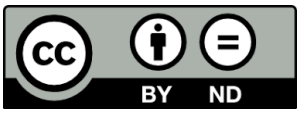
NCC 2022 is amended as follows:

Volumes One, Two, Three and Housing Provisions Standard

Preface

Copyright and Licence Notice

Delete *figure:*



and ***replace*** *with figure:*

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Schedule 2 Referenced documents

Table 1

Delete *Table Note (6) and its reference, and* ***renumber*** *table notes and references accordingly.*

History of adoption

After *table row for NCC 2022 in Table 1* ***insert*** *an additional table row as follows:*

Edition	Cwlth	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
NCC 2022 Amdt 1	1 May 2025	1 May 2025	1 May 2025	1 May 2025	1 May 2025	1 May 2025	1 May 2025	1 May 2025	1 May 2025

***After** description for NCC 2022 **insert** an additional description as follows:*

NCC 2022 Amendment No. 1

Amendment No. 1 to the 2022 edition of the NCC was adopted as set out in Table 1.

The purpose of NCC Amendment 1 is to—

- update the copyright and licence notice; and
- amend variations and additions for Western Australia; and
- amend variation for Tasmania regarding Part H8; and
- correct errors.

List of amendments

***Delete** the section 'List of amendments'.*

Schedule 11 Western Australia

WA Schedule 1 Definitions

***After** definition for 'design wind speed' **insert** definition for 'existing building' as follows:*

Existing building: For the purposes of Part H6, an existing Class 1 building or an existing attached Class 10 part that was not required to comply with the energy efficiency requirements of NCC 2022 or any later edition.

***Delete** definition for 'Public building' and **insert** definition for 'Public building' as follows:*

Public building: A Class 6 *licensed premises* or Class 9b building where persons may assemble for—

(a) civic, theatrical, social, political or religious purposes; or
(b) educational purposes; or
(c) entertainment, recreational or sporting purposes; or
(d) business purposes.

WA Schedule 2 Referenced documents

WA Table 1 Schedule of referenced documents

***After** table row for AS/NZS 1170.2 **insert** an additional table row as follows:*

No.	Date	Title	Volume One	Volume Two	Housing Provisions	Volume Three
AS/NZS 3500.3	2021	Plumbing and drainage – Stormwater drainage (see Note 2)	F1D3	H2D2, H2D6	7.4.3	N/A

***After** table row for AS 4055 **insert** an additional table row as follows:*

No.	Date	Title	Volume One	Volume Two	Housing Provisions	Volume Three
AS 5348	2022	Pool covers	N/A	WA H9D3	N/A	N/A

***Insert** new table note (2) as follows and **renumber** existing table note (2) and its reference accordingly:*

(2) For AS/NZS 3500.3, incorporate the changes as set out in WA Part F9 of Volume One and WA Part H10 of Volume Two.

Volume One

Part B1

***Delete** the Note to B1P1.*

***Delete** the Note to B1D3.*

Part G7

***Delete** all notes to Introduction to this Part.*

Part D3

D3D28 Signs on doors

***Delete** (4)(b) and **insert** (4)(b) as follows:*

(b) For a *self-closing* door—

FIRE SAFETY DOOR

DO NOT OBSTRUCT

DO NOT KEEP OPEN

Schedule 11 Western Australia

WA Introduction

***Delete** "This Appendix contains ... Western Australian Schedule of the BCA." and **insert** the following:*

This Appendix contains variations and additions to the Building Code of Australia (BCA) which are necessary for its application in Western Australia. For Volume One these apply to:

- wind Regions B and D,
- the design and installation of eaves gutters, and
- building related requirements from the Health (Public Buildings) Regulations 1992 which are consolidated into the Western Australian Schedule of the BCA.

Note: The Building Regulations 2012, regulation 15C makes other modifications to the BCA.

