -6135.  -290.  SMAX,SMIN,TAUMAX=    171.  -6149.   3160.  A=-87.4  VM=   6236.
MID STR  SX,SY,SXY=    53.  -6148.  -655.  SMAX,SMIN,TAUMAX=    122.  -6216.   3169.  A=-84.0  VM=   6278.
BOT STR  SX,SY,SXY=   -51.  -6161. -1021.  SMAX,SMIN,TAUMAX=    115.  -6327.   3221.  A=-80.8  VM=   6365.

ELEM 185 NODES= 186 187 205 204 MATERIAL= 1 AREA=  1893.0      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       32.     2.  MX,MY,MXY=    506.    202.    -64.  XC,YC,ZC=  -168.6         33.54        474.0
TOP STR  SX,SY,SXY=  1903.  -3490.  -375.  SMAX,SMIN,TAUMAX=   1929.  -3516.   2723.  A=-86.0  VM=   4782.
MID STR  SX,SY,SXY=   -40.  -4266.  -621.  SMAX,SMIN,TAUMAX=     49.  -4355.   2202.  A=-81.8  VM=   4380.
BOT STR  SX,SY,SXY= -1983.  -5041.  -866.  SMAX,SMIN,TAUMAX=  -1755.  -5269.   1757.  A=-75.2  VM=   4647.
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ELEM 186  NODES= 187  188  206  205  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=      14.      2.  MX,MY,MXY=     842.     292.     -22.   XC,YC,ZC=  -171.5     11.24      474.0
TOP STR  SX,SY,SXY=   3112.  -1905.   -167.   SMAX,SMIN,TAUMAX=   3117.  -1910.   2514.   A=-88.1  VM=   4396.
MID STR  SX,SY,SXY=   -123.  -3027.   -253.   SMAX,SMIN,TAUMAX=   -101.  -3049.   1474.   A=-85.1  VM=   3000.
BOT STR  SX,SY,SXY=  -3358.  -4150.   -339.   SMAX,SMIN,TAUMAX=  -3233.  -4275.    521.   A=-69.7  VM=   3861.

ELEM 187  NODES= 188  189  207  206  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=     -14.      2.  MX,MY,MXY=     842.     292.      22.   XC,YC,ZC=  -171.5    -11.24      474.0
TOP STR  SX,SY,SXY=   3112.  -1905.    167.   SMAX,SMIN,TAUMAX=   3117.  -1910.   2514.   A= 88.1  VM=   4396.
MID STR  SX,SY,SXY=   -123.  -3027.    253.   SMAX,SMIN,TAUMAX=   -101.  -3049.   1474.   A= 85.1  VM=   3000.
BOT STR  SX,SY,SXY=  -3358.  -4150.    339.   SMAX,SMIN,TAUMAX=  -3233.  -4275.    521.   A= 69.7  VM=   3861.

ELEM 188  NODES= 189  190  208  207  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=     -32.      2.  MX,MY,MXY=     506.     202.      64.   XC,YC,ZC=  -168.6    -33.54      474.0
TOP STR  SX,SY,SXY=   1903.  -3490.    375.   SMAX,SMIN,TAUMAX=   1929.  -5516.   2723.   A= 86.0  VM=   4782.
MID STR  SX,SY,SXY=    -40.  -4266.    621.   SMAX,SMIN,TAUMAX=     49.  -4355.   2202.   A= 81.8  VM=   4380.
BOT STR  SX,SY,SXY=  -1983.  -5041.    866.   SMAX,SMIN,TAUMAX=  -1755.  -5269.   1757.   A= 75.2  VM=   4647.

ELEM 189  NODES= 190  191  209  208  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=     -32.      1.  MX,MY,MXY=      27.       3.      95.   XC,YC,ZC=  -162.8    -55.25      474.0
TOP STR  SX,SY,SXY=    158.  -6135.    290.   SMAX,SMIN,TAUMAX=    171.  -6149.   3160.   A= 87.4  VM=   6236.
MID STR  SX,SY,SXY=     53.  -6148.    655.   SMAX,SMIN,TAUMAX=    122.  -6216.   3169.   A= 84.0  VM=   6278.
BOT STR  SX,SY,SXY=    -51.  -6161.   1021.   SMAX,SMIN,TAUMAX=    115.  -6327.   3221.   A= 80.6  VM=   6385.

ELEM 190  NODES= 191  192  210  209  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=     -16.      0.  MX,MY,MXY=    -309.    -124.     109.   XC,YC,ZC=  -154.2    -76.03      474.0
TOP STR  SX,SY,SXY=  -1096.  -6383.    -25.   SMAX,SMIN,TAUMAX=  -1096.  -8384.   3644.   A=-89.8  VM=   7893.
MID STR  SX,SY,SXY=     89.  -7907.    394.   SMAX,SMIN,TAUMAX=    109.  -7926.   4017.   A= 87.2  VM=   7981.
BOT STR  SX,SY,SXY=   1274.  -7430.    813.   SMAX,SMIN,TAUMAX=   1349.  -7505.   4427.   A= 84.7  VM=   8263.

ELEM 191  NODES= 192  193  211  210  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=       5.     -1.  MX,MY,MXY=    -377.    -146.     100.   XC,YC,ZC=  -142.9    -95.56      474.0
TOP STR  SX,SY,SXY=  -1358.  -9400.   -366.   SMAX,SMIN,TAUMAX=  -1341.  -9417.   4038.   A=-67.4  VM=   8823.
MID STR  SX,SY,SXY=     88.  -8841.     19.   SMAX,SMIN,TAUMAX=     88.  -8841.   4465.   A= 69.9  VM=   8865.
BOT STR  SX,SY,SXY=   1534.  -8281.    403.   SMAX,SMIN,TAUMAX=   1551.  -8298.   4924.   A= 87.7  VM=   9172.

ELEM 192  NODES= 193  194  212  211  MATERIAL=  1  AREA=   1893.0       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=      14.     -3.  MX,MY,MXY=    -235.    -108.      60.   XC,YC,ZC=  -129.2   -113.3       474.0
TOP STR  SX,SY,SXY=   -986.  -9785.   -480.   SMAX,SMIN,TAUMAX=   -960.  -9811.   4426.   A=-86.9  VM=   9368.
MID STR  SX,SY,SXY=    -82.  -9371.   -251.   SMAX,SMIN,TAUMAX=    -76.  -9378.   4651.   A=-88.5  VM=   9340.
BOT STR  SX,SY,SXY=    821.  -8957.    -21.   SMAX,SMIN,TAUMAX=    821.  -8957.   4889.   A=-89.9  VM=   9394.

ELEM 193  NODES= 194  195  232  212  MATERIAL=  1  AREA=   8459.6       TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=       5.     -2.  MX,MY,MXY=    -191.     -81.     -12.   XC,YC,ZC=   -93.75  -140.2       495.0
TOP STR  SX,SY,SXY=  -1577.  -7483.   -636.   SMAX,SMIN,TAUMAX=  -1509.  -7550.   3021.   A=-83.9  VM=   6920.
MID STR  SX,SY,SXY=   -843.  -7173.   -681.   SMAX,SMIN,TAUMAX=   -770.  -7245.   3237.   A=-83.9  VM=   6892.
BOT STR  SX,SY,SXY=   -109.  -6863.   -727.   SMAX,SMIN,TAUMAX=    -31.  -6940.   3454.   A=-83.9  VM=   6924.

ELEM 194  NODES= 195  196  233  232  MATERIAL=  1  AREA=  11252.        TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=       4.      0.  MX,MY,MXY=     -80.     -21.     -24.   XC,YC,ZC=   -32.84  -165.1       516.0
TOP STR  SX,SY,SXY=   -192.  -3573.   -362.   SMAX,SMIN,TAUMAX=   -154.  -3611.   1729.   A=-84.0  VM=   3537.
MID STR  SX,SY,SXY=    113.  -3493.   -453.   SMAX,SMIN,TAUMAX=    169.  -3549.   1859.   A=-82.9  VM=   3637.
BOT STR  SX,SY,SXY=    419.  -3414.   -545.   SMAX,SMIN,TAUMAX=    495.  -3490.   1992.   A=-82.1  VM=   3762.

ELEM 195  NODES= 196  197  234  233  MATERIAL=  1  AREA=  11252.        TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=       2.      0.  MX,MY,MXY=      53.      20.      -9.   XC,YC,ZC=    32.84  -165.1       516.0
TOP STR  SX,SY,SXY=    212.    128.   -338.   SMAX,SMIN,TAUMAX=    511.   -171.    341.   A=-48.6  VM=    614.
MID STR  SX,SY,SXY=     10.     50.   -374.   SMAX,SMIN,TAUMAX=    404.   -344.    374.   A=-43.5  VM=    649.
BOT STR  SX,SY,SXY=   -192.    -27.   -409.   SMAX,SMIN,TAUMAX=    308.   -527.    417.   A=-39.3  VM=    731.

ELEM 196  NODES= 197  198  235  234  MATERIAL=  1  AREA=  11252.        TTOP,TBOT=   70.   70.  PRESS=    0.          63
    NX,NY=      -1.      0.  MX,MY,MXY=      71.      25.     -10.   XC,YC,ZC=    93.52  -140.0       516.0
TOP STR  SX,SY,SXY=    261.   3037.   -263.   SMAX,SMIN,TAUMAX=   3062.    236.   1413.   A= -5.4  VM=   2951.
MID STR  SX,SY,SXY=    -12.   2941.   -301.   SMAX,SMIN,TAUMAX=   2972.    -42.   1507.   A= -5.8  VM=   2993.
BOT STR  SX,SY,SXY=   -284.   2846.   -339.   SMAX,SMIN,TAUMAX=   2882.   -320.   1601.   A= -6.1  VM=   3055.
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ELEM  197  NODES=  198   199   236  235   MATERIAL=  1  AREA=   11252.        TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       -1.      0.   MX,MY,MXY=      24.       10.     -4.   XC,YC,ZC=   140.0      -93.52      516.0
TOP STR   SX,SY,SXY=      87.    5107.    -171.     SMAX,SMIN,TAUMAX=    5113.      82.     2516.    A= -2.0   VM=    5072.
MID STR   SX,SY,SXY=      -6.    5069.    -186.     SMAX,SMIN,TAUMAX=    5075.     -13.     2544.    A= -2.1   VM=    5082.
BOT STR   SX,SY,SXY=     -99.    5031.    -200.     SMAX,SMIN,TAUMAX=    5038.    -107.     2573.    A= -2.2   VM=    5093.

ELEM  198  NODES=  199   176   213  236   MATERIAL=  1  AREA=   11252.        TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       -0.      0.   MX,MY,MXY=      -2.        0.     -0.   XC,YC,ZC=   165.1      -32.84      516.0
TOP STR   SX,SY,SXY=     -19.    6116.     -64.     SMAX,SMIN,TAUMAX=    6117.     -19.     3068.    A=  -.6   VM=    6127.
MID STR   SX,SY,SXY=      -9.    6116.     -66.     SMAX,SMIN,TAUMAX=    6116.     -10.     3063.    A=  -.6   VM=    6121.
BOT STR   SX,SY,SXY=      -0.    6115.     -67.     SMAX,SMIN,TAUMAX=    6116.      -1.     3058.    A=  -.6   VM=    6116.

ELEM  199  NODES=  219   218   200  200   MATERIAL=  1  AREA=    2792.3       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       11.      1.   MX,MY,MXY=    -406.      -60.     -9.   XC,YC,ZC=  -107.1      130.2       558.0
TOP STR   SX,SY,SXY=   -1052.   -7659.      -1.     SMAX,SMIN,TAUMAX=   -1052.   -7859.     3404.    A=-90.0   VM=    7390.
MID STR   SX,SY,SXY=     507.   -7628.     -37.     SMAX,SMIN,TAUMAX=     507.   -7628.     4068.    A=-89.7   VM=    7894.
BOT STR   SX,SY,SXY=    2067.   -7397.     -73.     SMAX,SMIN,TAUMAX=    2067.   -7397.     4732.    A=-89.6   VM=    8619.

ELEM  200  NODES=  200   201   220  219   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       -3.     -1.   MX,MY,MXY=    -463.     -166.    -70.   XC,YC,ZC=  -128.3      112.5       558.0
TOP STR   SX,SY,SXY=   -1670.   -8716.     366.     SMAX,SMIN,TAUMAX=   -1650.   -8735.     3542.    A= 87.0   VM=    8038.
MID STR   SX,SY,SXY=     108.   -8080.      99.     SMAX,SMIN,TAUMAX=     109.   -8081.     4095.    A= 89.3   VM=    8136.
BOT STR   SX,SY,SXY=    1885.   -7444.    -171.     SMAX,SMIN,TAUMAX=    1888.   -7447.     4667.    A=-89.0   VM=    8549.

ELEM  201  NODES=  201   202   221  220   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=        7.      0.   MX,MY,MXY=    -428.     -158.    -81.   XC,YC,ZC=  -141.9       94.80      558.0
TOP STR   SX,SY,SXY=   -1600.   -8569.     160.     SMAX,SMIN,TAUMAX=   -1596.   -8573.     3488.    A= 88.7   VM=    7897.
MID STR   SX,SY,SXY=      45.   -7963.    -152.     SMAX,SMIN,TAUMAX=      48.   -7966.     4007.    A=-88.9   VM=    7990.
BOT STR   SX,SY,SXY=    1690.   -7357.    -463.     SMAX,SMIN,TAUMAX=    1714.   -7381.     4548.    A=-87.1   VM=    8371.

ELEM  202  NODES=  202   203   222  221   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       23.      2.   MX,MY,MXY=    -208.      -65.    -63.   XC,YC,ZC=  -153.0       75.47      558.0
TOP STR   SX,SY,SXY=    -729.   -7215.     -88.     SMAX,SMIN,TAUMAX=    -728.   -7216.     3244.    A=-89.2   VM=    6881.
MID STR   SX,SY,SXY=      70.   -6964.    -329.     SMAX,SMIN,TAUMAX=      85.   -6980.     3533.    A=-87.3   VM=    7023.
BOT STR   SX,SY,SXY=     869.   -6714.    -571.     SMAX,SMIN,TAUMAX=     912.   -6756.     3834.    A=-85.7   VM=    7255.

ELEM  203  NODES=  203   204   223  222   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       35.      2.   MX,MY,MXY=     193.       70.    -30.   XC,YC,ZC=  -161.6       54.85      558.0
TOP STR   SX,SY,SXY=     759.   -5627.    -306.     SMAX,SMIN,TAUMAX=     774.   -5642.     3208.    A=-87.3   VM=    6066.
MID STR   SX,SY,SXY=      18.   -5897.    -421.     SMAX,SMIN,TAUMAX=      48.   -5927.     2987.    A=-86.0   VM=    5951.
BOT STR   SX,SY,SXY=    -723.   -6167.    -535.     SMAX,SMIN,TAUMAX=    -671.   -6219.     2774.    A=-84.4   VM=    5913.

ELEM  204  NODES=  204   205   224  223   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       32.      0.   MX,MY,MXY=     640.      192.     -4.   XC,YC,ZC=  -167.4       33.29      558.0
TOP STR   SX,SY,SXY=    2402.   -4215.    -332.     SMAX,SMIN,TAUMAX=    2418.   -4231.     3325.    A=-87.1   VM=    5829.
MID STR   SX,SY,SXY=     -55.   -4953.    -349.     SMAX,SMIN,TAUMAX=     -30.   -4978.     2474.    A=-85.9   VM=    4963.
BOT STR   SX,SY,SXY=   -2511.   -5691.    -367.     SMAX,SMIN,TAUMAX=   -2469.   -5733.     1632.    A=-83.5   VM=    4981.

ELEM  205  NODES=  205   206   225  224   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=       13.      0.   MX,MY,MXY=     958.      333.      2.   XC,YC,ZC=  -170.3       11.16      558.0
TOP STR   SX,SY,SXY=    3570.   -3139.    -145.     SMAX,SMIN,TAUMAX=    3573.   -3142.     3358.    A=-88.8   VM=    5819.
MID STR   SX,SY,SXY=    -110.   -4419.    -139.     SMAX,SMIN,TAUMAX=    -106.   -4424.     2159.    A=-88.2   VM=    4372.
BOT STR   SX,SY,SXY=   -3790.   -5699.    -133.     SMAX,SMIN,TAUMAX=   -3780.   -5708.      964.    A=-86.0   VM=    5030.

