WIND ENGINEERING STUDY OF THE INTERAMA TOWER OF THE SUN

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Symbols	Definition
$\overline{V}_i$	Local mean velocity in i direction
v_i	Fluctuating wind component in i direction
V_i	Instantaneous local velocity in i direction
i	x, y, or z
U	Local mean velocity, $= \sqrt{V_x^2 + V_y^2 + V_z^2}$
D	Characteristic dimension (building height, width, etc.)
ν	Kinematic viscosity of approach flow
$\frac{UD}{\nu}$	Reynolds number
E	Mean voltage
A	Constant
B	Constant
n	Constant
U_{rms}	Root-mean-square of fluctuating velocity
E_{rms}	Root-mean-square of fluctuating voltage
U_∞	Reference mean velocity outside the boundary layer
X	Horizontal coordinate
Y	Height above surface, vertical coordinate
Z	Horizontal coordinate perpendicular to X
δ	Height of boundary layer
T_u	Turbulence intensity U_{rms}/U_∞
C_F	Force coefficient, $\frac{F}{(\frac{1}{2}\rho U_\infty^2)(H)^2}$
C_M	Moment coefficient, $\frac{M}{(\frac{1}{2}\rho U_\infty^2)(H)^3}$
F	Total horizontal force

Symbol	Definition
M	Total overturning moment about the base
H	Tower height
ρ	Density of approach flow
S_t	Strouhal number, $\frac{\omega d}{U}$
ω	Frequency, Hz
d	Characteristic length
$C_{p_{mean}}$	Mean pressure coefficient, $\frac{(p-p_\infty)_{mean}}{\frac{1}{2}\rho U_\infty^2}$
$C_{p_{rms}}$	Root-mean-square pressure coefficient, $\frac{((p-p_\infty) - (p-p)_{mean})_{rms}}{\frac{1}{2}\rho U_\infty^2}$
$C_{p_{max}}$	Peak maximum pressure coefficient, $\frac{(p-p_\infty)_{max}}{\frac{1}{2}\rho U_\infty^2}$
$C_{p_{min}}$	Peak minimum pressure coefficient, $\frac{(p-p_\infty)_{min}}{\frac{1}{2}\rho U_\infty^2}$
$(\ )_{min}$	Minimum value during data record
$(\ )_{max}$	Maximum value during data record
p	Fluctuating pressure at a pressure tap on the structure (instantaneous)
p_∞	Static pressure in the wind tunnel above the model
$F_j(t)$	Generalized forces, $\sum f(y, t)\ \phi_j$
$f(y, t)$	Dynamic wind forces
ϕ_j	j^{th} mode shape function
$S_z(\omega)$	Power-spectral density function at height z for frequency ω
$S_z(\Delta, \omega)$	Cross-spectral density function for horizontal gusts
L	ω/U
K	Ground friction coefficient
c	Decay constant
Δ	Spatial separation of points on a structure
β	Fraction of critical damping

1. INTRODUCTION

1.1 General

The prospect of placing the Interama Tower of the Sun in a location exposed to the full force of southern Florida hurricanes poses unique and challenging problems to the designer. To test the survivability of the structure in a hurricane, the designer must know the wind loads acting on the tower and the dynamic tower response to these loads. To asess the precent of time the tower will not be usable due to annoying motion in the skyhouse, the designer must know the dynamic response of the structure to the moderate winds associated with normal weather conditions. The purpose of this study was to determine overall loads and local pressures by means of wind-tunnel tests and to determine the dynamic response of the tower to wind loads by means of a computer simulation of the structure.

The proposed Interama Tower of the Sun (Frontispiece and Figure 1) is an 830 ft high guyed tower with a skyhouse located between the 650 and 740 foot levels. The 130 ft diameter skyhouse is supported by three triangular legs pinned at the bottom of the skyhouse and at the ground. One hundred sixty-eight guys support the structure with the majority attached at the skyhouse base and the remainder distributed along the legs.

The tower is to be located approximately five miles north of Miami in the Interama development. The site is flat open land only a few feet above sea level. The site is located a short distance inland from the sea coast--sufficiently close that no reduction in hurricane wind magnitude due to landfall can be allowed.

1.2 Modeling Considerations

Wind-tunnel modeling of the aerodynamic loading on a structure requires special consideration of flow conditions in order to guarantee similitude between model and prototype. A detailed discussion of the similarity requirements and their wind-tunnel implementation can be found in References [1], [2], and [3]. In general, the requirements are that the model and prototype be scaled in geometry, that the approach mean velocity at the building site have a vertical profile shape similar to the full-scale flow, that the turbulence characteristics of the flows be similar, and that the Reynolds number for the model and prototype be equal.

These criteria are satisfied by constructing a scale model of the structure and its surroundings and performing the wind tests in a wind tunnel specifically designed to model atmospheric boundary-layer flows. Reynolds number similarity requires that the quantity UD/ν be equal for model and prototype. Since ν, the kinematic viscosity of air, is identical for both, Reynolds numbers cannot be made equal with reasonable wind velocities. Wind velocity in the wind tunnel would have to be the model scale factor times the prototype wind. However, for sufficiently high Reynolds number ($>10^5$) a pressure coefficient at any location on the structure will be essentially constant with Reynolds number. Typical values encountered are 10^8 for the full scale and 10^6 for the wind-tunnel model. Thus, acceptable flow similarity is achieved without precise Reynolds number equality.

Wind-tunnel modeling was used to obtain overall wind loading on the tower, to investigate possible vortex shedding phenomena and to obtain local pressures on the skyhouse and legs. Laboratory simulation

of the dynamic response of the Tower of the Sun was not attempted due primarily to the difficulty of building a small-scale model which would adequately account for the cable action. Instead, dynamic response was determined by means of an analytical model.

The dynamic modeling of a complex structure such as the Interama Tower of the Sun is a challenging problem even when utilizing modern digital computers. Primary structural components of the tower as well as the guy cables must be considered, the latter introducing geometric non-linearity into the model. Appropriate beam-column and cable elements were utilized to represent the structure, with wind loading being considered on all elements. A number of different analytical models were formulated during the course of the investigation to accommodate the numerous design changes.

2. EXPERIMENTAL CONFIGURATION

2.1 Wind Tunnel

The wind study was performed in the Meteorological Wind Tunnel located in the Fluid Dynamics and Diffusion Laboratory at Colorado State University, Figure 2. The tunnel is a closed circuit facility driven by a 250 h.p. variable-pitch, variable-speed propeller. The test section is nominally 6 feet square and 88 feet long fed through a 9-to-1 contraction ratio. The test-section walls diverge 1 in/10 ft and the roof is adjustable to maintain a zero pressure gradient along the test section. The mean velocity can be adjusted continuously from 1 to 120 fps. The facility is described in detail by Plate and Cermak [4].

2.2 Models

To determine the total forces and moments acting on the tower and to determine the local pressures acting on the skyhouse and legs, it was necessary to construct several models. Two models of the entire tower were constructed (see Figure 3) to a scale of 1:300--one with open-truss legs corresponding to the first design and one with covered legs corresponding to the final design configuration. Each of these models was fitted with a base which mounted directly to a force and moment balance. The balance was installed immediately below the wind-tunnel floor. A model of the guys was fabricated to fit around the basic tower model but without physical contact so that the shielding effect of the guys on the wind loading on the tower itself could be evaluated. The moment about the vertical axis due to wind action was required even though it was more than two orders-of-magnitude smaller

than the overturning moments--too small to be resolved by the balance. To measure this torque, a section of the legs 120 ft high was constructed to a scale of 1:33.6 (Figure 4). It was supported in the wind tunnel by two pins which could be moved about the base and top. By finding the pin location where no rotation occurred, the centers of pressure could be obtained.

In order to determine the drag on the cables, a full-scale model of a 5-ft section of the 3.6 in. diameter cable was constructed.

Measurement of local pressures on the skyhouse and legs required two additional models (Figure 4). A 1:60 scale model of the skyhouse was built from plexiglass. Piezometer taps 1/16 in. diameter were drilled normal to the surface at the 63 locations shown in Figure 6a to 6i. The section of leg was constructed to a 1:33.6 scale and was fitted into the leg section model previously built to measure the moment about the vertical axis. In this way, the effects of adjacent legs were properly accounted for. Twenty-seven pressure taps were placed about the leg section as shown in Figure 7.

The various models were placed in the test section 84 ft downstream from the test-section entrance. Appropriate roughness was placed on the wind-tunnel floor to simulate atmospheric flow over the type of open-flat terrain which surrounds the tower. A turbulent boundary layer approximately 32 in. thick was generated at the model site. Very little information is known about the mean velocity or turbulence intensity variation with height in the eye-wall of a hurricane--the type of situation likely to cause the highest winds to which the tower might be subjected. In order to provide as close a simulation as possible with available information, a grid was installed

(8) ft upstream of the model for some data runs to assess the effects of a large approach turbulence intensity on the forces and pressures. The grid was composed of 1 1/4 in. slats arranged in a square mesh with slats spaced 7 in. apart. Turbulence intensities in excess of 10 percent could be generated in this way. Models installed in the wind tunnel are shown in Figure 5.

For all models, the roof of the wind tunnel was adjusted to obtain zero pressure gradient along the test section.

3. INSTRUMENTATION AND DATA ACQUISITION

3.1 Forces and Moments

Forces and moments were measured for the two tower models using an Inca 6-component strain-gage balance. Wind forces were measured in the x and z directions in a coordinate system fixed to the tower. Figure 8 shows the coordinate system. Moments were measured about the x and z axes at the tower base and also about the vertical y axis. Data was obtained at 10 degree intervals from a wind azimuth of 0 degrees (see Figure 8) to 240 degrees for approach wind condition with and without the upstream turbulence grid. The model and balance were mounted on a turntable which was flush with the wind-tunnel floor and could be rotated to any desired angle.

Each strain-gage bridge of the Inca balance was monitored by a Honeywell Accudata 118 gage control/amplifier unit which provided excitation to the bridge and amplified the bridge output. These instruments are characterized by a very stable excitation voltage and amplifier gain. Output from the Honeywell signal conditioners was fed to an on-line, 8-channel, System Development, Inc., analog-to-digital conversion unit. The data were processed onto digital tape for later data analysis by computer. Calibration of the balance was accomplished in a test rig in which known forces and moments could be applied to the balance. Accuracy of measurements was better than one percent of the balance design limits or less then five percent of the maximum measured forces and moments.

Because the moments about the vertical axis were too small to be measured on the balance, this moment was estimated for one wind direction using the 1:33.6 scale model of the leg section. The 120 ft high

section was supported in the wind tunnel only by needle bearings at the top and bottom so that the model was free to rotate about a vertical axis. The location of the needle bearings, and hence the vertical axis of rotation was systematically varied until a position was found in which wind forces did not tend to rotate the model in either direction for a wind azimuth of 90 degrees. This wind aximuth was selected as the angle at which the largest moment was likely to occur. Using balance results for forces on the tower with and without the skyhouse in place, the total torque due to wind action on the legs from surface to skyhouse was calculated.

To determine drag on the model of a section of cable, the cable model was suspended horizontally in the wind tunnel by small rods pinned at each end of the model and pinned at the roof. Measurement of the angle of deflection of the cylinder under various wind velocities permitted an evaluation of the force on the model and hence the drag coefficient. Accounting for the various errors possible in the measurement, the estimated accuracy of the resulting drag coefficient was $\pm$ 10 percent.

3.2 Pressures

Mean and fluctuating pressures were obtained at each of the 63 pressure ports on the skyhouse model and at each of the 27 pressure ports on the leg model. An 18 in. length of 1/16 in. I.D. plastic tubing connected the ports in each model to a 72 tap pressure switch mounted inside the model. The switches (Model 1 in the skyhouse and Model 2 in the leg) were designed and fabricated in the Fluid Dynamics and Diffusion Laboratory to minimize the attenuation of pressure fluctuations across the switch. Each of the measurement ports was directed in turn

by the switch to one of four pressure transducers mounted close to the switch. The switch was operated manually by means of a shaft projecting through the wind-tunnel floor. Four of the input taps not used for transmitting building pressures were connected to a common tube leading outside the wind tunnel and provided a means of performing in-place calibration of the transducers.

The pressure transducers were "Statham" differential straingage transducers (Model PM283TC) with a 0.15 psid range. They were selected for their stability and linearity in the working range required. The resonant frequency of the transducers was approximately 2000 Hz so that resonance effects could be ignored. A reference pressure was obtained by connecting the reference side of the transducers with plastic tubing to the static side of a pitot tube mounted in the wind-tunnel free stream above the model.

Each pressure transducer bridge was monitored by the Honeywell Accudata 118 Gage Control/Amplifier discussed above. Data were again processed onto digital tape for later analysis by the CSU CDC 6400 computer. Resolution of conversion to digital form was $\pm$ 0.0016 in pressure coefficient. Experiments to determine overall accuracy of the pressure-data acquisition system indicated accuracy, in pressure coefficient form, of 0.03 for mean pressures, 0.1 for peak pressures and 0.01 for rms pressures. Pressure coefficients are defined in section 4.4.

3.3 Flow Visualization

Visualization of the flow about the model is helpful in understanding and interpreting mean and fluctuating pressures, in defining zones of separated flow and reattachment where pressure

coefficients may be expected to be high, and indicating where areas of pedestrian discomfort may be a problem on the skyhouse observation deck. Titanium tetrachloride smoke was released from sources on and near the model and motion-picture records made. Conclusions obtained from these smoke studies are discussed in section 4.3

3.4 Velocity

Velocity and turbulence intensity profiles were made in the wind tunnel at the model location to determine that the wind-tunnel flow appropriately modeled the field conditions. The measurements were made with a single hot-wire anemometer probe mounted with its axis horizontal. The instrumentation used was a DISA constant temperature anemometer (Model 55005) with a 0.001 in.-diameter, platinum-film sensing element 0.020 in. long. Output was read from a Hewlett-Packard integrating digital voltmeter for mean voltage and a DISA RMS meter for rms voltage.

Calibration was performed by placing the anemometer in the free stream near the pitot tube used to record wind-tunnel velocity and recording the output for several velocities. The calibration data was fitted to a variable exponent King's-law relationship

$$E^2 = A + BU^n \tag{1}$$

where E is the hot-wire output voltage, U the approach velocity and A, B and n are coefficients selected to fit the data. This relationship was used to recover the mean velocity at measurement points from the measured mean voltage. The fluctuating velocity in the form U_{rms} (root-mean-square velocity) was obtained from

$$U_{rms} = \frac{2E\,E_{rms}}{Bn\,U^{n-1}} \tag{2}$$

where E_{rms} is the root-mean-square voltage output from the anemometer. Turbulence intensity was obtained by dividing U_{rms} by U.

4. WIND-TUNNEL RESULTS

4.1 Velocity

Approach mean velocity profiles measured in the wind tunnel for the simulated atmospheric winds are shown in Figure 9. Profiles are shown with and without the turbulence generating grid upstream. The case without upstream grid showed a velocity varying as the height to the 0.18 power. This type of variation is typical of atmospheric winds over flat open terrain such as that surrounding the tower location. The boundary-layer thickness δ was 32 inches corresponding to 800 ft in the prototype--a realistic value for open terrain.

Hurricane winds may differ somewhat in their mean velocity profile and turbulence structure from the usual atmospheric winds. These winds are expected to have less vertical variation in mean velocity and stronger turbulence intensity, particularly at upper levels of the boundary layer. To assess the impact of these variations on the forces acting on the tower, a grid was placed upwind of the tower as described in section 2.2. The mean velocity distribution with the grid in place is shown in Figure 9. The result is a velocity profile virtually uniform over the upper 80 percent of the boundary layer with velocities in the lower regions remaining larger than for the no-grid case. Since the mean velocity structure in a hurricane eye-wall is not known, it was felt that this profile would represent a conservative force measurement since the reference velocity for the wind-tunnel measurements was taken to be U_∞.

Profiles of longitudinal turbulence intensity are shown in Figure 10. Both cases show similar turbulence levels up to 40 percent

of the boundary-layer thickness and varying results above that level. The overall level of turbulence corresponds to that expected in the atmosphere. The increased turbulence intensity found with the grid case allowed the effects of additional turbulence on the forces and moments on the tower to be evaluated.

4.2 Forces and Moments

Mean forces and moments acting on the tower with and without the upstream turbulence grid are shown in Figures 11 and 12. The coordinate system used is described in Figure 8. The forces and moments are given in terms of nondimensional coefficients C_F and C_M and in terms of actual loads assuming a 200 psf reference dynamic pressure. Force and moment coefficients are defined by

$$C_F = \frac{F}{(\frac{1}{2}\rho U_\infty^2)(H^2)}$$

$$C_M = \frac{M}{(\frac{1}{2}\rho U_\infty^2)(H^3)} \qquad (3)$$

where F is the total shearing force on the tower in lbs, M is the overturning moment about the base in ft-lbs, $\frac{1}{2}\rho U_\infty^2$ is the reference dynamic pressure in the wind above the tower, and H is the tower height in ft. Because these coefficients should be essentially invariant between model and prototype as described in section 1.2, full-scale loads can be readily computed knowing the tower height (820 ft) and a reference dynamic pressure for full-scale design.

Selection of a reference dynamic pressure $\frac{1}{2}\rho U_\infty^2$ should be made taking into consideration the cost and importance of the structure, consequences of failure due to winds greatly exceeding design values,

frequency of occurrence of strong winds, and the vertical variation of mean velocity and turbulence at the structure site. A plausible technique to arrive at a reasonably conservative design value of reference dynamic pressure is described. Using data in the proposed American National Standards Institute code A58.1 [5] for wind loading on structures, the fastest mile wind at 30 ft elevation at Miami for 50 and 100 year return intervals are 110 and 126 mph respectively. An important structure should use a velocity corresponding to a return period of 500 to 1000 yrs. The fastest mile velocity for a 1000 year return is approximately 180 mph which corresponds to a 130 mph hourly mean wind velocity at 30 ft. Using a gust factor of 1.35 a design peak velocity of 176 mph at 30 ft results. Extrapolating the velocity at 30 ft to a velocity at 700 ft--a position mid-height on the skyhouse--by using a 1/7 power law profile gives a velocity of 275 mph. Using this velocity to obtain a dynamic pressure gives 194 psf--or approximately 200 psf. The forces and moments shown at the right in Figures 11 and 12 were obtained using this 200 psf reference pressure. Should a design dynamic pressure based on other criteria than those presented here be desired, new force and moment values may be obtained by multiplying the forces and moments on Figures 11 and 12 by a ratio of dynamic pressures.

Comparison of the forces indicates an increase of approximately 10 percent in loading for the case with the grid upwind. The change in mean velocity profile between the two cases is sufficient to account for the small change in measured forces indicating the effect of turbulence on the overall tower loading is a minor factor.

Additional data was obtained with the tower guys in place about the structure but not in contact with the tower itself. In this way, the effect of the guys on the winds acting on the tower alone could be determined. No change in forces or moments was detected. In addition, the model with the open-truss legs was used to obtain some data. A complete set of data was not obtained since the final configuration of the tower was established with covered legs prior to the final data acquisition. The limited data indicated that overall forces on the model due to wind action were approximately 20 percent lower for the open-truss legs than for the covered legs.

The moment about the vertical in Figures 11 and 12 indicated zero within the noise level of the wind-tunnel balance. However, an estimate of that small moment was desired by the design engineers. For this reason, the model of a section of the tower legs described in section 2.2 to determine an estimate of the moment was built and tested. The results of that test indicated that, for a wind direction of 90 degrees (the direction of anticipated maximum moment), the center of pressure was located 7.0 ft from the center of gravity of the leg cross-section in a direction toward the single leg. This distance was determined with a precision of better than 10 percent. The resulting torque on the legs is due to wind action on the legs and connecting trusses only and does not include torque due to wind action on the cables. Using wind-tunnel force results for the leg sections without the skyhouse to obtain the total force per unit length acting on the legs, the total moment about the vertical axis due to wind direction on the legs from surface to skyhouse was calculated. For a reference dynamic pressure of 200 psf, the moment calculated was 40,000 ft-kips. This number is somewhat conservative in that it assumed a perfectly correlated wind gust

from ground level to the skyhouse. In reality, only portions of the legs would see the full gust action at any instant in time.

Results of the test to determine drag on a full-sized model of a five foot length of cable indicated that a drag coefficient of 1.0 should be used.

4.3 Flow Visualization

A 300 ft film is included as part of this report showing the characteristics of flow about the skyhouse. A listing of the contents of the film is shown in Table 1. The flow about the skyhouse did not indicate any areas of particular concern in relation to local pressures--that is, no regions of unsteady separation zones. No evidence of organized vortex shedding was evident. Much of the flow approaching the skyhouse is deflected above or below so that very little of the skyhouse acts as a cylinder. Smoke released on the observation deck for several wind directions did not show any adverse effects of great concern. For some wind directions, the flow in the entrance area of the observation deck tended to swirl. This effect would cause discomfort only during relatively strong approach winds.

Concern about aerodynamic excitation of the legs led to a series of tests to investigate the nature of the flow about the legs. A flow-visualization experiment was conceived to study the flow qualitatively. Both models were supported in a uniform approach flow and smoke was released just upstream from the model so that the flow could be visualized. With the legs covered, the flow downstream showed a clearly defined vortex street for several approach flow directions. Vortex shedding is known to produce a periodic oscillating force on the object perpendicular to the mean flow direction. Visualization with the model with legs uncovered showed a greatly reduced intensity of vortex shedding.

The frequency of vortex shedding for the covered-leg model was determined by placing a hot-wire anemometer--a velocity sensing instur-ment with high frequency response--in the wake region and processing the output signal through a wave analyzer. This procedure showed that the frequency of shedding for wind approaching from a 60 degree azimuth could be described by a constant Strouhal number:

$$S_t = 0.16 = \frac{\omega d}{U} \tag{4}$$

where S_t is the Strouhal number, ω is the shedding frequency in cycles per second, d is the width of the leg grouping (60 ft prototype, 60/300= 0.2 ft model), and U is the approach velocity. Repetition of the experiment with the model placed vertically in the flow in the modeled atmospheric shear layer showed an identical value for the Strouhal number. The data did show, however, that the intensity of shedding, the energy contained in the vortices, was significantly decreased in the shear layer.

If the full-scale shedding frequency were the same as the tower natural frequency, a possibility exists that unacceptably large deflections in the tower could result. Scaling of the shedding frequency from model to prototype was performed in two ways. First, the Strouhal number was assumed invariant between model and prototype--a range in Reynolds number, $(\frac{ud}{\nu})$, where ν is the kinematic viscosity of air, of 4×10^4 for the model to 10^7 for the prototype. If we assume the tower natural frequency to be between 0.2 and 0.25 cycles per second, the shedding frequency would match the natural frequency for winds of 50 to 63 miles per hour. The second method of scaling the shedding frequency to the prototype used the known variation of Strouhal number with Reynolds number determined from experiments on cylinders to

guide the selection of a Strouhal number for the prototype. A value of $S_t = 0.25$ was obtained by this means. Then, the wind velocity for which vortex shedding and natural frequency are comparable is 33 to 41 miles per hour. The result of the vortex-shedding analysis is that a possible mode of significant dynamic excitation exists for winds in the range of 33 to 63 mph.

An estimate of the forces resulting from possible vortex shedding can be obtained from fluctuating lift and drag measurements on a cylinder obtained by Gerrard [6]. The largest lateral force due to vortex shedding predicted by this data is 112 kips at a wind speed of 63 mph. This force is less than one percent of the maximum horizontal load to which the tower would be exposed in the design storm discussed above. Actual loads should be less than this value due to the reduction of vortex-shedding intensity noted when the model was placed in an appropriate shear layer simulating real atmospheric winds.

4.4 Pressures

For each of the pressure ports on the skyhouse and leg models examined (3,053 total cases), the data record was analyzed to obtain four separate pressure coefficients. The first was the mean pressure coefficient

$$C_{p_{mean}} = \frac{(p - p_\infty)_{mean}}{\frac{1}{2} \rho U_\infty^2} \tag{5}$$

where the symbols are as defined in the List of Symbols. It represents the mean of the instantaneous pressure difference between building pressure port and static pressure in the wind tunnel outside the boundary layer non-dimensionalized by the dynamic pressure $\frac{1}{2} \rho U_\infty^2$ outside the boundary layer. The magnitude of the fluctuating pressure was obtained by the rms pressure coefficient

$$C_{p_{rms}} = \frac{[(p - p_\infty) - (p - p_\infty)_{mean}]_{rms}}{\frac{1}{2} \rho U_\infty^2} \tag{6}$$

in which the numerator is the root-mean-square of the instantaneous pressure difference about the mean.

If the pressure fluctuations followed a Gaussian probability distribution, no additional data would be required to predict the frequency with which any given pressure level would be observed. However, the pressure fluctuations do not follow a Gaussian probability distribution so that additional information is required to show the extreme values of pressure expected. The peak maximum and peak minimum pressure coefficients are used to determine these values:

$$C_{p_{max}} = \frac{(p - p_\infty)_{max}}{\frac{1}{2} \rho U_\infty^2}$$

$$C_{p_{min}} = \frac{(p - p_\infty)_{min}}{\frac{1}{2} \rho U_\infty^2} \tag{7}$$

The values of $p - p_\infty$ which were digitized at 250 samples-per-second for 16 seconds were examined individually by the computer to obtain the most positive and most negative values during the 16 second period. These were converted to $C_{p_{max}}$ and $C_{p_{min}}$ by non-dimensionalizing with the free stream dynamic pressure.

The four pressure coefficients were calculated by the CSU CDC 6400 computer and tabulated. The list of coefficients for both structures with and without grid in place is included as Appendix A. The tap code number in the Appendix is given in Figures 6 and 7. In addition the Appendix includes the approach wind azimuth in degrees as described in Figure 8.

In order to determine the largest loads acting at any point on the structure, the data for all wind directions without the grid in place was searched to obtain, at each pressure tap, the largest positive and negative peak values. These values are tabulated, with their associated peak and rms or mean and rms values, in Tables 2-5. Table 2 provides pressure coefficients for the largest positive peaks. Table 3 provides pressure coefficients for the largest positive means. Table 4 provides pressure coefficients for the largest negative means. Table 5 provides pressure coefficients for the largest negative peaks. The largest positive pressure coefficients on the skyhouse were 0.9 to 1.0 while the largest negative values were about -1.5. The largest values on the legs were close to +1.0 and -1.4. The data of Tables 2-5 for the skyhouse is shown converted to psf loadings in Table 6-9. A reference pressure of 110 psf was used to convert pressure coefficients into loads. This pressure results from considereing the mean wind described in section 4.2 at a reference height of 820 ft above ground level the height of the wind-tunnel reference pressure. The leg pressures were not converted to psf loadings since the reference pressures for those measurements is a function of height. Table 10 gives a table of reference pressures as a function of height assuming a 110 psf pressure at 820 ft above ground level.

An analysis was made of the pressure data with and without grid in place to determine whether the added turbulence had a significant effect on the local loads due to the added turbulent energy in the flow or due to a change in the basic flow pattern which could adversely affect the pressures. A statistical analysis was performed by subtracting the pressure coefficient for data without grid from that with grid and forming a mean and standard deviation from that difference.

The analysis was performed for five categories of pressure coefficient--positive means negative means, rms, positive peaks and negative peaks--for all locations and wind directions on the skyhouse and legs for which dual information was available. The results are shown in Table 11. A significant shift in the mean difference occurred only for the peak positive pressure coefficients. This shift is to be expected since a larger turbulence intensity will cause larger excursion in the fluctuating pressure.

5. DYNAMIC ANALYSIS

5.1 General

The dynamic analysis of the Tower of the Sun for hurricane-type wind loadings was a formidable problem, a contributing factor being the numerous structural components. In all cases, primary consideration was given to adequately depicting the dynamic response of the Tower rather than investigating the stress condition of individual structural members. A number of different analytical models were formulated during the course of the investigation in order to accommodate the numerous design changes. All of these utilized beam-column finite elements [7,8] to represent the three primary tower legs, those being tied together at various levels by inextensible axial members having only minor bending resistance. The skyhouse was represented by rigid members hinged to the three legs, a future antenna also being included. The cables were appropriately lumped together and represented by 2-3 elements per span length. The non-linear aspects of all element deformations were included. The most elaborate representation had 169 nodes and 507 degrees of freedom, with the final analytical model having 80 nodes and 156 elements. Details of that model are given in Figure 13.

Wind loadings are quite variable, thus a probabilistic dynamic analysis [9, 10, 11, 12] approach was primarily utilized. A limited number of deterministic response calculations were also made. The most severe mean wind velocity considered at a base height of 30 feet was 130 mph in accordance with the selection of velocity given in section 4.2. Using a 1/7 power-law variation, corresponding to an extreme exposure location, results in wind speeds of about 200 mph at the skyhouse level. Over 200 computer runs were made during the course of the investigation

using base height wind velocities varying from 25 to 130 mph in conjunction with various analytical models, damping ratios, etc.

5.2 Dynamic Model Details

The wind velocity at any point may be conveniently described in terms of a vertical component and two horizontal components. Further, the wind velocity in any direction may be considered to be comprised of static, or mean, and dynamic, or fluctuating, components as given by the equation

$$V_i = \overline{V}_i + v_i, \quad i = X, Y, Z \tag{8}$$

where $\overline{V}_i$ is the mean wind component, and v_i is the fluctuating wind component.

It may be noted that wind forces are proportional to the square of the velocity. From (8) it is seen that

$$V_i^2 = \overline{V}_i^2 + 2\overline{V}_i v_i + v_i^2 . \tag{9}$$

Assuming the fluctuating component to be small compared to $\overline{V}_i$, (9) reduces to

$$V_i^2 \cong \overline{V}_i^2 + 2\overline{V}_i v_i . \tag{10}$$

The $\overline{V}_i^2$ term in (10) is utilized for the static solution, while the $2\overline{V}_i v_i$ is utilized for the dynamic analysis. The results are then appropriately superposed.

The first step in the analysis procedure consisted of solving the static, mean wind problem, gravity loads also being considered. This provided the deflected equilibrium position of the Tower, thus taking account of changes in cable tensions, etc., that would influence the subsequent dynamic analysis.

The second step involved the determination of a number of Tower natural frequencies and mode shapes for the static deflection configuration to be utilized in dynamic modal analysis. It should be noted that certain lower vibratory modes were found to be associated with the cables and antenna. These have relatively minor effect on the overall response of the Tower. The vibratory mode generalized forces, $F_j(t)$, as defined by the equation

$$F_j(t) = \sum_{\text{structure}} f(y, t)\ \phi_j, \tag{11}$$

where $f(y, t)$ = the dynamic wind forces, and

ϕ_j = the j^{th} mode shape function,

were thus utilized to determine which modes provided major response contributions. Only those primary modes were utilized in the dynamic analysis.

The third step consisted of non-deterministic, probabilistic dynamic analyses of the Tower considering its more important vibratory modes. A stationary, Gaussian, random process was assumed for the fluctuating velocity components, wind velocity spectra being utilized to define the distribution of gust energy with frequency. Such spectra have been the subject of considerable research, with those for horizontal wind being of primary interest for most structures. The spectrum for combined horizontal gust components presented by Davenport [9] was utilized in this study. That spectrum was derived from field measurements of numerous strong wind spectra, is assumed to be independent of height, and is given by the empirical equation

$$S_z(\omega) = 4K\bar{V}^2\ L^2/\omega\ (1 + L^2)^{4/3}, \tag{12}$$

where $S_z(\omega)$ = the power spectral density function at height Z for frequency ω

ω = frequency in cycles/sec,

$\overline{V}$ = the mean wind velocity at 30 ft in ft/sec,

L = 4000 ω/U and

K = the ground friction coefficient

The assumption of height independence is reasonable except, possibly, for the lower 30 feet of the Tower. It is not correct for vertical wind spectra, but those were not considered in this investigation.

Horizontal wind gusts are frequently assumed to act uniformly over the height of a structure. This assumption is normally conservative, and it is desirable to consider the spatial correlations with height. The relationship suggested by Davenport [9],

$$S_z(\Delta, \omega) = S_z(\omega)\ e^{-c\Delta\omega/\overline{V}} \tag{13}$$

where $S_z(\Delta, \omega)$ = the cross-spectral density function for horizontal gusts,

c = a decay constant depending on ground roughness, normally about 7, and

Δ = the spatial separation of points on a structure,

was used for this investigation.

Winds generated using the above criteria will reasonably simulate most strong winds. However, the turbulent structure in the eye-wall of a hurricane has not been measured and may not correspond closely to that used here. Vertical velocities may become larger, particularly at the lower frequencies, due to convective activity, and data from the periphery of typhoons [13] suggest the magnitude of the correlation factor $e^{-c\Delta\omega/\overline{V}}$ may become smaller. The relationships used here to generate wind structure represent the best evidence currently available.

Wind forces were generated for all elements of the analytical model and lumped at the appropriate node points. Both critical directions, as determined by the wind tunnel studies, were considered. A drag coefficient of 0.8 was used for the tower components, 1.1 being utilized for the cables. The latter value has been found experimentally [14] to be essentially constant for guy cables, but is reduced in the computer analysis by functions of the angles of the cable chord with respect to both wind direction and cable orientation. Concentrated nodal drag areas were utilized to accurately model the effects of the skyhouse.

The Tower components and cables were represented by node point lumped masses. In addition, fifty percent of the skyhouse live load was assumed to act dynamically. This percentage is somewhat arbitrary, but is believed to be both reasonable and conservative based on previous dynamic analyses for earthquake loadings [15].

Damping for the dynamic analysis effort was initially taken at a conservative value of 0.6 percent of critical. The actual damping is both aerodynamic and structural in nature and should easily exceed this, thus values of 1.2 percent and 1.8 percent were subsequently utilized. Even the latter value is believed to be low for the relatively large amplitude motions resulting from hurricane-type winds.

In summary, a typical dynamic analysis computer run included the following items:

1. Determination of the external forces resulting from the mean wind acting on all structural components, dead and live loads, cable tensions, etc.
2. Calculation of the associated structure displacements and member forces.

3. Evaluation of as many structure natural frequencies and mode shapes as desired and feasible, i.e., within the degree-of-freedom limits of the structural model.
4. Calculation of the non-deterministic responses, including node point displacements and accelerations, and element internal forces.

6. DYNAMIC ANALYSIS RESULTS

The primary results of the dynamic analysis effort are given in Appendix B, Dynamic Analysis Computer Printout. This printout includes certain input data, modal damping values, vibratory modes utilized for the non-deterministic dynamic analysis, structure frequencies and periods (including the predominantly cable modes), nodal accelerations and static and dynamic displacements, and element static and dynamic internal forces. The results are essentially self-explanatory, and should be cross-referenced with Figure 13 of Section 5 and the Computer Output Notes of Appendix B. There have apparently been no previous theoretical analyses for wind velocities as high as those considered in this investigation. Also, as previously mentioned, there have been little, if any, experimental measurements under such wind conditions. It is thus believed the obtained results represent a current-day best effort.

The initial dynamic analysis step consisted of solving the static mean wind velocity problem. This was followed by a determination of the Tower vibratory frequencies, periods, and mode shapes. A typical fundamental mode is depicted in Figure 14. Since the Tower vibratory characteristics are determined with reference to its static equilibrium position, the periods vary somewhat with windspeed. The fundamental periods ranged from 4 seconds/cycle for a 25 mph base wind velocity to 5.5 seconds/cycle for 130 mph. It may be noted the larger periods result primarily from the decrease in cable stiffness associated with higher wind velocities.

It is quite essential to consider all wind forces acting on the Tower, including those acting on the guy cables. This may be illustrated by

consideration of the mean wind deflections of the Tower system, as depicted in Figures 15 and 16. The Figure 15 deflected shape is typical (relatively) of that obtained for base mean windspeeds of 75 mph or less, while that of Figure 16 is for 100 mph. From the latter, it may be noted the leeward cable group has experienced a reversal in curvature. It follows their tensions have been reduced to only a fraction of that initially. Some cable "galloping" could occur under this wind condition. That possibility is further indicated by the large cable deflections obtained at higher mean wind velocities.

The maximum lateral displacements at the base of the Skyhouse are plotted in Figure 17 as a function of base mean wind velocity. Both static, and static plus dynamic, results are depicted. The displacement magnitudes are seen to increase sharply in the 75-130 mph range, again because of the reduced cable stiffnesses. It may be noted, however, the effects of damping are relatively significant. Damping values of 0.006, 0.012, and 0.018 were primarily utilized for the response determinations. These values are believed to be realistic for the rather minor Tower displacements associated with mean velocities of 75 mph or less, but the damping associated with high wind, large deflection conditions may be on the order of 2-3 times as great, i.e., 0.05-0.06. This is primarily due to the energy dissipation associated with joint rotation, friction, etc., aerodynamic effects also contributing but to a lesser extent. No computer runs were made using these higher damping values since the associated results are clearly bracketed by the static and static plus dynamic curves given in the figures. These comments also pertain to the Skyhouse maximum lateral accelerations which are depicted in Figure 18.

Also shown in Figure 18 are qualitative indications of human discomfort levels in response to motion of the skyhouse. These ranges of discomfort have been proposed [16] as guidelines for workers in tall office buildings. Additional evidence [17, 18, 19] tends to confirm the motion perception threshold while showing that the actual threshold is a statistical quantity varying with body position and activity, motion expectation of the occupants, and other motion variables such as vibration and rates of change of acceleration. The data in Figure 18 indicates that annoying motion levels would be reached for winds in the range of 50 to 70 mph at the tower base--an infrequent occurrance. The sharp rise in acceleration above 100 mph is due to cable effects, as previously discussed.

Typical plots of the axial forces and moments in the legs of the tower are given in Figures 19 and 20, respectively. These plots are for a base mean wind velocity of 75 mph and 0.006 damping. Axial forces and moments for other wind magnitudes and damping values are given in Appendix B. The variation of axial force with base mean wind velocity is depicted in Figure 21. As might be anticipated from previous figures, the axial force increases rapidly in the 75-130 mph range.

In summary, the dynamic analysis results indicate relatively minor tower responses under normal wind conditions. These responses increase rapidly at high wind velocities, reaching levels that merit careful consideration. As noted, the effects of damping are relatively significant. The computed peak responses are believed to be conservative because of the lesser damping values utilized. Results for higher damping should be bracketed by the static and static plus dynamic curves given in the figures. Some cable "galloping" appears likely to occur

under high wind conditions, and consideration should be given to means of minimizing the amplitude of such motions.

7. CONCLUSIONS

Wind-tunnel tests were performed on various models of the Interama Tower of the Sun to determine overall forces and overturning moments and local pressures on the skyhouse and legs. The model tests were made in a wind tunnel capable of simulating atmospheric winds at the building site. In addition, a computer model of the dynamic response of the tower to wind loads was produced to determine structure survivability in a hurricane wind and occupant comfort during normal wind situations.

A maximum horizontal force on the tower of 1.1×10^4 kips and a maximum overturning moment of 8.8×10^6 ft-kips was measured during the wind-tunnel tests simulating hurricane conditions. In addition, a torque of 40,000 ft-kips was determined to be the maximum moment about the vertical axis due to winds acting on the legs. Maximum dynamic lateral forces on the tower due to possible vortex-shedding phenomena were determined to be 112 kips. Local pressure measurements on the skyhouse and legs showed reasonably moderate pressures. The largest pressures were approximately 110 psf for positive pressures and 170 psf for negative pressures--again assuming hurricane winds. Flow visualization of wind conditions on the skyhouse observation platform showed no particularly adverse wind conditions.

Results of the dynamic analysis indicate the fundamental period of vibration of the Tower structure to be between 4 and 5.5 seconds/cycle, depending on the prevailing mean wind condition. The larger periods result primarily from the decrease in leeward cable stiffness associated with high winds. The computer results also indicate relatively minor Tower responses for normal wind conditions, but increasing rapidly in

the high wind range (75-130 mph). This is graphically depicted in Figures 17, 18, and 21 of section 6. Tensions in the leeward cables are significantly reduced for strong winds, and some cable "galloping" appears to be possible. Although the computed peak responses are believed to be conservative because of the lesser damping values utilized, it is believed the peak response results merit careful consideration.

REFERENCES

1. Cermak, J. E., V. A. Sandborn, E. J. Plate, G. H. Binder, H. Chuang, R. N. Meroney, and S. Ito, "Simulation of Atmospheric Motion by Wind-Tunnel Flows," CER66JEC-VAS-EJP-GJB-HC-RNM-SI17, FDDL, Colorado State University, 1966.

2. Davenport, A. G. and N. Isyumov, "The Application of the Boundary Layer Wind Tunnel to the Prediction of Wind Loading," Proc. of Int. Res. Seminar on Wind Effects on Buildings and Structures, VI, N.R.C., Canada, 1967.

3. Cermak. J. E., "Laboratory Simulation of the Atmospheric Boundary Layer," AIAA Jl., Vol. 9, Sept. 1971.

4. Plate, E. J. and J. E. Cermak, "Micrometeorological Wind Tunnel Facility, Description and Characteristics," CER63JP-JEC9, FDDL, Colorado State University, 1963.

5. American National Standards Institute, "American National Standard Building Code Requirements for Minimum Design Loads in Buildings and other Structures," ANSI Standard A58.1-1972.

6. Gerrard, J. H., "An Experimental Investigation of the Oscillating Lift and Drag of a Circular Cylinder Shedding Turbulent Vortices," Jl. Fluid Mechanics, Vol. 2, pp. 244-256, 1961.

7. Medearis, K., Numerical-Computer Methods for Engineers and Physical Scientists, KMA Research, Denver-Ft. Collins, Colorado, 1974.

8. Przemieniecki, J., Theory of Matrix Structural Analysis, McGraw-Hill, Inc., New York, 1968.

9. Davenport, A. G., "The Application of Statistical Concepts to the Wind Loading of Structures," Proc. I.C.E., Vol. 19, 1961.

10. Symposium on "The Modern Design of Wind-Sensitive Structures," Construction Research and Information Association, London, 1971.

11. Davenport, A., and B. Vickery, "The Response of the Savannah River Guyed Stack under Wind and Earthquake Action," the University of Western Ontario, Engineering Science Research Report BLWT-5-68, June, 1968.

12. Simiu, E., "Gust Factors and Alongwind Pressure Correlations," Journal of the Structural Division, ASCE, April, 1973.

13. Choi, C. C. E., "Correlation and Spectral Functions of Atmospheric Turbulence," Proc. Third Int. Conf. on Wind Effects on Structures, Tokyo, Japan, 1971.

14. Schott, G., F. Thurston, and P. Popock, "Analysis of Structural Behaviours of Guyed Antenna Masts," Nat. Res. Council of Canada, Report NR-6, November, 1954.

15. Medearis, K., and Associates, "An Investigation of the Dynamic Response of the Park Lane Towers to Earthquake Loadings," Colorado Masonry Institute Report, November, 1973.

16. Chang, F. K.,"Wind and Movements in Tall Buildings," Civil Engineering, Vol. 37, pp. 70-72, 1967.

17. Chang, F. K., "Psychophysiological Aspects of Man-Structure Interaction," Proc.-Conference on Planning and Design of Tall Buildings, Lehigh University, pp. 165-181, 1972.

18. Chen, P. W. and L. E. Robertson, "Human Perception Thresholds of Horizontal Motion," Jl. Structural Division, ASCE, Paper 9142, ST8, pp. 1681-1695, 1972.

19. Hansen, R. J., J. W. Reed, and E. H. Vanmarcke, "Human Response to Wind-Induced Motion of Buildings," Jl. Structural Division, ASCE, Paper 9868, ST7, pp. 1589-1605, 1973.

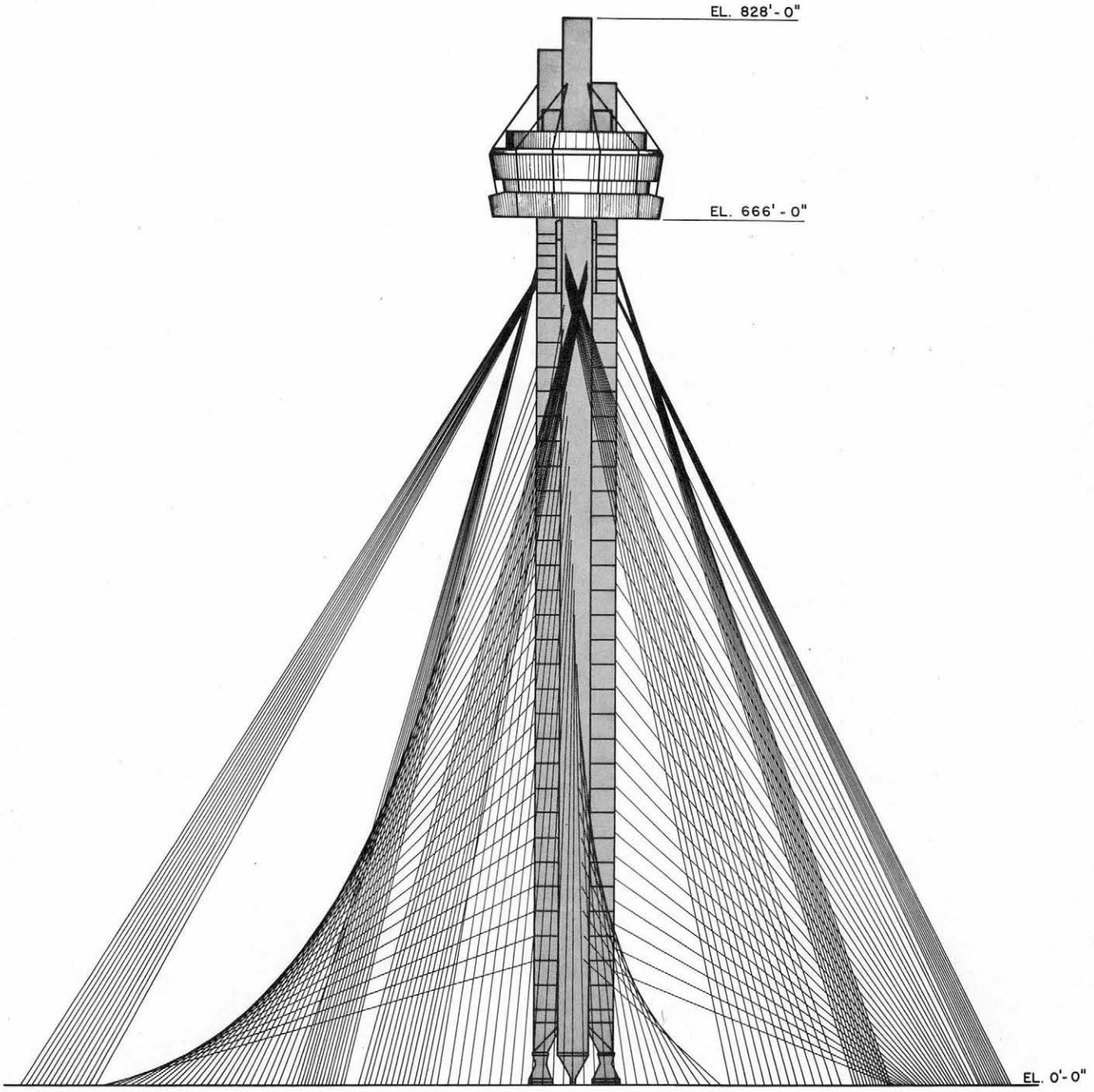


Figure 1 Interama Tower of the Sun

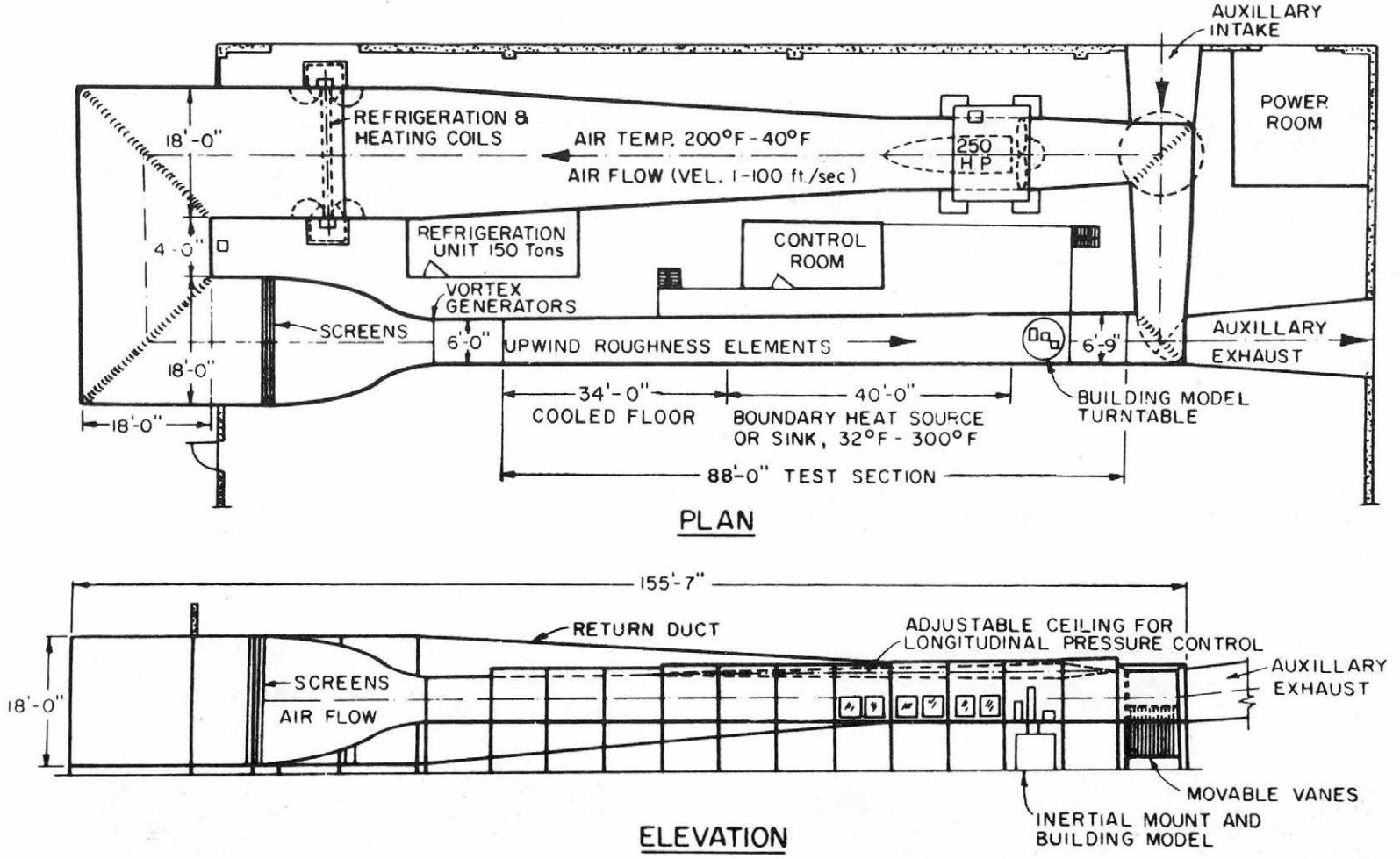


Figure 2 Meteorological Wind Tunnel

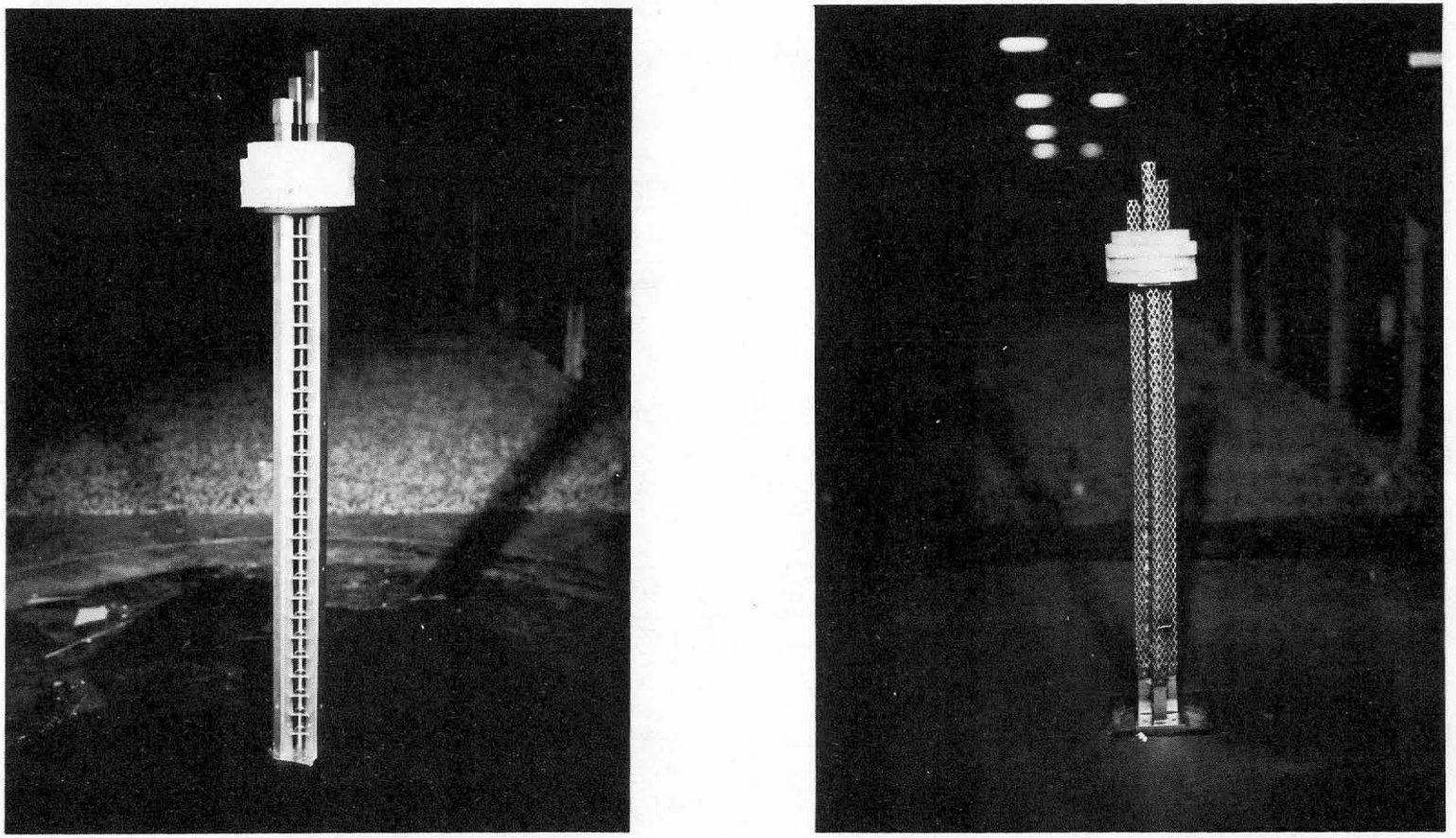


Figure 3 Models of the Tower

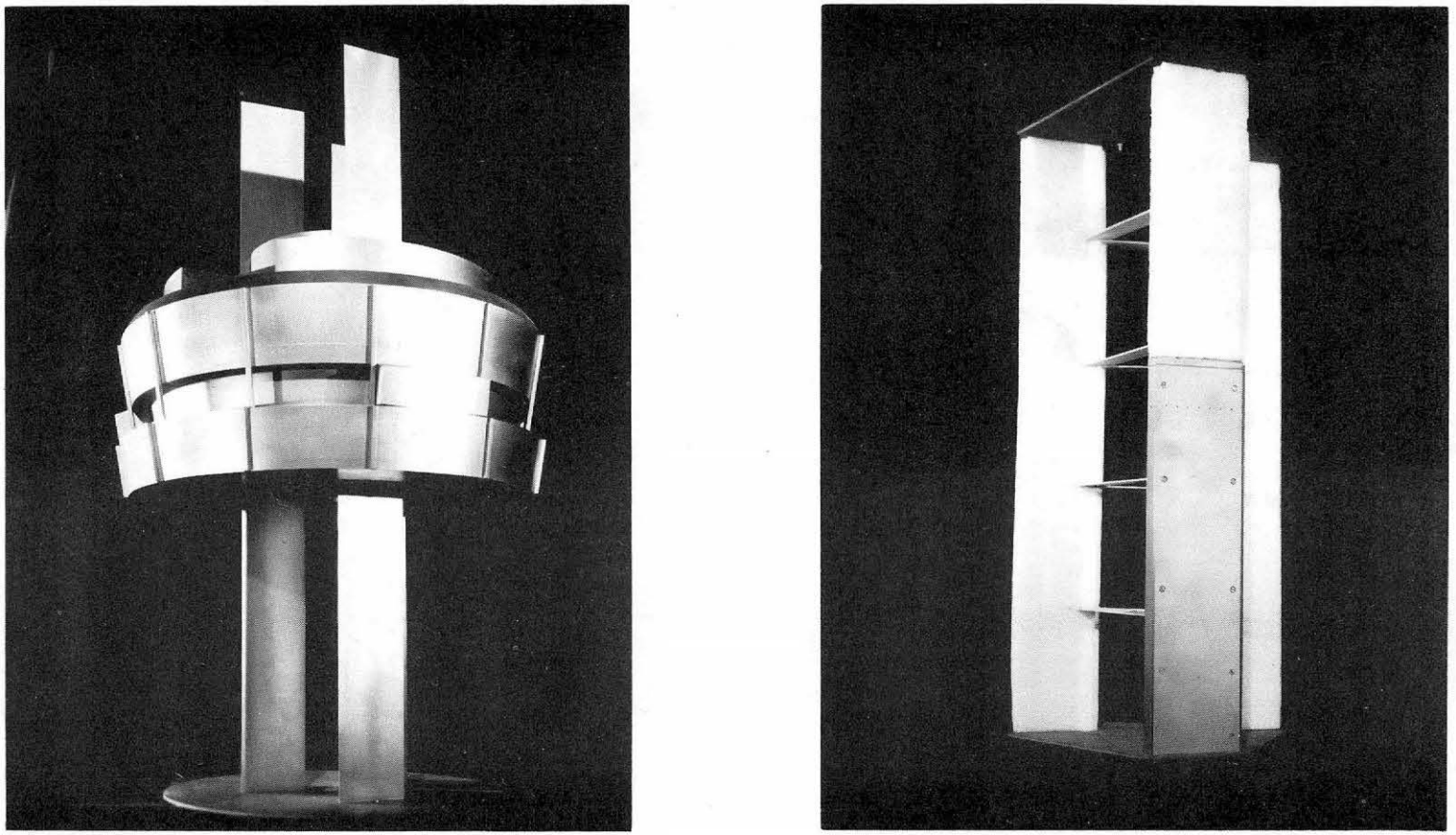
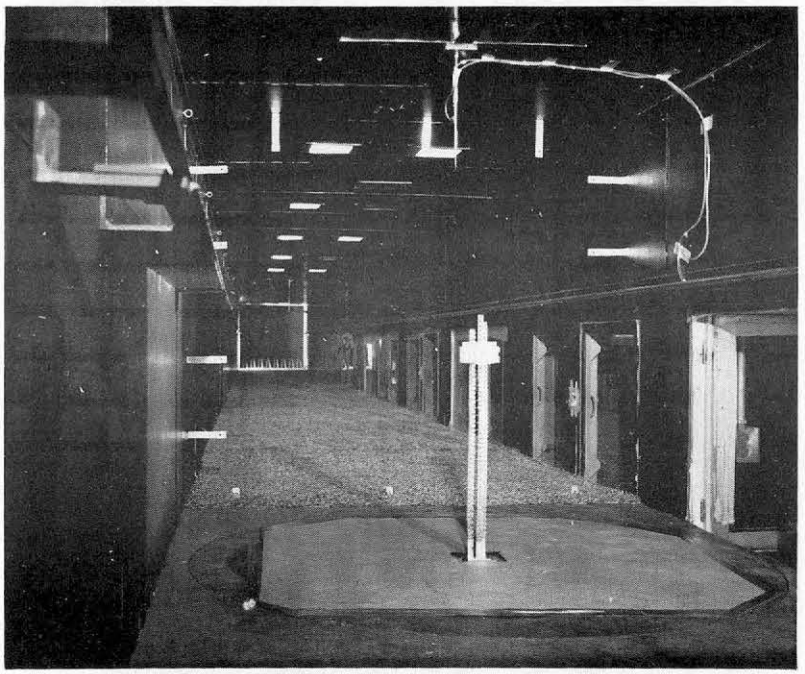


Figure 4 Skyhouse and Leg-Section Models



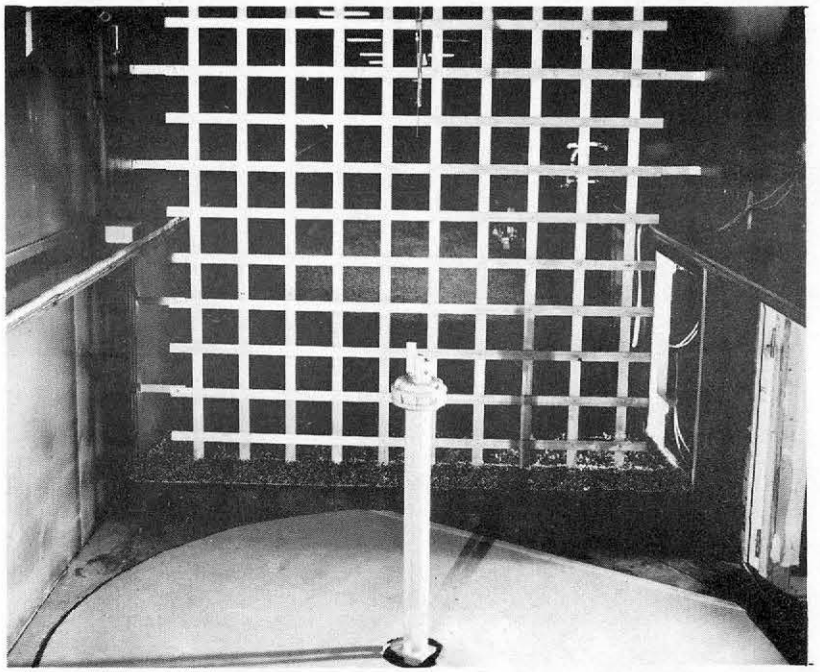


Figure 5 Models Installed in the Wind Tunnel

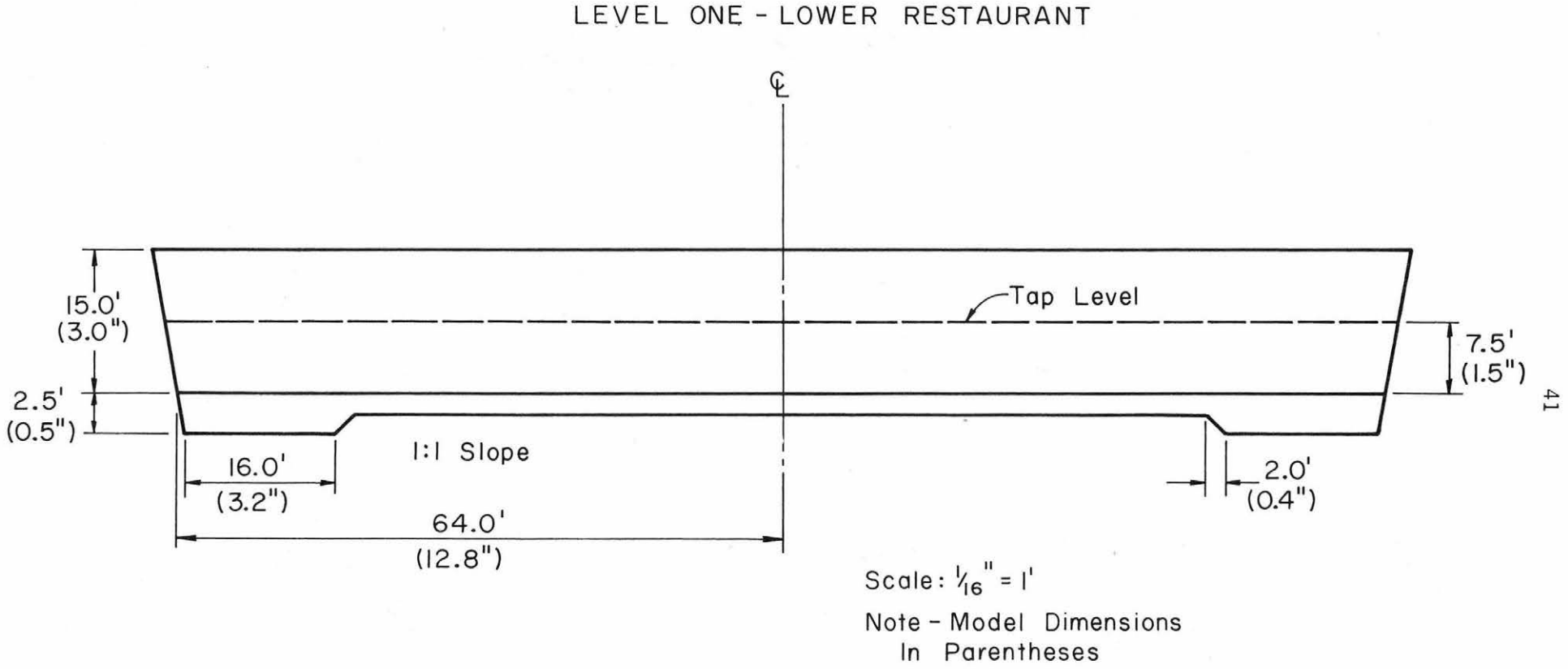


Figure 6 Piezometer Tap Locations on the Skyhouse

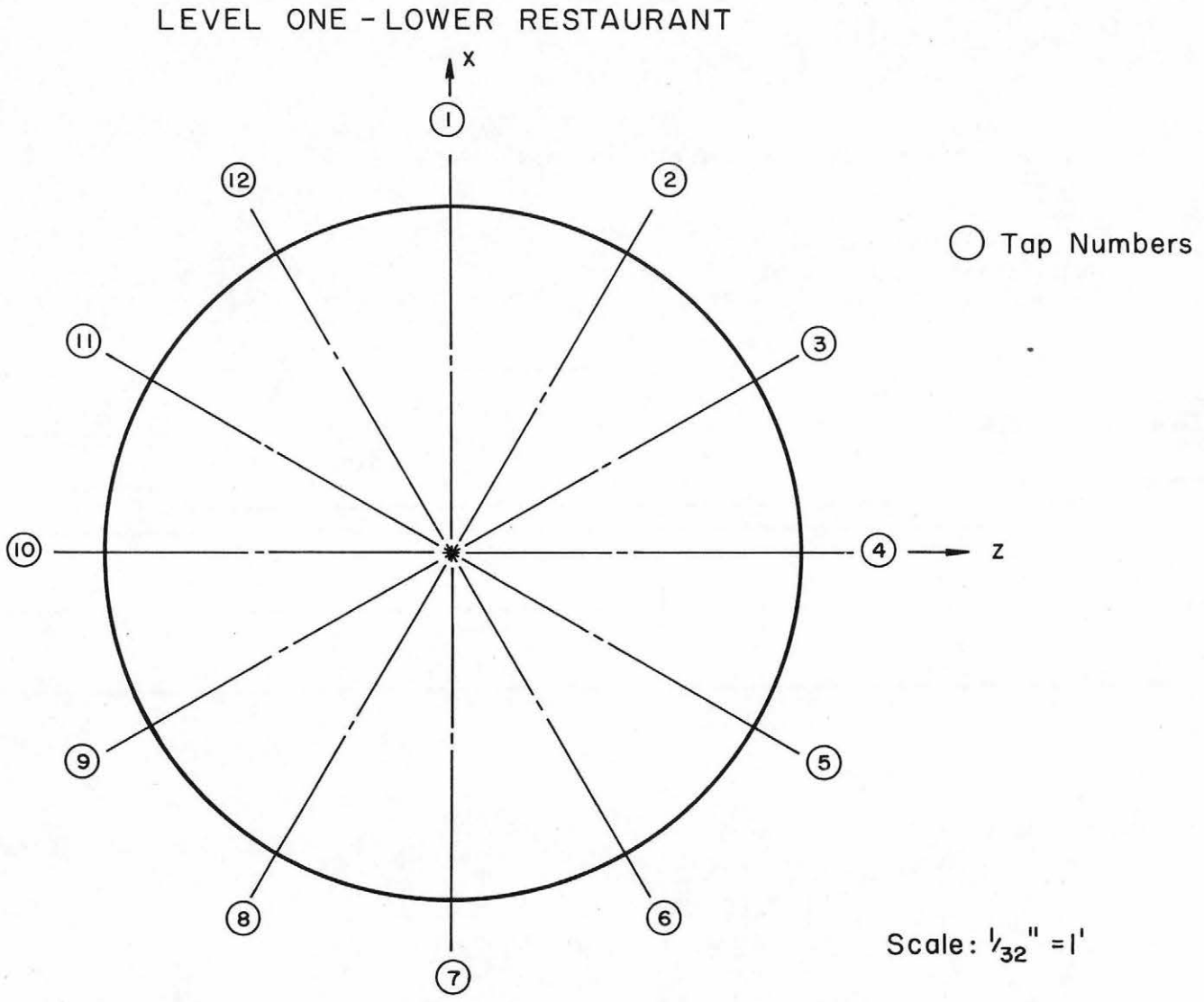


Figure 6 Piezometer Tap Locations on the Skyhouse--continued

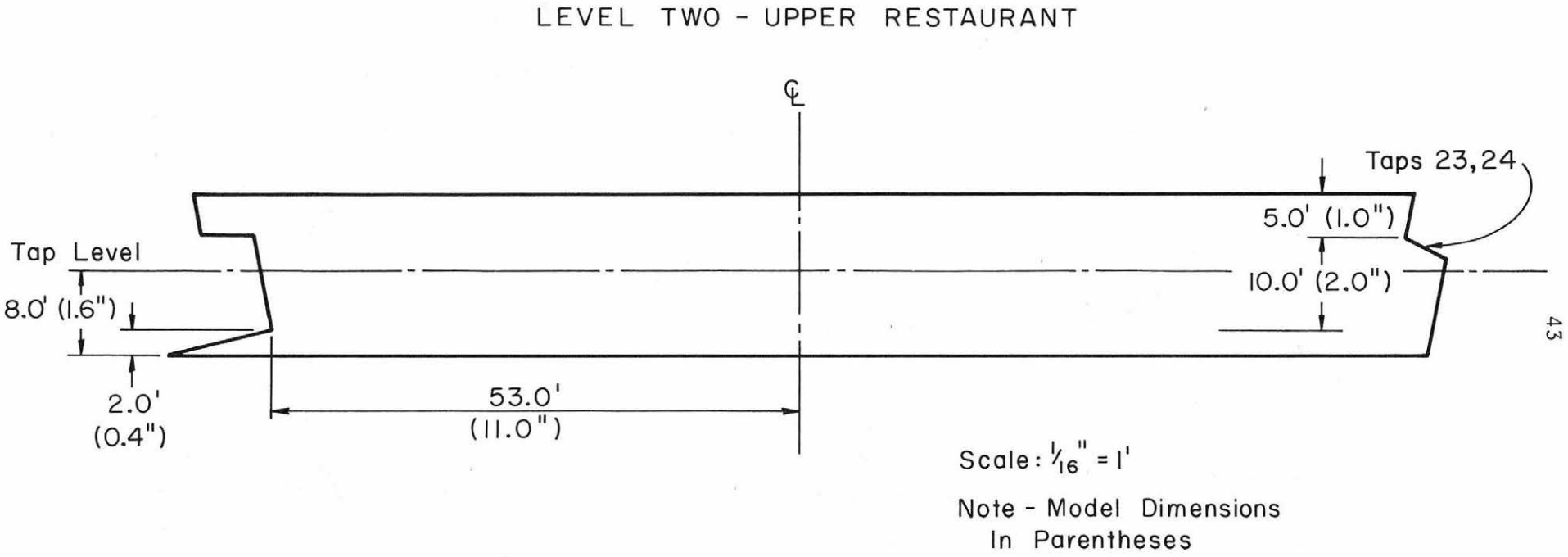
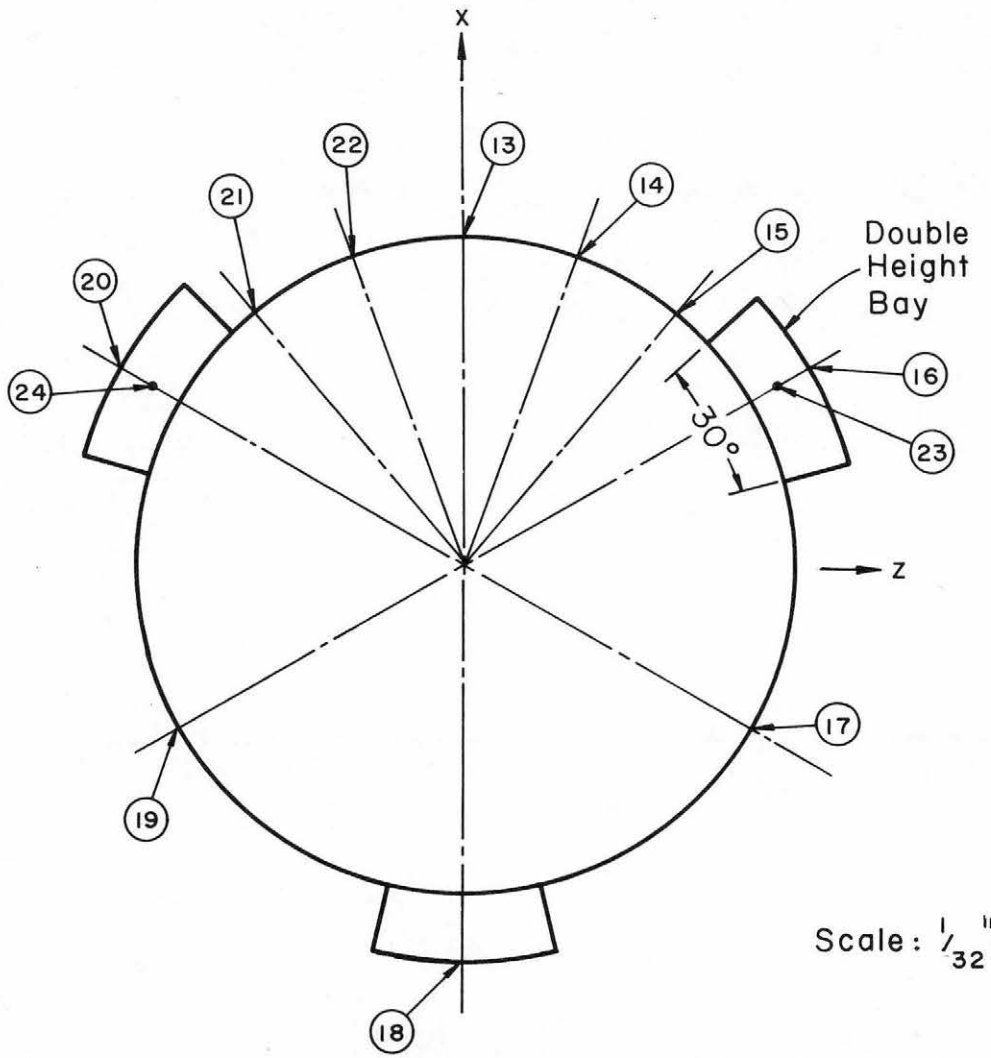


Figure 6 Piezometer Tap Locations on the Skyhouse--continued



Tap	Angle
13	0°
14	20°
15	40°
16	60°
17	120°
18	180°
19	240°
20	300°
21	320°
22	340°
23	60°
24	300°

Figure 6 Piezometer Tap Locations on the Skyhouse--continued

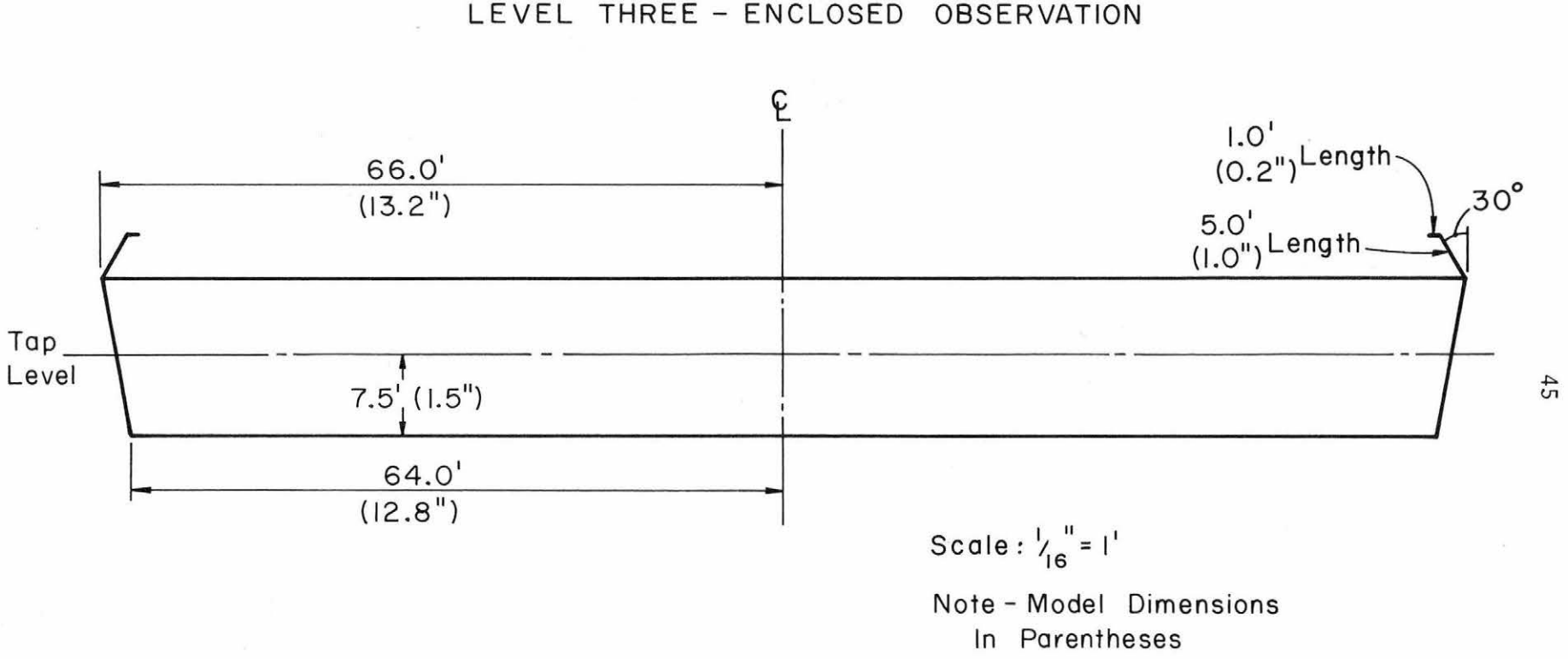


Figure 6 Piezometer Tap Locations on the Skyhouse--continued

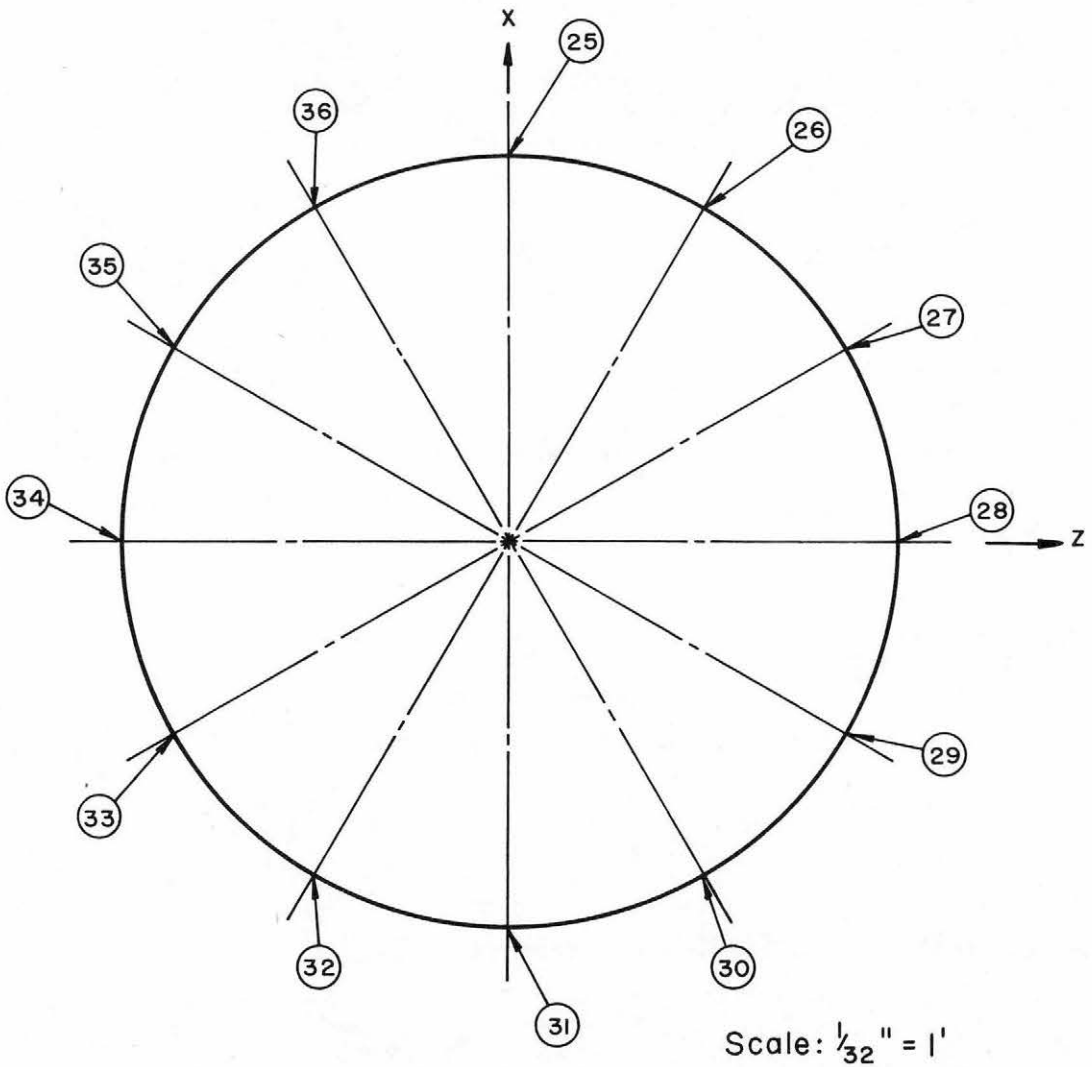
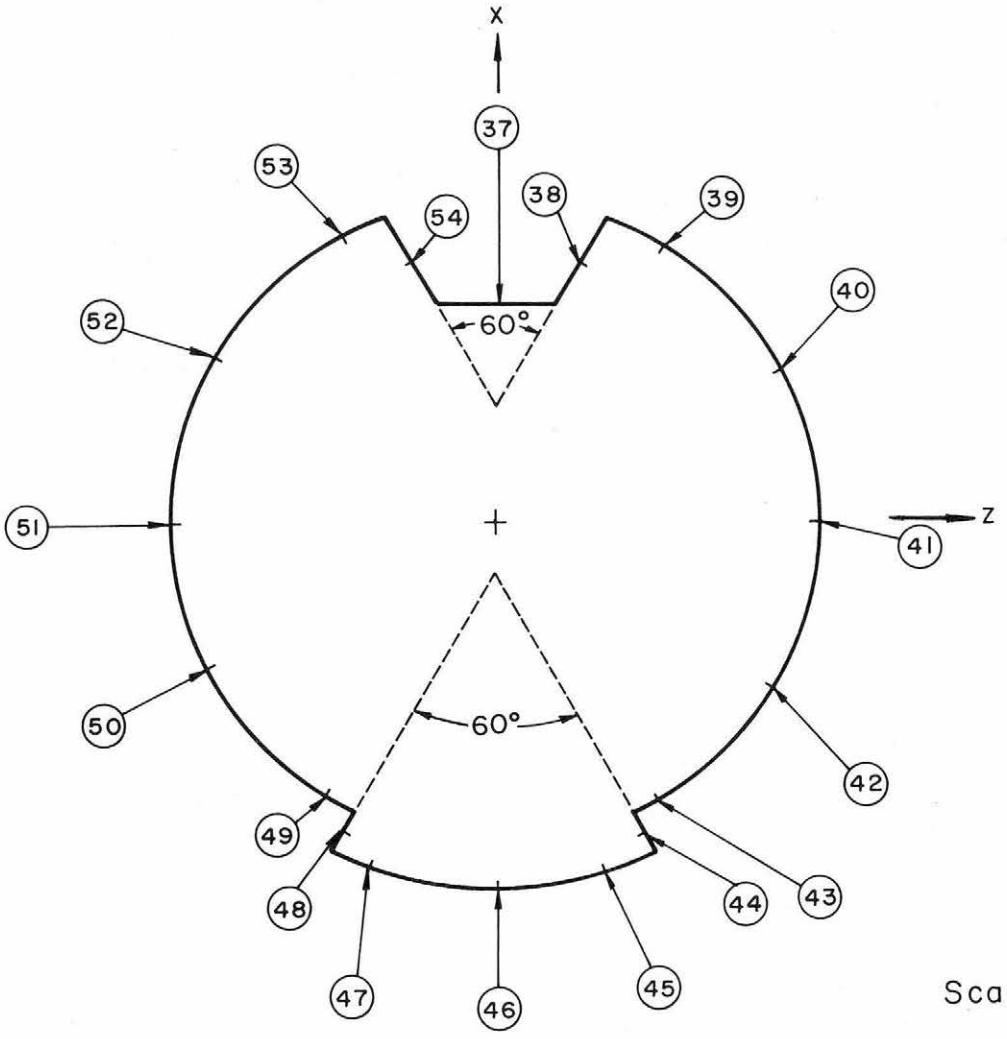


