

WIND ENGINEERING STUDY OF  
MERCHANTS PLAZA, INDIANAPOLIS, INDIANA

by

J.A. Peterka\* and J.E. Cermak\*\*

for

F.C. Tucker Company, Inc.  
PRT Joint Venture  
Merchant's Plaza  
Indianapolis, Indiana 46204

Fluid Mechanics and Wind Engineering Program  
Fluid Dynamics and Diffusion Laboratory  
Department of Civil Engineering  
Colorado State University  
Fort Collins, Colorado 80523  
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\*Assistant Professor  
\*\*Professor-in-Charge, Fluid Mechanics  
and Wind Engineering Program

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LIST OF SYMBOLS

<u>Symbol</u>	<u>Definition</u>
U	Local mean velocity
D	Characteristic dimension (building height, width, etc.)
$\nu$	Kinematic viscosity of approach flow
$\frac{UD}{\nu}$	Reynolds number
E	Mean voltage
A	Constant
B	Constant
$\bar{n}$	Constant
$U_{rms}$	Root-mean-square of fluctuating velocity
$E_{rms}$	Root-mean-square of fluctuating voltage
$U_{\infty}$	Reference mean velocity outside the boundary layer
Y	Height above surface
$\delta$	Height of boundary layer
$T_u$	Turbulence intensity $\frac{U_{rms}}{U_{\infty}}$
$C_{p_{mean}}$	Mean pressure coefficient, $\frac{(p-p_{\infty})_{mean}}{\frac{1}{2} \rho U_{\infty}^2}$
$C_{p_{rms}}$	Root-mean-square pressure coefficient, $\frac{\left( (p-p_{\infty}) - (p-p_{\infty})_{mean} \right)_{rms}}{\frac{1}{2} \rho U_{\infty}^2}$
$C_{p_{max}}$	Peak maximum pressure coefficient, $\frac{(p-p_{\infty})_{max}}{\frac{1}{2} \rho U_{\infty}^2}$
$C_{p_{min}}$	Peak minimum pressure coefficient, $\frac{(p-p_{\infty})_{min}}{\frac{1}{2} \rho U_{\infty}^2}$
$\rho$	Density of approach flow
$( )_{min}$	Minimum value during data record

SymbolDefinition $( )_{\max}$ 

Maximum value during data record.

 $p$ 

Fluctuating pressure at a pressure tap on the structure

 $p_{\infty}$ 

Static pressure in the wind tunnel above the model

## 1. INTRODUCTION

### 1.1 General

A significant characteristic of modern building design is lighter cladding and more flexible frames. These features produce an increased vulnerability of glass lights and cladding to wind damage and larger total building deflections. In addition, increased use of pedestrian plazas has brought about a need to consider wind and gustiness in the design of these areas. Techniques have been developed during the past decade for wind-tunnel modeling of proposed structures which allow the prediction of wind pressures on cladding and wind environment about the building. Knowledge of pressures on the structure permits adequate but economical selection of window strength to meet selected maximum design winds and overall wind loads for design of frame for flexural control. Information on sidewalk-level gustiness allows plaza areas to be protected by design changes before the structure is constructed.

Modeling 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  $UD/\nu$  be similar for model and prototype. Since  $\nu$ , the kinematic viscosity of air, is identical for both, Reynolds numbers cannot be made precisely 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.

### 1.2 The Merchants Plaza Building

A wind engineering study was performed for the proposed Merchants Plaza building in Indianapolis, Indiana. The 220 ft high building was modeled (Frontispiece) at a 1:192 scale. The objectives of the wind engineering study were to obtain mean and fluctuating pressures on the building, integrated forces and moments acting on the structure, and wind velocity and gustiness in the area adjacent to the structure. In addition, a flow visualization study was performed to define overall flow patterns and regions where local flow features might cause difficulties in panel loading or pedestrian discomfort.

The Merchants Plaza building will be located in downtown Indianapolis, Indiana between Washington and Maryland streets on the north and south and between Illinois and Capitol streets on the east and west (Figure 1). The area surrounding the proposed location is generally flat and has numerous buildings of comparable height. Some wind approach directions are densely covered with buildings while others have relatively few structures.

## 2. EXPERIMENTAL CONFIGURATION

### 2.1 Wind Tunnel

The wind-engineering study was performed in the Industrial Aerodynamics 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 75 hp variable-pitch propeller. The test section is nominally 6 feet square and 62 feet long fed through a 4-to-1 contraction ratio. The roof is adjustable to maintain a zero pressure gradient along the test section. The mean velocity can be adjusted continuously from 1 to 65 fps.

### 2.2 Model

In order to obtain an accurate assessment of local pressures using piezometer taps, the model was constructed to the largest scale that would not produce serious blockage in the wind tunnel. A 1:192 scale model of the Merchants Plaza Building was constructed from 3/4 in. Lucite plastic. Window recesses were modeled in order to ensure proper surface roughness on the model.

Piezometer taps (1/16 in. dia) were drilled normal to the exterior surface at 272 locations on the building and plaza. The location of the taps on the structure is shown in Figures 3a to 3g.

An area of 1170 ft radius surrounding the building site was modeled in detail. Structures within the modeled region were made from styrofoam cut to the individual building geometries. The Merchants Plaza building was mounted on a 63 in. dia turntable centered 55 ft from the test-section entrance. The turntable indicated azimuthal orientation to  $\pm 0.1$  degree.

The region upstream from the modeled area was covered with a randomized roughness constructed from 1 in. cubes. Spires at the test section entrance provided a thicker boundary layer than would otherwise be available. The distribution of 1 in. roughness was designed to provide a boundary-layer thickness of approximately 4 ft, a velocity profile power-law exponent similar to that for the Indianapolis area, and a logarithmic velocity profile with a realistic roughness length. A photograph of the complete model is shown in Figure 4. The wind-tunnel ceiling was adjusted after placement of the model to obtain a zero pressure gradient along the test section.

### 3. INSTRUMENTATION AND DATA ACQUISITION

#### 3.1 Flow Visualization

Visualization of the flow in the vicinity of 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 in indicating areas where pedestrian discomfort may be a problem. 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 4.1.

#### 3.2 Pressures

Mean and fluctuating pressures were obtained at each of the 272 pressure ports on the wind-tunnel model. An 18 in. length of 1/16 in. I.D. plastic tubing connected 68 pressure ports at a time to a 72 tap pressure switch mounted inside the model. The switch was designed and fabricated in the Fluid Dynamics and Diffusion Laboratory to minimize the attenuation of pressure fluctuations across the switch. Each of the 68 measurement ports was directed in turn by the switch to one of the four pressure transducers mounted close to the switch. The switch was operated manually by means of a shaft projecting through the floor of the wind tunnel. A mechanical indexing feature locked the switch into each of the 18 required positions while a potentiometer provided an indication of the switch position on a digital voltmeter. The four pressure switch input taps not used for transmitting building pressures were connected to a common tube leading outside the wind tunnel. This arrangement provided both a means of performing in-place



calibration of the transducers and a means of automatically monitoring the tunnel speed using this valve position.

The pressure transducers used were Statham differential strain-gage transducers (Model PM283TC) with a 0.15 psid range. They were selected for the 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 transducer with plastic tubing to the static side of a pitot tube mounted in the wind-tunnel free stream above the model building. In this way the transducer measured the instantaneous difference between the local surface pressure and the static pressure in the free stream above the model.

Each pressure transducer bridge 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 was processed onto digital tape for later data analysis by computer. Resolution of conversion was  $\pm 0.0016$  in pressure coefficient. All four transducers were recorded simultaneously for 16 seconds at a 250 sample per second rate. The results of an experiment to determine the length of record required to obtain stable mean and rms pressures and to determine overall accuracy of the pressure data acquisition system is shown in Figure 5. A typical pressure port record was integrated for a number of time periods to obtain the data shown. Examination of a large number of pressure taps showed that the

overall accuracy for a 16 second average are, in pressure coefficient form, 0.03 for mean pressures, 0.1 for peak pressures and 0.01 for rms pressures. Pressure coefficients are defined in section 4.3

Reduction of the raw data to usable form was performed on the Colorado State University CDC 6400 computer as described in section 4.3.

### 3.3 Velocity

Velocity and turbulence intensity profiles were measured upstream of the model and at the building location with the model removed but with the surrounding buildings in place. In addition, mean velocity and turbulence intensity measurements were made 0.4 in. (6 ft prototype) above the surface at 10 locations on and near the building for 12 wind directions (Figure 6). The surface measurements are indicative of the environment to which a pedestrian in the plaza area would be subjected.

Measurements were made with a single hot-wire anemometer mounted with its axis vertical. The instrumentation used was a Thermo Systems constant temperature anemometer (Model 1050) with a 0.001 in. dia platinum film sensing element 0.020 in. long. Output was read from a Hewlett-Packard integrating digital voltmeter (Model 2401C) for mean voltage and a DISA RMS meter (Model 55D35) for rms voltage.

Calibration of the hot-wire anemometer was performed using a Thermo Systems calibrator (Model 1125). The calibration data were fit to a variable exponent King's Law relationship

$$E^2 = A + BU^n$$

where E is the hot-wire output voltage, U the approach velocity and A, B, and n are coefficients selected to fit the data. The above

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

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

where  $E_{rms}$  is the root-mean-square voltage output from the anemometer. All turbulence measurements were divided by both local mean velocity  $U$  and mean velocity outside the boundary layer  $U_{\infty}$ . Division by  $U$  gives an indication of the relative unsteadiness at the location while division by  $U_{\infty}$  permits easy determination of the actual magnitude of rms velocity fluctuations at a point for various approach velocities.

## 4. RESULTS

### 4.1 Flow Visualization

A 680 ft, 19 minute film is included as part of the report showing the characteristics of flow about the structure using smoke to make the flow visible. A listing of contents of the film is shown in Table 1. Several features can be noted from the visualization. As with all large structures, wind approaching the Merchants Plaza building was deflected down to the plaza level, up over the structure and around the sides. The tendency of a building to deflect oncoming wind downward causing a reverse in wind direction at street level was accentuated by the concave shape of the upwind building face for northerly, southeasterly, westerly, and northwesterly winds. Consequently, strong effects of the building were evident, at ground level, for a larger distance upstream than is usual for a building. These features served to make the flow about the corners of the building near the base rather high in velocity (for example, measurement location 3 for northerly and northwesterly winds). For most wind directions, the wind in the proposed tennis court area was of low velocity but was highly variable in direction with time. For westerly winds, the winds at the surface were strong and somewhat turbulent. The wind characteristics at building entrances were generally moderate except at measurement locations 7 and 8 where considerable swirl was noted for some wind directions.

### 4.2 Velocity

Approach velocity profiles are shown in Figures 7a and 7b. These profiles were taken upstream from the model and are characteristic of the boundary layer approaching the model. The boundary-layer

thickness,  $\delta$ , was 44 in. corresponding to a prototype value of 700 ft. This is slightly smaller than expected for Indianapolis but should not adversely affect the study results. In the form

$$\frac{U}{U_{\infty}} = \left[\frac{y}{\delta}\right]^n$$

the velocity profile has an exponent  $n$  of 0.24 for the approach flow which is an acceptable value for city environments such as Indianapolis with moderate building heights. The velocity profiles measured at the building site with the model removed for wind azimuths  $45^{\circ}$  and  $225^{\circ}$  are shown in Figure 7a with the upstream profile. These profiles illustrate the effect of the surrounding buildings on the velocity at the building site. The upstream approach for wind azimuth  $45^{\circ}$  contains numerous large buildings while the approach for wind azimuth  $225^{\circ}$  contains fewer and lower buildings. The upstream profile plotted in Figure 7b is shown in semilogarithmic form. The effective roughness height  $Y_0$  indicated by the zero velocity intercept of the best fit line is 5.6 ft, which is reasonable for the site modeled.

Profiles of longitudinal turbulence intensity are shown in Figure 8 for both the upstream and model removed conditions. Modifications to the profiles due to structures located upwind are evident. For the purpose of this report, turbulence intensity is defined as the root-mean-square of the longitudinal velocity fluctuations divided by the reference mean velocity  $U_{\infty}$  at the outer edge of the boundary layer,

$$Tu_1 = \frac{U_{rms}}{U_{\infty}},$$

or as the rms velocity divided by the local mean velocity,

$$Tu_2 = \frac{U_{rms}}{U}$$

Mean velocity and turbulence intensity at the pedestrian locations 1-10 shown in Figure 6 for 24 wind directions are listed in Table 2 and are plotted in Figures 9-18. Measurements were taken 0.4 in. (6 ft prototype) above the surface. A site map is superimposed on the polar plots to aid in visualization of the effects of nearby structures on the results. The largest mean velocities were recorded at measurement location 3 for wind azimuths of 240° and 345°. The velocities were 60 and 53 percent of the reference velocity  $U_\infty$  at this point. The actual velocities expected in the prototype for various return periods can be obtained by multiplying these percentage numbers by the reference velocity  $U_\infty$  shown in Table 3. The largest value of fluctuating velocity ( $U_{rms}/U_\infty$ ) was 32 percent for measurement location 3 at wind azimuth 345°, the same condition at which the maximum mean velocity was found. The highest "gustiness" values ( $U_{rms}/U$ ) were 62 and 60 percent found at points 8, 7, and 3 for wind azimuths 210, 60, and 345, respectively. Large values of gustiness must be interpreted in terms of the magnitude of mean velocity since a low local wind velocity can lead to large values as effectively as large rms velocities. At measurement location 3, the combination of high mean and fluctuating velocities for northerly and westerly winds will frequently lead to an uncomfortable and possibly dangerous pedestrian environment. It is recommended that some form of wind-screen be used to protect this area.

### 4.3 Pressures

For each of the pressure ports examined (6,528 total), the data record was analyzed to obtain four separate pressure coefficients.

The first was the mean pressure coefficient

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

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 nondimensionalized 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

$$C_{p_{\text{rms}}} = \frac{\left( (p-p_{\infty}) - (p-p_{\infty})_{\text{mean}} \right)_{\text{rms}}}{\frac{1}{2} \rho U_{\infty}^2}$$

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:

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

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

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 nondimensionalizing with the free-stream dynamic pressure.

The four pressure coefficients were calculated by the Colorado State University CDC 6400 computer and tabulated. The list of coefficients for both structures is included as Appendix A. The tap code number in the Appendix is given in Figure 3. In addition the Appendix includes the approach wind azimuth in degrees from true north.

In order to determine the largest loads acting at any point on the structure, the data for all wind directions was searched to obtain, at any pressure tap, the largest positive and negative mean values and the largest positive and negative peak values. These values are tabulated, with their associated peak and rms or mean and rms values, in Tables 4-7. Table 4 provides pressure coefficients for the largest positive means. Table 5 provides pressure coefficients for the largest negative means. Table 6 provides pressure coefficients for the largest positive peaks. Table 7 provides pressure coefficients for the largest negative peaks. The largest positive values on the structure were between 1.0 and 1.05 and were distributed about the building. The largest peak negative pressure coefficients were -2.06, -1.87, and -1.85 for tap locations 11-1, 15-2, and 12-1, respectively. All other peak coefficients were less than -1.7 in magnitude.



The pressure coefficients of Tables 4-7 can be converted to full-scale loads by multiplication by a suitable reference pressure selected for the field site. One method of arriving at a reference interval was obtained for Atlanta from the proposed American National Standards Institute code A58.1 [4]. The wind magnitude for a 50 year return period in Indianapolis is 91 mph for a fastest-mile wind at 30 ft elevation. A factor of 1.28 [5] was used to reduce this velocity to a one-hour mean velocity--equivalent to the wind-tunnel mean velocity. The resulting 71.1 mph was then translated to a prototype elevation equivalent to the height of the reference wind-tunnel measurement (872 ft) by means of a power-law velocity profile with a 0.16 exponent. This exponent corresponds to the typical values near airports where the 50 year recurrence winds in the ANSI standard are appropriate. The velocity of 872 ft was calculated as 122 mph. The appropriate reference pressure based on this velocity is given by  $0.00256 U^2$  from the ANSI standard. For Indianapolis, the reference pressure becomes 38 psf. A larger reference pressure would result if a larger recurrence interval were used. Table 3 shows the variation of the reference pressure with return period. Tables 8-10 give psf loadings on the full-scale structure which result from multiplication of the 38 psf reference pressure by the peak coefficients of Tables 4-7.

For ease of visualizing the loads on the structure, contours of equal peak pressures have been plotted on elevation views of the structure (Figures 19a-19e). Contour values are the largest of the peak maximum or peak minimum pressure coefficients from Tables 6 and 7. Conversion to full-scale pressures is accomplished by multiplying by the appropriate reference dynamic pressure.

Recent research [6] indicates that the period of application of the peak pressures reported herein is about 4-5 seconds. If a glass design is based on these peak values, then a glass strength associated with this duration load is indicated. If the glass design is based on some alternate load duration--say 1 minute--then some reduction in peak loads should be made. An estimate of a load reduction factor can be obtained from an empirical relation of glass strength as a function of load duration. A relationship for annealed glass from Shand [7] indicates that a load reduction factor of 0.82 would correspond to a load duration change from 5 seconds to 60 seconds. Another relationship reported by Stanworth [8] indicates a load reduction factor of 0.85. Using an analytical approach based on empirical results given by Ishizaki [9], a load reduction factor of 0.90 results.

#### 4.4 Forces and Moments

Total horizontal forces and moments about the base were computed for the entire structure and for each of the four sub-buildings constituting the Merchants Plaza complex (Figure 20). The four sub-buildings were the two office buildings, A and B, and the two structures making up the hotel, C and D. The purpose in computing total shearing force and moments on the individual components of the complex was to permit calculation by the design engineers of the deflection of the individual buildings due to wind action. The deflections are necessary for adequate design of the glass curtain wall connections between the individual buildings. Forces and moments were calculated for each of the 24 wind directions for which pressure measurements were obtained.

The forces and moments were computed by converting the measured mean pressure coefficient at each pressure tap to a full-scale pressure

using the 38 psf reference pressure associated with a 50 year return wind (section 4.3) and integrating the resulting pressures across each face of the structure. The structure was divided into 17 individual sides (Figures 2 and 20) for this integration. The mean pressures provide a reasonable estimate of static loading. No attempt was made to predict dynamic loading or dynamic structural response.

The forces in pounds acting on each building face are given in Table 12 for each wind direction. Also given are the locations of application of the forces on their faces so that moments acting on each face can be computed if desired. The coordinate system for the force application has its origin for each face at the lower left corner of the face (ground level) as viewed facing the structure from the outside.  $x$  is to the right and  $y$  is vertical. The data for face 5 are reported in two segments, upper and lower. The upper surface, side 50, has its origin at the lower left-hand corner of the side which is at elevation 112 ft. In many cases, positive and negative forces of nearly the same size existed on a face. In these cases, the point of application of the force lies off the face in order to obtain the proper moment acting on that face. For faces which included a portion of the face inside the structure (faces 4,6,8,9,10,11), a +1 psf pressure was applied over that portion of the face which was interior to some external wall. The influence of adjacent buildings can be large. For example, for the force acting on side 3 for a  $90^\circ$  wind (wind blowing directly on the face), a small outward-acting force occurs instead of a large inward-acting force. Part of the face sees positive pressures and part sees negative pressures which nearly balance in magnitude.

The total forces and moments acting over the entire Merchants Plaza structure for each wind direction are given in Table 13. The coordinate system for application of these loads has origin at ground level between sides 1 and 2 as shown in Figure 20. The signs on the moments were determined by application of the right-hand rule.

The integrated forces and moments for each of the four buildings A, B, C, and D are shown in Table 14 for each wind direction. The coordinate system for each building is at ground level near the center of each building as shown in Figure 20. The portion of each building interior to the external wall had a +1 psf pressure acting on it.

The forces and moments in Tables 12-14 were calculated for the mean pressures associated with the mean hourly wind which has a 50 year recurrence interval. Depending on the dynamic response characteristics of the structure, it could respond to pressures acting for only 15 seconds. This effect may be accounted for by multiplying the forces in the tables by an appropriate gust factor. The appropriate gust factors for 15, 30, and 60 second pressures are 1.93, 1.74, and 1.54, respectively [5].

## 5. CONCLUSIONS

A simulated atmospheric boundary-layer flow over a model of the Merchants Plaza building was established whose characteristics compared favorably with the expected flow over the Indianapolis area. Flow visualization showed several areas of possible pedestrian discomfort. No areas of suspected high pressure regions on the structure were observed in the smoke-flow tests.

Measurements of fluctuating velocities near the surface showed an area about measurement location 3 in which both mean and fluctuating velocities were large for northerly, northwesterly, and westerly winds. It is recommended that some type of wind screen be used to protect pedestrians in this area. The area about measurement points 7 and 8 showed a relatively high gustiness which could be unpleasant for some wind directions. The conditions there, however, were not as severe as for location 3.

Pressure measurements on the structure supported the flow visualization conclusions that no large pressures were evident. The measured pressures were, in general, rather moderate. The largest peak pressures were negative (outward acting) and were in the range from -1.85 to -2.06 times the reference dynamic pressure. Most locations had peak pressures less than 1.5 times the dynamic pressure.

Mean forces and moments acting on the structure were computed for each side individually, for the entire structure, and for each of the four structures in the complex. The influence of adjacent structures was significant in lowering overall wind forces and moments on the structure.

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Table 1

## MOTION PICTURE SCENE GUIDE

<u>Scene</u>	<u>Wind Azimuth</u>	<u>Scene Content</u>
1		Titles and general views
2	000	Smoke at various locations
3	045	Smoke at various locations
4	090	Smoke at various locations
5	135	Smoke at various locations
6	180	Smoke at various locations
7	225	Smoke at various locations
8	270	Smoke at various locations
9	315	Smoke at various locations

Model wind velocity = 10 fps

Movie length: 680 ft

Running time: 19 min

TABLE 3  
 MEAN AND FLUCTUATING VELOCITIES ABOVE THE BASE OF THE BUILDING

WIND MEASUREMENT LOCATION 1				WIND MEASUREMENT LOCATION 2			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0	13.2	5.8	43.7	0	22.4	6.5	28.9
15	15.4	6.0	38.0	15	22.0	6.6	29.9
30	14.2	5.2	36.8	30	18.6	4.7	25.2
45	8.7	3.8	43.3	45	9.3	4.2	45.2
60	11.3	4.5	39.8	60	11.2	5.2	46.6
75	10.6	4.1	38.6	75	10.1	4.5	44.6
90	10.5	3.7	35.0	90	12.6	4.2	33.3
105	13.1	5.7	43.5	105	13.5	5.0	36.8
120	10.4	5.3	51.0	120	10.3	4.3	41.7
135	15.9	6.6	41.7	135	16.8	8.1	48.4
150	12.1	5.0	41.6	150	19.6	8.0	48.2
165	19.2	8.8	45.6	165	21.5	9.0	41.7
180	20.6	9.9	48.0	180	21.2	10.3	48.5
195	24.0	11.8	49.1	195	15.6	8.2	52.8
210	17.9	8.5	47.5	210	19.7	9.0	45.4
225	11.5	4.9	42.1	225	17.3	7.8	45.4
240	14.3	5.7	39.7	240	13.5	6.8	50.7
255	12.7	6.0	46.8	255	15.1	7.8	51.9
270	18.1	7.8	43.4	270	14.9	7.5	50.4
285	19.2	8.1	42.4	285	17.1	7.9	46.1
300	19.5	7.8	39.8	300	16.3	7.5	45.7
315	17.2	6.6	38.5	315	13.9	6.4	46.2
330	16.1	6.1	37.9	330	13.8	7.2	52.5
345	13.4	6.2	46.5	345	14.9	6.5	43.6

WIND MEASUREMENT LOCATION 3				WIND MEASUREMENT LOCATION 4			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0	43.8	18.0	41.0	0	19.8	7.2	36.4
15	36.3	17.5	48.2	15	21.8	7.7	35.5
30	20.4	11.9	56.3	30	17.1	7.7	45.0
45	31.3	12.5	40.0	45	12.8	5.4	42.1
60	28.9	13.0	44.9	60	14.3	6.7	46.5
75	21.5	10.8	50.2	75	11.8	3.9	32.7
90	20.3	8.5	41.8	90	13.1	4.4	33.3
105	24.0	8.6	35.7	105	21.8	7.7	35.1
120	32.2	10.5	32.7	120	24.2	8.9	37.0
135	15.2	5.7	37.6	135	18.1	8.4	52.0
150	25.0	11.6	46.4	150	12.1	3.9	31.8
165	19.0	8.6	45.2	165	12.2	3.7	30.5
180	29.3	10.8	36.8	180	6.3	1.9	30.3
195	44.9	12.1	26.9	195	9.2	3.2	35.5
210	53.9	12.6	23.3	210	11.0	3.3	29.8
225	56.0	10.7	19.2	225	10.7	3.4	31.7
240	59.6	8.8	14.8	240	16.2	4.9	30.1
255	55.8	11.3	20.2	255	16.3	7.0	46.3
270	49.3	10.7	21.7	270	18.5	8.7	52.6
285	34.3	9.6	28.0	285	19.3	9.4	48.6
300	21.1	9.2	43.3	300	18.8	9.0	47.6
315	24.4	10.4	42.5	315	14.7	6.9	47.3
330	43.6	15.1	34.5	330	11.0	4.9	44.6
345	52.6	31.6	60.0	345	19.7	7.5	37.8



TABLE 3. continued.

WIND MEASUREMENT LOCATION 5				WIND MEASUREMENT LOCATION 6			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0	32.1	11.6	36.2	0	10.1	4.1	41.0
15	35.0	16.7	30.7	15	13.6	5.6	40.9
30	36.2	12.4	34.3	30	14.1	6.4	45.3
45	26.6	19.5	39.5	45	13.8	5.8	42.3
60	32.4	12.6	39.0	60	19.3	9.3	48.4
75	14.7	7.3	49.8	75	20.4	10.1	49.3
90	15.8	6.6	41.5	90	19.1	7.6	39.7
105	21.6	8.7	40.4	105	21.6	7.9	36.3
120	23.0	9.6	41.7	120	23.6	7.6	32.2
135	32.7	10.7	32.7	135	14.2	4.8	47.9
150	15.4	5.7	37.1	150	17.6	7.4	41.8
165	13.7	5.2	37.7	165	26.5	9.7	36.6
180	13.4	6.0	44.8	180	19.4	8.8	45.2
195	14.5	6.0	41.4	195	13.2	6.1	46.2
210	17.6	7.6	43.2	210	19.5	8.5	43.6
225	15.1	7.4	46.8	225	15.5	7.9	51.1
240	17.7	8.3	47.2	240	28.0	12.4	44.2
255	16.6	8.2	49.3	255	18.9	8.0	42.3
270	20.5	10.4	50.6	270	19.4	9.2	47.7
285	28.3	11.9	42.2	285	17.7	8.6	48.8
300	27.5	14.0	51.0	300	20.3	8.8	43.3
315	37.3	11.8	31.7	315	15.8	7.5	47.3
330	44.5	15.3	34.5	330	13.6	6.3	46.2
345	41.6	12.6	30.2	345	10.9	4.9	44.9

WIND MEASUREMENT LOCATION 7				WIND MEASUREMENT LOCATION 8			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0	14.2	6.8	47.7	0	22.7	12.0	52.7
15	10.8	4.5	42.0	15	19.6	8.6	44.0
30	14.0	6.6	46.8	30	27.2	13.9	51.3
45	10.5	5.4	51.9	45	25.1	11.3	45.0
60	17.4	18.5	60.5	60	24.7	11.0	44.6
75	16.5	8.3	50.4	75	29.3	13.2	45.0
90	22.7	10.8	47.7	90	27.6	11.2	49.8
105	16.6	8.3	49.9	105	38.6	10.4	26.8
120	24.8	10.8	43.6	120	25.8	12.3	47.6
135	35.6	11.0	31.0	135	13.5	7.4	54.4
150	20.0	8.9	44.7	150	24.7	12.0	48.4
165	15.4	8.1	52.8	165	22.4	15.1	37.2
180	24.4	13.2	53.9	180	35.7	18.1	50.8
195	28.1	15.0	53.6	195	31.0	17.6	57.3
210	20.1	11.0	54.5	210	20.6	12.7	61.8
225	18.6	9.0	48.6	225	11.7	5.4	45.3
240	13.3	6.5	48.9	240	8.3	4.0	40.7
255	10.1	4.6	45.9	255	8.6	3.6	41.6
270	14.9	6.9	46.4	270	18.3	9.2	50.3
285	16.6	7.8	46.2	285	20.8	10.5	50.6
300	12.5	6.0	48.0	300	20.2	10.5	52.0
315	11.7	5.6	47.7	315	16.5	7.7	46.6
330	8.8	3.7	41.4	330	13.6	7.0	51.8
345	13.2	7.1	53.7	345	24.2	9.9	41.1

TABLE 2 continued  
 WIND MEASUREMENT LOCATION 9

WIND AZIMUTH	U/UIWF (PERCENT)	URMS/UIWF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UIWF (PERCENT)	URMS/UIWF (PERCENT)	URMS/U (PERCENT)
0	13.5	6.0	44.8	0	19.1	8.0	41.9
15	11.1	4.8	43.4	15	18.1	6.9	38.1
30	15.0	7.4	49.5	30	13.0	4.6	35.6
45	12.4	6.1	49.7	45	12.8	4.5	35.0
60	11.1	6.0	53.7	60	8.5	3.2	38.0
75	10.2	6.9	48.6	75	6.1	3.1	37.9
90	19.2	9.4	49.1	90	10.1	3.3	32.6
105	17.8	10.2	57.4	105	12.0	4.6	38.4
120	26.0	10.6	40.6	120	10.5	4.5	42.8
135	10.4	4.5	43.6	135	11.6	5.2	46.7
150	25.4	10.5	41.4	150	12.3	8.5	43.9
165	12.4	6.1	49.2	165	23.4	9.9	42.2
180	13.2	6.3	47.4	180	23.3	10.0	42.8
195	13.1	6.3	48.0	195	36.0	13.8	38.4
210	20.5	8.3	40.2	210	30.5	12.3	40.3
225	26.1	8.9	34.1	225	13.1	6.8	51.9
240	22.4	9.9	44.1	240	18.8	9.1	48.5
255	22.2	11.3	50.7	255	18.5	8.9	48.2
270	21.5	10.7	49.7	270	18.4	9.7	52.9
285	15.6	7.7	49.5	285	20.6	10.2	49.3
300	15.1	7.9	52.5	300	16.7	9.7	51.8
315	8.9	4.0	44.3	315	13.6	6.8	50.1
330	9.3	3.9	42.6	330	26.9	11.1	41.3
345	13.5	6.5	48.1	345	4.3	3.2	75.7

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Table 3  
REFERENCE WINDS AND PRESSURES

The following table gives the reference wind speeds,  $U_{\infty}$ , and reference pressures,  $1/2 \rho U_{\infty}^2$ , for various return periods for use with the Merchants Plaza wind tunnel data. The  $U_{\infty}$  listed is at 872 ft. prototype elevation where the reference conditions were measured in the wind tunnel.

<u>Return Period</u> <u>yrs</u>	<u><math>U_{\infty}</math></u> <u>mph</u>	<u><math>1/2 \rho U_{\infty}^2</math></u> <u>psf</u>
1	61	10
2	70	13
5	78	16
10	92	22
25	108	30
50	122	38
100	127	42

Table 3-1

## WIND ENGINEERING STUDY OF MERCHANTS PLAZA

INDIANAPOLIS, INDIANA

WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT OCCURRED FOR EACH TAP AND THE CORRESPONDING VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	345	.327	.135	.847	-.047
1-2	345	.262	.115	.904	-.188
1-3	0	.347	.111	.785	-.050
1-4	0	.322	.097	.677	.084
1-5	0	.339	.105	.838	.032
1-6	0	.307	.092	.646	.027
1-7	0	.334	.095	.693	.092
2-1	0	.313	.130	.726	-.111
2-2	330	.316	.173	.832	-.324
2-3	330	.302	.168	.912	-.218
2-4	330	.303	.163	.874	-.166
2-5	0	.321	.124	.747	-.112
2-6	0	.299	.099	.612	.013
2-7	330	.306	.157	.907	-.138
2-8	345	.330	.147	.872	-.081
2-9	0	.217	.104	.594	-.099
2-10	0	.251	.087	.582	.025
2-11	0	.266	.084	.580	.027
2-12	0	.289	.087	.664	.057
2-13	0	.143	.088	.525	-.094
2-14	0	.208	.089	.491	-.193
2-15	0	.287	.089	.582	-.013
2-16	0	.294	.090	.594	.063
2-17	0	.210	.076	.515	-.004
2-18	0	.288	.077	.537	.096
2-19	0	.226	.077	.503	.028
2-20	0	.305	.080	.557	.124
3-1	105	.364	.178	.934	-.314
3-2	105	.271	.171	.822	-.255
3-3	105	.188	.162	.759	-.367
3-4	90	.154	.174	.753	-.301
3-5	75	.181	.132	.720	-.181
3-6	75	.237	.138	.780	-.100
3-7	75	.293	.142	.857	-.092
3-8	75	.332	.152	.928	-.100
3-9	75	.354	.170	1.091	-.079
3-10	105	.334	.157	.897	-.308
3-11	135	.246	.115	.611	-.141
3-12	135	.202	.099	.520	-.070
3-13	135	.146	.093	.464	-.133
3-14	75	.167	.107	.697	-.082
3-15	75	.213	.118	.642	-.085
3-16	75	.255	.127	.771	-.105
3-17	75	.287	.136	.849	-.112
3-18	75	.308	.145	.873	-.163
3-19	135	.206	.163	.772	-.478
3-20	135	.189	.090	.516	-.072
3-21	135	.134	.092	.549	-.086
3-22	135	.103	.079	.437	-.101
3-23	135	.060	.069	.302	-.130

Table 4-2  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
3-24	75	.066	.079	.083	-.148
3-25	75	.094	.086	.092	-.128
3-26	75	.115	.095	.095	-.119
3-27	75	.124	.100	.092	-.130
3-28	135	.117	.122	.092	-.136
3-29	135	.090	.090	.092	-.185
3-30	135	.073	.077	.091	-.138
3-31	135	.040	.066	.071	-.123
3-32	135	.007	.057	.078	-.143
3-33	75	.003	.048	.099	-.142
3-34	75	.001	.047	.089	-.152
3-35	75	.011	.046	.082	-.161
3-36	75	.022	.048	.094	-.165
3-37	135	.107	.091	.080	-.173
3-38	135	.097	.077	.086	-.097
3-39	75	.094	.067	.077	-.069
3-40	75	.054	.059	.034	-.129
3-41	135	.148	.093	.096	-.084
3-42	135	.126	.080	.097	-.080
3-43	75	.119	.070	.050	-.062
3-44	75	.097	.072	.099	-.067
4-1	150	.310	.174	.029	-.261
4-2	150	.292	.162	.086	-.315
4-3	180	.328	.187	.015	-.288
4-4	150	.313	.227	.014	-.378
4-5	150	.397	.185	.019	-.219
4-6	150	.337	.155	.077	-.103
4-7	150	.286	.162	.057	-.155
4-8	135	.251	.140	.038	-.690
4-9	150	.355	.146	1.026	-.048
4-10	135	.251	.108	.020	-.083
4-11	135	.204	.087	.070	-.035
4-12	135	.199	.125	.068	-.134
4-13	150	.210	.105	.018	-.043
4-14	135	.164	.087	.014	-.062
4-15	135	.136	.096	.068	-.251
5-1	150	.204	.153	.021	-.334
5-2	150	.355	.154	.086	-.088
5-3	150	.365	.141	.078	-.001
5-4	150	.377	.111	.058	-.279
5-5	150	.166	.110	.037	-.250
5-6	135	.195	.121	.017	-.196
5-7	150	.199	.083	.048	-.155
5-8	150	.196	.071	.021	-.083
5-9	150	.211	.095	.032	-.037

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION.

Table 4-5

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
6-1	120	.454	.181	.928	-.171
6-2	105	.325	.154	.872	-.216
6-3	105	.210	.151	.854	-.308
6-4	105	.271	.153	.865	-.177
6-5	120	.279	.185	.931	-.354
6-6	105	.294	.146	.784	-.109
6-7	105	.322	.138	.783	-.033
6-8	150	.325	.143	.820	-.083
6-9	120	.138	.142	.651	-.276
6-10	105	.167	.110	.721	-.101
6-11	105	.236	.135	.695	-.080
6-12	150	.327	.132	.811	-.008
6-13	150	.067	.088	.446	-.450
6-14	150	.126	.088	.445	-.324
6-15	135	.211	.099	.653	-.025
7-1	210	.345	.141	.824	-.061
7-2	195	.356	.146	.866	-.097
7-3	195	.344	.141	.852	-.119
7-4	195	.337	.139	.866	-.073
7-5	195	.338	.142	.865	-.150
7-6	160	.337	.165	.894	-.121
7-7	180	.323	.165	.823	-.154
7-8	180	.298	.165	.858	-.160
7-9	150	.403	.191	.898	-.511
7-10	210	.346	.150	.845	-.005
7-11	180	.342	.142	.759	-.073
7-12	180	.365	.143	.830	-.016
7-13	180	.368	.145	.872	-.002
7-14	180	.371	.144	.878	-.054
7-15	180	.383	.145	.863	-.003
7-16	180	.349	.146	.897	-.017
7-17	180	.319	.150	.863	-.047
7-18	150	.330	.194	.901	-.672
7-19	210	.277	.126	.725	-.009
7-20	180	.266	.118	.747	-.053
7-21	180	.282	.117	.711	-.016
7-22	180	.287	.122	.739	-.047
7-23	180	.287	.126	.734	-.017
7-24	180	.283	.130	.702	-.054
7-25	180	.272	.116	.635	-.019
7-26	180	.293	.125	.708	-.095
7-27	150	.179	.165	.746	-.428
7-28	210	.183	.099	.618	-.034
7-29	210	.175	.083	.596	-.020
7-30	180	.207	.102	.573	-.067
7-31	180	.221	.100	.574	-.054
7-32	180	.229	.096	.616	-.046
7-33	180	.202	.092	.580	-.042
7-34	180	.172	.090	.574	-.053
7-35	180	.124	.081	.575	-.051
7-36	150	.072	.110	.459	-.395
7-37	180	.278	.109	.753	-.054

Table 4-4  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	DMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
8-1	300	.148	.131	.658	-.203
8-2	300	.236	.133	.704	-.171
8-3	315	.304	.167	.860	-.129
8-4	315	.344	.174	.905	-.187
8-5	300	.254	.125	.674	-.098
8-6	300	.335	.134	.821	-.018
8-7	300	.317	.140	.861	-.079
8-8	300	.371	.143	.897	-.104
8-9	300	.266	.117	.860	0.000
8-10	300	.323	.118	.772	.036
8-11	315	.346	.146	.945	-.007
8-12	315	.303	.141	.929	-.039
8-13	270	.289	.106	.691	.017
8-14	315	.330	.123	1.022	.040
8-15	315	.349	.129	.959	.044
8-16	255	.280	.109	.643	-.009
9-1	210	-.036	.083	.259	-.382
9-2	300	-.001	.119	.406	-.622
9-3	300	.179	.139	.685	-.428
9-4	270	.275	.117	.713	-.139
9-5	255	.315	.101	.828	-.069
9-6	255	.266	.112	.656	-.105
10-1	330	-.034	.087	.339	-.350
10-2	330	0.000	.127	.519	-.267
10-3	300	.191	.119	.835	-.145
10-4	270	.295	.092	.661	.055
10-5	270	.311	.095	.672	.040
10-6	270	.321	.092	.669	.079
11-1	270	.275	.132	.709	-.194
11-2	270	.245	.138	.835	-.149
11-3	270	.208	.135	.655	-.187
11-4	210	.207	.133	.868	-.183
11-5	210	.126	.192	.869	-.462
11-6	225	.095	.136	.594	-.240
11-7	225	.032	.150	.635	-.353
11-8	270	.351	.142	.828	-.035
11-9	240	.318	.151	.993	-.117
11-10	240	.303	.150	.987	-.046
11-11	225	.314	.126	.754	-.003
11-12	225	.305	.126	.713	-.032
11-13	225	.284	.141	.772	-.058
11-14	255	.247	.128	.714	-.193
11-15	270	.213	.137	.771	-.422
11-16	255	.283	.133	.834	-.149
11-17	240	.276	.122	.786	-.009
11-18	255	.278	.112	.758	.014
11-19	255	.277	.114	.711	.015
11-20	255	.283	.114	.726	-.005
11-21	270	.290	.117	.791	-.055
11-22	285	.193	.098	.634	-.151
11-23	270	.225	.098	.592	-.165
11-24	240	.279	.119	.782	.017
11-25	270	.285	.100	.658	.023
11-26	270	.280	.097	.666	.023
11-27	270	.316	.098	.700	.050
11-28	270	.316	.106	.734	.050

Table 4-3

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
12-1	300	+0.22	+0.164	+0.96	+0.071
12-2	300	+0.366	+0.142	+0.95	+0.049
12-3	300	+0.377	+0.142	+0.852	+0.03
12-4	300	+0.325	+0.137	+0.772	+0.15
12-5	300	+0.300	+0.123	+0.726	+0.18
12-6	315	+0.230	+0.110	+0.608	+0.12
13-1	45	+0.343	+0.221	+0.985	+0.320
13-2	330	+0.264	+0.110	+0.624	+0.336
13-3	330	+0.273	+0.121	+0.669	+0.141
13-4	330	+0.302	+0.120	+0.762	+0.03
13-5	330	+0.237	+0.113	+0.701	+0.201
13-6	330	+0.231	+0.100	+0.663	+0.076
13-7	330	+0.163	+0.095	+0.603	+0.135
13-8	330	+0.163	+0.089	+0.439	+0.364
13-9	330	+0.252	+0.099	+0.629	+0.07
14-1	330	+0.306	+0.121	+0.756	+0.027
14-2	330	+0.345	+0.111	+0.744	+0.34
14-3	330	+0.312	+0.109	+0.725	+0.16
14-4	330	+0.307	+0.103	+0.725	+0.37
14-5	330	+0.301	+0.110	+0.855	+0.52
15-1	300	+0.359	+0.205	1.000	+0.263
15-2	300	+0.203	+0.194	1.020	+0.248
15-3	330	+0.339	+0.125	+0.774	+0.07
15-4	330	+0.268	+0.103	+0.792	+0.093
15-5	330	+0.282	+0.091	+0.662	+0.044
15-6	330	+0.204	+0.094	+0.527	+0.100
16-1	15	+0.185	+0.167	+0.783	+0.395
16-2	15	+0.208	+0.167	+0.767	+0.251
16-3	45	+0.252	+0.176	+0.848	+0.194
16-4	45	+0.293	+0.182	+0.949	+0.167
16-5	45	+0.286	+0.176	+0.841	+0.182
16-6	0	+0.246	+0.128	+0.700	+0.199
16-7	45	+0.227	+0.129	+0.870	+0.094
16-8	45	+0.258	+0.135	+0.917	+0.14
16-9	45	+0.317	+0.180	+0.984	+0.120
16-10	45	+0.285	+0.166	+0.867	+0.193
16-11	0	+0.261	+0.098	+0.622	+0.065
16-12	0	+0.209	+0.089	+0.643	+0.128
16-13	45	+0.192	+0.126	+0.832	+0.170
16-14	45	+0.219	+0.140	+0.943	+0.185
16-15	45	+0.188	+0.142	+0.809	+0.237
16-16	0	+0.250	+0.086	+0.526	+0.066
16-17	0	+0.198	+0.080	+0.480	+0.078
16-18	0	+0.148	+0.069	+0.381	+0.124
16-19	45	+0.120	+0.099	+0.521	+0.112
16-20	45	+0.079	+0.105	+0.487	+0.223
16-21	0	+0.172	+0.073	+0.481	+0.041
16-22	45	+0.150	+0.091	+0.562	+0.066
16-23	45	+0.134	+0.134	+0.513	+0.105
16-24	0	+0.270	+0.085	+0.561	+0.071
16-25	45	+0.208	+0.110	+0.732	+0.041



Table 4-6

WIND: ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
17-1	300	.239	.200	.911	-.421
17-2	345	.254	.137	.685	-.210
17-3	45	.271	.187	.806	-.232
17-4	105	.172	.193	.776	-.416
17-5	120	.251	.204	.838	-.402
17-6	165	.195	.191	.687	-.435
17-7	210	.235	.134	.643	-.169
17-8	285	.245	.155	.773	-.321
17-9	90	-.124	.051	.052	-.361
17-10	90	-.111	.055	.107	-.317
17-11	90	-.116	.059	.106	-.453
17-12	75	-.154	.058	.127	-.450
17-13	30	-.114	.062	.113	-.514
17-14	210	-.110	.102	.179	-.420
17-15	225	-.067	.071	.147	-.400
17-16	150	-.050	.079	.194	-.347
17-17	30	-.055	.087	.239	-.345
17-18	240	-.059	.060	.093	-.345

Table 5-1.

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	255	-0.415	0.664	-0.210	-0.748
1-2	255	-0.400	0.653	-0.194	-0.586
1-3	255	-0.399	0.645	-0.236	-0.648
1-4	120	-0.362	0.635	-0.249	-0.487
1-5	120	-0.374	0.636	-0.222	-0.533
1-6	240	-0.331	0.633	-0.189	-0.430
1-7	240	-0.317	0.633	-0.188	-0.410
2-1	240	-0.402	0.683	-0.107	-0.782
2-2	240	-0.430	0.682	-0.065	-0.843
2-3	240	-0.444	0.682	-0.104	-0.817
2-4	240	-0.425	0.683	-0.128	-0.832
2-5	120	-0.376	0.637	-0.267	-0.522
2-6	120	-0.396	0.636	-0.302	-0.519
2-7	120	-0.413	0.635	-0.299	-0.533
2-8	255	-0.394	0.654	-0.264	-0.757
2-9	120	-0.399	0.635	-0.245	-0.543
2-10	120	-0.418	0.633	-0.313	-0.550
2-11	120	-0.417	0.632	-0.316	-0.543
2-12	240	-0.382	0.634	-0.264	-0.510
2-13	120	-0.381	0.634	-0.279	-0.533
2-14	120	-0.398	0.634	-0.291	-0.525
2-15	240	-0.370	0.640	-0.219	-0.513
2-16	240	-0.368	0.632	-0.252	-0.506
2-17	120	-0.349	0.634	-0.231	-0.460
2-18	240	-0.339	0.642	-0.175	-0.502
2-19	120	-0.351	0.632	-0.258	-0.454
2-20	120	-0.369	0.632	-0.200	-0.469
3-1	180	-0.515	0.606	-0.243	-1.064
3-2	195	-0.513	0.610	-0.198	-1.175
3-3	300	-0.476	0.671	-0.276	-0.832
3-4	300	-0.516	0.664	-0.297	-0.830
3-5	300	-0.559	0.669	-0.376	-0.865
3-6	300	-0.591	0.678	-0.372	-0.995
3-7	300	-0.619	0.682	-0.426	-0.964
3-8	300	-0.630	0.678	-0.419	-0.930
3-9	300	-0.603	0.673	-0.388	-0.871
3-10	195	-0.503	0.698	-0.231	-0.921
3-11	195	-0.522	0.699	-0.239	-0.974
3-12	300	-0.462	0.657	-0.298	-0.712
3-13	300	-0.543	0.665	-0.279	-0.805
3-14	300	-0.573	0.664	-0.379	-0.827
3-15	300	-0.604	0.663	-0.422	-0.901
3-16	300	-0.629	0.665	-0.449	-0.936
3-17	300	-0.647	0.669	-0.463	-0.899
3-18	300	-0.631	0.671	-0.421	-0.882
3-19	195	-0.614	0.657	-0.213	-0.902
3-20	195	-0.632	0.627	-0.101	-0.962
3-21	300	-0.471	0.675	-0.134	-0.778
3-22	300	-0.506	0.676	-0.183	-0.774
3-23	300	-0.541	0.670	-0.296	-0.819

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

Table 5-2

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
3-24	300	-.570	.071	-.342	-.866
3-25	300	-.622	.068	-.419	-.844
3-26	300	-.627	.068	-.436	-.843
3-27	300	-.613	.069	-.426	-.873
3-28	195	-.545	.152	-.154	-1.379
3-29	195	-.435	.122	-.147	-.980
3-30	300	-.435	.080	-.139	-.753
3-31	300	-.491	.081	-.153	-.880
3-32	300	-.542	.081	-.298	-.846
3-33	300	-.589	.082	-.362	-.994
3-34	300	-.624	.086	-.401	-.968
3-35	300	-.656	.096	-.402	-1.096
3-36	300	-.657	.095	-.419	-1.176
3-37	195	-.622	.115	-.101	-.927
3-38	300	-.471	.094	-.065	-.833
3-39	300	-.569	.091	-.300	-.889
3-40	300	-.624	.123	-.350	-1.127
3-41	210	-.407	.089	-.178	-.900
3-42	300	-.665	.097	-.149	-.842
3-43	300	-.548	.100	-.267	-.954
3-44	300	-.637	.127	-.331	-1.233
4-1	225	-.583	.102	-.286	-.953
4-2	225	-.507	.095	-.186	-.871
4-3	30	-.431	.060	-.258	-.611
4-4	300	-.427	.067	-.204	-.691
4-5	225	-.559	.078	-.280	-.854
4-6	225	-.561	.124	-.008	-1.161
4-7	30	-.436	.050	-.305	-.617
4-8	300	-.434	.058	-.222	-.758
4-9	225	-.465	.082	-.114	-.806
4-10	225	-.479	.074	-.195	-.825
4-11	240	-.437	.075	-.176	-.733
4-12	300	-.427	.058	-.253	-.697
4-13	225	-.502	.064	-.199	-.742
4-14	225	-.591	.094	-.128	-.822
4-15	225	-.417	.129	-.147	-.804
5-1	225	-.599	.082	-.377	-.874
5-2	225	-.555	.075	-.301	-.839
5-3	240	-.611	.071	-.246	-.765
5-4	225	-.584	.064	-.398	-.816
5-5	225	-.600	.069	-.406	-.850
5-6	225	-.539	.073	-.298	-.795
5-7	225	-.562	.062	-.372	-.771
5-8	225	-.522	.059	-.321	-.713
5-9	240	-.456	.071	-.259	-.695

TABLE 5-3  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
5-1	225	-.581	.065	-.403	-.776
5-2	225	-.597	.067	-.424	-.817
5-3	225	-.617	.071	-.410	-.845
5-4	225	-.614	.077	-.416	-.905
5-5	225	-.579	.063	-.410	-.837
5-6	225	-.609	.064	-.426	-.864
5-7	225	-.610	.069	-.412	-.858
5-8	225	-.567	.073	-.381	-.859
5-9	225	-.539	.071	-.332	-.828
5-10	225	-.568	.069	-.393	-.827
6-11	225	-.500	.074	-.423	-.722
6-12	240	-.488	.074	-.269	-.722
6-13	225	-.495	.053	-.312	-.666
6-14	225	-.520	.055	-.338	-.708
6-15	225	-.506	.055	-.316	-.731
7-1	270	-.724	.173	-.131	-.1696
7-2	270	-.566	.168	-.036	-.1160
7-3	285	-.555	.118	-.156	-.1072
7-4	285	-.544	.121	-.126	-.1049
7-5	285	-.521	.128	-.034	-.1156
7-6	285	-.475	.123	-.034	-.1008
7-7	285	-.447	.123	-.040	-.1010
7-8	175	-.406	.104	-.074	-.860
7-9	105	-.608	.145	-.118	-.1404
7-10	270	-.591	.206	-.113	-.1485
7-11	270	-.533	.188	-.046	-.1127
7-12	285	-.544	.102	-.190	-.997
7-13	285	-.540	.101	-.190	-.1059
7-14	285	-.514	.103	-.174	-.991
7-15	285	-.485	.099	-.112	-.933
7-16	285	-.425	.091	-.087	-.801
7-17	45	-.412	.061	-.249	-.752
7-18	105	-.500	.142	-.057	-.1251
7-19	270	-.578	.145	-.161	-.1384
7-20	270	-.556	.137	-.099	-.1093
7-21	285	-.529	.094	-.260	-.898
7-22	285	-.523	.097	-.231	-.980
7-23	285	-.500	.091	-.233	-.830
7-24	285	-.463	.085	-.126	-.777
7-25	285	-.360	.075	-.102	-.722
7-26	30	-.397	.067	-.168	-.879
7-27	90	-.463	.141	-.046	-.1171
7-28	270	-.504	.121	-.107	-.1290
7-29	285	-.517	.099	-.217	-.1013
7-30	285	-.502	.094	-.197	-.959
7-31	285	-.497	.089	-.204	-.903
7-32	285	-.474	.080	-.216	-.807
7-33	285	-.437	.075	-.190	-.757
7-34	285	-.397	.079	-.088	-.740
7-35	300	-.375	.064	-.109	-.723
7-36	45	-.422	.086	-.187	-.945
7-37	285	-.409	.094	-.142	-.893

Table 5-4

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
8-1	165	-0.420	0.059	-0.219	-0.708
8-2	165	-0.423	0.059	-0.233	-0.658
8-3	165	-0.413	0.056	-0.252	-0.664
8-4	165	-0.405	0.054	-0.237	-0.609
8-5	165	-0.434	0.056	-0.284	-0.678
8-6	165	-0.428	0.049	-0.292	-0.595
8-7	165	-0.419	0.046	-0.276	-0.587
8-8	165	-0.416	0.050	-0.271	-0.609
8-9	150	-0.415	0.043	-0.290	-0.592
8-10	165	-0.390	0.043	-0.240	-0.538
8-11	165	-0.385	0.044	-0.230	-0.614
8-12	165	-0.384	0.049	-0.222	-0.599
8-13	150	-0.412	0.040	-0.301	-0.555
8-14	150	-0.399	0.037	-0.297	-0.536
8-15	165	-0.380	0.049	-0.227	-0.601
8-16	165	-0.382	0.057	-0.227	-0.661
9-1	150	-0.421	0.048	-0.274	-0.637
9-2	165	-0.429	0.060	-0.256	-0.913
9-3	165	-0.425	0.051	-0.272	-0.681
9-4	165	-0.438	0.050	-0.299	-0.646
9-5	150	-0.419	0.044	-0.286	-0.594
9-6	150	-0.414	0.043	-0.294	-0.578
10-1	150	-0.414	0.053	-0.237	-0.622
10-2	150	-0.420	0.049	-0.279	-0.604
10-3	165	-0.413	0.054	-0.280	-0.664
10-4	165	-0.421	0.048	-0.296	-0.621
10-5	150	-0.412	0.040	-0.285	-0.577
10-6	165	-0.411	0.047	-0.271	-0.590
11-1	150	-0.806	0.253	-0.224	-2.060
11-2	150	-0.614	0.155	-0.095	-1.209
11-3	150	-0.604	0.142	-0.155	-1.218
11-4	150	-0.588	0.155	-0.067	-1.332
11-5	150	-0.783	0.192	-0.155	-1.549
11-6	165	-0.678	0.216	-0.135	-1.701
11-7	165	-0.558	0.179	-0.171	-1.594
11-8	150	-0.507	0.134	-0.103	-1.116
11-9	150	-0.397	0.085	-0.019	-0.753
11-10	150	-0.407	0.084	-0.070	-0.733
11-11	150	-0.435	0.083	-0.121	-0.746
11-12	165	-0.440	0.087	-0.225	-1.058
11-13	165	-0.434	0.078	-0.240	-0.916
11-14	165	-0.428	0.068	-0.249	-0.723
11-15	210	-0.469	0.221	-0.108	-1.236
11-16	150	-0.366	0.083	-0.072	-0.771
11-17	150	-0.394	0.084	-0.136	-0.760
11-18	150	-0.419	0.074	-0.161	-0.724
11-19	165	-0.440	0.075	-0.238	-0.888
11-20	165	-0.455	0.069	-0.306	-0.905
11-21	165	-0.433	0.060	-0.281	-0.856
11-22	210	-0.385	0.200	-0.183	-1.147
11-23	150	-0.326	0.065	-0.125	-0.623
11-24	135	-0.329	0.046	-0.113	-0.551
11-25	150	-0.361	0.072	-0.029	-0.660
11-26	150	-0.384	0.058	-0.195	-0.696
11-27	165	-0.408	0.062	-0.252	-0.761
11-28	165	-0.428	0.055	-0.266	-0.659

Table 3-3  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
12-1	0	-.581	.262	-.050	-1.852
12-2	150	-.469	.124	-.185	-1.069
12-3	0	-.410	.169	-.105	-1.202
12-4	0	-.378	.167	-.014	-1.403
12-5	150	-.361	.093	-.093	-.866
12-6	150	-.335	.092	-.020	-.795
13-1	255	-.571	.069	-.379	-.838
13-2	255	-.570	.067	-.371	-.860
13-3	255	-.575	.066	-.385	-.841
13-4	255	-.556	.067	-.362	-.797
13-5	255	-.562	.064	-.347	-.780
13-6	255	-.519	.063	-.347	-.752
13-7	255	-.489	.062	-.270	-.715
13-8	240	-.482	.060	-.268	-.690
13-9	240	-.484	.061	-.316	-.714
14-1	255	-.539	.086	-.320	-.939
14-2	255	-.556	.076	-.359	-.889
14-3	255	-.540	.076	-.291	-.827
14-4	240	-.498	.061	-.299	-.720
14-5	240	-.491	.064	-.300	-.740
15-1	240	-.412	.098	-.055	-.740
15-2	240	-.397	.102	-.055	-.831
15-3	255	-.511	.084	-.213	-.881
15-4	255	-.492	.081	-.134	-.838
15-5	240	-.444	.060	-.294	-.855
15-6	255	-.508	.086	-.112	-.756
16-1	120	-.412	.079	-.140	-.905
16-2	120	-.511	.152	-.085	-.016
16-3	120	-.520	.146	-.168	-1.309
16-4	120	-.485	.140	-.068	-1.269
16-5	120	-.503	.137	-.078	-1.155
16-6	120	-.425	.050	-.299	-1.156
16-7	120	-.377	.067	-.163	-.802
16-8	120	-.450	.093	-.197	-.874
16-9	240	-.422	.050	-.249	-.906
16-10	240	-.431	.053	-.235	-.581
16-11	120	-.405	.037	-.285	-.621
16-12	120	-.436	.054	-.213	-.543
16-13	120	-.425	.067	-.170	-.649
16-14	240	-.410	.047	-.280	-.757
16-15	240	-.431	.056	-.263	-.548
16-16	255	-.385	.048	-.228	-.621
16-17	255	-.419	.050	-.277	-.687
16-18	265	-.431	.056	-.272	-.634
16-19	255	-.422	.069	-.221	-.630
16-20	240	-.453	.069	-.246	-.668
16-21	255	-.391	.052	-.222	-.750
16-22	240	-.400	.047	-.228	-.570
16-23	240	-.410	.052	-.241	-.557
16-24	240	-.363	.034	-.250	-.588
16-25	240	-.386	.049	-.236	-.495
					-.574

Table 5-b  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
17-1	240	-.695	.107	-.401	-1.088
17-2	270	-.639	.090	-.413	-.800
17-3	120	-.565	.091	-.212	-.885
17-4	210	-.519	.100	-.265	-1.003
17-5	255	-.687	.102	-.316	-1.167
17-6	270	-.603	.119	-.191	-.940
17-7	150	-.578	.087	-.301	-.870
17-8	150	-.486	.104	-.182	-.953
17-9	255	-.603	.124	-.149	-1.133
17-10	240	-.606	.099	-.196	-1.011
17-11	345	-.623	.160	-.149	-1.191
17-12	240	-.550	.117	-.126	-1.194
17-13	330	-.675	.124	-.211	-1.117
17-14	135	-.508	.112	-.098	-.889
17-15	180	-.535	.162	.036	-1.173
17-16	255	-.586	.134	-.096	-1.037
17-17	255	-.570	.097	-.230	-1.044
17-18	285	-.569	.117	-.232	-1.165

TABLE 6-1  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	330	.319	.149	.869	-.136
1-2	345	.262	.135	.804	-.188
1-3	30	.209	.140	.819	-.144
1-4	30	.138	.100	.742	-.099
1-5	36	.159	.117	.866	-.160
1-6	0	.307	.092	.646	.027
1-7	0	.334	.095	.693	.092
2-1	300	.265	.218	1.020	-.376
2-2	300	.164	.221	.857	-.360
2-3	330	.302	.168	.912	-.218
2-4	330	.303	.163	.874	-.166
2-5	330	.247	.171	.830	-.290
2-6	330	.291	.158	.873	-.170
2-7	330	.386	.157	.907	-.138
2-8	345	.330	.147	.872	-.081
2-9	300	.071	.160	.894	-.404
2-10	285	-.072	.136	.682	-.388
2-11	330	.194	.126	.768	-.123
2-12	345	.274	.125	.817	-.055
2-13	285	.177	.117	.593	-.432
2-14	300	-.110	.112	.554	-.383
2-15	0	.257	.089	.582	-.013
2-16	330	.149	.097	.644	-.063
2-17	345	.186	.083	.622	-.105
2-18	345	.198	.102	.737	-.036
2-19	345	.126	.087	.674	-.063
2-20	345	.225	.108	.782	-.011
3-1	105	.364	.178	.934	-.314
3-2	90	.113	.173	.950	-.313
3-3	105	.188	.162	.759	-.367
3-4	105	.117	.159	.792	-.320
3-5	90	.157	.173	.830	-.490
3-6	90	.123	.155	.835	-.253
3-7	90	.062	.131	.876	-.346
3-8	75	.332	.152	.928	-.100
3-9	75	.354	.170	1.091	-.079
3-10	105	.334	.157	.897	-.308
3-11	105	.232	.133	.694	-.220
3-12	105	.141	.119	.649	-.186
3-13	90	.060	.118	.817	-.172
3-14	75	.167	.107	.697	-.082
3-15	75	.213	.118	.642	-.085
3-16	75	.255	.127	.771	-.105
3-17	75	.287	.136	.849	-.112
3-18	75	.304	.145	.873	-.163
3-19	135	.286	.163	.772	-.478
3-20	135	.189	.090	.516	-.012
3-21	135	.134	.092	.549	-.086
3-22	120	.044	.083	.643	-.165
3-23	90	-.034	.062	.451	-.209



Table 6-2  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
3-24	75	.066	.079	.483	-.148
3-25	75	.094	.066	.492	-.128
3-26	75	.115	.095	.617	-.119
3-27	75	.124	.100	.622	-.130
3-28	135	.117	.122	.572	-.316
3-29	105	.064	.074	.469	-.178
3-30	120	-.010	.088	.463	-.319
3-31	120	-.018	.081	.528	-.246
3-32	120	-.035	.071	.475	-.247
3-33	75	.003	.048	.209	-.142
3-34	75	.001	.047	.189	-.152
3-35	75	-.011	.046	.221	-.161
3-36	60	-.026	.056	.241	-.180
3-37	120	.005	.090	.510	-.1524
3-38	75	.088	.065	.434	-.067
3-39	75	.099	.067	.377	-.069
3-40	75	.054	.059	.334	-.129
3-41	135	.148	.093	.586	-.084
3-42	135	.126	.086	.507	-.080
3-43	75	.119	.070	.450	-.062
3-44	75	.097	.072	.399	-.067
4-1	165	.037	.169	1.002	-.484
4-2	180	.212	.233	1.379	-.436
4-3	185	.277	.221	1.005	-.441
4-4	150	.313	.227	.816	-.378
4-5	150	.397	.165	.919	-.219
4-6	150	.337	.155	.977	-.103
4-7	180	.268	.184	.899	-.337
4-8	150	.237	.179	.835	-.205
4-9	150	.355	.146	1.026	-.048
4-10	135	.254	.108	.720	-.083
4-11	180	.126	.163	.704	-.406
4-12	135	.199	.125	.768	-.434
4-13	120	.106	.102	.672	-.133
4-14	180	.042	.136	.789	-.355
4-15	150	.064	.079	.559	-.144
5-1	150	.204	.153	.721	-.334
5-2	150	.355	.154	.886	-.086
5-3	150	.365	.141	.878	.001
5-4	135	.168	.099	.652	-.112
5-5	135	.163	.100	.646	-.155
5-6	180	-.024	.130	.640	-.411
5-7	150	.199	.093	.648	-.155
5-8	150	.196	.091	.621	-.083
5-9	180	-.030	.131	.684	-.384

Table 6-3

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
6-1	105	.291	.165	.935	-.227
6-2	105	.325	.156	.872	-.216
6-3	90	.092	.173	.897	-.284
6-4	105	.271	.153	.885	-.177
6-5	120	.279	.195	.931	-.354
6-6	90	.122	.161	.868	-.286
6-7	120	.230	.173	.804	-.179
6-8	135	.309	.143	.898	-.091
6-9	105	.068	.114	.755	-.215
6-10	135	.161	.104	.724	-.122
6-11	105	.236	.115	.695	-.060
6-12	135	.305	.134	.981	-.019
6-13	120	.047	.101	.503	-.308
6-14	90	-.018	.093	.512	-.261
6-15	135	.211	.099	.653	-.025
7-1	195	.320	.161	.877	-.173
7-2	195	.356	.146	.866	-.097
7-3	165	.220	.154	.879	-.192
7-4	195	.337	.139	.866	-.073
7-5	195	.338	.142	.865	-.150
7-6	180	.337	.165	.894	-.121
7-7	180	.323	.165	.923	-.154
7-8	165	.206	.177	.870	-.233
7-9	165	.155	.168	.950	-.298
7-10	210	.346	.150	.845	.005
7-11	195	.328	.142	.857	-.042
7-12	195	.331	.143	.937	-.011
7-13	180	.368	.145	.872	.002
7-14	165	.260	.161	1.011	-.148
7-15	165	.249	.162	.953	-.180
7-16	180	.349	.146	.897	-.017
7-17	180	.319	.150	.863	-.047
7-18	150	.330	.194	.901	-.672
7-19	195	.205	.129	.727	-.116
7-20	180	.265	.118	.747	-.053
7-21	180	.282	.117	.711	-.016
7-22	180	.287	.122	.739	-.047
7-23	165	.163	.135	.811	-.181
7-24	165	.152	.131	.754	-.230
7-25	180	.272	.116	.635	-.019
7-26	195	.149	.110	.718	-.145
7-27	150	.179	.165	.746	-.428
7-28	210	.183	.099	.616	-.034
7-29	210	.175	.083	.596	-.020
7-30	180	.207	.102	.573	-.067
7-31	180	.221	.100	.574	-.054
7-32	180	.220	.096	.516	-.048
7-33	180	.202	.092	.580	-.042
7-34	165	.076	.091	.580	-.140
7-35	150	.685	.093	.524	-.184
7-36	150	.072	.110	.459	-.395
7-37	160	.278	.109	.753	-.054

Table 6-4

\*WIND ENGINEERING STUDY OF WPCOMMETS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
8-1	285	.092	.130	.876	-.262
8-2	315	.220	.157	.712	-.246
8-3	315	.304	.167	.860	-.129
8-4	315	.344	.174	.905	-.187
8-5	330	.145	.136	.806	-.175
8-6	345	.253	.155	1.038	-.160
8-7	315	.375	.169	.919	-.035
8-8	315	.370	.144	.957	-.138
8-9	300	.286	.117	.860	0.000
8-10	315	.319	.167	1.020	-.013
8-11	315	.346	.146	.945	-.007
8-12	315	.303	.141	.929	-.039
8-13	315	.271	.108	.788	-.004
8-14	315	.330	.123	1.022	-.040
8-15	315	.349	.129	.959	-.044
8-16	285	.203	.153	.769	-.135
9-1	300	-.063	.134	.577	-.500
9-2	15	-.121	.117	.525	-.419
9-3	285	.113	.166	.933	-.417
9-4	300	.246	.126	.819	-.160
9-5	255	.315	.101	.828	-.068
9-6	270	.285	.123	.797	-.105
10-1	300	-.055	.114	.588	-.369
10-2	330	0.000	.127	.519	-.267
10-3	300	.191	.119	.835	-.145
10-4	315	.237	.117	.736	-.043
10-5	315	.229	.104	.727	-.055
10-6	270	.321	.092	.668	-.079
11-1	285	.248	.125	.753	-.089
11-2	270	.245	.138	.835	-.149
11-3	195	.130	.182	.711	-.363
11-4	210	.207	.135	.868	-.183
11-5	210	.126	.192	.869	-.462
11-6	240	-.034	.160	.683	-.589
11-7	225	.032	.150	.635	-.353
11-8	270	.351	.142	.828	-.035
11-9	240	.318	.151	.903	-.117
11-10	260	.393	.150	.987	-.046
11-11	240	.266	.143	1.010	-.071
11-12	210	.242	.167	1.045	-.254
11-13	210	.111	.166	.977	-.331
11-14	240	.171	.127	.802	-.138
11-15	270	.273	.137	.771	-.422
11-16	255	.283	.133	.834	-.149
11-17	240	.276	.122	.786	-.009
11-18	210	.261	.134	.862	-.036
11-19	210	.228	.145	.768	-.200
11-20	255	.283	.114	.726	-.005
11-21	255	.286	.108	.880	-.017
11-22	285	.193	.098	.634	-.151
11-23	240	.218	.113	.634	-.032
11-24	240	.279	.119	.782	-.017
11-25	225	.270	.104	.748	-.002
11-26	210	.281	.114	.864	-.048
11-27	210	.316	.098	.708	-.070
11-28	315	.281	.116	.877	-.051

Table 6-5  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA,  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	U.S. PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
12-1	300	.422	.164	.694	-.071
12-2	300	.368	.142	.745	-.049
12-3	300	.377	.142	.852	.003
12-4	300	.325	.137	.772	.015
12-5	315	.199	.101	.841	.034
12-6	315	.230	.110	.806	-.072
13-1	45	.343	.221	.685	-.328
13-2	30	.099	.147	.758	-.260
13-3	45	.229	.222	.644	-.411
13-4	330	.302	.120	.792	-.003
13-5	45	.088	.204	.871	-.448
13-6	330	.231	.100	.664	-.076
13-7	45	-.071	.149	.642	-.525
13-8	300	.069	.099	.500	-.338
13-9	330	.252	.099	.629	.007
14-1	330	.306	.121	.756	-.027
14-2	330	.345	.111	.744	.034
14-3	330	.312	.109	.725	.016
14-4	330	.307	.103	.725	.047
14-5	330	.307	.110	.855	.052
15-1	300	.359	.205	1.008	-.263
15-2	300	.293	.194	1.020	-.248
15-3	300	.244	.190	1.018	-.294
15-4	300	.204	.164	.821	-.391
15-5	300	.153	.151	.757	-.378
15-6	300	.067	.140	.738	-.301
16-1	60	.099	.154	.859	-.320
16-2	45	.201	.179	.946	-.314
16-3	45	.252	.176	.849	-.194
16-4	45	.293	.182	.949	-.167
16-5	45	.286	.176	.841	-.182
16-6	30	.219	.146	.898	-.114
16-7	45	.227	.129	.870	-.094
16-8	45	.258	.175	.917	-.114
16-9	45	.317	.180	.984	-.120
16-10	45	.285	.166	.867	-.193
16-11	15	.158	.111	.693	-.105
16-12	30	.129	.110	.735	-.127
16-13	45	.192	.126	.832	-.170
16-14	45	.215	.140	.943	-.185
16-15	45	.188	.142	.808	-.277
16-16	30	.130	.094	.576	-.101
16-17	30	.104	.085	.562	-.100
16-18	45	.126	.089	.581	-.104
16-19	45	.120	.099	.521	-.112
16-20	45	.079	.105	.487	-.223
16-21	45	.151	.089	.534	-.100
16-22	45	.150	.091	.542	-.096
16-23	45	.134	.091	.513	-.105
16-24	30	.180	.113	.654	-.058
16-25	45	.204	.110	.712	-.041

Table 6-6  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION.