ELEM  206  NODES=  206   207   226  225   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=      -13.      0.   MX,MY,MXY=     958.      333.     -2.   XC,YC,ZC=  -170.3      -11.16      558.0
TOP STR   SX,SY,SXY=    3570.   -3139.     145.     SMAX,SMIN,TAUMAX=    3573.   -3142.     3358.    A= 88.8   VM=    5819.
MID STR   SX,SY,SXY=    -110.   -4419.     139.     SMAX,SMIN,TAUMAX=    -106.   -4424.     2159.    A= 88.2   VM=    4372.
BOT STR   SX,SY,SXY=   -3790.   -5699.     133.     SMAX,SMIN,TAUMAX=   -3780.   -5708.      964.    A= 86.0   VM=    5030.

ELEM  207  NODES=  207   208   227  226   MATERIAL=  1  AREA=    1879.2       TTOP,TBOT=    70.   70.   PRESS=     0.          63
     NX,NY=      -32.      0.   MX,MY,MXY=     640.      192.      4.   XC,YC,ZC=  -167.4      -33.29      558.0
TOP STR   SX,SY,SXY=    2402.   -4215.     332.     SMAX,SMIN,TAUMAX=    2418.   -4231.     3325.    A= 87.1   VM=    5829.
MID STR   SX,SY,SXY=     -55.   -4953.     349.     SMAX,SMIN,TAUMAX=     -30.   -4978.     2474.    A= 85.9   VM=    4963.
BOT STR   SX,SY,SXY=   -2511.   -5691.     367.     SMAX,SMIN,TAUMAX=   -2469.   -5733.     1632.    A= 83.5   VM=    4981.
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ELEM 208  NODES= 208  209  228  227  MATERIAL= 1  AREA=   1879.2       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=     -35.      2.  MX,MY,MXY=   193.       70.       30.  XC,YC,ZC=  -161.6      -54.85       558.0
TOP STR  SX,SY,SXY=   759.   -5627.    306.  SMAX,SMIN,TAUMAX=   774.  -5642.   3208.   A= 87.3  VM=   6066.
MID STR  SX,SY,SXY=    18.   -5897.    421.  SMAX,SMIN,TAUMAX=    48.  -5927.   2987.   A= 86.0  VM=   5951.
BOT STR  SX,SY,SXY=  -723.   -6167.    535.  SMAX,SMIN,TAUMAX=  -671.  -6219.   2774.   A= 84.4  VM=   5913.

ELEM 209  NODES= 209  210  229  228  MATERIAL= 1  AREA=   1879.2       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=     -23.      2.  MX,MY,MXY=  -208.      -65.       63.  XC,YC,ZC=  -153.0      -75.47       558.0
TOP STR  SX,SY,SXY=  -729.   -7215.     88.  SMAX,SMIN,TAUMAX=  -728.  -7216.   3244.   A= 89.2  VM=   6881.
MID STR  SX,SY,SXY=    70.   -6964.    329.  SMAX,SMIN,TAUMAX=    85.  -6980.   3533.   A= 87.3  VM=   7023.
BOT STR  SX,SY,SXY=   869.   -6714.    571.  SMAX,SMIN,TAUMAX=   912.  -6756.   3834.   A= 85.7  VM=   7255.

ELEM 210  NODES= 210  211  230  229  MATERIAL= 1  AREA=   1879.2       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=      -7.      0.  MX,MY,MXY=  -428.     -158.       81.  XC,YC,ZC=  -141.9      -94.80       558.0
TOP STR  SX,SY,SXY= -1600.   -6569.   -160.  SMAX,SMIN,TAUMAX= -1596.  -8573.   3488.   A=-88.7  VM=   7897.
MID STR  SX,SY,SXY=    45.   -7963.    152.  SMAX,SMIN,TAUMAX=    48.  -7966.   4007.   A= 86.9  VM=   7990.
BOT STR  SX,SY,SXY=  1698.   -7357.    463.  SMAX,SMIN,TAUMAX=  1714.  -7381.   4548.   A= 87.1  VM=   8371.

ELEM 211  NODES= 211  212  231  230  MATERIAL= 1  AREA=   1879.2       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=       3.     -1.  MX,MY,MXY=  -463.     -146.       70.  XC,YC,ZC=  -128.3     -112.5        558.0
TOP STR  SX,SY,SXY= -1670.   -8716.   -368.  SMAX,SMIN,TAUMAX= -1650.  -8735.   3542.   A=-87.0  VM=   8038.
MID STR  SX,SY,SXY=   108.   -8080.    -99.  SMAX,SMIN,TAUMAX=   109.  -8081.   4095.   A=-89.3  VM=   8136.
BOT STR  SX,SY,SXY=  1885.   -7444.    171.  SMAX,SMIN,TAUMAX=  1888.  -7447.   4667.   A= 89.0  VM=   8549.

ELEM 212  NODES= 232  231  212  212  MATERIAL= 1  AREA=   2792.3       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=     -11.      1.  MX,MY,MXY=  -406.      -60.        9.  XC,YC,ZC=  -107.1     -130.2        558.0
TOP STR  SX,SY,SXY= -1052.   -7859.      1.  SMAX,SMIN,TAUMAX= -1052.  -7859.   3404.   A= 90.0  VM=   7390.
MID STR  SX,SY,SXY=   507.   -7628.     37.  SMAX,SMIN,TAUMAX=   507.  -7628.   4068.   A= 89.7  VM=   7894.
BOT STR  SX,SY,SXY=  2067.   -7397.     73.  SMAX,SMIN,TAUMAX=  2067.  -7397.   4732.   A= 89.6  VM=   8619.

ELEM 213  NODES= 213  214  251  250  MATERIAL= 1  AREA=  11087.        ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=       0.      0.  MX,MY,MXY=    11.       16.        2.  XC,YC,ZC=   162.7       32.36       684.0
TOP STR  SX,SY,SXY=    43.    5974.     53.  SMAX,SMIN,TAUMAX=  5975.     43.   2966.   A=   .5  VM=   5953.
MID STR  SX,SY,SXY=     2.    5913.     60.  SMAX,SMIN,TAUMAX=  5913.      2.   2956.   A=   .6  VM=   5913.
BOT STR  SX,SY,SXY=   -39.    5851.     66.  SMAX,SMIN,TAUMAX=  5852.    -39.   2946.   A=   .6  VM=   5872.

ELEM 214  NODES= 214  215  252  251  MATERIAL= 1  AREA=  11088.        ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=       1.      0.  MX,MY,MXY=    47.       24.        6.  XC,YC,ZC=   137.9       92.15       684.0
TOP STR  SX,SY,SXY=   179.    4955.    157.  SMAX,SMIN,TAUMAX=  4961.    174.   2393.   A=  1.9  VM=   4876.
MID STR  SX,SY,SXY=    -0.    4863.    181.  SMAX,SMIN,TAUMAX=  4870.     -7.   2438.   A=  2.1  VM=   4873.
BOT STR  SX,SY,SXY=  -179.    4771.    205.  SMAX,SMIN,TAUMAX=  4779.   -188.   2483.   A=  2.4  VM=   4876.

ELEM 215  NODES= 215  216  253  252  MATERIAL= 1  AREA=  11087.        ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=       1.      0.  MX,MY,MXY=    82.       31.       10.  XC,YC,ZC=    92.15     137.9        684.0
TOP STR  SX,SY,SXY=   316.    2911.    248.  SMAX,SMIN,TAUMAX=  2935.    293.   1321.   A=  5.4  VM=   2800.
MID STR  SX,SY,SXY=    -0.    2792.    286.  SMAX,SMIN,TAUMAX=  2821.    -29.   1425.   A=  5.8  VM=   2835.
BOT STR  SX,SY,SXY=  -316.    2672.    324.  SMAX,SMIN,TAUMAX=  2707.   -351.   1529.   A=  6.1  VM=   2899.

ELEM 216  NODES= 216  217  254  253  MATERIAL= 1  AREA=  11087.        ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=      -2.      0.  MX,MY,MXY=    69.       22.       14.  XC,YC,ZC=    32.36     162.7        684.0
TOP STR  SX,SY,SXY=   255.     -30.    312.  SMAX,SMIN,TAUMAX=   455.   -230.    343.   A= 57.3  VM=    604.
MID STR  SX,SY,SXY=    -8.    -115.    366.  SMAX,SMIN,TAUMAX=   309.   -432.    370.   A= 49.2  VM=    644.
BOT STR  SX,SY,SXY=  -271.    -209.    421.  SMAX,SMIN,TAUMAX=   187.   -659.    423.   A= 42.6  VM=    769.

ELEM 217  NODES= 217  218  255  254  MATERIAL= 1  AREA=  11087.        ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=      -7.     -0.  MX,MY,MXY=   -92.      -39.        9.  XC,YC,ZC=   -32.36     162.7        684.0
TOP STR  SX,SY,SXY=  -396.   -3703.    401.  SMAX,SMIN,TAUMAX=  -348.  -3751.   1702.   A= 83.2  VM=   3590.
MID STR  SX,SY,SXY=   -43.   -3556.    435.  SMAX,SMIN,TAUMAX=    10.  -3609.   1810.   A= 83.0  VM=   3614.
BOT STR  SX,SY,SXY=   311.   -3408.    469.  SMAX,SMIN,TAUMAX=   369.  -3466.   1918.   A= 82.9  VM=   3664.

ELEM 218  NODES= 218  219  237  255  MATERIAL= 1  AREA=   8335.7       ITOP,TBOT=   70.    70.   PRESS=    0.          63
   NX,NY=     -17.     -1.  MX,MY,MXY=  -405.     -151.      -23.  XC,YC,ZC=   -92.37     138.1        663.0
TOP STR  SX,SY,SXY= -2083.   -7105.    610.  SMAX,SMIN,TAUMAX= -2010.  -7178.   2584.   A= 83.2  VM=   6413.
MID STR  SX,SY,SXY=  -526.   -6525.    520.  SMAX,SMIN,TAUMAX=  -481.  -6570.   3044.   A= 85.1  VM=   6343.
BOT STR  SX,SY,SXY=  1031.   -5945.    430.  SMAX,SMIN,TAUMAX=  1058.  -5971.   3514.   A= 86.5  VM=   6564.
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ELEM 219  NODES=  219  220  238  237  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=        7.       -1.   MX,MY,MXY=   -539.   -189.    -55.   XC,YC,ZC=  -127.3   111.7    642.0
TOP STR   SX,SY,SXY=  -2104.  -8641.   149.   SMAX,SMIN,TAUMAX=  -2101.  -8644.  3272.   A= 88.7   VM=  7809.
MID STR   SX,SY,SXY=    -35.  -7917.   -63.   SMAX,SMIN,TAUMAX=    -35.  -7917.  3941.   A=-89.5   VM=  7900.
BOT STR   SX,SY,SXY=   2034.  -7192.  -274.   SMAX,SMIN,TAUMAX=   2042.  -7201.  4621.   A=-88.3   VM=  8470.

ELEM 220  NODES=  220  221  239  238  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=       17.        1.   MX,MY,MXY=   -360.   -111.    -47.   XC,YC,ZC=  -140.8    94.10   642.0
TOP STR   SX,SY,SXY=  -1326.  -7609.   -15.   SMAX,SMIN,TAUMAX=  -1326.  -7609.  3142.   A= 89.9   VM=  7041.
MID STR   SX,SY,SXY=     56.  -7181.  -164.   SMAX,SMIN,TAUMAX=     60.  -7185.  3622.   A=-88.7   VM=  7215.
BOT STR   SX,SY,SXY=   1438.  -6753.  -344.   SMAX,SMIN,TAUMAX=   1452.  -6768.  4110.   A=-87.6   VM=  7596.

ELEM 221  NODES=  221  222  240  239  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=       27.        1.   MX,MY,MXY=    -60.    -23.    -24.   XC,YC,ZC=  -151.9    74.92   642.0
TOP STR   SX,SY,SXY=   -209.  -6694.  -188.   SMAX,SMIN,TAUMAX=   -204.  -6699.  3248.   A=-88.3   VM=  6599.
MID STR   SX,SY,SXY=     19.  -6607.  -281.   SMAX,SMIN,TAUMAX=     31.  -6619.  3325.   A=-87.6   VM=  6634.
BOT STR   SX,SY,SXY=    248.  -6520.  -375.   SMAX,SMIN,TAUMAX=    269.  -6541.  3405.   A=-86.8   VM=  6679.

ELEM 222  NODES=  222  223  241  240  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=       31.        1.   MX,MY,MXY=    328.    103.     -2.   XC,YC,ZC=  -160.4    54.45   642.0
TOP STR   SX,SY,SXY=   1251.  -5536.  -272.   SMAX,SMIN,TAUMAX=   1262.  -5547.  3404.   A=-87.7   VM=  6274.
MID STR   SX,SY,SXY=     -8.  -5931.  -280.   SMAX,SMIN,TAUMAX=      5.  -5944.  2975.   A=-87.3   VM=  5947.
BOT STR   SX,SY,SXY=  -1267.  -6326.  -289.   SMAX,SMIN,TAUMAX=  -1251.  -6342.  2546.   A=-86.7   VM=  5819.

ELEM 223  NODES=  223  224  242  241  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=       26.        1.   MX,MY,MXY=    707.    247.      8.   XC,YC,ZC=  -166.1    33.04   642.0
TOP STR   SX,SY,SXY=   2670.  -4481.  -235.   SMAX,SMIN,TAUMAX=   2677.  -4488.  3583.   A=-88.1   VM=  6272.
MID STR   SX,SY,SXY=    -44.  -5430.  -205.   SMAX,SMIN,TAUMAX=    -36.  -5438.  2701.   A=-87.8   VM=  5420.
BOT STR   SX,SY,SXY=  -2757.  -6380.  -174.   SMAX,SMIN,TAUMAX=  -2749.  -6388.  1819.   A=-87.3   VM=  5550.

ELEM 224  NODES=  224  225  243  242  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=       10.       -1.   MX,MY,MXY=    916.    264.      5.   XC,YC,ZC=  -169.0    11.08   642.0
TOP STR   SX,SY,SXY=   3451.  -4142.   -87.   SMAX,SMIN,TAUMAX=   3452.  -4143.  3798.   A=-89.3   VM=  6587.
MID STR   SX,SY,SXY=    -65.  -5158.   -68.   SMAX,SMIN,TAUMAX=    -64.  -5158.  2547.   A=-89.2   VM=  5127.
BOT STR   SX,SY,SXY=  -3582.  -6173.   -50.   SMAX,SMIN,TAUMAX=  -3581.  -6174.  1296.   A=-88.9   VM=  5370.

ELEM 225  NODES=  225  226  244  243  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=      -10.       -1.   MX,MY,MXY=    916.    264.     -5.   XC,YC,ZC=  -169.0   -11.08   642.0
TOP STR   SX,SY,SXY=   3451.  -4142.    87.   SMAX,SMIN,TAUMAX=   3452.  -4143.  3798.   A= 89.3   VM=  6587.
MID STR   SX,SY,SXY=    -65.  -5158.    68.   SMAX,SMIN,TAUMAX=    -64.  -5158.  2547.   A= 89.2   VM=  5127.
BOT STR   SX,SY,SXY=  -3582.  -6173.    50.   SMAX,SMIN,TAUMAX=  -3581.  -6174.  1296.   A= 88.9   VM=  5370.

ELEM 226  NODES=  226  227  245  244  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=      -26.        1.   MX,MY,MXY=    707.    247.     -8.   XC,YC,ZC=  -166.1   -33.04   642.0
TOP STR   SX,SY,SXY=   2670.  -4481.   235.   SMAX,SMIN,TAUMAX=   2677.  -4488.  3583.   A= 88.1   VM=  6272.
MID STR   SX,SY,SXY=    -44.  -5430.   205.   SMAX,SMIN,TAUMAX=    -36.  -5438.  2701.   A= 87.8   VM=  5420.
BOT STR   SX,SY,SXY=  -2757.  -6380.   174.   SMAX,SMIN,TAUMAX=  -2749.  -6388.  1819.   A= 87.3   VM=  5550.

ELEM 227  NODES=  227  228  246  245  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=      -31.        1.   MX,MY,MXY=    328.    103.      2.   XC,YC,ZC=  -160.4   -54.45   642.0
TOP STR   SX,SY,SXY=   1251.  -5536.   272.   SMAX,SMIN,TAUMAX=   1262.  -5547.  3404.   A= 87.7   VM=  6274.
MID STR   SX,SY,SXY=     -8.  -5931.   280.   SMAX,SMIN,TAUMAX=      5.  -5944.  2975.   A= 87.3   VM=  5947.
BOT STR   SX,SY,SXY=  -1267.  -6326.   289.   SMAX,SMIN,TAUMAX=  -1251.  -6342.  2546.   A= 86.7   VM=  5819.

