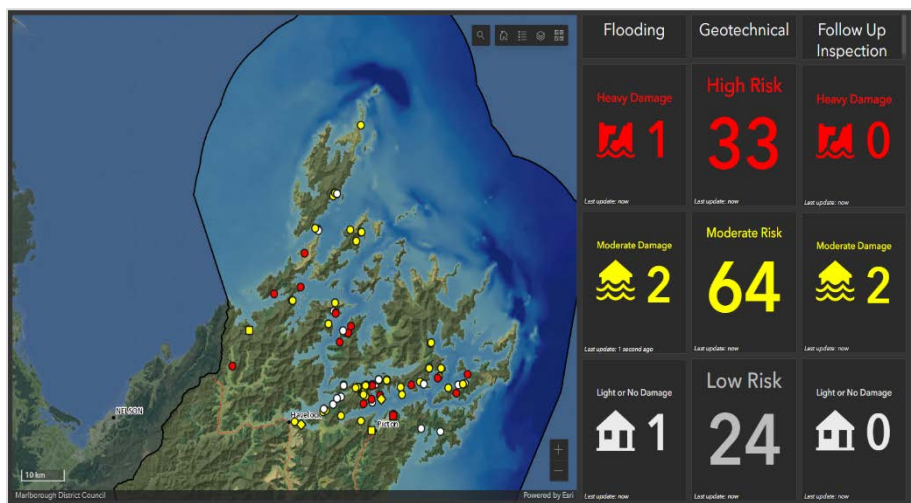




November 2022

Although the building and construction sector has always been a challenging industry, the last twelve months has been one of the most difficult that the industry has faced over the last decade. Lockdowns, staffing, global supply chain issues, and inflation have plagued the industry. There has been much published about the recent hardship that the industry has faced and what the future may hold. Interestingly many of the forecasts vary widely and it would take a brave person to hang your hat on what will eventuate. Although it has been a volatile twelve months, overall Marlborough has fared reasonably well in comparison with other regions. Going forward I hope that the industry returns to some stability.

The effects of the August storm event flooding are still on-going and will continue to be for some time. During and immediately after the event the building team with the assistance of Urban Search and Rescue, FENZ and local geotechnical engineers spent five days in affected areas assessing buildings and applying placards where necessary. Some damage that was observed was astonishing. It is hard to believe that water alone could cause so much destruction to the landscape. Damage to local infrastructure is widespread and the repair work will take years. It is a stressful time for those property owners that have been affected by this weather event.



Red and Yellow Placards Issued During the August Flood Event

On the 3rd November the first of the staged increased insulation requirements came in to force. More about the changes can be read [here](#) in the Building Post.

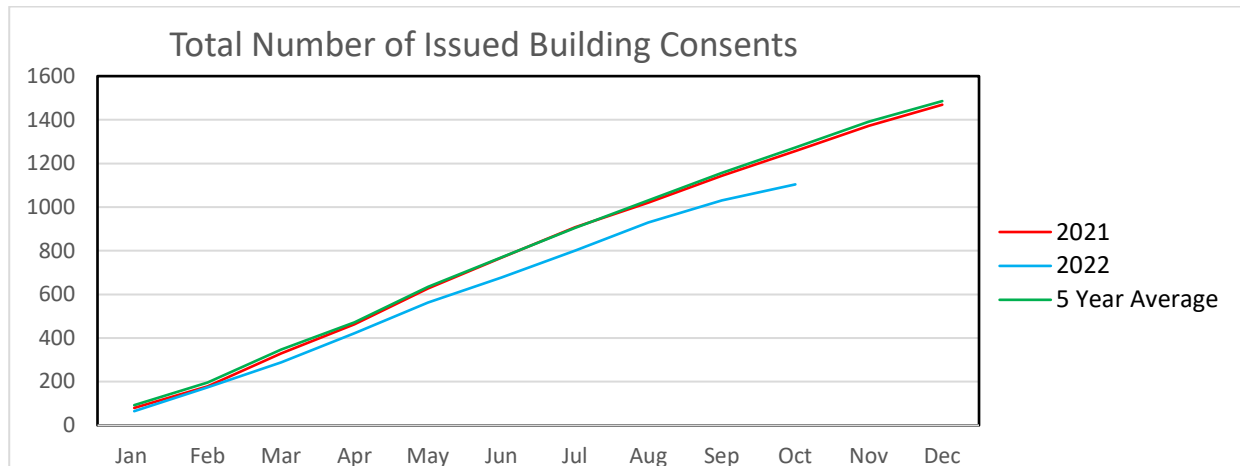
The last day for inspections this year is 22 December. Inspections will resume on 4 January. If you are wanting to request an inspection for early in January, you would be best to book before the office closes this year. If required there will be a skeleton inspection staff over the Christmas and New Year’s holiday break. If you are wishing to book an inspection during this period, you will need to book before 22 December.

