

NCC BCA 2019 Vol. 2 Amendments

INCLUSION OF THESE AMENDMENTS IN 'SPECIFICATION OF BUILDING WORKS' REV. 24 WILL UPDATE NOMINATION OF RESIDENTIAL CONSTRUCTION AS REQUIRED BY NCC BCA 2019 AS FROM 1 MAY 2019

ATTACHMENT OF DECKS AND BALCONIES: NCC 2019 Vol.2 Part 3.10.6 - Performance Requirement P 2.1.1 for the attachment of a deck or balcony to an external wall is satisfied if:-

- (a) the deck or balcony is not in an Alpine Area
- (b) the height of the floor of the deck at any point is not more than 3M above the top of the supporting footing
- (c) the waling plate does not support more than one floor or loadbearing or non- loadbearing walls or roof loads
- (d) the deck or balcony does not cantilever off the external wall and total imposed load on the deck or balcony does not exceed 2 kPa.
- (e) acceptable construction of the deck or balcony is to comply with 3.10.6.1 clauses (f) to (j) inclusive and if the load on the balcony or deck exceeds 2kPa such as heavy equipment, spa or bathing pools, design is required by a professional engineer.
- (f) fixing to walls: where the deck or balcony is fixed to a wall for support compliance with 3.10.6.2 is required
- (g) if wall cladding is removed to attach a deck complete flashing of the connection must comply with 3.10.6.3
- (h) where a deck or balcony is more than 1M off the ground and the surface of the footing bracing must be installed as per 3.10.6.4
- (i) Figures 3.10.6.1 a & b show methods of attachment to timber framed and masonry walls.

FIRE SAFETY: NCC 2019 VOL. 2 Part 3.7: Requirements for fire separation of external walls of Class 1 buildings, Class 10a buildings and Open Car ports are covered in Part 3.7.2. clauses 1 to 8.
Garage top dwellings fire separation as listed in Part 3.7.4 applies to floors and walls and requires fire protection as covered in Part 3.7.3 including roof lights and horizontal building projections over lower portions.

SMOKE ALARMS AND EVACUATION LIGHTING: NCC 2019 Vol. 2 Part 3.7.5 clauses 1 to 6, defines requirements, application, location of Smoke Alarms and Lighting to assist evacuation. Alarms must comply with AS 3786 and installed in Class 1a or Class 1b buildings as per Clause 3.7.5.2. Location of alarms varies between Class 1a and Class 1b buildings as per Clauses 3.7.5.3 and 3.7.5.4 see figures 3.7.5.1 a, b, c.)

Part 3.7.5.6: In a Class 1b building a lighting system must be installed to assist evacuation of occupants in case of fire. The system must be actuated by a smoke alarm as required by Part 3.7.5.4b and consist of a light within the smoke alarm or a light or series of lights located in a corridor or hallway.

VENTILATION: Part 3.8.5.2 requires that natural ventilation to a room may come from a window, door or other device if the openable area is not less than 5% of the floor area of the room. Ventilation may come from an adjoining room if the adjoining room has openings not less than that required for the combined area of both rooms. The area of the common opening between the rooms shall be as per Fig.3.8.5.1. Ventilation must be provided to habitable rooms, sanitary, bath, shower, laundries and rooms occupied by a person.

SOUND INSULATION: NCC Part 3.8.6 requires that wall sound insulation must comply with Part 3.8.6.2 clauses (a), (b), and (c); determination of the Airborne Sound Insulation rating required must be as per Part 3.8.6.3. Complying construction is found in Parts 3.8.6.4 and 3.8.6.5

GARAGE TOP DWELLINGS: NSW PART 1.1.0 Defines a garage top dwelling as a Class 1a dwelling located above a Class 10a private garage which is not appurtenant to that Class 1a dwelling and includes any internal stair serving the garage top dwelling.
Fire separation, construction of floors, walls and required heat alarms are to comply with NSW Part 1.1 clauses 1,2,3 and 4.

FLOOD HAZARD AREAS: Vol. 2 part 3.10.3: and NCC Vol. 1 part B 1.4 Where a building is to be erected in a Flood Hazard Area defined by an Appropriate Authority; the floor level of a non-habitable room shall not be greater than 1m below the height of the Flood Hazard Level for that area. Freeboard height of the Flood Hazard Level must be established and the Habitable Floor level of the building must be constructed above the Flood Hazard Level. An acceptable construction manual for buildings in a Flood Hazard Area is the 'ABC Standard for Construction of Buildings in Flood Hazard Areas'.

QUEENSLAND VARIATION: Building work in a flood hazard area is regulated by 'Building Act 1997' and Queensland Development Code 3.5 'Construction of Buildings in Flood Hazard Areas.'

SOUTH AUSTRALIAN VARIATION: PART 3.10.3 does not apply.