ELEM 228  NODES=  228  229  247  246  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=      -27.        1.   MX,MY,MXY=    -60.    -23.     24.   XC,YC,ZC=  -151.9   -74.92   642.0
TOP STR   SX,SY,SXY=   -209.  -6694.   188.   SMAX,SMIN,TAUMAX=   -204.  -6699.  3248.   A= 88.3   VM=  6599.
MID STR   SX,SY,SXY=     19.  -6607.   281.   SMAX,SMIN,TAUMAX=     31.  -6619.  3325.   A= 87.6   VM=  6634.
BOT STR   SX,SY,SXY=    248.  -6520.   375.   SMAX,SMIN,TAUMAX=    269.  -6541.  3405.   A= 86.8   VM=  6679.

ELEM 229  NODES=  229  230  248  247  MATERIAL=  1  AREA=  1865.3        TTOP,TBOT=  70.    70.   PRESS=   0.     63
   NX,NY=      -17.        1.   MX,MY,MXY=   -360.   -111.     47.   XC,YC,ZC=  -140.8   -94.10   642.0
TOP STR   SX,SY,SXY=  -1326.  -7609.   -15.   SMAX,SMIN,TAUMAX=  -1326.  -7609.  3142.   A=-89.9   VM=  7041.
MID STR   SX,SY,SXY=     56.  -7181.   164.   SMAX,SMIN,TAUMAX=     60.  -7185.  3622.   A= 88.7   VM=  7215.
BOT STR   SX,SY,SXY=   1438.  -6753.   344.   SMAX,SMIN,TAUMAX=   1452.  -6768.  4110.   A= 87.6   VM=  7598.
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ELEM 230  NODES=  230  231  249  248  MATERIAL=  1  AREA=   1865.3        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        -7.       -1.  MX,MY,MXY=    -539.    -189.      55.  XC,YC,ZC=  -127.3     -111.7         642.0
TOP STR  SX,SY,SXY=  -2104.   -8641.   -149.   SMAX,SMIN,TAUMAX=  -2101.   -8644.   3272.   A=-88.7   VM=   7809.
MID STR  SX,SY,SXY=    -35.   -7917.     63.   SMAX,SMIN,TAUMAX=    -35.   -7917.   3941.   A= 89.5   VM=   7806.
BOT STR  SX,SY,SXY=   2034.   -7192.    274.   SMAX,SMIN,TAUMAX=   2042.   -7201.   4621.   A= 88.3   VM=   8410.

ELEM 231  NODES=  231  232  269  249  MATERIAL=  1  AREA=   8335.7        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        17.       -1.  MX,MY,MXY=    -405.    -151.      23.  XC,YC,ZC=   -92.37    -138.1         663.0
TOP STR  SX,SY,SXY=  -2083.   -7105.   -610.   SMAX,SMIN,TAUMAX=  -2010.   -7178.   2584.   A=-83.2   VM=   6413.
MID STR  SX,SY,SXY=   -526.   -6525.   -520.   SMAX,SMIN,TAUMAX=   -481.   -6570.   3044.   A=-85.1   VM=   6343.
BOT STR  SX,SY,SXY=   1031.   -5945.   -430.   SMAX,SMIN,TAUMAX=   1058.   -5971.   3514.   A=-86.5   VM=   6564.

ELEM 232  NODES=  232  233  270  269  MATERIAL=  1  AREA=  11087.         TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=         7.       -0.  MX,MY,MXY=     -92.     -39.      -9.  XC,YC,ZC=   -32.36    -162.7         684.0
TOP STR  SX,SY,SXY=   -396.   -3703.   -401.   SMAX,SMIN,TAUMAX=   -346.   -3751.   1702.   A=-83.2   VM=   3590.
MID STR  SX,SY,SXY=    -43.   -3556.   -435.   SMAX,SMIN,TAUMAX=     10.   -3609.   1810.   A=-83.0   VM=   3614.
BOT STR  SX,SY,SXY=    311.   -3408.   -469.   SMAX,SMIN,TAUMAX=    369.   -3466.   1918.   A=-82.9   VM=   3664.

ELEM 233  NODES=  233  234  271  270  MATERIAL=  1  AREA=  11087.         TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=         2.        0.  MX,MY,MXY=      69.      22.     -14.  XC,YC,ZC=    32.36    -162.7         684.0
TOP STR  SX,SY,SXY=    255.     -36.   -312.   SMAX,SMIN,TAUMAX=    455.    -236.    345.   A=-57.3   VM=    604.
MID STR  SX,SY,SXY=     -8.    -115.   -366.   SMAX,SMIN,TAUMAX=    309.    -432.    370.   A=-49.2   VM=    644.
BOT STR  SX,SY,SXY=   -271.    -201.   -421.   SMAX,SMIN,TAUMAX=    167.    -659.    423.   A=-42.6   VM=    769.

ELEM 234  NODES=  234  235  272  271  MATERIAL=  1  AREA=  11087.         TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        -1.        0.  MX,MY,MXY=      82.      31.     -10.  XC,YC,ZC=    92.15    -137.9         684.0
TOP STR  SX,SY,SXY=    316.    2911.   -248.   SMAX,SMIN,TAUMAX=   2935.     293.   1321.   A= -5.4   VM=   2800.
MID STR  SX,SY,SXY=     -0.    2792.   -286.   SMAX,SMIN,TAUMAX=   2821.     -29.   1425.   A= -5.8   VM=   2835.
BOT STR  SX,SY,SXY=   -316.    2672.   -324.   SMAX,SMIN,TAUMAX=   2707.    -351.   1529.   A= -6.1   VM=   2899.

ELEM 235  NODES=  235  236  273  272  MATERIAL=  1  AREA=  11087.         TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        -1.        0.  MX,MY,MXY=      47.      24.      -6.  XC,YC,ZC=   137.9      -92.15         684.0
TOP STR  SX,SY,SXY=    179.    4955.   -157.   SMAX,SMIN,TAUMAX=   4961.     174.   2393.   A= -1.9   VM=   4876.
MID STR  SX,SY,SXY=     -0.    4863.   -181.   SMAX,SMIN,TAUMAX=   4870.      -7.   2438.   A= -2.1   VM=   4873.
BOT STR  SX,SY,SXY=   -179.    4771.   -205.   SMAX,SMIN,TAUMAX=   4779.    -188.   2483.   A= -2.4   VM=   4876.

ELEM 236  NODES=  236  213  250  273  MATERIAL=  1  AREA=  11087.         TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        -0.        0.  MX,MY,MXY=      11.      16.      -2.  XC,YC,ZC=   162.7      -32.36         684.0
TOP STR  SX,SY,SXY=     43.    5974.    -53.   SMAX,SMIN,TAUMAX=   5975.      43.   2966.   A= -.5    VM=   5953.
MID STR  SX,SY,SXY=      2.    5913.    -60.   SMAX,SMIN,TAUMAX=   5913.       2.   2956.   A= -.6    VM=   5913.
BOT STR  SX,SY,SXY=    -39.    5851.    -66.   SMAX,SMIN,TAUMAX=   5852.     -39.   2946.   A= -.6    VM=   5872.

ELEM 237  NODES=  256  255  237  237  MATERIAL=  1  AREA=   2751.0        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        10.        1.  MX,MY,MXY=    -541.     -61.     -10.  XC,YC,ZC=  -105.5      126.2          726.0
TOP STR  SX,SY,SXY=  -1737.   -6786.     98.   SMAX,SMIN,TAUMAX=  -1735.   -6788.   2527.   A= 88.9   VM=   6108.
MID STR  SX,SY,SXY=    339.   -6552.     58.   SMAX,SMIN,TAUMAX=    340.   -6553.   3446.   A= 89.5   VM=   6729.
BOT STR  SX,SY,SXY=   2415.   -6318.     18.   SMAX,SMIN,TAUMAX=   2415.   -6318.   4367.   A= 89.9   VM=   7611.

ELEM 238  NODES=  257  238  257  256  MATERIAL=  1  AREA=   1851.5        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        13.        1.  MX,MY,MXY=    -528.    -170.     -25.  XC,YC,ZC=  -126.4      110.9          720.0
TOP STR  SX,SY,SXY=  -1930.   -7519.    133.   SMAX,SMIN,TAUMAX=  -1927.   -7522.   2797.   A= 88.6   VM=   6767.
MID STR  SX,SY,SXY=     98.   -6867.     38.   SMAX,SMIN,TAUMAX=     98.   -6867.   3483.   A= 89.7   VM=   6917.
BOT STR  SX,SY,SXY=   2126.   -6216.    -57.   SMAX,SMIN,TAUMAX=   2127.   -6216.   4171.   A=-89.6   VM=   7509.

ELEM 239  NODES=  238  239  258  257  MATERIAL=  1  AREA=   1851.5        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        23.        0.  MX,MY,MXY=    -286.    -102.     -17.  XC,YC,ZC=  -139.8       93.40          720.0
TOP STR  SX,SY,SXY=  -1089.   -7290.    -97.   SMAX,SMIN,TAUMAX=  -1087.   -7291.   3102.   A=-89.1   VM=   6813.
MID STR  SX,SY,SXY=     11.   -6900.   -161.   SMAX,SMIN,TAUMAX=     15.   -6904.   3459.   A=-88.7   VM=   6911.
BOT STR  SX,SY,SXY=   1111.   -6510.   -225.   SMAX,SMIN,TAUMAX=   1118.   -6516.   3817.   A=-88.3   VM=   7141.

ELEM 240  NODES=  239  240  259  258  MATERIAL=  1  AREA=   1851.5        TTOP,TBOT=   70.    70.   PRESS=     0.      63
    NX,NY=        28.        1.  MX,MY,MXY=      48.      20.      -3.  XC,YC,ZC=  -150.8       74.36          720.0
TOP STR  SX,SY,SXY=    194.   -6388.   -175.   SMAX,SMIN,TAUMAX=    199.   -6393.   3296.   A=-88.5   VM=   6495.
MID STR  SX,SY,SXY=     10.   -6466.   -187.   SMAX,SMIN,TAUMAX=     16.   -6471.   3243.   A=-88.3   VM=   6479.
BOT STR  SX,SY,SXY=   -173.   -6543.   -199.   SMAX,SMIN,TAUMAX=   -167.   -6549.   3191.   A=-88.2   VM=   6467.
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ELEM 241  NODES=  240  241  260  259  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=      27.       1.  MX,MY,MXY=    406.    130.     10.  XC,YC,ZC=  -159.2    54.04      726.0
TOP STR  SX,SY,SXY=   1545.   -5594.    -228.  SMAX,SMIN,TAUMAX=   1552.   -5601.   3576.  A=-88.2  VM=   6517.
MID STR  SX,SY,SXY=    -16.   -6094.    -190.  SMAX,SMIN,TAUMAX=    -10.   -6100.   3045.  A=-88.2  VM=   6095.
BOT STR  SX,SY,SXY=  -1577.   -6595.    -152.  SMAX,SMIN,TAUMAX=  -1573.   -6600.   2514.  A=-88.3  VM=   5971.

ELEM 242  NODES=  241  242  261  260  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=      20.      -1.  MX,MY,MXY=    694.    188.     14.  XC,YC,ZC=  -164.9    32.80      726.0
TOP STR  SX,SY,SXY=   2629.   -5065.    -188.  SMAX,SMIN,TAUMAX=   2633.   -5069.   3851.  A=-88.6  VM=   6781.
MID STR  SX,SY,SXY=    -38.   -5787.    -133.  SMAX,SMIN,TAUMAX=    -35.   -5790.   2878.  A=-88.7  VM=   5773.
BOT STR  SX,SY,SXY=  -2705.   -6510.     -77.  SMAX,SMIN,TAUMAX=  -2704.   -6512.   1904.  A=-88.8  VM=   5666.

ELEM 243  NODES=  242  243  262  261  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=       7.       0.  MX,MY,MXY=    884.    301.      6.  XC,YC,ZC=  -167.8    11.00      726.0
TOP STR  SX,SY,SXY=   3344.   -4476.     -82.  SMAX,SMIN,TAUMAX=   3345.   -4477.   3911.  A=-89.4  VM=   6798.
MID STR  SX,SY,SXY=    -51.   -5632.     -57.  SMAX,SMIN,TAUMAX=    -51.   -5632.   2791.  A=-89.4  VM=   5607.
BOT STR  SX,SY,SXY=  -3446.   -6787.     -33.  SMAX,SMIN,TAUMAX=  -3446.   -6787.   1671.  A=-89.4  VM=   5878.

ELEM 244  NODES=  243  244  263  262  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=      -7.       0.  MX,MY,MXY=    884.    301.     -6.  XC,YC,ZC=  -167.8   -11.00      726.0
TOP STR  SX,SY,SXY=   3344.   -4476.      82.  SMAX,SMIN,TAUMAX=   3345.   -4477.   3911.  A= 89.4  VM=   6798.
MID STR  SX,SY,SXY=    -51.   -5632.      57.  SMAX,SMIN,TAUMAX=    -51.   -5632.   2791.  A= 89.4  VM=   5607.
BOT STR  SX,SY,SXY=  -3446.   -6787.      33.  SMAX,SMIN,TAUMAX=  -3446.   -6787.   1671.  A= 89.4  VM=   5878.

ELEM 245  NODES=  244  245  264  263  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -20.      -1.  MX,MY,MXY=    694.    188.    -14.  XC,YC,ZC=  -164.9   -32.80      726.0
TOP STR  SX,SY,SXY=   2629.   -5065.     188.  SMAX,SMIN,TAUMAX=   2633.   -5069.   3851.  A= 88.6  VM=   6781.
MID STR  SX,SY,SXY=    -38.   -5787.     133.  SMAX,SMIN,TAUMAX=    -35.   -5790.   2878.  A= 88.7  VM=   5773.
BOT STR  SX,SY,SXY=  -2705.   -6510.      77.  SMAX,SMIN,TAUMAX=  -2704.   -6512.   1904.  A= 88.8  VM=   5666.

ELEM 246  NODES=  245  246  265  264  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -27.       1.  MX,MY,MXY=    406.    130.    -10.  XC,YC,ZC=  -159.2   -54.04      726.0
TOP STR  SX,SY,SXY=   1545.   -5594.     228.  SMAX,SMIN,TAUMAX=   1552.   -5601.   3576.  A= 88.2  VM=   6517.
MID STR  SX,SY,SXY=    -16.   -6094.     190.  SMAX,SMIN,TAUMAX=    -10.   -6100.   3045.  A= 88.2  VM=   6095.
BOT STR  SX,SY,SXY=  -1577.   -6595.     152.  SMAX,SMIN,TAUMAX=  -1573.   -6600.   2514.  A= 88.3  VM=   5971.

ELEM 247  NODES=  246  247  266  265  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -28.       1.  MX,MY,MXY=     48.     20.      3.  XC,YC,ZC=  -150.8   -74.36      726.0
TOP STR  SX,SY,SXY=  [illegible]   -6388.     175.  SMAX,SMIN,TAUMAX=    199.   -6393.   3296.  A= 88.5  VM=   6495.
MID STR  SX,SY,SXY=  [illegible]   -6466.     167.  SMAX,SMIN,TAUMAX=     16.   -6471.   3243.  A= 88.3  VM=   6479.
BOT STR  SX,SY,SXY=   -173.   -6543.     199.  SMAX,SMIN,TAUMAX=   -167.   -6549.   3191.  A= 88.2  VM=   6467.

ELEM 248  NODES=  247  248  267  266  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -23.       0.  MX,MY,MXY=   -286.   -102.     17.  XC,YC,ZC=  -139.8   -93.40      726.0
TOP STR  SX,SY,SXY=  -1089.   -7290.      97.  SMAX,SMIN,TAUMAX=  -1087.   -7291.   3102.  A= 89.1  VM=   6813.
MID STR  SX,SY,SXY=     11.   -6900.     161.  SMAX,SMIN,TAUMAX=     15.   -6904.   3459.  A= 88.7  VM=   6911.
BOT STR  SX,SY,SXY=   1111.   -6510.     225.  SMAX,SMIN,TAUMAX=   1118.   -6516.   3817.  A= 88.3  VM=   7141.

ELEM 249  NODES=  248  249  268  267  MATERIAL=  1  AREA=   1851.5     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -13.       1.  MX,MY,MXY=   -528.   -170.     25.  XC,YC,ZC=  -126.4  -110.9       726.0
TOP STR  SX,SY,SXY=  -1938.   -7516.    -133.  SMAX,SMIN,TAUMAX=  -1927.   -7522.   2797.  A=-88.6  VM=   6767.
MID STR  SX,SY,SXY=     98.   -6867.     -38.  SMAX,SMIN,TAUMAX=     98.   -6867.   3483.  A=-89.7  VM=   6917.
BOT STR  SX,SY,SXY=   2126.   -6216.      57.  SMAX,SMIN,TAUMAX=   2127.   -6216.   4171.  A= 89.6  VM=   7509.

