method. The last requirement in Section 28.6.2 prevents the use of this method for buildings with lateral systems that are sensitive to torsional wind loading.

Note 5 of Fig. 28.4-1 identifies several building types that are known to be insensitive to torsion and may therefore be designed using the provisions of Section 28.6. Additionally, buildings whose lateral resistance in each principal direction is provided by two shear walls, braced frames, or moment frames that are spaced apart a distance not less than 75 percent of the width of the building measured normal to the orthogonal wind direction, and other building types and element arrangements described in Section 27.6.1 or 27.6.2 are also insensitive to torsion. This property could be demonstrated by designing the building using Part 1 of Chapter 28, Fig. 28.4-1, and showing that the torsion load cases defined in Note 5 do not govern the design of any of the lateral resisting elements. Alternatively, it can be demonstrated within the context of Part 2 of Chapter 28 by defining torsion load cases based on the loads in Fig. 28.6-1 and reducing the pressures on one-half of the building by 75 percent, as described in Fig. 28.4-1, Note 5. If none of the lateral elements are governed by these torsion cases, then the building can be designed using Part 2 of Chapter 28; otherwise the building must be designed using Part 1 of Chapter 27 or Part 1 of Chapter 28.

Values are tabulated for Exposure B at h = 30 ft, and K_{zt} = 1.0. Multiplying factors are provided for other exposures and heights. The following values have been used in preparation of the figures:

h = 30 ft Exposure B K_z = 0.70
K_d = 0.85 K_{zt} = 1.0
(GC_{pi}) = ± 0.18 (enclosed building)

Pressure coefficients are from Fig. 28.4-1.

Wall elements resisting two or more simultaneous wind-induced structural actions (e.g., bending, uplift, or shear) should be designed for the interaction of the wind loads as part of the MWFRS. The horizontal loads in Fig. 28.6-1 are the sum of the windward and leeward pressures and are therefore not applicable as individual wall pressures for the interaction load cases. Design wind pressures, p_s for zones A and C, should be multiplied by +0.85 for use on windward walls and by –0.70 for use on leeward walls (the plus sign signifies pressures acting toward the wall surface). For side walls, p_s for zone C multiplied by –0.65 should be used. These wall elements must also be checked for the various separately acting (not simultaneous) component and cladding load cases.

Main wind-force resisting roof members spanning at least from the eave to the ridge or supporting members spanning at least from eave to ridge are not required to be designed for the higher end zone loads. The interior zone loads should be applied. This is due to the enveloped nature of the loads for roof members.

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