VICTORIAN VARIATION: in respect of definitions of 'Flood Hazard Areas' and 'Freeboard' in Part 3.10.3.0; these definitions are to be replaced with definitions as per Victorian Schedule 3

DEMOLITION: Demolition is defined as 'Development' work and requires Development Approval (DA) from Local Government (Councils). A licence is required under the 'Occupational Health and Safety Regulation 201' for demolition or partial demolition of a structure over 4 metres high, requiring mechanical operations or costs more than \$10,000. Notification to 'WorkCover' is required 5 days prior to demolition work commencing.

ASBESTOS—

If asbestos requiring removal is detected in a building, its removal must be performed by a licenced operator depending on the type of asbestos product found

- (a) more than 10 sq. metres of sheet or roofing material
- (b) any amount of loose friable asbestos fibres eg. insulation or packing. In all cases, asbestos removal is subject to approval by 'Work Health and Safety' and Regulations available from Local Government. AS2601-2001.

ENERGY EFFICIENCY: Note: From 1May 2019to 30 April 2020 part 3.12 of NCC 2016 may apply instead of Part 3.12 instead of NCC 2016.Performance Provisions of BCA Part 2.6 apply.

STATE AND TERRITORY VARIATIONS:

- (1) In NSW Part 3.12 does not apply
- (2) In N.T. Part 3.12 is replaced with BCA 2009 Part 3.12
- (3) In S.A. as per this Part, a sunroom or similar is deemed to be a Class 10a building and must comply with Part 3.12.1.6
- (4) In TAS. From 1 May 2019 to 30 April 2020 Part 3.12 of NCC 2016 Vol.2 may apply instead of Part 3.12 of NCC 2019. From 1 May 2020 Part 3.12 of NCC 2019 applies
- (5) In QLD. Construction for the energy efficiency of Class 1 buildings is also regulated by the Building Act 1975 and the Queensland Development Code MP 4.1- Sustainable Buildings.
- (6) In ACT, see the NCC 2019 Vol. 2 ACT appendix for further information that applies to new buildings and additions.

MASONRY VENEER: Performance requirements are satisfied if designed and constructed in accordance with AS 3700 and or AS4773. 1 & 2

Subject to the following requirements :-

- (a) Is located in an area where design wind speed is not more than N3
- (b) Footings are to comply with NCC 2019 Vol. 2 Part 3.2
- (c) Site soil classification is A, S or M
- (d) Masonry is tied to framing that complies with NCC Vol. 2 Parts 3.4 and/or 3.0
- (e) Is not in an Alpine area
- (f) The site has no specific earthquake requirements as per appendix A of AS 1170.4

NCC 2019 Vol. 2 defines requirements for the following elements of masonry veneer construction :- Height, Masonry units, mortar mixes, Mortar joints, Cavities, Damp-proof flashings/courses, Weep-holes, Wall ties, Openings in Masonry veneer, Lintels, Vertical articulation joints, piers.

FRAMING: NCC 2019 Vol. 2 part 3.4.3 applies to all framing

.TIMBER FRAMING: Performance Requirement for a timber frame is satisfied if it is designed and constructed in accordance with 3.4.3.0 as follows

- (a) AS 1720.1 Design of timber structures
- (b) AS 1720.5 Design of nail-plated timber roof trusses
- (c) AS 1684.2 Residential timber-framed construction – non-cyclonic areas
- (d) AS 1684.3 Residential timber-framed construction – cyclonic areas
- (e) AS 1684.4 Residential timber-framed construction – non-cyclonic areas (simplified)
- (f) AS 1860.2 Installation of particleboard flooring

QUEENSLAND VARIATION: After (f) above add Qld. 3.4.3.0(g) Timber species

- (g) In addition to sub-clauses (a) to (f), timber for structural purposes must be species as per Schedules A, B, or C of Book 2; December 2017 version of "Queensland Government, Department of Agriculture, Fisheries and Forestry – Construction timbers in Queensland.

STEEL FRAMING: Performance Requirement P2.1.1 is satisfied for steel framing if it is designed and constructed in accordance with one of the following:

- (a) Design: NASH Standard 'Residential and Low-Rise Steel Framing' Part 1 and
- (b) Design solutions: NASH Standard 'Residential and Low-rise Steel framing' Part 2 or
- (c) Steel structures: AS 4100
- (d) Cold-formed steel structures: AS/NZS 4600

Design requirements for other materials in combination with steel framing including concrete floors, structural steel support beams, etc. are described in Part 3.0 – Structural provisions or Part 3.4.4 for structural sheet members.

STRUCTURAL STEEL MEMBERS: Part 3.4.4.0 Performance Requirements P2.1.1 is satisfied for structural steel sections if they are designed and constructed in accordance with one of the following:- Part3.4.4.1

- (a) AS 4100 Steel Structures
- (b) AS/NZS 4600 Cold-Formed structures
- (c) the building is located in an area where the wind speed is not greater than N3
- (d) is in an area where there are no specific earthquake design requirements as per AS 1170.4 appendix A.
- (e) and not subject to snow loads.

Part 3.4.4.2 lists structural members as follows:-

- (i) bearers
- (ii) strutting beams
- (iii) lintels
- (iv) columns

Tables for various loads on members as listed above are contained in Tables 3.4.4.0 to 3.4.4.7.

