

To: buildingfeedback@mbie.govt.nz
 From: Nick Hill
 CC:
 Date: 5 April 2019
 Re: **Consultation – Amendments to Acceptable Solutions and Verification Methods 2019/1**

Comments: BOINZ submission to the Consultation – Amendments to Acceptable Solutions and Verification Methods 2019/1.

<p>The Building Officials Institute of New Zealand (BOINZ) is the organisation representing approximately 1250 members engaged in, or related to Building Surveying, whether it be in Building Control, property inspection or specialised inspection in the public and private sectors.</p> <p>This submission is the combined responses from the BOINZ Technical Advisory Group and members.</p> <p>BOINZ wish to formally register its frustration and inappropriateness of the short duration of this consultation. Hence, our submission does not contain some ideas and solution that would otherwise be included.</p>	
Consultation proposal	BOINZ submission
1. Changes to B1/VM1	
a. Allow support details of hollow core floors to be extended from units of up to 300mm deep to units of up to 400mm deep.	Agree
b. Disallow the use of cast iron anchors and couplers that otherwise comply with NZS 3101.	<p>The summary language is confusing and should be portrayed in plain English to reflect what is actually going to happen.</p> <p>Agree with excluding the use of cast iron anchors from the verification method.</p>
c. Remove NASH Standard Part 1 which relates to specific engineering design of light steel framed buildings and introduce NASH Standard Part 2 [into B1/AS1].	Support
2. Changes to B1/AS1	
a. Cite NASH Standard Part 2 which provides non-specific design for low-rise light steel framed buildings	Support
b. Include information from SH/AS1 on the design of foundations on expansive soils [by modifying NZS3604 for 'simple houses']	<p>Support the concept for an acceptable solution for expansive soils.</p> <p>However, the proposed solution is needlessly complicated:</p> <ul style="list-style-type: none"> • adds another level to the “scope” of NZS 3604, but only in relation to expansive soils • adds another layer of complexity by having an “Acceptable Solution” as a modification to the cited Standard NZS3604, the most widely used building Standard

	<ul style="list-style-type: none"> the foundation changes to B1/AS1 are too complicated –even a simple house foundation on good ground is open to interpretation and misinterpretation from designers, builders and building officials on the number of reinforcing bars required – complicated solutions do not enhance the ease of use, or the ease and certainty of compliance for the building industry. This proposal is an example of compliance with the Building Code is too complicated. <p>Options to consider:</p> <ol style="list-style-type: none"> Include the expansive soils solution in B1/AS1 with the same scope as NZS 3604 Include the expansive soils solution, with its own scope, as part of the Acceptable Solution, effectively elevating it from being included as a modified reference to NZS3604 to a full part of the B1/AS1. Change NZS 3604 to include the expansive soils solution
<p>3. Changes to B2/AS1</p>	
<p>a. Citing NASH Standard Part 2:2018 Light Steel Framed Buildings</p>	Support
<p>4. Changes to E2/VM2</p>	
<p>a. Citing BRANZ Evaluation Method EM7: 2018 Performance of mid-rise cladding systems</p>	<p>BOINZ supports the introduction of the new verification method E2/VM2, which includes the recently published BRANZ test EM7 for cladding systems for use on buildings up to 25 metres in height.</p> <p>BOINZ suggest that E2/VM1 and E2/VM2 should have names to guide manufacturers and designer on which of the two VMs is appropriate to use, such as:-</p> <ul style="list-style-type: none"> E2/VM1 Cladding system testing for buildings up to 10 metres high E2/VM2 Cladding system testing for buildings up to 25 metres high. <p>Over time one would assume that manufacturers will use E2/VM2 using EM7 test, for new product and upgraded product testing, which will make parts of E2/VM1 redundant. BOINZ will consider this as part of any proposal in a future consultation.</p>
<p>5. Changes to G4/AS1</p>	<p>General Comments:</p> <ul style="list-style-type: none"> BOINZ internal consultation process has found the proposed solution is unclear, complicated and inconsistent. G4/AS1 needs to be simplified by having a solution that contains:- <ol style="list-style-type: none"> Ventilation for Housing <ul style="list-style-type: none"> specific mechanical extract for kitchens, bathrooms and laundries in housing, and natural ventilation for other spaces in housing not included in 1. above Other buildings <ul style="list-style-type: none"> Natural ventilation Mechanical ventilation, both supply and extract mechanical ventilation