WA B1D3 Determination of individual actions

Delete *Note to WA B1D3.*

WA Part F9 Changes to AS/NZS 3500.3:2021

Insert *WA Part F9 as follows:*

WA Part F9 Changes to AS/NZS 3500.3:2021

Introduction to this Part
This Part sets out changes for the application of AS/NZS 3500.3:2021 in Western Australia.

Deemed-to-Satisfy Provisions

WA F9D1 Eaves gutter overflow

Delete clause 3.5.1 of AS/NZS 3500.3:2021 and replace with the following:

3.5.1 General

Eaves gutter systems, including downpipes, shall be designed and installed so that water will not flow back into the building. Overflow measures may be provided in accordance with Part 7.4 of the ABCB Housing Provisions Standard.

Explanatory Information

For the purposes of WA F9D1 the applicable clauses from Part 7.4 are:

- 7.4.3(b); and
- 7.4.4(1)(c), (2), (3) and (5); and
- 7.4.6; and
- 7.4.7.

AS/NZS 3500.3:2021 provides a *Deemed-to-Satisfy Solution* for the design and installation of eaves gutters however, it is without normative clauses for selecting their overflow measures. Part 7.4 of ABCB Housing Provisions which also provides a *Deemed-to-Satisfy Solution* for the design and installation of eaves gutters includes overflow measures.

Both AS/NZS 3500.3:2021 and Part 7.4 of the ABCB Housing Provisions require that eaves gutters are designed for a 5-minute duration rainfall intensity determined for an *annual exceedance probability* of 5%; Part 7.4 of the ABCB Housing Provisions requiring that eaves gutter overflow provisions are determined for *annual exceedance probability* of 1%.

WA F9D2 Required size of vertical downpipes

Delete Table 3.5.2 of AS/NZS 3500.3:2021 and replace with the following:

Table 3.5.2 – Eaves gutter – Required size of vertical downpipe

Effective cross-sectional area of an eaves gutter (A_e)[a, b]		Internal size of vertical down pipe, mm	
Gradient		Cross-section	
1:500 and steeper	Flatter than 1:500	Circular	Rectangle or square
3 500	4 700	65	65 x 50, or 95 x 45
4 200	5 600	75	65 x 50, or 95 x 45
4 600	6 200	75	75 x 50, or 95 x 45
4 800	6 400	80	75 x 50, or 95 x 45
5 200	7 000	80	100 x 50, or 95 x 45
5 900	7 900	85	100 x 50
6 400	8 600	90	100 x50
6 600	8 900	90	75 x 70
6 700	9 000	100	75 x 70
8 200	11 000	100	100 x 75
9 600	12 900	125	100 x 75
12 800	17 100	125	100 x 100
12 800	17 200	150	100 x 100
16 000	21 500	150	125 x 100
18 400	24 700	150	150 x 100
19 200	25 800	-	150 x 100
20 000	26 800	-	125 x 125

[a] The effective cross-sectional area shall be obtained from Figures 3.5.4(A) and 3.5.4(B) to the nearest 100 mm^2.

[b] Refer to AS/NZS 2179.1.

Volume Two

Part H8

***Delete** all notes to Introduction to this Part.*

***Insert** Note to Part H8 as follows:*

Notes: Tasmania Part H8 Livable housing design

For Tasmania, refer to the Director's Determination regarding the application of Part H8 (Livable housing provisions) of the NCC – current version available at www.cbos.tas.gov.au.

Schedule 11 Western Australia

WA Introduction

***Delete** "This Appendix contains ... provisions for water use." and **insert** the following:*

This Appendix contains variations and additions to the Building Code of Australia (BCA) which are necessary for its application in Western Australia. For Volume Two these apply to:

- wind Regions B and D.
- energy efficiency requirements for alterations and extensions to existing buildings,
- water use, and
- the design and installation of eaves gutters.

Note: The Building Regulations 2012, regulation 15C makes other modifications to the BCA.