The Nelson/West Coast/Marlborough/Cook Strait (Wellington) Master Builders House of the Year prize giving was held at the Convention Centre in Blenheim last month. It was a well organised and successful night enjoyed by those who attended. Congratulations to all who won awards on the night. A special congratulations goes out to George Guthrie Construction who won the Supreme House of the Year over \$1 million and the Regional Craftsmanship prize.

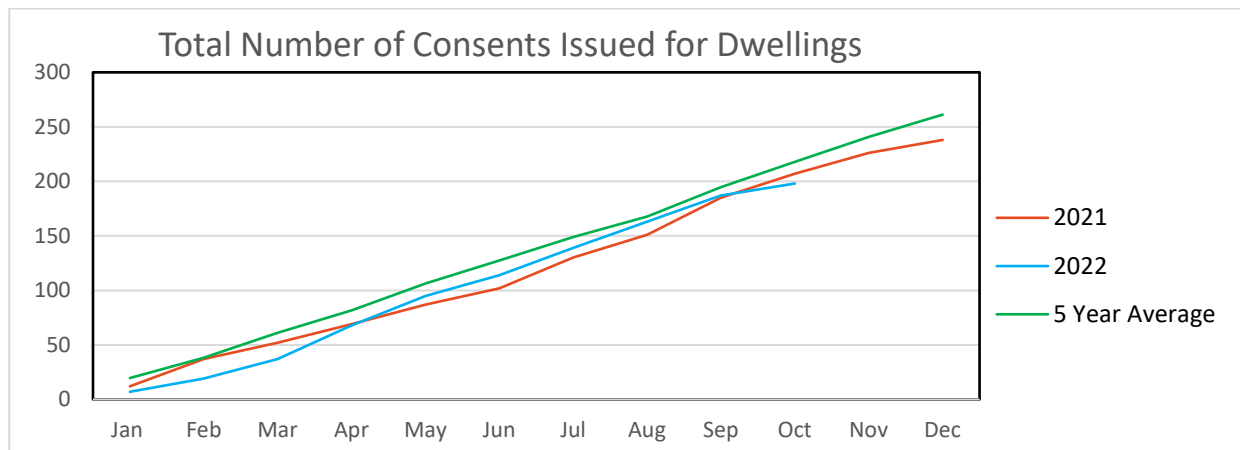


Statistics

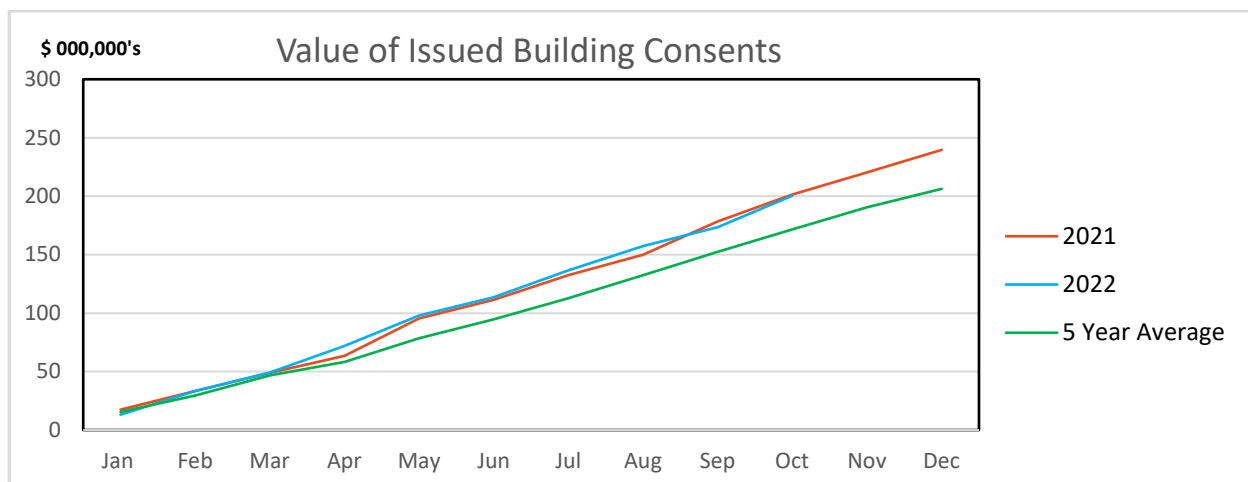
Issued Building Consents: For the year to date the overall number of building consents issued is down on last years and the average for the previous five years.