	<ul style="list-style-type: none"> • Mechanical extract ventilation is currently required for toilets in 1.2.2(a) in Commercial and Industrial buildings. BOINZ recommends that consideration is given for the mechanical extract ventilation for toilets in Housing • It is worth noting that having an extract fan still requires the occupant to switch it on to achieve ventilation. This is similar to, opening a window to achieve natural ventilation. You may wish to consider automatic activation to ensure adequate ventilation. • A timer delay on bathroom extract fans will allow residual moisture to be removed after the source of moisture (eg shower) has been turned off. The duration of the time delay could be linked to temperature and humidity climatic conditions.
<p>a. Require mechanical extract fans to be installed to control moisture from showers, baths and cooktops in household units and accommodation units. Mechanical extract fans are proposed to improve ventilation of internal moisture from showers, baths and cooktops, because new homes typically have less background ventilation.</p>	<p>Paragraph 1.1.4 has specific requirements in the introductory section that are contradicted by paragraph 1.3.2.</p> <p>The introduction section should be written around ventilation by building use and specific requirements can be covered later in the G4/AS1.</p> <p>Shift paragraph 1.1.4 to paragraph 1.4. Paragraph 1.1.4 is not necessary to be included in paragraph 1.5 as this paragraph is the full mechanical ventilation section.</p> <p>Heading 1.3 is for natural ventilation and includes mechanical ventilation for kitchens, bathrooms, toilets and laundries.</p> <p>Paragraph 1.3.1, a natural ventilation solution under paragraph 1.3 “Natural ventilation . . .” contains mechanical ventilation requirements, and includes toilets.</p> <p>Paragraph 1.3.2 permits natural ventilation of kitchens, bathrooms, toilets and laundries, which contradicts paragraph 1.1.4.</p> <p>Paragraph 1.3.3 contains “may be” ventilated and we believe for consistency should be written as a definite requirement as it is in paragraph 1.4.2.</p> <p>In paragraph 1.3.3 it appears there is an assumption that a habitable space without openings to the exterior will always be adjacent to a habitable space that is, thus being able to receive the required natural ventilation from it.</p> <p>Noting that Paragraph 1.3.3 is written so that the adjacent space must be a habitable space. If it is not a habitable space “borrowed” ventilation is not part of the Acceptable Solution.</p> <p>To clarify this, BOINZ suggests that a comment be added to paragraph 1.3.3. “Comment: A habitable space cannot be ventilated via an adjacent space that is a bathroom, kitchen, laundry or toilet.”</p>

	<p>BOINZ considers there needs to be a definition for “mechanical ventilation”.</p> <p>Consideration should also be given to mechanically activated openings to provide natural ventilation.</p>
<p>b. Remove passive stack ventilation. Passive stack ventilation systems require specific design to perform reliably and efficiently. In multi-unit buildings, the ventilation system must also be designed to maintain fire separations. This design complexity is not adequately covered in the acceptable solution and indications are that passive stack ventilation is not used. Rather than address the issues the proposal here is simply that passive stack ventilation be removed from the acceptable solution.</p>	<p>Agree that passive stack ventilation should be removed and that G4/AS1 be reformatted based on building use/type.</p> <p>Reiterating the general comments above.</p> <ul style="list-style-type: none"> • G4/AS1 needs further work and could be simplified by having a solution that contains:- <ol style="list-style-type: none"> 1. Ventilation for Housing <ul style="list-style-type: none"> • specific mechanical extract for kitchens, bathrooms and laundries in housing, and • natural ventilation for other spaces in housing not included in 1. above 2. Other buildings <ul style="list-style-type: none"> • Natural ventilation • Mechanical ventilation, both supply and extract mechanical ventilation • Mechanical extract ventilation is currently required for toilets in 1.2.2(a) in Commercial and Industrial buildings. BOINZ recommends that consideration is given for the mechanical extract ventilation for toilets in Housing
<p>c. Simplify the provisions for combined natural and mechanical ventilation. The proposals here merely combine information contained in different places in the acceptable solution so as to avoid duplication. The technical requirements do not change.</p>	<p>See General Comment above for G4/AS1. The provisions have not been simplified because they are complicated and inconsistent. For example: Paragraph 1.3.2 permits natural ventilation of kitchens, bathrooms, toilets and laundries, which contradicts paragraph 1.1.4.</p> <p>BOINZ supports the objective of removing duplication, but not at the expense of creating confusion and uncertainty.</p>
<p>d. Remove incomplete fire safety requirements. The proposals here remove incomplete fire safety requirements from the Acceptable Solution and replace with referral to the appropriate provisions in the Protection from Fire Verification Methods and Acceptable Solutions.</p>	<p>Support reference to the Fire Acceptable Solutions for maintaining the integrity of fire rated walls. This is necessary if stack ventilation is removed.</p>
<p>6. Changes to G12/VM1, G12/AS1, and G12/AS2</p>	
<p>a. Update requirements for pipe jointing.</p>	<p>Support</p>
<p>b. Prohibit the exposure of plastic pipe to UV radiation.</p>	<p>Support</p>
<p>c. Introduce improved requirements for forced circulation heated water supply systems</p>	<p>Support</p>
<p>d. Allow thermostatically controlled tapware as an alternative to mixing valves</p>	<p>It is important that thermostatic tapware is used throughout the house/building to ensure all outlets deliver at a temperature that avoids the likelihood of scalding.</p> <p>The advantage of mixing valves (possibly thermostatic mixing valves) is that the safe water temperature is regulated at one source.</p>

7. Changes to G13/AS1, G13/VM2, G12/AS2, G13/AS3	
a. Provide a solution for renovating sanitary plumbing and drainage systems [structural liners for plumbing and drainage pipes]	Support
b. Prohibit the exposure of plastic pipe to UV radiation	Support