WA Part H6 Energy efficiency

***Insert** WA Part H6 as follows:*

WA Part H6 Energy efficiency

Insert WA Note and Explanatory Information for Introduction to this Part as follows:

Notes

For *existing buildings* that are undergoing alterations or an extension, or when installing a *swimming pool* associated with an *existing building*, Part 2.6 and Part 3.12.5 of NCC 2019 Volume Two Amendment 1 may apply instead of Part H6 of NCC 2022 Volume Two.

Explanatory Information

An *existing building* is an existing Class 1 building or an existing attached Class 10 part that was not required to comply with the energy efficiency requirements of NCC 2022 or any later edition. Examples of when buildings may be required to comply with the NCC include at the time of approval, such as when a building permit is required, or at the commencement of construction where no building permit is required.

For *existing buildings, Performance Solutions* may be more appropriate for demonstrating compliance with energy efficiency requirements of the NCC; the industry developed WA Alterations & Additions Protocol for Energy Efficiency in Class 1 or attached Class 10 buildings being an example.

The applicable *Performance Requirements* of Part 2.6 of NCC 2019 Amendment 1 includes the phrase "to the degree necessary". This enables practitioners undertaking *Performance Solutions* for alterations and additions to *existing buildings* to make reasonable allowance for the performance of the *existing building*.

When installing a swimming pool associated with an *existing building,* an assessment can be made using the elemental provisions of NCC 2019 Amendment 1.

WA H9D3 Swimming pool covers and blankets

***Delete** WA H9D3 and **insert** WA H9D3 as follows:*

WA H9D3 Swimming pool covers and blankets

An outdoor private *swimming pool* or spa associated with a Class 1 building must be supplied with a cover, blanket or the like that—

(a) is designed to reduce water evaporation; and

(b) complies with AS 5348.

WA Part H10 Changes to AS/NZS 3500.3:2021

***Insert** WA Part H10 as follows:*

WA Part H10 Changes to AS/NZS 3500.3:2021

Introduction to this Part

This Part sets out changes for the application of AS/NZS 3500.3:2021 in Western Australia.

Deemed-to-Satisfy Provisions

WA H10D1 Eaves gutter overflow

Delete clause 3.5.1 of AS/NZS 3500.3:2021 and replace with the following:

3.5.1 General

Eaves gutter systems, including downpipes, shall be designed and installed so that water will not flow back into the building. Overflow measures may be provided in accordance with Part 7.4 of the ABCB Housing Provisions Standard.

Explanatory Information

For the purposes of WA H10D1 the applicable clauses from Part 7.4 are:

- 7.4.3(b); and
- 7.4.4(1)(c), (2), (3) and (5); and
- 7.4.6; and
- 7.4.7.

AS/NZS 3500.3:2021 provides a *Deemed-to-Satisfy Solution* for the design and installation of eaves gutters however, it is without normative clauses for selecting their overflow measures. Part 7.4 of ABCB Housing Provisions which also provides a *Deemed-to-Satisfy Solution* for the design and installation of eaves gutters includes overflow measures.

Both AS/NZS 3500.3:2021 and Part 7.4 of the ABCB Housing Provisions require that eaves gutters are designed for a 5-minute duration rainfall intensity determined for an *annual exceedance probability* of 5%; Part 7.4 of the ABCB Housing Provisions requiring that eaves gutter overflow provisions are determined for *annual exceedance probability* of 1%.