Figure 6 Piezometer Tap Locations on the Skyhouse--continued

LEVEL FOUR - OPEN OBSERVATION

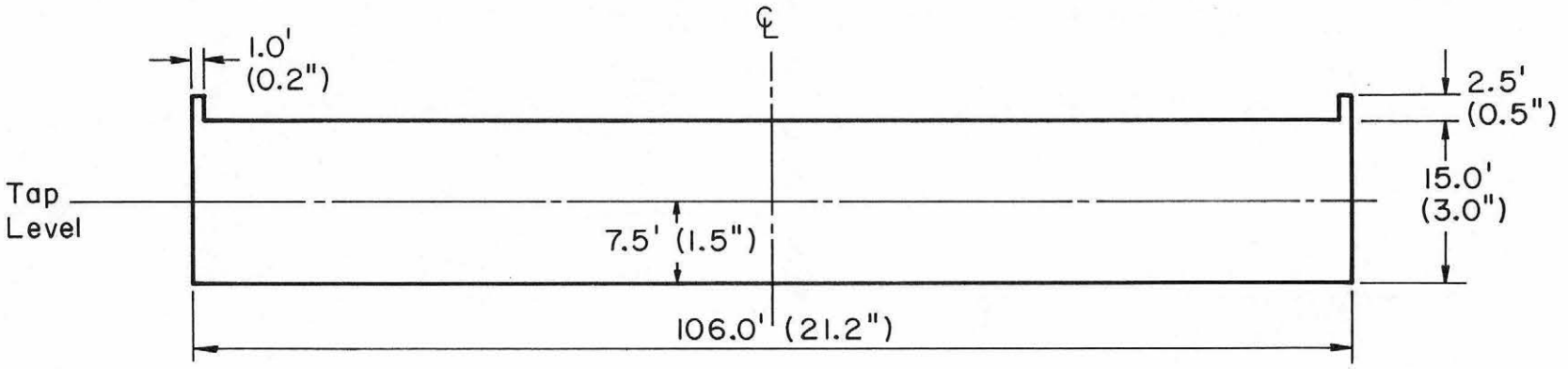


Tap	Angle
37	0°
38	On Face
39	30°
40	60°
41	90°
42	120°
43	150°
44	On Face
45	165°
46	180°
47	195°
48	On Face
49	210°
50	240°
51	270°
52	300°
53	330°
54	On Face

Scale: $\frac{1}{32}$" = 1'

Figure 6 Piezometer Tap Locations on the Skyhouse--continued

LEVEL FOUR - OPEN OBSERVATION



Scale: $\frac{1}{16}$" = 1'

Note - Model Dimensions
In Parentheses

LEVEL FIVE - ELEVATOR EQUIPMENT

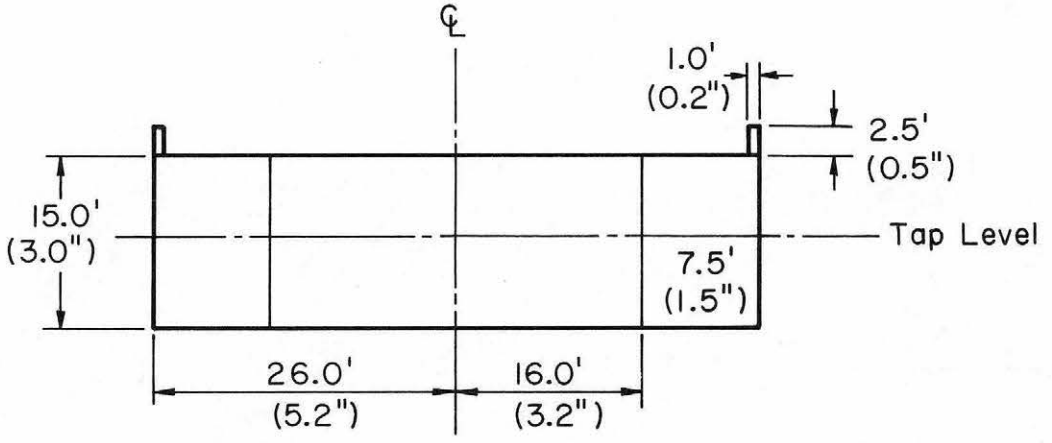


Figure 6 Piezometer Tap Locations on the Skyhouse--continued

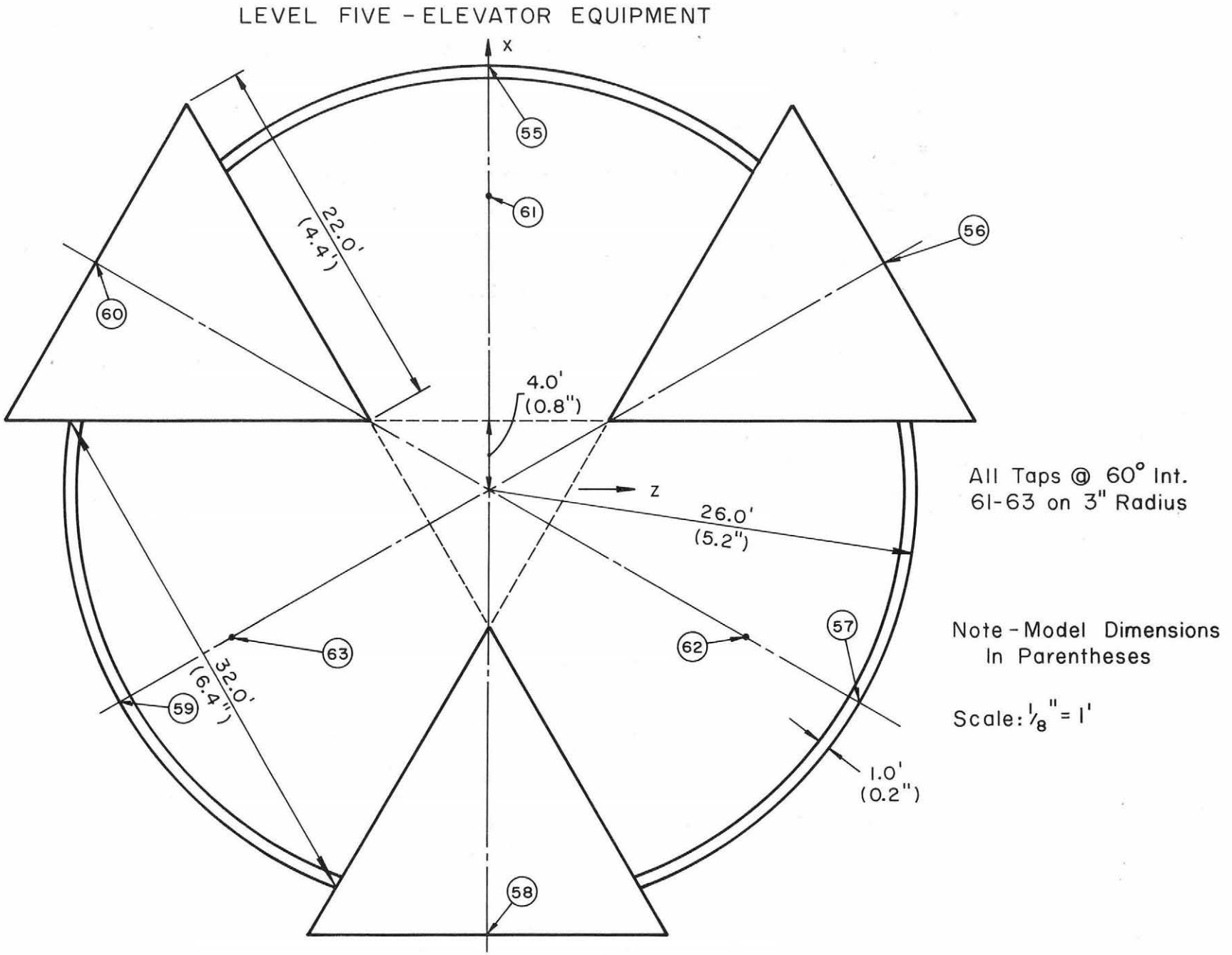


Figure 6 Piezometer Tap Locations on the Skyhouse--continued

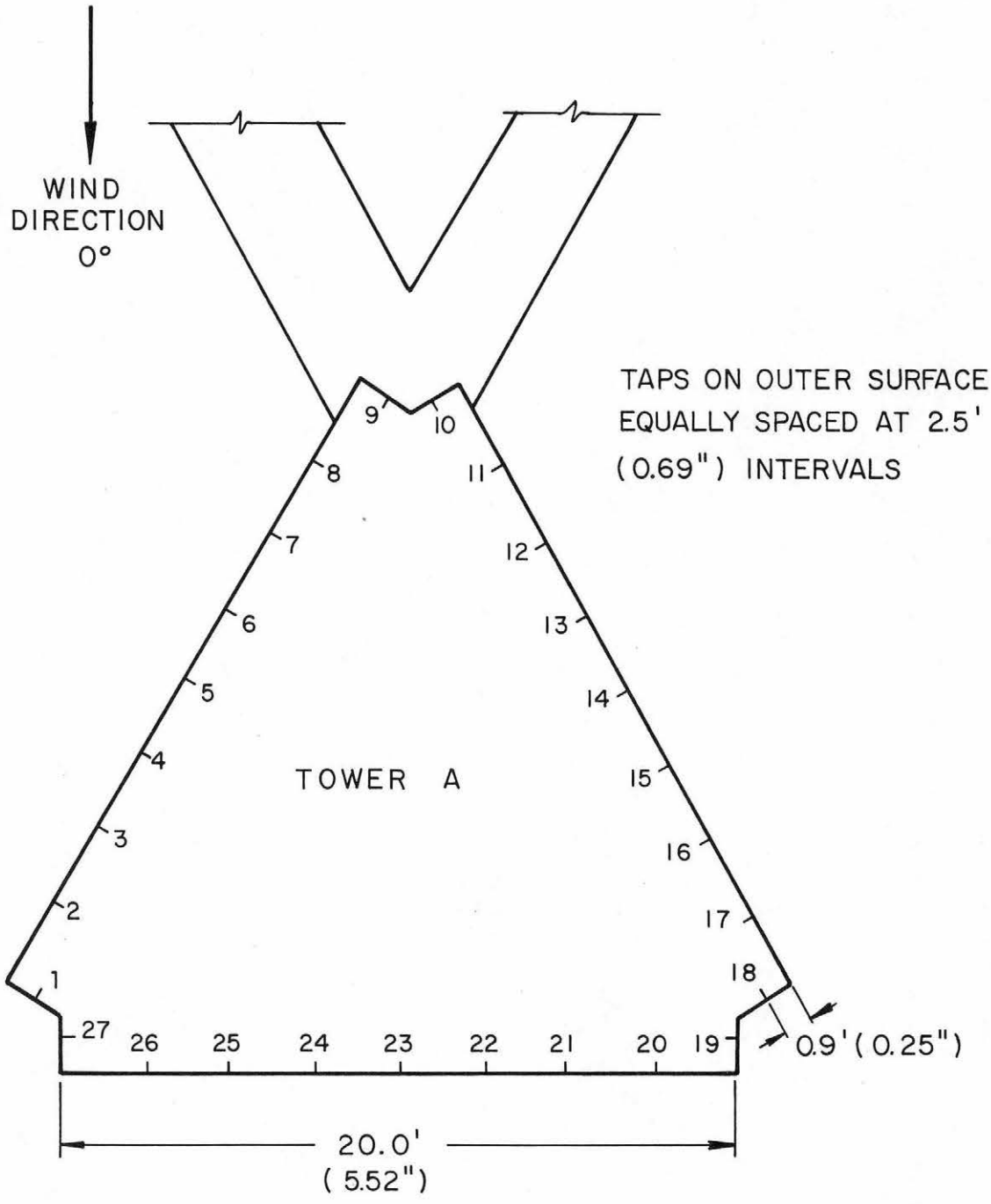


Figure 7 Piezometer Tap Locations on the Leg

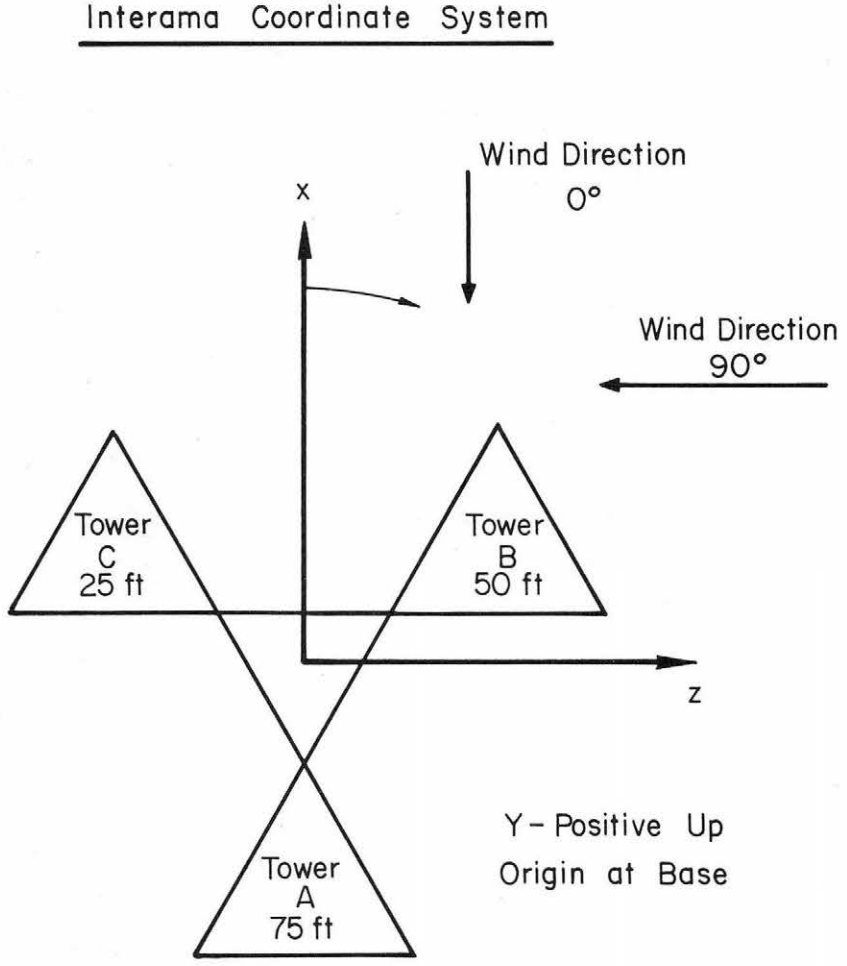


Figure 8 Coordinate System for Tower

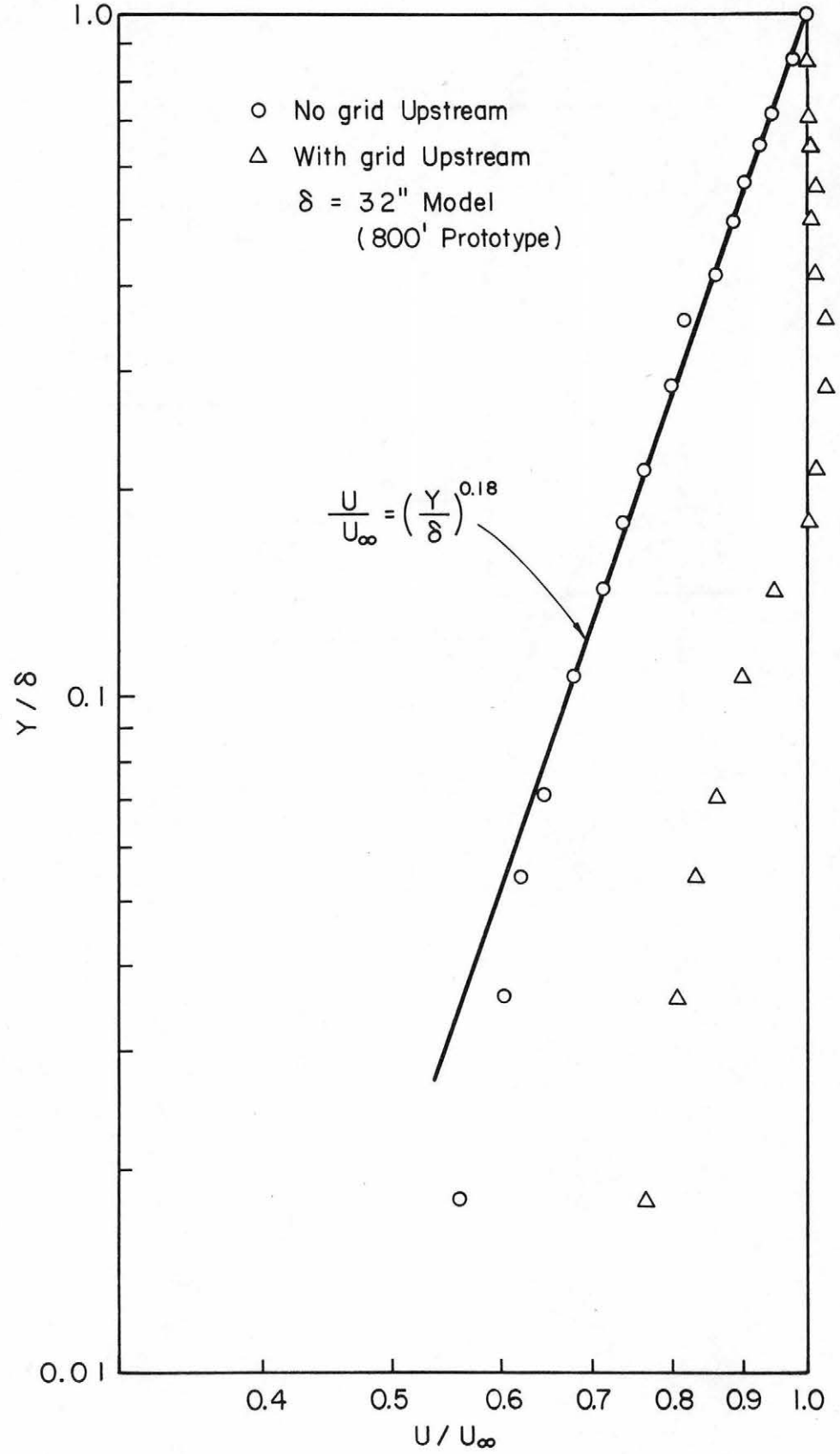


Figure 9 Approach Mean Velocity Profiles

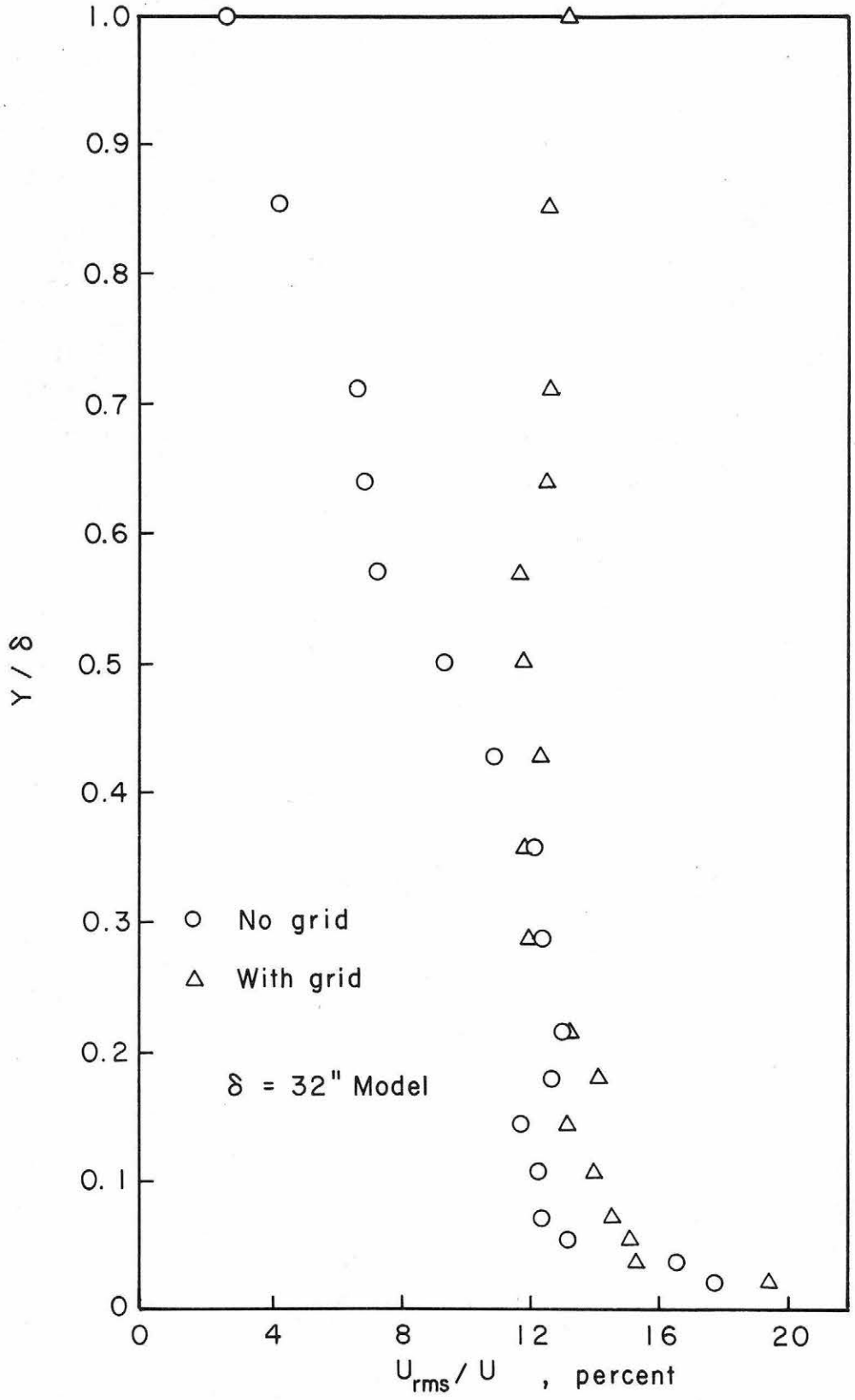


Figure 10 Approach Turbulence Intensity Profiles

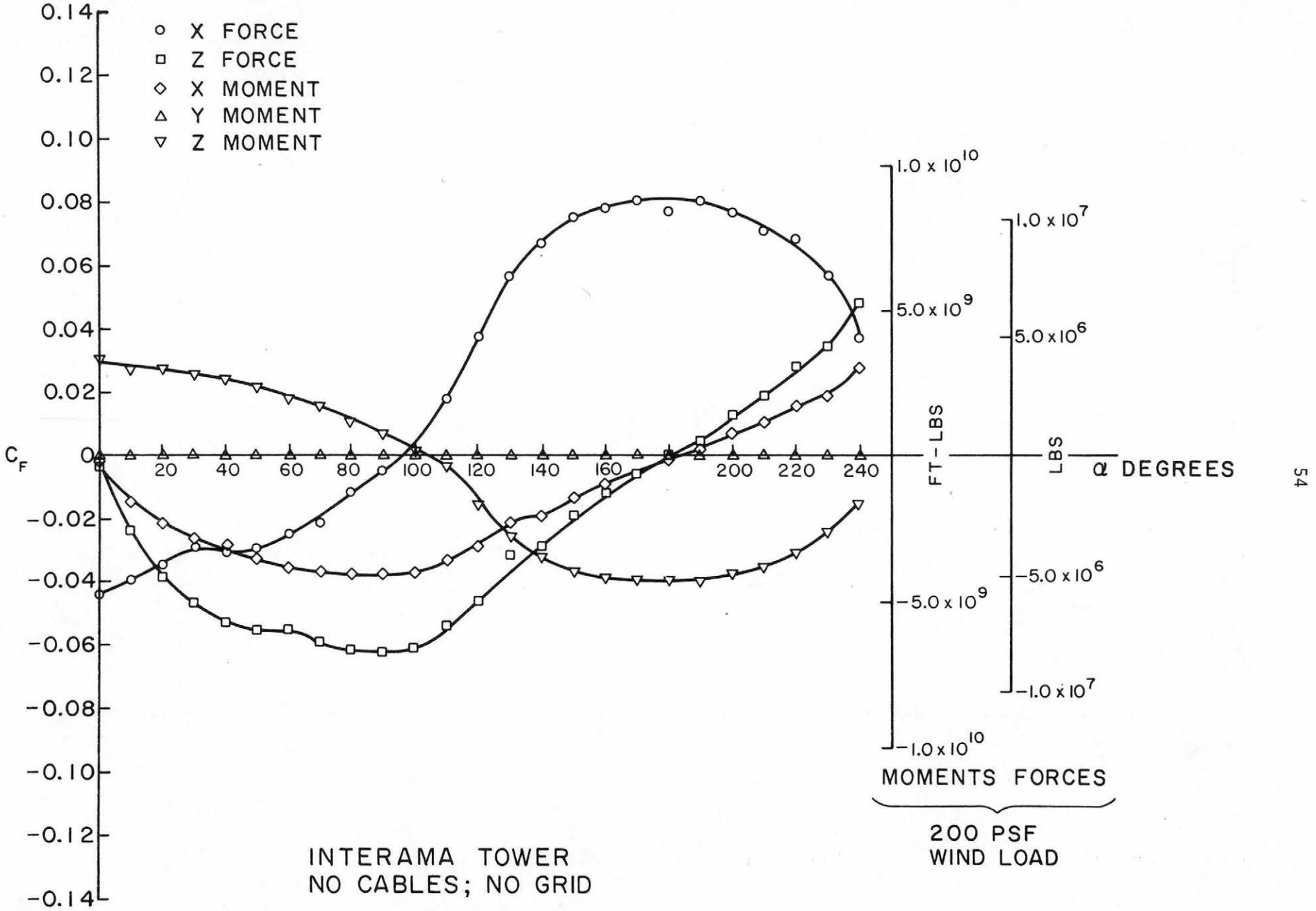


Figure 11 Forces and Moments on the Tower without Turbulence Grid

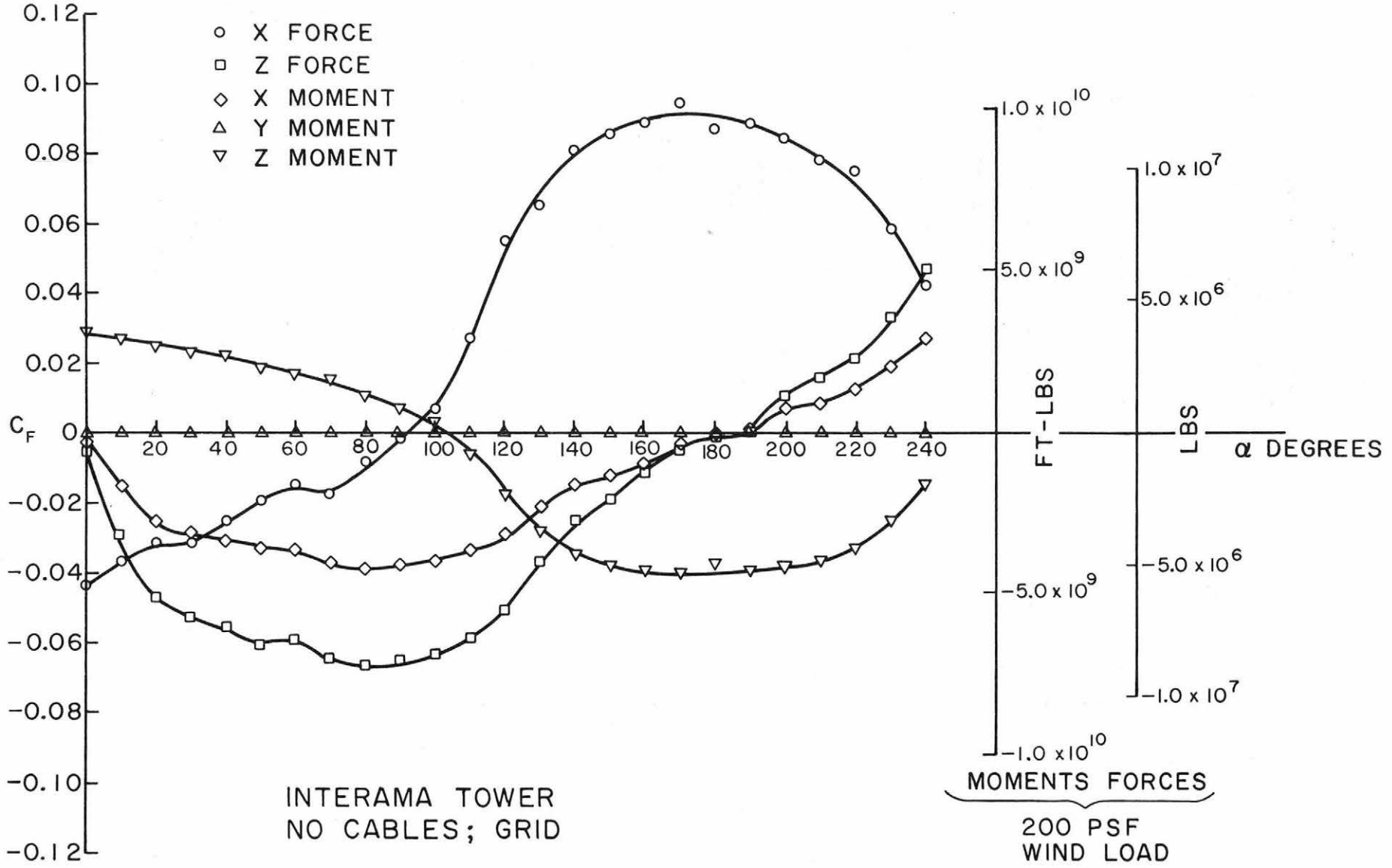


Figure 12 Forces and Moments on the Tower with Turbulence Grid

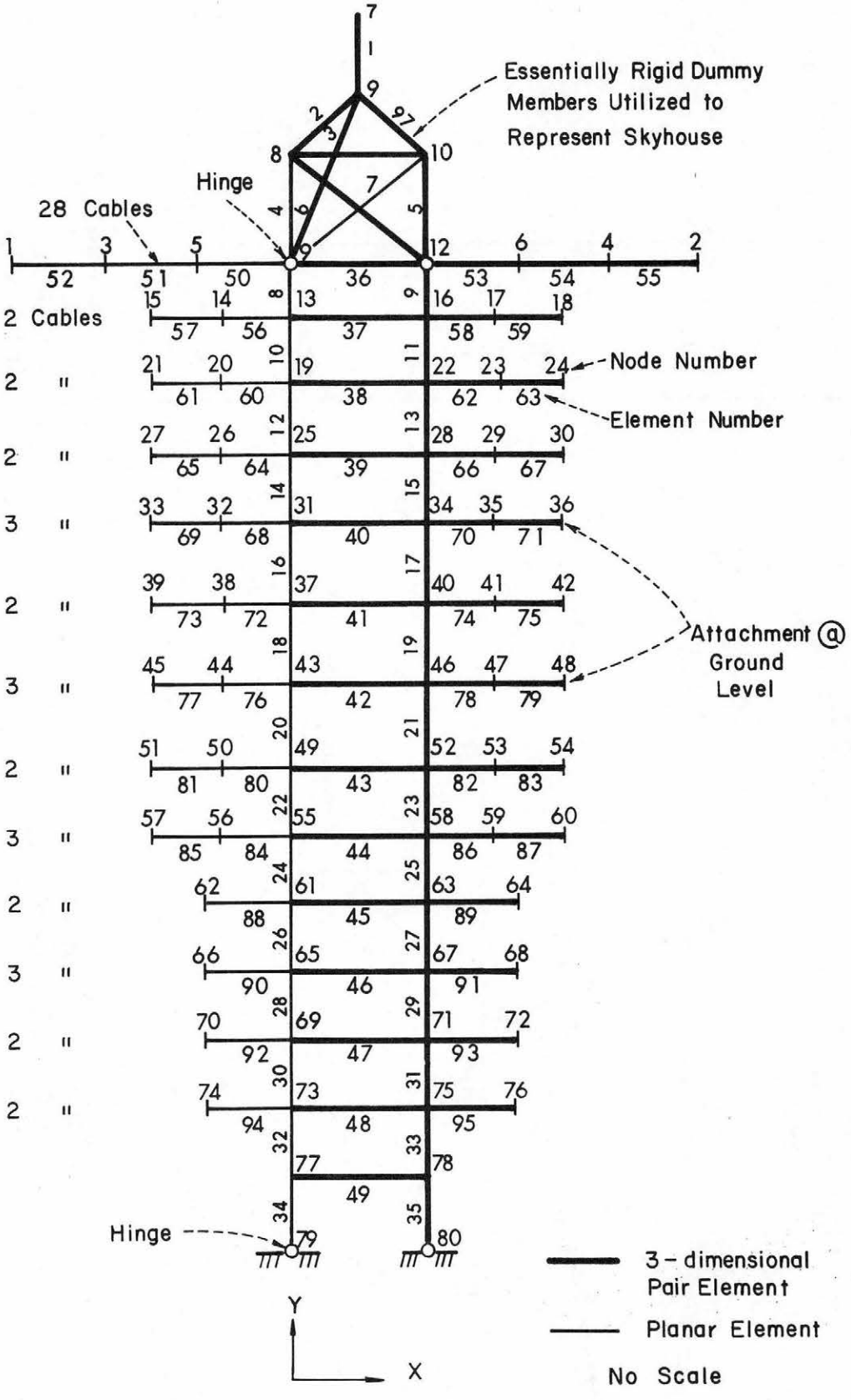


Figure 13 Tower Analytical Model

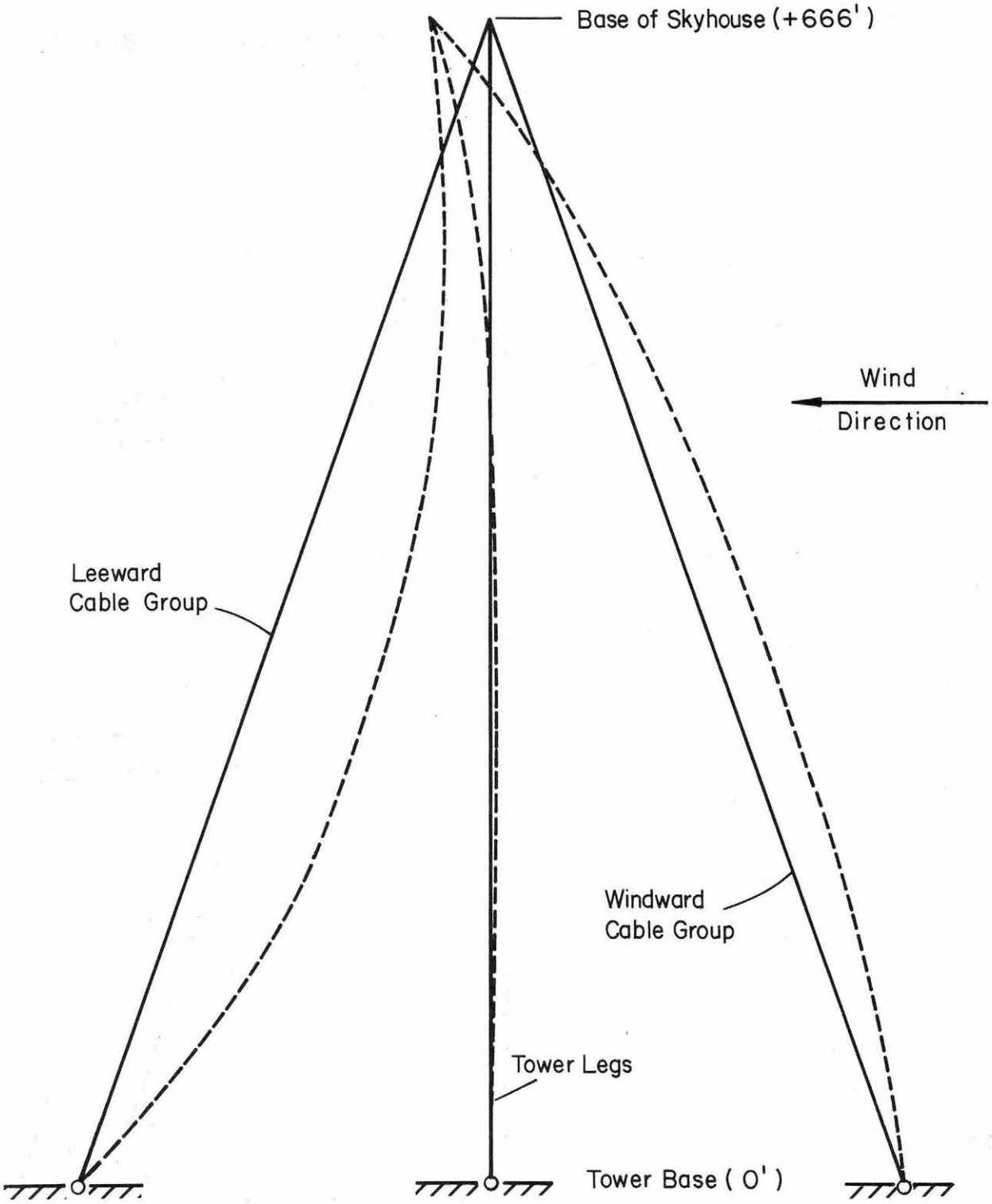


Figure 14 Typical First Mode of Vibration

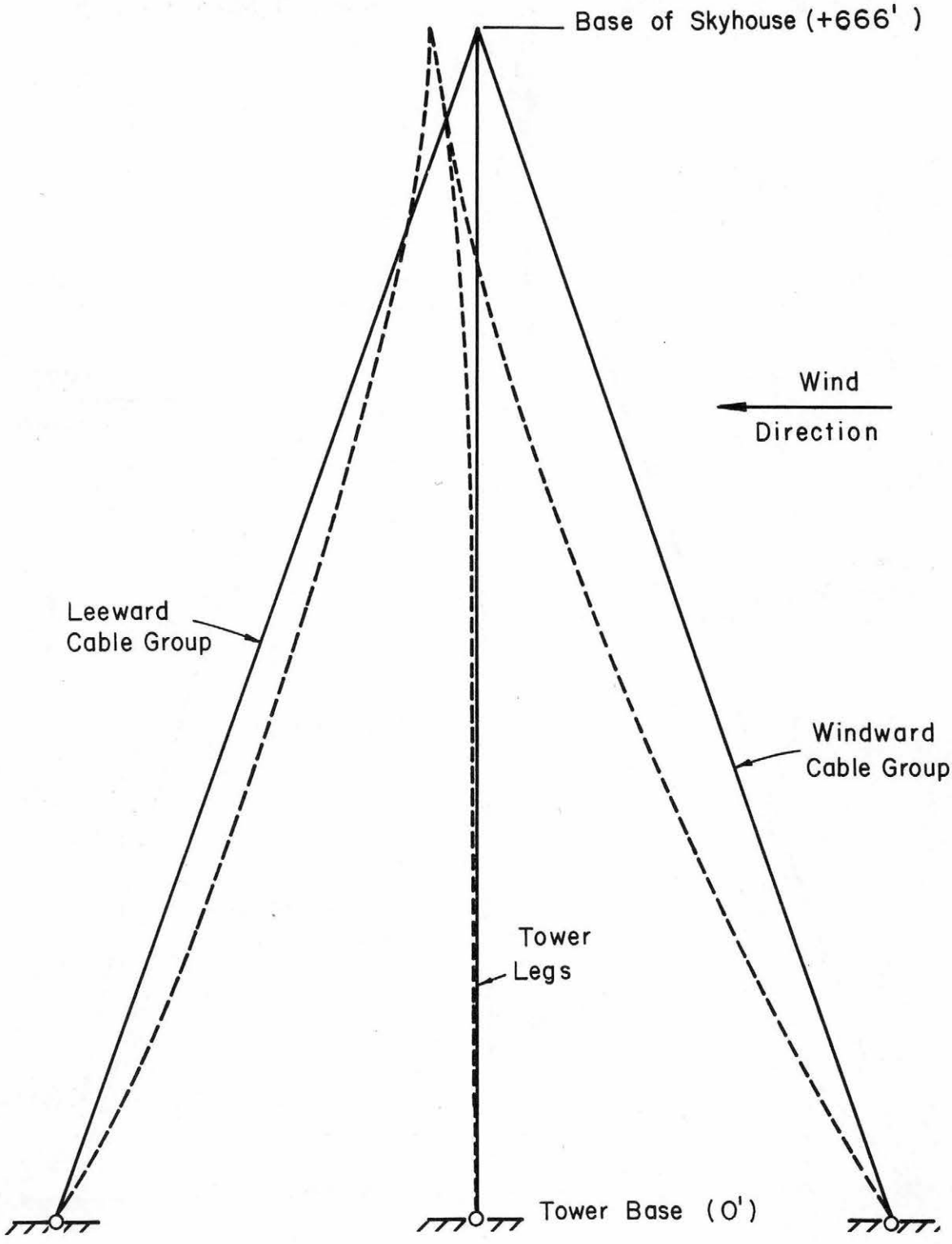


Figure 15 Tower Deflections U = 75 mph

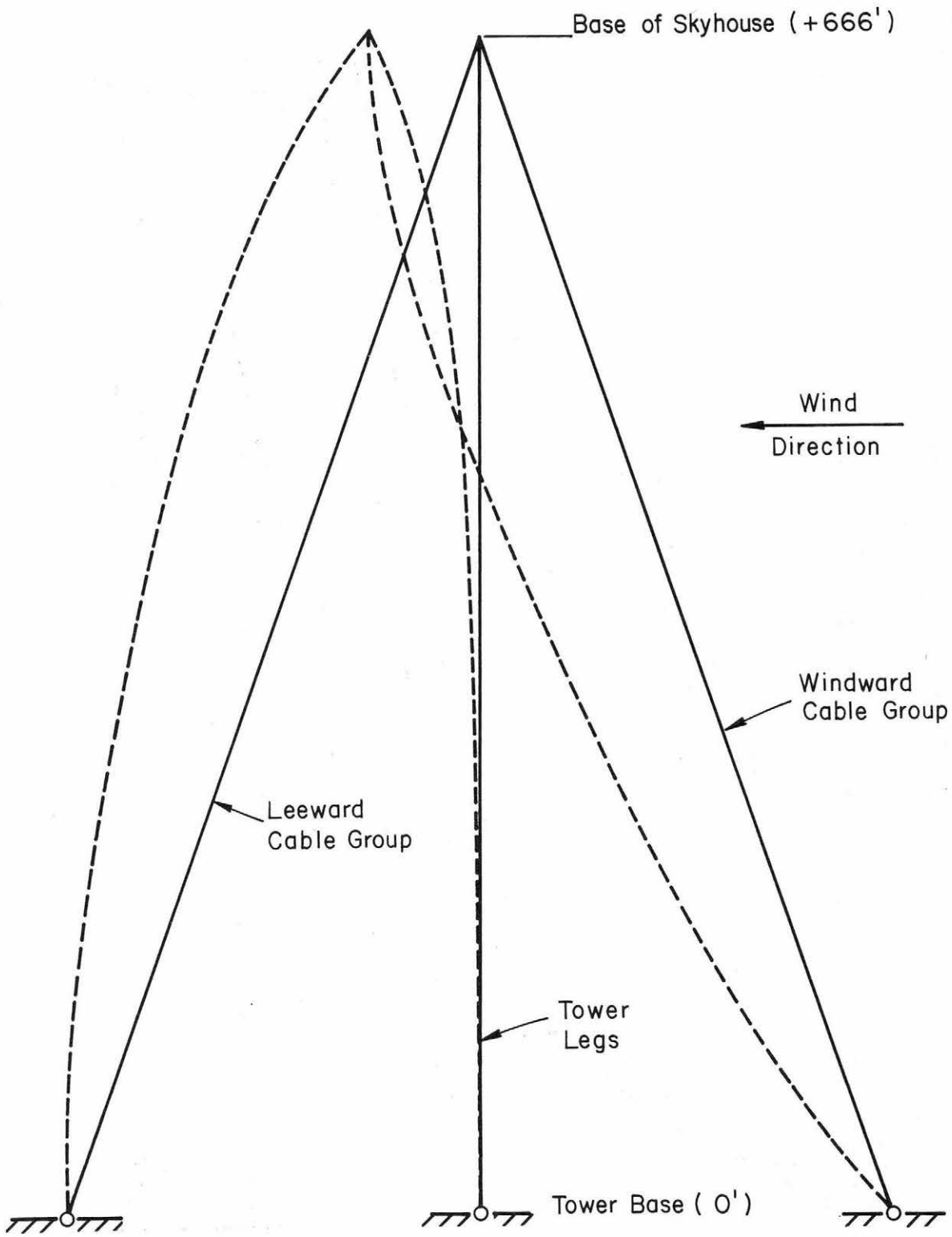


Figure 16 Tower Deflections U = 100 mph

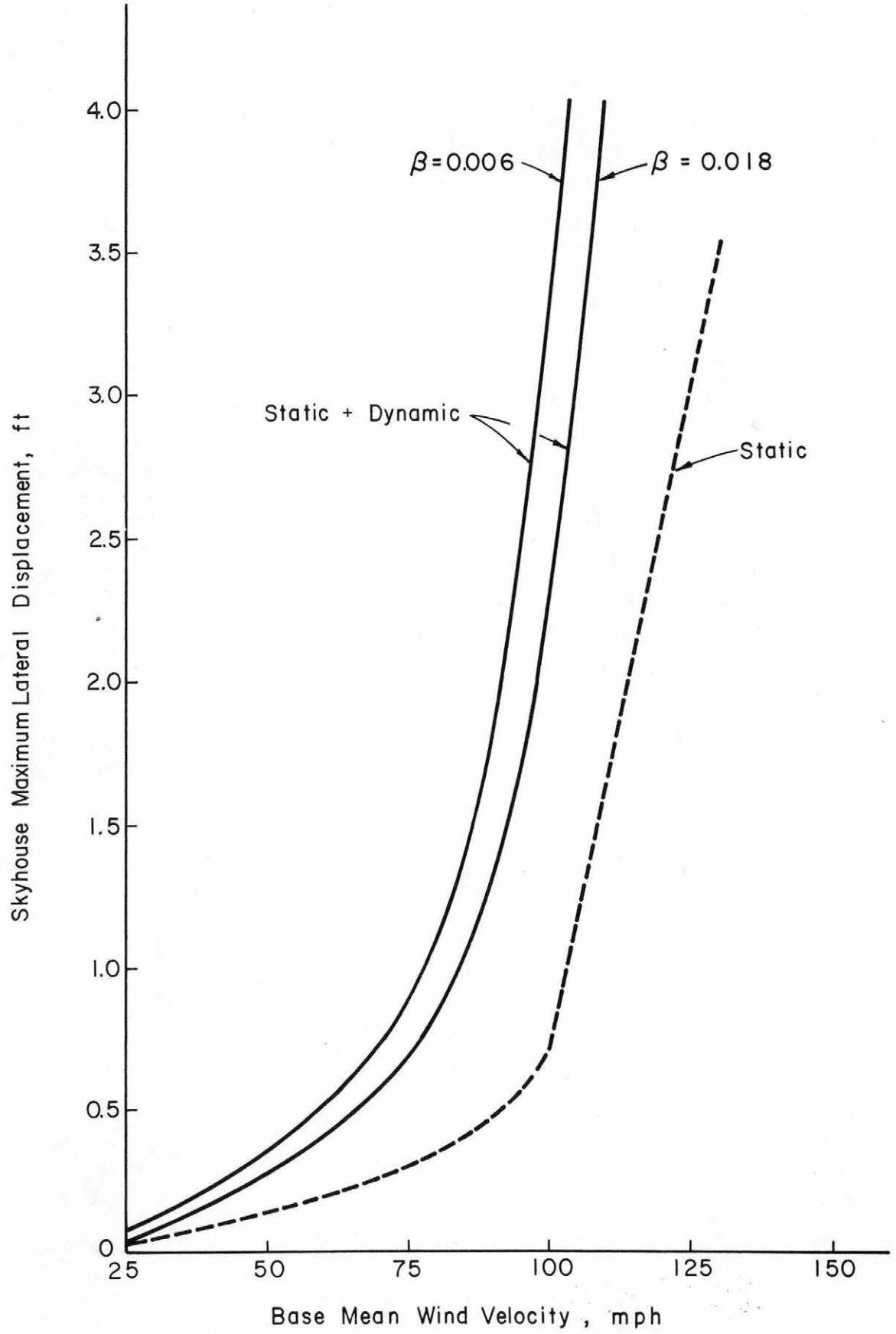


Figure 17 Skyhouse Maximum Lateral Displacements

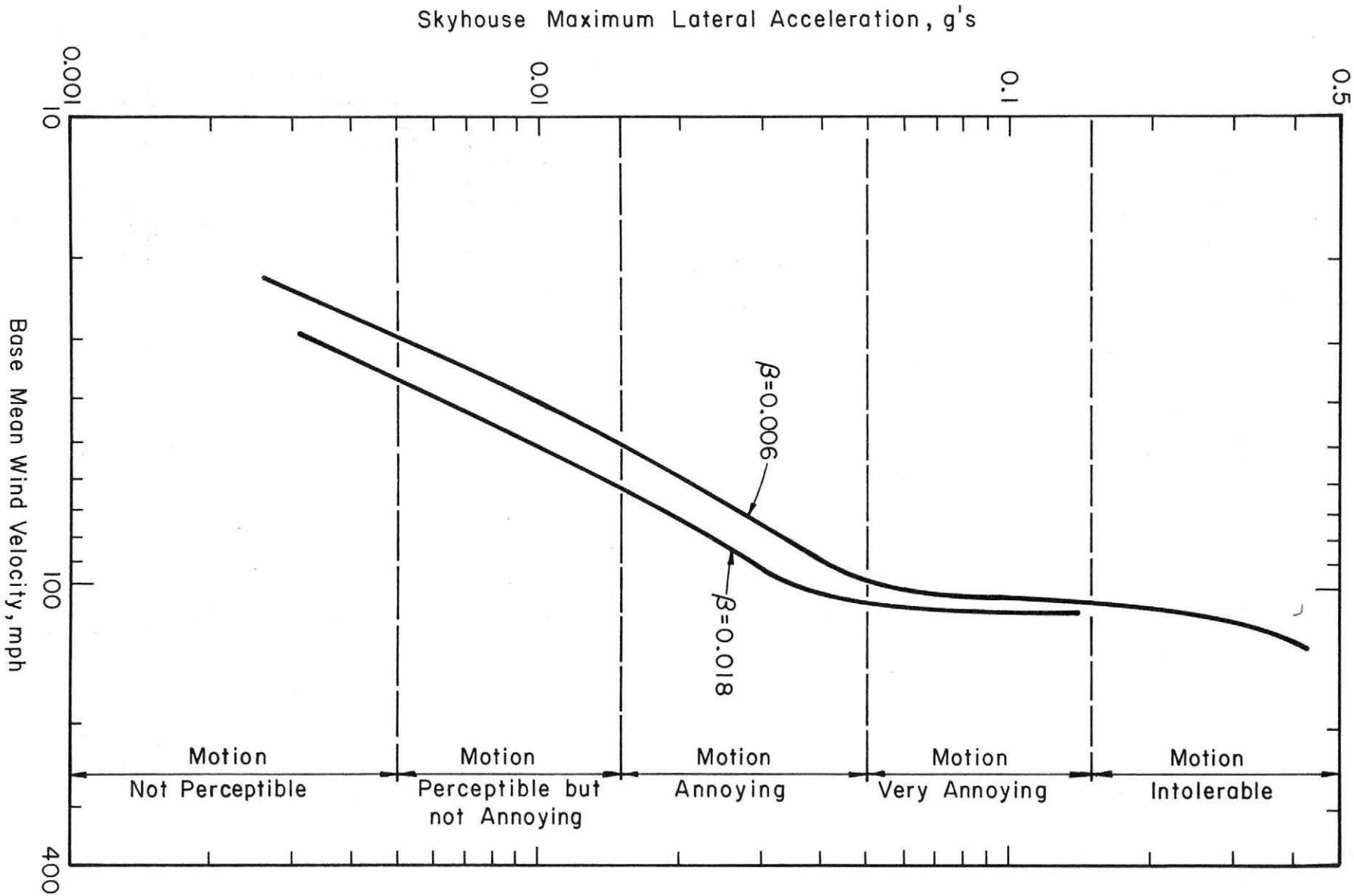


Figure 18 Skyhouse Maximum Lateral Accelerations

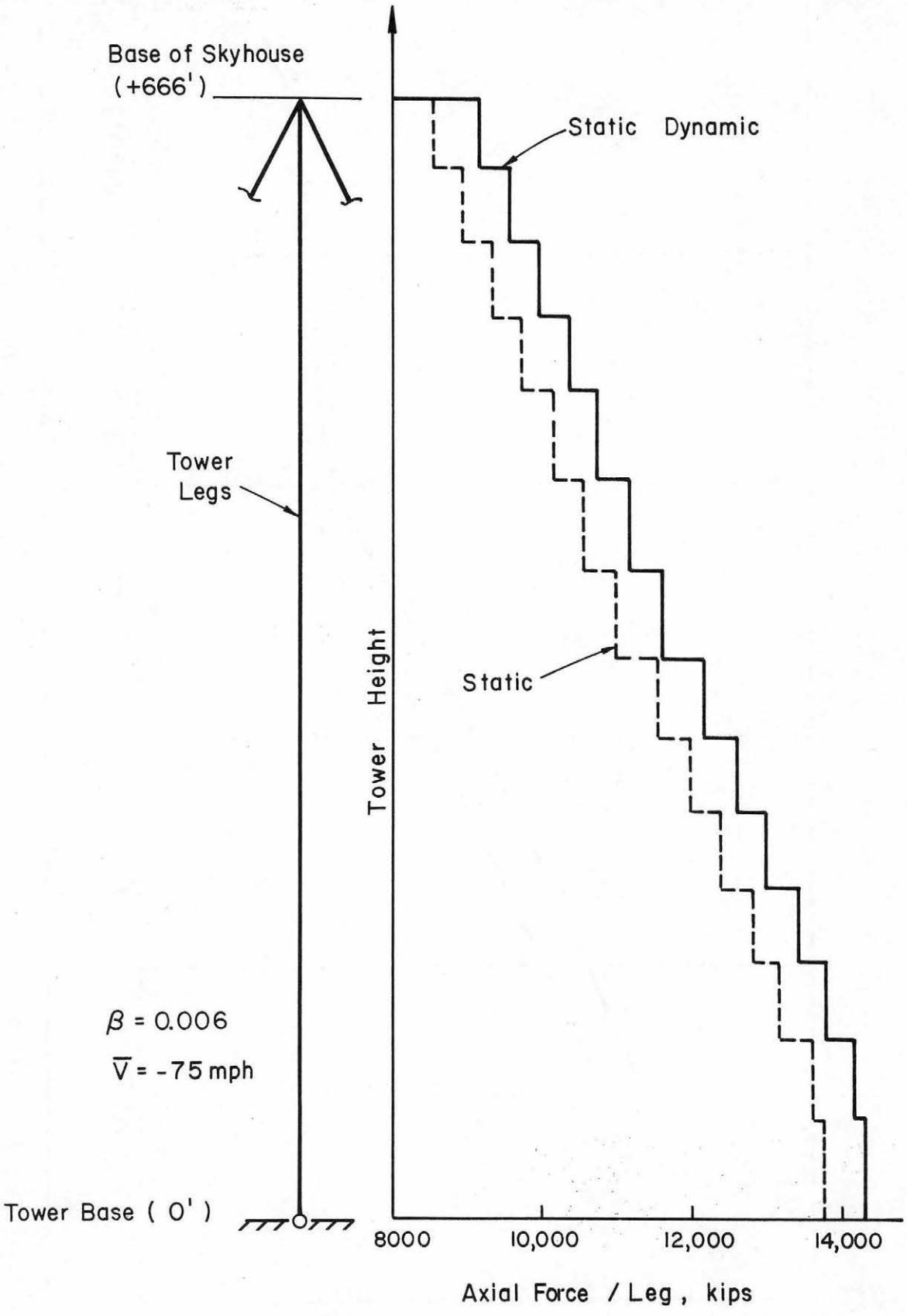


Figure 19 Tower Leg Axial Force Vs. Height

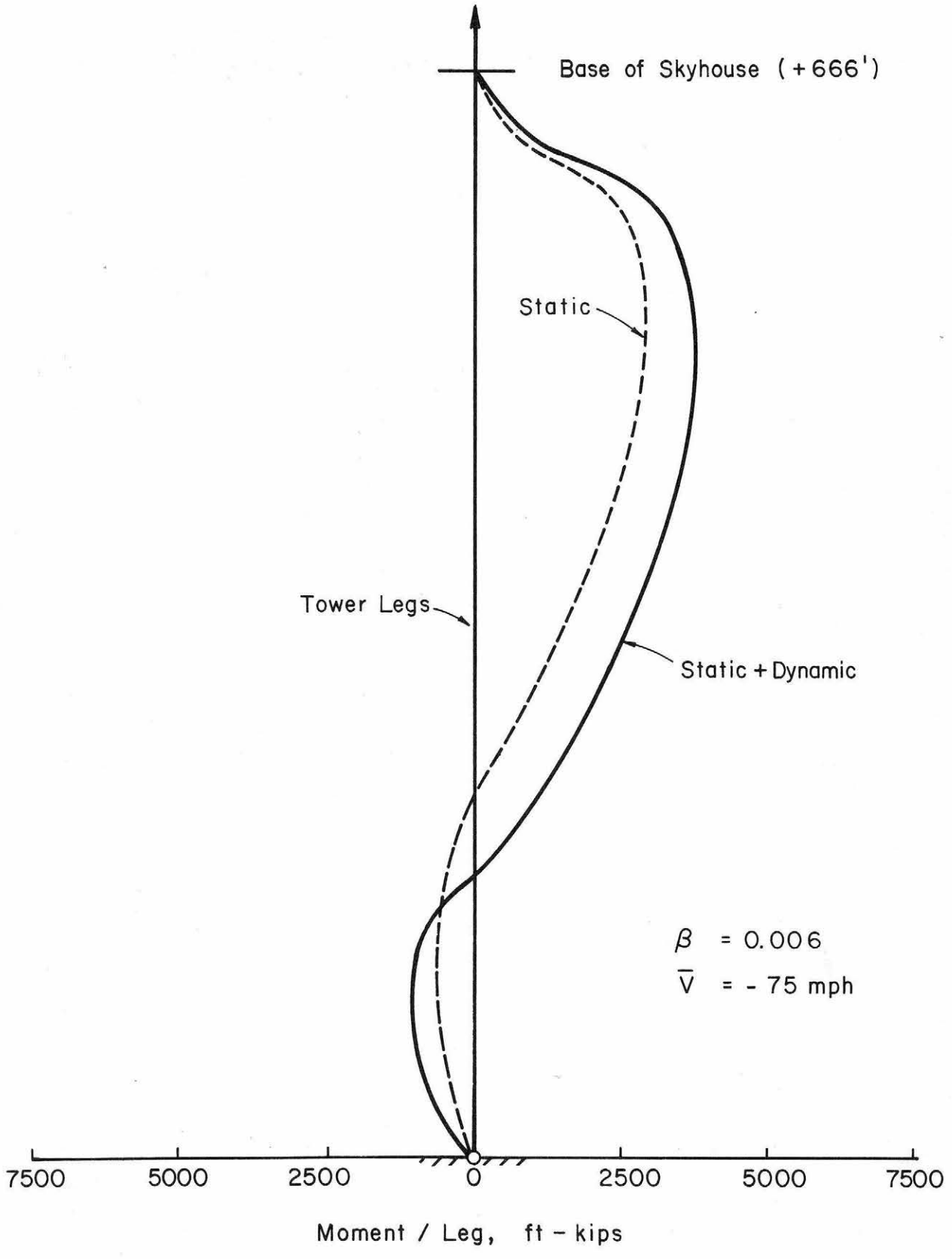


Figure 20 Tower Leg Moment Vs. Height

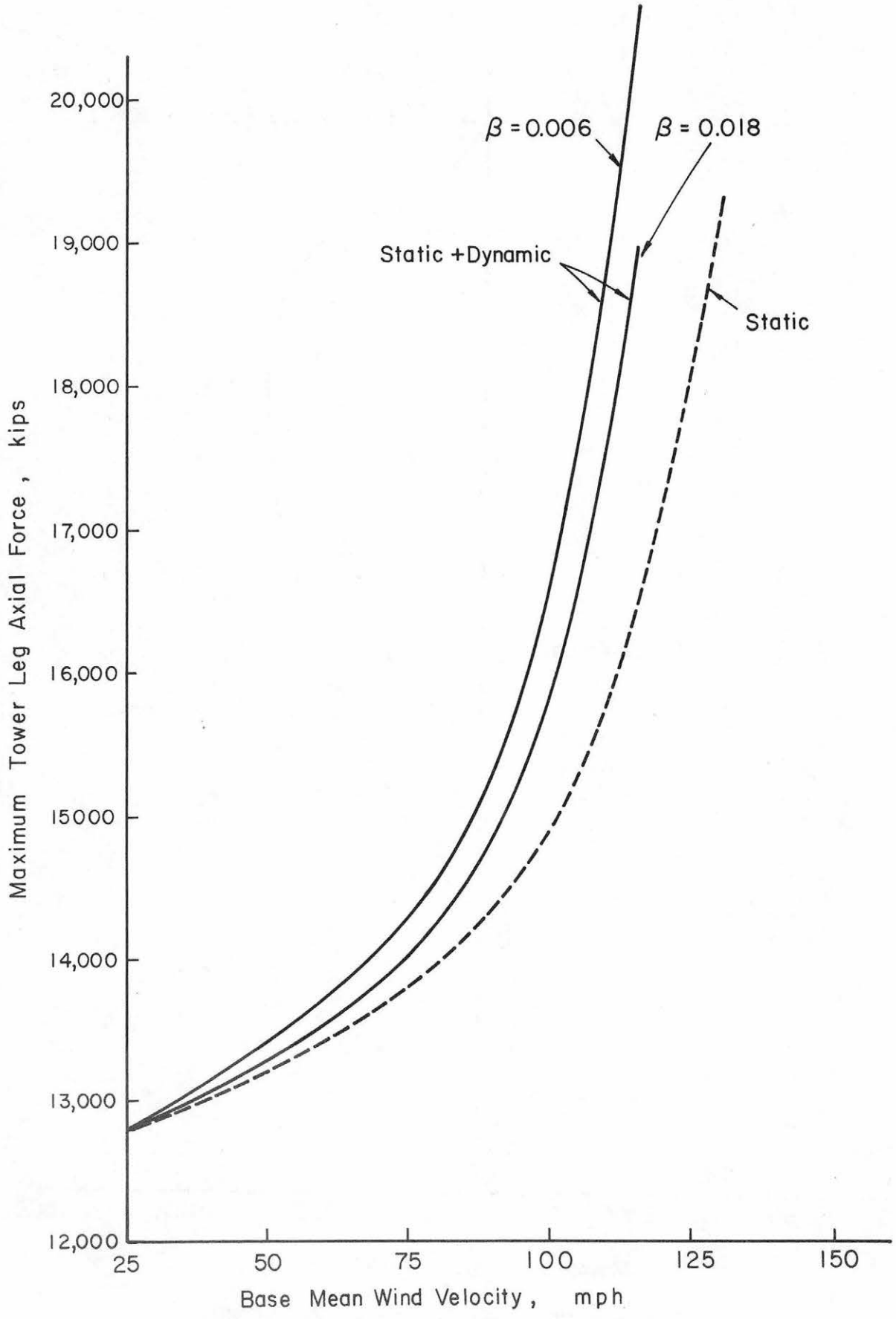


Figure 21 Maximum Tower Leg Axial Forces

TABLE 1

MOTION PICTURE SCENE GUIDE

Scene	Wind Velocity fps	Wind Direction Azimuth	Source*
Titles			
1	10	000	Upwind-Level 1
2	10	000	Upwind-Level 2
3	10	000	Upwind-Level 3
4	10	000	Upwind-Level 4
5	10	000	Observation Deck
6	10	045	Observation Deck
7	10	090	Observation Deck

Film Length approximately 300 ft.

Running time (24 frames per second) - 9 minutes

*See Figure 6 for Level definition

TABLE 2

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM
MEAN OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	345	.501	.064	.707	.287
2	30	.641	.074	.824	.393
3	60	.594	.071	.772	.333
4	90	.601	.072	.777	.340
5	105	.476	.064	.641	.257
6	165	.567	.065	.747	.330
7	180	.573	.064	.762	.335
8	210	.562	.072	.775	.275
9	270	.377	.058	.513	.167
10	270	.593	.070	.803	.356
11	300	.591	.069	.750	.354
12	330	.590	.069	.784	.366
13	15	.594	.060	.737	.371
14	15	.834	.069	.987	.573
15	30	.777	.070	.945	.534
16	60	.771	.076	.919	.481
17	120	.707	.065	.865	.469
18	180	.756	.067	.919	.461
19	240	.743	.063	.892	.503
20	300	.749	.071	.918	.462
21	330	.776	.059	.910	.542
22	345	.787	.068	.921	.532
23	60	.788	.068	.937	.522
24	300	.776	.060	.929	.535
25	345	.664	.059	.833	.390
26	30	.843	.067	.979	.592
27	60	.798	.065	.954	.507
28	90	.813	.045	.905	.584
29	120	.756	.056	.903	.481
30	165	.762	.053	.893	.517
31	180	.759	.055	.880	.518
32	210	.755	.058	.905	.501

TABLE 2 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM MEAN OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
33	240	.775	.057	.899	.446
34	270	.811	.063	.939	.492
35	300	.784	.057	.917	.526
36	330	.777	.067	.905	.494
37	345	.203	.111	.552	-.115
38	315	.349	.162	.848	-.244
39	15	.544	.053	.680	.249
40	60	.620	.053	.747	.291
41	90	.620	.047	.750	.357
42	135	.546	.044	.664	.250
43	165	.355	.141	.765	-.148
44	75	.390	.092	.744	-.012
45	165	.551	.034	.642	.371
46	180	.568	.036	.658	.375
47	195	.515	.033	.598	.358
48	300	.353	.112	.729	-.270
49	210	.556	.052	.728	.314
50	255	.597	.056	.747	.343
51	270	.577	.047	.710	.339
52	345	-0.000	-0.000	-0.000	-0.000
53	330	.566	.050	.723	.274
54	60	.212	.215	.918	-.688
55	15	.672	.070	.856	.172
56	90	.648	.050	.789	.356
57	135	.178	.103	.562	-.173
58	345	-0.000	-0.000	-0.000	-0.000
59	270	.132	.100	.508	-.208
60	300	.615	.063	.813	.363
61	330	.151	.066	.327	-.087
62	180	.724	.048	.871	.518
63	270	.401	.026	.493	.282

TABLE 2 (Continued)
WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE LEG SECTION WITH NO GRID
MAXIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM
MEAN OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	240	.706	.037	.792	.455
2	255	.733	.035	.823	.538
3	270	.707	.034	.808	.527
4	300	.712	.038	.855	.537
5	300	.713	.040	.837	.502
6	300	.680	.041	.800	.476
7	300	.551	.042	.672	.363
8	285	.380	.030	.504	.244
9	330	.738	.098	.966	.387
10	0	.751	.054	.970	.521
11	75	.395	.033	.534	.229
12	75	.562	.036	.690	.368
13	345	-0.000	-0.000	-0.000	-0.000
14	75	.716	.038	.817	.474
15	75	.714	.039	.817	.488
16	90	.717	.035	.815	.514
17	105	.741	.034	.830	.537
18	120	.740	.033	.839	.506
19	135	.707	.040	.818	.454
20	150	.745	.038	.852	.471
21	165	.735	.037	.823	.514
22	165	.738	.037	.831	.536
23	180	.717	.038	.803	.475
24	195	.716	.034	.805	.533
25	195	.737	.034	.820	.574
26	210	.739	.039	.835	.451
27	225	.711	.039	.801	.449

TABLE 3

WIND ENGINFERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	345	.501	.064	.707	.287
2	30	.641	.074	.824	.393
3	60	.594	.071	.772	.333
4	90	.601	.072	.777	.340
5	105	.476	.064	.641	.257
6	165	.567	.065	.747	.330
7	180	.573	.064	.762	.335
8	210	.562	.072	.775	.275
9	270	.377	.058	.513	.167
10	270	.593	.070	.803	.356
11	300	.591	.069	.750	.354
12	330	.590	.069	.784	.366
13	15	.594	.060	.737	.371
14	15	.834	.069	.987	.573
15	45	.734	.080	.964	.428
16	60	.771	.076	.919	.481
17	120	.707	.065	.865	.469
18	180	.756	.067	.919	.461
19	240	.743	.063	.892	.503
20	300	.749	.071	.918	.462
21	330	.776	.059	.910	.542
22	345	.787	.068	.921	.532
23	60	.788	.068	.937	.522
24	300	.776	.060	.929	.535
25	345	.664	.059	.833	.390
26	30	.843	.067	.979	.592
27	60	.798	.065	.954	.507
28	90	.813	.045	.905	.584
29	120	.756	.056	.903	.481
30	165	.762	.053	.893	.517
31	180	.759	.055	.880	.518
32	210	.755	.058	.905	.501

TABLE 3 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COFFFICIENT	MINIMUM PRESSURE COEFFICIENT
33	240	.775	.057	.899	.446
34	270	.811	.063	.939	.492
35	300	.784	.057	.917	.526
36	330	.777	.067	.905	.494
37	330	.149	.118	.593	-.264
38	315	.349	.162	.848	-.244
39	30	.523	.062	.707	.230
40	60	.620	.053	.747	.291
41	90	.620	.047	.750	.357
42	135	.546	.044	.664	.250
43	165	.355	.141	.765	-.148
44	75	.390	.092	.744	-.012
45	165	.551	.034	.642	.371
46	180	.568	.036	.658	.375
47	195	.515	.033	.598	.358
48	300	.353	.112	.729	-.270
49	195	.167	.169	.807	-.296
50	255	.597	.056	.747	.343
51	270	.577	.047	.710	.339
52	345	-0.000	-0.000	-0.000	-0.000
53	330	.566	.050	.723	.274
54	60	.212	.215	.918	-.688
55	30	.507	.139	1.021	-.230
56	60	.613	.077	.884	.340
57	135	.178	.103	.562	-.173
58	345	-0.000	-0.000	-0.000	-0.000
59	270	.132	.100	.508	-.208
60	315	.562	.073	.861	.309
61	345	.103	.106	.377	-.175
62	180	.724	.048	.871	.518
63	270	.401	.026	.493	.282

TABLE 3 (Continued)

WIND ENGINFERING STUDY OF THE INTERAMA TOWER
THE LEG SECTION WITH NO GRID
MAXIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	240	.706	.037	.792	.455
2	255	.733	.035	.823	.538
3	270	.707	.034	.808	.527
4	300	.712	.038	.855	.537
5	300	.713	.040	.837	.502
6	300	.680	.041	.800	.476
7	285	.551	.031	.678	.406
8	330	.137	.224	.758	-.570
9	0	.717	.054	.970	.475
10	330	.741	.102	.971	.386
11	75	.395	.033	.534	.229
12	75	.562	.036	.690	.368
13	345	-0.000	-0.000	-0.000	-0.000
14	75	.716	.038	.817	.474
15	75	.714	.039	.817	.488
16	90	.717	.035	.815	.514
17	105	.741	.034	.830	.537
18	120	.740	.033	.839	.506
19	135	.707	.040	.818	.454
20	150	.745	.038	.852	.471
21	165	.735	.037	.823	.514
22	165	.738	.037	.831	.536
23	180	.717	.038	.803	.475
24	195	.716	.034	.805	.533
25	180	.691	.036	.878	.487
26	210	.739	.039	.835	.451
27	225	.711	.039	.801	.449

TABLE 4

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM MEAN OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	255	-.566	.190	-.360	-1.344
2	270	-.635	.100	-.310	-1.179
3	300	-.828	.096	-.505	-1.156
4	330	-.651	.098	-.301	-.998
5	15	-.575	.055	-.422	-.789
6	30	-.627	.088	-.337	-.921
7	300	-.824	.096	-.504	-1.150
8	345	-.709	.110	-.302	-1.132
9	135	-.520	.050	-.320	-.747
10	165	-.566	.082	-.337	-.941
11	60	-.880	.108	-.525	-1.246
12	90	-.671	.095	-.352	-.983
13	90	-.865	.045	-.724	-.982
14	300	-.810	.046	-.609	-.960
15	105	-.808	.047	-.592	-.945
16	330	-.868	.106	-.419	-1.304
17	30	-.820	.043	-.675	-.942
18	75	-.840	.093	-.528	-1.231
19	330	-.792	.043	-.647	-.917
20	60	-.797	.098	-.531	-1.181
21	255	-.953	.055	-.748	-1.114
22	75	-.911	.052	-.713	-1.094
23	330	-.853	.130	-.441	-1.385
24	15	-.767	.100	-.377	-1.100
25	90	-.626	.033	-.506	-.771
26	120	-.606	.042	-.451	-.790
27	330	-.732	.121	-.318	-1.205
28	15	-.600	.036	-.440	-.734
29	30	-.633	.039	-.504	-.767
30	240	-.605	.045	-.467	-.760
31	75	-.687	.118	-.317	-1.062
32	135	-.633	.036	-.494	-.766

TABLE 4 (Continued)
WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM MEAN OCCUPRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
33	345	-.593	.047	-.429	-.798
34	30	-.488	.142	.055	-1.035
35	30	-.707	.170	-.024	-1.379
36	255	-.619	.040	-.498	-.773
37	120	-.690	.050	-.519	-.873
38	90	-.732	.049	-.559	-.888
39	300	-1.008	.119	-.488	-1.432
40	180	-1.120	.073	-.837	-1.383
41	210	-.963	.065	-.723	-1.171
42	15	-.975	.056	-.753	-1.158
43	240	-1.040	.055	-.875	-1.287
44	240	-1.012	.049	-.841	-1.217
45	300	-.724	.128	-.323	-1.112
46	75	-.734	.073	-.465	-.999
47	75	-.815	.118	-.194	-1.312
48	135	-1.027	.040	-.850	-1.144
49	135	-1.052	.046	-.868	-1.229
50	345	-.790	.042	-.659	-.947
51	165	-.969	.049	-.793	-1.156
52	75	-1.097	.098	-.718	-1.507
53	75	-.964	.066	-.697	-1.211
54	255	-.626	.051	-.461	-.784
55	120	-.739	.124	-.271	-1.362
56	180	-.474	.041	-.315	-.634
57	225	-.729	.151	-.289	-1.241
58	345	-0.000	-0.000	-0.000	-0.000
59	120	-.827	.203	-.287	-1.362
60	225	-.987	.230	-.077	-1.449
61	255	-.853	.060	-.594	-1.058
62	105	-.960	.181	-.142	-1.252
63	15	-.865	.127	-.478	-1.564

TABLE 4 (Continued)
WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE LEG SECTION WITH NO GRID
MINIMUM MEAN PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM MEAN OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	315	-.567	.145	-.134	-1.118
2	210	-.586	.069	-.360	-.836
3	210	-.624	.070	-.366	-.901
4	210	-.642	.073	-.394	-.904
5	210	-.648	.077	-.206	-.892
6	210	-.553	.087	-.016	-.836
7	120	-.482	.037	-.356	-.615
8	315	-.527	.314	.472	-1.499
9	240	-.526	.058	-.374	-.744
10	240	-.500	.058	-.345	-.712
11	45	-.546	.274	.256	-1.375
12	240	-.528	.055	-.345	-.753
13	345	-0.000	-0.000	-0.000	-0.000
14	150	-.708	.090	-.178	-1.015
15	150	-.726	.090	-.429	-1.023
16	150	-.718	.092	-.415	-1.023
17	150	-.714	.088	-.377	-.982
18	45	-.520	.123	-.190	-1.006
19	240	-.534	.079	-.264	-.889
20	105	-.951	.054	-.772	-1.168
21	105	-.961	.053	-.790	-1.170
22	105	-.908	.058	-.622	-1.110
23	255	-.858	.090	-.559	-1.232
24	255	-.864	.094	-.563	-1.220
25	255	-.851	.087	-.571	-1.159
26	255	-.794	.082	-.540	-1.093
27	285	-.547	.112	-.292	-1.155

TABLE 5

WIND ENGINFERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM
PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	255	-.566	.190	-.360	-1.344
2	270	-.635	.100	-.310	-1.179
3	300	-.828	.096	-.505	-1.156
4	210	-.618	.095	-.291	-1.016
5	270	-.424	.076	-.241	-.973
6	270	-.492	.098	-.199	-1.093
7	60	-.810	.103	-.469	-1.185
8	345	-.709	.110	-.302	-1.132
9	30	-.468	.104	-.159	-.933
10	165	-.566	.082	-.337	-.941
11	60	-.880	.108	-.525	-1.246
12	90	-.671	.095	-.352	-.983
13	90	-.865	.045	-.724	-.982
14	300	-.810	.046	-.609	-.960
15	105	-.808	.047	-.592	-.945
16	165	-.702	.104	-.352	-1.317
17	45	-.802	.046	-.628	-.950
18	270	-.796	.121	-.324	-1.336
19	330	-.792	.043	-.647	-.917
20	45	-.714	.112	-.333	-1.350
21	255	-.953	.055	-.748	-1.114
22	75	-.911	.052	-.713	-1.094
23	285	-.485	.084	-.093	-1.439
24	30	-.746	.144	-.341	-1.344
25	90	-.626	.033	-.506	-.771
26	135	-.300	.078	-.058	-.889
27	180	-.542	.107	-.133	-1.291
28	330	-.549	.114	-.170	-1.247
29	180	-.179	.031	-.097	-1.184
30	270	-.521	.141	-.101	-1.466
31	90	-.670	.160	-.018	-1.206
32	90	-.515	.130	-.120	-1.423

TABLE 5 (Continued)

WIND ENGINFERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
33	15	-.461	.063	-.273	-.847
34	45	-.429	.098	-.066	-1.193
35	45	-.613	.192	-.066	-1.426
36	210	-.418	.134	.020	-1.132
37	90	-.674	.066	-.422	-.914
38	180	-.542	.132	.236	-1.009
39	300	-1.008	.119	-.488	-1.432
40	195	-1.035	.119	-.525	-1.436
41	330	-.873	.122	-.450	-1.218
42	15	-.975	.056	-.753	-1.158
43	240	-1.040	.055	-.875	-1.287
44	240	-1.012	.049	-.841	-1.217
45	300	-.724	.128	-.323	-1.112
46	75	-.734	.073	-.465	-.999
47	75	-.815	.118	-.194	-1.312
48	135	-1.027	.040	-.850	-1.144
49	255	.031	.067	.275	-1.344
50	345	-.790	.042	-.659	-.947
51	255	.442	.059	.595	-1.532
52	255	-.062	.025	-.025	-1.557
53	75	-.964	.066	-.697	-1.211
54	180	-.488	.153	.040	-1.088
55	255	-.519	.177	.050	-1.509
56	135	-.412	.120	-.066	-.922
57	255	-.695	.113	-.331	-1.344
58	345	-0.000	-0.000	-0.000	-0.000
59	120	-.827	.203	-.287	-1.362
60	30	-.871	.131	-.426	-1.537
61	240	-.825	.073	-.628	-1.238
62	105	-.960	.181	-.142	-1.252
63	15	-.865	.127	-.478	-1.564

TABLE 5 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE LEG SECTION WITH NO GRID
MINIMUM PEAK PRESSURE COEFFICIENTS BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM PEAK OCCURRED

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	150	-.413	.258	.283	-1.208
2	150	-.418	.244	.170	-1.353
3	150	-.446	.219	.080	-1.369
4	105	-.435	.043	-.289	-1.380
5	315	-.088	.124	.366	-1.316
6	150	-.431	.110	.005	-.924
7	150	-.459	.170	-.018	-1.170
8	315	-.527	.314	.472	-1.499
9	135	-.496	.090	-.155	-1.122
10	150	-.435	.192	.103	-1.094
11	45	-.546	.274	.256	-1.375
12	210	-.322	.091	.029	-.873
13	345	-0.000	-0.000	-0.000	-0.000
14	150	-.708	.090	-.178	-1.015
15	150	-.726	.090	-.429	-1.023
16	150	-.718	.092	-.415	-1.023
17	150	-.714	.088	-.377	-.982
18	45	-.520	.123	-.190	-1.006
19	45	-.534	.148	.121	-1.050
20	270	-.504	.064	-.301	-1.219
21	180	.678	.048	.753	-1.282
22	105	-.908	.058	-.622	-1.110
23	255	-.858	.090	-.559	-1.232
24	255	-.864	.094	-.563	-1.220
25	255	-.851	.087	-.571	-1.159
26	255	-.794	.082	-.540	-1.093
27	135	-.485	.148	.043	-1.278