ELEM 250  NODES=  269  268  249  249  MATERIAL=  1  AREA=   2751.0     TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=     -10.       1.  MX,MY,MXY=   -541.    -61.     10.  XC,YC,ZC=  -105.5  -128.2       726.0
TOP STR  SX,SY,SXY=  -1737.   -6786.     -98.  SMAX,SMIN,TAUMAX=  -1735.   -6788.   2527.  A=-88.9  VM=   6108.
MID STR  SX,SY,SXY=    339.   -6552.     -58.  SMAX,SMIN,TAUMAX=    340.   -6553.   3446.  A=-89.5  VM=   6729.
BOT STR  SX,SY,SXY=   2415.   -6318.     -18.  SMAX,SMIN,TAUMAX=   2415.   -6318.   4367.  A=-89.9  VM=   7611.

ELEM 251  NODES=  250  251  288  287  MATERIAL=  1  AREA=  12468.      TTOP,TBOT=   70.    70.   PRESS=    0.          63
     NX,NY=       1.       0.  MX,MY,MXY=     27.      9.      3.  XC,YC,ZC=   160.1    31.84      864.0
TOP STR  SX,SY,SXY=    111.    5757.      53.  SMAX,SMIN,TAUMAX=   5757.     110.   2824.  A=   .5  VM=   5703.
MID STR  SX,SY,SXY=      9.    5721.      64.  SMAX,SMIN,TAUMAX=   5721.       8.   2857.  A=   .6  VM=   5717.
BOT STR  SX,SY,SXY=    -93.    5684.      75.  SMAX,SMIN,TAUMAX=   5685.     -94.   2890.  A=   .7  VM=   5733.
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ELEM  252  NODES=  251  252  269  288  MATERIAL=  1  AREA=  12468.       TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=       1.       0.  MX,MY,MXY=     63.      22.       8.  XC,YC,ZC=  135.7      90.68        864.0
TOP STR  SX,SY,SXY=    248.    4754.     157.  SMAX,SMIN,TAUMAX=   4759.     242.    2259.   A=  2.0  VM=   4643.
MID STR  SX,SY,SXY=      7.    4668.     190.  SMAX,SMIN,TAUMAX=   4675.      -1.    2338.   A=  2.3  VM=   4676.
BOT STR  SX,SY,SXY=   -234.    4581.     222.  SMAX,SMIN,TAUMAX=   4592.    -244.    2418.   A=  2.6  VM=   4718.

ELEM  253  NODES=  252  253  290  289  MATERIAL=  1  AREA=  12468.       TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=       0.       0.  MX,MY,MXY=     98.      35.      13.  XC,YC,ZC=   90.68    135.7        864.0
TOP STR  SX,SY,SXY=    381.    2757.     255.  SMAX,SMIN,TAUMAX=   2784.     354.    1215.   A=  6.0  VM=   2625.
MID STR  SX,SY,SXY=      4.    2624.     303.  SMAX,SMIN,TAUMAX=   2658.     -31.    1345.   A=  6.5  VM=   2674.
BOT STR  SX,SY,SXY=   -373.    2490.     352.  SMAX,SMIN,TAUMAX=   2532.    -416.    1474.   A=  6.9  VM=   2764.

ELEM  254  NODES=  253  254  291  290  MATERIAL=  1  AREA=  12468.       TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      -3.      -0.  MX,MY,MXY=     57.      20.      11.  XC,YC,ZC=   31.84    160.1        864.0
TOP STR  SX,SY,SXY=    211.    -216.     356.  SMAX,SMIN,TAUMAX=    413.    -420.     416.   A= 60.5  VM=    721.
MID STR  SX,SY,SXY=     -8.    -295.     397.  SMAX,SMIN,TAUMAX=    271.    -574.     422.   A= 54.9  VM=    747.
BOT STR  SX,SY,SXY=   -226.    -371.     438.  SMAX,SMIN,TAUMAX=    145.    -743.     444.   A= 49.7  VM=    825.

ELEM  255  NODES=  254  255  292  291  MATERIAL=  1  AREA=  12468.       TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=     -10.      -1.  MX,MY,MXY=   -186.     -59.      -9.  XC,YC,ZC=  -31.84    160.1        864.0
TOP STR  SX,SY,SXY=   -712.   -3715.     457.  SMAX,SMIN,TAUMAX=   -644.   -3783.    1569.   A= 81.5  VM=   3505.
MID STR  SX,SY,SXY=      2.   -3490.     424.  SMAX,SMIN,TAUMAX=     52.   -3541.    1796.   A= 83.2  VM=   3567.
BOT STR  SX,SY,SXY=    715.   -3265.     391.  SMAX,SMIN,TAUMAX=    754.   -3303.    2028.   A= 84.8  VM=   3737.

ELEM  256  NODES=  255  256  274  292  MATERIAL=  1  AREA=   9378.2      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=     -12.       0.  MX,MY,MXY=   -466.    -162.     -25.  XC,YC,ZC=  -90.93    136.0        840.0
TOP STR  SX,SY,SXY=  -2159.   -6348.     466.  SMAX,SMIN,TAUMAX=  -2108.   -6399.    2146.   A= 83.7  VM=   5648.
MID STR  SX,SY,SXY=   -368.   -5726.     369.  SMAX,SMIN,TAUMAX=   -343.   -5751.    2704.   A= 86.1  VM=   5587.
BOT STR  SX,SY,SXY=   1423.   -5103.     272.  SMAX,SMIN,TAUMAX=   1434.   -5115.    3274.   A= 87.6  VM=   5962.

ELEM  257  NODES=  256  257  275  274  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      17.       1.  MX,MY,MXY=   -458.    -149.     -19.  XC,YC,ZC= -125.4     110.0         816.0
TOP STR  SX,SY,SXY=  -1761.   -7209.      68.  SMAX,SMIN,TAUMAX=  -1760.   -7210.    2725.   A= 89.3  VM=   6511.
MID STR  SX,SY,SXY=     -2.   -6635.      -7.  SMAX,SMIN,TAUMAX=     -2.   -6635.    3317.   A=-89.9  VM=   6634.
BOT STR  SX,SY,SXY=   1756.   -6061.     -81.  SMAX,SMIN,TAUMAX=   1757.   -6062.    3909.   A=-89.4  VM=   7105.

ELEM  258  NODES=  257  258  276  275  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      25.       1.  MX,MY,MXY=   -207.     -63.      -2.  XC,YC,ZC= -138.7      92.66        816.0
TOP STR  SX,SY,SXY=   -770.   -6725.     -35.  SMAX,SMIN,TAUMAX=   -770.   -6725.    2978.   A=-89.7  VM=   6375.
MID STR  SX,SY,SXY=     24.   -6484.     -42.  SMAX,SMIN,TAUMAX=     24.   -6484.    3254.   A=-89.6  VM=   6496.
BOT STR  SX,SY,SXY=    818.   -6243.     -48.  SMAX,SMIN,TAUMAX=    819.   -6243.    3531.   A=-89.6  VM=   6690.

ELEM  259  NODES=  258  259  277  276  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      27.       1.  MX,MY,MXY=    130.      28.      14.  XC,YC,ZC= -149.6      73.76        816.0
TOP STR  SX,SY,SXY=    485.   -6306.    -184.  SMAX,SMIN,TAUMAX=    490.   -6311.    3400.   A=-88.5  VM=   6569.
MID STR  SX,SY,SXY=    -14.   -6413.    -130.  SMAX,SMIN,TAUMAX=    -11.   -6416.    3202.   A=-88.8  VM=   6410.
BOT STR  SX,SY,SXY=   -513.   -6521.     -76.  SMAX,SMIN,TAUMAX=   -512.   -6522.    3005.   A=-89.3  VM=   6282.

ELEM  260  NODES=  259  260  278  277  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      22.      -0.  MX,MY,MXY=    434.     126.      23.  XC,YC,ZC= -157.9      53.61        816.0
TOP STR  SX,SY,SXY=   1635.   -5742.    -204.  SMAX,SMIN,TAUMAX=   1641.   -5748.    3694.   A=-88.4  VM=   6720.
MID STR  SX,SY,SXY=    -32.   -6225.    -117.  SMAX,SMIN,TAUMAX=    -30.   -6228.    3099.   A=-88.9  VM=   6213.
BOT STR  SX,SY,SXY=  -1700.   -6709.     -30.  SMAX,SMIN,TAUMAX=  -1700.   -6709.    2505.   A=-89.7  VM=   6041.

ELEM  261  NODES=  260  261  279  278  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=      15.       0.  MX,MY,MXY=    686.     236.      19.  XC,YC,ZC= -163.6      32.54        816.0
TOP STR  SX,SY,SXY=   2599.   -5153.    -156.  SMAX,SMIN,TAUMAX=   2602.   -5157.    3879.   A=-88.8  VM=   6859.
MID STR  SX,SY,SXY=    -37.   -6060.     -85.  SMAX,SMIN,TAUMAX=    -36.   -6062.    3013.   A=-89.2  VM=   6044.
BOT STR  SX,SY,SXY=  -2672.   -6967.     -14.  SMAX,SMIN,TAUMAX=  -2672.   -6967.    2148.   A=-89.8  VM=   6088.

ELEM  262  NODES=  261  262  280  279  MATERIAL=  1  AREA=   2099.0      TTOP,TBOT=  70.   70.  PRESS=    0.        63
  NX,NY=       5.      -1.  MX,MY,MXY=    797.     216.       8.  XC,YC,ZC= -166.4      10.91        816.0
TOP STR  SX,SY,SXY=   3013.   -5124.     -46.  SMAX,SMIN,TAUMAX=   3013.   -5124.    4069.   A=-89.7  VM=   7120.
MID STR  SX,SY,SXY=    -46.   -5953.     -17.  SMAX,SMIN,TAUMAX=    -46.   -5953.    2954.   A=-89.8  VM=   5931.
BOT STR  SX,SY,SXY=  -3105.   -6783.      12.  SMAX,SMIN,TAUMAX=  -3105.   -6783.    1839.   A= 89.8  VM=   5881.
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ELEM 263  NODES=  262  263  281  280  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=    -5.     -1.   MX,MY,MXY=   797.    216.     -8.  XC,YC,ZC=  -166.4   -10.91    816.0
TOP STR   SX,SY,SXY=   3013.   -5124.     46.   SMAX,SMIN,TAUMAX=   3013.   -5124.   4069.   A= 89.7   VM=   7126.
MID STR   SX,SY,SXY=    -46.   -5953.     17.   SMAX,SMIN,TAUMAX=    -46.   -5953.   2954.   A= 89.8   VM=   5931.
BOT STR   SX,SY,SXY=  -3105.   -6783.    -12.   SMAX,SMIN,TAUMAX=  -3105.   -6783.   1839.   A=-89.8   VM=   5881.

ELEM 264  NODES=  263  264  282  281  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=   -15.      0.   MX,MY,MXY=   686.    236.    -19.  XC,YC,ZC=  -163.6   -32.54    816.0
TOP STR   SX,SY,SXY=   2599.   -5153.    156.   SMAX,SMIN,TAUMAX=   2602.   -5157.   3879.   A= 88.8   VM=   6839.
MID STR   SX,SY,SXY=    -37.   -6060.     85.   SMAX,SMIN,TAUMAX=    -36.   -6062.   3013.   A= 89.2   VM=   6044.
BOT STR   SX,SY,SXY=  -2672.   -6967.     14.   SMAX,SMIN,TAUMAX=  -2672.   -6967.   2148.   A= 89.8   VM=   6008.

ELEM 265  NODES=  264  265  283  282  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=   -22.     -0.   MX,MY,MXY=   434.    126.    -23.  XC,YC,ZC=  -157.9   -53.61    816.0
TOP STR   SX,SY,SXY=   1635.   -5742.    204.   SMAX,SMIN,TAUMAX=   1641.   -5748.   3694.   A= 88.4   VM=   6720.
MID STR   SX,SY,SXY=    -32.   -6225.    117.   SMAX,SMIN,TAUMAX=    -30.   -6228.   3099.   A= 88.9   VM=   6213.
BOT STR   SX,SY,SXY=  -1700.   -6709.     30.   SMAX,SMIN,TAUMAX=  -1700.   -6709.   2505.   A= 89.7   VM=   6041.

ELEM 266  NODES=  265  266  284  283  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=   -27.      1.   MX,MY,MXY=   130.     28.    -14.  XC,YC,ZC=  -149.6   -73.76    816.0
TOP STR   SX,SY,SXY=    485.   -6306.    184.   SMAX,SMIN,TAUMAX=    490.   -6311.   3400.   A= 88.5   VM=   6569.
MID STR   SX,SY,SXY=    -14.   -6413.    130.   SMAX,SMIN,TAUMAX=    -11.   -6416.   3202.   A= 88.8   VM=   6410.
BOT STR   SX,SY,SXY=   -513.   -6521.     76.   SMAX,SMIN,TAUMAX=   -512.   -6522.   3005.   A= 89.3   VM=   6282.

ELEM 267  NODES=  266  267  285  284  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=   -25.      1.   MX,MY,MXY=  -207.    -63.      2.  XC,YC,ZC=  -138.7   -92.66    816.0
TOP STR   SX,SY,SXY=   -778.   -6725.     35.   SMAX,SMIN,TAUMAX=   -770.   -6725.   2978.   A= 89.7   VM=   6375.
MID STR   SX,SY,SXY=     24.   -6484.     42.   SMAX,SMIN,TAUMAX=     24.   -6484.   3254.   A= 89.6   VM=   6496.
BOT STR   SX,SY,SXY=    818.   -6243.     48.   SMAX,SMIN,TAUMAX=    819.   -6243.   3531.   A= 89.6   VM=   6690.

ELEM 268  NODES=  267  268  286  285  MATERIAL=  1  AREA=   2099.0     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=   -17.      1.   MX,MY,MXY=  -458.   -149.     19.  XC,YC,ZC=  -125.4   -110.0    816.0
TOP STR   SX,SY,SXY=  -1761.   -7209.    -68.   SMAX,SMIN,TAUMAX=  -1760.   -7210.   2725.   A=-89.3   VM=   6511.
MID STR   SX,SY,SXY=     -2.   -6635.      7.   SMAX,SMIN,TAUMAX=     -2.   -6635.   3317.   A= 89.9   VM=   6634.
BOT STR   SX,SY,SXY=   1756.   -6061.     81.   SMAX,SMIN,TAUMAX=   1757.   -6062.   3909.   A= 89.4   VM=   7105.

ELEM 269  NODES=  268  269  306  286  MATERIAL=  1  AREA=   9378.2     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=    12.      0.   MX,MY,MXY=  -466.   -162.     25.  XC,YC,ZC=  -90.93   -136.0    840.0
TOP STR   SX,SY,SXY=  -2159.   -6348.   -466.   SMAX,SMIN,TAUMAX=  -2108.   -6399.   2146.   A=-83.7   VM=   5648.
MID STR   SX,SY,SXY=   -368.   -5726.   -369.   SMAX,SMIN,TAUMAX=   -343.   -5751.   2704.   A=-86.1   VM=   5567.
BOT STR   SX,SY,SXY=   1423.   -5103.   -272.   SMAX,SMIN,TAUMAX=   1434.   -5115.   3274.   A=-87.6   VM=   5962.

ELEM 270  NODES=  269  270  307  306  MATERIAL=  1  AREA=   12468.     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=    10.     -1.   MX,MY,MXY=  -186.    -59.      9.  XC,YC,ZC=  -31.84   -160.1    864.0
TOP STR   SX,SY,SXY=   -712.   -3715.   -457.   SMAX,SMIN,TAUMAX=   -644.   -3783.   1569.   A=-81.5   VM=   3505.
MID STR   SX,SY,SXY=      2.   -3490.   -424.   SMAX,SMIN,TAUMAX=     52.   -3541.   1796.   A=-83.2   VM=   3567.
BOT STR   SX,SY,SXY=    715.   -3265.   -391.   SMAX,SMIN,TAUMAX=    754.   -3303.   2028.   A=-84.4   VM=   3737.

