



Department of Planning

TECHNICAL BULLETIN

TB 0005 - May 2020

DESIGN PRESSURE REQUIREMENTS FOR WINDOWS (DP)

(1&2 FAMILY ONLY)

Previous Version: 26 September 2018

Purpose

The Department of Planning in an initiative to improve customer service has developed this Technical Bulletin to clarify a code related issue. This Resolution supersedes all older versions.

Considerations

Cayman Islands Residential Code (CIRC) Section R301.2. and Standard for Residential Construction in High-Wind Regions - 2008 (ICC -600) Section 602.2

602.2 Design Pressure Requirements.

602.2.1 Design Pressures. Design pressure requirements for windows, unit skylights, sliding glass doors, glass patio doors and entry doors installed in buildings with a mean roof height of 30 feet (9 m) located in Exposure B are listed in Table 602(1). For mean roof heights other than 30 feet or other Exposure multiply the table values by the height adjustment factor of Table 602(2). Pressures shall be applied in accordance with Figure 602.

602.2.2 Garage Door. Design pressure requirements for garage doors installed in buildings with a mean roof height of 30 Feet (9 m) are listed in Table 602(3).

The following items must be considered when calculating the "design pressure rating" (DP) of a window, unit skylights, sliding glass doors, glass patio doors, entry doors and garage doors in an enclosed building.

- Location of opening on an exterior wall
- Max wall height above grade
- Wind speed (150 mph) and exposure (C)

All (DP) are based on components and cladding Effective Wind Area of 10 sq. ft.

Resolution:

The Design Professional is required to provide a floor plan of each level labeling each window with its DP rating **or** provide the information shown below on the drawings.

All windows, doors, and skylight opening (inclusive of garage doors) are required to bear the label to indicate the pressure rating. *Such a label must be affixed to windows at the time of inspection and shall not be removed until approval is given.*

Design Pressure is required to be as follows or greater.

All windows and doors where the mean roof height up to 15ft height or 1st story

- Zone 4 DP = +49 psf / -53 psf
- Zone 5 DP = +49 psf / -66 psf (4' of the corner)

All windows and doors where the mean roof height up to 15ft height or 2nd story

- Zone 4 DP = +52 psf / -57 psf
- Zone 5 DP = +52 psf / -70 psf (4' of the corner)

All windows and doors above the 2nd story must be minimum +52 psf / -70 psf or greater

Garage doors are per Table 602(3) ICC-600. *Negative pressure assume door has 2ft of wall from end zone}*

- 9ft (w) X 7ft (h) DP = +38 psf / -43 psf
- 16ft (w) X 7ft (h) DP = +37 psf / -41 psf

For additional information, please email the Department of Planning at info@planning.gov.ky or call (345) 244-6501 or visit our website at www.planning.ky.