

stiffness of diaphragms and the vertical elements of the MWFRS.

Diaphragms constructed of wood panels can be idealized as flexible. Diaphragms constructed of untopped metal decks, concrete filled metal decks, and concrete slabs, each having a span-to-depth ratio of 2 or less, are permitted to be idealized as rigid for consideration of wind loading.

## 27.6 WIND LOADS—MAIN WIND FORCE-RESISTING SYSTEM

### 27.6.1 Wall and Roof Surfaces—Class 1 and 2 Buildings

Net wind pressures for the walls and roof surfaces shall be determined from Tables 27.6-1 and 27.6-2, respectively, for the applicable exposure category as determined by Section 26.7.

For Class 1 building with  $L/B$  values less than 0.5, use wind pressures tabulated for  $L/B = 0.5$ . For Class 1 building with  $L/B$  values greater than 2.0, use wind pressures tabulated for  $L/B = 2.0$ .

Net wall pressures shall be applied to the projected area of the building walls in the direction of the wind, and exterior side wall pressures shall be applied to the projected area of the building walls normal to the direction of the wind acting outward according to Note 3 of Table 27.6-1, simultaneously with the roof pressures from Table 27.6-2 as shown in Fig. 27.6-1.

Where two load cases are shown in the table of roof pressures, the effects of each load case shall be investigated separately. The MWFRS in each direc-

tion shall be designed for the wind load cases as defined in Fig. 27.4-8.

**EXCEPTION:** The torsional load cases in Fig. 27.4-8 (Case 2 and Case 4) need not be considered for buildings which meet the requirements of Appendix D.

### 27.6.2 Parapets

The effect of horizontal wind loads applied to all vertical surfaces of roof parapets for the design of the MWFRS shall be based on the application of an additional net horizontal wind pressure applied to the projected area of the parapet surface equal to 2.25 times the wall pressures tabulated in Table 27.6-1 for  $L/B = 1.0$ . The net pressure specified accounts for both the windward and leeward parapet loading on both the windward and leeward building surface. The parapet pressure shall be applied simultaneously with the specified wall and roof pressures shown in the table as shown in Fig. 27.6-2. The height  $h$  used to enter Table 27.6-1 to determine the parapet pressure shall be the height to the top of the parapet as shown in Fig. 27.6-2 (use  $h = h_p$ ).

### 27.6.3 Roof Overhangs

The effect of vertical wind loads on any roof overhangs shall be based on the application of a positive wind pressure on the underside of the windward overhang equal to 75% of the roof edge pressure from Table 27.6-2 for Zone 1 or Zone 3 as applicable. This pressure shall be applied to the windward roof overhang only and shall be applied simultaneously with other tabulated wall and roof pressures as shown in Fig. 27.6-3.