New Dwellings The number of building consents issued for dwellings is also lower than last year’s figure and the five-year average.



Value Although the number of issued building consents is down on previous years the overall dollar value of issued consents has increased. This increase reflects the increase in cost in building products which has pushed the cost of building up. There has also been a number of large commercial building consents that have been issued in recent months which has pushed the overall value up.



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Building Code Changes

[H1 Energy Efficiency](#)

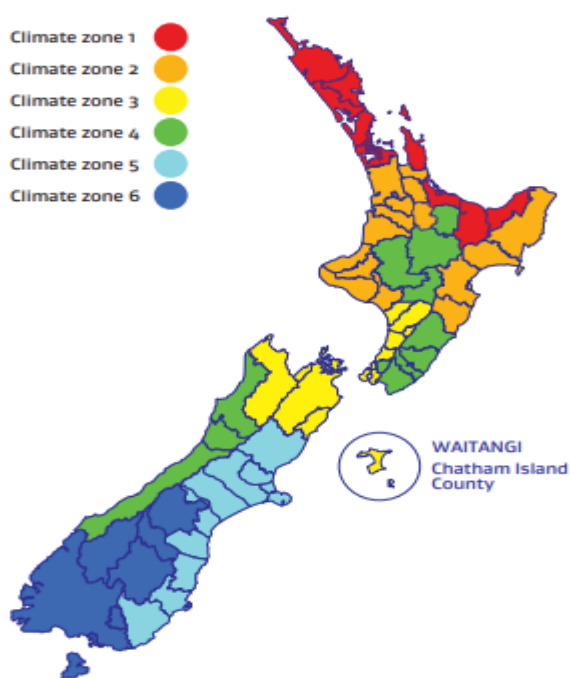
New H1 changes took effect on 3 November 2022. For dwellings and small buildings under 300m² [H1/AS1](#) in the Marlborough region the minimum R-value of 0.37 for all windows and doors will take immediate effect. The R-value for all windows and doors will increase to R0.46 six months later on 01 May 2023.

The changes to the insulation requirements for large buildings over 300m², [H1/AS2](#) also took effect on 3 November.

The document published by MBIE [“Outcome of consultation Building Code update 2022 Transition period for the energy efficiency of housing”](#) is summarised below. This document should be referred to for all the changes and the reasoning behind the decision making.

New Climate Zones

MBIE is expanding the number of climate zones used in the insulation requirements from 3 to 6. This will allow the insulation requirements to better reflect the different temperatures experienced in each zone. The new climate zones follow territorial authority (local government) boundaries. The Marlborough District continues to be in Zone 3.



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New R-values

MBIE obtained a clear mandate for ambitious, achievable change while ensuring the stability of the building and construction sector. The changes to roof, window, wall, and underfloor insulation with the new minimum values are summarised in the table below. Based on the feedback MBIE received, some insulation requirements for residential buildings for specific building elements are the same between climate zones as higher R-values for colder zones are not achievable at this time and to also support efficiencies in the supply of products.

When using the H1/AS1 schedule method for demonstrating compliance, the roof, windows, external walls and floor of a new home or small building need to meet or exceed each of the minimum R-values for the relevant climate zone. Alternatively, the H1/AS1 calculation method and the H1/VM1 modelling method allow lower R-values for some elements provided that the overall thermal performance of the proposed new home or small building is equal or better.

Roofs

One of the simplest and most cost-effective ways to boost thermal performance is to increase roof insulation. MBIE have decided to double the minimum amount of roof insulation required across the country. The proposed options for roof insulation are provided in the table below. In buildings with a roof space, the thicker roof insulation could generally be accommodated without any significant changes to the roof framing. The new requirements in H1/AS1 allow for the insulation to be reduced in thickness along the roof perimeter.

Windows

Windows represent the largest source of heat loss in new homes. MBIE are increasing the minimum insulation level for windows across the country with a focus on targeted higher upgrades in colder climate zones. The new R-values for windows are provided in the table on the following page. There are multiple solutions to improving window insulation performance and the new performance requirements do not prescribe one type of window over another. However, we expect that solutions like heat reflective glass with low-E coatings, uPVC frames, and thermally broken window frames will become more common options for meeting the requirements.