FIREPLACE CHIMNEY and FLUES: See NCC Vol. 2 part 3.10.7.

An open fireplace or solid fuel burning appliance where the fuel burning area is not enclosed must have:-

- (a) all masonry constructed in accordance with Part 3.3
- (b) a hearth constructed of stone, concrete, masonry or other non-combustible material
- (c) walls of the sides and back of two separate leaves of 180mm thick solid masonry to a height 300mm above the arch or lintel
- (d) footings must comply with Part 3.2.5.5 and constructed as per 3.10.7.2 with clearances from combustible materials as per Figure: 3.10.7.1
- (e)

Chimney construction must comply with Part 3.10.7.3 and Figure 3.10.7.2 Height and position of chimney in relation to highest part of building ridgeline.

INSERT FIREPLACES AND FLUES must comply with tests required by AS/NZS 2918 and the fireplace and chimney constructed in accordance with Part 3.3. The flue must be double skinned and comply with tests as per AS/NZS 2918. Figure 3.10.7.3 shows installation of flues for insert fireplaces and Figure 3.10.7.4 shows an acceptable location of freestanding heating appliances in diagram a – Elevation. Domestic Solid Fuel appliances shall comply with AS/NZS 4013, and be installed in accordance with AS/NZS 2918. Installation of Gas fired appliances shall be carried out by a Licenced Gas Plumber.

SWIMMING POOLS: Swimming pool access is to comply with NCC 2019 Vol. 2 Part 3.10.1.0. and AS 1926 clauses 1 and 2. This applies to any wading pool, spa, or swimming pool with a depth of water exceeding 300mm. BCA Vol. 2 defines a swimming pool as any excavation or structure that contains water and principally designed, manufactured or adapted to be used for swimming, wading or the like, including a bathing, wading pool or spa. The water recirculation system of a swimming pool with a depth of water exceeding 300mm must comply with AS 1926.3

NSW VARIATION: Performance requirements for a pool with a depth more than 300mm and associated with a Class 1 building if it has safety barriers complying with AS 1926 Parts 1 & 2 or if the swimming pool is a spa pool Clause 9 of the Swimming Pools Regulation 2018.

QUEENSLAND VARIATION: Access to swimming pools is regulated under the Building Act 1975.

NORTHERN TERRITORY VARIATION: Access to swimming pools is regulated under the Swimming Pool Safety Act.

SOUTH AUSTRALIA: Amended Part 3.10.1.0(b) is replaced with SA 3.10.10(b) Performance Requirement P 2.7.2 is satisfied for a water circulation if it complies with AS 1926.3 – a skimmer box must have means for releasing vacuum pressure should suction is blocked. NCC 2019 Vol.3 Part C2 sets out requirements for pumped discharge (emptying) of swimming pools.

STANDARDS REFERENCED IN 'SPECIFICATION OF BUILDING WORKS' REV. 24 AND DELETED FROM NCC 2019 BCA VOL. 2 .

Compliance with these standards is not required after 1 May 2019

AS 2049, AS/NZS 4256 Parts 1,2,3 and 5, AS/NZS 1562 Parts 2 and 3, AS/NZS 3500 Part 5, AS/NZS Parts 1 and 2, 1999 Edition of AS/NZS 1276 Part 1. 2000 Edition of AS 3660 Part 1, 1993 Edition of AS 3788, ASTM D3018-90, AST TS 101 (replaced by AS 5216),

STANDARDS AND PARTS OF STANDARDS ADDED TO NCC 2019 BCA VOL. 2

Addition of this list of Standards to 'Specification of Building Works' Rev.24 will comply with the nomination of construction required by the National Construction Code 2019 BCA Volume 2 for buildings Classes 1 & 10 and the simpler structure types of Classes 2-9 commencing 1 May 2019.

STANDARD	PART	YEAR	AMDT'S	STANDARD	PART	YEAR	AMDT'S
AS/NZS1170	0	2004	1,3	AS/NZS 2327	1	2017	
"	1	2002	1	AS/NZS 2699	1	2000	
"	2	2011	1,2,4,5	"	3	2002	
"	3	2003	2	AS/NZS 4284	4	2008	
AS 1170	4	2007	2	AS 4597		1999	
AS 1288		2006	1,2,3	AS 4678		2002	
AS 1289	6,3,3	1997	1	AS 4773	1	2015	1
AS 1428	1	2009	1,2	AS 5216		2018	
AS 1562	1	2018		AS 3700		2018	1
AS 1670	1	2018		AS 3700		2018	
AS 1684	2	2010	1	AS 3959		2018	
"	3	2010		AS/NZS 4020		2018	
AS/NZS 4200	1	2017		AS/NZS 4600		2018	
AS/NZS 1859	4	2018		AS/NZS 4859	1	2018	
AS/NZS 2918		2018		AS 5637	1	2015	
AS/NZS 3500	3	2018		ABCB		2019	NatHERS
AS 2050		201					