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	QAS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
17-1	300	.239	.200	.811	-.421
17-2	0	.172	.181	.708	-.342
17-3	45	.271	.187	.806	-.232
17-4	75	.026	.237	.832	-.682
17-5	150	.056	.217	.864	-.427
17-6	180	.061	.256	.911	-.718
17-7	210	.235	.134	.643	-.169
17-8	285	.348	.155	.773	-.281
17-9	315	-.162	.092	.144	-.815
17-10	315	-.261	.147	.301	-.941
17-11	105	-.132	.066	.259	-.483
17-12	315	-.333	.158	.213	-.913
17-13	75	-.232	.140	.224	-1.078
17-14	105	-.296	.101	.320	-.558
17-15	195	-.260	.173	.267	-.983
17-16	75	-.063	.123	.404	-.710
17-17	30	-.055	.087	.239	-.347
17-18	225	-.117	.105	.141	-.771

Table 7-1

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	240	-.384	+.071	-.127	-.789
1-2	300	-.173	+.107	+.089	-.788
1-3	300	-.135	+.080	+.149	-.651
1-4	285	-.227	+.057	+.096	-.543
1-5	120	-.374	+.036	-.222	-.533
1-6	255	-.317	+.030	-.210	-.466
1-7	270	-.251	+.032	-.117	-.422
2-1	60	-.273	+.160	+.281	-.1088
2-2	60	-.180	+.139	+.336	-.881
2-3	255	-.368	+.079	-.073	-.833
2-4	240	-.425	+.083	-.128	-.1032
2-5	60	-.217	+.148	+.238	-.923
2-6	240	-.385	+.066	-.152	-.721
2-7	255	-.370	+.061	-.204	-.694
2-8	300	-.118	+.077	+.196	-.832
2-9	60	-.178	+.140	+.239	-.866
2-10	120	-.418	+.033	-.313	-.550
2-11	255	-.363	+.043	-.177	-.566
2-12	255	-.372	+.037	-.261	-.543
2-13	75	-.161	+.094	+.043	-.865
2-14	75	-.158	+.070	+.053	-.769
2-15	240	-.370	+.040	-.219	-.513
2-16	240	-.360	+.032	-.252	-.506
2-17	60	-.061	+.066	+.123	-.648
2-18	75	-.082	+.053	+.125	-.506
2-19	240	-.308	+.063	-.045	-.635
2-20	240	-.335	+.042	-.190	-.520
3-1	150	-.262	+.280	+.534	-.1643
3-2	165	-.154	+.144	+.163	-.1280
3-3	285	-.387	+.078	-.231	-.1004
3-4	285	-.416	+.072	-.249	-.836
3-5	195	-.355	+.105	-.018	-.984
3-6	300	-.591	+.078	-.372	-.985
3-7	330	-.564	+.093	-.294	-.1084
3-8	345	-.498	+.137	-.145	-.197
3-9	0	-.572	+.174	0.000	-.1210
3-10	150	-.228	+.241	+.736	-.1243
3-11	180	-.412	+.125	-.041	-.991
3-12	195	-.451	+.096	-.171	-.886
3-13	195	-.363	+.084	-.082	-.816
3-14	300	-.573	+.064	-.379	-.827
3-15	300	-.684	+.063	-.422	-.901
3-16	300	-.629	+.065	-.449	-.936
3-17	0	-.416	+.134	+.057	-.1002
3-18	0	-.564	+.146	-.004	-.1064
3-19	180	-.547	+.176	-.049	-.1558
3-20	195	-.432	+.127	-.101	-.962
3-21	180	-.312	+.129	+.118	-.959
3-22	300	-.506	+.076	-.183	-.774
3-23	300	-.541	+.070	-.296	-.819

TABLE 7-2  
 WIND ENGINEERING STUDY OF MERCHANTS PL#7A  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
3-24	330	+0.537	+0.172	+0.232	-0.834
3-25	330	+0.579	+0.176	+0.364	-0.927
3-26	330	+0.573	+0.179	+0.356	-0.865
3-27	345	+0.474	+0.109	+0.124	-1.243
3-28	180	+0.465	+0.166	+0.130	-1.559
3-29	165	+0.181	+0.138	+0.186	-1.362
3-30	180	+0.271	+0.113	+0.053	-1.106
3-31	300	+0.491	+0.081	+0.153	-0.690
3-32	300	+0.542	+0.096	+0.204	-0.846
3-33	330	+0.501	+0.096	+0.132	-1.042
3-34	330	+0.548	+0.097	+0.264	-1.149
3-35	315	+0.569	+0.093	+0.328	-1.167
3-36	315	+0.577	+0.104	+0.338	-1.220
3-37	165	+0.139	+0.107	+0.152	-1.040
3-38	300	+0.471	+0.094	+0.065	-0.833
3-39	330	+0.457	+0.104	+0.092	-0.891
3-40	315	+0.556	+0.112	+0.311	-1.305
3-1	210	+0.407	+0.089	+0.178	-0.900
3-2	300	+0.465	+0.097	+0.149	-0.842
3-3	300	+0.548	+0.100	+0.267	-0.954
3-4	300	+0.637	+0.127	+0.331	-1.233
4-1	210	+0.482	+0.117	+0.068	-1.092
4-2	210	+0.357	+0.104	+0.138	-0.896
4-3	90	+0.102	+0.099	+0.203	-0.728
4-4	75	+0.288	+0.086	+0.228	-0.923
4-5	225	+0.559	+0.078	+0.290	-0.854
4-6	225	+0.561	+0.124	+0.008	-1.161
4-7	225	+0.401	+0.119	+0.111	-0.801
4-8	300	+0.434	+0.084	+0.222	-0.758
4-9	195	+0.168	+0.118	+0.268	-0.815
4-10	225	+0.479	+0.074	+0.195	-0.825
4-11	225	+0.415	+0.095	+0.014	-0.812
4-12	240	+0.411	+0.077	+0.031	-0.739
4-13	225	+0.502	+0.064	+0.199	-0.742
4-14	225	+0.501	+0.094	+0.128	-0.822
4-15	225	+0.417	+0.129	+0.147	-0.804
5-1	75	+0.218	+0.188	+0.658	-1.316
5-2	210	+0.401	+0.090	+0.322	-0.880
5-3	240	+0.511	+0.071	+0.244	-0.765
5-4	225	+0.584	+0.064	+0.398	-0.916
5-5	225	+0.600	+0.069	+0.406	-0.850
5-6	225	+0.530	+0.073	+0.298	-0.795
5-7	210	+0.417	+0.065	+0.233	-0.776
5-8	210	+0.435	+0.073	+0.223	-0.788
5-9	210	+0.406	+0.074	+0.041	-0.783

Table 7-5  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
6-1	300	-.398	.066	-.155	-.796
6-2	165	-.097	.143	-.298	-.934
6-3	225	-.817	.071	-.410	-.895
6-4	315	-.371	.058	-.185	-.974
6-5	225	-.579	.063	-.410	-.837
6-6	225	-.609	.064	-.426	-.864
6-7	45	-.367	.083	-.062	-.964
6-8	225	-.567	.073	-.381	-.859
6-9	285	-.317	.065	-.094	-.872
6-10	225	-.588	.069	-.393	-.827
6-11	225	-.580	.070	-.423	-.827
6-12	225	-.466	.081	-.184	-.782
6-13	180	-.078	.092	.251	-.714
6-14	195	-.257	.096	.023	-.761
6-15	225	-.506	.055	-.316	-.731
7-1	270	-.724	.173	-.131	-.1696
7-2	270	-.566	.168	-.036	-.1169
7-3	285	-.555	.118	-.156	-.1072
7-4	285	-.544	.121	-.128	-.1049
7-5	285	-.521	.128	-.034	-.1156
7-6	285	-.475	.123	-.034	-.1098
7-7	285	-.447	.123	.040	-.1010
7-8	90	-.342	.127	-.051	-.1085
7-9	135	-.102	.314	.678	-.1425
7-10	270	-.591	.206	-.113	-.1485
7-11	270	-.533	.188	-.044	-.1127
7-12	270	-.418	.164	.036	-.1208
7-13	285	-.540	.101	-.190	-.1059
7-14	285	-.514	.103	-.174	-.991
7-15	285	-.485	.099	-.112	-.933
7-16	90	-.236	.080	.031	-.846
7-17	90	-.334	.130	-.006	-.1011
7-18	90	-.493	.158	.049	-.1323
7-19	270	-.578	.143	-.161	-.1384
7-20	270	-.556	.137	-.009	-.1093
7-21	270	-.490	.137	-.047	-.933
7-22	270	-.408	.134	.046	-.1097
7-23	285	-.500	.091	-.231	-.830
7-24	285	-.463	.085	-.126	-.777
7-25	105	-.219	.119	.086	-.808
7-26	105	-.357	.151	.095	-.947
7-27	75	-.425	.123	-.149	-.1254
7-28	270	-.504	.121	-.107	-.1290
7-29	270	-.509	.122	.064	-.1180
7-30	285	-.502	.094	-.197	-.959
7-31	285	-.497	.089	-.204	-.903
7-32	285	-.474	.080	-.216	-.807
7-33	285	-.437	.075	-.190	-.757
7-34	60	-.368	.088	-.100	-.1115
7-35	90	-.269	.092	-.016	-.996
7-36	75	-.343	.093	-.100	-.1642
7-37	285	-.469	.094	-.142	-.893



Table 7-4  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA,  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
8-1	45	-.266	.095	.158	-.872
8-2	195	-.305	.095	.158	-.773
8-3	210	-.192	.121	.168	-1.038
8-4	210	-.198	.113	.133	-.766
8-5	165	-.334	.056	.284	-.678
8-6	165	-.429	.049	.292	-.595
8-7	165	-.419	.046	.276	-.587
8-8	210	-.166	.167	.167	-.725
8-9	150	-.415	.043	.290	-.562
8-10	195	-.304	.060	.113	-.576
8-11	210	-.294	.125	.299	-.744
8-12	210	-.186	.123	.292	-.789
8-13	150	-.412	.040	.301	-.555
8-14	195	-.292	.071	.057	-.639
8-15	210	-.183	.128	.156	-.877
8-16	210	-.182	.124	.192	-.816
9-1	165	-.415	.058	.219	-.748
9-2	165	-.429	.060	.256	-.913
9-3	345	-.060	.103	.281	-.719
9-4	165	-.338	.050	.299	-.646
9-5	165	-.307	.056	.266	-.611
9-6	165	-.397	.053	.246	-.587
10-1	165	-.390	.072	.193	-.852
10-2	15	-.232	.068	.044	-.815
10-3	165	-.113	.054	.280	-.644
10-4	165	-.321	.068	.296	-.621
10-5	165	-.411	.047	.300	-.598
10-6	165	-.411	.253	.271	-.590
11-1	150	-.356	.187	.224	-2.060
11-2	165	-.651	.182	.100	-1.230
11-3	165	-.664	.142	.155	-1.219
11-4	150	-.388	.155	.067	-1.332
11-5	165	-.647	.196	.085	-1.638
11-6	165	-.678	.216	.135	-1.701
11-7	165	-.558	.179	.171	-1.594
11-8	165	-.395	.139	.040	-1.179
11-9	150	-.397	.085	.2019	-.753
11-10	150	-.407	.084	.070	-.733
11-11	165	-.392	.082	.130	-.823
11-12	165	-.440	.087	.225	-1.058
11-13	160	-.420	.087	.164	-1.066
11-14	160	-.390	.069	.216	-.792
11-15	210	-.469	.221	.108	-1.236
11-16	150	-.366	.083	.072	-.771
11-17	150	-.394	.084	.136	-.760
11-18	165	-.368	.075	.197	-.807
11-19	165	-.490	.075	.238	-.888
11-20	165	-.455	.069	.306	-.905
11-21	160	-.351	.059	.210	-.659
11-22	210	-.385	.200	.183	-1.117
11-23	160	-.326	.065	.125	-.623
11-24	345	-.175	.075	.074	-.742
11-25	165	-.366	.069	.4057	-.670
11-26	165	-.371	.068	.144	-.899
11-27	165	-.498	.062	.262	-.761
11-28	75	-.237	.025	.116	-.866

Table 7-5  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
12-1	0	-.581	.262	-.050	-1.852
12-2	150	-.469	.124	-.185	-1.069
12-3	345	-.221	.146	.071	-1.433
12-4	0	-.376	.138	.014	-1.403
12-5	0	-.345	.138	.098	-1.029
12-6	0	-.298	.088	-.009	-.859
13-1	255	-.571	.469	-.379	-.638
13-2	255	-.570	.067	-.371	-.860
13-3	255	-.575	.066	-.385	-.841
13-4	255	-.556	.067	-.362	-.797
13-5	255	-.582	.064	-.347	-.780
13-6	255	-.519	.063	-.347	-.752
13-7	255	-.489	.062	-.270	-.715
13-8	255	-.470	.066	-.219	-.743
13-9	255	-.455	.073	-.241	-.780
14-1	270	-.465	.117	-.156	-1.209
14-2	255	-.556	.076	-.359	-.889
14-3	255	-.540	.076	-.291	-.827
14-4	255	-.484	.067	-.253	-.757
14-5	240	-.491	.064	-.300	-.740
15-1	0	-.118	.207	.372	-1.370
15-2	0	-.112	.214	.494	-1.873
15-3	0	-.157	.175	.464	-.857
15-4	255	-.492	.091	-.134	-.855
15-5	240	-.444	.060	-.294	-.756
15-6	255	-.508	.086	-.112	-.905
16-1	120	-.412	.079	-.140	-1.016
16-2	120	-.511	.152	-.085	-1.309
16-3	120	-.520	.146	-.168	-1.289
16-4	120	-.485	.140	-.068	-1.155
16-5	135	-.396	.126	-.056	-1.187
16-6	120	-.425	.050	-.299	-.802
16-7	120	-.377	.067	-.163	-.874
16-8	120	-.450	.093	-.107	-.906
16-9	135	-.357	.099	-.071	-.888
16-10	315	-.230	.106	.260	-.985
16-11	300	-.280	.087	.074	-.708
16-12	105	-.355	.048	-.206	-.685
16-13	120	-.425	.067	-.170	-.757
16-14	285	-.314	.066	-.120	-.733
16-15	285	-.354	.118	-.074	-1.128
16-16	300	-.266	.087	-.038	-.755
16-17	300	-.277	.069	-.052	-.689
16-18	330	-.073	.113	.307	-.731
16-19	300	-.238	.083	.045	-.903
16-20	300	-.231	.114	.085	-1.124
16-21	330	-.072	.101	.025	-.726
16-22	330	-.121	.113	.255	-1.303
16-23	330	-.145	.131	.280	-.994
16-24	255	-.361	.039	-.232	-.541
16-25	255	-.382	.060	-.202	-.595

Table 7-6  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK PRESSURE COEFFICIENT  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
17-1	255	-.670	.107	-.334	-1.108
17-2	240	-.482	.111	-.207	-1.236
17-3	255	-.489	.083	-.277	-1.043
17-4	195	-.483	.122	-.124	-1.266
17-5	295	-.687	.102	-.316	-1.167
17-6	278	-.603	.119	-.191	-.940
17-7	150	-.578	.087	-.301	-.870
17-8	180	-.395	.104	-.090	-1.036
17-9	265	-.603	.124	-.149	-1.133
17-10	255	-.581	.113	-.190	-.082
17-11	330	-.457	.144	-.136	-1.291
17-12	255	-.544	.121	-.198	-1.268
17-13	0	-.602	.195	.073	-1.294
17-14	270	-.378	.080	-.019	-.935
17-15	300	-.566	.114	-.141	-1.288
17-16	270	-.482	.131	-.055	-1.184
17-17	270	-.497	.101	-1.204	-1.693
17-18	300	-.507	.109	-.253	-1.411

Table 8-1  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA,  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD-BASED ON REF. PRESSURE OF 38.0 PSF  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1-1	345	12.426	5.130	32.186	-1.786
1-2	345	9.956	5.130	34.352	-7.144
1-3	0	13.186	4.218	29.830	1.900
1-4	0	12.236	3.686	25.726	3.192
1-5	0	12.882	3.990	31.844	1.216
1-6	0	11.668	3.496	24.548	1.926
1-7	0	12.692	3.610	26.334	3.496
2-1	0	11.894	4.940	27.588	-4.218
2-2	330	12.008	6.574	31.616	-12.312
2-3	330	11.476	6.384	34.656	-8.284
2-4	330	11.514	6.194	33.212	-6.308
2-5	0	12.198	4.712	28.386	-4.256
2-6	0	11.362	3.762	23.256	.494
2-7	330	11.628	5.966	34.466	-5.264
2-8	345	12.540	5.566	33.136	-3.078
2-9	0	8.246	3.952	22.572	-3.762
2-10	0	9.538	3.306	22.116	.950
2-11	0	10.108	3.192	22.640	1.026
2-12	0	10.982	3.396	25.232	2.166
2-13	0	5.434	3.344	19.950	-3.648
2-14	0	7.904	3.382	18.658	-7.334
2-15	0	9.766	3.382	22.116	-.494
2-16	0	10.792	3.420	22.572	2.394
2-17	0	7.980	2.888	19.570	-.152
2-18	0	10.464	2.926	20.406	3.648
2-19	0	8.588	2.926	19.114	1.064
2-20	0	11.590	3.040	21.166	4.712
3-1	105	13.832	6.764	35.492	-11.932
3-2	105	10.298	6.498	31.236	-9.690
3-3	105	7.144	6.156	29.862	-13.946
3-4	90	5.452	6.612	28.614	-11.438
3-5	75	6.878	5.016	27.360	-6.878
3-6	75	9.006	5.244	29.640	-3.800
3-7	75	11.134	5.396	32.566	-3.496
3-8	75	12.616	5.776	35.264	-3.800
3-9	75	13.852	5.460	41.858	-3.002
3-10	105	12.692	5.966	34.086	-11.704
3-11	135	9.348	4.370	23.218	-5.358
3-12	135	7.676	3.762	19.760	-2.660
3-13	135	5.548	3.534	17.632	-5.054
3-14	75	6.346	4.066	26.486	-3.116
3-15	75	8.094	4.484	24.396	-3.230
3-16	75	9.690	4.826	29.298	-3.990
3-17	75	10.906	5.168	32.262	-4.256
3-18	75	11.704	5.510	33.174	-6.194
3-19	135	7.828	6.194	29.336	-18.164
3-20	135	7.182	3.620	19.608	-2.736
3-21	135	5.092	3.496	20.862	-3.268
3-22	135	3.914	3.002	16.606	-3.838
3-23	135	3.914	3.002	16.606	-3.838

Table 8-3

## WIND ENGINEERING STUDY OF MERCHANTS PLAZA

INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD, BASED ON REF. PRESSURE OF 38.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
3-24	75	3.002	3.002	18.354	-5.624
3-25	75	3.572	3.268	18.696	-4.864
3-26	75	4.370	3.610	23.446	-4.522
3-27	75	4.712	3.800	23.636	-4.940
3-28	135	4.446	4.036	21.736	-12.008
3-29	135	3.420	3.420	17.252	-7.030
3-30	135	2.774	2.926	14.858	-5.244
3-31	135	1.520	2.508	10.298	-4.674
3-32	135	.266	2.166	8.264	-5.434
3-33	75	.114	1.824	7.842	-5.396
3-34	75	.038	1.786	7.182	-5.176
3-35	75	-.418	1.748	8.398	-6.118
3-36	75	-.836	1.824	7.752	-6.270
3-37	135	4.066	3.458	17.480	-6.574
3-38	135	3.686	2.926	14.440	-3.686
3-39	75	3.762	2.546	14.326	-2.622
3-40	75	2.052	2.242	12.692	-4.902
3-41	135	5.624	3.534	22.648	-3.192
3-42	135	4.788	3.040	19.266	-3.040
3-43	75	4.522	2.660	17.100	-2.356
3-44	75	3.686	2.736	15.162	-2.546
4-1	150	11.780	6.612	35.302	-9.918
4-2	150	11.096	6.916	33.668	-11.070
4-3	180	12.464	7.106	36.770	-10.944
4-4	150	11.894	6.626	34.808	-14.364
4-5	150	15.086	6.270	34.622	-8.322
4-6	150	12.806	5.890	37.126	-3.914
4-7	150	10.868	6.156	32.566	-5.890
4-8	135	9.538	5.320	28.044	-26.220
4-9	150	13.490	5.548	38.988	-1.624
4-10	135	9.652	4.104	27.360	-3.154
4-11	135	7.752	3.686	25.460	-1.330
4-12	135	7.562	4.750	29.184	-16.492
4-13	150	7.980	3.900	23.484	-1.634
4-14	135	6.232	3.366	19.532	-2.356
4-15	135	5.168	3.648	17.764	-9.538
5-1	150	7.752	5.814	27.398	-12.692
5-2	150	13.490	5.852	33.668	-3.344
5-3	150	13.870	5.358	37.164	.038
5-4	150	5.726	4.218	22.268	-10.602
5-5	150	6.308	4.180	28.496	-9.500
5-6	135	7.410	4.598	23.446	-7.448
5-7	150	7.562	3.534	20.824	-5.890
5-8	150	7.448	3.458	19.798	-3.154
5-9	150	7.448	3.458	19.798	-3.154

Table 8-3 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD OCCURRED ON REF. PRESSURE OF 36.0 (PSF)  
VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
6-1	120	13.452	6.878	35.264	-6.498
6-2	105	12.350	5.928	33.136	-8.208
6-3	105	11.780	5.739	32.452	-11.704
6-4	105	10.298	5.814	33.630	-16.726
6-5	120	10.602	7.030	35.378	-13.452
6-6	105	11.172	5.548	29.792	-4.142
6-7	105	12.236	5.244	29.754	-1.254
6-8	150	12.350	5.434	31.160	-3.154
6-9	120	5.244	5.396	24.738	-10.488
6-10	105	6.346	4.180	27.998	-3.638
6-11	105	8.968	4.370	26.410	-2.280
6-12	150	12.426	5.016	30.818	-1.304
6-13	150	3.306	3.344	16.948	-17.100
6-14	150	4.788	3.344	16.910	-12.312
6-15	135	8.018	3.762	24.814	-9.950
7-1	210	13.110	5.358	31.312	-2.318
7-2	195	13.528	5.588	32.908	-3.686
7-3	195	13.072	5.358	32.376	-4.522
7-4	195	12.806	5.232	32.908	-2.774
7-5	195	12.844	5.396	32.870	-5.700
7-6	180	12.806	6.270	33.972	-4.598
7-7	180	12.274	6.270	35.074	-5.852
7-8	180	11.324	6.270	32.604	-6.080
7-9	150	15.314	7.258	34.124	-19.418
7-10	210	13.148	5.700	32.110	.190
7-11	180	12.996	5.396	28.842	-2.774
7-12	180	13.870	5.434	31.540	-6.08
7-13	180	13.984	5.510	33.136	-6.076
7-14	180	14.098	5.472	33.264	-2.052
7-15	180	13.794	5.510	32.794	.114
7-16	180	13.262	5.548	34.086	-6.446
7-17	180	12.122	5.700	32.704	-1.786
7-18	150	12.540	7.372	34.238	-25.536
7-19	210	10.526	4.788	27.550	.342
7-20	180	10.108	4.484	28.386	-2.014
7-21	180	10.716	4.446	27.018	-6.08
7-22	180	10.906	4.636	28.082	-1.786
7-23	180	10.906	4.788	27.892	-6.446
7-24	180	10.754	4.910	26.676	-2.052
7-25	180	10.336	4.408	24.130	-7.722
7-26	180	7.714	4.750	26.904	-3.610
7-27	150	6.802	6.270	28.348	-16.264
7-28	210	6.954	3.762	23.484	-1.292
7-29	210	6.650	3.154	22.648	-7.60
7-30	180	7.866	3.876	21.774	-2.546
7-31	180	8.398	3.800	21.812	-2.052
7-32	180	8.360	3.648	23.498	-1.824
7-33	180	7.676	3.496	22.040	-1.596
7-34	180	6.536	3.420	21.812	-2.014
7-35	180	4.788	3.078	18.050	-1.938
7-36	150	2.736	4.180	17.442	-15.010
7-37	150	2.736	4.180	17.442	-15.010

Table 8-4

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
9-1	300	5.624	4.978	25.004	-7.714
9-2	300	8.968	5.054	26.752	-6.498
9-3	315	11.552	6.346	32.680	-4.902
9-4	315	13.072	6.612	38.390	-7.106
9-5	300	9.652	4.750	25.612	-3.724
9-6	300	12.730	5.092	31.198	-6.684
9-7	300	14.326	5.320	32.718	-3.002
9-8	300	14.098	5.434	34.086	-3.952
9-9	300	10.868	4.446	32.680	0.000
9-10	300	12.274	4.484	28.336	1.368
9-11	315	13.148	5.548	35.910	-2.266
9-12	315	11.514	5.358	35.302	-1.482
9-13	270	10.982	4.028	26.258	-8.66
9-14	315	12.540	4.674	38.836	1.520
9-15	315	13.262	4.902	30.442	1.672
9-16	255	10.640	4.142	24.434	-3.342
9-17	210	-1.368	3.154	9.842	-14.516
9-18	300	-0.38	4.522	15.428	-23.636
9-19	300	6.802	5.282	26.030	-16.264
9-20	270	10.450	4.446	27.094	-5.282
9-21	255	11.970	3.838	31.464	2.622
9-22	255	10.668	4.256	24.928	-3.990
9-23	330	-1.292	3.306	12.882	-13.300
9-24	300	0.000	4.826	19.722	-10.146
9-25	300	7.258	4.522	31.730	-5.510
9-26	270	11.210	3.496	25.114	2.890
9-27	270	11.818	3.610	25.536	1.520
9-28	270	12.198	3.496	25.422	3.002
9-29	270	10.450	5.016	24.942	-7.372
9-30	270	9.310	5.244	31.730	-5.662
9-31	270	7.828	5.130	24.890	-7.106
9-32	210	7.866	5.054	32.984	-6.954
9-33	210	4.788	7.296	33.022	-17.556
9-34	225	3.610	5.168	22.572	-9.120
9-35	225	1.214	5.700	24.130	-13.414
9-36	270	13.338	5.396	31.464	-1.330
9-37	240	12.084	5.738	31.734	-4.446
9-38	240	11.514	5.700	37.506	-1.748
9-39	225	11.932	4.864	26.652	-1.14
9-40	225	11.590	4.788	27.094	-1.216
9-41	225	10.792	5.358	28.336	-2.204
9-42	255	9.386	4.864	27.132	-2.204
9-43	270	10.374	5.206	29.294	-7.334
9-44	270	10.754	5.054	31.692	-16.036
9-45	240	10.488	4.636	29.848	-5.662
9-46	255	10.564	4.256	26.804	-3.42
9-47	255	10.526	4.332	27.018	-5.52
9-48	255	10.754	4.332	27.588	-5.70
9-49	270	11.020	4.446	30.054	-2.090
9-50	285	7.334	3.724	24.092	-5.738
9-51	270	8.550	3.724	22.116	-6.270
9-52	240	10.462	4.522	29.716	-6.46
9-53	270	10.630	3.690	25.004	-8.74
9-54	270	10.982	3.694	25.368	-8.74
9-55	270	12.008	3.724	26.600	1.000
9-56	270	12.008	3.724	26.600	1.000

Table 8-5  
 WIND-ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD-BASED ON REF. PRESSURE OF 38.0 PSF)  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
12-1	300	16.036	6.232	33.972	-2.698
12-2	300	13.984	5.396	30.210	-1.862
12-3	300	14.326	5.396	32.376	.114
12-4	300	12.350	5.206	29.336	.570
12-5	300	11.400	4.674	27.360	.684
12-6	315	8.740	4.180	30.742	-2.736
13-1	45	13.034	8.398	37.430	-12.160
13-2	330	10.032	4.180	23.712	-1.368
13-3	330	10.374	4.598	26.182	-5.358
13-4	330	11.476	4.560	30.096	.114
13-5	330	9.006	4.294	25.638	-7.638
13-6	330	8.778	3.800	25.194	-2.888
13-7	330	6.194	3.610	22.914	-5.130
13-8	330	6.194	3.342	16.682	-13.832
13-9	330	9.576	3.762	23.902	.266
14-1	330	11.628	4.598	28.728	-1.026
14-2	330	13.110	4.218	28.272	1.292
14-3	330	11.856	4.142	27.550	.688
14-4	330	11.666	3.914	27.550	2.166
14-5	330	11.666	4.180	32.490	1.976
15-1	300	13.642	7.790	38.304	-9.994
15-2	300	11.134	7.372	38.760	-9.424
15-3	330	12.882	4.750	29.412	.266
15-4	330	10.184	3.914	26.576	-3.534
15-5	330	10.716	3.458	25.156	-1.152
15-6	330	7.752	3.572	20.026	-3.800
16-1	15	7.030	6.346	29.754	-15.010
16-2	15	7.904	6.346	28.766	-9.538
16-3	45	9.576	6.688	32.262	-7.372
16-4	45	11.134	6.916	36.062	-6.346
16-5	45	10.866	6.688	32.718	-8.916
16-6	0	9.348	4.864	26.904	-7.562
16-7	45	8.626	4.902	33.060	-3.572
16-8	45	9.804	6.650	34.846	-4.332
16-9	45	12.046	6.840	37.392	-4.560
16-10	45	10.830	6.308	32.946	-7.334
16-11	0	9.918	3.724	23.636	-2.470
16-12	0	7.942	3.382	24.434	-4.864
16-13	45	7.296	4.788	31.616	-6.460
16-14	45	8.322	5.320	35.834	-7.030
16-15	45	7.144	5.396	30.742	-9.006
16-16	0	9.500	3.268	19.988	-2.508
16-17	0	7.524	3.040	18.594	-2.964
16-18	0	5.624	2.584	14.478	-4.712
16-19	45	4.560	3.762	19.798	-4.256
16-20	45	3.002	3.990	16.506	-8.474
16-21	0	6.536	2.774	18.278	-1.558
16-22	45	5.700	3.458	21.356	-3.648
16-23	45	5.092	3.458	19.494	-3.990
16-24	0	10.260	3.230	21.318	2.698
16-25	0	10.260	3.230	21.318	2.698



Table 8-6  
 WIND-ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM MEAN LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
17-1	300	9.082	7.600	30.818	-15.998
17-2	345	9.652	5.206	26.030	-7.680
17-3	45	10.298	7.106	30.628	-8.816
17-4	105	6.536	7.334	29.488	-15.808
17-5	120	9.538	7.752	31.844	-15.276
17-6	165	7.810	7.258	26.106	-16.530
17-7	210	8.930	5.092	24.434	-6.422
17-8	285	13.110	5.890	29.374	-10.678
17-9	90	-4.712	1.938	1.976	-12.198
17-10	90	-4.218	2.090	4.066	-12.958
17-11	90	-4.408	2.242	4.028	-12.046
17-12	75	-5.852	2.504	4.826	-17.214
17-13	30	-4.332	2.356	4.294	-17.100
17-14	210	-4.180	3.876	6.802	-19.532
17-15	225	-2.546	2.698	5.586	-15.960
17-16	150	-1.900	3.602	7.372	-15.200
17-17	30	-2.090	3.306	9.082	-13.186
17-18	30	-2.090	3.306	9.082	-13.186

Table 9-1.  
WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
WIND DIRECTION AT WHICH MINIMUM MEAN LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
OCCURRED FOR EACH TAP AND THE CORRESPONDING  
VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1-1	255	-15.770	2.832	-7.980	-25.462
1-2	255	-15.200	2.014	-7.372	-22.268
1-3	255	-15.162	1.710	-8.968	-24.624
1-4	120	-13.756	1.330	-9.462	-18.506
1-5	120	-14.212	1.368	-8.436	-20.254
1-6	240	-12.578	1.254	-7.182	-16.340
1-7	240	-12.046	1.254	-7.144	-15.580
2-1	240	-15.276	3.154	-4.066	-29.716
2-2	240	-16.340	3.116	-2.470	-32.034
2-3	240	-16.872	3.116	-3.952	-31.046
2-4	240	-16.150	3.154	-4.864	-39.216
2-5	120	-14.288	1.406	-10.146	-19.854
2-6	120	-15.048	1.368	-11.476	-19.722
2-7	120	-15.694	1.330	-11.362	-20.254
2-8	255	-14.972	2.052	-16.032	-28.766
2-9	120	-15.162	1.330	-10.630	-20.634
2-10	120	-15.884	1.254	-11.894	-20.900
2-11	120	-15.846	1.216	-12.008	-20.634
2-12	240	-14.516	1.292	-10.032	-19.380
2-13	120	-14.478	1.292	-10.602	-20.254
2-14	120	-14.820	1.292	-11.058	-19.950
2-15	240	-14.060	1.520	-8.322	-19.494
2-16	240	-13.680	1.216	-9.576	-19.238
2-17	120	-13.262	1.292	-8.778	-17.480
2-18	240	-12.682	1.596	-6.650	-19.076
2-19	120	-13.338	1.216	-6.804	-17.252
2-20	120	-13.680	1.216	-7.600	-17.822
3-1	180	-19.570	4.028	-9.234	-40.432
3-2	195	-19.494	4.180	-7.524	-44.650
3-3	300	-18.088	2.698	-13.468	-31.616
3-4	300	-19.698	2.432	-11.286	-31.540
3-5	300	-21.242	2.622	-14.288	-32.870
3-6	300	-22.458	2.964	-14.136	-37.810
3-7	300	-23.522	3.116	-16.188	-36.632
3-8	300	-23.940	2.964	-15.922	-35.300
3-9	300	-22.914	2.774	-14.744	-33.098
3-10	195	-19.114	3.724	-8.778	-46.018
3-11	195	-19.836	4.142	-6.082	-37.012
3-12	300	-17.556	2.166	-11.324	-27.056
3-13	300	-20.634	2.470	-10.602	-30.628
3-14	300	-21.174	2.432	-14.402	-31.428
3-15	300	-22.852	2.394	-16.036	-34.238
3-16	300	-23.802	2.470	-17.062	-35.568
3-17	300	-24.896	2.622	-17.594	-34.162
3-18	300	-23.978	2.698	-15.908	-33.516
3-19	195	-23.332	5.966	-8.094	-52.896
3-20	195	-16.416	4.826	-3.838	-36.556
3-21	300	-17.898	2.850	-5.092	-25.564
3-22	300	-19.228	2.688	-6.954	-29.412
3-23	300	-19.228	2.888	-6.954	-29.412

Table 9-2:  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN LOAD OCCURRED ON REF. PRESSURE OF 3R.0 PSF.  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
3-24	300	-21.660	2.698	-12.996	-30.626
3-25	300	-23.836	2.584	-15.922	-32.072
3-26	300	-23.826	2.584	-16.504	-32.034
3-27	300	-23.294	2.622	-16.188	-33.174
3-28	195	-20.710	5.776	-5.852	-52.402
3-29	195	-16.530	4.636	-5.584	-37.240
3-30	300	-16.530	3.040	-5.282	-28.614
3-31	300	-18.658	3.078	-5.814	-33.440
3-32	300	-20.596	3.078	-11.324	-32.148
3-33	300	-22.382	3.116	-12.996	-37.772
3-34	300	-23.712	3.268	-15.238	-36.784
3-35	300	-24.928	3.648	-15.274	-41.648
3-36	300	-24.966	3.610	-15.922	-44.888
3-37	195	-16.036	4.370	-2.838	-35.226
3-38	300	-17.898	3.572	-2.470	-31.654
3-39	300	-20.862	3.458	-11.400	-33.782
3-40	300	-23.712	4.674	-13.300	-42.826
3-41	210	-15.666	3.382	-6.764	-34.200
3-42	300	-17.670	3.686	-5.662	-31.996
3-43	300	-20.824	3.800	-10.146	-36.252
3-44	300	-24.206	4.826	-12.578	-46.854
4-1	225	-22.154	3.876	-11.248	-40.014
4-2	225	-19.266	3.610	-7.144	-33.098
4-3	30	-16.378	2.280	-9.804	-23.218
4-4	300	-16.226	2.546	-7.752	-26.258
4-5	225	-21.242	2.964	-10.640	-32.452
4-6	225	-21.318	4.712	3.304	-44.118
4-7	30	-16.568	1.900	-11.500	-23.446
4-8	300	-16.492	2.204	-8.436	-28.604
4-9	225	-17.670	3.116	4.332	-30.628
4-10	225	-18.202	2.812	7.410	-31.350
4-11	240	-16.506	2.850	-6.688	-27.854
4-12	300	-16.226	2.204	-6.614	-26.466
4-13	225	-19.076	2.432	-7.562	-28.196
4-14	225	-19.038	3.572	4.864	-31.236
4-15	225	-15.846	4.902	5.586	-30.552
5-1	225	-22.762	3.116	-14.326	-33.212
5-2	225	-21.090	2.850	-11.438	-31.682
5-3	240	-19.418	2.698	-9.346	-29.070
5-4	225	-22.192	2.432	-15.124	-31.008
5-5	225	-22.800	2.622	-15.428	-32.300
5-6	225	-20.482	2.774	-11.324	-30.210
5-7	225	-21.356	2.356	-14.136	-29.298
5-8	225	-19.876	2.242	-12.198	-27.604
5-9	225	-19.836	2.242	-12.198	-27.694

Table 9-5  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN LOAD (BASED ON REF. PRESSURE OF 38.0 PSF)  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
6-1	225	-22.078	2.470	-15.314	-29.448
6-2	225	-22.686	2.546	-16.112	-31.066
6-3	225	-23.446	2.698	-15.580	-32.110
6-4	225	-23.332	2.926	-15.608	-34.590
6-5	225	-22.002	2.394	-15.580	-31.896
6-6	225	-23.142	2.432	-16.188	-32.832
6-7	225	-23.180	2.622	-15.656	-32.604
6-8	225	-21.546	2.774	-14.478	-32.642
6-9	225	-20.482	2.698	-12.616	-31.464
6-10	225	-21.584	2.622	-15.934	-31.426
6-11	225	-22.040	2.660	-16.074	-31.426
6-12	240	-18.544	2.812	-10.222	-27.436
6-13	225	-18.810	2.014	-11.856	-26.068
6-14	225	-19.760	2.090	-12.844	-26.904
6-15	225	-19.228	2.090	-12.008	-27.178
7-1	270	-27.512	6.574	-6.978	-64.448
7-2	270	-21.508	6.384	-1.368	-44.080
7-3	285	-21.090	4.484	-5.928	-40.736
7-4	285	-20.672	4.598	-4.864	-39.862
7-5	285	-19.798	4.864	-4.292	-43.928
7-6	285	-18.050	4.674	-4.292	-38.304
7-7	285	-16.986	4.674	1.520	-38.380
7-8	75	-15.428	3.952	-2.812	-32.680
7-9	105	-23.104	5.510	-4.484	-53.352
7-10	270	-22.458	7.828	-4.294	-56.430
7-11	270	-20.254	7.144	-1.748	-42.826
7-12	285	-20.558	3.876	1.220	-37.886
7-13	285	-20.520	3.838	1.220	-37.886
7-14	285	-19.532	3.914	-6.612	-40.242
7-15	285	-18.430	3.762	-4.256	-37.658
7-16	285	-16.150	3.458	-3.306	-30.438
7-17	45	-15.656	2.318	-9.462	-28.576
7-18	105	-19.342	5.396	-2.166	-47.538
7-19	270	-21.964	5.434	-6.118	-47.538
7-20	270	-21.128	5.206	-3.342	-52.592
7-21	285	-20.102	3.572	-6.860	-41.534
7-22	285	-19.674	3.686	-8.778	-34.124
7-23	285	-19.000	3.458	-8.854	-37.240
7-24	285	-17.594	3.230	-7.788	-31.540
7-25	285	-13.680	2.850	-3.876	-29.526
7-26	30	-15.086	3.306	-3.876	-27.436
7-27	90	-17.594	6.118	-6.384	-33.402
7-28	270	-19.152	4.598	-1.748	-44.498
7-29	285	-19.446	3.762	-8.246	-49.020
7-30	285	-19.076	3.572	-7.486	-38.494
7-31	285	-18.086	3.382	-7.486	-36.442
7-32	285	-18.012	3.040	-8.208	-36.314
7-33	285	-16.606	2.850	-7.420	-30.666
7-34	285	-15.086	3.002	-3.344	-28.766
7-35	300	-14.250	2.432	-6.142	-28.120
7-36	45	-16.036	3.648	-7.106	-27.474
7-37	45	-16.036	3.648	-7.106	-35.610

Table 9-4 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN LOAD (BASED ON REF. PRESSURE OF 36.0 PSF)  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
8-1	165	-15.960	2.242	-8.322	-26.904
8-2	165	-15.074	2.242	-8.854	-25.004
8-3	165	-15.694	2.128	-9.006	-25.232
8-4	165	-15.399	2.052	-9.006	-23.142
8-5	165	-16.492	2.128	-10.792	-25.764
8-6	165	-16.264	1.862	-11.096	-22.610
8-7	165	-15.922	1.748	-10.688	-22.306
8-8	165	-15.808	1.990	-10.220	-23.142
8-9	150	-15.770	1.634	-11.020	-22.496
8-10	165	-14.820	1.634	-9.120	-20.444
8-11	165	-14.630	1.672	-8.740	-23.332
8-12	165	-14.592	1.862	-8.436	-22.762
8-13	150	-15.656	1.520	-11.438	-21.090
8-14	150	-15.162	1.406	-11.286	-20.368
8-15	165	-14.440	1.862	-8.626	-22.838
8-16	165	-14.516	2.166	-8.626	-25.118
9-1	150	-15.998	1.824	-10.412	-24.206
9-2	165	-16.302	2.280	-9.728	-34.694
9-3	165	-16.150	1.938	-10.236	-25.878
9-4	165	-16.644	1.990	-11.362	-24.548
9-5	150	-15.922	1.672	-10.868	-22.572
9-6	150	-15.732	1.634	-11.172	-21.964
10-1	150	-15.732	2.014	-8.006	-23.636
10-2	150	-15.960	1.862	-10.002	-22.952
10-3	165	-15.694	2.052	-10.640	-25.232
10-4	165	-15.998	1.824	-11.248	-23.598
10-5	150	-15.656	1.520	-10.830	-21.926
10-6	165	-15.618	1.786	-10.298	-22.420
11-1	150	-30.628	0.614	-8.512	-78.280
11-2	150	-23.332	5.890	-3.610	-45.942
11-3	150	-22.952	5.996	-5.890	-46.284
11-4	150	-22.344	5.890	-2.546	-50.616
11-5	150	-26.714	7.296	-5.890	-58.862
11-6	165	-25.764	8.208	-5.130	-64.638
11-7	165	-21.204	6.682	-6.698	-60.572
11-8	150	-14.266	5.092	-3.914	-42.408
11-9	150	-15.086	3.238	-7.722	-28.614
11-10	150	-15.466	3.192	-2.660	-27.854
11-11	150	-16.530	3.154	-4.598	-26.348
11-12	165	-16.720	3.006	-6.550	-40.204
11-13	165	-16.492	2.864	-9.120	-34.808
11-14	165	-16.264	2.584	-9.462	-27.474
11-15	210	-17.822	8.998	4.104	-46.968
11-16	150	-13.908	3.154	-2.736	-29.298
11-17	150	-14.972	3.192	-5.168	-28.880
11-18	150	-15.922	2.888	-6.118	-27.512
11-19	165	-16.720	2.850	-9.044	-33.744
11-20	165	-17.290	2.622	-11.628	-34.390
11-21	165	-16.454	2.280	-10.678	-24.928
11-22	210	-14.630	7.600	6.954	-43.586
11-23	150	-12.388	2.470	-4.750	-23.674
11-24	135	-12.582	1.824	-4.294	-20.938
11-25	150	-13.718	2.736	-1.102	-25.080
11-26	150	-14.592	2.204	-7.410	-26.448
11-27	165	-15.594	2.356	-9.576	-28.918
11-28	165	-15.504	2.356	-9.576	-28.918

Table 9-5  
 WIND ENGINEERING STUDY OF WRIGHTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN LOAD, BASED ON REF. PRESSURE OF 36.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
12-1	0	-22.078	9.956	1.900	-70.376
12-2	150	-17.822	4.712	-7.030	-40.622
12-3	0	-15.580	6.422	3.590	-45.676
12-4	0	-14.364	6.346	.532	-53.314
12-5	150	-13.718	3.534	-3.534	-32.908
12-6	150	-12.730	3.496	.760	-30.210
13-1	255	-21.698	2.622	-14.682	-31.844
13-2	255	-21.660	2.564	-14.098	-32.680
13-3	255	-21.850	2.508	-14.630	-31.958
13-4	255	-21.128	2.546	-13.756	-30.286
13-5	255	-20.596	2.432	-13.186	-29.640
13-6	255	-19.722	2.394	-13.186	-28.576
13-7	255	-18.582	2.356	-10.260	-27.170
13-8	240	-18.316	2.280	-10.644	-26.220
13-9	240	-18.392	2.318	-12.008	-27.132
14-1	255	-20.482	3.268	-12.160	-35.682
14-2	255	-21.128	2.888	-13.642	-33.782
14-3	255	-20.520	2.888	-11.058	-31.426
14-4	240	-18.924	2.318	-11.362	-27.360
14-5	240	-18.658	2.432	-11.400	-28.120
15-1	240	-15.656	3.724	-2.090	-31.578
15-2	240	-15.086	3.876	2.432	-33.478
15-3	255	-19.618	3.192	-8.094	-31.844
15-4	255	-18.696	3.078	-5.092	-32.490
15-5	240	-16.872	2.280	-11.172	-28.728
15-6	255	-19.304	3.268	-4.256	-34.598
16-1	120	-15.656	3.002	-5.320	-38.608
16-2	120	-19.418	5.776	-3.230	-49.742
16-3	120	-19.760	5.448	-6.384	-48.982
16-4	120	-18.430	5.320	-2.584	-43.890
16-5	120	-19.114	5.266	-2.564	-43.928
16-6	120	-16.150	1.900	-11.362	-30.476
16-7	120	-14.326	2.546	-6.194	-33.212
16-8	120	-17.100	3.534	-7.486	-34.428
16-9	240	-16.036	1.900	-9.462	-22.078
16-10	240	-16.378	2.014	-8.930	-23.598
16-11	120	-15.398	1.446	-10.830	-20.634
16-12	120	-16.568	2.052	-8.094	-24.662
16-13	120	-16.150	2.546	-6.460	-28.766
16-14	240	-15.580	1.786	-10.640	-20.824
16-15	240	-16.378	2.128	-9.994	-23.598
16-16	255	-14.630	1.824	-8.664	-26.106
16-17	255	-15.922	1.900	-10.526	-24.092
16-18	255	-16.378	2.128	-10.336	-23.540
16-19	255	-16.036	2.622	-8.396	-25.384
16-20	240	-17.214	2.622	-9.348	-28.500
16-21	255	-14.858	1.976	-8.436	-21.660
16-22	240	-15.200	1.786	-6.664	-21.166
16-23	240	-15.580	1.976	-5.158	-22.344
16-24	240	-13.794	1.292	-9.500	-16.810
16-25	240	-13.794	1.292	-9.500	-16.810

Table 9-6  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM MEAN LOAD, BASED ON REF. PRESSURE OF 38.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
17-1	240	-26.410	4.056	-15.238	-41.344
17-2	270	-24.282	3.420	-15.694	-34.200
17-3	120	-21.870	3.458	-8.056	-32.870
17-4	210	-19.722	3.800	-10.070	-38.114
17-5	255	-26.106	3.876	-12.008	-44.346
17-6	270	-22.914	4.522	-7.258	-35.720
17-7	150	-21.964	3.306	-11.438	-33.060
17-8	150	-18.458	3.952	-6.916	-36.214
17-9	255	-22.914	4.712	-5.662	-63.054
17-10	240	-23.028	3.762	-7.448	-38.418
17-11	345	-23.674	6.080	-5.662	-45.258
17-12	240	-20.900	4.466	-4.798	-45.372
17-13	330	-26.850	4.712	-8.018	-42.446
17-14	135	-19.304	4.256	-3.724	-33.782
17-15	180	-20.330	6.156	1.368	-44.574
17-16	255	-22.268	5.092	-3.648	-39.406
17-17	255	-21.660	3.686	-8.740	-39.672
17-18	255	-21.660	3.686	-8.740	-39.672

Table 10-1 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD, BASED ON REF. PRESSURE OF 38.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION.

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1-1	330	12.122	5.662	33.022	-5.168
1-2	345	9.956	5.130	34.352	-7.144
1-3	30	7.982	5.320	34.922	-5.472
1-4	30	5.244	3.800	28.196	-3.762
1-5	30	6.042	4.446	32.908	-6.080
1-6	0	11.666	3.496	26.548	1.026
1-7	0	12.692	3.610	26.334	3.496
2-1	300	7.790	8.208	38.760	-14.288
2-2	300	6.232	8.398	32.566	-13.680
2-3	330	11.476	6.384	34.656	-8.284
2-4	330	11.514	6.194	33.212	-6.308
2-5	330	9.386	6.498	31.540	-11.020
2-6	330	11.058	6.004	33.174	-6.460
2-7	330	11.628	5.966	34.466	-5.244
2-8	345	12.540	5.586	33.136	-3.078
2-9	300	2.698	6.080	36.552	-15.352
2-10	285	-2.736	5.168	25.916	-14.744
2-11	330	7.372	4.788	29.186	-4.674
2-12	345	10.412	4.750	31.046	-2.090
2-13	285	-6.726	4.446	22.534	-16.416
2-14	300	-4.180	4.256	21.052	-14.554
2-15	0	9.766	3.382	22.116	-4.494
2-16	330	5.662	3.686	24.472	-2.384
2-17	345	4.028	3.154	23.636	-3.990
2-18	345	7.524	3.876	28.006	-1.368
2-19	345	4.788	3.306	25.650	-2.394
2-20	345	8.550	4.104	29.714	-4.18
3-1	105	13.832	6.764	35.492	-11.932
3-2	90	4.294	6.574	36.100	-11.894
3-3	105	7.144	6.156	28.842	-12.160
3-4	105	4.446	6.042	30.096	-13.946
3-5	90	5.966	6.574	35.340	-18.620
3-6	90	4.674	5.890	31.730	-9.614
3-7	90	2.356	4.978	33.288	-13.148
3-8	75	12.616	5.776	35.264	-3.800
3-9	75	13.452	4.460	41.458	-3.002
3-10	105	12.692	5.966	34.086	-11.704
3-11	105	8.816	5.054	26.372	-8.340
3-12	105	5.358	4.522	24.662	-7.088
3-13	90	2.280	4.484	31.046	-6.536
3-14	75	6.346	4.066	24.486	-3.116
3-15	75	8.094	4.484	24.396	-3.230
3-16	75	9.690	4.826	29.298	-3.990
3-17	75	10.906	5.168	32.262	-4.256
3-18	75	11.704	5.510	33.174	-6.194
3-19	135	7.828	6.194	26.336	-18.164
3-20	135	7.182	3.420	19.608	-2.736
3-21	135	5.092	3.496	20.842	-3.268
3-22	120	1.672	3.154	16.834	-6.270
3-23	120	1.672	3.154	16.834	-6.270



Table 10-2:  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA,  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD, BASED ON REF. PRESSURE OF 38.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
3-24	75	2,508	3,002	18,354	-5,624
3-25	75	3,572	3,268	18,696	-4,864
3-26	75	4,370	3,610	23,446	-4,522
3-27	75	4,712	3,800	23,636	-4,940
3-28	135	4,446	4,638	21,736	-12,008
3-29	105	2,432	2,812	17,822	-6,764
3-30	120	-1,380	3,344	17,594	-12,122
3-31	120	-4,684	3,078	20,064	-9,348
3-32	120	-1,330	2,698	19,050	-9,386
3-33	75	1,114	1,824	7,942	-5,396
3-34	75	4,038	1,786	7,102	-5,776
3-35	75	-4,418	1,748	8,398	-6,118
3-36	60	-1,988	2,128	9,158	-6,840
3-37	120	4,190	3,420	19,380	-19,912
3-38	75	3,344	2,470	16,492	-2,546
3-39	75	3,762	2,546	14,326	-2,622
3-40	75	2,052	2,282	12,692	-4,902
3-41	135	5,624	3,534	22,648	-3,192
3-42	135	4,788	3,040	19,266	-3,040
3-43	75	4,522	2,560	17,100	-2,356
3-44	75	3,686	2,736	15,162	-2,346
4-1	165	1,406	6,422	38,076	-18,392
4-2	180	8,056	8,854	41,002	-16,568
4-3	195	10,526	8,398	38,190	-16,758
4-4	150	11,894	8,626	34,808	-14,364
4-5	150	15,086	6,270	34,922	-8,322
4-6	150	12,806	5,890	37,126	-3,914
4-7	180	9,804	6,992	34,162	-12,886
4-8	150	9,006	6,802	31,730	-7,790
4-9	150	13,490	5,548	38,988	-1,824
4-10	135	9,652	4,104	27,366	-3,154
4-11	180	4,788	4,194	26,752	-15,428
4-12	135	7,562	4,750	29,184	-16,492
4-13	120	4,028	3,876	25,536	-5,054
4-14	180	1,596	5,168	29,982	-13,490
5-15	150	2,432	3,002	21,282	-5,472
5-1	150	7,752	5,814	27,398	-12,692
5-2	150	13,490	5,852	33,668	-3,344
5-3	150	13,870	5,358	37,164	438
5-4	135	6,384	3,762	24,776	-4,256
5-5	135	6,194	3,800	24,548	-5,890
5-6	180	-4,912	4,940	24,326	-15,618
5-7	150	7,562	3,534	20,824	-5,890
5-8	150	7,448	3,458	19,798	-3,154
5-9	150	7,448	3,458	19,798	-3,154

Table 10-3  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 34.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
6-1	105	11.058	6.270	35.530	-8.626
6-2	105	12.350	5.928	33.136	-9.208
6-3	90	3.496	6.574	34.086	-10.792
6-4	105	10.298	5.814	33.630	-6.726
6-5	120	10.602	7.030	35.378	-13.452
6-6	90	4.636	6.118	32.984	-10.868
6-7	120	8.740	6.574	30.552	-6.802
6-8	135	11.742	5.434	33.820	-3.458
6-9	105	2.584	4.332	28.690	-8.170
6-10	135	6.118	3.952	27.512	-4.836
6-11	105	8.968	4.370	26.410	-2.280
6-12	135	11.590	5.092	37.278	-7.722
6-13	120	1.786	3.838	19.114	-11.704
6-14	90	6.684	3.534	19.456	-9.918
6-15	135	8.018	3.762	24.814	-9.950
7-1	195	12.160	6.118	33.326	-6.374
7-2	195	13.528	5.548	32.908	-3.886
7-3	165	8.360	5.852	33.402	-7.296
7-4	195	12.806	5.282	32.908	-2.774
7-5	195	12.844	5.396	32.870	-5.700
7-6	180	12.806	6.270	33.972	-4.598
7-7	180	12.274	6.270	35.074	-5.852
7-8	165	7.828	6.726	33.402	-8.654
7-9	165	5.890	6.384	36.100	-11.324
7-10	210	13.148	5.700	32.110	-1.190
7-11	195	12.464	5.366	32.566	-1.596
7-12	195	12.578	5.434	35.606	-4.818
7-13	180	13.984	5.510	33.136	-0.076
7-14	165	9.880	6.118	36.418	-5.624
7-15	165	9.462	6.156	36.214	-6.840
7-16	180	13.262	5.548	34.086	-5.646
7-17	180	12.122	5.700	32.794	-1.786
7-18	150	12.540	7.372	34.234	-25.536
7-19	195	7.790	4.902	27.626	-4.408
7-20	180	16.108	4.484	28.386	-2.014
7-21	180	10.716	4.446	27.018	-6.698
7-22	180	10.906	4.636	28.062	-1.786
7-23	165	6.194	5.130	30.818	-6.878
7-24	165	5.776	4.978	28.728	-8.740
7-25	180	10.336	4.408	24.130	-7.722
7-26	195	5.662	4.180	27.254	-5.510
7-27	150	6.802	6.270	28.348	-16.284
7-28	210	6.954	3.762	23.484	-1.892
7-29	210	6.650	3.154	22.648	-7.760
7-30	180	7.866	3.876	21.774	-2.546
7-31	180	6.398	3.800	21.812	-2.052
7-32	180	8.360	3.648	23.408	-1.824
7-33	180	7.676	3.496	22.040	-1.596
7-34	165	2.888	3.458	22.040	-5.320
7-35	150	3.230	3.534	19.912	-6.992
7-36	150	2.736	4.180	17.442	-15.010
7-37	150	2.736	4.180	17.442	-15.010

Table 10-4

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 36.0 PSF.  
OCCURRED FOR EACH TAP AND THE CORRESPONDING  
VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
A-1	285	3.496	4.940	33.288	-10.716
A-2	315	8.360	9.966	29.336	-9.348
A-3	315	11.552	6.346	32.680	-4.902
B-4	315	13.072	6.612	34.390	-7.106
B-5	330	5.548	5.168	30.624	-6.650
B-6	345	8.614	5.890	39.444	-6.850
B-7	315	14.250	6.042	34.922	-1.536
B-8	315	14.060	6.232	36.368	-5.244
B-9	300	10.868	4.446	32.688	0.000
B-10	315	12.122	5.586	38.760	-4.94
B-11	315	13.148	5.548	38.910	-2.66
B-12	315	11.514	5.358	35.302	-1.482
B-13	315	10.298	4.104	29.944	1.52
B-14	315	12.540	4.674	38.836	1.520
B-15	315	13.262	4.902	36.442	1.672
B-16	285	7.714	5.054	29.222	-5.130
9-1	300	-2.394	5.092	21.926	-19.000
9-2	15	-4.598	4.446	19.950	-15.922
9-3	285	4.294	6.306	31.654	-15.846
9-4	300	9.348	4.788	31.122	-6.088
9-5	255	11.970	3.838	31.464	2.622
9-6	270	10.830	4.674	30.286	-3.990
10-1	300	-2.090	4.332	22.344	-14.022
10-2	330	0.000	4.826	19.722	-10.146
10-3	300	7.258	4.522	31.730	-5.510
10-4	315	9.008	4.446	27.968	-1.634
10-5	315	6.702	4.142	27.626	-2.090
10-6	270	12.198	3.496	25.422	3.002
10-7	285	9.424	4.750	26.614	-3.382
10-8	270	9.310	5.244	31.730	-5.662
10-9	195	4.940	6.916	27.094	-13.794
10-10	210	7.866	5.054	32.964	-6.994
10-11	210	4.788	4.296	32.622	-17.556
10-12	240	-1.292	6.080	25.954	-22.382
10-13	225	1.216	5.700	24.130	-13.414
10-14	270	13.338	5.396	31.464	-1.330
10-15	240	12.084	5.738	37.734	-4.446
10-16	240	11.514	5.700	37.506	-1.748
10-17	240	10.108	5.434	36.380	-2.698
10-18	210	9.196	6.346	39.710	-9.652
10-19	210	4.218	6.368	31.126	-12.578
10-20	240	6.498	4.826	30.476	-5.244
10-21	270	10.374	5.206	29.298	-16.036
10-22	255	10.754	5.054	31.692	-5.662
10-23	240	10.488	4.636	29.868	-3.42
10-24	240	8.284	4.294	24.092	-1.216
10-25	240	10.602	4.522	29.716	6.66
10-26	225	10.260	3.952	28.424	3.078
10-27	210	7.638	4.332	32.908	-3.040
10-28	270	12.008	3.724	26.600	1.900
10-29	270	12.000	3.724	26.600	1.900

Table 10-5  
WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
OCCURRED FOR EACH TAP AND THE CORRESPONDING  
VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
12-1	300	16.036	6.232	33.972	-2.698
12-2	300	13.984	5.396	30.210	-1.862
12-3	300	14.326	5.396	32.376	.114
12-4	300	12.350	5.206	29.336	.570
12-5	315	7.562	3.638	31.658	-1.292
12-6	315	8.740	4.180	30.742	-2.736
13-1	45	13.034	6.388	37.430	-12.160
13-2	30	3.762	5.586	28.500	-9.880
13-3	45	8.702	8.436	37.392	-15.618
13-4	330	11.476	4.560	30.096	-1.114
13-5	45	3.344	7.984	33.998	-17.024
13-6	330	8.778	3.800	25.194	-2.888
13-7	45	-2.698	5.662	24.396	-19.950
13-8	300	2.622	3.762	19.000	-12.844
13-9	330	9.576	3.762	23.982	.266
14-1	330	11.628	4.598	28.728	-1.026
14-2	330	13.110	4.218	28.272	1.292
14-3	330	11.856	4.142	27.550	.608
14-4	330	11.666	3.914	27.550	2.166
14-5	330	11.666	4.180	32.490	1.976
15-1	300	13.642	7.790	38.304	-9.994
15-2	300	11.134	7.372	38.760	-9.424
15-3	300	9.424	7.220	38.684	-11.172
15-4	300	7.752	6.384	31.198	-14.858
15-5	300	5.814	5.738	28.766	-14.364
15-6	300	2.546	5.320	28.044	-11.438
16-1	60	3.762	6.004	32.642	-12.160
16-2	45	7.638	6.802	35.948	-11.932
16-3	45	9.576	6.888	32.262	-7.372
16-4	45	11.134	6.916	36.062	-6.346
16-5	45	10.868	6.688	32.718	-6.916
16-6	30	8.322	5.548	34.162	-4.332
16-7	45	8.626	4.902	33.060	-3.572
16-8	45	9.804	6.650	34.846	-4.332
16-9	45	12.046	6.840	37.392	-4.560
16-10	45	10.830	6.388	32.046	-7.334
16-11	15	6.004	4.218	26.334	-3.990
16-12	30	4.902	4.180	27.930	-4.826
16-13	45	7.296	4.788	31.616	-6.460
16-14	45	8.322	5.320	35.634	-7.030
16-15	45	7.144	5.396	30.742	-9.066
16-16	30	4.940	3.648	21.888	-3.838
16-17	30	3.952	3.230	21.356	-3.800
16-18	45	4.788	3.382	22.078	-4.104
16-19	45	4.560	3.762	19.788	-4.256
16-20	45	3.002	3.990	18.586	-8.474
16-21	45	5.738	3.662	20.482	-3.800
16-22	45	5.700	3.458	21.356	-3.648
16-23	45	5.092	3.458	19.494	-3.990
16-24	30	6.840	4.294	24.926	-2.204
16-25	30	6.840	4.294	24.926	-2.204

Table 10-6 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MAXIMUM PEAK LOAD, BASED ON REF. PRESSURE OF 30.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
17-1	300	9.082	7.600	30.818	-15.998
17-2	0	6.536	6.878	26.904	-12.996
17-3	45	10.298	7.106	30.628	-8.816
17-4	75	8.998	9.006	31.616	-25.156
17-5	150	2.128	8.246	32.832	-16.226
17-6	180	2.318	9.728	34.618	-27.284
17-7	210	8.930	5.092	24.434	-6.422
17-8	285	13.110	5.690	29.374	-10.678
17-9	315	-6.156	3.496	5.472	-23.370
17-10	315	-9.918	5.586	11.438	-35.758
17-11	105	-5.016	3.268	9.842	-16.354
17-12	315	-12.654	6.004	8.094	-34.694
17-13	75	-8.816	5.320	8.512	-40.964
17-14	105	-11.248	3.838	12.160	-25.004
17-15	195	-9.120	6.574	10.906	-37.354
17-16	75	-2.394	4.674	15.352	-26.980
17-17	30	-2.090	3.306	9.082	-13.186
17-18	30	-2.090	3.306	9.082	-13.186

Table 11-4 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
1-1	240	-14.592	2.698	-4.826	-29.982
1-2	300	-6.574	4.066	3.382	-29.944
1-3	300	-5.130	3.040	5.662	-24.738
1-4	285	-8.626	2.166	3.648	-20.634
1-5	120	-14.212	1.368	-8.436	-20.256
1-6	255	-12.046	1.140	-7.980	-17.708
1-7	270	-9.538	1.216	-4.846	-16.036
2-1	60	-10.374	6.080	10.678	-41.344
2-2	60	-6.840	5.282	12.768	-33.478
2-3	255	-13.984	3.002	-2.774	-31.654
2-4	240	-16.150	3.154	-4.864	-39.216
2-5	60	-8.246	5.624	9.044	-35.074
2-6	240	-14.630	2.508	-5.776	-27.398
2-7	255	-14.060	2.318	-7.752	-26.372
2-8	300	-4.484	2.926	7.448	-31.616
2-9	60	-6.764	5.320	9.082	-32.908
2-10	120	-15.884	1.254	-11.894	-20.900
2-11	255	-13.794	1.634	-6.726	-21.508
2-12	255	-14.174	1.406	-9.918	-20.634
2-13	75	-6.878	3.572	1.634	-32.870
2-14	75	-5.700	2.660	2.014	-29.222
2-15	240	-14.060	1.520	-8.322	-19.494
2-16	240	-13.680	1.216	-9.576	-19.228
2-17	60	-2.318	2.508	4.674	-24.624
2-18	75	-2.356	2.014	4.750	-19.228
2-19	240	-11.704	2.394	-1.710	-24.130
2-20	240	-12.730	1.596	-7.220	-19.760
3-1	150	-9.956	10.640	20.292	-63.194
3-2	165	-5.952	5.472	6.194	-48.640
3-3	285	-14.706	2.964	-8.776	-38.152
3-4	285	-15.808	2.736	-9.462	-31.768
3-5	195	-13.490	3.980	-4.684	-37.392
3-6	300	-22.458	2.964	-14.136	-37.810
3-7	330	-21.432	3.534	-11.172	-41.192
3-8	345	-18.924	5.206	-5.510	-45.486
3-9	0	-21.736	6.612	0.000	-45.980
3-10	150	-8.664	9.158	21.968	-47.234
3-11	180	-15.656	4.750	-1.558	-37.658
3-12	195	-17.138	3.648	-6.498	-33.668
3-13	195	-13.794	3.192	-3.116	-31.008
3-14	300	-21.774	2.432	-14.402	-31.426
3-15	300	-22.952	2.394	-16.036	-34.238
3-16	300	-23.902	2.470	-17.062	-35.568
3-17	0	-15.884	5.092	2.166	-36.076
3-18	0	-21.432	5.568	-1.152	-40.432
3-19	180	-20.786	6.688	-1.862	-59.204
3-20	195	-16.416	4.826	-3.838	-36.556
3-21	180	-11.856	4.902	4.484	-36.442
3-22	300	-19.428	2.888	-6.954	-29.442
3-23	300	-19.428	2.888	-6.954	-29.442

Table II-2  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK LOAD, BASED ON REF. PRESSURE OF 38.0 PSF,  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
3-24	330	-20.406	2.736	-8.816	-31.692
3-25	330	-22.002	2.888	-13.832	-35.226
3-26	330	-21.774	3.002	-13.528	-32.870
3-27	345	-18.012	4.142	-4.712	-47.234
3-28	180	-17.870	6.308	-4.940	-59.242
3-29	165	-6.878	5.244	7.144	-51.376
3-30	180	-10.298	4.294	2.014	-42.028
3-31	300	-18.658	3.078	-5.814	-33.440
3-32	300	-20.596	3.078	-11.324	-32.148
3-33	330	-19.038	3.648	-5.016	-35.586
3-34	330	-20.824	3.686	-9.272	-43.662
3-35	315	-21.622	3.534	-12.464	-44.346
3-36	315	-21.926	3.952	-12.844	-46.360
3-37	165	-5.282	4.066	5.776	-39.520
3-38	300	-17.898	3.572	-2.470	-31.654
3-39	330	-17.366	3.952	-3.496	-33.856
3-40	315	-21.204	4.256	-11.818	-49.590
3-41	210	-15.466	3.382	-6.764	-34.200
3-42	300	-17.670	3.686	-5.662	-31.996
3-43	300	-20.824	3.800	-10.146	-36.252
3-44	300	-24.206	4.826	-12.578	-46.854
4-1	210	-18.316	4.446	-2.584	-41.496
4-2	210	-13.566	3.952	5.244	-34.048
4-3	90	-3.876	4.142	11.514	-27.664
4-4	75	-10.944	3.268	1.064	-35.074
4-5	225	-21.242	2.964	-10.600	-32.452
4-6	225	-21.318	4.712	.304	-44.118
4-7	225	-15.238	4.522	4.218	-30.438
4-8	300	-16.492	2.204	-8.436	-28.804
4-9	195	-6.384	4.484	10.184	-30.970
4-10	225	-18.202	2.812	-7.410	-31.350
4-11	225	-15.770	3.610	.532	-30.856
4-12	240	-15.618	2.926	-4.418	-28.082
4-13	225	-19.076	2.432	-7.562	-28.196
4-14	225	-19.038	3.572	4.864	-31.236
4-15	225	-15.846	4.902	5.586	-30.552
5-1	75	-8.284	7.144	25.004	-50.008
5-2	210	-15.238	3.420	-4.636	-33.440
5-3	240	-19.418	2.698	-9.348	-29.070
5-4	225	-22.192	2.432	-15.124	-31.008
5-5	225	-22.800	2.622	-15.428	-32.300
5-6	225	-20.482	2.774	-11.324	-30.210
5-7	210	-15.846	2.470	-8.854	-29.488
5-8	210	-16.530	2.774	-8.474	-29.944
5-9	210	-16.530	2.774	-8.474	-29.944

Table 11-5. WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 3A.0 PSF.  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
6-1	300	-15.124	2.569	-5.690	-30.248
6-2	165	-3.688	5.434	11.324	-35.492
6-3	225	-23.446	2.698	-15.580	-32.110
6-4	315	-14.098	2.204	-7.630	-37.612
6-5	225	-22.002	2.394	-15.580	-31.806
6-6	225	-23.142	2.432	-16.188	-32.632
6-7	45	-13.946	3.154	-2.356	-36.632
6-8	225	-21.546	2.774	-14.478	-32.642
6-9	285	-12.046	2.470	-3.572	-33.136
6-10	225	-21.584	2.622	-14.834	-31.426
6-11	225	-22.040	2.680	-16.074	-31.426
6-12	225	-17.708	3.078	-6.992	-29.716
6-13	180	-2.964	3.496	9.538	-27.132
6-14	195	-9.766	3.648	6.874	-28.918
6-15	225	-19.228	2.090	-12.008	-27.778
7-1	270	-27.512	6.574	-4.978	-64.468
7-2	270	-21.568	6.384	-1.368	-44.080
7-3	285	-21.090	4.484	-5.928	-40.736
7-4	285	-20.672	4.598	-4.864	-39.862
7-5	285	-19.798	4.864	-1.292	-43.928
7-6	285	-18.050	4.674	-1.292	-38.304
7-7	285	-16.986	4.674	1.520	-38.380
7-8	90	-12.946	4.628	1.038	-41.820
7-9	135	-3.876	11.932	25.764	-54.150
7-10	270	-22.458	7.828	-4.294	-56.430
7-11	270	-20.254	7.144	-1.748	-42.826
7-12	270	-15.884	6.232	1.368	-45.904
7-13	285	-20.520	3.838	-7.220	-40.242
7-14	285	-19.532	3.914	-6.612	-37.658
7-15	285	-18.430	3.762	-4.256	-35.454
7-16	90	-8.948	3.640	1.178	-32.148
7-17	90	-12.692	4.940	-0.228	-38.418
7-18	90	-18.734	6.084	-1.862	-58.274
7-19	270	-21.964	5.434	-6.118	-52.592
7-20	270	-21.128	5.206	-3.342	-41.534
7-21	270	-16.620	5.206	-1.786	-35.454
7-22	270	-15.504	5.092	1.748	-41.686
7-23	285	-19.000	3.858	-4.854	-31.560
7-24	285	-17.594	3.230	-4.788	-29.526
7-25	105	-8.322	4.522	3.268	-30.704
7-26	105	-13.556	5.738	3.610	-35.986
7-27	75	-16.150	4.674	-5.662	-47.652
7-28	270	-19.152	4.598	-4.066	-49.020
7-29	270	-19.342	4.636	2.432	-41.800
7-30	285	-19.076	3.572	-7.486	-36.442
7-31	285	-18.866	3.382	-7.752	-34.314
7-32	285	-18.012	3.040	-8.208	-30.666
7-33	285	-16.606	2.850	-7.220	-28.766
7-34	60	-14.744	3.344	-3.800	-42.370
7-35	90	-10.222	3.496	-6.688	-37.620
7-36	75	-13.034	3.534	-3.680	-62.396
7-37	75	-13.034	3.534	-3.680	-62.396



Table 11-4  
 WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF.  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
8-1	45	-10.108	3.610	6.004	-33.136
8-2	195	-11.590	3.230	-1.14	-27.854
8-3	210	-7.296	4.594	6.364	-39.368
8-4	210	-7.524	4.294	5.054	-29.868
9-5	165	-16.492	2.128	-10.792	-25.764
9-6	165	-16.264	1.862	-11.096	-22.610
8-7	165	-15.922	1.748	-10.488	-22.306
8-8	210	-6.308	3.952	6.346	-27.550
8-9	150	-15.770	1.634	-11.020	-22.496
8-10	195	-11.552	2.260	-4.294	-21.888
9-11	210	-7.752	4.750	11.362	-28.272
8-12	210	-7.068	4.674	11.096	-29.982
8-13	150	-15.656	1.520	-11.438	-21.090
8-14	195	-11.096	2.698	-2.168	-24.282
8-15	210	-6.954	4.864	6.004	-33.060
8-16	210	-6.918	4.712	7.296	-31.008
9-1	165	-15.770	2.204	-8.322	-28.424
9-2	165	-16.302	2.280	-9.728	-34.694
9-3	345	-2.280	3.914	10.678	-27.322
9-4	165	-16.644	1.900	-11.362	-24.548
9-5	165	-15.466	2.128	-10.108	-23.218
9-6	165	-15.086	2.014	-9.348	-22.306
10-1	165	-14.820	2.736	-7.334	-32.376
10-2	15	-8.816	2.584	-1.748	-30.970
10-3	165	-15.694	2.052	-10.640	-25.232
10-4	165	-15.998	1.824	-11.248	-23.598
10-5	165	-15.618	1.786	-11.490	-22.724
10-6	165	-15.618	1.786	-10.298	-22.420
11-1	150	-36.628	9.614	-8.512	-78.280
11-2	138	-17.138	7.106	3.800	-46.740
11-3	150	-22.952	5.396	-5.890	-46.204
11-4	150	-22.344	5.890	-2.546	-50.616
11-5	165	-24.586	7.448	-3.230	-62.244
11-6	165	-25.764	8.208	-5.130	-64.638
11-7	165	-21.204	6.802	-6.498	-60.572
11-8	165	-15.010	5.282	1.748	-44.802
11-9	150	-15.086	3.230	-4.722	-28.614
11-10	150	-15.466	3.152	-2.660	-27.854
11-11	165	-14.896	3.116	-4.940	-31.274
11-12	165	-16.720	3.366	-8.550	-40.204
11-13	180	-15.960	3.306	-6.232	-39.748
11-14	180	-14.820	2.622	-8.208	-30.696
11-15	210	-11.822	6.388	4.104	-46.968
11-16	150	-13.908	3.154	-2.736	-29.298
11-17	150	-14.972	3.192	-5.168	-28.880
11-18	165	-14.744	2.850	-7.486	-30.666
11-19	165	-14.720	2.850	-9.044	-33.744
11-20	165	-17.290	2.622	-11.628	-34.390
11-21	190	-13.338	2.242	-7.980	-25.042
11-22	210	-14.630	7.600	6.954	-43.586
11-23	159	-12.388	2.470	-4.750	-23.674
11-24	345	-5.650	2.890	3.002	-28.196
11-25	165	-11.628	2.522	-2.166	-25.460
11-26	165	-11.174	2.584	-5.472	-34.162
11-27	165	-13.504	2.356	-9.576	-28.918
11-28	165	-13.404	2.356	-9.576	-28.918