ELEM 271  NODES=  270  271  308  307  MATERIAL=  1  AREA=   12468.     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=     3.     -0.   MX,MY,MXY=    57.     20.    -11.  XC,YC,ZC=   31.84   -160.1    864.0
TOP STR   SX,SY,SXY=    211.    -218.   -356.   SMAX,SMIN,TAUMAX=    413.    -420.    416.   A=-60.5   VM=    721.
MID STR   SX,SY,SXY=     -8.    -295.   -397.   SMAX,SMIN,TAUMAX=    271.    -574.    422.   A=-54.9   VM=    747.
BOT STR   SX,SY,SXY=   -226.    -371.   -438.   SMAX,SMIN,TAUMAX=    145.    -743.    444.   A=-49.7   VM=    825.

ELEM 272  NODES=  271  272  309  308  MATERIAL=  1  AREA=   12468.     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=    -0.      0.   MX,MY,MXY=    98.     35.    -13.  XC,YC,ZC=   90.68   -135.7    864.0
TOP STR   SX,SY,SXY=    381.    2757.   -255.   SMAX,SMIN,TAUMAX=   2784.     354.   1215.   A= -6.0   VM=   2625.
MID STR   SX,SY,SXY=      4.    2624.   -303.   SMAX,SMIN,TAUMAX=   2658.     -31.   1345.   A= -6.5   VM=   2674.
BOT STR   SX,SY,SXY=   -373.    2490.   -352.   SMAX,SMIN,TAUMAX=   2532.    -416.   1474.   A= -6.9   VM=   2764.

ELEM 273  NODES=  272  273  310  309  MATERIAL=  1  AREA=   12468.     TTOP,TBOT=   70.   70.   PRESS=    0.        63
    NX,NY=    -1.      0.   MX,MY,MXY=    63.     22.     -8.  XC,YC,ZC=   135.7   -90.68    864.0
TOP STR   SX,SY,SXY=    248.    4754.   -157.   SMAX,SMIN,TAUMAX=   4759.     242.   2259.   A= -2.0   VM=   4643.
MID STR   SX,SY,SXY=      7.    4668.   -190.   SMAX,SMIN,TAUMAX=   4675.      -1.   2338.   A= -2.3   VM=   4676.
BOT STR   SX,SY,SXY=   -234.    4581.   -222.   SMAX,SMIN,TAUMAX=   4592.    -244.   2418.   A= -2.6   VM=   4718.
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ELEM 274  NODES= 273  250  287  310  MATERIAL= 1  AREA=  12468.      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      -1.      0.  MX,MY,MXY=     27.      9.     -3.  XC,YC,ZC=  160.1     -31.84       864.0
TOP STR  SX,SY,SXY=   111.   5757.    -53.  SMAX,SMIN,TAUMAX=   5757.    110.   2824.  A=  -.5  VM=   5703.
MID STR  SX,SY,SXY=     9.   5721.    -64.  SMAX,SMIN,TAUMAX=   5721.      8.   2857.  A=  -.6  VM=   5717.
BOT STR  SX,SY,SXY=   -93.   5684.    -75.  SMAX,SMIN,TAUMAX=   5685.    -94.   2890.  A=  -.7  VM=   5733.

ELEM 275  NODES= 293  292  274  274  MATERIAL= 1  AREA=   3090.1      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=       4.      1.  MX,MY,MXY=   -533.    -94.    -22.  XC,YC,ZC= -103.8      126.1       912.0
TOP STR  SX,SY,SXY= -1599.  -6094.    105.  SMAX,SMIN,TAUMAX=  -1597.  -6096.   2250.  A= 88.7  VM=   5476.
MID STR  SX,SY,SXY=   449.  -5732.     23.  SMAX,SMIN,TAUMAX=    449.  -5732.   3091.  A= 89.8  VM=   5969.
BOT STR  SX,SY,SXY=  2497.  -5370.    -60.  SMAX,SMIN,TAUMAX=   2498.  -5370.   3934.  A=-89.6  VM=   6964.

ELEM 276  NODES= 274  275  294  293  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      25.      0.  MX,MY,MXY=   -401.   -123.    -15.  XC,YC,ZC= -124.3      109.0       912.0
TOP STR  SX,SY,SXY= -1479.  -6516.    195.  SMAX,SMIN,TAUMAX=  -1471.  -6524.   2526.  A= 87.8  VM=   5927.
MID STR  SX,SY,SXY=    61.  -6044.    139.  SMAX,SMIN,TAUMAX=     64.  -6048.   3056.  A= 88.7  VM=   6080.
BOT STR  SX,SY,SXY=  1600.  -5572.     82.  SMAX,SMIN,TAUMAX=   1601.  -5573.   3587.  A= 89.3  VM=   6523.

ELEM 277  NODES= 275  276  295  294  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      18.      1.  MX,MY,MXY=    -73.    -31.      7.  XC,YC,ZC= -137.5      91.86       912.0
TOP STR  SX,SY,SXY=  -266.  -6368.    -27.  SMAX,SMIN,TAUMAX=   -266.  -6368.   3051.  A=-89.8  VM=   6239.
MID STR  SX,SY,SXY=    16.  -6250.      0.  SMAX,SMIN,TAUMAX=     16.  -6250.   3133.  A= 90.0  VM=   6258.
BOT STR  SX,SY,SXY=   298.  -6132.     27.  SMAX,SMIN,TAUMAX=    298.  -6132.   3215.  A= 89.6  VM=   6286.

ELEM 278  NODES= 276  277  296  295  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      23.      0.  MX,MY,MXY=    197.     64.     23.  XC,YC,ZC= -148.3      73.13       912.0
TOP STR  SX,SY,SXY=   756.  -5988.   -110.  SMAX,SMIN,TAUMAX=    758.  -5990.   3374.  A=-89.1  VM=   6402.
MID STR  SX,SY,SXY=     0.  -6235.    -24.  SMAX,SMIN,TAUMAX=      1.  -6235.   3118.  A=-89.8  VM=   6236.
BOT STR  SX,SY,SXY=  -755.  -6482.     63.  SMAX,SMIN,TAUMAX=   -754.  -6483.   2864.  A= 89.4  VM=   6141.

ELEM 279  NODES= 277  278  297  296  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      15.      1.  MX,MY,MXY=    471.    145.     23.  XC,YC,ZC= -156.6      55.15       912.0
TOP STR  SX,SY,SXY=  1809.  -5687.   -179.  SMAX,SMIN,TAUMAX=   1814.  -5692.   3753.  A=-88.6  VM=   6783.
MID STR  SX,SY,SXY=    -0.  -6243.    -90.  SMAX,SMIN,TAUMAX=      1.  -6245.   3123.  A=-89.2  VM=   6245.
BOT STR  SX,SY,SXY= -1810.  -6799.     -1.  SMAX,SMIN,TAUMAX=  -1810.  -6799.   2495.  A=-90.0  VM=   6099.

ELEM 280  NODES= 278  279  298  297  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      10.     -1.  MX,MY,MXY=    620.    154.     31.  XC,YC,ZC= -162.2      32.26       912.0
TOP STR  SX,SY,SXY=  2360.  -5657.   -199.  SMAX,SMIN,TAUMAX=   2364.  -5662.   4015.  A=-88.6  VM=   7144.
MID STR  SX,SY,SXY=   -21.  -6250.    -79.  SMAX,SMIN,TAUMAX=    -20.  -6251.   3115.  A=-89.3  VM=   6240.
BOT STR  SX,SY,SXY= -2402.  -6842.     41.  SMAX,SMIN,TAUMAX=  -2401.  -6843.   2221.  A= 89.5  VM=   6013.

ELEM 281  NODES= 279  280  299  298  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=       1.     -0.  MX,MY,MXY=    708.    244.      7.  XC,YC,ZC= -165.0      10.81       912.0
TOP STR  SX,SY,SXY=  2732.  -5317.    -80.  SMAX,SMIN,TAUMAX=   2732.  -5318.   4025.  A=-89.4  VM=   7091.
MID STR  SX,SY,SXY=    11.  -6253.    -52.  SMAX,SMIN,TAUMAX=     12.  -6254.   3133.  A=-89.5  VM=   6260.
BOT STR  SX,SY,SXY= -2709.  -7190.    -25.  SMAX,SMIN,TAUMAX=  -2709.  -7190.   2241.  A=-89.7  VM=   6289.

ELEM 282  NODES= 280  281  300  299  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=      -1.     -0.  MX,MY,MXY=    708.    244.     -7.  XC,YC,ZC= -165.0     -10.81       912.0
TOP STR  SX,SY,SXY=  2732.  -5317.     80.  SMAX,SMIN,TAUMAX=   2732.  -5318.   4025.  A= 89.4  VM=   7091.
MID STR  SX,SY,SXY=    11.  -6253.     52.  SMAX,SMIN,TAUMAX=     12.  -6254.   3133.  A= 89.5  VM=   6260.
BOT STR  SX,SY,SXY= -2709.  -7190.     25.  SMAX,SMIN,TAUMAX=  -2709.  -7190.   2241.  A= 89.7  VM=   6289.

ELEM 283  NODES= 281  282  301  300  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=     -10.     -1.  MX,MY,MXY=    620.    154.    -31.  XC,YC,ZC= -162.2     -32.26       912.0
TOP STR  SX,SY,SXY=  2360.  -5657.    199.  SMAX,SMIN,TAUMAX=   2364.  -5662.   4015.  A= 88.6  VM=   7144.
MID STR  SX,SY,SXY=   -21.  -6250.     79.  SMAX,SMIN,TAUMAX=    -20.  -6251.   3115.  A= 89.3  VM=   6240.
BOT STR  SX,SY,SXY= -2402.  -6842.    -41.  SMAX,SMIN,TAUMAX=  -2401.  -6843.   2221.  A=-89.5  VM=   6013.

ELEM 284  NODES= 282  283  302  301  MATERIAL= 1  AREA=   2080.9      TTOP,TBOT=   70.    70.  PRESS=    0.        63
   NX,NY=     -15.      1.  MX,MY,MXY=    471.    145.    -23.  XC,YC,ZC= -156.6     -55.15       912.0
TOP STR  SX,SY,SXY=  1809.  -5687.    179.  SMAX,SMIN,TAUMAX=   1814.  -5692.   3753.  A= 88.6  VM=   6783.
MID STR  SX,SY,SXY=    -0.  -6243.     90.  SMAX,SMIN,TAUMAX=      1.  -6245.   3123.  A= 89.2  VM=   6245.
BOT STR  SX,SY,SXY= -1810.  -6799.      1.  SMAX,SMIN,TAUMAX=  -1810.  -6799.   2495.  A= 90.0  VM=   6099.
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ELEM 285 NODES= 283 284 303 302 MATERIAL= 1 AREA= 2080.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -23. 0. MX,MY,MXY= 197. 64. -23. XC,YC,ZC= -148.3 -73.13 912.0
TOP STR SX,SY,SXY= 756. -5988. 110. SMAX,SMIN,TAUMAX= 758. -5990. 3374. A= 89.1 VM= 6402.
MID STR SX,SY,SXY= 0. -6235. 24. SMAX,SMIN,TAUMAX= 1. -6235. 3118. A= 89.8 VM= 6236.
BOT STR SX,SY,SXY= -755. -6482. -63. SMAX,SMIN,TAUMAX= -754. -6483. 2864. A=-89.4 VM= 6141.

ELEM 286 NODES= 284 285 304 303 MATERIAL= 1 AREA= 2080.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -18. 1. MX,MY,MXY= -73. -31. -7. XC,YC,ZC= -137.5 -91.86 912.0
TOP STR SX,SY,SXY= -266. -6368. 27. SMAX,SMIN,TAUMAX= -266. -6368. 3051. A= 89.8 VM= 6239.
MID STR SX,SY,SXY= 16. -6250. -0. SMAX,SMIN,TAUMAX= 16. -6250. 3133. A=-90.0 VM= 6258.
BOT STR SX,SY,SXY= 298. -6132. -27. SMAX,SMIN,TAUMAX= 298. -6132. 3215. A=-89.8 VM= 6286.

ELEM 287 NODES= 285 286 305 304 MATERIAL= 1 AREA= 2080.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -25. 0. MX,MY,MXY= -401. -123. 15. XC,YC,ZC= -124.3 -109.0 912.0
TOP STR SX,SY,SXY= -1479. -6516. -195. SMAX,SMIN,TAUMAX= -1471. -6524. 2526. A=-87.8 VM= 5927.
MID STR SX,SY,SXY= 61. -6044. -139. SMAX,SMIN,TAUMAX= 64. -6048. 3056. A=-88.7 VM= 6080.
BOT STR SX,SY,SXY= 1600. -5572. -82. SMAX,SMIN,TAUMAX= 1601. -5573. 3587. A=-89.3 VM= 6523.

ELEM 288 NODES= 306 305 286 286 MATERIAL= 1 AREA= 3090.1 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -4. 1. MX,MY,MXY= -533. -94. 22. XC,YC,ZC= -163.8 -126.1 912.0
TOP STR SX,SY,SXY= -1599. -6094. -105. SMAX,SMIN,TAUMAX= -1597. -6096. 2250. A=-88.7 VM= 5476.
MID STR SX,SY,SXY= 449. -5732. -23. SMAX,SMIN,TAUMAX= 449. -5732. 3091. A=-89.8 VM= 5969.
BOT STR SX,SY,SXY= 2497. -5370. 60. SMAX,SMIN,TAUMAX= 2498. -5370. 3934. A= 89.6 VM= 6964.

ELEM 289 NODES= 287 288 319 318 MATERIAL= 1 AREA= 15282. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 1. 0. MX,MY,MXY= 64. 31. 4. XC,YC,ZC= 157.0 31.22 1080.
TOP STR SX,SY,SXY= 244. 5539. 45. SMAX,SMIN,TAUMAX= 5540. 243. 2648. A= .5 VM= 5422.
MID STR SX,SY,SXY= -0. 5420. 61. SMAX,SMIN,TAUMAX= 5421. -1. 2711. A= .6 VM= 5422.
BOT STR SX,SY,SXY= -244. 5302. 76. SMAX,SMIN,TAUMAX= 5303. -245. 2774. A= .8 VM= 5429.

ELEM 290 NODES= 288 289 320 319 MATERIAL= 1 AREA= 15282. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 1. 0. MX,MY,MXY= 93. 37. 11. XC,YC,ZC= 133.1 88.91 1080.
TOP STR SX,SY,SXY= 356. 4514. 136. SMAX,SMIN,TAUMAX= 4518. 351. 2084. A= 1.9 VM= 4355.
MID STR SX,SY,SXY= -1. 4372. 180. SMAX,SMIN,TAUMAX= 4379. -9. 2194. A= 2.4 VM= 4384.
BOT STR SX,SY,SXY= -359. 4230. 223. SMAX,SMIN,TAUMAX= 4241. -369. 2305. A= 2.8 VM= 4437.

ELEM 291 NODES= 289 290 321 320 MATERIAL= 1 AREA= 15282. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -1. -0. MX,MY,MXY= 99. 34. 14. XC,YC,ZC= 88.91 133.1 1080.
TOP STR SX,SY,SXY= 374. 2463. 244. SMAX,SMIN,TAUMAX= 2492. 346. 1073. A= 6.6 VM= 2338.
MID STR SX,SY,SXY= -5. 2333. 297. SMAX,SMIN,TAUMAX= 2370. -43. 1206. A= 7.1 VM= 2392.
BOT STR SX,SY,SXY= -385. 2203. 349. SMAX,SMIN,TAUMAX= 2250. -431. 1340. A= 7.6 VM= 2493.

ELEM 292 NODES= 290 291 322 321 MATERIAL= 1 AREA= 15282. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -6. -0. MX,MY,MXY= -20. -8 2. XC,YC,ZC= 31.22 157.0 1080.
TOP STR SX,SY,SXY= -85. -451. 373. SMAX,SMIN,TAUMAX= 148. -683. 416. A= 58.1 VM= 768.
MID STR SX,SY,SXY= -8. -419. 381. SMAX,SMIN,TAUMAX= 220. -647. 433. A= 59.1 VM= 780.
BOT STR SX,SY,SXY= 68. -386. 390. SMAX,SMIN,TAUMAX= 292. -610. 451. A= 60.1 VM= 797.

ELEM 293 NODES= 291 292 323 322 MATERIAL= 1 AREA= 15282. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -9. -0. MX,MY,MXY= -297. -98. -21. XC,YC,ZC= -31.22 157.0 1080.
TOP STR SX,SY,SXY= -1154. -3585. 417. SMAX,SMIN,TAUMAX= -1085. -3655. 1285. A= 80.5 VM= 3251.
MID STR SX,SY,SXY= -12. -3209. 337. SMAX,SMIN,TAUMAX= 23. -3244. 1633. A= 84.1 VM= 3255.
BOT STR SX,SY,SXY= 1129. -2832. 256. SMAX,SMIN,TAUMAX= 1146. -2848. 1997. A= 86.3 VM= 3562.