TABLE 6

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM MEAN PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM MEAN OCCURRED, BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1	345	55.110	7.040	77.770	31.570
2	30	70.510	8.140	90.640	43.230
3	60	65.340	7.810	84.920	36.630
4	90	66.110	7.920	85.470	37.400
5	105	52.360	7.040	70.510	28.270
6	165	62.370	7.150	82.170	36.300
7	180	63.030	7.040	83.820	36.850
8	210	61.820	7.920	85.250	30.250
9	270	41.470	6.380	56.430	18.370
10	270	65.230	7.700	88.330	39.160
11	300	65.010	7.590	82.500	38.940
12	330	64.900	7.590	86.240	40.260
13	15	65.340	6.600	81.070	40.810
14	15	91.740	7.590	108.570	63.030
15	30	85.470	7.700	103.950	58.740
16	60	84.810	8.360	101.090	52.910
17	120	77.770	7.150	95.150	51.590
18	180	83.160	7.370	101.090	50.710
19	240	81.730	6.930	98.120	55.330
20	300	82.390	7.810	100.980	50.820
21	330	85.360	6.490	100.100	59.620
22	345	86.570	7.480	101.310	58.520
23	60	86.680	7.480	103.070	57.420
24	300	85.360	6.600	102.190	58.850
25	345	73.040	6.490	91.630	42.900
26	30	92.730	7.370	107.690	65.120
27	60	87.780	7.150	104.940	55.770
28	90	89.430	4.950	99.550	64.240
29	120	83.160	6.160	99.330	52.910
30	165	83.820	5.830	98.230	56.870
31	180	83.490	6.050	96.800	56.980
32	210	83.050	6.380	99.550	55.110

TABLE 6 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM MEAN PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM
MEAN OCCURRED, BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
33	240	85.250	6.270	98.890	49.060
34	270	89.210	6.930	103.290	54.120
35	300	86.240	6.270	100.870	57.860
36	330	85.470	7.370	99.550	54.340
37	345	22.330	12.210	60.720	-12.650
38	315	38.390	17.820	93.280	-26.840
39	15	59.840	5.830	74.800	27.390
40	60	68.200	5.830	82.170	32.010
41	90	68.200	5.170	82.500	39.270
42	135	60.060	4.840	73.040	27.500
43	165	39.050	15.510	84.150	-16.280
44	75	42.900	10.120	81.840	-1.320
45	165	60.610	3.740	70.620	40.810
46	180	62.480	3.960	72.380	41.250
47	195	56.650	3.630	65.780	39.380
48	300	38.830	12.320	80.190	-29.700
49	210	61.160	5.720	80.080	34.540
50	255	65.670	6.160	82.170	37.730
51	270	63.470	5.170	78.100	37.290
52	345	0.000	0.000	0.000	0.000
53	330	62.260	5.500	79.530	30.140
54	60	23.320	23.650	100.980	-75.680
55	15	73.920	7.700	94.160	18.920
56	90	71.280	5.500	86.790	39.160
57	135	19.580	11.330	61.820	-19.030
58	345	0.000	0.000	0.000	0.000
59	270	14.520	11.000	55.880	-22.880
60	300	67.650	6.930	89.430	39.930
61	330	16.610	7.260	35.970	-9.570
62	180	79.640	5.280	95.810	56.980
63	270	44.110	2.860	54.230	31.020

TABLE 7

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM PEAK PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM PEAK OCCURRED. BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1	345	55.110	7.040	77.770	31.570
2	30	70.510	8.140	90.640	43.230
3	60	65.340	7.810	84.920	36.630
4	90	66.110	7.920	85.470	37.400
5	105	52.360	7.040	70.510	28.270
6	165	62.370	7.150	82.170	36.300
7	180	63.030	7.040	83.820	36.850
8	210	61.820	7.920	85.250	30.250
9	270	41.470	6.380	56.430	18.370
10	270	65.230	7.700	88.330	39.160
11	300	65.010	7.590	82.500	38.940
12	330	64.900	7.590	86.240	40.260
13	15	65.340	6.600	81.070	40.810
14	15	91.740	7.590	108.570	63.030
15	45	80.740	8.800	106.040	47.080
16	60	84.810	8.360	101.090	52.910
17	120	77.770	7.150	95.150	51.590
18	180	83.160	7.370	101.090	50.710
19	240	81.730	6.930	98.120	55.330
20	300	82.390	7.810	100.980	50.820
21	330	85.360	6.490	100.100	59.620
22	345	86.570	7.480	101.310	58.520
23	60	86.680	7.480	103.070	57.420
24	300	85.360	6.600	102.190	58.850
25	345	73.040	6.490	91.630	42.900
26	30	92.730	7.370	107.690	65.120
27	60	87.780	7.150	104.940	55.770
28	90	89.430	4.950	99.550	64.240
29	120	83.160	6.160	99.330	52.910
30	165	83.820	5.830	98.230	56.870
31	180	83.490	6.050	96.800	56.980
32	210	83.050	6.380	99.550	55.110

TABLE 7 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MAXIMUM PEAK PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MAXIMUM
PEAK OCCURRED, BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
33	240	85.250	6.270	98.890	49.060
34	270	89.210	6.930	103.290	54.120
35	300	86.240	6.270	100.870	57.860
36	330	85.470	7.370	99.550	54.340
37	330	16.390	12.980	65.230	-29.040
38	315	38.390	17.820	93.280	-26.840
39	30	57.530	6.820	77.770	25.300
40	60	68.200	5.830	82.170	32.010
41	90	68.200	5.170	82.500	39.270
42	135	60.060	4.840	73.040	27.500
43	165	39.050	15.510	84.150	-16.280
44	75	42.900	10.120	81.840	-1.320
45	165	60.610	3.740	70.620	40.810
46	180	62.480	3.960	72.380	41.250
47	195	56.650	3.630	65.780	39.380
48	300	38.830	12.320	80.190	-29.700
49	195	18.370	18.590	88.770	-32.560
50	255	65.670	6.160	82.170	37.730
51	270	63.470	5.170	78.100	37.290
52	345	0.000	0.000	0.000	0.000
53	330	62.260	5.500	79.530	30.140
54	60	23.320	23.650	100.980	-75.680
55	30	55.770	15.290	112.310	-25.300
56	60	67.430	8.470	97.240	37.400
57	135	19.580	11.330	61.820	-19.030
58	345	0.000	0.000	0.000	0.000
59	270	14.520	11.000	55.880	-22.880
60	315	61.820	8.030	94.710	33.990
61	345	11.330	11.660	41.470	-19.250
62	180	79.640	5.280	95.810	56.980
63	270	44.110	2.860	54.230	31.020

TABLE 8

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM MEAN PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM MEAN OCCURRED. BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1	255	-62.260	20.900	-39.600	-147.840
2	270	-69.850	11.000	-34.100	-129.690
3	300	-91.080	10.560	-55.550	-127.160
4	330	-71.610	10.780	-33.110	-109.780
5	15	-63.250	6.050	-46.420	-86.790
6	30	-68.970	9.680	-37.070	-101.310
7	300	-90.640	10.560	-55.440	-126.500
8	345	-77.990	12.100	-33.220	-124.520
9	135	-57.200	5.500	-35.200	-82.170
10	165	-62.260	9.020	-37.070	-103.510
11	60	-96.800	11.880	-57.750	-137.060
12	90	-73.810	10.450	-38.720	-108.130
13	90	-95.150	4.950	-79.640	-108.020
14	300	-89.100	5.060	-66.990	-105.600
15	105	-88.880	5.170	-65.120	-103.950
16	330	-95.480	11.660	-46.090	-143.440
17	30	-90.200	4.730	-74.250	-103.620
18	75	-92.400	10.230	-58.080	-135.410
19	330	-87.120	4.730	-71.170	-100.870
20	60	-87.670	10.780	-58.410	-129.910
21	255	-104.830	6.050	-82.280	-122.540
22	75	-100.210	5.720	-78.430	-120.340
23	330	-93.830	14.300	-48.510	-152.350
24	15	-84.370	11.000	-41.470	-121.000
25	90	-68.860	3.630	-55.660	-84.810
26	120	-66.660	4.620	-49.610	-86.900
27	330	-80.520	13.310	-34.980	-132.550
28	15	-66.000	3.960	-48.400	-80.740
29	30	-69.630	4.290	-55.440	-84.370
30	240	-66.550	4.950	-51.370	-83.600
31	75	-75.570	12.980	-34.870	-116.820
32	135	-69.630	3.960	-54.340	-84.260

TABLE 8 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM MEAN PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM MEAN OCCURRED, BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
33	345	-65.230	5.170	-47.190	-87.780
34	30	-53.680	15.620	6.050	-113.850
35	30	-77.770	18.700	-2.640	-151.690
36	255	-68.090	4.400	-54.780	-85.030
37	120	-75.900	5.500	-57.090	-96.030
38	90	-80.520	5.390	-61.490	-97.680
39	300	-110.880	13.090	-53.680	-157.520
40	180	-123.200	8.030	-92.070	-152.130
41	210	-105.930	7.150	-79.530	-128.810
42	15	-107.250	6.160	-82.830	-127.380
43	240	-114.400	6.050	-96.250	-141.570
44	240	-111.320	5.390	-92.510	-133.870
45	300	-79.640	14.080	-35.530	-122.320
46	75	-80.740	8.030	-51.150	-109.890
47	75	-89.650	12.980	-21.340	-144.320
48	135	-112.970	4.400	-93.500	-125.840
49	135	-115.720	5.060	-95.480	-135.190
50	345	-86.900	4.620	-72.490	-104.170
51	165	-106.590	5.390	-87.230	-127.160
52	75	-120.670	10.780	-78.980	-165.770
53	75	-106.040	7.260	-76.670	-133.210
54	255	-68.860	5.610	-50.710	-86.240
55	120	-81.290	13.640	-29.810	-149.820
56	180	-52.140	4.510	-34.650	-69.740
57	225	-80.190	16.610	-31.790	-136.510
58	345	0.000	0.000	0.000	0.000
59	120	-90.970	22.330	-31.570	-149.820
60	225	-108.570	25.300	-8.470	-159.390
61	255	-93.830	6.600	-65.340	-116.380
62	105	-105.600	19.910	-15.620	-137.720
63	15	-95.150	13.970	-52.580	-172.040

TABLE 9

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM PEAK PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM
PEAK OCCURRED. BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1	255	-62.260	20.900	-39.600	-147.840
2	270	-69.850	11.000	-34.100	-129.690
3	300	-91.080	10.560	-55.550	-127.160
4	210	-67.980	10.450	-32.010	-111.760
5	270	-46.640	8.360	-26.510	-107.030
6	270	-54.120	10.780	-21.890	-120.230
7	60	-89.100	11.330	-51.590	-130.350
8	345	-77.990	12.100	-33.220	-124.520
9	30	-51.480	11.440	-17.490	-102.630
10	165	-62.260	9.020	-37.070	-103.510
11	60	-96.800	11.880	-57.750	-137.060
12	90	-73.810	10.450	-38.720	-108.130
13	90	-95.150	4.950	-79.640	-108.020
14	300	-89.100	5.060	-66.990	-105.600
15	105	-88.880	5.170	-65.120	-103.950
16	165	-77.220	11.440	-38.720	-144.870
17	45	-88.220	5.060	-69.080	-104.500
18	270	-87.560	13.310	-35.640	-146.960
19	330	-87.120	4.730	-71.170	-100.870
20	45	-78.540	12.320	-36.630	-148.500
21	255	-104.830	6.050	-82.280	-122.540
22	75	-100.210	5.720	-78.430	-120.340
23	285	-53.350	9.240	-10.230	-158.290
24	30	-82.060	15.840	-37.510	-147.840
25	90	-68.860	3.630	-55.660	-84.810
26	135	-33.000	8.580	-6.380	-97.790
27	180	-59.620	11.770	-14.630	-142.010
28	330	-60.390	12.540	-18.700	-137.170
29	180	-19.690	3.410	-10.670	-130.240
30	270	-57.310	15.510	-11.110	-161.260
31	90	-73.700	17.600	-1.980	-132.660
32	90	-56.650	14.300	-13.200	-156.530

TABLE 9 (Continued)

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH NO GRID
MINIMUM PEAK PRESSURE LOADS (PSF) BASED ON ALL WIND DIRECTIONS TESTED AND
THE OTHER VALUES ASSOCIATED WITH THE WIND DIRECTION AT WHICH THE MINIMUM
PEAK OCCURRED, BASED ON A REFERENCE PRESSURE OF 110 PSF

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
33	15	-50.710	6.930	-30.030	-93.170
34	45	-47.190	10.780	-7.260	-131.230
35	45	-67.430	21.120	-7.260	-156.860
36	210	-45.980	14.740	2.200	-124.520
37	90	-74.140	7.260	-46.420	-100.540
38	180	-59.620	14.520	25.960	-110.990
39	300	-110.880	13.090	-53.680	-157.520
40	195	-113.850	13.090	-57.750	-157.960
41	330	-96.030	13.420	-49.500	-133.980
42	15	-107.250	6.160	-82.830	-127.380
43	240	-114.400	6.050	-96.250	-141.570
44	240	-111.320	5.390	-92.510	-133.870
45	300	-79.640	14.080	-35.530	-122.320
46	75	-80.740	8.030	-51.150	-109.890
47	75	-89.650	12.980	-21.340	-144.320
48	135	-112.970	4.400	-93.500	-125.840
49	255	3.410	7.370	30.250	-147.840
50	345	-86.900	4.620	-72.490	-104.170
51	255	48.620	6.490	65.450	-168.520
52	255	-6.820	2.750	-2.750	-171.270
53	75	-106.040	7.260	-76.670	-133.210
54	180	-53.680	16.830	4.400	-119.680
55	255	-57.090	19.470	5.500	-165.990
56	135	-45.320	13.200	-7.260	-101.420
57	255	-76.450	12.430	-36.410	-147.840
58	345	0.000	0.000	0.000	0.000
59	120	-90.970	22.330	-31.570	-149.820
60	30	-95.810	14.410	-46.860	-169.070
61	240	-90.750	8.030	-69.080	-136.180
62	105	-105.600	19.910	-15.620	-137.720
63	15	-95.150	13.970	-52.580	-172.040

TABLE 10

REFERENCE PRESSURES FOR LEGS

Reference Pressures for Conversion of Leg Pressure Coefficients into Full Scale Pressure Loadings assuming a Reference Pressure of 110 psf at 820 ft.

Height ft	Pressure psf
0-60	52
61-120	63
121-180	71
181-240	77
241-300	82
301-360	87
361-420	91
421-480	94
481-540	97
541-600	100
601-660	103
661-720	106
721-780	108
781-820	110

Calculations were performed using

$$P = P_{ref}[(\frac{y}{\delta})^{\alpha}]^2$$

where y = height above ground in ft.

δ = reference height = 820 ft.

P_{ref} = reference pressure at δ = 110 psf

α = 1/7 = velocity power law exponent

TABLE 11

EFFECTS OF ADDED TURBULENCE ON PRESSURE COEFFICIENTS

Pressure Coefficient Analyzed	Skyhouse			Leg		
	Pressure Taps Analyzed	Mean* Difference	Difference Standard Deviation**	Pressure Taps Analyzed	Mean* Difference	Difference Standard Deviation**
Positive Means	197	.019	.175	79	.018	.163
Negative Means	575	.041	.142	204	.008	.117
RMS	772	.036	.036	283	.044	.046
Peak Positive	190	.389	.254	76	.260	.248
Peak Negative	582	-.058	.260	207	-.150	.332

* Mean of the difference of grid and no-grid pressure coefficients

** Standard deviation about the mean difference of grid and no-grid pressure coefficients

APPENDIX A

PRESSURE DATA

Notes:

1. Pressure coefficients are defined in section 4.4.
2. Pressure tap designation and approach wind azimuth are explained in Figures 6-8.

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 15

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.475	.071	.650	.255	33	-.461	.063	-.273	-.847
2	.560	.074	.794	.298	34	-.414	.084	-.145	-.759
3	-.025	.043	.117	-.167	35	-.676	.057	-.483	-.869
4	-.464	.038	-.317	-.608	36	.064	.037	.191	-.093
5	-.575	.055	-.422	-.789	37	.179	.123	.550	-.161
6	-.470	.091	-.213	-.789	38	-.031	.119	.307	-.431
7	-.341	.053	-.153	-.537	39	.544	.053	.680	.249
8	-.384	.085	-.199	-.842	40	-.059	.035	.059	-.195
9	-.413	.060	-.121	-.659	41	-.797	.036	-.647	-.921
10	-.461	.075	-.224	-.760	42	-.975	.056	-.753	-1.158
11	-.621	.053	-.449	-.826	43	-.253	.093	.010	-.660
12	-.004	.050	.180	-.176	44	-.077	.115	.505	-.412
13	.594	.060	.737	.371	45	-.422	.047	-.264	-.593
14	.834	.069	.987	.573	46	-.363	.036	-.213	-.500
15	.763	.069	.957	.481	47	-.386	.049	-.228	-.652
16	.013	.047	.188	-.196	48	-.300	.084	.076	-.544
17	-.624	.051	-.468	-.787	49	-.378	.060	-.162	-.546
18	-.337	.051	-.179	-.536	50	-.512	.058	-.286	-.670
19	-.426	.048	-.269	-.574	51	-.717	.064	-.506	-.945
20	-.672	.091	-.405	-1.090	52	-0.000	-0.000	-0.000	-0.000
21	.418	.072	.672	.147	53	-.558	.097	-.134	-.884
22	.277	.066	.445	-.029	54	-.177	.098	.354	-.467
23	.026	.041	.155	-.126	55	.672	.070	.856	.172
24	-.767	.100	-.377	-1.100	56	.085	.058	.249	-.260
25	.642	.057	.782	.358	57	-.427	.069	-.183	-.680
26	.772	.065	.918	.464	58	-0.000	-0.000	-0.000	-0.000
27	.017	.040	.160	-.169	59	-.672	.089	-.422	-1.075
28	-.600	.036	-.440	-.734	60	-.904	.119	-.472	-1.354
29	-.581	.050	-.421	-.770	61	-.128	.048	.085	-.280
30	-.367	.067	-.121	-.596	62	-0.000	-0.000	-0.000	-0.000
31	-.360	.045	-.221	-.526	63	-.865	.127	-.478	-1.564
32	-.341	.043	-.167	-.520					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 30

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.265	.057	.414	.044	33	-.435	.055	-.251	-.673
2	.641	.074	.824	.393	34	-.488	.142	.055	-1.035
3	.284	.057	.476	.118	35	-.707	.170	-.024	-1.379
4	-.252	.034	-.114	-.375	36	-.229	.034	-.103	-.353
5	-.522	.043	-.371	-.759	37	.036	.075	.376	-.253
6	-.627	.088	-.337	-.921	38	-.216	.116	.171	-.726
7	-.365	.056	-.223	-.748	39	.523	.062	.707	.230
8	-.323	.047	-.169	-.500	40	.285	.043	.396	.025
9	-.468	.104	-.159	-.933	41	-.484	.030	-.382	-.616
10	-.487	.117	-.079	-.886	42	-.812	.041	-.679	-.957
11	-.697	.116	-.215	-1.016	43	-.207	.104	.104	-.602
12	-.217	.044	-.047	-.360	44	.035	.136	.601	-.413
13	.273	.053	.439	.045	45	-.593	.070	-.302	-.808
14	.739	.067	.891	.463	46	-.380	.058	-.204	-.582
15	.777	.070	.945	.534	47	-.384	.042	-.238	-.526
16	.390	.061	.601	.149	48	-.343	.036	-.155	-.485
17	-.820	.043	-.675	-.942	49	-.360	.036	-.167	-.517
18	-.319	.046	-.177	-.485	50	-.405	.069	-.187	-.741
19	-.416	.042	-.257	-.598	51	-.738	.106	-.321	-1.084
20	-.775	.136	-.272	-1.318	52	-.769	.057	-.513	-.904
21	.127	.130	.432	-.552	53	-.638	.058	-.416	-.868
22	-.126	.055	.092	-.326	54	-.007	.111	.526	-.462
23	.391	.055	.530	.154	55	.507	.139	1.021	-.230
24	-.746	.144	-.341	-1.344	56	.177	.081	.461	-.102
25	.371	.047	.507	.140	57	-.634	.080	-.398	-1.098
26	.843	.067	.979	.592	58	-0.000	-0.000	-0.000	-0.000
27	.401	.055	.543	.178	59	-.633	.076	-.352	-1.018
28	-.334	.034	-.179	-.466	60	-.871	.131	-.426	-1.537
29	-.633	.039	-.504	-.767	61	-.002	.093	.229	-.332
30	-.463	.047	-.283	-.648	62	-0.000	-0.000	-0.000	-0.000
31	-.346	.061	-.151	-.636	63	-.696	.074	-.464	-.986
32	-.315	.035	-.153	-.446					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 45

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.011	.047	.174	-.145	33	-.413	.037	-.284	-.542
2	.584	.069	.806	.340	34	-.429	.098	-.066	-1.193
3	.518	.069	.691	.274	35	-.613	.192	-.066	-1.426
4	.031	.046	.181	-.119	36	-.390	.040	-.215	-.539
5	-.452	.035	-.333	-.577	37	-.110	.144	.436	-.685
6	-.567	.074	-.354	-.802	38	-.467	.128	.028	-.890
7	-.501	.081	-.252	-.821	39	.450	.051	.598	.229
8	-.461	.056	-.268	-.701	40	.528	.043	.638	.262
9	-.393	.036	-.229	-.522	41	-.130	.034	-.016	-.310
10	-.449	.087	-.217	-.863	42	-.682	.035	-.550	-.797
11	-.666	.094	-.335	-.976	43	-.109	.088	.159	-.499
12	-.294	.044	-.151	-.457	44	.043	.156	.577	-.402
13	-.121	.046	.031	-.305	45	-.690	.075	-.379	-.921
14	.490	.056	.642	.258	46	-.542	.094	-.220	-.818
15	.734	.080	.964	.428	47	-.447	.072	-.254	-.805
16	.668	.080	.851	.339	48	-.394	.043	-.230	-.531
17	-.802	.046	-.628	-.950	49	-.424	.039	-.268	-.570
18	-.466	.077	-.259	-.745	50	-.385	.049	-.253	-.673
19	-.379	.039	-.253	-.532	51	-.563	.089	-.249	-.856
20	-.714	.112	-.333	-1.350	52	-.748	.065	-.528	-.983
21	-.093	.124	.196	-.741	53	-.709	.054	-.523	-.882
22	-.523	.052	-.343	-.683	54	.093	.144	.676	-.427
23	.691	.065	.856	.447	55	-.257	.170	.312	-.795
24	-.652	.121	-.312	-1.126	56	.561	.052	.720	.342
25	.026	.036	.169	-.150	57	-.522	.077	-.255	-.854
26	.746	.064	.915	.379	58	-0.000	-0.000	-0.000	-0.000
27	.702	.056	.844	.351	59	-.573	.071	-.287	-.791
28	.040	.039	.192	-.123	60	-.726	.127	-.388	-1.254
29	-.549	.033	-.419	-.662	61	.071	.077	.315	-.311
30	-.550	.048	-.359	-.721	62	-0.000	-0.000	-0.000	-0.000
31	-.457	.121	-.131	-1.036	63	-.603	.094	-.210	-1.011
32	-.417	.050	-.249	-.620					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 60

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.215	.036	-.083	-.336	33	-.460	.041	-.200	-.694
2	.432	.065	.647	.214	34	-.437	.080	-.187	-.782
3	.594	.071	.772	.333	35	-.677	.131	-.254	-1.156
4	.251	.055	.412	.059	36	-.534	.045	-.380	-.705
5	-.336	.032	-.222	-.433	37	-.510	.068	-.229	-.731
6	-.486	.056	-.293	-.705	38	-.409	.056	-.224	-.591
7	-.810	.103	-.469	-1.185	39	.334	.045	.479	.119
8	-.474	.053	-.292	-.658	40	.620	.053	.747	.291
9	-.446	.030	-.348	-.567	41	.114	.038	.214	-.068
10	-.457	.058	-.316	-.840	42	-.447	.032	-.322	-.552
11	-.880	.108	-.525	-1.246	43	-.095	.115	.256	-.572
12	-.398	.040	-.253	-.647	44	.223	.163	.717	-.303
13	-.457	.040	-.311	-.615	45	-.677	.062	-.463	-.895
14	.217	.044	.369	.028	46	-.681	.083	-.420	-.995
15	.498	.067	.693	.230	47	-.597	.109	-.171	-1.007
16	.771	.076	.919	.481	48	-0.000	-0.000	-0.000	-0.000
17	-.652	.042	-.501	-.762	49	-.451	.055	-.259	-.664
18	-.711	.095	-.406	-1.126	50	-.466	.054	-.280	-.686
19	-.431	.033	-.324	-.561	51	-.681	.073	-.420	-1.032
20	-.797	.098	-.531	-1.181	52	-1.017	.078	-.710	-1.248
21	-.226	.091	.012	-.735	53	-.795	.048	-.638	-.977
22	-.776	.046	-.626	-.931	54	.212	.215	.918	-.688
23	.788	.068	.937	.522	55	-.372	.118	.135	-.762
24	-.735	.098	-.385	-1.042	56	.613	.077	.884	.340
25	-.251	.028	-.148	-.370	57	-.466	.075	-.211	-.719
26	.556	.053	.696	.343	58	-0.000	-0.000	-0.000	-0.000
27	.798	.065	.954	.507	59	-.561	.050	-.348	-.747
28	.319	.047	.444	.112	60	-.631	.119	-.278	-1.321
29	-.419	.031	-.315	-.532	61	-.225	.098	.024	-.628
30	-.580	.048	-.404	-.758	62	-0.000	-0.000	-0.000	-0.000
31	-.627	.132	-.169	-1.195	63	-.546	.087	-.274	-1.218
32	-.447	.068	-.239	-.735					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 75

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.446	.034	-.337	-.574	33	-.484	.042	-.351	-.697
2	.133	.049	.276	-.042	34	-.480	.078	-.254	-.874
3	.546	.071	.742	.301	35	-.614	.098	-.313	-.960
4	.488	.073	.664	.206	36	-.615	.052	-.428	-.837
5	-.077	.041	.087	-.205	37	-.630	.074	-.349	-.892
6	-.333	.040	-.171	-.460	38	-.613	.048	-.445	-.809
7	-.813	.085	-.509	-1.152	39	-.031	.035	.079	-.212
8	-.550	.079	-.305	-.963	40	.591	.049	.702	.306
9	-.460	.040	-.318	-.609	41	.411	.044	.525	.198
10	-.446	.056	-.239	-.777	42	-.022	.035	.087	-.165
11	-.687	.100	-.374	-1.041	43	.114	.061	.352	-.165
12	-.630	.076	-.415	-.981	44	.390	.092	.744	-.012
13	-.808	.044	-.668	-.929	45	-.669	.066	-.436	-.911
14	-.172	.040	-.033	-.350	46	-.734	.073	-.465	-.999
15	.011	.059	.205	-.235	47	-.815	.118	-.194	-1.312
16	.719	.072	.893	.335	48	-.445	.049	-.273	-.637
17	-.242	.046	-.080	-.431	49	-.494	.051	-.329	-.737
18	-.840	.093	-.528	-1.231	50	-.498	.045	-.356	-.665
19	-.447	.043	-.274	-.582	51	-.633	.067	-.325	-.943
20	-.687	.078	-.447	-.960	52	-1.097	.098	-.718	-1.507
21	-.371	.056	-.192	-.653	53	-.964	.066	-.697	-1.211
22	-.911	.052	-.713	-1.094	54	-.244	.127	.220	-.762
23	.738	.067	.876	.468	55	-.594	.109	-.221	-.976
24	-.655	.096	-.341	-1.040	56	.646	.067	.862	.352
25	-.550	.032	-.422	-.657	57	-.103	.050	.073	-.317
26	.153	.040	.274	-.028	58	-0.000	-0.000	-0.000	-0.000
27	.742	.064	.905	.479	59	-.581	.047	-.328	-.753
28	.659	.062	.783	.319	60	-.674	.198	-.204	-1.271
29	-.053	.028	.030	-.178	61	-.457	.124	-.065	-.966
30	-.423	.035	-.305	-.550	62	-0.000	-0.000	-0.000	-0.000
31	-.687	.118	-.317	-1.062	63	-.504	.062	-.237	-.717
32	-.460	.058	-.270	-.678					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 90

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.480	.043	-.339	-.641	33	-.369	.042	-.243	-.552
2	-.185	.034	-.029	-.339	34	-.374	.046	-.238	-.533
3	.364	.056	.507	.154	35	-.449	.073	-.191	-.717
4	.601	.072	.777	.340	36	-.524	.051	-.344	-.749
5	.264	.057	.457	.035	37	-.674	.066	-.422	-.914
6	-.229	.046	-.059	-.380	38	-.732	.049	-.559	-.888
7	-.688	.108	-.263	-1.020	39	-.329	.030	-.227	-.456
8	-.506	.102	-.190	-.845	40	.354	.044	.474	.059
9	-.424	.081	-.193	-.910	41	.620	.047	.750	.357
10	-.383	.059	-.232	-.734	42	.300	.046	.440	.100
11	-.481	.068	-.267	-.947	43	.221	.090	.532	-.200
12	-.671	.095	-.352	-.983	44	.229	.103	.671	-.105
13	-.865	.045	-.724	-.982	45	-.611	.058	-.392	-.856
14	-.432	.038	-.299	-.567	46	-.615	.060	-.344	-.798
15	-.438	.050	-.267	-.619	47	-.533	.081	-.211	-.803
16	.476	.064	.640	.160	48	-.360	.044	-.218	-.589
17	.250	.050	.422	.030	49	-.368	.044	-.233	-.513
18	-.776	.110	-.356	-1.253	50	-.358	.031	-.257	-.465
19	-.369	.040	-.251	-.517	51	-.454	.051	-.297	-.669
20	-.459	.055	-.288	-.654	52	-0.000	-0.000	-0.000	-0.000
21	-.411	.060	-.206	-.635	53	-.730	.089	-.427	-1.060
22	-.734	.044	-.584	-.864	54	-.366	.099	.100	-.715
23	.495	.052	.626	.299	55	-.610	.102	-.299	-1.035
24	-.464	.067	-.238	-.712	56	.648	.050	.789	.356
25	-.626	.033	-.506	-.771	57	.162	.076	.385	-.104
26	-.228	.026	-.137	-.311	58	-0.000	-0.000	-0.000	-0.000
27	.505	.045	.608	.257	59	-.600	.063	-.326	-.890
28	.813	.045	.905	.584	60	-.627	.082	-.378	-.947
29	.380	.045	.522	.160	61	-.564	.078	-.311	-1.002
30	-.211	.036	-.092	-.357	62	-0.000	-0.000	-0.000	-0.000
31	-.670	.160	-.018	-1.206	63	-.540	.054	-.341	-.735
32	-.515	.130	-.120	-1.423					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 105

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.509	.051	-.365	-.731	33	-.274	.040	-.148	-.446
2	-.367	.033	-.259	-.473	34	-.251	.025	-.165	-.342
3	.060	.042	.175	-.110	35	-.269	.043	-.128	-.423
4	.515	.068	.701	.278	36	-.336	.037	-.216	-.468
5	.476	.064	.641	.257	37	-.598	.047	-.381	-.770
6	-.015	.043	.128	-.174	38	-.665	.045	-.504	-.814
7	-.559	.063	-.373	-.782	39	-.542	.026	-.431	-.625
8	-.363	.071	-.070	-.703	40	-.045	.029	.061	-.180
9	-.300	.055	-.114	-.564	41	.468	.038	.572	.268
10	-.278	.043	-.152	-.528	42	.387	.051	.542	.184
11	-.309	.042	-.149	-.454	43	.022	.074	.334	-.269
12	-.602	.078	-.358	-.916	44	.006	.054	.227	-.146
13	-.629	.039	-.498	-.744	45	-.446	.030	-.317	-.540
14	-.532	.042	-.349	-.672	46	-.573	.032	-.454	-.669
15	-.808	.047	-.592	-.945	47	-.455	.044	-.288	-.610
16	.088	.043	.217	-.128	48	-.289	.033	-.185	-.413
17	.564	.062	.702	.293	49	-.276	.040	-.139	-.468
18	-.655	.098	-.329	-.973	50	-.281	.033	-.175	-.424
19	-.300	.033	-.199	-.467	51	-.292	.042	-.150	-.437
20	-.308	.050	-.171	-.611	52	-0.000	-0.000	-0.000	-0.000
21	-.324	.038	-.183	-.443	53	-.498	.079	-.215	-.782
22	-.353	.039	-.222	-.469	54	-.424	.094	-.082	-.770
23	.093	.033	.218	-.081	55	-.581	.118	-.234	-1.235
24	-.285	.041	-.065	-.443	56	.325	.045	.491	.107
25	-.507	.042	-.363	-.702	57	.155	.093	.433	-.184
26	-.456	.027	-.347	-.547	58	-0.000	-0.000	-0.000	-0.000
27	.085	.031	.185	-.068	59	-.600	.119	-.250	-1.180
28	.652	.051	.794	.405	60	-.412	.050	-.192	-.607
29	.595	.049	.740	.384	61	-.578	.034	-.425	-.732
30	.056	.032	.156	-.095	62	-.960	.181	-.142	-1.252
31	-.547	.061	-.277	-.746	63	-.633	.046	-.451	-.815
32	-.326	.072	-.083	-.650					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 120

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.537	.068	-.319	-.832	33	-.308	.063	-.086	-.577
2	-.495	.043	-.313	-.652	34	-.270	.031	-.174	-.374
3	-.239	.032	-.101	-.367	35	-.279	.031	-.184	-.441
4	.314	.061	.484	.122	36	-.329	.043	-.162	-.474
5	-0.000	-0.000	-0.000	-0.000	37	-.690	.050	-.519	-.873
6	.258	.052	.409	.068	38	-.669	.048	-.507	-.833
7	-.292	.037	-.177	-.412	39	-.771	.038	-.592	-.934
8	-.382	.056	-.203	-.604	40	-.415	.029	-.321	-.542
9	-.333	.067	-.111	-.678	41	.245	.037	.355	.024
10	-.273	.038	-.153	-.407	42	.495	.056	.655	.289
11	-.283	.030	-.177	-.437	43	.150	.046	.306	.005
12	-.415	.055	-.238	-.742	44	.124	.044	.296	-.017
13	-0.000	-0.000	-0.000	-0.000	45	-.161	.030	-.038	-.279
14	-.639	.063	-.390	-.895	46	-.375	.028	-.276	-.474
15	-.653	.058	-.481	-.828	47	-.483	.032	-.381	-.602
16	-.257	.038	-.157	-.453	48	-.318	.034	-.187	-.453
17	.707	.065	.865	.469	49	-.304	.034	-.198	-.434
18	-.277	.045	-.141	-.496	50	-.307	.044	-.155	-.500
19	-.333	.039	-.200	-.504	51	-.319	.059	-.147	-.558
20	-.310	.035	-.201	-.498	52	-0.000	-0.000	-0.000	-0.000
21	-.324	.044	-.152	-.524	53	-.382	.105	.020	-1.022
22	-.369	.046	-.218	-.557	54	-.497	.090	-.175	-.905
23	-.261	.044	-.126	-.434	55	-.739	.124	-.271	-1.362
24	-.296	.032	-.177	-.435	56	.024	.055	.219	-.190
25	-.488	.055	-.277	-.728	57	.040	.116	.490	-.287
26	-.606	.042	-.451	-.790	58	-0.000	-0.000	-0.000	-0.000
27	-.291	.032	-.177	-.427	59	-.827	.203	-.287	-1.362
28	.456	.045	.559	.254	60	-.429	.055	-.227	-.710
29	.756	.056	.903	.481	61	-.724	.033	-.608	-.844
30	.392	.044	.511	.184	62	-.305	.099	.030	-.687
31	-.343	.033	-.233	-.449	63	-.721	.047	-.578	-.911
32	-.377	.056	-.187	-.562					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 135

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.290	.054	-.137	-.545	33	-0.000	-0.000	-0.000	-0.000
2	-.343	.063	-.148	-.595	34	-0.000	-0.000	-0.000	-0.000
3	-.441	.040	-.311	-.619	35	-0.000	-0.000	-0.000	-0.000
4	.064	.047	.229	-.098	36	-0.000	-0.000	-0.000	-0.000
5	-0.000	-0.000	-0.000	-0.000	37	-.428	.059	-.197	-.681
6	.461	.062	.614	.257	38	-.470	.056	-.277	-.717
7	-.067	.037	.091	-.202	39	-.538	.051	-.338	-.721
8	-.470	.035	-.359	-.591	40	-.637	.033	-.509	-.782
9	-.520	.050	-.320	-.747	41	-.041	.030	.080	-.196
10	-.468	.088	-.199	-.846	42	.546	.044	.664	.250
11	-.285	.039	-.172	-.432	43	.289	.039	.434	.112
12	-.285	.038	-.140	-.423	44	.004	.107	.379	-.499
13	-0.000	-0.000	-0.000	-0.000	45	.158	.032	.254	-.011
14	-.298	.038	-.157	-.456	46	-.134	.027	-.052	-.254
15	-.305	.031	-.214	-.429	47	-.490	.026	-.399	-.594
16	-.522	.078	-.270	-.797	48	-1.027	.040	-.850	-1.144
17	.642	.063	.795	.425	49	-1.052	.046	-.868	-1.229
18	-.053	.039	.088	-.203	50	-.707	.056	-.535	-.937
19	-.538	.038	-.418	-.666	51	-.756	.089	-.447	-1.060
20	-.320	.057	-.142	-.619	52	-0.000	-0.000	-0.000	-0.000
21	-.275	.030	-.182	-.372	53	-.238	.072	.096	-.555
22	-.263	.028	-.166	-.360	54	-.274	.080	.043	-.541
23	-.544	.073	-.326	-.817	55	-.654	.114	-.208	-1.248
24	-.307	.055	-.066	-.538	56	-.412	.120	-.066	-.922
25	-.327	.064	-.053	-.657	57	.178	.103	.562	-.173
26	-.300	.078	-.058	-.889	58	-0.000	-0.000	-0.000	-0.000
27	-.494	.049	-.349	-.672	59	-.662	.115	-.235	-1.258
28	.150	.036	.250	-.011	60	-.420	.044	-.211	-.609
29	.689	.051	.798	.466	61	-.659	.038	-.518	-.808
30	.644	.052	.764	.324	62	.133	.051	.274	-.063
31	-.076	.035	.049	-.236	63	-.635	.034	-.535	-.807
32	-.633	.036	-.494	-.766					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 165

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.319	.039	-.197	-.468	33	-.504	.034	-.390	-.634
2	-.390	.075	-.182	-.840	34	-.469	.043	-.327	-.614
3	-.613	.078	-.355	-.984	35	-.427	.090	-.129	-.947
4	-.237	.045	-.100	-.411	36	-.384	.063	-.173	-.643
5	.142	.046	.302	-.056	37	-.327	.108	.115	-.677
6	.567	.065	.747	.330	38	-.537	.124	.132	-.900
7	.482	.065	.658	.206	39	-.633	.084	-.300	-.927
8	-.021	.042	.129	-.180	40	-.871	.067	-.556	-1.143
9	-.411	.035	-.299	-.523	41	-.646	.038	-.460	-.767
10	-.566	.082	-.337	-.941	42	.070	.035	.177	-.121
11	-.486	.085	-.240	-.953	43	.355	.141	.765	-.148
12	-.399	.050	-.245	-.602	44	-.246	.092	.124	-.569
13	-0.000	-0.000	-0.000	-0.000	45	.551	.034	.642	.371
14	-.360	.046	-.222	-.558	46	.459	.035	.553	.246
15	-.373	.047	-.221	-.601	47	.154	.030	.252	-.027
16	-.702	.104	-.352	-1.317	48	-.163	.055	-.084	-.310
17	.060	.040	.212	-.099	49	-.551	.068	-.266	-.742
18	.636	.069	.795	.383	50	-.678	.027	-.578	-.768
19	-.762	.042	-.617	-.879	51	-.969	.049	-.793	-1.156
20	-.490	.063	-.297	-.713	52	-.141	.041	-.081	-.252
21	-.343	.036	-.210	-.472	53	-.517	.059	-.279	-.703
22	-.318	.037	-.166	-.455	54	-.492	.067	-.272	-.701
23	-.624	.125	-.303	-1.143	55	-0.000	-0.000	-0.000	-0.000
24	-.466	.070	-.282	-.772	56	-.116	.021	-.073	-.183
25	-.326	.041	-.182	-.485	57	.138	.070	.340	-.131
26	-.381	.101	-.076	-.783	58	-0.000	-0.000	-0.000	-0.000
27	-.574	.151	.008	-1.081	59	-.674	.157	-.186	-1.102
28	-.293	.039	-.143	-.425	60	-.648	.200	-.180	-1.310
29	.198	.032	.291	.052	61	-.458	.071	-.221	-.675
30	.762	.053	.893	.517	62	.683	.053	.830	.337
31	.647	.053	.790	.403	63	-.783	.394	.254	-1.417
32	-.052	.034	.092	-.256					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 180

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.331	.034	-.194	-.459	33	-.306	.029	-.195	-.422
2	-.357	.046	-.228	-.592	34	-.460	.042	-.309	-.640
3	-.740	.085	-.460	-1.024	35	-.540	.113	-.151	-.921
4	-.332	.038	-.216	-.472	36	-.420	.117	-.057	-.806
5	-.147	.033	-.018	-.262	37	-.336	.117	.145	-.681
6	.385	.054	.554	.153	38	-.542	.132	.236	-1.009
7	.573	.064	.762	.335	39	-.644	.067	-.368	-.916
8	.262	.053	.418	.092	40	-1.120	.073	-.837	-1.383
9	-0.000	-0.000	-0.000	-0.000	41	-.865	.030	-.757	-.955
10	-.398	.048	-.261	-.611	42	-.273	.023	-.184	-.357
11	-.727	.097	-.390	-1.098	43	-.217	.142	.497	-.546
12	-.403	.052	-.233	-.652	44	-.442	.104	-.148	-.770
13	-0.000	-0.000	-0.000	-0.000	45	.476	.035	.584	.307
14	-.338	.042	-.202	-.508	46	.568	.036	.658	.375
15	-.366	.043	-.224	-.512	47	.408	.033	.506	.240
16	-.670	.088	-.405	-1.208	48	-.576	.073	-.322	-.777
17	-.378	.036	-.228	-.500	49	-.162	.093	.249	-.472
18	.756	.067	.919	.461	50	-.411	.022	-.349	-.480
19	-.536	.039	-.369	-.658	51	-.913	.040	-.757	-1.064
20	-.675	.079	-.378	-.988	52	-.156	.039	-.097	-.261
21	-.364	.058	-.175	-.641	53	-.676	.096	-.234	-1.018
22	-.342	.057	-.160	-.568	54	-.488	.153	.040	-1.088
23	-.619	.084	-.353	-.913	55	-.536	.063	-.219	-.795
24	-.617	.094	-.293	-.973	56	-.474	.041	-.315	-.634
25	-.338	.046	-.160	-.573	57	-.171	.046	-.015	-.331
26	-.350	.078	-.025	-.661	58	-0.000	-0.000	-0.000	-0.000
27	-.542	.107	-.133	-1.291	59	-.445	.116	-.105	-.752
28	-.447	.043	-.305	-.600	60	-.610	.175	-.112	-1.201
29	-.179	.031	-.097	-1.184	61	-.465	.055	-.245	-.751
30	.481	.046	.604	.240	62	.724	.048	.871	.518
31	.759	.055	.880	.518	63	-.522	.325	.328	-1.354
32	.315	.045	.437	.127					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 195

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.305	.032	-.197	-.459	33	.040	.025	.121	-.053
2	-.349	.046	-.200	-.509	34	-.318	.025	-.230	-.390
3	-.492	.073	-.265	-.796	35	-.556	.137	.007	-1.346
4	-.506	.066	-.294	-.781	36	-0.000	-0.000	-0.000	-0.000
5	-.329	.032	-.203	-.469	37	-.329	.084	-.025	-.571
6	.129	.042	.280	-.024	38	-.461	.095	-.084	-.754
7	.525	.063	.693	.284	39	-.494	.068	-.162	-.723
8	.475	.063	.658	.277	40	-1.035	.119	-.525	-1.436
9	.029	.041	.190	-.162	41	-.947	.048	-.764	-1.092
10	-.239	.038	-.121	-.448	42	-.589	.027	-.488	-.666
11	-.624	.079	-.353	-.950	43	-.523	.069	-.206	-.750
12	-.433	.071	-.247	-.802	44	-.715	.074	-.419	-.939
13	-0.000	-0.000	-0.000	-0.000	45	.275	.025	.343	.153
14	-.304	.039	-.178	-.438	46	.512	.032	.591	.347
15	-.350	.038	-.227	-.481	47	.515	.033	.598	.358
16	-.476	.072	-.259	-.749	48	-.315	.094	.027	-.607
17	-.661	.041	-.493	-.777	49	.167	.169	.807	-.296
18	.705	.065	.841	.286	50	-.066	.027	.036	-.181
19	-.143	.044	.024	-.311	51	-.706	.037	-.532	-.826
20	-.658	.089	-.377	-1.145	52	-0.000	-0.000	-0.000	-0.000
21	-.337	.039	-.213	-.484	53	-.654	.084	-.322	-.900
22	-.334	.036	-.194	-.461	54	-.472	.107	-.023	-.835
23	-.445	.074	-.236	-.763	55	-.477	.051	-.222	-.658
24	-.606	.100	-.336	-.983	56	-0.000	-0.000	-0.000	-0.000
25	-.332	.042	-.202	-.526	57	-.471	.088	-.154	-.745
26	-.343	.063	-.128	-.658	58	-0.000	-0.000	-0.000	-0.000
27	-.425	.102	-.079	-.898	59	-.124	.057	.068	-.348
28	-.495	.048	-.324	-.667	60	-.471	.037	-.345	-.602
29	-.437	.031	-.335	-.542	61	-.424	.040	-.282	-.557
30	.124	.036	.243	-.027	62	.694	.050	.830	.422
31	.699	.055	.827	.401	63	-.203	.088	.112	-.516
32	.620	.053	.737	.356					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 210

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.300	.073	-.059	-.715	33	.379	.042	.510	.169
2	-.290	.047	-.125	-.534	34	-.134	.032	-.008	-.256
3	-.406	.053	-.217	-.622	35	-.479	.180	-.010	-1.405
4	-.618	.095	-.291	-1.016	36	-.418	.134	.020	-1.132
5	-.418	.040	-.290	-.636	37	-.372	.069	-.099	-.609
6	-.160	.032	-.030	-.267	38	-.407	.056	.037	-.614
7	.329	.052	.474	.147	39	-.442	.061	-.214	-.722
8	.562	.072	.775	.275	40	-.896	.092	-.538	-1.191
9	-0.000	-0.000	-0.000	-0.000	41	-.963	.065	-.723	-1.171
10	-.139	.038	-.008	-.261	42	-.727	.031	-.585	-.854
11	-.476	.105	-.081	-.902	43	-.905	.037	-.688	-1.019
12	-.331	.073	-.085	-.648	44	-.929	.036	-.754	-1.025
13	-0.000	-0.000	-0.000	-0.000	45	-.046	.029	.043	-.177
14	-.276	.034	-.176	-.404	46	.298	.034	.401	.116
15	-.313	.038	-.178	-.446	47	.460	.039	.575	.260
16	-.392	.055	-.207	-.581	48	.030	.137	.388	-.453
17	-.763	.042	-.605	-.894	49	.556	.052	.728	.314
18	.465	.056	.631	.131	50	.255	.035	.340	.066
19	.262	.050	.463	.078	51	-.389	.036	-.278	-.518
20	-.539	.121	-.253	-1.039	52	-0.000	-0.000	-0.000	-0.000
21	-.303	.045	-.099	-.436	53	-.343	.121	.054	-.649
22	-.305	.042	-.140	-.449	54	-.315	.077	-.075	-.699
23	-.369	.057	-.176	-.612	55	-.496	.071	-.098	-.783
24	-.505	.123	-.226	-1.085	56	-0.000	-0.000	-0.000	-0.000
25	-.282	.042	-.085	-.425	57	-.654	.092	-.325	-.960
26	-.302	.053	-.156	-.522	58	-0.000	-0.000	-0.000	-0.000
27	-.348	.071	-.090	-.591	59	-.088	.125	.342	-.579
28	-.453	.047	-.270	-.649	60	-.703	.091	-.459	-1.119
29	-.556	.026	-.447	-.649	61	-.558	.073	-.357	-.825
30	-.250	.027	-.144	-.350	62	.599	.058	.760	.271
31	.441	.047	.561	.248	63	.133	.041	.281	-.042
32	.755	.058	.905	.501					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 225

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.262	.061	-.100	-.508	33	.640	.053	.779	.410
2	-.241	.042	-.113	-.542	34	.081	.035	.200	-.081
3	-.293	.043	-.143	-.439	35	-.533	.082	-.135	-.822
4	-.620	.089	-.360	-.955	36	-.318	.094	.007	-.763
5	-0.000	-0.000	-0.000	-0.000	37	-.245	.061	.010	-.460
6	-.373	.032	-.274	-.482	38	-.254	.067	.019	-.460
7	.053	.040	.211	-.096	39	-.332	.068	-.083	-.616
8	.541	.061	.718	.323	40	-.479	.078	-.195	-.793
9	-0.000	-0.000	-0.000	-0.000	41	-0.000	-0.000	-0.000	-0.000
10	.002	.045	.199	-.159	42	-.646	.043	-.503	-.798
11	-.554	.077	-.312	-.796	43	-1.023	.040	-.853	-1.149
12	-.345	.083	-.031	-.656	44	-1.003	.034	-.847	-1.110
13	-0.000	-0.000	-0.000	-0.000	45	-.370	.025	-.281	-.481
14	-.235	.029	-.145	-.340	46	.021	.027	.094	-.111
15	-.268	.031	-.148	-.391	47	.287	.032	.371	.122
16	-.289	.052	-.133	-.501	48	.172	.055	.362	-.263
17	-.635	.038	-.473	-.759	49	.515	.037	.646	.394
18	.116	.042	.239	-.087	50	.462	.038	.566	.299
19	.576	.060	.755	.324	51	-.170	.030	-.078	-.295
20	-.671	.106	-.207	-1.014	52	-0.000	-0.000	-0.000	-0.000
21	-.283	.044	-.128	-.452	53	-.475	.072	-.171	-.690
22	-.283	.051	-.132	-.465	54	-.391	.062	-.100	-.734
23	-.291	.050	-.130	-.473	55	-.579	.124	-.096	-1.030
24	-.654	.101	-.263	-.946	56	-0.000	-0.000	-0.000	-0.000
25	-.273	.055	-.079	-.468	57	-.729	.151	-.289	-1.241
26	-.250	.037	-.139	-.481	58	-0.000	-0.000	-0.000	-0.000
27	-.287	.057	-.075	-.465	59	-.031	.140	.408	-.480
28	-.349	.047	-.188	-.517	60	-.987	.230	-.077	-1.449
29	-.529	.043	-.346	-.686	61	-.723	.047	-.574	-.929
30	-.519	.033	-.368	-.617	62	.267	.059	.479	.021
31	.090	.040	.236	-.079	63	.240	.026	.327	.092
32	.723	.058	.868	.487					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 240

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.319	.073	-.091	-.682	33	.775	.057	.899	.446
2	-.231	.041	-.094	-.396	34	.400	.048	.545	.174
3	-.262	.026	-.178	-.352	35	-.321	.037	-.186	-.503
4	-.366	.058	-.189	-.622	36	-.395	.077	-.135	-.663
5	-0.000	-0.000	-0.000	-0.000	37	-.463	.051	-.272	-.646
6	-.478	.048	-.308	-.650	38	-.320	.074	-.047	-.604
7	-.242	.035	-.094	-.406	39	-.224	.066	-0.000	-.551
8	.343	.055	.496	.129	40	-.277	.065	-.036	-.573
9	-0.000	-0.000	-0.000	-0.000	41	-.568	.078	-.300	-.864
10	.278	.055	.433	.099	42	-.666	.092	-.377	-.985
11	-.307	.038	-.186	-.469	43	-1.040	.055	-.875	-1.287
12	-.385	.057	-.209	-.594	44	-1.012	.049	-.841	-1.217
13	-0.000	-0.000	-0.000	-0.000	45	-.616	.030	-.508	-.710
14	-.288	.039	-.151	-.410	46	-.314	.025	-.211	-.399
15	-.258	.029	-.165	-.364	47	-.059	.029	.026	-.166
16	-.277	.034	-.170	-.424	48	.107	.047	.331	-.185
17	-.491	.064	-.274	-.740	49	.173	.046	.380	.033
18	-.224	.039	-.105	-.406	50	.405	.043	.549	.245
19	.743	.063	.892	.503	51	.138	.038	.228	-.024
20	-.313	.054	-.145	-.616	52	-0.000	-0.000	-0.000	-0.000
21	-.354	.042	-.236	-.517	53	-.624	.053	-.460	-.836
22	-.362	.056	-.204	-.592	54	-.457	.053	-.312	-.675
23	-.270	.031	-.165	-.406	55	-.651	.177	.076	-1.370
24	-.394	.058	-.214	-.636	56	-0.000	-0.000	-0.000	-0.000
25	-.363	.079	-.101	-.693	57	-.704	.125	-.331	-1.238
26	-.281	.047	-.122	-.494	58	-0.000	-0.000	-0.000	-0.000
27	-.274	.033	-.159	-.557	59	-.125	.143	.447	-.577
28	-.315	.051	-.142	-.521	60	-.365	.138	.080	-.938
29	-.458	.038	-.331	-.650	61	-.825	.073	-.628	-1.238
30	-.605	.045	-.467	-.760	62	-.074	.072	.124	-.385
31	-.303	.031	-.192	-.422	63	.297	.024	.376	.168
32	.506	.040	.595	.324					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 255

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.566	.190	-.360	-1.344	33	.761	.055	.886	.473
2	-.490	.094	-.228	-.919	34	.689	.059	.840	.367
3	-.317	.045	-.155	-.516	35	-.067	.037	.072	-.272
4	-.358	.059	-.163	-.669	36	-.619	.040	-.498	-.773
5	-.346	.057	-.163	-.568	37	-.614	.054	-.359	-.804
6	-.411	.069	-.195	-.683	38	-.435	.107	-.016	-.779
7	-.519	.050	-.359	-.749	39	-.580	.090	-.307	-.945
8	.074	.050	.322	-.131	40	-.357	.052	-.152	-.572
9	-0.000	-0.000	-0.000	-0.000	41	-.344	.059	-.110	-.554
10	.486	.067	.675	.232	42	-.342	.060	-.171	-.707
11	-.085	.041	.058	-.238	43	-.350	.048	-.200	-.582
12	-.482	.041	-.358	-.626	44	-.350	.044	-.221	-.563
13	-0.000	-0.000	-0.000	-0.000	45	-.565	.039	-.409	-.688
14	-.370	.038	-.253	-.505	46	-.576	.032	-.468	-.689
15	-.381	.043	-.253	-.556	47	-.411	.032	-.291	-.521
16	-.331	.051	-.181	-.539	48	-.011	.044	.195	-.149
17	-.347	.038	-.220	-.480	49	.031	.067	.275	-1.344
18	-.565	.080	-.313	-.874	50	.597	.056	.747	.343
19	.709	.067	.848	.467	51	.442	.059	.595	-1.532
20	-.079	.045	.071	-.360	52	-.062	.025	-.025	-1.557
21	-.953	.055	-.748	-1.114	53	-.719	.035	-.587	-.858
22	-.600	.046	-.416	-.754	54	-.626	.051	-.461	-.784
23	-.317	.050	-.127	-.483	55	-.519	.177	.050	-1.509
24	-.084	.045	.083	-.254	56	-0.000	-0.000	-0.000	-0.000
25	-.521	.044	-.367	-.671	57	-.695	.113	-.331	-1.344
26	-.354	.043	-.163	-.506	58	-0.000	-0.000	-0.000	-0.000
27	-.324	.046	-.158	-.513	59	-.086	.136	.435	-.488
28	-.325	.033	-.196	-.443	60	-.041	.078	.252	-.357
29	-.340	.051	-.137	-.541	61	-.853	.060	-.594	-1.058
30	-.364	.085	-.115	-.794	62	-.484	.175	.028	-1.176
31	-.570	.056	-.395	-.775	63	.366	.026	.440	.182
32	.196	.037	.311	.001					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 270

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.451	.051	-.311	-.665	33	.523	.042	.634	.296
2	-.635	.100	-.310	-1.179	34	.811	.063	.939	.492
3	-.388	.060	-.226	-.622	35	.328	.051	.469	.075
4	-.383	.061	-.175	-.650	36	-.344	.032	-.233	-.458
5	-.424	.076	-.241	-.973	37	-0.000	-0.000	-0.000	-0.000
6	-.492	.098	-.199	-1.093	38	-.334	.062	-.128	-.578
7	-.705	.113	-.287	-1.044	39	-.599	.060	-.423	-.827
8	-.184	.041	-.013	-.330	40	-0.000	-0.000	-0.000	-0.000
9	.377	.058	.513	.167	41	-.349	.035	-.217	-.451
10	.593	.070	.803	.356	42	-.355	.044	-.211	-.510
11	.224	.053	.429	.021	43	-.358	.040	-.220	-.495
12	-.280	.033	-.168	-.391	44	-.360	.038	-.229	-.483
13	-0.000	-0.000	-0.000	-0.000	45	-.582	.060	-.328	-.763
14	-.499	.048	-.340	-.664	46	-.660	.046	-.484	-.794
15	-.356	.050	-.187	-.562	47	-.610	.048	-.386	-.782
16	-.372	.073	-.121	-.714	48	.027	.077	.400	-.175
17	-.398	.040	-.234	-.560	49	.069	.092	.446	-.221
18	-.796	.121	-.324	-1.336	50	.359	.046	.479	.197
19	.415	.057	.582	.157	51	.577	.047	.710	.339
20	.315	.058	.505	.063	52	-0.000	-0.000	-0.000	-0.000
21	-.600	.059	-.398	-.827	53	-.376	.030	-.269	-.525
22	-.470	.039	-.332	-.594	54	-.567	.050	-.392	-.726
23	-.327	.068	-.040	-.552	55	-.344	.141	.153	-.968
24	.317	.045	.445	.107	56	-0.000	-0.000	-0.000	-0.000
25	-.545	.038	-.409	-.681	57	-.646	.074	-.387	-1.123
26	-.357	.048	-.190	-.541	58	-0.000	-0.000	-0.000	-0.000
27	-.334	.066	-.140	-.660	59	.132	.100	.508	-.208
28	-.357	.036	-.229	-.498	60	.261	.069	.466	-.047
29	-.381	.046	-.231	-.564	61	-.617	.062	-.323	-.806
30	-.521	.141	-.101	-1.466	62	-.743	.090	-.442	-1.212
31	-.683	.126	-.237	-1.074	63	.401	.026	.493	.282
32	-.121	.033	.022	-.235					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 285

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-0.000	-0.000	-0.000	-0.000	33	.192	.036	.304	.022
2	-.581	.077	-.365	-.931	34	.755	.053	.871	.471
3	-.562	.075	-.335	-.904	35	.636	.056	.766	.400
4	-.427	.049	-.261	-.717	36	-.023	.033	.113	-.167
5	-.369	.042	-.235	-.560	37	-.491	.039	-.360	-.659
6	-.498	.075	-.274	-.821	38	-.229	.109	.147	-.659
7	-.743	.081	-.415	-1.061	39	-.683	.078	-.378	-.990
8	-.287	.049	-.136	-.471	40	-.105	.021	-.064	-.159
9	-0.000	-0.000	-0.000	-0.000	41	-.453	.048	-.209	-.619
10	.571	.069	.754	.288	42	-.438	.042	-.302	-.622
11	.468	.066	.691	.240	43	-.437	.046	-.282	-.618
12	-.032	.041	.127	-.177	44	-.437	.044	-.274	-.614
13	-0.000	-0.000	-0.000	-0.000	45	-.687	.084	-.404	-.979
14	-.763	.044	-.560	-.879	46	-.655	.053	-.432	-.834
15	-.319	.058	-.132	-.590	47	-.640	.066	-.401	-.952
16	-.580	.093	-.264	-.949	48	.279	.076	.707	.014
17	-.384	.045	-.204	-.581	49	.191	.049	.383	-.020
18	-.792	.093	-.468	-1.159	50	.130	.027	.228	.020
19	.026	.043	.160	-.177	51	.549	.044	.656	.362
20	.615	.065	.769	.223	52	-0.000	-0.000	-0.000	-0.000
21	-.117	.049	.043	-.299	53	-.082	.030	.017	-.243
22	-.283	.036	-.151	-.433	54	-.540	.048	-.381	-.708
23	-.485	.084	-.093	-1.439	55	-.231	.113	.129	-.669
24	.629	.055	.741	.416	56	-0.000	-0.000	-0.000	-0.000
25	-.486	.032	-.366	-.603	57	-.519	.038	-.338	-.649
26	-.465	.048	-.298	-.646	58	-0.000	-0.000	-0.000	-0.000
27	-.498	.088	-.202	-.914	59	.084	.074	.323	-.192
28	-.427	.047	-.213	-.671	60	.492	.065	.700	.223
29	-.408	.051	-.245	-.726	61	-.468	.046	-.303	-.621
30	-.439	.082	-.151	-.784	62	-.461	.041	-.347	-.633
31	-.681	.132	-.092	-1.171	63	.330	.035	.447	.157
32	-.319	.036	-.195	-.443					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 300

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.260	.035	-.149	-.373	33	-.178	.028	-.061	-.289
2	-.451	.051	-.311	-.675	34	.512	.047	.636	.296
3	-.828	.096	-.505	-1.156	35	.784	.057	.917	.526
4	-.459	.048	-.306	-.691	36	.346	.044	.484	.158
5	-.396	.034	-.239	-.506	37	-.288	.070	.035	-.566
6	-.426	.048	-.258	-.647	38	.040	.129	.443	-.483
7	-.824	.096	-.504	-1.150	39	-1.008	.119	-.488	-1.432
8	-.386	.043	-.221	-.612	40	-.754	.083	-.526	-1.065
9	-0.000	-0.000	-0.000	-0.000	41	-.516	.052	-.319	-.691
10	.390	.059	.552	.178	42	-.475	.036	-.347	-.618
11	.591	.069	.750	.354	43	-.489	.046	-.342	-.670
12	.261	.057	.428	.018	44	-.481	.047	-.340	-.643
13	-0.000	-0.000	-0.000	-0.000	45	-.724	.128	-.323	-1.112
14	-.810	.046	-.609	-.960	46	-.623	.086	-.338	-.918
15	-.248	.068	-.041	-.575	47	-.599	.069	-.347	-.853
16	-.756	.085	-.463	-1.097	48	.353	.112	.729	-.270
17	-.413	.036	-.282	-.545	49	-.002	.097	.315	-.446
18	-.730	.083	-.402	-1.091	50	-.199	.026	-.102	-.302
19	-.413	.042	-.248	-.547	51	.359	.037	.470	.134
20	.749	.071	.918	.462	52	-0.000	-0.000	-0.000	-0.000
21	.324	.055	.472	.103	53	.246	.036	.349	.068
22	.034	.039	.164	-.144	54	-.326	.050	-.159	-.561
23	-.714	.105	-.319	-1.087	55	-.265	.099	.100	-.676
24	.776	.060	.929	.535	56	-0.000	-0.000	-0.000	-0.000
25	-.320	.029	-.218	-.429	57	-.587	.046	-.421	-.740
26	-.524	.042	-.389	-.680	58	-0.000	-0.000	-0.000	-0.000
27	-.629	.098	-.313	-.956	59	-.194	.044	-.020	-.353
28	-.461	.058	-.256	-.723	60	.615	.063	.813	.363
29	-.418	.023	-.339	-.506	61	.064	.060	.276	-.148
30	-.428	.065	-.235	-.728	62	-.423	.035	-.302	-.556
31	-.612	.097	-.236	-.931	63	-.285	.100	.144	-.708
32	-.494	.035	-.380	-.612					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 315

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.008	.042	.141	-.148	33	-.424	.031	-.314	-.547
2	-.294	.040	-.159	-.477	34	.143	.037	.293	-.025
3	-.728	.076	-.452	-1.015	35	.712	.053	.827	.467
4	-.516	.071	-.279	-.953	36	.636	.049	.773	.398
5	-.381	.036	-.256	-.508	37	-.360	.070	-.114	-.610
6	-.414	.050	-.273	-.596	38	.349	.162	.848	-.244
7	-.583	.093	-.317	-.980	39	-.653	.044	-.483	-.809
8	-.552	.076	-.354	-.858	40	-.941	.059	-.731	-1.134
9	-0.000	-0.000	-0.000	-0.000	41	-.726	.082	-.440	-.951
10	.124	.046	.313	-.071	42	-.451	.064	-.149	-.686
11	.541	.065	.720	.276	43	-.394	.046	-.235	-.574
12	.477	.063	.675	.261	44	-.372	.046	-.172	-.592
13	-0.000	-0.000	-0.000	-0.000	45	-.446	.059	-.249	-.680
14	-.570	.048	-.350	-.734	46	-.499	.074	-.216	-.951
15	-.118	.126	.213	-.924	47	-.754	.103	-.350	-1.152
16	-.783	.090	-.464	-1.173	48	-.086	.205	.686	-.655
17	-.404	.033	-.282	-.517	49	-.288	.129	.141	-.774
18	-.570	.074	-.374	-.941	50	-.505	.026	-.390	-.589
19	-.716	.044	-.551	-.845	51	.058	.029	.148	-.091
20	.677	.070	.812	.405	52	-0.000	-0.000	-0.000	-0.000
21	.659	.066	.824	.411	53	.464	.041	.579	.263
22	.368	.046	.526	.193	54	-.274	.051	-.115	-.453
23	-.740	.105	-.354	-1.156	55	-.222	.124	.210	-1.422
24	.710	.059	.824	.424	56	-0.000	-0.000	-0.000	-0.000
25	.013	.033	.165	-.135	57	-.545	.042	-.352	-.717
26	-.394	.036	-.255	-.542	58	-0.000	-0.000	-0.000	-0.000
27	-.658	.123	-.223	-1.041	59	-.212	.131	.140	-.795
28	-.447	.083	-.172	-.799	60	.562	.073	.861	.309
29	-.400	.039	-.249	-.590	61	-.319	.064	-.043	-.528
30	-.405	.049	-.253	-.629	62	-.632	.069	-.432	-.909
31	-.532	.111	-.182	-1.087	63	.026	.089	.346	-.307
32	-.540	.048	-.379	-.720					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 330

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.278	.057	.474	.080	33	-.555	.038	-.426	-.688
2	-.229	.041	-.060	-.358	34	-.206	.032	-.086	-.318
3	-.734	.078	-.426	-1.072	35	.482	.047	.644	.238
4	-.651	.098	-.301	-.998	36	.777	.067	.905	.494
5	-.403	.071	-.197	-.745	37	.149	.118	.593	-.264
6	-.345	.045	-.200	-.566	38	.170	.111	.646	-.270
7	-.424	.064	-.223	-.744	39	-.623	.077	-.293	-.907
8	-.638	.100	-.331	-.983	40	-.809	.054	-.623	-.980
9	-0.000	-0.000	-0.000	-0.000	41	-.873	.122	-.450	-1.218
10	-.154	.035	-.002	-.274	42	-.415	.071	-.139	-.680
11	.350	.056	.522	.140	43	-.346	.042	-.186	-.527
12	.590	.069	.784	.366	44	-.338	.044	-.155	-.487
13	-0.000	-0.000	-0.000	-0.000	45	-.374	.043	-.202	-.546
14	-.232	.052	-.062	-.433	46	-.441	.064	-.162	-.787
15	.087	.149	.494	-.839	47	-.620	.087	-.260	-.992
16	-.868	.106	-.419	-1.304	48	-.182	.139	.356	-.596
17	-.380	.045	-.239	-.547	49	-.443	.087	-.166	-.770
18	-.372	.055	-.219	-.625	50	-.667	.030	-.546	-.765
19	-.792	.043	-.647	-.917	51	-.305	.028	-.201	-.416
20	.456	.061	.599	.196	52	-0.000	-0.000	-0.000	-0.000
21	.776	.059	.910	.542	53	.566	.050	.723	.274
22	.656	.062	.793	.429	54	-.306	.101	.044	-.661
23	-.853	.130	-.441	-1.385	55	-.046	.203	.686	-.832
24	.467	.050	.595	.273	56	-0.000	-0.000	-0.000	-0.000
25	.372	.043	.515	.192	57	-.575	.050	-.369	-.781
26	-.241	.031	-.139	-.349	58	-0.000	-0.000	-0.000	-0.000
27	-.732	.121	-.318	-1.205	59	-.277	.092	-.005	-.676
28	-.549	.114	-.170	-1.247	60	.395	.075	.656	.143
29	-.376	.057	-.199	-.636	61	.151	.066	.327	-.087
30	-.318	.036	-.189	-.452	62	-.621	.055	-.450	-.823
31	-.385	.091	-.114	-.812	63	-.450	.144	.049	-.980
32	-.495	.050	-.320	-.678					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER

THE SKYHOUSE WITH NO GRID
WIND DIRECTION 345

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.501	.064	.707	.287	33	-.593	.047	-.429	-.798
2	-.038	.050	.115	-.226	34	-.478	.030	-.370	-.572
3	-.631	.059	-.435	-.845	35	.118	.036	.241	-.047
4	-.465	.073	-.205	-.744	36	.751	.052	.872	.447
5	-0.000	-0.000	-0.000	-0.000	37	.203	.111	.552	-.115
6	-.359	.078	-.131	-.678	38	-.076	.085	.311	-.416
7	-.340	.057	-.156	-.594	39	-.517	.134	-.055	-.876
8	-.709	.110	-.302	-1.132	40	-.740	.043	-.539	-.879
9	-0.000	-0.000	-0.000	-0.000	41	-.827	.096	-.426	-1.103
10	-.377	.036	-.270	-.503	42	-.544	.121	-.131	-.866
11	.067	.042	.214	-.075	43	-.357	.091	.036	-.727
12	.549	.072	.751	.288	44	-.285	.090	.129	-.565
13	-0.000	-0.000	-0.000	-0.000	45	-.369	.041	-.246	-.551
14	.167	.056	.295	-.133	46	-.351	.046	-.228	-.560
15	.437	.070	.689	.166	47	-.412	.065	-.180	-.674
16	-.753	.104	-.421	-1.111	48	-.325	.091	.043	-.658
17	-.438	.053	-.270	-.617	49	-.475	.076	-.236	-.733
18	-.323	.061	-.141	-.665	50	-.790	.042	-.659	-.947
19	-.700	.044	-.545	-.840	51	-.669	.035	-.533	-.790
20	.101	.044	.231	-.128	52	-0.000	-0.000	-0.000	-0.000
21	.760	.065	.902	.485	53	.509	.058	.671	.246
22	.787	.068	.921	.532	54	-.097	.142	.273	-.761
23	-.800	.109	-.372	-1.142	55	.552	.127	.873	-.057
24	.113	.036	.226	-.061	56	-0.000	-0.000	-0.000	-0.000
25	.664	.059	.833	.390	57	-.610	.059	-.428	-.867
26	.033	.036	.147	-.132	58	-0.000	-0.000	-0.000	-0.000
27	-.686	.068	-.413	-.889	59	-.425	.125	-.001	-.905
28	-.466	.091	-.113	-.840	60	.258	.055	.397	-.049
29	-.453	.080	-.221	-.796	61	.103	.106	.377	-.175
30	-.300	.044	-.148	-.456	62	-.537	.056	-.347	-.758
31	-.343	.055	-.171	-.619	63	-.595	.125	-.072	-1.231
32	-.443	.055	-.228	-.636					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 105

PRESSURE TAP NUMBER	MEAN PRESSURE COFFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.484	.067	-.230	-.712	33	-.263	.055	-.043	-.426
2	-.169	.057	.134	-.370	34	-.238	.050	-.006	-.471
3	.358	.096	.806	.067	35	-.343	.067	-.130	-.547
4	.806	.166	1.476	.353	36	-.423	.072	-.178	-.698
5	.532	.096	.898	.197	37	-.576	.090	-.221	-.972
6	-.032	.063	.232	-.282	38	-.608	.070	-.383	-.835
7	-.595	.083	-.286	-.873	39	-.362	.063	-.063	-.590
8	-.467	.100	-.073	-.779	40	.183	.114	.667	-.198
9	-0.000	-0.000	-0.000	-0.000	41	.517	.152	1.184	.059
10	-.270	.055	-.111	-.480	42	.339	.128	1.090	-.215
11	-.390	.069	-.166	-.721	43	.102	.204	.873	-.460
12	-.817	.115	-.333	-1.267	44	.112	.197	1.125	-.418
13	-0.000	-0.000	-0.000	-0.000	45	-.538	.078	-.261	-.814
14	-.360	.071	-.099	-.630	46	-.594	.073	-.333	-.809
15	-.524	.094	-.166	-.840	47	-.460	.092	-.121	-.812
16	.440	.124	1.112	.092	48	-.297	.064	-.081	-.525
17	.552	.124	1.150	.215	49	-.272	.066	-.050	-.583
18	-.714	.137	-.232	-1.210	50	-.264	.055	-.092	-.464
19	-.293	.053	-.133	-.454	51	-.306	.056	-.121	-.566
20	-.374	.073	-.136	-.697	52	-0.000	-0.000	-0.000	-0.000
21	-.344	.072	-.098	-.643	53	-.536	.112	-.137	-.987
22	-.583	.060	-.368	-.838	54	-.272	.123	.155	-.779
23	.392	.112	.861	-.057	55	-.560	.183	-.052	-1.413
24	-.367	.072	-.163	-.603	56	-0.000	-0.000	-0.000	-0.000
25	-.534	.067	-.321	-.839	57	.142	.151	.800	-.430
26	-.226	.062	.018	-.504	58	-0.000	-0.000	-0.000	-0.000
27	.399	.115	.909	.097	59	-.610	.136	-.178	-1.363
28	.889	.170	1.705	.480	60	-.421	.102	-.054	-.824
29	.605	.133	1.179	.243	61	-.568	.160	-.151	-1.298
30	-.036	.066	.210	-.256	62	-1.157	.371	.043	-2.438
31	-.645	.200	.145	-1.573	63	-.616	.100	-.232	-1.004
32	-.356	.105	-.054	-.985					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 120

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.544	.091	-.283	-.894	33	-.250	.066	-.029	-.550
2	-.372	.053	-.210	-.562	34	-.188	.045	-.056	-.360
3	.030	.078	.305	-.219	35	-.225	.063	-.018	-.467
4	.606	.118	1.151	.333	36	-.326	.062	-.132	-.563
5	.651	.087	.945	.420	37	-.579	.071	-.324	-.795
6	.219	.088	.551	-.061	38	-.596	.065	-.384	-.821
7	-.368	.056	-.182	-.613	39	-.594	.060	-.390	-.808
8	-.378	.081	-.067	-.679	40	-.138	.087	.247	-.444
9	-0.000	-0.000	-0.000	-0.000	41	.419	.147	1.063	-.033
10	-.197	.057	-.025	-.464	42	.457	.122	1.138	-.090
11	-.291	.052	-.117	-.667	43	.139	.136	.720	-.245
13	-0.000	-0.000	-0.000	-0.000	44	.138	.129	.700	-.224
12	-.506	.091	-.108	-.922	45	-.272	.062	-.067	-.534
14	-.484	.068	-.181	-.697	46	-.428	.051	-.250	-.603
15	-.815	.072	-.572	-1.049	47	-.464	.057	-.267	-.659
16	.036	.091	.402	-.369	48	-.265	.052	-.062	-.448
17	.808	.118	1.297	.473	49	-.254	.058	-.038	-.472
18	-.407	.096	-.090	-.807	50	-.236	.053	-.073	-.459
19	-.280	.055	-.108	-.501	51	-.275	.063	-.065	-.535
20	-.338	.080	-.134	-.636	52	-0.000	-0.000	-0.000	-0.000
21	-.343	.056	-.146	-.548	53	-.422	.118	.105	-.859
22	-.333	.050	-.161	-.495	54	-.365	.123	.133	-.797
23	.009	.099	.360	-.445	55	-.612	.196	.057	-1.527
24	-.220	.072	.044	-.441	56	-0.000	-0.000	-0.000	-0.000
25	-.477	.068	-.206	-.734	57	.192	.161	.854	-.464
26	-.484	.062	-.248	-.711	58	-0.000	-0.000	-0.000	-0.000
27	.011	.090	.382	-.265	59	-.636	.139	-.209	-1.389
28	.682	.131	1.417	.273	60	-.362	.071	-.131	-.656
29	.754	.127	1.389	.458	61	-.637	.094	-.363	-1.378
30	.279	.087	.625	-.003	62	-.469	.216	.191	-1.262
31	-.444	.086	-.117	-.878	63	-.631	.065	-.404	-.851
32	-.333	.097	.081	-.725					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 135

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.603	.101	-.307	-.970	33	-.343	.086	-.043	-.712
2	-.438	.059	-.219	-.674	34	-.225	.055	-.053	-.410
3	-.238	.050	-.023	-.413	35	-.163	.048	.015	-.327
4	.318	.089	.655	.076	36	-.217	.062	-.002	-.436
5	.719	.098	1.107	.399	37	-.501	.063	-.273	-.753
6	.497	.118	.975	.193	38	-.454	.059	-.224	-.658
7	-.100	.058	.140	-.341	39	-.644	.057	-.451	-.852
8	-.420	.055	-.247	-.632	40	-.437	.064	-.170	-.671
9	-0.000	-0.000	-0.000	-0.000	41	.105	.098	.509	-.235
10	-.209	.067	-.001	-.430	42	.427	.142	1.132	-.058
11	-.217	.048	-.036	-.401	43	.225	.101	.729	-.123
12	-.335	.063	-.131	-.588	44	.157	.152	.762	-1.452
13	-0.000	-0.000	-0.000	-0.000	45	.042	.079	.363	-.177
14	-.526	.071	-.276	-.805	46	-.169	.055	.043	-.360
15	-.549	.058	-.332	-.770	47	-.385	.046	-.209	-.531
16	-.293	.080	-.039	-.658	48	-.315	.050	-.157	-.493
17	.844	.129	1.400	.474	49	-.314	.054	-.144	-.489
18	-.087	.066	.148	-.332	50	-.299	.062	-.032	-.507
19	-.306	.071	-.115	-.571	51	-.320	.067	-.088	-.616
20	-.252	.067	-.019	-.609	52	-0.000	-0.000	-0.000	-0.000
21	-.246	.065	-.053	-.473	53	-.238	.107	.059	-.843
22	-.268	.058	-.070	-.466	54	-.341	.091	.013	-.636
23	-.343	.099	-.023	-.752	55	-.612	.165	-.123	-1.406
24	-.153	.056	.060	-.408	56	-0.000	-0.000	-0.000	-0.000
25	-.390	.069	-.148	-.710	57	-.041	.155	.552	-.665
26	-.488	.057	-.290	-.667	58	-0.000	-0.000	-0.000	-0.000
27	-.328	.065	-.129	-.594	59	-.632	.192	-.013	-1.793
28	.349	.098	.801	.076	60	-.300	.059	-.108	-.486
29	.768	.131	1.307	.469	61	-.615	.069	-.351	-.842
30	.551	.116	1.113	.209	62	-.012	.103	.351	-.378
31	-.165	.066	.063	-.496	63	-.595	.067	-.386	-.906
32	-.457	.058	-.282	-.663					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 150

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.181	.070	.079	-.448	33	-.471	.058	-.272	-.757
2	-.271	.082	.042	-.515	34	-.273	.056	-.080	-.468
3	-.411	.058	-.217	-.657	35	-.275	.068	-.034	-.499
4	.067	.074	.369	-.133	36	-.245	.061	-.071	-.597
5	.596	.084	.908	.356	37	-.364	.064	-.123	-.580
6	.646	.110	1.440	.329	38	-.346	.061	-.112	-.546
7	.176	.084	.530	-.071	39	-.443	.072	-.109	-.705
8	-.295	.049	-.135	-.477	40	-.611	.058	-.390	-.813
9	-0.000	-0.000	-0.000	-0.000	41	-.127	.085	.206	-.397
10	-.567	.099	-.229	-1.085	42	.433	.130	.983	-.089
11	-.280	.052	-.103	-.501	43	.317	.117	.800	-.127
12	-.224	.061	-.021	-.485	44	.062	.257	.779	-2.081
13	-0.000	-0.000	-0.000	-0.000	45	.325	.120	.817	.021
14	-.221	.063	-.017	-.437	46	.093	.080	.399	-.179
15	-.243	.057	-.017	-.454	47	-.279	.064	.037	-.493
16	-.517	.118	.028	-.939	48	-.819	.059	-.604	-1.016
17	.694	.118	1.271	.426	49	-.827	.068	-.544	-1.065
18	.247	.093	.689	-.108	50	-.549	.060	-.363	-.751
19	-.608	.051	-.419	-.783	51	-.709	.096	-.384	-1.004
20	-.284	.069	-.058	-.634	52	-0.000	-0.000	-0.000	-0.000
21	-.220	.051	-.077	-.432	53	-.183	.091	.170	-.538
22	-.179	.049	-.031	-.437	54	-.201	.086	.142	-.473
23	-.533	.133	-.032	-1.031	55	-.510	.119	-.103	-.982
24	-.273	.071	.088	-.512	56	-0.000	-0.000	-0.000	-0.000
25	-.226	.058	.022	-.477	57	.190	.165	.828	-.424
26	-.221	.103	.175	-.641	58	-0.000	-0.000	-0.000	-0.000
27	-.473	.105	-.127	-.935	59	-.574	.167	-.089	-1.434
28	.088	.078	.465	-.138	60	-.310	.058	-.083	-.509
29	.659	.115	1.241	.333	61	-.620	.058	-.416	-.814
30	.718	.120	1.211	.392	62	.304	.112	.802	-.024
31	.161	.094	.517	-.124	63	-.566	.069	-.346	-.852
32	-.422	.054	-.245	-.618					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 165