Table 11-5  
 #100-ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION AT WHICH MINIMUM PEAK LOAD OCCURRED ON REF. PRESSURE OF 38.0 PSF  
 OCCURRED FOR EACH TAP AND THE CORRESPONDING  
 VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
12-1	0	-22.078	9.956	1.900	-70.376
12-2	150	-17.822	4.712	-7.030	-40.622
12-3	345	-8.398	5.548	2.698	-54.454
12-4	0	-14.364	6.346	.532	-53.314
12-5	0	-13.110	5.244	.304	-39.102
12-6	0	-11.324	3.344	-.342	-32.642
13-1	255	-21.698	2.622	-14.402	-31.844
13-2	255	-21.660	2.546	-14.098	-32.680
13-3	255	-21.850	2.508	-14.630	-31.958
13-4	255	-21.128	2.546	-13.756	-30.286
13-5	255	-20.596	2.432	-13.186	-29.640
13-6	255	-19.722	2.394	-13.186	-28.576
13-7	255	-18.582	2.356	-10.260	-27.170
13-8	255	-17.860	2.508	-8.322	-28.234
13-9	255	-17.290	2.774	-8.158	-29.640
14-1	270	-17.670	4.446	-5.928	-45.942
14-2	255	-21.128	2.888	-13.642	-33.782
14-3	255	-20.520	2.888	-11.058	-31.426
14-4	255	-18.392	2.546	-9.614	-28.766
14-5	240	-18.658	2.432	-11.400	-28.120
15-1	0	-4.484	7.866	14.136	-52.060
15-2	0	-4.256	8.132	18.772	-71.174
15-3	0	-5.966	6.650	17.632	-32.566
15-4	255	-18.696	3.078	-5.092	-32.498
15-5	240	-16.872	2.280	-11.172	-28.728
15-6	255	-19.304	3.268	-4.258	-34.390
16-1	120	-15.656	3.002	-5.320	-38.608
16-2	120	-19.418	5.776	-3.230	-49.742
16-3	120	-19.740	5.548	-6.384	-48.982
16-4	120	-18.430	5.320	-2.584	-43.890
16-5	135	-15.162	4.788	-2.128	-45.106
16-6	120	-16.150	1.900	-11.362	-30.476
16-7	120	-14.326	2.546	-6.194	-33.212
16-8	120	-17.100	3.534	-7.466	-34.428
16-9	135	-13.566	3.762	-2.698	-33.744
16-10	315	-8.740	4.028	9.880	-37.430
16-11	300	-10.640	3.306	2.812	-26.964
16-12	105	-13.490	1.824	-7.828	-26.030
16-13	120	-16.150	2.546	-6.460	-28.766
16-14	285	-11.932	2.508	-4.560	-27.854
16-15	285	-13.452	4.484	-3.002	-42.864
16-16	300	-10.108	3.306	-1.444	-28.690
16-17	300	-10.526	2.622	-1.976	-26.182
16-18	330	-2.774	4.294	1.666	-27.778
16-19	300	-9.044	3.154	1.710	-34.314
16-20	300	-8.778	4.332	3.210	-42.712
16-21	330	-2.736	3.838	8.930	-27.588
16-22	330	-4.598	4.294	9.690	-49.514
16-23	330	-5.510	4.978	10.640	-17.772
16-24	255	-13.718	1.482	-8.816	-20.558
16-25	255	-13.718	1.482	-8.816	-20.558

Table 11-6

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION AT WHICH MINIMUM PEAK LOAD OCCURRED, BASED ON REF. PRESSURE OF 38.0 PSF)  
OCCURRED FOR EACH TAP AND THE CORRESPONDING  
VALUES ASSOCIATED WITH THAT DIRECTION

TAP NUMBER	WIND DIRECTION	MEAN PRESSURE LOADS (PSF)	RMS PRESSURE LOADS (PSF)	MAXIMUM PRESSURE LOADS (PSF)	MINIMUM PRESSURE LOADS (PSF)
17-1	255	-25.460	4.066	-12.692	-42.104
17-2	240	-18.316	4.218	-7.866	-46.968
17-3	255	-18.582	3.154	-10.526	-39.834
17-4	195	-18.354	4.636	-4.712	-48.868
17-5	255	-26.106	3.876	-12.008	-44.346
17-6	270	-22.914	4.522	-7.258	-35.720
17-7	150	-21.964	3.306	-11.438	-33.060
17-8	180	-15.010	3.952	-3.420	-39.368
17-9	255	-22.914	4.712	-5.662	-43.054
17-10	255	-22.078	4.294	-7.220	-41.116
17-11	330	-17.366	5.472	-5.168	-49.058
17-12	255	-20.672	4.598	-7.524	-48.184
17-13	0	-22.876	7.410	2.774	-49.172
17-14	270	-14.364	3.040	-7.22	-35.530
17-15	300	-19.228	4.332	-5.358	-48.944
17-16	270	-18.316	4.978	-2.090	-44.992
17-17	270	-18.886	3.838	-7.752	-41.534
17-18	270	-18.886	3.838	-7.752	-41.534

Table 12-1  
 FORCES AND THEIR LOCATIONS ON EACH WALL OF  
 THE MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA

SIDE	WIND DIRECTION= 0		WIND DIRECTION= 15	
	FORCE (LBS)	(X (FT), Y (FT))	FORCE (LBS)	(X (FT), Y (FT))
1	95086.6	(17.9, 107.2)	56279.5	(18.0, 112.9)
2	346716.3	(75.9, 111.1)	101700.0	(89.7, 118.7)
3	-617419.4	(156.5, 115.4)	-347608.8	(134.0, 107.7)
4	-215878.2	(69.1, 132.1)	-184244.0	(69.3, 133.1)
50	-22989.0	(7.4, 165.0)	-19247.5	(7.0, 163.5)
51	-99619.0	(37.3, 72.4)	-86874.0	(37.2, 72.5)
6	-203952.2	(44.9, 132.7)	-181330.0	(44.2, 129.8)
7	-854650.2	(140.1, 110.0)	-395244.1	(140.0, 110.4)
8	-142456.4	(65.1, 123.0)	-201919.2	(70.6, 118.3)
9	-83214.9	(34.0, 146.2)	-85605.9	(33.8, 141.7)
10	-40453.4	(20.4, 139.2)	-47074.5	(20.3, 138.6)
11	-833877.1	(113.7, 119.3)	-443500.9	(114.4, 119.8)
12	-128744.0	(23.2, 124.1)	-112743.0	(23.1, 120.9)
13	20027.9	(46.5, 291.4)	28871.3	(47.0, 245.8)
14	45776.0	(32.2, 112.5)	30952.2	(32.7, 83.2)
15	-31266.4	(24.2, 134.6)	-47267.4	(24.2, 137.0)
16	240594.6	(87.8, 97.5)	207301.5	(88.4, 115.9)

SIDE	WIND DIRECTION= 30		WIND DIRECTION= 45	
	FORCE (LBS)	(X (FT), Y (FT))	FORCE (LBS)	(X (FT), Y (FT))
1	48187.0	(17.6, 115.0)	42445.5	(18.1, 102.9)
2	50194.7	(103.4, 107.2)	49679.5	(102.0, 82.9)
3	-171413.4	(117.4, 92.3)	-172517.0	(133.6, 82.6)
4	-254317.5	(68.6, 134.1)	-252294.4	(68.9, 131.7)
50	-26010.2	(8.5, 165.0)	-26530.4	(7.6, 166.1)
51	-121467.6	(37.4, 72.1)	-116005.4	(37.7, 72.5)
6	-231356.3	(47.1, 130.8)	-192733.1	(47.3, 131.2)
7	-885969.1	(145.6, 113.7)	-647030.0	(144.5, 113.4)
8	-189954.4	(73.2, 118.5)	-225689.1	(69.1, 139.9)
9	-68133.5	(33.8, 143.6)	-88364.7	(34.4, 141.4)
10	-36223.2	(19.8, 138.8)	-47994.1	(20.1, 136.8)
11	-852786.9	(116.7, 118.9)	-428736.7	(126.4, 121.8)
12	-77246.4	(22.9, 120.0)	-87178.1	(22.9, 120.2)
13	-18987.5	(46.7, -135.6)	-9883.9	(47.6, -416.8)
14	-43957.3	(31.4, 123.7)	-77510.5	(32.0, 114.4)
15	-65475.5	(23.8, 134.1)	-67866.5	(23.8, 128.8)
16	181551.4	(87.6, 111.6)	294955.9	(109.6, 116.6)

Table 12-2  
FORCES AND THEIR LOCATIONS ON EACH WALL OF  
THE MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION= 60				WIND DIRECTION= 75			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	6253.3	19.4	110.0	1	-20415.1	17.8	118.9
2	-131611.7	63.8	133.0	2	-142015.4	68.7	117.3
3	105018.3	223.6	159.1	3	204151.2	182.9	139.9
4	-165852.0	70.1	130.5	4	-147692.1	71.1	137.0
50	-14825.4	8.6	169.4	50	-9103.6	9.4	175.0
51	-79071.0	38.5	71.6	51	-71007.8	37.9	72.5
6	-113279.6	34.5	117.2	6	-70974.0	40.6	96.3
7	-649421.5	131.0	101.0	7	-558932.9	144.7	115.0
8	-282654.3	75.5	117.5	8	-278020.1	74.6	117.6
9	-76409.9	33.8	143.4	9	-90387.8	34.2	143.6
10	-39901.6	20.4	136.1	10	-47810.2	19.4	135.6
11	-366317.2	123.4	119.1	11	-410269.4	126.0	121.2
12	-75591.1	23.1	119.4	12	-82028.3	23.2	119.4
13	-104821.2	46.0	90.6	13	-194816.6	46.1	101.0
14	-107942.4	32.3	110.3	14	-140975.4	31.9	107.2
15	-84971.0	24.0	122.9	15	-112926.9	23.8	121.1
16	86874.1	94.7	150.2	16	-29391.6	59.8	134.3

WIND DIRECTION= 90				WIND DIRECTION= 105			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-46347.8	18.3	114.4	1	-89569.0	18.1	116.6
2	-217445.5	74.4	113.4	2	-393274.6	75.1	113.8
3	-13242.2	340.7	-238.3	3	76694.6	-44.8	162.5
4	-40418.5	87.5	131.0	4	97153.6	55.6	131.2
50	3121.2	3.8	146.7	50	18467.2	8.7	158.0
51	-20808.2	42.1	71.5	51	46298.1	36.3	71.7
6	31281.5	51.5	175.9	6	143472.7	53.1	148.3
7	-438833.1	150.7	114.4	7	-417882.3	156.3	114.6
8	-207372.9	75.6	114.4	8	-262162.2	74.0	117.7
9	-75490.3	34.3	147.3	9	-106021.0	34.0	145.7
10	-37510.6	20.1	136.1	10	-51672.5	19.8	135.6
11	-365271.8	119.9	119.3	11	-493180.3	121.0	120.9
12	-82580.1	23.3	118.6	12	-105202.2	22.9	119.6
13	-184384.8	46.0	105.1	13	-191335.2	46.2	117.5
14	-120687.4	32.0	103.4	14	-154240.6	31.9	102.0
15	-96741.9	23.9	119.6	15	-125517.4	24.0	118.2
16	-204700.5	94.4	104.2	16	-466883.5	97.9	113.4

Table 12-3.  
FORCES AND THEIR LOCATIONS ON EACH MALL OF  
THE MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION= 120				WIND DIRECTION= 135			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-10052.5	19.2	118.1	1	-87913.8	17.9	114.1
2	-499916.5	74.3	111.8	2	-434110.8	73.5	110.1
3	10851.3	-615.7	589.2	3	146216.4	31.8	131.7
4	70301.3	51.0	136.2	4	142398.0	63.5	126.5
50	15346.0	9.8	156.6	50	16646.5	8.7	154.7
51	20808.2	32.3	71.5	51	55401.7	38.0	72.3
6	126184.2	48.9	146.5	6	129310.8	52.4	136.2
7	-80924.8	90.2	108.5	7	-173252.6	132.8	92.5
8	-318503.7	73.9	117.0	8	-385509.4	73.9	116.9
9	-128884.4	34.1	144.9	9	-153840.2	34.2	144.3
10	-63259.4	20.4	135.1	10	-77237.4	20.0	133.7
11	-574010.4	122.5	119.7	11	-651260.7	128.6	122.9
12	-116605.3	23.0	117.6	12	-110352.0	23.0	119.2
13	-184672.6	45.9	123.0	13	-199498.4	46.2	107.6
14	-151899.7	32.0	102.5	14	-130051.1	32.0	102.1
15	-126353.0	24.1	117.8	15	-104834.4	24.1	118.5
16	-607878.6	101.8	114.0	16	-515002.4	105.0	109.6

WIND DIRECTION= 150				WIND DIRECTION= 165			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-80740.9	38.0	108.2	1	-59406.2	17.7	108.3
2	-324087.4	75.4	110.4	2	-253859.8	76.7	110.5
3	-169758.2	143.8	100.8	3	-264892.1	126.5	112.5
4	167778.9	59.2	140.1	4	64415.9	62.6	147.7
50	21588.5	8.0	156.4	50	7282.9	9.4	149.3
51	60863.9	37.3	71.5	51	-7022.8	25.2	73.3
6	137771.2	51.4	136.0	6	-13227.2	7.5	186.6
7	212243.7	194.7	114.6	7	347792.7	134.3	121.6
8	-830146.3	73.8	116.2	8	-457968.9	74.8	116.8
9	-176278.4	34.0	143.6	9	-175174.9	34.1	144.3
10	-85881.6	20.3	133.4	10	-85697.7	20.1	132.8
11	-82370.4	126.1	128.8	11	-702042.2	134.6	130.8
12	-139227.4	23.0	124.1	12	-100604.2	22.8	128.7
13	-227589.5	46.3	105.1	13	-163632.2	44.1	106.3
14	-146957.8	32.0	101.6	14	-82192.3	31.7	74.5
15	-120099.8	24.1	119.4	15	-100236.8	24.0	119.5
16	-457514.8	104.8	106.4	16	-366744.1	105.1	107.0

Table 12-4  
FORCES AND THEIR LOCATIONS ON EACH WALL OF  
THE MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION= 180			WIND DIRECTION= 195		
SIDE	FORCE (LBS)	Y (FT)	SIDE	FORCE (LBS)	Y (FT)
1	-51497.6	18.1	1	-59590.1	17.7
2	-223984.0	76.3	2	-262703.3	74.1
3	-509990.6	105.0	3	-685102.0	110.3
4	64068.0	76.2	4	-35088.8	30.5
50	3121.2	3.8	50	-8843.5	10.7
51	-32512.7	29.5	51	-84793.2	35.0
6	-74104.7	46.2	6	-144777.2	43.6
7	601602.3	130.8	7	529505.7	124.4
8	-425484.5	75.0	8	-309007.3	73.2
9	-131402.0	33.9	9	-44040.0	33.9
10	-65650.4	20.0	10	-22613.1	20.4
11	-482379.3	149.1	11	-61582.4	305.6
12	-75039.4	23.0	12	-95086.6	23.1
13	-173228.1	46.3	13	-222907.6	46.0
14	-91035.4	31.8	14	-152159.8	32.1
15	-71544.9	24.1	15	-122858.6	24.1
16	-345155.7	106.8	16	-385211.4	104.6

WIND DIRECTION= 210			WIND DIRECTION= 225		
SIDE	FORCE (LBS)	Y (FT)	SIDE	FORCE (LBS)	Y (FT)
1	-65659.4	17.9	1	-95270.6	17.8
2	-312122.7	74.9	2	-414603.0	73.6
3	-755543.4	119.3	3	-808328.4	122.2
4	-211280.2	63.7	4	-311148.8	65.9
50	-26270.3	8.1	50	-35113.8	8.7
51	-133172.2	36.9	51	-163344.0	35.3
6	-272186.5	42.8	6	-374262.1	43.1
7	376852.1	100.0	7	100052.5	-26.6
8	-180322.3	83.8	8	129367.3	69.6
9	20699.9	34.8	9	46448.7	34.0
10	16785.8	19.8	10	30723.7	20.2
11	215426.2	144.7	11	30911.5	144.7
12	-87178.1	22.9	12	-59222.2	23.0
13	-254640.1	46.1	13	-289493.4	46.1
14	-173748.3	32.0	14	-165452.9	31.9
15	-134997.3	24.0	15	-157610.4	23.8
16	-471305.2	108.7	16	-547255.1	106.3

Table 12-5:  
FORCES AND THEIR LOCATIONS ON EACH WALL OF  
THE MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION= 240				WIND DIRECTION= 255			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-104282.6	17.8	112.9	1	-105386.2	18.0	115.6
2	-493674.0	75.4	113.9	2	-424466.8	79.5	113.5
3	-632500.9	133.6	111.1	3	-637466.7	140.0	108.3
4	-263329.6	68.6	126.3	4	-186818.8	70.7	126.2
50	-33813.3	8.0	160.8	50	-18467.2	8.7	161.1
51	-150338.9	36.8	72.3	51	-86613.9	37.4	72.0
6	-285980.5	42.2	124.4	6	-171398.4	42.5	129.1
7	-105570.1	236.1	111.1	7	-332895.2	124.1	113.3
8	166041.7	76.2	103.1	8	273782.8	79.3	106.0
9	57300.0	34.5	92.0	9	67783.4	34.3	94.5
10	33298.6	19.8	96.9	10	45805.1	20.4	102.3
11	366285.3	123.9	117.0	11	402959.7	131.8	117.8
12	-2391.0	27.9	-33.8	12	19495.5	23.2	184.7
13	-359461.3	46.1	106.7	13	-383658.8	46.1	110.4
14	-233311.7	32.0	96.4	14	-249698.1	31.9	105.2
15	-183552.2	24.0	116.8	15	-181896.9	24.1	115.2
16	-627366.6	106.3	106.8	16	-635950.0	104.4	107.0

WIND DIRECTION= 270				WIND DIRECTION= 285			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-85522.4	18.0	113.1	1	-67130.8	18.1	110.9
2	-272327.0	81.6	97.9	2	-184152.4	88.1	80.5
3	-725012.6	144.0	110.0	3	-899184.9	143.8	109.3
4	-220292.3	70.4	128.4	4	-231511.4	70.0	129.0
50	-21328.4	8.6	163.7	50	-22628.9	9.6	161.8
51	-99098.8	36.7	72.2	51	-104300.9	37.3	72.4
6	-197882.8	42.5	127.8	6	-220137.2	43.1	130.7
7	-798580.6	111.8	110.1	7	-1046137.0	126.3	108.1
8	298752.6	77.6	111.3	8	325702.6	77.8	110.4
9	80473.9	34.2	105.7	9	71094.0	34.1	101.5
10	52426.2	20.3	110.2	10	46356.9	19.5	107.2
11	448874.5	121.2	112.0	11	367982.8	117.8	105.6
12	85522.8	23.1	132.0	12	98765.0	23.2	129.5
13	-265852.4	46.1	111.9	13	-136813.5	46.2	113.8
14	-194036.3	31.9	107.4	14	-97538.3	32.0	110.9
15	-114582.2	24.1	110.5	15	-41565.9	23.8	91.5
16	-534250.0	104.9	108.7	16	-477027.5	105.3	111.2



Table 12-6  
FORCES AND THEIR LOCATIONS ON EACH WALL OF  
THE MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA

WIND DIRECTION# 300				WIND DIRECTION# 315			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	-40830.2	17.8	111.0	1	-2042.7	13.8	13.8
2	-43697.2	133.2	-17.0	2	77830.9	60.8	289.9
3	-1179295.0	146.5	111.0	3	-989121.4	148.7	111.2
4	-281537.6	69.6	127.5	4	-249351.6	69.8	128.0
50	-26270.3	8.1	163.4	50	-24189.5	8.4	163.2
51	-139414.6	37.0	72.2	51	-122768.1	37.3	72.2
6	-268140.3	43.6	129.0	6	-225838.7	43.6	130.6
7	-812374.6	132.6	106.3	7	-679400.5	134.8	108.3
8	337507.9	76.1	116.8	8	336467.4	77.9	115.7
9	81204.6	34.1	115.2	9	55092.9	34.5	98.6
10	46904.6	29.4	112.8	10	41023.2	19.8	109.3
11	256002.1	130.3	108.0	11	230970.7	125.9	85.9
12	107593.2	23.0	130.1	12	74671.5	23.1	110.5
13	37714.8	46.2	85.0	13	5722.2	50.6	-70.0
14	25229.9	32.6	102.1	14	18467.3	33.2	130.1
15	57934.8	24.0	145.3	15	25932.7	23.6	149.4
16	-403154.5	103.9	113.7	16	-274407.9	110.3	107.0

WIND DIRECTION# 330				WIND DIRECTION# 345			
SIDE	FORCE (LBS)	X (FT)	Y (FT)	SIDE	FORCE (LBS)	X (FT)	Y (FT)
1	67498.6	18.0	115.1	1	82588.1	18.1	113.2
2	263223.5	81.3	128.7	2	267645.2	85.4	119.9
3	-1003283.6	149.3	113.0	3	-761244.9	151.4	115.6
4	-213855.1	70.1	128.1	4	-240523.5	69.5	129.0
50	-21068.3	9.1	163.0	50	-23665.3	7.7	162.0
51	-103000.4	37.0	72.2	51	-111843.8	37.2	72.1
6	-209102.0	43.1	128.7	6	-215539.2	44.1	132.2
7	-547529.8	133.2	106.9	7	-610614.4	139.3	109.5
8	119844.2	66.1	119.4	8	185125.8	81.6	123.6
9	7825.5	34.6	-14.1	9	-15900.2	31.7	251.2
10	18952.8	19.8	112.7	10	6446.2	15.7	48.9
11	-158614.0	103.8	134.2	11	-279759.9	100.8	129.2
12	-30346.8	23.1	96.0	12	-70257.4	23.2	119.2
13	166985.6	46.2	112.7	13	94677.2	45.1	127.5
14	155281.0	31.8	102.1	14	107942.4	32.3	108.1
15	99132.4	23.9	126.1	15	52233.3	23.7	137.1
16	-39275.4	263.3	33.5	16	144355.7	69.0	126.8

Table 13  
 MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 FORCES AND MOMENTS ACTING ON TOTAL BUILDING COMPLEX

WIND DIR	FX (LBS)	FY (LBS)	MX (FT-LBS)	MY (FT-LBS)	MZ (FT-LBS)
0	-465685.	1404781.	-159462318.	-43739854.	122398760.
15	50762.	1034182.	-121710899.	22497094.	120335178.
30	95822.	1148029.	-135549040.	27271658.	129601067.
45	360115.	1259116.	-147161749.	63606893.	132716672.
60	633237.	715449.	-75381451.	94317854.	87439246.
75	761981.	390830.	-47138696.	108236920.	146069226.
90	529322.	-23910.	161850.	77930582.	-27514432.
105	912795.	-623121.	71051974.	123127083.	-101196462.
120	888518.	-1096163.	127213786.	121751362.	-140728227.
135	1123751.	-983788.	112283160.	149913192.	-155294691.
150	941486.	-1264450.	138502795.	136924762.	-179612594.
165	531713.	-1079978.	121589512.	83433469.	-169820693.
180	9564.	-1336202.	153069259.	17277445.	-183658834.
195	-574750.	-1348318.	157034574.	-57577995.	-151531688.
210	-1136442.	-1170651.	135308266.	-126768699.	-114913216.
225	-1573803.	-854860.	95491264.	-185358254.	-8920803.
240	-1400367.	-90288.	98364094.	-158733995.	-33462405.
255	-1414529.	-750394.	8193360.	-162375611.	-12583806.
270	-1712295.	8282.	-13554904.	-203242635.	89340979.
285	-1930608.	703862.	-82057747.	-229138571.	165248442.
300	-2367234.	1019836.	-117592810.	-281132755.	198994083.
315	-1998107.	995743.	-119890091.	-232739725.	177508549.
330	-1565895.	1472096.	-173179072.	-177710861.	189525882.
345	-1102049.	1729952.	-204658819.	-124583730.	239213709.

Table 14-1  
 MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 FORCES AND MOMENTS ON INDIVIDUAL BUILDING UNITS

	FX (LBS)	FY (LBS)	MX (FT-LBS)	MY (FT-LBS)	MZ (FT-LBS)
WDIP= 0					
BUILDING A	-516679.	-905033.	103602412.	-62187293.	-68856685.
BUILDING B	91086.	-298965.	29009397.	13194138.	3628375.
BUILDING C	-103807.	-589649.	73634275.	-13452196.	22187801.
BUILDING D	-27208.	3831603.	-26330831.	-2440808.	-3872717.
WDIP= 15					
BUILDING A	-291102.	-460682.	50865205.	-37348519.	-22796590.
BUILDING B	21819.	-193833.	17945180.	4514436.	-4519566.
BUILDING C	-104587.	-596802.	74605353.	-13712107.	21246035.
BUILDING D	5240.	2452217.	-27144830.	1807137.	-959418.
WDIP= 30					
BUILDING A	-323104.	-250461.	24923098.	-42197298.	-8712027.
BUILDING B	88123.	-412883.	44660023.	13348165.	229807.
BUILDING C	-109269.	-43129.	55814711.	-13576383.	9922470.
BUILDING D	58431.	2152097.	-24722098.	7730372.	-37799.
WDIP= 45					
BUILDING A	-318066.	-251381.	22499150.	-39883225.	-11757044.
BUILDING B	18530.	-428629.	43765315.	2671944.	-65450.
BUILDING C	-141392.	-525205.	68488445.	-17233684.	9068593.
BUILDING D	78914.	1853624.	-38411632.	9831162.	5189094.
WDIP= 60					
BUILDING A	-81157.	158485.	-24416746.	-10500211.	24800986.
BUILDING B	-73012.	-426840.	37582130.	-8709853.	7742808.
BUILDING C	-142692.	-359650.	45252098.	-16922962.	-2686267.
BUILDING D	119035.	355184.	-16969116.	13856344.	4011604.
WDIP= 75					
BUILDING A	-39683.	266994.	-35994511.	-7725110.	28959891.
BUILDING B	-146296.	-295343.	30963755.	-18958947.	-8693540.
BUILDING C	-169353.	-318164.	41712774.	-19813902.	-13762364.
BUILDING D	164748.	-842710.	-1157659.	18846729.	8064993.

Table 14-2

MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
FORCES AND MOMENTS ON INDIVIDUAL BUILDING UNITS

	FX (LBS)	FY (LBS)	MX (FT-LBS)	MY (FT-LBS)	MZ (FT-LBS)
WDIR= 90					
BUILDING A	137616.	107263.	-16974494.	14954221.	12614358.
BUILDING B	-197775.	-235774.	24364537.	-24991916.	-9148682.
BUILDING C	-152316.	-303988.	37964577.	-17522731.	-7413833.
BUILDING D	152324.	-2045871.	19548582.	17057851.	7409693.
WDIR= 105					
BUILDING A	426554.	326956.	-41361721.	50646345.	20268211.
BUILDING B	-361215.	-139325.	11787350.	-47630835.	-16696583.
BUILDING C	-195103.	-420842.	50767878.	-22465639.	-7629989.
BUILDING D	204804.	-4105450.	49844747.	22820043.	11101539.
WDIR= 120					
BUILDING A	479244.	335416.	-42984836.	55994062.	32523244.
BUILDING B	-388456.	255432.	-34441593.	-49959098.	-25764898.
BUILDING C	-210189.	-516498.	60429786.	-24272313.	-5809236.
BUILDING D	207860.	-4730361.	66566611.	23249612.	9442187.
WDIR= 135					
BUILDING A	499203.	424709.	-50184680.	57735881.	27808286.
BUILDING B	-446411.	238900.	-36731604.	-55293814.	-31248237.
BUILDING C	-204727.	-574501.	72614235.	-23990272.	-12236967.
BUILDING D	177428.	-4022325.	54913286.	19732136.	6439154.
WDIR= 150					
BUILDING A	444946.	32684.	-5602803.	54367408.	16424857.
BUILDING B	-492504.	680145.	-83955121.	-61002257.	-40987235.
BUILDING C	-239710.	-697947.	93807356.	-28531848.	-9994878.
BUILDING D	194140.	-3496268.	45522095.	21498717.	7294875.
WDIR= 165					
BUILDING A	276200.	-137166.	15609590.	32950917.	10037990.
BUILDING B	-356029.	829206.	-103558791.	-41430248.	-63086433.
BUILDING C	-179887.	-634256.	8605260.	-20870047.	-17393731.
BUILDING D	140168.	-2605490.	36753212.	14568464.	6191241.

Table 14-3

MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
FORCES AND MOMENTS ON INDIVIDUAL BUILDING UNITS

	FX (LRS)	FY (LRS)	MX (FT-LBS)	MY (FT-LBS)	MZ (FT-LRS)
WDIR= 180					
BUILDING A	24255.	-383987.	44366475.	30088432.	12054987.
BUILDING B	-260673.	1014787.	-121193147.	-29080570.	-72895148.
BUILDING C	-152056.	-406920.	55642413.	-17546056.	-23678517.
BUILDING D	121506.	-2288625.	36009968.	12703111.	3646598.
WDIP= 195					
BUILDING A	177343.	-536825.	63096556.	19839124.	10102394.
BUILDING B	-61197.	768044.	-91840339.	-4369469.	-58688412.
BUILDING C	-166362.	49381.	2618003.	-19008112.	-28872923.
BUILDING D	191213.	-2636071.	36534967.	21116507.	5459423.
WDIR= 210					
BUILDING A	32966.	-578482.	66283699.	715606.	4381477.
BUILDING B	162340.	454202.	-53282104.	23223955.	-47815615.
BUILDING C	-143733.	363714.	-39451119.	-15805813.	-19020451.
BUILDING D	212737.	-2957405.	45268162.	23513027.	5416303.
WDIR= 225					
BUILDING A	17240.	-561930.	66831379.	-3574410.	8429816.
BUILDING B	493515.	-70457.	3969493.	60626437.	-7602411.
BUILDING C	-119933.	533821.	-61567281.	-12338655.	-24496232.
BUILDING D	245054.	-4175928.	52476252.	26810100.	8499888.
WDIR= 240					
BUILDING A	125937.	-329731.	36212016.	10466130.	12210873.
BUILDING B	431994.	-312404.	33246317.	51330906.	11668265.
BUILDING C	-101856.	679348.	-76527977.	-9888088.	-46061325.
BUILDING D	290507.	-4695109.	59712567.	31563334.	9400265.
WDIR= 255					
BUILDING A	159503.	-378194.	39800685.	15530821.	-158549.
BUILDING B	394424.	-620971.	67913988.	46043238.	46715664.
BUILDING C	-85730.	755688.	-87630795.	-8022424.	-47846654.
BUILDING D	297926.	-4849515.	61243621.	33020667.	10342204.

Table 14-4.

MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
FORCES AND MOMENTS ON INDIVIDUAL BUILDING UNITS

	FX (LBS)	FY (LBS)	MX (FT-LBS)	MY (FT-LBS)	MZ (FT-LBS)
WDIR= 270					
BUILDING A	7493.	-574344.	65912833.	-5831592.	-20413400.
BUILDING B	442887.	-1118015.	123395012.	52924646.	85037026.
BUILDING C	-6529.	750492.	-85504294.	851620.	-48002479.
BUILDING D	215468.	-3907989.	56246692.	23603210.	6312927.
WDIR= 285					
BUILDING A	-75731.	-811325.	92872126.	-16954712.	-37219872.
BUILDING B	481623.	-1375708.	149242431.	57976986.	89232016.
BUILDING C	46792.	529926.	-58733268.	640151.	-32259898.
BUILDING D	109086.	-3114742.	56695111.	11492206.	2259299.
WDIR= 300					
BUILDING A	-239512.	-1192040.	136723745.	-35672895.	-67236460.
BUILDING B	539537.	-1161696.	127321875.	66628197.	72553699.
BUILDING C	114809.	249659.	-29601392.	14179614.	-7466972.
BUILDING D	-31954.	-2081453.	57100693.	-4875755.	-2592956.
WDIR= 315					
BUILDING A	-276112.	-1051709.	120870212.	-38997496.	-61896828.
BUILDING B	492821.	-1001134.	110152779.	60659341.	64119289.
BUILDING C	83987.	233341.	-21336348.	9458456.	-8947398.
BUILDING D	-19339.	-342073.	35829755.	-3171605.	-3547091.
WDIR= 330					
BUILDING A	-441180.	-1231215.	142318629.	-56448093.	-79962096.
BUILDING B	310770.	-667716.	71971673.	39311839.	35621847.
BUILDING C	62528.	-391766.	46904354.	6629580.	27393791.
BUILDING D	-164411.	2602445.	11115080.	-18750937.	-13020585.
WDIR= 345					
BUILDING A	-474436.	-993222.	115826180.	-59748763.	-66681321.
BUILDING B	358037.	-754159.	82622525.	46187614.	42307107.
BUILDING C	1794.	-466425.	58877196.	-612487.	27239626.
BUILDING D	-112911.	3377493.	-12838906.	-13440804.	-9289733.

## APPENDIX A

## PRESSURE DATA

## Notes--

1. Pressure coefficients are defined in section 4.3.  
Pressure tap designation is explained in Figure 3.

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
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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
1-1	.264	.116	.719	-.089	3-29	-.207	.035	-.085	-.341
1-2	.249	.111	.692	-.035	3-30	-.195	.038	-.061	-.338
1-3	.347	.111	.785	-.050	3-31	-.192	.043	-.024	-.384
1-4	.322	.097	.677	.084	3-32	-.215	.052	.027	-.465
1-5	.339	.105	.838	.032	3-33	-.264	.064	-.036	-.564
1-6	.307	.092	.646	.027	3-34	-.328	.075	-.025	-.594
1-7	.314	.095	.693	.092	3-35	-.383	.091	-.075	-.742
2-1	.313	.130	.726	-.111	3-36	-.386	.097	-.046	-.938
2-2	.260	.106	.624	-.159	3-37	-.180	.038	-.043	-.308
2-3	.226	.099	.570	-.189	3-38	-.180	.047	.015	-.324
2-4	.193	.103	.567	-.102	3-39	-.232	.061	.015	-.474
2-5	.321	.124	.747	-.112	3-40	-.360	.093	-.087	-.838
2-6	.299	.099	.612	.013	3-41	-.173	.062	.030	-.332
2-7	.283	.091	.604	0.000	3-42	-.170	.052	.130	-.404
2-8	.295	.096	.569	.036	3-43	-.213	.067	.117	-.477
2-9	.217	.104	.594	-.099	3-44	-.338	.090	-.081	-.899
2-10	.251	.087	.582	.025	4-1	-.358	.048	-.148	-.535
2-11	.266	.084	.580	.027	4-2	-.356	.039	-.220	-.501
2-12	.289	.087	.664	.057	4-3	-.350	.036	-.239	-.493
2-13	.143	.098	.525	-.096	4-4	-.347	.037	-.226	-.484
2-14	.208	.089	.491	-.193	4-5	-.353	.045	-.213	-.532
2-15	.257	.089	.582	-.013	4-6	-.358	.041	-.243	-.541
2-16	.284	.090	.594	.063	4-7	-.356	.038	-.259	-.525
2-17	.210	.076	.515	-.004	4-8	-.349	.039	-.223	-.473
2-18	.288	.077	.537	.096	4-9	-.330	.039	-.207	-.473
2-19	.226	.077	.503	.028	4-10	-.314	.035	-.184	-.428
2-20	.305	.080	.557	.124	4-11	-.331	.033	-.201	-.386
3-1	.298	.044	.162	-.458	4-12	-.318	.035	-.212	-.442
3-2	.279	.054	.133	-.492	4-13	-.291	.033	-.146	-.399
3-3	.280	.062	.117	-.527	4-14	-.302	.032	-.219	-.433
3-4	.269	.074	.103	-.615	4-15	-.286	.031	-.201	-.386
3-5	.274	.083	.042	-.654	5-1	-.361	.060	-.191	-.617
3-6	.294	.087	-.075	-.660	5-2	-.358	.048	-.213	-.552
3-7	.294	.090	-.022	-.700	5-3	-.322	.039	-.203	-.464
3-8	.346	.115	.043	-.884	5-4	-.305	.036	-.178	-.483
3-9	.272	.174	0.000	-1.210	5-5	-.335	.037	-.233	-.598
3-10	.268	.036	-.138	-.408	5-6	-.319	.031	-.229	-.429
3-11	.223	.037	-.081	-.411	5-7	-.300	.035	-.178	-.433
3-12	.210	.040	-.057	-.404	5-8	-.325	.039	-.212	-.464
3-13	.198	.049	-.016	-.503	5-9	-.309	.031	-.219	-.468
3-14	.198	.058	.001	-.545	6-1	-.267	.062	-.041	-.603
3-15	.224	.075	.021	-.763	6-2	-.311	.066	-.051	-.554
3-16	.288	.101	.049	-.770	6-3	-.349	.065	-.135	-.643
3-17	.418	.134	.057	-1.002	6-4	-.356	.073	-.123	-.746
3-18	.564	.146	-.004	-1.064	6-5	-.279	.052	-.203	-.500
3-19	.247	.037	-.416	-.070	6-6	-.323	.058	-.017	-.672
3-20	.153	.037	-.341	-.001	6-7	-.362	.059	-.192	-.716
3-21	.198	.046	-.006	-.425	6-8	-.358	.050	-.212	-.592
3-22	.198	.052	-.013	-.459	6-9	-.268	.063	-.039	-.484
3-23	.212	.063	-.004	-.506	6-10	-.302	.047	-.109	-.483
3-24	.265	.081	.013	-.583	6-11	-.314	.037	-.179	-.462
3-25	.326	.097	-.013	-.643	6-12	-.233	.040	-.223	-.525
3-26	.407	.114	.063	-.776	6-13	-.234	.060	-.008	-.481
3-27	.455	.132	.070	-1.239	6-14	-.287	.051	-.067	-.546
3-28	.237	.032	-.103	-.376	6-15	-.275	.035	-.129	-.397



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
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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
7-1	-.169	.039	-.029	-.410	9-1	-.200	.064	-.094	-.458
7-2	-.168	.032	-.070	-.300	9-2	-.189	.076	-.328	-.420
7-3	-.181	.028	-.070	-.316	9-3	-.214	.040	-.103	-.467
7-4	-.196	.026	-.098	-.294	9-4	-.209	.036	-.087	-.372
7-5	-.214	.027	-.115	-.315	9-5	-.183	.036	-.039	-.345
7-6	-.225	.029	-.136	-.336	9-6	-.208	.037	-.042	-.357
7-7	-.238	.032	-.145	-.422	10-1	-.222	.055	-.064	-.506
7-8	-.245	.034	-.135	-.400	10-2	-.222	.064	-.028	-.633
7-9	-.238	.040	-.101	-.401	10-3	-.214	.042	-.017	-.561
7-10	-.181	.038	-.077	-.437	10-4	-.192	.036	-.051	-.344
7-11	-.184	.028	-.104	-.424	10-5	-.190	.034	-.026	-.344
7-12	-.195	.025	-.104	-.298	10-6	-.185	.034	-.057	-.316
7-13	-.212	.026	-.132	-.416	11-1	-.314	.100	-.078	-.713
7-14	-.223	.028	-.138	-.374	11-2	-.268	.076	-.022	-.619
7-15	-.240	.030	-.151	-.401	11-3	-.251	.054	-.051	-.593
7-16	-.247	.031	-.150	-.412	11-4	-.206	.041	-.084	-.600
7-17	-.253	.030	-.138	-.375	11-5	-.245	.045	-.113	-.487
7-18	-.252	.039	-.133	-.418	11-6	-.210	.044	-.070	-.673
7-19	-.170	.026	-.068	-.368	11-7	-.212	.049	-.045	-.390
7-20	-.181	.027	-.045	-.289	11-8	-.299	.092	-.001	-.694
7-21	-.200	.027	-.121	-.306	11-9	-.261	.076	-.007	-.670
7-22	-.211	.028	-.117	-.344	11-10	-.243	.050	-.061	-.604
7-23	-.225	.029	-.138	-.472	11-11	-.244	.037	-.095	-.475
7-24	-.233	.029	-.138	-.400	11-12	-.235	.032	-.067	-.351
7-25	-.187	.031	-.103	-.439	11-13	-.213	.034	-.103	-.338
7-26	-.248	.035	-.144	-.424	11-14	-.198	.062	-.062	-.335
7-27	-.262	.049	-.124	-.610	11-15	-.283	.087	-.054	-.659
7-28	-.150	.037	-.021	-.365	11-16	-.249	.056	-.058	-.507
7-29	-.164	.028	-.070	-.289	11-17	-.247	.044	-.106	-.581
7-30	-.181	.028	-.014	-.298	11-18	-.238	.036	-.078	-.407
7-31	-.198	.029	-.065	-.319	11-19	-.224	.031	-.099	-.361
7-32	-.206	.027	-.124	-.301	11-20	-.201	.031	-.081	-.330
7-33	-.219	.028	-.118	-.344	11-21	-.182	.040	-.010	-.333
7-34	-.226	.031	-.139	-.368	11-22	-.297	.079	-.001	-.676
7-35	-.239	.034	-.145	-.493	11-23	-.250	.044	-.012	-.500
7-36	-.254	.052	-.082	-.557	11-24	-.243	.035	-.101	-.365
7-37	-.187	.024	-.107	-.410	11-25	-.243	.037	-.090	-.478
8-1	-.203	.070	-.089	-.546	11-26	-.218	.035	-.094	-.366
8-2	-.173	.066	-.134	-.480	11-27	-.179	.034	-.054	-.309
8-3	-.131	.077	-.262	-.361	11-28	-.155	.041	-.042	-.259
8-4	-.104	.084	-.484	-.418	12-1	-.581	.262	-.050	-.852
8-5	-.202	.053	-.026	-.460	12-2	-.366	.143	-.033	-.026
8-6	-.164	.051	-.180	-.410	12-3	-.410	.169	-.105	-.1202
8-7	-.113	.050	-.447	-.371	12-4	-.378	.167	-.014	-.1403
8-8	-.082	.108	-.764	-.419	12-5	-.345	.138	-.008	-.029
8-9	-.188	.042	-.006	-.350	12-6	-.298	.088	-.009	-.059
8-10	-.149	.054	-.262	-.347	13-1	-.196	.148	-.019	-.194
8-11	-.093	.082	-.431	-.294	13-2	-.156	.126	-.036	-.194
8-12	-.043	.091	-.659	-.266	13-3	-.151	.133	-.064	-.221
8-13	-.182	.037	-.033	-.300	13-4	-.084	.112	-.086	-.248
8-14	-.146	.035	-.203	-.269	13-5	-.050	.112	-.0545	-.310
8-15	-.093	.071	-.254	-.254	13-6	-.028	.097	-.037	-.411
8-16	-.077	.064	-.324	-.271	13-7	-.060	.105	-.024	-.589
					13-8	-.101	.098	-.047	-.466
					13-9	-.047	.119	-.041	-.341

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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
14-1	.148	.118	.637	-.095	17-1	-.094	.106	.292	-.443
14-2	.175	.090	.556	-.066	17-2	.172	.181	.798	-.342
14-3	.014	.108	.547	-.256	17-3	-.057	.101	.398	-.395
14-4	.067	.100	.542	-.188	17-4	-.334	.086	-.053	-.690
14-5	.098	.118	.675	-.214	17-5	-.325	.067	-.185	-.628
15-1	-.118	.207	.372	-1.370	17-6	-.250	.064	-.059	-.544
15-2	-.112	.214	.494	-1.873	17-7	-.279	.055	-.115	-.511
15-3	.157	.175	.464	-.857	17-8	-.391	.066	-.163	-.725
15-4	-.085	.088	.215	-.670	17-9	-.254	.076	-.031	-.586
15-5	-.012	.067	.221	-.253	17-10	-.176	.058	.044	-.588
15-6	-.075	.073	.244	-.357	17-11	-.479	.089	-.213	-.828
16-1	.077	.157	.634	-.425	17-12	-.332	.078	-.055	-.812
16-2	.087	.135	.612	-.401	17-13	-.602	.195	.073	-.1294
16-3	.057	.117	.538	-.407	17-14	-.361	.114	.001	-.857
16-4	.104	.112	.556	-.282	17-15	-.310	.115	-.019	-.1.167
16-5	.135	.132	.586	-.359	17-16	-.251	.060	.048	-.638
16-6	.246	.128	.708	-.199	17-17	-.227	.077	.162	-.659
16-7	.198	.094	.561	-.045	17-18	-.207	.055	-.020	-.480
16-8	.136	.082	.544	-.146					
16-9	.119	.077	.479	-.130					
16-10	.097	.098	.553	-.313					
16-11	.261	.088	.622	-.065					
16-12	.209	.069	.643	-.128					
16-13	.165	.074	.577	-.027					
16-14	.113	.068	.451	-.080					
16-15	.036	.082	.295	-.306					
16-16	.250	.066	.526	-.066					
16-17	.198	.080	.488	-.078					
16-18	.148	.068	.381	-.124					
16-19	.084	.063	.318	-.149					
16-20	.021	.071	.267	-.342					
16-21	.172	.073	.481	-.041					
16-22	.140	.070	.434	-.051					
16-23	.100	.064	.437	-.092					
16-24	.270	.085	.561	.071					
16-25	.171	.070	.464	.020					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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 COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	.171	.143	.165	-.241	3-29	-.174	.024	-.068	-.284
1-2	.218	.142	.810	-.192	3-30	-.163	.025	-.049	-.278
1-3	.234	.129	.723	-.103	3-31	-.159	.026	-.049	-.259
1-4	.169	.099	.565	-.090	3-32	-.152	.029	-.041	-.254
1-5	.179	.102	.592	-.103	3-33	-.159	.035	-.035	-.214
1-6	.153	.085	.520	-.046	3-34	-.159	.040	-.013	-.231
1-7	.199	.095	.569	-.019	3-35	-.176	.050	-.005	-.296
2-1	.076	.116	.479	-.229	3-36	-.206	.072	-.045	-.616
2-2	.064	.102	.441	-.295	3-37	-.155	.028	-.019	-.251
2-3	.070	.102	.500	-.209	3-38	-.140	.030	-.004	-.249
2-4	.083	.120	.505	-.328	3-39	-.146	.036	.045	-.283
2-5	.087	.105	.511	-.207	3-40	-.174	.048	.055	-.392
2-6	.097	.090	.443	-.166	3-41	-.150	.028	-.041	-.282
2-7	.120	.097	.524	-.223	3-42	-.135	.031	-.005	-.224
2-8	.160	.108	.538	-.277	3-43	-.140	.035	.028	-.241
2-9	.005	.092	.505	-.263	3-44	-.163	.047	.112	-.361
2-10	.042	.083	.352	-.234	4-1	-.307	.042	-.174	-.466
2-11	.075	.089	.408	-.233	4-2	-.307	.038	-.186	-.438
2-12	.120	.095	.522	-.162	4-3	-.301	.035	-.189	-.421
2-13	-.032	.071	.246	-.292	4-4	-.293	.035	-.183	-.421
2-14	.029	.073	.300	-.178	4-5	-.305	.040	-.200	-.445
2-15	.073	.078	.420	-.111	4-6	-.320	.038	-.224	-.488
2-16	.122	.083	.490	-.138	4-7	-.313	.036	-.214	-.477
2-17	.017	.065	.291	-.283	4-8	-.301	.035	-.204	-.468
2-18	.094	.076	.421	-.091	4-9	-.267	.032	-.158	-.404
2-19	.028	.066	.316	-.156	4-10	-.269	.033	-.165	-.383
2-20	.106	.078	.439	-.075	4-11	-.279	.031	-.196	-.405
3-1	-.212	.034	-.086	-.336	4-12	-.263	.031	-.179	-.385
3-2	-.162	.038	-.008	-.307	4-13	-.245	.029	-.152	-.376
3-3	-.153	.039	-.009	-.328	4-14	-.257	.029	-.163	-.407
3-4	-.140	.041	-.046	-.308	4-15	-.241	.028	-.151	-.336
3-5	-.131	.043	.072	-.282	5-1	-.307	.045	-.165	-.460
3-6	-.129	.042	.091	-.280	5-2	-.302	.041	-.183	-.492
3-7	-.130	.044	.053	-.326	5-3	-.269	.037	-.163	-.439
3-8	-.125	.050	.094	-.390	5-4	-.269	.031	-.113	-.405
3-9	-.166	.103	.241	-.877	5-5	-.292	.030	-.194	-.414
3-10	-.216	.032	-.053	-.338	5-6	-.273	.030	-.184	-.405
3-11	-.174	.035	-.044	-.286	5-7	-.262	.032	-.167	-.370
3-12	-.152	.036	.054	-.265	5-8	-.286	.036	-.193	-.419
3-13	-.142	.039	.076	-.313	5-9	-.265	.030	-.184	-.412
3-14	-.131	.039	.117	-.267	6-1	-.218	.046	-.044	-.433
3-15	-.136	.039	.031	-.285	6-2	-.257	.055	-.051	-.451
3-16	-.134	.043	.049	-.317	6-3	-.303	.057	-.100	-.507
3-17	-.137	.058	.106	-.428	6-4	-.310	.053	-.093	-.554
3-18	-.175	.124	.211	-.840	6-5	-.238	.049	-.021	-.494
3-19	-.209	.038	-.014	-.328	6-6	-.278	.055	-.086	-.570
3-20	-.108	.028	.023	-.200	6-7	-.307	.047	-.178	-.507
3-21	-.159	.033	.023	-.274	6-8	-.305	.040	-.195	-.477
3-22	-.146	.034	.086	-.334	6-9	-.227	.049	-.025	-.435
3-23	-.145	.034	0.000	-.282	6-10	-.263	.038	-.065	-.394
3-24	-.144	.036	-.017	-.303	6-11	-.272	.032	-.178	-.401
3-25	-.153	.041	.064	-.406	6-12	-.282	.034	-.195	-.456
3-26	-.158	.053	.012	-.453	6-13	-.239	.062	-.021	-.477
3-27	-.204	.093	.055	-.714	6-14	-.274	.048	-.076	-.467
3-28	-.198	.027	-.097	-.304	6-15	-.256	.037	-.140	-.405

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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 COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
7-1	-.155	.030	-.004	-.348	9-1	-.142	.096	.295	-.464
7-2	-.151	.031	-.004	-.325	9-2	-.121	.117	.525	-.419
7-3	-.161	.029	-.065	-.351	9-3	-.234	.045	.117	-.464
7-4	-.170	.028	-.055	-.364	9-4	-.225	.033	.135	-.384
7-5	-.180	.030	-.071	-.327	9-5	-.217	.038	.101	-.525
7-6	-.200	.040	-.065	-.452	9-6	-.220	.035	-.094	-.362
7-7	-.229	.044	-.107	-.457	10-1	-.241	.054	-.094	-.522
7-8	-.218	.034	-.097	-.389	10-2	-.232	.048	-.046	-.815
7-9	-.203	.035	-.120	-.360	10-3	-.256	.060	-.101	-.516
7-10	-.160	.036	-.051	-.430	10-4	-.222	.041	-.120	-.461
7-11	-.161	.025	-.083	-.291	10-5	-.219	.036	-.124	-.421
7-12	-.171	.023	-.087	-.271	10-6	-.208	.035	-.079	-.336
7-13	-.180	.024	-.072	-.292	11-1	-.300	.103	-.007	-.795
7-14	-.190	.027	-.096	-.298	11-2	-.269	.070	-.060	-.604
7-15	-.201	.028	-.114	-.394	11-3	-.264	.059	-.101	-.530
7-16	-.216	.029	-.128	-.351	11-4	-.198	.043	-.090	-.428
7-17	-.225	.031	-.135	-.440	11-5	-.239	.044	-.117	-.559
7-18	-.224	.041	-.111	-.581	11-6	-.220	.040	-.080	-.363
7-19	-.144	.026	-.048	-.360	11-7	-.230	.042	-.070	-.448
7-20	-.158	.025	-.079	-.267	11-8	-.293	.089	-.037	-.640
7-21	-.172	.026	-.058	-.281	11-9	-.268	.058	-.082	-.484
7-22	-.183	.024	-.116	-.286	11-10	-.258	.041	-.141	-.380
7-23	-.185	.025	-.100	-.341	11-11	-.250	.034	-.156	-.387
7-24	-.196	.026	-.100	-.313	11-12	-.238	.033	-.144	-.387
7-25	-.154	.027	-.080	-.347	11-13	-.232	.036	-.115	-.415
7-26	-.225	.040	-.128	-.478	11-14	-.244	.045	-.114	-.550
7-27	-.230	.049	-.102	-.497	11-15	-.294	.075	-.029	-.626
7-28	-.136	.032	-.020	-.292	11-16	-.284	.043	-.111	-.421
7-29	-.147	.028	-.059	-.275	11-17	-.256	.035	-.145	-.453
7-30	-.164	.026	-.092	-.299	11-18	-.241	.031	-.145	-.339
7-31	-.171	.027	-.073	-.274	11-19	-.214	.026	-.129	-.297
7-32	-.179	.027	-.102	-.306	11-20	-.114	.024	-.032	-.193
7-33	-.188	.029	-.107	-.346	11-21	-.220	.039	-.090	-.364
7-34	-.194	.028	-.100	-.313	11-22	-.306	.078	-.086	-.792
7-35	-.197	.030	-.106	-.339	11-23	-.276	.046	-.128	-.423
7-36	-.207	.040	-.034	-.395	11-24	-.258	.034	-.145	-.388
7-37	-.163	.023	-.093	-.243	11-25	-.244	.032	-.131	-.380
8-1	-.211	.068	-.120	-.514	11-26	-.220	.029	-.128	-.328
8-2	-.179	.072	-.165	-.475	11-27	-.198	.030	-.094	-.385
8-3	-.154	.077	-.200	-.533	11-28	-.190	.035	-.060	-.331
8-4	-.139	.078	-.198	-.490	12-1	-.356	.140	-.045	-.1045
8-5	-.236	.054	-.051	-.475	12-2	-.339	.131	.012	-.247
8-6	-.209	.055	-.041	-.546	12-3	-.385	.107	.042	-.899
8-7	-.178	.057	-.052	-.468	12-4	-.280	.100	-.022	-.821
8-8	-.156	.054	-.062	-.423	12-5	-.291	.093	-.015	-.945
8-9	-.230	.042	-.099	-.453	12-6	-.292	.085	-.017	-.836
8-10	-.205	.046	-.079	-.535	13-1	-.228	.147	-.005	-.100
8-11	-.169	.046	-.003	-.450	13-2	-.187	.131	.700	-.211
8-12	-.147	.047	-.056	-.365	13-3	-.160	.129	.658	-.211
8-13	-.211	.032	-.087	-.327	13-4	-.087	.119	.706	-.212
8-14	-.194	.034	-.031	-.344	13-5	-.072	.120	.565	-.266
8-15	-.172	.042	-.034	-.375	13-6	-.013	.107	.408	-.318
8-16	-.135	.048	-.166	-.284	13-7	-.054	.057	.350	-.388
					13-8	-.052	.089	.219	-.423
					13-9	-.023	.108	.517	-.304

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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 COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
14-1	.080	.162	.623	-1.128	17-1	-.234	.086	.054	-.661
14-2	.054	.128	.540	-.164	17-2	.164	.174	.699	-.368
14-3	.010	.092	.396	-.245	17-3	.102	.149	.581	-.288
14-4	.066	.093	.472	-.192	17-4	-.368	.090	.703	-.038
14-5	.115	.124	.690	-.213	17-5	-.361	.076	.142	-.675
15-1	-.175	.139	.217	-.809	17-6	-.305	.092	-.089	-.793
15-2	-.189	.148	.270	-1.033	17-7	-.293	.063	-.121	-.578
15-3	-.177	.116	.315	-.598	17-8	-.386	.080	-.142	-.671
15-4	-.113	.092	.330	-.600	17-9	-.269	.055	-.070	-.655
15-5	-.143	.084	.343	-.682	17-10	-.292	.063	-.057	-.672
15-6	-.069	.060	.193	-.319	17-11	-.395	.088	-.144	-.797
16-1	.185	.167	.783	-.395	17-12	-.268	.065	-.060	-.601
16-2	.208	.167	.757	-.251	17-13	-.223	.154	.144	-.913
16-3	.205	.159	.757	-.225	17-14	-.288	.075	-.021	-.702
16-4	.170	.153	.858	-.260	17-15	-.266	.068	-.052	-.611
16-5	.151	.155	.707	-.443	17-16	-.152	.063	-.068	-.943
16-6	.212	.127	.759	-.135	17-17	-.143	.072	.115	-.592
16-7	.214	.166	.632	-.065	17-18	-.162	.047	.020	-.425
16-8	.172	.128	.683	-.147					
16-9	.135	.118	.656	-.170					
16-10	.101	.120	.645	-.253					
16-11	.158	.111	.693	-.105					
16-12	.144	.100	.582	-.144					
16-13	.112	.095	.513	-.126					
16-14	.074	.088	.508	-.189					
16-15	.018	.080	.478	-.318					
16-16	.154	.089	.662	-.107					
16-17	.125	.083	.437	-.087					
16-18	.094	.072	.362	-.090					
16-19	.040	.064	.295	-.138					
16-20	-.010	.057	.219	-.237					
16-21	.121	.065	.381	-.067					
16-22	.100	.061	.321	-.077					
16-23	.064	.057	.343	-.112					
16-24	.187	.091	.591	-.010					
16-25	.136	.079	.449	-.105					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	.130	.134	.697	-.248	3-29	-.145	.035	.005	-.251
1-2	.298	.160	.818	-.179	3-30	-.115	.036	.055	-.272
1-3	.299	.140	.919	-.144	3-31	-.108	.038	.094	-.235
1-4	.138	.100	.742	-.099	3-32	-.095	.041	.108	-.259
1-5	.159	.117	.866	-.160	3-33	-.182	.043	.086	-.273
1-6	.123	.089	.546	-.110	3-34	-.101	.045	.119	-.255
1-7	.170	.101	.609	-.056	3-35	-.111	.050	.090	-.387
2-1	-.005	.301	.301	-.517	3-36	-.126	.067	.139	-.436
2-2	.014	.082	.300	-.287	3-37	-.099	.044	.104	-.240
2-3	.037	.093	.345	-.305	3-38	-.077	.044	.164	-.239
2-4	.056	.126	.495	-.340	3-39	-.066	.045	.095	-.291
2-5	.001	.105	.427	-.368	3-40	-.105	.057	.187	-.342
2-6	.029	.086	.376	-.249	3-41	-.088	.050	.199	-.208
2-7	.059	.095	.378	-.260	3-42	-.068	.049	.151	-.199
2-8	.084	.123	.549	-.272	3-43	-.074	.045	.130	-.322
2-9	-.017	.098	.374	-.516	3-44	-.092	.053	.141	-.313
2-10	.018	.092	.394	-.351	4-1	-.437	.069	.243	-.684
2-11	.052	.099	.436	-.401	4-2	-.443	.062	.257	-.642
2-12	.086	.103	.546	-.278	4-3	-.431	.060	.258	-.611
2-13	-.031	.082	.304	-.401	4-4	-.414	.059	.243	-.608
2-14	.011	.081	.340	-.262	4-5	-.417	.059	.233	-.621
2-15	.041	.083	.401	-.308	4-6	-.442	.055	.269	-.650
2-16	.082	.080	.416	-.180	4-7	-.438	.059	.365	-.617
2-17	0.000	.072	.283	-.399	4-8	-.419	.051	.276	-.611
2-18	.059	.062	.386	-.231	4-9	-.357	.060	.168	-.537
2-19	.010	.069	.283	-.274	4-10	-.382	.059	.186	-.563
2-20	.069	.084	.340	-.121	4-11	-.391	.055	.231	-.578
3-1	.195	.054	.164	-.377	4-12	-.347	.057	.260	-.564
3-2	.083	.070	.227	-.291	4-13	-.318	.049	.132	-.480
3-3	.051	.074	.341	-.315	4-14	-.340	.045	.203	-.497
3-4	.027	.076	.268	-.259	4-15	-.312	.045	.180	-.461
3-5	.021	.076	.294	-.253	5-1	-.430	.070	.210	-.720
3-6	.017	.074	.248	-.250	5-2	-.406	.078	.162	-.702
3-7	.014	.079	.268	-.258	5-3	-.339	.070	.111	-.654
3-8	.004	.087	.308	-.260	5-4	-.352	.062	.138	-.677
3-9	.019	.116	.469	-.416	5-5	-.401	.065	.170	-.686
3-10	.211	.049	.026	-.373	5-6	-.395	.051	.239	-.581
3-11	.100	.065	.160	-.330	5-7	-.366	.058	.185	-.581
3-12	.055	.072	.223	-.267	5-8	-.406	.060	.236	-.638
3-13	.042	.076	.291	-.240	5-9	-.372	.052	.230	-.677
3-14	.028	.075	.333	-.210	6-1	-.225	.050	.007	-.436
3-15	.034	.073	.348	-.242	6-2	-.241	.065	.007	-.520
3-16	.035	.076	.451	-.319	6-3	-.382	.066	.149	-.694
3-17	.029	.088	.336	-.298	6-4	-.444	.074	.207	-.730
3-18	.019	.105	.435	-.407	6-5	-.266	.081	.043	-.593
3-19	.194	.047	.001	-.377	6-6	-.340	.090	.113	-.644
3-20	.049	.051	.159	-.262	6-7	-.456	.090	.152	-.913
3-21	.090	.057	.195	-.254	6-8	-.449	.066	.243	-.746
3-22	.071	.058	.192	-.246	6-9	-.230	.105	.258	-.556
3-23	.069	.059	.182	-.255	6-10	-.297	.086	.168	-.573
3-24	.070	.060	.268	-.259	6-11	-.365	.058	.054	-.623
3-25	.073	.060	.253	-.242	6-12	-.378	.059	.161	-.669
3-26	.076	.063	.341	-.317	6-13	-.246	.109	.379	-.683
3-27	.097	.081	.253	-.508	6-14	-.340	.085	.164	-.615
3-28	.199	.034	-.060	-.331	6-15	-.344	.053	.192	-.567

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.211	.044	-.058	-.538	9-1	-.118	.067	.414	-.345
7-2	-.220	.045	-.105	-.490	9-2	-.119	.076	.335	-.392
7-3	-.238	.043	-.113	-.435	9-3	-.180	.046	-.029	-.365
7-4	-.262	.045	-.132	-.539	9-4	-.184	.036	-.077	-.435
7-5	-.285	.051	-.106	-.464	9-5	-.176	.033	-.059	-.275
7-6	-.250	.074	-.160	-.789	9-6	-.177	.032	-.068	-.311
7-7	-.366	.067	-.185	-.724	10-1	-.181	.045	0.000	-.321
7-8	-.253	.058	-.131	-.579	10-2	-.179	.023	-.020	-.380
7-9	-.336	.057	-.128	-.545	10-3	-.191	.049	-.029	-.479
7-10	-.204	.036	-.087	-.353	10-4	-.179	.032	-.066	-.323
7-11	-.219	.035	-.102	-.389	10-5	-.175	.031	-.057	-.297
7-12	-.244	.037	-.128	-.366	10-6	-.168	.028	-.071	-.267
7-13	-.271	.044	-.128	-.439	11-1	-.239	.081	-.017	-.738
7-14	-.292	.041	-.150	-.600	11-2	-.220	.059	-.047	-.638
7-15	-.321	.044	-.170	-.552	11-3	-.200	.042	-.069	-.446
7-16	-.357	.050	-.217	-.635	11-4	-.126	.032	-.038	-.248
7-17	-.371	.059	-.142	-.625	11-5	-.182	.038	-.063	-.341
7-18	-.360	.069	-.132	-.666	11-6	-.175	.039	-.020	-.321
7-19	-.193	.033	-.055	-.338	11-7	-.178	.039	-.051	-.338
7-20	-.217	.033	-.076	-.337	11-8	-.230	.051	-.045	-.456
7-21	-.238	.035	-.099	-.390	11-9	-.203	.034	-.037	-.347
7-22	-.256	.040	-.110	-.413	11-10	-.193	.030	-.098	-.320
7-23	-.276	.044	-.080	-.477	11-11	-.185	.029	-.050	-.326
7-24	-.308	.050	-.119	-.535	11-12	-.181	.030	-.089	-.338
7-25	-.265	.060	-.105	-.597	11-13	-.175	.035	-.048	-.317
7-26	-.397	.087	-.168	-.679	11-14	-.184	.038	-.045	-.330
7-27	-.438	.105	-.172	-.989	11-15	-.218	.038	-.104	-.371
7-28	-.180	.033	-.037	-.299	11-16	-.205	.028	-.087	-.291
7-29	-.200	.033	-.063	-.326	11-17	-.202	.027	-.101	-.305
7-30	-.214	.034	-.070	-.368	11-18	-.194	.025	-.107	-.290
7-31	-.227	.035	-.086	-.371	11-19	-.182	.025	-.090	-.266
7-32	-.244	.038	-.105	-.433	11-20	-.175	.031	-.062	-.267
7-33	-.264	.041	-.113	-.468	11-21	-.172	.036	-.060	-.374
7-34	-.286	.042	-.146	-.517	11-22	-.222	.046	-.110	-.516
7-35	-.300	.048	-.168	-.603	11-23	-.203	.030	-.120	-.321
7-36	-.357	.081	-.138	-.602	11-24	-.201	.026	-.126	-.317
7-37	-.218	.030	-.119	-.335	11-25	-.189	.023	-.125	-.273
8-1	-.197	.074	-.153	-.512	11-26	-.180	.022	-.111	-.260
8-2	-.179	.065	-.126	-.577	11-27	-.167	.026	-.084	-.267
8-3	-.180	.062	-.079	-.462	11-28	-.166	.032	-.065	-.300
8-4	-.179	.062	-.094	-.462	12-1	-.216	.061	-.008	-.384
8-5	-.184	.047	-.052	-.401	12-2	-.218	.066	-.032	-.512
8-6	-.175	.048	-.008	-.440	12-3	-.204	.051	-.063	-.578
8-7	-.167	.045	-.015	-.392	12-4	-.198	.057	-.051	-.695
8-8	-.132	.042	-.025	-.326	12-5	-.199	.045	-.053	-.470
8-9	-.166	.028	-.088	-.288	12-6	-.203	.047	-.063	-.438
8-10	-.179	.031	-.063	-.339	13-1	-.199	.169	-.795	-.269
8-11	-.177	.034	-.069	-.317	13-2	-.099	.147	-.750	-.260
8-12	-.182	.040	-.054	-.361	13-3	-.047	.153	-.804	-.317
8-13	-.180	.024	-.099	-.273	13-4	-.047	.101	-.345	-.412
8-14	-.178	.024	-.103	-.264	13-5	-.024	.136	-.685	-.511
8-15	-.164	.024	-.070	-.270	13-6	-.112	.089	-.325	-.384
8-16	-.047	.032	-.062	-.203	13-7	-.089	.096	-.336	-.393
					13-8	-.138	.085	-.284	-.444
					13-9	-.105	.079	-.348	-.348

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.158	.172	.298	-.950	17-1	-.317	.079	-.083	-.849
14-2	-.115	.109	.355	-.629	17-2	-.024	.150	.517	-.453
14-3	-.112	.064	.193	-.348	17-3	.114	.150	.694	-.272
14-4	-.061	.066	.218	-.310	17-4	-.222	.112	.175	-.707
14-5	-.054	.082	.268	-.336	17-5	-.342	.085	.132	-.743
15-1	-.247	.099	.046	-.804	17-6	-.234	.065	-.051	-.526
15-2	-.279	.111	.138	-.685	17-7	-.209	.046	-.093	-.500
15-3	-.223	.088	.091	-.522	17-8	-.263	.067	-.053	-.540
15-4	-.131	.071	.138	-.377	17-9	-.242	.070	-.037	-.723
15-5	-.162	.068	.065	-.421	17-10	-.220	.054	-.018	-.458
15-6	-.121	.065	.159	-.410	17-11	-.321	.086	-.086	-.781
16-1	.136	.169	.773	-.307	17-12	-.187	.049	.017	-.387
16-2	.106	.143	.650	-.305	17-13	-.114	.062	.113	-.450
16-3	.107	.126	.680	-.329	17-14	-.312	.074	-.083	-.650
16-4	.124	.141	.728	-.218	17-15	-.323	.075	-.097	-.723
16-5	.102	.162	.818	-.339	17-16	-.108	.065	-.110	-.318
16-6	.219	.146	.899	-.114	17-17	-.055	.087	.239	-.347
16-7	.205	.110	.733	-.101	17-18	-.225	.054	-.024	-.460
16-8	.158	.114	.711	-.193					
16-9	.138	.109	.616	-.183					
16-10	.093	.131	.704	-.319					
16-11	.156	.121	.616	-.104					
16-12	.129	.110	.735	-.127					
16-13	.103	.098	.533	-.163					
16-14	.076	.091	.498	-.175					
16-15	.015	.106	.497	-.303					
16-16	.130	.096	.576	-.191					
16-17	.104	.085	.562	-.100					
16-18	.080	.076	.535	-.100					
16-19	.036	.067	.348	-.148					
16-20	-.022	.068	.234	-.286					
16-21	.105	.081	.504	-.079					
16-22	.067	.074	.432	-.118					
16-23	.053	.068	.329	-.166					
16-24	.180	.113	.656	-.058					
16-25	.141	.093	.585	-.077					



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION 45

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	PROFFSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	.060	.098	.461	-.288	3-29	-.149	.037	.006	-.273
1-2	.123	.128	.633	-.197	3-30	-.120	.042	.049	-.265
1-3	.151	.104	.557	-.135	3-31	-.116	.046	.047	-.283
1-4	.151	.093	.546	-.091	3-32	-.108	.051	.076	-.289
1-5	.145	.100	.531	-.088	3-33	-.122	.053	.155	-.304
1-6	.145	.085	.468	-.053	3-34	-.131	.057	.095	-.409
1-7	.162	.085	.493	-.043	3-35	-.154	.063	.063	-.393
2-1	-.010	.106	.365	-.610	3-36	-.176	.071	.106	-.564
2-2	-.011	.091	.326	-.391	3-37	-.087	.057	.210	-.234
2-3	-.003	.104	.300	-.453	3-38	-.067	.061	.258	-.240
2-4	-.020	.111	.436	-.364	3-39	-.090	.067	.222	-.293
2-5	.010	.104	.423	-.487	3-40	-.137	.068	.237	-.348
2-6	.033	.096	.350	-.544	3-41	-.072	.059	.189	-.245
2-7	.030	.103	.398	-.265	3-42	-.048	.064	.205	-.239
2-8	.080	.099	.505	-.292	3-43	-.064	.070	.259	-.266
2-9	-.019	.090	.362	-.738	3-44	-.104	.070	.270	-.361
2-10	.008	.089	.289	-.362	4-1	-.422	.073	-.228	-.759
2-11	.024	.094	.381	-.270	4-2	-.418	.064	-.211	-.641
2-12	.117	.097	.452	-.208	4-3	-.400	.060	-.214	-.591
2-13	-.031	.069	.250	-.298	4-4	-.397	.058	-.214	-.612
2-14	.013	.074	.294	-.273	4-5	-.413	.068	-.200	-.673
2-15	.044	.076	.343	-.153	4-6	-.426	.060	-.232	-.666
2-16	.132	.086	.448	-.411	4-7	-.411	.057	-.220	-.629
2-17	.016	.062	.280	-.148	4-8	-.396	.058	-.244	-.634
2-18	.081	.073	.414	-.106	4-9	-.351	.070	-.069	-.609
2-19	.019	.059	.249	-.153	4-10	-.370	.058	-.202	-.646
2-20	.086	.075	.384	-.074	4-11	-.381	.056	-.224	-.664
3-1	-.143	.072	.130	-.370	4-12	-.361	.055	-.224	-.649
3-2	-.026	.092	.292	-.317	4-13	-.335	.056	-.139	-.580
3-3	.008	.097	.311	-.297	4-14	-.358	.052	-.206	-.588
3-4	.032	.106	.386	-.294	4-15	-.334	.051	-.198	-.574
3-5	.027	.106	.443	-.280	5-1	-.436	.079	-.212	-.733
3-6	.032	.109	.499	-.271	5-2	-.420	.072	-.221	-.747
3-7	.026	.113	.518	-.278	5-3	-.345	.068	-.090	-.668
3-8	.024	.125	.520	-.376	5-4	-.341	.060	-.136	-.629
3-9	.018	.171	.721	-.580	5-5	-.391	.055	-.151	-.615
3-10	-.171	.059	.163	-.423	5-6	-.384	.050	-.293	-.615
3-11	-.073	.076	.244	-.312	5-7	-.337	.057	-.127	-.573
3-12	.029	.087	.393	-.309	5-8	-.376	.060	-.174	-.617
3-13	-.021	.087	.372	-.316	5-9	-.370	.054	-.231	-.653
3-14	.001	.091	.384	-.242	6-1	-.183	.105	-.420	-.509
3-15	.008	.095	.350	-.262	6-2	-.183	.097	-.399	-.502
3-16	-.009	.107	.409	-.309	6-3	-.290	.080	-.089	-.645
3-17	.034	.125	.529	-.390	6-4	-.381	.079	-.113	-.789
3-18	-.057	.157	.567	-.617	6-5	-.243	.100	-.331	-.540
3-19	.194	.048	.027	-.346	6-6	-.271	.087	-.203	-.576
3-20	.065	.050	.170	-.221	6-7	-.367	.083	-.062	-.664
3-21	-.101	.057	.196	-.300	6-8	-.401	.059	-.204	-.669
3-22	-.079	.063	.187	-.242	6-9	-.259	.095	-.227	-.568
3-23	-.077	.070	.222	-.245	6-10	-.275	.076	-.124	-.565
3-24	-.082	.077	.277	-.294	6-11	-.317	.059	-.117	-.590
3-25	-.101	.076	.237	-.343	6-12	-.367	.075	-.101	-.682
3-26	-.120	.082	.215	-.394	6-13	-.427	.102	-.447	-.603
3-27	-.174	.108	.256	-.605	6-14	-.259	.086	-.201	-.582
3-28	-.207	.036	-.054	-.331	6-15	-.282	.057	-.021	-.480