ELEM 294 NODES= 292 293 311 323 MATERIAL= 1 AREA= 11504. TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -4. 1. MX,MY,MXY= -404. -143. -16. XC,YC,ZC= -89.23 133.4 1050.
TOP STR SX,SY,SXY= -2075. -5672. 395. SMAX,SMIN,TAUMAX= -2032. -5715. 1842. A= 83.6 VM= 5017.
MID STR SX,SY,SXY= -524. -5122. 333. SMAX,SMIN,TAUMAX= -500. -5146. 2323. A= 85.9 VM= 4915.
BOT STR SX,SY,SXY= 1027. -4571. 271. SMAX,SMIN,TAUMAX= 1040. -4584. 2812. A= 87.2 VM= 5163.

ELEM 295 NODES= 293 294 311 311 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 33. 6. MX,MY,MXY= -179. -55. 8. XC,YC,ZC= -119.6 112.0 1020.
TOP STR SX,SY,SXY= -651. -6094. 35. SMAX,SMIN,TAUMAX= -651. -6094. 2722. A= 89.6 VM= 5796.
MID STR SX,SY,SXY= 35. -5882. 67. SMAX,SMIN,TAUMAX= 36. -5883. 2959. A= 89.4 VM= 5901.
BOT STR SX,SY,SXY= 721. -5670. 98. SMAX,SMIN,TAUMAX= 723. -5671. 3197. A= 89.1 VM= 6065.
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ELEM 296 NODES= 312 311 294 294 MATERIAL= 1 AREA= 2556.7 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -20. -1. MX,MY,MXY= -133. -29. -3. XC,YC,ZC= -129.6 99.46 1020.
TOP STR SX,SY,SXY= -636. -6076. -20. SMAX,SMIN,TAUMAX= -636. -6077. 2720. A=-89.8 VM= 5785.
MID STR SX,SY,SXY= -126. -5967. -29. SMAX,SMIN,TAUMAX= -125. -5967. 2921. A=-89.7 VM= 5905.
BOT STR SX,SY,SXY= 385. -5857. -39. SMAX,SMIN,TAUMAX= 365. -5857. 3121. A=-89.6 VM= 6059.

ELEM 297 NODES= 294 295 312 312 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 11. -1. MX,MY,MXY= -14. -7. 22. XC,YC,ZC= -139.1 86.52 1020.
TOP STR SX,SY,SXY= 25. -6004. 20. SMAX,SMIN,TAUMAX= 25. -6004. 3015. A= 89.8 VM= 6016.
MID STR SX,SY,SXY= 80. -5978. 105. SMAX,SMIN,TAUMAX= 82. -5980. 3031. A= 89.0 VM= 6021.
BOT STR SX,SY,SXY= 135. -5952. 191. SMAX,SMIN,TAUMAX= 140. -5958. 3049. A= 88.2 VM= 6030.

ELEM 298 NODES= 295 296 312 312 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 19. -0. MX,MY,MXY= 132. 33. 29. XC,YC,ZC= -144.5 77.20 1020.
TOP STR SX,SY,SXY= 560. -5861. -74. SMAX,SMIN,TAUMAX= 561. -5861. 3211. A=-89.3 VM= 6161.
MID STR SX,SY,SXY= 54. -5986. 38. SMAX,SMIN,TAUMAX= 54. -5987. 3020. A= 89.6 VM= 6014.
BOT STR SX,SY,SXY= -453. -6112. 150. SMAX,SMIN,TAUMAX= -449. -6116. 2834. A= 88.5 VM= 5905.

ELEM 299 NODES= 313 312 296 296 MATERIAL= 1 AREA= 2556.7 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -13. 1. MX,MY,MXY= 408. 94. 12. XC,YC,ZC= -150.9 62.52 1020.
TOP STR SX,SY,SXY= 1621. -5709. -193. SMAX,SMIN,TAUMAX= 1626. -5714. 3670. A=-88.5 VM= 6677.
MID STR SX,SY,SXY= 56. -6069. -149. SMAX,SMIN,TAUMAX= 60. -6073. 3066. A=-88.6 VM= 6103.
BOT STR SX,SY,SXY= -1509. -6429. -104. SMAX,SMIN,TAUMAX= -1507. -6431. 2462. A=-88.8 VM= 5826.

ELEM 300 NODES= 296 297 313 313 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 14. -6. MX,MY,MXY= 247. 60. 27. XC,YC,ZC= -156.8 47.57 1020.
TOP STR SX,SY,SXY= 1013. -5929. -65. SMAX,SMIN,TAUMAX= 1014. -5929. 3472. A=-89.5 VM= 6496.
MID STR SX,SY,SXY= 63. -6159. 40. SMAX,SMIN,TAUMAX= 63. -6159. 3111. A= 89.6 VM= 6191.
BOT STR SX,SY,SXY= -887. -6389. 144. SMAX,SMIN,TAUMAX= -884. -6393. 2755. A= 88.5 VM= 6000.

ELEM 301 NODES= 297 298 313 313 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 4. -5. MX,MY,MXY= 332. 115. 23. XC,YC,ZC= -159.5 37.17 1020.
TOP STR SX,SY,SXY= 1310. -5726. -80. SMAX,SMIN,TAUMAX= 1311. -5727. 3519. A=-89.3 VM= 6483.
MID STR SX,SY,SXY= 37. -6167. 7. SMAX,SMIN,TAUMAX= 37. -6167. 3102. A= 89.9 VM= 6185.
BOT STR SX,SY,SXY= -1237. -6608. 95. SMAX,SMIN,TAUMAX= -1235. -6610. 2687. A= 89.0 VM= 6087.

ELEM 302 NODES= 314 315 298 298 MATERIAL= 1 AREA= 2556.7 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 3. 1. MX,MY,MXY= 556. 139. -10. XC,YC,ZC= -162.0 21.32 1020.
TOP STR SX,SY,SXY= 2200. -5749. -227. SMAX,SMIN,TAUMAX= 2206. -5755. 3981. A=-88.4 VM= 7119.
MID STR SX,SY,SXY= 63. -6283. -266. SMAX,SMIN,TAUMAX= 74. -6294. 3184. A=-87.6 VM= 6332.
BOT STR SX,SY,SXY= -2074. -6818. -305. SMAX,SMIN,TAUMAX= -2054. -6837. 2391. A=-86.3 VM= 6077.

ELEM 303 NODES= 298 299 314 314 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -1. -6. MX,MY,MXY= 283. 43. 7. XC,YC,ZC= -163.7 5.383 1020.
TOP STR SX,SY,SXY= 1147. -6250. -17. SMAX,SMIN,TAUMAX= 1147. -6250. 3699. A=-89.9 VM= 6896.
MID STR SX,SY,SXY= 62. -6416. 10. SMAX,SMIN,TAUMAX= 62. -6416. 3239. A= 89.9 VM= 6448.
BOT STR SX,SY,SXY= -1024. -6583. 38. SMAX,SMIN,TAUMAX= -1024. -6583. 2780. A= 89.6 VM= 6135.

ELEM 304 NODES= 299 300 314 314 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= 1. -6. MX,MY,MXY= 283. 43. -7. XC,YC,ZC= -163.7 -5.383 1020.
TOP STR SX,SY,SXY= 1147. -6250. 17. SMAX,SMIN,TAUMAX= 1147. -6250. 3699. A= 89.9 VM= 6896.
MID STR SX,SY,SXY= 62. -6416. -10. SMAX,SMIN,TAUMAX= 62. -6416. 3239. A=-89.9 VM= 6448.
BOT STR SX,SY,SXY= -1024. -6583. -38. SMAX,SMIN,TAUMAX= -1024. -6583. 2780. A=-89.6 VM= 6135.

ELEM 305 NODES= 315 314 300 300 MATERIAL= 1 AREA= 2556.7 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -3. 1. MX,MY,MXY= 556. 139. 10. XC,YC,ZC= -162.0 -21.32 1020.
TOP STR SX,SY,SXY= 2200. -5749. 227. SMAX,SMIN,TAUMAX= 2206. -5755. 3981. A= 88.4 VM= 7119.
MID STR SX,SY,SXY= 63. -6283. 266. SMAX,SMIN,TAUMAX= 74. -6294. 3184. A= 87.6 VM= 6332.
BOT STR SX,SY,SXY= -2074. -6818. 305. SMAX,SMIN,TAUMAX= -2054. -6837. 2391. A= 86.3 VM= 6077.

ELEM 306 NODES= 300 301 315 315 MATERIAL= 1 AREA= 1294.9 TTOP,TBOT= 70. 70. PRESS= 0. 63
  NX,NY= -4. -5. MX,MY,MXY= 332. 115. -23. XC,YC,ZC= -159.5 -37.17 1020.
TOP STR SX,SY,SXY= 1310. -5726. 80. SMAX,SMIN,TAUMAX= 1311. -5727. 3519. A= 89.3 VM= 6483.
MID STR SX,SY,SXY= 37. -6167. -7. SMAX,SMIN,TAUMAX= 37. -6167. 3102. A=-89.9 VM= 6185.
BOT STR SX,SY,SXY= -1237. -6608. -95. SMAX,SMIN,TAUMAX= -1235. -6610. 2687. A=-89.0 VM= 6087.
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ELEM 307  NODES=  301  302  315  315  MATERIAL=  1  AREA=   1294.9      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -14.      -6.  MX,MY,MXY=    247.     60.    -27.  XC,YC,ZC=  -156.8      -47.57      1020.
TOP STR  SX,SY,SXY=   1013.  -5929.     65.  SMAX,SMIN,TAUMAX=   1014.  -5929.   3472.  A= 89.5  VM=   6496.
MID STR  SX,SY,SXY=     63.  -6159.    -40.  SMAX,SMIN,TAUMAX=     63.  -6159.   3111.  A=-89.6  VM=   6191.
BOT STR  SX,SY,SXY=   -887.  -6389.   -144.  SMAX,SMIN,TAUMAX=   -884.  -6393.   2755.  A=-88.5  VM=   6006.

ELEM 308  NODES=  316  315  302  302  MATERIAL=  1  AREA=   2556.7      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        13.       1.  MX,MY,MXY=    406.     94.    -12.  XC,YC,ZC=  -150.9      -62.52      1020.
TOP STR  SX,SY,SXY=   1621.  -5709.    193.  SMAX,SMIN,TAUMAX=   1626.  -5714.   3670.  A= 88.5  VM=   6677.
MID STR  SX,SY,SXY=     56.  -6069.    149.  SMAX,SMIN,TAUMAX=     60.  -6073.   3066.  A= 88.6  VM=   6103.
BOT STR  SX,SY,SXY=  -1509.  -6429.    104.  SMAX,SMIN,TAUMAX=  -1507.  -6431.   2462.  A= 88.8  VM=   5826.

ELEM 309  NODES=  302  303  316  316  MATERIAL=  1  AREA=   1294.9      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -19.      -0.  MX,MY,MXY=    132.     33.    -29.  XC,YC,ZC=  -144.5      -77.20      1020.
TOP STR  SX,SY,SXY=    560.  -5861.     74.  SMAX,SMIN,TAUMAX=    561.  -5861.   3211.  A= 89.3  VM=   6161.
MID STR  SX,SY,SXY=     54.  -5986.    -38.  SMAX,SMIN,TAUMAX=     54.  -5987.   3020.  A=-89.6  VM=   6014.
BOT STR  SX,SY,SXY=   -453.  -6112.   -150.  SMAX,SMIN,TAUMAX=   -449.  -6116.   2834.  A=-88.5  VM=   5905.

ELEM 310  NODES=  303  304  316  316  MATERIAL=  1  AREA=   1294.9      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=       -11.      -1.  MX,MY,MXY=    -14.     -7.    -22.  XC,YC,ZC=  -139.1      -86.52      1020.
TOP STR  SX,SY,SXY=     25.  -6004.    -20.  SMAX,SMIN,TAUMAX=     25.  -6004.   3015.  A=-89.8  VM=   6016.
MID STR  SX,SY,SXY=     60.  -5978.   -105.  SMAX,SMIN,TAUMAX=     82.  -5980.   3031.  A=-89.0  VM=   6021.
BOT STR  SX,SY,SXY=    135.  -5952.   -191.  SMAX,SMIN,TAUMAX=    140.  -5958.   3049.  A=-88.2  VM=   6030.

ELEM 311  NODES=  317  316  304  304  MATERIAL=  1  AREA=   2556.7      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        20.      -1.  MX,MY,MXY=   -133.    -29.      3.  XC,YC,ZC=  -129.6      -99.46      1020.
TOP STR  SX,SY,SXY=   -636.  -6076.     20.  SMAX,SMIN,TAUMAX=   -636.  -6077.   2720.  A= 89.8  VM=   5785.
MID STR  SX,SY,SXY=   -126.  -5967.     29.  SMAX,SMIN,TAUMAX=   -125.  -5967.   2921.  A= 89.7  VM=   5905.
BOT STR  SX,SY,SXY=    385.  -5857.     39.  SMAX,SMIN,TAUMAX=    385.  -5857.   3121.  A= 89.6  VM=   6059.

ELEM 312  NODES=  304  305  317  317  MATERIAL=  1  AREA=   1294.9      TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=      -733.       6.  MX,MY,MXY=   -179.    -55.     -8.  XC,YC,ZC=  -119.6     -112.0       1020.
TOP STR  SX,SY,SXY=   -651.  -6094.    -35.  SMAX,SMIN,TAUMAX=   -651.  -6094.   2722.  A=-89.6  VM=   5796.
MID STR  SX,SY,SXY=     35.  -5882.    -67.  SMAX,SMIN,TAUMAX=     36.  -5883.   2959.  A=-89.4  VM=   5901.
BOT STR  SX,SY,SXY=    721.  -5670.    -98.  SMAX,SMIN,TAUMAX=    723.  -5671.   3197.  A=-89.1  VM=   6065.

ELEM 313  NODES=  305  306  329  317  MATERIAL=  1  AREA=  11504.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=         4.       1.  MX,MY,MXY=   -404.   -143.     16.  XC,YC,ZC=   -89.23    -133.4       1050.
TOP STR  SX,SY,SXY=  -2075.  -5672.   -395.  SMAX,SMIN,TAUMAX=  -2032.  -5715.   1842.  A=-83.8  VM=   5017.
MID STR  SX,SY,SXY=   -524.  -5122.   -333.  SMAX,SMIN,TAUMAX=   -500.  -5146.   2323.  A=-85.9  VM=   4915.
BOT STR  SX,SY,SXY=   1027.  -4571.   -271.  SMAX,SMIN,TAUMAX=   1040.  -4584.   2812.  A=-87.2  VM=   5186.

ELEM 314  NODES=  306  307  330  329  MATERIAL=  1  AREA=  15282.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=         9.      -0.  MX,MY,MXY=   -297.    -98.     21.  XC,YC,ZC=   -31.22    -157.0       1080.
TOP STR  SX,SY,SXY=  -1154.  -3585.   -417.  SMAX,SMIN,TAUMAX=  -1085.  -3655.   1285.  A=-80.5  VM=   3251.
MID STR  SX,SY,SXY=    -12.  -3209.   -337.  SMAX,SMIN,TAUMAX=     23.  -3244.   1633.  A=-84.1  VM=   3255.
BOT STR  SX,SY,SXY=   1129.  -2832.   -256.  SMAX,SMIN,TAUMAX=   1146.  -2848.   1997.  A=-86.3  VM=   3562.

ELEM 315  NODES=  307  308  331  330  MATERIAL=  1  AREA=  15282.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=         6.      -0.  MX,MY,MXY=    -20.     -8.     -2.  XC,YC,ZC=    31.22    -157.0       1080.
TOP STR  SX,SY,SXY=    -85.   -451.   -373.  SMAX,SMIN,TAUMAX=    148.   -683.    416.  A=-58.1  VM=    768.
MID STR  SX,SY,SXY=     -8.   -419.   -381.  SMAX,SMIN,TAUMAX=    220.   -647.    433.  A=-59.1  VM=    780.
BOT STR  SX,SY,SXY=     68.   -386.   -390.  SMAX,SMIN,TAUMAX=    292.   -640.    451.  A=-60.1  VM=    797.