WA H10D2 Required size of vertical downpipes

Delete Table 3.5.2 of AS/NZS 3500.3:2021 and replace with the following:

Table 3.5.2 – Eaves gutter – Required size of vertical downpipe

Effective cross-sectional area of an eaves gutter (A_e)[a, b]		Internal size of vertical down pipe, mm	
Gradient		Cross-section	
1:500 and steeper	Flatter than 1:500	Circular	Rectangle or square
3 500	4 700	65	65 x 50, or 95 x 45
4 200	5 600	75	65 x 50, or 95 x 45
4 600	6 200	75	75 x 50, or 95 x 45
4 800	6 400	80	75 x 50, or 95 x 45
5 200	7 000	80	100 x 50, or 95 x 45
5 900	7 900	85	100 x 50
6 400	8 600	90	100 x50
6 600	8 900	90	75 x 70
6 700	9 000	100	75 x 70
8 200	11 000	100	100 x 75
9 600	12 900	125	100 x 75
12 800	17 100	125	100 x 100
12 800	17 200	150	100 x 100
16 000	21 500	150	125 x 100
18 400	24 700	150	150 x 100
19 200	25 800	-	150 x 100
20 000	26 800	-	125 x 125

Housing Provisions

Part 3.2

3.2.1 Un-retained bulk earthworks – site cut and fill

***Delete** the table row for 'Stable rock (Class A)' and **insert** the following table row in-lieu:*

Soil class (see 4.2.2 for material description)	Site cut (excavation) (maximum embankment slope ratio, angle of site cut H:L[Note 1])	Compacted fill (maximum embankment slope ratio, angle of batter H:L[Note 1])
Stable rock (Class A)	8:1	2:3

Part 6.3

6.3.9 Corrosion protection

***Delete** the Note to 6.3.9 concerning transition.*

Part 13.3

13.3.2 External glazing — winter

Delete *the formula in (1)(b) and* ***insert*** *the following formula:*

$$\frac{[(A_1 \times U_1 \times BC_1 \times OC_1 \times R_{W1} \times L_{W1}) + (A_2 \times U_2 \times BC_2 \times OC_2 \times R_{W2} \times L_{W2}) + \ldots]}{[(A_1 \times SHGC_1 \times E_{W1} \times R_{W1} \times BS_{W1} \times L_{W1} \times F_{W1} \times H_{W1}) + (A_2 \times SHGC_2 \times E_{W2} \times R_{W2} \times BS_{W2} \times L_{W2} \times F_{W2} \times H_{W2}) + \ldots]}$$

Schedule 11 Western Australia

WA Introduction

Delete *"This Appendix contains ... wind Regions B and D." and* ***insert*** *the following:*

This Appendix contains variations and additions to the Building Code of Australia (BCA) which are necessary for its application in Western Australia. For the ABCB Housing Provisions Standard these apply to:

- wind Regions B and D,
- the design and installation of eaves gutters,
- windows installed in masonry walls,
- building fabric and external glazing for climate zone 6, and
- insulation of floors of upper storeys in climate zones 4 and 5.

Note: The Building Regulations 2012, regulation 15C makes other modifications to the BCA.

WA Part H6 Energy efficiency

Insert *WA Part 7.4 as follows:*

Part 7.4 Gutters and downpipes

Delete 7.4.3(a) and insert WA 7.4.3(a) as follows:

(a) for eaves gutters, be in accordance with—

(i) AS/NZS 3500.3; or

(ii) Table 7.4.3a, Table 7.4.3b and Table 7.4.3c; and

Delete 7.4.4(1) and insert WA 7.4.4(1) as follows:

(1) Eaves gutters must be—

(a) installed with a fall of not less than 1:500, unless designed in accordance with AS/NZS 3500.3; and

(b) supported by brackets securely fixed at stop ends, corners and at not more than 1.2 m centres; and.