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.247	.038	-.092	-.423	9-1	-.184	.087	.183	-.511
7-2	-.256	.040	-.125	-.456	9-2	-.114	.093	.443	-.480
7-3	-.269	.043	-.131	-.442	9-3	-.042	.042	-.079	-.426
7-4	-.290	.049	-.145	-.634	9-4	-.244	.032	-.130	-.377
7-5	-.321	.050	-.155	-.621	9-5	-.238	.033	-.137	-.392
7-6	-.361	.065	-.180	-.654	9-6	-.228	.033	-.121	-.369
7-7	-.380	.060	-.169	-.724	10-1	-.242	.042	-.107	-.406
7-8	-.396	.064	-.193	-.650	10-2	-.242	.051	-.067	-.469
7-9	-.387	.062	-.206	-.641	10-3	-.238	.037	-.111	-.414
7-10	-.249	.036	-.139	-.376	10-4	-.241	.030	-.134	-.385
7-11	-.261	.036	-.162	-.431	10-5	-.233	.030	-.136	-.321
7-12	-.282	.038	-.170	-.482	10-6	-.222	.030	-.107	-.322
7-13	-.302	.040	-.180	-.493	11-1	-.251	.065	-.082	-.563
7-14	-.321	.041	-.194	-.500	11-2	-.232	.044	-.093	-.469
7-15	-.350	.045	-.190	-.523	11-3	-.233	.033	-.121	-.347
7-16	-.386	.051	-.252	-.602	11-4	-.172	.033	-.067	-.321
7-17	-.412	.061	-.266	-.752	11-5	-.238	.041	-.105	-.409
7-18	-.407	.069	-.221	-.790	11-6	-.242	.038	-.096	-.399
7-19	-.225	.035	-.066	-.359	11-7	-.241	.037	-.124	-.382
7-20	-.247	.034	-.070	-.376	11-8	-.243	.043	-.130	-.424
7-21	-.265	.036	-.145	-.418	11-9	-.226	.030	-.130	-.359
7-22	-.281	.038	-.169	-.435	11-10	-.227	.027	-.131	-.321
7-23	-.298	.039	-.162	-.458	11-11	-.232	.027	-.131	-.334
7-24	-.325	.042	-.200	-.464	11-12	-.243	.029	-.148	-.337
7-25	-.293	.047	-.166	-.483	11-13	-.248	.031	-.151	-.351
7-26	-.397	.066	-.207	-.844	11-14	-.248	.034	-.147	-.383
7-27	-.454	.093	-.242	-.1,075	11-15	-.240	.039	-.139	-.426
7-28	-.214	.030	-.120	-.330	11-16	-.227	.028	-.127	-.367
7-29	-.100	.024	-.020	-.209	11-17	-.224	.025	-.127	-.395
7-30	-.239	.035	-.135	-.399	11-18	-.230	.026	-.105	-.316
7-31	-.252	.038	-.132	-.444	11-19	-.239	.026	-.163	-.330
7-32	-.273	.040	-.152	-.476	11-20	-.252	.030	-.168	-.363
7-33	-.295	.042	-.194	-.517	11-21	-.254	.033	-.159	-.423
7-34	-.320	.049	-.183	-.658	11-22	-.243	.045	-.108	-.431
7-35	-.353	.062	-.175	-.738	11-23	-.214	.032	-.111	-.344
7-36	-.422	.096	-.187	-.945	11-24	-.218	.032	-.089	-.327
7-37	-.249	.032	-.144	-.438	11-25	-.237	.024	-.166	-.379
8-1	-.266	.035	-.158	-.482	11-26	-.239	.025	-.165	-.345
8-2	-.237	.070	-.044	-.475	11-27	-.247	.029	-.151	-.349
8-3	-.235	.061	-.017	-.485	11-28	-.259	.032	-.157	-.404
8-4	-.171	.051	-.031	-.366	12-1	-.231	.052	-.047	-.448
8-5	-.265	.070	-.039	-.627	12-2	-.244	.057	-.073	-.536
8-6	-.252	.055	-.083	-.493	12-3	-.231	.045	-.090	-.568
8-7	-.249	.053	-.070	-.507	12-4	-.232	.062	-.056	-.691
8-8	-.230	.050	-.048	-.450	12-5	-.233	.046	-.064	-.572
8-9	-.267	.036	-.161	-.425	12-6	-.224	.049	-.080	-.664
8-10	-.262	.035	-.162	-.386	13-1	-.243	.021	-.085	-.320
8-11	-.247	.035	-.145	-.451	13-2	-.052	.130	-.484	-.425
8-12	-.196	.033	-.076	-.382	13-3	-.052	.222	-.984	-.411
8-13	-.230	.029	-.130	-.331	13-4	-.118	.077	-.159	-.422
8-14	-.237	.033	-.127	-.363	13-5	-.088	.208	-.871	-.448
8-15	-.077	.017	-.020	-.135	13-6	-.182	.092	-.219	-.542
8-16					13-7	-.071	.149	-.642	-.525
					13-8	-.122	.102	-.392	-.430
					13-9	-.096	.113	-.477	-.531

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.253	.148	.135	-.912	17-1	-.476	.100	-.196	-.817
14-2	-.192	.082	.143	-.566	17-2	-.072	.112	.402	-.498
14-3	-.182	.070	.094	-.375	17-3	.271	.187	.806	-.232
14-4	-.115	.069	.105	-.351	17-4	-.216	.129	.275	-.651
14-5	-.147	.081	.156	-.454	17-5	-.426	.081	-.202	-.727
15-1	-.244	.074	.020	-.502	17-6	.281	.064	-.085	-.556
15-2	-.265	.075	-.023	-.645	17-7	-.266	.047	-.138	-.527
15-3	-.216	.067	.018	-.486	17-8	.315	.077	-.097	-.706
15-4	-.116	.063	.123	-.383	17-9	-.258	.055	-.046	-.568
15-5	-.139	.064	.068	-.398	17-10	-.225	.050	-.062	-.451
15-6	-.154	.075	.118	-.452	17-11	-.285	.086	-.054	-.649
16-1	-.111	.165	.168	-.389	17-12	.195	.046	-.061	-.412
16-2	.201	.179	.046	-.314	17-13	-.121	.097	.140	-.571
16-3	.252	.176	.849	-.194	17-14	-.192	.052	-.027	-.446
16-4	.293	.182	.949	-.167	17-15	-.166	.058	.025	-.429
16-5	.286	.176	.861	-.182	17-16	-.073	.081	-.191	-.368
16-6	.146	.122	.723	-.188	17-17	-.104	.070	.154	-.388
16-7	.227	.129	.870	-.094	17-18	-.258	.052	-.067	-.582
16-8	.258	.175	.817	-.114					
16-9	.317	.180	.984	-.120					
16-10	.285	.166	.867	-.193					
16-11	.132	.097	.549	-.164					
16-12	.153	.111	.592	-.126					
16-13	.192	.126	.632	-.170					
16-14	.219	.140	.843	-.185					
16-15	.188	.142	.609	-.237					
16-16	.120	.079	.392	-.100					
16-17	.120	.080	.437	-.117					
16-18	.156	.089	.581	-.108					
16-19	.120	.099	.521	-.112					
16-20	.079	.105	.487	-.223					
16-21	.151	.089	.539	-.100					
16-22	.150	.091	.562	-.096					
16-23	.134	.091	.513	-.105					
16-24	.163	.095	.498	-.067					
16-25	.208	.110	.732	-.041					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION 50

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
1-1	-.021	.083	.363	-.392	3-29	-.080	.038	.104	-.208
1-2	.053	.116	.654	-.248	3-30	-.052	.035	.036	-.195
1-3	.038	.091	.405	-.235	3-31	-.034	.035	.087	-.137
1-4	.011	.072	.357	-.155	3-32	-.023	.038	.166	-.123
1-5	.011	.083	.380	-.170	3-33	-.021	.040	.137	-.136
1-6	.009	.061	.292	-.187	3-34	-.027	.041	.117	-.177
1-7	.036	.073	.352	-.114	3-35	-.035	.044	.151	-.167
2-1	-.273	.168	.281	-1.088	3-36	-.026	.056	.241	-.180
2-2	-.180	.139	.336	-.861	3-37	-.005	.048	.193	-.148
2-3	-.102	.119	.327	-.632	3-38	-.049	.052	.232	-.180
2-4	-.084	.114	.348	-.650	3-39	-.053	.056	.254	-.111
2-5	-.217	.148	.238	-.923	3-40	-.009	.052	.192	-.196
2-6	-.149	.105	.226	-.570	3-41	-.031	.055	.336	-.136
2-7	-.109	.099	.309	-.565	3-42	-.075	.059	.340	-.069
2-8	-.060	.096	.378	-.408	3-43	-.091	.068	.404	-.114
2-9	-.178	.140	.239	-.666	3-44	-.033	.067	.319	-.167
2-10	-.104	.087	.265	-.670	4-1	-.282	.079	.012	-.755
2-11	-.103	.092	.212	-.675	4-2	-.290	.061	-.044	-.554
2-12	-.054	.080	.261	-.327	4-3	-.272	.057	-.076	-.522
2-13	-.095	.075	.196	-.670	4-4	-.263	.058	-.070	-.565
2-14	-.082	.067	.147	-.501	4-5	-.248	.059	-.011	-.481
2-15	-.082	.075	.232	-.374	4-6	-.284	.051	-.075	-.504
2-16	-.068	.067	.237	-.362	4-7	-.263	.049	-.034	-.487
2-17	-.061	.066	.123	-.646	4-8	-.248	.051	-.037	-.481
2-18	-.039	.058	.192	-.408	4-9	-.184	.061	-.128	-.375
2-19	-.042	.050	.110	-.285	4-10	-.236	.062	-.078	-.407
2-20	-.019	.051	.209	-.278	4-11	-.236	.047	-.072	-.466
3-1	-.069	.117	.541	-.601	4-12	-.216	.048	-.058	-.509
3-2	.027	.123	.545	-.327	4-13	-.233	.049	-.079	-.481
3-3	.053	.110	.505	-.225	4-14	-.259	.060	-.055	-.656
3-4	.069	.104	.594	-.212	4-15	-.239	.054	-.040	-.594
3-5	.100	.105	.684	-.193	5-1	-.288	.100	.026	-.851
3-6	.125	.105	.619	-.175	5-2	-.227	.067	.049	-.512
3-7	.167	.111	.581	-.121	5-3	-.176	.063	.233	-.388
3-8	.224	.123	.708	-.104	5-4	-.216	.056	-.012	-.408
3-9	.319	.154	.821	-.182	5-5	-.258	.055	-.082	-.532
3-10	-.113	.085	.330	-.491	5-6	-.266	.056	.005	-.595
3-11	-.008	.086	.498	-.270	5-7	-.218	.060	.035	-.449
3-12	.030	.082	.535	-.218	5-8	-.251	.064	-.024	-.524
3-13	.058	.075	.405	-.164	5-9	-.274	.061	-.035	-.562
3-14	.085	.074	.407	-.121	6-1	-.129	.123	.601	-.479
3-15	.111	.077	.423	-.153	6-2	-.244	.095	.645	-.708
3-16	.147	.089	.521	-.097	6-3	-.009	.183	.648	-.422
3-17	.216	.104	.613	-.097	6-4	-.008	.181	.702	-.440
3-18	.305	.138	.779	-.048	6-5	-.221	.084	.288	-.583
3-19	.435	.061	.248	-.316	6-6	-.262	.067	-.605	-.605
3-20	-.020	.051	.335	-.175	6-7	-.097	.148	.569	-.458
3-21	-.036	.054	.247	-.241	6-8	-.127	.139	.641	-.458
3-22	-.014	.051	.213	-.211	6-9	-.203	.062	.060	-.437
3-23	.015	.054	.258	-.120	6-10	-.214	.078	.055	-.674
3-24	.029	.060	.267	-.133	6-11	-.190	.099	.411	-.559
3-25	.049	.067	.427	-.136	6-12	-.191	.083	.329	-.507
3-26	.072	.076	.489	-.118	6-13	-.188	.071	.462	-.492
3-27	.120	.097	.564	-.110	6-14	-.232	.059	.124	-.581
3-28	-.153	.047	.157	-.322	6-15	-.164	.113	.563	-.528

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.168	.102	-.449	-.446	9-1	-.171	.051	.096	-.413
7-2	-.280	.073	-.022	-.809	9-2	-.129	.070	.219	-.372
7-3	-.296	.071	-.040	-.690	9-3	-.191	.033	-.064	-.381
7-4	-.237	.055	-.037	-.559	9-4	-.205	.028	-.107	-.318
7-5	-.259	.065	-.052	-.698	9-5	-.196	.026	-.113	-.297
7-6	-.355	.073	-.134	-.672	9-6	-.197	.025	-.113	-.291
7-7	-.342	.063	-.161	-.602	10-1	-.198	.030	-.078	-.320
7-8	-.317	.073	-.024	-.665	10-2	-.200	.035	-.065	-.376
7-9	-.342	.072	-.088	-.699	10-3	-.195	.030	-.088	-.346
7-10	-.259	.041	-.063	-.490	10-4	-.201	.025	-.102	-.285
7-11	-.272	.044	-.107	-.546	10-5	-.197	.025	-.105	-.280
7-12	-.229	.036	-.122	-.371	10-6	-.197	.025	-.105	-.279
7-13	-.244	.038	-.142	-.395	11-1	-.197	.042	-.053	-.394
7-14	-.343	.061	-.149	-.602	11-2	-.188	.033	-.087	-.355
7-15	-.364	.064	-.179	-.601	11-3	-.197	.034	-.091	-.349
7-16	-.258	.049	-.083	-.528	11-4	-.132	.032	-.017	-.303
7-17	-.231	.041	-.092	-.505	11-5	-.198	.037	-.070	-.344
7-18	-.230	.033	-.137	-.379	11-6	-.202	.032	-.088	-.335
7-19	-.241	.036	-.130	-.397	11-7	-.204	.028	-.116	-.334
7-20	-.364	.070	-.173	-.638	11-8	-.212	.037	-.111	-.440
7-21	-.213	.030	-.106	-.334	11-9	-.185	.027	-.107	-.273
7-22	-.302	.046	-.128	-.501	11-10	-.192	.026	-.094	-.286
7-23	-.224	.048	-.080	-.467	11-11	-.194	.027	-.105	-.295
7-24	-.253	.039	-.113	-.397	11-12	-.202	.027	-.120	-.302
7-25	-.277	.041	-.127	-.453	11-13	-.197	.027	-.116	-.294
7-26	-.199	.030	-.052	-.304	11-14	-.202	.027	-.120	-.321
7-27	-.207	.030	-.104	-.316	11-15	-.209	.038	-.102	-.367
7-28	-.360	.064	-.145	-.729	11-16	-.195	.028	-.096	-.321
7-29	-.404	.086	-.151	-.967	11-17	-.184	.023	-.061	-.270
7-30	-.269	.044	-.116	-.476	11-18	-.194	.025	-.069	-.285
7-31	-.286	.050	-.142	-.531	11-19	-.202	.024	-.107	-.297
7-32	-.228	.036	-.103	-.420	11-20	-.208	.025	-.116	-.305
7-33	-.251	.038	-.101	-.420	11-21	-.204	.026	-.093	-.288
7-34	-.388	.088	-.100	-.1115	11-22	-.213	.026	-.093	-.288
7-35	-.238	.036	-.101	-.428	11-23	-.188	.029	-.091	-.317
7-36	-.310	.054	-.139	-.565	11-24	-.186	.027	-.055	-.265
7-37	-.348	.066	-.189	-.683	11-25	-.196	.023	-.111	-.300
8-1	-.239	.068	-.045	-.738	11-26	-.204	.022	-.120	-.302
8-2	-.234	.061	-.004	-.583	11-27	-.202	.024	-.114	-.309
8-3	-.265	.079	-.018	-.631	11-28	-.211	.027	-.113	-.314
8-4	-.233	.064	-.045	-.516	12-1	-.203	.048	-.053	-.424
8-5	-.213	.050	-.057	-.532	12-2	-.207	.048	-.065	-.437
8-6	-.211	.051	-.045	-.559	12-3	-.195	.038	-.082	-.445
8-7	-.209	.041	-.072	-.410	12-4	-.202	.057	-.041	-.440
8-8	-.212	.045	-.066	-.622	12-5	-.200	.039	-.082	-.483
8-9	-.210	.032	-.106	-.429	12-6	-.199	.041	-.065	-.446
8-10	-.204	.034	-.097	-.422	13-1	-.013	.178	-.785	-.402
8-11	-.206	.026	-.121	-.355	13-2	-.142	.080	-.396	-.416
8-12	-.210	.030	-.116	-.437	13-3	-.070	.080	-.576	-.507
8-13	-.206	.028	-.116	-.310	13-4	-.236	.075	-.011	-.606
8-14	-.205	.030	-.106	-.319	13-5	-.127	.124	-.519	-.620
8-15	-.204	.024	-.106	-.291	13-6	-.212	.061	-.427	-.620
8-16	-.207	.026	-.110	-.310	13-7	-.160	.090	-.503	-.603
					13-8	-.166	.075	-.330	-.457
					13-9	-.149	.073	-.254	-.522

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.294	.083	-.006	-.683	17-1	-.357	.079	-.112	-.664
14-2	-.270	.071	-.029	-.591	17-2	-.239	.063	.117	-.550
14-3	-.211	.052	-.052	-.437	17-3	-.221	.178	.787	-.378
14-4	-.190	.052	-.038	-.442	17-4	-.012	.157	.536	-.410
14-5	-.188	.050	-.027	-.421	17-5	-.419	.100	-.020	-.890
15-1	-.251	.058	-.070	-.498	17-6	-.308	.088	-.102	-.664
15-2	-.253	.060	-.055	-.466	17-7	-.227	.053	-.082	-.462
15-3	-.245	.056	-.094	-.430	17-8	-.244	.067	-.049	-.650
15-4	-.204	.052	-.046	-.396	17-9	-.224	.053	-.059	-.550
15-5	-.212	.050	-.064	-.396	17-10	-.187	.044	-.026	-.418
15-6	-.204	.053	-.021	-.405	17-11	-.209	.059	-.035	-.602
16-1	-.099	.158	-.859	-.320	17-12	-.163	.047	.091	-.359
16-2	.165	.162	.705	-.219	17-13	-.165	.119	.144	-.778
16-3	.194	.170	.776	-.333	17-14	-.264	.068	-.014	-.531
16-4	.170	.179	.797	-.471	17-15	-.320	.074	-.059	-.646
16-5	.097	.173	.797	-.530	17-16	-.111	.103	.344	-.571
16-6	.068	.125	.691	-.222	17-17	-.144	.061	.117	-.437
16-7	.158	.126	.762	-.112	17-18	-.212	.047	-.049	-.528
16-8	.145	.137	.785	-.167					
16-9	.150	.145	.711	-.216					
16-10	.054	.140	.686	-.349					
16-11	.002	.078	.398	-.202					
16-12	.033	.104	.507	-.241					
16-13	.057	.104	.456	-.223					
16-14	.040	.095	.421	-.211					
16-15	-.039	.092	.317	-.333					
16-16	-.015	.061	.323	-.176					
16-17	-.015	.064	.316	-.184					
16-18	-.017	.059	.240	-.153					
16-19	-.036	.055	.214	-.205					
16-20	-.072	.065	.342	-.270					
16-21	.022	.068	.287	-.155					
16-22	.018	.065	.304	-.182					
16-23	-.005	.058	.275	-.179					
16-24	.054	.082	.465	-.126					
16-25	.093	.089	.477	-.094					

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WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.100	.095	.203	-.618	3-29	-.041	.040	.196	-.156
1-2	-.095	.098	.293	-.555	3-30	-.022	.041	.188	-.153
1-3	-.073	.059	.369	-.369	3-31	-.012	.074	.174	-.129
1-4	-.066	.038	.135	-.212	3-32	-.002	.047	.287	-.136
1-5	-.064	.044	.145	-.208	3-33	.003	.048	.209	-.142
1-6	-.059	.037	.103	-.174	3-34	.001	.047	.189	-.152
1-7	-.056	.036	.065	-.190	3-35	-.011	.046	.221	-.181
2-1	-.121	.084	.136	-.799	3-36	-.022	.048	.204	-.185
2-2	-.138	.106	.191	-.711	3-37	.050	.063	.412	-.112
2-3	-.122	.122	.248	-.683	3-38	.088	.065	.436	-.087
2-4	-.086	.115	.272	-.624	3-39	.099	.067	.377	-.089
2-5	-.117	.067	.166	-.486	3-40	.054	.059	.334	-.129
2-6	-.127	.051	.122	-.394	3-41	.067	.065	.400	-.099
2-7	-.113	.046	.119	-.336	3-42	.100	.065	.488	-.047
2-8	-.084	.056	.139	-.267	3-43	.119	.070	.450	-.042
2-9	-.148	.077	.166	-.634	3-44	.097	.072	.399	-.067
2-10	-.148	.059	.060	-.413	4-1	-.256	.135	.396	-.967
2-11	-.119	.041	.047	-.287	4-2	-.298	.105	.119	.785
2-12	-.091	.041	.067	-.252	4-3	-.297	.094	.074	.685
2-13	-.181	.094	.043	-.865	4-4	-.288	.086	.028	.923
2-14	-.150	.070	.053	-.769	4-5	-.184	.080	.412	.558
2-15	-.097	.045	.057	-.315	4-6	.291	.074	.033	.636
2-16	-.073	.045	.123	-.267	4-7	.280	.075	.042	.588
2-17	-.118	.077	.112	-.470	4-8	.245	.071	.077	.556
2-18	-.062	.053	.125	-.506	4-9	.079	.100	.508	.331
2-19	-.067	.054	.105	-.407	4-10	.237	.052	.005	.584
2-20	-.038	.046	.123	-.222	4-11	.220	.055	.263	.533
3-1	-.040	.114	.508	-.348	4-12	.181	.054	.052	.359
3-2	-.029	.102	.488	-.270	4-13	.200	.086	.086	.420
3-3	.072	.099	.493	-.217	4-14	.199	.048	.096	.417
3-4	.181	.116	.627	-.182	4-15	.181	.050	.097	.469
3-5	.181	.132	.720	-.181	5-1	.218	.186	.658	-.1316
3-6	.237	.138	.780	-.100	5-2	.145	.105	.418	-.520
3-7	.293	.142	.857	-.092	5-3	.058	.108	.636	.318
3-8	.332	.152	.928	-.100	5-4	-.209	.067	.067	.534
3-9	.354	.170	1.091	-.079	5-5	.259	.071	.014	.664
3-10	-.069	.078	.616	-.311	5-6	.252	.053	.033	.517
3-11	.077	.077	.531	-.209	5-7	.202	.055	.053	.445
3-12	.061	.082	.456	-.159	5-8	.221	.055	.022	.564
3-13	.113	.097	.585	-.116	5-9	.222	.050	.055	.506
3-14	.167	.107	.697	-.082	6-1	.030	.153	.682	.372
3-15	.213	.118	.642	-.085	6-2	.077	.155	.716	.385
3-16	.255	.127	.771	-.105	6-3	.026	.140	.860	.364
3-17	.287	.136	.849	-.112	6-4	.111	.144	.747	.640
3-18	.308	.145	.873	-.163	6-5	.046	.127	.568	.424
3-19	-.069	.050	.228	-.257	6-6	-.017	.131	.525	.357
3-20	.007	.051	.219	-.149	6-7	.084	.126	.565	.379
3-21	-.008	.061	.239	-.206	6-8	.153	.107	.377	.638
3-22	.018	.066	.282	-.186	6-9	.142	.095	.287	.412
3-23	.049	.073	.386	-.165	6-10	.142	.093	.287	.404
3-24	.066	.079	.483	-.148	6-11	.130	.080	.311	.349
3-25	.094	.086	.492	-.128	6-12	.063	.105	.554	.368
3-26	.115	.095	.617	-.119	6-13	.186	.078	.232	.628
3-27	.124	.100	.622	-.130	6-14	.180	.076	.177	.519
3-28	-.091	.042	.100	-.225	6-15	.181	.061	.135	.285

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.229	.054	-.046	-.501	9-1	-.216	.050	-.013	-.465
7-2	-.244	.059	-.244	-.587	9-2	-.171	.079	.166	-.417
7-3	-.258	.059	-.024	-.562	9-3	-.218	.030	.110	-.371
7-4	-.212	.061	.013	-.593	9-4	-.231	.024	.165	-.331
7-5	-.281	.067	-.042	-.624	9-5	-.236	.026	.146	-.343
7-6	-.317	.080	-.030	-.704	10-1	-.229	.025	.139	-.329
7-7	-.362	.095	-.061	-.798	10-2	-.235	.030	.129	-.364
7-8	-.406	.104	-.074	-.860	10-3	-.235	.036	.113	-.442
7-9	-.489	.132	-.171	-.1178	10-4	-.238	.028	.146	-.385
7-10	-.214	.041	-.078	-.370	10-5	-.233	.024	.146	-.356
7-11	-.225	.042	-.088	-.444	10-6	-.230	.025	.139	-.353
7-12	-.233	.043	-.067	-.456	10-7	-.234	.024	.150	-.349
7-13	-.241	.045	-.058	-.505	11-1	-.212	.041	.085	-.470
7-14	-.247	.053	-.021	-.489	11-2	-.213	.036	.085	-.358
7-15	-.265	.058	-.022	-.477	11-3	-.224	.035	.108	-.373
7-16	-.307	.067	-.022	-.605	11-4	-.157	.039	.031	-.310
7-17	-.303	.087	-.051	-.716	11-5	-.241	.051	.088	-.553
7-18	-.433	.109	-.128	-.993	11-6	-.234	.041	.085	-.470
7-19	-.205	.032	-.050	-.447	11-7	-.230	.029	.114	-.338
7-20	-.206	.032	-.062	-.351	11-8	-.219	.026	.122	-.453
7-21	-.212	.034	-.085	-.355	11-9	-.220	.028	.132	-.320
7-22	-.219	.036	-.076	-.394	11-10	-.221	.028	.110	-.328
7-23	-.233	.037	-.092	-.432	11-11	-.225	.030	.111	-.363
7-24	-.250	.039	-.089	-.461	11-12	-.237	.032	.135	-.365
7-25	-.222	.049	-.089	-.569	11-13	-.230	.029	.124	-.340
7-26	-.338	.086	-.055	-.795	11-14	-.230	.026	.138	-.329
7-27	-.425	.123	-.149	-.149	11-15	-.209	.026	.162	-.381
7-28	-.204	.025	-.123	-.294	11-16	-.214	.023	.121	-.293
7-29	-.204	.027	-.101	-.331	11-17	-.222	.024	.113	-.317
7-30	-.206	.028	-.104	-.327	11-18	-.220	.026	.130	-.318
7-31	-.216	.028	-.101	-.333	11-19	-.228	.025	.149	-.326
7-32	-.225	.030	-.103	-.372	11-20	-.235	.025	.146	-.346
7-33	-.241	.034	-.103	-.392	11-21	-.236	.025	.158	-.329
7-34	-.240	.043	-.082	-.505	11-22	-.209	.038	.116	-.431
7-35	-.290	.056	-.103	-.764	11-23	-.197	.024	.077	-.295
7-36	-.343	.093	-.100	-.1442	11-24	-.215	.030	.069	-.315
7-37	-.210	.028	-.048	-.314	11-25	-.239	.024	.155	-.331
8-1	-.333	.094	-.074	-.631	11-26	-.232	.024	.025	-.369
8-2	-.284	.071	-.071	-.642	11-27	-.230	.023	.165	-.318
8-3	-.244	.061	-.071	-.566	11-28	-.237	.025	.165	-.318
8-4	-.246	.054	-.088	-.568	12-1	-.223	.058	.038	-.330
8-5	-.247	.043	-.094	-.486	12-2	-.219	.047	.060	-.473
8-6	-.243	.045	-.074	-.429	12-3	-.215	.046	.086	-.486
8-7	-.241	.049	-.080	-.458	12-4	-.221	.053	.010	-.552
8-8	-.233	.049	-.076	-.517	12-5	-.218	.040	.084	-.369
8-9	-.237	.027	-.144	-.342	12-6	-.216	.044	.062	-.424
8-10	-.237	.027	-.140	-.330	13-1	-.166	.097	.277	-.533
8-11	-.237	.029	-.134	-.328	13-2	-.252	.057	.036	-.459
8-12	-.236	.033	-.116	-.372	13-3	-.209	.084	.177	-.569
8-13	-.234	.024	-.132	-.312	13-4	-.307	.047	.183	-.562
8-14	-.234	.025	-.123	-.325	13-5	-.253	.074	.293	-.543
8-15	-.234	.027	-.141	-.339	13-6	-.262	.064	.168	-.496
8-16	-.237	.030	-.132	-.380	13-7	-.279	.053	.120	-.524
					13-8	-.279	.054	.120	-.544
					13-9	-.264	.054	.120	-.544



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.344	-.045	-.167	-.793	17-1	-.357	.078	-.144	-.726
14-2	-.230	-.050	-.181	-.594	17-2	-.347	.081	-.094	-.649
14-3	-.286	-.038	-.165	-.440	17-3	.078	.188	.750	-.451
14-4	-.259	-.037	-.141	-.412	17-4	.026	.237	.832	-.662
14-5	-.313	-.047	-.128	-.385	17-5	-.353	.109	.026	-.804
15-1	-.316	-.049	-.151	-.511	17-6	-.368	.089	-.148	-.743
15-2	-.308	-.043	-.138	-.533	17-7	-.283	.061	-.110	-.573
15-3	-.285	-.039	-.173	-.464	17-8	-.298	.082	-.058	-.700
15-4	-.290	-.039	-.167	-.449	17-9	-.213	.071	.019	-.510
15-5	-.280	-.044	-.174	-.447	17-10	-.138	.049	.041	-.344
16-1	-.115	.112	-.155	-.540	17-11	-.145	.073	.110	-.436
16-2	-.084	.119	-.414	-.578	17-12	-.154	.058	.127	-.453
16-3	-.007	.148	-.650	-.478	17-13	-.232	.140	.224	-.078
16-4	-.044	.144	-.720	-.376	17-14	-.188	.086	.205	-.667
16-5	-.023	.116	-.611	-.437	17-15	-.244	.192	.042	-.774
16-6	-.087	.058	-.132	-.380	17-16	-.063	.123	.404	-.710
16-7	-.014	.068	-.373	-.375	17-17	-.168	.048	.031	-.461
16-8	-.003	.104	-.636	-.196	17-18	-.195	.051	-.027	-.450
16-9	-.053	.108	-.482	-.303					
16-10	-.032	.095	-.437	-.235					
16-11	-.069	.045	-.210	-.316					
16-12	-.042	.085	-.340	-.309					
16-13	-.012	.076	-.340	-.212					
16-14	-.021	.081	-.402	-.269					
16-15	-.074	.070	-.258	-.192					
16-16	-.049	.052	-.213	-.295					
16-17	-.009	.062	-.276	-.208					
16-18	-.012	.068	-.293	-.184					
16-19	-.003	.059	-.433	-.202					
16-20	-.092	.060	-.170	-.394					
16-21	-.023	.070	-.305	-.158					
16-22	-.022	.066	-.283	-.165					
16-23	-.003	.060	-.247	-.192					
16-24	-.056	.046	-.190	-.179					
16-25	.009	.059	-.293	-.157					

\*WIND ENGINEERING STUDY OF MERCHANTS, PLAZA  
INDIANAPOLIS, INDIANA  
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
1-1	-.181	.057	0.000	-.553	3-29	-.058	.041	.180	-.244
1-2	-.174	.068	-.037	-.565	3-30	-.050	.040	.187	-.212
1-3	-.167	.045	-.039	-.382	3-31	-.055	.036	.158	-.211
1-4	-.156	.031	-.028	-.265	3-32	-.054	.036	.105	-.193
1-5	-.162	.034	-.011	-.307	3-33	-.065	.034	.068	-.181
1-6	-.143	.028	-.051	-.282	3-34	-.072	.031	.079	-.165
1-7	-.136	.025	-.049	-.224	3-35	-.089	.029	.071	-.181
2-1	-.177	.043	-.017	-.411	3-36	-.104	.028	.003	-.212
2-2	-.174	.044	-.024	-.439	3-37	-.106	.043	.156	-.194
2-3	-.178	.044	-.008	-.408	3-38	0.000	.045	.202	-.153
2-4	-.174	.063	-.063	-.396	3-39	-.015	.043	.175	-.120
2-5	-.178	.040	-.035	-.461	3-40	-.041	.038	.152	-.153
2-6	-.176	.035	-.027	-.308	3-41	-0.000	.058	.235	-.114
2-7	-.183	.036	-.042	-.335	3-42	.014	.051	.269	-.094
2-8	-.173	.041	-.029	-.389	3-43	.001	.048	.284	-.099
2-9	-.164	.035	-.020	-.376	3-44	-.024	.043	.264	-.126
2-10	-.166	.030	-.059	-.282	4-1	-.060	.111	.392	-.088
2-11	-.171	.020	-.080	-.261	4-2	-.087	.110	.379	-.083
2-12	-.156	.031	-.032	-.258	4-3	-.102	.109	.303	-.099
2-13	-.152	.029	-.049	-.272	4-4	-.118	.107	.300	-.096
2-14	-.158	.026	-.076	-.246	4-5	-.116	.099	.374	-.096
2-15	-.163	.024	-.088	-.229	4-6	-.069	.102	.417	-.083
2-16	-.145	.025	-.052	-.237	4-7	-.080	.094	.330	-.087
2-17	-.149	.027	-.041	-.266	4-8	-.073	.084	.343	-.087
2-18	-.150	.025	-.071	-.247	4-9	-.033	.094	.455	-.107
2-19	-.151	.026	-.076	-.263	4-10	-.083	.073	.239	-.260
2-20	-.157	.025	-.074	-.263	4-11	-.097	.074	.261	-.348
3-1	-.064	.160	-.874	-.431	4-12	-.085	.068	.190	-.588
3-2	.113	.173	.950	-.313	4-13	-.051	.069	.245	-.240
3-3	.136	.172	.697	-.326	4-14	-.091	.058	.149	-.297
3-4	.154	.174	.753	-.301	4-15	-.087	.055	.175	-.520
3-5	.157	.173	.930	-.490	5-1	-.005	.124	.570	-.442
3-6	.123	.155	.835	-.253	5-2	.053	.115	.661	-.288
3-7	.062	.131	.876	-.346	5-3	.078	.116	.741	-.219
3-8	.017	.105	.600	-.304	5-4	-.023	.100	.400	-.513
3-9	-.011	.093	.408	-.313	5-5	-.060	.096	.363	-.417
3-10	.006	.096	.457	-.351	5-6	-.07	.076	.286	-.458
3-11	.021	.098	.521	-.231	5-7	-.053	.079	.357	-.250
3-12	.052	.113	.584	-.212	5-8	-.067	.075	.289	-.276
3-13	.060	.118	.817	-.172	5-9	-.066	.067	.227	-.300
3-14	.070	.119	.694	-.172	6-1	.145	.195	.608	-.364
3-15	.050	.108	.584	-.168	6-2	.149	.188	.855	-.359
3-16	.097	.077	.557	-.267	6-3	.092	.173	.897	-.284
3-17	-0.000	.077	.423	-.194	6-4	.019	.147	.728	-.346
3-18	-.025	.067	.348	-.225	6-5	.105	.171	.912	-.401
3-19	-.052	.063	.252	-.458	6-6	.122	.161	.868	-.266
3-20	-.001	.049	.329	-.226	6-7	.072	.138	.635	-.256
3-21	-.039	.061	.338	-.214	6-8	.039	.115	.555	-.337
3-22	-.032	.063	.343	-.199	6-9	.027	.131	.677	-.359
3-23	-.034	.062	.451	-.209	6-10	.048	.117	.551	-.247
3-24	-.043	.059	.302	-.250	6-11	.048	.107	.614	-.269
3-25	-.054	.057	.273	-.247	6-12	.070	.122	.746	-.291
3-26	-.060	.052	.219	-.226	6-13	.045	.099	.476	-.377
3-27	-.076	.050	.164	-.226	6-14	-.016	.093	.512	-.261
3-28	-.068	.048	.152	-.389	6-15	-.014	.085	.407	-.187

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-158	.038	-.036	-.398	9-1	-.187	.039	-.057	-.430
7-2	-158	.037	-.009	-.407	9-2	-.189	.052	-.065	-.555
7-3	-150	.038	-.022	-.376	9-3	-.185	.024	-.092	-.305
7-4	-166	.040	-.015	-.365	9-4	-.188	.020	-.114	-.261
7-5	-178	.045	-.030	-.391	9-5	-.185	.020	-.117	-.258
7-6	-193	.058	-.031	-.548	9-6	-.185	.020	-.115	-.283
7-7	-240	.078	-.031	-.677	10-1	-.184	.026	-.100	-.305
7-8	-342	.127	-.051	-1.085	10-2	-.185	.027	-.093	-.299
7-9	-531	.150	-.112	-1.247	10-3	-.186	.023	-.114	-.265
7-10	-166	.031	-.042	-.313	10-4	-.185	.020	-.123	-.254
7-11	-161	.032	-.027	-.326	10-5	-.186	.019	-.125	-.243
7-12	-162	.033	-.024	-.335	10-6	-.186	.019	-.123	-.250
7-13	-166	.037	-.019	-.365	11-1	-.224	.040	-.122	-.635
7-14	-173	.048	-.031	-.445	11-2	-.212	.033	-.111	-.408
7-15	-191	.059	-.055	-.588	11-3	-.224	.033	-.122	-.450
7-16	-236	.080	-.031	-.848	11-4	-.195	.035	-.090	-.438
7-17	-334	.130	-.006	-1.011	11-5	-.199	.038	-.079	-.365
7-18	-493	.158	-.049	-1.323	11-6	-.192	.036	-.054	-.537
7-19	-168	.028	-.070	-.298	11-7	-.185	.031	-.062	-.384
7-20	-165	.029	-.048	-.326	11-8	-.220	.022	-.144	-.318
7-21	-165	.032	-.016	-.332	11-9	-.211	.022	-.142	-.288
7-22	-166	.035	-.028	-.334	11-10	-.201	.024	-.117	-.295
7-23	-174	.038	-.001	-.400	11-11	-.190	.025	-.062	-.299
7-24	-188	.045	-.021	-.443	11-12	-.187	.025	-.104	-.292
7-25	-164	.040	-.037	-.531	11-13	-.189	.026	-.106	-.303
7-26	-306	.124	-.004	-.904	11-14	-.181	.023	-.111	-.284
7-27	-463	.161	-.046	-1.171	11-15	-.223	.028	-.131	-.311
7-28	-165	.025	-.051	-.263	11-16	-.210	.022	-.125	-.276
7-29	-163	.026	-.048	-.265	11-17	-.201	.020	-.123	-.258
7-30	-162	.029	-.063	-.286	11-18	-.194	.021	-.122	-.254
7-31	-165	.032	-.040	-.353	11-19	-.192	.020	-.117	-.284
7-32	-171	.035	-.028	-.443	11-20	-.189	.020	-.120	-.281
7-33	-183	.044	-.019	-.430	11-21	-.186	.021	-.118	-.261
7-34	-209	.050	-.046	-.569	11-22	-.236	.028	-.142	-.262
7-35	-269	.092	-.127	-.990	11-23	-.202	.022	-.131	-.276
7-36	-380	.128	-.076	-1.264	11-24	-.196	.020	-.095	-.267
7-37	-156	.029	-.022	-.243	11-25	-.200	.018	-.128	-.270
8-1	-180	.047	-.007	-.457	11-26	-.194	.018	-.126	-.258
8-2	-175	.037	-.046	-.361	11-27	-.191	.018	-.130	-.262
8-3	-176	.035	-.046	-.353	11-28	-.189	.018	-.131	-.264
8-4	-179	.035	-.055	-.353	12-1	-.217	.022	-.117	-.378
8-5	-182	.027	-.091	-.290	12-2	-.221	.023	-.087	-.385
8-6	-179	.025	-.094	-.274	12-3	-.221	.025	-.087	-.337
8-7	-181	.025	-.105	-.269	12-4	-.216	.029	-.100	-.429
8-8	-183	.026	-.091	-.278	12-5	-.218	.023	-.101	-.337
8-9	-187	.022	-.106	-.286	12-6	-.220	.021	-.144	-.394
8-10	-180	.022	-.094	-.275	13-1	-.186	.026	-.047	-.347
8-11	-180	.022	-.103	-.280	13-2	-.229	.036	-.069	-.361
8-12	-183	.024	-.109	-.272	13-3	-.215	.037	-.038	-.350
8-13	-188	.020	-.130	-.253	13-4	-.240	.029	-.172	-.445
8-14	-186	.020	-.121	-.269	13-5	-.215	.029	-.055	-.417
8-15	-182	.021	-.111	-.252	13-6	-.246	.025	-.166	-.372
8-16	-176	.023	-.100	-.261	13-7	-.216	.043	-.030	-.434
					13-8	-.215	.026	-.066	-.365
					13-9	-.220	.033	-.079	-.343

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.263	.035	-.145	-.457	17-1	-.289	.057	-.121	-.603
14-2	-.264	.029	-.168	-.391	17-2	-.342	.085	-.123	-.833
14-3	-.244	.023	-.164	-.330	17-3	-.165	.115	.509	-.551
14-4	-.233	.025	-.159	-.358	17-4	.125	.180	.804	-.321
14-5	-.241	.023	-.173	-.343	17-5	-.050	.142	.505	-.457
15-1	-.256	.031	-.161	-.413	17-6	-.395	.091	-.144	-.744
15-2	-.259	.030	-.171	-.417	17-7	-.323	.067	-.158	-.629
15-3	-.254	.026	-.176	-.361	17-8	-.259	.058	-.104	-.553
15-4	-.244	.022	-.185	-.335	17-9	-.124	.051	.052	-.321
15-5	-.240	.022	-.182	-.326	17-10	-.111	.059	.107	-.341
15-6	-.247	.021	-.186	-.326	17-11	-.116	.059	.106	-.317
16-1	-.181	.087	-.137	-.740	17-12	-.183	.067	.111	-.446
16-2	-.154	.088	-.147	-.661	17-13	-.154	.089	.132	-.534
16-3	-.132	.081	-.175	-.630	17-14	-.167	.066	.053	-.457
16-4	-.126	.082	-.195	-.533	17-15	-.174	.087	.103	-.776
16-5	-.165	.086	-.302	-.613	17-16	-.316	.165	.357	-1.010
16-6	-.176	.055	-.031	-.520	17-17	-.197	.061	.043	-.567
16-7	-.097	.049	.061	-.320	17-18	-.161	.063	.036	-.540
16-8	-.109	.062	.230	-.354					
16-9	-.085	.066	.247	-.310					
16-10	-.140	.063	.171	-.330					
16-11	-.165	.035	-.025	-.423					
16-12	-.150	.048	.097	-.369					
16-13	-.108	.050	.151	-.273					
16-14	-.094	.055	.145	-.258					
16-15	-.133	.055	.172	-.313					
16-16	-.158	.031	-.048	-.288					
16-17	-.143	.036	.083	-.271					
16-18	-.122	.041	.069	-.240					
16-19	-.109	.045	.087	-.233					
16-20	-.125	.044	.085	-.299					
16-21	-.126	.033	.085	-.226					
16-22	-.109	.036	.104	-.209					
16-23	-.099	.041	.085	-.231					
16-24	-.150	.026	-.065	-.241					
16-25	-.115	.034	.073	-.199					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.324	.046	-.183	-.560	3-29	.064	.074	.469	-.178
1-2	-.328	.050	-.172	-.708	3-30	.037	.059	.285	-.170
1-3	-.365	.042	-.180	-.523	3-31	-.092	.049	.169	-.186
1-4	-.323	.037	-.179	-.520	3-32	-.027	.045	.137	-.192
1-5	-.331	.037	-.190	-.493	3-33	-.053	.043	.143	-.204
1-6	-.268	.031	-.175	-.419	3-34	-.069	.040	.110	-.243
1-7	-.231	.031	-.109	-.330	3-35	-.100	.038	.081	-.270
2-1	-.295	.044	-.149	-.519	3-36	-.146	.038	.032	-.347
2-2	-.295	.044	-.154	-.532	3-37	.072	.064	.350	-.116
2-3	-.300	.042	-.169	-.489	3-38	.047	.051	.294	-.089
2-4	-.297	.046	-.160	-.540	3-39	-0.000	.047	.217	-.154
2-5	-.311	.046	-.145	-.525	3-40	-.050	.044	.104	-.261
2-6	-.316	.039	-.195	-.440	3-41	.099	.071	.484	-.072
2-7	-.332	.038	-.228	-.472	3-42	.071	.062	.353	-.074
2-8	-.336	.040	-.214	-.486	3-43	.018	.054	.279	-.176
2-9	-.311	.046	-.151	-.477	3-44	-.034	.048	.183	-.240
2-10	-.319	.037	-.178	-.475	4-1	.097	.144	.529	-.360
2-11	-.325	.032	-.216	-.465	4-2	.151	.107	.437	-.302
2-12	-.315	.034	-.179	-.451	4-3	.103	.095	.357	-.305
2-13	-.283	.038	-.151	-.445	4-4	-.015	.187	.450	-.708
2-14	-.289	.034	-.186	-.428	4-5	.238	.121	.737	-.205
2-15	-.282	.031	-.186	-.406	4-6	.321	.118	.847	-.402
2-16	-.259	.032	-.149	-.367	4-7	.182	.111	.588	-.650
2-17	-.260	.036	-.149	-.403	4-8	.058	.167	.469	-.731
2-18	-.252	.034	-.131	-.364	4-9	.272	.112	.700	-.608
2-19	-.263	.034	-.149	-.403	4-10	.185	.122	.655	-.192
2-20	-.267	.032	-.163	-.382	4-11	.147	.100	.550	-.187
3-1	.364	.178	.934	-.316	4-12	.084	.126	.536	-.400
3-2	.271	.171	.822	-.255	4-13	.124	.079	.394	-.148
3-3	.188	.162	.759	-.255	4-14	.087	.079	.365	-.290
3-4	.117	.159	.792	-.320	4-15	.050	.081	.323	-.464
3-5	.053	.149	.756	-.354	5-1	.155	.133	.702	-.371
3-6	.030	.138	.611	-.383	5-2	.310	.134	.811	-.058
3-7	.015	.136	.670	-.419	5-3	.323	.126	.795	.015
3-8	.015	.149	.560	-.692	5-4	.153	.102	.531	-.127
3-9	.012	.172	.775	-.474	5-5	.228	.104	.508	-.215
3-10	.334	.157	.897	-.308	5-6	.139	.116	.510	-.210
3-11	.232	.133	.694	-.220	5-7	.161	.097	.489	-.089
3-12	.141	.118	.649	-.186	5-8	.150	.095	.484	-.123
3-13	.071	.100	.478	-.196	5-9	.144	.096	.495	-.161
3-14	.030	.090	.454	-.229	6-1	.291	.165	.935	-.227
3-15	.001	.088	.433	-.247	6-2	.325	.156	.872	-.216
3-16	-.010	.090	.579	-.264	6-3	.310	.151	.854	-.308
3-17	-.010	.105	.574	-.324	6-4	.271	.153	.885	-.177
3-18	-.037	.115	.551	-.332	6-5	.213	.148	.752	-.174
3-19	.197	.128	.753	-.321	6-6	.294	.146	.784	-.109
3-20	.159	.081	.439	-.081	6-7	.322	.138	.783	-.033
3-21	.073	.076	.385	-.170	6-8	.324	.144	.820	-.032
3-22	.026	.066	.303	-.220	6-9	.068	.114	.755	-.215
3-23	-.015	.060	.249	-.214	6-10	.167	.110	.721	-.101
3-24	-.039	.058	.223	-.220	6-11	.236	.115	.695	-.060
3-25	-.050	.061	.259	-.225	6-12	.292	.129	.857	-.024
3-26	-.070	.062	.231	-.302	6-13	-.007	.070	.227	-.227
3-27	-.116	.066	.285	-.353	6-14	.098	.086	.404	-.131
3-28	.073	.096	.481	-.324	6-15	.153	.104	.594	-.077

WIND ENGINEERING STUDY OF MERCHANTS PLAZA,  
INDIANAPOLIS, INDIANA  
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	MINIMUM PRESSURE COEFFICIENT
7-1	-.141	.036	.017	-.287	8-1	-.265	.036	-.453	-.119	-.453
7-2	-.121	.038	.005	-.272	9-2	-.261	.039	-.458	-.094	-.458
7-3	-.118	.038	.008	-.260	9-3	-.258	.023	-.355	-.182	-.355
7-4	-.117	.038	.015	-.292	9-4	-.258	.021	-.350	-.192	-.350
7-5	-.128	.044	.065	-.500	9-5	-.253	.021	-.344	-.179	-.344
7-6	-.136	.061	.041	-.550	9-6	-.252	.021	-.340	-.176	-.340
7-7	-.194	.108	.131	-.813	10-1	-.255	.028	-.360	-.156	-.360
7-8	-.379	.177	.015	-.982	10-2	-.259	.029	-.376	-.158	-.376
7-9	-.608	.145	-.118	-1.404	10-3	-.254	.022	-.327	-.182	-.327
7-10	-.165	.034	-.005	-.349	10-4	-.248	.019	-.318	-.192	-.318
7-11	-.139	.037	-.032	-.305	10-5	-.250	.019	-.319	-.195	-.319
7-12	-.124	.039	.057	-.311	10-6	-.252	.019	-.332	-.198	-.332
7-13	-.120	.044	.047	-.361	11-1	-.287	.036	-.471	-.161	-.471
7-14	-.121	.056	.134	-.595	11-2	-.290	.034	-.457	-.171	-.457
7-15	-.145	.079	.147	-.595	11-3	-.301	.042	-.494	-.166	-.494
7-16	-.230	.129	.110	-.816	11-4	-.214	.041	-.465	-.165	-.465
7-17	-.608	.183	.083	-.997	11-5	-.282	.048	-.666	-.136	-.666
7-18	-.509	.142	-.057	-1.251	11-6	-.285	.045	-.702	-.150	-.702
7-19	-.176	.033	-.032	-.399	11-7	-.251	.036	-.523	-.132	-.523
7-20	-.151	.036	-.003	-.354	11-8	-.278	.029	-.390	-.189	-.390
7-21	-.142	.042	-.048	-.370	11-9	-.284	.030	-.402	-.190	-.402
7-22	-.145	.051	.044	-.458	11-10	-.282	.035	-.444	-.176	-.444
7-23	-.162	.057	.077	-.719	11-11	-.277	.035	-.444	-.187	-.444
7-24	-.202	.094	.095	-.647	11-12	-.270	.030	-.427	-.171	-.427
7-25	-.219	.119	.086	-.808	11-13	-.264	.027	-.395	-.160	-.395
7-26	-.357	.151	.095	-.947	11-14	-.251	.024	-.326	-.160	-.326
7-27	-.426	.132	.027	-1.061	11-15	-.283	.030	-.426	-.166	-.426
7-28	-.177	.028	-.070	-.322	11-16	-.277	.025	-.434	-.166	-.434
7-29	-.158	.034	-.033	-.334	11-17	-.272	.024	-.389	-.173	-.389
7-30	-.148	.046	.056	-.446	11-18	-.267	.023	-.352	-.184	-.352
7-31	-.151	.054	.097	-.614	11-19	-.264	.021	-.347	-.180	-.347
7-32	-.169	.066	.044	-.443	11-20	-.260	.020	-.345	-.197	-.345
7-33	-.213	.088	.071	-.526	11-21	-.250	.021	-.337	-.189	-.337
7-34	-.252	.106	.113	-.754	11-22	-.280	.033	-.462	-.184	-.462
7-35	-.313	.117	.014	-.905	11-23	-.264	.022	-.347	-.184	-.347
7-36	-.326	.102	-.012	-1.257	11-24	-.262	.022	-.337	-.160	-.337
7-37	-.133	.050	.122	-.343	11-25	-.269	.019	-.340	-.210	-.340
8-1	-.248	.040	-.080	-.400	11-26	-.263	.019	-.326	-.200	-.326
8-2	-.240	.036	-.110	-.379	11-27	-.254	.018	-.326	-.192	-.326
8-3	-.233	.030	-.137	-.343	11-28	-.249	.019	-.316	-.192	-.316
8-4	-.232	.030	-.142	-.378	12-1	-.293	.046	-.550	-.152	-.550
8-5	-.247	.024	-.160	-.344	12-2	-.284	.044	-.499	-.166	-.499
8-6	-.241	.025	-.166	-.332	12-3	-.279	.032	-.408	-.119	-.408
8-7	-.234	.024	-.150	-.331	12-4	-.276	.040	-.467	-.167	-.467
8-8	-.232	.025	-.142	-.325	12-5	-.279	.034	-.426	-.021	-.426
8-9	-.250	.020	-.180	-.314	12-6	-.275	.031	-.385	-.175	-.385
8-10	-.237	.022	-.153	-.323	13-1	-.305	.058	-.594	-.054	-.594
8-11	-.225	.022	-.150	-.304	13-2	-.333	.043	-.618	-.189	-.618
8-12	-.224	.022	-.130	-.298	13-3	-.311	.044	-.510	-.152	-.510
8-13	-.256	.020	-.192	-.338	13-4	-.314	.029	-.463	-.226	-.463
8-14	-.248	.021	-.172	-.326	13-5	-.290	.049	-.455	-.077	-.455
8-15	-.236	.024	-.162	-.316	13-6	-.307	.037	-.487	-.173	-.487
8-16	-.219	.030	-.110	-.334	13-7	-.207	.062	-.494	-.060	-.494
					13-8	-.175	.057	-.357	-.082	-.357
					13-9	-.208	.049	-.402	-.020	-.402

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.311	.029	-.216	-.419	17-1	-.319	.049	-.162	-.611
14-2	-.319	.030	-.227	-.425	17-2	-.498	.091	-.220	-.848
14-3	-.319	.033	-.202	-.448	17-3	-.358	.115	-.168	-.416
14-4	-.324	.040	-.175	-.490	17-4	-.172	.193	.776	-.418
14-5	-.283	.034	-.151	-.401	17-5	.205	.166	.740	-.773
15-1	-.304	.033	-.195	-.421	17-6	-.442	.086	-.173	-.696
15-2	-.305	.032	-.199	-.449	17-7	-.466	.062	-.288	-.699
15-3	-.321	.030	-.216	-.435	17-8	-.321	.052	-.156	-.699
15-4	-.317	.031	-.215	-.452	17-9	-.127	.046	.060	-.320
15-5	-.331	.031	-.230	-.465	17-10	-.137	.054	.040	-.372
15-6	-.328	.037	-.215	-.490	17-11	-.132	.086	.259	-.483
16-1	-.369	.073	-.168	-.932	17-12	-.406	.095	-.035	-.787
16-2	-.438	.118	-.117	-1.071	17-13	-.291	.119	.057	-.852
16-3	-.403	.119	.038	-.975	17-14	-.296	.101	.320	-.658
16-4	-.386	.117	.048	-.833	17-15	-.095	.106	.284	-.511
16-5	-.388	.137	.014	-.982	17-16	-.576	.120	-.123	-.1063
16-6	-.385	.069	-.246	-.644	17-17	-.365	.085	-.074	-.976
16-7	-.304	.063	-.153	-.658	17-18	-.247	.084	.023	-.589
16-8	-.321	.066	.077	-.590					
16-9	-.288	.063	-.010	-.446					
16-10	-.265	.064	-.063	-.544					
16-11	-.350	.043	-.186	-.587					
16-12	-.355	.048	-.206	-.685					
16-13	-.308	.050	-.087	-.529					
16-14	-.242	.047	-.040	-.429					
16-15	-.231	.054	.001	-.493					
16-16	-.286	.039	-.136	-.455					
16-17	-.285	.043	-.098	-.472					
16-18	-.269	.045	-.031	-.450					
16-19	-.219	.050	.058	-.391					
16-20	-.201	.058	.075	-.479					
16-21	-.274	.034	-.095	-.470					
16-22	-.237	.041	-.065	-.375					
16-23	-.202	.053	.104	-.421					
16-24	-.293	.030	-.206	-.453					
16-25	-.248	.039	-.071	-.396					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
1-1	-.369	.066	-.206	-.593	3-29	-.025	.091	-.376	-.320
1-2	-.374	.067	-.226	-.623	3-30	-.010	.088	-.463	-.319
1-3	-.398	.040	-.272	-.603	3-31	-.018	.081	-.528	-.246
1-4	-.362	.035	-.249	-.607	3-32	-.035	.071	-.475	-.247
1-5	-.374	.036	-.222	-.633	3-33	-.059	.057	-.178	-.237
1-6	-.290	.032	-.148	-.393	3-34	-.086	.046	-.118	-.235
1-7	-.246	.037	-.105	-.347	3-35	-.129	.037	-.032	-.273
2-1	-.365	.043	-.237	-.586	3-36	-.191	.030	-.047	-.346
2-2	-.369	.045	-.231	-.584	3-37	.005	.090	.510	-.524
2-3	-.382	.045	-.222	-.562	3-38	.022	.075	.263	-.263
2-4	-.369	.046	-.234	-.560	3-39	-.018	.059	.260	-.229
2-5	-.376	.037	-.267	-.522	3-40	-.079	.048	.121	-.240
2-6	-.396	.036	-.302	-.519	3-41	.018	.072	.299	-.272
2-7	-.413	.035	-.299	-.533	3-42	.036	.067	.132	-.132
2-8	-.391	.038	-.275	-.530	3-43	-.001	.058	.226	-.182
2-9	-.399	.035	-.285	-.543	3-44	-.064	.050	.137	-.216
2-10	-.418	.033	-.313	-.550	4-1	.115	.155	.708	-.455
2-11	-.417	.032	-.316	-.543	4-2	.088	.151	.593	-.473
2-12	-.378	.034	-.263	-.499	4-3	.074	.139	.556	-.434
2-13	-.381	.034	-.279	-.533	4-4	.076	.174	.627	-.417
2-14	-.390	.034	-.291	-.525	4-5	.225	.155	.765	-.156
2-15	-.369	.034	-.226	-.490	4-6	.148	.159	.705	-.293
2-16	-.319	.033	-.260	-.421	4-7	.115	.141	.622	-.423
2-17	-.349	.034	-.231	-.450	4-8	.093	.158	.595	-.564
2-18	-.331	.038	-.169	-.458	4-9	.074	.139	.556	-.434
2-19	-.351	.032	-.258	-.454	4-10	.097	.148	.773	-.136
2-20	-.360	.032	-.200	-.469	4-11	.056	.104	.460	-.207
3-1	-.170	.217	.894	-.799	4-12	.029	.099	.476	-.429
3-2	-.133	.156	.818	-.645	4-13	.106	.102	.672	-.133
3-3	-.114	.140	.660	-.641	4-14	.034	.075	.379	-.199
3-4	-.107	.135	.665	-.607	4-15	.007	.062	.269	-.357
3-5	-.129	.129	-.566	-.258	5-1	.127	.160	.687	-.361
3-6	-.113	.118	-.518	-.216	5-2	.256	.161	.818	-.128
3-7	-.079	.112	.489	-.258	5-3	.265	.157	.919	-.076
3-8	-.042	.116	.451	-.282	5-4	.090	.109	.509	-.248
3-9	-.017	.118	.548	-.389	5-5	.057	.112	.465	-.496
3-10	-.088	.182	.712	-.663	5-6	.024	.109	.494	-.454
3-11	-.091	.133	.629	-.375	5-7	.090	.098	.468	-.146
3-12	-.088	.123	.589	-.299	5-8	.067	.098	.478	-.193
3-13	-.095	.112	.554	-.172	5-9	.064	.092	.415	-.180
3-14	-.085	.104	.553	-.181	6-1	.354	.181	.928	-.171
3-15	-.059	.094	.499	-.225	6-2	.290	.175	.811	-.208
3-16	-.031	.086	.413	-.223	6-3	.237	.171	.873	-.249
3-17	0.000	.087	.348	-.238	6-4	.200	.176	.871	-.271
3-18	-.075	.079	.278	-.269	6-5	.279	.185	.931	-.354
3-19	-.008	.138	.530	-.812	6-6	.251	.173	.820	-.151
3-20	-.056	.093	.498	-.273	6-7	.230	.173	.804	-.179
3-21	-.044	.086	.417	-.210	6-8	.249	.180	.882	-.148
3-22	-.044	.083	.443	-.165	6-9	.138	.162	.651	-.276
3-23	-.021	.075	.419	-.159	6-10	.152	.132	.623	-.166
3-24	-.011	.067	.210	-.179	6-11	.208	.143	.682	-.089
3-25	-.047	.061	.225	-.216	6-12	.294	.165	.877	-.071
3-26	-.088	.053	.147	-.264	6-13	.047	.101	.503	-.308
3-27	-.163	.046	-.073	-.322	6-14	.076	.096	.462	-.171
3-28	-.027	.108	.502	-.396	6-15	.115	.106	.583	-.177



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION: 120

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
7-1	-.086	-.057	.106	-.308	-.308	.040	-.063	-.507
7-2	-.038	.059	.208	-.276	-.302	.049	-.055	-.549
7-3	-.022	.050	.192	-.251	-.304	.025	-.024	-.392
7-4	-.019	.058	.212	-.248	-.303	.022	-.045	-.369
7-5	-.020	.059	.200	-.266	-.302	.023	-.033	-.374
7-6	-.006	.065	.256	-.243	-.303	.022	-.023	-.371
7-7	.006	.071	.331	-.346	-.315	.034	-.191	-.444
7-8	.009	.086	.246	-.596	-.315	.034	-.175	-.452
7-9	-.215	.244	.471	-1.139	-.310	.028	-.225	-.405
7-10	-.120	.044	.035	-.288	-.302	.024	-.227	-.399
7-11	-.051	.050	.123	-.256	-.303	.023	-.237	-.385
7-12	-.030	.054	.166	-.240	-.306	.023	-.241	-.405
7-13	-.011	.057	.174	-.225	-.305	.046	-.107	-.519
7-14	.005	.060	.212	-.199	-.311	.045	-.100	-.481
7-15	.016	.063	.226	-.200	-.335	.049	-.160	-.538
7-16	.025	.071	.259	-.259	-.273	.047	-.111	-.467
7-17	.026	.102	.354	-.371	-.322	.049	-.146	-.609
7-18	-.104	.227	.711	-1.187	-.297	.044	-.152	-.681
7-19	-.140	.037	.046	-.288	-.298	.045	-.156	-.661
7-20	-.082	.042	.135	-.212	-.304	.038	-.175	-.439
7-21	-.049	.047	.171	-.197	-.312	.039	-.185	-.509
7-22	-.038	.052	.206	-.357	-.317	.040	-.203	-.517
7-23	-.023	.055	.223	-.226	-.320	.035	-.212	-.468
7-24	.016	.060	.229	-.240	-.316	.031	-.219	-.438
7-25	.026	.065	.231	-.379	-.308	.028	-.216	-.452
7-26	.003	.111	.400	-.790	-.292	.029	-.190	-.492
7-27	.089	.192	.482	-.834	-.299	.034	-.175	-.449
7-28	.148	.031	.015	-.291	-.309	.035	-.196	-.486
7-29	.096	.036	.074	-.256	-.313	.030	-.203	-.425
7-30	.072	.037	.072	-.236	-.305	.025	-.214	-.386
7-31	.049	.040	.109	-.180	-.309	.025	-.238	-.491
7-32	.041	.042	.112	-.169	-.308	.023	-.232	-.397
7-33	.034	.048	.168	-.251	-.303	.024	-.232	-.366
7-34	.030	.062	.162	-.303	-.307	.032	-.199	-.483
7-35	.040	.085	.203	-.588	-.306	.027	-.217	-.407
7-36	.080	.134	.397	-.902	-.312	.024	-.228	-.428
7-37	.019	.049	.143	-.171	-.315	.024	-.257	-.428
8-1	.094	.038	.128	-.437	-.309	.022	-.240	-.394
8-2	.284	.027	.189	-.391	-.305	.022	-.237	-.389
8-3	.279	.028	.180	-.385	-.300	.023	-.225	-.387
8-4	.273	.029	.165	-.403	-.309	.051	-.117	-.664
8-5	.304	.027	.191	-.411	-.300	.048	-.144	-.584
8-6	.293	.024	.191	-.385	-.289	.033	-.170	-.410
8-7	.284	.023	.188	-.368	-.311	.054	-.148	-.583
8-8	.280	.024	.171	-.362	-.305	.040	-.144	-.494
8-9	.308	.025	.229	-.431	-.320	.049	-.190	-.527
8-10	.289	.025	.151	-.379	-.323	.043	-.137	-.577
8-11	.272	.023	.185	-.362	-.319	.035	-.230	-.497
8-12	.267	.025	.165	-.353	-.336	.041	-.212	-.446
8-13	.307	.021	.248	-.403	-.313	.034	-.177	-.451
8-14	.295	.021	.226	-.391	-.304	.044	-.125	-.458
8-15	.278	.023	.200	-.354	-.284	.045	-.060	-.462
8-16	.258	.027	.162	-.345	-.215	.067	-.108	-.472
					-.139	.122	-.370	-.470
					-.154	.064	-.166	-.367

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
14-1	-.306	.029	-.216	-.412	17-1	-.293	.069	-.132	-.654
14-2	-.317	.034	-.170	-.451	17-2	-.480	.085	-.242	-.811
14-3	-.314	.041	-.158	-.531	17-3	-.565	.091	-.212	-.865
14-4	-.324	.050	-.199	-.596	17-4	-.085	.128	.534	-.418
14-5	-.263	.036	-.108	-.419	17-5	.251	.204	.838	-.402
15-1	-.305	.036	-.183	-.482	17-6	-.388	.105	.079	-.854
15-2	-.300	.034	-.191	-.433	17-7	-.452	.072	-.239	-.777
15-3	-.319	.036	-.200	-.459	17-8	-.298	.052	-.154	-.528
15-4	-.330	.041	-.216	-.484	17-9	-.209	.064	.072	-.452
15-5	-.339	.040	-.225	-.482	17-10	-.275	.085	-.027	-.587
15-6	-.331	.049	-.212	-.534	17-11	-.164	.083	-.161	-.469
16-1	-.412	.079	-.340	-.616	17-12	-.450	.116	-.099	-.908
16-2	-.511	.152	-.085	-.1309	17-13	-.442	.108	-.090	-.940
16-3	-.520	.146	-.168	-.1289	17-14	-.419	.113	-.097	-.862
16-4	-.485	.140	-.068	-.1155	17-15	-.113	.107	.169	-.739
16-5	-.503	.137	-.078	-.1156	17-16	-.207	.204	.240	-.956
16-6	-.425	.050	-.299	-.802	17-17	-.416	.122	-.070	-.883
16-7	-.377	.067	-.163	-.874	17-18	-.307	.102	-.010	-.745
16-8	-.450	.093	-.197	-.906					
16-9	-.410	.093	-.130	-.847					
16-10	-.388	.087	-.108	-.878					
16-11	-.495	.037	-.265	-.543					
16-12	-.436	.054	-.213	-.649					
16-13	-.425	.067	-.170	-.757					
16-14	-.381	.075	-.143	-.705					
16-15	-.347	.076	-.060	-.711					
16-16	-.310	.044	-.137	-.452					
16-17	-.327	.056	-.143	-.504					
16-18	-.314	.068	-.056	-.577					
16-19	-.283	.076	-.092	-.534					
16-20	-.252	.081	-.105	-.547					
16-21	-.373	.039	-.191	-.505					
16-22	-.330	.046	-.125	-.471					
16-23	-.267	.058	-.092	-.492					
16-24	-.354	.030	-.269	-.511					
16-25	-.324	.045	-.135	-.478					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.315	.046	-.176	-.514	3-29	.090	.090	.454	-.185
1-2	-.318	.047	-.173	-.514	3-30	.073	.077	.391	-.138
1-3	-.328	.044	-.194	-.482	3-31	.040	.066	.271	-.123
1-4	-.310	.041	-.188	-.463	3-32	.007	.057	.218	-.143
1-5	-.298	.034	-.182	-.449	3-33	-.015	.045	.155	-.153
1-6	-.266	.032	-.098	-.378	3-34	.043	.037	.090	-.185
1-7	-.263	.034	-.092	-.362	3-35	.091	.031	.031	-.201
2-1	-.316	.041	-.175	-.487	3-36	-.159	.029	-.031	-.254
2-2	-.323	.044	-.143	-.536	3-37	.107	.091	.460	-.173
2-3	-.331	.047	-.179	-.550	3-38	.097	.077	.380	-.097
2-4	-.301	.046	-.139	-.512	3-39	.035	.058	.264	-.126
2-5	-.339	.039	-.221	-.483	3-40	-.043	.043	.118	-.178
2-6	-.349	.040	-.233	-.484	3-41	.148	.093	.596	-.084
2-7	-.350	.042	-.213	-.503	3-42	.126	.080	.597	-.080
2-8	-.325	.045	-.189	-.487	3-43	.058	.063	.336	-.121
2-9	-.342	.045	-.219	-.467	3-44	-.024	.048	.233	-.175
2-10	-.346	.047	-.176	-.472	4-1	.127	.127	.598	-.245
2-11	-.341	.050	-.161	-.476	4-2	.129	.117	.593	-.170
2-12	-.313	.048	-.152	-.446	4-3	.141	.120	.556	-.171
2-13	-.323	.045	-.204	-.440	4-4	.214	.155	.719	-.376
2-14	-.324	.047	-.190	-.448	4-5	.275	.126	.760	-.088
2-15	-.312	.046	-.155	-.448	4-6	.233	.116	.630	-.092
2-16	-.279	.042	-.116	-.392	4-7	.225	.109	.593	-.070
2-17	-.330	.043	-.120	-.451	4-8	.251	.140	.738	-.090
2-18	-.318	.045	-.121	-.493	4-9	.305	.121	.761	.012
2-19	-.332	.041	-.170	-.481	4-10	.254	.108	.720	-.083
2-20	-.340	.042	-.141	-.492	4-11	.204	.097	.670	-.035
3-1	-.266	.038	-.0823	-.350	4-12	.189	.125	.768	-.034
3-2	-.193	.017	-.628	-.150	4-13	.202	.099	.582	-.045
3-3	-.158	.014	-.480	-.185	4-14	.164	.087	.514	-.062
3-4	-.128	.017	-.441	-.182	4-15	.136	.096	.468	-.251
3-5	-.096	.019	-.452	-.178	5-1	.106	.144	.333	-.333
3-6	-.082	.023	-.395	-.181	5-2	.285	.137	.828	-.074
3-7	-.059	.029	-.336	-.184	5-3	.300	.125	.800	-.016
3-8	-.028	.028	-.328	-.215	5-4	.168	.099	.652	-.112
3-9	-.017	.080	-.406	-.264	5-5	.163	.100	.646	-.155
3-10	-.311	.077	-.884	-.434	5-6	.195	.121	.617	-.196
3-11	-.246	.115	-.611	-.411	5-7	.177	.098	.526	-.067
3-12	-.202	.099	-.520	-.070	5-8	.166	.095	.479	-.106
3-13	-.146	.093	-.464	-.133	5-9	.187	.102	.549	-.105
3-14	-.120	.086	-.428	-.115	6-1	.195	.172	.826	-.340
3-15	-.083	.078	-.388	-.143	6-2	.164	.148	.710	-.259
3-16	-.050	.073	-.314	-.164	6-3	.152	.139	.681	-.302
3-17	-.014	.068	-.297	-.189	6-4	.177	.143	.740	-.341
3-18	-.063	.059	-.170	-.242	6-5	.198	.154	.784	-.349
3-19	-.206	.163	-.772	-.078	6-6	.225	.133	.690	-.150
3-20	-.189	.090	-.516	-.072	6-7	.254	.130	.771	-.099
3-21	-.134	.092	-.459	-.086	6-8	.309	.143	.890	-.091
3-22	-.103	.079	-.437	-.101	6-9	.392	.105	.828	-.181
3-23	-.060	.069	-.382	-.130	6-10	.461	.104	.724	-.122
3-24	-.021	.061	-.225	-.152	6-11	.217	.111	.695	-.104
3-25	-.009	.053	-.208	-.164	6-12	.305	.134	.981	-.019
3-26	-.049	.047	-.166	-.205	6-13	.407	.070	.386	-.141
3-27	-.127	.041	-.081	-.276	6-14	.122	.079	.491	-.076
3-28	-.117	.122	-.572	-.316	6-15	.211	.099	.653	-.025