ELEM 316  NODES=  308  309  332  331  MATERIAL=  1  AREA=  15282.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=         1.      -0.  MX,MY,MXY=     99.     34.    -14.  XC,YC,ZC=    88.91    -133.1       1080.
TOP STR  SX,SY,SXY=    374.   2463.   -244.  SMAX,SMIN,TAUMAX=   2492.    346.   1073.  A= -6.6  VM=   2338.
MID STR  SX,SY,SXY=     -5.   2333.   -297.  SMAX,SMIN,TAUMAX=   2370.    -43.   1206.  A= -7.1  VM=   2392.
BOT STR  SX,SY,SXY=   -385.   2203.   -349.  SMAX,SMIN,TAUMAX=   2250.   -431.   1340.  A= -7.6  VM=   2493.

ELEM 317  NODES=  309  310  333  332  MATERIAL=  1  AREA=  15282.       TTOP,TBOT=   70.   70.  PRESS=    0.          63
   NX,NY=        -1.       0.  MX,MY,MXY=     93.     37.    -11.  XC,YC,ZC=   133.1      -88.91      1080.
TOP STR  SX,SY,SXY=    356.   4514.   -138.  SMAX,SMIN,TAUMAX=   4518.    351.   2084.  A= -1.9  VM=   4353.
MID STR  SX,SY,SXY=     -1.   4372.   -180.  SMAX,SMIN,TAUMAX=   4379.     -9.   2194.  A= -2.4  VM=   4384.
BOT STR  SX,SY,SXY=   -359.   4230.   -223.  SMAX,SMIN,TAUMAX=   4241.   -369.   2305.  A= -2.6  VM=   4437.
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ELEM 318  NODES=  310  287  318  333  MATERIAL=  1  AREA=  15282.      ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      -1.       0.   MX,MY,MXY=     64.     31.      -4.  XC,YC,ZC=   157.0     -31.22      1080.
TOP STR  SX,SY,SXY=   248.   5539.    -45.  SMAX,SMIN,TAUMAX=   5540.   243.   2648.  A=  -.5  VM=   5422.
MID STR  SX,SY,SXY=    -0.   5420.    -61.  SMAX,SMIN,TAUMAX=   5421.    -1.   2711.  A=  -.6  VM=   5422.
BOT STR  SX,SY,SXY=  -244.   5302.    -76.  SMAX,SMIN,TAUMAX=   5303.  -245.   2774.  A=  -.8  VM=   5429.

ELEM 319  NODES=  324  323  311  311  MATERIAL=  1  AREA=   3778.3     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      -4.      -1.   MX,MY,MXY=   -356.    -80.      -8.  XC,YC,ZC=  -101.7      123.5      1140.
TOP STR  SX,SY,SXY= -1423.  -5623.   -211.  SMAX,SMIN,TAUMAX=  -1413.  -5633.   2110.  A=-87.1  VM=   5077.
MID STR  SX,SY,SXY=   -55.  -5316.   -241.  SMAX,SMIN,TAUMAX=    -44.  -5327.   2642.  A=-87.4  VM=   5305.
BOT STR  SX,SY,SXY=  1314.  -5009.   -272.  SMAX,SMIN,TAUMAX=   1326.  -5020.   3173.  A=-87.5  VM=   5798.

ELEM 320  NODES=  311  312  324  324  MATERIAL=  1  AREA=   2556.1     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      23.      -4.   MX,MY,MXY=    -85.    -29.      27.  XC,YC,ZC=  -121.2      106.3      1140.
TOP STR  SX,SY,SXY=  -244.  -5385.     97.  SMAX,SMIN,TAUMAX=   -243.  -5386.   2572.  A= 89.1  VM=   5269.
MID STR  SX,SY,SXY=    82.  -5274.    180.  SMAX,SMIN,TAUMAX=     88.  -5280.   2684.  A= 88.1  VM=   5324.
BOT STR  SX,SY,SXY=   409.  -5162.    284.  SMAX,SMIN,TAUMAX=    423.  -5177.   2800.  A= 87.1  VM=   5401.

ELEM 321  NODES=  325  324  312  312  MATERIAL=  1  AREA=   3780.6     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=     -16.      -0.   MX,MY,MXY=     53.     11.      12.  XC,YC,ZC=  -136.5       84.76     1140.
TOP STR  SX,SY,SXY=   170.  -5770.   -420.  SMAX,SMIN,TAUMAX=    199.  -5799.   2999.  A=-86.0  VM=   5901.
MID STR  SX,SY,SXY=   -35.  -5811.   -373.  SMAX,SMIN,TAUMAX=    -11.  -5835.   2912.  A=-86.3  VM=   5829.
BOT STR  SX,SY,SXY=  -239.  -5852.   -325.  SMAX,SMIN,TAUMAX=   -220.  -5871.   2825.  A=-86.7  VM=   5764.

ELEM 322  NODES=  312  313  325  325  MATERIAL=  1  AREA=   2555.8     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      15.      -3.   MX,MY,MXY=    276.    106.      15.  XC,YC,ZC=  -149.3       61.83     1140.
TOP STR  SX,SY,SXY=  1122.  -5635.    110.  SMAX,SMIN,TAUMAX=   1123.  -5637.   3380.  A= 89.1  VM=   6275.
MID STR  SX,SY,SXY=    64.  -6044.    169.  SMAX,SMIN,TAUMAX=     68.  -6048.   3058.  A= 88.4  VM=   6083.
BOT STR  SX,SY,SXY=  -995.  -6452.    226.  SMAX,SMIN,TAUMAX=   -985.  -6461.   2738.  A= 87.6  VM=   6029.

ELEM 323  NODES=  326  325  313  313  MATERIAL=  1  AREA=   3780.6     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      -7.       1.   MX,MY,MXY=    488.    132.      -3.  XC,YC,ZC=  -156.4       36.56     1140.
TOP STR  SX,SY,SXY=  1821.  -5676.    -79.  SMAX,SMIN,TAUMAX=   1822.  -5676.   3749.  A=-89.4  VM=   6774.
MID STR  SX,SY,SXY=   -54.  -6184.    -91.  SMAX,SMIN,TAUMAX=    -53.  -6186.   3066.  A=-89.1  VM=   6159.
BOT STR  SX,SY,SXY= -1930.  -6693.   -104.  SMAX,SMIN,TAUMAX=  -1927.  -6695.   2384.  A=-88.8  VM=   5970.

ELEM 324  NODES=  313  314  326  326  MATERIAL=  1  AREA=   2556.1     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=       4.      -3.   MX,MY,MXY=    428.    140.     -10.  XC,YC,ZC=  -160.9       10.56     1140.
TOP STR  SX,SY,SXY=  1643.  -5956.    269.  SMAX,SMIN,TAUMAX=   1653.  -5966.   3809.  A= 88.0  VM=   6941.
MID STR  SX,SY,SXY=    -0.  -6493.    233.  SMAX,SMIN,TAUMAX=      8.  -6501.   3255.  A= 87.9  VM=   6505.
BOT STR  SX,SY,SXY= -1643.  -7030.    196.  SMAX,SMIN,TAUMAX=  -1636.  -7037.   2700.  A= 87.9  VM=   6378.

ELEM 325  NODES=  314  315  326  326  MATERIAL=  1  AREA=   2556.1     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      -4.      -3.   MX,MY,MXY=    428.    140.      10.  XC,YC,ZC=  -160.9      -10.56     1140.
TOP STR  SX,SY,SXY=  1643.  -5956.   -269.  SMAX,SMIN,TAUMAX=   1653.  -5966.   3809.  A=-88.0  VM=   6941.
MID STR  SX,SY,SXY=    -0.  -6493.   -233.  SMAX,SMIN,TAUMAX=      8.  -6501.   3255.  A=-87.9  VM=   6505.
BOT STR  SX,SY,SXY= -1643.  -7030.   -196.  SMAX,SMIN,TAUMAX=  -1636.  -7037.   2700.  A=-87.9  VM=   6378.

ELEM 326  NODES=  327  326  315  315  MATERIAL=  1  AREA=   3780.6     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=       7.       1.   MX,MY,MXY=    488.    132.       3.  XC,YC,ZC=  -156.4      -36.56     1140.
TOP STR  SX,SY,SXY=  1821.  -5676.     79.  SMAX,SMIN,TAUMAX=   1822.  -5676.   3749.  A= 89.4  VM=   6774.
MID STR  SX,SY,SXY=   -54.  -6184.     91.  SMAX,SMIN,TAUMAX=    -53.  -6186.   3066.  A= 89.1  VM=   6159.
BOT STR  SX,SY,SXY= -1930.  -6693.    104.  SMAX,SMIN,TAUMAX=  -1927.  -6695.   2384.  A= 88.8  VM=   5970.

ELEM 327  NODES=  315  316  327  327  MATERIAL=  1  AREA=   2555.8     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=     -15.      -3.   MX,MY,MXY=    276.    106.     -15.  XC,YC,ZC=  -149.3      -61.83     1140.
TOP STR  SX,SY,SXY=  1122.  -5635.   -110.  SMAX,SMIN,TAUMAX=   1123.  -5637.   3380.  A=-89.1  VM=   6275.
MID STR  SX,SY,SXY=    64.  -6044.   -169.  SMAX,SMIN,TAUMAX=     68.  -6048.   3058.  A=-88.4  VM=   6083.
BOT STR  SX,SY,SXY=  -995.  -6452.   -226.  SMAX,SMIN,TAUMAX=   -985.  -6461.   2738.  A=-87.6  VM=   6029.

ELEM 328  NODES=  328  327  316  316  MATERIAL=  1  AREA=   3780.6     ITOP,TBOT=   70.   70.  PRESS=    0.        63
   NX,NY=      16.      -0.   MX,MY,MXY=     53.     11.     -12.  XC,YC,ZC=  -136.5      -84.76     1140.
TOP STR  SX,SY,SXY=   170.  -5770.    420.  SMAX,SMIN,TAUMAX=    199.  -5799.   2999.  A= 86.0  VM=   5901.
MID STR  SX,SY,SXY=   -35.  -5811.    373.  SMAX,SMIN,TAUMAX=    -11.  -5835.   2912.  A= 86.3  VM=   5829.
BOT STR  SX,SY,SXY=  -239.  -5852.    325.  SMAX,SMIN,TAUMAX=   -220.  -5871.   2825.  A= 86.7  VM=   5764.
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ELEM 329  NODES=  316  317   328  328  MATERIAL= 1  AREA=   2556.1      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=     -23.     4.  MX,MY,MXY=   -85.    -29.    -27.  XC,YC,ZC=  -121.2     -106.3      1140.
TOP STR  SX,SY,SXY=  -244.  -5385.    -77.   SMAX,SMIN,TAUMAX=  -243.  -5386.   2572.   A=-89.1  VM=   5269.
MID STR  SX,SY,SXY=    82.  -5274.   -180.   SMAX,SMIN,TAUMAX=    88.  -5280.   2684.   A=-88.1  VM=   5324.
BOT STR  SX,SY,SXY=   409.  -5162.   -284.   SMAX,SMIN,TAUMAX=   423.  -5177.   2800.   A=-87.1  VM=   5401.

ELEM 330  NODES=  329  328   317  317  MATERIAL= 1  AREA=   3778.3      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=       4.    -1.  MX,MY,MXY=  -356.    -60.      6.  XC,YC,ZC=  -161.7     -123.5      1140.
TOP STR  SX,SY,SXY= -1423.  -5623.    211.   SMAX,SMIN,TAUMAX= -1413.  -5633.   2110.   A= 87.1  VM=   5077.
MID STR  SX,SY,SXY=   -55.  -5316.    241.   SMAX,SMIN,TAUMAX=   -44.  -5327.   2642.   A= 87.4  VM=   5305.
BOT STR  SX,SY,SXY=  1314.  -5009.    272.   SMAX,SMIN,TAUMAX=  1326.  -5020.   3173.   A= 87.5  VM=   5798.

ELEM 331  NODES=  318  319   335  334  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=       0.     0.  MX,MY,MXY=   111.     35.      5.  XC,YC,ZC=   153.5       30.53     1320.
TOP STR  SX,SY,SXY=   431.   5269.     47.   SMAX,SMIN,TAUMAX=  5269.    430.   2419.   A=   .6  VM=   5068.
MID STR  SX,SY,SXY=     6.   5133.     67.   SMAX,SMIN,TAUMAX=  5134.      5.   2564.   A=   .7  VM=   5131.
BOT STR  SX,SY,SXY=  -419.   4997.     87.   SMAX,SMIN,TAUMAX=  4998.   -420.   2709.   A=   .9  VM=   5221.

ELEM 332  NODES=  319  320   336  335  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      -0.     0.  MX,MY,MXY=   121.     40.     13.  XC,YC,ZC=   130.1       86.95     1320.
TOP STR  SX,SY,SXY=   465.   4218.    153.   SMAX,SMIN,TAUMAX=  4224.    459.   1883.   A=  2.3  VM=   4014.
MID STR  SX,SY,SXY=     2.   4065.    201.   SMAX,SMIN,TAUMAX=  4075.     -8.   2042.   A=  2.8  VM=   4079.
BOT STR  SX,SY,SXY=  -462.   3912.    250.   SMAX,SMIN,TAUMAX=  3927.   -476.   2201.   A=  3.3  VM=   4165.

ELEM 333  NODES=  320  321   337  336  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      -3.    -0.  MX,MY,MXY=    64.     22.     10.  XC,YC,ZC=    86.95     130.1      1320.
TOP STR  SX,SY,SXY=   242.   2145.    284.   SMAX,SMIN,TAUMAX=  2187.    200.    993.   A=  8.3  VM=   2094.
MID STR  SX,SY,SXY=    -5.   2059.    323.   SMAX,SMIN,TAUMAX=  2108.    -54.   1081.   A=  8.7  VM=   2136.
BOT STR  SX,SY,SXY=  -252.   1973.    361.   SMAX,SMIN,TAUMAX=  2030.   -309.   1169.   A=  9.0  VM=   2200.

ELEM 334  NODES=  321  322   338  337  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      -7.    -0.  MX,MY,MXY=  -132.    -39.     -7.  XC,YC,ZC=    30.53     153.5      1320.
TOP STR  SX,SY,SXY=  -513.   -583.    402.   SMAX,SMIN,TAUMAX=  -145.   -951.    403.   A= 47.5  VM=    888.
MID STR  SX,SY,SXY=    -6.   -432.    376.   SMAX,SMIN,TAUMAX=   213.   -652.    433.   A= 59.8  VM=    781.
BOT STR  SX,SY,SXY=   501.   -282.    351.   SMAX,SMIN,TAUMAX=   636.   -416.    526.   A= 69.1  VM=    918.

ELEM 335  NODES=  322  323   339  338  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      -4.     0.  MX,MY,MXY=  -338.   -101.    -19.  XC,YC,ZC=   -30.53     153.5      1320.
TOP STR  SX,SY,SXY= -1275.  -2980.    364.   SMAX,SMIN,TAUMAX= -1201.  -3055.    927.   A= 78.5  VM=   2665.
MID STR  SX,SY,SXY=    24.  -2594.    292.   SMAX,SMIN,TAUMAX=    56.  -2626.   1341.   A= 83.7  VM=   2655.
BOT STR  SX,SY,SXY=  1323.  -2208.    221.   SMAX,SMIN,TAUMAX=  1337.  -2222.   1779.   A= 86.4  VM=   3114.

ELEM 336  NODES=  323  324   340  339  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=       5.     0.  MX,MY,MXY=  -297.   -106.     -4.  XC,YC,ZC=   -86.95     130.1      1320.
TOP STR  SX,SY,SXY= -1065.  -4716.    234.   SMAX,SMIN,TAUMAX= -1050.  -4731.   1840.   A= 86.3  VM=   4303.
MID STR  SX,SY,SXY=    76.  -4307.    220.   SMAX,SMIN,TAUMAX=    88.  -4318.   2203.   A= 87.1  VM=   4362.
BOT STR  SX,SY,SXY=  1218.  -3898.    206.   SMAX,SMIN,TAUMAX=  1226.  -3907.   2566.   A= 87.7  VM=   4643.

ELEM 337  NODES=  324  325   341  340  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      14.     0.  MX,MY,MXY=    46.      9.     17.  XC,YC,ZC=  -130.1       86.95     1320.
TOP STR  SX,SY,SXY=   147.  -5717.     30.   SMAX,SMIN,TAUMAX=   148.  -5718.   2933.   A= 89.6  VM=   5793.
MID STR  SX,SY,SXY=   -30.  -5752.    100.   SMAX,SMIN,TAUMAX=   -28.  -5754.   2863.   A= 89.0  VM=   5740.
BOT STR  SX,SY,SXY=  -207.  -5787.    164.   SMAX,SMIN,TAUMAX=  -202.  -5792.   2795.   A= 88.3  VM=   5693.