(c) fitted with overflow measures capable of removing the overflow volume specified in Table 7.4.4a and Table 7.4.4b

Delete Explanatory Information for 7.4.4 and insert WA Explanatory Information for 7.4.4 as follows:

Explanatory Information: Installation of valley gutters and eaves gutters

- Where roofs have pitches less than 12.5 degrees, valley gutters may be designed as box gutters in accordance with AS/NZS 3500.3 or as a *Performance Solution* by a professional engineer or other appropriately qualified person.
- An example of a valley gutter profile is shown in Figure 3.6.1 of AS/NZS 3500.3
- In Western Australia, where installing eaves gutters with a fall less than 1:500, eaves gutters and downpipes must be in accordance with AS/NZS 3500.3, except that eaves gutter overflow:
    - must be in accordance with Part 7.4 where complying with H2D6(1)(a); and
    - may be in accordance with Part 7.4 where complying with H2D2(1)(b).
- Clause 3.5.1 of AS/NZS 3500.3:2021 is varied in Western Australia to permit that eaves gutter overflow measures may be in accordance with Part 7.4.

Delete Figure 7.4.4 (explanatory).

Delete 7.4.5(c) and insert WA 7.4.5(c) as follows:

(c) be selected in accordance with the appropriate eaves gutter section, and where—

(i) 7.4.3(a)(i) applies, in accordance with AS/NZS 3500.3; and

(ii) 7.4.3(a)(ii) applies, as shown in Table 7.4.3a, Table 7.4.3b and Table 7.4.3c.

Delete Explanatory Information for 7.4.5 and insert WA Explanatory Information for 7.4.5 as follows:

Explanatory Information

A maximum 12 m gutter length served by each downpipe is to ensure effective fall and adequate capacity to discharge all water anticipated during a storm having an *annual exceedance probability* of 5%.

Where a rainhead overflow device is incorporated in the top of the downpipe, its overflow discharge should be directed away from the building.

In Western Australia, where installing eaves gutters with a fall less than 1:500, eaves gutters and downpipes must be in accordance with AS/NZS 3500.3 which requires that gutter outlets be fitted vertically to the sole of the eaves gutter. Also, Table 3.5.2 of AS/NZS 3500.3:2021 is varied in Western Australia to permit the use of a 95 mm x 45 mm rectangular downpipe.

***Insert** WA Part 8.2 as follows:*

Part 8.2 Windows and external glazed doors

Delete 8.2.2(b) and insert WA 8.2.2(b) as follows:

(b) A minimum 10 mm gap must be provided between the top of the *window* assembly and any *loadbearing* framing element.

Insert WA Exemption for 8.2.2 as follows:

Exemption

8.2.2(b) does not apply to *windows* in a masonry wall element.

Delete Explanatory Information for 8.2.2 and insert WA Explanatory Information for 8.2.2 as follows:

Explanatory Information

It is important for *windows* to be fixed correctly in the external frame or wall of a building to prevent buckling, diagonal distortion or twisting that may compromise weathertightness around the perimeter of the opening. Correct installation is also critical to ensure *windows* resist design wind pressures that the *external walls* of the building are subject to over its expected life and transfer the resultant forces only to the framing members beside the *window*. Consideration should be given to any additional details for systems designed specifically to meet acoustic or energy efficiency requirements.

Window assemblies should be installed so they are as close as possible to being perpendicular with the vertical and horizontal planes and where all corners form right-angles, have equal distances when measured diagonally to ensure they are square.