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.056	.121	.392	-.433	9-1	-.374	.042	-.227	-.532
7-2	-.020	.124	.473	-.391	9-2	-.372	.051	-.196	-.700
7-3	-.004	.124	.440	-.433	9-3	-.371	.032	-.282	-.471
7-4	-.001	.119	.374	-.336	9-4	-.374	.029	-.296	-.484
7-5	.002	.118	.429	-.321	9-5	-.364	.032	-.251	-.481
7-6	.017	.118	.526	-.352	9-6	-.360	.031	-.250	-.475
7-7	.029	.117	.445	-.462	10-1	-.366	.046	-.199	-.539
7-8	.032	.131	.513	-.594	10-2	-.370	.040	-.212	-.520
7-9	-.102	.314	.678	-.1425	10-3	-.373	.036	-.254	-.524
7-10	-.120	.094	.274	-.389	10-4	-.370	.032	-.261	-.474
7-11	-.065	.101	.386	-.341	10-5	-.370	.031	-.245	-.472
7-12	-.042	.098	.383	-.315	10-6	-.371	.030	-.264	-.472
7-13	-.033	.096	.374	-.274	11-1	-.324	.092	-.057	-.893
7-14	-.021	.100	.380	-.305	11-2	-.337	.084	-.083	-.651
7-15	-.020	.099	.381	-.440	11-3	-.382	.080	-.078	-.678
7-16	-.027	.110	.371	-.458	11-4	-.351	.077	-.093	-.729
7-17	-.065	.161	.426	-.781	11-5	-.440	.092	-.179	-.940
7-18	-.188	.255	.653	-.995	11-6	-.412	.092	-.200	-.861
7-19	-.162	.073	.200	-.375	11-7	-.379	.072	-.192	-.851
7-20	-.112	.077	.248	-.302	11-8	-.309	.067	-.062	-.623
7-21	-.091	.077	.233	-.313	11-9	-.328	.067	-.087	-.655
7-22	-.077	.073	.347	-.347	11-10	-.358	.062	-.132	-.636
7-23	-.070	.069	.338	-.346	11-11	-.383	.053	-.187	-.612
7-24	-.072	.072	.347	-.500	11-12	-.384	.050	-.221	-.580
7-25	-.046	.081	.326	-.515	11-13	-.365	.041	-.248	-.543
7-26	-.162	.126	.347	-.684	11-14	-.355	.036	-.244	-.498
7-27	-.238	.140	.284	-.1070	11-15	-.287	.055	-.132	-.598
7-28	-.182	.047	.237	-.312	11-16	-.300	.052	-.142	-.565
7-29	-.134	.048	.133	-.257	11-17	-.339	.056	-.166	-.613
7-30	-.114	.049	.203	-.259	11-18	-.366	.048	-.231	-.569
7-31	-.098	.049	.136	-.262	11-19	-.383	.043	-.254	-.754
7-32	-.094	.051	.149	-.281	11-20	-.384	.036	-.273	-.598
7-33	-.103	.063	.180	-.301	11-21	-.380	.033	-.288	-.495
7-34	-.168	.083	.188	-.593	11-22	-.293	.045	-.132	-.494
7-35	-.181	.091	.133	-.670	11-23	-.303	.044	-.155	-.529
7-36	-.180	.081	.150	-.605	11-24	-.329	.048	-.113	-.551
7-37	-.063	.067	.229	-.250	11-25	-.346	.043	-.218	-.630
8-1	-.366	.042	-.240	-.528	11-26	-.356	.039	-.231	-.614
8-2	-.352	.036	-.228	-.515	11-27	-.360	.035	-.270	-.510
8-3	-.340	.035	-.217	-.493	11-28	-.362	.034	-.283	-.584
8-4	-.336	.037	-.234	-.498	12-1	-.300	.069	-.102	-.712
8-5	-.362	.034	-.253	-.488	12-2	-.296	.066	-.064	-.582
8-6	-.346	.032	-.233	-.457	12-3	-.290	.048	-.117	-.495
8-7	-.334	.031	-.233	-.457	12-4	-.290	.042	-.163	-.466
8-8	-.333	.033	-.217	-.453	12-5	-.293	.041	-.149	-.479
8-9	-.375	.037	-.257	-.519	12-6	-.289	.041	-.152	-.510
8-10	-.350	.038	-.228	-.499	13-1	-.284	.044	-.093	-.476
8-11	-.320	.034	-.212	-.437	13-2	-.278	.033	-.173	-.384
8-12	-.328	.034	-.220	-.447	13-3	-.287	.037	-.123	-.412
8-13	-.368	.034	-.237	-.482	13-4	-.267	.029	-.185	-.383
8-14	-.362	.032	-.260	-.505	13-5	-.273	.033	-.149	-.411
8-15	-.345	.032	-.242	-.465	13-6	-.265	.030	-.179	-.375
8-16	-.326	.034	-.214	-.447	13-7	-.269	.035	-.021	-.387
					13-8	-.262	.044	-.067	-.384
					13-9	-.252	.044	-.030	-.375

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
14-1	-.272	.029	-.168	-.369	17-1	-.428	.069	-.121	-.817
14-2	-.272	.029	-.179	-.364	17-2	-.418	.094	-.154	-.801
14-3	-.267	.029	-.174	-.389	17-3	-.548	.095	-.216	-.912
14-4	-.263	.030	-.177	-.411	17-4	.003	.135	.412	-.541
14-5	-.251	.033	-.151	-.371	17-5	.102	.215	.753	-.474
15-1	-.267	.043	-.118	-.350	17-6	-.310	.144	.352	-.814
15-2	-.264	.040	-.136	-.449	17-7	-.428	.081	-.226	-.828
15-3	-.267	.036	-.163	-.423	17-8	-.297	.068	-.064	-.584
15-4	-.268	.036	-.151	-.423	17-9	-.191	.063	.059	-.432
15-5	-.271	.033	-.158	-.418	17-10	-.199	.072	.066	-.468
15-6	-.275	.043	-.157	-.526	17-11	-.168	.068	.113	-.457
16-1	-.319	.081	-.130	-.686	17-12	-.461	.115	-.123	-.810
16-2	-.405	.130	-.081	-.1231	17-13	-.418	.119	-.023	-.789
16-3	-.423	.145	-.003	-.1086	17-14	-.508	.112	-.098	-.859
16-4	-.406	.140	-.056	-.1012	17-15	-.071	.094	.265	-.566
16-5	-.399	.126	-.086	-.1187	17-16	-.171	.191	.270	-.924
16-6	-.302	.039	-.195	-.488	17-17	-.466	.132	-.042	-.944
16-7	-.253	.051	-.084	-.517	17-18	-.316	.110	-.058	-.934
16-8	-.356	.091	-.118	-.851					
16-9	-.357	.099	-.071	-.888					
16-10	-.345	.090	-.068	-.726					
16-11	-.316	.040	-.176	-.477					
16-12	-.319	.042	-.179	-.498					
16-13	-.325	.050	-.137	-.534					
16-14	-.321	.057	-.075	-.624					
16-15	-.321	.066	-.038	-.637					
16-16	-.285	.036	-.127	-.412					
16-17	-.246	.042	-.052	-.469					
16-18	-.293	.052	-.064	-.485					
16-19	-.293	.067	.027	-.528					
16-20	-.294	.079	-.031	-.588					
16-21	-.318	.038	-.189	-.476					
16-22	-.308	.040	-.099	-.471					
16-23	-.308	.053	-.069	-.504					
16-24	-.308	.031	-.219	-.427					
16-25	-.315	.039	-.140	-.494					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.271	.026	-.184	-.369	3-29	-.136	.119	.279	-.676
1-2	-.266	.027	-.173	-.375	3-30	-.088	.093	.197	-.688
1-3	-.265	.022	-.194	-.355	3-31	-.079	.063	.160	-.430
1-4	-.273	.020	-.214	-.348	3-32	-.085	.046	.103	-.256
1-5	-.273	.020	-.209	-.345	3-33	-.097	.034	.054	-.289
1-6	-.272	.020	-.208	-.352	3-34	-.110	.034	.023	-.210
1-7	-.273	.020	-.208	-.358	3-35	-.140	.029	-.015	-.244
2-1	-.240	.031	-.128	-.370	3-36	-.178	.025	-.071	-.283
2-2	-.239	.030	-.117	-.368	3-37	-.097	.099	.240	-.604
2-3	-.249	.027	-.149	-.368	3-38	-.039	.065	.183	-.363
2-4	-.251	.029	-.142	-.363	3-39	-.060	.043	.102	-.239
2-5	-.244	.027	-.132	-.331	3-40	-.102	.034	.045	-.225
2-6	-.242	.025	-.148	-.320	3-41	-.073	.099	.248	-.550
2-7	-.255	.026	-.120	-.329	3-42	-.019	.071	.192	-.411
2-8	-.258	.025	-.157	-.362	3-43	-.042	.051	.191	-.251
2-9	-.242	.027	-.142	-.326	3-44	-.088	.040	.123	-.282
2-10	-.239	.026	-.126	-.323	4-1	.310	.174	.929	-.261
2-11	-.250	.024	-.154	-.317	4-2	.292	.182	.886	-.315
2-12	-.255	.024	-.148	-.337	4-3	.292	.202	.915	-.329
2-13	-.235	.030	-.108	-.346	4-4	.313	.227	.916	-.378
2-14	-.237	.029	-.135	-.331	4-5	.397	.165	.919	-.219
2-15	-.251	.028	-.145	-.339	4-6	.337	.155	.977	-.103
2-16	-.257	.025	-.131	-.329	4-7	.286	.162	.857	-.155
2-17	-.228	.033	-.072	-.337	4-8	.237	.179	.835	-.205
2-18	-.236	.030	-.066	-.328	4-9	.355	.143	1.026	-.048
2-19	-.236	.028	-.123	-.328	4-10	.244	.126	.688	-.096
2-20	-.249	.028	-.049	-.326	4-11	.176	.110	.633	-.099
3-1	-.262	.080	-.534	-1.663	4-12	.110	.125	.621	-.224
3-2	-.003	.111	.309	-.620	4-13	.210	.105	.618	-.043
3-3	-.001	.076	.246	-.519	4-14	.148	.083	.557	-.103
3-4	-.016	.069	.277	-.457	4-15	.064	.079	.559	-.144
3-5	-.031	.064	.236	-.420	5-1	.204	.153	.721	-.334
3-6	-.034	.062	.242	-.420	5-2	.355	.154	.886	-.088
3-7	-.049	.063	.259	-.426	5-3	.365	.141	.978	-.001
3-8	-.064	.062	.179	-.328	5-4	.177	.111	.585	-.279
3-9	-.098	.061	.203	-.362	5-5	.166	.110	.537	-.250
3-10	-.028	.241	.736	-1.243	5-6	.184	.115	.579	-.228
3-11	-.013	.141	.431	-.620	5-7	.199	.093	.548	-.155
3-12	-.009	.080	.277	-.314	5-8	.196	.091	.521	-.083
3-13	-.009	.069	.308	-.251	5-9	.211	.095	.532	-.037
3-14	-.016	.061	.286	-.236	6-1	.196	.102	.575	-.077
3-15	-.038	.057	.295	-.208	6-2	.189	.106	.587	-.027
3-16	-.057	.055	.220	-.212	6-3	.200	.122	.601	-.378
3-17	-.082	.052	.162	-.263	6-4	.215	.149	.729	-.307
3-18	-.120	.046	.151	-.311	6-5	.197	.189	.743	-.732
3-19	-.201	.166	.445	-.461	6-6	.235	.125	.649	-.437
3-20	-.055	.127	.339	-.285	6-7	.275	.130	.660	-.204
3-21	-.091	.091	.256	-.462	6-8	.325	.143	.820	-.083
3-22	-.040	.063	.211	-.476	6-9	.099	.135	.507	-.765
3-23	-.057	.051	.205	-.254	6-10	.160	.103	.496	-.229
3-24	-.077	.046	.163	-.288	6-11	.231	.119	.670	-.113
3-25	-.097	.042	.097	-.299	6-12	.327	.132	.811	-.008
3-26	-.115	.037	.043	-.237	6-13	.087	.088	.446	-.450
3-27	-.158	.033	-.015	-.263	6-14	.126	.088	.445	-.324
3-28	-.152	.110	.282	-.702	6-15	.174	.091	.582	-.079

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.080	.127	.428	-.403	9-1	-.421	.048	-.274	-.637
7-2	.013	.127	.496	-.315	9-2	-.422	.060	-.235	-.692
7-3	.047	.127	.621	-.270	9-3	-.423	.044	-.293	-.604
7-4	.078	.125	.602	-.283	9-4	-.424	.041	-.308	-.600
7-5	.111	.125	.558	-.267	9-5	-.419	.044	-.286	-.594
7-6	.172	.129	.647	-.181	9-6	-.414	.043	-.294	-.578
7-7	.235	.136	.728	-.183	10-1	-.414	.053	-.237	-.622
7-8	.292	.144	.774	-.148	10-2	-.420	.049	-.279	-.604
7-9	.403	.191	.898	-.511	10-3	-.411	.043	-.279	-.601
7-10	-.073	.090	.429	-.326	10-4	-.412	.041	-.290	-.578
7-11	.008	.093	.428	-.289	10-5	-.412	.040	-.285	-.577
7-12	.058	.093	.431	-.184	10-6	-.410	.040	-.286	-.566
7-13	.098	.097	.576	-.156	11-1	-.806	.253	-.224	-2.060
7-14	.151	.107	.567	-.122	11-2	-.614	.155	-.095	-1.209
7-15	.199	.108	.633	-.091	11-3	-.604	.142	-.155	-1.218
7-16	.249	.116	.684	-.094	11-4	-.588	.155	-.067	-1.332
7-17	.301	.136	.697	-.073	11-5	-.703	.192	-.155	-1.546
7-18	.330	.194	.901	-.672	11-6	-.617	.186	-.160	-1.394
7-19	-.116	.061	.222	-.295	11-7	-.441	.110	-.129	-1.245
7-20	-.033	.062	.246	-.209	11-8	-.507	.134	-.103	-1.116
7-21	.015	.066	.304	-.168	11-9	-.397	.085	-.019	-.753
7-22	.052	.077	.402	-.178	11-10	-.407	.084	-.070	-.733
7-23	.087	.084	.453	-.154	11-11	-.435	.083	-.121	-.746
7-24	.120	.090	.542	-.120	11-12	-.432	.077	-.216	-.742
7-25	.171	.089	.473	-.077	11-13	-.421	.069	-.234	-.732
7-26	.172	.120	.607	-.216	11-14	-.410	.056	-.233	-.618
7-27	.179	.165	.746	-.428	11-15	-.411	.104	-.048	-.856
7-28	-.134	.041	.307	-.307	11-16	-.366	.083	-.072	-.771
7-29	-.051	.048	.168	-.226	11-17	-.394	.084	-.136	-.760
7-30	.003	.057	.253	-.162	11-18	-.419	.076	-.161	-.724
7-31	.039	.065	.324	-.148	11-19	-.433	.060	-.256	-.751
7-32	.060	.071	.375	-.117	11-20	-.426	.052	-.286	-.647
7-33	.073	.074	.366	-.116	11-21	-.421	.048	-.246	-.612
7-34	.087	.087	.470	-.142	11-22	-.321	.074	-.088	-.654
7-35	.085	.093	.524	-.184	11-23	-.326	.065	-.125	-.623
7-36	.072	.110	.459	-.395	11-24	-.313	.067	-.045	-.625
7-37	.123	.081	.465	-.077	11-25	-.361	.072	-.029	-.660
8-1	-.408	.055	-.222	.657	11-26	-.384	.058	-.195	-.696
8-2	-.388	.052	-.222	.598	11-27	-.406	.048	-.242	-.643
8-3	-.377	.051	-.232	.694	11-28	-.409	.045	-.270	-.634
8-4	-.374	.049	-.233	.619	12-1	-.423	.099	-.090	-.944
8-5	-.410	.045	-.280	.610	12-2	-.469	.124	-.185	-1.069
8-6	-.387	.040	-.239	.552	12-3	-.389	.100	-.089	-.861
8-7	-.371	.036	-.249	.511	12-4	-.342	.083	-.050	-.741
8-8	-.373	.037	-.254	.521	12-5	-.361	.093	-.093	-.866
8-9	-.415	.043	-.290	.592	12-6	-.335	.092	-.020	-.795
8-10	-.381	.045	-.241	.558	13-1	-.309	.045	-.154	-.730
8-11	-.352	.038	-.232	.464	13-2	-.302	.032	-.203	-.656
8-12	-.353	.036	-.216	-.479	13-3	-.310	.038	-.182	-.662
8-13	-.412	.040	-.301	-.555	13-4	-.298	.027	-.182	-.402
8-14	-.399	.037	-.297	-.536	13-5	-.306	.037	-.193	-.470
8-15	-.373	.035	-.209	-.502	13-6	-.301	.030	-.212	-.438
8-16	-.355	.039	-.213	-.488	13-7	-.315	.038	-.209	-.474
					13-8	-.313	.040	-.208	-.501
					13-9	-.302	.039	-.200	-.530

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.303	.030	-.221	-.403	17-1	-.316	.060	-.154	-.691
14-2	-.304	.028	-.224	-.399	17-2	-.334	.061	-.163	-.637
14-3	-.301	.029	-.202	-.393	17-3	-.461	.093	-.178	-.807
14-4	-.298	.031	-.191	-.415	17-4	-.294	.132	.319	-.733
14-5	-.291	.035	-.176	-.393	17-5	.056	.217	.864	-.427
15-1	-.318	.038	-.208	-.473	17-6	.076	.201	.650	-.614
15-2	-.317	.037	-.203	-.485	17-7	-.578	.087	-.301	-.870
15-3	-.316	.036	-.221	-.525	17-8	-.484	.104	-.182	-.953
15-4	-.310	.041	-.211	-.546	17-9	-.218	.076	.134	-.614
15-5	-.314	.036	-.221	-.478	17-10	-.323	.074	-.060	-.674
15-6	-.305	.039	-.196	-.506	17-11	-.218	.097	.068	-.596
16-1	-.278	.038	-.155	-.628	17-12	-.410	.094	-.149	-.903
16-2	-.313	.060	-.169	-.673	17-13	-.169	.076	.037	-.536
16-3	-.332	.065	-.129	-.738	17-14	-.385	.105	-.059	-.835
16-4	-.333	.064	-.155	-.653	17-15	-.211	.208	.277	-.1049
16-5	-.337	.062	-.151	-.729	17-16	-.050	.079	.194	-.400
16-6	-.276	.025	-.199	-.378	17-17	-.473	.112	.039	-.878
16-7	-.218	.026	-.148	-.363	17-18	-.395	.114	.055	-.717
16-8	-.290	.040	-.164	-.468					
16-9	-.292	.048	-.145	-.558					
16-10	-.299	.050	-.170	-.531					
16-11	-.287	.020	-.220	-.361					
16-12	-.287	.020	-.221	-.345					
16-13	-.281	.021	-.217	-.358					
16-14	-.280	.025	-.206	-.387					
16-15	-.288	.029	-.173	-.391					
16-16	-.292	.021	-.235	-.363					
16-17	-.284	.020	-.230	-.357					
16-18	-.280	.021	-.221	-.390					
16-19	-.290	.024	-.185	-.414					
16-20	-.295	.029	-.178	-.452					
16-21	-.282	.021	-.217	-.364					
16-22	-.281	.022	-.212	-.364					
16-23	-.291	.023	-.212	-.378					
16-24	-.286	.021	-.220	-.363					
16-25	-.290	.020	-.223	-.354					



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.200	.027	-.105	-.302	3-29	-.181	.138	.188	-1.352
1-2	-.191	.028	-.105	-.297	3-30	-.125	.088	.095	-.844
1-3	-.197	.021	-.135	-.271	3-31	-.114	.059	.109	-.883
1-4	-.203	.018	-.147	-.268	3-32	-.117	.045	.090	-.804
1-5	-.208	.016	-.139	-.264	3-33	-.127	.037	.033	-.249
1-6	-.196	.016	-.130	-.258	3-34	-.130	.033	-.005	-.426
1-7	-.206	.018	-.144	-.273	3-35	-.146	.028	-.044	-.269
2-1	-.180	.033	-.061	-.413	3-36	-.161	.024	-.078	-.256
2-2	-.183	.031	-.067	-.356	3-37	-.139	.107	-.152	-1.040
2-3	-.190	.038	-.076	-.340	3-38	-.081	.052	.171	-.441
2-4	-.197	.028	-.067	-.337	3-39	-.101	.038	.047	-.216
2-5	-.183	.025	-.087	-.291	3-40	-.124	.031	.011	-.224
2-6	-.189	.023	-.113	-.292	3-41	-.108	.096	.205	-.730
2-7	-.208	.023	-.106	-.291	3-42	-.067	.055	.213	-.294
2-8	-.203	.022	-.101	-.287	3-43	-.080	.044	.160	-.246
2-9	-.173	.023	-.054	-.266	3-44	-.116	.035	.068	-.239
2-10	-.182	.020	-.113	-.255	4-1	-.037	.169	1.082	-.484
2-11	-.207	.021	-.131	-.292	4-2	-.136	.181	.796	-.308
2-12	-.207	.018	-.138	-.291	4-3	.177	.167	.924	-.334
2-13	-.163	.022	-.057	-.256	4-4	.176	.173	.902	-.308
2-14	-.176	.022	-.073	-.246	4-5	.091	.138	.759	-.272
2-15	-.204	.020	-.138	-.287	4-6	.138	.164	.874	-.249
2-16	-.213	.017	-.159	-.272	4-7	.174	.146	.873	-.259
2-17	-.170	.027	-.057	-.270	4-8	.140	.139	.767	-.240
2-18	-.185	.024	-.056	-.258	4-9	.101	.124	.621	-.224
2-19	-.181	.025	-.076	-.263	4-10	.075	.120	.581	-.218
2-20	-.201	.021	-.110	-.281	4-11	.087	.111	.593	-.253
3-1	-.372	.211	-.326	-.426	4-12	.059	.098	.492	-.225
3-2	-.154	.144	-.144	-.280	4-13	.032	.080	.437	-.203
3-3	-.110	.088	-.145	-.737	4-14	.031	.082	.392	-.351
3-4	-.102	.065	-.176	-.415	4-15	.012	.069	.470	-.208
3-5	-.101	.059	-.120	-.382	5-1	.021	.132	.631	-.245
3-6	-.096	.052	-.084	-.297	5-2	.128	.130	.673	-.225
3-7	-.106	.050	-.057	-.339	5-3	.142	.129	.798	-.165
3-8	-.113	.048	-.165	-.356	5-4	-.037	.084	.327	-.340
3-9	-.128	.043	-.034	-.322	5-5	-.033	.101	.378	-.409
3-10	-.284	.170	-.232	-.130	5-6	.019	.100	.521	-.296
3-11	-.168	.151	-.145	-.884	5-7	-.039	.078	.349	-.296
3-12	-.119	.098	.297	-.637	5-8	-.038	.087	.314	-.352
3-13	-.098	.069	.141	-.448	5-9	-.099	.084	.185	-.250
3-14	-.092	.055	.137	-.275	6-1	-.099	.126	.285	-.334
3-15	-.185	.049	.112	-.295	6-2	-.143	.143	.298	-.094
3-16	-.116	.046	.075	-.281	6-3	-.135	.161	.385	-.176
3-17	-.123	.042	.117	-.295	6-4	-.037	.136	.546	-.845
3-18	-.136	.034	.039	-.278	6-5	-.018	.113	.522	-.588
3-19	-.269	.156	.225	-.103	6-6	-.030	.124	.450	-.655
3-20	-.117	.115	.148	-.682	6-7	-.055	.147	.478	-.595
3-21	-.117	.086	.197	-.643	6-8	.071	.120	.558	-.241
3-22	-.097	.058	.115	-.399	6-9	.002	.078	.500	-.729
3-23	-.106	.047	.143	-.328	6-10	-.027	.092	.320	-.528
3-24	-.120	.042	.056	-.329	6-11	-.028	.094	.446	-.273
3-25	-.131	.038	.057	-.263	6-12	.104	.110	.792	-.153
3-26	-.135	.033	.012	-.278	6-13	-.022	.064	.210	-.153
3-27	-.154	.027	-.047	-.305	6-14	-.036	.068	.205	-.607
3-28	-.238	.141	-.169	-.1302	6-15	-.005	.065	.260	-.224

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	.163	.150	.691	-.248	9-1	-.415	.058	-.219	-.748
7-2	.266	.152	.811	-.186	9-2	-.429	.060	-.256	-.913
7-3	.220	.154	.879	-.192	9-3	-.425	.051	-.272	-.681
7-4	.225	.161	.767	-.232	9-4	-.438	.050	-.299	-.644
7-5	.234	.172	.639	-.252	9-5	-.407	.056	-.266	-.611
7-6	.239	.176	.770	-.222	9-6	-.397	.053	-.246	-.587
7-7	.222	.179	.800	-.306	10-1	-.390	.072	-.193	-.852
7-8	.206	.177	.879	-.233	10-2	-.373	.062	-.209	-.702
7-9	.155	.168	.950	-.298	10-3	-.413	.054	-.280	-.664
7-10	.166	.131	.544	-.484	10-4	-.421	.048	-.296	-.621
7-11	.229	.142	.680	-.194	10-5	-.411	.047	-.300	-.598
7-12	.262	.148	.737	-.136	10-6	-.411	.047	-.271	-.590
7-13	.271	.159	.855	-.132	11-1	-.623	.283	.155	-1.763
7-14	.260	.161	1.031	-.148	11-2	-.451	.187	.100	-1.230
7-15	.249	.162	.953	-.180	11-3	-.476	.146	-.075	-.985
7-16	.233	.160	.880	-.175	11-4	-.490	.141	-.026	-1.077
7-17	.204	.159	.752	-.153	11-5	-.647	.196	-.085	-1.638
7-18	.139	.142	.874	-.341	11-6	-.676	.216	-.135	-1.701
7-19	.054	.111	.588	-.260	11-7	-.558	.179	-.171	-1.594
7-20	.135	.116	.595	-.224	11-8	-.395	.130	-.046	-1.179
7-21	.162	.119	.620	-.227	11-9	-.274	.079	.152	-.524
7-22	.164	.133	.696	-.125	11-10	-.318	.075	.121	-.617
7-23	.163	.135	.811	-.181	11-11	-.392	.082	.130	-.823
7-24	.152	.131	.756	-.230	11-12	-.440	.087	-.225	-1.058
7-25	.155	.112	.579	-.080	11-13	-.434	.078	-.240	-.916
7-26	.100	.110	.552	-.156	11-14	-.428	.068	-.249	-.723
7-27	.069	.099	.448	-.295	11-15	-.308	.099	.062	-.745
7-28	-.028	.075	.379	-.207	11-16	-.269	.070	.183	-.540
7-29	.050	.083	.407	-.178	11-17	-.316	.072	.046	-.617
7-30	.100	.096	.421	-.155	11-18	-.388	.075	-.197	-.807
7-31	.117	.099	.544	-.137	11-19	-.440	.075	-.238	-.888
7-32	.122	.098	.569	-.118	11-20	-.455	.069	-.306	-.905
7-33	.110	.096	.535	-.175	11-21	-.433	.060	-.281	-.856
7-34	.076	.091	.580	-.140	11-22	-.247	.062	.041	-.523
7-35	.048	.078	.450	-.156	11-23	-.242	.059	-.056	-.436
7-36	.019	.066	.363	-.290	11-24	-.256	.068	-.016	-.611
7-37	.117	.112	.710	-.123	11-25	-.306	.069	-.057	-.670
8-1	-.420	.039	-.219	-.708	11-26	-.373	.066	-.144	-.899
8-2	-.423	.059	-.233	-.658	11-27	-.408	.062	-.252	-.761
8-3	-.413	.056	-.252	-.664	11-28	-.428	.055	-.266	-.659
8-4	-.405	.054	-.237	-.609	12-1	-.339	.094	-.111	-.690
8-5	-.434	.056	-.284	-.678	12-2	-.409	.163	-.005	-.997
8-6	-.426	.049	-.292	-.595	12-3	-.266	.073	-.039	-.873
8-7	-.419	.046	-.276	-.587	12-4	-.245	.050	-.082	-.579
8-8	-.416	.050	-.271	-.609	12-5	-.255	.064	-.050	-.712
8-9	-.402	.048	-.158	-.585	12-6	-.234	.054	-.058	-.558
8-10	-.390	.043	-.240	-.538	13-1	-.252	.043	-.105	-.571
8-11	-.385	.044	-.230	-.614	13-2	-.250	.030	-.126	-.429
8-12	-.384	.040	-.222	-.590	13-3	-.253	.031	-.139	-.430
8-13	-.363	.047	-.186	-.500	13-4	-.251	.022	-.179	-.338
8-14	-.374	.043	-.249	-.511	13-5	-.247	.028	-.171	-.380
8-15	-.380	.049	-.227	-.601	13-6	-.252	.023	-.183	-.346
8-16	-.382	.057	-.227	-.661	13-7	-.256	.025	-.188	-.365
					13-8	-.233	.079	-.117	-.390
					13-9	-.248	.029	-.165	-.399

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.142	.033	-.086	-.323	17-1	-.290	.057	-.138	-.543
14-2	.084	.053	.130	-.193	17-2	-.284	.049	-.155	-.504
14-3	-.253	.023	-.191	-.338	17-3	-.396	.079	-.200	-.714
14-4	-.244	.025	-.171	-.365	17-4	-.349	.108	.056	-.753
14-5	-.243	.025	-.170	-.349	17-5	.168	.178	.682	-.367
15-1	-.267	.034	-.150	-.429	17-6	.195	.191	.687	-.435
15-2	-.265	.030	-.173	-.453	17-7	-.381	.089	-.053	-.822
15-3	-.256	.027	-.177	-.450	17-8	-.481	.111	-.197	-.943
15-4	-.261	.029	-.167	-.482	17-9	-.152	.066	.062	-.447
15-5	-.262	.026	-.168	-.461	17-10	-.225	.069	.068	-.500
15-6	-.258	.029	-.179	-.374	17-11	-.195	.068	.095	-.629
16-1	-.206	.032	-.100	-.552	17-12	-.307	.085	-.010	-.667
16-2	-.243	.038	-.142	-.484	17-13	-.129	.054	.048	-.406
16-3	-.271	.046	-.152	-.527	17-14	-.298	.095	.025	-.769
16-4	-.272	.047	-.150	-.482	17-15	-.353	.148	.185	-.887
16-5	-.262	.039	-.150	-.462	17-16	-.235	.142	.134	-.986
16-6	-.215	.022	-.142	-.302	17-17	-.443	.120	-.007	-.923
16-7	-.170	.021	-.106	-.244	17-18	-.539	.119	-.175	-.963
16-8	-.240	.029	-.144	-.465					
16-9	-.238	.030	-.147	-.464					
16-10	-.252	.031	-.147	-.388					
16-11	-.229	.021	-.164	-.296					
16-12	-.234	.020	-.168	-.296					
16-13	-.223	.020	-.161	-.285					
16-14	-.226	.020	-.158	-.296					
16-15	-.234	.022	-.149	-.315					
16-16	-.237	.022	-.167	-.323					
16-17	-.232	.020	-.168	-.291					
16-18	-.231	.019	-.168	-.293					
16-19	-.232	.020	-.165	-.300					
16-20	-.236	.022	-.165	-.343					
16-21	-.225	.020	-.161	-.294					
16-22	-.226	.020	-.168	-.308					
16-23	-.227	.021	-.162	-.365					
16-24	-.232	.020	-.162	-.288					
16-25	-.216	.020	-.150	-.280					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.171	.026	-.065	-.265	3-29	-.370	.142	-.067	-1.043
1-2	-.167	.026	-.073	-.257	3-30	-.271	.113	-.053	-1.106
1-3	-.170	.021	-.084	-.243	3-31	-.217	.079	-.065	-.734
1-4	-.171	.019	-.107	-.242	3-32	-.186	.061	-.022	-.606
1-5	-.170	.020	-.104	-.231	3-33	-.168	.054	-.051	-.521
1-6	-.173	.020	-.104	-.238	3-34	-.150	.043	-.041	-.370
1-7	-.180	.019	-.119	-.234	3-35	-.158	.037	-.024	-.362
2-1	-.170	.040	-.047	-.369	3-36	-.163	.033	-.035	-.317
2-2	-.162	.041	-.030	-.359	3-37	-.332	.126	-.009	-1.004
2-3	-.177	.040	-.042	-.370	3-38	-.176	.073	-.093	-.518
2-4	-.178	.034	-.058	-.356	3-39	-.138	.048	-.077	-.398
2-5	-.170	.031	-.061	-.344	3-40	-.140	.049	-.034	-.314
2-6	-.160	.028	-.045	-.311	3-41	-.286	.109	-.100	-.889
2-7	-.178	.026	-.085	-.329	3-42	-.150	.062	-.118	-.409
2-8	-.178	.023	-.080	-.293	3-43	-.129	.045	-.138	-.364
2-9	-.161	.032	-.017	-.394	4-1	-.136	.035	-.030	-.278
2-10	-.155	.024	-.022	-.256	4-2	-.084	.028	-.061	-.678
2-11	-.180	.022	-.080	-.256	4-3	-.212	.233	1.079	4.36
2-12	-.183	.018	-.127	-.254	4-4	-.328	.187	-.015	-.288
2-13	-.156	.037	-.020	-.446	4-5	-.242	.156	-.029	-.183
2-14	-.153	.027	-.011	-.253	4-6	-.049	.143	-.488	-.448
2-15	-.184	.024	-.083	-.278	4-7	-.258	.221	-.869	-.458
2-16	-.186	.019	-.088	-.251	4-8	-.196	.184	-.337	-.337
2-17	-.153	.035	-.024	-.290	4-9	-.143	.143	-.690	-.213
2-18	-.157	.026	-.049	-.249	4-10	-.059	.134	-.630	-.368
2-19	-.163	.032	-.014	-.322	4-11	-.045	.141	-.046	-.401
2-20	-.176	.024	-.071	-.258	4-12	-.126	.163	-.704	-.406
3-1	-.515	.106	-.243	-1.064	4-13	-.102	.139	-.402	-.247
3-2	-.480	.146	-.063	-1.194	4-14	-.119	.119	-.628	-.247
3-3	-.360	.144	-.027	-.938	4-15	-.042	.136	-.789	-.355
3-4	-.255	.118	-.151	-.759	5-1	-.024	.120	-.538	-.386
3-5	-.198	.097	-.158	-.667	5-2	-.084	.153	-.671	-.571
3-6	-.160	.074	-.144	-.684	5-3	-.060	.142	-.621	-.341
3-7	-.161	.060	-.027	-.478	5-4	-.084	.128	-.636	-.236
3-8	-.164	.053	-.014	-.395	5-5	-.134	.090	-.185	-.717
3-9	-.166	.045	-.006	-.442	5-6	-.149	.111	-.287	-.662
3-10	-.187	.121	-.166	-1.120	5-7	-.024	.130	-.040	-.411
3-11	-.212	.125	-.041	-.991	5-8	-.144	.113	-.291	-.637
3-12	-.241	.101	-.052	-.610	5-9	-.136	.126	-.467	-.563
3-13	-.247	.077	-.030	-.695	5-10	-.030	.131	-.684	-.384
3-14	-.182	.106	-.124	-.613	6-1	-.158	.104	-.242	-.745
3-15	-.168	.061	-.105	-.538	6-2	-.173	.115	-.033	-.615
3-16	-.164	.051	-.050	-.386	6-3	-.321	.150	-.093	-.792
3-17	-.159	.047	-.064	-.516	6-4	-.192	.147	-.492	-.733
3-18	-.153	.040	-.005	-.356	6-5	-.046	.112	-.334	-.740
3-19	-.147	.176	-.049	-1.558	6-6	-.084	.111	-.444	-.553
3-20	-.356	.143	-.068	-.949	6-7	-.228	.140	-.039	-.680
3-21	-.312	.129	-.118	-.959	6-8	-.055	.137	-.425	-.514
3-22	-.226	.094	-.074	-.737	6-9	-.024	.089	-.306	-.610
3-23	-.190	.069	-.276	-.504	6-10	-.080	.092	-.306	-.525
3-24	-.174	.054	-.042	-.433	6-11	-.102	.083	-.281	-.348
3-25	-.163	.048	-.017	-.384	6-12	-.034	.104	-.018	-.278
3-26	-.151	.041	-.006	-.406	6-13	-.078	.092	-.251	-.714
3-27	-.160	.035	-.005	-.314	6-14	-.109	.105	-.202	-.756
3-28	-.485	.166	-.130	-1.559	6-15	-.080	.100	-.255	-.525

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	.297	.156	.792	-.127	9-1	-.343	.062	-.136	-.576
7-2	.260	.155	.864	-.185	9-2	-.371	.067	-.154	-.600
7-3	.325	.153	.846	-.116	9-3	-.344	.056	-.166	-.507
7-4	.326	.150	.750	-.096	9-4	-.306	.052	-.112	-.489
7-5	.335	.152	.757	-.123	9-5	-.291	.049	-.136	-.455
7-6	.337	.165	.894	-.121	9-6	-.263	.046	-.106	-.418
7-7	.323	.165	.823	-.154	10-1	-.352	.066	-.176	-.621
7-8	.298	.165	.858	-.160	10-2	-.357	.064	-.189	-.606
7-9	.212	.150	.737	-.192	10-3	-.353	.059	-.201	-.563
7-10	.270	.135	.793	-.166	10-4	-.310	.047	-.139	-.471
7-11	.342	.142	.759	-.073	10-5	-.292	.045	-.129	-.435
7-12	.365	.143	.830	-.016	10-6	-.269	.041	-.118	-.395
7-13	.368	.145	.872	.002	11-1	-.227	.140	-.310	-.147
7-14	.371	.144	.878	-.054	11-2	-.122	.140	-.4525	-.826
7-15	.363	.145	.863	.003	11-3	-.216	.126	-.356	-.859
7-16	.349	.146	.897	-.017	11-4	-.277	.123	-.152	-.905
7-17	.319	.150	.863	-.047	11-5	-.442	.139	-.109	-.1.088
7-18	.292	.145	.796	-.203	11-6	-.446	.108	-.098	-.1.179
7-19	.192	.117	.629	-.129	11-7	-.401	.074	-.089	-.884
7-20	.266	.118	.747	-.053	11-8	-.194	.116	-.438	-.687
7-21	.262	.117	.711	-.016	11-9	-.117	.112	-.452	-.408
7-22	.287	.122	.739	-.047	11-10	-.189	.086	-.318	-.554
7-23	.287	.126	.734	-.017	11-11	-.280	.080	-.173	-.579
7-24	.293	.130	.702	-.054	11-12	-.376	.088	-.069	-.720
7-25	.272	.116	.635	-.019	11-13	-.420	.087	-.164	-.1.046
7-26	.203	.125	.708	-.095	11-14	-.390	.069	-.216	-.792
7-27	.159	.115	.580	-.172	11-15	-.168	.103	-.322	-.602
7-28	.088	.096	.472	-.144	11-16	-.132	.104	-.427	-.458
7-29	.168	.105	.553	-.065	11-17	-.202	.092	-.344	-.538
7-30	.207	.102	.573	-.067	11-18	-.284	.076	-.180	-.526
7-31	.221	.100	.574	-.054	11-19	-.352	.067	-.151	-.692
7-32	.220	.096	.616	-.048	11-20	-.370	.064	-.197	-.709
7-33	.202	.092	.580	-.042	11-21	-.351	.059	-.210	-.659
7-34	.172	.090	.574	-.053	11-22	-.163	.092	-.174	-.665
7-35	.126	.081	.475	-.051	11-23	-.126	.087	-.386	-.412
7-36	.047	.070	.390	-.141	11-24	-.168	.087	-.300	-.445
7-37	.278	.109	.793	.094	11-25	-.275	.074	-.126	-.560
8-1	-.412	.078	-.196	-.638	11-26	-.319	.057	-.099	-.537
8-2	-.416	.062	-.175	-.667	11-27	-.306	.050	-.121	-.491
8-3	-.399	.055	-.210	-.664	11-28	-.293	.046	-.129	-.504
8-4	-.382	.052	-.216	-.656	12-1	-.238	.057	-.059	-.544
8-5	-.386	.062	-.222	-.638	12-2	-.224	.068	-.005	-.561
8-6	-.401	.056	-.242	-.590	12-3	-.205	.055	.026	-.475
8-7	-.391	.052	-.245	-.560	12-4	-.205	.026	.036	-.336
8-8	-.378	.054	-.208	-.549	12-5	-.194	.053	.036	-.460
8-9	-.344	.049	-.171	-.551	12-6	-.190	.039	.039	-.553
8-10	-.366	.047	-.231	-.514	13-1	-.249	.040	-.116	-.632
8-11	-.366	.048	-.219	-.511	13-2	-.249	.031	-.152	-.655
8-12	-.351	.051	-.178	-.556	13-3	-.229	.045	-.059	-.359
8-13	-.303	.052	-.152	-.481	13-4	-.241	.021	-.167	-.324
8-14	-.348	.048	-.211	-.514	13-5	-.228	.024	-.149	-.327
8-15	-.361	.051	-.208	-.542	13-6	-.228	.021	-.167	-.302
8-16	-.370	.058	-.268	-.629	13-7	-.228	.023	-.161	-.305
					13-8	-.228	.024	-.156	-.393
					13-9	-.237	.023	-.159	-.338

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
14-1	-.220	.024	-.118	-.307	17-1	-.308	.065	-.138	-.657
14-2					17-2	-.272	.053	-.122	-.540
14-3	-.240	.022	-.172	-.316	17-3	-.323	.070	-.153	-.705
14-4	-.236	.022	-.163	-.316	17-4	-.361	.088	-.113	-.802
14-5	-.234	.023	-.149	-.324	17-5	-.067	.155	.077	-.449
15-1	-.241	.039	-.107	-.435	17-6	.061	.256	.091	-.718
15-2	-.237	.036	-.108	-.404	17-7	-.165	.116	.237	-.554
15-3	-.244	.026	-.172	-.409	17-8	-.395	.104	-.090	-.1.036
15-4	-.209	.019	-.156	-.291	17-9	-.181	.077	.096	-.458
15-5					17-10	-.207	.071	.043	-.460
15-6	-.245	.025	-.169	-.365	17-11	-.194	.061	.047	-.593
16-1	-.189	.031	-.067	-.336	17-12	-.287	.077	-.037	-.625
16-2	-.220	.035	-.077	-.413	17-13	-.150	.068	.104	-.457
16-3	-.241	.038	-.122	-.432	17-14	-.322	.124	.064	-.820
16-4	-.246	.036	-.135	-.443	17-15	-.535	.162	.036	-.1.173
16-5	-.230	.033	-.141	-.400	17-16	-.423	.129	-.041	-.847
16-6	-.194	.022	-.184	-.286	17-17	-.443	.096	-.176	-.840
16-7	-.134	.021	-.065	-.231	17-18	-.457	.098	-.152	-.940
16-8	-.224	.025	-.152	-.311					
16-9	-.227	.024	-.152	-.336					
16-10	-.235	.023	-.159	-.333					
16-11	-.195	.021	-.122	-.266					
16-12	-.214	.023	-.127	-.313					
16-13	-.219	.022	-.133	-.305					
16-14	-.224	.021	-.124	-.297					
16-15	-.233	.024	-.088	-.451					
16-16	-.206	.023	-.116	-.310					
16-17	-.222	.022	-.129	-.300					
16-18	-.229	.021	-.163	-.300					
16-19	-.230	.021	-.164	-.319					
16-20	-.234	.022	-.175	-.327					
16-21	-.218	.020	-.122	-.297					
16-22	-.220	.020	-.130	-.310					
16-23	-.223	.019	-.121	-.294					
16-24	-.210	.017	-.152	-.271					
16-25	-.221	.019	-.158	-.299					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.207	.040	-.017	-.431	3-29	-.435	.122	-.147	-.080
1-2	-.200	.038	-.031	-.362	3-30	-.347	.098	-.187	-.016
1-3	-.202	.030	-.080	-.339	3-31	-.295	.073	-.082	-.697
1-4	-.199	.026	-.119	-.303	3-32	-.295	.056	-.057	-.531
1-5	-.197	.027	-.067	-.281	3-33	-.232	.050	-.053	-.590
1-6	-.195	.026	-.047	-.268	3-34	-.205	.043	-.039	-.464
1-7	-.202	.024	-.094	-.268	3-35	-.207	.038	-.036	-.378
2-1	-.218	.051	-.006	-.520	3-36	-.209	.036	-.068	-.342
2-2	-.199	.052	-.065	-.511	3-37	-.422	.115	-.101	-.927
2-3	-.200	.052	.047	-.451	3-38	-.252	.075	-.071	-.550
2-4	-.202	.050	-.050	-.452	3-39	-.189	.052	.069	-.399
2-5	-.217	.038	-.071	-.361	3-40	-.179	.045	.047	-.494
2-6	-.203	.034	-.059	-.317	3-41	-.385	.103	-.104	-.892
2-7	-.203	.033	-.073	-.322	3-42	-.234	.068	.071	-.568
2-8	-.204	.031	-.095	-.336	3-43	-.183	.054	.169	-.523
2-9	-.205	.035	-.056	-.322	3-44	-.176	.043	.060	-.494
2-10	-.187	.032	-.021	-.274	4-1	-.268	.114	.357	-.710
2-11	-.193	.026	-.100	-.280	4-2	-.019	.213	.817	-.594
2-12	-.196	.024	-.103	-.286	4-3	.277	.221	1.005	-.441
2-13	-.202	.036	-.076	-.322	4-4	.250	.169	.874	-.366
2-14	-.183	.035	-.030	-.293	4-5	-.238	.097	.257	-.627
2-15	-.193	.029	-.050	-.283	4-6	-.163	.187	.701	-.635
2-16	-.202	.023	-.110	-.272	4-7	.130	.227	.824	-.558
2-17	-.200	.036	-.014	-.308	4-8	.146	.177	.684	-.415
2-18	-.187	.033	-.023	-.284	4-9	-.168	.118	.268	-.815
2-19	-.202	.032	-.015	-.310	4-10	-.176	.115	.433	-.536
2-20	-.205	.028	-.027	-.295	4-11	-.083	.186	.606	-.567
3-1	-.212	.088	-.272	-.442	4-12	-.037	.190	.609	-.564
3-2	-.213	.110	-.198	-.413	4-13	-.125	.125	.477	-.495
3-3	-.244	.104	-.144	-.303	4-14	-.079	.167	.609	-.629
3-4	-.241	.091	-.026	-.308	4-15	-.061	.166	.536	-.525
3-5	-.255	.105	-.018	-.304	5-1	-.224	.128	.296	-.883
3-6	-.205	.086	-.042	-.298	5-2	-.124	.124	.405	-.530
3-7	-.290	.073	-.079	-.303	5-3	-.086	.120	.469	-.469
3-8	-.278	.067	-.071	-.356	5-4	-.278	.088	.218	-.642
3-9	-.254	.060	-.038	-.500	5-5	-.311	.103	.304	-.790
3-10	-.203	.098	-.231	-.411	5-6	-.209	.106	.375	-.519
3-11	-.222	.109	-.239	-.374	5-7	-.292	.090	.149	-.769
3-12	-.251	.096	-.171	-.386	5-8	-.298	.102	.102	-.730
3-13	-.263	.084	-.082	-.416	5-9	-.213	.111	.301	-.539
3-14	-.290	.067	-.056	-.594	6-1	-.252	.083	.091	-.585
3-15	-.264	.058	-.023	-.493	6-2	-.291	.087	-.023	-.679
3-16	-.263	.054	-.017	-.472	6-3	-.360	.090	-.064	-.778
3-17	-.243	.053	-.017	-.446	6-4	-.307	.104	.065	-.848
3-18	-.223	.047	-.057	-.413	6-5	-.197	.084	.097	-.597
3-19	-.214	.157	-.213	-.392	6-6	-.243	.084	.029	-.565
3-20	-.432	.127	-.101	-.962	6-7	-.325	.089	-.014	-.648
3-21	-.398	.101	-.107	-.956	6-8	-.226	.092	.196	-.601
3-22	-.311	.074	-.063	-.479	6-9	-.153	.075	.134	-.462
3-23	-.266	.057	-.047	-.356	6-10	-.212	.077	.173	-.590
3-24	-.240	.049	-.002	-.329	6-11	-.223	.076	.066	-.468
3-25	-.229	.048	-.033	-.381	6-12	-.123	.094	.270	-.435
3-26	-.208	.043	-.041	-.381	6-13	-.216	.087	.088	-.709
3-27	-.209	.039	-.045	-.351	6-14	-.257	.096	.023	-.761
3-28	-.245	.152	-.154	-.379	6-15	-.225	.094	.151	-.716

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
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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
7-1	.320	.161	.877	-.173	9-1	-.210	.081	.099	-.463
7-2	.356	.146	.866	-.097	9-2	-.194	.077	.134	-.441
7-3	.344	.141	.852	-.119	9-3	-.119	.075	.218	-.355
7-4	.337	.139	.866	-.073	9-4	-.100	.070	.166	-.298
7-5	.338	.142	.865	-.150	9-5	-.086	.063	.170	-.269
7-6	.335	.138	.891	-.071	9-6	-.053	.071	.274	-.259
7-7	.315	.136	.798	-.079	10-1	-.232	.080	.056	-.557
7-8	.274	.133	.761	-.102	10-2	-.199	.073	.059	-.441
7-9	.130	.116	.577	-.193	10-3	-.149	.069	.140	-.405
7-10	.320	.151	.835	-.093	10-4	-.101	.056	.152	-.292
7-11	.328	.142	.857	-.042	10-5	-.078	.059	.193	-.232
7-12	.331	.143	.937	-.011	10-6	-.067	.064	.254	-.250
7-13	.329	.148	.834	-.046	11-1	-.322	.187	.348	-1.002
7-14	.354	.147	.858	.020	11-2	-.126	.160	.680	-.399
7-15	.340	.147	.784	-.014	11-3	-.130	.182	.713	-.363
7-16	.305	.144	.730	-.034	11-4	-.042	.151	.695	-.509
7-17	.241	.138	.752	-.096	11-5	-.160	.146	.805	-.605
7-18	.091	.114	.530	-.250	11-6	-.268	.119	.364	-.745
7-19	.205	.129	.727	-.116	11-7	-.269	.085	.114	-.596
7-20	.221	.112	.655	-.056	11-8	-.334	.289	.666	-.951
7-21	.226	.115	.658	-.064	11-9	-.155	.138	.670	-.263
7-22	.235	.114	.707	-.023	11-10	-.130	.159	.817	-.366
7-23	.244	.118	.735	-.015	11-11	-.017	.136	.609	-.360
7-24	.237	.117	.627	-.023	11-12	-.168	.105	.518	-.472
7-25	.219	.101	.574	-.006	11-13	-.217	.080	.829	-.530
7-26	.149	.110	.718	-.145	11-14	-.188	.070	.056	-.435
7-27	.017	.094	.685	-.228	11-15	-.321	.162	.184	-1.037
7-28	.118	.082	.494	-.105	11-16	-.127	.125	.692	-.208
7-29	.162	.074	.533	-.116	11-17	-.105	.132	.698	-.275
7-30	.183	.080	.452	-.014	11-18	-.017	.121	.754	-.281
7-31	.199	.086	.523	-.014	11-19	-.139	.088	.311	-.370
7-32	.199	.089	.511	-.029	11-20	-.174	.064	.164	-.417
7-33	.176	.090	.513	-.049	11-21	-.130	.058	.105	-.433
7-34	.124	.078	.540	-.083	11-22	-.213	.133	.125	-.900
7-35	.063	.069	.452	-.150	11-23	-.080	.099	.509	-.296
7-36	-.047	.059	.218	-.242	11-24	-.130	.117	.587	-.208
7-37	.234	.087	.489	.019	11-25	.015	.115	.623	-.340
8-1	-.280	.088	.031	-.631	11-26	-.106	.083	.432	-.409
8-2	-.305	.085	-.003	-.733	11-27	-.125	.057	.107	-.411
8-3	-.266	.066	.063	-.627	11-28	-.097	.055	.116	-.289
8-4	-.239	.053	-.048	-.452	12-1	-.267	.040	.143	-.439
8-5	-.278	.068	-.045	-.528	12-2	-.246	.045	.064	-.506
8-6	-.305	.057	-.107	-.496	12-3	-.244	.047	.066	-.470
8-7	-.252	.052	-.052	-.440	12-4	-.256	.031	.129	-.395
8-8	-.222	.054	-.034	-.522	12-5	-.247	.047	.061	-.445
8-9	-.272	.073	.066	-.565	12-6	-.257	.045	.097	-.461
8-10	-.304	.060	-.113	-.576	13-1	-.317	.044	.182	-.494
8-11	-.261	.060	-.025	-.545	13-2	-.333	.041	.212	-.477
8-12	-.215	.064	.020	-.537	13-3	-.308	.034	.207	-.423
8-13	-.225	.072	.057	-.517	13-4	-.213	.031	.213	-.414
8-14	-.292	.071	-.057	-.639	13-5	-.279	.028	.169	-.365
8-15	-.270	.071	-.042	-.547	13-6	-.212	.028	.212	-.392
8-16	-.252	.078	-.022	-.692	13-7	-.284	.026	.196	-.372
					13-8	-.291	.027	.199	-.394
					13-9	-.299	.029	.216	-.415



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.315	.036	-.205	-.489	17-1	-.418	.079	-.191	-.870
14-2	-.321	.031	-.226	-.464	17-2	-.317	.068	-.144	-.868
14-3	-.316	.029	-.237	-.419	17-3	-.370	.069	-.193	-.720
14-4	-.302	.028	-.226	-.409	17-4	-.483	.122	-.124	-1.286
14-5	-.302	.028	-.218	-.398	17-5	-.331	.137	-.199	-.928
15-1	-.297	.052	-.105	-.538	17-6	.036	.253	.767	-.649
15-2	-.300	.061	.047	-.566	17-7	.084	.166	.618	-.357
15-3	-.312	.038	-.209	-.528	17-8	-.358	.078	-.083	-.626
15-4	-.315	.029	-.224	-.420	17-9	-.271	.100	-.063	-.707
15-5	-.320	.029	-.226	-.430	17-10	-.298	.094	-.102	-.721
15-6	-.324	.031	-.229	-.441	17-11	-.230	.084	-.074	-.549
16-1	-.211	.046	-.024	-.370	17-12	-.379	.096	-.093	-.733
16-2	-.227	.040	-.042	-.500	17-13	-.490	.062	-.039	-.826
16-3	-.258	.050	-.039	-.436	17-14	-.239	.079	-.116	-.531
16-4	-.278	.039	-.141	-.450	17-15	-.240	.173	-.287	-.983
16-5	-.276	.041	-.140	-.430	17-16	-.382	.097	-.044	-.844
16-6	-.211	.031	-.097	-.323	17-17	-.336	.098	-.075	-.815
16-7	-.168	.030	-.067	-.284	17-18	-.411	.109	-.107	-1.055
16-8	-.247	.035	-.085	-.379					
16-9	-.262	.033	-.147	-.373					
16-10	-.288	.034	-.185	-.450					
16-11	-.214	.028	-.108	-.310					
16-12	-.227	.030	-.125	-.331					
16-13	-.236	.030	-.124	-.325					
16-14	-.260	.028	-.138	-.359					
16-15	-.291	.028	-.180	-.384					
16-16	-.221	.028	-.105	-.340					
16-17	-.222	.032	-.108	-.329					
16-18	-.235	.034	-.108	-.343					
16-19	-.265	.032	-.096	-.386					
16-20	-.289	.040	-.125	-.469					
16-21	-.230	.033	-.094	-.337					
16-22	-.240	.034	-.116	-.340					
16-23	-.254	.034	-.124	-.350					
16-24	-.229	.023	-.160	-.310					
16-25	-.249	.026	-.144	-.359					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
1-1	-.229	.042	-.084	-.740	3-29	-.434	.074	-.127	-.873
1-2	-.220	.040	-.077	-.562	3-30	-.393	.058	-.172	-.634
1-3	-.225	.029	-.138	-.339	3-31	-.354	.050	-.197	-.628
1-4	-.221	.025	-.133	-.316	3-32	-.325	.047	-.160	-.499
1-5	-.222	.026	-.135	-.302	3-33	-.288	.044	-.127	-.517
1-6	-.213	.026	-.121	-.290	3-34	-.266	.043	-.102	-.499
1-7	-.217	.025	-.115	-.314	3-35	-.244	.041	-.096	-.432
2-1	-.261	.082	-.039	-.731	3-36	-.239	.041	-.088	-.393
2-2	-.258	.046	-.022	-.767	3-37	-.411	.086	-.161	-.903
2-3	-.254	.084	.003	-.773	3-38	-.320	.053	-.120	-.546
2-4	-.245	.064	-.072	-.671	3-39	-.245	.049	-.079	-.547
2-5	-.244	.050	-.069	-.487	3-40	-.288	.048	-.024	-.384
2-6	-.246	.047	-.096	-.595	3-41	-.407	.089	-.178	-.900
2-7	-.248	.042	-.081	-.510	3-42	-.309	.054	-.102	-.565
2-8	-.245	.034	-.135	-.468	3-43	-.237	.049	-.033	-.440
2-9	-.231	.048	-.033	-.402	3-44	-.207	.047	-.034	-.419
2-10	-.238	.038	-.045	-.368	4-1	-.482	.117	-.068	-.1092
2-11	-.236	.030	-.108	-.329	4-2	-.357	.104	-.138	-.896
2-12	-.239	.024	-.160	-.314	4-3	-.158	.175	-.629	-.622
2-13	-.223	.052	-.007	-.432	4-4	-.055	.217	-.731	-.582
2-14	-.224	.037	-.063	-.369	4-5	-.435	.082	-.141	-.819
2-15	-.236	.026	-.090	-.312	4-6	-.389	.098	-.036	-.740
2-16	-.238	.022	-.145	-.316	4-7	-.192	.164	-.499	-.619
2-17	-.218	.053	-.006	-.393	4-8	-.083	.195	-.561	-.591
2-18	-.223	.036	-.015	-.339	4-9	-.353	.077	-.078	-.714
2-19	-.220	.050	-.024	-.450	4-10	-.364	.073	-.122	-.690
2-20	-.226	.032	-.052	-.351	4-11	-.308	.123	-.353	-.666
3-1	-.460	.077	-.076	-.839	4-12	-.236	.170	-.457	-.713
3-2	-.456	.075	-.148	-.866	4-13	-.381	.073	-.075	-.681
3-3	-.430	.061	-.176	-.710	4-14	-.359	.118	-.329	-.803
3-4	-.393	.056	-.217	-.722	4-15	-.292	.146	-.382	-.705
3-5	-.384	.060	-.182	-.613	5-1	-.497	.113	-.226	-.1185
3-6	-.359	.050	-.160	-.595	5-2	-.401	.090	-.122	-.880
3-7	-.331	.054	-.157	-.573	5-3	-.318	.076	-.029	-.625
3-8	-.315	.051	-.161	-.526	5-4	-.421	.063	-.241	-.773
3-9	-.288	.049	-.139	-.489	5-5	-.445	.068	-.245	-.831
3-10	-.457	.085	-.212	-.946	5-6	-.402	.072	-.096	-.650
3-11	-.413	.060	-.238	-.758	5-7	-.417	.065	-.233	-.776
3-12	-.336	.047	-.185	-.601	5-8	-.435	.073	-.223	-.788
3-13	-.398	.045	-.246	-.592	5-9	-.406	.074	-.041	-.783
3-14	-.370	.041	-.217	-.525	6-1	-.434	.078	-.206	-.658
3-15	-.343	.041	-.212	-.481	6-2	-.458	.080	-.212	-.722
3-16	-.330	.042	-.194	-.511	6-3	-.453	.076	-.251	-.775
3-17	-.313	.042	-.150	-.517	6-4	-.424	.089	-.175	-.802
3-18	-.294	.040	-.151	-.438	6-5	-.415	.072	-.203	-.641
3-19	-.522	.101	-.260	-.1001	6-6	-.450	.073	-.239	-.689
3-20	-.397	.068	-.173	-.748	6-7	-.459	.068	-.234	-.683
3-21	-.425	.062	-.154	-.692	6-8	-.392	.076	-.092	-.644
3-22	-.362	.049	-.185	-.601	6-9	-.372	.066	-.181	-.615
3-23	-.339	.043	-.190	-.511	6-10	-.400	.065	-.201	-.671
3-24	-.315	.043	-.176	-.493	6-11	-.411	.064	-.228	-.638
3-25	-.282	.043	-.086	-.459	6-12	-.317	.073	-.034	-.586
3-26	-.278	.042	-.139	-.438	6-13	-.365	.057	-.178	-.621
3-27	-.256	.040	-.103	-.413	6-14	-.389	.061	-.201	-.664
3-28	-.516	.115	-.179	-.1093	6-15	-.372	.062	-.165	-.707

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	.345	.141	.624	-.061	9-1	-.036	.083	.259	-.382
7-2	.284	.127	.674	-.101	9-2	-.069	.092	.226	-.475
7-3	.250	.117	.616	-.062	9-3	-.008	.086	.415	-.328
7-4	.230	.112	.585	-.070	9-4	.028	.070	.202	-.179
7-5	.215	.110	.591	-.114	9-5	.100	.083	.615	-.113
7-6	.189	.113	.610	-.154	10-1	.152	.094	.531	-.104
7-7	.158	.118	.588	-.246	10-2	-.084	.066	.275	-.331
7-8	.110	.103	.538	-.200	10-3	-.109	.080	.170	-.418
7-9	-.012	.075	.245	-.259	10-4	.040	.084	.427	-.197
7-10	.346	.150	.845	-.005	10-5	.094	.086	.505	-.132
7-11	.306	.130	.710	-.005	10-6	.103	.082	.397	-.104
7-12	.271	.117	.657	-.002	10-7	.134	.088	.604	-.077
7-13	.241	.109	.657	.017	11-1	-.318	.216	.251	-.1207
7-14	.232	.103	.666	-.009	11-2	.074	.116	.535	-.256
7-15	.206	.100	.613	-.009	11-3	.156	.131	.659	-.203
7-16	.167	.099	.536	-.066	11-4	.207	.133	.868	-.183
7-17	.097	.096	.524	-.133	11-5	.126	.132	.869	-.462
7-18	-.114	.089	.497	-.371	11-6	-.045	.172	.624	-.584
7-19	.277	.126	.725	-.009	11-7	-.124	.120	.451	-.711
7-20	.252	.109	.683	.009	11-8	-.399	.221	.334	-.1.089
7-21	.221	.097	.632	.006	11-9	.137	.117	.540	-.167
7-22	.192	.092	.557	-.056	11-10	.252	.129	.759	-.057
7-23	.165	.084	.571	-.025	11-11	.285	.124	.896	-.066
7-24	.136	.078	.501	-.025	11-12	.242	.167	.977	-.066
7-25	.068	.068	.415	-.154	11-13	.242	.167	1.045	-.066
7-26	.024	.082	.370	-.168	11-14	.031	.166	.977	-.331
7-27	-.155	.078	.175	-.345	11-15	-.469	.221	.556	-.278
7-28	.183	.099	.618	-.034	11-16	.092	.087	.108	-.1.236
7-29	.175	.083	.596	-.020	11-17	.217	.109	.416	-.159
7-30	.154	.074	.457	-.022	11-18	.261	.134	.586	-.066
7-31	.139	.067	.413	-.025	11-19	.228	.145	.862	-.036
7-32	.119	.061	.382	-.037	11-20	.148	.161	.768	-.200
7-33	.079	.054	.331	-.062	11-21	.080	.111	.693	-.212
7-34	.033	.050	.281	-.122	11-22	.385	.200	.672	-.236
7-35	-.038	.048	.240	-.161	11-23	.326	.208	.183	-.1.147
7-36	-.165	.049	.148	-.342	11-24	.202	.085	.352	-.174
7-37	.174	.075	.463	.011	12-1	.251	.108	.616	-.051
8-1	.136	.121	.370	-.663	12-2	.254	.118	.636	-.009
8-2	.164	.115	.264	-.625	12-3	.201	.114	.866	-.080
8-3	.192	.121	.168	-.625	12-4	.105	.091	.552	-.147
8-4	.198	.113	.133	-.786	12-5	.069	.073	.447	-.131
8-5	.130	.098	.267	-.629	12-6	-.250	.046	.065	-.486
8-6	.172	.081	.209	-.465	12-7	-.214	.060	.026	-.430
8-7	.178	.092	.175	-.529	12-8	.207	.067	.068	-.452
8-8	.166	.104	.167	-.725	12-9	.231	.072	.045	-.403
8-9	.130	.105	.348	-.435	13-1	.244	.066	.063	-.557
8-10	.133	.117	.271	-.551	13-2	.366	.043	.068	-.568
8-11	.204	.125	.299	-.744	13-3	-.386	.040	-.214	-.525
8-12	.186	.123	.292	-.789	13-4	-.343	.033	-.269	-.523
8-13	.033	.108	.480	-.388	13-5	-.356	.030	-.255	-.444
8-14	-.041	.135	.379	-.604	13-6	-.319	.029	-.235	-.413
8-15	-.183	.128	.158	-.870	13-7	-.320	.029	-.246	-.432
8-16	-.182	.124	.192	-.816	13-8	-.320	.029	-.235	-.415
					13-9	-.323	.031	-.240	-.477
					13-10	-.351	.031	-.252	-.483

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.372	.038	-.255	-.545	17-1	-.561	.079	-.314	-.822
14-2	-.375	.034	-.283	-.488	17-2	-.385	.069	-.204	-.681
14-3	-.351	.029	-.248	-.451	17-3	-.407	.077	-.190	-.760
14-4	-.331	.031	-.245	-.443	17-4	-.519	.100	-.265	-.803
14-5	-.345	.032	-.248	-.455	17-5	-.572	.120	-.266	-.822
15-1	-.338	.034	-.239	-.439	17-6	-.157	.168	.389	-.790
15-2	-.344	.058	-.108	-.697	17-7	.235	.134	.643	-.169
15-3	-.348	.032	-.255	-.485	17-8	-.377	.084	-.042	-.687
15-4	-.343	.030	-.254	-.432	17-9	-.323	.085	-.077	-.793
15-5	-.318	.029	-.234	-.406	17-10	-.167	.061	.040	-.424
15-6	-.368	.034	-.280	-.519	17-11	-.247	.065	-.015	-.534
16-1	-.250	.047	-.096	-.875	17-12	-.240	.095	.066	-.654
16-2	-.296	.034	-.133	-.601	17-13	-.231	.057	-.003	-.535
16-3	-.334	.038	-.215	-.460	17-14	-.110	.102	.179	-.514
16-4	-.341	.035	-.238	-.534	17-15	-.243	.101	.129	-.555
16-5	-.336	.039	-.220	-.511	17-16	-.449	.102	-.164	-.955
16-6	-.251	.030	-.142	-.365	17-17	-.383	.101	-.039	-.770
16-7	-.221	.028	-.115	-.317	17-18	-.447	.145	.041	-.904
16-8	-.312	.030	-.207	-.440					
16-9	-.321	.029	-.232	-.443					
16-10	-.340	.033	-.252	-.511					
16-11	-.289	.026	-.133	-.344					
16-12	-.277	.027	-.137	-.379					
16-13	-.297	.025	-.158	-.396					
16-14	-.318	.027	-.184	-.430					
16-15	-.344	.033	-.232	-.476					
16-16	-.249	.030	-.111	-.426					
16-17	-.274	.030	-.161	-.393					
16-18	-.304	.030	-.152	-.428					
16-19	-.329	.028	-.226	-.449					
16-20	-.350	.033	-.228	-.481					
16-21	-.284	.027	-.173	-.386					
16-22	-.304	.026	-.197	-.412					
16-23	-.319	.026	-.218	-.415					
16-24	-.259	.022	-.172	-.331					
16-25	-.296	.026	-.207	-.387					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
1-1	-.331	.059	-.175	-.723	3-29	-.432	.061	-.168	-.711
1-2	-.323	.049	-.155	-.703	3-30	-.405	.051	-.220	-.598
1-3	-.326	.036	-.208	-.459	3-31	-.380	.044	-.247	-.592
1-4	-.321	.031	-.185	-.434	3-32	-.353	.041	-.211	-.513
1-5	-.319	.030	-.210	-.420	3-33	-.330	.041	-.147	-.532
1-6	-.311	.031	-.197	-.426	3-34	-.306	.039	-.155	-.498
1-7	-.316	.032	-.187	-.409	3-35	-.295	.038	-.133	-.459
2-1	-.322	.073	-.176	-.744	3-36	-.295	.038	-.137	-.457
2-2	-.320	.072	-.068	-.712	3-37	-.384	.056	-.162	-.637
2-3	-.315	.071	-.049	-.657	3-38	-.309	.045	-.100	-.488
2-4	-.312	.069	-.064	-.714	3-39	-.251	.044	-.003	-.394
2-5	-.323	.051	-.137	-.774	3-40	-.229	.047	-.029	-.373
2-6	-.320	.047	-.162	-.699	3-41	-.362	.059	-.147	-.691
2-7	-.314	.040	-.182	-.519	3-42	-.288	.054	-.068	-.500
2-8	-.307	.035	-.198	-.465	3-43	-.241	.054	-.176	-.443
2-9	-.336	.049	-.068	-.610	3-44	-.229	.048	-.107	-.396
2-10	-.324	.041	-.188	-.586	4-1	-.583	.102	-.296	-.853
2-11	-.316	.034	-.164	-.452	4-2	-.507	.095	-.188	-.671
2-12	-.313	.031	-.214	-.436	4-3	-.311	.090	-.161	-.669
2-13	-.341	.062	-.126	-.591	4-4	-.270	.096	-.401	-.600
2-14	-.320	.050	-.160	-.514	4-5	-.559	.078	-.280	-.854
2-15	-.305	.033	-.173	-.443	4-6	-.561	.124	-.008	-.161
2-16	-.300	.026	-.205	-.398	4-7	-.401	.119	-.111	-.801
2-17	-.321	.064	-.039	-.605	4-8	-.309	.108	-.336	-.675
2-18	-.293	.043	-.113	-.455	4-9	-.465	.082	-.114	-.806
2-19	-.311	.063	-.079	-.561	4-10	-.479	.074	-.195	-.825
2-20	-.289	.042	-.133	-.454	4-11	-.415	.095	-.014	-.812
3-1	-.472	.073	-.270	-.750	4-12	-.333	.118	-.360	-.676
3-2	-.460	.071	-.254	-.706	4-13	-.502	.064	-.199	-.742
3-3	-.459	.061	-.247	-.725	4-14	-.501	.094	-.128	-.822
3-4	-.423	.060	-.222	-.718	4-15	-.417	.129	-.147	-.804
3-5	-.412	.060	-.235	-.692	5-1	-.599	.082	-.377	-.874
3-6	-.373	.052	-.179	-.657	5-2	-.555	.075	-.301	-.839
3-7	-.351	.044	-.220	-.584	5-3	-.439	.079	-.155	-.759
3-8	-.338	.039	-.228	-.536	5-4	-.584	.064	-.398	-.816
3-9	-.326	.039	-.199	-.550	5-5	-.600	.069	-.406	-.850
3-10	-.488	.076	-.247	-.844	5-6	-.539	.073	-.298	-.795
3-11	-.452	.063	-.261	-.725	5-7	-.562	.062	-.372	-.771
3-12	-.355	.046	-.233	-.565	5-8	-.522	.059	-.321	-.713
3-13	-.456	.051	-.318	-.701	5-9	-.403	.052	-.234	-.573
3-14	-.419	.046	-.237	-.634	6-1	-.581	.065	-.403	-.776
3-15	-.397	.045	-.248	-.571	6-2	-.597	.067	-.424	-.817
3-16	-.376	.043	-.244	-.556	6-3	-.617	.071	-.410	-.845
3-17	-.354	.041	-.183	-.568	6-4	-.614	.077	-.416	-.905
3-18	-.333	.039	-.147	-.496	6-5	-.579	.063	-.410	-.837
3-19	-.533	.100	-.246	-.803	6-6	-.609	.064	-.426	-.864
3-20	-.425	.072	-.207	-.700	6-7	-.610	.069	-.412	-.858
3-21	-.458	.057	-.250	-.678	6-8	-.567	.073	-.381	-.859
3-22	-.413	.046	-.276	-.636	6-9	-.539	.071	-.332	-.828
3-23	-.372	.043	-.212	-.537	6-10	-.568	.069	-.393	-.827
3-24	-.341	.041	-.156	-.488	6-11	-.580	.070	-.423	-.827
3-25	-.334	.049	-.137	-.574	6-12	-.466	.081	-.164	-.782
3-26	-.316	.046	-.068	-.514	6-13	-.495	.053	-.312	-.686
3-27	-.306	.045	-.080	-.475	6-14	-.520	.055	-.338	-.708
3-28	-.406	.094	-.250	-.808	6-15	-.506	.055	-.316	-.731

