

CR

CN

Com

Ind

Out

Anc

# Quick reference guide: Improved Window Performance Requirements For Other Buildings Greater Than 300m<sup>2</sup>

*An overview of the recently updated H1 requirements, August 2022*



**window & glass**  
association nz

**Please note:** This document is intended as a convenient overview. Please refer to MBIE's official documentation for more detail.

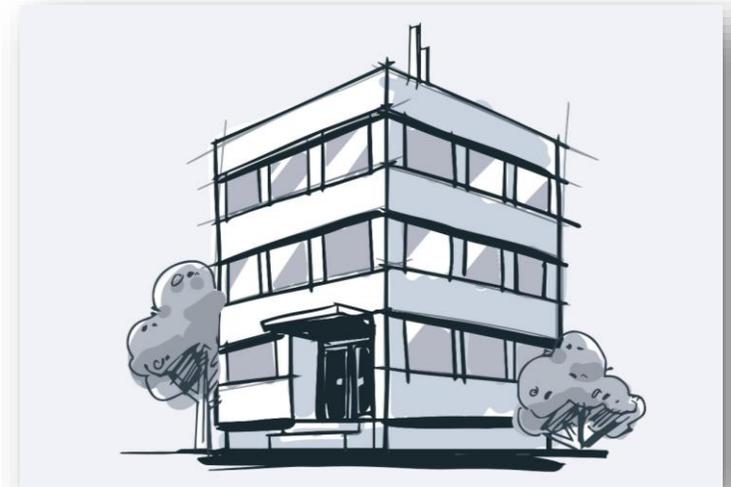
# About this Guide

- **This guide applies to ‘Buildings greater than 300m<sup>2</sup>’.** This includes buildings classified as:
  - ‘Communal residential’ e.g. a hotel or rest home
  - ‘Communal non-residential’ e.g. a church or school
  - ‘Commercial’ e.g. a bank, police station, restaurant or shop
  - ‘Industrial’ e.g. factories or warehouses
  - ‘Outbuildings’ e.g. a garage, greenhouse or shed
  - ‘Ancillary’
- The area (Greater than 300m<sup>2</sup>) is based on the **occupied space** of the building.
- More information on how buildings are classified is available in Clause A1 of the Building Code [here](#).

CR	Communal residential
CN	Communal non-residential
Com	Commercial
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Out	Outbuildings
Anc	Ancillary

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# Key background

- The H1 Clause of the Building Code regulates the energy efficiency of our built environment – covering wall, floor and roof insulation as well as the thermal performance of windows and doors.
- Proposed changes to the Clause were consulted on last year and published in November 2021. There are a range of requirements, and transition and implementation periods, depending on building type, construction element, and Climate Zone.
- **For windows and doors in ‘Buildings greater than 300m<sup>2</sup>’, all improved requirements come into effect on 3 November 2022.**
- More information on H1 is available [here](#). Please note: Amended Fifth Editions of H2/AS2 and H2/VM2 (the compliance pathways that will reflect the new and requirements, as pictured) have now been published by MBIE in August 2022.
- **The new standards apply based on the date of the building consent application, however these higher standards can be used from now.**





# Overview of construction R-values

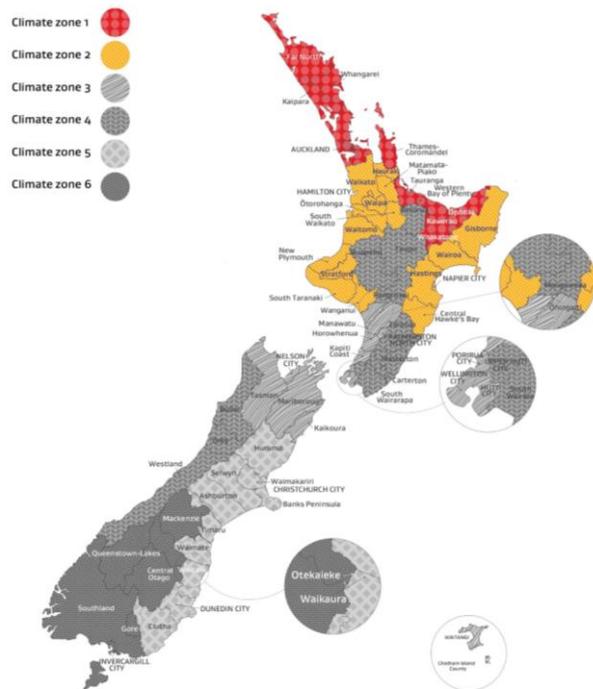
- This table from H1/AS2 shows the R-values required for windows and doors (glazed), and for skylights, effective from 3 November 2022, by Climate Zone.

**TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems**

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values (m <sup>2</sup> ·K/W) <sup>(1)</sup>					
	Climate zone 1	Climate zone 2	Climate zone 3	Climate zone 4	Climate zone 5	Climate zone 6
<i>Roof</i>	R3.5	R4.0	R5.0	R5.4	R6.0	R7.0
Wall	R2.2	R2.4	R2.7	R3.0	R3.0	R3.2
Floor	R2.2	R2.2	R2.2	R2.4	R2.5	R2.6
Windows and doors	R0.33	R0.33	R0.37	R0.37	R0.40	R0.42
<i>Skylights</i>	R0.42	R0.42	R0.46	R0.46	R0.49	R0.51

# Zones 1 & 2, from 3 Nov 2022



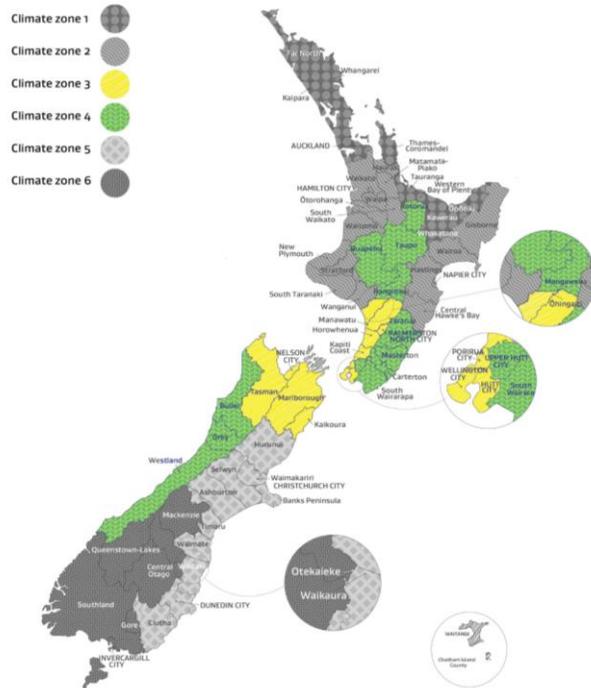
**TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems**

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ( $\text{m}^2 \cdot \text{K}/\text{W}$ ) <sup>(1)</sup>	
	Climate zone 1	Climate zone 2
Windows and doors	R0.33	R0.33
Skylights	R0.42	R0.42

- This is Table 2.1.2.2B from **H1/AS2**.
- Performance values for the windows and doors element of these buildings **must be calculated**.