To support the new requirements, MBIE has also revised H1/AS1 and H1/VM1 to include a new calculation procedure and table of values for determining the R-values of windows. This was necessary to address comments from submissions which noted the existing procedure and appendix did not reflect the higher R-values.

MBIE discussed this new procedure with a variety of stakeholders across the building and construction sector. Most designers will be able to use the new table of values provided in H1/AS1 to determine their window R-value. Alternatively, the new window R-value calculation procedure can be used which is aligned with the existing Window Energy Efficiency Rating Scheme (WEERS) that is already used by the New Zealand window industry. The use of international standards for windows and curtain walls will also allow for an easier compliance pathway for imported products.



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MBIE also recognise that a challenge for introducing thermally broken frames is to retain weathertightness. Thermally broken window frames, when used, will still need to achieve compliance with E2 External moisture. For low rise buildings, this is generally achieved using the details shown in E2/AS1 (if applicable). The details in E2/AS1 are not optimised for thermally broken frames. However, the existing details and new R-values still provide a substantial increase in thermal performance over the status quo and can be used for compliance. Where designers wish to use details that provide further thermal improvements while retaining weathertightness, other means of compliance for E2 can be used. MBIE will continue work to revise the acceptable solutions and verification methods for E2 to optimise the thermal performance of windows while maintaining weathertightness.

Walls

The new R-values for wall insulation are provided below. For walls, MBIE received strong feedback that changes to insulation requirements would have to consider timber supply issues and the amount of timber framing in wall cavities. The amount of timber reduces the total wall insulation value and higher insulation requirements may require different framing practices or higher performing insulation products. This would be difficult to achieve for residential buildings across the country at this time. That is why MBIE has left the requirements for walls in residential building mostly unchanged. The settings will still allow current framing practices to be used and designers will still have options to consider the amount of timber on the total insulation value of the wall.

Underfloor insulation

For underfloor insulation, MBIE recognised the challenges in insulating concrete slab-on-ground floors versus other types of floors. To address this, they split the requirements for these different floor options to allow further time for slab on-ground construction practices to change. The new R-values for slab-on-ground floors will usually require some kind of slab insulation for smaller houses and buildings. If these were higher, it would be very difficult and costly for smaller houses and buildings to demonstrate compliance as conventional slab edge and underslab insulation methods would not have been sufficient. In addition to the new floor R-values, MBIE have also provided a new appendix in H1/AS1 to determine the R-value of common concrete slab floors.

Minimum R-values for each building element for housing H1/AS1 and H1/VM1

Options	Climate zone					
	1	2	3	4	5	6
Roofs						
Current minimum requirements	R2.9		R2.9/3.3		R3.3	
1 May 2023	R6.6↑					
Walls						
Current minimum requirements	R1.9		R1.9/2.0		R2.0	
1 May 2023	R2.0↑					
Floors						
Current minimum requirements	R1.3					
Slab-on-ground floors 1 May 2023	R1.5↑	R1.5↑	R1.5↑	R1.5↑	R1.6↑	R1.7↑
Other floors 1 May 2023	R2.5↑			R2.8↑		R3.0↑
Windows and doors						
Current minimum requirements	R0.26					
3 November 2022	R0.37↑		R0.37↑		R0.37↑	
1 May 2023	R0.37		R0.46↑		R0.50↑	
2 November 2023	R0.46↑		R0.46		R0.50	

Buildings over 300m² (excluding housing and industrial buildings)

For buildings over 300 m² (excluding housing and purely industrial buildings), there is a brand-new [H1/AS2](#) and [H1/VM2](#). The six new climate zones apply.

Minimum construction R-values have been increased – the biggest change in 20 years. [H1/AS2](#) introduces minimum thermal performance requirements for windows/glazing in these buildings for the first time.

There is a new Verification Method [H1/VM3](#) that sets minimum requirements around HVAC systems in commercial buildings (offices and retail spaces) if these systems are installed.

MBIE has indicated that, as part of its Building for climate change programme, in the period 2024–2029, it proposes to introduce requirements for mandatory disclosure of the embodied carbon in new buildings. A phased introduction of caps on embodied carbon in new buildings is also proposed.



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LPG Cylinders Clearances to Gully Traps

Practitioners will be fully aware of the requirement that an opening to a drain cannot be located within the exclusion zone of an LP Gas cylinder. There has, however, been some uncertainty in the industry relating to whether or not a gully dish, with its water seal, constitutes an opening or not.