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	.243	.110	.571	-.056	9-1	-.104	.069	.245	-.309
7-2	.168	.097	.517	-.097	9-2	.012	.065	.230	-.208
7-3	.133	.089	.438	-.110	9-3	.024	.089	.360	-.293
7-4	.107	.086	.453	-.125	9-4	.141	.073	.416	-.076
7-5	.075	.085	.403	-.165	9-5	.202	.091	.581	-.050
7-6	.036	.079	.375	-.205	9-6	.241	.092	.550	.011
7-7	-.017	.078	.268	-.265	10-1	-.108	.074	.223	-.330
7-8	-.074	.075	.216	-.287	10-2	-.113	.055	.138	-.290
7-9	-.272	.061	-.029	-.453	10-3	.091	.074	.378	.126
7-10	.310	.131	.691	-.312	10-4	.182	.084	.494	-.029
7-11	.225	.100	.563	-.008	10-5	.189	.082	.505	-.020
7-12	.176	.088	.507	-.031	10-6	.219	.082	.486	.008
7-13	.134	.081	.429	-.102	11-1	.118	.204	.514	.053
7-14	.094	.080	.432	-.134	11-2	.111	.133	.655	-.230
7-15	.059	.076	.356	-.150	11-3	.127	.129	.582	-.248
7-16	.011	.070	.267	-.197	11-4	.132	.117	.549	-.246
7-17	-.061	.061	.168	-.239	11-5	.103	.130	.640	-.268
7-18	-.325	.057	-.123	-.510	11-6	.095	.136	.594	-.240
7-19	.174	.111	.589	-.298	11-7	.032	.150	.635	-.353
7-20	.084	.084	.450	-.083	11-8	.172	.218	.458	-.040
7-21	.066	.075	.350	-.085	11-9	.245	.137	.760	-.109
7-22	.059	.077	.399	-.116	11-10	.302	.134	.798	-.068
7-23	.028	.071	.372	-.140	11-11	.314	.128	.754	-.003
7-24	-.004	.065	.333	-.163	11-12	.305	.126	.713	-.032
7-25	-.023	.055	.265	-.165	11-13	.284	.141	.772	-.058
7-26	.143	.053	.321	-.114	11-14	.176	.129	.678	-.138
7-27	.349	.050	.180	-.532	11-15	.273	.225	.426	-.110
7-28	.087	.094	.421	-.382	11-16	.185	.118	.620	-.102
7-29	.064	.067	.367	-.211	11-17	.259	.109	.693	.002
7-30	.052	.062	.341	-.140	11-18	.261	.105	.641	.009
7-31	.030	.054	.224	-.108	11-19	.240	.101	.626	-.002
7-32	.005	.048	.176	-.113	11-20	.219	.099	.654	-.021
7-33	-.040	.043	.145	-.140	11-21	.187	.101	.654	-.067
7-34	-.092	.042	.111	-.221	11-22	-.262	.172	.230	-.018
7-35	.177	.038	.022	-.308	11-23	.100	.084	.497	-.119
7-36	.041	.041	.313	-.466	11-24	.239	.099	.777	0.000
7-37	.068	.065	.324	-.102	11-25	.270	.104	.748	.002
8-1	.022	.057	.225	-.264	11-26	.254	.100	.660	.014
8-2	.038	.057	.288	-.301	11-27	.213	.088	.579	-.003
8-3	.027	.070	.236	-.486	11-28	.174	.076	.444	.030
8-4	-.054	.131	.557	-.557	12-1	-.213	.062	.084	-.418
8-5	.095	.065	.305	-.184	12-2	-.127	.086	.158	-.407
8-6	.107	.064	.296	-.142	12-3	-.105	.090	.214	-.427
8-7	.083	.082	.302	-.264	12-4	-.229	.050	-.042	-.407
8-8	.685	.152	.287	-.723	12-5	-.149	.082	.152	-.481
8-9	.145	.080	.467	-.208	12-6	-.191	.077	.085	-.507
8-10	.157	.072	.415	-.103	13-1	-.414	.047	-.283	-.611
8-11	.143	.069	.401	-.202	13-2	-.424	.064	-.307	-.604
8-12	.102	.104	.462	-.382	13-3	-.392	.040	-.268	-.542
8-13	.178	.080	.515	-.059	13-4	-.403	.038	-.287	-.509
8-14	.167	.071	.449	-.042	13-5	-.357	.035	-.232	-.470
8-15	.153	.067	.432	-.091	13-6	-.392	.037	-.261	-.512
8-16	.143	.095	.395	-.473	13-7	-.367	.037	-.258	-.481
					13-8	-.389	.040	-.285	-.529
					13-9	-.393	.039	-.260	-.531

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.392	.037	-.279	-.567	17-1	-.575	.077	-.283	-.869
14-2	-.302	.031	-.208	-.409	17-2	-.340	.071	-.149	-.716
14-3	-.408	.036	-.315	-.518	17-3	-.372	.064	-.214	-.725
14-4	-.395	.037	-.301	-.515	17-4	-.449	.092	-.240	-.877
14-5	-.395	.038	-.297	-.524	17-5	-.574	.108	-.260	-.999
15-1	-.386	.072	-.108	-.689	17-6	-.258	.097	-.122	-.639
15-2	-.395	.078	-.124	-.824	17-7	.197	.123	-.542	-.185
15-3	-.403	.048	-.269	-.607	17-8	-.305	.101	-.064	-.625
15-4	-.405	.043	-.304	-.665	17-9	-.548	.098	-.276	-.966
15-5	-.410	.041	-.313	-.625	17-10	-.436	.100	-.055	-.944
15-6	-.412	.042	-.287	-.562	17-11	-.357	.082	-.065	-.819
16-1	-.334	.050	-.160	-.587	17-12	-.420	.093	-.164	-.886
16-2	-.347	.046	-.186	-.559	17-13	-.300	.056	-.052	-.592
16-3	-.373	.038	-.230	-.573	17-14	-.190	.079	-.091	-.670
16-4	-.377	.039	-.236	-.535	17-15	-.067	.071	-.147	-.420
16-5	-.368	.047	-.219	-.607	17-16	-.471	.099	-.135	-.848
16-6	-.330	.032	-.216	-.437	17-17	-.352	.069	-.134	-.640
16-7	-.268	.028	-.153	-.369	17-18	-.117	.105	-.141	-.771
16-8	-.343	.032	-.222	-.467					
16-9	-.352	.033	-.230	-.481					
16-10	-.375	.039	-.266	-.543					
16-11	-.324	.030	-.182	-.423					
16-12	-.334	.033	-.214	-.458					
16-13	-.340	.034	-.219	-.456					
16-14	-.362	.035	-.216	-.482					
16-15	-.390	.041	-.241	-.535					
16-16	-.324	.036	-.197	-.476					
16-17	-.325	.037	-.150	-.481					
16-18	-.343	.038	-.153	-.493					
16-19	-.368	.039	-.186	-.537					
16-20	-.391	.046	-.266	-.615					
16-21	-.321	.036	-.130	-.468					
16-22	-.337	.035	-.175	-.488					
16-23	-.355	.037	-.178	-.504					
16-24	-.333	.028	-.230	-.540					
16-25	-.341	.034	-.128	-.490					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.384	.071	-.127	-.769	3-29	-.298	.046	-.135	-.495
1-2	-.373	.061	-.141	-.759	3-30	-.274	.039	-.136	-.436
1-3	-.374	.048	-.226	-.549	3-31	-.262	.038	-.098	-.401
1-4	-.359	.040	-.228	-.479	3-32	-.266	.040	-.065	-.382
1-5	-.346	.039	-.108	-.468	3-33	-.295	.039	-.044	-.416
1-6	-.331	.033	-.169	-.430	3-34	-.292	.036	-.095	-.414
1-7	-.317	.033	-.168	-.410	3-35	-.294	.036	-.128	-.433
2-1	-.402	.083	-.107	-.782	3-36	-.300	.038	-.165	-.513
2-2	-.430	.082	-.065	-.893	3-37	-.311	.056	-.115	-.517
2-3	-.444	.082	-.104	-.817	3-38	-.258	.052	-.051	-.421
2-4	-.425	.083	-.126	-.1032	3-39	-.236	.053	.007	-.396
2-5	-.361	.040	-.124	-.640	3-40	-.241	.054	.051	-.450
2-6	-.385	.066	-.152	-.721	3-41	-.282	.059	-.077	-.496
2-7	-.393	.065	-.192	-.692	3-42	-.234	.057	.054	-.448
2-8	-.374	.056	-.219	-.652	3-43	-.242	.055	.055	-.446
2-9	-.379	.065	-.111	-.664	3-44	-.259	.052	.034	-.441
2-10	-.383	.048	-.203	-.526	4-1	-.389	.075	-.099	-.694
2-11	-.394	.040	-.253	-.530	4-2	-.344	.090	-.021	-.709
2-12	-.382	.034	-.264	-.510	4-3	-.320	.074	-.064	-.624
2-13	-.355	.076	-.101	-.662	4-4	-.285	.062	-.066	-.522
2-14	-.382	.050	-.021	-.595	4-5	-.285	.077	-.289	-.747
2-15	-.378	.040	-.219	-.513	4-6	-.438	.077	-.796	-.915
2-16	-.360	.032	-.252	-.506	4-7	-.407	.070	-.114	-.721
2-17	-.316	.063	-.011	-.560	4-8	-.340	.062	-.068	-.588
2-18	-.339	.042	-.175	-.502	4-9	-.447	.078	-.271	-.672
2-19	-.308	.063	-.045	-.635	4-10	-.443	.080	-.268	-.729
2-20	-.335	.042	-.190	-.520	4-11	-.437	.075	-.176	-.733
3-1	-.289	.062	-.144	-.544	4-12	-.411	.077	-.011	-.739
3-2	-.293	.062	-.152	-.543	4-13	-.380	.052	-.257	-.610
3-3	-.291	.057	-.158	-.544	4-14	-.391	.059	-.237	-.624
3-4	-.282	.056	-.136	-.568	4-15	-.401	.073	-.123	-.765
3-5	-.283	.044	-.122	-.722	5-1	-.420	.078	-.213	-.736
3-6	-.287	.040	-.173	-.510	5-2	-.350	.075	-.291	-.815
3-7	-.290	.036	-.153	-.463	5-3	-.511	.071	-.246	-.765
3-8	-.296	.037	-.165	-.479	5-4	-.504	.070	-.284	-.758
3-9	-.305	.042	-.163	-.533	5-5	-.515	.072	-.286	-.788
3-10	-.284	.041	-.135	-.502	5-6	-.485	.077	-.269	-.755
3-11	-.258	.031	-.145	-.384	5-7	-.466	.069	-.268	-.691
3-12	-.269	.029	-.145	-.358	5-8	-.472	.072	-.262	-.695
3-13	-.330	.056	-.175	-.522	5-9	-.456	.071	-.259	-.695
3-14	-.321	.048	-.198	-.505	6-1	-.420	.094	-.248	-.696
3-15	-.315	.042	-.195	-.479	6-2	-.431	.090	-.253	-.723
3-16	-.313	.039	-.168	-.469	6-3	-.423	.101	-.239	-.691
3-17	-.288	.030	-.190	-.408	6-4	-.423	.103	-.230	-.713
3-18	-.299	.031	-.192	-.415	6-5	-.372	.048	-.222	-.546
3-19	-.313	.067	-.141	-.965	6-6	-.379	.049	-.215	-.586
3-20	-.230	.050	-.125	-.571	6-7	-.372	.047	-.245	-.561
3-21	-.309	.057	-.146	-.746	6-8	-.367	.045	-.250	-.563
3-22	-.288	.056	-.121	-.564	6-9	-.509	.077	-.271	-.729
3-23	-.273	.062	-.068	-.540	6-10	-.521	.081	-.272	-.755
3-24	-.274	.047	-.054	-.505	6-11	-.501	.077	-.257	-.743
3-25	-.306	.042	-.136	-.489	6-12	-.486	.074	-.269	-.722
3-26	-.296	.040	-.138	-.445	6-13	-.439	.067	-.256	-.626
3-27	-.292	.039	-.111	-.436	6-14	-.447	.071	-.256	-.660
3-28	-.374	.069	-.166	-.662	6-15	-.439	.067	-.253	-.645



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
7-1	.072	.106	.377	-.791	9-1	-.151	.076	.368	-.386
7-2	.030	.072	.280	-.230	9-2	-.049	.069	.258	-.341
7-3	.008	.063	.228	-.176	9-3	.065	.101	.420	-.420
7-4	-.013	.058	.188	-.188	9-4	.197	.081	.645	-.050
7-5	-.039	.057	.168	-.230	9-5	.244	.094	.688	0.000
7-6	-.052	.055	.157	-.275	9-6	.262	.098	.721	-.021
7-7	-.102	.051	.094	-.259	10-1	-.151	.092	.268	-.437
7-8	-.151	.049	.076	-.318	10-2	-.144	.056	.091	-.310
7-9	-.284	.056	.106	-.451	10-3	.090	.084	.424	-.198
7-10	.116	.127	.484	-.604	10-4	.211	.090	.660	-.011
7-11	.074	.077	.342	-.209	10-5	.221	.091	.610	-.012
7-12	.041	.063	.272	-.183	10-6	.235	.089	.581	-.011
7-13	.013	.057	.210	-.198	11-1	.118	.179	.625	-.630
7-14	-.017	.056	.194	-.174	11-2	.154	.142	.628	-.315
7-15	-.046	.054	.183	-.183	11-3	.134	.150	.616	-.351
7-16	-.098	.051	.103	-.239	11-4	.114	.142	.599	-.281
7-17	-.176	.052	.023	-.321	11-5	.017	.171	.797	-.525
7-18	-.319	.071	-.127	-.542	11-6	-.034	.160	.683	-.589
7-19	-.021	.171	.446	-.934	11-7	-.074	.155	.548	-.592
7-20	.002	.098	.312	-.454	11-8	.193	.191	.733	-1.133
7-21	-.005	.071	.256	-.336	11-9	.318	.151	.993	-.117
7-22	-.007	.059	.210	-.245	11-10	.303	.150	.987	-.046
7-23	-.016	.050	.168	-.206	11-11	.266	.143	1.010	-.071
7-24	-.046	.044	.126	-.180	11-12	.223	.134	.844	-.053
7-25	-.051	.037	.098	-.174	11-13	.212	.124	.799	-.091
7-26	-.211	.042	-.008	-.342	11-14	.171	.127	.802	-.136
7-27	-.384	.051	-.194	-.525	11-15	.100	.179	.695	-.704
7-28	-.100	.154	.356	-.651	11-16	.279	.126	.745	-.138
7-29	-.063	.117	.245	-.534	11-17	.276	.122	.786	-.009
7-30	-.028	.086	.259	-.418	11-18	.258	.106	.710	.003
7-31	-.032	.064	.224	-.339	11-19	.236	.094	.607	.032
7-32	-.052	.049	.188	-.265	11-20	.225	.096	.590	-.006
7-33	-.086	.043	.154	-.266	11-21	.215	.097	.765	-.037
7-34	-.132	.041	.051	-.266	11-22	.042	.190	.567	-.821
7-35	-.200	.042	-.041	-.266	11-23	.218	.113	.634	-.032
7-36	-.298	.051	-.138	-.471	11-24	.279	.119	.782	.017
7-37	-.013	.067	.228	-.227	11-25	.265	.093	.647	.006
8-1	.006	.063	.225	-.298	11-26	.239	.083	.616	-.011
8-2	.039	.064	.260	-.206	11-27	.233	.083	.586	.005
8-3	.062	.061	.259	-.136	11-28	.239	.084	.610	-.015
8-4	.097	.069	.333	-.113	12-1	-.124	.087	.221	-.546
8-5	.114	.075	.543	-.294	12-2	-.012	.107	.344	-.451
8-6	.141	.071	.383	-.117	12-3	.042	.105	.358	-.329
8-7	.152	.072	.437	-.095	12-4	.157	.071	.127	-.382
8-8	.174	.090	.522	-.378	12-5	.008	.100	.366	-.387
8-9	.167	.080	.489	-.056	12-6	.034	.104	.390	-.410
8-10	.164	.077	.517	-.121	13-1	-.034	.061	.349	-.754
8-11	.158	.073	.620	-.118	13-2	.512	.058	.340	-.725
8-12	.156	.083	.690	-.247	13-3	-.502	.056	.349	-.717
8-13	.189	.077	.463	-.089	13-4	.507	.060	.338	-.703
8-14	.181	.069	.419	-.095	13-5	-.461	.057	.283	-.656
8-15	.178	.071	.425	-.030	13-6	-.470	.058	.280	-.665
8-16	.166	.073	.463	-.095	13-7	-.457	.058	.288	-.704
					13-8	-.442	.060	.288	-.690
					13-9	-.484	.061	.316	-.714

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.480	.057	-.286	-.178	17-1	-.695	.107	-.401	-1.098
14-2	-.364	.049	-.230	-.178	17-2	-.462	.111	-.207	-1.236
14-3	-.518	.060	-.332	-.178	17-3	-.396	.075	-.214	-.931
14-4	-.498	.061	-.299	-.720	17-4	-.633	.080	-.243	-.801
14-5	-.491	.064	-.300	-.740	17-5	-.577	.117	-.293	-1.100
15-1	-.412	.068	-.055	-.831	17-6	-.478	.113	.052	-.923
15-2	-.397	.102	.064	-.881	17-7	.138	.131	.520	-.290
15-3	-.493	.064	-.296	-.804	17-8	-.110	.131	.577	-.577
15-4	-.485	.066	-.322	-.756	17-9	-.580	.125	.144	-1.008
15-5	-.444	.060	-.294	-.756	17-10	-.606	.099	-.196	-1.011
15-6	-.583	.072	-.318	-.770	17-11	.632	.091	-.065	-.777
16-1	-.403	.067	-.155	-.764	17-12	-.650	.117	-.126	-.194
16-2	-.438	.059	-.250	-.640	17-13	-.332	.066	-.055	-.630
16-3	-.457	.055	-.322	-.643	17-14	-.317	.094	.027	-.767
16-4	-.395	.048	-.216	-.610	17-15	-.159	.071	.118	-.500
16-5	-.399	.062	-.224	-.829	17-16	-.649	.108	-.189	-.914
16-6	-.353	.044	-.197	-.535	17-17	-.491	.070	-.283	-.882
16-7	-.297	.037	-.185	-.487	17-18	-.059	.060	-.093	-.345
16-8	-.417	.050	-.255	-.581					
16-9	-.422	.050	-.249	-.581					
16-10	-.431	.053	-.235	-.621					
16-11	-.371	.042	-.235	.158					
16-12	-.378	.042	-.238	-.524					
16-13	-.392	.043	-.239	-.534					
16-14	-.410	.047	-.280	-.548					
16-15	-.431	.056	-.263	-.621					
16-16	-.354	.030	-.219	-.512					
16-17	-.367	.040	-.197	-.545					
16-18	-.389	.041	-.268	-.574					
16-19	-.407	.047	-.283	-.626					
16-20	-.453	.069	-.246	-.750					
16-21	-.387	.044	-.218	-.551					
16-22	-.400	.047	-.228	-.557					
16-23	-.410	.052	-.241	-.588					
16-24	-.363	.034	-.250	-.495					
16-25	-.386	.049	-.236	-.574					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.415	.064	-.210	-.749	3-29	-.266	.029	-.184	-.396
1-2	-.400	.053	-.194	-.586	3-30	-.275	.028	-.199	-.391
1-3	-.399	.045	-.236	-.648	3-31	-.286	.029	-.185	-.409
1-4	-.359	.036	-.235	-.527	3-32	-.300	.030	-.181	-.455
1-5	-.348	.035	-.241	-.494	3-33	-.313	.033	-.210	-.476
1-6	-.317	.030	-.210	-.466	3-34	-.317	.033	-.218	-.483
1-7	-.301	.031	-.134	-.407	3-35	-.320	.035	-.222	-.481
2-1	-.256	.120	-.251	-.814	3-36	-.324	.040	-.218	-.600
2-2	-.309	.104	-.204	-.761	3-37	-.253	.039	-.100	-.405
2-3	-.368	.079	-.073	-.833	3-38	-.272	.035	-.148	-.405
2-4	-.393	.075	-.124	-.918	3-39	-.291	.035	-.171	-.426
2-5	-.268	.077	-.141	-.575	3-40	-.314	.043	-.191	-.535
2-6	-.313	.072	-.006	-.643	3-41	-.253	.035	-.133	-.364
2-7	-.370	.061	-.204	-.694	3-42	-.270	.031	-.160	-.495
2-8	-.394	.054	-.264	-.757	3-43	-.285	.033	-.088	-.449
2-9	-.263	.073	-.167	-.548	3-44	-.304	.042	-.194	-.519
2-10	-.311	.056	-.036	-.510	4-1	-.281	.049	-.096	-.530
2-11	-.363	.043	-.177	-.566	4-2	-.255	.079	-.145	-.607
2-12	-.373	.037	-.261	-.643	4-3	-.256	.091	-.125	-.612
2-13	-.261	.071	-.294	-.510	4-4	-.260	.077	-.105	-.601
2-14	-.311	.053	-.031	-.485	4-5	-.281	.030	-.187	-.495
2-15	-.353	.038	-.222	-.498	4-6	-.289	.032	-.181	-.449
2-16	-.350	.031	-.250	-.502	4-7	-.288	.041	-.169	-.540
2-17	-.242	.070	-.084	-.465	4-8	-.282	.041	-.164	-.469
2-18	-.297	.047	-.054	-.476	4-9	-.295	.025	-.193	-.370
2-19	-.239	.063	-.094	-.428	4-10	-.280	.024	-.195	-.368
2-20	-.297	.063	-.094	-.428	4-11	-.283	.028	-.199	-.486
3-1	-.281	.060	-.107	-.471	4-12	-.285	.034	-.201	-.443
3-2	-.266	.044	-.117	-.579	4-13	-.279	.028	-.202	-.397
3-3	-.260	.032	-.150	-.405	4-14	-.297	.035	-.187	-.470
3-4	-.220	.028	-.130	-.321	4-15	-.298	.045	-.174	-.504
3-5	-.292	.033	-.158	-.428	5-1	-.288	.038	-.171	-.445
3-6	-.301	.034	-.202	-.532	5-2	-.275	.026	-.187	-.417
3-7	-.308	.033	-.197	-.455	5-3	-.282	.023	-.210	-.384
3-8	-.317	.036	-.178	-.509	5-4	-.287	.025	-.196	-.388
3-9	-.317	.040	-.197	-.538	5-5	-.277	.024	-.178	-.355
3-10	-.262	.039	-.155	-.523	5-6	-.286	.024	-.185	-.344
3-11	-.242	.025	-.165	-.335	5-7	-.286	.026	-.182	-.382
3-12	-.178	.020	-.111	-.255	5-8	-.272	.026	-.187	-.370
3-13	-.285	.028	-.167	-.385	5-9	-.281	.025	-.196	-.388
3-14	-.290	.027	-.175	-.381	6-1	-.257	.024	-.178	-.355
3-15	-.297	.027	-.178	-.394	6-2	-.260	.024	-.185	-.344
3-16	-.308	.026	-.230	-.411	6-3	-.270	.025	-.182	-.362
3-17	-.315	.029	-.221	-.435	6-4	-.282	.029	-.180	-.382
3-18	-.311	.035	-.185	-.466	6-5	-.254	.023	-.180	-.346
3-19	-.262	.026	-.163	-.385	6-6	-.257	.023	-.175	-.338
3-20	-.206	.024	-.101	-.292	6-7	-.261	.023	-.175	-.336
3-21	-.279	.025	-.177	-.364	6-8	-.256	.024	-.178	-.372
3-22	-.286	.024	-.197	-.366	6-9	-.244	.025	-.155	-.322
3-23	-.295	.023	-.214	-.381	6-10	-.249	.025	-.153	-.344
3-24	-.307	.024	-.240	-.416	6-11	-.263	.024	-.184	-.344
3-25	-.313	.026	-.230	-.421	6-12	-.288	.029	-.208	-.371
3-26	-.314	.030	-.232	-.441	6-13	-.248	.029	-.158	-.351
3-27	-.312	.035	-.220	-.468	6-14	-.254	.028	-.135	-.341
3-28	-.262	.029	-.135	-.371	6-15	-.260	.026	-.162	-.351

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.230	.189	.087	-1.102	9-1	-.161	.087	.400	-.419
7-2	-.106	.073	.073	-.579	9-2	-.060	.083	.215	-.518
7-3	-.099	.037	.021	-.359	9-3	.072	.139	.668	-.396
7-4	-.104	.031	.021	-.262	9-4	.249	.098	.722	.011
7-5	-.119	.030	.024	-.267	9-5	.315	.101	.828	-.069
7-17	-.165	.024	-.074	-.271	11-4	.096	.152	.668	-.454
7-18	-.233	.024	-.130	-.329	11-5	.001	.168	.714	-.530
7-19	-.358	.168	.167	-1.012	11-6	-.051	.163	.568	-.591
7-20	-.210	.187	.077	-.830	11-7	-.039	.146	.460	-.556
7-21	-.146	.094	.081	-.587	11-8	.236	.199	.799	-.796
7-22	-.124	.063	.087	-.593	11-9	.306	.169	.853	-.262
7-23	-.118	.044	.026	-.381	11-10	.293	.135	.816	-.116
7-24	-.125	.033	-.014	-.376	11-11	.268	.124	.850	-.100
7-25	-.107	.027	-.084	-.277	11-12	.242	.122	.796	-.114
7-26	-.176	.027	-.074	-.368	11-13	.268	.128	.845	-.064
7-27	-.225	.024	-.133	-.314	11-14	.247	.128	.714	-.193
7-28	-.327	.169	.101	-1.062	11-15	.283	.232	.726	-1.035
7-29	-.221	.133	.107	-.757	11-16	.275	.133	.834	-.149
7-30	-.151	.100	.068	-.560	11-17	.276	.111	.738	-.033
7-31	-.121	.089	.229	-.530	11-18	.278	.112	.758	.014
7-32	-.117	.049	.064	-.530	11-19	.277	.114	.711	.015
7-33	-.129	.040	.027	-.365	11-20	.283	.114	.726	-.005
7-34	-.152	.034	.023	-.309	11-21	.286	.108	.860	.017
7-35	-.182	.029	-.040	-.371	11-22	.020	.184	.490	-1.067
7-36	-.208	.027	-.026	-.314	11-23	.177	.104	.559	-.090
7-37	-.099	.055	.083	-.334	11-24	.263	.105	.656	-.023
8-1	.035	.079	.284	-.408	11-25	.283	.106	.609	.015
8-2	.094	.078	.385	-.222	11-26	.286	.099	.627	.011
8-3	.141	.080	.420	-.184	11-27	.297	.100	.630	.011
8-4	.218	.093	.582	-.067	11-28	.311	.105	.696	-.040
8-5	.174	.079	.452	-.056	12-1	-.039	.122	.396	-.611
8-6	.215	.079	.536	-.021	12-2	.121	.151	.625	-.407
8-7	.253	.084	.545	-.057	12-3	.167	.151	.661	-.522
8-8	.323	.101	.663	-.017	12-4	-.109	.106	.241	-.525
8-9	.237	.095	.584	-.048	12-5	.076	.139	.485	-.550
8-10	.245	.091	.564	-.048	12-6	-.032	.129	.462	-.570
8-11	.258	.096	.557	-.033	13-1	.571	.069	-.379	-.838
8-12	.290	.113	.684	0.000	13-2	.570	.067	-.371	-.860
8-13	.264	.086	.554	.054	13-3	.575	.066	-.385	-.841
8-14	.262	.088	.545	.029	13-4	-.556	.067	-.362	-.797
8-15	.277	.098	.621	-.016	13-5	-.542	.064	-.347	-.780
8-16	.280	.109	.643	-.009	13-6	-.519	.063	-.347	-.752
					13-7	-.489	.062	-.270	-.745
					13-8	-.470	.066	-.219	-.743
					13-9	-.455	.073	-.241	-.780

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.539	.086	-.320	-.939	17-1	-.670	.107	-.334	-1.108
14-2	-.356	.076	-.359	-.889	17-2	-.633	.097	-.306	-1.051
14-3	-.540	.076	-.291	-.827	17-3	-.649	.083	-.277	-1.043
14-4	-.484	.067	-.253	-.757	17-4	-.492	.078	-.298	-1.012
14-5	-.447	.064	-.256	-.710	17-5	-.687	.102	-.316	-1.167
15-1	-.284	.145	-.235	-.698	17-6	-.575	.108	-.012	-.900
15-2	-.308	.152	-.309	-.780	17-7	-.059	.116	.606	-.463
15-3	-.211	.084	-.213	-.838	17-8	.033	.159	.569	-.701
15-4	-.492	.081	-.134	-.655	17-9	-.603	.124	-.149	-1.133
15-5	-.443	.072	-.183	-.752	17-10	-.581	.113	-.190	-1.082
15-6	-.508	.086	-.112	-.905	17-11	-.433	.108	-.088	-.923
16-1	-.404	.054	-.227	-.654	17-12	-.544	.121	-.194	-1.268
16-2	-.421	.046	-.267	-.570	17-13	-.313	.070	-.061	-.643
16-3	-.420	.047	-.267	-.639	17-14	-.379	.082	-.127	-.806
16-4	-.409	.062	-.182	-.830	17-15	-.237	.105	-.106	-.639
16-5	-.408	.075	-.117	-.799	17-16	-.586	.134	-.096	-1.037
16-6	-.405	.044	-.266	-.560	17-17	-.570	.097	-.230	-1.044
16-7	-.345	.041	-.210	-.494	17-18	-.094	.086	.116	-.623
16-8	-.419	.044	-.298	-.591					
16-9	-.406	.049	-.232	-.600					
16-10	-.410	.068	-.149	-.786					
16-11	-.378	.039	-.218	-.595					
16-12	-.408	.037	-.308	-.583					
16-13	-.413	.043	-.297	-.553					
16-14	-.399	.055	-.210	-.589					
16-15	-.388	.102	-.005	-.710					
16-16	-.385	.048	-.228	-.687					
16-17	-.419	.050	-.277	-.634					
16-18	-.431	.056	-.272	-.630					
16-19	-.422	.069	-.221	-.668					
16-20	-.424	.093	-.137	-.912					
16-21	-.391	.052	-.222	-.570					
16-22	-.395	.061	-.213	-.653					
16-23	-.389	.073	-.174	-.749					
16-24	-.361	.039	-.232	-.541					
16-25	-.382	.060	-.202	-.595					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION 270

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	-.295	.068	-.025	-.582	3-29	-.275	.040	-.067	-.435
1-2	-.319	.056	-.120	-.574	3-30	-.293	.040	-.040	-.457
1-3	-.368	.054	-.116	-.533	3-31	-.319	.040	-.186	-.497
1-4	-.268	.042	-.139	-.463	3-32	-.343	.043	-.201	-.525
1-5	-.294	.040	-.142	-.466	3-33	-.365	.050	-.205	-.612
1-6	-.276	.033	-.159	-.435	3-34	-.382	.053	-.243	-.645
1-7	-.251	.032	-.117	-.422	3-35	-.391	.057	-.247	-.725
2-1	-.059	.130	.485	-.467	3-36	-.392	.059	-.233	-.819
2-2	-.049	.111	.371	-.411	3-37	-.242	.053	-.054	-.492
2-3	-.094	.109	.317	-.618	3-38	-.289	.052	-.121	-.471
2-4	-.211	.101	.190	-.487	3-39	-.337	.054	-.111	-.545
2-5	-.108	.113	.548	-.461	3-40	-.388	.061	-.223	-.691
2-6	-.128	.090	.435	-.367	3-41	-.247	.050	-.033	-.504
2-7	-.199	.064	.107	-.488	3-42	-.290	.051	-.061	-.461
2-8	-.245	.059	-.040	-.524	3-43	-.327	.055	-.097	-.566
2-9	-.155	.115	.452	-.449	3-44	-.365	.057	-.203	-.686
2-10	-.189	.092	.261	-.449	4-1	-.338	.044	-.201	-.523
2-11	-.259	.056	.003	-.459	4-2	-.340	.046	-.186	-.535
2-12	-.297	.040	-.098	-.508	4-3	-.343	.055	-.110	-.585
2-13	-.217	.095	.273	-.511	4-4	-.349	.065	-.146	-.709
2-14	-.244	.069	.124	-.397	4-5	-.324	.039	-.206	-.559
2-15	-.263	.040	-.037	-.432	4-6	-.333	.040	-.189	-.693
2-16	-.288	.034	-.163	-.467	4-7	-.340	.046	-.183	-.550
2-17	-.226	.044	-.184	-.432	4-8	-.348	.058	-.162	-.684
2-18	-.238	.043	.041	-.382	4-9	-.335	.048	-.212	-.565
2-19	-.266	.056	.214	-.361	4-10	-.323	.046	-.146	-.523
2-20	-.223	.043	.054	-.350	4-11	-.345	.056	-.061	-.567
3-1	-.304	.041	-.180	-.472	4-12	-.348	.070	-.037	-.739
3-2	-.302	.040	-.120	-.442	4-13	-.295	.047	-.037	-.431
3-3	-.301	.041	-.160	-.507	4-14	-.339	.060	-.140	-.611
3-4	-.300	.044	-.168	-.527	4-15	-.340	.074	-.131	-.797
3-5	-.344	.053	-.203	-.713	5-1	-.345	.044	-.175	-.491
3-6	-.369	.059	-.228	-.698	5-2	-.316	.041	-.151	-.495
3-7	-.379	.055	-.231	-.712	5-3	-.334	.045	-.219	-.549
3-8	-.375	.045	-.235	-.679	5-4	-.311	.054	-.166	-.526
3-9	-.359	.042	-.194	-.531	5-5	-.318	.060	-.134	-.570
3-10	-.292	.038	-.136	-.662	5-6	-.317	.053	-.123	-.538
3-11	-.268	.029	-.154	-.661	5-7	-.324	.064	-.136	-.646
3-12	-.204	.028	-.084	-.284	5-8	-.321	.067	-.128	-.655
3-13	-.332	.038	-.193	-.514	5-9	-.294	.054	-.070	-.491
3-14	-.349	.038	-.228	-.534	6-1	-.296	.052	-.117	-.576
3-15	-.367	.038	-.225	-.534	6-2	-.296	.047	-.113	-.539
3-16	-.340	.038	-.261	-.552	6-3	-.303	.042	-.130	-.472
3-17	-.369	.041	-.255	-.518	6-4	-.326	.042	-.190	-.474
3-18	-.378	.043	-.225	-.524	6-5	-.288	.040	-.168	-.441
3-19	-.279	.055	-.166	-.452	6-6	-.292	.040	-.144	-.464
3-20	-.105	.029	-.017	-.277	6-7	-.289	.037	-.171	-.439
3-21	-.310	.034	-.156	-.441	6-8	-.292	.036	-.150	-.452
3-22	-.330	.034	-.223	-.495	6-9	-.294	.052	-.127	-.576
3-23	-.320	.032	-.233	-.444	6-10	-.305	.054	-.078	-.616
3-24	-.242	.030	-.170	-.352	6-11	-.292	.047	-.086	-.472
3-25	-.392	.050	-.267	-.713	6-12	-.329	.045	-.200	-.499
3-26	-.392	.050	-.258	-.739	6-13	-.292	.050	-.077	-.614
3-27	-.372	.048	-.235	-.656	6-14	-.308	.057	-.108	-.529
3-28	-.242	.040	-.070	-.392	6-15	-.278	.048	-.113	-.455

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.724	.173	-.131	-1.696	9-1	-.119	.094	-.226	-.540
7-2	-.566	.168	-.036	-1.160	9-2	-.040	.100	-.282	-.626
7-3	-.416	.145	-.034	-1.012	9-3	-.136	.150	-.596	-.334
7-4	-.350	.117	0.000	-.932	9-4	-.275	.117	-.713	-.139
7-5	-.323	.102	.014	-.902	9-5	-.315	.103	-.783	.038
7-6	-.310	.095	-.093	-.848	9-6	-.285	.123	-.797	-.105
7-7	-.315	.080	-.066	-.848	10-1	-.069	.088	-.293	-.399
7-8	-.289	.062	-.118	-.686	10-2	-.006	.055	-.238	-.204
7-9	-.236	.049	-.093	-.477	10-3	-.179	.101	-.591	-.102
7-10	-.591	.205	-.113	-1.485	10-4	-.295	.092	-.661	-.055
7-11	-.533	.188	-.046	-1.127	10-5	-.311	.095	-.672	-.040
7-12	-.418	.164	-.036	-1.208	10-6	-.321	.092	-.669	-.079
7-13	-.318	.141	.087	-.882	11-1	-.275	.132	-.709	-.194
7-14	-.284	.112	.111	-.889	11-2	-.245	.138	-.835	-.149
7-15	-.248	.087	.056	-.758	11-3	-.206	.135	-.655	-.187
7-16	-.212	.057	.057	-.554	11-4	-.173	.122	-.573	-.267
7-17	-.110	.039	.036	-.325	11-5	-.060	.145	-.739	-.877
7-18	-.275	.048	-.100	-.595	11-6	-.019	.148	-.570	-.762
7-19	-.578	.163	-.161	-1.384	11-7	-.072	.120	-.491	-.684
7-20	-.556	.137	-.009	-1.093	11-8	-.251	.142	-.824	-.035
7-21	-.490	.137	-.047	-.933	11-9	-.312	.130	-.873	-.101
7-22	-.408	.134	-.046	-.807	11-10	-.266	.115	-.747	-.127
7-23	-.322	.112	.138	-.763	11-11	-.242	.111	-.671	-.116
7-24	-.270	.095	.128	-.682	11-12	-.218	.114	-.587	-.157
7-25	-.195	.074	.056	-.706	11-13	-.207	.116	-.753	-.102
7-26	-.243	.068	.047	-.569	11-14	-.207	.111	-.668	-.198
7-27	-.264	.048	-.039	-.528	11-15	-.273	.137	-.771	-.422
7-28	-.504	.121	-.107	-1.290	11-16	-.281	.106	-.745	-.081
7-29	-.509	.122	-.064	-1.100	11-17	-.272	.101	-.645	-.029
7-30	-.478	.118	-.011	-.920	11-18	-.261	.093	-.626	-.011
7-31	-.410	.108	-.003	-.832	11-19	-.257	.091	-.588	-.035
7-32	-.340	.096	-.026	-.622	11-20	-.267	.097	-.712	-.015
7-33	-.286	.086	.058	-.662	11-21	-.290	.117	-.791	-.055
7-34	-.249	.076	.047	-.541	11-22	-.182	.129	-.596	-.456
7-35	-.242	.063	-.023	-.546	11-23	-.225	.098	-.582	-.165
7-36	-.251	.054	-.077	-.538	11-24	-.254	.097	-.587	-.056
7-37	-.320	.094	-.020	-.675	11-25	-.285	.100	-.658	-.023
8-1	.055	.106	.029	-.284	11-26	-.289	.097	-.666	-.023
8-2	.132	.115	.596	-.258	11-27	-.316	.098	-.700	-.050
8-3	.186	.123	.542	-.224	11-28	-.336	.104	-.736	-.064
8-4	.265	.140	.669	-.225	12-1	-.162	.122	-.620	-.288
8-5	.219	.106	.589	-.074	12-2	-.162	.148	-.759	-.219
8-6	.275	.109	.639	-.107	12-3	-.334	.150	-.810	-.103
8-7	.314	.121	.732	-.060	12-4	-.094	.111	-.543	-.305
8-8	.356	.146	.829	-.223	12-5	-.253	.129	-.701	-.074
8-9	.263	.105	.605	-.009	12-6	-.151	.124	-.638	-.291
8-10	.278	.103	.656	-.033	13-1	-.436	.084	-.178	-.785
8-11	.285	.113	.725	-.084	13-2	-.444	.082	-.150	-.779
8-12	.288	.134	.733	-.073	13-3	-.434	.086	-.149	-.790
8-13	.289	.106	.691	-.017	13-4	-.424	.100	-.106	-.796
8-14	.282	.113	.845	-.007	13-5	-.407	.084	-.135	-.695
8-15	.269	.136	.866	-.063	13-6	-.391	.077	-.084	-.674
8-16	.183	.146	.762	-.210	13-7	-.357	.075	-.105	-.602
					13-8	-.342	.075	-.116	-.590
					13-9	-.323	.083	-.069	-.618

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.465	.117	-.156	-1.209	17-1	-.350	.116	.011	-.856
14-2	-.443	.103	-.174	-.845	17-2	-.639	.099	-.413	-.900
14-3	-.426	.101	-.153	-.923	17-3	-.483	.077	-.269	-.790
14-4	-.365	.085	-.084	-.665	17-4	-.429	.068	-.230	-.677
14-5	-.324	.074	-.084	-.607	17-5	-.549	.070	-.363	-.837
15-1	-.447	.153	-.490	-.609	17-6	-.603	.119	-.191	-.940
15-2	-.455	.180	-.346	-.742	17-7	-.030	.089	.244	-.341
15-3	-.318	.116	-.153	-.735	17-8	.203	.162	.737	-.354
15-4	-.310	.104	-.202	-.727	17-9	-.464	.082	-.203	-.845
15-5	-.199	.073	-.048	-.516	17-10	-.458	.091	-.138	-.842
15-6	-.375	.101	-.048	-.812	17-11	-.407	.083	-.091	-.1009
16-1	-.336	.093	-.138	-.543	17-12	-.432	.080	-.005	-.870
16-2	-.357	.054	-.217	-.613	17-13	-.298	.072	-.009	-.612
16-3	-.362	.043	-.238	-.637	17-14	-.378	.080	-.019	-.935
16-4	-.346	.060	-.158	-.605	17-15	-.345	.062	-.104	-.575
16-5	-.372	.088	-.139	-.821	17-16	-.482	.131	-.055	-.1184
16-6	-.346	.048	-.172	-.508	17-17	-.497	.101	-.204	-.1093
16-7	-.287	.033	-.169	-.416	17-18	-.427	.119	-.006	-.939
16-8	-.354	.038	-.167	-.515					
16-9	-.354	.056	-.114	-.605					
16-10	-.373	.086	-.075	-.868					
16-11	-.307	.040	-.158	-.523					
16-12	-.349	.038	-.153	-.526					
16-13	-.346	.043	-.177	-.568					
16-14	-.346	.059	-.135	-.668					
16-15	-.373	.102	-.080	-.950					
16-16	-.340	.048	-.160	-.641					
16-17	-.353	.045	-.217	-.684					
16-18	-.357	.053	-.224	-.635					
16-19	-.342	.074	-.144	-.801					
16-20	-.336	.097	-.013	-.1031					
16-21	-.315	.043	-.150	-.688					
16-22	-.312	.053	-.149	-.640					
16-23	-.303	.066	-.102	-.679					
16-24	-.289	.038	-.105	-.460					
16-25	-.301	.055	-.171	-.523					



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.194	.080	.056	-.500	3-29	-.342	.054	.063	-.696
1-2	-.251	.046	.052	-.619	3-30	-.371	.055	.083	-.583
1-3	-.239	.074	.008	-.503	3-31	-.402	.056	.198	-.644
1-4	-.227	.057	.096	-.543	3-32	-.430	.058	.168	-.702
1-5	-.235	.056	.046	-.455	3-33	-.455	.061	.261	-.127
1-6	-.229	.035	-.111	-.418	3-34	-.459	.064	.291	-.826
1-7	-.195	.038	-.063	-.344	3-35	-.482	.067	.308	-.782
2-1	.059	.174	.722	-.397	3-36	-.488	.073	.279	-.961
2-2	.014	.161	.689	-.411	3-37	-.299	.073	.044	-.554
2-3	-.092	.101	.345	-.475	3-38	-.366	.075	.007	-.886
2-4	-.103	.095	.243	-.610	3-39	-.422	.072	.205	-.736
2-5	.048	.158	.765	-.428	3-40	-.481	.085	.263	-.840
2-6	-.001	.140	.593	-.394	3-41	-.300	.074	.122	-.571
2-7	-.115	.087	.322	-.382	3-42	-.364	.074	.054	-.854
2-8	.184	.064	.099	-.440	3-43	-.409	.069	.143	-.649
2-9	-.039	.158	.540	-.483	3-44	-.450	.077	.242	-.803
2-10	-.072	.136	.682	-.388	4-1	-.354	.048	.168	-.548
2-11	-.181	.093	.361	-.398	4-2	-.362	.050	.119	-.730
2-12	-.237	.053	.127	-.448	4-3	-.363	.045	.172	-.536
2-13	-.177	.117	.593	-.432	4-4	-.363	.048	.127	-.584
2-14	.082	.082	.398	-.462	4-5	-.340	.049	.198	-.504
2-15	-.258	.049	.049	-.442	4-6	-.366	.053	.214	-.539
2-16	-.250	.042	.064	-.460	4-7	-.366	.047	.142	-.554
2-17	-.220	.073	.362	-.461	4-8	-.364	.045	.104	-.563
2-18	-.219	.048	.036	-.425	4-9	-.350	.045	.155	-.524
2-19	.186	.065	.159	-.427	4-10	-.335	.052	.113	-.554
2-20	-.190	.050	-.009	-.408	4-11	-.357	.050	.157	-.749
3-1	-.352	.055	.186	-.749	4-12	-.349	.046	.143	-.690
3-2	-.351	.061	.192	-.780	4-13	-.316	.061	.062	-.542
3-3	-.387	.078	.231	-.804	4-14	-.354	.064	.017	-.546
3-4	-.416	.072	.249	-.836	4-15	-.332	.054	.128	-.581
3-5	-.428	.055	.275	-.692	5-1	-.373	.047	.210	-.569
3-6	-.438	.054	.291	-.737	5-2	-.328	.042	.198	-.486
3-7	-.445	.054	.311	-.733	5-3	-.353	.045	.214	-.521
3-8	-.450	.054	.296	-.646	5-4	-.323	.055	.124	-.512
3-9	-.426	.053	.268	-.650	5-5	-.346	.061	.112	-.525
3-10	-.337	.042	.193	-.498	5-6	-.349	.056	.165	-.546
3-11	-.302	.034	.206	-.425	5-7	-.321	.056	.127	-.583
3-12	-.215	.032	.032	-.339	5-8	-.331	.065	.143	-.577
3-13	-.421	.046	.245	-.587	5-9	-.323	.060	.152	-.525
3-14	-.440	.046	.301	-.603	6-1	-.322	.072	.087	-.770
3-15	-.456	.045	.334	-.640	6-2	-.347	.057	.150	-.553
3-16	-.447	.046	.347	-.637	6-3	-.365	.047	.180	-.522
3-17	-.461	.051	.331	-.641	6-4	-.378	.046	.169	-.580
3-18	-.443	.052	.295	-.634	6-5	-.334	.063	.122	-.594
3-19	-.321	.044	.168	-.493	6-6	-.336	.051	.146	-.583
3-20	-.259	.039	.097	-.387	6-7	-.344	.046	.139	-.536
3-21	-.387	.048	.175	-.600	6-8	-.338	.044	.194	-.493
3-22	-.410	.049	.147	-.560	6-9	-.317	.065	.094	-.672
3-23	-.422	.049	.266	-.613	6-10	-.320	.057	.051	-.560
3-24	-.425	.052	.289	-.617	6-11	-.326	.051	.121	-.498
3-25	-.445	.051	.276	-.603	6-12	-.365	.050	.235	-.557
3-26	-.461	.051	.325	-.702	6-13	-.318	.076	.030	-.692
3-27	-.452	.052	.282	-.657	6-14	-.313	.073	.024	-.608
3-28	-.303	.054	.125	-.597	6-15	-.303	.060	.038	-.559

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
7-1	-.515	.100	-.125	-1.156	9-1	-.145	.103	.377	-.660
7-2	-.541	.114	-.184	-1.048	9-2	-.057	.117	.394	-.687
7-3	-.555	.118	-.156	-1.072	9-3	.113	.166	.833	-.417
7-4	-.544	.121	-.128	-1.049	9-4	.246	.115	.758	-.053
7-5	-.521	.128	-.034	-1.156	9-5	.304	.106	.752	-.047
7-6	-.475	.123	-.034	-1.008	9-6	.262	.125	.744	-.094
7-7	-.447	.123	-.040	-1.010	10-1	-.097	.102	.355	-.482
7-8	-.404	.107	-.061	-1.041	10-2	-.053	.086	.469	-.322
7-9	-.389	.111	-.044	-.957	10-3	.161	.103	.645	-.252
7-10	-.502	.090	-.196	-.905	10-4	.260	.092	.586	-.027
7-11	-.527	.096	-.184	-.991	10-5	.282	.098	.667	-.048
7-12	-.541	.102	-.190	-.997	10-6	.289	.094	.649	-.075
7-13	-.540	.101	-.190	-1.059	11-1	.248	.125	.753	-.089
7-14	-.514	.103	-.174	-.991	11-2	.205	.127	.706	-.128
7-15	-.485	.099	-.112	-.933	11-3	.154	.114	.642	-.162
7-16	-.425	.091	-.087	-.801	11-4	.108	.114	.610	-.303
7-17	-.346	.081	-.006	-.642	11-5	-.047	.152	.533	-.765
7-18	-.398	.104	-.009	-.957	11-6	-.119	.152	.611	-.613
7-19	-.486	.088	-.218	-.912	11-7	-.127	.131	.315	-.682
7-20	-.568	.093	-.257	-.988	11-8	.254	.120	.712	-.109
7-21	-.529	.094	-.260	-.898	11-9	.255	.112	.693	-.119
7-22	-.523	.097	-.231	-.980	11-10	.266	.095	.589	-.057
7-23	-.560	.091	-.233	-.830	11-11	.196	.097	.605	-.198
7-24	-.663	.085	-.126	-.777	11-12	.176	.101	.513	-.148
7-25	-.360	.075	-.102	-.722	11-13	.163	.108	.607	-.143
7-26	-.390	.083	-.065	-.735	11-14	.169	.108	.719	-.395
7-27	-.376	.085	-.040	-.742	11-15	.239	.109	.699	-.077
7-28	-.489	.092	-.197	-.912	11-16	.229	.093	.625	-.041
7-29	-.517	.099	-.217	-1.013	11-17	.212	.079	.515	-.006
7-30	-.502	.094	-.197	-.959	11-18	.212	.081	.485	-.036
7-31	-.497	.089	-.204	-.903	11-19	.216	.091	.575	-.044
7-32	-.474	.080	-.216	-.807	11-20	.227	.095	.625	-.071
7-33	-.437	.075	-.190	-.757	11-21	.255	.107	.716	-.060
7-34	-.397	.079	-.088	-.740	11-22	.193	.098	.634	-.151
7-35	-.357	.076	-.043	-.664	11-23	.199	.081	.545	-.065
7-36	-.341	.090	0.000	-.973	11-24	.212	.079	.546	-.002
7-37	-.469	.094	-.142	-.893	11-25	.213	.076	.518	-.002
8-1	-.092	.130	-.676	-.282	11-26	.228	.077	.537	-.032
8-2	-.187	.135	-.665	-.274	11-27	.254	.085	.666	-.048
8-3	-.258	.142	-.767	-.245	11-28	.280	.101	.771	-.033
8-4	-.320	.160	-.811	-.302	12-1	.323	.145	.775	-.105
8-5	-.218	.111	-.682	-.104	12-2	.311	.145	.773	-.128
8-6	-.282	.117	-.757	-.033	12-3	.356	.148	.850	-.085
8-7	-.329	.132	-.859	-.038	12-4	.231	.137	.708	-.139
8-8	-.352	.154	-.840	-.173	12-5	.285	.128	.727	-.073
8-9	-.267	.106	-.817	-.030	12-6	.191	.112	.631	-.096
8-10	-.281	.111	-.710	-.026	12-7	.230	.097	.613	-.074
8-11	-.294	.128	-.800	-.021	13-1	.255	.088	.614	-.014
8-12	-.289	.148	-.900	-.196	13-2	.197	.096	.161	-.685
8-13	-.280	.105	.784	-.041	13-3	.175	.108	.219	-.548
8-14	-.301	.108	.800	.033	13-4	.176	.091	.137	-.457
8-15	-.304	.125	.767	-.006	13-5	.213	.074	.065	-.485
8-16	-.203	.133	.769	-.135	13-6	.154	.082	.127	-.427
					13-7	.157	.076	.063	-.401
					13-8	.154	.083	.127	-.404
					13-9	.154	.083	.127	-.404

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
14-1	-.299	.166	-.156	-.966	17-1	.041	.132	.502	-.424
14-2	-.216	.103	.037	-.843	17-2	-.539	.094	-.193	-.907
14-3	-.198	.082	.119	-.560	17-3	-.478	.084	-.235	-.809
14-4	-.180	.081	.156	-.525	17-4	-.337	.063	-.122	-.736
14-5	-.160	.081	.181	-.395	17-5	-.413	.080	-.199	-.648
15-1	-.152	.209	.764	-.472	17-6	-.546	.108	-.022	-.864
15-2	-.075	.172	.742	-.397	17-7	-.101	.080	-.096	-.454
15-3	-.062	.163	.546	-.497	17-8	.345	.155	.773	-.281
15-4	-.107	.170	.599	-.701	17-9	-.345	.096	.131	-.813
15-5	-.154	.132	.363	-.691	17-10	-.480	.115	-.096	-.981
15-6	-.150	.116	.366	-.590	17-11	-.320	.087	-.003	-.759
16-1	-.311	.080	-.102	-.833	17-12	-.472	.085	-.196	-.894
16-2	-.335	.054	-.159	-.579	17-13	-.223	.071	-.013	-.594
16-3	-.351	.054	-.194	-.614	17-14	-.330	.116	.082	-.775
16-4	-.327	.061	-.134	-.630	17-15	-.401	.152	.133	-.1005
16-5	-.339	.071	-.142	-.772	17-16	-.487	.110	-.039	-.1063
16-6	-.290	.064	-.120	-.525	17-17	-.530	.094	-.157	-.1011
16-7	-.253	.040	-.110	-.406	17-18	-.559	.117	-.232	-.1165
16-8	-.330	.048	-.153	-.528					
16-9	-.336	.059	-.140	-.628					
16-10	-.361	.087	-.091	-.779					
16-11	-.292	.053	-.105	-.590					
16-12	-.315	.043	-.079	-.486					
16-13	-.317	.050	-.108	-.551					
16-14	-.314	.066	-.120	-.733					
16-15	-.354	.118	-.079	-1.128					
16-16	-.294	.054	-.136	-.539					
16-17	-.314	.048	-.171	-.582					
16-18	-.311	.051	-.161	-.577					
16-19	-.292	.066	-.071	-.685					
16-20	-.285	.096	-.009	-1.005					
16-21	-.277	.040	-.130	-.562					
16-22	-.259	.045	-.063	-.495					
16-23	-.239	.055	-.056	-.429					
16-24	-.232	.040	-.079	-.426					
16-25	-.252	.045	-.099	-.435					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	-.134	.099	.162	-.628	3-29	-.387	.081	-.087	-.706
1-2	-.173	.107	.089	-.788	3-30	-.435	.080	-.139	-.753
1-3	-.135	.090	.149	-.651	3-31	-.491	.081	-.153	-.880
1-4	-.125	.063	.134	-.360	3-32	-.562	.081	-.298	-.866
1-5	-.129	.068	.189	-.358	3-33	-.589	.082	-.362	-.994
1-6	-.151	.051	.038	-.326	3-34	-.624	.086	-.401	-.968
1-7	-.117	.052	.103	-.320	3-35	-.656	.096	-.402	-1.096
2-1	.205	.216	1.020	-.376	3-36	-.657	.095	-.419	-1.176
2-2	.164	.221	.857	-.360	3-37	-.333	.119	-.127	-.728
2-3	-.004	.164	.719	-.438	3-38	-.471	.094	-.065	-.833
2-4	-.113	.117	.424	-.519	3-39	-.549	.091	-.300	-.889
2-5	.168	.177	.797	-.319	3-40	-.624	.123	-.350	-1.127
2-6	.136	.171	.844	-.359	3-41	-.314	.122	-.764	-.862
2-7	-.038	.116	.462	-.436	3-42	-.465	.097	-.149	-.842
2-8	-.118	.077	.196	-.832	3-43	-.568	.100	-.267	-.954
2-9	.071	.160	.804	-.404	3-44	-.637	.127	-.331	-1.233
2-10	.044	.155	.671	-.363	4-1	-.405	.059	-.194	-.595
2-11	-.129	.057	.128	-.298	4-2	-.427	.063	-.210	-.613
2-12	.086	.025	.203	-.010	4-3	-.424	.065	-.145	-.844
2-13	-.060	.138	.491	-.556	4-4	-.427	.067	-.204	-.691
2-14	-.110	.112	.554	-.383	4-5	-.404	.048	-.229	-.554
2-15	-.179	.072	.179	-.410	4-6	-.433	.052	-.289	-.660
2-16	-.197	.059	-.004	-.395	4-7	-.434	.051	-.284	-.657
2-17	-.107	.110	.476	-.425	4-8	-.434	.058	-.222	-.758
2-18	-.134	.073	.208	-.357	4-9	-.416	.049	-.238	-.597
2-19	-.086	.095	.356	-.407	4-10	-.434	.052	-.252	-.631
2-20	-.103	.075	.290	-.360	4-11	-.432	.053	-.280	-.599
3-1	-.410	.062	-.227	-.737	4-12	-.427	.058	-.253	-.697
3-2	-.415	.062	-.200	-.767	4-13	-.419	.049	-.249	-.619
3-3	-.476	.071	-.276	-.832	4-14	-.425	.051	-.237	-.635
3-4	-.516	.064	-.297	-.830	4-15	-.414	.052	-.216	-.616
3-5	-.559	.069	-.376	-.865	5-1	-.403	.049	-.271	-.579
3-6	-.591	.078	-.372	-.995	5-2	-.399	.046	-.268	-.576
3-7	-.619	.082	-.426	-.964	5-3	-.405	.046	-.280	-.589
3-8	-.630	.078	-.419	-.930	5-4	-.424	.051	-.272	-.594
3-9	-.603	.073	-.388	-.871	5-5	-.447	.056	-.305	-.678
3-10	-.403	.064	-.170	-.687	5-6	-.445	.055	-.258	-.659
3-11	-.428	.055	-.245	-.647	5-7	-.438	.057	-.210	-.647
3-12	-.462	.057	-.298	-.712	5-8	-.455	.062	-.258	-.682
3-13	-.543	.065	-.279	-.806	5-9	-.430	.054	-.229	-.634
3-14	-.573	.064	-.379	-.827	6-1	-.398	.066	-.155	-.796
3-15	-.604	.063	-.422	-.901	6-2	-.407	.052	-.253	-.674
3-16	-.629	.065	-.449	-.936	6-3	-.417	.048	-.279	-.609
3-17	-.647	.069	-.463	-.999	6-4	-.414	.051	-.254	-.610
3-18	-.631	.071	-.421	-.882	6-5	-.393	.059	-.163	-.621
3-19	-.385	.065	-.141	-.643	6-6	-.411	.049	-.226	-.571
3-20	-.344	.066	-.038	-.587	6-7	-.425	.048	-.300	-.625
3-21	-.471	.075	-.134	-.778	6-8	-.417	.047	-.280	-.580
3-22	-.506	.076	-.183	-.774	6-9	-.366	.069	-.036	-.628
3-23	-.541	.070	-.296	-.819	6-10	-.401	.060	-.167	-.589
3-24	-.570	.071	-.342	-.806	6-11	-.408	.049	-.240	-.607
3-25	-.622	.068	-.419	-.844	6-12	-.423	.052	-.280	-.650
3-26	-.627	.068	-.436	-.843	6-13	-.348	.081	-.035	-.657
3-27	-.613	.069	-.424	-.873	6-14	-.393	.074	-.102	-.638
3-28	-.335	.074	-.036	-.622	6-15	-.399	.055	-.139	-.596

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.361	.062	-.160	-.622	9-1	-.063	.134	.577	-.500
7-2	-.368	.064	-.202	-.704	9-2	-.001	.119	.606	-.622
7-3	-.379	.069	-.153	-.794	9-3	.179	.139	.685	-.428
7-4	-.384	.072	-.160	-.846	9-4	.246	.126	.819	-.140
7-5	-.385	.074	-.166	-.716	9-5	.271	.113	.709	-.127
7-6	-.375	.074	-.090	-.948	9-6	.240	.118	.682	-.154
7-7	-.374	.076	-.087	-.845	10-1	-.055	.114	.588	-.369
7-8	-.364	.072	-.102	-.921	10-2	-.020	.113	.443	-.333
7-9	-.355	.076	-.062	-.802	10-3	.191	.096	.835	-.145
7-10	-.344	.055	-.190	-.578	10-4	.245	.096	.580	.003
7-11	-.355	.054	-.197	-.585	10-5	.267	.106	.681	-.003
7-12	-.363	.054	-.200	-.596	10-6	.264	.097	.610	.001
7-13	-.373	.057	-.196	-.639	11-1	.188	.144	.656	-.253
7-14	-.372	.059	-.195	-.636	11-2	.092	.109	.514	-.225
7-15	-.375	.058	-.177	-.676	11-3	.109	.094	.484	-.145
7-16	-.347	.054	-.155	-.613	11-4	.104	.092	.451	-.265
7-17	-.294	.052	-.157	-.534	11-5	-.006	.119	.388	-.534
7-18	-.385	.068	-.155	-.816	11-6	-.071	.140	.377	-.700
7-19	-.351	.056	-.185	-.576	11-7	-.125	.143	.302	-.710
7-20	-.359	.055	-.206	-.551	11-8	.113	.136	.549	-.343
7-21	-.372	.055	-.219	-.567	11-9	.103	.119	.577	-.261
7-22	-.371	.053	-.203	-.559	11-10	.145	.084	.459	-.145
7-23	-.376	.051	-.214	-.565	11-11	.154	.083	.409	-.168
7-24	-.371	.046	-.222	-.556	11-12	.149	.090	.511	-.117
7-25	-.312	.041	-.164	-.458	11-13	.138	.111	.564	-.187
7-26	-.374	.058	-.202	-.620	11-14	.124	.123	.552	-.271
7-27	-.394	.077	-.207	-.835	11-15	.111	.130	.568	-.383
7-28	-.347	.060	-.141	-.664	11-16	.120	.102	.505	-.243
7-29	-.361	.061	-.150	-.715	11-17	.155	.078	.426	-.135
7-30	-.371	.066	-.166	-.598	11-18	.175	.082	.475	-.089
7-31	-.379	.066	-.182	-.642	11-19	.143	.091	.515	-.101
7-32	-.374	.062	-.218	-.624	11-20	.188	.099	.662	-.046
7-33	-.368	.056	-.204	-.598	11-21	.199	.110	.616	-.087
7-34	-.366	.058	-.159	-.580	11-22	.106	.102	.434	-.366
7-35	-.375	.064	-.109	-.723	11-23	.128	.090	.416	-.294
7-36	-.394	.081	-.199	-.847	11-24	.160	.076	.420	-.101
7-37	-.372	.066	-.173	-.678	11-25	.178	.081	.508	-.080
8-1	.148	.131	-.658	-.203	11-26	.194	.086	.508	-.040
8-2	.236	.133	-.704	-.171	11-27	.298	.093	.574	-.037
8-3	.287	.139	-.830	-.148	11-28	.222	.103	.620	-.080
8-4	.317	.148	-.751	-.215	12-1	.422	.164	.894	-.071
8-5	.254	.125	-.674	-.098	12-2	.368	.142	.795	-.089
8-6	.335	.134	-.821	-.018	12-3	.377	.142	.852	.003
8-7	.377	.140	-.861	-.079	12-4	.325	.137	.772	.015
8-8	.371	.143	-.897	-.104	12-5	.300	.123	.720	-.018
8-9	.286	.117	-.860	0.000	12-6	.212	.104	.657	-.038
8-10	.323	.118	-.772	-.036	13-1	.026	.131	.462	-.705
8-11	.350	.126	-.756	-.010	13-2	-.070	.109	.285	-.502
8-12	.285	.131	-.767	-.077	13-3	.063	.123	.463	-.758
8-13	.287	.116	-.780	-.023	13-4	.091	.104	.508	-.298
8-14	.322	.121	-.709	-.047	13-5	.094	.109	.546	-.360
8-15	.311	.123	-.744	-.039	13-6	-.014	.098	.586	-.368
8-16	.180	.115	-.700	-.073	13-7	.084	.095	.478	-.341
					13-8	.069	.099	.500	-.338
					13-9	.077	.097	.491	-.314

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION 390

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
14-1	-.032	.123	.672	-.846	17-1	.239	.200	.811	-.421
14-2	.085	.100	.466	-.328	17-2	-.344	.087	.017	-.720
14-3	.033	.098	.383	-.251	17-3	-.447	.084	-.148	-.780
14-4	.045	.092	.408	-.292	17-4	.282	.060	-.111	-.565
14-5	.053	.101	.434	-.308	17-5	-.296	.056	-.135	-.535
15-1	.359	.205	1.008	-.263	17-6	-.428	.077	-.197	-.711
15-2	.293	.194	1.020	-.248	17-7	-.300	.075	-.068	-.560
15-3	.248	.190	1.018	-.294	17-8	.276	.172	-.071	-.597
15-4	.204	.168	.821	-.391	17-9	-.218	.060	.080	-.538
15-5	.153	.151	.757	-.378	17-10	-.284	.109	.068	-.884
15-6	.067	.140	.738	-.301	17-11	-.249	.071	.068	-.566
16-1	-.282	.105	-.005	-.977	17-12	-.400	.114	-.040	-.876
16-2	-.292	.070	-.072	-.592	17-13	-.323	.133	-.007	-.1.003
16-3	-.308	.073	-.1063	-.628	17-14	-.218	.094	.007	-.522
16-4	-.283	.074	-.046	-.651	17-15	-.506	.114	-.141	-.1.288
16-5	-.288	.084	-.034	-.720	17-16	-.490	.094	-.258	-.909
16-6	-.262	.087	-.020	-.571	17-17	-.519	.089	-.265	-.930
16-7	-.222	.057	.042	-.415	17-18	-.507	.109	-.253	-.1.411
16-8	-.268	.059	-.072	-.575					
16-9	-.287	.070	-.072	-.571					
16-10	-.302	.095	-.028	-.769					
16-11	-.280	.087	-.074	-.708					
16-12	-.277	.061	-.037	-.569					
16-13	-.260	.062	.094	-.535					
16-14	-.257	.077	.066	-.711					
16-15	-.319	.132	.057	-.932					
16-16	-.266	.087	-.038	-.755					
16-17	-.277	.069	-.052	-.689					
16-18	-.264	.072	-.023	-.575					
16-19	-.238	.083	.045	-.903					
16-20	-.231	.114	.085	-.1.124					
16-21	-.195	.054	-.003	-.515					
16-22	-.195	.055	-.009	-.506					
16-23	-.175	.063	-.023	-.580					
16-24	-.183	.053	-.020	-.352					
16-25	-.186	.055	.032	-.397					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
1-1	.060	.134	.627	-.459	3-29	-.319	.058	-.028	-.374
1-2	-.019	.100	.404	-.459	3-30	-.331	.059	-.036	-.642
1-3	.019	.099	.433	-.318	3-31	-.268	.061	-.077	-.636
1-4	-.004	.086	.406	-.226	3-32	-.416	.063	-.070	-.720
1-5	-.032	.075	.299	-.382	3-33	-.477	.073	-.185	-.862
1-6	-.057	.056	.122	-.333	3-34	-.524	.078	-.284	-.966
1-7	-.008	.072	.304	-.170	3-35	-.569	.093	-.328	-.147
2-1	-.109	.119	.702	-.170	3-36	-.577	.104	-.338	-.187
2-2	.164	.145	.633	-.230	3-37	-.299	.066	-.078	-.1220
2-3	.159	.151	.781	-.264	3-38	-.360	.058	-.522	-.1220
2-4	.076	.155	.817	-.294	3-39	-.448	.075	-.099	-.611
2-5	.089	.118	.644	-.275	3-40	-.558	.112	-.859	-.611
2-6	.154	.127	.623	-.247	3-41	-.293	.070	-.311	-.305
2-7	.102	.119	.530	-.198	3-42	-.359	.061	-.308	-.512
2-8	.043	.105	.476	-.235	3-43	-.438	.079	-.104	-.615
2-9	.006	.104	.489	-.258	3-44	-.529	.111	-.805	-.184
2-10	.054	.113	.554	-.213	4-1	-.369	.049	-.223	-.1851
2-11	.016	.110	.568	-.276	4-2	-.381	.048	-.216	-.594
2-12	-.049	.091	.411	-.279	4-3	-.381	.049	-.246	-.582
2-13	-.107	.078	.242	-.317	4-4	-.382	.054	-.243	-.612
2-14	-.070	.081	.330	-.245	4-5	-.365	.040	-.227	-.711
2-15	-.074	.078	.362	-.250	4-6	-.384	.040	-.227	-.495
2-16	-.078	.067	.279	-.264	4-7	-.385	.041	-.268	-.518
2-17	-.065	.073	.352	-.262	4-8	-.384	.047	-.240	-.531
2-18	-.022	.073	.349	-.180	4-9	-.375	.039	-.236	-.642
2-19	-.021	.079	.361	-.190	4-10	-.377	.038	-.239	-.517
2-20	.007	.085	.432	-.168	4-11	-.383	.039	-.235	-.511
3-1	-.357	.051	-.185	-.597	4-12	-.376	.041	-.246	-.523
3-2	-.356	.054	-.176	-.584	4-13	-.366	.041	-.246	-.586
3-3	-.396	.057	-.221	-.685	4-14	-.378	.045	-.240	-.514
3-4	-.429	.058	-.251	-.735	4-15	-.367	.042	-.246	-.568
3-5	-.480	.062	-.226	-.937	5-1	-.366	.051	-.239	-.538
3-6	.512	.066	-.309	-.929	5-2	-.367	.040	-.222	-.577
3-7	-.544	.068	-.342	-.837	5-3	-.380	.039	-.236	-.531
3-8	-.559	.065	-.341	-.833	5-4	-.377	.042	-.235	-.551
3-9	-.533	.062	-.353	-.816	5-5	-.300	.042	-.225	-.507
3-10	-.361	.047	-.205	-.586	5-6	-.391	.042	-.262	-.557
3-11	-.335	.039	-.190	-.505	5-7	-.368	.037	-.292	-.600
3-12	-.200	.034	-.067	-.329	5-8	-.398	.048	-.161	-.548
3-13	-.467	.058	-.258	-.739	5-9	-.392	.039	-.245	-.583
3-14	-.495	.059	-.279	-.801	6-1	-.358	.062	-.269	-.580
3-15	-.529	.062	-.307	-.829	6-2	-.362	.054	-.181	-.686
3-16	-.556	.062	-.363	-.850	6-3	-.368	.056	-.217	-.602
3-17	-.564	.058	-.387	-.804	6-4	-.371	.058	-.209	-.712
3-18	-.547	.057	-.350	-.773	6-5	-.336	.050	-.185	-.874
3-19	-.341	.045	-.114	-.481	6-6	-.347	.043	-.179	-.527
3-20	-.278	.048	-.087	-.459	6-7	-.352	.038	-.170	-.490
3-21	-.376	.058	-.081	-.459	6-8	-.353	.037	-.230	-.584
3-22	-.401	.059	-.143	-.553	6-9	-.320	.037	-.240	-.490
3-23	-.443	.060	-.178	-.650	6-10	-.344	.045	-.110	-.504
3-24	-.494	.062	-.234	-.747	6-11	-.351	.036	-.158	-.489
3-25	-.533	.060	-.352	-.796	6-12	-.365	.035	-.217	-.469
3-26	-.553	.059	-.373	-.814	6-13	-.389	.034	-.254	-.489
3-27	-.545	.058	-.379	-.831	6-14	-.421	.066	-.020	-.489
3-28	-.514	.053	-.389	-.858	6-15	-.431	.046	-.169	-.547

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 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
7-1	-.307	.667	-.114	-.801	9-1	-.150	.105	.209	-.692
7-2	-.314	.664	-.098	-.667	9-2	-.064	.113	.318	-.658
7-3	-.324	.668	-.106	-.740	9-3	-.099	.137	.576	-.488
7-4	-.324	.670	-.094	-.723	9-4	.196	.107	.685	-.135
7-5	-.328	.674	-.081	-.798	9-5	.241	.107	.684	-.060
7-6	-.323	.670	-.078	-.784	9-6	.189	.101	.550	-.108
7-7	-.329	.670	-.118	-.816	10-1	-.057	.108	.499	-.410
7-8	-.328	.672	-.129	-.824	10-2	-.111	.107	.474	-.479
7-9	-.322	.671	-.025	-.854	10-3	.164	.130	.767	-.273
7-10	-.293	.660	-.116	-.575	10-4	.237	.117	.736	-.043
7-11	-.380	.652	-.162	-.519	10-5	.229	.109	.727	-.055
7-12	-.301	.648	-.173	-.484	10-6	.237	.106	.625	-.035
7-13	-.311	.646	-.181	-.501	11-1	.038	.096	.524	-.238
7-14	-.314	.644	-.150	-.500	11-2	.023	.075	.387	-.255
7-15	-.321	.646	-.147	-.529	11-3	.014	.073	.381	-.276
7-16	-.314	.647	-.116	-.562	11-4	-.002	.079	.344	-.255
7-17	-.304	.650	-.109	-.537	11-5	-.105	.109	.278	-.494
7-18	-.338	.645	-.185	-.172	11-6	-.173	.119	.214	-.582
7-19	-.281	.657	-.113	-.675	11-7	-.150	.114	.266	-.692
7-20	-.286	.652	-.129	-.622	11-8	.078	.095	.430	-.429
7-21	-.299	.646	-.149	-.509	11-9	.073	.083	.507	-.239
7-22	-.298	.643	-.163	-.472	11-10	.086	.068	.376	-.181
7-23	-.307	.640	-.178	-.464	11-11	.087	.078	.488	-.134
7-24	-.311	.638	-.186	-.453	11-12	.063	.104	.422	-.285
7-25	-.262	.634	-.141	-.385	11-13	.056	.104	.489	-.273
7-26	-.332	.643	-.205	-.522	11-14	.120	.117	.580	-.386
7-27	-.350	.653	-.194	-.599	11-15	.125	.090	.507	-.199
7-28	-.277	.655	-.110	-.526	11-16	.119	.071	.392	-.184
7-29	-.290	.653	-.116	-.542	11-17	.153	.073	.471	-.098
7-30	-.289	.648	-.143	-.484	11-18	.162	.095	.535	-.164
7-31	-.299	.643	-.167	-.461	11-19	.149	.095	.557	-.112
7-32	-.302	.640	-.178	-.478	11-20	.161	.095	.579	-.088
7-33	-.314	.639	-.206	-.454	11-21	.226	.116	.766	-.178
7-34	-.321	.638	-.205	-.457	11-22	.181	.090	.577	-.212
7-35	-.336	.644	-.222	-.504	11-23	.187	.084	.531	-.053
7-36	-.349	.654	-.201	-.684	11-24	.178	.080	.533	-.013
7-37	-.298	.642	-.173	-.473	11-25	.172	.095	.589	-.246
8-1	.103	.140	-.672	-.266	11-26	.180	.092	.609	-.252
8-2	.220	.157	.772	-.246	11-27	.218	.099	.599	-.069
8-3	.304	.167	.860	-.129	11-28	.281	.119	.877	-.091
8-4	.344	.174	.905	-.187	12-1	.149	.127	.712	-.315
8-5	.210	.121	.757	-.092	12-2	.117	.108	.647	-.204
8-6	.313	.183	.899	-.021	12-3	.168	.094	.629	-.076
8-7	.375	.159	.919	-.035	12-4	.182	.102	.706	-.245
8-8	.370	.164	.957	-.136	12-5	.199	.101	.841	-.034
8-9	.255	.131	.814	-.044	12-6	.230	.110	.809	-.072
8-10	.319	.147	1.020	-.013	13-1	-.040	.139	.420	-.751
8-11	.346	.146	.945	-.007	13-2	-.040	.124	.434	-.442
8-12	.303	.141	.929	-.039	13-3	-.010	.119	.405	-.653
8-13	.271	.108	.768	-.004	13-4	.039	.090	.358	-.195
8-14	.330	.183	1.022	.040	13-5	.015	.097	.396	-.358
8-15	.349	.129	.959	-.044	13-6	-.019	.069	.336	-.286
8-16	.236	.126	.723	-.169	13-7	.029	.076	.373	-.352
					13-8	.024	.075	.386	-.386
					13-9	.050	.083	.461	-.276



WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
14-1	+.082	+.136	+.629	-.549	17-1	+.154	+.172	+.704	-.264
14-2	+.076	+.106	+.577	-.282	17-2	+.118	+.103	+.277	+.436
14-3	+.013	+.090	+.427	-.343	17-3	+.300	+.074	+.100	+.487
14-4	+.022	+.094	+.433	-.245	17-4	+.189	+.052	+.018	+.452
14-5	+.024	+.077	+.332	-.219	17-5	+.189	+.067	+.004	+.666
15-1	+.159	+.118	+.660	-.186	17-6	+.209	+.068	+.006	+.528
15-2	+.119	+.129	+.624	-.248	17-7	+.148	+.073	+.069	+.502
15-3	+.118	+.130	+.637	-.251	17-8	+.041	+.127	+.470	+.426
15-4	+.083	+.110	+.490	-.320	17-9	+.162	+.092	+.144	+.615
15-5	+.102	+.089	+.456	-.216	17-10	+.261	+.147	+.301	+.941
15-6	+.012	+.098	+.468	-.305	17-11	+.226	+.083	+.193	+.652
16-1	+.155	+.119	+.420	-.613	17-12	+.333	+.158	+.213	+.913
16-2	+.132	+.078	+.204	-.442	17-13	+.394	+.214	+.052	+.165
16-3	+.156	+.078	+.235	-.478	17-14	+.157	+.100	+.193	+.505
16-4	+.177	+.067	+.242	-.583	17-15	+.415	+.090	+.045	+.857
16-5	+.206	+.112	+.273	-.660	17-16	+.401	+.092	+.092	+.858
16-6	+.155	+.098	+.489	-.556	17-17	+.481	+.093	+.196	+.928
16-7	+.094	+.070	+.229	-.427	17-18	+.469	+.114	+.040	+.857
16-8	+.167	+.067	+.136	-.426					
16-9	+.192	+.073	+.132	-.621					
16-10	+.230	+.106	+.260	-.985					
16-11	+.171	+.080	+.183	-.619					
16-12	+.162	+.087	+.302	-.421					
16-13	+.171	+.086	+.182	-.518					
16-14	+.195	+.083	+.122	-.487					
16-15	+.260	+.125	+.132	-.835					
16-16	+.166	+.077	+.229	-.624					
16-17	+.179	+.073	+.114	-.553					
16-18	+.209	+.088	+.252	-.610					
16-19	+.198	+.092	+.176	-.697					
16-20	+.190	+.106	+.179	-.1010					
16-21	+.186	+.079	+.050	-.672					
16-22	+.191	+.087	+.101	-.870					
16-23	+.160	+.083	+.114	-.748					
16-24	+.076	+.056	+.227	-.254					
16-25	+.153	+.061	+.092	-.430					

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
 INDIANAPOLIS, INDIANA  
 WIND DIRECTION 330

PRESSURE TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT	TAP NUMBER	MEAN PRESSURE COEFFICIENT	RMS PRESSURE COEFFICIENT	MAXIMUM PRESSURE COEFFICIENT	MINIMUM PRESSURE COEFFICIENT
1-1	.319	.149	.869	-.136	3-29	-.287	.066	.024	-.518
1-2	.205	.142	.815	-.189	3-30	-.307	.071	-.016	-.540
1-3	.284	.137	.825	-.129	3-31	-.360	.076	-.102	-.668
1-4	.215	.114	.657	-.093	3-32	-.428	.084	-.142	-.796
1-5	.192	.110	.650	-.127	3-33	-.501	.096	-.132	-.842
1-6	.160	.095	.497	-.072	3-34	-.548	.097	-.244	-.1149
1-7	.250	.111	.603	-.021	3-35	-.578	.099	-.315	-.999
2-1	.306	.182	.883	-.389	3-36	-.567	.094	-.308	-.1067
2-2	.316	.173	.832	-.324	3-37	-.262	.073	.017	-.553
2-3	.302	.168	.812	-.218	3-38	-.328	.095	.092	-.675
2-4	.393	.163	.874	-.166	3-39	-.457	.104	-.891	-.891
2-5	.247	.171	.830	-.290	3-40	-.568	.113	-.283	-.1210
2-6	.291	.158	.873	-.170	3-41	-.274	.075	.021	-.768
2-7	.306	.157	.907	-.138	3-42	-.332	.091	.020	-.734
2-8	.318	.158	.840	-.102	3-43	-.429	.111	.075	-.900
2-9	.072	.144	.641	-.262	3-44	-.541	.120	-.093	-.1125
2-10	.148	.128	.615	-.174	4-1	-.321	.035	-.208	-.519
2-11	.194	.126	.768	-.123	4-2	-.327	.036	-.220	-.526
2-12	.207	.132	.647	-.104	4-3	-.328	.038	-.182	-.584
2-13	-.025	.092	.338	-.271	4-4	-.335	.044	-.181	-.581
2-14	.080	.095	.481	-.152	4-5	-.320	.029	-.220	-.415
2-15	.130	.099	.565	-.096	4-6	-.327	.029	-.235	-.446
2-16	.149	.097	.644	-.063	4-7	-.329	.030	-.222	-.441
2-17	.098	.096	.661	-.223	4-8	-.337	.038	-.201	-.576
2-18	.192	.106	.520	-.066	4-9	-.314	.028	-.235	-.418
2-19	.132	.099	.497	-.157	4-10	-.325	.029	-.256	-.420
2-20	.216	.116	.607	-.073	4-11	-.325	.030	-.230	-.442
3-1	-.366	.066	-.155	-.756	4-12	-.325	.034	-.196	-.652
3-2	-.374	.067	-.169	-.720	4-13	-.318	.029	-.220	-.637
3-3	-.420	.072	-.204	-.776	4-14	-.323	.031	-.219	-.690
3-4	-.456	.081	-.204	-.775	4-15	-.317	.035	-.212	-.790
3-5	-.521	.094	-.218	-.894	5-1	-.321	.037	-.206	-.519
3-6	-.542	.095	-.246	-.945	5-2	-.320	.029	-.215	-.625
3-7	-.564	.093	-.294	-.1084	5-3	-.310	.029	-.223	-.646
3-8	-.559	.087	-.321	-.991	5-4	-.324	.030	-.233	-.642
3-9	-.531	.078	-.266	-.873	5-5	-.340	.032	-.246	-.659
3-10	-.339	.046	-.139	-.541	5-6	-.332	.032	-.230	-.661
3-11	-.374	.052	-.121	-.590	5-7	-.323	.033	-.177	-.470
3-12	-.403	.056	-.227	-.620	5-8	-.331	.035	-.220	-.699
3-13	-.469	.069	-.245	-.735	5-9	-.316	.032	-.225	-.634
3-14	-.496	.071	-.270	-.788	6-1	-.314	.051	-.158	-.605
3-15	-.534	.071	-.339	-.844	6-2	-.319	.049	-.170	-.692
3-16	-.556	.071	-.332	-.869	6-3	-.328	.056	-.179	-.712
3-17	-.562	.071	-.312	-.878	6-4	-.325	.041	-.208	-.643
3-18	-.527	.069	-.266	-.773	6-5	-.303	.051	-.062	-.528
3-19	-.296	.056	-.056	-.460	6-6	-.310	.040	-.136	-.456
3-20	-.241	.063	.089	-.450	6-7	-.323	.033	-.227	-.457
3-21	-.365	.071	-.062	-.664	6-8	-.325	.030	-.234	-.459
3-22	-.412	.073	-.010	-.772	6-9	-.296	.046	-.057	-.444
3-23	-.476	.070	-.060	-.781	6-10	-.310	.034	-.175	-.423
3-24	-.537	.072	-.232	-.834	6-11	-.316	.028	-.229	-.432
3-25	-.579	.076	-.364	-.927	6-12	-.321	.030	-.230	-.429
3-26	-.573	.079	-.356	-.865	6-13	-.296	.051	-.042	-.526
3-27	-.551	.080	-.339	-.818	6-14	-.313	.041	-.111	-.481
3-28	-.279	.058	-.008	-.536	6-15	-.309	.031	-.191	-.404

WIND ENGINEERING STUDY OF MERCHANTS PLAZA  
INDIANAPOLIS, INDIANA  
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
7-1	-.250	.049	-.105	-.520	9-1	-.082	.101	.383	-.428
7-2	-.252	.053	-.057	-.594	9-2	-.114	.094	.346	-.456
7-3	-.259	.055	-.070	-.544	9-3	.019	.086	.434	-.398
7-4	-.261	.052	-.078	-.570	9-4	.013	.067	.307	-.236
7-5	-.266	.050	-.073	-.508	9-5	.057	.069	.401	-.161
7-6	-.267	.051	-.112	-.583	9-6	.043	.065	.321	-.155
7-7	-.272	.047	-.117	-.604	10-1	-.034	.087	.339	-.350
7-8	-.258	.043	-.138	-.538	10-2	0.000	.127	.519	-.267
7-9	-.234	.045	-.072	-.473	10-3	.102	.113	.612	-.219
7-10	-.239	.038	-.127	-.540	10-4	.063	.085	.548	-.127
7-11	-.246	.034	-.144	-.613	10-5	.075	.082	.458	-.110
7-12	-.250	.033	-.148	-.599	10-6	.082	.079	.442	-.106
7-13	-.256	.033	-.127	-.583	11-1	.122	.115	.400	-.093
7-14	-.259	.034	-.088	-.422	11-2	-.110	.078	.253	-.490
7-15	-.267	.034	-.142	-.617	11-3	-.121	.073	.140	-.428
7-16	-.220	.027	-.123	-.323	11-4	-.085	.063	.138	-.342
7-17	-.104	.022	-.042	-.179	11-5	-.163	.076	.196	-.387
7-18	-.284	.036	-.170	-.619	11-6	-.202	.079	.260	-.459
7-19	-.258	.031	-.106	-.353	11-7	-.186	.098	.177	-.564
7-20	-.233	.028	-.099	-.327	11-8	-.210	.090	.081	-.528
7-21	-.244	.027	-.130	-.351	11-9	-.135	.065	.120	-.523
7-22	-.253	.026	-.133	-.351	11-10	-.086	.065	.198	-.391
7-23	-.265	.026	-.178	-.350	11-11	-.078	.069	.232	-.342
7-24	-.268	.026	-.163	-.366	11-12	-.107	.080	.218	-.332
7-25	-.214	.025	-.129	-.295	11-13	-.133	.080	.271	-.444
7-26	-.217	.024	-.149	-.471	11-14	-.055	.128	.301	-.551
7-27	-.289	.039	-.163	-.483	11-15	-.152	.078	.122	-.482
7-28	-.217	.031	-.121	-.363	11-16	-.096	.070	.294	-.355
7-29	-.225	.028	-.138	-.320	11-17	-.068	.063	.345	-.336
7-30	-.231	.024	-.120	-.335	11-18	-.074	.067	.336	-.332
7-31	-.249	.028	-.117	-.351	11-19	-.080	.066	.198	-.340
7-32	-.261	.027	-.142	-.347	11-20	-.066	.058	.185	-.331
7-33	-.271	.027	-.141	-.363	11-21	.018	.090	.396	-.482
7-34	-.270	.030	-.154	-.381	11-22	-.109	.062	.109	-.430
7-35	-.277	.032	-.164	-.404	11-23	-.078	.052	.112	-.307
7-36	-.287	.037	-.160	-.471	11-24	-.064	.058	.160	-.373
7-37	-.244	.025	-.142	-.336	11-25	-.060	.063	.246	-.308
8-1	-.140	.016	-.091	-.238	11-26	-.039	.057	.267	-.280
8-2	-.152	.014	-.114	-.275	11-27	-.024	.057	.294	-.215
8-3	-.098	.011	-.098	-.193	11-28	.025	.072	.352	-.425
8-4	-.059	.012	-.044	-.188	12-1	.041	.181	.553	-.996
8-5	-.146	.036	-.065	-.175	12-2	.009	.071	.353	-.311
8-6	-.176	.018	-.065	-.081	12-3	-.036	.105	.304	-.262
8-7	-.127	.017	-.077	-.115	12-4	-.228	.223	.488	-.1092
8-8	-.084	.014	-.087	-.139	12-5	-.101	.124	.270	-.1723
8-9	-.080	.014	-.052	-.163	12-6	-.112	.119	.195	-.1732
8-10	-.117	.017	-.053	-.129	13-1	.247	.112	.645	-.147
8-11	-.093	.012	-.053	-.147	13-2	.264	.110	.624	-.036
8-12	-.036	.017	-.035	-.126	13-3	.273	.121	.689	-.141
8-13	-.084	.014	-.066	-.106	13-4	.302	.120	.792	-.003
8-14	-.123	.014	-.097	-.097	13-5	.237	.113	.701	-.201
8-15	-.099	.014	-.046	-.093	13-6	.231	.100	.663	-.076
8-16	-.001	.056	-.290	-.121	13-7	.163	.095	.603	-.135
					13-8	.163	.089	.439	-.364
					13-9	.262	.099	.629	-.067

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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
14-1	.306	.121	.756	-.027	17-1	.294	.100	.521	-.103
14-2	.345	.111	.744	.034	17-2	.120	.080	.385	-.100
14-3	.312	.109	.725	.016	17-3	-.436	.098	-.177	-.767
14-4	.307	.103	.725	.057	17-4	-.298	.048	-.093	-.602
14-5	.307	.110	.855	.052	17-5	-.200	.046	-.060	-.431
15-1	.288	.115	.642	-.124	17-6	-.218	.052	-.046	-.422
15-2	.259	.115	.590	-.106	17-7	-.331	.070	-.091	-.644
15-3	.339	.125	.774	.007	17-8	-.288	.064	-.064	-.595
15-4	.268	.103	.702	-.093	17-9	.154	.050	.073	-.310
15-5	.282	.091	.662	-.004	17-10	-.220	.060	-.427	-.427
15-6	.204	.094	.527	-.100	17-11	-.457	.144	-.136	-.1291
16-1	.118	.170	.589	-.836	17-12	-.234	.068	-.480	-.480
16-2	.068	.107	.572	-.350	17-13	-.675	.124	-.211	-.1117
16-3	-.001	.086	.451	-.365	17-14	-.197	.068	.051	-.691
16-4	.037	.124	.732	-.388	17-15	-.445	.107	-.181	-.969
16-5	.080	.196	.609	-.560	17-16	-.337	.060	-.131	-.636
16-6	.158	.158	.641	-.550	17-17	-.366	.081	-.034	-.706
16-7	.114	.095	.454	-.210	17-18	-.330	.102	-.028	-.618
16-8	-.027	.094	.347	-.352					
16-9	-.094	.105	.277	-.523					
16-10	-.140	.188	.491	-.934					
16-11	.066	.124	.562	-.386					
16-12	.030	.113	.494	-.394					
16-13	-.052	.104	.374	-.371					
16-14	-.122	.113	.255	-.566					
16-15	-.178	.169	.389	-1.050					
16-16	.065	.108	.449	-.383					
16-17	.004	.102	.350	-.325					
16-18	-.073	.113	.307	-.731					
16-19	-.121	.122	.385	-.669					
16-20	-.157	.137	.262	-.819					
16-21	-.072	.101	.235	-.726					
16-22	-.121	.113	.255	-1.303					
16-23	-.145	.131	.280	-.494					
16-24	.129	.091	.506	-.172					
16-25	-.058	.087	.392	-.568					

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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
1-1	.327	.135	.847	-.047	3-29	-.242	.048	-.004	-1.534
1-2	.262	.135	.904	-.188	3-30	-.233	.049	-.075	-.459
1-3	.331	.130	.777	-.177	3-31	-.252	.058	-.042	-.498
1-4	.267	.114	.641	-.032	3-32	-.282	.071	-.044	-.689
1-5	.244	.110	.644	-.077	3-33	-.337	.088	-.067	-.736
1-6	.228	.101	.589	-.017	3-34	-.394	.092	-.053	-.878
1-7	.293	.112	.678	.041	3-35	-.497	.106	-.110	-1.148
2-1	.168	.176	.701	-.313	3-36	-.439	.113	-.192	-1.044
2-2	.225	.168	.763	-.202	3-37	-.226	.045	.034	-.502
2-3	.269	.153	.856	-.242	3-38	-.239	.056	-.028	-.443
2-4	.282	.147	.835	-.160	3-39	-.314	.074	-.062	-.706
2-5	.162	.140	.674	-.175	3-40	-.415	.110	-.106	-1.041
2-6	.236	.145	.778	-.091	3-41	-.521	.041	-.012	-.408
2-7	.290	.144	.845	-.066	3-42	-.230	.049	-.022	-.413
2-8	.330	.147	.872	-.081	3-43	-.293	.079	-.067	-.574
2-9	.088	.108	.600	-.170	3-44	-.393	.105	-.106	-.866
2-10	.166	.113	.546	-.114	4-1	-.368	.041	-.220	-.519
2-11	.227	.120	.706	-.065	4-2	-.374	.037	-.255	-.531
2-12	.274	.125	.817	-.055	4-3	-.369	.037	-.250	-.518
2-13	.022	.076	.346	-.214	4-4	-.369	.042	-.226	-.560
2-14	.110	.086	.417	-.112	4-5	-.370	.037	-.259	-.489
2-15	.176	.101	.578	-.051	4-6	-.380	.035	-.298	-.524
2-16	.230	.113	.635	-.030	4-7	-.373	.033	-.275	-.501
2-17	.106	.083	.622	-.105	4-8	-.370	.036	-.262	-.506
2-18	.198	.102	.737	-.036	4-9	-.364	.036	-.247	-.501
2-19	.126	.087	.675	-.063	4-10	-.358	.033	-.250	-.473
2-20	.108	.108	.782	-.011	4-11	-.366	.031	-.271	-.490
3-1	.328	.047	.140	-.553	4-12	-.354	.032	-.252	-.460
3-2	.318	.058	.105	-.693	4-13	-.344	.035	-.217	-.479
3-3	.329	.064	.155	-.644	4-14	-.361	.034	-.259	-.486
3-4	.344	.076	.149	-.696	4-15	-.344	.032	-.237	-.464
3-5	.374	.092	.136	-.772	5-1	-.357	.038	-.239	-.474
3-6	.410	.107	.124	-.931	5-2	-.364	.034	-.249	-.498
3-7	.453	.122	.130	-1.043	5-3	-.356	.039	-.243	-.499
3-8	.498	.137	.145	-1.197	5-4	-.346	.035	-.236	-.493
3-9	.546	.139	.165	-1.139	5-5	-.374	.037	-.246	-.541
3-10	.313	.045	.062	-.537	5-6	-.366	.031	-.284	-.486
3-11	.301	.057	.031	-.599	5-7	-.339	.041	-.135	-.506
3-12	.291	.064	.023	-.605	5-8	-.360	.042	-.180	-.537
3-13	.303	.080	.016	-.687	5-9	-.345	.036	-.249	-.540
3-14	.318	.090	.048	-.702	6-1	-.351	.054	-.167	-.635
3-15	.365	.103	.057	-.795	6-2	-.356	.058	-.169	-.757
3-16	.425	.113	.074	-.833	6-3	-.352	.051	-.175	-.623
3-17	.501	.114	.091	-.991	6-4	-.346	.040	-.177	-.569
3-18	.524	.110	.171	-.940	6-5	-.336	.048	-.069	-.513
3-19	.277	.042	.085	-.448	6-6	-.346	.040	-.132	-.506
3-20	.173	.045	.007	-.425	6-7	-.356	.036	-.224	-.501
3-21	.232	.061	.057	-.496	6-8	-.356	.033	-.257	-.501
3-22	.242	.068	.108	-.460	6-9	-.306	.052	-.082	-.466
3-23	.287	.073	.079	-.531	6-10	-.306	.045	-.113	-.480
3-24	.352	.085	.026	-.646	6-11	-.327	.034	-.181	-.663
3-25	.419	.099	.024	-.716	6-12	-.350	.037	-.248	-.548
3-26	.469	.105	.125	-.845	6-13	-.262	.055	-.015	-.440
3-27	.474	.109	.124	-1.124	6-14	-.297	.052	-.085	-.475
3-28	.268	.035	.100	-.420	6-15	-.307	.037	-.157	-.425

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7-1	-.235	.050	-.065	-.448	9-1	-.181	.084	.159	-.540
7-2	-.252	.052	-.061	-.478	9-2	-.214	.089	.042	-.629
7-3	-.268	.050	-.078	-.518	9-3	-.060	.103	.281	-.719
7-4	-.278	.045	-.145	-.527	9-4	-.024	.079	.298	-.362
7-5	-.288	.042	-.143	-.499	9-5	.054	.083	.359	-.189
7-6	-.298	.038	-.166	-.554	9-6	.009	.090	.338	-.323
7-7	-.308	.037	-.198	-.461	10-1	-.109	.069	.215	-.354
7-8	-.314	.037	-.186	-.481	10-2	-.015	.066	.335	-.192
7-9	-.320	.038	-.187	-.493	10-3	-.003	.118	.365	-.365
7-10	-.323	.036	-.123	-.394	10-4	-.044	.084	.358	-.183
7-11	-.329	.033	-.116	-.382	10-5	.035	.075	.421	-.173
7-12	-.328	.034	-.142	-.387	10-6	.053	.079	.405	-.196
7-13	-.324	.035	-.174	-.426	11-1	-.257	.108	.356	-.656
7-14	-.329	.034	-.186	-.510	11-2	-.201	.075	.560	-.560
7-15	-.310	.035	-.206	-.478	11-3	-.185	.069	.060	-.530
7-16	-.317	.034	-.221	-.477	11-4	-.150	.050	.243	-.304
7-17	-.320	.036	-.216	-.553	11-5	-.225	.045	.138	-.393
7-18	-.334	.039	-.219	-.498	11-6	-.202	.050	-.039	-.471
7-19	-.327	.032	-.116	-.359	11-7	-.162	.076	.146	-.461
7-20	-.326	.030	-.140	-.356	11-8	-.267	.087	.022	-.631
7-21	-.267	.031	-.169	-.394	11-9	-.201	.073	.060	-.541
7-22	-.281	.031	-.163	-.400	11-10	-.176	.061	.070	-.437
7-23	-.297	.031	-.160	-.556	11-11	-.227	.065	.054	-.470
7-24	-.307	.032	-.210	-.480	11-12	-.202	.055	.121	-.428
7-25	-.253	.032	-.151	-.477	11-13	-.192	.061	.095	-.437
7-26	-.318	.038	-.195	-.516	11-14	-.076	.115	.391	-.486
7-27	-.340	.044	-.148	-.569	11-15	-.245	.087	.031	-.698
7-28	-.210	.034	-.070	-.340	11-16	-.189	.077	.128	-.688
7-29	-.227	.031	-.119	-.368	11-17	-.173	.066	.435	-.435
7-30	-.243	.031	-.120	-.394	11-18	-.206	.072	.074	-.495
7-31	-.266	.036	-.156	-.413	11-19	-.156	.068	.169	-.356
7-32	-.279	.035	-.157	-.414	11-20	-.114	.068	.189	-.375
7-33	-.297	.038	-.169	-.580	11-21	-.013	.102	.449	-.340
7-34	-.314	.045	-.193	-.560	11-22	-.181	.068	.106	-.599
7-35	-.335	.049	-.212	-.544	11-23	-.149	.081	.067	-.487
7-36	-.367	.058	-.231	-.673	11-24	-.175	.075	.079	-.742
7-37	-.254	.031	-.167	-.400	11-25	-.160	.078	.115	-.666
8-1	-.090	.124	.617	-.416	11-26	-.077	.068	.256	-.327
8-2	.104	.172	.763	-.285	11-27	-.050	.070	.237	-.356
8-3	.238	.169	.746	-.231	11-28	.040	.081	.413	-.242
8-4	.229	.135	.696	-.175	12-1	-.429	.328	.197	-.1785
8-5	.069	.134	.633	-.262	12-2	-.126	.066	.032	-.638
8-6	.253	.155	1.038	-.180	12-3	-.221	.146	.071	-.1.433
8-7	.303	.135	.853	-.084	12-4	-.337	.206	.192	-.1.113
8-8	.232	.106	.694	-.079	12-5	-.205	.129	.053	-.877
8-9	.072	.108	.585	-.231	12-6	-.174	.100	.127	-.662
8-10	.193	.127	.711	-.131	13-1	.230	.132	.603	-.156
8-11	.216	.104	.591	-.065	13-2	.210	.119	.551	-.086
8-12	.154	.086	.506	-.102	13-3	.202	.133	.653	-.144
8-13	.098	.089	.483	-.131	13-4	.213	.130	.694	-.089
8-14	.203	.110	.649	-.041	13-5	.125	.128	.651	-.297
8-15	.220	.103	.585	-.033	13-6	.095	.105	.548	-.233
8-16	.088	.075	.429	-.094	13-7	-.003	.097	.451	-.365
					13-8	.043	.087	.406	-.404
					13-9	.196	.113	.591	-.115

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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
14-1	.282	.121	.647	-.026	17-1	.139	.115	.583	-.212
14-2	.294	.108	.642	-.002	17-2	.254	.137	.685	-.210
14-3	.170	.110	.575	-.108	17-3	-.259	.084	.047	-.584
14-4	.191	.106	.604	-.045	17-4	-.337	.081	-.108	-.650
14-5	.206	.125	.747	-.065	17-5	-.205	.060	-.055	-.589
15-1	.188	.112	.506	-.159	17-6	-.195	.048	-.029	-.397
15-2	.188	.105	.492	-.129	17-7	-.246	.056	-.035	-.472
15-3	.188	.128	.585	-.167	17-8	-.329	.072	-.079	-.639
15-4	.097	.074	.426	-.151	17-9	-.167	.052	.002	-.374
15-5	.208	.049	.404	-.064	17-10	-.195	.058	.044	-.454
15-6	.058	.093	.460	-.224	17-11	-.623	.160	-.149	-.191
16-1	.179	.171	.695	-.621	17-12	-.224	.066	.179	-.543
16-2	.175	.131	.697	-.327	17-13	-.620	.132	.151	-.139
16-3	.110	.105	.516	-.186	17-14	-.327	.111	-.013	-.804
16-4	.160	.144	.709	-.232	17-15	-.332	.091	-.035	-.818
16-5	.221	.163	.742	-.510	17-16	-.339	.059	-.157	-.569
16-6	.226	.153	.710	-.401	17-17	-.423	.076	-.135	-.869
16-7	.202	.102	.525	-.162	17-18	-.388	.091	-.031	-.810
16-8	.103	.092	.468	-.183					
16-9	.061	.119	.591	-.294					
16-10	.113	.162	.606	-.557					
16-11	.195	.118	.598	-.235					
16-12	.122	.108	.501	-.192					
16-13	.050	.092	.426	-.312					
16-14	-.026	.094	.347	-.585					
16-15	-.056	.128	.403	-.657					
16-16	.159	.110	.572	-.220					
16-17	.110	.100	.466	-.204					
16-18	.040	.085	.359	-.207					
16-19	-.047	.080	.300	-.353					
16-20	-.101	.081	.164	-.700					
16-21	.070	.092	.448	-.310					
16-22	.020	.085	.360	-.432					
16-23	-.035	.078	.236	-.618					
16-24	.221	.109	.647	-.062					
16-25	.074	.089	.447	-.192					

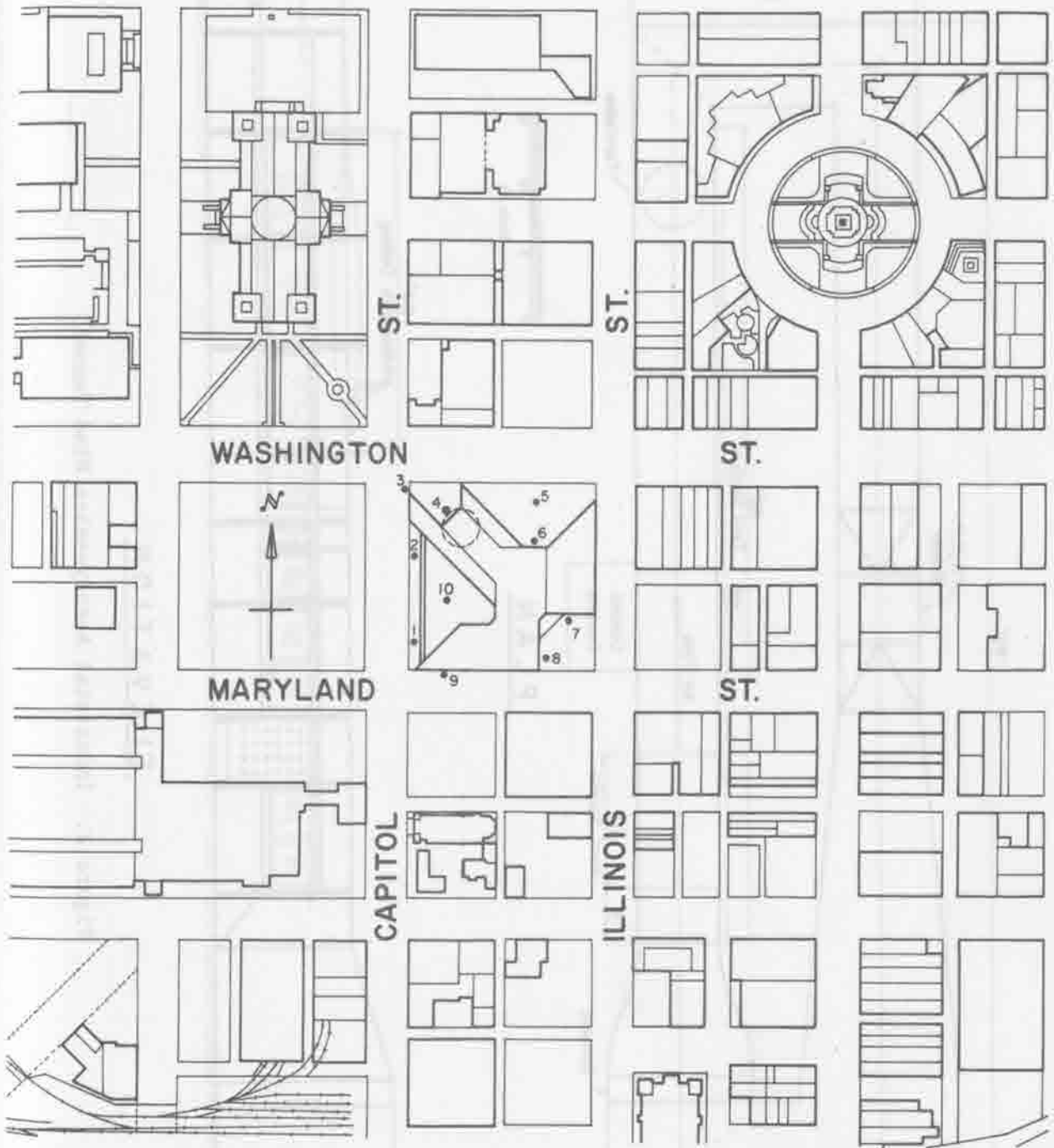


Figure 1. Merchants Plaza Building Location.



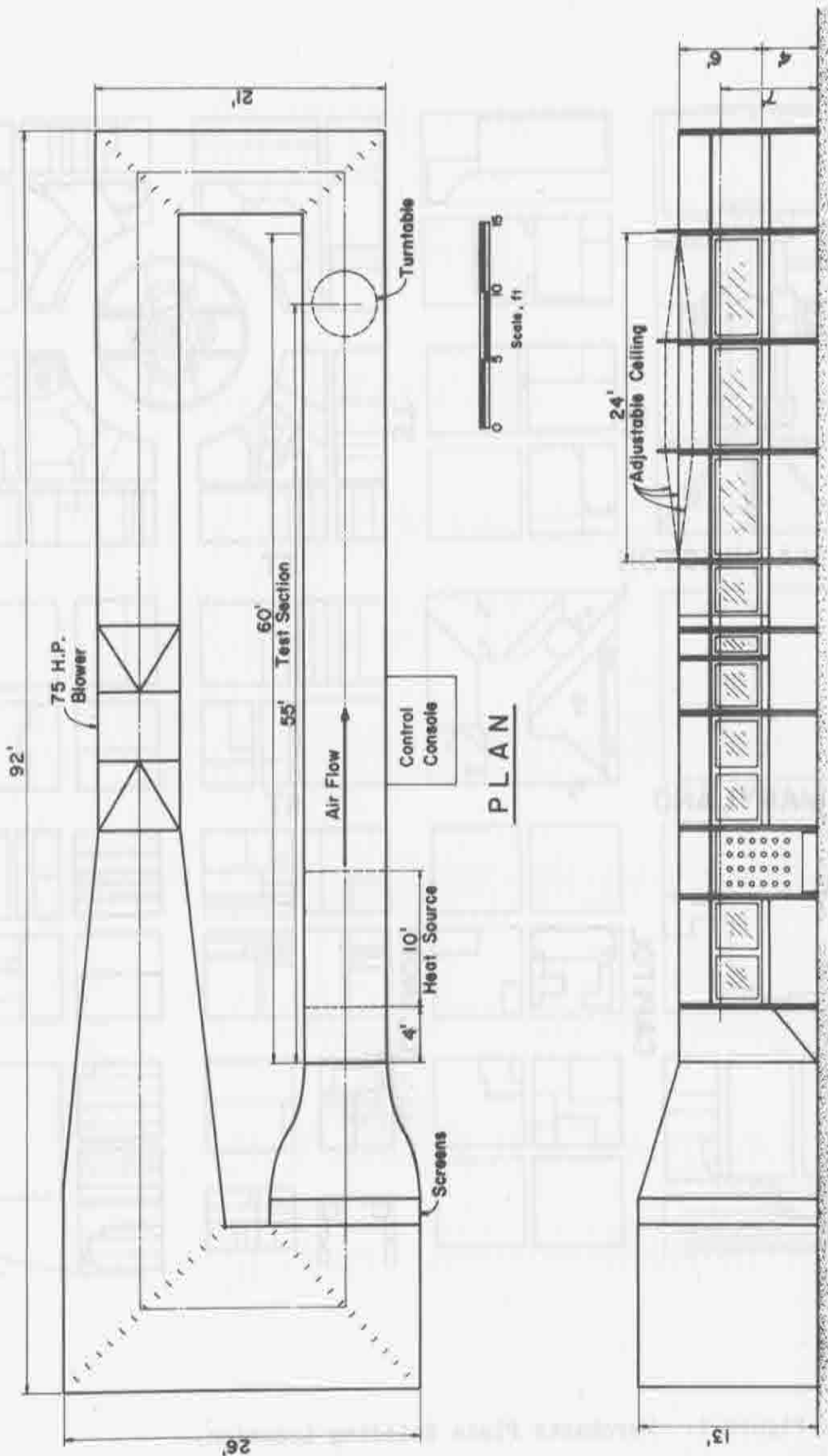
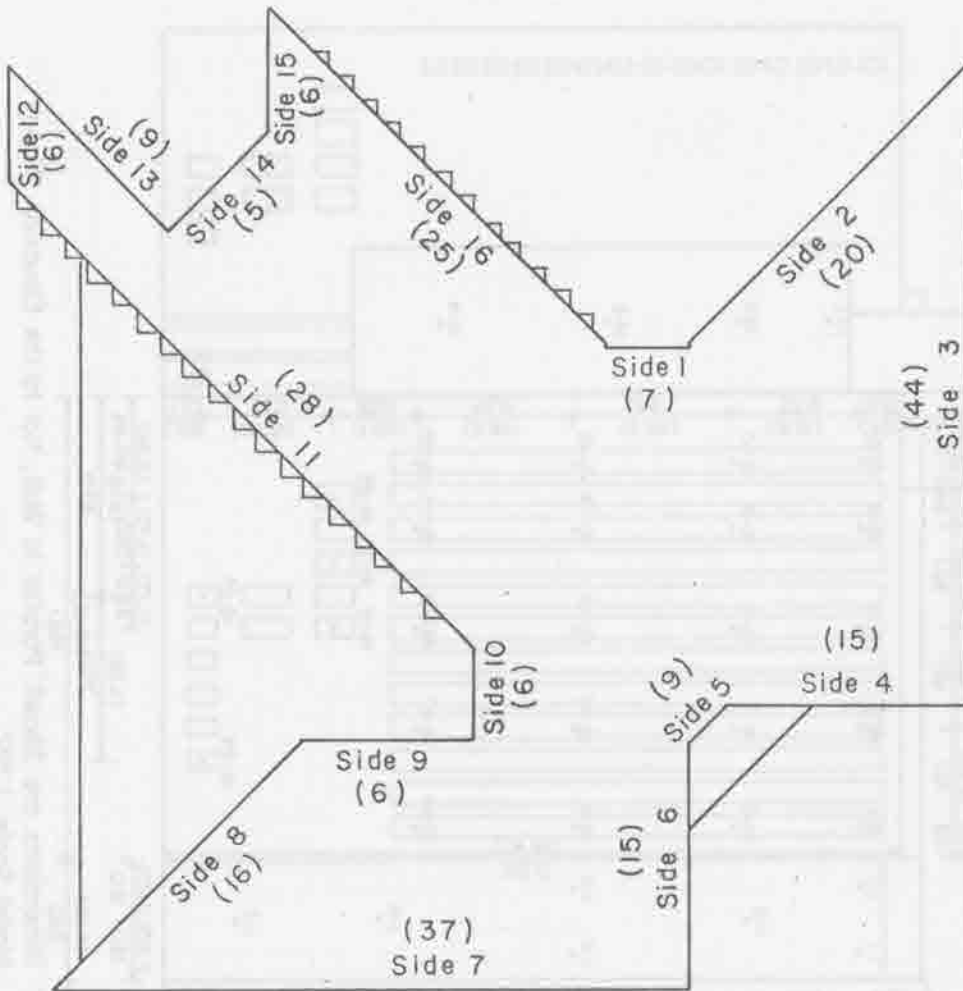


Figure 2. Industrial Aerodynamics Wind Tunnel.

ELEVATION

PLAN

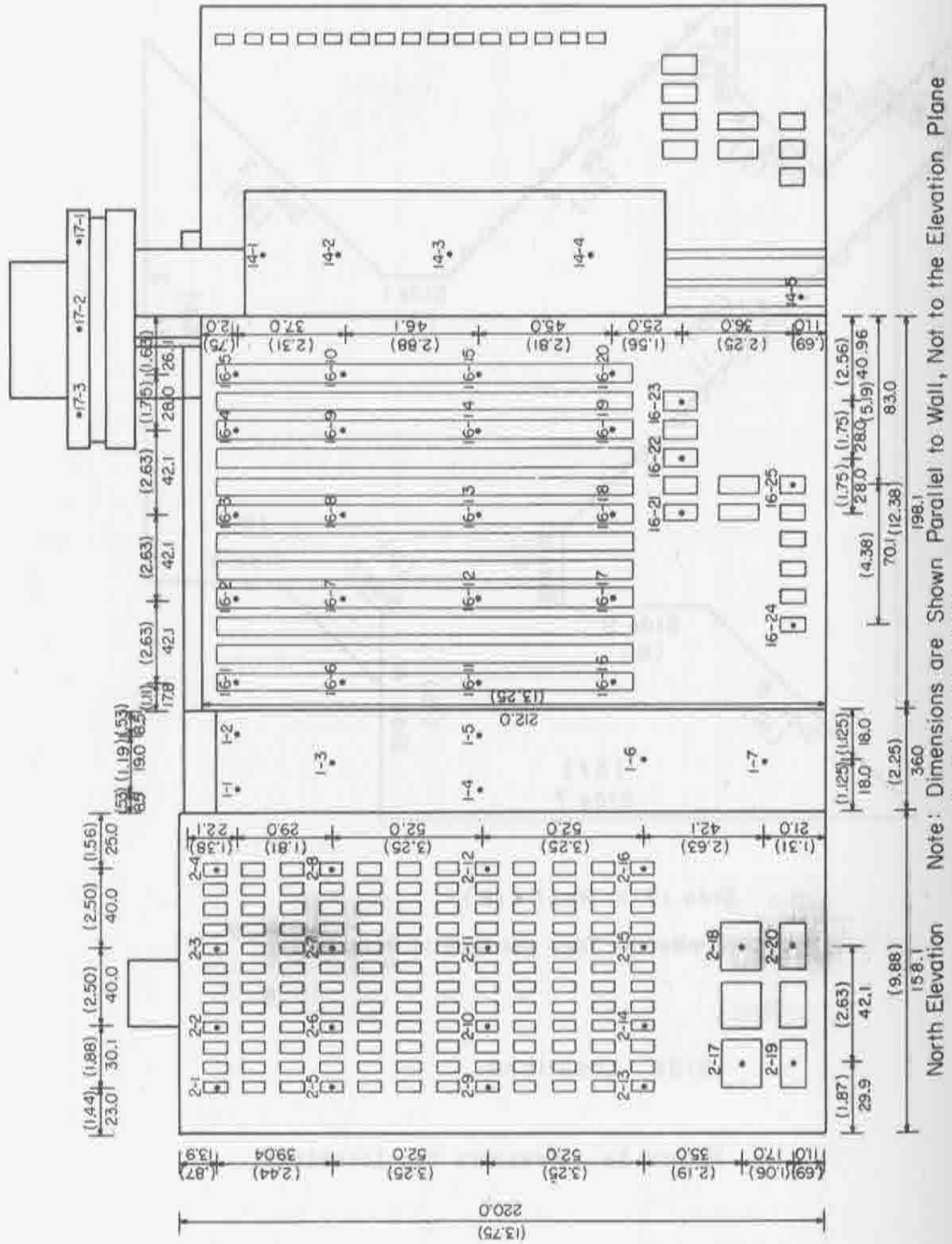


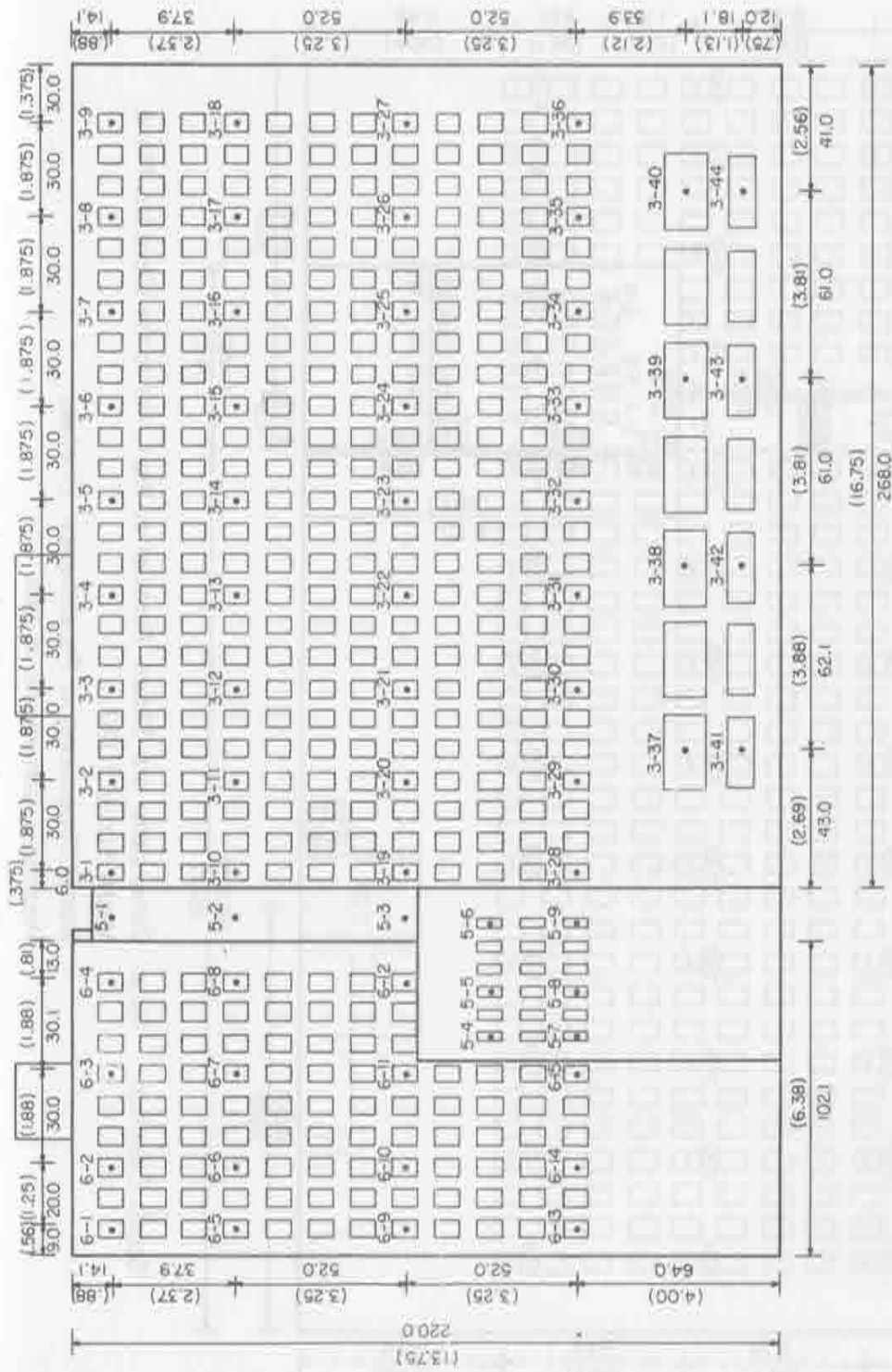
Side 17 = Roof (18)

Number of Taps per Side in Parentheses

Side Locations

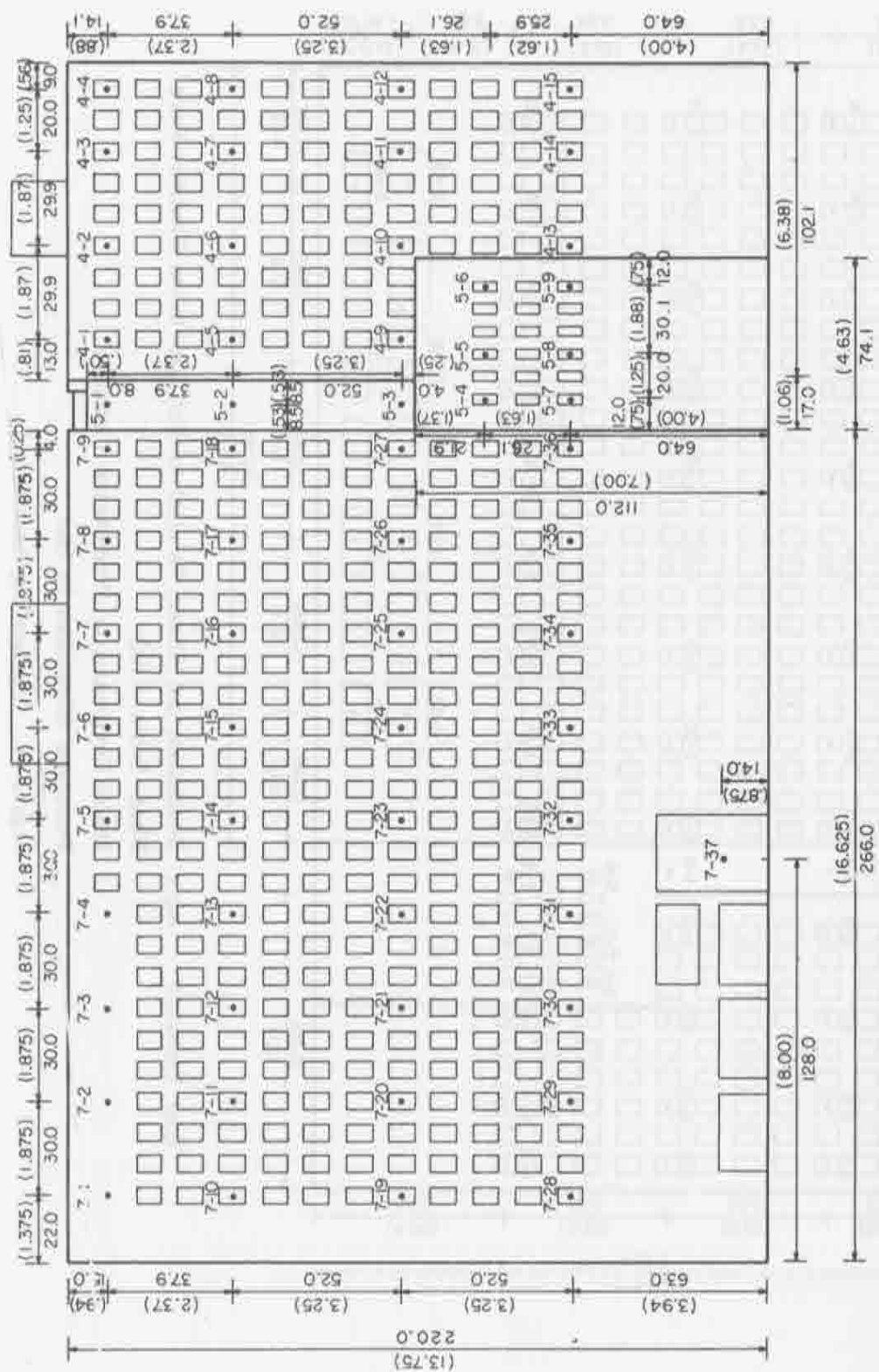
Figure 3a. Pressure Tap Locations.

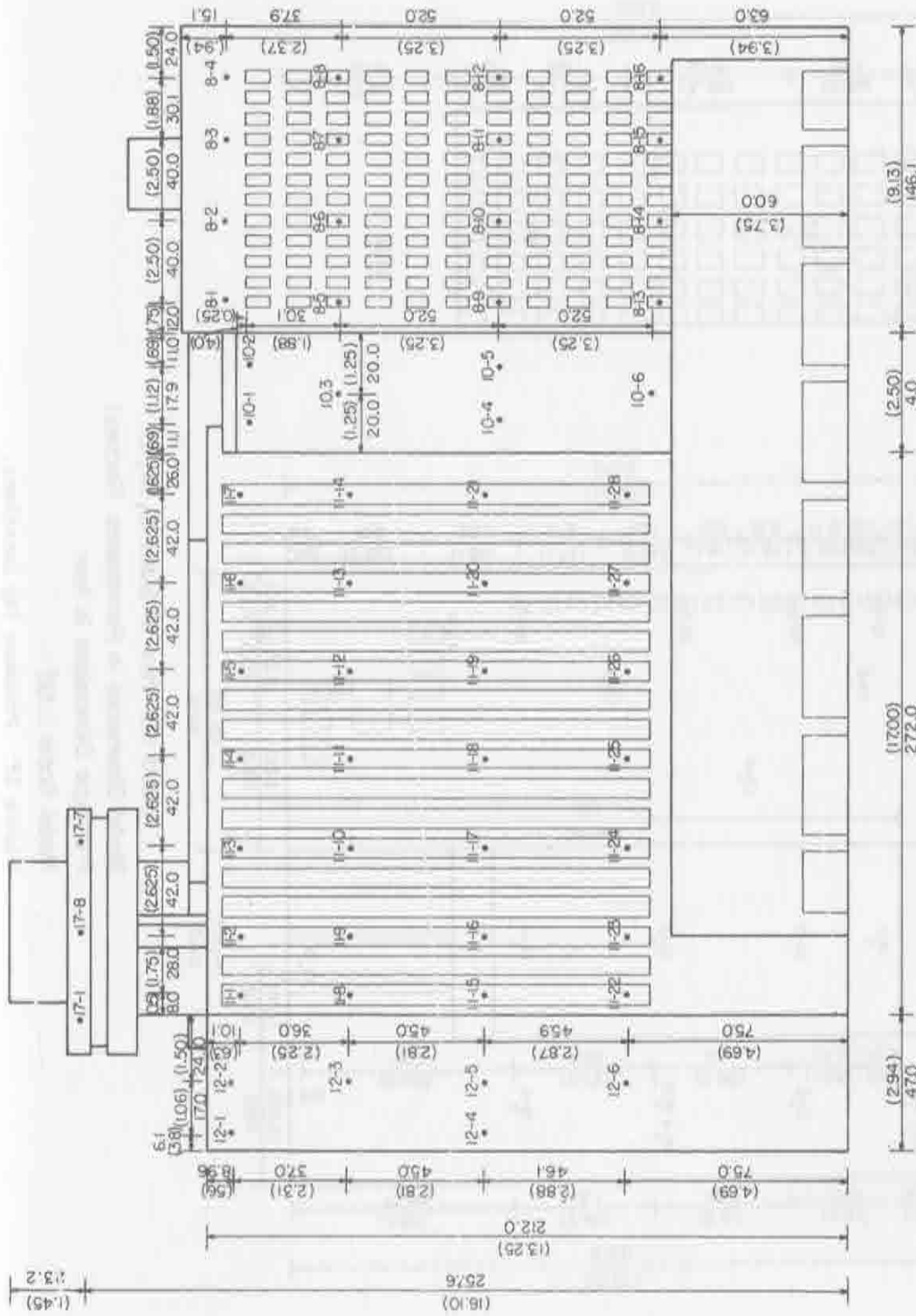




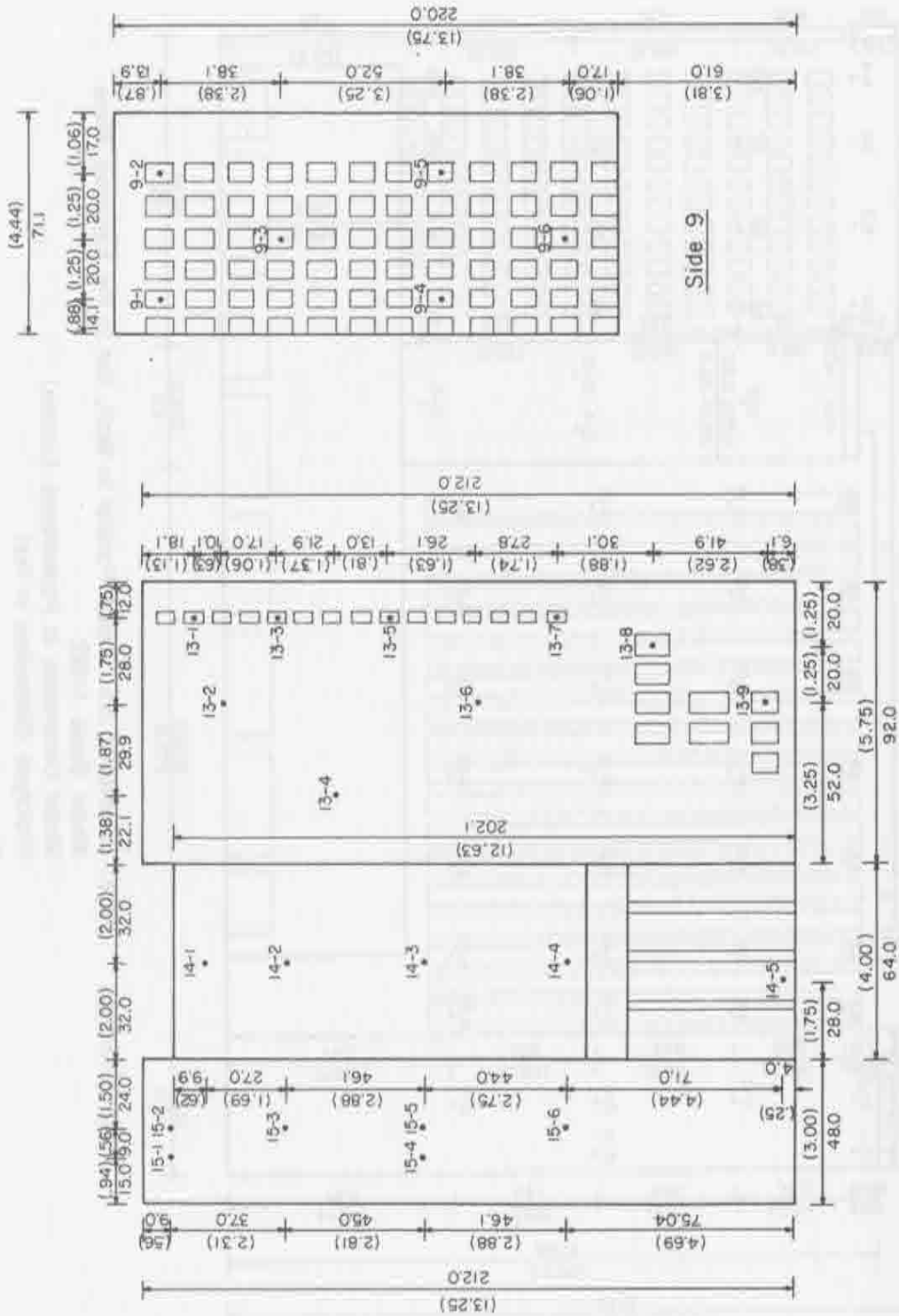
East Elevation Note: Dimensions are Shown Parallel to Wall, Not to the Elevation Plane  
 Model Scale 1:192  
 Model Dimensions in Parentheses (inches)  
 Prototype Dimensions in feet

Figure 3c. Pressure Tap Locations.





West Elevation Note: Dimensions are Shown Parallel to Wall, Not to the Elevation Plane  
 Model Scale 1:192  
 Model Dimensions in Parentheses (inches)  
 Prototype Dimensions in feet  
 Figure 3e. Pressure Tap Locations.



Folded Out View of Sides 13, 14, 15  
 Model Dimensions in Parentheses (inches)  
 Prototype Dimensions in feet  
 Model Scale 1:192

Figure 3f. Pressure Tap Locations.

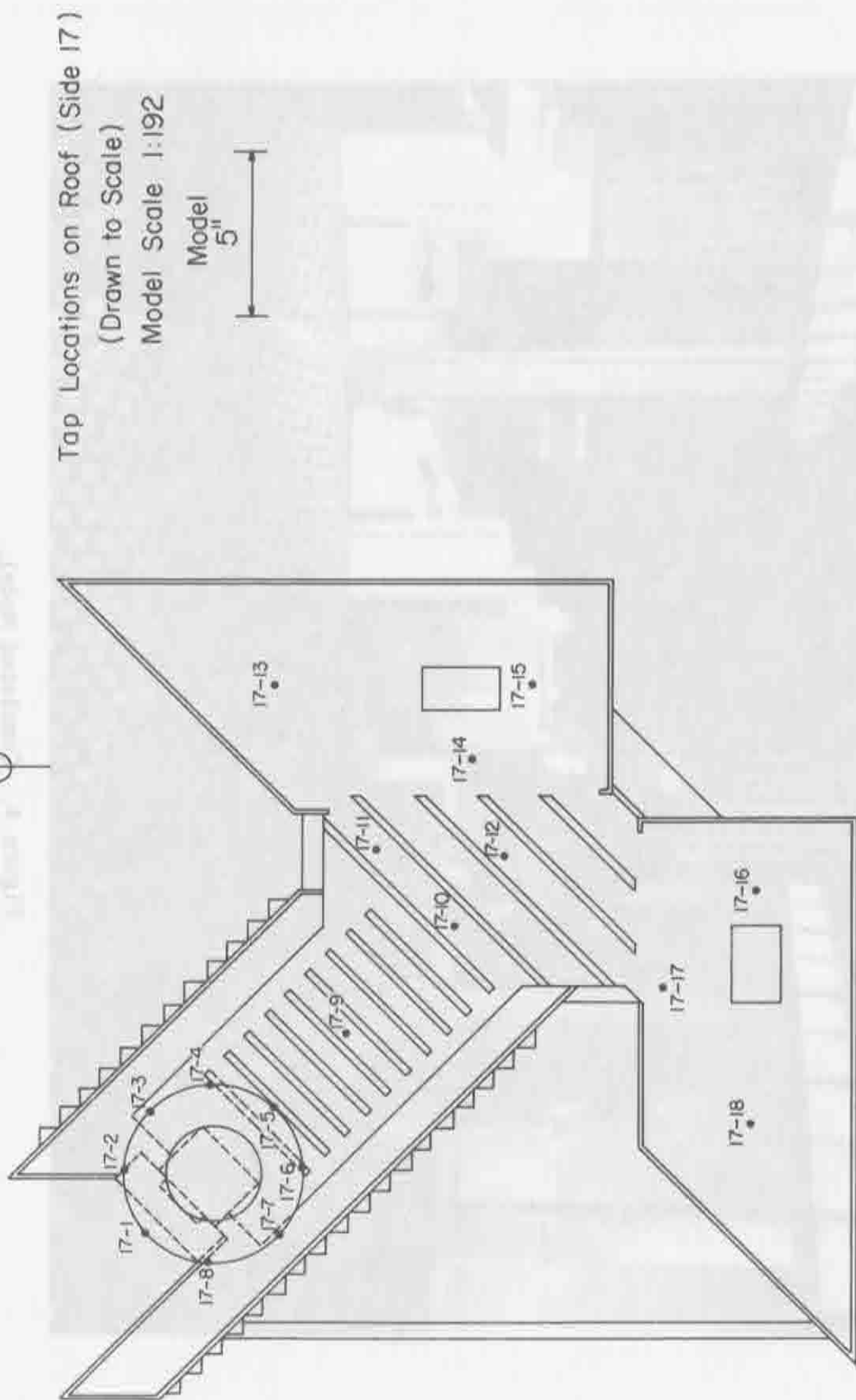


Figure 3g. Pressure Tap Locations.



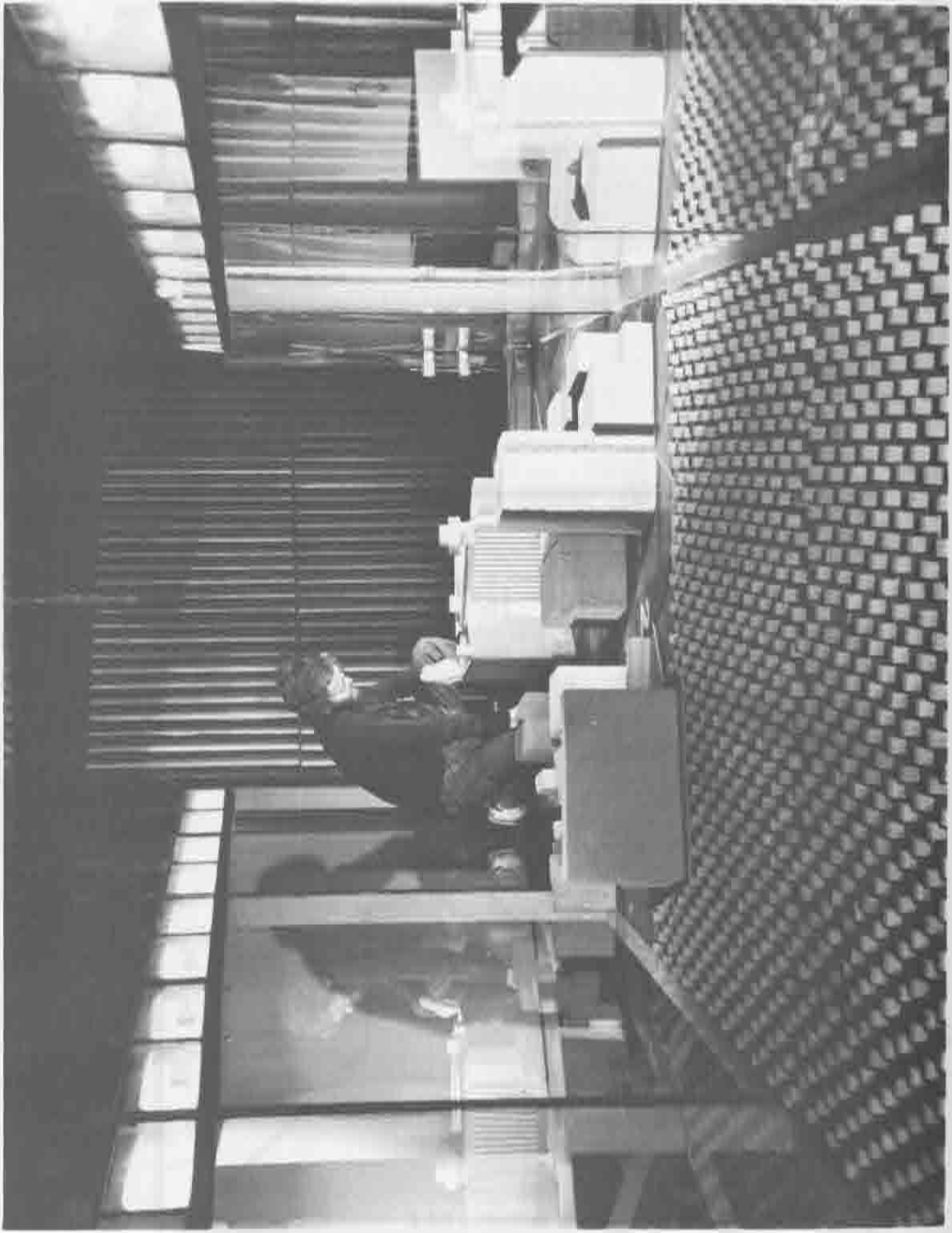


Figure 4. Completed Model.

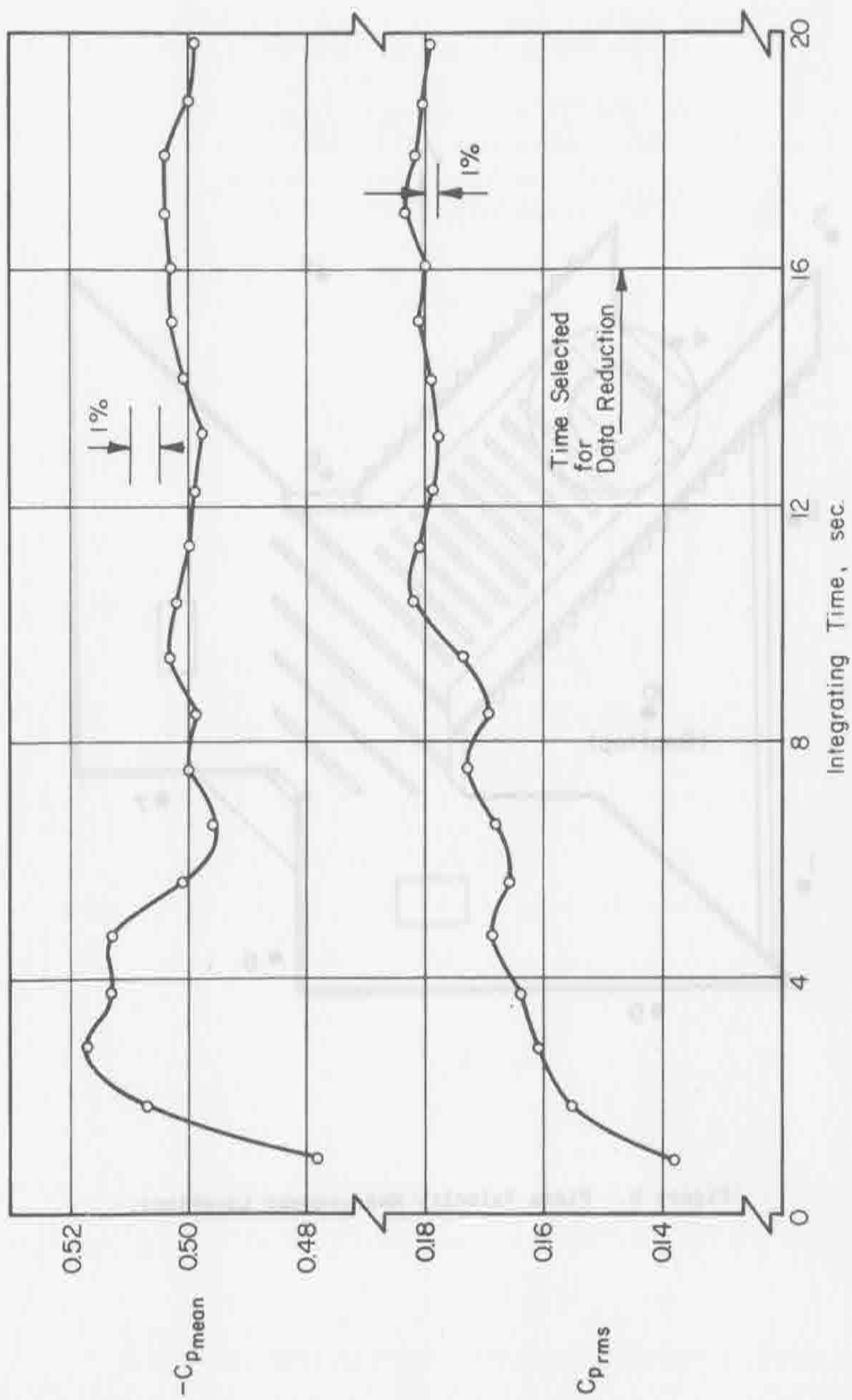


Figure 5. Data Sampling Time Verification.

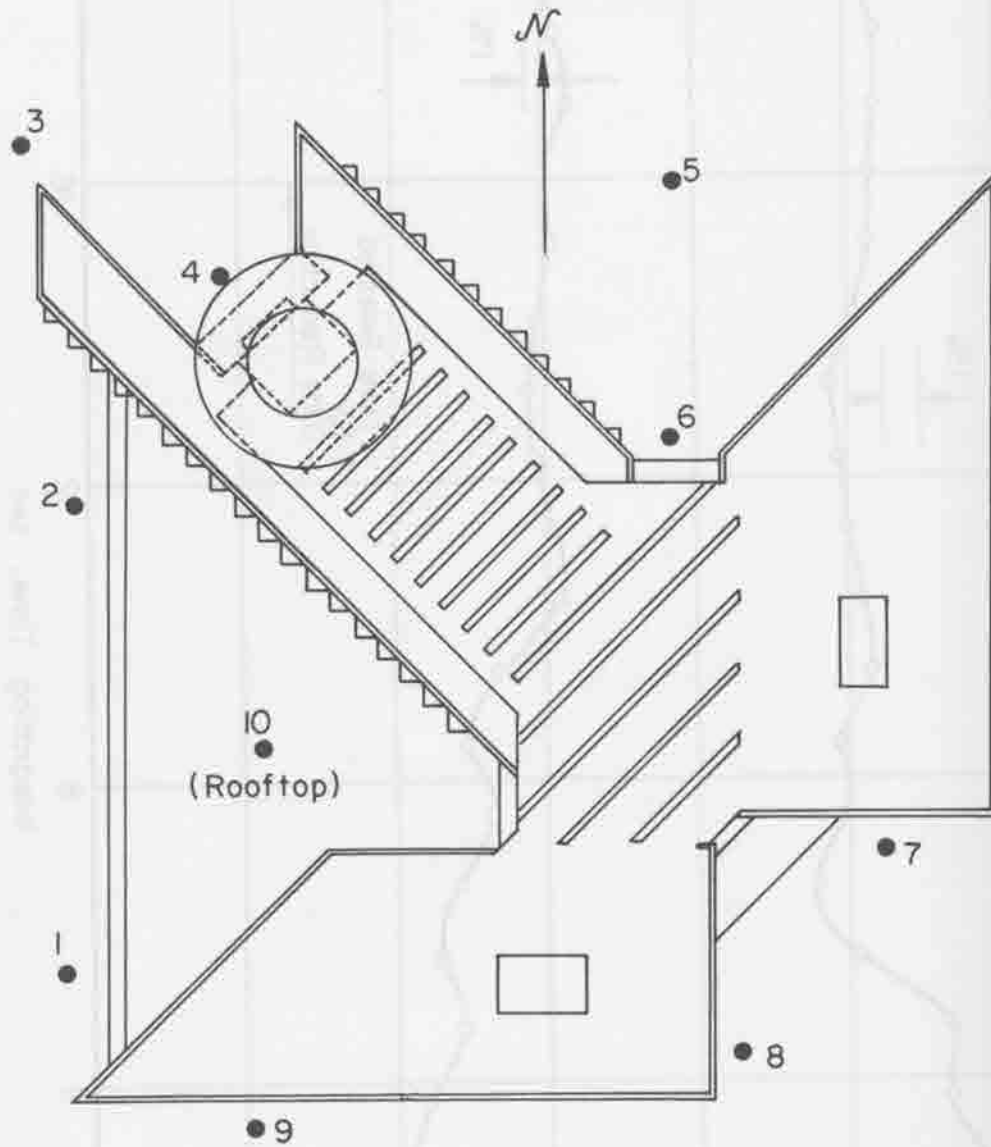


Figure 6. Plaza Velocity Measurement Locations.

