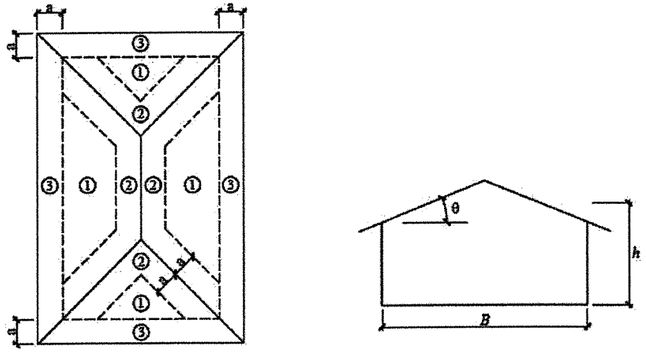
Diagrams

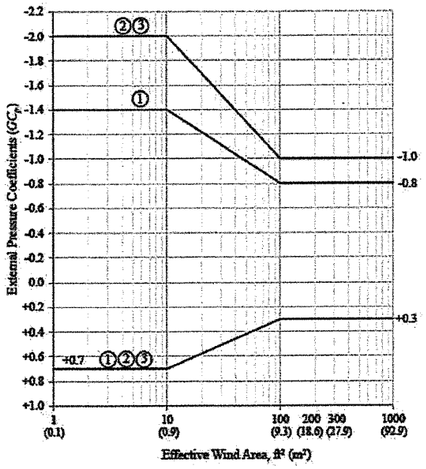


PLAN VIEW ELEVATION VIEW

Notation

a = 10% of least horizontal dimension or $0.4h$, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang dimensions.
B = Horizontal dimension of building measured normal to wind direction, ft (m).
h = Mean roof height, in ft (m), except that eave height shall be used for $\theta \le 10°$.
θ = Angle of plane of roof from horizontal, degrees.

External Pressure Coefficients (GC_p)

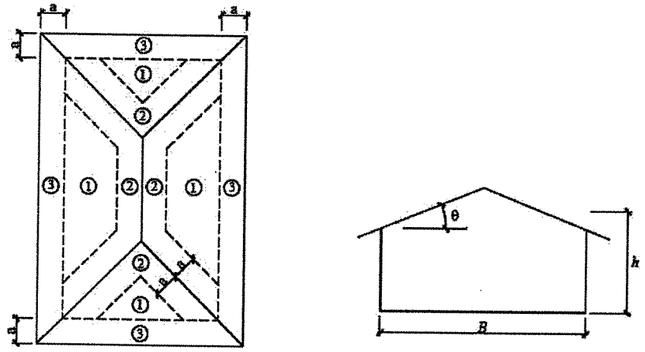


Notes

1. Vertical scale denotes (GCp) to be used with q_h.
2. Horizontal scale denotes effective wind area A, ft^2 (m^2).
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of (GCp) for roof overhangs to be determined in accordance with Section 30.7 Roof Overhangs.

Figure 30.3-2F. Components and cladding [$h \le 60$ ft ($h \le 18.3$ m)]: external pressure coefficients, (GC_p), for enclosed, partially enclosed, and partially open buildings—hip roofs, $20° < \theta \le 27°$.

Diagrams

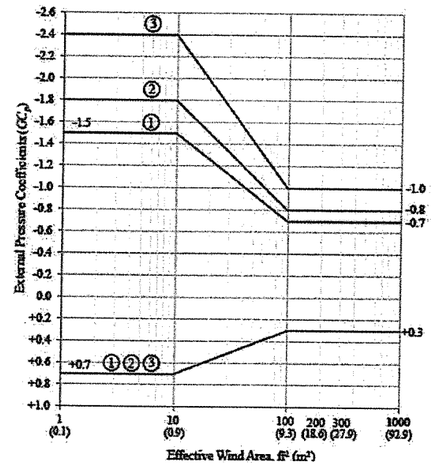


PLAN VIEW ELEVATION VIEW

Notation

a = 10% of least horizontal dimension or $0.4h$, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang dimensions.
B = Horizontal dimension of building measured normal to wind direction, ft (m).
h = Mean roof height, in ft (m), except that eave height shall be used for $\theta \le 10°$.
θ = Angle of plane of roof from horizontal, degrees.

External Pressure Coefficients (GC_p)



Notes

1. Vertical scale denotes (GCp) to be used with q_h.
2. Horizontal scale denotes effective wind area A, ft^2 (m^2).
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of (GCp) for roof overhangs to be determined in accordance with Section 30.7 Roof Overhangs.
6. For roof slopes $27° < \theta_1 < 45°$, interpolate the (GCp) coefficients from Figures 30.3-2F and 30.3-2G, for each zone of interest. Use the following interpolation formula: $\dfrac{[GCp(2G) - GCp(2F)]*(\theta_1 - 27°)}{(45°-27°)} + GCp(2F)$

Figure 30.3-2G. Components and cladding [$h \le 60$ ft ($h \le 18.3$ m)] external pressure coefficients, (GC_p), for enclosed, partially enclosed, and partially open buildings—hip roofs, $\theta = 45°$.