

3. The combined stiffness of the two most separated lines of the MWFRS in each principal axis direction shall be 100% of the total stiffness in each principal axis direction, and
4. The distance between the two most separated lines of the MWFRS in each principal axis direction shall be at least 45% of the effective building width perpendicular to the axis under consideration.

D1.5.2 Case B – Class 1 and Class 2 Buildings

Square buildings with $L/B = 1.0$, where all the following conditions are satisfied:

1. The combined stiffness of the MWFRS in each principal axis direction shall be equal, and
2. The individual stiffness of the two most separated lines of the MWFRS in each principal axis direction shall be equal with all lines of the MWFRS symmetrically placed about the center of application of the wind load along the principal axis under consideration, and
3. The combined stiffness of the two most separated lines of the MWFRS in each principal axis direction shall be at least 66% of the total stiffness in each principal axis direction, and
4. The distance between the two most separated lines of the MWFRS in each principal axis direction shall be at least 66% of the effective building width perpendicular to the axis under consideration.

D1.5.3 Case C – Class 1 and Class 2 Buildings

Rectangular buildings with L/B equal to 0.5 or 2.0 ($L/B = 0.5$, $L/B = 2.0$), where all the following conditions are satisfied:

1. The combined stiffness of the MWFRS in each principal axis direction shall be proportional to the width of the sides perpendicular to the axis under consideration, and
2. The individual stiffness of each of the MWFRS in each principal axis direction shall be equal and symmetrically placed about the center of application of the wind load along the principal axis under consideration, and
3. The combined stiffness of the two most separated lines of the MWFRS in each principal axis direction shall be 100% of the total stiffness in each principal axis direction, and
4. The distance between the two most separated lines of the MWFRS in each principal axis direction shall be at least 80% of the effective building width perpendicular to the axis under consideration.

D1.5.4 Case D – Class 1 and Class 2 Buildings

Rectangular buildings with L/B equal to 0.5 or 2.0 ($L/B = 0.5$, $L/B = 2.0$), where all the following conditions are satisfied:

1. The combined stiffness of the MWFRS in each principal axis direction shall be proportional to the width of the sides perpendicular to the axis under consideration, and
2. The individual stiffness of the most separated lines of the MWFRS in each principal axis direction shall be equal with all lines of the MWFRS symmetrically placed about the center of application of the wind load along the principal axis under consideration, and
3. The combined stiffness of the two most separated lines of the MWFRS in each principal axis direction shall be at least 80% of the total stiffness in each principal axis direction, and
4. The distance between the two most separated lines of the MWFRS in each principal axis direction shall be 100% of the effective building width perpendicular to the axis under consideration.

D1.5.5 Case E – Class 1 and Class 2 Buildings

Rectangular buildings having L/B between 0.5 and 1.0 ($0.5 < L/B < 1.0$) or between 1.0 and 2.0 ($1.0 < L/B < 2.0$), the stiffness requirements and the separation distances between the two most separated lines of the MWFRS in each direction shall be interpolated between Case A and Case C and between Case B and Case D, respectively (see Fig. D1.5-1).

D1.5.6 Case F – Class 1 Buildings

Rectangular buildings having L/B between 0.2 and 0.5 ($0.2 \leq L/B < 0.5$) or between 2.0 and 5.0 ($2.0 < L/B \leq 5.0$), see Fig. D1.5-2, where all of the following conditions are satisfied:

1. There shall be at least two lines of resistance in each principal axis direction, and
2. All lines of the MWFRS shall be symmetrically placed about the center of application of the wind load along the principal axis under consideration, and
3. The distance between each line of resistance of the MWFRS in the principal axis direction shall not exceed 2 times the least effective building width in a principal axis direction, and
4. The individual stiffness of the most separated lines of the MWFRS in each principal axis direction shall be equal and not less than $(25 + 50/n)$ percent of the total stiffness where n is the required number of lines of resistance in the principal axis direction as required by conditions 1 and 3 of this section. The value of n shall be 2, 3, or 4.