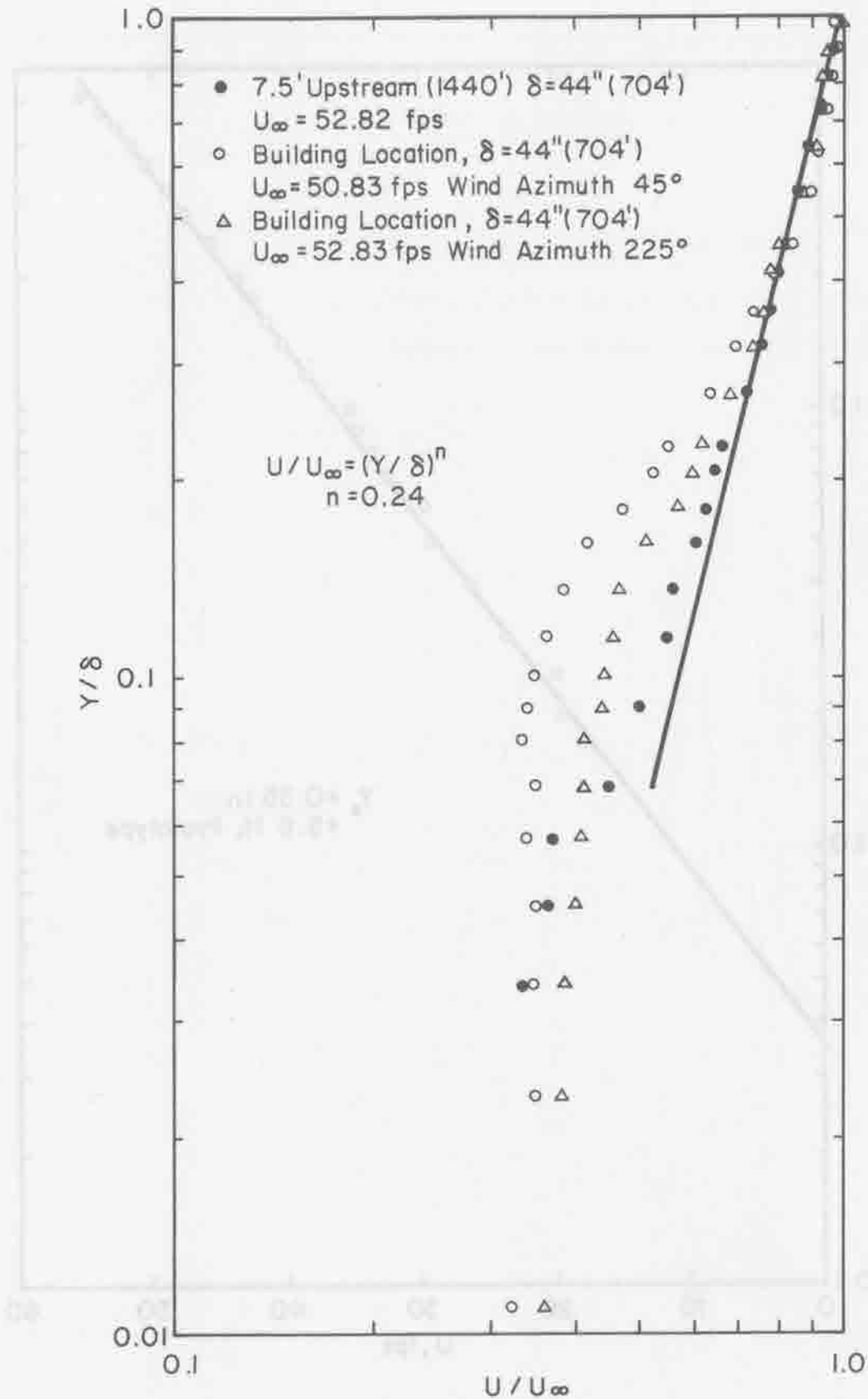


Figure 7a. Mean Velocity Profiles Approaching the Model.

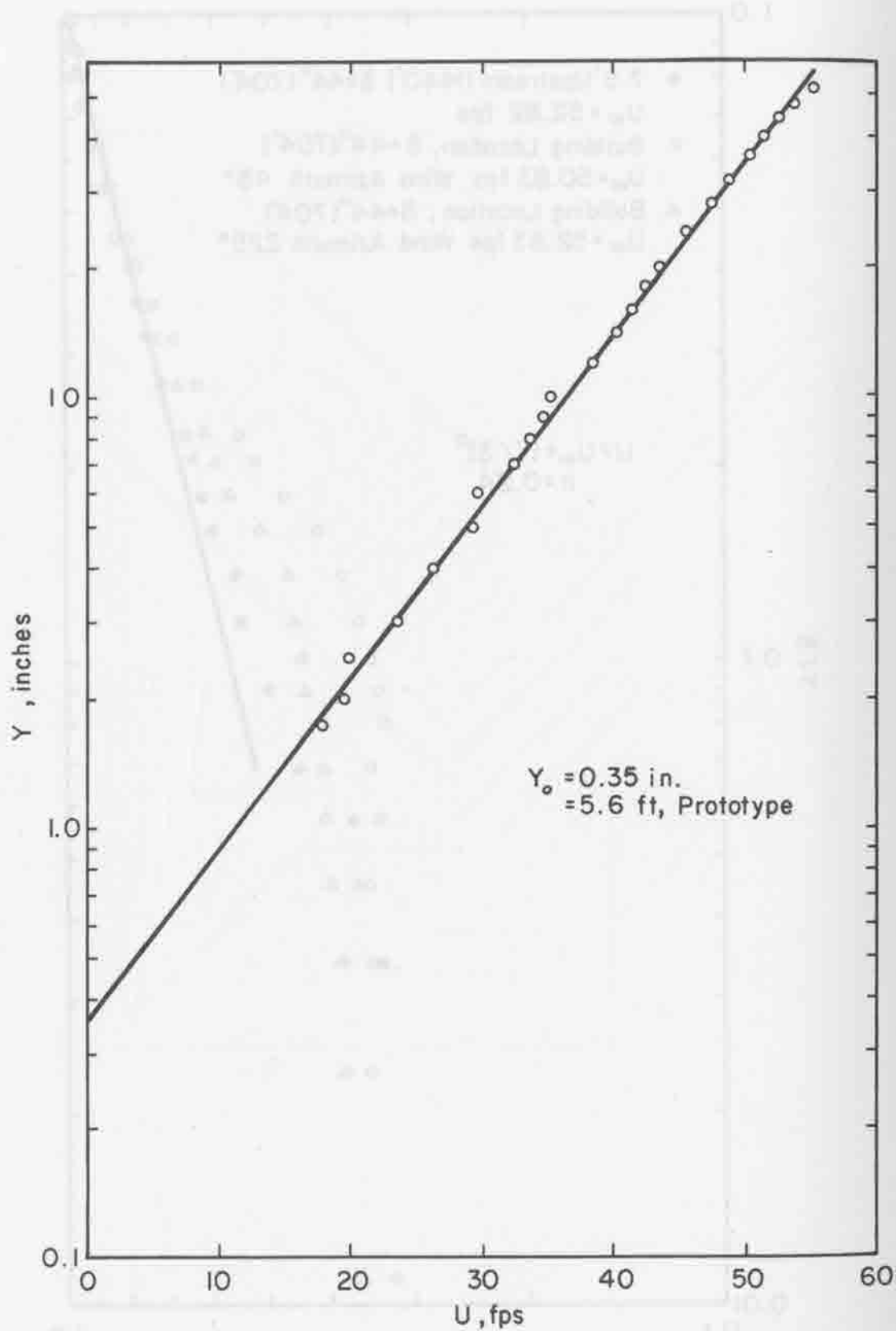


Figure 7b. Mean Velocity Profiles Approaching the Model.

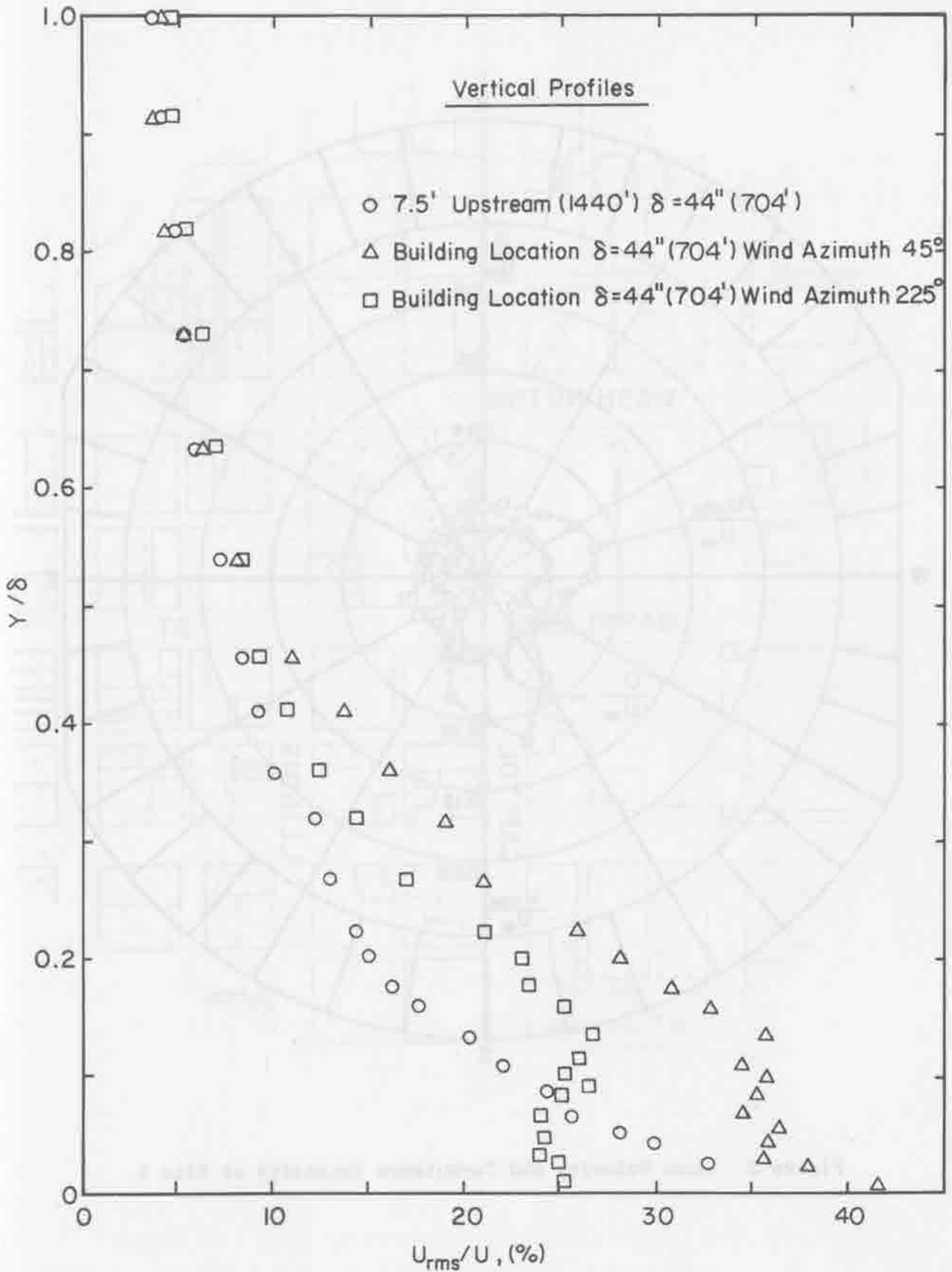


Figure 8. Turbulence Intensity Profiles.

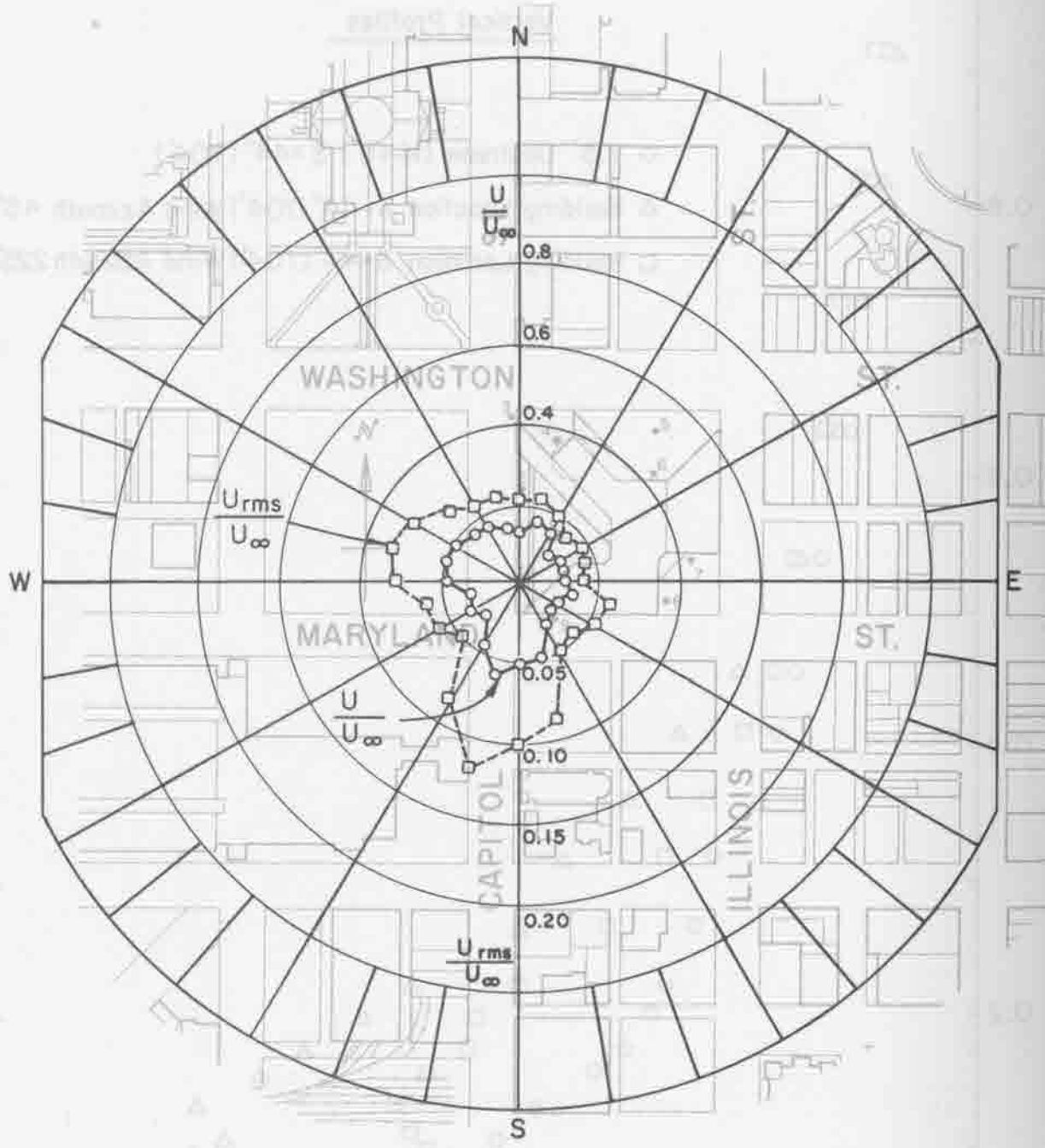


Figure 9. Mean Velocity and Turbulence Intensity at Site 1.

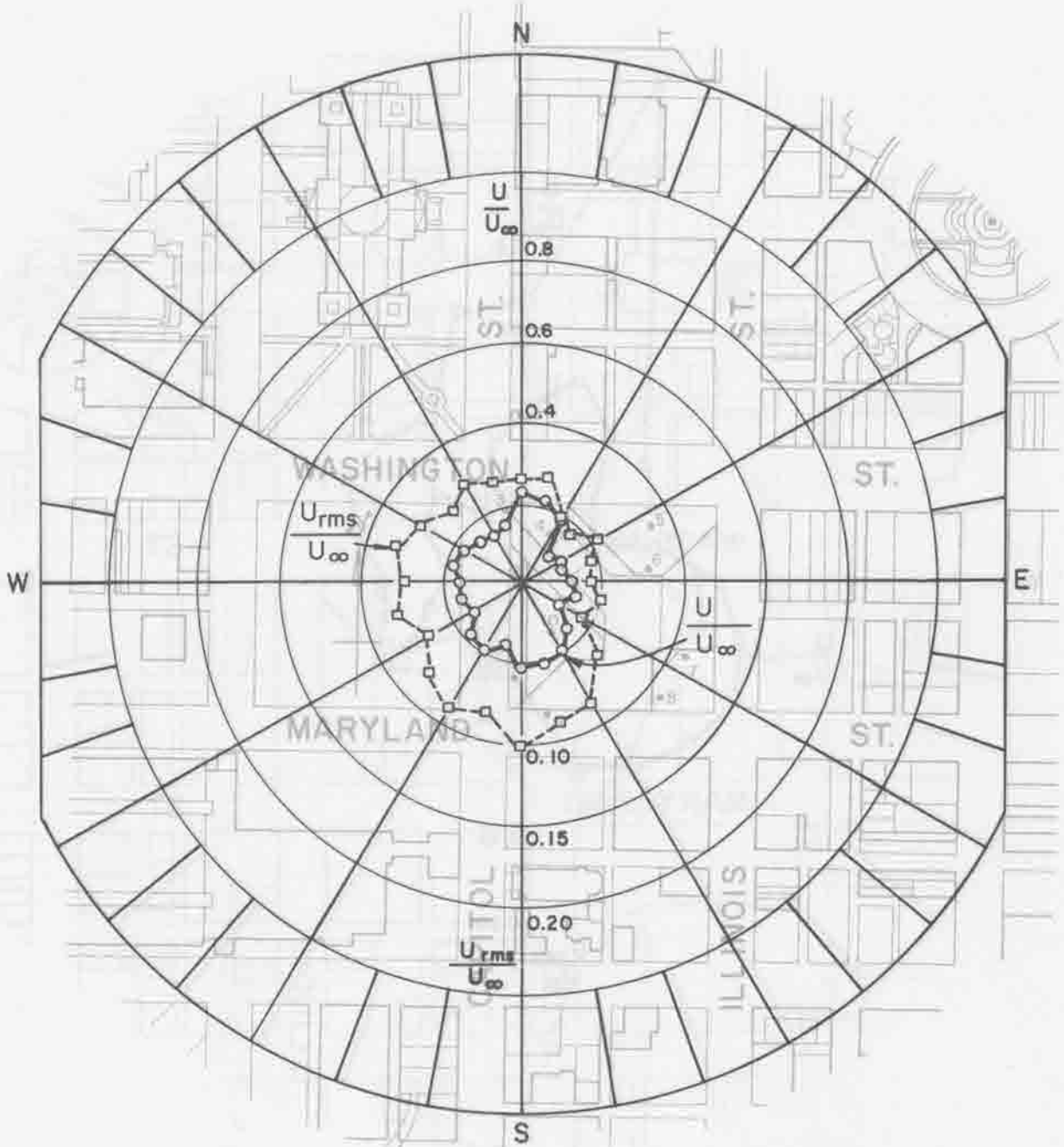


Figure 10. Mean Velocity and Turbulence Intensity at Site 2.



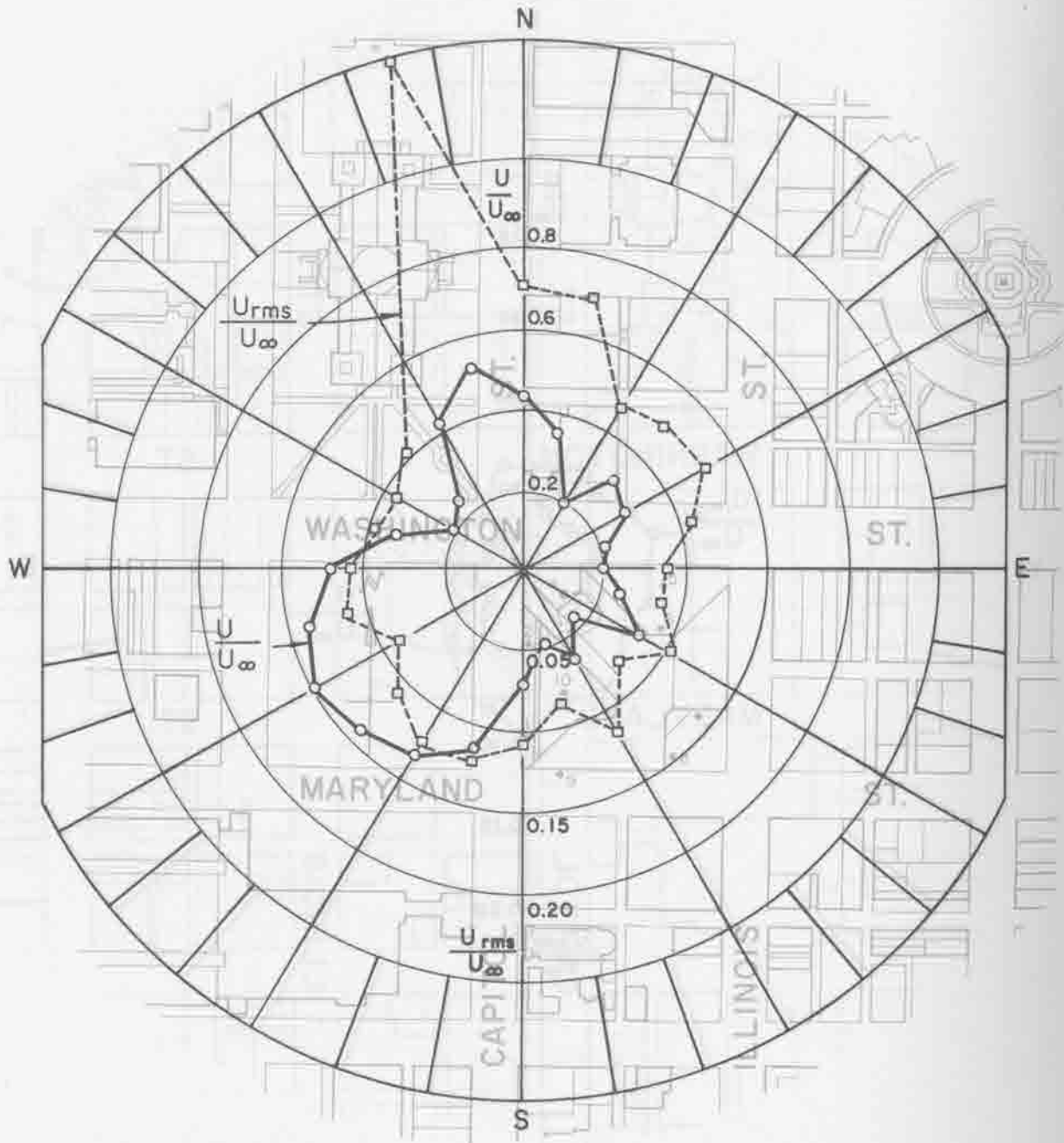


Figure 11. Mean Velocity and Turbulence Intensity at Site 3.

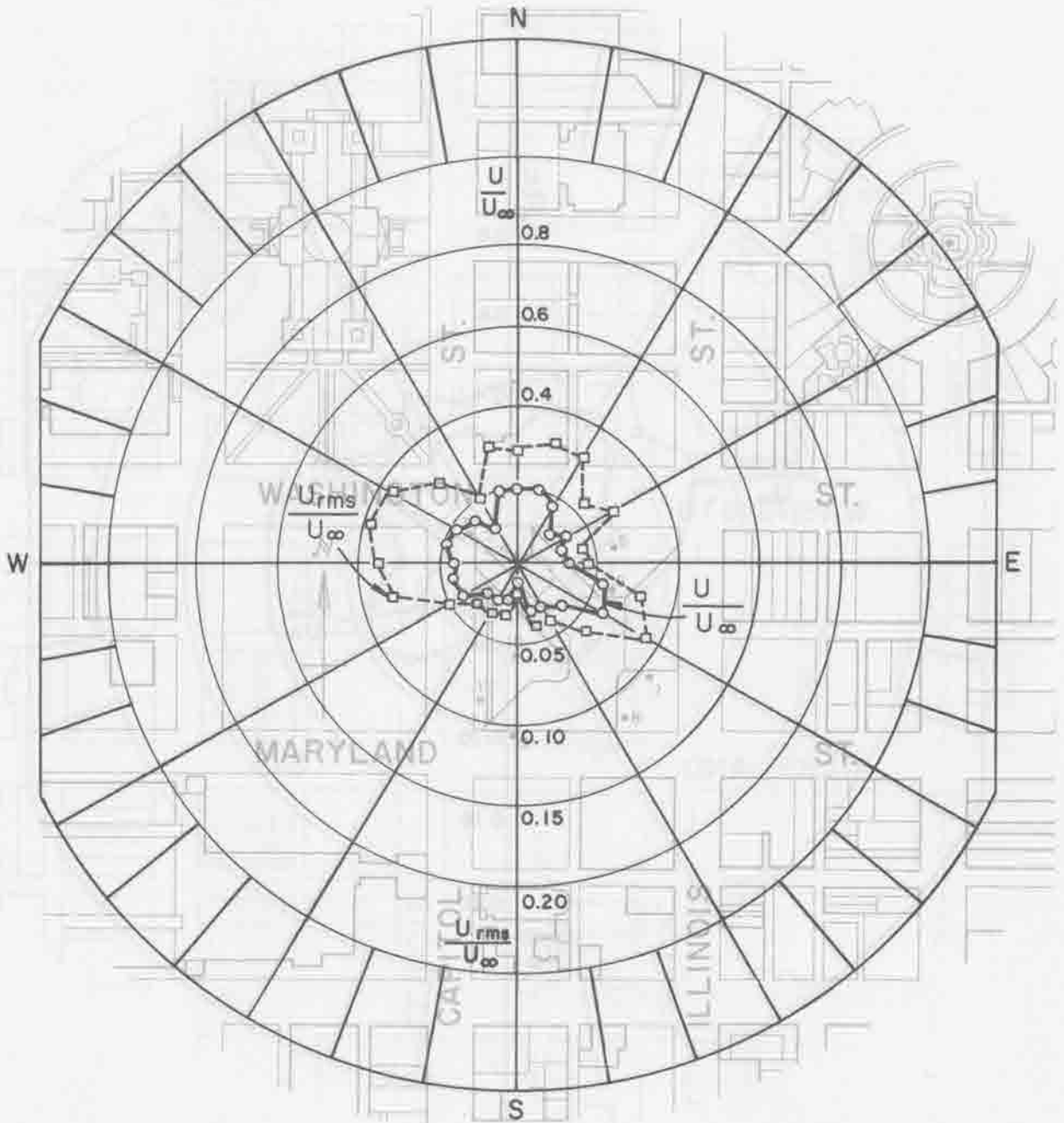


Figure 12. Mean Velocity and Turbulence Intensity at Site 4.

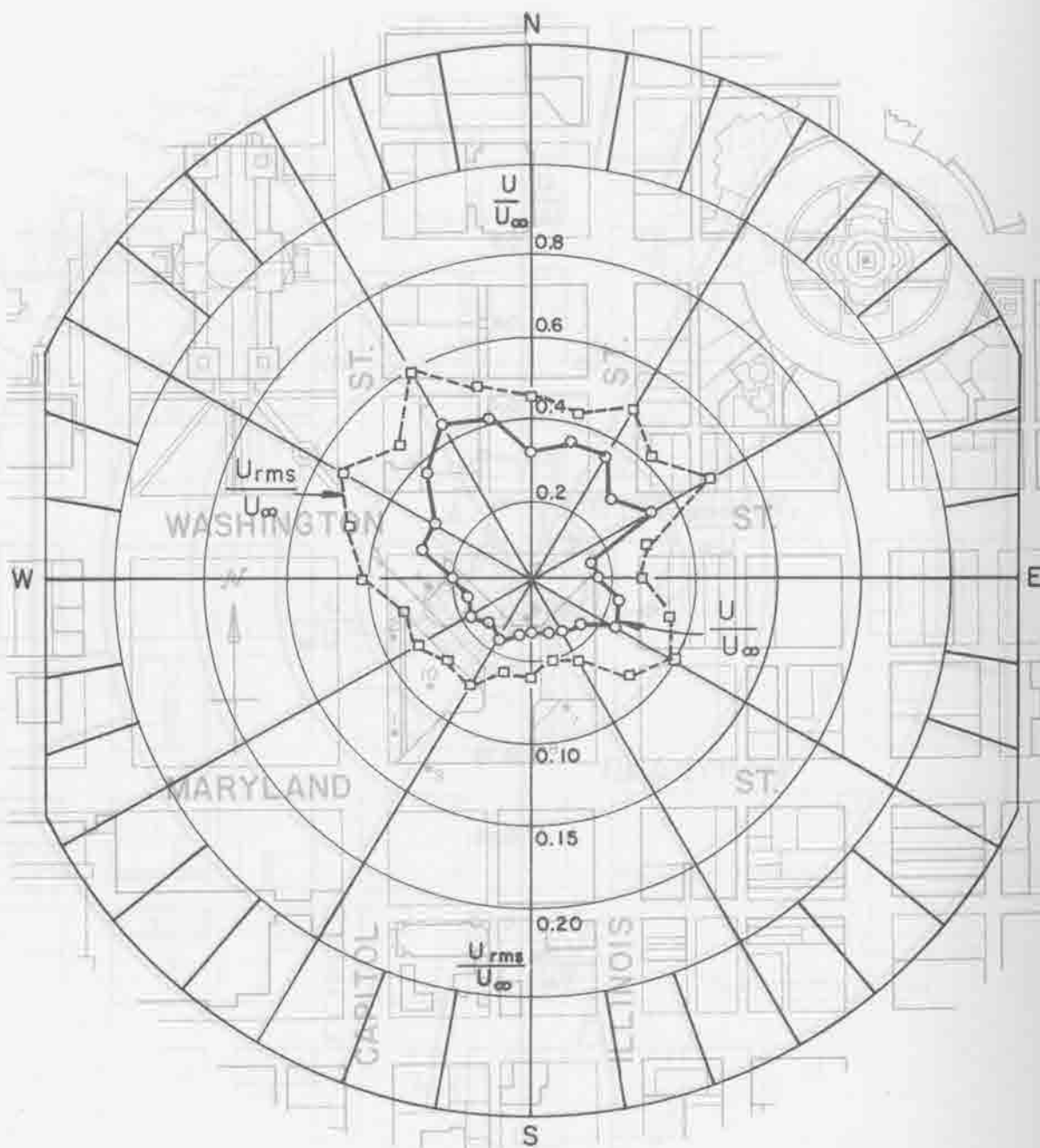


Figure 13. Mean Velocity and Turbulence Intensity at Site 5.

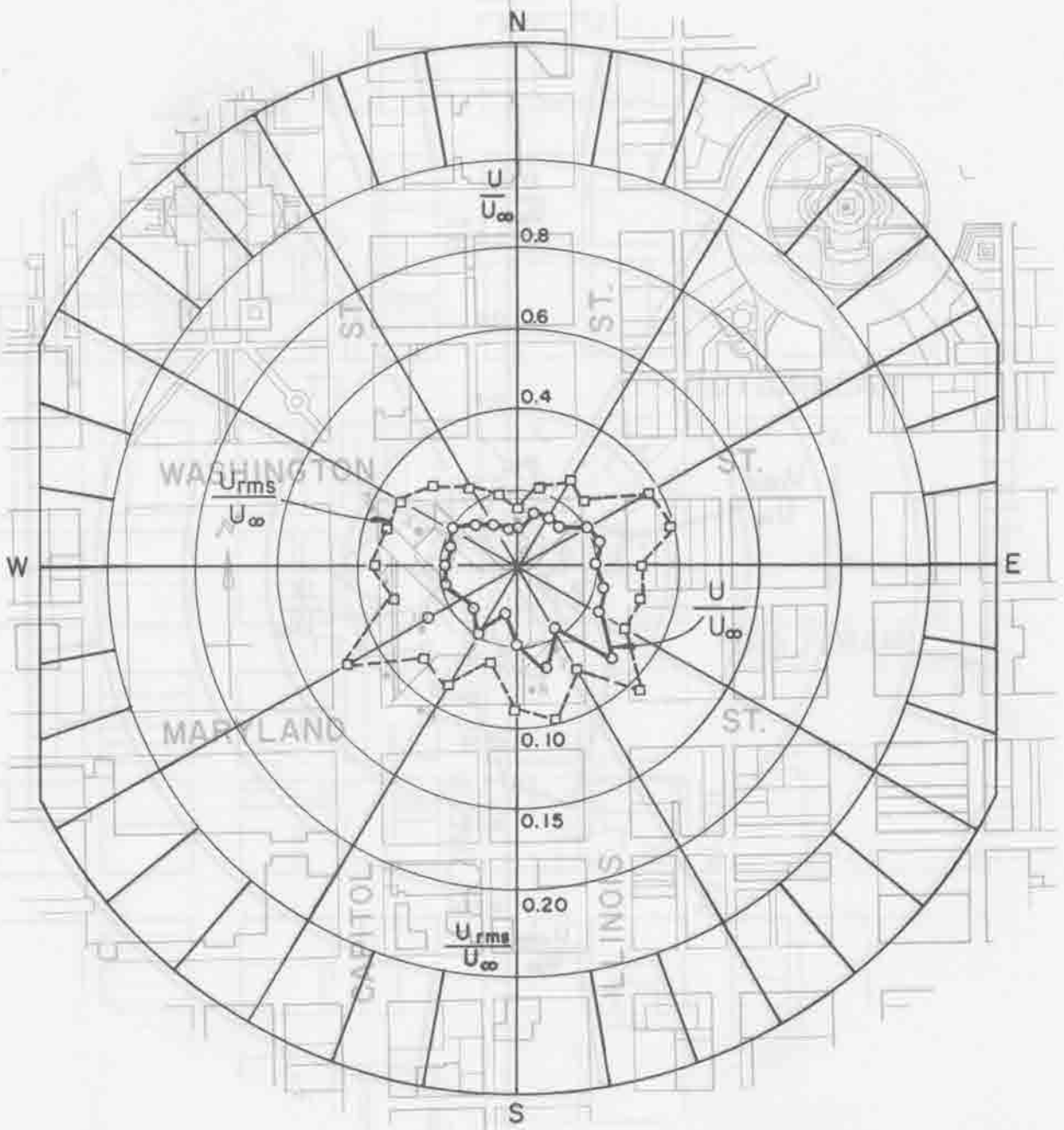


Figure 14. Mean Velocity and Turbulence Intensity at Site 6.

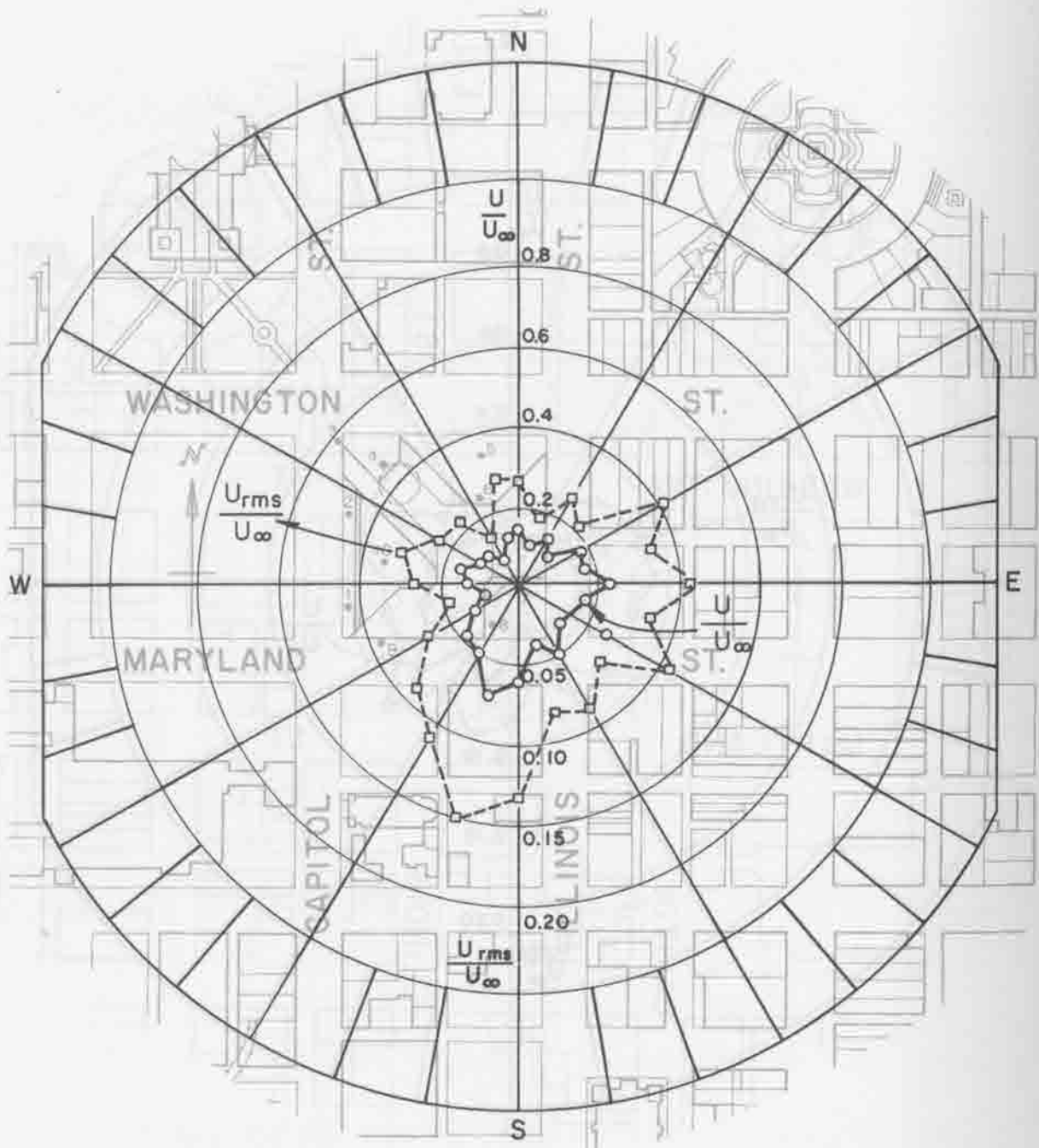


Figure 15. Mean Velocity and Turbulence Intensity at Site 7.

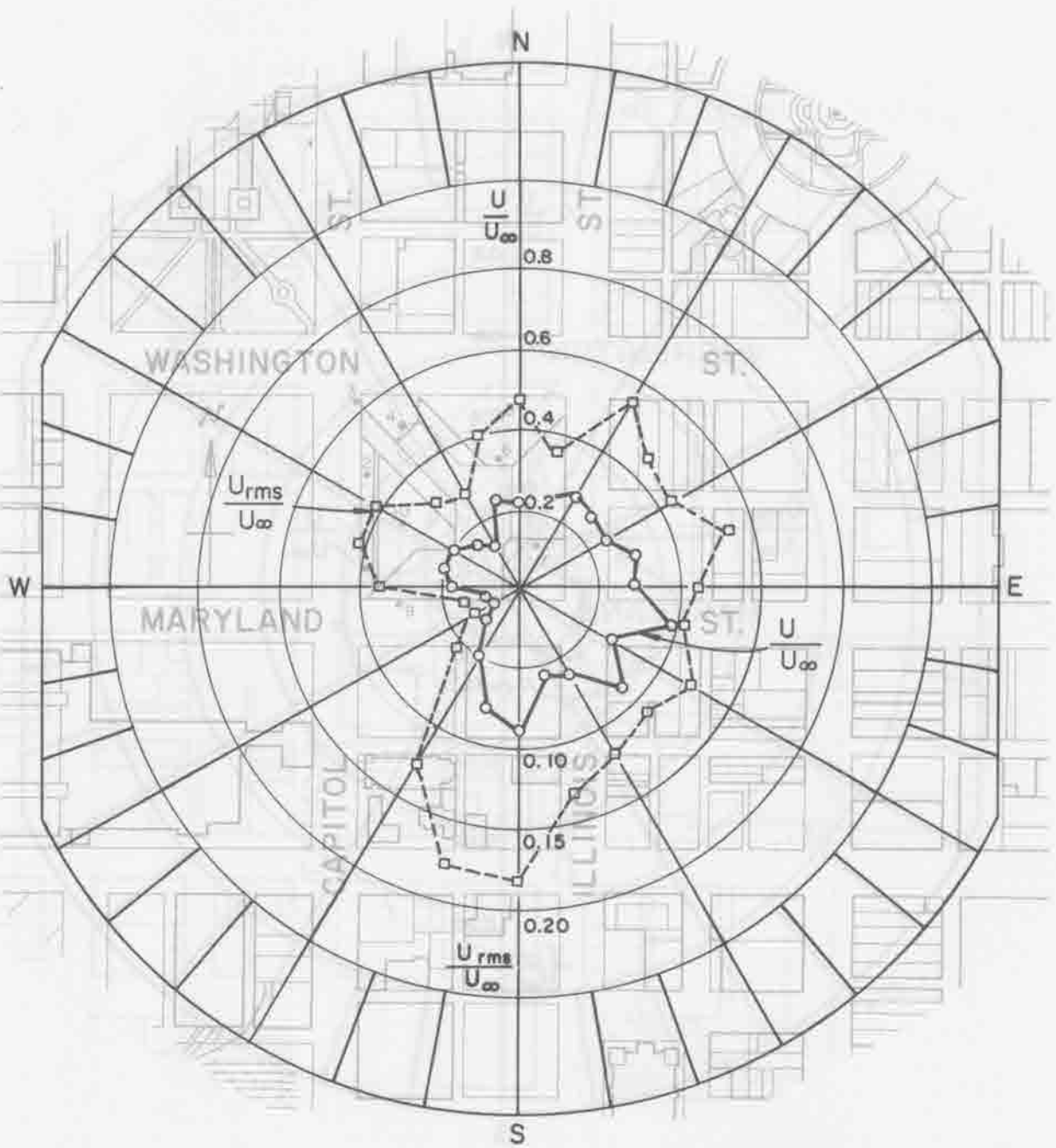


Figure 16. Mean Velocity and Turbulence Intensity at Site 8.

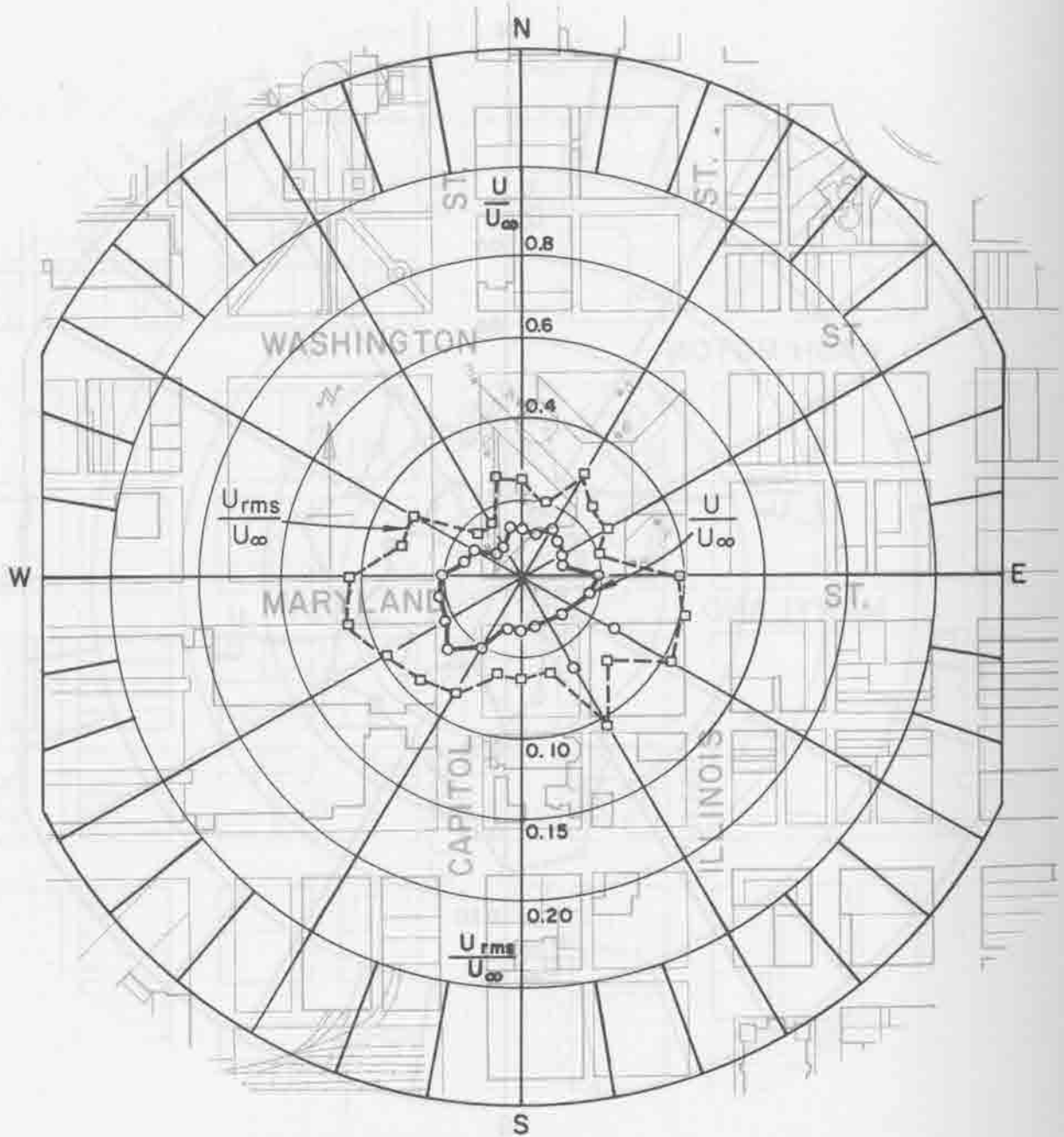


Figure 17. Mean Velocity and Turbulence Intensity at Site 9.

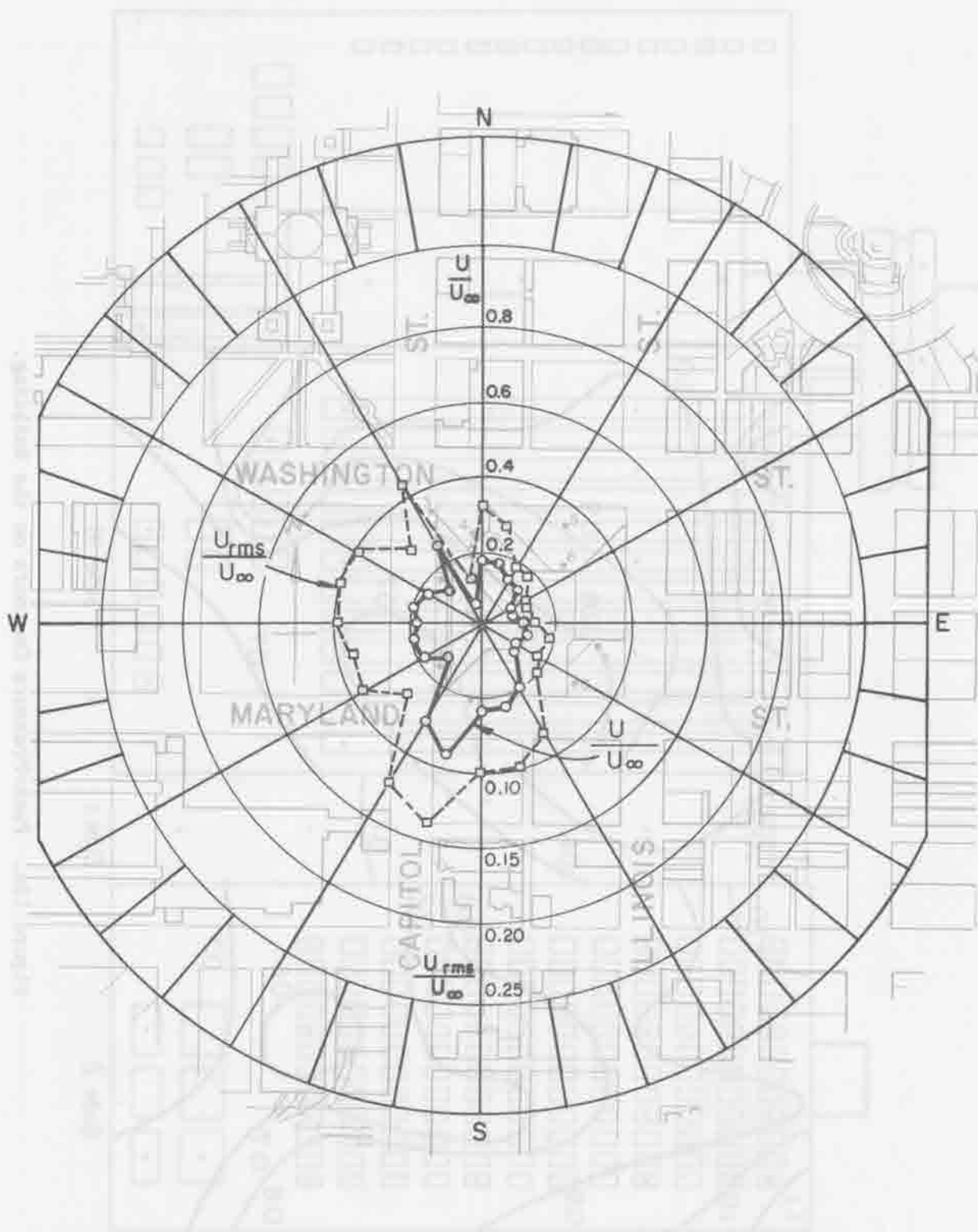


Figure 18. Mean Velocity and Turbulence Intensity at Site 10.



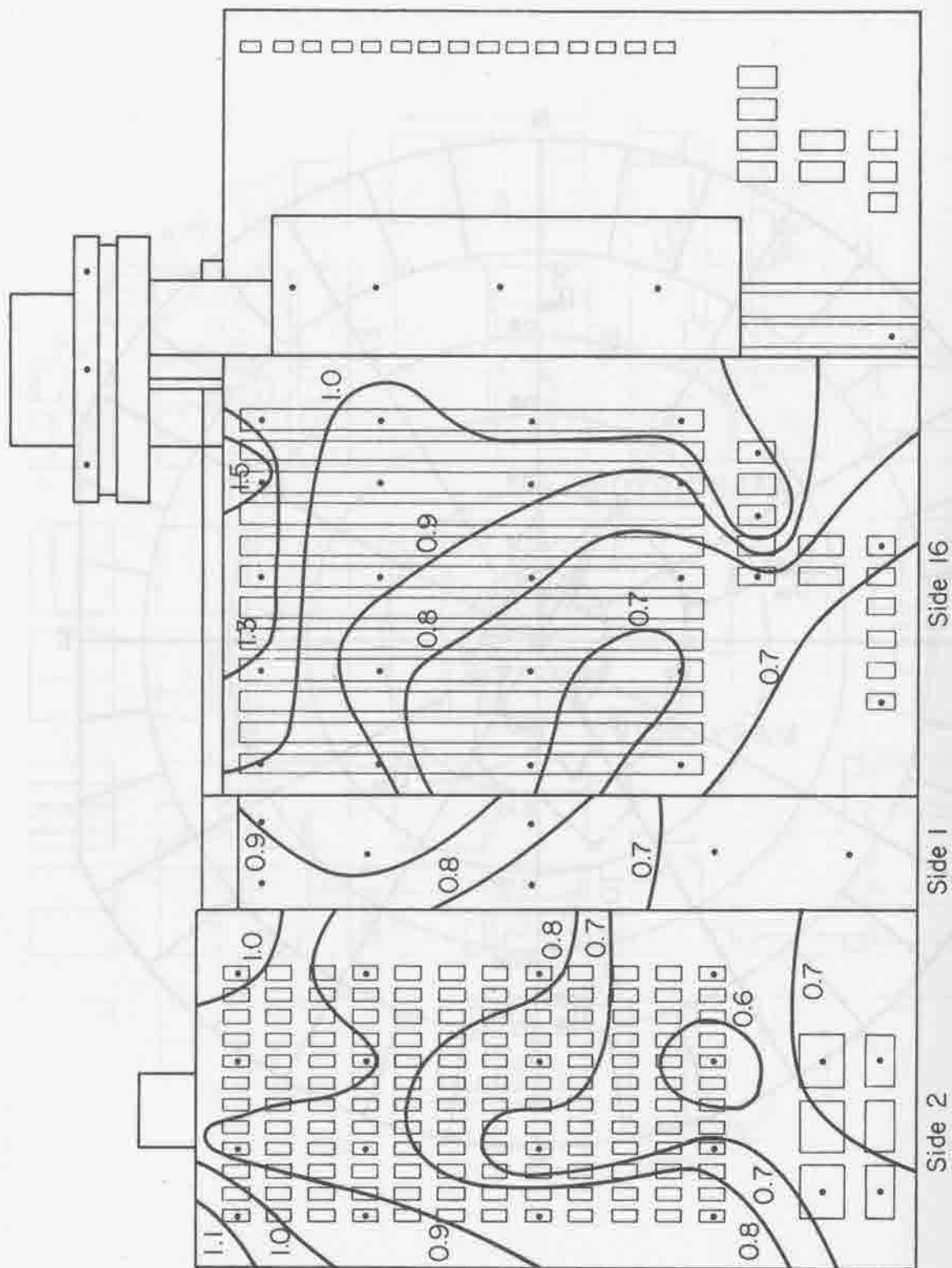


Figure 19a. Peak=Pressure Contours on the Building.

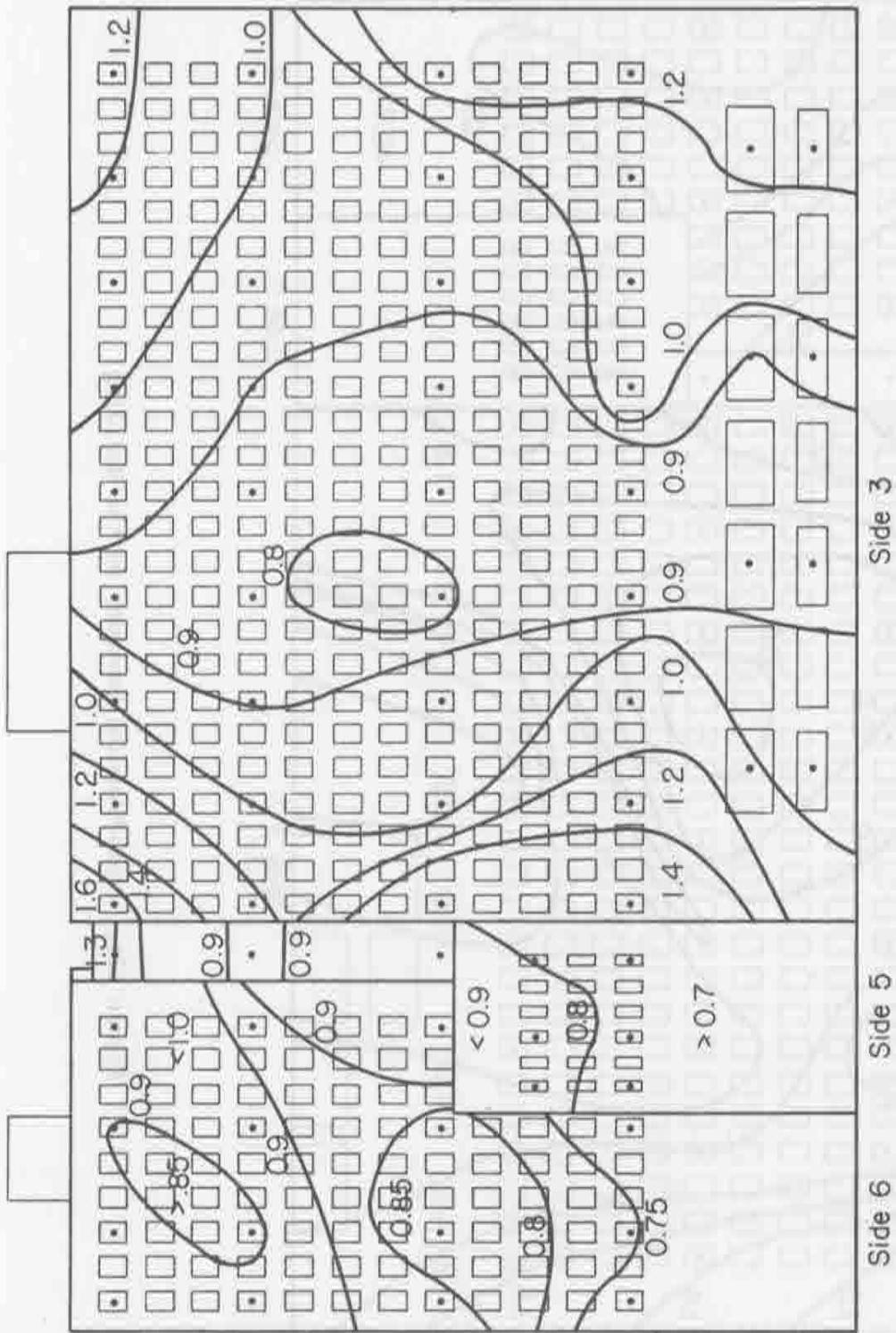


Figure 19b. Peak-Pressure Contours on the Building.

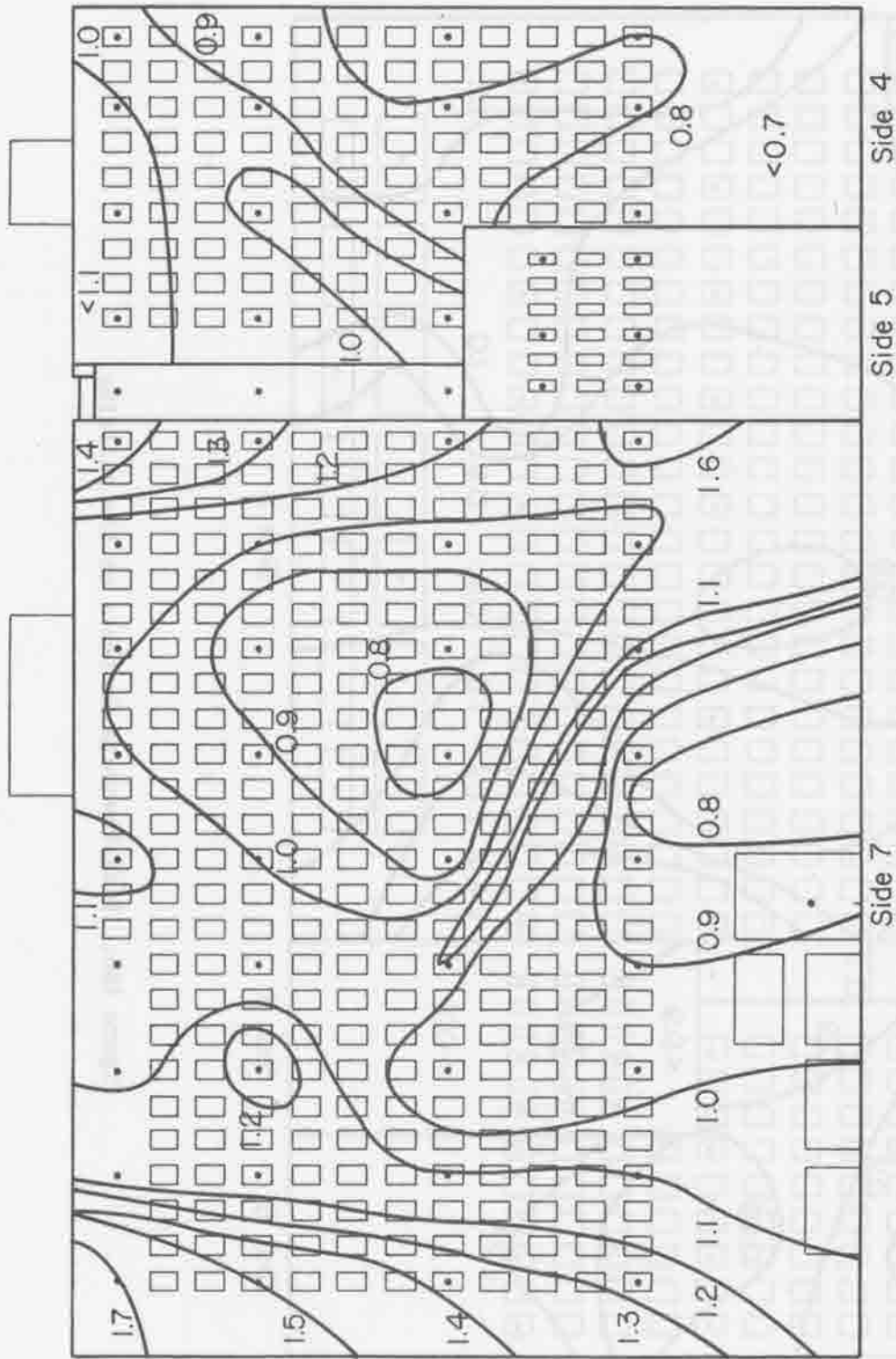


Figure 19c. Peak-Pressure Contours on the Building.

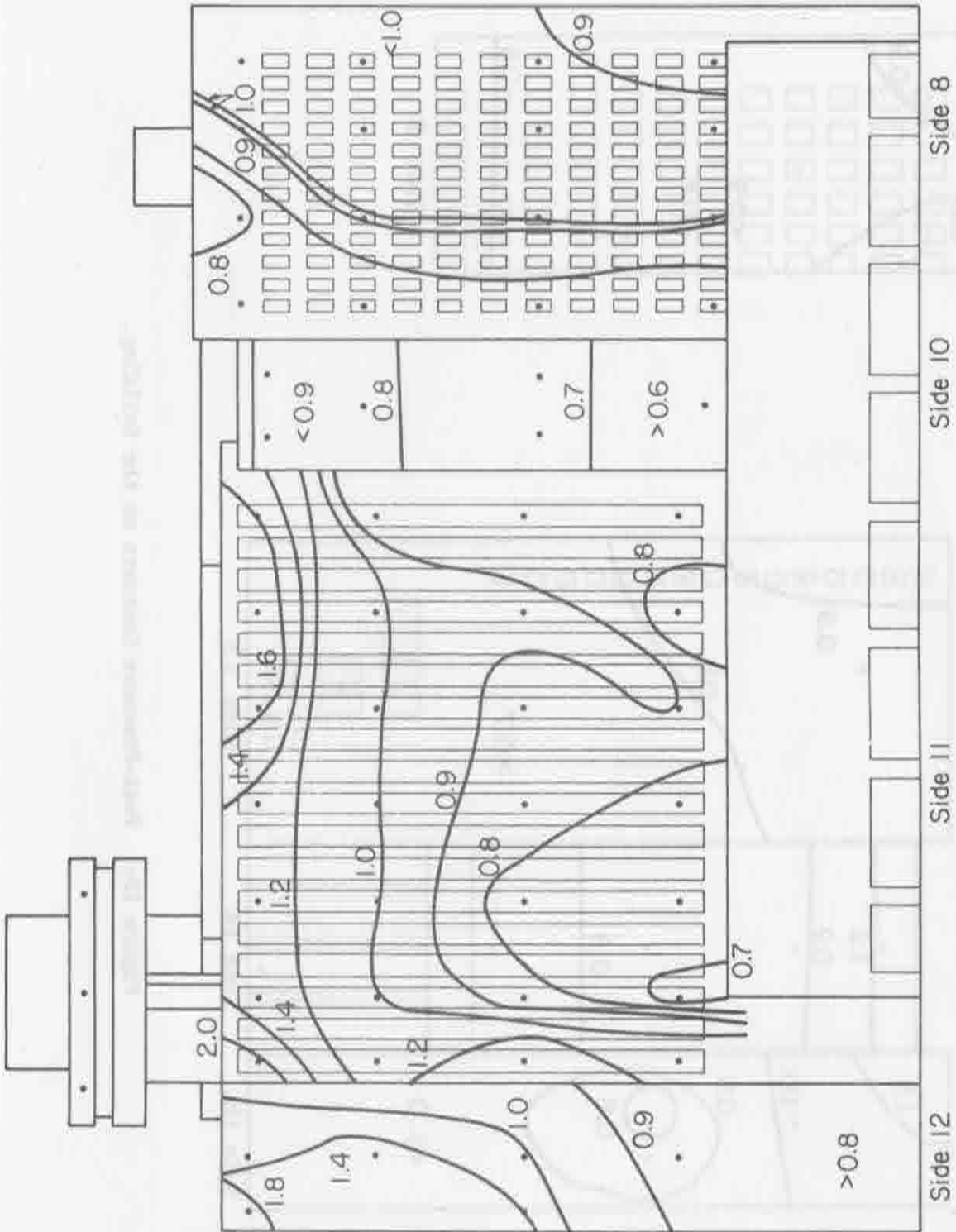


Figure 19d, Peak-Pressure Contours on the Building.

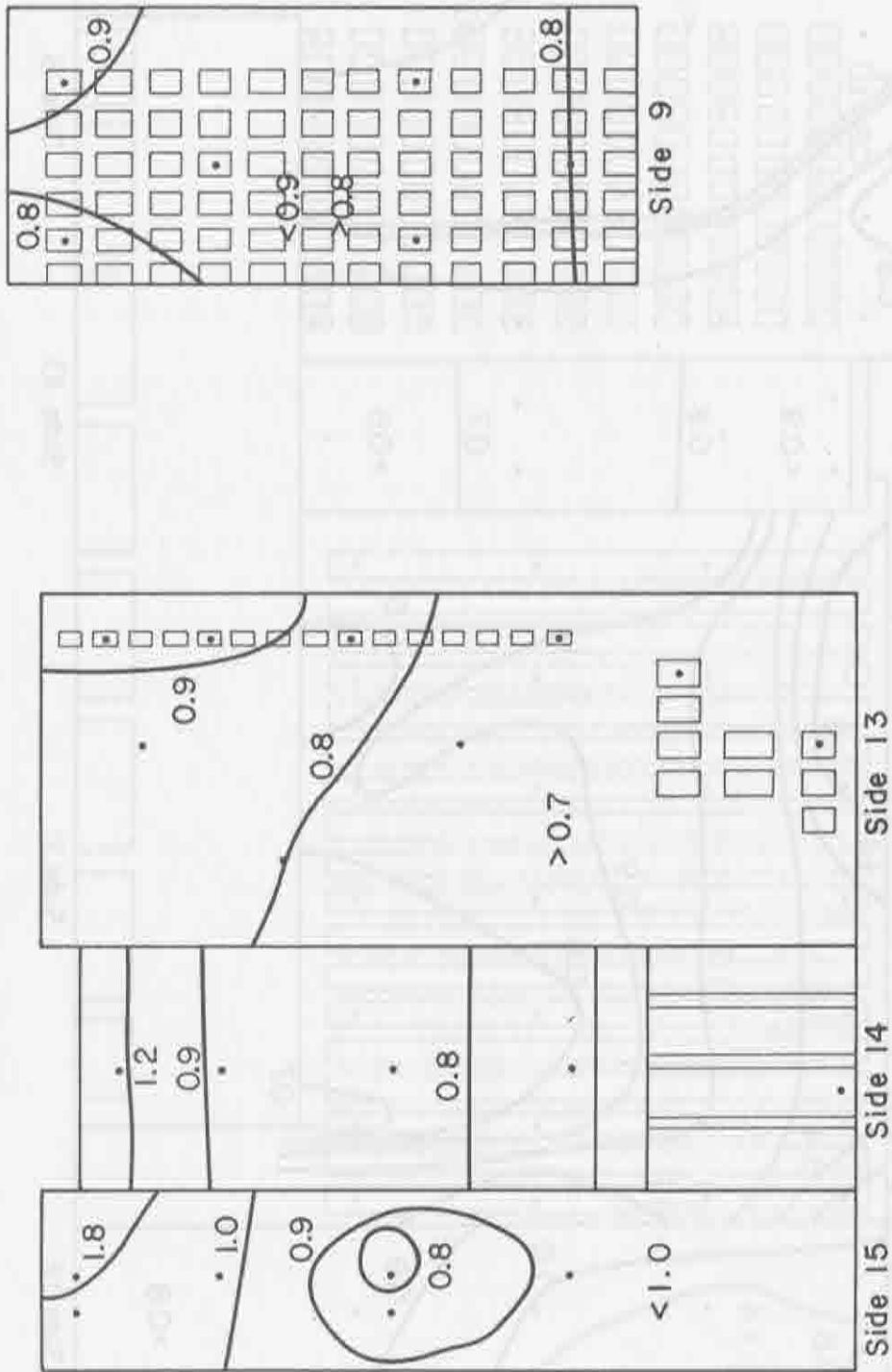
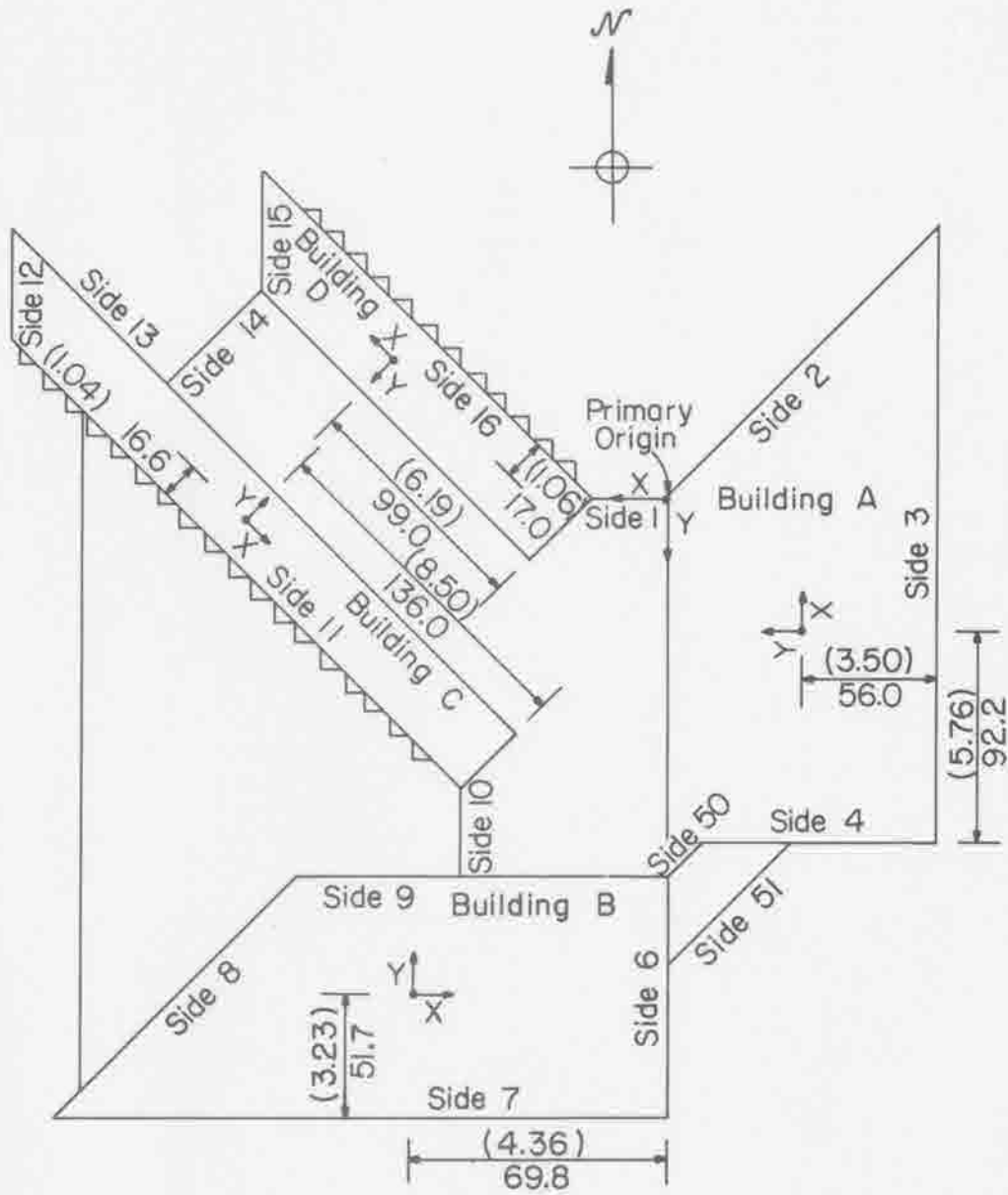


Figure 19e. Peak-Pressure Contours on the Building.



Locations of Buildings and Their Local Coordinate Axes  
 Model Dimensions in Parentheses (inches)  
 Prototype Dimensions in feet  
 Model Scale 1:192

Figure 20. Sub-Structures and Coordinate Systems for Forces and Moments.