Worksafe has now clarified that a gully dish is considered an opening and must be closed in some manner if it is to be situated within an exclusion zone of the LP Gas cylinder.

The regulators responsible for LP Gas cylinders in New Zealand are:

- WorkSafe – WorkSafe New Zealand is the organisation that enforces the rules relating to the use, handling, and storage of hazardous substances in the workplace under the Health & Safety at Work Act (Hazardous Substances) Regulations 2017 (HSW HS).
- The Environmental Protection Authority (EPA) – The EPA is the regulator for the use, handling, and storage of hazardous substances in non-workplaces (which is enforced by Councils).

In summary, the position in relation to both workplaces and non-workplaces (including residential properties) is that no openings to drains may be located within the LP Gas cylinder exclusion zone.

Gully Traps

There has been quite a bit of debate in the industry about whether gully traps could be considered an opening and initially there was no real guidance issued by the Regulators about this issue.

As part of 2017 CPD the Board attempted to obtain clarification from the responsible regulators but was unable to obtain a definitive answer.

The comment was made as part of CPD that it was up to the certifier in every case to ensure that they are satisfied with the safety of their installations. In relation to gully traps it was noted that their position was not clear but perhaps the required water seal would stop the passage of gas into the sewer system.

Clarification from WorkSafe

The Board recently received clarification from WorkSafe on the issue of whether a gully trap is an 'opening' to a drain.

"A gully trap is an opening (whilst it may have a water seal), the trap itself is an opening."

WorkSafe also provided the following solution where the necessary clearance is not possible:

"In order for the gully trap to not be an opening, it must be closed in some manner. A loose plate over the gully trap is not sufficient for this purpose – the plate must be secured in some manner e.g., a tool such as a screwdriver or spanner is required to remove it. The plate needs to be vapour proof however it is impractical to insist on a sealed joint between the plate and the gully trap – a close fit will suffice."

Please note: When sealing the gully surround, adequate ventilation needs to be provided to ensure the proper functioning of the gully.

Useful links:

[Hazardous Substances \(Hazardous Property Controls\) Notice 2017](#)

[Health & Safety at Work Act \(Hazardous Substances\) Regulations 2017](#)



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Wet Floor Tiled Shower

Our duty Building Control Officer, Bill East, has recently received an influx of calls from concerned property owners who are going through a sales and purchase process that have had wet floor shower and tiled wall shower systems installed without a building consent. The only options usually available to those property owners is to remove the shower and re construct with a building consent or apply for a Certificate of Acceptance. Both options are time consuming and expensive, especially the replacement option. Just another unnecessary stress to that of selling a house.

Tiled showers have always needed a building consent, but the fifth edition of Schedule 1 (exempt work) has made it very plain that a building consent is required.

Here is a snippet from Schedule 1, exemption 35

Examples



What is exempt

1. Repositioning or replacing sanitary fixtures such as a bath, bidet, wash hand basin, shower or toilet pan within an existing bathroom in a dwelling.
2. Moving a toilet pan from a toilet compartment into an adjacent existing bathroom in a dwelling.
3. A home owner proposes to remodel an existing kitchen within the same space, leaving the kitchen sink in the same position.
4. An existing laundry tub in a dwelling will be moved to a new location within the adjacent kitchen.
5. Relocating, removing or shifting an existing hose tap.
6. Removing a bath with a shower over it, and replacing this with a new proprietary shower enclosure and a new bath within the existing bathroom space. As the existing bath/shower arrangement has two sanitary fixtures, each fixture can be replaced and relocated without the need for a building consent.



What needs consent

1. Installing a tiled wet area shower requires a building consent. This is because it involves critical building work that is not sanitary plumbing, such as carpentry and installing waterproof membranes.
2. Moving a vanity, bath and shower within an apartment of a multi-level building. This building work involves new penetrations through a fire separation, which is a specified system.

To save yourself and your client future headaches please get a building consent prior to installing a new shower system or replacing an existing.

Note. Moulded shower systems do not need a building consent to be replaced unless the existing system has failed to meet its durability requirements of 15 years. Or, if the shower is an additional sanitary fixture.



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Staff Comings and Goings

Cheryl Ewan retired in August. Cheryl's role at Building Control was issuing consents and administering Compliance Schedules. Cheryl was employed at Council for 20 years and will be missed by her colleagues. We wish Cheryl all the best for her retirement.

Replacing Cheryl is Sophia Porteous-Gregory. Sophia's role will shortly expand to include administering the [Dam Safety Programme](#) when it comes into force on 13 May 2024.



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