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.243	.084	-.012	-.711	33	-.510	.064	-.316	-.735
2	-.280	.094	.023	-.852	34	-.372	.067	-.077	-.605
3	-.579	.083	-.304	-.851	35	-.344	.089	-.023	-.664
4	-.096	.060	.110	-.302	36	-.371	.097	-.061	-1.070
5	.419	.071	.666	.214	37	-.283	.091	.137	-.591
6	.852	.161	1.495	.451	38	-.455	.119	.306	-.865
7	.508	.130	1.212	.126	39	-.464	.096	.012	-.777
8	-.066	.066	.285	-.299	40	-.796	.080	-.488	-1.113
9	-0.000	-0.000	-0.000	-0.000	41	-.459	.069	-.153	-.672
10	-.677	.125	-.229	-1.170	42	.243	.100	.623	-.081
11	-.416	.080	-.193	-.730	43	.436	.185	1.294	-.207
12	-.324	.062	-.111	-.552	44	.085	.218	1.026	-.682
13	-0.000	-0.000	-0.000	-0.000	45	.463	.105	1.040	.190
14	-.262	.063	-.061	-.485	46	.366	.119	.937	.016
15	-.296	.064	-.105	-.517	47	.007	.092	.320	-.257
16	-.774	.144	-.220	-1.370	48	-.128	.051	-.043	-.271
17	.391	.108	.814	.062	49	-.713	.099	-.195	-1.020
18	.654	.155	1.356	.242	50	-.599	.052	-.437	-.759
19	-.751	.061	-.552	-.962	51	-.837	.089	-.532	-1.171
20	-.390	.068	-.126	-.641	52	-0.000	-0.000	-0.000	-0.000
21	-.297	.060	-.140	-.519	53	-.372	.102	-.015	-.793
22	-.261	.059	-.103	-.504	54	-.276	.093	.339	-.544
23	-.727	.149	-.108	-1.276	55	-.456	.123	.164	-.959
24	-.381	.080	-.137	-.741	56	-0.000	-0.000	-0.000	-0.000
25	-.267	.062	-.054	-.524	57	.071	.155	.698	-.577
26	-.302	.096	.161	-.675	58	-0.000	-0.000	-0.000	-0.000
27	-.625	.217	.228	-1.399	59	-.629	.153	-.191	-1.269
28	-.182	.061	.099	-.408	60	-.435	.102	-.090	-.829
29	.442	.108	.922	.163	61	-.627	.083	-.335	-.931
30	.932	.161	1.753	.542	62	.668	.150	1.272	.170
31	.551	.144	1.182	.193	63	-.733	.309	.082	-2.287
32	-.165	.073	.129	-.440					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 180

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.303	.061	-.122	-.623	33	-.328	.048	-.138	-.501
2	-.282	.076	-.020	-.755	34	-.380	.057	-.167	-.614
3	-.602	.096	-.297	-.964	35	-.486	.106	-.091	-.874
4	-.201	.051	-.036	-.392	36	-.375	.098	-.088	-.860
5	.122	.052	.305	-.052	37	-.318	.116	.191	-.674
6	.612	.107	1.066	.321	38	-.396	.142	.295	-.854
7	.605	.104	1.073	.358	39	-.535	.095	-.088	-.881
8	.221	.080	.614	-.060	40	-.803	.090	-.501	-1.115
9	-0.000	-0.000	-0.000	-0.000	41	-.611	.067	-.351	-.834
10	-.480	.101	-.222	-.894	42	-.025	.081	.425	-.317
11	-.576	.098	-.261	-.958	43	.067	.216	.891	-.478
12	-.363	.059	-.153	-.555	44	-.275	.167	.389	-.837
13	-0.000	-0.000	-0.000	-0.000	45	.502	.124	1.142	.177
14	-.255	.050	-.075	-.463	46	.460	.095	1.004	.165
15	-.294	.051	-.116	-.488	47	.263	.107	.768	-.058
16	-.674	.112	-.296	-1.107	48	-.545	.114	-.173	-.949
17	-.037	.085	.298	-.377	49	-.271	.179	.530	-.764
18	.741	.119	1.298	.432	50	-.386	.049	-.175	-.545
19	-.548	.056	-.370	-.743	51	-.765	.070	-.515	-1.050
20	-.579	.088	-.277	-.912	52	-0.000	-0.000	-0.000	-0.000
21	-.328	.017	-.276	-.382	53	-.471	.104	.071	-.857
22	-.279	.063	-.082	-.547	54	-.377	.118	.265	-.800
23	-.637	.096	-.307	-1.113	55	-.445	.079	-.002	-.710
24	-.569	.087	-.304	-.900	56	-0.000	-0.000	-0.000	-0.000
25	-.299	.067	-.043	-.544	57	-0.000	-0.000	-0.000	-0.000
26	-.278	.081	-.020	-.599	58	-0.000	-0.000	-0.000	-0.000
27	-.536	.140	.003	-1.589	59	-0.000	-0.000	-0.000	-0.000
28	-.325	.054	-.144	-.557	60	-0.000	-0.000	-0.000	-0.000
29	.099	.072	.391	-.089	61	-.001	.098	.355	-.400
30	.654	.112	1.246	.350	62	-.028	.017	.033	-.082
31	.664	.114	1.332	.378	63	-.428	.135	-.028	-.874
32	.186	.088	.613	-.078					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 225

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.220	.086	.020	-.721	33	.543	.122	1.081	.221
2	-.256	.058	-.076	-.457	34	-.017	.063	.204	-.215
3	-.344	.059	-.161	-.608	35	-.569	.192	.117	-1.543
4	-.727	.105	-.411	-1.277	36	-.346	.105	.044	-.793
5	-.274	.015	-.233	-.323	37	-.232	.071	.035	-.493
6	-.167	.051	.008	-.335	38	-.216	.073	.124	-.443
7	.322	.098	.822	.084	39	-.287	.081	.005	-.615
8	.740	.157	1.562	.183	40	-.600	.113	-.191	-.999
9	-0.000	-0.000	-0.000	-0.000	41	-.798	.098	-.402	-1.107
10	-.011	.061	.227	-.216	42	-.587	.057	-.386	-.789
11	-.531	.094	-.115	-.877	43	-.826	.067	-.570	-1.080
12	-.402	.098	-.065	-.741	44	-.834	.064	-.614	-1.068
13	-0.000	-0.000	-0.000	-0.000	45	-.095	.083	.253	-.403
14	-.234	.050	.021	-.392	46	.233	.093	.651	-.041
15	-.265	.056	-.052	-.461	47	.388	.113	.870	.060
16	-.311	.064	-.102	-.579	48	.115	.215	.797	-1.475
17	-.693	.058	-.457	-.889	49	.499	.174	1.341	-.060
18	.415	.106	.972	.116	50	.286	.090	.610	-.033
19	.489	.119	1.066	.125	51	-.299	.068	.003	-.562
20	-.696	.144	.026	-1.185	52	-0.000	-0.000	-0.000	-0.000
21	-.269	.064	-.060	-.475	53	-.418	.091	.028	-.688
22	-.288	.072	-.051	-.529	54	-.353	.080	-.066	-.663
23	-.311	.076	-.056	-.581	55	-.448	.122	.022	-1.074
24	-.676	.143	-.014	-1.172	56	-0.000	-0.000	-0.000	-0.000
25	-.212	.059	-.034	-.409	57	-.555	.151	-.068	-1.136
26	-.274	.078	-.027	-.614	58	-0.000	-0.000	-0.000	-0.000
27	-.305	.079	.005	-.564	59	-.142	.170	.349	-.823
28	-.379	.062	-.147	-.617	60	-1.076	.341	.166	-2.192
29	-.496	.061	-.235	-.779	61	-.658	.102	-.379	-1.651
30	-.251	.061	-.049	-.527	62	.551	.130	1.015	.119
31	.358	.110	.812	.014	63	.188	.081	.502	-.078
32	.810	.158	1.512	.418					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 240

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.187	.076	.102	-.499	33	.705	.115	1.225	.418
2	-.140	.057	.100	-.341	34	.254	.087	.674	.021
3	-.257	.050	-.066	-.423	35	-.571	.099	-.251	-1.134
4	-.427	.095	-.100	-.797	36	-.281	.093	.016	-.584
5	-0.000	-0.000	-0.000	-0.000	37	-.320	.058	-.114	-.571
6	-.320	.051	-.165	-.507	38	-.196	.070	.027	-.418
7	.027	.076	.290	-.206	39	-.184	.069	.094	-.475
8	.570	.120	1.044	.214	40	-.253	.076	-.015	-.568
9	-0.000	-0.000	-0.000	-0.000	41	-0.000	-0.000	-0.000	-0.000
10	.249	.086	.590	-.029	42	-0.000	-0.000	-0.000	-0.000
11	-.317	.056	-.148	-.559	43	-0.000	-0.000	-0.000	-0.000
12	-.320	.073	.015	-.602	44	-0.000	-0.000	-0.000	-0.000
13	-0.000	-0.000	-0.000	-0.000	45	-.371	.058	-.165	-.591
14	-.167	.044	-.024	-.319	46	-.024	.075	.279	-.230
15	-.224	.045	-.079	-.402	47	.174	.099	.580	-.114
16	-.279	.079	-.037	-.642	48	.064	.272	.780	-2.082
17	-.500	.056	-.312	-.690	49	.361	.139	.896	-.143
18	.075	.080	.400	-.367	50	.429	.129	.917	-.256
19	.720	.115	1.277	.374	51	-.037	.091	.415	-.332
20	-.367	.083	-.080	-.858	52	-0.000	-0.000	-0.000	-0.000
21	-.229	.048	-.048	-.389	53	-.460	.067	-.172	-.683
22	-.219	.056	-.016	-.413	54	-.297	.061	-.072	-.487
23	-.255	.071	.066	-.551	55	-.548	.139	-.082	-1.178
24	-.408	.088	-.076	-.795	56	-0.000	-0.000	-0.000	-0.000
25	-.217	.063	.010	-.436	57	-.611	.188	-.029	-1.561
26	-.180	.051	-.011	-.400	58	-0.000	-0.000	-0.000	-0.000
27	-.261	.072	-.058	-.580	59	-.019	.174	.720	-.781
28	-.308	.059	-.113	-.515	60	-.508	.222	.179	-1.387
29	-.432	.056	-.242	-.639	61	-.687	.142	-.387	-2.004
30	-.470	.057	-.301	-.703	62	.163	.105	.522	-.173
31	-.016	.083	.295	-.319	63	.287	.068	.549	.079
32	.638	.117	1.193	.331					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 255

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.516	.098	-.233	-.893	33	.819	.143	1.448	.422
2	-.318	.060	-.102	-.565	34	.562	.128	1.264	.243
3	-.251	.049	-.080	-.436	35	-.409	.118	.005	-.886
4	-.277	.060	-.106	-.518	36	-.613	.067	-.371	-.866
5	-0.000	-0.000	-0.000	-0.000	37	-.461	.064	-.243	-.698
6	-.442	.066	-.163	-.688	38	-.302	.088	.063	-.684
7	-.250	.057	-.050	-.471	39	-.337	.087	.016	-.686
8	.342	.102	.785	.047	40	-.229	.052	-.046	-.420
9	-0.000	-0.000	-0.000	-0.000	41	-.316	.071	-.090	-.582
10	-0.000	-0.000	-0.000	-0.000	42	-.328	.082	.033	-.648
11	-0.000	-0.000	-0.000	-0.000	43	-.344	.066	-.149	-.601
12	-0.000	-0.000	-0.000	-0.000	44	-.334	.061	-.154	-.577
13	-0.000	-0.000	-0.000	-0.000	45	-0.000	-0.000	-0.000	-0.000
14	-.293	.050	-.077	-.500	46	-0.000	-0.000	-0.000	-0.000
15	-.362	.054	-.156	-.598	47	-0.000	-0.000	-0.000	-0.000
16	-.289	.073	-.063	-.599	48	-0.000	-0.000	-0.000	-0.000
17	-.379	.064	-.188	-.602	49	.197	.087	.546	-.053
18	-.253	.075	.029	-.583	50	.471	.083	.753	.235
19	.912	.150	1.491	.477	51	.216	.103	.722	-.086
20	-.174	.074	.096	-.490	52	-0.000	-0.000	-0.000	-0.000
21	-.788	.072	-.544	-1.034	53	-.638	.061	-.435	-.945
22	-.445	.076	-.126	-.677	54	-.424	.062	-.205	-.663
23	-.177	.064	.032	-.546	55	-.466	.193	.176	-1.477
24	-.231	.081	.035	-.671	56	-0.000	-0.000	-0.000	-0.000
25	-.392	.061	-.144	-.685	57	-.604	.164	-.138	-1.476
26	-.250	.058	-.036	-.426	58	-0.000	-0.000	-0.000	-0.000
27	-.189	.057	.065	-.415	59	-.058	.194	.698	-.689
28	-.288	.055	-.090	-.463	60	-.205	.121	.224	-.621
29	-.386	.087	-.088	-.817	61	-.760	.123	-.339	-1.391
30	-.445	.060	-.240	-.672	62	-.111	.114	.243	-.598
31	-.332	.070	-.048	-.601	63	.362	.070	.570	.151
32	.408	.109	.947	.136					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 270

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.446	.068	-.210	-.734	33	.684	.027	1.106	.390
2	-.563	.096	-.247	-.945	34	.740	.126	1.304	.400
3	-.276	.051	-.110	-.445	35	.168	.156	.722	-.386
4	-.242	.051	-.029	-.443	36	-.380	.061	-.038	-.649
5	-0.000	-0.000	-0.000	-0.000	37	-0.000	-0.000	-0.000	-0.000
6	-0.000	-0.000	-0.000	-0.000	38	-0.000	-0.000	-0.000	-0.000
7	-0.000	-0.000	-0.000	-0.000	39	-0.000	-0.000	-0.000	-0.000
8	-0.000	-0.000	-0.000	-0.000	40	-0.000	-0.000	-0.000	-0.000
9	-0.000	-0.000	-0.000	-0.000	41	-.231	.060	-.023	-.444
10	.673	.120	1.196	.329	42	-.226	.055	-.051	-.464
11	.202	.092	.524	-.075	43	-.258	.063	-.063	-.485
12	-.287	.052	-.113	-.503	44	-.266	.058	-.096	-.450
13	-0.000	-0.000	-0.000	-0.000	45	-.440	.066	-.157	-.648
14	-.338	.053	-.164	-.524	46	-.488	.055	-.276	-.680
15	-.327	.057	-.148	-.529	47	-.418	.069	-.170	-.656
16	-.312	.075	-.085	-.613	48	.077	.136	.714	-.291
17	-.251	.050	-.048	-.406	49	.119	.162	.730	-.325
18	-.507	.112	-.127	-.928	50	.456	.102	.876	.033
19	.672	.117	1.130	.328	51	.411	.125	.947	.003
20	.216	.100	.586	-.150	52	-0.000	-0.000	-0.000	-0.000
21	-.629	.083	-.395	-.937	53	-.416	.058	-.212	-.610
22	-.375	.063	-.123	-.571	54	-.446	.060	-.238	-.644
23	-.212	.069	.047	-.445	55	-.324	.177	.318	-1.228
24	.187	.093	.514	-.196	56	-0.000	-0.000	-0.000	-0.000
25	-.450	.063	-.229	-.718	57	-.549	.116	-.225	-1.098
26	-.262	.059	-.049	-.475	58	-0.000	-0.000	-0.000	-0.000
27	-.229	.069	-.019	-.502	59	.049	.176	.670	-.589
28	-.233	.045	-.090	-.399	60	.145	.103	.607	-.190
29	-.247	.055	-.077	-.435	61	-.568	.099	-.190	-.933
30	-.279	.107	.119	-.754	62	-.651	.320	.352	-1.914
31	-.534	.114	-.017	-1.089	63	.395	.071	.674	.154
32	.095	.080	.410	-.146					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 285

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.346	.056	-.177	-.637	33	.423	.104	.874	.006
2	-.593	.115	-.232	-.965	34	.859	.140	1.499	.503
3	-.381	.065	-.176	-.768	35	.564	.142	1.227	.133
4	-.294	.048	-.111	-.556	36	-.107	.065	.228	-.380
5	-0.000	-0.000	-0.000	-0.000	37	-.420	.089	-.114	-.779
6	-.307	.085	-.089	-.679	38	-.160	.136	.295	-.626
7	-.589	.090	-.233	-.928	39	-.550	.119	-.201	-1.007
8	-.111	.056	.088	-.347	40	-.363	.072	-.130	-.641
9	-0.000	-0.000	-0.000	-0.000	41	-.259	.051	-.116	-.480
10	.789	.152	1.547	.442	42	-.239	.050	-.070	-.399
11	.469	.116	.961	.180	43	-.276	.054	-.074	-.474
12	-.046	.058	.295	-.255	44	-.286	.052	-.103	-.476
13	-0.000	-0.000	-0.000	-0.000	45	-.413	.088	-.117	-.777
14	-.531	.056	-.345	-.740	46	-.517	.068	-.295	-.776
15	-.289	.065	-.082	-.596	47	-.559	.076	-.245	-.827
16	-.390	.075	-.139	-.904	48	.112	.191	1.123	-.434
17	-.268	.047	-.090	-.415	49	.158	.183	.772	-.422
18	-.671	.124	-.101	-1.068	50	.272	.080	.588	.027
19	.341	.105	.844	.046	51	.508	.149	1.254	.071
20	.549	.138	1.288	.226	52	-0.000	-0.000	-0.000	-0.000
21	-.212	.085	.065	-.472	53	-.180	.064	.045	-.393
22	-.221	.067	.005	-.496	54	-.442	.066	-.240	-.739
23	-.327	.078	-.003	-.591	55	-.241	.171	.216	-.980
24	.533	.114	1.041	.144	56	-0.000	-0.000	-0.000	-0.000
25	-.434	.060	-.230	-.647	57	-.601	.120	-.200	-1.189
26	-.320	.066	-.063	-.635	58	-0.000	-0.000	-0.000	-0.000
27	-.321	.079	-.019	-.591	59	.010	.138	.501	-.514
28	-.262	.046	-.119	-.440	60	.351	.124	.868	-.102
29	-.259	.050	-.094	-.422	61	-.458	.093	-.082	-.802
30	-.284	.083	.025	-.766	62	-.897	.273	-.173	-2.140
31	-.581	.207	.082	-1.598	63	.409	.076	.680	.160
32	-.155	.056	.056	-.344					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 300

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.228	.048	-.068	-.425	33	.139	.081	.570	-.132
2	-.553	.107	-.253	-.975	34	.703	.117	1.224	.411
3	-.624	.112	-.297	-1.075	35	.751	.132	1.249	.413
4	-.400	.054	-.235	-.597	36	.231	.101	.667	-.092
5	-0.000	-0.000	-0.000	-0.000	37	-.376	.105	.006	-.740
6	-.408	.083	-.188	-.739	38	-.057	.168	.707	-.706
7	-.730	.112	-.398	-1.222	39	-.759	.126	-.309	-1.426
8	-.245	.055	-.051	-.476	40	-.804	.117	-.409	-1.214
9	-0.000	-0.000	-0.000	-0.000	41	-.416	.083	-.127	-.735
10	.621	.113	1.057	.305	42	-.305	.058	-.101	-.526
11	.666	.111	1.064	.372	43	-.317	.063	-.068	-.525
12	.244	.087	.635	-.006	44	-.321	.061	-.109	-.548
13	-0.000	-0.000	-0.000	-0.000	45	-.494	.092	-.185	-.888
14	-.725	.067	-.512	-.955	46	-.539	.072	-.282	-.834
15	-.217	.079	.026	-.511	47	-.592	.088	-.269	-.920
16	-.637	.101	-.240	-1.026	48	.287	.199	1.081	-.256
17	-.326	.050	-.104	-.540	49	.165	.127	.602	-.206
18	-.737	.118	-.291	-1.204	50	.042	.057	.332	-.127
19	-.056	.091	.308	-.344	51	.433	.115	.887	.068
20	.763	.134	1.359	.405	52	-0.000	-0.000	-0.000	-0.000
21	.236	.112	.695	-.114	53	.075	.092	.512	-.201
22	-.004	.071	.263	-.285	54	-.394	.050	-.224	-.600
23	-.610	.109	-.176	-.998	55	-.211	.139	.171	-.820
24	.711	.117	1.261	.413	56	-0.000	-0.000	-0.000	-0.000
25	-.334	.054	-.162	-.511	57	-.444	.097	.009	-.888
26	-.448	.064	-.241	-.667	58	-0.000	-0.000	-0.000	-0.000
27	-.568	.103	-.210	-.942	59	-.057	.114	.438	-.484
28	-.371	.080	-.089	-.765	60	.452	.133	.952	.077
29	-.313	.056	-.147	-.503	61	-.172	.104	.193	-.727
30	-.317	.069	-.064	-.592	62	-.563	.114	-.224	-1.256
31	-.612	.159	.034	-1.665	63	.298	.104	.751	-.355
32	-.352	.058	-.106	-.617					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 315

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.252	.065	.001	-.448	33	-.450	.064	-.221	-.684
2	-.475	.062	-.244	-.688	34	.405	.154	1.061	-.126
3	-1.111	.143	-.638	-1.550	35	.876	.166	1.673	.513
4	-.542	.070	-.327	-.768	36	.543	.137	1.158	.183
5	-0.000	-0.000	-0.000	-0.000	37	-.604	.132	.153	-1.108
6	-.557	.067	-.345	-.938	38	.133	.261	1.195	-.698
7	-1.120	.149	-.586	-1.682	39	-.907	.106	-.558	-1.312
8	-.557	.074	-.291	-.967	40	-.945	.086	-.634	-1.247
9	-0.000	-0.000	-0.000	-0.000	41	-.711	.097	-.378	-1.129
10	.345	.109	.831	.055	42	-.461	.065	-.263	-.698
11	.816	.165	1.535	.398	43	-.447	.071	-.235	-.703
12	.497	.135	1.203	.173	44	-.413	.072	-.202	-.630
13	-0.000	-0.000	-0.000	-0.000	45	-.706	.146	-.249	-1.341
14	-.809	.087	-.536	-1.146	46	-.653	.099	-.264	-1.022
15	-.224	.157	.222	-1.155	47	-.735	.107	-.339	-1.090
16	-.953	.145	-.381	-1.552	48	.120	.248	.954	-.709
17	-.643	.065	-.450	-.888	49	-.278	.138	.172	-.856
18	-.942	.122	-.496	-1.332	50	-.349	.018	-.250	-.504
19	-.603	.072	-.296	-.853	51	.154	.076	.497	-.070
20	.968	.197	1.879	.512	52	-0.000	-0.000	-0.000	-0.000
21	.502	.138	1.202	.122	53	.148	.136	.798	-.228
22	.269	.110	.758	-.060	54	-.456	.089	-.120	-.768
23	-.928	.115	-.484	-1.404	55	-.378	.145	.156	-.829
24	.899	.159	1.540	.422	56	-0.000	-0.000	-0.000	-0.000
25	-.311	.076	-.055	-.557	57	-.661	.090	-.378	-1.054
26	-.570	.069	-.325	-.828	58	-0.000	-0.000	-0.000	-0.000
27	-.793	.176	-.184	-1.837	59	-.470	.142	-.024	-1.273
28	-.511	.089	-.188	-.926	60	.582	.161	1.220	.122
29	-.612	.088	-.300	-1.357	61	-.295	.127	.234	-.719
30	-.455	.102	-.115	-.912	62	-.631	.105	-.276	-1.266
31	-.790	.147	-.213	-1.363	63	-.359	.167	.345	-1.310
32	-.636	.073	-.385	-.913					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 330

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.105	.094	.492	-.194	33	-.614	.056	-.444	-.800
2	-.246	.055	-.060	-.446	34	-.135	.144	.437	-.591
3	-.825	.104	-.556	-1.220	35	.623	.125	1.113	.302
4	-.629	.085	-.319	-.999	36	.736	.142	1.367	.330
5	-0.000	-0.000	-0.000	-0.000	37	-.200	.205	.584	-.862
6	-.423	.061	-.260	-.704	38	.080	.181	.781	-.516
7	-.588	.109	-.204	-1.099	39	-.660	.090	-.334	-.963
8	-.688	.132	-.301	-1.152	40	-.857	.078	-.600	-1.120
9	-0.000	-0.000	-0.000	-0.000	41	-.930	.117	-.515	-1.360
10	.089	.076	.444	-.191	42	-.458	.087	-.123	-.739
11	.566	.114	1.144	.141	43	-.370	.066	-.107	-.697
12	.633	.118	1.176	.235	44	-.338	.067	-.024	-.569
13	-.535	.020	-.453	-.593	45	-.536	.081	-.246	-.889
14	-.402	.095	-.092	-.748	46	-.520	.115	-.139	-.959
15	.044	.182	.553	-.973	47	-.645	.126	-.165	-1.252
16	-.892	.138	-.422	-1.535	48	-.105	.222	.765	-.678
17	-.585	.067	-.377	-.798	49	-.400	.186	.153	-1.023
18	-.528	.087	-.295	-.925	50	-.545	.054	-.339	-.724
19	-.764	.063	-.559	-.997	51	-.115	.080	.211	-.344
20	.688	.131	1.248	.291	52	-0.000	-0.000	-0.000	-0.000
21	.776	.152	1.326	.351	53	.298	.140	.831	-.265
22	.578	.111	1.077	.241	54	-.374	.151	.041	-.980
23	-.904	.128	-.419	-1.344	55	-.170	.193	.559	-.900
24	.617	.113	1.174	.202	56	-0.000	-0.000	-0.000	-0.000
25	.086	.101	.527	-.203	57	-.681	.078	-.330	-.988
26	-.356	.054	-.178	-.566	58	-0.000	-0.000	-0.000	-0.000
27	-.787	.143	-.231	-1.751	59	-.289	.152	.133	-.852
28	-.507	.088	-.213	-.831	60	.468	.150	1.098	.068
29	-.591	.085	-.337	-1.080	61	-.167	.158	.264	-1.055
30	-.406	.069	-.194	-.701	62	-.687	.100	-.414	-1.117
31	-.539	.103	-.168	-1.128	63	-.164	.140	.375	-.681
32	-.536	.067	-.304	-.769					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
THE SKYHOUSE WITH GRID
WIND DIRECTION 345

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.366	.131	.893	.006	33	-.750	.076	-.461	-1.016
2	-.097	.069	.170	-.328	34	-.355	.076	-.055	-.581
3	-.723	.080	-.460	-1.036	35	.349	.128	.946	.001
4	-.643	.104	-.242	-1.031	36	.892	.182	1.643	.452
5	-0.000	-0.000	-0.000	-0.000	37	-.071	.155	.569	-.756
6	-.359	.059	-.151	-.592	38	-.038	.166	.592	-.747
7	-.467	.071	-.259	-.776	39	-.626	.129	.036	-1.128
8	-.934	.131	-.466	-1.407	40	-.846	.076	-.540	-1.118
9	-0.000	-0.000	-0.000	-0.000	41	-.951	.130	-.537	-1.422
10	-.205	.061	.056	-.429	42	-.523	.109	-.070	-.923
11	.331	.121	.854	-.002	43	-.384	.068	-.086	-.676
12	.813	.168	1.492	.365	44	-.343	.074	.067	-.651
13	-0.000	-0.000	-0.000	-0.000	45	-.459	.065	-.253	-.716
14	-.015	.113	.317	-.395	46	-.363	.083	-.085	-.754
15	.342	.196	1.010	-.708	47	-.526	.104	-.197	-.969
16	-.892	.149	-.383	-1.359	48	-.145	.167	.524	-.682
17	-.577	.068	-.356	-.827	49	-.508	.146	.039	-1.170
18	-.434	.073	-.211	-.831	50	-.743	.061	-.534	-.951
19	-.884	.060	-.702	-1.090	51	-.481	.074	-.161	-.726
20	.410	.128	.972	.026	52	-0.000	-0.000	-0.000	-0.000
21	1.004	.038	1.128	.918	53	.334	.185	1.046	-.189
22	.911	.137	1.547	.522	54	-.171	.134	.295	-.738
23	-.947	.147	-.455	-1.449	55	.477	.259	1.319	-.492
24	.346	.103	.757	-.027	56	-0.000	-0.000	-0.000	-0.000
25	.430	.146	1.011	.036	57	-.787	.114	-.383	-1.398
26	-.143	.074	.121	-.379	58	-0.000	-0.000	-0.000	-0.000
27	-.823	.166	-.180	-1.694	59	-.374	.148	.103	-1.033
28	-.517	.126	-.081	-1.158	60	.162	.146	.632	-.412
29	-.568	.078	-.329	-.875	61	.028	.136	.395	-.508
30	-.348	.058	-.154	-.644	62	-.679	.083	-.417	-1.093
31	-.440	.097	-.104	-.826	63	-.558	.191	.126	-1.395
32	-.511	.072	-.282	-.759					

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 0

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.266	.056	-.078	-.473
2	-.272	.080	.052	-.499
3	-.283	.093	.072	-.551
4	-.280	.103	.089	-.533
5	-.353	.016	-.254	-.542
6	-.198	.076	.052	-.505
7	-.125	.071	.125	-.455
8	-.148	.154	.245	-.872
9	.717	.054	.970	.475
10	.751	.054	.970	.521
11	.120	.057	.324	-.141
12	-.033	.059	.186	-.273
13	-0.000	-0.000	-0.000	-0.000
14	-.174	.066	.088	-.383
15	-.226	.073	.058	-.447
16	-.253	.077	.049	-.475
17	-.230	.024	-.076	-.450
18	-.171	.066	.075	-.416
19	-.225	.071	.046	-.490
20	-.254	.074	.011	-.490
21	-.255	.061	-.035	-.427
22	-.251	.048	-.126	-.415
23	-.274	.047	-.152	-.436
24	-.272	.052	-.128	-.448
25	-0.000	-0.000	-0.000	-0.000
26	-0.000	-0.000	-0.000	-0.000
27	-0.000	-0.000	-0.000	-0.000

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 45

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.450	.070	-.226	-.818
2	-.321	.060	-.110	-.576
3	-.266	.066	-.044	-.503
4	-.218	.070	.003	-.457
5	-.126	.060	.075	-.347
6	-.050	.059	.150	-.276
7	.039	.065	.239	-.233
8	.172	.091	.444	-.250
9	.547	.142	.869	-.043
10	.517	.136	.857	-.038
11	-.546	.274	.256	-1.375
12	-.246	.159	.401	-.872
13	-0.000	-0.000	-0.000	-0.000
14	-.112	.100	.286	-.428
15	-.117	.119	.341	-.518
16	-.119	.145	.441	-.690
17	-.142	.147	.506	-.759
18	-.520	.123	-.190	-1.006
19	-.534	.148	.121	-1.050
20	-.500	.117	-.182	-.981
21	-.483	.093	-.239	-.862
22	-.477	.087	-.256	-.790
23	-.495	.078	-.281	-.771
24	-.493	.074	-.260	-.734
25	-.459	.067	-.216	-.742
26	-.438	.065	-.170	-.697
27	-.459	.070	-.152	-.709

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 60

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.452	.080	-.196	-.936
2	-.285	.066	.031	-.554
3	-.230	.071	.102	-.490
4	-.181	.076	.168	-.431
5	-.091	.067	.184	-.339
6	-.016	.075	.276	-.333
7	.035	.096	.362	-.372
8	.098	.136	.578	-.483
9	.088	.146	.568	-.532
10	.135	.142	.636	-.507
11	-.126	.074	.156	-.655
12	-.173	.064	.074	-.418
13	-0.000	-0.000	-0.000	-0.000
14	-.160	.081	.297	-.496
15	-.133	.103	.405	-.490
16	-.043	.147	.637	-.457
17	.073	.185	.707	-.432
18	-.501	.110	-.125	-.900
19	-.401	.182	.214	-.965
20	-.468	.060	-.274	-.732
21	-.453	.047	-.307	-.723
22	-.446	.046	-.299	-.778
23	-.473	.044	-.319	-.761
24	-.476	.043	-.313	-.724
25	-.447	.049	-.280	-1.135
26	-.426	.056	-.260	-.769
27	-.469	.083	-.215	-.965

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 75

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.305	.054	-.109	-.517
2	-.287	.038	-.155	-.403
3	-.308	.036	-.182	-.430
4	-.315	.035	-.196	-.431
5	-.300	.037	-.182	-.451
6	-.288	.038	-.165	-.436
7	-.307	.038	-.183	-.452
8	-.310	.039	-.181	-.457
9	-.298	.039	-.114	-.404
10	-.286	.039	-.099	-.391
11	.395	.033	.534	.229
12	.562	.036	.690	.368
13	-0.000	-0.000	-0.000	-0.000
14	.716	.038	.817	.474
15	.714	.039	.817	.488
16	.697	.039	.810	.475
17	.609	.032	.707	.404
18	-.365	.047	-.217	-.692
19	-.397	.048	-.253	-.786
20	-.326	.045	-.169	-.657
21	-.312	.048	-.159	-.563
22	-.308	.047	-.138	-.593
23	-.339	.048	-.184	-.648
24	-.354	.051	-.200	-.681
25	-.339	.048	-.210	-.544
26	-.336	.056	-.205	-.676
27	-.319	.051	-.150	-.567

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 90

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.396	.068	-.223	-.739
2	-.319	.042	-.181	-.466
3	-.342	.042	-.201	-.484
4	-.358	.044	-.201	-.516
5	-.341	.043	-.200	-.480
6	-.331	.044	-.181	-.466
7	-.353	.046	-.194	-.499
8	-.366	.049	-.190	-.527
9	-.357	.044	-.212	-.507
10	-.343	.045	-.200	-.486
11	.231	.034	.345	.098
12	.401	.035	.506	.252
13	-0.000	-0.000	-0.000	-0.000
14	.622	.032	.720	.469
15	.666	.033	.757	.488
16	.717	.035	.815	.514
17	.719	.035	.826	.512
18	-.094	.058	.087	-.456
19	.044	.108	.594	-.557
20	-.409	.042	-.242	-.614
21	-.392	.037	-.281	-.567
22	-.384	.039	-.266	-.607
23	-.416	.040	-.292	-.726
24	-.438	.043	-.269	-.709
25	-.432	.048	-.209	-.843
26	-.456	.065	-.175	-.910
27	-.391	.060	-.161	-.867

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 105

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.434	.040	-.301	-.585
2	-.401	.038	-.262	-.544
3	-.421	.037	-.275	-.555
4	-.435	.043	-.289	-1.380
5	-.411	.033	-.288	-.526
6	-.395	.033	-.272	-.535
7	-.418	.035	-.307	-.591
8	-.432	.037	-.297	-.611
9	-.420	.038	-.305	-.584
10	-.406	.038	-.291	-.570
11	.172	.029	.266	.054
12	.342	.030	.434	.225
13	-0.000	-0.000	-0.000	-0.000
14	.565	.029	.656	.409
15	.620	.030	.713	.454
16	.693	.033	.790	.500
17	.741	.034	.830	.537
18	.243	.057	.436	-.049
19	.507	.089	.762	-.036
20	-.951	.054	-.772	-1.168
21	-.961	.053	-.790	-1.170
22	-.908	.058	-.622	-1.110
23	-.761	.088	-.341	-1.075
24	-.534	.100	-.190	-.986
25	-.348	.073	-.141	-.651
26	-.299	.048	-.147	-.528
27	-.441	.040	-.322	-.595

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 120

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.474	.047	-.341	-.690
2	-.451	.042	-.340	-.648
3	-.466	.037	-.355	-.648
4	-.491	.035	-.386	-.658
5	-.471	.034	-.351	-.596
6	-.456	.034	-.330	-.567
7	-.482	.037	-.356	-.615
8	-.498	.041	-.365	-.644
9	-.488	.043	-.381	-.710
10	-.472	.043	-.367	-.698
11	.038	.031	.145	-.090
12	.192	.030	.292	.084
13	-0.000	-0.000	-0.000	-0.000
14	.405	.026	.478	.280
15	.455	.027	.533	.330
16	.527	.028	.616	.396
17	.608	.030	.691	.474
18	.740	.033	.839	.506
19	.698	.032	.791	.480
20	-.283	.060	-.015	-.521
21	.018	.085	.253	-.417
22	.134	.034	.213	-.157
23	.056	.024	.140	-.063
24	-.029	.026	.055	-.127
25	-.092	.029	.003	-.205
26	-.189	.034	-.099	-.335
27	-.488	.057	-.324	-.774

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 135

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.486	.123	-.070	-1.148
2	-.461	.110	-.131	-1.109
3	-.486	.093	-.168	-1.053
4	-.502	.082	-.166	-1.061
5	-.468	.050	-.250	-.667
6	-.449	.048	-.250	-.615
7	-.475	.054	-.238	-.710
8	-.492	.064	-.283	-.803
9	-.496	.090	-.155	-1.122
10	-.468	.092	-.028	-1.087
11	-.084	.050	.097	-.308
12	.038	.044	.188	-.137
13	-0.000	-0.000	-0.000	-0.000
14	.203	.030	.293	.017
15	.151	.057	.290	-.190
16	-.048	.092	.306	-.356
17	-.126	.056	.197	-.359
18	.696	.038	.794	.463
19	.707	.040	.818	.454
20	.592	.040	.686	.383
21	.509	.032	.601	.362
22	.453	.032	.565	.320
23	.352	.033	.471	.224
24	.258	.038	.395	.114
25	.170	.043	.335	-.040
26	.021	.061	.247	-.271
27	-.485	.148	.043	-1.278

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 150

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.413	.258	.283	-1.208
2	-.418	.244	.170	-1.353
3	-.446	.219	.080	-1.369
4	-.449	.173	.043	-1.326
5	-.442	.120	.054	-.960
6	-.431	.110	.005	-.924
7	-.459	.170	-.018	-1.170
8	-.471	.229	.039	-1.277
9	-.461	.184	.034	-1.087
10	-.435	.192	.103	-1.094
11	-.303	.130	.124	-.739
12	-.473	.120	.055	-.811
13	-0.000	-0.000	-0.000	-0.000
14	-.708	.090	-.178	-1.015
15	-.726	.090	-.429	-1.023
16	-.718	.092	-.415	-1.023
17	-.714	.088	-.377	-.982
18	.405	.111	.751	-.143
19	.118	.077	.412	-.234
20	.745	.038	.852	.471
21	.720	.040	.822	.502
22	.672	.043	.788	.450
23	.597	.048	.740	.383
24	.518	.058	.693	.294
25	.423	.060	.609	.174
26	.253	.089	.515	-.013
27	-.389	.258	.253	-1.187

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 165

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.292	.047	-.138	-.491
2	-.262	.043	-.117	-.448
3	-.280	.041	-.148	-.448
4	-.287	.041	-.163	-.419
5	-.284	.039	-.136	-.393
6	-.265	.037	-.077	-.381
7	-.289	.039	-.118	-.409
8	-.309	.042	-.112	-.482
9	-.389	.050	-.212	-.618
10	-.360	.053	-.141	-.607
11	-.367	.041	-.230	-.582
12	-.366	.039	-.241	-.606
13	-0.000	-0.000	-0.000	-0.000
14	-.329	.035	-.205	-.451
15	-.348	.035	-.233	-.470
16	-.354	.035	-.230	-.481
17	-.347	.036	-.213	-.488
18	-.441	.070	-.017	-.634
19	-.443	.056	-.162	-.626
20	.679	.043	.783	.416
21	.735	.037	.823	.514
22	.738	.037	.831	.536
23	.689	.036	.778	.487
24	.649	.036	.739	.451
25	.581	.036	.675	.379
26	.434	.035	.536	.242
27	-.287	.050	-.103	-.493

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 180

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.138	.034	-.025	-.302
2	-.099	.031	.021	-.199
3	-.126	.030	-.019	-.252
4	-.137	.029	-.033	-.240
5	-.136	.030	-.020	-.241
6	-.121	.030	-.014	-.224
7	-.146	.032	-.025	-.269
8	-.148	.039	.030	-.285
9	-.134	.050	.111	-.311
10	-.109	.049	.108	-.239
11	-.209	.041	-.079	-.398
12	-.202	.032	-.103	-.321
13	-0.000	-0.000	-0.000	-0.000
14	-.160	.027	-.030	-.249
15	-.180	.028	-.048	-.263
16	-.185	.029	-.049	-.286
17	-.173	.029	-.071	-.268
18	-.208	.032	-.085	-.387
19	-.214	.031	-.099	-.403
20	.566	.042	.657	.343
21	.678	.048	.753	-1.282
22	.724	.038	.802	.488
23	.717	.038	.803	.475
24	.710	.039	.803	.459
25	.691	.036	.878	.487
26	.597	.034	.729	.410
27	-.145	.037	.023	-.310

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 195

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.413	.076	.067	-.700
2	-.328	.036	-.199	-.453
3	-.353	.037	-.225	-.495
4	-.364	.038	-.234	-.528
5	-.367	.046	.084	-.716
6	-.348	.047	-.222	-.685
7	-.374	.049	-.245	-.693
8	-.390	.054	-.225	-.696
9	-.356	.052	-.138	-.614
10	-.346	.052	-.137	-.564
11	-.290	.043	-.063	-.470
12	-.289	.042	-.128	-.494
13	-0.000	-0.000	-0.000	-0.000
14	-.251	.045	-.106	-.419
15	-.273	.051	-.119	-.462
16	-.282	.057	-.111	-.469
17	-.269	.057	-.065	-.475
18	-.261	.059	-.065	-.470
19	-.277	.061	-.078	-.485
20	.393	.036	.509	.190
21	.554	.031	.657	.401
22	.643	.032	.739	.481
23	.680	.033	.768	.505
24	.716	.034	.805	.533
25	.737	.034	.820	.574
26	.701	.036	.790	.518
27	-.395	.069	-.097	-.718

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 210

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.050	.100	.440	-.330
2	-.586	.069	-.360	-.836
3	-.624	.070	-.366	-.901
4	-.642	.073	-.394	-.904
5	-.648	.077	-.206	-.892
6	-.553	.087	-.016	-.836
7	-.443	.106	.063	-.728
8	-.305	.110	.101	-.649
9	-.331	.100	-.016	-.797
10	-.312	.097	-.022	-.786
11	-.323	.106	-.017	-1.057
12	-.322	.091	.029	-.873
13	-0.000	-0.000	-0.000	-0.000
14	-.288	.086	.008	-.548
15	-.319	.117	-.012	-.715
16	-.327	.147	.041	-.871
17	-.312	.155	.164	-.892
18	-.289	.163	.168	-.806
19	-.305	.169	.194	-.853
20	.288	.061	.452	.055
21	.449	.054	.601	.252
22	.549	.049	.671	.356
23	.597	.046	.713	.411
24	.656	.044	.777	.467
25	.719	.039	.812	.434
26	.739	.039	.835	.451
27	-.018	.082	.378	-.436

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 225

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.693	.044	.792	.431
2	-.051	.056	.215	-.280
3	.106	.080	.333	-.215
4	.214	.039	.326	-.041
5	.205	.027	.304	.026
6	.156	.028	.263	.066
7	.049	.031	.174	-.052
8	-.089	.038	.049	-.227
9	-.463	.050	-.296	-.697
10	-.441	.050	-.295	-.666
11	-.459	.050	-.297	-.730
12	-.468	.047	-.289	-.673
13	-0.000	-0.000	-0.000	-0.000
14	-.436	.048	-.217	-.673
15	-.461	.057	-.228	-.722
16	-.472	.070	-.217	-.772
17	-.463	.078	-.158	-.829
18	-.445	.086	-.119	-.837
19	-.467	.087	-.140	-.867
20	-.003	.044	.134	-.232
21	.162	.037	.291	.013
22	.276	.035	.396	.127
23	.339	.035	.446	.189
24	.417	.036	.519	.236
25	.509	.035	.616	.344
26	.603	.037	.708	.405
27	.711	.039	.801	.449

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 240

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.706	.037	.792	.455
2	.606	.029	.701	.426
3	.509	.028	.606	.357
4	.446	.029	.545	.304
5	.383	.028	.458	.262
6	.311	.030	.393	.193
7	.182	.032	.282	.062
8	.005	.038	.126	-.127
9	-.526	.058	-.374	-.744
10	-.500	.058	-.345	-.712
11	-.516	.058	-.362	-.737
12	-.528	.055	-.345	-.753
13	-0.000	-0.000	-0.000	-0.000
14	-.495	.045	-.350	-.708
15	-.519	.050	-.372	-.813
16	-.530	.063	-.337	-.879
17	-.532	.067	-.319	-.823
18	-.507	.076	-.243	-.847
19	-.534	.079	-.264	-.889
20	-.234	.045	-.094	-.398
21	-.110	.036	.021	-.257
22	-.009	.032	.099	-.123
23	.045	.030	.145	-.076
24	.083	.041	.203	-.232
25	-.088	.094	.210	-.486
26	-.277	.055	-.051	-.510
27	.656	.041	.751	.401

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 255

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	.098	.073	.316	-.334
2	.733	.035	.823	.538
3	.684	.033	.774	.508
4	.635	.032	.733	.473
5	.571	.032	.650	.426
6	.501	.031	.585	.365
7	.369	.030	.466	.229
8	.184	.031	.303	.052
9	-.424	.040	-.305	-.551
10	-.395	.039	-.273	-.525
11	-.411	.038	-.285	-.537
12	-.423	.038	-.297	-.550
13	-0.000	-0.000	-0.000	-0.000
14	-.389	.036	-.277	-.518
15	-.412	.036	-.288	-.550
16	-.424	.037	-.284	-.560
17	-.424	.040	-.284	-.588
18	-.440	.055	-.234	-.681
19	-.453	.051	-.245	-.624
20	-.632	.092	-.052	-.947
21	-.759	.089	-.236	-1.055
22	-.804	.086	-.461	-1.108
23	-.858	.090	-.559	-1.232
24	-.864	.094	-.563	-1.220
25	-.851	.087	-.571	-1.159
26	-.794	.082	-.540	-1.093
27	.260	.105	.629	-.224

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 270

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.125	.061	.093	-.517
2	.724	.036	.817	.531
3	.707	.034	.808	.527
4	.673	.035	.788	.496
5	.614	.033	.711	.447
6	.546	.033	.649	.385
7	.414	.034	.521	.262
8	.227	.037	.356	.096
9	-.396	.053	-.223	-.546
10	-.371	.052	-.215	-.528
11	-.389	.052	-.230	-.537
12	-.402	.051	-.247	-.571
13	-0.000	-0.000	-0.000	-0.000
14	-.371	.046	-.221	-.560
15	-.394	.045	-.246	-.576
16	-.400	.046	-.253	-.583
17	-.388	.048	-.195	-.548
18	-.405	.057	-.206	-.815
19	-.414	.056	-.224	-.829
20	-.504	.064	-.301	-1.219
21	-.473	.043	-.346	-.872
22	-.430	.037	-.314	-.705
23	-.443	.035	-.334	-.646
24	-.449	.035	-.341	-.631
25	-.438	.044	-.315	-.900
26	-.406	.043	-.275	-.855
27	-.015	.090	.440	-.418

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 285

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.524	.111	-.185	-1.071
2	.603	.040	.700	.397
3	.680	.040	.785	.474
4	.696	.040	.807	.499
5	.690	.033	.801	.534
6	.659	.032	.778	.504
7	.551	.031	.678	.406
8	.380	.030	.504	.244
9	-.300	.046	-.167	-.468
10	-.277	.044	-.145	-.432
11	-.294	.044	-.166	-.465
12	-.308	.043	-.181	-.482
13	-0.000	-0.000	-0.000	-0.000
14	-.278	.034	-.146	-.390
15	-.303	.035	-.177	-.425
16	-.313	.036	-.171	-.449
17	-.307	.046	-.174	-.544
18	-.305	.067	-.112	-.592
19	-.320	.066	-.132	-.632
20	-.395	.084	-.202	-1.002
21	-.372	.072	-.178	-.827
22	-.331	.065	-.137	-.667
23	-.344	.063	-.167	-.702
24	-.346	.064	-.148	-.696
25	-.331	.054	-.172	-.556
26	-.302	.052	-.148	-.506
27	-.547	.112	-.292	-1.155

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 300

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.361	.048	-.215	-.537
2	.577	.032	.655	.412
3	.677	.035	.792	.504
4	.712	.038	.855	.537
5	.713	.040	.837	.502
6	.680	.041	.800	.476
7	.551	.042	.672	.363
8	.349	.044	.490	.115
9	-.326	.045	-.163	-.466
10	-.300	.044	-.153	-.441
11	-.319	.043	-.193	-.462
12	-.335	.043	-.213	-.479
13	-0.000	-0.000	-0.000	-0.000
14	-.319	.039	-.209	-.486
15	-.346	.039	-.227	-.500
16	-.361	.041	-.243	-.526
17	-.368	.047	-.228	-.568
18	-.303	.045	-.151	-.461
19	-.325	.045	-.164	-.483
20	-.347	.043	-.205	-.536
21	-.335	.041	-.213	-.540
22	-.305	.038	-.197	-.464
23	-.324	.038	-.215	-.485
24	-.332	.039	-.220	-.494
25	-.324	.039	-.193	-.475
26	-.297	.039	-.167	-.445
27	-.365	.041	-.213	-.551

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 315

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.567	.145	-.134	-1.118
2	-.128	.184	.572	-.716
3	-.083	.167	.498	-.585
4	-.075	.157	.528	-.541
5	-.088	.124	.366	-1.316
6	-.113	.124	.394	-.578
7	-.211	.165	.352	-.913
8	-.527	.314	.472	-1.499
9	.513	.142	.843	-.111
10	.588	.153	.925	-.109
11	.178	.083	.441	-.268
12	.048	.064	.271	-.286
13	-0.000	-0.000	-0.000	-0.000
14	-.116	.051	.085	-.314
15	-.196	.054	.009	-.402
16	-.263	.058	-.047	-.476
17	-.325	.052	-.116	-.546
18	-.445	.070	-.241	-.674
19	-.467	.070	-.262	-.701
20	-.479	.076	-.233	-.729
21	-.484	.074	-.243	-.800
22	-.479	.081	-.223	-.755
23	-.503	.090	-.223	-.803
24	-.509	.106	-.216	-.890
25	-.495	.109	-.192	-.916
26	-.477	.117	-.139	-.957
27	-.542	.168	.092	-1.156

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 330

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.384	.131	-.094	-1.004
2	-.099	.217	.442	-.544
3	-.058	.242	.603	-.506
4	-.044	.265	.718	-.527
5	-.021	.202	.535	-.423
6	.010	.207	.585	-.399
7	.045	.200	.602	-.347
8	.137	.224	.758	-.570
9	.738	.098	.966	.387
10	.741	.102	.971	.386
11	-.107	.260	.356	-.985
12	-.075	.059	.108	-.470
13	-0.000	-0.000	-0.000	-0.000
14	-.199	.042	-.045	-.375
15	-.259	.043	-.107	-.447
16	-.297	.047	-.146	-.483
17	-.309	.049	-.128	-.508
18	-.315	.074	-.081	-.555
19	-.338	.072	-.104	-.581
20	-.349	.087	-.078	-.623
21	-.353	.076	-.137	-.596
22	-.345	.088	-.095	-.596
23	-.371	.101	-.142	-.649
24	-.382	.125	-.107	-.764
25	-.374	.129	-.088	-.795
26	-.347	.142	-.037	-.828
27	-.401	.164	-.033	-1.056

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
NO GRID
WIND DIRECTION 345

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.282	.065	-.086	-.611
2	-.220	.114	.172	-.513
3	-.232	.133	.235	-.524
4	-.234	.147	.263	-.533
5	-.212	.096	.133	-.443
6	-.154	.089	.169	-.410
7	-.092	.083	.190	-.358
8	.008	.118	.328	-.595
9	.721	.046	.845	.479
10	.739	.045	.880	.494
11	.092	.061	.270	-.187
12	-.028	.049	.119	-.195
13	-0.000	-0.000	-0.000	-0.000
14	-.148	.052	.058	-.327
15	-.204	.057	.033	-.383
16	-.237	.062	.032	-.421
17	-.246	.051	-.099	-.416
18	-.247	.047	-.096	-.401
19	-.269	.046	-.123	-.427
20	-.274	.052	-.086	-.448
21	-.263	.046	-.101	-.407
22	-.251	.049	-.051	-.394
23	-.274	.052	-.101	-.451
24	-.283	.061	-.094	-.496
25	-.283	.057	-.114	-.519
26	-.265	.063	-.088	-.535
27	-.290	.070	-.088	-.546

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 0

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.298	.121	.007	-.665
2	-.215	.174	.299	-.592
3	-.214	.195	.368	-.612
4	-.215	.205	.438	-.629
5	-.186	.189	.469	-.566
6	-.152	.177	.511	-.518
7	-.121	.167	.539	-.484
8	-.099	.223	.638	-1.223
9	.794	.177	1.499	.304
10	.822	.180	1.570	.339
11	.106	.148	.585	-.287
12	-.026	.150	.473	-.386
13	-.080	.101	.281	-.313
14	-.123	.156	.463	-.460
15	-.186	.162	.457	-.529
16	-.220	.163	.459	-.562
17	-.212	.133	.278	-.544
18	-.250	.095	.076	-.631
19	-.286	.094	.051	-.694
20	-.293	.097	.035	-.633
21	-.263	.088	.011	-.513
22	-.243	.086	.010	-.512
23	-.277	.088	-.029	-.545
24	-.293	.097	-.007	-.569
25	-.268	.098	-.012	-.560
26	-.252	.105	.035	-.610
27	-.297	.111	.007	-.794

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 15

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.260	.087	-.014	-.577
2	-.222	.103	.165	-.495
3	-.258	.112	.207	-.543
4	-.271	.116	.207	-.565
5	-.243	.106	.150	-.551
6	-.188	.101	.199	-.476
7	-.203	.109	.172	-.664
8	-.425	.297	.250	-1.524
9	.735	.131	1.307	.346
10	.825	.140	1.407	.398
11	.223	.142	.675	-.164
12	.057	.149	.545	-.305
13	-.022	.093	.300	-.250
14	-.046	.152	.502	-.391
15	-.113	.161	.461	-.462
16	-.147	.167	.448	-.512
17	-.145	.157	.390	-.563
18	-.244	.108	.189	-.840
19	-.293	.109	.117	-.946
20	-.302	.108	.110	-.744
21	-.277	.098	-.014	-.672
22	-.239	.088	.007	-.597
23	-.274	.081	-.058	-.598
24	-.285	.081	-.041	-.609
25	-.259	.079	-.023	-.519
26	-.208	.084	.022	-.522
27	-.273	.095	.013	-.664

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 30

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.367	.094	-.068	-.742
2	-.310	.077	-.034	-.581
3	-.332	.082	-.019	-.617
4	-.331	.087	.008	-.626
5	-.272	.094	.084	-2.216
6	-.197	.091	.137	-.607
7	-.182	.102	.159	-.842
8	-.224	.230	.260	-1.411
9	.703	.147	1.211	-.051
10	.765	.145	1.260	-.007
11	.172	.135	.641	-.317
12	.078	.134	.565	-.416
13	.048	.092	.379	-.267
14	.073	.131	.545	-.253
15	.025	.138	.501	-.352
16	-.013	.145	.483	-.431
17	-.047	.147	.521	-.470
18	-.376	.134	-.004	-1.078
19	-.428	.144	.013	-1.246
20	-.428	.142	-.009	-1.257
21	-.400	.129	-.067	-.861
22	-.354	.117	-.074	-.771
23	-.397	.106	-.131	-.833
24	-.406	.098	-.144	-.799
25	-.377	.086	-.134	-.706
26	-.315	.083	-.073	-.612
27	-.381	.085	-.121	-.716

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 45

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.406	.090	-.119	-.954
2	-.290	.074	.051	-.620
3	-.292	.080	.051	-.605
4	-.282	.090	.078	-.597
5	-.213	.095	.131	-.533
6	-.141	.113	.225	-.500
7	-.145	.150	.322	-.736
8	-.132	.214	.577	-1.175
9	.089	.314	.942	-1.426
10	.118	.319	.984	-1.384
11	-.069	.164	.433	-.854
12	-.053	.138	.564	-.875
13	-.006	.108	.453	-.339
14	.053	.154	.851	-.451
15	.049	.189	.912	-.618
16	.076	.225	.899	-.623
17	.106	.239	.951	-.630
18	-.516	.149	.066	-1.040
19	-.484	.224	.432	-1.138
20	-.438	.085	-.089	-.895
21	-.418	.080	-.105	-.717
22	-.384	.077	-.106	-.661
23	-.429	.074	-.176	-.722
24	-.444	.074	-.212	-.724
25	-.412	.072	-.190	-.701
26	-.346	.072	-.126	-.623
27	-.417	.092	-.180	-.988

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 60

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.367	.084	-.094	-.812
2	-.313	.056	-.141	-.558
3	-.358	.056	-.177	-.617
4	-.381	.058	-.194	-.643
5	-.371	.059	-.149	-.576
6	-.327	.060	-.123	-.527
7	-.365	.061	-.165	-.586
8	-.380	.064	-.184	-.607
9	-.384	.066	-.177	-.628
10	-.331	.065	-.123	-.560
11	.376	.092	.722	.034
12	.577	.102	.986	.192
13	.698	.083	.995	.439
14	.805	.101	1.173	.512
15	.787	.102	1.160	.511
16	.747	.106	1.177	.440
17	.614	.105	1.050	.311
18	-.602	.166	-.180	-1.319
19	-.693	.196	-.212	-1.547
20	-.450	.144	-.036	-2.604
21	-.434	.127	-.106	-.968
22	-.387	.124	-.072	-1.027
23	-.439	.118	-.110	-1.098
24	-.462	.116	-.142	-.975
25	-.450	.106	-.142	-1.077
26	-.411	.124	-.079	-1.208
27	-.375	.071	-.135	-.666

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 75

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.423	.064	-.220	-.685
2	-.356	.054	-.185	-.579
3	-.403	.055	-.246	-.630
4	-.425	.056	-.263	-.648
5	-.409	.052	-.211	-.592
6	-.359	.052	-.166	-.546
7	-.399	.054	-.206	-.574
8	-.416	.057	-.216	-.598
9	-.437	.064	-.218	-.643
10	-.373	.062	-.155	-.568
11	.396	.090	.776	.107
12	.582	.095	.986	.315
13	.716	.078	.996	.485
14	.829	.094	1.182	.540
15	.824	.098	1.228	.530
16	.818	.112	1.250	.525
17	.707	.114	1.201	.382
18	-.727	.143	-.248	-1.185
19	-.759	.245	.747	-1.420
20	-.472	.070	-.239	-.881
21	-.459	.071	-.240	-.792
22	-.409	.072	-.162	-.794
23	-.465	.073	-.224	-.861
24	-.484	.078	-.234	-.876
25	-.472	.079	-.209	-1.043
26	-.422	.085	-.166	-.949
27	-.418	.064	-.196	-.729

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 90

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.530	.113	-.159	-1.013
2	-.382	.066	-.154	-.592
3	-.422	.064	-.183	-.624
4	-.447	.066	-.212	-.651
5	-.431	.066	-.204	-.658
6	-.381	.067	-.166	-.614
7	-.424	.071	-.193	-.675
8	-.448	.074	-.214	-.720
9	-.466	.078	-.178	-.744
10	-.407	.078	-.132	-.682
11	.281	.079	.583	.029
12	.466	.083	.763	.187
13	.597	.065	.822	.421
14	.734	.081	1.033	.501
15	.756	.086	1.062	.517
16	.797	.102	1.220	.513
17	.797	.122	1.246	.484
18	-.197	.183	.357	-.973
19	.064	.347	1.020	-.986
20	-.689	.122	-.303	-1.312
21	-.696	.123	-.404	-1.354
22	-.655	.127	-.314	-1.457
23	-.707	.137	-.340	-1.319
24	-.725	.148	-.292	-1.426
25	-.665	.139	-.073	-1.396
26	-.568	.139	-.005	-1.114
27	-.503	.102	-.170	-.989

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 105

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.530	.087	-.276	-.918
2	-.455	.073	-.236	-.731
3	-.499	.064	-.270	-.720
4	-.524	.061	-.315	-.752
5	-.514	.065	-.277	-.749
6	-.451	.067	-.254	-.745
7	-.498	.072	-.295	-.788
8	-.525	.078	-.318	-.825
9	-.525	.069	-.325	-.825
10	-.458	.068	-.258	-.756
11	.166	.066	.435	-.029
12	.338	.069	.608	.146
13	.457	.057	.652	.281
14	.602	.069	.859	.380
15	.638	.074	.918	.386
16	.693	.084	1.028	.425
17	.751	.092	1.088	.488
18	.380	.200	1.195	-.170
19	.547	.172	1.279	-.022
20	-1.015	.159	-.477	-1.743
21	-.846	.149	-.156	-1.239
22	-.492	.164	.003	-1.027
23	-.337	.128	.033	-.829
24	-.301	.099	-.001	-.674
25	-.290	.076	-.075	-.587
26	-.281	.074	-.064	-.632
27	-.491	.091	-.260	-.818

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 120

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.583	.115	-.264	-1.137
2	-.518	.101	-.268	-1.064
3	-.561	.085	-.329	-1.079
4	-.586	.078	-.365	-1.055
5	-.584	.076	-.303	-.926
6	-.524	.077	-.273	-.893
7	-.568	.084	-.342	-.965
8	-.595	.093	-.354	-1.028
9	-.586	.093	-.322	-1.076
10	-.525	.092	-.266	-.976
11	.040	.067	.257	-.156
12	.200	.064	.417	.015
13	.312	.050	.460	.150
14	.454	.061	.677	.257
15	.492	.063	.733	.291
16	.549	.068	.825	.311
17	.626	.075	.935	.412
18	.812	.122	1.336	.442
19	.758	.125	1.343	.425
20	-.010	.201	.474	-.822
21	.145	.078	.408	-.247
22	.175	.056	.410	-.020
23	.079	.055	.314	-.115
24	-.018	.058	.230	-.242
25	-.093	.069	.112	-.340
26	-.168	.083	.057	-.469
27	-.560	.143	-.174	-1.250

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 135

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.505	.186	-.050	-1.308
2	-.446	.172	.001	-1.239
3	-.492	.151	-.141	-1.261
4	-.513	.127	-.122	-1.096
5	-.488	.104	-.141	-1.091
6	-.427	.096	-.131	-1.043
7	-.473	.114	-.158	-1.521
8	-.501	.135	-.090	-1.895
9	-.516	.135	-.175	-1.222
10	-.440	.130	-.110	-1.167
11	-.088	.076	.154	-.394
12	.014	.066	.246	-.228
13	.080	.049	.276	-.098
14	.174	.063	.392	-.093
15	.120	.091	.351	-.295
16	-.056	.168	.334	-.606
17	-.326	.155	.312	-.821
18	.735	.107	1.164	.452
19	.725	.111	1.179	.318
20	.704	.089	1.024	.431
21	.617	.076	.883	.404
22	.598	.073	.842	.382
23	.476	.073	.705	.240
24	.371	.079	.607	.126
25	.258	.073	.501	.022
26	.132	.092	.422	-.172
27	-.469	.191	.064	-1.114

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 150

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.294	.191	.146	-.898
2	-.226	.177	.179	-.830
3	-.285	.161	.090	-.961
4	-.313	.138	.050	-.973
5	-.286	.099	.072	-.764
6	-.218	.083	.088	-.514
7	-.272	.106	.248	-.771
8	-.312	.141	.148	-.910
9	-.345	.158	.081	-.896
10	-.273	.162	.158	-.976
11	-.242	.156	.229	-.814
12	-.388	.179	.292	-.970
13	-.548	.120	-.053	-.974
14	-.617	.137	-.162	-1.124
15	-.734	.133	-.306	-1.309
16	-.783	.134	-.409	-1.374
17	-.747	.127	-.357	-1.257
18	.277	.281	1.032	-.581
19	-.055	.160	.578	-.619
20	.778	.111	1.273	.498
21	.767	.101	1.155	.458
22	.795	.090	1.127	.505
23	.697	.082	.955	.440
24	.611	.083	.950	.362
25	.518	.080	.835	.240
26	.418	.093	.746	.096
27	-.254	.190	.199	-.867

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 165

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.267	.078	.051	-.688
2	-.172	.069	.110	-.492
3	-.218	.067	.038	-.580
4	-.242	.064	-.005	-.596
5	-.248	.064	-.050	-.545
6	-.179	.061	.025	-.387
7	-.221	.063	-.004	-.453
8	-.250	.073	-.028	-.538
9	-.350	.110	-.034	-.905
10	-.264	.103	.044	-.765
11	-.352	.099	-.061	-.747
12	-.377	.097	-.091	-.749
13	-.382	.071	-.158	-.658
14	-.307	.078	-.090	-.628
15	-.346	.075	-.145	-.639
16	-.365	.074	-.169	-.654
17	-.362	.068	-.158	-.664
18	-.189	.250	.876	-1.006
19	-.382	.126	.077	-.904
20	.734	.128	1.301	.366
21	.777	.100	1.148	.459
22	.842	.096	1.195	.541
23	.770	.089	1.125	.485
24	.717	.088	1.031	.444
25	.620	.083	1.036	.412
26	.526	.082	.905	.300
27	-.236	.076	.022	-.497

WIND ENGINEERING STUDY OF THE INTERAMA TOWER
LEG SECTION OF THE TOWER
GRID
WIND DIRECTION 180

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1	-.245	.123	.035	-.918
2	-.064	.087	.228	-.483
3	-.116	.085	.145	-.635
4	-.148	.083	.104	-.693
5	-.147	.079	.075	-.465
6	-.081	.073	.117	-.420
7	-.133	.071	.090	-.477
8	-.154	.077	.115	-.615
9	-.124	.081	.179	-.405
10	-.045	.080	.264	-.301
11	-.215	.095	.069	-.762
12	-.218	.080	.037	-.554
13	-.202	.064	.019	-.438
14	-.126	.077	.091	-.517
15	-.176	.084	.079	-.670
16	-.202	.094	.092	-.649
17	-.201	.089	.074	-.630
18	-.329	.131	-.013	-.875
19	-.344	.121	-.042	-.805
20	.636	.111	1.122	.281
21	.750	.100	1.152	.471
22	.864	.099	1.238	.577
23	.828	.095	1.169	.570
24	.795	.096	1.138	.523
25	.746	.093	1.143	.493
26	.694	.098	1.074	.426
27	-.222	.133	.164	-.770

APPENDIX B

DYNAMIC ANALYSIS COMPUTER PRINTOUT

COMPUTER OUTPUT NOTES-TYPICAL
(PARTIAL OUTPUT ONLY)

Sheet 1

a) Title of run, damping, and mean wind velocity in mph

b) Modal damping values

c) Vibratory Modes utilized for the non-deterministic dynamic analysis

Sheet 2 Structure frequencies and periods

Sheets 3 and 4

Nodal accelerations and static and dynamic displacements

Sheets 5 and 6

Element static and dynamic internal forces

1. These sheets are typical for each computer run.
2. Runs GG, WW, ZZ, HH, XX, FF, JJ, CC, YY, KK, and LL are for the most recent Tower weights (May, 1974).
3. The remaining computer runs are for the previous Tower weights.
4. No computer output is included for approximately 200 runs made using preliminary configurations.

INIOS MODIFIED MODEL .....RUN GG,DAMP=.006,V=-25.

FLAG (=T TO CONSIDER WIND ON CABLES). . T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS) F

GENERALIZED FORCE TRESHOLD (0/0). . . . 28.0 0
FRICTION COEFFICIENT 001 0
DECAY CONSTANT 7.0 0
BASIC WIND SPEED AVER. INTERVAL (MIN) . 60.0 0

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	.84549	.82192	4.143	.25615	.108037	.077413
2	1.58909	1.50734	4.286	-.48208	.373308	.942683
3	1.91497	1.88015	4.337	.15350	.038655	.141751

FUNDAMENTAL FREQUENCIES - GG

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.46490E-01	8.08342E+00	7.422600
2	1.58909E+00	1.51748E+01	3.953927
3	1.91497E+00	1.82867E+01	3.281070
4	1.94713E+00	1.85938E+01	3.226879
5	1.99195E+00	1.90218E+01	3.154269
6	2.02483E+00	1.93358E+01	3.103049
7	2.10069E+00	2.00602E+01	2.990998
8	2.13142E+00	2.03537E+01	2.947869
9	2.20569E+00	2.10628E+01	2.848619
10	2.27281E+00	2.17039E+01	2.764486
11	2.36365E+00	2.25713E+01	2.658248
12	2.47484E+00	2.36331E+01	2.538816
13	2.55392E+00	2.43882E+01	2.460203
14	2.66450E+00	2.54442E+01	2.358103
15	2.75950E+00	2.63514E+01	2.276918
16	2.82989E+00	2.70236E+01	2.220279
17	2.92364E+00	2.79188E+01	2.149087
18	2.95005E+00	2.81711E+01	2.129844
19	2.99940E+00	2.86423E+01	2.094805
20	3.15867E+00	3.01632E+01	1.989177
21	3.24935E+00	3.10292E+01	1.933664
22	3.28663E+00	3.13851E+01	1.911733
23	4.26988E+00	4.07745E+01	1.471507
24	6.34280E+00	6.05695E+01	.990597
25	8.63032E+00	8.24139E+01	.728033
26	1.28891E+01	1.23082E+02	.487479
27	1.59271E+01	1.52093E+02	.394496
28	2.11673E+01	2.02134E+02	.296833
29	3.32884E+01	3.17882E+02	.188749
30	4.88302E+01	4.66296E+02	.128674
31	5.23059E+01	4.99487E+02	.120123
32	5.56680E+01	5.31593E+02	.112868
33	5.76440E+01	5.50462E+02	.108999
34	5.83144E+01	5.56864E+02	.107746
35	5.83622E+01	5.57321E+02	.107658
36	5.91331E+01	5.64682E+02	.106255
37	6.20179E+01	5.92230E+02	.101312
38	6.20203E+01	5.92253E+02	.101308
39	6.50181E+01	6.20880E+02	.096637
40	6.52385E+01	6.22985E+02	.096311
41	6.71832E+01	6.41556E+02	.093523
42	7.00558E+01	6.68987E+02	.089688
43	7.01345E+01	6.69738E+02	.089587
44	7.56325E+01	7.22241E+02	.083075
45	7.57894E+01	7.23739E+02	.082903
46	8.11707E+01	7.75127E+02	.077407
47	8.16202E+01	7.79419E+02	.076980
48	8.37520E+01	7.99777E+02	.075021
49	8.82161E+01	8.42406E+02	.071225
50	8.83012E+01	8.43219E+02	.071156
51	9.48425E+01	9.05683E+02	.066248
52	9.50968E+01	9.08112E+02	.066071

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL(G)	ACL(G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	.35046 (4.29)	.18909 (4.29)	.02749 (4.29)	.01483 (4.29)	5.35545	-2.86308
4	.14230 (4.29)	.07745 (4.29)	.01116 (4.29)	.00607 (4.29)	-5.51105	-2.93133
5	.39651 (4.29)	.16761 (4.29)	.02404 (4.29)	.01315 (4.29)	5.18197	-2.83433
6	.12350 (4.29)	.06875 (4.29)	.00969 (4.29)	.00539 (4.29)	-5.41363	-2.92582
7	.35136 (4.14)	.00083 (4.23)	.00791 (4.15)	.00005 (4.28)	-.24550	-.31633
8	.05031 (4.29)	.00113 (4.28)	.00394 (4.29)	.00009 (4.29)	-.08034	-.31747
9	.02911 (4.29)	.00065 (4.29)	.00228 (4.29)	.00005 (4.29)	-.06689	-.31422
10	.02515 (4.29)	.00033 (4.28)	.00197 (4.29)	.00003 (4.29)	-.04017	-.30770
11	.04347 (4.29)	.00113 (4.28)	.00341 (4.29)	.00009 (4.29)	-.03400	-.31746
12	.02174 (4.29)	.00033 (4.28)	.00170 (4.29)	.00003 (4.29)	-.01699	-.30769
13	.02831 (4.29)	.00099 (4.28)	.00222 (4.29)	.00008 (4.29)	-.02391	-.29407
14	.33225 (4.31)	.17100 (4.31)	.03091 (4.32)	.01575 (4.32)	5.09257	-2.69143
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.01416 (4.29)	.00029 (4.28)	.00111 (4.29)	.00002 (4.29)	-.01196	-.28552
17	.10600 (4.29)	.05623 (4.29)	.00833 (4.29)	.00442 (4.29)	-5.29821	-2.78069
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.02014 (4.29)	.00091 (4.28)	.00158 (4.29)	.00007 (4.29)	-.01801	-.27868
20	.16020 (4.29)	.09085 (4.29)	.01265 (4.29)	.00717 (4.29)	4.70241	-2.65136
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.01007 (4.29)	.00026 (4.28)	.00079 (4.29)	.00002 (4.29)	-.00901	-.27084
23	.06715 (4.29)	.03845 (4.29)	.00528 (4.29)	.00302 (4.29)	-4.87780	-2.73370
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.01454 (4.29)	.00085 (4.28)	.00114 (4.29)	.00007 (4.29)	-.01390	-.26585
26	.10583 (4.29)	.06417 (4.29)	.00836 (4.29)	.00506 (4.29)	4.39166	-2.62164
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.00727 (4.29)	.00025 (4.28)	.00057 (4.29)	.00002 (4.29)	-.00695	-.25857
29	.04546 (4.29)	.02778 (4.29)	.00358 (4.29)	.00219 (4.29)	-4.54571	-2.69919
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.00823 (4.29)	.00077 (4.28)	.00065 (4.29)	.00006 (4.29)	-.00922	-.24721
32	.05614 (4.29)	.03783 (4.29)	.00445 (4.29)	.00300 (4.29)	3.96892	-2.60142
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.00412 (4.29)	.00022 (4.28)	.00032 (4.29)	.00002 (4.29)	-.00461	-.24066
35	.02444 (4.29)	.01657 (4.29)	.00193 (4.29)	.00131 (4.29)	-4.09497	-2.67235
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.00358 (4.29)	.00069 (4.28)	.00029 (4.29)	.00005 (4.29)	-.00574	-.22692
38	.02522 (4.29)	.01908 (4.29)	.00202 (4.29)	.00153 (4.29)	3.52292	-2.56625
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.00179 (4.29)	.00020 (4.28)	.00014 (4.29)	.00002 (4.29)	-.00287	-.22109
41	.01075 (4.29)	.00817 (4.29)	.00086 (4.29)	.00065 (4.29)	-3.62293	-2.62981
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00076 (4.31)	.00062 (4.28)	.00007 (4.32)	.00005 (4.29)	-.00352	-.20607
44	.00803 (4.30)	.00690 (4.30)	.00068 (4.30)	.00059 (4.30)	3.08760	-2.54114
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00038 (4.31)	.00018 (4.28)	.00004 (4.32)	.00001 (4.29)	-.00176	-.20091
47	.00299 (4.30)	.00257 (4.30)	.00026 (4.31)	.00022 (4.31)	-3.16328	-2.59611
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00110 (4.29)	.00054 (4.28)	.00009 (4.30)	.00004 (4.29)	-.00228	-.18355
50	.00230 (4.32)	.00234 (4.32)	.00023 (4.33)	.00024 (4.33)	2.63957	-2.50750
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00055 (4.29)	.00016 (4.28)	.00005 (4.30)	.00001 (4.29)	-.00114	-.17907
53	.00149 (4.30)	.00153 (4.30)	.00013 (4.31)	.00013 (4.31)	-2.69224	-2.55180
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.00166 (4.29)	.00047 (4.28)	.00013 (4.29)	.00004 (4.29)	-.00177	-.16051
56	.00442 (4.29)	.00545 (4.29)	.00035 (4.29)	.00044 (4.29)	2.20886	-2.47999
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00083 (4.29)	.00014 (4.28)	.00007 (4.29)	.00001 (4.29)	-.00088	-.15669
59	.00255 (4.29)	.00314 (4.29)	.00020 (4.33)	.00025 (4.29)	-2.24173	-2.51227

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.00162 (4.29)	.00039 (4.28)	.00013 (4.29)	.00003 (4.29)	-.00168	-.13580
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00081 (4.29)	.00011 (4.28)	.00006 (4.29)	.00001 (4.29)	-.00084	-.13263
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.00129 (4.29)	.00031 (4.28)	.00010 (4.29)	.00002 (4.29)	-.00172	-.11072
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00064 (4.29)	.00009 (4.28)	.00005 (4.29)	.00001 (4.29)	-.00086	-.10818
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.00088 (4.29)	.00024 (4.28)	.00007 (4.29)	.00002 (4.29)	-.00169	-.08407
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00044 (4.29)	.00007 (4.28)	.00003 (4.29)	.00001 (4.29)	-.00084	-.08217
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00059 (4.29)	.00017 (4.28)	.00005 (4.29)	.00001 (4.29)	-.00149	-.06236
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00029 (4.29)	.00005 (4.28)	.00002 (4.29)	.00000 (4.29)	-.00074	-.06096
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00012 (4.29)	.00004 (4.28)	.00001 (4.29)	.00000 (4.29)	-.00044	-.01450
78	.00006 (4.29)	.00001 (4.28)	.00000 (4.29)	.00000 (4.29)	-.00022	-.01418
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES		EXPECTED GUST OSCILLATIONS			STATIC VALUES		
	I	J	AXIAL FORCE	MOMENT AT I	MOMENT AT J	AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.002 (4.23)	1.314 (4.15)	41.497 (4.15)	-26.160	-.000	-16.743
2	8	9	33.686 (4.29)	.221 (4.29)	17.206 (4.15)	131.618	-.001	9.782
3	8	10	12.167 (4.29)	.000 (4.15)	.000 (4.15)	236.431	.000	-.000
4	8	11	112.604 (4.28)	.000 (4.29)	.000 (4.29)	-543.456	.001	-.001
5	10	12	46.376 (4.28)	.000 (4.29)	.000 (4.29)	-1081.350	.001	-.001
6	8	12	24.973 (4.28)	.000 (4.29)	.000 (4.29)	-470.587	.001	-.001
7	10	11	43.995 (4.29)	.000 (4.29)	.000 (4.29)	-626.294	.000	-.000
8	11	13	40.139 (4.29)	.001 (4.29)	230.723 (4.29)	-7073.276	-.010	1527.960
9	12	15	13.117 (4.28)	.000 (4.29)	121.854 (4.29)	-6704.098	.011	-1748.437
10	13	19	39.077 (4.29)	291.705 (4.29)	394.800 (4.29)	-7577.457	1528.136	-742.175
11	16	22	12.326 (4.28)	148.780 (4.29)	191.631 (4.29)	-7223.112	-1748.563	366.527
12	19	25	37.568 (4.29)	387.267 (4.29)	432.388 (4.29)	-7983.036	-742.154	-190.880
13	22	28	11.479 (4.28)	192.641 (4.29)	216.477 (4.29)	-7641.834	366.506	-262.346
14	25	31	36.082 (4.28)	434.614 (4.29)	457.210 (4.29)	-8397.570	-190.860	-369.210
15	28	34	10.714 (4.28)	217.439 (4.29)	228.615 (4.29)	-8068.015	-262.366	-140.776
16	31	37	34.314 (4.28)	458.324 (4.29)	421.197 (4.29)	-8945.337	-369.182	-293.427
17	34	40	9.866 (4.28)	229.054 (4.29)	210.636 (4.29)	-8630.375	-140.802	-158.043
18	37	43	33.604 (4.28)	421.216 (4.29)	351.685 (4.29)	-9392.725	-293.412	-265.140
19	40	46	9.549 (4.28)	210.602 (4.29)	175.857 (4.29)	-9085.567	-158.059	-130.083
20	43	49	33.218 (4.28)	351.402 (4.29)	255.388 (4.29)	-9932.606	-265.119	-178.027
21	46	52	9.411 (4.28)	175.674 (4.29)	127.702 (4.29)	-9634.726	-130.104	-89.031
22	49	55	33.335 (4.28)	254.904 (4.29)	156.531 (4.29)	-10373.071	-178.017	-112.097
23	52	58	9.498 (4.28)	127.447 (4.29)	78.271 (4.29)	-10079.888	-89.043	-56.797
24	55	61	33.825 (4.28)	155.980 (4.29)	75.262 (4.29)	-10897.283	-112.085	-24.695
25	58	63	9.774 (4.28)	77.984 (4.29)	37.629 (4.29)	-10609.478	-56.811	-11.358
26	61	65	34.168 (4.28)	75.078 (4.29)	15.015 (4.30)	-11297.123	-24.696	19.149
27	63	67	9.956 (4.28)	37.547 (4.29)	7.502 (4.30)	-11011.501	-11.359	8.643
28	65	69	34.603 (4.28)	14.993 (4.30)	17.356 (4.29)	-11752.567	19.148	63.602
29	67	71	10.183 (4.28)	7.502 (4.30)	8.680 (4.29)	-11469.575	8.643	32.481
30	69	73	34.791 (4.28)	17.290 (4.29)	22.319 (4.29)	-12096.848	63.602	85.216
31	71	75	10.279 (4.28)	9.640 (4.29)	11.154 (4.29)	-11815.028	32.481	41.934
32	73	77	34.896 (4.28)	22.372 (4.29)	5.343 (4.29)	-12506.622	85.216	51.312
33	75	78	10.332 (4.28)	11.183 (4.29)	2.670 (4.29)	-12225.494	41.934	26.259
34	77	79	34.898 (4.28)	5.200 (4.29)	.002 (4.29)	-12787.298	51.312	.000
35	78	80	10.333 (4.28)	2.601 (4.29)	.001 (4.29)	-12506.034	26.259	.000
36	11	12	15.121 (4.28)	.001 (4.29)	.001 (4.29)	1747.812	.003	-.004
37	13	16	.443 (4.34)	.001 (4.29)	.001 (4.29)	22.815	.002	-.002
38	13	22	.100 (4.29)	.000 (4.28)	.000 (4.28)	170.688	.002	-.002
39	25	28	.031 (4.30)	.000 (4.28)	.000 (4.28)	86.969	.002	-.002
40	31	34	.015 (4.29)	.000 (4.28)	.000 (4.28)	179.579	.002	-.002
41	37	40	.022 (4.29)	.000 (4.26)	.000 (4.26)	127.927	.002	-.002
42	43	46	.031 (4.29)	.000 (4.25)	.000 (4.25)	216.001	.002	-.002
43	49	52	.022 (4.29)	.000 (4.28)	.000 (4.28)	162.868	.001	-.001
44	55	58	.029 (4.29)	.000 (4.28)	.000 (4.28)	279.665	.001	-.001
45	61	63	.016 (4.29)	.000 (4.28)	.000 (4.28)	182.638	.001	-.001
46	65	67	.019 (4.29)	.000 (4.28)	.000 (4.28)	320.810	.001	-.001
47	69	71	.009 (4.29)	.000 (4.29)	.000 (4.29)	246.384	.001	-.001
48	73	75	.005 (4.29)	.000 (4.29)	.000 (4.29)	269.578	.000	-.000
49	77	78	.000 (4.29)	.000 (4.29)	.000 (4.29)	.028	.000	-.000
50	5	11	12.000 (4.29)	0.000 (0.00)	0.000 (0.00)	3322.529	0.000	0.000
51	3	5	12.257 (4.29)	0.000 (0.00)	0.000 (0.00)	3162.204	0.000	0.000
52	1	3	12.311 (4.29)	0.000 (0.00)	0.000 (0.00)	3003.838	0.000	0.000
53	6	12	13.476 (4.29)	0.000 (0.00)	0.000 (0.00)	3590.162	0.000	0.000
54	4	6	13.606 (4.29)	0.000 (0.00)	0.000 (0.00)	3429.943	0.000	0.000
55	2	4	13.628 (4.29)	0.000 (0.00)	0.000 (0.00)	3271.722	0.000	0.000
56	13	14	3.577 (4.33)	0.000 (0.00)	0.000 (0.00)	214.583	0.000	0.000
57	14	15	3.580 (4.33)	0.000 (0.00)	0.000 (0.00)	139.300	0.000	0.000
58	16	17	.947 (4.29)	0.000 (0.00)	0.000 (0.00)	230.831	0.000	0.000
59	17	18	.951 (4.29)	0.000 (0.00)	0.000 (0.00)	315.519	0.000	0.000

60	19	20	1.805 (4.29)	0.000 (0.00)	0.000 (0.00)	215.381	0.000	0.000
61	20	21	1.812 (4.29)	0.000 (0.00)	0.000 (0.00)	201.192	0.000	0.000
62	22	23	1.004 (4.29)	0.000 (0.00)	0.000 (0.00)	229.857	0.000	0.000
63	23	24	1.007 (4.29)	0.000 (0.00)	0.000 (0.00)	215.681	0.000	0.000
64	25	26	1.777 (4.29)	0.000 (0.00)	0.000 (0.00)	216.680	0.000	0.000
65	26	27	1.782 (4.29)	0.000 (0.00)	0.000 (0.00)	203.357	0.000	0.000
66	28	29	.920 (4.29)	0.000 (0.00)	0.000 (0.00)	229.725	0.000	0.000
67	29	30	.922 (4.29)	0.000 (0.00)	0.000 (0.00)	216.415	0.000	0.000
68	31	32	2.142 (4.29)	0.000 (0.00)	0.000 (0.00)	330.315	0.000	0.000
69	32	33	2.146 (4.29)	0.000 (0.00)	0.000 (0.00)	312.124	0.000	0.000
70	34	35	1.045 (4.29)	0.000 (0.00)	0.000 (0.00)	346.932	0.000	0.000
71	35	36	1.047 (4.29)	0.000 (0.00)	0.000 (0.00)	328.760	0.000	0.000
72	37	38	.894 (4.29)	0.000 (0.00)	0.000 (0.00)	225.030	0.000	0.000
73	38	39	.895 (4.29)	0.000 (0.00)	0.000 (0.00)	214.125	0.000	0.000
74	40	41	.410 (4.29)	0.000 (0.00)	0.000 (0.00)	234.228	0.000	0.000
75	41	42	.411 (4.29)	0.000 (0.00)	0.000 (0.00)	223.336	0.000	0.000
76	43	44	.523 (4.29)	0.000 (0.00)	0.000 (0.00)	348.058	0.000	0.000
77	44	45	.524 (4.29)	0.000 (0.00)	0.000 (0.00)	333.493	0.000	0.000
78	46	47	.201 (4.29)	0.000 (0.00)	0.000 (0.00)	359.359	0.000	0.000
79	47	48	.201 (4.29)	0.000 (0.00)	0.000 (0.00)	344.813	0.000	0.000
80	49	50	.189 (4.30)	0.000 (0.00)	0.000 (0.00)	241.510	0.000	0.000
81	50	51	.189 (4.30)	0.000 (0.00)	0.000 (0.00)	233.021	0.000	0.000
82	52	53	.128 (4.29)	0.000 (0.00)	0.000 (0.00)	247.619	0.000	0.000
83	53	54	.128 (4.29)	0.000 (0.00)	0.000 (0.00)	239.143	0.000	0.000
84	55	56	.753 (4.29)	0.000 (0.00)	0.000 (0.00)	380.685	0.000	0.000
85	56	57	.753 (4.29)	0.000 (0.00)	0.000 (0.00)	369.745	0.000	0.000
86	58	59	.428 (4.29)	0.000 (0.00)	0.000 (0.00)	388.187	0.000	0.000
87	59	60	.429 (4.29)	0.000 (0.00)	0.000 (0.00)	377.266	0.000	0.000
88	61	62	.577 (4.29)	0.000 (0.00)	0.000 (0.00)	226.015	0.000	0.000
89	63	64	.314 (4.29)	0.000 (0.00)	0.000 (0.00)	229.509	0.000	0.000
90	65	66	.875 (4.29)	0.000 (0.00)	0.000 (0.00)	368.883	0.000	0.000
91	67	68	.469 (4.29)	0.000 (0.00)	0.000 (0.00)	373.820	0.000	0.000
92	69	70	.483 (4.29)	0.000 (0.00)	0.000 (0.00)	266.068	0.000	0.000
93	71	72	.256 (4.29)	0.000 (0.00)	0.000 (0.00)	269.062	0.000	0.000
94	73	74	.363 (4.29)	0.000 (0.00)	0.000 (0.00)	280.369	0.000	0.000
95	75	76	.190 (4.29)	0.000 (0.00)	0.000 (0.00)	282.888	0.000	0.000
96	9	11	39.940 (4.28)	.000 (4.29)	.000 (4.29)	-216.079	.000	-.000
97	9	10	6.870 (4.27)	16.858 (4.15)	.243 (4.29)	13.087	-6.961	.001

GUST ANALYSIS TIME 188.396 SEC.

