ABCB

National Construction Code

Governing Requirements and Common Schedules

2019
Amendment 1

Public Comment Draft

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Part A2 Compliance with the NCC

A2.2 Performance Solution

(1) A *Performance Solution* is achieved by demonstrating—

(a) compliance with all relevant *Performance Requirements*; or

(b) the solution is at least *equivalent* to the *Deemed-to-Satisfy Provisions*.

(2) A *Performance Solution* must be shown to comply with the relevant *Performance Requirements* through one or a combination of the following *Assessment Methods*:

(a) Evidence of suitability in accordance with Part A5 that shows the use of a material, product, *plumbing* and *drainage product*, form of construction or design meets the relevant *Performance Requirements*.

(b) A *Verification Method* including the following:

(i) The *Verification Methods* provided in the NCC.

(ii) Other *Verification Methods*, accepted by the *appropriate authority* that show compliance with the relevant *Performance Requirements*.

(c) *Expert Judgement*.

(d) Comparison with the *Deemed-to-Satisfy Provisions*.

(3) Where a *Performance Requirement* is satisfied entirely by a *Performance Solution*, in order to comply with (1) the following method must be used to determine the *Performance Requirement* or *Performance Requirements* relevant to the *Performance Solution*:

(a) Identify the relevant *Performance Requirements* from the Section or Part to which the *Performance Solution* applies.

(b) Identify *Performance Requirements* from other Sections or Parts that are relevant to any aspects of the *Performance Solution* proposed or that are affected by the application of the *Performance Solution*.

(4) Where a *Performance Requirement* is proposed to be satisfied by a *Performance Solution* the following steps must be undertaken:

(a) Prepare a PBDB in consultation with relevant stakeholders.

(b) Carry out analysis, including modelling and/or testing, as proposed by the PBDB.

(c) Collate and evaluate results from (b) against the acceptance criteria in the PBDB.

(d) Prepare a final report that includes—

(i) all *Performance Requirements* and/or *Deemed-to-Satisfy Provisions* identified through A2.2(3) or A2.4(3) as applicable; and

(ii) identification of all *Assessment Methods* used; and

(iii) details of steps (a) to (c); and

(iv) confirmation that the *Performance Requirement* has been met.

Part A5 Documentation of design and construction

A5.7 Labelling of Aluminium Composite Panels

An Aluminium Composite Panel (ACP) must be labelled in accordance with SA TS 5344.

Schedule 3 Definitions

Definitions

Building complexity means those geometric, technical or scale parameters that increase the risk of oversight or error, in a situation where the consequences of oversight or error would be significant. Table 2 defines the *building complexity* levels from level 0 to level 4.

Table 2 Building complexity levels

Complexity level	Building types
0	Non-*complicated building* designed to accommodate a low number of occupants (100 or less)
1	Non-*complicated building* designed to accommodate a large number of occupants (more than 100)
1	Non-*complicated building* designed to accommodate *vulnerable occupants* (more than 10)
1	*Complicated building* designed to accommodate a low number of occupants (100 or less)
2	Non-*complicated building* designed to accommodate a large number of *vulnerable occupants* (more than 100).
2	*Complicated building* designed to accommodate *vulnerable occupants* (more than 10)
2	*Complicated building* designed to accommodate a large number of occupants (more than 100)
3	*Complicated building* designed to accommodate a large number of *vulnerable occupants* (more than 100)
4	Building essential to post-disaster recovery or associated with hazardous facilities whose failure poses a catastrophic risk to a very large number of people (more than 1000)

Explanatory information:

The key components that determine the level of safety and health risk in buildings are:

- Potential consequences in terms of the number of occupants exposed (N).
- The vulnerability of those occupants (V).

The key component that determines the risk of error in design or construction is the complication of the building design, construction and material used (C).

The above components are not equal. The number of occupants exposed has the greatest contribution to life risk, followed by the vulnerability of the occupants. The complication of the building multiplies the potential effect of both number and vulnerability.

Levels of *building complexity* are:

- Level 0: No elevated components present in the building.
- Level 1: One elevated component present in the building.
- Level 2: Two elevated components present in the building.
- Level 3: Three elevated components present in the building.
- Level 4: Post-disaster recovery buildings or hazardous facilities.

