



Building and Plumbing Newsflash 610

Requirements for the construction and installation of garage doors

Purpose

The purpose of this newsflash is to clarify the requirements of the National Construction Code (NCC) in relation to determining the structural requirements for the construction and installation of garage doors in class 1 or 10 buildings or structures.

Background

The NCC contains the technical design and construction requirements for residential and non-habitable buildings and structures, including garage doors.

The NCC requires buildings and structures to withstand a combination of loads and other actions to which they may be reasonable subjected. These provisions safeguard people from injury caused by structural failure.

Australian Standard (AS)/ New Zealand Standard (NZS) 4505 – *Garage doors and other large access doors* was revised and adopted after the devastation caused by cyclones Larry and Yasi. In Cyclone Yasi, for example, the James Cook University's Cyclone Testing Station found that almost one third of garage doors in contemporary housing failed. Fifty per cent of the failed garage doors had detached and became wind-borne.

The wind loading on garage doors has been a common point of failure of buildings in severe wind events. When a garage door fails, this can damage not just the walls, ceilings, and roof claddings around the door, but also the building contents. In many cases, the cost of this damage is more than the value of the door itself. Wind-borne debris can be just as damaging, posing a serious risk to other buildings and the life and safety of people sheltering in these buildings.

Clarification

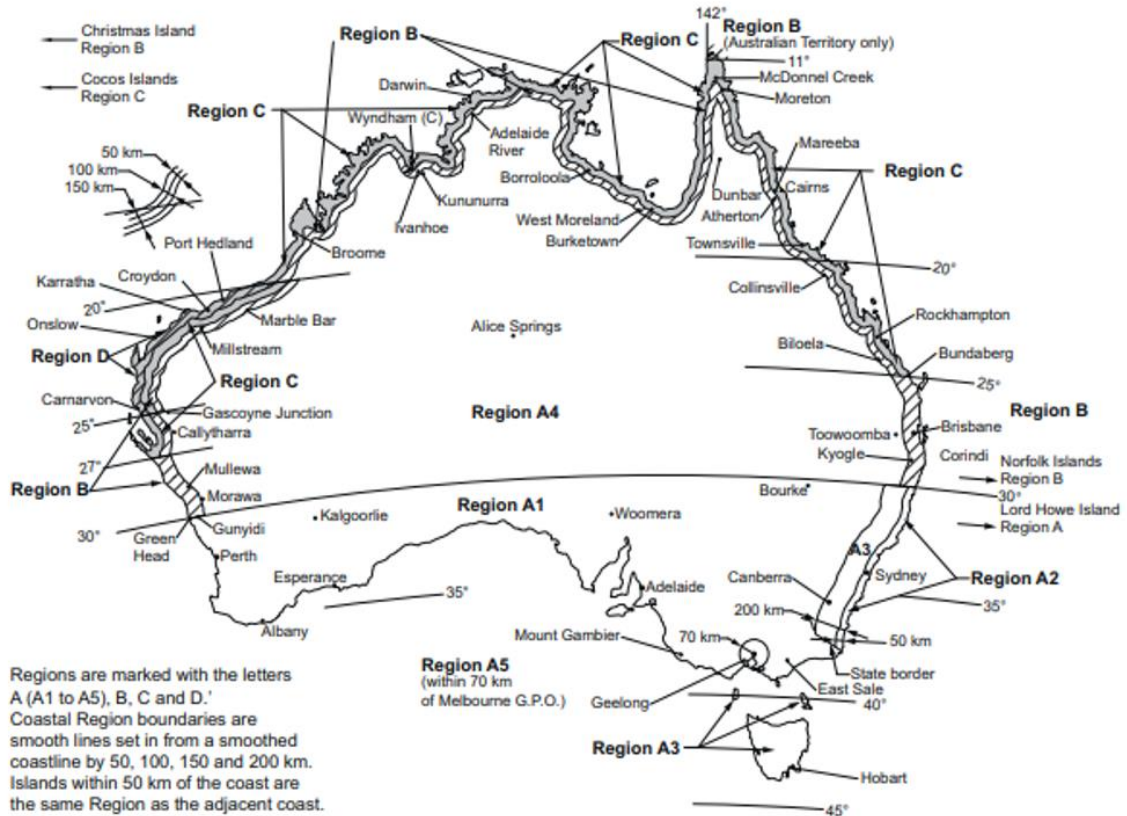
For all buildings and structures, including garage doors, NCC Volume 2, Part 3.0.3 provides that the magnitude of wind action must be determined in accordance with either AS/NZS 1170.2 – *Wind actions* or AS 4055– *Wind loads for housing*.

For cyclonic regions (wind regions C and D), NCC Volume 2, Part 3.0.4 provides that the determination of structural resistance of materials and forms of construction for garage doors and other large access doors in openings not more than 3m in height in external walls must be made under AS/NZS 4505. Newsflash 520 provides further details on these provisions.

The wind regions are shown in the figure below.

Note: From 1 May 2023, most NCC 2022 provisions will come into effect and the relevant requirements will be in the NCC 2022 Housing Provision Standards.





More information

For more information please visit the National Construction Code [website](#).

Contact us

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