ELEM 338  NODES=  325  326   342  341  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=       7.    -0.  MX,MY,MXY=   423.    130.      7.  XC,YC,ZC=  -153.5       30.53     1320.
TOP STR  SX,SY,SXY=  1549.  -6007.    -10.   SMAX,SMIN,TAUMAX=  1549.  -6007.   3778.   A=-89.9  VM=   6913.
MID STR  SX,SY,SXY=   -77.  -6507.     19.   SMAX,SMIN,TAUMAX=   -77.  -6507.   3215.   A= 89.8  VM=   6469.
BOT STR  SX,SY,SXY= -1703.  -7006.     47.   SMAX,SMIN,TAUMAX= -1703.  -7007.   2652.   A= 89.5  VM=   6330.

ELEM 339  NODES=  326  327   343  342  MATERIAL= 1  AREA=   14945.      TTOP,TBOT=   70.    70.   PRESS=    0.            63
  NX,NY=      -7.    -0.  MX,MY,MXY=   423.    130.     -7.  XC,YC,ZC=  -153.5      -30.53     1320.
TOP STR  SX,SY,SXY=  1549.  -6007.     10.   SMAX,SMIN,TAUMAX=  1549.  -6007.   3778.   A=-89.9  VM=   6913.
MID STR  SX,SY,SXY=   -77.  -6507.    -19.   SMAX,SMIN,TAUMAX=   -77.  -6507.   3215.   A=-89.8  VM=   6469.
BOT STR  SX,SY,SXY= -1703.  -7006.    -47.   SMAX,SMIN,TAUMAX= -1703.  -7007.   2652.   A=-89.5  VM=   6330.
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ANSYS - ENGINEERING ANALYSIS SYSTEM UP168 REV 2 6R8/600 JAN 1,1972
SWANSON ANALYSIS SYSTEMS, INC. ELIZABETH, PENNSYLVANIA 15037 PHONE (412) 751-1940

LOAD COMBINATION, DL + 9.2PSF + 10 W LATERAL WIND 11.3367 5/11/77
CP = 101.619 PP = 0.000

***** REACTION FORCES ***** TIME = 0. LOAD STEP = 1 ITERATION = 1

NOTE - REACTION FORCES ARE IN THE NODAL COORDINATE SYSTEM

NO.	NODE	DIRECTION	VALUE
1	1	FX	46873.2
2	2	FX	42637.3
3	3	FX	30753.8
4	4	FX	13632.3
5	5	FX	-9850.01
6	6	FX	-34096.7
7	7	FX	-32238.9
8	8	FX	-14554.4
9	9	FX	-10784.3
10	10	FX	-7659.85
11	11	FX	-4034.06
12	12	FX	191.695
13	13	FX	2415.24
14	14	FX	191.695
15	15	FX	-4034.06
16	16	FX	-7659.85
17	17	FX	-10784.3
18	18	FX	-14554.4
19	19	FX	-32238.9
20	20	FX	-34096.7
21	21	FX	-9850.01
22	22	FX	13632.3
23	23	FX	30753.8
24	24	FX	42637.3
25	1	FY	-.831522E-04
26	2	FY	6601.26
27	3	FY	12189.1
28	4	FY	15019.7
29	5	FY	31766.0
30	6	FY	-33036.7
31	7	FY	-12724.7
32	8	FY	7458.11
33	9	FY	-2561.42
34	10	FY	-20081.5
35	11	FY	-19470.2
36	12	FY	-9961.00
37	13	FY	-.875554E-03
38	14	FY	9961.00
39	15	FY	19470.2
40	16	FY	20081.5
41	17	FY	2561.42
42	18	FY	-7458.11
43	19	FY	12724.7
44	20	FY	33036.7
45	21	FY	-31766.0
46	22	FY	-15019.7
47	23	FY	-12189.1
48	24	FY	-6601.28
49	1	FZ	-589389.
50	2	FZ	-536417.
51	3	FZ	-386699.
52	4	FZ	-169361.
53	5	FZ	66462.5

54	6	FZ	503463.
55	7	FZ	700077.
56	8	FZ	407023.
57	9	FZ	326140.
58	10	FZ	220652.
59	11	FZ	97274.1
60	12	FZ	-12021.1
61	13	FZ	-58808.9
62	14	FZ	-12021.1
63	15	FZ	97274.1
64	16	FZ	220652.
65	17	FZ	326140.
66	18	FZ	407023.
67	19	FZ	700077.
68	20	FZ	503463.
69	21	FZ	66462.5
70	22	FZ	-169361.
71	23	FZ	-386649.
72	24	FZ	-550417.
73	1	MX	-.100656E-05
74	2	MX	2.99630
75	3	MX	18.1031
76	4	MX	146.235
77	5	MX	458.775
78	6	MX	-244.600
79	7	MX	-3376.55
80	8	MX	93.0248
81	9	MX	42.6012
82	10	MX	68.0168
83	11	MX	59.7875
84	12	MX	110.606
85	13	MX	-.667920E-05
86	14	MX	-110.607
87	15	MX	-59.7872
88	16	MX	-68.0158
89	17	MX	-42.6012
90	18	MX	-93.0220
91	19	MX	3376.55
92	20	MX	244.600
93	21	MX	-458.775
94	22	MX	-146.235
95	23	MX	-18.1032
96	24	MX	-2.99648
97	1	MY	5697.12
98	2	MY	4776.27
99	3	MY	3651.29
100	4	MY	1885.47
101	5	MY	942.162
102	6	MY	-8085.12
103	7	MY	-32319.4
104	8	MY	-20673.3
105	9	MY	-14158.1
106	10	MY	-10548.3
107	11	MY	-7684.88
108	12	MY	2338.29
109	13	MY	8339.65
110	14	MY	2338.29
111	15	MY	-7684.87
112	16	MY	-10548.3
113	17	MY	-14158.1
114	18	MY	-20673.3
115	19	MY	-32319.4
116	20	MY	-8085.12
117	21	MY	942.161
118	22	MY	1885.47
119	23	MY	3651.29

120	24	MY	4776.27
121	1	MZ	[illegible]490103E-04
122	2	MZ	-42.3318
123	3	MZ	-123.524
124	4	MZ	-418.080
125	5	MZ	-30.0389
126	6	MZ	8526.72
127	7	MZ	7243.83
128	8	MZ	477.446
129	9	MZ	92.8830
130	10	MZ	-683.680
131	11	MZ	-13.4954
132	12	MZ	474.382
133	13	MZ	-.832364E-03
134	14	MZ	-474.383
135	15	MZ	13.4940
136	16	MZ	683.679
137	17	MZ	-92.8755
138	18	MZ	-477.450
139	19	MZ	-7243.82
140	20	MZ	-8526.72
141	21	MZ	30.0383
142	22	MZ	418.081
143	23	MZ	123.524
144	24	MZ	42.3318

STEP 1 ITERATION 1 COMPLETE TIME= 0. KDIS= 1 KTEMP= 0

***** PROBLEM COMPLETED ***** CP = 101.686 PP = 0.000

***** RUN COMPLETED ***** CP = 101.687 PP = 0.000

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**** 7000 SCOPE 2.1 LVL  221  05/06/77  02.54.41  05/11/77         77131

SYS DEVICES-8197 4/PF FLS=200K FLL=764K MXS=160K MXL=456K MXB=4560

HH.MM.SS CPU SECOND ORIGIN
         06.23.12.MFA. ::    20PPU COR73 B+W LYN ECS-2CPUS 02/15/77
09.38.25 00000.010 MFZ.      -HAA,STMF2,P0000,1300.
09.38.25 00000.011 JOB.      -CHARGE,810-0032-26-78-00005,DBLD,001,0,HAA.
09.38.26 00000.052 LOD.      -TXVTH,A986697E005,1161,REMOTE39,AYVAZYAN,8582.
09.38.26 00000.074 JOB.      -MAP,OFF.
09.38.26 00000.075 LOD.      -ATTACHP(ANSYS)
09.38.26 00000.088 MFZ.         PF646 - PFMACRO - ATTACH  - PFLIST  - PFLIST
09.38.26 00000.093 MFZ.         PF254 - CYCLE  121 ATTACHED FROM SN=SYSTEM
09.38.26 00000.106 MFZ.         PF646 - PFMACRO - ATTACH  - ANSYS   - ANSET
09.38.26 00000.111 MFZ.         PF254 - CYCLE   30 ATTACHED FROM SN=SYSTEM
09.38.26 00000.114 JOB.      -ATTACH(TAPE22,ANSYS,ID=SASI,PW=*****)
09.38.26 00000.119 MFZ.         PF254 - CYCLE   30 ATTACHED FROM SN=SYSTEM
09.38.26 00000.120 LOD.      -COPYBR(INPUT,DUMMY)
09.38.27 00000.206 USR.         UT030 - COPY COMPLETE
09.38.27 00000.206 USR.         UT034 -      EOR - 334           EOS - 1
09.38.27 00000.207 LOD.      -ANSYS(DUMMY)
09.38.27 00000.361 MFZ.         LD610 - FLS REQUIRED TO LOAD - 011210 OO.COG
09.38.27 00000.362 MFZ.         LD603 - EXECUTION INITIATED OS,EXP
09.38.27 00000.363 USR.        FORTRAN LIBRARY 217-MODIFIED 03/16/76
09.38.30 00000.779 USR.         EXIT
09.38.30 00000.779 USR.            .415 CP SECONDS EXECUTION TIME
09.38.30 00000.780 LOD.      -TAPE20(DUMMY,PL=999999)-
09.38.32 00002.417 MFZ.         LD333 - UNSATISFIED EXTERNALS OS.COG
09.38.32 00002.524 MFZ.         LD602 - LOADER NON-FATAL ERROR FLAG SET OS.COG
09.38.32 00002.524 MFZ.         LD605 - ABSOLUTE FILE WRITTEN OS.COG
09.38.32 00002.525 MFZ.         LD610 - FLS REQUIRED TO LOAD - 0043167 OS.OVGX
09.38.33 00002.562 USR.        FORTRAN LIBRARY 217-MODIFIED 03/16/76
09.38.33 00002.581 USR.      ***** ANSYS ANALYSIS *****
11.20.12 00101.689 USR.         EXIT
11.20.12 00101.690 USR.           99.127 CP SECONDS EXECUTION TIME
11.20.12 00101.695 MFZ.         RM770 - MAXIMUM ACTIVE FILES                    6
11.20.12 00101.695 MFZ.         RM771 - OPEN/CLOSE CALLS                       51
11.20.12 00101.695 MFZ.         RM772 - DATA TRANSFER CALLS                10,380
11.20.12 00101.695 MFZ.         RM773 - CONTROL/POSITIONING CALLS             755
11.20.12 00101.695 MFZ.         RM774 - BM DATA TRANSFER CALLS              4,777
11.20.12 00101.696 MFZ.         RM775 - BM CONTROL/POSITIONING CALLS          120
11.20.12 00101.696 MFZ.         RM776 - QUEUE MANAGER CALLS                 1,240
11.20.12 00101.696 MFZ.         RM777 - RECALL CALLS                          987
11.20.12 00101.696 MFZ.         BMMSG - NUMBER OF TAPES MOUNTED
11.20.12 00101.697 MFZ.         SRU                       160.387  SRU
11.20.12 00101.697 MFZ.         SCM                     3 962.534  KWS
11.20.12 00101.697 MFZ.         LCM                     3 265.586  KWS
11.20.12 00101.697 MFZ.         I/O                         1.188  MW
11.20.12 00101.698 MFZ.         MMS                        39.849  MWS
11.20.12 00101.698 MFZ.         USER                       97.424  SEC
11.20.12 00101.698 MFZ.         JOB                       101.700  SEC
11.20.12 00101.698 MFZ.         SC050 - 001025 SC/LC SWAPS
11.20.12 00101.699 MFZ.        HAAD009    HAAD009
11.20.12.EJ END OF JOB
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**** 7000 SCOPE 2.1 LVL 221  05/06/77  02.54.41  05/11/77        77131

SYS DEVICES 819/ 4/PF FLS=200K FLL=764K MXS=160K MXL=456K MXB=456D

HH.MM.SS CPU SECOND ORIGIN
           06.23.12.MFA. **      20PPU CBR73 B+W LYN ECS-2CPUS 02/15/77
09.38.25 00000.010 MFZ.         -HAA,STMFZ,P0000,1300.
09.38.25 00000.011 JOB.         -CHARGE,810-0032-26-78-00005,DBCU,001,D,HAA.
09.38.26 00000.052 LOD.         -TXVIH,A986697E005,1161,REMOTE39,AYVAZYAN,8582.
09.38.26 00000.074 JOB.         -MAP,OFF.
09.38.26 00000.075 LOD.         -ATTACHP(ANSYS)
09.38.26 00000.088 MFZ.            PF646 - PFMACRO - ATTACH   - PFLIST   - PFLIST
09.38.26 00000.093 MFZ.            PF254 - CYCLE  121 ATTACHED FROM SN=SYSTEM
09.38.26 00000.106 MFZ.            PF646 - PFMACRO - ATTACH   - ANSYS    - ANSET
09.38.26 00000.111 MFZ.            PF254 - CYCLE   30 ATTACHED FROM SN=SYSTEM
09.38.26 00000.114 JOB.         -ATTACH(TAPE22,ANSYS,ID=SASI,PW=*****)
09.38.26 00000.119 MFZ.            PF254 - CYCLE   30 ATTACHED FROM SN=SYSTEM
09.38.26 00000.120 LOD.         -COPYBR(INPUT,DUMMY)
09.38.27 00000.206 USR.            UT030 - COPY COMPLETE
09.38.27 00000.206 USR.            UT034 -       EOR - 334            EOS = 1
09.38.27 00000.207 LOD.         -ANSYS(DUMMY)
09.38.27 00000.361 MFZ.            LD610 - FLS REQUIRED TO LOAD - 001121D 00.CUG
09.38.27 00000.362 MFZ.            LD603 - EXECUTION INITIATED US.EXP
09.38.27 00000.365 USR.          FORTRAN LIBRARY 217-MODIFIED 03/16/76
09.38.30 00000.779 USR.            EXIT
09.38.30 00000.779 USR.               .415 CP SECONDS EXECUTION TIME
09.38.30 00000.780 LOD.         -TAPE20(DUMMY,PL=999999)
09.38.32 00002.417 MFZ.            LD333 - UNSATISFIED EXTERNALS US.CUG
09.38.32 00002.524 MFZ.            LD602 - LOADER NON-FATAL ERROR FLAG SET US.CUG
09.38.32 00002.524 MFZ.            LD605 - ABSOLUTE FILE WRITTEN US.CUG
09.38.32 00002.525 MFZ.            LD610 - FLS REQUIRED TO LOAD - 004316/ US.UVGX
09.38.33 00002.562 USR.          FORTRAN LIBRARY 217-MODIFIED 03/16/76
09.38.33 00002.581 USR.         ***** ANSYS ANALYSIS *****
11.20.12 00101.689 USR.            EXIT
11.20.12 00101.690 USR.              99.127 CP SECONDS EXECUTION TIME
11.20.12 00101.695 MFZ.            RM770 - MAXIMUM ACTIVE FILES                          6
11.20.12 00101.695 MFZ.            RM771 - OPEN/CLOSE CALLS                             51
11.20.12 00101.695 MFZ.            RM772 - DATA TRANSFER CALLS                      10,380
11.20.12 00101.695 MFZ.            RM773 - CONTROL/POSITIONING CALLS                   755
11.20.12 00101.695 MFZ.            RM774 - BM DATA TRANSFER CALLS                    4,777
11.20.12 00101.696 MFZ.            RM775 - BM CONTROL/POSITIONING CALLS                120
11.20.12 00101.696 MFZ.            RM776 - QUEUE MANAGER CALLS                       1,240
11.20.12 00101.696 MFZ.            RM777 - RECALL CALLS                                987
11.20.12 00101.696 MFZ.            BBMSG - NUMBER OF TAPES MOUNTED
11.20.12 00101.697 MFZ.            SRU                         168.387  SRU
11.20.12 00101.697 MFZ.            SCM                       3 962.534  KWS
11.20.12 00101.697 MFZ.            LCM                       3 265.580  KWS
11.20.12 00101.697 MFZ.            I/O                           1.188  MW
11.20.12 00101.698 MFZ.            RMS                          39.649  MWS
11.20.12 00101.698 MFZ.            USER                         97.424  SEC
11.20.12 00101.698 MFZ.            JOB                         101.700  SEC
11.20.12 00101.698 MFZ.            SC050 - 001025 SC/LC SWAPS
11.20.12 00101.699 MFZ.         HAADU09    HAADU09
11.20.12.EJ  END OF JOB
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