Figure 2 illustrates the decision process to determine the *building complexity* of the subject building.

Figure 2 Building complexity decision process

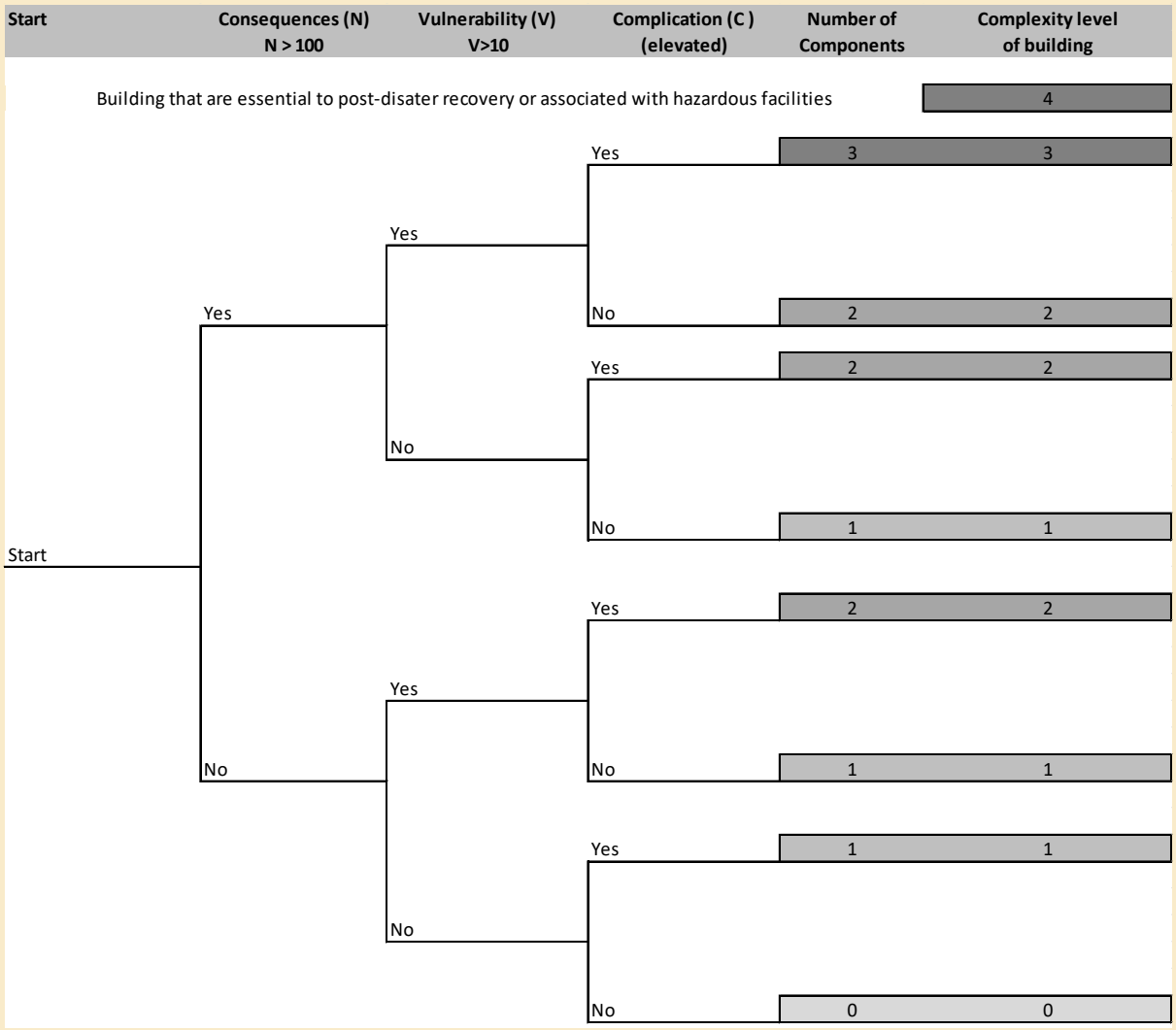

Table 3 Typical examples

Complexity level	Typical building examples
0	Class 1a single dwelling
1	Conventional 4 *storey* concrete frame Class 5 office building
1	Small hospice
1	Data centre
1	Class 1b dwelling
1	Low-rise Class 2 residential building
2	Conventional high-rise Class 2 residential apartment building
2	High-rise building containing an e*arly childhood centre* located above ground floor
2	Shopping centre
2	Concert hall
3	Hospital without 24 hour accident and emergency facilities
4	Fire/Police station
4	Hospital with 24 hour accident and emergency facilities
4	Chemical process plant