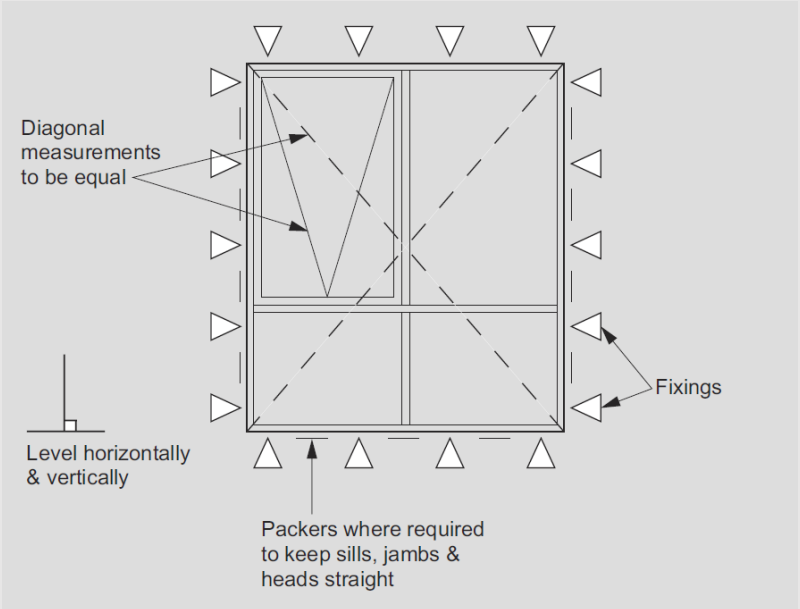
A gap provided between the top of the assembly and the *external wall* frame will allow for settlement after construction and prevent the transfer of structural loads. Generally, this gap shall be no less than 10 mm, except in masonry construction where the gap may be less than 10 mm as long as it is sufficient to prevent the transfer of structural loads.

Where packing is used between the openings in the *external wall* and the *window* assembly, it should be of a material that is compatible with both the frame and the *window* assembly. It should also be positioned and fixed to stay in place permanently and ensure the sides and sills remain straight.

Where aluminium sills of a *window* assembly may contact masonry, particularly mortar, an isolating material such as bituminous *membranes* or paints and caulking compounds containing zinc chromates should be used. Care must be taken to minimise any gaps between sills and external skins to prevent excessive ingress of water.

Explanatory Figure 8.2.2 provides guidance on the installation of *windows* and positioning of relevant fixing points.

Figure 8.2.2 (explanatory): Guidance for the installation of windows and positioning of relevant fixing points



***Insert** WA Part 13.2 as follows:*

Part 13.2 Building fabric

Insert WA 13.2.1(4) and Explanatory Information as follows:

(4) For the purposes of Part 13.2, references to *climate zone* 6 in Figure 2 and Table 3 under the definition for *climate zone* in Schedule 1 may be considered as *climate zone* 5.

Explanatory Information

The option to substitute *climate zone* 5 for *climate zone* 6 only applies to Parts 13.2 and 13.3 of the ABCB Housing Provisions.

Provisions relating to the selection and installation of services and condensation management in buildings are unaffected by this variation.

Delete 13.2.7 and insert WA 13.2.7 as follows:

13.2.7 Attached Class 10a buildings, and floors of upper storeys of Class 1 buildings projecting beyond the external walls of the ground floor

(a) A Class 10a building attached to a Class 1 building must—

(i) have an external fabric that achieves the *required* level of thermal performance for a Class 1 building; or

(ii) be separated from the Class 1 building with construction having the *required* level of thermal performance for the Class 1 building.

(b) Where the floor of a Class 1 building is providing separation for the purpose of 13.2.7(a)(ii), it must—

(i) in climate zone 4 be insulated with reflective insulation facing down with a minimum R-Value of 2.0.

(ii) in climate zone 5 be insulated with reflective insulation facing down with a minimum R-Value of 2.5.

(c) The floor of an upper *storey* of a Class 1 building which has a *conditioned space* above and projects beyond *external walls* of the ground floor must, for the extent that it projects beyond the *external walls*—

(i) in climate zone 4 be insulated with reflective insulation facing down with a minimum R-Value of 2.0.

(ii) in climate zone 5 be insulated with reflective insulation facing down with a minimum R-Value of 2.5.

Explanatory Information

The attachment of a Class 10a building, such as a garage, glasshouse, solarium, pool enclosure or the like, should not compromise the thermal performance of the Class 1 building. In addition, the Class 10a building may be insulated and so assist the Class 1 building achieve the *required* thermal performance.

Explanatory Figure 13.2.7a below depicts examples of a Class 1 building with an attached Class 10a garage.