# Zones 3 & 4, from 3 Nov 2022



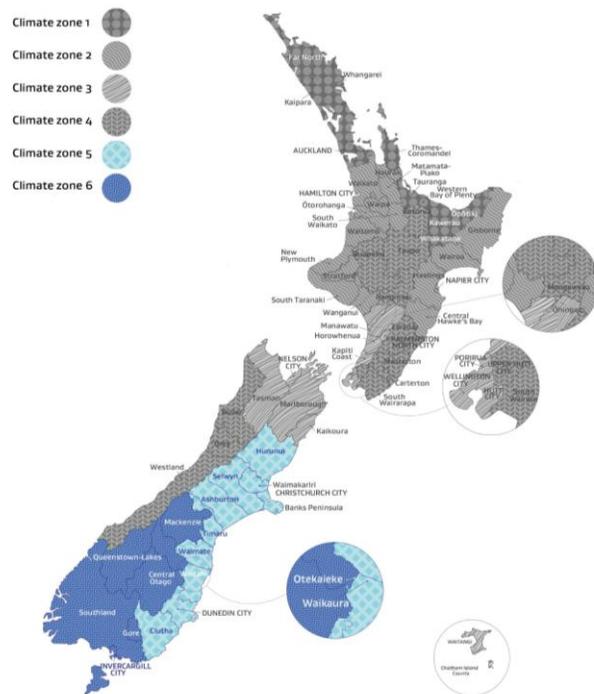
**TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems**

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ( $\text{m}^2 \cdot \text{K}/\text{W}$ ) <sup>(1)</sup>	
	Climate zone 3	Climate zone 4
Windows and doors	R0.37	R0.37
Skylights	R0.46	R0.46

- This is Table 2.1.2.2B from **H1/AS2**.
- Performance values for the windows and doors element of these buildings **must be calculated**.

# Zone 5, from 3 Nov 2022



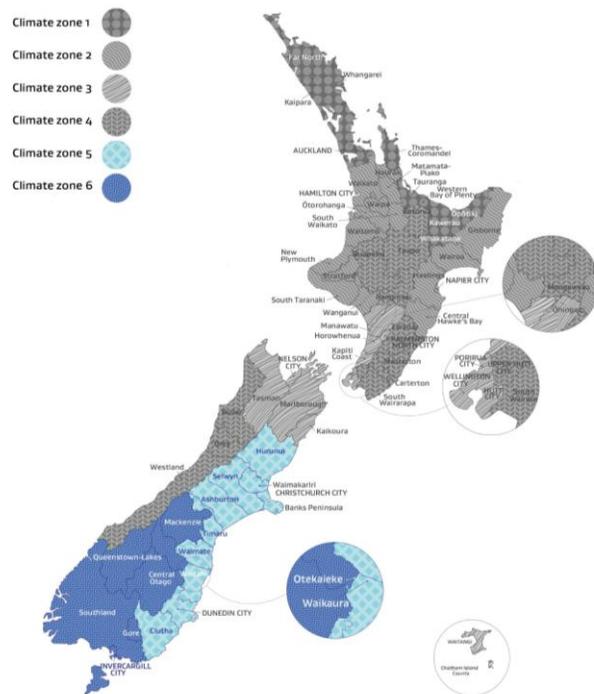
**TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems**

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ( $\text{m}^2 \cdot \text{K}/\text{W}$ ) <sup>(1)</sup>					
	Climate zone 1	Climate zone 2	Climate zone 3	Climate zone 4	Climate zone 5	Climate zone 6
Windows and doors					R0.40	
Skylights					R0.49	

- This is Table 2.1.2.2B from **H1/AS2**
- Performance values for the windows and doors element of these buildings **must be calculated**.

# Zone 6, from 3 Nov 2022



**TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems**

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ( $\text{m}^2 \cdot \text{K}/\text{W}$ ) <sup>(1)</sup>					
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Windows and doors						R0.42
Skylights						R0.51

- This is Table 2.1.2.2B from **H1/AS2**,
- Performance values for the windows and doors element of these buildings **must be calculated**.

# Further resources

- If you'd like further information or support from the Window & Glass Association, please [contact us](#).
- Or find more resources on the [Association's website](#). The *Industry Resources and Standards page* will be regularly updated over the coming months.
- All official documentation relating to H1 can be found at MBIE's website [here](#).

## Glossary of terms

- **Climate Zone** – One of six climate zones in New Zealand (as identified in the requirements) that dictate when and what R-values are required based on a building's physical address.
- **H1** – The Clause of the Building Code covering energy efficiency of buildings, specifically insulation requirements.
- **H1/AS2 and H1/VM2** – These documents cover the compliance pathways via either Acceptable Solutions or a Verification Method.