Figure ~~2~~3 Climate zones for thermal control

Table ~~2~~4 Climate zones for thermal design—Various locations

Table ~~3~~5 Wind classes

Complicated building means a building having one or more of the following attributes:

(a) For Volumes One and Two, constructed using innovative materials or systems, or materials not complying with the BCA *Deemed-to-Satisfy Provisions*.

(b) Structurally complex or outside of established and codified design principles.

(c) Large in size (height and/or area).

(d) Located in an area of high natural hazard risk or high environmental risk.

Explanatory information:

The following are examples of *complicated building* attributes:

- Structurally complex – primary structural elements having a high consequence of failure such as a cantilevered grandstand roof.
- Large size – an *effective height* greater than 25 m, or a building footprint of 10 000m^2 or more.
- Located in an area of high natural hazard risk or environmental risk – high landslip risk area or a high bushfire prone area.

Figure ~~3~~4 Identification of defined flood level, flood hazard level and freeboard

Farm building means a Class 7 or 8 building located on land primarily used for *farming*—

(a) that is—

(i) used in connection with *farming*; or

(ii) used primarily to store one or more *farm vehicles*; or

(iii) a combination of (i) and (ii); and

~~(A) in which the total number of persons accommodated at any time does not exceed one person per 200 m² of *floor area* or part thereof, up to a maximum of 8 persons; and~~

~~(B) with a total *floor area* of not more than 3500 m².~~

(b) in which the total number of persons accommodated at any time does not exceed one person per 200 m² of *floor area* or part thereof, up to a maximum of 8 persons; and

(c) with a total *floor area* of not more than 3500 m².

Farm shed means a single *storey* Class 7 or 8 building located on land primarily used for *farming*—

(a) that is—

(i) used in connection with *farming*; or

(ii) used primarily to store one or more *farm vehicles*; or

(iii) a combination of (i) and (ii); and

~~(A) occupied neither frequently nor for extended periods by people; and~~

~~(B) in which the total number of persons accommodated at any time does not exceed 2; and~~

~~(C) with a total *floor area* of more than 500 m² but not more than 2000 m².~~

(b) occupied neither frequently nor for extended periods by people; and

(c) in which the total number of persons accommodated at any time does not exceed 2; and

(d) with a total *floor area* of more than 500 m² but not more than 2000 m².

Figure ~~4~~5 Identification of stair flights—Plan view

Figure ~~5~~6 Identification of floor area of a room

Figure ~~6~~7 Identification of foundation

Performance-based design brief (PBDB)~~, for the purposes of Schedule 7,~~ means the process and the associated report that defines the scope of work for the performance-based ~~*fire safety engineering*~~ analysis, ~~and~~ the technical basis for analysis, and the criteria for acceptance of any relevant

Performance Solution as agreed by stakeholders.

Figure ~~7~~8 Identification of a sanitary compartment

Figure ~~8~~9 Separating wall

Vulnerable occupants means occupants who require assistance to evacuate the building during an emergency including the following:

(a) Children in an *early childhood centre*.

(b) Residents of an *aged care building* or *residential aged care building*.

(c) People with a disability in a *residential care building*.

(d) Patients in a *health-care building*.

Schedule 4 Referenced documents

Schedule of referenced documents

The Standards and other documents listed in Schedule 4 are referred to in the NCC.

Table 1 Schedule of referenced documents

No.	Date	Title	Volume One	Volume Two	Volume Three
SA TS 5344	2019	Permanent marking for Aluminium Composite Panel (ACP) products	A5.7	A5.7	A5.7