INTOS MODIFIED MODEL .....RUN WW,DAMP=.006,V=-37.5

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	25.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	.84656	.82747	4.144	.57083	.276180	.197928
2	1.55314	1.47901	4.282	-1.30466	1.006511	2.427956
3	1.85213	1.82353	4.330	-.35650	.097009	.332779
5	1.96663	1.92404	4.343	.35058	.088117	.340803

FUNDAMENTAL FREQUENCIES -WW

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.46560E-01	8.08409E+00	7.421987
2	1.55314E+00	1.48315E+01	4.045449
3	1.85213E+00	1.76867E+01	3.392388
4	1.95340E+00	1.86537E+01	3.216525
5	1.96663E+00	1.87800E+01	3.194892
6	2.02293E+00	1.93177E+01	3.105965
7	2.06989E+00	1.97661E+01	3.035498
8	2.13482E+00	2.03861E+01	2.943184
9	2.21118E+00	2.11153E+01	2.841546
10	2.24763E+00	2.14634E+01	2.795459
11	2.37942E+00	2.27219E+01	2.640621
12	2.43849E+00	2.32860E+01	2.576661
13	2.56940E+00	2.45361E+01	2.445381
14	2.63606E+00	2.51727E+01	2.383537
15	2.72872E+00	2.60575E+01	2.302600
16	2.77310E+00	2.64813E+01	2.265752
17	2.89667E+00	2.76613E+01	2.169095
18	2.99767E+00	2.86257E+01	2.096016
19	3.01258E+00	2.87681E+01	2.085642
20	3.13880E+00	2.99735E+01	2.001767
21	3.25899E+00	3.11212E+01	1.927947
22	3.28715E+00	3.13902E+01	1.911427
23	4.30988E+00	4.11565E+01	1.457849
24	6.34620E+00	6.06021E+01	.990065
25	8.62021E+00	8.23173E+01	.728887
26	1.28807E+01	1.23002E+02	.487796
27	1.59253E+01	1.52076E+02	.394540
28	2.11602E+01	2.02066E+02	.296932
29	3.32816E+01	3.17817E+02	.188788
30	4.88232E+01	4.66229E+02	.128692
31	5.23038E+01	4.99466E+02	.120128
32	5.56557E+01	5.31475E+02	.112893
33	5.75849E+01	5.49898E+02	.109111
34	5.82560E+01	5.56306E+02	.107854
35	5.83173E+01	5.56891E+02	.107741
36	5.91099E+01	5.64461E+02	.106296
37	6.19469E+01	5.91552E+02	.101428
38	6.20012E+01	5.92071E+02	.101339
39	6.49864E+01	6.20577E+02	.096684
40	6.51941E+01	6.22561E+02	.096376
41	6.71763E+01	6.41489E+02	.093532
42	6.99833E+01	6.68294E+02	.089781
43	7.01472E+01	6.69859E+02	.089571
44	7.55639E+01	7.21585E+02	.083150
45	7.58129E+01	7.23964E+02	.082877
46	8.11577E+01	7.75003E+02	.077419
47	8.15931E+01	7.79160E+02	.077006
48	8.37508E+01	7.99765E+02	.075022
49	8.81489E+01	8.41764E+02	.071279
50	8.83332E+01	8.43523E+02	.071130
51	9.48030E+01	9.05306E+02	.066276
52	9.50969E+01	9.08113E+02	.066071

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

PCINT	EXPECTED GUST OSCILLATIONS X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	STATIC DISPLACEMENTS X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	1.00156 (4.28)	.53832 (4.28)	.07505 (4.28)	.04034 (4.28)	5.21965	-2.80297
4	.31874 (4.28)	.17463 (4.28)	.02403 (4.28)	.01316 (4.28)	-5.58179	-2.96294
5	.87700 (4.28)	.47625 (4.28)	.06572 (4.28)	.03569 (4.28)	4.97495	-2.75089
6	.27460 (4.28)	.15516 (4.28)	.02072 (4.28)	.01169 (4.28)	-5.51465	-2.96635
7	.89865 (4.14)	.00350 (4.19)	.02022 (4.15)	.00014 (4.26)	-.52153	-.31953
8	.12955 (4.28)	.00321 (4.28)	.00970 (4.28)	.00024 (4.28)	-.16961	-.32361
9	.07435 (4.28)	.00204 (4.28)	.00557 (4.28)	.00015 (4.28)	-.13659	-.31733
10	.06478 (4.28)	.00043 (4.29)	.00485 (4.28)	.00004 (4.32)	-.08480	-.30469
11	.11302 (4.28)	.00319 (4.28)	.00847 (4.28)	.00024 (4.28)	-.07983	-.32360
12	.05651 (4.28)	.00044 (4.29)	.00423 (4.28)	.00004 (4.32)	-.03990	-.30468
13	.07354 (4.28)	.00281 (4.28)	.00551 (4.28)	.00021 (4.28)	-.05669	-.29941
14	.90770 (4.30)	.46696 (4.30)	.07813 (4.31)	.03986 (4.31)	4.90879	-2.61068
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.03677 (4.28)	.00038 (4.29)	.00276 (4.28)	.00003 (4.32)	-.02834	-.28291
17	.23241 (4.28)	.12450 (4.28)	.01742 (4.28)	.00933 (4.28)	-5.38877	-2.82045
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.05229 (4.28)	.00258 (4.28)	.00392 (4.28)	.00019 (4.28)	-.04312	-.28354
20	.61458 (4.32)	.33786 (4.31)	.06114 (4.33)	.03316 (4.33)	4.54827	-2.57834
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.02615 (4.28)	.00034 (4.29)	.00196 (4.28)	.00003 (4.32)	-.02156	-.26847
23	.15157 (4.28)	.08748 (4.28)	.01141 (4.28)	.00658 (4.28)	-4.95630	-2.77102
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.03774 (4.28)	.00241 (4.28)	.00284 (4.28)	.00018 (4.28)	-.03362	-.27037
26	.29599 (4.29)	.17853 (4.29)	.02329 (4.29)	.01399 (4.29)	4.25824	-2.55403
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.01887 (4.28)	.00032 (4.29)	.00142 (4.28)	.00003 (4.33)	-.01681	-.25637
29	.10402 (4.28)	.06401 (4.28)	.00787 (4.28)	.00484 (4.28)	-4.61560	-2.73482
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.02141 (4.28)	.00218 (4.28)	.00163 (4.29)	.00016 (4.28)	-.02276	-.25125
32	.15415 (4.29)	.10352 (4.29)	.01211 (4.29)	.00810 (4.29)	3.86232	-2.54125
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.01070 (4.28)	.00029 (4.29)	.00081 (4.29)	.00003 (4.33)	-.01138	-.23869
35	.05634 (4.28)	.03839 (4.28)	.00432 (4.29)	.00294 (4.29)	-4.15346	-2.70570
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.00946 (4.29)	.00196 (4.28)	.00075 (4.29)	.00015 (4.28)	-.01462	-.23052
38	.07022 (4.29)	.05294 (4.29)	.00571 (4.30)	.00429 (4.30)	3.44055	-2.51390
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.00473 (4.29)	.00026 (4.29)	.00037 (4.29)	.00002 (4.33)	-.00731	-.21934
41	.02450 (4.29)	.01869 (4.29)	.00195 (4.30)	.00149 (4.30)	-3.67061	-2.66053
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00254 (4.32)	.00174 (4.28)	.00027 (4.33)	.00013 (4.28)	-.00930	-.20923
44	.02505 (4.31)	.02141 (4.31)	.00233 (4.32)	.00198 (4.32)	3.02726	-2.49745
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00127 (4.32)	.00024 (4.29)	.00013 (4.33)	.00002 (4.33)	-.00465	-.19938
47	.00686 (4.32)	.00589 (4.32)	.00068 (4.33)	.00058 (4.33)	-3.20066	-2.62367
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00310 (4.30)	.00153 (4.28)	.00026 (4.31)	.00011 (4.28)	-.00619	-.18629
50	.00917 (4.34)	.00919 (4.33)	.00104 (4.34)	.00104 (4.34)	2.59936	-2.47393
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00155 (4.30)	.00021 (4.29)	.00013 (4.31)	.00002 (4.32)	-.00310	-.17774
53	.00546 (4.30)	.00559 (4.30)	.00048 (4.31)	.00049 (4.31)	-2.71964	-2.57527
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.00435 (4.28)	.00132 (4.28)	.00033 (4.29)	.00010 (4.28)	-.00478	-.16286
56	.01163 (4.29)	.01430 (4.29)	.00096 (4.30)	.00117 (4.30)	2.18539	-2.45734
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00217 (4.28)	.00018 (4.29)	.00017 (4.29)	.00002 (4.32)	-.00239	-.15555
59	.00742 (4.28)	.00515 (4.28)	.00057 (4.29)	.00070 (4.29)	-2.26025	-2.53097

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.00420 (4.28)	.00110 (4.28)	.00032 (4.28)	.00008 (4.28)	-.00434	-.13774
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00210 (4.28)	.00015 (4.29)	.00016 (4.28)	.00001 (4.32)	-.00217	-.13169
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.00332 (4.28)	.00089 (4.28)	.00025 (4.28)	.00007 (4.28)	-.00424	-.11227
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00166 (4.28)	.00012 (4.29)	.00012 (4.28)	.00001 (4.32)	-.00212	-.10743
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.00226 (4.28)	.00066 (4.28)	.00017 (4.28)	.00005 (4.28)	-.00401	-.08523
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00113 (4.28)	.00009 (4.29)	.00008 (4.28)	.00001 (4.32)	-.00200	-.08161
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00151 (4.28)	.00049 (4.28)	.00011 (4.28)	.00004 (4.28)	-.00348	-.06320
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00076 (4.28)	.00007 (4.29)	.00006 (4.28)	.00001 (4.32)	-.00174	-.06055
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00031 (4.28)	.00011 (4.28)	.00002 (4.28)	.00001 (4.28)	-.00101	-.01469
78	.00015 (4.28)	.00002 (4.29)	.00001 (4.28)	.00000 (4.32)	-.00050	-.01409
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.010 (4.15)	3.361 (4.15)	106.150 (4.15)	-26.159	-.000	-37.229
2	8	9	148.991 (4.28)	.653 (4.28)	44.023 (4.15)	172.899	-.002	20.270
3	8	10	53.534 (4.28)	.000 (4.18)	.000 (4.18)	277.534	.000	-.000
4	8	11	560.252 (4.28)	.000 (4.28)	.001 (4.28)	-654.663	.001	-.002
5	10	12	190.397 (4.28)	.000 (4.28)	.000 (4.28)	-953.398	.001	-.002
6	8	12	143.822 (4.28)	.000 (4.28)	.000 (4.28)	-365.699	.001	-.002
7	10	11	176.516 (4.28)	.000 (4.28)	.000 (4.28)	-751.508	.001	-.001
8	11	13	111.568 (4.28)	.001 (4.28)	598.609 (4.29)	-7317.860	-.009	1339.029
9	12	16	19.715 (4.29)	.001 (4.28)	333.741 (4.28)	-6583.102	.011	-1833.462
10	13	19	109.299 (4.28)	761.729 (4.28)	1020.700 (4.28)	-7809.630	1339.251	-1052.288
11	16	22	17.505 (4.29)	395.407 (4.28)	506.282 (4.28)	-7108.374	-1833.565	208.705
12	19	25	105.776 (4.28)	1025.715 (4.28)	1138.903 (4.28)	-8204.264	-1052.264	-568.307
13	22	28	15.485 (4.29)	508.307 (4.28)	570.796 (4.28)	-7532.661	208.684	-450.428
14	25	31	101.984 (4.28)	1144.587 (4.28)	1198.305 (4.28)	-8609.102	-568.285	-794.498
15	28	34	13.872 (4.29)	572.916 (4.28)	599.201 (4.28)	-7963.811	-450.447	-353.588
16	31	37	97.346 (4.28)	1201.133 (4.28)	1099.062 (4.28)	-9144.813	-794.468	-671.979
17	34	40	12.386 (4.29)	600.022 (4.28)	549.724 (4.28)	-8532.433	-353.614	-347.272
18	37	43	95.451 (4.28)	1099.092 (4.28)	913.969 (4.28)	-9585.741	-671.963	-598.943
19	40	46	11.964 (4.29)	549.515 (4.28)	457.063 (4.28)	-8991.038	-347.289	-297.001
20	43	49	94.375 (4.28)	913.254 (4.28)	661.491 (4.28)	-10118.023	-598.922	-407.576
21	46	52	11.929 (4.30)	456.481 (4.28)	330.794 (4.28)	-9544.298	-297.022	-203.803
22	49	55	94.636 (4.28)	660.249 (4.28)	404.411 (4.28)	-10554.619	-407.566	-262.169
23	52	58	12.174 (4.30)	330.089 (4.28)	202.250 (4.28)	-9991.601	-203.816	-131.839
24	55	61	95.855 (4.28)	403.024 (4.28)	195.348 (4.29)	-11074.457	-262.157	-65.908
25	58	63	12.744 (4.30)	201.468 (4.28)	97.673 (4.29)	-10523.675	-131.854	-31.966
26	61	65	96.717 (4.28)	194.855 (4.29)	47.037 (4.32)	-11472.385	-65.911	30.123
27	63	67	13.095 (4.29)	97.464 (4.29)	23.500 (4.32)	-10926.672	-31.968	14.126
28	65	69	97.815 (4.28)	46.940 (4.32)	50.599 (4.30)	-11925.552	30.120	132.158
29	67	71	13.521 (4.29)	23.483 (4.32)	25.302 (4.30)	-11385.918	14.124	66.757
30	69	73	98.289 (4.28)	50.419 (4.30)	60.390 (4.29)	-12268.760	132.156	181.536
31	71	75	13.697 (4.29)	25.192 (4.30)	30.207 (4.29)	-11731.932	66.756	90.092
32	73	77	98.558 (4.28)	60.553 (4.29)	14.502 (4.29)	-12677.855	181.536	113.691
33	75	78	13.792 (4.29)	30.263 (4.29)	7.245 (4.29)	-12142.758	90.092	57.448
34	77	79	98.562 (4.28)	14.112 (4.29)	.006 (4.29)	-12958.531	113.690	.000
35	78	80	13.792 (4.29)	7.058 (4.29)	.003 (4.29)	-12423.298	57.448	.000
36	11	12	75.397 (4.28)	.002 (4.28)	.002 (4.28)	1748.970	.005	-.006
37	13	16	1.318 (4.32)	.001 (4.28)	.001 (4.28)	23.581	.004	-.004
38	19	22	1.247 (4.33)	.001 (4.28)	.001 (4.28)	170.888	.004	-.004
39	25	28	.155 (4.29)	.001 (4.28)	.001 (4.28)	87.482	.004	-.004
40	31	34	.098 (4.30)	.001 (4.28)	.001 (4.28)	180.185	.003	-.003
41	37	40	.123 (4.28)	.000 (4.27)	.000 (4.27)	128.319	.003	-.003
42	43	46	.169 (4.28)	.000 (4.25)	.000 (4.25)	216.560	.003	-.003
43	49	52	.121 (4.29)	.000 (4.28)	.000 (4.28)	163.223	.003	-.003
44	55	58	.160 (4.29)	.000 (4.28)	.000 (4.28)	280.173	.002	-.002
45	61	63	.085 (4.29)	.000 (4.28)	.000 (4.28)	182.818	.002	-.002
46	65	67	.103 (4.29)	.000 (4.28)	.000 (4.28)	321.051	.002	-.002
47	69	71	.049 (4.29)	.000 (4.28)	.000 (4.28)	246.529	.001	-.001
48	73	75	.029 (4.29)	.000 (4.28)	.000 (4.28)	269.711	.001	-.001
49	77	78	.001 (4.28)	.000 (4.28)	.000 (4.28)	.029	.000	-.000
50	5	11	14.825 (4.29)	0.000 (0.00)	0.000 (0.00)	3100.115	0.000	0.000
51	3	5	15.378 (4.29)	0.000 (0.00)	0.000 (0.00)	2939.704	0.000	0.000
52	1	3	15.533 (4.29)	0.000 (0.00)	0.000 (0.00)	2781.215	0.000	0.000
53	6	12	48.036 (4.28)	0.000 (0.00)	0.000 (0.00)	3702.598	0.000	0.000
54	4	6	48.349 (4.28)	0.000 (0.00)	0.000 (0.00)	3542.420	0.000	0.000
55	2	4	48.403 (4.28)	0.000 (0.00)	0.000 (0.00)	3384.261	0.000	0.000
56	13	14	8.622 (4.33)	0.000 (0.00)	0.000 (0.00)	201.103	0.000	0.000
57	14	15	8.629 (4.33)	0.000 (0.00)	0.000 (0.00)	185.809	0.000	0.000
58	16	17	2.942 (4.28)	0.000 (0.00)	0.000 (0.00)	237.616	0.000	0.000
59	17	18	2.953 (4.28)	0.000 (0.00)	0.000 (0.00)	222.351	0.000	0.000

60	19	20	8.399 (4.33)	0.000 (0.00)	0.000 (0.00)	203.408	0.000	0.000
61	20	21	8.407 (4.33)	0.000 (0.00)	0.000 (0.00)	189.209	0.000	0.000
62	22	23	2.800 (4.28)	0.000 (0.00)	0.000 (0.00)	235.932	0.000	0.000
63	23	24	2.808 (4.28)	0.000 (0.00)	0.000 (0.00)	221.762	0.000	0.000
64	25	26	4.655 (4.28)	0.000 (0.00)	0.000 (0.00)	205.921	0.000	0.000
65	26	27	4.667 (4.28)	0.000 (0.00)	0.000 (0.00)	192.588	0.000	0.000
66	28	29	2.450 (4.28)	0.000 (0.00)	0.000 (0.00)	235.226	0.000	0.000
67	29	30	2.456 (4.28)	0.000 (0.00)	0.000 (0.00)	221.921	0.000	0.000
68	31	32	5.632 (4.28)	0.000 (0.00)	0.000 (0.00)	316.673	0.000	0.000
69	32	33	5.643 (4.28)	0.000 (0.00)	0.000 (0.00)	298.466	0.000	0.000
70	34	35	2.658 (4.28)	0.000 (0.00)	0.000 (0.00)	354.000	0.000	0.000
71	35	36	2.663 (4.28)	0.000 (0.00)	0.000 (0.00)	335.837	0.000	0.000
72	37	38	2.388 (4.28)	0.000 (0.00)	0.000 (0.00)	217.521	0.000	0.000
73	38	39	2.392 (4.28)	0.000 (0.00)	0.000 (0.00)	206.605	0.000	0.000
74	40	41	.989 (4.28)	0.000 (0.00)	0.000 (0.00)	238.184	0.000	0.000
75	41	42	.991 (4.28)	0.000 (0.00)	0.000 (0.00)	227.296	0.000	0.000
76	43	44	1.519 (4.30)	0.000 (0.00)	0.000 (0.00)	338.890	0.000	0.000
77	44	45	1.521 (4.30)	0.000 (0.00)	0.000 (0.00)	324.309	0.000	0.000
78	46	47	.443 (4.31)	0.000 (0.00)	0.000 (0.00)	364.286	0.000	0.000
79	47	48	.444 (4.31)	0.000 (0.00)	0.000 (0.00)	349.749	0.000	0.000
80	49	50	.581 (4.32)	0.000 (0.00)	0.000 (0.00)	236.589	0.000	0.000
81	50	51	.581 (4.32)	0.000 (0.00)	0.000 (0.00)	228.090	0.000	0.000
82	52	53	.442 (4.29)	0.000 (0.00)	0.000 (0.00)	250.325	0.000	0.000
83	53	54	.442 (4.29)	0.000 (0.00)	0.000 (0.00)	241.855	0.000	0.000
84	55	56	1.946 (4.29)	0.000 (0.00)	0.000 (0.00)	374.680	0.000	0.000
85	56	57	1.947 (4.29)	0.000 (0.00)	0.000 (0.00)	363.725	0.000	0.000
86	58	59	1.243 (4.28)	0.000 (0.00)	0.000 (0.00)	391.566	0.000	0.000
87	59	60	1.244 (4.28)	0.000 (0.00)	0.000 (0.00)	380.654	0.000	0.000
88	61	62	1.467 (4.28)	0.000 (0.00)	0.000 (0.00)	223.082	0.000	0.000
89	63	64	.868 (4.28)	0.000 (0.00)	0.000 (0.00)	230.959	0.000	0.000
90	65	66	2.209 (4.28)	0.000 (0.00)	0.000 (0.00)	364.727	0.000	0.000
91	67	68	1.272 (4.28)	0.000 (0.00)	0.000 (0.00)	375.880	0.000	0.000
92	69	70	1.218 (4.28)	0.000 (0.00)	0.000 (0.00)	263.538	0.000	0.000
93	71	72	.686 (4.28)	0.000 (0.00)	0.000 (0.00)	270.319	0.000	0.000
94	73	74	.916 (4.28)	0.000 (0.00)	0.000 (0.00)	278.232	0.000	0.000
95	75	76	.504 (4.28)	0.000 (0.00)	0.000 (0.00)	283.953	0.000	0.000
96	9	11	176.087 (4.28)	.000 (4.28)	.000 (4.28)	-269.721	.000	-.001
97	9	10	28.975 (4.27)	43.127 (4.15)	.673 (4.28)	25.990	-16.958	.002

GLST ANALYSIS TIME 245.745 SEC.

INTOS MODIFIED MODEL .....RUN #2,DAMP=.018,V=-37.5

FLAG (=T TO CONSIDER WIND ON CABLES), ,	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (%/0), , , ,	25.0%
FRICTION COEFFICIENT , , , , , , , , , ,	2.0010
DECAY CONSTANT , , , , , , , , , , , , ,	7.00
BASIC WIND SPEED AVER, INTERVAL (MIN) ,	60.0%

MODE NO.	DAMPING COEF
1	0.018%
2	0.018%
3	0.018%
4	0.018%
5	0.018%
6	0.018%
7	0.018%
8	0.018%

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN,WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	0.84656	0.79297	4.134	0.57063	0.166079	0.119324
2	1.55371	1.35867	4.262	-1.31580	0.632058	1.525801
3	1.85213	1.77003	4.324	-0.35608	0.057534	0.197364
5	1.96662	1.34645	4.333	0.34908	0.052929	0.204709

FUNDAMENTAL FREQUENCIES —ZZ

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8,46962E+01	8,08411E+00	7,421968
2	1,55371E+02	1,48369E+01	4,043963
3	1,85213E+02	1,76866E+01	3,392393
4	1,95342E+02	1,86539E+01	3,216485
5	1,96662E+02	1,87800E+01	3,194896
6	2,02294E+02	1,93177E+01	3,105955
7	2,06989E+02	1,97661E+01	3,035497
8	2,13482E+02	2,03861E+01	2,943181
9	2,21118E+02	2,11153E+01	2,841540
10	2,24763E+02	2,14634E+01	2,795458
11	2,37943E+02	2,27220E+01	2,640610
12	2,43851E+02	2,32861E+01	2,576641
13	2,56942E+02	2,45363E+01	2,445357
14	2,63611E+02	2,51731E+01	2,383493
15	2,72873E+02	2,60576E+01	2,302593
16	2,77311E+02	2,64814E+01	2,265745
17	2,89572E+02	2,76617E+01	2,169062
18	2,99767E+02	2,86258E+01	2,096015
19	3,01259E+02	2,87682E+01	2,085635
20	3,13386E+02	2,99741E+01	2,001730
21	3,25903E+02	3,11216E+01	1,927921
22	3,28844E+02	3,14024E+01	1,910680
23	4,31134E+02	4,11705E+01	1,457355
24	6,34740E+02	6,06135E+01	0,989879
25	8,62408E+02	8,23543E+01	0,728559
26	1,28824E+03	1,23018E+02	0,487734
27	1,59257E+03	1,52087E+02	0,394529
28	2,11606E+03	2,02070E+02	0,296927
29	3,32822E+03	3,17823E+02	0,188784
30	4,88237E+03	4,66234E+02	0,128691
31	5,23038E+03	4,99466E+02	0,120128
32	5,56555E+03	5,31473E+02	0,112894
33	5,75857E+03	5,49906E+02	0,109110
34	5,82564E+03	5,56311E+02	0,107853
35	5,93175E+03	5,66893E+02	0,107741
36	5,91095E+03	5,64457E+02	0,106297
37	6,19467E+03	5,91550E+02	0,101428
38	6,20011E+03	5,92070E+02	0,101339
39	6,49864E+03	6,20578E+02	0,096684
40	6,51942E+03	6,22561E+02	0,096376
41	6,71767E+03	6,41493E+02	0,093532
42	6,99836E+03	6,68297E+02	0,089780
43	7,01474E+03	6,69862E+02	0,089571
44	7,55636E+03	7,21583E+02	0,083151
45	7,58124E+03	7,23959E+02	0,082878
46	8,11576E+03	7,75002E+02	0,077419
47	8,15928E+03	7,79157E+02	0,077006
48	8,37510E+03	7,99767E+02	0,075022
49	8,81487E+03	8,41762E+02	0,071279
50	8,83332E+03	8,43524E+02	0,071132
51	9,48029E+03	9,05305E+02	0,066276
52	9,50965E+03	9,08109E+02	0,066071

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL INPARENTHESIS) / EXPECTED GUST OSCILLATIONS

POINT	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	STATIC DISPLACEMENTS X-DIS	STATIC DISPLACEMENTS Y-DIS
1	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
2	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
3	0,62621 (4,26)	0,33656 (4,26)	0,04696 (4,26)	0,02524 (4,26)	5,21968	-2,80299
4	0,19908 (4,26)	0,10907 (4,26)	0,01501 (4,26)	0,00822 (4,26)	-5,58183	-2,96296
5	0,54849 (4,26)	0,29777 (4,26)	0,04112 (4,26)	0,02233 (4,26)	4,97498	-2,75091
6	0,17151 (4,26)	0,09691 (4,26)	0,01295 (4,26)	0,00731 (4,26)	-5,51468	-2,96637
7	0,53910 (4,13)	0,03212 (4,18)	0,01214 (4,14)	0,00009 (4,25)	-0,52151	-0,31953
8	0,03088 (4,26)	0,00203 (4,26)	0,00606 (4,26)	0,00015 (4,26)	-0,16961	-0,32361
9	0,04642 (4,26)	0,00123 (4,26)	0,00348 (4,26)	0,00010 (4,26)	-0,13658	-0,31733
10	0,04144 (4,26)	0,00027 (4,28)	0,00303 (4,26)	0,00002 (4,31)	-0,08480	-0,30470
11	0,07055 (4,26)	0,00199 (4,26)	0,00529 (4,26)	0,00015 (4,26)	-0,07984	-0,32360
12	0,03527 (4,26)	0,00027 (4,28)	0,00264 (4,26)	0,00002 (4,31)	-0,03991	-0,30468
13	0,04591 (4,26)	0,00176 (4,26)	0,00344 (4,26)	0,00013 (4,26)	-0,05669	-0,29940
14	0,55865 (4,28)	0,28773 (4,28)	0,04768 (4,29)	0,02436 (4,29)	4,90881	-2,61070
15	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
16	0,02296 (4,26)	0,00023 (4,28)	0,00172 (4,26)	0,00002 (4,31)	-0,02835	-0,28291
17	0,14522 (4,26)	0,07779 (4,26)	0,01089 (4,26)	0,00584 (4,26)	-5,38872	-2,82042
18	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
19	0,03265 (4,26)	0,00161 (4,26)	0,00245 (4,26)	0,00012 (4,26)	-0,04312	-0,28354
20	0,37663 (4,30)	0,20738 (4,30)	0,03712 (4,32)	0,02016 (4,31)	4,54830	-2,57837
21	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
22	0,01632 (4,26)	0,00021 (4,28)	0,00123 (4,26)	0,00002 (4,31)	-0,02156	-0,26847
23	0,09467 (4,26)	0,05464 (4,26)	0,00713 (4,26)	0,00411 (4,26)	-4,95630	-2,77101
24	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
25	0,02356 (4,26)	0,00151 (4,26)	0,00177 (4,26)	0,00011 (4,26)	-0,03363	-0,27036
26	0,18453 (4,27)	0,11132 (4,27)	0,01448 (4,27)	0,00870 (4,27)	4,25823	-2,55403
27	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
28	0,01178 (4,26)	0,00019 (4,28)	0,00089 (4,26)	0,00002 (4,31)	-0,01681	-0,25637
29	0,06496 (4,26)	0,03997 (4,26)	0,00491 (4,26)	0,00302 (4,26)	-4,61559	-2,73481
30	0,00000 (0,00)	2,70000 (0,02)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
31	0,01336 (4,26)	0,00136 (4,26)	0,00102 (4,27)	0,00010 (4,26)	-0,02277	-0,25125
32	0,09612 (4,27)	0,06456 (4,27)	0,00753 (4,27)	0,00504 (4,27)	3,86230	-2,54124
33	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
34	0,00668 (4,26)	0,00018 (4,28)	0,00051 (4,27)	0,00002 (4,31)	-0,01138	-0,23869
35	0,03516 (4,26)	0,02396 (4,26)	0,00269 (4,27)	0,00183 (4,27)	-4,15346	-2,70569
36	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
37	0,00590 (4,27)	0,00122 (4,26)	0,00046 (4,28)	0,00009 (4,26)	-0,01462	-0,23051
38	0,04371 (4,27)	0,03297 (4,27)	0,00354 (4,28)	0,00266 (4,28)	3,44054	-2,51389
39	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
40	0,00295 (4,27)	0,00014 (4,28)	0,00023 (4,28)	0,00001 (4,31)	-0,00731	-0,21934
41	0,01526 (4,27)	0,01164 (4,27)	0,00121 (4,28)	0,00092 (4,28)	-3,67061	-2,66053
42	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
43	0,00155 (4,31)	0,00109 (4,26)	0,00015 (4,32)	0,00008 (4,26)	-0,00931	-0,20923
44	0,01545 (4,29)	0,01321 (4,29)	0,00142 (4,31)	0,00121 (4,31)	3,02725	-2,49744
45	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
46	0,00077 (4,31)	0,00014 (4,28)	0,00008 (4,32)	0,00001 (4,31)	-0,00465	-0,19938
47	0,00419 (4,30)	0,00361 (4,30)	0,00041 (4,31)	0,00035 (4,31)	-3,20068	-2,62369
48	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
49	0,00191 (4,28)	0,00296 (4,26)	0,00016 (4,29)	0,00007 (4,26)	-0,00620	-0,18629
50	0,00549 (4,33)	0,00551 (4,32)	0,00062 (4,33)	0,00062 (4,33)	2,59937	-2,47393
51	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
52	0,00095 (4,28)	0,00013 (4,28)	0,00008 (4,29)	0,00001 (4,31)	-0,00310	-0,17774
53	0,00336 (4,28)	0,00344 (4,28)	0,00029 (4,30)	0,00030 (4,30)	-2,71965	-2,57529
54	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
55	0,00277 (4,26)	0,00082 (4,26)	0,00021 (4,27)	0,00006 (4,26)	-0,00478	-0,16285
56	0,00719 (4,27)	0,00883 (4,27)	0,00059 (4,29)	0,00072 (4,28)	2,18541	-2,45736

57	0,00000 (0,00)	0,00001 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
58	0,00135 (4,26)	0,00711 (4,28)	0,00710 (4,27)	0,00001 (4,31)	-0,00239	-0,15555
59	0,00402 (4,26)	0,00569 (4,26)	0,00035 (4,27)	0,00044 (4,27)	-2,26024	-2,53096
60	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
61	0,00201 (4,26)	0,00769 (4,26)	0,00020 (4,26)	0,00005 (4,26)	-0,00434	-0,13774
62	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
63	0,00131 (4,26)	0,00000 (4,28)	0,00010 (4,26)	0,00001 (4,31)	-0,00217	-0,13169
64	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
65	0,00207 (4,26)	0,00755 (4,26)	0,00016 (4,26)	0,00004 (4,26)	-0,00424	-0,11227
66	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
67	0,00103 (4,26)	0,00000 (4,28)	0,00008 (4,26)	0,00001 (4,31)	-0,00212	-0,10743
68	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
69	0,00141 (4,26)	0,00042 (4,26)	0,00011 (4,26)	0,00003 (4,26)	-0,00401	-0,08523
70	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
71	0,00078 (4,26)	0,00006 (4,28)	0,00005 (4,26)	0,00000 (4,31)	-0,00200	-0,08161
72	0,00360 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
73	0,00094 (4,26)	0,00031 (4,26)	0,00007 (4,26)	0,00002 (4,26)	-0,00348	-0,06320
74	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
75	0,00047 (4,26)	0,00004 (4,28)	0,00004 (4,26)	0,00000 (4,31)	-0,00174	-0,06055
76	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
77	0,00019 (4,26)	0,00007 (4,26)	0,00001 (4,26)	0,00001 (4,26)	-0,00101	-0,01469
78	0,00010 (4,26)	0,00001 (4,28)	0,00001 (4,26)	0,00000 (4,31)	-0,00050	-0,01409
79	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
80	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	0,006 (4,18)	2,018 (4,14)	63,726 (4,14)	-26,159	-0,000	-37,228
2	8	9	93,858 (4,26)	0,341 (4,26)	26,431 (4,14)	175,698	-0,202	20,277
3	8	10	33,508 (4,26)	0,000 (4,17)	0,000 (4,17)	278,323	0,000	-0,000
4	8	11	349,947 (4,26)	0,000 (4,26)	0,001 (4,26)	-645,247	0,001	-0,002
5	10	12	118,620 (4,26)	0,000 (4,26)	0,000 (4,26)	-950,897	0,001	-0,002
6	6	12	89,842 (4,26)	0,000 (4,26)	0,000 (4,26)	-368,440	0,001	-0,002
7	10	11	110,186 (4,26)	0,000 (4,26)	0,000 (4,26)	-753,790	0,001	-0,001
8	11	13	69,727 (4,26)	0,001 (4,26)	371,655 (4,27)	-7317,798	-0,009	1338,983
9	12	16	12,179 (4,27)	0,000 (4,26)	237,523 (4,27)	-6583,109	0,011	-1833,500
10	13	19	68,330 (4,26)	473,958 (4,27)	635,763 (4,26)	-7809,568	1339,203	-1052,344
11	16	22	10,790 (4,27)	246,093 (4,26)	315,342 (4,26)	-7108,383	-1833,602	208,679
12	19	25	66,121 (4,26)	636,992 (4,26)	710,297 (4,26)	-8204,200	-1052,320	-568,336
13	22	28	9,516 (4,27)	316,617 (4,26)	355,998 (4,26)	-7532,670	208,658	-450,444
14	25	31	63,751 (4,26)	713,869 (4,26)	747,134 (4,26)	-8609,038	-568,314	-794,489
15	28	34	8,495 (4,27)	357,327 (4,26)	373,597 (4,26)	-7963,821	-450,463	-353,583
16	31	37	60,853 (4,26)	748,914 (4,26)	685,538 (4,26)	-9144,750	-794,460	-671,938
17	34	40	7,546 (4,28)	374,114 (4,26)	342,891 (4,26)	-8532,444	-353,609	-347,252
18	37	43	59,668 (4,26)	685,563 (4,26)	570,434 (4,26)	-9585,680	-671,923	-598,882
19	40	46	7,273 (4,28)	342,762 (4,26)	285,266 (4,26)	-8991,049	-347,269	-296,970
20	43	49	58,994 (4,26)	569,991 (4,26)	412,983 (4,26)	-10117,963	-598,860	-407,568
21	46	52	7,244 (4,28)	284,904 (4,26)	206,522 (4,26)	-9544,307	-296,991	-203,800
22	49	55	59,156 (4,26)	412,209 (4,26)	252,532 (4,26)	-10554,556	-407,559	-262,236
23	52	58	7,397 (4,28)	206,083 (4,26)	126,294 (4,26)	-9991,609	-203,812	-131,873
24	55	61	59,916 (4,26)	251,666 (4,26)	121,757 (4,27)	-11074,393	-262,224	-65,946
25	58	63	7,756 (4,28)	125,806 (4,26)	60,878 (4,27)	-10523,683	-131,887	-31,985
26	61	65	60,454 (4,26)	121,449 (4,27)	28,642 (4,31)	-11472,322	-65,948	30,146
27	63	67	7,978 (4,28)	60,747 (4,27)	14,309 (4,31)	-10926,681	-31,987	14,138
28	65	69	61,138 (4,26)	28,584 (4,31)	31,156 (4,28)	-11925,492	30,144	132,145
29	67	71	8,249 (4,28)	14,300 (4,31)	15,580 (4,28)	-11385,928	14,136	66,751
30	69	73	61,434 (4,26)	31,045 (4,28)	37,475 (4,27)	-12268,698	132,144	181,532
31	71	75	8,361 (4,28)	15,511 (4,28)	18,745 (4,27)	-11731,942	66,750	90,090
32	73	77	61,602 (4,26)	37,576 (4,27)	9,000 (4,27)	-12677,794	181,532	113,688
33	75	78	8,421 (4,28)	18,779 (4,27)	4,496 (4,27)	-12142,768	90,090	57,447
34	77	79	61,674 (4,26)	8,758 (4,27)	0,004 (4,27)	-12958,470	113,688	0,000
35	78	80	8,422 (4,28)	4,380 (4,27)	0,002 (4,27)	-12423,307	57,446	0,000
36	11	12	47,192 (4,26)	0,001 (4,26)	0,001 (4,26)	1750,926	0,005	-0,006
37	13	16	0,785 (4,32)	0,001 (4,26)	0,001 (4,26)	23,581	0,004	-0,004
38	19	22	0,761 (4,32)	0,001 (4,26)	0,001 (4,26)	170,888	0,004	-0,004
39	25	28	0,490 (4,27)	0,001 (4,26)	0,001 (4,26)	87,483	0,004	-0,004
40	31	34	0,466 (4,28)	0,000 (4,26)	0,000 (4,26)	180,185	0,003	-0,003
41	37	40	0,364 (4,26)	0,000 (4,25)	0,000 (4,25)	128,320	0,003	-0,003
42	43	46	0,126 (4,26)	0,000 (4,24)	0,000 (4,24)	216,559	0,003	-0,003
43	49	52	0,071 (4,27)	0,000 (4,26)	0,000 (4,26)	163,222	0,003	-0,003
44	55	58	0,096 (4,27)	0,000 (4,26)	0,000 (4,26)	280,173	0,002	-0,002
45	61	63	0,049 (4,27)	0,000 (4,26)	0,000 (4,26)	182,819	0,002	-0,002
46	65	67	0,069 (4,27)	0,000 (4,26)	0,000 (4,26)	321,053	0,002	-0,002
47	69	71	0,029 (4,27)	0,000 (4,26)	0,000 (4,26)	246,528	0,001	-0,001
48	73	75	0,019 (4,27)	0,000 (4,26)	0,000 (4,26)	269,711	0,001	-0,001
49	77	78	0,001 (4,26)	0,000 (4,26)	0,000 (4,26)	0,029	0,000	-0,000
50	5	11	8,897 (4,28)	0,000 (0,00)	0,000 (0,00)	3100,054	0,000	0,000
51	3	5	9,244 (4,28)	0,000 (0,00)	0,000 (0,00)	2939,709	0,000	0,000
52	1	3	9,340 (4,28)	0,000 (0,00)	0,000 (0,00)	2781,184	0,000	0,000
53	6	12	29,896 (4,26)	0,000 (0,00)	0,000 (0,00)	3702,577	0,000	0,000
54	4	6	30,992 (4,26)	0,000 (0,00)	0,000 (0,00)	3542,392	0,000	0,000
55	2	4	30,125 (4,26)	0,000 (0,00)	0,000 (0,00)	3384,227	0,000	0,000

56	13	14	5,132 (4,32)	[illegible] ([illegible])	0,000 (0,00)	201,102	0,000	0,000
57	14	15	5,136 (4,32)	[illegible] ([illegible])	0,000 (0,00)	185,808	0,000	0,000
58	16	17	1,834 (4,26)	[illegible] ([illegible])	0,000 (0,00)	237,618	0,000	0,000
59	17	18	1,541 (4,26)	[illegible] ([illegible])	0,000 (0,00)	222,353	0,000	0,000
60	19	20	5,193 (4,32)	[illegible] ([illegible])	0,000 (0,00)	203,406	0,000	0,000
61	21	21	5,296 (4,32)	[illegible] ([illegible])	0,000 (0,00)	189,207	0,000	0,000
62	22	23	1,747 (4,26)	[illegible] ([illegible])	0,000 (0,00)	235,932	0,000	0,000
63	23	24	1,752 (4,26)	[illegible] ([illegible])	0,000 (0,00)	221,763	0,000	0,000
64	25	26	2,902 (4,26)	[illegible] ([illegible])	0,000 (0,00)	205,923	0,000	0,000
65	26	27	2,909 (4,26)	[illegible] ([illegible])	0,000 (0,00)	192,587	0,000	0,000
66	28	29	1,529 (4,26)	[illegible] ([illegible])	0,000 (0,00)	235,225	0,000	0,000
67	29	30	1,533 (4,26)	[illegible] ([illegible])	0,000 (0,00)	221,923	0,000	0,000
68	31	32	3,517 (4,26)	[illegible] ([illegible])	0,000 (0,00)	316,675	0,000	0,000
69	32	33	3,524 (4,26)	[illegible] ([illegible])	0,000 (0,00)	298,466	0,000	0,000
70	34	35	1,660 (4,26)	[illegible] ([illegible])	0,000 (0,00)	354,000	0,000	0,000
71	35	36	1,663 (4,26)	[illegible] ([illegible])	0,000 (0,00)	335,838	0,000	0,000
72	37	38	1,492 (4,26)	[illegible] ([illegible])	0,000 (0,00)	217,524	0,000	0,000
73	38	39	1,494 (4,26)	[illegible] ([illegible])	0,000 (0,00)	206,605	0,000	0,000
74	40	41	0,618 (4,26)	[illegible] ([illegible])	0,000 (0,00)	236,187	0,000	0,000
75	41	42	0,619 (4,26)	[illegible] ([illegible])	0,000 (0,00)	227,295	0,000	0,000
76	43	44	0,944 (4,28)	[illegible] ([illegible])	0,000 (0,00)	338,892	0,000	0,000
77	44	45	0,946 (4,28)	[illegible] ([illegible])	0,000 (0,00)	324,312	0,000	0,000
78	46	47	0,273 (4,29)	[illegible] ([illegible])	0,000 (0,00)	364,281	0,000	0,000
79	47	48	0,273 (4,29)	[illegible] ([illegible])	0,000 (0,00)	349,746	0,000	0,000
80	49	50	0,352 (4,30)	[illegible] ([illegible])	0,000 (0,00)	236,588	0,000	0,000
81	50	51	0,352 (4,30)	[illegible] ([illegible])	0,000 (0,00)	228,089	0,000	0,000
82	52	53	0,273 (4,27)	[illegible] ([illegible])	0,000 (0,00)	250,323	0,000	0,000
83	53	54	0,273 (4,27)	[illegible] ([illegible])	0,000 (0,00)	241,852	0,000	0,000
84	55	56	1,207 (4,27)	[illegible] ([illegible])	0,000 (0,00)	374,676	0,000	0,000
85	56	57	1,208 (4,27)	[illegible] ([illegible])	0,000 (0,00)	363,720	0,000	0,000
86	58	59	0,773 (4,26)	[illegible] ([illegible])	0,000 (0,00)	391,568	0,000	0,000
87	59	60	0,774 (4,26)	[illegible] ([illegible])	0,000 (0,00)	380,654	0,000	0,000
88	61	62	0,913 (4,26)	[illegible] ([illegible])	0,000 (0,00)	223,081	0,000	0,000
89	63	64	0,541 (4,26)	[illegible] ([illegible])	0,000 (0,00)	230,961	0,000	0,000
90	65	66	1,376 (4,26)	[illegible] ([illegible])	0,000 (0,00)	364,729	0,000	0,000
91	67	68	0,793 (4,26)	[illegible] ([illegible])	0,000 (0,00)	375,883	0,000	0,000
92	69	70	0,759 (4,26)	[illegible] ([illegible])	0,000 (0,00)	263,538	0,000	0,000
93	71	72	0,428 (4,26)	[illegible] ([illegible])	0,000 (0,00)	270,322	0,000	0,000
94	73	74	0,571 (4,26)	[illegible] ([illegible])	0,000 (0,00)	278,233	0,000	0,000
95	75	76	0,314 (4,26)	[illegible] ([illegible])	0,000 (0,00)	283,956	0,000	0,000
96	9	11	109,931 (4,25)	0,000 (4,26)	0,000 (4,26)	-272,307	0,000	-0,001
97	9	10	18,851 (4,25)	25,893 (4,14)	0,417 (4,26)	26,400	-16,950	0,002

GUST ANALYSIS TIME [illegible]

INTOS MODIFIED MODEL .....RUN HH,DAMP=.006,V=-50.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	25.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	.84673	.83139	4.145	.99196	.527846	.378441
2	1.48967	1.42803	4.274	-3.04657	2.103153	4.667173
6	1.98920	1.94131	4.345	-.79875	.156817	.620516

FUNDAMENTAL FREQUENCIES – HH

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.46731E-01	8.08572E+00	7.420490
2	1.48967E+00	1.42254E+01	4.217804
3	1.75643E+00	1.67728E+01	3.577227
4	1.87682E+00	1.79224E+01	3.347771
5	1.97097E+00	1.88214E+01	3.187854
6	1.98920E+00	1.89956E+01	3.158627
7	2.06260E+00	1.96964E+01	3.046237
8	2.14123E+00	2.04473E+01	2.934373
9	2.17886E+00	2.08067E+01	2.883687
10	2.27274E+00	2.17031E+01	2.764577
11	2.35975E+00	2.25340E+01	2.662639
12	2.42643E+00	2.31708E+01	2.589469
13	2.56363E+00	2.44810E+01	2.450879
14	2.57891E+00	2.46269E+01	2.436359
15	2.62031E+00	2.50223E+01	2.397863
16	2.79159E+00	2.66578E+01	2.250746
17	2.85877E+00	2.72993E+01	2.197856
18	3.03129E+00	2.89468E+01	2.072766
19	3.06194E+00	2.92395E+01	2.052021
20	3.10921E+00	2.96909E+01	2.020820
21	3.27517E+00	3.12757E+01	1.918421
22	3.29426E+00	3.14580E+01	1.907305
23	4.41305E+00	4.21417E+01	1.423767
24	6.36110E+00	6.07443E+01	.987747
25	8.60544E+00	8.21763E+01	.730138
26	1.28689E+01	1.22890E+02	.488242
27	1.59212E+01	1.52037E+02	.394642
28	2.11503E+01	2.01972E+02	.297071
29	3.32719E+01	3.17725E+02	.188843
30	4.88132E+01	4.66134E+02	.128718
31	5.23003E+01	4.99434E+02	.120136
32	5.56265E+01	5.31196E+02	.112953
33	5.74739E+01	5.48838E+02	.109322
34	5.80965E+01	5.54783E+02	.108150
35	5.82889E+01	5.56621E+02	.107793
36	5.90570E+01	5.63956E+02	.106391
37	6.17806E+01	5.89964E+02	.101701
38	6.20032E+01	5.92090E+02	.101336
39	6.48838E+01	6.19597E+02	.096837
40	6.51549E+01	6.22186E+02	.096434
41	6.71680E+01	6.41410E+02	.093544
42	6.98220E+01	6.66754E+02	.089988
43	7.01952E+01	6.70317E+02	.089510
44	7.54113E+01	7.20128E+02	.083319
45	7.58762E+01	7.24568E+02	.082808
46	8.10992E+01	7.74444E+02	.077475
47	8.15701E+01	7.78940E+02	.077028
48	8.37511E+01	7.99768E+02	.075022
49	8.80213E+01	8.40546E+02	.071382
50	8.83898E+01	8.44065E+02	.071085
51	9.47191E+01	9.04505E+02	.066335
52	9.51066E+01	9.08205E+02	.066064

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

PCINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	2.20749 (4.27)	1.18080 (4.27)	.15214 (4.27)	.08138 (4.27)	5.00094	-2.70385
4	.50838 (4.27)	.28148 (4.27)	.03529 (4.28)	.01952 (4.28)	-5.67815	-3.00594
5	1.93423 (4.27)	1.04196 (4.27)	.13331 (4.27)	.07181 (4.27)	4.64297	-2.61247
6	.43301 (4.27)	.25054 (4.27)	.03010 (4.28)	.01738 (4.28)	-5.65093	-3.02076
7	1.71832 (4.15)	.01052 (4.17)	.03867 (4.15)	.00032 (4.23)	-.90725	-.32405
8	.24787 (4.27)	.00658 (4.27)	.01708 (4.27)	.00045 (4.27)	-.29288	-.33214
9	.14000 (4.27)	.00463 (4.27)	.00964 (4.27)	.00032 (4.27)	-.23335	-.32159
10	.12394 (4.27)	.00085 (4.28)	.00854 (4.27)	.00007 (4.31)	-.14644	-.30038
11	.22016 (4.27)	.00654 (4.27)	.01517 (4.27)	.00045 (4.27)	-.14220	-.33212
12	.11008 (4.27)	.00084 (4.28)	.00759 (4.27)	.00007 (4.31)	-.07109	-.30037
13	.14293 (4.27)	.00575 (4.27)	.00985 (4.27)	.00040 (4.27)	-.10128	-.30680
14	1.64010 (4.27)	.85226 (4.27)	.11306 (4.27)	.05875 (4.27)	4.61366	-2.47852
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.07147 (4.27)	.00079 (4.28)	.00493 (4.27)	.00006 (4.31)	-.05064	-.27917
17	.36237 (4.27)	.19700 (4.27)	.02498 (4.27)	.01358 (4.27)	-5.51094	-2.87394
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.10136 (4.27)	.00527 (4.27)	.00700 (4.27)	.00036 (4.27)	-.07723	-.29029
20	.91989 (4.28)	.51779 (4.28)	.06468 (4.28)	.03631 (4.28)	4.30408	-2.46073
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.05068 (4.27)	.00074 (4.28)	.00350 (4.27)	.00006 (4.31)	-.03862	-.26506
23	.24302 (4.27)	.14201 (4.27)	.01684 (4.28)	.00984 (4.28)	-5.06254	-2.82140
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.07294 (4.27)	.00492 (4.27)	.00505 (4.27)	.00034 (4.27)	-.06040	-.27662
26	.97978 (4.32)	.56733 (4.32)	.10495 (4.34)	.05993 (4.34)	4.04921	-2.44659
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.03647 (4.27)	.00071 (4.28)	.00252 (4.27)	.00005 (4.31)	-.03020	-.25322
29	.16880 (4.27)	.10498 (4.27)	.01179 (4.28)	.00733 (4.28)	-4.71040	-2.78307
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.04112 (4.28)	.00444 (4.27)	.00288 (4.28)	.00031 (4.27)	-.04113	-.25685
32	.31139 (4.28)	.20834 (4.28)	.02376 (4.30)	.01577 (4.30)	3.69798	-2.44741
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.02056 (4.28)	.00065 (4.28)	.00144 (4.28)	.00005 (4.31)	-.02056	-.23587
35	.09132 (4.28)	.06277 (4.28)	.00653 (4.28)	.00448 (4.28)	-4.23305	-2.75101
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.01792 (4.28)	.00399 (4.27)	.00132 (4.29)	.00027 (4.27)	-.02665	-.23549
38	.13855 (4.29)	.10425 (4.29)	.01090 (4.30)	.00814 (4.30)	3.31561	-2.43376
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.00896 (4.28)	.00058 (4.28)	.00066 (4.29)	.00004 (4.31)	-.01332	-.21684
41	.03806 (4.28)	.02919 (4.28)	.00295 (4.30)	.00225 (4.30)	-3.73565	-2.70238
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00455 (4.32)	.00355 (4.27)	.00049 (4.34)	.00024 (4.27)	-.01716	-.21362
44	.04925 (4.31)	.04198 (4.30)	.00458 (4.32)	.00388 (4.32)	2.93712	-2.43169
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00228 (4.32)	.00051 (4.28)	.00024 (4.34)	.00004 (4.31)	-.00858	-.19717
47	.01002 (4.34)	.00856 (4.34)	.00117 (4.34)	.00100 (4.34)	-3.25178	-2.66130
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00601 (4.29)	.00311 (4.27)	.00049 (4.31)	.00021 (4.27)	-.01156	-.19009
50	.01781 (4.34)	.01773 (4.34)	.00212 (4.34)	.00210 (4.34)	2.54013	-2.42416
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00300 (4.29)	.00044 (4.28)	.00025 (4.31)	.00003 (4.31)	-.00578	-.17583
53	.01316 (4.29)	.01350 (4.29)	.00107 (4.31)	.00109 (4.31)	-2.75717	-2.60737
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.00841 (4.28)	.00268 (4.27)	.00060 (4.28)	.00018 (4.27)	-.00894	-.16610
56	.02193 (4.29)	.02698 (4.29)	.00175 (4.30)	.00214 (4.30)	2.15125	-2.42419
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00420 (4.28)	.00037 (4.28)	.00030 (4.28)	.00003 (4.31)	-.00447	-.15392
59	.01599 (4.28)	.01973 (4.28)	.00114 (4.28)	.00140 (4.28)	-2.28564	-2.55656

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.00807 (4.27)	.00224 (4.27)	.00056 (4.28)	.00015 (4.27)	-.00806	-.14043
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00403 (4.27)	.00030 (4.28)	.00028 (4.28)	.00002 (4.31)	-.00403	-.13034
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.00634 (4.27)	.00180 (4.27)	.00044 (4.27)	.00012 (4.27)	-.00778	-.11442
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00317 (4.27)	.00024 (4.28)	.00022 (4.27)	.00002 (4.31)	-.00389	-.10635
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.00428 (4.27)	.00135 (4.27)	.00030 (4.27)	.00009 (4.27)	-.00729	-.08683
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00214 (4.27)	.00018 (4.28)	.00015 (4.27)	.00001 (4.31)	-.00364	-.08081
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00285 (4.27)	.00099 (4.27)	.00020 (4.27)	.00007 (4.27)	-.00630	-.06438
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00143 (4.27)	.00013 (4.28)	.00010 (4.27)	.00001 (4.31)	-.00315	-.05996
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00057 (4.27)	.00023 (4.27)	.00004 (4.28)	.00002 (4.27)	-.00181	-.01496
78	.00029 (4.27)	.00003 (4.28)	.00002 (4.28)	.00000 (4.31)	-.00090	-.01395
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.030 (4.17)	6.428 (4.15)	202.998 (4.34)	-26.157	-.001	-65.911
2	8	9	409.191 (4.27)	1.487 (4.27)	84.212 (4.15)	237.686	-.004	34.950
3	8	10	146.365 (4.27)	.000 (4.20)	.000 (4.20)	337.676	.000	-.000
4	8	11	1618.086 (4.27)	.001 (4.27)	.002 (4.27)	-780.594	.002	-.004
5	10	12	500.630 (4.27)	.000 (4.27)	.001 (4.27)	-766.094	.001	-.003
6	8	12	437.739 (4.27)	.000 (4.27)	.001 (4.27)	-227.366	.001	-.003
7	10	11	461.584 (4.27)	.000 (4.27)	.001 (4.27)	-934.295	.001	-.002
8	11	13	225.290 (4.27)	.003 (4.27)	1128.535 (4.27)	-7658.140	-.008	1064.846
9	12	16	16.070 (4.28)	.001 (4.27)	674.307 (4.27)	-6411.013	.012	-1938.074
10	13	19	222.250 (4.27)	1464.998 (4.27)	1994.704 (4.27)	-8132.368	1065.133	-1477.179
11	16	22	19.034 (4.28)	776.516 (4.27)	985.814 (4.27)	-6944.908	-1938.146	-13.263
12	19	25	214.934 (4.27)	2007.958 (4.27)	2245.198 (4.28)	-8511.579	-1477.152	-1090.089
13	22	28	22.518 (4.28)	988.665 (4.27)	1126.419 (4.28)	-7376.868	-13.284	-709.150
14	25	31	207.631 (4.27)	2254.545 (4.28)	2357.295 (4.27)	-8902.778	-1090.064	-1379.714
15	28	34	25.831 (4.28)	1129.741 (4.28)	1178.650 (4.27)	-7814.876	-709.169	-646.771
16	31	37	198.434 (4.27)	2362.559 (4.27)	2151.693 (4.27)	-9421.582	-1379.680	-1190.694
17	34	40	29.453 (4.28)	1179.528 (4.27)	1076.430 (4.27)	-8392.157	-646.796	-606.475
18	37	43	194.683 (4.27)	2151.648 (4.27)	1778.164 (4.27)	-9853.472	-1190.678	-1054.584
19	40	46	30.733 (4.28)	1075.736 (4.27)	889.311 (4.27)	-8855.492	-606.492	-524.871
20	43	49	192.572 (4.27)	1776.746 (4.27)	1277.756 (4.27)	-10375.136	-1054.561	-718.465
21	46	52	31.089 (4.28)	887.919 (4.27)	639.020 (4.27)	-9414.453	-524.892	-359.241
22	49	55	193.083 (4.27)	1275.330 (4.27)	772.803 (4.27)	-10806.328	-718.455	-463.725
23	52	58	30.548 (4.28)	637.549 (4.27)	386.540 (4.27)	-9864.742	-359.255	-232.633
24	55	61	195.442 (4.27)	770.148 (4.27)	367.428 (4.28)	-11320.051	-463.713	-117.552
25	58	63	29.138 (4.28)	384.930 (4.27)	183.714 (4.28)	-10400.293	-232.668	-57.794
26	61	65	197.084 (4.27)	366.458 (4.28)	82.369 (4.32)	-11715.312	-117.556	49.010
27	63	67	28.289 (4.28)	183.329 (4.28)	41.139 (4.32)	-10804.665	-57.798	23.559
28	65	69	199.156 (4.27)	82.178 (4.32)	100.430 (4.29)	-12165.289	49.007	229.891
29	67	71	27.246 (4.28)	41.119 (4.32)	50.218 (4.29)	-11265.569	23.556	115.618
30	69	73	200.046 (4.27)	100.087 (4.29)	119.110 (4.28)	-12506.987	229.888	317.316
31	71	75	26.816 (4.28)	49.996 (4.29)	59.586 (4.28)	-11612.375	115.616	157.977
32	73	77	200.550 (4.27)	119.464 (4.28)	28.684 (4.28)	-12915.130	317.315	201.274
33	75	78	26.586 (4.28)	59.695 (4.28)	14.324 (4.28)	-12023.709	157.976	101.238
34	77	79	200.557 (4.27)	27.898 (4.28)	.012 (4.28)	-13195.806	201.274	.000
35	78	80	26.587 (4.28)	13.958 (4.28)	.006 (4.28)	-12304.248	101.238	.000
36	11	12	219.653 (4.27)	.004 (4.27)	.004 (4.27)	1752.285	.008	-.009
37	13	16	1.741 (4.28)	.003 (4.27)	.003 (4.27)	25.144	.007	-.007
38	19	22	1.545 (4.27)	.003 (4.27)	.003 (4.27)	170.577	.006	-.006
39	25	28	1.905 (4.34)	.002 (4.27)	.002 (4.27)	88.300	.006	-.006
40	31	34	.336 (4.29)	.001 (4.27)	.001 (4.27)	180.938	.006	-.006
41	37	40	.392 (4.27)	.001 (4.27)	.001 (4.27)	128.844	.005	-.005
42	43	46	.525 (4.27)	.000 (4.24)	.000 (4.24)	217.316	.005	-.005
43	49	52	.366 (4.27)	.000 (4.27)	.000 (4.27)	163.711	.005	-.005
44	55	58	.482 (4.27)	.001 (4.27)	.001 (4.27)	280.886	.004	-.004
45	61	63	.250 (4.28)	.001 (4.27)	.001 (4.27)	183.082	.003	-.003
46	65	67	.307 (4.28)	.001 (4.27)	.001 (4.27)	321.406	.003	-.003
47	69	71	.147 (4.28)	.001 (4.27)	.001 (4.27)	246.740	.002	-.002
48	73	75	.086 (4.28)	.000 (4.27)	.000 (4.27)	269.905	.001	-.001
49	77	78	.003 (4.28)	.000 (4.27)	.000 (4.27)	.033	.000	-.000
50	5	11	18.465 (4.28)	0.000 (0.00)	0.000 (0.00)	2785.744	0.000	0.000
51	3	5	17.557 (4.29)	0.000 (0.00)	0.000 (0.00)	2625.218	0.000	0.000
52	1	3	17.140 (4.29)	0.000 (0.00)	0.000 (0.00)	2466.547	0.000	0.000
53	6	12	118.830 (4.27)	0.000 (0.00)	0.000 (0.00)	3857.311	0.000	0.000
54	4	6	119.387 (4.27)	0.000 (0.00)	0.000 (0.00)	3697.195	0.000	0.000
55	2	4	119.479 (4.27)	0.000 (0.00)	0.000 (0.00)	3539.121	0.000	0.000
56	13	14	4.217 (4.28)	0.000 (0.00)	0.000 (0.00)	182.049	0.000	0.000
57	14	15	4.257 (4.28)	0.000 (0.00)	0.000 (0.00)	166.741	0.000	0.000
58	16	17	6.677 (4.27)	0.000 (0.00)	0.000 (0.00)	246.960	0.000	0.000
59	17	18	6.696 (4.27)	0.000 (0.00)	0.000 (0.00)	231.702	0.000	0.000

60	19	20	9.206 (4.28)	0.000 (0.00)	0.000 (0.00)	186.532	0.000	0.000
61	20	21	9.235 (4.28)	0.000 (0.00)	0.000 (0.00)	172.319	0.000	0.000
62	22	23	5.823 (4.27)	0.000 (0.00)	0.000 (0.00)	244.306	0.000	0.000
63	23	24	5.837 (4.27)	0.000 (0.00)	0.000 (0.00)	230.143	0.000	0.000
64	25	26	15.930 (4.33)	0.000 (0.00)	0.000 (0.00)	190.790	0.000	0.000
65	26	27	15.940 (4.33)	0.000 (0.00)	0.000 (0.00)	177.441	0.000	0.000
66	28	29	4.863 (4.27)	0.000 (0.00)	0.000 (0.00)	242.813	0.000	0.000
67	29	30	4.873 (4.27)	0.000 (0.00)	0.000 (0.00)	229.516	0.000	0.000
68	31	32	11.203 (4.27)	0.000 (0.00)	0.000 (0.00)	297.541	0.000	0.000
69	32	33	11.221 (4.27)	0.000 (0.00)	0.000 (0.00)	279.311	0.000	0.000
70	34	35	4.978 (4.27)	0.000 (0.00)	0.000 (0.00)	363.766	0.000	0.000
71	35	36	4.987 (4.27)	0.000 (0.00)	0.000 (0.00)	345.614	0.000	0.000
72	37	38	4.701 (4.27)	0.000 (0.00)	0.000 (0.00)	207.014	0.000	0.000
73	38	39	4.708 (4.27)	0.000 (0.00)	0.000 (0.00)	196.083	0.000	0.000
74	40	41	1.690 (4.28)	0.000 (0.00)	0.000 (0.00)	243.662	0.000	0.000
75	41	42	1.692 (4.28)	0.000 (0.00)	0.000 (0.00)	232.782	0.000	0.000
76	43	44	2.913 (4.29)	0.000 (0.00)	0.000 (0.00)	326.083	0.000	0.000
77	44	45	2.917 (4.29)	0.000 (0.00)	0.000 (0.00)	311.480	0.000	0.000
78	46	47	.573 (4.33)	0.000 (0.00)	0.000 (0.00)	371.131	0.000	0.000
79	47	48	.574 (4.33)	0.000 (0.00)	0.000 (0.00)	356.605	0.000	0.000
80	49	50	1.049 (4.32)	0.000 (0.00)	0.000 (0.00)	229.719	0.000	0.000
81	50	51	1.051 (4.32)	0.000 (0.00)	0.000 (0.00)	221.204	0.000	0.000
82	52	53	1.078 (4.28)	0.000 (0.00)	0.000 (0.00)	254.100	0.000	0.000
83	53	54	1.079 (4.28)	0.000 (0.00)	0.000 (0.00)	245.637	0.000	0.000
84	55	56	3.704 (4.28)	0.000 (0.00)	0.000 (0.00)	366.289	0.000	0.000
85	56	57	3.707 (4.28)	0.000 (0.00)	0.000 (0.00)	355.312	0.000	0.000
86	58	59	2.713 (4.28)	0.000 (0.00)	0.000 (0.00)	396.298	0.000	0.000
87	59	60	2.715 (4.28)	0.000 (0.00)	0.000 (0.00)	385.396	0.000	0.000
88	61	62	2.773 (4.28)	0.000 (0.00)	0.000 (0.00)	218.991	0.000	0.000
89	63	64	1.800 (4.27)	0.000 (0.00)	0.000 (0.00)	233.007	0.000	0.000
90	65	66	4.144 (4.27)	0.000 (0.00)	0.000 (0.00)	358.903	0.000	0.000
91	67	68	2.588 (4.27)	0.000 (0.00)	0.000 (0.00)	378.795	0.000	0.000
92	69	70	2.271 (4.27)	0.000 (0.00)	0.000 (0.00)	259.985	0.000	0.000
93	71	72	1.372 (4.27)	0.000 (0.00)	0.000 (0.00)	272.097	0.000	0.000
94	73	74	1.703 (4.27)	0.000 (0.00)	0.000 (0.00)	275.226	0.000	0.000
95	75	76	.992 (4.27)	0.000 (0.00)	0.000 (0.00)	285.456	0.000	0.000
96	9	11	482.884 (4.27)	.000 (4.27)	.000 (4.27)	-353.044	.000	-.001
97	9	10	78.227 (4.27)	82.495 (4.15)	1.453 (4.27)	45.358	-30.959	.003

GUST ANALYSIS TIME 184.510 SEC.

INTOS MODIFIED MODEL ....RUN XX,DAMP=.006,V=-62.5

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	25.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	1.38754	1.33976	4.259	-6.62212	3.937957	7.581669
6	1.99786	1.92043	4.342	-2.25781	.949122	3.788368

FUNDAMENTAL FREQUENCIES -XX

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.47027E-01	8.08855E+00	7.417897
2	1.38754E+00	1.32501E+01	4.528255
3	1.61734E+00	1.54446E+01	3.884863
4	1.75103E+00	1.67212E+01	3.588256
5	1.87144E+00	1.78710E+01	3.357396
6	1.99786E+00	1.90782E+01	3.144943
7	2.04592E+00	1.95372E+01	3.071068
8	2.11088E+00	2.01575E+01	2.976555
9	2.21794E+00	2.11799E+01	2.832879
10	2.27292E+00	2.17049E+01	2.764351
11	2.32065E+00	2.21606E+01	2.707503
12	2.37012E+00	2.26331E+01	2.650982
13	2.45424E+00	2.34364E+01	2.560122
14	2.50746E+00	2.39446E+01	2.505788
15	2.64900E+00	2.52962E+01	2.371900
16	2.77707E+00	2.65191E+01	2.262516
17	2.84622E+00	2.71795E+01	2.207545
18	3.03496E+00	2.89819E+01	2.070259
19	3.08916E+00	2.94994E+01	2.033939
20	3.13993E+00	2.99842E+01	2.001051
21	3.29422E+00	3.14576E+01	1.907329
22	3.30962E+00	3.16047E+01	1.898453
23	4.61785E+00	4.40974E+01	1.360625
24	6.40383E+00	6.11523E+01	.981157
25	8.58576E+00	8.19884E+01	.731811
26	1.28540E+01	1.22748E+02	.488808
27	1.59135E+01	1.51964E+02	.394832
28	2.11378E+01	2.01852E+02	.297248
29	3.32596E+01	3.17607E+02	.188913
30	4.88001E+01	4.66009E+02	.128753
31	5.22955E+01	4.99388E+02	.120147
32	5.55649E+01	5.30608E+02	.113078
33	5.72682E+01	5.46873E+02	.109715
34	5.78047E+01	5.51997E+02	.108696
35	5.83307E+01	5.57020E+02	.107716
36	5.89595E+01	5.63025E+02	.106567
37	6.14903E+01	5.87192E+02	.102181
38	6.20741E+01	5.92767E+02	.101220
39	6.46333E+01	6.17205E+02	.097212
40	6.52071E+01	6.22685E+02	.096357
41	6.71657E+01	6.41388E+02	.093547
42	6.95426E+01	6.64086E+02	.090350
43	7.03164E+01	6.71475E+02	.089355
44	7.51461E+01	7.17596E+02	.083613
45	7.60090E+01	7.25836E+02	.082663
46	8.09345E+01	7.72871E+02	.077633
47	8.15999E+01	7.79225E+02	.077000
48	8.37595E+01	7.99848E+02	.075014
49	8.78114E+01	8.38541E+02	.071553
50	8.84822E+01	8.44947E+02	.071010
51	9.45683E+01	9.03065E+02	.066440
52	9.51354E+01	9.08480E+02	.066044

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

PCINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	4.31862 (4.26)	2.29559 (4.26)	.25950 (4.26)	.13780 (4.26)	4.64954	-2.53968
4	.98935 (4.31)	.53801 (4.31)	.09856 (4.33)	-.05261 (4.33)	-5.79921	-3.06009
5	3.79680 (4.26)	2.02449 (4.26)	.23058 (4.26)	.12241 (4.26)	4.11357	-2.38190
6	.87264 (4.31)	.48201 (4.31)	.08916 (4.33)	-.04721 (4.33)	-5.81935	-3.08788
7	.16004 (4.26)	.00711 (4.30)	.00966 (4.26)	.00068 (4.33)	-1.40115	-.32989
8	.40695 (4.26)	.01157 (4.27)	.02546 (4.27)	.00080 (4.29)	-.44725	-.34291
9	.22478 (4.26)	.00958 (4.28)	.01415 (4.27)	.00075 (4.31)	-.35572	-.32688
10	.20349 (4.26)	.00683 (4.33)	.01273 (4.27)	.00076 (4.34)	-.22363	-.29465
11	.37018 (4.26)	.01151 (4.27)	.02303 (4.27)	.00080 (4.29)	-.21826	-.34289
12	.18510 (4.26)	.00683 (4.33)	.01151 (4.27)	.00076 (4.34)	-.10912	-.29464
13	.23939 (4.26)	.01013 (4.27)	.01493 (4.27)	.00071 (4.29)	-.15567	-.31615
14	3.10667 (4.26)	1.60468 (4.26)	.18702 (4.26)	.09645 (4.26)	4.14365	-2.26289
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.11971 (4.26)	.00616 (4.33)	.00747 (4.27)	.00068 (4.34)	-.07784	-.27419
17	.87516 (4.32)	.45583 (4.32)	.09590 (4.34)	.04901 (4.34)	-5.66202	-2.94000
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.16903 (4.26)	.00930 (4.27)	.01057 (4.27)	.00065 (4.30)	-.11880	-.29880
20	1.61194 (4.26)	.90376 (4.26)	.10042 (4.27)	.05590 (4.27)	3.92481	-2.27418
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.08452 (4.26)	.00573 (4.33)	.00529 (4.27)	.00063 (4.34)	-.05940	-.26052
23	.45934 (4.31)	.26279 (4.31)	.04517 (4.33)	.02522 (4.33)	-5.19424	-2.88380
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.12102 (4.26)	.00866 (4.27)	.00760 (4.27)	.00061 (4.30)	-.09299	-.28451
26	1.07222 (4.28)	.63755 (4.28)	.08023 (4.30)	.04653 (4.30)	3.73091	-2.27994
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.06052 (4.26)	.00538 (4.33)	.00380 (4.27)	.00060 (4.34)	-.04649	-.24901
29	.30294 (4.30)	.18564 (4.30)	.02875 (4.33)	.01723 (4.33)	-4.82812	-2.84293
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.06740 (4.26)	.00782 (4.27)	.00428 (4.27)	.00055 (4.30)	-.06347	-.26393
32	.59131 (4.29)	.38930 (4.29)	.05132 (4.32)	.03302 (4.32)	3.45449	-2.30631
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.03371 (4.26)	.00489 (4.32)	.00214 (4.27)	.00054 (4.34)	-.03174	-.23210
35	.16484 (4.31)	.11174 (4.30)	.01598 (4.33)	.01064 (4.33)	-4.33210	-2.80735
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.02831 (4.27)	.00701 (4.27)	.00185 (4.28)	.00050 (4.30)	-.04132	-.24178
38	.20839 (4.26)	.15756 (4.26)	.01322 (4.27)	.00995 (4.27)	3.13527	-2.31673
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.01416 (4.27)	.00439 (4.33)	.00093 (4.28)	.00049 (4.34)	-.02066	-.21349
41	.07802 (4.32)	.05868 (4.32)	.00853 (4.34)	.00635 (4.34)	-3.81671	-2.75448
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00435 (4.29)	.00624 (4.27)	.00038 (4.32)	.00044 (4.30)	-.02683	-.21916
44	.05960 (4.26)	.05134 (4.26)	.00359 (4.26)	.00309 (4.26)	2.81007	-2.33815
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00218 (4.29)	.00390 (4.33)	.00019 (4.32)	.00043 (4.34)	-.01341	-.19423
47	.03685 (4.34)	.03124 (4.34)	.00456 (4.34)	.00386 (4.34)	-3.31555	-2.70818
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00931 (4.26)	.00547 (4.27)	.00056 (4.26)	.00039 (4.30)	-.01827	-.19490
50	.01903 (4.32)	.01914 (4.32)	.00208 (4.34)	.00205 (4.34)	2.45842	-2.35499
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00465 (4.26)	.00340 (4.33)	.00028 (4.26)	.00038 (4.34)	-.00913	-.17327
53	.03106 (4.30)	.03162 (4.29)	.00277 (4.32)	.00278 (4.32)	-2.80401	-2.64736
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.01376 (4.26)	.00471 (4.27)	.00084 (4.26)	.00033 (4.30)	-.01426	-.17020
56	.03677 (4.28)	.04519 (4.28)	.00283 (4.31)	.00343 (4.31)	2.10501	-2.37898
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00688 (4.26)	.00291 (4.33)	.00042 (4.26)	.00032 (4.34)	-.00713	-.15175
59	.02983 (4.27)	.03683 (4.27)	.00203 (4.29)	.00249 (4.29)	-2.31735	-2.58842

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.01323 (4.26)	.00393 (4.27)	.00082 (4.27)	.00028 (4.30)	-.01288	-.14383
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00662 (4.26)	.00242 (4.33)	.00041 (4.27)	.00027 (4.34)	-.00644	-.12854
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.01035 (4.26)	.00316 (4.27)	.00064 (4.27)	.00022 (4.30)	-.01239	-.11713
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00517 (4.26)	.00194 (4.33)	.00032 (4.27)	.00022 (4.34)	-.00619	-.10491
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.00695 (4.26)	.00237 (4.27)	.00044 (4.27)	.00017 (4.30)	-.01155	-.08886
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00347 (4.26)	.00145 (4.33)	.00022 (4.27)	.00016 (4.34)	-.00577	-.07973
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00460 (4.26)	.00174 (4.27)	.00029 (4.27)	.00012 (4.30)	-.00995	-.06587
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00230 (4.26)	.00106 (4.33)	.00015 (4.27)	.00012 (4.34)	-.00497	-.05917
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00091 (4.26)	.00040 (4.27)	.00006 (4.28)	.00003 (4.30)	-.00285	-.01530
78	.00046 (4.26)	.00024 (4.33)	.00003 (4.28)	.00003 (4.34)	-.00142	-.01377
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.025 (4.29)	1.557 (4.26)	[illegible] (4.26)	-26.154	-.001	-102.788
2	8	9	812.589 (4.27)	2.887 (4.26)	21.789 (4.26)	332.713	-.006	53.817
3	8	10	289.452 (4.27)	.000 (4.27)	.000 (4.27)	419.334	.000	-.000
4	8	11	3286.900 (4.27)	.002 (4.26)	.004 (4.26)	-892.226	.003	-.007
5	10	12	969.875 (4.27)	.001 (4.26)	.002 (4.26)	-511.638	.002	-.004
6	8	12	908.552 (4.27)	.001 (4.26)	.002 (4.26)	-63.972	.002	-.004
7	10	11	893.966 (4.27)	.001 (4.26)	.002 (4.26)	-1181.793	.002	-.003
8	11	13	386.507 (4.27)	.005 (4.26)	1960.464 (4.27)	-8090.714	-.006	700.862
9	12	16	198.330 (4.33)	.002 (4.31)	1199.423 (4.26)	-6184.710	.012	-2045.997
10	13	19	385.050 (4.27)	2510.170 (4.26)	3431.027 (4.26)	-8542.071	701.241	-2000.372
11	16	22	210.062 (4.33)	1338.475 (4.26)	1693.886 (4.26)	-6729.416	-2046.028	-296.581
12	19	25	375.240 (4.27)	3450.210 (4.26)	3833.200 (4.26)	-8901.282	-2000.341	-1740.601
13	22	28	215.606 (4.33)	1697.928 (4.26)	1923.935 (4.26)	-7171.013	-296.601	-1029.465
14	25	31	365.987 (4.27)	3850.224 (4.26)	3998.326 (4.26)	-9274.857	-1740.571	-2104.428
15	28	34	219.116 (4.33)	1928.815 (4.26)	1999.532 (4.26)	-7617.648	-1029.484	-1010.439
16	31	37	349.144 (4.27)	4007.751 (4.26)	3629.942 (4.26)	-9771.912	-2104.390	-1828.344
17	34	40	221.549 (4.32)	2000.273 (4.26)	1816.060 (4.26)	-8205.852	-1010.463	-924.951
18	37	43	343.330 (4.27)	3629.607 (4.26)	2976.971 (4.26)	-10192.210	-1828.327	-1611.699
19	40	46	221.823 (4.32)	1814.630 (4.26)	1488.818 (4.26)	-8675.177	-924.969	-803.540
20	43	49	340.266 (4.27)	2974.344 (4.26)	2119.538 (4.26)	-10700.278	-1611.676	-1093.724
21	46	52	220.720 (4.32)	1486.277 (4.26)	1059.960 (4.26)	-9241.397	-803.562	-546.860
22	49	55	341.077 (4.27)	2115.311 (4.26)	1261.994 (4.26)	-11124.547	-1093.715	-704.137
23	52	58	219.447 (4.32)	1057.441 (4.26)	631.182 (4.26)	-9695.510	-546.875	-352.870
24	55	61	344.512 (4.27)	1257.422 (4.26)	581.549 (4.27)	-11630.421	-704.125	-171.641
25	58	63	217.287 (4.32)	628.456 (4.26)	290.743 (4.27)	-10235.542	-352.886	-84.855
26	61	65	346.807 (4.27)	579.922 (4.27)	80.847 (4.30)	-12022.259	-171.647	79.669
27	63	67	216.241 (4.33)	290.139 (4.27)	40.352 (4.30)	-10641.710	-84.861	38.867
28	65	69	349.646 (4.27)	80.660 (4.30)	158.826 (4.26)	-12468.121	79.664	358.190
29	67	71	215.101 (4.33)	40.413 (4.30)	79.423 (4.26)	-11104.781	38.862	179.754
30	69	73	350.853 (4.27)	158.320 (4.26)	196.590 (4.26)	-12807.867	358.186	492.982
31	71	75	214.701 (4.33)	79.048 (4.26)	98.366 (4.26)	-11452.621	179.751	245.799
32	73	77	351.537 (4.27)	197.215 (4.26)	47.470 (4.26)	-13214.775	492.981	314.195
33	75	78	214.531 (4.33)	98.528 (4.26)	23.696 (4.26)	-11864.615	245.797	157.694
34	77	79	351.549 (4.27)	46.142 (4.26)	.021 (4.26)	-13495.450	314.194	.000
35	78	80	214.541 (4.33)	23.101 (4.26)	.009 (4.26)	-12145.154	157.694	.000
36	11	12	442.557 (4.26)	.007 (4.26)	.007 (4.26)	1759.039	.013	-.014
37	13	16	5.787 (4.31)	.006 (4.26)	.006 (4.26)	27.957	.010	-.010
38	19	22	6.082 (4.32)	.005 (4.26)	.005 (4.26)	169.173	.009	-.009
39	25	28	1.248 (4.26)	.004 (4.26)	.004 (4.26)	89.510	.009	-.009
40	31	34	1.622 (4.32)	.003 (4.26)	.003 (4.26)	181.747	.008	-.008
41	37	40	1.022 (4.28)	.002 (4.26)	.002 (4.26)	129.479	.008	-.008
42	43	46	1.396 (4.28)	.000 (4.26)	.000 (4.26)	218.247	.007	-.007
43	49	52	.970 (4.29)	.000 (4.28)	.000 (4.28)	164.330	.007	-.007
44	55	58	1.345 (4.30)	.001 (4.27)	.001 (4.27)	281.807	.006	-.006
45	61	63	.719 (4.30)	.001 (4.26)	.001 (4.26)	183.450	.005	-.005
46	65	67	.888 (4.30)	.001 (4.26)	.001 (4.26)	321.894	.004	-.004
47	69	71	.420 (4.30)	.001 (4.26)	.001 (4.26)	247.027	.003	-.003
48	73	75	.247 (4.30)	.001 (4.27)	.001 (4.27)	270.166	.002	-.002
49	77	78	.007 (4.26)	.000 (4.27)	.000 (4.27)	.040	-.000	.000
50	5	11	237.274 (4.33)	0.000 (0.00)	0.000 (0.00)	2375.583	0.000	0.000
51	3	5	237.200 (4.33)	0.000 (0.00)	0.000 (0.00)	2214.924	0.000	0.000
52	1	3	236.821 (4.33)	0.000 (0.00)	0.000 (0.00)	2056.003	0.000	0.000
53	6	12	272.674 (4.29)	0.000 (0.00)	0.000 (0.00)	4050.845	0.000	0.000
54	4	6	273.086 (4.29)	0.000 (0.00)	0.000 (0.00)	3890.808	0.000	0.000
55	2	4	273.233 (4.29)	0.000 (0.00)	0.000 (0.00)	3732.844	0.000	0.000
56	13	14	10.478 (4.32)	0.000 (0.00)	0.000 (0.00)	157.206	0.000	0.000
57	14	15	10.521 (4.32)	0.000 (0.00)	0.000 (0.00)	141.880	0.000	0.000
58	16	17	14.685 (4.29)	0.000 (0.00)	0.000 (0.00)	258.666	0.000	0.000
59	17	18	14.700 (4.29)	0.000 (0.00)	0.000 (0.00)	243.418	0.000	0.000

60	19	20	17.526 (4.29)	0.000 (0.00)	0.000 (0.00)	164.645	0.000	0.000
61	20	21	17.567 (4.29)	0.000 (0.00)	0.000 (0.00)	150.413	0.000	0.000
62	22	23	10.197 (4.26)	0.000 (0.00)	0.000 (0.00)	254.811	0.000	0.000
63	23	24	10.214 (4.26)	0.000 (0.00)	0.000 (0.00)	240.658	0.000	0.000
64	25	26	19.418 (4.29)	0.000 (0.00)	0.000 (0.00)	171.237	0.000	0.000
65	26	27	19.447 (4.29)	0.000 (0.00)	0.000 (0.00)	157.870	0.000	0.000
66	28	29	8.075 (4.26)	0.000 (0.00)	0.000 (0.00)	252.348	0.000	0.000
67	29	30	8.088 (4.26)	0.000 (0.00)	0.000 (0.00)	239.061	0.000	0.000
68	31	32	20.102 (4.27)	0.000 (0.00)	0.000 (0.00)	272.931	0.000	0.000
69	32	33	20.126 (4.27)	0.000 (0.00)	0.000 (0.00)	254.673	0.000	0.000
70	34	35	7.888 (4.26)	0.000 (0.00)	0.000 (0.00)	376.075	0.000	0.000
71	35	36	7.900 (4.26)	0.000 (0.00)	0.000 (0.00)	357.938	0.000	0.000
72	37	38	7.836 (4.26)	0.000 (0.00)	0.000 (0.00)	193.544	0.000	0.000
73	38	39	7.845 (4.26)	0.000 (0.00)	0.000 (0.00)	182.594	0.000	0.000
74	40	41	2.571 (4.28)	0.000 (0.00)	0.000 (0.00)	250.595	0.000	0.000
75	41	42	2.575 (4.28)	0.000 (0.00)	0.000 (0.00)	239.725	0.000	0.000
76	43	44	4.301 (4.26)	0.000 (0.00)	0.000 (0.00)	309.691	0.000	0.000
77	44	45	4.305 (4.26)	0.000 (0.00)	0.000 (0.00)	295.059	0.000	0.000
78	46	47	1.700 (4.34)	0.000 (0.00)	0.000 (0.00)	379.840	0.000	0.000
79	47	48	1.704 (4.34)	0.000 (0.00)	0.000 (0.00)	365.329	0.000	0.000
80	49	50	1.444 (4.28)	0.000 (0.00)	0.000 (0.00)	220.920	0.000	0.000
81	50	51	1.446 (4.28)	0.000 (0.00)	0.000 (0.00)	212.387	0.000	0.000
82	52	53	2.347 (4.27)	0.000 (0.00)	0.000 (0.00)	258.932	0.000	0.000
83	53	54	2.350 (4.27)	0.000 (0.00)	0.000 (0.00)	250.479	0.000	0.000
84	55	56	6.221 (4.27)	0.000 (0.00)	0.000 (0.00)	355.519	0.000	0.000
85	56	57	6.226 (4.27)	0.000 (0.00)	0.000 (0.00)	344.513	0.000	0.000
86	58	59	5.098 (4.26)	0.000 (0.00)	0.000 (0.00)	402.395	0.000	0.000
87	59	60	5.101 (4.26)	0.000 (0.00)	0.000 (0.00)	391.508	0.000	0.000
88	61	62	4.629 (4.27)	0.000 (0.00)	0.000 (0.00)	213.746	0.000	0.000
89	63	64	3.165 (4.26)	0.000 (0.00)	0.000 (0.00)	235.686	0.000	0.000
90	65	66	6.830 (4.27)	0.000 (0.00)	0.000 (0.00)	351.388	0.000	0.000
91	67	68	4.453 (4.26)	0.000 (0.00)	0.000 (0.00)	382.613	0.000	0.000
92	69	70	3.696 (4.27)	0.000 (0.00)	0.000 (0.00)	255.386	0.000	0.000
93	71	72	2.315 (4.26)	0.000 (0.00)	0.000 (0.00)	274.421	0.000	0.000
94	73	74	2.747 (4.27)	0.000 (0.00)	0.000 (0.00)	271.332	0.000	0.000
95	75	76	1.646 (4.26)	0.000 (0.00)	0.000 (0.00)	287.417	0.000	0.000
96	9	11	955.307 (4.27)	.000 (4.26)	.001 (4.26)	-473.968	.001	-.002
97	9	10	150.548 (4.27)	20.160 (4.26)	2.777 (4.26)	72.446	-48.968	.005

GLST ANALYSIS TIME 126.681 SEC.

