

- Gust Effect Factor (Section 26.9)
- Enclosure classification (Section 26.10)
- Internal pressure coefficient ( $GC_{pi}$ ) (Section 26.11).

### 30.2.2 Minimum Design Wind Pressures

The design wind pressure for components and cladding of buildings shall not be less than a net pressure of 16 lb/ft<sup>2</sup> (0.77 kN/m<sup>2</sup>) acting in either direction normal to the surface.

### 30.2.3 Tributary Areas Greater than 700 ft<sup>2</sup> (65 m<sup>2</sup>)

Component and cladding elements with tributary areas greater than 700 ft<sup>2</sup> (65 m<sup>2</sup>) shall be permitted to be designed using the provisions for MWFRS.

### 30.2.4 External Pressure Coefficients

Combined gust effect factor and external pressure coefficients for components and cladding, ( $GC_p$ ), are given in the figures associated with this chapter. The pressure coefficient values and gust effect factor shall not be separated.

## 30.3 VELOCITY PRESSURE

### 30.3.1 Velocity Pressure Exposure Coefficient

Based on the exposure category determined in Section 26.7.3, a velocity pressure exposure coefficient

$K_z$  or  $K_h$ , as applicable, shall be determined from Table 30.3-1. For a site located in a transition zone between exposure categories, that is, near to a change in ground surface roughness, intermediate values of  $K_z$  or  $K_h$ , between those shown in Table 30.3-1, are permitted, provided that they are determined by a rational analysis method defined in the recognized literature.

### 30.3.2 Velocity Pressure

Velocity pressure,  $q_z$ , evaluated at height  $z$  shall be calculated by the following equation:

$$q_z = 0.00256 K_z K_{zt} K_d V^2 \text{ (lb/ft}^2\text{)} \quad (30.3-1)$$

$$[\text{In SI: } q_z = 0.613 K_z K_{zt} K_d V^2 \text{ (N/m}^2\text{); } V \text{ in m/s}]$$

where

$K_d$  = wind directionality factor defined in Section 26.6

$K_z$  = velocity pressure exposure coefficient defined in Section 30.3.1

$K_{zt}$  = topographic factor defined in Section 26.8

$V$  = basic wind speed from Section 26.5

$q_h$  = velocity pressure calculated using Eq. 30.3-1 at height  $h$

The numerical coefficient 0.00256 (0.613 in SI) shall be used except where sufficient climatic data are available to justify the selection of a different value of this factor for a design application.