Similarly, floors of upper storeys projecting beyond the *external walls* of the ground floor should not compromise the thermal performance of the Class 1 building, such as where a floor forms part of a porch, verandah or the like. Generally, this can be achieved by insulating the floor in accordance with 3.12.6, except that this does not always provide a solution for *climate zone* 4 and *climate zone* 5. In Western Australia the minimum insulation *required* to be added for:

- *climate zone* 4 is provided in 13.2.7(c)(i); and

- *climate zone* 5 is provided in 13.2.7(c)(ii).

Explanatory Figure 13.2.7b below depicts an example of an upper floor of a Class 1 building projecting beyond the ground floor *external walls* to form a porch.

Figure 13.2.7a (explanatory): Attached Class 10a building examples

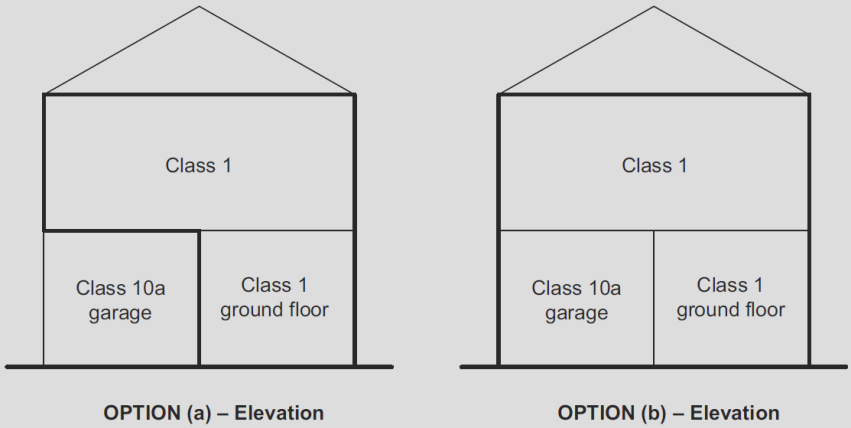


Figure Notes

In (a), the thermal performance *required* for the Class 1 building may be achieved by including the walls and floor of the Class 1 building that adjoin the Class 10a garage.

In (b), the thermal performance *required* for the Class 1 building may be achieved by including the outside walls and floor of the Class 10a garage.

For *climate zone* 4 and *climate zone* 5 in Western Australia, 13.2.7(b) provides the minimum insulation to be added to floors where separating between a Class 1 building and a Class 10 building, as shown in (a) of the figure.

Figure 13.2.7b (explanatory): Floors of upper storeys of Class 1 buildings projecting beyond the external walls of the ground floor

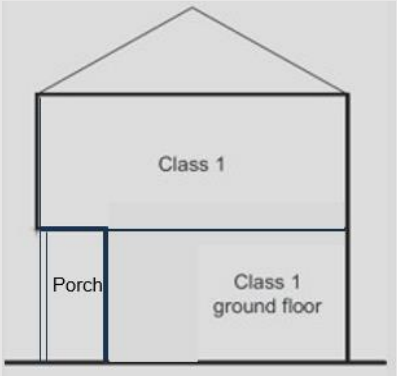


Figure Notes

The thermal performance *required* for the Class 1 building may be achieved by including the floor as well as the walls of the Class 1 building where the floor projects beyond the *external walls*.

***Insert** WA Part 13.3 as follows:*

Part 13.3 External glazing

Insert WA 13.3.1(3) and Explanatory Information as follows:

(3) For the purposes of Part 13.3, references to *climate zone* 6 in Figure 2 and Table 3 under the definition for *climate zone* in Schedule 1 may be considered as *climate zone* 5.

Explanatory Information

The option to substitute *climate zone* 5 for *climate zone* 6 only applies to Parts 13.2 and 13.3 of the ABCB Housing Provisions.

Provisions relating to the selection and installation of services and condensation management in buildings are unaffected by this variation.

Issued by the Australian Building Codes Board
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