INTOS MODIFIED MODEL .....RUN FF,DAMP=.006,V=-75.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	15.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	1.22795	1.19417	4.232	-13.86271	7.318442	11.035139
4	1.57121	1.53445	4.290	-2.18615	.637627	1.573617
7	2.00804	1.94442	4.345	-11.00270	1.804026	7.274253
8	2.10286	2.03335	4.355	9.93768	1.063725	4.703796

FUNDAMENTAL FREQUENCIES -FF

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.47414E-01	8.09225E+00	7.414503
2	1.22795E+00	1.17261E+01	5.116798
3	1.41194E+00	1.34831E+01	4.450006
4	1.57121E+00	1.50040E+01	3.998926
5	1.70980E+00	1.63275E+01	3.674791
6	1.91071E+00	1.82460E+01	3.288387
7	2.00804E+00	1.91755E+01	3.128996
8	2.10286E+00	2.00809E+01	2.987916
9	2.15535E+00	2.05821E+01	2.915151
10	2.16733E+00	2.06966E+01	2.899034
11	2.27173E+00	2.16936E+01	2.765798
12	2.36448E+00	2.25793E+01	2.657306
13	2.40403E+00	2.29569E+01	2.613597
14	2.51463E+00	2.40131E+01	2.498636
15	2.68214E+00	2.56127E+01	2.342591
16	2.71635E+00	2.59394E+01	2.313087
17	2.87673E+00	2.74709E+01	2.184129
18	2.98907E+00	2.85436E+01	2.102047
19	3.11309E+00	2.97280E+01	2.018301
20	3.22539E+00	3.08003E+01	1.948033
21	3.30588E+00	3.15690E+01	1.900597
22	3.33640E+00	3.18604E+01	1.883214
23	4.93984E+00	4.71722E+01	1.271936
24	6.51399E+00	6.22043E+01	.964563
25	8.56148E+00	8.17565E+01	.733887
26	1.28367E+01	1.22582E+02	.489466
27	1.58996E+01	1.51831E+02	.395177
28	2.11230E+01	2.01710E+02	.297456
29	3.32447E+01	3.17465E+02	.188997
30	4.87841E+01	4.65856E+02	.128795
31	5.22897E+01	4.99332E+02	.120160
32	5.54036E+01	5.29068E+02	.113407
33	5.68279E+01	5.42669E+02	.110565
34	5.73748E+01	5.47892E+02	.109511
35	5.85587E+01	5.59197E+02	.107297
36	5.87943E+01	5.61447E+02	.106867
37	6.10617E+01	5.83099E+02	.102899
38	6.23334E+01	5.95243E+02	.100799
39	6.42265E+01	6.13321E+02	.097828
40	6.54291E+01	6.24805E+02	.096030
41	6.71935E+01	6.41653E+02	.093508
42	6.91269E+01	6.60116E+02	.090893
43	7.05932E+01	6.74119E+02	.089005
44	7.47499E+01	7.13812E+02	.084056
45	7.62673E+01	7.28302E+02	.082383
46	8.06263E+01	7.69928E+02	.077929
47	8.17206E+01	7.80378E+02	.076886
48	8.37918E+01	8.00157E+02	.074985
49	8.75012E+01	8.35579E+02	.071807
50	8.86281E+01	8.46340E+02	.070894
51	9.43340E+01	9.00828E+02	.066605
52	9.51908E+01	9.09010E+02	.066006

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	STATIC DISPLACEMENTS X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	8.38678 (4.24)	4.42407 (4.24)	.42437 (4.26)	.22422 (4.26)	4.03238	-2.24107
4	1.49064 (4.32)	.80881 (4.32)	.16454 (4.34)	.08765 (4.34)	-5.94661	-3.12668
5	7.49820 (4.24)	3.93551 (4.24)	.41572 (4.28)	.21186 (4.28)	3.19783	-1.96232
6	1.32386 (4.33)	.72599 (4.32)	.14934 (4.34)	.07862 (4.34)	-6.01894	-3.16803
7	.32853 (4.23)	.01025 (4.32)	.01566 (4.24)	.00112 (4.34)	-1.99997	-.33696
8	.60303 (4.24)	.01716 (4.25)	.03403 (4.28)	.00106 (4.30)	-.62672	-.35571
9	.32450 (4.25)	.01539 (4.27)	.01859 (4.29)	.00111 (4.32)	-.50060	-.33298
10	.30153 (4.24)	.01296 (4.31)	.01701 (4.28)	.00131 (4.34)	-.31336	-.28729
11	.56350 (4.24)	.01707 (4.25)	.03134 (4.28)	.00106 (4.30)	-.30214	-.35567
12	.28177 (4.24)	.01295 (4.31)	.01567 (4.28)	.00131 (4.34)	-.15106	-.28729
13	.35960 (4.24)	.01499 (4.25)	.01992 (4.28)	.00096 (4.31)	-.21580	-.32723
14	5.35818 (4.23)	2.75225 (4.23)	.25332 (4.24)	.12973 (4.23)	3.33881	-1.88332
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.17982 (4.24)	.01168 (4.31)	.00996 (4.28)	.00118 (4.34)	-.10790	-.26779
17	1.32587 (4.34)	.68811 (4.33)	.15777 (4.35)	.08051 (4.35)	-5.84126	-3.01867
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.25056 (4.24)	.01374 (4.26)	.01380 (4.28)	.00089 (4.31)	-.16472	-.30891
20	4.15116 (4.27)	2.24659 (4.27)	.28503 (4.28)	.15253 (4.28)	3.30744	-1.96308
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.12529 (4.24)	.01085 (4.31)	.00690 (4.28)	.00109 (4.34)	-.08236	-.25468
23	.66495 (4.32)	.37908 (4.32)	.07248 (4.34)	.04031 (4.34)	-5.35057	-2.95809
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.17681 (4.24)	.01280 (4.26)	.00966 (4.28)	.00084 (4.31)	-.12902	-.29388
26	1.45934 (4.24)	.87462 (4.24)	.08066 (4.28)	.04707 (4.27)	3.23151	-2.01285
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.08841 (4.24)	.01019 (4.31)	.00483 (4.28)	.00103 (4.34)	-.06451	-.24358
29	.42313 (4.32)	.25870 (4.31)	.04451 (4.34)	.02653 (4.34)	-4.96779	-2.91409
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.09552 (4.24)	.01157 (4.26)	.00511 (4.27)	.00076 (4.31)	-.08827	-.27232
32	.96162 (4.30)	.61971 (4.30)	.09198 (4.34)	.05726 (4.33)	3.09020	-2.09149
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.04777 (4.24)	.00926 (4.31)	.00256 (4.27)	.00093 (4.34)	-.04413	-.22724
35	.21766 (4.32)	.14736 (4.31)	.02305 (4.34)	.01528 (4.34)	-4.44945	-2.87416
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.03785 (4.24)	.01037 (4.26)	.00197 (4.26)	.00068 (4.31)	-.05777	-.24924
38	.28613 (4.25)	.21611 (4.25)	.01699 (4.29)	.01254 (4.29)	2.87661	-2.14653
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.01893 (4.24)	.00831 (4.31)	.00099 (4.26)	.00084 (4.34)	-.02889	-.20917
41	.09527 (4.33)	.07142 (4.33)	.01121 (4.34)	.00832 (4.34)	-3.91251	-2.81602
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00824 (4.30)	.00923 (4.26)	.00071 (4.31)	.00061 (4.31)	-.03789	-.22573
44	.11996 (4.31)	.10088 (4.31)	.01206 (4.34)	.01000 (4.34)	2.63441	-2.20737
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00412 (4.30)	.00738 (4.31)	.00035 (4.31)	.00075 (4.34)	-.01894	-.19043
47	.04640 (4.33)	.03975 (4.33)	.00528 (4.34)	.00448 (4.34)	-3.39071	-2.76333
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.01785 (4.26)	.00808 (4.26)	.00122 (4.31)	.00053 (4.31)	-.02619	-.20059
50	.08556 (4.34)	.08417 (4.34)	.01016 (4.34)	.00993 (4.34)	2.34902	-2.26152
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00892 (4.26)	.00643 (4.31)	.00061 (4.31)	.00065 (4.34)	-.01310	-.16998
53	.04752 (4.25)	.04913 (4.25)	.00301 (4.31)	.00305 (4.30)	-2.85906	-2.69419
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.02256 (4.25)	.00696 (4.26)	.00141 (4.30)	.00045 (4.31)	-.02074	-.17506
56	.07828 (4.31)	.09455 (4.31)	.00778 (4.34)	.00923 (4.34)	2.04477	-2.31959
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.01128 (4.25)	.00551 (4.31)	.00070 (4.30)	.00056 (4.34)	-.01037	-.14894
59	.04617 (4.24)	.05752 (4.24)	.00233 (4.26)	.00289 (4.26)	-2.35451	-2.62555

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.02052 (4.25)	.00580 (4.26)	.00123 (4.30)	.00038 (4.31)	-.01887	-.14785
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.01026 (4.25)	.00458 (4.31)	.00062 (4.30)	.00047 (4.34)	-.00943	-.12621
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.01549 (4.25)	.00467 (4.26)	.00091 (4.29)	.00030 (4.31)	-.01815	-.12035
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00775 (4.25)	.00367 (4.31)	.00046 (4.29)	.00037 (4.34)	-.00907	-.10305
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.01008 (4.25)	.00350 (4.26)	.00059 (4.29)	.00023 (4.31)	-.01687	-.09126
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00504 (4.25)	.00275 (4.31)	.00029 (4.29)	.00028 (4.34)	-.00843	-.07834
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00652 (4.25)	.00257 (4.26)	.00038 (4.29)	.00017 (4.31)	-.01450	-.06763
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00326 (4.25)	.00202 (4.31)	.00019 (4.29)	.00021 (4.34)	-.00725	-.05815
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00125 (4.25)	.00059 (4.26)	.00007 (4.29)	.00004 (4.31)	-.00414	-.01570
78	.00063 (4.25)	.00046 (4.31)	.00004 (4.29)	.00005 (4.34)	-.00207	-.01354
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.043 (4.28)	2.551 (4.24)	80.601 (4.24)	-26.147	-.001	-147. 56
2	8	9	1254.583 (4.27)	4.943 (4.24)	36.172 (4.24)	462.366	-.010	76. 66
3	8	10	444.798 (4.27)	.000 (4.27)	.000 (4.27)	524.138	.000	-. 00
4	8	11	5142.227 (4.27)	.003 (4.24)	.007 (4.24)	-970.131	.005	-. 10
5	10	12	1479.164 (4.27)	.002 (4.24)	.003 (4.24)	-184.907	.003	-. 06
6	8	12	1438.999 (4.27)	.002 (4.24)	.003 (4.24)	118.800	.003	-. 05
7	10	11	1360.873 (4.27)	.002 (4.24)	.003 (4.24)	-1498.693	.002	-. 05
8	11	13	571.161 (4.24)	.008 (4.24)	3334.679 (4.26)	-8609.010	-.003	255. 88
9	12	16	378.238 (4.32)	.003 (4.32)	2002.585 (4.23)	-5898.817	.013	-2132. 07
10	13	19	567.464 (4.25)	4118.400 (4.25)	5649.396 (4.24)	-9031.885	255.794	-2583. 71
11	16	22	397.742 (4.31)	2190.250 (4.24)	2790.201 (4.25)	-6456.219	-2132.587	-627. 21
12	19	25	549.514 (4.25)	5663.693 (4.24)	6237.855 (4.25)	-9366.437	-2583.134	-2477. 74
13	22	28	407.715 (4.31)	2794.373 (4.25)	3129.082 (4.24)	-6909.163	-627.942	-1389. 78
14	25	31	532.236 (4.25)	6259.555 (4.25)	6424.059 (4.25)	-9718.413	-2477.938	-2918. 16
15	28	34	414.085 (4.31)	3135.061 (4.25)	3210.309 (4.25)	-7365.990	-1389.097	-1419. 49
16	31	37	516.390 (4.26)	6426.142 (4.25)	5681.905 (4.25)	-10188.990	-2918.571	-2535. 61
17	34	40	418.501 (4.31)	3209.982 (4.25)	2841.674 (4.25)	-7967.170	-1419.973	-1277. 28
18	37	43	508.223 (4.26)	5679.284 (4.25)	4538.916 (4.24)	-10595.226	-2535.342	-2225. 28
19	40	46	419.038 (4.31)	2838.740 (4.25)	2269.853 (4.24)	-8443.666	-1277.848	-1110. 65
20	43	49	504.062 (4.26)	4533.140 (4.24)	3143.519 (4.24)	-11086.804	-2225.502	-1498. 30
21	46	52	417.236 (4.31)	2265.323 (4.24)	1571.855 (4.24)	-9018.651	-1110.689	-749. 00
22	49	55	505.131 (4.26)	3136.361 (4.24)	1795.630 (4.24)	-11502.650	-1498.222	-959. 11
23	52	58	415.113 (4.31)	1567.787 (4.24)	898.057 (4.24)	-9477.430	-749.118	-480. 17
24	55	61	509.638 (4.26)	1788.386 (4.24)	775.773 (4.24)	-11998.927	-959.300	-214. 24
25	58	63	411.466 (4.31)	893.766 (4.24)	387.805 (4.24)	-10022.981	-480.535	-106. 81
26	61	65	512.526 (4.26)	773.398 (4.24)	137.953 (4.30)	-12386.574	-214.634	127. 40
27	63	67	409.739 (4.31)	387.028 (4.24)	68.893 (4.30)	-10431.408	-106.389	62. 63
28	65	69	516.091 (4.26)	137.593 (4.30)	316.826 (4.26)	-12827.360	127.133	517. 91
29	67	71	407.783 (4.31)	68.784 (4.30)	158.398 (4.26)	-10897.204	62.556	259. 80
30	69	73	517.605 (4.26)	315.822 (4.26)	346.170 (4.25)	-13164.692	517.686	707. 93
31	71	75	407.069 (4.31)	157.745 (4.26)	173.219 (4.25)	-11246.338	259.476	353. 84
32	73	77	518.466 (4.26)	347.480 (4.25)	83.945 (4.25)	-13570.072	707.791	452. 10
33	75	78	406.750 (4.31)	173.595 (4.25)	41.902 (4.25)	-11659.157	353.182	226. 44
34	77	79	518.482 (4.26)	81.541 (4.25)	.038 (4.25)	-13850.745	452.309	. 00
35	78	80	406.768 (4.31)	40.870 (4.25)	.016 (4.25)	-11939.696	226.744	. 00
36	11	12	696.084 (4.24)	.012 (4.24)	.012 (4.24)	1768.073	.018	-. 19
37	13	16	12.392 (4.31)	.010 (4.24)	.010 (4.24)	32.480	.015	-. 14
38	19	22	12.110 (4.32)	.009 (4.24)	.009 (4.24)	166.006	.013	-. 13
39	25	28	2.879 (4.24)	.008 (4.24)	.008 (4.24)	91.197	.013	-. 13
40	31	34	3.750 (4.32)	.005 (4.24)	.005 (4.24)	182.505	.012	-. 12
41	37	40	1.967 (4.25)	.003 (4.24)	.003 (4.24)	130.205	.011	-. 11
42	43	46	2.460 (4.25)	.001 (4.24)	.001 (4.24)	219.340	.011	-. 11
43	49	52	1.714 (4.27)	.000 (4.34)	.000 (4.34)	165.082	.010	-. 10
44	55	58	2.361 (4.28)	.001 (4.28)	.001 (4.28)	282.954	.009	-. 09
45	61	63	1.244 (4.29)	.001 (4.26)	.001 (4.26)	183.950	.007	-. 07
46	65	67	1.547 (4.29)	.001 (4.26)	.001 (4.26)	322.553	.006	-. 06
47	69	71	.738 (4.28)	.001 (4.26)	.001 (4.26)	247.408	.004	-. 04
48	73	75	.436 (4.29)	.001 (4.26)	.001 (4.26)	270.507	.003	-. 03
49	77	78	.015 (4.25)	.000 (4.25)	.000 (4.25)	.054	-.000	. 00
50	5	11	487.077 (4.31)	0.000 (0.00)	0.000 (0.00)	1862.728	0.000	0. 00
51	3	5	488.977 (4.31)	0.000 (0.00)	0.000 (0.00)	1701.946	0.000	0.000
52	1	3	487.452 (4.31)	0.000 (0.00)	0.000 (0.00)	1542.663	0.000	0.000
53	6	12	444.685 (4.27)	0.000 (0.00)	0.000 (0.00)	4276.999	0.000	0.000
54	4	6	445.019 (4.27)	0.000 (0.00)	0.000 (0.00)	4117.060	0.000	0.000
55	2	4	445.187 (4.27)	0.000 (0.00)	0.000 (0.00)	3959.232	0.000	0. 00
56	13	14	22.235 (4.32)	0.000 (0.00)	0.000 (0.00)	126.269	0.000	0.000
57	14	15	22.295 (4.32)	0.000 (0.00)	0.000 (0.00)	110.923	0.000	0.000
58	16	17	22.868 (4.28)	0.000 (0.00)	0.000 (0.00)	272.391	0.000	0.000
59	17	18	22.880 (4.28)	0.000 (0.00)	0.000 (0.00)	257.155	0.000	0.000

60	19	20	52.158 (4.28)	0.000 (0.00)	0.000 (0.00)	137.650	0.000	0.000
61	20	21	52.192 (4.28)	0.000 (0.00)	0.000 (0.00)	123.397	0.000	0. 00
62	22	23	15.219 (4.24)	0.000 (0.00)	0.000 (0.00)	267.166	0.000	0.000
63	23	24	15.237 (4.24)	0.000 (0.00)	0.000 (0.00)	253.025	0.000	0.000
64	25	26	29.356 (4.26)	0.000 (0.00)	0.000 (0.00)	147.276	0.000	0.000
65	26	27	29.391 (4.26)	0.000 (0.00)	0.000 (0.00)	133.888	0.000	0.000
66	28	29	11.632 (4.23)	0.000 (0.00)	0.000 (0.00)	263.597	0.000	0.000
67	29	30	11.647 (4.23)	0.000 (0.00)	0.000 (0.00)	250.322	0.000	0.000
68	31	32	37.816 (4.29)	0.000 (0.00)	0.000 (0.00)	242.981	0.000	0.000
69	32	33	37.845 (4.29)	0.000 (0.00)	0.000 (0.00)	224.690	0.000	0.000
70	34	35	10.582 (4.24)	0.000 (0.00)	0.000 (0.00)	390.678	0.000	0.000
71	35	36	10.597 (4.24)	0.000 (0.00)	0.000 (0.00)	372.560	0.000	0. 00
72	37	38	11.547 (4.24)	0.000 (0.00)	0.000 (0.00)	177.212	0.000	0. 00
73	38	39	11.556 (4.24)	0.000 (0.00)	0.000 (0.00)	166.238	0.000	0. 00
74	40	41	2.926 (4.28)	0.000 (0.00)	0.000 (0.00)	258.884	0.000	0. 00
75	41	42	2.931 (4.28)	0.000 (0.00)	0.000 (0.00)	248.027	0.000	0. 00
76	43	44	6.210 (4.26)	0.000 (0.00)	0.000 (0.00)	289.821	0.000	0. 00
77	44	45	6.216 (4.26)	0.000 (0.00)	0.000 (0.00)	275.154	0.000	0. 00
78	46	47	2.968 (4.29)	0.000 (0.00)	0.000 (0.00)	390.350	0.000	0. 00
79	47	48	2.972 (4.29)	0.000 (0.00)	0.000 (0.00)	375.857	0.000	0. 00
80	49	50	4.175 (4.30)	0.000 (0.00)	0.000 (0.00)	210.220	0.000	0. 00
81	50	51	4.180 (4.30)	0.000 (0.00)	0.000 (0.00)	201.664	0.000	0. 00
82	52	53	4.260 (4.24)	0.000 (0.00)	0.000 (0.00)	264.827	0.000	0. 00
83	53	54	4.263 (4.24)	0.000 (0.00)	0.000 (0.00)	256.386	0.000	0. 00
84	55	56	11.190 (4.27)	0.000 (0.00)	0.000 (0.00)	342.350	0.000	0. 00
85	56	57	11.198 (4.27)	0.000 (0.00)	0.000 (0.00)	331.311	0.000	0. 00
86	58	59	8.556 (4.23)	0.000 (0.00)	0.000 (0.00)	409.909	0.000	0. 00
87	59	60	8.561 (4.23)	0.000 (0.00)	0.000 (0.00)	399.039	0.000	0. 00
88	61	62	7.547 (4.27)	0.000 (0.00)	0.000 (0.00)	207.320	0.000	0. 00
89	63	64	4.966 (4.23)	0.000 (0.00)	0.000 (0.00)	239.067	0.000	0. 00
90	65	66	10.419 (4.26)	0.000 (0.00)	0.000 (0.00)	342.112	0.000	0. 00
91	67	68	6.833 (4.23)	0.000 (0.00)	0.000 (0.00)	387.430	0.000	0. 00
92	69	70	5.375 (4.26)	0.000 (0.00)	0.000 (0.00)	249.694	0.000	0. 00
93	71	72	3.468 (4.23)	0.000 (0.00)	0.000 (0.00)	277.339	0.000	0. 00
94	73	74	3.877 (4.25)	0.000 (0.00)	0.000 (0.00)	266.510	0.000	0. 00
95	75	76	2.408 (4.24)	0.000 (0.00)	0.000 (0.00)	289.868	0.000	0. 00
96	9	11	1474.008 (4.27)	.001 (4.24)	.002 (4.24)	-637.650	.001	-. 02
97	9	10	231.617 (4.27)	33.716 (4.24)	4.930 (4.24)	108.070	-70.986	. 07

GUST ANALYSIS TIME 250.385 SEC.

INIOS MODIFIED MODEL .....RUN JJ,DAMP=.006,V=-100.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	15.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	.74810	.73848	4.117	-80.53736	44.986376	25.176647
6	1.23212	1.21477	4.236	-38.23566	10.527043	15.981360

FUNDAMENTAL FREQUENCIES - JJ

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	7.48098E-01	7.14384E+00	8.398842
2	7.92933E-01	7.57199E+00	7.923938
3	8.48409E-01	8.10174E+00	7.405814
4	9.70674E-01	9.26929E+00	6.472984
5	1.02549E+00	9.79279E+00	6.126954
6	1.23212E+00	1.17660E+01	5.099460
7	1.42232E+00	1.35823E+01	4.417530
8	1.79120E+00	1.71048E+01	3.507791
9	2.12782E+00	2.03193E+01	2.952862
10	2.16269E+00	2.06522E+01	2.905255
11	2.29976E+00	2.19612E+01	2.732093
12	2.40089E+00	2.29269E+01	2.617015
13	2.48548E+00	2.37347E+01	2.527945
14	2.50094E+00	2.38824E+01	2.512315
15	2.62643E+00	2.50807E+01	2.392276
16	2.79242E+00	2.66658E+01	2.250075
17	2.83209E+00	2.70446E+01	2.218558
18	2.97597E+00	2.84186E+01	2.111296
19	3.19122E+00	3.04741E+01	1.968888
20	3.21703E+00	3.07206E+01	1.953089
21	3.40546E+00	3.25199E+01	1.845023
22	3.50831E+00	3.35020E+01	1.790936
23	5.56493E+00	5.31414E+01	1.129063
24	7.36926E+00	7.03715E+01	.852617
25	8.50834E+00	8.12490E+01	.738470
26	1.27777E+01	1.22018E+02	.491730
27	1.57972E+01	1.50852E+02	.397740
28	2.10765E+01	2.01267E+02	.298112
29	3.32037E+01	3.17074E+02	.189230
30	4.87427E+01	4.65461E+02	.128905
31	5.02395E+01	4.79754E+02	.125064
32	5.21357E+01	4.97862E+02	.120515
33	5.35817E+01	5.11670E+02	.117263
34	5.49073E+01	5.24329E+02	.114432
35	5.57956E+01	5.32811E+02	.112610
36	5.66836E+01	5.41291E+02	.110846
37	5.84395E+01	5.58059E+02	.107516
38	6.02396E+01	5.75248E+02	.104303
39	6.31711E+01	6.03242E+02	.099463
40	6.33266E+01	6.04728E+02	.099218
41	6.69667E+01	6.39488E+02	.093825
42	6.80522E+01	6.49854E+02	.092328
43	7.10274E+01	6.78265E+02	.088461
44	7.35677E+01	7.02523E+02	.085406
45	7.71394E+01	7.36630E+02	.081452
46	7.94857E+01	7.59036E+02	.079048
47	8.22061E+01	7.85014E+02	.076432
48	8.40608E+01	8.02726E+02	.074745
49	8.42042E+01	8.04095E+02	.074618
50	8.63760E+01	8.24834E+02	.072742
51	8.92993E+01	8.52749E+02	.070361
52	9.34063E+01	8.91969E+02	.067267

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	STATIC DISPLACEMENTS X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	57.55009 (4.12)	28.05653 (4.12)	1.08329 (4.15)	.52749 (4.15)	-3.94167	1.73413
4	2.74834 (4.13)	1.63992 (4.13)	.05849 (4.18)	.03463 (4.17)	-6.10516	-3.17075
5	38.74400 (4.14)	18.96881 (4.14)	.89921 (4.19)	.44744 (4.19)	-5.66750	2.39442
6	2.18565 (4.13)	1.50654 (4.13)	.04696 (4.18)	.03174 (4.17)	-6.32647	-3.24650
7	6.36739 (4.12)	.17473 (4.12)	.11148 (4.12)	.00304 (4.12)	-3.61264	-.36085
8	2.91623 (4.13)	.06678 (4.12)	.05818 (4.16)	.00127 (4.15)	-1.26390	-.39252
9	1.46035 (4.13)	.06653 (4.12)	.02918 (4.16)	.00126 (4.15)	-.95897	-.35284
10	1.45812 (4.13)	.06601 (4.12)	.02909 (4.16)	.00124 (4.14)	-.63195	-.27303
11	2.91240 (4.13)	.06676 (4.12)	.05801 (4.16)	.00127 (4.15)	-.69703	-.39246
12	1.45620 (4.13)	.06601 (4.12)	.02901 (4.16)	.00124 (4.14)	-.34851	-.27303
13	1.89763 (4.13)	.05601 (4.12)	.03753 (4.16)	.00106 (4.15)	-.48001	-.35903
14	34.00656 (4.12)	16.38940 (4.12)	.63246 (4.14)	.30676 (4.14)	-3.82480	1.59097
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.94880 (4.13)	.05916 (4.12)	.01876 (4.16)	.00111 (4.14)	-.24001	-.25548
17	1.80818 (4.13)	1.09302 (4.13)	.03848 (4.18)	.02299 (4.17)	-6.12294	-3.12094
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	1.33523 (4.12)	.04976 (4.12)	.02626 (4.16)	.00094 (4.15)	-.35547	-.33780
20	32.80594 (4.12)	17.03029 (4.12)	.57061 (4.12)	.29640 (4.12)	-.87242	.19281
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.66760 (4.12)	.05482 (4.12)	.01313 (4.16)	.00103 (4.14)	-.17774	-.24349
23	1.31200 (4.13)	.83939 (4.13)	.02756 (4.17)	.01746 (4.17)	-5.62402	-3.07343
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.94912 (4.12)	.04538 (4.12)	.01858 (4.16)	.00085 (4.15)	-.26972	-.32062
26	5.92859 (4.13)	3.65028 (4.12)	.11846 (4.16)	.07015 (4.15)	.86102	-.72846
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.47454 (4.12)	.05135 (4.12)	.00929 (4.16)	.00096 (4.14)	-.13486	-.23324
29	.93536 (4.13)	.63018 (4.13)	.01948 (4.17)	.01301 (4.17)	-5.23530	-3.04068
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.51937 (4.12)	.04019 (4.12)	.01008 (4.15)	.00076 (4.15)	-.17395	-.29627
32	3.43738 (4.16)	2.32589 (4.15)	.09382 (4.21)	.06169 (4.21)	1.73285	-1.28557
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.25967 (4.12)	.04654 (4.12)	.00504 (4.15)	.00087 (4.14)	-.08698	-.21799
35	.47616 (4.13)	.35047 (4.13)	.00981 (4.17)	.00717 (4.17)	-4.70316	-3.01443
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.21029 (4.12)	.03573 (4.12)	.00400 (4.15)	.00067 (4.15)	-.10465	-.27053
38	1.23580 (4.13)	.95281 (4.13)	.02588 (4.17)	.01974 (4.17)	2.00440	-1.56784
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.10513 (4.12)	.04163 (4.12)	.00200 (4.15)	.00078 (4.14)	-.05233	-.20098
41	.11151 (4.13)	.09169 (4.13)	.00226 (4.17)	.00185 (4.16)	-4.14365	-2.96444
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.02356 (4.12)	.03175 (4.12)	.00041 (4.12)	.00060 (4.15)	-.06172	-.24451
44	.29442 (4.12)	.25791 (4.12)	.00538 (4.14)	.00470 (4.13)	2.06599	-1.77834
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.01177 (4.12)	.03688 (4.12)	.00021 (4.12)	.00069 (4.14)	-.03086	-.18322
47	.11909 (4.13)	.10805 (4.13)	.00244 (4.17)	.00220 (4.17)	-3.58867	-2.91104
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.07468 (4.13)	.02787 (4.12)	.00157 (4.17)	.00052 (4.15)	-.03851	-.21691
50	.13880 (4.15)	.14697 (4.15)	.00359 (4.20)	.00374 (4.20)	1.99831	-1.95501
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.03735 (4.13)	.03208 (4.12)	.00079 (4.17)	.00060 (4.14)	-.01926	-.16374
53	.22728 (4.13)	.24038 (4.13)	.00460 (4.16)	.00485 (4.16)	-3.01412	-2.82987
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.10525 (4.13)	.02408 (4.12)	.00214 (4.17)	.00045 (4.15)	-.02962	-.18900
56	.26322 (4.13)	.33052 (4.13)	.00574 (4.18)	.00715 (4.18)	1.84956	-2.11974
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.05263 (4.13)	.02743 (4.12)	.00107 (4.17)	.00051 (4.14)	-.01481	-.14362
59	.23213 (4.13)	.29358 (4.13)	.00467 (4.16)	.00589 (4.16)	-2.46381	-2.73900

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.09828 (4.13)	.02013 (4.12)	.00197 (4.16)	.00038 (4.15)	-.02849	-.15941
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.04914 (4.13)	.02276 (4.12)	.00098 (4.16)	.00043 (4.14)	-.01424	-.12181
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.07481 (4.13)	.01622 (4.12)	.00149 (4.16)	.00031 (4.15)	-.02944	-.12960
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.03741 (4.13)	.01822 (4.12)	.00074 (4.16)	.00034 (4.14)	-.01472	-.09953
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.04873 (4.13)	.01217 (4.12)	.00096 (4.16)	.00023 (4.15)	-.02883	-.09817
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.02437 (4.13)	.01362 (4.12)	.00048 (4.16)	.00026 (4.14)	-.01441	-.07571
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.03144 (4.12)	.00894 (4.12)	.00062 (4.16)	.00017 (4.15)	-.02538	-.07270
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.01572 (4.12)	.01000 (4.12)	.00031 (4.16)	.00019 (4.14)	-.01269	-.05622
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00600 (4.12)	.00204 (4.12)	.00012 (4.16)	.00004 (4.15)	-.00739	-.01686
78	.00300 (4.12)	.00229 (4.12)	.00006 (4.16)	.00004 (4.14)	-.00369	-.01310
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.322 (4.12)	18.500 (4.12)	585.250 (4.12)	-26.118	-.002	-262.538
2	8	9	349.002 (4.21)	23.847 (4.13)	226.321 (4.12)	817.346	-.001	135.483
3	8	10	112.166 (4.22)	.000 (4.12)	.000 (4.12)	798.588	.000	-.000
4	8	11	1067.731 (4.23)	.019 (4.13)	.039 (4.13)	-1066.023	.007	-.015
5	10	12	486.427 (4.20)	.010 (4.13)	.020 (4.13)	672.138	.004	-.008
6	8	12	229.382 (4.24)	.009 (4.13)	.018 (4.13)	556.716	.004	-.007
7	10	11	445.839 (4.20)	.009 (4.13)	.018 (4.13)	-2327.909	.003	-.007
8	11	13	2303.684 (4.13)	.011 (4.13)	18875.357 (4.13)	-10087.034	.002	-2255.001
9	12	16	1834.190 (4.12)	.005 (4.13)	7324.119 (4.13)	-5302.690	.013	-3025.001
10	13	19	2279.241 (4.12)	17476.098 (4.13)	26617.009 (4.13)	-10440.555	-2254.658	-6192.814
11	16	22	1936.502 (4.12)	7860.877 (4.13)	13518.010 (4.13)	-5898.515	-3025.144	-2538.541
12	19	25	2122.238 (4.12)	26408.755 (4.13)	31529.382 (4.13)	-10694.212	-6192.708	-6779.735
13	22	28	2012.817 (4.12)	13504.646 (4.13)	15703.155 (4.13)	-6384.406	-2538.552	-3515.344
14	25	31	1942.888 (4.12)	31609.914 (4.13)	33360.234 (4.13)	-10974.905	-6779.704	-7414.749
15	28	34	2069.116 (4.12)	15708.627 (4.13)	16713.435 (4.13)	-6869.789	-3515.364	-3674.009
16	31	37	1772.795 (4.12)	33389.096 (4.13)	29880.886 (4.13)	-11364.500	-7414.686	-6370.812
17	34	40	2114.743 (4.12)	16691.641 (4.13)	14938.595 (4.13)	-7505.197	-3674.018	-3193.558
18	37	43	1714.602 (4.12)	29863.846 (4.13)	23863.638 (4.13)	-11731.191	-6370.776	-5292.108
19	40	46	2123.164 (4.12)	14916.795 (4.13)	11936.740 (4.13)	-7999.333	-3193.567	-2644.304
20	43	49	1691.395 (4.12)	23836.027 (4.13)	16444.854 (4.12)	-12180.134	-5292.061	-3461.136
21	46	52	2111.516 (4.12)	11908.067 (4.13)	8222.328 (4.12)	-8594.410	-2644.312	-1730.426
22	49	55	1704.130 (4.12)	16408.369 (4.12)	9317.004 (4.12)	-12575.820	-3461.110	-2028.050
23	52	58	2093.640 (4.12)	8199.713 (4.12)	4660.216 (4.12)	-9063.216	-1730.435	-1015.035
24	55	61	1741.941 (4.12)	9281.669 (4.12)	4014.105 (4.12)	-13050.271	-2028.021	-376.266
25	58	63	2061.220 (4.12)	4636.726 (4.12)	2005.864 (4.12)	-9620.189	-1015.043	-187.344
26	61	65	1764.041 (4.12)	3999.879 (4.12)	198.037 (4.13)	-13429.237	-376.275	407.355
27	63	67	2045.915 (4.12)	2002.009 (4.12)	96.998 (4.14)	-10032.677	-187.357	202.493
28	65	69	1789.307 (4.12)	195.278 (4.13)	1440.986 (4.13)	-13858.788	407.343	1121.692
29	67	71	2027.800 (4.12)	98.354 (4.13)	720.791 (4.13)	-10503.935	202.481	561.348
30	69	73	1799.373 (4.12)	1437.181 (4.13)	1658.154 (4.13)	-14190.415	1121.679	1425.378
31	71	75	2020.637 (4.12)	717.647 (4.13)	830.546 (4.13)	-10855.946	561.338	711.876
32	73	77	1804.824 (4.12)	1665.574 (4.13)	406.052 (4.13)	-14592.051	1425.381	845.095
33	75	78	2017.003 (4.12)	832.094 (4.13)	202.921 (4.13)	-11270.706	711.873	423.104
34	77	79	1804.856 (4.12)	393.635 (4.13)	.197 (4.13)	-14872.719	845.085	.000
35	78	80	2017.041 (4.12)	198.129 (4.13)	.077 (4.13)	-11551.243	423.100	.000
36	11	12	1146.864 (4.13)	.070 (4.13)	.070 (4.13)	1872.872	.027	-.028
37	13	16	80.715 (4.12)	.067 (4.13)	.066 (4.13)	46.690	.021	-.021
38	19	22	26.419 (4.15)	.059 (4.13)	.059 (4.13)	155.364	.020	-.020
39	25	28	7.931 (4.13)	.052 (4.13)	.052 (4.13)	93.119	.019	-.019
40	31	34	22.827 (4.12)	.039 (4.12)	.039 (4.12)	181.633	.019	-.019
41	37	40	12.680 (4.12)	.026 (4.12)	.026 (4.12)	130.565	.019	-.019
42	43	46	14.951 (4.12)	.016 (4.12)	.016 (4.12)	220.525	.018	-.018
43	49	52	8.761 (4.12)	.007 (4.12)	.007 (4.12)	166.104	.017	-.017
44	55	58	10.867 (4.12)	.002 (4.12)	.002 (4.12)	284.841	.015	-.015
45	61	63	4.399 (4.12)	.001 (4.15)	.001 (4.15)	184.588	.013	-.013
46	65	67	6.370 (4.12)	.002 (4.13)	.002 (4.13)	323.539	.010	-.010
47	69	71	3.401 (4.12)	.002 (4.13)	.002 (4.13)	248.104	.008	-.008
48	73	75	2.042 (4.12)	.002 (4.13)	.002 (4.13)	271.246	.005	-.005
49	77	78	.104 (4.13)	.001 (4.12)	.001 (4.12)	.118	-.000	.000
50	5	11	1945.422 (4.12)	0.000 (0.00)	0.000 (0.00)	739.799	0.000	0.000
51	3	5	1923.935 (4.12)	0.000 (0.00)	0.000 (0.00)	579.943	0.000	0.000
52	1	3	1988.920 (4.12)	0.000 (0.00)	0.000 (0.00)	315.173	0.000	0.000
53	6	12	2435.443 (4.12)	0.000 (0.00)	0.000 (0.00)	4999.942	0.000	0.000
54	4	6	2437.905 (4.12)	0.000 (0.00)	0.000 (0.00)	4840.267	0.000	0.000
55	2	4	2438.103 (4.12)	0.000 (0.00)	0.000 (0.00)	4682.692	0.000	0.000
56	13	14	117.670 (4.24)	0.000 (0.00)	0.000 (0.00)	51.302	0.000	0.000
57	14	15	117.665 (4.24)	0.000 (0.00)	0.000 (0.00)	35.910	0.000	0.000
58	16	17	113.873 (4.12)	0.000 (0.00)	0.000 (0.00)	314.111	0.000	0.000
59	17	18	113.953 (4.12)	0.000 (0.00)	0.000 (0.00)	298.904	0.000	0.000

60	19	20	175.422 (4.13)	0.000 (0.00)	0.000 (0.00)	48.309	0.000	0.000
61	20	21	175.738 (4.13)	0.000 (0.00)	0.000 (0.00)	34.026	0.000	0.000
62	22	23	86.525 (4.12)	0.000 (0.00)	0.000 (0.00)	303.274	0.000	0.000
63	23	24	86.580 (4.12)	0.000 (0.00)	0.000 (0.00)	289.163	0.000	0.000
64	25	26	208.812 (4.13)	0.000 (0.00)	0.000 (0.00)	67.572	0.000	0.000
65	26	27	208.795 (4.13)	0.000 (0.00)	0.000 (0.00)	54.104	0.000	0.000
66	28	29	64.524 (4.12)	0.000 (0.00)	0.000 (0.00)	295.234	0.000	0.000
67	29	30	64.562 (4.12)	0.000 (0.00)	0.000 (0.00)	281.990	0.000	0.000
68	31	32	202.528 (4.12)	0.000 (0.00)	0.000 (0.00)	150.722	0.000	0.000
69	32	33	202.554 (4.12)	0.000 (0.00)	0.000 (0.00)	132.328	0.000	0.000
70	34	35	53.687 (4.12)	0.000 (0.00)	0.000 (0.00)	429.277	0.000	0.000
71	35	36	53.715 (4.12)	0.000 (0.00)	0.000 (0.00)	411.206	0.000	0.000
72	37	38	71.743 (4.12)	0.000 (0.00)	0.000 (0.00)	131.085	0.000	0.000
73	38	39	71.756 (4.12)	0.000 (0.00)	0.000 (0.00)	120.052	0.000	0.000
74	40	41	10.081 (4.12)	0.000 (0.00)	0.000 (0.00)	279.247	0.000	0.000
75	41	42	10.085 (4.12)	0.000 (0.00)	0.000 (0.00)	268.422	0.000	0.000
76	43	44	30.309 (4.12)	0.000 (0.00)	0.000 (0.00)	238.409	0.000	0.000
77	44	45	30.314 (4.12)	0.000 (0.00)	0.000 (0.00)	223.655	0.000	0.000
78	46	47	14.993 (4.13)	0.000 (0.00)	0.000 (0.00)	414.279	0.000	0.000
79	47	48	14.998 (4.13)	0.000 (0.00)	0.000 (0.00)	399.834	0.000	0.000
80	49	50	17.205 (4.14)	0.000 (0.00)	0.000 (0.00)	184.727	0.000	0.000
81	50	51	17.209 (4.14)	0.000 (0.00)	0.000 (0.00)	176.113	0.000	0.000
82	52	53	24.436 (4.12)	0.000 (0.00)	0.000 (0.00)	277.328	0.000	0.000
83	53	54	24.444 (4.12)	0.000 (0.00)	0.000 (0.00)	268.918	0.000	0.000
84	55	56	55.765 (4.13)	0.000 (0.00)	0.000 (0.00)	312.681	0.000	0.000
85	56	57	55.776 (4.13)	0.000 (0.00)	0.000 (0.00)	301.555	0.000	0.000
86	58	59	48.103 (4.12)	0.000 (0.00)	0.000 (0.00)	425.161	0.000	0.000
87	59	60	48.116 (4.12)	0.000 (0.00)	0.000 (0.00)	414.336	0.000	0.000
88	61	62	36.578 (4.13)	0.000 (0.00)	0.000 (0.00)	194.275	0.000	0.000
89	63	64	25.652 (4.12)	0.000 (0.00)	0.000 (0.00)	244.853	0.000	0.000
90	65	66	49.550 (4.13)	0.000 (0.00)	0.000 (0.00)	321.832	0.000	0.000
91	67	68	35.882 (4.12)	0.000 (0.00)	0.000 (0.00)	396.782	0.000	0.000
92	69	70	25.236 (4.13)	0.000 (0.00)	0.000 (0.00)	236.318	0.000	0.000
93	71	72	18.299 (4.12)	0.000 (0.00)	0.000 (0.00)	283.708	0.000	0.000
94	73	74	18.175 (4.13)	0.000 (0.00)	0.000 (0.00)	254.730	0.000	0.000
95	75	76	12.596 (4.12)	0.000 (0.00)	0.000 (0.00)	295.580	0.000	0.000
96	9	11	424.111 (4.20)	.004 (4.13)	.009 (4.13)	-1083.622	.002	-.003
97	9	10	81.713 (4.18)	219.528 (4.12)	29.070 (4.13)	203.395	-127.029	-.005

GUSI ANALYSIS TIME 123.740 SEC.

INTOS MODIFIED MODEL .....RUN CC,DAMP=,018,V=100.

FLAG (=T TO CONSIDER WIND ON CABLES). . T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS) F

GENERALIZED FORCE TRESHOLD (0/0). . . . 28,00
FRICTION COEFFICIENT 0,0010
DECAY CONSTANT 7,00
BASIC WIND SPEED AVER, INTERVAL (MIN) . 60,00

MODE NO,	DAMPING COEF
1	0,0180
2	0,0180
3	0,0180
4	0,0180
5	0,0180
6	0,0180
7	0,0180
8	0,0180

CONTRIBUTING MODES

MODE NO,	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN,WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	0,74819	0,72049	4,111	-80,52714	26,551140	14,862984
6	1,23220	1,18238	4,229	-38,23767	6,228639	9,457072

FUNDAMENTAL FREQUENCIES — *CC*

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	7,48189E-01	7,14471E+00	8,397817
2	7,92893E-01	7,57160E+00	7,924347
3	8,48408E-01	8,10173E+00	7,405822
4	9,70660E-01	9,26917E+00	6,473074
5	1,02544E+00	9,79227E+00	6,127283
6	1,23220E+00	1,17667E+01	5,099130
7	1,42233E+00	1,35823E+01	4,417509
8	1,79122E+00	1,71050E+01	3,507751
9	2,12793E+00	2,03203E+01	2,952709
10	2,16274E+00	2,06527E+01	2,905184
11	2,29976E+00	2,19612E+01	2,732092
12	2,40088E+00	2,29268E+01	2,617022
13	2,48556E+00	2,37354E+01	2,527866
14	2,50099E+00	2,38828E+01	2,512266
15	2,62644E+00	2,50808E+01	2,392266
16	2,79251E+00	2,66666E+01	2,250004
17	2,83219E+00	2,70456E+01	2,218477
18	2,97600E+00	2,84188E+01	2,111279
19	3,19131E+00	3,04749E+01	1,968831
20	3,21733E+00	3,07234E+01	1,952910
21	3,40555E+00	3,25207E+01	1,844977
22	3,50831E+00	3,35021E+01	1,790933
23	5,56600E+00	5,31517E+01	1,128845
24	7,36980E+00	7,03767E+01	0,852555
25	8,51301E+00	8,12937E+01	0,738065
26	1,27782E+01	1,22024E+02	0,491708
27	1,57972E+01	1,50853E+02	0,397738
28	2,10766E+01	2,01268E+02	0,298110
29	3,32053E+01	3,17089E+02	0,189222
30	4,87432E+01	4,65466E+02	0,128903
31	5,02383E+01	4,79743E+02	0,125067
32	5,21353E+01	4,97858E+02	0,120516
33	5,35785E+01	5,11640E+02	0,117270
34	5,49063E+01	5,24319E+02	0,114434
35	5,57954E+01	5,32809E+02	0,112611
36	5,66838E+01	5,41293E+02	0,110846
37	5,84389E+01	5,58053E+02	0,107517
38	6,02399E+01	5,75252E+02	0,104302
39	6,31690E+01	6,03223E+02	0,099466
40	6,33266E+01	6,04727E+02	0,099218
41	6,69667E+01	6,39488E+02	0,093825
42	6,80521E+01	6,49853E+02	0,092329
43	7,10267E+01	6,78258E+02	0,088462
44	7,35676E+01	7,02522E+02	0,085407
45	7,71384E+01	7,36621E+02	0,081453
46	7,94853E+01	7,59033E+02	0,079048
47	8,22064E+01	7,85017E+02	0,076431
48	8,40609E+01	8,02726E+02	0,074745
49	8,41887E+01	8,03947E+02	0,074632
50	8,63759E+01	8,24833E+02	0,072742
51	8,92987E+01	8,52743E+02	0,070361
52	9,34064E+01	8,91970E+02	0,067267

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL INPARENTHESIS) /
EXPECTED GUST OSCILLATIONS

POINT	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	STATIC DISPLACEMENTS X-DIS	STATIC DISPLACEMENTS Y-DIS
1	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
2	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
3	33,91793 (4,12)	16,53558 (4,12)	0,63879 (4,14)	0,31105 (4,14)	-3,94155	1,73405
4	1,61907 (4,12)	0,96608 (4,12)	0,03449 (4,17)	0,02042 (4,17)	-6,10517	-3,17075
5	22,83595 (4,13)	11,18079 (4,13)	0,53066 (4,18)	0,26407 (4,19)	-5,66741	2,39436
6	1,28753 (4,13)	0,88747 (4,12)	0,02769 (4,17)	0,01872 (4,17)	-6,32651	-3,24652
7	3,75257 (4,11)	0,10294 (4,11)	0,06572 (4,11)	0,00179 (4,11)	-3,61135	-0,36081
8	1,71782 (4,12)	0,03933 (4,12)	0,03430 (4,16)	0,00075 (4,14)	-1,26348	-0,39243
9	0,86017 (4,12)	0,03919 (4,12)	0,01720 (4,16)	0,00074 (4,14)	-0,95841	-0,35280
10	0,85891 (4,12)	0,03890 (4,12)	0,01715 (4,16)	0,00073 (4,14)	-0,63174	-0,27308
11	1,71566 (4,12)	0,03931 (4,12)	0,03420 (4,16)	0,00075 (4,14)	-0,69723	-0,39237
12	0,85783 (4,12)	0,03890 (4,12)	0,01710 (4,16)	0,00073 (4,14)	-0,34861	-0,27308
13	1,11893 (4,12)	0,03298 (4,12)	0,02214 (4,15)	0,00062 (4,14)	-0,48018	-0,35895
14	20,05623 (4,11)	9,66617 (4,12)	0,37318 (4,14)	0,18101 (4,14)	-3,82497	1,59105
15	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
16	0,55946 (4,12)	0,03486 (4,12)	0,01107 (4,15)	0,00065 (4,14)	-0,24009	-0,25552
17	1,06632 (4,12)	0,64457 (4,12)	0,02271 (4,17)	0,01357 (4,17)	-6,12298	-3,12096
18	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
19	0,78798 (4,12)	0,02930 (4,12)	0,01551 (4,15)	0,00055 (4,14)	-0,35562	-0,33772
20	19,41551 (4,11)	10,07974 (4,11)	0,33779 (4,11)	0,17547 (4,11)	-0,87257	0,19290
21	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
22	0,39398 (4,12)	0,03231 (4,12)	0,00775 (4,15)	0,00061 (4,14)	-0,17781	-0,24353
23	0,77450 (4,12)	0,49551 (4,12)	0,01629 (4,17)	0,01032 (4,16)	-5,62403	-3,07343
24	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
25	0,56059 (4,12)	0,02672 (4,12)	0,01098 (4,15)	0,00050 (4,14)	-0,26985	-0,32055
26	3,50206 (4,12)	2,15611 (4,12)	0,07001 (4,16)	0,04146 (4,15)	0,86104	-0,72847
27	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
28	0,28028 (4,12)	0,03026 (4,12)	0,00549 (4,15)	0,00057 (4,14)	-0,13493	-0,23327
29	0,55279 (4,12)	0,37243 (4,12)	0,01152 (4,16)	0,00770 (4,16)	-5,23527	-3,04066
30	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
31	0,30728 (4,12)	0,02366 (4,12)	0,00597 (4,15)	0,00045 (4,14)	-0,17405	-0,29620
32	2,03387 (4,15)	1,37611 (4,15)	0,05561 (4,20)	0,03656 (4,20)	1,73282	-1,28555
33	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
34	0,15363 (4,12)	0,02743 (4,12)	0,00298 (4,15)	0,00051 (4,14)	-0,08703	-0,21802
35	0,28222 (4,12)	0,20772 (4,12)	0,00582 (4,16)	0,00425 (4,16)	-4,70318	-3,01443
36	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
37	0,12495 (4,12)	0,02103 (4,12)	0,00238 (4,14)	0,00040 (4,14)	-0,10473	-0,27047
38	0,73284 (4,12)	0,56502 (4,12)	0,01537 (4,17)	0,01172 (4,16)	2,00437	-1,56782
39	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
40	0,06246 (4,12)	0,02454 (4,12)	0,00119 (4,14)	0,00046 (4,14)	-0,05237	-0,20100
41	0,06716 (4,12)	0,05521 (4,12)	0,00136 (4,16)	0,00111 (4,16)	-4,14365	-2,96444
42	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
43	0,01465 (4,11)	0,01869 (4,12)	0,00026 (4,11)	0,00035 (4,14)	-0,06178	-0,24446
44	0,17653 (4,11)	0,15468 (4,11)	0,00323 (4,13)	0,00282 (4,13)	2,06595	-1,77831
45	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
46	0,00732 (4,11)	0,02173 (4,12)	0,00013 (4,11)	0,00041 (4,14)	-0,03089	-0,18325
47	0,06902 (4,12)	0,06261 (4,12)	0,00141 (4,16)	0,00128 (4,16)	-3,58871	-2,91109
48	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
49	0,04345 (4,12)	0,01640 (4,12)	0,00092 (4,17)	0,00031 (4,14)	-0,03856	-0,21687
50	0,07985 (4,14)	0,08458 (4,14)	0,00207 (4,20)	0,00216 (4,20)	1,99828	-1,95499
51	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
52	0,02173 (4,12)	0,01891 (4,12)	0,00046 (4,17)	0,00035 (4,14)	-0,01928	-0,16376
53	0,13311 (4,12)	0,14077 (4,12)	0,00270 (4,16)	0,00284 (4,16)	-3,01413	-2,82989
54	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000	0,00000
55	0,06165 (4,12)	0,01417 (4,12)	0,00125 (4,16)	0,00027 (4,14)	-0,02966	-0,18896
56	0,15394 (4,13)	0,19330 (4,13)	0,00336 (4,17)	0,00419 (4,17)	1,84956	-2,11974

57	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
58	0,03083 (4,12)	0,01617 (4,12)	0,00063 (4,16)	0,00030 (4,14)	-0.01483	-0.14364
59	0,13627 (4,12)	0,17234 (4,12)	0,00274 (4,16)	0,00346 (4,16)	-2.46381	-2.73899
60	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
61	0,05770 (4,12)	0,01185 (4,12)	0,00116 (4,16)	0,00022 (4,14)	-0.02851	-0.15938
62	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
63	0,02885 (4,12)	0,01341 (4,12)	0,00058 (4,16)	0,00025 (4,14)	-0.01426	-0.12182
64	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
65	0,04398 (4,12)	0,00955 (4,12)	0,00088 (4,15)	0,00018 (4,14)	-0.02945	-0.12957
66	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
67	0,02199 (4,12)	0,01074 (4,12)	0,00044 (4,15)	0,00020 (4,14)	-0.01473	-0.09954
68	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
69	0,02868 (4,12)	0,00716 (4,12)	0,00057 (4,15)	0,00013 (4,14)	-0.02883	-0.09816
70	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
71	0,01434 (4,12)	0,00803 (4,12)	0,00028 (4,15)	0,00015 (4,14)	-0.01442	-0.07572
72	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
73	0,01852 (4,12)	0,00526 (4,12)	0,00037 (4,15)	0,00010 (4,14)	-0.02539	-0.07269
74	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
75	0,00926 (4,12)	0,00589 (4,12)	0,00018 (4,15)	0,00011 (4,14)	-0.01269	-0.05623
76	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
77	0,00354 (4,12)	0,00120 (4,12)	0,00007 (4,15)	0,00002 (4,14)	-0.00739	-0.01686
78	0,00177 (4,12)	0,00135 (4,12)	0,00003 (4,15)	0,00003 (4,14)	-0.00369	-0.01310
79	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000
80	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0,00000 (0,00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	0,189 (4,11)	10,905 (4,11)	344,999 (4,11)	-26,118	-0,002	-262,519
2	8	9	201,863 (4,20)	12,504 (4,12)	133,453 (4,12)	837,222	-0,002	135,450
3	8	10	64,976 (4,21)	0,000 (4,11)	0,000 (4,11)	805,569	0,000	-0,000
4	8	11	616,867 (4,22)	0,011 (4,12)	0,023 (4,12)	-979,357	0,007	-0,015
5	10	12	281,715 (4,19)	0,006 (4,12)	0,012 (4,12)	694,354	0,004	-0,008
6	8	12	133,940 (4,23)	0,005 (4,12)	0,011 (4,12)	531,096	0,004	-0,007
7	10	11	258,239 (4,20)	0,005 (4,12)	0,011 (4,12)	-2348,117	0,003	-0,007
8	11	13	1357,721 (4,12)	0,007 (4,13)	11039,607 (4,13)	-10084,300	0,002	-2255,373
9	12	16	1080,266 (4,12)	0,003 (4,13)	4271,496 (4,13)	-5304,089	0,013	-3024,948
10	13	19	1343,332 (4,12)	10211,860 (4,13)	15577,466 (4,12)	-10437,821	-2255,027	-6193,135
11	16	22	1140,599 (4,12)	4587,834 (4,13)	7912,478 (4,12)	-5899,914	-3025,092	-2538,777
12	19	25	1250,794 (4,12)	15454,681 (4,12)	18496,967 (4,12)	-10691,476	-6193,029	-6780,224
13	22	28	1185,644 (4,12)	7904,780 (4,12)	9212,167 (4,12)	-6385,805	-2538,787	-3515,571
14	25	31	1144,892 (4,12)	18544,535 (4,12)	19634,244 (4,12)	-10972,164	-6780,194	-7415,262
15	28	34	1218,912 (4,12)	9215,490 (4,12)	9836,760 (4,12)	-6871,192	-3515,592	-3674,275
16	31	37	1044,324 (4,12)	19651,532 (4,12)	17596,135 (4,12)	-11361,758	-7415,199	-6371,334
17	34	40	1245,949 (4,12)	9824,041 (4,12)	8797,000 (4,12)	-7506,600	-3674,283	-3193,818
18	37	43	1009,807 (4,12)	17586,233 (4,12)	14066,068 (4,12)	-11728,450	-6371,298	-5292,619
19	40	46	1251,008 (4,12)	8784,214 (4,12)	7035,923 (4,12)	-8000,736	-3193,827	-2644,560
20	43	49	995,840 (4,12)	14049,915 (4,12)	9699,133 (4,12)	-12177,396	-5292,571	-3461,740
21	46	52	1244,272 (4,12)	7019,099 (4,12)	4849,515 (4,12)	-8595,810	-2644,568	-1730,729
22	49	55	1003,192 (4,12)	9677,685 (4,12)	5501,691 (4,12)	-12573,082	-3461,714	-2028,766
23	52	58	1233,806 (4,12)	4836,212 (4,12)	2751,857 (4,12)	-9064,615	-1730,738	-1015,392
24	55	61	1025,312 (4,12)	5480,913 (4,12)	2375,601 (4,12)	-13047,532	-2028,737	-376,958
25	58	63	1214,778 (4,12)	2738,031 (4,12)	1187,101 (4,12)	-9621,589	-1015,401	-187,691
26	61	65	1038,282 (4,12)	2367,190 (4,12)	125,891 (4,12)	-13426,499	-376,967	406,677
27	63	67	1205,783 (4,12)	1184,811 (4,12)	61,726 (4,12)	-10034,076	-187,704	202,154
28	65	69	1053,133 (4,12)	124,217 (4,12)	839,642 (4,12)	-13856,051	406,665	1121,070
29	67	71	1195,127 (4,12)	62,533 (4,12)	420,000 (4,12)	-10505,334	202,141	561,037
30	69	73	1059,059 (4,12)	837,431 (4,12)	969,115 (4,12)	-14187,679	1121,058	1424,856
31	71	75	1190,910 (4,12)	418,162 (4,12)	485,418 (4,12)	-10857,346	561,027	711,614
32	73	77	1062,271 (4,12)	973,439 (4,12)	237,258 (4,12)	-14589,316	1424,858	844,971
33	75	78	1188,768 (4,12)	486,297 (4,12)	118,569 (4,12)	-11272,106	711,611	423,041
34	77	79	1062,291 (4,12)	230,004 (4,12)	0,114 (4,12)	-14869,983	844,961	0,000
35	78	80	1188,791 (4,12)	115,768 (4,12)	0,045 (4,12)	-11552,644	423,037	0,000
36	11	12	673,942 (4,12)	0,041 (4,12)	0,041 (4,12)	1882,842	0,027	-0,028
37	13	16	47,688 (4,11)	0,039 (4,12)	0,039 (4,12)	46,698	0,021	-0,021
38	19	22	15,287 (4,14)	0,035 (4,12)	0,035 (4,12)	155,358	0,020	-0,020
39	25	28	4,536 (4,13)	0,030 (4,12)	0,030 (4,12)	93,122	0,019	-0,019
40	31	34	13,275 (4,11)	0,023 (4,12)	0,023 (4,12)	181,634	0,019	-0,019
41	37	40	7,623 (4,12)	0,016 (4,12)	0,016 (4,12)	130,566	0,018	-0,018
42	43	46	8,763 (4,12)	0,009 (4,12)	0,009 (4,12)	220,524	0,018	-0,018
43	49	52	5,202 (4,12)	0,004 (4,12)	0,004 (4,12)	166,104	0,017	-0,017
44	55	58	6,502 (4,11)	0,001 (4,11)	0,001 (4,11)	284,841	0,015	-0,015
45	61	63	2,528 (4,11)	0,001 (4,14)	0,001 (4,14)	184,588	0,013	-0,013
46	65	67	3,770 (4,12)	0,001 (4,12)	0,001 (4,12)	323,539	0,010	-0,010
47	69	71	2,015 (4,12)	0,001 (4,12)	0,001 (4,12)	248,107	0,008	-0,008
48	73	75	1,197 (4,12)	0,001 (4,12)	0,001 (4,12)	271,247	0,005	-0,005
49	77	78	0,959 (4,12)	0,001 (4,12)	0,001 (4,12)	0,118	-0,000	0,000
50	5	11	1147,753 (4,11)	0,000 (0,00)	0,000 (0,00)	739,790	0,000	0,000
51	3	5	1135,079 (4,11)	0,000 (0,00)	0,000 (0,00)	579,981	0,000	0,000
52	1	3	1173,364 (4,11)	0,000 (0,00)	0,000 (0,00)	314,769	0,000	0,000
53	6	12	1434,651 (4,12)	0,000 (0,00)	0,000 (0,00)	4999,988	0,000	0,000
54	4	6	1436,101 (4,12)	0,000 (0,00)	0,000 (0,00)	4840,306	0,000	0,000
55	2	4	1436,218 (4,12)	0,000 (0,00)	0,000 (0,00)	4682,695	0,000	0,000

56	13	14	69,543 (4,23)	0,000 (0,00)	0,000 (0,00)	51,306	0,000	0,000
57	14	15	69,659 (4,23)	0,000 (0,00)	0,000 (0,00)	35,908	0,000	0,000
58	16	17	67,151 (4,12)	0,000 (0,00)	0,000 (0,00)	314,110	0,000	0,000
59	17	18	67,199 (4,12)	0,000 (0,00)	0,000 (0,00)	298,903	0,000	0,000
60	19	20	103,387 (4,13)	0,000 (0,00)	0,000 (0,00)	48,302	0,000	0,000
61	20	21	103,573 (4,13)	0,000 (0,00)	0,000 (0,00)	34,023	0,000	0,000
62	22	23	51,076 (4,12)	0,000 (0,00)	0,000 (0,00)	303,277	0,000	0,000
63	23	24	51,109 (4,12)	0,000 (0,00)	0,000 (0,00)	289,165	0,000	0,000
64	25	26	123,296 (4,12)	0,000 (0,00)	0,000 (0,00)	67,572	0,000	0,000
65	26	27	123,285 (4,12)	0,000 (0,00)	0,000 (0,00)	54,095	0,000	0,000
66	28	29	38,132 (4,12)	0,000 (0,00)	0,000 (0,00)	295,237	0,000	0,000
67	29	30	38,155 (4,12)	0,000 (0,00)	0,000 (0,00)	281,995	0,000	0,000
68	31	32	119,746 (4,11)	0,000 (0,00)	0,000 (0,00)	150,722	0,000	0,000
69	32	33	119,761 (4,11)	0,000 (0,00)	0,000 (0,00)	132,326	0,000	0,000
70	34	35	31,816 (4,12)	0,000 (0,00)	0,000 (0,00)	429,278	0,000	0,000
71	35	36	31,832 (4,12)	0,000 (0,00)	0,000 (0,00)	411,208	0,000	0,000
72	37	38	42,550 (4,11)	0,000 (0,00)	0,000 (0,00)	131,085	0,000	0,000
73	38	39	42,558 (4,11)	0,000 (0,00)	0,000 (0,00)	120,050	0,000	0,000
74	40	41	6,058 (4,12)	0,000 (0,00)	0,000 (0,00)	279,250	0,000	0,000
75	41	42	6,061 (4,12)	0,000 (0,00)	0,000 (0,00)	268,423	0,000	0,000
76	43	44	18,230 (4,11)	0,000 (0,00)	0,000 (0,00)	238,411	0,000	0,000
77	44	45	18,233 (4,11)	0,000 (0,00)	0,000 (0,00)	223,656	0,000	0,000
78	46	47	8,672 (4,12)	0,000 (0,00)	0,000 (0,00)	414,272	0,000	0,000
79	47	48	8,675 (4,12)	0,000 (0,00)	0,000 (0,00)	399,830	0,000	0,000
80	49	50	9,933 (4,13)	0,000 (0,00)	0,000 (0,00)	184,727	0,000	0,000
81	50	51	9,935 (4,13)	0,000 (0,00)	0,000 (0,00)	176,113	0,000	0,000
82	52	53	14,306 (4,12)	0,000 (0,00)	0,000 (0,00)	277,328	0,000	0,000
83	53	54	14,310 (4,12)	0,000 (0,00)	0,000 (0,00)	268,918	0,000	0,000
84	55	56	32,624 (4,12)	0,000 (0,00)	0,000 (0,00)	312,674	0,000	0,000
85	56	57	32,630 (4,12)	0,000 (0,00)	0,000 (0,00)	301,554	0,000	0,000
86	58	59	28,234 (4,12)	0,000 (0,00)	0,000 (0,00)	425,168	0,000	0,000
87	59	60	28,241 (4,12)	0,000 (0,00)	0,000 (0,00)	414,336	0,000	0,000
88	61	62	21,465 (4,12)	0,000 (0,00)	0,000 (0,00)	194,277	0,000	0,000
89	63	64	15,075 (4,12)	0,000 (0,00)	0,000 (0,00)	244,851	0,000	0,000
90	65	66	29,125 (4,12)	0,000 (0,00)	0,000 (0,00)	321,836	0,000	0,000
91	67	68	21,107 (4,12)	0,000 (0,00)	0,000 (0,00)	396,785	0,000	0,000
92	69	70	14,855 (4,12)	0,000 (0,00)	0,000 (0,00)	236,321	0,000	0,000
93	71	72	10,774 (4,12)	0,000 (0,00)	0,000 (0,00)	283,709	0,000	0,000
94	73	74	10,711 (4,12)	0,000 (0,00)	0,000 (0,00)	254,729	0,000	0,000
95	75	76	7,422 (4,12)	0,000 (0,00)	0,000 (0,00)	295,580	0,000	0,000
96	9	11	244,898 (4,20)	0,003 (4,12)	0,005 (4,12)	-1106,997	0,002	-0,003
97	9	10	47,031 (4,17)	128,761 (4,12)	16,955 (4,12)	207,095	-127,042	-0,005

GUST ANALYSIS TIME [illegible]SEC

INTOS MODIFIED MODEL .....RUN YY,DAMP=.018,V=-115.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	28.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0180
2	.0180
3	.0180
4	.0180
5	.0180
6	.0180
7	.0180
8	.0180

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
4	1.14894	1.09930	4.212	-154.00980	21.754375	28.717353

FUNDAMENTAL FREQUENCIES -YY

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.48206E-01	8.09981E+00	7.407585
2	8.67504E-01	8.28410E+00	7.242794
3	1.02283E+00	9.76740E+00	6.142883
4	1.14894E+00	1.09717E+01	5.468635
5	1.31864E+00	1.25922E+01	4.764865
6	1.38736E+00	1.32484E+01	4.528853
7	1.55069E+00	1.48081E+01	4.051845
8	1.75123E+00	1.67231E+01	3.587861
9	1.89876E+00	1.81319E+01	3.309078
10	2.28526E+00	2.18228E+01	2.749422
11	2.44360E+00	2.33348E+01	2.571266
12	2.47939E+00	2.36766E+01	2.534151
13	2.56129E+00	2.44586E+01	2.453120
14	2.63418E+00	2.51547E+01	2.385240
15	2.70952E+00	2.58742E+01	2.318917
16	2.74678E+00	2.62300E+01	2.287460
17	2.88734E+00	2.75722E+01	2.176108
18	3.03554E+00	2.89874E+01	2.069864
19	3.23390E+00	3.08816E+01	1.942904
20	3.42566E+00	3.27128E+01	1.834146
21	3.43786E+00	3.28293E+01	1.827637
22	4.01753E+00	3.83648E+01	1.563934
23	5.30270E+00	5.06373E+01	1.184897
24	8.23652E+00	7.86533E+01	.762841
25	8.69949E+00	8.30744E+01	.722244
26	1.26676E+01	1.20967E+02	.496001
27	1.57196E+01	1.50112E+02	.399702
28	2.09436E+01	1.99997E+02	.300004
29	3.30845E+01	3.15936E+02	.189912
30	3.49797E+01	3.34033E+02	.179623
31	4.24330E+01	4.05207E+02	.148072
32	4.27862E+01	4.08580E+02	.146850
33	4.42567E+01	4.22623E+02	.141971
34	4.87007E+01	4.65059E+02	.129016
35	5.21706E+01	4.98195E+02	.120435
36	5.43132E+01	5.18655E+02	.115684
37	5.60097E+01	5.34856E+02	.112180
38	5.83402E+01	5.57110E+02	.107699
39	5.90268E+01	5.63667E+02	.106446
40	6.16254E+01	5.88482E+02	.101957
41	6.19201E+01	5.91296E+02	.101472
42	6.43743E+01	6.14732E+02	.097603
43	6.70084E+01	6.39886E+02	.093767
44	6.85494E+01	6.54601E+02	.091659
45	7.33528E+01	7.00471E+02	.085657
46	7.54388E+01	7.20391E+02	.083288
47	7.86048E+01	7.50624E+02	.079934
48	8.09155E+01	7.72689E+02	.077651
49	8.35107E+01	7.97472E+02	.075238
50	8.49887E+01	8.11586E+02	.073929
51	8.94477E+01	8.54167E+02	.070244
52	9.19009E+01	8.77593E+02	.068369

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESES)

PCINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	19.43424 (4.21)	8.58364 (4.21)	.79673 (4.21)	.35190 (4.21)	-13.03742	5.93398
4	2.57200 (4.21)	1.58471 (4.21)	.10544 (4.21)	.06497 (4.21)	-5.43008	-2.71809
5	16.11638 (4.21)	7.05583 (4.21)	.66071 (4.21)	.28926 (4.21)	-13.77189	6.09681
6	1.92605 (4.21)	1.45950 (4.21)	.07896 (4.21)	.05983 (4.21)	-5.91071	-2.83817
7	2.19937 (4.21)	.01771 (4.21)	.09017 (4.21)	.00073 (4.21)	-5.31034	-.40944
8	3.50978 (4.21)	.10067 (4.21)	.14389 (4.21)	.00413 (4.21)	-2.76699	-.44904
9	1.77597 (4.21)	.09819 (4.21)	.07281 (4.21)	.00403 (4.21)	-1.81100	-.39716
10	1.75493 (4.21)	.09294 (4.21)	.07195 (4.21)	.00381 (4.21)	-1.38349	-.29285
11	3.47358 (4.21)	.10042 (4.21)	.14240 (4.21)	.00412 (4.21)	-2.02592	-.44899
12	1.73682 (4.21)	.09289 (4.21)	.07120 (4.21)	.00381 (4.21)	-1.01295	-.29286
13	2.47836 (4.21)	.08370 (4.21)	.10160 (4.21)	.00343 (4.21)	-1.39302	-.40997
14	17.19843 (4.21)	7.76746 (4.21)	.70507 (4.21)	.31844 (4.21)	-12.08228	5.41593
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	1.23918 (4.21)	.08283 (4.21)	.05080 (4.21)	.00340 (4.21)	-.69651	-.27416
17	1.98118 (4.21)	1.23845 (4.21)	.08122 (4.21)	.05077 (4.21)	-5.66237	-2.79190
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	1.89837 (4.21)	.07402 (4.21)	.07783 (4.21)	.00303 (4.21)	-1.03490	-.38510
20	29.33219 (4.21)	15.15111 (4.21)	1.20250 (4.21)	.62114 (4.21)	-9.79410	4.72726
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.94917 (4.21)	.07651 (4.21)	.03891 (4.21)	.00314 (4.21)	-.51745	-.26127
23	1.65825 (4.21)	1.08546 (4.21)	.06798 (4.21)	.04450 (4.21)	-5.28619	-2.81541
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	1.47067 (4.21)	.06677 (4.21)	.06029 (4.21)	.00274 (4.21)	-.78237	-.36491
26	37.32258 (4.21)	20.25164 (4.21)	1.53008 (4.21)	.83024 (4.21)	-7.44699	3.76475
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.73531 (4.21)	.07148 (4.21)	.03014 (4.21)	.00293 (4.21)	-.39119	-.25016
29	1.36641 (4.21)	.93439 (4.21)	.05602 (4.21)	.03831 (4.21)	-5.00395	-2.84863
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.94598 (4.21)	.05734 (4.21)	.03878 (4.21)	.00235 (4.21)	-.49073	-.33628
32	10.16913 (4.21)	6.43543 (4.21)	.41689 (4.21)	.26383 (4.21)	-2.59625	1.23547
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.47297 (4.21)	.06459 (4.21)	.01939 (4.21)	.00265 (4.21)	-.24537	-.23359
35	.92644 (4.21)	.68529 (4.21)	.03798 (4.21)	.02809 (4.21)	-4.61932	-2.92235
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.52014 (4.21)	.04965 (4.21)	.02132 (4.21)	.00204 (4.21)	-.27019	-.30623
38	10.31097 (4.21)	6.73637 (4.21)	.42271 (4.21)	.27616 (4.21)	1.89929	-1.56695
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.26004 (4.21)	.05768 (4.21)	.01066 (4.21)	.00236 (4.21)	-.13510	-.21507
41	.48088 (4.21)	.39175 (4.21)	.01971 (4.21)	.01606 (4.21)	-4.19353	-2.97826
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.22204 (4.21)	.04335 (4.21)	.00910 (4.21)	.00178 (4.21)	-.12800	-.27610
44	2.21166 (4.21)	1.85897 (4.21)	.09067 (4.21)	.07621 (4.21)	1.82109	-1.62714
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.11100 (4.21)	.05108 (4.21)	.00455 (4.21)	.00209 (4.21)	-.06400	-.19579
47	.11969 (4.21)	.11081 (4.21)	.00491 (4.21)	.00454 (4.21)	-3.72801	-3.01446
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.03138 (4.21)	.03770 (4.21)	.00129 (4.21)	.00155 (4.21)	-.04747	-.24445
50	.38964 (4.21)	.39038 (4.21)	.01597 (4.21)	.01600 (4.21)	1.75460	-1.75037
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.01568 (4.21)	.04446 (4.21)	.00064 (4.21)	.00182 (4.21)	-.02374	-.17470
53	.12344 (4.21)	.12820 (4.21)	.00506 (4.21)	.00526 (4.21)	-3.18994	-2.99403
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.06473 (4.21)	.03245 (4.21)	.00265 (4.21)	.00133 (4.21)	-.01490	-.21263
56	.10094 (4.21)	.12822 (4.21)	.00414 (4.21)	.00526 (4.21)	1.65610	-1.91400
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.03237 (4.21)	.03806 (4.21)	.00133 (4.21)	.00156 (4.21)	-.00745	-.15301
59	.22408 (4.21)	.27936 (4.21)	.00919 (4.21)	.01145 (4.21)	-2.62518	-2.92270

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.09811 (4.21)	.02712 (4.21)	.00402 (4.21)	.00111 (4.21)	-.01030	-.17968
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.04906 (4.21)	.03160 (4.21)	.00201 (4.21)	.00130 (4.21)	-.00515	-.12960
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.09326 (4.21)	.02185 (4.21)	.00382 (4.21)	.00090 (4.21)	-.01715	-.14539
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.04664 (4.21)	.02530 (4.21)	.00191 (4.21)	.00104 (4.21)	-.00857	-.10578
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.07178 (4.21)	.01639 (4.21)	.00294 (4.21)	.00067 (4.21)	-.02400	-.11000
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.03589 (4.21)	.01892 (4.21)	.00147 (4.21)	.00078 (4.21)	-.01200	-.08039
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.05183 (4.21)	.01204 (4.21)	.00212 (4.21)	.00049 (4.21)	-.02464	-.08138
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.02591 (4.21)	.01388 (4.21)	.00106 (4.21)	.00057 (4.21)	-.01232	-.05966
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.01152 (4.21)	.00275 (4.21)	.00047 (4.21)	.00011 (4.21)	-.00813	-.01885
78	.00576 (4.21)	.00317 (4.21)	.00024 (4.21)	.00013 (4.21)	-.00406	-.01388
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.449 (4.21)	14.882 (4.21)	471.433 (4.21)	-26.087	-.003	-346.931
2	8	9	2625.324 (4.21)	49.440 (4.21)	220.605 (4.21)	817.248	.390	178.592
3	8	10	896.627 (4.21)	.000 (4.21)	.000 (4.21)	901.121	.000	-.000
4	8	11	10222.976 (4.21)	.018 (4.21)	.037 (4.21)	-2326.418	.003	-.005
5	10	12	3128.060 (4.21)	.009 (4.21)	.019 (4.21)	992.223	.002	-.003
6	8	12	2718.970 (4.21)	.009 (4.21)	.017 (4.21)	1244.295	.002	-.003
7	10	11	2906.722 (4.21)	.008 (4.21)	.017 (4.21)	-2652.348	.001	-.003
8	11	13	2333.323 (4.21)	.005 (4.21)	9578.563 (4.21)	-12115.184	-.008	-6883.196
9	12	16	2361.982 (4.21)	.006 (4.21)	3154.077 (4.21)	-5733.778	.011	-5830.963
10	13	19	2385.819 (4.21)	8878.060 (4.21)	13667.949 (4.21)	-12473.910	-6903.677	-14343.901
11	16	22	2515.155 (4.21)	3774.514 (4.21)	6988.505 (4.21)	-6404.679	-5831.484	-6469.710
12	19	25	2535.883 (4.21)	13441.500 (4.21)	18839.577 (4.21)	-12725.276	-14344.001	-17016.724
13	22	28	2638.389 (4.21)	6993.031 (4.21)	9304.155 (4.21)	-6951.496	-6469.366	-8663.552
14	25	31	2781.984 (4.21)	18713.322 (4.21)	28792.539 (4.21)	-12980.426	-17017.164	-19980.613
15	28	34	2737.409 (4.21)	9320.186 (4.21)	14418.872 (4.21)	-7486.479	-8663.415	-9945.674
16	31	37	2532.600 (4.21)	28857.757 (4.21)	31137.024 (4.21)	-13282.078	-19980.624	-19123.406
17	34	40	2834.572 (4.21)	14415.907 (4.21)	15548.378 (4.21)	-8173.448	-9945.386	-9569.539
18	37	43	2430.811 (4.21)	31060.856 (4.21)	29147.972 (4.21)	-13576.359	-19124.054	-16581.528
19	40	46	2869.297 (4.21)	15535.506 (4.21)	14578.526 (4.21)	-8688.252	-9569.351	-8286.059
20	43	49	2352.756 (4.21)	29163.646 (4.21)	23390.088 (4.21)	-13962.476	-16581.216	-11775.010
21	46	52	2884.332 (4.21)	14554.688 (4.21)	11698.099 (4.21)	-9298.504	-8285.821	-5885.866
22	49	55	2334.948 (4.21)	23358.374 (4.21)	16195.986 (4.21)	-14337.605	-11774.640	-7190.835
23	52	58	2877.285 (4.21)	11673.981 (4.21)	8099.206 (4.21)	-9770.010	-5885.693	-3595.455
24	55	61	2352.035 (4.21)	16156.943 (4.21)	9411.203 (4.21)	-14800.106	-7190.505	-2587.521
25	58	63	2851.575 (4.21)	8070.178 (4.21)	4703.055 (4.21)	-10325.152	-3595.291	-1292.679
26	61	65	2374.659 (4.21)	9381.821 (4.21)	3743.706 (4.21)	-15179.788	-2587.408	212.783
27	63	67	2837.286 (4.21)	4692.990 (4.21)	1867.938 (4.21)	-10731.789	-1292.669	105.146
28	65	69	2407.558 (4.21)	3729.951 (4.21)	606.022 (4.21)	-15610.371	212.795	1906.132
29	67	71	2816.361 (4.21)	1865.283 (4.21)	301.495 (4.21)	-11197.640	105.110	953.324
30	69	73	2422.910 (4.21)	601.334 (4.21)	454.373 (4.21)	-15941.556	1906.065	2446.094
31	71	75	2806.540 (4.21)	301.780 (4.21)	228.738 (4.21)	-11548.376	953.275	1222.028
32	73	77	2432.167 (4.21)	453.998 (4.21)	112.355 (4.21)	-16342.430	2446.237	1254.648
33	75	78	2800.963 (4.21)	226.767 (4.21)	56.358 (4.21)	-11962.936	1222.061	627.805
34	77	79	2432.239 (4.21)	108.514 (4.21)	.087 (4.21)	-16623.092	1254.442	.003
35	78	80	2801.039 (4.21)	54.944 (4.21)	.038 (4.21)	-12243.472	627.730	.001
36	11	12	2454.064 (4.21)	.066 (4.21)	.066 (4.21)	2279.500	.010	-.011
37	13	16	97.432 (4.21)	.065 (4.21)	.065 (4.21)	58.228	.006	-.005
38	19	22	51.678 (4.21)	.063 (4.21)	.063 (4.21)	189.761	.006	-.006
39	25	28	94.253 (4.21)	.059 (4.21)	.059 (4.21)	102.577	.007	-.007
40	31	34	19.582 (4.21)	.050 (4.21)	.050 (4.21)	185.122	.010	-.010
41	37	40	9.287 (4.21)	.039 (4.21)	.039 (4.21)	122.327	.014	-.014
42	43	46	15.265 (4.21)	.027 (4.21)	.027 (4.21)	212.001	.017	-.017
43	49	52	11.719 (4.21)	.016 (4.21)	.016 (4.21)	161.290	.019	-.019
44	55	58	13.516 (4.21)	.008 (4.21)	.008 (4.21)	279.739	.019	-.019
45	61	63	3.400 (4.21)	.003 (4.21)	.003 (4.21)	180.106	.017	-.017
46	65	67	5.411 (4.21)	.000 (4.21)	.000 (4.21)	318.815	.015	-.015
47	69	71	3.653 (4.21)	.002 (4.21)	.002 (4.21)	246.329	.011	-.011
48	73	75	2.567 (4.21)	.002 (4.21)	.002 (4.21)	270.536	.007	-.007
49	77	78	.040 (4.21)	.002 (4.21)	.002 (4.21)	.218	.000	-.000
50	5	11	1141.368 (4.21)	0.000 (0.00)	0.000 (0.00)	827.554	0.000	0.000
51	3	5	1297.468 (4.21)	0.000 (0.00)	0.000 (0.00)	545.755	0.000	0.000
52	1	3	1021.352 (4.21)	0.000 (0.00)	0.000 (0.00)	505.798	0.000	0.000
53	6	12	3356.664 (4.21)	0.000 (0.00)	0.000 (0.00)	6536.080	0.000	0.000
54	4	6	3356.799 (4.21)	0.000 (0.00)	0.000 (0.00)	6376.397	0.000	0.000
55	2	4	3360.197 (4.21)	0.000 (0.00)	0.000 (0.00)	6218.271	0.000	0.000
56	13	14	43.664 (4.21)	0.000 (0.00)	0.000 (0.00)	45.517	0.000	0.000
57	14	15	31.448 (4.21)	0.000 (0.00)	0.000 (0.00)	23.972	0.000	0.000
58	16	17	169.124 (4.21)	0.000 (0.00)	0.000 (0.00)	397.092	0.000	0.000
59	17	18	169.247 (4.21)	0.000 (0.00)	0.000 (0.00)	381.842	0.000	0.000

60	19	20	168.779 (4.21)	0.000 (0.00)	0.000 (0.00)	30.544	0.000	0.000
61	20	21	169.544 (4.21)	0.000 (0.00)	0.000 (0.00)	38.183	0.000	0.000
62	22	23	137.997 (4.21)	0.000 (0.00)	0.000 (0.00)	371.542	0.000	0.000
63	23	24	138.096 (4.21)	0.000 (0.00)	0.000 (0.00)	357.406	0.000	0.000
64	25	26	283.392 (4.21)	0.000 (0.00)	0.000 (0.00)	41.255	0.000	0.000
65	26	27	283.021 (4.21)	0.000 (0.00)	0.000 (0.00)	.024	0.000	0.000
66	28	29	111.431 (4.21)	0.000 (0.00)	0.000 (0.00)	351.353	0.000	0.000
67	29	30	111.512 (4.21)	0.000 (0.00)	0.000 (0.00)	338.099	0.000	0.000
68	31	32	308.235 (4.21)	0.000 (0.00)	0.000 (0.00)	52.623	0.000	0.000
69	32	33	309.213 (4.21)	0.000 (0.00)	0.000 (0.00)	.029	0.000	0.000
70	34	35	111.872 (4.21)	0.000 (0.00)	0.000 (0.00)	488.780	0.000	0.000
71	35	36	111.957 (4.21)	0.000 (0.00)	0.000 (0.00)	470.724	0.000	0.000
72	37	38	138.613 (4.21)	0.000 (0.00)	0.000 (0.00)	44.152	0.000	0.000
73	38	39	131.622 (4.21)	0.000 (0.00)	0.000 (0.00)	38.816	0.000	0.000
74	40	41	40.001 (4.21)	0.000 (0.00)	0.000 (0.00)	303.626	0.000	0.000
75	41	42	40.032 (4.21)	0.000 (0.00)	0.000 (0.00)	292.827	0.000	0.000
76	43	44	105.420 (4.21)	0.000 (0.00)	0.000 (0.00)	160.498	0.000	0.000
77	44	45	105.464 (4.21)	0.000 (0.00)	0.000 (0.00)	145.695	0.000	0.000
78	46	47	17.720 (4.21)	0.000 (0.00)	0.000 (0.00)	432.371	0.000	0.000
79	47	48	17.734 (4.21)	0.000 (0.00)	0.000 (0.00)	417.980	0.000	0.000
80	49	50	26.487 (4.21)	0.000 (0.00)	0.000 (0.00)	158.326	0.000	0.000
81	50	51	26.493 (4.21)	0.000 (0.00)	0.000 (0.00)	149.706	0.000	0.000
82	52	53	10.459 (4.21)	0.000 (0.00)	0.000 (0.00)	280.175	0.000	0.000
83	53	54	10.465 (4.21)	0.000 (0.00)	0.000 (0.00)	271.804	0.000	0.000
84	55	56	24.241 (4.21)	0.000 (0.00)	0.000 (0.00)	297.006	0.000	0.000
85	56	57	24.245 (4.21)	0.000 (0.00)	0.000 (0.00)	285.859	0.000	0.000
86	58	59	38.579 (4.21)	0.000 (0.00)	0.000 (0.00)	421.218	0.000	0.000
87	59	60	38.600 (4.21)	0.000 (0.00)	0.000 (0.00)	410.447	0.000	0.000
88	61	62	37.080 (4.21)	0.000 (0.00)	0.000 (0.00)	196.685	0.000	0.000
89	63	64	24.260 (4.21)	0.000 (0.00)	0.000 (0.00)	234.199	0.000	0.000
90	65	66	64.114 (4.21)	0.000 (0.00)	0.000 (0.00)	325.458	0.000	0.000
91	67	68	41.699 (4.21)	0.000 (0.00)	0.000 (0.00)	384.877	0.000	0.000
92	69	70	38.169 (4.21)	0.000 (0.00)	0.000 (0.00)	236.084	0.000	0.000
93	71	72	25.315 (4.21)	0.000 (0.00)	0.000 (0.00)	279.744	0.000	0.000
94	73	74	30.505 (4.21)	0.000 (0.00)	0.000 (0.00)	252.893	0.000	0.000
95	75	76	19.632 (4.21)	0.000 (0.00)	0.000 (0.00)	294.228	0.000	0.000
96	9	11	3065.904 (4.21)	.004 (4.21)	.008 (4.21)	-1104.399	.001	-.001
97	9	10	469.246 (4.21)	201.489 (4.21)	27.781 (4.21)	224.832	-168.047	-.220

GLST ANALYSIS TIME 62.373 SEC.

INTOS MODIFIED MODEL .....RUN KK,DAMP=.006,V=-115.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	15.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COFF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	.86750	.85619	4.152	32.59592	13.554014	10.200261
4	1.14894	1.13160	4.219	-154.00980	36.674703	48.413269
5	1.31864	1.29876	4.251	-35.74874	8.137243	14.149195
6	1.38736	1.36619	4.263	24.38959	5.650637	10.876185

FUNDAMENTAL FREQUENCIES -KK

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.48206E-01	8.09981E+00	7.407585
2	8.67504E-01	8.28410E+00	7.242794
3	1.02283E+00	9.76740E+00	6.142883
4	1.14894E+00	1.09717E+01	5.468635
5	1.31864E+00	1.25922E+01	4.764865
6	1.38736E+00	1.32484E+01	4.528853
7	1.55069E+00	1.48081E+01	4.051845
8	1.75123E+00	1.67231E+01	3.587861
9	1.89876E+00	1.81319E+01	3.309078
10	2.28526E+00	2.18228E+01	2.749422
11	2.44360E+00	2.33348E+01	2.571266
12	2.47939E+00	2.36766E+01	2.534151
13	2.56129E+00	2.44586E+01	2.453120
14	2.63418E+00	2.51547E+01	2.385240
15	2.70952E+00	2.58742E+01	2.318917
16	2.74678E+00	2.62300E+01	2.287460
17	2.88734E+00	2.75722E+01	2.176108
18	3.03554E+00	2.89874E+01	2.069864
19	3.23390E+00	3.08816E+01	1.942904
20	3.42566E+00	3.27128E+01	1.834146
21	3.43786E+00	3.28293E+01	1.827637
22	4.01753E+00	3.83648E+01	1.563934
23	5.30270E+00	5.06373E+01	1.184897
24	8.23652E+00	7.86533E+01	.762841
25	8.69949E+00	8.30744E+01	.722244
26	1.26676E+01	1.20967E+02	.496001
27	1.57196E+01	1.50112E+02	.399702
28	2.09436E+01	1.99997E+02	.300004
29	3.30845E+01	3.15936E+02	.189912
30	3.49797E+01	3.34033E+02	.179623
31	4.24330E+01	4.05207E+02	.148072
32	4.27862E+01	4.08580E+02	.146850
33	4.42567E+01	4.22623E+02	.141971
34	4.87007E+01	4.65059E+02	.129016
35	5.21706E+01	4.98195E+02	.120435
36	5.43132E+01	5.18655E+02	.115684
37	5.60097E+01	5.34856E+02	.112180
38	5.83402E+01	5.57110E+02	.107699
39	5.90268E+01	5.63667E+02	.106446
40	6.16254E+01	5.88482E+02	.101957
41	6.19201E+01	5.91296E+02	.101472
42	6.43743E+01	6.14732E+02	.097603
43	6.70084E+01	6.39886E+02	.093767
44	6.85494E+01	6.54601E+02	.091659
45	7.33528E+01	7.00471E+02	.085657
46	7.54388E+01	7.20391E+02	.083288
47	7.86048E+01	7.50624E+02	.079934
48	8.09155E+01	7.72689E+02	.077651
49	8.35107E+01	7.97472E+02	.075238
50	8.49887E+01	8.11586E+02	.073929
51	8.94477E+01	8.54167E+02	.070244
52	9.19009E+01	8.77593E+02	.068369

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

PCINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	33.02584 (4.22)	14.58787 (4.22)	1.36004 (4.22)	.60080 (4.22)	-13.03742	5.93398
4	4.36659 (4.22)	2.69000 (4.22)	.17968 (4.22)	.11067 (4.22)	-5.43008	-2.71809
5	27.33190 (4.22)	11.96468 (4.22)	1.12333 (4.22)	.49170 (4.22)	-13.77189	6.09681
6	3.27145 (4.22)	2.47772 (4.22)	.13469 (4.22)	.10195 (4.22)	-5.91071	-2.83817
7	4.51514 (4.20)	.07538 (4.17)	.16393 (4.21)	.00203 (4.18)	-5.31034	-.40944
8	5.95273 (4.22)	.17066 (4.22)	.24465 (4.22)	.00701 (4.22)	-2.76699	-.44904
9	3.01223 (4.22)	.16644 (4.22)	.12381 (4.22)	.00683 (4.22)	-1.81100	-.39716
10	2.97643 (4.22)	.15753 (4.22)	.12233 (4.22)	.00646 (4.22)	-1.38349	-.29285
11	5.89112 (4.22)	.17022 (4.22)	.24209 (4.22)	.00699 (4.22)	-2.02592	-.44899
12	2.94561 (4.22)	.15744 (4.22)	.12105 (4.22)	.00646 (4.22)	-1.01295	-.29286
13	4.19983 (4.22)	.14183 (4.22)	.17206 (4.22)	.00581 (4.22)	-1.39302	-.40997
14	29.13870 (4.22)	13.16011 (4.22)	1.19510 (4.22)	.53979 (4.22)	-12.08228	5.41593
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	2.09992 (4.22)	.14038 (4.22)	.08603 (4.22)	.00576 (4.22)	-.69651	-.27416
17	3.35660 (4.22)	2.09827 (4.22)	.13763 (4.22)	.08602 (4.22)	-5.66237	-2.79190
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	3.22121 (4.22)	.12543 (4.22)	.13165 (4.22)	.00514 (4.22)	-1.03490	-.38510
20	57.44394 (4.23)	30.04034 (4.23)	2.66876 (4.24)	1.40683 (4.24)	-9.79410	4.72726
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	1.61059 (4.22)	.12968 (4.22)	.06582 (4.22)	.00532 (4.22)	-.51745	-.26127
23	2.81164 (4.22)	1.84087 (4.22)	.11496 (4.22)	.07526 (4.22)	-5.28619	-2.81541
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	2.50392 (4.22)	.11317 (4.22)	.10210 (4.22)	.00463 (4.22)	-.78237	-.36491
26	75.51224 (4.23)	41.15633 (4.23)	3.41944 (4.23)	1.86725 (4.23)	-7.44699	3.76475
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	1.25192 (4.22)	.12116 (4.22)	.05105 (4.22)	.00497 (4.22)	-.39119	-.25016
29	2.32645 (4.22)	1.59145 (4.22)	.09491 (4.22)	.06491 (4.22)	-5.00395	-2.84863
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	1.62894 (4.22)	.09727 (4.22)	.06612 (4.22)	.00398 (4.22)	-.49073	-.33628
32	60.68699 (4.16)	37.37128 (4.16)	1.53272 (4.17)	.94765 (4.17)	-2.59625	1.23547
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.81443 (4.22)	.10948 (4.22)	.03306 (4.22)	.00449 (4.22)	-.24537	-.23359
35	1.60617 (4.22)	1.18863 (4.22)	.06528 (4.22)	.04828 (4.22)	-4.61932	-2.92235
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.92217 (4.22)	.08421 (4.22)	.03716 (4.22)	.00345 (4.22)	-.27019	-.30623
38	17.81968 (4.22)	11.69823 (4.22)	.72030 (4.22)	.47123 (4.22)	1.89929	-1.56695
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.46104 (4.22)	.09777 (4.22)	.01858 (4.22)	.00401 (4.22)	-.13510	-.21507
41	.89360 (4.22)	.72806 (4.22)	.03615 (4.22)	.02941 (4.22)	-4.19353	-2.97826
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.43363 (4.21)	.07351 (4.22)	.01724 (4.22)	.00301 (4.22)	-.12800	-.27610
44	4.06809 (4.22)	3.42143 (4.22)	.16818 (4.22)	.14114 (4.22)	1.82109	-1.62714
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.21678 (4.21)	.08659 (4.22)	.00862 (4.22)	.00355 (4.22)	-.06400	-.19579
47	.37911 (4.21)	.34749 (4.21)	.01553 (4.24)	.01416 (4.23)	-3.72801	-3.01446
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.15644 (4.20)	.06392 (4.22)	.00614 (4.24)	.00262 (4.22)	-.04747	-.24445
50	.95148 (4.21)	.95976 (4.21)	.03929 (4.23)	.03944 (4.23)	1.75460	-1.75037
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.07821 (4.20)	.07538 (4.22)	.00307 (4.24)	.00309 (4.22)	-.02374	-.17470
53	.31031 (4.21)	.32454 (4.22)	.01325 (4.23)	.01382 (4.23)	-3.18994	-2.99403
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.13916 (4.22)	.05502 (4.22)	.00580 (4.23)	.00225 (4.22)	-.01490	-.21263
56	.36726 (4.22)	.45539 (4.22)	.01574 (4.24)	.01941 (4.24)	1.65610	-1.91400
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.06960 (4.22)	.06452 (4.22)	.00290 (4.23)	.00264 (4.22)	-.00745	-.15301
59	.40195 (4.22)	.50127 (4.22)	.01681 (4.22)	.02095 (4.22)	-2.62518	-2.92270

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.17052 (4.22)	.04598 (4.22)	.00707 (4.22)	.00188 (4.22)	-.01030	-.17908
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.08527 (4.22)	.05357 (4.22)	.00353 (4.22)	.00219 (4.22)	-.00515	-.12960
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.15817 (4.22)	.03704 (4.22)	.00651 (4.22)	.00152 (4.22)	-.01715	-.14539
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.07909 (4.22)	.04289 (4.22)	.00325 (4.22)	.00176 (4.22)	-.00857	-.10578
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.12170 (4.22)	.02779 (4.22)	.00498 (4.22)	.00114 (4.22)	-.02400	-.11000
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.06086 (4.22)	.03207 (4.22)	.00249 (4.22)	.00131 (4.22)	-.01200	-.08039
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.08833 (4.22)	.02042 (4.22)	.00360 (4.22)	.00084 (4.22)	-.02464	-.08138
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.04417 (4.22)	.02353 (4.22)	.00180 (4.22)	.00096 (4.22)	-.01232	-.05966
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.01986 (4.22)	.00467 (4.22)	.00081 (4.22)	.00019 (4.22)	-.00813	-.01885
78	.00993 (4.22)	.00538 (4.22)	.00040 (4.22)	.00022 (4.22)	-.00406	-.01388
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATION AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.808 (4.21)	27.071 (4.21)	857.866 (4.21)	-26.087	-.003	-346.931
2	8	9	4491.815 (4.22)	84.953 (4.22)	395.269 (4.21)	817.248	.390	178.592
3	8	10	1534.493 (4.22)	.000 (4.22)	.000 (4.22)	901.121	.000	-.000
4	8	11	17512.508 (4.22)	.031 (4.22)	.063 (4.22)	-2326.418	.003	-.005
5	10	12	5350.058 (4.22)	.016 (4.22)	.032 (4.22)	992.223	.002	-.003
6	8	12	4664.100 (4.22)	.015 (4.22)	.029 (4.22)	1244.295	.002	-.003
7	10	11	4969.997 (4.22)	.014 (4.22)	.029 (4.22)	-2652.348	.001	-.003
8	11	13	3974.233 (4.22)	.009 (4.22)	18645.512 (4.23)	-12115.184	-.008	-6883.196
9	12	16	4004.487 (4.22)	.010 (4.22)	7094.978 (4.23)	-5733.778	.011	-5830.963
10	13	19	4063.659 (4.22)	17663.624 (4.23)	27596.859 (4.23)	-12473.910	-6903.677	-14343.901
11	16	22	4263.829 (4.22)	7905.713 (4.23)	14024.456 (4.23)	-6404.679	-5831.484	-6469.710
12	19	25	4307.922 (4.22)	27325.480 (4.23)	36491.910 (4.22)	-12725.276	-14344.001	-17016.724
13	22	28	4472.261 (4.22)	14015.792 (4.23)	18102.579 (4.22)	-6951.496	-6469.366	-8663.552
14	25	31	4698.766 (4.22)	36400.084 (4.22)	51050.686 (4.22)	-12980.426	-17017.164	-19980.613
15	28	34	4639.674 (4.22)	18119.592 (4.22)	25581.198 (4.22)	-7486.479	-8663.415	-9945.674
16	31	37	4301.482 (4.22)	51208.199 (4.22)	53367.158 (4.22)	-13282.078	-19980.624	-19123.406
17	34	40	4804.050 (4.22)	25567.074 (4.22)	26651.924 (4.22)	-8173.448	-9945.386	-9569.539
18	37	43	4129.778 (4.22)	53235.431 (4.22)	49392.361 (4.22)	-13576.359	-19124.054	-16581.528
19	40	46	4862.946 (4.22)	26627.147 (4.22)	24703.863 (4.22)	-8688.252	-9569.351	-8286.059
20	43	49	3993.153 (4.22)	49416.219 (4.22)	39645.128 (4.22)	-13962.476	-16581.216	-11775.010
21	46	52	4888.739 (4.22)	24662.649 (4.22)	19827.585 (4.22)	-9298.504	-8285.821	-5885.866
22	49	55	3960.998 (4.22)	39592.419 (4.22)	27740.430 (4.22)	-14337.605	-11774.640	-7190.835
23	52	58	4877.058 (4.22)	19787.166 (4.22)	13872.325 (4.22)	-9770.010	-5885.693	-3595.455
24	55	61	3988.363 (4.22)	27676.988 (4.22)	16542.947 (4.22)	-14800.106	-7190.505	-2587.521
25	58	63	4833.821 (4.22)	13824.478 (4.22)	8267.124 (4.22)	-10325.152	-3595.291	-1292.679
26	61	65	4026.307 (4.22)	16492.746 (4.22)	7420.388 (4.21)	-15179.788	-2587.408	212.783
27	63	67	4809.699 (4.22)	8249.429 (4.22)	3704.336 (4.21)	-10731.789	-1292.669	105.146
28	65	69	4081.874 (4.22)	7395.745 (4.21)	2971.208 (4.20)	-15610.371	212.795	1906.132
29	67	71	4774.295 (4.22)	3697.967 (4.21)	1483.432 (4.20)	-11197.640	105.110	953.324
30	69	73	4107.891 (4.22)	2958.400 (4.20)	2097.732 (4.21)	-15941.556	1906.065	2446.094
31	71	75	4757.651 (4.22)	1479.563 (4.20)	1050.677 (4.21)	-11548.376	953.275	1222.028
32	73	77	4123.607 (4.22)	2109.948 (4.21)	518.238 (4.21)	-16342.430	2446.237	1254.648
33	75	78	4748.188 (4.22)	1053.927 (4.21)	258.870 (4.21)	-11962.936	1222.061	627.805
34	77	79	4123.730 (4.22)	500.586 (4.21)	.298 (4.21)	-16623.092	1254.442	.003
35	78	80	4748.317 (4.22)	252.414 (4.21)	.115 (4.21)	-12243.472	627.730	.001
36	11	12	4180.231 (4.22)	.112 (4.22)	.113 (4.22)	2279.500	.010	-.011
37	13	16	165.115 (4.22)	.112 (4.22)	.112 (4.22)	58.228	.006	-.005
38	19	22	103.542 (4.23)	.107 (4.22)	.107 (4.22)	189.761	.006	-.006
39	25	28	183.065 (4.23)	.100 (4.22)	.100 (4.22)	102.577	.007	-.007
40	31	34	106.788 (4.16)	.085 (4.22)	.085 (4.22)	185.122	.010	-.010
41	37	40	18.433 (4.21)	.066 (4.22)	.066 (4.22)	122.327	.014	-.014
42	43	46	26.170 (4.22)	.046 (4.22)	.046 (4.22)	212.001	.017	-.017
43	49	52	20.067 (4.22)	.028 (4.22)	.028 (4.22)	161.290	.019	-.019
44	55	58	23.195 (4.22)	.015 (4.21)	.015 (4.21)	279.739	.019	-.019
45	61	63	6.211 (4.21)	.006 (4.21)	.006 (4.21)	180.106	.017	-.017
46	65	67	9.248 (4.22)	.002 (4.21)	.002 (4.21)	318.815	.015	-.015
47	69	71	6.206 (4.22)	.003 (4.22)	.003 (4.22)	246.329	.011	-.011
48	73	75	4.373 (4.22)	.003 (4.22)	.003 (4.22)	270.536	.007	-.007
49	77	78	.175 (4.21)	.004 (4.22)	.004 (4.22)	.218	.000	-.000
50	5	11	1957.233 (4.22)	0.000 (0.00)	0.000 (0.00)	827.554	0.000	0.000
51	3	5	2220.562 (4.22)	0.000 (0.00)	0.000 (0.00)	545.755	0.000	0.000
52	1	3	1752.578 (4.22)	0.000 (0.00)	0.000 (0.00)	505.798	0.000	0.000
53	6	12	5692.382 (4.22)	0.000 (0.00)	0.000 (0.00)	6536.080	0.000	0.000
54	4	6	5692.618 (4.22)	0.000 (0.00)	0.000 (0.00)	6376.397	0.000	0.000
55	2	4	5698.388 (4.22)	0.000 (0.00)	0.000 (0.00)	6218.271	0.000	0.000
56	13	14	74.437 (4.22)	0.000 (0.00)	0.000 (0.00)	45.517	0.000	0.000
57	14	15	53.928 (4.22)	0.000 (0.00)	0.000 (0.00)	23.972	0.000	0.000
58	16	17	286.618 (4.22)	0.000 (0.00)	0.000 (0.00)	397.092	0.000	0.000
59	17	18	286.825 (4.22)	0.000 (0.00)	0.000 (0.00)	381.842	0.000	0.000

60	19	20	422.761 (4.24)	0.000 (0.00)	0.000 (0.00)	30.544	0.000	0.000
61	20	21	424.655 (4.24)	0.000 (0.00)	0.000 (0.00)	38.183	0.000	0.000
62	22	23	234.359 (4.22)	0.000 (0.00)	0.000 (0.00)	371.542	0.000	0.000
63	23	24	234.527 (4.22)	0.000 (0.00)	0.000 (0.00)	357.406	0.000	0.000
64	25	26	683.155 (4.24)	0.000 (0.00)	0.000 (0.00)	41.255	0.000	0.000
65	26	27	682.536 (4.24)	0.000 (0.00)	0.000 (0.00)	.024	0.000	0.000
66	28	29	190.236 (4.22)	0.000 (0.00)	0.000 (0.00)	351.353	0.000	0.000
67	29	30	190.373 (4.22)	0.000 (0.00)	0.000 (0.00)	338.099	0.000	0.000
68	31	32	691.901 (4.19)	0.000 (0.00)	0.000 (0.00)	52.623	0.000	0.000
69	32	33	696.254 (4.19)	0.000 (0.00)	0.000 (0.00)	.029	0.000	0.000
70	34	35	194.743 (4.22)	0.000 (0.00)	0.000 (0.00)	488.780	0.000	0.000
71	35	36	194.888 (4.22)	0.000 (0.00)	0.000 (0.00)	470.724	0.000	0.000
72	37	38	235.236 (4.22)	0.000 (0.00)	0.000 (0.00)	44.152	0.000	0.000
73	38	39	223.626 (4.22)	0.000 (0.00)	0.000 (0.00)	38.816	0.000	0.000
74	40	41	74.470 (4.21)	0.000 (0.00)	0.000 (0.00)	303.626	0.000	0.000
75	41	42	74.526 (4.21)	0.000 (0.00)	0.000 (0.00)	292.827	0.000	0.000
76	43	44	199.366 (4.21)	0.000 (0.00)	0.000 (0.00)	160.498	0.000	0.000
77	44	45	199.443 (4.21)	0.000 (0.00)	0.000 (0.00)	145.695	0.000	0.000
78	46	47	51.483 (4.21)	0.000 (0.00)	0.000 (0.00)	432.371	0.000	0.000
79	47	48	51.520 (4.21)	0.000 (0.00)	0.000 (0.00)	417.980	0.000	0.000
80	49	50	71.822 (4.20)	0.000 (0.00)	0.000 (0.00)	158.326	0.000	0.000
81	50	51	71.836 (4.20)	0.000 (0.00)	0.000 (0.00)	149.706	0.000	0.000
82	52	53	28.563 (4.21)	0.000 (0.00)	0.000 (0.00)	280.175	0.000	0.000
83	53	54	28.580 (4.21)	0.000 (0.00)	0.000 (0.00)	271.804	0.000	0.000
84	55	56	72.172 (4.21)	0.000 (0.00)	0.000 (0.00)	297.006	0.000	0.000
85	56	57	72.184 (4.21)	0.000 (0.00)	0.000 (0.00)	285.859	0.000	0.000
86	58	59	69.472 (4.22)	0.000 (0.00)	0.000 (0.00)	421.218	0.000	0.000
87	59	60	69.509 (4.22)	0.000 (0.00)	0.000 (0.00)	410.447	0.000	0.000
88	61	62	65.523 (4.22)	0.000 (0.00)	0.000 (0.00)	196.685	0.000	0.000
89	63	64	41.545 (4.22)	0.000 (0.00)	0.000 (0.00)	234.199	0.000	0.000
90	65	66	108.810 (4.22)	0.000 (0.00)	0.000 (0.00)	325.458	0.000	0.000
91	67	68	70.673 (4.22)	0.000 (0.00)	0.000 (0.00)	384.877	0.000	0.000
92	69	70	64.719 (4.22)	0.000 (0.00)	0.000 (0.00)	236.084	0.000	0.000
93	71	72	42.917 (4.22)	0.000 (0.00)	0.000 (0.00)	279.744	0.000	0.000
94	73	74	52.028 (4.22)	0.000 (0.00)	0.000 (0.00)	252.893	0.000	0.000
95	75	76	33.417 (4.22)	0.000 (0.00)	0.000 (0.00)	294.228	0.000	0.000
96	9	11	5246.647 (4.22)	.007 (4.22)	.015 (4.22)	-1104.399	.001	-.001
97	9	10	804.045 (4.22)	364.028 (4.21)	47.740 (4.22)	224.832	-168.047	-.220

GUST ANALYSIS TIME 246.597 SEC.

INTOS MODIFIED MODEL .....RUN LL,DAMP=.006,V=-130.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	15.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
3	1.18106	1.16288	4.225	66.94683	13.824617	19.283838
4	1.34302	1.32271	4.256	-206.69322	37.593526	67.807816
5	1.40201	1.38150	4.266	-84.45145	16.439898	32.314624

FUNDAMENTAL FREQUENCIES -LL

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	8.48557E-01	8.10316E+00	7.404518
2	9.65153E-01	9.21657E+00	6.510013
3	1.18106E+00	1.12783E+01	5.319951
4	1.34302E+00	1.28250E+01	4.678369
5	1.40201E+00	1.33882E+01	4.481546
6	1.90334E+00	1.81757E+01	3.301119
7	2.12321E+00	2.02753E+01	2.959268
8	2.51738E+00	2.40393E+01	2.495912
9	2.68957E+00	2.56836E+01	2.336122
10	2.70945E+00	2.58735E+01	2.318975
11	2.75789E+00	2.63360E+01	2.278247
12	2.80970E+00	2.68308E+01	2.236237
13	2.87794E+00	2.74824E+01	2.183212
14	2.99197E+00	2.85713E+01	2.100009
15	3.10223E+00	2.96243E+01	2.025368
16	3.22177E+00	3.07657E+01	1.950221
17	3.29655E+00	3.14799E+01	1.905980
18	3.45809E+00	3.30225E+01	1.816945
19	3.52490E+00	3.36605E+01	1.782506
20	4.29188E+00	4.09847E+01	1.463963
21	4.57106E+00	4.36506E+01	1.374552
22	5.07141E+00	4.84286E+01	1.238937
23	5.67133E+00	5.41575E+01	1.107880
24	8.33086E+00	7.95542E+01	.754203
25	9.86228E+00	9.41782E+01	.637090
26	1.26432E+01	1.20734E+02	.496960
27	1.57080E+01	1.50001E+02	.399997
28	2.08691E+01	1.99286E+02	.301075
29	2.73828E+01	2.61488E+02	.229456
30	3.27373E+01	3.12620E+02	.191926
31	3.30258E+01	3.15374E+02	.190250
32	4.84856E+01	4.63005E+02	.129588
33	5.21495E+01	4.97993E+02	.120484
34	5.60136E+01	5.34893E+02	.112172
35	5.94212E+01	5.67433E+02	.105739
36	5.95986E+01	5.69127E+02	.105425
37	6.04754E+01	5.77500E+02	.103896
38	6.10709E+01	5.83187E+02	.102883
39	6.23541E+01	5.95441E+02	.100766
40	6.28693E+01	6.00360E+02	.099940
41	6.35392E+01	6.06757E+02	.098886
42	6.53354E+01	6.23910E+02	.096168
43	6.55170E+01	6.25644E+02	.095901
44	6.70638E+01	6.40415E+02	.093689
45	6.94410E+01	6.63116E+02	.090482
46	7.37209E+01	7.03986E+02	.085229
47	7.82458E+01	7.47196E+02	.080300
48	8.30098E+01	7.92689E+02	.075692
49	8.30304E+01	7.92886E+02	.075673
50	8.38485E+01	8.00698E+02	.074935
51	8.75243E+01	8.35800E+02	.071788
52	9.02965E+01	8.62272E+02	.069584

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	27.64961 (4.26)	11.56666 (4.26)	1.55456 (4.26)	.65036 (4.26)	-19.07183	8.47660
4	3.60810 (4.26)	2.38400 (4.26)	.20298 (4.26)	.13410 (4.26)	-4.97364	-2.36135
5	29.17162 (4.26)	12.49695 (4.26)	1.64015 (4.26)	.70269 (4.26)	-19.71601	8.60077
6	2.34756 (4.26)	2.19763 (4.26)	.13217 (4.26)	.12364 (4.26)	-5.72740	-2.50951
7	2.53497 (4.26)	.00292 (4.26)	.14213 (4.26)	.00017 (4.26)	-7.20961	-.45673
8	7.25855 (4.26)	.23718 (4.26)	.40796 (4.26)	.01332 (4.26)	-4.47090	-.50353
9	3.68303 (4.26)	.23092 (4.26)	.20702 (4.26)	.01296 (4.26)	-2.76726	-.43893
10	3.62940 (4.26)	.21751 (4.26)	.20399 (4.26)	.01221 (4.26)	-2.23542	-.30925
11	7.16643 (4.26)	.23637 (4.26)	.40276 (4.26)	.01327 (4.26)	-3.54877	-.50366
12	3.58331 (4.26)	.21733 (4.26)	.20138 (4.26)	.01220 (4.26)	-1.77434	-.30932
13	5.06324 (4.26)	.18782 (4.26)	.28359 (4.26)	.01053 (4.26)	-2.49665	-.46831
14	14.77595 (4.26)	5.76107 (4.26)	.82767 (4.26)	.32271 (4.26)	-19.66498	8.83563
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	2.53159 (4.26)	.19185 (4.26)	.14179 (4.26)	.01076 (4.26)	-1.24835	-.29225
17	2.90781 (4.26)	1.95737 (4.26)	.16301 (4.26)	.10970 (4.26)	-5.31293	-2.49400
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	3.90125 (4.26)	.16179 (4.26)	.21785 (4.26)	.00906 (4.26)	-1.90463	-.44458
20	14.43083 (4.26)	6.39617 (4.26)	.80604 (4.26)	.35727 (4.26)	-15.91463	7.67591
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	1.95054 (4.26)	.17634 (4.26)	.10892 (4.26)	.00989 (4.26)	-.95235	-.27992
23	2.58360 (4.26)	1.78660 (4.26)	.14431 (4.26)	.09977 (4.26)	-4.96825	-2.54333
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	3.09273 (4.25)	.14384 (4.26)	.17222 (4.26)	.00805 (4.26)	-1.47800	-.42416
26	15.13012 (4.25)	7.48122 (4.25)	.84304 (4.26)	.41687 (4.26)	-12.96526	6.64728
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	1.54626 (4.25)	.16424 (4.26)	.08610 (4.26)	.00921 (4.26)	-.73904	-.26886
29	2.29036 (4.25)	1.63233 (4.25)	.12751 (4.26)	.09086 (4.26)	-4.72779	-2.60679
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	2.16232 (4.25)	.12289 (4.26)	.12002 (4.25)	.00687 (4.26)	-.96916	-.39347
32	70.19220 (4.23)	42.33743 (4.23)	3.30863 (4.24)	2.00189 (4.24)	-10.33385	5.85620
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	1.08104 (4.25)	.14798 (4.26)	.06001 (4.25)	.00829 (4.26)	-.48462	-.25176
35	1.86010 (4.25)	1.41094 (4.25)	.10331 (4.26)	.07834 (4.26)	-4.42634	-2.73913
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	1.43403 (4.25)	.10631 (4.26)	.07970 (4.26)	.00594 (4.26)	-.56353	-.35944
38	119.46679 (4.26)	79.92213 (4.26)	6.96657 (4.26)	4.66112 (4.26)	-5.66777	3.54915
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.71692 (4.25)	.13190 (4.26)	.03984 (4.26)	.00739 (4.26)	-.28180	-.23206
41	1.42202 (4.26)	1.17053 (4.26)	.07963 (4.26)	.06551 (4.26)	-4.11283	-2.88133
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.89407 (4.26)	.09140 (4.26)	.05017 (4.26)	.00511 (4.26)	-.28295	-.32411
44	5.43153 (4.25)	3.68157 (4.25)	.29034 (4.25)	.19509 (4.25)	1.23018	-1.27543
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.44697 (4.26)	.11671 (4.26)	.02508 (4.26)	.00654 (4.26)	-.14150	-.21121
47	1.02868 (4.26)	.94163 (4.26)	.05908 (4.26)	.05404 (4.26)	-3.75848	-3.01658
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.51091 (4.26)	.07860 (4.26)	.02936 (4.26)	.00439 (4.26)	-.10781	-.28655
50	5.24404 (4.26)	5.06110 (4.26)	.30238 (4.26)	.29165 (4.26)	1.67900	-1.73051
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.25543 (4.26)	.10157 (4.26)	.01468 (4.26)	.00569 (4.26)	-.05393	-.18826
53	.73697 (4.26)	.77206 (4.26)	.04372 (4.26)	.04577 (4.26)	-3.30270	-3.09048
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.29485 (4.26)	.06726 (4.26)	.01750 (4.26)	.00376 (4.26)	-.02341	-.24876
56	1.41963 (4.26)	1.70719 (4.26)	.08381 (4.26)	.10075 (4.26)	1.53262	-1.80306
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.14744 (4.26)	.08699 (4.26)	.00875 (4.26)	.00487 (4.26)	-.01172	-.16465
59	.57794 (4.26)	.71684 (4.26)	.03435 (4.26)	.04261 (4.26)	-2.76697	-3.08015

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.20556 (4.26)	.05610 (4.26)	.01217 (4.26)	.00314 (4.26)	.00292	-.20914
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.10281 (4.26)	.07226 (4.26)	.00609 (4.26)	.00405 (4.26)	.00145	-.13926
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.17229 (4.26)	.04519 (4.26)	.00987 (4.26)	.00253 (4.26)	-.00090	-.16951
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.08617 (4.26)	.05790 (4.26)	.00494 (4.26)	.00324 (4.26)	-.00046	-.11352
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.14071 (4.26)	.03390 (4.26)	.00789 (4.26)	.00190 (4.26)	-.01244	-.12806
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.07037 (4.26)	.04330 (4.26)	.00395 (4.26)	.00243 (4.26)	-.00622	-.08618
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.10951 (4.25)	.02491 (4.26)	.00610 (4.26)	.00139 (4.26)	-.01765	-.09465
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.05476 (4.25)	.03178 (4.26)	.00305 (4.26)	.00178 (4.26)	-.00883	-.06391
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.02718 (4.25)	.00569 (4.26)	.00151 (4.25)	.00032 (4.26)	-.00715	-.02188
78	.01359 (4.25)	.00726 (4.26)	.00075 (4.25)	.00041 (4.26)	-.00357	-.01485
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	1.070 (4.26)	23.346 (4.26)	741.026 (4.26)	-26.042	-.004	-442.556
2	8	9	8259.876 (4.26)	591.552 (4.26)	410.205 (4.26)	-903.359	-.512	229.289
3	8	10	2821.204 (4.26)	.000 (4.26)	.000 (4.26)	425.193	.000	-.000
4	8	11	32915.226 (4.26)	.040 (4.26)	.080 (4.26)	-11381.555	-.003	.006
5	10	12	9786.760 (4.26)	.040 (4.26)	.040 (4.26)	-541.111	-.001	.001
6	8	12	8954.812 (4.26)	.018 (4.26)	.037 (4.26)	4309.713	-.001	.001
7	10	11	9034.973 (4.26)	.018 (4.26)	.037 (4.26)	-1299.989	-.001	.003
8	11	13	5124.195 (4.26)	.004 (4.26)	32355.099 (4.26)	-14835.768	-.055	-7273.661
9	12	16	5322.259 (4.26)	.008 (4.25)	15064.346 (4.26)	-6198.720	.007	-9134.509
10	13	19	4864.209 (4.26)	31796.326 (4.26)	46731.824 (4.26)	-15267.834	-7405.543	-19775.964
11	16	22	5647.348 (4.26)	15731.104 (4.26)	23307.674 (4.26)	-6967.686	-9142.610	-8292.407
12	19	25	4716.698 (4.26)	46037.803 (4.26)	54492.371 (4.26)	-15558.146	-19854.100	-23689.522
13	22	28	5909.147 (4.26)	23250.722 (4.26)	27120.608 (4.26)	-7597.365	-8294.234	-12208.598
14	25	31	4684.818 (4.26)	54307.452 (4.26)	61628.237 (4.26)	-15831.299	-23709.233	-29299.833
15	28	34	6124.629 (4.26)	27117.690 (4.26)	30887.614 (4.26)	-8202.623	-12209.158	-14543.905
16	31	37	4387.115 (4.26)	61824.125 (4.26)	56642.264 (4.26)	-16138.057	-29296.376	-30186.787
17	34	40	6349.968 (4.26)	30833.940 (4.26)	28330.829 (4.26)	-8968.107	-14544.908	-15109.104
18	37	43	5096.424 (4.26)	56573.103 (4.26)	51244.672 (4.26)	-16416.945	-30188.169	-28690.262
19	40	46	6444.462 (4.26)	28278.410 (4.26)	25608.265 (4.26)	-9517.879	-15109.662	-14331.393
20	43	49	4953.752 (4.26)	51190.973 (4.26)	43688.203 (4.26)	-16716.763	-28692.091	-22386.774
21	46	52	6509.142 (4.26)	25554.774 (4.26)	21849.264 (4.26)	-10158.818	-14331.671	-11187.950
22	49	55	4907.733 (4.26)	43658.684 (4.26)	34921.715 (4.25)	-17049.083	-22387.201	-15136.719
23	52	58	6518.098 (4.26)	21805.958 (4.26)	17466.484 (4.25)	-10639.598	-11187.816	-7565.149
24	55	61	4891.863 (4.26)	34878.537 (4.25)	24993.956 (4.25)	-17480.750	-15136.302	-7133.388
25	58	63	6491.556 (4.26)	17419.218 (4.25)	12488.397 (4.25)	-11198.057	-7564.678	-3564.228
26	61	65	4922.233 (4.26)	24921.012 (4.25)	16009.289 (4.26)	-17855.811	-7131.628	-1567.286
27	63	67	6473.747 (4.26)	12460.160 (4.25)	7996.269 (4.26)	-11599.323	-3563.549	-784.621
28	65	69	4979.680 (4.26)	15960.934 (4.26)	9867.727 (4.26)	-18286.590	-1565.988	1829.642
29	67	71	6440.269 (4.26)	7978.059 (4.26)	4925.545 (4.26)	-12058.393	-784.166	914.755
30	69	73	5010.322 (4.26)	9822.638 (4.26)	6635.025 (4.26)	-18618.493	1830.756	3008.531
31	71	75	6422.064 (4.26)	4910.480 (4.26)	3321.421 (4.26)	-12406.721	915.080	1502.589
32	73	77	5029.974 (4.26)	6688.423 (4.26)	1653.983 (4.26)	-19019.730	3007.540	1580.019
33	75	78	6410.860 (4.26)	3339.649 (4.26)	824.907 (4.26)	-12820.287	1502.189	790.144
34	77	79	5029.994 (4.26)	1589.416 (4.26)	1.105 (4.26)	-19300.388	1581.139	-.018
35	78	80	6411.026 (4.26)	803.322 (4.26)	.545 (4.26)	-13100.823	790.519	-.006
36	11	12	6699.534 (4.26)	.142 (4.26)	.142 (4.26)	1945.636	-.008	.006
37	13	16	93.954 (4.25)	.140 (4.26)	.140 (4.26)	12.149	-.007	.007
38	19	22	33.769 (4.25)	.130 (4.26)	.130 (4.26)	309.456	-.005	.005
39	25	28	64.202 (4.25)	.119 (4.26)	.119 (4.26)	105.423	-.003	.003
40	31	34	132.460 (4.23)	.099 (4.26)	.099 (4.26)	222.113	.003	-.003
41	37	40	345.595 (4.26)	.079 (4.26)	.079 (4.26)	131.705	.010	-.010
42	43	46	15.851 (4.26)	.061 (4.25)	.061 (4.25)	204.279	.016	-.016
43	49	52	6.790 (4.25)	.044 (4.25)	.044 (4.25)	152.428	.022	-.022
44	55	58	24.351 (4.25)	.029 (4.25)	.029 (4.25)	270.706	.024	-.024
45	61	63	12.960 (4.26)	.016 (4.26)	.016 (4.26)	173.158	.023	-.023
46	65	67	7.743 (4.26)	.008 (4.26)	.008 (4.26)	311.882	.020	-.020
47	69	71	3.572 (4.26)	.003 (4.26)	.003 (4.26)	243.687	.015	-.015
48	73	75	3.616 (4.25)	.002 (4.26)	.002 (4.26)	269.422	.011	-.011
49	77	78	.776 (4.26)	.005 (4.25)	.005 (4.25)	.351	.001	-.001
50	5	11	2304.278 (4.26)	0.000 (0.00)	0.000 (0.00)	1649.556	0.000	0.000
51	3	5	2376.252 (4.26)	0.000 (0.00)	0.000 (0.00)	664.548	0.000	0.000
52	1	3	2258.246 (4.26)	0.000 (0.00)	0.000 (0.00)	543.315	0.000	0.000
53	6	12	7696.505 (4.26)	0.000 (0.00)	0.000 (0.00)	8486.675	0.000	0.000
54	4	6	7689.102 (4.26)	0.000 (0.00)	0.000 (0.00)	8326.452	0.000	0.000
55	2	4	7698.580 (4.26)	0.000 (0.00)	0.000 (0.00)	8167.155	0.000	0.000
56	13	14	354.549 (4.26)	0.000 (0.00)	0.000 (0.00)	166.621	0.000	0.000
57	14	15	411.101 (4.26)	0.000 (0.00)	0.000 (0.00)	152.298	0.000	0.000
58	16	17	382.472 (4.26)	0.000 (0.00)	0.000 (0.00)	506.002	0.000	0.000
59	17	18	382.262 (4.26)	0.000 (0.00)	0.000 (0.00)	490.496	0.000	0.000

60	19	20	230.082 (4.26)	0.000 (0.00)	0.000 (0.00)	98.061	0.000	0.000
61	20	21	255.752 (4.26)	0.000 (0.00)	0.000 (0.00)	81.877	0.000	0.000
62	22	23	312.196 (4.26)	0.000 (0.00)	0.000 (0.00)	465.228	0.000	0.000
63	23	24	311.911 (4.26)	0.000 (0.00)	0.000 (0.00)	450.804	0.000	0.000
64	25	26	87.302 (4.25)	0.000 (0.00)	0.000 (0.00)	50.288	0.000	0.000
65	26	27	90.616 (4.25)	0.000 (0.00)	0.000 (0.00)	34.089	0.000	0.000
66	28	29	257.161 (4.25)	0.000 (0.00)	0.000 (0.00)	431.831	0.000	0.000
67	29	30	256.881 (4.25)	0.000 (0.00)	0.000 (0.00)	418.276	0.000	0.000
68	31	32	759.123 (4.24)	0.000 (0.00)	0.000 (0.00)	193.667	0.000	0.000
69	32	33	828.906 (4.24)	0.000 (0.00)	0.000 (0.00)	11.626	0.000	0.000
70	34	35	283.503 (4.25)	0.000 (0.00)	0.000 (0.00)	581.126	0.000	0.000
71	35	36	283.187 (4.25)	0.000 (0.00)	0.000 (0.00)	562.637	0.000	0.000
72	37	38	1477.215 (4.26)	0.000 (0.00)	0.000 (0.00)	.038	0.000	0.000
73	38	39	1526.587 (4.26)	0.000 (0.00)	0.000 (0.00)	.022	0.000	0.000
74	40	41	132.621 (4.25)	0.000 (0.00)	0.000 (0.00)	346.152	0.000	0.000
75	41	42	132.504 (4.25)	0.000 (0.00)	0.000 (0.00)	335.113	0.000	0.000
76	43	44	271.740 (4.25)	0.000 (0.00)	0.000 (0.00)	52.788	0.000	0.000
77	44	45	267.747 (4.25)	0.000 (0.00)	0.000 (0.00)	.036	0.000	0.000
78	46	47	137.159 (4.26)	0.000 (0.00)	0.000 (0.00)	471.165	0.000	0.000
79	47	48	137.104 (4.26)	0.000 (0.00)	0.000 (0.00)	456.528	0.000	0.000
80	49	50	149.152 (4.26)	0.000 (0.00)	0.000 (0.00)	102.019	0.000	0.000
81	50	51	150.719 (4.26)	0.000 (0.00)	0.000 (0.00)	91.761	0.000	0.000
82	52	53	66.774 (4.26)	0.000 (0.00)	0.000 (0.00)	292.329	0.000	0.000
83	53	54	66.786 (4.26)	0.000 (0.00)	0.000 (0.00)	283.879	0.000	0.000
84	55	56	198.305 (4.26)	0.000 (0.00)	0.000 (0.00)	253.778	0.000	0.000
85	56	57	198.588 (4.26)	0.000 (0.00)	0.000 (0.00)	242.119	0.000	0.000
86	58	59	89.933 (4.26)	0.000 (0.00)	0.000 (0.00)	425.004	0.000	0.000
87	59	60	89.978 (4.26)	0.000 (0.00)	0.000 (0.00)	414.221	0.000	0.000
88	61	62	92.162 (4.26)	0.000 (0.00)	0.000 (0.00)	189.994	0.000	0.000
89	63	64	39.677 (4.26)	0.000 (0.00)	0.000 (0.00)	224.325	0.000	0.000
90	65	66	124.090 (4.26)	0.000 (0.00)	0.000 (0.00)	327.928	0.000	0.000
91	67	68	70.328 (4.26)	0.000 (0.00)	0.000 (0.00)	369.525	0.000	0.000
92	69	70	76.570 (4.26)	0.000 (0.00)	0.000 (0.00)	239.472	0.000	0.000
93	71	72	47.336 (4.26)	0.000 (0.00)	0.000 (0.00)	272.339	0.000	0.000
94	73	74	65.484 (4.25)	0.000 (0.00)	0.000 (0.00)	255.635	0.000	0.000
95	75	76	39.995 (4.25)	0.000 (0.00)	0.000 (0.00)	289.680	0.000	0.000
96	9	11	9673.174 (4.26)	.009 (4.26)	.018 (4.26)	895.469	-.001	.001
97	9	10	1516.886 (4.26)	138.324 (4.25)	63.374 (4.26)	-71.165	-213.191	.047

GUST ANALYSIS TIME 188.779 SEC.

FLAG (=1 TO CONSIDER WIND ON CABLES). .	T
FLAG (=1 TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (G/S). . . .	20.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	1.01275	.98168	4.185	-.36141	.105970	.108690
2	1.63250	1.54633	4.292	-.88943	.346204	.922657
6	2.24192	2.16496	4.370	-.33091	.022705	.114027
8	2.40345	2.31388	4.385	-.27033	.017472	.102081

FUNDAMENTAL FREQUENCIES -R

MODE NO.	OMEGA		PERIOD
	RAD/SEC	CYCLES/MIN	SEC
1	1.012758+00	9.67114E+00	6.204027
2	1.63250E+00	1.55693E+01	3.844787
3	1.83937E+00	1.75647E+01	3.415936
4	1.90687E+00	1.82094E+01	3.295009
5	1.98945E+00	1.89980E+01	3.158220
6	2.24102E+00	2.14003E+01	2.803702
7	2.29631E+00	2.19282E+01	2.736196
8	2.40345E+00	2.29514E+01	2.614220
9	2.45798E+00	2.34721E+01	2.556226
10	2.58728E+00	2.47068E+01	2.428483
11	2.64133E+00	2.52229E+01	2.378786
12	2.79631E+00	2.67029E+01	2.246943
13	2.82290E+00	2.69569E+01	2.225779
14	2.84979E+00	2.72136E+01	2.204779
15	2.93508E+00	2.80281E+01	2.140709
16	3.03390E+00	2.89718E+01	2.070982
17	3.08666E+00	2.94698E+01	2.035980
18	3.30123E+00	3.15246E+01	1.903274
19	3.35160E+00	3.20055E+01	1.874676
20	3.59510E+00	3.43304E+01	1.747698
21	3.61668E+00	3.45369E+01	1.737270
22	3.64521E+00	3.48094E+01	1.723673
23	5.17926E+00	4.94585E+01	1.213137
24	7.14976E+00	6.82755E+01	.878793
25	1.02333E+01	9.77208E+01	.613994
26	1.57168E+01	1.50085E+02	.399773
27	1.96753E+01	1.87886E+02	.319343
28	2.54824E+01	2.43340E+02	.246568
29	3.88784E+01	3.71263E+02	.161611
30	4.93651E+01	4.71314E+02	.127366
31	5.02327E+01	4.79689E+02	.125081
32	5.54699E+01	5.29701E+02	.113272
33	5.87089E+01	5.60631E+02	.107022
34	5.88287E+01	5.61775E+02	.106804
35	5.97866E+01	5.70472E+02	.105364
36	6.24931E+01	5.96768E+02	.100542
37	6.27217E+01	5.98951E+02	.100175
38	6.66504E+01	6.36471E+02	.094270
39	6.68436E+01	6.38312E+02	.093998
40	6.78477E+01	6.47901E+02	.092607
41	7.15567E+01	6.83320E+02	.087807
42	7.16294E+01	6.84013E+02	.087718
43	7.47852E+01	7.14150E+02	.084016
44	7.68449E+01	7.33816E+02	.081764
45	7.73094E+01	7.38254E+02	.081273
46	8.26429E+01	7.89185E+02	.075028
47	8.27475E+01	7.90184E+02	.075932
48	8.69505E+01	8.30419E+02	.070837
49	8.91502E+01	8.51325E+02	.070478
50	9.44338E+01	9.01600E+02	.066254
51	9.56352E+01	9.13253E+02	.065699
52	9.62855E+01	9.19562E+02	.065928

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	.31039 (4.29)	.17219 (4.29)	.02569 (4.29)	.01425 (4.29)	5.54530	-3.03306
4	.12037 (4.29)	.07004 (4.29)	.01045 (4.29)	.00585 (4.29)	-5.69494	-3.10264
5	.27315 (4.29)	.15264 (4.29)	.02261 (4.29)	.01263 (4.29)	5.31582	-2.95146
6	.11036 (4.29)	.06264 (4.29)	.00913 (4.29)	.00518 (4.29)	-5.53357	-3.04318
7	.39444 (4.19)	.00693 (4.24)	.01268 (4.19)	.00005 (4.28)	-.28495	-.27551
8	.04405 (4.29)	.00116 (4.29)	.00364 (4.29)	.00010 (4.29)	-.10757	-.27860
9	.02607 (4.29)	.00067 (4.29)	.00215 (4.29)	.00005 (4.29)	-.09279	-.27387
10	.02203 (4.29)	.00033 (4.29)	.00182 (4.29)	.00003 (4.29)	-.05379	-.26435
11	.03493 (4.29)	.00116 (4.29)	.00289 (4.29)	.00009 (4.29)	-.01914	-.27860
12	.01746 (4.29)	.00034 (4.29)	.00145 (4.29)	.00003 (4.29)	-.00956	-.26434
13	.02667 (4.29)	.00107 (4.29)	.00221 (4.29)	.00009 (4.29)	-.01627	-.26689
14	.43688 (4.24)	.23184 (4.29)	.03781 (4.29)	.01919 (4.29)	8.22408	-4.21216
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.01334 (4.29)	.00031 (4.29)	.00110 (4.29)	.00002 (4.29)	-.00813	-.25365
17	.16385 (4.29)	.08438 (4.29)	.01356 (4.29)	.00698 (4.29)	-7.97012	-4.08595
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.02259 (4.29)	.00103 (4.29)	.00187 (4.29)	.00008 (4.29)	-.01478	-.26048
20	.14030 (4.35)	.07636 (4.35)	.01986 (4.36)	.01047 (4.36)	3.07404	-1.74060
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.01130 (4.29)	.00030 (4.29)	.00094 (4.29)	.00002 (4.29)	-.00739	-.24775
23	.03233 (4.29)	.01984 (4.29)	.00269 (4.29)	.00165 (4.29)	-3.29277	-1.84230
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.01415 (4.29)	.00093 (4.29)	.00117 (4.29)	.00008 (4.29)	-.01162	-.24445
26	.10470 (4.37)	.06223 (4.37)	.01749 (4.38)	.01015 (4.38)	2.84282	-1.76641
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.00707 (4.29)	.00027 (4.29)	.00059 (4.29)	.00002 (4.29)	-.00581	-.23290
29	.02005 (4.30)	.01362 (4.30)	.00178 (4.31)	.00119 (4.31)	-3.01221	-1.85304
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.00753 (4.29)	.00084 (4.29)	.00063 (4.29)	.00007 (4.29)	-.00894	-.22718
32	.02348 (4.30)	.01783 (4.29)	.00202 (4.30)	.00152 (4.30)	2.59394	-1.78442
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.00377 (4.29)	.00024 (4.29)	.00031 (4.29)	.00002 (4.29)	-.00447	-.21678
35	.01057 (4.29)	.00807 (4.29)	.00090 (4.30)	.00068 (4.30)	-2.72156	-1.85672
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.00289 (4.29)	.00075 (4.29)	.00024 (4.30)	.00006 (4.29)	-.00675	-.20869
38	.01046 (4.30)	.00895 (4.30)	.00091 (4.31)	.00077 (4.30)	2.32930	-1.79309
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.00145 (4.29)	.00021 (4.29)	.00012 (4.30)	.00002 (4.29)	-.00338	-.19941
41	.00447 (4.30)	.00384 (4.29)	.00039 (4.30)	.00033 (4.30)	-2.42218	-1.85185
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00025 (4.35)	.00067 (4.29)	.00004 (4.38)	.00005 (4.29)	-.00509	-.18899
44	.00289 (4.31)	.00274 (4.30)	.00028 (4.33)	.00026 (4.33)	2.05179	-1.79103
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00012 (4.35)	.00019 (4.29)	.00002 (4.38)	.00002 (4.29)	-.00254	-.18082
47	.00095 (4.31)	.00089 (4.31)	.00010 (4.34)	.00009 (4.34)	-2.11638	-1.83699
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00137 (4.29)	.00058 (4.29)	.00011 (4.30)	.00005 (4.29)	-.00391	-.16810
50	.00101 (4.32)	.00131 (4.31)	.00011 (4.35)	.00014 (4.34)	1.76553	-1.77722
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00068 (4.29)	.00017 (4.29)	.00006 (4.30)	.00001 (4.29)	-.00195	-.16101
53	.00080 (4.30)	.00101 (4.30)	.00007 (4.32)	.00009 (4.31)	-1.80770	-1.81116
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.00174 (4.29)	.00050 (4.29)	.00014 (4.29)	.00004 (4.29)	-.00314	-.14605
56	.00195 (4.29)	.00294 (4.29)	.00016 (4.30)	.00025 (4.30)	1.47588	-1.75156
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00087 (4.29)	.00014 (4.29)	.00007 (4.29)	.00001 (4.29)	-.00157	-.14003
59	.00114 (4.29)	.00178 (4.29)	.00010 (4.29)	.00015 (4.29)	-1.50105	-1.77439

50	.00005 (4.29)	.00004 (4.29)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
51	.00155 (4.29)	.00041 (4.29)	.00013 (4.29)	.00003 (4.29)	-.00267	-.12288
52	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
53	.00077 (4.29)	.00012 (4.29)	.00005 (4.29)	.00001 (4.29)	-.00133	-.11792
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.00117 (4.29)	.00033 (4.29)	.00009 (4.29)	.00003 (4.29)	-.00232	-.09865
56	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
57	.00056 (4.29)	.00010 (4.29)	.00004 (4.29)	.00001 (4.29)	-.00116	-.09474
58	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
59	.00069 (4.29)	.00024 (4.29)	.00006 (4.29)	.00002 (4.29)	-.00196	-.07344
60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.00034 (4.29)	.00007 (4.29)	.00003 (4.29)	.00001 (4.29)	-.00098	-.07058
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00036 (4.29)	.00015 (4.29)	.00003 (4.29)	.00001 (4.29)	-.00144	-.04735
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.00018 (4.29)	.00004 (4.29)	.00001 (4.29)	.00000 (4.29)	-.00072	-.04552
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00009 (4.29)	.00004 (4.29)	.00001 (4.29)	.00000 (4.29)	-.00047	-.01368
68	.00004 (4.29)	.00001 (4.29)	.00000 (4.29)	.00000 (4.29)	-.00023	-.01316
69	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.001 (4.29)	1.041 (4.19)	47.128 (4.19)	-20.400	-.000	-15.990
2	8	9	61.015 (4.29)	.145 (4.29)	19.751 (4.19)	106.064	-.002	8.721
3	8	10	11.858 (4.29)	.000 (4.20)	.000 (4.20)	134.569	.000	-.000
4	8	11	190.117 (4.29)	.000 (4.29)	.000 (4.29)	-359.364	.001	-.002
5	10	12	62.037 (4.29)	.000 (4.29)	.000 (4.29)	-594.044	.001	-.001
6	8	12	43.781 (4.29)	.000 (4.29)	.000 (4.29)	-253.398	.001	-.001
7	10	11	53.939 (4.29)	.000 (4.29)	.000 (4.29)	-464.764	.000	-.001
8	11	13	41.545 (4.29)	.001 (4.29)	160.485 (4.29)	-6043.897	-.011	1757.396
9	12	16	13.503 (4.29)	.000 (4.29)	87.216 (4.29)	-5519.909	.012	-1878.282
10	13	19	45.858 (4.29)	221.427 (4.29)	316.104 (4.29)	-6315.663	1757.502	-402.254
11	16	22	14.658 (4.29)	113.267 (4.29)	157.651 (4.29)	-5805.266	-1878.349	253.104
12	19	25	41.955 (4.29)	317.452 (4.29)	432.265 (4.29)	-6785.559	-402.222	-25.955
13	22	28	12.562 (4.29)	158.290 (4.29)	216.237 (4.29)	-6288.350	253.069	-134.344
14	25	31	38.574 (4.29)	432.407 (4.29)	460.813 (4.29)	-7309.775	-25.926	-137.410
15	28	34	11.248 (4.29)	215.306 (4.29)	230.394 (4.29)	-6824.234	-134.376	-36.193
16	31	37	35.007 (4.29)	460.618 (4.29)	420.449 (4.29)	-7828.238	-137.384	-113.455
17	34	40	10.351 (4.29)	230.244 (4.29)	210.245 (4.29)	-7352.944	-36.222	-65.399
18	37	43	35.516 (4.29)	419.996 (4.29)	334.935 (4.29)	-8339.926	-113.433	-114.719
19	40	46	9.927 (4.29)	209.986 (4.29)	167.470 (4.29)	-7873.414	-65.425	-55.015
20	43	49	35.379 (4.29)	334.391 (4.29)	229.874 (4.29)	-8843.140	-114.700	-95.391
21	46	52	9.859 (4.29)	167.182 (4.29)	114.938 (4.29)	-8383.967	-55.038	-48.285
22	49	55	35.619 (4.29)	229.356 (4.29)	128.546 (4.29)	-9335.177	-95.375	-67.521
23	52	58	10.015 (4.29)	114.674 (4.29)	64.273 (4.29)	-8881.967	-48.304	-33.630
24	55	61	35.900 (4.29)	128.128 (4.29)	48.056 (4.29)	-9811.845	-67.509	-29.872
25	58	63	10.252 (4.29)	64.067 (4.29)	24.021 (4.29)	-9363.325	-33.645	-14.906
26	61	65	36.584 (4.29)	47.971 (4.29)	5.269 (4.33)	-10256.096	-29.874	5.187
27	63	67	10.445 (4.29)	23.997 (4.29)	2.640 (4.33)	-9810.886	-14.907	2.512
28	65	69	36.821 (4.29)	5.233 (4.34)	26.712 (4.29)	-10672.187	5.186	36.675
29	67	71	10.662 (4.29)	2.616 (4.34)	13.360 (4.29)	-10229.347	2.511	18.626
30	69	73	36.994 (4.29)	26.611 (4.29)	26.383 (4.29)	-11049.285	36.674	59.229
31	71	75	10.751 (4.29)	13.297 (4.29)	13.200 (4.29)	-10607.396	18.626	28.486
32	73	77	37.059 (4.29)	26.306 (4.29)	7.721 (4.29)	-11401.650	59.228	40.249
33	75	78	10.764 (4.29)	13.148 (4.29)	3.858 (4.29)	-10960.882	28.486	21.369
34	77	79	37.060 (4.29)	7.627 (4.29)	.003 (4.29)	-11584.143	40.249	-.000
35	78	80	10.784 (4.29)	3.813 (4.29)	.002 (4.29)	-11143.237	21.369	-.000
36	11	12	18.036 (4.29)	.000 (4.29)	.000 (4.29)	1822.634	.005	-.005
37	13	16	.054 (4.37)	.000 (4.29)	.000 (4.29)	-78.305	.004	-.004
38	19	22	.133 (4.36)	.000 (4.29)	.000 (4.29)	270.205	.004	-.004
39	25	28	.158 (4.38)	.000 (4.29)	.000 (4.29)	167.416	.004	-.004
40	31	34	.042 (4.31)	.000 (4.28)	.000 (4.28)	196.385	.003	-.003
41	37	40	.034 (4.29)	.000 (4.20)	.000 (4.20)	212.660	.003	-.003
42	43	46	.035 (4.29)	.000 (4.27)	.000 (4.27)	236.631	.003	-.003
43	49	52	.032 (4.29)	.000 (4.29)	.000 (4.29)	263.565	.002	-.002
44	55	58	.028 (4.29)	.000 (4.29)	.000 (4.29)	295.229	.002	-.002
45	61	63	.023 (4.29)	.000 (4.29)	.000 (4.29)	315.889	.002	-.002
46	55	67	.017 (4.29)	.000 (4.29)	.000 (4.29)	354.289	.001	-.001
47	69	71	.010 (4.29)	.000 (4.29)	.000 (4.29)	392.334	.001	-.001
48	73	75	.004 (4.29)	.000 (4.29)	.000 (4.29)	424.622	.001	-.001
49	77	78	.000 (4.29)	.000 (4.29)	.000 (4.29)	.059	.000	-.000
50	5	11	3.326 (4.30)	0.000 (0.00)	0.000 (0.00)	3598.547	0.000	0.000
51	3	5	3.077 (4.30)	0.000 (0.00)	0.000 (0.00)	3420.618	0.000	0.000
52	1	3	2.934 (4.30)	0.000 (0.00)	0.000 (0.00)	3245.057	0.000	0.000
53	6	12	6.420 (4.29)	0.000 (0.00)	0.000 (0.00)	3871.982	0.000	0.000
54	4	6	5.953 (4.29)	0.000 (0.00)	0.000 (0.00)	3694.175	0.000	0.000
55	2	4	5.569 (4.29)	0.000 (0.00)	0.000 (0.00)	3518.785	0.000	0.000
56	13	14	4.645 (4.29)	0.000 (0.00)	0.000 (0.00)	146.264	0.000	0.000
57	14	15	4.936 (4.29)	0.000 (0.00)	0.000 (0.00)	130.722	0.000	0.000
58	16	17	1.455 (4.29)	0.000 (0.00)	0.000 (0.00)	161.339	0.000	0.000
59	17	18	1.253 (4.29)	0.000 (0.00)	0.000 (0.00)	145.811	0.000	0.000

60	19	20	[illegible] (4.30)	0.000 (0.00)	0.000 (0.00)	350.516	0.000	0.000
61	20	21	[illegible] (4.30)	0.000 (0.00)	0.000 (0.00)	335.556	0.000	0.000
62	22	23	2.277 (4.29)	0.000 (0.00)	0.000 (0.00)	364.687	0.000	0.000
63	23	24	[illegible] (4.29)	0.000 (0.00)	0.000 (0.00)	349.739	0.000	0.000
64	25	26	3.815 (4.31)	0.000 (0.00)	0.000 (0.00)	353.178	0.000	0.000
65	26	27	3.521 (4.31)	0.000 (0.00)	0.000 (0.00)	339.490	0.000	0.000
66	28	29	1.714 (4.29)	0.000 (0.00)	0.000 (0.00)	366.122	0.000	0.000
67	29	30	1.715 (4.29)	0.000 (0.00)	0.000 (0.00)	352.447	0.000	0.000
68	31	32	2.382 (4.29)	0.000 (0.00)	0.000 (0.00)	357.216	0.000	0.000
69	32	33	2.365 (4.29)	0.000 (0.00)	0.000 (0.00)	344.800	0.000	0.000
70	34	35	[illegible] (4.29)	0.000 (0.00)	0.000 (0.00)	368.872	0.000	0.000
71	35	36	[illegible] (4.29)	0.000 (0.00)	0.000 (0.00)	356.469	0.000	0.000
72	37	38	1.242 (4.29)	0.000 (0.00)	0.000 (0.00)	362.905	0.000	0.000
73	38	39	1.243 (4.29)	0.000 (0.00)	0.000 (0.00)	351.760	0.000	0.000
74	40	41	.545 (4.29)	0.000 (0.00)	0.000 (0.00)	373.244	0.000	0.000
75	41	42	.545 (4.29)	0.000 (0.00)	0.000 (0.00)	362.112	0.000	0.000
76	43	44	.316 (4.30)	0.000 (0.00)	0.000 (0.00)	370.542	0.000	0.000
77	44	45	.316 (4.30)	0.000 (0.00)	0.000 (0.00)	360.668	0.000	0.000
78	46	47	.043 (4.31)	0.000 (0.00)	0.000 (0.00)	379.580	0.000	0.000
79	47	48	.043 (4.31)	0.000 (0.00)	0.000 (0.00)	369.720	0.000	0.000
80	49	50	.352 (4.30)	0.000 (0.00)	0.000 (0.00)	380.405	0.000	0.000
81	50	51	.353 (4.30)	0.000 (0.00)	0.000 (0.00)	371.803	0.000	0.000
82	52	53	.234 (4.29)	0.000 (0.00)	0.000 (0.00)	388.211	0.000	0.000
83	53	54	.234 (4.29)	0.000 (0.00)	0.000 (0.00)	379.622	0.000	0.000
84	55	56	.700 (4.29)	0.000 (0.00)	0.000 (0.00)	392.665	0.000	0.000
85	56	57	[illegible] (4.29)	0.000 (0.00)	0.000 (0.00)	385.335	0.000	0.000
86	58	59	.399 (4.29)	0.000 (0.00)	0.000 (0.00)	399.347	0.000	0.000
87	59	60	.400 (4.29)	0.000 (0.00)	0.000 (0.00)	392.030	0.000	0.000
88	61	62	.772 (4.29)	0.000 (0.00)	0.000 (0.00)	385.701	0.000	0.000
89	63	64	.425 (4.29)	0.000 (0.00)	0.000 (0.00)	391.036	0.000	0.000
90	65	66	.569 (4.29)	0.000 (0.00)	0.000 (0.00)	403.434	0.000	0.000
91	67	68	.363 (4.29)	0.000 (0.00)	0.000 (0.00)	408.003	0.000	0.000
92	69	70	.477 (4.29)	0.000 (0.00)	0.000 (0.00)	421.253	0.000	0.000
93	71	72	.256 (4.29)	0.000 (0.00)	0.000 (0.00)	424.940	0.000	0.000
94	73	74	.262 (4.29)	0.000 (0.00)	0.000 (0.00)	436.722	0.000	0.000
95	75	76	.148 (4.29)	0.000 (0.00)	0.000 (0.00)	439.277	0.000	0.000
96	9	11	61.942 (4.29)	.000 (4.29)	.000 (4.29)	-182.837	.000	-.000
97	8	10	11.742 (4.28)	19.357 (4.19)	.158 (4.29)	15.416	-7.270	.001

GUST ANALYSIS TIME 248.024 SEC.

INTOS MODIFIED MODEL .....RUNFF1,DAMP=.006 V=75

FLAG (=T TO CONSIDER WIND ON CABLES) . .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0)	20.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	1.27349	1.23609	4.240	-15.45202	6.755711	10.956334
4	1.94378	1.86877	4.336	-4.65963	.432286	1.633303
6	2.08467	2.02130	4.354	-5.91377	.981101	4.263723
7	2.11934	2.05824	4.358	-4.27821	.253326	1.137844
8	2.14269	2.07061	4.360	10.65291	1.022818	4.695872
9	2.32025	2.23505	4.377	3.33312	.192970	1.038863

FUNDAMENTAL FREQUENCIES -FF

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	1.01516E+00	9.69409E+00	6.189337
2	1.27349E+00	1.21610E+01	4.933791
3	1.42897E+00	1.36457E+01	4.396992
4	1.94378E+00	1.85619E+01	3.232436
5	2.03185E+00	1.94029E+01	3.092328
6	2.08467E+00	1.99072E+01	3.013978
7	2.11934E+00	2.02383E+01	2.964670
8	2.14249E+00	2.04613E+01	2.932372
9	2.32025E+00	2.21568E+01	2.707968
10	2.43338E+00	2.32372E+01	2.582070
11	2.55001E+00	2.43509E+01	2.463978
12	2.59121E+00	2.47443E+01	2.424800
13	2.76787E+00	2.64313E+01	2.270035
14	2.81221E+00	2.68548E+01	2.234238
15	2.96961E+00	2.83578E+01	2.115818
16	3.10416E+00	2.96427E+01	2.024110
17	3.19778E+00	3.05367E+01	1.964848
18	3.20287E+00	3.05853E+01	1.961728
19	3.42306E+00	3.26879E+01	1.835540
20	3.45629E+00	3.30053E+01	1.817889
21	3.73436E+00	3.56607E+01	1.682525
22	4.32003E+00	4.12535E+01	1.454423
23	6.27622E+00	5.99338E+01	1.001105
24	7.98829E+00	7.62829E+01	.786546
25	1.02310E+01	9.76997E+01	.614127
26	1.56715E+01	1.49672E+02	.400877
27	1.96368E+01	1.87519E+02	.319968
28	2.54220E+01	2.42703E+02	.247155
29	3.88069E+01	3.70580E+02	.161908
30	4.82821E+01	4.61062E+02	.130134
31	4.97028E+01	4.74629E+02	.126414
32	5.54005E+01	5.29038E+02	.113413
33	5.76962E+01	5.50960E+02	.108901
34	5.84154E+01	5.57828E+02	.107560
35	6.07833E+01	5.80440E+02	.103370
36	6.19174E+01	5.91270E+02	.101476
37	6.33794E+01	6.05231E+02	.099136
38	6.61413E+01	6.31606E+02	.094996
39	6.73685E+01	6.43325E+02	.093265
40	6.78277E+01	6.47710E+02	.092634
41	7.10894E+01	6.78857E+02	.088384
42	7.21050E+01	6.88556E+02	.087139
43	7.47581E+01	7.13890E+02	.084047
44	7.65434E+01	7.30929E+02	.082087
45	7.75714E+01	7.40756E+02	.080998
46	8.23106E+01	7.86012E+02	.076335
47	8.30049E+01	7.92642E+02	.075696
48	8.87107E+01	8.47129E+02	.070827
49	8.92755E+01	8.52522E+02	.070379
50	9.47819E+01	9.05105E+02	.066291
51	9.55322E+01	9.12270E+02	.065770
52	9.82462E+01	9.38177E+02	.063954

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	7.20065 (4.24)	3.91978 (4.24)	.38822 (4.27)	.21130 (4.27)	4.33087	-2.43739
4	.98957 (4.30)	.56134 (4.30)	.09741 (4.35)	.05351 (4.34)	-6.11504	-3.30174
5	6.39932 (4.25)	3.47384 (4.24)	.35374 (4.27)	.18921 (4.27)	3.50647	-2.12008
6	.86136 (4.31)	.50187 (4.30)	.08831 (4.35)	.04782 (4.34)	-6.10456	-3.28646
7	.50151 (4.24)	.00480 (4.34)	.02529 (4.24)	.00062 (4.36)	-2.37831	-.30910
8	.50517 (4.24)	.01437 (4.25)	.02620 (4.25)	.00087 (4.29)	-.86166	-.34281
9	.26396 (4.24)	.01318 (4.26)	.01373 (4.25)	.00084 (4.30)	-.73629	-.30575
10	.25260 (4.24)	.01085 (4.27)	.01310 (4.25)	.00081 (4.33)	-.43083	-.23121
11	.47963 (4.24)	.01425 (4.25)	.02480 (4.25)	.00087 (4.30)	-.16928	-.34275
12	.23983 (4.24)	.01081 (4.27)	.01240 (4.25)	.00081 (4.33)	-.08463	-.23121
13	.36604 (4.24)	.01326 (4.25)	.01886 (4.25)	.00081 (4.30)	-.14755	-.32641
14	8.58452 (4.24)	4.28153 (4.24)	.43258 (4.24)	.21571 (4.24)	7.14712	-3.75278
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.18303 (4.24)	.01016 (4.27)	.00943 (4.25)	.00076 (4.33)	-.07378	-.22292
17	6.48064 (4.35)	1.23587 (4.35)	.32355 (4.35)	.15983 (4.35)	-8.30290	-4.22002
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	.30988 (4.24)	.01260 (4.25)	.01594 (4.25)	.00077 (4.30)	-.13586	-.31764
20	2.35319 (4.33)	1.24556 (4.33)	.27078 (4.34)	.14129 (4.34)	1.57538	-1.02108
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.15496 (4.24)	.00983 (4.27)	.00797 (4.25)	.00073 (4.32)	-.06793	-.21825
23	.27030 (4.27)	.17410 (4.27)	.02072 (4.33)	.01240 (4.32)	-3.86245	-2.10836
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.19403 (4.24)	.01131 (4.25)	.00995 (4.25)	.00070 (4.30)	-.11061	-.29628
26	1.45839 (4.35)	.85741 (4.35)	.19688 (4.36)	.11364 (4.36)	1.72753	-1.17955
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.09702 (4.24)	.00901 (4.27)	.00497 (4.25)	.00067 (4.32)	-.05531	-.20616
29	.16102 (4.27)	.11528 (4.26)	.01157 (4.32)	.00780 (4.31)	-3.46480	-2.08580
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.10390 (4.24)	.01016 (4.25)	.00532 (4.25)	.00063 (4.30)	-.08823	-.27382
32	1.07624 (4.37)	.69594 (4.37)	.17585 (4.38)	.11297 (4.38)	1.79129	-1.31872
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.05196 (4.24)	.00817 (4.27)	.00266 (4.25)	.00061 (4.32)	-.04411	-.19274
35	.08015 (4.27)	.06384 (4.27)	.00606 (4.33)	.00455 (4.32)	-3.07307	-2.05735
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.04119 (4.24)	.00908 (4.25)	.00215 (4.26)	.00056 (4.30)	-.06909	-.25026
38	.11979 (4.26)	.10537 (4.26)	.00797 (4.32)	.00667 (4.31)	1.77476	-1.43605
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.02060 (4.24)	.00731 (4.27)	.00108 (4.26)	.00054 (4.32)	-.03455	-.17800
41	.02678 (4.31)	.02334 (4.30)	.00282 (4.35)	.00232 (4.35)	-2.68782	-2.02169
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.00459 (4.32)	.00805 (4.25)	.00054 (4.36)	.00050 (4.30)	-.05358	-.22559
44	.04088 (4.29)	.03929 (4.29)	.00379 (4.35)	.00353 (4.35)	1.68853	-1.53005
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.00230 (4.32)	.00644 (4.27)	.00027 (4.36)	.00048 (4.33)	-.02679	-.16197
47	.01538 (4.31)	.01516 (4.30)	.00156 (4.35)	.00147 (4.35)	-2.31027	-1.97732
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.01581 (4.25)	.00703 (4.25)	.00092 (4.29)	.00043 (4.30)	-.04181	-.19982
50	.01845 (4.34)	.02172 (4.33)	.00238 (4.36)	.00265 (4.36)	1.54467	-1.60010
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.00790 (4.25)	.00559 (4.27)	.00046 (4.29)	.00042 (4.33)	-.02090	-.14468
53	.02436 (4.25)	.02950 (4.25)	.00144 (4.29)	.00170 (4.28)	-1.94286	-1.92313
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.02076 (4.24)	.00601 (4.25)	.00111 (4.26)	.00037 (4.30)	-.03343	-.17297
56	.02438 (4.27)	.03648 (4.27)	.00188 (4.33)	.00265 (4.32)	1.35599	-1.64628
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.01038 (4.24)	.00474 (4.27)	.00055 (4.26)	.00035 (4.33)	-.01671	-.12618
59	.02342 (4.24)	.03450 (4.24)	.00125 (4.26)	.00182 (4.26)	-1.58954	-1.85920

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.01834 (4.24)	.00499 (4.25)	.00096 (4.26)	.00031 (4.30)	-.02764	-.14504
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.00917 (4.24)	.00390 (4.27)	.00048 (4.26)	.00029 (4.33)	-.01382	-.10651
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.01306 (4.24)	.00355 (4.25)	.00068 (4.25)	.00024 (4.30)	-.02324	-.11611
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.00653 (4.24)	.00307 (4.27)	.00034 (4.25)	.00023 (4.33)	-.01162	-.08576
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.00784 (4.24)	.00290 (4.25)	.00040 (4.25)	.00018 (4.30)	-.01897	-.08623
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.00392 (4.24)	.00225 (4.27)	.00020 (4.25)	.00017 (4.33)	-.00948	-.06400
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.00395 (4.24)	.00185 (4.25)	.00020 (4.25)	.00011 (4.30)	-.01362	-.05548
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00198 (4.24)	.00143 (4.27)	.00010 (4.25)	.00011 (4.33)	-.00681	-.04134
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00093 (4.24)	.00053 (4.25)	.00005 (4.25)	.00003 (4.30)	-.00437	-.01600
78	.00046 (4.24)	.00041 (4.27)	.00002 (4.25)	.00003 (4.33)	-.00218	-.01197
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES I	J	EXPECTED GUST OSCILLATIONS AXIAL FORCE	MOMENT AT I	MOMENT AT J	STATIC VALUES AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.020 (4.29)	2.021 (4.24)	93.428 (4.24)	-20.386	-.000	-142.127
2	8	9	1059.234 (4.25)	1.664 (4.24)	43.645 (4.24)	682.209	-.013	72.425
3	8	10	238.826 (4.25)	.000 (4.25)	.000 (4.25)	426.259	.000	-.000
4	8	11	4367.746 (4.25)	.003 (4.24)	.005 (4.24)	-423.727	.008	-.015
5	10	12	1173.423 (4.25)	.001 (4.24)	.003 (4.24)	691.251	.004	-.008
6	8	12	1189.723 (4.25)	.001 (4.24)	.002 (4.24)	383.875	.004	-.008
7	10	11	1000.670 (4.25)	.001 (4.24)	.003 (4.24)	-1651.095	.004	-.007
8	11	13	510.065 (4.25)	.007 (4.24)	2264.130 (4.27)	-8447.372	-.004	1096.075
9	12	16	332.804 (4.29)	.002 (4.31)	1515.213 (4.24)	-4281.077	.013	-1862.404
10	13	19	585.064 (4.25)	3045.752 (4.25)	4498.988 (4.25)	-8648.755	1099.962	-883.999
11	16	22	320.016 (4.28)	1678.048 (4.24)	2223.266 (4.25)	-4601.926	-1862.395	-44.542
12	19	25	520.312 (4.25)	4505.328 (4.25)	6085.132 (4.24)	-9052.286	-883.931	-569.605
13	22	28	340.375 (4.27)	2223.337 (4.25)	3050.987 (4.24)	-5119.445	-44.600	-391.022
14	25	31	474.358 (4.25)	6082.965 (4.24)	6415.572 (4.24)	-9516.605	-569.636	-761.161
15	28	34	354.456 (4.27)	3046.661 (4.24)	3205.870 (4.24)	-5686.325	-391.088	-352.263
16	31	37	446.253 (4.25)	6409.201 (4.24)	5763.130 (4.24)	-9981.690	-761.172	-832.969
17	34	40	362.267 (4.27)	3200.448 (4.24)	2882.208 (4.24)	-6242.701	-352.312	-424.228
18	37	43	432.233 (4.25)	5765.765 (4.24)	4515.456 (4.24)	-10447.058	-832.965	-868.100
19	40	46	364.626 (4.27)	2876.662 (4.24)	2257.489 (4.24)	-6787.300	-424.264	-432.163
20	43	49	428.414 (4.25)	4567.426 (4.24)	3041.687 (4.24)	-10911.174	-868.085	-793.250
21	46	52	362.979 (4.27)	2282.409 (4.24)	1520.686 (4.24)	-7318.381	-432.190	-397.287
22	49	55	430.790 (4.25)	3034.191 (4.24)	1661.610 (4.24)	-11371.202	-793.229	-607.701
23	52	58	359.072 (4.27)	1516.467 (4.24)	830.723 (4.24)	-7833.348	-397.307	-303.869
24	55	61	435.786 (4.25)	1665.570 (4.24)	596.431 (4.24)	-11822.554	-607.678	-317.139
25	58	63	354.572 (4.27)	827.585 (4.24)	297.831 (4.24)	-8328.270	-303.883	-158.633
26	61	65	440.684 (4.25)	594.523 (4.24)	93.053 (4.31)	-12248.458	-317.130	-26.365
27	63	67	350.821 (4.27)	297.664 (4.24)	46.746 (4.31)	-8785.296	-158.636	-13.339
28	65	69	444.195 (4.25)	92.976 (4.31)	356.632 (4.25)	-12651.256	-26.362	257.208
29	67	71	348.306 (4.27)	46.283 (4.31)	178.400 (4.25)	-9210.651	-13.345	128.845
30	69	73	446.086 (4.25)	355.659 (4.25)	341.769 (4.24)	-13019.972	257.206	470.016
31	71	75	347.032 (4.27)	177.588 (4.25)	170.941 (4.24)	-9593.586	128.839	233.847
32	73	77	446.810 (4.25)	340.908 (4.24)	100.708 (4.24)	-13368.381	470.010	352.676
33	75	78	346.605 (4.27)	170.320 (4.24)	50.256 (4.24)	-9948.678	233.841	177.564
34	77	79	446.820 (4.25)	99.281 (4.24)	.050 (4.24)	-13550.871	352.678	-.000
35	78	80	346.613 (4.27)	49.725 (4.24)	.019 (4.24)	-10131.034	177.564	-.000
36	11	12	541.821 (4.24)	.012 (4.24)	.012 (4.24)	1879.706	.036	-.037
37	13	16	25.624 (4.35)	.011 (4.24)	.011 (4.24)	-56.984	.033	-.033
38	19	22	7.115 (4.33)	.011 (4.24)	.011 (4.24)	260.119	.032	-.032
39	25	28	4.602 (4.27)	.009 (4.24)	.009 (4.24)	171.602	.029	-.029
40	31	34	3.356 (4.29)	.006 (4.24)	.006 (4.24)	198.741	.026	-.026
41	37	40	2.890 (4.25)	.004 (4.24)	.004 (4.24)	215.188	.023	-.023
42	43	46	2.500 (4.25)	.002 (4.24)	.002 (4.24)	238.848	.021	-.021
43	49	52	2.233 (4.26)	.000 (4.27)	.000 (4.27)	265.639	.018	-.018
44	55	58	1.944 (4.26)	.001 (4.27)	.001 (4.27)	297.141	.016	-.016
45	61	63	1.547 (4.26)	.001 (4.25)	.001 (4.25)	317.192	.013	-.013
46	65	67	1.152 (4.26)	.001 (4.25)	.001 (4.25)	355.436	.010	-.010
47	69	71	.723 (4.27)	.001 (4.24)	.001 (4.24)	393.340	.007	-.007
48	73	75	.313 (4.27)	.000 (4.24)	.000 (4.24)	425.490	.004	-.004
49	77	78	.017 (4.24)	.000 (4.24)	.000 (4.24)	.087	.001	-.001
50	9	11	454.851 (4.26)	0.000 (0.00)	0.000 (0.00)	2099.751	0.000	0.000
51	3	5	452.240 (4.26)	0.000 (0.00)	0.000 (0.00)	1921.132	0.000	0.000
52	1	3	452.555 (4.26)	0.000 (0.00)	0.000 (0.00)	1743.926	0.000	0.000
53	6	12	403.267 (4.28)	0.000 (0.00)	0.000 (0.00)	4578.112	0.000	0.000
54	4	6	403.866 (4.28)	0.000 (0.00)	0.000 (0.00)	4400.635	0.000	0.000
55	2	4	404.061 (4.28)	0.000 (0.00)	0.000 (0.00)	4225.703	0.000	0.000
56	13	14	69.844 (4.24)	0.000 (0.00)	0.000 (0.00)	71.598	0.000	0.000
57	14	15	76.551 (4.24)	0.000 (0.00)	0.000 (0.00)	33.506	0.000	0.000
58	16	17	51.288 (4.35)	0.000 (0.00)	0.000 (0.00)	199.935	0.000	0.000
59	17	18	51.304 (4.35)	0.000 (0.00)	0.000 (0.00)	184.447	0.000	0.000

60	48	20	77.500 (4.25)	0.000 (0.00)	0.000 (0.00)	279.786	0.000	0.000
61	20	21	77.568 (4.25)	0.000 (0.00)	0.000 (0.00)	264.758	0.000	0.000
62	22	23	27.122 (4.24)	0.000 (0.00)	0.000 (0.00)	401.376	0.000	0.000
63	23	24	27.152 (4.24)	0.000 (0.00)	0.000 (0.00)	386.463	0.000	0.000
64	25	26	56.041 (4.25)	0.000 (0.00)	0.000 (0.00)	287.430	0.000	0.000
65	26	27	56.085 (4.25)	0.000 (0.00)	0.000 (0.00)	273.671	0.000	0.000
66	28	29	19.082 (4.24)	0.000 (0.00)	0.000 (0.00)	400.098	0.000	0.000
67	29	30	19.100 (4.24)	0.000 (0.00)	0.000 (0.00)	386.457	0.000	0.000
68	31	32	36.580 (4.26)	0.000 (0.00)	0.000 (0.00)	297.137	0.000	0.000
69	32	33	36.603 (4.26)	0.000 (0.00)	0.000 (0.00)	284.649	0.000	0.000
70	34	35	10.980 (4.24)	0.000 (0.00)	0.000 (0.00)	399.937	0.000	0.000
71	35	36	10.989 (4.24)	0.000 (0.00)	0.000 (0.00)	387.569	0.000	0.000
72	37	38	18.040 (4.24)	0.000 (0.00)	0.000 (0.00)	308.988	0.000	0.000
73	38	39	18.052 (4.24)	0.000 (0.00)	0.000 (0.00)	297.771	0.000	0.000
74	40	41	3.791 (4.26)	0.000 (0.00)	0.000 (0.00)	401.234	0.000	0.000
75	41	42	3.794 (4.26)	0.000 (0.00)	0.000 (0.00)	390.138	0.000	0.000
76	43	44	5.232 (4.27)	0.000 (0.00)	0.000 (0.00)	322.993	0.000	0.000
77	44	45	5.236 (4.27)	0.000 (0.00)	0.000 (0.00)	313.049	0.000	0.000
78	46	47	2.335 (4.27)	0.000 (0.00)	0.000 (0.00)	404.422	0.000	0.000
79	47	48	2.337 (4.27)	0.000 (0.00)	0.000 (0.00)	394.597	0.000	0.000
80	49	50	4.516 (4.28)	0.000 (0.00)	0.000 (0.00)	339.111	0.000	0.000
81	50	51	4.519 (4.28)	0.000 (0.00)	0.000 (0.00)	330.440	0.000	0.000
82	52	53	5.904 (4.24)	0.000 (0.00)	0.000 (0.00)	409.950	0.000	0.000
83	53	54	5.907 (4.24)	0.000 (0.00)	0.000 (0.00)	401.397	0.000	0.000
84	55	56	8.646 (4.25)	0.000 (0.00)	0.000 (0.00)	357.236	0.000	0.000
85	56	57	8.650 (4.25)	0.000 (0.00)	0.000 (0.00)	349.838	0.000	0.000
86	58	59	7.508 (4.24)	0.000 (0.00)	0.000 (0.00)	418.142	0.000	0.000
87	59	60	7.512 (4.24)	0.000 (0.00)	0.000 (0.00)	410.859	0.000	0.000
88	61	62	9.291 (4.25)	0.000 (0.00)	0.000 (0.00)	356.852	0.000	0.000
89	63	64	7.107 (4.24)	0.000 (0.00)	0.000 (0.00)	405.626	0.000	0.000
90	65	66	7.812 (4.24)	0.000 (0.00)	0.000 (0.00)	378.698	0.000	0.000
91	67	68	5.720 (4.24)	0.000 (0.00)	0.000 (0.00)	420.488	0.000	0.000
92	69	70	5.388 (4.24)	0.000 (0.00)	0.000 (0.00)	401.269	0.000	0.000
93	71	72	3.811 (4.24)	0.000 (0.00)	0.000 (0.00)	435.001	0.000	0.000
94	73	74	3.068 (4.24)	0.000 (0.00)	0.000 (0.00)	422.821	0.000	0.000
95	75	76	2.030 (4.24)	0.000 (0.00)	0.000 (0.00)	446.257	0.000	0.000
96	9	11	1274.789 (4.25)	.001 (4.24)	.001 (4.24)	-911.853	.002	-.004
97	9	10	227.932 (4.25)	40.119 (4.24)	3.846 (4.24)	175.825	-69.768	.011

GLST ANALYSIS TIME 368.746 SEC.

INTOS MODIFIED MODEL .....RUN U,DAMP=.006 V=-100.(FTN)

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	20.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
1	.69194	.68348	4.098	-69.91282	48.866708	23.396444
3	1.03750	1.02098	4.194	-17.38599	4.830005	5.200045
4	1.25056	1.23273	4.239	-37.53176	9.777674	15.291311

FUNDAMENTAL FREQUENCIES -U

MODE NO.	OMEGA RAD/SEC	OMEGA CYCLES/MIN	PERIOD SEC
1	6.91940E-01	6.60757E+00	9.080494
2	1.01587E+00	9.70092E+00	6.184981
3	1.03750E+00	9.90747E+00	6.056038
4	1.25056E+00	1.19420E+01	5.024273
5	1.66645E+00	1.59135E+01	3.770385
6	1.82749E+00	1.74514E+01	3.438128
7	2.04045E+00	1.94850E+01	3.079294
8	2.14130E+00	2.04480E+01	2.934270
9	2.20826E+00	2.10874E+01	2.845303
10	2.29695E+00	2.19343E+01	2.735438
11	2.55143E+00	2.43644E+01	2.462605
12	2.59029E+00	2.47356E+01	2.425659
13	2.70524E+00	2.58333E+01	2.322586
14	2.87698E+00	2.74733E+01	2.183939
15	2.91631E+00	2.78489E+01	2.154486
16	3.07180E+00	2.93336E+01	2.045433
17	3.26595E+00	3.11877E+01	1.923835
18	3.29345E+00	3.14503E+01	1.907771
19	3.43198E+00	3.27731E+01	1.840768
20	3.53721E+00	3.37780E+01	1.776304
21	3.80918E+00	3.63752E+01	1.649476
22	4.09308E+00	3.90862E+01	1.535069
23	6.62363E+00	6.32513E+01	.948597
24	9.90490E+00	9.45853E+01	.634348
25	1.14560E+01	1.09397E+02	.548462
26	1.56964E+01	1.49890E+02	.400293
27	1.94452E+01	1.85689E+02	.323121
28	2.53820E+01	2.42382E+02	.247543
29	3.87444E+01	3.69983E+02	.162169
30	4.07087E+01	3.88741E+02	.154344
31	4.59778E+01	4.39058E+02	.136656
32	4.90597E+01	4.68488E+02	.128072
33	5.53320E+01	5.28384E+02	.113554
34	5.80326E+01	5.54173E+02	.108269
35	6.07336E+01	5.79966E+02	.103454
36	6.13398E+01	5.85754E+02	.102432
37	6.36827E+01	6.08127E+02	.098664
38	6.55669E+01	6.26120E+02	.095828
39	6.74803E+01	6.44393E+02	.093111
40	6.80170E+01	6.49517E+02	.092376
41	7.05661E+01	6.73860E+02	.089039
42	7.25884E+01	6.93171E+02	.086559
43	7.47020E+01	7.13355E+02	.084110
44	7.61202E+01	7.26898E+02	.082543
45	7.79526E+01	7.44396E+02	.080602
46	8.18776E+01	7.81877E+02	.076738
47	8.33223E+01	7.95673E+02	.075408
48	8.76219E+01	8.36732E+02	.071708
49	8.83479E+01	8.43665E+02	.071118
50	8.94726E+01	8.54405E+02	.070224
51	9.46541E+01	9.03884E+02	.066380
52	9.54429E+01	9.11417E+02	.065832

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	60.28959 (4.10)	30.94669 (4.10)	.97285 (4.13)	.49822 (4.13)	-2.04622	.87298
4	1.77607 (4.13)	1.07816 (4.13)	.04161 (4.21)	.02494 (4.20)	-6.35848	-3.40559
5	40.47430 (4.12)	20.93710 (4.12)	.82449 (4.19)	.42646 (4.19)	-4.00750	1.71226
6	1.44143 (4.13)	.98702 (4.13)	.03423 (4.21)	.02272 (4.20)	-6.46379	-3.41901
7	1.81224 (4.14)	.05971 (4.12)	.04514 (4.19)	.00116 (4.16)	-4.23189	-.34146
8	1.68921 (4.12)	.03982 (4.11)	.03506 (4.19)	.00076 (4.18)	-1.57459	-.39963
9	.84206 (4.12)	.04012 (4.11)	.01753 (4.19)	.00076 (4.18)	-1.32430	-.33448
10	.84460 (4.12)	.04079 (4.11)	.01753 (4.19)	.00076 (4.17)	-.78730	-.20343
11	1.69489 (4.12)	.03986 (4.11)	.03507 (4.19)	.00076 (4.18)	-.35741	-.39952
12	.84744 (4.12)	.04080 (4.11)	.01754 (4.19)	.00076 (4.17)	-.17870	-.20344
13	1.30599 (4.12)	.03608 (4.11)	.02688 (4.19)	.00068 (4.17)	-.30779	-.37911
14	29.63012 (4.18)	14.23346 (4.18)	.90675 (4.20)	.43883 (4.20)	-6.70900	3.01407
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	.65298 (4.12)	.03845 (4.11)	.01344 (4.19)	.00072 (4.17)	-.15390	-.19719
17	1.53049 (4.14)	.89083 (4.13)	.03701 (4.21)	.02110 (4.21)	-8.48127	-4.27667
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	1.10997 (4.12)	.03409 (4.11)	.02277 (4.19)	.00064 (4.17)	-.28141	-.36824
20	1.20874 (4.15)	.33530 (4.18)	.03275 (4.22)	.01114 (4.23)	-.55277	.02208
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	.55496 (4.12)	.03718 (4.11)	.01139 (4.19)	.00070 (4.17)	-.14071	-.19356
23	.64312 (4.13)	.45508 (4.13)	.01486 (4.20)	.01023 (4.20)	-4.26082	-2.28472
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	.70113 (4.12)	.03015 (4.11)	.01428 (4.19)	.00057 (4.17)	-.22406	-.34214
26	.06195 (4.18)	.25003 (4.13)	.00207 (4.23)	.00549 (4.20)	.23226	-.37582
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	.35054 (4.12)	.03405 (4.11)	.00714 (4.19)	.00064 (4.17)	-.11204	-.18380
29	.40865 (4.13)	.31545 (4.13)	.00929 (4.20)	.00701 (4.20)	-3.78828	-2.24455
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	.37984 (4.12)	.02679 (4.11)	.00766 (4.19)	.00050 (4.17)	-.17362	-.31508
32	.36949 (4.13)	.37149 (4.13)	.00886 (4.21)	.00836 (4.20)	.78350	-.72102
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.18990 (4.12)	.03082 (4.11)	.00383 (4.19)	.00058 (4.17)	-.08681	-.17264
35	.20515 (4.13)	.17520 (4.13)	.00462 (4.20)	.00387 (4.20)	-3.33156	-2.19944
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.15487 (4.12)	.02383 (4.11)	.00307 (4.18)	.00045 (4.17)	-.13147	-.28703
38	.26783 (4.13)	.26109 (4.12)	.00592 (4.20)	.00560 (4.19)	1.12060	-1.00480
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.07742 (4.12)	.02755 (4.11)	.00154 (4.18)	.00052 (4.17)	-.06574	-.16010
41	.05429 (4.13)	.05279 (4.13)	.00127 (4.20)	.00121 (4.20)	-2.88981	-2.14738
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.02140 (4.15)	.02110 (4.11)	.00052 (4.18)	.00040 (4.17)	-.09843	-.25798
44	.09234 (4.12)	.09444 (4.12)	.00186 (4.18)	.00188 (4.17)	1.28192	-1.22979
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.01069 (4.15)	.02428 (4.11)	.00026 (4.18)	.00045 (4.17)	-.04922	-.14622
47	.04136 (4.13)	.04328 (4.13)	.00091 (4.20)	.00095 (4.19)	-2.46307	-2.08611
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.05141 (4.13)	.01845 (4.11)	.00116 (4.20)	.00035 (4.17)	-.07437	-.22790
50	.03512 (4.17)	.04879 (4.16)	.00109 (4.22)	.00143 (4.22)	1.30724	-1.40278
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.02572 (4.13)	.02104 (4.11)	.00058 (4.20)	.00039 (4.17)	-.03719	-.13104
53	.07836 (4.12)	.09747 (4.12)	.00167 (4.19)	.00206 (4.19)	-2.05312	-2.01391
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.07014 (4.12)	.01581 (4.11)	.00150 (4.19)	.00030 (4.17)	-.05814	-.19679
56	.07558 (4.13)	.11734 (4.13)	.00181 (4.21)	.00275 (4.21)	1.23077	-1.53027
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.03508 (4.12)	.01784 (4.11)	.00075 (4.19)	.00033 (4.17)	-.02907	-.11460
59	.07671 (4.12)	.11558 (4.12)	.00162 (4.19)	.00242 (4.19)	-1.66397	-1.93077

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.06250 (4.12)	.01313 (4.11)	.00131 (4.19)	.00025 (4.17)	-.04764	-.16467
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.03125 (4.12)	.01469 (4.11)	.00065 (4.19)	.00027 (4.17)	-.02382	-.09698
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.04454 (4.12)	.01040 (4.11)	.00092 (4.19)	.00020 (4.17)	-.04015	-.13157
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.02227 (4.12)	.01157 (4.11)	.00046 (4.19)	.00022 (4.17)	-.02007	-.07825
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.02662 (4.12)	.00764 (4.11)	.00055 (4.19)	.00014 (4.17)	-.03299	-.09755
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.01331 (4.12)	.00847 (4.11)	.00027 (4.19)	.00016 (4.17)	-.01649	-.05850
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.01333 (4.12)	.00487 (4.11)	.00027 (4.19)	.00009 (4.17)	-.02384	-.06268
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.00667 (4.12)	.00539 (4.11)	.00014 (4.19)	.00010 (4.17)	-.01192	-.03784
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.00311 (4.12)	.00139 (4.11)	.00006 (4.19)	.00003 (4.17)	-.00768	-.01806
78	.00155 (4.12)	.00154 (4.11)	.00003 (4.19)	.00003 (4.17)	-.00384	-.01097
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES		EXPECTED GUST OSCILLATIONS			STATIC VALUES		
	I	J	AXIAL FORCE	MOMENT AT I	MOMENT AT J	AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.020 (4.22)	3.622 (4.19)	167.704 (4.19)	-20.355	-.000	-252.430
2	8	9	449.143 (4.12)	4.212 (4.12)	67.907 (4.21)	1220.305	-.011	128.103
3	8	10	103.909 (4.12)	.000 (4.16)	.000 (4.16)	689.073	.000	-.000
4	8	11	2118.763 (4.11)	.010 (4.12)	.019 (4.12)	-326.583	.013	-.027
5	10	12	464.378 (4.13)	.005 (4.12)	.010 (4.12)	1852.240	.007	-.014
6	8	12	649.921 (4.10)	.005 (4.12)	.009 (4.12)	899.672	.006	-.013
7	10	11	390.983 (4.13)	.005 (4.12)	.009 (4.12)	-2719.530	.006	-.013
8	11	13	1722.710 (4.12)	.015 (4.11)	11069.548 (4.13)	-10558.125	.002	426.653
9	12	16	1151.299 (4.11)	.003 (4.14)	3559.072 (4.15)	-3230.848	.013	-1734.368
10	13	19	1724.390 (4.11)	9451.028 (4.14)	14053.267 (4.13)	-10723.827	428.617	-1450.885
11	16	22	1193.258 (4.11)	3838.195 (4.15)	7175.095 (4.13)	-3583.929	-1733.603	-404.346
12	19	25	1471.101 (4.11)	14027.154 (4.13)	20935.592 (4.12)	-11066.706	-1450.887	-1515.330
13	22	28	1276.579 (4.11)	7158.780 (4.13)	10424.020 (4.12)	-4134.505	-404.438	-843.380
14	25	31	1287.146 (4.11)	20903.766 (4.12)	22616.880 (4.12)	-11474.349	-1515.380	-1930.926
15	28	34	1333.836 (4.11)	10400.500 (4.12)	11317.386 (4.12)	-4730.756	-843.488	-942.680
16	31	37	1173.924 (4.11)	22589.262 (4.12)	20550.855 (4.12)	-11888.911	-1930.969	-2110.256
17	34	40	1365.388 (4.11)	11293.886 (4.12)	10270.288 (4.12)	-5312.723	-942.785	-1061.536
18	37	43	1119.157 (4.11)	20521.741 (4.12)	16159.421 (4.12)	-12311.193	-2110.305	-2090.076
19	40	46	1375.030 (4.11)	10248.792 (4.12)	8077.690 (4.12)	-5879.040	-1061.632	-1043.715
20	43	49	1105.822 (4.11)	16129.094 (4.12)	10897.852 (4.12)	-12739.899	-2090.131	-1820.195
21	46	52	1368.708 (4.11)	8059.273 (4.12)	5445.829 (4.12)	-6428.071	-1043.800	-910.844
22	49	55	1116.685 (4.11)	10869.460 (4.12)	5961.322 (4.12)	-13171.757	-1820.248	-1333.296
23	52	58	1353.376 (4.11)	5431.112 (4.12)	2978.819 (4.12)	-6957.489	-910.915	-666.887
24	55	61	1137.082 (4.11)	5938.134 (4.12)	2164.412 (4.12)	-13601.365	-1333.340	-677.494
25	58	63	1335.627 (4.11)	2968.110 (4.12)	1079.621 (4.12)	-7463.737	-666.942	-338.985
26	61	65	1156.318 (4.11)	2155.477 (4.12)	316.736 (4.17)	-14011.915	-677.531	-67.000
27	63	67	1321.096 (4.11)	1079.223 (4.12)	159.643 (4.17)	-7928.522	-339.006	-33.814
28	65	69	1169.785 (4.11)	317.485 (4.17)	1239.185 (4.12)	-14403.600	-67.018	482.855
29	67	71	1311.269 (4.11)	157.954 (4.17)	620.160 (4.12)	-8359.548	-33.826	241.560
30	69	73	1176.894 (4.11)	1236.439 (4.12)	1193.173 (4.12)	-14765.263	482.849	867.451
31	71	75	1306.245 (4.11)	617.325 (4.12)	596.968 (4.12)	-8746.135	241.553	432.491
32	73	77	1179.549 (4.11)	1190.503 (4.12)	353.333 (4.12)	-15110.312	867.448	637.857
33	75	78	1304.516 (4.11)	594.848 (4.12)	176.380 (4.12)	-9103.005	432.488	320.120
34	77	79	1179.562 (4.11)	347.696 (4.12)	.193 (4.12)	-15292.797	637.868	-.000
35	78	80	1304.532 (4.11)	174.684 (4.12)	.059 (4.12)	-9285.360	320.122	-.000
36	11	12	586.785 (4.14)	.045 (4.12)	.046 (4.12)	1944.205	.062	-.063
37	13	16	113.244 (4.12)	.045 (4.12)	.045 (4.12)	-25.165	.057	-.057
38	19	22	53.342 (4.12)	.043 (4.12)	.043 (4.12)	245.399	.055	-.055
39	25	28	14.225 (4.12)	.036 (4.12)	.036 (4.12)	175.671	.050	-.050
40	31	34	16.050 (4.12)	.027 (4.12)	.027 (4.12)	200.181	.045	-.045
41	37	40	12.333 (4.12)	.018 (4.12)	.018 (4.12)	216.868	.040	-.040
42	43	46	10.349 (4.11)	.010 (4.12)	.010 (4.12)	240.213	.036	-.036
43	49	52	8.434 (4.11)	.005 (4.12)	.005 (4.12)	266.967	.032	-.032
44	55	58	6.972 (4.11)	.001 (4.12)	.001 (4.12)	298.429	.027	-.027
45	61	63	5.086 (4.11)	.001 (4.14)	.001 (4.14)	318.107	.023	-.023
46	65	67	3.735 (4.11)	.001 (4.13)	.001 (4.13)	356.308	.018	-.018
47	69	71	2.308 (4.11)	.001 (4.13)	.001 (4.13)	394.178	.013	-.013
48	73	75	.947 (4.11)	.001 (4.12)	.001 (4.12)	426.278	.008	-.008
49	77	78	.099 (4.12)	.001 (4.12)	.001 (4.12)	.150	.001	-.001
50	5	11	1720.825 (4.11)	0.000 (0.00)	0.000 (0.00)	809.570	0.000	0.000
51	3	5	1569.339 (4.11)	0.000 (0.00)	0.000 (0.00)	632.056	0.000	0.000
52	1	3	1686.930 (4.11)	0.000 (0.00)	0.000 (0.00)	443.925	0.000	0.000
53	6	12	1530.509 (4.12)	0.000 (0.00)	0.000 (0.00)	5228.110	0.000	0.000
54	4	6	1533.596 (4.12)	0.000 (0.00)	0.000 (0.00)	5050.945	0.000	0.000
55	2	4	1532.669 (4.12)	0.000 (0.00)	0.000 (0.00)	4876.434	0.000	0.000
56	13	14	260.406 (4.20)	0.000 (0.00)	0.000 (0.00)	26.712	0.000	0.000
57	14	15	256.690 (4.20)	0.000 (0.00)	0.000 (0.00)	.010	0.000	0.000
58	16	17	46.233 (4.11)	0.000 (0.00)	0.000 (0.00)	234.705	0.000	0.000
59	17	18	46.299 (4.11)	0.000 (0.00)	0.000 (0.00)	219.247	0.000	0.000

60	19	20	286.084 (4.12)	0.000 (0.00)	0.000 (0.00)	214.800	0.000	0.000
61	20	21	286.175 (4.12)	0.000 (0.00)	0.000 (0.00)	199.726	0.000	0.000
62	22	23	94.900 (4.12)	0.000 (0.00)	0.000 (0.00)	436.870	0.000	0.000
63	23	24	94.954 (4.12)	0.000 (0.00)	0.000 (0.00)	421.990	0.000	0.000
64	25	26	211.694 (4.12)	0.000 (0.00)	0.000 (0.00)	225.052	0.000	0.000
65	26	27	211.743 (4.12)	0.000 (0.00)	0.000 (0.00)	211.251	0.000	0.000
66	28	29	66.666 (4.12)	0.000 (0.00)	0.000 (0.00)	432.386	0.000	0.000
67	29	30	66.698 (4.12)	0.000 (0.00)	0.000 (0.00)	418.778	0.000	0.000
68	31	32	134.189 (4.12)	0.000 (0.00)	0.000 (0.00)	240.060	0.000	0.000
69	32	33	134.216 (4.12)	0.000 (0.00)	0.000 (0.00)	227.526	0.000	0.000
70	34	35	38.010 (4.12)	0.000 (0.00)	0.000 (0.00)	428.751	0.000	0.000
71	35	36	38.025 (4.12)	0.000 (0.00)	0.000 (0.00)	416.415	0.000	0.000
72	37	38	67.604 (4.12)	0.000 (0.00)	0.000 (0.00)	258.677	0.000	0.000
73	38	39	67.617 (4.12)	0.000 (0.00)	0.000 (0.00)	247.408	0.000	0.000
74	40	41	12.419 (4.12)	0.000 (0.00)	0.000 (0.00)	426.463	0.000	0.000
75	41	42	12.423 (4.12)	0.000 (0.00)	0.000 (0.00)	415.399	0.000	0.000
76	43	44	18.160 (4.12)	0.000 (0.00)	0.000 (0.00)	279.847	0.000	0.000
77	44	45	18.163 (4.12)	0.000 (0.00)	0.000 (0.00)	269.846	0.000	0.000
78	46	47	8.478 (4.13)	0.000 (0.00)	0.000 (0.00)	426.142	0.000	0.000
79	47	48	8.481 (4.13)	0.000 (0.00)	0.000 (0.00)	416.348	0.000	0.000
80	49	50	15.650 (4.14)	0.000 (0.00)	0.000 (0.00)	302.759	0.000	0.000
81	50	51	15.653 (4.14)	0.000 (0.00)	0.000 (0.00)	294.029	0.000	0.000
82	52	53	21.344 (4.12)	0.000 (0.00)	0.000 (0.00)	428.425	0.000	0.000
83	53	54	21.349 (4.12)	0.000 (0.00)	0.000 (0.00)	419.902	0.000	0.000
84	55	56	30.919 (4.13)	0.000 (0.00)	0.000 (0.00)	326.856	0.000	0.000
85	56	57	30.924 (4.13)	0.000 (0.00)	0.000 (0.00)	319.399	0.000	0.000
86	58	59	26.970 (4.12)	0.000 (0.00)	0.000 (0.00)	433.769	0.000	0.000
87	59	60	26.975 (4.12)	0.000 (0.00)	0.000 (0.00)	426.517	0.000	0.000
88	61	62	32.830 (4.12)	0.000 (0.00)	0.000 (0.00)	332.795	0.000	0.000
89	63	64	24.948 (4.12)	0.000 (0.00)	0.000 (0.00)	417.513	0.000	0.000
90	65	66	27.339 (4.12)	0.000 (0.00)	0.000 (0.00)	358.100	0.000	0.000
91	67	68	20.116 (4.12)	0.000 (0.00)	0.000 (0.00)	430.686	0.000	0.000
92	69	70	18.667 (4.12)	0.000 (0.00)	0.000 (0.00)	384.510	0.000	0.000
93	71	72	13.368 (4.12)	0.000 (0.00)	0.000 (0.00)	443.321	0.000	0.000
94	73	74	10.502 (4.12)	0.000 (0.00)	0.000 (0.00)	411.060	0.000	0.000
95	75	76	7.053 (4.12)	0.000 (0.00)	0.000 (0.00)	452.111	0.000	0.000
96	9	11	539.164 (4.12)	.003 (4.12)	.005 (4.12)	-1590.715	.004	-.007
97	9	10	95.401 (4.12)	65.925 (4.22)	13.035 (4.12)	323.628	-124.421	.044

GUST ANALYSIS TIME 189.529 SEC.

INTOS MODIFIED MODEL .....RUN 0,DAMP=.006 V=-115.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	20.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	1.17137	1.15934	4.223	-148.64150	31.942551	43.828380
3	1.31899	1.29805	4.251	-33.57964	6.852468	11.921460
6	1.53017	1.50738	4.286	-45.18323	7.724509	18.085179

FUNDAMENTAL FREQUENCIES — Q

MODE NO.	OMEGA		PERIOD
	RAD/SEC	CYCLES/MIN	SEC
1	1.015605E+00	9.698834E+00	6.186628
2	1.171376+00	1.118556E+01	5.363953
3	1.318995E+00	1.259556E+01	4.763615
4	1.467746E+00	1.401596E+01	4.280844
5	1.470146E+00	1.403885E+01	4.273850
6	1.530126E+00	1.461176E+01	4.104311
7	1.753306E+00	1.674286E+01	3.583619
8	1.917466E+00	1.831056E+01	3.276808
9	2.285856E+00	2.182836E+01	2.748722
10	2.367296E+00	2.260616E+01	2.654153
11	2.418476E+00	2.309486E+01	2.597987
12	2.732126E+00	2.609006E+01	2.299734
13	2.797216E+00	2.671156E+01	2.246220
14	2.857656E+00	2.728876E+01	2.198711
15	2.995496E+00	2.860506E+01	2.097536
16	3.152796E+00	3.010716E+01	1.992885
17	3.210596E+00	3.065906E+01	1.957012
18	3.338716E+00	3.188256E+01	1.881911
19	3.556796E+00	3.396506E+01	1.766526
20	3.810716E+00	3.638986E+01	1.648813
21	3.874266E+00	3.699666E+01	1.621770
22	4.333766E+00	4.138456E+01	1.449817
23	6.626076E+00	6.327466E+01	.994248
24	9.955676E+00	9.507016E+01	.631114
25	1.343226E+01	1.330436E+02	.450981
26	1.595556E+01	1.523656E+02	.393792
27	1.946486E+01	1.858766E+02	.322796
28	2.531736E+01	2.417636E+02	.248177
29	3.136056E+01	2.994686E+02	.200176
30	3.871346E+01	3.696886E+02	.162299
31	4.553926E+01	4.348696E+02	.137973
32	5.135246E+01	4.904116E+02	.122341
33	5.213326E+01	4.978386E+02	.120521
34	5.537706E+01	5.288136E+02	.113462
35	5.895906E+01	5.630206E+02	.106568
36	6.077886E+01	5.803986E+02	.103377
37	6.162166E+01	5.884466E+02	.101964
38	6.361236E+01	6.074566E+02	.098773
39	6.548226E+01	6.253226E+02	.095960
40	6.757496E+01	6.452956E+02	.092981
41	7.046246E+01	6.728706E+02	.089170
42	7.209256E+01	6.884366E+02	.087154
43	7.453306E+01	7.117416E+02	.084300
44	7.583506E+01	7.241746E+02	.082853
45	7.726826E+01	7.378616E+02	.081316
46	7.802586E+01	7.450956E+02	.080527
47	8.140166E+01	7.773316E+02	.077187
48	8.352596E+01	7.976176E+02	.075224
49	8.780116E+01	8.384436E+02	.071561
50	8.973406E+01	8.569016E+02	.070020
51	9.429816E+01	9.004846E+02	.066631
52	9.547906E+01	9.117616E+02	.065807

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL(G)	Y-ACL(G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	32.77194 (4.23)	15.27494 (4.23)	1.43879 (4.23)	.66976 (4.23)	-11.05305	5.24915
4	3.90487 (4.22)	2.40594 (4.22)	.16877 (4.23)	.10391 (4.23)	-5.72966	-2.98446
5	23.91322 (4.23)	11.28182 (4.24)	1.15535 (4.25)	.56881 (4.25)	-11.85350	5.49193
6	3.07819 (4.22)	2.20699 (4.22)	.13320 (4.23)	.09541 (4.23)	-6.04900	-3.04066
7	6.64870 (4.22)	.15505 (4.22)	.28355 (4.22)	.00661 (4.22)	-6.03695	-.39281
8	4.33148 (4.22)	.12799 (4.22)	.18620 (4.23)	.00548 (4.22)	-2.98393	-.46767
9	2.17332 (4.22)	.12711 (4.22)	.09343 (4.23)	.00544 (4.22)	-2.19856	-.38194
10	2.15576 (4.22)	.12520 (4.22)	.09310 (4.23)	.00536 (4.22)	-1.49197	-.20951
11	4.31453 (4.22)	.12779 (4.22)	.18547 (4.23)	.00547 (4.22)	-1.38234	-.46755
12	2.15733 (4.22)	.12516 (4.22)	.09273 (4.23)	.00536 (4.22)	-.69116	-.20954
13	3.45499 (4.22)	.11510 (4.22)	.14825 (4.22)	.00493 (4.22)	-1.10484	-.44299
14	24.66155 (4.23)	10.98332 (4.23)	1.08454 (4.23)	.48377 (4.23)	-13.60474	6.18234
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	1.76748 (4.22)	.11720 (4.22)	.07412 (4.22)	.00502 (4.22)	-.55243	-.20349
17	4.03011 (4.22)	2.34343 (4.22)	.17406 (4.23)	.10108 (4.23)	-7.74224	-3.81921
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	3.01585 (4.22)	.10855 (4.22)	.12926 (4.22)	.00464 (4.22)	-.96512	-.42986
20	60.04579 (4.23)	25.07604 (4.23)	2.29835 (4.24)	1.15712 (4.24)	-6.37009	2.83077
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	1.56789 (4.22)	.11295 (4.22)	.06463 (4.22)	.00484 (4.22)	-.48257	-.19988
23	1.44665 (4.22)	1.07688 (4.22)	.06234 (4.23)	.04628 (4.23)	-4.21774	-2.17891
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	2.03996 (4.22)	.09392 (4.22)	.08808 (4.22)	.00401 (4.22)	-.67004	-.39851
26	57.71740 (4.23)	38.24524 (4.23)	3.09790 (4.23)	1.75272 (4.23)	-3.18295	1.42791
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	1.02991 (4.22)	.10275 (4.22)	.04404 (4.22)	.00440 (4.22)	-.33503	-.18996
29	1.06254 (4.22)	.09818 (4.22)	.04637 (4.22)	.03674 (4.22)	-3.80989	-2.19751
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	1.24508 (4.22)	.08080 (4.22)	.05319 (4.22)	.00345 (4.22)	-.43028	-.36611
32	3.56374 (4.22)	1.85359 (4.23)	.15503 (4.23)	.08172 (4.23)	-.54302	.02074
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.62296 (4.22)	.09254 (4.22)	.02659 (4.22)	.00396 (4.22)	-.21515	-.17842
35	.67590 (4.22)	.58098 (4.22)	.02887 (4.22)	.02482 (4.22)	-3.41465	-2.21537
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	.62603 (4.22)	.07621 (4.22)	.02675 (4.22)	.00300 (4.22)	-.25316	-.33271
38	1.10872 (4.22)	1.06308 (4.22)	.04739 (4.22)	.04542 (4.22)	.52946	-.64489
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.31294 (4.22)	.08255 (4.22)	.01337 (4.22)	.00353 (4.22)	-.12659	-.16536
41	.29712 (4.22)	.28386 (4.22)	.01282 (4.23)	.01224 (4.23)	-3.01721	-2.22044
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.21469 (4.23)	.06135 (4.22)	.00941 (4.23)	.00262 (4.22)	-.13606	-.29833
44	.55310 (4.22)	.57406 (4.22)	.02380 (4.22)	.02472 (4.23)	.93703	-.98145
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.10729 (4.23)	.07272 (4.22)	.00476 (4.23)	.00311 (4.22)	-.06804	-.15089
47	.00845 (4.26)	.07145 (4.26)	.00394 (4.26)	.00410 (4.26)	-2.60846	-2.20059
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.00292 (4.25)	.05335 (4.22)	.00344 (4.26)	.00228 (4.22)	-.06911	-.26299
50	.12879 (4.24)	.14813 (4.24)	.00640 (4.25)	.00752 (4.25)	1.08117	-1.20191
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.03149 (4.25)	.06305 (4.22)	.00172 (4.26)	.00270 (4.22)	-.03456	-.13510
53	.17278 (4.23)	.20707 (4.23)	.00779 (4.23)	.00934 (4.23)	-2.18906	-2.14712
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.13893 (4.23)	.04561 (4.22)	.00617 (4.23)	.00195 (4.22)	-.03859	-.22666
56	.11996 (4.23)	.19206 (4.23)	.00570 (4.24)	.00901 (4.24)	1.08697	-1.37131
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.00950 (4.23)	.05351 (4.22)	.00308 (4.23)	.00229 (4.22)	-.01930	-.11805
59	.20407 (4.23)	.29879 (4.23)	.00890 (4.23)	.01293 (4.23)	-1.77043	-2.05869

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.14970 (4.22)	.03785 (4.22)	.00648 (4.23)	.00162 (4.22)	-.03001	-.18934
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.07487 (4.22)	.04907 (4.22)	.00324 (4.23)	.00189 (4.22)	-.01501	-.09981
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.11998 (4.22)	.02998 (4.22)	.00515 (4.23)	.00128 (4.22)	-.03052	-.15105
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.06000 (4.22)	.03472 (4.22)	.00258 (4.23)	.00149 (4.22)	-.01526	-.08048
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.07935 (4.22)	.02203 (4.22)	.00339 (4.22)	.00094 (4.22)	-.03086	-.11183
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.03968 (4.22)	.02543 (4.22)	.00170 (4.22)	.00109 (4.22)	-.01543	-.06014
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.04385 (4.22)	.01403 (4.22)	.00187 (4.22)	.00060 (4.22)	-.02558	-.07176
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.02193 (4.22)	.01517 (4.22)	.00094 (4.22)	.00069 (4.22)	-.01279	-.03889
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.01117 (4.22)	.00401 (4.22)	.00048 (4.22)	.00017 (4.22)	-.00887	-.02066
78	.00559 (4.22)	.00462 (4.22)	.00024 (4.22)	.00020 (4.22)	-.00444	-.01126
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES		EXPECTED GUST OSCILLATIONS			STATIC VALUES		
	I	J	AXIAL FORCE	MOMENT AT I	MOMENT AT J	AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.221 (4.22)	22.704 (4.22)	1053.414 (4.22)	-20.322	-.000	-333.692
2	8	9	1734.047 (4.22)	17.856 (4.22)	494.117 (4.22)	1429.438	.053	169.196
3	8	10	369.817 (4.22)	.000 (4.22)	.000 (4.23)	837.915	.000	-.000
4	8	11	6257.884 (4.22)	.041 (4.22)	.042 (4.22)	-1113.297	.012	-.024
5	10	12	1980.075 (4.23)	.011 (4.22)	.021 (4.22)	2498.590	.006	-.012
6	8	12	1485.276 (4.22)	.010 (4.22)	.020 (4.22)	1537.258	.006	-.012
7	10	11	1759.413 (4.22)	.010 (4.22)	.020 (4.22)	-3329.008	.006	-.012
8	11	13	3564.894 (4.22)	.008 (4.24)	13570.585 (4.23)	-13191.903	-.011	-4089.504
9	12	16	3358.041 (4.22)	.007 (4.22)	4548.163 (4.24)	-3252.909	.010	-4624.833
10	13	19	3653.200 (4.22)	12535.791 (4.23)	18854.867 (4.23)	-13374.426	-4103.623	-9149.901
11	16	22	3488.588 (4.22)	5381.940 (4.23)	9509.992 (4.23)	-3661.099	-4624.588	-4147.424
12	19	25	3812.514 (4.22)	18505.140 (4.23)	34164.227 (4.23)	-13603.355	-9149.916	-12969.505
13	22	28	3722.508 (4.22)	9465.216 (4.23)	16929.209 (4.23)	-4281.499	-4147.100	-6593.579
14	25	31	3902.010 (4.22)	33716.093 (4.23)	46579.766 (4.23)	-13892.620	-12969.262	-14715.520
15	28	34	3897.152 (4.22)	16877.691 (4.23)	23264.824 (4.23)	-4929.449	-6593.300	-7322.573
16	31	37	3546.982 (4.22)	46508.672 (4.23)	48475.769 (4.22)	-14210.869	-14715.289	-13971.416
17	34	40	4006.886 (4.22)	23213.666 (4.23)	24239.677 (4.22)	-5545.635	-7322.365	-6989.593
18	37	43	3340.960 (4.22)	48439.058 (4.22)	42241.534 (4.22)	-14571.232	-13971.167	-11593.347
19	40	46	4057.497 (4.22)	24190.115 (4.22)	21113.776 (4.22)	-6131.113	-6989.446	-5791.376
20	43	49	3256.240 (4.22)	42179.466 (4.22)	31455.399 (4.22)	-14965.738	-11593.077	-8340.802
21	46	52	4061.685 (4.22)	21067.980 (4.22)	15718.093 (4.22)	-6687.989	-5791.275	-4169.077
22	49	55	3251.265 (4.22)	31382.776 (4.22)	19583.102 (4.22)	-15381.758	-8340.552	-4943.418
23	52	58	4035.710 (4.22)	15678.217 (4.22)	9783.946 (4.22)	-7218.203	-4169.011	-2470.838
24	55	61	3287.374 (4.22)	19515.711 (4.22)	9361.729 (4.22)	-15805.313	-4943.221	-1918.902
25	58	63	3996.801 (4.22)	9752.256 (4.22)	4671.192 (4.22)	-7722.183	-2470.799	-959.458
26	61	65	3332.899 (4.22)	9322.080 (4.22)	2405.189 (4.23)	-16214.817	-1918.834	183.693
27	63	67	3961.364 (4.22)	4664.085 (4.22)	1196.266 (4.23)	-8183.116	-959.484	91.281
28	65	69	3369.481 (4.22)	2389.684 (4.23)	1868.183 (4.24)	-16605.208	183.698	1414.645
29	67	71	3934.992 (4.22)	1196.804 (4.23)	936.452 (4.23)	-8612.253	91.240	707.033
30	69	73	3391.048 (4.22)	1866.097 (4.23)	2385.840 (4.23)	-16965.068	1414.611	1854.627
31	71	75	3920.312 (4.22)	930.768 (4.24)	1194.577 (4.23)	-8998.624	706.990	925.719
32	73	77	3400.002 (4.22)	2379.551 (4.23)	710.813 (4.23)	-17308.799	1854.594	1053.791
33	75	78	3914.843 (4.22)	1188.758 (4.23)	354.931 (4.23)	-9355.875	925.687	527.935
34	77	79	3400.065 (4.22)	697.856 (4.23)	.473 (4.23)	-17491.280	1053.735	.002
35	78	80	3914.913 (4.22)	351.420 (4.23)	.138 (4.23)	-9538.229	527.918	.001
36	11	12	2492.673 (4.22)	.099 (4.22)	.099 (4.22)	2406.986	.057	-.057
37	13	16	152.727 (4.23)	.099 (4.22)	.099 (4.22)	-36.540	.051	-.051
38	19	22	91.969 (4.24)	.097 (4.22)	.097 (4.22)	273.828	.049	-.049
39	25	28	119.125 (4.24)	.088 (4.22)	.088 (4.22)	168.720	.046	-.046
40	31	34	40.055 (4.22)	.073 (4.22)	.073 (4.22)	192.692	.045	-.045
41	37	40	37.473 (4.22)	.053 (4.22)	.053 (4.22)	209.182	.044	-.044
42	43	46	30.522 (4.22)	.034 (4.22)	.034 (4.22)	233.871	.042	-.042
43	49	52	24.753 (4.22)	.019 (4.22)	.019 (4.22)	261.739	.040	-.040
44	55	58	19.950 (4.22)	.008 (4.22)	.008 (4.22)	294.323	.036	-.036
45	61	63	13.622 (4.22)	.001 (4.25)	.001 (4.25)	314.395	.031	-.031
46	65	67	10.253 (4.22)	.002 (4.23)	.002 (4.23)	353.888	.025	-.025
47	69	71	6.515 (4.22)	.003 (4.22)	.003 (4.22)	393.015	.018	-.018
48	73	75	2.749 (4.22)	.002 (4.22)	.002 (4.22)	426.167	.010	-.010
49	77	78	.272 (4.23)	.002 (4.22)	.002 (4.22)	.281	.002	-.002
50	5	11	2728.941 (4.22)	0.000 (0.00)	0.000 (0.00)	937.633	0.000	0.000
51	3	5	2900.524 (4.22)	0.000 (0.00)	0.000 (0.00)	647.443	0.000	0.000
52	1	3	2555.969 (4.23)	0.000 (0.00)	0.000 (0.00)	635.628	0.000	0.000
53	6	12	4440.788 (4.22)	0.000 (0.00)	0.000 (0.00)	6643.603	0.000	0.000
54	4	6	4443.130 (4.22)	0.000 (0.00)	0.000 (0.00)	6466.501	0.000	0.000
55	2	4	4447.210 (4.22)	0.000 (0.00)	0.000 (0.00)	6291.429	0.000	0.000
56	13	14	100.105 (4.24)	0.000 (0.00)	0.000 (0.00)	58.876	0.000	0.000
57	14	15	83.761 (4.24)	0.000 (0.00)	0.000 (0.00)	7.606	0.000	0.000
58	16	17	144.219 (4.22)	0.000 (0.00)	0.000 (0.00)	295.552	0.000	0.000
59	17	18	144.435 (4.22)	0.000 (0.00)	0.000 (0.00)	280.066	0.000	0.000

59	19	20	338.354 (4.27)	0.000 (0.00)	0.000 (0.00)	87.407	0.000	0.000
61	20	21	339.910 (4.27)	0.000 (0.00)	0.000 (0.00)	73.346	0.000	0.000
62	22	23	261.872 (4.22)	0.000 (0.00)	0.000 (0.00)	514.339	0.000	0.000
63	23	24	262.079 (4.22)	0.000 (0.00)	0.000 (0.00)	499.445	0.000	0.000
64	25	26	433.293 (4.25)	0.000 (0.00)	0.000 (0.00)	89.848	0.000	0.000
65	26	27	435.488 (4.25)	0.000 (0.00)	0.000 (0.00)	76.576	0.000	0.000
66	28	29	197.968 (4.22)	0.000 (0.00)	0.000 (0.00)	490.947	0.000	0.000
67	29	30	198.112 (4.22)	0.000 (0.00)	0.000 (0.00)	477.339	0.000	0.000
68	31	32	434.715 (4.22)	0.000 (0.00)	0.000 (0.00)	127.513	0.000	0.000
69	32	33	434.889 (4.22)	0.000 (0.00)	0.000 (0.00)	114.970	0.000	0.000
70	34	35	134.260 (4.22)	0.000 (0.00)	0.000 (0.00)	468.327	0.000	0.000
71	35	36	128.346 (4.22)	0.000 (0.00)	0.000 (0.00)	456.003	0.000	0.000
72	37	38	245.293 (4.22)	0.000 (0.00)	0.000 (0.00)	184.270	0.000	0.000
73	38	39	245.467 (4.22)	0.000 (0.00)	0.000 (0.00)	172.946	0.000	0.000
74	40	41	62.184 (4.22)	0.000 (0.00)	0.000 (0.00)	449.033	0.000	0.000
75	41	42	62.223 (4.22)	0.000 (0.00)	0.000 (0.00)	437.990	0.000	0.000
76	43	44	119.134 (4.22)	0.000 (0.00)	0.000 (0.00)	237.530	0.000	0.000
77	44	45	119.185 (4.22)	0.000 (0.00)	0.000 (0.00)	227.482	0.000	0.000
78	46	47	14.388 (4.25)	0.000 (0.00)	0.000 (0.00)	435.234	0.000	0.000
79	47	48	14.396 (4.25)	0.000 (0.00)	0.000 (0.00)	425.467	0.000	0.000
80	49	50	26.721 (4.25)	0.000 (0.00)	0.000 (0.00)	282.808	0.000	0.000
81	50	51	26.733 (4.25)	0.000 (0.00)	0.000 (0.00)	274.036	0.000	0.000
82	52	53	38.264 (4.23)	0.000 (0.00)	0.000 (0.00)	428.442	0.000	0.000
83	53	54	38.302 (4.23)	0.000 (0.00)	0.000 (0.00)	419.949	0.000	0.000
84	55	56	55.945 (4.23)	0.000 (0.00)	0.000 (0.00)	319.574	0.000	0.000
85	56	57	55.954 (4.23)	0.000 (0.00)	0.000 (0.00)	312.076	0.000	0.000
86	58	59	59.931 (4.23)	0.000 (0.00)	0.000 (0.00)	429.252	0.000	0.000
87	59	60	59.956 (4.23)	0.000 (0.00)	0.000 (0.00)	422.027	0.000	0.000
88	61	62	77.373 (4.23)	0.000 (0.00)	0.000 (0.00)	332.683	0.000	0.000
89	63	64	81.242 (4.22)	0.000 (0.00)	0.000 (0.00)	409.865	0.000	0.000
90	65	66	73.607 (4.22)	0.000 (0.00)	0.000 (0.00)	357.024	0.000	0.000
91	67	68	54.273 (4.22)	0.000 (0.00)	0.000 (0.00)	425.802	0.000	0.000
92	69	70	56.009 (4.22)	0.000 (0.00)	0.000 (0.00)	381.184	0.000	0.000
93	71	72	89.364 (4.22)	0.000 (0.00)	0.000 (0.00)	441.759	0.000	0.000
94	73	74	34.936 (4.22)	0.000 (0.00)	0.000 (0.00)	407.092	0.000	0.000
95	75	76	22.678 (4.22)	0.000 (0.00)	0.000 (0.00)	452.694	0.000	0.000
96	9	11	2036.930 (4.22)	.006 (4.22)	.011 (4.22)	-1864.636	.003	-.006
97	9	10	322.057 (4.23)	483.141 (4.22)	28.837 (4.22)	391.461	-164.109	-.102

GUST ANALYSIS TIME 187.009 SEC.

INTOS MODIFIED MODEL .....RUN W,DAMP=.006 V=-130.

FLAG (=T TO CONSIDER WIND ON CABLES). .	T
FLAG (=T TO INCLUDE VERTICAL GUSTINESS)	F
GENERALIZED FORCE TRESHOLD (0/0). . . .	20.00
FRICTION COEFFICIENT	.0010
DECAY CONSTANT	7.00
BASIC WIND SPEED AVER. INTERVAL (MIN) .	60.00

MODE NO.	DAMPING COEF
1	.0060
2	.0060
3	.0060
4	.0060
5	.0060
6	.0060
7	.0060
8	.0060
9	.0060
10	.0060

CONTRIBUTING MODES

MODE NO.	OMEGA RAD/SEC	SPECTRUM RADIUS	SIGMA LEVEL	GEN.WIND FORCE	MODE CONTRIBUTION FACTORS DEFLECTIONS	ACCELERATIONS
2	1.29281	1.27045	4.246	-49.65415	7.967125	13.315969
3	1.42710	1.40289	4.269	-202.50561	29.763504	60.616799
4	1.55324	1.52651	4.289	103.65110	14.123802	34.074599

FUNDAMENTAL FREQUENCIES - W

MODE NO.	OMEGA		PERIOD
	RAD/SEC	CYCLES/MIN	SEC
1	1.01590E+00	9.70115E+00	6.184833
2	1.29281E+00	1.23455E+01	4.860067
3	1.42710E+00	1.36279E+01	4.402743
4	1.55324E+00	1.48325E+01	4.045184
5	1.74735E+00	1.66861E+01	3.595817
6	1.97616E+00	1.88710E+01	3.179477
7	2.05283E+00	1.96032E+01	3.060729
8	2.05478E+00	1.96218E+01	3.057822
9	2.45597E+00	2.34529E+01	2.558321
10	2.59954E+00	2.48239E+01	2.417023
11	2.65232E+00	2.53279E+01	2.368925
12	2.94670E+00	2.81390E+01	2.132272
13	3.04441E+00	2.90721E+01	2.063831
14	3.11976E+00	2.97917E+01	2.013986
15	3.14572E+00	3.00396E+01	1.997367
16	3.26129E+00	3.11431E+01	1.926589
17	3.40495E+00	3.25150E+01	1.845301
18	3.58740E+00	3.42573E+01	1.751450
19	3.81496E+00	3.64303E+01	1.646980
20	4.20895E+00	4.01927E+01	1.492809
21	4.40560E+00	4.20706E+01	1.426174
22	5.06644E+00	4.83812E+01	1.240151
23	6.42262E+00	6.13318E+01	.978285
24	9.85878E+00	9.41448E+01	.637316
25	1.49664E+01	1.42919E+02	.419818
26	1.80744E+01	1.72598E+02	.347628
27	1.94188E+01	1.85437E+02	.323560
28	2.52318E+01	2.40947E+02	.249017
29	3.60291E+01	3.44054E+02	.174391
30	3.85600E+01	3.68223E+02	.162945
31	4.16633E+01	3.97857E+02	.150808
32	4.17724E+01	3.98899E+02	.150414
33	5.07257E+01	4.84397E+02	.123865
34	5.37194E+01	5.12985E+02	.116962
35	5.46524E+01	5.21894E+02	.114966
36	5.55099E+01	5.30083E+02	.113190
37	5.96510E+01	5.69628E+02	.105332
38	6.09756E+01	5.82277E+02	.103044
39	6.19580E+01	5.91658E+02	.101410
40	6.59082E+01	6.29380E+02	.095332
41	6.76402E+01	6.45920E+02	.092891
42	7.05026E+01	6.73253E+02	.089120
43	7.38171E+01	7.04904E+02	.085118
44	7.49917E+01	7.16121E+02	.083785
45	7.58072E+01	7.23908E+02	.082883
46	8.09259E+01	7.72789E+02	.077641
47	8.35814E+01	7.98148E+02	.075174
48	8.40993E+01	8.03093E+02	.074711
49	8.71356E+01	8.32088E+02	.072108
50	8.99492E+01	8.58955E+02	.069852
51	9.36801E+01	8.94583E+02	.067070
52	9.55300E+01	9.12249E+02	.065772

NODAL DISPLACEMENTS AND ACCELERATIONS (SIGMA LEVEL IN PARENTHESIS)

POINT	EXPECTED GUST OSCILLATIONS				STATIC DISPLACEMENTS	
	X-DIS	Y-DIS	X-ACL (G)	Y-ACL (G)	X-DIS	Y-DIS
1	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
2	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
3	22.34374 (4.27)	9.91371 (4.27)	1.43912 (4.27)	.63873 (4.27)	-16.83482	7.81996
4	3.38057 (4.27)	2.16592 (4.27)	.21801 (4.27)	.13960 (4.27)	-5.18899	-2.58856
5	22.65790 (4.27)	10.25023 (4.27)	1.45908 (4.27)	.66036 (4.27)	-17.44446	7.96792
6	2.46791 (4.27)	1.98556 (4.27)	.15945 (4.27)	.12803 (4.27)	-5.74592	-2.67423
7	2.56122 (4.27)	.03593 (4.27)	.16333 (4.27)	.00229 (4.27)	-8.14488	-.45158
8	4.98228 (4.27)	.17190 (4.27)	.32008 (4.27)	.01101 (4.27)	-4.70462	-.54410
9	2.50304 (4.27)	.17055 (4.27)	.16081 (4.27)	.01092 (4.27)	-3.24996	-.43516
10	2.49119 (4.27)	.16754 (4.27)	.16004 (4.27)	.01073 (4.27)	-2.35230	-.21615
11	4.95602 (4.27)	.17152 (4.27)	.31837 (4.27)	.01099 (4.27)	-2.66979	-.54405
12	2.47803 (4.27)	.16746 (4.27)	.15919 (4.27)	.01072 (4.27)	-1.33487	-.21621
13	4.10892 (4.27)	.15323 (4.27)	.26269 (4.27)	.00979 (4.27)	-2.14042	-.52011
14	8.39215 (4.27)	3.03746 (4.27)	.53669 (4.27)	.19426 (4.27)	-23.58213	10.79119
15	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
16	2.05442 (4.27)	.15647 (4.27)	.13134 (4.27)	.01001 (4.27)	-1.07026	-.21169
17	4.17514 (4.27)	2.47738 (4.27)	.26780 (4.27)	.15881 (4.27)	-6.98900	-3.32622
18	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
19	3.67862 (4.27)	.14420 (4.27)	.23453 (4.27)	.00921 (4.27)	-1.87490	-.50692
20	29.05730 (4.27)	13.81205 (4.27)	1.85945 (4.27)	.88407 (4.27)	-13.21686	6.08014
21	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
22	1.83924 (4.27)	.15061 (4.27)	.11726 (4.27)	.00963 (4.27)	-.93751	-.20873
23	1.29994 (4.27)	1.06599 (4.27)	.08314 (4.27)	.06808 (4.27)	-4.17906	-2.04774
24	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
25	2.73455 (4.27)	.12439 (4.27)	.17324 (4.27)	.00792 (4.27)	-1.30459	-.47395
26	40.05921 (4.27)	22.12965 (4.27)	2.54989 (4.27)	1.40894 (4.27)	-9.91180	5.06759
27	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
28	1.36716 (4.27)	.13666 (4.27)	.08661 (4.27)	.00874 (4.27)	-.65238	-.19973
29	1.17585 (4.27)	.99041 (4.27)	.07449 (4.27)	.06271 (4.27)	-3.79658	-2.10563
30	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
31	1.88849 (4.27)	.10653 (4.27)	.11919 (4.27)	.00677 (4.27)	-.82816	-.43761
32	103.78140 (4.28)	65.22166 (4.28)	7.04979 (4.28)	4.43428 (4.28)	-6.15134	3.44542
33	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
34	.94411 (4.27)	.12281 (4.27)	.05959 (4.27)	.00785 (4.27)	-.41417	-.18835
35	.96740 (4.27)	.85490 (4.27)	.06110 (4.27)	.05399 (4.27)	-3.44708	-2.17876
36	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
37	1.16589 (4.27)	.08993 (4.27)	.07377 (4.27)	.00572 (4.27)	-.46655	-.39832
38	49.65745 (4.25)	35.94848 (4.25)	2.76329 (4.26)	2.00466 (4.26)	-1.53642	.73588
39	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
40	.58282 (4.27)	.10927 (4.27)	.03688 (4.27)	.00698 (4.27)	-.23335	-.17481
41	.67660 (4.27)	.64390 (4.27)	.04341 (4.27)	.04126 (4.27)	-3.10337	-2.24964
42	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
43	.62242 (4.27)	.07702 (4.27)	.04010 (4.27)	.00490 (4.27)	-.22271	-.35691
44	1.42670 (4.27)	1.46720 (4.27)	.09147 (4.27)	.09402 (4.27)	.41287	-.61482
45	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
46	.31111 (4.27)	.09615 (4.27)	.02004 (4.27)	.00614 (4.27)	-.11142	-.15945
47	.39612 (4.28)	.41663 (4.28)	.02709 (4.28)	.02839 (4.28)	-2.73669	-2.29298
48	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
49	.28673 (4.28)	.06625 (4.27)	.01968 (4.28)	.00422 (4.27)	-.08215	-.31406
50	.61621 (4.27)	.74530 (4.27)	.04088 (4.28)	.04952 (4.28)	.82184	-.98596
51	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
52	.14333 (4.28)	.08336 (4.27)	.00984 (4.28)	.00532 (4.27)	-.04113	-.14257
53	.26374 (4.29)	.31289 (4.29)	.01932 (4.29)	.02291 (4.29)	-2.33114	-2.28359
54	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
55	.16580 (4.28)	.05642 (4.27)	.01202 (4.29)	.00359 (4.27)	-.01922	-.27014
56	.24147 (4.28)	.35914 (4.28)	.01740 (4.29)	.02594 (4.29)	.93231	-1.20693
57	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
58	.08294 (4.28)	.07077 (4.27)	.00601 (4.29)	.00452 (4.27)	-.00965	-.12439
59	.24860 (4.28)	.35124 (4.28)	.01721 (4.28)	.02433 (4.28)	-1.89495	-2.20847

60	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
61	.15972 (4.28)	.04678 (4.27)	.01075 (4.28)	.00298 (4.27)	-.00465	-.22525
62	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
63	.07991 (4.28)	.05831 (4.27)	.00538 (4.28)	.00372 (4.27)	-.00235	-.10503
64	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
65	.14378 (4.27)	.03706 (4.27)	.00927 (4.27)	.00236 (4.27)	-.01188	-.17941
66	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
67	.07192 (4.27)	.04595 (4.27)	.00464 (4.27)	.00293 (4.27)	-.00596	-.08460
68	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
69	.10825 (4.27)	.02724 (4.27)	.00687 (4.27)	.00173 (4.27)	-.02166	-.13264
70	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
71	.05414 (4.27)	.03365 (4.27)	.00344 (4.27)	.00215 (4.27)	-.01084	-.06316
72	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
73	.06750 (4.27)	.01735 (4.27)	.00426 (4.27)	.00110 (4.27)	-.02304	-.08501
74	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
75	.03375 (4.27)	.02140 (4.27)	.00213 (4.27)	.00137 (4.27)	-.01152	-.04081
76	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
77	.01897 (4.27)	.00495 (4.27)	.00120 (4.27)	.00032 (4.27)	-.00893	-.02444
78	.00949 (4.27)	.00611 (4.27)	.00060 (4.27)	.00039 (4.27)	-.00446	-.01181
79	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000
80	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000 (0.00)	0.00000	0.00000

INTERNAL FORCES (SIGMA LEVEL IN PARENTHESIS)

ELEMENT	END NODES		EXPECTED GUST OSCILLATIONS			STATIC VALUES		
	I	J	AXIAL FORCE	MOMENT AT I	MOMENT AT J	AXIAL FORCE	MOMENT AT I	MOMENT AT J
1	7	9	.198 (4.27)	13.040 (4.27)	605.905 (4.27)	-20.272	-.001	-426.203
2	8	9	3333.944 (4.27)	196.973 (4.27)	338.810 (4.27)	1021.685	2.355	216.702
3	8	10	685.397 (4.27)	.000 (4.27)	.000 (4.27)	873.782	.000	-.000
4	8	11	12683.302 (4.27)	.041 (4.27)	.043 (4.27)	-4969.110	.011	-.021
5	10	12	3841.714 (4.27)	.011 (4.27)	.022 (4.27)	2578.885	.006	-.011
6	8	12	3189.652 (4.27)	.010 (4.27)	.021 (4.27)	3146.998	.005	-.011
7	10	11	3332.830 (4.27)	.010 (4.27)	.020 (4.27)	-3478.169	.005	-.010
8	11	13	3835.802 (4.27)	.004 (4.27)	13109.898 (4.28)	-16566.885	-.050	-5093.603
9	12	16	4269.973 (4.27)	.008 (4.27)	5600.533 (4.29)	-3387.962	.005	-7513.822
10	13	19	3666.054 (4.27)	12769.539 (4.28)	17645.324 (4.28)	-16859.870	-5119.170	-14168.716
11	16	22	4456.899 (4.27)	5975.588 (4.28)	8905.003 (4.28)	-3875.634	-7514.833	-6253.700
12	19	25	3797.095 (4.27)	17513.867 (4.28)	29703.604 (4.29)	-17080.816	-14168.057	-21854.437
13	22	28	4743.932 (4.27)	8823.159 (4.28)	14803.590 (4.29)	-4589.541	-6252.393	-11130.843
14	25	31	4079.956 (4.27)	29502.841 (4.29)	42710.811 (4.29)	-17350.606	-21855.652	-26937.845
15	28	34	4978.772 (4.27)	14730.829 (4.29)	21405.487 (4.29)	-5309.822	-11129.815	-13395.554
16	31	37	4722.465 (4.27)	42898.638 (4.29)	48854.054 (4.28)	-17610.407	-26937.753	-27585.262
17	34	40	5153.199 (4.27)	21343.240 (4.29)	24489.796 (4.28)	-5976.683	-13394.483	-13794.284
18	37	43	4279.803 (4.27)	49104.418 (4.28)	47951.567 (4.27)	-17878.981	-27584.754	-24002.514
19	40	46	5260.468 (4.27)	24435.430 (4.28)	23996.164 (4.27)	-6592.655	-13793.321	-11985.557
20	43	49	4112.842 (4.27)	47910.439 (4.27)	40640.797 (4.27)	-18214.606	-24001.887	-17842.485
21	46	52	5306.011 (4.27)	23945.605 (4.27)	20300.257 (4.27)	-7163.805	-11984.665	-8914.741
22	49	55	4059.502 (4.27)	40567.372 (4.27)	29645.944 (4.27)	-18601.514	-17840.953	-10935.104
23	52	58	5304.037 (4.27)	20253.798 (4.27)	14810.457 (4.27)	-7697.239	-8913.910	-5463.426
24	55	61	4073.970 (4.27)	29562.549 (4.27)	18354.772 (4.27)	-19013.933	-10933.260	-4665.199
25	58	63	5274.053 (4.27)	14770.372 (4.27)	9159.649 (4.27)	-8198.654	-5462.691	-2331.610
26	61	65	4117.283 (4.27)	18278.442 (4.27)	9416.702 (4.27)	-19421.945	-4663.477	-257.723
27	63	67	5238.581 (4.27)	9137.924 (4.27)	4696.098 (4.27)	-8653.743	-2331.190	-129.772
28	65	69	4161.117 (4.27)	9373.367 (4.27)	4547.857 (4.28)	-19812.334	-256.732	2207.865
29	67	71	5207.604 (4.27)	4686.849 (4.27)	2268.904 (4.28)	-9079.047	-129.665	1102.611
30	69	73	4191.024 (4.27)	4530.498 (4.28)	2873.212 (4.28)	-20171.650	2208.197	2940.968
31	71	75	5188.248 (4.27)	2264.715 (4.28)	1436.937 (4.28)	-9463.977	1102.519	1467.822
32	73	77	4204.909 (4.27)	2868.625 (4.28)	863.013 (4.28)	-20514.693	2940.831	1520.271
33	75	78	5180.325 (4.27)	1433.452 (4.28)	430.362 (4.28)	-9821.123	1467.632	760.399
34	77	79	4205.022 (4.27)	844.315 (4.28)	.959 (4.28)	-20697.168	1520.173	.003
35	78	80	5180.447 (4.27)	425.802 (4.28)	.404 (4.28)	-10003.475	760.374	.001
36	11	12	3529.080 (4.27)	.100 (4.27)	.100 (4.27)	2797.975	.050	-.051
37	13	16	110.854 (4.27)	.101 (4.27)	.101 (4.27)	-112.542	.047	-.047
38	19	22	95.484 (4.27)	.100 (4.27)	.100 (4.27)	396.951	.046	-.046
39	25	28	156.061 (4.27)	.094 (4.27)	.094 (4.27)	181.060	.045	-.045
40	31	34	356.143 (4.28)	.085 (4.27)	.085 (4.27)	199.720	.046	-.046
41	37	40	85.139 (4.26)	.071 (4.27)	.071 (4.27)	196.638	.049	-.049
42	43	46	17.130 (4.28)	.052 (4.27)	.052 (4.27)	221.994	.050	-.050
43	49	52	12.116 (4.28)	.034 (4.27)	.034 (4.27)	251.924	.050	-.050
44	55	58	11.042 (4.27)	.019 (4.27)	.019 (4.27)	286.859	.047	-.047
45	61	63	7.905 (4.28)	.009 (4.27)	.009 (4.27)	308.024	.042	-.042
46	65	67	6.275 (4.27)	.003 (4.28)	.003 (4.28)	349.795	.034	-.034
47	69	71	4.688 (4.27)	.002 (4.28)	.002 (4.28)	391.016	.025	-.025
48	73	75	2.351 (4.27)	.002 (4.27)	.002 (4.27)	425.861	.015	-.015
49	77	78	.511 (4.28)	.003 (4.27)	.003 (4.27)	.495	.003	-.003
50	5	11	2720.029 (4.27)	0.000 (0.00)	0.000 (0.00)	1541.557	0.000	0.000
51	3	5	2769.233 (4.27)	0.000 (0.00)	0.000 (0.00)	731.628	0.000	0.000
52	1	3	2713.794 (4.27)	0.000 (0.00)	0.000 (0.00)	691.960	0.000	0.000
53	6	12	5792.866 (4.27)	0.000 (0.00)	0.000 (0.00)	8588.972	0.000	0.000
54	4	6	5772.292 (4.27)	0.000 (0.00)	0.000 (0.00)	8410.753	0.000	0.000
55	2	4	5789.223 (4.27)	0.000 (0.00)	0.000 (0.00)	8233.597	0.000	0.000
56	13	14	205.607 (4.27)	0.000 (0.00)	0.000 (0.00)	416.155	0.000	0.000
57	14	15	315.228 (4.27)	0.000 (0.00)	0.000 (0.00)	409.592	0.000	0.000
58	16	17	214.164 (4.27)	0.000 (0.00)	0.000 (0.00)	384.924	0.000	0.000
59	17	18	213.891 (4.27)	0.000 (0.00)	0.000 (0.00)	368.965	0.000	0.000

60	19	20	159.625 (4.27)	0.000 (0.00)	0.000 (0.00)	72.490	0.000	0.000
61	20	21	152.914 (4.27)	0.000 (0.00)	0.000 (0.00)	42.329	0.000	0.000
62	22	23	327.383 (4.27)	0.000 (0.00)	0.000 (0.00)	617.991	0.000	0.000
63	23	24	327.361 (4.27)	0.000 (0.00)	0.000 (0.00)	602.940	0.000	0.000
64	25	26	340.052 (4.27)	0.000 (0.00)	0.000 (0.00)	52.787	0.000	0.000
65	26	27	341.416 (4.27)	0.000 (0.00)	0.000 (0.00)	57.931	0.000	0.000
66	28	29	271.224 (4.27)	0.000 (0.00)	0.000 (0.00)	573.233	0.000	0.000
67	29	30	271.196 (4.27)	0.000 (0.00)	0.000 (0.00)	559.489	0.000	0.000
68	31	32	1538.041 (4.28)	0.000 (0.00)	0.000 (0.00)	54.269	0.000	0.000
69	32	33	1584.363 (4.28)	0.000 (0.00)	0.000 (0.00)	46.905	0.000	0.000
70	34	35	206.584 (4.27)	0.000 (0.00)	0.000 (0.00)	527.402	0.000	0.000
71	35	36	206.580 (4.27)	0.000 (0.00)	0.000 (0.00)	514.977	0.000	0.000
72	37	38	722.653 (4.27)	0.000 (0.00)	0.000 (0.00)	71.379	0.000	0.000
73	38	39	732.922 (4.27)	0.000 (0.00)	0.000 (0.00)	61.761	0.000	0.000
74	40	41	138.508 (4.27)	0.000 (0.00)	0.000 (0.00)	485.624	0.000	0.000
75	41	42	138.530 (4.27)	0.000 (0.00)	0.000 (0.00)	474.527	0.000	0.000
76	43	44	299.719 (4.27)	0.000 (0.00)	0.000 (0.00)	163.631	0.000	0.000
77	44	45	300.077 (4.27)	0.000 (0.00)	0.000 (0.00)	153.334	0.000	0.000
78	46	47	81.175 (4.28)	0.000 (0.00)	0.000 (0.00)	452.634	0.000	0.000
79	47	48	81.209 (4.28)	0.000 (0.00)	0.000 (0.00)	442.861	0.000	0.000
80	49	50	159.215 (4.28)	0.000 (0.00)	0.000 (0.00)	244.988	0.000	0.000
81	50	51	159.333 (4.28)	0.000 (0.00)	0.000 (0.00)	236.102	0.000	0.000
82	52	53	54.357 (4.29)	0.000 (0.00)	0.000 (0.00)	431.675	0.000	0.000
83	53	54	54.393 (4.29)	0.000 (0.00)	0.000 (0.00)	423.211	0.000	0.000
84	55	56	86.235 (4.28)	0.000 (0.00)	0.000 (0.00)	305.114	0.000	0.000
85	56	57	86.277 (4.28)	0.000 (0.00)	0.000 (0.00)	297.561	0.000	0.000
86	58	59	61.323 (4.28)	0.000 (0.00)	0.000 (0.00)	424.039	0.000	0.000
87	59	60	61.360 (4.28)	0.000 (0.00)	0.000 (0.00)	416.862	0.000	0.000
88	61	62	84.111 (4.28)	0.000 (0.00)	0.000 (0.00)	332.310	0.000	0.000
89	63	64	64.830 (4.27)	0.000 (0.00)	0.000 (0.00)	398.299	0.000	0.000
90	65	66	89.085 (4.27)	0.000 (0.00)	0.000 (0.00)	359.163	0.000	0.000
91	67	68	64.255 (4.27)	0.000 (0.00)	0.000 (0.00)	416.458	0.000	0.000
92	69	70	77.734 (4.27)	0.000 (0.00)	0.000 (0.00)	381.800	0.000	0.000
93	71	72	52.225 (4.27)	0.000 (0.00)	0.000 (0.00)	436.528	0.000	0.000
94	73	74	54.812 (4.27)	0.000 (0.00)	0.000 (0.00)	406.246	0.000	0.000
95	75	76	33.657 (4.27)	0.000 (0.00)	0.000 (0.00)	450.978	0.000	0.000
96	9	11	3997.825 (4.27)	.006 (4.27)	.011 (4.27)	-1396.616	.003	-.006
97	9	10	700.892 (4.27)	240.730 (4.27)	31.577 (4.27)	327.214	-208.552	-.372

GUST ANALYSIS TIME 184.891 SEC.